

**CITY OF THE DALLES
TRANSPORTATION SYSTEM PLAN**

**Prepared June 1999
Updated June 2006
Updated December 2006**

Prepared for
The City of The Dalles
The Dalles, Oregon

Prepared by
David Evans and Associates, Inc.
Portland, Oregon



This 2006 update project is partially funded by a grant from the Transportation and Growth Management (TGM) Program, a joint program of the Oregon Department of Transportation and the Oregon Department of Land Conservation and Development. This TGM grant is financed, in part, by federal Transportation Equity Act for the 21st Century (TEA-21), local government, and the State of Oregon funds.

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

TABLE OF CONTENTS

Page

CHAPTER 1: INTRODUCTION	1
THE PLANNING AREA.....	1
THE PLANNING PROCESS.....	2
Public Involvement.....	2
Goals and Objectives.....	2
Review Existing Plans and Policies.....	2
Inventory Existing Public Facilities.....	3
Forecast Demographics and Travel Demand.....	3
Roadway System Alternatives.....	3
Develop Transportation System Plan.....	3
Develop Funding Plan and Capital Improvement Program.....	3
TRANSPORTATION SYSTEM PLAN REQUIREMENTS.....	3
Federal Intermodal Surface Transportation Efficiency Act.....	4
Goal 12.....	4
Oregon Transportation Planning Rule.....	4
Transportation Planning Rule Requirements for The Dalles.....	4
Oregon Transportation Plan.....	5
Oregon Highway Plan.....	5
Statewide Intercity Passenger Service Plan.....	7
Bicycle and Pedestrian Service Plan.....	8
CHAPTER 2: GOALS AND OBJECTIVES	9
CHAPTER 3: CHAPTER 3: CURRENT TRANSPORTATION CONDITIONS	11
ROADWAYS.....	11
Inventory.....	11
Arterial Streets.....	12
Collector Streets.....	12
Traffic Signals.....	13
Traffic.....	13
Street Capacity.....	14
PEDESTRIAN SYSTEM.....	14
BICYCLE SYSTEM.....	15
PUBLIC TRANSPORTATION.....	16
RAIL SERVICE.....	16
AIR SERVICE.....	16
WATER TRANSPORTATION SERVICE.....	16
NATURAL GAS PIPELINE SERVICE.....	17
CHAPTER 4: FUTURE TRAVEL DEMAND	19
STUDY AREA DEFINITION.....	19
Roadway System Network.....	19
Traffic Analysis Zones.....	19
EXISTING AND FUTURE DEMOGRAPHICS.....	20
Current Population.....	21
Year 2015 Population.....	21
Current Employment.....	22
Year 2015 Employment.....	22
TRIP GENERATION.....	23
TRIP DISTRIBUTION.....	25
TRIP ASSIGNMENT.....	25
Model Calibration.....	25

TABLE OF CONTENTS

Page

Future Assignments	26
CHAPTER 5: TRANSPORTATION IMPROVEMENT OPTIONS ANALYSIS	25
EVALUATION CRITERIA.....	25
BASE FUTURE CONDITION	25
OPTIONS EVALUATION	29
Option 1: Revise Zoning and Development Codes.....	29
Option 2: Implement Transportation Demand Management Strategies	29
Option 3: Improve Intersection of US 30 and Brewery Grade	30
Option 4: Widen Tenth Street between Washington Street and Lewis Street	31
Option 5: Improve Intersection of US 30 and Lower Eight Mile Road.....	32
Option 6: Widen River Road Chenoweth Creek Bridge	33
Option 7: Improve Intersection of US 197 and Fremont Street/Columbia View Drive	33
Option 8: West Gateway.....	34
Option 9: Connect Nineteenth Street to Thompson Street.....	35
Option 10: Thompson Street: E 19 th to E 10 th	35
Option 11: Install Traffic Signals at Both Ends of Terminal Street.....	35
SUMMARY	36
CHAPTER 6: TRANSPORTATION SYSTEM PLAN	37
STREET FUNCTIONAL CLASSIFICATION SYSTEM.....	37
Arterial Streets.....	37
Major Arterial Streets.....	38
Minor Arterial Streets.....	38
Collector Streets.....	38
Major Collector Streets	39
Minor Collector Streets	39
Street Design Standards.....	40
Two-way Arterial Streets.....	40
Three-Lane Arterial.....	40
One-Way Arterial Streets.....	41
Collector Streets.....	41
Major Collector	42
Minor Collector	42
Collector in Industrial Areas	42
Local Streets	42
Local Industrial/Commercial.....	46
Local Residential Type "A".....	46
Local Residential Type "B".....	46
Private Road/Alley	47
Cul-de-Sac Streets.....	47
Separated Bicycle and Pedestrian Pathways	47
Urban Bike Lanes	48
Urban Sidewalks.....	48
Street Connectivity	49
ACCESS MANAGEMENT	50
Access Management Techniques.....	50
Access Management Strategies.....	50
Minimum Spacing of Driveways	51
General Access Management	52
State Highway Access Management	53
Freeway (I-84).....	54

