

**TRANSPORTATION
SYSTEM PLAN
FOR THE
URBAN POCKETS
OF
UNINCORPORATED
MULTNOMAH COUNTY**

JUNE 30 2005



ACKNOWLEDGEMENTS

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TABLE OF CONTENTS

ACKNOWLEDGEMENTS	II
TABLE OF CONTENTS.....	IV
LIST OF TABLES.....	VII
LIST OF FIGURES	VIII
LIST OF APPENDICIES.....	IX
CHAPTER 1: INTRODUCTION	1
Background.....	1
Project Scope.....	1
Purpose Statement.....	3
Project Objectives	3
Regulatory Coordination and Compliance	4
Statewide Planning Goals	4
Transportation Planning Rule	4
Oregon Transportation Plan.....	4
Regional Urban Growth Goals and Objectives.....	4
Regional Transportation Plan.....	4
Pleasant Valley Plan District (PVPD)	5
Coordination with Portland Comprehensive Plan and TSP.....	5
Public Involvement Process.....	5
Agency Coordination	5
Plan Element Overview	6
CHAPTER 2: EXISTING CONDITIONS	9
Land Use	9
Dunthorpe Area	9
Far Southeast Area.....	11
Forest Park/Southwest Hills Area	11
Traffic Volume	14
Level of Service	16
Crash Data Analysis.....	20
2020 PM 2-Hour Network Analysis	20
Land Use Data.....	20
Network Improvements	21
Mode Split.....	22
Traffic Volume and Volume/Capacity Ratios.....	23
Far Southeast Area.....	23

TABLE OF CONTENTS

Dunthorpe Area 24

Forest Park/ Southwest Hills Area..... 25

CHAPTER 3: POLICIES AND STANDARDS 27

 Functional Classification Descriptions and Policies 27

 Multnomah County Policy 34 Trafficways Descriptions 27

 Multnomah County Policy 33C Bicycle and Pedestrian Descriptions..... 29

 Multnomah County Policy 34 Overlay Classifications..... 30

 Policy 34, Strategy 7 Freight Movement 31

 Policy 35 Public Transportation 31

 Policy 34D State and Regional Coordination..... 31

 Policy 34B-5 Public Input..... 31

 Policy 34-H Trafficways..... 32

 Policy 34A-5 Safety 32

 Policy 34 StrategyA-3 Fostering Choice 32

 Policy 1.2 Access Management 32

 Policy 34-3 Land Use Coordination 32

 Policy 36 Transportation System Development Requirements 32

 Policy 34A-9 Street Connectivity..... 33

 Functional Classification Comparison with City of Portland 58

 New Functional Classifications Recommended 59

 Conversion of Multnomah County Classifications to City Designations..... 59

 Functional Classification Mapping..... 62

 Data Description & Methodology 62

 Map Production 64

 Transportation Values Survey..... 64

CHAPTER 4: MASTER STREET PLAN 67

 Plan Development Process..... 67

 Methods, Tools, & Criteria: First GIS Iteration..... 67

 Step One: Finding Existing Connectivity and Excluded Zoning 67

 Step Two: Finding Development Opportunities 68

 Step Three: Finding Development Constraints 68

 Step Four: Preliminary Master Street Plan Base Map 69

 Methods, Tools, & Criteria: Second GIS Iteration 69

 Step One: Finding Existing Connectivity & Excluded Zoning 69

 Step Two: Finding Development Constraints 70

 Step Three: Finding Development Opportunities 70

 Step Four: Preliminary Master Street Plan Base Map 71

 Defining New Connections..... 71

 Step One: Verification of Rights-of-Way Status 71

 Step Two: Define the Type of Map Connection 71

TABLE OF CONTENTS

Step Three: Apply Types of Map Connections 73

Step Four: Additional Considerations for Locating Connections 73

Preliminary Master Street Plan Evaluation Process 73

 Evaluation Criteria..... 74

 Evaluation Results 74

 Distinction between Street & Pedestrian/Bicycle Connections 74

Connection Inventory Matrices..... 75

CHAPTER 5: TRANSPORTATION SYSTEM IMPROVEMENTS 79

 Regulatory Compliance 79

 Project Identification Process 79

 Transportation Improvements List 79

 Evaluation Criteria..... 79

 Implementation Priority 80

 Project List Updates 81

 TSP Projects and the Capital Improvement Program 81

 Coordination between Multnomah County and Other Jurisdictions 81

 Environmental Review of TSP Projects 81

 Reference List 81

 Reference List Criteria..... 82

 Reference List and the Capital Improvements Program..... 82

 Recommended Transportation Improvements..... 82

 Dunthorpe: Major Transportation Improvements 83

 Forest Park/Southwest Hills: Major Transportation Improvements 86

 Far Southeast: Major Transportation Improvements..... 88

LIST OF TABLES

Table 1	2004 2-hour PM Traffic Counts.....	15
Table 2	2000 RTP Established Performance Measures.....	16
Table 3	Safety Priority Index System 2000-2002.....	20
Table 4	Land Use Data in the Model.	21
Table 5	2000 and 2020 PM Peak 2-Hour Travel Mode Split.	22
Table 6	PM Peak 2-hour Model of Traffic Volume and Volume/Capacity Ratio Comparison....	23
Table 7	Existing Street Classifications.....	60
Table 8	Proposed Street Classifications (changes are highlighted in grey.)	61
Table 9	Motor Vehicle Classifications Conversion Matrix.	62
Table 10	Summary Table of Transportation Values Survey.	65
Table 11	Multnomah County Urban Pockets Master Street Plan Matrix.....	75

LIST OF FIGURES

Figure 1	Location of Urban Pockets.	2
Figure 2	Dunthorpe Pockets Land Use Map.	10
Figure 3	Far Southeast Pockets Land Use Map.....	12
Figure 4	Forest Park / Southwest Hills Pockets Land Use Map.	13
Figure 5	Far Southeast Area 2000 PM 2-Hour RTP City Network: Volume/Capacity Ratio.	17
Figure 6	Dunthorpe Pockets 2000 PM 2-Hour RTP City Network: Volume/Capacity Ratio.	18
Figure 7	Forest Park/Southwest Hills Pockets 2000 PM 2-Hour RTP City Network: Volume/Capacity Ratio.	19
Figure 8	Map of Future Improvements in Far Southeast.	22
Figure 9	Map of Far Southeast 2020 PM Peak 2-hour Volume/Capacity.	24
Figure 10	Dunthorpe Area Map of County Funtional Street Classifications.....	34
Figure 11	Dunthorpe Area Map of Portland Traffic Classifications.	35
Figure 12	Dunthorpe Area Map of Portland Transit Classifications.	36
Figure 13	Dunthorpe Area Map of Portland Bicycle Classifications.	37
Figure 14	Dunthorpe Area Map of Portland Pedestrian Classifications.	38
Figure 15	Dunthorpe Area Map of Portland Freight Classifications.	39
Figure 16	Dunthorpe Area Map of Portland Emergency Response Classifications.	40
Figure 17	Dunthorpe Area Map of Portland Street Design Classifications.	41
Figure 18	Far Southeast Area Map of County Funtional Street Classifications.	42
Figure 19	Far Southeast Area Map of Portland Traffic Classifications.	43
Figure 20	Far Southeast Area Map of Portland Transit Classifications.	44
Figure 21	Far Southeast Area Map of Portland Bicycle Classifications.	45
Figure 22	Far Southeast Area Map of Portland Pedestrian Classifications.	46
Figure 23	Far Southeast Area Map of Portland Freight Classifications.	47
Figure 24	Far Southeast Area Map of Portland Emergency Response Classifications.	48
Figure 25	Far Southeast Area Map of Portland Street Design Classifications.	49
Figure 26	Forest Park/Southwest Hills Area Map of County Funtional Street Classifications.	50
Figure 27	Forest Park/Southwest Hills Area Map of Portland Traffic Classifications.	51
Figure 28	Forest Park/Southwest Hills Area Map of Portland Transit Classifications.	52
Figure 29	Forest Park/Southwest Hills Area Map of Portland Bicycle Classifications.....	53
Figure 30	Forest Park/Southwest Hills Area Map of Portland Pedestrian Classifications.....	54
Figure 31	Forest Park/Southwest Hills Area Map of Portland Freight Classifications.	55
Figure 32	Forest Park/Southwest Hills Area Map of Portland Emergency Response Classifications.....	56
Figure 33	Forest Park/Southwest Hills Area Map of Portland Street Design Classifications.	57
Figure 34	Master Street Plan for the Dunthorpe Urban Pockets.	76
Figure 35	Master Street Plan for the Far Southeast Urban Pockets.....	77
Figure 36	Master Street Plan for Forest Park/Southwest Hills Urban Pockets.	78
Figure 37	Dunthorpe Pockets Transportation System Improvements.	85
Figure 38	Forest Park/Southwest Hills Pockrts Transportation System Improvements.	87
Figure 39	Far Southeast Pockets Transportation System Improvements.....	89

LIST OF APPENDICIES

APPENDIX A: MODEL PLOTS	91
2000 Model Inputs: PM 2-Hour Network Capacities and Speeds.....	91
2000 Model Outputs: PM 2-Hour RTP City Network Total Volume.....	94
2020 Model Inputs: PM 2-Hour Network Capacities and Speeds.....	97
2020 Model Outputs: PM 2-Hour RTP City Network Total Volume.....	100
2020 Model Outputs: PM 2-Hour RTP City Network Volume Capacity Ratio.....	103
2000 - 2020 Model Analysis: PM 2-Hour Total Volume Comparison	106
 APPENDIX B: CITY AND COUNTY POLICY COMPARISONS	 109
Comprehensive Transportation Plan Policy Comparison	109
Functional Trafficway Classifications Comparison	113
Functional Transit Classifications Comparison.....	117
Functional Bicycle Classifications Comparison	120
Functional Pedestrian Classifications Comparison	121
Functional Freight Classifications Comparison.....	123
Street Design Classifications Comparison	125
 APPENDIX C: PROJECT LISTS	 129
Proposed Project List – Short Version.....	129
Proposed Project List – Long Version.....	130
Project Reference List.....	131
Portland Adopted TSP Projects.....	132
Project Appendix List	133
Multnomah County CIP Adopted Projects.....	134
 APPENDIX D: MEETING MINUTES & NOTES.....	 135
Citizen Advisory Committee Meeting #1.....	135
Citizen Advisory Committee Meeting #2	139
Citizen Advisory Committee Meeting #3	142
Citizen Advisory Committee Meeting #4	144
Technical Advisory Committee Meeting #1	146
Technical Advisory Committee Meeting #2.....	150
Technical Advisory Committee Meeting #3.....	153
Technical Advisory Committee Meeting #4.....	155
 APPENDIX E: PLEASANT VALLEY POLICIES & PROJECTS	 157
Goal 6 Transportation	157
Major System Improvements List.....	157
Refinement Plans and Studies.....	158
Street Connectivity	158

LIST OF APPENDICIES

APPENDIX F: SURVEY SAMPLE 161

APPENDIX G: GLOSSARY OF TERMS 163

APPENDIX H: REFERENCES..... 171

 Documents Cited..... 171

 Geographic Information System Shapefile Sources..... 171

CHAPTER 1: INTRODUCTION

Background

In January 2002, the Multnomah County Board of Commissioners adopted the City of Portland's comprehensive plan, zoning code, and zoning maps for the urban unincorporated areas, and transferred responsibility for development review for land use in these areas to the City. Multnomah County retains jurisdiction and development review responsibilities for the transportation system. In addition to addressing the important issue of compliance with Transportation Planning Rule requirements, this plan will also resolve a development review coordination issue between Multnomah County and the City of Portland, and address City Council directives related to the Pleasant Valley planning process.

Development activity in the urban pockets has increased significantly since the transfer of land use authority in 2002, and additional land was added to the urban pockets in 2005 in the Pleasant Valley area. This increase has exposed the differences in the road classification systems of the City and the County. For example, Multnomah County does not have a separate transit or pedestrian classification system and the City of Portland does. Conversely, the City of Portland does not have standards for local access roads, which make up a large portion of the road system within the urban pockets. Furthermore, the City zoning code, used in development review, refers to City functional street classifications. In the interim, the City of Portland and Multnomah County developed a conversion table and maps that attempt to match the County and City systems. However, no policy has been established to determine how or when one jurisdiction can vary from its standards to match the requirements of the other jurisdiction. The inconsistency between the two classification systems makes it difficult to determine transportation requirements for development in the unincorporated areas.

This project will build upon the recent effort by Multnomah County to update its functional classification for the Trafficway street classification system. The update has brought the county traffic classification into conformance with the classification and standards of affected jurisdictions included in the project: Oregon Department of Transportation, Metro, and the cities of Fairview, Gresham, Portland, Troutdale, and Wood Village. The process recommended comprehensive plan amendments to the adopted Multnomah County Functional Classification of Trafficways map and text. The products from this project will also be folded into the adopted Multnomah County Functional Classification of Trafficways map and text through comprehensive plan amendments.

Project Scope

As shown in Figure 1, the unincorporated urban portions of Multnomah County (County) that are within Portland's Urban Services Boundary are located adjacent to the Northwest, Southwest and Far Southeast transportation districts, identified in Portland's Transportation System Plan (TSP).

The seven areas adjacent to the Northwest District, referred in this report as Forest Park/Southwest Hills, are located north of US 26 and generally south of NW Cornell. The largest area covers slightly more than one square mile. The other parcels are much smaller in size. The area is characterized by low-density single-family development, several communication towers, and undeveloped land.

The three areas adjacent to the Southwest District are located in the northwest and southeast parts of the district. The area adjacent to the northwest part of the district is centered on SW Patton, SW Scholls Ferry and SW Humphrey. This area, also part of the Forest Park/Southwest Hill Area referred to in this study, is slightly less than a square mile in size and is characterized by low-density single-family development and some undeveloped parcels. The area adjacent to the southeast boundary of the district is the Dunthorpe neighborhood. This area is approximately six square miles in size. It is bounded roughly by SW Terwilliger on the west and the Willamette River on the east. Southwest Macadam/SW Riverside (Highway 43) runs north/south near its eastern boundary. This area is characterized by large, older single-family homes on large lots. The third area is located south and east of SW Boones Ferry between SW 8th and SW 19th. This area is approximately three-quarters of a square mile in size and is characterized by low-density single family development oriented to SW Englewood, which runs east-west through it. The latter two areas are part of the Dunthorpe Area referred to in this study.

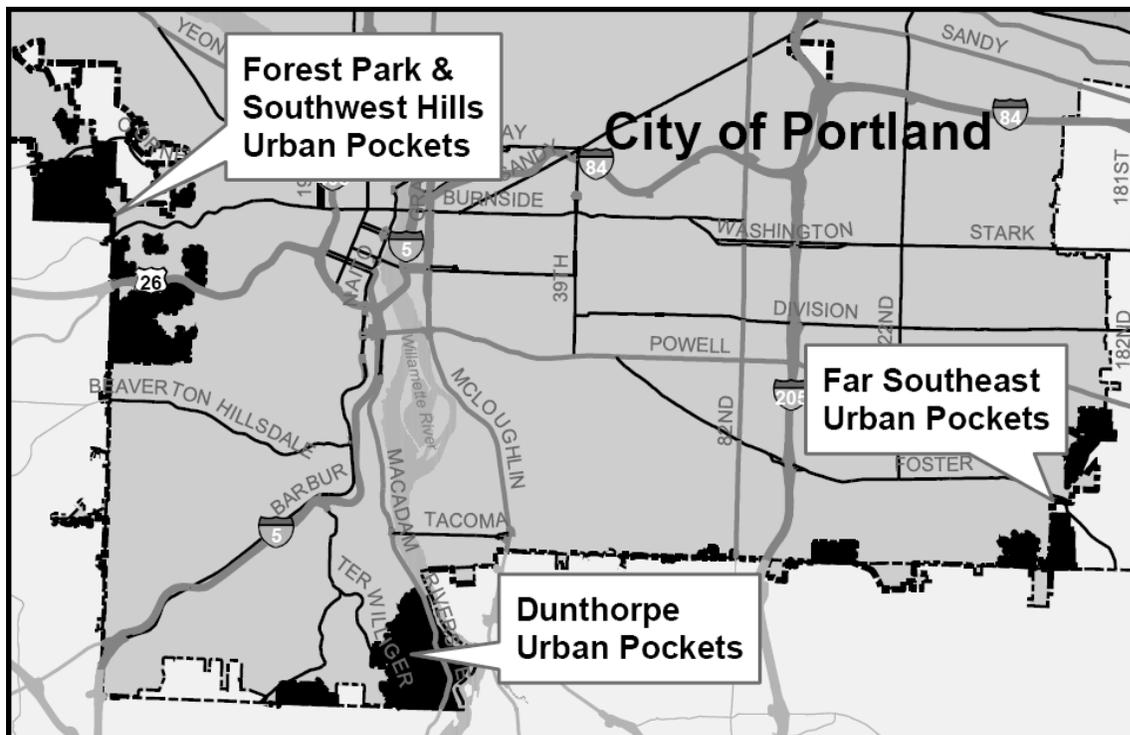


Figure 1 Location of Urban Pockets.

There are four areas adjacent to the Far Southeast District boundary. One is the northern half of the Lincoln Memorial Park cemetery south and west of SE Mt. Scott Boulevard. The second area lies on either side of SE Barbara Welch Road, which runs through it in a north/south direction. These two areas total approximately one-half of a square mile in size. The area around SE Barbara Welch is very sparsely populated with single-family homes. In addition, two areas included in the Pleasant Valley Concept Plan are also included in the study. The first area is centered along SE Jenne Road and the Springwater Trail. The second area lies generally east of SE 162nd Avenue and north of the county line. Both areas are predominantly rural residential. All four areas are together referred to as the Far Southeast Area.

Purpose Statement

The purpose of this TSP is to establish a set of street classification maps that define applicable conversions of Multnomah County street classifications to City policy designations. The purpose of this work is not establish to new policies or classification designations, but rather describe current classifications using City classification descriptions.

This project will identify opportunities to extend and connect streets to provide safe, convenient, and reasonably direct routes for all modes and identify transportation infrastructure needs for the project areas.

This project will resolve the differences in policy definitions, provide smooth transitions of street classifications, eliminate gaps in the classification of the street network and develop a master street plan to foster connectivity.

The urban unincorporated portions of Multnomah County located in Portland's Urban Service Boundary are not part of an adopted Portland TSP. All areas within the region are required to be included in a TSP. Therefore, the TSP for these unincorporated areas will allow development to proceed in an orderly way by addressing the following transportation issues including:

- Inadequacy of transportation infrastructure: generally, the unincorporated areas suffer from substandard collector and local streets that lack adequate road drainage, curbs and sidewalks.
- Circulation and connectivity: topography and development patterns have created a street network that is discontinuous, impeding pedestrians and bicyclists, and generating out-of-direction travel for all modes.
- Pedestrians and bicyclists: areas lack infrastructure that support safe and convenient travel on foot or by bike.
- Transit service and amenities: these areas are inadequately served by transit.
- Traffic impacts: high traffic speeds and volumes on local and collector roads raise safety concerns.

Metro's Urban Growth Management Functional Plan and Portland's Comprehensive Plan both support planned infill prior to expansion of the urban growth boundary. Planned infill requires the development of comprehensive infrastructure plans prior to development. These urban unincorporated areas of Multnomah County have not had the benefit of this level of planning. Planning for new connected streets and accessways will allow these areas to transition to their planned densities.

Project Objectives

The primary objectives of this project are to:

- Comply with the Transportation Planning Rule and the Regional Transportation Plan (RTP) to ensure a transportation system that is safe and efficient for all modes;
- Improve motor vehicle, transit, bicycle, pedestrian, freight, and emergency vehicle access and circulation by planning for safe, direct and convenient travel appropriate to the mode;
- Establish common street classifications to allow administration of City zoning regulations and County road standards;

- Identify key street connections and pedestrian/bicycle accessways to meet connectivity standards established by Metro;
- Ensure public concerns are addressed through a comprehensive technical and outreach process that identifies transportation needs and solutions through capital projects, programs and strategies;
- Establish consistency with the regional street design and performance standards;
- Accommodate efficient development at planned densities.

Regulatory Coordination and Compliance

Achieving consistency and compliance with a number of State and regional goals, policies, and regulations were important parts of developing this County TSP. In that regard, plan coordination and requirements are summarized below:

Statewide Planning Goals

The 19 Statewide Planning Goals provide the foundation for the State's land use planning program. The TSP must comply with all applicable State goals. The two goals directly applicable to the TSP are Goal 11: Public Facilities Plan and Goal 12: Transportation.

Transportation Planning Rule

The Transportation Planning Rule (TPR) implements Oregon Statewide Planning Goal 12: Transportation, which is to provide and encourage a safe, convenient and economic transportation system. The TPR requires State, regional, and local jurisdictions to develop Transportation System Plans (TSPs) that comply with TPR provisions. These provisions include reducing vehicle miles traveled (VMT) per capita by 10 percent over the next 20 years, reducing parking spaces per capita, and improving opportunities for alternatives to the automobile. This TSP and other County plans and policies are consistent with the TPR provisions.

Oregon Transportation Plan

The Oregon Transportation Plan (OTP) serves as the State's TSP. This plan provides the framework for the State transportation system planning and policies. Regional and local TSPs must be consistent with the OTP.

Regional Urban Growth Goals and Objectives

In 1991 (amended in 1995) Metro adopted the Regional Urban Growth Goals and Objectives (RUGGO) to provide general direction for the region, which include two principal goals:

- Goal I addresses the regional planning process.
- Goal II addresses urban form, and includes the Region 2040 Growth Concept and Concept Map.

Regional Transportation Plan

The Regional Transportation Plan (RTP) adopted by Metro in 2000, serves as the regional TSP. This plan provides for system improvements on major travel routes and corridors, recommends design guidelines for improvements in Regional Centers and Town Centers, and establishes performance targets for system planning.

Pleasant Valley Plan District (PVPD)

On December 15, 2004, the Portland City Council adopted the Pleasant Valley Plan District through Ordinance No. 178961 and directed the Portland Office of Transportation to incorporate the plan into the next Portland TSP update (see Appendix E). Elements of the adopted PVPD guided the creation of this TSP to ensure consistency in policies and standards. Most of the classification changes for this study occurred in the Far Southeast pocket area as a result of the Pleasant Valley Plan District recommendations.

Coordination with Portland Comprehensive Plan and TSP

This TSP is being developed to be consistent with Portland Comprehensive Plan because the City assumed land use development review for the County's urban unincorporated areas. The Comprehensive Plan guides the development and redevelopment of the City and contains goals, policies, objectives, and a plan map. State law requires major development decisions to be consistent with the Comprehensive Plan. For this reason, the City periodically reviews the Comprehensive Plan goals and policies, and modifies them as necessary to respond to changing conditions and policy direction.

In addition to meeting the requirements discussed above, preparation of this TSP is coordinated and guided by elements of Portland TSP to help identify and reconcile conflicting County and City policies and standards. Although the classification systems differ, no conflicts were found between the City and County; the policy intents are similar. Upon adoption, this project will resolve the differences in policy definitions, provide smooth transitions of street classifications and eliminate gaps in the classifications of the street network.

Public Involvement Process

In compliance with State law, Metro, and City regulations, development of this TSP included an ongoing public involvement process with Neighborhood Associations within the urban pockets and members of the Citizens Advisory Committee (CAC). At the very beginning of the project development, members of the CAC and citizens at the neighborhood meetings provided the project staff with primary issues to be addressed through the County TSP. The identified issues were critical in developing the transportation infrastructure needs for the study areas.

Additionally, to gather comments on the proposed changes to the TSP classifications and the proposed master plan, as well as feedback on the planning process itself, a transportation values survey was developed and distributed at neighborhood association meetings for each of the three pocket areas. The values survey was developed by members of the CAC and TAC. Each respondent was asked to select his or her three highest priority neighborhood issues among a list suggested by the TAC and CAC, and to rank those three choices. A sample of this survey is shown on Appendix E.

Agency Coordination

PDOT has coordinated the development of the TSP with affected government agencies and neighboring jurisdictions. Key participants include Metro; the Oregon Department of Transportation (ODOT); Tri-Met; City of Lake Oswego; Multnomah, Washington, and Clackamas counties; and neighboring jurisdictions.

The TSP will be in effect after it is adopted by Portland City Council, Multnomah County Board of Commissioners and acknowledged by the State Land Conservation and Development Commission (LCDC).

Plan Element Overview

The County TSP is organized into the following elements and includes a separate Appendix:

Chapter 1: Introduction

The Introduction provides an overview of the TSP's background, purpose, scope regulatory framework, development process, public involvement, agency coordination and plan elements.

Chapter 2: Existing Conditions

This chapter summarizes the existing conditions in the Multnomah County unincorporated urban pockets, including transportation policies, land use, traffic volumes, speed, crash data and other operating conditions.

Chapter 3: 2020 Network Analysis

In this chapter, the Regional Transportation Planning Model (RTP-8) was used to predict 2020 evening rush hour traffic and land use conditions in the three unincorporated urban pockets adjacent to City's boundary. The chapter also summarizes the land use and the traffic assignment comparison between the year 2000 and 2020.

Chapter 4: Policies and Standards

This chapter includes street classifications, maps, and district policies for the County and the City.

Chapter 5: Master Street Plan

This chapter responds to the TPR requirement for a "system of arterials and collectors and standards for the layout of local streets and other important non-collector street connections." The master street plan in this chapter identifies new, primarily local, streets in areas that currently lack connectivity. The RTP spacing standards requirements for new streets and pedestrian/bicycle connections are also addressed in this chapter.

Chapter 6: Transportation System Improvements

The TPR requires TSPs to include a list of planned transportation facilities and major improvements. Chapter 6 describes the County's list of transportation system improvements, including general locations, timing, and approximate costs. It also describes how the projects were evaluated and placed into either the project, reference or appendix lists.

Appendix A: Model Plots

Appendix A has additional traffic modeling maps of areas around the urban pockets, as discussed in Chapter 3. Modeling was performed for this project by Ning Zhou, a Senior Planner at the City of Portland Office of Transportation, using the EMME/2 software.

Appendix B: City and County Policy Comparisons

Appendix B is a synthesis of the notes provided for the analysis of the two jurisdiction's transportation policies discussed in Chapter 4.

Appendix C: Project Lists

Appendix C is a compilation of tables used for discussion purposes at CAC, TAC, and neighborhood meetings, as well as Chapter 6.

Appendix D: Meeting Minutes & Notes

Appendix D has edited notes from the four CAC meetings and the four TAC meetings.

Appendix E: Pleasant Valley Policies and Projects

Appendix E has an abridged version of the transportation elements of the Pleasant Valley Plan District report.

Appendix F: Survey Sample

Appendix F has a sample of the survey given out at neighborhood meetings, as referred to in the Introduction and, in more detail, at the end of Chapter 4.

Appendix G: Glossary of Terms

Appendix G has definitions of many of the more technical terms, acronyms, and jargon used in this report.

Appendix H: References

Appendix H has a list of works cited, documents used in the report, and shapefiles manipulated in the GIS.

Based upon the project overview, a more detailed examination of current land use and traffic conditions in the Unincorporated Urban Pockets follows in Chapter 2: Existing Conditions.

CHAPTER 2: EXISTING CONDITIONS

This section of the Transportation System Plan (TSP) summarizes the existing conditions in the Multnomah County unincorporated urban pockets, including land use, traffic volumes, speed, crash data and other operating conditions. The urban unincorporated portions of Multnomah County that are within Portland's Urban Services Boundary are located adjacent to the Northwest, Southwest and Far Southeast transportation districts (see Figure 1), identified in Portland's Transportation System Plan (TSP).

Land Use

Generally, the unincorporated areas suffer from substandard collector and local streets that lack adequate road drainage, curbs and sidewalks. Topography and development patterns have created a street network that is discontinuous, impeding pedestrians and bicyclists, and generating out of direction travel for all modes. Pedestrians and bicyclists lack infrastructure. The areas are also inadequately served by transit. Traffic and speeds are growing in the area and raising safety concerns.

Dunthorpe Area

The area is generally built-out with low-density, single family development, characterized by large, older single-family homes on large lots. The zoning, as reflected in Figure 2, is generally Single Dwelling Residential 20,000 (R20). There are a few areas that are Residential Farming and Single Family Residential 10,000 (R10). No commercial or industrial zoned lands exist. The topography of the area is marked by slopes and is very steep in some locations. SW Terwilliger and SW Palatine Hill are collectors that pass through the Dunthorpe unincorporated pocket.

Specifically, there are few connections between US 43 and attractions (Tryon Creek Park, Lewis & Clark College), which causes problems from cut-through traffic. The area has significant bicycle and pedestrian activity, but very few supportive facilities. Traditional sidewalks in the area are very expensive, and citizens from the area have asked for non-traditional approaches as a solution. The area is experiencing growth pressure from the minimum lot-size change in 2001. The area has a number of local access roads that are in disrepair, and much of the system is in poor condition. South of Military Road, Riverside (Highway 43) narrows from two southbound lanes to one. The segment becomes congested and causes cut through traffic in the Dunthorpe area. The area could benefit from more traffic enforcement.

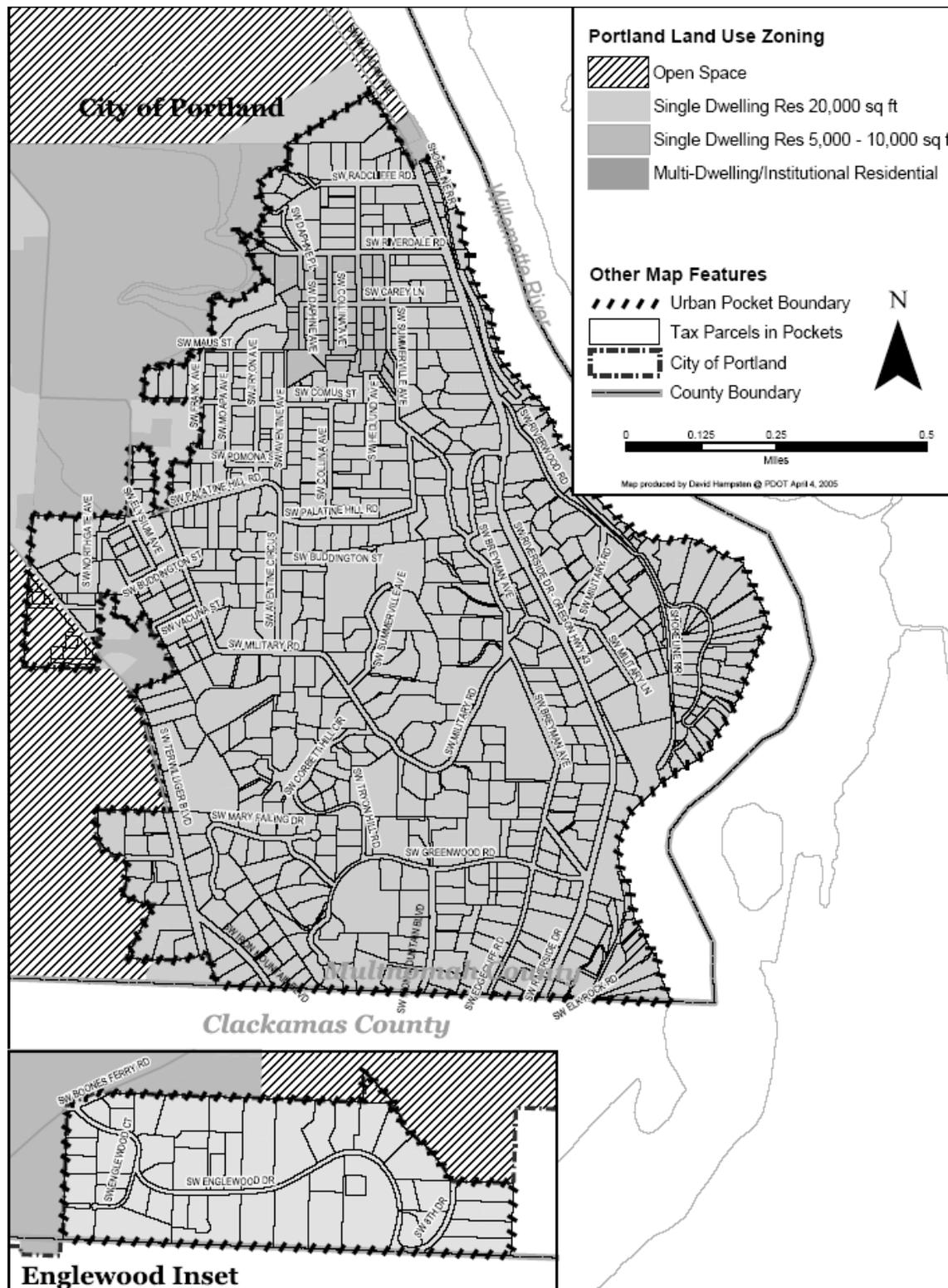


Figure 2 Dunthorpe Pockets Land Use Map.

Far Southeast Area

The area is generally low-density residential and very sparsely populated in some locations. It is not built-out; however much of pocket area is within the Pleasant Valley Plan or adjacent to it. The area will become built-out if the plan is adopted. As indicated in Figure 3, the area is generally Rural Residential, Single Family Residential or Residential Farming. Minimal commercial or industrial uses exist. SE Jenne and SE 174th are rural arterials and SE Barbara Welch is a rural collector in the area.

Pleasant Valley, an area added to the region's urban growth boundary in 1988, is being planned as a new urban community to accommodate forecasted growth in the region. The pocket areas will be affected by the Pleasant Valley Plan, which if adopted, will urbanize the area bringing more activity and traffic. The vision is to transition the rural community of 800 residents into an urban community of approximately 12,000 residents and 5,000 jobs. To the southeast in Clackamas County, Damascus incorporated as a city in November of 2004 and has 12,000 acres within the urban growth boundary. It is being planned for urban development. The pocket areas will continue to receive growth pressure from Damascus.

Transit service is limited, and there are several unimproved roads in the area that lack sidewalks and bike lanes. Traffic speeds and volumes are increasing, while safety would be improved with better street lighting and additional signalized intersections.

Forest Park/Southwest Hills Area

The area is characterized by low-density, single-family development and some undeveloped parcels. The pockets are generally built-out. Some areas in the pockets are "undetermined but possible flood areas", and the topography is marked by slopes and hills. SW Scholls Ferry is a minor arterial that passes through one of the pockets. SW Patton, SW Skyline, SW Miller, and SW Laidlaw are all collectors that pass through the unincorporated pockets. The zoning of the area is Single Dwelling Residential (R20) and (R10) and Residential Farming, as reflected in Figure 4. No commercial or industrial uses exist. The area suffers from cut-through traffic from the Forest Heights area. The street network has limited connections and through routes due to topography. Bicycle and pedestrian facilities are limited, but like Dunthorpe, topography makes adding traditional sidewalks very expensive. Transit service is also limited, and is unlikely to improve. Sunset Highway attracts high volumes of vehicles, which cut through the area at high speeds. Additional traffic enforcement is needed.

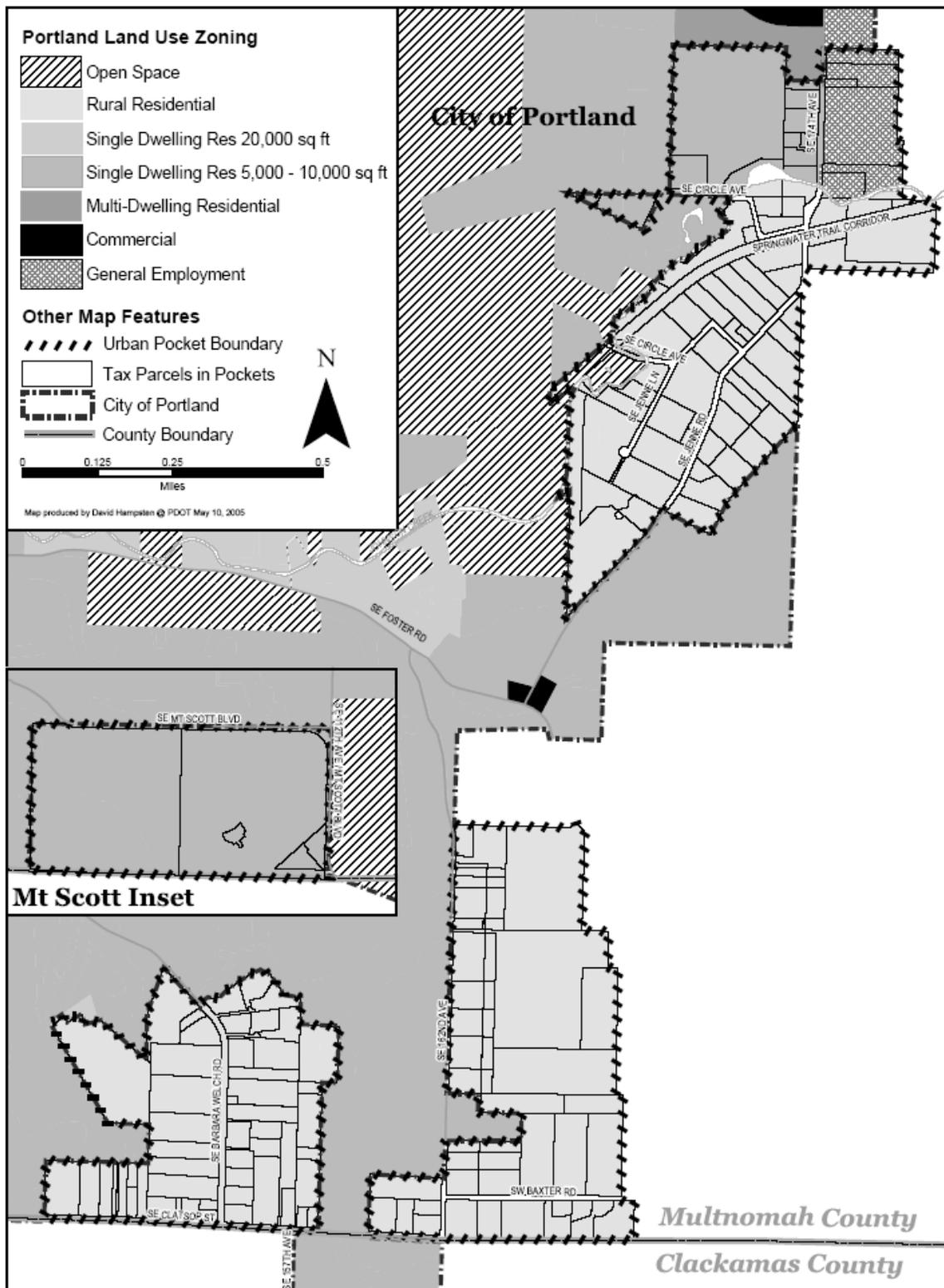


Figure 3 Far Southeast Pockets Land Use Map.

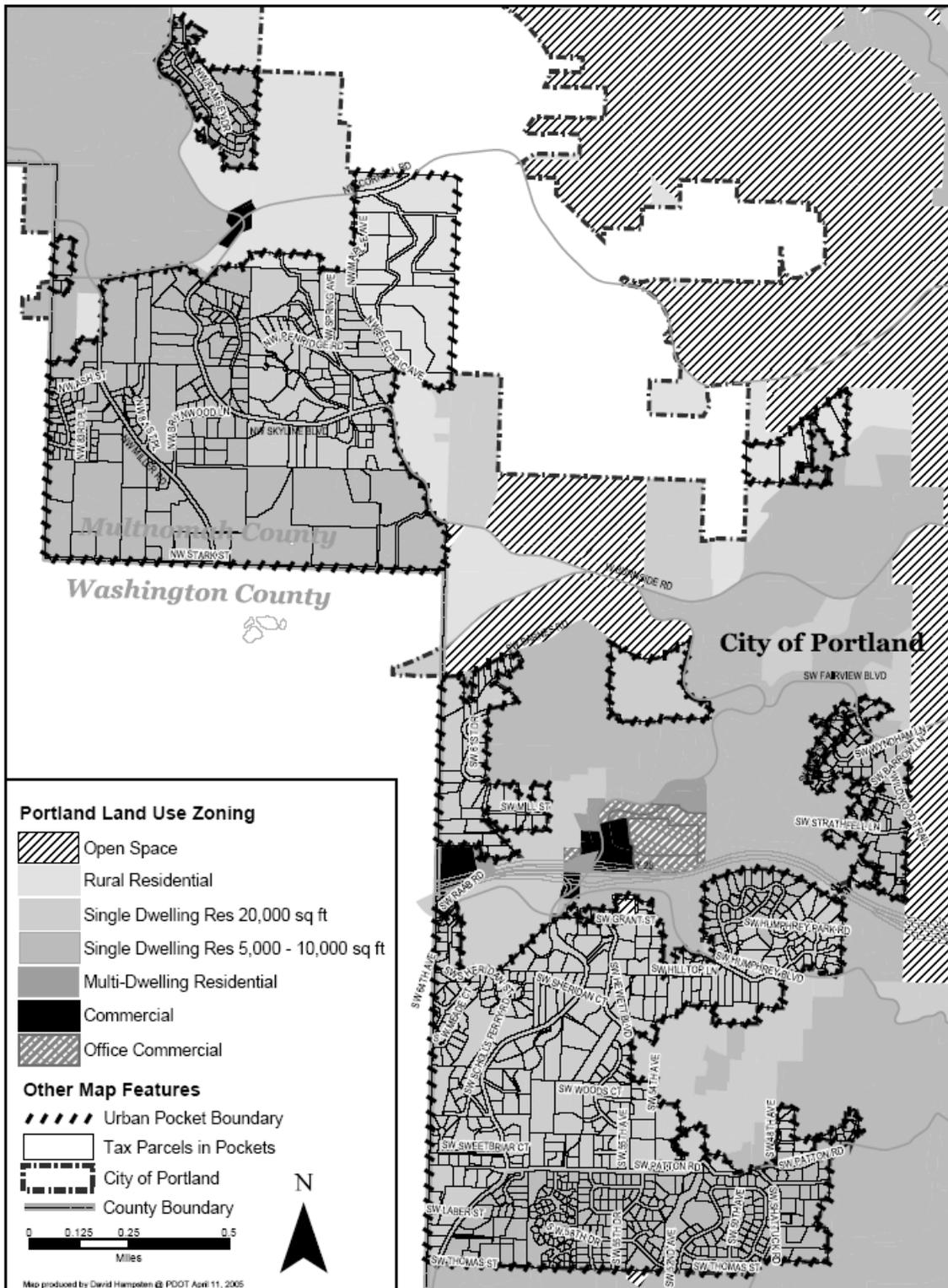


Figure 4 Forest Park / Southwest Hills Pockets Land Use Map.

Traffic Volume

Current transportation data was collected and analyzed in August 2004 to help us understand and define the transportation issues facing the unincorporated pockets within Multnomah County. The existing condition report provides the benchmark for future assessment of operational deficiency relative to policy and functional classification changes that will result from this study.

Daily traffic counts were conducted at 11 street segments to determine existing operating conditions. The street segments analyzed were limited to arterials and collectors, and were chosen in coordination with Multnomah County. Table 1 shows the existing 2-hour PM peak daily traffic volumes in the study area. Appendix A shows the schematic total volume counts for each of the urban pocket areas based on the 2000 RTP 2-Hour PM Network.

Table 1 shows very light traffic volume on all segments except for SE 174th Ave. and SW Scholls Ferry Road with total 2-hour PM volume of 2328 and 3140 respectively. However, congestion concerns are raised in some segments with light traffic volume because sharing of the roadway with pedestrians and bicyclists was not considered in the traffic counts.

Count Locations			Direction	Traffic Counts	Posted Speed	Speed 85%
Far South East						
SE Barbara Welch Rd	N	SE Clatsop St	NB	37	40	45
			SB	44	40	45
			Total	81		
SE 174th Ave	S	SE Naegeli Dr	NB	1244	41	40
			SB	1084	41	40
			Total	2328		
SE 162nd Ave	N	SE Clatsop St	NB	242	35	31
			SB	223	35	34
			Total	465		
SE Mt. Scott Blv.	W	SE 112th Ave	EB	297	35	41
			WB	150	35	42
			Total	447		
Forest Park/Southwest Hills						
SW Patton Rd	W	57th Ave	EB	441	35	39
			WB	453	35	38
			Total	894		
SW Scholls Fry Rd	N	SW Scholls Fry Ct	NB	1335	35	42
			SB	1805	35	43
			Total	3140		
NW Miller Rd	S	NW Ash st	NB	888	45	49
			SB	701	45	48
			Total	1589		
SW Humphrey Blvd	S	SW Humphrey Ct	NB	272	25	29
			SB	233	25	30
			Total	505		
SW 55th Dr.	S	SW Westdale Dr.	NB	22	25	26
			SB	29	25	27
			Total	51		
NW Cornell Rd	E	NW Eloise Dr	EB	303	45	51
			WB	538	45	45
			Total	841		
NW Skyline Blvd	S	NW Greenleaf	NB	307	30	36
			SB	105	30	33
			Total	412		
Dunthorpe						
SW Terwilliger Blvd	S	SW Powers St	NB	282	45	50
			SB	628	45	48
			Total	910		
SW Palatine Hill Rd	S	SW Riverside St	NB	127	25	29
			SB	144	25	30
			Total	271		

Table 1 2004 2-hour PM Traffic Counts.

Level of Service

Level of service (LOS) is a key measure of a transportation system's performance. It is generally defined as a ratio of volume to capacity or average vehicle delay. In a level of service E or better, traffic moves without significant delays while level of service F signifies traffic conditions with significant delays.

For corridors, industrial areas, intermodal facilities, employment areas, neighborhoods	Preferred Operating Standard		Acceptable Operating Standard		Exceeds Deficiency Thresholds	
	1 st Hour	2 nd Hour	1 st Hour	2 nd Hour	1 st Hour	2 nd Hour
	E	D	E	E	F	E

Table 2 2000 RTP Established Performance Measures.

To help understand and define the existing level of service, the City ran a volume/capacity analysis based on the 2000 PM 2-hour RTP network. The volume/capacity ratio model output for the unincorporated pockets is shown on Figures 5-7.

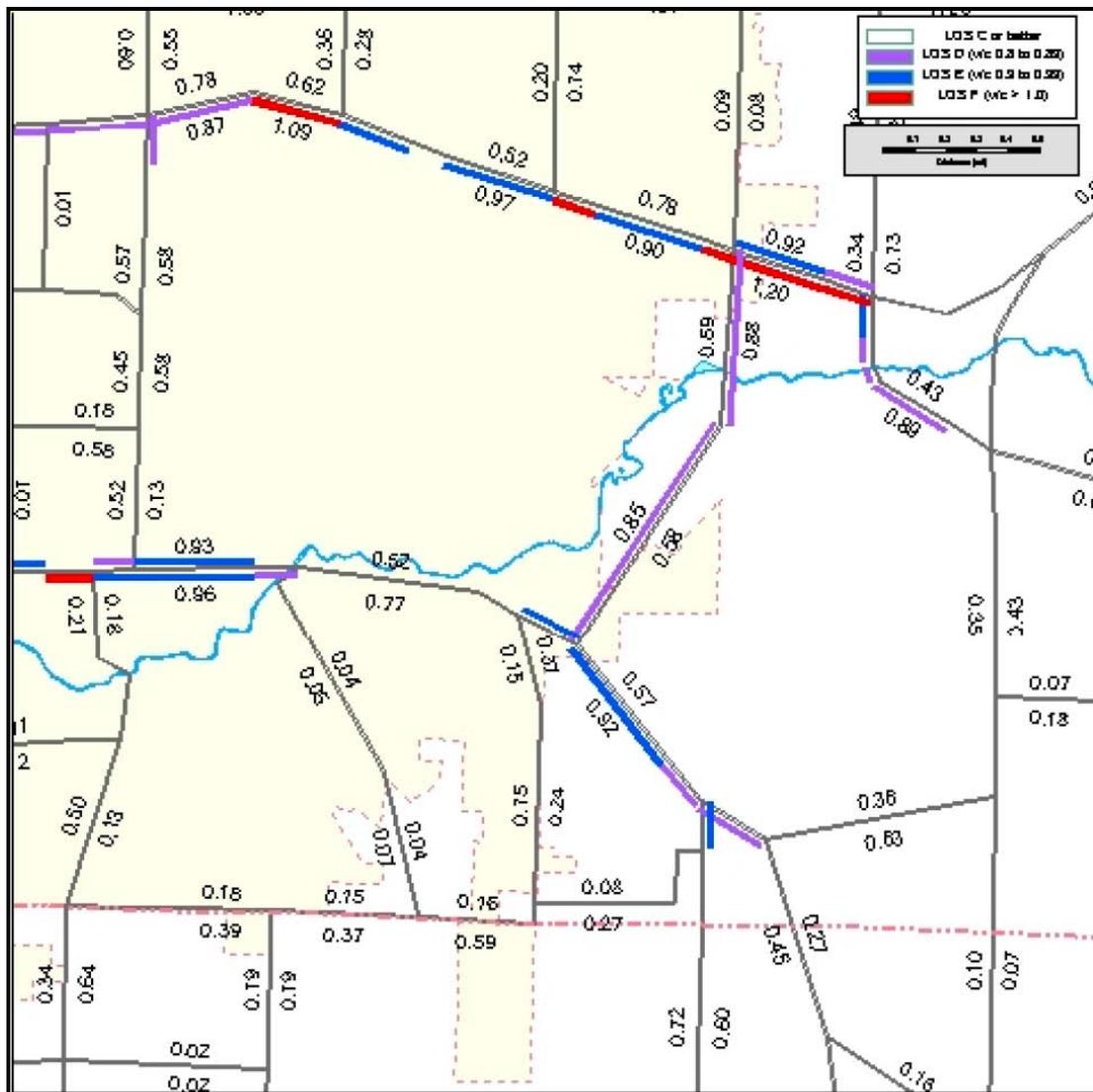


Figure 5 Far Southeast Area 2000 PM 2-Hour RTP City Network: Volume/Capacity Ratio.

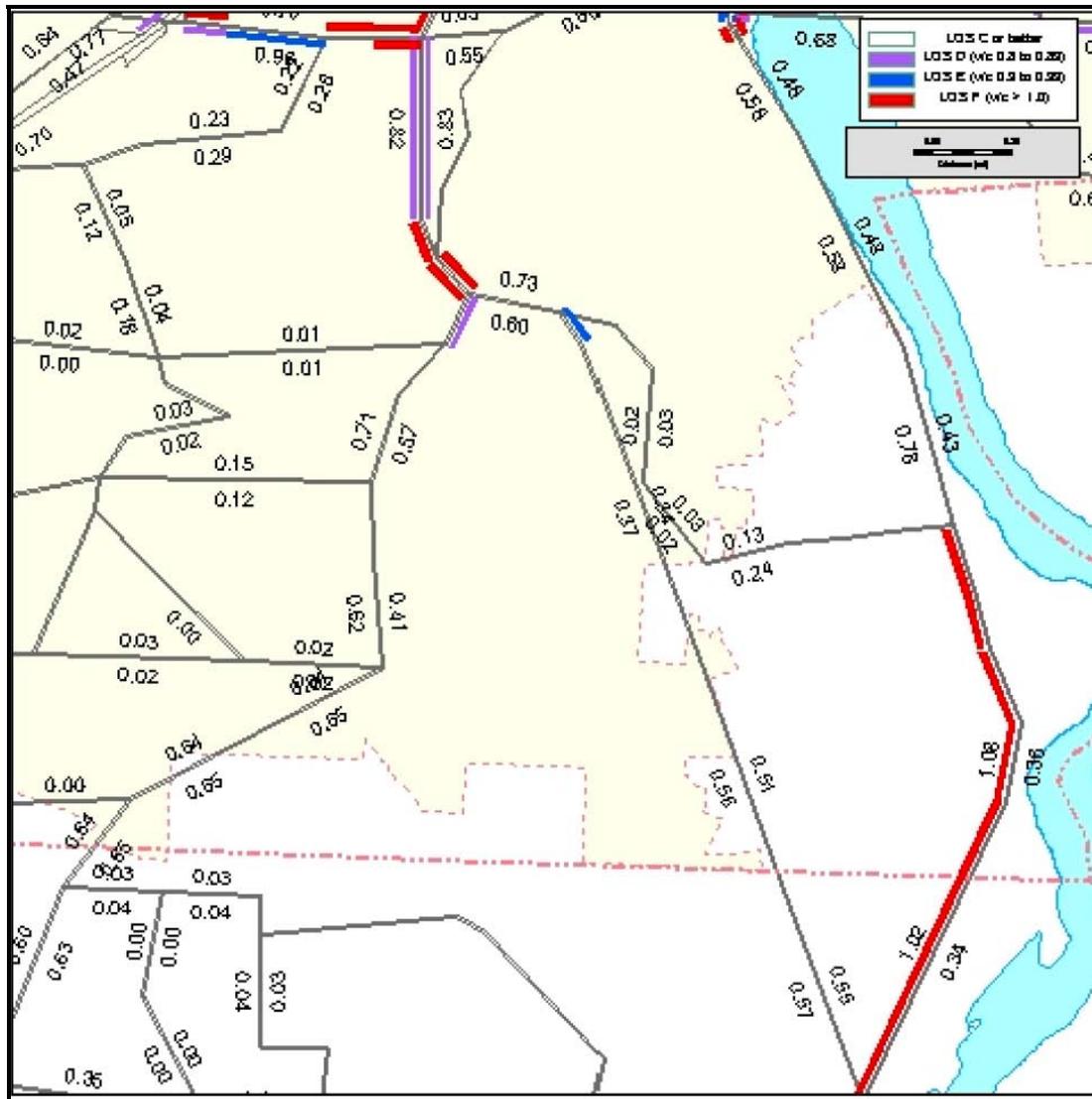


Figure 6 Dunthorpe Pockets 2000 PM 2-Hour RTP City Network: Volume/Capacity Ratio.

