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1 BACKGROUND PLAN REVIEW

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Appendix 1: Relevant Planning Documents Policies and Regulations

This document presents the relevant planning documents, policies, and regulations applicable to the North Redmond US 97 Interchange Area Management Plan (IAMP). The information provided was used to guide the establishment of goals, objectives, and evaluation criteria for the IAMP, addressed in Chapter 2 and 3.

State Plans & Regulations

Oregon Transportation Plan (April 1997)

The Oregon Transportation Plan guides the State's transportation facility and mode plans by setting the general direction for transportation development statewide for the next twenty years and providing overall direction for allocation of resources and coordination of modes of transportation. It provides policies to increase livability in the State of Oregon by emphasizing alternative forms of transportation to the single occupant vehicle. The plan seeks to develop public transit, rail lines, bicycling and pedestrian facilities, airports and pipelines, while also emphasizing the maintenance and improvement of highways, roads and bridges. Thus, the plan calls for a transportation system that has a modal balance, is both efficient and accessible, provides connectivity among rural and urban places and between modes, and is environmentally and financially stable.

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.

ODOT's management objectives for US 97 through this area vary, as the highway passes through both rural and urban areas, experiences a posted speed change, and maintains an expressway designation north of the urban growth boundary. The management objectives for various segments of US 97 through the study area, as adopted in the OHP, are described below.

Statewide Highways (NHS): Rural Expressways (Existing US 97 MP 118.52 – MP 119.02)

- Provide for safe and efficient high-speed and high-volume traffic movements with the primary objective of connecting larger urban areas, ports, and major recreation areas with minimal interruptions;

- Discourage private access by eliminating approaches as opportunities occur or alternate access becomes available, purchasing access rights, and developing local road networks;
- Control public road connections to provide appropriate spacing and grade separated crossings where needed;
- Discourage traffic signals;
- Prohibit parking; and
- Construct non-traversable medians through modernization projects.

Statewide Highways (NHS): Urban Other (Existing US 97 MP 119.02 – MP 123.60 and New US 97 Reroute Alignment)

- Provide high to moderate speed operations with limited interruptions in traffic flow;
- Direct access to abutting properties is a minor objective;
- Purchase access rights as opportunities arise, with a preference for purchasing rights in full; and
- Provide connections to larger urban areas, ports, and major recreation areas not served by freeways or expressways.

In addition, the new US 97 alignment created by the Reroute is intended to be access controlled and could become an extension of the expressway that currently terminates at the northern Redmond urban growth boundary. If a future expressway designation for this highway section is desired, the following management objectives would apply.

Statewide Highways (NHS): Urban Expressways (New US 97 Reroute alignment)

- Provide for safe and efficient high-speed and high-volume traffic movements with the primary objective of connecting larger urban areas, ports, and major recreation areas with minimal interruptions;
- Discourage private access by eliminating approaches as opportunities occur or alternate access becomes available, purchasing access rights, and developing local road networks;
- Control public road connections to provide appropriate spacing and grade separated crossings where needed;
- Discourage traffic signals. Where traffic signals are allowed, their impact on through traffic must be minimized by ensuring that efficient progression of traffic is achieved;
- Prohibit parking; and
- Consider median treatments in accordance with criteria in Action 3B.3 of the *1999 Oregon Highway Plan* (see discussion of Policy 3B below).

US 97 has also been designated as a 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.

While the construction of non-traversable medians is specifically addressed among the management objectives for some classifications of highways, Policy 3B describes ODOT's overall policies regarding medians. Actions under this policy pertaining to the North Redmond IMAP include:

- Action 3B.2: Design and construct non-traversable medians for all new multi-lane highways constructed on completely new alignment and modernization of all rural, multi-lane Expressways, including Statewide (NHS), Regional and District;
- Action 3B.3: Consider construction of non-traversable medians for modernization of all urban, multi-lane Statewide (NHS) Highways. Where the forecasted average daily traffic is anticipated to be 28,000 vehicles per day during the 20-year planning period, reasons for not using non-traversable medians must be documented and reviewed and approved by the Region Manager; and
- Action 3B.4: Full and directional median openings shall be restricted to locations that conform to ODOT's spacing standards as shown in Appendix C and designed with a left-turn bay and deceleration lane. Full median openings will be given preference to a public road connection which is part of a continuous and comprehensive public road network.

Policy 3C in the OHP also 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 or construct a new interchange:
  - Necessary supporting improvements, such as road networks, channelization, medians and access control in the interchange management area must be identified in the local comprehensive plan and committed with an identified funding source, or must be in place;
  - Access to cross streets shall be consistent with established standards for a distance on either side of the ramp connections so as to reduce conflicts and manage ramp operations. The Interchange Access Management Spacing Standards supersede the Access Management Classification and Spacing Standards (Policy 3A), unless the latter distance standards are greater (see "Performance & Design Standards" section of this memorandum);
  - The design of urban interchanges must consider the need for transit and park-and-ride facilities, along with the interchange's effect on pedestrian and bicycle traffic;
  - When possible, access control shall be purchased on crossroads for a minimum distance of 1320 feet (400 meters) from a ramp intersection or the end of a free flow ramp terminal merge lane taper; and
  - Interchanges on Statewide, Regional or District Highways may connect to state highways, major or minor arterials, other county or city roads, or private roads, as appropriate.
- 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.

For this IAMP, consideration must also be given to the policies and actions pertaining to mobility standards associated with the Statewide Highway classification in urban and rural areas and the effect of the freight route and expressway designations. This discussion can be found in the "State Performance & Design Standards" section of this memorandum, along with ODOT's access management spacing standards.

2001 Oregon Rail Plan

This plan serves as a combination of the State's rail planning, freight rail and passenger rail systems and contains three elements:

- Summary of the state's goals and objectives related to passenger and freight rail;
- Quantification and measurement of the state's performance to-date; and
- Identification of projected costs, revenues and investment needs for rail transportation of people and goods.

The plan also establishes a system of integration between freight and passenger elements (there currently is no passenger rail service to Redmond) into the land use and transportation planning processes and calls for cooperation between state, regional and local jurisdictions in completing the plan.

The policies established in this plan for managing the state rail system will be used to evaluate alternatives that impact the Burlington Northern Santa Fe freight rail line that parallels US 97 to the east through the study area.

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 *2004-2007 STIP*. The *Draft 2006-2009 STIP* is currently under development, and is available for public viewing and comment.

The *2004-2007 and Draft 2006-2009 STIP's* were reviewed for projects that should be considered during the development of the North Redmond IAMP for complimentary or conflicting traffic impacts. No projects, other than the US 97 Reroute and North Redmond interchange, were found within the study area.

Operational Notice PD-03: Project Development Access Management Sub-teams

This ODOT Operational Notice provides detailed guidance and structure for staff responsible for access management decisions in the development of highway projects. It indicates when Access Management Sub-teams (AMS) should be formed, AMS member roles and responsibilities, and recommended actions. According to this notice, the formation of an AMS will be required for this project because it is categorized as a modernization project and will create an Interchange Management Area. Therefore, Operational Notice PD-03 will be used to guide AMS decisions regarding access management during the development of the IAMP.

Freight Moves the Oregon Economy (July 1999)

The movement of freight has a far-reaching effect on the Oregon economy. This report attempts to identify some of the concerns and needs about maintaining and enhancing current and future freight mobility. The report simply reports information about freight from numerous federal, state, regional, local, and other sources. Therefore, it serves as an overview of these documents rather than an independent document that develops new data or ideas. It provides an overview of:

- Importance of freight to the national and Oregon economy
- Freight transportation planning and programming
- Oregon's freight transportation system
- Freight performance, concerns and needs
- Possible future directions for freight capacity

Many different issues affect the movement of freight. The issues discussed in detail within this document include: accessibility, capacity, connectivity, environmental sensitivity, land use compatibility, safety and reliability. Additionally, performance measures have been developed that provide quantitative or qualitative threshold values that indicate whether or not there are capacity, safety and time delay deficiencies on freight routes throughout Oregon.

US 97 is defined as a freight system route and has been described as the most important north/south corridor east of the Cascade Mountains. The southern part of that route serves as an important alternative for freight movement between Northern California and the Willamette Valley. Congestion is perceived as the major problem concerning freight mobility in the Bend/Redmond area.

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 North Redmond US 97 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 Redmond Comprehensive Plan and Transportation System 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.[1]

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 US 97 or OR 370 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 North Redmond Interchange will:

- Be developed no later than the time an interchange is designed or is being redesigned;
- Identify opportunities to improve operations and safety in conjunction with roadway projects and property development or redevelopment and adopt strategies and development standards to capture those opportunities;
- Include short, medium, and long-range actions to improve operations and safety in the interchange 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 the all property in the interchange area consistent with its comprehensive plan designations and zoning;
- Be consistent with any adopted Transportation System Plan, Corridor Plan, Local Comprehensive Plan, or Special Transportation Area or Urban Business Area designation,

[1] The ability to successfully regulate future land use proposals may be affected by Measure 37, however the extent to which this would occur is unknown.

or amendments to the Transportation System Plan unless the jurisdiction is exempt from transportation system planning requirements under OAR 660-012-0055[2];

- Be consistent with the 1999 Oregon Highway Plan; and
- Be approved by the Department through an intergovernmental agreement and adopted by the local government, and adopted into a Transportation System Plan unless the jurisdiction is exempt from transportation system planning requirements under OAR 660-012-0055.

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

- Preparation for a logical segment of the state highway and include 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 adopted Transportation System Plan, Local Comprehensive Plan, Corridor Plan, or Special Transportation Area or Urban Business Area designation, or amendments to the Transportation System Plan unless the jurisdiction is exempt from transportation system planning requirements under OAR 660-012-0055.
- Consistency with the 1999 Oregon Highway 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.
- Approval by the Department through an intergovernmental agreement and adopted by the local government, and adopted into a Transportation System Plan unless the jurisdiction is exempt from transportation system planning requirements under OAR 660-012-0055.
- Use for evaluation of development proposals.
- Potential for use in conjunction with mitigation measures.

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.

[2] The City of Redmond is not exempt from state transportation system planning requirements as outlined in OAR 660-012-0055.

Traffic Control (OAR 734-020):

Accommodating future traffic volumes in 2025 may require modifications to highway traffic controls such as street signing, pavement markings, and installation or modification of traffic signals. These administrative rules outline the processes and decision-making criteria for such modifications and will be used by ODOT to evaluate proposed mitigation.

Railroad Regulations

The US 97 Reroute and North Redmond interchange are proposed to be located east of the existing US 97 alignment and nearly adjacent to the west side of the Burlington Northern Santa Fe (BNSF Railway) freight rail line that parallels the highway. Should the alignment of the reroute or any supporting local street improvements create or modify railroad crossings (at, above, or below grade), the affected road authority must apply for authority to alter the crossing from the ODOT Rail Division. ODOT, through its Rail Division, has exclusive jurisdiction over all public railroad-highway crossings in the state. The following are key requirements and considerations that may affect proposed improvement alternatives:

- Per ORS 824.202, authority to control and regulate the construction, alteration and protection of public railroad-highway crossings is vested exclusively in the state, and in ODOT.
- ODOT's Rail Division works cooperatively with all road authorities (including ODOT) and all railroads to address crossing safety matters in conformance with federal and state laws, rules and regulations.
- A crossing Order is required for the construction of a new public railroad-highway crossing (at-grade or grade-separated), or the alteration of an existing public crossing. Alterations are defined in OAR 741-100-0020(1) and include any change to the roadway or railroad tracks at a crossing that materially affects use of the crossing by railroad equipment, vehicles, or pedestrians. Changes in the roadway configuration roadway widening or construction of sidewalks within 500 feet of a crossing, installing or removing protective devices at a crossing, changing the direction of traffic flow, or closing a crossing (removal of track or roadway) may be alterations. Information on obtaining an Order is available from the ODOT Rail Division (http://www.oregon.gov/ODOT/RAIL/).
- An application for a crossing Order involves an administrative process that typically takes6 to 8 months from design completion to the authorization of construction. If the application for an Order is contested a formal hearing may be required to resolve the contested application. The Order resulting from the hearing may be appealed under state law. Contested cases may take 12 to 18 months or longer.
- Prior to seeking a crossing Order, the Department highly recommends the parties involved work together during project development/preliminary design. Experience has shown that dialogue between the railroad, road authority and Rail Division can significantly reduce formal application processing time. The Rail Division encourages crossing Order applicants to submit a draft application for review and comment.

US 97 Corridor Strategy (Madras – California Border), 1995

This document is the outcome of the initial strategy development phase of corridor planning, intended to set the stage for more detailed analysis of modal trade offs and improvement priorities. The Corridor Strategy evaluates long-term transportation requirements, multimodal issues and recommends general improvement objectives to address corridor-wide requirements. The strategy developed is then used in the second phase of corridor planning, which specifically addresses the objectives set forth in the Corridor Strategy by identifying and prioritizing specific transportation improvements.

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

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

In addition, the following six underlying corridor strategy themes were identified during the strategy development process:

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

While this document provides insight to early corridor planning efforts and stakeholder interests, its significance is diminished with the adoption of the City of Redmond and Deschutes County TSP's, which eliminate the need to develop a corridor plan for this area.

State Performance & Design Standards

Highway Classifications

US 97 (The Dalles – California Highway) and OR 370 (O'Neil Highway), are both owned and operated by ODOT, which has established management objectives and operational standards for each of these facilities based on the assigned classifications and segment designations shown below and illustrated in Figure 1.1.

US 97 (The Dalles – California Highway) — Within the study area, US 97 is classified as a Statewide Highway on the National Highway System and is a designated Freight Route. In addition, the segment of US 97 north of the Redmond UGB has been designated as an expressway.

OR 370 (O'Neil Highway) — The O'Neil Highway is classified as a District Highway.

It should be noted that operational standards for any given classification or special designation will change as a highway crosses over urban growth boundaries and passes through different speed zones, as shown below.

Mobility Standards

ODOT has adopted standards for mobility for state facilities through the *1999 Oregon Highway Plan* (OHP) and the *Highway Design Manual*[3]. The OHP mobility standards are 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*.

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

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 outside of the Portland Metropolitan Area. Sections from that table relevant to the study area are presented below in Table 1.A.

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 1.A: Maximum Volume to Capacity Ratios from the 1999 Oregon Highway Plan

Highway Category	Land Use Type/Speed Limits		
	Inside Urban Growth Boundary		Outside Urban Growth Boundary
	Non-MPO outside of STAs where non-freeway speed limit <45 mph	Non-MPO where non-freeway speed limit >= 45 mph	Rural Lands
Interstate Highways and Statewide (NHS) Expressways	0.70	0.70	0.70
Statewide (NHS) Freight Routes	0.75	0.70	0.70
District/Local Interest Roads	0.85	0.80	0.75

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. If the applicable mobility standard cannot be met, a design exception should be sought. Sections from that table relevant to the study area are presented below.

Table 1.B: Maximum Volume to Capacity Ratios from the 2003 Highway Design Manual

Highway Category	Land Use Type/Speed Limits		
	Inside Urban Growth Boundary		Outside Urban Growth Boundary
	Non-MPO outside of STAs where non-freeway speed limit <45 mph	Non-MPO where non-freeway speed limit >= 45 mph	Rural Lands
Interstate Highways and Statewide (NHS) Expressways	0.70	0.65	0.60
Statewide (NHS) Freight Routes	0.70	0.70	0.60
District/Local Interest Roads	0.80	0.75	0.75

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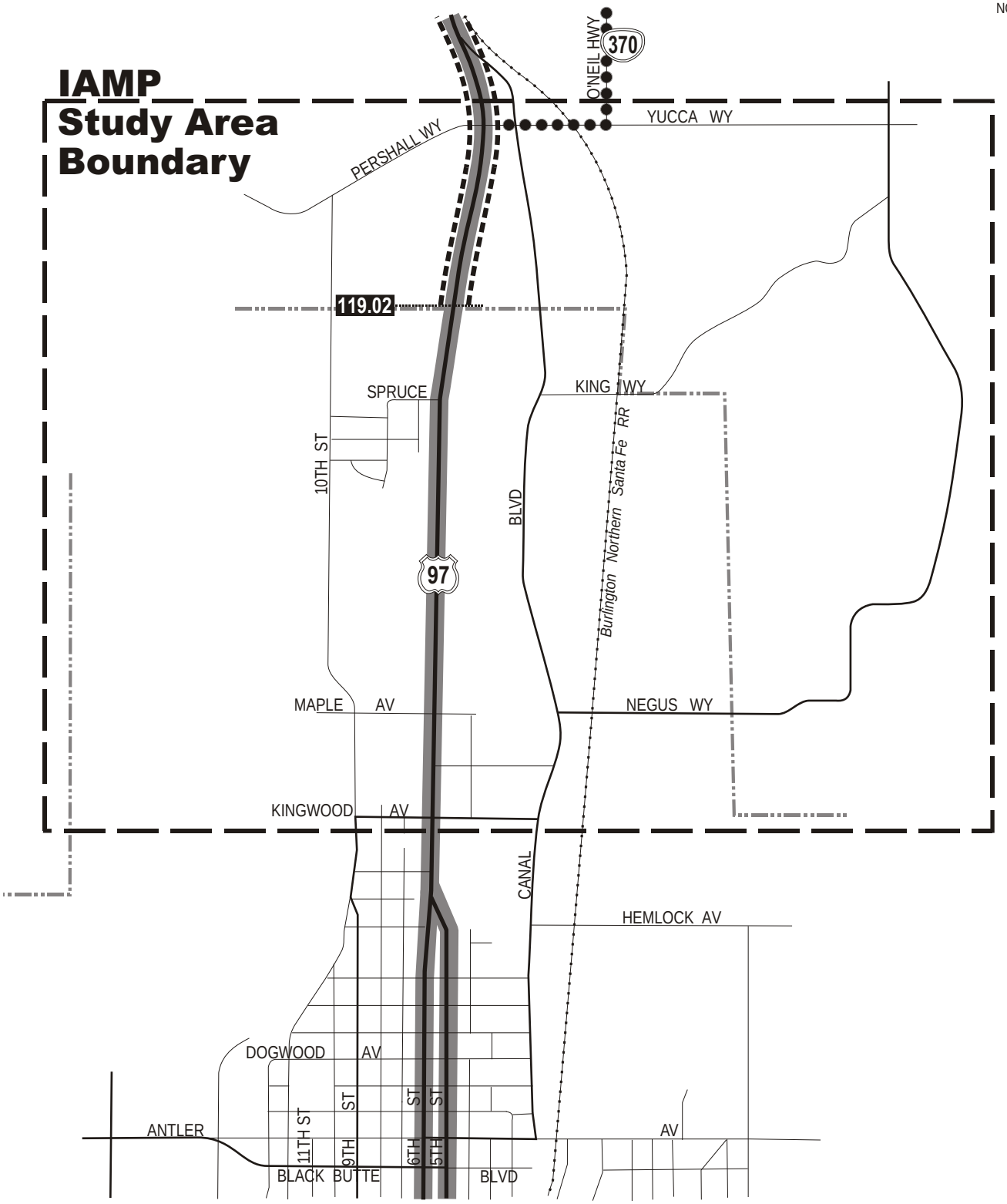
NO SCALE



LEGEND

- District
- Statewide NHS with Freight Route
- Expressway
- Urban Growth Boundary (UGB)
- 000.00 - Milepost Indicator

Figure 1.1
STATE HIGHWAY FUNCTIONAL CLASSIFICATIONS AND SEGMENT DESIGNATIONS

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. Tables 1.C and 1.D below show the applicable access management spacing standards for state facilities in the study area. In Table 1.C, 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, US 97 within the UGB is by default designated "Urban Other" for purposes of access spacing.

