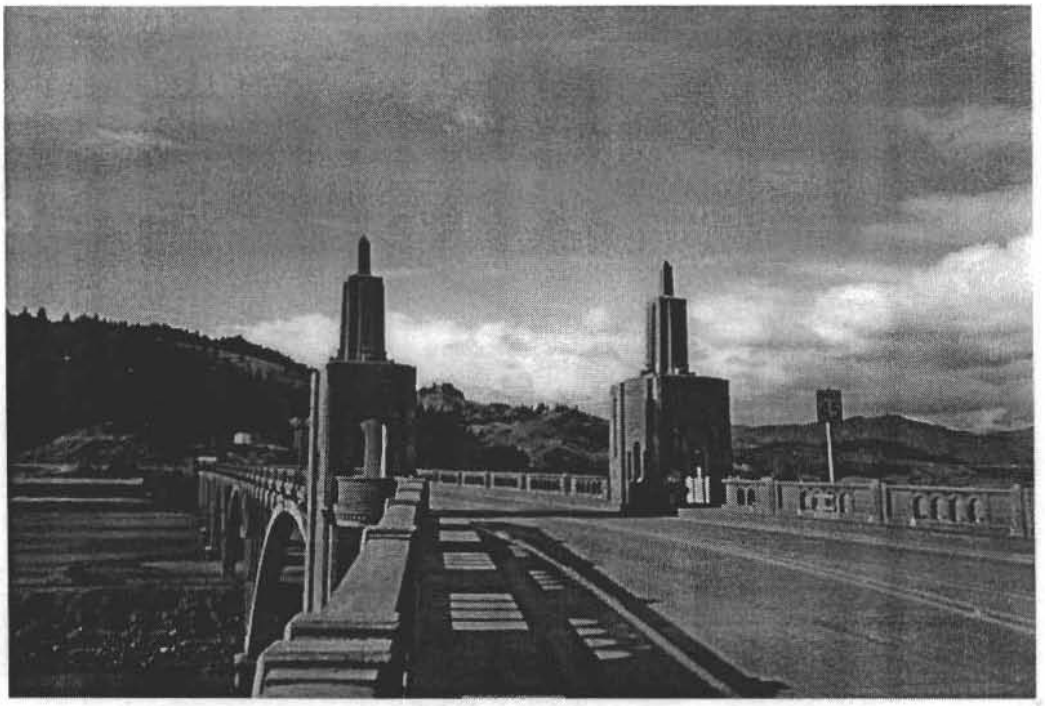
CITY OF GOLD BEACH
TRANSPORTATION SYSTEM PLAN

JUNE 2000



Prepared for:
Gold Beach, Oregon and
Oregon Department of Transportation

Prepared by:
David Evans and Associates, Inc.
and
H. Lee & Associates

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Acknowledgement

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The contents of the document do not necessarily reflect the views of policies of the State of Oregon.

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CHAPTER 1: INTRODUCTION

The Gold Beach Transportation System Plan (TSP) guides the management of existing transportation facilities and the design and implementation of future facilities for the next 20 years. This transportation system plan constitutes the transportation element of the city's comprehensive plan and satisfies the requirements of the Oregon Transportation Planning Rule established by the Oregon Department of Land Conservation and Development. It identifies and prioritizes transportation projects for inclusion in the Oregon Department of Transportation's (ODOT's) Statewide Transportation Improvement Program (STIP).

PLANNING AREA

The Gold Beach Transportation System Plan planning area includes the City of Gold Beach and the area within the city's urban growth boundary (UGB). The planning area is shown on Figure 1-1. Roadways included in the transportation system plan fall under several jurisdictions: Gold Beach, Curry County, and the state of Oregon.

Gold Beach was named for the gold that was found in the black beach sands north and south of the Rogue River in 1853. Gold Beach is the county seat and the second largest urban area in Curry County, after Brookings, with 10 percent of the county's population. Located in southwestern Oregon about 225 miles south-southwest of Portland and 37 miles north of the Oregon/California border, it is a self-contained community. Gold Beach provides a variety of residential, shopping, employment, and recreational opportunities within its UGB and the surrounding countryside. Gold Beach is continuing to make the transition from a resource-based economy to tourism and recreation. Tourism, timber, agriculture, marine, and sport and commercial fishing are the city's leading industries. The town is strategically located near the mouth of the Rogue River and offers ocean fishing, river fishing, and trips up the river among other activities.

US 101 (Pacific Coast Highway) runs north-south through the center of town along Ellensburg Avenue. The hilly topography has prevented the development of a regular street grid pattern. Most city streets are residential dead-ends off US 101. The area is isolated from the central and eastern portions of Oregon, as no improved highway access links the area to the east. Eastern access is obtained via OR 42, 50 miles to the north, which goes to Roseburg, or by going south into California to access US 199 to Grants Pass, Oregon.

The comprehensive plan land use map of the Gold Beach Transportation System Plan planning area is shown on Figure 1-2.

The core of the city and the tracts along US 101 are zoned for commercial uses, with some lots zoned for public uses (schools, post office, City Hall, libraries, etc.). Most of the land east of US 101 is zoned Residential. West of the Central Business District, the city consists of large parcels zoned Residential, Commercial, Controlled Development, Marine Activity, and Public Facilities.

PLANNING PROCESS

The Gold Beach TSP was prepared as part of an overall effort in Curry County to prepare TSPs for Curry County and the municipalities of Gold Beach, Port Orford, and Brookings. Each plan was developed through a series of technical analyses combined with systematic input and review by city staff, the combined management team, Transportation Advisory Committee (TAC), ODOT, and the public. The TAC consisted of staff, elected and appointed officials, residents, and business people from Curry County, and the cities of Gold Beach and Port Orford. Key elements of the process include:

- Involving the Gold Beach community (Chapter 1).
- Defining goals and objectives (Chapter 2).
- Reviewing existing plans and transportation conditions (Chapters 3 and 4; Appendices A and B).

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LEGEND

UGB

CITY LIMITS

0 1200 2400 3600

FEET

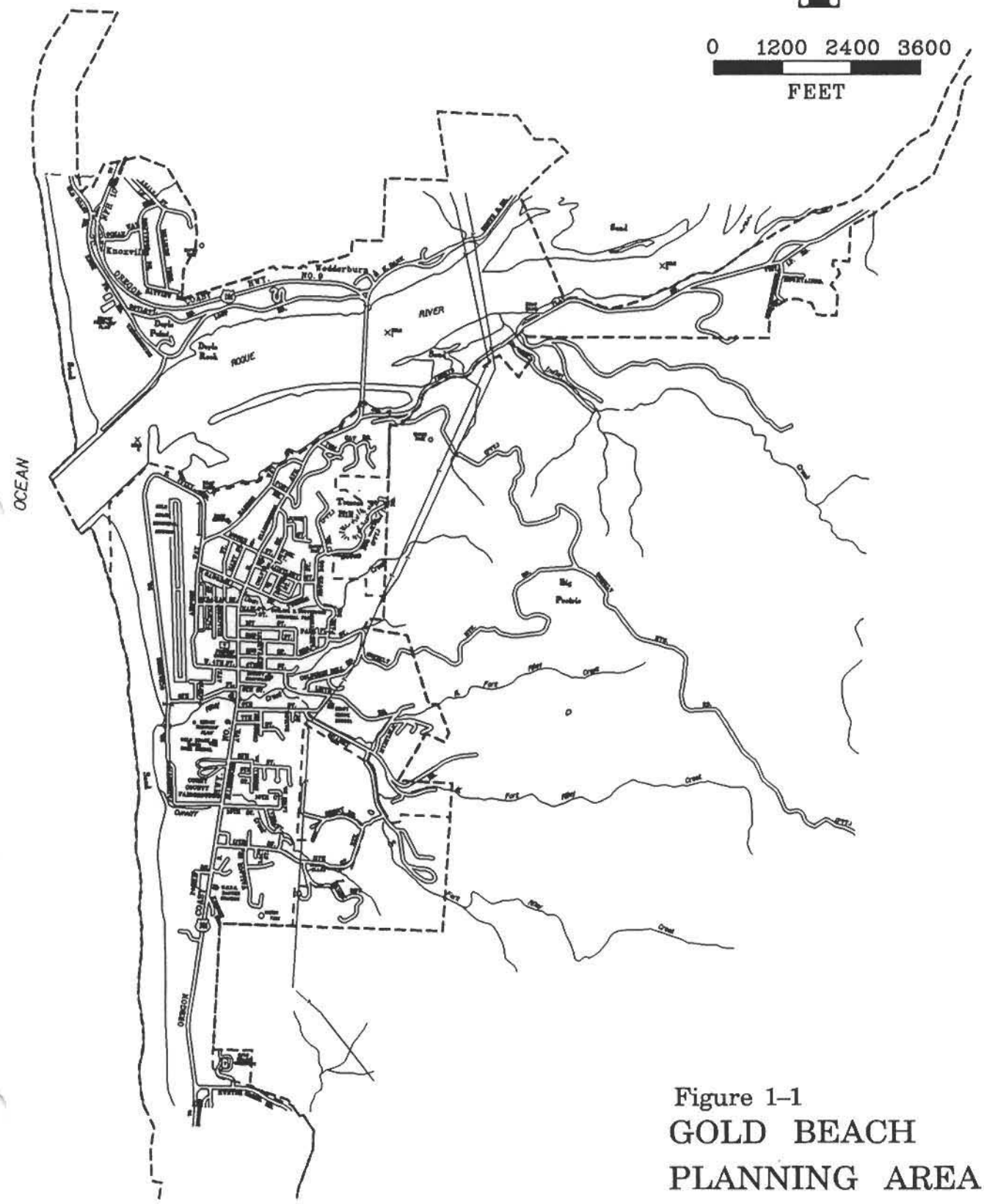

Figure 1–1
GOLD BEACH
PLANNING AREA

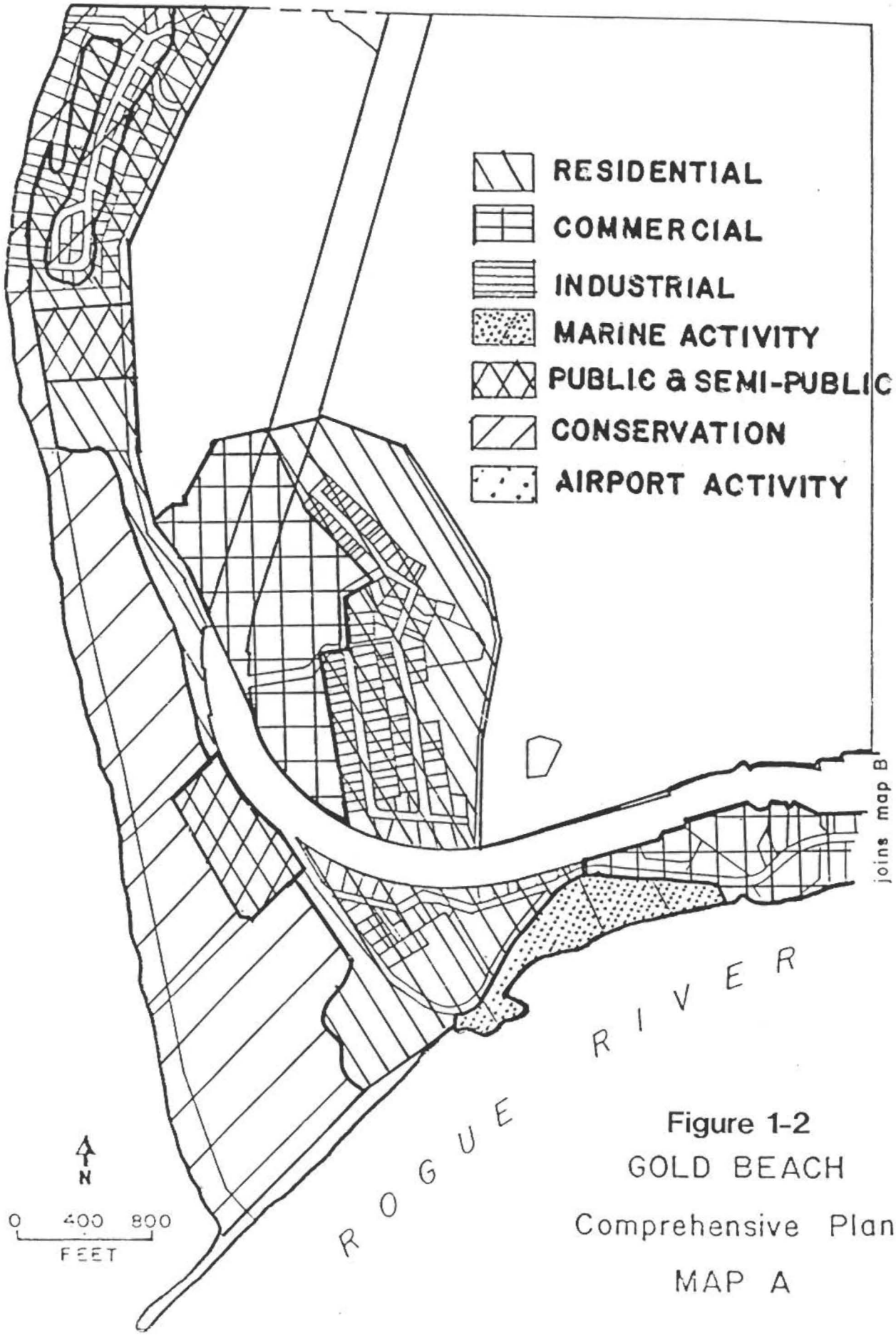

Figure 1-2

GOLD BEACH

Comprehensive Plan

MAP A

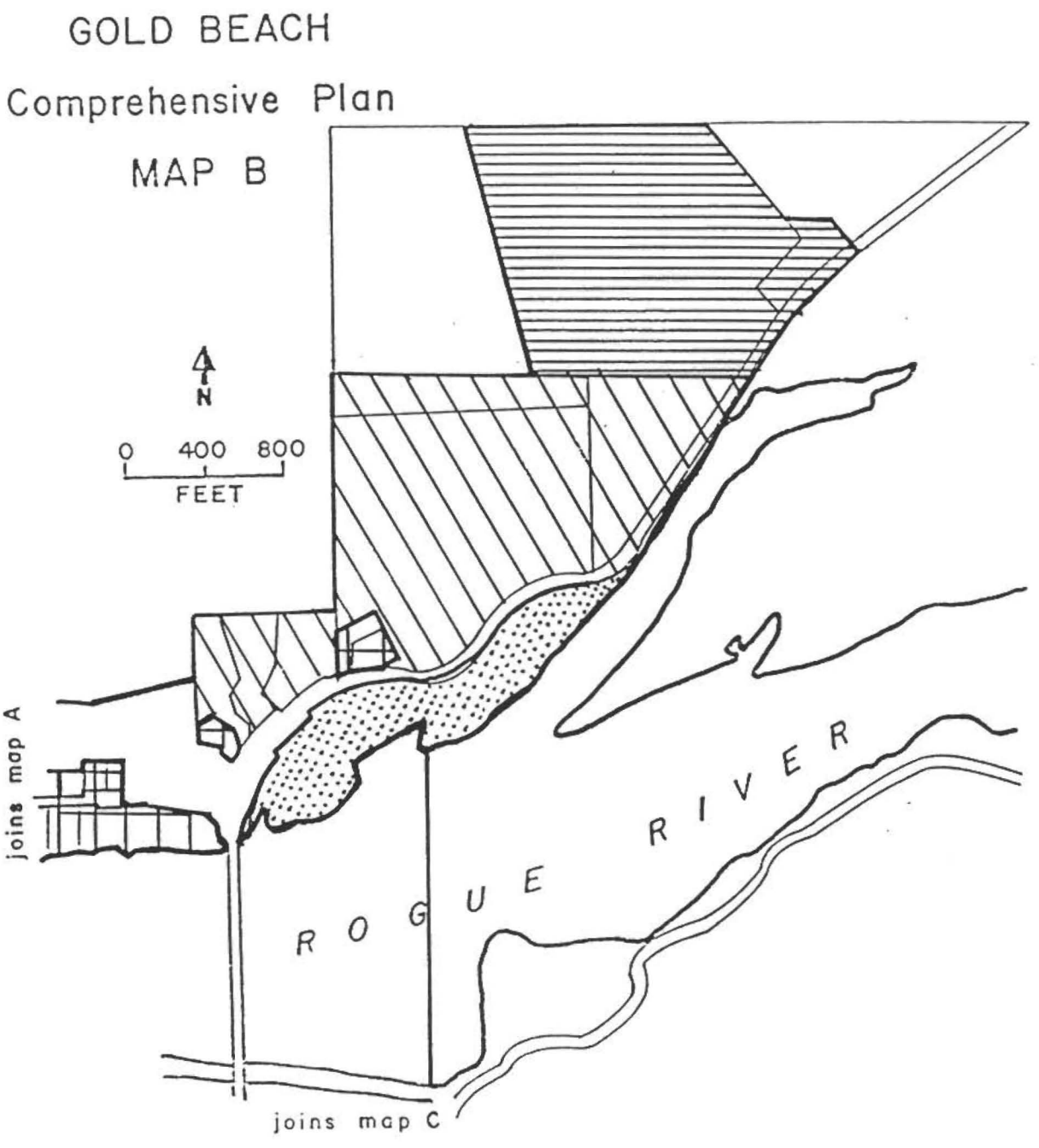
GOLD BEACH
Comprehensive Plan
MAP B
N
0 400 800
FEET
joins map A
ROGUE RIVER
joins map C

Figure 1-2

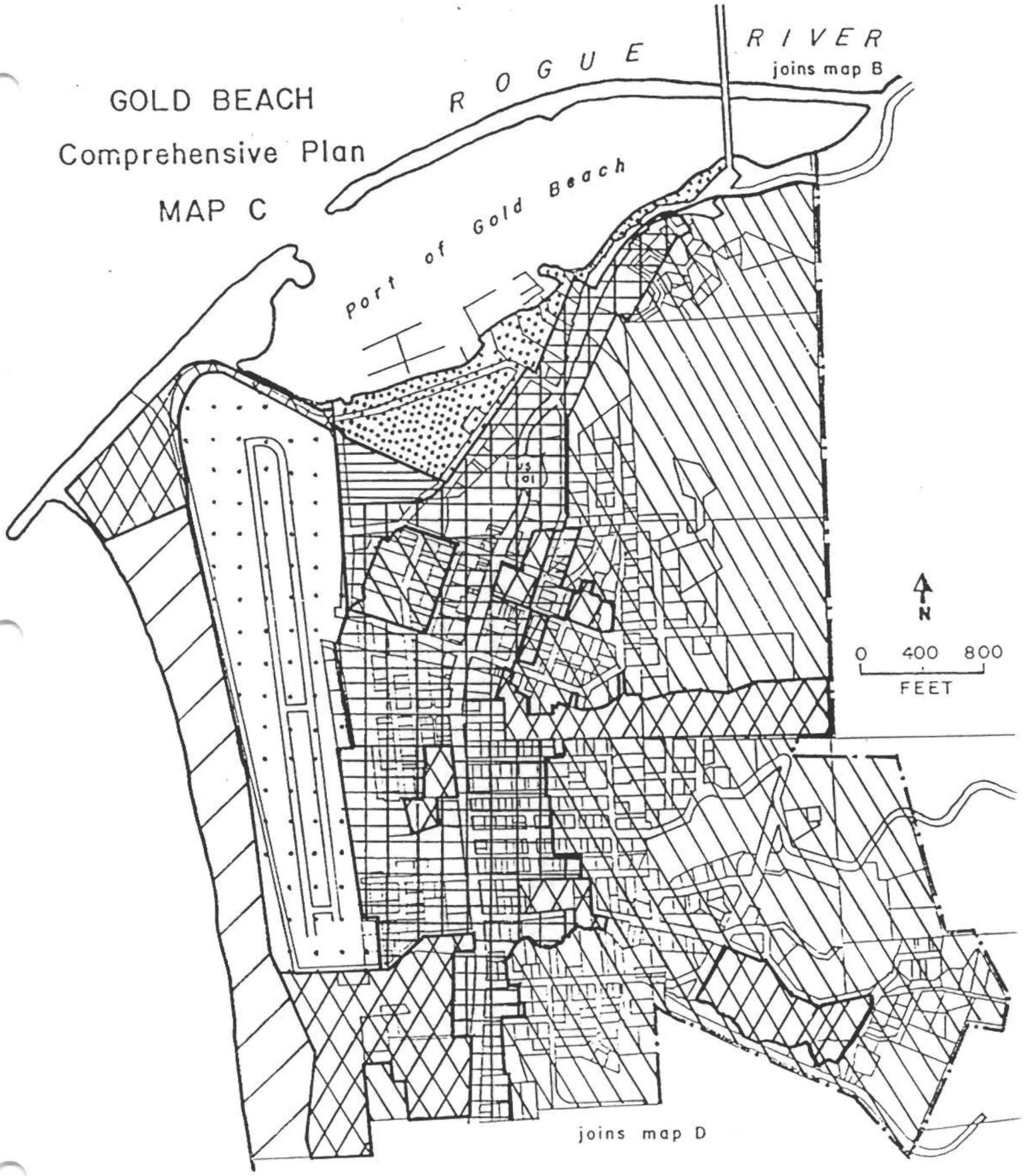
GOLD BEACH
Comprehensive Plan
MAP C
ROGUE RIVER
joins map B
Port of Gold Beach
US 101
N
0 400 800
FEET
joins map D

Figure 1-2

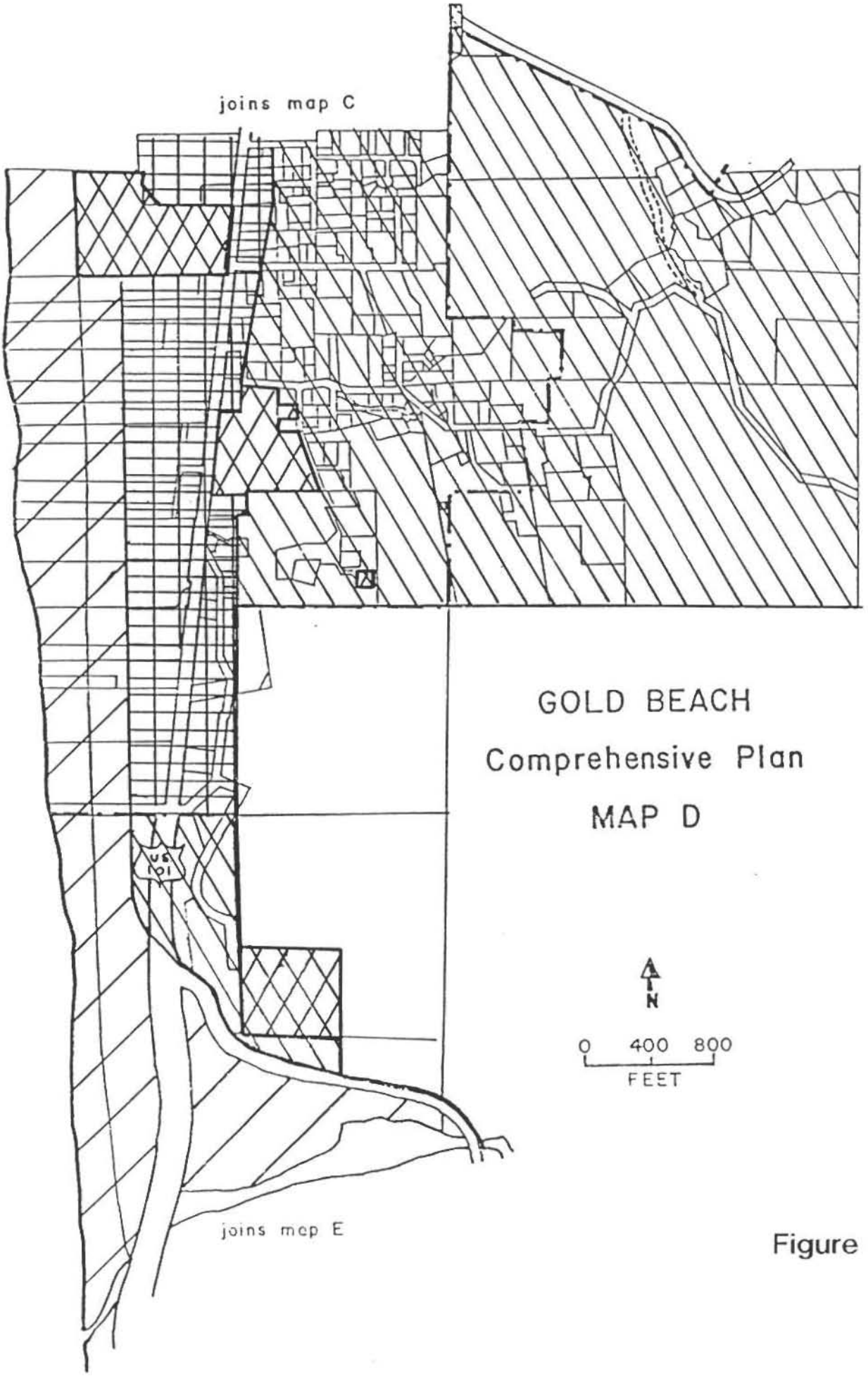
joins map C
GOLD BEACH
Comprehensive Plan
MAP D
US 101
N
0 400 800
FEET
joins map E

Figure 1-2

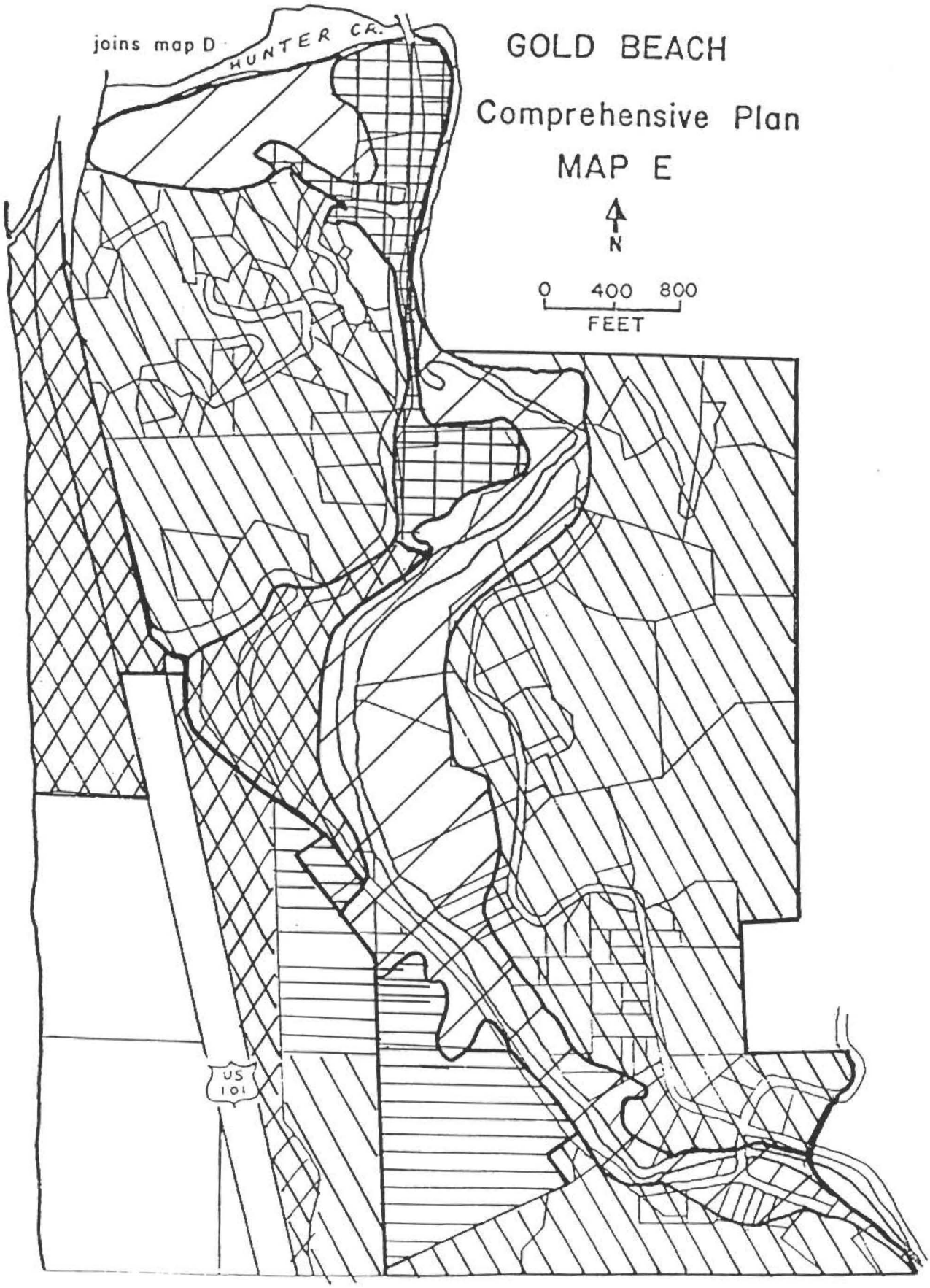
joins map D
HUNTER CR.
GOLD BEACH
Comprehensive Plan
MAP E
N
0 400 800
FEET
US 101

Figure 1-2

- Developing population, employment, and travel forecasts (Chapter 5).
- Developing and evaluating potential transportation system improvements (Chapter 6).
- Developing the Transportation System Plan (Chapter 7).
- Developing a Capital Improvement Program (Chapter 8).
- Developing recommended policies and ordinances (under separate cover).

Community Involvement

Community involvement is an integral component in the development of a TSP for the City of Gold Beach, the City of Port Orford, and Curry County. Since each of the communities needed to address similar transportation and land use issues, a public involvement program involving all the jurisdictions was used. Several different techniques were utilized to involve each local jurisdiction, ODOT, and the general public.

A combined management team and TAC provided guidance on technical issues and direction regarding policy issues to the consultant team. Staff members from each local jurisdiction and ODOT and a local resident from each community served on this committee. This group met several times during the course of the project, in November 1997, January 1998, and March 1998.

The second part of the community involvement effort involved the consultant team meeting individually with representatives of each jurisdiction. The purpose of these meetings was to collect information specific to each jurisdiction and to discuss the development of the individual cities and county TSPs.

The third part will consist of community meetings within Gold Beach during the adoption process. The general public will be invited to learn about the TSP planning process and provide input on transportation issues and concerns. The public will be notified of the public meetings through public announcements in the local newspapers and on the local radio station.

Goals and Objectives

Based on input from the city, the management team/TAC, and the community, a set of goals and objectives were defined for the transportation system plan. These goals and objectives were used to make decisions about various potential improvement projects. They are described in Chapter 2.

Review and Inventory of Existing Plans, Policies, and Public Facilities

To begin the planning process, all applicable Gold Beach and Curry County transportation and land use plans and policies were reviewed and an inventory of public facilities was conducted. The purpose of these efforts was to understand the history of transportation planning in the Gold Beach area, including the street system improvements planned and implemented in the past, and how the city is currently managing its ongoing development. Existing plans and policies are described in Appendix A of this report.

The inventory of existing facilities catalogs the current transportation system. The results of the inventory are described in Chapter 3, while Chapter 4 describes how the system operates. Appendix B summarizes the inventory of the existing arterial and collector street system.

Future Transportation System Demands

The Transportation Planning Rule requires the Transportation System Plan to address a 20-year forecasting period. Future traffic volumes for the existing plus committed transportation systems were projected using ODOT's Level 1 – Trending Analysis methodology. The overall travel demand forecasting process is described in Chapter 5.

Transportation System Potential Improvements

Once the travel forecasts were developed, it was possible to evaluate a series of potential transportation system improvements. Transportation demand management measures and potential transportation improvements were developed and analyzed as part of the transportation system analysis. These improvements were developed with the help of the local working group, and they attempt to address the concerns specified in the goals and objectives (Chapter 2). After evaluating the results of the potential improvements analysis, a series of transportation system improvements were selected. These recommended improvements are described in Chapter 6.

Transportation System Plan

The transportation system plan addresses each mode of transportation and provides an overall implementation program. The street system plan was developed from the forecasting and potential improvements evaluation described above. The bicycle and pedestrian plans were developed based on current usage, land use patterns, and the requirements set forth by the Transportation Planning Rule. The public transportation, air, water, rail, and pipeline plans were developed based on discussions with the owners and operators of those facilities. Chapter 7 details the plan elements for each mode.

Funding Options

The City of Gold Beach will need to work with Curry County and ODOT to finance new transportation projects over the 20-year planning period. An overview of funding and financing options that might be available to the community are described in Chapter 8.

Recommended Policies and Ordinances

Suggested comprehensive plan policies and implementing zoning and subdivision ordinances are included in a separate document. These policies and ordinances are intended to support the TSP and satisfy the requirements of the TPR.

RELATED DOCUMENTS

The Gold Beach TSP addresses the local transportation needs in the city. There are several other documents that address specific transportation elements or areas in Gold Beach.

Other Transportation System Plans

A TSP has been prepared for Curry County. The county TSP addresses the need for the community outside each city's Urban Growth Boundary (UGB). It provides roadway standards, access management standards, and modal plans. In some cases, a project may be identified in the Gold Beach TSP, which then needs to be addressed in the Curry County TSP as well. These projects include:

Corridor Plans

One major highway corridor passes through Gold Beach: US 101 (the Oregon Coast Highway). ODOT developed a corridor master plan for this highway in 1995. The participants in the Oregon Coast Highway Corridor Master Plan developed a vision statement for the corridor and five goals that address it:

> **Process** – Develop a transportation plan that builds on ongoing planning and implementation partnership among ODOT and each of the communities and jurisdictions that have a stake in the future of transportation along the Oregon Coast Highway Corridor.
>
> **Transportation** – Develop a 20-year plan to manage future transportation needs in the Coast Highway Corridor and prolong the useful life of the existing transportation system.

Resources – Develop a plan for a transportation system to harmonize with the inherent scenic beauty of the coastal region, protect environmental resources, and enhance the enjoyment of the Corridor's beauty and resources by corridor users.

Community – Develop a plan for a transportation system that supports the individual character and plans of the communities along the Corridor.

Economic – Develop a plan for a transportation system that supports sustainable economic diversity and vitality and provide responsible stewardship of public funds.

Furthermore, the Transportation Goal should:

1. Provide a transportation system that can adapt to future travel modes and practices.
2. Optimize the existing transportation system to reduce or delay the need for additional travel lanes or other large-scale improvements.
3. Improve safety for vehicle, bicycle, and pedestrian users.
4. Minimize conflicts between commercial, local, and recreational traffic.
5. Minimize congestion on US 101 and enhance mobility within and between communities along the transportation corridor.
6. Reduce vehicle travel demand through other modes of travel and demand management strategies.
7. Improve east/west corridor accesses.
8. Identify alternative routes for use during natural disasters and/or emergencies.

Several corridor-wide policies were identified to address the following:

- Communication among ODOT and communities and jurisdictions affected by this Plan
- Intercity passenger service
- Intermodal improvements
- Road capacity improvements
- Bridges
- Access management
- East-west corridors
- Emergency routes and emergency response
- Preserving and enhancing scenic resources
- Land use planning to reduce auto dependence
- Bicycle and pedestrian facilities
- Visual Features
- Economic Viability
- Parallel Route
- Airports

- Land use planning to prevent incompatible land uses around airports

The Plan's focus in Curry County is to enhance and protect the scenic beauty of the corridor while increasing capacity and reliability on the transportation system. Specific Plan Activities include developing a southern "gateway to Oregon," local street circulation improvements, and improving facilities for travelers, including turnouts, signage, and shoulder improvements. The Plan identifies a specific need for a study of an east-west connection to the I-5 corridor in the Curry County, Port Orford, and Gold Beach TSPs.

Other State Plans

In addition to the ODOT corridor plan, coordination with the following state plans is required:

- Oregon Transportation Plan
- Oregon Highway Plan
- Oregon Bicycle Plan
- Oregon Aviation Plan

CHAPTER 2: GOALS AND OBJECTIVES

The purpose of the transportation system plan is to provide a guide for the City of Gold Beach to meet its transportation goals and objectives. The following goals and objectives were developed from information contained in the city's comprehensive plan and public concerns as expressed during public meetings. An overall goal was drawn from the plan, along with more specific goals and objectives. Throughout the planning process, each element of the plan was evaluated against these parameters.

OVERALL TRANSPORTATION GOAL

To provide and encourage a safe, convenient, and economic transportation system.

Goal 1

Preserve the function, capacity, level of service, and safety of the state highways.

Objectives

A. Develop access management standards that will meet the requirements of the TPR and also consider the needs of the affected communities.

B. Develop alternative, parallel routes.

C. Promote alternative modes of transportation.

D. Promote transportation demand management programs (i.e., rideshare and park and ride).

E. Promote transportation system management (i.e., signal synchronization, median barriers, etc.).

F. Develop procedures to minimize impacts to and protect transportation facilities, corridors, or sites during the development review process.

Goal 2

Improve and enhance safety and traffic circulation and preserve the level of service on local street systems.

Objectives

A. Develop an efficient road network that would maintain a level of service C or better.

B. Improve and maintain existing roadways.

C. Ensure planning coordination between the city, the county and the state.

D. Identify truck routes to reduce truck traffic in urban areas.

E. Examine the need for speed reduction in specific areas.

F. Identify local problem spots and recommend solutions.

Goal 3

Identify the 20-year roadway system needs to accommodate developing or undeveloped areas without undermining the rural nature of the city.

Objectives

A. Adopt policies and standards that address street connectivity, spacing, and access management.

B. Integrate new arterial and collector routes into a grid system with an emphasis on reducing pressure on traditionally heavy traffic routes.

C. Improve access into and out of the city for goods and services.

D. Improve the access onto and off of arterial roadways to encourage growth.

Goal 4

Increase the use of alternative modes of transportation (walking, bicycling, rideshare/carpooling, and transit) through improved access, safety, and service.

Objectives

A. Provide sidewalks, bikeways and safe crossings on arterial and collector streets.

B. Provide shoulders on rural collector and arterial streets.

C. Develop a city bicycle plan.

D. Promote alternative modes and rideshare/carpool programs through community awareness and education.

E. Plan for future expanded transit service by sustaining funding to local transit efforts and seeking consistent state support.

F. Seek Transportation and Growth Management (TGM) and other funding for projects evaluating and improving the environment for alternative modes of transportation.

G. Periodically assess pedestrian and bicycle modes of transportation within the city and develop programs to meet demonstrated needs.

Goal 5

Provide and encourage a safe, convenient, and economic transportation system.

Objectives

A. Encourage new development, which can utilize or improve the existing transportation system.

B. Improve the port facilities and greater utilize them for all types of waterborne transportation.

C. Support an east-west highway for better access to the interstate highway system.

D. Encourage the development of bicycle paths.

E. Encourage improvement to the city's street system.

F. Encourage the expansion of air freight, air charter, and air service to the city.

G. Encourage coordination with the Gold Beach Airport Master Plan.

H. Continue to monitor the needs of the transportation disadvantaged and provide support as required.

I. Cooperate with the Oregon Department of Transportation Highway Division in the implementation of the ODOT Six-Year Highway Improvement Program.

J. Develop land use planning to ensure compatibility with adjacent land uses.

Goal 6

Ensure that the road system within the city and urban area is adequate to meet public needs, including the transportation disadvantaged.

Objectives

A. Develop a city transportation plan.

B. Meet identified maintenance and level of service standards on the county and state highway systems.

C. Direct commercial development and use access onto major arterials by means of improved city streets.

D. Ensure that roads created in land division and development be designed to tie into existing and anticipated road circulation patterns.

E. Review and revise, if necessary, street cross section standards for local, collector, and arterial streets to enhance safety and mobility.

F. Develop an access management strategy for US 101.

G. Evaluate the need for traffic control devices, particularly along US 101.

H. Analyze the safety of traveling speeds and consider modifying posted speeds as necessary.

Goal 7

Improve coordination among Curry County, the Oregon Department of Transportation (ODOT), the US Forest Service (USFS), the Federal Highway Administration (FHWA), and the city.

Objectives

A. Cooperate with ODOT in the implementation of the Statewide Transportation Improvement Program (STIP).

B. Encourage improvement of state highways, especially US 101.

C. Work with the county in establishing cooperative road improvement programs and schedules.

D. Work with the county in establishing the right-of-way needed for new roads identified in the TSP.

E. Take advantage of federal and state highway funding programs.

Goal 8

Develop an Airport Master Plan for the City of Gold Beach Airport to support small aircraft and charter services.

Objectives

A. Monitor airport noise and safety impacts and areas affected.

B. Incorporate the Airport Master Plan into the local comprehensive plan.

C. Adopt appropriate zoning and other implementation actions.

D. Identify the responsible jurisdiction for each action and suggested timetable for implementation.

E. Identify adjacent land uses with minimal land use conflicts.

F. Develop a monitoring mechanism to assure early recognition of potential land use conflicts.

CHAPTER 3: TRANSPORTATION SYSTEM INVENTORY

As part of the planning process, H. Lee & Associates conducted an inventory of the existing transportation system in Gold Beach. This inventory covered the street system as well as pedestrian, bikeway, public transportation, rail, air, water, and pipeline systems.

STREET SYSTEM

The most common understanding of transportation is of roadways carrying cars and trucks. Most transportation dollars are devoted to building, maintaining, or planning roads to carry automobiles and trucks. The mobility provided by the personal automobile has resulted in a great reliance on this form of transportation. Likewise, the ability of trucks to carry freight to nearly any destination has greatly increased their use.

Encouraging the use of cars and trucks must be balanced against costs, livability factors, the ability to accommodate other modes of transportation, and negative impacts on adjacent land uses; however, the basis of transportation in nearly all American cities is the roadway system. This trend is clearly seen in the existing Gold Beach transportation system, which consists almost entirely of roadway facilities for cars and trucks. Because of the rural nature of the area, the street system will most likely continue to be the basis of the transportation system for at least the 20-year planning period; therefore, the emphasis of this plan is on improving the existing street system for all users.

The existing street system inventory was conducted for all highways, arterial roadways, and collector roadways within Gold Beach, as well as those in Curry County that are included in the TSP planning area. Inventory elements include:

- Street classification and jurisdiction;
- Street width and right-of-way;
- Number of travel lanes;
- Presence of on-street parking, sidewalks, or bikeways;
- Speed limit; and
- General pavement conditions.

Figure 3-1 shows the roadway functional classification. Appendix B lists the complete inventory.

State Highways

Discussion of the Gold Beach street system must include the state highways that traverse the planning area. Although Gold Beach has no direct control over the state highways, adjacent development and local traffic patterns are heavily influenced by the highways. Port Orford is served by one state highway, US 101. US 101 serves as the major route through town with commercial development focused along it.

The 1999 *Oregon Highway Plan* (OHP) classifies the state highway system into five different categories. These categories are as follows: interstate highways (NHS), state highways (NHS), regional highways, district highways, and local interest roads. The classification system guides ODOT in planning, management, and investment decisions regarding state facilities.

