U.S. Highway 97 Corridor Strategy

(Madras - California Border)

Oregon Department of Transportation



November 1995

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prepared by



in association with Pacific Rim Resources

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Introduction

The Oregon Department of Transportation (ODOT) has embarked upon a new approach to identify projects for the Oregon State Transportation Improvement Program. This new approach, named Corridor Planning, is intended to implement the goals and policies set forth by the 1992 Oregon Transportation Plan (OTP), the 1991 Highway Plan and the recent modal plans for rail, freight, bike/pedestrian, aeronautics and transit.

The OTP, Oregon Highway Plan and modal plans provide statewide transportation goals and policies, and identify transportation corridors and facilities of statewide importance. Corridor plans are intended to build upon this multimodal, statewide planning framework by focusing on long-term planning and development of all modes within specific transportation corridors. Transportation corridors are identified as major or high volume routes for moving people, goods and services from one point to another. Since transportation corridors transcend jurisdictional boundaries, corridor planning also builds upon local transportation and land use policies and plans, including the comprehensive plans of Jefferson, Deschutes and Klamath Counties and the cities of Madras, Redmond, Bend and Klamath Falls.

Over the next six years, ODOT intends to complete corridor plans for 31 transportation corridors throughout Oregon, including the U.S. Highway 97 Corridor, which follows Highway 97, as illustrated in Figure 1. Generally, each corridor plan will:

- involve local jurisdictions, stakeholders and citizens;
- translate the policies of the OTP into specific actions;
- describe the functions of each transportation mode, consider trade offs, and show how they will be managed;
- identify and prioritize improvements for all modes of travel;
- work with local jurisdictions to identify opportunities for partnering;
- indicate where improvements should be made;
- resolve any conflicts with local land use ordinances and plans; and
- Establish guidelines for how transportation plans will be implemented.

Executive Summary

U.S. Highway 97 Corridor Strategy



Segment Number	Segment Milepoints	Segment Miles	Begin Segment	End Segment
1	91.9 - 118.5	26.2	Junction US 26 (Madras)	US 97 and OR 370 (Prineville)
2	118.5 - 142.2	23.8	US 97 and OR 370 (Prineville)	China Hat Road (Bend)
3	142.2 - 169.7	24.2	China Hat Road (Bend)	Jct. US 97 & OR31 (La Pine)
4	169.7 - 195.2	26.5	Jct. US 97 & OR31 (La Pine)	Junction OR 58 -
5	195.2 - 213.5	16.2	Junction OR 58	Junction OR 138
6	213.5 - 242.5	29.5	Junction OR 138	Spring Hill
7	242.5 - 257.83	15.33	Spring Hill	Modoc Point
8	257.83 - 271.0	13.17	Modoc Point	N. Klamath Falls UGB
9	271.0 - 278.0	6.61	N. Klamath Falls UGB	S. Klamath Falls UGB
10	278.0 - 291.73	13.7	S. Klamath Falls UGB	California border

Executive Summary U.S. Highway 97 Corridor Strategy

Corridor Planning Process

The corridor planning process recognizes that different segments of the U.S. 97 Corridor require different levels of study to develop a corridor-wide, long-range plan. Thus, corridor planning proceeds from general to specific in a three-phased approach towards project development and construction, as illustrated in Figure 2.



Executive Summary U.S. Highway 97 Corridor Strategy

This corridor strategy document is the outcome of the initial Strategy Development phase of Corridor Planning. The Corridor Strategy is intended to set the stage for more detailed analysis of modal trade offs and improvement priorities. The Corridor Strategy evaluates long-term transportation requirements, multimodal issues and recommends general improvement objectives to address corridor-wide requirements.

The second phase of corridor planning will specifically address the objectives set forth in the Corridor Strategy. During this phase, specific transportation improvements will be identified and prioritized as two types of transportation plans: general plans for counties and systems plans for cities.

The third and final phase of corridor planning leads to project development through refinement planning for specific projects to resolve any outstanding environmental, land use and design issues.

Corridor Description

The U .S. 97 Corridor stretches 199.8 miles from the Highway 26 intersection in north Madras to the Oregon/California border. Within the Corridor, Highway 97 provides important interstate, regional and local transportation linkages. In addition to serving local needs, the highway is used as a major truck route for the Western United States providing relatively shorter, more direct access for goods moving between California, the Willamette Valley, Central Oregon, east central Washington, northern Idaho and points east. Highway 97 also serves as an "alternative- to 1-5 for people and goods moving between California and Washington.

Highway 97 is the primary transportation facility in the Corridor, serving automobile, truck, public transportation, bicycle and pedestrian modes. As indicated in Figure 1, Segments 1-3 extend from the Highway 97/U.S. 26 intersection in Madras to the Deschutes/Klamath County border, serving the rapidly growing communities of Madras, Bend, Redmond, Sunriver and La Pine. Segments 4-10 extend from the Klamath County border to California, linking small and medium-size communities, such as Crescent, Chemult, Chiloquin, Algoma and Klamath Falls.

The Corridor is served by a variety of transportation modes. The rail freight system in the Corridor is comprised of the Southern Pacific Cascade Line, the Burlington Northern Bend Branch and Bieber Lines, and the City of Prineville Railway.

Amtrak's Coast Starlight train, which runs between Seattle and Ws Angeles, stops daily in Chemult and Klamath Falls. Greyhound provides one daily northbound and southbound bus between Madras, Redmond, Bend, Chemult and Klamath Falls.

The Redmond Municipal Airport and the Klamath Falls International Airport provide scheduled passenger service. Pacific Gas Transmission Company's gas line also generally follows the Corridor.

Findings and Conclusions

Key findings and conclusions that were identified during strategy development include:

- The Corridor's economy is primarily based on timber, tourism and agriculture.
- Many recreational destinations along the Corridor draw large volumes of in-state and out-ofstate visitors year round while generating high volumes of peak-season recreational traffic.
- The mix of through and local traffic along Highway 97 has created vehicular, bike, pedestrian and truck/RV conflicts and safety concerns.
- Population and employment is projected to grow rapidly, particularly in Corridor Segments I, 2 and 3 (Madras through La Pine); expecting to result in increased traffic and congestion over the next 20 years.
- Highway 97 currently affects the habitat of a variety of wild plants and animals; functions as a barrier to biotic movements and is a source of physical, chemical and biological contaminants.

Corridor Strategy Goal and Themes

The strategy development process for the U.S. 97 Corridor included surveys and interviews with stakeholders, several public meetings and workshops where corridor issues, concerns and opportunities were discussed. Based on the input received from these meetings and relevant technical information on transportation trends, congestion, travel time and safety, the overall goal for the U .8. 97 Corridor is:

To promote commerce by efficiently distributing good and services, while enhancing travel safety, maintaining environmental integrity and preserving regional quality of life.

The following six underlying corridor strategy theme were identified during the strategy development process:

- Enhancing Safety
- Facilities Management and Improvement
- Intermodal Connections
- Interpretive Opportunities and Preservation of Environmental Quality
- Economic Development
- Partnering

The Corridor Strategy goal and themes form the basis for the objectives contained in this Corridor Strategy document.

Purpose of the U.S. 97 Corridor Strategy

Development of the United States (U.S.) Highway 97 Corridor Strategy is the first step in the corridor planning process for the Madras to California section of this multimodal transportation corridor. The purpose of this document is to set forth objectives for the operation, preservation and improvement of transportation facilities within the Corridor. This document describes the role the Corridor plays within the region, identifies significant issues, and helps to distinguish this corridor from other corridors within the state of Oregon.

This document is intended to apply the general transportation policies and requirements established by the federal Intermodal Surface Transportation Efficiency Act (ISTEA) legislation, Oregon Transportation Plan (OTP) and other state policies to the U .S. 97 Corridor. Attention is placed on determining relevant policies and applying them to the unique corridor conditions. Corridor objectives attempt to balance various modes of transportation with the needs, issues and unique features of the Corridor.

The Corridor Objectives identified in the Strategy represent the course of action for corridor planning and management as recommended by corridor stakeholders. The objectives provide direction for future transportation system planning, general planning, refinement planning, and project programming and development.

Overview of Corridor Planning

In response to federal and state directives, the Oregon Department of Transportation (ODOT) has adopted a new comprehensive approach to transportation planning. While many modes of transportation and specific transportation facilities are not owned or operated by the state (railroads, bus systems, port facilities), the state has a special interest in the performance of these facilities given their interaction with ODOT facilities and their collective importance to the entire transportation system.

This new approach to transportation planning seeks to integrate statewide planning for all transportation modes with long-term planning for specific communities within Oregon. ODOT is developing statewide management systems and modal plans for modes including automobile, truck, passenger and freight rail, aviation, bicycle and pedestrian, and intermodal facilities. Concurrently, ODOT is conducting corridor planning to focus on the multimodal performance and impacts of specific transportation corridors, facilities and systems of statewide significance.

Together, modal and corridor plans will be the basis for update of the State Transportation Improvement Program (STIP) and the development of specific transportation improvement projects. Additional benefits of corridor planning include:

Resolution of Major Planning Issues Prior to the Initiation of Project Programming and Development — Early agreement on project purpose, need, and general parameters is essential to successful, timely, and cost-effective project development.

Preservation of Transportation Rights-of-Way — Preservation of existing and future transportation rights-of-way requires proactive planning. In high growth areas, transportation facility requirement increases while at the same time property values escalates and new development occupies needed rights-of-way. As available and environmentally suitable land diminishes, transportation improvements are often forced into stream corridors or wetland areas. Under these circumstances, development costs and environmental impacts can be reduced by preserving transportation corridors.

Protection of Transportation Investments — To avoid premature obsolescence of highways and other transportation facilities, corridor planning focuses on means to accommodate transportation needs with and without capital-intensive improvements. Advantages of access management, utilization of parallel local streets, reconfigured land use patterns, and demand management programs (rideshare, public transportation, flex-time) should be considered in lieu of, and/or in addition to, major capital improvements.

In the context of corridor planning, corridors are defined as broad geographic areas through which various transportation systems provide important connections between regions of the state for passengers, goods and services. Facilities are defined as individual modal or multimodal terminals that are considered to be of a statewide level of importance. Systems are defined as a network of transportation links, services and facilities that collectively have a statewide level of importance, even though individual corridors, facilities or services that make up the system may not be of statewide significance.

A corridor plan is a long-range (20-year) plan for managing and improving transportation facilities and systems to meet needs for transporting people, goods and services within a specified corridor. Corridor plans are currently being developed for 31 corridors of statewide significance identified in the OTP. The corridor planning area includes statewide transportation facilities, systems, and land area that affect transportation performance.

Planning Requirements

Corridor plans will be developed to implement the general policies and planning directions of new federal and state planning directives and guidance documents, including:

Federal Intermodal Surface Transportation Efficiency Act (ISTEA) — ISTEA sets new standards and guidelines for transportation planning nationwide. To qualify for federal funding, states must show state and local plans that balance automobiles with other transportation modes, show cooperation among various units of government, and provide meaningful public input.

Oregon Transportation Plan (OTP) — The OTP provides a general context for transportation planning in Oregon with a philosophy, vision and broad policies.

Oregon Transportation Planning Rule (TPR) — The TPR requires stronger ties between transportation and land use planning.

State Agency Coordination Program (SAC) — The SAC Agreement between ODOT and the Department of Land Conservation and Development defines how these agencies will coordinate their efforts.

Modal Plans — These plans include the Oregon Highway Plan, Oregon Rail Freight Plan, Oregon Rail Passenger Policy and Plan, Transportation Safety Action Plan, Intermodal Facilities and Connections Plan, Oregon Bicycle/Pedestrian Plan, Oregon Public Transportation Plan (in process), and the Oregon Aviation Systems Plan.

In addition to meeting statewide planning directives, the corridor planning process is intended to help local governments fulfill their planning obligations under the TPR. The TPR requires that regional and local transportation systems plans be consistent with adopted ODOT plans. Corridor planning provides a mechanism for ODOT and local governments to cooperatively determine how the OTP and other ODOT plans impact their jurisdiction.

Corridor planning will build upon and balance the policies identified in the previously mentioned documents. General policies will be translated into more specific plans for future improvements and management actions within each corridor. As such, corridor planning will guide the development of the Statewide Transportation Improvement Program (STIP) and the prioritization of project development. Corridor planning will become the means to implement the broad policies of the OTP and the individual modal plans.

Corridor Planning Process, Products and Participants

Corridor planning is being carried out in three phases that progress from general to specific recommendations as shown in Figure 2.

Phase 1 involves the development of a corridor strategy that identifies a set of general transportation goal, policies and objectives for each corridor. Phase 2 involves development of a corridor transportation improvement and management element (TIME) to test corridor strategy objectives, analyze alternatives, provide general cost estimates, establish priorities and set the stage for refinement plans and project development. Transportation Systems Plans (TSPs) will also be developed for cities within each corridor. The TSPs and the TIME will link corridor strategy objectives to city and county comprehensive plans.

The bulk of the corridor planning effort will be allotted to the formulation of the TIME and the TSPs during Phase 2. Some decisions identified in Phase 2 will require refinement plans to be developed during Phase 3 of corridor planning. Refinement plans will be used to resolve particular environmental, land use or access management issues that require more detailed information and analysis.