Table 1.C: Access Spacing Standards for Statewide Highways (measured in feet)

Posted Speed (mph)	Rural		Urban	
	Expressway (at-grade only)	Other	Expressway (at-grade only)	Other
≥ 55	5280	1320	2640	1320
50	5280	1100	2640	1100
40 & 45	5280	990	2640	990
30 & 35		770		770[4]
≤ 25		550		550[3]

With some design elements of the proposed project still unknown, it is assumed the North Redmond interchange will resemble a non-freeway interchange with a two-lane crossroad. Table 1.D and Figure 1.2 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. It should be noted that the spacing standards for interchange areas shown in Table 1.D would supersede the spacing standards shown in Table 1.C unless the latter requires a greater distance of separation.

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.

[4] Access spacing standards in urban areas for facilities with posted speeds of 35 mph or less may be reduced pending OTC approval of proposed *Oregon Highway Plan* amendments. Proposed spacing standards would be 720 feet (30 & 35 mph) and 520 feet (≤25 mph).

Table 1.D: ODOT's Minimum Spacing Standards Applicable to Non-Freeway Interchanges with Two-Lane Crossroads

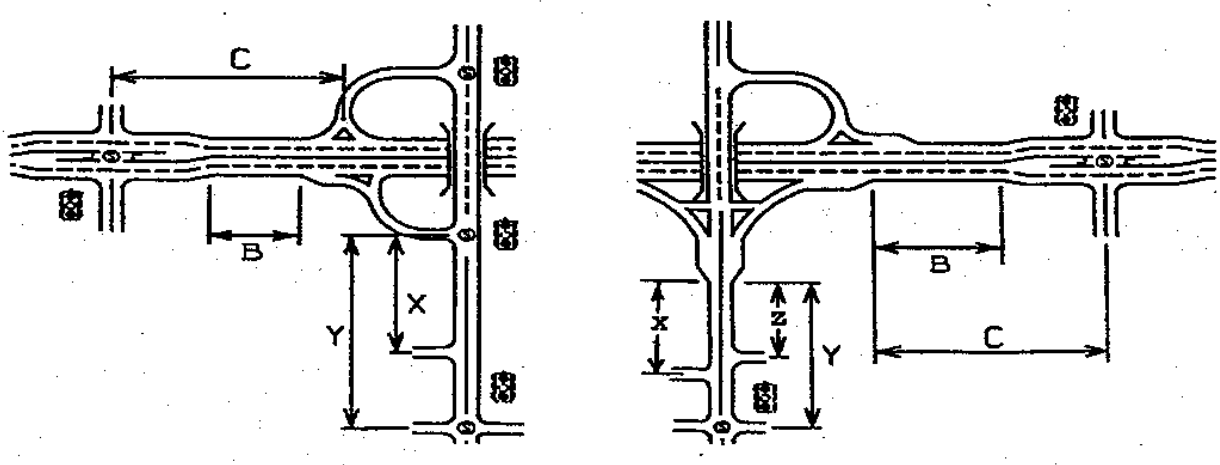
Category of Mainline	Type of Area	Speed of Mainline	Spacing Dimension				
			B	C	X	Y	Z
Expressways, Statewide, Regional and District Highways	Fully Developed Urban*	45 mph (70 kph)	2640 ft (800 m)	1 mile (1.6 km)	750 feet (230 m)	1320 feet (400 m)	750 feet (230 m)
	Urban	45 mph (70 kph)	2640 ft (800 m)	1 mile (1.6 km)	1320 feet (400 m)	1320 feet (400 m)	990 feet (300 m)
	Rural	55 mph (90 kph)	1 mile (1.6 km)	2 miles (3.2 km)	1320 feet (400 m)	1320 feet (400 m)	1320 feet (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 placed between ramp terminals and the first major intersection.
3) No application shall be accepted where an approach would be aligned opposite a freeway or expressway ramp terminal (OAR 734-051-0070(4)(a)).
4) Use four-lane crossroad standards for urban and suburban locations that are documented to be widened in a Transportation System Plan or corridor plan.
5) No at-grade intersections are allowed between interchanges less than 5 miles apart.

B = Distance between the start and end of tapers
C = Distance between nearest at-grade and ramp terminal intersections or the end/start of the taper section
X = Distance to the 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 right in/right out approach road and the start of the taper for the on-ramp

* Fully Developed Urban Interchange Management Area: Occurs when 85% or more of the parcels along the influence area are developed at urban densities and many have driveways connecting to the crossroad. See the definition in the 1999 Oregon Highway Plan at page 181.

Figure 1.2: Measurement of Spacing Standards for Table 1.D.[2]



City of Redmond Plans & Regulations

City of Redmond Comprehensive Plan

The City of Redmond Comprehensive Plan, which is currently being updated, acts as a guide for future growth and development within the urban area using a framework of goals and policies that respond to current needs and conditions in addition to guiding future City programs, major capital projects, and other funding decisions through the year 2020. The updated plan will extend this period through 2025.

The key goals and policies for consideration during this project will be those pertaining to transportation. Policies of particular interest include:

- The reduction of through traffic and congestion and the improvement of circulation along US 97, especially along the 5th and 6th Street couplet; and
- Enhancing east/west circulation.

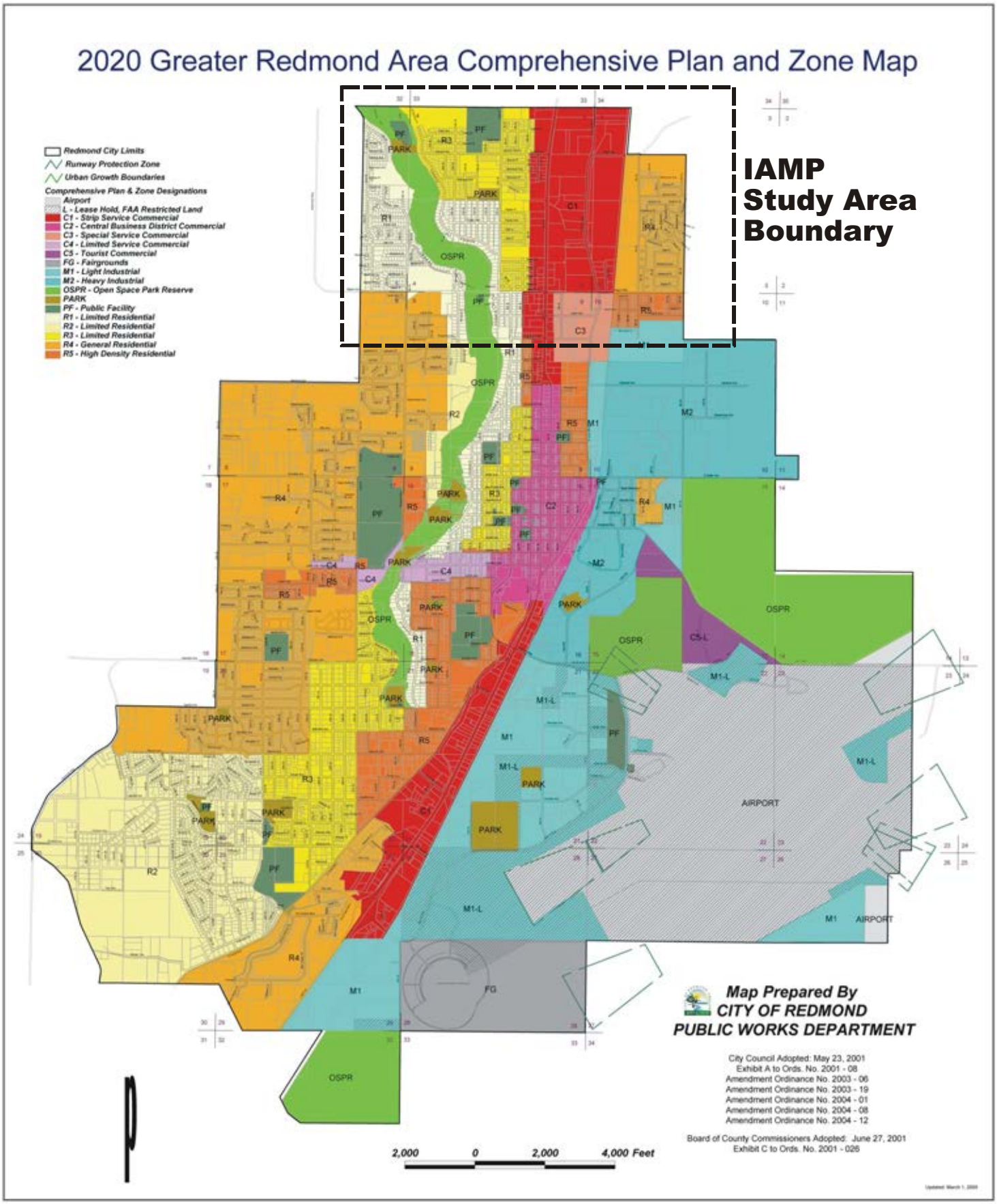
Based on these goals, policies were designed for implementation through the Redmond Urban Area Transportation Plan addressing transportation system management, treatment of state highways, development of local street systems, street design, and other transportation elements.

In addition, the City of Redmond Comprehensive Plan and Zone Map (see Figure 1.3) shows the type, location, and density of land development and redevelopment permitted in the future. The City of Redmond Development Code (Chapter 8 – Development Regulations), which was written to implement the comprehensive plan, provides descriptions of zone designations and allowable uses within those zones. Descriptions for zone designations found within the IAMP study area have been provided in Table 1.E for comparison with the zoning identified in the zone map.

Table 1.E : Redmond Zoning Designations in IAMP study area

Zone Designations		Purpose of Zone	Common Uses
C-1	Strip-Service Commercial	To create and preserve areas suitable for commercial uses and services primarily oriented towards automobile traffic, requiring extensive outdoor display and storage, and support of the central business district or principal downtown shopping area.	● service stations ● auto sales ● motels ● restaurants ● general retail ● banks ● professional offices
C-3	Special-Service Commercial	To create and preserve areas suitable for special commercial uses and services and compatible non-commercial uses, and on a broad basis to serve as a center for emergency services such as medical-health care for the City.	● medical/dental clinics ● hospitals ● retirement homes ● convalescent care ● government offices
M-1	Light Industrial	To provide for light industrial uses such as light manufacturing, research, transportation facilities and similar uses which have a limited impact on surrounding properties and are compatible with clean non-polluting industries.	● electronics firms ● research/development ● wholesale distribution ● corporate headquarters ● light equip. manufacture
R-1	Limited Residential	To encourage, promote, and protect the character of neighborhood residential areas having a suitable environment for urban and suburban family life.	● single family dwellings ● guest houses ● farming w/restrictions ● manufactured homes
R-3	Limited Residential -	To recognized the existing residential character of the	● single family dwellings

Zone Designations		Purpose of Zone	Common Uses
	Planned	area and provide compatible types of new residential development. In the undeveloped areas, it is the intent of the R-3 Zone to provide some flexibility of housing types where community services are or will be available.	● guest houses ● farming w/restrictions ● manufactured homes ● two family dwellings ● duplexes
R-4	General Residential - Planned	To recognize and enhance areas of scenic quality and view amenities and to allow some flexibility in housing types to provide view amenities to all income levels.	● single family dwellings ● two family dwellings ● farming w/restrictions ● manufactured homes ● duplexes
R-5	Urban High Density Residential	To provide for high density multi-family developments in locations close to shopping service, transportation or public open space, and in appropriate locations to provide a transitional use area between residential areas and other less restrictive districts.	● single family dwellings ● two family dwellings ● manufactured homes ● duplexes ● condominiums ● multi-family dwellings
PARK	Park	To provide for public park uses.	● playgrounds ● ball fields ● reserve areas
PF	Public Facility	To provide for public facility uses.	● wastewater treatment ● water storage reservoirs ● well sites ● public schools ● public works admin.
OSPR	Open Space Park Reserve	To preserve and provide for open space areas of natural, scenic, historical, or geological significance.	● livestock grazing ● crop production ● public parks & trails



DKS Associates
TRANSPORTATION SOLUTIONS

Source: City of Redmond - Public Works Department

Figure 1.3
2020 GREATER REDMOND AREA COMPREHENSIVE PLAN AND ZONE MAP

City of Redmond Transportation System Plan

The City's Transportation System Plan (TSP) provides a plan for the development of the City's transportation infrastructure, addressing improvements to existing roadways, new pedestrian and bicycle facilities, improvements in public transit service, and transportation demand management strategies. It also includes a capital improvement program (CIP), listing projects required to address the City's transportation needs for a 20-year planning period. The projects in the CIP are prioritized based on current needs and the expected growth of the city. Projects planned in the city are displayed in Figure 1.4, with specific projects of interest that could affect traffic circulation in the IAMP study area listed below.

Planning year 2000 – 2005

- US 97 Reroute (currently under construction);
- Maple Avenue connection between North Canal Boulevard and Highway 97 (including traffic signal at Highway 97) (currently under construction); and
- NW Maple Avenue Bridge Project (Dry Canyon Crossing) (currently under construction).

Planning year 2006 – 2010

- Quince Avenue construction from NW 10th Street to North Canal Boulevard.

Planning year 2016 – 2020

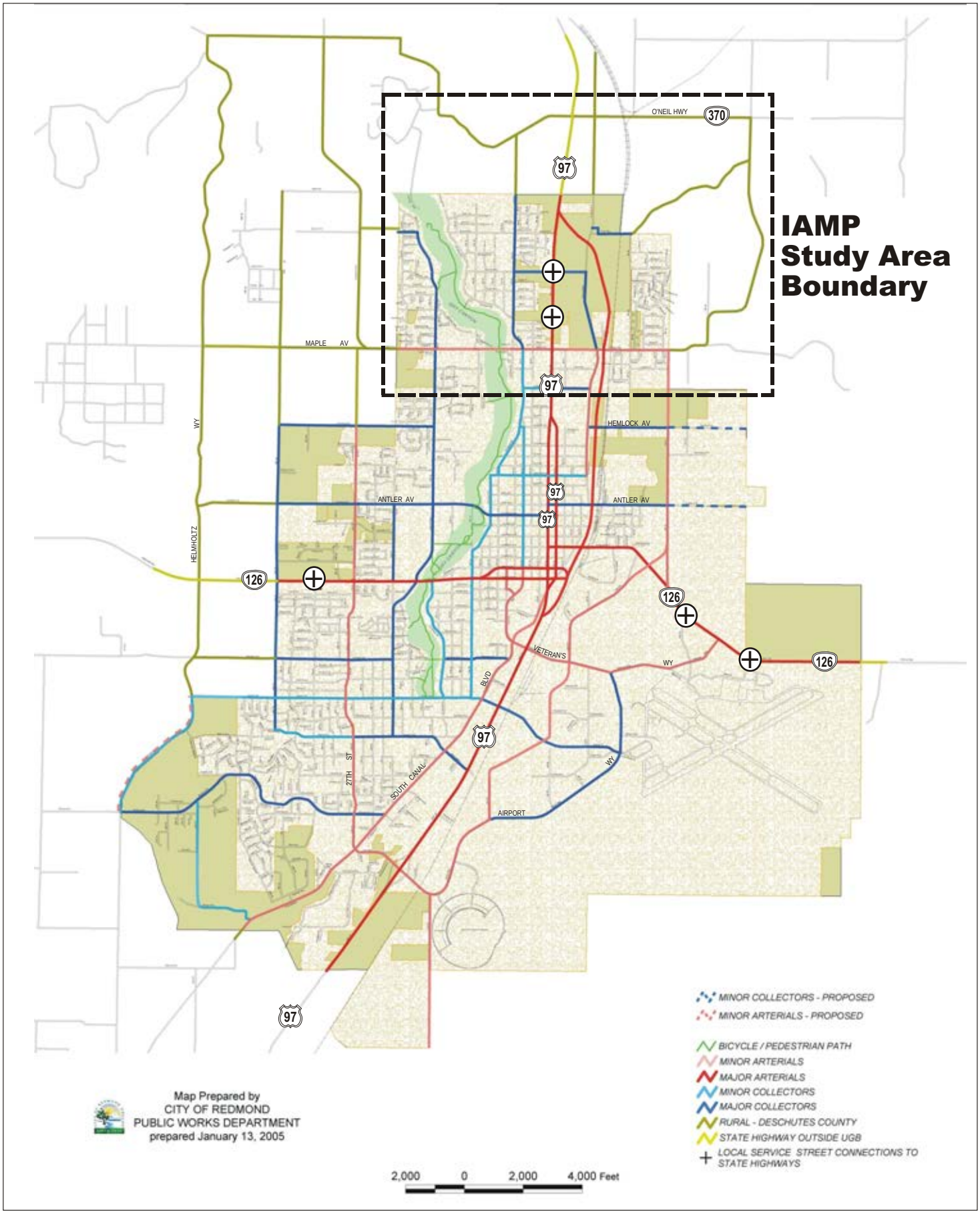
- 27th Street extension from Antler Avenue to Maple Avenue; and
- East 9th Street improvements from Highway 126 to Maple Avenue.

When Warranted

- Traffic Signal at Kingwood Avenue at Highway 97.

New transportation facilities proposed as a result of this study that will be owned by the City of Redmond must be designed in accordance with the City's TSP, incorporating the appropriate characteristics (cross-section design, treatment of pedestrian and bicycle facilities, etc…) for any applicable street functional classification. Recognition of needed street cross-sections for different functional classifications should be monitored closely, as it will affect the amount of right of way required. In addition, transportation improvements proposed to accommodate future traffic will need to be reviewed for compatibility with the identified projects in the City's Capital Improvement Program.

The City's TSP also maintains guidelines for access spacing on City streets that are discussed in the "City of Redmond Performance & Design Standards" section of this memorandum.



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Source: City of Redmond - Public Works Department

Figure 1.4
REDMOND URBAN AREA TRANSPORTATION PLAN

City of Redmond Code: Chapter 8 – Developmental Regulations

These regulations have been adopted for the purpose of promoting the health, safety, peace, comfort, convenience, economic well-being, and general welfare and to carry out the City of Redmond Comprehensive Plan and Statewide Planning Goals. They are intended to promote an orderly use of land within the city to avoid detrimental effects to other land uses and City facilities. Any uses of land within the city considered through the North Redmond IAMP must be in compliance with these ordinances.

The Development Regulations establish and define the zoning designations for the City of Redmond, which are assigned to individual properties as shown on the City's Comprehensive Plan and Zone Map. The map was previously displayed in Figure 1.3 and descriptions of zone designations of interest to the IAMP area were provided in Table 1.5.

Article III of the Development Regulations includes standards for subdividing and partitioning land within the city. These include regulations pertaining to the location and design of future streets, procedures for street dedications, and requirements for the sizes, shapes, and orientation of individual lots.

City of Redmond System Development Charges (2004 Update)

The transportation system development charge (SDC) for the City of Redmond is $2,722 per PM peak hour trip. This SDC is a function of the PM peak hour trip generation of the proposed development, as calculated per the Institute of Transportation Engineers (ITE) manual, Trip Generation, 6th Edition or by an approved Trip Generation study performed by a registered professional engineer. Pass-by trips are excluded. The yearly inflation factor for this area was determined to be 6.4%.