US 101 in Gold Beach is identified as a statewide highway. According to the OHP, a state highway is defined as follows:

LEGEND

- PRINCIPAL ARTERIAL
- MINOR ARTERIAL
- MAJOR COLLECTOR
- MINOR COLLECTOR (NONE)
- LOCAL STREET

0 1200 2400 3600

FEET

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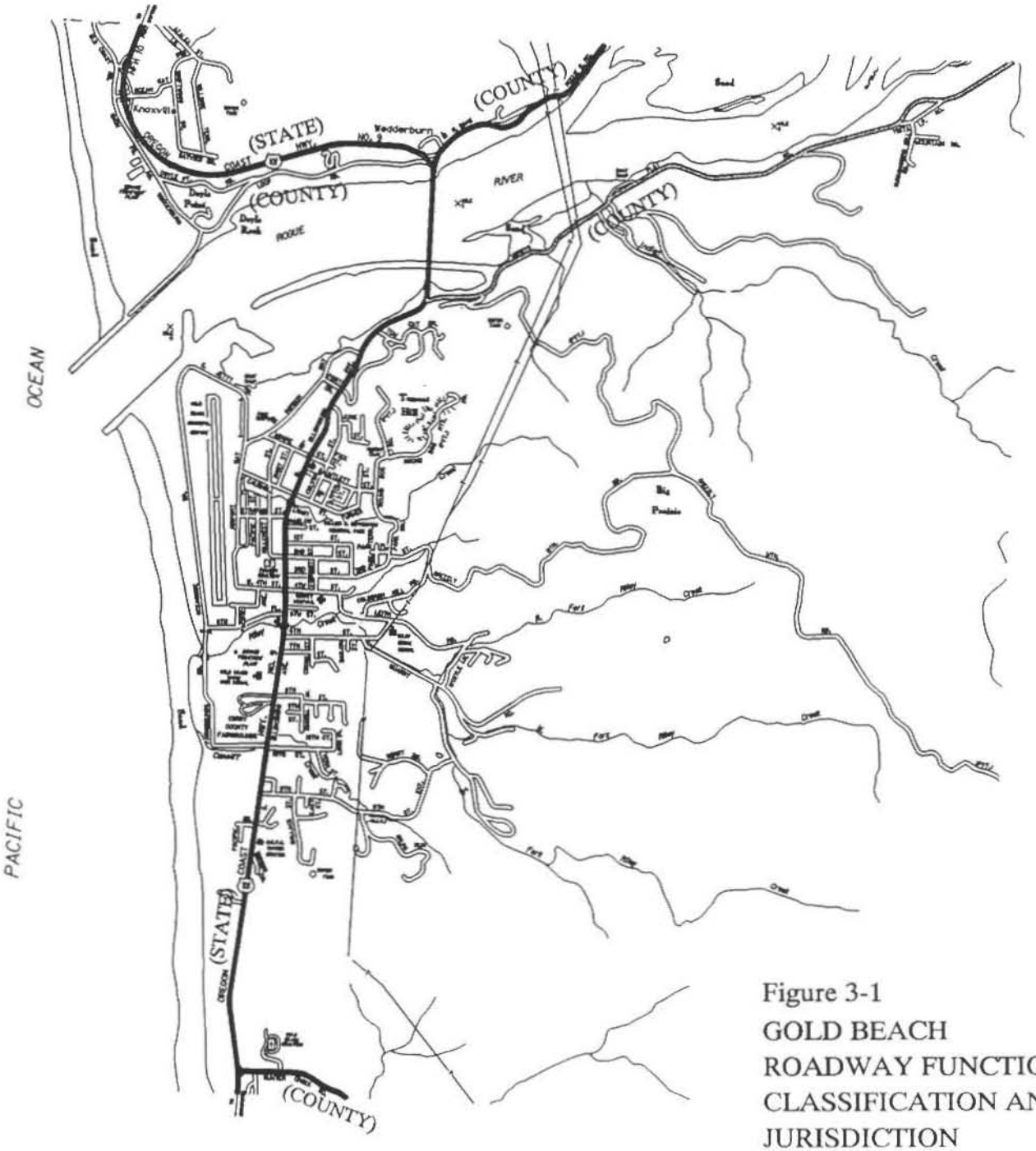

Figure 3-1
GOLD BEACH
ROADWAY FUNCTIONAL
CLASSIFICATION AND
JURISDICTION

"Statewide highways (NHS) typically provide inter-urban and inter-regional mobility and provide connections to larger urban areas, ports, and major recreation areas that are not directly served by Interstate Highways. A secondary function is to provide connections for intra-urban and intra-regional trips. The management objective is to provide safe and efficient, high-speed, continuous-flow operation. In constrained and urban areas, interruptions to flow should be minimal. Inside Special Transportation Areas (STAs), local access may also be a priority."

The Oregon Coast Highway Corridor Plan identified recommended access management categories within the US 101 corridor. Of the six categories, only two apply to US 101 in the greater Gold Beach area:

Category 3. These highway segments provide for efficient and safe medium to high speed and medium to high volume traffic movements on interregional, intercity, and longer distance intracity routes. The segments are appropriate for areas that have some dependence on the highway to serve land access and where financial and social costs of attaining full access control would substantially exceed benefits. This category includes some of the statewide facilities.

Category 4. These highway segments provide for efficient and safe medium to high speed and medium to high volume traffic movements on higher function interregional and intercity highway segments. They also may carry significant volumes of longer distance intracity trips. They are appropriate for routes passing through areas that have moderate dependence on the highway to serve land access and where the financial and social costs of attaining full access control would substantially exceed benefits. This category includes a small part of the statewide facilities and most regional facilities.

The Oregon Coast Highway Corridor Plan recommends that US 101 within Gold Beach (MP 327.88 to MP 329.97) be classified as Urban Category 4. US 101 to the north and south of Gold Beach is recommended to be classified as Rural Category 3.

US 101 (Oregon Coast Highway)

US 101 is a statewide highway which runs along the entire Oregon coastline. To the south, US 101 connects Gold Beach to Brookings, and the California state line. To the north, US 101 connects Gold Beach to the cities of Port Orford, Bandon and Coos Bay and eventually continues to the Washington state line.

US 101 is generally a four-to-five lane roadway with a 25-mph speed limit within the city limits of Gold Beach. North and south of the city limits, US 101 generally becomes a two lane highway with a 55-mph speed limit.

City Street Classification

Identification of the roadway functions is the basis for planning roadway improvements and the appropriate standards (right-of-way, roadway width, design speed) that would apply to each roadway facility. The following definitions serve as a general guide in determining street classifications:

Principal Arterial – A roadway with substantial interstate and statewide travel. Principal arterials serve both through traffic and trips of moderate length. Access is partially controlled with infrequent access to abutting properties. US 101 is the only principal arterial within Curry County.

Minor Arterial – A road that links cities or land uses that generate large numbers of trips. Travel speeds will be relatively high with minimum interference to through-movements. Jerry's Flat Road is the only minor arterial in Curry County.

Major Collector – A road providing service to land uses that generate trips such as consolidated schools, shipping points, parks, mining and agricultural areas. This type of road links minor collectors

with streets of higher classification. Within the Gold Beach Urban Growth Boundary, there are three major collectors: North Bank Rogue River Road, Hunter Creek Road, and Hunter Creek Loop Road.

Minor Collector – A road providing service to small communities. This type of road links locally important land uses that generate trips with rural destinations. There are no designated minor collectors within the Gold Beach urban growth boundary.

Local Street – A public street that is not a county road, state highway or federal road. A street within residential neighborhoods connecting the local uses with the collector system. Property access is the main priority; through-traffic is not encouraged. All streets not classified as arterials or collectors are Gold Beach's local streets.

Street Layout

The City of Gold Beach is primarily centered around the US 101 corridor. The collectors and local streets are generally disjointed from each other and do not form a grid system. The general characteristic of the collectors and local streets is that they connect to US 101 to provide property access to the primary regional roadway facility.

Bridges

The Oregon Department of Transportation maintains an up to date inventory and appraisal of Oregon bridges. Part of this inventory involves the evaluation of three mutually exclusive elements of bridges. One element identifies which bridges are structurally deficient. This is determined based on the condition rating for the deck, superstructure, substructure, or culvert and retaining walls. It may also be based on the appraisal rating of the structural condition or waterway adequacy. Another element identifies which bridges are functionally obsolete. This element is determined based on the appraisal rating for the deck geometry, underclearances, approach roadway alignment, structural condition, or waterway adequacy. The third element summarizes the sufficiency ratings for all bridges. The sufficiency rating is a complex formula which takes into account four separate factors to obtain a numeric value rating the ability of a bridge to service demand. The scale ranges from 0 to 100 with higher ratings indicating optimal conditions and lower ratings indicating insufficiency. Bridges with ratings under 55 may be nearing a structurally deficient condition.

Six of the 67 bridges in Curry County are located within the Gold Beach urban growth boundary. The following two bridges have been classified as functionally obsolete under ODOT's bridge inventory rating system which doesn't necessarily mean that the bridges are unsafe, but that the deck geometry, underclearances, approach roadway alignment or waterway are inadequate in some way.

- Bridge #01172 on US 101 over Rogue River (MP 327.65)
- Bridge #15C010 on FAS 304 over Hunter Creek (MP 0.40)

The Rogue River bridge (#01172) is owned and maintained by the state while the Hunter Creek bridge (#15C010) is owned and maintained by Curry County.

Community members raised concerns about the "functionally obsolete" rating of the Rogue River Bridge since the bridge is a critical element in the Gold Beach and Curry County transportation systems. Again, a "functionally obsolete" rating doesn't necessarily mean that the bridge is unsafe, but that the deck geometry, underclearances, approach roadway alignment or waterway are inadequate in some way. Examination of the inspection report for this bridge indicated that although there has been some corrosion of the bridge's concrete and reinforcing steel, the bridge received high ratings for the condition of the substructure, superstructure, and deck. The bridge was rated as functionally obsolete because of the narrow roadway width and sub-standard railings. The roadway width (the distance between the curbs) is 27 ft. The desirable roadway width for two-lane

bridges on state highways is 44 ft. In addition, the bridge railings do not meet current standards for crash impacts. Planned improvements for this facility are described in the Street System Plan in Chapter 7.

PEDESTRIAN SYSTEM

The most basic transportation option is walking. Walking is the most popular form of exercise in the United States and can be performed by people of all ages and all income levels. However, it is not often considered as a means of travel. Because pedestrian facilities are generally an afterthought, they are not typically planned as an essential component of the transportation system.

The relatively small size of Gold Beach indicates that walking could be employed regularly for short trips, weather permitting, to reach a variety of destinations. Typically, a short trip that would be taken by a pedestrian would be around one half mile. Encouraging pedestrian activities may not only decrease the use of the personal automobile but may also provide benefits for retail businesses. Where people find it safe, convenient, and pleasant to walk, they may linger and take notice of shops overlooked before. They may also feel inclined to return to renew the pleasant experience time and again.

Sidewalks and curb cuts for wheelchair access exist along the entire length of US 101 within Gold Beach. However, sidewalks generally do not exist in other areas of town or exist in short, disjointed sections. The sidewalk locations and locations of needed curb cuts for wheelchair access are shown in Figure 3-2.

BIKEWAY SYSTEM

Like pedestrians, bicyclists are often overlooked when considering transportation facilities. Bicycles are not often considered as a serious mode of transportation. However, cycling is a very efficient mode of travel. Bicycles take up little space on the road or parked, do not contribute to air or noise pollution, and offer relatively higher speeds than walking. Because of the small size of Gold Beach, a cyclist can travel to any destination in town within a matter of minutes.

Bicycling should be encouraged to reduce the use of automobiles for short trips in order to reduce some of the negative aspects of urban growth. Noise, air pollution, and traffic congestion could be mitigated if more short trips were taken by bicycle or on foot. Typically, a short trip that would be taken by bicycle is around two miles.

ODOT categorizes bicycle facilities into the following four major classifications:

- Shared roadway – Bicycles and vehicles share the same roadway area under this classification. The shared roadway facility is best used where there is minimal vehicle traffic to conflict with bicycle traffic.
- Shoulder bikeways – This bicycle facility consists of roadways with paved shoulders to accommodate bicycle traffic.
- Bike lanes – A separate lane adjacent to the vehicle travel lane for the exclusive use of cyclists is considered a bike lane.
- Bike paths – These bicycle facilities are exclusive bicycle lanes separated from the roadway.

There are limited bicycle facilities within the Gold Beach urban growth boundary. Only small segments of US 101 and Jerry's Flat Road have bike lanes. Although only a small segment of US 101 in Gold Beach has bike lanes, the entire segment of US 101 in Curry County is classified as a bicycle route in ODOT's Oregon Coast Bike Route Map. Generally sufficient shoulder space is available for cyclists to travel safely on US 101. However, in high traffic volume conditions with significant number of trucks in the traffic stream, safety becomes a concern for the bicyclist. Figure 3-2 shows the locations of bike lanes in Gold Beach with the existing sidewalk locations.

LEGEND

- BIKE LANE
- SIDEWALK
- FLASHING YELLOW PEDESTRIAN WARNING BEACON
- CROSSWALK

0 1200 2400 3600

FEET

DAVID EVANS AND ASSOCIATES, INC.
2828 S.W. CORBETT AVENUE
PORTLAND, OR. 97201-4830 (503) 223-6663

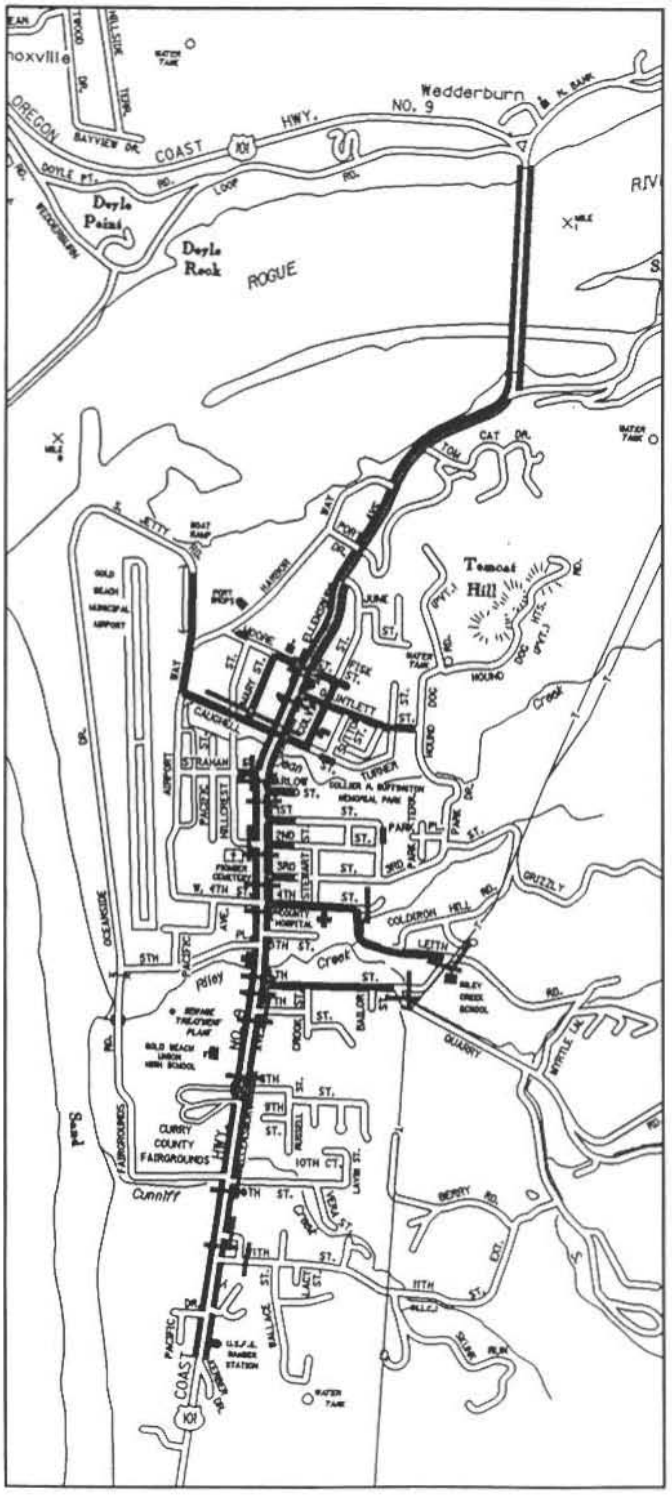

Figure 3-2
DOWNTOWN GOLD BEACH
SIDEWALK AND BIKE
LANE LOCATIONS

PUBLIC TRANSPORTATION

Currently, Greyhound operates the only scheduled bus service in this corridor. There are four scheduled buses per day, two northbound and two southbound along US 101. Service to Portland, Oregon, to the north and San Francisco, California, to south are available. Intermediate destinations enroute to these major cities are also available.

Para-transit services are available in Gold Beach. Curry County provides this service through a dispatch center at the Gold Beach Senior Center. Service is provided both on a scheduled and demand response, dial-a-ride basis. These services are provided at a minimal cost to senior citizens and disabled people. The general public can also access these services for a slightly higher fee. The primary focus of this program is to meet the needs for local, routine trips within three miles of the dispatch centers. Transportation to the rural areas and adjacent cities are a secondary focus of this program. These trips are limited to a 14-mile radius of the dispatch centers according to a published weekly trip schedule.

Local transportation is also provided by the Retired Senior Volunteer Program (RSVP) through the Gold Beach senior center. This program consists of volunteer drivers who are reimbursed for their travel expenses. The program is funded from public sources and user donations.

The City of Gold Beach has no local fixed-route transit service at this time. The small size and low traffic volumes on city streets indicate that mass transit is not necessary nor economically feasible at this time. The Transportation Planning Rule exempts cities with a population of less than 25,000 from developing a transit system plan or a transit feasibility study as part of their transportation system plan.

RAIL SERVICE

There are no rail lines or rail service present in the study area.

AIR SERVICE

The Gold Beach Airport is within the City of Gold Beach within walking distance of downtown. Owned and operated by the Port of Gold Beach, this airport is classified as a general aviation airport. It is designed to accommodate about 95 percent of the general aviation propeller aircraft under 12,500 pounds. The airport has a 3,200-foot asphalt runway with a wind indicator, runway lights, and beacon as navigational aids. In 1996, an estimated 4,571 operations occurred at the Gold Beach Airport based on ODOT's *Acoustical Accounting Program*.

A 24-hour air ambulance service is available to Gold Beach residents who are part of the Mercy Flights program. The Mercy Flights organization is a non-profit organization based in Medford, Oregon.

No commercial service is provided at the Gold Beach Airport. The closest available commercial air transportation services are available from Crescent City, California to the south and Coos Bay/North Bend, Oregon to the north.

PIPELINE SERVICE

Although not often considered as transportation facilities, pipelines carry liquids and gases very efficiently. The use of pipelines can greatly reduce the number of trucks and rail cars carrying fluids such as natural gas, oil, and gasoline. There are currently no pipelines serving Gold Beach.

WATER TRANSPORTATION

The Port of Gold Beach is an estuarine port located at the mouth of the Rogue River. The port primarily serves sport and charter boats and some commercial fishing craft. Due to shoaling problems which have made channel navigation impossible for shallow draft vessels, there has been virtually no commercial shipping from the Port

since 1970. The Port Commission oversees the port's natural resources and other assets, such as industrial land, with the goal of promoting economic development and stability through tourism and resource-based industries.

Recreational boat services are available on the Rogue River between Gold Beach and Agness.

CHAPTER 4: CURRENT TRANSPORTATION CONDITIONS

As part of the planning process, the current operating conditions for the transportation system were evaluated. This evaluation focused primarily on street system operating conditions since the automobile is by far the dominant mode of transportation in Gold Beach.

TRAFFIC VOLUMES

Morning (AM) and evening (PM) peak hour turning movement traffic volumes were collected by H. Lee & Associates in July and August 1997 at the study area intersections defined by the Curry County TSP management team. The study intersections generally represent major intersections, traffic signal locations, and intersections adjacent to land uses generating significant amount of traffic. These traffic volumes were adjusted by applying seasonal factors from ODOT's *1996 Traffic Volume Tables*. The seasonal adjustment factors were derived from a permanent count station located on US 101 approximately one mile north of the Oregon/California state line. These seasonal factors are summarized in Table 4-1. The AM and PM peak hour traffic volumes are shown in Figure 4-1.

TABLE 4-1
SUMMARY OF SEASONAL ADJUSTMENT FACTORS

Month	Seasonal Adjustment Factors
January	1.16
February	1.14
March	1.10
April	1.09
May	1.00
June	0.89
July	0.79
August	0.81
September	0.95
October	1.03
November	1.10
December	1.15

The AM peak hour traffic counts indicate that the AM peak hour occurs from 7:30 to 8:30 AM The PM peak hour generally occurs between 4:15 to 5:15 PM

Existing average daily traffic volumes were obtained from ODOT's *1996 Traffic Volume Tables*. These daily traffic volumes are also shown in Figure 4-1. As shown in Figure 4-1, the average daily traffic volumes range from 4,200 to 10,500 vehicles per day (vpd) along US 101 in the Gold Beach urban growth boundary.

LEVEL OF SERVICE

The following section provides a summary of the level of service (LOS) analysis conducted for the Gold Beach urban growth boundary intersections and roadways. The level of service definition, methodologies used in calculating level of service, and the results of the analysis are summarized below. The purpose of this information is to provide an overview of LOS and to identify its relationship to the transportation goals and policies of the city.

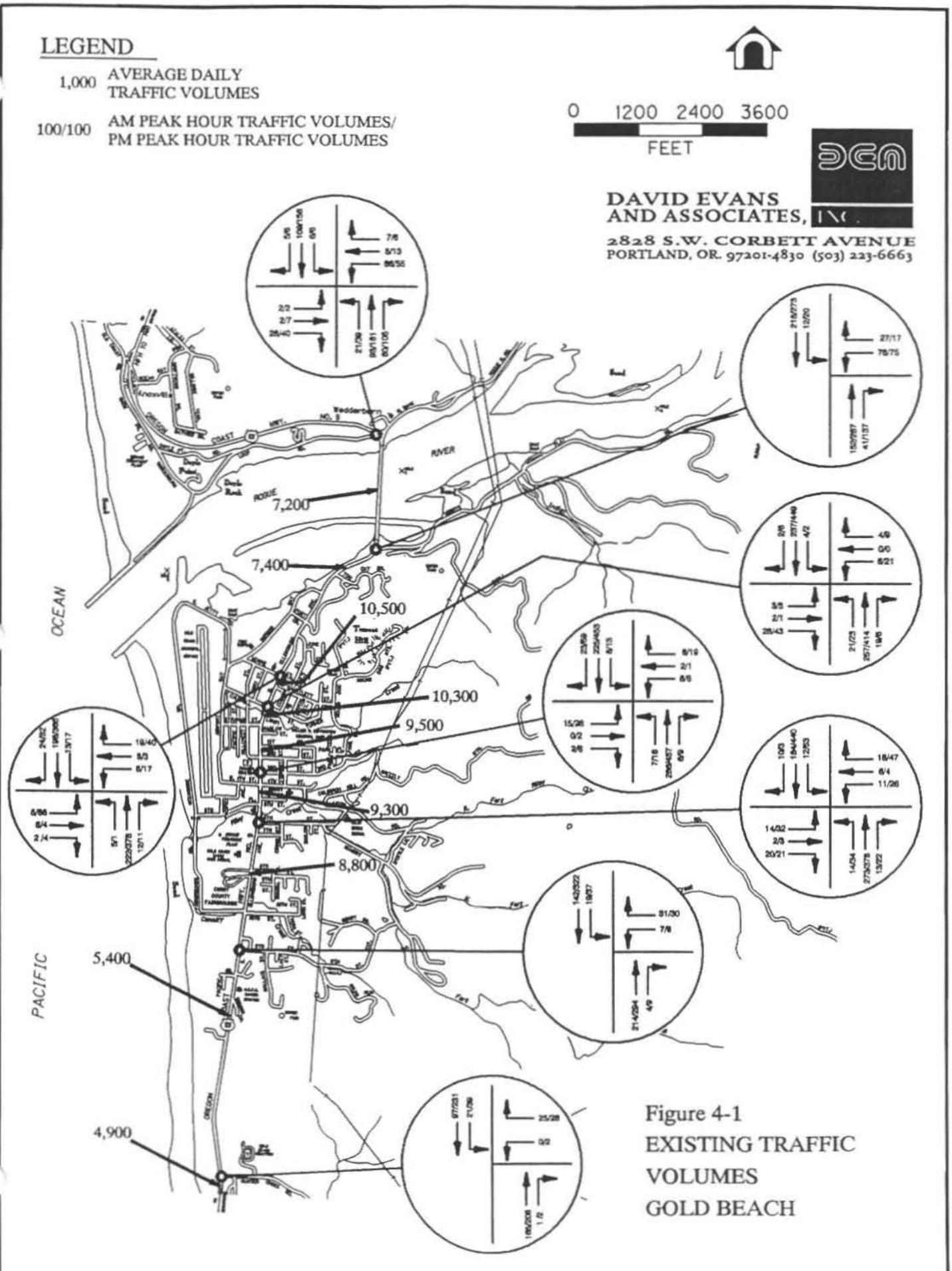

Figure 4-1
EXISTING TRAFFIC VOLUMES
GOLD BEACH

Level of Service Definition

Level of service (LOS) is an estimate of the quality and performance of transportation facility operations in a community. One commonly used method is the Transportation Research Board's *1997 Highway Capacity Manual* (HCM) LOS system. The degree of traffic congestion and delay is rated using the letter "A" for the least amount of congestion to the letter "F" for the highest amount of congestion. The following Level of Service categories provide general descriptions of the different levels of service defined in the *1997 Highway Capacity Manual*. The community decides what level of traffic congestion is tolerable (i.e., decides whether "C," "D," or some other level). The choice of a particular LOS threshold can vary by planning subarea, roadway classification, or specific corridor or street.

The level of service methodology for unsignalized intersections was based on average delay for critical turning movements. Level of service values range from LOS A, indicating free-flowing traffic, to LOS F, indicating extreme congestion and long vehicle delays. Table 4-2 summarizes the relationship between level of service and reserve capacity at unsignalized intersections.

TABLE 4-2
LEVEL OF SERVICE CRITERIA FOR UNSIGNALIZED INTERSECTIONS

Level of Service	Average Delay (seconds per vehicle)	Expected Delay
A	≤ 10.0	Little or no delay
B	$> 10.0 \leq 15.0$	Short delays
C	$> 15.0 \leq 25.0$	Average delays
D	$> 25.0 \leq 35.0$	Long delays
E	$> 35.0 \leq 50.0$	Very long delays
F	>50.0	Failure – extreme congestion

The *1997 Highway Capacity Manual* level of service methodology for signalized intersections is based on average delay experienced by all vehicles as they approach the intersection. Table 4-3 summarizes the relationship between level of service and average delay at signalized intersections.

TABLE 4-3
LEVEL OF SERVICE CRITERIA FOR SIGNALIZED INTERSECTIONS

Level of Service	Average Delay (seconds per vehicle)	Expected Delay
A	≤ 10.0	Little or no delay
B	$> 10.0 \leq 20.0$	Short delays
C	$> 20.0 \leq 35.0$	Average delays
D	$> 35.0 \leq 55.0$	Long delays
E	$> 55.0 \leq 80.0$	Very long delays
F	>80.0	Failure – extreme congestion

Although the *1997 Highway Capacity Manual* has a specific methodology for urban and suburban principal arterials, this methodology was not used because of its limitation to analyzing segments between signalized intersections with speeds greater than 25 mph. In the Gold Beach urban growth boundary, there are only two traffic signals which are spaced approximately one half mile from each other. The 1994 HCM methodology is not calibrated for principal arterials with speeds at 25 mph with signals spaced greater than one quarter mile apart. Therefore, an alternative methodology still consistent with the HCM and the previously conducted South Coast Transportation Plan, was utilized. Level of service at the roadway mid-blocks was calculated based on correlating the volume to capacity ratio (V/C) to LOS values. Table 4-4 summarizes the volume-to-capacity ratio ranges that have been developed for determining planning level roadway mid-block LOS on urban and rural roadways.

TABLE 4-4
LOS CRITERIA FOR ROADWAY MID-BLOCKS

LOS	Description	Volume/Capacity (V/C) Ratio
A	less than or equal to	0.60
B	less than or equal to	0.70
C	less than or equal to	0.80
D	less than or equal to	0.90
E	less than or equal to	1.00
F	greater than	1.00

In the 1999 OHP, minimum highway mobility standards have been defined by maximum volume to capacity (v/c) ratio thresholds by facility type. The OHP defines a volume to capacity ratio as the peak hour traffic volume (vehicles per hour) on a highway section divided by the maximum volume that highway section can handle. For the areas within the Gold Beach urban growth boundary, US 101 has two v/c ratio standards. The first standard is for posted speeds less than 45 mph. The maximum v/c ratio for the peak hour operating conditions is 0.75 for statewide highways such as US 101. The second standard is for posted speeds equal or greater than 45 mph. The maximum v/c ratio for the peak hour operating conditions is 0.70.

Existing Level of Service

Based on current AM peak hour, PM peak hour, and daily traffic volumes, level of service was calculated for the study area intersections and roadway mid-blocks. The results of the unsignalized and signalized intersection level of service analysis are summarized in Table 4-5. The results of the roadway mid-block level of service are summarized in Table 4-6.

As shown in Tables 4-5 and 4-6, all of the study area intersections currently operate at LOS C or better. The roadway mid-blocks all operate at LOS A. Also, the OHP volume to capacity ratio standards of 0.70 and 0.75 are met for all intersections and roadway segments along US 101.

TABLE 4-5
EXISTING INTERSECTION LEVEL OF SERVICE

Signalized Intersection	AM Peak LOS	AM Peak Average Delay	AM Peak V/C Ratio	PM Peak LOS	PM Peak Average Delay	PM Peak V/C Ratio
US 101/Moore Street						
Northbound Left	C	22.8	0.03	C	22.6	0.00
Northbound Through/Right	A	7.3	0.15	B	10.1	0.26
Southbound Left	C	24.1	0.12	C	24.6	0.16
Southbound Through/Right	A	7.2	0.14	B	10.3	0.28
Eastbound Approach	C	24.0	0.11	C	33.3	0.61
Westbound Approach	C	25.9	0.21	C	24.4	0.36
Overall Intersection	A	9.9	0.16	B	14.9	0.35
US 101/6th Street						
Northbound Left	C	23.4	0.07	C	24.4	0.15
Northbound Through/Right	A	7.5	0.19	A	7.7	0.22
Southbound Left	C	23.4	0.07	C	25.9	0.26
Southbound Through/Right	A	7.2	0.14	A	8.0	0.27
Eastbound Approach	C	27.6	0.29	C	29.0	0.35
Westbound Approach	C	27.2	0.28	C	32.5	0.47
Overall Intersection	B	11.0	0.19	B	12.1	0.30
UNSIGNALIZED INTERSECTION	**LOS**	**Average Delay**	**V/C Ratio**	**LOS**	**Average Delay**	**V/C Ratio**
US 101/N Bank Rogue River Road						
Northbound Left	A	7.6	0.02	A	7.7	0.04
Southbound Left	A	7.6	0.01	A	8.0	0.01
Eastbound Through/Left	B	11.5	0.01	C	15.3	0.03
Eastbound Right	A	9.2	0.05	A	9.5	0.06
Westbound Through/Left	B	13.5	0.23	C	19.3	0.30
Westbound Right	A	8.9	0.01	A	9.9	0.01
US 101/Jerry's Flat Road						
Southbound Left	A	7.7	0.01	A	8.8	0.02
Westbound Left	B	12.9	0.16	C	19.7	0.27
Westbound Right	A	9.5	0.04	B	11.2	0.03
US 101/Caughell Street						
Northbound Left	A	8.0	0.02	A	8.5	0.02
Southbound Left	A	8.0	0.00	A	8.4	0.00
Eastbound Approach	B	10.1	0.06	B	11.4	0.09
Westbound Approach	B	12.3	0.04	C	17.1	0.12
US 101/3rd Street						
Northbound Left	A	7.9	0.01	A	8.7	0.02
Southbound Left	A	8.2	0.01	A	8.5	0.01
Eastbound Approach	B	13.2	0.05	C	23.3	0.28
Westbound Approach	B	12.0	0.04	B	13.8	0.10
US 101/11th Street						
Southbound Left	A	7.8	0.02	A	8.1	0.03
Westbound Approach	A	9.6	0.05	B	10.5	0.07
US 101/Hunter Creek Loop Road						
Southbound Left	A	7.7	0.02	A	7.8	0.03
Westbound Left	A	0.0	0.00	B	12.8	0.01
Westbound Right	A	9.6	0.04	A	9.6	0.04

TABLE 4-6
EXISTING ARTERIAL ROADWAY LEVEL OF SERVICE SUMMARY

Roadway	Section	AADT	Capacity	V/C Ratio	LOS
US 101	Rogue River Bridge	7,200	14,000	0.51	A
	South of Jerry's Flat Road	7,400	24,000	0.31	A
	South of Moore Street	10,500	24,000	0.44	A
	South of Caughell Street	10,300	24,000	0.43	A
	South of 1st Street	9,500	24,000	0.40	A
	South of 4th Street	9,300	24,000	0.39	A
	South of 8th Street	8,800	24,000	0.37	A
	South of Kerber Drive	5,900	24,000	0.25	A
	South of Hunter Creek Loop	4,900	16,000	0.31	A
	South of Hunter Creek Road	4,200	16,000	0.26	A

TRAFFIC ACCIDENTS

Accident data at the study area intersections and roadway mid-block sections were obtained from ODOT. Data was provided for a three-year period between January 1994 and December 1996. Table 4-7 summarizes the accident data for the roadway mid-block sections. Table 4-8 summarizes the accident data for the study area intersections.

The accident rates for the roadway mid-block sections were reported in both average accidents per year accidents per million vehicle miles of travel. For comparison purposes the average state accident rate for non-freeway state facilities was 1.76 accidents per million vehicle miles traveled in 1996 according to the *1996 State Highway System Accident Rate Tables*, ODOT, 1997. As shown in Table 4-7, the following seven roadway mid-block sections have accident rates greater than the state average:

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The accident rates for the roadway mid-block sections were reported in both average accidents per year accidents per million vehicle miles of travel. For comparison purposes the average state accident rate for non-freeway state facilities was 1.76 accidents per million vehicle miles traveled in 1996 according to the *1996 State Highway System Accident Rate Tables*, ODOT, 1997. As shown in Table 4-7, the following seven roadway mid-block sections have accident rates greater than the state average.

As shown above, seven out of 13 roadway mid-block sections have accident rates greater than the state average. It should be noted that although these roadway segments have an average accident rate higher than the statewide average, the actual number of accidents occurring on these roadways is small. Only three locations have a rate greater than 1.0 accident per year. These above statewide accident rates are predominantly a function of very short roadway segment lengths which tends to increase the relative importance of even a single accident.

The accident rates for the intersections were reported in average accidents per year instead of accidents per million entering vehicles because the traffic volumes at most of the intersections were not available. As shown in Table 4-8, the accident rates at the study area intersections are between 0.3 to 0.7 average accidents per year. Accident rates in this range are typically considered acceptable.

Based on the reported accident information from January 1994 to December 1996, one fatal accident occurred in the City of Gold Beach in the last three years.

TABLE 4-7
ROADWAY SEGMENT ACCIDENT SUMMARY (January 1994 to December 1996)

Roadway Segment	Average Accidents per Year by Severity			Total	Total
	PDO[1]	Injury	Fatal	(acc/yr)[2]	(acc/mvm)[3]
US 101					
Ocean Way to North Bank Rogue River Road	0.0	0.0	0.0	0.0	0.0
N Bank Rogue River Road to Jerrys Flat Road	1.3	0.3	0.0	1.6	1.52
Jerrys Flat Road to Harbor Way	0.0	0.0	0.0	0.0	0.0
Harbor Way to Colvin Street	0.0	0.0	0.0	0.0	0.0
Colvin Street to Moore Street	0.0	0.0	0.0	0.0	0.0
Moore Street to Gauntlett Street	0.3	0.3	0.0	0.6	3.91
Gauntlett Street to Caughell Street	0.7	0.3	0.0	1.0	3.26
Caughell Street to Strahan Street	0.3	0.0	0.0	0.3	1.14
Strahan Street to Harlow Street	0.0	0.0	0.0	0.0	0.0
Harlow Street to First Street	0.3	0.0	1.0	1.3	1.73
First Street to Second Street	0.0	0.0	0.0	0.0	0.0
Second Street to Third Street	0.0	0.0	0.0	0.0	0.0
Third Street to Fourth Street	0.3	0.7	0.0	1.0	5.77
Fifth Street to Fifth Place	0.0	0.0	0.0	0.0	0.0
Fifth Street to Fifth Place	0.0	0.3	0.0	0.3	4.42
Fifth Place to Sixth Street	0.3	0.0	0.0	0.3	1.77
Sixth Street to Seventh Street	0.0	0.0	0.0	0.0	0.0
Seventh Street to Eighth Street	0.0	0.3	0.0	0.3	0.72
Eighth Street to Tenth Street	0.3	1.3	0.0	1.6	3.32
Tenth Street to Eleventh Street	1.0	0.0	0.0	1.0	4.68
Eleventh Street to Weber Way	0.0	0.0	0.0	0.0	0.0
Weber Way to Pacific Drive	0.0	0.0	0.0	0.0	0.0
Pacific Drive to Kerber Drive	0.0	0.0	0.0	0.0	0.0
Kerber Drive to Hunter Creek Loop Road	0.7	0.0	0.0	0.7	0.57
Hunter Creek Loop Road to Hunter Creek Road	1.0	0.7	0.0	1.7	1.12

Notes:
[1] PDO = property damage only
[2] acc/yr = accidents per year
[3] acc/mvm = accidents per million vehicle miles of travel

TABLE 4-8
INTERSECTION ACCIDENT SUMMARY (January 1994 to December 1996)

Roadway Segment	Average Accidents per Year by Severity			Total
	PDO[1]	Injury	Fatal	(acc/yr)[2]
US 101/N Bank Rogue River Road	0.0	0.3	0.0	0.3
US 101/Moore Street	0.3	0.3	0.0	0.6
US 101/Gauntlett Street	0.3	0.0	0.0	0.3
US 101/Caughell Street	0.3	0.0	0.0	0.3
US 101/First Street	0.3	0.0	0.0	0.3
US 101/Second Street	0.0	0.7	0.3	1.0
US 101/Third Street	0.3	0.3	0.0	0.6
US 101/Sixth Street	1.0	0.7	0.0	1.7
US 101/Seventh Street	0.0	0.3	0.0	0.3
US 101/Eighth Street	0.0	0.7	0.0	0.7
US 101/Tenth Street	0.0	0.3	0.0	0.3
US 101/Hunter Creek Road	0.3	0.0	0.0	0.3

Notes: [1] PDO = property damage only [2] acc/yr = accidents per year

TRANSPORTATION DEMAND MANAGEMENT MEASURES

Transportation Demand Management (TDM) measures consist of efforts taken to reduce the demand on an areas transportation system. TDM measures include such things as alternative work schedules, carpooling, and telecommuting.

Alternative Work Schedules

One way to maximize the use of the existing transportation system is to spread peak traffic demand over several hours instead of a single hour. Statistics from the 1990 Census for Gold Beach show the spread of departure to work times over a 24-hour period (see Table 4-9). Approximately 25 percent of the total employees depart for work between 7:00 and 8:00 AM Another 31 percent depart either the hour before or the hour after the peak.

Assuming an average nine-hour work day, the corresponding afternoon peak can be determined for work trips. Using this methodology, the peak work travel hour would occur between 4:00 and 5:00 PM which corresponds with the peak hour of activity measured for traffic volumes.

Travel Mode Distribution

Although the automobile is the primary mode of travel for most residents in Gold Beach, some other modes are used as well. Modal split data is not available for all types of trips; however, the 1990 census data does include statistics for journey-to-work trips as shown in Table 4-10. The census data reflects the predominant use of the automobile.

Most Gold Beach residents travel to work via private vehicle. In 1990, 77 percent of all trips to work were in an auto, van, or truck. Trips in single-occupancy vehicles made up 59 percent of all trips, and carpooling accounted for 17 percent. Five workers indicated they used a bicycle for transportation to work.

Walking as a means of getting to work was used by 84 people compared to three people who used public transportation. However, the census does not account for other, non-work uses of transportation, such as shopping or recreation.

TABLE 4-9
DEPARTURE TO WORK DISTRIBUTION, GOLD BEACH (1990)

Departure Time	Trips	Percent
12:00 AM to 4:59 AM	33	5.5
5:00 AM to 5:59 AM	46	7.6
6:00 AM to 6:59 AM	65	10.8
7:00 AM to 7:59 AM	152	25.2
8:00 AM to 8:59 AM	124	20.5
9:00 AM to 9:59 AM	46	7.6
10:00 AM to 10:59 AM	7	1.2
11:00 AM to 11:59 AM	7	1.2
12:00 PM to 3:59 PM	91	15.1
4:00 PM to 11:59 PM	31	5.1
Total	602	100.0

Source: US Bureau of Census.

TABLE 4-10
JOURNEY TO WORK TRIPS, GOLD BEACH (1990)

	Trips	Percent
Car, Truck, or Van:		
Drove alone	385	59.2
Carpooled	112	17.2
Public Transportation	3	0.5
Motorcycle	8	1.2
Bicycle	5	0.8
Walked	84	12.9
Other Means	5	.8
Worked at Home	48	7.4
Total	650	100.0

Source: US Bureau of Census.

CHAPTER 5: 2017 BASELINE TRAFFIC CONDITIONS

The 2017 traffic projections developed as part of this study are used as the basis for assessing future roadway conditions and likely improvement requirements. These projections have been developed using a simplified travel demand model which relies on a combination of land use-driven trip generation and distribution, and on a trend analysis which uses historical experience and anticipated land use development as a basis (including several large future development projects anticipated within the study area).

Twenty-year projections were developed when this study commenced in 1997. Development of the TSP occurred through the first half of 2000 and adoption is expected to occur later in 2000, at which point the forecasts only extend 17 years into the future. Concern was raised that, by the time the plan is adopted, the plan would not truly be a 20-year plan. Although this concern is valid, the travel forecasts were not the driving force behind the transportation projects the community wished to pursue. The projects evaluated in the improvement options analysis, and those projects ultimately recommended in the modal plans predominantly address safety, pedestrian and bicycle facilities, access management, emergency routes, and connectivity, rather than capacity issues because in most cases the existing transportation infrastructure could meet the forecast demand. Therefore, the plan serves the intended purpose, and the 18-year forecast does not detract from the plan. Furthermore, it is expected that the TSP will go through periodic review every four to five years at which time the travel forecasts will be updated.

In general, an understanding of the underlying land development and demographic growth anticipated within the study area is important to provide a good foundation for understanding future travel demand and the need for improvement projects. The following discussion is intended to provide a general sketch of the assumptions and analysis methodology inherent in developing the year 2017 traffic projections. Included is a description of the population and land use forecasts that form the basis for the traffic projections, as well as a discussion of the travel demand forecasting process and resulting projections.

POPULATION AND LAND USE FORECASTS

The purpose of this sub-section is to identify expected future growth within the Gold Beach study area including not only the magnitude of that growth but also the spatial distribution of future residential, commercial and industrial land uses. These future land use projections will form the basis of the development of future traffic projections, the analysis of future transportation system deficiencies, and, ultimately, the development of a transportation improvement program.

The beginning of this sub-section presents an explanation of the demographic changes that the Gold Beach area has experienced over the last 20 years, as well as the anticipated growth in population through 2017. The population forecasts were used as a basis for determining future housing demand.

Population Growth and Distribution

Information used in this analysis was from the U.S. Census Bureau and Portland State University's Center for Population Research and Census. The U.S. Census data does not reflect demographic characteristics consistent with the urban growth boundaries (UGB) of Oregon communities, but includes city limits, counties and various tracts or districts within counties.

Historic Population Growth

Table 5-1 summarizes population growth between 1970 and 2000 for the study area and Curry County as a whole. From 1977 through 1997, the City of Gold Beach showed an increase in population from 1,527 to 1,730. Curry County grew from 15,796 to 23,200 during that same period which equates to almost a 50 percent increase in population.

Since the 1990 census, the City of Gold Beach has annexed significant areas of land. These annexations have resulted in Gold Beach's population rising by 414 people. In order to determine the actual growth rate between 1977 and 1997, the annexation population was subtracted out of the County forecasts. The population numbers for the City of Gold Beach in Table 5-1 reflect the reduction in the Year 1995, 1997 and 2000 to take into the annexation.

TABLE 5-1
GOLD BEACH STUDY AREA HISTORIC POPULATION GROWTH TRENDS

	1970	1980	1977	1995	2000	1997	1977-1997 % Change	Annual Growth Rate 1977-1997
Gold Beach	1,554	1,515	1,527	1,666	1,827	1,730	13.00%	0.61%
Curry County	13,006	16,992	15,796	22,000	24,699	23,200	47.00%	1.95%

Source: *U.S. Bureau of the Census; County forecast developed by State of Oregon Office of Economic Analysis*

Population Projections

Table 5-2 presents the most recent forecasts of future population growth for the City of Port Orford and Curry County as a whole. The information in Table 5-2 is interpolated from the US Bureau of the Census, and State of Oregon Office of Economic Analysis data. In order to be consistent with the population totals in Table 5-1, the population forecast for the Year 2017 was reduced by 558 people to take into account the annexation area (the original 414 people plus growth at 1.5 percent per year for 20 years). The population is projected to growth at an annual growth rate of 1.5 percent.

TABLE 5-2
GOLD BEACH STUDY AREA POPULATION FORECASTS

	1997 Population	2017 Population	Growth Rate 1996-2017
Gold Beach	1,730	2,330	1.50%
Curry County	23,200	31,311	1.50%

Source: *U.S. Bureau of the Census; County forecast developed by State of Oregon Office of Economic Analysis*

TRAFFIC FORECAST

Traffic Forecast Methodology

The 1997 to 2017 future growth rates were developed by correlating the 1977 to 1997 population growth to the 1977 to 1997 traffic growth. As shown in Table5-1 there was an annual 0.61 percent population growth between 1977 and 1997 in Gold Beach, excluding the annexation area. Table 5-3 indicates that on average there was less than 0.30 percent traffic growth in Gold Beach between 1977 and 1997.

In Gold Beach population grew approximately twice as fast as traffic growth. Therefore it is expected that traffic will grow at approximately half the rate of population growth between 1997 and 2017. As shown in Table 5-2, population is projected to grow by 1.50 percent annually from 1997 to 2017. Therefore it would be expected that traffic would grow at approximately 0.75 percent per year between 1997 and 2017. In order to be conservative, an annual growth rate of one (1) percent was used at all intersections in Gold Beach.