Corridor planning entails significant public and agency involvement. A Corridor Planning Management Team (CPMT) consisting of ODOT, county, city and service district representatives

manages most corridor plans. The CPMT reviews and approves the corridor planning work scope, reviews interim products, and recommends the acceptance of final planning documents by the Oregon Transportation Commission (OTC), tribal councils, and city and county leadership.

Federal and state agencies, tribal representatives, and transportation service providers have been invited to participate in a statewide agency coordinating committee overseeing corridor planning; those interested in a specific corridor will participate in corridor planning through involvement on the CPMT and/or through meeting and corresponding with the corridor planning team.

Public involvement in corridor planning is being managed statewide by a public involvement team and includes input from a statewide stakeholders group. The stakeholders group includes representatives of many statewide special interest groups in the transportation, land use, environmental and social service areas. Stakeholders in specific corridors receive notification of planning activities in the corridor and interviews and/or surveys to solicit input. Public open houses and/or workshops are held in corridors at the outset of planning activities and prior to the completion of corridor strategy, TIME and TSP documents.

When appropriate, some corridor planning teams have set up Corridor Advisory Groups (CAGs) or informal local Stakeholder networks to provide additional input. The public also has the opportunity to provide formal testimony regarding plan documents to the OTC and city and county officials during plan acceptance.

Corridor Planning in the US Highway 97 Corridor

Growth and development within the Highway 97 Corridor has historically been constrained by transportation access encumbered by topography, distance and steep grades. Historically, Highway 97 is composed of three pioneer roads including the Dalles Military Road between Biggs and Shaniko; the Shaniko-Prineville Road, between Shaniko and Redmond; and the Huntington Road, between Redmond and Klamath Falls. Until Highway 97 became a -paved-road in the mid-1930's, auto travel between Shaniko and Bend took two to three days. Hence, passengers and freight moving to and from the region traveled primarily by rail until the late 1930's.

Corridor planning in the U.S. 97 Corridor began with the adoption of the Access Oregon Highway (AOH) program in 1988. This program focused on highway facilities which link major tourist destinations, deep-water ports, and urban areas with the interstate system. At that time, Highway 97 was the first route in Oregon classified as having statewide importance. ODOT released the "Access Oregon Corridor Study11 for Highway 97 in 1988.

With the adoption of the Oregon Transportation Plan came a multimodal approach to corridor planning, focusing first on transportation corridors deemed to be of statewide significance. ODOT Region 4 selected the U .S. 97 Corridor as the first of several corridors to be studied in the central portion of the state. Data collection began in 1993 with corridor inventory, land use and transportation facilities analyses.

Corridor Strategy development, the first phase of corridor planning, was initiated in the fall of 1994 with initial meetings of the CPMTs, a survey of corridor stakeholders and open houses in Redmond and Klamath Falls. Two CPMTs were formed, along with two CAGs to provide focus

on corridor issues and objectives. The membership of these groups is provided in the Technical Appendix.

An internal review draft Corridor Strategy was distributed to ODOT modal planners and Region 4 Corridor Management Team members in January 1995.

Based on the comments received, a Public Review Draft Corridor Strategy was distributed in February 1995. A round of CPMT and CAG meetings, workshops and open houses was held in March 1995 in Bend, La Pine, Chiloquin, Chemult and Klamath Falls. Input provided from these meetings, workshops and open houses has been incorporated into this revised Corridor Strategy document. A final Corridor Strategy for Highway 97 should be completed by late 1995.

The corridor objectives that follow take into account the statewide plan requirements described in the OTP, the Oregon Highway Plan and the modal plans, along with the issues identified by CPMT and CAG members and other state and local stakeholders. Supporting technical analysis includes an analysis of the ODOT's Highway Performance Monitoring System (HPMS) and the Safety Priority Index System (SPIS) databases. Also, the Oregon Department of Fish and Wildlife (ODF&W) provided an environmental audit for segments along the corridor.

The Corridor Strategy assumes implementation of near-term projects within the Corridor that have been previously approved for construction. In addition to standard levels of roadway maintenance and repair, specific capital improvements that are assumed include construction of the Bend Parkway; an additional travel lane and increased shoulder width from Madras to the Crooked River Gorge Bridge; a new bridge over the Crooked River Gorge; and geometric improvements and additional shoulder width from Wapanitia Junction to Maupin. These capital projects are expected to be made in accordance with federal, state and local standards for roadway design and construction.

Corridor Overview U.S. Highway 97 Corridor Strategy

Role Corridor Plays in the Region

Within the state of Oregon, the U .S. 97 Corridor stretches approximately 195 miles from Madras to the California border. Within the Corridor, Highway 97 provides important interstate, regional and local transportation linkages. The highway is used as a major truck route for the Western United States, and provides relatively shorter, more direct access for goods moving between California, the Willamette Valley, Central Oregon, eastern Washington, northern Idaho and points east. It also serves as an alternative to I-5 for goods moving between California and Washington.

Traffic counts and interviews with trucking companies indicate a high usage of this route by truckers to avoid grade and snow conditions on I-5 in the Siskiyous. Trucks account for over 40 percent of the total traffic on U .S. 97 at the junction with OR 58. Driving distance is also approximately 10 miles less between northern California (Weed) and Eugene, Oregon when using a combination of U.S. and OR 58, instead of I-5.

Highway 97 provides the major economic link for Central Oregon cities and counties, and serves as the primary facility for moving people, goods and services in the region. It supports the region's economic base, which primarily consists of timber, tourism and agriculture. There are nearly one dozen lumber mills along the Corridor, and the region is a leader within the state in the production of wheat, hay, mint, potatoes, cattle and sheep.

There are several recreational destinations within the Corridor that draw large volumes of in-state and out-of-state visitors to the region year-round. Mt. Bachelor Ski Area, Crater Lake National Park, Deschutes and Winema National Forests and other attractions and amenities are located within or adjacent to this corridor.

The many recreational features and amenities in the area, combined with favorable climatic conditions have led to high growth in Jefferson and Deschutes Counties and moderate growth in Klamath County. The Oregon Parks and Recreation Department has four destination campgrounds within the Corridor, including Collier Memorial (30 miles north of Klamath Falls), La Pine (30 miles south of Bend), Tumalo (seven miles NE of Bend) and Cove Palisades (15 miles SW of Madras). Recreational attractions also generate significant positive economic benefits. A study by Oregon State University concluded that "an estimated 9.9 million non-resident outdoor recreationalists visited the central region in 1993 and spent an estimated \$2,94.6 million."

Population in the Jefferson and Deschutes counties is projected to increase by approximately 47.5 percent between 1990 and 2012. This is significantly higher than the projected statewide population growth rate of 33.8 percent for the same time period. Throughout the Corridor, employment is projected to increase faster than population; as the existing work force adjusts to the changing service-oriented economy. This work force expansion will be accommodated by new workers relocating to the area, and the entrance of new wage earners within existing households. Population and employment projections for selected counties within the Corridor is provided in the Technical Appendix.

Corridor Overview U.S. Highway 97 Corridor Strategy

General Description of Transportation Facilities in the Corridor

Today, there are several important highways, rail lines, airports, public transportation services and other facilities within the Corridor (Figure 3). Highway 97 is the primary north-south transportation facility in the Corridor, serving automobile, truck, public transportation, bicycle and pedestrian modes. East-west access is primarily provided by the highways that intersect with Highway 97, including:

- OR 216 Junction in Grass Valley -connects with several highways to the west
- OR 218 Junction in Shaniko -provides access to eastern Oregon
- OR 197 Junction -provides links to Maupin and The Dalles
- U.S. 26 Junction at Madras -provides a vital link to Portland and the Willamette Valley
- OR 126 junction at Redmond -links U.S. 20/OR22 to the west and U.S. 26 to the east
- U.S. 20 junction in Bend -provides a main east-west arterial branch
- OR 31 Junction south of La Pine -provides access to southeast-central Oregon
- OR 58 Junction north of Chemult -provides access over the Cascades to Eugene
- OR 138 Junction at Diamond Lake -provides access to the northern portion of Crater Lake
- OR 62 Junction near Chiloquin -provides access to the southern portion of Crater Lake
- OR 140 Junction at Klamath Falls -provides east-west access to southern Oregon and points serviced by OR 66 and OR 39

In addition to these U.S. and Oregon routes, there are a number of local arterials that provide linkages to communities to the east and west of the U.S. 97 Corridor.

The Corridor is served by a variety of other transportation modes. The rail freight system is comprised of the Southern Pacific Cascade Line, the Burlington Northern Bend Branch and Bieber Lines and the City of Prineville Railway. Passenger rail service is provided on the Cascade Line by Amtrak's Coast Starlight train, which runs between Seattle and Los Angeles, with daily stops in Chemult and Klamath Falls.

Greyhound provides daily northbound and southbound bus service between Madras, Redmond, Bend, Chemult and Klamath Falls. Greyhound also runs eastbound and westbound bus service between Portland and Bend. CAC Transportation runs daily round trip bus service between Portland and Chemult. Basin Transit District provides regional transit service throughout the Klamath Falls service district. There are also numerous local private and community para-transit providers, as well as taxi service in Madras, Redmond, Bend and Klamath Falls.

The Redmond Municipal Airport and the Klamath Falls International Airport provide scheduled passenger service.

Pacific Gas Transmission Company owns and maintains a gas transmission line that generally follows the Corridor.

FIGURE 3



EXISTING TRANSPORTATION SYSTEM

Corridor Overview U.S. Highway 97 Corridor Strategy

Source: Oregon Transportation Plan, 1992

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A more detailed description of these modes is provided below:

Corridor Characteristics

The transportation modes within the Corridor provide diverse multimodal facilities and services. While each mode plays an important role in moving goods and people through the Corridor, the highway is the predominant transportation facility and the network or linkages among modes can be significantly improved as indicated in the Corridor objectives. The existing conditions of the system and its facilities were analyzed to understand system dynamics. Potential future conditions are presented based on information from ODOT's Highway Performance Monitoring System (HPMS) data and other sources.

The preferred transportation system for the state and Corridor as described by the OTP is portrayed on Figure 4. The primary transportation changes along the U.S. 97 Corridor envisioned by the OTP include establishment of urban public transit service, an intercity passenger terminal and a reload freight facility in the Bend area.

A. Highway System

The Oregon Department of Transportation (ODOT) maintains and regularly, updates the HPMS database for all highways of statewide significance. HPMS information helps in understanding existing and projected transportation performance, and is useful in comparing state highway corridors and segments within corridors.

As mentioned previously, Highway 97 provides major north-south linkages within the Corridor. More detailed descriptions of the HPMS database, methodology and analyses of the Corridor are provided in the Technical Appendix. An analysis of traffic volumes, congestion, travel time, safety and cost effectiveness is summarized below. For purposes of this analysis, the U.S. 97 Corridor has been divided into ten segments, as indicated earlier in Figure 1.

1. Volumes

The average daily traffic (ADT) along Highway 97 varies considerably throughout the Corridor. In comparison to all highways of statewide significance, the Corridor experiences relatively high traffic volumes, with a large proportion of truck traffic. As indicated on Figure 5, total ADT currently ranges from approximately 4,000 vehicles at mile point 289.44 (south of the Klamath Falls Urban Growth Boundary) to over 20,000 vehicles at mile point 142.27 near China Hat Road, just south of Bend.

Truck traffic volumes range in ADT from approximately 1,500 trucks at mile point 289.44 south of the Klamath Falls Urban Growth Boundary to 2,100 trucks at mile point 204.65 just south of the OR 58/U.S. 97 intersection. In the Bend, Redmond and Madras urban areas average daily truck traffic on Highway 97 currently ranges from 1,800 to 1,900 trucks per day. Hence, the distribution of truck traffic as a percent of total traffic is much higher south of the OR 58 intersection (41 percent) in Klamath County than it is in the Bend, Redmond and Madras areas (9 to 18 percent).

FIGURE 4

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PREFERRED TRANSPORTATION SYSTEM

SOURCE: OREGON TRANSPORTATION PLAN. 1992

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Corridor Overview U.S. Highway 97 Corridor Strategy

Corridor Overview

U.S. Highway 97 Corridor Strategy



Traffic Volume Trends





Mile Points 289.44, 204.65, 142.27 and 96.92

Table 1 Highway Traffic in the U.S. Highway 97 Corridor							
Distribution of Corridor Miles							
1992 Traffic Volumes*	1992 Traffic Volumes* Corridor Total Statewide Average						
0-1,999 37%							
2,000-4,999	37%	36%					
5,000-9,999	41%	16%					
10,000-19,999 17% 6%							
20,000-29,999	4%	3%					
30,000-49,999 1% 2%							
>50,000							
1992 Truck Traffic	1992 Truck Traffic						
0-499		52%					
500-1,499	63%	41%					
1,500-2,999	37%	6%					
>3,000		1%					
1972-1992 Annual Traffic Gr	rowth Rates (%)						
1-1.99	44%	38%					
2.00-2.99	35%	46%					
3.00-4.00 21% 16%							
Source: Oregon Department of Transportation; compiled by Otak.							
*Average daily traffic for all motorized vehicles							

Traffic within the Corridor has generally increased at a much faster pace than the statewide average. Table 1 compares traffic growth in the Corridor to statewide growth rates. More detailed HPMS analysis results and ADT projections are provided in the Technical Appendix.

