Appendix A: Review Plans and Policies

DKS Associates
TRANSPORTATION SOLUTIONS

Appendix A: Review Plans and Policies

This appendix document provides a policy framework for the Wilsonville I-5 Interchange Area Management Plan (IAMP) using the identified state and local policies, plans, and regulations. The framework will be used throughout the IAMP development process as a decision-making tool and will assist in making findings of compliance with adopted plans and regulations.

Summary

A comprehensive review was made of relevant federal, state, regional and city plans and standards that are applicable to the Wilsonville I-5 IAMP. The primary transportation standards that were applied in developing and evaluating strategies for the interchange area were drawn from the Oregon Highway Plan standards related to mobility and the Oregon Administrative Rules related to Access Management. The first standard measures the long-term forecasted volumes compared to the design facility capacity, as summarized in Table 1. For I-5, which is a statewide freight route, the mobility standard, as measured by the ratio of forecasted volume-to-capacity, is 0.99[1].

Table 1: Maximum Volume-to-Capacity Ratios from the 1999 Oregon Highway Plan (Inside Metro)

Highway Category/Location	Standard	
	1st hour	2nd hour
Other Principal Arterial Routes		
I-5 (Marquam Bridge to Wilsonville)	0.99[1]	0.99

Policies 3A and 3C of the 1999 Oregon Highway Plan establish access management objectives for state highways and interchange areas based on facility type and set standards for spacing of approaches. These standards have also been adopted as part of OAR 734-051, which provides the regulatory basis for implementation. Table 2 and Figure 1 below show the applicable access management spacing standards for state facilities in the study area.

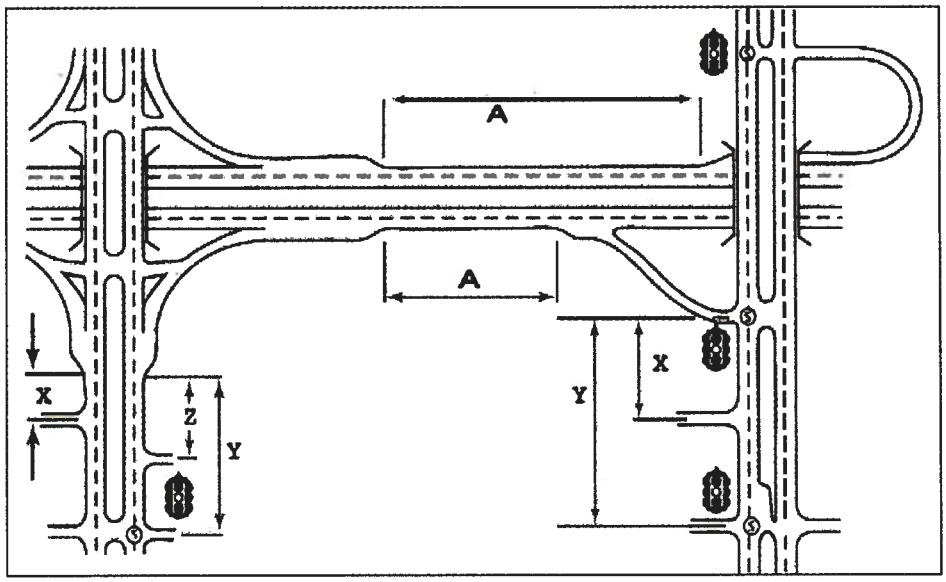
[1] The exception to this is at ramp terminals, where the maximum volume-to-capacity ratio is 0.85 or 0.90.

Table 2: ODOT's Minimum Spacing Standards Applicable to Freeway Interchanges with Multi-Lane Crossroads[2]

Category of Mainline	Type of Area	Spacing Dimensions			
		A	X	Y	Z
FREEWAY	Fully Developed Urban	1 mi. (1.6 km)	750 ft. (230 m)	1320 ft. (400 m)	990 ft. (300 m)
	Urban	1 mi. (1.6 km)	1320 ft. (400 m)	1320 ft. (400 m)	1320 ft. (400 m)
	Rural	2 mi. (3.2 km)	1320 ft. (400 m)	1320 ft. (400 m)	1320 ft. (400 m)

Notes:
1) If the crossroad is a state highway, these distances may be superseded by the Access Management Spacing Standards, providing the distances are greater than the distances listed in the above table.
2) No four-legged intersections may be places between ramp terminals and the first major intersection.
3) No application will be accepted where an approach would be aligned opposite a freeway or expressway ramp terminal.

Figure 1: Measurement of Spacing Standards for Table 2.



Notes for Figure 2:
A = Distance between the start and end of adjacent interchanges.
X = Distance to first approach on the right, right in/right out only.
Y = Distance to first intersections where left turns are allowed.
Z = Distance between the last approach road and the start of the taper for the on-ramp.

[2] Source: 1999 Oregon Highway Plan.

The reconstruction of the Wilsonville I-5 interchange would remain a freeway interchange with a multi-lane crossroad. The proposed locations of any new street connections within the interchange area were evaluated in accordance with the applicable Highway Design Manual standards.

Other plans and documents reviewed include:

- Oregon Transportation Plan
- State ODOT Coordination Program
- ODOT Division 51 Interchange Access Management Area Spacing Standards for Approaches
- Transportation Planning Rule (OAR 660, Division 12)
- Statewide Planning Goals 1 (Citizen Involvement), 2 (Land Use Planning), 11 (Public Facilities and Services) and 12 (Transportation)
- City of Wilsonville Transportation System Plan
- City of Wilsonville Comprehensive Plan
- City of Wilsonville Zoning Ordinances
- Clackamas County Comprehensive Plan
- Clackamas County Zoning Ordinances
- I-5/Wilsonville Freeway Access Study
- Wilsonville Road Interchange Transportation Analysis Studies

State Plans & Regulations

Oregon Transportation Plan (Adopted September 20, 2006)

The goal of the Oregon Transportation Plan (OTP) is to provide a safe, efficient and sustainable transportation system that enhances Oregon's quality of life and economic vitality. The OTP is a 25-year transportation plan that comprehensively assesses state, regional and local, as well as both public and private transportation facilities and services. It builds on the 1992 OTP, which first established a vision of a balanced, multifaceted transportation system leading to expanded investment in non-highway transportation options. The OTP emphasizes:

- Maintaining and maximizing the assets in place
- Optimizing the performance of the existing system through technology
- Integrating transportation, land use, economic development and the environment
- Integrating the transportation system across jurisdictions, ownerships and modes
- Creating sustainable funding
- Investing in strategic capacity enhancements

1999 Oregon Highway Plan

The *1999 Oregon Highway Plan* (OHP) defines policies and investment strategies for Oregon's state highway system for the next 20 years by further refining the goals and policies of the *Oregon Transportation Plan* (OTP). One of the key goals of the OHP is to maintain and improve safe and efficient movement of people and goods, while supporting statewide, regional, and local economic

growth and community livability. The implementation of this goal occurs through a number of policies and actions that guide management and investment decisions by defining a classification system for state highways, setting standards for mobility, employing access management techniques, supporting intermodal connections, encouraging public and private partnerships, addressing the relationship between the highway and land development patterns, and recognizing the responsibility to maintain and enhance environmental and scenic resources.

The OHP's relevant policies and how they will affect the IAMP are described below:

Policy 1A Highway Classification: The state highway classification system was developed to guide ODOT priorities for system investment and management. Actions under this policy pertaining to the Wilsonville I-5 IAMP include the following:

Action 1A.1: The facility classification is used to guide planning, management and investment decisions regarding state highway facilities.

I-5 is classified as an Interstate Highway (NHS): I-5 MP 258.55 – MP 301.91

> Provides connections to major cities, regions of the state, and other states. A secondary function in urban areas is to provide connections for regional trips within the metropolitan area. The interstate highways are major freight routes and their objective is to provide mobility. The management objective is to provide for safe and efficient high-speed continuous-flow operation in urban and rural areas.

Wilsonville Road is not classified in the Oregon Highway Plan.

I-5 has also been designated as a State Freight Route by ODOT, which places added emphasis on efficient operation to ensure the timely and dependable movement of goods. To support this function, special management objectives for freight routes were developed. Key objectives relating to this IAMP include:

- Application of higher highway mobility standards than other Statewide Highways (see "Performance & Design Standards" section of this memorandum);
- Examine options to treat designated freight routes as expressways where the routes are outside of urban growth boundaries and unincorporated communities and continue to treat freight routes as expressways within urban growth boundaries where existing facilities are limited access or where corridor or transportation system plans indicate limited access; and
- Consider the importance of timeliness in freight movements in developing and implementing plans and projects.

Policy 1B Land Use and Transportation: This policy addresses the relationship between the highway and patterns of development both on and off the highway. It emphasizes development patterns that maintain state highways for regional and intercity mobility and supports compact development patterns that are less dependent on state highways than linear development for access and local circulation. This policy is designed to clarify how ODOT will work with local governments and others to link land use and transportation in transportation plans, facility and corridor plans, plan amendments, access permitting and project development. The overall goal and focus of the Land Use and Transportation Policy is to connect land use and transportation in a way that achieves long-term objectives for the state

highway and the local community. ODOT acknowledges that the best way to implement the policy is to establish cooperative working relationships with local governments.

Policy 1C State Highway Freight System: It is the policy of the State of Oregon to balance the need for movement of goods with other uses of the highway system, and to recognize the importance of maintaining efficient through movement on major truck freight routes.

I-5 is classified as a State Freight Route and as a Federally Designated Truck Route and will be managed accordingly.

Policy 1F Highway Mobility Standards: The Highway Mobility Standards Policy establishes standards for mobility that are reasonable and consistent with the directions of other Highway Plan policies. Applicable mobility standards are summarized in Table 3 below. Interstate highways should have a maximum v/c of 0.99 for both the first and second peak hour within the Metro area on I-5 between the Marquam Bridge and Wilsonville[3].

Table 3: Maximum Volume to Capacity Ratios from the 1999 Oregon Highway Plan (Inside Metro)

Highway Category/Location	Standard	
	1st hour	2nd hour
Other Principal Arterial Routes		
I-5 (Marquam Bridge to Wilsonville)	0.99	0.99

Action 1F.2: The mobility standards are applied over a 20-year planning horizon when developing state, regional or local transportation plans. When evaluating highway mobility for amendments to transportation system plans, acknowledged comprehensive plans and land use regulations, use the planning horizons in adopted local and regional transportation system plans or a planning horizon of 15 years from the proposed date of amendment adoption, whichever is greater.

Policy 1G Major Improvements: It is the policy of the State of Oregon to maintain highway performance and improve safety by improving system efficiency and management before adding capacity. ODOT will work in partnership with regional and local governments to address highway performance and safety needs.

Action 1G.1: Alternatives for maintaining adequate operating conditions considered in the IAMP will include lower cost measures such as access management and local street enhancement and will assign a lower priority to major improvements such as adding new facilities.

Policy 2B Off-System Improvements: It is the policy of the State of Oregon to provide financial assistance to local jurisdictions to develop, enhance and maintain improvements on local transportation systems where they are a cost-effective way to improve the operation of the state highway system if other criteria are met, such as the off-system costs being less than the on-system costs; land use, access management or other policies assure the continued benefit of the off-system improvement; local jurisdictions agree to notify ODOT about any land use changes that could affect the off-system improvement in such a way that could adversely affect the state highway system; and local jurisdictions agree to maintain the off-system improvement in such a way as to assure the continued benefit to the state highway system.

[3] The exception to this is at ramp terminals, where the maximum volume-to-capacity ratio is 0.85 or 0.90.

Polity 2F Traffic Safety: It is the policy of the State of Oregon to improve safety for all users of the highway system using solutions involving engineering, education, enforcement, and emergency medical services.

The IAMP will identify existing crash patterns and crash rates in the management area and will develop strategies to address safety issues.

Policy 3A: Classification and Spacing Standards. This policy addresses the location, spacing and type of road and street intersections and approach roads on state highways. I-5 is classified as an Interstate Highway. Interstate Highways are subject to federal interstate standards as established by the Federal Highway Administration and to ODOT's Interchange Policy. ODOT owns the access rights onto I-5; direct access is not allowed and users may enter or exit the roadway only at interchanges.

The adopted spacing standards can be found in Appendix C of the *Oregon Highway Plan* (Table 4 and Figure 2 below). It includes standards for each highway classification; generally, the access spacing distance increases as either the highway's importance or posted speed increases.

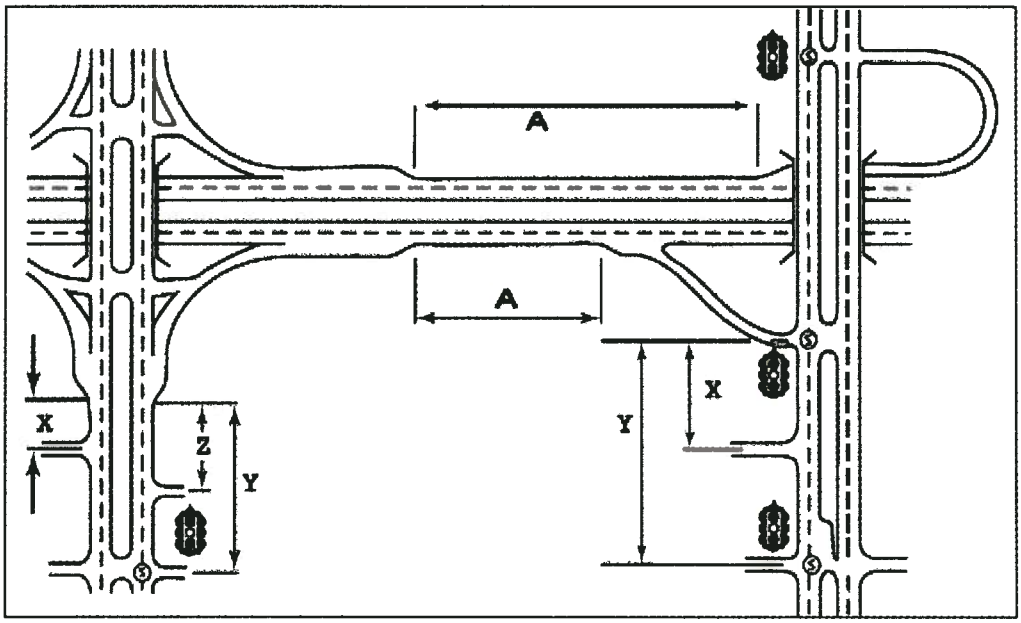
Table 4: ODOT's Minimum Spacing Standards Applicable to Freeway Interchanges with Multi-Lane Crossroads[4]

Category of Mainline	Type of Area	Spacing Dimensions			
		A	X	Y	Z
FREEWAY	Fully Developed Urban	1 mi. (1.6 km)	750 ft. (230 m)	1320 ft. (400 m)	990 ft. (300 m)
	Urban	1 mi. (1.6 km)	1320 ft. (400 m)	1320 ft. (400 m)	1320 ft. (400 m)
	Rural	2 mi. (3.2 km)	1320 ft. (400 m)	1320 ft. (400 m)	1320 ft. (400 m)

Notes:
1) If the crossroad is a state highway, these distances may be superseded by the Access Management Spacing Standards, providing the distances are greater than the distances listed in the above table.
2) No four-legged intersections may be places between ramp terminals and the first major intersection.
3) No application will be accepted where an approach would be aligned opposite a freeway or expressway ramp terminal.

[4] Source: 1999 Oregon Highway Plan.

Figure 2: Measurement of Spacing Standards for Table 4.



Notes for Figure 2:
A = Distance between the start and end of adjacent interchanges.
X = Distance to first approach on the right, right in/right out only.
Y = Distance to first intersections where left turns are allowed.
Z = Distance between the last approach road and the start of the taper for the on-ramp.

Policy 3C Interchange Access Management Areas: It is the policy of the State of Oregon to plan for and manage grade-separated interchange areas to ensure safe and efficient operation between connecting roadways. The policy provides specific direction for management of access in interchange areas. Significant actions related to this project include:

Action 3C.2: To improve an existing interchange a number of items must be addressed. This IAMP will do the following:

- Plan for and manage grade separated interchange area to ensure safe and efficient operation between connecting roadways.
- Act as a plan to protect the function of the interchange through the planning horizon.
- Incorporate the adopted interchange access management spacing standards shown in Table 4 and Figure 2.
- Include supporting improvements such as access management, local street enhancements, and traffic control changes and adopt into the City of Wilsonville Transportation System Plan.
- An access management plan will be included that will identify a strategy to make incremental improvements as properties redevelop or as other opportunities arise.

- In planning for future traffic controls, priority will be given to moving traffic away from the interchange area.

Action 3C.3: Establish criteria for when deviations to the interchange access management spacing standards may be considered.

Action 3C.6: Plan for and operate traffic controls within the Interchange Access Management Area with a priority of moving traffic off the main highway, freeway or Expressway and away from the interchange area. Within the Interchange Access Management Area, priority shall be given to operating signals for the safe and efficient operation of the interchange.

Action 3C.7: Use grade-separated crossings without connecting ramps to provide crossing corridors that relieve traffic crossing demands through interchanges.

Policy 3D Access Management Deviations: It is the policy of the State of Oregon to manage requests for state highway approach permits that require deviations from the adopted access management spacing standards and policies through an application process to ensure statewide consistency.

If the preferred alternative for the Wilsonville I-5 interchange does not comply with adopted spacing standards, deviation findings will be provided to address access recommendations as part of the IAMP.

1995 Oregon Bicycle and Pedestrian Plan

The provision of safe and accessible bicycling and walking facilities in an effort to encourage increased levels of bicycling and walking is the goal of the Oregon Bicycle and Pedestrian Plan. The Plan provides actions that will assist local jurisdictions in understanding the principals and policies that ODOT follows in providing bike and walkways along state highways. In order to reach the plan's objectives, the strategies for system design are outlined, including:

Providing bikeway and walkway systems that are integrated with other transportation systems;

Providing a safe and accessible biking and walking environment; and

Development of education programs that improve bicycle and pedestrian safety.

The document includes two sections, including the *Policy & Action Plan* and *Bikeway & Walkway Planning Design, Maintenance & Safety*. The first section contains background information, legal mandates and current conditions, goals, actions, and implementation strategies ODOT proposes to improve bicycle and pedestrian transportation. The second section assists ODOT, cities and counties in designing, constructing and maintaining pedestrian and bicycle facilities. Design standards are recommended and information on safety is provided.

Transportation alternatives developed through the study process will need to provide for bicycle and pedestrian travel as recommended in this plan.

Statewide Transportation Improvement Program (ODOT)

The Statewide Transportation Improvement Program (STIP) is Oregon's four-year transportation capital improvement program. It is the document that identifies the funding for, and scheduling of, transportation projects and programs. It includes projects on the federal, state, city, and county transportation systems, multimodal projects (highway, passenger rail, freight, public transit, bicycle and pedestrian), and projects in the National Parks, National Forests, and Indian tribal lands. Oregon's STIP covers a four-year construction period, but is updated every two years in accordance with federal

requirements. The currently approved program is the *2008-2011 STIP*. The *Draft 20010-2013 STIP* is currently under development, and is available for public viewing and comment.

The *2008-20011 STIP* was reviewed for projects that should be considered during the development of the Wilsonville I-5 IAMP for complimentary or conflicting traffic impacts. The following projects were found within the study area:

- I-5 from Wilsonville Road to Willamette River (Design/Construction): Estimated Cost $1.97 million

The *Draft 2010-2013 STIP* was also reviewed for related projects and the following were found in the vicinity of the Wilsonville I-5 Interchange:

- Kinsman Road extension from Boeckman Road to Barber Street: Estimated Cost $12.5 million
- Barber Street extension from Coffee Lake Loop to Kinsman Road: Estimated Cost $9.0 million

Department of Transportation Coordination Rules (OAR 731-015)

The IAMP will be carried out in compliance with the statewide planning goals and in a manner compatible with the City of Wilsonville Comprehensive Plan as well as the Clackamas County Comprehensive Plan, as required by ORS 197.180 and OAR 660, Divisions 30 and 31.

Access Management Rules (OAR 734-051)

ODOT has adopted the identified administrative rules to establish procedures and criteria used to govern highway approaches, access control, spacing standards, medians and restriction of turning movements in compliance with statewide planning goals and in a manner compatible with acknowledged comprehensive plans and consistent with Oregon Revised Statutes, Oregon Administrative Rules, and the *1999 Oregon Highway Plan*. Any new street or driveway connections, as well as any changes to existing street or driveway connections to I-5 or Wilsonville Road within the IAMP study boundary must be found to be in compliance with these rules by ODOT.

OAR 734-051-0155 (*Access Management Plans, Access Management Plans for Interchanges, and Interchange Area Management Plans*) provides a description of what IAMP's are intended to do and when they are needed, as well as outlining key characteristics. According to this rule, the IAMP for the Wilsonville I-5 Interchange will:

Be developed no later than the time the interchange is being redesigned.

Identify opportunities to improve operations and safety in conjunction with roadway projects and property development or redevelopment and adopt policies, provisions and development standards to capture those opportunities.

Include short, medium, and long-range actions to improve operations and safety within the designated study area.

Consider current and future traffic volumes and flows, roadway geometry, traffic control devices, current and planned land uses and zoning, and the location of all current and planned approaches.

Provide adequate assurance of the safe operation of the facility through the design traffic forecast period, typically 20 years.

Consider existing and proposed uses of all the property within the designated study area consistent with the City of Wilsonville's comprehensive plan designations and zoning.

Be consistent with any applicable Access Management Plan, corridor plan or other facility plan adopted by the Oregon Transportation Commission.

Include policies, provisions and standards from local comprehensive plans, transportation systems plans, and land use and subdivision codes that are relied upon for consistency and that are relied upon to implement the Interchange Area Management Plan.

The access management component of the IAMP will also be developed in accordance with this rule, which requires:

Including sufficient area to address highway operation and safety issues and development of adjoining properties including local access and circulation.

Description of the roadway network, right-of-way, access control, and land parcels in the analysis area.

Development in coordination with local governments and property owners in the affected area.

Consistency with any applicable Interchange Area Management Plan, corridor plan, or other facility plan adopted by the Oregon Transportation Commission.

Including policies, provisions and standards from local comprehensive plans, transportation system plans, and land use and subdivision codes that are relied upon for consistency and that are relied upon to implement the Access Management Plan.

Containing short, medium, and long-range actions to improve operations and safety and preserve the functional integrity of the highway system.

Considering whether improvements to local street networks are feasible.

Promoting safe and efficient operation of the state highway consistent with the highway classification and the highway segment designation.

Considering the use of the adjoining property consistent with the comprehensive plan designation and zoning of the area.

Providing a comprehensive, area-wide solution for local access and circulation that minimizes use of the state highway for local access and circulation.

Applicable spacing standards for interchange areas and statewide highways are also included as a part of these rules and are described in the "State Performance & Design Standards" section of this memorandum.

Transportation Planning Rule (OAR 660-12-060)

The purpose of OAR 660-12 is to implement Statewide Planning Goal 12 (Transportation) and promote the development of safe, convenient, and economic transportation systems that are designed to reduce reliance on the automobile. Key elements include direction for preparing, coordinating, and implementing Transportation System Plans. In particular, rule 660-12-060 addresses amendments to plans and land use regulations and includes measures to be taken to ensure allowed land uses are

consistent with the identified function and capacity of existing and planned transportation facilities. This rule includes criteria for identifying significant effects of plan or land use regulation amendments on transportation facilities, actions to be taken when a significant effect would occur, identification of planned facilities, and coordination with transportation facility providers.

The Wilsonville I-5 IAMP will help to maximize the investment in the transportation infrastructure by planning for land development, supporting transportation facility construction, and existing transportation facility management in a manner that will sustain adequate operation of the proposed interchange through the planning horizon year. This will not only include amending the City of Wilsonville's Comprehensive Plan and Transportation Systems Plan, but will rely on future regulation of land use proposals to ensure the function and capacity of facilities planned through this effort are maintained.

Oregon Statewide Planning Goals (OAR 660-015)

The Oregon Statewide Planning Goals provide a foundation for implementing state policy on land use planning. The 19 goals for land use planning in the state are to be achieved through local comprehensive planning. Local comprehensive plans must be consistent with the Statewide Planning Goals. Some of the goals relevant to the Wilsonville I-5 IAMP are the following:

The Citizen Involvement goal (Goal 1) develops a citizen involvement program that ensures the opportunity for citizens to be involved in all phases of the planning process.

The Land Use Planning goal (Goal 2) establishes a land use planning process and policy framework as a basis for all decision and actions related to use of land and to assure an adequate factual base for such decisions and actions.

The Public Facilities and Services goal (Goal 11) directs the planning and development of timely, orderly and efficient arrangement of public facilities and services to serve as a framework for urban and rural development.

The Transportation goal (Goal 12) directs planning for a safe, convenient, multimodal and economic transportation system. Consideration of local and regional economies, social consequences, environmental impacts, energy, the needs of transportation disadvantaged, and over reliance on a single mode should be included in local plans. Guidelines for planning and implementation are included to support the Statewide Planning Goals.

The intent of these statewide goals will be considered and incorporated into the Wilsonville I-5 IAMP.

State Performance & Design Standards

Highway Classifications

Interstate 5 (Pacific Highway) is both owned and operated by ODOT, which has established management objectives and operational standards for this facility based on the assigned classifications and segment designations.

I-5 (Pacific Highway) — Within the study area, I-5 is classified as a Interstate Highway on the National Highway System and is a designated Freight Route.

Oregon Highway Design Manual (2003)

This manual contains standards for the design of state highways and various highway elements. While detailed design drawings will not be created as part of this study, elements such as the general alignments, roadway widths, and criteria for installation of turn lanes will be considered for evaluating the feasibility of construction and determination of right of way needs for the alternatives developed.

Table 10-1 in the *Highway Design Manual* (shown as Table 5 previously in this document) displays the maximum allowable volume to capacity ratios for the 30th highest annual hour of traffic for use in the design of highway projects. These standards are to be applied to conditions forecasted to exist 20 years after completion of the proposed improvement. If the applicable mobility standard can not be met, a design exception should be sought. Sections from that table relevant to the study area are presented in Table 5 previously.

Elements of alternatives developed that include the construction or modification of state facilities must be designed in accordance with the requirements of the *Highway Design Manual*. To ensure feasible construction of proposed alternatives, these design standards must be used when laying out roadway alignments, turn lanes, and other roadway elements. Also, the ability of proposed improvements to adequately accommodate future traffic demand will be evaluated through the use of the mobility standards from the *Highway Design Manual*, rather than those from the *Oregon Highway Plan*.

Mobility Standards

ODOT has adopted standards for mobility for state facilities through the *1999 Oregon Highway Plan* (OHP) and the *Highway Design Manual*[5]. The OHP mobility standards are to be used for identifying needs, while the *Highway Design Manual* standards represent the level of operation for which state facilities are to be designed. For this study, the OHP standards will be applied to existing and future no-build analysis, while the future build alternatives will be compared to the standards in the *Highway Design Manual*.

Table 6 in Policy 1F of the OHP displays the maximum allowable volume to capacity ratios for the 30th highest annual hour of traffic in areas within the Portland Metropolitan Area, specifically on I-5 between the Marquam Bridge and Wilsonville. Sections from that table relevant to the study area are presented previously in Table 3.

At signalized intersections, these standards are to be applied to the intersection as a whole. At unsignalized intersections, these standards are applicable only to movements that are not required to stop. For other movements at unsignalized intersections that are required to stop or otherwise yield the right of way, the standards for District/Local Interest Roads shall be applied for areas within urban growth boundaries and a maximum volume to capacity ratio of 0.80 shall be applied for areas outside of urban growth boundaries. However, when an intersection acts as an interchange ramp terminal, the applicable volume to capacity ratio will be the smaller of the values of the volume to capacity ratio for the crossroad or 0.85.

Table 10-1 in the *Highway Design Manual* displays the maximum allowable volume to capacity ratios for the 30th highest annual hour of traffic for use in the design of highway projects. These standards are to be applied to conditions forecasted to exist 20 years after completion of the proposed improvement.

[5] Highway Design Manual, Oregon Department of Transportation, 2003, p. 10-38.

If the applicable mobility standard cannot be met, a design exception should be sought. The section from that table relevant to the study area is presented below (Table 5).

Table 5: Applicable 2003 Highway Design Manual Mobility Standards: 20 Year Design-Mobility Standards (Volume/Capacity [V/C] Ratio)

	Inside Urban Growth Boundary
Highway Category	MPO
Interstate Highways and Statewide (NHS) Expressways	0.75

- Interstates and Expressways shall not be identified as Special Transportation Areas (STAs).
- The peak hour is the 30th highest annual hour. This approximates weekday peak hour traffic in larger urban areas.
- MPO category includes areas within the planning boundaries of the Portland, Eugene/Springfield, Medford and Salem/Keizer Metropolitan Planning Organizations, and any other MPO areas that are designated after the adoption of this plan.

Access Management Spacing Standards

Policies 3A and 3C of the *1999 Oregon Highway Plan* establish access management objectives for state highways and interchange areas based on facility type and set standards for spacing of approaches. As previously discussed, these standards have also been adopted as part of OAR 734-051, which provides the regulatory basis for implementation. Table 4 and Figure 2(both shown previously) show the applicable access management spacing standards for state facilities in the study area. In Table 4, the spacing standards shown are applicable only to approaches on the same side of the roadway, with measurement of approach spacing taken from the centers of adjacent approaches. Also, when using this table, I-5 within the study area is by default designated "Fully Developed Urban" for purposes of access spacing.

The Wilsonville I-5 interchange is a freeway interchange with a multi-lane crossroad. Table 4 and Figure 2 provide ODOT's interchange area access management spacing standards for such a configuration. The proposed locations of any new street connections within interchange areas shall be evaluated in accordance with the applicable standards.

City of Wilsonville Plans & Regulations

City of Wilsonville Transportation Systems Plan, June 2003

The TSP constitutes the transportation element of the City's Comprehensive Plan. Its purpose is to comply with state mandates requiring transportation planning, to develop standards for the transportation system, to address current problem areas, to identify future roadway needs required to support 20 years of expected growth and to provide transportation planning guidelines. The plan is consistent with Metro's RTP, Washington County's Transportation Plan, Clackamas County's Comprehensive Plan and Metro's Urban Growth Management Functional Plan.

Key elements pertinent to the IAMP include access spacing standards and identified short, medium and long range projects. On a major arterial, minimum access spacing is 1,000 feet, with desirable access spacing 1-2 miles. While a short-range project list was created, the I-5/Wilsonville Freeway Access Study (2008 Wilsonville Road/I-5 Interchange Additional Transportation Analysis) was completed subsequently and presented more information on priority listings. Reference should be made to that study for project priorities (see review later in this memorandum).

City of Wilsonville Comprehensive Plan (Updated April, 2004)

The City of Wilsonville Comprehensive Plan, updated April, 2004, acts as a guide for future growth and development within the urban area using a framework of goals, policies, implementation measures and a land use map. The policy framework in the Comprehensive Plan responds to current needs and conditions in addition to guiding future City programs, major capital projects, and other funding decisions.

The key goals and policies for consideration during this project will be those pertaining to transportation. The transportation element of the Comprehensive Plan is reflected in the City's Transportation Systems Plan (discussed previously).

An area of special concern, Area D, is identified. This area is the Village at Main Street development located south of Wilsonville Road and east of Parkway Avenue. Some of the transportation concerns include minimizing access to Wilsonville Road, providing an internal system of local streets, providing for transit access and coordinating with existing bicycle and pedestrian plans. Much of this area has already been developed, but these design objectives will be considered in the IAMP.

Wilsonville's City Code, the Planning and Land Development Ordinance (Chapter 4 of the City Code)

The City of Wilsonville Official Zoning Map (see **Figure 3**) shows the type, location, and density of land development and redevelopment permitted in the future. The Planning and Land Development Ordinance (Chapter 4 of the City Code) implements the Comprehensive Plan by providing descriptions of zone designations, allowable uses within those zones, and development regulations. Descriptions for zone designations found within the IAMP study area have been provided in Table 6 for comparison with the zoning identified in the zone map. The land near the IAMP study area at the Wilsonville Road interchange is zoned mostly commercial.

Table 6: Wilsonville Zoning Designations in IAMP study area

Zone Designations		Purpose of Zone	Common Uses
RA-H	Residential Agricultural H Holding	To serve as a holding zone to preserve the future urban level development potential as undeveloped property designated for more intensive development	• single family dwelling unit • agriculture, horticulture, etc. • timber growing, grazing • small-scale livestock raising • public parks, playgrounds
R	Residential	To provide for standards and a simplified review process for small-scale urban low and medium density residential development. This zone is not intended for planned development.	• single family dwelling units • attached family dwelling units • apartments • public parks, playgrounds • manufactured homes
PDR	Planned Development Residential	To provide for planned residential development	• open space • single family dwelling units • multiple family dwelling units • public parks, playgrounds • manufactured homes
PDC	Planned Development Commercial	The purpose of this zoning is to provide for planned commercial development	• retail business • wholesale showrooms • offices and clinics • service establishments
PDC-TC	Planned Development Commercial (Town Center)	The purpose of this zoning is to permit and encourage a Town Center, adhering to planned commercial and planned development concepts.	• retail sales • department stores • shopping centers • banking and investment • multiple dwelling facilities • public facilities complex • office complex
PDI	Planned Development Industrial	The purpose of the PDI zone is to provide opportunities for a variety of industrial operations and associated uses	• warehouses, distribution • assembly and packing • manufacturing/processing • office complexes • call centers
PF	Public Facility	The PF zone is intended to be applied to existing public lands and facilities; including quasi-public lands that benefit the community and its citizens	• schools • churches • hospital • libraries • parks, etc.
PF-C	Public Facility - Corrections	The PF-C zone is intended to be applied to lands acquired for the use and development of corrections facilities and related uses	• government service building • prisons • correctional facilities

Zone Designations	Purpose of Zone	Common Uses
V Village	The Village (V) zone is applied to lands within the Residential Village Comprehensive Plan Map designation. It is applied in accordance with the Villebois Village Master Plan.	• single family dwellings • accessory dwelling units • duplexes • row houses • multi-family dwellings • cluster housing • residential facilities • non-commercial parks, etc. • commercial uses • lifestyle and recreation • service commercial • general office • neighborhood center commercial • group living facility

City of Wilsonville Capital Improvement Projects (Adopted Budget FY 2008-09)

The following projects that have bearing on the Wilsonville I-5 IAMP and are budgeted for FY 2008-2009:

- Kinsman Road Extension – Barber to Boeckman Road
- 95th/Boones Ferry Road Intersection Improvements
- Barber Street – Kinsman Road to Boberg Street
- Barber Street – Kinsman Road to Coffee Lake Drive
- Grahams Ferry Road – Villebois (widening)
- Boones Ferry Road – Wilsonville Road to 5th
- Wilsonville Road 6-Lane Enhancement (I-5 interchange area)

I-5/Wilsonville Freeway Access Study, by DKS Associates, November, 2002

This study first documented capacity deficiencies and extensive motor vehicle queuing in the Wilsonville Road/I-5 interchange area. The study indicated that conditions were expected to worsen in the future. Analysis performed by the City had considered a new interchange access to I-5 at Boeckman Road as an option to mitigate future capacity needs. A concern with this option was the adequate spacing of interchanges on I-5 and performance. Both the Oregon department of Transportation (ODOT) and Federal Highway Administration (FHWA) have specific standards and guidelines that determine the applicability of any improved or additional access to interstate freeways. Approval of any new access to I-5 would require the approval by both the FHWA and ODOT. The most fundamental requirement is that any new interchange does not have a significant adverse impact on the safety and operation of the interstate facility.

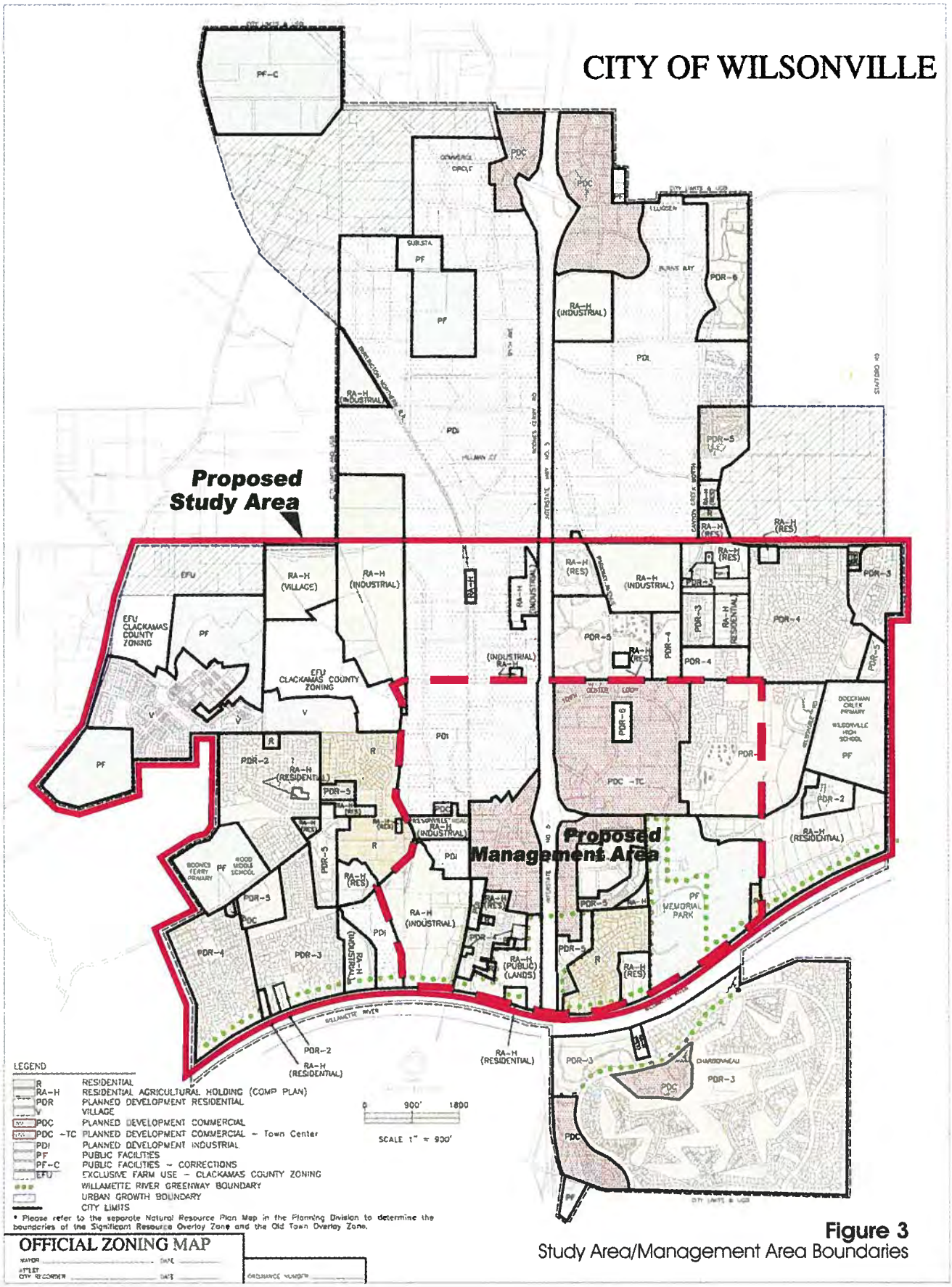


Figure 3
Study Area/Management Area Boundaries

The results of this study indicated that there would be a future deficiency for freeway access capacity in Wilsonville by 2020. Improvements were identified to address this deficiency. These include an improved local street system in Wilsonville, freeway access improvements and I-5 operational improvements. It was found that improvements to the Wilsonville Road interchange would be necessary with either interchange alternative. Based upon the findings of the study, the enhanced Wilsonville Road diamond interchange was recommended as the preferred option that meets future 2020 needs. Implementation of the enhanced Wilsonville Road diamond interchange can effectively be developed in phases or as a combined project depending upon funding availability.

Wilsonville Public Facilities Transportation Strategy Supplemental Analysis, DKS Associates, July, 2006

This analysis provides further evaluation of the six-lane alternative studied in the original *Draft Wilsonville Public Facilities Transportation Strategy (PFTS), June 2006*, to address issues raised by the Wilsonville City Council regarding widening the Wilsonville Road cross-section beyond the current six-lane configuration. The purpose of the analysis was to determine the operational effects of an enhanced six-lane alternative, including additional improvement above and beyond those assumed in the original PFTS study:

- Widening the I-5 northbound and southbound off-ramps to four approach lanes (dual left turn lanes and dual right turn lanes);
- A third additional through lane in both directions on Wilsonville Road between the interchange ramp terminals and Boones Ferry Road and Town Center Loop West;
- Improvements to the Wilsonville Road/Boones Ferry Road intersection as identified in the *Wilsonville Fred Meyer Transportation Impact Study*.

Both short-term (2011) and long-term (2020) traffic volumes were analyzed.

The "enhanced six-lane" configuration was compared to the "eight-lane" configuration studied previously, in the June draft. The following conclusions were drawn:

- The enhanced six-lane alternative can nearly provide the necessary capacity at the Wilsonville Road interchange area based on the 2011 PM peak period, but there is negligible capacity for future development
- In 2020, the enhanced six-lane alternative would not provide adequate capacity to meet either the City's current level of service "D" standard or level of service "E" as was recommended in the City's TSP. Additional improvements beyond those identified would be required
- A sensitivity analysis of the Wilsonville Road interchange area determined that there would be a similar weekly operation in 2011 with the enhanced six-lane alternative as it presently operates today. By 2020, the operations would deteriorate with one hour operating at level of service "F" and two hours operating at level of service "E" each weekday
- With an additional eastbound through lane on Wilsonville Road west of Boones Ferry Road, the enhanced six-lane alternative would operate at a level of service "F" while the eight-lane alternative will operate at a level of service "D" based on a system wide evaluation

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I-5/Wilsonville Road Interchange ODOT/FHWA Additional Analysis, DKS Associates, October, 2007

This analysis further explores the *Wilsonville PFTS* and the *Supplemental Analysis* (see above) as requested by ODOT and FHWA. The purpose of the additional analysis was to address Federal requirements for design (20-year PM peak hour operational analysis) and comments provided by ODOT related to interchange area signal timing. The potential closure of Parkway Avenue at Wilsonville Road is also addressed. Specifically, the following items are addressed:

- Examine the difference between the enhanced six-lane and eight-lane geometric alternatives;
- Examine the operational characteristics for the enhanced six-lane configuration using ODOT's diamond interchange signal timing;
- Extend the future year analysis to 2030 to comply with FHWA's design requirements;
- Verify whether traffic extends back to the main line freeway on I-5 northbound and southbound off-ramps;
- Analyze impacts associated with closing Parkway Avenue at Wilsonville Road both for operational purposes as well as compatibility with grade changes that will occur with interchange reconstruction.

A new alternative, the *Enhanced Six-Lane Modified* geometry, was developed to create a balance between the capacity of the eight-lane alternative and the cost of the enhanced six-lane alternative. "Modified" refers to the addition of the following to the Enhanced Six-Lane alternative:

- Additional eastbound through lane at Boones Ferry Road
- Additional Eastbound right turn lane at the I-5 Southbound Ramps
- Additional southbound right turn lane at Town Center Loop West

With these modifications, the Enhanced Six-Lane Modified alternative would provide sufficient operations at study intersections through 2020 based on HCM (Highway Capacity Manual) isolated intersection capacity methods. However, both of the interchange ramps would fail to meet ODOT mobility standards in 2030 with this modified alternative. Although HCM isolated intersection operations would be sufficient, actual drivers would experience HCM equivalent LOS "F" conditions based on simulation of the interchange area in 2020 and 2030 under this alternative.

It was found that the closure of Parkway Avenue to Wilsonville Road would improve safety for motor vehicles, bicycles and pedestrians and would not significantly impact intersection operations during the PM peak hour at Town Center Loop West/Wilsonville Road under all traffic operating alternatives (2011, 2020 and 2030).