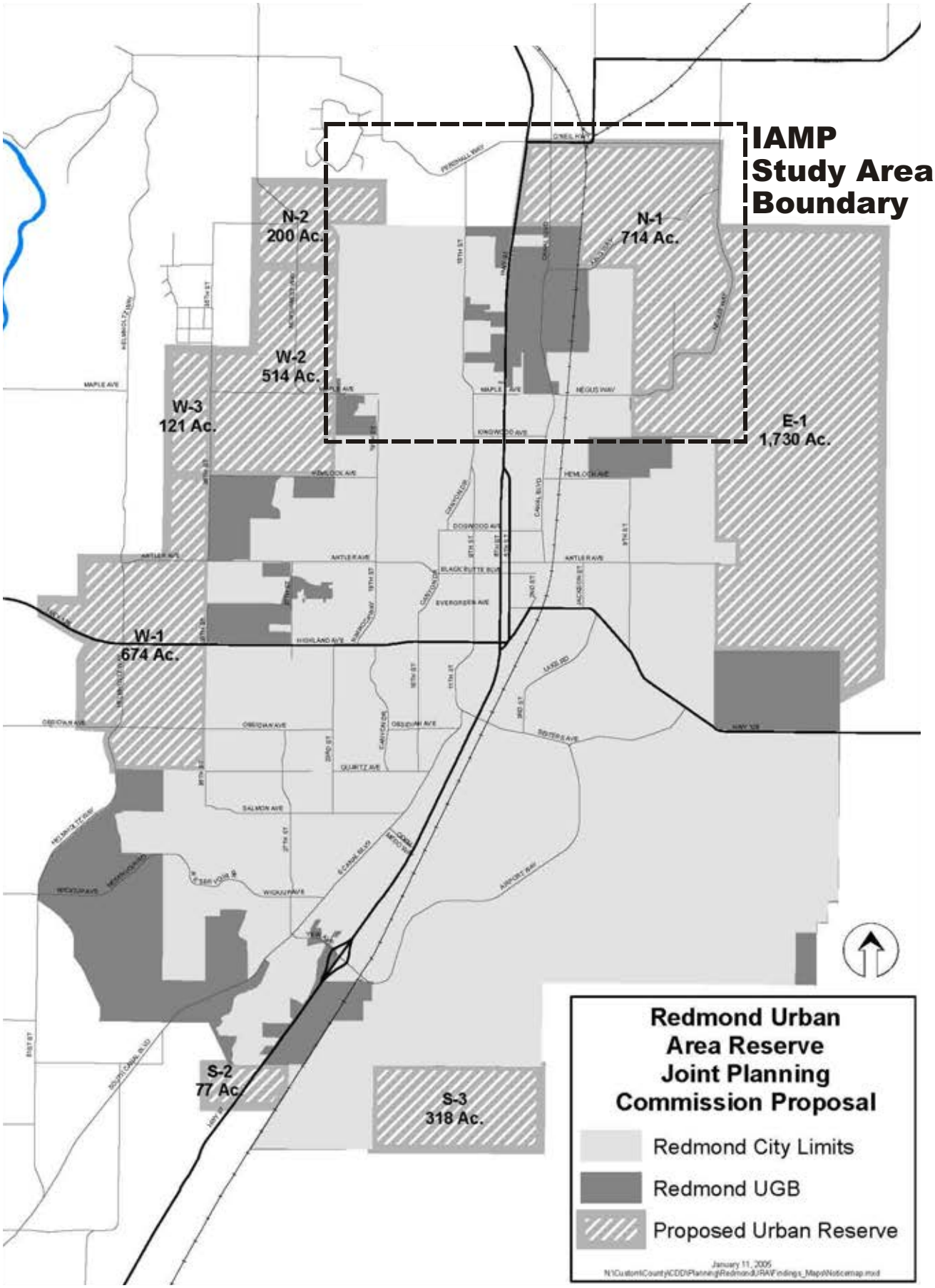
Redmond Urban Reserve Studies

Deschutes County and the City of Redmond have jointly agreed to establish an urban reserve area (currently including 4,348 acres, but subject to change) surrounding the City of Redmond's UGB as shown in Figure 1.5. Creating an urban reserve area achieves four objectives:

- Designates lands outside Redmond's UGB to be reserved for eventual inclusion in the UGB;
- Protects lands outside the UGB from patterns of development that would impede urbanization;
- Provides Redmond with the greatest protection of its fringe area by designating up to a 30-year supply of land as urban reserve; and
- Enables the City to plan for cost-effective public facilities and services when these lands are finally incorporated into the UGB.

Both the City and County have proposed amendments to their Transportation System Plans to incorporate additional roadways to serve the urban reserve areas, which have been shown in Figures 1.4 and 1.7. Future roadway alignments should accommodate the urban reserve areas as well as the future roadways planned to serve them.

The Urban Reserve Area designations are expected in the summer of 2005. Upon completion, the City is anticipating to begin the process of expanding the UGB. For the purposes of this plan, the land within the IAMP boundaries that is anticipated to be included in the UGB expansion should be considered developable in accordance with assumed urban zoning designations within the 20-year planning horizon.



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TRANSPORTATION SOLUTIONS

Source: Deschutes County

Figure 1.5
REDMOND URBAN AREA RESERVE

City of Redmond Performance & Design Standards

All non-state roadways within the Redmond UGB are under the jurisdiction of the City of Redmond. The City has adopted standards for performance of City streets requiring operation of level of service E or better during the peak 15 minutes of the peak hour of the average weekday. A lesser standard is allowed at unsignalized intersections with low volume minor street approaches, requiring operation at a volume to capacity ratio less than 0.90 and a 95th percentile vehicle queue less than four vehicles during the peak hour. The City has also adopted access spacing guidelines for various classes of streets, which are displayed in the following table taken from the City of Redmond Transportation System Plan.

Table 1.F : City of Redmond Access Management Guidelines

Functional Classification	Minimum Posted Speed	Minimum Spacing between Driveways and/or Streets	Minimum Spacing between Intersections
Arterial Streets			
Major Arterial - Downtown Grid System	15-25 mph	165 feet	330 feet
Major Arterial - Other Areas	35-50 mph	800 feet	½ mile
Minor Arterial	30-45 mph	330 feet	¼ mile
Collector Streets			
Major Collector	25-35 mph	165 feet	330 feet
Minor Collector	25-35 mph	80 feet	330 feet
Industrial Collector	25-35 mph	165 feet	330 feet
Local Streets			
Local Industrial	20-25 mph	access to each lot	330 feet
Local Residential	20-25 mph	access to each lot	330 feet

Note: The minimum spacing shown for each category is a desirable design spacing; existing spacing will vary.

The City of Redmond Public Works Department maintains street design standards that shall be incorporated in the design or construction of any facilities intended to be owned by the City.

Deschutes County Plans & Regulations

Deschutes County Comprehensive Plan

The Comprehensive Plan for Deschutes County acts as a guide for future growth and development 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. The zoning of lands in Deschutes County surrounding the project area will be described in the discussion of the county's zoning and subdivision ordinances found later in this memorandum.

The Transportation chapter focuses on developing a transportation system that meets the needs of Deschutes 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 Deschutes County Transportation System Plan implements these goals and policies and

provides a Transportation Project List to address deficiencies. Management policies for State Highways are also developed in the Transportation Chapter and carried forward through the Transportation System Plan.

Deschutes County Transportation System Plan

The Deschutes County Transportation System Plan (TSP) addresses both short and long-term transportation needs. In the short-term, the study identifies and provides recommended solutions to immediate safety and congestion problems. For the future, the study looks at the next 20 years in Deschutes County, and identifies through goals and policies, how best to efficiently move people and goods throughout the County. Long-term projects are identified and prioritized. Planning for the transportation needs within the Bend, Redmond and Sisters urban growth boundaries is covered by those cities' respective transportation system plans, which are adopted by the County inside those areas. Long-term projects planned in the County's Transportation Project List that were identified within the study area are listed below, with additional proposed projects displayed in Figures 1.6 and 1.7.

- 27th Street: New Arterial between Hemlock Avenue and Maple Avenue; and
- Maple Avenue: New Collector between 27th Street and Helmholtz Way.

With respect to management of state highways, Deschutes County supports an ODOT policy to develop highways through a "four-phased" approach, taking place incrementally as traffic volumes increase and levels of service decrease. Beginning with a standard two-lane highway, the improvement phases are as follows:

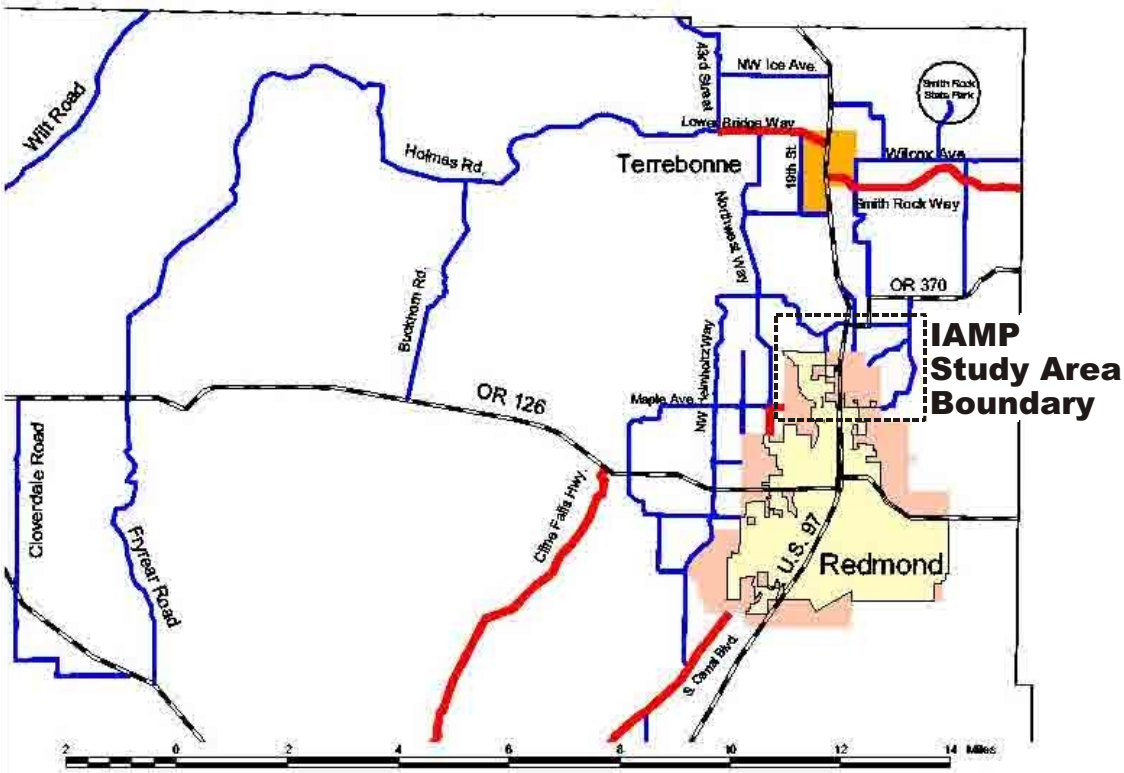
- Addition of passing or climbing lanes;
- Widening to a four-lane section;
- Adding grade-separated interchanges and raised medians; and

Develop full grade-separated interchanges and frontage roads.

In general, traffic signals are not deemed appropriate on state highways outside of UGB's. Rather, as intersections develop safety or operational problems, they shall be grade-separated, restricted, or closed (where alternate access is available).

The Deschutes County TSP identifies US 97 as the principal north-south route through central Oregon and recognizes that congestion on US 97 has mostly been a problem within the communities of Bend and Redmond due to a combination of increasing truck traffic and local traffic resulting from rapid growth experienced in recent years. The ultimate plan is for a continuous four-lane section to be built throughout the corridor, except through unincorporated communities. In addition to this, specific issues identified within the project area needing to be addressed include:

- Managing local road and direct driveway access onto the highway;
- Developing north and south connections to the Redmond "bypass"; and
- Finding opportunities to enhance the parallel local road network to redistribute local trips that would otherwise need to use the highway.



Redmond Area Road Plan

Principal Arterial (highway)
Rural Arterial
Rural Collector
Future Rural Collector
Redmond City Limits
Redmond UGB
Terrebonne Unincorporated Community
County Line

N
W
E
S

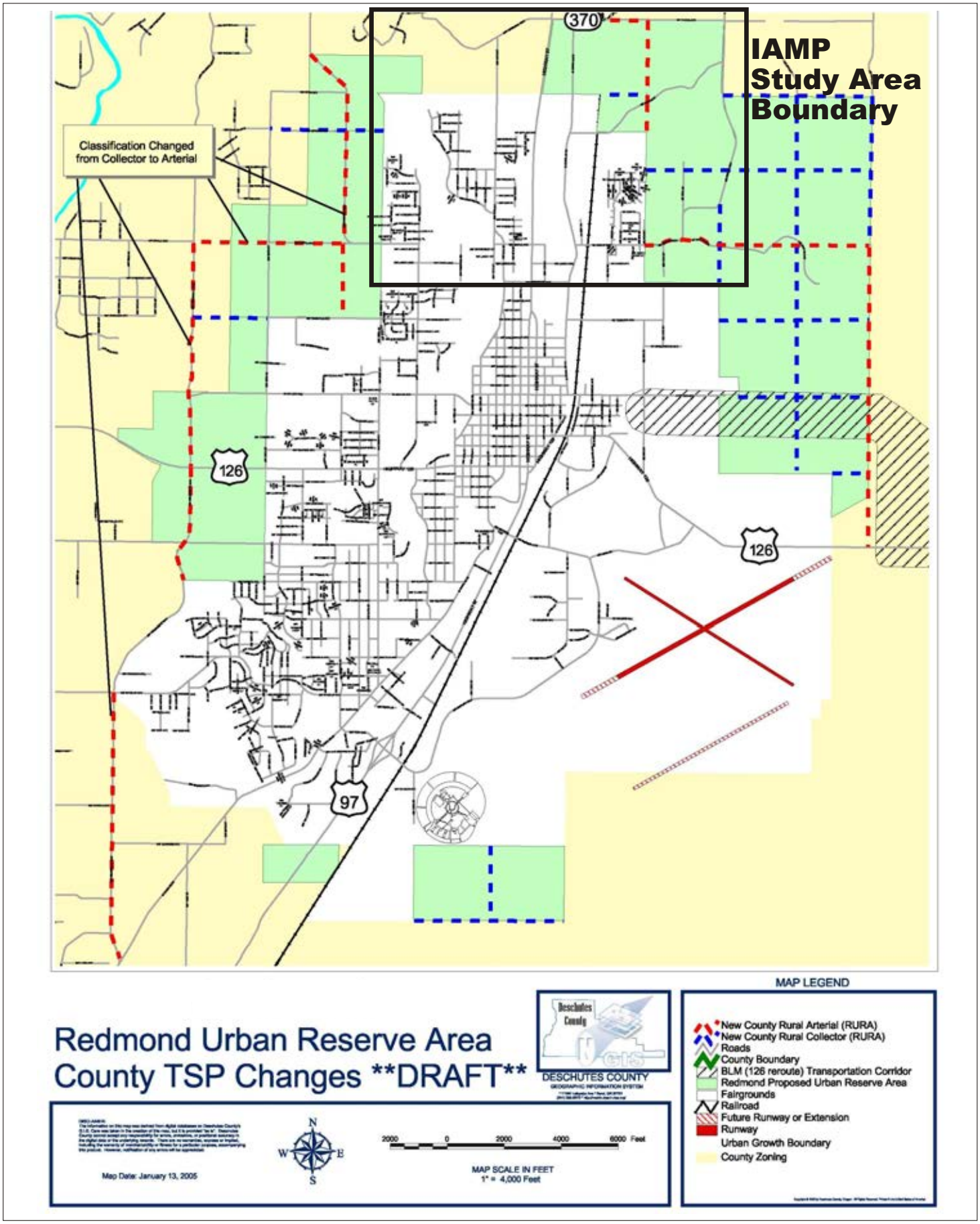
Map Created: 2/17/98
By
Deschutes County Long-range Planning

Deschutes County TSP

DKS Associates
TRANSPORTATION SOLUTIONS

Source: Deschutes County Long-range Planning

Figure 1.6
DESCHUTES COUNTY TRANSPORTATION SYSTEM PLAN: REDMOND AREA



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Source: Deschutes County

Figure 1.7
DESCHUTES COUNTY TRANSPORTATION SYSTEM PLAN: REDMOND URBAN RESERVE AREA

Deschutes County Code

These regulations have been adopted for the purpose of promoting the health, safety, peace, comfort, convenience, economic well-being, and general welfare and to carry out the Deschutes County Comprehensive Plan and Statewide Planning Goals. They contain zoning and subdivision ordinances intended to promote an orderly use of land within the county to avoid detrimental effects to other land uses and County facilities. Any uses of land within the county considered through the North Redmond IAMP must be in compliance with these ordinances.

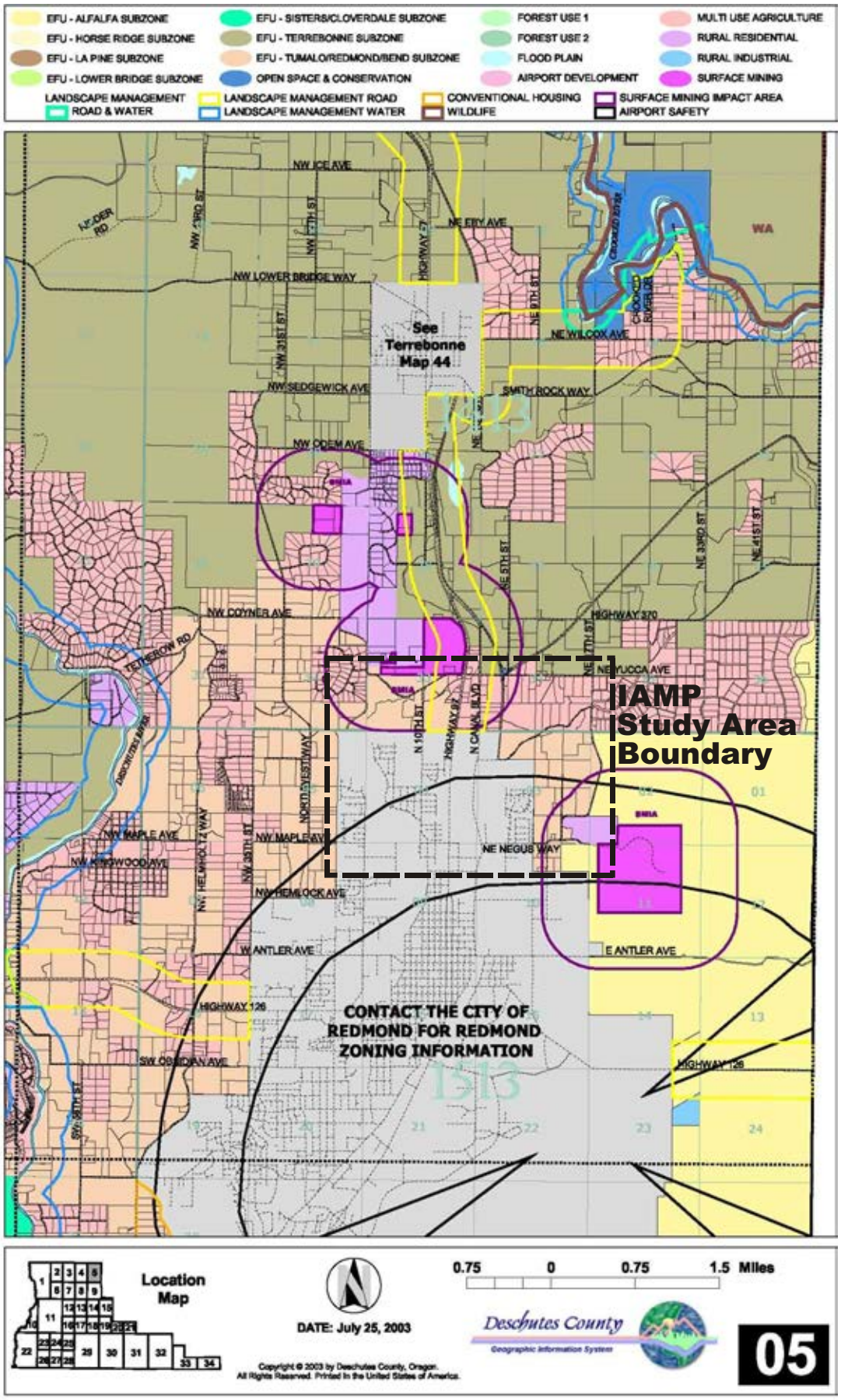
The zoning ordinances establish zoning districts and regulations governing the development and use of land within portions of the county. Figure 1.8 displays an adopted zone map for lands outside of the Redmond UGB surrounding the IAMP area and Table 1.7 provides descriptions of significant zone designations.

The County Code also includes ordinances governing the subdivision and partition of lands within the county. These include regulations pertaining to the location and design of future streets, procedures for street dedications, and requirements for subdividing and partitioning lots.