TABLE OF CONTENTS

Page

Regional Highways (US 197)56
District Highways (US 30).....58
STREET, BICYCLE, AND PEDESTRIAN SYSTEM ELEMENT.....58
Project Characteristics58
Project Location58
Project Description.....58
Project Improves Travel by Mode.....64
Project Justification.....64
Project Phasing.....64
Financial Partners65
Project Distance65
Project Cost.....66
Recommended Improvements66
BIKEWAY PLAN71
PEDESTRIAN FACILITIES PLAN.....71
TRUCK ROUTES.....72
TRANSPORTATION DEMAND MANAGEMENT PLAN73
Alternative Work Schedules73
Ridesharing.....73
Pedestrian/Bicycle Facilities.....73
Telecommuting74
MODAL PLANS74
Public Transportation74
Rail Service.....74
Air Service.....74
Water Transportation Service75
Pipeline Service75
CHAPTER 7: FUNDING OPTIONS AND FINANCIAL PLAN76
HISTORICAL STREET IMPROVEMENT FUNDING SOURCES76
Transportation Funding in Wasco County.....77
Historical Revenues and Expenditures in the City of The Dalles.....78
Transportation Revenue Outlook in The Dalles80
REVENUE SOURCES82
Property Taxes.....82
System Development Charges.....83
State Highway Fund83
Local Gas Taxes83
Vehicle Registration Fees.....84
Local Improvement Districts84
Other User Fees84
Hotel/Motel Tax84
Urban Renewal Plan84
Grants and Loans85
 Immediate Opportunity Grant Program85
 Oregon Special Public Works Fund.....85
ODOT Funding Options86
FINANCING TOOLS.....86
General Obligation Bonds87
Limited Tax Bonds87
Bancroft Bonds87

TABLE OF CONTENTS

Page

FUNDING REQUIREMENTS 88
 Oregon Department of Transportation Projects 88
 County Projects 89
 Local Projects 89
 Proposed Utility Access Fee 91
 Implementation of Systems Development Charges 91
FUNDING OPTIONS CONCLUSIONS 94

LIST OF TABLES

Page

Table 1 Current and Projected Population and Employment21

Table 2 Trip Generation Rates 24

Table 3 Forecast 2015 Peak Hour Levels of Service28

Table 4 Transportation Improvement Options Recommendation Summary.....36

Table 5 Proposed City Street Design Standards.....44

Table 6 General Access Management Guidelines.....52

Table 7 Interchange Spacing54

Table 8 Min. Spacing Standards Applicable to Freeway Interchanges with Two-Lane Crossroads55

Table 9 Min. Spacing Standards Applicable to Freeway Interchanges with Multi-Lane Crossroads.....56

Table 10 Access Management Spacing Standards for Regional Highways.....57

Table 11 Access Management Spacing Standards for District Highways58

Table 12 Street, Bikeway, and Pedestrian System Improvements Project List..... 61

Table 13 Sources of Road Revenues by Jurisdiction Level 76

Table 14 Wasco County Transportation-Related Revenues.....77

Table 15 Wasco County Transportation-Related Expenses78

Table 16 The Dalles Street and Storm Budget Revenues79

Table 17 The Dalles Street and Storm Budget Expenditures.....80

Table 18 Estimated Revenue From the State Highway Fund81

Table 19 City of The Dalles Resources Available From Current Sources for Capital Outlay.....81

Table 20 Transportation Improvements Funding Requirement Summary.....88

Table 21 State Transportation Improvements Funding Requirements and Priority Level.....88

Table 22 County Transportation Improvements Funding Requirements and Priority Level89

Table 23 Local Transportation Improvements Funding Requirements And Priority Level90

Table 24 Estimated Funding Deficit Recommended Transportation System Improvements90