I-5/Wilsonville Freeway Access Study (Wilsonville Road/I-5 Interchange Additional Transportation Analysis: Task 3), DKS Associates, April 18, 2008

This analysis summarizes the latest intersection and corridor operational findings related to the Wilsonville Road/I-5 interchange area planned improvements. This work builds on the previous City of Wilsonville PFTS studies and supplemental analysis (see descriptions above). This analysis includes AM peak hour analysis, which was not conducted previously, as well as updates PM peak hour analysis to reflect the latest conceptual six-lane interchange improvement alternative, referred to as the

"enhanced six-lane geometric alternative." This latest alternative includes three eastbound through lanes on Wilsonville Road at Boones Ferry Road, which differs from the previous "enhanced six-lane" analysis which assumed two eastbound through lanes for the base alternative condition.

Both intersection and corridor operations were analyzed for the enhanced six-lane geometric alternative during the AM and PM peak hours for 2011, 2020 and 2030 with and without a third eastbound through lane on Wilsonville Road at Boones Ferry Road. Specific conclusions can be found in the report, however, generally:

- Intersection level of service and V/C standards are met through 2020 during both AM and PM peak periods and no queuing onto the mainline freeway would be experienced using these analysis scenarios
- Corridor performance standards (simulation and arterial level of service as well as storage on Wilsonville Road) would not be met for any PM peak period scenarios, but generally would be met (except for storage on Wilsonville Road which would not be met) for AM peak period scenarios through 2020
- Intersection level of service based on HCM and based on V/C would be met in 2030 during the AM peak period, however, no other criteria would be met in 2030
- The addition of the third eastbound through lane on Wilsonville Road at Boones Ferry Road only changes the result under the following conditions:
    - Providing adequate storage on Wilsonville Road in 2011
    - Meeting the City's LOS D standard based on simulation delay in 2020

Wilsonville Road/I-5 Interchange Additional Transportation Analysis - Eight-Lane AM/PM Analysis: Task 3A, DKS Associates, April 30, 2008

This analysis provides a summary of intersection and corridor operational findings related to the Wilsonville Road/I-5 interchange area eight-lane geometric alternative. This analysis supplements the April 18, 2008 *Wilsonville Road/I-5 Interchange Additional Transportation Analysis: Task 3* analysis with AM peak hour analysis of the eight-lane Wilsonville Road improvement alternative. It also reproduces prior PM peak hour analysis, while modifying it slightly to reflect minor adjustments to storage length assumptions for the eight-lane geometric alternative. Intersection and corridor operations are summarized for the eight-lane geometric alternative during the AM and PM peak hours for future years 2011, 2020 and 2030.

This alternative operates significantly better than the enhanced six-lane geometric alternative at the Wilsonville Road/I-5 ramp terminals. It would provide the necessary capacity within the interchange area through 2030 to meet both city and ODOT intersection operating standards based on intersection capacity analysis.

Although HCM isolated capacity results indicate adequate operations, simulation of the interchange area indicates the study intersection of Wilsonville Road/Boones Ferry Road would operate similar to HCM equivalent LOS "E" during the 2020 and 2030 PM peak. The simulation provides a better representation to what drivers would actually experience as they traverse through the Wilsonville Road interchange area since it takes into account system operations and the impact that surrounding traffic signals may have on both upstream and downstream intersections that the HCM methodology does not address.

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Wilsonville Road/I-5 Interchange Additional Transportation Analysis - Merge/Diverge Analysis: Task 4, DKS Associates, April 25, 2008

This document summarizes freeway merge and diverge analysis conducted at the Wilsonville Road/I-5 interchange ramp junctions. Freeway weaving assessment along I-5 northbound associated with the addition of a northbound auxiliary lane between the Wilsonville Road and Hubbard Road interchanges are also summarized.

Analysis of the Wilsonville Road/I-5 interchange merge and diverge junctions indicate that during the 2020 PM peak hour, the service level at the northbound merge and diverge junctions would not change. The service level at the southbound merge and diverge junctions would degrade to HCM LOS "E" and "F" respectively. The volumes at the I-5 southbound diverge would exceed the capacity of the merge area. During the 2030 PM peak hour, all ramp junctions with the exception of the northbound on-ramp would operate at HCM LOS "F" conditions. Volumes would exceed the capacity at these three ramp junctions. The northbound on-ramp would operate at LOS "D" during the 2030 PM peak hour.

In order to improve operations at these merge and diverge junctions, additional capacity along the mainline is needed.

Clackamas County Plans & Regulations

Clackamas County Comprehensive Plan: Chapter 5 - Transportation

The Comprehensive Plan for Clackamas County acts as a guide for future growth and development in unincorporated areas of the county, outside of city limits, through the formation of goals and policies that respond to current and future needs over a 20-year planning period. Goals and policies pertaining to land use are implemented through zoning ordinances that are used to define various land use designations and create zone maps for the county identifying where these land use designations will be applied. Because Clackamas County zoning applies to unincorporated areas outside the project area and does not regulate growth and development within the City of Wilsonville, county-zoned land does not directly impact the immediate project vicinity. County zoning is incorporated into regional transportation models used to develop forecasts for the IAMP.

The Transportation chapter focuses on developing a transportation system that meets the needs of Clackamas County residents, while also considering regional and state needs at the same time. The plan addresses a balanced transportation system that includes automobile, bicycle, rail, transit, air, pedestrian and pipelines and reflects existing land use plans, policies and regulations that affect the transportation system. The Clackamas County TSP implements these goals and policies and provides a Capital Improvement Plan to address deficiencies. The only project in the vicinity of Wilsonville shown in the 20-year plan is a road improvement on Stafford Road north of Boeckman Road.

Clackamas County Zoning and Development Ordinance (ZDO)

The ordinance is enacted to implement the goals and policies of the County Comprehensive Plan and to provide methods of administration and enforcement of the provisions described. Clackamas County zoning pertains to unincorporated areas of the county. In the vicinity of the Wilsonville I-5 interchange, the City of Wilsonville's zoning would apply.

Clackamas County Capital Improvement Plan (2006/7 - 2010/11)

The following projects listed in the Clackamas County Capital Improvement Plan that may be relevant to the Wilsonville I-5 IAMP include:

- Clackamas County ITS Projects (arterials signal control improvements to enhance traffic flow and efficiency)
- Safety projects (locations to be determined

Appendix B: IAMP Boundaries, Goals & Objectives, and Evaluation Criteria

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Appendix B: IAMP Boundaries and Goals & Objectives

This memorandum identifies the project purpose, problem statement, interchange function, mode, general location and expectations for the IAMP. In addition, it summarizes draft Management Area and final Study Area boundaries, project goals and objectives, and alternative evaluation criteria.

IAMP Purpose and Background

Purpose and Intent

An IAMP is required for any new or significantly reconstructed interchange by OAR 734-051-0155(6). More importantly, the purpose of an IAMP is to protect the function of the interchange and, consequently, the state's investment in the facility. New interchanges and improvements to existing interchanges are very costly. State and local government and their citizens have an interest in ensuring that their interchanges function efficiently. Design work is currently underway for improvements to the Wilsonville I-5 interchange and this IAMP is being conducted to ensure that the design will effectively reflect the needs of the interchange for at least the next 20 years.

Problem Statement

In 1994, the City of Wilsonville and ODOT entered into an agreement to build Phase 1 of a planned multi-phase Wilsonville Road interchange improvement project. All improvements have been completed that were part of the first construction phase.

Recent traffic studies have shown that the Wilsonville Road interchange does not meet performance standards today (based on the Phase 1 improvements that have already been constructed) even though the City of Wilsonville has been enforcing their concurrency ordinance which has not allowed the approval of development that have projected trips through the Wilsonville Road interchange area.

Furthermore, the I-5 NB exit ramp has vehicle queues that consistently back up on to the mainline freeway during the a.m. peak period. This condition is caused by a short off-ramp length and a lack of capacity and storage at the I-5/Wilsonville Road NB exit ramp terminal. This is a pre-existing safety issue that has been identified by ODOT.

Interchange Function, Mode and General Location

Generally, an interchange is defined as the junction of two or more roads at different elevations through a system of connections that separate the roads to permit movements to occur without crossing the streams of traffic. The functions of the interchange are established by the functions of the connecting roads. The I-5 Wilsonville interchange is a component of Interstate 5, an Interstate Highway and freight route. As a component, the interchange's primary function is to provide connections to major cities, regions of the state, and other states. The Interstate Highways are major freight routes and their objective is to provide mobility. The interchange provides for this primary function by minimizing the conflicts between through traffic on the freeway and the movement of vehicles entering, exiting, or crossing the freeway. The interchange's secondary function is to provide connections for regional trips within the metropolitan area in a manner that does not conflict with the primary purpose. Provided that the primary and secondary functions are not adversely affected, the interchange also serves the function to provide for safe travel between the land uses within Wilsonville on both the east and west sides of I-5.

The Oregon Highway Plan (OHP) classifies I-5 as an interstate highway. According to OHP, the primary function of an interstate freeway is to "provide connections to major cities, regions of the state, and other states. A secondary function in urban areas is to provide connections for regional trips within the metropolitan area." (OHP, p. 41)

Wilsonville Road is owned and maintained by the City of Wilsonville. The Wilsonville Transportation System Plan (TSP) classifies Wilsonville Road as a major arterial within the Management Area. Wilsonville Road provides both a connection to the interstate freeway system and access to local services in town.

Much of the land surrounding the Wilsonville I-5 interchange is already developed. The interchange provides access to Wilsonville's Town Center area (Teufel Village and Town Center Loop) as well as industrial and residential areas in the City. Access along Wilsonville Road is relatively limited, although not in compliance with OHP standards within a ¼ mile of the interchange. Most accesses along Wilsonville Road are public roadways rather than private driveways.

Future alternatives in this IAMP assume that undeveloped lands within the Study Area will be developed in a manner consistent with what is allowed under the City of Wilsonville Comprehensive Plan and existing zoning. The chapter on Future Travel Forecasts and Needs Analysis details the assumptions for this development.

Expectations for the IAMP

The City of Wilsonville has been working with ODOT to identify improvements to the interchange that would provide additional capacity. The City of Wilsonville and ODOT recently signed a Cooperative Improvement Agreement to construct the Phase 2 improvements to the Wilsonville Road/I-5 Interchange. The Phase 2 improvements include converting the existing 6-lane cross-section on Wilsonville Road between the ramp terminals to allow for a left turn lane, a shared through-left turn lane and a through lane in both the eastbound and westbound directions. This will increase left turn capacity that is critical during the peak periods. Since there will be two left turn lanes on Wilsonville Road at the ramp terminals, the entrance ramps will need to be widened to accommodate two receiving lanes. Both I-5 off-ramps will be widened to allow for four turn lanes (dual left turn lanes and dual right turn lanes) that will significantly increase the ramp terminal capacity. Additional widening will also take place on Wilsonville Road between Town Center Loop West and the I-5 NB ramp terminal and Boones Ferry Road and the I-5 SB ramp terminal to provide a third westbound and eastbound through lane to directly feed the left turn lanes under the structure.

The expectation of the Wilsonville I-5 IAMP is that it will provide a framework for the design of the interchange reconstruction project. A preferred alternative has been developed, as described above, through previous analysis. The IAMP will confirm that this alternative will work and will provide guidance to designers so that the interchange that is designed will function efficiently for at least the next 20 years.

Reconstruction of the I-5 Wilsonville Road interchange will improve connections between I-5 and the City of Wilsonville. The improved interchange will support the development that is authorized in the Wilsonville Comprehensive Plan and is not intended as a basis to encourage rezoning of property for uses that will generate greater volumes of traffic than is already planned based on land use designations in Wilsonville's Comprehensive Plan. The IAMP provides land use and transportation management policies that ensure that future demand on the interchange will be consistent with planned land uses and will not outpace the improvements that have been designed.

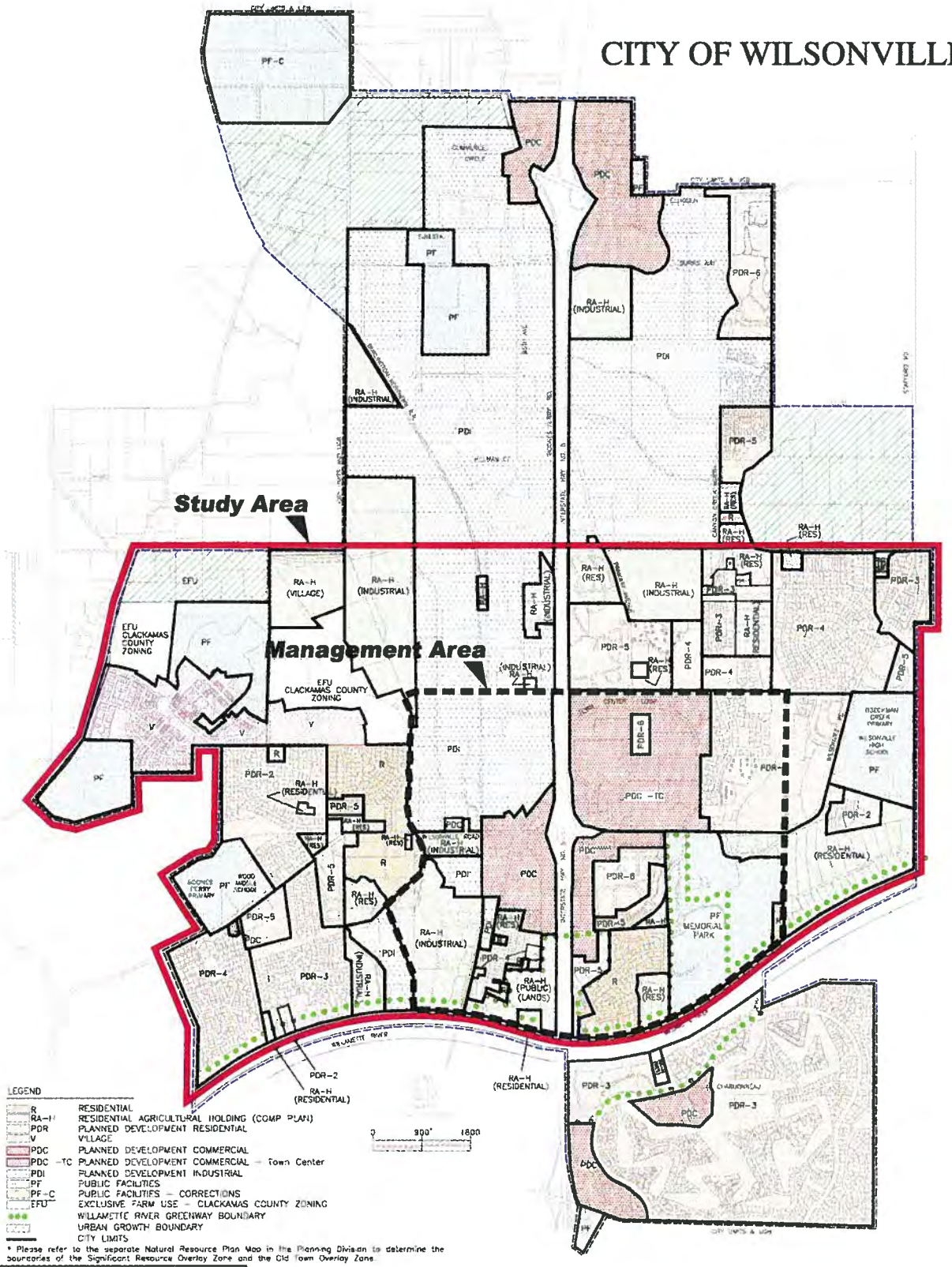

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Figure 1

ZONING AND LAND USE

Figure 1 illustrates the proposed Interchange Management Area. The management area delineates the area around I-5/Wilsonville Road in which specific IAMP access and management regulations apply to land use decisions. It includes those properties that currently have or are expected to have the greatest impact on operations at the interchange.

The management area is defined by tax lot parcel boundaries extending from the Willamette River to the south, just north of Town Center Loop to the north, approximately ½ mile to the west and approximately ½ mile to the east.

Figure 1 also illustrates the project Study Area. The Study Area extends from Boeckman Road to the north, the Willamette River to the south and the urban growth boundary (UGB) to the east and west. The traffic analysis for the IAMP assumed development of much of the undeveloped land within the Study Area (more detail in Future Conditions).

Wilsonville IAMP Goals and Objectives

The goals and objectives for the Wilsonville IAMP should reflect the intentions and interests of ODOT, the City of Wilsonville and other key stakeholders for the interchange and transportation operations in the area. The goals and objectives should be guided by, but not re-statements of, OHP policies and OAR language. The objectives need to be concrete statements that relate what the plan is trying to accomplish and should be achievable and measurable. The objectives serve as the basis for data collection and research and as alternative evaluation criteria to guide alternatives analysis and selection of the preferred alternative, and to guide management decisions.

Goal 1: Protect the function and operation of the interchange and the state highway as follows:

- I-5 is classified as an Interstate Highway. It is part of the National Highway System and is a designated freight route between Portland and points south. The operational objective for Interstate Highways is to provide safe and efficient high-speed travel in urban and rural areas.

Objective 1a: The preferred interchange project alternative will meet FHWA Interchange requirements and will accommodate design-year (2030) traffic demands as a threshold.

Objective 1b: The project alternatives developed for consideration as part of the IAMP planning process are consistent with the OHP requirement that the maximum volume-to-capacity (V/C) ratio for the ramp terminals of interchange ramps be either 0.85 or 0.90 (as defined in the OHP). For "build" scenarios, the 2003 Highway Design Manual standard of 0.75 is desired or a design exception would be needed.

Objective 1c: The preferred alternative will meet or move in the direction of ODOT access management spacing standards for access along interchange crossroads.

Goal 2: Provide for an adequate system of local roads and streets for access and circulation within the interchange area that minimizes local traffic through the interchange and on the interchange cross road.

Objective 2a: The preferred alternative will include necessary supporting improvements to the surface street system in the vicinity of the interchange. Improvements to the local street network will be adopted into the local comprehensive plan, including identified funding sources, as part of the City of Wilsonville's actions to implement the IAMP.

Objective 2b: The project alternatives will propose surface street improvements that either meet the ODOT established access management standards or improve on the current conditions.

Objective 2c: The project alternatives will propose surface street improvements that will operate in conformance with applicable standards over the 20-year planning horizon.

Goal 3: Provide safe and efficient multi-modal travel between the connecting roadways (and the surface street network, if applicable).

Objective 3a: While recognizing existing capacity constraints, the project alternatives will improve safety by adding capacity to reduce congestion and/or correcting geometric conditions that do not meet current applicable standards.

Objective 3b: The project alternatives will improve bicycle and pedestrian safety by providing upgraded bikeways and walkways that meet current applicable standards and include facility infill and extensions where needed to provide a continuous network.

Goal 4: Ensure future changes to the planned land use system are consistent with protecting the long-term function of the interchange and the surface street system and the integration of future transportation projects and land use changes.

Objective 4a: The project alternatives will be developed in partnership with affected property owners in the interchange area, the City of Wilsonville, Clackamas County, and the Oregon Department of Transportation (ODOT), as well as other stakeholders, including interchange users.

Objective 4b: The City and County Comprehensive Plans and/or Transportation System Plans will be found consistent, or amendments will be proposed to ensure consistency, with the preferred project interchange alternative.

Objective 4c: The City and County will adopt land use policies that ensure future land use actions in the IAMP Management Area, including requests for comprehensive plan amendments and/or zoning amendments, and promote land development that is compatible with the planned interchange capacity for the IAMP planning horizon.

Goal 5: Recognize the importance of the interchange function to support local and regional economic development goals and plans.

> **Objective 5a:** The project alternatives are expected to reduce delay for vehicles, including commercial vehicles, accessing the freeway and to increase safety.
>
> **Objective 5b:** The project alternatives will facilitate access to, through, and from businesses in Wilsonville.

Goal 6: Ensure that the needs of regional through trips and the timeliness of freight movements are considered when developing and implementing the IAMP, in particular when planning for improvements that directly impact freight routes.

> **Objective 6a:** The project alternatives will facilitate freight access to and from the many industrial freight destinations in the interchange study area.

Interstate 5/Wilsonville Road IAMP

Appendix C: Existing Conditions

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Appendix C: Existing Land Use and Transportation Conditions

This document provides an inventory and evaluation of existing land uses and transportation facilities within the IAMP study area, which can be used to identify areas needing improvement and can act as a baseline for assessment of future conditions. This includes identification and description of existing land use, area streets, traffic controls, and property access, as well as an analysis of the crash history, access management deficiencies, intersection capacity, and potential land development.

Study Area Land Uses

The selected geographic boundaries for the IAMP study area include Boeckman Road to the north, the urban growth boundary (UGB) to the east and west, and the Willamette River to the south. The study area and proposed management area are both illustrated in Figure 1, which shows all existing streets and property zoning within the study area boundaries.

Within the study area, most lands are zoned for either commercial, residential, industrial, or public facilities uses. The commercial lands tend to be located in the middle of the study area, near the interchange with residential lands adjacent to the east and south. Industrial land is located on the west end of the management area, both north and south of Wilsonville Road. There are public lands south of Wilsonville Road on both the east and west sides of I-5, a significant portion of which is park/open space.

Figure 1 displays the locations of different land use zones in the study area. Table 1 provides total acreages for each zone type and identifies lands currently undeveloped. Most of the land within the IAMP study area is zoned for residential uses, while the rest of the land is fairly evenly divided between commercial (including Village and Town Center zoning), industrial and public facilities zoning, with a smaller portion dedicated to exclusive farm use.

Land Uses with Significant Impacts to State Facilities

Much of the land within the IAMP Study and Management areas is already fully developed, most of it at its highest and best use. Currently vacant lands are shown in the appendix. There are approved or in-process projects on some of these properties. Of the undeveloped lands within the IAMP Management Area, the areas that have the most potential to significantly impact the interchange are the industrial land south of Wilsonville Road opposite Kinsman Road and the Fred Meyer site, located in the southeast quadrant of the Boones Ferry Road/Wilsonville Road intersection. Trip generation for the Fred Meyer site has been specifically analyzed and its potential impact on the interchange previously determined. The impact of the industrial land will also be incorporated into the future needs analysis. The Villebois development lies within the broader Study Area. Trip generation from this development is anticipated to be substantial and will also be included in the future needs analysis. Metro works cooperatively with local governments to forecast future population, employment, and land use patterns within the tri-county metropolitan area. These future land use forecasts will be used in subsequent chapters of this IAMP.

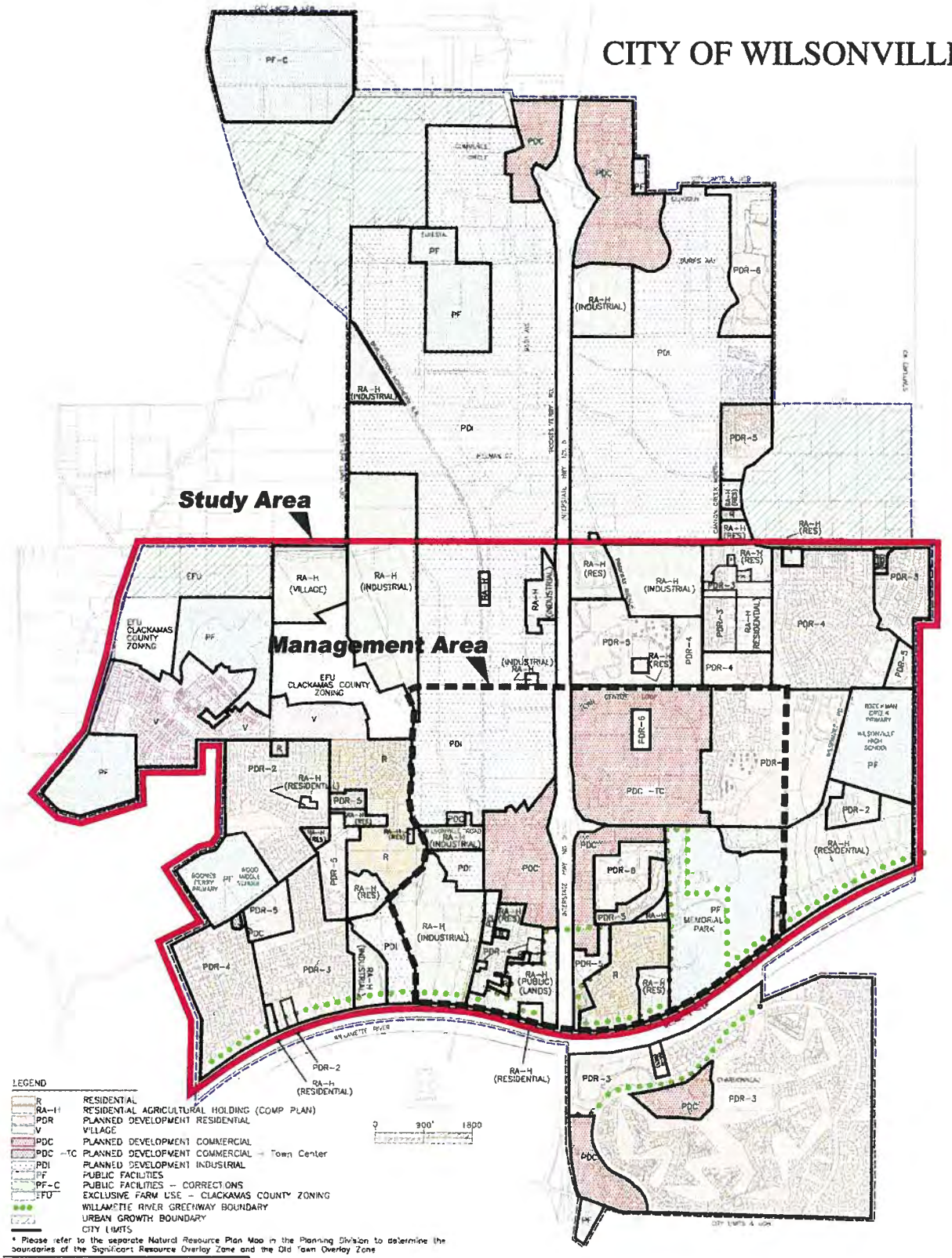
CITY OF WILSONVILLE
Study Area
Management Area
LEGEND
R RESIDENTIAL
RA-H RESIDENTIAL AGRICULTURAL HOLDING (COMP PLAN)
PDR PLANNED DEVELOPMENT RESIDENTIAL
V VILLAGE
PDC PLANNED DEVELOPMENT COMMERCIAL
PDC -TC PLANNED DEVELOPMENT COMMERCIAL - Town Center
PDI PLANNED DEVELOPMENT INDUSTRIAL
PF PUBLIC FACILITIES
PF-C PUBLIC FACILITIES - CORRECTIONS
EFU EXCLUSIVE FARM USE - CLACKAMAS COUNTY ZONING
WILLAMETTE RIVER GREENWAY BOUNDARY
URBAN GROWTH BOUNDARY
CITY LIMITS
* Please refer to the separate Natural Resource Plan Map in the Planning Division to determine the boundaries of the Significant Resource Overlay Zone and the Old Town Overlay Zone
0 900' 1800
OFFICIAL ZONING MAP
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Figure 1
ZONING AND LAND USE

Table 1: Land Use within the Wilsonville IAMP Study Area and Management Area

Land Use	Study Area		Management Area	
	Total Acres/ (Vacant)	**Percentage/ (Vacant)**	**Total Acres/ (Vacant)**	**Percentage/ (Vacant)**
Residential – Total	1248 (333)	52% (14%)	318 (59)	38% (7%)
▪ R – Residential	115 (35)		44 (2)	
▪ RA-H – Residential Agricultural Holding	447 (214)		136 (46)	
▪ PDR – Planned Development Residential	686 (84)		138 (11)	
Commercial – Total	332 (97)	14% (4%)	225 (51)	27% (6%)
▪ V – Village	107 (46)		0 (0)	
▪ PDC – Planned Develop Commercial	92 (27)		92 (27)	
▪ PDC-TC – PDC Town Center	133 (24)		133 (24)	
PDI – Planned Development Industrial	321 (45)	14% (2%)	165 (17)	20% (2%)
PF – Public Facilities	331 (103)	14% (4%)	123 (0)	15% (0%)
EFU – Exclusive Farm Use	154 (n/a)	6% (0%)	0 (n/a)	0% (0%)
Total	**2385 (578)**	**100% (24%)**	**831 (127)**	**100% (15%)**

* Table includes parcel data only, areas dedicated to roads and right-of-way are not included

Management Area Street Network

Within the management area, all roadways, with the exception of I-5 which is under ODOT's jurisdiction, are within the jurisdiction of the City of Wilsonville, ranging in functional classification from major arterials to local streets. Figure 2 displays the study area street network and identifies the assigned functional classification of each roadway. These roadways are listed below in Table 2, along with some of their key characteristics.

Table 2: Study Area Roadway Network Summary

Roadway	Wilsonville Classification[1]	Cross Section	Posted Speed	On-Street Parking	Sidewalks	Bike Lanes
Interstate-5 (I-5)	Freeway	6 Lanes	65 mph	No	No	No
Wilsonville Rd	Major Arterial	5 Lanes	25-35 mph	No	Yes	Yes
Boones Ferry Rd	Major Collector	2 to 3 Lanes	35 mph	No	West Side	West side
Town Center Lp W[a]	Major Arterial	5 Lanes	35 mph	No	Yes	No
Parkway Avenue	Local Street	2 Lanes	Not Posted	No	East Side	No

[a] The City's *Bicycle and Pedestrian Master Plan*[2] designates the portions of Town Center Loop West as proposed community walkway and bikeway.

[1] *City of Wilsonville Transportation Systems Plan*, Figure 4.8, Adopted by City Council on June 2, 2003.
[2] *Bicycle and Pedestrian Master Plan*, Alta Planning and Design, Adopted December 2006; replaces Chapter 5 of City of Wilsonville Transportation System Plan.

With these roadways identified as the primary means of circulation through the area, key intersections along these routes were selected for capacity analysis. Through a field inventory, the existing lane configurations and traffic controls at each intersection were documented and have been displayed in Figure 3. From this figure, it can be seen that Wilsonville Road is generally two lanes in each direction, with additional turn lanes at key intersections, where needed, including four signalized intersections. Town Center Loop West is two lanes in each direction north of Wilsonville Road and two lanes northbound and one lane southbound south of Wilsonville Road. Boones Ferry Road and Parkway Avenue are both one lane in each direction, with additional turn lanes at intersections.

Existing Access Conditions

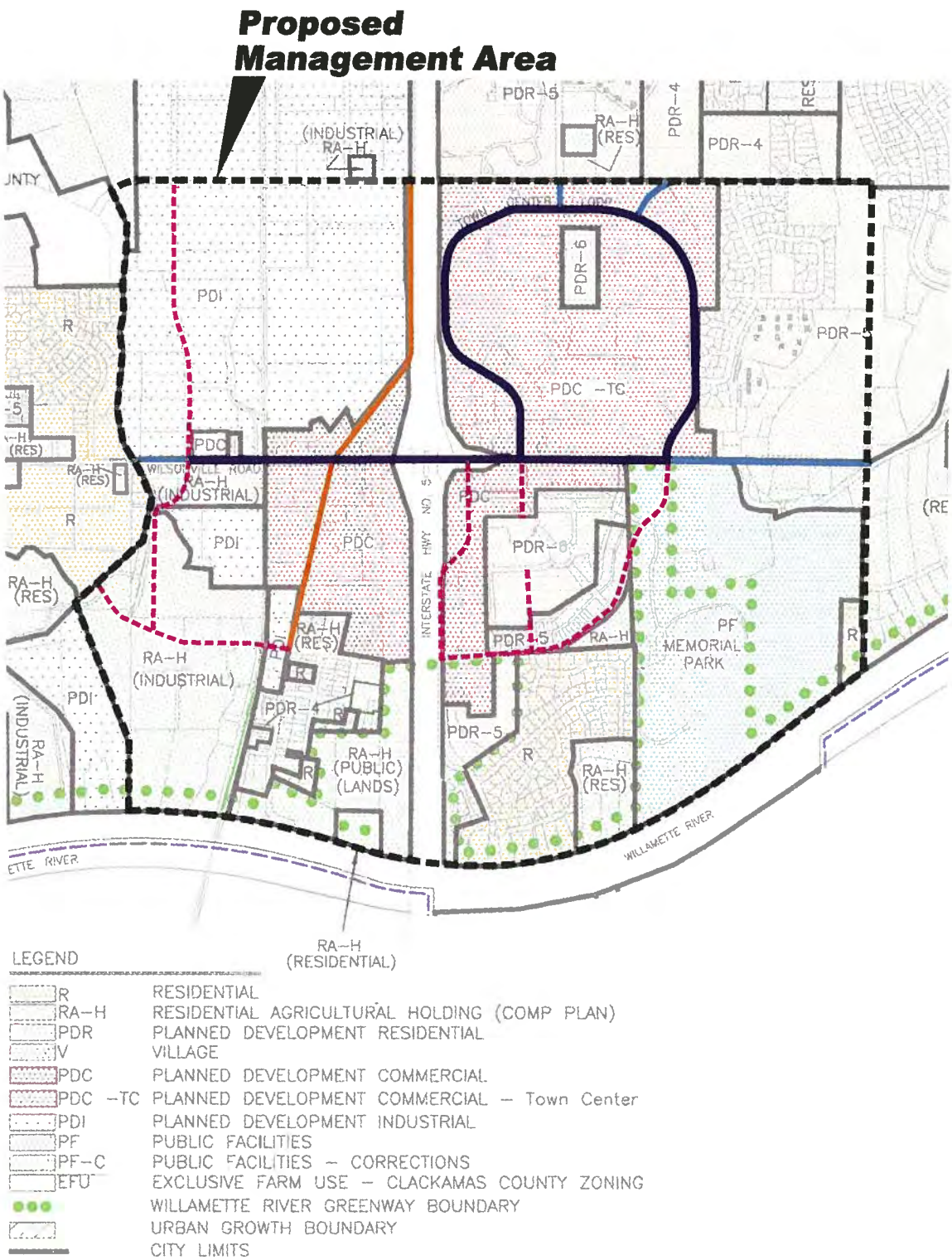
Access to Interstate 5

Interstate 5 is an interstate highway with interchanges providing its only access. The I-5 Wilsonville interchange is located between the I-5/Canby-Hubbard interchange and the I-5/Stafford interchange. The I-5/Stafford interchange is about two miles north of the I-5/Wilsonville interchange and the I-5/Canby-Hubbard interchange is less than one mile to the south. The access spacing standard is based on the distance from the end of the acceleration lane taper to the beginning of the deceleration lane taper. ODOT's freeway access spacing for "urban" or "fully developed urban" interchanges is 1 mile or 5,280 feet. The Wilsonville/I-5 interchange easily meets this spacing to the north and is close to meeting it to the south, however, technically it does not. The I-5/Canby-Hubbard interchange carries significantly lower traffic volume at the interchange than the I-5/Wilsonville interchange since it serves a largely rural area.

Access to Wilsonville Road

Wilsonville Road was examined as well to identify current access density in comparison to what the City and State access management guidelines recommend. The *City of Wilsonville Transportation System Plan* and ODOT's *1999 Oregon Highway Plan* have adopted access management standards. These standards were applied to evaluate access and intersection spacing for Wilsonville Road, which is classified in the City's TSP as a major arterial. The City's minimum access spacing on a major arterial is 1,000 feet. ODOT's access spacing standards are 1,320 feet to the first full-access intersection and 750 feet to the first right-in/right-out only access from the ramp terminal.

Figure 4 shows the driveway and intersection spacing for Wilsonville Road within the management area and compares them with the adopted guidelines. This access spacing is summarized in Table 3. As can be seen from this table, there are many locations along Wilsonville Road where desired access spacing is not met. It should be noted that the standards provided by ODOT and the City were not in existence when this area originally developed.



LEGEND

- Major Arterial
- Minor Arterial
- Major Collector
- Minor Collector

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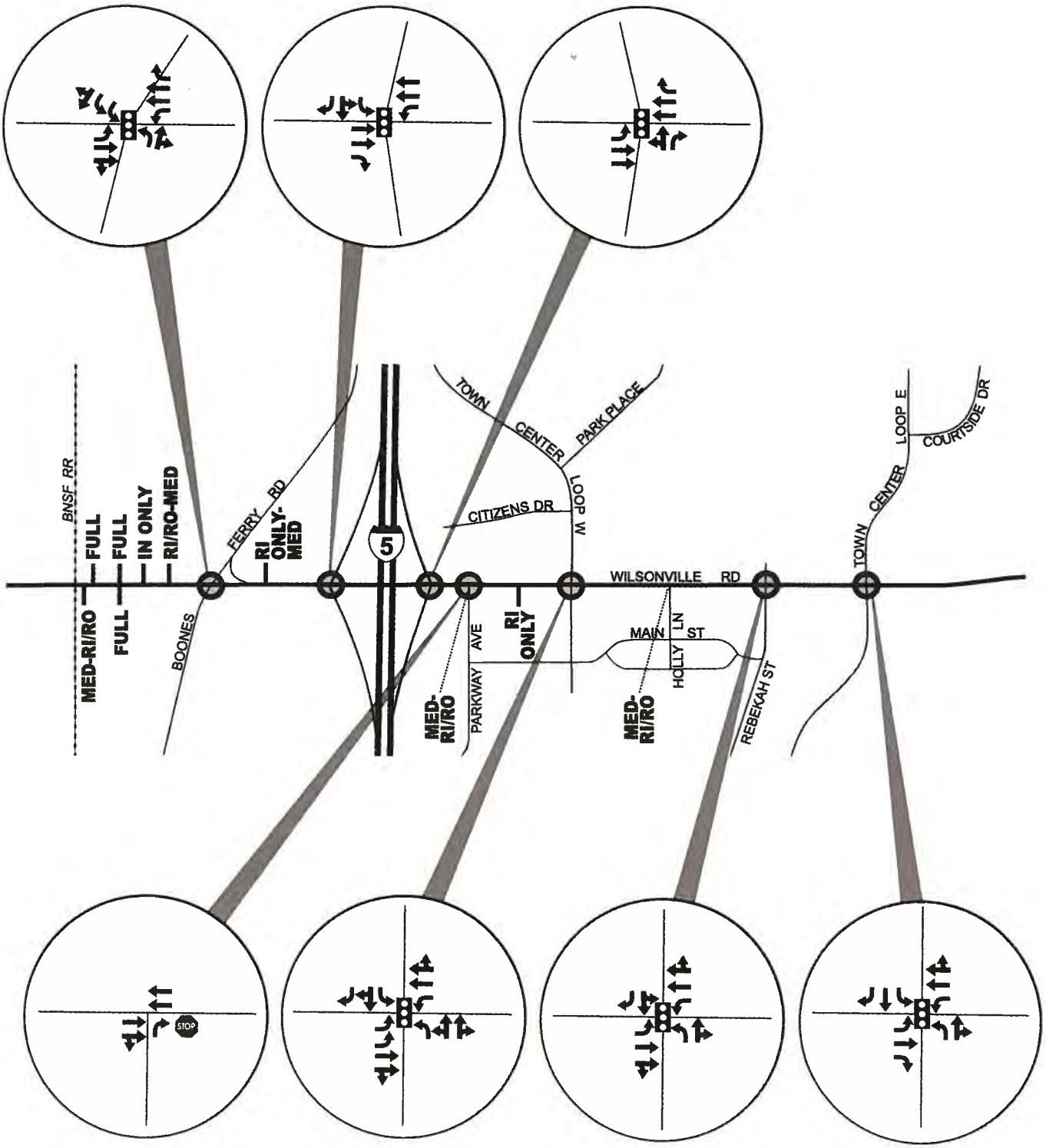
NO SCALE

Figure 2

STUDY AREA ROAD CLASSIFICATION



LEGEND

- Study Intersection
- Lane Configuration
- Traffic Signal
- STOP - Stop Sign
- ---- - Driveway Location
- **FULL** - Full Access
- **IN-ONLY** - In Only Access
- **RI** - Right-In Turn Movement
- **RO** - Right-Out Turn Movement
- **MED** - Median Separation

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Figure 3

EXISTING INTERSECTION CONTROL AND LANE CONFIGURATION

LEGEND

00 - Driveway/Access Location Number

000' - Distance Between Driveway/Access Locations

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NO SCALE

Figure 4

DRIVEWAY ACCESS LOCATIONS

Table 3: Intersection/Access Spacing on Wilsonville Road

From	To	Distance – Stop Bar to Stop Bar (Feet)	Distance – Center to Center (Feet)	City's Desired Access Spacing (Feet)[3]	Meets Standards?	ODOT's Desired Access Spacing (Feet)[4]	Meets Standards?
		Eastbound					
Kinsman Road	**Boones Ferry Road**	**1,265**	**1,385**	1000	Yes	N/A	N/A
Accesses	Kinsman - Lowries #1	710	760	1000	No		
	Lowries #1 – Lowries #2	165	200	1000	No		
	Lowries #2 – Boones Ferry Road	325	420	1000	No		
Boones Ferry Road	**I-5 SB Ramps**	**410**	**585**	1000	No	1320	No
I-5 SB Ramps	**I-5 NB Ramps**	**395**	**485**	1000	No	1320	No
I-5 NB Ramps	**Town Center Loop West**	**580**	**675**	1000	No	1320	No
Accesses	NB Ramps - Parkway Avenue	100	165	1000	No	750	No
	Parkway - Teufel Village	275	310	1000	No	750	No
	Teufel Village-Town Center Lp W	135	200	1000	No	750	No
Town Center Loop West	**Memorial Drive/ Town Center Loop East**	**1,330**	**1,420**	1000	Yes	N/A	N/A
Accesses				1000	No		
	Town Center Loop W - Holly Lane	415	465	1000	No		
	Holly Lane – Rebekah Street	410	480	1000	No		
	Rebekah Street–Town Center Lp E	400	475	1000	No		
		Westbound					
Memorial Drive/ Town Ctr Lp East	**Town Center Loop West**	**1,320**	**1,420**	1000	Yes	N/A	N/A
Access	Memorial Drive - Rebekah Street	395	475	1000	No		
	Rebekah Street – Town Ctr Lp W	850	945	1000	No		
Town Ctr Lp West	**I-5 NB Ramps**	**570**	**675**	1000	No	1320	No
I-5 NB Ramps	**I-5 SB Ramps**	**400**	**485**	1000	No	1320	No
I-5 SB Ramps	**Boones Ferry Road**	**400**	**585**	1000	No	1320	No
Access	I-5 SB Ramps - Burger King	240	320	1000	No	750	No
	Burger King – Boones Ferry Rd	135	265	1000	No	750	No
Boones Ferry Road	**Kinsman Road**	**1,250**	**1,385**	1000	Yes	N/A	N/A
Accesses	Boones Ferry Rd – RI/RO	25	145	1000	No		
	RI/RO – RI Only	100	140	1000	No		
	RI Only - 1st SMART Access	130	170	1000	No		
	1st SMART - 2nd SMART Access	85	130	1000	No		
	2nd SMART Access - 1st Chevron	435	475	1000	No		
	1st Chevron - 2nd Chevron	115	150	1000	No		
	2nd Chevron - Kinsman	145	200	1000	No		

* **Bold** type indicates actual intersections (versus driveways)

[3] Source: City of Wilsonville Transportation System Plan, 2003.
[4] Source: ODOT's Highway Design Manual, 2003, Table 6-4.

Crash Analysis

The collision histories of the study intersections were obtained for 2005 through 2007 from the Oregon Department of Transportation (ODOT) Crash Analysis and Reporting Unit. Based on the collision data and peak hour traffic counts, collision rates were estimated at the study intersections. A rate greater than or equal to 1.0 collision per million entering vehicles (MEV) generally indicates a higher than average collision rate. As shown in Table 4, none of the study intersections have collision rates above 1.0. The table also lists the breakdown of collisions by severity. As shown, between 2005 and 2007, most collisions caused property damage only, and there were no fatal collisions reported.

Table 4: Study Area Intersection Collisions (2005-2007)

Intersection	Collisions (by Severity)				Collisions Per year	Collision Rate[b]
	Fatal	*Injury*	*PDO[a]*	***Total***		
Signalized Intersections						
Boones Ferry Rd / Wilsonville Rd	0	0	5	**5**	1.7	**0.15**
I-5 SB Ramps / Wilsonville Rd	0	3	8	**11**	3.7	**0.29**
I-5 NB Ramps / Wilsonville Rd	0	6	7	**13**	4.3	**0.34**
Town Center Lp W / Wilsonville Rd	0	5	5	**10**	3.3	**0.30**
Rebekah/Wilsonville Rd	0	7	4	**11**	3.7	**0.70**
Town Center Lp E/Wilsonville Rd	0	6	4	**10**	3.3	**0.59**
Unsignalized Intersections						
Parkway Avenue / Boones Ferry Rd	0	1	2	**3**	1.0	**0.10**

[a] PDO = Property damage only.
[b] Collision rate = average annual collisions per million entering vehicles (MEV); MEV estimates based on PM peak-hour traffic count.