The 2017 future traffic volumes were forecasted by applying an annual compounded traffic growth factor of 1.00 percent. The resulting 2017 A.M. peak hour, P.M. peak hour, and daily traffic volumes are shown in Figure 5-1.

TABLE 5-3
HISTORICAL ANNUAL TRAFFIC GROWTH RATES ON US 101

Location	Milepost	1977 Daily Count	1997 Daily Count	1977 to 1997 % Change	Annual Growth Rate
North City Limits of Gold Beach		6,600	7,700	17%	0.79%
South of Jerry Flat Road		8,200	9,000	10%	0.48%
South of Moore Street		10,100	9,800	-3%	-0.15%
South of Caughell Street		11,000	11,200	1.8%	0.10%
South of 1st Street		10,800	11,400	6%	0.29%
South of 4th Street		11,000	11,000	0%	0.00%
South of 8th Street		8,500	9,400	11%	0.53%
South City Limits of Gold Beach		5,100	6,200	22%	1.00%
Average				6%	0.29%

Source: ODOT, 1977 and 1997 Traffic Volume Summaries

2017 LEVELS OF SERVICE

Level of service analyses were conducted based on the 2017 traffic volumes shown in Figure 5-1. The results of the signalized and unsignalized intersection levels of service analysis are summarized in Table 5-4. Table 5-5 summarizes the arterial roadway levels of service.

As shown in Tables 5-4, all of the signalized intersections are projected to operate at LOS B for the overall intersection. All of the movements at these intersections are projected to operate at LOS C or better, with the exception of the eastbound approach at the US 101/Moore Street intersection, which is projected to operate at LOS D during the PM peak hour. The level of service at unsignalized intersections is projected to range from LOS A to E, with most congestion/delay occurring at:

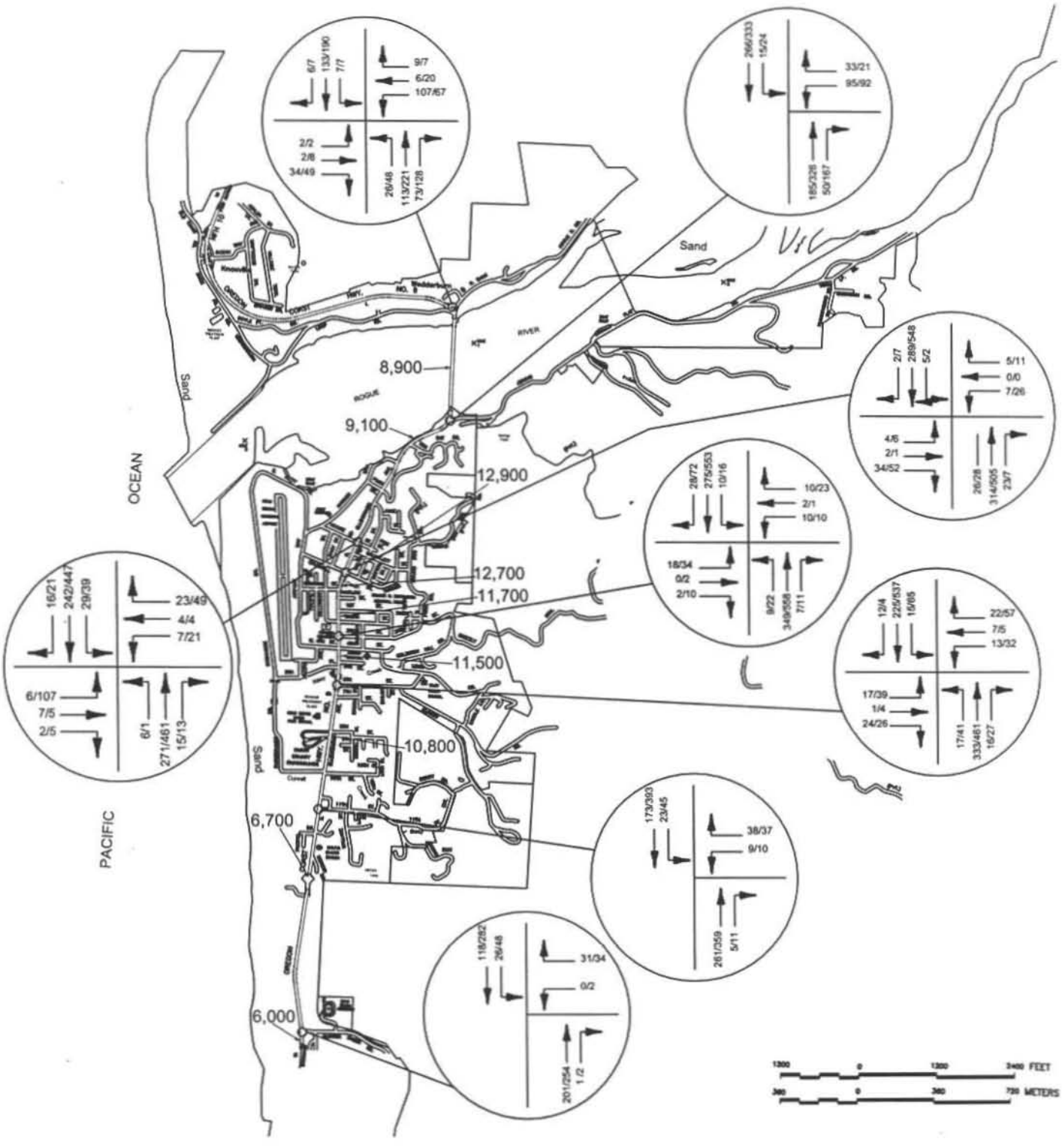
- US 101/N Bank Rogue Rive Road, westbound through/left – PM peak hour;
- US 101/Jerry's Flat Road, westbound left – PM peak hour;
- US 101/Caughell Street, westbound approach – PM peak hour; and
- US 101/Third Street, eastbound approach – PM peak hour.

The only intersection approach exceeding the OHP v/c ratio standard is the eastbound approach of the US 101/Moore Street intersection which is projected to operate with a v/c ratio of 0.77 in the 2017 PM peak hour.

The levels of service expected in the year 2017 are similar to those experienced today.

Table 5-5 shows that all roadways are projected to operate at LOS A or B. Also, the OHP volume to capacity ratio standards of 0.70 and 0.75 are met for all roadway segments along US 101 in the 2017 peak hour conditions.

GOLD BEACH TSP
GOLD BEACH, OREGON



LEGEND

1000 Average Daily Traffic Volume

100/100 AM/PM Peak Hour Traffic Volume

N

FIGURE 5-1

2017 TRAFFIC VOLUMES

TABLE 5-4
2017 INTERSECTION LEVEL OF SERVICE

Signalized Intersection	AM Peak LOS	AM Peak Average Delay	AM Peak V/C Ratio	PM Peak LOS	PM Peak Average Delay	PM Peak V/C Ratio
US 101/Moore Street						
Northbound Left	C	22.9	0.03	C	22.6	0.00
Northbound Through/Right	A	7.5	0.19	B	10.5	0.31
Southbound Left	C	24.4	0.15	C	25.1	0.20
Southbound Through/Right	A	7.4	0.17	B	10.8	0.35
Eastbound Approach	C	24.3	0.13	D	44.3	0.77
Westbound Approach	C	26.8	0.26	C	26.1	0.43
Overall Intersection	B	10.1	0.19	B	16.8	0.43
US 101/6th Street						
Northbound Left	C	23.6	0.09	C	24.8	0.18
Northbound Through/Right	A	7.8	0.23	A	8.0	0.28
Southbound Left	C	23.6	0.09	C	27.3	0.33
Southbound Through/Right	A	7.4	0.17	A	8.5	0.34
Eastbound Approach	C	28.9	0.34	C	32.1	0.44
Westbound Approach	C	28.6	0.34	C	38.8	0.60
Overall Intersection	B	11.3	0.23	B	13.2	0.38
Unsignalized Intersection	**LOS**	**Average Delay**	**V/C Ratio**	**LOS**	**Average Delay**	**V/C Ratio**
US 101/N Bank Rogue River Road						
Northbound Left	A	7.7	0.02	A	7.8	0.05
Southbound Left	A	7.7	0.01	A	8.2	0.01
Eastbound Through/Left	B	12.3	0.01	C	18.0	0.04
Eastbound Right	A	9.5	0.06	A	9.9	0.08
Westbound Through/Left	C	16.0	0.32	D	28.4	0.46
Westbound Right	A	9.1	0.01	A	10.4	0.02
US 101/Jerry's Flat Road						
Southbound Left	A	7.8	0.01	A	9.2	0.03
Westbound Left	B	14.9	0.22	D	28.8	0.42
Westbound Right	B	9.8	0.05	B	12.2	0.05
US 101/Caughell Street						
Northbound Left	A	8.1	0.03	A	8.9	0.03
Southbound Left	A	8.2	0.01	A	8.7	0.00
Eastbound Approach	B	10.7	0.08	B	12.6	0.12
Westbound Approach	B	13.7	0.05	C	22.6	0.19
US 101/3rd Street						
Northbound Left	A	8.1	0.01	A	9.1	0.03
Southbound Left	A	8.4	0.01	A	8.9	0.02
Eastbound Approach	C	15.1	0.07	E	37.7	0.46
Westbound Approach	B	13.3	0.06	C	16.8	0.15
US 101/11th Street						
Southbound Left	A	8.0	0.02	A	8.4	0.04
Westbound Approach	A	10.0	0.07	B	11.3	0.10
US 101/Hunter Creek Loop Road						
Southbound Left	A	7.9	0.03	A	7.9	0.04
Westbound Left	A	0.0	0.00	B	14.3	0.01
Westbound Right	A	9.9	0.06	B	10.0	0.06

TABLE 5-5
EXISTING ARTERIAL ROADWAY LEVEL OF SERVICE SUMMARY

Roadway	Section	AADT	Capacity	V/C Ratio	LOS
US 101	Rogue River Bridge	8,900	14,000	0.64	B
	South of Jerry's Flat Road	9,100	24,000	0.38	A
	South of Moore Street	12,900	24,000	0.54	A
	South of Caughell Street	12,700	24,000	0.53	A
	South of 1st Street	11,700	24,000	0.49	A
	South of 4th Street	11,500	24,000	0.48	A
	South of 8th Street	10,800	24,000	0.45	A
	South of Kerber Drive	7,300	24,000	0.30	A
	South of Hunter Creek Loop	6,000	16,000	0.25	A
	South of Hunter Creek Road	5,200	16,000	0.22	A

CHAPTER 6: IMPROVEMENT OPTIONS ANALYSIS

As required by the Oregon Transportation Planning Rule, transportation alternatives were formulated and evaluated for the Gold Beach Transportation System Plan. These potential improvements were developed with the help of the and attempt to address the concerns specified in the goals and objectives (Chapter 2).

Each of the transportation system improvement options was developed to address specific deficiencies, safety issues, or access concerns. The following list includes all of the potential transportation system improvements considered. Improvement Options 2, 4, 6, 7 and 8 are illustrated in Figure 6-1.

The proposed transportation system improvement options include both state highway and local road projects. This section of the TSP describes the individual improvements and their associated costs. Improvement options include:

1. Revise Zoning and Development Codes to Encourage Proximity of Compatible Uses
2. Improve Safety on US 101 on the Approaches to the Rogue River Bridge
3. Improved East-West Connection Between the South Coast and I-5
4. Develop an Alternative Route to US 101 for When the Highway is Closed
5. Implement Transportation Demand Management Strategies
6. Improve lighting on the Rogue River Bridge
7. Construct a Raised Oceanfront Boardwalk
8. Construct an Oceanfront Bike and Pedestrian Path

As discussed in the remaining sections of this chapter, not all of these considered improvements were recommended. The recommendations were based on costs and benefits relative to traffic operations, the transportation system, and the community livability.

EVALUATION CRITERIA

The evaluation of the potential transportation improvements was based on an analysis of traffic projections, a qualitative review of safety, environmental, socioeconomic, and land use impacts, as well as estimated cost. The potential improvements were analyzed to determine if they could reduce congestion and delay, as well as vehicle miles traveled, because of the beneficial effects of those reductions.

In addition to the quantitative traffic analysis, three factors were evaluated qualitatively: 1) safety; 2) environmental factors, such as air quality, noise, and water quality; and 3) socioeconomic and land use impacts, such as right-of-way requirements and impacts on adjacent lands.

The final factor in the evaluation of the potential transportation improvements was cost. Costs were estimated in 1998 dollars based on preliminary alignments for each potential transportation system improvement.

IMPROVEMENT OPTIONS EVALUATION

Through the transportation analysis and input provided from the public involvement program, several improvement projects were identified. These options included reconstructing existing intersections and providing improved pedestrian and bicycle facilities.

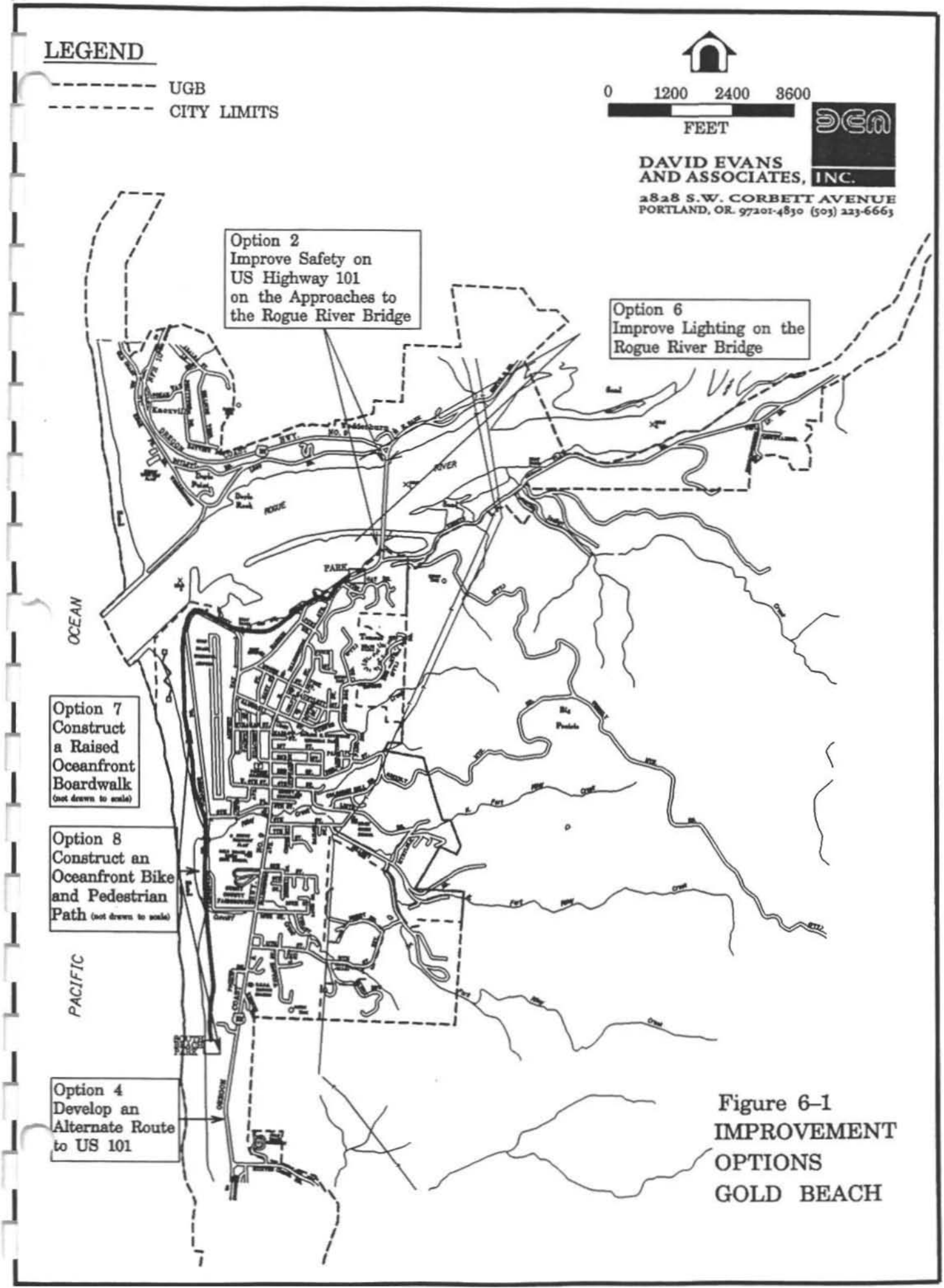


Figure 6–1
IMPROVEMENT OPTIONS
GOLD BEACH

Option 1. Revise Zoning and Development Codes to Encourage Proximity of Compatible Uses

Overview: One of the goals of the Oregon Transportation Planning Rule (TPR) is to reduce reliance on the single-occupant automobile. One method of reducing reliance on automobiles is to amend zoning and development codes to allow mixed-use developments and increased density in certain areas. Specific amendments include allowing neighborhood commercial uses within residential zones and allowing residential uses within commercial zones. Such code amendments can result in shorter travel distances between land uses, thereby encouraging residents to use alternative modes of transportation, such as walking and cycling throughout the community.

These code revisions are more effective in medium- to large-sized cities (with over 25,000 residents), than in cities such as Gold Beach, where they may not be as appropriate. Because of Gold Beach's relatively small size, the decision of what mode of transportation to use when making a trip inside the city is not influenced by distance. The longest distance between city limit boundaries in Gold Beach is around two miles, a distance short enough to walk, ride a bike, or drive. Distances between different land uses, such as residential and commercial, are even shorter. According to the 1990 census, 13 percent of the population already walks to work, which is higher than the statewide average.

Increasing density may have some effect on development in Gold Beach. As discussed in Chapter 5, a projected population growth of 14 percent (305 additional residents) in the next 20 years is anticipated to be accommodated by infill development inside the city limits or by development of vacant land within the UGB. Therefore, as city limits are expected to expand to include portions of the UGB, the provision of commercial uses close to or within these areas could become more important in reducing the need for automobile trips.

Impacts: Although the primary goal of TDM strategies is to reduce the number of vehicle trips made within a jurisdiction, especially during peak periods, street capacity for automobiles and trucks is generally not an issue in Gold Beach. Nevertheless, altering land use codes to encourage some level of mixed uses bringing compatible businesses and residents closer together can be beneficial for both. Retailers may gain more exposure from people walking by, rather than driving by, their shops. For residents, more walking and biking can enhance the sense of community, local vitality, and security. With more emphasis on walking or biking in the city, conditions such as air quality and noise levels would be improved as well.

Cost Estimate: No direct costs are associated with making the zoning code amendments.

Recommendation: Because of the small size of the city, the relationship between land uses is already similar to the mixed use zoning patterns that are recommended in larger urban areas. It is desirable for this development pattern continue as the city grows (the population is forecast to increase by 14 percent, or 305 additional residents in the next 20 years). Increasing density requirements would have a positive effect on the way land is developed in Gold Beach by preventing urban sprawl. Therefore, revisions to zoning and development codes to allow for increased density is recommended.

Option 2. Improve Safety on US 101 on the Approaches to the Rogue River Bridge

Overview: Several public roads, as well as several private driveways, intersect US 101 in the immediate proximity of both ends of the Rogue River Bridge. Accident records for the three-year period from 1994 to 1996 indicated four "property damage only" accidents, resulting in one injury, in the three year period.

The community has indicated that the north approach to the Rogue River Bridge on US 101 poses a safety problem because of the proximity of the intersections of Wedderburn Loop Road and N. Bank River Road to the bridge. In addition, sight distance is limited, because these roads intersect the highway on a curve. Sight distance for vehicles turning out of Wedderburn Loop Road is especially poor, and these vehicles are at risk of being hit by high-speed traffic on southbound US 101.

This area could be made safer by realigning some of the intersecting side streets and driveways so that they intersect the highway at right angles. The areas would also benefit from stricter access management, which could be accomplished with relocated and/or shared access points.

The existing configuration at the north end of the bridge consists of a four-legged intersection with right-turn channelization on all four approaches. The east and west islands created by the right turn channels are large, raised and landscaped, to some extent. The north and south islands are much smaller, and are delineated by paint. Improvement options for this intersection are limited, due to the steep topography in the vicinity: there is a large rock outcropping along the north side of the intersection, and the ground slopes down toward the river just south of the intersection. The existing configuration is shown in Figure 6-2.

Improvement Options: Two improvement options were initially evaluated at this location. Both options employ access management techniques to eliminate some of the allowable turning movements at this intersection.

Option 1 consists of closing the east access point to US 101 from Wedderburn Loop Road, resulting in Wedderburn Loop Road becoming a cul-de-sac. This option would eliminate the most dangerous turns at this intersection: turns in to and out of Wedderburn Loop Road. This option is also in line with access management objectives for state highways. Full access would still be provided to N. Bank Rogue River Road, although the painted island used to channel right turns from N. Bank Rogue River Road should be constructed as a raised, landscaped island to better define the travel lanes. This configuration is shown in Figure 6-2. The disadvantages of this option are that it would undoubtedly be met with opposition from tourist-oriented businesses along the east end of Wedderburn Loop Road, which benefit from proximity to the highway, and it is somewhat contrary to the idea of promoting a well-connected street system by constructing a new cul-de-sac.

Option 2 consists of using raised, landscaped islands to eliminate the through and left turn movements from both Wedderburn Loop Road and N. Bank Rogue River Road. This option is also in line with access management objectives for state highways. This configuration is shown in Figure 6-3. There are several significant disadvantages to this option: it does not improve safety for the eastbound right turn from Wedderburn Loop Road to southbound US 101; tourist-oriented businesses along Wedderburn Loop Road would be opposed to the fact that traffic from downtown Gold Beach would not be able to turn left on to the east end of Wedderburn Loop Road, and westbound traffic on N. Bank Rogue River Road would not be able to turn left on US 101 to go toward downtown Gold Beach. Traffic from N. Bank Rogue River Road would be forced to turn right (north) on US 101 and turn around, perhaps at the west end of Wedderburn Loop Road, resulting in significant out-of-direction travel.

These improvement options were discussed by the Transportation Advisory Committee (TAC) during the public involvement process. Both improvement options were considered to be politically and practically infeasible because they prohibited some of the turning movements to and from Downtown Gold Beach to Wedderburn Loop Road and N. Bank Rogue River Road and made tourist-oriented businesses on Wedderburn Loop Road difficult to access. Instead, the TAC recommended an Option 3 which consists of eliminating the right-turn channel on the eastbound approach of Wedderburn Loop Road, so that right-turning traffic stops at the same stop line as through and left-turning traffic. This will improve sight distance to the north. This configuration is shown in Figure 6-3. In addition, the TAC recommended several other low-cost improvements to address safety in the vicinity of the bridge:

- Request that ODOT cut back the existing brush (blackberry bushes) on the west side of the highway, and replace them with a low-growing plant, to improve sight distance to the north and west of the bridge.
- Provide better signs for the northbound traffic on the bridge, indicating the direction to US 101 and North Bank Rogue River Road.

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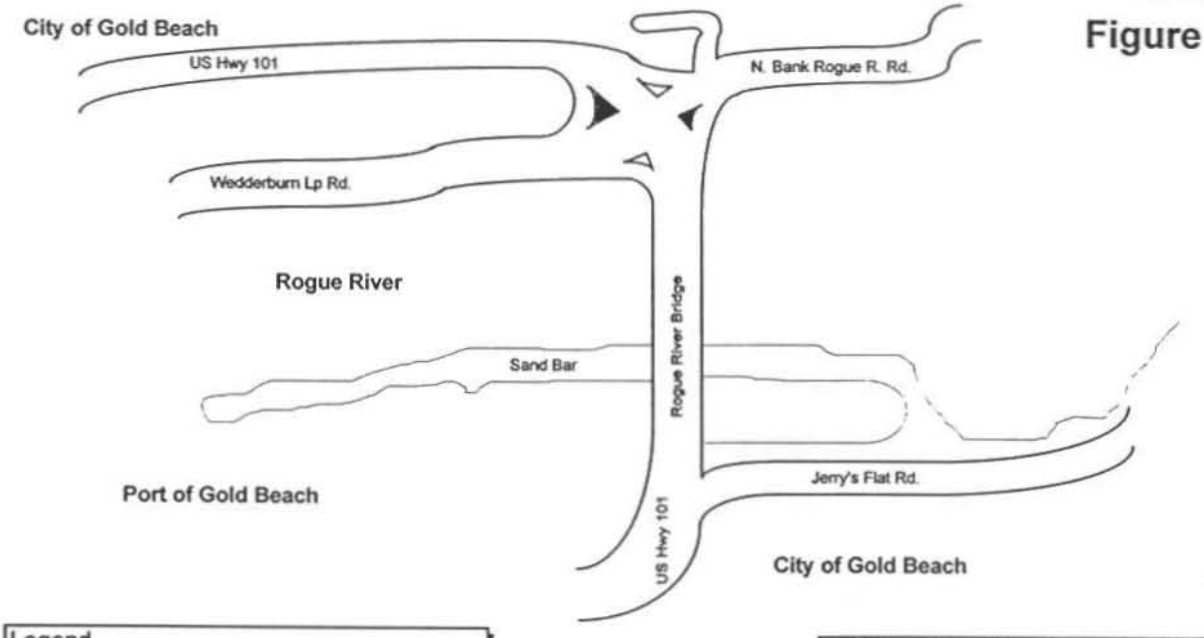
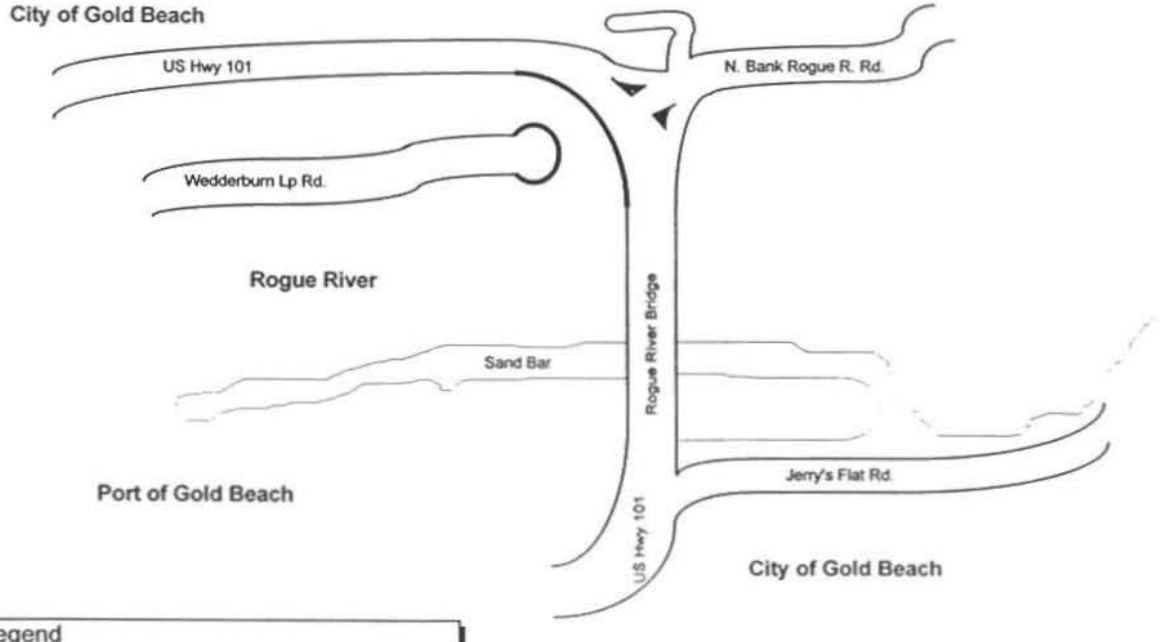
not to scale

Figure 6-2



Legend
- Raised Median
- Painted Median

Existing Condition Configuration



Legend
- Existing Roadway
- Proposed Roadway
- Raised Median

Option 1
Close Access from Wedderburn Loop Road

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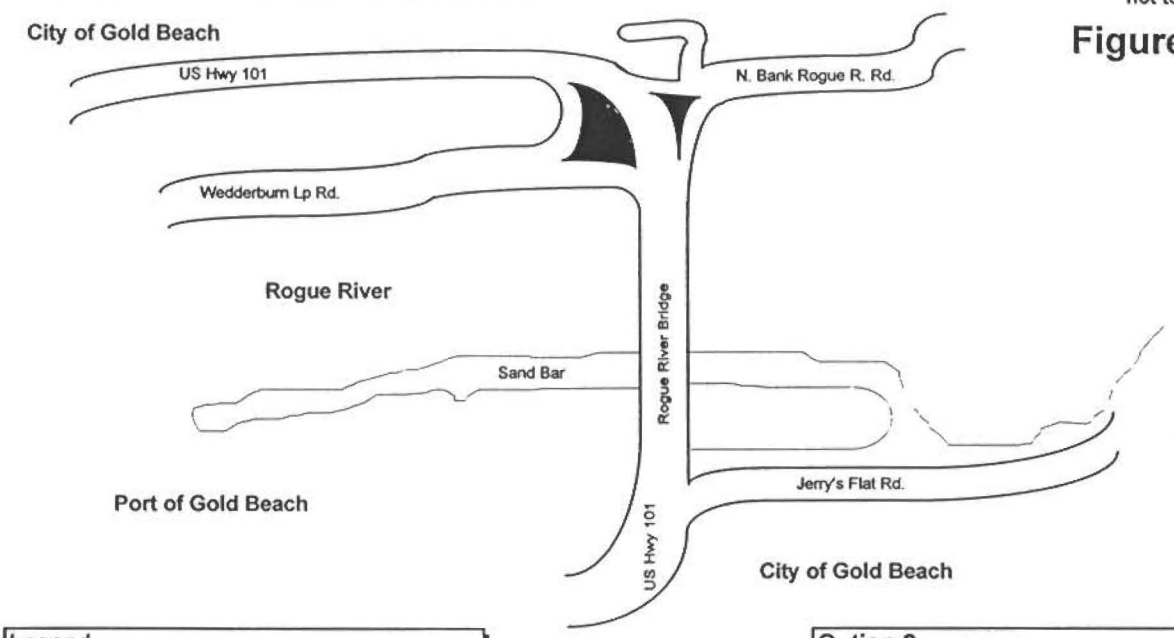
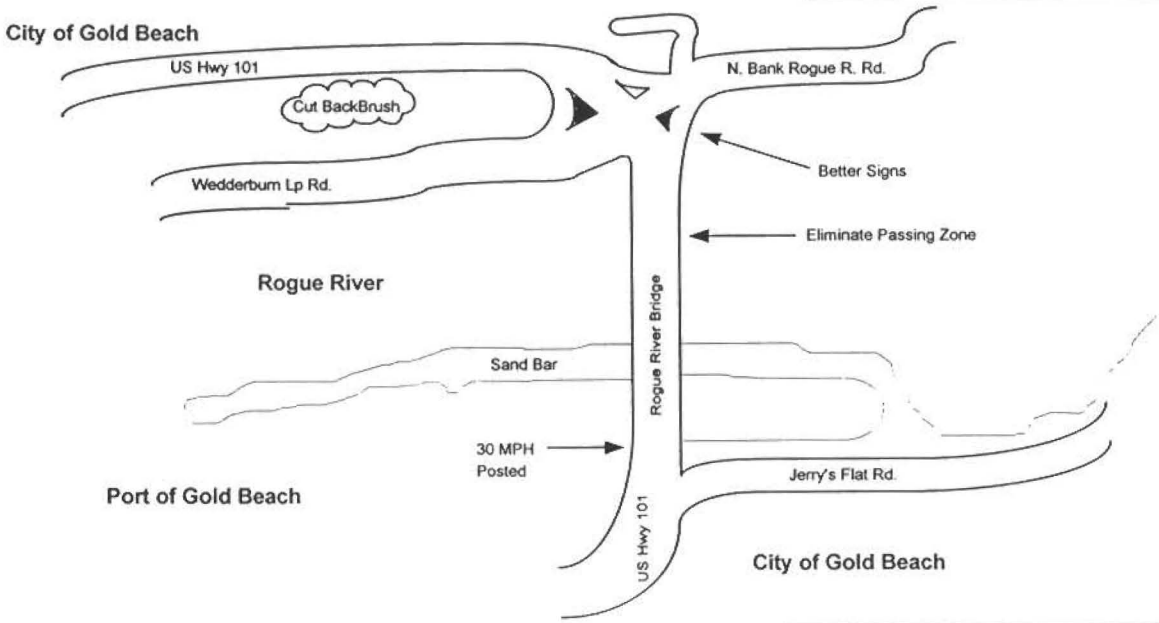
not to scale

Figure 6-3



Legend
Proposed Raised Median

Option 2
Eliminate Through and Left-Turn Movements from Wedderburn Loop Rd. and N. Bank Rogue River Rd.



Legend
Raised Median
Painted Median

Option 3
Eliminate the right turn channel on the east bound approach.

- Change the speed limit on southbound US 101, north of the bridge. Where the speed limit currently is signed 45 mph, it should be changed to 35 mph. Upstream of that point, the speed limit should be lowered from 55 mph to 45 mph where the highway begins to curve to the east.
- Passing zones on the bridge should be eliminated. In addition, the passing zone on US 101 near the north end of Wedderburn Loop Road should end 300 feet north of the intersection. Currently, vehicles passing on this section of road pose a safety problem for vehicles merging from the right.
- Sections of the bridge are currently posted with 45 mph and 30 mph speed limit signs. Speed limits should be consistently posted at 30 mph.

Impacts: Option 3 will not cause negative impacts to traffic such as increases in volumes or delays at intersections. Instead, this improvement option will increase safety by lowering speeds on the bridge and its approaches, prohibiting passing on the bridge and its approaches, providing better directional signs, and improving sight distance for vehicles turning right from Wedderburn Loop Road.

Cost Estimate: Any one of the three options described above can be constructed for under $15,000. This assumes that ten new road signs at a cost of $200 each are installed, 2,000 linear feet of highway are restriped at $0.50 per linear foot, $12,000 of concrete and asphalt work is required to remove the right turn channel on Wedderburn Loop Road and make the necessary improvements to the westbound approach.

Recommendation: Option 3 was recommended by the Transportation Advisory Committee.

Option 3. Improved East-West Connection between the South Coast and I-5

Overview: An east-west arterial highway from US 101 to I-5 in the county is needed to reduce the relative isolation of the area from the rest of the state. This was identified as a policy in the Curry County Comprehensive Plan and as a goal in the Oregon Coast Highway Corridor Master Plan.

ODOT prepared a study in 1974 for an improved east-west corridor between US 101 and I-5. ODOT studied 14 different alignments and identified one alignment, the Shasta Costa corridor, as the preferred alignment. The study determined that the cost of such a project (estimated at $41 to $95 million in 1974 dollars) would far outweigh any economic benefits to the area.

The existing road, which connects US 101 in Gold Beach to I-5 just north of Grants Pass, consists of a paved county road from the junction with Highway 101 to Lobster Creek Campground, approximately 10 miles. At that point, the paved road continues up river as Forest Service Road 33, approximately 19 miles to the junction with Forest Service Road 23. Road 23 is a single lane, paved road for approximately 22.5 miles before entering Bureau of Land Management (BLM) lands. The road continues as an extra-wide paved road for approximately 12.5 miles to Galice and County Road 2400. From there it is approximately 15 miles to I-5. The length is over 70 miles. Improving this road would require the cooperation of at least four jurisdictions: Curry County, US Forest Service and the BLM. The state of Oregon would probably be involved as well.

None of these jurisdictions has the ability to fund a major improvement to this road (improve the road to state highway standards). Congress has cut the Forest Service's operating and maintenance budget every year since 1990 and the Forest Service, which itself is not a road department, has been constructing a few new roads on Forest Service land. At the State level, the governor recently issued a moratorium on all new state highway projects, except for preservation projects on the existing state highway system. The cost to improve this road is far in excess of the County Road Department's budget.

A second alternative was identified that consisted of traveling one-way utilizing Forest Service Road 23, Bear Camp and traveling the opposite direction utilizing Forest Service Road 2308, Snout Creek. Both roads are single lane with turnouts and could stay that way, however one is currently paved and the other is aggregate surfaced. This alternative was not considered viable due to factors including current usage, which includes

recreation, commercial, administrative and general public travel and the need to pave and maintain an additional 20 mils of road (Road 2308).

Cost Estimate: No updated cost estimate was prepared for this improvement option. Although there is really no way to base a current cost estimate on the 1974 estimate of $41 to $95 million, to construct this project today would likely cost 5 to 10 times the estimate prepared in 1974.

Recommendation: The Transportation Advisory Committee (TAC) agreed that constructing a paved two-lane highway in the corridor is still infeasible in the 20-year planning period. The TAC recommended that the existing road remain as is but that the road should stay open year-round for emergency access.

Gold Beach 2010, the organization which addresses planning and economic issues in Gold Beach, circulated a petition which has been signed by 60 Gold Beach residents supporting a plan to keep the existing road open all year. A copy of the petition is included in Appendix D.

Maintenance of this road should be a cooperative effort among Curry County, Josephine County, ODOT, BLM, and the US Forest Service. Oregon Revised Statute (ORS) Chapter 197 provides for State Agency Coordination Agreements whereby state agencies agree to work within the confines of local jurisdictions' Comprehensive Land Use Plans. The program is administered by the Oregon Department of Land Conservation and Development (DLCD). To begin the process, these four jurisdictions should enter into an intergovernmental agreement to work together on maintenance projects. Such an intergovernmental agreement for flexible maintenance services has been drafted by David Evans and Associates, Inc., and is included in Appendix E.

Another option that can be pursued is designation of this road as a Forest Highway. Forest Highways are part of a network of Forest Service Roads serving the Forest System and are designated by the Forest Service in cooperation with the State Highway Department. When a road is designated as a Forest Highway, the Federal Highway Authority agrees to reconstruct the road to any public authority's road standards, provided that public authority assumes jurisdiction of the road after the reconstruction and maintains it. Within this criteria, the Forest Service is not considered a "public authority." A Forest Highway must be under the jurisdiction of and maintained by the State, County, or City.

In order to be designated as a Forest Highway, a Forest Service Road must meet all of the following criteria:

1. Under the jurisdiction of and maintained by a public authority, and open to public travel.
2. Connect the National Forest System to towns, communities, shipping points, or markets that depend upon the renewable resources of the National Forest System.
3. Provide access from an adequate and safe public road to the renewable resources of the National Forest System essential to the local, regional, or national economy.

In addition, Forest Highways shall meet one of the following criteria:

1. Serve other local needs, such as school bus service, mail delivery, commercial supply, access to private enclaves within the National Forest System, and other similar activities.
2. Preponderance of traffic served is traffic generated by use of the National Forest System and its resources.

Finally, the City of Gold Beach along with Curry County, could make a formal request to ODOT to conduct a new study on the feasibility of an improved east-west connection as the issues has not been addressed on a state level in nearly 25 years.

Option 4. Develop an Alternative Route to US 101 for when the Highway is closed

Overview: The need for an alternative north-south route to US 101 was identified because mud and rock slides on US 101 have closed the highway recently (at Humbug Mountain, Arizona Beach, and Hooskanaden), at times isolating the Cities of Port Orford, Gold Beach and Brookings from the rest of the county.

Several State, County and Forest Service roads, including Elk River Road, Euchre Creek Road, Meyers Creek Road, Pistol River Loop Road and Carpenterville Road were identified as possible alternatives.

Elk River Road — Elk River Road begins at US 101 approximately 3 miles north of Port Orford as a 2-lane, paved County Road for 7 miles to the Elk River Fish Hatchery and the National Forest Boundary. From there, the road becomes a Forest Service Road, maintained at Maintenance Level 4 (moderate speed, moderate degree of user comfort) to milepost 11.3. Elk River Road and Euchre Creek Road, connected by Forest Service Road 5502, provide an alternative route to US 101, bypassing Humbug Mountain State Park and Arizona Beach. The paved section of the road is approximately 24 feet wide and can accommodate trucks.

Euchre Creek Road — Euchre Creek Road begins at US 101 approximately 10 miles north of Gold Beach as a 2-lane, paved County/Forest Service Road, maintained at Maintenance Level 4 for the first two miles. From there, the road is maintained at Maintenance Level 3 (low speed, single lane) approximately 12 miles to Forest Service Road 5502. Euchre Creek Road and Elk River Road, connected by Forest Service Road 5502, provide an alternative route to US 101, bypassing Humbug Mountain State Park and Arizona Beach. The paved section of the road is approximately 20 to 22 feet wide.

Meyers Creek Road — Meyers Creek Road is a 2-lane, paved loop road that was part of the Old Coast Highway. The road is approximately 3 miles long and it parallels US 101. Both ends of this road tie in to US 101 in the vicinity of Cape Sebastion State Park

Pistol River Loop Road — Pistol River Loop Road is a 2-lane, paved road that parallels US 101. The road begins at the bridge over the Pistol River, extends approximately 2 miles north and connects with US 101. South of the bridge over the Pistol River, Pistol River Loop Road connects with Carpenterville Road. Pistol River Loop Road and Carpenterville Road provide a parallel, alternative route to US 101, bypassing the Hooskanaden slide area.

Carpenterville Road — Carpenterville Road is a 2-lane, paved road that was part of the Old Coast Highway. The road is still under state jurisdiction, although it is considered a frontage road to US 101, and not a separate state highway unto itself. The road is approximately 24 miles long and it parallels US 101. At the south end, Carpenterville Road connects with US 101 just north of the City of Brookings. At the north end, it connects with Pistol River Loop Road at the bridge over the Pistol River. Carpenterville Road and Pistol River Loop Road provide a parallel, alternative route to US 101, bypassing the Hooskanaden slide area.

There are several other 2-lane, paved County Roads which parallel US 101 and can be used as alternative routes to the highway: Ophir Road, North Bank Rogue River Road and Edson Creek Road, and North Bank Rogue River Road and Squaw Valley Road. These roads are shown on Figure 6-4. Ophir Road lies adjacent to, and parallel to, US 101 from Ophir to Nesika Road and Geisel Monument State Park, 5 miles to the south. In all likelihood, a slide that closed US 101 in this area would also close Ophir Road; however, Ophir Road could be used as a detour during minor construction on the highway. North Bank Rogue River Road and Edson Creek Road provide a viable alternative to a 5-mile section of US 101 just north of Gold Beach. North Bank Rogue River Road and Squaw Valley Road could be used to bypass a 10-mile segment of US 101 just north of Gold Beach. These roads do not need improvements to be used as alternatives to the highway.