Corridor Overview U.S. Highway 97 Corridor Strategy

2. Congestion

The HPMS analytical process measures relative congestion in terms of level of service (LOS), which is derived from a composite analysis of volume/service flow (V/SF) ratios. The lowest congestion is indicated by LOS A, B and C. Moderate congestion is indicated by LOS D. High congestion is indicated by LOS E and F. Figures 6 and 7 indicate congestion by percent distribution of highway miles. Currently, 68 percent of the Madras to California section is classified as low congestion, 27 percent is moderate congestion, and 5 percent is high congestion. According to HPMS projections, areas of high congestion are projected to increase to 26 percent by year 2016 if no roadway improvements are made.

Congestion is fairly concentrated within the urban segments of the highway corridor. This includes segment 1 (Madras), segment 2 (Redmond and Bend), segment 3 (Sunriver to La Pine), and segment 8 (K1amath Falls). Note, these data do not consider seasonal or peak travel congestion. The general plan for the Corridor will consider, as appropriate, measures to address seasonal fluctuations in congestion.

Figures 7 A and 7B describe congestion by highway segment for the present time period and 2016 forecast scenarios, with high access management and varying levels of geometric and capacity improvements. It is evident that capacity improvements and improved facilities management will be required in the urban segments to address increasing high congestion.

3. Travel Time

The analysis of average travel time is intended to measure the efficiency of vehicular through traffic movement from one end of a section to another. Figure 8 illustrates the projected change in total travel time from beginning to end of the Corridor. Without improvements to the highway, travel time from the beginning to end of the Corridor is expected to increase from 265 to 340 minutes by year 2016. Capacity improvements, such as roadway widening, are projected to result in significant improvement for travel time in comparison to the 2016 No Improvement scenario. Actual travel times are slightly shorter for cars and longer for trucks. Please see the Technical Appendix for more detailed data analysis.

An informal survey was conducted during the first round of public involvement in the Fall/Winter of 1994 to determine whether these projected changes in travel times were acceptable or not. Over 70 interviews were conducted with corridor stakeholders and people who lived or worked Within the Corridor. In general, survey bias resulted in a lack of consensus regarding the change in travel time. In other words, if the projected increase in travel time was expressed in terms of as 75 minutes over 20 years, concern was expressed by most stakeholders. However, when equated to a gradual increase of travel time of 3.75 minutes per year, the change was generally considered to be acceptable. Regardless of projected changes in travel time, it was clearly indicated by many stakeholders that existing travel time in specific segments of the Corridor (i.e., segment 2, Redmond through Bend) is presently unacceptable.

Corridor Overview

U.S. Highway 97 Corridor Strategy

Figure 6 U.S. Highway 97 Madras - California

Present and Future Highway Congestion

1996 - Existing Condition







Figure 7A U.S. Highway 97 Madras - La Pine

Analysis of Highway Congestion by Segment



Figure 7B U.S. Highway 97 La Pine - California

Analysis of Highway Congestion by Segment



Percent of Segment Highway Miles

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Corridor Overview

U.S. Highway 97 Corridor Strategy

Figure 8 U.S. Highway 97 Madras - California

Effects of Improvement and Facilities Management on Travel Time



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Corridor Overview U.S. Highway 97 Corridor Strategy

Under the 1996 existing condition scenario, average travel time for cars ranges from 1.1 to 1.7 minutes per mile (mpm) and average travel time for trucks ranges from 1.5 to 2.3 mpm (Table 2). This corresponds to average speeds of 35 to 55 miles per hour (mph) for cars and 26 to 40 mph for trucks. Improvements to the roadway are projected to have a moderate positive impact on travel time in segments 1, 2, 3 and 8, but a negligible change in segments 4, 5, 6, 9 and 10.

The analysis of travel time also illustrates the potential benefit of facilities management such as signal timing, driveway consolidation and optimization of parallel local streets. The analysis summarized in Figures 9A and 9B illustrates that high facilities management, if implemented, is expected to generate measurable time savings in urban and urbanizing portions of the Corridor, but would have negligible impacts on rural sections. The travel timesavings attributed to high facilities management is on an average 6 to 18 seconds per mile in urban sections.

4. Safety

The Safety Priority Index System (SPIS) is a method used by ODOT for identifying and prioritizing locations in need of safety improvements. The SPIS index has three parameters: accident frequency, accident rate and accident severity. For corridor planning, a location with a SPIS number in the top 10 percent of statewide SPIS values is considered to be a "high accident location."

Safety is perhaps the greatest concern among the corridor stakeholders that participated in strategy development. Corridor wide data indicate a higher number of high accident locations in the Corridor (0.73 per mile) than the statewide average of 0.54 per mile.

Another measure of safety is the accident rate or number of accidents per million vehicle miles of travel. While corridor-wide accident rates are below the statewide average (0.76 for the Corridor, compared to 0.83 statewide), accident rates vary considerably by segment. Table 3 summarizes selected safety statistics. Segments 2, 6, 7 and 9 have the highest accident rates in the Corridor and significantly exceed the statewide average for high accident locations per mile and accident rate.

Corridor Overview

Table 2Highway Traffic Travel Time in the U.S. 97 Corridor

CAR MINUTES			Sec.							
			3	4	5	6	7	8	9	10
1996 Existing	1.4	1.7	1.3	1.2	1.3	1.1	1.2	1.2	1.2	1.2
2016 No Improvements, High Management	1.6	1.9	1.6	1.3	1.4	1.2	1.4	1.7	1.3	1.3
2016 No Improvements, Low Management	1.7	2.5	1.7	1.4	1.5	1.2	1.4	1.7	1.3	1.3
2016 Geometric Improvements, High Management	1.6	1.9	1.6	1.3	1.4	1.2	1.4	1.7	1.3	1.3
2016 Capacity Improvements, High Management	1.2	1.7	1.1	1.1	1.1	1.0	1.1	1.1	1.1	1.2
2016 Geometric & Capacity Improvements, High Management	1.2	1.7	1.1	1.1	1.1	1.0	1.1	1.1	1.1	1.2
2016 Geometric & Capacity Improvements, Low Management	1.3	2.2	1.1	1.2	1.2	1.0	1.1	1.1	1.1	1.2

Car Travel Times in Minutes Per Mile by Section

Truck Travel Times in Minutes Per Mile by Section

TRUCK MINUTES	Sec.									
	1	2	3	4	5	6	7	8	9	10
1996 Existing	1.9	2.3	1.7	1.6	1.6	1.5	1.6	1.6	1.7	1.5
2016 No Improvements, High Management	2.0	2.5	1.9	1.7	1.7	1.5	1.8	2.0	1.8	1.6
2016 No Improvements, Low Management	2.1	3.1	2.0	1.8	1.8	1.5	1.8	2.0	1.8	1.6
2016 Geometric Improvements, High Management	2.0	2.5	1.9	1.7	1.7	1.5	1.8	2.0	1.8	1.6
2016 Capacity Improvements, High Management	1.7	2.3	1.5	1.4	1.4	1.3	1.5	1.4	1.6	1.5
2016 Geometric & Capacity Improvements, High Management	1.7	2.3	1.5	1.4	1.4	1.3	1.5	1.4	1.6	1.5
2016 Geometric & Capacity Improvements, Low Management	1.8	2.8	1.5	1.6	1.5	1.3	1.5	1.4	1.6	1.5

Figure 9A U.S. Highway 97 Madras - La Pine

Analysis of Highway Travel Time



Average Minutes Per Mile

0.0

1

27

2

3

Figure 9B U.S. Highway 97 La Pine - California

Analysis of Highway Travel Time

Corridor Segments 4-10



Average Minutes Per Mile

10.00

28

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ALL MINUTES	Sec.									
	1	2	3	4	5	6	7	8	9	10
1996 Existing	1.5	1.7	1.4	1.3	1.4	1.3	1.3	1.3	1.3	1.3
2016 No Improvements, High Management	1.6	1.9	1.7	1.4	1.5	1.3	1.5	1.8	1.4	1.4
2016 No Improvements, Low Management	1.7	2.5	1.7	1.5	1.6	1.3	1.5	1.8	1.4	1.4
2016 Geometric Improvements, High Management	1.6	1.9	1.7	1.4	1.5	1.3	1.5	1.8	1.4	1.4
2016 Geometric & Capacity Improvements, High Management	1.3	1.8	1.1	1.1	1.2	1.1	1.2	1.1	1.2	1.3
2016 Geometric & Capacity Improvements, High Management	1.3	1.8	1.1	1.1	1.2	1.1	1.2	1.1	1.2	1.3
2016 Geometric & Capacity Improvements, Low Management	1.4	2.5	1.2	1.3	1.3	1.1	1.2	1.1	1.2	1.3

Average Travel Times in Minutes Per Mile by Section

Table 3Safety Analysis of the Corridor

High Accident Locations	Locations per Mile	Total Locations
Corridor Total	0.73	26
Segments 1-3 Madras to La Pine Central Section	1.59	16
Segments 4-10 Klamath County South Section	0.2	10
Statewide Average	0.54	

Corridor Overview

U.S. Highway 97 Corridor Strategy

Table 3Safety Analysis of the Corridor, Continued

Accident Rates*					
Corridor Total	0.36				
Segments 1-3 Madras to La Pine Central Section	1.14				
Segments 4-10 Klamath County South Section	0.56				
Statewide Average	0.83				
*1992 Accidents per million vehicle n	niles of travel	E			
Source: 1992 Safety Priority Index System database, Oregon Department of Transportation; Compiled by Otak, Inc.					

5. Cost Effectiveness Analysis

There are many ways to compare the costs and benefits of major transportation improvements, such as the construction of a new highway or a widened roadway. The cost effectiveness methodology being applied here focuses on the amount of timesavings generated per investment in geometric and capacity improvements to the highway. Timesavings are measured in vehicle hours and investment is measured in dollars. The analysis assumes that vehicle hour savings are positive since it would tend to reduce congestion and vehicle emissions, and enhance air quality.

This type of cost effectiveness analysis is useful in comparing the relative benefit of investing in one corridor versus another. The analysis also provides a ready comparison of the average benefit/cost of all statewide corridors combined. As indicated by Figure 10, of the seven statewide corridors in Region 4, only U.S. 97 (Madras to California) and U.S. 20 (Bend to Vale) exceed the average cost/benefit relationship for all statewide corridors. In this case, a \$10 million investment in transportation improvements is expected to result in annual savings of approximately 2.5 million vehicle hours of travel on U.S. 97, 1.5 million vehicle hours on U.S. 20; and about 500,000 of vehicle hours on OR 126 (Sisters to Vale). This compares to a statewide average of 500,000 vehicle hour savings per \$10 million investment.

Other benefits such as safety and quality of life factors are not included in this analysis. It is also difficult to apply this type of analysis to other transportation modes (e.g., bikeways, passenger rail) since there may not be a direct comparison of all-true costs and benefits for individual modes. However, the specific corridor objectives attempt to take into account all potential benefits, whether they have been quantified or not.

B. Rail Service

1. Freight

The Burlington Northern (BN) Bend Branch Line, City of Prineville Railway and Southern Pacific (SP) Cascade Line provides rail service in the Highway 97 Corridor. The following is a summary of each rail line:

Southern Pacific Cascade Line -The Cascade route is the main line of the SP between Eugene, Oregon and Black Butte, California, a distance of 280 miles, including 215 in Oregon. In addition, BN has trackage rights from Chemul1; to Klamath Falls and Amtrak's Coast Starlight uses the route daily with stops in Chemult and Klamath Falls. Over 25 million gross tons per mile are transported over the line, which is designated as FRA Class 4. There are, however, speed restrictions between Eugene and Chemult as a result of grades and curvature. Carload weights of up to 315,000 pounds are permitted and there are no dimensional restrictions.

Burlington Northern Bend Branch (BN) -This branch, formerly the Oregon. Trunk Railway diverges from the Burlington Northern (BN) main line in Wishram, Washington and proceeds south to Bend, Oregon, approximately 152 miles, between Oregon Trunk Junction and Bend. Shippers along the line are served by both the BN and Union Pacific Railroad (UP), the latter via trackage rights. Considered a branch line by the UP and a secondary main line by BN, the line has a combined freight density approaching seven million gross tons per year. The maximum speed of operation varies between 40 and 60 mph with segments in the Deschutes River Canyon restricted to 25 mph due to curvature limitations.

The line has no dimensional restrictions and the maximum gross weight of equipment and lading is 315,000 pounds. Local on-line traffic consists mainly of wood products. In addition, the line carries bridge traffic between the BN's Columbia River mainline and its Bieber Line at Klamath Falls.

Burlington Northern Bieber Line -Continuing south of Bend to Bieber, California, this line serves as a main line alternative to SP's Cascade Line. The 232-mile line includes 168 miles within Oregon, of which approximately 73 miles between. Chemult and Klamath Falls are trackage rights over the SP line. Freight traffic on this line varies between one and five million gross tons per year of mostly agricultural and timber products. From Bend to Chemult, the track is maintained to FRA Class 4 standards, 315,000 loads are permitted and there are no dimensional restrictions.

City of Prineville Railway (COP) -This Class m carrier diverges from the Bend Branch at Prineville Junction and proceeds east to the community of Prineville, a distance of 18 miles. The City of Prineville built this railroad in 1918 to connect the city with the UP and the Oregon Trunk Railway when the Oregon Trunk Line bypassed Prineville. Construction of the railroad fostered the development of the lumber industry in Prineville and forest products remain the major commodities moving over the line. Traffic density on the line is less than one million gross tons per year and the track is maintained to FRA Class 2 standards, which will permit speeds up to 25 mph with no dimensional restrictions. The maximum load limit is 263,000 pounds. The COP was one of the first railroads to benefit from the federal local Rail Freight Assistance (LRSA) program.