Operational Analysis

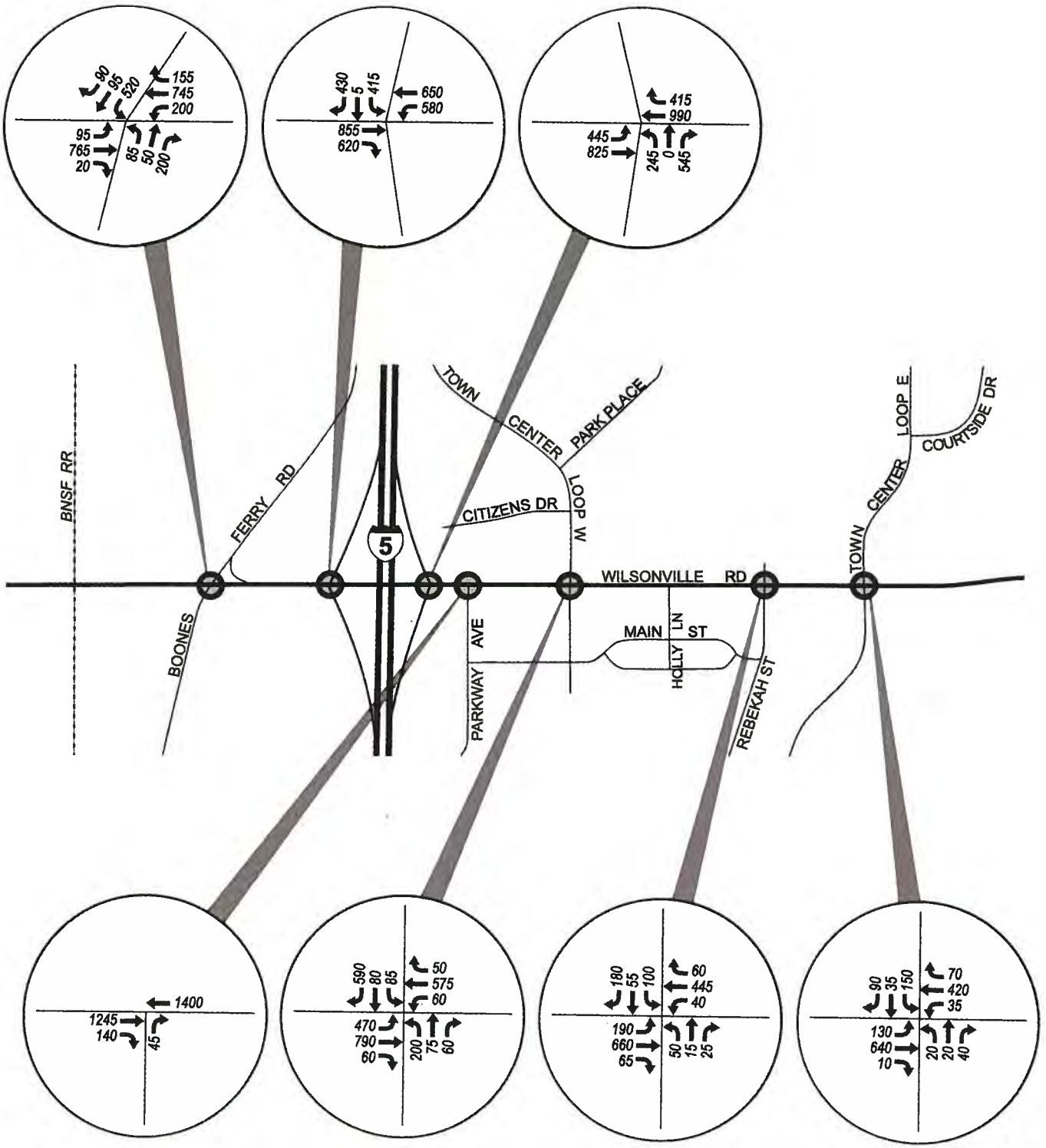
Traffic Volumes

Manual turn movement counts were collected during the weekday PM peak period (4:00 – 6:00 PM).[5] Traffic volumes at study area intersections are displayed in Figure 5.

Existing Traffic Operating Conditions

Existing traffic operating conditions were analyzed at the existing study intersections. Intersections are the focus of the traffic analysis because they are the controlling bottlenecks of traffic flow and the ability of a roadway system to carry traffic efficiently is nearly always diminished in their vicinity. Before the analysis results of the study intersections are presented, discussion is provided for two

[5] PM peak hour turn movement counts were collected at the study intersections from 4:00 p.m. to 6:00 p.m. on January 29, 2008; June 24, 2008; or July 1, 2008. Count dates are shown in detailed turn movement count sheets in appendix. Traffic volumes were balanced to represent the worst-case impacts based on the multiple count dates.



LEGEND

- Study Intersection
- 00 - Peak Hour Traffic Volumes

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NO SCALE

Figure 5

EXISTING PM PEAK HOUR TRAFFIC COUNTS

important analysis issues: (1) intersection performance measures (definitions of typical measures) and (2) required operating standards (per roadway, as specified by the agency with roadway jurisdiction).

Intersection Performance Measures

Level of service (LOS) ratings and volume-to-capacity (V/C) ratios are two commonly used performance measures that provide a good picture of intersection operations. In addition, they are often incorporated into agency mobility standards. Descriptions are given below:

Level of service (LOS): A "report card" rating (A through F) based on the average delay experienced by vehicles at the intersection.[6] LOS A, B, and C indicate conditions where traffic moves without significant delays over periods of peak hour travel demand. LOS D and E are progressively worse operating conditions. LOS F represents conditions where average vehicle delay has become excessive and demand has exceeded capacity. This condition is typically evident in long queues and delays.

Volume-to-capacity (V/C) ratio: A decimal representation (typically between 0.00 and 1.00) of the proportion of capacity that is being used (i.e., the saturation) at a turn movement, approach leg, or intersection. It is determined by dividing the peak hour traffic volume by the hourly capacity of a given intersection or movement. A lower ratio indicates smooth operations and minimal delays. As the ratio approaches 1.00, congestion increases and performance is reduced. If the ratio is greater than 1.00, the turn movement, approach leg, or intersection is oversaturated and usually results in excessive queues and long delays.

Required Operating Standards

All study intersections of public streets are required to meet the City of Wilsonville's operating standard. For peak periods, the City's minimum acceptable level of service (LOS) is LOS D.[7] It should be noted that while project driveways are not required to meet the City's LOS standard, it is still highly encouraged. The City's Transportation System Plan mentions that the City is considering changing the LOS standard to LOS E, however, no action has been taken to implement the change to date. In addition, the freeway ramp intersections are also required to meet ODOT's level-of-service standard, which is a volume-to-capacity ratio of 0.85.[8]

Existing Operating Conditions

The existing traffic operating conditions at the study intersections were determined for the PM peak hour based on the 2000 Highway Capacity Manual methodology9 for signalized and unsignalized intersections. The conditions include the estimated average delay, level of service (LOS), and volume-to-capacity (V/C) ratio of each study intersection and are listed in Table 5. As shown in the table, all study intersections currently comply with the City of Wilsonville LOS D operating standard, however, the ramp terminals do not comply with ODOT's volume to capacity standards. It should be noted that the existing HCM methodology does not account for the closely spaced intersections and operations are actually worse than the values represented in the Table due to queuing impacts from upstream intersections. Additional evaluation of the corridor is provided in the Wilsonville Road/I-5 Interchange

[6] A description of Level of Service (LOS) is provided in the appendix and includes a list of the delay values (in seconds) that correspond to each LOS designation.
[7] *City of Wilsonville Code*, City of Wilsonville Section 4.140, p.163.
[8] Oregon Highway Plan, 1999, Inside Metro, on I-5 between the Marquam Bridge and Wilsonville.
[9] *Guidelines for the Preparation of Transportation Impact Analyses*, City of Salem, Effective December 28, 1994.

Additional Transportation Analysis (DKS Associates, April 18, 2008).

Table 5: Existing Operating Conditions (PM Peak Hour)

Intersection	Operating Standard (City, ODOT)	Existing Conditions		
		Delay	*LOS*	*V/C*
Signalized				
Boones Ferry Rd / Wilsonville Rd	LOS D	42.8	D	0.80
I-5 SB Ramps / Wilsonville Rd	LOS D, 0.85 V/C	34.8	D	0.89
I-5 NB Ramps / Wilsonville Rd	LOS D, 0.85 V/C	36.6	D	0.90
Town Center Loop W / Wilsonville Rd	LOS D	37.5	D	0.77
Rebekah/Wilsonville Road	LOS D	19.7	B	0.41
Town Center Loop E/Wilsonville Rd	LOS D	24.8	C	0.58
Unsignalized				
Parkway Ave/Wilsonville Road	LOS D	15.0	C	0.12

Signalized intersections:
Delay = Average Stopped Delay per Vehicle (sec) for All Movements
LOS = Level of Service of Intersection
V/C = Volume-to-Capacity Ratio of Intersection
Bold Underlined values do not meet standards.

Unsignalized intersections:
Delay = Average Stopped Delay per Vehicle (sec) at Worst Movement
LOS = Level of Service of Major Street/Minor Street
V/C = Volume-to-Capacity Ratio of Worst Movement
Bold Underlined values do not meet standards.

AM peak hour analysis is not being reevaluated as part of the Wilsonville IAMP study. However, the AM peak hour operations were previously analyzed as part of the Wilsonville Road interchange transportation studies. These results have been reproduced below in Table 6 for the Wilsonville Road interchange area (Boones Ferry Road to Town Center Loop East) as background information.

Table 6: Existing Wilsonville Road Interchange Area Operating Conditions (AM Peak Hour)

Intersection	Operating Standard (City, ODOT)	Existing Conditions		
		Delay	*LOS*	*V/C*
Signalized				
Boones Ferry Rd / Wilsonville Rd	LOS D	30.5	C	0.50
I-5 SB Ramps / Wilsonville Rd	LOS D, 0.85 V/C	29.2	C	0.71
I-5 NB Ramps / Wilsonville Rd	LOS D, 0.85 V/C	29.2	C	0.82
Town Center Loop W / Wilsonville Rd	LOS D	23.9	C	0.42

Signalized intersections:
Delay = Average Stopped Delay per Vehicle (sec) for All Movements
LOS = Level of Service of Intersection
V/C = Volume-to-Capacity Ratio of Intersection

Existing Queuing Observations

Currently, the vehicle queues in the westbound through lanes on Wilsonville Road at the I-5 southbound ramp exceed the available storage during the PM peak hour.[10] Queues routinely spill back into the Wilsonville Road/Town Center Loop West intersection due to large demand of westbound left turning vehicles destined for I-5 southbound. The westbound through vehicle queues on Wilsonville Road at Town Center Loop West currently fill the existing storage to Rebekah Street.

During the AM peak hour, queues on the I-5 northbound exit ramp routinely spill back onto the mainline freeway impacting freeway operations. The condition is exacerbated by the short (non-standard) interchange exit ramp length. Also during the AM peak hour, vehicles traveling eastbound through the Boones Ferry Road and I-5 southbound ramps routinely back up toward the west, sometimes beyond the railroad tracks.

Existing Queuing Analysis

As part of the corridor evaluation completed as part of the *Wilsonville Road/I-5 Interchange Additional Transportation Analysis* (DKS Associates, April 18, 2008), queuing analysis was performed using the Synchro™ and SimTraffic™ software. Estimates of 95th percentile queue lengths for each signalized approach movement on Wilsonville Road and on the I-5 off-ramps were determined using an average of ten simulation runs of the traffic model. The 95th percentile queuing results during the existing AM and PM peak hour have been reproduced in Table 7.

Queue lengths that are shaded and in bold indicate where 95th percentile queue lengths currently extend beyond the available storage or spill upstream into the next intersection. The existing queuing analysis is consistent with the field observations.

[10] Field observations by DKS Associates, September 2008.

Table 7: Wilsonville Road Existing 95th Percentile Queuing Summary (AM/PM Peak Hours)

Intersection on Wilsonville Road	Intersection Approach	Available Vehicle Storage (feet)	Existing 95th Percentile Queue (feet)	Existing 95th Percentile Queue (feet)
			AM Peak Hour	PM Peak Hour
Boones Ferry Road	EB Through	1,255	720	950
	WB Left	185	160	185
	WB Through	400	320	260
I-5 Southbound Ramp	EB Through	400	**>400**	**>400**
	WB Left	420	40	190
	WB Through	420	60	25
	SB Left/Right	975	260	200
I-5 Northbound Ramp	EB Left	420	**>420**	160
	EB Through	420	360	25
	WB Through	570	**>570**	**>570**
	NB Left/Right	760	**>760***	550
Town Center Loop West	EB Left	290	200	225
	EB Through	570	120	240
	WB Through	850	180	**>850**

Available vehicle storage = distance from stop bar to upstream intersection crosswalk/stop bar
EB=Eastbound; WB=Westbound; NB=Northbound; SB=Southbound
95th percentile queues rounded to nearest 20-feet
Bolded values indicate queues that would exceed available vehicle storage.
*Confirmed by field observation

Merge/Diverge Analysis

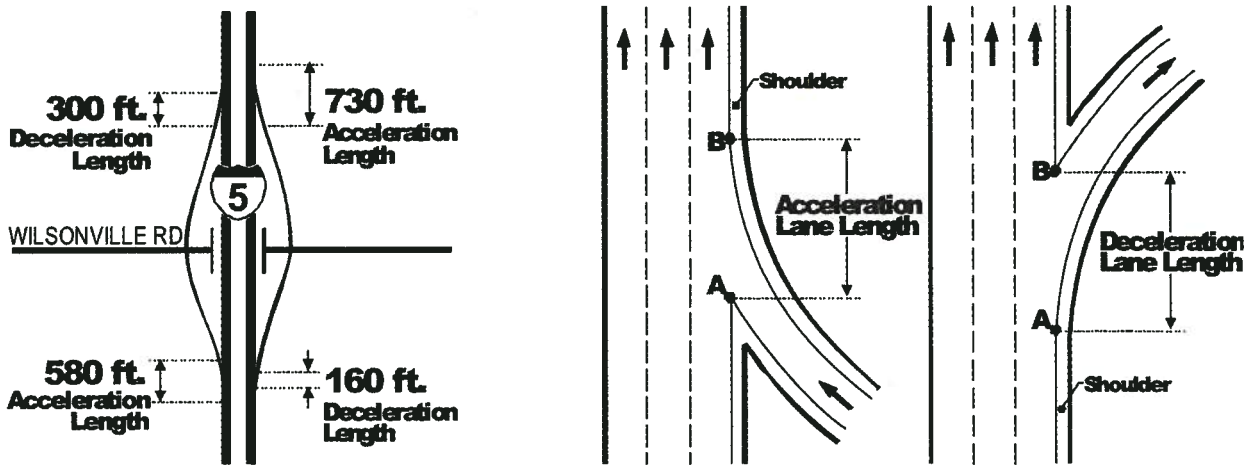
The Wilsonville Road/I-5 interchange features four ramp junctions which are defined as merge and diverge junctions. The maneuver of a vehicle exiting the freeway at a junction is referred to as a diverge, while the maneuver of a vehicle entering the freeway at a junction is referred to as a merge. Interstate-5 consists of three lanes in both the northbound and southbound directions and all merge and diverge junctions are single lane. All merge and diverge junctions located at the Wilsonville Road/I-5 interchange are located on the right side of the freeway.

Analysis of the Wilsonville Road interchange ramp junctions focused on level-of-service (LOS) and density based on 2000 Highway Capacity Manual procedures. The LOS of a ramp junction (merge and diverge) is defined by the density of the influence area and the capacity of both the ramp and the freeway. The influence area for merge and diverge junctions is defined to be 1,500 feet downstream (merge) or upstream (diverge) of the physical merge/diverge point. Ramp junction LOS and density were determined using the HCS 2000 Highway Capacity Software.

A freeway free flow speed of 65 miles-per-hour (mph) and ramp free flow speed of 35 mph was used in this analysis. Heavy vehicle percentages for the freeway mainline were determined via ODOT's

automatic traffic data recorder (ATDR) located along I-5 south of Hubbard Road[11] while heavy vehicle percentages for ramps were based on traffic counts conducted at the Wilsonville Road/I-5 ramp junctions.[12] Critical components of freeway merge and diverge junctions are the acceleration and deceleration length. The respective acceleration and deceleration length is the distance between the gore point between the freeway traveled way and the ramp junction to the intersecting point of the traveled way. The length of these segments is critical because this is where either vehicle acceleration or deceleration takes place. These segments should be long enough to prevent vehicles acceleration or decelerating on the freeway mainline. The acceleration and deceleration distances for the Wilsonville Road ramp junctions are shown in Figure 6.

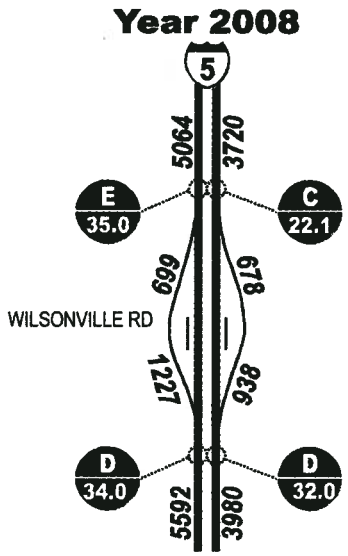
Figure 6: Wilsonville Road/I-5 Interchange ramp junction acceleration/deceleration lengths



Existing freeway and ramp volumes were obtained from traffic counts taken along the I-5 mainline and Wilsonville Road at the ramp terminals.[13] Figure 7 documents the results of the merge and diverge analysis at each of the Wilsonville Road/I-5 northbound and southbound ramp junctions under existing PM peak hour conditions. Currently, both the I-5 northbound diverge and I-5 southbound merge operate at HCM LOS "D" conditions. HCM LOS "D" is defined where vehicles on the mainline must slow down to accommodate merging and diverging. The I-5 northbound merge operates at LOS "C" while the I-5 southbound diverge operates at LOS "E" conditions. HCM LOS "E" conditions represent conditions near capacity.

[11] Heavy vehicle percentage of 21% was used based on 2006 traffic data.
[12] Heavy vehicle percentage of 4% was used based on traffic counts.
[13] Intersection turn movement counts taken at Wilsonville Road/I-5 northbound and southbound ramps on September 11, 2007 and traffic count conducted along I-5 between Elligsen Road and I-205 on November 18, 2005.

Figure 7: Wilsonville Road/I-5 Interchange existing (2008) volumes (PM peak hour)



Sidewalks

A figure showing Existing Sidewalks and Trails can be found in the appendix.[14] Sidewalks exist along both sides of Wilsonville Road between the railroad tracks east of Kinsman Road and Town Center Loop East. Sidewalks are on both sides of the street on Boones Ferry Road north of Wilsonville Road and on the west side of the street on Boones Ferry Road south of Wilsonville Road. Sidewalks existing on the east side of Parkway Avenue and on both sides of Town Center Loop West, both north and south of Wilsonville Road. They exist adjacent to buildings along Holly Lane and on both sides of Rebekah Street and Town Center Loop East/Memorial Drive.

Bicycle Lanes

A figure showing Existing Bicycle Lanes can be found in the appendix.**15** There are existing bicycle lanes on Wilsonville Road between the railroad tracks and Town Center Loop East/Memorial Drive. There are bicycle lanes on the west side of Boones Ferry Road, south of Wilsonville Road, and on both sides of Boones Ferry Road, north of Wilsonville Road. There are no bicycle lanes on Parkway Avenue or Town Center Loop (West or East) or Town Center Loop south of Wilsonville Road. There are existing bicycle lanes on Memorial Drive.

Existing Transit System

South Metro Area Rapid Transit (SMART) is operated by the City of Wilsonville and is supported by a Wilsonville payroll tax and by grant funding. SMART currently provides five fixed routes within the City of Wilsonville and operates connecting service to Canby, Salem

[14] Map 6: Existing Sidewalks and Trails, Wilsonville Bicycle and Pedestrian Master Plan, Alta Planning and Design, adopted December, 2006.
[15] Map 7: Existing Bicycle Lanes, Wilsonville Bicycle and Pedestrian Master Plan, Alta Planning and Design, adopted December, 2006.

and the south end of Portland. SMART also provides weekday Dial-a-Ride services within the Wilsonville area and transportation to medical appointments in Portland and other nearby cities for Wilsonville seniors and people with disabilities. SMART also provides pre-scheduled weekday transportation to the Wilsonville Community Center for lunch, shopping and other special trips.

SMART currently provides fare-free service within the City of Wilsonville, but charges fares for service outside the City. In 2006, the one-way fare for Salem route 1X was $2, the monthly passes selling for $40. One-way fares on Canby route 205 and routes 201 to Tualatin and Barbur Boulevard Park & Ride were $1.25, with monthly passes selling for $30. In all cases, youth, seniors, and people with disabilities are eligible for half-price fares. SMART's current fixed route service is summarized in **Table 8.**

Table 8: Existing SMART Fixed Route Service

Route	Destination	Weekday Peak Hour Frequency	Weekday Mid-Day Frequency	Service Days	Approximate Travel Time End to End	Connections
201	Barbur Boulevard Transit Center	½ hour	Hourly	Monday-Friday, Saturday	35 minutes	TriMet 96, 12B, 64X, 94X, 36, 38, 76, 96, all other SMART Routes
203	Commerce Circle – City Hall	Every 40 minutes	N/A	Monday-Friday	11 minutes	TriMet 96
204	Wilsonville Road	½ hour	Hourly	Monday-Friday, Saturday	21 minutes	All SMART routes
205	Charbonneau, Canby	Hourly	Hourly	Monday-Friday	23 minutes	CAT Routes, SCTD route to Molalla*
1X	Salem	Nine runs each direction during commute hours		Monday-Friday	49-70 minutes	TriMet 96, All Salem routes

* CAT – Canby Area Transit, SCTD – South Clackamas Transportation District

Existing Issues Pertaining to Existing Plans and Policies

Technical memorandum #1 summarizes plans and policies which are relevant to the IAMP. This section discusses issues discovered in Existing Conditions that will need to be addressed in the IAMP.

- Maximum volume-to-capacity ratios from the 1999 Oregon Highway Plan (Inside Metro) are met. The criteria is v/c=0.99 or less for both first and second hours, except at the ramp terminals, where the criteria is v/c=0.85 or less. All study intersections operate at v/c=0.99 or less, however, the ramp terminals operate at conditions worse than 0.85.

Access spacing requirements are displayed in Figure 8 and summarized below:

- ODOT's minimum spacing standards applicable to freeway interchanges with multi-lane crossroads (see Tech Memo #1, Table 2 and Figure 1).
  - Access spacing between interchanges is required to be 1 mile under urban conditions. According to ODOT, this spacing is not met between the I-5/Canby-Hubbard interchange and the I-5/Wilsonville interchange.
  - The distance from the off-ramp to the first unsignalized intersection (distance X) is required to be at least 750 feet in a "fully developed urban" situation.
    - The distance between the I-5 northbound off-ramp and Parkway Avenue is approximately 165 feet, much closer than required by ODOT standards.
    - The distance between the I-5 southbound off-ramp and the Burger King access is approximately 320 feet, much closer than required by ODOT standards.
  - The distance from the off-ramp to the first signalized intersection (distance Y) is required to be at least 1,320 feet in a "fully developed urban" situation.
    - The distance between the I-5 northbound off-ramp and Town Center Loop West is approximately 675 feet, much closer than required by ODOT standards.
    - The distance between the I-5 southbound off-ramp and Boones Ferry Road is approximately 585 feet, much closer than required by ODOT standards.
  - The distance between the last approach road and the start of the taper for the on-ramp (distance Z) is required to be at least 990 feet in a "fully developed urban" situation.
    - Boones Ferry Road is approximately 585 feet from the I-5 southbound on-ramp, much closer than required by ODOT standards.
    - Town Center Loop West is approximately 675 feet from the I-5 northbound on-ramp, much closer than required by ODOT standards.

- The City of Wilsonville's minimum access spacing on arterials such as Wilsonville Road, is 1,000 feet. As shown in Table 4, previously, many driveways and/or intersections along Wilsonville Road are not in compliance with this requirement:
  - Eastbound:
    - Kinsman – Lowries #1
    - Lowries #1 – Lowries #2
    - Lowries #2 – Boones Ferry Road
    - Boones Ferry Road – I-5 Southbound Ramps
    - I-5 Southbound Ramps – I-5 Northbound Ramps
    - I-5 Northbound Ramps – Parkway Avenue
    - Parkway Avenue – Teufel Village Right-In
    - Teufel Village Right-In – Town Center Loop West
    - Town Center Loop West – Holly Lane
    - Holly Lane – Rebekah Street
    - Rebekah Street – Town Center Loop East
  - Westbound
    - Memorial Drive – Rebekah Street
    - Rebekah Street – Town Center Loop West
    - Town Center Loop West – I-5 Northbound Ramps
    - I-5 Northbound Ramps – I-5 Southbound Ramps
    - I-5 Southbound Ramps – Burger King
    - Burger King – Boones Ferry Road
    - Boones Ferry Road – Right-in/Right-out Access
    - Right-in/Right-out Access – Right-in Only
    - Right-in Only – 1st SMART Access
    - 1st SMART Access – 2nd SMART Access
    - 2nd SMART Access – 1st Chevron Access
    - 1st Chevron Access – 2nd Chevron Access
    - 2nd Chevron Access – Kinsman Road

One of the main objectives of the IAMP is to work toward achieving desired spacing standards, while recognizing that full compliance may not be feasible or practical.

Appendix D: Future Travel Forecasts and Needs Analysis

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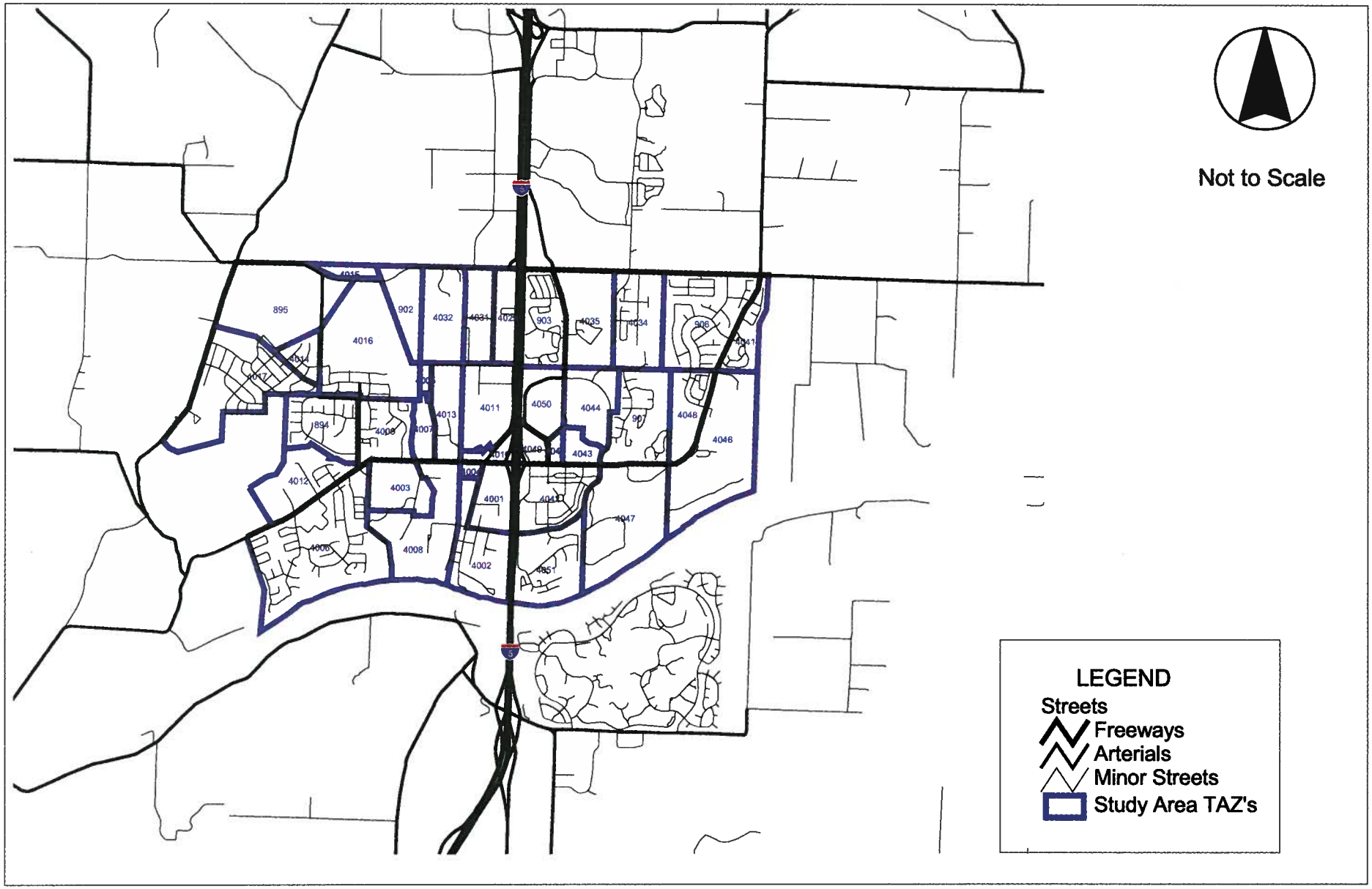
Appendix D: Future Travel Forecasts and Needs Analysis

Metro's Regional travel demand forecast model is generally used for transportation planning projects in the Portland metropolitan area. This model is was previously refined in the south metro area (including Wilsonville) as part of the I-5 to 99W Connector Study. The model was originally prepared by Metro and refined by DKS Associates, and was used to develop future traffic volumes for the year 2030 throughout the study area street network. Using these volumes, along with the future street network resulting from planned projects through 2030, the transportation system was evaluated and deficiencies were identified through the use of the same analysis procedures previously employed for the existing conditions. This chapter presents the future volumes at study area intersections, describes key assumptions and refinements used in the model development, and discusses the ability of the transportation system to accommodate forecasted growth.

Model Assumptions

The original Metro regional travel demand model is divided into 1,998 small, internal geographic areas called Transportation Analysis Zones (TAZ) containing information related to base and future year households and employment. TAZs represent locations where individual trips begin or end (origins and destinations). There are also 15 external stations, which are similar to TAZs, but are located around the perimeter of the model area and represent origins and destinations associated with large geographic areas beyond the limits of the model. The original model totaled 2,012 total zones, including TAZ's and external stations. When the model was refined as part of the I-5 to 99W Connector Study, 176 additional TAZ's were added in the Tigard/Tualatin/Wilsonville area. Figure 1 displays the refined model TAZ network against the existing transportation system through the City of Wilsonville.

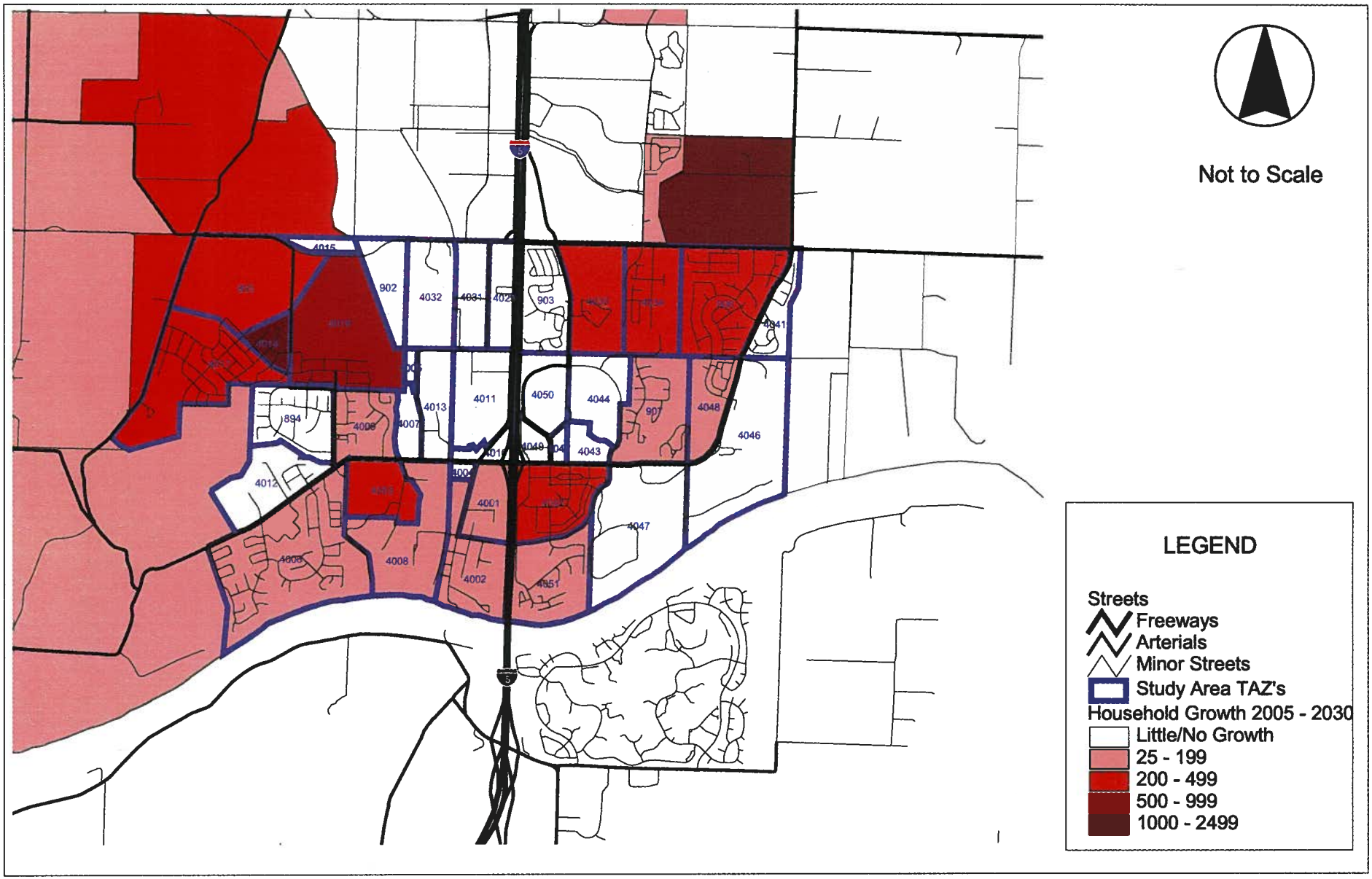
Trip generation associated with each TAZ is based on household characteristics, such as household size and number of workers, and trip purposes, such as home-based trips (e.g. home to work, school, shopping, and recreation) or non-home-based trips. Therefore, the number of trips generated during a given scenario is primarily dependent on the assumed quantity and locations of housing and employment. Table 1 presents the total number of households and employees (separated into retail and other) assumed to be present within the study area for the base year 2005 and future year 2030 scenarios. It also compares them to show the growth expected over this planning period. Also, Figure 2 and Figure 3 show the growth in housing and employment by TAZ within the study area.



DKS Associates
TRANSPORTATION SOLUTIONS

Sources:
Metro
Regional Land Information System (RLIS)

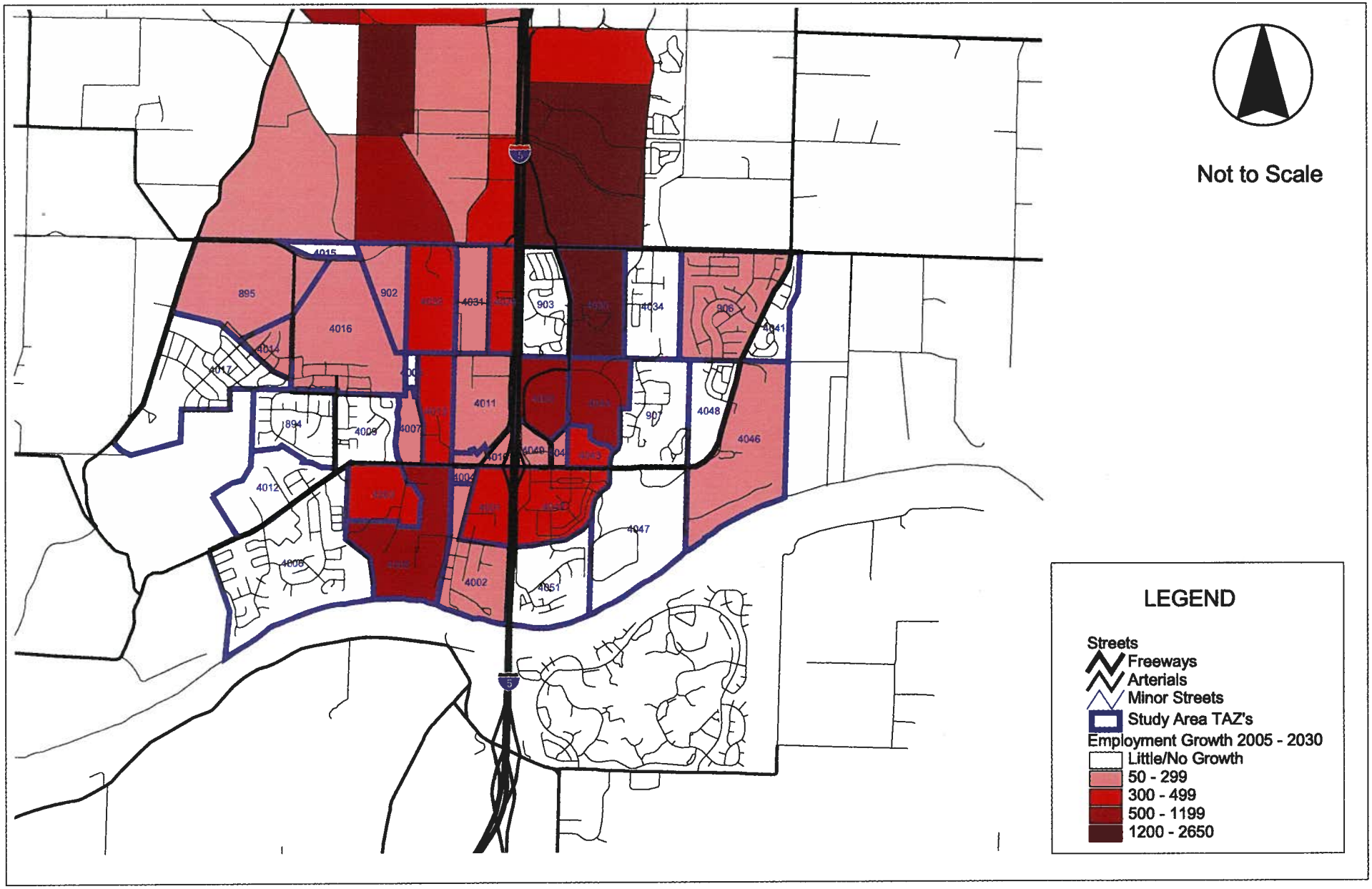
Figure 1
Metro Regional Travel Demand Model
Wilsonville Study Area TAZ's



DKS *Associates*
TRANSPORTATION SOLUTIONS

Sources:
Metro
Regional Land Information System (RLIS)

Figure 2
Metro Regional Travel Demand Model
Household Growth from 2005 to 2030



DKS Associates
TRANSPORTATION SOLUTIONS

Sources:
Metro
Regional Land Information System (RLIS)

Figure 3
Metro Regional Travel Demand Model
Total Employment Growth from 2005 to 2030

Table 1: Assumed Household and Employment Quantities within Study Area

	Households	Retail Employees	Other Employees
Base Year 2005	4,883	2,688	4,121
Future Year 2030	9,014	5,726	9,853
Growth (2005 – 2030)	+4,131	+3,038	+5,732

The generated trips calculated from this information are distributed between TAZs in consideration of each TAZ's trip production and relative attractiveness. The attractiveness of a TAZ as a destination is determined by travel times from origin TAZs and the types of employment and number of households contained within the potential destination TAZ. Origins and destinations can be associated with either TAZs or external stations.

According to the City of Wilsonville Economic Opportunity Analysis[1], the City is expected to add about 15,000-20,000 new jobs over the next 20 years. Based on Table 1, about half (approximately 9,000 retail and other jobs added from 2005 to 2030) of those jobs would be in the study area for this project.

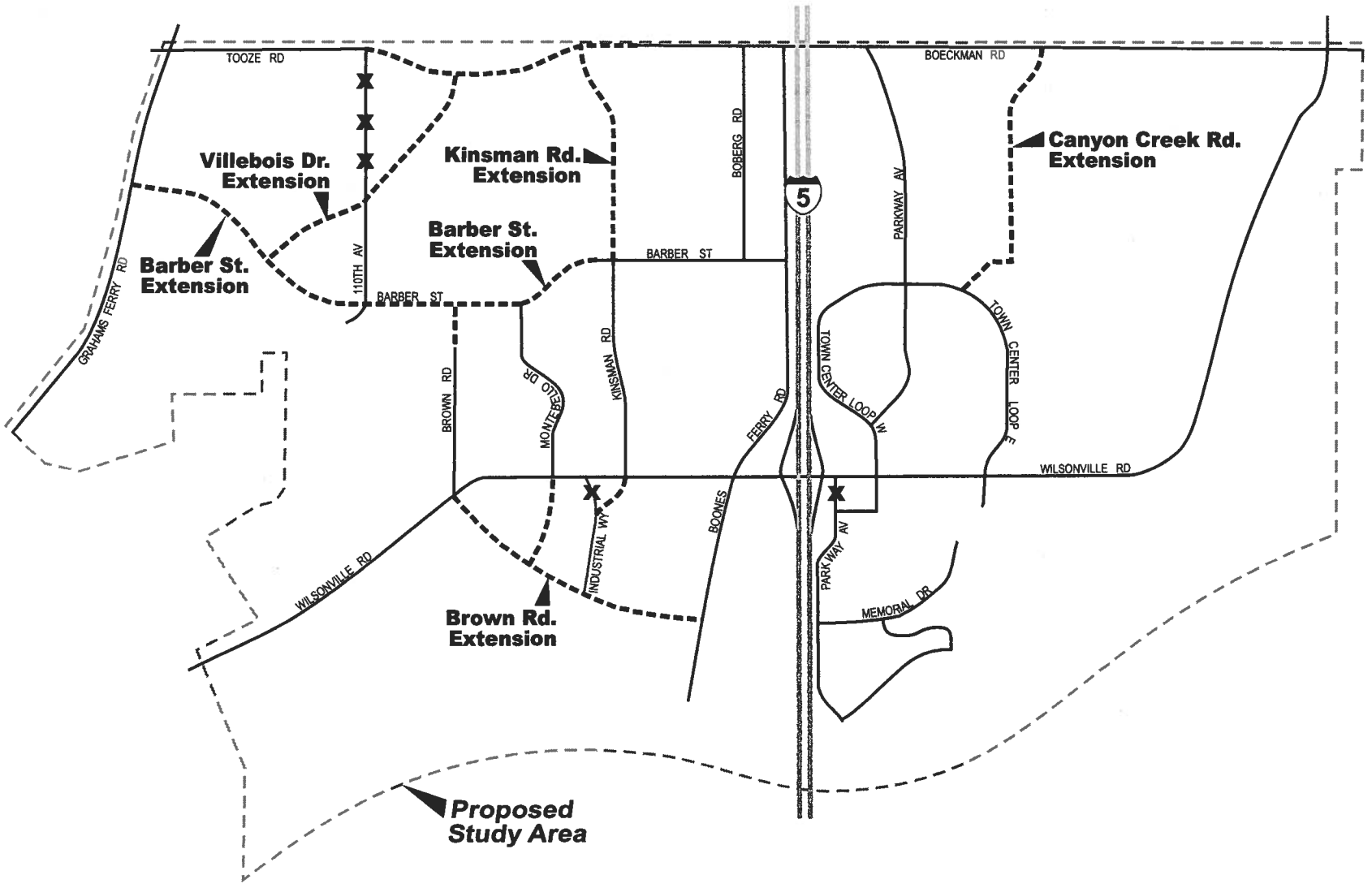
Model Network Refinement

The base year 2005 and future year 2030 model scenarios included different street networks, with the base year network closely resembling the existing transportation system and the future year network reflecting conditions planned to exist according to the Regional Transportation Plan and the City of Wilsonville's Transportation System Plan. Figure 4 provides a side-by-side comparison of the networks associated with these scenarios.