Impacts: When US 101 is closed due to a mud or rock slide, travel restrictions result in economic impacts to the Cities of Port Orford, Gold Beach and Brookings, as well as the County itself. When the highway is closed, and trucks are prohibited from using the parallel, alternative routes, agricultural products grown in Curry County are delayed in reaching their market destinations. At the same time, other goods from outside the county are delayed

LEGEND

ALTERNATIVE ROUTES TO US 101

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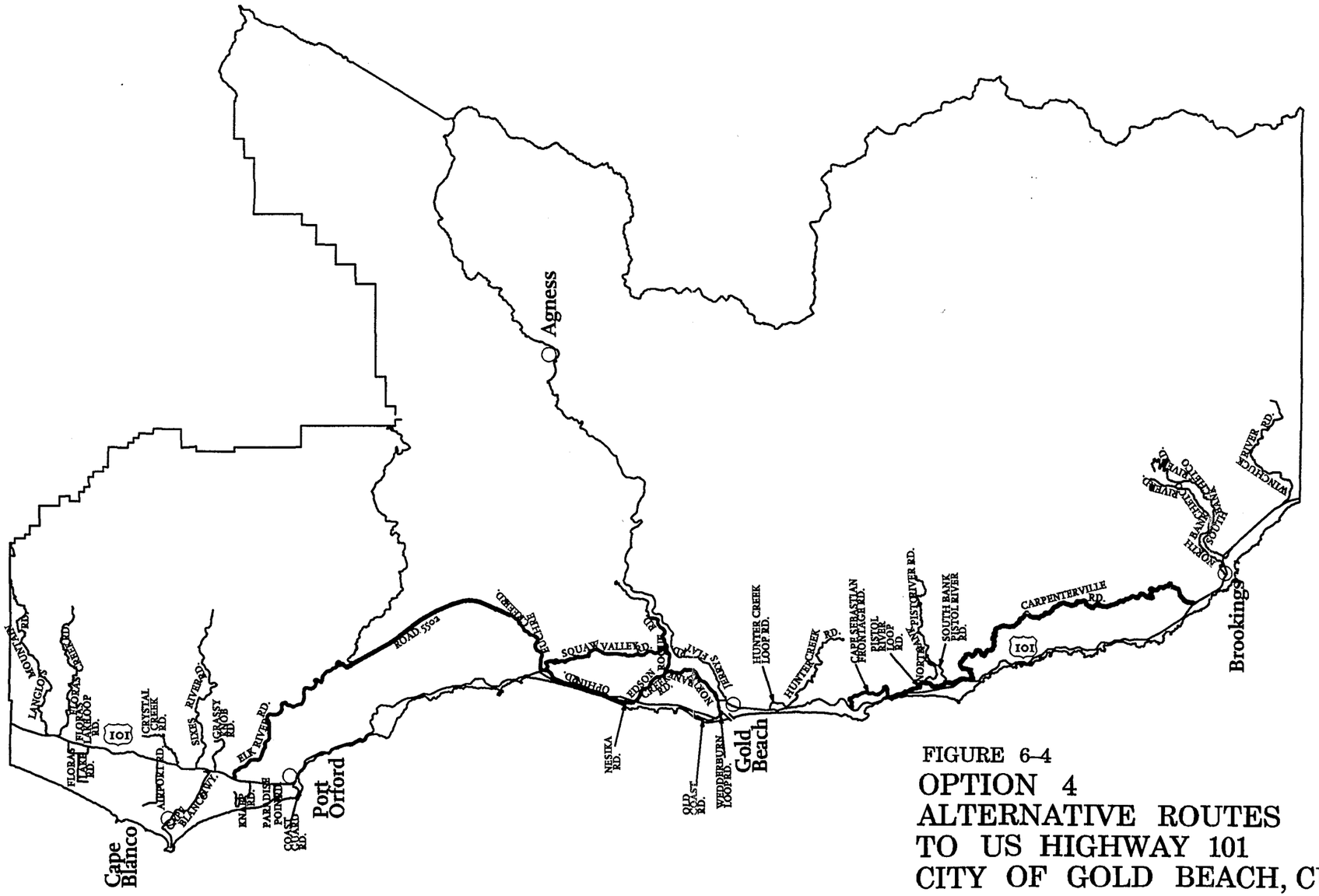

FIGURE 6-4
OPTION 4
ALTERNATIVE ROUTES
TO US HIGHWAY 101
CITY OF GOLD BEACH, CURRY COUNTY

in reaching the local consumers. In addition, there is also an impact to passenger car trips. Some trips, such as work trips, will be made on long, circuitous routes, sometimes on one-lane, poorly maintained roads. Travel on such roads increases travel time, fuel consumption and the possibility of having an accident. Many leisure trips may not be made at all, thus impacting businesses that rely on tourist dollars.

A system of good, parallel, alternative routes to US 101 would address the impacts realized when the highway is closed. Developing this system comes at a cost. Some of the roads identified as possible alternatives to the highway require substantial capital improvements such as widening and paving to make them viable, safe alternatives. Others may require only a higher level of maintenance such as grading and snow removal, but this too comes at a cost. The following paragraphs describe the improvements needed on the roads that were identified as possible alternatives.

Elk River Road and Euchre Creek Road — Elk River Road, in combination with Euchre Creek Road and Forest Service Road 5502 provide an alternative route to US 101, bypassing Humbug Mountain State Park and Arizona Beach. Approximately 18 miles of this route (6 miles on Road 5502 and 12 miles on Euchre Creek Road) are maintained at Forest Service Maintenance Level 3. Roads in this maintenance level are typically low speed, single lane with turnouts and spot surfacing. User comfort and convenience are not considered priorities. Traffic management strategies are either "encourage" or "accept." "Discourage" or "prohibit" strategies may be employed for certain classes of vehicles or users. To make this route a viable alternative to US 101 during emergencies, it is recommended that these roads be maintained at Maintenance Level 4. At Level 4, most roads are double lane and aggregate surfaced. Some roads may be paved and/or dust abated. The most appropriate traffic management strategy is "encourage."

Changing a Forest Service Road's Maintenance Level requires road reconstruction. Road reconstruction consists of the investment in construction activities that result in the betterment (raised traffic service level, safety, or operating efficiency), restoration (rebuilding a road to its approved traffic service level), or in the realignment (new location of an existing road or portions thereof) of a road. The process begins with the reviewing of the Road Management Objectives that define the intended purpose of an individual road based on design, operation and maintenance criteria.

It was estimated that a one-time capital cost of $100,000 per mile would be required to bring these roads from Maintenance Level 3 to Level 4. To improve 18 miles of Euchre Creek Road and Road 5502 would cost $1.8 million. After that, annual maintenance costs would increase as well. Average annual maintenance costs in western Curry County are $400 per mile for Level 3 roads and $1,000 per mile for Level 4 roads. The difference between these two, $600 per mile, represents the increase in maintenance costs that would be realized each year. The average annual cost to maintain an additional 18 miles of Forest Service roads at the higher maintenance level would be $10,800.

Meyers Creek Road — Meyers Creek Road was identified as a viable, parallel alternative route to US 101, although it does not bypass a known slide area on the highway. Nonetheless, this road does not need improvements to be used as an alternative to the highway and could be used as a detour during minor construction on the parallel 3-mile section of US 101.

Pistol River Loop Road — Pistol River Loop Road was also identified as a viable, parallel alternative route to US 101, although it does not bypass a known slide area on the highway. Nonetheless, this road does not need improvements to be used as an alternative to the highway and could be used as a detour during minor construction on the parallel 4-mile section of US 101.

Carpenterville Road — According to the local community, mud and rockslides at Hooskanaden close US 101 for 2 to 3 weeks approximately every 15 to 20 years. The last time a slide occurred here, Carpenterville Road remained open as a way to bypass the slide area for passenger car traffic; however, trucks were prohibited from using the road. Normally trucks are not prohibited from using Carpenterville Road, but because US 101 provides a much

faster and safer route for trucks, through trucks do not use the road. When US 101 is open, only the occasional logging truck accessing adjacent forest land uses Carpenterville Road. The pavement width is only about 20 feet, and the road has some very tight, narrow curves. The substandard road conditions do not pose a problem under normal conditions, when the road only serves local land access; however, a significant safety problem arises when the road is used as a detour for US 101. With the additional passenger car traffic during the highway closure, the road was deemed unsafe for truck traffic, and trucks were prohibited from using the road.

The truck restriction on Carpenterville Road caused an undue economic hardship on the City of Brookings. A local lumber company was under contract to deliver wood products to a ship in Coos Bay. On US 101, the trip between Brookings and Coos Bay is approximately 100 miles. When US 101 was closed by the Hooskanaden slide, and trucks were prohibited from Carpenterville Road, the only alternative for the lumber trucks was to divert south on US 101 to California, travel north back into Oregon on US 199 to Grants Pass, travel north on I-5 to Roseburg, and travel west on OR 42 to reach US 101 south of Coos Bay, a 250-mile detour.

During the public involvement process, community members identified the need to keep Carpenterville Road open to truck traffic when US 101 is closed. The cost to improve the road to a level where it could safely be used by two-way traffic is quite high. It was assumed that the road would have to be widened from its current 20-foot width to 32 feet, to accommodate two 12-foot travel lanes and 4-foot paved shoulders. The cost to make this improvement was estimated at $500,000 per mile for the 8 miles at the south end and the 8 miles at the north end, and at $1 million per mile for the middle 8 miles, resulting in a total project cost of $16 million. This cost would be borne by the State (ODOT).

An option to a major widening project would be to keep the road in its existing condition, and simply restrict truck use to certain hours of the day during an emergency. For example, the road use could be dedicated to northbound trucks for one hour in the morning and one hour in the evening, followed by one hour dedicated to southbound trucks in the morning and one hour in the evening. During the other 20 hours of the day the road would remain open for two-way passenger car traffic. This option would have no capital costs; the only costs incurred would be those resulting from vehicular enforcement at the north and south ends of the road.

Recommendation: It is recommended that Elk River Road, along with Euchre Creek Road and Forest Service Road 5502 be developed as a parallel, alternative route to US 101 for emergencies. This can be accomplished by raising the maintenance level from Level 3 to Level 4. The cost for this project is estimated at $1.8 million, with annually occurring maintenance costs of $10,800. This was identified by the community as a high-priority project.

Deferred maintenance, which is maintenance activities that can be delayed without critical loss of facility serviceability until such time as the work can economically or efficiently performed, also needs to be recognized. Deferred maintenance cost for Level 3 roads are $5,4000 per mile and Level 4 roads are $35,300 per mile. Deferred maintenance work items could include seal coats, surface replacement, bridge painting and culvert replacement.

All of the per mile rates are average rates for typical roads. The Euchre Creek Road is not a typical road in that it normally experiences damage during the winter months ranging from slides onto the roadway to slumping roadway and total road failures. The Forest Service could easily plan to spend, on average, and additional $25,66 per year. Some year such as 1996 and 1998, repair costs (not maintenance) will exceed $300,000.

There are two private landowners, South Coast Lumber Company and John Hancock Company, who are cooperators with the Forest Service in maintaining most of Euchre Creek Road. They would need to be in agreement with any changes to that road.

Something that has not been factored in is traffic volume. Forest Service Roads are not designed nor constructed for heavy traffic volume. The highest maintenance level road is a Level 5. It is a double lane paved road with average daily traffic for the past 6 years of only 225 vehicles. A sudden experience in heavy

commercial use when US 101 went out at the Arizona slide. The pavements and aggregate rapidly began to deteriorate. The maintenance costs given are for typical Forest Service Roads that have been designed and constructed for low traffic volume and reduced speeds. The average daily traffic during emergency use has not been determined at this time.

It is recommended that Carpenterville Road be kept in its existing condition, rather pursue an expensive widening project (estimated to cost $16 million). During emergency situations, where sections of US 101 that can be bypassed by Carpenterville Road are closed, trucks should not be unconditionally prohibited from using the road. Instead, trucks should be restricted to certain hours of the day during an emergency. This recommendation would have no capital costs; the only costs incurred would be those resulting from vehicular enforcement at the north and south ends of the road.

Meyers Creek Road, Pistol River Loop Road, Ophir Road, North Bank Rogue River Road and Edson Creek Road, and North Bank Rogue River Road and Squaw Valley Road can all be used as alternates to US 101 without any physical improvements. These roads are all identified as such in this Plan.

Option 5. Implement Transportation Demand Management Strategies

Overview: Transportation demand management (TDM) strategies change the demand on the transportation system by providing facilities for modes of transportation other than single occupant passenger vehicles, such as implementing carpooling programs, altering work shift schedules, and applying other transportation measures within the community. The State Transportation Planning Rule recommends that cities should evaluate TDM measures as part of their Transportation System Plans.

TDM strategies are most effective in large, urban cities; however, some strategies can still be useful in small cities such as Gold Beach. For example, staggering work shift schedules at local businesses may not be appropriate in Gold Beach since there are no large employers in the area; however, provisions for alternative modes of transportation, such as sidewalks and bike lanes, and implementing a county-wide carpooling program can be beneficial for residents of the city. In rural communities, TDM strategies include providing mobility options.

Impacts: Although the primary goal of these measures is to reduce the number of vehicle trips made within the city, especially during peak periods, street capacity for automobiles and trucks is generally not an issue in Gold Beach. However, improvements to connect sidewalks that are currently disconnected or the provision of new pedestrian and bicycle facilities increases the livability of a city, and improves traffic and pedestrian safety. With more emphasis on walking or biking in the city, conditions such as air quality and noise levels would be improved as well.

Cost Estimate: Unit costs for typical TDM projects are as follows:

- *Concrete Sidewalks* — The estimated cost to install new sidewalks on one side of an existing street is approximately $30 per linear foot. This assumes a six-foot wide walkway is composed of 4 inches of concrete over 2 inches of aggregate.
- *Multi-use Paths* — A multi-use path 10 feet wide would cost approximately $16 per linear foot. This assumes the path is constructed of 2 inches of asphalt over 4 inches of aggregate.
- *Paved Shoulders* — Shoulders that are 4 feet wide constructed along both sides of a road would cost approximately $25 per linear foot. This is based on 4 inches of asphalt over 9 inches of aggregate.
- *Bike Lanes* — The cost to install bike lanes on both sides of an existing road is approximately $45 per linear foot. This cost includes widening the roadway by 5 feet on both sides, installing curbs, 4 inches of asphalt over 9 inches of aggregate, and placement of an 8-inch painted stripe.

- *Striping* — The cost to strip a typical crosswalk is $3 per linear foot; the cost to paint an 8-inch stripe for a bike lane is approximately $0.70 per linear foot.
- *Rideshare program* — A rideshare program could be operated for a cost of approximately $20,000 per year. For comparison purposes, a rideshare program located in Central Oregon, covering a larger geographic area and serving a larger population, has an annual operating budget of approximately $50,000. ODOT participates in this program by providing approximately 60% of the funding.

Recommendation: Gold Beach can implement TDM strategies by requiring all future street improvement projects to include the addition of some sort of pedestrian facility, such as new sidewalks or walkways, which will effectively separate pedestrians from motorized traffic. Connecting sidewalks that are not currently connected on some streets can increase the effectiveness of the pedestrian facilities.

Implementing a local carpool program in Gold Beach alone is not necessary because of Gold Beach's geographical size; however, a county-wide carpool program is possible. Residents who live in Gold Beach and residents who live in other cities and rural areas should be encouraged to carpool with a fellow coworker or someone who works in the same area. Carpooling can take advantage of excess parking at larger retail areas, or parking unused during the week, such as at churches. Costs are typically limited to those needed for a part-time to full-time program administrator to provide public education, advertising, and coordinate park and ride lots and signs.

Option 6. Improve Lighting on the Rogue River Bridge

Overview: This option originated from Gold Beach 2010. This project and eight others for the Gold Beach area were presented and voted upon by the general public. This option is one of the top three projects chosen to go forward. This project consists of a cable fiber optic system along US 101 bridge across Rogue River. The fiber optic cables where chosen because they could handle the adverse weather impacts and they are waterproof and safe. The bridge is 1,932 feet long, and the proposed lighting system would include 40 light units and 10,000 feet of fiber optic cables. The lighting system would cover the top rail where vehicle travel occurs and the four block towers. There have been no improvements to the lighting system along the bridge in the past 30 years. The lighting system is expected to be implemented by the year 2002 or 2003. The implementation is dependent upon the completion of the zinc coating of the bridge. To date the preliminary engineering has been done, and the final engineering is left to be completed.

Cost Estimate: Preliminary costs estimates approached $200,000 to $250,000 to install. In addition to this cost there would be an annual maintenance cost of $5,000 a year and an annual budget of $2,000 in operation costs. Currently, the money is being raised through fund raisers, private donations, and grants.

Recommendation: This option is recommended and included in the bridge rehabilitation projects.

Option 7. Construct a Raised Oceanfront Boardwalk

Overview: Another project from Gold Beach 2010, is the construction of a raised oceanfront boardwalk. A total of nine projects were presented and voted upon during various public displays and this was one of the top three projects. This project consists of a raised wooden boardwalk elevated 6 to 8 feet off of the ground and would include amenities such as being handicap accessible, windscreens and picnic tables. The boardwalk would be 2,500 feet in length located west of the airport overlooking the Rogue River and the Pacific Ocean, with a parking lot at each end of the boardwalk. The boardwalk would improve access to the beach area as well as provide viewing areas for the public. Although a previous feasibility study was completed, changes have occurred since then and a new feasibility study is recommended.

Cost Estimate: No cost estimates have been completed at this time. Applications for funds to complete a new feasibility study have been granted by the U.S. Forest Service and the process is moving forward from there.

Recommendation: This project is recommended for inclusion in the pedestrian system plan.

Option 8. Construct an Oceanfront Bike and Pedestrian Path

Overview: This option originated from Gold Beach 2010. A total of nine projects were presented and voted upon during various public displays and this was one of the top three projects. This project identifies an oceanfront bike and pedestrian path to be constructed between Bridge Park, east of the airport to South Beach Park. The bike and pedestrian path would be located adjacent to a road in Gold Beach that is deteriorated and barely used. The project includes constructing a 10-foot wide bike and pedestrian path adjacent to the road. Currently, the existing roadway is in poor condition and serves very little traffic. The existing roadway is located between the airport and the Gold Beach fairgrounds. The path would continue after the fairgrounds to the South Gold Beach Park for a total of 2 miles from start to finish.

There is question as to who has jurisdiction over the roadway, so maintenance and improvements have been insufficient. The project proposed does not concern rehabilitation of the roadway but suggests that improvements be made at time of construction of the bike and pedestrian path. There are no buildings located along the roadway due to the proximity of the roadway to the airport.

The bike and pedestrian path would be barrier separated along the existing roadway. The project recommends the roadway remain one lane per direction with limited access and low speeds.

Impacts: The proposed bike and pedestrian path would require acquiring right-of-way through private land. The proposed path runs through four lots all owned and operated by hotels. Approximately 90% of the land will not be impacted and the landowners will not see adverse impacts on their land. This bike and pedestrian path could provide improved access to the beach for the guests. Currently, those traveling to the beach use US 101 and the path could provide an alternative route. The proposed project would also provide a reason to improve the existing roadway from the Port to the fairgrounds.

Cost Estimate: The cost to clear, prepare, and construct a 10-foot wide asphalt path is around $22 per linear foot. This assumes that the pathway is composed of three inches of asphalt and six inches of aggregate. The cost to pave this two-mile path would be approximately $232,000. This estimate does not include the cost to acquire right-of-way. A less costly option would be to not pave the path.

Recommendation: This project is recommended for inclusion in the pedestrian system plan.

SUMMARY

Table 6-1 summarizes the recommendations of the improvement options analysis based on the evaluation process described in this chapter. Chapter 7 discusses how these improvement options fit into the modal plans for the Gold Beach area.

Table 6-1
TRANSPORTATION IMPROVEMENT OPTIONS: RECOMMENDATION SUMMARY

Option	Recommendation
1. Revise Zoning And Development Codes	Implement
2. Improve Safety on Rogue River Bridge	Implement
3. Improved East-West Connection to I-5	Do not implement; maintain existing road
4. Develop an Alternative Route to US 101	Implement
5. Implement Transportation Demand Strategies	Implement as needed
6. Improve Lighting on the Rouge River Bridge	Implement
7. Construct a Raised Oceanfront Boardwalk	Implement
8. Construct Oceanfront Bike and Pedestrian Path	Implement

CHAPTER 7: TRANSPORTATION SYSTEM PLAN

The purpose of this chapter is to provide detailed operational plans for each of the transportation systems within the community. The Gold Beach Transportation System Plan covers all the transportation modes that exist and are interconnected throughout the urban area. Components of the transportation system plan include street classification standards, access management recommendations, transportation demand management measures, modal plans, and a system plan implementation program.

STREET DESIGN STANDARDS

Street standards relate the design of a roadway to its function. The function is determined by operational characteristics such as traffic volume, operating speed, safety, and capacity. Street standards are necessary to provide a community with roadways that are relatively safe, aesthetic, and easy to administer when new roadways are planned or constructed. They are based on experience, and policies and publications of the profession.

Existing Street Standards

Table 7-1 summarizes the existing standards and specifications for streets in the City of Gold Beach. The table includes the minimal requirements for right-of-way and pavement widths as well as minimum sidewalk widths. There are some variances to these ordinances as noted in the table.

TABLE 7-1
STANDARD MINIMUM ROADWAY REQUIREMENTS

Type of Street	Right-of-Way	Pavement Width	Sidewalk Width
Arterial	80 feet	44 feet	6 feet – both sides*
Collector	50 feet	36 feet	6 feet – both sides
Residential:			
Water and sewer service available	50 feet	32 feet	6 feet – both sides
Water and sewer service not available	50 feet	24 feet	6 feet – one side only
Hillside slope greater than 15%	50 feet	26 feet	6 feet – striped walk/bike lane
Cul-de-sac			
Water and sewer service available	50-foot radius	36-foot radius	
Water and sewer service not available	50-foot radius	30-foot radius	
Commercial/Industrial	60-80 feet	44 feet	6 feet – both sides
Alley	20 feet	20 feet	

Note: All streets except those in areas without water and sewer service shall have curbs and gutters.
*Sidewalks should be six feet where there is sufficient right-of-way.

There are no requirements for bicycle facilities within or along streets in the city, except where a walk/bike lane is identified for streets located in areas where no water or sewer service is provided. State law is clear on requirements for pedestrian and bicycle facilities. Oregon Revised Statute (ORS) 366.514 Use of the Highway Fund for Footpaths and Bicycle Trails requires the inclusion of bikeways and walkways whenever highways, roads, and streets are constructed, reconstructed or relocated, with three exemptions (where there is no need or probable use, where safety would be jeopardized, or where the cost is excessively disproportionate to the need or probable use). Oregon Administrative Rule (OAR) 660-12 – The Transportation Planning Rule – requires bike lanes along arterials and major collectors and requires sidewalks along arterials, collectors, and most local streets in urban areas, except that sidewalks are not required along controlled access roadways, such as freeways.

Recommended Street Standards

The development of the Gold Beach Transportation System Plan provides the city with an opportunity to review and revise street design standards to more closely fit with the functional street classification, and the goals and objectives of the Transportation System Plan. The recommended street standards are shown graphically in Figure 7-1 through Figure 7-5 and summarized in Table 7-2. Since the Gold Beach Transportation System Plan includes land within the UGB, urban street standards should be applied in these outlying areas as well. Although portions of the city, especially outside the city boundary, may presently have a rural appearance, these lands will ultimately be part of the urban area. Retrofitting rural streets to urban standards in the future is expensive and controversial; it is better to initially build them to an acceptable urban standard.

TABLE 7-2
RECOMMENDED STREET DESIGN STANDARDS

Type of Street	Right-of-Way	Pavement Width	Sidewalk Width
US 101:			
Section 1	80 feet	70 feet	5 feet – both sides*
Section 2	80 feet	56 feet	6 feet – both sides
Section 3	80 feet	64 feet	6 feet – both sides
Section 4	80 feet	48 feet	6 feet – both sides
Section 5	80 feet	34 feet	6 feet – both sides
Collector:			
Urban	50 feet	36 feet	6 feet – both sides
Rural	50 feet	24 feet	
Residential:			
Water and sewer service available	50 feet	32 feet	6 feet – both sides
Water and/or sewer service not available or hillside slope greater than 15%	50 feet	26 feet	6-ft. – striped walk/bike lane
Cul-de-sac			
Water and sewer service available	50-foot radius	36-foot radius	
Water and sewer service not available	50-foot radius	30-foot radius	
Commercial/Industrial	60 feet	40 feet	6 feet – both sides
Alley	20 feet	20 feet	

*Sidewalks should be minimum of six feet where there is sufficient right-of-way

A good, well-connected grid system of relatively short blocks can minimize excessive volumes of motor vehicles by providing a series of equally attractive or restrictive travel options. This street pattern is also beneficial to pedestrians and bicyclists.

Sidewalks must be included on all urban streets as an important component of the pedestrian system. When sidewalks are located directly adjacent to the curb, they can include such impediments as mailboxes, street light poles, and sign poles, which reduce the effective width of the sidewalk. Sidewalks buffered from the street by a planting strip eliminate obstructions in the walkway, provide a more pleasing design as well as a buffer from traffic, and make the sidewalk more useable by disabled persons. To maintain a safe and convenient walkway for at least two adults, a six-foot sidewalk should be used in residential areas.

Residential Streets

The design of a residential street affects its traffic operation, safety, and livability. The residential street should be designed to enhance the livability of the neighborhood as well as to accommodate less than 1,200 vehicles per day. Design speeds should be 15 to 25 mph. When traffic volumes exceed approximately 1,000 to 1,200 vehicles per day, the residents on that street will begin to notice the traffic as a noise and safety problem. To maintain

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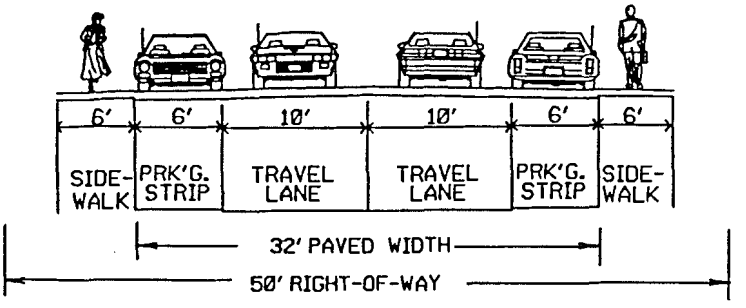
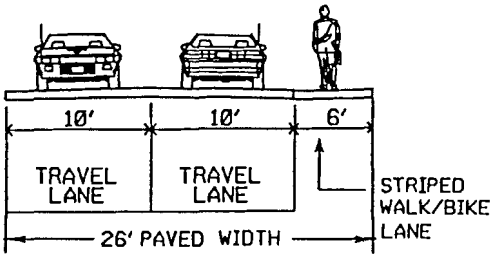


OPTION 1: RESIDENTIAL WITH WATER AND SEWER SERVICE AVAILABLE



OPTION 2: RESIDENTIAL WITH WATER AND/OR SEWER SERVICE NOT AVAILABLE OR HILLSIDE SLOPE GREATER THAN 15%

FIGURE 7-1

Recommended Street Standards
Gold Beach Residential Streets

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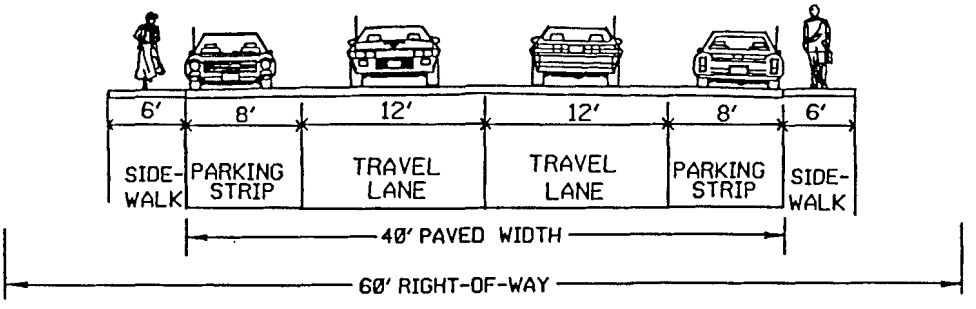
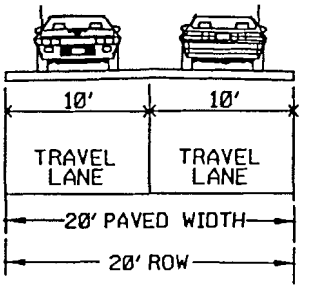


COMMERICAL / INDUSTRIAL STREETS

TWO TRAVEL LANES, WITH ON-STREET PARKING ON BOTH SIDES



ALLEYS

FIGURE 7-2

Recommended Street Standards
Gold Beach Commerical/Industrial Streets and Alleys

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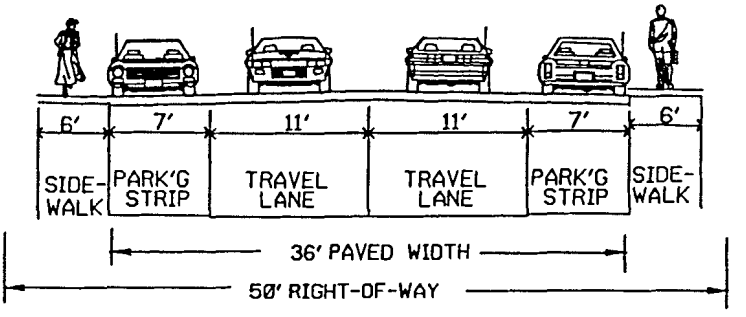
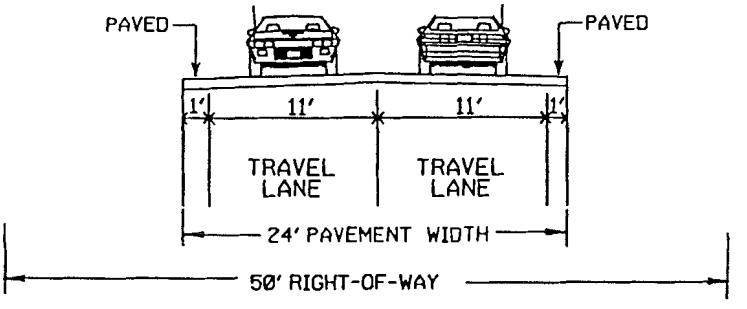


URBAN STANDARD: TWO TRAVEL LANES WITH PARKING ON BOTH SIDES



RURAL STANDARD: TWO TRAVEL LANES, NO BIKE LANES, NO SIDEWALKS

FIGURE 7–3

Recommended Street Standards
Gold Beach Collector Streets

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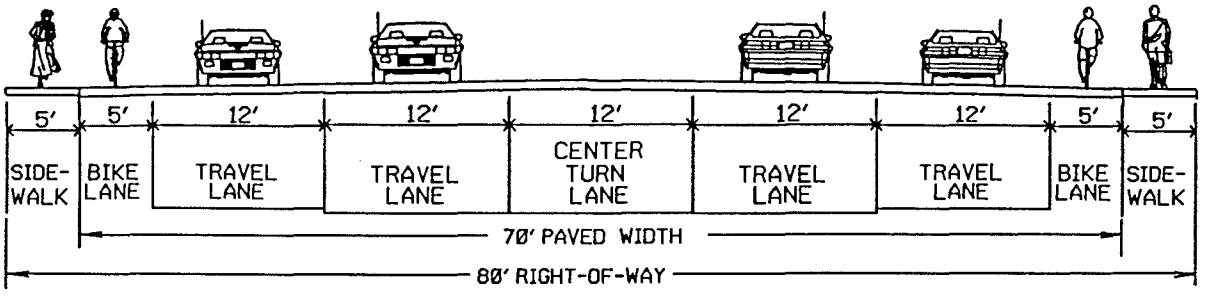
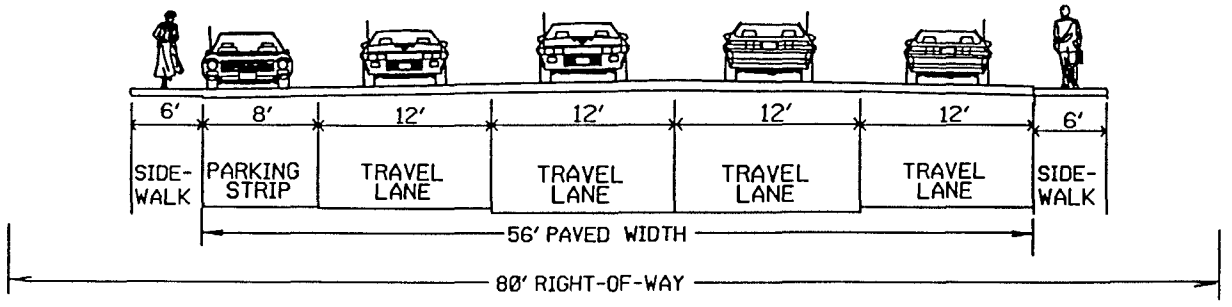


SECTION 1: FOUR TRAVEL LANES, CENTER TURN LANE, BIKE LANES ON BOTH SIDES
ROGUE RIVER BRIDGE TO MOORE STREET



SECTION 2: FOUR TRAVEL LANES, PARKING ON WEST SIDE, NO BIKE LANES
MOORE STREET TO CAUGHELL STREET

FIGURE 7–4

Recommended Street Standards

Highway 101 in Gold Beach

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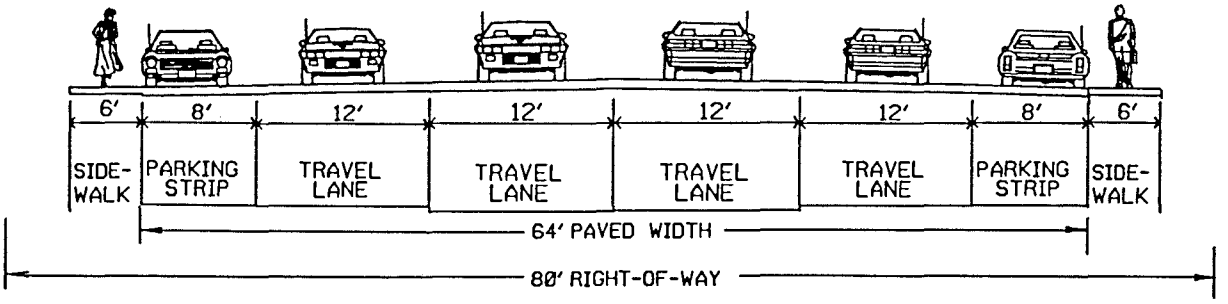
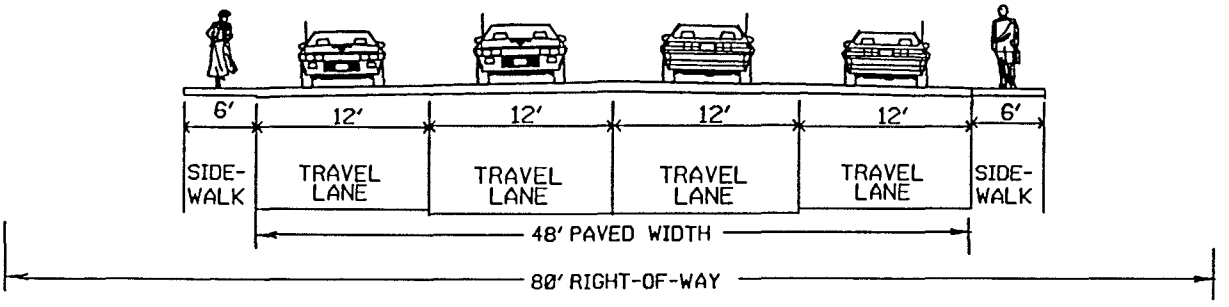
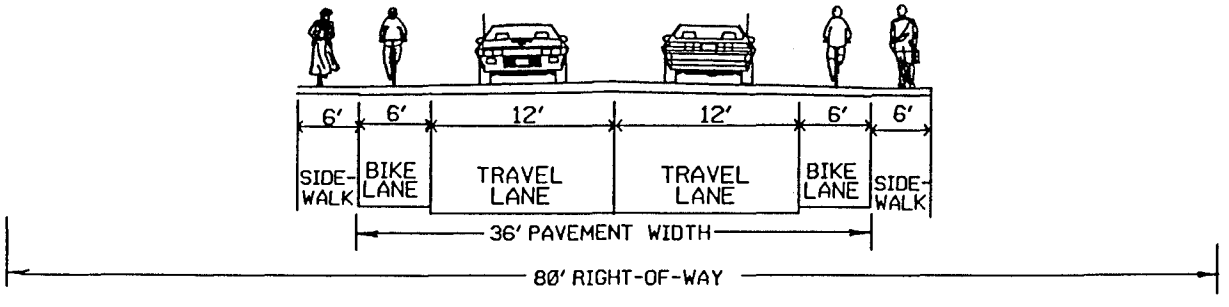
INC.



SECTION 3: FOUR TRAVEL LANES, PARKING ON BOTH SIDES, NO BIKE LANES
CAUGHELL STREET TO 4TH STREET AND 8TH STREET TO PACIFIC DRIVE



SECTION 4: FOUR TRAVEL LANES, NO ON-STREET PARKING, NO BIKE LANES
4TH STREET TO 8TH STREET



SECTION 5: TWO TRAVEL LANES WITH BIKE LANES ON BOTH SIDES
SOUTH OF PACIFIC DRIVE

FIGURE 7-5

Recommended Street Standards
Highway 101 in Gold Beach

neighborhoods, local residential streets should be designed to encourage low speed travel and to discourage through traffic.

Cul-de-sac, or "dead-end" residential streets are intended to serve only the adjacent land in residential neighborhoods. These streets should be short (less than 300 feet long) and serve a maximum of 20 single-family houses. Because the streets are short and the traffic volumes relatively low, the street width can be narrower than a standard residential street, allowing for the passage of two lanes of traffic when no vehicles are parked at the curb or one lane of traffic when vehicles are parked at the curb.

Because cul-de-sac streets limit street and neighborhood connectivity, they should only be used where topographical or other environmental constraints prevent street connections. Where cul-de-sacs must be used, pedestrian and bicycle connections to adjacent cul-de-sacs or through streets should be included.

Local residential streets have property access as their main priority; through traffic movement is not encouraged. The majority of streets in Gold Beach are local residential streets. Two standards for residential streets, which meet existing requirements, are described below. These cross sections are shown in Figure 7-1. It should be noted that although sidewalks are usually required on both sides of urban streets, an exception has been made for streets that do not have water and sewer service available, or have hillside slopes greater than 15%. It is assumed that this exception in existing requirements was made so that if water and sewer lines are installed on a street which currently lacks them, they would be located on the side of the street that does not have sidewalks, thus eliminating the need to demolish sidewalks when installing water and sewer lines. It is also assumed that streets with hillside slopes greater than 15% have little pedestrian traffic due to the difficulty of walking up and down such steep grades, and because lot sizes tend to be large in hilly areas, walking distances are also longer than in other parts of the city.

Standard for Residential Streets with Water and Sewer Service Available

This standard consists of two 10-foot travel lanes and 6-foot parking strips on both sides of the roadway. The resulting paved width is 32 feet. This standard also includes 6-foot sidewalks, adjacent to the curbs. This option fits within the City's required 32-foot pavement width and 50-foot right-of-way width for residential streets with water and sewer service available.

Standard for Residential Streets with Water and Sewer Service Not Available or Hillside Slopes Greater Than 15%

This standard consists of two 10-foot travel lanes and a paved 6-foot striped walk/bike lane on the roadway. The resulting paved width is 26 feet. This option fits within the City's required 50-foot right-of-way width for residential streets with no water or sewer service.

Alleys

Alleys can be a useful way to diminish street width by providing rear access and parking to residential areas. Including alleys in a subdivision design allows homes to be placed closer to the street and eliminates the need for garages to be the dominant architectural feature. This pattern, once common, has been recently revived as a way to build better neighborhoods. In addition, alleys can be useful in commercial and industrial areas, allowing access by delivery trucks that is off of the main streets. Alleys should be encouraged in the urban area of Gold Beach. Alleys should be 20 feet wide, within a 20-foot right-of-way. (See Figure 7-2.)

Alleys

The recommended standard for alleys includes two 10-foot paved travel lanes within a 20-foot right-of-way. This is no different than the existing standard for alleys.

Commercial/Industrial Streets

Commercial/Industrial streets serve short trips, provide access to each adjacent parcel and serve high volumes of truck traffic.

This cross section is shown in Figure 7-2.

Standard for Commercial/Industrial Streets

This option consists of one 12-foot travel lane in each direction, with an 8-foot parking strip and 6-foot sidewalks on both sides of the street. The resulting pavement width is 40 feet, and the roadway cross section fits within the required 60-foot right-of-way.

Collector Streets

Collectors are intended to carry between 1,200 and 10,000 vehicles per day, including limited through traffic, at a design speed of 25 to 35 mph. A collector can serve residential, commercial, industrial, or mixed land uses. Collectors are primarily intended to serve local access needs of residential neighborhoods through connecting local streets to arterials. Bike lanes are typically not needed due to slower traffic speeds.

Collectors connect residential neighborhoods with smaller community centers and the arterial system; property access is generally a higher priority for collectors than arterials and through traffic is served as a lower priority. Streets in the City of Gold Beach which are classified as collectors include: North Bank Rogue River Road, Old Coast Road, Wedderburn Loop, Hunter Creek Road, and Hunter Creek Loop Road. The recommended standard for collectors is described below.

Two standards were developed for collector streets: an urban standard for collectors whose adjacent land use would necessitate on-street parking and sidewalks, and a rural standard for those which would not require on-street parking and sidewalks. The following roads in Gold Beach are classified as collectors including: North Bank Rogue River Road, Old Coast Road, Wedderburn Loop, Hunter Creek Road, and Hunter Creek Loop Road. The cross sections for collectors are shown in Figure 7-3.

Standard for Rural Collector Streets

This cross section includes two 11-foot travel lanes on a 24-foot paved surface. This would be appropriate for those roads located outside the UGB.

Standard for Urban Collector Streets

This standard consists of two 11-foot travel lanes and 7-foot parking strips on both sides of the roadway. The resulting paved width is 36 feet. The standard also includes 6-foot sidewalks adjacent to the curbs. This option fits within the City's required right-of-way of 50 feet. This standard applies to collector streets within the UGB.

Arterial Streets

Arterial streets form the primary roadway network within and through a region. They provide a continuous roadway system that distributes traffic between different neighborhoods and districts. Generally, arterial streets are high capacity roadways that carry high traffic volumes with minimal localized activity. Design speeds should be between 25 and 45 mph.

Arterials connect cities and other major traffic generators; they serve both through traffic and trips of moderate length and access is usually controlled. The only street classified as an arterial in the City of Gold Beach is US 101. The recommended street standards are shown in Figure 7-4 and Figure 7-5.

Section 1 — Rogue River Bridge to Moore Street. This section will remain a five-lane cross section with bike lanes. It includes two 12-foot travel lanes in each direction, as well as a 12-foot center turn lane. Five-foot bike lanes are included on both sides of the highway, as are 5-foot sidewalks. The overall pavement width is 70 feet, and the roadway fits within an 80-foot right-of-way. Sidewalk standards are identified as six-feet in width where there is sufficient right-or-way; in this instance there is not enough right-of-way.

Section 2 — Moore Street to Caughell Street. This section will maintain parking on the west side of the highway. It includes two 12-foot travel lanes in each direction and an 8-foot parking strip on the west side of the highway only. The resulting pavement width is 56 feet. This cross section does not include bike lanes, as required by state law; however, the TAC hopes that an exception will be granted if a recreational bike lane is constructed parallel to the highway, closer to the ocean. Six-foot sidewalks are included on both sides of the highway, and the roadway fits within an 80-foot right-of-way.

Section 3 — Caughell Street to 4th Street and 8th Street to Pacific Drive. This section includes two 12-foot travel lanes in each direction and 8-foot parking strips on both sides of the highway. The resulting pavement width is 64 feet. This cross section also does not include bike lanes, as required by state law; however, the TAC hopes that an exception will be granted if a recreational bike lane is constructed parallel to the highway, closer to the ocean. Six-foot sidewalks are included on both sides of the highway, and the roadway fits within an 80-foot right-of-way.

Section 4 — 4th Street to 8th Street. This section includes two 12-foot travel lanes in each direction and no on-street parking or bike lanes, to allow for left-turn lanes at the intersection of 6th Street. The resulting pavement width is 48 feet. Again, the TAC hopes to substitute a recreational bike lane parallel to the highway for the required bike lanes on the highway. Six-foot sidewalks are included on both sides of the highway, and the roadway fits within an 80-foot right-of-way.

Section 5 — South of Pacific Drive. This section includes one 12-foot travel lane in each direction and no on-street parking, as most businesses in this area provide sufficient off-street parking. This cross section does include 6-foot bike lanes on both sides of the roadway, resulting in a total pavement width of 36 feet. The recreational bike route parallel to the highway would join the highway bike lanes in the vicinity of South Beach Park. Six-foot sidewalks are included on both sides of the roadway, and the roadway fits within an 80-foot right-of-way. This cross section will also be appropriate for Jerry's Flat Road within the UGB.

Bike Lanes

In cases where a bikeway is proposed within the street right-of-way, 12 feet of roadway pavement (between curbs) should be provided for a six-foot bikeway on each side of the street, as shown on the cross sections in Figure 7-4. The striping should be done in conformance with the State Bicycle and Pedestrian Plan (1995). In cases where curb parking will exist with a bike lane, the bike lane will be located between the parking and travel lanes. In some situations, curb parking may have to be removed to permit a bike lane.

The bikeways on new streets or streets to be improved as part of the street system plan should be added when the improvements are made. The Street System Plan identifies an approximate schedule for these improvements.

On arterial and collector streets that are not scheduled to be improved as part of the street system plan, bike lanes may be added to the existing roadway at any time to encourage cycling, or when forecast traffic volumes exceed 2,500 to 3,000 vehicles per day. The striping of bike lanes on streets that lead directly to schools should be a high priority.

Sidewalks

A complete pedestrian system should be implemented in the urban portion of Gold Beach. Every urban street should have sidewalks on both sides of the roadway as shown on the cross sections in Figure 7-1 through Figure

7-5. Sidewalks should have a six-foot wide paved width. In addition, pedestrian and bicycle connections should be provided between any cul-de-sac or other dead-end streets.

Another essential component of the sidewalk system is street crossings. Intersections must be designed to provide safe and comfortable crossing opportunities. This includes not only signal timing (to ensure adequate crossing time) and crosswalks, but also such enhancements as curb extensions as traffic calming measures and to decrease pedestrian crossing distance.

Curb Parking Restrictions

Curb parking should be prohibited at least 25 feet from the end of an intersection curb return to provide sight distance at street crossings.

Street Connectivity

Street connectivity is important because a well-connected street system provides more capacity than a disconnected one, provides alternate routes for local traffic, and is more pedestrian and bicycle-friendly. The City of Gold Beach has a small grid system in its downtown. Ensuring that this grid is extended as development occurs is critical to Gold Beach's continued livability. To this end, a maximum block perimeter of 1,200 feet is recommended.