Table 1.G: Deschutes County Zoning Designations in North Redmond IAMP Area

Zone Designations	Purpose of Zone	Common Uses
EFU - Alfalfa Subzone	To preserve and maintain agricultural lands and to serve as a sanctuary for farm uses. The Alfalfa Subzone requires a proposed farm division result in parcels maintaining a minimum of 36 acres of irrigated land.	● farming ● forest harvesting ● mineral exploration ● wetlands ● minor highway improvements
EFU - Tumalo/Redmond/Bend Subzone	To preserve and maintain agricultural lands and to serve as a sanctuary for farm uses. The Tumalo/Redmond/Bend Subzone requires a proposed farm division result in parcels maintaining a minimum of 23 acres of irrigated land.	● farming ● forest harvesting ● mineral exploration ● wetlands ● minor highway improvements
Multi-Use Agriculture	To preserve the rural character of various areas of the County while permitting development consistent with that character and with the capacity of the natural resources of the area, maintain agricultural lands not suited to full-time commercial farming for diversified or part-time agricultural uses, conserve forest lands, conserve open spaces and protect natural and scenic resources, and maintain and improve the quality of the air, water and land resources of the County.	● agricultural uses ● single family dwellings ● manufactured homes ● forest harvesting ● some highway improvements ● non-commercial horse stables ● limited horse events
Rural Residential	To provide rural residential living environments, provide standards for rural land use and development consistent with desired rural character and the capability of the land and natural resources, manage the extension of public services, provide for public review of nonresidential uses, and balance the public's interest in the management of community growth with the protection of individual property rights through review procedures and standards.	● single family dwellings ● manufactured homes ● utility facilities ● community centers ● agricultural uses ● some highway improvements ● non-commercial horse stables ● limited horse events

Zone Designations	Purpose of Zone	Common Uses
Surface Mining	To allow the development and use of identified deposits of mineral and aggregate resources, protect the health and safety of the public and of residents of property adjoining surface mines, and provide that all land and water resources affected by surface mining operations within the County receive the protection and reclamation necessary for their intended subsequent use.	● farm uses ● forest uses ● land disposal sites ● extraction of minerals ● stockpiling of minerals ● sale of minerals
Surface Mining Impact Area Combining Zone	To protect the surface mining resources of Deschutes County from new development which conflicts with the removal and processing of a mineral and aggregate resource while allowing owners of property near a surface mining site reasonable use of their property.	● includes noise and dust-sensitive use setbacks ● includes noise and dust-sensitive use limitations



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Source: Deschutes County

Figure 1.8
DESCHUTES COUNTY ZONE MAP: REDMOND-TERREBONNE AREA

Deschutes County ITS Plan

The Deschutes County Intelligent Transportation System (ITS) Plan was collectively developed by ODOT, the City of Bend, the City of Redmond, Deschutes County, the Bend Metropolitan Planning Organization, Deschutes County 9-1-1, and the Federal Highway Administration. It represents a 20-year deployment plan of ITS projects, which includes advanced technologies and management techniques aimed to improve the safety and efficiency of the transportation system. This effort is consistent with plans put together in other regions statewide to ensure that ITS strategies used are integrated and complementary.

Within the study area, planned projects over the next 20 years include installation of video monitoring cameras on US 97 between Redmond and Bend, and video monitoring cameras, electronic message signs, count stations, advanced signal timing improvements, advanced rail warning systems, and a weather station throughout the Redmond area.

Deschutes County Performance & Design Standards

In the project area, Deschutes County owns and maintains non-state facilities located outside of the Redmond UGB. All of these roads are classified as rural collectors. According to the Deschutes County Transportation System Plan, the County has adopted a goal to maintain a level of service of "D" or better during the peak hour throughout the County arterial and collector road system over the next 20 years.

The County does not maintain adopted access management spacing standards for application to public transportation improvement projects, but does have general policies indicating that access points to arterials and collectors should be limited.

Deschutes County also maintains design standards for rural roads that shall be applied to any proposed County-owned facilities.

Federal Plans & Regulations

Bureau of Land Management Upper Deschutes Resource Management Plan

The Proposed Upper Deschutes Resource Management Plan and Final Environmental Impact Statement is rooted in a planning effort that began in the 1990's. The Bureau of Land Management (BLM) team that produced this document assembled in the fall of 2000. The first document produced, the Analysis of the Management Situation (AMS), published in the fall of 2001, was based on scoping that took place in the mid-1990's and a review of existing management, condition, and uses of BLM administered lands in Central Oregon. In order to assess the social and economic conditions that could be impacted by the plan, the BLM contracted the Upper Deschutes Resource Management Plan Social Values Survey. The team took information from these two documents and public comments on the AMS and partnered with a group of private, governmental, and tribal stakeholders to identify significant issues and a range of alternatives for addressing these issues. The first product of this partnership was the Upper Deschutes Draft Resource Management Plan and Environmental Impact Statement (UDRMP/EIS), published in the fall of 2003.

After a 90-day comment period, the planning partners reconvened and considered the comments. The BLM and its partners then modified the Preferred Alternative/Proposed Management Plan and changed other parts of the draft, including a more extensive Environmental Consequences Analysis. The result is the Proposed Upper Deschutes Resource Management Plan and Final Environmental Impact Statement. The Record of Decision for the UDRMP/FEIS and the new Upper Deschutes Resource Management Plan will be published in early summer of 2005, after all protests are resolved.

The purpose of the Upper Deschutes Resource Management Plan is to guide the use, protection, and enhancement of resources on public land in the planning area through detailed descriptions of management goals, visions, objectives, allocations and allowable uses, and guidelines. The objectives for Alternative 7 (Preferred Alternative) pertaining to transportation are listed below. Any alternatives considered as part of the North Redmond IAMP that impact public lands would need to address these objectives and their corresponding guidelines.

Objective 1: Provide new or modified rights-of-way for transportation/utility corridors and communication/energy sites to meet expected demands and minimize environmental impacts.

Objective 2: Provide an integrated, functional, safe, efficient, transportation system to:

- Support approved land uses that cannot be met on private, state, or county lands;
- Provide links between local communities;
- Reduce or minimize conflicts with adjacent landowners;
- Support approved common guidelines of joint jurisdictions; and
- Balance public access needs with resource protection.

Objective 3: During the design and application process for proposed new or expanded rights-of-way, incorporate mitigating measures in the plan of development for land restoration, habitat improvement, recreation opportunities, and visual resources.

Objective 4: Identify and develop a long-term transportation system for military training use that meets specific training objectives, maximizes benefits to other users, including recreation use of public lands, and minimizes impact to natural resources.

Objective 5: Consolidate transportation and utility systems with consideration for ecological and recreational values, while providing for regional transportation systems and meeting regional objectives.

Objective 6: Provide motorized access to facilitate reasonable entry and operations for administrative purposes.

Other Documents

Area Traffic Studies

Previously completed traffic studies in the project area were obtained from ODOT to review findings and utilize any current traffic count data. Traffic studies obtained include:

- "Redmond US 97 Reroute Project", ODOT (2001);

The "US 97 Reroute Project" grew out of the concept for a truck route around downtown and was initiated to address the high traffic volumes and through truck traffic on US 97 through downtown Redmond, as well as congestion experienced at the Highland Avenue intersections with West 6th and West 5th Streets (US 97 Couplet) resulting from insufficient capacity and queue storage. The resulting alternative recommended from this project included a four-lane alternate alignment of US 97 located about four blocks to the east of the current US 97 alignment with connections to the existing highway at the City UGB or Quince Avenue to the north and just south of the proposed Highland/Glacier couplet and South Canal Boulevard on the south.

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2 MEMORANDUM COMPARING FUTURE GROWTH AND TRAVEL DEMAND ALLOCATIONS

MEMORANDUM

To: Carl Springer, DKS Associates

From: Tom Armstrong

Date: July 21, 2005

Re: North Redmond IAMP –Land Use Analysis (Task 3.3)

The following table is a comparison of the future growth and development assumptions in the TAZs from the current transportation model with the development capacity based on the buildable land inventory recently completed by EcoNorthwest.

The EcoNorthwest Buildable Land Inventory (June 2005) was allocated to individual TAZs in the north Redmond study area. EcoNorthwest's density assumptions for zoning designations were used to determine future development capacity, in terms of dwelling units and employees. The transportation model TAZ households and employment allocation was analyzed to determine the growth increment between the Base Year and Future Year.

In general, the transportation model assumptions for residential development are significantly higher, 30% or nearly 800 dwelling units, in the study area. This difference is mainly found in TAZs that include the outer edge of the UGB. This is likely due in part to a deficit of buildable land to meet future housing needs and the TAZs were over allocated to reflect the potential for future UGB expansions.

In general, the differences in the employment allocations can be attributed to differences in the employment density assumptions (jobs per acre) and the impact of the bypass right-of-way on buildable lands. Underlying assumptions for the transportation model allocation were unavailable at this time to cross check the assumptions.

With respect to the pending proposal for a Wal-Mart near the intersection of Highway 97 and Maple Avenue, the transportation model does include a significant amount of retail, service and other employment (408 employees) in TAZ 208, which is a relatively small TAZ that encompasses the proposed main building. The proposed parking area is located in TAZ 110 and a proposed fuel station with frontage on Highway 97 is located in TAZ 207.

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Portland, OR 97204
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tom@winterbrookplanning.com

North Redmond Interchange Area Management Plan
Future Growth Analysis

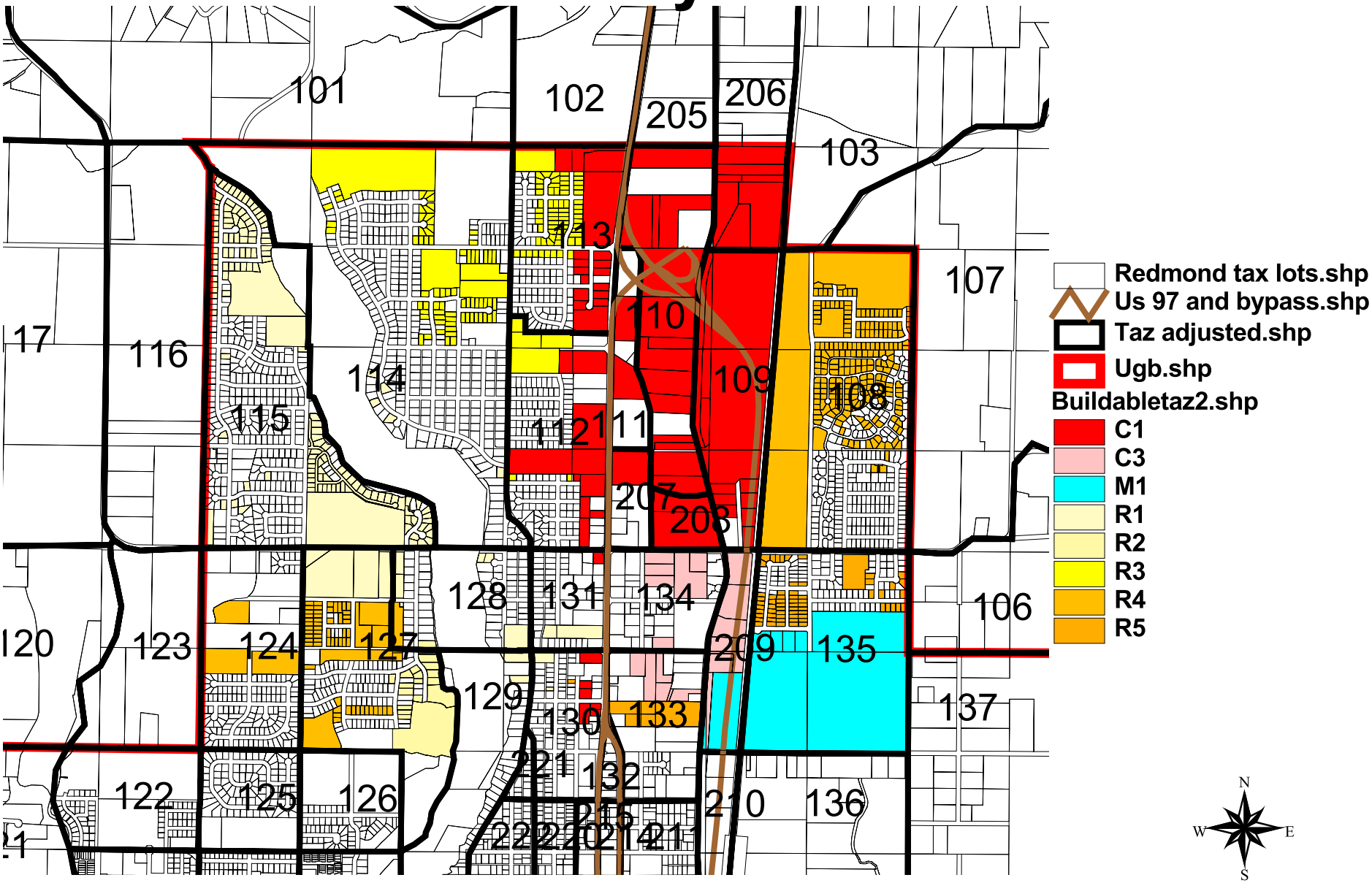
TAZ	Residential			Employment			Comments
	BLI Capacity	TAZ Households	Difference	BLI Capacity	TAZ EMP	Difference	
108	634	448	186				Difference due to density assumptions
109				750	691	59	Minor difference
110				676	402	274	Interchange Impact Area, Wal-Mart
111				79	143	-64	Interchange Impact Area
112	45	208	-163	240	275	-35	Residential difference, employment okay
113	92	104	-12	407	296	111	Res okay, employment density assumptions
114	256	427	-171				UGB edge
115	299	649	-350				UGB edge
124	79	169	-90				UGB edge
127	328	428	-100				Density assumptions
128	33	0	33				Minor difference
129	5	0	5				Minor difference
130	5	0	5	39	10	29	Minor difference
131	3	38	-35	8	165	-157	Employment difference unknown
134				108	70	38	Minor difference, density assumptions
135	86	171	-85	230	150	80	UGB edge, employment density assumptions
206				326	173	153	Density assumptions
207				87	138	-51	Density assumptions, Wal-Mart
208				228	402	-174	Density assumptions, Wal-Mart
209				162	316	-154	Bypass impact, large industrial site assumption
Total	1865	2642	-777	3340	3231	109	

Key Assumptions and Notes:

TAZ totals are incremental growth between Base Year and Future Year.

BLI Capacity based on assumptions in EcoNorthwest Land Needs Analysis

North Redmond IAMP
Future Land Use Analysis



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3 US 97 EXISTING APPROACHES PHYSICAL INVENTORY

Table A.5.1: US 97 Existing Approach Physical Inventory

Approach #	Side of Hwy	Eng. Station	Hwy Milepoint	Width	Material	Public/Private	Tax Lot #	Property Owner(s)	Address	Business Name	Use
US 97											
1	west	41+40	120.27	40'	AC	public	-	-	-	-	NW Kingwood Avenue
2	west	43+75	120.23	35'	AC	private	151309AB00500	Bart & Judith Kirk	1241 NW 6th Street	4-Wheel Mobile Court	mobile home park
3	west	45+40	120.19	40'	CDP	private	151309AB00400	High Desert Trading, Inc.	1357 N Hwy 97	Palm Harbor Village	manufactured home sales
4	west	47+90	120.15	40'	CDP	private	151309AB00417, 300, 318, 319	Warren Family Properties LLC	1401 NW 6th Street	Redmond Mini Storage	mini-storage
5	west	49+10	120.12	30'	AC	private	151309AB00317	Joe & Samuel Burns	1421 N Hwy 97	The Boss's Office	tavern
6	west	49+60	120.11	30'	AC	private	151309AB00317	Joe & Samuel Burns	1421 N Hwy 97	The Boss's Office	tavern
							151309AB00200	Norman & Tamara Faulkner	1485 NW 6th Street	Auto Express Automotive	auto repair
7	west	51+10	120.09	30'	AC	private	151309AB00200	Norman & Tamara Faulkner	1485 NW 6th Street	Auto Express Automotive	auto repair (also shared w/TL 101)
8	west	52+60	120.06	35'	AC	private	151309AB00101, 102	Arthur Willett & N. Faulkner	1515 N Hwy 97	Redmond Body Shop / Above & Beyond	auto body & interior design (also shared w/TL 108)
9	west	54+62	120.02	50'	AC	public	-	-	-	-	NW Maple Avenue
10	west	56+72	119.98	35'	AC	private	151304DC00700	Moore Investments LLC & K. Bond	1655 N Hwy 97	Papa's Pizza	restaurant (also shared to north)
							151304DC00600	James Carpenter	1695 NW 6th Street	John's Affordable Furniture	furniture store (also shared to south)
11	west	57+22	119.97	35'	AC	private	151304DC00500	B. Lousignont & C. Ross	1707 N Hwy 97	Certified Personnel Service	employment agency
12	west	59+62	119.93	40'	CDP	private	151304DC00300, 400, 800	1785 NW 6th Street	1785 NW 6th Street	Redmond Vet Clinic	Veterinary Clinic
13	west	60+82	119.90	40'	CDP	private	151304DC00300, 400, 800	1785 NW 6th Street	1785 NW 6th Street	Redmond Vet Clinic	Veterinary Clinic
14	west	62+52	119.87	10'	AC	private	151304DC00200	W. Lehnertz	1847 NW 6th Street	-	Single Family Residence
15	west	63+72	119.85	15'	AC	private	151304DC00200	W. Lehnertz	1847 NW 6th Street	-	Single Family Residence
16	west	64+77	119.83	35'	AC	private	151304DC00100	K. & B. Newton	1921 NW 6th Street	Newton Pump, Inc.	
17	west	65+47	119.81	20'	AC	private	151304DC00100	K. & B. Newton	1967, 1995 NW 6th St	(Also serves Newton Pump, Inc.)	2 Single Family Residences
18	-	-	-	-	-	-	-	-	-	-	Future Street (Oak Ave.)
19	west	70+52	119.72	30'	AC	private	151304DB00600	Dave Hamilton Properties LLC	2067 N Hwy 97	Dave Hamilton Chevrolet	Auto sales
20	west	72+42	119.68	35'	AC	private	151304DB00600	Dave Hamilton Properties LLC	2067 N Hwy 97	Dave Hamilton Chevrolet	Auto sales
21	west	75+62	119.62	40'	AC	private	151304DB00500	Dave Hamilton Properties LLC	2109 N Hwy 97	Dave Hamilton Chevrolet	Auto sales
							151304DB00400	Feed Barn Properties LLC	2215 N Hwy 97	The Feed Barn	Trailer & Tack Shop
22	west	77+62	119.58	30'	AC	private	151304DB00400, 100	Feed Barn Properties LLC	2215 N Hwy 97	The Feed Barn	Trailer & Tack Shop
23	west	79+52	119.55	25'	Dirt	private	151304DB00100	Feed Barn Properties LLC	2375 N Hwy 97	The Feed Barn	Trailer & Tack Shop (storage yard)
24	west	81+02	119.52	40'	AC	public	-	-	-	-	NW Quince Avenue
25	west	94+02	119.27	30'	AC	public	-	-	-	-	NW Spruce Avenue
26	west	104+42	119.08	40'	Dirt	private	151304AB00100	Watson Family Limited Partnership	3181 N Hwy 97	-	not used - curb cut infront of field
27	west	105+72	119.05	40'	Dirt	private	151304AB00100	Watson Family Limited Partnership	3181 N Hwy 97	-	not used - curb cut infront of field
28	west	107+82	119.01	25'	AC	private	151304AB00101	unknown	3199 N Hwy 97	Moose Lodge 323	meeting place (also shared w/TL 1800)
							1413330001800	Robert Hershey	3211 N Hwy 97	-	Single Family Residence (also shared w/TL 101)
29	west	121+77	118.75	30'	AC	private	1413330002001	Patrick & Teresa Schaffner	3265 N Hwy 97	Teresa's Tack Wash & Repair	Trailer & Tack Shop
30	west	123+22	118.72	30'	AC	private	1413330002000	Brent Woodward	3635 N Hwy 97	-	Single Family Residence