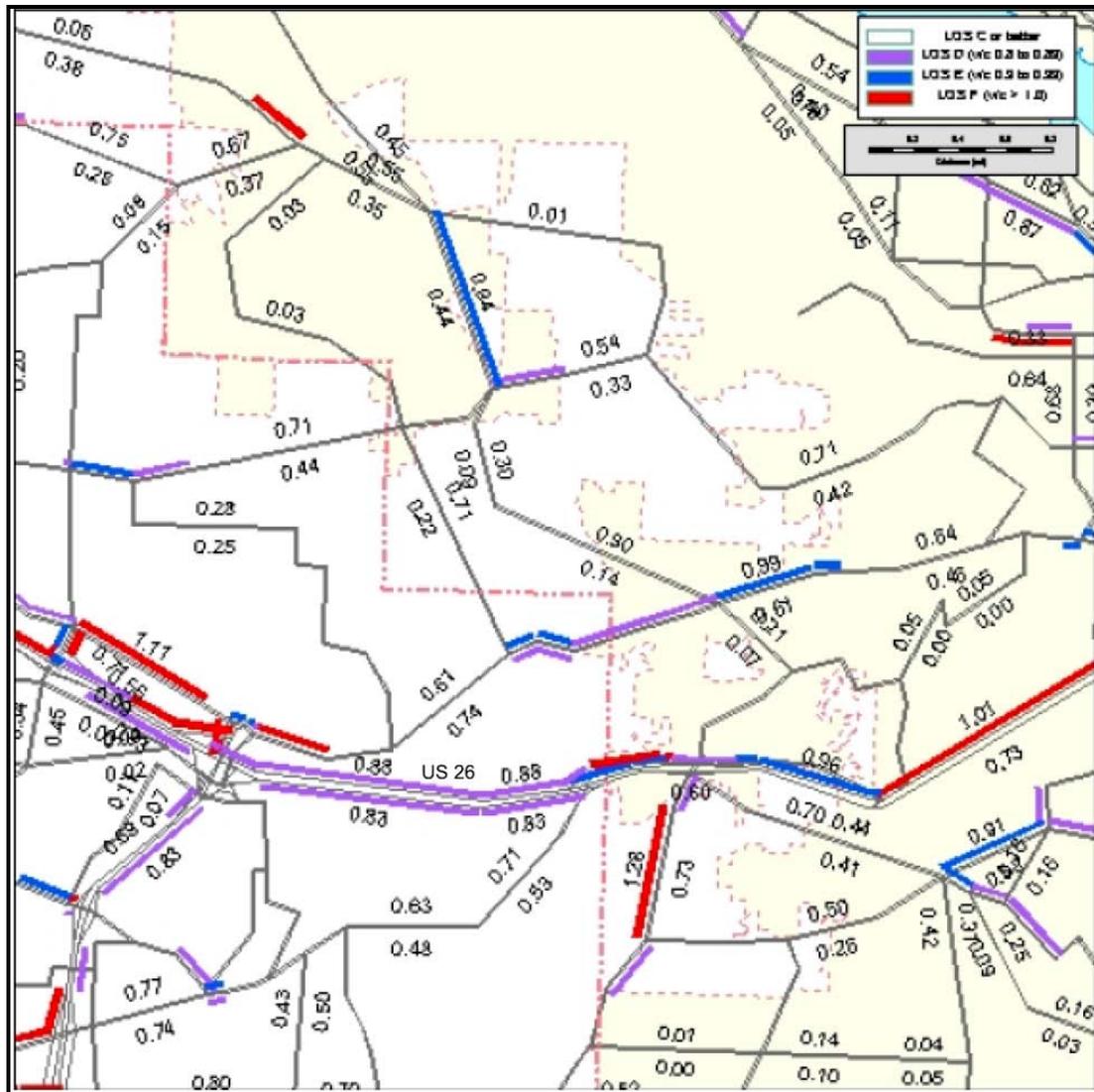


Figure 7 Forest Park/Southwest Hills Pockets 2000 PM 2-Hour RTP City Network: Volume/Capacity Ratio.

Figures 5-7 show that all street segments are operating at acceptable level of service E or better, except SW Riverside (Figure 6) and SW Scholls Ferry Road (Figure 7). The level of service E is consistent with Metro's 2000 RTP acceptable operating standards for neighborhood streets as shown in Table 2.

The County raised some concerns about intersection performance at:

- SW Macadam Avenue at SW Military Rd
- SW Riverside Drive at SW Terwilliger Blvd.
- SW Scholls Ferry Rd at SW Patton Rd.

The City ran a turning movement analysis based on the 2000 RTP base data and found that currently all three intersections are operating at acceptable levels of service. However, the county considers the Scholl's Ferry/Patton Road intersection to have some operational problems and have received a number of complaints about the intersection. It marginally meets the warrants for a protected left-turn phase. Limited site distance is

part of the problem, and the County has included a project to improve the signal in the forthcoming CIP. The County agreed with the model results and they do not have any concerns about the other two intersections, which is consistent with ODOT's opinion.

Crash Data Analysis

The urban pockets of Multnomah County do not contain locations that have statistically significant crash histories, according to data provided by the Oregon Department of Transportation. The County uses ODOT's Safety Priority Indexing System (SPIS) to rank crash locations, and only applies it to intersections and not to road segments. Only two intersections on SW Scholls Ferry Road rank among the worst 250 intersections in terms of 3-year crash history: SW Patton Road ranked 113th and SW Gabel Parkway ranked 202nd as shown on Table 3 below.

Crash frequency, crash rate, and crash severity are taken into account in the SPIS methodology. Given the low frequency of crashes at most urban pocket intersections and their lesser severity due to the relatively low speeds and low volume, these intersections do not rank high within the analysis.

SPIS Ranking	Street Name	Cross Street Name	Number of Collisions Year 2000-2002
113	SW Scholls Ferry	SW Patton	7
202	SW Scholls Ferry	SW Gabel Parkway	3

Table 3 Safety Priority Index System 2000-2002.

2020 PM 2-Hour Network Analysis

This analysis was done to project what the traffic conditions in the unincorporated urban pockets will look like in the year 2020. The projected traffic volumes are based on 2020 land use and growth assumptions built into the Regional Transportation Planning Model (RTP-8). This analysis was used to predict 2020 evening rush hour traffic and land use conditions in the three unincorporated urban pocket areas. Summarized below are the land use and the traffic assignment comparisons between the year 2000 and the year 2020.

Land Use Data

Table 4 lists the household and employment data used in the 2000 and 2020 models for each planning area. Please note that the data is extracted from the model's TAZs (Transportation Analysis Zone) and are not the precise numbers for each area since the boundaries of TAZs are different from the planning areas. The data depicts a growth trend in background traffic. On the average, this region is projected to grow 41% for households and 40% for employment between year 2000 and 2020. The Far Southeast area shows a much more rapid growth in the model than the regional average in both household and employment categories. This rapid growth is due to development expected to occur in the Pleasant Valley area. While the Dunthorpe and Forest Park/Southwest Hills areas are generally assigned the same growth rate as the rest of the region, the Forest Park/Southwest Hills area will receive more residential and less employment growth than the region as shown in Table 4 below.

Area	TAZ Number	Households			Employment		
		2000	2020	% Inc.	2000	2020	% Inc.
Far Southeast	470,476,539,565,579,580,581	2353	16830	615.1%	977	7866	704.8%
Dunthorpe	72,73,78,326,327	3508	5001	42.6%	5421	7373	36.0%
Forest Park/ SW Hills	20,21,22,31,32,36,38,39,79,80,101,102	5618	8746	55.7%	11783	14153	20.1%

Table 4 Land Use Data in the Model.

Network Improvements

Compared to the 2000 model, the 2020 model network anticipates little change in the Dunthorpe and Forest Park areas. For the Far Southeast area, the model expects a new two-lane street connecting SE Jenne Road and SE 190th Drive, and assumes some additional capacity along SE Foster Road and SE Jenne Road. See Figure 8 below for details. The thick lines are the planned new roads, and the links with numbers are the roads with increased capacity.

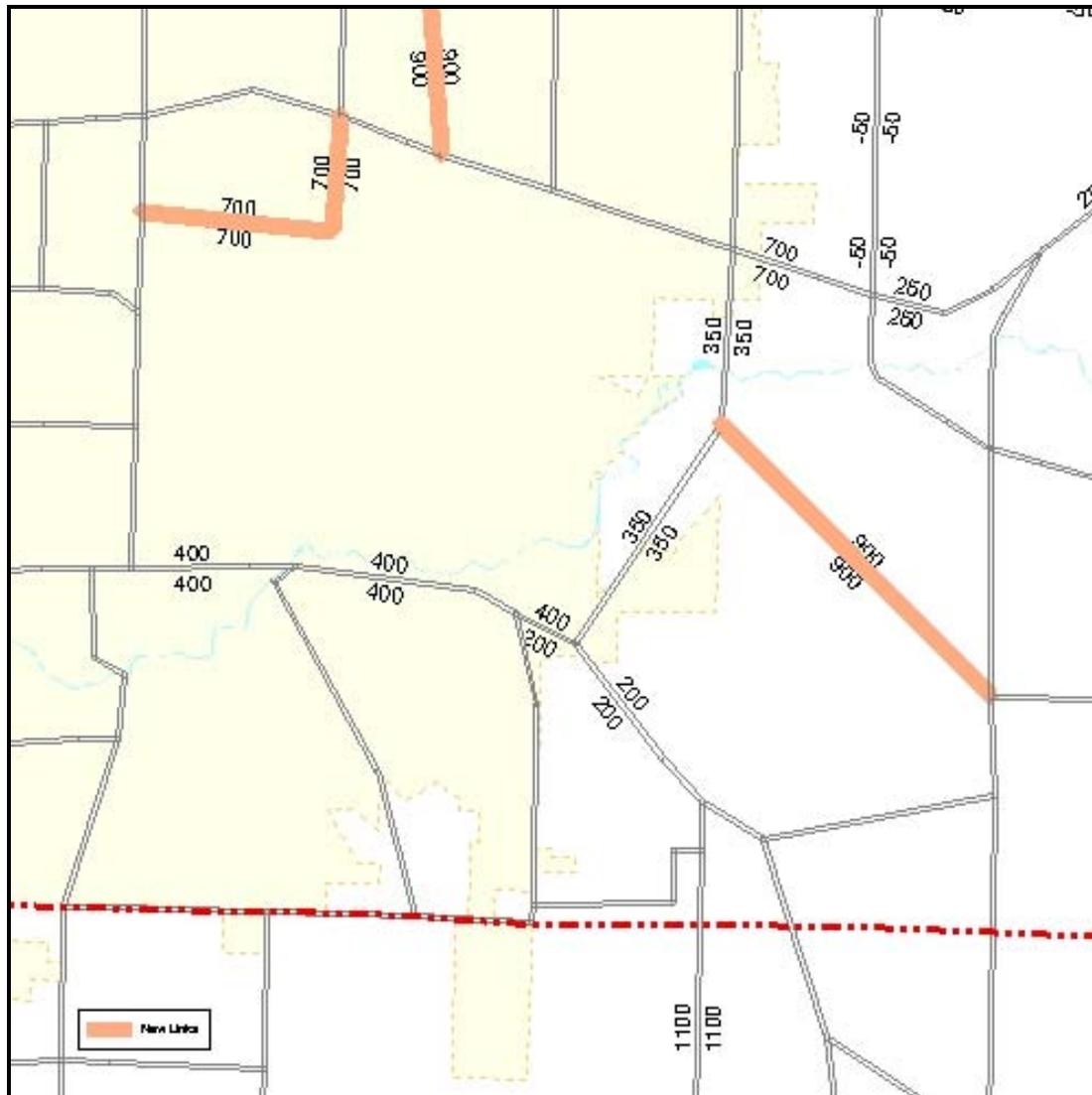


Figure 8 Map of Future Improvements in Far Southeast.

Mode Split

The RTP model increases the evening rush hour travel mode split rate. The percentage of transit ridership compared to the total traffic demands increased from 5.0% in 2000 to 6.8% in 2020 for the region. Table 5 below lists the travel mode splits in evening peak hours for each planning area in the model. Data is extracted from the same TAZs as in the land use data above.

Area	2000			2020		
	Transit	Auto	%	Transit	Auto	%
Far Southeast	357	15566	2.2%	1141	21004	5.2%
Dunthorpe	413	9684	4.1%	830	13083	6.0%
Forest Park/SW Hills	46	4808	0.9%	828	28566	2.8%

Table 5 2000 and 2020 PM Peak 2-Hour Travel Mode Split.

Traffic Volume and Volume/Capacity Ratios

Overall, the model projected that the traffic conditions on the major roadways in three planning areas will be highly congested in year 2020. Of the three areas, the change in the Far Southeast area will be the most significant transportation planning issue.

Far Southeast Area

The two Rural Arterial roads inside or adjacent to the planning area, SE Foster Road and SE Jenne Road, are projected to experience high traffic demand in the evening peak hours over the next 20 years. For example, (see Table 6 below) the PM peak 2-hour south bound traffic volumes on SE Foster Road south of SE Jenne Road will be more than doubled from 1600 to 3500, which will result in a volume to capacity ratio of 1.61. Without further improvements in addition to those assumed in the model, SE Foster Road will not be able to handle the traffic demands predicted by the model, and severe congestion will occur in the area.

Area	2000		2020	
	Volumes	V/C	Volumes	V/C
Jenne Rd. n/ Foster Rd. (NB)	1270	0.58	2250	1.02
Jenne Rd. n/ Foster Rd. (SB)	1230	0.85	2510	1.14
Foster Rd. w/ Jenne Rd. (EB)	1590	0.92	3540	1.61
Foster Rd. w/ Jenne Rd. (WB)	990	0.57	2700	1.23

Table 6 PM Peak 2-hour Model of Traffic Volume and Volume/Capacity Ratio Comparison.

A few notes for the predicted traffic conditions:

- This projected traffic increase is based on the growth assumptions for the area of Pleasant Valley, Happy Valley, and Damascus. In reality, transportation improvements not identified in the model will have to be in place before the growth expected in the model will be permitted. Many of these transportation improvements have already been identified in the Pleasant Valley Concept Plan.
- The traffic using the two rural arterial roads are mainly making local trips. The exceptionally high congestion along the roads has pushed all other trips to alternative roads. Most of the trips in 2020 with destinations along SE Foster Road between Sunnyside Road and Jenny Road will be pushed to Sunnyside Road.
- The congestion in the planning area is determined to be an area-wide traffic issue instead of a segment bottleneck. The 2020 PM peak 2-hour V/C plot shows that the projected volume to capacity ratios on almost every segment of the rural arterial roads in the area will be over 1.0.
- Although the regional model does not have detailed local streets coded in the network, the traffic channeled on the highly congested rural arterial roads in the model will likely spread into surrounding neighborhoods by using local streets as alternative routes.
- With the high V/C ratios on the road segments, it is reasonable to assume that the major intersections along the two rural arterial roads will fail in LOS (level of service) analyses.

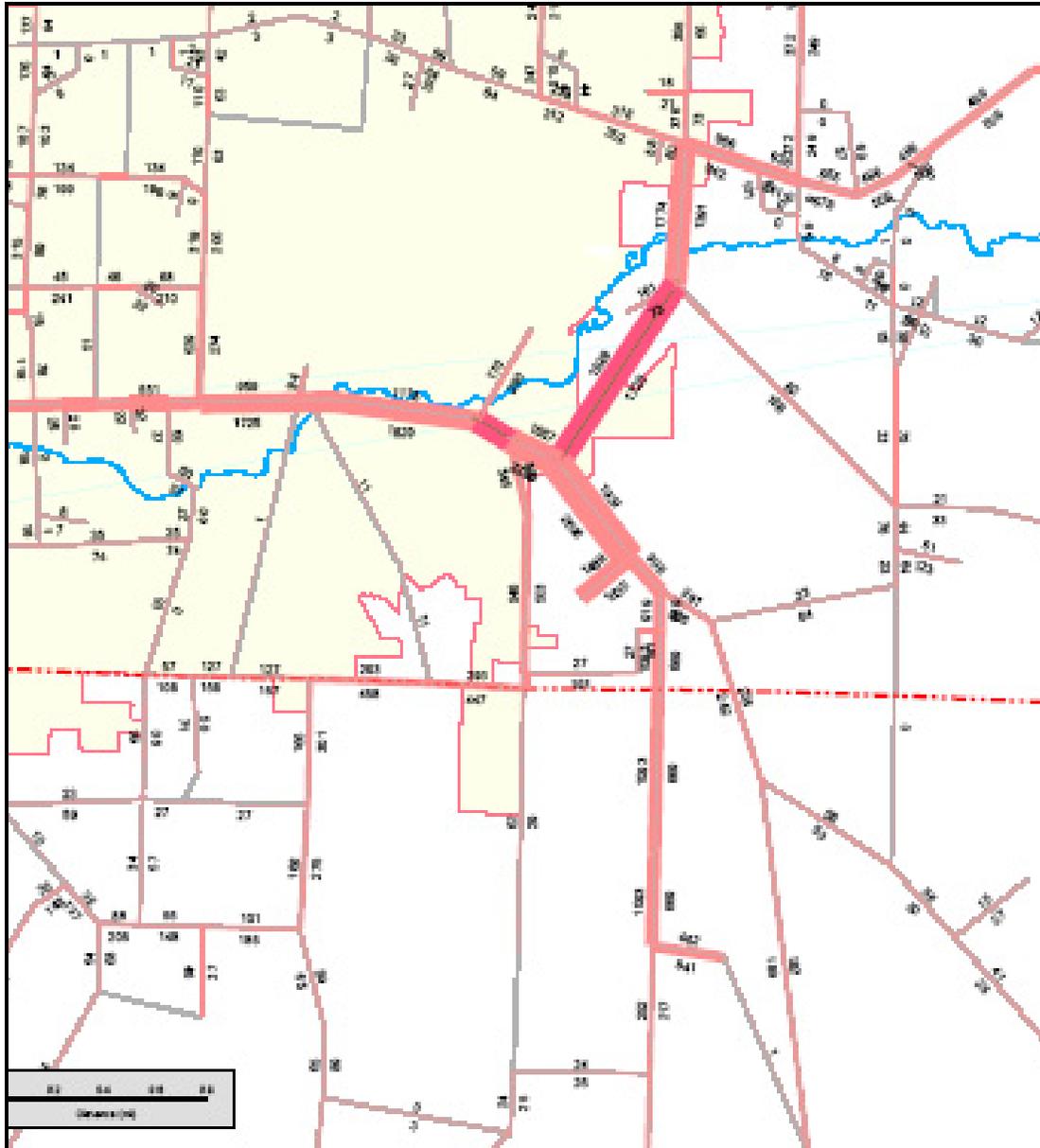


Figure 9 Map of Far Southeast 2020 PM Peak 2-hour Volume/Capacity.

Dunthorpe Area

SW Riverside Drive, a state-owned roadway that runs through the planning area, is a 3-lane facility with two lanes serving northbound traffic and one lane serving southbound traffic. It is a major corridor connecting the southern suburban area of the region with Downtown Portland, and it has been recognized for years as a congested commuting route. The RTP model indicates that the V/C ratio of the roadway segment, between the intersection of SW Military Road and the intersection of SW Terwilliger Boulevard, was 1.09 in the 2000 evening peak hour. Congestion in this segment is projected to increase in the year 2020 with the V/C ratio increasing to 1.19. The opportunities to improve the roadway segments are limited by the topography and environmental concerns in the corridor. SW Terwilliger Boulevard, currently a Major Collector in the County's Road Classification, is projected to maintain acceptable volume to capacity ratios in 2020.

Forest Park/ Southwest Hills Area

SW Scholls Ferry Road, a state-owned roadway providing a south-north connection between Sunset Highway and Beaverton-Hillsdale Highway, is the only non-freeway facility with a functional classification higher than Major Collector in the planning area. The road segment of SW Scholls Ferry Road south of Sunset Highway was highly congested in the 2000 model, with a V/C ratio of 1.28 during weekday PM peak hours, and no improvements are projected to be in place in the 2020 model for the road segment. Although the existing high congestion level will prevent the total volumes on the segment from growing further in the 2020 evening peak hours, the model indicates that the roadway's regional function in the network will be changed to some degree. While approximately 63% of the traffic on the road segment will run through the corridor connecting Sunset Highway and Beaverton-Hillsdale Highway in 2000 weekday PM peak 2-hour model, the through traffic component is projected to be reduced to 47% in 2020 model.

After the detailed examination of current and future land use and traffic conditions in the urban pockets in the preceding two chapters, a review and comparison of street classification policies and standards of Multnomah County and the City of Portland follows in Chapter 4: Policies and Standards.

CHAPTER 3: POLICIES AND STANDARDS

Functional Classification Descriptions and Policies

The Multnomah County Comprehensive functional classification descriptions and policies were compared with that of the City of Portland to identify differences and conflicts. Appendix B summarizes the different functional classification descriptions and policies between the two jurisdictions. This section resolves the differences in policy definitions, provides smooth transitions of street classifications and eliminates gaps in the classifications of the street network.

The intended purpose of this section is to:

- Develop new or revise existing transportation policies and standards to comply with the State of Oregon Transportation Planning Rule and the Metro Regional Transportation Plan.
- Identify and reconcile conflicting County and City policy and standards including transportation policies, functional street classifications, and street cross-sections.
- Ensure recommended policies and standards are administered efficiently.
- Adopt the policies and classifications developed as part of the Pleasant Valley planning process.

Although the classifications differ, no conflicts were found between the City and County; the policy intents are similar. The purpose of this work is not to establish new policies or classification designations, but rather describe current classifications using City classification descriptions. The following sections contain the Multnomah County functional classification descriptions, policies, maps and comparisons with the City of Portland.

The goal of this comparison analysis is to ensure that the mobility and access function of a roadway is compatible to the surrounding land uses in both jurisdictions. Additionally, because the City administers land use reviews for the County, one of the outcomes of this analysis is to develop an equivalency table based on the classification descriptions of the jurisdictions. The functional classification of streets in unincorporated pockets is shown in Figures 10 through 33, along with City classifications. City designation descriptions can be found in its Transportation System Plan. County streets are generally designated as arterial, collectors or local streets, as defined below.

Multnomah County Policy 34 Trafficways Descriptions

Local Urban Streets and Rural Roads

Local streets provide access to abutting land uses on low traffic volume and low speed facilities. Their primary purpose is to serve local pedestrian, bicycle and automobile trips and limited public transportation use in urban areas; and auto and farm vehicle circulation with local pedestrian, bicycle and equestrian use in rural areas.

Neighborhood Collector Streets

Neighborhood collector streets provide access primarily to residential land uses and link neighborhoods to higher order roads. They generally have higher traffic volumes than local streets.

Major Collector Streets

Major collector streets serve several purposes, including linking neighborhoods to the regional system of bicycle and automobile streets, and basic transit services. They typically provide direct access between residential and commercial developments, schools and parks and carry higher volumes of traffic than neighborhood streets. Major collector streets are also utilized to access industrial and employment areas and other locations with large truck and over-sized load volumes.

Rural Collector Roads

Rural collector roads are well connected in rural communities to distribute automobile traffic over large areas and generally connect to urban streets or rural arterials. Where rural collector streets connect roads in adjacent counties, through traffic will occur with volumes greater than local rural roads. They may also provide for recreational trips by auto, bicycle and equestrian users. Primary access is provided to land uses adjacent to the facility and over large rural districts. Rural collector roads provide for necessary truck transport of agricultural goods, timber and minerals out of rural districts.

Minor Arterial Streets

Minor arterial streets are the lowest order arterial facility in the regional street network. They typically carry less traffic volume than principal and major arterials, but have a high degree of connectivity between communities. Access management may be implemented to preserve traffic capacity. Land uses along the corridor are a mixture of community and regional activities. Minor arterial streets provide major links in the regional road and bikeway networks; provide for truck mobility and transit corridors; and are significant links in the local pedestrian system.

Major Arterial Streets

Major Arterial Streets carry high volumes of traffic between cities in the County as part of the regional trafficway system. The major fixed-route transit network corresponds with arterial street corridors. Priority may be given to transit and pedestrian oriented land uses. Traffic includes trucks and goods delivery, substantial commute movements and controlled access to regional land uses along the corridor. Design and management of major arterial streets emphasizes preservation of the ability to move auto and transit traffic by limiting accesses while also accommodating regional bikeways and pedestrian movements.

Principal Arterial Streets

Principal arterial streets connect to freeways and highways, which serve travelers without an origin or destination in the County. They serve interstate and interregional traffic, including trucks, in addition to regional traffic traveling between cities and counties, and traffic generated by intensive and higher density land uses along the arterial corridor. Thus, traffic volumes are high and access to adjacent land uses is limited to preserve the traffic capacity and reduce congestion along the principal arterial street. The ability to move auto, truck and regional bicycle traffic is preserved. Trafficways designated as National Highway System routes shall be classified as Principal Arterial roadways.

Rural Arterial Roads

Rural arterial roads are the primary means of access into the County's large rural districts, and often connect between counties to accommodate through movements. Rural arterials connect to freeways or highways, and link rural collector and local roads

to the urban area and other regions. Rural arterial roads carry greater traffic volumes than rural collector roads, including commuters and other home-based trips, natural resource trips involving trucks, and recreational trips involving autos, bicycles and equestrians.

Expressways

Expressways principally serve interregional travel, and secondarily, regional and intercity travel. They are designed for moderate speeds with limited and controlled access to preserve capacity and accommodate substantial traffic volumes including truck traffic. Cross streets are grade separated or limited to a few intersections with arterial streets. They typically have a center median and do not provide access to adjacent land uses. Pedestrian and bike facilities may be provided along the expressway, often on separated facilities.

Freeways

Freeways are high-speed roadways with grade-separated interchanges. They function to move goods and people between states, and between regions within Oregon. Freeways carry high volumes of traffic, much of which does not have an origin or destination in Multnomah County. Access to abutting properties is prohibited. Pedestrian traffic and bicycle traffic on urban freeways are also prohibited.

Multnomah County Policy 33C Bicycle and Pedestrian Descriptions

It is the County's Policy to create a balanced transportation system by implementing bicycle and pedestrian systems as integral parts of the County-wide transportation system through:

- Identifying a connected network of bicycle facilities on the map titled Multnomah County Bikeway System (not included in this document), which provides the framework for future bicycle improvement projects.
- Identifying a connected network of pedestrian facility improvements on the map titled Multnomah County Pedestrian System (not included in this document), which provides the framework for future pedestrian improvement projects and assures that future street improvements will be designed to accommodate pedestrians.
- Including standards for bikeways and walkways throughout the Multnomah County Roadway Design and Construction Manual to include the most current design standards and innovations for providing bicycle and pedestrian improvements.
- Providing for bicycle and pedestrian travel through the development and adoption of a Countywide Transportation Capital Improvements Program (CIP) that includes all the bikeways and walkways identified in the Multnomah County Bikeway and Pedestrian System Map.
- Placing a priority on construction and maintaining the transportation system to improve the safety for bicyclists and pedestrians.
- Coordinating with surrounding jurisdictions and regional partners in the development of the bicycle and pedestrian systems.
- Promoting bicycling and walking as vital transportation choices.

Multnomah County Policy 34 Overlay Classifications

Scenic Routes

Scenic routes occur on streets that offer unique scenic views, and are used for recreational and scenic travel in addition to traffic appropriate to the facility functional classification. Unique designs and materials and other accommodations or traffic restrictions may be imposed to preserve and enhance the scenic character of the facility. Landscape treatments should incorporate native species that integrate roadway improvements with the scenic character of the area.

Regional Boulevards

Regional boulevards consist of four or more vehicle lanes, balanced multi-modal function, and a broad right of way. Features highly desirable on regional boulevards include on-street parking, bicycle lanes, narrower travel lanes than throughways, more intensive land uses oriented to the street, and wide sidewalks.

Community Boulevards

Community Boulevards consist of four or fewer vehicle travel lanes, balanced multi-modal function, narrower right of way than a regional boulevard, landscaped medians, on-street parking, narrower travel lanes than throughways, more intensive land use oriented to the street, and wide sidewalks. Community boulevards are located within the most intensely developed activity centers with development oriented to the street. These are primarily regional centers, town centers, station communities and some main streets.

Regional Streets

Regional streets consist of four or more vehicle travel lanes, balanced multi-modal function, broad right of way, limited on-street parking, wider travel lanes than boulevards, corridor land use set back from the street, sidewalks with pedestrian buffering from the street, and a raised landscaped median or usually a continuous two way left turn lane.

Community Streets

Community streets consists of two to four travel lanes, balanced multi-modal function, narrower right of way than regional streets, on-street parking, narrower or fewer travel lanes than regional streets and residential neighborhood and corridor land use set back from the street. Community streets provide a higher level of local access and street connectivity than regional streets. Community streets have the greatest flexibility in cross sectional elements. Depending on the intensity of adjacent land use and site access needs, community streets can have three different median conditions: a center two way left turn lane, a narrow landscaped median, or no median.

Green Streets

Green Streets are designed to incorporate a system of storm water treatment within their right-of-way to protect the quality of the region's stream system. Green streets are designated according to location-specific circumstances, including environmental conditions such as the soil conditions, water table, and surrounding land uses. The trafficways designated with green street overlay classifications are identified in the Regional Transportation Plan, in local jurisdiction's Transportation System Plans, and other transportation planning documents. Multnomah County shall consider the implementation of Green Streets design standards when developing a project listed in the County's Capital Improvement Program. Standards for Green Streets are in the

Multnomah County Design Standards: Part I—Design Manual, Section 2—Geometric Design.

Industrial Streets

Industrial streets occur on roadways that either serve as a freight route identified in the Regional Transportation Plan or serve industrial use areas. The standards for asphalt and base for major and minor collectors and lower classifications are insufficient for truck traffic. Therefore, the arterial asphalt and base standards need to be applied to non-arterial roadways carrying truck traffic. Regardless of classification, the pavement section of trafficways designated with the industrial streets overlays shall be constructed to arterial standards as per the Multnomah County Design Standards: Part I-Design Manual, Section 4—Pavement Design.

Policy 34, Strategy 7 Freight Movement

County trafficways shall provide for the movement of freight on facilities designed and built to accommodate the types and frequency of freight trips, and which provide for the convenient access to major highways, industrial areas and resource movement. Trafficways designated as National Highway System routes shall be classified as Principal Arterial roadways.

Policy 35 Public Transportation

The County's Policy is to support a safe, efficient, and convenient public transportation system by:

- Increasing overall density levels in the urban area, particularly at light rail stations.
- Locating population concentrations, commercial centers, employment centers, and public facilities in areas which can be served by public transportation.
- Making improvements to public transportation corridors which enhance rider convenience, comfort, access and reduced travel time.
- Communicating community needs to the agencies responsible for public transportation planning, programming and funding.
- Supporting implementation of the I-205 transitway.
- Implementing the publicly funded elements of the transit station plan as soon as possible.
- Designating regional transit trunk routes, transit centers and park-and-ride lots as required by the regional transportation plan of the Portland Metropolitan Area as shown on the regional transit trunk route map.

Policy 34D State and Regional Coordination

The County should provide notice to the state (ODOT), regional (Metro) and affected local governments of required improvements, and should provide documentation as to public needs.

Policy 34B-5 Public Input

Community input is vital to the transportation planning process and should be sought at key points in each planning process, including project development.

Policy 34-H Trafficways

The County's Policy is to support a safe, efficient, and convenient public transportation system by encouraging ride-share and flextime programs to help meet the projected increase in travel demand. The County will work with metro and tri-met to develop ride-share, flextime and other transportation demand strategies to achieve the ride-share goal given in the regional transportation plan.

Policy 34A-5 Safety

Safety is a primary objective in the development and operation of the trafficway system through traffic signing and signalization, speed limits and speed control measures, road design and access control measures. Through the use of accepted design and traffic management principles and practices, traffic accidents and conflicts between pedestrians, bicyclists, equestrians, and motorists can be minimized.

Policy 34 StrategyA-3 Fostering Choice

The trafficway system should be managed to provide opportunities for choices among available travel modes so that reliance on automobiles as single-occupant vehicles can be reduced, and so that total vehicle miles traveled as a measure of automobile use per capita can be reduced in the future, in accordance with the state Transportation Planning Rule and Policy 35:Public Transportation.

Policy 1.2 Access Management

Access management is needed to ensure both the safety and efficiency of traffic flow for vehicles traveling on the roadway system. Managing the access of roadways benefits the overall roadway system by increasing safety, increasing capacity, and reducing travel times. Controlling access must not become too restrictive, however, as to prohibit local business and home owners reasonable access to the roadway system. Overall, access management must balance the needs of through traffic, local traffic, pedestrians and bicyclists on a particular roadway. By the nature of the roadway functional classification system, arterial streets require the highest access management standards, while collector streets and local streets require less restrictive access management standards.

Policy 34-3 Land Use Coordination

The transportation system should be planned and developed consistent with land uses to be served with consideration given to planned land uses in adopted plans and resulting forecasted future travel demands. The transportation system should be made in accordance with the executed Intergovernmental Agreements with the cities of Fairview, Gresham, and Troutdale to ensure consistency with the functions, capacities and level of service of facilities identified in the Multnomah County transportation planning documents.

Policy 36 Transportation System Development Requirements

The County's policy is to increase the efficiency and aesthetic quality of the trafficways and public transportation by requiring:

- The dedication of additional right-of-way appropriate to the functional classification of the street given in Policy 34 and chapter 11.60
- The number of ingress and egress points be consolidated through joint use agreements
- Vehicular and truck off-street parking and loading areas

- Off-street bus loading areas and shelters for riders
- Street trees to be planted
- A pedestrian circulation system as given in the sidewalk provisions, chapter 11.60
- Implementation of the bicycle corridor capital improvements program
- Bicycle parking facilities at bicycle and public transportation sections in new commercial, industrial and business developments
- New streets improved to County standards in the unincorporated areas of the County may be designated public access roads and maintained by the County until annexed into a city, as stated in Ordinance 313.

Policy 34A-9 Street Connectivity

Local street design impacts the effectiveness of the regional system when local travel is restricted by a lack of connecting routes, and local trips are forced onto the regional network. Streets should be designed to keep through trips on arterial streets and provide local trips with alternative routes.

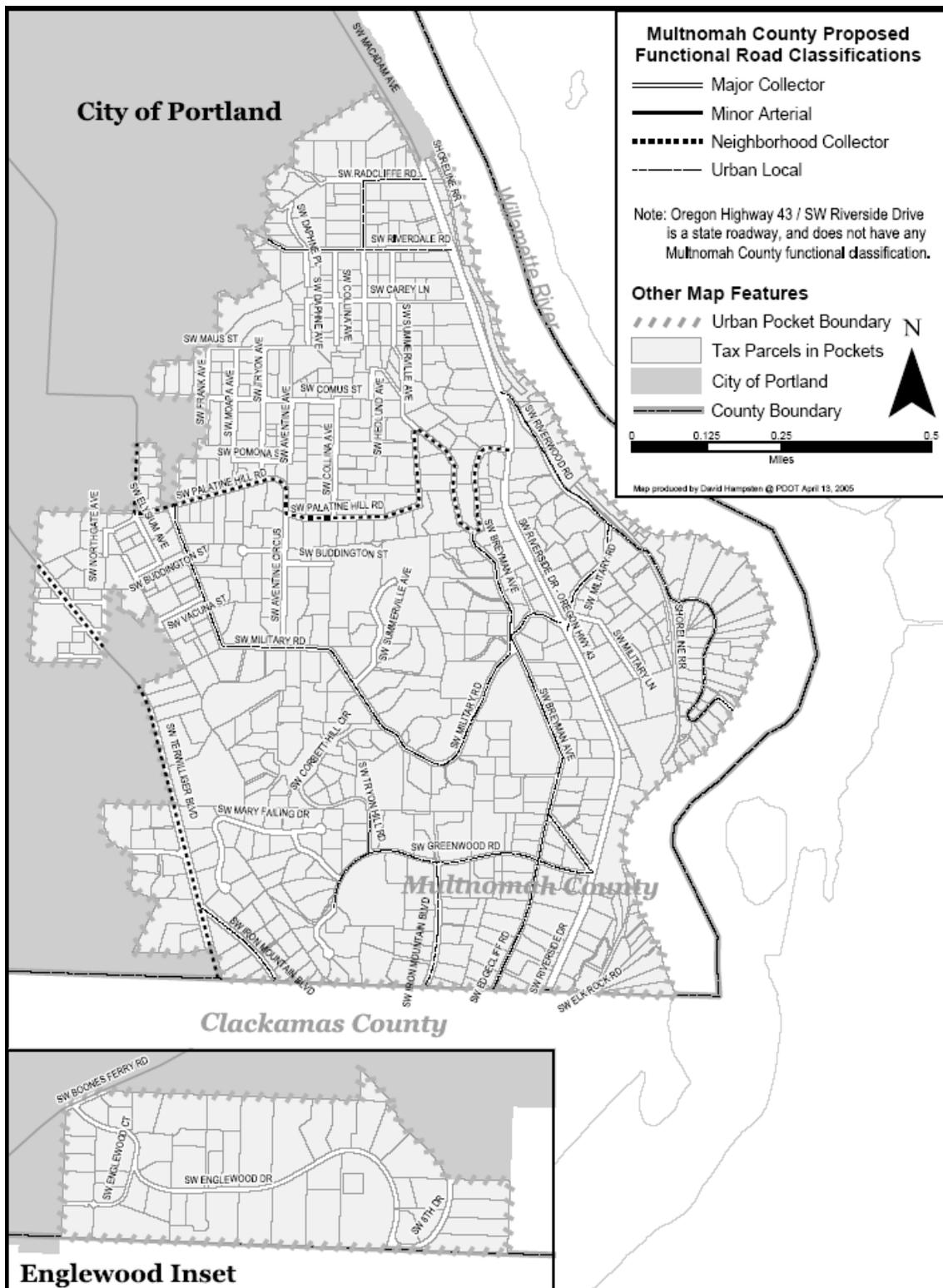


Figure 10 Dunthorpe Area Map of County Functional Street Classifications.

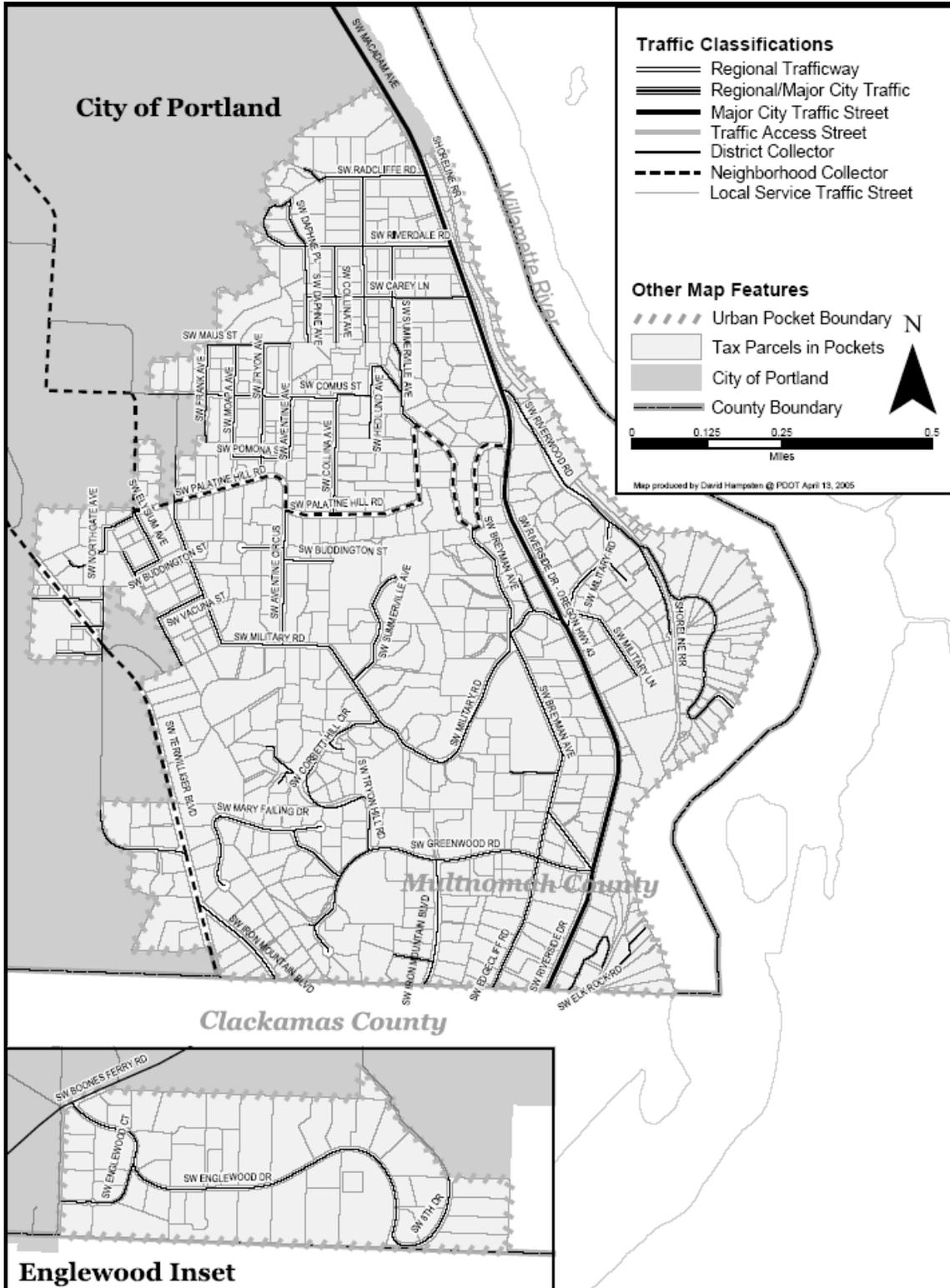


Figure 11 Dunthorpe Area Map of Portland Traffic Classifications.

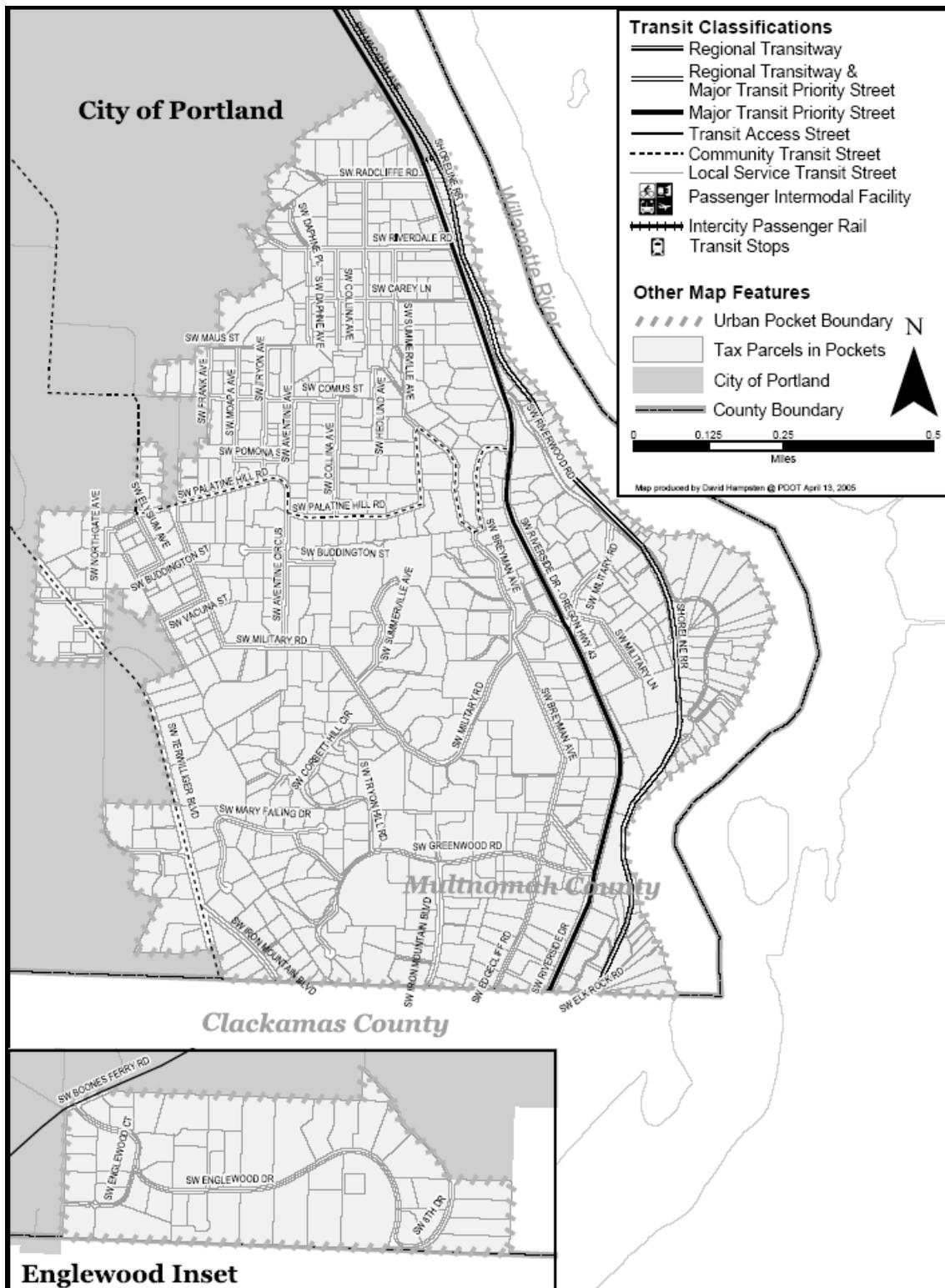


Figure 12 Dunthorpe Area Map of Portland Transit Classifications.

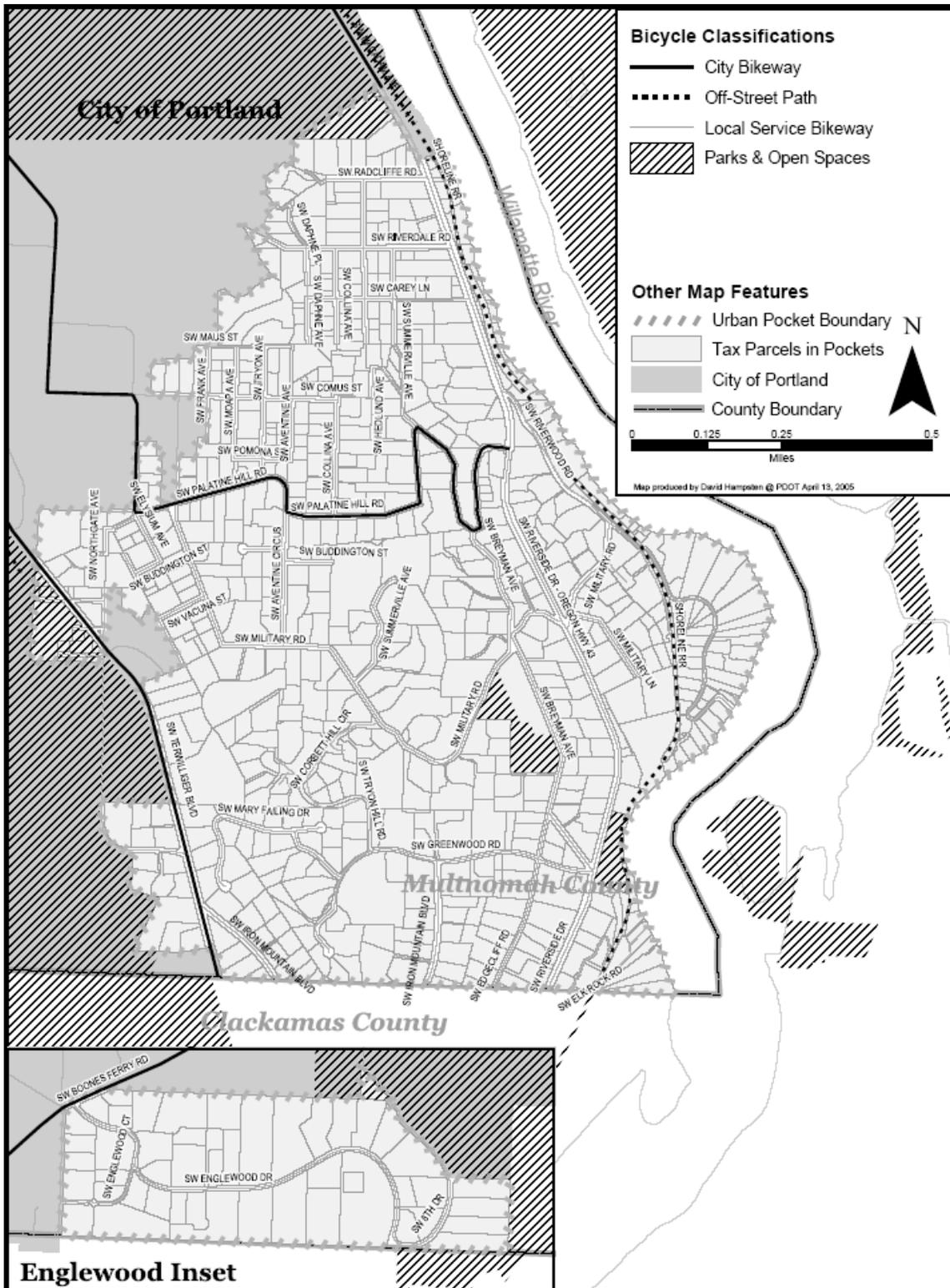


Figure 13 Dunthorpe Area Map of Portland Bicycle Classifications.

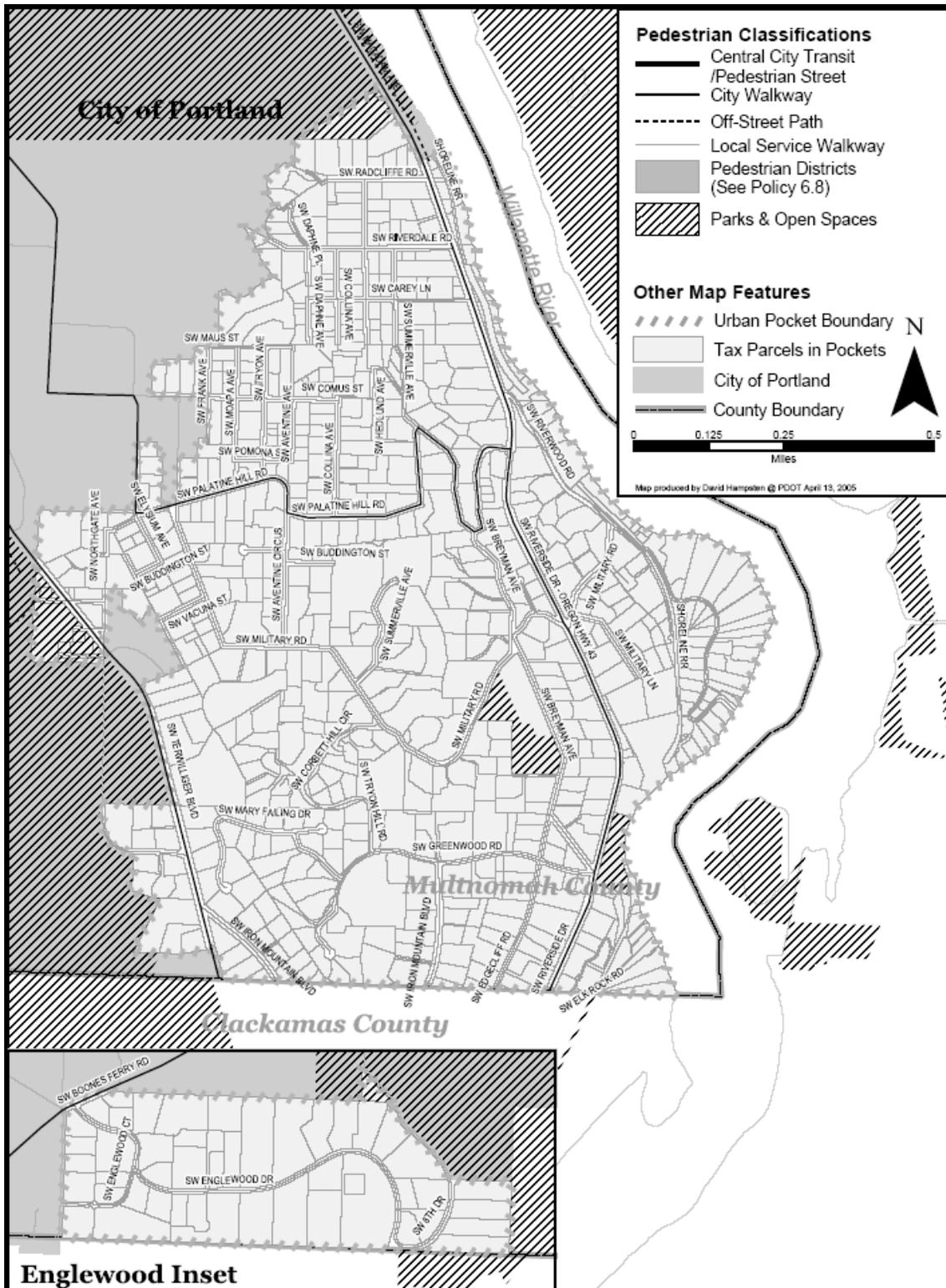


Figure 14 Dunthorpe Area Map of Portland Pedestrian Classifications.