ACCESS MANAGEMENT

Access management is an important tool for maintaining a transportation system. Too many access points can diminish the function of an arterial, mainly due to delays and safety hazards created by turning movements. Traditionally, the response to this situation is to add lanes to the street. However, this can lead to increases in traffic and, in a cyclical fashion, require increasingly expensive capital investments to continue to expand the roadway.

Reducing capital expenditures is not the only argument for access management. Additional driveways along arterial streets lead to an increased number of potential conflict points between vehicles entering and exiting the driveway, and through vehicles on the arterial streets. This not only leads to increased vehicle delay and a deterioration in the level of service on the arterial, but also leads to a reduction in safety.

Research has shown a direct correlation between the number of access points and collision rates. In addition, the wider arterial streets that can ultimately result from poor access management can diminish the livability of a community. Therefore, it is essential that all levels of government maintain the efficiency of existing arterial streets through better access management.

Access Management Techniques

The number of access points to an arterial can be restricted through the following techniques:

- Restricting spacing between access points based on the type of development and the speed along the arterial.
- Sharing of access points between adjacent properties.
- Providing access via collector or local streets where possible.
- Constructing frontage roads to separate local traffic from through traffic.
- Providing service drives to prevent spill-over of vehicle queues onto the adjoining roadways.
- Providing acceleration, deceleration, and right-turn only lanes.
- Installing median barriers to control conflicts associated with left-turn movements.

- Installing side barriers to the property along the arterial to restrict access width to a minimum.

Recommended Access Management Standards

Access management is hierarchical, ranging from complete access control on freeways to increasing use of streets for access purposes, parking and loading at the local and minor collector level. Table 7-3 describes recommended general access management guidelines by roadway functional classification.

TABLE 7-3
RECOMMENDED ACCESS MANAGEMENT STANDARDS

Functional Classification	Intersections			
	Public Road		Private Drive(2)	
	Type(1)	Spacing	Type	Spacing
Arterial				
US 101: General	at-grade	¼ mile	L/R Turns	500 ft.
STA (11th Street to Moore Street)	at-grade	250 foot	L/R Turns	100 ft.
Other Arterials within UGB	at-grade	250 ft.	L/R Turns	100 ft.
Collector	at-grade	250 ft.	L/R Turns	100 ft.
Residential Street	at-grade	250 ft.	L/R Turns	Access to Each Lot
Alley (Urban)	at-grade	100 ft.	L/R Turns	Access to Each Lot

Notes:
STA = Special Transportation Area
(1) For most roadways, at-grade crossings are appropriate.
(2) Allowed moves and spacing requirements may be more restrictive than those shown to optimize capacity and safety. Any access to a state highway requires a permit from the ODOT District Office. Access will generally not be granted where there is a reasonable alternative access.

Application

These access management restrictions are generally not intended to eliminate existing intersections or driveways. Rather, they should be applied as new development occurs. Over time, as land is developed and redeveloped, the access to roadways will meet these guidelines. However, where there is a recognized problem, such as an unusual number of collisions, these techniques and standards can be applied to retrofit existing roadways.

To summarize, access management strategies consist of managing the number of access points and providing traffic and facility improvements. The solution is a balanced, comprehensive program that provides reasonable access while maintaining the safety and efficiency of traffic movement.

Access management was identified in the Needs Statement for Curry County in the Oregon Coast Highway Corridor Master Plan.

State Highways

Access management is important to promoting safe and efficient travel for both local and long distance users along US 101 in Gold Beach. The 1991 *Oregon Highway Plan* specifies an access management classification system for State facilities. Although the City of Gold Beach may designate State highways as arterial roadways within its transportation system, the access management categories for these facilities should generally follow the guidelines of the Oregon Highway Plan. This section of the Transportation System Plan describes the state highway access categories and specific roadway segments where special access areas may apply.

General

US 101 through Gold Beach is a state highway of statewide level of importance. Within the Gold Beach UGB, Oregon Highway Plan Category 4, "Limited Control"[1] applies. This classification permits at-grade intersections or interchanges at a minimum spacing of one-quarter mile. Private driveways should have a minimum spacing of 500 feet from each other and from intersections. Traffic signals are permitted at a minimum of one-half mile spacing.

Special Transportation Area

While the access management guidelines can be applied to some portions of US 101, the city has a developed downtown area, with intersections spaced as closely as 250 feet apart. The general access standards for OHP Category 4 classification can not be met on these sections of the roadways.

Indeed, the highway standards are too restrictive for areas with centralized commercial development, such as downtown Gold Beach. Shorter block lengths and a well-developed grid system are important to a downtown area, along with convenient and safe pedestrian facilities. In general, downtown commercial arterial streets typically have blocks 200 to 400 feet long, driveway access sometimes as close as at 100-foot intervals, and, occasionally, signals may be spaced as close as every 400 feet. The streets in downtown areas must have sidewalks and crosswalks, along with on-street parking. The need to maintain these typical downtown characteristics must be carefully considered along with the need to maintain the safe and efficient movement of through traffic.

To address this issue, a Special Transportation Area (STA) is recommended from 11th Street to Moore Street on US 101. To accommodate existing public roadway spacing and allow reasonable access spacing for private driveways, less restrictive access standards are recommended for these downtown sections. Within the STA, access standards shall allow intersection spacing at a minimum of 250 feet. Driveways are discouraged in STA's but where required for access, allow spacing at a minimum of 100 feet (see Table 7-3).

MODAL PLANS

The Gold Beach modal plans have been formulated using information collected and analyzed through a physical inventory, forecasts, goals and objectives, and input from area residents. The plans consider transportation system needs for Gold Beach during the next 20 years, assuming the growth projections discussed in Chapter 5. The timing for individual improvements will be guided by the changes in land use patterns and growth of the population in future years. Specific projects and improvement schedules may need to be adjusted depending on when and where growth occurs within Gold Beach.

Street System Plan

The street system plan outlines a series of improvements that are recommended for construction within the City of Gold Beach during the next 20 years. These options have been discussed in Chapter 6 (Improvement Options Analysis). The proposed street system plan is summarized in Table 7-4 and is shown in Figure 7-6.

Table 7-4 presents street improvement projects that are included in the street system plan. The projects are listed as high priority (construction expected in the next 0 to 5 years), medium priority (construction expected in the next 5 to 10 years), and low priority (construction expected in the next 10 to 20 years).

[1] 1991 *Oregon Highway Plan*, Appendix B, Table 1, Access Management Classification System.

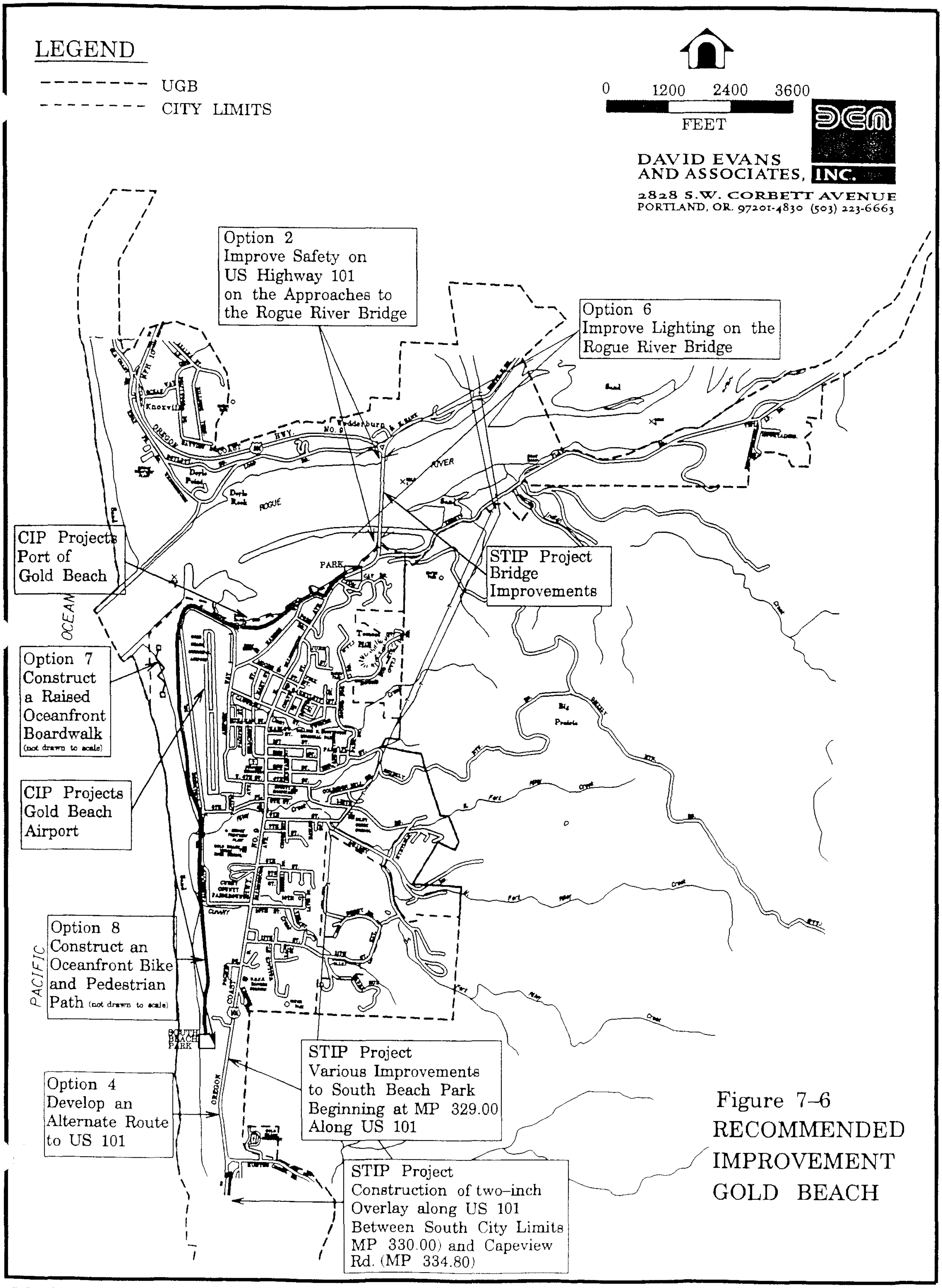


Figure 7-6
RECOMMENDED IMPROVEMENT
GOLD BEACH

TABLE 7-4
RECOMMENDED STREET SYSTEM IMPROVEMENTS

Location	Project	Priority	Cost
US 101	Improve the safety on the approach to the Rogue River Bridge by eliminating the right turn channel at the intersection of US 101 and Wedderburn Loop Road.	High	under $15,000
Alternative Route to US 101	Recommended that Elk River Rd., Euchre Creek Rd., and Forest Service Rd. 5502 be developed as a parallel, alternative route to US 101. Raise their maintenance level from Level 3 to Level 4.	High	$1,800,000
TOTAL COSTS			$1,815,000

Statewide Transportation Improvement Program (STIP) Projects

The Oregon Department of Transportation has a comprehensive transportation improvement and maintenance program encompassing the entire state highway system. The Statewide Transportation Improvement Program (STIP) identifies all the highway improvement projects in Oregon. The STIP lists specific projects, the counties in which they are located, their construction year and estimated cost.

The final 1998 to 2001 STIP, published in December 1997, identified two major highway projects scheduled within the City of Gold Beach. The first project involves various improvements to South Beach Park beginning at milepost 329.00 along US 101. Construction is scheduled to begin in federal fiscal year 1998 at a cost of $105,000.

The second project involves construction of a two-inch pavement overlay along US 101 (Oregon Coast Highway) between the Gold Beach south city limits (milepost 330.00) and Capeview Road (milepost 334.80). Construction is scheduled to begin in federal fiscal year 2001 at a cost of $2,128,000.

The STIP projects are also shown in Figure 7-6.

Highway Corridor Plan

The Oregon Coast Highway Corridor Master Plan was prepared in 1995 to coordinate land use patterns and transportation system improvements in the US 101 corridor. The plan was developed in partnership with local, state, and federal jurisdictions, and the public and communities that the Plan is designed to serve. The Plan's focus in Curry County is to enhance and protect the scenic beauty of the corridor while increasing capacity and reliability on the transportation system.

Although the plan does not list specific transportation improvements on US 101, several Plan Activities were identified for the section of highway in Gold Beach. The jurisdiction or agency that has primary responsibility for implementation of the plan activities was not identified. In most cases, implementation will require coordination among a number of jurisdictions and agencies. The Plan Activities for the highway section in Gold Beach include:

- Investigate the potential to improve the local circulation system in an effort to reduce reliance on US 101 for local traffic.
- Investigate options to accommodate additional travel demand, including: improving signal coordination; preserving the existing Rogue River Bridge, the gateway to Gold Beach; developing a bicycle/pedestrian circulation strategy to improve safety and accessibility, including consideration of signalized intersections, access to destinations such as the County Fairgrounds, and areas with limited sight distance; developing an access management and parking strategy consistent with the State Access Management Category; and limiting left turns to and from the highway to signalized intersection with turning pockets outside the through lanes.

- Develop a community design program for Gold Beach that incorporates the following elements: a gateway treatment at the Rogue River and at Hunter Creek integrating a wayside and interpretive center into this development; a uniform highway section through Gold Beach, that reflects this town's identity and streetscape character; a program for signage to destinations such as the fairgrounds, the airport, and the Port of Gold Beach; landscaping and pedestrian amenities; and a parking strategy for both on-street and off-street parking.
- Investigate the feasibility of transferring ODOT property to the Oregon Parks Department at the northeast corner of US 101 and Hunter Creek.
- Improve signage for access to the airport, port/marina, and fairgrounds.

Not all of the Plan Activities describe specific projects; rather, they are planning goals and objectives for the US 101 corridor. For example, "investigate the potential to improve the local circulation system in an effort to reduce reliance on US 101 for local traffic" and "Improve signage for access to the airport, port/marina, and fairgrounds" are not specific projects. They are listed above to draw attention to ODOT's plan activities for US 101 within Curry County, so that county planning activities will be consistent with those of the state.

Several of ODOT's Plan Activities are addressed in this TSP. For example, "develop an access management plan" is addressed in the street system plan in Chapter 7. "Identify a process for developing an emergency route plan" and "identify and study potential east-west routes to the I-5 corridor" are addressed in the evaluation of improvement options in Chapter 6.

The Plan Activities that do describe specific projects, such as "investigate options to accommodate additional travel demand," were developed to address ODOT's design and operation standards or to meet some other statewide planning goal. During the public involvement process, none of the specific projects listed in the Plan Activities were identified as high priorities by the local community's Transportation Advisory Committee. Therefore, these projects are not listed in the street system plan in Chapter 7. As the projects in the corridor plan are refined (i.e., after ODOT develops alternatives and cost estimates, selects a preferred alternative, identifies funding, and lists the projects in the STIP), they should be included in future updates of the TSP.

Bridges

There is one state-owned and maintained bridge and two county-owned and maintained bridges within the City of Gold Beach. Two of the bridges have been identified as functionally obsolete by ODOT, which doesn't necessarily mean that the bridges are unsafe, but that the deck geometry, underclearances, approach roadway alignment, or waterway are inadequate. The three bridges are:

- Bridge #01172 (state-owned) on US 101 over the Rogue River (MP 327.65)
- Bridge #15C010 (county-owned) on FAS 304 over Hunter Creek (MP 0.40)
- Bridge #15C24 (county-owned) on FAS 304 over Hunter Creek (MP 0.90)

The Rogue River and Hunter Creek Bridges are identified as functionally obsolete. The Rogue River Bridge was identified as functionally obsolete because of the deck geometry. According to ODOT's bridge management system the bridge roadway width is not wide enough to accommodate the Average Daily Traffic (ADT) along the roadway. Remarks from the Bridge Inspection Report identified wood waste along the structure and a moderate to heavy crack in a new section of the bridge.

The Hunter Creek Bridge was identified as functionally obsolete because of the deck geometry. According to ODOT's bridge management system the bridge roadway width is not wide enough to accommodate the ADT along the roadway. Remarks from the Bridge Inspection Report identified delamination and hairline cracks in concrete patches which means they will start to spall (or break off) soon.

Functionally obsolete bridges cannot adequately service the demand placed on them because of some design deficiency such as being too narrow by current standards. They need to be upgraded, which could involve improving or replacing the existing facility. If these bridges serve a high traffic demand, they may be a high priority for upgrades.

If the bridges are not repaired or replaced, limitations may be placed on their use, including diverting traffic off bridges which cannot safely meet the demand. Limitation on bridge use could affect the economy of some of the resource-based industries in the area.

According to ODOT's 1998-2001 Statewide Transportation Improvement Program (STIP), neither of these bridges is currently scheduled for repair or replacement.

Community members raised concerns about the "functionally obsolete" rating of the Rogue River Bridge since the bridge is a critical element in the Gold Beach and Curry County transportation systems. Again, a "functionally obsolete" rating doesn't necessarily mean that the bridge is unsafe, but that the deck geometry, underclearances, approach roadway alignment or waterway are inadequate in some way. Examination of the inspection report for this bridge indicated that although there has been some corrosion of the bridge's concrete and reinforcing steel, the bridge received high ratings for the condition of the substructure, superstructure, and deck. The bridge was rated as functionally obsolete because of the narrow roadway width and sub-standard railings. The roadway width (the distance between the curbs) is 27 feet. The desirable roadway width for two-lane bridges on state highways is 44 feet. In addition, the bridge railings do not meet current standards for crash impacts.

To address the issue of corrosion of the bridge's concrete and reinforcing steel, ODOT has identified the need for a zinc anode coating and cathodic protection, which would add 50-60 years to the life of the bridge. This project is estimated to cost approximately $15 million, almost half the budget for bridge projects statewide. Partial funding of $10 million is now funded for the project as part of a six-year federal transportation bill. The project scope is to fix corrosion damage, apply cathodic protection system, inlay a microsilica deck surface, and move the water line from the pedestrian rail to underneath the bridge. Repairs to this bridge should become a STIP project for the year 2002 or 2003.

ODOT currently has no plans to replace the bridge; however, community members have raised the issue of constructing a second, parallel bridge to add capacity to the existing two-lane facility.

A 1995 cost estimate was prepared by ODOT estimating the total replacement cost for the Hunter Creek Bridge to be approximately $518,000. This estimate has been increased by 15 percent to $596,000 to reflect 1998 dollars. Since the Rogue River Bridge is a national landmark, the bridge will not be replaced.

Because of the high cost to repair or replace these bridges, which are structurally sound, further improvements to these bridges are not recommended over the next 20 years.

However, a project to improve the lighting on the Rogue River Bridge along US 101 has been proposed. This project originating from Gold Beach 2010 has been recommended for inclusion in the bridge rehabilitation projects. There have been no improvements to the lighting system along the bridge in the past 30 years. The proposed lighting system would include 40 light units and 10,000 feet of fiber optic cables. The lighting system would cover the top rail where vehicle travel occurs and the four block towers. The lighting system is expected to be implemented by the year 2002 or 2003, and is dependent upon the completion of the zinc coating of the bridge. To date the preliminary engineering has been done, and the final engineering is left to be completed. The preliminary costs estimates approached $200,000 to $250,000 to install. In addition to this cost there would be an annual maintenance cost of $5,000 a year and an annual budget of $2,000 in operation costs. Currently, the money is being raised through fund raisers, private donations, and grants.

TABLE 7-5
RECOMMENDED BRIDGE IMPROVEMENT PROJECTS

Location	Project	Priority	Cost
US 101 (MP 327.65)	Rogue River Bridge (#01172)	Low	$10,142,000
	Rogue River Bridge (#01172) Lighting Improvements	Low	$250,000
FAS 304 (MP 0.40)	Bridge #15c010 over Hunter Creek	Low	$596,000
TOTAL COST			$10,988,000

Pedestrian System Plan

A complete pedestrian system shall be implemented in the city. Every paved street shall have sidewalks on both sides of the roadway, except in extenuating circumstances, meeting the requirements set forth in the recommended street standards. Pedestrian access on walkways shall be provided between all buildings including shopping centers and abutting streets and adjacent neighborhoods. (Ordinances specifying these requirements are included in Chapter 9.)

A sidewalk inventory revealed that sidewalks and curb cuts for wheelchair access exist along US 101 from the Rogue River Bridge, south to Kerber Drive. Sidewalks also exist on a few other streets in the city, such as 4th Street and Leith Road, which serve major traffic generators such as the county hospital and Riley Creek School. Many of the existing roadways outside of the downtown area do not have sidewalks, or sidewalks are segmented and curb cuts are lacking.

The city's sidewalk system should be expanded to include, at a minimum, sidewalks along both sides of US 101 along developed lands. Other blocks within the city's street system that have a significant amount of pedestrian activity, such as in front of stores or schools, etc., should also have sidewalks.

The primary goal of a complete pedestrian system is to improve pedestrian safety; however, an effective sidewalk system has several qualitative benefits as well. Providing adequate pedestrian facilities increases the livability of a city. When pedestrians can walk on a sidewalk, separated from vehicular street traffic, it makes the walking experience more enjoyable and may encourage walking, rather than driving, for short trips. Sidewalks enliven a downtown and encourage leisurely strolling and window shopping in commercial areas. This "Main Street" effect improves business for downtown merchants and provides opportunities for friendly interaction among residents. It may also have an appeal to tourists as an inviting place to stop and walk around.

New sidewalks should be constructed with curb cuts for wheelchairs at every crosswalk to comply with the Americans with Disabilities Act (ADA).

Table 7-6 contains a list of specific pedestrian improvements that will be needed over the next 20 years. (Figure 7-6 also shows these projects.) Sidewalks should be added as new streets are constructed and as existing streets are reconstructed. Gold Beach 2010 proposed constructing a raised oceanfront boardwalk overlooking the Rogue River and the Pacific Ocean. This project improves pedestrian access to the beach area. Another project proposed by Gold Beach 2010 is the construction of a 10-foot pedestrian and bicycle path extending 2 miles from Bridge Park to South Beach Park. The Port of Gold Beach has also identified two improvement projects: a sidewalk expansion that would connecting the waterfront and to the Post Office and the Port Office; and a Port Upper Lands Nature/Fitness Trail and Bicycle Path.

TABLE 7-6
RECOMMENDED PEDESTRIAN PROJECTS

Location	Project	Priority	Length (ft)	Cost
Overlooking the Rogue River and Pacific Ocean	Construct an Oceanfront Boardwalk located west of the airport overlooking the Rogue River	Low	2,500 ft.	Not available at this time
From Bridge Park to South Beach Park	Construct an Oceanfront Bike and Pedestrian Path starting at Bridge Park, east of the airport to South Beach Park.	Low	2 miles	$232,000
Port of Gold Beach	Sidewalk expansion to connect pedestrian areas along the waterfront and to the Post Office and Port Office.	Medium		Not available at this time
Port of Gold Beach	Port Upper Lands Nature/Fitness Trail and bicycle path	Medium		$240,000
Subtotal High Priority Projects				$0
Subtotal Medium Priority Projects				$240,000
Subtotal Low Priority Projects				$232,000
TOTAL COST				$472,000

Note: Pedestrian projects include sidewalks on both sides unless otherwise noted.

The on-street pedestrian improvements only include sidewalk projects. Although shoulder additions serve pedestrians, they are not ideal because they are not separated from the roadway; however, in rural areas where development may not occur quickly, the addition of shoulders is often the most practical improvement that can be implemented. Generally, shoulders are more of a benefit to cyclists than to pedestrians; therefore, proposed shoulder-widening or additions are discussed in the Bicycle System Plan section of this chapter.

A six-foot-wide sidewalk with curbs already in place costs about $30 per linear foot. Adding a curb as well as a six-foot-wide sidewalk costs about $35 per linear foot. In commercial areas, a twelve-foot-wide sidewalk with a curb would cost about $65 per linear foot. This cost estimate assumes the sidewalks are composed of 4 inches of concrete and 6 inches of aggregate. Applying these costs to both sides of a typical block in Gold Beach would require about 600 linear feet of sidewalk (2 x 300 feet). For a six-foot wide sidewalk including curbs, the cost would be approximately $21,000. With curbs already in place, the cost would be approximately $18,000.

Missing sidewalk segments should be infilled whenever an opportunity presents itself (such as infill development, special grants, etc.), concentrating on arterial streets, collectors, and school routes.

Bicycle System Plan

Goals and objectives of the city's bicycle plan include reducing conflicts between bicyclists and motorized vehicle traffic, developing a system dedicated to bicycles, and providing opportunities for recreational bicycle use. One option for meeting these goals would be constructing the oceanfront bike and pedestrian path leading from US 101. This option was developed by Gold Beach 2010. The bike and pedestrian path would be located between Bridge Park along Rogue River and South Beach Park along the Pacific Ocean.

Shared roadways, where bicyclists share normal vehicle lanes with motorists, are generally acceptable if speeds and traffic volumes are relatively low. On the collector and local streets in Gold Beach, shared roadways are not an issue; however, on arterial roadways bike lanes are recommended.

US 101 functions as an arterial street through Gold Beach, which means that it should have bike lanes on both sides of the street as specified in the recommended street standards described earlier, and as required by the TPR. Accident statistics on the highway do not indicate that there are frequent conflicts between bicyclists and motorized vehicles. To install bicycle lanes along US 101 would involve widening on sections where there

currently is no shoulder. Where a shoulder currently exists, the road could be restriped to provide bike lanes. Some of these improvements would be expensive and others would be controversial. At this time, no specific bikeway improvements are recommended for US 101; however, ODOT should track both traffic volumes and accident rates on this facility to identify any problems in the future.

Currently, only small segments of US 101 and Jerry's Flat Road have bike lanes. Although only a small segment of US 101 in Gold Beach has bike lanes, the entire segment of US 101 in Curry County is classified as a bicycle route in ODOT's Oregon Coast Bike Route Map. Generally sufficient shoulder space is available for cyclists to travel safely on US 101. However, in high traffic volume conditions with a significant number of trucks in the traffic stream, safety becomes a concern for bicyclists.

A project to widen portions of the bicycle path up Jerry's Flat Road and connect the route to the Port's proposed Nature Fitness Trail and Bike Path is being proposed. In the proposal the route would become a designated bicycle route from US 101, 7 miles up the Rogue River to the Port's Huntley Park which has some camping facilities. The Port is in the process of improving restroom facilities at the Park.

Bicycle parking is generally lacking in Gold Beach. Bike racks should be installed in front of downtown businesses and all public facilities (schools, post office, library, city hall, and parks). Typical rack designs cost about $50 per bike plus installation. An annual budget of approximately $1,500 to $2,000 should be established so that Gold Beach can begin to place racks where needs are identified and to respond to requests for racks at specific locations. Bicycle parking requirements are further addressed in the policies and ordinances.

Transportation Demand Management Plan

Through transportation demand management (TDM), peak travel demands can be reduced or spread to more efficiently use the transportation system, rather than building new or wider roadways. Techniques that have been successful and could be initiated to help alleviate some traffic congestion include carpooling and vanpooling, alternative work schedules, bicycle and pedestrian facilities, and programs focused on high density employment areas.

In Gold Beach, where traffic volumes are low and the population and employment levels are small, implementing TDM strategies is not practical in most cases. However, the sidewalk improvements recommended earlier in this chapter are also considered TDM strategies. By providing these facilities, the City of Gold Beach is encouraging people to travel by modes other than the automobile. In rural communities, TDM strategies include providing mobility options.

Because intercity commuting is a factor in Curry County, residents who live in Gold Beach and work in other cities should be encouraged to carpool with a fellow coworker or someone who works in the same area. Implementing a local carpool program in Gold Beach alone is not practical because of the city's small size; however, a county-wide carpool program is possible. The City of Gold Beach should support state and county carpooling and vanpooling programs that could further boost carpooling ridership.

No costs have been estimated for the TDM plan. Grants may be available to set up programs; other aspects of transportation demand management can be encouraged through ordinance and policy.

Public Transportation Plan

Currently, Greyhound operates the only scheduled bus service in Curry County, providing two northbound and two southbound buses along US 101 between Portland, Oregon and San Francisco, California. This service stops in Port Orford, Gold Beach and Brookings. Local para-transit service is available through the senior citizen centers in Port Orford and Gold Beach. Although the service is open to the general public, it predominantly transports elderly and disabled people. In FY 1996 the Gold Beach senior center provided 6,700 trips, of which about 90% were for elderly and disabled people.

Community representatives raised two concerns about existing transit service:

- There is a perception it is only for senior citizens
- Other than Greyhound, there is no inter-city service connecting Bandon and Brookings and the communities in between.

Transit providers indicate there is excess capacity; drivers and vehicles are idle at times. Service could be expanded to serve the general population and to provide some inter-city service without the acquisition of new vehicles. Transit providers are already transporting about 2 handicapped people a week between Brookings and Gold Beach or Crescent City, California. They report that when other people who are not handicapped hear about the service, they express interest.

Curry County has established a transit advisory board consisting of nine members who either use existing service or represent clients who use the service. This board would like to establish county-wide transit service. About 90% of the 22,000 county residents live within one or two miles of US 101 and could therefore easily access service that travels between communities in the county and Bandon on this highway. Ideally, this service would consist of two or three round-trips a day. Curry County will be assessing need and developing service models and financing plans in a transit study it is presently undertaking. If this service is to be successful, it is important that it be widely marketed and scheduled to meet the demands of the general public, which might be different from those of the elderly and disabled. Marketing should include partnerships with local businesses to advertise both bus service and business services. Also key to a successful program is consistency; people must be able to count on this service so that they may make plans with certainty.

If this service is implemented, it will require about 20 bus shelters placed several miles apart along US 101. Ideally, these bus shelters should be placed near a public use such as a shop, restaurant or church and have available parking.

Rail Service Plan

Gold Beach has no rail service.

Air Service Plan

Gold Beach Airport is located in Gold Beach south of the Rogue River and is owned and operated by the Port of Gold Beach. Gold Beach Airport experiences the most air traffic of the three airports in Curry County, almost double the air traffic at Brookings Airport. The airport mostly serves private pilots, some corporate aircraft, and two courier companies. The closest passenger service airport is located in Crescent City, California, which is approximately 50 miles away.

The Gold Beach Comprehensive Plan clearly recognizes the importance of the Gold Beach Airport and the need to protect it from encroachment by incompatible land uses. Of particular importance is the fact that prevailing northwest winds in the summer often keep this airport fog free and open while other coastal airports are closed due to fog which is an important safety consideration for aircraft pilots in southwest coastal Oregon.

The plan includes as one of its transportation goals the need "to encourage the expansion of air freight, air charter, air services to the city." Another of the plan's transportation goals is "to consider for adoption as part of the city's comprehensive plan, an airport master plan."

To emphasize the importance of the airport to the community, the plan, in reference to the activities of the Port of Gold Beach, states that, "the city should encourage efforts to improve the airport and encourage only compatible uses adjacent to the airport. As the city continues to grow, a need for commercial air service could develop. At that time, the adequacy of the airport facilities will partly determine if commercial air services can be brought to the area."

The goals and policies are tied to the actual situation of the land through the land use map of the comprehensive plan. The land use map, although subject to change as conditions may warrant, designates which uses should be permitted throughout the city. The airport is included within the "Public and Semi-Public" land use classification. The area around the airport is contained within the "Airport Activity" classification, which allows only uses compatible with the airport. To permit the city "a degree of flexibility in dealing with its future", the Airport Activity "designation will allow the city to look at specific proposals with respect to compatibility with the airport and also the surrounding areas."

The area south of the Rogue River that is affected by the airport lies within the City of Gold Beach and is subject to the City of Gold Beach Zoning Ordinance. The area north of the Rogue River is under the jurisdiction of Curry County.

To provide the maximum degree of safety in the runway approach areas, it is necessary to insure that all obstruction, sources of glare and radio interference, and uses that attract birds be prohibited in the approach areas. The county has adopted an "Airport Related Areas Overlay Zone (AR)" which is applied to areas adjacent to the three airports that are included within the approach and clear zones needed for the operational safety of aircraft. The AR Overlay Zone has limitation on certain types of development and notification requirements to the airport owner and aeronautical agencies of any development within the area of the overlay zone.

The airport can accommodate approximately 95% of the general aviation propeller aircraft under 12,500 pounds. The only project currently planned for Gold Beach Airport is for certification for a GPS landing system.

The 1994 Master Plan states that the runway could be extended no further than 200 feet to the south because of a nearby road. Potential expansion of this airport is therefore limited. The system plan recognizes the airport's inability to extend its runway and recommends extending the runway the 200 feet.

The state Continuous Aviation System Plan identifies several Capital Improvement Projects, which are identified in Table 7-7. Included in the CIP improvements are installing taxiway reflectors, rehabilitation of the apron, acquiring easement for the runway extension, constructing T-hangar taxiways, installing MIRL, overlaying the runway and taxiway, and relocating a road.

The Port of Gold Beach Strategic Business Plan identifies several options for development around the Airport. The development opportunities are limited, with the exception of 3.5 acres adjacent to the northwest part of the airport.

The Port's business plan presents economic opportunities based on the quantity of land, market conditions, and the port's goals and objectives.

One strategy identified by the Port's business plan is for airport uses. This would include the development of hangars on the property.

TABLE 7-7
RECOMMENDED AIRPORT PROJECTS

Fiscal Year	Project Description	Priority	Total Costs
2000	Acquire easement (8 acres at the south end of runway)/Revise Airport Layout Plan	High	$20,000
2003	Rehabilitation of apron	High	$157,000
2003	Install MIRL/Revise Airport Layout Plan as-built	High	$72,000
2003	Construct T-hangar taxiways (east side of runway)/Revise Airport Layout Plan	High	$34,000
2003	Conduct Master Plan Update	High	$50,000
2004	Rehabilitation of Runway (overlay)	High	$500,000
2004	Rehabilitation of Taxiway (overlay)	High	$200,000
2004	Relocation of road from clear zone to runway/Revise Airport Layout Plan as-built	High	$200,000
Total Costs			$1,233,000

The majority potential conflict between continued airport use and off-airport development centers on noise impact. Human reaction to the intrusion of aviation noise complex and subjective. Several indices have been developed in an attempt to rate the annoyance associated with living and working with aviation noise. In general, these indicators attempt to measure quantitatively the acoustic energy of the sound and relate this to the subjective feelings of loudness, noisiness or annoyance. Measures of the noise environment alone cannot provide an accurate prediction of the degree of annoyance that may be associated with a given level of noise intrusion.

The guidelines established by the Oregon Aeronautics Division for areas of "moderate noise impact" (55–65 Dbl) state that most uses in such areas are compatible or conditionally compatible. They do, however, recommend that noise sensitive uses such as school, hospitals, nursing homes, theaters, auditoriums and residential development should have noise insulation installed. However, outside of urban areas, lower background noise levels may result, and airport noise within the 55Dbl noise contour may be perceived as a problem.

The Gold Beach Airport is located in the center of town so that there is a possibility for conflict between airport noise and surrounding uses. These conflicts will have to be resolved as part of the City of Gold Beach Comprehensive plan.

Pipeline Service Plan

There are currently no pipelines serving Gold Beach.

Water Transportation Plan

The Port of Gold Beach, located at the mouth of the Rogue River, serves primarily sport and charter boats and some commercial fishing crafts. The Port of Gold Beach Strategic Business Plan identifies several opportunities to improve the Port's marine-related facilities. The goals of the plan are to maximize the potential of the Port's assess, fully develop the Port's business potential, protect the environmental quality of the Rogue River Basin to enhance fisheries and maintain aesthetics, and improve the Port's management and development planning capabilities.

The Port of Gold Beach Strategic Business Plan identifies several needs and improvements. Plans for the Port encompass a variety of goals and objectives that are designed to improve marine related facilities, encourage tourism, and improve the business and commercial development of the Port. Opportunities to accomplish these goals include upgrading many of the marine related facilities to maximize recreational and commercial uses of the Port. According to the business plan the Port plans to work to protect the environmental quality of the Rogue River Basin to enhance fisheries and maintain aesthetics. The plan also calls for improvements to the Port's management and development planning capabilities. Table 7-8 contains a detailed list of specific Port projects that accomplish the goals and objectives of the business plan.

TABLE 7-8
RECOMMENDED PROJECTS FOR THE PORT OF GOLD BEACH

Project Descriptions	Priority	Local Costs	State Costs	Federal Costs	Total Cost
Launch ramp renovation	High	$0	$130,000	$0	$130,000
Handicap public fishing pier	High	$7,000	$28,000	$0	$35,000
Interpretive signing along waterfront areas	High	$10,000	$0	$40,000	$50,000
Jetty improvement	High	$0	$150,000	$0	$150,000
Huntley Park Boat Launch Ramp	High	$0	$90,000	$0	$90,000
Paved Parking by Boat Launch	High	$83,000	$0	$0	$83,000
Construct additional docks and other moorage facilities	Low	N/A	N/A	N/A	N/A
Dredge funding or buy suitable dredge for dredging needs	Low	N/A	N/A	N/A	N/A
Parking and vehicle circulation plan	Low	N/A	N/A	N/A	N/A
Total Costs		**$100,000**	**$398,000**	**$130,000**	***$538,000**

* Not including costs not available at this time

TRANSPORTATION SYSTEM PLAN IMPLEMENTATION PROGRAM

Implementation of the Gold Beach Transportation System Plan will require both changes to the city comprehensive plan and zoning code and preparation of a 20-Year Capital Improvement Plan. These actions will enable Gold Beach to address both existing and emerging transportation issues throughout the urban area in a timely and cost effective manner.

One part of the implementation program is the formulation of a 20-Year Capital Improvement Plan (CIP). The purpose of the CIP is to detail what transportation system improvements will be needed as Gold Beach grows and provide a process to fund and schedule the identified transportation system improvements. It is expected that the Transportation System Plan Capital Improvement Plan can be integrated into the existing city CIP and the ODOT STIP. This integration is important since the Transportation System Plan proposes that both governmental agencies will fund some of the transportation improvement projects.

Model policy and ordinance language that conforms to the requirements of the Transportation Planning Rule is included in Chapter 9. The proposed ordinance amendments will require approval by the City Council and those that affect the unincorporated urban area will also require approval by the Board of County Commissioners.

20-Year Capital Improvement Program

The CIP is shown with the following priorities:

- High Priority (0 to 5 years)
- Medium Priority (5 to 10 years)
- Low Priority (10 to 20 years)

These priorities are based on current need, the relationship between transportation service needs, and the expected growth of the city. The following schedule indicates priorities and may be modified to reflect the availability of finances or the actual growth in population and employment.

Table 7-9 summarizes the CIP. It lists the projects by type, prioritizes them, and provides cost information. The cost estimates for all the projects listed on the CIP were prepared on the basis of 1998 dollars. These costs

include design, construction, and some contingency costs. They are preliminary estimates and generally do not include right-of-way acquisition, water or sewer facilities, adding or relocating public utilities, or detailed intersection design.

Gold Beach has identified a total of 28 projects in its CIP with a cost of $15,046,000. Sixteen high priority projects have been identified with a cost of about $3,586,000. Two medium priority projects have been identified with a cost of about $240,000. Finally, eight low priority projects have been identified, with a cost of about $11,220,000.

TABLE 7-9
PRIORITIZED CAPITAL IMPROVEMENT PROGRAM (1998) DOLLARS

Project Description	Local Cost	State Cost	Federal Cost	Total Cost
High Priority				
US 101 – Improve safety on approach to Rogue River Bridge	$0	$15,000	$0	$15,000
Alternative Route to US 101 – Recommended that Elk River Rd, Euchre Creek Rd and Forest Service Rd 5502 be developed a parallel alternative to US 101	$0	$1,800,000	$0	$1,800,000
Acquire easement/revise Airport Layout Plan	$0	$0	$20,000	$20,000
Rehabilitation of apron	$0	$0	$157,000	$157,000
Install MIRL/revise Airport Layout Plan as-built	$0	$0	$72,000	$72,000
Construct T-hangar taxiways (east side of runway)/revise Airport Layout Plan	$0	$0	$34,000	$34,000
Conduct Master Plan update	$0	$0	$50,000	$50,000
Rehabilitation of runway (overlay)	$0	$0	$500,000	$500,000
Rehabilitation of taxiway (overlay)	$0	$0	$200,000	$200,000
Relocation of road from clear zone to runway/revise Airport Layout Plan as-built	$0	$0	$200,000	$200,000
Launch ramp renovation	$0	$130,000	$0	$130,000
Handicap public fishing pier	$7,000	$28,000	$0	$35,000
Interpretive signing along waterfront areas	$10,000	$0	$40,000	$50,000
Jetty improvement	$0	$150,000	$0	$150,000
Huntley Park Boat Launch Ramp	$0	$90,000	$0	$90,000
Paved Parking by Boat Launch	$83,000	$0	$0	$83,000
Medium Priority				
Port of Gold Beach sidewalk expansion	N/A	N/A	N/A	N/A
Port of Gold Beach Upper Lands Nature/Fitness Trail and bicycle path	$240,000	$0	$0	$240,000
Low Priority				
Construct additional docks and other moorage facilities	N/A	N/A	N/A	N/A
Dredge funding or buy suitable dredge for dredging needs	N/A	N/A	N/A	N/A
Parking and vehicle circulation plan	N/A	N/A	N/A	N/A
US 101 Rogue River Bridge #01172	$0	$10,142,000	$0	$10,142,000
US 101 Rogue River Bridge #01172 Lighting Improvements	$0	$250,000	$0	$250,000
US 101 Bridge #15c010 (county owned) on FAS 304 over Hunter Creek (MP0.40)	$0	$596,000	$0	$596,000
Oceanfront boardwalk west of the airport overlooking the Rogue River	N/A	N/A	N/A	N/A
Oceanfront bike and pedestrian path from Bridge Park to South Beach Park	$232,000	$0	$0	$232,000
Subtotal High Priority	**$100,000**	**$2,213,000**	**$1,273,000**	**$3,586,000**
Subtotal Medium Priority	**$240,000**	**$0**	**$0**	***$240,000**
Subtotal Low Priority	**$232,000**	**$10,988,000**	**$0**	***$11,220,000**
Total	***$572,000**	***$13,201,000**	***$1,273,000**	***$15,046,000**

* Not including costs not available at this time

Curry County, the City of Gold Beach, the Siskiyou National Forest, and ODOT District 7 expressed interest in a cooperative maintenance agreement concurrent with development of the transportation system plan. The work on the maintenance plan was initiated because of an understanding by each agency that maintenance issues extended beyond jurisdictional boundaries. This is of particular importance in Curry County because a majority of the land area is managed by the US Forest Service and most access into and out of the county is dependent on the state highway system. There was also a realization that forest management activities, such as timber sales, have an impact on the county road system. Because of this interdependence, each of the agencies agreed to prepare a cooperative maintenance agreement. A Memorandum of Understanding for the maintenance plan was drafted and is included in the TSP as an appendix (Appendix E).

CHAPTER 8: FUNDING OPTIONS AND FINANCIAL PLAN

The Transportation Planning Rule requires Transportation System Plans to evaluate the funding environment for recommended improvements. This evaluation must include a listing of all recommended improvements, estimated costs to implement those improvements, a review of potential funding mechanisms, and an analysis of existing sources' ability to fund proposed transportation improvement projects. Gold Beach's TSP identifies 26 specific recommendations that address deficiencies, safety issues, or access concerns in addition to revisions to the development ordinance and the development transportation demand management strategies. This section of the TSP provides an overview of Gold Beach's revenue outlook and a review of some funding and financing options that may be available to the City of Gold Beach to fund the improvements.

Pressures from increasing growth throughout much of Oregon have created an environment of estimated improvements that remain unfunded. Gold Beach will need to work with Curry County and ODOT to finance the alternative route and other potential new transportation projects over the 20-year planning horizon. The actual timing of these projects will be determined by the rate of population and employment growth actually experienced by the community. This TSP assumes Gold Beach will grow at an annual rate of 1.5 percent. If population growth exceeds this rate, the improvements may need to be accelerated. Slower than expected growth will relax the improvement schedule.

HISTORICAL STREET IMPROVEMENT FUNDING SOURCES

In Oregon, state, county, and city jurisdictions work together to coordinate transportation improvements. In addition to this overlapping jurisdiction of the road network, transportation improvements are funded through a combination of federal, state, county, and city sources.

Table 8-1 shows the distribution of road revenues for the different levels of government within the state by jurisdiction level. Although these numbers were collected and tallied in 1991, ODOT estimates that these figures accurately represent the current revenue structure for transportation-related needs.