Table A.5.1 (continued): US 97 Existing Approach Physical Inventory

Approach #	Side of Hwy	Eng. Station	Hwy Milepoint	Width	Material	Public/Private	Tax Lot #	Property Owner(s)	Address	Business Name	Use
31	west	126+22	118.66	35'	AC	private	1413330002000	Brent Woodward	3743 N Hwy 97	B. Woodward Inc.	heavy equipment (also shared w/TL 1902)
32	west	127+22	118.65	25'	AC	private	1413330001902	Vance Fortenberry	3791 N Hwy 97	Whittle Shop	Chainsaw Sculpture
33	west	128+17	118.63	30'	AC	private	1413330001901	unknown	3833 NW 6th Street	-	Single Family Residence
34	west	129+72	118.60	20'	AC	private	1413330001901	unknown	3833 NW 6th Street	-	Single Family Residence
35	west	132+12	118.55	20'	Dirt	private	1413330001801	unknown	-	-	field access
36	west	134+17	118.52	40'	AC	public	-	-	-	-	NW Pershall Way
37	east	134+17	118.52	40'	AC	public	-	-	-	-	O'Niel Hwy (OR 370)
38	east	130+97	118.58	35'	AC	private	1413330002300	Michael W Kirchnavy ETAL	3864 N Hwy 97	O'Neil Junction Feed	feed shop
39	east	128+87	118.62	35'	AC	private	1413330002300	Michael Kirchnavy ETAL	3864 N Hwy 97	O'Neil Junction Feed	feed shop
40	east	126+47	118.67	35'	Dirt	private	1413330002300	Michael Kirchnavy ETAL	3864 N Hwy 97	-	field, not in use
41	east	124+52	118.70	30'	AC	private	1413330002200	Robert W Kirchnavy	3690 N Hwy 97	Grande Valley Ornament Iron	retail sales
42	east	122+47	118.74	30'	AC	private	1413330002100	Violet Green	3614 N Hwy 97	-	Single Family Residence
43	east	120+67	118.78	12'	AC	private	1413330002100	Violet Green	3614 N Hwy 97	-	Single Family Residence
44	east	119+67	118.79	40'	Dirt	private	1413330002600	Gurtrude Morgan	3435 NW Canal Blvd	-	field access
45	east	107+42	119.03	35'	Dirt	private	1413330002601	John & Juanita Ryan	3315 N Canal Blvd	-	not used
46	east	105+97	119.05	35'	AC	private	151304AA00200	Gary Craven	3190 N Hwy 97	Big Country RV	RV sales/service
47	east	104+57	119.08	30'	AC	private	151304AA00200	Gary Craven	3190 N Hwy 97	Big Country RV	RV sales/service
48	east	101+17	119.15	30'	AC	private	151304AA00100	MDK Investments & Donald Rogers	3001 NW Canal Blvd	Secure Storage	not in use
49	east	100+37	119.16	50'	AC	private	151304AA00400	ODOT	2830 N Hwy 97	-	parking lot (formerly Alpine Mtn. Homes)
50	east	94+97	119.26	45'	AC	private	151304AA00400	ODOT	2830 N Hwy 97	-	dirt lot
51	east	94+17	119.27	12'	Dirt	private	151304AA00400	ODOT	2830 N Hwy 97	-	dirt lot
52	east	93+52	119.28	25'	Dirt	private	151304AD00200	Watson Family Limited Partnership	2723 NW Canal Blvd	-	field, not in use
53	east	90+62	119.34	15'	AC	private	151304AD00200	Watson Family Limited Partnership	2723 NW Canal Blvd	-	gated field access
54	east	87+72	119.39	30'	AC	private	151304AD00300	C.O.I.D & US National Bank	2598 N Hwy 97	Central Oregon Irrigation District	business
55	east	87+32	119.40	25'	AC	private	151304AD00300	C.O.I.D & US National Bank	2598 N Hwy 97	Central Oregon Irrigation District	business
56	east	86+02	119.43	35'	AC	private	151304AD00300	C.O.I.D & US National Bank	2598 N Hwy 97	Central Oregon Irrigation District	business
57	east	84+22	119.46	40'	AC	private	151304AD00300	C.O.I.D & US National Bank	2598 N Hwy 97	Central Oregon Irrigation District	business
58	east	81+52	119.51	20'	AC	private	151304DA00900	A. Milone & R. Rossi	2422 N Hwy 97	Approve Auto Sales	auto sales
59	-	-	-	-	-	-	-	-	-	-	Future Street (Quince Ave.)
60	east	80+92	119.52	20'	AC	private	151304DA00900	A. Milone & R. Rossi	2422 N Hwy 97	Approve Auto Sales	auto sales
61	east	80+12	119.54	10'	Dirt	private	151304DA01000	M. Mills & Moss Group LLC	2310 N Hwy 97	-	multi-property backage road
62	east	79+62	119.55	50'	AC	private	151304DA01000	M. Mills & Moss Group LLC	2310 N Hwy 97	Pacific Pride	Commercial Fueling
63	east	77+62	119.58	60'	AC	private	151304DA01000	M. Mills & Moss Group LLC	2310 N Hwy 97	Pacific Pride	Commercial Fueling
64	east	74+52	119.64	35'	AC	private	151304DA00600	unknown	2098 N Hwy 97	-	dirt lot
65	east	70+62	119.72	35'	AC	private	151304DA00600	unknown	2098 N Hwy 97	Cental Electric Cooperative, Inc.	office/maintenance yard

Table A.5.1 (continued): US 97 Existing Approach Physical Inventory

Approach #	Side of Hwy	Eng. Station	Hwy Milepoint	Width	Material	Public/Private	Tax Lot #	Property Owner(s)	Address	Business Name	Use
66	east	68+27	119.76	30'	AC	private	151304DA00600	unknown	2098 N Hwy 97	Cental Electric Cooperative, Inc.	office/maintenance yard
67	-	-	-	-	-	-	-	-	-	-	Future Street (Oak Ave.)
68	east	67+62	119.77	35'	AC	private	151304DD00600	Gurtrude Morgan	1938 N Hwy 97	-	empty lot with billboard
69	east	63+32	119.86	35'	AC	private	151304DD00700	W. Gray & S. Zitek	1826 N Hwy 97	Wally's Auto Sales	auto sales
70	east	61+52	119.89	25'	AC	private	151304DD00700	W. Gray & S. Zitek	1826 N Hwy 97	Wally's Auto Sales	auto sales
71	east	60+12	119.92	40'	AC	private	151304DD00800	Michael Ivancovich	1690 N Hwy 97	Oakwood Homes	manufactured home sales
72	east	57+82	119.96	35'	AC	private	151304DD00900	Michael Ivancovich	1690 N Hwy 97	Oakwood Homes	manufactured home sales
73	east	54+62	120.02	45'	AC	public	-	-	-	-	NW Maple Avenue
74	east	52+62	120.06	35	AC	private	151309AA01100	E. Cordes & B. Santucci	1520 N Hwy 97	Action Rental	party supplies sales
75	east	51+42	120.08	20'	AC	private	151309AA01100	E. Cordes & B. Santucci	1520 N Hwy 97	Mailbox Alternatives	business
76	east	51+07	120.08	35'	AC	private	151309AA01000	William Park	1492 NW 6th Street	SAT PAK Corp.	office
77	east	49+82	120.11	30'	AC	private	151309AA01000	William Park	1492 NW 6th Street	SAT PAK Corp.	office
78	east	49+42	120.12	35'	Dirt	private	151309AA00900	Autumn Funerals & Highlakes Inv.	485 NW Larch Ave	Autumn Funerals	not in use; fenced off
79	east	48+03	120.15	40'	AC	public	-	-	-	-	NW Larch Avenue
80	east	45+43	120.20	35'	AC	private	151309AA01601	J. Gunzner & K. Eby	1344 N Hwy 97	Redmond Auto Care	auto parts store
							151309AA01601	J. Gunzner & K. Eby	1280 N Hwy 97	The Buggy Stop Market	mini-mart
							151309AA01601	J. Gunzner & K. Eby	-	Rainbow Laundry	laundromat
81	east	43+53	120.24	35'	AC	private	151309AA01601	J. Gunzner & K. Eby	1280 N Hwy 97	The Buggy Stop Market/Rainbow Laund.	mini-mart & laundary
							151309AA01600	Frances Hahn Investments LLC	515 NW Kingwood	Creative Exhaust Works	auto shop
82	east	42+83	120.25	35'	AC	private	151309AA01600	Frances Hahn Investments LLC	515 NW Kingwood	Creative Exhaust Works	auto shop
83	east	41+40	120.27	40'	AC	public	-	-	-	-	NW Kingwood Avenue
N. Canal Boulevard											
84	west					private	151304AA00700		2931 NW Canal Blvd.	-	Single Family Residence
85	west					private	151304AA00600	Hayden Watson	2983 NW Canal Blvd.	-	Single Family Residence
86	west					private	151304AA00600	Hayden Watson	2983 NW Canal Blvd.	-	Single Family Residence
87	west					private	151304AA00100	MDK Investments & Donald Rogers	3001 NW Canal Blvd	Secure Storage	Rental storage facility
88	-	-	-	-	-	-	-	-	-	-	Future Street (King Way)
89	west					private	1413330002601	John & Juanita Ryan	3315 NW Canal Blvd.	-	Single Family Residence
90	-	-	-	-	-	-	-	-	-	-	Future Street
91	west					private	1413330002500	Morgan & Lavonne Smith	3861 NW Canal Blvd.		business
92	west					private	1413330002500	Morgan & Lavonne Smith	3861 NW Canal Blvd.		business
93	west					public	-	-	-	-	O'Neil Highway
94	east					public	-	-	-	-	O'Neil Highway
95	east					private	1413340001200	Colleen Mullaney	3990 NW Canal Blvd.	-	Single Family Residence
96	-	-	-	-	-	-	-	-	-	-	Future Street

Table A.5.1 (continued): US 97 Existing Approach Physical Inventory

Approach #	Side of Hwy	Eng. Station	Hwy Milepoint	Width	Material	Public/Private	Tax Lot #	Property Owner(s)	Address	Business Name	Use
97	east					private	1413340001202	Wassa Starr	3750 NW Canal Blvd.	-	Single Family Residence
98	east					private	1413340001201	Carlos Miller	3620 NW Canal Blvd.	-	Single Family Residence
99	east					private	1413340001201	Carlos Miller	3620 NW Canal Blvd.	-	Single Family Residence
100	-	-	-	-	-	-	-	-	-	-	Future Street
101	east					private	1413340001300	Robert & Betty Anderson	3546 NW Canal Blvd.	-	Single Family Residence
102	east					private	1413340001400	Robert Perry	3488 NW Canal Blvd.	-	Single Family Residence
103	east					private	1413340001500	Hart Family LP & Deborah Schmidt	3430 NW Canal Blvd.	-	Single Family Residence
104	east					private	1413340001602	Jack Owen & Jeffrey Defreest	3310 NW Canal Blvd.	-	Single Family Residence
105	east					private	1413340001601	Chani & Bradley Haynes	3276 NW Canal Blvd.	-	Single Family Residence
106	east					private	1413340001601	Chani & Bradley Haynes	3277 NW Canal Blvd.	-	Single Family Residence
107	east					private	1413340001700		3218 NW Canal Blvd.	-	Single Family Residence
108	-	-	-	-	-	-	-	-	-	-	Future Street (King Way)
109	east					private	1413340001700		3218 NW Canal Blvd.	-	Single Family Residence
110	east					private	1513030000900		3148 NW Canal Blvd.	-	Single Family Residence
111	east					private	1513030000800	Jim Stroup	3106 NW Canal Blvd.	-	Single Family Residence
112	east					private	1513030000800	Jim Stroup	3106 NW Canal Blvd.	-	Single Family Residence
113	east					private	1513030000801	George Addington	3070 NW Canal Blvd.	-	Single Family Residence
114	east					private	1513030001000		2956 NW Canal Blvd.	-	Single Family Residence
115	east					private	1513030001000			-	Single Family Residence
116	-	-	-	-	-	-	-	-	-	-	Future Street (King Way)

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4 US 97 EXISTING APPROACH ACCESS RIGHTS

Table A4: US 97 Existing Approach Access Rights

Approach #	Permit No.	Hwy Station	Permitted Width	Surface Type	Permitted Use	R/W File No.	Reservation Station	Reservation Width
1					Kingwood Ave	-	-	-
2						57551	abutter's rights	-
3						57553	abutter's rights	-
4						57555	abutter's rights	-
5						57556	abutter's rights	-
6						57557	abutter's rights	-
7						57557	abutter's rights	-
8						57559	52+64	35'
9					Maple Ave	-	-	-
10						57563 / 57565	56+79	35'
11						57566	58+27	35'
12						57567	59+67	35'
13						57567	60+76	35'
14						57568	62+50	35'
15						57568	63+73	35'
16						57569	64+73	35'
17						57569	65+52	35'
18	(future Oak Avenue)							
19	-	-	-	-	-	57571	70+52	35'
20	-	-	-	-	-	57571	72+41	35'
21	-	-	-	-	-	57573 / 57574	75+65	35'
22	-	-	-	-	-	57574 / 57575	77+63	35'
23	-	-	-	-	-	57575	79+47	35'
24	10A35549	80+98	40'	paved	Quince Ave	-	-	-
25	10A35493	94+01	27.5'	paved	Spruce Ave	-	-	-
26	-	-	-	-	-	57583	104+20	35'

Approach #	Permit No.	Hwy Station	Permitted Width	Surface Type	Permitted Use	R/W File No.	Reservation Station	Reservation Width
27	27019	105+90	24'	gravel	residence	57583	105+50	35'
28	-	-	-	-	-	57583	107+63	35'
29	-	-	-	-	-	57589	121+48	35'
30	-	-	-	-	-	57591	122+89	35'
31	-	-	-	-	-	57591 / 57593	125+81	35'
32	-	-	-	-	-	57593	126+85	35'
33	18918	125+92	35'	paved	business office	57595	127+84	35'
34	18918	126+64	24'	paved	business office	57595	129+04	35'
35	-	-	-	-	-	57595	131+95	35'
36	21813	88+70	24'	gravel	residence	-	-	-
37	-	-	-	-	O'Neil Highway	-	-	-
38	14700	130+90	20'	gravel	second hand furn.	57592	131+35	35'
39	14700	130+30	20'	gravel	second hand furn.	57592	129+29	35'
40	-	-	-	-	-	57592	126+85	35'
41	-	-	-	-	-	57590	124+87	35'
42	13036	123+90	30'	gravel	machine shop	57588	122+89	35'
43	-	-	-	-	-	57588	121+12	35'
44	-	-	-	-	-	57586	120+00	35'
45	-	-	-	-	-	57585	107+69	35'
46	22565	106+20	30'	paved	commercial	57585	106+17	35'
47	22565	105+05	30'	paved	commercial	57584 / 57585	104+80	35'
48	-	-	-	-	-	57584	102+40	35'
49	10A35391	100+45	30'	paved	man. home sales	ODOT Purchased	-	-
50	15154	98+00	35'	cinder	serv. station, bulk	ODOT Purchased	-	-
51	12878	95+20	30'	gravel	bulk gas	ODOT Purchased	-	-
52	-	-	-	-	-	57580	93+50	35'
53	-	-	-	-	-	57580	90+57	35'
54	-	-	-	-	-	57578	87+66	35'
55	20181	87+27	3 @ 25'	-	Mann Const. Co.	57578	87+27	35'

Approach #	Permit No.	Hwy Station	Permitted Width	Surface Type	Permitted Use	R/W File No.	Reservation Station	Reservation Width
56	-	-	-	-	-	57578	85+93	35'
57	-	-	-	-	-	57578	83+06	35'
58	15896	81+48	18'	paved	business	6983061	'US97' 2+483.5	10.6 m
59	(future Quince Avenue)							
60	15896	(MP 119.5)	24'	paved	business	6983061	'US97' 2+463.4	10.6 m
61	-	-	-	-	-	57576	80+07	35'
62	-	-	-	-	-	57576	79+47	50'
63	-	-	-	-	-	57576	77+50	50'
64	-	-	-	-	-	57572 / 57576	74+36	35'
65	-	-	-	-	-	57572	70+52	35'
66	-	-	-	-	-	57572	68+12	35'
67	(future Oak Avenue)							
68						57570	67+44	35'
69						57570	63+13	35'
70						57528	61+35	35'
71						57564	59+83	35'
72						57564	57+75	35'
73					Maple Ave	-	-	-
74						57560	access restricted	-
75						57560	access restricted	-
76						57558	abutter's rights	-
77						57558	-	-
78						57554	-	-
79					Larch Ave	-	-	-
80						57550	-	-
81						57550	-	-
							-	-
82						57548	-	-
83					Kingwood Ave	-	-	-

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5 PLANNING-LEVEL COST ESTIMATES

Construction of Public Streets (City Collector Streets Only)					
		Unit Cost	Pay Quantity	Quantity	
Pavement Removal	$	0.50	per FT2		
Access near interchange			FT^2	60,000	
				60,000	**FT^2**
				$30,000	
Bridge Structure	$	175.00	per FT2		
North Canyon				35,100	
South Canyon				56,700	
				91,800	**FT^2**
				$16,065,000	
Roadway Structure	$	10.00	per FT2		
City Minor Collector			FT^2	256,000	
				256,000	**FT^2**
				$2,560,000	
Curb & Sidewalk	$	3.00	per FT2		
City Minor Collector			FT^2	64,000	
				64,000	**FT^2**
				$192,000	
ROW	$	10.00	per FT2		
City Minor Collector			FT^2	380,400	
				380,400	**FT^2**
				$3,804,000	
	Total Unadjusted Cost Est.			$22,651,000	
	E&C Factor			1.5	
	Adjusted Estimated Cost			**$33,976,500**	

Construction of Public Streets (City Local Streets Only)					
		Unit Cost	Pay Quantity	Quantity	
Pavement Removal	$	0.50	per FT2		
			FT^2		
				0	**FT^2**
				$0	
Bridge Structure	$	175.00	per FT2		
				0	**FT^2**
				$0	
Roadway Structure	$	10.00	per FT2		
City Local Residential			FT^2	325,800	
				325,800	**FT^2**
				$3,258,000	
Curb & Sidewalk	$	3.00	per FT2		
City Local Residential			FT^2	90,300	
				90,300	**FT^2**
				$270,900	
ROW	$	10.00	per FT2		
City Local Residential			FT^2	541,800	
				541,800	**FT^2**
				$5,418,000	
	Total Unadjusted Cost Est.			$8,946,900	
	E&C Factor			1.5	
	Adjusted Estimated Cost			**$13,420,350**	

Construction of Public Streets (County Collector Roads Only)					
		Unit Cost	Pay Quantity	Quantity	
Pavement Removal	$	0.50	per FT2		
			FT^2		
				0	**FT^2**
				$0	
Bridge Structure	$	175.00	per FT2		
				0	**FT^2**
				$0	
Roadway Structure	$	10.00	per FT2		
County Collector			FT^2	297,000	
				297,000	**FT^2**
				$2,970,000	
Curb & Sidewalk	$	3.00	per FT2		
				0	**FT^2**
				$0	
ROW	$	10.00	per FT2		
County Collector			FT^2	594,000	
				594,000	**FT^2**
				$5,940,000	
	Total Unadjusted Cost Est.			$8,910,000	
	E&C Factor			1.5	
	Adjusted Estimated Cost			**$13,365,000**	

Construction of Public Streets (County Local Roads Only)					
		Unit Cost	Pay Quantity	Quantity	
Pavement Removal	$	0.50	per FT2		
			FT^2		
				0	**FT^2**
				$0	
Bridge Structure	$	175.00	per FT2		
North Canal				1,600	
Central Canal				1,600	
South Canal				1,900	
				5,100	**FT^2**
				$892,500	
Roadway Structure	$	10.00	per FT2		
County Local			FT^2	379,200	
				379,200	**FT^2**
				$3,792,000	
Curb & Sidewalk	$	3.00	per FT2		
				0	**FT^2**
				$0	
ROW	$	10.00	per FT2		
County Local			FT^2	946,500	
				946,500	**FT^2**
				$9,465,000	
	Total Unadjusted Cost Est.			$14,149,500	
	E&C Factor			1.5	
	Adjusted Estimated Cost			**$21,224,250**	