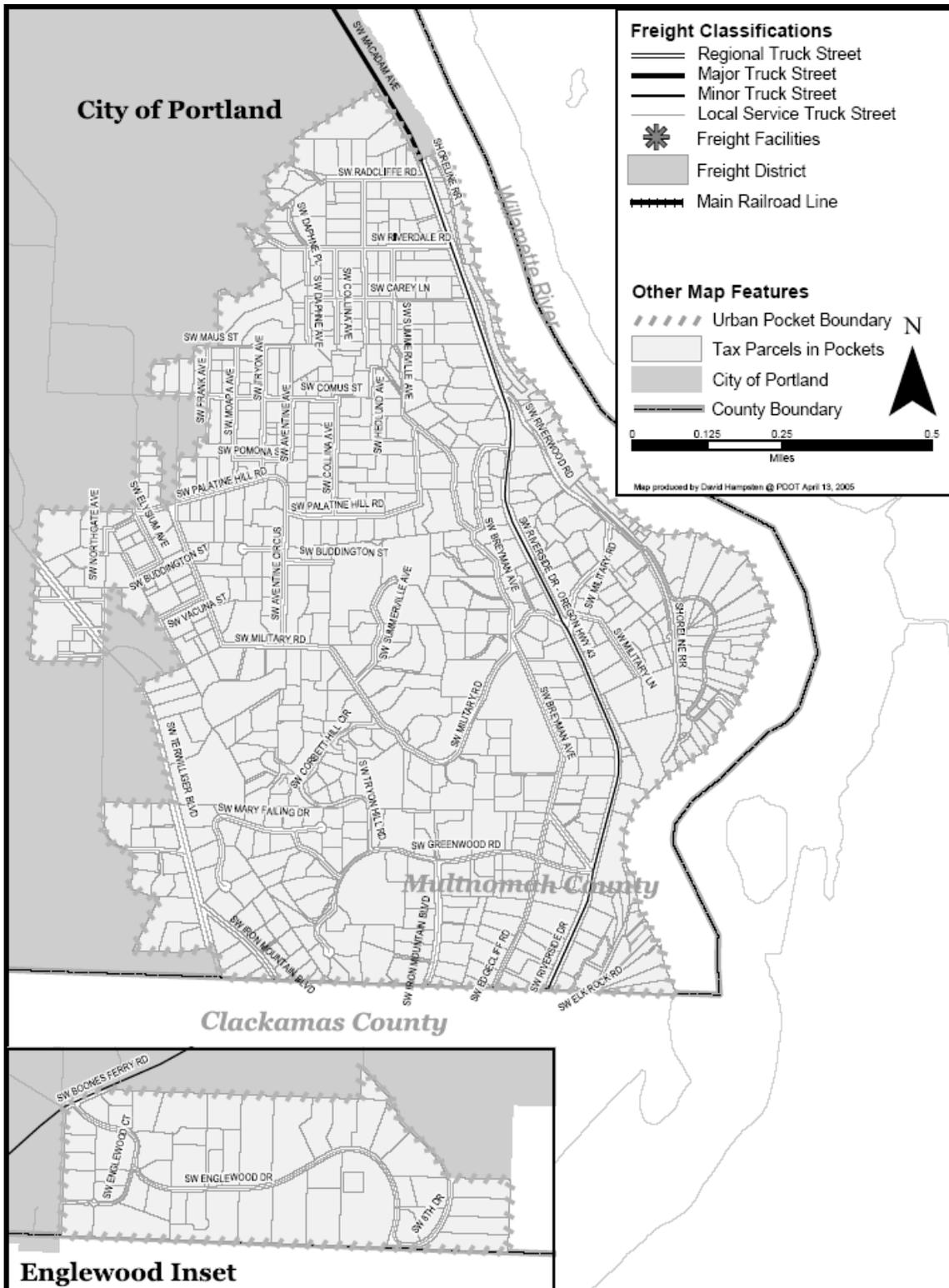


Figure 15 Dunthorpe Area Map of Portland Freight Classifications.

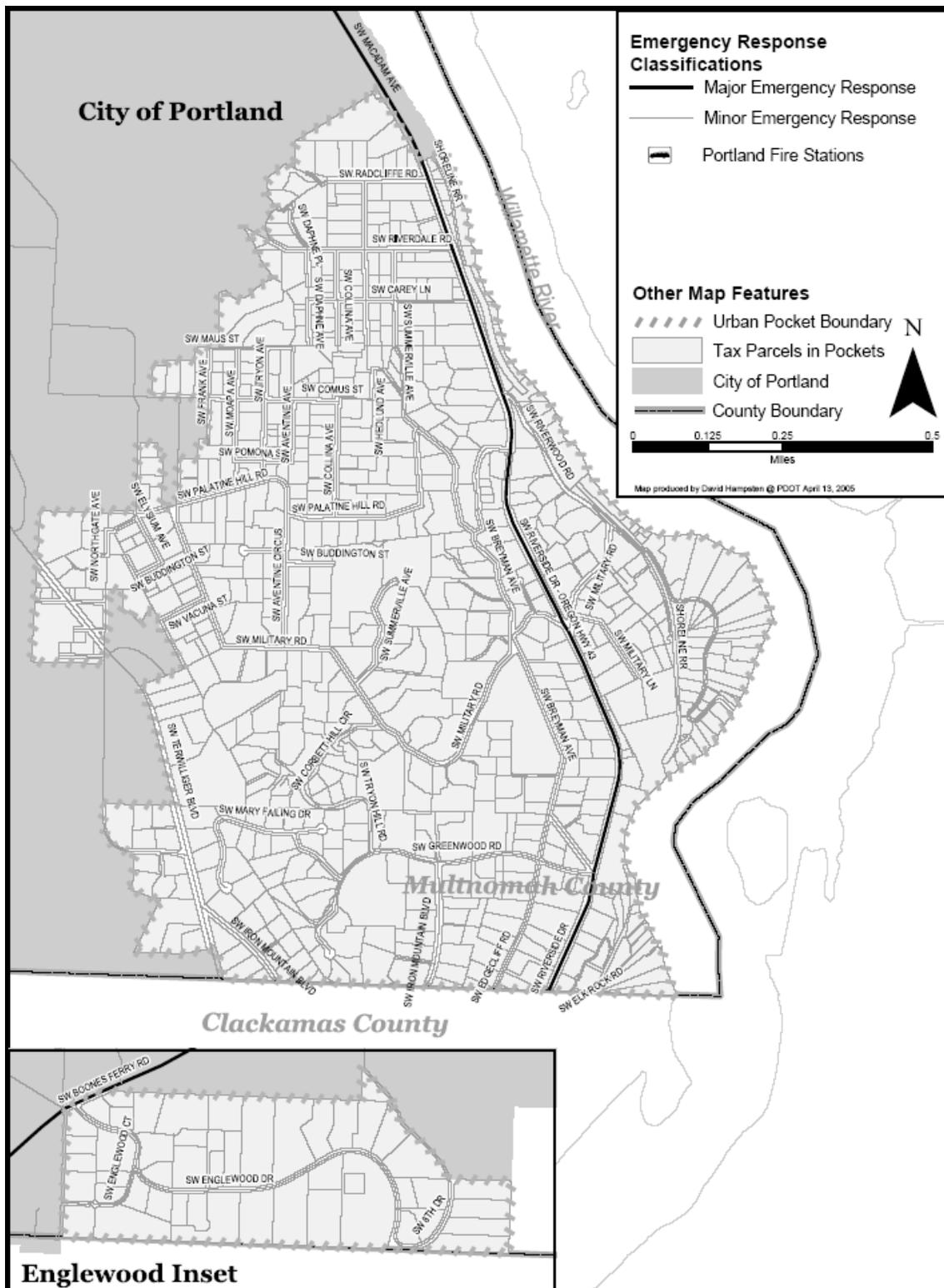


Figure 16 Dunthorpe Area Map of Portland Emergency Response Classifications.

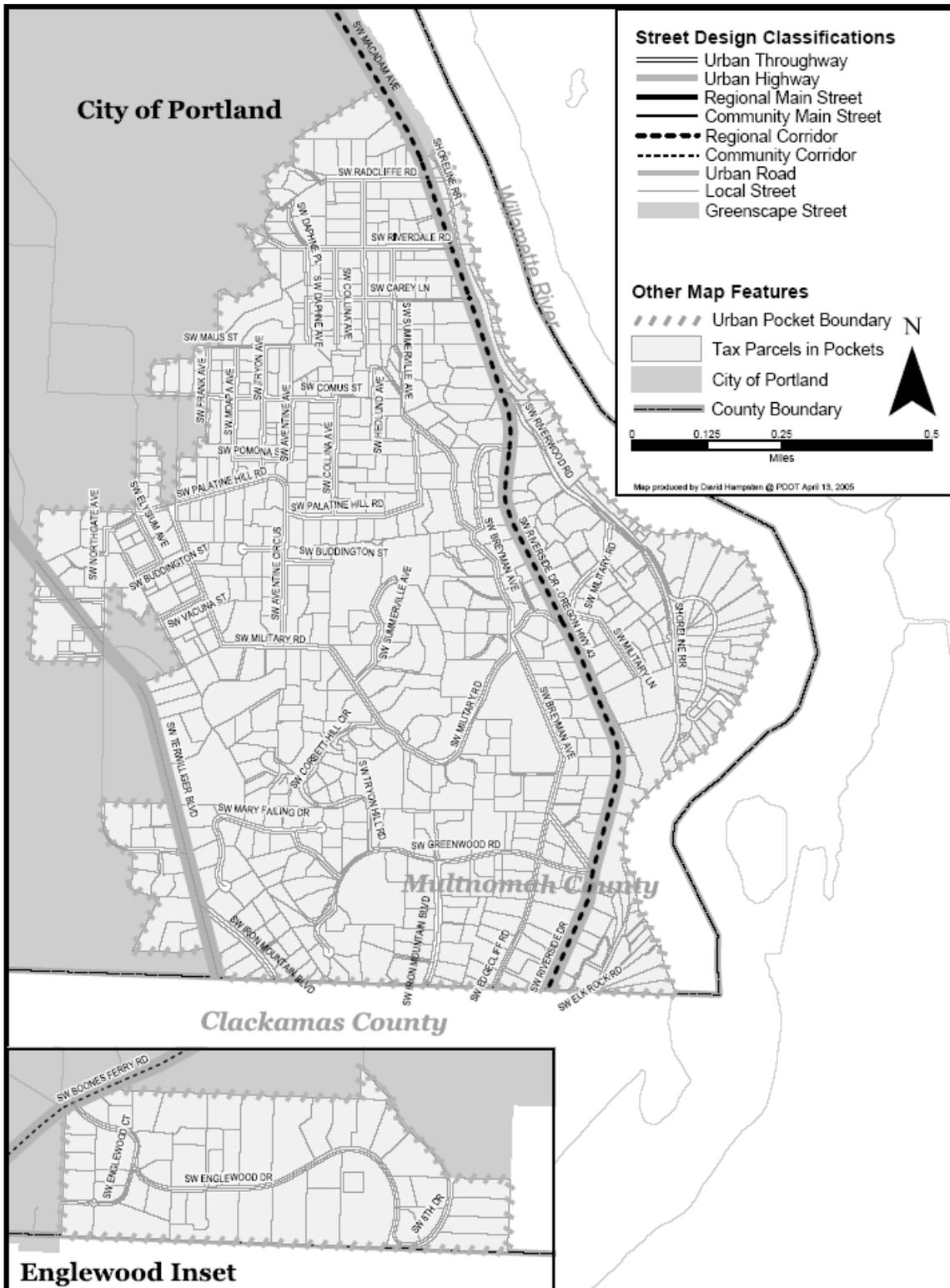


Figure 17 Dunthorpe Area Map of Portland Street Design Classifications.

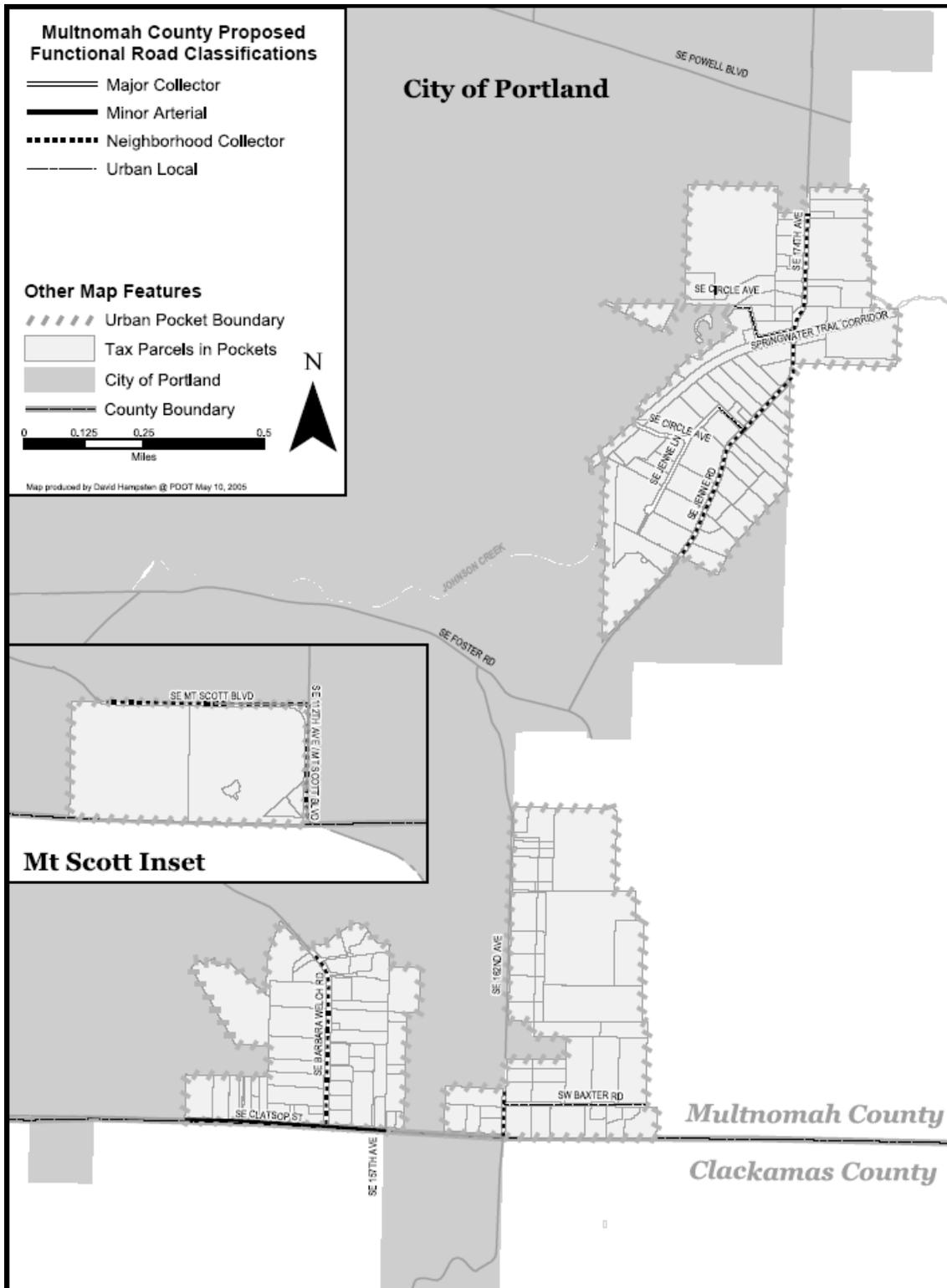


Figure 18 Far Southeast Area Map of County Functional Street Classifications.

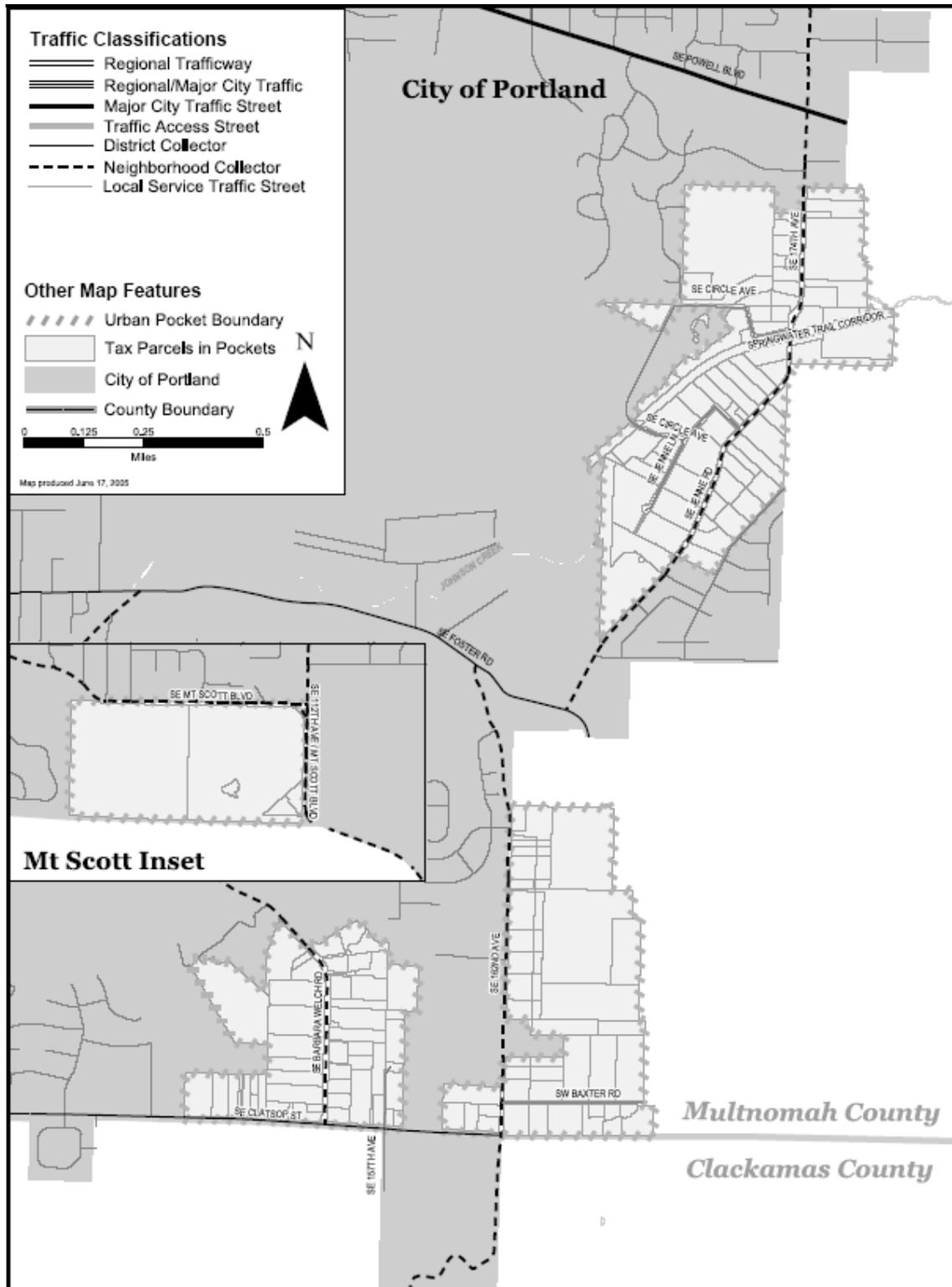
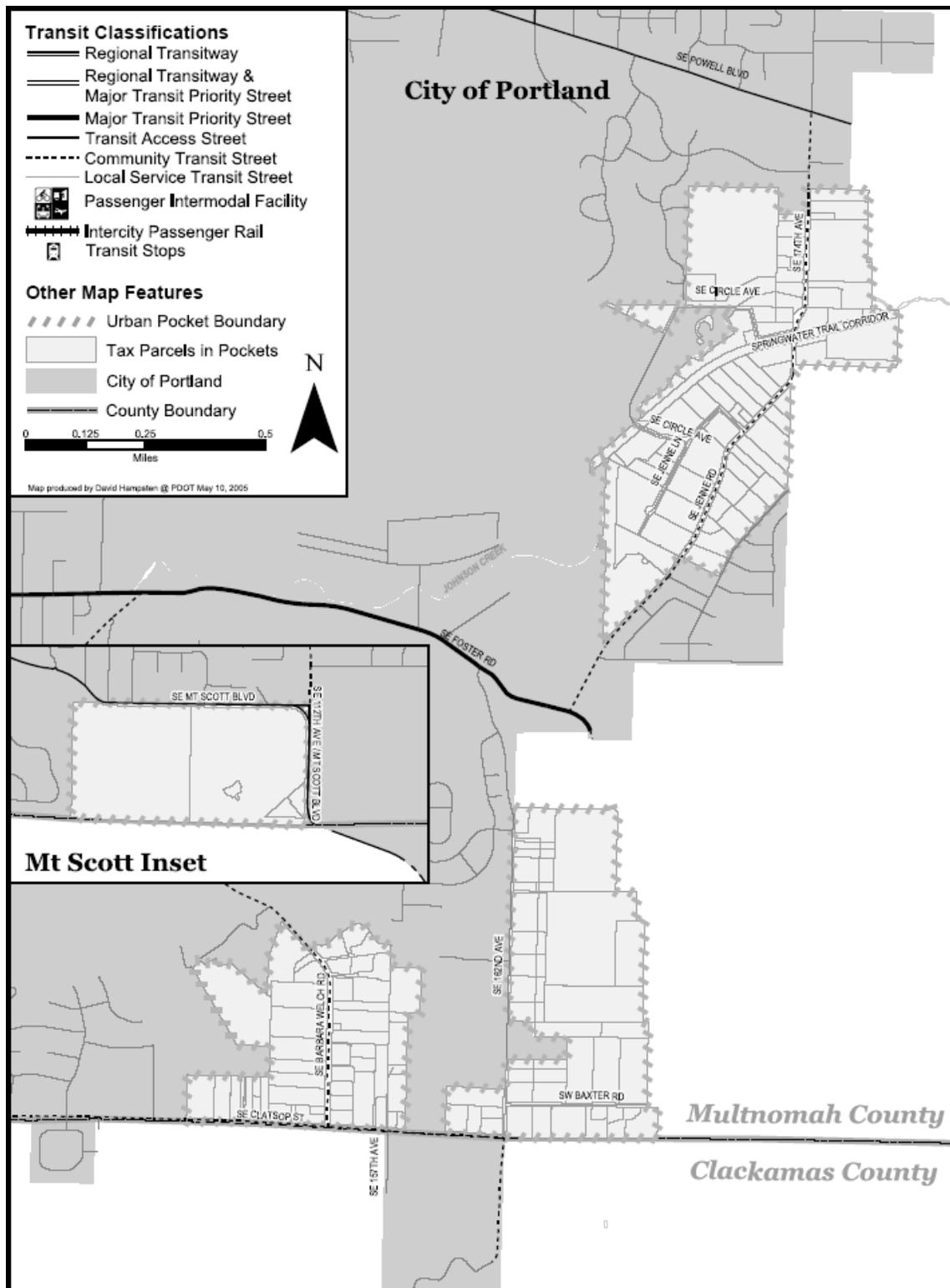


Figure 19 Far Southeast Area Map of Portland Traffic Classifications.



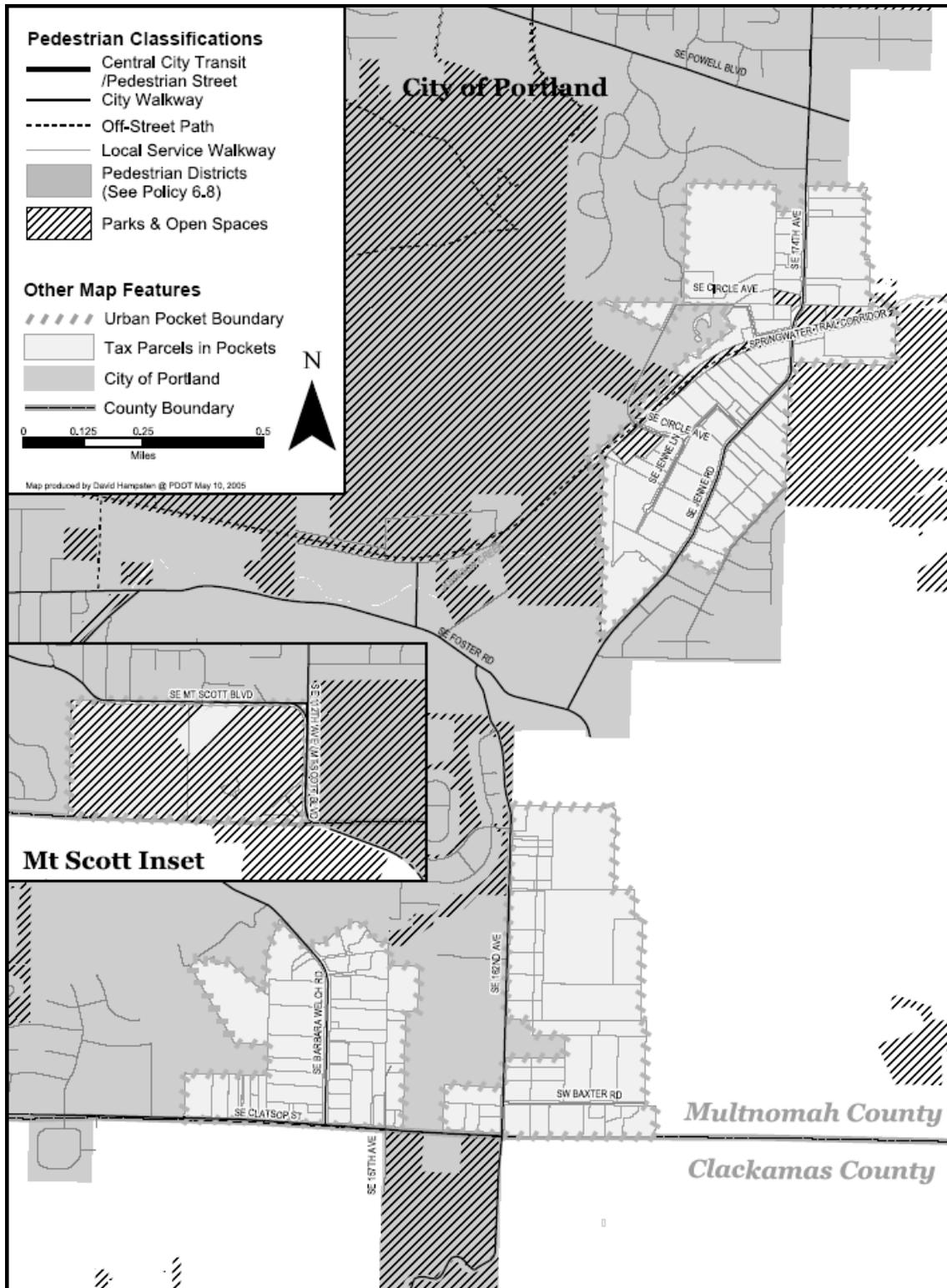


Figure 22 Far Southeast Area Map of Portland Pedestrian Classifications.

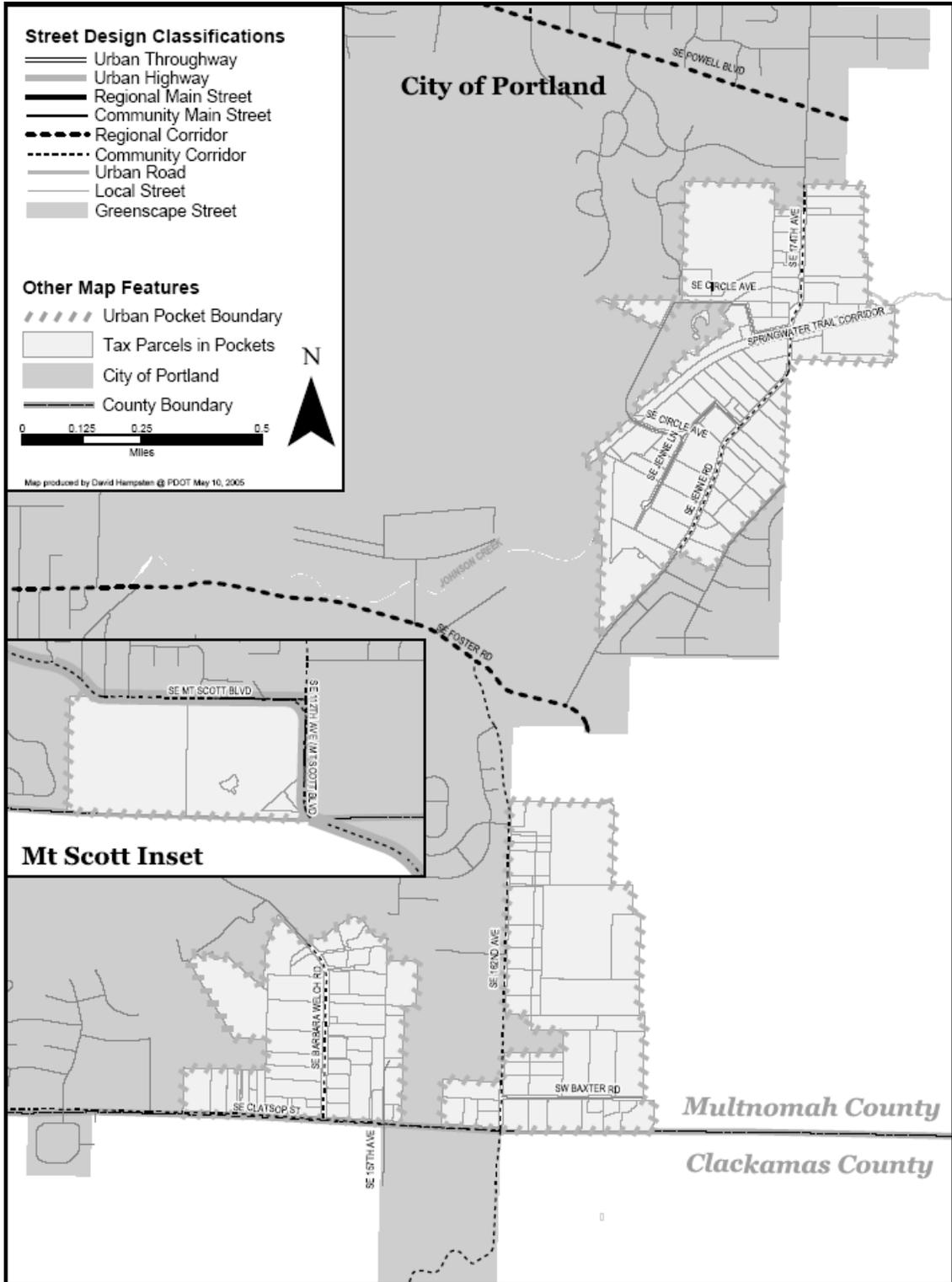


Figure 25 Far Southeast Area Map of Portland Street Design Classifications.

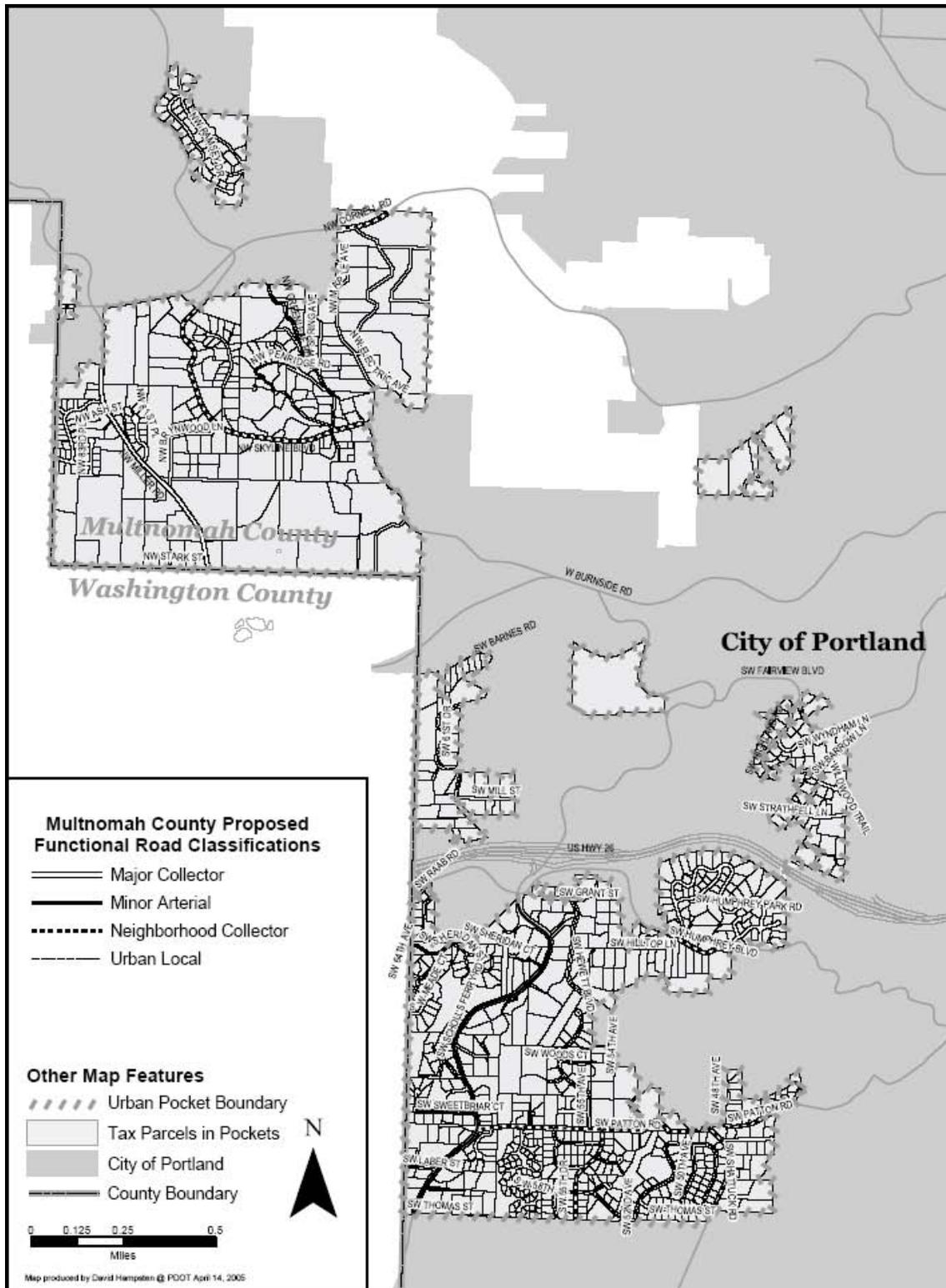


Figure 26 Forest Park/Southwest Hills Area Map of County Functional Street Classifications.

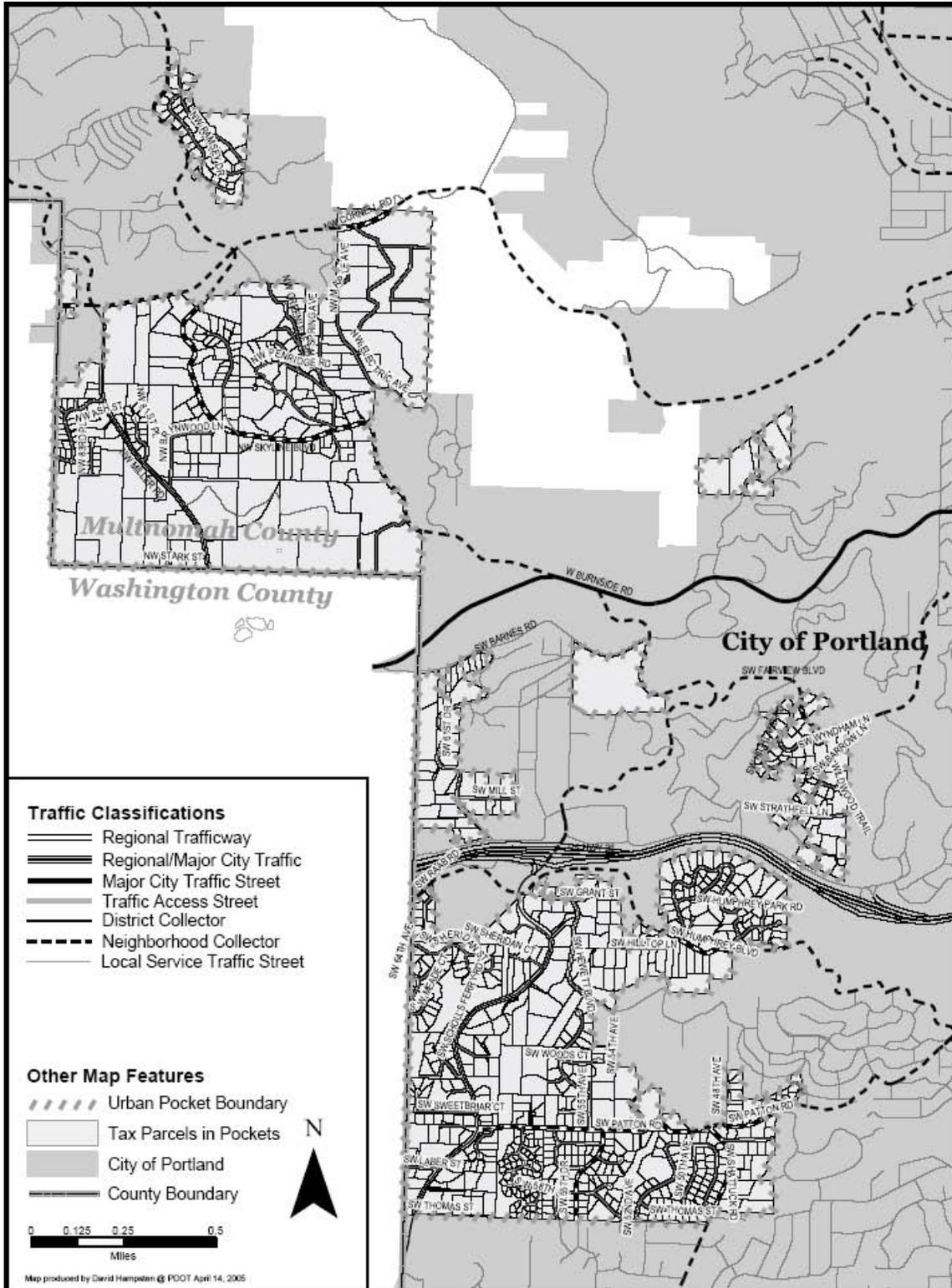


Figure 27 Forest Park/Southwest Hills Area Map of Portland Traffic Classifications.

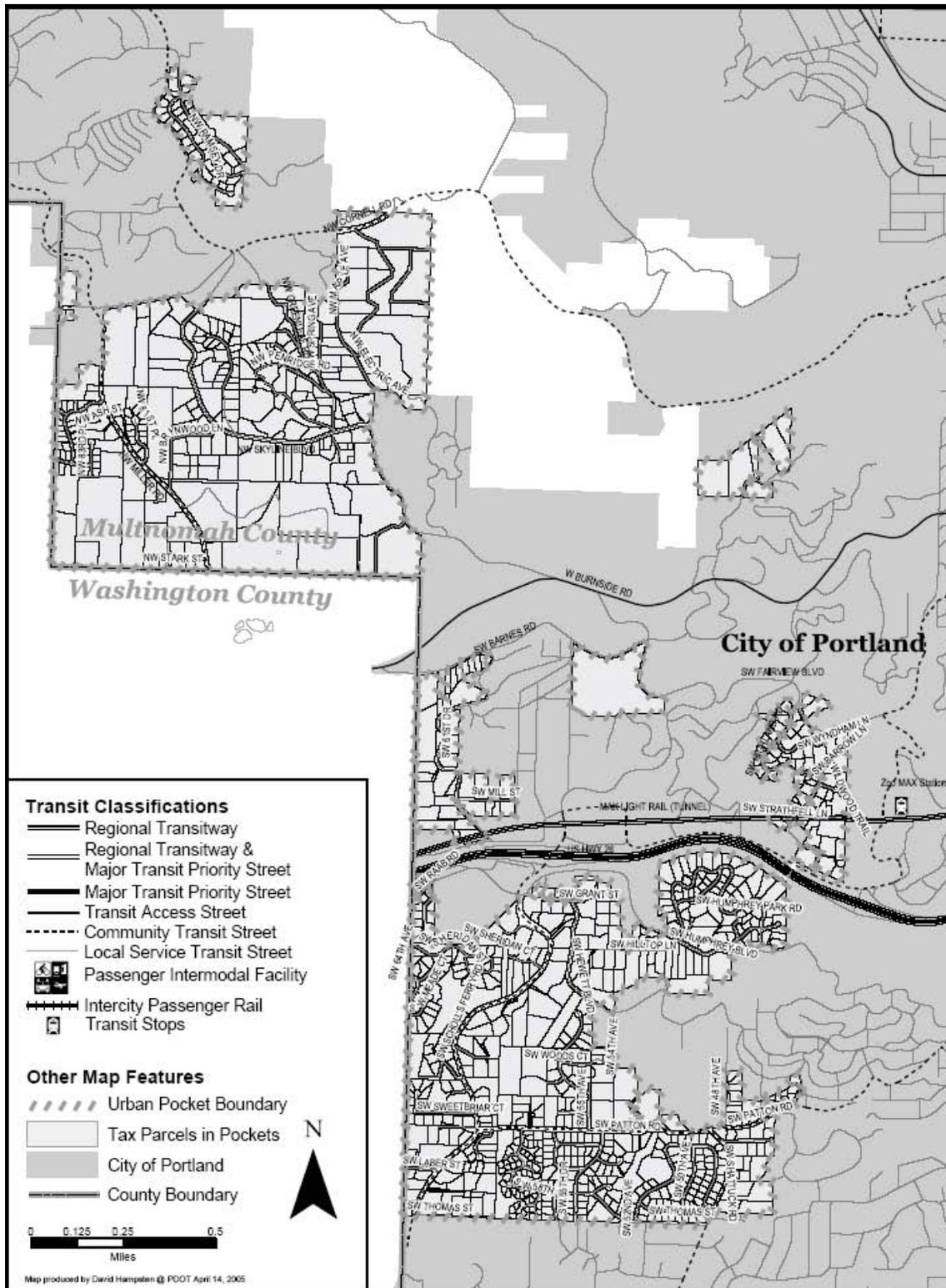


Figure 28 Forest Park/Southwest Hills Area Map of Portland Transit Classifications.

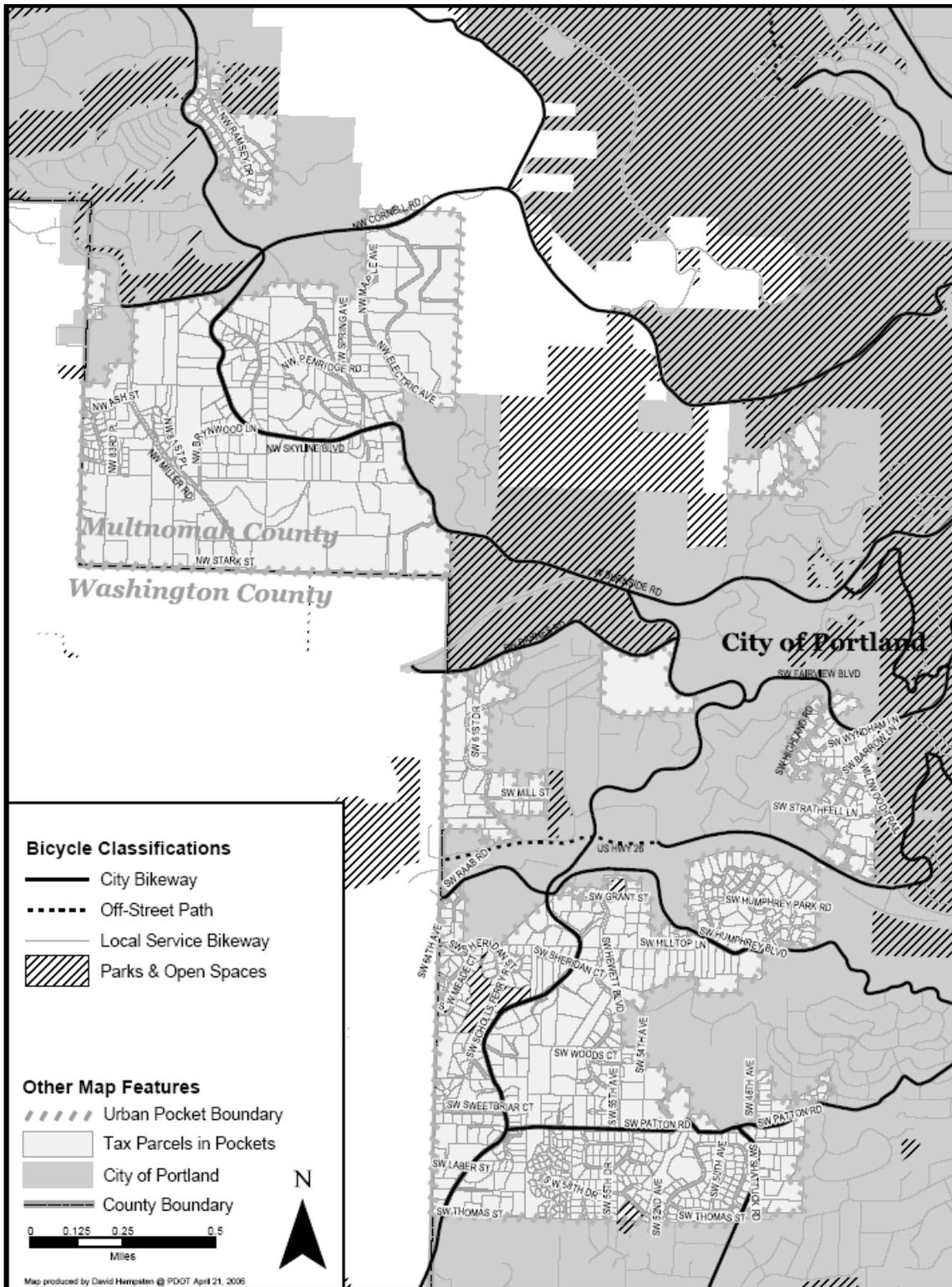


Figure 29 Forest Park/Southwest Hills Area Map of Portland Bicycle Classifications.

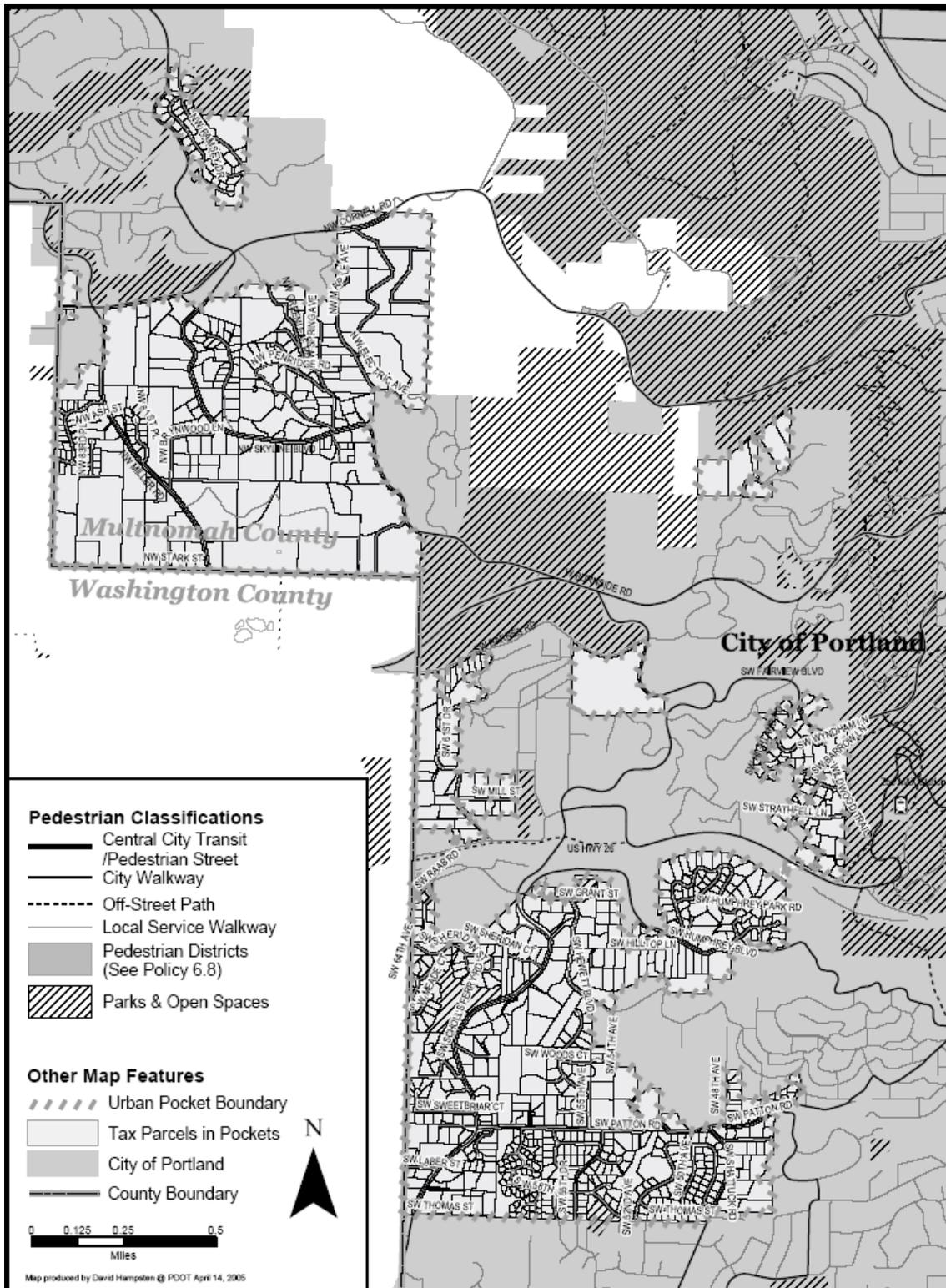


Figure 30 Forest Park/Southwest Hills Area Map of Portland Pedestrian Classifications.

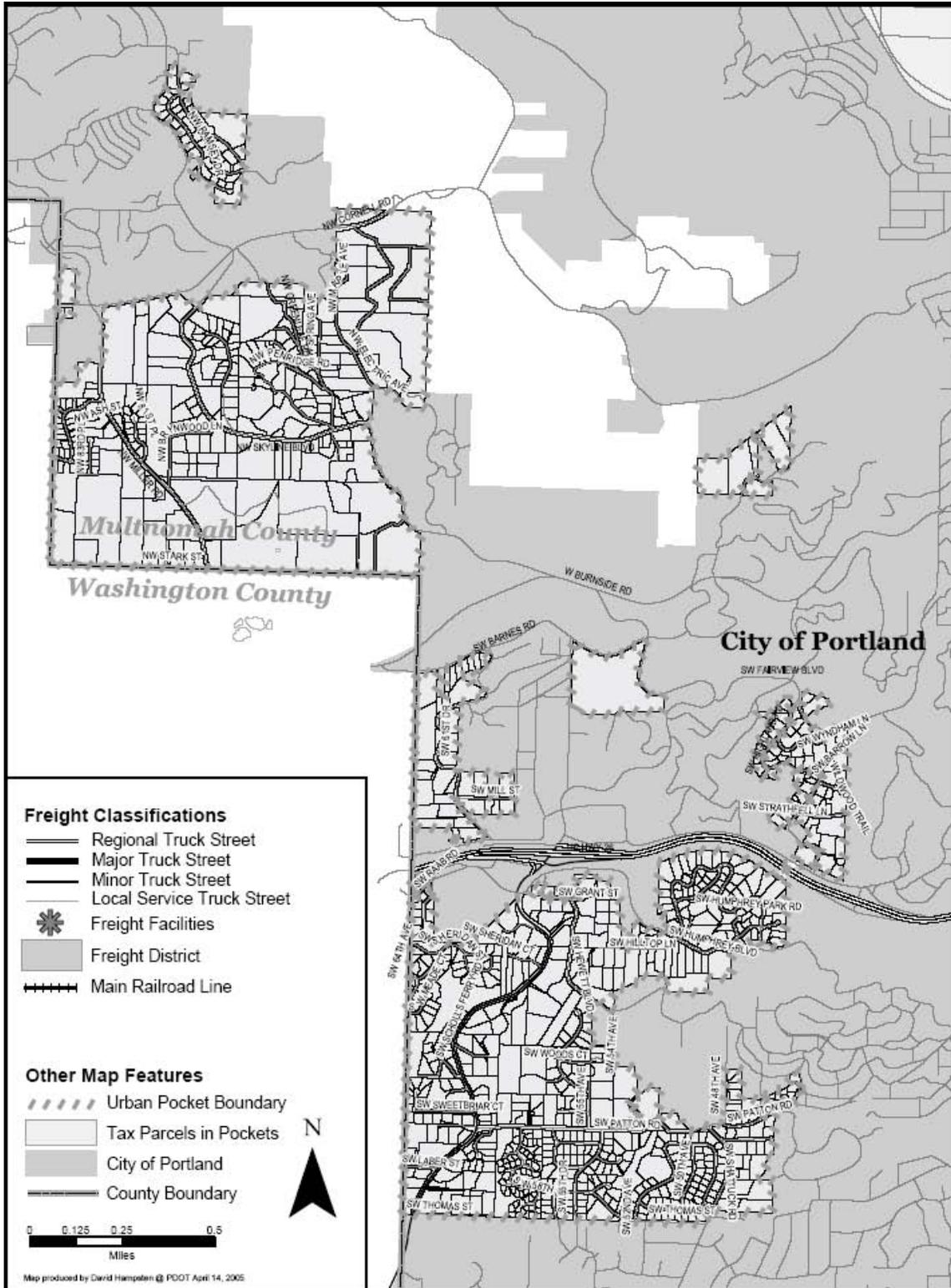


Figure 31 Forest Park/Southwest Hills Area Map of Portland Freight Classifications.