TABLE 8-1
SOURCES OF ROAD REVENUES BY JURISDICTION LEVEL

	Jurisdiction Level			All
Revenue Source	State	County	City	Funds
State Road Trust	58%	38%	41%	48%
Local	0%	22%	55%	17%
Federal Road	34%	40%	4%	30%
Other	9%	0%	0%	4%
Total	100%	100%	100%	100%

Source: *ODOT 1993 Oregon Road Finance Study.*

At the state level, nearly half (48 percent in Fiscal Year 1991) of all road-related revenues are attributable to the State Highway Fund (State Road Trust), whose sources of revenue include fuel taxes, weight-mile taxes on trucks, and vehicle registration fees. As shown in the table, the state road trust is a considerable source of revenue for all levels of government. Federal sources (generally the federal highway trust account and federal forest revenues) comprise another 30 percent of all road-related revenue. The remaining sources of road-related revenues are generated locally, including property taxes, LIDs, bonds, traffic impact fees, road user taxes, general fund transfers, receipts from other local governments, and other sources.

As a state, Oregon generates 94 percent of its highway revenues from user fees, compared to an average of 78 percent among all states. This fee system, including fuel taxes, weight distance charges, and registration fees, is regarded as equitable because it places the greatest financial burden upon those who create the greatest need for road maintenance and improvements. Unlike many states that have indexed user fees to inflation, Oregon has

static road-revenue sources. For example, rather than assessing fuel taxes as a *percentage* of price per gallon, Oregon's fuel tax is a fixed amount (currently 24 cents) per gallon.

Transportation Funding in Curry County

Historically, sources of road revenues for Curry County have included federal grants, state revenues, intergovernmental transfers, interest from the working fund balance, and other sources. Transportation revenues and expenditures for Curry County are shown in Tables 8-2 and 8-3. These tables present receipts and disbursements for road and street purposes as reported by counties to ODOT.

TABLE 8-2
CURRY COUNTY TRANSPORTATION-RELATED REVENUES

	1993-1994 Actual	1994-1995 Actual	1995-1996 Actual	1996-1997 Actual	1997-1998 Budget
Working Capital	$3,010,002	$2,679,024	$2,101,003	$1,890,500	$2,437,000
Federal Apportionments	$2,164,549	$3,017,444	$2,914,134	$2,810,840	$2,690,000
State Apportionments	$1,204,633	$1,232,304	$1,264,269	$1,211,264	$1,245,000
Local Receipts	$111,995	$182,640	$192,277	$175,930	$156,000
Misc.	$19,737		$13,744	$107,071	$220,000
Misc. Reimbursement	$71,382				$258,000
Fund Transfers	$35,592	$29,789	$62,141	$152,584	$71,288
Sale of Equipment	$23,683		$355		$2,000
Revenue Subtotal	**$3,631,571**	**$4,462,177**	**$4,446,920**	**$6,348,189**	**$4,642,288**

Source: *Curry County.*

As shown in Table 8-3, revenues have increased from $3.6 million in 1993-1994 to over $6.3 million in 1996-1997. Approximately $3 million of the annual revenues come from Federal apportionments (mostly Federal Forest receipts). Twenty-five percent of Federal Forest revenue (the 25 percent fund) is returned to the counties based on their share of the total acreage of Federal Forests. Westside forests are subject to the "Owl Guarantee." Intended to protect Spotted Owl habitat, the guarantee also protects the revenue streams from these forests to a maximum three-percent decline annually. The forest in Curry County is the Siskiyou Forest, which is subject to the "Owl Guarantee." Another $1.2 million in revenues is from the state highway fund. With a healthy working capital balance, the county has also been able to generate over $100,000 annually in interest and other miscellaneous local receipts. As working capital is the amount carried over from previous years, it is typically reported separately from revenues, which represents the amount of new revenue to the fund each budget year.

TABLE 8-3
CURRY COUNTY TRANSPORTATION-RELATED EXPENDITURES

	1993-1994 Actual	1994-1995 Actual	1995-1996 Actual	1996-1997 Actual	1997-1998 Budget
Personal Services	$1,154,062	$1,124,785	$1,136,899	$1,180,297	$1,263,249
Materials and Services	$1,195,697	$1,062,897	$1,063,999	$1,119,027	$1,246,813
Capital Outlay	$1,484,896	$1,587,206	$880,597	$1,051,041	$1,656,500
Transfers	$127,904	$1,265,310	$829,796	$570,656	$1,688,198
Operating Contingency					$300,000
Expenditure Subtotal	**$3,962,559**	**$5,040,198**	**$3,911,291**	**$3,921,021**	**$6,154,760**

Source: *Curry County.*

As shown in Table 8-3, Curry County has spent between $0.9 million and $1.6 million annually in capital improvements. The county also transfers money to a reserve fund for larger-scale capital improvements. Some transfers are to the general fund to pay for a portion of general overhead attributed to the street fund.

Historical Revenues and Expenditures in the City of Gold Beach

Revenues and expenditures for the City of Gold Beach's Street Fund are shown in Tables 8-4 and 8-5. Sources of revenues available for street operations and maintenance include the state highway fund, interest from the working capital balance, and grants for specific projects.

TABLE 8-4
CITY OF GOLD BEACH STREET FUND REVENUES

	1995-96	1996-97	1997-98	1998-99
Beginning Balance	$18,411	$36,457	$109,700	$195,700
State Gas Tax	$87,415	$99,787	$98,200	$95,550
Interest	$1,878	$4,274	$7,000	$12,000
Misc. Receipts	$649	$152		
	$89,942	**$104,213**	**$105,200**	**$107,550**

Source: The City of Gold Beach.

As shown in Table 8-4, funds from the State Highway Fund provide the majority of the revenues available to the City of Gold Beach's Street Fund. A healthy working capital balance has also allowed the city to generate stable revenues from interest.

TABLE 8-5
CITY OF GOLD BEACH STREET FUND EXPENDITURES

	1995-96	1996-97	1997-98	1998-99
Materials and Services	$22,647	$15,774	$24,000	$21,450
Capital Outlay	$49,249	$7,021	$190,900	$281,800
	$71,896	**$22,795**	**$214,900**	**$303,250**

Source: *City of Gold Beach.*

The City of Gold Beach's expenditures have been categorized as materials and services and capital outlay. Typically, the capital outlay category captures expenditures for new roadway improvements. For the purposes of estimating funds available for capital expenditures, this analysis assumes that the actual expenditures for years 1995-96 and 1996-97 reflect the amounts typically available for capital outlay.

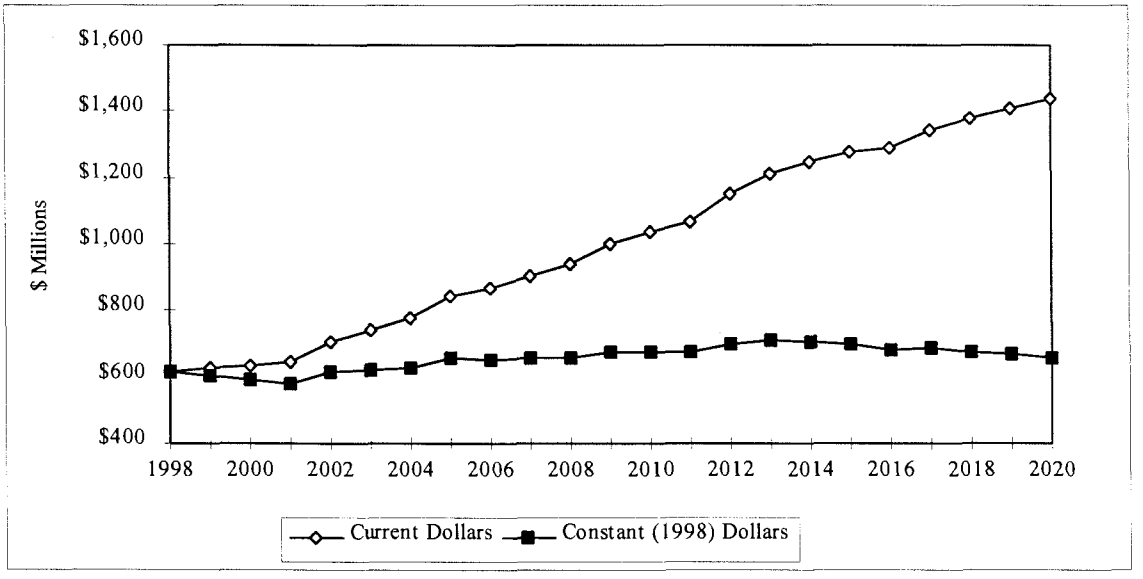
Transportation Revenue Outlook in the City of Gold Beach

ODOT's policy section recommends certain assumptions in the preparation of transportation plans. In its Financial Assumptions document prepared in May 1998, ODOT projected the revenue of the State Highway Fund through year 2020. The estimates are based on not only the political climate, but also the economic structure and conditions, population and demographics, and patterns of land use. The latter is particularly important for state-imposed fees because of the goals in place under Oregon's Transportation Planning Rule (TPR) requiring a 10-percent reduction in per-capita vehicle miles of travel (VMT) in Metropolitan Planning Areas (MPO) areas by year 2015, and a 20-percent reduction by year 2025. This requirement will affect the 20-year revenue forecast from the fuel tax. ODOT recommends the following assumptions:

- Fuel tax increases of 1 cent per gallon per year (beginning in year 2002), with an additional 1 cent per gallon every fourth year;
- Vehicle registration fees would be increased by $10 per year in 2002, and by $15 per year in year 2012;
- Revenues will fall halfway between the revenue-level generated without TPR and the revenue level if TPR goals were fully met; and
- The revenues will be shared among the state, counties, and cities on a "50-30-20 percent" basis rather than the previous "60.05-24.38-15.17 percent" basis;
- Inflation occurs at an average annual rate of 3.6 percent (as assumed by ODOT).

Figure 8-1 shows the forecast in both current-dollar and inflation-deflated constant (1998) dollars. As highlighted by the constant-dollar data, the highway fund is expected to grow slower than inflation early in the planning horizon until fuel-tax and vehicle-registration fee increases occur in year 2002, increasing to a rate somewhat faster than inflation through year 2015, continuing a slight decline through the remainder of the planning horizon.

FIGURE 8-1
STATE HIGHWAY FUND RECOMMENDED SCENARIO



Source: ODOT Financial Assumptions.

As the State Highway Fund is expected to remain a significant source of funding for Gold Beach's street operations, the city is highly susceptible to changes in the State Highway Fund. In recent years, the State Highway Fund has supplied the majority of Gold Beach's total street fund revenue.
In order to analyze the City's ability to fund the recommended improvements from current sources, DEA applied the following assumptions:

- The State Highway Fund will continue to account for the majority of the City's Street Fund;
- Interest and other local sources continue to provide stable revenue streams; and
- The proportion of revenues available for capital expenditures for street improvements will be a small, but stable, proportion of overall street expenditures.

Applying these assumptions to the estimated level of the State Highway Fund resources, as recommended by ODOT, resources available to Gold Beach for all operations, maintenance, and capital outlay purposes are estimated at between $90,000 and $110,000 annually (in current 1998 dollars), as shown in Table 8-6.

TABLE 8-6
ESTIMATED RESOURCES AVAILABLE TO CITY OF GOLD BEACH FROM STATE HIGHWAY FUND, 1998 DOLLARS

Year	Total Estimated Resources from State Highway Fund	Estimated Funds Available for Capital Outlay
1999	$95,000	$28,000
2000	$93,000	$27,000
2001	$91,000	$27,000
2002	$89,000	$26,000
2003	$94,000	$28,000
2004	$96,000	$28,000
2005	$97,000	$29,000
2006	$101,000	$30,000
2007	$100,000	$30,000
2008	$101,000	$30,000
2009	$101,000	$30,000
2010	$104,000	$31,000
2011	$104,000	$31,000
2012	$104,000	$31,000
2013	$108,000	$32,000
2014	$109,000	$32,000
2015	$108,000	$32,000
2016	$108,000	$32,000
2017	$104,000	$31,000
2018	$105,000	$31,000
2019	$104,000	$31,000

The amount actually received from the State Highway Fund will depend on a number of factors, including:

- the actual revenue generated by state gasoline taxes, vehicle registration fees, and other sources; and
- the population growth in Gold Beach (since the distribution of state highway funds is based on an allocation formula which includes population).

Based on the amount of resources historically available to fund capital improvements this analysis suggests that the City of Gold Beach will have between $26,000 and $32,000 available annually for capital improvements.

REVENUE SOURCES

In order to finance the recommended transportation system improvements requiring expenditure of capital resources, it will be important to consider a range of funding sources. Although the property tax has traditionally served as the primary revenue source for local governments, property tax revenue goes into general fund operations, and is typically not available for street improvements or maintenance. Despite this limitation, the use of alternative revenue funding has been a trend throughout Oregon as the full implementation of Measure 5 has

significantly reduced property tax revenues (see below). This trend is expected to continue with the recent passage of Measure 47. The alternative revenue sources described in this section may not all be appropriate in Gold Beach; however, this overview is being provided to illustrate the range of options currently available to finance transportation improvements during the next 20 years.

Property Taxes

Property taxes have historically been the primary revenue source for local governments. However, property tax revenue goes into general fund operations, and is not typically available for street improvements or maintenance. The dependence of local governments on this revenue source is due, in large part, to the fact that property taxes are easy to implement and enforce. Property taxes are based on real property (i.e., land and buildings), which have a predictable value and appreciation to base taxes upon. This is as opposed to income or sales taxes, which can fluctuate with economic trends or unforeseen events.

Property taxes can be levied through: 1) tax base levies, 2) serial levies, and 3) bond levies. The most common method uses tax base levies that do not expire and are allowed to increase by six percent per annum. Serial levies are limited by the amount and time they can be imposed. Bond levies are for specific projects and are limited by time based on the debt load of the local government or the project.

The historic dependence on property taxes is changing with the passage of Ballot Measure 5 in the early 1990s. Ballot Measure 5 limits the property tax rate for purposes other than payment of certain voter-approved general obligation indebtedness. Under full implementation, the tax rate for all local taxing authorities is limited to $15 per $1,000 of assessed valuation. As a group, all non-school taxing authorities are limited to $10 per $1,000 of assessed valuation. All tax base, serial, and special levies are subject to the tax rate limitation. Ballot Measure 5 requires that all non-school taxing districts' property tax rate be reduced if together they exceed $10 per $1,000 per assessed valuation by the county. If the non-debt tax rate exceeds the constitutional limit of $10 per $1,000 of assessed valuation, then all of the taxing districts' tax rates are reduced on a proportional basis. The proportional reduction in the tax rate is commonly referred to as compression of the tax rate.

Measure 47, an initiative petition, was passed by Oregon voters in November 1996. It is a constitutional amendment that reduces and limits property taxes and limits local revenues and replacement fees. The measure limits 1997-98 property taxes to the lesser of the 1995-96 tax minus 10 percent, or the 1994-95 tax. It limits future annual property tax increases to three percent, with exceptions. Local governments' lost revenue may be replaced only with state income tax, unless voters approve replacement fees or charges. Tax levy approvals in certain elections require 50 percent voter participation.

The state legislature created Measure 50, which retains the tax relief of Measure 47 but clarifies some legal issues. Voters approved this revised tax measure in May 1997.

The League of Oregon Cities (LOC) estimated that direct revenue losses to local governments, including school districts, will total $467 million in fiscal year 1998, $553 million in 1999, and increase thereafter. The actual revenue losses to local governments will depend on actions of the Oregon Legislature. LOC also estimates that the state will have revenue gains of $23 million in 1998, $27 million in 1999, and increase thereafter because of increased personal and corporate tax receipts due to lower property tax deduction.

Measure 50 adds another layer of restrictions to those which govern the adoption of tax bases and levies outside the tax base, as well as Measure 5's tax rate limits for schools and non-schools and tax rate exceptions for voter approved debt. Each new levy and the imposition of a property tax must be tested against a longer series of criteria before the collectible tax amount on a parcel of property can be determined.

System Development Charges

System Development Charges (SDCs) are becoming increasingly popular in funding public works infrastructure needed for new local development. Generally, the objective of systems development charges is to allocate

portions of the costs associated with capital improvements upon the developments that increase demand on transportation, sewer or other infrastructure systems.

Local governments have the legal authority to charge property owners and/or developers fees for improving the local public works infrastructure based on projected demand resulting from their development. The charges are most often targeted towards improving community water, sewer, or transportation systems. Systems Development charges must be established through an ordinance or resolution, supported by a capital improvement plan, public facility plan, master plan, or other comparable plan documenting the projects eligible for SDSs and establishing the methodology for calculating the proportionate share.

SDCs are collected when new building permits are issued. Transportation SDCs are based on expected trip generation of the proposed development. Residential calculations would be based on the assumption that a typical household will generate a given number of vehicle trips per day. Nonresidential use calculations are based on employee ratios for the type of business or industrial uses. The SDC revenues would help fund the construction of transportation facilities necessitated by new development.

State Highway Fund

Gas tax revenues received from the State of Oregon are used by all counties and cities to fund street and road construction and maintenance. In Oregon, the State collects gas taxes, vehicle registration fees, overweight/overheight fines and weight/mile taxes and returns a portion of the revenues to cities and counties through an allocation formula. The revenue share to cities is divided among all incorporated cities based on population. Like other Oregon cities, the City of Gold Beach uses its state gas tax allocation to fund street construction and maintenance.

Local Gas Taxes

The Oregon Constitution permits counties and incorporated cities to levy additional local gas taxes with the stipulation that the moneys generated from the taxes will be dedicated to street-related improvements and maintenance within the jurisdiction. At present, only a few local governments (including the cities of Woodburn and The Dalles and Multnomah and Washington Counties) levy a local gas tax. The City of Gold Beach may consider raising its local gas tax as a way to generate additional street improvement funds. However, with relatively few jurisdictions exercising this tax, an increase in the cost differential between gas purchased in Gold Beach and gas purchased in neighboring communities may encourage drivers to seek less expensive fuel elsewhere. Any action will need to be supported by careful analysis to minimize the unintended consequences of such an action.

Vehicle Registration Fees

The Oregon Vehicle Registration Fee is allocated to the State, counties and cities for road funding. Oregon counties are granted authority to impose a vehicle registration fee covering the entire county. The Oregon Revised Statutes would allow Curry County to impose a biannual registration fee for all passenger cars licensed within the County. Although both counties and special districts have this legal authority, vehicle registration fees have not been imposed by local jurisdictions. In order for a local vehicle registration fee program to be viable in Curry County, all the incorporated cities and the county would need to formulate an agreement which would detail how the fees would be spent on future street construction and maintenance.

Local Improvement Districts

The Oregon Revised Statutes allow local governments to form Local Improvement Districts (LIDs) to construct public improvements. LIDs are most often used by cities to construct localized projects such as streets, sidewalks or bikeways. The statutes allow formation of a district by either the city government or property owners. Cities that use LIDs are required to have a local LID ordinance that provides a process for district formation and payback provisions. Through the LID process, the cost of local improvements are generally spread out among a group of property owners within a specified area. The cost can be allocated based on property frontage or other

methods such as traffic trip generation. The types of allocation methods are only limited by the Local Improvement ordinance. The cost of LID participation is considered an assessment against the property which is a lien equivalent to a tax lien. Individual property owners typically have the option of paying the assessment in cash or applying for assessment financing through the city. Since the passage of Ballot Measure 5, cities have most often funded local improvement districts through the sale of special assessment bonds.

GRANTS AND LOANS

There are a variety of grant and loan programs available, most with specific requirements relating to economic development or specific transportation issues, rather than for the general construction of new streets. Many programs require a match from the local jurisdiction as a condition of approval. Because grant and loan programs are subject to change as well as statewide competition, they should not be considered a secure long-term funding source for Gold Beach. Most of the programs available for transportation projects are funded and administered through ODOT and/or the Oregon Economic Development Department (OEDD). Some programs that may be appropriate for the Gold Beach are described below.

Bike-Pedestrian Grants

By law (ORS 366.514), all road street or highway construction or reconstruction projects must include facilities for pedestrians and bicyclists, with some exceptions. ODOT's Bike and Pedestrian Program administers two programs to assist in the development of walking and bicycling improvements: local grants, and Small-Scale Urban Projects. Cities and counties with projects on local streets are eligible for local grant funds. An 80 percent state/20 percent local match ratio is required. Eligible projects include curb extensions, pedestrian crossing and intersection improvements, shoulder widening and restriping for bike lanes. Projects on urban state highways with little or no right-of-way taking and few environmental impacts are eligible for Small-Scale Urban Project Funds. Both programs are limited to projects costing up to $100,000. Projects that cost more than $100,000, require the acquisition of ROW, or have environmental impacts should be submitted to ODOT for inclusion in the STIP

The contact person for the Bike and Pedestrian Program is Michael Ronkin, who can be reached at (503) 986-3555.

Access Management

The Access Management Program sets aside approximately $500,000 a year to address access management issues. One primary component of this program is an evaluation of existing approach roads to state highways. These funds are not committed to specific projects, and priorities and projects are established by an evaluation process.

The contact person for the Access Management Program is Del Huntington, who can be reached at (503) 986-4216.

Enhancement Program

This federally-funded program earmarks $8 million annually for projects in Oregon. Projects must demonstrate a link to the intermodal transportation system, compatibility with approved plans, and local financial support. A 10.27 percent local match is required for eligibility. Each proposed project is evaluated against all other proposed projects in its region. Within the five Oregon regions, the funds are distributed on a formula based on population, vehicle miles traveled, number of vehicles registered and other transportation-related criteria. The solicitation for applications was mailed to cities and counties the last week of October 1998. Local jurisdictions have until January 1999 to complete and file their applications for funding available during the 2000-2003 fiscal years, which begin October 1999.

The contact person for the Enhancement Program is Pat Rogers, who can be reached at (503) 986-3528.

Highway Bridge Rehabilitation or Replacement Program

The Highway Bridge Rehabilitation or Replacement Program (HBRR) provides federal funding for the replacement and rehabilitation of bridges of all functional classifications. A portion of the HBRR funding is allocated for the improvement of bridges under local jurisdiction. A quantitative ranking system is applied to the proposed projects based on sufficiency rating, cost factor, and load capacity. They are ranked against other projects statewide, and require state and local matches of 10 percent each. It includes the Local Bridge Inspection Program and the Bridge Load Rating Program.

The contact person for the Highway Bridge Rehabilitation or Replacement Program is Mark Hirota, who can be reached at (503) 986-3344.

Transportation Safety Grant Program

Managed by ODOT's Transportation Safety Section (TSS), this program's objective is to reduce the number of transportation-related accidents and fatalities by coordination a number of statewide programs. These funds are intended to be used as seed money, funding a program for three years. Eligible programs include programs in impaired driving, occupant protection, youth, pedestrian, speed, enforcement, bicycle and motorcycle safety. Every year, TSS produces a Highway Safety Plan that identifies the major safety programs, suggests countermeasures to existing safety problems, and lists successful projects selected for funding, rather than granting funds through an application process.

The contact person for the Transportation Safety Grant Program is Troy Costales, who can be reached at 986-4192.

Special Transportation Fund

The Special Transportation Fund (STF) awards funds to maintain, develop, and improve transportation services for people with disabilities and people over 60 years of age. Financed by a two-cent tax on each pack of cigarettes sold in the state, the annual distribution is approximately $5 million. Three-quarters of these funds are distributed to mass transit districts, transportation districts, and where such districts do not exist, counties, on a per-capita formula. The remaining funds are distributed on a discretionary basis.

The contact person for the Special Transportation Fund is Gary Whitney, who can be reached at (503) 986-3885.

Special Small City Allotment Program

The Special Small City Allotment Program (SCA) is restricted to cities with populations under 5,000 residents. Unlike some other grant programs, no locally funded match is required for participation. Grant amounts are limited to $25,000 and must be earmarked for surface projects (drainage, curbs, sidewalks, etc.). However, the program does allow jurisdictions to use the grants to leverage local funds on non-surface projects if the grant is used specifically to repair the affected area. Criteria for the $1 million in total annual grant funds include traffic volume, the five-year rate of population growth, surface wear of the road, and the time since the last SCA grant. In Curry County, Port Orford has benefited from a grant from this program in 1995-96.

The contact person for the Special City Allotment Program is Michael Augden, who can be reached at (503) 986-3893.

Immediate Opportunity Grant Program

The Oregon Economic Development Department (OEDD) and ODOT collaborate to administer a grant program designed to assist local and regional economic development efforts. The program is funded to a level of approximately $7 million per year through state gas tax revenues. The following are primary factors in determining eligible projects:

- Improvement of public roads;
- Inclusion of an economic development-related project of regional significance;
- Creation or retention of primary employment; and
- Ability to provide local funds (50/50) to match grant.

The maximum amount of any grant under the program is $500,000. Local governments that have received grants under the program include Washington County, Multnomah County, Douglas County, the City of Hermiston, Port of St. Helens, and the City of Newport.

The contact person for Immediate Opportunity Fund programs is Mark Ford, who can be reached at (503) 986-3463.

Oregon Special Public Works Fund

The Special Public Works Fund (SPWF) program was created by the 1995 State Legislature as one of several programs for the distribution of funds from the Oregon Lottery to economic development projects in communities throughout the State. The program provides grant and loan assistance to eligible municipalities primarily for the construction of public infrastructure which support commercial and industrial development that result in permanent job creation or job retention. To be awarded funds, each infrastructure project must support businesses wishing to locate, expand, or remain in Oregon. SPWF awards can be used for improvement, expansion, and new construction of public sewage treatment plants, water supply works, public roads, and transportation facilities.

While SPWF program assistance is provided in the form of both loans and grants, the program emphasizes loans in order to assure that funds will return to the State over time for reinvestment in local economic development infrastructure projects. Jurisdictions that have received SPWF funding for projects that include some type of transportation-related improvement include the Cities of Baker City, Bend, Cornelius, Forest Grove, Madras, Portland, Redmond, Reedsport, Toledo, Wilsonville, Woodburn, and Douglas County.

The contact person for the Oregon Special Public Works Fund is Betty Pongracz, who can be reached at (503) 986-0136.

Oregon Transportation Infrastructure Bank

The Oregon Transportation Infrastructure Bank (OTIB) program is a revolving loan fund administered by ODOT to provide loans to local jurisdictions (including cities, counties, special districts, transit districts, tribal governments, ports, and state agencies). Eligible projects include construction of federal-aid highways, bridges, roads, streets, bikeways, pedestrian accesses, and right-of-way costs. Capital Outlays such as buses, light-rail cars and lines, maintenance years and passenger facilities are also eligible.

The contact person for the Oregon Transportation Infrastructure Bank is John Fink, who can be reached at (503) 986-3922.

ODOT Funding Options

The State of Oregon provides funding for all highway related transportation projects through the Statewide Transportation Improvement Program (STIP) administered by the Oregon Department of Transportation. The STIP outlines the schedule for ODOT projects throughout the State. The STIP, which identifies projects for a three-year funding cycle, is updated on an annual basis. Starting with the 1998 budget year, ODOT will then identify projects for a four-year funding cycle. In developing this funding program, ODOT must verify that the identified projects comply with the Oregon Transportation Plan (OTP), ODOT Modal Plans, Corridor Plans, local comprehensive plans, and TEA-21 planning requirements. The STIP must fulfill federal planning

requirements for a staged, multi-year, statewide, intermodal program of transportation projects. Specific transportation projects are prioritized based on federal planning requirements and the different State plans. ODOT consults with local jurisdictions before highway related projects are added to the STIP.

The highway-related projects identified in Gold Beach's TSP will be considered for future inclusion on the STIP. The timing of including specific projects will be determined by ODOT based on an analysis of all the project needs within Region 3. The City of Gold Beach, Curry County, and ODOT will need to communicate on an annual basis to review the status of the STIP and the prioritization of individual projects within the project area. Ongoing communication will be important for the City, County, and ODOT to coordinate the construction of both local and state transportation projects.

ODOT also has the option of making some highway improvements as part of their ongoing highway maintenance program. Types of road construction projects that can be included within the ODOT maintenance programs are intersection realignments, additional turn lanes, and striping for bike lanes. Maintenance related construction projects are usually done by ODOT field crews using State equipment. The maintenance crews do not have the staff or specialized road equipment needed for large construction projects.

An ODOT funding technique that will likely have future application to Gold Beach's TSP is the use of state and federal transportation dollars for off-system improvements. Until the passage and implementation of ISTEA, state and federal funds were limited to transportation improvements within highway corridors. ODOT now has the authority and ability to fund transportation projects that are located outside the boundaries of the highway corridors. The criteria for determining what off-system improvements can be funded has not yet been clearly established. It is expected that this new funding technique will be used to finance local system improvements that reduce traffic on state highways or reduce the number of access points for future development along state highways.

FINANCING TOOLS

In addition to funding options, the recommended improvements listed in this plan may benefit from a variety of financing options. Although often used interchangeably, the words financing and funding are not the same. Funding is the actual generation of revenue by which a jurisdiction pays for improvements, some examples include the sources discussed above: property taxes, SDCs, fuel taxes, vehicle registration fees, LIDs, and various grant programs. In contrast, financing refers to the collecting of funds through debt obligations.

There are a number of debt financing options available to the City of Gold Beach. The use of debt to finance capital improvements must be balanced with the ability to make future debt service payments and to deal with the impact on its overall debt capacity and underlying credit rating. Again, debt financing should be viewed not as a source of funding, but as a time shifting of funds. The use of debt to finance these transportation-system improvements is appropriate since the benefits from the transportation improvements will extend over the period of years. If such improvements were to be tax financed immediately, a large short-term increase in the tax rate would be required. By utilizing debt financing, local governments are essentially spreading the burden of the costs of these improvements to more of the people who are likely to benefit from the improvements and lowering immediate payments.

General Obligation Bonds

General Obligation (GO) bonds are voter-approved bond issues which represent the least expensive borrowing mechanism available to municipalities. GO bonds are typically supported by a separate property tax levy specifically approved for the purposes of retiring debt. The levy does not terminate until all debt is paid off. The property tax levy is distributed equally throughout the taxing jurisdiction according to assessed value of property. General obligation debts typically are used to make public improvement projects that will benefit the entire community.

State statutes require that the general obligation indebtedness of a city not exceed three percent of the real market value of all taxable property in the city. Since general obligation bonds would be issued subsequent to voter approval, they would not be restricted to the limitations set forth in Ballot Measures 5, 47, and 50. Although new bonds must be specifically voter approved, Measure 47 and 50 provisions are not applicable to outstanding bonds, unissued voter-approved bonds, or refunding bonds.

Limited Tax Bonds

Limited tax general obligation bonds (LTGOs) are similar to general obligation bonds in that they represent an obligation of the municipality. However, a municipality's obligation is limited to its current revenue sources and is not secured by the public entity's ability to raise taxes. As a result, LTGOs do not require voter approval. However, since the LTGOs are not secured by the full taxing power of the issuer, the limited tax bond represents a higher borrowing cost than general obligation bonds. The municipality must pledge to levy the maximum amount under constitutional and statutory limits, but not the unlimited taxing authority pledged with GO bonds. Because LTGOs are not voter approved, they are subject to the limitations of Ballot Measures 5, 47, and 50.

Bancroft Bonds

Under Oregon Statute, municipalities are allowed to issue Bancroft bonds that pledge the city's full faith and credit to assessment bonds. As a result, the bonds become general obligations of the city but are paid with assessments. Historically, these bonds provided a city with the ability to pledge its full faith and credit in order to obtain a lower borrowing cost without requiring voter approval. However, since Bancroft bonds are not voter approved, taxes levied to pay debt service on them are subject to the limitations of Ballot Measures 5, 47, and 50. As a result, since 1991, Bancroft bonds have not been used by municipalities who were required to compress their tax rates.

FUNDING REQUIREMENTS

Gold Beach's TSP identifies both capital improvements and strategic efforts recommended during the next 20 years to address safety and access problems and to expand the transportation system to support a growing population and economy. They have been classified within three priority levels:

- Short-Range: within the next five years;
- Intermediate-Range: between year six and year 10; and
- Long-Range: after year 10.

The projects include 16 high-priority projects, totaling an estimated $3.5 million, 2 medium priority projects to be led by the Port of Gold Beach, and 8 low-priority projects, including 3 bridge projects. Total estimated costs, listed by financial leader and priority level are shown in Table 8-7.

TABLE 8-7
RECOMMENDED PROJECTS AND FINANCIAL RESPONSIBILITY

	Local Cost	State Cost	Federal Cost	Total Cost
High Priority	$100,000	$2,213,000	$1,273,000	$3,586,000
Medium Priority	$240,000	$0	$0	$240,000
Low Priority	$232,000	$10,988,000	$0	$11,220,000
Total	**$572,000**	**$13,201,000**	**$1,273,000**	**$15,046,000**

The projects have been categorized by their intended financial leader. As noted in Table 8-7, the city will be responsible for projects totaling $572,000 in estimated cost, with three projects totaling $100,000 in the first five years, one project estimated to cost $240,000 in the next five years, and one Oceanfront bike and pedestrian path

project estimated at $232,000 for the remainder of the planning horizon. Based on the resources available as estimated in Table 8-6, the City of Gold Beach is expected to be able to fund the five projects for which it has been identified as the financial leader, as shown in Table 8-8.

TABLE 8-8
ESTIMATED CAPITAL FUNDING BALANCE

	Years 0-5	Years 6-10	Years 11-20
Available	$136,000	$147,000	$400,000
Needed for city-funded projects	$100,000	$240,000	$232,000
Surplus (Deficit)	$36,000	$93,000	$168,000
Cumulative Surplus (Deficit)	**$36,000**	**$57,000**	**$111,000**

This TSP identifies 26 projects recommended for Gold Beach's planning area over the 20-year planning horizon. The City of Gold Beach is expected to be able to fund the five projects for which it has financial responsibility. Although this preliminary analysis shows a potential revenue surplus, this surplus is based on a review of existing funding sources and projects identified at this time. It is likely that new projects requiring additional resources will arise during this TSP's 20-year planning horizon. The City of Gold Beach will need to work with Curry County and ODOT to fund these and other projects identified in this transportation system plan.

APPENDIX A

REVIEW OF EXISTING PLANS AND POLICIES

REVIEW OF EXISTING PLANS AND POLICIES
CITY OF GOLD BEACH

The Comprehensive Plan for the City of Gold Beach was reviewed to establish the history of planning in the city and a comparison was made of the information in the existing Plan with the requirements of the Oregon Transportation Planning Rule (TPR). A description of the information in the Plan is provided followed by comments in italics.

CITY OF GOLD BEACH COMPREHENSIVE PLAN

The City of Gold Beach Comprehensive Plan was adopted on June 22, 1982.

The Gold Beach Comprehensive Plan is divided in two sections: the inventory section which contains both natural resource inventories and socio-economic inventories, and the plan section which then relates this information to the goals that the City will use as a guide for the future. These goals and policies are specifically implemented through a series of ordinances, primarily the zoning and subdivision ordinances. The goals and policies section was developed in group work sessions and it was the planning commission's desire to keep this part simple and to the point. The Plan is reviewed periodically, as the City's needs change, under the requirements of ORS 197.640.

The Plan contains nineteen goals:

1. Citizen's Involvement
2. Land Use Planning
3. Agricultural
4. Forest Land
5. Open Space, Scenic and Historic Areas, and Natural Resources
6. Air, Water, and Land Resource Quality
7. Areas Subject to Natural Disasters and Hazards
8. Recreational Needs
9. Economy
10. Housing
11. Public Facilities and Services
12. Transportation
13. Energy Conservation
14. Urbanization
15. *There is no Goal 15*
16. Estuarine Resources
17. Coast Shoreland
18. Beaches and Dunes
19. Ocean Resources

For each goal, the Plan lists policies. Only Goal 12 specifically relates to transportation.

Transportation Goal

Goal: To provide and encourage a safe, convenient and economic transportation system.

Policies:

a) To encourage new development which can utilize or improve the existing transportation system.

b) To improve the port facilities and greater utilize them for all types of waterborne transportation.

c) To support an East-West Highway for better access to the hinterland.

d) To encourage the development of bicycle paths.

e) To encourage improvements to the City's street system.

f) To encourage the expansion of air freight, air charter, and air service to the City.

g) To encourage coordination with the Gold Beach Airport Master Plan.

h) To continue to monitor the needs of the transportation disadvantaged and provide support as required.

I) To cooperate with the Oregon Department of Transportation Highway Division in the implementation of the ODOT Six-Year Highway Improvement Program.

The Plan contains an inventory of publicly maintained roads in the Urban Growth Area and county roads within the city limits, as well as an inventory of Curry County Public Air Facilities, dated 1977. Traffic volume data for US 101 are included for the years 1969, 1976, 1978, and 1979. All of these inventories are out-dated and will be updated as part of the development of the Transportation System Plan (TSP).

No projections of future travel demand, system operations, or needed improvements were presented. All of these elements will need to be included in the TSP to meet the requirements of the TPR.

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APPENDIX B

1997 MAJOR STREETS INVENTORY

APPENDIX B
1997 MAJOR STREETS INVENTORY
City of Gold Beach Transportation System Plan

Street Segment	Jurisdiction	Classification	Speed Limit (mph)	ROW Width (feet)	Street Width (feet)	# of Travel Lanes	Curbs	On-Street Parking	Sidewalks	Bikeway	Pavement Condition
Wedderburn Loop											
US 101 (north end) to Doyle Point Road	County	local	*	*	18-36	2	*	*	*	*	good
Doyle Point Road to Ocean Way	County	local	*	*	18-36	2	*	*	*	*	good
North Bank Rogue Road											
US 101 to Edson Creek Road	County	major collector	50	*	23-28	2	no	no	no	no	fair
Edson Creek Road to Squaw Valley Road	County	major collector	50	*	23-28	2	no	no	no	no	fair
Squaw Valley Road to Lobster Creek	County	major collector	50	*	23-28	2	no	no	no	no	fair
Jerry's Flat Road											
US 101 to east city limit	County	minor arterial	50	*	31-38	2	no	no	no	no	fair
East City Limit to Riverway Drive	County	minor arterial	50	*	31-38	2	no	no	no	no	fair
Riverway Drive to Anglers Trailer Park	County	minor arterial	50	*	37	2	no	no	no	yes	fair
Anglers Trailer Park to Lobster Creek	County	minor arterial	50	*	22-25	2	no	no	no	no	fair
Harbor Way											
US 101 to Port Drive	City	local	25	*	35-37	2	no	no	no	no	good
Port Drive to South Jetty Road	City	local	25	*	35-37	2	no	no	no	no	good
South Jetty Road to Moore Street	City	local	25	*	35-37	2	no	no	no	no	good
Port Drive											
Harbor Way to US 101	City	local	25	*	37	2	no	no	no	no	fair
South Jetty Road											
Oceanside Drive to Airport Way	City	local	25	*	33-37	2	no	no	no	no	poor
Airport Way to Harbor Street	City	local	25	*	27	2	no	no	no	no	gravel
Moore Street											
Airport Way to Harbor Way	City	local	25	*	35	2	yes	no	no	no	fair
Harbor Street to Mary Street	City	local	25	*	34	2	yes	yes	no	no	fair
Mary Street to US 101	City	local	25	*	36-49	2	yes	yes	yes	no	fair
US 101 to Colvin Street	City	local	25	*	36-49	2	yes	yes	yes	no	fair

*not available

APPENDIX B
1997 MAJOR STREETS INVENTORY
City of Gold Beach Transportation System Plan

Street Segment	Jurisdiction	Classification	Speed Limit (mph)	ROW Width (feet)	Street Width (feet)	# of Travel Lanes	Curbs	On-Street Parking	Sidewalks	Bikeway	Pavement Condition
Colvin Street											
US 101 to Moore Street	City	local	25	*	31-51	2	yes	yes	no	no	fair
Moore Street to Gauntlett Street	City	local	25	*	41	2	yes	w. side	yes	no	fair
Gauntlett Street to Caughell Street	City	local	25	*	41	2	yes	w. side	yes	no	fair
Airport Way											
South Jetty Road to Moore Street	City	local	25	*	20	2	yes	no	e. side	no	fair
Moore Street to Caughell Street	City	local	25	*	20	2	yes	no	e. side	no	fair
Mary Street											
Moore Street to Caughell Street	City	local	20	*	35-46	2	yes	no	yes	no	good
Gauntlett Street											
Mary Street to US 101	City	local	20	*	24-37	2	no	yes	no	no	good
US 101 to Colvin Street	City	local	20	*	38	2	yes	no	yes	no	fair
Caughell Street											
Airport Way to Mary Street	City	local	25	*	35	2	n. side	yes	n. side	no	fair
Mary Street to US 101	City	local	25	*	37	2	yes	yes	n. side	no	fair
US 101 to Colvin Street	City	local	25	*	33	2	yes	yes	yes	no	fair
Oceanside Drive											
South Jetty Road to Fifth Place	City	local	25	*	33-37	2	no	no	no	no	poor
Third Street											
US 101 to Stewart Street	City	local	25	*	43-49	2	yes	yes	s. side	no	good
Stewart Street to Grizzley Mountain Road	City	local	25	*	23-35	2	yes	no	no	no	fair
Grizzley Mountain Road											
Third Street to east city limit	City	local	25	*	14	1	no	no	no	no	fair

*not available

APPENDIX B
1997 MAJOR STREETS INVENTORY
City of Gold Beach Transportation System Plan

Street Segment	Jurisdiction	Classification	Speed Limit (mph)	ROW Width (feet)	Street Width (feet)	# of Travel Lanes	Curbs	On-Street Parking	Sidewalks	Bikeway	Pavement Condition
Fourth Street											
US 101 to Stewart Street	City	local	25	*	29-39	2	yes	n. side	yes	no	fair
Stewart Street to Leith Road	City	local	25	*	29-39	2	yes	n. side	yes	no	fair
Leith Road											
Fourth Street to Coldiron Hill Road	City	local	25	*	25-30	2	n. side	no	n. side	no	fair
Coldiron Hill Road to Myrtle Lane	City	local	30	*	24-28	2	no	no	no	no	fair
Myrtle Lane											
Leith Road to Quarry Road	City	local	20	*	18	2	no	no	no	no	good
Quarry Road to Eleventh Street	City	local	10-15	*	11-17	1	no	no	no	no	dirt
Coldiron Hill Road											
Leith Road to Sixth Street	City	local	20	*	25	2	yes	no	no	no	fair
Fifth Place											
Oceanside Drive to Pacific Street	City	local	25	*	28-30	2	no	no	no	no	poor
Pacific Street to US 101	City	local	25	*	39-48	2	yes	yes	yes	no	fair
Sixth Street											
US 101 to Quarry Road	City	local	25	*	29-35	2	yes	yes	yes	no	fair
Sixth Street											
Quarry Road to Coldiron Hill Road	City	local	20	*	30-36	2	s. side	no	s. side	no	fair
Quarry Road											
Sixth Street to Myrtle Lane	City	local	25	*	20-24	2	no	no	no	no	good
Myrtle Lane to City Limits	City	local	25	*	20-24	2	no	no	no	no	good

*not available

APPENDIX B
1997 MAJOR STREETS INVENTORY
City of Gold Beach Transportation System Plan

Street Segment	Jurisdiction	Classification	Speed Limit (mph)	ROW Width (feet)	Street Width (feet)	# of Travel Lanes	Curbs	On-Street Parking	Sidewalks	Bikeway	Pavement Condition
Eleventh Street											
US 101 to Melody Lane	City	local	25	*	27-28	2	no	no	no	no	fair
Melody Lane to Berry Road	City	local	25	*	23	2	no	no	no	no	good
Berry Road to Myrtle Lane	City	local	15	*	14	1	no	no	no	no	poor
Hunter Creek Loop Road											
US 101 (north end) to US 101 (south end)	County	major collector	50	*	22-27	2	no	no	no	no	fair
Hunter Creek Road											
Hunter Creek Loop Rd to end of county road	County	major collector	50	*	26	2	no	no	no	no	fair
Mateer Road											
Hunter Creek Road to end of county road	County	local	25	*	22-28	2	no	no	no	no	fair
Hunter Creek Heights Road											
Hunter Creek Road to end of county road	County	local	25	*	22	2	no	no	no	no	fair
US 101											
Rogue River Bridge to Jerry's Flat Road	State	primary arterial	30	*	24-34	2	bridge	no	bridge	no	good
US 101											
Jerry's Flat Road to Harbor Street	State	primary arterial	30	*	40-55	3	yes	no	yes	yes	good
Harbor Street to Moore Street	State	primary arterial	30	*	63-79	5	yes	no	yes	yes	good
Moore Street to Third Street	State	primary arterial	30	*	65-80	4-5	yes	yes	yes	no	good
Third Street to Weber Street	State	primary arterial	30	*	63-75	4	yes	yes	yes	no	good
Weber Street to Hunter Creek Loop Road	State	primary arterial	45-55	*	30-48	2-3	no	no	no	no	fair
Hunter Creek Loop Rd to Hunter Creek Rd	State	primary arterial	55	*	37-46	2-3	no	no	no	no	fair

*not available

APPENDIX C

POTENTIAL DEVELOPMENT IMPACT ANALYSIS

POTENTIAL DEVELOPMENT IMPACT ANALYSIS

Draft Report

CURRY COUNTY

March 1996

Prepared for:

Oregon Department of Transportation
Systems Planning Division
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TABLE OF CONTENTS

1.1 INTRODUCTION

This Potential Development Impact Analysis (PDIA) report provides development estimates for a maximum development scenario in Curry County. All land outside of urban growth boundaries (UGBs) zoned for residential, commercial, and industrial uses was analyzed. The analysis was designed to assist ODOT in answering the question, "How many vehicle trips would be produced if every vacant parcel of residential, commercial, and industrial property in the County was developed at maximum density?" The following development figures were estimated in the analysis:

- The total number of acres zoned for residential, commercial and industrial uses;
- The portion of residential, commercial, and industrial acres that are vacant (buildable);
- The number of existing residential units;
- The number of buildable residential units; and
- The amount of leasable commercial square footage.