The future year 2030 no-build network included a number of arterial and collector roadway projects to better provide for the needs of the study area traffic. Refinements included in the network are listed below and are also shown in Figure 4.

- Boeckman Road extension from 95th Avenue to Grahams Ferry Road
- Kinsman Road extension from Barber Street to Boeckman Road Extension
- Barber Street extension from Kinsman Road to Grahams Ferry Road
- Brown Road extension from Wilsonville Road to either 5th Street or Bailey Street
- Canyon Creek Road extension from Boeckman Road to Town Center Loop East
- Villebois Drive from Barber Street extension to Boeckman Street extension

[1] *City of Wilsonville Economic Opportunity Analysis*, Cogan Owens Cogan, Otak, FCS Group, January, 2008. The study reports an additional 5,333 new retail jobs, 4,323 new service jobs and 10,425 new industrial/other jobs over the next 20 years (a total increase of 20,081 jobs). The study also reports a total forecasted increase in employment within Wilsonville from 17,986 in 2007 to 33,647 by year 2027 (a total increase of 15,661 jobs).



LEGEND

——— - 2005 Network

- - - - - - 2030 Network

X - Remove Roadway

DKS Associates
TRANSPORTATION SOLUTIONS

NO SCALE

Figure 4

TRAVEL DEMAND MODEL
BASE + FUTURE YEAR NETWORKS

Future Year Forecasts

Using the travel demand model described above, future year traffic volumes were forecast for streets within the study area. Turn movement volumes at study area intersections were primarily obtained through application of a post-processing technique where the incremental differences between the future and base year volumes from the model were added to the existing p.m. peak hour volumes collected in the field.

Figure 5 displays the forecasted turning movement volumes at study intersections for the year 2030. In addition to the post-processing procedure described above, these values have been balanced to produce reasonable volume fluctuations between adjacent study intersections. The degree of change allowed in traffic volumes between intersections was dependent on the distance between intersections and the quantity and quality of potential destinations and origins located between them.

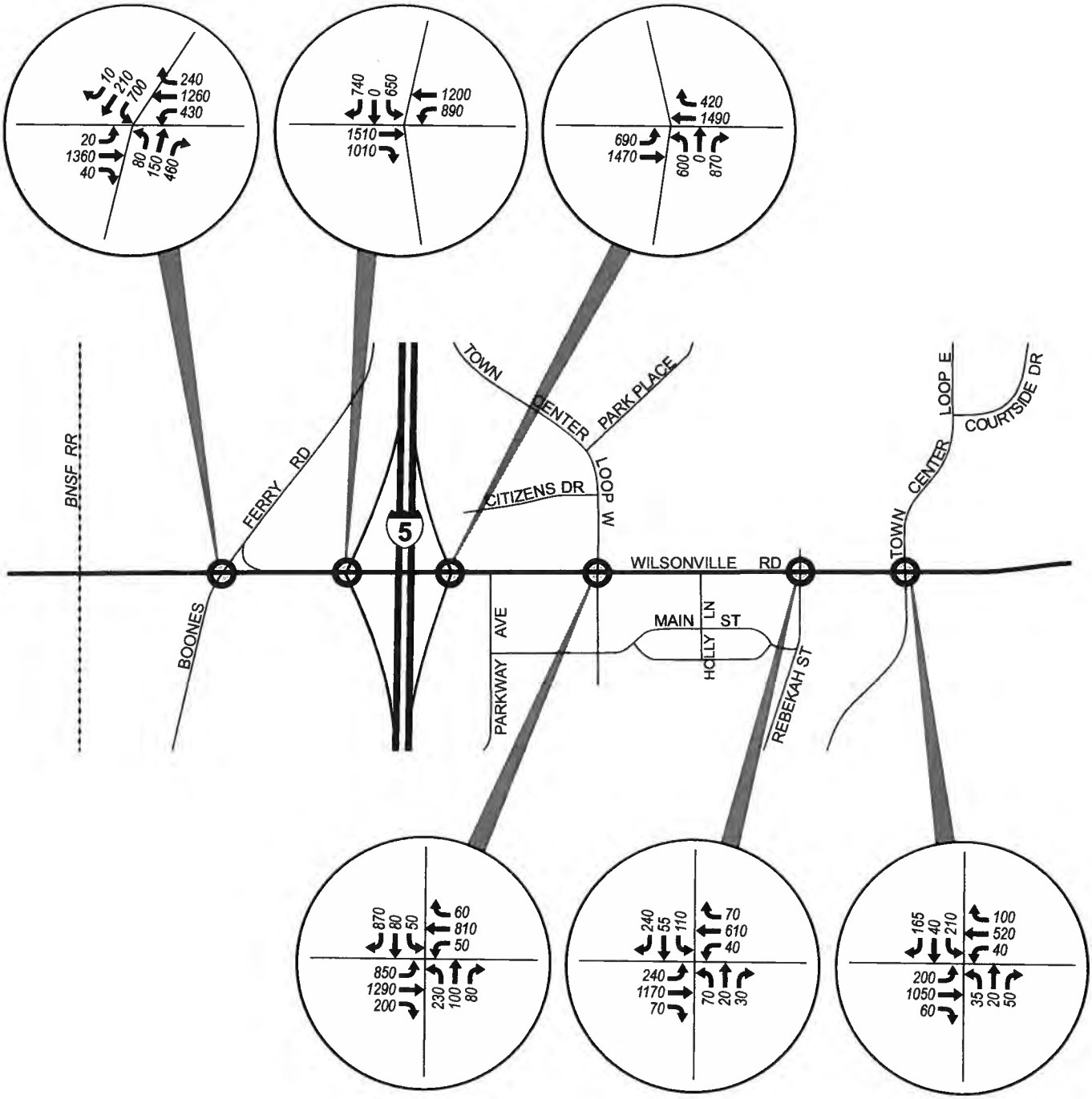
Compared to the traffic volumes collected in 2008 (displayed in Chapter 1), the most significant changes in the IAMP area occur in the immediate vicinity of the interchange, with about 500-600 additional vehicles traveling eastbound and about 500 additional vehicles traveling westbound. At the two ramp terminals, total entering volume is expected to increase by 60-70 percent over existing traffic volumes. Wilsonville Road is impacted by the several key street extensions in the southern part of the City. In particular, the Boeckman Road extension (that is now constructed) to the west, the Kinsman Road extension to the north, the Brown Road extension to the south and west, and the Canyon Creek extension to the north all are likely to shift travel patterns within the City in a variety of ways. Traffic that was using Wilsonville Road to travel east and west across town may now use Boeckman Road or the Brown Road extension, traffic that was using Boones Ferry Road to go north may now use the Kinsman extension, etc.

Assumed Future Street Network

As previously described, the future year 2030 travel demand model was refined to account for planned transportation projects in the area that would influence travel choices and change system capacity. To analyze system operations under this scenario, the Synchro™ analysis software (that utilizes Highway Capacity Manual Methodology) that was used to perform the operational analysis of study area intersections was updated to account for these projects and included several additional refinements of smaller scale that would not have impacted the route choice provided by the travel demand model. Such refinements typically included modifying lane configurations for streets and intersections undergoing improvements. An illustration of assumed traffic controls and lane configurations at study intersections is provided in Figure 6.

Future 2030 Operations

An operational analysis of the study area intersections for the design hour (p.m. peak hour) in 2030 was conducted for the IAMP area using the assumed lane configurations and traffic controls shown in Figure 6 and the forecasted traffic volumes documented in Figure 5. The analysis methodologies employed and corresponding results are discussed below. It should be noted that the City has interim and ultimate improvements identified and planned. While these improvements are discussed in Chapter 6, the following sections are intended to demonstrate the need for those planned improvements.



LEGEND

O - Study Intersection

← *00* - PM Peak Hour Traffic Volumes

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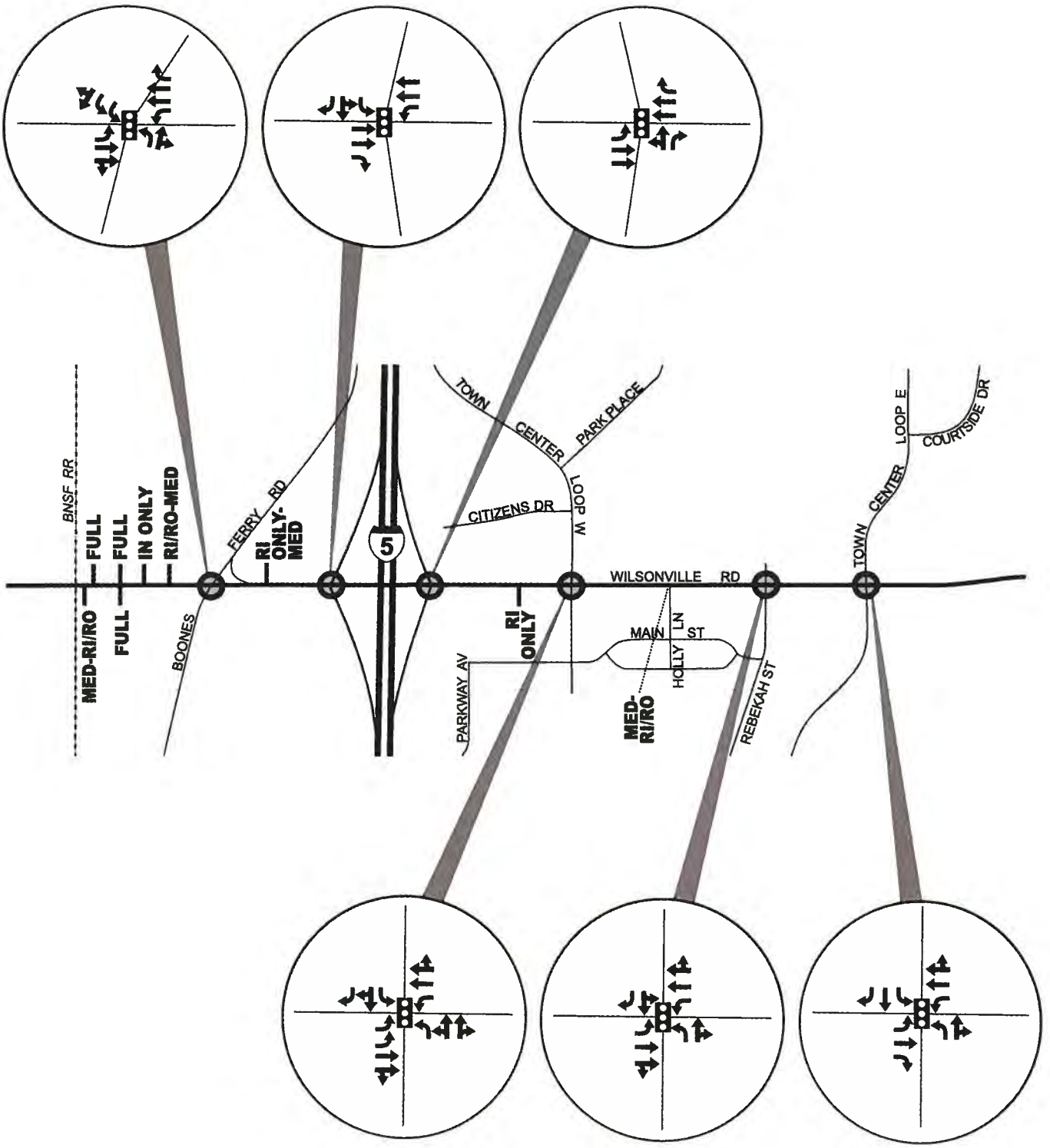
TRANSPORTATION SOLUTIONS

NO SCALE

Figure 5

2030 PM PEAK HOUR TRAFFIC FORECASTS



LEGEND

- Study Intersection
- Lane Configuration
- Traffic Signal
- Stop Sign
- Driveway Location
- **FULL** - Full Access
- **IN-ONLY** - In Only Access
- **RI** - Right-In Turn Movement
- **RO** - Right-Out Turn Movement
- **MED** - Median Separation

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NO SCALE

Figure 6

2030 NO BUILD INTERSECTION CONTROL AND LANE CONFIGURATION

Performance Standards

ODOT has designated Interstate 5 as an Interstate Highway, with an additional Freight Route designation. There are no other ODOT facilities within the IAMP area. ODOT has adopted standards for mobility for state facilities through the *1999 Oregon Highway Plan* (OHP) and the *Highway Design Manual.*[2] The OHP mobility standards are to be used for identifying needs, while the *Highway Design Manual* standards represent the level of operation for which state facilities are to be designed. For this study, the OHP standards will be applied to existing and future no-build analysis, while the future build alternatives will be compared to the standards in the *Highway Design Manual.*

Table 7 in Policy 1F of the OHP displays the maximum allowable volume-to-capacity ratios for areas inside of the Portland Metropolitan Area. Sections from that table relevant to the study area are presented below in Table 2. Note that, while the table states that the acceptable volume-to-capacity ratio is 0.99, the text of Policy 1F states that ramp terminals are an exception, where the maximum volume-to-capacity ratio is 0.85 or 0.90 (0.85 in this case since the conditions required to use the 0.90 standard are not met).

Table 2: Maximum Volume to Capacity Ratios Inside Metro*

Highway Category/Location	Standard	
	1st hour	2nd hour
Other Principal Arterial Routes		
I-5 (Marquam Bridge to Wilsonville)	0.99**	0.99

* Source: 1999 Oregon Highway Plan, Table 7 (Policy 1F).
** The exception is at ramp terminals, where the maximum volume-to-capacity ratio is 0.85 or 0.90.

All non-state roadways within the study area are under the jurisdiction of the City of Wilsonville. The City has adopted standards for performance of City streets requiring operation of level of service "D" or better during the weekday evening peak hour. While the City's Transportation System Plan mentioned that the City is considering changing the LOS standard to LOS E, no action has been taken to implement the change to date.

Intersection Operations

Study intersections within the IAMP area were analyzed through the use of the updated Synchro model that was used to examine existing conditions, along with the traffic volume data shown in Figure 5. From this analysis, intersection levels of service and volume to capacity ratios were obtained using Highway Capacity Manual[3] methodologies for signalized and unsignalized intersections for comparison with the applicable jurisdiction's adopted performance standards. The results of this analysis are shown below in Table 3, and further illustrated in Figure 7.

- [2] Highway Design Manual, Oregon Department of Transportation, 2003, p. 10-38.
- [3] *Highway Capacity Manual*, Transportation Research Board, Washington, D.C., 2000.

When comparing this table to Table 5 in Chapter 3, which displays the results of the existing conditions analysis, it is noticed that operations at all study intersections have substantially declined.

The intersections at the I-5 Northbound Ramps/Wilsonville Road and I-5 Southbound Ramps/Wilsonville Road would operate substantially over capacity without further improvements. It is evident that major improvements will be necessary for each of these intersections to meet ODOT's performance standard, with a volume-to-capacity ratio of 0.85 or lower.

The intersections at Boones Ferry Road/Wilsonville Road and Town Center Loop West/Wilsonville Road are required to meet the City's level of service standard (LOS D or better). Neither of these intersections meets that standard and their volume-to-capacity ratios indicate that they are nowhere near even level of service E. Substantial improvements will be required at each of these intersections to meet the City's adopted performance standard.

The intersection at Rebekah Street/Wilsonville Road and Town Center Loop East/Memorial Drive/Wilsonville Road are expected to meet the City's adopted performance standard, even without any additional improvements. While their operation is significantly diminished in 2030, the intersections would still operate well within the City's standard.

Table 3: 2030 No Build Design Hour Intersection Operations

	Intersection	Volume to Capacity Ratio		Level of Service		Performance Standard Met?
		Measured	Required	Measured	Required	
	ODOT Facilities – Volume to Capacity Ratio Determines Performance Standard					
S	Wilsonville Rd/SB Ramps	>1.00	0.85	F	-	No
S	Wilsonville Rd/NB Ramps	>1.00	0.85	F	-	No
	City of Wilsonville Facilities – Level of Service Determines Performance Standard					
S	Wilsonville Rd/Boones Ferry Road	>1.00	-	F	D	No
S	Wilsonville Road/Town Center Loop West	>1.00	-	F	D	No
S	Wilsonville Road/Rebekah Street	0.63	-	C	D	Yes
S	Wilsonville Road/Town Center Loop East/Memorial Drive	0.89	-	C	D	Yes

Notes: (XX) = critical movement
S = signalized intersection
U = unsignalized intersection

Future 2030 Deficiencies

Traffic Operations

As previously discussed, and illustrated in Figure 7, the study area intersections nearest the interchange are not projected to operate within adopted performance standards in 2030 without additional improvements. In focusing on the operational deficiencies, four locations are identified:

- The intersection at Boones Ferry Road/Wilsonville Road
- The intersection at I-5 Southbound Ramps/Wilsonville Road
- The intersection at I-5 Northbound Ramps/Wilsonville Road
- The intersection at Town Center Loop West/Wilsonville Road

Boones Ferry Road at Wilsonville Road

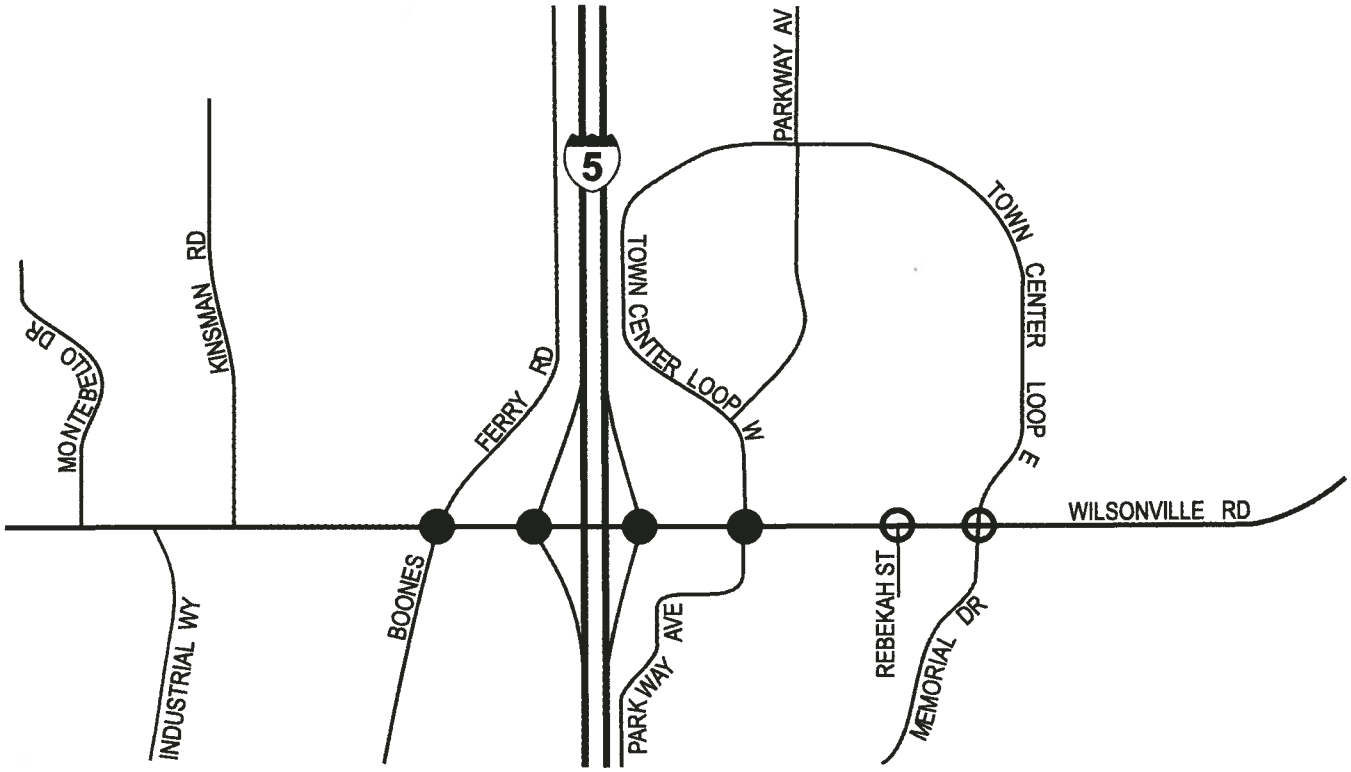
This intersection meets performance standards under existing conditions, however, with traffic volumes projected to increase by 2030, including the development of the Fred Meyer property to the south, this condition worsens substantially and the intersection will not meet performance standards in 2030 without further improvements. The primary conflict at this intersection is the eastbound through traffic and the westbound left turning traffic (into Fred Meyer site).

I-5 Northbound and Southbound Ramps at Wilsonville Road

These intersections did not meet ODOT's level of service threshold under existing conditions and their performance only decreases over time. Substantial improvements will be required for these intersections to operate acceptably. Key conflicts at these intersections include through traffic on Wilsonville Road against traffic turning northbound and southbound onto the I-5 on-ramps.

Town Center Loop West at Wilsonville Road

This intersection operated acceptably under existing conditions (when considered independently of adjacent intersections and queue spillover from the interchange area), but its operation declines substantially by 2030 due to increased traffic volumes on Wilsonville Road and the closure of Parkway Avenue to the west. Substantial improvements will be required for this intersection to operate acceptably in the future. The primary conflict at this intersection is the eastbound left turning traffic against the westbound through traffic on Wilsonville Road.



LEGEND

- ● - Failing to Meet Adopted Performance Standards
- ○ - Meeting Adopted Performance Standards

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NO SCALE

Figure 7

IAMP AREA INTERSECTIONS FAILING TO MEET ADOPTED PERFORMANCE MEASURES - 2030 NO BUILD

Access / Intersection Spacing

In Chapter 3, the existing access spacing on the area street network was compared to adopted access management spacing standards. It was found that on Wilsonville Road, the number of approaches to the roadway is greater than would be allowed under both ODOT's and the City's spacing standards.

General access/intersection spacing considerations will be discussed relative to the four quadrants surrounding the I-5/Wilsonville Road interchange.

Northeast Quadrant: This area generally includes the properties bounded by Town Center Loop, including the Town Center shopping center, Fry's electronics and many other commercial businesses. The access points on Wilsonville Road, while not in compliance with City and ODOT standards (which would require the first full access to be located east of Holly Lane), are fairly limited, including access only at Town Center Loop West, Town Center Loop East, and Rebekah Street, all signalized intersections. The businesses in this area are generally well served by an internal local street system as well, especially since the recent extension of Parkway Court, providing connections to both Town Center Loop West and Town Center Loop East.

Recommendation: Within the northeast quadrant, no recommendations are made for additional access restrictions to Wilsonville Road.

Southeast Quadrant: This area includes The Village at Main Street, businesses on Parkway Avenue, the library and residential areas to the south. This area is fully developed west of Memorial Drive and South of Wilsonville Road. An internal local street system has been developed that serves the area fairly well. The closure of Parkway Avenue to Wilsonville Road has been previously discussed and is anticipated with the reconstruction of the I-5/Wilsonville Road Interchange. In addition to the signalized intersections at Town Center Loop West, Rebekah Street and Town Center Loop East/Memorial Drive, there are two additional access points. There is a right-in only access to The Village at Main Street just west of the Town Center Loop West intersection and a right-in/right-out only access at Holly Lane. The right-in only access into The Village at Main Street does not conform to ODOT access spacing, which requires 750 feet from the interchange ramp terminal. This access is less than 500 feet from the I-5 northbound interchange ramp terminal.

Recommendation: It is recommended that the right-in only access to The Village at Main Street, located approximately 450 feet from the I-5 northbound interchange ramp terminal should be closed upon redevelopment of the site or as deemed appropriate by the City Engineer.

Northwest Quadrant: This area includes the property between I-5 and the railroad tracks, north of Wilsonville Road. The property is divided into two separate areas by Boones Ferry Road, which runs north and south through the area. Access to these properties is very difficult due to existing roadways (Boones Ferry Road, Wilsonville Road and I-5), a large berm separating the western property from the property to its north, a railroad track running north and south to the west of the property and the isolation of the property east of Boones Ferry Road. Access points to these properties do not meet City or ODOT spacing standards. Each property has only one access to Wilsonville Road, however, cross-connection between the properties would be difficult, given the narrow depth of the properties and the existence of a large berm along the properties' northern borders. There is a right-in only access to Burger King that should be closed upon redevelopment or as deemed appropriate by the City Engineer.

Recommendation: Consider driveway consolidation and/or access easements between properties as redevelopment occurs.

Southwest Quadrant: This area includes the Lowries Shopping Center that includes the Walgreens and Albertsons properties. Recent redevelopment of this property has consolidated numerous access points along Wilsonville Road to one right-in/right-out only access and one full access between the railroad tracks and Boones Ferry Road. While these access points are not in conformance with City or ODOT standards, they have recently been reconstructed and redevelopment is unlikely in the near future. In addition, local circulation between Wilsonville Road and Boones Ferry Road is available and should be maintained.

Recommendation: No additional access restrictions are recommended beyond the consolidation that recently occurred with the Lowries redevelopment. No new access points should be developed along Wilsonville Road between Boones Ferry Road and the railroad tracks. If the Lowries property is redeveloped, the existing access points should be consolidated while maintaining local circulation connections to Boones Ferry Road.

From the discussion above, it can be seen that there are a significant number of access points that will require closure if compliance with spacing standards is to be attained. Options to explore for moving in the direction of the applicable access management spacing standards that should be considered during the development of preliminary improvement alternatives should include:

- The construction of new local roads to provide alternate access;
- The establishment of shared access points by creating easements; and
- The purchase of access rights for long-range protection.

Signal Spacing

ODOT's desired traffic signal spacing is ½-mile. Under existing conditions, there are several signals on Wilsonville Road within ½-mile of the ramp terminals. In addition to the signals at both the I-5 northbound and southbound ramp terminals, there are signals at the intersections with Boones Ferry Road, Town Center Loop West, Rebekah Street, and Town Center Loop East/Memorial Drive. Currently, no additional traffic signals are planned in the IAMP Management Area.

It should be noted that signals spaced at least ½-mile (2,640 feet) apart generally do not impact each other and can operate without need for coordination. When closer than ½-mile, coordination of adjacent signals is typically recommended, especially on the state system, but the ability of the signals to operate well together is usually very good if spacing of at least ¼-mile (1,320 feet) is maintained. Under ¼-mile, coordination of adjacent signals is strongly recommended, with the ability of these signals to function without impacting each other degrading as spacing decreases. The City of Wilsonville and ODOT currently operate the traffic signals within the study are as part of a coordinated system.

Figure 8 illustrates the study area and identifies the locations of the existing traffic signals. As shown, the signals on Wilsonville Road do not maintain spacing of at least 1,000 feet, therefore, it will be critical for the signals on Wilsonville Road to have continued traffic signal coordination. Given the resulting signal spacing on Wilsonville Road from these planned signals, it is recommended that no additional signals be constructed in the IAMP Management Area.

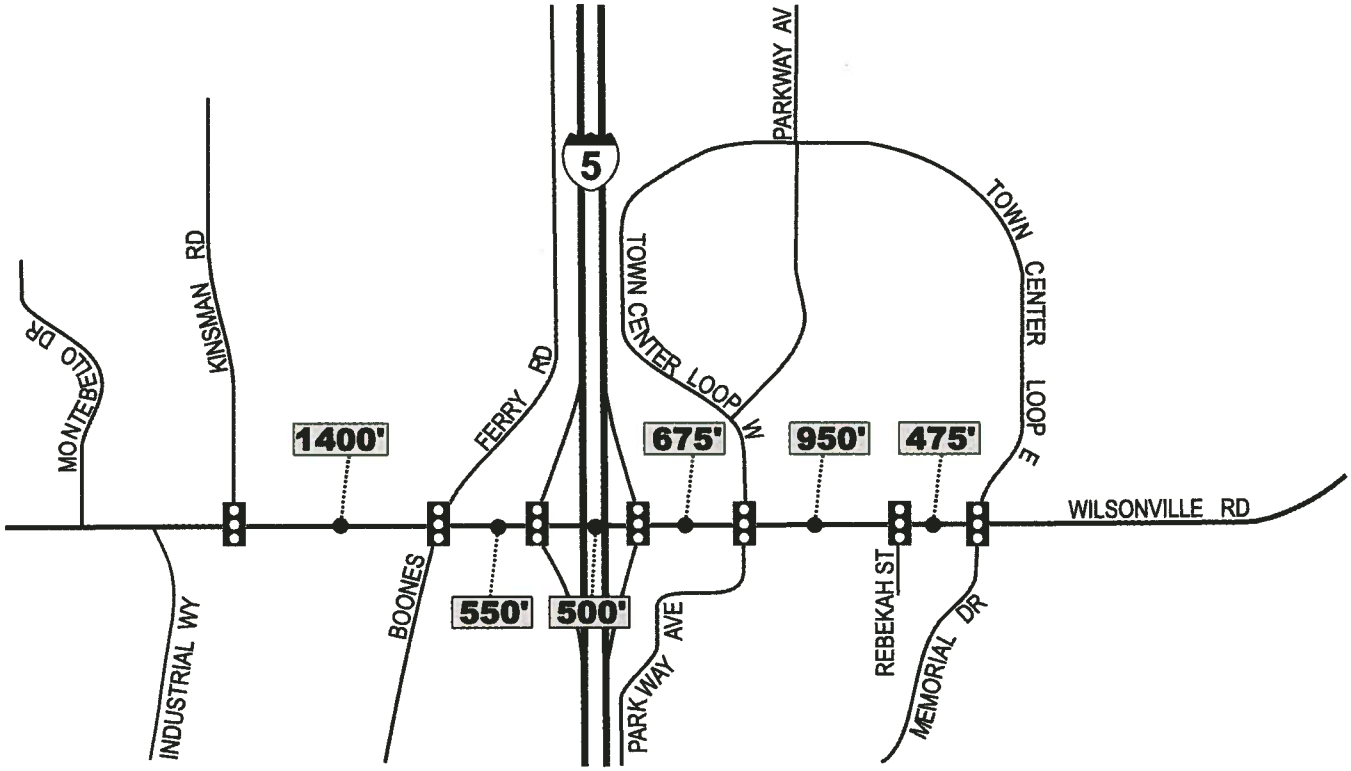
Recommendation: Within the IAMP Management Area, no additional signals should be approved on Wilsonville Road. In addition, left turn prohibition (from Wilsonville Road) may be considered at the intersections of Boones Ferry Road and Town Center Loop West, forcing left turning traffic to use Kinsman Road and Rebekah Street or Town Center Loop East, respectively.

Local Connectivity

When planning for future streets to enhance local connectivity in the IAMP area, consideration should be given to the following deficiencies.

- **Improving East-West Connectivity**: Within the IAMP study area, there are several north-south routes of significant length, but fewer east-west routes due to a limited number of crossings at I-5 and the railroad tracks. This could result in increased demand at the available crossings, putting pressure especially on Wilsonville Road and Boeckman Road. A number of collector street extensions have been identified and are included in the City's Transportation System Plan and Capital Improvement Program.

- **Reducing Access Points to Wilsonville Road, both east and west of the Interchange**: There are a number of intersections and driveways that are not in compliance with ODOT and City access spacing standards. While it is unlikely that major intersections in the vicinity of the interchange (i.e. Boones Ferry Road, Town Center Loop West, Rebekah Street) will be eliminated, consideration should be given to eliminating or consolidating individual driveways within 1,320 feet of the interchange. The intersection of Parkway Avenue/Wilsonville Road is planned to be eliminated, with alternate access provided via Holly Lane and Town Center Loop West. Other areas where elimination and/or consolidation should be considered include the right-in only driveway just east of Parkway Avenue at Wilsonville Road, and the right-in/right-out driveway at Holly Lane on the east side of the freeway. On the west side, none of the driveways on either the north or south side of Wilsonville Road, east of the railroad tracks, are in compliance with ODOT's interchange spacing standard (1,320 feet). An access management/circulation plan should be developed for the north side of Wilsonville Road west of the I-5/Wilsonville Road interchange that could be implemented at the time any redevelopment occurs in these areas.



LEGEND

- Existing & Future Traffic Signal Locations
- 000' - Distance Between Traffic Signals

DKS Associates
TRANSPORTATION SOLUTIONS

NO SCALE

Figure 8

TRAFFIC SIGNAL SPACING

Freight Mobility

As noted in Chapter 3, the current land use zoning in the IAMP area includes commercial zoning in the immediate vicinity of the interchange, with industrial zoning generally the next closest (primarily on the west side) and residential zoning of various densities further to the east and west.

Wilsonville Road carries a fair amount of truck traffic, moving freight through and within the City, but the trips are primarily associated with origins or destinations within the City (i.e. not through traffic). Considering the zoning surrounding this area, most local truck trips are anticipated to be traveling to and from the commercial and industrial developments along Wilsonville Road and to industrial development generally on the west side of I-5. Therefore, the routes most heavily relied upon for freight movement in the IAMP area would include Wilsonville Road, Kinsman Road, Boones Ferry Road and Town Center Loop.

All of these routes are currently constructed to accommodate normal truck traffic. The future projects to construct the Kinsman extension, Brown Road extension, Boeckman extension, Barber Street extension and Canyon Creek extension will also be constructed to accommodate normal freight movement requirements and will comply with the City of Wilsonville Transportation Systems Plan[4] for City streets.

Wilsonville Road is not designated as an NHS (National Highway System) route[5]. More stringent freight standards that would apply to NHS routes, do not apply to Wilsonville Road. Due to the local nature of freight travel in Wilsonville, design standards sometimes used for "over-wide" and "over-high" freight traffic are not required to be applied on Wilsonville City streets.

Bicycle and Pedestrian Facilities

Bicycle and pedestrian facilities exist for the entire length of Wilsonville Road within the IAMP Management Area. Most of the arterial and collector side streets also have pedestrian facilities. There are a few key facilities in the Management Area that do not contain bicycle facilities. Notably, Boones Ferry Road (north of Wilsonville Road) and Town Center Loop do not provide bicycle facilities at this time. The City of Wilsonville Transportation Capital Improvement Plan (CIP) contains several projects including bike lane construction, sidewalk construction, and complete street modernization/ reconstruction. The following CIP projects will improve bicycle/pedestrian facilities in Wilsonville:

- I-5/Wilsonville Road Interchange reconstruction will provide wider bike lanes and sidewalks
- Wilsonville Road 6-lane enhancement will provide wider bike lanes and wider sidewalks
- Kinsman Road extension will provide bike lanes and sidewalks giving access to the commuter rail station
- Barber Street (Kinsman to Boberg) will provide bike lanes and sidewalks
- Barber Street (Kinsman to Coffee Lake Drive) will provide bike lanes and sidewalks, connecting Villebois to commercial areas and to commuter rail
- Widening of Grahams Ferry Road in Villebois will provide bike lanes and sidewalks

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[4] *City of Wilsonville Transportation Systems Plan,2003..*

[5] Oregon Highway Plan, 1999, State Highway Classification System and Intermodal Connectors on the NHS, Portland Regional Enlargement.

- One of the connectivity projects identified in the Bike/Ped Master Plan in the Town Center area

Some remaining gaps will be filled by land development. Additionally, there are a number of key bicycle/pedestrian projects identified in the City's Bicycle and Pedestrian Master Plan[6] that, if funded, would improve bicycle and pedestrian connectivity in the vicinity of the interchange:

- Town Center Loop Bridge – Provides an additional connection across I-5, connecting Boones Ferry Road and Town Center Loop
- Memorial Drive/5th Street Overpass – Provides an additional connection across I-5, connecting Old Town neighborhood center, Boones Ferry Road (south of Wilsonville Road) and Boone Bridge with The Village at Main Street and Memorial Park
- A variety of other smaller scale bicycle and pedestrian improvements and enhancements such as widening, retrofitting sidewalks with curb ramps, highlighting crosswalks with colored pavement or other technique, etc.

Multi-modal Constraints

The major modes of transportation existing within the IAMP area include motor vehicles (passenger cars and trucks), freight trains, bicycles, and pedestrians. With the construction of planned improvements listed in the City's Transportation CIP and the interchange reconstruction project, the area street network will provide for adequate facilities for motor vehicle, bicycle, and pedestrian travel.

Potential Mode Conflicts

With the completion of the planned improvement projects in the City's Transportation CIP, most of the arterial and collector streets within the IAMP area will maintain separate bicycle lanes and sidewalks to minimize motor vehicle, bicycle, and pedestrian conflicts.

Potential Right of Way Constraints

While some vacant or underdeveloped land remains in the IAMP area, there are a number of potential constraints to the purchase of additional right of way for future roadway alignments. In addition to existing developments, other features impacting potential roadway alignments include Interstate 5, the Western Pacific railway and lands zoned for park use.

- [6] Bicycle and Pedestrian Master Plan, City of Wilsonville, Alta Planning and Design, Adopted December, 2006.

Interstate 5/Wilsonville Road IAMP

Appendix E: Develop and Evaluate Alternatives

Appendix E: Develop and Evaluate Alternatives

This appendix addresses land use and transportation alternatives for the interchange management area. While land use alternatives are not planned, a range of facility improvements for providing adequate operation of the proposed interchange improvements and surrounding transportation system were developed and evaluated. This chapter summarizes the alternatives considered, including cost estimates, and provides prioritization for the implementation of these alternatives through recommended short and long-range actions. An Access Management Plan was also developed for the Management Area.

Future Land Use Alternatives

This IAMP is based on the City of Wilsonville's Comprehensive Plan and associated Zoning Map[1] that is currently adopted, as shown in Figure 1. Much of the land in the vicinity of the interchange is already developed and land that has not yet been developed has been accounted for in future land use estimates as described in the previous chapter of this report. Therefore, no land use alternatives have been developed as a part of this IAMP project.

Transportation Facility Improvements

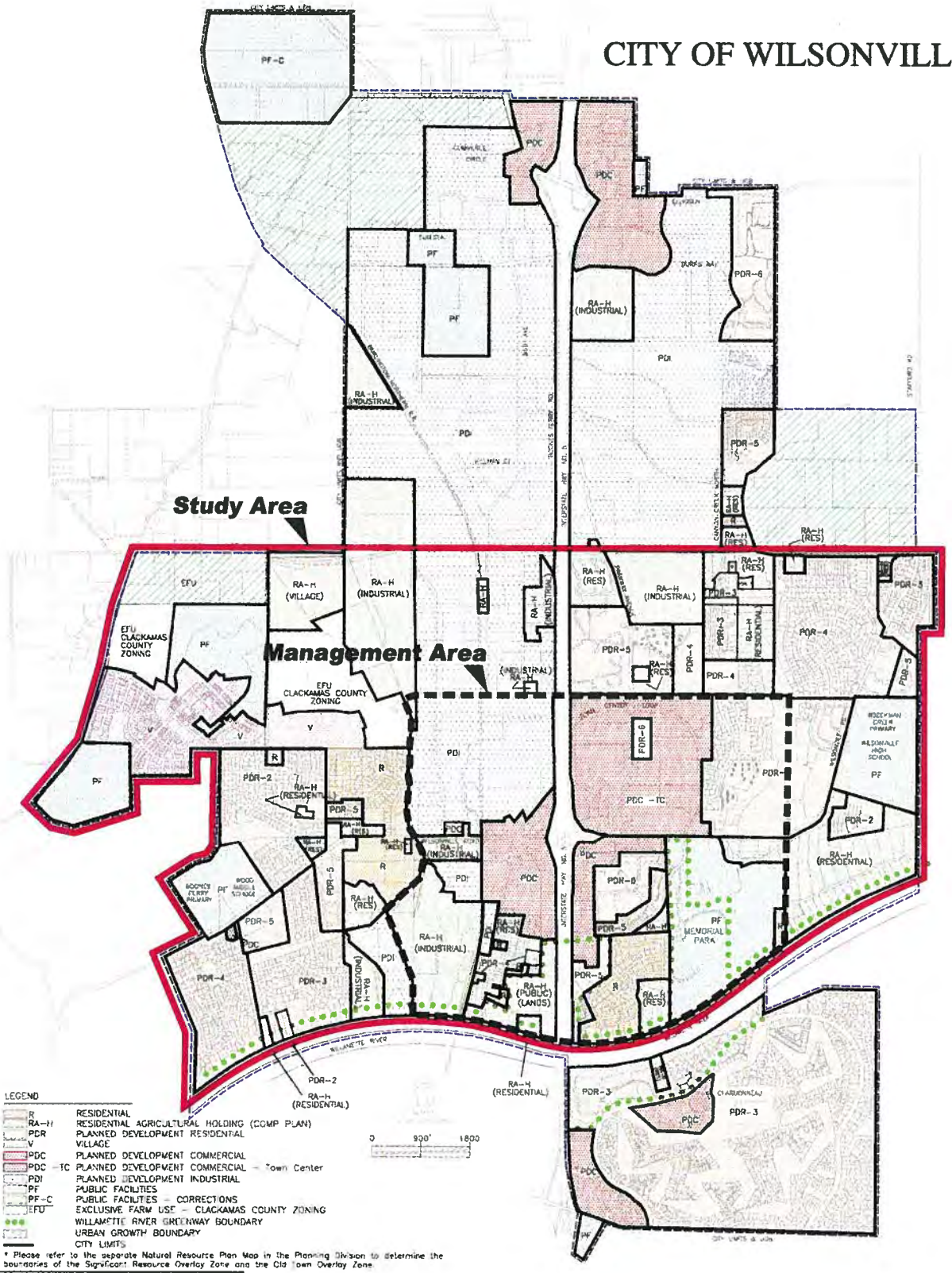
Transportation alternatives are aimed at improving capacity and safety through measures such as traffic controls, turn lanes, enhanced street connectivity, and system management techniques. This IAMP is unique in that previous studies have identified a number of interchange alternatives and a preferred alternative has already been selected. This IAMP will document the analysis and decision process that was previously conducted and summarize the preferred alternative. Previously considered alternatives are described below.

Previously Considered Alternatives

As part of the *I-5/Wilsonville Freeway Access Study*[2], several alternatives were considered for the I-5/Wilsonville Road interchange, including the following:

1. Lengthening ramps to standard configurations and lengthening vertical curves on Wilsonville Road to standard geometry (this would be necessary with any option.)
2. Reconstruction of the existing Wilsonville Road interchange. This would include widening the ramps and constructing additional turn lanes on Wilsonville Road and ramp terminals.
3. Partial cloverleaf interchange design with loop on-ramps (also know as "parclo")
4. Single-Point Urban Interchange (SPUI)
5. Split diamond interchange with Barber Street
6. Split diamond interchange with Memorial Drive/5th Avenue

[1] City of Wilsonville Comprehensive Plan Map, dated January 11, 2005. City of Wilsonville Zoning Map, dated February, 2008.
[2] I-5/Wilsonville Freeway Access Study, by DKS Associates, November, 2002.



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NO SCALE

Figure 1

ZONING AND LAND USE

Each interchange option was evaluated to assess the potential benefit to the Wilsonville Road interchange and freeway operating conditions. The enhanced interchange, "parclo" design, Single-Point Urban Interchange (SPUI), and split diamond interchange options all have the potential to relieve the freeway access capacity deficiencies in 2020 (the analysis year for the Freeway Access study). Based on the screening level operational analysis, a reconstruction of the existing interchange with improved ramp and roadway design (combination of #1 and #2 in the list above) was chosen, by both ODOT and the City of Wilsonville, as the preferred alternative to move forward with for the Wilsonville Road interchange improvements. Although the other interchange options would operate with acceptable conditions, they would have significantly more right-of-way and cost impacts. The concepts that were considered are shown in the Appendix.