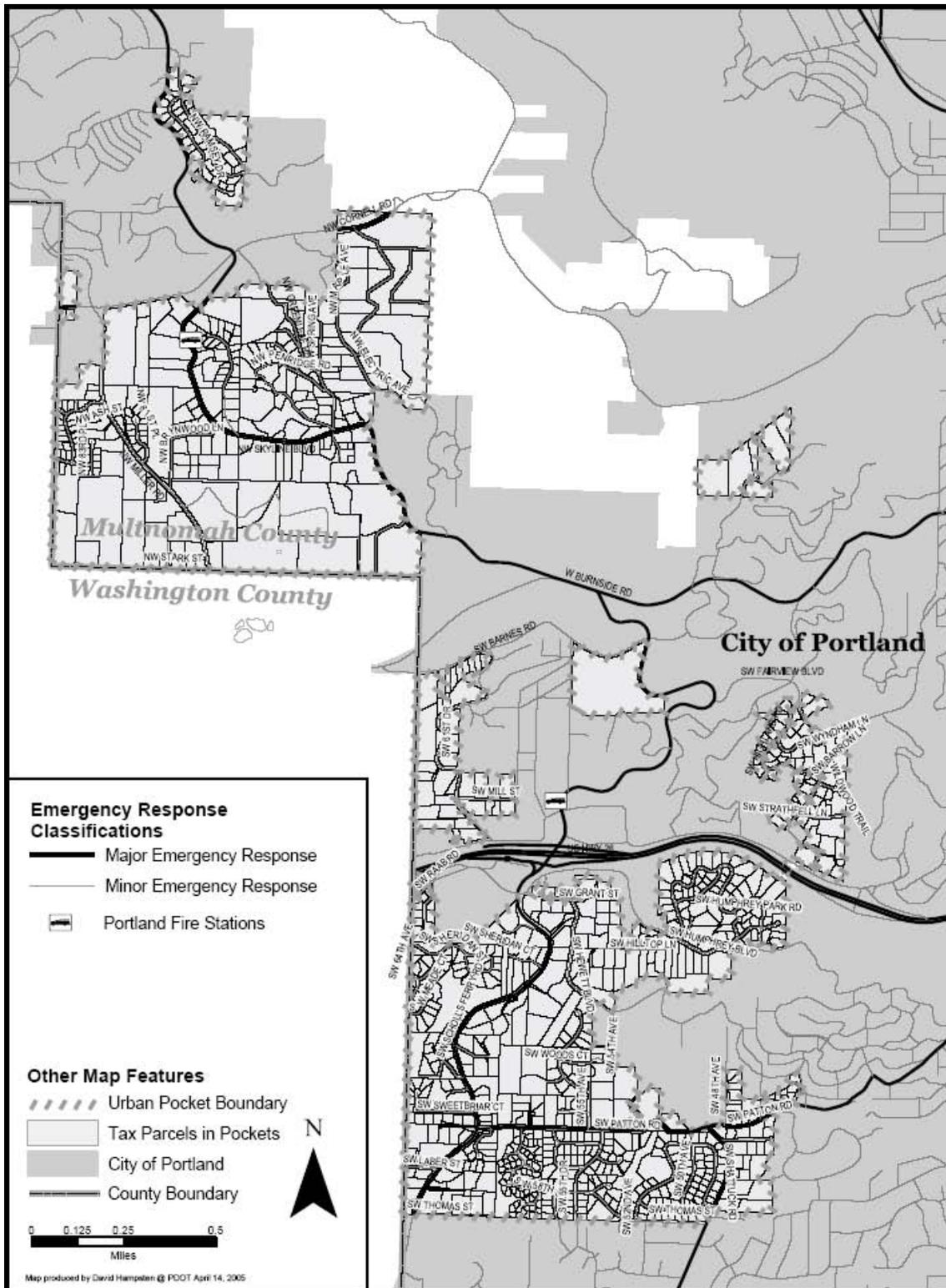


Figure 32 Forest Park/Southwest Hills Area Map of Portland Emergency Response Classifications.

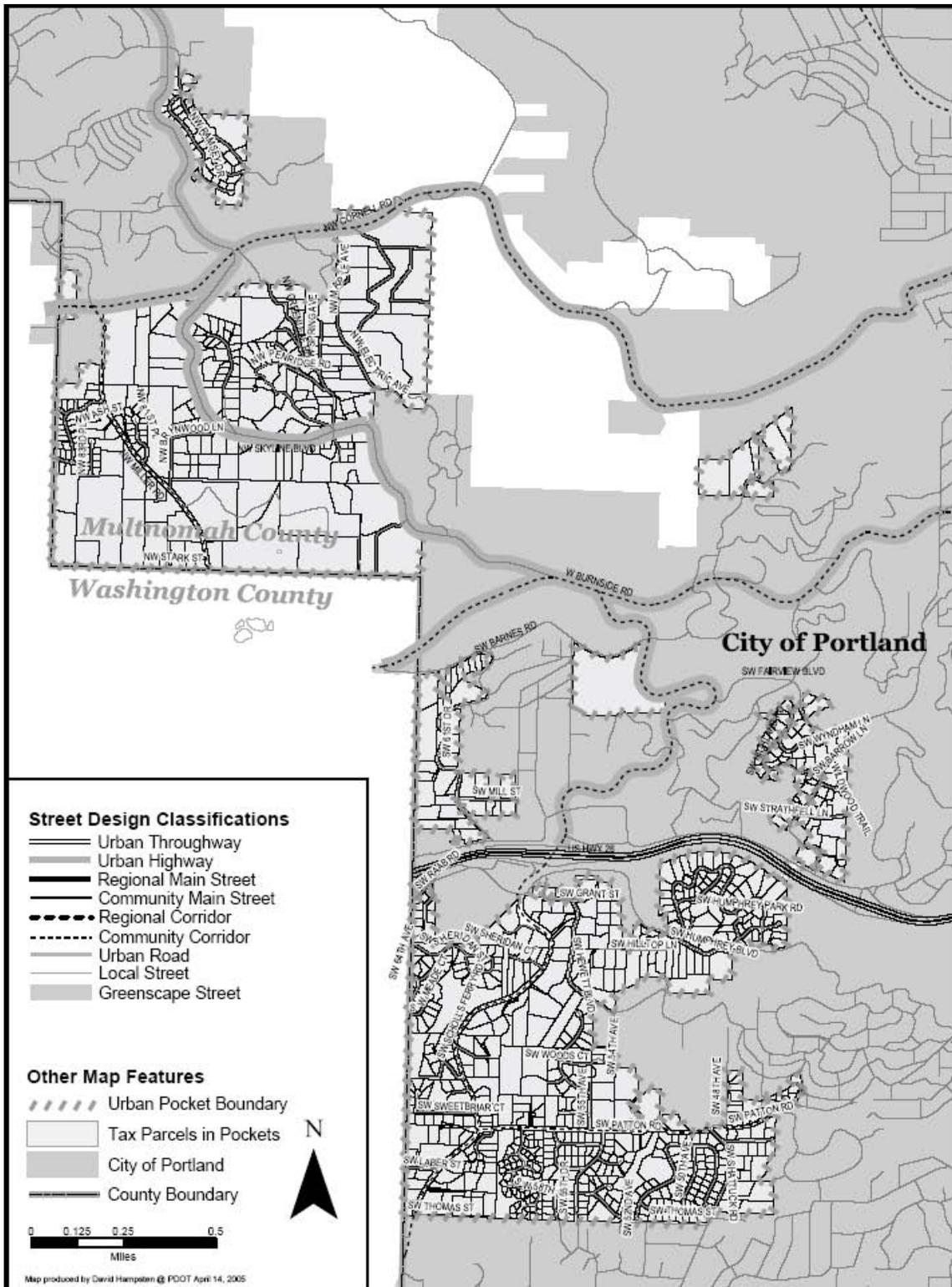


Figure 33 Forest Park/Southwest Hills Area Map of Portland Street Design Classifications.

Functional Classification Comparison with City of Portland

Generally, the functional classification descriptions and policy intent of the City of Portland and Multnomah County are consistent. However, County policies lack land use, operational and design elements because the county does not have land use authority in the urban pockets. Additionally, specific road design standards are already contained in the County's Design and Construction Manual and not in County policy.

The County's Urban Local and Neighborhood Collector Streets are equivalent to the City's Local Service Traffic and Neighborhood Collector Streets. Both designations provide access and connectivity functions to abutting land uses. The Neighborhood Collector level designations also serve as distributors of traffic to higher level classifications such as Major Traffic or District Collectors. Like the City, streets not classified to higher classification defaults to a Local Service Traffic Street.

The county's Minor Arterial and Major Collectors are equivalent to the City's District Collector designations, however, the policy intents defer because the City's Major Collector streets have a relationship with the regional system, while the City's District Collectors redistribute traffic from Major Traffic streets to same or lower classifications. In the City's TSP, outside the Central City, Metro's Minor Arterial is compared to either a Major City Traffic Street or a District Collector.

With regard to pedestrian and bicycle policies, no conflict exists. The County does not designate pedestrian districts because it does not have any land use authority in the urban areas. In addition, there are no candidate pedestrian districts in any of the pockets, so no County policy change is needed.

In terms of overlay designations, neither the County nor the City has trafficways designated as Green Streets. Green Streets are theoretical at this point and will be judged upon location-specific circumstances. Currently, there are no such designations in the RTP. The City has done a few streets with Green Street elements, but none that justify a designation. However, all of the streets in the Pleasant Valley Plan District are proposed to be Green Streets. They would be designated in the RTP with future updates.

The County's Industrial Streets Policy definition is consistent with the City's TSP Regional Truck Streets. However, the County does not have the Industrial Street Map or areas. But the County's Design and Construction Manual does contain a cross section of what industrial streets look like. Although the City designates freight districts and the County does not, there are no conflicting freight policies between the County and the City. All County arterials are designed to accommodate freight and the City is in the process of developing its first Freight Master Plan.

The County urban pockets lack public transportation and the County does not have transit streets or a transit map comparable to that of the City. The County's standard street cross-sections are designed to accommodate public transportation and are generally truck, industrial and transit friendly.

In terms of public, state and regional coordination, there are no conflicting policies between the City and the County. Both policies recognize the importance of public involvement, but the City policy goes further to ensure the recognition of minority groups living in the City. Both have a consistent coordination policy that provides both opportunities and challenges. Coordination helps to minimize the effect of road improvements to general public and present opportunities for joint multi-modal projects.

There are no County-wide policies on transportation education, travel patterns or traffic calming. The County's safety policy and the criteria for speed bumps in the Design and Construction Manual are sufficient and do not conflict with City policies. So, no policy change is needed.

New Functional Classifications Recommended

The County's current functional classifications do not address the important needs of Emergency Response Streets nor do they provide for Transportation System Management through intelligent transportation systems. The addition of an Emergency Response Streets classification will facilitate prompt responses to emergencies through policies that guide:

- Installation of traffic calming devices
- Routing of emergency vehicles
- Siting of future fire stations

The addition of Transportation System Management policy will provide for transportation demand management via technological innovations. Therefore, this report recommends adding these policies during the next update of county policies.

Conversion of Multnomah County Classifications to City Designations

The purpose of this section is to establish a set of street classification maps that define applicable conversions of Multnomah County street classifications to City policy designations. Tables 7 and 8 below show existing and proposed street classifications for the City and the County Urban Pockets. Most of the classification changes occur in the Far Southeast pocket area due to the Pleasant Valley Plan District recommended classifications. Otherwise, City maintained streets adjacent to County pocket areas retain the existing City classification and logical extensions of City classification designations are made where appropriate.

With exception of SE Baxter Street and parts of SE Jenne Road, all the roads in the pockets included in the GIS analysis were already in the City TSP classifications. One of the assumptions of this study is that the urban pockets will eventually become more developed. Another assumption is that Portland will gradually assume greater regulatory control over these pockets, and may annex them. Based upon these assumptions, extending the TSP classifications throughout the designated pockets makes sense. Except for the two roads mentioned above, and for all roads in the emergency response classification, this has already been done. Nevertheless, the staff of both agencies felt that certain roads needed to be "upgraded" to a more "urban" designation primarily because of the Pleasant Valley Concept Plan. Several "rural" roads became "urban" in the County designation, including SE Baxter and SE Circle, while other roads were upgraded to reflect Portland designations, such as SE Clatsop, SE Jenne, SE Barbara Welch, SW Terwilliger, and NW Cornell. Interestingly, major highways, such as Oregon 43 (SW Macadam / SW Riverside) and US 26 (Sunset) have no County designation, because they are not County roads.

Street Name	Existing Classifications							
	County	City of Portland TSP						
	Traffic	Traffic	Transit	Bicycle	Pedestrian	Freight	Emergency	Street Design
	FAR SOUTHEAST							
162nd Ave	Neighborhood Collector	Neighborhood Collector	Local Service Transit Street	City Bikeway	Local Service Walkway	Local Service Truck Street	Major Emergency Response	Local Street
Barbara Welch Rd	Rural Collector	Neighborhood Collector	Community Transit Street	City Bikeway	City Walkway	Local Service Truck Street	Minor Emergency Response	Local Street
Baxter Rd	Rural Local							
Circle Ave & Jenne Pl.	Rural Local	Local Service Traffic Street	Local Service Transit Street	Local Service Bikeway	Local Service Walkway	Local Service Truck Street	Minor Emergency Response	Local Street
Clatsop St	Urban Local	Neighborhood Collector	Community Transit Street	City Bikeway	City Walkway	Local Service Truck Street	Minor Emergency Response	Community Corridor
Jenne Rd./ 174th Ave	Rural Arterial	Local Service Traffic Street	Local Service Transit Street	Local Service Bikeway	Local Service Walkway	Local Service Truck Street	Minor Emergency Response	Local Street
Mt. Scott Blvd (112th Ave)	Neighborhood Collector	Neighborhood Collector	Transit Access Street	City Bikeway	City Walkway	Local Service Truck Street	Major on 112th; Minor on rest	Community Corridor & Greenscape Street
Springwater Corridor				Off-Street Path	Off-Street Path			
DUNTHORPE								
Breyman Ave, Edgecliff Rd, Englewood Dr, Greenwood Rd, Iron Mountain Blvd, Military Rd, Radcliffe Rd, Riverdale Rd, Riverwood Rd, Tryon Hill Rd								
	Urban Local	Local Service Traffic Street	Local Service Transit Street	Local Service Bikeway	Local Service Walkway	Local Service Truck Street	Minor Emergency Response	Local Street
Macadam Ave / Riverside Dr		Major City Traffic Street	Major Transit Priority Street	Local Service Bikeway	City Walkway	Major Truck Street	Major Emergency Response	Regional Corridor & Greenscape Street
Palatine Hill Rd	Neighborhood Collector	Local Service Traffic Street	Local Service Transit Street	Local Service Bikeway	Local Service Walkway	Local Service Truck Street	Minor Emergency Response	Local Street
Shoreline RR			RT & MTPS	Off-Street Path				
Terwilliger Blvd	Major Collector	Neighborhood Collector	Community Transit Street	City Bikeway & Off-Street Path	City Walkway & Off-Street Path	Local Service Truck Street	Minor Emergency Response	Local Street & Greenscape Street
Radcliffe Ln, Radcliffe Ct., Daphne Pl., Daphne Ave., Collina Ave, Carey Ln, Hedlund Ave, Summerville Ave, Maus St, Frank Ave, Moapa Ave, Comus St, Pomona st, Aventine Ave, Elysium Ave, Buddington St, Vacuna St, Coronado St, Vesta St, Northgate Ave, Mary Failing Dr								
	Local access *	Local Service Traffic Street	Local Service Transit Street	Local Service Bikeway	Local Service Walkway	Local Service Truck Street	Minor Emergency Response	Local Street
FOREST PARK & SOUTHWEST HILLS								
Cornell Rd	Neighborhood Collector & Rural Collector	Neighborhood Collector	Community Transit Street	City Bikeway	City Walkway	Local Service Truck Street	Minor Emergency Response	Community Corridor & Greenscape Street
Fairview Blvd, Humphrey Blvd	Neighborhood Collector	Neighborhood Collector	Local Service Transit Street	City Bikeway	City Walkway	Local Service Truck Street	Minor Emergency Response	Local Street
Greenleaf Rd	Urban Local	Local Service Traffic Street	Local Service Transit Street	Local Service Bikeway	Local Service	Local Service Truck Street	Minor Emergency Response	Local Street
Miller Rd	Major Collector	District Collector	Community Transit Street	Local Service Bikeway	City Walkway	Local Service Truck Street	Minor Emergency Response	Community Corridor
Patton Rd	Neighborhood Collector	Neighborhood Collector	Community Transit Street	City Bikeway	City Walkway	Local Service Truck Street	Minor Emergency Response	Local Street
Scholls Ferry Rd	Minor Arterial	District Collector	Community Transit Street	City Bikeway	City Walkway	Minor Truck Street	Minor Emergency Response	Community Corridor
Shattuck Rd	Neighborhood Collector	Neighborhood Collector	Community Transit Street	City Bikeway	City Walkway	Local Service Truck Street	Major Emergency Response	Local Street
Skyline Blvd	Neighborhood Collector	Neighborhood Collector	Local Service Transit Street	City Bikeway	City Walkway	Local Service Truck Street	Major Emergency Response	Local Street & Greenscape Street
Southwest Pedestrian Trail (Wildwood Trail)					Off-Street Path			
Sunset Highway (US26)		Regional Trafficway	Regional Transitway			Major Truck Street	Major Emergency Response	Urban Throughway
SW 55th Dr	Neighborhood Collector	Local Service Traffic Street	Local Service Transit Street	Local Service Bikeway	Local Service Walkway	Local Service Truck Street	Minor Emergency Response	Local Street
West Side MAX			Regional Transitway					
Ramsey Dr, Ramsey Cres, Walmar Dr, Meridian Ave, Panorama Ave, Union Ave, Hobrook Ave, Maple Ave, Electric Ave, Spring Ave, St Helens Ave, Penridge Rd, Skyline Crest Rd, Brynwood Ln, 81st Pl, 84th Pl, Ash St, 83rd Pl, Copeland St, Wilmont Ave, Tuality Way,								
	Local access *	Local Service Traffic Street	Local Service Transit Street	Local Service Bikeway	Local Service Walkway	Local Service Truck Street	Minor Emergency Response	Local Street

Table 7 Existing Street Classifications.

Street Name	Proposed Classifications							
	County	City of Portland TSP						
	Traffic	Traffic	Transit	Bicycle	Pedestrian	Freight	Emergency	Street Design
FAR SOUTHEAST								
162nd Ave	Neighborhood Collector	Neighborhood Collector	Local Service Transit Street	City Bikeway	City Walkway	Local Service Truck Street	Major Emergency Response	Community Corridor
Barbara Welch Rd	Neighborhood Collector	Neighborhood Collector	Community Transit Street	City Bikeway	City Walkway	Local Service Truck Street	Minor Emergency Response	Community Corridor
Baxter Rd	Urban Local	Local Service Traffic Street	Local Service Transit Street	Local Service Bikeway	Local Service Walkway	Local Service Truck Street	Minor Emergency Response	Local Street
Circle Ave & Jenne Pl.	Urban Local	Local Service Traffic Street	Local Service Transit Street	Local Service Bikeway	Local Service Walkway	Local Service Truck Street	Minor Emergency Response	Local Street
Clatsop St	Minor Arterial	District Collector	Community Transit Street	City Bikeway	City Walkway	Local Service Truck Street	Major Emergency Response	Community Corridor
Jenne Rd./ 174th Ave	Neighborhood Collector	Neighborhood Collector	Community Transit Street	City Bikeway	City Walkway	Local Service Truck Street	Major Emergency Response	Community Corridor
Mt. Scott Blvd (112th Ave)	Neighborhood Collector	Neighborhood Collector	Transit Access Street	City Bikeway	City Walkway	Local Service Truck Street	Major on 112th; Minor on rest	Community Corridor & Greenscape Street
Springwater Corridor				Off-Street Path	Off-Street Path			
DUNTHORPE								
Breyman Ave, Edgecliff Rd, Englewood Dr, Greenwood Rd, Iron Mountain Blvd, Military Rd, Radcliffe Rd, Riverdale Rd, Riverwood Rd, Tryon Hill Rd								
	Urban Local	Local Service Traffic Street	Local Service Transit Street	Local Service Bikeway	Local Service Walkway	Local Service Truck Street	Minor Emergency Response	Local Street
Macadam Ave / Riverside Dr		Major City Traffic Street	Major Transit Priority Street	Local Service Bikeway	City Walkway	Major Truck Street	Major Emergency Response	Regional Corridor & Greenscape Street
Palatine Hill Rd	Neighborhood Collector	Neighborhood Collector	Community Transit Street	City Bikeway	City Walkway	Local Service Truck Street	Minor Emergency Response	Local Street
Shoreline RR			RT & MTPS	Off-Street Path				
Terwilliger Blvd	Neighborhood Collector	Neighborhood Collector	Community Transit Street	City Bikeway & Off-Street Path	City Walkway & Off-Street Path	Local Service Truck Street	Minor Emergency Response	Local Street & Greenscape Street
Radcliffe Ln, Radcliffe Ct., Daphne Pl., Daphne Ave., Collina Ave, Carey Ln, Hedlund Ave, Summerville Ave, Maus St, Frank Ave, Moapa Ave, Comus St, Pomona st, Aventine Ave, Elysium Ave, Buddington St, Vacuna St, Coronado St, Vesta St, Northgate Ave, Mary Failing Dr								
	Local Access	Local Service Traffic Street	Local Service Transit Street	Local Service Bikeway	Local Service Walkway	Local Service Truck Street	Minor Emergency Response	Local Street
FOREST PARK & SOUTHWEST HILLS								
Cornell Rd	Neighborhood Collector	Neighborhood Collector	Community Transit Street	City Bikeway	City Walkway	Local Service Truck Street	Major Emergency Response	Community Corridor & Greenscape Street
Fairview Blvd, Humphrey Blvd	Neighborhood Collector	Neighborhood Collector	Local Service Transit Street	City Bikeway	City Walkway	Local Service Truck Street	Minor Emergency Response	Local Street
Greenleaf Rd	Urban Local	Local Service Traffic Street	Local Service Transit Street	Local Service Bikeway	Local Service	Local Service Truck Street	Minor Emergency Response	Local Street
Miller Rd	Major Collector	District Collector	Community Transit Street	Local Service Bikeway	City Walkway	Local Service Truck Street	Minor Emergency Response	Community Corridor
Patton Rd	Neighborhood Collector	Neighborhood Collector	Community Transit Street	City Bikeway	City Walkway	Local Service Truck Street	Major Emergency Response	Community Corridor
Scholls Ferry Rd	Minor Arterial	District Collector	Community Transit Street	City Bikeway	City Walkway	Minor Truck Street	Major Emergency Response	Community Corridor
Shattuck Rd	Neighborhood Collector	Neighborhood Collector	Community Transit Street	City Bikeway	City Walkway	Local Service Truck Street	Major Emergency Response	Local Street
Skyline Blvd	Neighborhood Collector	Neighborhood Collector	Local Service Transit Street	City Bikeway	City Walkway	Local Service Truck Street	Major Emergency Response	Local Street & Greenscape Street
Southwest Pedestrian Trail (Wildwood Trail)					Off-Street Path			
Sunset Highway (US26)		Regional Trafficway	Regional Transitway			Major Truck Street	Major Emergency Response	Urban Throughway
SW 55th Dr	Neighborhood Collector	Neighborhood Collector	Local Service Transit Street	Local Service Bikeway	City Walkway	Local Service Truck Street	Minor Emergency Response	Local Street
West Side MAX			Regional Transitway					
Ramsey Dr, Ramsey Cres, Walmar Dr, Meridian Ave, Panorama Ave, Union Ave, Hobrook Ave, Maple Ave, Electic Ave, Spring Ave, St Helens Ave, Penridge Rd, Skyline Crest Rd, Brynwood Ln, 81st Pl, 84th Pl, Ash St, 83rd Pl, Copeland St, Wilmont Ave, Tuality Way,								
	Local Access	Local Service Traffic Street	Local Service Transit Street	Local Service Bikeway	Local Service Walkway	Local Service Truck Street	Minor Emergency Response	Local Street

Table 8 Proposed Street Classifications (changes are highlighted in grey.)

City of Portland designations and classifications were implemented for added linkages outside the County classification, such as US 26, Oregon 43, the MAX tunnel, the Willamette Shoreline railroad, the Wildwood Pedestrian Trail, and the Springwater Corridor. The Emergency Response street classification in the TSP has traditionally been designated only within City boundaries, extending the routes into the pockets was necessary on NW Cornell, NW Miller, SW Patton, SE Jenne, SE Clatsop, and SE Barbara Welch. Similar extensions of other classifications were designated for SW Palatine Hill,

SE Jenne, SE 162nd, and SW Patton. Significant traffic upgrades were given to SW 55th and SW Clatsop to reflect County functional classifications. SE Baxter was the only totally newly designated street, and was given various local street designations. As for the City TSP classifications, only freight was virtually unaffected by extending City classifications into the pockets.

The methodology used for this conversion is based upon the adopted City Transportation System Plan (TSP), the Regional Transportation Plan (RTP), the County Functional Classification Policies and the Pleasant Valley Plan District. Since the County does not have all of the classification types used by the City, such as Pedestrian and Transit, RTP classifications were used in some cases since all classifications must be consistent with the RTP. The Motor Vehicle conversion matrix and other classification conversion principles are shown on Table 9 below.

Metro RTP Classification	Portland TSP Classification	Multnomah County Classification
Principal Arterial (Freeway)	Regional Trafficway	Freeway
Principal Arterial (Highway)	Regional Trafficway/Major City Traffic Street	Principal Arterial
Major Arterial	Major City Traffic Street	Major Arterial
Minor Arterial	District Collector	Minor Arterial
Collector of Regional Significance	District/Neighborhood Collector*	Major Collector
Not mapped	Neighborhood Collectors	Neighborhood Collector
Not mapped	Local Service Traffic Street	Local Urban Streets

Table 9 Motor Vehicle Classifications Conversion Matrix.

Generally, only a few of the City's Neighborhood Collectors are considered Collectors of Regional Significance by Metro. If a street is shown on the RTP Public Transportation Map, it is classified as a Major City Transit Street by the City. If a street is not on the RTP Public Transportation map, and has existing transit service, it is classified as a Minor Transit Street. All streets with transit classifications higher than Local Service Transit Street are usually classified as City Walkways. Using Multnomah County Bike Route Master Plan Map, all bike routes shown on streets become City Bikeways. All routes off-street become Off-Street Bicycle Paths. Using the RTP map, all Regional Main Roadway Routes become Major Truck Streets. All Road Connectors become Minor Truck Streets.

Functional Classification Mapping

This section provides a technical description of the process used in creating the street classification maps for this project. The series of 24 classification maps were created in a single Geographic Information System (GIS).

Data Description & Methodology

The task of mapping street classifications in the Multnomah County Urban Pockets was performed in a GIS, most of which was done with a software called ArcMap 8.2, produced by ESRI. The GIS contains a set of different data and mapping layers showing street segments and centerlines, land uses by tax lots, rivers, topography, aerial photos, general land use zoning, landmarks, and various jurisdiction boundaries. The data came from three main sources: Multnomah County, the Metro regional government, and the City of Portland.

While most of the mapping layers used were for display purposes only, three layers were of special significance. The most important, from a GIS perspective, was the Urban Pocket boundary. The City of Portland, like many other cities, services and regulates unincorporated areas just outside its city limits in an area called the Urban Service Area. Such areas are delineated in official ordinances. In general, the urban pockets that Multnomah County has included in this study completely overlap the City of Portland Urban Service Areas. However, there are two areas just beyond outer southeastern Portland that are not yet officially in the Urban Services Area, but are included in this study. It was assumed in the GIS that these areas would soon be added to the Urban Service Areas. Only after carefully correcting the delineation of the urban pockets could the subsequent vital layers be properly examined.

The second special layer was the Multnomah County Functional Street Classification, which is a descriptive classification of traffic use. While it describes actual or expected traffic functionality of a road segment, it also has assumed or implied attributes for other modes on each roadway. The compatibility of each roadway to be used by different modes is based upon the width of the road, the strength and age of the roadbed (as built to certain standards), and the presence or absence of extra sidewalks, shoulder width, lanes, or right-of-way. In addition, land use zoning and building setbacks are affected by the functional classification, which in turn is affected by increases or decreases in traffic volume. One of the purposes of this study is to compare the designated County classification(s) with City of Portland street classifications, including in graphical format.

Unlike the County descriptive street classifications, the City of Portland uses a prescriptive street classification system. The Transportation System Plan classifies streets upon desired functionality. Any conflicts between the desired functionality and actual functionality are expected to be mitigated through future land use or transportation changes, or by changes in public policy. A limitation of the Portland TSP is that it often conflicts with or even ignores actual traffic behavior. If over time traffic mitigation or land use changes do not occur, a roadway may rapidly deteriorate or become hazardous.

The database is divided into eight different classifications: traffic, transit, bicycle, pedestrian, emergency response, freight, urban design, and green streets (which is considered to be a subset of urban design in the TSP, but not in the GIS.) Because the Portland TSP is a “live” layer being constantly updated and corrected (officially it is current as of November 12, 2004), but local streets are still being added, any changes to the geographical parameters of the shapefile had to be done outside of the original database. For the purposes of analysis in the GIS of the two street classification systems in the urban pockets, both layers were “clipped” from their master layers, so that they extended only within the pockets. Additional streets outside of the Portland Urban Services Area, namely SE Baxter and SE Jenne Road, were then added to the hypothetical TSP layer, and included with the other streets for the visual comparison of future street classifications.

In conjunction with the GIS, a spreadsheet was created to document changes in the street classifications. The first part of the spreadsheet names all the “streets” within the urban pockets, including paved streets (both public and private), gravel roads, highways, dirt paths in the public right-of-way, multi-use bicycle paths, and railroad right-of-ways. It then describes the existing classifications (if any) of each “street” (as of November 12, 2004) within the County and City classification schemes and all subcategories. The second part of the spreadsheet deals with the proposed changes to the classification of each street. Generally, the City TSP added to the street list many linkages that the county

does not maintain or even classify. All changes to the classifications of each street are highlighted and noted, and subsequently modified and edited in the GIS.

Map Production

After consulting with planning staff at Multnomah County and the City of Portland Office of Transportation, it was decided that each of the three main urban pocket areas (Far Southeast, Dunthorpe, and Forest Park/SW Hills) need to have a separate series of maps. They represent the seven different street classifications of the City TSP (traffic, transit, bicycle, pedestrian, freight, emergency response, and street design), with the County's functional classification being shown on the TSP traffic classification maps. Twenty-one color maps were created.

For public presentations and for use by the CAC and TAC, large color maps were created, showing a base of general County zoning within the pockets, tax lot lines, pocket boundaries, the City of Portland boundary, county lines, major rivers, parks and open spaces (data from Metro), and arterials outside of the Portland city limits. All streets within the pockets were labeled, as were arterials outside the pockets. On each of the maps, the corresponding TSP layer was shown, with the County functional classification being shown only on the TSP traffic classification maps. The symbols used to represent the TSP layers were the same as those used in the Portland TSP document (black and grey lines and dashes), while the County functional classification was shown in color (red and blue lines and dashes), offset from the TSP lines by a few millimeters.

The black and white (grey tone) maps were more difficult, as color was not an option (too costly and difficult to reproduce). Since less detail could be shown on the smaller 8.5" x 11" maps, certain details were dropped and the maps were simplified. Fewer labels were applied, and line width, combined with grey tones, became more important. Unlike the color maps, the County classifications were put on a separate map from City classifications. For areas needing greater detail, insets were used.

Transportation Values Survey

To gather comments on the proposed changes to the TSP classifications and the proposed master plan, as well as feedback on the planning process itself, a transportation values survey was distributed at neighborhood association meetings for each of the three pocket areas (for a survey sample, see Appendix F). Each respondent was asked to select their three highest priorities among a list suggested by the TAC and CAC, and to rank those three choices. The choices were:

- Provide neighborhood connections through a network of streets
- Manage congestion
- Protect the environment
- Provide bicycle and pedestrian facilities
- Provide safety and livability on local streets
- Provide safe routes to schools
- Expand transit services
- Other concerns

Survey results were then gathered and compiled separately for each of the three areas. Responses of "#1" were given greater weight by multiplying the results by 3, "#2" were

multiplied by 2, and “#3” by 1. Totals were then divided by the total values for each area, for a weighted percentage for each value. (See table below.)

Transportation Value on Survey	Forest Park / Southwest Hills	Dunthorpe / Riverdale	Far Southeast / Pleasant Valley
Provide neighborhood connections through a network of streets.	8%	6%	19%
Manage congestion	13%	9%	27%
Protect the environment	9%	4%	5%
Provide bicycle and pedestrian facilities	13%	14%	8%
Safety and livability on local streets	35%	35%	23%
Safe routes to schools	12%	29%	5%
Expand transit services	6%	0%	5%
Other	3%	3%	5%
Total	100%	100%	100%

Table 10 Summary Table of Transportation Values Survey.

As expected, safety is the leading concern of most residents. It is the most important issue for people living in the Forest Park/Southwest Hills and Dunthorpe areas, and number two in the Far Southeast. Transit expansion and environmental protection are relatively low concerns.

While safety is a major consideration for future planning, the residents of Pleasant Valley/Far Southeast have greater concern for congestion management and related street connectivity. With the few existing roads being narrow and poorly connected, traffic, both through and local, can be congested during peak periods. Any future growth is likely to make the situation even more constrained. Providing bicycle and pedestrian facilities is a distant fourth, while all other choices are largely ignored.

In contrast, Dunthorpe and the Forest Park/Southwest Hills areas are very similar, according to the surveys. Safety issues concerning cut-through traffic, the provision of better bicycle and pedestrian facilities, and providing safe routes to local schools are leading issues in both areas, while congestion management and connectivity are also important. The other values were of much less consequence.

After the review of County and City street classifications, making adjustments where necessary based upon CAC, TAC, and citizen input, a master street plan for each of the pockets was created, which is discussed in Chapter 5: Master Street Plan.

CHAPTER 4: MASTER STREET PLAN

Plan Development Process

The objective of master street planning is to identify areas where future street connections are needed and are likely to be provided through the development process. A methodology is used to identify transportation needs as well as the cost and feasibility of new street connections. Connections that meet a series of criteria as well as public scrutiny then become part of a Master Street Plan. Alignment and design specifics are not included in Master Street Plans. Connections are identified generally, leaving design and alignment details to be worked out during the development process.

A baseline methodology that acknowledges and responds to the multiple constraints that limit connectivity was designed based upon the Portland SW & Far SE Master Street Plan of 2001. The final methodology used evolved during the project. It includes a greater emphasis on environmental and slope constraints, and allows for greater future land consolidation than the 2001 methodology.

Methods, Tools, & Criteria: First GIS Iteration

Because the methodology has been designed to find parcels that are best suited for future development and increased street connectivity, several checks were used to eliminate other properties that are deemed to be unsuitable for further consideration. Using Geographical Information Systems (GIS), property lots in the study area were eliminated from further examination by a process based upon previously established criteria.

In the development of criteria, there are four steps for defining the study area and identify the location of possible connections. At each level of analysis, criteria were applied to the preliminary study areas to further refine these areas. The fourth mapping level resulted in the refined study areas, which serve as a basis for locating recommended connections.

The first step of the methodology identified where streets, both public and private, do not meet the Metro spacing standard for connectivity, which is 530 feet for streets and 330 feet for pedestrian/bicycle connections. The second step refined the study area to places where connectivity planning makes the most sense; that is, areas where there is sufficient development potential and area to support construction of new connections. Finally, areas that have severe connection and building constraints were then eliminated, resulting in a few focus areas for future development and street connectivity.

Step One: Finding Existing Connectivity and Excluded Zoning

Blocks that meet the street spacing standards or serve exempt land uses were excluded. A block is defined as a collection of parcels fully surrounded by three or more streets. If any one street bounding a block is greater than 530 feet without an intervening intersection, then that block is determined to not meet the street spacing standard. Therefore, there is need for one or more additional connections. Parcels within well-defined blocks, parcels with hospitals and schools, or zoned Parks, Open Space, or Industrial, were eliminated from further consideration.

Criteria:

- Street spacing (between intersections) standard:

- Street connection every 530 feet
- Pedestrian/bicycle connection every 330 feet
- Excluded areas not subject to the process of master street planning:
 - Parcels zoned as Parks, Open Space, Industrial
 - Institutional land uses such as Hospitals and Schools

Resulting Maps:

- Parcels that are on blocks meeting street spacing standards
- Parcels not meeting street spacing standards, but excluded due to zoning
- All other parcels, which were further examined in the next steps

Step Two: Finding Development Opportunities

New street connections are frequently development driven, since many streets, pedestrian walkways, and bicycle paths are built during the development process as conditions for approval. Large or contiguous parcels with development potential are likely to provide greater opportunities for street connections. Therefore, the Master Street Plan process focuses on areas with greater development potential. Policies regarding connectivity and the Metro standards still apply to parcels with smaller development potential. Properties that have minimal redevelopment potential were excluded.

Criteria:

- Development potential of vacant or redevelopable parcels:
 - Parcels are determined to be redevelopable if the land value is greater than the improvement or building value. In other words, the improvement or building value is less than 50% of the total value, using Multnomah County Tax Assessment Data.
- Long-term redevelopment potential based on zone changes:
 - Parcels are determined to have long-term redevelopment potential when the current zoning is different from the Comprehensive Plan zoning. This criterion is only applied in the Far Southeast area and Pleasant Valley.
- Minimum parcel size of 2 acres, contiguous

Resulting Maps:

- Parcels having structures worth more than the land they are on
- Remaining parcels that are smaller than two acres (87,200 square feet)
- All other parcels, which were further examined in the next step

Step Three: Finding Development Constraints

Barriers to connectivity, including man-made barriers, physical and environmental constraints, and significant wildlife habitat constraints are taken into consideration when identifying potential connections and indicating their alignment. The greater the constraint, the less certainty there can be about the feasibility and alignment of a connection. In cases where there is both a need for a connection and development potential but there is a constraint or barrier, locating specific connections is left to the

development review process. Parcels with significant natural or man-made barriers to connectivity were excluded.

Criteria:

- Environmental resources, such as City environmental protected zones
- Natural barriers, such as slope hazard areas
- Manmade barriers, such as freeways, existing development and structures

Resulting Maps:

- Parcels excluded due to environmental constraints
- Parcels excluded due to natural physical barriers
- Parcels excluded because they contain man-made barriers.
- Remaining parcels, which became the focus areas of step four.

Step Four: Preliminary Master Street Plan Base Map

The previous mapping levels resulted in a base map identifying parcels with development potential, where there are barriers or constraints affecting the level of certainty about potential connection alignment. This final study area map is used to focus the process of locating proposed new connections. Parcels in blocks that do not meet the street spacing standard and have development potential are grouped into focus areas. During the process of identifying new connections, staff found the map data to be inadequate. While a single parcel of two acres had a high potential for redevelopment, a cluster of smaller parcels could also be just as conducive towards redevelopment. In addition, steep slopes and environmentally protected areas were found to be greater constraints upon development than building value.

Methods, Tools, & Criteria: Second GIS Iteration

After public input from the Technical Advisory Committee and the Citizen Advisory Committee, using the original GIS methodology, a second GIS was created with a slightly different methodology. Like the 2001 GIS methodology, the first step of the 2005 methodology identifies where streets, both public and private, do not meet the Metro spacing standard for connectivity, which is 530 feet for streets and 330 feet for pedestrian/bicycle connections. The second step refines the study area to places where connectivity planning makes the least sense; that is, areas where there is sufficient slope and environmental constraints to block most street connections. Finally, areas that are already built up are then eliminated, resulting in focus areas for future development and street connectivity.

Step One: Finding Existing Connectivity & Excluded Zoning

Finding parcels on blocks that either already meet the street spacing standards or, for various reasons, are excluded. A block is defined as a collection of parcels fully surrounded by three or more streets. If any one street bounding a block is greater than 530 ft. without an intervening intersection, then that block is determined to not meet the street spacing standard. Therefore, there is need for one or more additional connections. Parcels within well-defined blocks, those that have hospitals and schools, or are zoned by Portland as Parks, Open Space, or Industrial, should be eliminated from further consideration.

Criteria:

- Street spacing (between intersections) standard:
 - Street connection every 530 feet
 - Pedestrian/bicycle connection every 330 feet
- Excluded areas not subject to the process of master street planning:
 - Parcels zoned as Parks, Open Space, Industrial
 - Institutional land uses such as Hospitals and Schools

Resulting Maps:

- Parcels that are on blocks meeting street spacing standards
- Parcels not meeting street spacing standards, but excluded due to zoning
- All other parcels, which were further examined in the next steps

Step Two: Finding Development Constraints

Parcels with significant natural or man-made barriers to connectivity were excluded.

Criteria:

- Environmental resources, such as City environmental protected zones
- Natural barriers, such as slope hazard areas
- Manmade barriers, such as freeways, existing development and structures

Resulting Maps:

- Parcels excluded due to environmental constraints
- Parcels excluded due to natural physical barriers
- Parcels excluded because they contain man-made barriers.
- Remaining parcels, which became the focus areas of step three.

Step Three: Finding Development Opportunities

Properties that have minimal redevelopment potential were excluded.

Criteria:

- Development potential of vacant or redevelopable parcels:
 - Parcels are determined to be redevelopable if the land value is greater than the improvement or building value. In other words, the improvement or building value is less than 50% of the total value, using Multnomah County Tax Assessment Data.
- Long-term redevelopment potential based on zone changes:
 - Parcels are determined to have long-term redevelopment potential when the current zoning is different from the Comprehensive Plan zoning. This criterion is only applied in the Far Southeast area and Pleasant Valley.
- Parcel size is classified into five area types, larger areas being easier to redevelop:
 - Less than a quarter acre, or 10,890 square feet

- Quarter to half acre, or 21,780 square feet
- Half to one acre, or 43,560 square feet
- One to two acres, or 87,120 square feet
- Over two acres

Resulting Maps:

- Parcels having structures worth more than the land they are on.
- All other parcels, classified by area, which were further examined in step four

Step Four: Preliminary Master Street Plan Base Map

The previous mapping levels result in a base map identifying locations with the greatest development potential and barriers or constraints affecting the level of certainty about any connection alignment. This final study area map is used to focus the process of locating proposed new connections. Parcels in blocks that do not meet the street spacing standard and have development potential are grouped into focus areas. In addition, surrounding streets and rights-of-way, both public and private, are identified, as were any rail corridors, bike paths, and pedestrian trails in the area.

Defining New Connections

Once the study area was refined and focus areas were identified, the next step was to define the actual location of new connections to meet the connectivity standards and to determine how to characterize them based on the level of certainty regarding the connection alignment or connection points. The procedure for developing the Master Street Plan, the process for actually drawing symbols on maps, comprises four steps, as outlined below. The type of symbol used to indicate a connection corresponds to the degree of certainty regarding connection points or the alignment of the connection. The certainty of the connection was dependent upon the adjacent street alignments, physical and topographic barriers, and environmental constraints. A majority of the connections have a low level of certainty. This is due to the large amount of site design information and survey work necessary to confidently specify connections. In such instances, decisions on the connection alignment or points of connection are left to the development review process.

Step One: Verification of Rights-of-Way Status

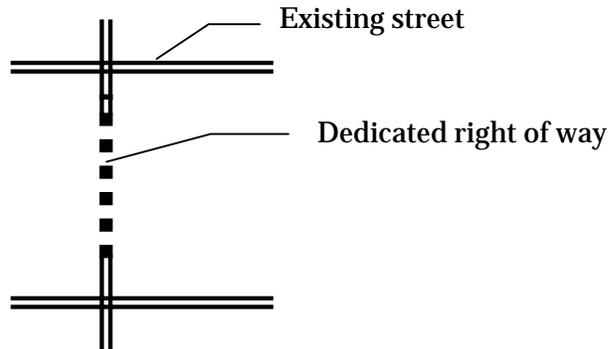
The process for locating connections began with updating the base map to show all dedicated rights-of-way and identifying which rights-of-way are improved and which are unimproved. In addition to dedicated rights-of-way, the map also shows rights-of-way which will be dedicated in the near future as required by subdivisions or other land use actions that are currently in the process of approval. Land use cases in progress or recently approved, including land division and minor partitions, were researched to identify rights-of-way awaiting dedication.

Step Two: Define the Type of Map Connection**Connections on Dedicated, Unimproved Rights-of-Way**

In focus areas where connections were located along dedicated, unimproved rights-of-way, connections were indicated on the map by dashed lines. These were connections with the greatest level of certainty regarding connection alignment and connection

points, since the right-of-way had already been acquired. The connections proposed along rights-of-way awaiting official dedication were also indicated on the map by dashed lines.

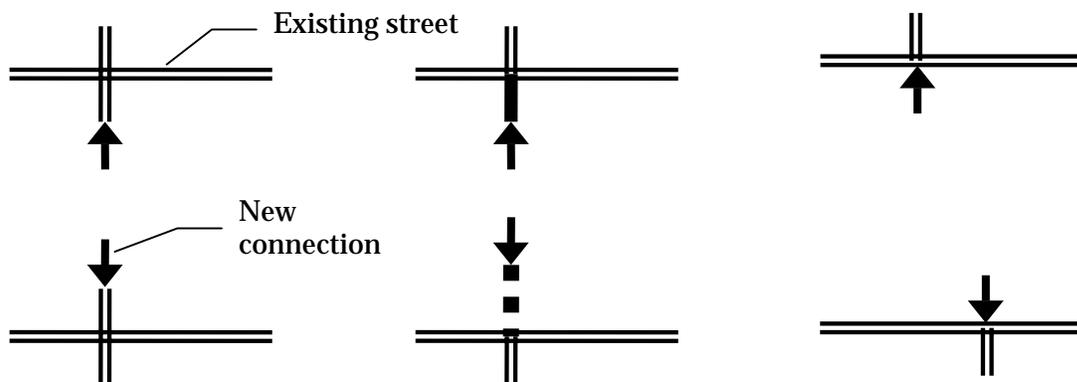
Example:



Connections to Specific Points

In focus areas where there were existing cross streets or right-of-ways (those identified in Step 1) approaching or penetrating the block faces, connections were identified at specific points. Such connections were identified in areas that have development or redevelopment potential and minimal or no barriers and environmental constraints or concerns. These recommended connections are indicated with arrowheads, because certainty about the connection point was high. The arrowhead indicates the street segment to which the new street or path must connect. To avoid implying a specific alignment for the recommended connection, no lines were drawn between the connection point arrowheads. The alignment will be determined through the development review process if and when it occurs.

Examples:

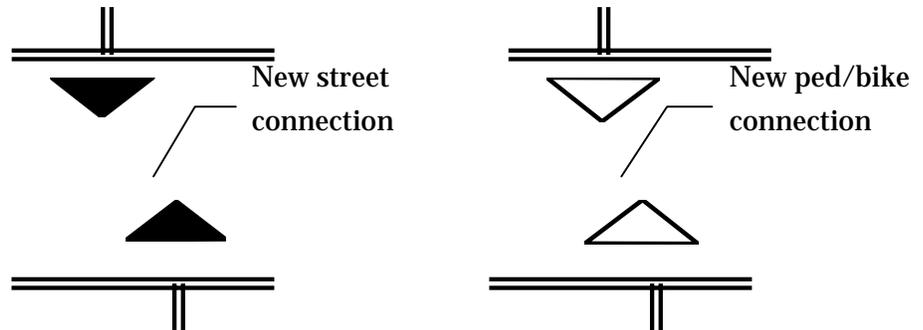


Connections between Block Faces

In focus areas where a specific point at which a connection would join the street system was not apparent, a triangle indicates that a connection will be made to some point along the block face to the adjacent street. A solid triangle indicates a street connection, while a hollow triangle indicates a bike/ped connection. These areas were identified as being in need of additional connections and having development potential and minimal or no

barriers and environmental constraints and concerns. The alignment and connection point will be determined through the development review process if and when it occurs.

Examples:



Remaining General Connection Needs

For the remaining non-shaded planning areas, no specific alignments, connection points or required numbers of connections were identified or specified. Rather, these areas were identified as being in need of additional connections, with the actual locations and alignments of the needed connections determined during the course of the development review process if and when it occurs. The lack of a symbol does not make these blocks exempt from the street spacing standards defined in existing policy. In these cases, it was determined that there were a lack of development or redevelopment potential, sufficient barriers, environmental concerns, or disagreement on the location and merit of a connection, thus preventing a specific recommendation on the connection points or alignment.

Step Three: Apply Types of Map Connections

Once the types of connection recommendations and symbols used to indicate them were defined, they were systematically applied to the focus areas on the maps.

Step Four: Additional Considerations for Locating Connections

After the final selection has been made for new connections, planning staff then sought additional input from the various stakeholders through meetings with the TAC, the CAC, and affected neighborhood associations for additional connections which were also given consideration and incorporated into the planning process. In Far Southeast Portland, the Pleasant Valley Concept Plan was also used to determine likely future alignments in the area east of SE 162nd Ave and north of SE Baxter Road. The resulting product was known as the Preliminary Master Street Plan.

Preliminary Master Street Plan Evaluation Process

Following the presentation of the Preliminary Master Street Plans to the public at the first set of neighborhood meetings, project staff proceeded with the evaluation of the proposed new connections. This evaluation included five major steps:

- Review of the proposed connections using maps and aerial photos with information about environmental conditions, existing development and the existing transportation network;

- Site visits to document current conditions in the vicinity of the proposed connections related to development, topographical conditions, and environmental issues;
- Analysis of potential traffic operational issues associated with proposed connections;
- Preparation of a comprehensive spreadsheet, showing the connection inventory matrix and a description of each proposed connection, results of the evaluation and the site visits; and
- A staff workshop to review the results of the evaluation and make final recommendations for the Master Street Plans.

Evaluation Criteria

The proposed transportation connections included in the Preliminary Master Street Plans were evaluated in relation to four major categories of criteria:

- Implementation issues related to environmental factors, the presence of barriers in the vicinity of a connection, and the extent of development in the vicinity of a connection;
- Traffic impacts on the local street network and the arterial network in the vicinity of the proposed connections;
- Comments received from area residents, property owners and public agencies through public meetings, phone calls, and written materials; and
- Access versus Connectivity: Does the proposed connection provide primarily only local access versus connectivity within the broader street system.

Evaluation Results

Following the evaluation, the Preliminary Master Street Plans were revised and the Recommended Master Street Plans were completed. Numerous changes were made. After detailed review of topographical and environmental constraints, several of the proposals were subsequently dropped. Among the reasons given:

- Roadways with grades over 15% were deemed as too steep for local streets.
- Cul-de-sacs do not lend themselves to connectivity.
- Similarly, no-outlet loops and cut-throughs also lack connectivity.
- Roadways, which usually have 50 foot or 60 foot rights-of-way, are not suitable for running the length of narrow lots of under 125 feet.
- Roadways that require many turns will end up consuming developable land.
- Existing houses should not be removed to create new roadways.

A determination was then made as to whether the connection should be a bicycle / pedestrian facility, or a full street. The functional classification was then determined for the proposed new street connections.

Distinction between Street & Pedestrian/Bicycle Connections

Priority was given to locating full street connections to provide for the greatest number of travel modes. In instances where a street connection was not feasible due to barriers or constraints, a pedestrian/bicycle connection was recommended.

Connection Inventory Matrices

All information gathered for each connection was recorded in a connection inventory matrix, one for each of the study areas, as shown below on Table 11. This information includes the location, level of alignment specificity, type of connection, barriers, presence of environmental zones, traffic impacts, field notes, and comments from the neighborhood meetings, Citizen Advisory Committee (CAC) and Technical Advisory Committee (TAC). The information provided in these matrices was used to evaluate the feasibility of each connection. Finally, the matrices indicate whether or not a connection was removed following evaluation.

Seg ID	Street Name	From	To	Street Classification	Alignment Status	Slope	Notes
Dunthorpe							
D1	SW Northgate	SW Palatine Hill Rd	SW Terwilliger Blvd	Ped/Bike	Certain	13%	Pedestrian easement
D2		SW Tyron Hill Rd	SW Military Rd	Local Street	Uncertain	3%	Street connection
D3		SW Buddington St	SW Summerville Ave	Local Street	Uncertain	5%	Street connection
D4		SW Military Rd	SW Iron Mountain Blvd	Local Street	Uncertain	2%	Street connection
D5	SW Summerville	SW Riverdale Rd	SW Palatine Hill Rd	Ped only	Certain	12%	Ped facility along Summerville R.O.W., with stairs, max slope 22%
Far Southeast							
SE1a-g		SE 162nd Ave	SE 170th Ave	Collector	Uncertain	3%	Pleasant Valley Concept Plan
SE2a-d		SE 162nd Ave	SE 170th Ave	Local Street	Uncertain	4%	Pleasant Valley Concept Plan
SE3a-h		SE 162nd Ave	SE 170th Ave	Collector or Local Street	Uncertain	3%	Portland style blocks & grid alternative to PVCP
SE4		SE 162nd Ave	SE 168th Ave	Collector	Uncertain	2%	Pleasant Valley Concept Plan - future bridge approach
SE5a-c		700' N of SE Clatsop St	1500' N of SE Clatsop St	Local Street	Uncertain	9%	Grid in focus area; 15% at steepest
SE6		SE Clatsop St	700' N of SE Clatsop St	Local Street	Uncertain	4%	Connects FSE5a to existing ROW
SE7a-c		SE Clatsop St	SE Barbara Welch	Local Street	Uncertain	6%	Loose grid connecting properties
SE8	SE Barbara Welch	Along SE Barbara Welch		Ped/Bike	Certain	5%	Bike/Ped safety improvements along roadway. Environmental impacts to be mitigated.
SE9a-b	Springwater Trail	SE Jenne/174th Ave & SE Circle Ave	Springwater Trail	Ped/Bike	Certain	none	Street crossing safety improvements
SE10 a-d		Along Springwater Trail		Ped/Bike	Uncertain	none	Require bike/ped connections to adjacent properties
SE11		SE Bears paw St	SE Jenne Rd	Local Street	Uncertain	13%	Street connection
SE12		SE Jenne Rd	SE Circle Ave	Local Street	Uncertain	3%	Street connection
SE13		SE Jenne Rd	SE Circle Ave	Local Street	Uncertain	4%	Street connection
SE14		SE Jenne Rd	SE Circle Ave	Local Street	Uncertain	7%	Street connection
SE15		SE Jenne Rd	SE Circle Ave	Local Street	Uncertain	2%	Street connection
SE16		SE Jenne Rd		Local Street	Uncertain	3%	Street connection
SE17		SE 174th Ave	SW 11th St (Gresham)	Local Street	Uncertain	1%	Coordinate with 174th/Jenne rebuild
Forest Park/SW Hills							
FP1		NW 84th Pl	NW Miller Rd	Local Street	Uncertain	5%	Street connection
FP2a		NW 83rd Pl	NW Miller Rd	Local Street	Uncertain	7%	Street connection
FP2b-c		NW 83rd Pl	NW Miller Rd	Local Street	Uncertain	9%	Street connection
FP3a		NW 85th Ave	NW 82nd Ave	Local Street	Uncertain	5%	Street connection
FP3b		NW 82nd Ave	NW Tuality Way	Local Street	Uncertain	6%	Street connection
FP3c		NW Tuality Way	NW Miller Rd	Local Street	Uncertain	7%	Street connection
FP3d		NW 85th Ave	NW Stark St	Local Street	Uncertain	5%	Street connection
FP4	SW 61st Ave	SW 61st Ave	at Sunset Hwy	Ped/Bike	Certain	0%	Bike/Ped connection, ramp to bikeway
FP5	SW 57th Ave	SW Salmon St	SW Main St	Local Street	Certain	10%	Roadway would use existing ROW
FP6a		SW Humphrey Blvd	S end of pocket	Local Street	Uncertain	8%	Street connection
FP6b		SW Hewett Blvd	N end of pocket	Local Street	Uncertain	11%	Connects 6a to SW Hewitt in Portland

Table 11 Multnomah County Urban Pockets Master Street Plan Matrix.