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2. Passenger Rail

Amtrak's Coast Starlight train runs between Seattle and Los Angeles, along the Cascade Line, with morning northbound and evening southbound stops daily in Chemult and Klamath Falls. Total passenger ridership (on and off) activity at these stations has remained fairly flat, which is consistent with overall statewide Amtrak ridership. In 1992, total annual passenger ridership was 6,823 in Chemult, and 17,041 in Klamath Falls.

C. Air Service

There are two commercial airports that provide scheduled passenger service in the Corridor. The Redmond Municipal Airport is located in the southeast portion of Redmond south of OR 126, and provides seven daily non-stop flights to Portland. The Klamath Falls International Airport is located to the south of OR 140 in Klamath Falls and provides four daily non-stop flights to Portland.

The general aviation airports within the Corridor include:

- Wasco State Airport in Wasco off U.S. 97
- Madras City/County Airport near U.S. 26 north of Madras
- Sunriver Airport off U.S. 97 in Sunriver
- Beaver Marsh State Airport off U.S. 97 north of the Diamond Lake Junction
- Chiloquin State Airport near U.S. 97 at Chiloquin

D. Water

There is no water-based transportation service in the Corridor.

E. Public Transportation

Intercity bus stations are located in Bend, Chemult and Klamath Falls. Greyhound provides one daily northbound and southbound bus between Biggs Junction and California with stops in Biggs, Madras, Redmond, Bend, Chemult and Klamath Falls. Greyhound also runs one daily eastbound and westbound bus between Portland and Bend. The five Greyhound buses that stop in Bend each day serve for the following locations:

- north to Portland via U.S. 26
- north to Portland via Biggs Junction (1-84)
- south to Klamath Falls
- west via Highway 20 and Highway 126
- east via Highway 20

The four Greyhound buses that serve Klamath Falls are bound for the following locations:

- north to Portland via U.S. 97
- north to Portland via OR 58
- south to San Francisco, California

• south to Reno, Nevada

CAC Transportation, an intercity bus and charter service, provides one scheduled daily round trip bus between Portland and Chemult Amtrak station, and serves Madras, Terrebonne, Redmond Airport and Warm Springs.

Basin Transit provides regional transit service in the Klamath Falls urban growth area. Approximately 40 percent of its 25,000 to 27,000 monthly riders are elderly or disabled. Eastwest intercity routes are planned between Klamath Falls and Medford through a partnership between Basin Transit and Rogue Valley Transit, as the initial step in creating a "seamless" public transportation link between Lakeview and Grants Pass.

In addition to intercity and regional transit providers, several private and community-based transit entities serve the Corridor, including:

Madras / Redmond / Bend Area

- Central Oregon Council on Aging Dial-A-Ride
- City of Bend Dial-A-Ride
- Prineville Dial-A-Ride
- Opportunity Center (disabled client transit service)
- All Outdoors (recreational access for disabled clients)
- .Deschutes County Mental Health Dial-A-Ride Service
- .Department of Human Resources Transport Service
- .Disabled American Veterans Client Transport Service
- CAC Transportation (intercity bus and charter service)

Klamath Falls Area

- Klamath Basin Senior Center
- Spokes Unlimited Dial-A-Ride (service for elderly and disabled clients)
- Cleo's Children's Community Dial-A-Ride (for disabled children)
- Klamath County Mental Health (client transport service)
- REACH, Inc. (developmentally disabled client transport service)
- Klamath Tribe Bus Ticket Subsidy Program
- Veterans Council Bus Ticket Subsidy Program

F. Bicycle

Highway 97 is a designated statewide bicycle route. The Oregon Bicycle Guide rates the Corridor as "most suitable- south of Madras. Despite a "most suitable- bicycle rating, several issues and concerns were identified during strategy development regarding bicycle access in the Corridor. These issues centered on inadequate bikeways along Highway 97, the need for wider shoulders in many locations, and conflicts between bicyclists and truck traffic.

G. Pedestrian

Pedestrian activity is concentrated in the urban areas such as Madras, Redmond, Bend and Klamath Falls, as well as recreational attractions along the Corridor. Smaller urbanizing areas including Chemult, Chiloquin, La Pine and Terrebonne have lower pedestrian activity, but

present important safety issues to mitigate impacts of speeding motorists. Sidewalks and related pedestrian facilities are provided in the larger urban areas but not in smaller urbanizing areas and Rural Development centers along the Corridor.

H. Oil and Gas Pipelines

The Pacific Gas Transmission Company owns and maintains a natural gas transmission line that generally follows the Corridor. The line crosses U.S. 97 south of Gilchrist and again near the Williamson River. The Cities of Madras, Redmond, Bend and Klamath Falls are all provided with natural gas service.

Affected Environment

For planning purposes, the Highway 97 Corridor has been divided into ten segments, as indicated previously on Figure 1. A description of each segment follows. Additional information regarding the physical and environmental features, land use patterns, and cultural features along each segment are provided in the Technical Appendix.

Segment 1 - (Milepost 91.9 to 118.5)

Segment 1 is approximately 26.6 miles in length. It begins at the north junction of U.S. 26 in Madras and ends at the Prineville junction of U.S. 97 and OR 370 (O'Neil Hwy.). This segment is distinct because of moderate development, similar land use, and similar landforms throughout. Madras and Terrebonne represent the only communities along this segment, with Metolius and Culver nearby (both to the west of the route).

Aircraft facilities within this segment include a small landing strip to the west at mile 97.8 and the Brewer Landing Strip to the east at mile 103.3. Important linkages to this route include O'Neil Highway to Prineville, and OR 26, which runs east to Prineville and west to Portland. The character of the highway in this segment is principally a two-lane road with a number of passing lanes. Greyhound provides bus service with a scheduled stop in Madras.

Segment 2 - (Milepost 118.5 to 142.2)

Segment 2 is approximately 23.7 miles long and runs from the Prineville Junction of U.S. 97 and OR 370 (O'Neil Highway) to the route's intersection with China Hat Road south of Bend. This segment is distinct because of its relatively dense development, similar land use, and improved character of highway. This segment includes the cities of Redmond and Bend, and the community of Deschutes.

The Union Pacific and Burlington Northern lines are situated adjacent to the route throughout this segment. The Redmond Airport/Roberts Field (0.7 miles east at mile 123.0), serviced by Horizon Air, represents the only commercial airstrip along this segment. The Bend Airport is a general aviation facility located within this segment. Greyhound and CAC bus service is available through this segment with scheduled stops at Redmond and the bus station in Bend. A number of miscellaneous private and community-based transit providers also serve this segment. Important highway linkages in this segment include OR 126 to Sisters, U.S. 20 west to Sisters/Albany and east to Burns/Idaho, and the Century Highway to M t. Bachelor/Sunriver.

Segmen13 - (Milepost 142.2 to 169.7)

Segment 3 is approximately 27.5 miles long and runs from the route's intersection with China Hat Road to the junction of U.S. 97 and OR 31 south of La Pine. This segment is distinct because of common land use and similar landforms. This segment includes the communities of Sunriver and La Pine.

A major natural gas pipeline, Pacific Gas, runs parallel and to the east of the route throughout the entire segment. A Burlington Northern rail line is situated parallel to the route. There are a number of airstrips including a private landing strip (1.5 miles to the west at mile 143.2), the Sunriver airstrip (2.5 miles to the west at mile 152.7), the Steams landing strip (1.1 miles to the west at mile 154.0), and tile La Pine Airfield (to the west at mile 168.2). Greyhound provides bus service through this segment with scheduled stops near Sunriver and La Pine. Important highway linkages to this route include: Burgess Road to Pringle Falls, Paulina East Lake Road to Paulina and East Lakes, South Century Drive to Sunriver and the Lava Cast Forest, and Finley Butte Road to Finley Butte and points east of La Pine. The character of the highway throughout this segment is principally a 2-lane highway, with occasional passing lanes provided.

Segment 4 - (Milepost 169.7 to 195.2)

Beginning north and heading south, segment 4 is approximately 25.5 miles in length. It runs from the junction of OR 31 and U.S. 97 to the route's intersection with OR 58. This segment is distinct because of the significant forestland uses and similar topography. Communities located along this segment include Little River, Gilchrist, Crescent, and Rosedale.

The character of the highway throughout this segment is principally a two-lane route with occasional passing lanes. In addition, this route links several forest service and logging roads. Bus service is provided by the Greyhound Company with one scheduled stop at Crescent. A major natural gas pipeline belonging to Pacific Gas is situated adjacent to the highway throughout the segment. This line passes underneath the highway at mile point 189.3. The Crown Pacific Railway Company formerly Klamath Northern rail line (to the west at miles 184.5-195.2), and the Burlington Northern rail line (to the east) also parallel the Corridor. The only airport located within this segment is the River West Airport/ Crescent Lake State Airport (0.8 miles to the east at mile 185.2).

Segment 5 - (Milepost195.2 to 213.5)

Segment 5 is approximately 18.3 miles in length and runs from the junction of U.S. 97 and OR 58 to the route's junction with OR 138. This segment is distinct because of the dominant forestland use and similar topography. Chemult is the largest community within this segment.

While this segment is sparsely populated, there exist a number of notable transportation features. Rail lines located in the segment include Burlington Northern and Southern Pacific (to the east at miles 195.2-204.1). The Beaver Marsh Airport (to the west at mile 209.3-210.3) represents the only airstrip in the segment. OR 138 (at mile 213.5) is an important link to Diamond Lake and Crater Lake National Park.

In this segment, Highway 97 is principally two-lanes, with a few passing lanes. In addition, the route provides access to numerous forest service and logging roads. While Greyhound provides

bus service through this segment, the only scheduled stop is in Chemult. A major natural gas pipeline Pacific Gas is situated near the highway (to the east at miles 195.2-199.1, underneath the highway at miles 199.1, and to the east at miles 199.1-213.5). Major power transmission lines parallel the right side of the route throughout the- entire segment.

Segment 6 - (Milepost 213.5 to 242.5)

This segment covers 29.5 miles and runs from the Oregon Highway 138 Junction to the foot of Spring Hill. This segment is distinct in that it consists of a pumice-covered plain bounded on the north by the divide between the Deschutes and Klamath basins as well as Highway 138, and on the south by a lacustrine plain. There are no incorporated communities within this segment, but there are three unincorporated communities: Diamond Lake Junction, Mazama Junction and Sand Creek.

In Segment 6, there is one junction with an Oregon highway: Highway 138 at Diamond Lake Junction. Also, the Southern Pacific Railroad approaches the roadbed on the east side from about mile 230, running alongside until about mile 236.5. A power line crosses the road at mile 241.7.

Segment 7- (Milepost 242.5 to 257.83)

This segment covers 15.33 miles and runs from the foot of Spring Hill to the village of Modoc Point. This segment is distinct in that it occupies the lacustrine plain of old Upper Klamath Lake. There are no incorporated communities along the road in this segment but Chiloquin is adjacent to the east around mile 248 with access roads at mile 247.54 and 249.09. There is also the unincorporated community of Lobert Junction (mile 251.86) built around a highway intersection and a small unnamed community along the Williamson River (mile 253.8). Modoc Point the ending point of this segment is adjacent to the highway on the east.

Following the curve of the Williamson River the Southern Pacific Railroad returns to a position just east of the roadbed at Chiloquin runs parallel, crosses at mile 252.2, then remains immediately to the west until the end of this segment. There is an airport at Chiloquin immediately to the east of the road from mile 248.25-249. A canal system has been constructed that runs on the east side of the road from Chiloquin then crosses at mile 252.35 and runs along the west side of the road north of Modoc Point one-half mile. In Segment 7 there is one junction with an Oregon highway: Highway 62 to Crater Lake.

Segment 8- (Milepost 257.83 to 271)

This segment covers 13.17 miles and runs from the village of Modoc Point to the northern Klamath Falls UGH. This segment is distinct in that it is bordered on the north by the lacustrine plain of Old Upper Klamath Lake, and on the south 1by a low ridge separating the Upper Klamath Lake lowland from the Klamath Falls urban region. There are no incorporated communities along this segment. But there is one unincorporated community, Wocus at mile 269.25.

The junction with the Modoc Point Highway is at the beginning of this segment (mile 257.83). There are no other highway connections. The Southern Pacific Railroad continues to the west of the road between the highway and the lakeshore until the end of the segment.

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Segment 9 - (Milepost 271 to 278.59)

This segment covers 7.59 miles and runs between the Klamath Falls northern and southern urban growth boundaries. This segments distinction lies in these cultural boundaries. Klamath Falls (1992-population estimate of 18,085) is the sole incorporated community along this segment.

This is an active traffic area intersecting with Highway 39 southbound. Highway 66 westbound and Highway 140 east and westbound, with a 2.01-mile stretch of unified Highway 97 and 140. There is also a substantial canal system in the Klamath Falls area that repeatedly crosses beneath the roadbed. The Southern Pacific Railroad is on the West Side of the road until it crosses to the east (mile 272.99) and leaves the highway corridor. The Burlington Northern Railroad crosses the roadbed at mile 275.15 and mile 275.73, then runs just to the west of the road, after which it runs about a mile to the east until the end of the segment. There is a railroad crossing at mile 278.59, where a power line also crosses.