Analysis Limitations are outlined in Section 1.2, and Findings are presented in Section 1.3. Appendix A contains a Methodology summary, as well as the Development Standards used in the analysis. Appendix B is comprised of three Spreadsheet Tables which contain the analysis data figures.

1.2 ANALYSIS LIMITATIONS

This analysis was intended to provide a maximum development scenario for residential, commercial, and industrial land in the county. Because low density development is common, the development estimates provided in this report likely overestimate the actual development that will occur.

The development estimates presented in this report were calculated based on a number of assumptions and limitations which are summarized below:

1.2.1 Residential Development Estimate Limitations

- We made allowances for parking requirements and design standards, but because of the high cost of aerial photographs, we did not make allowances for extreme slopes, bodies of water, riparian areas, and other features which constrain development. Therefore, the vacant residential acres figure may overstate the amount of buildable residential acreage, and the potential buildable units figure may overstate the number of residential units that are buildable.

- In order to estimate the existing number of units in residential zones, we summed the number of units for each census block that contains residential zones. The assumption is that most of the units that the Census tallies for a block containing residential zoning actually occur within the residential zone, rather than within non-residential zones.

- Residential units that occur in a census block that does not contain residential zoning were not added into the existing residential units figure.

- The development estimates do not account for market factors, such as the supply of available housing and demand for that housing, that affect residential development. Market demand for housing is related to a number of factors, including employment and income trends, that are not considered in this analysis.

1.2.2 Commercial Development Estimate Limitations

- We determined that any land that was not built upon and did not have physical constraints was developable. We did not consult tax assessor lot lines to determine if a lot was already improved. Since lots with vacant land that are improved are less likely to have future development, the vacant commercial acreage estimate may be overstated.

- In cases where the zoning ordinance does not specify parking requirements for a commercial zoning designation, a parking requirement allowance cannot be calculated. Therefore, the maximum leasable commercial square footage may be overstated.

- Because we could not accurately determine the height of existing buildings or predict future building heights, we assumed that all existing and future commercial development is and will be one-story high.

1.2.3 Industrial Development Estimate Limitations

- The industrial development estimates are expressed as total industrial acreage and vacant industrial acreage. Maximum leasable square feet per acre was not calculated for industrial zones. The main reason for this is that many trip generation models for industrial development use "trips per employee" to estimate trips, rather than using density or leasable square feet per acre. Calculating trips per employee is beyond the scope of this analysis.

- We determined that any land that was not built upon and did not have physical constraints was developable. We did not consult tax assessor lot lines to determine if a lot was already improved. Since lots with vacant land that are improved are less likely to have future development, the vacant industrial acreage estimate may be overstated.

1.3 FINDINGS

This section summarizes the development estimates presented in the Appendix B spreadsheet tables.

1.3.1 Residential Development Estimates

Approximately 9,016 acres of land is zoned residential with 4,038 existing residential units. Of this residential acreage, approximately 1,707 acres are vacant with a potential buildout of 443 units. Maximum development (existing plus potential) is estimated at 4,442 units.

1.3.2 Commercial Development Estimates

Approximately 927 acres of land is zoned commercial. Of this commercial acreage, an estimated 586 acres are vacant, which translates into 9,790,739 square feet of leasable commercial space.

1.3.3 Industrial Development Estimates

Approximately 218 acres are zoned industrial. Of this industrial acreage, an estimated 120 acres are vacant.

APPENDIX A
METHODOLOGY AND DEVELOPMENT STANDARDS

Appendix A contains a description of the project methodology, as well as a detailed description of the Development Standards.

A-1 METHODOLOGY

We established the following six chronological phases for the county analysis:

Phase I:	Data Gathering and Development Standards
Phase II:	Initial Map Analysis
Phase III:	Polygon Map
Phase IV	Commercial/Industrial Aerial Analysis
Phase V:	Data Entry
Phase VI:	Final Report

In Phase I, we compiled the materials necessary to begin the analysis. This process involved reading the county zoning ordinance to determine which zones needed to be analyzed, and interpreting zone descriptions in order to write the Development Standards that are presented in Section A-2.

In Phase II, we studied zoning maps to identify all lands within the county, outside of incorporated urban areas, zoned for residential, commercial, and industrial use. We compared the zoning maps to U.S. Census maps to identify all the census blocks within the residential, commercial, and industrial polygons. We identified the census block acreage and the number of residential units within each census block using 1990 U.S. Census Data. We calculated the amount of acreage within each residential, commercial, and industrial polygon using a grid transparency measuring system. All this data was recorded on data sheets.

In Phase III, we created a polygon map that links each block in the spreadsheet to its location on the county map. This process involved drawing zoning polygons found on individual zoning maps onto a map of the county and assigning each data sheet entry a polygon descriptor number. The creation of the polygon map served as an important accuracy check of the work completed in Phase II, since each data sheet entry had to be reviewed. Polygons comprised solely of residential zoning were labeled "R." Polygons comprised solely of commercial zoning were labeled "C." Polygons comprised solely of industrial zoning were labeled "I." Polygons comprised of two or more of the three zoning classes were labeled "M" if the zoning classes could not be labeled separately.

In Phase IV, we completed an aerial analysis of commercial and industrial lands. For each commercial and industrial data sheet entry, we used a grid transparency to determine the amount of land that was vacant (buildable). The aerial analysis served as a second accuracy check step for the commercial and industrial data sheet entries completed in Phase II, since each entry was reviewed for a second time.

In Phase V, we entered the data sheet entries into the Residential Spreadsheet (Table 1,) and the Commercial/Industrial Spreadsheet (Table 2). The third Spreadsheet Table summarizes Tables 1 and 2. The following Residential Spreadsheet columns contain input data: Polygon Descriptor Number, Census Tract, Census Block, Census Block Acres, Census Block Residential Units (Existing), Zoning Type, Residential Acres by Zone, and Allowable Density. See Section A-2, Development Standards, for an explanation of the Allowable Density calculation.

Explanations of the Residential Spreadsheet columns that are calculated follow:

- Percent of Total Residential is calculated for each type of zoning within a census block by dividing Residential Acres by Zone by the total residential acres.
- Average Density is a weighted average based on the acreage within each zone. This calculation is necessary for census blocks that contain two or more zones (multi-zone blocks). If there is only one type of zoning within the census block, then Average Density is the same as Allowable Density.
- Developed Residential Acres is calculated by dividing Census Block Residential Units (Existing) by the Average Density.
- Percent Vacant is calculated by dividing Vacant Residential Acres by Residential Acres by Zone.
- Vacant Residential Acres is calculated by subtracting Developed Residential Acres from Residential Acres by Zone.
- Potential Buildable Units is calculated by subtracting Census Block Residential Units from Maximum Allowed Units.
- Maximum Allowed Units is calculated by multiplying Residential Acres by Zone and Average Density.

The following Commercial/Industrial Spreadsheet columns contain input data: Polygon Descriptor Number, Census Tract, Census Block, Census Block Acres, Zoning Type, Commercial/Industrial Acres by Zone, Developed Commercial Acres, and Developed Industrial Acres.

Explanations of the Commercial/Industrial Spreadsheet columns that are calculated follow:

- Vacant Commercial Acres is calculated by subtracting Developed Commercial Acres from the Commercial/Industrial Acres by Zone.
- Leasable Commercial Square Feet is calculated by multiplying Vacant Commercial Acres by the Maximum Leasable square footage per acre. See Section A-2, Development Standards, for an explanation of the Maximum Leasable square footage per acre calculation.
- Vacant Industrial Acres is calculated by subtracting Developed Industrial Acres from the Total Commercial/Industrial Acres by Zone.

A-2 DEVELOPMENT STANDARDS

In accordance with the county zoning ordinance, this section provides *maximum allowable density per acre factors* for residential zones and *maximum leasable square feet per acre factors* for commercial zones. These factors are used in the Spreadsheet Tables to calculate the development estimates.

A-2.1 Residential Zoning Designations

Six residential zoning designations were identified in the county zoning ordinance. For each designation, we provide the *maximum allowable residential density* (expressed in units per acre). In calculating densities for zones with a minimum lot size of less than one acre, we use a *net acre* (34,848 square feet). A net acre is calculated by subtracting 20 percent from a gross acre (43,560 square feet) to account for streets and right-of-ways.[1] To calculate densities for residential zones with minimum lot sizes of one acre or greater, we use the gross acre figure. This is based on the assumption that larger lots are often platted along existing roads and additional streets and/or access points will not be needed.

A summary of residential zones and their maximum allowable densities is presented in Table A-2-1. Following the table is a description of each zone density calculation.

Table A-2-1
Residential Zoning Designations

Residential Zoning Designation	Abbreviation	Maximum Allowable Residential Density (Units Per Acre)
Rural Residential 5	RR-5	0.2
Rural Residential 10	RR-10	0.1
Rural Community Residential 1	RCR-1	1.0
Rural Community Residential 2.5	RCR-2.5	0.4
Rural Community Residential 5	RCR-5	0.2
Rural Community Residential 10	RCR-10	0.1
Residential 1, 2, 3	R-1, R-2, R-3	1.0

Rural Residential 5 (RR-5), Rural Community Residential 5 (RCR-5)

The minimum lot size for these zones is 5.0 acres. To calculate the maximum residential density per acre, we divided 1.0 gross acre by the 5.0 acre minimum lot size. The resulting density is 0.2 units per acre.

---

[1] Derived from Land Use in 33 Oregon Cities, Bureau of Municipal Research and Service, University of Oregon, 1961.

Rural Residential 10 (RR-10), Rural Community Residential 10 (RCR-10)

The minimum lot size for these zones is 10.0 acres. To calculate the residential density per acre, we divided 1.0 gross acre by the 10.0 acre minimum lot size. The resulting density is 0.1 units per acre.

Rural Community Residential 1 (RCR-1), Residential (R-1, R-2, R-3)

The minimum lot size for these residential zones is 1.0 acres. To calculate the residential density per acre, we divided 1.0 gross acre by the 1.0 acre minimum lot size. The resulting density is 1.0 units per acre.

Rural Community Residential 2.5 (RCR-2.5)

The minimum lot size for this zone is 2.5 acres. To calculate the maximum residential density per acre, we divided 1.0 gross acre by the 2.5 acre minimum lot size. The resulting density is 0.2 units per acre.

A-2.2 Commercial Zoning Designations

Four commercial zoning designations were identified in the county zoning ordinance. We calculated the *maximum leasable commercial area* (expressed in square feet per gross acre) for each designation. A summary of findings is presented in Table A-2-2, followed by an explanation of the analysis used to calculate leasable area in the zones.

Table A-2-2
Commercial Zoning Designations

Commercial Zoning Designation	Abbreviation	Maximum Leasable Commercial Area (Square Feet Per Acre)
Rural Commercial	RC	22,182
Rural Resort Commercial	RRC	43,560
Light Commercial	C-1	24,472
Heavy Commercial	C-2	24,472

The zoning ordinance provides unique criteria for each commercial zoning designation. Therefore, the methodology for determining the maximum leasable commercial area per acre for each zoning designation differs. For all commercial zones on county lands, the net usable area figure we base calculations on is a gross acre (43,560 square feet). From this figure, allowances for setbacks, yards, and parking are subtracted to obtain the maximum leasable commercial area. If setbacks and yards are not required, a parking requirement allowance is generally the only figure subtracted from the net usable area figure. In cases where the zoning ordinance does not specify

parking requirements, a parking requirement allowance cannot be calculated and the maximum leasable commercial area may be overstated.

In cases where setbacks and yards are required, minimum lot dimensions must be determined in order to calculate how much area will be subtracted from the net usable area figure. If a minimum lot size is not specified in the zoning ordinance, the default minimum lot size that calculations are based on is one acre. If minimum lot dimensions are not provided in the zoning ordinance, the lot is assumed to be square and the lot dimensions are derived by taking the square root of the minimum lot size. Front and rear setbacks are subtracted from the minimum lot depth measurement to obtain the buildable lot depth. Side setbacks are subtracted from the minimum lot width measurement to obtain the buildable lot width. After subtracting setbacks, lot width is multiplied by lot depth to obtain the buildable (usable) area per lot. This figure multiplied by the number of lots per acre provides the net usable area per acre.

The parking requirement allowance is determined by averaging the parking requirements for permitted uses, as specified in the zoning ordinance. These are provided in terms of one space per "X" square feet of gross floor area (gfa). In calculating parking allowances, we use a standard allowance of parking lot space (parking, turning space, ingress, and egress) of 325 square feet per space.[2] The parking requirement average is divided into the standard allowance of parking lot space, which provides the parking ratio. The parking ratio plus one (1) is divided into the net usable area figure, providing leasable square feet per acre.

If the zoning ordinance provides a maximum lot coverage percent figure, the calculated leasable square feet figure (net usable area minus setbacks and parking allowance) must be less than or equal to the provided percentage.

Tables A-2-3, A-2-4, and A-2-5 display the data used to determine the maximum leasable commercial area per acre for the commercial zoning designation.

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[2] Derived from Site Planning, Kevin Lynch and Gary Hack, 1985, page 461. This book suggests a range of 250-400 square feet per car be used. We selected the midpoint in this range.

Table A-2-3
Rural Commercial (RC)

Criteria	Formula	Result
Minimum Lot Size (sq. ft.)	None specified (default = 43,560 sq. ft., a gross acre)	n/a
Maximum Lots Per Acre	43,560 *(one acre)* ÷ 43,560 *(min. lot size)*	1 lot per acre
Setbacks & Yards (Linear Feet)	all sides = 5	n/a
Maximum Lot Coverage	None specified	n/a
Minimum Lot Dimensions (Linear Feet)	None specified *[sq. root of 43,560 = 208.7 (lot dimensions)]* (default width & depth = square root of minimum lot size)	n/a
Parking Requirement Average	[Retail (200) + Service/Repair (600) + Bulky Retail (600) + Banks/Office (600) + Medical/Dental (300) + Eating/Drinking (200)] ÷ 6	417 sq. ft. gfa
Parking Ratio	325 *(one space fixed)* ÷ 417 *(parking requirement)*	0.78
Net Usable Area Per Acre	208.7 *(lot dimension)* - 10 *(setbacks)* = 198.7 *(buildable lot dimension)*; 198.7 *(depth)* * 198.7 *(width)* = 39,484 *(buildable land per lot)*; 39,484 * 1 *(lots per acre)*	39,484 sq. ft.
Leasable Sq. Ft. Per Acre	39,484 *(net usable area)* ÷ 1.78 *(parking ratio + 1)*	22,182 sq. ft

Table A-2-4
Rural Resort Commercial (RRC)

Criteria	Formula	Result
Minimum Lot Size (sq. ft.)	None specified (default = 43,560 sq. ft., a gross acre)	n/a
Maximum Lots Per Acre	43,560 *(one acre)* ÷ 43,560 *(min. lot size)*	1 lot per acre
Setbacks & Yards (Linear Feet)	None specified	n/a
Maximum Lot Coverage	None specified	n/a
Minimum Lot Dimensions (Linear Feet)	None specified (default width & depth = square root of minimum lot size)	n/a
Parking Requirement Average	None specified	n/a
Parking Ratio	325 *(one space fixed)* ÷ 0 *(parking requirement)*	0
Net Usable Area Per Acre	43,560 *(min. lot size)* - 0 *(setbacks)* = 43,560 sq ft *(buildable area per lot)*; 43,560 * 1 *(lots per acre)*	43,560 sq. ft
Leasable Sq. Ft. Per Acre	43,560 *(net usable area)* ÷ 1.00 *(parking ratio + 1)*	43,560 sq. ft

Table A-2-5
Light Commercial (C-1), Heavy Commercial (C-2)

Criteria	Formula	Result
Minimum Lot Size (sq. ft.)	None specified (default = 43,560 sq. ft., a gross acre)	n/a
Maximum Lots Per Acre	43,560 *(one acre)* ÷ 43,560 *(min. lot size)*	1 lot per acre
Setbacks & Yards (Linear Feet)	None specified	n/a
Maximum Lot Coverage	None specified	n/a
Minimum Lot Dimensions (Linear Feet)	None specified (default width & depth = square root of minimum lot size)	n/a
Parking Requirement Average	[Retail (200) + Service/Repair (600) + Bulky Retail (600) + Banks/Office (600) + Medical/Dental (300) + Eating/Drinking (200)] ÷ 6	417 sq. ft. gfa
Parking Ratio	325 *(one space fixed)* ÷ 417 *(parking requirement)*	0.78
Net Usable Area Per Acre	43,560 *(min. lot size)* - 0 *(setbacks)* = 43,560 sq ft *(buildable area per lot)*; 43,560 * 1 *(lots per acre)*	43,560 sq. ft.
Leasable Sq. Ft. Per Acre	43,560 *(net usable area)* ÷ 1.78 *(parking ratio + 1)*	24,472 sq. ft.

A-2.3 Industrial Zoning Designations

All industrial zones are referred to as "I" in the spreadsheet tables. Table A-2-6 shows the industrial zoning designations used in this analysis.

Table A-2-6
Industrial Zoning Designations

Industrial Zoning Designation	Abbreviation
Rural Industrial	RI
Industrial	I
Marine Activity	MA

APPENDIX B
SPREADSHEET TABLES

We present the data from the county analysis in three spreadsheet tables. Tables 1 and 2 are organized by census tract and block in ascending order.

- **Table 1** provides residential development estimates.
- **Table 2** provides commercial and industrial development estimates.
- **Table 3** provides summary data totals for Tables 1 and 2.

Zoning Designations

The following zoning designations are found in Spreadsheet Tables 1 and 2:

R5	Rural Residential 5, Rural Community Residential 5
R10	Rural Residential 10, Rural Community Residential 10
R1	Rural Community Residential 1, Residential
R2.5	Rural Community Residential 2.5
RC	Rural Commercial
RRC	Rural Resort Commercial
C	Light Commercial, Heavy Commercial
I	Rural Industrial, Industrial, Marine Activity

TAL : RESIDENTIAL LAND (OUTSIDE URBAN AREAS)

lo ion: Curry County

Polygon Descriptor Number	Census Tract	Census Block	Census Block Acres	Census Block Res. Units (Existing)	Zoning Type	Res. Acres by Zone	Percent of Total Res.	Allowable Density (units/acre)	Average Density (units/acre)	Developed Res. Acres	Percent Vacant	Vacant Res. Acres	Potential Buildable Units	Maximum Allowed Units
M1	9501	110	1,424.3	23	RCR5	75.1	85%	0.2	0.3	72.5	18%	15.5	5	28
M1	--	--	--	--	RCR1	12.9	15%	1.0	--	--	--	--	--	--
M1	9501	112	1,274.0	27	RCR1	52.4	57%	1.0	0.6	44.1	52%	48.0	29	56
M1	--	--	--	--	RCR10	39.7	43%	0.1	--	--	--	--	--	--
M1	9501	113	1.2	8	RCR10	1.2	100%	0.1	0.1	1.2	0%	0.0	0	8
M1	9501	156	9,588.0	13	RCR5	3.9	2%	0.2	0.1	127.8	43%	97.4	10	23
M2	--	--	--	--	RR10	221.3	98%	0.1	--	--	--	--	--	--
M1	9501	157	2.5	0	RCR10	2.5	100%	0.1	0.1	0.0	100%	2.5	0	0
M2	9501	166	348.7	17	RR10	149.0	100%	0.1	0.1	149.0	0%	0.0	0	17
M2	9501	167	76.8	2	RR10	76.8	100%	0.1	0.1	20.0	74%	56.8	6	8
M6	9501	179	47,249.2	36	RR10	5.3	20%	0.1	0.2	27.0	0%	0.0	0	36
R2	--	--	--	--	RR5	21.7	80%	0.2	--	--	--	--	--	--
M1	9501	196	2.0	2	RCR1	1.0	100%	1.0	1.0	1.0	0%	0.0	0	2
M1	9501	207	2,182.1	44	RCR5	84.9	59%	0.2	0.4	101.9	29%	42.6	18	62
M1	--	--	--	--	RCR1	25.6	18%	1.0	--	--	--	--	--	--
M1	--	--	--	--	RCR2.5	23.7	16%	0.4	--	--	--	--	--	--
M1	--	--	--	--	R1,2,3	10.3	7%	1.0	--	--	--	--	--	--
R1	9501	216	167.0	2	RR5	36.8	100%	0.2	0.2	10.0	73%	26.8	5	7
R1	9501	218	356.3	4	RR5	12.9	100%	0.2	0.2	12.9	0%	0.0	0	4
M1	9501	221	19.3	1	RCR5	9.5	100%	0.2	0.2	5.0	47%	4.5	1	2
M1	9501	222	7.4	4	R1,2,3	4.4	100%	1.0	1.0	4.0	9%	0.4	0	4
R1	9501	227	1,805.3	32	RR5	75.1	100%	0.2	0.2	75.1	0%	0.0	0	32
R1	9501	230	7.7	0	RR5	7.7	100%	0.2	0.2	0.0	100%	7.7	2	2
R1	9501	232	44.5	8	RR5	9.1	100%	0.2	0.2	9.1	0%	0.0	0	8
R1	9501	233	5.9	8	RR5	5.3	100%	0.2	0.2	5.3	0%	0.0	0	8
R1	9501	234	4.2	2	RR5	4.2	100%	0.2	0.2	4.2	0%	0.0	0	2
	9501	257	383.7	23	RR5	38.0	40%	0.2	0.2	94.4	0%	0.0	0	23
	--	--	--	--	RR5	14.5	15%	0.2	--	--	--	--	--	--
M6	--	--	--	--	RR10	41.9	44%	0.1	--	--	--	--	--	--
M1	9501	272	1.0	0	R1,2,3	1.0	100%	1.0	1.0	0.0	100%	1.0	1	1
M1	9501	273	1.5	0	R1,2,3	1.5	100%	1.0	1.0	0.0	100%	1.5	2	2
M5	9501	305	489.6	20	RR5	9.1	100%	0.2	0.2	9.1	0%	0.0	0	20
M5	9501	356	7.4	0	RR5	3.1	100%	0.2	0.2	0.0	100%	3.1	1	1
M5	9501	357	1.7	0	RR5	1.7	100%	0.2	0.2	0.0	100%	1.7	0	0
M6	9501	402	251.3	20	RR10	1.4	100%	0.1	0.1	1.4	0%	0.0	0	20
M5	9501	403	546.3	19	RR5	24.0	30%	0.2	0.1	80.4	0%	0.0	0	19
M6	9501	405	4.7	0	RR5	8.7	100%	0.2	0.2	0.0	100%	8.7	2	2
M6	9501	415B	1,615.5	28	RR5	54.3	91%	0.2	0.2	59.6	0%	0.0	0	28
M6	--	--	--	--	RR10	5.3	9%	0.1	--	--	--	--	--	--
M6	9501	419	4,612.1	19	RR10	88.8	69%	0.1	0.1	129.4	0%	0.0	0	19
R2	--	--	--	--	RR5	40.6	31%	0.2	--	--	--	--	--	--
M6	9501	420	178.4	31	RR10	10.5	100%	0.1	0.1	10.5	0%	0.0	0	31
M6	9501	421	1.0	0	RR10	1.0	100%	0.1	0.1	0.0	100%	1.0	0	0
M6	9501	422	65.2	0	RR10	42.3	100%	0.1	0.1	0.0	100%	42.3	4	4
R2	9501	423	106.7	3	RR5	1.9	100%	0.2	0.2	1.9	0%	0.0	0	3
R2	9501	424	10.6	1	RR5	2.1	100%	0.2	0.2	2.1	0%	0.0	0	1
R2	9501	425	20.0	0	RR5	20.0	100%	0.2	0.2	0.0	100%	20.0	4	4
R2	9501	426	3.0	0	RR5	3.0	100%	0.2	0.2	0.0	100%	3.0	1	1
R2	9501	427	24.2	6	RR5	5.0	100%	0.2	0.2	5.0	0%	0.0	0	6
R2	9501	428	21.5	6	RR5	2.2	100%	0.2	0.2	2.2	0%	0.0	0	6
R3	9501	432	2,494.2	3	RR10	1.3	100%	0.1	0.1	1.3	0%	0.0	0	3
R3	9501	434	114.9	4	RR10	31.8	100%	0.1	0.1	31.8	0%	0.0	0	4
R3	9501	439	72.9	1	RR10	12.2	100%	0.1	0.1	10.0	18%	2.2	0	1
M7	9501	548	10,940.1	27	RCR10	104.7	59%	0.1	0.1	176.2	0%	0.0	0	27
M7	--	--	--	--	RR5	71.5	41%	0.2	--	--	--	--	--	--
M7	9501	550	141.8	13	RCR5	17.5	72%	0.2	0.2	24.3	0%	0.0	0	13
M7	--	--	--	--	RR5	6.8	28%	0.2	--	--	--	--	--	--
M7	9501	581	19,458.9	27	RCR5	0.8	100%	0.2	0.2	0.8	0%	0.0	0	27
M7	9501	583	33,278.9	7	RCR5	35.3	83%	0.2	0.2	38.2	10%	4.1	1	8
M7	--	--	--	--	RCR10	7.0	17%	0.1	--	--	--	--	--	--
M7	9501	593	129.5	7	RCR5	4.9	67%	0.2	0.2	7.3	0%	0.0	0	7
R2	--	--	--	--	RR5	2.4	33%	0.2	--	--	--	--	--	--
	9502	124	706.2	4	RR10	12.5	100%	0.1	0.1	12.5	0%	0.0	0	4
M6	9502	128	122.1	4	RR10	27.9	100%	0.1	0.1	27.9	0%	0.0	0	4
M8	9502	141	79.1	2	RR10	7.9	100%	0.1	0.1	7.9	0%	0.0	0	2
M8	9502	143	418.6	8	RR10	53.5	88%	0.1	0.2	38.5	37%	22.3	5	13

ABLE 1: RESIDENTIAL LAND (OUTSIDE URBAN AREAS)

Location: Curry County

Polygon Descriptor Number	Census Tract	Census Block	Census Block Acres	Census Block Res. Units (Existing)	Zoning Type	Res. Acres by Zone	Percent of Total Res.	Allowable Density (units/acre)	Average Density (units/acre)	Developed Res. Acres	Percent Vacant	Vacant Res. Acres	Potential Buildable Units	Maximu Allowe Units
M8	--	--	--	--	RCR1	7.3	12%	1.0	--	--	--	--	--	--
M8	9502	217	132.2	8	RCR2.5	17.0	56%	0.4	0.6	14.3	52%	15.8	9	17
M8	--	--	--	--	RCR1	9.7	32%	1.0	--	--	--	--	--	--
M8	--	--	--	--	RCR10	3.4	11%	0.1	--	--	--	--	--	--
M8	9502	219	4.9	0	RCR10	4.9	100%	0.1	0.1	0.0	100%	4.9	0	0
M8	9502	220	1,418.1	22	RCR10	55.8	28%	0.1	0.5	42.1	79%	160.8	84	106
M8	--	--	--	--	RCR1	70.4	35%	1.0	--	--	--	--	--	--
M8	--	--	--	--	RCR2.5	74.0	36%	0.4	--	--	--	--	--	--
R6	--	--	--	--	RR5	2.6	1%	0.2	--	--	--	--	--	--
R6	9502	223	1,798.9	8	RR5	1.9	100%	0.2	0.2	1.9	0%	0.0	0	8
R6	9502	231	46.5	1	RR5	0.9	100%	0.2	0.2	0.9	0%	0.0	0	1
R6	9502	233	8.2	0	RR5	8.2	100%	0.2	0.2	0.0	100%	8.2	2	2
R6	9502	234	2.0	1	RR5	5.4	100%	0.2	0.2	5.0	7%	0.4	0	1
R6	9502	235	2.0	0	RR5	2.0	100%	0.2	0.2	0.0	100%	2.0	0	0
R6	9502	237	156.7	6	RR5	19.2	100%	0.2	0.2	19.2	0%	0.0	0	6
M8	9502	239	2.5	0	RCR1	1.3	50%	1.0	0.6	0.0	100%	2.5	1	1
M8	--	--	--	--	RCR10	1.3	50%	0.1	--	--	--	--	--	--
M8	9502	240	1.5	0	RCR1	1.5	100%	1.0	1.0	0.0	100%	1.5	2	2
R7 M10 M11	9502	301	7,174.3	92	RR5	98.6	100%	0.2	0.2	98.6	0%	0.0	0	92
R7	9502	306	3,112.5	69	RR5	112.6	26%	0.2	0.3	274.1	36%	152.9	38	107
M8	--	--	--	--	RCR2.5	49.2	12%	0.4	--	--	--	--	--	--
M8 M9	--	--	--	--	RCR5	54.6	13%	0.2	--	--	--	--	--	--
M8	--	--	--	--	RCR10	179.7	42%	0.1	--	--	--	--	--	--
M8 M9	--	--	--	--	RCR1	31.0	9%	1.0	--	--	--	--	--	--
M8	9502	307	1.7	0	RCR5	1.7	100%	0.2	0.2	0.0	100%	1.7	0	0
R7	9502	308	1.7	0	RR5	1.7	100%	0.2	0.2	0.0	100%	1.7	0	0
M8	9502	310	78.1	10	RCR2.5	15.8	48%	0.4	0.2	32.8	0%	0.0	0	10
M8	--	--	--	--	RCR10	17.0	52%	0.1	--	--	--	--	--	--
M8	9502	312	72.6	21	RCR1	26.7	85%	1.0	0.9	23.9	24%	7.5	7	26
M8	--	--	--	--	RCR5	4.7	15%	0.2	--	--	--	--	--	--
M8	9502	313	1.2	0	RCR5	1.2	100%	0.2	0.2	0.0	100%	1.2	0	0
M9	9502	314	145.5	21	RCR2.5	15.0	79%	0.4	0.5	19.1	0%	0.0	0	21
M9	--	--	--	--	RCR1	4.1	21%	1.0	--	--	--	--	--	--
M9	9502	317	5.2	2	RCR2.5	1.3	100%	0.4	0.4	1.3	0%	0.0	0	2
M9	9502	318	3.7	1	RCR2.5	1.1	100%	0.4	0.4	1.1	0%	0.0	0	1
M9	9502	320	17.0	8	RCR2.5	6.0	48%	0.4	0.7	11.3	9%	1.1	1	9
M9	--	--	--	--	RCR1	6.4	52%	1.0	--	--	--	--	--	--
M9	9502	321	9.9	13	RCR1	7.1	100%	1.0	1.0	7.1	0%	0.0	0	13
M9	9502	322	4.2	3	RCR1	4.2	100%	1.0	1.0	3.0	29%	1.2	1	4
M9	9502	323	28.4	19	RCR1	28.4	100%	1.0	1.0	19.0	33%	9.4	9	28
M9	9502	324	1.0	2	RCR1	1.0	100%	1.0	1.0	1.0	0%	0.0	0	2
M9	9502	325	84.3	41	RCR1	25.9	49%	1.0	0.7	53.0	0%	0.0	0	41
M9	--	--	--	--	RCR2.5	27.1	51%	0.4	--	--	--	--	--	--
M9	9502	326	1.2	3	RCR1	1.2	100%	1.0	1.0	1.2	0%	0.0	0	3
M9	9502	327	687.9	3	RCR1	25.6	13%	1.0	0.3	9.8	95%	183.7	56	59
M9	--	--	--	--	RR5	167.9	87%	0.2	--	--	--	--	--	--
M9	9502	331	2.0	8	RCR1	2.0	100%	1.0	1.0	2.0	0%	0.0	0	8
M10	9502	333	2,265.9	1	RR5	24.6	100%	0.2	0.2	5.0	80%	19.6	4	5
M10	9502	337	1,443.6	67	RR5	147.2	100%	0.2	0.2	147.2	0%	0.0	0	67
M10	9502	338	1.5	0	RR5	1.5	100%	0.2	0.2	0.0	100%	1.5	0	0
M10	9502	345	4.9	0	RR5	2.8	100%	0.2	0.2	0.0	100%	2.8	1	1
M10	9502	347	405.0	59	RR5	23.7	100%	0.2	0.2	23.7	0%	0.0	0	59
M10	9502	348	1.2	0	RR5	1.2	100%	0.2	0.2	0.0	100%	1.2	0	0
M11	9502	349	156.4	70	RR5	40.1	100%	0.2	0.2	40.1	0%	0.0	0	70
M11	9502	350	2.2	0	RR5	2.2	100%	0.2	0.2	0.0	100%	2.2	0	0
M11	9502	351	225.4	6	RR5	4.9	100%	0.2	0.2	4.9	0%	0.0	0	6
M11 M10	9502	354	343.5	26	RR5	57.3	100%	0.2	0.2	57.3	0%	0.0	0	26
M9	9502	367	116.1	5	RR5	12.9	100%	0.2	0.2	12.9	0%	0.0	0	5
R7	9502	389	4.4	0	RR5	1.0	100%	0.2	0.2	0.0	100%	1.0	0	0
R7	9502	390	2.5	0	RR5	2.5	100%	0.2	0.2	0.0	100%	2.5	1	1
R7	9502	391	3.0	0	RR5	3.0	100%	0.2	0.2	0.0	100%	3.0	1	1
R7	9502	392	2.5	0	RR5	2.5	100%	0.2	0.2	0.0	100%	2.5	1	1
R7	9502	393	31.1	5	RR5	31.1	100%	0.2	0.2	25.0	20%	6.1	1	6
R7	9502	394	19.8	2	RR5	2.5	100%	0.2	0.2	2.5	0%	0.0	0	2
M11	9502	501	150.0	1	RR5	2.9	100%	0.2	0.2	2.9	0%	0.0	0	1
M11	9502	506	292.1	4	RR5	11.4	100%	0.2	0.2	11.4	0%	0.0	0	4

TABLE 1: RESIDENTIAL LAND (OUTSIDE URBAN AREAS)

ation: Curry County

Polygon escriptor Number	Census Tract	Census Block	Census Block Acres	Census Block Res. Units (Existing)	Zoning Type	Res. Acres by Zone	Percent of Total Res.	Allowable Density (units/acre)	Average Density (units/acre)	Developed Res. Acres	Percent Vacant	Vacant Res. Acres	Potential Buildable Units	Maximum Allowed Units
M11	9502	507	796.4	2	RR5	38.3	100%	0.2	0.2	10.0	74%	28.3	6	8
M11	9502	510B	293.3	76	RR5	1.2	100%	0.2	0.2	1.2	0%	0.0	0	76
R9	9502	604	4,395.4	80	RR10	53.9	54%	0.1	0.1	98.9	0%	0.0	0	80
R10	--	--	--	--	RR5	45.0	46%	0.2	--	--	--	--	--	--
R10	9502	609B	4.9	2	RR5	2.1	100%	0.2	0.2	2.1	0%	0.0	0	2
R8	9502	610D	1,682.5	31	RR5	34.8	100%	0.2	0.2	34.8	0%	0.0	0	31
R11	9502	713	1,365.2	11	RR10	35.9	100%	0.1	0.1	35.9	0%	0.0	0	11
R11	9502	712	410.2	39	RR10	97.5	90%	0.1	0.1	108.9	0%	0.0	0	39
R11	9502	712	410.2	39	RR5	11.4	10%	0.2	--	--	--	--	--	--
R11	9502	717	3.5	2	RR10	3.5	100%	0.1	0.1	3.5	0%	0.0	0	2
R11 R10	9502	718	2,070.9	18	RR5	60.3	81%	0.2	0.2	74.0	0%	0.0	0	18
R11	--	--	--	--	RR10	13.7	19%	0.1	--	--	--	--	--	--
R10	9502	720	422.5	18	RR5	91.9	100%	0.2	0.2	90.0	2%	1.9	0	18
R10	9502	721	5.4	3	RR5	2.7	100%	0.2	0.2	2.7	0%	0.0	0	3
R11	9502	725	87.5	8	RR5	52.6	100%	0.2	0.2	40.0	24%	12.6	3	11
R12	9502	747	626.9	18	RR5	66.3	100%	0.2	0.2	66.3	0%	0.0	0	18
M12	9502	761	711.6	15	RR10	32.9	100%	0.1	0.1	32.9	0%	0.0	0	15
R13	9502	763	46.2	0	RR10	16.2	100%	0.1	0.1	0.0	100%	16.2	2	2
M12	9502	765	168.3	22	RR10	74.1	100%	0.1	0.1	74.1	0%	0.0	0	22
M12	9502	768	596.3	6	RR10	7.6	100%	0.1	0.1	7.6	0%	0.0	0	6
M12	9502	770	1.5	0	RR10	1.5	100%	0.1	0.1	0.0	100%	1.5	0	0
M12	9502	775	1,342.7	8	RR10	25.3	100%	0.1	0.1	25.3	0%	0.0	0	8
R11	9502	794	51.6	0	RR10	17.0	100%	0.1	0.1	0.0	100%	17.0	2	2
M7	9503	101	135,890.4	4	RCR10	53.2	100%	0.1	0.1	40.0	25%	13.2	1	5
M7	9503	117	19,194.5	11	RCR10	12.9	100%	0.1	0.1	12.9	0%	0.0	0	11
R15	9503	133	53,500.9	9	RR10	16.8	100%	0.1	0.1	16.8	0%	0.0	0	9
'	9503	174	4,348.7	18	RR10	31.5	47%	0.1	0.2	67.3	0%	0.0	0	18
.4	--	--	--	--	RR5	35.8	53%	0.2	--	--	--	--	--	--
M12	9503	180	162.6	8	RR10	34.2	100%	0.1	0.1	34.2	0%	0.0	0	8
M13	9503	202	297.3	0	RR5	0.5	100%	0.2	0.2	0.0	100%	0.5	0	0
113 R16	9503	203	2,383.3	53	RR5	195.4	100%	0.2	0.2	195.4	0%	0.0	0	53
R16	9503	205	47.2	2	RR5	51.1	100%	0.2	0.2	10.0	80%	41.1	8	10
M13	9503	206B	900.2	52	RR10	17.7	100%	0.1	0.1	17.7	0%	0.0	0	52
M13	9503	210	764.0	61	RR5	313.5	100%	0.2	0.2	305.0	3%	8.5	2	63
M13	9503	211	4.4	0	RR5	4.4	100%	0.2	0.2	0.0	100%	4.4	1	1
M13	9503	212	63.0	11	RR5	4.8	100%	0.2	0.2	4.8	0%	0.0	0	11
M13	9503	213	200.9	0	RR5	44.0	100%	0.2	0.2	0.0	100%	44.0	9	9
M13	9503	214	117.6	0	RR5	1.8	100%	0.2	0.2	0.0	100%	1.8	0	0
M13	9503	216	681.7	12	RR5	28.5	100%	0.2	0.2	28.5	0%	0.0	0	12
M13	9503	217	0.7	0	RR5	0.7	100%	0.2	0.2	0.0	100%	0.7	0	0
M13	9503	218	651.1	60	RR5	324.1	100%	0.2	0.2	300.0	7%	24.1	5	65
M13	9503	219	18.0	5	RR5	15.4	100%	0.2	0.2	15.4	0%	0.0	0	5
M13	9503	220	1.2	1	RR5	1.2	100%	0.2	0.2	1.2	0%	0.0	0	1
M13	9503	221	3.7	4	RR5	3.7	100%	0.2	0.2	3.7	0%	0.0	0	4
M13	9503	222	218.9	34	RR5	215.9	100%	0.2	0.2	170.0	21%	45.9	9	43
M13	9503	223	33.9	10	RR5	33.9	100%	0.2	0.2	33.9	0%	0.0	0	10
M13	9503	224	117.1	17	RR5	102.4	100%	0.2	0.2	85.0	17%	17.4	3	20
M13	9503	225	3.0	0	RR5	3.0	100%	0.2	0.2	0.0	100%	3.0	1	1
M13	9503	226	23.2	6	RR5	23.9	100%	0.2	0.2	23.9	0%	0.0	0	6
M13	9503	227	4.9	0	RR5	4.9	100%	0.2	0.2	0.0	100%	4.9	1	1
M13	9503	228	8.2	5	RR5	8.2	100%	0.2	0.2	8.2	0%	0.0	0	5
M13	9503	229	19.3	7	RR5	19.3	100%	0.2	0.2	19.3	0%	0.0	0	7
M13	9503	230	2.7	1	RR5	2.7	100%	0.2	0.2	2.7	0%	0.0	0	1
M13	9503	231	1.2	1	RR5	1.2	100%	0.2	0.2	1.2	0%	0.0	0	1
M13	9503	232	7.4	2	RR5	7.4	100%	0.2	0.2	7.4	0%	0.0	0	2
M13	9503	233	7.9	2	RR5	7.9	100%	0.2	0.2	7.9	0%	0.0	0	2
M13	9503	234	10.4	5	RR5	10.4	100%	0.2	0.2	10.4	0%	0.0	0	5
M13	9503	235	7.7	2	RR5	7.7	100%	0.2	0.2	7.7	0%	0.0	0	2
M13	9503	236	226.1	34	RR5	101.5	100%	0.2	0.2	101.5	0%	0.0	0	34
M13	9503	237	22.7	13	RR5	11.8	100%	0.2	0.2	11.8	0%	0.0	0	13
M13	9503	238	5.7	3	RR5	5.7	100%	0.2	0.2	5.7	0%	0.0	0	3
	9503	239	21.3	6	RR5	17.8	100%	0.2	0.2	17.8	0%	0.0	0	6
	9503	240	15.8	6	RR5	15.8	100%	0.2	0.2	15.8	0%	0.0	0	6
M13	9503	241	430.4	16	RR5	106.9	100%	0.2	0.2	80.0	25%	26.9	5	21
M13	9503	242	362.7	10	RR5	49.6	100%	0.2	0.2	49.6	0%	0.0	0	10
M13	9503	243	45.5	2	RR5	12.4	100%	0.2	0.2	10.0	19%	2.4	0	2

TABLE 1: RESIDENTIAL LAND (OUTSIDE URBAN AREAS)