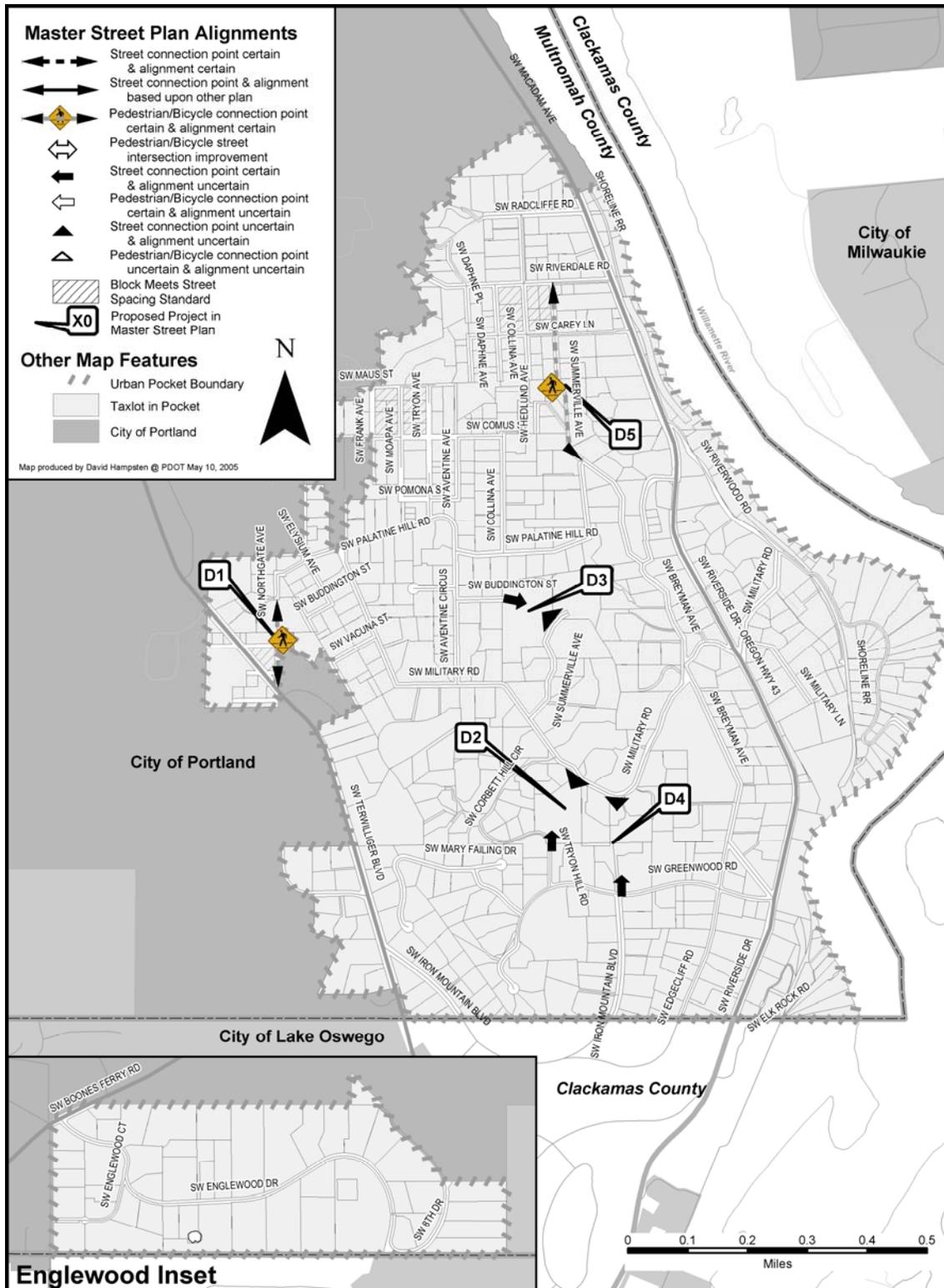


Figure 34 Master Street Plan for the Dunthorpe Urban Pockets.

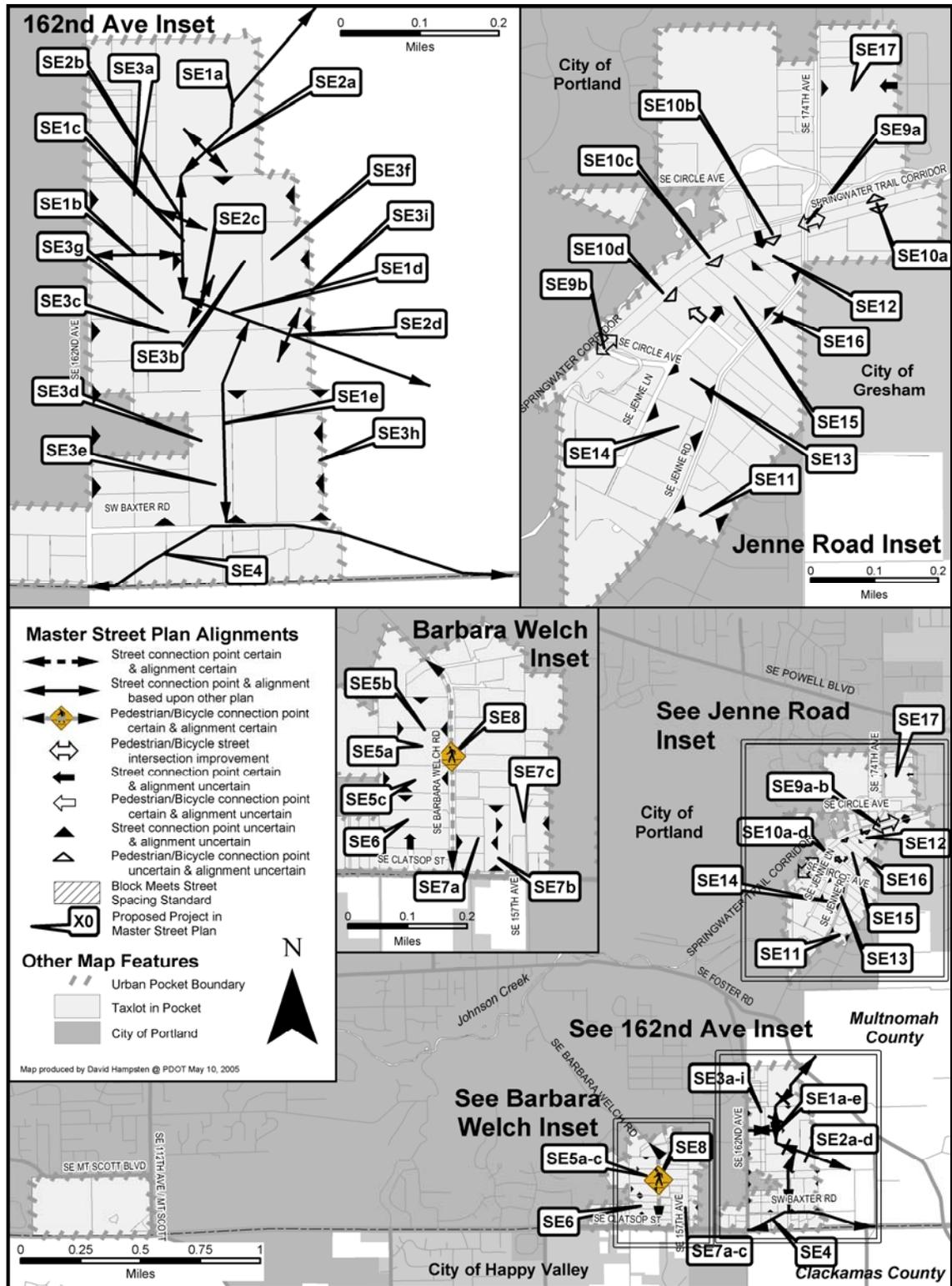


Figure 35 Master Street Plan for the Far Southeast Urban Pockets.

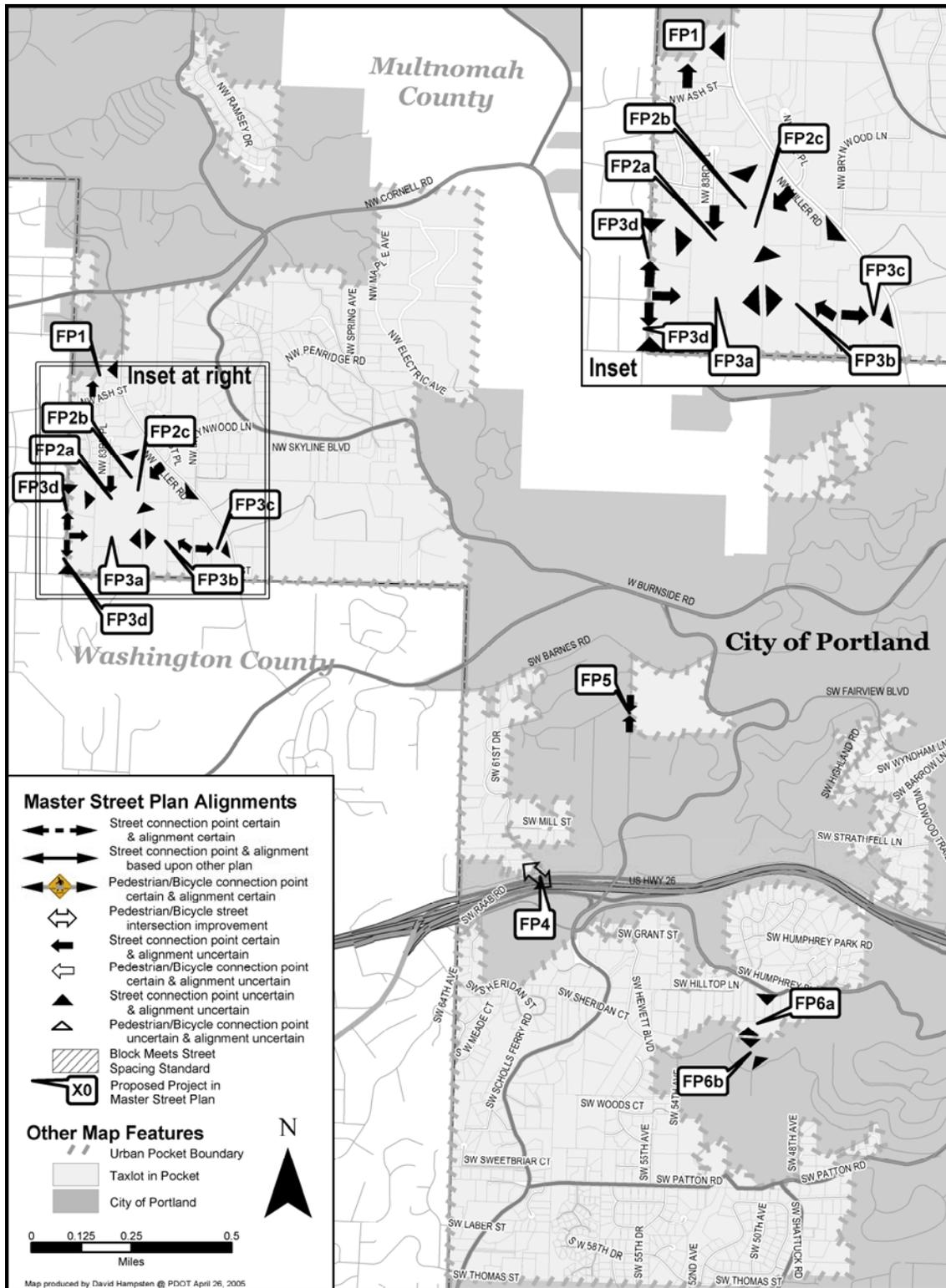


Figure 36 Master Street Plan for Forest Park/Southwest Hills Urban Pockets.

In conclusion, the master street planning effort generated a list of potential future projects and improvements, which are discussed in Chapter 6: Transportation System Improvements.

CHAPTER 5: TRANSPORTATION SYSTEM IMPROVEMENTS

The Transportation System Plan (TSP) for the Unincorporated Urban Pockets of Multnomah County guides and coordinates investment in the transportation network over the next 20 years. The plan guides and coordinates investment in the transportation network through policy directive specified in the Policy and Standard section of this report. This chapter focuses on public investment in transportation infrastructure needs and services, and explains how identified needs will be met over the next twenty years.

Regulatory Compliance

In accordance with the State Transportation Planning Rule (TPR), TSP must include a list of planned transportation facilities and major improvements, including a rough cost estimate, a general timing estimate, and the anticipated service provider for the facilities. The TSP must also provide a discussion of existing and potential funding mechanisms to support these facilities. TSPs adopted pursuant to the TPR fulfill the requirements of OAR 660-011-0000 through 0065, and implements State Goal 11 [Ors 197.]

Project Identification Process

Transportation Improvements List

The transportation improvements list helps Multnomah County meet identified transportation needs over the next 20 years by identifying significant capital improvements. The list is the result of public outreach within the unincorporated urban pockets and detailed technical review of previous planning efforts. The project ideas were compiled from the following sources:

- Citizen Advisory Committee input
- Neighborhood Association meetings
- City of Portland, Transportation System Plan Major Transportation Improvement list
- Multnomah County Capital Improvement Program Adopted Projects list
- Multnomah County Unincorporated Urban Pockets Master Street Planning Process

Ideas that were primarily physical improvements to the transportation system were categorized as projects. The initial collection of project ideas was screened and refined. Several good project suggestions, such as transit service, did not fall within Multnomah County's responsibilities. Other projects fell outside of the unincorporated urban pockets study area, were operational projects, and/or would be addressed in a separate study, for example the Highway 43 Study. Such projects were incorporated in the reference list program discussed later in this chapter. Finally, some project ideas were physically prohibitive based on the area topography and/or conflicted with or were addressed in a separate planning processes. Such project ideas are listed in Appendix C and the rationale for their non-inclusion is provided.

Evaluation Criteria

Evaluation criteria were derived from the Citizen Advisory Committee, TPR requirements, and County and City policies. The Citizen Advisory Committee (CAC) identified transportation values that were ranked through a value survey by CAC

members and neighborhood association meeting attendees. The resulting seven criteria are “cross-modal” and evaluate various policy concerns to support balance among modes. The evaluation criteria were applied to the project list to provide a relative ranking of how well each project meets identified values for the unincorporated urban pockets. The evaluation criteria are described below:

- **Reduce Congestion (Scale: 0-4)**
Projects that reduce congestion by increasing mobility or enhance alternatives to vehicular travel receive the highest points.
- **Increase Safety (Scale: 0-5)**
Projects that address and existing deficiency by improving pedestrian, bicycle and/or vehicular safety. An intersection or crossing improvement that corrects a frequent crash site would receive the highest points. The safety criterion is more heavily weighted with an additional point to reflect neighborhoods’ strong support for safety based upon survey results.
- **Add Safe Routes to Schools (Scale: 0-4)**
Projects that reduce vehicular, pedestrian and bicycle circulation conflicts on routes to area schools receive higher points.
- **Protect the Environment (Scale: 0-4)**
Project that minimize or reduce impacts to the natural environment get higher points than projects with greater impacts to air, soil, water quality, noise and efficient use natural/recycled materials. Projects that support use of energy efficient modes of travel, such as walking and bicycling would receive higher points than road widening and paving.
- **Enhance Connectivity (Scale: 0-4)**
Projects that enhance street connectivity for all modes and provide or improve local access to and from the neighborhoods and activity centers, especially in areas where deficiencies exist get higher points. Projects that provide connectivity to multiple destinations would receive higher points.
- **Widespread Community Support (Scale: 0-6)**
Projects that have a high level of unified community support (and little opposition) get higher points than projects with lower support. Higher point values are given if the project was suggested at several neighborhood associations and citizen advisory committee meetings, or if the project is listed in an adopted plan.
- **Increase Transportation Choices (Scale: 0-4)**
Projects that address an areawide, multimodal transportation need receive higher points and lower points for projects that address fewer modes.

Implementation Priority

Using the evaluation criteria scoring process, projects were prioritized for implementation based on total score. Those projects with higher scores are prioritized over projects with lower scores. Projects will be completed based on priority ranking, as funding becomes available during the 20-year life of the TSP. Projects were prioritized for each pocket separately and are denoted by the Project Identification Number. For example, “FP1” is the first priority of projects in the Forest Park/Southwest Hills unincorporated urban pocket.

Project List Updates

After the TSP is adopted, the project list will be updated periodically, at a minimum of five-year intervals through Multnomah County Capital Improvement Program.

TSP Projects and the Capital Improvement Program

The TSP's 20-year major transportation improvements list will be integrated into the development of Multnomah County's Capital Improvement Program for each two-year budget program. The projects will be rated and ranked using the same criteria that apply to all County projects. Inclusion within the Capital Improvement Program will be based partly on the implementation priority identified for the projects. Other criteria will be based on how well projects respond to issues and opportunities that may arise between periodic TSP updates. These include the ability to address a critical safety hazard, respond to a specific preservation need or significant development opportunity, or leverage external funding.

Coordination between Multnomah County and Other Jurisdictions

In addition to addressing the important issue of compliance with Transportation Planning Rule requirements, the County will also coordinate plan amendments, land development and project development actions that affect the transportation system with neighboring jurisdictions. The City of Portland administers the land use laws for the unincorporated pockets through a 2002 agreement between the City and the County. However, Multnomah County still retains jurisdiction and development review responsibilities for the transportation system. Coordination with neighboring jurisdictions for roadway maintenance or improvements could gain some efficiencies and enhance cost sharing opportunities.

Environmental Review of TSP Projects

TSP projects advanced into the CIP are assessed for potential impacts to sensitive environmental areas. If a project occurs in an Environmental Protection zone (p) or an Environmental Conservation zone (c) it may be subject to an Environmental Review to ensure that the project complies with development standards that protect environmental resources.

Reference List

The TSP reference list comprises needs without identifying specific projects. Needs on the reference list may require specific study, are deferred to a planned study, or do not qualify as "significant planned improvements" under the TPR, but are still important to livability, safety and an efficient transportation system.

Small-scale or non-traditional capital improvements, like a traffic calming project or a pavement rehabilitation project may not individually provide the same level of transportation services as a traditional multimodal street improvement project, and may not score well under the TSP evaluation criteria. The reference list provides a way to incorporate diverse yet important needs into the TSP. It also helps balance financial support for major projects with support for miscellaneous needs and preservation activities. Appendix C contains the reference list.

Reference List Criteria

During the project assessment phase, a qualitative analysis of each project idea determined whether the project should be assigned to the project list or the reference list. A need was assigned to the reference list if one or more of the following criteria applied:

- Primarily implemented by programs rather than capital improvements
- Scopes of work and costs are not yet known
- Needed solutions yet to be identified

Reference List and the Capital Improvements Program

In developing each CIP, reference list needs will be identified and submitted along with major projects for funding consideration. The inclusion of reference list needs in the CIP process enables the County to be flexible and responsive in meeting needs best addressed by small-scale or preservation projects.

Recommended Transportation Improvements

The following pages present the recommended transportation improvements list. The projects are organized by their location within an unincorporated urban pocket. Each unincorporated urban pocket area includes a project location map and project list.

Project identification numbers link projects to a specific unincorporated urban pocket area as follows:

- D series =Dunthorpe/Riverdale/Englewood area
- FP series =Forest Park/Southwest Hills area
- SE series =Far Southeast area

The project location map identifies the geographic location of each project within the unincorporated urban pocket. The project identification numbers link the map to the project list.

Within each unincorporated urban pocket, projects are listed in numerical order and include the following basic information:

- Name and location
- Brief description
- Lead agency (The public agency that owns the transportation facility or has primary management responsibilities for the project. It does not indicate financial commitment to the project.)
- Estimated cost (in current dollars)
- Estimated timing of construction

Dunthorpe: Major Transportation Improvements



Summerville Ave., SW (SW Riverdale Rd. to SW Palatine Hill Rd.):

Pedestrian off-street path

Add a pedestrian off-street path with stairs.

Multnomah County

\$146,000



Breyman Ave., SW (SW Palatine Hill Rd. to Hwy 43):

Traffic calming

Traffic calming treatments including speed bumps.

Multnomah County

\$8,500



Palatine Hill Rd, SW (Oregon Hwy 43 to Portland city limits) :

Bikeway

Retrofit bike lanes into existing street. Extend existing City of Portland TSP project into pocket area.

Multnomah County

\$ TBD



Willamette Greenway Trail, SW (Sellwood Bridge to Multnomah County boundary):

Trail extension

Extend trail into pocket area. Extend existing City of Portland TSP project into pocket area.

Multnomah County

\$ TBD

**Cost estimate not given pending ODOT Highway 43 Alternatives Analysis and Willamette Greenway Study.



Macadam Ave./ Riverside Dr./ Oregon Hwy 43, SW (Portland city limits to Multnomah County boundary):

Multimodal improvements

Multimodal (bike, pedestrian, and automobile) improvements. Extend existing City of Portland TSP project into pocket area.

Multnomah County

\$ TBD

**Cost estimate not given pending ODOT Highway 43 Alternatives Analysis.



Terwilliger Blvd., SW (Portland city limits to Multnomah County boundary):

Pedestrian improvements

Extend existing City of Portland TSP project into pocket.

Multnomah County

\$260,000

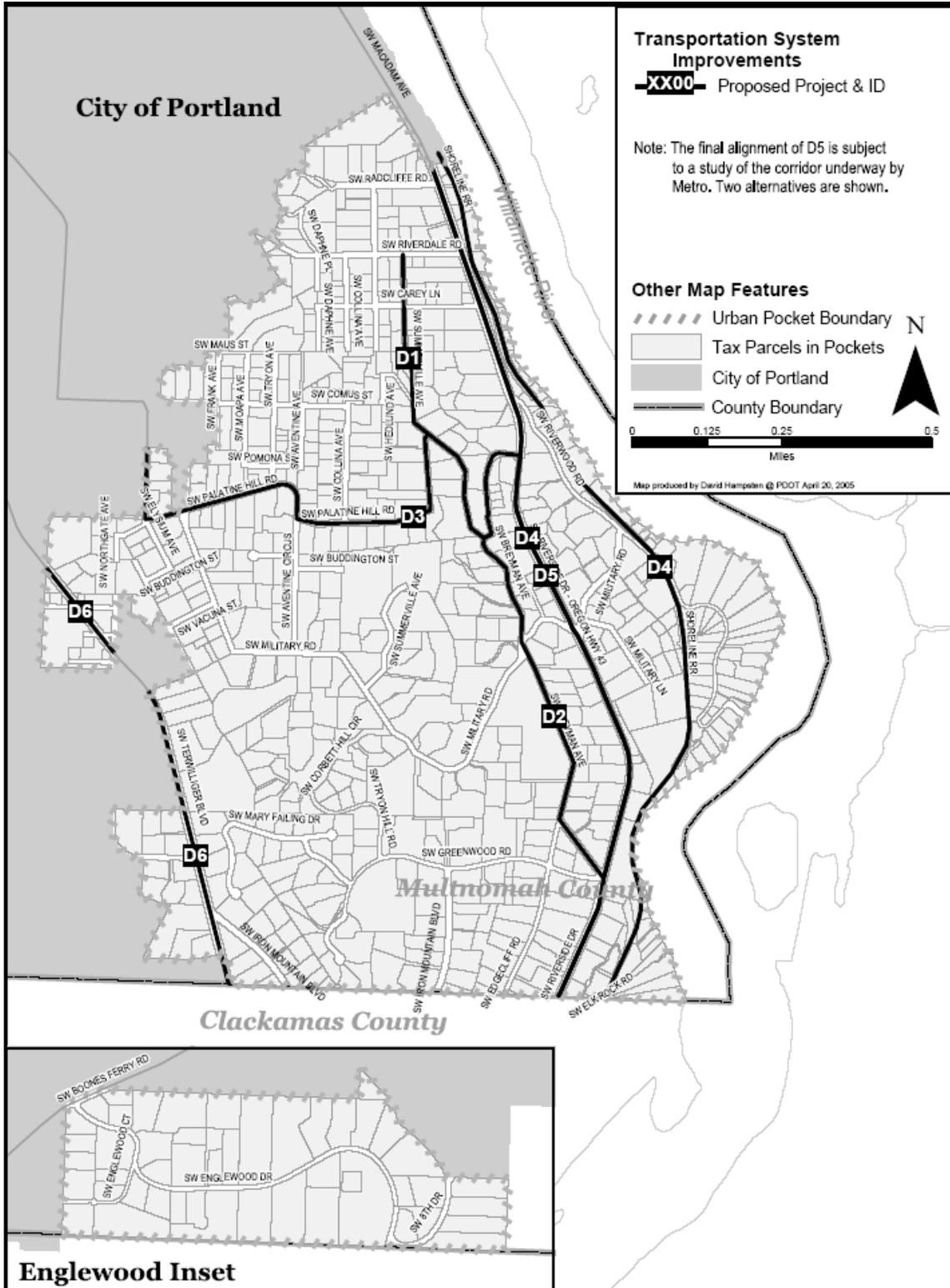


Figure 37 Dunthorpe Pockets Transportation System Improvements.

Forest Park/Southwest Hills: Major Transportation Improvements**Miller Rd., NW (Barnes Rd. to Cornell Rd.):****Bike lanes**

Add bike lanes or off-street path.

Multnomah County

\$261,000

**Scholls Ferry Rd., SW (Humphrey Blvd. to county line):****Bike lanes/pedestrian facilities**

Add bicycle and pedestrian facilities.

Multnomah County

\$2,300,000

**55th. Dr., SW (south of SW Patton Rd.):****Pedestrian facilities**

Add sidewalks.

Multnomah County

\$211,000

**Scholls Ferry Rd, SW (at Patton Rd.):****Dedicated left turn**

Provide a dedicated left-turn from southbound direction.

Multnomah County

\$300,000

**61st Ave., SW (at Canyon Ct.):****Pedestrian facilities**

Add ramp connection to bike path.

Multnomah County

\$5,000

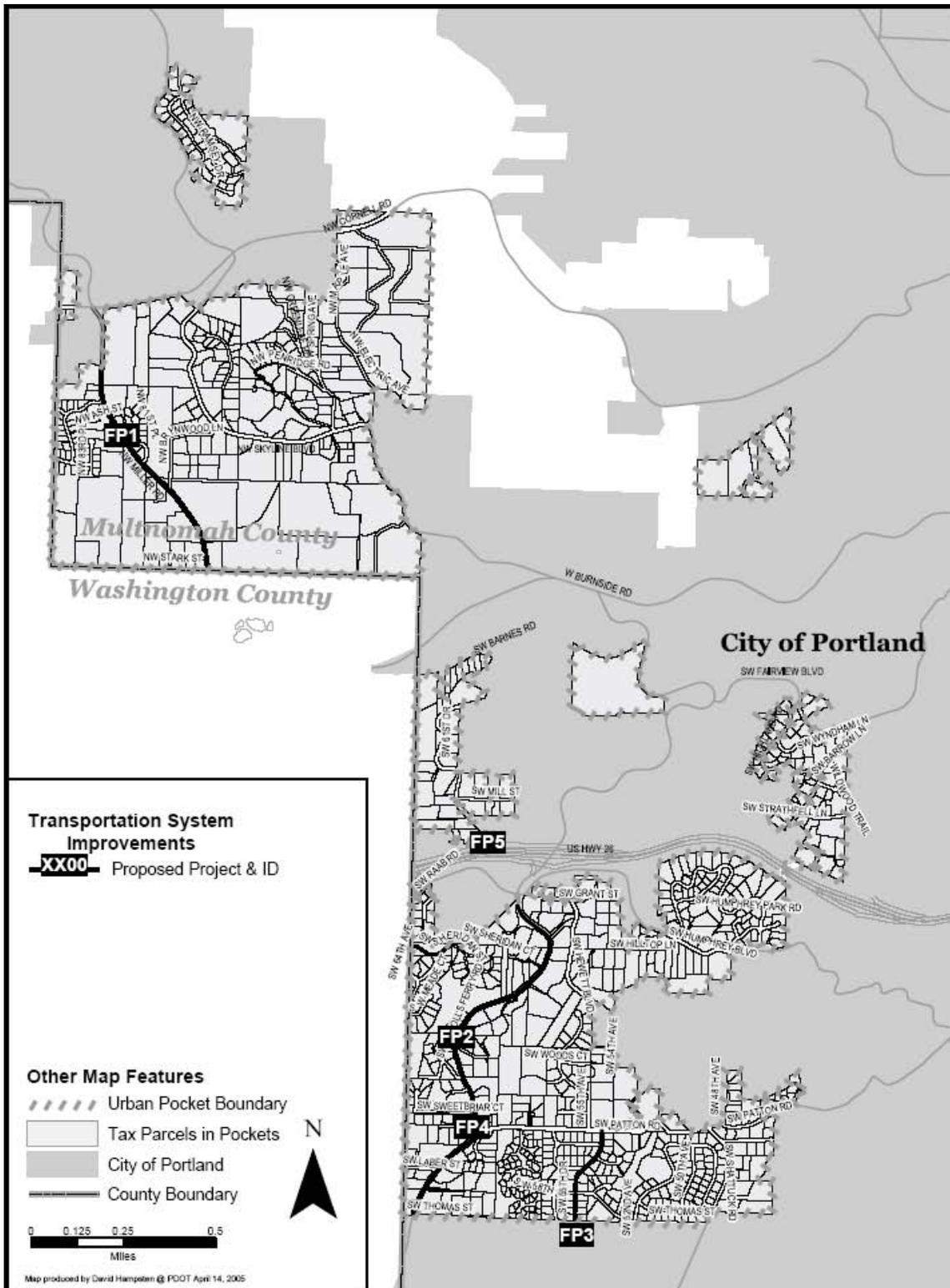


Figure 38 Forest Park/Southwest Hills Pockets Transportation System Improvements.

Far Southeast: Major Transportation Improvements**Jenne/174th Av. & Circle Ave., SE (at Springwater trail):****Street crossing**

Street crossing safety improvements.

Multnomah County

\$7,000

**Barbara Welch Rd., SE (City limits to Clatsop St.):****Bicycle and Pedestrian safety improvements**

Bicycle and pedestrian improvements along roadway including widening sidewalks.
Extend existing City of Portland project into pocket.

Multnomah County

\$1,700,000

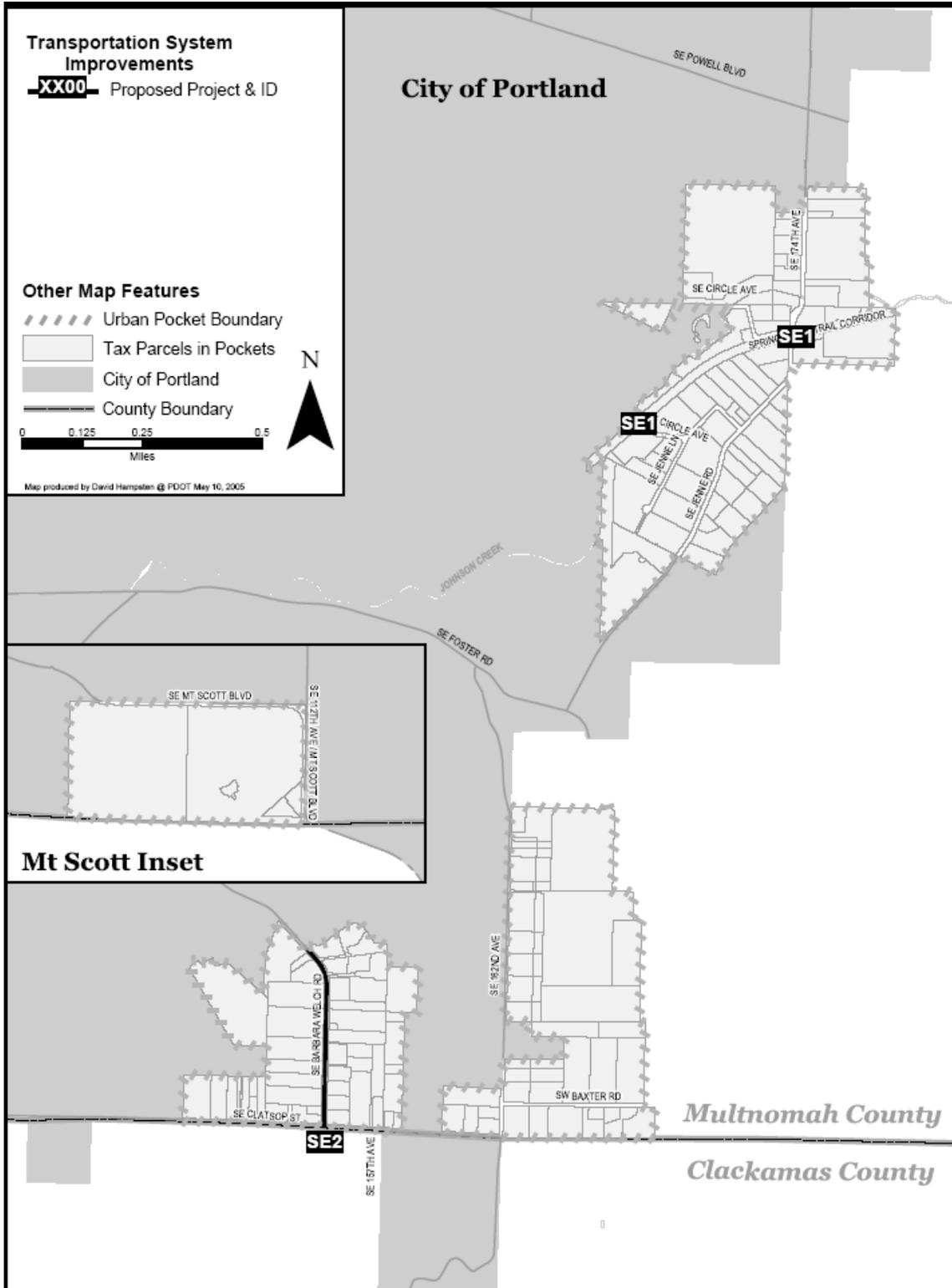
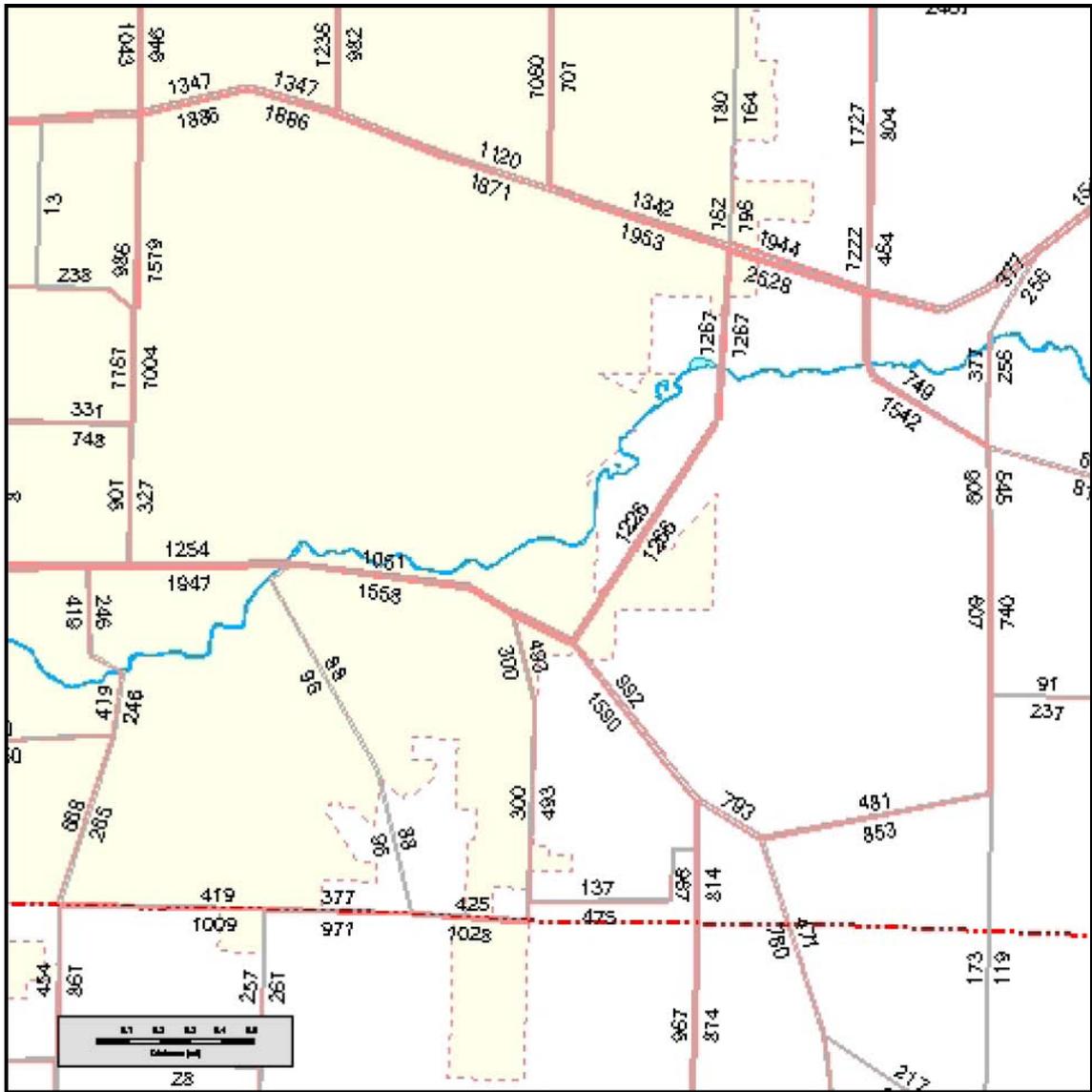


Figure 39 Far Southeast Pockets Transportation System Improvements.

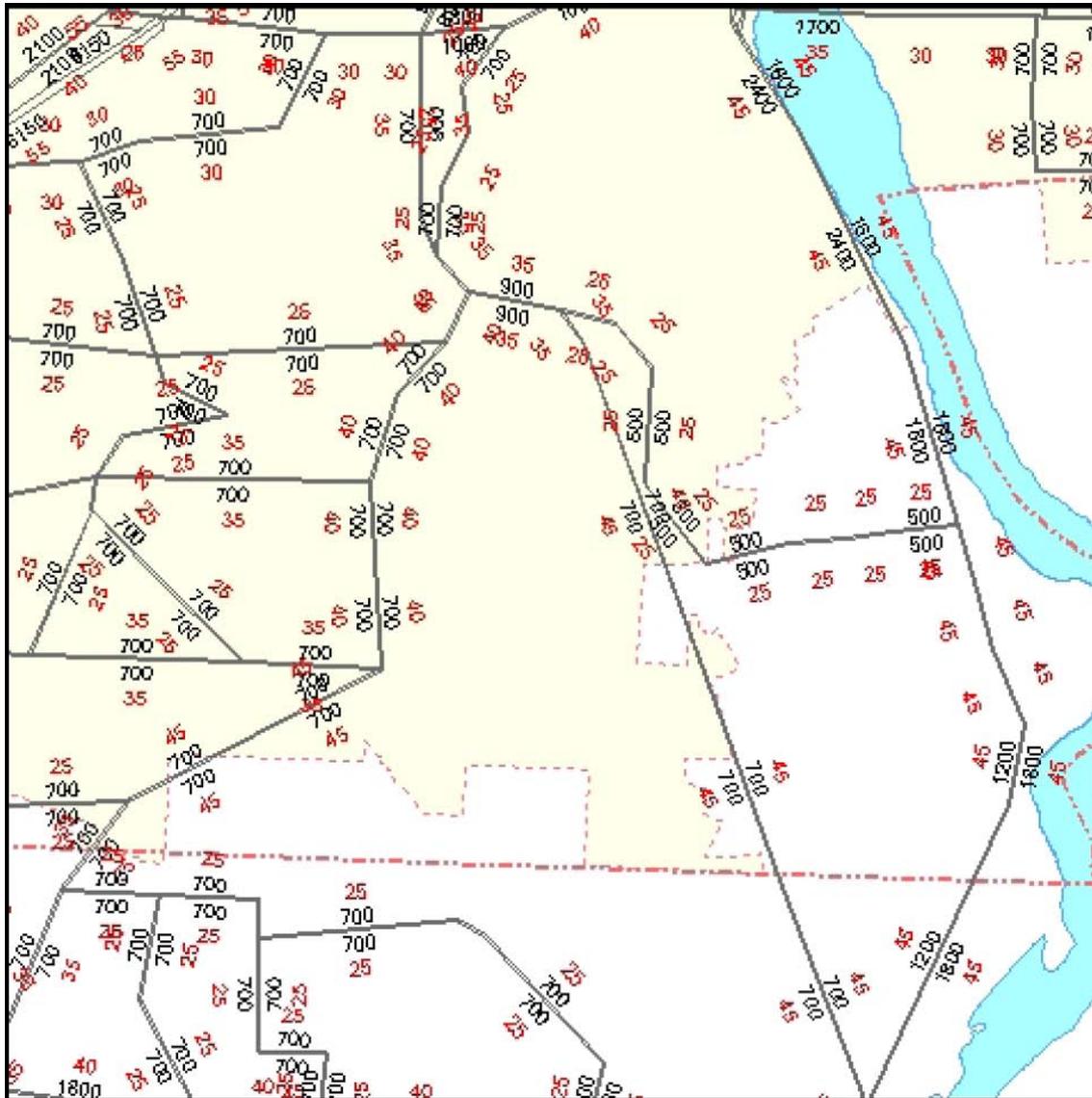
APPENDIX A: MODEL PLOTS

2000 Model Inputs: PM 2-Hour Network Capacities and Speeds

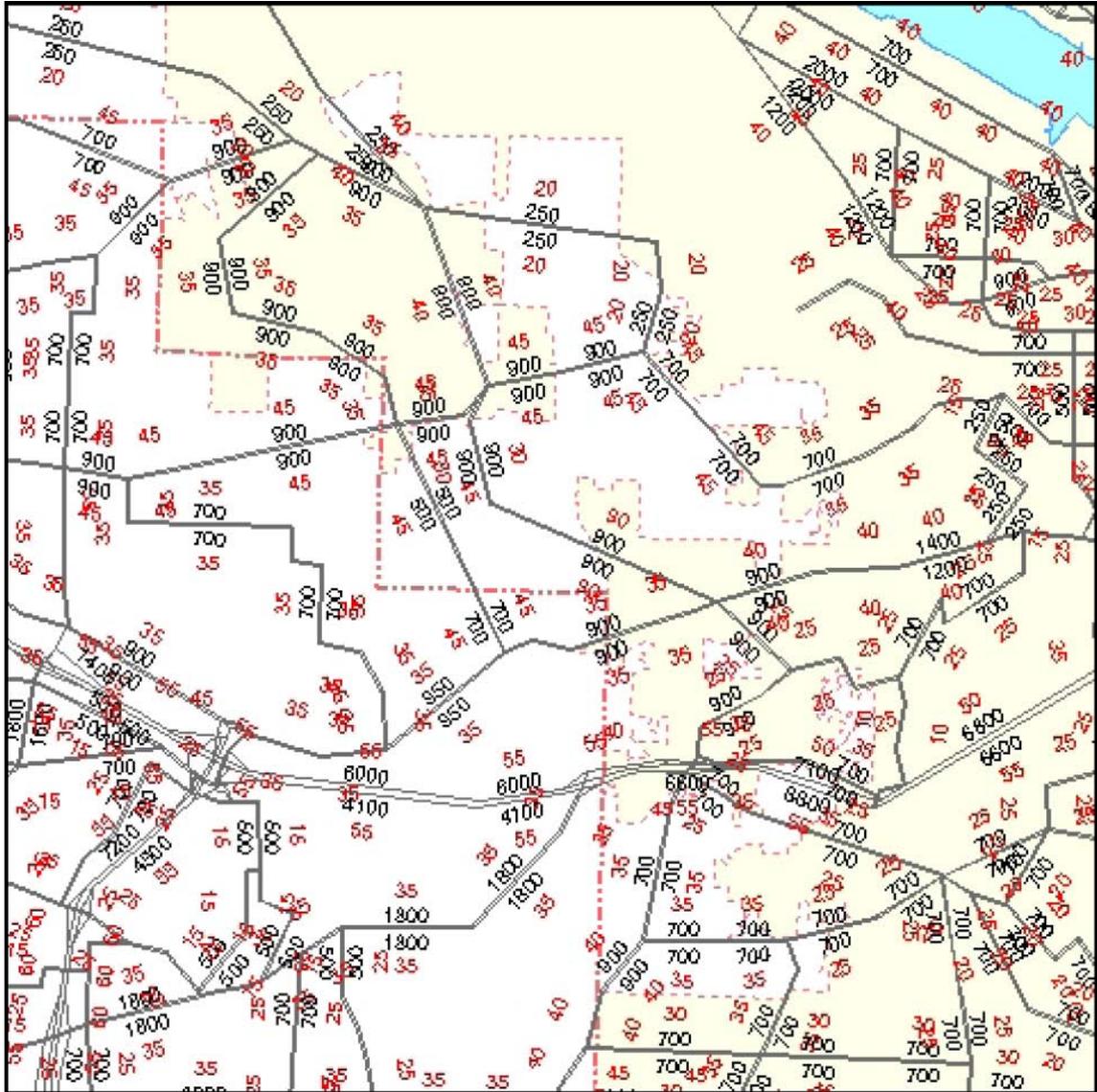
2000 Model Inputs: PM 2-Hour Network Capacities and Speeds: Far Southeast Area



**2000 Model Inputs: PM 2-Hour Network Capacities and Speeds:
Dunthorpe Area**



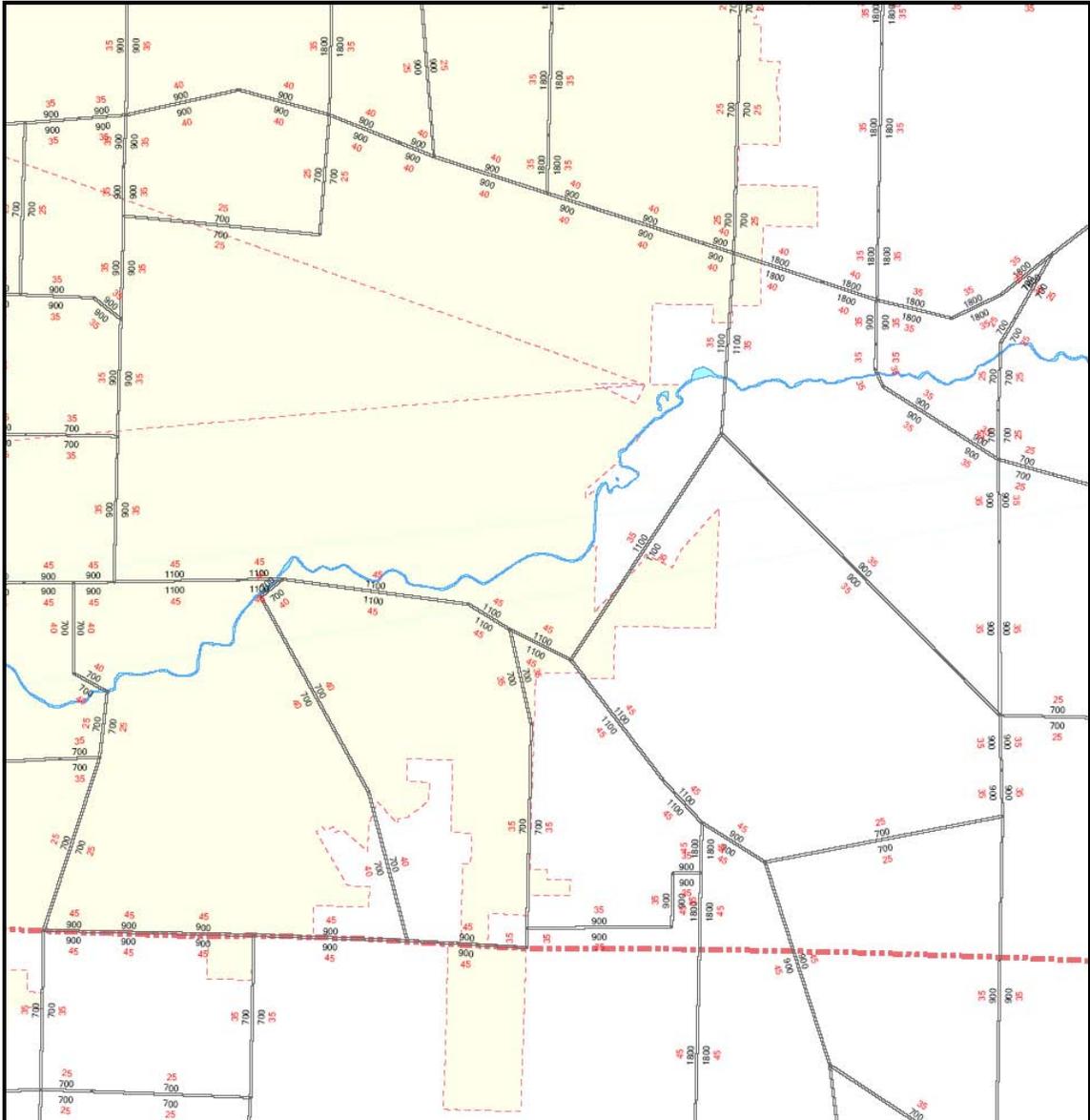
**2000 Model Inputs: PM 2-Hour Network Capacities and Speeds:
Forset Park/Southwest Hills Area**



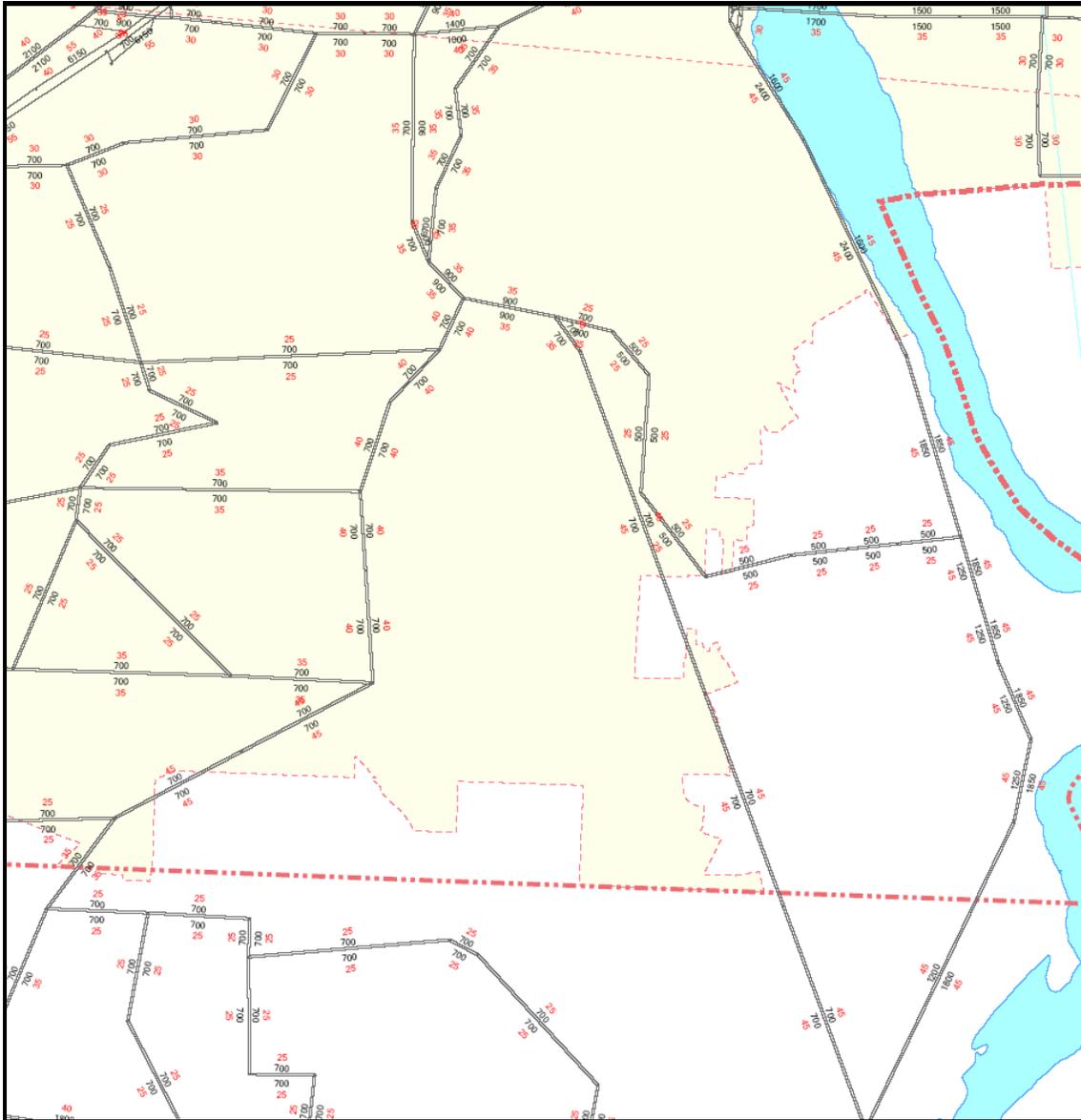
2020 Model Inputs: PM 2-Hour Network Capacities and Speeds