Segment 10- (Milepost 278.59 to 291.73)

This segment covers 13.14 miles and runs from the southern end of the Klamath Falls UGB limits to the California border. The segment is distinct as the Oregon portion of the Lower Klamath Lake Basin lacustrine plain. There are no incorporated communities along this segment, but there are the unincorporated communities of Midland {mile 282.3} and Worden (mile 288.7).

There are no significant highway junctions in this segment, but the Kingsley Field Airport is some three miles to the east of the highway at about mile 280. The Southern Pacific Railroad intersects the road at mile 279.95 and remains close to the highway until the California border. There are railroad and power line crossings at the very beginning of the segment. The canal system from the previous segment continues to the California border as well, with canals approximately 12' wide running alongside the road on either or both sides of the road from mile 282.9-288.

Summary of Findings and Conclusions

ODOT, consultant staff, Corridor Planning Management Team (CPMT) and Corridor Advisory Group (CAG) members reviewed existing transportation facilities and services, HPMS data regarding travel in the Corridor, safety, cost effectiveness of capital investment and facilities management, and environmental features. Meetings and interviews were conducted with local residents, business people, public officials; regional and state agency representatives; representatives of Native American tribes with ceded lands in the Corridor, railroad representatives; and other interested stakeholders to identify transportation issues within the Corridor.

The public involvement process is summarized in the Technical Appendix. While many of the issues that were identified varied considerably, some common themes emerged for the U.S. 97 Corridor. Issues that received the most attention or were mentioned most frequently include:

- Highway safety, characterized by inadequate roadway/shoulder widths and geometry
- Lack of slow moving vehicle, passing and turning lanes
- Auto/truck conflicts as they relate to the above safety issues

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- Highway congestion, particularly in Bend and Redmond
- Pavement conditions considered below average in certain segments
- Relatively poor existing integration of land use/transportation network, especially in rapidly developing communities such as Bend and Redmond
- The lack of urban transit service and intracity bike routes in Bend/Redmond
- Aesthetic impacts of the Corridor, particularly in the Bend area
- Excessive Speeding and need for additional traffic patrolling and enforcement
- Number of vehicle/deer collisions (road kills), particularly in the southern segments
- Economic development linkages to U.S. 97
- Inadequate rail/truck reload facilities

Corridor Strategy Goal and Themes

The purpose of the Oregon Transportation Plan (OTP) is to guide the development of a safe, convenient and efficient transportation system, which promotes economic prosperity and livability for all Oregonians. The OTP establishes four goals for Oregon's future transportation system -Characteristics of the System, Livability, Economic Development and Implementation. To simplify statewide corridor analyses, "Transportation Performance Measures" and "Transportation Impact" categories common to all corridors have been developed by ODOT based on OTP goals and policies.

The strategy development process for the U.S. 97 Corridor included several public meetings and workshops where corridor issues, concerns and opportunities were discussed. Based on the input received from these meetings and relevant technical information on transportation trends, projections and safety, *the overall goal for the U.S. 97 Corridor is: to promote commerce by efficiently distributing goods and services, while enhancing travel safety, maintaining environmental integrity, and preserving regional quality of life.*

The detailed strategy objectives are intended to embody this overall goal for the Corridor, and to set direction and provide guidance for corridor-wide transportation plans and enhancements. There are *six underlying themes of the corridor strategy*, which were identified during the strategy development process:

Key Themes for the U.S. 97 Corridor:

Enhancing Safety - Addressing a wide range of safety issues, including truck and vehicular accidents, vehicle-wildlife collisions, rock-falls, snow and ice removal, and maintenance-related concerns.

Facilities Management and Improvement - Maintaining overall travel times along the Corridor will require careful facilities management, and in some segments, additional capacity improvements. In general, efficient use of existing facilities will be emphasized to the maximum extent practical prior to planning for capacity improvements. Where capacity improvements are warranted due to inadequate level of service and safety issues, the improvements will generally follow a four- phased approach outside urban areas (i.e., Phase 1 - passing lanes at 3-5 mile spacing; Phase 2 - continuous four lane section; Phase 3 - grade separate the higher volume road intersections, and; Phase 4- full access control with median barrier).

For most of the U.S. 97 Corridor south of La Pine, a passing lane strategy (i.e. Phase 1 level) will probably be adequate for the 20 year planning period. Given the significantly higher traffic volumes in the Madras to La Pine section, improvements beyond a facilities management and passing lane strategy will be needed consistent with the four-phased approach outlined above (note: about one-half this sec1r.ion is already four lanes). In smaller rural service centers, such as Terrebonne, La Pine, Chemult and Crescent, the focus will be on slowing traffic to posted speeds using a combination of enforcement, facilities management and traffic calming techniques (extended curbs, landscaping, raised medians, etc.).

Intermodal Connections - Improving intermodal access and multimodal connectivity between Amtrak and local/resort destinations, and between truck, rail and air service.

Interpretive Opportunities and Preservation of Environmental Quality - Enhancing recognition of and access to aesthetic characteristics along the Corridor through supporting the establishment and enhancement of scenic viewing areas, interpretive signage, scenic loop roads and pathways. Transportation improvements within the Corridor will be sensitive to preserving and/or improving the quality of the Corridor's natural environment, including the physical, cultural, and biotic components.

Economic Development - Assisting local jurisdictions with special economic developmentrelated improvements that embody Corridor goals and objectives, and optimize the integration of transportation and land use.

Partnering – Identifying opportunities for partnerships between ODOT, local jurisdictions, state and federal agencies, and the private sector to achieve the Corridor strategy goals and objectives, and to implement the level and quality of transportation facilities and services that meet the needs of the Corridor.

Transportation Performance Measure

Transportation performance objectives relate to transportation balance/intermodal connectivity, regional connectivity, highway congestion, facility management, roadway conditions and safety. State policies, corridor goals and strategy olojectives for these transportation performance measures are described below:

A. Transportation Balance/Intermodal Connectivity

It is the policy of the State of Oregon to provide a balanced transportatiol1 system. A balanced transportation system is one that provides transportation options at appropriate minimum service standards, reduces reliance on the single-occupant automobile where other modes or choices can be made available, particularly in urban areas, and takes advantage of inherent efficiencies of each mode. The goal for the u.s. 97 Corridor includes maintaining and improving highway 97 to serve auto and truck travel needs as the primary modes in this corridor, while maintaining and encouraging the use and connection of alternative modes, including rail, air and intercity bus service throughout the Corridor, especially in urban, and urbanizing areas. The objectives described for each travel mode are intended to create a more balanced transportation system over time.

Objective Al - Automobiles and Trucks

In concert with improving systems and facilities that accommodate alternative modes of travel (e.g., rail, bike, pedestrian), the Highway Plan indicates that Oregon must commit to protecting and improving its highway system or risk losing its economic base and potential economic expansion. As a statewide highway, the management objective for Highway 97, as stated in the Highway Plan is *to provide for safe and efficient high-speed continuous flow operation in rural areas and moderate-speed operations of flow in urban and urbanizing areas, and rural*

development centers. Specific performance objectives for the highway are described in Section C, Highway Congestion, Facility Management and Roadway Conditions.

Objective A2 - Freight Rail Service

The OTP calls for rail lines, including the Burlington Northern Bend Branch and the Southern Pacific Cascade Line, to be operated at not less than a minimum speed of 25 mph.

- Partner with the Burlington Northern railroad to maintain average operating speeds of 40 to 60 mph with the exception of 25-mph maximum speeds in the Deschutes River Canyon of the Bend Branch line.
- Partner with the Southern Pacific Railroad to maintain Federal Railroad Administration (FRA) Class 4 standards along the Cascade Line.
- Partner with the City of Prineville to consider improvements that are required to maintain existing Prineville Railway Freight service.

Objective A3 - Highway / Rail Freight Connectivity

In addition to minimum level of service standards for highway freight, the OTP calls for intermodal rail/truck reload facilities on rail mainlines with service areas of 150 miles, including Klamath Falls on the Southern Pacific Cascade Line.

- Partner with carriers and receivers to facilitate transfer of highway freight to rail where economically feasible.
- Support long-term improvements in connections to major manufacturing and distribution facilities in Klamath Falls, Prineville, Bend, Redmond, Madras and elsewhere as the market demands.

Objective A4 - Public Transportation Service

The policy of the OTP is to provide intercity passenger transit service to/from cities or groups of cities with a population of more than 2,500 and located 20 miles or more from the nearest Oregon city with a larger population. The targeted minimum of one round trip per day is currently provided by Greyhound Bus lines.

- Develop a coordinated public transpoortation system over time wit multimodal alternatives and proper facilities.
- Begin to establish a public transportation system in Bend that coordinates the role of special needs transportation providers and their services. Initially work with local jurisdictions within Deschutes County to establish local bus service for the elderly and transit-dependent population with Dial-A-Ride service between the Redmond Municipal Airport, Bend, Sunriver, La Pine and Chemult. Eventually expand to hourly service to selected destinations.
- Work with existing intercity bus districts (i.e., Basin Transportation District) and special needs transportation operations to maintain or increase bus service frequency. Explore rideshare, park and ride and other pilot program for providing amenities and unique services that may benefit or supplement public transportation service expansion.

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Objective A5 - Intercity Bus/Passenger Rail Service and Connectivity

Amtrak's Coast Starlight line stops in Chemult and Klamath Falls twice a day, as does the Greyhound Bus line. An Amtrak route through Central Oregon was evaluated as part of the Oregon 1992 Passenger Rail Plan. The evaluation concluded that projected ridership would be very low, equivalent to 15 percent of that experienced by the existing Willamette Valley route, and the travel time between Los Angeles and Seattle would be extended by 3.5 hours. In addition, operating a Central Oregon route was projected to require a \$22/rider subsidy.

- In cooperation with local jurisdictions, railroads, and others, explore development of enhanced intercity bus service as a first step to determining the feasibility of intercity passenger rail service from Redmond to Bend (and possibly Chemult).
- Work with local jurisdictions and Amtrak to plan and implement improvements to the Chemult and Klamath Falls Passenger Rail Station, encourage ridership, and provide improved transit linkages with major recreational destinations. Consider improvements relating to rest rooms, waiting areas and visitor information.
- Partner with local jurisdictions and private transportation providers to ensure that intercity bus service and passenger rail service includes efficient and reliable intermodal connections (bus, taxi, and rental car) to destinations and activity centers.
- In accordance with the OTP, evaluate the need and feasibility of an unproved intercity transit station in the Bend urban area.

Objective A6 - Air Service and Connectivity

The Redmond Municipal Airport and the Klamath Falls International Airport both provide daily scheduled passenger service within the Corridor. Both commercial airports exceed the minimum level of three daily round-trips identified in the OTP.

- In accordance with Oregon Aviation Plan, provide continued support for airport facilities improvements and highway access management, including the Bend and Redmond Municipal Airport and Chiloquin Airport runway expansion plans.
- Improve modal connections between Redmond, Bend and Madras airports with surrounding major destinations and activity centers. Work with the private sector to provide transit express bus, taxi and car rental service, as the market demands.
- Partner with the private sector and others to evaluate long-term potential for an international air freight distribution center at Klamath Falls International Airport.

Objective A7 - Bicycle / Pedestrian Facilities

Developing safe and convenient walkways, bikeways, and highway crossings are goals of the OTP. In addition, the Transportation Planning Rule advocates the provision of pedestrian and bicycle facilities that allow direct, hazard-free travel, such as sidewalks and bike lanes in urban areas.

• Through all urban areas, as well as La Pine, Chemult, Crescent and Terrebonne, provide sidewalks and bike lanes on both sides as Highway 97 and safe and convenient pedestrian crossings. Improvements should occur primarily in conjunction with new highway projects or major reconstruction. Retrofit projects will be programmed based on need.

- In cases where it is anticipated that there will be little use or sidewalk or a bike lane on the highway and it would be of greater value to pedestrians and/or bicyclists to construct a parallel facility, then the parallel facility may be improved in lieu of the highway improvement.
- All pedestrian facilities and crossings should be accessible to people with disabilities, including hearing, visual mobility and cognitive disabilities.
- Sidewalks should be buffered from the highway with adequate landscaping, shoulders, and/or parking, in areas with design speeds of 45 mph or above.
- ODOT will work with USFS, the public, and local jurisdictions to develop, where practical, bicycle facilities between Redmond and La Pine that are parallel to Highway 97 using dedicated easements and right-of-way along gas pipelines, old roads, railroads and irrigation canals. Also, work with local jurisdictions to improve local bike/pedestrian networks in Madras, Redmond, Bend and Klamath Falls urban areas.
- Cooperate with local jurisdictions to expand the modal share of bicycling and walking tripsto-work within urban areas in the Corridor to at least double the state average.

Objective A8 - Pipelines

In order to make alternative fuel widely available and to support regional economic development opportunities, the OTP calls for adequate natural gas to be available every 100 to 150 miles on major transportation corridors, when economically feasible.

• Encourage the Public Utilities Commission (PUC) and Pacific Gas Transmission Company (PGTC) to maintain or improve the natural gas transmission line and the service provided to communities within the Corridor.

B. Regional Connectivity

It is the policy of the state of Oregon to identify and develop a statewide transportation system of corridors and facilities that ensures appropriate access to all areas of the state, nation and the world (OTP Policy 1E).

The stated overall goal for the Corridor includes promoting commerce through the efficient distribution of goods and services. This will involve coordinating interstate transportation linkages and intra-state services, particularly for the transportation disadvantaged.