US 97 North Redmond IAMP
Planning-Level Cost Estimates

DKS Associates
TRANSPORTATION SOLUTIONS

Capacity Improvements at Maple Ave / 9th St (Does not include capacity improvements already in City CIP)				
	Unit Cost	Pay Quantity	Quantity	
Traffic Signals	$ 175,000.00	EA		1
Interconnect	$ 45.00	per FT		1000
			$	**220,000.00**
	Total Unadjusted Cost Est.			$220,000
	E&C Factor			1
	Adjusted Estimated Cost			**$220,000**

US 97/O'Neil Highway Alt. 1: Turn Restrictions				
	Unit Cost	Pay Quantity	Quantity	
Pavement Removal	$ 0.50	per FT2		
		FT^2		
			0	**FT^2**
			$0	
Bridge Structure	$ 175.00	per FT2		
			0	**FT^2**
			$0	
Roadway Structure	$ 10.00	per FT2		
			0	**FT^2**
			$0	
Traffic Control/ Median Separator				
			$150,000.00	
Retaining Walls	$ 55.00	per FT2		
		FT^2		
			0	**FT^2**
			$0	
ROW	$ 10.00	per FT2		
		FT^2		
			0	**FT^2**
			$0	
	Total Unadjusted Cost Est.			$150,000
	E&C Factor			1.5
	Adjusted Estimated Cost			**$225,000**

US 97/O'Neil Highway Alt. 2: Offset Approaches				
	Unit Cost	Pay Quantity	Quantity	
Pavement Removal	$ 0.50	per FT2		
		FT^2	4,000	
			4,000	**FT^2**
			$2,000	
Bridge Structure	$ 175.00	per FT2		
			0	**FT^2**
			$0	
Roadway Structure	$ 10.00	per FT2		
		FT^2	35,000	
			35,000	**FT^2**
			$350,000	
Earthwork	$10.00	YD^3		
		YD^3		
			0	**YD^3**
			$0.00	
Retaining Walls	$ 55.00	per FT2		
		FT^2		
			0	**FT^2**
			$0	
ROW	$ 10.00	per FT2		
		FT^2	55,000	
			55,000	**FT^2**
			$550,000	
	Total Unadjusted Cost Est.			$902,000
	E&C Factor			1.5
	Adjusted Estimated Cost			**$1,353,000**

US 97/O'Neil Highway Alt. 3: Construct Overpass				
	Unit Cost	Pay Quantity	Quantity	
Pavement Removal	$ 0.50	per FT2		
		FT^2	25,000	
			25,000	**FT^2**
			$12,500	
Bridge Structure	$ 175.00	per FT2		
			6,000	
			6,000	**FT^2**
			$1,050,000	
Roadway Structure	$ 10.00	per FT2		
		FT^2	36,000	
			36,000	**FT^2**
			$360,000	
Earthwork	$10.00	YD^3		
		YD^3	23,705	
			23,705	**YD^3**
			$237,050.00	
Retaining Walls	$ 55.00	per FT2		
		FT^2		
			0	**FT^2**
			$0	
ROW	$ 10.00	per FT2		
		FT^2	49,000	
			49,000	**FT^2**
			$490,000	
	Total Unadjusted Cost Est.			$2,149,550
	E&C Factor			1.5
	Adjusted Estimated Cost			**$3,224,325**

6 ALTERNATIVES EVALUATION

Alternative Evaluation

Using the objectives for the North Redmond IAMP outlined in Chapter #2, the alternatives proposed were evaluated to ensure the goals established at the outset of the project would be met. The results of this evaluation are shown below.

Objective 1: The preparation of the IAMP shall involve affected property owners in the interchange area, the City of Redmond, Deschutes County, The Oregon Department of Transportation (ODOT), and other stakeholders, including interchange users.

Evaluation Criteria

a. The IAMP incorporates input and guidance from the Project Management Team (PMT).

The PMT formed provides opportunities for participation from ODOT, the City of Redmond, Deschutes County, the Department of Land Conservation and Development, the Bureau of Land Management, the Redmond Airport, the Deschutes County Fairgrounds, Deschutes County Sheriff Emergency Services, Redmond Fire and Rescue, the Oregon National Guard, and Burlington Northern Santa Fe Railroad. In addition to distribution of materials for review, four meetings with the PMT have been incorporated into the project schedule, including input provided at the project outset to assist in forming the project goals and objectives, review of the operating conditions analysis, participation in the selection of alternatives, and review and comment on the draft IAMP.

b. The IAMP reflects, to the extent possible, the input of local property owners, interchange users, and other stakeholders, as gathered through public comments.

In addition to input received from the PMT, ODOT, the City of Redmond, and Deschutes County will accept input from property owners impacted by the access management plan prior to implementation.

Objective 2: The IAMP shall evaluate local transportation, environmental, and land use conditions.

Evaluation Criteria

a. The IAMP identifies and addresses existing and foreseeable issues related to land use, mobility, accessibility, and safety within the analysis area of the planned interchange.

Technical Memoranda #3 and #4 examined land use, operational, and safety conditions under existing (2005) and future (2025) conditions within the IAMP

boundary, with deficiencies needing to be addressed clearly identified. Chapter #5 provides alternatives for addressing noted deficiencies.

b. The IAMP describes the roadway network, right-of-way, access control and land parcels in the Interchange Study Area. It also evaluates local street access, circulation, connectivity, and the potential effect of local land use designations on the interchange.

The roadway network, right of way, and land parcels have been identified in figures included in Technical Memoranda #3, #4, and #5, with detailed physical descriptions of each existing approach to US 97 and Canal Boulevard provided in Table A.5.1 and the access rights associated with individual properties provided in Table A.5.2. Local street access, circulation, and connectivity were evaluated in Chapter #4, with a recommended local connectivity plan to improve conditions included in Chapter #5. Chapter #5 also evaluated the impact on the IAMP area transportation system resulting from potential increased development intensity on lands surrounding the interchange.

c. The IAMP includes inventory maps summarizing the existing conditions within the Interchange Study Area.

Inventory maps identifying existing zoning, transportation facilities, access points, traffic controls, geometrics, and traffic volumes are provided in Chapter #3. Additional maps showing state highway classifications, planned transportation facilities, and urban reserve areas are provided in Chapter #1.

d. The IAMP identifies and either complies with or amends the policy direction from the City and County comprehensive plans, zoning codes, Transportation System Plans, and any relevant corridor plans.

A review of planning documents, policies, and regulations was undertaken in Chapter #1 to provide an understanding of applicable requirements and policies and to guide the development of project goals and objectives. Compliance with the direction in the documents is described below.

Deschutes County Comprehensive Plan, Transportation System Plan, and County Code – The recommended actions in the IAMP affecting Deschutes County include the jurisdictional transfer of Canal Boulevard to the Oregon Department of Transportation, the implementation of the access management plan for Canal Boulevard, and the local connectivity plan outside of the Redmond urban growth boundary (all roads proposed within Deschutes County jurisdiction will be constructed to Deschutes County design standards). The improvement of the intersection on US 97 at O'Neil Highway may also affect the County, with the ability to comply with County policies and plans depending on the final alternative selected. The County Transportation System Plan does not currently maintain access management spacing standards or plan for future streets as shown in the proposed local connectivity plan. Therefore, the IAMP and proposed

actions must be adopted as an amendment to the Deschutes County Transportation System Plan.

City of Redmond Comprehensive Plan, Transportation System Plan, and City Code: Chapter 8 – Developmental Regulations – The recommended actions in the IAMP affecting City of Redmond include the jurisdictional transfer of Canal Boulevard to the Oregon Department of Transportation, the implementation of the access management plan for US 97 and Canal Boulevard, the local connectivity plan inside the Redmond urban growth boundary (all roads proposed within Redmond jurisdiction will be constructed to City of Redmond design standards), the proposed improvements at the intersections of Maple Avenue/9th Street and US 97 (6th Street)/Kingwood Avenue, and the traffic signal plan. Among these actions, only the improvements at US 97 (6th Street)/Kingwood Avenue are currently included in the City's Transportation System Plan. Therefore, the IAMP and proposed actions must be adopted as an amendment to the City of Redmond Transportation System Plan.

US 97 Corridor Strategy (Madras – California Border), 1995 - The overall goal developed in this plan for the US 97 Corridor was to, "promote commerce by efficiently distributing good and services, while enhancing travel safety, maintaining environmental integrity and preserving regional quality of life." From this goal, six underlying corridor strategy themes were identified, including: safety enhancement, facilities management and improvement, intermodal connectors, preservation of environmental quality, economic development, and partnering. Following the completion of this document, the Deschutes County and City of Redmond Transportation System Plans were developed and adopted, incorporating the strategies from this plan. Therefore, the focus will be on compliance with theses subsequent City and County plans.

Objective 3: The IAMP shall identify needed transportation improvements within the Interchange Study Area and propose alternatives that conform to current design standards and accommodate the long-term capacity needs of the local transportation system.

Evaluation Criteria

a. The IAMP identifies and prioritizes the transportation improvements, land use, and access management plans needed to maintain acceptable traffic operations in the Interchange Study Area for the 20-year planning horizon, with the potential for remaining capacity to serve beyond the planning horizon.

The development of the IAMP included an analysis of existing and future (20-year horizon) transportation conditions, with recommendations for mitigating identified deficiencies included to ensure State, County, and City mobility standards will be met. Identified improvements were subsequently prioritized to guide future planning.

b. The IAMP includes a Transportation Improvements Map showing the opportunities to improve operations and safety within the Interchange Study Area.

A Transportation Improvements Map is provided in Figure 5.6.

c. The IAMP identifies and describes up to three alternatives for the Interchange Area and evaluates how each would protect the safe and efficient operation of the interchange. The evaluation identifies how each alternative meets the provisions of OAR 734-051-0155 and other applicable state laws. A preferred alternative is selected and recommended for adoption.

Alternatives for providing safe and efficient operation of the interchange included the implementation of an access management plan, the enhancement of local connectivity through an expanded public street system, capacity improvements to address poorly functioning intersections, and the development of a traffic signal plan to promote the orderly planning and implementation of traffic controls through the IAMP area. Selected alternatives were included in a Transportation Improvements Map and prioritized to identify timing of implementation. For a discussion on compliance with OAR 734-051-0155, see Objective 4 below.

Objective 4: The IAMP shall be developed in accordance with the provisions and the policies of the Oregon Highway Plan and other relevant state transportation laws.

Evaluation Criteria

a. The IAMP meets the minimum level of service / mobility standards and other requirements identified in state transportation plans, such as the Oregon Transportation Plan, 1999 Oregon Highway Plan (OHP).

The future (2025) operating conditions were analyzed and compared to ODOT, City, and County mobility standards. Where mobility standards were not shown to be met, mitigation was proposed that would restore operations such that applicable mobility standards would be met.

b. The IAMP implements the OHP's Policy 3C criteria, which requires the planning and management of grade-separated interchange areas to ensure safe and efficient operation between connecting roadways.

Policy 3C of the 1999 Oregon Highway Plan includes seven actions for implementation purposes. Compliance with these actions is demonstrated below.

Action 3C.1: *Develop interchange area management plans to protect the function of interchanges to provide safe and efficient operations between connecting roadways and to minimize the need for major improvements of existing interchanges.* – The adoption of this IAMP will fulfill the requirements of this action.

Action 3C.2: *To improve an existing interchange or construct a new interchange:*

- *The interchange access management spacing standards are shown in Tables 16-19 in Appendix C.* – These spacing standards have been applied to the interchange area in this IAMP.
- *These standards do not retroactively apply to interchanges existing prior to adoption of this Oregon Highway Plan, except or until any redevelopment, change of use, or highway construction, reconstruction or modernization project affecting these existing interchanges occurs. It is the goal at that time to meet the appropriate spacing standards, if possible, but, at the very least, to improve the current conditions by moving in the direction of the spacing standards.* – The proposed interchange does not already exist. However, area developments and roadways do exist, requiring a phased approach to move in the direction of the adopted access spacing standards.
- *Necessary supporting improvements, such as road networks, channelization, medians and access control in the interchange management area must be identified in the local comprehensive plan and committed with an identified funding source, or must be in place.* – Supporting improvements are identified in the IAMP and will be adopted in the City of Redmond and Deschutes County Transportation System Plans, with funding sources identified.
- *Access to cross streets shall be consistent with established standards for a distance on either side of the ramp connections so as to reduce conflicts and manage ramp operations. The Interchange Access Management Spacing Standards supersede the Access Management Classification and Spacing Standards (Policy 3A), unless the latter distance standards are greater (see Appendix C).* – The interchange access management spacing standards have been applied to US 97 (6th Street) and Canal Boulevard as part of this plan.
- *Where possible, interchanges on Freeways and Expressways shall connect to state highways, major or minor arterials.* – The proposed interchange is not on a freeway, but is located at the southern terminus of an expressway. One of the crossroads (US 97/6th Street) is classified as a major arterial. Following the recommended jurisdictional transfer of Canal Boulevard to the Oregon Department of Transportation, O'Neil Highway would be rerouted to become the other crossroad.
- *Interchanges on Statewide, Regional or District Highways may connect to state highways, major or minor arterials, other county or city roads, or*

private roads, as appropriate. – US 97 is classified as a Statewide Highway. The proposed interchange will provide a direct connection to a major arterial (US 97/6th Street). Following the recommended jurisdictional transfer of Canal Boulevard to the Oregon Department of Transportation and the rerouting of O'Neil Highway, the proposed interchange would also connect directly to a state highway.

- *The design of urban interchanges must consider the need for transit and park-and-ride facilities, along with the interchange's effect on pedestrian and bicycle traffic.* – There is no transit service in the City of Redmond. The interchange will include bike lanes and sidewalk to provide a connection between bicycle and pedestrian facilities (existing and planned) on US 97/6th Street and Canal Boulevard.
- *When possible, access control shall be purchased on crossroads for a minimum distance of 1320 feet (400 meters) from a ramp intersection or the end of a free flow ramp terminal merge lane taper.* – The IAMP includes a recommendation that access control be purchased on US 97/6th Street and Canal Boulevard for a distance of at least 1,320 feet from the interchange ramp terminals. It is further recommended that access control be purchased for the full length of US 97 and the US 97 Reroute within the IAMP area.

Action 3C.3: *Establish criteria for when deviations to the interchange access management spacing standards may be considered. The kinds of considerations likely to be included are: location of existing parallel roadways, use of traffic controls, potential queuing, increased delays and safety impacts, and possible use of non-traversable medians for right-in/right-out movements.* – Deviations from the interchange access management spacing standards were considered primarily on the locations of existing public streets.

Action 3C.4: *When new approach roads or intersections are planned or constructed near existing interchanges, property is redeveloped or there is a change of use, wherever possible, the following access spacing and operation standards should be applied within the Interchange Access Management Area (measurements are from ramp intersection or the end of a free flow ramp terminal merge lane taper).* – The proposed interchange does not currently exist. The access management plan included as part of the IAMP will direct future access decisions.

Action 3C.5: *As opportunities arise, rights of access shall be purchased on crossroads around existing interchanges. Whenever possible, this protective buying should be for a distance of 1320 feet (400 meters) on the crossroads.* – A recommendation has been included in this IAMP to purchase access rights to the interchange crossroads for a distance of at least 1,320 feet from the interchange ramp terminals.

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. – A traffic signal plan has been included as part of the IAMP to promote the orderly planning and implementation of traffic controls through the IAMP area. This plan includes a recommendation that timing plans for all future signals place a priority on the efficient operation of the interchange ramp terminals and the ability of the interchange crossroads to carry traffic away from the interchange.

Action 3C.7: *Use grade-separated crossings without connecting ramps to provide crossing corridors that relieve traffic crossing demands through interchanges.* – As part of the US 97 Reroute project, a grade separated crossing without connecting ramps will be constructed over the Reroute on Maple Avenue/Negus Way. In addition, the recommended alternative for improving operations at the intersection on US 97 at O'Neil Highway includes replacing the intersection with a grade separated crossing without connecting ramps.

c. The IAMP satisfies the requirements for interchange area management plans in OAR 734-051-0155 and other state rules, including OHP policies and standards, ODOT Division 51 interchange spacing standards, the 2003 Highway Design Manual and the Oregon Transportation Commission's OTIA conditions for interchanges.

According to OAR 734-051-0155(6), IAMPs should be consistent with the following:

- *Should be developed no later than the time an interchange is designed or is being redesigned.* – The IAMP is being developed concurrently with the interchange design.
- *Should identify opportunities to improve operations and safety in conjunction with roadway projects and property development or redevelopment and adopt strategies and development standards to capture those opportunities.* – Recommended improvements have been coordinated with planned projects in the State, County, and City adopted transportation improvement plans. The IAMP implementation plan will identify opportunities to implement the recommended improvements through roadway projects and property development.
- *Should include short, medium, and long-range actions to improve operations and safety in the interchange area.* – The IAMP includes a prioritization of improvement recommendations including short, medium, and long-range actions.
- *Should 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.* – An analysis of existing (2005) and future (2025) conditions was conducted for the IAMP that accounted for current and future traffic volumes, roadway geometry, traffic control devices, land uses, and planned projects.

- *Should provide adequate assurance of the safe operation of the facility through the design traffic forecast period, typically 20 years.* – Transportation improvements are included in the IAMP to provide for operation of the interchange area and surrounding streets in accordance with adopted State, County, and City operational standards through the year 2025.
- *Should consider existing and proposed uses of the all property in the interchange area consistent with its comprehensive plan designations and zoning.* – The transportation demand modeling used for the future year analysis included development assumptions for lands within the IAMP area consistent with the County and City comprehensive plans.
- *Are consistent with any adopted Transportation System Plan, Corridor Plan, Local Comprehensive Plan, or Special Transportation Area or Urban Business Area designation, or amendments to the Transportation System Plan unless the jurisdiction is exempt from transportation system planning requirements under OAR 660-012-0055.* – As discussed previously, the IAMP actions are consistent with local plans and designations and will be adopted in the Deschutes County and City of Redmond Transportation System Plans.
- *Are consistent with the 1999 Oregon Highway Plan.* – As previously discussed, the IAMP actions are consistent with the 1999 Oregon Highway Plan.
- *Are approved by the Department through an intergovernmental agreement and adopted by the local government, and adopted into a Transportation System Plan unless the jurisdiction is exempt from transportation system planning requirements under OAR 660-012-0055.* – The IAMP will be approved by ODOT through an intergovernmental agreement and adopted by the City of Redmond and Deschutes County, and adopted into the County and City Transportation System Plans.

All proposed improvements on State facilities were evaluated using the mobility standards in the 2003 Highway Design Manual and are intended to be constructed according to the design standards contained within that document.

Objective 5: The IAMP shall include policies and implementing measures that preserve the functionality of the interchange areas.

<u>Evaluation Criteria</u>

a. The IAMP identifies future land use conditions and induced effects, and identifies needed land protection measures.

An analysis of future (2025) conditions consistent with comprehensive plan zoning was performed, including a sensitivity test to examine conditions under a reasonable maximum development density on lands surrounding the

proposed interchange. From this analysis, it was found that adequate capacity was available on the area transportation system to support traffic generated by existing zoning, even when land is developed at high densities. Therefore, it has been determined that using the Transportation Planning Rule (OAR 660-12-060) to regulate proposed comprehensive plan and zoning changes in the future will be adequate to provide for protection of the interchange.

b. The IAMP includes short, medium and long-range actions to improve and maintain roadway operations and safety in the Interchange Study Area. These actions may include local street network improvements, driveway consolidations, shared roadways, access management, traffic control devices, and / or local land use actions.

   The IAMP includes a prioritization of improvement recommendations including short, medium, and long-range actions. Improvement alternatives include access management techniques, enhancement of local connectivity, and installation of traffic signals.

c. The IAMP includes amendments to Redmond and Deschutes County's Comprehensive Plans, Zoning Ordinances, Transportation System Plans, and other official documents as necessary to implement the recommended alternative for the Interchange Study Area.