2020 Model Inputs: PM 2-Hour Network Capacities and Speeds:

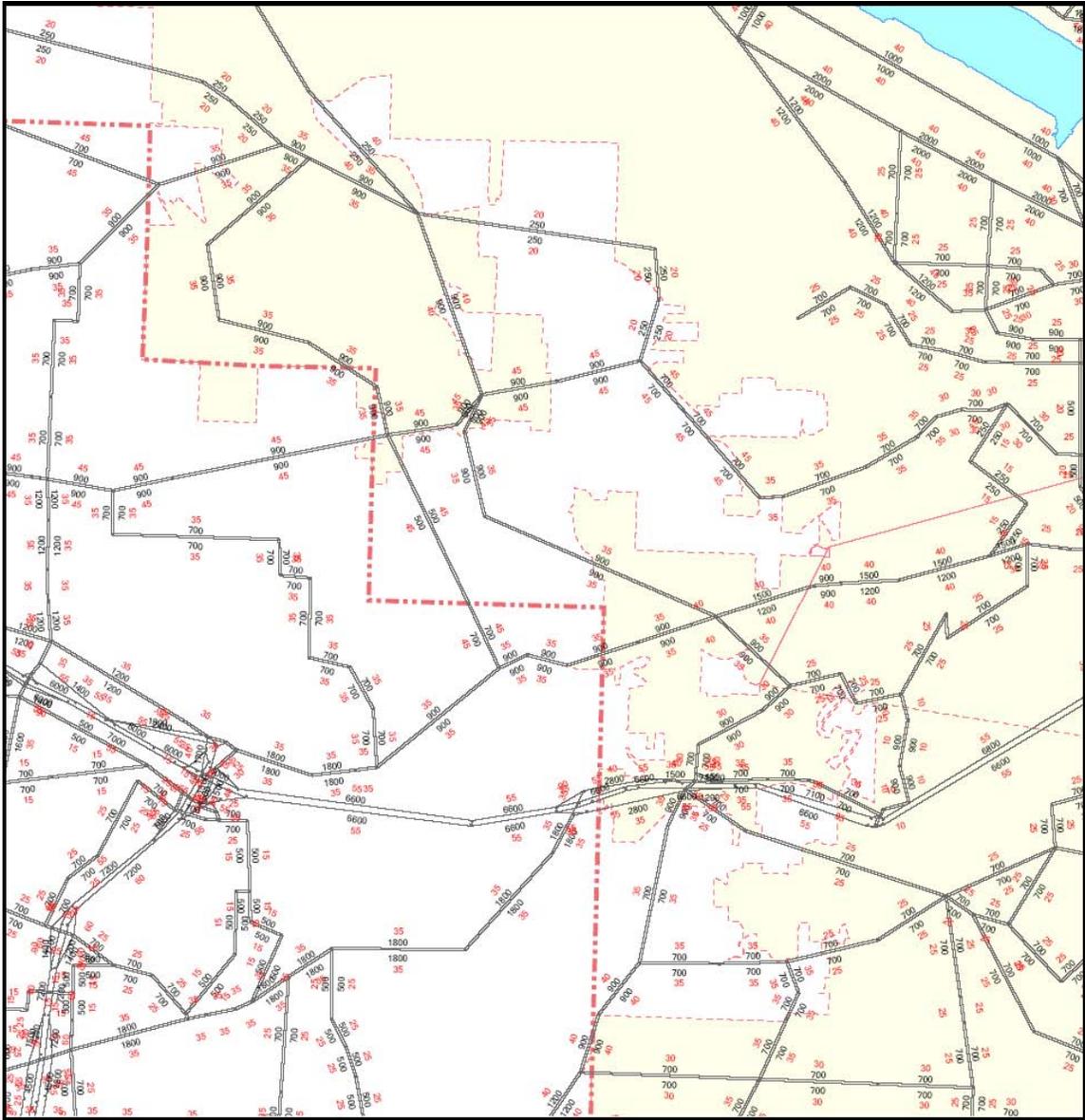
Far Southeast Area



2020 Model Inputs: PM 2-Hour Network Capacities and Speeds: Dunthorpe Area



**2020 Model Inputs: PM 2-Hour Network Capacities and Speeds:
Forest Park/Southwest Hills Area**



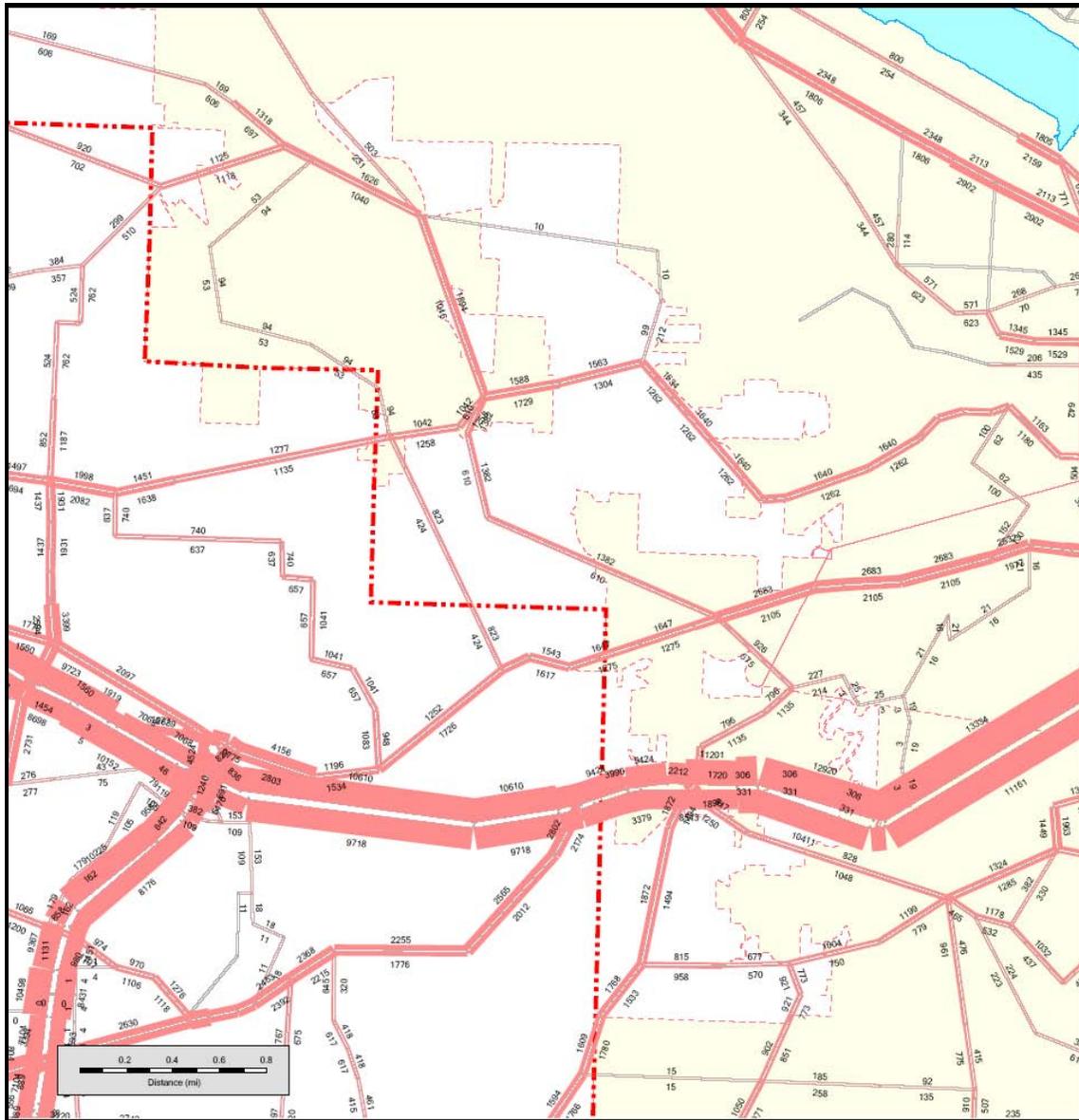
2020 Model Outputs: PM 2-Hour RTP City Network Total Volume

2020 Model Outputs: PM 2-Hour RTP City Network Total Volume:

Far Southeast Area

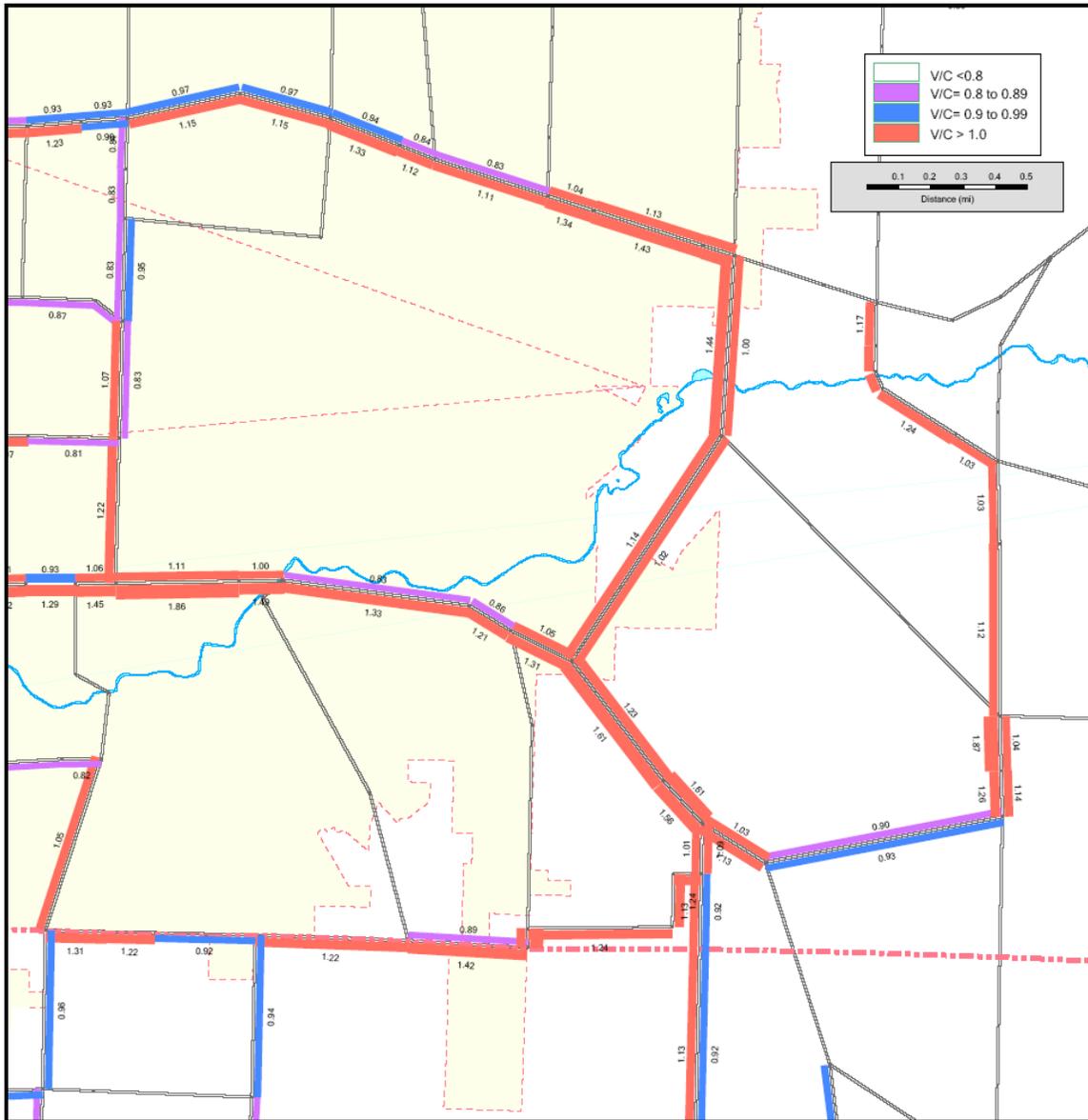


**2020 Model Outputs: PM 2-Hour RTP City Network Total Volume:
Forest Park/Southwest Hills Area**

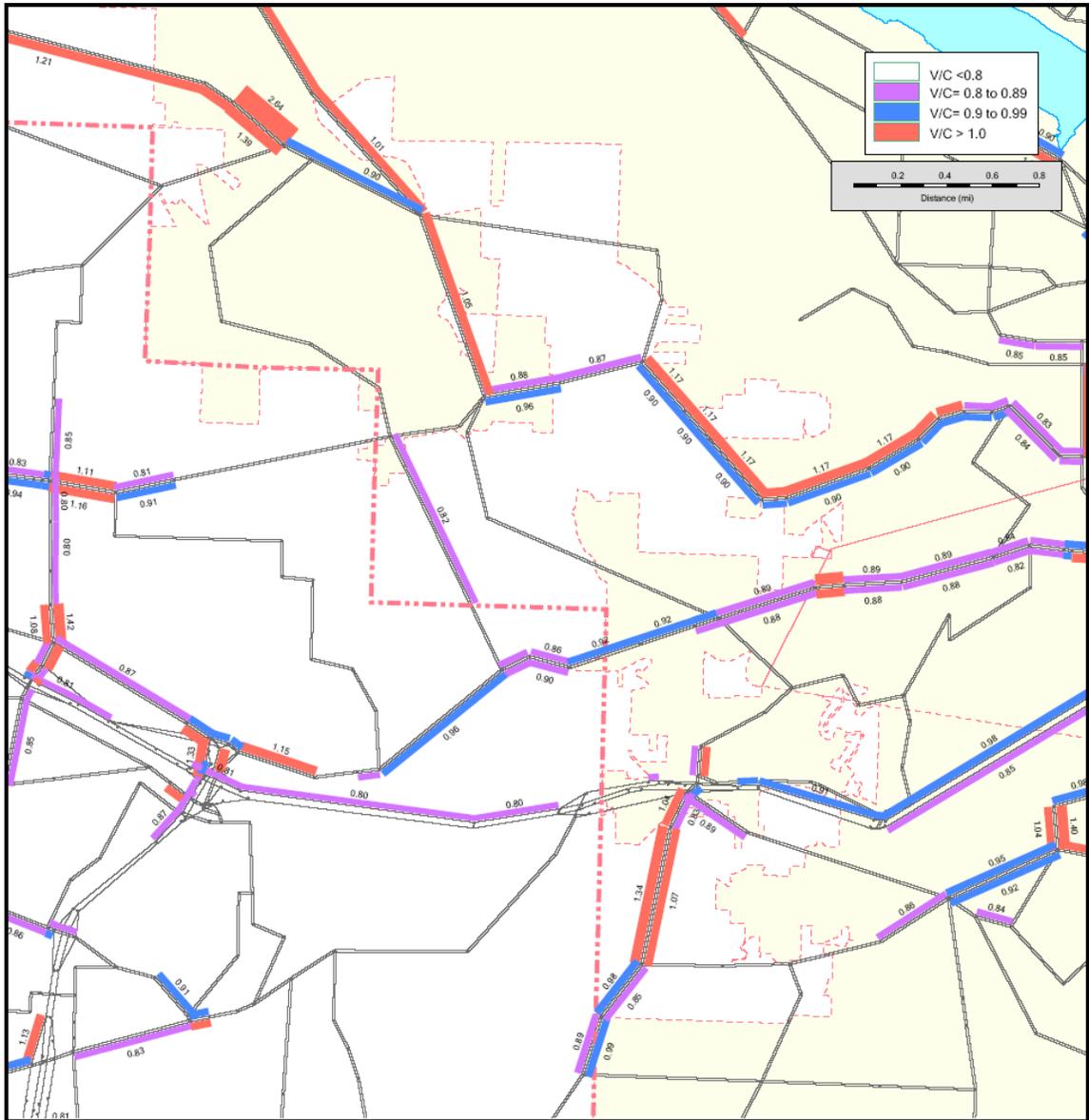


2020 Model Outputs: PM 2-Hour RTP City Network Volume Capacity Ratio

2020 Model Outputs: PM 2-Hour RTP City Network Volume Capacity Ratio: Far Southeast Area



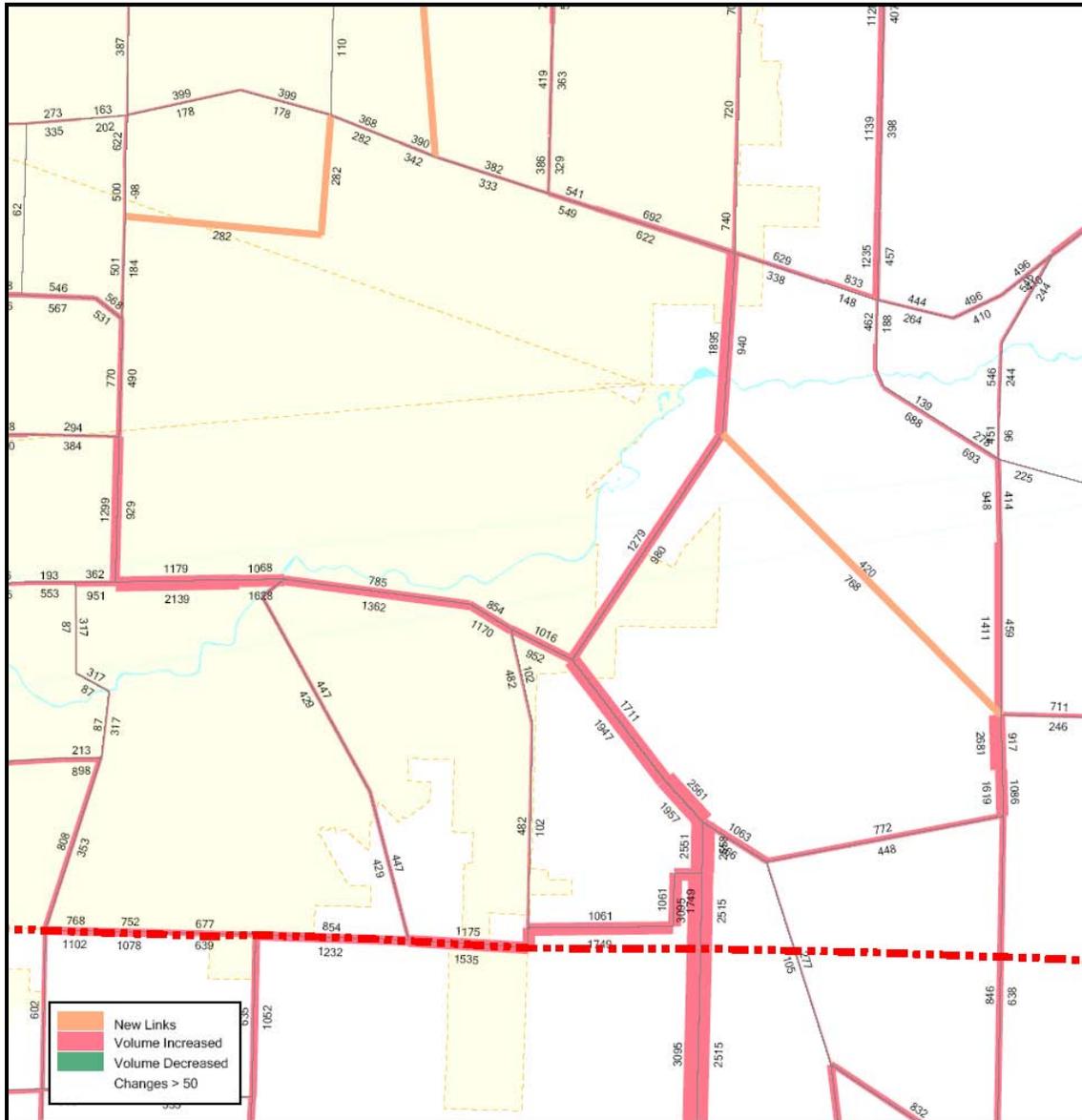
**2020 Model Outputs: PM 2-Hour RTP City Network Volume Capacity Ratio:
Forest Park/Southwest Hills Area**



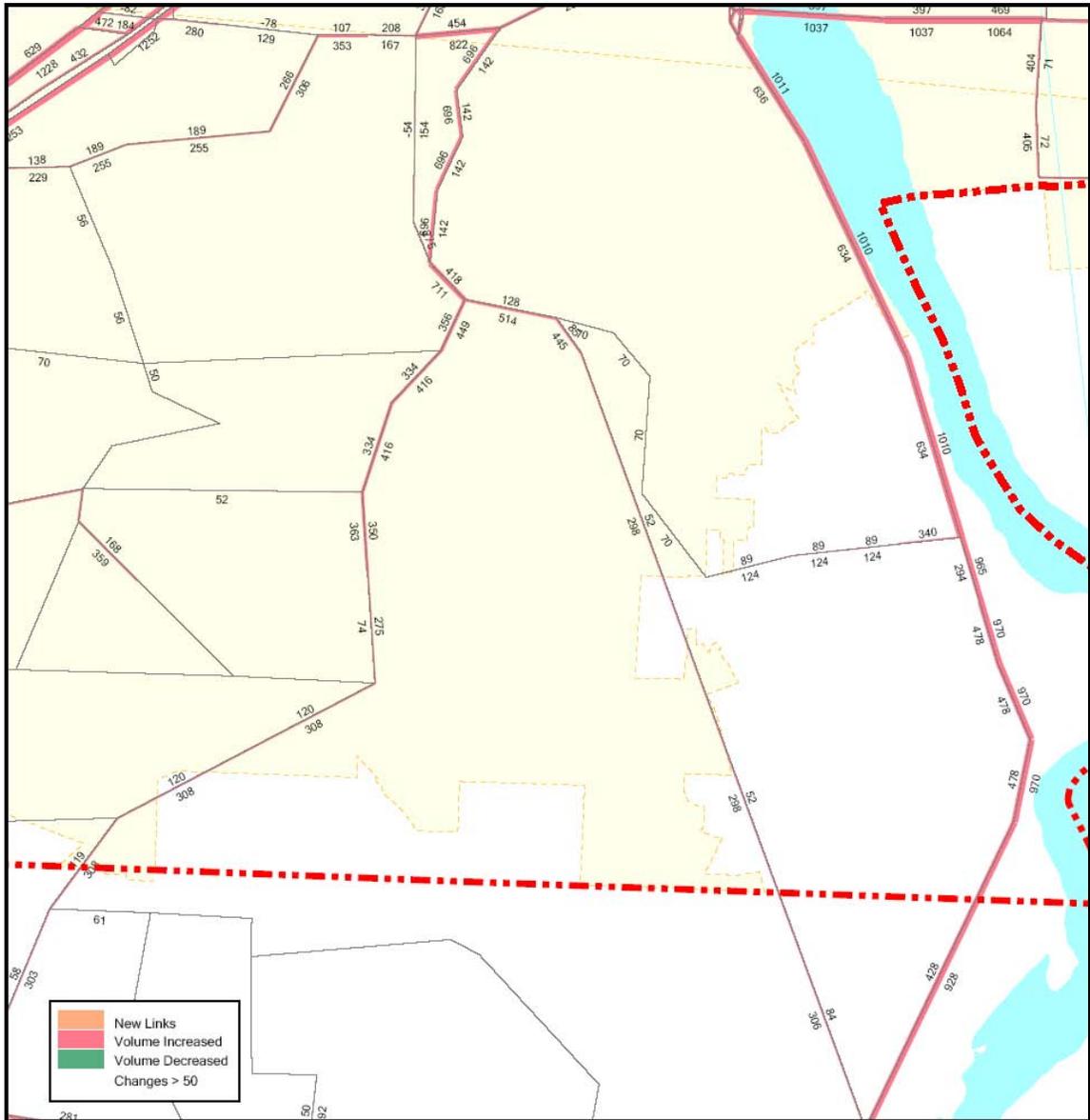
2000 - 2020 Model Analysis: PM 2-Hour Total Volume Comparison

2000 - 2020 Model Analysis: PM 2-Hour Total Volume Comparison:

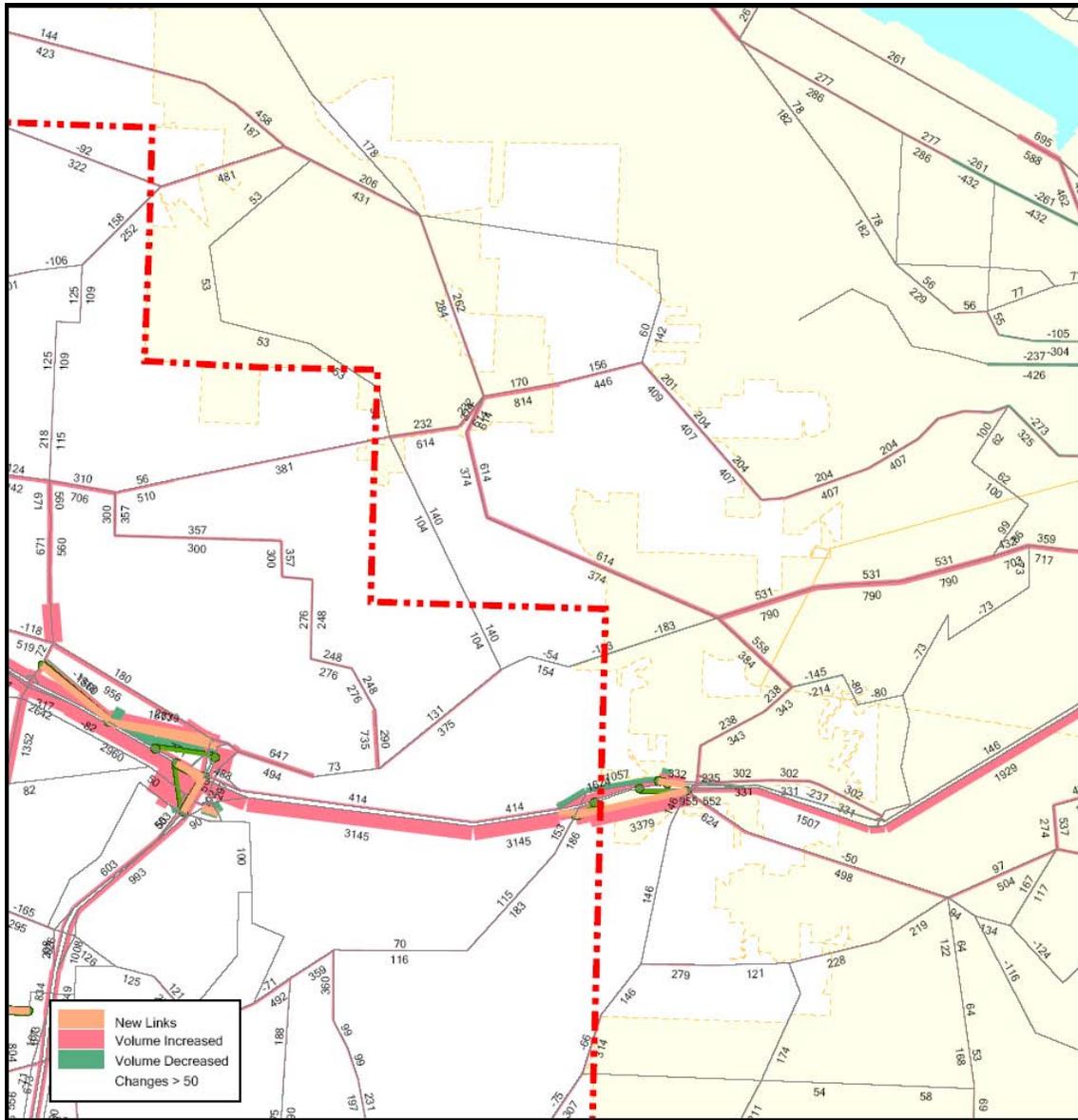
Far Southeast Area



2000 - 2020 Model Analysis: PM 2-Hour Total Volume Comparison: Dunthorpe Area



2000 - 2020 Model Analysis: PM 2-Hour Total Volume Comparison: Forest Park/Southwest Hills Area



APPENDIX B: CITY AND COUNTY POLICY COMPARISONS

Comprehensive Transportation Plan Policy Comparison

Multnomah County	City of Portland	Commentary
State and Regional Coordination (Policy 34-D)	Coordination & Involvement Policies (6.1)	
The County should provide notice to the state (ODOT), regional (Metro) and affected local governments of required improvements, and should provide documentation as to public needs.	<p>Coordinate with affected state and federal agencies, local governments, special districts, and providers of transportation services when planning for and funding transportation facilities and services.</p> <p>Coordinate the funding and development of transportation facilities with regional transportation and land use plans and with public and private investments.</p> <p>Participate in Metro's processes for allocating and managing transportation funds and resources to achieve maximum benefit with limited available funds.</p> <p>Involve affected agencies, local governments, special districts, and transportation providers in updates of the Transportation System Plan (TSP)</p> <p>Pursue opportunities to improve the transportation system, including grants, private/public partnerships, and other non-traditional funding mechanisms.</p>	No conflict. JH, DP Both have a consistent coordination policy that provides both opportunities and challenges. Coordination helps to minimize the effect of road improvements to general public and present opportunities for joint multi-modal projects. GO
Public Input (Policy 34-B-5)	Public Involvement (6.2)	
Community input is vital to the transportation planning process and should be sought at key points in each planning process, including project development.	<p>Carry out a public involvement process that provides information about transportation issues, projects, and processes to citizens, businesses and other stakeholders, especially to those traditionally underserved by transportation services, and that solicits and considers feedback when making decisions about transportation.</p> <p>Involve community members who are traditionally under-represented in transportation planning activities.</p> <p>Give consideration to Metro's Local Public Involvement Policy for Transportation Planning in Portland's transportation planning activities.</p>	Both policies recognize the importance of public involvement, but the City went further to ensure the recognition of minority groups living in the City. Recommend County to expend to include under represented groups. GO No Conflict. DP
Trafficways (Policy 34, H)	Transportation Education (6.3)	
Encouraging ride-share and flextime programs to help meet the projected increase in travel demand. The County will work with metro and tri-met to develop ride-share programs, flextime and other transportation demand strategies to achieve the ride-share goal given in the regional transportation plan	<p>Implement educational programs that support a range of transportation choices and emphasize safety for all modes of travel.</p> <p>Publicize activities and the availability of resources and facilities that promote a multimodal transportation system.</p> <p>Implement educational programs that recognize the need for developing and maintaining a multimodal transportation system that supports the movement of freight as well as people.</p> <p>Encourage walking by developing education programs for both motorists and pedestrians and by supporting and participating in encouragement events for pedestrians.</p> <p>Develop and implement education and encouragement plans aimed at youth and adult cyclists and motorists.</p> <p>Increase public awareness of the benefits of walking and bicycling and of available resources and facilities.</p> <p>Develop a strong school curriculum and program on transportation safety and travel choices with emphasis on environmental consequences, neighborhood livability, personal safety, and health.</p>	Consistent policy, but City takes a multi-modal approach in implementation. Recommend County to: Expand program to be multi-modal. Add education and enforcement as an implementation tool. GO No conflict. DP

Multnomah County	City of Portland	Commentary
	<p>Regional and City Travel Patterns (6.12)</p> <p>Support the use of the street system consistent with its state, regional, and city classifications and its classification descriptions.</p> <p>Direct interregional traffic to use Regional Trafficways and Regional Transitways, and manage these facilities to maximize their existing capacity</p> <p>Minimize the impact of interregional and long intraregional trips on Portland neighborhood and commercial areas, while supporting the travel needs of the community.</p> <p>Manage traffic on Neighborhood Collectors that Metro designates as Collectors of Regional Significance so they maintain their function as distributors of traffic between Major City Traffic Streets or District Collectors and Local Service Streets, rather than function primarily for regional traffic movement.</p> <p>Use the TSP refinement plan process to determine specific projects and actions to meet needs in identified transportation corridors.</p>	<p>Policy intent good for County consideration. GO</p> <p>Intent of policy is to maintain traffic trips on appropriate facility. DP</p>
<p>Safety (Policy 34-A-5)</p>	<p>Traffic Calming (6.13)</p>	
<p>Safety is a primary objective in the development and operation of the trafficway system through traffic signing and signalization, speed limits and speed control measures, road design and access control measures. Through the use of accepted design and traffic management principles and practices, traffic accidents and conflicts between pedestrians, bicyclists, equestrians, and motorists can be minimized.</p>	<p>Manage traffic on Neighborhood Collectors and Local Service Streets, along main streets, and in centers consistent with their street classifications, classification descriptions, and desired land uses.</p> <p>Manage traffic on Neighborhood Collectors and Local Service Streets consistent with the land uses they serve and to preserve and enhance neighborhood livability.</p> <p>Use a combination of enforcement, engineering, and education efforts to calm vehicle traffic.</p> <p>Encourage non-local traffic, including trucks, to use streets of higher traffic and truck classifications through design, operations, permitting, and signing.</p> <p>Implement measures on Local Service Traffic Streets that do not significantly divert traffic to other streets of the same classification.</p> <p>Implement measures on Neighborhood Collectors that do not result in significant diversion</p> <p>Reduce traffic speeds through enforcement and design in high-density 2040 Growth Concept areas, including main streets and centers, to levels that are comfortable for bicyclists and pedestrians.</p>	<p>Consistent. County's Safety Policy 34-A-5 equals TSP Policy 6.15 as well. DP [Not Really. GO]</p> <p>Check for County policy specific to traffic calming. We don't have a specific traffic calming policy. Our traffic section will implement traditional traffic calming measures (i.e. speed bumps, signs) on a case by case basis, but there is no County-wide policy to implement traffic calming. DP</p>
	<p>Emergency Response (6.14)</p>	
<p>No equivalent policy</p>	<p>Provide a network of emergency response streets that facilitates prompt response to emergencies.</p> <p>Use the emergency response classification system to determine whether traffic slowing devices can be employed.</p> <p>Use the emergency response classification system to guide the routing of emergency response vehicles.</p> <p>Use the emergency response classification system to help site future fire stations.</p>	<p>Policy intent good for County to consider. GO</p>

Multnomah County	City of Portland	Commentary
Trafficways (Policy 34, StrategyA-3)	Transportation System Management (6.15)	
<p>Fostering Choice: The trafficway system should be managed to provide opportunities for choices among available travel modes so that reliance on automobiles as single-occupant vehicles can be reduced, and so that total vehicle miles traveled as a measure of automobile use per capita can be reduced in the future, in accordance with the state Transportation Planning Rule and Policy 35:Public Transportation.</p>	<p>Give preference to transportation improvements that uses existing roadway capacity efficiently and improve the safety of the system.</p> <p>Reduce and manage automobile travel demand and promote transportation choices before considering the addition of roadway capacity for single-occupant vehicles.</p> <p>Employ transportation system management measures, including coordinating and synchronizing signals and intersection redesign, to improve traffic and transit movements and safety for all modes of travel.</p> <p>Design, build, and operate the transportation system so that it can be safely navigated by all users.</p>	<p>Consistent policy intent, but County policy lacks operational and design details. TAC should consider adding more details. GO</p> <p>Add safety 34-A-5. DP</p>
Access Management (1.2) (Multnomah County Design Standards)	Access Management (6.16)	
<p>Access management is needed to ensure both the safety and efficiency of traffic flow for vehicles traveling on the roadway system. Managing the access of roadways benefits the overall roadway system by increasing safety, increasing capacity, and reducing travel times. Controlling access must not become too restrictive, however, as to prohibit local business and home owners reasonable access to the roadway system. Overall, access management must balance the needs of through traffic, local traffic, pedestrians and bicyclists on a particular roadway. By the nature of the roadway functional classification system, arterial streets require the highest access management standards, while collector streets and local streets require less restrictive access management standards.</p>	<p>Promote an efficient and safe street system, and provide adequate accessibility to planned land uses.</p> <p>Work with ODOT to manage the location, spacing, and type of road and street intersections on Regional Trafficways, St. Helens Road, Lombard east of Interstate 5, and McLoughlin, and develop access management plans for other City streets as needed to ensure the safe and efficient operation of these facilities.</p> <p>Provide local access to arterials, while minimizing conflicts with through-traffic.</p> <p>Ensure that access management measures do not adversely impact any transportation mode, consistent with the classifications of the street where these measures are applied.</p>	<p>Policy intent and level of detail consistent. GO</p>
Land Use Coordination (Policy 34-3)	Coordinate Land Use and Transportation (6.17)	
<p>The transportation system should be planned and developed consistent with land uses to be served with consideration given to planned land uses in adopted plans and resulting forecasted future travel demands. The transportation system should be made in accordance with the executed Intergovernmental Agreements with the cities of Fairview, Gresham, and Troutdale to ensure consistency with the functions, capacities and level of service of facilities identified in the Multnomah County transportation planning documents.</p>	<p>Implement the Comprehensive Plan Map and the 2040 Growth Concept through long-range transportation and land use planning and the development of efficient and effective transportation projects and programs.</p>	<p>Consistent Policy intent. GO No Conflict. DP</p>
Trafficways (Policy 34-B)	Adequacy of Transportation Facilities (6.18)	
<p>Improving streets to the standards established by the classification system, where necessary, and /or appropriate to mitigate identified transportation problems and to accommodate existing implemented and planned pedestrian, bicycle (Policy 33c), and transit facilities (Policy 35) as established in the County, regional, and local transportation plans;</p>	<p>Ensure that amendments to the Comprehensive Plan (including goal exceptions and map amendments), zone changes, conditional uses, master plans, impact mitigation plans, and land use regulations that change allowed land uses are consistent with the identified function and capacity of, and adopted performance measures for, affected transportation facilities.</p>	<p>Both policies serve different but good intent. Recommend adding 6.18 to County's policies to ensure that adequacy of service is addressed with development review. GO</p> <p>These may not be correctly paired. Intent of 6.18 is making sure land use changes are consistent with the desired function of the street. Relates to land use County Policy 34-B. Ensure street design is consistent with planning function—no land use connection. DP</p>

Multnomah County	City of Portland	Commentary
Public Transportation (Policy 35-A-B)	Transit Oriented Development (6.19)	
<p>Increasing overall density levels in the urban area, particularly at light rail stations.</p> <p>B. Locating population concentrations, commercial centers, employment centers, and public facilities in areas which can be served by public transportation.</p>	<p>Reinforce the link between transit and land use by encouraging transit-oriented development and supporting increased residential and employment densities along transit streets, at existing and planned light rail transit stations, and at other major activity centers.</p> <p>Consider the existing or planned availability of high-quality transit service when adopting more intensive residential, commercial, and employment designations.</p> <p>Focus medium-density and high-density development, including institutions, in transit-oriented developments along transit lines.</p> <p>Require commercial and multifamily development to orient to and provide pedestrian and bicycle connections to transit streets and, for major developments, provide transit facilities on site or adjacent to a transit stop.</p> <p>Examine the benefits of limiting drive-through facilities in existing or planned areas of high-intensity development and high levels of pedestrian, bicycle, and transit activity when planning studies are being done for these areas.</p>	<p>No Conflict, both have the concept of TOD intent. Recommend re-naming County to TOD and adding greater detail like City's 6.19. GO</p> <p>No conflict, but 6.19 has greater detail. County policy is silent on drive-throughs in TOD centers. DP</p>
Street Connectivity (Policy 34-A-9)	Connectivity (6.20)	
<p>Local street design impacts the effectiveness of the regional system when local travel is restricted by a lack of connecting routes, and local trips are forced onto the regional network. Streets should be designed to keep through trips on arterial streets and provide local trips with alternative routes.</p>	<p>Support development of an interconnected, multimodal transportation system to serve mixed-use areas, residential neighborhoods, and other activity centers.</p> <p>Provide interconnected local and collector streets to serve new and redeveloping areas and to ensure safe, efficient, and convenient pedestrian, bicycle, and vehicle access with preference for public streets over private streets.</p> <p>Create short blocks through development of frequent street connections in mixed-use areas of planned high-density development.</p> <p>Provide convenient and safe bicycle and pedestrian connections to transit routes, schools, and parks, as well as within and between new and existing residential development, employment areas, and other activity centers where street connections are not feasible.</p>	<p>Both consistent with operational efficiency goal. GO</p> <p>No Conflict. DP</p>

Functional Trafficway Classifications Comparison

Multnomah County	City of Portland	Commentary
<p>Local Urban Streets and Rural Roads (Policy 34)</p>	<p>Local Service Traffic Streets (Policy 6.5 F)</p>	
<p>Local streets provide access to abutting land uses on low traffic volume and low speed facilities. Their primary purpose is to serve local pedestrian, bicycle and automobile trips and limited public transportation use in urban areas; and auto and farm vehicle circulation with local pedestrian, bicycle and equestrian use in rural areas.</p>	<p>Local Service Traffic Streets are intended to distribute local traffic and provide access to local residences or commercial uses.</p> <p>Land Use/Development. Discourage auto-oriented land uses from using Local Service Traffic Streets as their primary access.</p> <p>Classification. Streets not classified as Regional Trafficways, Major City Traffic Streets, District Collectors, or Neighborhood Collectors are classified as Local Service Traffic Streets.</p> <p>Connections. Local Service Traffic Streets should connect neighborhoods, provide local circulation, and provide access to nearby centers, corridors, station areas and main streets.</p> <p>Function. Local Service Traffic Streets provide local circulation for traffic pedestrians, and (except in special circumstances) should provide on-street parking. In some instances where vehicle speeds and volumes are very low (for example, woonerfs and accessways), Local Service Traffic Streets may accommodate both vehicles and pedestrians and bicyclists in a shared space.</p>	<p>Consistent Policy intent. Recommend that County be expanded to include land use, operational and design element. GO</p>
<p>Neighborhood Collector Streets</p>	<p>Neighborhood Collectors (Policy 6.5 E)</p>	
<p>Neighborhood collector streets provide access primarily to residential land uses and link neighborhoods to higher order roads. They generally have higher traffic volumes than local streets.</p>	<p>Neighborhood Collectors are intended to serve as distributors of traffic from Major City Traffic Streets or District Collectors to Local Service Streets and to serve trips that both start and end within areas bounded by Major City Traffic Streets and District Collectors.</p> <p>Land Use/Development. Neighborhood Collectors should connect neighborhoods to nearby centers, corridors, station communities, main streets, and other nearby destinations. New land uses and major expansions of land uses that attract a significant volume of traffic from outside the neighborhood should be discouraged from locating on Neighborhood Collectors.</p> <p>Connections. Neighborhood Collectors should connect to Major City Traffic Streets, District Collectors, and other Neighborhood Collectors, as well as to Local Serviced Streets.</p> <p>Function. The design of Neighborhood Collectors may vary over their length as the land use character changes from primarily commercial to primarily residential. Some Neighborhood Collectors may have a regional function, either alone or in concert with other nearby parallel collectors. All Neighborhood Collectors should be designed to operate as neighborhood streets rather than as regional arterials.</p> <p>On-Street Parking. The removal of on-street parking and right-of-way acquisition should be discouraged on Neighborhood Collectors.</p>	<p>Consistent, but County lacks the design, land use and operational details. Recommend to make County look like City. GO</p>

Multnomah County	City of Portland	Commentary
Major Collector Streets	District Collectors (Polciy 6.5 D)	
<p>Major collector streets serve several purposes including linking neighborhoods to the regional system of bicycle and automobile streets, and basic transit services. They typically provide direct access between residential and commercial developments, schools and parks and carry higher volumes of traffic than neighborhood streets. Major collector streets are also utilized to access industrial and employment areas and other locations with large truck and over-sized load volumes.</p>	<p>District Collectors are intended to serve as distributors of traffic from Major City Traffic Streets to streets of the same or lower classification. District Collectors serve trips that both start and end within a district.</p> <p>Land Use/Development. District Collectors generally connect town centers, corridors, main streets, and neighborhoods to nearby regional centers and other major destinations. Land uses that attract trips from the surrounding neighborhoods or from throughout the district should be encouraged to locate on District Collectors. Regional attractors of traffic could <u>should</u> be discouraged from locating on the District Collectors.</p> <p>Connections. District Collectors should connect to Major City Traffic Streets, other collectors, and local streets and, where necessary, to Regional trafficways.</p> <p>On-Street Parking. Removal of on-street parking and right-of-way acquisition should be discouraged on District Collectors, except at specific problem locations to accommodate the equally important functions of traffic movement and vehicle access to abutting properties.</p>	<p>You can also look at Policy 6.12, Regional and City Traffic Patterns. JH</p> <p>County's Policy intent is different because Major Collector streets have a relationship with the regional system, while City's District Collectors redistribute traffic from Major Traffic streets to same or lower classification streets. GO</p>
Rural Collector Roads	No Equivalent	
<p>Rural collector roads are well connected in rural communities to distribute automobile traffic over large areas and generally connect to urban streets or rural arterials. Where rural collector streets connect roads in adjacent counties, through traffic will occur with volumes greater than local rural roads. They may also provide for recreational trips by auto, bicycle and equestrian. Primary access is provided to land uses adjacent to the facility and over large rural districts. Rural collector roads provide for necessary truck transport of (agricultural, timber and minerals) out of rural districts.</p>		<p>No equivalent, but policy intent is okay. GO</p>
Minor Arterial Streets	Traffic Access Streets (Polciy 6.5 C)	
<p>Minor arterial streets are the lowest order arterial facility in the regional street network. They typically carry less traffic volume than principal and major arterials, but have a high degree of connectivity between communities. Access management may be implemented to preserve traffic capacity. Land uses along the corridor are a mixture of community and regional activities. Minor arterial streets provide major links in the regional road and bikeway networks; provide for truck mobility and transit corridors; and are significant links in the local pedestrian system.</p>	<p>Traffic Access Streets are intended to provide access to Central City destinations, distribute traffic within a Central City district, provide connections between Central City districts, and distribute traffic from Regional Trafficways and Major City Traffic Streets for access within the district. Traffic Access Streets are not intended for through-traffic with no trip ends in the district.</p> <p>Land Use/Development. Traffic Access Streets serve Central City land uses. Solutions to congestion problems on Traffic Access Streets must accommodate the high-density pattern desired in the Central City</p> <p>Connections. Connections to adjoining transportation districts should be to District or Neighborhood Collectors. Intersections of Traffic Access Streets and streets with higher or similar classifications should be signaled, where warranted, to facilitate the safe movement of traffic along each street as well as turning movements from one street to the other.</p> <p>Access. Reduction in motor vehicle congestion is given less priority than: supporting pedestrian access and enhancing the pedestrian environment; maintaining on-street parking to support land uses; accommodating transit; or accommodating bicycles. Access to off-street parking is allowed.</p> <p>Right-of-way Acquisition. Acquisition of additional right-of-way to reduce congestion is discouraged.</p>	<p>I don't think these are really comparable. The Traffic Access Street is primarily for streets within the Central City that are collector level but don't function exactly like collectors. Traffic Access have a lot more emphasis on pedestrian movement and pedestrian environment. In the TSP, outside the Central City, we compared Metro's Minor Arterial to either a Major City Traffic Street or a District Collector. JH</p> <p>Not comprable. County's should stand alone. GO</p>

Multnomah County	City of Portland	Commentary
Major Arterial Streets	Major City Traffic Streets (Policy 6.5 B)	
<p>Major Arterial Streets carry high volumes of traffic between cities in the County as part of the regional trafficway system. The major fixed-route transit network corresponds with arterial street corridors. Priority may be given to transit- and pedestrian-oriented land uses. Traffic includes trucks and goods delivery, substantial commute movements and controlled access to regional land uses along the corridor. Design and management of major arterial streets emphasizes preservation of ability to move auto and transit traffic by limiting accesses while also accommodating regional bikeways and pedestrian movements.</p>	<p>Major City Traffic Streets are intended to serve as the principal routes for traffic that has at least one trip end within a transportation district.</p> <p>Land Use/Development. Major City Traffic Streets should provide motor vehicle connections among the Central City, regional centers, town centers, industrial areas, and intermodal facilities. Auto oriented development should locate adjacent to Major City Traffic Streets, but should orient to pedestrians along streets also classified as Transit Streets or within Pedestrian Districts.</p> <p>Connections. Major City Traffic Streets should serve as primary connections to Regional Trafficways and serve major activity centers in each district. Traffic with no trip ends within a transportation district should be discouraged from using Major City Traffic Streets.</p> <p>On Street Parking. On-street parking may be removed and additional right of way purchased to provide adequate traffic access when consistent with the street design designation of the street. Evaluate the need for on-street parking to serve adjacent land uses and improve the safety of pedestrians and bicyclists when making changes to the roadway.</p>	<p>Also related are Policy 6.12 Also related are Policy 6.12Y</p>
Principal Arterial Streets	Regional Trafficways (Policy 6.5 A)	
<p>Principal arterial streets connect to freeways and highways, which serve travelers without an origin or destination in the County. This interstate and interregional traffic, including trucks, is in addition to regional traffic traveling between cities and counties, and traffic generated by intensive and higher density land uses along the arterial corridor. Thus, traffic volumes are high and access to adjacent land uses is limited to preserve the traffic capacity and reduce congestion along the principal arterial street. The ability to move auto, truck and regional bicycle traffic is preserved. Trafficways designated as National Highway System routes shall be classified as Principal Arterial roadways.</p>	<p>Regional Trafficways are intended to serve interregional district movement that has only one trip end in a transportation district or to serve trips that bypass a district completely.</p> <p>Land Use/Development. Regional Trafficways should serve the Central City, regional centers, industrial areas, and the intermodal facilities and should connect key freight routes within the region to points outside the region. Encourage private and public development of the regional significance to locate adjacent to Regional Trafficway interchanges.</p> <p>Connections. Regional Trafficways should connect to other Regional Trafficways, Major City Traffic Streets, and District Collectors. A ramp that connects to a Regional Trafficway is classified as a Regional Trafficway from its point of connection up to its intersection with a lower-classified street.</p> <p>Buffering. Adjacent neighborhoods should be buffered from the impacts of Regional Trafficways.</p> <p>Dual Classification. A street with dual Regional Trafficway and Major City Traffic Street classifications should retain the operational characteristics of a Major City Traffic Street and respond to adjacent land uses.</p>	<p>Consistent Policy intent, but can expand County's to reflect City's operational and design element. GO</p>
Rural Arterial Roads	No Equivalent	
<p>Rural arterial roads are the primary means of access into the County's large rural districts, and often connect between counties to accommodate through movements. Rural arterials connect to freeways or highways, and link rural collector and local roads to the urban area and other regions. Rural arterial roads carry greater traffic volumes than rural collector roads, including commuters and other home-based trips, natural resource trips involving trucks, and recreational trips involving autos, bicycles and equestrians.</p>		<p>No equivalent. Should stand alone. GO</p>

Multnomah County	City of Portland	Commentary
Expressways	Regional Trafficway (Policy 6.5, Traffic Classification A)	
<p>Expressways principally serve interregional travel, and secondarily, regional and intercity travel. They are designed for moderate speeds, with limited and controlled access to preserve capacity, and accommodate substantial traffic volumes including truck traffic. Cross streets are grade separated or limited to a few intersections with arterial streets. They typically have a center median and do not provide access to adjacent land uses. Pedestrian and bike facilities may be provided along the expressway, often on separated facilities.</p>	<p>Regional Trafficways are intended to serve interregional district movement that has only one trip end in a transportation district or to serve trips that bypass a district completely.</p> <p>Land Use/Development. Regional Trafficways should serve the Central City, regional centers, industrial areas, and intermodal facilities and should connect key freight routes within the region to points outside the region. Encourage private and public development of regional significance to locate adjacent to Regional Trafficway interchanges.</p> <p>Connections. Regional Trafficways should connect to other Regional Trafficways, Major City Traffic Streets and District Collectors. A ramp that connects to a Regional Trafficway is classified as a Regional Trafficway from its point of connection up o its intersection with a lower-classified street.</p> <p>Buffering. Adjacent neighborhoods should be buffered from the impacts of Regional Trafficways.</p> <p>Dual Classification. A street with dual Regional Trafficway and Major City Traffic Street classifications should retain the operational characteristics of Major City Traffic Street and respond to adjacent land uses.</p>	
Freeways	Regional Trafficway (Policy 6.5, Traffic Classification A)	
<p>Freeways are high-speed roadways with grade-separated interchanges. They function to move goods and people between states, and between regions within Oregon. Freeways carry high volumes of traffic, much of which does not have an origin or destination in Multnomah County. Access to abutting properties is prohibited. Pedestrian traffic and bicycle traffic on urban freeways are also prohibited</p>	<p>Regional Trafficways are intended to serve interregional district movement that has only one trip end in a transportation district or to serve trips that bypass a district completely.</p> <p>Land Use/Development. Regional Trafficways should serve the Central City, regional centers, industrial areas, and intermodal facilities and should connect key freight routes within the region to points outside the region. Encourage private and public development of regional significance to locate adjacent to Regional Trafficway interchanges.</p> <p>Connections. Regional Trafficways should connect to other Regional Trafficways, Major City Traffic Streets and District Collectors. A ramp that connects to a Regional Trafficway is classified as a Regional Trafficway from its point of connection up o its intersection with a lower-classified street.</p> <p>Buffering. Adjacent neighborhoods should be buffered from the impacts of Regional Trafficways.</p> <p>Dual Classification. A street with dual Regional Trafficway and Major City Traffic Street classifications should retain the operational characteristics of Major City Traffic Street and respond to adjacent land uses.</p>	