The *I-5/Wilsonville Road Freeway Access Study* also considered the construction of an interchange on I-5 at Boeckman Road. The study reports that the Boeckman Road interchange would not meet ODOT and FHWA access spacing policies for either freeway interchange spacing or ramp terminal spacing to adjacent traffic signals[3] without requesting at least one exception. In evaluating the two freeway access improvement alternatives (an enhanced Wilsonville Road diamond interchange and a new Boeckman Road interchange to I-5) it was found that improvements to the existing Wilsonville Road interchange would be necessary with either interchange alternative. The study finds that an enhanced Wilsonville Road diamond interchange meets future 2020 motor vehicle performance measures, given model projections. However, the same model projects that the Boeckman Road interchange, or other access improvements, along with I-5 mainline improvements would be necessary to meet motor vehicle performance measures and safety concerns beyond the 2020 planning horizon. A decision was later made to abandon the I-5/Boeckman Road interchange concept, largely because of difficulty in meeting access spacing requirements[4], especially on I-5.

A number of follow-up studies were conducted, as listed below:

- Wilsonville Public Facilities Transportation Strategy Supplemental Analysis, DKS Associates, July, 2006
- I-5/Wilsonville Road Interchange ODOT/FWHA Additional Analysis, DKS Associates, October, 2007
- I-5/Wilsonville Freeway Access Study (Wilsonville Road/I-5 Interchange Additional Transportation Analysis: Task 3), DKS Associates, April 18, 2008
- Wilsonville Road/I-5 Interchange Additional Transportation Analysis – Eight-Lane AM/PM Analysis: Task 3A, DKS Associates, April 30, 2008
- Wilsonville Road/I-5 Interchange Additional Transportation Analysis – Merge/Diverge Analysis: Task 4, DKS Associates, April 25, 2008

Through this analysis, which was updated to reflect 2030 traffic volumes from the ODOT/FHWA report forward, it was determined that the ultimate configuration of the I-5/Wilsonville Road Interchange would be the eight-lane alternative (see Figure 2) and the interim solution would be the

[3] I-5/Wilsonville Freeway Access Study, by DKS Associates, November, 2002, pps. 28-30.
[4] In order to mitigate the lack of access spacing between interchanges on I-5, additional land intensive measures would be required. Auxiliary lanes on I-5 would improve performance, but to produce acceptable weaving section capacity on I-5, modified ramp configurations would be necessary (potentially a collector-distributor roadway system or braided ramps) between Wilsonville Road and Boeckman Road due to the short spacing between interchanges (I-5/Wilsonville Freeway Access Study, November, 2002).

enhanced six-lane alternative. The enhanced six-lane alternative is not shown since it is currently in design and minor changes are currently underway.

The eight-lane alternative not only includes additional lane capacity on Wilsonville Road, but also includes the addition of a southbound right turn lane at Town Center Loop West and an additional eastbound through lane at Boones Ferry Road. The eight-lane alternative also provides considerable storage for the dual left turns at both the I-5 northbound and southbound ramps.

The enhanced six-lane alternative was iteratively developed to meet intersection performance standards through 2020. Corridor performance standards would marginally be met during the PM peak period in 2020, although they generally would be met during the AM peak period in 2020. The testing for this alternative was conducted with and without a third eastbound through lane on Wilsonville Road at Boones Ferry Road. It was determined that this lane would be necessary and was included in the alternative going forward. This project is currently being designed, with minor variations.

The Wilsonville Transportation Systems Plan (2003)[5] includes the eight-lane alternative (see Appendix) as part of its adopted "Alternative 2" plan. The Statewide Transportation Improvement Program (STIP) included the enhanced six-lane interchange in its 2008-2011 Approved STIP[6].

Since these recently conducted studies (or series of studies) all concluded that the best short term improvement based on the limited funds available is a reconstruction of the I-5/Wilsonville Road interchange using the enhanced six-lane alternative as the basic design and a design project is currently underway to design the project, this IAMP assumes the enhanced six-lane is the preferred short-term alternative. Additional analysis and evaluation was not conducted to justify this result. It is also assumed, based on the Freeway Access Study (and follow-up studies listed above) that the eight-lane alternative would be the ultimate preferred alternative under 2030 operating conditions.

Analysis demonstrating the performance of the long term, eight-lane alternative is shown below.

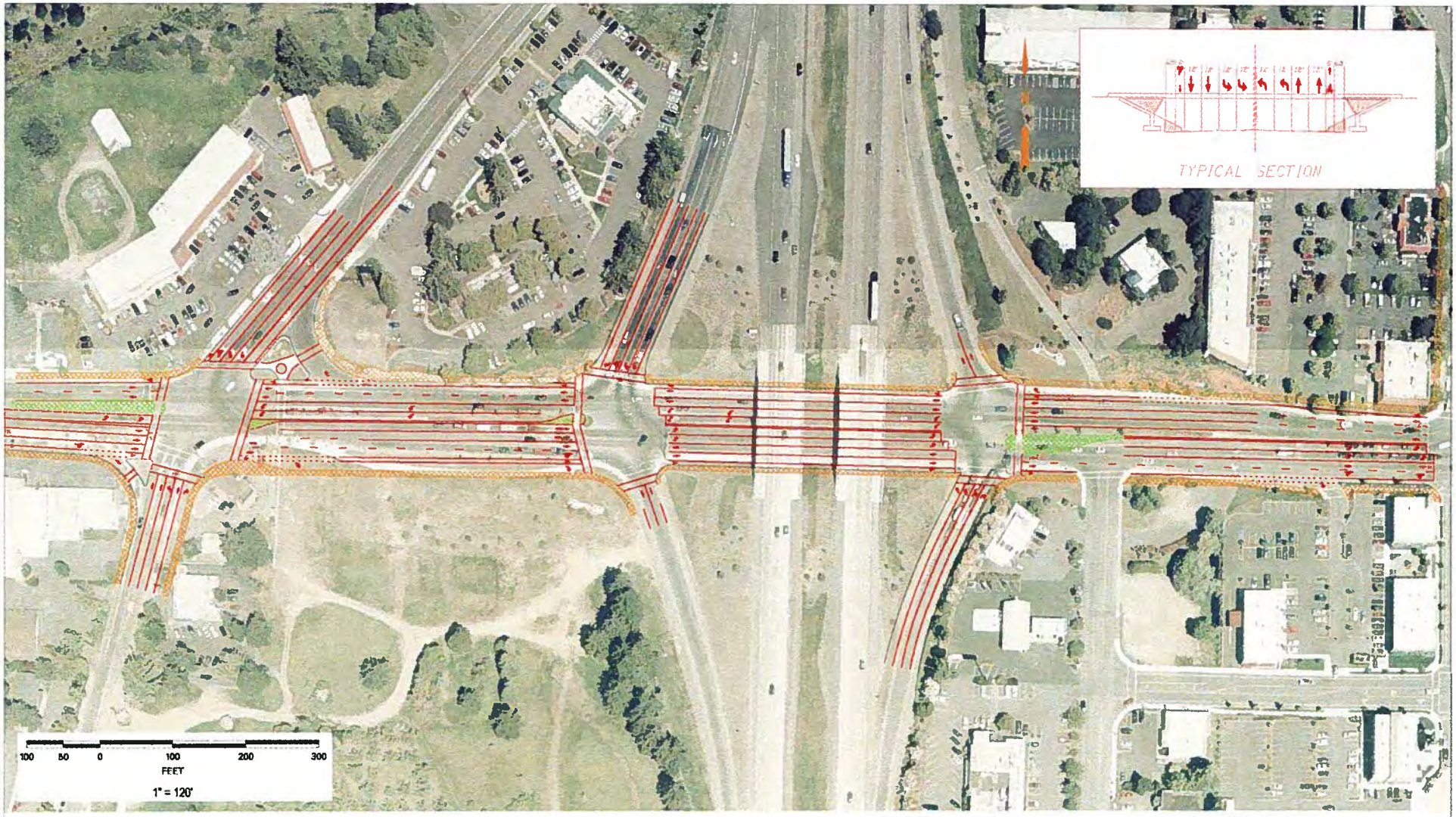
Performance Measures

Operational Performance was evaluated for the Eight-lane alternative. Analysis of the Wilsonville Road interchange alternatives focus on several measures of effectiveness (MOE's) used to quantify operating conditions during peak periods. The MOE's were calculated using two methods:

1. **Isolated intersection** evaluation (based on 2000 Highway Capacity Manual intersection capacity procedures) and
2. **Corridor** evaluation (average result of 5 simulation runs using SimTraffic™ software). Both of these methods are critical to provide a clear representation as to future interchange operations.

The isolated and corridor MOE's are discussed in detail in the following sections. Table 1 summarizes the MOE's used as part of this additional analysis and the method used to quantify each MOE.

[5] *2003 Transportation Systems Plan*, City of Wilsonville, Adopted June 2nd, 2003, Chapter 4: Motor Vehicle Facilities.
[6] 2008-2011 STIP, Key number 15108, I-5 Wilsonville Interchange, interchange improvements, $11,500,000.



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WILSONVILLE PUBLIC FACILITES TRANSPORTATION STRATEGY

EIGHT LANE CONCEPTUAL ALTERNATIVE

DOUBLE-DOUBLE LEFTS WITH BOONES FERRY IMPROVEMENTS

(THIS ALTERNATIVE INCLUDES A THIRD EASTBOUND THROUGH LANE)

Figure 2

Table 1: Measures of Effectiveness

Measures of Effectiveness	Method Used
HCM average intersection vehicle delay	Isolated intersection evaluation
HCM intersection level-of-service	Isolated intersection evaluation
HCM intersection volume-to-capacity ratio	Isolated intersection evaluation
HCM arterial level-of-service	Corridor evaluation
HCM equivalent average intersection vehicle delay	Corridor evaluation
95th percentile queuing	Corridor evaluation

Isolated Intersection Evaluation (HCM Procedures)

Highway Capacity Manual intersection capacity procedures were used to estimate the average intersection vehicle delay, intersection volume-to-capacity (V/C) ratio, and intersection level-of-service (LOS) for signalized intersections during peak hour operations. It is important to note that this methodology assumes each intersection operates in isolation and does not account for impacts associated with adjacent traffic signals within the corridor that could influence the actual operations such as queuing into upstream intersections.

Intersection Operations Requirements

The City of Wilsonville's operational threshold for signalized intersections is LOS "D" during peak hour operations.[7] For design purposes, ODOT operational requirements demand an intersection volume-to-capacity ratio (V/C) of 0.75 or less during peak hour operations.[8] For planning purposes, the I-5 northbound and southbound interchange ramps at Wilsonville Road are subject to ODOT's intersection operation criteria while the remaining intersections (Wilsonville Road/Boones Ferry Road, Wilsonville Road/Town Center Loop West, and Wilsonville Road/Rebekah Street) are subject to meet City intersection operation criteria.

Eight-lane Wilsonville Road Alternative

This section summarizes future 2030 AM and PM peak hour intersection operations (isolated and corridor) at the Wilsonville/I-5 interchange area study intersections for the 8-lane alternative.

Isolated Intersection Evaluation (HCM Procedures)

Table 2 summarizes 2030 AM and PM peak hour isolated intersection operations at study intersections. During the 2030 AM peak hour, all study intersections would continue to meet the City's intersection operating standards under the 8-lane alternative, however, both ramp terminals would exceed ODOT's

[7] *City of Wilsonville Code*, Section 4.140, p. 163.
[8] *2003 Highway Design Manual,* Table 10-1: 20 Year Design-Mobility Standards (Volume/Capacity [V/C]) Ratio, Interstate Highways and Statewide (NHS) Expressways in MPO.

Highway Design Manual volume-to-capacity threshold of 0.75[9]. All study intersections would operate at an acceptable LOS "C" or better based on HCM isolated capacity analysis.

Likewise, all study intersections would continue to meet both the City of Wilsonville peak hour intersection operating criteria during the 2030 PM peak hour under this alternative, however, both ramp terminals would again exceed the Highway Design Manual[10] threshold of 0.75. A design exception will be required for both the ramp terminal intersections (Wilsonville Road/I-5 Southbound Ramps and Wilsonville Road/I-5 Northbound Ramps), which would operate with volume-to-capacity ratios of 0.87 and 0.78, respectively.

Table 2: Eight-Lane Wilsonville Road
2030 Intersection Operating Conditions (AM/PM Peak Hour)

	2030 AM Peak Hour			2030 PM Peak Hour		
Intersection Operations	**Delay**	**LOS**	**V/C**	**Delay**	**LOS**	**V/C**
Wilsonville Rd/Boones Ferry Rd	23.4 (21.4)	C	0.66	38.2 (76.0)	D	0.88
Wilsonville Rd/I-5 Southbound Ramps	19.1 (19.8)	B	0.78	30.1 (33.9)	C	0.87
Wilsonville Rd/I-5 Northbound Ramps	22.8 (22.6)	C	0.78	25.4 (47.5)	C	0.78
Wilsonville Rd/Town Center Lp West	20.3 (19.2)	C	0.57	28.1 (37.6)	C	0.75
Wilsonville Rd/Rebekah St	-	-	-	17.9 (23.0)	B	0.58
Wilsonville Rd./Town Center Lp East	-	-	-	35.6 (33.0)	D	0.85
Delay – Average intersection stopped delay per vehicle						
LOS – Intersection level-of-service (ODOT uses V/C 0.75 as standard[11] for design and a V/C of 0.90 for planning purposes, City of Wilsonville uses LOS D as standard)						
(Delay) – Average intersection stopped delay per vehicle via simulation for comparison purposes to the Highway Capacity Manual						

Corridor Evaluation (SimTraffic™ Simulation)

Equivalent HCM capacity results based on corridor evaluation are shown in parenthesis in Table 2 above for this alternative. During this time period, operations would begin to become impacted by operations at upstream and downstream intersections due to queuing.

The intersection of Wilsonville Road/Boones Ferry Road would be characterized by excessive queuing along the eastbound and westbound approaches. All remaining study intersections would operate acceptably during the 2030 PM peak hour under the 8-lane alternative.

Simulation of the interchange area under this alternative indicates that Wilsonville Road would operate at an HCM arterial Level of Service "C" for both the eastbound and westbound travel directions during the 2030 AM peak hour. Average travel speeds through the interchange area would be 17-19 mph. Wilsonville Road would to operate at HCM LOS "D/C" for the eastbound and westbound directions during the 2030 PM peak hour based on the simulation results. During this time period, average travel speeds in the eastbound direction would fall to approximately 12 mph. The arterial level of service is summarized in Table 3.

[9] 2003 Highway Design Manual, Table 10-1: 20 Year Design-Mobility Standards (V/C [Volume/Capacity] Ratio, Interstate Highways and Statewide (NHS) Expressways in an MPO.
[10] *2003 Highway Design Manual*, Table 10-1: 20 Year Design-Mobility Standards (V/C [Volume/Capacity] Ratio, Interstate Highways and Statewide (NHS) Expressways in an MPO.
[11] *2003 Highway Design Manual*, Table 10-1: 20 Year Design-Mobility Standards (V/C [Volume/Capacity] Ratio, Interstate Highways and Statewide (NHS) Expressways in an MPO.

Table 3: Arterial Level-of-Service

Arterial LOS	2030 AM Peak Hour		2030 PM Peak Hour	
	Eastbound LOS	Westbound LOS	Eastbound LOS	Westbound LOS
Wilsonville Road (Boones Ferry Road to Town Center Loop West)	C	C	D	C

Future 2030 Queuing Analysis

Queuing results of the simulation for the 2030 AM and PM peak hour under the 8-lane alternative are shown in Table 4. As shown, during the AM peak hour, only one estimated 95th percentile queue would spill back into an upstream intersection. The eastbound left turn at the Wilsonville Road/I-5 northbound ramp would spill back past the I-5 southbound ramp. However, operations at the I-5 southbound ramp would not be significantly impacted.

Four movements along Wilsonville road would exceed the available storage under 2030 PM operating conditions assuming the 8-lane alternative. Queues originating from the westbound approach at Boones Ferry Road would propagate back through the I-5 southbound ramp intersection. Additionally, queuing along the eastbound approach at Boones Ferry Road would extend back to the Wilsonville Road/Kinsman Road intersection.

Table 4 indicates that no 95th percentile queues along the I-5 off-ramps would exceed the available turn lane storage during the 2030 AM and PM peak hours. Therefore, these queues would not extend back into the freeway mainline.

Table 4: Eight-Lane Wilsonville Road
2030 95th Percentile Queuing (AM/PM Peak Hour)

Intersection on Wilsonville Road	Intersection Approach	Available Vehicle Storage (feet)	2030 95th Percentile Queue (feet)	
			AM Peak Hour	PM Peak Hour
Boones Ferry Road	EB Through	1,240	340	**>1,240**
	WB Left	400	150	375
	WB Through	440	430	**>440**
I-5 Southbound Ramp	EB Through	460	310	350
	WB Left	420	250	**>420**
	WB Through	420	400	350
	SB Left	450	250	325
	SB Right	450	350	275
I-5 Northbound Ramp	EB Left	420	**>420**	400
	EB Through	420	325	**>420**
	WB Through	625	175	375
	NB Left	360	475	350
	NB Right	360	250	350
Town Center Loop West	EB Left	450	300	375
	EB Through	570	175	475
	WB Through	850	275	600

Available vehicle storage = distance from stop bar to upstream intersection crosswalk/stop bar
EB – Eastbound; WB – Westbound; NB – Northbound; SB – Southbound
95th percentile queues rounded to nearest 20 feet
Bolded values indicate queues that would exceed available vehicle storage

- **Isolated Intersection Evaluation Findings:** The 8-lane alternative will provide the necessary capacity at the Wilsonville Road interchange area during the AM peak hour through 2030 based on HCM isolated intersection capacity analysis methodology. During the PM peak hour, one intersection would not meet ODOT's Highway Design Manual Standard. The intersection at the I-5 Southbound Ramps/Wilsonville Road would not meet ODOT's Highway Design Manual standard, which requires that these intersections be designed to operate at a volume-to-capacity ratio of 0.75 or lower. A design exception will be required for this intersection. All City study intersections would operate at HCM LOS "D" or better during both the AM and PM peak periods and would meet City of Wilsonville peak hour operational requirements.
- **Corridor Evaluation Findings:** Arterial assessment of the Wilsonville Road interchange via simulation revealed that Wilsonville Road would operate at HCM arterial LOS "C" for both the eastbound and westbound travel directions during the 2030 AM peak hour. During the 2030 PM peak hour, Wilsonville Road would operate at HCM arterial LOS "D" for the eastbound and LOS "C" for the westbound travel directions. Average travel speeds on Wilsonville Road in the eastbound direction would be approximately 12 miles-per-hour during the 2030 PM peak hour.
- **Queuing Findings:** During the 2030 PM peak hour, queuing between study area intersections would occur at a couple of locations, only on Wilsonville Road. Queue spill back would occur along Wilsonville Road in the eastbound and westbound directions between the intersections of Boones Ferry Road, I-5 southbound ramps, and I-5 northbound ramps. These queue spill backs may be able to be relieved with signal timing adjustments. Importantly, queuing along the I-5 off-ramps would not spill back into required deceleration areas or I-5 mainline traffic.

Local Connectivity Plan

The future deficiencies analysis (see previous chapter), two areas were highlighted where local connectivity was in need of improvement, including:

Improving east-west connectivity;

Reducing access points to Wilsonville Road, both east and west of the interchange.

In response to these needs, a local connectivity plan was developed that builds on existing and planned streets in the IAMP area. Many of these connections were identified previously in the Wilsonville Transportation Systems Plan.[12] This plan not only improves overall connectivity throughout the interchange management area, but provides the ability to consolidate approaches to Wilsonville Road, while maintaining accessibility to individual properties in the corridor. Figure 3 displays the local connectivity plan, with key elements described below. East-west connectivity will be enhanced through the construction of several projects that are either planned or under construction:

- Barber Street extension (planned – northwest of Management Area – extending Barber Street from Kinsman Road west to Grahams Ferry Road through Villebois)
- Brown Road extension (planned – extending Brown Road from its current southern terminus at Wilsonville Road south and east to connect to Boones Ferry Road at either 5th Street for Bailey Street)
- 5th Street to Memorial Drive overcrossing (potential connection – this would not be an auto connection, it would be a bicycle/pedestrian connection only)

[12] *Wilsonville Transportation Systems Plan*, 2003, Figure 4.25, Network Connections.

- Loop road connecting Wilsonville Road (near railroad tracks east of Kinsman Road) and Boones Ferry Road (potential connection – upon redevelopment – as shown in Figure 3)

North-south connectivity will be enhanced through several projects that are either planned or proposed as part of this plan:

- Kinsman Road extension (planned)
- North-South connection between Wilsonville Road and Bailey Street (through Lowries property)
- North-south connection between Bailey Street and 5th Street east of Boones Ferry Road

Some of these projects will require either development or redevelopment to occur before they can be constructed, even if funding were available. In particular, the Brown Road extension will require development of properties south of Wilsonville Road and the loop road connecting Wilsonville Road and Boones Ferry Road would require redevelopment of several parcels in order to be fully built. The over crossing proposed to connect 5th Street and Memorial Drive would be extremely expensive and is unlikely to be constructed any time in the near future.

Reducing access points to Wilsonville Road will be achieved through the following actions:

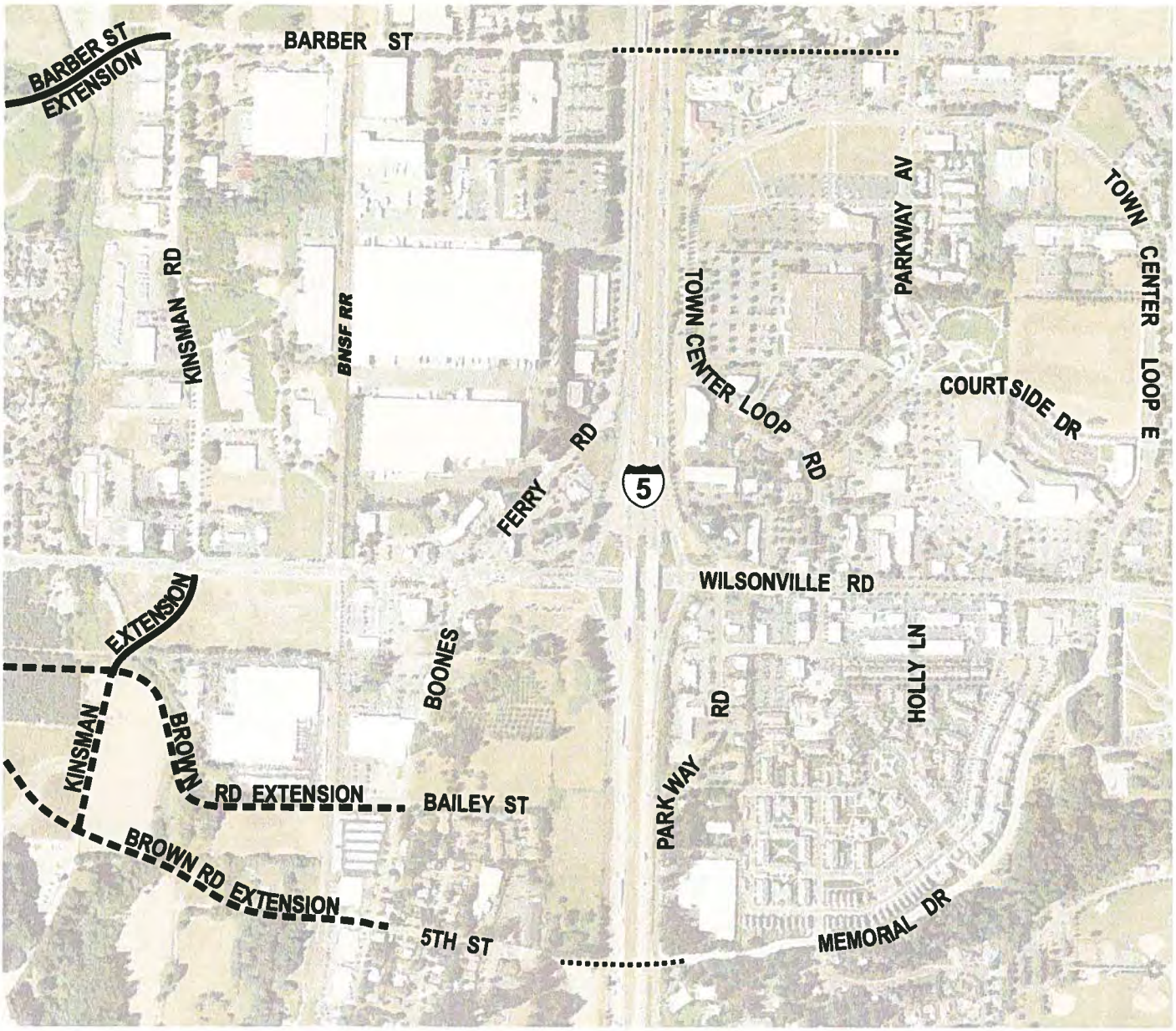
To prevent access directly to the interchange crossroads within the access management spacing standards for interchange areas, new streets have been included to provide alternate access to properties in the immediate vicinity of the interchange. To the east of the interchange, these new streets would enable the first access point to Wilsonville Road to be limited to Town Center Loop West, which is approximately 675 feet from the nearest interchange ramp terminal (northbound ramps). To the west, the first access point would be limited to Boones Ferry Road, which is approximately 585 feet from the nearest interchange ramp terminal (southbound ramps). It should also be noted that an important element of this plan includes the closure of the Parkway Avenue/Wilsonville Road intersection, which is located within 200 feet of the northbound interchange ramp terminal. In addition, the right-in only access to the Village at Main Street (east of Parkway Avenue and west of Town Center Loop West) would also be closed as redevelopment occurs. Alternate access for both Parkway Avenue and the right-in to the Village at Main Street would be provided via Town Center Loop West and Main Street that was previously constructed by the City.

All proposed streets shown in Figure 3 would be constructed to City of Wilsonville standards[13]. Because of the relatively short segment lengths, it is assumed that all proposed streets would either be classified as collectors or local streets. According to the City of Wilsonville's Transportation Systems Plan[14], 5-foot wide sidewalks would be constructed as part of all collectors or local streets, with separate bike lanes only being constructed for collectors and above.

Access Management Plan

A key element of the IAMP related to the long-range preservation of operational efficiency and safety of the proposed interchange improvement is the management of access to the interchange crossroad (Wilsonville Road), as well as to the mainline (Interstate 5). Because access points introduce a number of potential vehicular conflicts on a roadway, can appear unexpectedly, and are frequently the causes of slowing or stopping vehicles, they can significantly degrade the flow of traffic and reduce the efficiency of the transportation system. However, by reducing the overall number of access points and providing greater separation between them, the impacts of these conflicts can be minimized.

[13] *City of Wilsonville, Public Works Standards – 2006*, Section 2.
[14] *City of Wilsonville Transportation Systems Plan*, June, 2003, Chapter 4 – Motor Vehicle Facilities.



LEGEND

- Local Street Connection
- Alignment Alternative
- Bicycle/Pedestrian Connection Only

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Figure 3

PROPOSED LOCAL STREET CONNECTIVITY PLAN

Further Public Coordination Recommended

It should be noted that the recommended actions were based on current property configurations and ownerships. Should property boundaries change in the future through consolidation or other land use action, the access management plan may be modified through agreement by the City of Wilsonville, Clackamas County, and ODOT, where such modifications would move in the direction of the adopted access management spacing standards in this plan. Additional access points should not be allowed where they would result from future land partitions or subdivisions. The actions listed in this plan shall not prevent the reconstruction of approaches as necessary to meet City, County, or ODOT standard design.

Implementation of the access management will occur incrementally over a long period of time because:

Some affected properties maintain infrastructure (e.g. buildings and internal roadways) that was established based on prior approvals of access locations to the subject roadways, and

Some elements of the plan depend on the presence of new local public streets that can not be constructed until funds are made available.

The access management recommendations in this plan have been prioritized and categorized into short-range and long-range actions based on the constraints associated with their implementation. Short-range actions are to be executed during the construction of the interchange and the long-range actions are to be executed as needed funds become available or as opportunities arise during property development/redevelopment.

To provide a basis for decision-making during the development of the access management plan, an access management strategy was established. The objectives of this plan are listed below.

1. Restrict all access from abutting properties to the interchange and interchange ramps.
2. Meet, or move in the direction of meeting, ODOT adopted access management spacing standards for access to interchange crossroads.
    a. For Wilsonville Road from the southbound interchange ramp terminal to a distance of 1,320 feet to the west, the spacing standards from OAR 734-051-0125(2), Table 5 and Figure 2 apply, which would restrict all access for the full distance of 1,320 feet, with a right-in/right-out access allowed on the eastbound side of Wilsonville Road no closer than 990 feet from the interchange ramp terminal and a right-in/right-out access allowed on the westbound side of Wilsonville Road no closer than 750 feet from the interchange ramp terminal.
    b. For Wilsonville Road from the northbound interchange ramp terminal to a distance of 1,320 feet to the east, the spacing standards from OAR 734-051-0125(2), Table 5 and Figure 2 apply, which would restrict all access for the full distance of 1,320 feet, with a right-in/right-out access allowed on the westbound side of Wilsonville Road no closer than 990 feet from the interchange ramp terminal and a right-in/right-out access allowed on the eastbound side of Wilsonville Road no closer than 750 feet from the interchange ramp terminal.
3. Meet, or move in the direction of meeting, the City of Wilsonville's adopted access management guidelines on Wilsonville Road from a point 1,320 feet from the southbound interchange ramp terminal (or to Industrial Way, the western boundary of IAMP management area) to the west and to a point 1,320 feet from the northbound interchange ramp (or to Town Center Loop East/Memorial Drive, the eastern boundary of IAMP management area) to the

east. This would require access spacing of at least 1,000 feet between adjacent driveways and/or streets on the same side of the roadway.

4. In attempting to meet access management spacing standards, exceptions may be allowed to take advantage of existing property boundaries and existing or planned public streets, and to accommodate environmental constraints.
5. Relocate private approaches on Wilsonville Road onto other public streets, where feasible, to provide consolidated access to multiple properties.
6. Ensure all properties impacted by the project are provided reasonable access to the transportation system.
7. Align approaches on opposite sides of roadways where feasible to reduce turning conflicts.
8. Short-range actions shall accommodate existing development needs, unless property is to be purchased by ODOT.

Using this strategy, an action plan for each approach to the interchange crossroad was developed, as shown below in Table 5. Short-range actions should be implemented during the construction of the interchange. The long-range actions are to be implemented over the 20-year planning period as funding becomes available or as opportunities arise through property development and/or redevelopment. The long-range action plan has also been illustrated in Figure 4 to aid in the interpretation of the actions in Table 5.

Table 5: Wilsonville Road Access Actions

Access	Short-Range Action	Long-Range Action
1	No action.	Close approach at such time as reasonable alternate access becomes available (e.g. through construction of public roads or establishment of easements).
2	No action.	Close approach at such time as reasonable alternate access becomes available (e.g. through construction of public roads or establishment of easements).
3	No action.	Same as Short Range.
4	No action.	Same as Short Range.
5	No action.	Same as Short Range.
6	Close access upon interchange reconstruction. Future access to be taken via Town Center Loop West (see access 8) and Main Street.	Same as Short Range.
7	No action.	Evaluate access upon redevelopment.
8	No action.	Same as Short Range.
9	No action.	Evaluate access upon redevelopment. Access does not meet spacing standards, however, it is a relatively low volume right-in, right-out only access.
10	No action.	Evaluate access upon redevelopment. Access does not meet spacing standard, however, location is signalized and removal of access is unlikely.
11	No action.	No action.
12	No action.	No action.
13	No action.	Evaluate access upon redevelopment. Access does not meet spacing standard, however, location is signalized and removal of access is unlikely.
14	No action.	Same as Short Range.
15	No action.	Same as Short Range.
16	No action.	Same as Short Range.
17	No action.	Close access upon redevelopment or at such time as reasonable alternate access

Access	Short-Range Action	Long-Range Action
		becomes available (e.g. through construction of public roads or establishment of easements).
18	No action.	Same as Short Range.
19	No action.	Close approach at such time as reasonable alternate access becomes available (e.g. through construction of public roads or establishment of easements).
20	No action.	Close approach at such time as reasonable alternate access becomes available (e.g. through construction of public roads or establishment of easements).
21	No action.	Close approach at such time as reasonable alternate access becomes available (e.g. through construction of public roads or establishment of easements).
22	No action.	Close approach at such time as reasonable alternate access becomes available (e.g. through construction of public roads or establishment of easements).

Notes: Refer to Figure 4 for location of accesses cited in the above table.

Prior to adopting or implementing the recommendations in this plan regarding access management, input from affected property owners and tenants should be obtained to validate assumptions made regarding property ownerships and the ability of short-range actions to accommodate existing development needs.

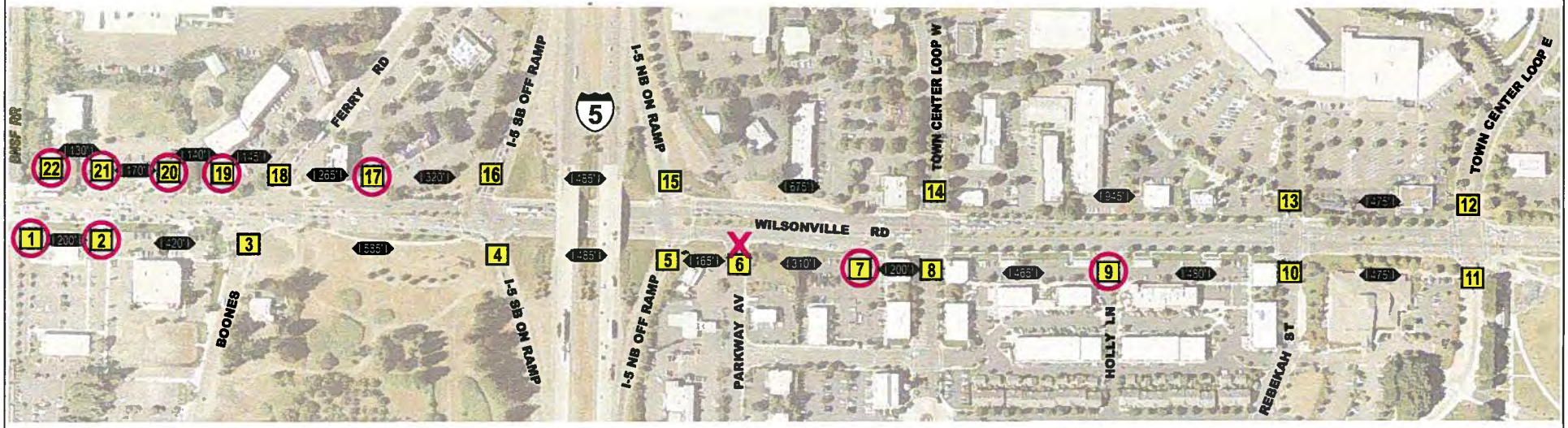
Cost Estimates

Table 6 summarizes the construction cost estimates for the Phase 2 design (to be constructed in 2010-11) as well as for the ultimate 8-lane improvement (anticipated to be needed by 2030)[15]. The Phase 2 design cost estimate includes 10% for construction engineering, 25% for contingencies, $2.8 million for right-of-way acquisition and $2.5 million for preliminary engineering. The 2030 estimate also includes right-of-way, engineering and contingencies.

Table 6: Construction Cost Estimates

Project	*Cost Estimate (2009 dollars)*
Phase 2 Design (to be built in 2010-11)	$22.0 million
Ultimate 8-lane Interchange (needed by 2030)	$31.3 million
Difference	~ $9.3 million

[15] Source: ODOT Region 1 and OTAK.



LEGEND

00 - Driveway/Access Location Number

1000' - Distance Between Driveway/Access Locations

X - Eliminate with Interchange Reconstruction

O - Consider Elimination/Consolidation with Redevelopment

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NO SCALE

Figure 4

LONG RANGE ACTION PLAN

Alternative Evaluation and Prioritization

With improvement alternatives identified, an evaluation of their ability to achieve the project goals will be provided, followed by a prioritization of successful alternatives into short and long-range plans to guide implementation.

Alternative Evaluation

Using the evaluation criteria developed for the I-5/Wilsonville Road IAMP outlined previously (see Chapter 2), the alternatives proposed were evaluated to ensure the goals established at the outset of the project would be met. The objectives used included criteria related to safety, livability, mobility, and feasibility. The results of this evaluation have been provided in the Appendix.

Prioritization of Improvements

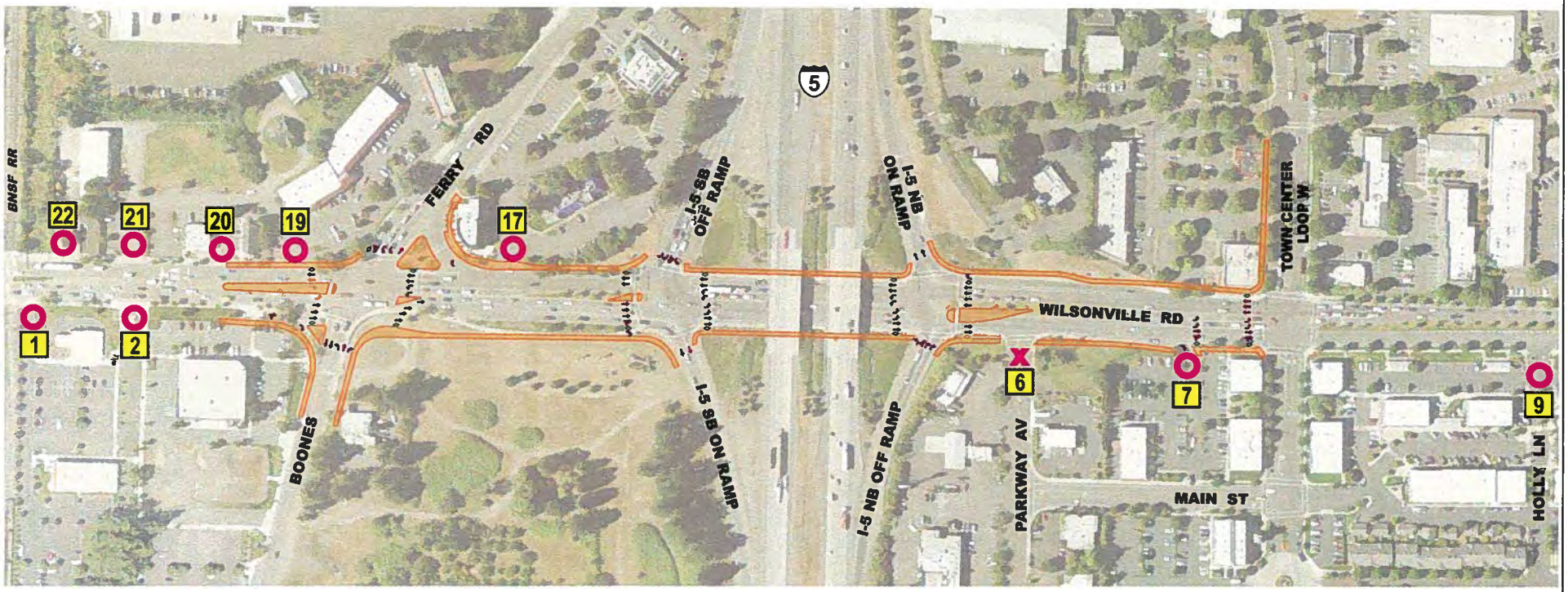
The improvement alternatives recommended as part of the IAMP have been prioritized into short and long-range actions, as shown in Table 7, to provide guidance for future implementation and funding. Short-range actions represent immediate needs and are proposed to be implemented at the time of interchange reconstruction. Long-range actions represent improvements that are not required immediately, but should be sought after as opportunities present themselves. Long-range actions typically represent improvements of less immediate priority or requiring higher levels of funding. These improvements should be planned for construction within 10 to 20 years. The improvements listed in Table 7 have also been illustrated in a Transportation Improvements Map (Figure 5) for the IAMP area.

It should be recognized that this prioritization of projects is not intended to imply that projects of higher priority must be implemented before projects of lower priority. Should opportunities arise, through private land development or other means, to construct specific projects earlier than the estimated time frame provided by this list, those resources should be utilized.

Table 7: Transportation Improvement Prioritization

Short-Range Improvements
• Planned reconstruction of I-5/Wilsonville Road interchange.
• Short-range actions from access management plan.
Long-Range Improvements
• Construct remainder of new public streets according to adopted Local Connectivity Plan.
• Long-range actions from access management plan.
• Construct 8-Lane Interchange

Note: Long-range improvements could be constructed sooner than anticipated as opportunities arise through private property development or other means.



LEGEND

- Curb/Sidewalk & Median Island
- Lane Configuration
- On-Street Bike Lane
- X - Eliminate Access with Current Interchange Reconstruction Project
- O - Consider Access Elimination/Consolidation with Redevelopment

DKS Associates
TRANSPORTATION SOLUTIONS

NO SCALE

Figure 5

TRANSPORTATION IMPROVEMENTS MAP

Appendix F: Public Involvement

Appendix F: Public Involvement Summary

This memorandum describes the Public Involvement program that was used for the Wilsonville I-5 Interchange Area Management Plan (IAMP). It outlines key public involvement activities, including workshops, open houses, public hearings, etc. The program was developed based on the following guiding principles, as outlined in the scope of services for this project:

- Understand the needs and desires of project participants;
- Encourage open and honest communication;
- Be proactive by identifying issues and concerns early and throughout the process;
- Tailor information appropriately for each audience;
- Provide sincere and continuous opportunities for input;
- Deliver complete and accurate information in a timely manner;
- Agency and Consultant shall identify who needs to be informed; and how and when (at what points in the process) they need to be informed.

Public and Agency involvement consisted of the following primary elements:

- General public outreach and involvement;
- Local Government presentations, and;
- OTC briefings and presentation.

General Public Outreach and Involvement

Public participation and communication was facilitated through the following efforts. Opportunities to coordinate public involvement efforts with the interchange design project were implemented where feasible. In addition, the Consultant coordinated public involvement efforts with ODOT Region 1 Community Affairs and Public Affairs offices.

Stakeholder Notices

The Consultant worked with the City of Wilsonville to establish a list of key area stakeholders. The Consultant invited these stakeholders individually to upcoming public events.

Open Houses/Public Workshops

Two public open houses and workshops were conducted to educate the general public on the IAMP intent and development process, as well as to actively involve interested parties in the development of plans. Meetings included the following:

City Council – Presentation of Goals & Objectives

The City of Wilsonville City Engineer, Mike Stone, presented the draft project Goals & Objectives to the Wilsonville City Council on March 4th, 2009. The Council concurred with the Goals & Objectives as written.

Open House #1

A public open house was held early in the process (February 4th, 2009) in order to allow affected property owners, residents and businesses to opportunity to provide input on the IAMP project. This open house was conducted jointly with the Wilsonville Interchange Design Project. The open house was used to educate the public about interchange projects generally; present key issues and concerns; discuss the draft problem statement; present some existing conditions data; and inform them of next steps in project development. The format of the meeting included interactive work stations and easy-to-understand display boards.

Prior to the open house, a notification was published in the City's newsletter, which is distributed to all City of Wilsonville residents, to advertise the meeting time, location and purpose. Following the open house, a summary report was published by the Wilsonville Interchange Design Project public relations consultant. The summary report is attached.

Open House

The Project Management Team (PMT) jointly decided that Open House #2 would not provide substantial information to the public and that it would be better to wait until the IAMP project could coordinate with the Design project for a second open house.

Since this particular interchange is already in the design stage and alternatives had previously been considered and a preferred alternative identified, it was determined that presenting alternatives to the public might be confusing. It was determined that it would be more useful to wait until a draft plan was available. Also, it seemed that the coordination with the design project would work better with a later open house.

Open House #2

It was determined that in order to meet the IAMP's adoption schedule, it would be necessary to conduct the second open house before the interchange design project would be ready. A second open house was held on July 14th, 2009, and was formatted as a question and answer session. Seventeen interested parties signed in and viewed presentations on planned transportation improvement projects, the proposed local street plan, the proposed overlay zone to be used in amending the comprehensive plan and general information about proposed implementation language.

Prior to the open house, a notification was published in the City's newsletter, which is distributed to all City of Wilsonville residents, as well as on ODOT's website, to advertise the meeting time, location and purpose.