   The IAMP and recommended alternatives will be adopted as part of the Deschutes County and City of Redmond Transportation System Plans.

d. The IAMP identifies likely funding sources and requirements for the construction of the infrastructure and facility improvements as new development is approved.

   Funding sources and requirements for construction of infrastructure and facility improvements will be addressed in the next steps of the IAMP development.

e. The IAMP identifies partnerships for the cooperative management of future projects and establishes a process for coordinated review of land use decisions affecting transportation facilities.

   Identification of partnerships for the cooperative management of future projects and the establishment of a process for coordinated review of land use decisions will be addressed in the next steps of the IAMP development.

f. A draft version of the IAMP is reviewed by the Redmond and Deschutes County Planning Commissions, as well as the Redmond City Council and the Deschutes County Board of Commissioners. A final draft of the IAMP is adopted by the City Council and Board of Commissioners.

   The draft IAMP will be reviewed by the Redmond and Deschutes County Planning Commissions, as well as the Redmond City Council and the Deschutes County Board of Commissioners. The final draft of the IAMP will be adopted by the City Council and Board of Commissioners.

7. CITY OF REDMOND PLAN AND CODE AMENDMENTS

North Redmond IAMP
Proposed Development Code Changes

The following is a list of decision-making items for the Interchange Area Management Plan (IAMP) for the US 97 Redmond Reroute North Interchange, to be adopted by the Oregon Transportation Commission (OTC) and the Cit of Redmond.

1. PERSHALL WAY/O'NEIL HIGHWAY (HWY 370) @ US 97 –

A. At time of development or redevelopment the City of Redmond, with concurrence from ODOT, shall restrict turning movements to right-in and right-out (RIRO) after local connectivity has been established to provide parallel routes to US 97 for properties adjacent to US 97 north of the US 97 Reroute interchange and south of Pershall Way/O'Neil Highway.

IMPLEMENTING ACTION:
The City of Redmond shall incorporate where appropriate in their on-going TSP Update a RIRO improvement when needed as determined by traffic analysis at US 97 and Pershall Way/O'Neil Highway. The TSP Update shall identify this improvement in the list of ***2011 – 2015 Projects***.

B. At the time the US 97 at O'Neil Highway intersection is converted to RIRO movements only, ODOT, shall evaluate rerouting the O'Neil Highway (Hwy. 370) south on North Canal Blvd. to the US 97 Reroute interchange.

IMPLEMENTING ACTION:
The City of Redmond shall incorporate where appropriate in their on-going TSP Update North Canal Blvd. as a possible future location of the O'Neil Highway (Hwy. 370). The TSP Update shall identify the possible relocation of Hwy 370 to North Canal Blvd. in the list of ***2011 – 2015 Projects***.

C. ODOT, the City of Redmond and Deschutes County commit to the long-term improvement to disconnect Pershall Way/O'Neil Way (Hwy 370) from US 97 and construct an overpass.

IMPLEMENTING ACTION:
The City of Redmond shall incorporate where appropriate in their on-going TSP Update identify disconnecting Pershall Way/O'Neil Way from US 97 and construction of an overpass as the long term improvement for this intersection. The TSP Update shall identify this improvement in the list of ***2016 – 2020 Projects***.

2. KINGWOOD AVENUE @ US 97 –

A. Redmond shall install when warranted a signal with separate left turn lanes on the Kingwood Avenue approaches to US 97 (6th Street).

IMPLEMENTING ACTION:
The City of Redmond shall incorporate where appropriate in their on-going TSP Update the installation of a signal and left-turn lanes on Kingwood Avenue in the list of ***2011 – 2015 Projects,*** or when otherwise meet traffic warrants.

3. MAPLE AVENUE @ NW 9TH STREET –

A. The City of Redmond shall construct a traffic signal at this intersection when warranted.

IMPLEMENTING ACTION:
The City of Redmond shall incorporate where appropriate in their on-going TSP Update the installation of a signal at Maple Avenue and NW 9th Street in the list of ***2011 – 2015 Projects,*** or when otherwise meet traffic warrants.

4. TRAFFIC SIGNAL PLAN –

A. The City of Redmond shall adopt a future traffic signal plan for US Highway 97 (6th Street) and North Canal Blvd., as shown in Figure 5.3 in the IAMP, to create a guide for the orderly installation of traffic signals along US 97 and North Canal Boulevard north of the proposed US 97 Reroute interchange.

IMPLEMENTING ACTION:
The City of Redmond shall incorporate where appropriate in their on-going TSP Update a traffic signal plan as shown in Figure 5.3 in the IAMP.

5. LOCAL CONNECTIVITY PLAN –

A. The City of Redmond shall adopt a Local Street Connectivity Plan, Figure 5.6 of the IAMP, as a refinement plan to the Redmond TSP. The Local Street Connectivity Plan will provide local street access to all properties that abut US Highway 97 (6th Street) north of Kingwood Avenue and south of Pershall Way/O'Neil Highway. Figure 5.6 shall remain in-force until such time as ODOT and the City of Redmond agree on a revised Local Street Connectivity Plan.

IMPLEMENTING ACTION:
The City of Redmond shall incorporate where appropriate in their on-going TSP Update a Local Street Connectivity Plan for all properties that abut US Highway 97 (6th Street) north of Kingwood Avenue and south of Pershall Way/O'Neil Highway.

B. The City of Redmond shall adopt a development policy requiring all property to be developed within the IAMP area to: 1) Have immediate direct access to a local public street other than a state highway; 2) Comply with the Local Street Connectivity Plan, by extending abutting local streets to and through the area being developed; and, 3) Relinquish all direct access rights to a state highway.

IMPLEMENTING ACTION:
The City of Redmond shall –

1) Amend ***Chapter 14 (Urbanization)*** of the Redmond Comprehensive Plan, Policies section, to include within the "Master Planning" section, with the following policies:
    a) Any property to be master planned within newly annexed land within the IAMP area, shall have direct access to a local public street other than a state highway prior to development for all or part of the Master Planned Area consistent with the Local Street Connectivity Plan;
    b) Any property to be annexed to the City shall relinquish all direct access rights to a state highway as a condition of development approval.

2) Amend ***Section 8.0367, Public Works Standards and Specifications****, of the Redmond* Code to include a new paragraph (3) to read as follows: All property within the IAMP area, and annexed into the City, shall have a Master Plan that stipulates the area, as a condition of development approval, shall: (a) Have immediate direct access to a local public street other than a state highway; (b) Comply with the adopted Local Street Connectivity Plan; and, (c) Relinquish all direct access rights to a state highway.

3) Amend the ***Joint Management Agreement*** with Deschutes County for the Urban Growth Boundary, Section 12, sub-section "A" to add a new item (6) to read as follows: All property within the IAMP area, and annexed into the City, shall have a Master Plan that stipulates the area, as a condition of development approval, shall: (a) Have immediate direct access to a local public street other than a state highway, (b) Comply with the adopted Local Street Connectivity Plan; and, (c) Relinquish all direct access rights to a state highway.

6. ACCESS MANAGEMENT PLAN FOR NORTH INTERCHANGE –

A. In addition to the Traffic Signal Plan discussed in number 4 above and described in Figure 5.3, the City of Redmond shall meet, or move in the direction of meeting, ODOT's adopted access management spacing standards for access to interchange crossroads.

1) For US 97 (6th Street) from the southbound interchange ramp terminal to a distance of 1,320 feet to the south, the spacing standards from OAR 734-051-0125(2), Table 8 and Figure 4 apply, which would restrict all access for the full distance of 1,320 feet. This would require processing and approval of a deviation of spacing standards.

2) *For Canal Boulevard from the northbound interchange ramp terminal to a distance of 1,320 feet to the north, the spacing standards from OAR 734-051-0125(2), Table 7 and Figure 3 apply, which would restrict all access for the full distance of 1,320 feet, with a right-in/right-out access allowed on the southbound side of Canal Boulevard no closer than 990 feet from the interchange ramp terminal.*

3) *For US 97 between the interchange and Pershall Way/O'Neil Highway, the spacing standards from OAR 734-051-0125(2), Table 8 and Figure 4 apply, which shall restrict all access to US 97.*

4) *For the US 97 Reroute between the interchange and Kingwood Avenue, the spacing standards from OAR 734-051-0125(2), Table 8 and Figure 4 apply, which shall restrict all access to US 97. An exception to these standards may be allowed for a RIRO approach at Larch Avenue, pending approval of a deviation by ODOT.*

IMPLEMENTING ACTION:

1) City of Redmond shall amend ***Chapter 12***, ***Policies*** Section, sub-section ***State Highways (Policies 20 – 24)*** of the adopted Comprehensive Plan to incorporate an access management strategy for US 97 (6th Street) and North Canal Blvd.

2) City of Redmond shall amend the Development Code to incorporate an access management strategy for US 97 (6th Street) and North Canal Blvd. The following article require amendments:

a) Article III, Subdivision and Partition Standards Section 8.2120 , Master Development Plan, Sub-Section 4 (reference applicable Local Street Connectivity Plan)

b) Section 8.2135, Required Findings for Tentative Subdivision Approval, Sub-section (a) (specific reference to the TSP)

c) *Section 8.2310, Requirements for Tentative Partition Approval, Sub-Section (a) (specific reference to the TSP)*
d) *Section 8.2400, Compliance Required, Sub-section (b) (proposed streets and alleys shall comply with City of Redmond Access Management Standards)*
e) *Section 8.2405, Streets, Sub-section (1) (specific reference to local street connectivity plans in the TSP)*
f) *Section 8.2465, City of Redmond Access Management Standards Article IV, Site and Design Review Standards Section 8.3035, Design Review Criteria, Sub-Section 9 (City of Redmond Access Management Standards)*

8. US 97 REDMOND MEMORANDUM OF UNDERSTANDING

MEMORANDUM OF UNDERSTANDING
US 97 Reroute Phase 1 relating to Long Range Planning for US 97 in Redmond

This Memorandum of Understanding is made and entered into by and between the STATE OF OREGON, by and through its Department of Transportation, hereinafter referred to as "ODOT" and THE CITY OF REDMOND, by and through its elected officials, hereinafter referred to as "CITY".

BACKGROUND and PURPOSE:

1. Whereas ODOT and the CITY plan to complete construction of the US 97 Reroute Phase 1 Project, hereinafter referred to as "Project" and described in Exhibit A, attached hereto and by this reference made a part hereof, and;

2. Whereas, the purpose of the Project is to construct a new US 97 alignment parallel to the existing highway, increasing north-south US 97 traffic capacity, and reducing traffic congestion and heavy truck usage in the Redmond downtown area along the 5th/6th Street couplet (which is currently part of existing US 97), and;

3. Whereas ODOT and the CITY have an executed Cooperative Improvement Agreement in place (#18,338 as amended), providing for the roles and responsibilities of Project delivery;

4. Whereas, beyond delivery of the Project, ODOT and the CITY agree it is a priority to maximize and protect the public's investment in the Project for the longest practical time. In order to achieve this priority, ODOT and the CITY are developing long-term transportation and land use measures (e.g., policies, regulations, procedures) associated with the Project, for which they have yet to complete the expected public process, and then their respective approvals and/or adoptions, and implementation.

THEREFORE, THE CITY AND ODOT AGREE TO THE FOLLOWING:

1. The Project is the first phase of needed modernization improvements for all of US 97 through Redmond, and therefore the completed Project will be integrated into a long-term new alignment of US 97 from Redmond's north Urban Growth Boundary (UGB) to Redmond's south UGB. It is also important to note that the preferred US 97 alignment through Redmond may extend outside the UGB, for example to Quarry Road.

2. Work cooperatively to complete, approve, adopt through the appropriate public process as required, and implement the following:

   A. An Access Management Plan (AMP) for the Project (outside of the Project's north interchange area), consistent with the decision-making outlined in Exhibit B, attached hereto and by this reference made a part hereof. The Parties are

committed to begin in November 2006 the adoption of changes to local ordinances and policies which implement this AMP.

B. An Interchange Area Management Plan (IAMP) for the north end of the Project (including an AMP for the north interchange), where adoption of this IAMP will be consistent with the decision-making outlined in Exhibit C, attached hereto and by this reference made a part hereof. Both parties recognize that construction of the interchange ramps may be delayed until this IAMP is adopted. The Parties are committed to begin in November 2006 the adoption of changes to local ordinances and policies that implement this IAMP, and to complete the adoption process prior to construction contracting of the Project's interchange ramps.

C. A Refinement Plan for future phases of US 97 improvements in Redmond, where adoption of this Refinement Plan will be consistent with the decision-making outlined in Exhibit D, attached hereto and by this reference made a part hereof. The Parties are committed to begin in January 2007 the adoption process for this Refinement Plan, and to complete the adoption process by May 2007.

D. A US 97 Area Plan as the master plan for the north end of Redmond, as defined in the Redmond Zoning Ordinance, for land use and local street connectivity for the area described in Exhibit D. The Parties are committed to adoption of this Area Plan prior to annexation and development of the affected property.

The four above referenced plans will provide land use and transportation policies for inclusion into Redmond's Comprehensive Plan which will, at a minimum, help protect the completed Project to ensure that it continues to meet the identified function and mobility standards for its classification as set by the *Oregon Highway Plan*. The land use and transportation policies will guide the CITY in development and review of proposed land uses within the Project area.

3. Amend Cooperative Improvement Agreement #18,338 (as amended) as needed to reflect any notable changes in Project status, such as roles and responsibilities, cost estimate, financing.

4. ODOT will conduct a *US 97 Crooked River to O'Neil Highway Refinement Plan*, which they expect to begin in 2008, and they will closely involve the CITY in this work as it relates to the junction of US 97 and the O'Neil Highway (370).

SIGNATURE PAGE TO FOLLOW

IN WITNESS WHEREOF, the parties hereto have executed this Memorandum of Understanding as of the day and year hereinafter written.

CITY OF REDMOND

By Alan Unger

Mayor

Date December 1, 2006

Oregon Department Of Transportation

By Robert W Bryant

Region 4 Manager

Date 12-07-06

T:\Agreements\City\Redmond\US 97 Reroute Phase 1 MOU\Final MOU 23704 US 97 Reroute Phase 1 11 14 06.doc

List of Exhibits & Attachments:

Exhibit A:	Project Description and Map
Exhibit B:	Key Decision-making for the Access Management Plan (AMP) (outside of the North Interchange Area)
Exhibit C:	Key Decision-making for the North Interchange Area Management Plan (IAMP)
Exhibit D:	Key Long-Term Decision-making for entire length of US 97 through Redmond (Refinement Planning)
Attachment 1:	Traffic Signal Plan (Map)
Attachment 2:	Local Street Connectivity Plan (Map)
Attachment 3:	Highway Area Plan (Map)
Attachment 4:	Refinement Plan (Map)

EXHIBIT A
Project (US 97 Reroute Phase 1) Description and Map

The Project (US 97 Reroute Phase 1) creates a new north-south route for a portion of US 97 through Redmond, from Milepost (MP) 119.0 to Milepost 121.79, including improvements to the intersection of US 97 and OR 126. The project's southern terminus is south of Redmond's downtown near Veteran's Way (MP 121.79), and the northern terminus will be at Redmond's Urban Growth Boundary (UGB, MP 119.0). Rerouting US 97 will increase north-south US 97 traffic capacity, and reduce traffic congestion and heavy truck usage in Redmond's downtown, along the 5th/6th Street couplet (which is part of existing US 97). The new alignment will become a new section of US 97, and the existing section of US 97 between MP 119.0 and MP 121.79 will become the responsibility of the CITY, no longer a part of the State highway system.

Features of the project include (see map below):

- Moving the alignment of US 97 to the east, out of the downtown core area and along the west side of the Burlington Northern Santa Fe (BNSF) rail line (connecting back into the existing US 97 at Mileposts 119.0 and 121.79).
- A grade-separated interchange with ramp connections at the north terminus, including traffic signals at two of the ramp terminals.
- A new bridge crossing of the Maple-Negus city street alignment over the BNSF rail line, Central Oregon Irrigation District (COID) Pilot Butte Canal, North Canal Boulevard, and the Project's new US 97 alignment; and including roadway improvements on Maple-Negus east from the bridge to NE 5th Street, and west from the bridge to NW 4th Street.
- A new signalized 4-way intersection on the new US 97 alignment at the OR 126 Glacier-Highland couplet's east terminal.
- Re-aligning the existing portion of OR 126 currently between Highland Avenue (existing OR 126) and Evergreen Avenue (existing OR 126), to overlap with the new US 97 alignment between the Glacier-Highland Couplet and Evergreen.
- A new signalized 4-way intersection on the new US 97 alignment at Evergreen (also OR 126).
- Improvements to Evergreen (OR 126) east of the signalized intersection with the new US 97 alignment to OR 126 MP 0.42, including pavement resurfacing, a west-bound right turn lane at the US 97 intersection, access management, drainage, new bicycle and pedestrian features, improved rail crossings at Burlington Northern mainline and the Union Pacific spur track with new crossing warning devices.

- A non-traversable (raised) median from for the length of the new US 97 alignment, with openings at the two OR 126 signalized intersections.
- Connection of the new US 97 alignment with the city street Antler Avenue to the east and west, where no cross traffic or left turns will be allowed with the raised median.
- Connection of the new US 97 alignment with the city street Hemlock Avenue to the east, where no cross traffic or left turns will be allowed with the raised median.
- Connection of the new US 97 alignment with the city street Larch Avenue to the west, where not cross traffic or left turns will be allowed with the raised median.
- Significant Utility impact mitigation (e.g., Central Oregon Irrigation District canal piping and bridge crossings, Pacific Power substation relocation).
- Many city street improvements to support access management along the new US 97 alignment, and for local traffic circulation both during construction and opening of the new US 97 alignment to traffic, examples include:
  - A new roadway alignment to connect NE 9th Street from its current terminus at Hemlock Avenue northward to a new intersection with Negus Avenue.
  - The build out of NE 2nd Street, and a connection from the current cul-de-sac on NW 7th Street southward to a new connection with Quince Street.