Objective B1 - Interstate Transportation Connections

Highway 97 provides direct access to Washington and California. In addition, the Burlington Northern, Southern Pacific and Union Pacific railroads and Amtrak Coast Starlight lines all provide freight and passenger service within the Corridor for goods and people moving throughout Oregon and the nation.

• Work with the Washington Department of Transportation and California Department of Transportation to coordinate policies and enhance the connection between the Corridor and Interstate 82 in South Central Washington and Interstate 5 in Northern California for all appropriate modes of travel.

- Partner with Burlington Northern, Southern Pacific, and Union Pacific railroads to identify rail freight transportation issues and to facilitate transfer of highway freight to rail.
- Partner with Amtrak, public transportation providers and local jurisdictions to enhance access to and ridership (boarding/debarring) at the Chemult and Klamath Falls Amtrak station areas.

Objective B2 - Transportation Disadvantaged Services

Transportation disadvantaged populations in the Corridor have their transportation needs met by a variety of service agencies. Coordination of these services could save money and allow for more efficient levels of transit service and reduced reliance on the automobile.

Work with local jurisdictions" public transportation providers, and community-based social service agencies to identify and respond to the needs of the transportation disadvantaged population. Coordinate the services of existing providers to serve all population segments more effectively.

C. Highway Congestion, Facility Management and Roadway Conditions

It is the policy of the state of Oregon to define minimum levels of service and assure balanced, multi-modal accessibility to existing and new development within urban areas to achieve the state goal of compact, highly livable urban areas. It is also the policy of the state of Oregon to provide interurban mobility through and near urban areas in a manner, which minimizes adverse effects on land use and urban travel patterns (OTP Policies 2B and 2C).

Highway congestion is a very important issue, particularly in the rapidly growing central section of the Highway 97 Corridor. The management goal for the Corridor *is to provide for safe and efficient high-speed continuous flow operation in rural areas and moderate- to high-speed operations of flow in urban and urbanizing areas, and rural development centers*. The Corridor goal is to address overall congestion by working with local governments to accommodate local mobility needs while maintaining through travel needs, using Transportation Demand Management (TDM) programs, multimodal facilities and other strategies, in addition to highway capital improvements. The tendency of Highway 97 to act as a linear barrier to east-west movement of people, goods and wildlife needs to be reduced, or at least should be minimized by careful design and improved facilities management.

Objective C1 - Highway Level of Service and Travel Time

Establishing minimum level of service (LOS) standards are important for maintaining the quality of life of residents in the Corridor and effectively moving commerce throughout the state. Capacity improvements are required to reduce existing and projected levels of congestion in rapidly expanding areas of the Corridor. However, alternatives such as access management, development of a good local road system and improved land use planning will be essential for effectively managing congestion and where practical, should be implemented prior to, or in concert with, any needed capacity improvements. It is also important to note that maintaining a high level of service and low travel times can adversely affect other quality of life factors such as wildlife, open Space, etc.

• Maintain existing average overall travel times within highway corridors.

• Provide highway design-hour LOS B in rural areas and C or better in urban areas, urbanizing areas and rural development centers. Lower levels of service in selected urbanized segments may be acceptable, as determined during the systems planning process.

Objective C2 - Transportation Demand Management/ Rideshare Measures

TDM measures include facilities and services designed to reduce peak period highway congestion and reduce single vehicle occupancy. Measures include park and ride facilities, vanpool, carpool, express bus, local bus system, subsidized transit fares, parking management programs, trip reduction ordinances, flex time, walking and bicycling promotion, telecommuting and impact fees.

- Continue to expand and support TDM and pedestrian-oriented -mixed-use development measures in Bend, Redmond, Madras and Klamath Falls urban areas. Build upon the existing Rideshare Program in Deschutes County with other TDM measures, such as parking management provisions, traffic impact fees, and support for employer-based commute options such as vanpools, compressed work weeks/staggered work hours, walking, bicycling and telecommuting.
- Step up outreach programs to help facilitate TDM objectives. Programs should focus on informing and educating local residents, employees and employers about available TDM measures, efforts and transportation options.

Objective C3 - Transportation System Planning and General Planning Coordination

This objective acknowledges the current statewide requirement set forth by the Transportation Planning Rule (TPR) for all cities and counties that do not qualify for an exemption to the TPR to complete a Transportation System Plan by May 1997.

• In cooperation with the cities of Madras, Prineville, Redmond, Bend and Klamath Falls and counties of Deschutes, Jefferson and Klamath, develop integrated transportation plans for urban areas and counties that are consistent with the statewide role of the Highway 97 Corridor as set forth by this Corridor Strategy and other state planning policies and goals.

Objective C4 - Capacity Improvements

Given the rapid level of population and employment growth and development that has occurred and is projected within the Corridor, specific highway capacity improvements, such as construction of passing lanes, widened shoulders an grade-separated intersections, will likely be required in addition to enhanced facilities management to address congestion, travel time and safety issues.

- Alternatives such as access management, development of a good local road system and improved land use planning will be essential for effectively managing congestion and where practical, should be implemented prior to, or at least in concert with any capacity improvements.
- Partner with local jurisdictions to plan, design and construct highway improvements along Highway 97 in accordance with volume/capacity, safety, environmental and needs analyses.
- Within rural highway segments (between communities), focus capital improvements on providing high-speed, safe and continuous flow operation. Rural capacity improvements,

particularly those near urban areas, should be designed to limit unplanned development and changes in rural land use.

- Cooperate with Bend and Redmond systems planning efforts to evaluate the need and feasibility of bypass routes.
- As funding becomes available, proceed with developing construction projects identified in the statewide Transportation Improvement Program.
- Provide spot safety and capacity improovements, which have favorable cost/benefit ratios, to enhance safe access for all modes to and from major destinations.
- For sections of the Corridor south of La Pine that demonstrate substandard levels of congestion and safety performance, provide passing lanes at 3-5 mile spacing, with adequate shoulders to accommodate bicycles and emergency vehicles.
- In high growth sections of the Corridor between Madras and La Pine that demonstrate substandard levels of service and safety performance, provide roadway widening in accordance with a four-phased approach.

Objective C5 - Truck Routes

Work with local jurisdictions to evaluate the need, feasibility, cost and desirability of truck route modifications (such as the North Canal Boulevard option in Redmond). Support implementation where practical.

Objective C6 - Facilities Management

Facilities management helps avoid premature obsolescence of highways and related transportation facilities by safely accommodating growth and increased traffic. Examples include regulating the number, type and location of driveways and intersections, and enhanced utilization of parallel local streets. When carefully implemented, these measures can also improve pedestrian and bicycling conditions. The OTP calls for adopting specific access management classifications, ranging from full access control (freeways) to partial control (regional or district highways).

- Work with local jurisdictions to adopt and implement access management policies along the entire corridor that are consistent with the Oregon Highway Plan. Specific access management classifications should be adopted along Highway 97 during the Transportation System Planning and General Planning process.
- ODOT and local jurisdictions should adopt and implement consistent standards regarding left turn lanes, raised medians, driveway spacing, acceleration/ deceleration lanes, turn refuges and means to enhance the local street network (e.g., better use of parallel local streets and service roads) to safely handle local traffic, improve pedestrian access and crossings, and relieve congestion in urban and urbanizing areas, and rural development centers along Highway 97.

Objective C7 - Interchanges and Grade Separations

Increased through and cross-traffic volumes will generate high levels of congestion and poor safety performance at some intersections. ODOT policy does not allow signalization of intersections in rural 55-mph highway segments. Consequently in rural highway segments, when intersections are projected to meet signal warrants, are on the Safety Priority Index System (SPIS), or are needed to address a strategic element of a more detailed system plan for a high growth area, plan for interchange or simple grade separations. Other alternatives, such as median treatments, or local road closure will be considered prior to planning for the grade separation, and if practical, will be implemented. As appropriate, seek cost participation by private developer(s) and/or the county.

Objective C8 - Right-of- Way Preservation

In high growth areas such as Deschutes and Jefferson counties, transportation requirements increase rapidly along with property values, and new development occupies needed right-of-way. As available and environmentally suitable land diminishes, the cost of transportation improvements rises significantly, and improvements tend to have a greater impact on the character of the natural and man-made environment.

• Where cost-effective, sufficient right-of-way should be preserved for planned transportation improvements. Wherever practical, this step should occur through the local land-use process.

Objective C9 - Roadway Conditions

Highway 97 should be designed to meet the Highway Plan's definition of minimum tolerable conditions (MTCs) for statewide highways. This includes upgrading the highway to meet geometric and pavement MTCs over time.

- Focus improvements on segments with above average accident rates" high congestion and a favorable cost/benefit ratio.
- Consider new regional partnerships between ODOT and counties to share roadway maintenance and funding for capital improvements, particularly in areas experiencing economic downturns from reduced timber revenues.
- Provide minimum paved shoulder of six to eight feet, in accordance with design standards, as roadway segments are modernized.
- Develop an aggressive surface preservation program that achieves 88 percent fair or better conditions and reduces the "winter breakup" pavement problem.

D. Safety

It is the policy of the state of Oregon to continually improve the safety of all facets of statewide transportation for system users, including operators, passengers, pedestrians, recipients of goods and services and property owners (OTP Policy 1 G). According to the Safety Priority Index System, in 1992 there were 27 high-accident locations along Highway 97 and the accident rate in the section from Madras to La Pine far exceeded the statewide average.

The Corridor goal is to identify and give priority to improving safety conditions along the Highway 97 Corridor through necessary improvements, while addressing problems associated with game crossing areas, speeding through rural centers and congestion in urban areas.

Objective D1 - Traffic Calming

In small communities along Highway 97, there is a concern over the existing and projected mix of through traffic, especially trucks, and its impact on local vehicular and non-vehicular (bicycle and pedestrian) traffic.

• In selected small communities (e.g., Madras, Terrebonne, La Pine, Crescent and Chemult) consider traffic calming measures (e.g., curb extensions, signage, raised medians), Intelligent Transportation Systems (i.e., electronic monitoring), and facilities management measures to help slow traffic to posted speed limits and to improve safety. These measures will be planned and developed in cooperation with the local community.

Objective D2 - Vehicle Recovery Zones

Highway 97 is predominantly a two-lane highway with large volumes of north and southbound through traffic. In the section from La Pine to the California border, head-on accidents accounted for approximately 8 percent of the total accidents recorded in years 1989, 1990 and 1991. There are also more than 400 deer/elk vehicle collisions each year between Bend and Klamath Falls-

- From Sunriver to the peak of Spring Creek Hill, plan for separating the northbound and southbound lanes with a wide natural vegetation median, wherever possible. Median vegetation will emphasize plant species that maximize motorist safety while minimizing ecological impacts including wildlife/vehicle collisions, non-invasive species and aesthetics.
- Provide tree thinning in segments of corridor to reduce sun glare/strobe effect, improve driver visibility, help melt snow/ice and possibly reduce wildlife-vehicle collision, particularly between Bend and Modoc Point.
- Preserve selected trees and shrubs to improve aesthetics and ecological conditions.

Objective D3 - High-Accident Locations

The number of existing and potential accident locations was a major concern expressed by citizens and stakeholders along the Corridor.

- In Cooperation with local officials, identify and develop strategies where warranted to provide proper signage and necessary mitigation measures at high-accident locations such as sharp curves, areas prone to icing, rock falls, significant wildlife crossings and areas of high pedestrian activity.
- During the Corridor Planning process, consider and plan for facilities management improvements such as acceleration/deceleration lanes, left turn lanes, and enhanced local street network and signalization (i.e., blinking yellow lights) to improve safety performance at high-accident intersections.

Objective D4 -Vehicle/Wildlife Collisions

In addition to more than 400 vehicle/deer collisions between Bend and Klamath Falls each year, there are many other impacts on various types of wildlife, such as owls, snakes, and ground squirrels.

- Work with the Oregon Department of Fish and Wildlife during the county Transportation General Planning process to identify and implement measures to reduce vehicle-wildlife collisions. Consider fencing and passage, seasonally concentrated enforcement, driver education and signage as a means to improve safety to motorists and wildlife.
- Medians in high Collision areas should be designed to allow wildlife movement across the highway.

Corridor Objectives U.S. Highway 97 Corridor Strategy

Objective D5 - Enhanced Traffic Enforcement and Safety Education

In regard to the concern expressed by citizens and stakeholders over speeding through-traffic and community safety, an objective addressing traffic enforcement and motorist education was requested.

- Consider additional traffic enforcement measures such as electronic monitoring in selected small communities (e.g., Madras, Terrebonne, La Pine and Chemult).
- Provide Intelligent Transportation System (ITS) techniques, such as automated signage and advisory radio service to inform motorists about travel conditions (e.g., delays from congestion/accidents, seasonal wildlife migration, in climate weather, forest fires and rock falls).
- Work with local jurisdictions to consider safety improvements related to cross-traffic movements on adjacent roads that are impacted by Highway 97.

Objective D6 - Rest Stops and Driving Experience

Although ODOT has difficulty in funding the maintenance for existing rest areas in the state and does not foresee constructing new public rest stops, opportunities to "partner" with commercial establishments, (e.g., gas stations and truck stops), local jurisdictions and state or federal agencies will be considered to provide new or enhanced facilities.