The general tone of the open house was positive. Some of the issues brought up by attendees included the following:

- Business owners expressed concern over the proposed closure of Parkway Avenue
- Charbonneau residents expressed concern over the lack of access between Charbonneau and Wilsonville
- One resident wanted to make sure none of the improvements affected their property. They lived in residential units in Village at Main Street.
- The owners of the Union 76 Station wondered when ODOT would be contacting them about needed right-of-way for the interchange construction project.
- Numerous residents wanted to know the construction schedule of currently planned interchange improvements.

Local Government Presentations

A power point presentation summarizing key findings from the IAMP was given to the Wilsonville Planning Commission on September 9, 2009. The Planning Commission accepted the Draft IAMP with minor requests for changes and forwarded the project to the Wilsonville City Council.

The Wilsonville City Council had their first reading on October 5, 2009. It was requested that the following changes be made:

- More specific definitions on Page 6 regarding "Change of Use of an Approach" for properties within the IAMP Overlay Zone.
- Remove the "North-South Connector" between 5th Street and Bailey Street on the "Local Street Connectivity Plan"
- Update access language in Table 3 and under the "Deviations Required Upon Change of Use of the Approach" section

The Wilsonville City Council will have their second reading on October 19, 2009.

OTC Briefings and Presentation

[To be completed following OTC hearing]

Wilsonville Road Interchange Project

Public Comments

Public comments were collected at the Wilsonville Road Interchange Project Open House, held on Wednesday, February 4, 2009 at the City of Wilsonville City Hall. The following is a list of all comments collected from written comment forms and conversations between the project team and Open House attendees.

Comments received through conversations with Open House attendees:

General

- Most people seemed generally in favor of the project.
- Many attendees commented on the existing congestion on Wilsonville Road and were glad to see some improvements to improve this condition.
- Overall, people showed guarded optimism over the project.
- Many wanted to know how exactly the project would impact or improve their business or residential location.
- Many wondered whether this project would actually relieve congestion on Wilsonville Road, and whether money was being spent well.
- Attendees seemed to understand the need for improving the situation, but not all were convinced that the particulars of this project were the right solution.
- Many seemed to understand and appreciate the project goals and objectives.

Fred Meyer construction:

- Fred Meyer representative wanted information on staging areas for the project, intended sequence of work, construction timing, and right of way along the southbound on-ramp, in order to determine if there would be any impacts if Fred Meyer's were to open prior to completion of the Wilsonville project.
- A Project Team member responded that ODOT typically does not identify staging areas for contractors beyond the State right of way, and that construction sequencing will be determined by the contractor after the bids have been opened.

Auxiliary Lane:

- Several comments about ODOT Auxiliary Lane project (not part of project)
- Many people asked if there were future plans for a southbound auxiliary lane from Wilsonville to Charbonneau. The SB on-ramp to I-5 is regarded as very dangerous in its current configuration and some questioned whether proposed improvements would make a marked improvement.
- Attendees expressed approval of the use of ramp metering on the on-ramps as a means to improve the merging of traffic especially on the SB on-ramp.
- One person was concerned about the increased difficulty in weaving movement between I-5 and the north-hound auxiliary lane between Charbonneau and Wilsonville Interchange.

Pedestrian and Bicyclist Improvements:

- Attendees were supportive of separating and elevating the sidewalk to enhance the pedestrian experience.
- Many indicated that the separation of the sidewalk from the roadway was a safety improvement.

Turning and lane changes:

- Trying to close the exclusive right turn from east-bound Wilsonville Road into the business area will likely bring strong opposition.

Potential future lanes under bridge:

- Attendees thought that providing for potential future lanes under the bridge was a good idea.
- One of the developer staff was concerned that existing lanes east of the Town Center Loop intersection and the number of lanes proposed west of the intersection would not function correctly.

Business impacts:

- The owner of the Boones Ferry Junction Pizza Parlor was concerned that work on the ramps or Boones Ferry Rd would impact his business. The Project Team informed him that this project would not directly affect his business.

Other projects:

- Attendees expressed interest over improvements to the Boones Ferry/Wilsonville Road intersection, and specifically the Boones Ferry north leg.
- Several people commented on the lack of bicycle routes across the Willamette River (not part of project).

Parkway Avenue:

- Attendees did not express objections to closing Parkway Ave with a cul-de-sac.

Comments from Comment Forms:

- We object to the option to close the private property access point (East bound traffic) prior to the traffic light at Wilsonville Rd and Town Center Loop West. If closed, this would significantly impact the commercial retail businesses within that area in a negative manner.
- The changes are much needed, and are well thought through.
- If Fred Meyers opens while the work on the interchange is still in progress, it could really create a headache for residents living west of the interchange. It is probably worth it, but would be nice to avoid if possible.
- Concern about fire safety of the properties along Parkway.

Appendix G: Findings of Compliance

Appendix G: Findings of Compliance

Statewide Land Use Goals

The City is proposing to adopt the Wilsonville Road IAMP as an element of the Wilsonville Transportation System Plan, thereby amending the state-acknowledged Wilsonville Comprehensive Plan. The following findings demonstrate that the adoption of the Wilsonville Road IAMP is consistent with LCDC's Goals.

Goal 1: Citizen Involvement
Goal 1 requires the development of a citizen involvement program that is widespread, allows two-way communication, provides for citizen involvement through all planning phases, and is understandable, responsive, and funded.

Response: Appendix F of the Wilsonville Road IAMP contains a summary of the public involvement efforts that were undertaken as part of the IAMP project. These efforts included the following:

- Information about the project was available through the City's website. Public participation and communication regarding the interchange design project was coordinated with City public involvement efforts. In addition, the Consultant coordinated public involvement efforts with ODOT Region 1 Community Affairs and Public Affairs offices.

- The Consultant worked with the City of Wilsonville to establish a list of key area stakeholders. These stakeholders were invited individually to upcoming public events.

- A public open house was held on February 4th, 2009, in conjunction with the Wilsonville Interchange design project. The open house was used to educate the public about interchange projects generally; present key issues and concerns; discuss the draft problem statement; present some existing conditions data; and inform them of next steps in project development. The format of the meeting included interactive work stations and easy-to-understand display boards.

- A public open house held on July 14, 2009 to discuss the proposed interchange improvements and the related comprehensive plan and code amendments. The format of the meeting included interactive work stations and easy-to-understand display boards.

Both open houses were advertised in the City newsletter the month prior to the open house and posted on both City of Wilsonville and ODOT websites. Additionally, notice of the July 14th open house was sent via postcard to individuals near the

proposed project and those who had expressed interest at previous public events. Public comment was accepted via email, mail and telephone.

Notice of public hearings on the proposed changes to the City of Wilsonville Comprehensive Plan and implementing ordinances were sent in advance of the hearings, pursuant to City code requirements. Scheduled hearings will provide opportunities for public comment on the proposed changes.

More detailed information about the public involvement program can be found in Appendix F. This information demonstrates consistency with Goal 1.

Goal 2: Land Use Planning

This goal requires that a land use planning process and policy framework be established as a basis for all decisions and actions relating to the use of land. All local governments and state agencies involved in the land use action must coordinate with each other. City, county, state and federal agency and special districts plans and actions related to land use must be consistent with the comprehensive plans of cities and counties and regional plans adopted under Oregon Revised Statues (ORS) Chapter 268.

Response: Preliminary tasks for the Wilsonville Road IAMP included a thorough review and analysis of all relevant state, regional and local planning documents in order to establish a planning process and policy framework. The following documents were reviewed:

- Oregon Transportation Plan
- State ODOT Coordination Program
- ODOT Division 51 Interchange Access Management Area Spacing Standards for Approaches
- Transportation Planning Rule (OAR 660, Division 12)
- Statewide Planning Goals 1 (Citizen Involvement), 2 (Land Use Planning), 11 (Public Facilities and Services) and 12 (Transportation)
- City of Wilsonville Transportation System Plan
- City of Wilsonville Comprehensive Plan
- City of Wilsonville Zoning Ordinances
- Clackamas County Comprehensive Plan
- Clackamas County Zoning Ordinances
- I-5/Wilsonville Freeway Access Study
- Wilsonville Road Interchange Transportation Analysis Studies

This review identified how the documents influence planning for the Wilsonville Road interchange project. Detailed review of plans and policies can be found in Appendix A: Review Plans and Policies.

The Wilsonville Road IAMP was prepared jointly by the City of Wilsonville and ODOT and coordination between the two agencies took place routinely throughout the process. A Project Management Team (PMT) was established to guide the IAMP process. The PMT consisted of representatives from the City and ODOT. ODOT staff will help facilitate and support the adoption of the IAMP by the City of Wilsonville and, once locally adopted, by the Oregon Transportation Commission (OTC). ODOT and the City will continue to coordinate on development activity and land use actions within the interchange area.

Appendix G of the IAMP contains existing and proposed Comprehensive Plan policies that support the IAMP. Adopting the IAMP will ensure that the transportation element of the Comprehensive Plan (the TSP) is consistent with the proposed Wilsonville Road Interchange improvements.

Goal 9: Economic Development
This goal requires that local comprehensive plans and policies contribute to a stable and healthy economy in all regions of the state.

Response: The Wilsonville Road Interchange provides a vital function in supporting local and regional economic development goals and plans. Local traffic, including commercial vehicles, must have safe and efficient access to the interstate. The intent of the IAMP is to protect the function of the interchange; proposed IAMP policy language illustrates the City's role in preserving capacity and improving operations at the interchange. Adopting the IAMP will ensure that transportation improvements will be available to support the planned employment uses in south Wilsonville, consistent with this city economic development goal.

Goal 10: Housing
This goal requires the City plans provide for the appropriate type, location and phasing of public facilities and services sufficient to support housing development in areas presently developed or undergoing development or redevelopment.

Response: While land in the immediate vicinity of the Wilsonville Road Interchange is zoned for either commercial or industrial uses, the interchange serves all of south Wilsonville, including existing and planned residential areas. The Interchange Area Overlay Zone includes some areas zoned Planned Development Residential, as well as an existing residential subdivision north of the Willamette River. Residential trips were a part of the future (2030) traffic conditions analyzed at the I-5/Wilsonville Road interchange. The IAMP includes a list of physical improvements associated with the Wilsonville Road Interchange that will ensure that the facility will continue to operate safely and efficiently for all users. Preserving the function and capacity of the interchange facility through the adoption of the IAMP will benefit travelers to and from residential areas in the southern part of the city.

Goal 11: Public Facilities and Services

Goal 11 requires cities and counties to plan and develop a timely, orderly and efficient arrangement of public facilities and services to serve as a framework for urban and rural development. The goal requires that urban and rural development be "guided and supported by types and levels of urban and rural public facilities and services appropriate for, but limited to, the needs and requirements of the urban, urbanizable and rural areas to be served."

Response: Transportation facilities are considered a primary type of public facility. The IAMP documents the current and future transportation needs in the vicinity of the Wilsonville Road Interchange. The analysis of possible alternatives resulted in a package of improvements and an access management plan that are intended to meet future transportation demand. The City will adopt the goals, policies, and implementation measures related to the protection of the function and operation of the Wilsonville Road Interchange.

Currently, the Comprehensive Plan contains policy language that states that proposed development must be timed relative to the provision of public facilities and services. Transportation facilities are included in the list of public facilities that must be adequately provided for prior to or concurrently with urban level development. Proposed policies address the function and management of the Wilsonville Road Interchange specifically. Proposed policy language emphasizes the vital role of this interchange to the state and the community and the importance of protecting this facility for its intended function. Proposed language is consistent with the city's existing concurrency policies and the goals and objectives of the IAMP (see IAMP, pages 11-13).

Goal 12: Transportation

Goal 12 requires cities, counties, metropolitan planning organizations, and ODOT to provide and encourage a "safe, convenient and economic transportation system." This is accomplished through development of Transportation System Plans based on inventories of local, regional and state transportation needs. Goal 12 is implemented through OAR 660, Division 12, also known as the Transportation Planning Rule ("TPR"). The TPR contains numerous requirements governing transportation planning and project development. (See the "OAR 660, Division 12" section of this document for findings of compliance with the TPR.)

Response: The purpose of the Wilsonville Road IAMP is to protect the function of the interchange and its ability to serve future transportation demands, thereby preserving the state's investment in the facility. The IAMP contains a discussion of the transportation analysis that was conducted in order to determine future demand, available capacity, deficiencies, and necessary improvements for this interchange area. The analysis demonstrates that the planned transportation facility will be

adequate to safely and efficiently serve trips generated by future land uses for a period of at least 20 years.

To implement the IAMP, it must be adopted into the City of Wilsonville's Transportation Plan. Policy and zoning ordinance language, as provided in IAMP Appendix G, is added to the City's Comprehensive Plan and Development Code in order to maintain interchange function and ensure that development inconsistent with the objectives of the IAMP does not cause unexpected traffic volumes or create non-conforming access points. IAMP policies provide for coordination between the City and ODOT for any land use actions proposed within the IAMP study area.

Local plans must be consistent with state plans. Subsequent to local action, adoption of the IAMP by the Oregon Transportation Commission will amend the Oregon Highway Plan to establish the long-range preferred interchange project alternative.

See additional findings under OAR 660, Division 12 Transportation Planning Rule.

Oregon Transportation Plan (2006)

The Oregon Transportation Plan (OTP) is the state's long-range multimodal transportation plan. The OTP is the overarching policy document among a series of plans that together form the state transportation system plan (TSP). An IAMP must be consistent with applicable OTP goals and policies. Findings of compatibility will be part of the basis for IAMP approval. The most pertinent OTP goals and policies for interchange planning are as follows:

POLICY 1.2 – Equity, Efficiency and Travel Choices
It is the policy of the State of Oregon to promote a transportation system with multiple travel choices that are easy to use, reliable, cost-effective and accessible to all potential users, including the transportation disadvantaged.

Response: Improved bicycle and pedestrian facilities are incorporated into the design for the interchange reconstruction. Any new roadway projects (including local streets) will meet current applicable standards. Pursuant to existing City requirements, 5-foot wide sidewalks will be constructed as part of all collector or local streets planned within the interchange area (see Local Street Connectivity Plan, Figure 6), with separate bike lanes required for roadways classified as collectors or above. The Local Street Connectivity Plan includes connections for bicycle and pedestrians where street connections are not possible or practical.

POLICY 1.3 – Relationship of Interurban and Urban Mobility
It is the policy of the State of Oregon to provide intercity mobility through and near urban areas in a manner which minimizes adverse effects on urban land use and travel patterns and provides for efficient long distance travel.

Response: The Wilsonville Road IAMP provides for improved safety and efficiency for travelers accessing Interstate 5 and land in south Wilsonville and facilitates intercity mobility between Wilsonville and the rest of the Portland metropolitan region and jurisdictions to the south, including Salem. The IAMP documents how access management and planned improvements will ensure that the facility will operate at levels consistent with the state's mobility standards over the 20-year planning horizon.

POLICY 2.1 - Capacity and Operational Efficiency
It is the policy of the State of Oregon to manage the transportation system to improve its capacity and operational efficiency for the long term benefit of people and goods movement.

POLICY 2.2 – Management of Assets
It is the policy of the State of Oregon to manage transportation assets to extend their life and reduce maintenance costs.

Response: The Wilsonville Road IAMP project was developed in response to safety, capacity and operational efficiency issues affecting the existing south Wilsonville interchange. Short-range actions in the IAMP accomplish state management objectives by closing the Parkway Avenue access to Wilsonville Road, making Town Center Loop the closest access point on the east side of the interchange, as part of interchange reconstruction. Long-range actions minimize access locations as part of future redevelopment, and only when reasonable alternate access becomes available. Through these actions, the IAMP protects long-term system capacity by ensuring that the interchange continues to function at a level that meets the mobility expectations of the state. The IAMP contains policies that support the access management spacing standards, reiterates the city's public facility concurrency requirements, and establishes that proposed land use actions that are inconsistent with the assumptions in the IAMP must include a review of potential impacts to interchange operations.

The stated purpose of the IAMP is to protect the function of the interchange, thereby maximizing its operational life and the State's investment in the facility. This includes providing safe and efficient connections between local streets and the state highways and minimizing local traffic traveling through the interchange. The IAMP requires proposed changes to the planned land use system to demonstrate consistency with IAMP policies protecting the long-term function of the interchange facility.

POLICY 3.1 – An Integrated and Efficient Freight System
It is the policy of the State of Oregon to promote an integrated, efficient and reliable freight system involving air, barges, pipelines, rail, ships and trucks to provide Oregon a competitive advantage by moving goods faster and more reliably to regional, national and international markets.

POLICY 3.2 – Moving People to Support Economic Vitality
It is the policy of the State of Oregon to develop an integrated system of transportation facilities, services and information so that intrastate, interstate and international travelers can travel easily for business and recreation.

Response: Interstate 5 is part of the National Highway System and is a designated freight route between Portland and points south. The highway is a Statewide Freight Route Highway in the Oregon Highway Plan. The Wilsonville Road Interchange provides a vital link between I-5 and the employment areas in south Wilsonville, allowing vehicular, including truck, traffic onto and off of the highway at this location. The Wilsonville Road IAMP provides management tools to ensure continued mobility on I-5, while allowing safe and efficient vehicular movements onto, and in the vicinity of, the interchange.

POLICY 4.1 - Environmentally Responsible Transportation System
It is the policy of the State of Oregon to provide a transportation system that is environmentally responsible and encourages conservation and protection of natural resources.

Response: The Wilsonville Road IAMP was developed to identify necessary improvements to an existing interchange in anticipation of future urban growth. Land in the vicinity of the interchange is currently developed or is planned for urban-level development. Through the implementation and construction of improvements included in the preferred interchange project alternative natural resources will be avoided or mitigated.

POLICY 5.1 – Safety
It is the policy of the State of Oregon to continually improve the safety and security of all modes and transportation facilities for system users including operators, passengers, pedestrians, recipients of goods and services, and property owners.

Response: The Wilsonville Road IAMP documents recurring safety issues at the northbound exit ramp at Exit 283 during morning peak hours. The I-5 northbound exit ramp has vehicle queues that consistently back up onto the mainline freeway during the morning peak period. This condition is caused by a substandard exit ramp length and a lack of capacity and storage at the I-5 / Wilsonville Road Northbound exit ramp terminal. Lack of left turn capacity on Wilsonville Road during the peak periods also contributes to long queues and congestion. The IAMP responds to these safety issues

by identifying necessary improvements to the interchange, including ramp lengthening and widening on Wilsonville Road.

POLICY 7.1 – A Coordinated Transportation System
It is the policy of the State of Oregon to work collaboratively with other jurisdictions and agencies with the objective of removing barriers so the transportation system can function as one system.

Response: ODOT worked in collaboration with the City of Wilsonville to develop and adopt the IAMP. Proposed IAMP policy language includes notifying ODOT of land use actions proposed within the IAMP Overlay Zone to ensure the continued coordination between ODOT and the City to protect the long-term function of the interchange.

POLICY 7.3 – Public Involvement and Consultation
It is the policy of the State of Oregon to involve Oregonians to the fullest practical extent in transportation planning and implementation in order to deliver a transportation system that meets the diverse needs of the state.

POLICY 7.4 - Environmental Justice
It is the policy of the State of Oregon to provide all Oregonians, regardless of race, culture or income, equal access to transportation decision-making so all Oregonians may fairly share in benefits and burdens and enjoy the same degree of protection from disproportionate adverse impacts.

Response: Appendix F provides a summary of the public involvement efforts that took place during development of the IAMP. Various methods were used to gather public input about the interchange project and the management plan, including two open houses, a project website and a public review and comment period for the draft IAMP. Press releases to announce the open houses were sent to the local newspaper and posted on both City of Wilsonville and ODOT websites. Input from citizens was used to evaluate alternatives. These opportunities were provided equally to all, regardless of race, culture or income.

The interchange is an existing facility on the interstate highway system. The proposed modifications provide improvements to expand the capacity of the facility and also to manage traffic in the vicinity of the interchange consistent with adopted local and state policies. None of the proposed actions or analyzed alternatives affected land outside the immediate interchange area. No target Environmental Justice Groups - which include minorities, people with disabilities, the elderly, people that speak English as a second language or non-English speaking people, and low income populations – are disproportionately affected by the IAMP.

Oregon Highway Plan

The 1999 Oregon Highway Plan (OHP) establishes policies and investment strategies for Oregon's state highway system over a 20-year period and refines the goals and policies found in the OTP. Policies in the OHP emphasize the efficient management of the highway system to increase safety and to extend highway capacity, partnerships with other agencies and local governments, and the use of new techniques to improve road safety and capacity. These policies also link land use and transportation, set standards for highway performance and access management, and emphasize the relationship between state highways and local road, bicycle, pedestrian, transit, rail, and air systems. The policies applicable to planning for the Wilsonville Road interchange improvements are described below.

***Policy 1A** (Highway Classification) defines the function of state highways to serve different types of traffic that should be incorporated into and specified through IAMPs.*

***Policy 1C** (State Highway Freight System) states the need to balance the movement of goods and services with other uses.*

Response: I-5 is classified as an Interstate Highway (NHS) and a State Freight Route by ODOT. Proposed interchange improvements and the access management plan, designed to minimize access points on Wilsonville Road in the vicinity of the interchange, were designed to ensure the safe and efficient high-speed, continuous-flow operation of I-5, consistent with this state policy. In addition, the proposed preferred alternative improves freight mobility through the area by addressing safety, capacity, and efficiency issues.

***Policy 1B** (Land Use and Transportation) recognizes the need for coordination between state and local jurisdictions.*

Response: Coordination between ODOT and the City occurred throughout the preparation of the IAMP. A Project Management Team (PMT) was formed to inform the IAMP process and included members representing the City of Wilsonville and DLCD. The PMT met five times, including one meeting devoted to implementation measures, and reviewed draft documents in order to provide consensual revisions.

***Policy 1F** (Highway Mobility Standards) sets mobility standards for ensuring a reliable and acceptable level of mobility on the highway system by identifying necessary improvements that would allow the interchange to function in a manner consistent with OHP mobility standards.*

Response: The analysis of existing and future traffic conditions in the vicinity of the Wilsonville Road interchange shows that the existing interchange facility does not meet acceptable safety standards and that it will not be able to accommodate the

expected traffic volumes over a 20-year planning horizon. Mobility standards were used as a criterion for selecting a preferred set of interchange improvements and developing an access management plan for the interchange area.

***Policy 1G** (Major Improvements) requires maintaining performance and improving safety by improving efficiency and management before adding capacity. ODOT works with regional and local governments to address highway performance and safety.*

Response: Appendix E of the IAMP summarizes the alternatives that were evaluated for their potential to accommodate existing and future traffic demand at the I-5/Wilsonville Road interchange. The IAMP includes an access management plan, a local street connectivity plan, and other measures, such as traffic controls, that do not add capacity. Even with these recommended improvements, the analysis shows that two additional lanes are required on the Wilsonville Road over-crossing to meet 2030 operating conditions.

***Policy 2B** (Off-System Improvements) helps local jurisdictions adopt land use and access management policies.*

Response: Adoption of the land use and access management policies and implementation measures in the IAMP protect the function of the interchange and other related transportation improvements. The IAMP's access management plan restricts direct access to the interchange and the proposed local street connectivity plan ensures that a local street network, not I-5, will carry local trips and provide access to locations and properties in south Wilsonville.

***Policy 2F** (Traffic Safety) improves the safety of the highway system.*

Response: A principal reason for re-construction of the interchange is to address documented safety issues associated with vehicle queues that back up onto the mainline freeway. The IAMP protects the safe and efficient operation of the interchange by proposing facility improvements to meet the year 2030 traffic demand, regulating access, and providing alternatives to highway use via a planned local street network.

***Policy 3A** (Classification and Spacing Standards) sets access spacing standards for driveways and approaches to the state highway system.*

Response: The IAMP adheres to the approach road spacing standards established by OAR 734-051 where feasible, but the standards cannot be met at certain locations. A number of existing access points do not meet State access spacing standards for driveway and approaches, but are proposed to be retained in the IAMP. The reasons for deviating from these standards are varied and are provided in detail in the Evaluation Process section of the IAMP. Generally, these deviations are necessary to

accommodate reconstruction of the interchange at its existing location, to retain local streets in their existing location (e.g., Wilsonville Road/Boones Ferry Road intersection), and to provide accesses for existing properties because reasonable alternate accesses are not currently available. Several of the access points serving existing businesses that now require a deviation from the OHP standards will be reevaluated upon redevelopment of the subject properties (see "Deviations Required" subsection under the Evaluations Process in the IAMP).

The IAMP contains short- and long-range access strategies that will be applied within the IAMP planning area in order to regulate existing and future driveway and other approaches in the vicinity of the interchange.

***Policy 3C** (Interchange Access Management Areas) sets policy for managing interchange areas by developing an IAMP that identifies and addresses current interchange deficiencies and establishes short, medium and long term solutions.*

Response: The stated purpose of the IAMP is to protect the function of the interchange, thereby maximizing its operational life and the State's investment in the facility. The IAMP provides recommendations for short- and long-range access management and implementation actions, as well as land use and transportation policies that are intended to protect the interchange over the 20-year planning horizon.

***Policy 3D** (Deviations) establishes general policies and procedures for deviations from adopted access management standards and policies.*

Response: The Evaluation Process section of the IAMP provides a list of access points that will require an access spacing deviation request and the rationale for the request. Deviations have been requested and approved by ODOT in accordance with the applicable state procedure.

OAR 660 Division 12 Transportation Planning Rule (TPR)

The purpose of the TPR is "to implement Statewide Planning Goal 12 (Transportation) and promote the development of safe, convenient and economic transportation systems that are designed to reduce reliance on the automobile so that the air pollution, traffic and other livability problems faced by urban areas in other parts of the country might be avoided." A major purpose of the Transportation Planning Rule (TPR) is to promote more careful coordination of land use and transportation planning, to ensure that planned land uses are supported by and consistent with planned transportation facilities and improvements. The TPR references OAR 731, Division 15 for ODOT coordination procedures for adopting facility plans and plans for Class 1 and 3 projects.

Section 660-012-0005 through 660-012-0050

Response: These sections of the TPR contain policies for preparing and implementing a transportation system plan. The Wilsonville Road IAMP will be adopted as part of the City's existing transportation system plan and most of these sections are not applicable. The TPR requires that local governments adopt land use regulations consistent with state and federal requirements "to protect transportation facilities, corridors, and sites for their identified functions (OAR 660-012-0045(2))." As part of IAMP adoption, the City will revise the Planning and Land Development Ordinance (Development Code) to include a new Overlay Zone section. The requirements of this new Development Code section will ensure that local land use actions are consistent with the transportation facility planning within the IAMP.

Section 660-012-0055 – Timing of Adoption and Update of Transportation System Plans

Response: Part (5) in this Section requires cities and counties to update their TSPs and implementing measures when a refinement plan has been completed. The Wilsonville Road IAMP is considered a refinement plan and therefore is subject to this requirement. Consistent with this TPR requirement, the City of Wilsonville will amend the TSP to adopt the IAMP by reference. Appendix G of the IAMP contains the policies and implementation measures that will be adopted by the City.

Section 660-012-0060 – Plan and Land Use Regulation Amendments

Response: Part (1) in this section requires that where an amendment to a functional plan, an acknowledged comprehensive plan, or a land use regulation would significantly affect an existing or planned transportation facility, the local government shall put in place measures to assure that allowed land uses are consistent with the identified function, capacity, and performance standards of the facility. Current and future planned land uses were considered in development of the IAMP's preferred interchange project alternative in order to ensure the interchange's ability to support future traffic demands.

Existing City policies mandate that public facilities are provided concurrent with the need created by development or redevelopment. Proposed policies and implementation measures within the IAMP (see Appendix G) extend this requirement to the interchange area, emphasizing an adequate, multi-modal local transportation system and adherence to access management spacing standards. Proposed implementation measures also require that any proposed land use actions within the Overlay Zone be noticed to ODOT and that plan amendments and zone changes within the IAMP area must not result in a significant impact on the interchange facility. Related to this policy, Appendix G contains proposed development standards that will be adopted by the City that codify the existing traffic impact analysis

requirement. The standards require that all transportation impacts that result from future development be fully mitigated to ensure the continued functionality of the interchange

OAR 731-015-0065 Coordination Procedures for Adopting Final Facility Plans

OAR 731-015-0065 regulates ODOT procedure for adopting facility plans. An IAMP is a facility plan. The procedure outlined in OAR 731-015-0065 requires that ODOT coordinate with DLCD and local government agencies during development of the plan and provide a draft of the facility plan to affected cities, counties, and other agencies for comment. The facility plan must be consistent with statewide planning goals and local comprehensive plan policies, and findings of compatibility must be presented to the Oregon Transportation Commission for facility plan adoption.

Response: The Wilsonville Road IAMP is the result of a collaborative planning effort between ODOT and the City. Coordination with DLCD during IAMP development occurred primarily through field staff participation during a project team meeting regarding implementation and agency review of draft IAMP products. Findings addressing statewide goals and requirements, as well as local plan policies are included in this section of the IAMP (Appendix H.). A final draft of the IAMP will be provided to all affected government and other agencies, and any potential conflicts with state or local plans will be jointly resolved through the local public adoption process. Findings of compliance with statewide planning goals and local comprehensive plans also will be included in materials for presentation to the Oregon Transportation Commission. Adoption of the IAMP will take place in conformance with this provision.

OAR 734, Division 51. Highway Approaches, Access Control, Spacing Standards and Medians

OAR 734-051 governs the permitting, management, and standards of approaches to state highways to ensure safe and efficient operation of the state highways. OAR 734-051 policies address the following:

- How to bring existing and future approaches into compliance with access spacing standards, and ensure the safe and efficient operation of the highway;
- The purpose and components of an access management plan; and
- Requirements regarding mitigation, modification and closure of existing approaches as part of project development.

Section 734-051-0125, Access Management Spacing Standards for Approaches in an Interchange Area, establishes interchange management area access spacing standards. It also specifies elements that are to be included in IAMPs, such as short-, medium-, and

long-range actions to improve and maintain safe and efficient roadway operations within the interchange area.

Response: The access management plan component of the Wilsonville Road IAMP IAMP includes development standards that regulate access spacing for new development and redevelopment near the interchange. These standards restrict all access on Wilsonville Road within 1,320 feet from the interchange. A right-in/right-out access is allowed on the westbound side of Wilsonville Road at a distance no closer than 750 feet from the interchange ramp terminal and a right-in/right-out access is allowed on the eastbound side of Wilsonville Road at no closer than 990 feet from the interchange ramp terminal. The access management plan also requires, where feasible, replacing private approaches with public streets and aligning approaches on opposite sides of roadways.

The access management plan identifies existing approaches and driveways along Wilsonville Road that do not meet the standards. Short-range and long-range access strategies require the closure of the non-standard access points if alternate access is available, or closing or moving access points as part of future development proposals or as funding becomes available, so that compliance is achieved over time. Table 3 of the IAMP lists the access points along Wilsonville Road and the action needed. Existing non-conforming access points for which a deviation will be required from the spacing standards are also discussed, as well as the rationale for the deviation request. Where future proposed interchange improvements will not meet access the spacing standards outlined in OAR 734-051-0125, approved deviations to interchange and roadway approach (public and private streets and driveways) access spacing standards are required pursuant to OAR 734-051-0135. The listed deviations have been approved by ODOT.

2004 Metro Regional Transportation Plan (RTP)

The RTP's regional street design policies address federal, state, and regional transportation mandates with street design concepts intended to support local implementation of the 2040 Growth Concept. The RTP recognizes as regionally significant the following Wilsonville roads: Elligsen Road, Boones Ferry Road (north of Elligsen Road), Parkway Avenue (north of Town Center Loop to Elligsen Road), Boeckman Road, Town Center Loop, and Wilsonville Road. Regional street design classifications are given in Figure 1.4, page 1-19 of the RTP. Elligsen Road is defined as an Urban Road. Town Center Loop and that portion of Wilsonville Road in the Town Center are defined as a Community Boulevard. All of the rest of the regionally significant roadways are defined as Community Streets. The TSP complies with AASHTO and RTP design concepts, purpose, and design emphasis. RTP regional street design concepts also apply to local streets.

The functional classification of the regionally significant Wilsonville roads, per Figure 1.12 'Regional Motor Vehicle System' on page 1-29 of the RTP, is minor arterial. Minor Arterials, for the RTP, are primarily orientated toward motor vehicle travel at the community level. The City's TSP notes that the locally adopted transportation plan is in general conformance with the RTP functional classification, except where the City has designated portions of the City roadway system as major arterials, as is the case with Wilsonville Road. The RTP will reflect the City's classification when it is next updated, which is scheduled Fall 2009.

Relevant to the proposed transportation improvements in the Wilsonville IAMP, the RTP Policy 15.0, Regional Freight System, contains objectives related to providing efficient, cost-effective and safe movement of freight in and through the region.

> Response: Wilsonville Road will be widened in the vicinity of the interchange (between Town Center Loop West and approximately 500 feet west of Boones Ferry Road), however, no additional local capacity improvements on Wilsonville Road are being proposed beyond these limits. The Wilsonville IAMP preferred interchange project alternative proposes to lengthen and widen the entrance and exit ramps between I-5 and Wilsonville Road, provide additional travel lanes/turn lanes/storage on Wilsonville Road in the immediate vicinity of the interchange, and to implement an Access Management Plan to control access at this interchange.
> The benefits to regional freight movement are explored in this report in findings under the Wilsonville Transportation Systems Plan and the Oregon Transportation Plan sections.

City of Wilsonville Transportation Systems Plan

The City of Wilsonville adopted the Transportation Systems Plan in 2003 and updated the document to include a Bicycle and Pedestrian Master Plan in 2006. A desired pedestrian and bicycle bridge crossing I-5 (listed as the Town Center Loop Bridge in the Bicycle and Pedestrian Master Plan) is proposed on the IAMP's Local Street Connectivity Plan map as a link between a future North-South Connector on the west and Memorial Drive on the east.

Chapter 4, Motor Vehicle Facilities, includes a discussion of the 2002 I-5/Wilsonville Freeway Access Study (Section 4.2.2). As documented in the IAMP (Appendix E), a number of transportation studies built on the original Access Study and were subsequently relied upon, and expanded to meet the 2030 transportation needs, to determine the preferred interchange project alternative. Goals, policies, and implementation measures applicable to the adoption of the IAMP are addressed below.

4.1 GOALS

Goal 4.1: To provide an interconnected motor vehicle system that will safely and efficiently provide for vehicle circulation and enhanced mobility.

> Response: The proposed Local Street Connectivity Plan furthers this goal by completing a transportation network in the vicinity of the Wilsonville Road interchange. An efficient local street network minimizes the need to use I-5 for local trips, providing more ways to access locations and properties in south Wilsonville.

4.6 POLICIES
The City of Wilsonville shall...

Policy 4.1.1 Design the City street system per the street standards set forth in this TSP and to meet LOS D, which is the standard in the City. As may be approved by the City Council, possible exceptions to the LOS D standard are a change to LOS E on Boones Ferry Road and/or Elligsen Road, and on Wilsonville Road between and including the intersections with Boones Ferry Road and Town Center Loop West. Other capacity improvements intended to allow continued development without exceeding LOS E may also be approved by the City Council in permitted locations.

> Response: As shown in Table 1 in the IAMP, all City of Wilsonville intersections would operate at acceptable levels, operating at LOS "D" or better for the 2030 "Build" condition.

Policy 4.1.2 Require developers to provide transportation improvements as may be required or conditioned by a land use decision, expedited land use division, or limited

land use decision, on a roughly proportional basis of the developer's impacts to the benefits received.

Response: Development within the IAMP management area will be required to provide roadway improvements consistent with the Local Street Connectivity Plan (Figure 6), based on the proposed development's impacts. Systems development charges (SDCs) are assessed on all new construction and redevelopments resulting in additional traffic within the City; revenue generated by SDCs are transferred into the Capital Projects Fund through interfund transfers to fund construction.

Policy 4.1.3 Require bicycle and pedestrian linkages for all cul-de-sacs and encourage similar linkages between neighborhoods that would otherwise be separated.

Response: Improved bicycle and pedestrian facilities are incorporated into the design for the interchange reconstruction. Any new roadway projects (including local streets) will meet current applicable standards. Pursuant to existing City requirements, 5-foot wide sidewalks will be constructed as part of all collector or local streets planned within the interchange with separate bike lanes required for roadways classified as collectors or above.

Policy 4.1.4 Connect the existing motor vehicle system within the City and across Interstate 5 (I-5) where appropriate. All connections shall be evaluated for their impacts to future operations of the City's road network.

Response: The Local Street Connectivity Plan (Figure 6) in the IAMP proposes alignments for Kinsman and Brown Road and new connections for a Barber Street extension, a North-South Connector paralleling I-5 west of the highway, and a new Loop Road off of Boones Ferry Road. The Local Street Connectivity Plan includes a bicycle and pedestrian connection across the highway, connecting 5th Street and Memorial Drive.

Policy 4.1.5 Promote other existing routes and/or provide connections to other regional roadways that provide alternative routes into and out of the City to reduce the reliance on I-5 and its interchanges within the City.

Response: The Local Street Connectivity Plan was developed to provide local roadway connections, in particular to the southwest the Wilsonville Road interchange, in order to reduce the number of trips on the interchange facility.

Policy 4.1.6 Develop a system of signal coordination and tie in with the I-5 ITS system providing a system of integrated parallel arterials and collectors.

Response: The IAMP is a planning document, which does not typically address signal timing and/or coordination issues. There is nothing in the IAMP which would

prevent the City and/or ODOT from pursuing this as part of any current or future interchange area design projects.

Policy 4.2.1 Continue to plan, schedule, and coordinate all public street improvements through a Capital Improvements Program.

Response: The local street improvements contained in the IAMP will be planned and coordinated with the City's Capital Improvements Program.

Policy 4.2.2 Provide an adequate motor vehicle system that serves commercial vehicle/truck traffic to and from land uses requiring the use of commercial vehicles/trucks.

Response: The IAMP's Access Management Plan will improve long-term congestion and safety issues in the vicinity of the interchange, a vital facility for employment areas in south Wilsonville and the truck traffic entering and exiting I-5 at this location. The Local Street Connectivity Plan will also improve the local transportation system by extending existing roadways and making connections to improve local circulation through existing and planned employment areas.

Policy 4.3.1 Evaluate and minimize the environmental impacts of all new public road projects.

Response: The environmental impacts of all new public road projects within the IAMP management area will be assessed at the time of construction. Proposed road alignments included on the Local Street Connectivity Plan show general locations and may be altered to avoid or minimize impacts to environmental features.

Policy 4.4.1 Work with ODOT to improve the general community awareness of its access permitting authority.

Response: The State's required access spacing standards were used in the evaluation of alternatives in the IAMP (Appendix E). Ultimately, the preferred interchange project alternative and the Access Management Plan are the result of the objective to meet, or move in the direction of meeting, the ODOT adopted access management spacing standards for access to interchange crossroads (Wilsonville Road). Through the action of adopting and implementing the Wilsonville Road IAMP, the City is working with ODOT to improve community awareness of this Department's access permitting authority.

Implementation Measure 4.2.2.a The importance of freight to the Wilsonville economy will be acknowledged in all transportation planning and funding efforts. The need to accommodate trucks, truck routing, and truck-based street design will be integrated into the Development Code and in all subsequent and appropriate planning projects. To

accommodate the movement of freight, the City shall work with other jurisdictions along the south I-5 corridor to promote needed improvements to I-5 and its interchanges.

Response: The development of the Wilsonville Road IAMP was prompted by the lack of future capacity for the planned land uses in south Wilsonville, including the employment areas southwest of the interchange. The preferred project alternative, which includes physical capacity improvements of the interchange facility, has been designed to accommodate truck traffic.

Implementation Measure 4.4.1.b Require that there be further communications and efforts to work with ODOT to ameliorate their use of the signals at the ODOT controlled areas of the Wilsonville Road/I-5 interchange and Elligsen Road/I-5 interchange.

> Response: The Wilsonville Road IAMP preferred project alternative included analysis of the signalized intersections within the vicinity of the interchange. As explained in the IAMP (Appendix E, Develop and Evaluate Alternatives), the City of Wilsonville's operational threshold for signalized intersections is LOS "D" during peak hour operations. For design purposes, ODOT operational requirements demand an intersection volume-to capacity ratio (V/C) of 0.85 or less during peak hour operations. For planning purposes, the I-5 northbound and southbound interchange ramps at Wilsonville Road are subject to meet ODOT intersection operation criteria while the remaining intersections (Wilsonville Road/Boones Ferry Road, Wilsonville Road/Town Center Loop West, and Wilsonville Road/Rebekah Street) are subject to meet City intersection operation criteria. As shown in Table 1 in the IAMP, all City of Wilsonville intersections would operate at acceptable levels, operating at LOS "D" or better for the 2030 "Build" condition. The I-5 / Wilsonville Road intersection will generally operate at an acceptable level in 2030, assuming it is reconstructed to the 8-lane plan, although design exceptions will need to be requested for the volume-to-capacity ratio at the I-5 Southbound Ramps / Wilsonville Road (0.12 over the HDM standard of 0.75) and at the I-5 Northbound Ramps/Wilsonville Road (0.03 over the HDM standard of 0.75).

Wilsonville Comprehensive Plan

Section A. Citizen Involvement.

Goal 1.1 requires the city to encourage and provide means for interested parties to be involved in land use planning processes, on individual cases, and city-wide programs and policies.

Policy 1.1.1 states that the city shall provide opportunities for a wide range of public involvement in city planning programs and processes.

Implementation Measure 1.1.1a directs the city to provide for early public involvement to address neighborhood or community concerns regarding Development Code changes.

Implementation Measure 1.1.1e encourages the participation of residents of Wilsonville, employers and employees in Wilsonville, property owners and residents and owners within the UGB areas outside city boundaries.

Implementation Measure 1.1.1f directs the city to establish and maintain procedures that will allow any interested parties to supply information.

Response: The proposed amendment is a legislative update to the City's Transportation System Plan, an element of the adopted Comprehensive Plan, that incorporates by reference the Wilsonville Road IAMP and includes policy language that supports the intent and recommendations of the IAMP. As discussed in the Statewide Land Use Goals findings, the public involvement process included two open houses for public participation. In addition, telephone contacts were provided in meeting notices. Appendix F of the Wilsonville Road IAMP contains a complete summary of the public involvement efforts that were undertaken as part of the IAMP project.

The City has established procedures for conducting public hearings found in the City's Development Code, Sections 4.008 – 4.033. Notice of the Planning Commission public hearing was posted in the local newspaper in advance of the public hearing and required notice was sent to property owners pursuant to the requirements of the Development Code.

Section B. Urban Growth Management.
Goal 2.1 is to allow for urban growth while maintaining community livability, consistent with the economics of development, City administration, and the provision of public facilities and services.

Policy 2.1.1 states that the city shall support the development of all land within the city, other than designated open space lands, consistent with the land use designations of the Comprehensive Plan.

Implementation Measure 2.1.1.e allows new development to proceed concurrently with the availability of adequate public services and facilities as specified in Public Facilities and
Services Section (Section C) of the Comprehensive Plan.

Response: The purpose of the Wilsonville Road IAMP is to protect the function of the interchange. The plan identifies improvements necessary for the facility that will ensure that necessary capacity is available for the expected 20-year growth. The proposed addition of travel lanes on Wilsonville Road, in conjunction with

lengthening and widening both northbound and southbound entrance and exit ramps to I-5, as well as the proposed surrounding transportation network and access management plan, will support the planned land uses in south Wilsonville. Consistent with the city's adopted Urban Growth Management policies, adopting the IAMP and associated policies and code language support urban development within the City's urban growth boundaries.

Section C. Public Facilities and Services.

Policy 3.1.2 requires the city to provide, or coordinate the provision of, facilities and services concurrent with need (created by new development, redevelopment, or upgrades of aging infrastructure).

Implementation Measure 3.1.2.a states that urban development will be allowed only in areas where necessary facilities and services can be provided.

Implementation Measure 3.1.2.b states that development threatens the public's health, safety, or general welfare due to a failure to provide adequate public facilities and services, will not be permitted. Planning approvals may be granted when evidence, including listing in the city's adopted Capital Improvement Program, supports the finding that facilities/services will be available within two years.