Functional Transit Classifications Comparison

Multnomah County	City of Portland	Commentary
Public Transportation (Policy 35)	Regional Transitways (Policy 6.6, A)	
<p>The County's Policy is to support a safe, efficient, and convenient public transportation system by:</p> <p>Increasing overall density levels in the urban area, particularly at light rail stations.</p> <p>Locating population concentrations, commercial centers, employment centers, and public facilities in areas, which can be served by public transportation.</p> <p>Communicating community needs to the agencies responsible for public transportation planning, programming and funding.</p> <p>Supporting implementation of the I-205 transitway.</p> <p>Implementing the publicly funded elements of the transit station plan as soon as possible.</p> <p>Designating regional transit trunk routes, transit centers and park-and-ride lots as required by the regional transportation plan of the Portland Metropolitan Area as shown on the regional transit trunk route map.</p>	<p>Regional Transitways are intended to provide for interregional and interdistrict transit trips with frequent, high-speed, high-capacity, express, or limited service, and to connect the Central City with all regional centers.</p> <p>Land Use. Development with a regional attraction (e.g. shopping centers, arenas) is encouraged to locate adjacent to Regional Transitways to reduce traffic impacts on adjoining areas and streets. Locate high-density development within a half-mile of transit stations on Regional Transitways, with the highest densities closest to the stations.</p> <p>Access to Transit. Transit stations should be designed to accommodate a high level of multimodal access within a half-mile radius of the station. Use feeder bus service to access Regional Transit stations. Use park-and-ride facilities to access Regional Transit stations only at ends of Regional Transitways or where adequate feeder bus service is not feasible.</p> <p>Improvements. Use transit-preferential treatments to facilitate light rail and bus operations. Consider the use of access management measures to reduce conflicts between transit vehicles and other vehicles. Where compatible with adjacent land uses, right-of-way acquisition or parking removal may occur to accommodate transit-preferential measures and improve access to transit.</p> <p>Transfer Points. Provide safe and convenient transfer points with covered waiting areas with transit route information, benches, trash receptacles, enhanced signing, lighting and telephones.</p> <p>Bus Stops. Buses providing local service along Regional Transitways should have more frequent stop spacing, similar to stop spacing along Major Transit Priority Streets.</p>	<p>Also see Portland's Policy 6.24 and Policy 11.10, Objective H. which provide parallel language to Mult. Co.'s Comp Plan Policy 2.12 and 2.17 and 2.18 also address appropriate density in relationship to types of transit service.</p> <p>It appears that Mult. Co. doesn't have a transit map comparable to ours; is that true? The Policy seems to refer only to the RTP level of transit. JH</p> <p>The County's standard street cross-sections are generally truck/industrial/transit friendly. The County does not have a transit map for this reason. ML</p> <p>No conflict, but they serve different purposes. Recommend creating equivalent and appropriate transit classification for County. Then, make County's Policy 35 above similar to City's Policy 6.24. GO</p>

Multnomah County	City of Portland	Commentary
	<p>Major Transit Priority Streets (Policy 6.6, B)</p> <p>Major Transit Priority Streets are intended to provide for high-quality transit service that connects the Central City and other regional and town centers and main streets.</p> <p>Land Use. Transit-oriented land uses should be encouraged to locate along Major Transit Priority Streets, especially in centers. Discourage auto-oriented development from locating on a Major Transit Priority Street, except where the street is outside the Central City, regional or town center, station community, or main street and is also classified as a Major City Traffic Street. Support land use densities that vary directly with the existing and planned capacity of transit service.</p> <p>Access to Transit. Provide safe and convenient access for pedestrians and bicyclists to, across, and along Major Transit Priority Streets.</p> <p>Improvements. Employ transit-preferential measures, such as signal priority and bypass lanes. Where compatible with adjacent land use designations, right-of-way acquisition or parking removal may occur to accommodate transit-preferential measures or improve access to transit. The use of access management should be considered where needed to reduce conflicts between transit vehicles and other vehicles.</p> <p>Transfer Points. Provide safe and convenient transfer points with covered waiting areas, transit route information, benches, trash receptacles, enhanced signing, lighting, and telephones. Limited transit service should stop at transfer points and activity centers along Major Transit Priority Streets.</p> <p>Dual Classification. Streets with dual Regional Transitway and Major Transit Priority Street classifications should retain the operational characteristics of Major Transit Priority Streets, and development should orient to the street.</p> <p>Bus Stops. Locate bus stops to provide convenient access to neighborhoods and commercial centers. Stops should be located relatively close together in high density and medium-density areas, including regional and town centers and along most main streets, and relatively farther apart in lower-density areas. Passenger amenities should include shelters and route information.</p>	
	<p>Transit Access Streets (Policy 6.6, C)</p> <p>Transit Access Streets are intended for district-oriented transit service serving main streets, neighborhoods, and commercial, industrial, and employment areas.</p> <p>Land Use. Encourage pedestrian-oriented development in commercial and mixed-use areas along Transit Access Streets.</p> <p>Access to Transit. Provide safe and convenient pedestrian and bicycle access to transfer points and stops and along Transit Access Streets.</p> <p>Improvements. Employ transit-preferential measures at specific intersections to facilitate bus operations where there are significant bus delays. Applicable preferential treatments include signal priority, queue jump lanes, and curb extensions.</p> <p>Bus Stops. Locate stops closer together in neighborhood commercial areas and somewhat farther apart in other areas along Transit Access Streets. Passenger amenities, including covered waiting areas, are appropriate along Transit Access Streets.</p>	

Multnomah County	City of Portland	Commentary
	<p>Community Transit Streets (Policy 6.6, D)</p> <p>Community Transit Streets are intended to serve neighborhoods and industrial areas and connect to citywide transit service.</p> <p>Land Use. Encourage-pedestrian oriented development in commercial and mixed-use areas along Community Transit Streets.</p> <p>Transit Service. Community Transit Streets typically carry feeder bus service, mini-bus, or demand-responsive services. Demand-responsive service may include service that is tailored to areas (e.g., industrial areas) that have unusual transit service needs. The size and type of transit vehicle should be appropriate to the needs of the land uses served.</p> <p>Pedestrian and Bicycle Access. Provide safe and convenient pedestrian and bicycle access along Community Transit Streets and to transfer points and stops.</p> <p>Improvements. Community Transit Streets are typically used for access by bicyclists, pedestrians, and drivers to reach neighborhood destinations. Parking removal or the acquisition of additional right-of-way should not be undertaken to enhance transit service on Community Transit Streets, except at specific locations to correct unsafe transit operations or accommodate access to transit.</p> <p>Transfer Points. Provide covered waiting areas and transit information at transfer points.</p> <p>Bus Stops. Locate stops closer together in neighborhood commercial areas and farther apart in other areas along Community Transit Streets.</p>	
	<p>Local Service Transit Streets (Policy 6.6, E)</p> <p>Local Service Transit Streets are intended to provide transit service to nearby residents and adjacent commercial areas.</p> <p>Land Use. Transit operations on Local Service Transit Streets should give preference to access for individual properties and to the specific needs of property owners and residents along the street.</p> <p>Classification. Streets not classified as Regional Transitways, Major Transit Priority Streets, Transit Access Streets, or Community Transit Streets are classified as Local Service Transit Streets.</p> <p>Function. Local Service Transit Streets may be used for paratransit service, end loops for regularly scheduled routes, and may carry school buses.</p> <p>Bus Stops. Locate stops along Local Service Transit Streets based on Tri-Met service standards.</p>	
	<p>Transit Stations (Policy 6.6, F)</p> <p>Transit stations are locations where light rail vehicles or other high-capacity transit vehicles stop to board and unload passengers.</p> <p>Locations. Locate Transit Stations on Regional Transitways to provide direct and convenient service to regional and town centers and major trip generators along the transitway. Station locations are conceptual. Actual locations should be used for regulatory purposes such as measuring distances.</p> <p>Passenger Facilities. Provide safe and convenient covered waiting areas and easy transfer to other transit services. Provide transit information and access for pedestrians and bicyclists. Transit Stations should have a full range of passenger services, including route information, benches, secure bicycle parking, trash receptacles, enhanced signing, lighting, and telephones.</p> <p>Transit Station Spacing. Place Transit Stations along Regional Transitways with light rail service or other high capacity transit service at intervals of approximately one-half mile. In high-density areas in the Central City, consider closer station spacing of three to four blocks.</p>	
	<p>Intercity Passenger Rail (Policy 6.6, G)</p> <p>Intercity Passenger Rail provides commuter and other rail passenger service.</p> <p>Station Spacing. Stations are typically located one or more miles apart, depending on overall route length.</p>	
	<p>Passenger Intermodal Facilities (Policy 6.6, H)</p> <p>Passenger Intermodal Facilities serve as the hub for various passenger modes and the transfer point between modes.</p> <p>Connections. Passenger Intermodal Facilities connect inter-urban passenger service with urban public transportation service and are highly accessible by all modes.</p>	

Functional Bicycle Classifications Comparison

Multnomah County	City of Portland	Commentary
Bicycle and Pedestrian Systems (Policy 33C)	City Bikeways (Policy 6.7 A)	
<p>It is the County's Policy to create a balanced transportation system by implementing bicycle and pedestrian systems as integral parts of the County-wide transportation system through:</p> <p>Identifying a connected network of bicycle facilities on the map titled Multnomah County Bikeway System, which provides the framework for future</p> <p>Including standards for bikeways and walkways throughout the Multnomah County Roadway design and Construction Manual to include the most current design standards and innovations for providing bicycle and pedestrian improvements.</p> <p>Providing for bicycle and pedestrian travel through the development and adoption of a Countywide Transportation Capital Improvements Program (CIP) that includes all the bikeways and walkways identified in the Multnomah County Bikeway and Pedestrian System Map.</p> <p>Placing priority on construction and maintaining the transportation system to improve the safety for bicyclists and pedestrians.</p> <p>Coordinating with surrounding jurisdictions and regional partners in the development of the bicycle and pedestrian systems.</p>	<p>City bikeways are intended to serve the Central City, regional and town centers, station communities, and other employment, commercial, institutional, and recreational destinations.</p> <p>Land Use. Auto-oriented land uses should be discouraged from locating on City Bikeways that are not also classified as Major City Traffic Streets.</p> <p>Design. Consider the following factors in determining the appropriate design treatment for City Bikeways: traffic volume, speed of motor vehicles, and street width. Minimize conflicts where City Bikeways cross other streets.</p> <p>Improvements. Consider the following possible design treatments for City Bikeways: bicycle lanes, wider travel lanes, wide shoulders on partially improved roadways, bicycle boulevards, and signage for local street connections.</p> <p>On-Street Parking. On-street motor vehicle parking may be removed on City Bikeways to provide bicycle lanes, except where parking is determined to be essential to serve adjacent land uses, and feasible options are not available to provide the parking on-site.</p> <p>Bicycle Parking. Designations along City Bikeways should have long-term and/or short-term bicycle parking to meet the needs of bicyclists.</p> <p>Traffic Calming. When bicycle lanes are not feasible, traffic calming, bicycle boulevards, or other similar techniques will be considered to allow bicyclists to share</p>	<p>In addition to this City Policy should also look at 6.23 and Policy 11.10, Objective F. as they provide parallel language to the Mult. Co. policy language. JH</p> <p>Consistent Policy Intent. GO</p>
	<p>Off-Street Paths (Policy 6.7 B)</p> <p>Off-street Paths are intended to serve as transportation corridors and recreational routes for bicycling, walking, and other non-motorized modes.</p> <p>Connections. Use Off-Street Paths as convenient shortcuts to link urban destinations and origins along continuous greenbelts such as rivers, park and forest areas, and other scenic corridors, and as elements of a regional, citywide, or community recreational trail plan.</p> <p>Location. Establish Off-Street Paths in corridors not well served by the street system.</p> <p>Improvements. Use the Bikeway Design and Engineering guidelines to design Off-Street Paths. Off-Street Paths should be protected or grade-separated at intersections with major roadways.</p>	<p>Consider equivalent policy for County. GO</p>
Local Streets (Policy 34)	Local Service Bikeways (Policy 6.7 C)	
<p>Local streets provide access to abutting land uses on low traffic volume and low speed facilities. Their primary purpose is to serve local pedestrian, bicycle and automobile trips and limited public transportation use in urban areas; and auto and farm vehicle circulation with local pedestrian, bicycle and equestrian use in rural areas. (Policy 34)</p>	<p>Local Service Bikeways are intended to serve local circulation needs for bicyclists and provide access to adjacent properties.</p> <p>Classification. All streets not classified as City Bikeways or Off-Street Paths, with the exception of Regional Trafficways not also classified as Major City Traffic Streets, are classified as Local Service Bikeways.</p> <p>Improvements. Consider the following design treatments for Local Service Bikeways: shared roadways, traffic claming, bicycle lanes, and extra-wide curb lanes. Crossings of Local Service Bikeways with other rights-of-way should minimize conflicts.</p> <p>On-street parking on Local Service Bikeways should not be removed to provide bicycle lanes.</p> <p>Operation. Treatment of Local Service Bikeways should not have a side effect of creating, accommodating, or encouraging automobile through-traffic.</p>	<p>Consistent policy objective. Expand county's policy to include operational and design features. GO</p>

Functional Pedestrian Classifications Comparison

Multnomah County	City of Portland	Commentary
<p>Bicycle and Pedestrian Systems (Policy 33C)</p>	<p>Pedestrian Districts (Policy 6.8, A)</p>	
<p>It is the County’s Policy to create a balanced transportation system by implementing bicycle and pedestrian systems as integral parts of the County-wide transportation system through:</p> <p>Identifying a connected network of pedestrian facilities on the map titled Multnomah County Pedestrian System, which provides the framework for future</p> <p>Including standards for bikeways and walkways throughout the Multnomah County Roadway design and Construction Manual to include the most current design standards and innovations for providing bicycle and pedestrian improvements.</p> <p>Providing for bicycle and pedestrian travel through the development and adoption of a Countywide Transportation Capital Improvements Program (CIP) that includes all the bikeways and walkways identified in the Multnomah County Bikeway and Pedestrian System Map.</p> <p>Placing priority on construction and maintaining the transportation system to improve the safety for bicyclists and pedestrians.</p> <p>Coordinating with surrounding jurisdictions and regional partners in the development of the bicycle and pedestrian systems.</p> <p>Promoting bicycling and walking as vital transportation choices.</p>	<p>Pedestrian Districts are intended to give priority to pedestrian access in areas where high levels of pedestrian activity exist or are planned, including the Central City, Gateway regional center, town centers, and station communities.</p> <p>Land Use. Zoning should allow a transit-supportive density of residential and commercial uses that support lively and intensive pedestrian activity. Auto-oriented development should be discouraged in Pedestrian Districts. Institutional campuses that generate high levels of pedestrian activity may be included in Pedestrian Districts. Exceptions to the density and zoning criteria may be appropriate in some designated historic districts with a strong pedestrian orientation.</p> <p>Streets within a District. Make walking the mode of choice for all trips within a Pedestrian District. All Streets within a Pedestrian District are equal in importance in serving pedestrian trips and should have sidewalks on both sides.</p> <p>Characteristics. The size and configuration of a Pedestrian District should be consistent with the scale of walking trips. A Pedestrian District includes both sides of the streets along its boundaries, except where the abutting street is classified as a Regional Trafficway. In these instances, the land up to the Regional Trafficway is considered part of the Pedestrian District, but the Regional Trafficway itself is not.</p> <p>Access to Transit. A Pedestrian District should have, or be planned to have frequent transit service and convenient access to transit stops.</p> <p>Improvements. Use the Pedestrian Design Guide to design streets within Pedestrian districts. Improvements may include widened sidewalks, curb extensions, street lighting, street trees, and signing. Where two arterials cross, design treatments such as curb extensions, median pedestrian refuges, marked crosswalks, and traffic signals should be considered to minimize the crossing distance, direct pedestrians across the safest route, and provide safe gaps in the traffic stream.</p>	<p>Should also be looking at our Pedestrian Policy and Objectives as much of the Mult. Co. language is parallel to 6.22 and also to the objectives under Policy 11.10, Objective G. JH</p> <p>No conflict. Recommend that we create an equivalent and appropriate policy to match City’s Pedestrian District Policy 6.8 and Pedestrian Transportation Policy 6.22. GO</p>
	<p>Pedestrian-Transit Streets (Policy 6.8, B)</p> <p>Pedestrian-Transit Streets are intended to create a strong and visible relationship between pedestrians and transit within the Central City.</p> <p>Land Use. Pedestrian-Transit Streets respond to significant public investments in public transportation, including light rail, the transit mall, and streetcar, and enhance the pedestrian environment adjacent to high-density land uses.</p> <p>Improvements. Improvements should include wide sidewalks to accommodate high levels of pedestrian traffic, urban design features that promote pedestrian activity, and visual signals to motor vehicles to recognize the priority of pedestrian and transit vehicles.</p>	

Multnomah County	City of Portland	Commentary
	<p>City Walkways (Policy 6.8, C)</p> <p>City walkways are intended to provide safe, convenient, and attractive pedestrian access to activities along major streets and to recreation and institutions; provide connections between neighborhoods; and provide access to transit.</p> <p>Land Use. City Walkways should serve areas with dense zoning, commercial areas, and major destinations. Where auto-oriented land uses are allowed on City Walkways, site development standards</p> <p>Improvements. Use the Pedestrian Design Guide to design City Walkways. Consider special design treatment for City Walkways that are also designated as Regional or Community Main Streets.</p> <p>Off-Street Paths (Policy 6.8, D)</p> <p>Off-Street Paths are intended to serve recreational and other walking trips.</p> <p>Function. Use Off-Street Paths as short cuts to link urban destinations and origins along continuous greenbelts such as rivers, park and forest areas, and other scenic corridors, and used as elements of a regional, citywide, or community recreational trail plan.</p> <p>Location. Establish Off-Street Paths in corridors not well served by the street system. On existing rights-of-way that are not developed or likely to be developed in the near future, Off-Street Paths may be designated where needed to complete the pedestrian system.</p> <p>Improvements. Use the Pedestrian Design Guide to design Off-Street Paths. Design Off-Street Paths as separated facilities that accommodate pedestrians and may accommodate other non-motorized vehicles.</p>	
<p>Local Streets (Policy 34)</p> <p>Local streets provide access to abutting land uses on low traffic volume and low speed facilities. Their primary purpose is to serve local pedestrian, bicycle and automobile trips and limited public transportation use in urban areas; and auto and farm vehicle circulation with local pedestrian, bicycle and equestrian use in rural areas.</p>	<p>Local Service Walkways (Policy 6.8, E)</p> <p>Local Service Walkways are intended to serve local circulation needs for pedestrians and provide safe and convenient access to local destination, including safe routes to schools.</p> <p>Land Use. Local Service Walkways are usually located in residential, commercial, or industrial areas on Local Service Traffic Streets.</p> <p>Classification. All streets not classified as City Walkways or Off-Street Paths, with the exception of Regional Trafficways not also classified as Major City Traffic Streets, are classified as Local Service Walkways.</p> <p>Improvements. Use the Pedestrian Design Guide to design Local Service Walkways.</p>	

Functional Freight Classifications Comparison

Multnomah County	City of Portland	Commentary
Freight Movement (Policy 34, Strategy 7)	Freight Districts (Policy 6.9 A)	
<p>Freight Movement: County trafficways shall provide for the movement of freight on facilities designed and built to accommodate the types and frequency of freight trips, and which provide for the convenient access to major highways, industrial areas and resource movement. Trafficways designated as National Highway System routes shall be classified as Principal Arterial roadways.</p>	<p>Freight Districts are intended to provide for safe and convenient truck movement in areas serving large numbers of truck trip ends and to accommodate the needs of intermodal facilities.</p> <p>Land use. Freight Districts encompass truck terminals, freight intermodal facilities, and industrial sanctuaries. Encourage national and international shipping firms to locate near intermodal facilities within freight Districts.</p> <p>Function. All streets within a Freight District are intended to allow truck movements.</p> <p>Improvements. Street improvements in Freight Districts should be designed to serve truck movements and access to industrial areas.</p>	<p>See also TSP Policy 6.6.29 and 6.30 which address freight movement and Policy 11.10, Objective I. JH</p> <p>Consistent policy intent; however, TSP has more detail relative to land use, functional and operational design. County's refer to facilities that carry trucks while TSP refers to area (districts) with heavy truck movements. WE can expand county's description to include functional and operational design elements. GO</p>
Industrial Streets (Policy 34, Overlay Classification)	Regional Truck Streets (Policy 6.9 B)	
<p>Industrial streets occur on roadways that either serve as a freight route identified in the Regional Transportation Plan or serve industrial use areas. The standards for asphalt and base for major and minor collectors and lower classifications are insufficient for truck traffic. Therefore, the arterial asphalt and base standards need to be applied to non-arterial roadways carrying truck traffic. Regardless of classification, the pavement section of trafficways designated with the industrial streets overlays shall be constructed to arterial standards as per the Multnomah County Design Standards. Part I-Design Manual, Section 4—Pavement Design.</p>	<p>Regional Truck Streets are intended to provide interstate and interregional truck movements that bypass a district completely or have only one trip end in a Transportation District.</p> <p>Land Use. Encourage land uses that generate high levels of truck traffic to locate near interchanges with Regional Trafficways and Regional Truck Streets.</p> <p>Function. Regional Truck Streets should provide access to Truck Districts and to interchanges with Major Truck Streets.</p> <p>Design. Design Regional Truck Streets to be limited access facilities and to standards that accommodate all types of trucks.</p>	<p>Are the "Industrial Streets" comparable to our "Major Truck Streets" or both our Major and Minor? Is there a map of the County's "Industrial Streets" and "industrial use areas". These sound comparable to our Freight Districts; are they? JH</p> <p>The County doesn't have a map of industrial streets or areas. We have an industrial street cross section in our Design and Construction Manual, but we have never used it. Our standard street cross-sections are generally truck/industrial friendly anyway. ML</p> <p>The County's industrial Streets Policy definition is consistent with TSP Regional Truck Streets. However, the County does not have the Industrial Street Map. Recommendation will be to extend comparable Truck designations into the County areas. GO</p>
	Major Truck Streets (Policy 6.9 C)	
	<p>Major Truck Streets are intended to serve truck trips with one or both trip ends in a Transportation District.</p> <p>Land Use. Encourage land uses that attract large numbers of truck trips from inside and outside transportation districts to locate along Major Truck Streets.</p> <p>Function. Major Truck Streets should distribute truck traffic from Regional Truck Streets to Minor Truck Streets and provide access to Truck Districts.</p> <p>Design. On new or reconstructed Major Truck Streets, buffer adjacent residential uses from noise impacts, where warranted. Truck access points should be consolidated to the extent feasible to reduce conflicts with all modes.</p>	

Multnomah County	City of Portland	Commentary
	Minor Truck Streets (Policy 6.9 D)	
	<p>Minor Truck Streets are intended to serve truck trips with both trip ends in a transportation district.</p> <p>Land Use. Discourage land uses that generate large numbers of truck trips, such as regional truck terminals, from locating on Minor Truck Streets.</p> <p>Function. Minor Truck Streets should distribute truck trips from Major Truck Streets to local destinations.</p> <p>Design. Discourage non-local truck trips on minor Truck Streets.</p>	
	Local Service Truck Streets (Policy 6.9 E)	
	<p>Local Service Truck Streets are intended to serve local circulation, access, and service requirements for truck movements.</p> <p>Land Use. Outside of Freight Districts, discourage land uses that generate a significant number of truck trips.</p> <p>Function. Outside of Freight Districts, Local Service Truck Streets should provide local truck access only.</p> <p>Design. Local Service Truck Streets should give preference to accessing individual properties and the specific needs of property owners and residents along the street.</p> <p>Classification. All streets not classified as Regional Truck Streets or Major or Minor Truck Streets are classified as Local Service Truck Streets.</p>	
	Freight Facilities (Policy 6.9 E)	
	<p>Freight Facilities include major shipping and air terminals and rail facilities that serve the statewide, interstate, and international movement of goods or commodities.</p>	

Street Design Classifications Comparison

Multnomah County (Policy 34) Overlay Classifications	City of Portland Street Design Classifications	Commentary
Scenic Routes	Greenscape Streets (6.11, H)	
<p>Scenic routes occur on streets that offer unique scenic views, and are used for recreational and scenic travel in addition to traffic appropriate to the facility functional classification. Unique designs and materials and other accommodations, or traffic restrictions may be imposed to preserve and enhance the scenic character of the facility. Landscape treatments should incorporate native species that integrate roadway improvements with the scenic character of the area.</p>	<p>Greenscape Street designs are applied to arterials where natural or informal landscapes dominate the adjacent areas and the right-of-way, such as lower-density residential areas in wooded settings.</p> <p>Dual Classifications. Where streets have a Greenscape Street designation and another street design designation, consider the natural characteristics of the street during the design and implementation of street improvements.</p> <p>Design Treatment. During improvement projects, consider preservation of existing vegetation, topography, vistas and viewpoints, driver perception, street lighting, and sight distance requirements. Vegetation may be landscaped or native, depending on the existing and desired character.</p>	<p>Also see TSP Policy 11.10, Objective L. JH</p> <p>Policy intent is consistent, but County's lacks the operational and design element. Recommend creating equivalent policy for the County. GO</p>
Regional Boulevards	Regional Main Streets (6.11, C)	
<p>Regional boulevards consist of four or more vehicle lanes, balanced multi-modal function, and a broad right of way. Features highly desirable on regional boulevards include on-street parking, bicycle lanes, narrower travel lanes than throughways, more intensive land uses oriented to the street, and wide sidewalks.</p>	<p>Regional Main Streets are designed to accommodate motor vehicle traffic, with features that facilitate public transportation, bicycles, and pedestrians.</p> <p>Land Use. Regional Main Streets are located within the Central City, Gateway regional center, station communities, and town centers, and along some main streets that have relatively high traffic volumes.</p> <p>Development consists of a mix of uses that are oriented to the street.</p> <p>Lanes. Regional Main Streets usually include four vehicle lanes, with additional lanes, such as turn lanes, or one-way couplets in some situations.</p> <p>Design Elements. Regional Main Street design shall consider the following: low to moderate vehicle speeds; the use of medians and curb extensions to enhance pedestrian crossings where wide streets make crossing difficult; combined driveways; on-street parking where possible; wide sidewalks with pedestrian amenities such as benches, awnings and special lighting; landscape strips, street trees, or other design features that create a pedestrian buffer between curb and sidewalk; improved pedestrian crossings at all intersections and mid-block crossings where intersection spacing exceeds 400 feet; striped bikeways or wide outside lane; and vehicle lane widths that consider the above improvements.</p> <p>Design Treatment. During improvement projects, the preservation of existing and sight distance requirements should be considered.</p> <p>Utilities. Consider under-grounding or reducing the visual impact of overhead utilities along Regional Main Streets.</p>	

Multnomah County (Policy 34) Overlay Classifications	City of Portland Street Design Classifications	Commentary
Community Boulevards	Community Main Streets (6.11, D)	
<p>Community Boulevards consist of four or fewer vehicle travel lanes, balanced multi-modal function, narrower right of way than a regional boulevard, landscaped medians, no-street parking, narrower travel lanes than throughways, more intensive land use oriented to the street, and wide sidewalks.</p> <p>Community boulevards are located within the most intensely developed activity centers with development oriented to the street. These are primarily regional centers, town centers, station communities and some main streets.</p>	<p>Community Main Streets are designed to accommodate motor vehicle traffic, with special features to facilitate public transportation, bicycles, and pedestrians.</p> <p>Land Use. Community Main Streets are located within the Central City, Gateway regional center, station communities, and town centers, and along most main streets. Development consists of a mix of uses oriented to the street.</p> <p>Lanes. Community Main Streets may include up to four lanes, with on-street parking. Fewer than four vehicle lanes are typically appropriate in Community Main Streets designs, particularly to allow on-street parking.</p> <p>Design Elements. Community Main Street design shall consider the following; low vehicle speeds; the use of medians and curb extensions to enhance pedestrian crossings where wide streets make crossing difficult; combined driveways; on-street parking where possible; wide sidewalks with pedestrian amenities such as benches, awnings, and special lighting; landscape strips, street trees, or other design features that create a pedestrian buffer between curb and sidewalk; improved pedestrian crossings at all intersections and mid-block crossings where intersection spacing exceeds 400 feet; striped bikeways or wide outside lane; and vehicle lane widths that consider the above improvements.</p> <p>Design Treatment. During improvement projects, the preservation of existing vegetation, topography, vistas and viewpoints, driver perception, street lighting, and sight distance requirements should be considered.</p> <p>Utilities. Consider under-grounding or reducing visual impact of overhead utilities along Community Main Streets.</p>	
Regional Streets	Regional Corridors (6.11, E)	
<p>Regional streets consist of four or more vehicle travel lanes, balanced multi-modal function, broad right of way, limited on-street parking, wider travel lanes than boulevards, corridor land use set back from the street, sidewalk with pedestrian buffering from street, and a raised landscaped median or, usually a continuous two way left turn lane.</p>	<p>Regional Corridors are designed to include special amenities to balance motor vehicle traffic with public transportation, bicycle travel, and pedestrian travel.</p> <p>Land Use. Regional Corridors are located primarily along major transit corridors and between Regional Main Street segments. Commercial and multifamily development should be oriented to the street where the Regional Corridor also has a transit designation.</p> <p>Lanes. Regional Corridors usually include four vehicle lanes. They occasionally have additional lanes in some situations, such as to allow turning movements.</p> <p>Design Elements. Regional Corridor design shall consider the following: moderate vehicle speeds; the use of medians and curb extensions to enhance pedestrian crossing where wide streets make crossing difficult or to manage motor vehicle access; combined driveways; on-street parking when feasible; buffered sidewalks with pedestrian amenities such as special lighting and special crossing amenities tied to major transit stops; landscape strips, street trees, or other design features that create a pedestrian buffer between curb and sidewalk; improved pedestrian crossings at signalized intersections; striped bikeways or wide outside lanes; and motor vehicle lane widths that consider the above improvements.</p>	

Multnomah County (Policy 34) Overlay Classifications	City of Portland Street Design Classifications	Commentary
Community Streets	Community Corridors (6.11, F)	
<p>Community streets consists of two to four travel lanes, balanced multi-modal function, narrower right of way than regional streets, on-street parking, narrower or fewer travel lanes than regional streets and residential neighborhood and corridor land use set back from the street. Community streets provide a higher level of local access and street connectivity than regional streets. Community streets have the greatest flexibility in cross sectional elements. Depending on the intensity of adjacent land use and site access needs, community streets can have three different median conditions; center two way left turn lane, narrow landscaped median, or no median.</p>	<p>Community Corridors are designed to include special amenities to balance motor vehicle traffic with public transportation, bicycle travel, and pedestrian travel.</p> <p>Land Use. Community Corridors are located along transit corridors and between segments of Community Main Streets. Commercial and multifamily development should be oriented to the street where the street also has a transit designation.</p> <p>Lanes. Community Corridors typically have two travel lanes, usually with on-street parking.</p> <p>Design Elements. Community Corridor design shall consider the need for the following: moderate vehicle speeds; the use of medians and curb extensions to enhance pedestrian crossing and to manage motor vehicle access; combined driveways; on-street parking; buffered sidewalks with pedestrian amenities such as special lighting and special crossing amenities tied to major transit stops; landscape strips, street trees, or other design features that create a pedestrian buffer between curb and sidewalk; improved pedestrian crossings at intersections; striped bikeways or wide outside lanes; and usually narrower motor vehicle lane widths than Regional Corridors.</p>	
Green Streets (Policy 34, Overlay)	Green Streets (Chapter 6, Codes, Manuals, and Documents Used in the Street design Process)	
<p>Green Streets are designed to incorporate a system of storm water treatment within their right-of-way to protect the quality of the region's stream system. Green streets are designated according to the location-specific circumstances, including environmental conditions such as the soil conditions, water table, etc.; and surrounding land uses. The trafficways designated with green street overlay classifications are identified in the Regional Transportation Plan and in local jurisdiction's Transportation System Plans and other transportation planning documents. Multnomah County shall consider implementation of Green Streets design standards when developing a project listed in the County's Capital Improvement Program. Standards for Green Streets are in the Multnomah County Design Standards. Part I—Design Manual, Section 2—Geometric Design.</p>	<p>Innovative Solutions for Stormwater and Street Crossings (Metro, 2002). Recently completed handbook that provides guidance for incorporating sustainable practices into the design and construction of all types of streets. Local jurisdictions must consider the guidelines for regionally significant streets and they are optional for locally funded projects.</p>	<p>This says that the RTP has trafficways designated as "Green Streets." Is this true? We don't have any designated green streets in our TSP. I agree with the first part of Mult. Co. language – green streets are "location-specific circumstances."</p> <p>We also are adding new language to Chapter 6 street standards that "If swales are required for stormwater management, the actual right-of-way dedication requires specific review. To determine the additional approximate width needed, take the swale width minus 4 feet. Swales may or may not be allowed and must receive approval from the City Engineer and Bureau of Environmental Services before they are incorporated into the right-of-way. JH</p> <p>Green Streets are theoretical at this point. I am not aware of any such designations in the RTP yet. We have done a few streets with green streets elements, but none that justify a designation. However, all of the streets in the Pleasant Valley Concept plan are proposed to be green streets. They would be designated in the RTP as they come on line. ML</p>

APPENDIX C: PROJECT LISTS

Proposed Project List – Short Version

ID #	Project Street	Segment	Description of Proposed Project	**Rank	Sources
Forest Park/SW Hills					
FP1	SW Scholls Ferry Rd	Humphrey Blvd to County line	Add bike/ped facilities	1	MC CIP #101
FP2	NW Miller Rd	Stark St to Cornell	Bike lanes/path	2	CAC 2/3/05
FP3	SW 55th Dr	S of SW Patton Rd	No sidewalks; add sidewalks	3	CAC 2/3/05, MC CIP #320
FP4	SW 61st Ave	at Canyon Ct.	Ramp connection to bike path	4	CAC 9/9/04
FP5	SW Scholls Ferry Rd	at Patton Rd.	Dedicated left turn from South Bound Scholls Ferry to Patton	5	CAC 3/17/05, MC CIP #101
Dunthorpe					
D1	SW Summerville Ave	SW Riverdale Rd to SW Palatine Hill Rd	Bike/ped facilities along Summerville ROW with stairs	1	Master Street Plan
D2	SW Breyman Ave	SW Palatine Hill Rd to Hwy 43	Traffic calming study; possible speed bumps	2	NA meeting 1/24/05
D3	SW Palatine Hill Rd	city limits to Hwy 43	Bikeway; Retrofit bike lanes into existing street		TSP prj #90052
D4	Willamette Greenway Trail	city limits to county line	Trail extension		TSP prj #90071
D5	SW Macadam Ave / Riverside Dr / Hwy 43	Sellwood Bridge to county line	Multi-modal (bike, ped, & auto) improvements		TSP prj #90047
D6	SW Terwilliger Blvd	city limits to county line	Pedestrian improvements		TSP prj #90066, MC CIP #291 & 292
Far Southeast					
SE1	SE Jenne/174th Ave. & SE Circle Ave.	Springwater Trail	Street crossing safety improvements along roadway	1	CAC 9/9/04
SE2	SE Barbara Welch Rd	city limits to Clatsop St	Bike/Ped safety improvements along roadway; widen sidewalks		TSP prj #80008, MC CIP #157

**Rank is based upon an evaluation criteria of an improvement's ability to reduce congestion, improve safety, add safe routes to schools, protect the environment, enhance connectivity, community support, and improve multi-modal balance.

Proposed Project List – Long Version

ID #	Project Street	Segment	Description of Proposed Project	Evaluation Criteria								Total Score	Sources
				Reduce Congestion	Safety	Safe Routes to Schools	Protect the Environment	Enhance Connectivity	Community Support	Multi-Modal Balance			
Forest Park/SW Hills													
FP1	NW Miller Rd	Stark St to Cornell	Bike lanes/path	4	4	4	3	3	3	3	24	MC CIP #101	
FP2	SW Scholls Ferry Rd	Humphrey Blvd to County line	Add bike/ped facilities	4	4	4	3	3	2	3	23	CAC 2/3/05	
FP3	SW 55th Dr	S of SW Patton Rd	Add sidewalks	4	3	2	3	1	1	1	15	CAC 2/3/05, MC CIP #320	
FP4	SW Scholls Ferry Rd	at Patton Rd.	Dedicated left turn from South Bound Scholls Ferry to Patton	2	4	0	1	0	6	0	13	CAC 9/9/04	
FP5	SW 61st Ave	at Canyon Ct.	Add ramp connection to bike path	2	1	2	1	3	1	1	11	CAC 3/17/05, MC CIP #101	
Dunthorpe													
D1	SW Summerville Ave	SW Riverdale Rd to SW Palatine Hill Rd	Bike/ped facilities along Summerville ROW with stairs	3	2	3	1	4	4	0	17	Master Street Plan	
D2	SW Breyman Ave	SW Palatine Hill Rd to Hwy 43	Traffic calming study; possible speed bumps	1	5	4	0	0	4	1	15	NA meeting 1/24/05	
D3	SW Palatine Hill Rd	city limits to Hwy 43	Bikeway; Retrofit bike lanes into existing street								TSP prj #90052		
D4	Willamette Greenway Trail	city limits to county line	Trail extension								TSP prj #90071		
D5	SW Macadam Ave / Riverside Dr / Hwy 43	Sellwood Bridge to county line	Multi-modal (bike, ped, & auto) improvements								TSP prj #90047		
D6	SW Terwilliger Blvd	city limits to county line	Pedestrian improvements								TSP prj #90066, MC CIP #291 & 292		
Far Southeast													
SE1	SE Jenne/174th Ave. & SE Circle Ave.	Springwater Trail	Street crossing safety improvements along roadway	1	5	0	1	1	1	2	11	CAC 9/9/04	
SE2	SE Barbara Welch Rd	city limits to Clatsop St	Bike/Ped safety improvements along roadway; widen sidewalks								TSP prj #80008, MC CIP #157		

Project Reference List

ID #	Street	Segment	Issues	Source	Further Action
Forest Park/Southwest Hills					
FP6	Sylvan Exit #2		Traffic backs up and cuts through neighborhood	CAC 9/9/04	Explore potential traffic calming solution
FP7	SW 57th Ave	off of Barnes Rd.	Excessive cut through traffic to & from US 26	CAC 9/9/04	Explore potential traffic calming solution
FP8	SW Humphrey Blvd	Hwy 26 to Marquam Hill	Cut through traffic to Marquam Hill	CAC 9/9/04	Defer to SW 57th Study
FP9	Bridlemile area		Few sidewalks; unsafe routes to schools	CAC 9/9/04, many MC CIPs	Refer to Safe Routes to School Program.
FP10	West Hills		Lack of transit service	CAC 9/9/04	Refer to TriMet
FP11	SW 61st Ave	Barnes Rd to Canyon Ct	Lack of north-south bikeways	NA meeting 11/9/04	Possible bikeway on 61st
FP12	Skyline Blvd	at W Burnside	Need signals	NA meeting 11/9/04	Traffic operations study
FP13	SW Highland Rd	US 26 Sylvan interchange	Need pedestrian crossing over interchange; Eastbound ramp too short	NA meeting 11/9/04	Defer to TSP update; have ODOT examine
FP14	Skyline Area		Lack of street lighting in area	NA meeting 11/9/04	PDOT lacks funding
FP15	Skyline Area	SW Montgomery	School bus congestion	NA meeting 11/9/04	Traffic operations study
Dunthorpe					
D7	SW Greenwood Rd / Breyman Ave	SW Riverside Dr	Change intersection to one-way routing	CAC 2/3/05	
D8	Hwy 43/SW Riverside		Need safe bike/ped access across Hwy 43 to get to river and bike path.	CAC 2/3/05	Defer to Hwy 43 study
D9	Dunthorpe Area		Controlling speed on local streets and HWY 43	NA meeting 1/24/05	Defer to Hwy 43 study; enforcement issues
D10	Dunthorpe Area		Cut through traffic from Lake Oswego.	NA meeting 1/24/05	Defer to Hwy 43 study
D11	Hwy 43/SW Riverside		Alternate bike routes		Defer to Hwy 43 study
D12	SW Breyman Ave		Speeding	NA meeting 1/24/05	Traffic calming study
D13	Dunthorpe Area		Few sidewalks; unsafe routes to schools	NA meeting 1/24/05	Refer to Safe Routes to School Program.
D14	SW Terwilliger Blvd		Need safer bike and ped crossings to access Tryon Creek paths	CAC 2/3/05	Requires further study
Far Southeast					
SE3	SE 174th & Jenne Rd		Improve transit service	NA meeting 1/26/05	Defer to Tri-Met
SE4	Hawthorne Ridge	to SW 152nd Ave	Access to 152nd.	NA meeting 1/26/05	Outside of study area; Referred to the Powell/Foster Plan
SE5	SE Foster Rd	at Barbara Welch Rd	Signal needed	NA meeting 1/26/05	Outside of study area; Referred to Operations
SE6	SE 158th Ave	at Foster Rd	Left turns are difficult, blinking light needed	NA meeting 1/26/05	Outside of study area; Referred to the Powell/Foster Plan

Portland Adopted TSP Projects

ID #	Project Street	Segment	Projects	Source	TSP Project Number
Forest Park/SW Hills					
FP16	SW Humphrey Blvd	Patton Rd to Scholls Ferry Rd	Bike and Pedestrian improvements; TSP project area includes pocket	CAC 2/3/05 & MC CIP #265	90038
FP17	NW & SW Skyline Blvd	US 26 to Greenleaf	Bike lanes and pedestrian path; TSP project area includes pocket	CAC 2/3/05 & MC CIP #287	60015
FP18	SW Patton Rd	Vista Ave to Scholls Ferry Rd	Bicycle & Pedestrian improvements; TSP project area includes pocket	MC CIP #279	90054
Dunthorpe					
D15	SW Palatine Hill Rd	Boones Ferry Rd to city limits	Bikeway; Retrofit bike lanes into existing street		90052
D16	Willamette Greenway Trail	Sellwood Bridge to city limits	Trail extension		90071
D17	SW Macadam Ave / Hwy 43	to Sellwood Bridge	Multi-modal (bike, ped, & auto) improvements		90047
D18	SW Terwilliger Blvd	Troy St to city limits	Pedestrian improvements	extended by MC CIP #291 & #292	90066
Far Southeast					
SE7	SE Barbara Welch Rd	Foster Rd to city limits	Bike/Ped safety improvements along roadway; widen sidewalks	extended by MC CIP #157	80008
SE8	SE Jenne Rd / 174th Ave	Powell Blvd to Foster Rd	Widens Jenne Road to three lanes and two bike lanes; TSP project area includes pocket	NA meeting 1/26/05 & MC CIP #65	80007

Project Appendix List

ID #	Project Street	Segment	Issues	Source	Reason not included on Project List
Forest Park/SW Hills					
FP19	SW Humphrey Park Rd	to US 26 bike path	There is currently no direct pedestrian access to the US 26 trail for the neighborhood	CAC 2/3/05	Topography is too steep; a bridge is not cost-effective
FP20	SW Hilltop Lane	to Hewett Blvd	Lack of bike and ped connection	CAC 2/3/05	Hilltop Lane is a private Right of Way
FP21	Sylvan Highlands		No park and ride by MAX	CAC 9/9/04	Program with Zoo has been established to address parking
FP22	NW & SW Skyline Blvd		Shorten and straighten; eliminate switch backs	Email comment	Too steep, curves follow the ridgeline
FP23	SW Highland Rd	Fairview Blvd to Canyon Ct	Show center lines, improve street lighting; pedestrian crossing over interchange is too short	NA meeting 11/9/04	SW Highland Rd is a local service traffic street. Center lines are for higher traffic classifications only. Ped crossing is an ODOT concern. No funding for street lighting.
Dunthorpe					
D19	SW Edgecliff Rd	at Iron Mountain Blvd	Stop sign at intersection	NA meeting 1/24/05	Outside of Multnomah County; refer to Clackamas County.
D20	SW Iron Mountain Blvd	Millitary Rd to Greenwood Rd	Connection needs to be made, possibly extend Iron Mtn.	CAC 9/9/04	Part of Master Street Plan
D21	SW Mary Failing Ct	to Iron Mountain Blvd	There is a private gravel road that needs to be improved	CAC 9/9/04	Road is currently private and connects to Terwilliger Blvd. Property is currently in the process of development.
Far Southeast					
SE9	SE Jenne Rd		Increase capacity to 4 lanes		TSP #80007 and MC CIP#65 expands road to 3 lanes and 2 bike lanes
SE10	Gentimen Property		Connection to the Metro Park/open space		Further study will be recommended when area is officially a park
SE11	SE Clatsop St		Increase capacity		Addressed in Pleasant Valley Concept Plan and MC CIP#164
SE12	SE Clatsop St	at 162nd Ave	Sight distance problems at intersection		Addressed in Pleasant Valley Concept Plan
SE13	SE 162nd Ave	to Sunnyside Rd	Needs connection	NA meeting 1/26/05	Outside of Multnomah County; refer to Clackamas County

Multnomah County CIP Adopted Projects

Prj #	Project Name	Project Description	Prj Scr	Total Cost	List ID#	TSP#
Forest Park/SW Hills						
101	Scholls Ferry Rd: US 26 to Wash. Co. Line	Widen roadway to add fourth lane for turns and uphill bike lanes	15	\$2,300,000	FP1, FP5	
262	Hewitt Blvd: Humphrey Blvd-5200 ft W/ Patton Rd	Shoulder Bikeway	12	\$250,000		
287	Skyline Blvd: Cornell Rd-Greenleaf Rd	Widen road for shoulder bikeway	11	\$360,000	FP17	60015
327	Bucharest Ct: Dead end-County line	Sidewalk on both sides of road	6	\$34,000	FP9	
722	Canyon Ct: Highland Rd-County Line	Sidewalk on north side of road	6	\$72,000	FP9	
279	Patton Rd: Scholls Ferry Rd-Hewitt Ave	Shoulder bikeway	5	\$350,000	FP18	90054
284	Shattuck Rd: Patton Rd-Windsor Ct.	Shoulder Bikeway	5	\$100,000		
338	Fairview Blvd: Knights Blvd-Kingston Ave	Sidewalk on both sides of road	5	\$10,000	FP9	
314	48th Pl: Windsor Ct-Downsview Ct	Sidewalk on both sides of road	4	\$50,000	FP9	
315	50th Ave: Windsor Ct-Downsview Ct	Sidewalk on both sides of road	4	\$57,000	FP9	
316	52nd Pl: Thomas St-Downsview Ct	Sidewalk on both sides of road	4	\$82,000	FP9	
317	54th Pl: Thomas St - end	Sidewalk on both sides of road	4	\$17,000	FP9	
318	55th Ave: Patton Rd-55th Dr	Sidewalk on both sides of road	4	\$32,000	FP9	
319	55th Drive: 55th Ave - end	Sidewalk on both sides of road	4	\$88,000	FP9	
320	55th Drive: City Limit-Patton Rd	Sidewalk on both sides of road	4	\$123,000	FP3, FP9	
321	57th Ave: City Limit-Windsor Ct	Sidewalk on both sides of road	4	\$54,500	FP9	
322	57th Ave: Westdale Dr-Patton Rd	Sidewalk on both sides of road	4	\$30,500	FP9	
325	64th Pl: Bucharest Ct - end	Sidewalk on both sides of road	4	\$20,000	FP9	
336	Downsview Ct: 52nd Pl-48th Pl	Sidewalk on both sides of road	4	\$36,000	FP9	
337	Downsview Ct: 57th Ave-55th Dr	Sidewalk on both sides of road	4	\$36,000	FP9	
343	Grover Ct: 55th Dr - end	Sidewalk on both sides of road	4	\$15,500	FP9	
356	Scholls Ferry Ct: Scholls Ferry Rd - end	Sidewalk on both sides of road	4	\$30,000	FP9	
362	Sweetbriar Court: 64th Pl-Scholls Ferry Rd	Sidewalk on both sides of road	4	\$24,500	FP9	
364	Thomas St: Shattuck Rd - end	Sidewalk on both sides of road	4	\$55,000	FP9	
368	Westdale Dr: 57th Ave - end	Sidewalk on both sides of road	4	\$45,000	FP9	
369	Windsor Ct: 52nd Pl-Shattuck Rd	Sidewalk on both sides of road	4	\$64,500	FP9	
370	Windsor Ct: 54th Pl - end	Sidewalk on both sides of road	4	\$40,000	FP9	
371	Woods Ct: 55th Dr - end	Sidewalk on both sides of road	4	\$26,500	FP9	
265	Humphrey Blvd: Hewitt Rd-Patton Rd	Shoulder Bikeway	3	\$110,000	FP6, FP16	90038
Dunthorpe						
291	Terwilliger Boulevard: Powers Ct-Coronado St	Add bike lane	7	\$260,000	D6	90066
292	Terwilliger Blvd: Northgate Rd-City Limits	Add bike lane	7	\$210,000		90066
354	Riverwood Road: Riverside Dr-Military Rd	Add sidewalks to the west side of the road	6	\$12,000		
Far Southeast						
65	Jenne Rd: Foster Rd-Powell Blvd	Improve Jenne Road to Rural Arterial Standards that will include bike lanes, new bridge at Johnson Creek and drainage improvements	20	\$4,700,000	SE1, SE9	80007
157	Barbara Welch Road: City Limits-County Line	Widen road to Rural Collector Standards	0	\$500,000	SE2	80008
164	Clatsop St: Barbara Welch Rd-162nd Ave	Widen to Rural Collector Standards add storm drain inlets and drainage	0	\$730,000	SE11	

APPENDIX D: MEETING MINUTES & NOTES

Citizen Advisory Committee Meeting #1

Multnomah County Unincorporated Urban Pockets TSP

Citizen Advisory Meeting

Meeting Notes

09/09/04, 7:00 PM, Broadway Room (Portland Building)

In Attendance: Andrew Holtz (SWHRL), Charles Ormsby (Birds Hill), Gretchen Hollands (Sylvan-Highlands), Chuck Shaw (Bridlemile), Linda Bauer (Pleasant Valley), Matt Larsen (PDOT), Gabe Onyeador (PDOT), Sumi Malik (PDOT).

Handouts

- Agenda
- Work Scope

Minutes

Why are we doing a TSP?

State law requires a TSP, and no plans exist for the unincorporated urban pockets. The relationship between the City and County needs to be further defined. The City does land use review for the pockets using City zoning codes, which refer to City street classifications. The street classifications used in the urban pockets are the County's.

Project Objectives

- Comply with State Transportation Planning Rule (TPR) and the Regional Transportation Plan (RTP)
- Improve access and circulation for all modes
- Establish common/equivalent street classifications—one result will likely be an equivalency table for the City and County classifications
- Identify key connections to meet Metro connectivity standards
- Solicit public input
- Be consistent with regional street design and performance standards
- Accommodate efficient development at planned densities

Key Deliverables

- Website and newsletter to assist with public outreach
- Existing conditions technical memo and maps
- Policy and Standards/Guidelines analysis technical memo with recommendations to address conflicts.
- Master street plan for each sub-area
- Capital projects list—CAC will be very helpful in developing this list.
- Draft and Final TSP
- Implementing ordinances

CAC Q: Will we get to review and edit ordinances?

A: Ordinances may be reviewed, but attorney has final say.

Map Review

Northwest pocket nature is residential and built-out.

Southwest pocket area is residential with large lots and large homes. It is also built-out

Outer Southeast is not built-out; however much of pocket area is within the Pleasant Valley plan or adjacent to it, so the area will be built out in the future if the plan is adopted.
Common to all areas: Few major streets, poor transit access, few bike/ped facilities

Outreach Plan

- Technical Advisory Committee (TAC): Multnomah County, Tri-Met, Metro, Washington County, Clackamas County, City of Lake Oswego, Portland Office of Transportation, Portland Bureau of Development Services, ODOT. We are also considering getting a representative from Tualatin Valley Fire Department.
 - CAC suggested adding Riverdale or Lake Oswego Fire Departments
- Citizen Advisory Committee
 - CAC member stated that map information and data needs to be improved. He has experienced a lot of differences between jurisdictional maps of the same area.
 - CAC members will be called upon to assist in clarifying and correcting maps so that they are more accurate.
 - Suggestion to try to contact Wes Boyd again from the Wilcox area
 - Neighborhood Association Meetings (late October/early November)
 - Sylvan Highlands Neighborhood Association meeting on Tuesday, November 9th
 - Pleasant Valley Neighborhood Association meeting on Wednesday, November 24th
- Newsletter will be sent to all residents in pockets
- Website: www.co.multnomah.or.us/dbcs/LUT/trans_plan/urban_pockets_plan_2004.shtml
 - Maps, meeting minutes, and project deliverables will be made available on website
 - Suggestion to add an area where comments can be submitted and viewed on line

Hot Topics

Bridlemile Neighborhood

Bridlemile Elementary, safe routes to school need to be established. Principal is not encouraging kids to walk. There are few sidewalks in the area. Many parents drive their children to school, which causes a great amount of congestion in the area. There are relatively few transfer children, children who reside in other areas, but choose to go to school at Bridlemile. Also, sometimes arterials and collectors end on the map, but in reality the traffic still goes through the neighborhood.

West Sylvan access is improving. At the Tualatin interchange, Exit #2—traffic exits and cuts through neighborhood.

West Hills

Safe routes to schools is also an issue. There are not enough sidewalks. Tri-met needs to put more routes in the area. Andrew lives on SW Humphrey, and the closest bus stop is a mile away. Cut-through traffic is also a problem. Drivers get off of Hwy 26, and take Humphrey Blvd to get to Marquam Hill. These areas need unconventional, custom solutions because conventional sidewalks may be cost prohibitive and/or physically difficult because of the topography and environment.

Add to map, West Sylvan-East Sylvan building (address is on W 58th)

Sylvan Highlands

No safe routes to school and few connecting streets. Max is close, but there is no park and ride. There is a bike lane on Canyon Court, but no North/South connection.

Cut through traffic on SW 57 (off of Barnes Rd) is excessive, approximately 2000 cars per day, which exceeds the capacity. 10% of cars are 10 mph above the speed limit because it is also on

a hill. Traffic is cutting through to/from HWY 26. Will Stevens of PDOT is working with the neighborhood on this issue. Use counts from SW 57th, 58th, and SW Salmon—Will Stevens will have.

Dunthorpe Area

The Dunthorpe area was rezoned from R30 to R20 when the city took over land use administration. This allows for more development without an increased provision in infrastructure.