Location: Curry County

Polygon Descriptor Number	Census Tract	Census Block	Census Block Acres	Census Block Res. Units (Existing)	Zoning Type	Res. Acres by Zone	Percent of Total Res.	Allowable Density (units/acre)	Average Density (units/acre)	Developed Res. Acres	Percent Vacant	Vacant Res. Acres	Potential Buildable Units	Maximu Allowe Units
M13	9503	244	18.5	1	RR5	3.2	100%	0.2	0.2	3.2	0%	0.0	0	1
M13	9503	258	882.4	52	RR5	194.6	100%	0.2	0.2	194.6	0%	0.0	0	52
M13	9503	259	24.7	5	RR5	24.7	100%	0.2	0.2	24.7	0%	0.0	0	5
M13	9503	260	91.4	3	RR5	41.4	100%	0.2	0.2	15.0	64%	26.4	5	8
M13	9503	266	349.4	27	RR10	34.4	41%	0.1	0.2	82.9	0%	0.0	0	27
M13	--	--	--	--	RR5	48.5	59%	0.2	--	--	--	--	--	--
M13	9503	268	1.5	0	RR5	1.5	100%	0.2	0.2	0.0	100%	1.5	0	0
M13	9503	269	17.0	0	RR10	12.6	100%	0.1	0.1	0.0	100%	12.6	1	1
M13	9503	270	104.0	0	RR10	23.1	100%	0.1	0.1	0.0	100%	23.1	2	2
M13	9503	271	1.2	19	RR10	1.2	100%	0.1	0.1	1.2	0%	0.0	0	19
M13	9503	272	2.2	16	RR10	2.2	100%	0.1	0.1	2.2	0%	0.0	0	16
M13	9503	273	2.0	15	RR10	2.0	100%	0.1	0.1	2.0	0%	0.0	0	15
M13	9503	274	66.2	22	RR10	25.3	100%	0.1	0.1	25.3	0%	0.0	0	22
M13	9503	275	14.3	1	RR10	10.2	100%	0.1	0.1	10.0	2%	0.2	0	1
M13	9503	277	101.3	16	RR10	17.1	100%	0.1	0.1	17.1	0%	0.0	0	16
M13	9503	278	152.5	6	RR10	21.9	100%	0.1	0.1	21.9	0%	0.0	0	6
R17	9503	280	145.3	11	RR5	25.8	100%	0.2	0.2	25.8	0%	0.0	0	11
R17	9503	284	1.7	0	RR5	1.5	100%	0.2	0.2	0.0	100%	1.5	0	0
R19	9503	327	1,268.4	8	RR5	2.4	100%	0.2	0.2	2.4	0%	0.0	0	8
M14	9503	337	3,137.2	132	RR5	250.4	100%	0.2	0.2	250.4	0%	0.0	0	132
M14	9503	338	5.7	0	RR5	5.7	100%	0.2	0.2	0.0	100%	5.7	1	1
M14	9503	346	255.5	2	RR5	16.1	100%	0.2	0.2	10.0	38%	6.1	1	3
R19	9503	347	207.3	15	RR10	42.8	100%	0.1	0.1	42.8	0%	0.0	0	15
R19	9503	348	635.5	13	RR5	44.5	100%	0.2	0.2	44.5	0%	0.0	0	13
R18	9503	351	67.5	2	RR5	42.6	100%	0.2	0.2	10.0	77%	32.6	7	9
R18	9503	352	24.0	3	RR5	14.7	100%	0.2	0.2	14.7	0%	0.0	0	3
R19	9503	355	353.8	28	RR5	51.2	100%	0.2	0.2	51.2	0%	0.0	0	28
R19	9503	357	368.2	10	RR5	2.6	6%	0.2	0.1	45.6	0%	0.0	0	10
R19	--	--	--	--	RR10	43.0	94%	0.1	--	--	--	--	--	--
R19	9503	358	3.7	0	RR5	0.7	100%	0.2	0.2	0.0	100%	0.7	0	0
R19	9503	360	193.2	22	RR10	89.0	94%	0.1	0.1	94.9	0%	0.0	0	22
R19	--	--	--	--	RR5	5.9	6%	0.2	--	--	--	--	--	--
R19	9503	361	7.9	2	RR5	7.9	100%	0.2	0.2	7.9	0%	0.0	0	2
R19	9503	362	16.3	3	RR5	7.8	60%	0.2	0.2	12.9	0%	0.0	0	3
R19	--	--	--	--	RR10	5.1	40%	0.1	--	--	--	--	--	--
M14	9503	363	129.7	42	RR5	19.6	50%	0.2	0.2	39.4	0%	0.0	0	4
M14	--	--	--	--	RR5	19.8	50%	0.2	--	--	--	--	--	--
M14	9503	365	6.7	0	RR5	6.7	100%	0.2	0.2	0.0	100%	6.7	1	1
M14	9503	366	17.5	2	RR5	0.7	100%	0.2	0.2	0.7	0%	0.0	0	2
M14	9503	369	3.2	2	RR5	0.3	100%	0.2	0.2	0.3	0%	0.0	0	2
M14	9503	370	3.0	4	RR5	0.6	100%	0.2	0.2	0.6	0%	0.0	0	4
M14	9503	373	5.2	0	RR5	0.7	100%	0.2	0.2	0.0	100%	0.7	0	0
M14	9503	375	1.7	0	RR5	1.7	100%	0.2	0.2	0.0	100%	1.7	0	0
M14	9503	376	8.9	0	RR5	8.9	100%	0.2	0.2	0.0	100%	8.9	2	2
M14	9503	377	2.5	0	RR5	2.5	100%	0.2	0.2	0.0	100%	2.5	1	1
M14	9503	378	16.3	18	RR5	13.8	100%	0.2	0.2	13.8	0%	0.0	0	1
R17	9503	401	180.9	9	RR5	16.1	100%	0.2	0.2	16.1	0%	0.0	0	9
R17	9503	403	12.4	1	RR5	10.3	100%	0.2	0.2	5.0	51%	5.3	1	2
R17	9503	404B	237.2	22	RR5	15.7	100%	0.2	0.2	15.7	0%	0.0	0	2
R17	9503	407B	192.7	0	RR5	2.2	100%	0.2	0.2	0.0	100%	2.2	0	0
R17	9503	502	26.9	2	RR5	1.2	100%	0.2	0.2	1.2	0%	0.0	0	2
R17	9503	504	20.0	2	RR5	4.0	100%	0.2	0.2	4.0	0%	0.0	0	2
R17	9503	505B	67.5	2	RR5	9.4	100%	0.2	0.2	9.4	0%	0.0	0	2
R17	9503	515B	26.2	3	RR5	15.3	100%	0.2	0.2	15.0	2%	0.3	0	3
R17	9503	516	15.3	10	RR5	6.7	100%	0.2	0.2	6.7	0%	0.0	0	1
R17	9503	517	11.6	2	RR5	11.6	100%	0.2	0.2	10.0	14%	1.6	0	2
R17	9503	518B	3.7	5	RR5	1.6	100%	0.2	0.2	1.6	0%	0.0	0	1
M14	9504	101	49.4	79	RR5	7.4	100%	0.2	0.2	7.4	0%	0.0	0	7
M14	9504	103	1,587.1	519	RR5	111.1	89%	0.2	0.2	124.9	0%	0.0	0	5
M15	--	--	--	--	RR10	13.8	11%	0.1	--	--	--	--	--	
M15	9504	115	88.5	2	RR10	14.3	100%	0.1	0.1	14.3	0%	0.0	0	
M15	9504	116	10.4	7	RR10	10.4	100%	0.1	0.1	10.4	0%	0.0	0	
M15	9504	117	3.0	0	RR10	3.0	100%	0.1	0.1	0.0	100%	3.0	0	
M15	9504	118	4.7	2	RR10	4.7	100%	0.1	0.1	4.7	0%	0.0	0	
M15	9504	119	36.1	21	RR10	23.5	100%	0.1	0.1	23.5	0%	0.0	0	
M15	9504	120	0.7	6	RR10	0.7	100%	0.1	0.1	0.7	0%	0.0	0	
M15	9504	121	10.1	37	RR10	3.7	100%	0.1	0.1	3.7	0%	0.0	0	

TABLE 1: RESIDENTIAL LAND (OUTSIDE URBAN AREAS)

Location: Curry County

Polygon Descriptor Number	Census Tract	Census Block	Census Block Acres	Census Block Res. Units (Existing)	Zoning Type	Res. Acres by Zone	Percent of Total Res.	Allowable Density (units/acre)	Average Density (units/acre)	Developed Res. Acres	Percent Vacant	Vacant Res. Acres	Potential Buildable Units	Maximum Allowed Units
M15	9504	122	26.9	5	RR10	28.1	100%	0.1	0.1	28.1	0%	0.0	0	5
M15	9504	123	13.3	20	RR10	3.7	100%	0.1	0.1	3.7	0%	0.0	0	20
M15	9504	310	166.1	56	RR10	12.2	100%	0.1	0.1	12.2	0%	0.0	0	56
M15	9504	311	25.2	27	RR10	11.5	100%	0.1	0.1	11.5	0%	0.0	0	27
M15	9504	312	124.0	43	RR10	10.1	100%	0.1	0.1	10.1	0%	0.0	0	43
M15	9504	313	3.7	0	RR10	1.6	100%	0.1	0.1	0.0	100%	1.6	0	0
M15	9504	314	21.5	16	RR10	11.3	100%	0.1	0.1	11.3	0%	0.0	0	16
M15	9504	315	7.9	51	RR10	8.3	100%	0.1	0.1	8.3	0%	0.0	0	51
M15	9504	316	17.0	12	RR10	17.0	100%	0.1	0.1	17.0	0%	0.0	0	12
M15	9504	317	5.9	11	RR10	5.9	100%	0.1	0.1	5.9	0%	0.0	0	11
M15	9504	318	23.7	18	RR10	23.7	100%	0.1	0.1	23.7	0%	0.0	0	18
M15	9504	319	14.6	19	RR10	14.6	100%	0.1	0.1	14.6	0%	0.0	0	19
M15	9504	320	17.0	13	RR10	21.1	100%	0.1	0.1	21.1	0%	0.0	0	13
M15	9504	321	2.2	7	RR10	2.2	100%	0.1	0.1	2.2	0%	0.0	0	7
M15	9504	322	4.0	0	RR10	4.0	100%	0.1	0.1	0.0	100%	4.0	0	0
M15	9504	323	6.7	6	RR10	6.7	100%	0.1	0.1	6.7	0%	0.0	0	6
M15	9504	325	2.7	0	RR10	2.7	100%	0.1	0.1	0.0	100%	2.7	0	0
M15	9504	326	1.5	0	RR10	1.5	100%	0.1	0.1	0.0	100%	1.5	0	0
R21	9504	401	92,337.8	31	RR5	102.6	100%	0.2	0.2	102.6	0%	0.0	0	31
R20	9504	413	217.7	4	RR5	43.2	100%	0.2	0.2	20.0	54%	23.2	5	9
R20	9504	414	100.3	6	RR5	69.0	100%	0.2	0.2	30.0	57%	39.0	8	14
R20	9504	415	8.2	0	RR5	8.2	100%	0.2	0.2	0.0	100%	8.2	2	2
R20	9504	416	19.8	0	RR5	13.8	100%	0.2	0.2	0.0	100%	13.8	3	3
R20	9504	417	1,268.9	0	RR5	26.5	100%	0.2	0.2	0.0	100%	26.5	5	5
R19	9504	429	146.0	10	RR5	17.0	100%	0.2	0.2	17.0	0%	0.0	0	10
R19	9504	433	1,549.1	4	RR5	2.5	100%	0.2	0.2	2.5	0%	0.0	0	4
	9504	434	2.2	0	RR5	0.7	100%	0.2	0.2	0.0	100%	0.7	0	0
	9504	445	308.6	0	RR5	13.1	100%	0.2	0.2	0.0	100%	13.1	3	3
R19	9504	446	5,178.7	36	RR5	216.4	100%	0.2	0.2	180.0	17%	36.4	7	43
R19	9504	447	200.6	0	RR5	12.9	100%	0.2	0.2	0.0	100%	12.9	3	3
M14	9504	449	243.4	23	RR10	22.8	47%	0.1	0.2	49.0	0%	0.0	0	23
R19	--	--	--	--	RR5	26.2	53%	0.2	--	--	--	--	--	--
R19	9504	450	507.3	13	RR5	26.9	55%	0.2	0.2	49.1	0%	0.0	0	13
M14	--	--	--	--	RR10	22.2	45%	0.1	--	--	--	--	--	--
M14	9504	452	22.0	0	RR10	22.0	100%	0.1	0.1	0.0	100%	22.0	2	2
M14	9504	453	3.0	0	RR10	3.0	100%	0.1	0.1	0.0	100%	3.0	0	0
M14	9504	454	1.2	0	RR10	1.2	100%	0.1	0.1	0.0	100%	1.2	0	0
M15	9504	463	532.0	8	RR5	30.1	60%	0.2	0.2	50.0	0%	0.3	0	8
M15	--	--	--	--	RR10	20.2	40%	0.1	--	--	--	--	--	--
M15	9504	464	8.2	0	RR5	4.8	70%	0.2	0.2	0.0	100%	6.9	1	1
M15	--	--	--	--	RR10	2.1	30%	0.1	--	--	--	--	--	--
M15	9504	465	13.6	2	RR10	15.4	100%	0.1	0.1	15.4	0%	0.0	0	2
M15	9504	466	32.1	10	RR10	33.8	100%	0.1	0.1	33.8	0%	0.0	0	10
M15	9504	467	21.0	23	RR10	10.8	100%	0.1	0.1	10.8	0%	0.0	0	23
M15	9504	468	40.5	7	RR10	6.8	100%	0.1	0.1	6.8	0%	0.0	0	7
M15	9504	469	1,307.7	41	RR10	89.1	100%	0.1	0.1	89.1	0%	0.0	0	41
M15	9504	470	2.7	0	RR10	1.1	100%	0.1	0.1	0.0	100%	1.1	0	0
R21	9504	473	245.1	40	RR5	93.0	100%	0.2	0.2	93.0	0%	0.0	0	40
R21	9504	475	72.2	0	RR5	4.1	100%	0.2	0.2	0.0	100%	4.1	1	1
R21	9504	476	1,185.1	4	RR5	19.1	100%	0.2	0.2	19.1	0%	0.0	0	4
R21	9504	478	9.6	0	RR5	6.6	100%	0.2	0.2	0.0	100%	6.6	1	1
M15	9504	482	22.0	7	RR10	6.5	100%	0.1	0.1	6.5	0%	0.0	0	7
M15	9504	484	4.4	0	RR10	4.4	100%	0.1	0.1	0.0	100%	4.4	0	0
M15	9504	485	32.9	8	RR10	4.7	100%	0.1	0.1	4.7	0%	0.0	0	8
M15	9504	486	70.7	10	RR10	13.4	100%	0.1	0.1	13.4	0%	0.0	0	10
M15	9504	488	53.1	21	RR10	37.6	100%	0.1	0.1	37.6	0%	0.0	0	21
M15	9504	502	9.9	5	RR10	7.1	100%	0.1	0.1	7.1	0%	0.0	0	5
M15	9504	504	126.0	33	RR10	16.6	100%	0.1	0.1	16.6	0%	0.0	0	33
M15	9504	506	4.9	2	RR10	1.4	100%	0.1	0.1	1.4	0%	0.0	0	2
M15	9504	508	7.7	9	RR10	11.3	100%	0.1	0.1	11.3	0%	0.0	0	9
M15	9504	509	3.0	0	RR10	2.5	100%	0.1	0.1	0.0	100%	2.5	0	0
M15	9504	510	37.6	6	RR10	14.9	100%	0.1	0.1	14.9	0%	0.0	0	6
	9504	511	8.6	2	RR10	4.7	100%	0.1	0.1	4.7	0%	0.0	0	2
	9504	514	26.2	4	RR10	3.8	100%	0.1	0.1	3.8	0%	0.0	0	4
M15	9504	515	31.9	25	RR10	40.4	100%	0.1	0.1	40.4	0%	0.0	0	25
M15	9504	516	42.7	59	RR10	39.4	100%	0.1	0.1	39.4	0%	0.0	0	59
M15	9504	517	16.1	14	RR10	13.0	100%	0.1	0.1	13.0	0%	0.0	0	14

TABLE 1: RESIDENTIAL LAND (OUTSIDE URBAN AREAS)

Location: Curry County

Polygon Descriptor Number	Census Tract	Census Block	Census Block Acres	Census Block Res. Units (Existing)	Zoning Type	Res. Acres by Zone	Percent of Total Res.	Allowable Density (units/acre)	Average Density (units/acre)	Developed Res. Acres	Percent Vacant	Vacant Res. Acres	Potential Buildable Units	Maxim Allow Uni
M15	9504	518	8.4	11	RR10	8.4	100%	0.1	0.1	8.4	0%	0.0	0	11
M15	9504	519	6.4	8	RR10	6.4	100%	0.1	0.1	6.4	0%	0.0	0	8
TOTAL	N/A	N/A	N/A	4,038	N/A	9,016	N/A	N/A	N/A	7,365	N/A	1,707	443	4,4

TABLE 2: COMMERCIAL AND INDUSTRIAL LAND (OUTSIDE URBAN AREAS)

Location: Curry County

Polygon Descriptor Number	Census Tract	Census Block	Census Block Acres	Zoning Type	Com./Ind. Acres by Zone	Vacant Commercial Acres	Vacant Industrial Acres	Developed Commercial Acres	Leasable Commercial Square Feet	Developed Industrial Acres
C2	9501	244	596.3	RC	1.0	0.8	--	0.3	5,546	--
M4	9501	255	1,090.9	RI	11.0	--	9.9	--	--	1.1
M4	9501	257	383.7	RI	58.8	--	38.8	--	--	20.0
M4	9501	263	22.7	RI	13.8	--	13.8	--	--	0.0
C3	9501	264	2.7	RC	2.7	1.8	--	0.9	19,964	--
C3	9501	265	10.4	RC	10.4	8.8	--	1.6	34,604	--
C3	9501	266	2.5	RC	2.5	1.3	--	1.3	27,728	--
M1	9501	270	1.5	RC	1.5	0.4	--	1.1	24,400	--
M1	9501	271	0.7	RC	0.7	0.2	--	0.5	11,091	--
M1	9501	272	1.0	RI	1.0	--	0.0	--	--	1.0
M1	9501	273	1.5	RI	1.5	--	0.0	--	--	1.5
M1	9501	274	1.2	RC	1.2	0.0	--	1.2	26,618	--
M5	9501	303	71.9	RC	0.4	0.4	--	0.0	0	--
M5	9501	356	7.4	RC	1.3	1.1	--	0.2	4,880	--
M6	9501	420	178.4	RI	27.6	--	16.6	--	--	11.0
C7	9501	503	31,108.4	RRC	25.4	24.9	--	0.5	21,780	--
C6	9501	503	31,108.4	RRC	47.8	0.0	--	47.8	2,083,910	--
C10	9501	521	31,637.4	RRC	16.8	15.9	--	0.9	37,026	--
C9	9501	521	31,637.4	RRC	6.2	5.8	--	0.4	15,246	--
C8	9501	521	31,637.4	RRC	93.1	90.3	--	2.8	121,532	--
C6	9501	521	31,637.4	RRC	39.8	0.0	--	39.8	1,733,688	--
M7	9501	548	10,940.1	RRC	51.9	46.7	--	5.2	226,512	--
M7	9501	548	10,940.1	RC	1.5	1.5	--	0.0	0	--
M7	9501	550	141.8	RRC	31.0	24.8	--	6.2	270,072	--
M7	9501	583	33,278.9	RC	28.6	27.2	--	1.4	31,055	--
M7	9501	593	129.5	RC	26.3	6.6	--	19.7	436,985	--
M7	9501	594	9.1	RC	5.2	3.9	--	1.3	28,837	--
C4	9502	108	1,483.1	RC	20.1	17.1	--	3.0	66,546	--
C4	9502	110	124.3	RC	8.2	6.6	--	1.6	35,491	--
C4	9502	111	8.9	RC	1.5	0.7	--	0.8	16,858	--
C5	9502	116	74.1	RC	9.2	9.2	--	0.0	0	--
C5	9502	117	352.6	RC	20.3	20.3	--	0.0	0	--
C5	9502	120	7.7	RC	7.7	7.7	--	0.0	0	--
C5	9502	122	5.7	RC	5.7	1.9	--	3.8	84,292	--
C5	9502	123	1.7	RC	1.7	1.7	--	0.0	0	--
C5	9502	124	706.2	RC	45.3	22.7	--	22.6	501,313	--
C5	9502	124	706.2	RC	31.1	31.1	--	0.0	0	--
C5	9502	125	1.7	RC	1.7	1.7	--	0.0	0	--
C5	9502	126	1.0	RC	1.0	1.0	--	0.0	0	--
C5	9502	133	3.0	RC	1.1	1.1	--	0.0	0	--
I1	9502	214	123.6	RI	28.5	--	0.0	--	--	28.5
M8	9502	310	78.1	RC	10.9	10.4	--	0.5	11,091	--
M8	9502	311	4.2	RC	2.4	2.4	--	0.0	0	--
M9	9502	321	9.9	RC	1.6	1.6	--	0.0	0	--
M9	9502	325	84.3	RC	1.9	0.0	--	1.9	42,146	--
M9	9502	325	84.3	RC	1.1	0.0	--	1.1	24,400	--
M9	9502	325	84.3	RC	1.5	1.3	--	0.2	4,436	--
M9	9502	327	687.9	RC	15.0	3.0	--	12.0	266,184	--
M9	9502	330	1.2	RC	1.2	0.1	--	1.1	23,957	--
M11	9502	349	156.4	RC	14.0	0.0	--	14.0	310,548	--
M11	9502	349	156.4	RC	3.2	0.6	--	2.6	56,786	--
M10	9502	347	405.0	RC	3.0	0.5	--	2.6	56,564	--
M10	9502	347	405.0	RC	6.0	5.7	--	0.3	6,655	--
M12	9502	765	168.2	RC	3.0	1.5	--	1.5	33,273	--
M13	9503	203	2,383.3	RC	31.7	15.6	--	16.1	357,130	--
M13	9503	203	2,383.3	RC	1.8	1.8	--	0.0	0	--
M13	9503	218	651.1	RC	1.2	0.9	--	0.3	6,655	--
M13	9503	222	218.9	RC	1.6	1.2	--	0.4	8,873	--
M13	9503	266	349.4	RI	15.1	--	14.3	--	--	0.8
M13	9503	277	101.3	RC	12.8	7.0	--	5.8	128,656	--
M13	9503	278	152.5	RC	2.2	0.9	--	1.3	28,837	--
M13	9503	286	7.9	RI	5.0	--	3.0	--	--	2.0
M14	9503	337	3,137.2	RC	6.0	5.4	--	0.6	13,309	--
M14	9503	363	129.7	RC	4.6	2.3	--	2.3	51,019	--

TABLE 2: COMMERCIAL AND INDUSTRIAL LAND (OUTSIDE URBAN AREAS)

Location: Curry County

Polygon Descriptor Number	Census Tract	Census Block	Census Block Acres	Zoning Type	Com./Ind. Acres by Zone	Vacant Commercial Acres	Vacant Industrial Acres	Developed Commercial Acres	Leasable Commercial Square Feet	Developed Industrial Acres
M14	9503	378	16.3	RC	2.5	2.3	--	0.2	4,436	--
M14	9504	101	49.4	RI	9.4	--	5.6	--	--	3.8
M14	9504	101	49.4	RC	4.6	3.0	--	1.6	35,491	--
M14	9504	102	91.2	RI	30.3	--	14.8	--	--	15.5
M14	9504	103	1,587.1	RC	3.5	3.3	--	0.2	4,436	--
M15	9504	119	36.1	RC	1.8	0.4	--	1.4	31,942	--
M15	9504	121	10.1	RC	6.2	3.4	--	2.8	62,110	--
M15	9504	123	13.3	RC	8.3	1.2	--	7.1	157,492	--
M15	9504	311	25.2	RC	3.2	1.0	--	2.2	49,688	--
M15	9504	312	124.0	RC	1.4	1.1	--	0.3	6,211	--
M15	9504	312	124.0	RC	7.6	3.8	--	3.8	84,292	--
M15	9504	458	243.1	RC	0.5	0.4	--	0.1	1,996	--
M15	9504	463	532.0	RC	0.9	0.9	--	0.1	1,109	--
M15	9504	463	532.0	RC	1.4	1.0	--	0.4	9,316	--
M15	9504	464	8.2	RC	6.7	3.4	--	3.3	73,201	--
M15	9504	467	21.0	RC	9.7	1.5	--	8.2	181,892	--
M15	9504	468	40.5	RC	2.1	0.2	--	1.9	42,368	--
M15	9504	469	1,307.7	RC	4.1	2.9	--	1.2	26,618	--
M15	9504	482	22.0	RC	5.0	2.5	--	2.5	55,455	--
M15	9504	483	4.0	RC	4.0	0.6	--	3.4	75,419	--
M15	9504	485	32.9	RC	9.3	7.4	--	1.9	42,146	--
M15	9504	487	5.4	RC	5.4	5.1	--	0.3	6,655	--
M15	9504	488	53.1	RC	2.6	1.3	--	1.3	28,837	--
M15	9504	489	8.4	RC	4.4	4.0	--	0.4	8,873	--
M15	9504	490	3.0	RC	1.6	1.4	--	0.2	4,436	--
M15	9504	501	97.1	RC	4.6	2.8	--	1.8	39,928	--
M15	9504	504	126.0	RC	8.1	3.2	--	4.9	108,692	--
M15	9504	505	1.2	RC	1.2	0.4	--	0.8	17,746	--
M15	9504	506	4.9	RC	2.8	0.6	--	2.2	48,800	--
M15	9504	517	16.1	RC	6.0	1.8	--	4.2	93,164	--
TOTAL	N/A	N/A	N/A	N/A	N/A	586	120	341	9,790,799	97

ABLE 3: SUMMARY TABLE - RESIDENTIAL, COMMERCIAL, AND INDUSTRIAL LAND OUTSIDE OF URBAN AREAS

Location: Curry County

	Total Residential Acres	Vacant Residential Acres	Census Block Res. Units (Existing)	Potential Buildable Units	Maximum Allowed Units	Total Commercial Acres	Vacant Commercial Acres	Leasable Commercial Square Feet	Total Industrial Acres	Vacant Industrial Acres
TOTAL	**9,016**	**1,707**	**4,038**	**443**	**4,442**	**927**	**586**	**9,790,799**	**218**	**120**

APPENDIX D

GOLD BEACH PETITION

1)

I SUPPORT THE EAST - WEST ROAD PROJECT

BEAR CAMP OPEN ALL YEAR

TO GET GRANTS TO CARRY OUT OUR PLAN WE NEED SUPPORT OF THIS PROPOSED PROJECT. THANK YOU

NAME	CITY	PHONE	ZIP CODE
Pete Chenoweth	Gold Beach	247-6422	97444
RICHARD A. GUTHRIE	BROOKINGS	469-3061	97415
[illegible]	GB	247 9255	97444
[illegible]	GB	247-[illegible]	97444
Jim Koler			97444
[illegible]	G.B	[illegible]	97444
Fred Bower	G.B.	247-6490	97444
Jan Melde	GB	247-8910	97444
Elan Birchley	GB	4301	97444
Mark MacPherson			
E. Ann Chapman	GB	2107	97444
Walt Schroeder	GB	247-7660	97444
[illegible]	P.O.		
Jerry Dean	GB	247-0264	97444
Patricia L. Dean	"	"	"
Virginia Frosty	"	247-3478	97444
Ethel M. [illegible]	"	247-8203	97444
Gary Schlotter	"	247-9519	97444
Darcy Schlotter		Same	
Bryna Steen	GB	247-0619	97444
Stanley Hodren	GB	247-7846	97444
[illegible]	GB	247-[illegible]	97444
Irene Porter	G.B	247-2016	97444
Frank Porter	G.B.	247-2016	97444
Pattie Slagle	GB	247-7084	97444
Frank Sherman	GB	2477 6785	97444

12

I SUPPORT THE EAST - WEST ROAD PROJECT

BEAR CAMP OPEN ALL YE

TO GET GRANTS TO CARRY OUT OUR PLAN WE NEED SUPPORT OF THIS PROPOSED PROJECT. THANK YOU

NAME	CITY	PHONE	ZIP CODE
[illegible]	GB	247-6471	97444
[illegible]	GB	247-7611	97444
[illegible]	GB	247 0520	97444
[illegible]	GB	[illegible]	[illegible]
Heather Briggs	GB	247-2218	97444
[illegible]	GB	247-6955	97444
[illegible]	BR	469-8999	97415
Elissa Coonce	BR	469-8999	97415
[illegible]	Powers	439-4525	97466
Cheri Colkitt	Union, OR	562-6222	97883
Bev Hendrix	GB	247-7198	97444
Gary Dorgan	Port Orford	332-6161	97465
[illegible]	Gold Beach		97441
[illegible]	~~GB~~ Cave Junction		9
[illegible]	GB		97441
Sherry Berkida	GB	247-6225	97444
Jay Anthony	GB	247-6994	97441
Chris Thelin	GB	247-2116	97444
Holly Witt	P. Orford	332-3210	97465
Randy Waters	Gold Beach	247-7880	97444
BARBARA [illegible]	GB	247-7880	97444
[illegible]	Harbor	469-[illegible]1	97415
[illegible]	GB	247-6255	97444
W R Waters	GB	247-6255	97444
Shannon Clarno	GB	247-4182	97444

(3)

Bear Camp

I SUPPORT THE EAST - Open Year Rd.

WEST ROAD PROJECT

TO GET GRANTS TO CARRY OUT OUR PLAN WE NEED SUPPORT OF THIS PROPOSED PROJECT. THANK YOU

NAME	CITY	PHONE	ZIP CODE
Joan Cooper	GB	247-7161	97444
Sam Wiltz	GB	247-6676	97444
Dawn Bader	Reno, NV	702-626-5169	89436
Dennis Andersen	G.B	247-6290	97444
Bob Simons	G.B.	247-6854	"
Karen Ramos	GB	247-2072	97444
John Emerson	GB	247-2303	"
Chad Bryson	GB	2707	

APPENDIX E

GOLD BEACH MEMORANDUM OF UNDERSTANDING

MEMORANDUM OF UNDERSTANDING (MOU)
between
CITY OF GOLD BEACH COMMISSIONERS, CURRY COUNTY, OREGON
(hereinafter called "the City")
and the
U.S.D.A. FOREST SERVICE, SISKIYOU NATIONAL FOREST
(hereinafter called "the Forest")

SECTION I. STATEMENT OF PURPOSE

The purpose of this Memorandum of Understanding (MOU) is to establish government-to-government communications and productive planning relationships between the City and the Forest. This MOU addresses how and when each agency participates in Forest and City planning processes. Successful implementation of this MOU will promote positive intergovernmental relationships.

SECTION II. BACKGROUND

A. WHEREAS, it is recognized that the Forest Service manages the National Forest in accordance with the Organic Administration Act of 1897, The Multiple Use Sustained Yield Act, and the Forest and Rangeland Renewable Resources Planning Act as amended by the National Forest Management Act (NFMA), and other acts. It makes planning decisions in accordance with the procedures established by the National Environmental Policy Act (NEPA), and;

B. WHEREAS, these Acts require management of National Forest System lands to provide renewable resources (outdoor recreation, range, timber, watershed, wildlife, and fish) on a sustained basis to ensure a continued supply of goods and services to the American people in perpetuity, and;

C. WHEREAS, the City and Forest policies seek to fully consider the impacts of proposed actions on the physical, biological, social and economic aspects of the human environment, including impacts at the local level, to involve each other in planning and monitoring of ultimate decisions made, to give early notice of upcoming proposals to interested and affected persons, and to give timely notice to each other regarding environmental planning documents, and;

D. WHEREAS, the Forest and the City desire to enter into this MOU and have the authority, through the Forest Supervisor and the City Commission, to do so, and;

E. WHEREAS, it is mutually recognized that:

1. This MOU shall not be construed to affect the jurisdiction of Federal, State, City or other local governmental agencies which exists as a matter of law, and:

2. The Forest encompasses several administrative units in the City known as Ranger Districts, and;

3. The City and Forest desire that their planning and enforcement activities appropriately consider the impacts of various decisions on the economic and social stability and culture of the City and its residents during planning.

F. WHEREAS, there are City and Forest planning activities which require different levels of documentation prior to decision making and implementation, and;

G. WHEREAS, for the Forest, these planning levels are mandated or recommended by various Federal laws, regulations and guidelines including, but not limited to, the NEPA, the NFMA, and Forest Service policies, procedures and regulations.

H. WHEREAS, the City has planning activities mandated by State and local laws, and;

I. WHEREAS, it is understood that the Forest has responsibility and authority for decisions on matters within its jurisdiction, and;

J. WHEREAS, it is understood that the City has responsibility and authority for decisions on matters within its jurisdictions.

SECTION III. STATEMENT OF JOINT OBJECTIVES

A. WHEREAS, both agencies desire to develop processes and procedures to ensure that the City and the Forest are able to efficiently and effectively meet their responsibilities as public entities, and;

B. WHEREAS, both agencies desire to openly communicate and provide a conduit for free exchange of information on common issues and problems, and;

C. WHEREAS, both agencies desire to provide a framework to fully consider the social, economic, environmental, and cultural impacts of public land and resource management decisions as part of the overall planning and decision making processes, and;

D. WHEREAS, both agencies desire to work cooperatively on monitoring Forest Plan implementation, and;

E. WHEREAS, both agencies desire periodic review of this MOU for evaluating its effectiveness, and;

F. WHEREAS, both agencies desire a conflict resolution process, and;

G. WHEREAS, both agencies desire to provide conflict resolution processes at the lowest administrative level without resort to judicial review.

NOW, THEREFORE BE IT UNDERSTOOD THAT the parties shall work in good faith to implement the following:

SECTION IV. PROJECT LEVEL PLANNING UNDER THE NATIONAL ENVIRONMENTAL POLICY ACT

A. Initiate Planning

1. The processes set forth in this MOU are intended to portray the most complex, interactive analysis which the agencies may be required to undertake in complying with their respective responsibilities. Many actions proposed by the Forest, either initiated by the Forest or from an applicant, including the City, may be processed and final disposition made using fewer procedural steps than this process provides.

2. The Forest Responsible Official ensures compliance with all matters pertaining to the NEPA and consistency with the Forest Plan pursuant to the NFMA and all other federal laws.

B. Schedule of Proposed Actions

1. The Forest will mail the quarterly Environmental Analysis Schedule of Proposed Actions (SOPA) to the Chair of the City Commission. This calendar provides the status of all ongoing and proposed environmental analyses on the Forest.

2. The City will monitor the schedule and be prepared to act promptly upon receipt of Scoping letters or other documents from the Forest requesting City actions or comments.

C. Scoping

1. The Forest shall notify the City at the earliest possible time of environmental analyses affecting the City. Notification shall occur through the Schedule of Proposed Actions and through scoping documents related to individual analyses. For analyses documented in Environmental Assessments (EAs) and Environmental Impact Statements (EISs), the Forest shall mail the scoping document to the Chair of the City Commission. The scoping document will normally include a description of the proposed action, a statement of purpose and need, and decisions to be made. When appropriate, the scoping document may include preliminary issues, possible alternatives, and the status of the City as a cooperating agency or joint leader in the analysis. For analyses documented as Categorical Exclusions, the Forest shall scope with the City in a manner commensurate with the requirements of individual analyses.

2. The City will evaluate the scoping document and refer it to the appropriate advisory committee(s) for prompt consideration and action. The City will, within the response time specified in the scoping document, either provide written comments on the proposal or inform the Forest in writing of one of the following:

a. The City has no outstanding concerns with a special interest in the proposal and does not intend to comment further. The City may request to receive the Decision Memo (DM), EA or EIS even though they have expressed that they have no outstanding concerns. This request must be made in writing. It is understood that the City's non-response to the scoping report as well as lack of any other expression of interest constitutes tacit notification that it has no concern over the project. These actions or lack of action may cause the City to lose standing to appeal the decision under the Forest Service appeal regulation (36 CFR 215.15(a)(5)).

b. If the City desires additional information it may request the Forest to meet with the advisory committee(s) and other City staff. This meeting shall be a public meeting conducted in accordance with Federal, State, and local law. Issues, alternatives and/or mitigation measures may be presented to the Forest by the City at this time.

c. The City is interested in participating in the project. The response will include suggested issues, alternatives and/or mitigation measures and its desired role and participation activities.

3. In response to the scoping document, the City will make a good faith effort to raise any and all issues it deems important in as specific a manner as possible. The City shall describe applicable State and local laws and local plans and policies which may apply to the proposal or have an effect on the decision.

4. The Forest or the City may request a meeting to clarify individual project goals and objectives and/or pertinent issues. The City will, to the greatest extent possible, organize and conduct these meetings to keep the subject focused on the specific issues and project. The City will cooperate with the Forest on scheduling these meetings and providing adequate notice in compliance with State law. Both agencies may request persons with special expertise to attend such meetings to present and discuss information.

5. The City Commission will provide the City's issues and concerns to the Forest Responsible Official in writing within the specified time periods. The City may also recommend appropriate mitigation measures and alternatives pertinent to their issue(s) at this time.

6. Both agencies are responsible to ensure that all available information pertinent to the City's issues is specific and accurate.

7. The Forest shall consider in their analyses issues resulting from the proposed action which affect City plans and policies. These issues will be evaluated with respect to their significance as described by the Council on Environmental Quality Regulations and shall be discussed in a manner commensurate with their significance in the EA or EIS.

D. Notification and Comment Procedures

1. At this point in the process, procedures identified in the Forest Service appeals regulations for comment and decision notification (36 CFR 215) will apply.

2. The Forest Responsible Official shall mail a copy of any EA, EIS and notices of availability to the City for any projects for which it has indicated an interest.

3. The Forest Responsible Official shall mail written notice of decisions to the City on all actions for which it has indicated an interest.

SECTION V. JOINT AND COOPERATIVE PLANNING

A. Joint Planning

1. The Forest Responsible Official and the City shall agree when joint planning is appropriate and how such planning shall be conducted.

2. Joint planning may be used for:

a. Activities for which the City has subject matter jurisdiction (40 CFR 1506.2(b)),or;

b. Activities for which the City has environmental planning requirements comparable to NEPA (40 CFR 1506.2(c)).

3. When the City requests to conduct joint planning (40 CFR 1506.2), it shall demonstrate that joint planning is required or appropriate. A critical element for determining when joint planning is warranted is whether a decision or independent approval is required by both agencies.

4. The demonstration justifying joint planning must clearly show that:

a. The City has undisputed authority to make a decision directly related to the proposed action in accordance with 40 CFR 1506.2(b), or;

b. There is statutory authority both for the City's decision making responsibility and for the joint planning activity requested. The City must cite the specific laws and regulations which provide the basis for the request.

5. If the requirement for joint planning is in dispute, the City and the Forest Responsible Official will use the process outlined in Section X. CONFLICT RESOLUTION.

B. Cooperating Agency Status

1. The Forest Responsible Official shall have the authority to grant cooperating agency status (40 CFR 1508.5). The City has the same authority for initiating cooperative planning with the Forest for City decisions under appropriate provisions of its local ordinances or regulations.

2. Cooperating agency status is appropriate when it would serve to assist both agencies in complying with their respective authorities and planning needs (40 CFR 1508.5 and 40 CFR 1501-6).

3. The Forest Responsible Official may ask an agency with expertise regarding specific issues pertinent to the analysis to be a cooperating agency at any time when it will facilitate the analysis (40 CFR 1508.5 and 40 CFR 1501.6).

C. Procedures Common to both Joint Planning and Cooperating Agency Status

1. The agencies will use the procedures outlined in Section IV. - PROJECT LEVEL PLANNING UNDER THE NATIONAL ENVIRONMENTAL POLICY ACT, and other applicable federal laws, to initiate and conduct joint planning or cooperative planning.

2. Any request from either agency requesting joint planning or cooperating agency status shall be made in writing to the Forest Responsible Official or Chair of the City Commission as applicable. Each agency shall respond in writing in a timely manner to such a request given the scheduling needs of the requesting agency.

3. It is recommended that when the agencies are entering into a formal relationship (joint planning or cooperating agency status), a supplemental MOU should be executed which identifies the respective roles and responsibilities of each party as regards that specific project planning process.

SECTION VI. FOREST PLAN IMPLEMENTATION

A. The Region 6 Forest Plan Implementation Strategy (Steps of the Journey) is a Forest Service planning process that may occur between Forest Plan decisions and project level decisions. Its purpose is to identify a desired condition for a defined area on the Forest. This process does not involve NEPA decisions. The process serves as a source of proposals. It is not a prerequisite for either Forest-level planning (NFMA) or project-level planning (NEPA). "Steps of the Journey" is available at Siskiyou National Forest Service Offices and the Office of the Curry County Commission.

B. Participation by the public, State and local government, and Indian tribes helps in defining the area to be analyzed, compiling pertinent data for the existing conditions, developing the desired conditions for the area, and identifying possible management practices.

C. There are three basic "products" developed for each ecosystem management unit as a result of this process:

1. Description of historical conditions.
2. Description of existing conditions.
3. Description of desired conditions.
4. List of possible management practices.

D. The Forest will give notice to the City and provide the appropriate opportunities for full participation by the City in development of the four products of implementation planning listed above (Section VI.C.).

E. The City will participate as it determines appropriate. City participation in this process does not affect in any way City participation in either Forest-level planning (NFMA) or project-level planning (NEPA).

SECTION VII. FOREST LEVEL PLANNING UNDER THE NATIONAL FOREST MANAGEMENT ACT (NFMA)

A. The Forest is committed to implementing the requirements for coordination with the City according to 36 CFR 219.7 at the time that the revision for the Siskiyou National Forest Land Management Plan (hereinafter known as the "Plan") or significant amendments to the current Plan are initiated.

B. The Regional Forester is the Responsible Line Officer for revisions of or significant amendments to the Plan (36 CFR 219-10). However, all procedural requirements of 36 CFR 219 will be performed by the Forest Supervisor (36 CFR219.10).

C. According to 36 CFR 219.7(a-e) the Forest Supervisor shall:

1. (a) Mail notice of the preparation of the Plan to the Chair of the City Commission at the same time the Notice of Intent is published in the Federal Register, along with a general schedule of anticipated planning activities;

2. (b) Cooperate with the City to review the Curry County Land Use Plan to determine the City's planning objectives, to assess the interrelationship of the Forest Plan and the Curry County Plan, and other pertinent Federal, Sate and local land use plans, and to consider means for resolving any conflicts identified. The Results of this review will be displayed in the EIS;

3. (c) In addition to the Forest Plan scoping for the Environmental Impact Statement (EIS), at a minimum meet with the City three (3) times: 1) at the beginning of the forest planning process to develop procedures for coordination; 2) to validate issues which the City has identified; and 3) prior to recommending the preferred alternative in the draft EIS;

4. (d) Seek input from the City to help resolve issues and identify areas where additional research is needed;

5. (e) Cooperate with the City to conduct appropriate monitoring and evaluation of Forest activities undertaken in implementing the Plan. This monitoring shall include evaluation of the effects on land, resources, and communities adjacent to or near the Forest and nearby lands under City jurisdiction.

D. In addition to 36 CFR 219.7:

1. The City and Forest may solicit public input for the Plan either individually or jointly using methods including, but not limited to, holding public hearings or meetings, public service announcements, open houses, etc.

2. The City shall coordinate with the Forest, utilizing any available resources, including universities, to develop meaningful and useful social, economic and cultural data and information which the Forest will consider in evaluating the impact that Plan revision and significant amendments thereto would have on those resources.

3. The Forest shall monitor its Plan implementation to predict possible social, economic and cultural impacts which may occur as a result of its decisions or pending decisions and inform the City in as timely a manner as possible.

4. Based on the results of monitoring, the City may request that the Plan be revised or significantly amended. The Forest Supervisor has authority to determine if the Plan will be significantly amended or revised (36 CFR 219.10(f).

SECTION VIII. FOREST INVOLVEMENT IN CITY PLANNING

A. It is recognized that the Forest administers 48 percent of the land base of the City, and that Forest employees are members of the community and contribute greatly to the economic stability of the City. As such, the Forest and the City are interdependent both economically and socially. Therefore, both agencies desire that the Forest participate, to the extent appropriate, in City planning processes.

B. The City will give timely written notice of proposed ordinances, policies and procedures to be considered by the City which may be of interest to the Forest. At a minimum, the City will mail or fax the agenda of any City meetings to the appropriate Responsible Official(s). The City shall also provide earlier notice, either by telephone or in writing, of any such activities for Forest notification and for possible Forest involvement.

C. At the request of the City or its advisory committee(s), the Forest will provide information and participate in the City's planning process to the fullest extent practicable.

D. The City will provide to each District Ranger and the Forest Supervisor, copies of any City ordinances, policies or procedures or activities that might be pertinent to the Forest at the time they are approved by the Commission.

SECTION IX. MISCELLANEOUS

A. If either agency learns of proposals which may have an impact on the other, it shall inform the other in a timely manner.

B. In the case of an action with a short deadline for decision making for which these procedures cannot be followed, one party will contact the other promptly.

C. The Forest and the City shall meet in October and March of each year to exchange information, including as appropriate, projected annual receipts that the City will receive from the Forest Service, budget overviews, noxious weed control, new management practices, Forest Service employment trends, and upcoming projects that either the City or the Forest are contemplating that may be of interest to both parties. Additional meetings may be scheduled as necessary.

D. For improvement or maintenance of transportation facilities in Curry County, the Forest and the City shall cooperate in accordance with the Curry County Transportation System Maintenance Plan, attached to this MOU as Exhibit A and by this reference made a part hereof.

SECTION X. CONFLICT RESOLUTION

In the event of disagreement over the implementation or interpretation of this MOU, either agency may request a meeting between the District Rangers within the City and City officials to attempt to resolve the dispute. Both agencies shall have the opportunity to present their concerns and will strive to reach a consensus.

SECTION XI. GENERAL PROVISIONS

A. This agreement is subject to being terminated by either party upon sixty (60) days written notification of such intent. This notification must be made by registered mail, return receipt requested, to the Forest Supervisor or the Chair of the City Commission as appropriate.

B. Each agency will provide a list of points of contact for their organization within 15 days of execution of this MOU and within 15 days of a change in points of contact.

C. No member or Delegate to Congress or local official shall be admitted to any share or part of this MOU, or any benefit that may arise therefrom; but this provision shall not be construed to extend to the MOU if made for a corporation or its general benefit.

D. Supplements or amendments to this MOU may be proposed by either party and shall become effective upon approval by both parties.

E. In implementing this MOU, there shall be no discrimination against any person because of race, religion, color, sex or national origin.

F. Nothing in this MOU shall be construed as obligating the parties in the expenditures of funds or for the future payment of money in excess of appropriation authorized by law.

IN WITNESS WHEREOF, the parties hereto have executed this Memorandum as of the date below.

Forest Supervisor Date Chairman Date
Siskiyou National Forest Curry County Commission

Commissioner Date
Curry County Commission

Commissioner Date
Curry County Commission

ATTEST:

City Clerk