Table 25 Potential Revenue Of The Proposed Utility Access Fee.....91

Table 26 Funding Outlook Applying Revenue from the Proposed Utility Access Fee91

Table 27 SDC Trip Generation Estimates.....92

Table 28 Potential SDC Rates Based on Improvement Costs.....93

Table 29 Revenue Generated By Potential SDCs94

Figure 1: The Dalles Planning Area1
Figure 2: Land Use Zoning2
Figure 3: The Planning Process2
Figure 4: Existing Street Classification and Traffic Signals11
Figure 5: 1993 Weekday 24-Hour Two-Way Traffic Volumes13
Figure 6: 1993 Weekday AM Peak Hour Traffic Volumes13
Figure 7: 1993 Weekday PM Peak Hour Traffic Volumes13
Figure 8: 2015 Weekday PM Peak Hour Traffic Volumes28
Figure 9: Schematic Improvement - Intersection of Highway 30 and Brewery Grade30
Figure 10: Schematic Improvement – Intersection of Highway 30 and Lower Eight Mile Road32
Figure 11: Proposed Street Classification and Traffic Signals37
Figure 12: Street Design Standards – Arterial/Collector Streets40
Figure 13: Street Design Standards - Collector/Local Streets41
Figure 14: Street Improvement Projects71
Figure 15: Recommended Bikeway Plan71
Figure 16: Truck Route Plan72
Figure 17: State Highway Fund80

APPENDICES

Table A-1: Street Inventory Table

Table C-1: Existing and Projected Housing and Population

Table C-2: 1995 Employment Estimates, The Dalles Study Area

CHAPTER 1: INTRODUCTION

The purpose of this study is to develop a community-based multi-modal transportation system plan (TSP) that addresses transportation needs for a twenty-year period (1995 – 2015) associated with anticipated future growth in The Dalles urban area. The TSP is being prepared to address federal and state regulations that require urban areas to do long-range planning, as well as to serve as a guide for the community in the management of the existing transportation facilities and for the design and implementation of future transportation facilities.

The long-range plan will implement portions of the Oregon Transportation Plan (OTP) and 1999 Oregon Highway Plan, as well as the City's Local Street Network Plan, 1st Street Streetscape Plan and the Downtown Parking Plan. It will be in conformance with Goal 12, the Oregon Transportation Planning Rule (TPR), Oregon Administrative Rule 734.051 and the federal Intermodal Surface Transportation Efficiency Act (ISTEA), thereby helping to ensure that the City of The Dalles is eligible for future state and federal funding. The planning effort included community involvement, and it was guided by local public agency staff.

The Dalles TSP was originally prepared over a period from 1993 through 1999 with a final document dated June 1999 to cover a 20-year period (thereby the 1995 – 2015 planning period). In 2005, several sections of the document were updated to bring the TSP into compliance with the current TPR and the *1999 Oregon Highway Plan*. Street functional classification designations were updated to be consistent with the Federal Aid Functional Classification Mapping System. The project list was updated to reflect projects completed, new projects in the city's capital improvement program, and other changes in the project parameters.

THE PLANNING AREA

The Dalles is the county seat and, with almost half of the county's population, is the largest city in Wasco County. Located in the Columbia River Gorge along the eastern foothills of the Cascade Mountain Range, the city serves as the hub of the agricultural economy in north-central Oregon.




The Dalles TSP planning area includes the City of The Dalles and the area within the city's Urban Growth Boundary (UGB). The planning area is shown in *Figure 1*. Roadways included in the TSP fall under several jurisdictions: The Dalles, Wasco County, and the State of Oregon.

The Dalles is served by two state highways: Interstate 84 (I-84) and US 197. The interstate is a four-lane, limited access facility that connects The Dalles to Portland, located 85 miles to the west, and then passes through Idaho and Utah to the east. There are currently six interchanges with I-84 in The Dalles. These interchanges connect at several points along old US 30 and at US 197 where it crosses into Washington. US 197 is a two-lane highway that connects to US 97 and Bend located 132 miles to the south. It extends northward into Washington, terminating at State Route 14. US 30 from the Chenoweth Interchange on the west to the Marina Interchange on the east is under city jurisdiction.

A grid pattern of local streets has been maintained through much of The Dalles as it has developed over the years. The grid follows the general contour of the Columbia River and is divided into sections by various topographical features. The core of the grid lies between Mill Creek and Kelly Avenue/Seventh Street. This section contains the old downtown business district and many of the older residential areas. Another well-developed but less dense grid runs eastward from Kelly Avenue to Morton Street. The two grid sections are slightly skewed and, as a result, not all of the roadways

FIGURE 1
THE DALLEs
PLANNING AREA

Legend

-  Incorporated Area
-  Urban Growth Area
-  Columbia River Gorge NSA