- Ensure some type of a rest area, with access to public or private commercial restroom facilities, is provided, and meets federal Americans with Disabilities Act (ADA) standards for motorists, at a spacing consistent with state standards. Consider the placement of seasonal "wildlife migration" signs at the rest area exit lane.
- As sections of Highway 97 are improved or upgraded, attempt to enhance the visual experience of the drive to reduce boredom and mitigate accidents, especially between Spring Creek Hill and Sunriver. Consider a variety of means to enhance corridor landscape using vegetation management, scenic vistas, interpretive signage and vehicle pullouts.
- Given the importance of tourism to the regional economy, as well as the scenic and recreational potential of the Corridor, highway improvement design should reflect a high level of aesthetic sensitivity. This includes design of transportation facilities that improves facility appearance, as well as views from the facilities. This will require balancing additional design costs with the functional nature of the improvement, and may require cost participation by local developers and/or jurisdictions.

Transportation Impacts

E. Environmental Impacts

It is the policy of the state of Oregon to provide a transportation system that is environmentally responsible and encourages conservation of natural resources. Also, to protect and enhance the aesthetic value of transportation corridors in order to support economic development and preserve quality of life are also policies of the OTP (OTP Policies, ID and 2H). The Corridor goal is to promote the efficient and effective movement of goods, services and passengers and to avoid, whenever possible, impacts to area allocations of environmental and cultural significance, and create opportunities for scenic and interpretive signage, viewpoints, and turnouts, and to assure consistency with local and state agency plans and policies.

Objective E1 - Scenic and Cultural Resources

Highway 97 follows the oldest known trail in the Pacific Northwest, including the Modoc -Klamath slave traj1. Historica11y, Highway 97 is composed of three pioneer roads including: the Huntington Road between Redmond and Klamath Falls; the Shaniko-Prineville Road; and The Danes Military Road between Biggs and Shaniko. The OTP encourages preservation of significant view sheds along any state highway.

- Develop scenic and interpretive opportunities throughout the Corridor.
- Utilize programs of educational signage for scenic resources, wild and scenic rivers, state scenic waterways, and other natural features consistent with Scenic Byways Program.
- Encourage land use controls to protect corridor view sheds, (i.e., along mile points 145.6-147.6 and 150.5-159.0).
- Support the development of viewing and educational opportunities for the public, focusing on sensitive, threatened and charismatic wildlife (i.e. Swainson's hawks, bald eagles, and antelope), and display the scenic, geologic, and recreational resources.
- In cooperation with federal and state resource agencies, local governments, American Native Indian Tribes, and the public at large, reduce impacts on identified scenic, environmental and cultural resources along the Corridor.
- In cooperation with local jurisdictions, state agencies and Klamath Tribes, consider enhanced recreational access/amenities to Upper Klamath Lake and the Williamson River.
- In cooperation with federal and state resource agencies, local governments, Native American Tribes, and the public at large, develop strategies that will educate people about, and provide opportunities to enjoy, the natural resource attributes found along highways. Explain how agencies are working cooperatively to assure continuance of these natural attributes, and explain how those traveling the highways can help conserve these attributes.

Objective E2 - Emergency Response, Hazardous Materials Accident and Spill Management

Concerns regarding emergency vehicle access (i.e., forest fire trucks, police, and ambulance) and remediation of accidents involving hazardous materials were raised during meetings with federal and state/local agency staff. Specific objectives regarding facilities and programs to address accidents, fires, hazardous spills and related issues were requested.

- Provide minimum shoulder width for emergency response vehicles, such as fire trucks.
- Manage shoulder vegetation to reduce wildfire hazard.
- In cooperation with local governments, Native American Tribes, federal/state agencies, Southern Pacific and Burlington Northern Railroads, and Pacific Gas Transmission Company, participate in regional emergency response and hazardous materials accident and spill management programs for the Corridor.

Corridor Objectives U.S. Highway 97 Corridor Strategy

Objective E3 - Maintenance Plans for Environmentally and Culturally Sensitive Areas

The Corridor contains several significant cultural and environmental sites, some of which are not readily apparent. Highway and railroad maintenance activities can negatively impact these resources.

- In cooperation with state and federal agencies, develop maintenance plans, including special signing and crew training to avoid, minimize or mitigate adverse effects of highway maintenance operations on environmentally sensitive portions of Highway 97 Corridor (e.g., scenic resources, federal wild and scenic waterways, state scenic waterways, wetland and riparian habitats).
- Encourage Burlington Northern and Southern Pacific Railroads and Pacific Gas Transmission Company to develop and abide by similar plans.

Objective E4 - Wildlife Crossing Areas

As mentioned previously in the Safety section, the Corridor contains several high vehicle/wildlife accident locations. Consistent with Oregon statewide policies and planning goals, and Oregon Department of Fish and Wildlife mission statements "to protect and enhance Oregon's fish and wildlife and their habitats for use and enjoyment by present and future generations," specific objectives were requested to address this issue.

- In cooperation with federal and state resource agencies, local governments, Native American Tribes, and the public at large, develop strategies to allow the safe movement ~f wildlife across highways and the maintenance of their forage base and habitats, thus ensuring healthy fish and wildlife communities.
- In cooperation with local officials, Oregon Department of Fish and Wildlife (ODFW) and Oregon State Police (OSP) identify and implement strategies to address high wildlife crossing and accident locations.
- In cooperation with ODFW, identify and reduce "attractive nuisance" aspects of highway developments that might attract and hold wildlife near roadways.
- Work with the Klamath Tribes and the Confederated Tribes of Warm Springs to determine and meet their cultural fish and wildlife needs impacted by highways.

Objective E5 – Wildlife Mitigation

In cooperation with ODFW, identify acceptable mitigation for engineering designs that increase wildlife impacts such as population loss or habitat loss. Mitigation measures could include wildlife water developments or habitat improvements (i.e., forage or cover).

Objective E6 - Air Quality

Presently, only one community within the Corridor is in non-attainment for meeting the Oregon Department of Environmental Quality (DEQ) air quality standards. Klamath Falls was found to be a non-attainment area for Particulate Matter 10 (PM10). However, Klamath Falls has had no violations for the last three years. Klamath Falls and DEQ anticipate adoption of the Klamath Falls area maintenance plan next year.

- Work with DEQ, the City of Klamath Falls and others to assist Klamath Falls area in having their maintenance program adopted by DEQ.
- Work with other jurisdictions to maintain their attainment status.

F. Social and Land Use

It is the policy of the state of Oregon to develop transportation plans and policies that implement Oregon's Statewide Planning Goal 9, as adopted by the Land Conservation and Development Commission. It is also the policy of the state of Oregon to provide a transportation system consistent with, yet recognizing differences in, local and regional land use and an economic development plan (OTP Policies 2A and 2E).

Objective F1 - Transportation- Land Use Integration

Planning within the Corridor must attempt to balance the expansion of transportation facilities and enhanced management of local roadway systems, with new development and the protection of social, cultural and environmental resources.

- Work with local jurisdictions to optimize the local street network, utilize access management, and manage land use development patterns.
- Work closely with small communities, such as La Pine and Chemult, to consider refocusing their local comprehensive plans in accordance with an available land and existing/planned transportation infrastructure. Assist communities, as appropriate, in planning for development of commercial centers on parallel or adjoining local roadways.
- Concurrent with local transportation systems and general plans, assist larger urbanized areas in amending local comprehensive plans to encourage higher density mixed-use development at designated nodes or activity centers, along with pedestrian and transit-oriented design features.
- Support patterns of development that avoid or eliminate significant at-grade railroad crossings, whenever possible. Assist local jurisdictions in amending local comprehensive plans to avoid, consolidate and/or eliminate at-grade crossings.
- Work with local jurisdictions to minimize land use conflicts near airports.
- Rural capacity improvements, particularly those near urban areas, should be designed to limit unplanned development and changes in rural land use.

Objective F2 - Accommodate Elderly Users

The central section of the Highway 97 Corridor, particularly Deschutes County, has displayed rapid growth in the number of elderly residents. The growth rate for population over the age of 55 is projected to outpace the average overall population growth in the county.

• Evaluate needs of elderly transportation users, especially in urban areas where elderly population is rapidly increasing. Work with local jurisdictions to provide: better lighting and signage; para-transit service; transit connections to airports and medical facilities, and enhanced medical emergency response systems.

Objective F3 – Social, Cultural and Recreational Resources

The existing parks, historic resources and cemeteries that exist within the Corridor should be preserved and protected whenever possible.

- Avoid impacts to cemeteries, parks and historic resources including: the Hale Cemetery (MP 102.7); Peter Ogden Wayside Park; Robert W. Sawyer State Park; Terrebonne Ladies Pioneer Club (MP 116); Harper School (MP 154); La Pine Commercial Club Building (MP 168); Vendervert Homestead (MP 155.7); Wilson Cemetery (MP 251.9); Collier State Park, and Hegelstein County Park.
- Develop strategy to accommodate livestock crossing, with consideration for wildlife crossing needs.

G. Energy

It is the policy of the state of Oregon to assure provision if an efficient transportation system (OTP Policy 1B). The Highway 97 Corridor policy is to minimize transportation-related energy consumption through the use of fuel-efficient modes of travel, enhanced vehicle efficiencies, and improved design, construction and operation of transportation facilities.

Implementation of the other corridor objectives regarding transportation balance, highway congestion and safety is expected to improve energy efficiency through the reduction in highway congestion and an increase in alternative mode usage.

H. Economic Development

OTP Goal 4 is to promote the expansion and diversity of Oregon's economy through the efficient and effective management of goods, services and passengers in a safe, energy efficient and environmentally sound manner (OTP Goal 4).

As population within the Highway 97 Corridor increases, and the economic base shifts from timber and agriculture to high-tech manufacturing, trades and services, the Corridor will become increasingly utilized for recreational trips and local trip distribution. Truck freight through-traffic on Highway 97 is also projected to increase as international trade opportunities emerge. Hence, the national, state and Central Oregon economy will become increasingly dependent on the Highway 97 Corridor for the efficient movement of people, goods and services over the 20-year planning period.

Objective H1- Strengthen Business and Industrial Base

The economic base within the Corridor is projected to continue to shift away from traditional forest and agricultural industry to service and other industrial sectors. Several communities and counties within the Corridor will need to identify new resources for financing roadway maintenance as timber receipts decline.

• Continue to work with existing business and industry to identify issues and concerns regarding U.S. 97, while promoting Travel Demand Management (TDM) programs, including telecommunications.

• Expand tourism by combining traffic calming measures with signs marking amenities and attractions in small communities; providing rest stops/scenic waysides; and developing interpretive sites within the Corridor.

Objective H2 - Interpretive Corridor

Highway 97 passes through numerous areas of environmental and cultural importance. Many of these areas have mandates from federal/state agencies and Native American Tribes to protect these resources. The coordination of resources for interpretive facilities could enhance the touring experience and benefit the tourism industry sectors of the local and regional economies.

- Work with federal and state resource agencies, local governments, Native American Tribes, local businesses, and the public to identify scenic, environmental and cultural resources along the Corridor that can be protected, enhanced, and/or restored, while being developed as interpretive sites.
- Consider partnerships with the above-mentioned groups in the development of funding and management agreements to develop and enhance interpretive centers and waysides.

Objective H3 – Intermodal Reload Facility

Large volumes of rail and highway freight pass through the Corridor, particularly in the south section near Klamath Falls. An intermodal facility would provide an opportunity for the local economy to further tap into this stream of commerce, while helping to reduce highway freight through traffic along the entire Corridor.

- Work with the Burlington Northern and Southern Pacific railroads and Klamath County Economic Development staff, key businesses, and other interested parties to explore new or redevelopment of a rail/truck intermodal facility in the Klamath Falls/Bend/Redmond urban area.
- In accordance with the Oregon Transportation Plan, work with Burlington Northern Railroad, local economic development officials, selected industries and other rail freight reload facilities in the Bend Urban Area.

Objective H4 - International Air Freight Facility

The OTP indicates the potential of an international air freight facility being developed at the Klamath Falls International Airport.

Work in cooperation with Klamath County and Klamath Falls jurisdictions and the airport to evaluate long-term potential of developing a new international airfreight facility at the Klamath Falls International Airport.

Implementation/Next Steps

The Corridor Strategy objectives for the U.S. 97 Corridor are intended to embody the overall goal for the Corridor and to establish direction and provide guidance for corridor-wide transportation plans and enhancements over the next 20 years. Each objective is intended to be predicated upon existing federal, state and local policy, perceived local need, and supporting technical

Corridor Objectives

U.S. Highway 97 Corridor Strategy

information. The Corridor Strategy, once endorsed by local jurisdictions and ODOT, will become the guiding document for detailed transportation system plans and general plans, which establish corridor improvement priorities for state funding; thereby ensuring that future transportation facilities and services optimize the needs of Oregon's Corridor stakeholders.