Response: By adopting the Wilsonville Road IAMP, the city is ensuring that there is a plan for providing the necessary transportation improvements, to both the interchange and the roadway system in its vicinity, necessary to support growth in south Wilsonville over the next 20 years. The projects identified in the Wilsonville Road IAMP will become part of the city's transportation improvement program and the access management plan will provide a guide to short- and long-range actions needed to preserve interchange capacity, efficiency, and safety.

Planning and Land Development Ordinance:

Section 4.197. Zone Changes and Amendments To This Code – Procedures.

(.01). The following procedure shall be followed in applying for an amendment to the text of this Chapter:

A. The Planning Commission shall conduct a public hearing on the proposed amendment at its earliest practicable meeting after it is proposed and shall, within forty (40) days after concluding the hearing, provide a report and recommendation to the City Council regarding the proposed amendment. The findings and recommendations of the Commission shall be adopted by resolution and shall be signed by the Chair of the Commission.

Response: This amendment is City initiated. A public hearing is noticed for September 9, 2009. The findings and recommendations of the Commission will be adopted by resolution, which will be signed by the Chair of the Commission. The Council public hearing and first reading is tentatively scheduled for October 5, 2009.

B. In recommending approval of a proposed text amendment, the Planning Commission shall, at a minimum, adopt finings relative to the following:

2. The amendment substantially complies with all applicable goals, policies and objectives set forth in the Comprehensive Plan.

Response: The proposed amendment complies with all applicable goals, policies and objectives set forth in the Comprehensive Plan, as documented in the findings and conclusions elsewhere in this report.

3. The amendment does not conflict with, nor endanger, other provisions of the text of the Code.

Response: The proposed addition of a new IAMP Overlay Zone section to Chapter 4 of the city's code does not alter other sections of the code. Principally, the proposed section modifies existing city requirements and codifies city practice pertaining to development and redevelopment in the vicinity of the Wilsonville Road interchange and ties these requirements to the IAMP. Therefore, there are no conflicts with provisions of the text of the Code.

4. *If applicable, the amendment is necessary to insure that the City's Land Use and Development ordinance complies with mandated requirements or State or Federal laws and/or statutes.*

Response: The proposed amendment is necessary to comply with mandates of state or federal laws or statutes. The action of adopting the IAMP requires a Transportation Planning Rule (TPR) compliance review. The TPR requires that local governments adopt land use regulations consistent with state and federal requirements "to protect transportation facilities, corridors, and sites for their identified functions (OAR 660-012-0045(2))." Adopting the code language proposed in the new Section 4.XXX will ensure that local land use actions are consistent with the transportation facility planning within the IAMP.

The proposed code language also addresses TPR Section -0060, which requires that amendments to functional plans, acknowledged comprehensive plans, and land use regulations that significantly affect an existing or planned transportation facility must ensure that the allowed land uses are consistent with the identified function, capacity, and performance standards of the facility. Currently, the city requires a Development Permit for all land use or development actions, with very limited exceptions (see Section 4.005, Exclusions from Development Permit Requirement), but also may waive this requirement (Section 4.008(.02)E). Pursuant to the Development Code, a change in use, one that "substantially affects" the use of an existing structure, or an alteration to an existing building that affects the use or appearance of the land, also requires a Development Permit. The existing concurrency policies and the city requirement that all land use actions and development proposals include a traffic impact analysis (TIA) are consistent with -0060. The proposed TIA requirements for the new overlay zone codify existing practice and make explicit that this level of transportation analysis will be required for land use applications submitted for parcels within the IAMP management area.

(.02) In recommending approval or denial of a proposed zone map amendment, the Planning Commission or Development Review Board shall at a minimum, adopt findings addressing the following criteria:

A. That the application before the Commission or Board was submitted in accordance with the procedures set forth in Section 4.008, Section 4.125 (.18)(B)(2) or, in the case of a Planned Development, Section 4.140; and [Amended by Ord 557, adopted 9/5/03]

Response: As demonstrated elsewhere in this report, applicable application procedures have been followed in the development and notification of adoption of the proposed Chapter 4 amendment.

B. That the proposed amendment is consistent with the Comprehensive Plan map designation and substantially complies with the applicable goals, policies and objectives, set forth in the Comprehensive Plan text; and

Response: Applicable policies of the Wilsonville Comprehensive Plan have been addressed elsewhere in this report. The proposed zone map amendment to include the IAMP Overlay Zone is consistent with the proposal to include the same district boundaries on the Comprehensive Plan Map. Adoption of the Overlay Zone does not change the underlying land use designation or zoning of parcels within the district.

(.03) If affirmative findings cannot be made for all applicable criteria listed above the Planning Commission or Development Review Board shall recommend that the proposed text or map amendment, as the case may be, be denied.

Response: Affirmative findings for all applicable criteria are contained in this report.

Section 4.197(.04) is a procedural requirement related to final Council action.

Section 4.197(.05) is applicable to property owner/applicant initiated zoning map amendments.

Section 4.198. Comprehensive Plan Changes - Adoption by the City Council.

(.01) Proposals to amend the Comprehensive Plan, or to adopt new elements or sub-elements of the Plan, shall be subject to the procedures and criteria contained in the Comprehensive Plan. Each such amendment shall include findings in support of the following:

A. That the proposed amendment meets a public need that has been identified;

B. That the proposed amendment meets the identified public need at least as well as any other amendment or change that could reasonably be made;

C. That the proposed amendment supports applicable Statewide Planning Goals, or a Goal exception has been found to be appropriate; and

D. That the proposed change will not result in conflicts with any portion of the Comprehensive Plan that is not being amended.

Response: The requested action is to amend Wilsonville Transportation System Plan, an element of the City of Wilsonville Comprehensive Plan, to include the Wilsonville Road Interchange Area Management Plan ("IAMP"). Adoption of the IAMP entails amendment of the City's TSP to include specific transportation system improvements, access management actions, and policy statements

supporting the preferred interchange project alternative. The IAMP identifies needed transportation system and interchange facility improvements over a 20-year planning horizon. The IAMP contains a discussion of the transportation analysis that was conducted in order to determine future demand, available capacity, deficiencies, and necessary improvements for this interchange area. Findings of consistency elsewhere in this report address the applicable Statewide Planning Goals and City Comprehensive Plan goals and policies.

(.02) Following the adoption and signature of the Resolution by the Development Review Board or Planning Commission, together with minutes of public hearings on the proposed Amendment, the matter shall be shall be scheduled for public hearing before the City Council.

(.03) Notice of the Council's consideration of the matter shall be provided as set forth in Section 4.012.

(.04) Upon conclusion of its public hearing on the matter, the Council shall adopt its decision by ordinance, authorizing the Planning Director to amend the official zoning map, Comprehensive Plan Map or the text of Chapter 4 as set forth in Section 4.102.

Response: Procedures for public hearing before the City Council and final adoption shall be followed after the Planning Commission hearing and recommendation.

Appendix H: City and ODOT Adoptions

Appendix H: City and ODOT Adoptions

The City of Wilsonville Planning Commission approved the IAMP and forwarded it to City Council on September 9, 2009.

The City of Wilsonville City Council had its first reading of the IAMP on October 5, 2009 and requested minor changes to the document.

The City of Wilsonville City Council will have its second reading of the IAMP on October 19, 2009.

The City of Wilsonville is in the process of adopting Ordinance Nos. 670, 671, 672 and 673 as described below:

1. Ordinance No. 670 – Amendment to the Wilsonville Transportation Systems Plan to Incorporate the I-5/Wilsonville Road Interchange Area Management Plan (IAMP). The TSP is a Supportive Document to the Wilsonville Comprehensive Plan.
2. Ordinance No. 671 – Amending the City's Comprehensive Plan by Deleting the Section Titled Roads and Transportation Plan and Adopting a New Section Titled Transportation.
3. Ordinance No. 672 – Amending Chapter 4 of the City Code to Include the I-5/Wilsonville Road Interchange Area Management Plan (IAMP) Overlay Zoning District.
4. Ordinance No. 673 – Amending the City's Official Zoning Map to Add I-5/Wilsonville Road Interchange Area Management Plan (IAMP) Overlay District Boundaries.

[Ordinances to be included upon City of Wilsonville City Council adoption]

The Oregon Transportation Commission will review the document in late 2009 or early 2010.

Appendix J:

Ordinance No. 670
An Ordinance of the City Of Wilsonville Amending the City's Transportation Systems Plan to Include the I-5/Wilsonville Road Interchange Area Management Plan (IAMP).

Ordinance No. 671
An Ordinance of the City of Wilsonville Amending the City's Comprehensive Plan by Deleting the Section Titled Roads and Transportation Plan (Pp C-7 – C-14) and Adopting A New Section Titled Transportation.

Ordinance No. 672
An Ordinance of the City Of Wilsonville Amending Chapter 4 of the City Code to Include the I-5/ Wilsonville Road Interchange Area Management Plan (IAMP) Overlay Zoning District.

Ordinance No. 673
An Ordinance of the City of Wilsonville Amending the City's Official Zoning Map to Include the Boundaries of The I-5/Wilsonville Road Interchange Area Management Plan (IAMP) Overlay Zoning District.

ORDINANCE NO. 670

AN ORDINANCE OF THE CITY OF WILSONVILLE AMENDING THE CITY'S TRANSPORTATION SYSTEMS PLAN TO INCLUDE THE I-5/WILSONVILLE ROAD INTERCHANGE AREA MANAGEMENT PLAN (IAMP)

WHEREAS, the City adopted a Transportation Systems Plan in 2003, and

WHEREAS, the City and ODOT have agreed on improvements to and financing for the I-5/Wilsonville Road Interchange Area, and

WHEREAS, the State Transportation Planning Rule requires that the investment made in improvements to interstate interchanges be protected by joint adoption of interchange area management plans, and

WHEREAS, the City has worked with consultants and the public to develop a draft IAMP for adoption by the City into the TSP, and by the Oregon Transportation Commission into the Oregon Highway Plan, and

WHEREAS, the draft IAMP and proposed amendments were presented to the public at an open house held on July 14, 2009, and

WHEREAS, the Planning Commission held a work session on the draft Plan and proposed Plan and Code amendments on August 12, 2009, and

WHEREAS, the Planning Commission, after providing the required notice, held a Public Hearing on September 9, 2009 to review the I-5/Wilsonville Road Interchange Area Management Plan and to gather additional testimony and evidence regarding the Plan; and

WHEREAS, the Commission has afforded all interested parties an opportunity to be heard on this subject and has entered all available evidence and testimony into the public record of their proceeding; and

WHEREAS, the Planning Commission has duly considered the subject, including the staff recommendations and all the exhibits and testimony introduced and offered by all interested parties; and

NOW, THEREFORE, THE CITY OF WILSONVILLE ORDAINS AS FOLLOWS:

1. The City Council does hereby adopt all Staff Reports along with the findings and recommendations of the Planning Commission, as contained in Exhibit "A".
2. The Wilsonville Transportation Systems Plan shall be amended as shown in Exhibit "C" attached.
3. Ordinance No. 670 was brought to Council for second reading on November 2, 2009 and was approved by a four to zero vote (Councilor Ripple excused) but not with a roll call vote. The ordinance returns to Council on November 16, 2009 for a roll call vote.

SUBMITTED to the Wilsonville City Council and read for the first time at a regular meeting thereof on the 5th day of October, 2009, scheduled for second reading at a regular meeting of the City Council on the November 16, 2009 by roll call vote, commencing at the hour of 7 p.m. at the Wilsonville City Hall.

Sandra C. King

Sandra C. King, MMC, City Recorder

ENACTED by the City Council on the 16th day of November, 2009 by the following votes:

Yes: -4- No: -0-

Sandra C. King, MMC, City Recorder

DATED and signed by the Mayor this 17th day of November, 2009.

TIM KNAPP, MAYOR

SUMMARY OF VOTES:

Mayor Knapp - Yes

Councilor Kirk - Yes

Councilor Hurst - Yes

Councilor Núñez - Yes

Councilor Ripple - Excused

List of attachments:

EXHIBIT "A": Planning Commission Record of September 9, 2009

EXHIBIT "B": Interchange Area Management Plan, Interstate 5/Wilsonville Road (Exit 283), Wilsonville, Oregon. October 2009

EXHIBIT "C"

Amend the 2003 Wilsonville Transportation Systems Plan (TSP) by:

1. Adding the September 2009 Interchange Area Management Plan, Interstate 5/Wilsonville Road (Exit 283) as Appendix C of the TSP.

2. Re-numbering Section 4.4.7 of the 2003 TSP to 4.4.8.

3. Adding a new Section 4.4.7 to read as follows:

Section 4.4.7 Interchange Area Management Plan, I-5/Wilsonville Road

The Interchange Area Management Plan (IAMP) found in Appendix C of this document presents how the City of Wilsonville and ODOT will collaborate to improve the Wilsonville Road Exit (#283) from Interstate 5 to serve planned growth. The IAMP document describes the extent of operational and access management solutions that are required, and the steps needed to implement the various improvements.

In 1994, the City of Wilsonville and ODOT entered into an agreement to build Phase 1 of a planned multiphase Wilsonville Road interchange improvement project. All improvements have been completed that were part of the first construction phase. In 2003, the City of Wilsonville adopted an eight-lane cross-section on Wilsonville Road at the freeway interchange as part of its Transportation System Plan.

More recently, the City of Wilsonville and ODOT signed a Cooperative Improvement Agreement (CIA #23581) to construct Phase 2 improvements to the Interstate 5/Wilsonville Road (Exit 283) Interchange, in the City of Wilsonville. An engineering design project is underway to construct the Phase 2 improvements. The project will add traffic lanes on Wilsonville Road near the interchange, and it will extend and widen the freeway entrance/exit ramps. One public roadway access will be closed (Parkway Avenue) as part of this project due to its proximity to the interchange.

The Cooperative Improvement Agreement further states that the Oregon Department of Transportation Region 1 and the City of Wilsonville are required to prepare an IAMP for the proposed I-5/Wilsonville Road Interchange project. The IAMP requirements were not in effect in 1994, when Phase 1 improvements were constructed, but were added in 2000.

The major objectives and outcomes of an IAMP include:

- The IAMP must be adopted by the City of Wilsonville and the Oregon Transportation Commission before construction of the interchange area improvements can begin.

- The IAMP must identify opportunities to improve operations and safety and adopt strategies and development standards to capture those opportunities.

- Short, medium and long-range actions must be developed to improve operations and safety in the interchange area. 8-(
  Expected)

- There must be assurance of the safe operation of the facility through the 20-year design period.

- The City's Comprehensive Plan land use assumptions must be considered in the IAMP, and

- The IAMP must be consistent with any locally adopted plan, especially the City's Comprehensive Plan and Transportation Systems Plan as well as ODOTs 1999 Oregon Highway Plan.

Demonstrated Safety and Operational Needs
Recent traffic studies have shown that the Wilsonville Road interchange is approaching capacity. With the City of Wilsonville concurrency ordinance being enforced, the City has only allowed development that has projected trips through the Wilsonville Road interchange area consistent with the City's concurrency policies requiring LOS "D" or better. Recurring safety issues at the northbound exit ramp at Exit 283 have been observed during morning peak hours, as vehicle queues have consistently backed up onto the mainline freeway during this period. This condition is caused by a substandard exit ramp length and a lack of capacity and storage at the I-5 / Wilsonville Road Northbound exit ramp terminal. This is a pre-existing safety issue that has been identified by ODOT. Furthermore, lack of left turn capacity on Wilsonville Road during the peak periods also contributes to long queues and congestion.

IAMP Plan Development
The IAMP was developed based on the City of Wilsonville's Comprehensive Plan land use assumptions. Much of the land within the IAMP Management Area (illustrated in Figure 1) is already fully developed. Of the undeveloped lands within the Management Area, the areas that have the most potential to significantly impact the interchange are the undeveloped industrial land south of Wilsonville Road opposite Kinsman Road and the Fred Meyer site, located in the southeast quadrant of the Boones Ferry Road/Wilsonville Road intersection. Both sites were fully accounted for in the trip generation assumed in developing the 2030 traffic volumes in the IAMP.

Interchange capacity is protected by several means. The primary tool that has been applied for years is the City's concurrency program. This requires essentially every proposed development in the city to demonstrate that it will not have adverse impacts to the city's transportation system without mitigation, with a special emphasis on freeway interchange mobility. No development is allowed in Wilsonville that will cause the interchange, or any intersection, to operate unacceptably according to both ODOT and City mobility standards. The other tools that are available to protect capacity are the access management and local circulations plans that were developed in the City's TSP and carried forward with this IAMP.

The I-5 / Wilsonville Road IAMP document consists of two major sections: the IAMP itself and the supporting technical appendices. The plan includes the IAMP purpose and objectives, physical improvements, access management and local circulation plans and the process used to implement, monitor and update the IAMP. The appendices include the technical analysis performed to develop the IAMP, a summary of the public involvement process, and implementation language to incorporate the plan into the City of Wilsonville's Comprehensive Plan, Transportation System Plan (TSP) and Development Code.

Plan Actions
The IAMP calls for actions in three key areas: physical improvements, access management and implementation.

Physical Improvements
This action includes construction of the physical improvements required for the interchange to operate under acceptable standards through the year 2030. These improvements include the planned reconstruction of the interchange, including its entrance and exit ramps, along with associated improvements along Wilsonville Road and Interstate 5 to provide for a functioning interchange into the future.

Access Management and Local Circulation
Two plan elements were developed to help protect capacity in the interchange once the physical improvements are constructed. An access management plan identifies key short term (with reconstruction of the interchange) and long-term (upon development or redevelopment) actions for improving access control in the vicinity of the interchange. The local circulation plan provides for a local street system that allows alternate circulation within the interchange area, removing some trips from congested Wilsonville Road and interchange intersections. These plans, working together, will help protect capacity in the interchange.

Implementation
An implementation strategy is summarized in the appendix. Implementation measures are necessary to ensure that the plans developed as part of this IAMP are incorporated into the City's C Comprehensive Plan, Transportation System Plan (TSP) and Development Code.

Purpose and Intent
An IAMP is required for any new or significantly reconstructed interchange by OAR 734-051-0155(6). More importantly, the purpose of an IAMP is to protect the function of the interchange and, consequently, the state's and local agency's investment in the facility. New interchanges and improvements to existing interchanges are very costly. State and local government and their citizens have an interest in ensuring that their interchanges function efficiently. Engineering design work is underway for the next phase of improvements to the I-5 / Wilsonville Road interchange and this IAMP is being conducted to ensure that the ultimate design will effectively reflect the needs of the interchange for at least the next 20 years.

Problem Statement
In 1994, in the attempt to address capacity issues existing at that time, the City of Wilsonville and ODOT entered into an agreement to fund and build Phase 1 of a planned multi-phase Wilsonville Road interchange improvement project. All improvements associated with this $7 million project have been completed that were part of the first construction phase.

Once again, recent traffic studies have shown that the Wilsonville Road interchange is approaching capacity. With the City of Wilsonville concurrency ordinance being enforced, the City has only allowed development that has projected trips through the Wilsonville Road interchange area consistent with the City's concurrency policies requiring LOS "D" or better. Recurring safety issues at the northbound exit ramp at Exit

283 has been observed during morning peak hours, as vehicle queues consistently back up onto the mainline freeway. This condition is caused by a substandard exit ramp length and a lack of capacity and storage at the I-5 / Wilsonville Road Northbound exit ramp terminal. This is a pre-existing safety issue that has been identified by ODOT. Furthermore, lack of left turn capacity on Wilsonville Road at both interchange ramps during the peak periods also contributes to long queues and congestion.

Interchange Function, Mode and General Location

Generally, an interchange is defined as a system of interconnecting roadways in conjunction with one or more grade separations that provides for the movement of traffic between two or more roadways or highways on different levels1. The functions of the interchange are established by the functions of the connecting roads. The I-5 / Wilsonville Road interchange is a component of Interstate 5, an Interstate Highway and freight route. As a component, the interchange's primary function is to provide connections to major cities, regions of the state, and other states. The Interstate Highways are major freight routes and their objective is to provide mobility. The interchange provides for this primary function by minimizing the conflicts between through traffic on the freeway and the movement of vehicles entering, exiting, or crossing the freeway. The interchange's secondary function is to provide connections for regional trips within the metropolitan area in a manner that does not conflict with the primary purpose. Provided that the primary and secondary functions are not adversely affected, the interchange also serves the function to provide for safe travel between the land uses within Wilsonville on both the east and west sides of I-5.

The Oregon Highway Plan (OHP) classifies I-5 as an interstate highway. According to OHP, the primary function of an interstate freeway is to "provide connections to major cities, regions of the state, and other states. A secondary function in urban areas is to provide connections for regional trips within the metropolitan area."

Wilsonville Road is owned and maintained by the City of Wilsonville. The Wilsonville Transportation System Plan (TSP) classifies Wilsonville Road as a major arterial within the Management Area. Wilsonville Road provides both a connection to the interstate freeway system and access to local services in town. Much of the land surrounding the I-5 / Wilsonville Road interchange is already developed. The interchange provides access to Wilsonville's Town Center area (Village at Main Street and Town Center Loop) as well as industrial and residential areas in the City. Access along Wilsonville Road is relatively limited, although not in compliance with OHP standards within a ¼ mile (1,320 feet) of the interchange. The majority of the intersections along Wilsonville Road (within ¼ mile) are private driveways, however, there are three public roadways (Boones Ferry Road, Parkway Avenue and Town Center Loop West) as well.

Future alternatives in this IAMP assume that undeveloped lands within the Study Area will be developed in a manner consistent with what is allowed under the City of Wilsonville Comprehensive Plan and existing zoning. The chapter in Appendix C on Future Travel Forecasts and Needs Analysis details the assumptions for this development.

Goals and Objectives
The goals and objectives of this IAMP reflect the intentions and interests of ODOT and the City of Wilsonville for the interchange and transportation operations in the area. The goals and objectives are guided by, but not re-statements of, OHP and TSP policies and OAR language. The objectives need to be concrete statements that relate what the plan is trying to accomplish and should be achievable and measurable. The objectives serve as the basis for data collection and research and as alternative evaluation criteria to guide alternatives analysis and selection of the preferred alternative, and to guide management decisions.

Goal 1: Protect the function and operation of the interchange and the state highway as follows:
I-5 is classified as an Interstate Highway. It is part of the National Highway System and is a designated freight route between Portland and points south and north. The operational objective for Interstate Highways is to provide safe and efficient high-speed travel in urban and rural areas.

> Objective 1a: The preferred interchange project alternative will meet FHWA Interchange requirements and will accommodate design-year (2030) traffic demands as a threshold.
>
> Objective 1b: The project alternatives developed for consideration as part of the IAMP planning process are consistent with the OHP requirement that the maximum volume-to-capacity (V/C) ratio for the ramp terminals of interchange ramps be either 0.85 or 0.90 (as defined in the OHP). For "build" scenarios, the 2003 Highway Design Manual standard of 0.75 is desired or a design exception would be needed.
>
> Objective 1c: The preferred alternative will meet or move in the direction of ODOT access management spacing standards for access along interchange crossroads.

Goal 2: Provide for an adequate system of local roads and streets for access and circulation within the interchange area that minimizes local traffic through the interchange and on the interchange cross road (Wilsonville Road).

> Objective 2a: The preferred alternative will include necessary supporting improvements to the surface street system in the vicinity of the interchange. Improvements to the local street network will be adopted into the local comprehensive plan, including identified funding sources, as part of the City of Wilsonville's actions to implement the IAMP.
>
> Objective 2b: The project alternatives will propose surface street improvements that either meet the ODOT established access management standards or improve on the current conditions.
>
> Objective 2c: The project alternatives will propose surface street improvements that will operate in conformance with applicable standards over the 20-year planning horizon.

Goal 3: Provide safe and efficient multi-modal travel between the connecting roadways (and the surface street network, if applicable).

Objective 3a: While recognizing existing capacity constraints, the project alternatives will improve safety by adding capacity to reduce congestion and/or correcting geometric conditions that do not meet current applicable standards.

Objective 3b: The project alternatives will improve bicycle and pedestrian facilities that meet current applicable standards and include facility infill and extensions where needed to provide a continuous network.

Goal 4: Ensure future changes to the planned land use system are consistent with protecting the long-term function of the interchange and the surface street system and the integration of future transportation projects and land use changes.

Objective 4a: The project alternatives will be developed in partnership with affected property owners in the interchange area, the City of Wilsonville, Clackamas County, and the Oregon Department of Transportation (ODOT), as well as other stakeholders, including interchange users.

Objective 4b: The City and County Comprehensive Plans and/or Transportation System Plans will be found consistent, or amendments will be proposed to ensure consistency, with the preferred project interchange alternative.

Objective 4c: The City and County will adopt land use policies that ensure future land use actions in the IAMP Management Area, including requests for comprehensive plan amendments and/or zoning amendments, and promote land development that is compatible with the planned interchange capacity for the IAMP planning horizon.

Goal 5: Recognize the importance of the interchange function to support local and regional economic development goals and plans.

Objective 5a: The project alternatives would reduce delay for vehicles, including commercial vehicles, accessing the freeway and to increase safety.

Objective 5b: The project alternatives will facilitate access to, through, and businesses in Wilsonville.

Goal 6: Ensure that the needs of regional through trips and the timeliness of freight movements are considered when developing and implementing the IAMP, in particular when planning for improvements that directly impact freight routes.

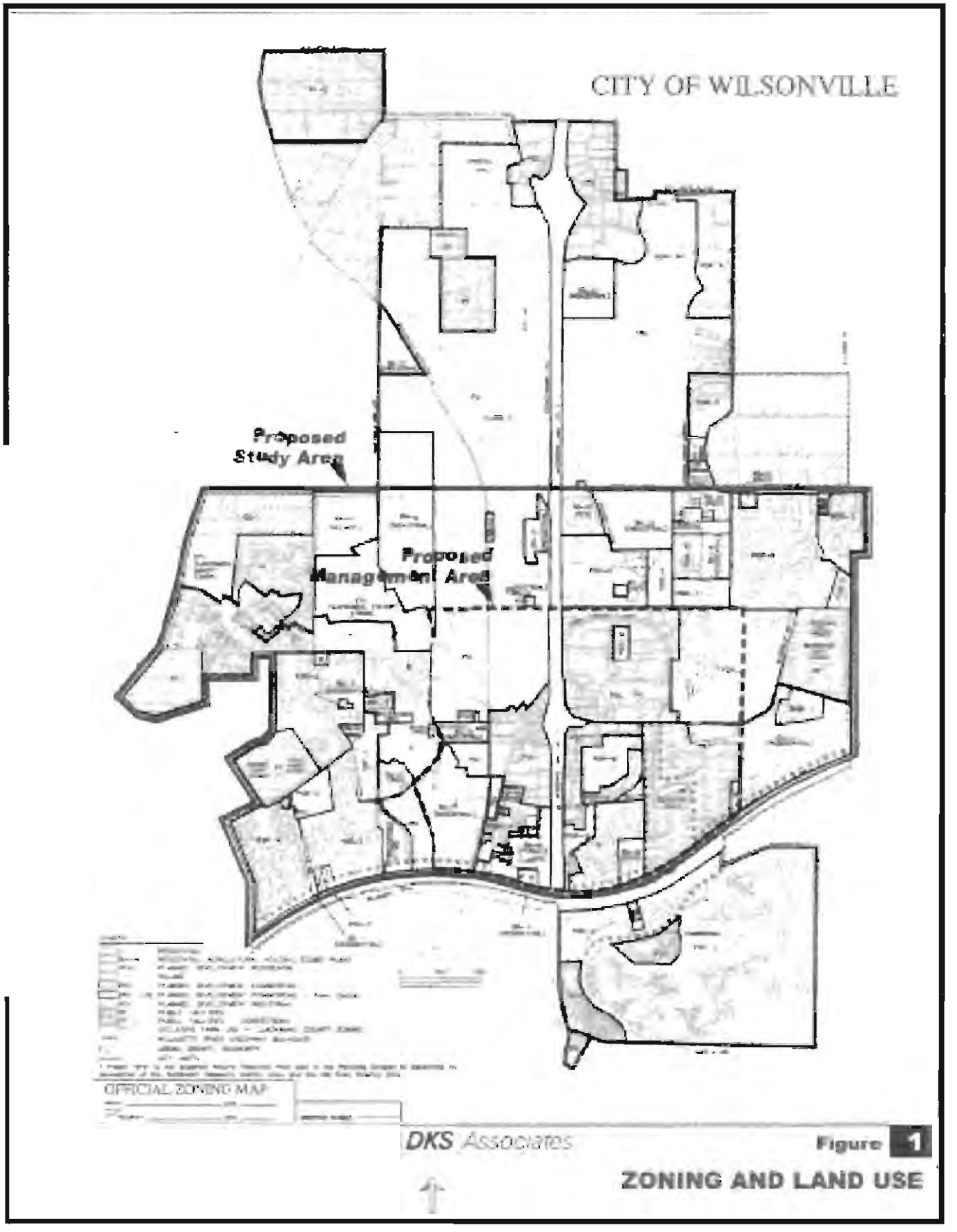
Objective 6a: The project alternatives will facilitate freight access to and from the many industrial freight destinations in the interchange study area.

Management Area

Figure 1 illustrates the proposed Interchange Management Area The management area delineates the area around I-5 / Wilsonville Road in which specific IAMP access and land use management regulations apply to land use decisions. It includes those properties that currently have or are expected to have the greatest impact on operations at the interchange.

The management area is defined by tax lot parcel boundaries extending from the Willamette River to the south, just north of Town Center Loop to the north, approximately ½ mile to the west and approximately ½ mile to the east.

Figure 1 also illustrates the project Study Area. The Study Area extends from Boeckman Road to the north, the Willamette River to the south and the urban growth boundary (UGB) to the east and west. The traffic analysis for the IAMP assumed development of much of the undeveloped land within the Study Area.


CITY OF WILSONVILLE
Proposed Study Area
Proposed Management Area
OFFICIAL ZONING MAP
DKS Associates
Figure 1
ZONING AND LAND USE

ORDINANCE NO. 671

AN ORDINANCE OF THE CITY OF WILSONVILLE AMENDING THE CITY'S COMPREHENSIVE PLAN BY DELETING THE SECTION TITLED ROADS AND TRANSPORTATION PLAN (pp C-7 – C-14) AND ADOPTING A NEW SECTION TITLED TRANSPORTATION.

WHEREAS, the Comprehensive Plan Section, Roads and Transportation contains a text note that, "This section will be redrafted with completion of the Transportation Systems Plan" and

WHEREAS, the City's Transportation Systems Plan (TSP) was adopted in 2003, as an amendment to the Comprehensive Plan, and

WHEREAS, the City has also adopted a Bicycle and Pedestrian Master Plan in 2006, and a Transit Master Plan in 2009, and

WHEREAS, the amendment of the TSP to include the Interchange Area Management Plan (IAMP) for the I-5/Wilsonville Road Interchange and implementing Comprehensive Plan and Development Code amendments offers an opportunity to redraft and bring current the Roads and Transportation Section of the Comprehensive Plan, and

WHEREAS, the Planning Commission held a work session on the draft IAMP and implementing Comprehensive Plan and Development Code amendments on August 12, 2009, and

WHEREAS, the Planning Commission, after providing the required notice, held a Public Hearing on September 9, 2009 and

WHEREAS, adoption of the IAMP and implementing Comprehensive Plan and Development Code amendments is a requirement associated with the planned improvements to the I-5/Wilsonville road Interchange Area, and

WHEREAS, the Commission has afforded all interested parties an opportunity to be heard on this subject and has entered all available evidence and testimony into the public record of their proceeding; and

WHEREAS, the Planning Commission has duly considered the subject, including the staff recommendations and all the exhibits and testimony introduced and offered by all interested parties; and

WHEREAS, the Wilsonville Planning Commission adopted all Staff Reports along with the findings and recommendations contained therein and recommends that the Wilsonville City Council adopt amendments to the City's Comprehensive Plan deleting the section titled, Roads and Transportation Plan (pp C-7 – C-14) and adopting a new section titled Transportation, as shown in Exhibit "B" .

NOW, THEREFORE, THE CITY OF WILSONVILLE ORDAINS AS FOLLOWS:

1. The City Council does hereby adopt all Staff Reports along with the findings and recommendations of the Planning Commission, as contained in Exhibit "A".

2. The Wilsonville Comprehensive Plan shall be amended as shown in Exhibit "B" attached.

3. Staff is authorized to make any formatting changes necessary to integrate this amendment into the Comprehensive Plan.

SUBMITTED to the Wilsonville City Council and read for the first time at a regular meeting thereof on the 5th day of October, 2009, scheduled for second reading at a regular meeting of the City Council on the 19th day of October, 2009, and held over for

a regular meeting of the City Council on the November 16, 2009 by roll call vote, commencing at the hour of 7 p.m. at the Wilsonville City Hall.

Sandra C. King, MMC, City Recorder

ENACTED by the City Council on the 16th day of November, 2009 by the following votes:

Yes: -4- No: -0-

Sandra C. King, MMC, City Recorder

DATED and signed by the Mayor this 17th day of November, 2009.

Tim Knapp, MAYOR

Summary of votes:

Mayor Knapp	Yes
Councilor Kirk	Yes
Councilor Hurst	Yes
Councilor Núñez	Yes
Councilor Ripple	Excused

Attachments:

EXHIBIT "A": Planning Commission record of September 9, 2009

EXHIBIT "B":
Amend the Wilsonville Comprehensive Plan as follows:

Delete all struck-through language. :

~~Roads and Transportation Plan~~
~~*Note: This section will be redrafted with completion of the Transportation Systems Plan.*~~
~~Wilsonville is bisected by the I-5 freeway, just south of its intersection with I-205. The freeway provides excellent north-south transportation linkages to Portland and the southern Willamette Valley. In fact, I-5 remains one of the most important transportation links between Canada and Mexico. The combination of large amounts of developable land, with both rail and freeway transportation access, present Wilsonville with continued growth potential for residential, commercial, and industrial development.~~

~~While the freeway is a major growth impetus, it also creates certain limitations on the growth and development of the City. The freeway is a barrier between the east and west sides of the community and makes it both difficult and expensive to add streets connecting the east and west sides of town. Also, heavy traffic at freeway interchanges during rush-hour times can result in traffic backups into other nearby intersections.~~
~~In the late 1990s, substantial public investments were made to up-grade both the Wilsonville Road and Elligsen Road interchanges (exits 283 and 286, respectively). In spite of those improvements, capacity limitations can be seen in both of those interchanges, as the existing freeway on-off ramps at Wilsonville Road are inadequate to handle projected traffic volumes. The City recognizes these problems and notes that if travel patterns continue as they are today and appropriate street improvements, including an additional freeway interchange, are not made, substantial growth limitations will result. It also, however, recognizes the potentials for proper planning and land development to generate certain transportation efficiencies. Therefore, the following policies have been established to promote sound economic growth while providing for an efficient and economical transportation system.~~

~~The Plan identifies three areas of responsibility in transportation planning.~~
~~1. What the City expects to do in providing for efficient transportation.~~

~~2. What the City will expect developers and businesses to do in support of efficient transportation.~~

~~3. What the City will expect from Federal, State and regional agencies in support of the City's planning efforts.~~

~~The State's Transportation Planning Rule calls for reductions in vehicle miles traveled (VMTs)per capita and restrictions on the construction of new parking spaces in order to encourage planning that responds to the transportation and land use impacts of growth. Metro's 2040 Growth Concept Plan calls for more compact development as a means of encouraging more efficient use of land, promoting non-auto trips, and protecting air quality. In addition, the federally-mandated air quality plan adopted by the State of Oregon relies on Metro fully achieving the 2040 Growth Concept transportation objectives. Notably, the air-quality plan relies upon reducing vehicle trips per capita through limitations on the maximum parking ratios allowed for different land uses.~~

~~A compact urban form requires that each use of land is carefully considered and that more efficient forms are favored over less efficient ones. Parking, especially that provided in new developments, can result in less efficient land usage and lower floor area ratios. Parking also has implications for transportation. In areas where transit is provided, or other non-auto modes (e.g., walking, biking) are convenient, less parking can be provided and still allow accessibility and mobility for all modes, including autos. Reductions in auto trips when substituted by non-auto modes can alleviate congestion and improve air quality.~~

~~The City is required by State and regional plans to address these needs through adopting, implementing, and regular updating of a Transportation Systems Plan. The City is also required to adopt minimum and maximum parking ratios in accordance with Title 2 of the Metro Urban Growth Management Functional Plan, or may use categories or measurement standards other than those in the Regional Parking Ratios Table (of that Functional Plan), as long as findings are provided that show such regulations will be substantially the same as the application of the Regional Parking Ratios. As part of the regional effort, the City is required to monitor and provide the following data to Metro on an annual basis:~~

~~a. the number and location of newly developed parking spaces, and~~

~~b. demonstration of compliance with the minimum and maximum parking standards, including the application of any variances to the regional standards in this Title. Coordination with Metro through the collection of other building data will also continue.~~

~~Implementation Measure 3.1.6.a The Transportation Master Plan shall be used to establish the design standards for each arterial and major collector street. The conceptual location of proposed new major streets will also be identified. However, actual alignments may vary from the conceptual alignments based on detailed engineering specifications, design considerations, and consideration of the impacts of the road alignments on neighborhoods and natural resources, provided that the intended function of the street is not altered. While local residential streets are considered a part of the Transportation Master Plan, they are not typically shown in detail in the Plan. The alignment of local streets shall be evaluated on a project-by-project basis, but must function in coordination with the overall purposes of the Transportation Master Plan. Other streets not shown on the Plan may also be considered, if determined necessary for safe and convenient traffic circulation or increased connectivity.~~

~~Implementation Measure 3.1.6.b. The Transportation Master Plan shall be used to establish the Functional Street Classification System and the physical design characteristics (right-of way and pavement width, curbs, sidewalks, etc.) of the various street classifications.~~

~~Implementation Measure 3.1.6.c. All streets shall be designed and developed in accordance with~~
~~the Master Plan and street standards, except that the Development Review Board or City Council may approve specific modifications through the planned development process. Such modifications shall be made in consideration of existing traffic volumes and the cumulative traffic generation potential of the land uses being developed. At a minimum, all streets must be developed with sufficient pavement width to provide two lanes of traffic, unless designated for one-way traffic flow. However, adequate emergency vehicle access and circulation must be provided.~~

~~Implementation Measure 3.1.6.d. Where the City Council officially designates truck routes, these streets shall be developed to arterial street construction standards and be posted as truck routes.~~

~~Implementation Measure 3.1.6.e. All arterial and collector streets shall be dedicated public streets. To insure adequate protection of potential future right-of-way needs, minimum setbacks shall be retained adjacent to arterial streets. In addition, to maintain efficient traffic flows, intersections with arterial streets shall be minimized, and property owners shall be encouraged and, where feasible, may be required to consolidate driveways.~~

~~Implementation Measure 3.1.6.f. Through the Planned Development process, local streets may be approved as private streets, provided that adequate~~

~~emergency access is available and that appropriate deed restrictions, homeowners' association requirements, etc. are established to insure proper maintenance.~~

~~Implementation Measure 3.1.6.g Minimum street service levels shall continue to be established. Dedication of adequate right-of-way, as established by the Street System Master Plan, or as otherwise approved by the Development Review Board or City Council shall be required prior to actual site development~~

~~Implementation Measure 3.1.6.h The City shall periodically review and update its street lighting standards in the interest of public safety. Energy conservation shall also be considered in setting these standards.~~

~~Implementation Measure 3.1.6.i The City is responsible for planning, scheduling, and coordinating all street improvements through the on-going Capital Improvements Plan. A priority is given to eliminating existing deficiencies and in upgrading the structural quality of the existing arterial system.~~

~~Implementation Measure 3.1.6.j The City shall encourage the State (ODOT) and the Counties to acknowledge or adopt the City's street standards to insure consistent application of street improvement requirements regardless of the jurisdictional control of the road in question.~~

~~Implementation Measure 3.1.6.k Individual developments shall be responsible for providing all collector and local streets. However, there may be cases where collector streets are found to benefit the entire community to a degree that warrants public participation in funding those collector streets. Developers and property owners of developing property shall also collectively assume the responsibility for providing "extra capacity" to the existing street system. To insure development of an adequate street system, the City shall collect a Systems Development Charge as development occurs. Funds collected shall be allocated through the Capital Improvements Plan as needed to provide extra capacity service.~~

~~Implementation Measure 3.1.6.l Maintenance of the developed City Street System is a public obligation. The City shall coordinate routine and necessary maintenance with the appropriate State or County agencies.~~

~~Implementation Measure 3.1.6.m The City shall continue to work with the State, Metro, Clackamas and Washington Counties and adjacent jurisdictions to develop and implement a Regional Transportation Plan that is complementary to and supportive of the City's Plan while addressing regional~~

~~concerns. The City expects a reciprocal commitment from the other agencies. This policy recognizes that there is a need for a collective and cooperative commitment from all affected agencies to solve existing and future transportation problems. The City will do its part to minimize transportation conflicts, but it must also~~
~~have the support of County, regional, State and Federal agencies to effectively implement this Plan.~~

~~Implementation Measure 3.1.6.n The City shall actively encourage the State to provide improvements to regional transportation facilities which, due to inadequate carrying capacities, frustrate implementation of the City's Transportation Plan.~~

~~Implementation Measure 3.1.6.o The City shall take the following steps to reduce VMTs and overall reliance on single occupancy vehicles:~~
~~1. Review all land use/development proposals with regard to transportation impacts. All development proposals shall be required to pay for a transportation impact analysis, unless specifically waived by the City's Community Development Director because the information is not needed.~~
~~2. Seek to minimize traffic congestion at the freeway interchanges as well as on local arterial and collector streets.~~
~~3. Seek to reduce the number and length of home-to-work trips.~~
~~4. Seek a balanced mix of activities which encourage consolidation of automobile oriented trips and encourage design and location of complementary activities that support public transit, ride-share programs, and use of other alternative modes of transportation.~~
~~5. Require large developments and high employment and/or traffic generators to design for mass transit and to submit programs to the City indicating how they will reduce transportation impacts. All such proposals shall be subject to review by SMART and, if applicable, ODOT. Maximum parking limits shall be used in conformity with Metro standards.~~
~~6. Seek location of a permanent park-and-ride station as well as a commitment from Tri-Met to upgrade transit service to the greatest extent possible, in coordination with SMART. Note the potential need for a commuter rail station in conjunction with the park and ride lot.~~
~~7. Accommodate the expected growth in population and employment and the resulting transportation needs, the City by expanding local bus service in the residential and employment areas, continue to improve arterial and collector street networks, a bikeway system, ride-sharing programs including carpools and van pools and encourage staggered or flex-time, work-hour programs.~~
~~8. Take steps to improve connectivity between existing neighborhoods and between residential areas and traffic generator locations. Also, work to~~

~~provide more and better options for travel from one side of the freeway, the railroad, and major drainage courses to the other. It is recognized that alignment decisions for streets may cause concerns for adjacent property owners or residents, whose suggestions may help to improve plans or designs. The testimony of neighboring property owners shall not be the sole justification to postpone the construction of planned streets.~~

~~9. Increase densities and intensities of development in or near the Town Center area and in other locations where transportation systems can meet those needs.~~

~~10. Improve the balance between housing, employment, and commercial activities within the City in order to reduce commuting.~~

~~Implementation Measure 3.1.6.p The City recognizes the value of the railroad to industrial growth in Wilsonville, and will encourage the railroad and the State of Oregon to maintain quality service and provide needed improvements, rail crossings and signalization, etc. System expansion to accommodate commuter rail service shall be strongly encouraged.~~

~~Implementation Measure 3.1.6.q In addition to Willamette River Greenway policies, the City recognizes the use of the Willamette River for both commercial and private recreational travel. The City also recognizes the potential conflict between these uses as well as the safety problems created by heavy usage of the river, particularly during the summer months.~~

~~Implementation Measure 3.1.6.r The City shall work with the appropriate authorities to establish regulations for activities conducted on the Willamette River to insure protection of the public health, safety, and general welfare.~~

~~Implementation Measure 3.1.6.s Pedestrian, bicycle, and equestrian travel is often considered a recreational activity. However, people commonly bike and walk throughout the City, and with increasing gasoline prices and traffic congestion, these forms of travel are likely to increase in popularity. For this reason, provisions for pedestrian and bicycle travel will be considered as a basic transportation element as well as a recreational element.~~

~~Implementation Measure 3.1.6.t The Bicycle and Pedestrian Master Plan identifies the general alignment of primary routes for pedestrian and bicycle travel. It has been designed to provide connections between residential neighborhoods and major commercial, industrial and recreational activity centers throughout the City. The system has been coordinated with pathways planned in adjacent jurisdictions to allow for regional travel.~~

~~Implementation Measure 3.1.6.u Safety, convenience, and security for both path users and adjacent property owners shall be a primary consideration in~~

~~determining the actual location and routing of pathways. It is recognized that alignment decisions for pathways and trails may cause concerns for adjacent property owners or residents, whose suggestions may help to improve plans or designs. The testimony of neighboring property owners shall not be the sole justification to postpone the construction of planned pathways.~~

~~Implementation Measure 3.1.6v The City shall continue to use pathway construction standards in the Public Works Standards.~~

~~Implementation Measure 3.1.6.w All primary pathways shall be constructed in accordance with the Master Plan, with specific alignments to be approved by the Planning Commission, Development Review Board, or City Council. All major street construction or improvements shall be coordinated with the Pathway Master Plan.~~

~~Implementation Measure 3.1.6.x The City shall schedule and coordinate all pathway improvements. A priority will be given to completing specific links of the system, thereby avoiding dead-end pathways. When land is developed which includes a designated pathway, appropriate dedication of right-of-way or easements shall be required. In cases where the proposed development will substantially increase the need for the path, construction may also be required prior to occupancy.~~

~~Implementation Measure 3.1.6.y The City shall encourage development of secondary pathways that are internal to individual developments. Secondary paths shall be designed and provided by private development as new construction occurs and shall be coordinated with the primary pathway system.~~

~~Implementation Measure 3.1.6.z City street standards require concrete sidewalks on both sides of all streets. This standard can be waived only in cases where alternative provisions are found to adequately address pedestrian needs.~~

~~Implementation Measure 3.1.6.aa All bikeways are to be developed in conformity with the City's adopted Bicycle and Pedestrian Master Plan.~~

~~Implementation Measure 3.1.6.bb Complete the major street system improvements shown in the Transportation Master Plan. The City may not be able to finance all of these improvements and some may be financed by other entities.~~

~~Implementation Measure 3.1.6.cc If adequate regional transportation services, including I-5 interchange modification or additions, and high~~

capacity public transportation, cannot be provided, then the City shall reevaluate and reduce the level of development and/or timing of development anticipated by other elements of this Plan. Such reductions shall be consistent with the capacity of the transportation system at the time of re-evaluation.