- The change in zoning was not aimed to down zone. R20 was the City zoning best fit to the County's R30.
- Q: Can something unique be done for Dunthorpe?
- Metro also wants to put in multi-residential housing south of Englewood.
- Maps need to extend further to show adjacent jurisdictions so that connecting streets are more visible. Data should also be provided for adjacent jurisdictions to get a fuller picture.
- Biking is "suicidal" on Macadam from Portland to the County line.
- A Connector is needed between Military and Greenwood, possibly an extension of Iron Mountain.
- Between Mary Failing and Iron Mountain there is a gravel road that needs to be improved.
- Aerial Maps would help identify conditions on the ground
- Dunthorpe: When HWY 43 is congested, traffic cuts through on side streets.
- Metro will be addressing HWY 43 in the RTP.
- Englewood/Arnold—Lake Oswego Comprehensive Plan threatened the area with annexation. The area interfaces with other jurisdictions. Englewood Drive is a one lane road serving two way traffic. County recommended that it be improved to at least meet fire safety requirements. Nothing was done. Invite Englewood Neighborhood Association.

Pleasant Valley

Jenne and Springwater Corridor are not signalized which causes a safety hazard.

General

- The problem with the pockets is that they do not encompass an entire system within themselves. Much of the TSP will need to make recommendations for City plans.
- Q: What is the County policy on traffic-calming?
 - Only on local streets and allocation is driven by complaints and accidents.
 - Speed bumps are unsafe on slopes and curves (can cause cars to lose control)
 - Many traffic-calming devices presuppose a sidewalk. Many areas do not have sidewalks.
- Volume/Capacity ratio maps were reviewed.
- Q: Why do widths on some roads seem to arbitrarily change?
 - County roads have state requirements for street widths. Depending on when a particular section was built, the widths may differ.
- Where is noise abatement addressed?
 - Environmental Assessments deal with noise, but they are done for major arterials and above.
 - Paving type can help with noise abatement. Timely and frequent repairs can also help.
- Connect various TSPs to show interface points.
 - The Policy Comparison does this.
- Provide a visual dictionary that outlines terms, definitions, and illustrative examples.
- V/C model doesn't show traffic that cuts through on inappropriate streets and is only for one mode, cars. It doesn't include pedestrians or bikes. A street traffic volume may be within capacity, but when bikes and peds are added, there could be congestion and hazards.
- Find a way to include local streets in V/C model

- Add summary of traffic count totals to web site
- Talk to BTA to see if any projects they have identified are in the unincorporated areas.
- Additional repositories for project information may be libraries.

Citizen Advisory Committee Meeting #2
Multnomah County Unincorporated Urban Pockets TSP
Citizen Advisory Meeting
Meeting Notes

November 18, 7:00 PM, Broadway Room (Portland Building)

In Attendance: Andrew Holtz (SWHRL), Pamela Settlegoode (SWHRL), Charles Ormsby (Birds Hill), Chuck Shaw (Bridlemile), Linda Bauer (Pleasant Valley), Kate Dreyfus (Multnomah County), Matt Larsen (Multnomah County), Gabe Onyeador (PDOT).

Handouts

- Agenda
- Planning Definitions/Glossary
- Existing Conditions Report
- Values Questionnaire

Minutes

Re-introduction: Project Team & All

- Introductions of project team and attendees.
- Main objective of the meeting is to receive feedback on Existing Conditions Report. The report contains general descriptions of all of the areas.

Existing Conditions Report

The report was reviewed page by page.

Q: Why two-hour volumes?

A: One-hour volume is no longer useful. The two-hour peak is more telling about the conditions of the road. Afternoon peaks are generally the most congested, which is why PM peaks are used. Commuters generally account for only 25% of the afternoon traffic. The road counting machines used are very effective.

Q: On page 5, Scholls Ferry Road is referred to as a "minor arterial". Why "minor"?

A: "Minor" is an official term within a classification hierarchy and is not indicative of the volume of traffic. Volumes are a factor in the classification of the road.

Action: Henderson Way is a local street in Pleasant Valley with over 4,000 ADT and a grade of 17%. If SE Henderson Way is upgraded [in classification], would it also be improved?

A: Not necessarily. Improvements are dependent on funding availability.

Note: SE Henderson Way is outside of the unincorporated area. It is outside of the scope of this planning process.

Q: During the planning process [in the urban pockets] does Multnomah County look at sub-divisions or do you turn the planning process over to Portland?

A: Portland handles the land use planning. Connectivity with new development is a key part of what the County and City do. In the ideal system we are trying to achieve, traffic is not funneled onto one road. The ideal system is one in which traffic is dispersed among streets and congestion isn't a problem for any one street. Retrofitting roads is challenging and expensive.

Action: Print maps in color and full-page to make them more legible.

Action: Add descriptions of each of the three areas with statements about some of the transportation problems that face them, such as poor connectivity, lack of improved roads, very

limited sidewalks and bike lanes, topography, limited transit service, growth pressures, cut-through traffic, etc.

Q: Have you coordinated with Clackamas County on the Fish Hook of Iron Mountain?

A: We have a technical advisory committee with a member from Clackamas County and from the City of Lake Oswego.

Glen Road is classified as a local-access road and must be maintained by locals.

Q: Is there any thought of incorporating an off-street path for pedestrian use? Can they be established on unimproved right-of-ways, and will the TSP help to plan for such walkways?

A: Trails are considered to be linear parks instead of a transportation facility.

Q: There is a perfectly good bike trail down Terwilliger, but bikers are using the roadway and causing traffic problems. How do you educate bicyclists and motorists about the problem?

A: Existing bike trails that go in and out of the unincorporated areas are functionally inadequate.

Multnomah County has more hills than Washington County. Washington County has fewer geographic challenges.

Action: Can warning signs alerting drivers to watch for cyclists be placed on roads with high bicycle traffic?

Q: Is there some money in the County for transportation improvements?

A: We will be developing a list of top projects for these unincorporated areas as part of the transportation system plan.

Q: What about the interface of storm water drainage systems and bicycles and vehicles in a narrow right of way?

A: Drainage ditches are the escape routes for bicyclists.

Q: Is the money available for projects beyond bridge repairs?

A: There are a lot of different sources of money. The County and the City receive gas tax funds distributed by the state. The last three legislative sessions have passed Oregon Transportation Improvement Act funds paid for by bonds backed by the increase in vehicle registration fees. Most of OTIA III money was directed for bridges. We will also be competing for other grant sources. Projects in the unincorporated urban pockets will have to compete with all other projects within the County.

Q: What about the issue of interfaces (collector roads from a neighborhood road to a major arterial)? Are there funds or a mechanism to share between the counties where jurisdictional selection of projects may differ in priority between counties? Is there a regional rating applied to projects?

A: We built in a coordinated system with the Pleasant Valley area because it is such a large project. It will serve as a model. There have been projects that cross county lines on which Multnomah and Clackamas County have worked together, splitting funding. There is no ongoing mechanism for coordination. The City and County generally coordinate well together.

Metro will play a big part in guiding how the region spends transportation funds. Metro is interested in what neighborhoods say the issues are. Project input like this [the CAC meeting] will move projects to the top.

Comment: Neighborhoods spend hours preparing for Metro meetings and wait for hours to speak. They get their three minutes and no one listens. It is very frustrating.

Q: How much money is involved to make improvement and who distributes the money?

We need to come up with a project list so we know how much the projects will cost. There are different sources of funds with rules for project funding. Projects will probably fall into the County Capital Improvement Projects (CIP). The County has a small budget and will not be able to address all of the problems in the short run.

I would like to know what the budget is. We have been told that placing sidewalks on Humphery would cost \$1000 per linear foot. That is ridiculous and it is what puts the breaks on projects.

The major cost associated with sidewalks putting in a drainage system. I don't know what the CIP budget is for the County, but it is not much more than \$2 million. The CIP is on our website and is based on five-year plans.

Action: Lack of infrastructure and constraining topography sometimes pushes traffic off of what is planned. For example, SW 59th is used for a shortcut rather than taking Skyline and Humphery instead of 26. There are few options in these areas.

Action: Add general descriptions about some of the transportation problems facing these areas. Many areas have the same problems—poor connectivity and incomplete street systems.

Description changes and comments will be sent to appropriate neighborhoods.

Values Questionnaire

Please list all of the issues important to the unincorporated urban pockets. The questionnaire will be distributed at neighborhood meetings. It would be useful if you ranked the issues on the list (rank top 3). Combine safety issues. These values will be used to develop a project list. Written comments are okay as well.

Why doesn't the City give the money to neighborhood associations to do the work? We will contract the work and bring it in much cheaper and meet ADA standards.

Next Steps:

Discussion about specific projects
Data from neighborhood meetings will be collected in January.

Citizen Advisory Committee Meeting #3
Multnomah County Unincorporated Urban Pockets TSP
Citizen Advisory Meeting
Meeting Notes

February 3, 2005, 7:00 PM, Broadway Room (Portland Building)

In Attendance: Andrew Holtz (SWHRL), Linda Bauer (Pleasant Valley Neighborhood), Clark Hansen (Forest Park), Kristen Corwin (Wilcox Neighborhood), Gretchen Hollands (Sylvan Highlands Neighborhood), Brian Lantow (Riverdale Neighborhood Association), Matt Larsen (Multnomah County), Gabe Onyeador (PDOT), Sumi Malik (PDOT).

Handouts

- Agenda
- Existing Conditions Report
- Values Questionnaire
- Proposed Classification Changes
- Master Street Plan Criteria

Minutes

Re-introduction: Project Team & All

- Introductions of project team and attendees.

Existing Conditions Report

No comments

Values Survey

Define "environment". Eliminate redundancies of bike, pedestrian and transit.

Proposed Classification Changes

Q: What are you doing about study area 94, which has been brought into the UGB (although that has been appealed)?

A: Usually when an area is brought into the UGB, it is formally planned in a separate process.

No other comments

Master Street Plan Evaluation Criteria

The criteria define a process by which tax lots are eliminated from consideration for street connections. We have used Metro's guideline for street connection spacing of 530ft. Tax lots will also be eliminated for environmental constraints like slope hazards and creeks, etc.

Redevelopable tax lots with a building value that is less than 50% of the total land value will be selected as potential lots for street connections. Finally tax lots of greater than 2 contiguous acres will be considered.

We will be recommending a connection in areas, but will not go so far as to suggest an alignment.

Q: What if an incorporated city parcel is adjacent to the pocket and it could provide a connection?

A: Connections outside of the pocket will be considered.

Q: How will the plan be used?

A: If development occurs, the plan must be considered. If the developer argues that it is not feasible, they may appeal.

Q: What about Washington County people cutting through our neighborhood? Many of the streets are sub-standard and the topography is difficult.

A: We will be blind to jurisdictional boundaries. We can provide a set of recommendations to the City and other Counties.

Q: If high capacity transit goes in Riverdale, or if it is made into a bike path, how will we address bicycle and pedestrian access to the area from the neighborhood?

A: We will address that in the Plan.

Q: What about Skyline bicycle and pedestrian access?

A: It is in the capital improvement project list, and funding was sought but not received.

It is within the top 5 projects of the Bicycle Transportation Alliance's project list.

Bike lanes to the City limits are on an 11-year timeline.

Mapping Exercise

Members were asked to mark potential street connections or projects on maps of their neighborhood. The notations were incorporated in project list development and the master street planning process.

Citizen Advisory Committee Meeting #4

Multnomah County Unincorporated Urban Pockets TSP Citizen Advisory Meeting Meeting Notes

March 17, 7:00 PM, Broadway Room (Portland Building)

In Attendance: Andrew Holtz (SWHRL), Kristen Corwin (Wilcox Neighborhood), Brian Lantow (Riverdale Neighborhood Association), Charles B. Ormsby (Birdshill CPO), Matt Larsen (Multnomah County), Gabe Onyeador (PDOT), Sumi Malik (PDOT).

Handouts

- Agenda
- Street Classifications Final Draft
- Proposed Master Street Plan
- Project List

Minutes

Street Classifications Final Draft

No discussion or proposed changes

Proposed Master Street Plan

The master street plan provides proposed connections to be considered when development occurs. If the applicant does not want to comply with the master street plan, they must provide a rationale for why they are not.

Riverdale/Dunthorpe

- The lot size change from R30 to R20 has spurred significant development. A small percentage of development has occurred on adjacent lots. The largest of which was 4 lots, which did not impact enough to require a street to be put in.
- The Master Street Plan does not suggest a lot of streets. Alignments were not given to allow flexibility when streets are engineered.
 - D1—the right-of-way may be vacated.
 - D6—the owner may pave the gravel road off of Terwillger and monument it so that it appears private. This will provide access for neighbors. A large home will be built on the lot designated for the D6 connection. Renaissance Development is developing the lot.
 - D7—would require stairs and would be pedestrian access only. Brian Lantow would like to lead gaining community support for the project.
- Lake Oswego is proposing approximately 5,000 units, which will further congest Hwy 43.

Far Southeast

- This area has more potential of redevelopment and a grid network if development occurs.

Q: Are you considering traffic circles that are more self regulating than a traffic light?

A: The master street plan doesn't prescribe that level of detail; however traffic circles are being designed so they are more supportive of all modes and they slow down cars to 20mph.

Forest Park

- The Humphrey to Hewitt connection is a good one, as Hewitt is better for pedestrians. Humphrey has a lot of traffic.
- Those living on 57th may object to a street connection.

- The entrance would be treated to impede cut-through traffic. The city may do a full origins and destinations study for 57th.
- The Northwest area of the pocket has no north-south connections for cyclists.

Project List

- Add a left turn signal southbound on Scholls Ferry to East on Patton. A traffic light exists, but no left arrow. Turning left can be very dangerous there.
- For Southwest Breyman, add a pedestrian crosswalk.
- The County may try for a grant proposal for Breyman.
- An extra point should be given to the scale for community support. The extra point should be given if there is no opposition and there is strong support for a project. Move the scale up to 6 potential points.
- Regarding FP1, the pedestrian trail should lead to the existing Zoo Bridge.

Wrap up

We will be visiting Riverdale, Pleasant Valley and Forrest Park neighborhood associations within the coming weeks.

Technical Advisory Committee Meeting #1

Multnomah County Unincorporated Urban Pockets TSP

Technical Advisory Committee Meeting

Meeting Notes

09/09/04, 2:00 PM, SE Morrison Room (Portland Building)

In Attendance: Mark Rohden (Tri-Met), Ted Leybold (Metro), Amy Rose (Metro), Gregg Leion (Washington County), Ron Skidmore (Clackamas County), Tom Tushner (City of Lake Oswego), Jill Grenda (BDS), Gabe Onyeador (PDOT), Matt Larsen (Mult. Co.), Ning Zhou (PDOT), Sumi Malik (PDOT).

Handouts

- Agenda
- Work Scope

Minutes

Why are we doing a TSP?

State law requires a TSP, and no plans exist for the Multnomah County unincorporated urban pockets within Portland's urban services boundary. The relationship between the City and County needs to be further defined. The City has done land use review for the pockets since 2001 using City zoning codes, which are tied to the City's street classifications. The County adopted the City's land use ordinances, but the street classifications used in the urban pockets are the County's. The County still administers road related projects, but that remains to be determined as part of this process.

Q: Are the areas built out? The areas are generally built out and virtually all is residential. The only area that remains to be built out is the Pleasant Valley area.

Project Objectives

- Comply with State Transportation Planning Rule (TPR) and the Regional Transportation Plan (RTP)
- Improve access and circulation for all modes
- Establish common/equivalent street classifications—one result will likely be an equivalency table for the City and County classifications
- Identify key connections to meet Metro connectivity standards
- Solicit public input
- Be consistent with regional street design and performance standards
- Accommodate efficient development at planned densities

Key Deliverables

- Website and newsletter to assist with public outreach
- Existing conditions technical memo and maps
- Policy and Standards/Guidelines analysis technical memo with recommendations to address conflicts.
- Master street plan for each sub-area
- Capital projects list
- Draft and Final TSP
- Implementing ordinances

Map Review

- Northwest pocket nature is residential and built-out.
- Southwest pocket area is residential with large lots and large homes. It is also built-out. When land use administration switched, most closely matching zoning was used, which resulted in smaller lot sizes being allowed (From R30 to R20). As a result more houses were built. Residents within area prefer not to be annexed.
- Outer Southeast is not built-out; however much of pocket area is within the Pleasant Valley plan or adjacent to it, so the area will be built out in the future if the plan is adopted. It is rural and transitional.
- Common to all areas: Few major streets, poor transit access, few bike/ped facilities
- The County has Local Access Roads, which are public, but the County doesn't maintain them. Therefore, they are often gravel roads and some are paved. Standards are difficult to impose because the County doesn't maintain them and the County has no standards for Local Access Roads. Some may not meet minimum fire standards.

Q: Who does Road Maintenance? City does road maintenance.

Q: Is South Dunthorpe, in Clackamas County, also unincorporated? Didn't know. The division is an artificial political boundary, of which we need to be aware.

Include Fire officials in TAC.

Outreach Plan

- Citizen Advisory Committee (CAC): SWHRL, Birdshill CPO, Sylvan-Highlands, Bridlemile, Pleasant Valley. The CAC was combined due to the small number of pockets affected.
- Neighborhood Association Meeting presentations will done in late October/early November. Tom Tushner of Lake Oswego gave us a list of neighborhood associations he thinks may be interested.
- Technical Advisory Committee (TAC): Multnomah County, Tri-Met, Metro, Washington County, Clackamas County, City of Lake Oswego, Portland Office of Transportation, Portland Bureau of Development Services, ODOT. We are also considering getting a representative from Tualatin Valley Fire Department.
- Newsletter will be sent to all residents in pockets
- Website: www.co.multnomah.or.us/dbcs/LUT/trans_plan/urban_pockets_plan_2004.shtml
 - Maps, meeting minutes, and project deliverables will be made available on website

Existing Conditions

Analysis is still taking place. We will have more at the next meeting. Our objective is to create an equivalency table between the County and City classifications that would be used by land-use review.

Crash data is also available.

Q: Is SPIS data available? No. The Crash data is 3-Year Crash counts.

Scholls Ferry and Patton is the only signalized intersection in the Unincorporated Pockets that Multnomah County maintains. We have turning-movement-counts for the intersection.

Some type of fixed transit corridor study is called for in the RTP for HWY 43. The RTP calls for a study of alternatives analysis and preliminary engineering. Some in Dunthorpe may see this TSP as an opportunity to oppose the fixed route transit study. The project team's response should be that there is a separate study for that specifically.

Q: Can a TSP be done without addressing that? A placeholder may be made for future study areas. The TSP needs to acknowledge that the RTP calls for fixed route transit on HWY 43. The study could receive funding next Spring.

Q: Is the TSP addressing state highway intersections? The TSP should. Representation from ODOT was absent.

Q: Can we address capacity analysis without addressing the entire corridor? Within the TSP we may try to be consistent with ODOT and avoid the corridor.

Modeling

Three Plots were done for each pocket. 2000 PM2 RTP City Network—Total Volumes; Capacity, Speed; Volume/Capacity Ratios. The model was transferred from Metro for the Loop Study, but the intent was not for the Pockets specifically.

Just received traffic counts and have spot-checked a few segments with the model projections and they are within the same range, but more analysis needs to be done. Most streets are coded 35 mph and one lane in each direction with 700 cph capacity.

HWY 43—coded as a local street, with a 700 cph lane in each direction. The VC ratio on Macadam South of Military goes from two lanes to one lane, with a LOS F.

Q: Why is the capacity on SW Macadam 2400 per lane in each direction? Why is it so high? There is a large distance between intersections and traffic is more free-flow like a highway. 2400 is too high and there are restricted sight distances on the speed.

Q: Thompson Road is only coded at 250 cph capacity/lane, when most are coded at 700 cph/lane. Why?

Q: Will the plots be on the web site? The model outputs are not very web-friendly. The project team will distribute copies of the modeling. Also, highlight the County and City so that they contrast more, or add County lines.

TAC is to identify problem areas for modification.

Traffic counts will be used to determine if the model is correct. The traffic counts will be used to calibrate the model.

Washington County may have counts for Barnes and Miller.

A calibrated model will be available for the next TAC meeting.

Areas within the Urban Growth Management Plan that are undeveloped or underdeveloped and are greater than 5 continuous acres were required to be identified within Washington County's TSP. Identifying these areas was an undertaking. Pleasant Valley is the only area where that would apply, and it is part of the Pleasant Valley Plan. A placeholder would be made for that plan. If that step was not part of the Concept Plan, it will definitely be part of the Implementation Plan.

Connection through Forest Heights—it is a NIMBY issue due to the perception that it would cause too much traffic.

Q: If there was an LID, would it be built to the County or City standards? The County standards are thirty years old, and the City has been aggressive with its skinny streets. The County's standards have ranges that are wider than the City guidelines for skinny streets.

Transferring authority to the City Engineer would be an easier way than adopting a unique set of classifications.

Next Steps:

- Send information 2 weeks prior to meeting.

- Existing conditions review
- Policy comparison table review
- Functional classification equivalency table review
- TSP will identify corridors with potential connections, but will not outline proposed streets.

TAC Homework:

- Please provide contact information for all affected parties you think should be involved in our TAC or CAC.
- Review capacity and volumes information. Suggest any counts for inclusion. Due by September 30, which will give us enough time to include it in the calibration of the model.
- Review Policy Comparison. The County is not converting to the City, but an equivalency table needs to be made. The County does not want to adopt a set of classifications unique to just these unincorporated pockets.

Technical Advisory Committee Meeting #2

Multnomah County Unincorporated Urban Pockets TSP Technical Advisory Committee Meeting Meeting Notes

Nov. 10, 2004, 2:00 PM, Broadway Room (Portland Building)

In Attendance: Mark Rohden (Tri-Met), Gregg Leion (Washington County), Tom Tushner (City of Lake Oswego), Mohammad Fattahi (Clackamas County), Gabe Onyeador (PDOT), Matt Larsen (Mult. Co.), Sumi Malik (PDOT).

Handouts

- Agenda
- Existing conditions memo (draft)
- Multnomah County and City of Portland Policy Comparisons
- Crash Data Analysis
- 2004 2-hour PM Traffic Counts and 2000 Base Model Volume Comparison

Minutes

Existing Conditions Report (Draft)

No one had any comments or conflicts with the information found in the Existing Conditions Report. Members asked to reserve the right to comment.

Policy Comparison Tables

Washington County Comments:

- Washington County limits traffic calming to local and neighborhood streets only. Is that the same for the City and Multnomah County? The City has the same policy. **Multnomah County evaluates traffic calming as it is requested.**
- Multnomah County's Policy 34-d on coordination states that the County should provide notice to affected local governments of required improvements. Gregg's suggestion is to expand that by stating the County is to coordinate land use, plan amendments, and/or traffic changes with neighboring jurisdictions.
- The Green Streets section (within Street Design Classifications) implies that Metro has designated "Green Streets". If it is true, Washington County has a concern because their clay soils are not conducive to swales as a storm water management technique.

Clackamas County comments:

Q: How do we treat roads within boarders that cross jurisdictions? For example, Foster?

A: The project has not addressed classifications outside of the City of Portland. The project team has tried to find comparable classifications between the City and the County as much as possible. The project can add surrounding jurisdiction classifications.

Q: The County policies are not as elaborate as the City's. How do we address this?

A: In practice, if development occurs, given the topography, what is reasonable to request? In Lake Oswego, such decisions are done on a case-by-case basis. In some areas, to keep a rural character, a path at the line and grade of the road is required for pedestrian access. That circumvents any improvements to the road itself.

This project will develop criteria for sidewalks if not a cross-section. We cannot simply require sidewalks due to drainage issues.

What role does the functional classification play in set back requirements? Lake Oswego has no typical cross-sections. It is done on a case-by-case basis in conjunction with the expectations of the neighborhood associations as to what they see will fit.

People have the misconception that a downgrade in classification will make the traffic disappear. Coordination between the City and County must be done so that people don't think it is x in the County, but y in the City.

Resurfacing of roads should also be coordinated with adjacent jurisdictions. Will there be a change in maintenance policy too? If maintenance policy were changed it would be in the implementation phase.

Mult. County Q (to Lake Oswego): If the decisions are made on a case-by-case basis, what is the justification? The County relies heavily on policy to back up their decisions.

A: First there is not much road building and instead of requiring the developer to do things, Lake Oswego improves the road using system development charges and capital improvement funds.

Washington County has a standard cross-section, with a sidewalk requirement, but there is an exemption provision to waive the sidewalk and 5-year paving (up to collectors) requirements.

No other comments, but attendees wanted to reserve the right to comment.

Traffic Model Calibration

The CAC commented that Sylvan neighborhood lacks transit and there is excessive cut through traffic from Barnes Road and Miller. There is a lot of cut-through traffic on SW 58th. The County could try to adjust the signal timing to reduce cut-through traffic, but Barnes already has priority. An engineer is unlikely to change the signal timing to further cause delays. Ultimately, the County needs to improve the arterial to limit cut-through on local streets.

The problem is that farm roads have been urbanizing quickly from local to arterial and topography constrains expansions.

The intersection of Patton and Sholls Ferry is problematic due to sight distance and grade.

Lake Oswego has a concern with LOS on Macadam through Dunthorpe. Lake Oswego raises that concern in all of their documents so that there is consistency. They want to make sure that the same concern is reflected in the Multnomah County TSP.

Mult. County: The streetcar through Riverdale is a hot topic for the CAC. What is happening with it?

Lake Oswego: The next step is an alternatives analysis. At this point the alternatives analysis is not yet funded. Rails-to-trails has provided \$350,000 for the alternatives analysis. The money is being folded into the MTIP proposal for \$2-3 million. The alternatives being considered are a river taxi to more conventional connections.

Q: Why does the model indicate that Macadam has an 1800 capacity above Military Road and 1200 below?

A: Half a block south of Military, Macadam goes to one lane. One caution is to make sure the models are consistent with Metro. If that segment is failing in Portland's models, theoretically it should be failing in Metro's as well.

When comparing 2-hour Traffic Counts to Base Model Volumes, the model amplified volumes in light traffic areas. In higher traffic areas, the model was more accurate. The original model is for arterials so this kind of distortion at lower traffic streets is not unexpected. Based on the review, the model is usable as calibrated.

General

County Q: What is the likely hood of Tri-met serving these areas? As Damascus grows, #14 line will be extended to Damascus. The Southwest/Northwest pocket road system is not transit-friendly, and there isn't a good return for route investment. A shuttle service may be the only viable option for those areas.

The Zoo TAC has suggested a line through Sylvan instead of downtown. Sylvan has no transit right now. If there is a stop at Cornell & Miller, that can serve as a connection to the Sunset Transit area.

Next Steps:

The TAC will be asked to comment on a street classification comparison. Adjacent jurisdictions will be included also.

Technical Advisory Committee Meeting #3
Multnomah County Unincorporated Urban Pockets TSP
Technical Advisory Committee Meeting
Meeting Notes

February 3, 2005, 2:00 PM, Burnside Room (Portland Building)

In Attendance: Gregg Leion (Washington County), Mohammad Fattahi (Clackamas County), Jamie Jeffrey (PDOT), Gabe Onyeador (PDOT), Matt Larsen (Mult. Co.), Sumi Malik (PDOT).

Handouts

- Agenda
- Existing conditions memo (draft)
- Map of proposed classification changes
- Master Street Plan proposed criteria

Minutes

Existing Conditions Report (Draft)

The section pertaining to topography was enhanced. There were no other substantial changes.

Q: How does Multnomah County handle traffic calming?

A: On a case-by-case basis. Traffic calming treatments are generally complaint driven. Traffic calming is limited to lower classifications.

A: Washington County has a one-year review process during which we do a speed study and gather traffic counts.

Riverdale has requested speed bumps on Breyman, which may be a good solution, but a speed study needs to be done to document speeding. At 3PM, we did not see any speeding.

The City has a residential speed bump purchase program. Speed bumps cost an average of \$2,000 per bump and most projects average 3 sets of bumps for a total of \$6,000.

Comment: On page 3 of the Existing Conditions report, it states that pedestrians and bicyclists lack infrastructure for safe travel. Stating that safety is an issue may be an overstatement and may be too strong. Consider modifying it.

Comment: Provide more explanation of the VC ratio table and how it is used to show level of service. Define level of service and how it is measured.

Map of Proposed Classification Changes

Comment: Clackamas County is concerned with cross-jurisdictional roads (for example, Foster Road and Johnson Creek). Clackamas County would like to see they are continuous in classification and for bicycle and pedestrian facilities.

Comment: Mount Scott is classified as a Minor Arterial, but there is development in Clackamas County along Mount Scott.

We may need to model the traffic volumes including the potential development to see if a change in classification is warranted.

Comment: Terwilliger is a minor arterial in Clackamas County. It connects to HWY 43. Multnomah County classifies Terwilliger as a major collector, and will now change it to a neighborhood collector to match the City.

Provide an explanation of how classifications are defined between jurisdictions so it doesn't seem so different from jurisdiction to jurisdiction.

Master Street Plan

The connectivity standard of 530 ft. may need to be adjusted around highways. You may not want that many connections to highways.

Q: Are creek crossings considered?

A: Yes, they are considered as part of the environmental constraint criterion.

Q: Are railroad crossings considered?

A: Yes, they are considered as man made barriers.

Technical Advisory Committee Meeting #4
Multnomah County Unincorporated Urban Pockets TSP
Technical Advisory Committee Meeting
Meeting Notes

March 14, 2005, 1:30-3:45 PM, Broadway Room (Portland Building)

In Attendance: Gregg Leion (Washington County), Mohammad Fattahi (Clackamas County), Jamie Jeffrey (PDOT), Gabe Onyeador (PDOT), Matt Larsen (Mult. County), David Hampsten (PDOT).

Handouts

- Agenda
- Proposed Classification
- Proposed Master Street Plan
- Review of Project List
 - Proposed Master Street Plan spreadsheet (draft)
 - Proposed Project List spreadsheet (long version)
- Project Evaluation Criteria

Minutes**Introductions****Proposed Classifications:**

The street classifications for SW Military Rd and Terwilliger Blvd in the Dunthorpe area were recently reviewed, with no changes in classification.

Proposed Master Street Plan

An overview of the master street planning process used was presented by Multnomah County, with assistance by PDOT, while examining the Proposed Master Street Plan spreadsheet.

- Various proposed streets were eliminated for being cul-de-sacs or no-outlet loops.
- Others were eliminated for being too steep.

There was a short discussion of different standards between agencies of what constitutes a road that is too steep.

- Fire departments allow up to 20% slopes.
- PDOT engineers prefer no steeper than 8% in neighborhoods, 15% is often allowed.
- Washington County has allowed many at 15%.

Adjustments were also made to the titles and heading of each spreadsheet based upon comments from Washington County and Clackamas County.

Participants then proceeded to review each neighborhood, map by map.

Dunthorpe

- D1, SW Northgate is a bike/ped connection going through a recently vacated right of way.
- D4, as an extension of Greenwood, brings up the conflict between connectivity and traffic cut-throughs.
- D6 builds upon an existing private gravel road. It could weaken a cul-de-sac.
- D7 is the Summerville pedestrian trail, very steep, which has much local community support. PDOT needs to further examine slopes on roadway.

- Edgefield will probably have numerous cul-de-sacs and loops, but no connectivity.

Far Southeast/Pleasant Valley

- FSE1, 2, & 4 are from the Pleasant Valley Concept Plan.
- FSE3 is an alternative from PDOT that imposes a grid upon the Baxter area.
- FSE5 is a grid west of Barbara Welch.
- FSE9 are pedestrian/bike crossings at Jenne Rd. There was a short discussion about pedestrian crossings on busy streets around Portland and in Washington County: pedestrian islands, traffic calming, passive signals, active signals, signs only.

Forest Park/Sylvan

- FPSW5, the SW 57th connector is steep (12%), probably will require a retaining wall. Will not be a good substitute for 58th as a cut-through for Skyline/Barnes/Burnside. Conflict between connectivity and cut-through traffic.
- FPSW6 has strong local interest, connects Humphrey with Hewitt.
- There is strong local opposition to an east-west connection from 85th to Miller on Stark.
- There was also a discussion of upzoning on 57th within Portland.

Review of Project List

Two additional handouts were presented and explained: the Proposed Project List spreadsheet (long version) and the Project Evaluation Criteria.

- The project list is a wish list; funding would come about as any other project would on a CIP list.
- Due to neighborhood values survey results, safety was weighted higher than other criteria.
- Safety and Safe Routes to Schools criteria was noted to be confusing.
- Community feedback influences criteria weighting.

Comment by Clackamas County: no criteria for evaluating roadway capacity or economic development issues. PDOT reply of philosophical differences; TSP is prescriptive, not functional classification; Capacity cannot be expanded.

Various suggestions were made to make criteria less subjective in scoring and to change rankings on several projects. Rankings should be used for funding priorities.

Meeting adjourned at 3:45pm.
(Notes by David Hampsten, PDOT)

APPENDIX E: PLEASANT VALLEY POLICIES & PROJECTS

In December 2004, City Council directed the Office of Transportation “to incorporate policy language, maps, and projects identified in Exhibit A (see original report for map) during the next update to the Transportation System Plan” (Ordinance No. 178961) Exhibit A is the adopted Pleasant Valley Plan District. The plan district guides the future annexation and development of 290 acres in the Pleasant Valley area. This is land that was added to the urban growth boundary in 1998 together with approximately 1,200 adjoining acres that will eventually annex into the City of Gresham. Below are the policies and classification changes developed as part of the Pleasant Valley planning process.

Goal 6 Transportation

Policy 6.38 Far Southeast Transportation District

Add the following Objective:

L. Implement recommendations from the Pleasant Valley Concept and Implementation Plans to create a community with a well-connected street system that provides safety and convenience for all modes of transportation.

Map 6.38.1, Traffic Classifications

Upgrade SE Clatsop between SE 132nd and Portland’s Urban Service Boundary to a District Collector.

Upgrade SE McKinley between SE Jenne Road and Portland’s Urban Service Boundary to a Neighborhood Collector.

Map 6.38.4, Pedestrian Classifications

Upgrade SE 162nd between SE Foster Rd and SE Sager to a City Walkway.

Map 6.38.6, Emergency Response Classifications

Classify SE Clatsop between SE 132nd and Portland’s Urban Service Boundary as a Major Emergency Response Street.

Map 6.38.8, Street Design Classifications

Classify SE 162 between SE Foster Road and SE Sager as a Community Corridor.

Major System Improvements List

Add the following projects:

SE 162nd Street Improvements (Foster Rd to Clatsop)

Design and implement multi-modal improvements based on Pleasant Valley Implementation Plan recommendations.

Estimated cost - \$7,000,000

Lead Agency - Portland

SE 162nd/Clatsop Intersection Improvement

Install signal at intersection.

Estimated cost - \$250,000

Lead Agency – Portland

SE Clatsop Street Improvements (Deardorf/132nd to 162nd)

Design and implement multi-modal improvements based on Pleasant Valley Implementation Plan recommendations.

Estimated cost - \$2,400,000

Lead Agency – Portland/Clackamas County

SE Clatsop Street Extension (162nd to City Limits)

Extend existing street east into Pleasant Valley. Based street design on Pleasant Valley Implementation Plan recommendations.

Estimated cost - \$3,870,000

Lead Agency – Portland/Clackamas County

SE Foster Road (162nd to Giese Rd)

Design and implement multi-modal improvements based on Pleasant Valley Implementation Plan recommendations.

Estimated cost - \$1,800,000

Lead Agency – Portland/Gresham

Refinement Plans and Studies

Add a new study:

Jenne Road/174th Corridor Study

Purpose: Evaluate new north-south road options between Powell Blvd. and Pleasant Valley area to improve street connectivity in the Jenne Road/174th Avenue corridor.

The purpose of the study is to evaluate options to create a new two-lane road with turn pockets near 174th from Jenne to Giese and add turn pockets to Jenne as needed. This option would create a new 172nd/174th Avenue from the Springwater Trail to the proposed SE Giese Road in the Pleasant Valley project area. A preliminary design would have the road use the existing Platt Road north of McKinley Road, turning south to Giese Road and creating a new stream crossing. The design would be for a two-lane road with turn pockets as needed. The intent is to connect to Giese Road west of the proposed town center. This would allow Jenne Road to become a local street.

Street Connectivity

PDOT worked with Multnomah County to develop this TSP for the unincorporated areas within Portland's urban service boundary. The project includes the development of master street plans for the unincorporated areas including Area B in the Pleasant Valley Plan. The local street network and connectivity standards developed for Pleasant Valley will guide the final master street plan for this area. The Multnomah County Urban Unincorporated TSP will recommend the adoption of this new street plan into Goal 11b of the City's Comprehensive Plan. Add the following new objective for Policy 11.11 Street Plans.

Q. Establish a network of streets in the Pleasant Valley Plan District by implementing the Pleasant Valley Master Street Plan as shown on Map 11.11.19.

The connectivity standards for Pleasant Valley are more restrictive than the citywide standard of 530' for most land-use types. The plan district amendments to Title 33,

Planning and Zoning will include street connectivity approval criteria using the Pleasant Valley maximum block length standards.

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APPENDIX F: SURVEY SAMPLE



Multnomah County
 Land Use and Transportation Program
 1800 NE 190th Avenue
 Portland, OR 97233-5910

Multnomah County Urban Pockets TSP Transportation Values

Please identify your three highest values for the Transportation System in your neighborhood:

Value	Explanation	Rank
Provide neighborhood connections through a network of streets.	To be able to travel within the neighborhood easily	
Manage congestion	Manage traffic more efficiently.	
Protect the environment	Building transportation infrastructure has an environmental impact	
Provide bicycle and pedestrian facilities	Opportunities to bicycle and walk that are efficient and accessible	
Safety and livability on local streets	Reduce cut-through traffic and speed on local streets.	
Safe routes to schools		
Expand transit services	Opportunities to ride transit that are efficient and accessible	
Other:		

For More Information, contact Matt Larsen with Multnomah County at 503-988-5050 ext. 29640 or matthew.f.larsen@co.multnomah.or.us.

APPENDIX G: GLOSSARY OF TERMS

Access Management

Measures regulating access to streets, roads, and highways from public roads and private driveways. Measures may include, but are not limited to, restrictions on the siting of interchanges, restrictions on the type and amount of access to roadways, and use of physical controls (such as signals and channelization, including raised medians) to reduce impacts of approach road traffic on the main facility.

ADA-Americans with Disabilities Act of 1990 (*Federal*)

Civil rights legislation enacted by Congress that mandates the development of a plan to address discrimination and equal opportunity for disabled persons in employment transportation, public accommodation, public services, and telecommunications.

BES-Bureau of Environmental Services (*Portland*)

Responsible for Sewers and Storm Drains

BOM-Bureau of Maintenance (*Portland*)

Daily maintenance and repair of city streets, signs, and signals.

BTED-Bureau of Transportation Engineering and Design (*Portland*)

Construction management section for Portland

BTSM-Bureau of Transportation System Management (*Portland*)

The Traffic Management bureau of the Portland Office of Transportation

CCTMP-Central City Transportation Management Plan (*Portland*)

The adopted transportation system plan for the Central City. The CCTMP is reviewed and updated separately from the Transportation System Plan.

CEID-Central Eastside Industrial District (*Portland*)

Industrial area in SE Central Portland represented by Central Eastside Industrial Council, a Neighborhood Business Association.

CIP-Capital Improvement Program

A program that spends money to make physical changes to the City's streets, sewers, etc.

CMAQ-Congestion Mitigation and Air Quality Program (*Federal*)

The Intermodal Surface Transportation Efficiency Act created the CMAQ program to deal with transportation related air pollution. The program is continued under TEA-21. States with areas that are designated as non-attainment for ozone or carbon monoxide (CO) must use their CMAQ funds in those non-attainment areas. A state may use its CMAQ funds in any part of its particulate matter (PM₁₀) non-attainment areas, if certain criteria are met. Funds are directed to projects and programs are directed in certain non-attainment areas that meet standards contained in the Clean Air Act Amendments of 1990.

Corridor

A 2040 Growth Concept design type that emphasizes a high-quality bicycle and pedestrian environment and convenient access to public transportation, but will not be as intensively planned as station communities.

DOS-Development Opportunity Strategy (Portland)

PDC has designated the Development Opportunity Services Program for property owners in targeted neighborhoods. The purpose of the Program is to assist property owners (and in some cases tenants) with seed money and in evaluating development project feasibility by providing real estate development expertise and technical assistance.

EA-Environmental Assessment (Federal)

An environmental analysis prepared pursuant to the National Environmental Policy Act to determine whether a federal action should significantly affect the environment and thus require a more detailed environmental impact statement.

EIS-Environmental Impact Statement (Federal)

A document required of federal agencies by the National Environmental Policy Act for major projects or legislative proposals significantly affecting the environment. A tool for decision making, it describes the positive and negative affects of the undertaking and cites alternative actions.

FHWA-Federal Highway Administration (Federal)

FHWA is a major agency of the US Department of Transportation. FHWA is charged with the broad responsibility of ensuring that America's roads and highways continue to be the safest and most technologically up-to-date. Their annual budget of more than \$30 billion is funded by fuel and motor vehicle excise taxes. The budget is primarily divided between two programs: Federal-aid funding to State and local governments; and Federal Lands Highways funding for national parks, national forests, Indian lands, and other land under Federal stewardship.

Freight Intermodal Facility

An intercity facility where freight is transferred between two or more modes (eg. Truck to rail, rail to ship, etc.)

GIS-Geographic Information System

A computerized mapping system having spatial and locational attributes. The system software allows the user to edit, manipulate, overlay, store, and retrieve data and geographic attributes.

HOV-High Occupancy Vehicle

A vehicle which is transporting more than one person, usually a minimum of 2 people.

JPACT-Joint Policy Advisory Committee on Transportation (Metro)

The Joint Policy Advisory Committee on Transportation is a 17-member committee of elected officials and representatives of agencies involved in transportation that make recommendations to the Metro Council on transportation needs in this region.

LCDC-Land Conservation and Development Commission (Oregon)

Created in 1973 by Senate Bill 100, with support from both parties and Republican Governor Tom McCall. The law created LCDC and directed it to adopt statewide

planning goals, which addressed a range of topics specified by the legislature. LCDC was given the responsibility of reviewing all comprehensive plans to determine whether they satisfy the goals.

LID-Local Improvement District

A method that allows a group of property owners to share the cost and benefits of public improvements. The City finances the construction. Costs are paid back by property owners through a special assessment over a 5 to 15 year period.

LUBA-Land Use Board of Appeals (*Oregon*)

The 1979 Oregon Legislature created the equivalent of a specialized land use court, called the Land Use Board of Appeals, which hears all "quasijudicial" appeals from local land use decisions.

Main Street

A 2040 Growth Concept design type that usually features mixed-use storefront-type development. Two or more main streets in a relatively small area serve the same urban function as town centers, but are located in a linear pattern along a limited number of bus or light rail transit corridors. Main streets feature street designs that emphasize pedestrian, public transportation, and bicycle travel.

Metro-Metropolitan Service District (*Regional*)

The regional government and designated metropolitan planning organization (MPO) of the Portland region. It is governed by a seven-member elected Metro Council and is responsible for regional transportation planning activities, such as the preparation of the 2000 Regional Transportation Plan and the planning of regional transportation projects, including light rail.

MTIP-Metropolitan Transportation Improvement Program (*Metro*)

The Metro component of STIP, which is a state list of transportation projects to receive state and federal funding in 4-year cycles.

NINA-Northwest Industrial Neighborhood Association (*Portland*)

Neighborhood Business Association representing the Northwest Industrial District

NWID-Northwest Industrial District (*Portland*)

Industrial area in Northwest Portland represented by Northwest Industrial Neighborhood Association, a Neighborhood Business Association.

OAR-Oregon Administrative Rules (*Oregon*)

The Oregon Land Use Act of 1973 established the Land Conservation and Development Commission (LCDC) and the Department of Land Conservation and Development (DLCD). The Act provided the Commission with the authority to promulgate Administrative Rules. OAR 660 are the land use related administrative rules.

Oregon's Statewide Planning Goals (*Oregon*)

The 19 goals that provide a foundation for the State's land use planning program. The 19 goals can be grouped into four broad categories: land use, resource management, economic development, and citizen involvement. Locally adopted comprehensive plans and regional transportation plans must be consistent with the statewide planning goals.

ODOT-Oregon Department of Transportation

A state agency that oversees and maintains the State highway system, under the guidance of the Oregon Transportation Commission.

OHP-Oregon Highway Plan

1999 Oregon Highway Plan establishes long-range policies and investment strategies for the state highway system. Policies emphasize the efficient management of the highway system to increase safety and extend highway capacity, partnerships with other agencies and local governments, and the use of new techniques to improve road safety and capacity. The Highway Plan contains investment strategies that address today's limited funding levels and explains how ODOT would invest any additional revenues that become available in the future.

OTC-Oregon Transportation Commission

The Oregon Transportation Commission establishes state transportation policy. The Commission also guides the planning, development and management of a statewide integrated transportation network that provides efficient access, is safe, and enhances Oregon's economy and livability. The commission meets monthly to oversee Department of Transportation activities relating to highways, public transportation, rail, transportation safety, motor carrier transportation, and drivers and motor vehicles.

OTIA-Oregon Transportation Investment Act

The Oregon Transportation Investment Act provides \$2.96 billion for construction projects over the next 8 to 10 years. Projects will improve pavement conditions, increase lane capacity, and improve bridges throughout Oregon. The 2001 and 2003 Legislatures approved three segments of OTIA. Funding for the program comes from bond proceeds derived from increased DMV fees.

OTP-Oregon Transportation Plan

The Oregon Transportation Plan, adopted in 1992, is the state's 20-year multimodal plan for the statewide transportation system. The plan includes policies for bicycle and pedestrian facilities, public transportation, highways, waterways, airports, and railroads. It considers private and public facilities and the local, regional and state elements of the system. The OTP is the guiding document for the state modal plans and local transportation system plans. It also establishes investment scenarios.

PDC-Portland Development Commission

PDC has three major service areas: Housing, Neighborhood Revitalization, and Business Retention, Expansion and Recruitment. Housing: PDC finances and develops multi-family housing for a variety of income levels throughout the city. They also provide single family home purchase and home repair loans to help stabilize neighborhoods and help keep people in their homes. Neighborhood Revitalization: PDC works with residents, business owners, owners of rental housing, and non-profit organizations to increase affordable housing and small businesses in the city to keep neighborhoods active and vibrant. Business Retention, Expansion, and Recruitment: PDC offers a full range of direct and indirect assistance to businesses looking to expand or locate in the Portland area. This may include business loans or assistance in locating the right site for a business expansion or relocation.

Port of Portland

A public agency that owns and maintains five marine terminals, four airports, and seven business parks in the three-county (Multnomah, Clackamas, and Washington) area. The Port is governed by a nine-member commission appointed by the governor.

Regional Center

A design type designated in Metro's 2040 Growth Concept. After the Central city, regional centers have the region's highest development densities, the most diverse mix of land uses, and the greatest concentration of commerce, offices, and cultural amenities. They are very accessible by both automobile and public transportation, and have streets that are oriented to pedestrians. Gateway is the only regional center in Portland.

ROW-Right-of-Way

A public or private area that allows for the passage of people or goods. Right-of-way includes passageways such as freeways, streets, bicycle and pedestrian off-street paths, and alleys. A public right-of-way is one that is dedicated or deeded to the public for public use and is under the control of a public agency.

RTP-Regional Transportation Plan (Metro)

Updated and adopted by the Metro Council every three years, this plan sets the direction for regional investments in a mix of transportation options, including roadways, light rail, freight, transit, pedestrian access and bicycles. The Bi-State Coordination Committee advises Metro on regional transportation goals and issues of significance to both Washington and Oregon in the Portland/Vancouver area.

SDC-System Development Charge

A fee assessed by developers to pay for increases in transportation needs caused by that developer's project.

Shapefile

Geographic data for a GIS, with attributes linked to locations.

SOV-Single Occupancy Vehicle

Vehicle with one passenger (i.e. a driver and no passengers).

STIP-Oregon's Statewide Transportation Improvement Program

The transportation capital improvement program for the state that lists the schedule of transportation projects for a 4-year period. Projects in the STIP are funded mainly through federal and state gas tax revenues, but also include local government funding and other state and federal funding sources. The STIP is not a planning document. It is a project scheduling and funding program. Federal regulation requires each state to produce a STIP at least once every two years to show that a state is not scheduling more transportation projects for construction than it has funding for and to certify that a state's transportation program conforms with federal air quality regulations. No project will be listed unless the funding source has been identified. Projects come from various management systems and planning processes involving cities and counties, regional governments, Area commissions on Transportation, transportation agencies, and the public. Through the STIP, ODOT assigns resources to those projects that have been given the highest priority.

TAC-Technical Advisory Committee

A committee that evaluates technical aspects and advises city bureaus regarding policy decisions.

TDM-Transportation Demand Management

Actions taken to change travel behavior in order to improve the performance of transportation facilities, reduce the need for additional road capacity, and reduce impacts on residential neighborhoods. Examples include encouraging the use of alternatives to single-occupant vehicles (SOVs), ridesharing and vanpools, parking management, and trip-reduction ordinances.

TEA-21-Transportation Equity Act for the 21st Century (*Federal*)

The Transportation Equity Act for the 21st Century was enacted June 9, 1998 as Public Law 105-178. TEA-21 authorizes the Federal surface transportation programs for highways, highway safety, and transit for the 6-year period 1998-2003. The TEA 21 Restoration Act, enacted July 22, 1998, provided technical corrections to the original law. The combination of these two laws is referred to as TEA-21.

TGM-Transportation and Growth Management Program (*Oregon*)

The Transportation and Growth Management Program is a joint effort of the Oregon Department of Transportation and the Department of Land Conservation and Development and is designed to integrate transportation planning with the statewide land use planning program. State and federal funds support the TGM program.

TOD-Transit Oriented Development

A mix of residential, retail, office, and other uses and a supporting network of streets, bikeways, and pedestrian ways oriented to a light rail station or a transit service and the pedestrian network. Transit-oriented development should include high-density residential development near transit service to support the neighborhood commercial uses and have a lower demand for parking than auto-oriented land uses.

Town Center

A 2040 Growth Concept design type that functions as local activity area and provides close access to a full range of local retail and services within a few miles of most residents. Town centers do not compete with regional centers in scale or economic diversity, but they will offer some specialty attractions of regional interest. Town centers have excellent multimodal access and connections to regional centers and other major destinations.

TPR-Transportation Planning Rule (*Oregon*)

The implementing rule of Statewide Planning Goal 12 dealing with transportation, as adopted by the State Land Conservation and Development Commission (LCDC). Among its provisions, the TPR requires reducing vehicle miles traveled (VMT) per capita by 15 percent in the next 30 years, reducing parking spaces per capita by 10 percent in the next 20 years, and improving opportunities for alternatives to the automobile.

TSM-Transportation System Management

Strategies and techniques for increasing the efficiency, safety, or level-of-service of a transportation facility without increasing its size. Examples include, but are not limited to, traffic signal improvements, traffic control devices (including installing medians, channelization, access management, and ramp metering), incident response, targeted

traffic enforcement, preferential transit measures, and restriping for high-occupancy vehicle lanes.

TSP-Transportation System Plan (*Portland*)

Required by the TPR, this is the city's master plan for its transportation system. It includes plans for each mode of transportation, bike, pedestrian, motor vehicle, freight, transit a financing plan, and a 20-year project list. The TSP must be finished within one year after Metro finishes the RTP.

UGB-Urban Growth Boundary (*Oregon*)

The Urban Growth Boundary is a legal boundary separating urban land from rural land. Under Oregon law, each city or metropolitan area in the state has an urban growth boundary. The boundary controls urban expansion onto farm and forestlands. Land inside the UGB supports urban services such as roads, water and sewer systems, parks, schools and fire and police protection that create thriving places to live, work, and play. The UGB is one of the tools used to protect farms and forests from urban sprawl and to promote the efficient use of land, public facilities and services inside the boundary.

UGMFP-Urban Growth Management Functional Plan (*Metro*)

A regional functional plan with requirements binding on cities and counties in the Metro region, as mandated by Metro's Regional Framework Plan. The plan addresses accommodation of projected regional population and job growth, regional parking, management, water quality conservation, and limits on retail uses in employment and industrial areas.

VMT-Vehicle Miles Traveled

A measure of vehicle use.

Multnomah County Functional Classification—Policy 34

Minor Arterial Streets

Minor arterial streets are the lowest order arterial facility in the regional street network. They typically carry less traffic volume than principal and major arterials, but have a high degree of connectivity between communities. Access management may be implemented to preserve traffic capacity. Land uses along the corridor are a mixture of community and regional activities. Minor arterial streets provide major links in the regional road and bikeway networks; provide for truck mobility and transit corridors; and are significant links in the local pedestrian system.

Rural Arterial Roads

Rural arterial roads are the primary means of access into the County's large rural districts, and often connect between counties to accommodate through movements. Rural arterials connect to freeways or highways, and link rural collector and local roads to the urban area and other regions. Rural arterial roads carry greater traffic volumes than rural collector roads, including commuters and other home-based trips, natural resource trips involving trucks, and recreational trips involving autos, bicycles and equestrians.

Major Collector Streets

Major collector streets serve several purposes including linking neighborhoods to the regional system of bicycle and automobile streets, and basic transit services. They typically provide direct access between residential and commercial developments,

schools and parks and carry higher volumes of traffic than neighborhood streets. Major collector streets are also utilized to access industrial and employment areas and other locations with large truck and over-sized load volumes.

Neighborhood Collector

Neighborhood collector streets provide access primarily to residential land uses and link neighborhoods to higher order roads. They generally have higher traffic volumes than local streets.

Local Urban Streets and Rural Roads

Local streets provide access to abutting land uses on low traffic volume and low speed facilities. Their primary purpose is to serve local pedestrian, bicycle and automobile trips and limited public transportation use in urban areas; and auto and farm vehicle circulation with local pedestrian, bicycle and equestrian use in rural areas.

APPENDIX H: REFERENCES

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