Endorsement of the Corridor Strategy by local jurisdictions and subsequently ODOT is expected to occur during the Fall/Winter of 1995/96. During this time period, all comments and questions pertaining to the Corridor Strategy are welcome, and should be provided in writing and sent to:

Program and Planning Unit Oregon Department of Transportation, Region 4 63034 OB Riley Rd Bend, OR 97708

Appendix A U.S. Highway 97 Corridor Strategy

Corridor Planning Management Team (CPMT)				
North Section CPMT (Biggs to Madras)	Affiliation			
J.C. Yardee, Planning Director	Sherman County			
Richard Johnson, Roadmaster	Sherman County			
Kim Jacobsen, Planning Director	Wasco County			
Dan Boldt, Roadmaster	Wasco County			
Dan Durow, Community Devel. Director	City of The Dalles			
Roy Talley, Public Works Director	City of Wasco			
Goldie Roberts, City Recorder	City of Shaniko			
Denise Scoggins, City Recorder	City of Moro			
Dan Meter, Planner (Consultant)	City of Moro and Wasco			
Sam Wilkins, District Manager	ODOT - District 9			
Mike McArthur, Sherman County Judge	Sherman County			
Bob Boynton, Sherman County Comm.	Sherman County			
John Shadewitz, Sherman Co. Comm.	Sherman County			
Central Section CPMT (Madras to La Pine)	Affiliation			
Bob Quitmeier, Planning Director	City of Redmond			
Bent Lake, Field Representative	DLCD			
Chuck Brown, Asst. Forest Engineer	Deschutes National Forest			
Chuck McGraw, Planning Director	Jefferson County			
Clair Crinkle	ODFW			
Dick Johnson	Deschutes County Public Works			
Don Wood, Public Works Director	Jefferson County			
Gary Frazee, Public Works Director	City of Sisters			
George Reed, Comm. Devel. Director	Deschutes County			
Gerald Breazeale, Public Works Director	City of Madras			

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Appendix A U.S. Highway 97 Corridor Strategy

Central Section CPMT, cont. (Madras to La Pine)	Affiliation
Neil Thompson, Planning Director	City of Sisters
Pat Sorenson, City Administrator	City of Madras
John Hossick, Planning Director	City of Bend
Larry Rice, Public Works Director	Deschutes County
Larry Thomas, Environ. Protect Spec.	BLM-Prineville District
Mary Meloy, Public Works Director	City of Redmond
Myron Blank, Asst. Plning. Staff Officer	Mt. Hood National Forest
Pat Creedican, District Manager	ODOT - District 10
Pat Wheeland, Sunriver Public Works	Sunriver Public Works
Rick Root, City of Bend Planning Dept.	City of Bend
Roy Tidwell	BLM - Prineville District
Glen Ardt	ODFW
Steve Jorgenson	Deschutes County
Tom Gellner, Public Works Director	City of Bend
South Section CPMT (La Pine to California)	Affiliation
Bill Nebeker	Klamath Falls Planning
Jim Anderson, Forest Planning Specialist	Klamath National Forest
Carl Shuck, Planning Director	Klamath County
Christina Lilienthal, Landscape Architect	Winema National Forest
Don Callaghan, Roadmaster	Lake County
Earl Kessler, Public Works Director	Klamath County Public Works
Ernie Palmer, General Manager	Klamath Basin Transit District
Gordon Thompson, Bus. And Eco. Devel.	Klamath Tribes
Jim Platt, Engineer	BLM - Lakeview District
Joe Riker, Comm. Devel. Director	City of Klamath Falls

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Affiliation
ODOT - District 11
ODFW
Lake County
City of Lakeview
City of Lakeview
Klamath Co. Chamber

People listed in the proceeding tables participated at some point during the US 97 Corridor Strategy development."

Corridor Advisory Group (CAG)*		
Central Section CAG (Madras to La Pine)	Affiliation	
Carol Woodard	Central Oregon Econ. Dev.	
Dennis Conley	Senior & Disabled Services	
Detective Johnson	Deschutes County	
Donn Kerr	High Desert Museum	
Gary Capps	Bend Chamber	
John Schubert	Transportation Options	
Keith Nastuik	Bend Trans. Committee	
Michelle McKay	COEC	
Mike Weber	Central Oregon Feed	
Ray Ringila	Confederated Tribes of Warm Springs	
Sgt. John Diehl	Deschutes County Sheriff	

Appendix A U.S. Highway 97 Corridor Strategy

South Section CAG (La Pine to California)	Affiliation
Allen Eberlein	Southtown Commercial
Dave Henzel	Klamath County
Gary Weldon	Chemult Ranger Station
Jerry Zimmer	Klamath Falls Airport
Mike Bigby	Klamath Falls Ambulance
Pat McMillan	Klamath County Museum
Steve Carson	Bear Cat, Inc.
Steve Lewis	Eco. Sys. Restor. Office
Terrance O'Conner	Klamath Tribes
*Note: A formal CAG was not formed for the north section (Biggs to Madras) portion of the U.S. Highway 97 Corridor.	

People listed in the proceeding table participated at some point during the US 97 Corridor Strategy development."

Oregon Department of Transportation (ODOT) Region 4 Internal Review Team		
Dale Allen, Region Manager	Randy Bednar, District 11 Mngr. (Interim)	
Steve Macnab, Technical Services Manager	Steve Wilson, Traffic Engineer	
Pat Creedican, District 10 Manager	Brian Burleigh, Personnel Manager	
Sam Wilkins, District 9 Manager	Mark DeVoney, Region Planner/Proj. Mngr.	

People listed in the proceeding table participated at some point during the US 97 Corridor Strategy development."

Appendix A U.S. Highway 97 Corridor Strategy

ODOT Transportation Development Branch Review Team		
Ron Schaadt, Planning Manager	Ed Lee, Corridor/General Planning Mngr.	
Dick Reynolds, Corridor/General Planning Mngr.	Peter Russell, Corridor/General Planning Mngr.	
Del Huntington, Corridor/General Planning Mngr.	Carolyn Gassaway, Corridor/General Planning Mngr.	
Barbara Fraser, Statewide Mobility Mngr.	Ed Immel, Rail Planner	
Erik East, HS Rail Planner	Bob Krebs, Intercity Transit	
Lee LaFontaine, Public Transit Management System	Bob Sherman, TDM Planner	
Steve Kale, Intermodal Management System	June Ross, Safety Management System	
Gary Viehdorfer, Aeronautics Planner	Pat Moran, Scenic/Visual Resource Management	
John Kelly, Transportation Growth Management	Von Hemmert / Mel Holmes, System Studies Manager	
Mark Ford, Strategic Planning Manager	Dave Bishop, OTP / Willamette Valley Strategy	
Lloyd Henion, Auto/Truck Section	Betsy Johnson, Aeronautics	
Joni Reid, Public Transit	Ed Marges, Traffic Safety	
ODOT Transportation Systems Branch Review Team		
Cam Gilmour, Program Section	Jay McRae, Reengineering	
Bill Geibel, Roadway Design	Michael Ronkin, Bicycle / Pedestrian	
Brant Williams, Traffic Engineering	Brian Gregor, Congestion Management System	
Lucy Moore, Pavement Management System	Martha Sartain, Bridge Management System	
ODOT Environmental Section Review Team		
Bonnie Heitsch	Rose Hayden	
Dwight Smith	Mike Shippey	

People listed in the proceeding tables participated at some point during the US 97 Corridor Strategy development."

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Attorney General		
Dale Hormann	Lucinda Moyano	
Interstate Coordination Members		
Mary Legree, Washington Dept. of	Cary Grant, Washington Dept. of Transportation South Control District	
Gene Murtey, California Department of	Fred Drose, Nevada Department of	
Transportation District 2	Transportation	
Consultant Team		
Otak, Inc.	Pacific Rim Resources, Inc.	
Roger Millar, Principal-in-Charge	Sumner Sharpe, Public Involvement Mngr.	
Todd Chase, Project Manager	Margaret Strachan, Public Involvement Asst.	
Barrow Emerson, Senior Planner	Stephanie Lawson, Public Involvement Asst.	
Lori Pavey, Project Assistant		

PACIFIC RIM RESOURCES Public Affairs and Communications

Public Involvement Summary US 97 Corridor

Objectives and Purpose

The objectives of the Corridor Strategy public involvement effort are to work with local citizens and stakeholders to explain the corridor planning process, to identify issues related to the US 97 Corridor, obtain feedback and comments on the draft strategy for the corridor, and to develop cooperatively with local governments a consensus and support for the Corridor Strategy. In addition, the public involvement process complies with mandates from both the State of Oregon¹ and the Federal Intermodal Surface Transportation Efficiency Act (ISTEA)².

Approaches to Community Outreach

The US 97 Corridor runs north-south across the state of Oregon from Biggs Junction at the Columbia River in the north, through Bend, Redmond and Klamath Falls to the California border in the south. Because the north section is more rural in nature and faces different issues than the central and south sections, two Corridor Strategies have been developed for the US 97 Corridor to reflect those differences. The section from Biggs Junction to Madras comprises the north section and the more heavily traveled sections between Madras and Klamath Falls comprise the central/south section. In addition, in order to best utilize the time and efforts of committee members and other participants in the planning process, the cross-corridor s represented by US 20, US 26/126 and OR 140 were also addressed through this process.

Outreach efforts to assure public participation included several activities. Information and feedback from each activity was summarized in report form and used to help develop or revise the draft strategy for each Corridor.

Following is a list of the public involvement activities:

- Corridor Planning Management Team (CPMT)
- Statewide Stakeholder Survey (conducted by mail)
- Corridor Stakeholder Interviews (conducted by telephone)
- Press releases and ads announcing open houses and availability of documents
- Open Houses
- Corridor Advisory Groups (CAG)
- Newsletters
- Discussions with community leaders

¹ Oregon Transportation Plan1policy 4N

² General Guidelines Introduction to ISTEA

ISTEA require that the public be involved in transportation decisions from the beginning of long-range planning. This shifts the emphasis of public participation from projects to process.

It is the policy of the State of Oregon to develop programs that ensure the opportunity for citizen, businesses, local governments and state agencies to be involved in all phases of transportation planning.

- State and Federal Agency and Tribal Council meetings, briefings and interviews
- Resolutions of support for the Corridor Strategy from local jurisdictions

Committees

The Corridor Planning Management Team (CPMT) is composed of representatives from local jurisdictions and other policy-making organizations within the corridor including planners policy makers and public officials.

There are three CPMTs for the US 97 Corridor. The US 97 CPMTs met for the first time in September of 1994 to identify corridor issues that the strategy should address. A summary of the meeting and the meeting handouts were mailed to the members who were unable to attend. These members were then contacted by phone for their comments on the matters discussed at the meeting. The second series of US 97 CPMT meetings was held in February 1995 to present the US 97 Draft Strategy and obtain feedback on the document

Advisory Groups

In the US 97 Corridor, two Corridor Advisory Groups (CAGs) were established. They represented the central and south sections of the corridor. Their activities mirrored that of the CPMT .The CAG brought interested community members and stakeholders together to identify issues, review the document, and inform others of the planning process.

Stakeholders

The Salem office of the Oregon Department of Transportation conducted a statewide stakeholder survey by mail at the beginning of the corridor planning process. Names for the mailing list were provided by the regional ODOT offices.

The brochure, "Corridor Planning, A Break From Tradition" was mailed statewide to everyone on the original stakeholder mailing list. The brochure continues to be used as a background information piece.

In October of 1994, Pacific Rim Resources, Inc. conducted stakeholder interviews with people who live on or use the US 97 Corridor. Stakeholders included local business: people; ranchers; elected officials and representatives of local, state and federal agencies. Interviewees were asked to describe the most important overall transportation issues for the corridor in which they travel, as well as address the specific areas of concern to be addressed in the strategies developed for each corridor.

Press Packets

Press packets containing information on open houses and the brochure, Corridor Planning, A Break From Tradition, were provided to local media outlets prior to each open house.

Open Houses

In the US 97 Corridor two rounds of open houses were held. The first round, held in November of 1994, informed the public of the planning process and invited participants to identify issues, which should be addressed by the Strategy. Those meeting were held in Klamath Falls, Redmond and Moro.

Appendix B

U.S. Highway 97 Corridor Strategy

The second round of open houses, held in February of 1995, presented the draft US 97 Corridor Strategy and invited the public to comment. Those meetings were held in Klamath Falls, Chemult, Bend and Biggs Junction.

Newsletters

Newsletters were produced for both the north and central/south sections of the US 97 Corridor. Two newsletters were used to reflect the unique characters of the different sections of the corridor. The central and south sections are more heavily traveled than the north section, which is more rural in character. The newsletters gave a brief overview of the corridor planning process and outlined the objectives identified for the corridor. A third newsletter is planned to outline the final objectives and give closure to the public involvement process.

Special Public Outreach

In order to include as many stakeholders as possible, extra efforts were made. Briefings were held with elected officials, community and business leaders, and tribal representatives in communities located along or impacted by the corridor to explain the planning process, identify their concerns and issues, and build a cooperative relationship between ODOT and the local jurisdictions. In Prineville, an un-incorporated town with a fairly large population, the local Chamber of Commerce was invited to meet with ODOT and the consultants for a similar presentation.

In Biggs Junction, a special survey was done to identify the concerns and use patterns of truck drivers. In addition, research was done to identify special needs and para-transit service providers and their transportation issues within the corridor.

Resolutions of Support

Cities and counties along the corridor have been asked to adopt a resolution supporting the corridor strategy document before the documents are submitted to the Oregon Transportation Commission. This provides an opportunity for local elected officials to discuss the document among themselves and their constituents and assures that the process and results reflect the strong cooperation between ODOT, local jurisdictions and citizens. This consensus provides a strong foundation for continuing the corridor planning process.

List of attachments available upon request:

- List of Corridor Planning Management Team
- Corridor Planning Management Team meeting notes
- List of Corridor Advisory Group members
- Corridor Advisory Group meeting notes
- Open House meetings notes
- Corridor Stakeholder Interviews report
- Corridor Stakeholder Interview Instruments
- Newsletters
- Truck Driver Survey Report
- Sample resolutions of support language