Street Improvements
Note: This section will be redrafted with completion of the Transportation Systems Plan.

The general concept of the Transportation Master Plan is to provide an arterial system which surrounds the City and passes through it in the east-west direction and north-south direction on each side of I-5. Improved access to I-5 is also proposed in this Plan.

Collector streets would provide for internal circulation within the arterial streets.

A detailed description of the recommended street improvements to the existing network is included in the Transportation Master Plan. These improvements are listed for I-5, the arterials and the collector streets.

Note: This section will be redrafted with completion of the Transportation Systems Plan.

TABLE I
ROADWAY STANDARDS

Section Classification	Pavement Width in feet	Right-of-way width in feet	Design Capacity Vehicles/day
A. Cul-de-sac street	28	50	200
B. Local resident	32	52	1,200
C. Resident collector	36	60	7,000
D. Collector, industrial &	40	60	10,000 to 18,000
Arterial			

~~E. Arterial 48 60 15,000 to 20,000~~
~~F. Arterial 62* 72 33,000~~
~~G. Arterial 70 94 34,000 to 37,000~~
~~* Includes left turn lane~~
~~NOTE: Design capacities based on level of service "D", 5 percent commercial vehicles, 10 percent right turns, 10 percent left turns, peak hour factor 85-90 percent, peak hour directional distribution 55 to 60 percent, peak hour 9-12 percent of daily volume and average signal timing for collector and arterial streets.~~

Add new language as follows;

Transportation

Under the State's Transportation Planning Rule (TPR), planning for transportation must "encourage and support the availability of a variety of transportation choices for moving people that balance vehicular use with other transportation modes, including walking, bicycling and transit in order to avoid principal reliance upon any one mode of transportation".

In MPO areas, (i.e. Metro), "regional and local Transportation Systems Plans (TSP) shall be designed to achieve adopted standards for increasing transportation choices and reducing reliance on the automobile". It is anticipated that metropolitan areas will accomplish reduced reliance by changing land use patterns and transportation systems so that walking, cycling and use of transit are highly convenient and so that, on balance, people need to and are likely to drive less than they do today".

Both the Transportation Planning Rule and the federally mandated State Air Quality Plan call for reductions in vehicle miles travelled (VMTs) per capita. The goal is to adopt plans and measures that are likely to achieve a five percent reduction in VMT per capita over the 20-year planning period. The Metro Regional Transportation Plan (2035 Federal component) states that, "Improvement in non-single occupancy vehicle (non-SOV) mode share will be used to demonstrate compliance with per capita travel reductions" [VMT reductions] "required by the TPR."

Transportation plans must also "facilitate the safe, efficient and economic flow of freight and other goods and services within regions and throughout the state through a variety of modes including road, air, rail and marine transportation".

Communities must "protect existing and planned transportation facilities, corridors and sites for their identified functions' and also "provide for the construction and

implementation of transportation facilities, improvements and services necessary to support acknowledged comprehensive plans".

Transportation plans must include a transportation financing program.

The Wilsonville Comprehensive Plan includes, as sub-elements of the Plan, the City's Transportation Systems Plan (2003), the Bicycle and Pedestrian Master Plan (2006) and the Transit Master Plan (2008). There are no airports or marine transportation facilities within the city. The City has adopted 1 Year and 5-Year Capital Improvement Plans which provide for the construction of transportation facilities, improvements and services necessary to support the City's Transportation Systems Plan, the Bicycle and Pedestrian Master Plan and the Transit Master Plan.

The Transportation Network

Wilsonville is bisected by I-5, just south of its intersection with I-205. I-5 is classified as an Interstate Highway. It is part of the National Highway system and is a designated freight route between Portland and points south. The operational objective for Interstate Highways is to provide safe and efficient high-speed travel in urban and rural areas.

Two I-5 interchanges are located within Wilsonville, Interchange 283, I-5 @ Wilsonville Road, and 286, I-5 @ Elligsen Road. Both interchanges provide a vital function in supporting local and regional economic development goals and plans. Local traffic, including commercial and industrial vehicles, must have safe and efficient access to and from the freeway.

In the late 1990s, substantial public improvements were made to up-grade both interchanges. Now, ten years later, both interchanges again have capacity limitations. A major modernization project is planned to begin construction at I-5/Wilsonville Road in 2010, following the City's completion of improvements on Boones Ferry Road which connects to Wilsonville Road within the interchange management area. The I-5/Wilsonville Road project includes elevated bike/pedestrian pathways on both sides of the street, expansion of the travel way to 8 lanes under the I-5 Bridge, and wider and longer on and off ramps.

Capacity limitations also exist at the 95th/ Commerce Circle /Boones Ferry Road intersections. The planned improvements there will add an additional right turn lane southbound off I-5 to Boones Ferry Road and an additional left turn lane from Boones Ferry Road to 95th.

The City has a network of streets which serve the east side or the west side, with only three connection points east–west across I-5. These are Wilsonville Road, Boeckman Road and Elligsen Road. The recent extension of Boeckman Road to Grahams Ferry Road has provided an alternative east-west route resulting in a reduction of the trip levels on both Wilsonville and Elligsen Roads.

City street standards require provision of bike lanes and sidewalks on all new streets. Developments in areas without bike lanes and sidewalks are required to provide them as part of the development of their site. The city also maintains a sidewalk infill fund for construction of missing sidewalk segments in older neighborhoods. The Bicycle and Pedestrian Master Plan provides greater detail about the existing system and its deficiencies and identifies planned improvements and financial resources.

The City operates a transit system, SMART, which provides local service, and connects with WES, Cherriots in Salem and Tri-Met in the Portland area. WES, the Westside Express Service Commuter Rail, operates during weekday commuter hours in the morning and evening, connecting Wilsonville with the Beaverton Transit Station and the MAX system. The Transit Master Plan provides greater detail about the existing system and its deficiencies and identifies planned improvements and financial resources.

Goal 1: To encourage and support the availability of a variety of transportation choices for moving people that balance vehicular use with other transportation modes, including walking, bicycling and transit in order to avoid principal reliance upon any one mode of transportation

Policy 1.1 To provide for safe and efficient vehicular, transit, pedestrian and bicycle access and circulation.

Implementation Measure 1.1.1 Plan and implement a well-connected network of streets and supporting improvements for all applicable travel modes.

Implementation Measure 1.1.2 Provide safe and efficient multi-modal travel between the connecting roadways (and the surface street network, if applicable).

Policy 1.2 To provide for a mix of planned transportation facilities and services that are sufficient to ensure economic, sustainable and environmentally sound mobility and accessibility for all residents and employees in the city.

Policy 1.3 If adequate regional transportation services, including I-5 interchange modification or additions, and high capacity public transportation, cannot be provided, then the City shall reevaluate and reduce the level of development and/or timing of development anticipated by other elements of this Plan. Such reductions shall be consistent with the capacity of the transportation system at the time of re-evaluation.

Goal 2: To achieve adopted standards for increasing transportation choices and reducing reliance on the automobile by changing land use patterns and transportation systems so that walking, cycling and use of transit are highly convenient and so that, on balance, people need to and are likely to drive less than they do today.

Policy 2.1 The City shall adopt standards for reducing reliance on single occupant automobile use, particularly during peak periods.

Implementation Measure 2.1.1 Improve the balance between housing, employment, and commercial activities within the City in order to reduce commuting.

Implementation Measure 2.1.2 Increase densities and intensities of development in or near the Town Center area and in other locations where transportation systems can meet those needs.

Implementation Measure 2.1.3 Plan for increased access to alternative modes of transportation, such as bicycling, transit and walking.

Implementation Measure 2.1.4 Continue use of the Planned Development process to encourage developments that make it more convenient for people to use transit, to walk, to bicycle, and to drive less to meet daily needs.

Implementation Measure 2.1.5 Take steps to improve connectivity between existing neighborhoods and between residential areas and traffic generator locations. Work to provide more and better options for travel from one side of the freeway, the railroad, and major drainage courses to the other.

Implementation Measure 2.1.6 Strongly encourage full day ~~and Saturday~~ service for WES.

Implementation Measure 2.1.7 Continue to support the extension of WES to Salem.

Implementation Measure 2.1.8 Continue to comply with Metro parking standards. Consider reducing parking requirements where it can be shown that transit and/or bicycle pedestrian access will reduce vehicular trips.

Policy 2.2 The City shall work to improve accessibility for all citizens to all modes of transportation.

Implementation Measure 2.2.1 The City's Bicycle and Pedestrian Master Plan identifies the general alignment of primary routes for pedestrian and bicycle travel. It has been designed to provide connections between residential neighborhoods and major commercial, industrial and recreational activity centers throughout the City. The system has been coordinated with pathways planned in adjacent jurisdictions to allow for regional travel.

Implementation Measure 2.2.2 City street standards require concrete sidewalks on both sides of all streets. This standard can be waived only in cases where alternative provisions are found to adequately address pedestrian needs.

Implementation Measure 2.2.3 Transportation facilities shall be ADA-compliant.

Implementation Measure 2.2.4 The City will prepare an implementation schedule and continue to provide funding for infilling gaps in the sidewalk system.

Goal 3: To facilitate the safe, efficient and economic flow of freight and other goods and services within the city and the region.

Policy 3.1: The City will continue to upgrade and/or complete the street network on the west side of I-5, including the Coffee Creek area, to serve the warehousing, distribution, and other industrial uses located there.

Implementation Measure 3.1.1 Where the City Council officially designates truck routes, these streets shall be developed to arterial street construction standards and be posted as truck routes.

Policy 3.2 The City will work with ODOT, Metro and neighboring communities to maintain the capacity of I-5 through a variety of techniques, including requirements for concurrency, continued development of a local street network within and connecting cities along I-5, access management, and completion of targeted improvements on I-5 such as auxiliary lanes, improvements at interchanges, etc.

Implementation Measure 3.2.1 Consistent with the city's policy that needed public facilities and services are provided in advance of, or concurrently with, development, proposed land use changes within the I-5/Wilsonville Road IMA shall be consistent with planned future transportation projects.

Goal 4: To protect existing and planned transportation facilities, corridors and sites for their identified functions, including protection of the function and operation of the I-5/Wilsonville Road Interchange and the I-5/Elligsen Road Interchange, together with the local street network within the Interchange Areas.

Policy 4.1 ***The Transportation Systems Plan(TSP) shall establish policies and implementation measures to fulfill the City's transportation needs through the Year 2020, provides details to guide transportation investment for the future and determine how land use and transportation needs can be balanced to bring the most benefit to the city.***

Implementation Measure 4.1.1 The Transportation Systems Plan shall be used to establish the design standards for each arterial and major collector street. The conceptual location of proposed new major streets will also be identified. However, actual alignments may vary from the conceptual alignments based on detailed engineering specifications, design considerations, and consideration of the impacts of the road alignments on neighborhoods and natural resources, provided that the intended function of the street is not altered.

Implementation Measure 4.1.2 While local residential streets are considered a part of the Transportation Systems Plan, they are not typically shown in detail in the Plan. The alignment of local streets shall be evaluated on a project-by-project basis, but must function in coordination with the overall purposes of the Transportation Systems Plan. Other streets not shown on the Plan may also be considered, if determined necessary for safe and convenient traffic circulation or increased connectivity.

Implementation Measure 4.1.3. The Transportation Systems Plan shall be used to establish the Functional Street Classification System and the physical design characteristics (right-of way and pavement width, curbs, sidewalks, etc.) of the various street classifications.

Implementation Measure 4.1.4 All streets shall be designed and developed in accordance with the Transportation Systems Plan and street standards, except that the Development Review Board or City Council may approve specific modifications through the planned development process. Such modifications shall be made in consideration of existing traffic volumes and the cumulative traffic generation potential of the land uses being developed. At a minimum, all streets must be developed with sufficient pavement width to provide two lanes of traffic, unless designated for one-way traffic flow. However, adequate emergency vehicle access and circulation must be provided.

Implementation Measure 4.1.5 **All arterial and collector streets shall be dedicated public streets. To insure adequate protection of potential future right-of-way needs, minimum setbacks shall be retained adjacent to arterial streets. In addition, to maintain efficient traffic flows, intersections with arterial streets shall be minimized, and property owners shall be encouraged and, where feasible, may be required to consolidate driveways.**

Policy 4.2 Review all land use/development proposals with regards to consistency with the TSP transportation impacts.

Implementation Measure 4.2.1 All development proposals shall be required to provide for a transportation impact analysis by payment to the City for completion of such study by the city's traffic consultant unless specifically waived by the City's Community Development Director because the scale of the proposed development will have very limited impacts.

Implementation Measure 4.2.2. Through the Planned Development process, local streets may be approved as private streets, provided that adequate emergency access is available and that appropriate deed restrictions, homeowners' association requirements, etc. are established to insure proper maintenance.

Implementation Measure 4.2.3 Any proposed change to the Comprehensive Plan Map or existing zoning that would result in additional trips above that allowed

under the city's concurrency policies may be denied unless mitigation measures are identified and provided.

Policy 4.3 Provide for an adequate system of local roads and streets for access and circulation within I-5 Interchange Management Areas that minimize local traffic through the interchanges and on the interchange cross roads.

I-5/Wilsonville Road IMA: (4.3a)
Implementation Measure 4.3a.1 The City will require future development to plan for and develop local roadway connections consistent with the I-5/Wilsonville Road IAMP as part of the development permit approval process.

Implementation Measure 4.3a.2 Bicycle and pedestrian connections within the IMA will be required for new development consistent with the City's Bicycle and Pedestrian Plan.

Implementation Measure 4.3a.3 System operational improvements, including signal synchronization, transportation demand management measures and incident management shall be implemented within the vicinity of the interchange to maximize the efficiency of the local street network and minimize the impact of local traffic on the interchange.

Implementation Measure 4.3a.4 The City will require future development to adhere to access management spacing standards for private and public approaches on statewide highways as adopted in the Wilsonville Road IAMP.

Implementation Measure 4.3a.5 The City will approve development proposals in the I-5/Wilsonville Road Interchange Management Area (IMA) only after it is demonstrated that proposed access and local circulation are consistent with the Access Management Plan in the I-5/Wilsonville Road IAMP.

Implementation Measure 4.3a.6 Ensure that future changes to the planned land use system are consistent with protecting the long-term function of the interchange and the surface street system.

Implementation Measure 4.3a.7 Any proposed change to the Comprehensive Plan Map or existing zoning that would result in additional trips above that allowed under the current zoning and assumed in the I-5/Wilsonville Road IAMP must include a review of transportation impacts consistent with OAR 660-12-0060.

Implementation Measure 4.3a.8 The City will provide notice to ODOT for any land use actions proposed within the I-5/Wilsonville Road IAMP Overlay Zone.

I-5/Elligsen Road Interchange (4.3b)

Implementation Measure 4.3b.1 The City will require future development to adhere to access management spacing standards for private and public approaches on statewide highways as required by the Oregon Highway Plan.

Implementation Measure 4.3b.2 Ensure that future changes to the planned land use system are consistent with protecting the long-term function of the interchange and the surface street system.

Implementation Measure 4.3b.3 Bicycle and pedestrian connections within the Interchange Area will be required for new development consistent with the City's Bicycle and Pedestrian Plan.

Implementation Measure 4.3b.4 System operational improvements, including signal synchronization, transportation demand management measures and incident management shall be implemented within the vicinity of the interchange to maximize the efficiency of the local street network and minimize the impact of local traffic on the interchange.

Goal 5: To provide for the construction and implementation of transportation facilities, improvements and services necessary to support the TSP, the Transit Master Plan and the Bicycle and Pedestrian Master Plan.

Policy 5.1 The City is responsible for planning, scheduling, and coordinating all street improvements through the on-going Capital Improvements Plan. A priority is given to eliminating existing deficiencies and in upgrading the structural quality of the existing arterial system.

Implementation Measure 5.1.1 Complete the major street system improvements shown in the Transportation Systems Plan. The City may not be able to finance all of these improvements. Some may be financed by other entities, or a combination of public and private funds.

Implementation Measure 5.1.2 Maintenance of the developed City Street System is a public responsibility. The City shall coordinate routine and necessary maintenance with the appropriate State or County agencies.

Policy 5.2 ***Individual developments shall be responsible for providing all collector and local streets. However, there may be cases where collector streets are found to benefit the entire community to a degree that warrants public participation in funding those collector streets.***

Goal 6: To maintain a transportation financing program for the construction and implementation of transportation facilities, improvements and services necessary to support the TSP, the Transit Master Plan and the Bicycle and Pedestrian Master Plan.

Policy 6.1 The City is responsible for planning, scheduling, and coordinating all street improvements through the on-going Capital Improvements Plan. A priority is given to eliminating existing deficiencies and in upgrading the structural quality of the existing arterial system.

Policy 6.2 ***To insure development of an adequate street system, the City shall collect a Systems Development Charge as development occurs. Funds collected shall be allocated through the Capital Improvements Plan as needed to provide extra capacity service.***

Goal 7: To maintain coordination with neighboring cities, counties, Metro, ODOT local businesses, residents and transportation service providers regarding transportation planning and implementation.

Policy 7.1 The City shall continue to work with the State, Metro, Clackamas and Washington Counties and adjacent jurisdictions to develop and implement a Regional Transportation Plan that is complementary to and supportive of the City's Plan while addressing regional concerns. The City expects a reciprocal commitment from the other agencies. This policy recognizes that there is a need for a collective and cooperative commitment from all affected agencies to solve existing and future transportation problems. The City will do its part to minimize transportation conflicts, but it must also have the support of County, regional, State and Federal agencies to effectively implement this Plan.

Implementation Measure 7.1.1 The City shall actively encourage the State to provide improvements to regional transportation

facilities which, due to inadequate carrying capacities, frustrate implementation of the City's Transportation Plan.

ORDINANCE NO. 672

AN ORDINANCE OF THE CITY OF WILSONVILLE AMENDING CHAPER 4 OF THE CITY CODE TO INCLUDE THE I-5/WILSONVILLE ROAD INTERCHANGE AREA MANAGEMENT PLAN(IAMP) OVERLAY ZONING DISTRICT

WHEREAS, the City and ODOT have agreed on improvements to and financing for the I-5/Wilsonville Road Interchange Area, and

WHEREAS, the State Transportation Planning Rule requires that the investment made in improvements to interstate interchanges be protected by joint adoption of interchange area management plans, and

WHEREAS, the City and consultants have prepared a draft I-5/Wilsonville Road Interchange Area Management Plan (IAMP) and a draft Overlay Zoning District which is necessary in order to implement the Goals and Objectives of the IAMP, and

WHEREAS, the draft I-5/Wilsonville Road IAMP, and associated Comprehensive Plan and Development Code amendments, including the I-5/Wilsonville Road Interchange Area Management Plan Overlay Zone, were presented to the public at an open house held on July 14, 2009, and

WHEREAS, the Planning Commission held a work session on the draft Plan and associated Plan and code amendments on August 12, 2009, and

WHEREAS, the Planning Commission, after providing the required notice, held a Public Hearing on September 9, 2009 to review the I-5/Wilsonville Road Interchange Area Management Plan Overlay Zone and to gather additional testimony and evidence regarding the Plan and proposed amendments; and

WHEREAS, the Commission has afforded all interested parties an opportunity to be heard on this subject and has entered all available evidence and testimony into the public record of their proceeding; and

WHEREAS, the Planning Commission has duly considered the subject, including the staff recommendations and all the exhibits and testimony introduced and offered by all interested parties; and

WHEREAS, the Wilsonville Planning Commission adopted all Planning Staff Reports along with the findings and recommendations contained therein and recommended that the Wilsonville City Council amend Chapter 4 of the City Code as shown in Exhibit "B", attached,

NOW, THEREFORE, THE CITY OF WILSONVILLE ORDAINS AS FOLLOWS:

1. The City Council does hereby adopt all Staff Reports along with the findings and recommendations of the Planning Commission, as contained in Exhibit "A".

2. The Wilsonville Planning and Land Development Ordinance shall be amended as shown in Exhibit "B" attached.

3. Staff is authorized to make any formatting changes necessary to integrate this amendment into the Planning and Land Development Ordinance

SUBMITTED to the Wilsonville City Council and read for the first time at a regular meeting thereof on the 5th day of October, 2009, scheduled for second reading at a regular meeting of the City Council on the 19th day of October, 2009, and held over for

a regular meeting of the City Council on the November 16, 2009 by roll call vote, commencing at the hour of 7 p.m. at the Wilsonville City Hall.

Sandra C. King

Sandra C. King, MMC, City Recorder

ENACTED by the City Council on the 16th day of November, 2009 by the following votes:

Yes: -4- No: -0-

Sandra C. King

Sandra C. King, MMC, City Recorder

DATED and signed by the Mayor this 17TH day of November 2009.

Tim Knapp

Tim Knapp, MAYOR

Summary of votes:

Mayor Knapp	Yes
Councilor Kirk	Yes
Councilor Hurst	Yes
Councilor Núñez	Yes
Councilor Ripple	Excused

Attachments:

EXHIBIT "A"

Record of the Planning Commission – September 9, 2009

EXBIBIT "B"

Amend Chapter 4, the Planning and Land Development Ordinance by adding a new section as follows:

Section 4.133.00. Wilsonville Road Interchange Area Management Plan (IAMP) Overlay Zone

Section 4.133.01. Purpose

The purpose of the IAMP Overlay Zone is the long-range preservation of operational efficiency and safety of the Wilsonville Road Interchange, which provides access from and to Interstate 5 for residents and businesses in south Wilsonville. The Wilsonville Road Interchange is a vital transportation link for regional travel and freight movement and provides connectivity between the east and west side of the community. Preserving capacity and ensuring safety of this interchange and the transportation system in its vicinity is essential to existing businesses and residents in the southern parts of the city and to the continued economic and community growth and development in the vicinity of Wilsonville Road and the interchange.

Section 4.133.02. Where These Regulations Apply

The provisions of this Section shall apply to land use applications subject to Section 4.004, Development Permit Required, for parcels wholly or partially within the IAMP Overlay Zone, as shown on **Figure1.** Any conflict between the standards of the IAMP Overlay Zone and those contained within other chapters of the Development Code shall be resolved in favor of the Overlay Zone.

Section 4.133.03. Permitted Land Uses

Uses allowed in the underlying zoning districts are allowed subject to other applicable provisions in the Code and this Section.

Section 4.133.04. Access Management

In addition to the standards and requirements of Section 4.237 for land divisions and Street Improvement Standards in Section 4.177, parcels wholly or partially within the IAMP Overlay Zone are governed by the Access Management Plan in the Wilsonville Road Interchange Area Management Plan. The following applies to land use and development applications subject to Sections 4.133(.01) Applicability. The provisions of Section 4.133.04 apply to:

A. Development or redevelopment proposals for parcels two (2) acres or less that are subject to the requirements of Section 4.004 Development Permit.

B. Planned Development applications, pursuant to Section 4.140, as part of Preliminary Approval (Stage One).

C. Final Approval (Stage Two) Planned Development applications, pursuant to Section 4.140, to the extent that subsequent phases of development differ from the approved preliminary development plan, or where one or more of the following elements are not identified for subsequent phases:

1. Land uses.
2. Building location.
3. Building size.
4. Internal circulation.

(.02) Access Approval.

A. Access to public streets within the IAMP Overlay Zone shall be reviewed for consistency with the IAMP Access Management Plan.

B. Approval of access to City streets within the IAMP Overlay Zone shall be granted only after joint review by the City and the Oregon Department of Transportation (ODOT). Coordination of this review will occur pursuant to Section 4.133.05(.02).

C. Access approval is a Class II decision, pursuant to Section 4.030, and is based on the standards contained in this Section, the provisions in Section 4.177 and Section 4.237 of this Code, and the Access Management Plan in the Wilsonville Road Interchange Area Management Plan.

1. Where the recommendations of the Access Management Plan conflict with other access and spacing requirements in Section 4.177 of this Code, the IAMP Access Management Plan shall govern.
2. Where development proposals are inconsistent with the Access Management Plan, modifications to the Access Management Plan are required pursuant to (.03) in this Section.

(.02) Cross access easements.

A. Prior to approving access for tax lots that are identified in the Access Management Plan (see Table 3 and Figure 5 in the Wilsonville Road Interchange Area Management Plan), the City shall require that:

1. The applicant demonstrate how cross access can be accomplished for sites contiguous to the subject property or properties, consistent with the circulation and planned local street network shown in the Interchange Area Management Plan;
2. If access across an adjacent parcel or parcels is necessary for the development of the subject site, a signed cross access agreement is submitted with the application; and,
3. For applications reviewed as part of a subdivision approval process, necessary cross access easements are shown and recorded on the final plat. Access widths shall consistent with City Public Works standards unless based on a Transportation Impact Analysis, developed pursuant to Section 4.133.05(.01) and approved by the City Engineer.

(.03) Access Management Plan Modifications.

A. Recommended actions in the Access Management Plan are based on property configurations development application approvals and ownership existing at the time of the Wilsonville Road Interchange Area Management Plan's adoption. Lot consolidation and other land use actions may necessitate an amendment to the Access Management Plan. Modifications to the Access Management Plan:
   1. May occur through agreement by the City of Wilsonville and ODOT and require an amendment to the Wilsonville Road Interchange Area Management Plan; and
   2. Will only be allowed if the proposed modifications meet, or move in the direction of meeting, the adopted access management spacing requirements in the Wilsonville Road Interchange Area Management Plan.

Section 4.133.05. Administration

Section 4.133.05 delineates the responsibilities of the City, in coordination with ODOT, to monitor and evaluate vehicle trip generation impacts on the Wilsonville Road Interchange from development approved under this Section.

(.01) Traffic Impact Analysis.

A. Purpose. The purpose of this section of the code is to implement Section 660-012-0045 (2) (e) of the State Transportation Planning Rule that requires the City to adopt a process to apply conditions to development proposals in order to minimize adverse impacts to and protect transportation facilities. This section establishes the standards for when a proposal in the IAMP Overlay Zone must be

reviewed for potential traffic impacts; when a Traffic Impact Analysis must be submitted with a development application in order to determine whether conditions are needed to minimize impacts to and protect transportation facilities; what must be in a Traffic Impact Study; and who is qualified to prepare the Study.

B. Typical Average Daily Trips. The latest edition of the Trip Generation Manual, published by the Institute of Transportation Engineers (ITE) shall be used as standards by which to gauge average daily vehicle trips, unless a specific trip generation study is approved by the City Engineer. A trip generation study could be used to determine trip generation for a specific land use which is not well represented in the ITE Trip Generation Manual and for which a similar facility is available to count.

C. When Required. A Traffic Impact Analysis shall be required to be submitted to the City with a land use application, when the following conditions apply:
   1. The development application involves one or more of the following actions:
      a. A change in zoning or a plan amendment designation; or
      b. The development requires a Development Permit pursuant to Section 4.004; or
      c. The development may cause one or more of the following effects to access or circulation, which can be determined by site observation, traffic impact analysis or study, field measurements, and information and studies provided by the local reviewing jurisdiction and/or ODOT:
         i. The location of the access driveway does not meet minimum intersection sight distance requirements, or is located where vehicles entering or leaving the property are restricted, or such vehicles queue or hesitate, creating a safety hazard; or
         ii. The location of the access driveway does not meet the access spacing standard of the roadway on which the driveway is located; or
         iii. The location of the access driveway is inconsistent with the Wilsonville Road Interchange Area Management Plan Access Management Plan.
         iv. A change in internal traffic patterns that may cause safety problems, such as back up onto the highway or traffic crashes in the approach area.

D. Traffic Impact Analysis Requirements.

1. Preparation. A Traffic Impact Analysis shall be prepared by a professional engineer under retainer to the city. The traffic analysis will be paid for by the applicant.
2. Transportation Planning Rule Compliance. The traffic impact analysis shall be sufficient in detail to determine compliance with Oregon Administrative Rule (OAR) 660-012-0060.
3. Traffic Impact Analysis Scoping. The applicant will coordinate with the Wilsonville City Engineer prior to submitting an application that requires a Traffic Impact Analysis. The City has the discretion to determine the required elements of the TIA and the level of analysis expected. Coordination with ODOT is advisable and is at the City's discretion.

E. Approval Criteria.
   1. Criteria. When a Traffic Impact Analysis is required, approval of the development proposal requires satisfaction of the following criteria:
      a. The Traffic Impact Analysis was prepared by a professional engineer selected by the City; and
      b. If the proposed development meets the criteria in Section C, above, or other traffic hazard or negative impact to a transportation facility, the Traffic Impact Analysis shall include mitigation measures that meet the City's performance standards (i.e. Level-of-Service and/or Volume/Capacity ratio) and are satisfactory to the City Engineer and ODOT; and
      c. The proposed site design and traffic and circulation design and facilities, for all transportation modes, including any mitigation measures, are designed to:
         i. Have the least negative impact on all applicable transportation facilities; and
         ii. Accommodate and encourage non-motor vehicular modes of transportation to the extent practicable; and
         iii. Make the most efficient use of land and public facilities as practicable; and
         iv. Provide the most direct, safe and convenient routes practicable between on-site destinations, and between on-site and off-site destinations; and
         v. Otherwise comply with applicable requirements of the City of Wilsonville's Development Code.

F. Conditions of Approval. The City may deny, approve, or approve a development proposal with appropriate conditions.
   1. Where the existing transportation system will be impacted by the proposed development, dedication of

land for streets, transit facilities, sidewalks, bikeways, paths, or access ways may be required to ensure that the transportation system is adequate to handle the additional burden caused by the proposed use.

2. Where the existing transportation system is shown to be burdened by the proposed use, improvements such as paving, curbing, installation or contribution to traffic signals, construction of sidewalks, bikeways, access ways, paths, or streets that serve the proposed use may be required.
3. Where planned local street connectivity is required to improve local circulation for the betterment of interchange function, local street system improvements will be required.

(.02) Land Use Review Coordination.

A. The City shall not deem the land use application complete unless it includes a Traffic Impact Analysis prepared in accordance with the requirements of this Section.
B. The City shall provide written notification to ODOT when the application within ten (10) calendar days of receiving a complete Class II Permit application.
C. ODOT shall have at least 20 calendar days, measured from the date completion notice was mailed, to provide written comments to the City. If ODOT does not provide written comments during this 20-day period, the City staff report will be issued without consideration of ODOT comments.

Section 4.133.06. Comprehensive Plan and Zoning Map Amendments
This Section applies to all Comprehensive Plan Map and Zoning Map amendments to parcels wholly or partially within the IAMP Overlay Zone.

(.01) IAMP Amendment.

If the proposed land use is inconsistent with the current Comprehensive Plan Map or Zoning Map land use designation the applicant will be required to undertake a legislative process to amend and update the Wilsonville Road Interchange Area Management Plan in order to demonstrate that the proposed amendment will be consistent with the planned improvements in the Overlay Zone.

(.02) Transportation Planning Rule Requirements.

A. Review of Applications for Effect on Transportation Facilities. A proposed comprehensive plan amendment, zone change or land use regulation change pertaining development within the IAMP Overlay Zone, whether initiated by the City or by a private interest, shall be reviewed to determine whether it significantly affects a transportation facility, in accordance with Oregon Administrative Rule (OAR) 660-

012-0060 (the Transportation Planning Rule – "TPR"). "Significant" means the proposal would:

1. Change the functional classification of an existing or planned transportation facility (exclusive of correction of map errors in an adopted plan);
2. Change standards implementing a functional classification system; or
3. As measured at the end of the planning period identified in the adopted transportation system plan:
   a. Allow land uses or levels of development that would result in types or levels of travel or access that are inconsistent with the functional classification of an existing or planned transportation facility;
   b. Reduce the performance of an existing or planned transportation facility below the minimum acceptable performance standard identified in the TSP; or
   c. Worsen the performance of an existing or planned transportation facility that is otherwise projected to perform below the minimum acceptable performance standard identified in the TSP or comprehensive plan.

B. Amendments That Affect Transportation Facilities. Amendments to the comprehensive plan and land use regulations that significantly affect a transportation facility shall ensure that allowed land uses are consistent with the function, capacity, and level of service of the facility identified in the TSP. This shall be accomplished by one or a combination of the following:

1. Adopting measures that demonstrate allowed land uses are consistent with the planned function, capacity, and performance standards of the transportation facility.
2. Amending the TSP or comprehensive plan to provide transportation facilities, improvements or services adequate to support the proposed land uses consistent with the requirements of Section -0060 of the TPR.
3. Altering land use designations, densities, or design requirements to reduce demand for vehicle travel and meet travel needs through other modes of transportation.
4. Amending the TSP to modify the planned function, capacity or performance standards of the transportation facility.

C. Traffic Impact Analysis. A Traffic Impact Analysis shall be submitted with a plan amendment or zone change application. (See Section 4.133.05 Traffic Impact Analysis).

ORDINANCE NO. 673

AN ORDINANCE OF THE CITY OF WILSONVILLE AMENDING THE CITY'S OFFICIAL ZONING MAP TO INCLUDE THE BOUNDARIES OF THE I-5/WILSONVILLE ROAD INTERCHANGE AREA MANAGEMENT PLAN(IAMP) OVERLAY ZONING DISTRICT

WHEREAS, the City has adopted an Official Zoning Map, and

WHEREAS, the City and ODOT have agreed on improvements to and financing for the I-5/Wilsonville Road Interchange Area, and

WHEREAS, the State Transportation Planning Rule requires that the investment made in improvements to interstate interchanges be protected by joint adoption of interchange area management plans, and

WHEREAS, the draft I-5/Wilsonville Road IAMP, and associated Comprehensive Plan and Development Code amendments, including the I-5/Wilsonville Road Interchange Area Management Plan Overlay District, were presented to the public at an open house held on July 14, 2009, and

WHEREAS, the I-5/Wilsonville Road Interchange Area Management Plan Overlay District is a necessary technique in application of the Goals, Policies and Implementing Measures of the IAMP and the Comprehensive Plan to development applications within the Overlay District, and

WHEREAS, the Planning Commission held a work session on the draft Plan and associated Plan and code amendments on August 12, 2009, and

WHEREAS, the Planning Commission, after providing the required notice, held a Public Hearing on September 9, 2009 to review the I-5/Wilsonville Road Interchange Area Management Plan Overlay Zone and to gather additional testimony and evidence regarding the Plan and proposed amendments; and

WHEREAS, the Commission has afforded all interested parties an opportunity to be heard on this subject and has entered all available evidence and testimony into the public record of their proceeding; and

WHEREAS, the Planning Commission has duly considered the subject, including the staff recommendations and all the exhibits and testimony introduced and offered by all interested parties; and

WHEREAS, the Wilsonville Planning Commission recommends that the Wilsonville City Council amend the City's Official Zoning Map as shown in Exhibit "B", attached,

NOW, THEREFORE, THE CITY OF WILSONVILLE ORDAINS AS FOLLOWS:

1. The City Council adopts as findings and conclusions the foregoing recitals, the Planning Commission recommendations and record before the Planning Commission in this matter as contained in Exhibit "A"

2. The Official City of Wilsonville Zoning Map is hereby amended in Zoning Order LP09-0009, attached hereto, to include the boundaries of the I-5/Wilsonville Road Interchange Area Management Plan Overlay District as shown in Exhibit "B", attached.

SUBMITTED to the Wilsonville City Council and read for the first time at a regular meeting thereof on the 5th day of October, 2009, scheduled for second reading at a regular meeting of the City Council on the 19th day of October, 2009, and held over for final decision on the 2nd day of November, commencing at the hour of 7 p.m. at the Wilsonville City Hall.

Sandra C. King

Sandra C. King, MMC, City Recorder

Sandra C. King, MMC, City Recorder

ENACTED by the City Council on the 16th day of November 2009 by the following votes:

Yes: -4- No: -0-

Sandra C. King, MMC, City Recorder

DATED and signed by the Mayor this 17th day of November, 2009.

Tim Knapp, MAYOR

Summary of votes:

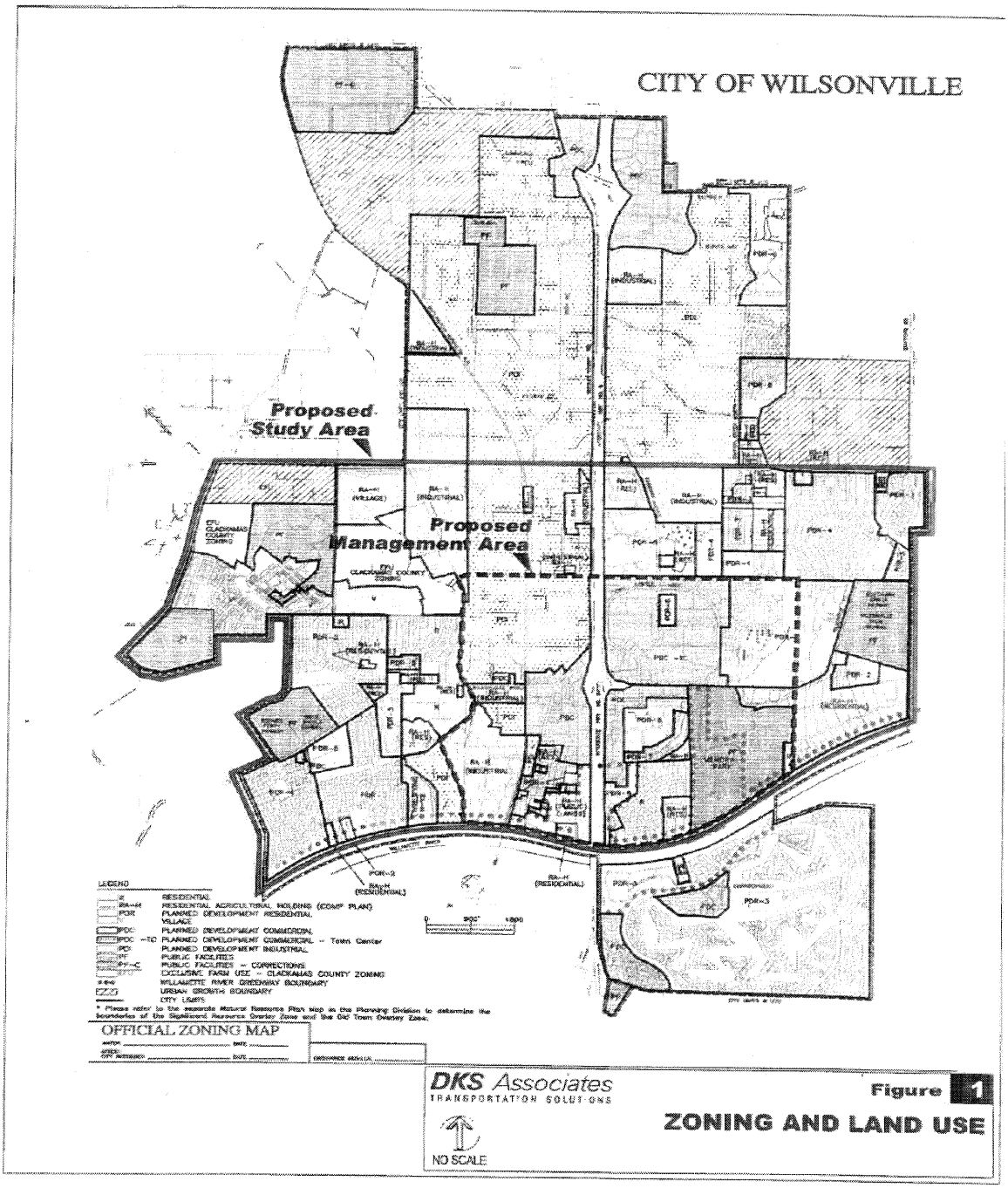
Mayor Knapp	Yes
Councilor Kirk	Yes
Councilor Hurst	Yes
Councilor Ripple	Excused
Councilor Núñez	Yes

EXHIBIT "A"

Record of the Planning Commission for September 9, 2009

EXHIBIT "B"

Amend the Official Zoning Map to include the boundaries of the I-5/Wilsonville Road Interchange Area Management Plan Overlay Zone as shown below:



BEFORE THE CITY COUNCIL OF THE
CITY OF WILSONVILLE, OREGON
I-5/WILSONVILLE ROAD
INTERCHANGE AREA MANAGEMENT PLAN
OVERLAY DISTRICT

In the matter of the application of	)	
The City of Wilsonville for	)	
Amendment of the City of Wilsonville	)	
Official Zoning Map to include	)	**ZONING ORDER LP09-0012**
the boundaries of the I-5/Wilsonville	)	
Road Interchange Area Management	)	
Plan Overlay District		

The above entitled matter is before the City Council to consider the application by the City of Wilsonville for amendment of the Official Zoning Map to include the I-5/Wilsonville Road Interchange Area Management Plan Overlay District boundaries as shown on Exhibit "A" attached.

This matter is before the City Council as partial implementation of the Cooperative Improvement Agreement (CIA 23581) between the City of Wilsonville and the Oregon Department of Transportation (ODOT) for design and construction of improvements to the I-5/Wilsonville Road Interchange.

OAR 734-051-0155 requires the preparation and adoption of Interchange Area Management Plans (IAMP) when new interchanges or major improvements to existing interchanges are constructed. The I-5/Wilsonville Road IAMP designates a management area within which development and redevelopment must meet certain requirements whose goal is preservation of the capacity of the newly constructed interchange for at least 20 years.

The Council having heard and considered all matters relevant to the application, including the Planning Commission record and recommendation, finds that the application should be approved, and it is therefore,

ORDERED that the Official Zoning Map be amended to include the boundaries of the I-5/Wilsonville Road Interchange Area Management Plan Overlay District, adopted by the Council separately under Ordinance No. 673, as depicted on Exhibit "A" attached, and shall appear as such from and after entry of this Order.

Dated this 16th day of November, 2009.

Tim Knapp, Mayor

Approved as to form:

Michael E. Kohlhoff, City Attorney

ATTEST:

Sandra C. King, MMC, City Recorder

Attachment "A": Map depicting boundaries of the I-5/Wilsonville Road Interchange Management Area Plan Overlay district.