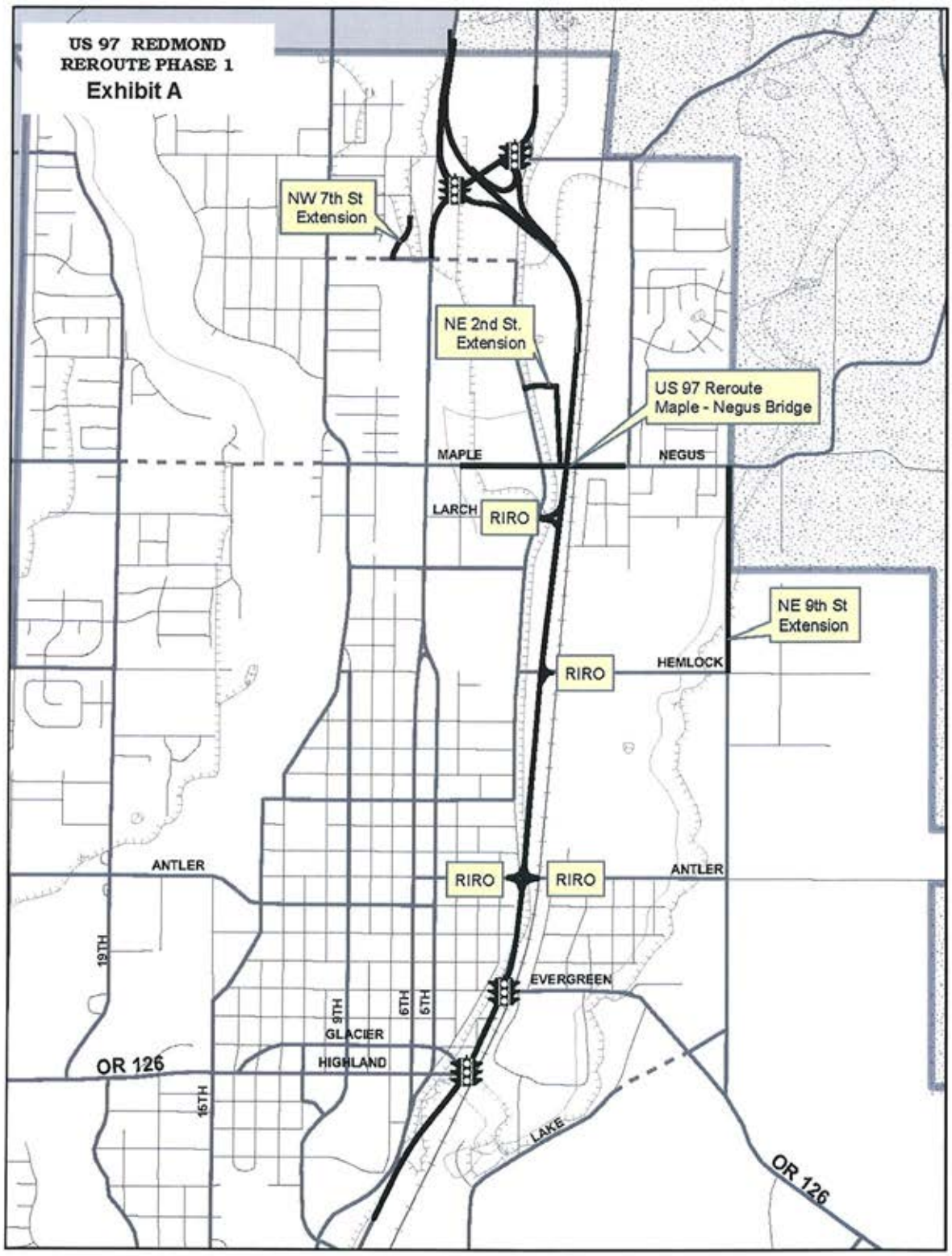

US 97 REDMOND
REROUTE PHASE 1
Exhibit A
NW 7th St
Extension
NE 2nd St.
Extension
US 97 Reroute
Maple - Negus Bridge
MAPLE
NEGUS
LARCH
RIRO
NE 9th St
Extension
RIRO
HEMLOCK
ANTLER
RIRO
RIRO
ANTLER
19TH
EVERGREEN
9TH
6TH
6TH
GLACIER
HIGHLAND
OR 126
16TH
LAKE
OR 126

EXHIBIT B
US 97 Reroute Phase 1
Key Decision-making for the Access Management Plan (AMP)
(outside of the North Interchange Area)

The following is a list of decision-making items which will be included in the final Access Management Plan (AMP) for the Project (US 97 Reroute Phase 1), not including the North Interchange area (which is addressed in Exhibit C).

In the event of a conflict between Exhibit B and the final ODOT approved AMP, the approved AMP will control over Exhibit B.

New US 97 Alignment – From North Interchange Area to Highland Ave
Since US 97 will be on a new alignment for the Project, there will be no private access constructed nor access rights provided to the highway. To keep east to west connectivity in Redmond, some at grade public street connections to the Project's new US 97 alignment will be provided as part of the Project. Larch will be connected as a Right-in – Right-out only on the westside of the new US 97 alignment. Hemlock Ave will be connected as a Right-in – Right-out only on the eastside of the new US 97 alignment, and Antler Ave will be connected as a Right-in – Right-out only on both the east and west sides of the new US 97 alignment. A signal will be installed at the intersection of the new US 97 alignment and Evergreen (OR 126 to the east), and a new signalized intersection will be constructed at the intersection of the new US 97 alignment and the Glacier-Highland Couplet (OR 126 to the west).

OR 126 east (Evergreen Ave, US 97 new alignment to Warsaw St)
Construction of the new traffic signal at the intersection of OR 126 (Evergreen Ave) and the new US 97 alignment will require and include reconstruction of OR 126 from the new US 97 alignment eastward, crossing the BNSF and UP railroads to a point between Franklin and Warsaw Streets. This new construction on Evergreen will include the installation of sidewalks, a raised center median and access management treatments.

City Streets Intersecting the US 97 new alignment
Connections of some local streets to/or over the Project's new US 97 alignment are a necessary condition to ensure adequate access to and from Redmond's industrial zone and downtown core. Project construction will include connections of Antler Avenue, Hemlock Avenue, and Larch Street to the Project's new US 97 alignment. It is also necessary to manage the long-term function of the new US 97 alignment as an Expressway, including the management of any potential operational and safety issues following completion of the Project. Accordingly, the CITY and ODOT will conduct an annual review of the operational and safety performance of city street connections to the Project's new US 97 alignment, including evaluation of each at-grade intersection of the new alignment and city streets against ODOT's mobility and safety standards. As operational or safety problems are discovered, ODOT and the CITY will develop and

initiate immediate, intermediate, and long-term actions, which could include a range of changes or improvements such as additional channelization, a reduction of allowed intersection turning movements, or disconnecting and/or grade separating a local street from the Project's new US 97 alignment. Such decision-making will also follow the process outlined in Exhibit D.

The following is an outline of specific actions which will be taken to existing city streets directly impacted by construction of the Project:

Maple Ave / Negus Way

- An overcrossing of Maple/Negus is being constructed to span the Project's new US 97 alignment, the BNSF, the COID Pilot Butte Canal and North Canal Boulevard. East of the Railroad right-of-way there will be no change to existing access east of the bridge touch-down point. The intersection of NE 5th Street and Negus will be elevated approximately one meter.
- NE Second Street will be disconnected from the north side of Negus Way. A new city street connection has been constructed from the north end of NE Second to N. Canal Blvd.
- N. Canal Blvd will remain in-tact by passing under the Maple/Negus overcrossing, providing a north/south route for local traffic, and there will be no access changes with the exception of the disconnection of the North Canal/Negus intersection.
- On Negus Way there will be no access connections west of N. Canal Blvd.

Larch Ave

- Larch Ave will connect to the Project's new US 97 alignment as a Right-in – Right-out only on the western side of the Project's new US 97 alignment via a new bridge which will be constructed as a part of the Project.
- As operational or safety problems are discovered, ODOT and the CITY will develop and initiate immediate, intermediate, and long-term actions, which could include a range of changes or improvements such as additional channelization, a reduction of allowed intersection turning movements, or disconnecting and/or grade separating a local street from the Project's new US 97 alignment. Such decision-making will also follow the process outlined in Exhibit D.

Hemlock Ave

- Hemlock Ave will connect to the Project's new US 97 alignment as a Right-in – Right-out only on the eastern side of the Project's new US 97 alignment. There will be no connection between Hemlock Ave and the Project's new US 97 alignment, on the western side of the new US 97 alignment.
- No change in access Hemlock to the east side of the BNSF Railroad right-of-way.
- No access will be provided to private property abutting Hemlock Ave between BNSF Railroad right-of-way and the Project's new US 97 alignment, nor between the new US 97 alignment and N. Canal Blvd.

- N. Canal Blvd will remain connected to Hemlock Ave on the western side of the Project's new US 97 alignment, serving as access to a private property located on the north side of Hemlock Ave.
- As operational or safety problems are discovered, ODOT and the CITY will develop and initiate immediate, intermediate, and long-term actions, which could include a range of changes or improvements such as additional channelization, a reduction of allowed intersection turning movements, or disconnecting and/or grade separating a local street from the Project's new US 97 alignment. Such decision-making will also follow the process outlined in Exhibit D.

Antler Ave

- Antler Ave will connect to the Project's new US 97 alignment as a Right-in – Right-out only on both the east and west sides of the new US 97 alignment. No cross-traffic will be allow given Project construction of a raised median.
- There will be no change to existing access on Antler east of the BNSF Railroad right-of-way.
- Through the section of BNSF Railroad right-of-way - no change in access on Antler Ave. BNSF will continue to have access from Antler Ave to their right-of-way, for their operations only.
- On Antler Ave between the BNSF Railroad right-of-way and N. Canal Blvd, there will be no access to private property abutting Antler Ave.
- On Antler Ave between Canal Blvd and 2nd St, the ODOT and CITY future goal is to have no access to abutting private parcels on Antler Ave. Existing accesses that remain with the Project are listed below:
    - North side – Parking lot of seven-unit apartment complex. Parking lot is adjacent to public alley.
    - South side – Second property at SE corner of Antler Ave and 2nd St. Property has an additional access on 2nd St. side of lot.

  These accesses will be subject to disconnection in the future.
- As operational or safety problems are discovered, ODOT and the CITY will develop and initiate immediate, intermediate, and long-term actions, which could include a range of changes or improvements such as additional channelization, a reduction of allowed intersection turning movements, or disconnecting and/or grade separating a local street from the Project's new US 97 alignment. Such decision-making will also follow the process outlined in Exhibit D.

Evergreen (west of the BNSF Railroad right-of-way)

- On the south side of Evergreen Ave, no access will be provided or allowed between the Railroad right-of-way to 4th St.
- On the north side of Evergreen Ave, no access will be provided or allowed between the BNSF Railroad right-of-way to 3rd St. First access west of 3rd street will be closed as part of the Project.
- The South Canal Blvd connection to Evergreen will be closed.
- Access into parking area at SE corner 4th and Evergreen Ave will be closed as part of the Project. The parking area has alternate access from 4th St.

- Street parking between 4th St. and the Project's new US 97 alignment will be eliminated as part of the Project.
- Street parking along the west side of 3rd St. between Deschutes Ave and Evergreen Ave will be eliminated as part of the Project.

Canal Blvd (between Maple Ave and Antler)

- The west side of Canal Blvd will have no change to city streets or private property connections as part of the Project.
- As Project construction of the new alignment of US 97 is completed, the south end of Canal Blvd will continue to Cedar Ave, with the remaining portion of Canal Blvd to the south, between Cedar Ave and Antler Ave, terminating at the alleyway one-half block north of Antler Ave. (This design at the south end will provide for continued access to properties along the west side of N. Canal Blvd as well as to the alleyway located one-half block north of Antler Ave.)
- East side of N. Canal Blvd will have access to three property remnants via two existing private bridges across the COID Canal and access to a fourth property via Hemlock Ave. Access control will be a part of the Project's right-of-way acquisitions, allowing for no access from these private properties to the Project's new alignment of US 97.

Canal Blvd / 2nd Street (between Antler Ave and Evergreen Ave)

- South end of Canal Blvd used for through movement of traffic will end at Deschutes Ave. The remaining portion of Canal Blvd will terminate at Evergreen. This design will serve as access to property along its west side on Canal Blvd as well as accommodate truck circulation for milk delivery for dairy.

EXHIBIT C
US 97 Reroute Phase 1
Key Decision-making for the North Interchange Area Management Plan (IAMP)

The following is a list of decision-making items which have been summarized from the Final Draft Interchange Area Management Plan (IAMP) for the Project's North Interchange, to be adopted by the Oregon Transportation Commission (OTC). The purpose of the IAMP is to provide a management plan for the interchange to meet Oregon Highway Plan (OHP) operational standards for at least the next 20 years.

In the event of a conflict between Exhibit C and the final OTC adopted IAMP, the adopted IAMP will control over Exhibit C.

1. **PERSHALL WAY/O'NEIL HIGHWAY (HWY 370) @ US 97 –**

   a. **At time of development or redevelopment the CITY, with concurrence from ODOT, will restrict turning movements to right-in and right-out (RIRO) after local connectivity has been established to provide parallel routes to US 97 for properties adjacent to US 97 north of the Project's new north interchange and south of Pershall Way/O'Neil Highway.**

      IMPLEMENTING ACTION: The CITY will incorporate where appropriate in their on-going TSP Update a RIRO improvement when needed as determined by traffic analysis at US 97 and Pershall Way/O'Neil Highway. The TSP Update will identify this improvement in the list of ***2011 – 2015 Projects***.

   b. **At the time the US 97 at O'Neil Highway intersection is converted to RIRO movements only, ODOT will reroute the O'Neil Highway (370) south on North Canal Blvd to the Project's new US 97 north interchange.**

      IMPLEMENTING ACTION: The CITY will incorporate where appropriate in their on-going TSP Update North Canal Blvd as the future location of the O'Neil Highway (370). The TSP Update will identify the relocation of Hwy 370 to North Canal Blvd in the list of ***2011 – 2015 Projects***.

   c. **ODOT and the CITY will work with Deschutes County to commit to the long-term improvement to disconnect Pershall Way/O'Neil Way (Hwy 370) from US 97 and construct an overpass.**

      IMPLEMENTING ACTION: The CITY will incorporate where appropriate in their on-going TSP Update identify disconnecting Pershall Way/O'Neil Way from US 97 and construction of an overpass as the long-term improvement for this intersection. The TSP Update will identify this improvement in the list of ***2016 – 2020 Projects***.

2. **KINGWOOD AVENUE @ US 97 –**

   a. **The CITY will install when warranted a signal with separate left turn lanes on the Kingwood Avenue approaches to US 97 (6th Street).**

      IMPLEMENTING ACTION: The CITY will incorporate where appropriate in their on-going TSP Update the installation of a signal and left-turn lanes on Kingwood Avenue in the list of ***2011 – 2015 Projects,*** or when otherwise meet traffic warrants.

3. **MAPLE AVENUE @ NW 9TH STREET –**

   a. **The CITY will construct a traffic signal at this intersection when warranted.**

      IMPLEMENTING ACTION: The CITY will incorporate where appropriate in their on-going TSP Update the installation of a signal at Maple Avenue and NW 9th Street in the list of ***2011 – 2015 Projects,*** or when otherwise meet traffic warrants.

4. **TRAFFIC SIGNAL PLAN FOR US 97 (6TH STREET) –**

   a. **The CITY will adopt a future traffic signal plan for US Highway 97 (6th Street) and North Canal Blvd, to create a guide for the orderly installation of traffic signals along US 97 (6th Street) and North Canal Boulevard north of the Project's new US 97 north interchange, see Attachment 1.**

      IMPLEMENTING ACTION: the CITY will incorporate where appropriate in their on-going TSP Update a traffic signal plan as shown in Attachment 1.

5. **LOCAL CONNECTIVITY PLAN –**

   a. **The CITY will adopt a Local Street Connectivity Plan, Attachment 2, that provides local street access to all properties that abut US 97 (6th Street) north of Kingwood Avenue and south of Pershall Way/O'Neil Highway. Attachment 2 will remain in-force until such time as ODOT and the CITY agree on a revised Local Street Connectivity Plan.**

      IMPLEMENTING ACTION: The CITY will incorporate where appropriate in their on-going TSP Update a Local Street Connectivity Plan for all properties that abut US 97 (6th Street) north of Kingwood Avenue and south of Pershall Way/O'Neil Highway.

b. **The CITY will adopt a development policy requiring all property to be developed within the IAMP area to: 1) Have immediate direct access to a local public street other than a state highway; 2) Comply with the Local Street Connectivity Plan, by extending abutting local streets to and through the area being developed; and, 3) Relinquish all direct access rights to a state highway.**

IMPLEMENTING ACTION: The CITY will –

1. Amend ***Chapter 14 (Urbanization)*** of the Redmond Comprehensive Plan, Policies section, to include within the "Master Planning" section, with the following policies:
   - Any property to be master planned within newly annexed land within the IAMP area, shall have direct access to a local public street other than a state highway prior to development for all or part of the Master Planned Area consistent with the Local Street Connectivity Plan;
   - Any property to be annexed to the CITY will relinquish all direct access rights to US 97 and O'Neil Highway (370) in the IAMP area, as a condition of development approval.

2. Amend ***Section 8.0367, Public Works Standards and Specifications***, of the Redmond Code to include a new paragraph (3) to read as follows: All property within the IAMP area, and annexed into the CITY, shall have a Master Plan that stipulates the area, as a condition of development approval, shall: (a) Have immediate direct access to a local public street other than a state highway; (b) Comply with the adopted Local Street Connectivity Plan; and, (c) Relinquish all direct access rights to a state highway.

3. Amend the ***Joint Management Agreement*** with Deschutes County for the Urban Growth Boundary, Section 12, sub-section "A" to add a new item (6) to read as follows: All property within the IAMP area, and annexed into the CITY, shall have a Master Plan that stipulates the area, as a condition of development approval, shall: (a) Have immediate direct access to a local public street other than a state highway, (b) Comply with the adopted Local Street Connectivity Plan; and, (c) Relinquish all direct access rights to a state highway.

6. ACCESS MANAGEMENT PLAN FOR PROJECT'S NORTH INTERCHANGE –

a. In addition to the Traffic Signal Plan discussed in number 4 above and described in Attachment 1, the CITY will meet, or move in the direction of meeting, ODOT's adopted access management spacing standards for access to interchange crossroads.

1. *For US 97 (6th Street) from the Project's southbound interchange ramp terminal to a distance of 1,320 feet to the south, the spacing standards from OAR 734-051-0125(2), Table 8 and Figure 4 apply, which would restrict all access for the full distance of 1,320 feet.* This would require processing and approval of a deviation of spacing standards.

2. *For Canal Boulevard from the Project's northbound interchange ramp terminal to a distance of 1,320 feet to the north, the spacing standards from OAR 734-051-0125(2), Table 7 and Figure 3 apply, which would restrict all access for the full distance of 1,320 feet, with a right-in/right-out access allowed on the southbound side of Canal Boulevard no closer than 990 feet from the interchange ramp terminal.* This would require resolution of King Way and other related existing accesses.

b. The CITY will meet, or move in the direction of meeting, the CITY's adopted access management guidelines on US 97 (6th Street) from a point 1,320 feet from the Project's southbound interchange ramp terminal to Kingwood Avenue. This will require access spacing of at least 800 feet between adjacent driveways and/or streets on the same side of the roadway and ½-mile between adjacent intersections.

c. The CITY will meet, or move in the direction of meeting ODOT's adopted access management spacing standards for access to District Highways in line with the recommendation to transfer jurisdiction of North Canal Boulevard from O'Neil Highway to the Project's new interchange from Deschutes County, and the CITY to ODOT.

1. *For the segment of roadway from a point 1,320 feet north of the Project's northbound interchange ramp terminal to the urban growth boundary, the spacing standards for urban areas from OAR 734-051-0125(2), Table 4 shall apply, which shall require a minimum separation of 500 feet (assuming a posted speed of 40 or 45 mph) between approaches on the same side of the highway.*

2. *For the segment of roadway outside the urban growth boundary, the spacing standards for rural areas from OAR 734-051-0125(2), Table 4 shall apply, which shall require a minimum separation of 500 feet (assuming a posted speed of 40 or 45 mph) between approaches on the same side of the highway.*

d. The CITY will meet ODOT's adopted access management spacing standards for interchange mainlines, in relation to the Project's new US 97 interchange.

1. *For US 97 between the Project's new interchange and Pershall Way/O'Neil Highway, the spacing standards from OAR 734-051-0125(2), Table 8 and Figure 4 apply, which shall restrict all access to US 97.*

2. *For the Project's new US 97 alignment between the interchange and Kingwood Avenue, the spacing standards from OAR 734-051-0125(2), Table 8 and Figure 4 apply, which shall restrict all access to US 97. An exception to these standards may be allowed for a right-in/right-out approach at Larch Avenue, pending approval of a deviation by ODOT.*

e. ODOT will either purchase all abutting property access rights to US 97 (6th Street) and Canal Boulevard within 1,320 feet of the Project's US 97 interchange ramp terminals, or accesses may be allowed to remain until such time as reasonable alternate access becomes available.

f. ODOT and/or the CITY may allow exceptions to access management spacing standards outlined in this IAMP, to take advantage of existing property boundaries and existing or planned public streets, and to accommodate environmental constraints.

g. Within the IAMP area, ODOT and/or the CITY will replace private approaches with public streets, where feasible, to provide consolidated access to multiple properties.

h. ODOT and/or the CITY will ensure all properties impacted by the Project's new US 97 interchange are provided reasonable access to the local transportation system.

i. **Within the IAMP area, ODOT and/or the CITY will align approaches on opposite sides of roadways where feasible to reduce turning conflicts.**

j. **Within the IAMP area, ODOT and/or CITY short-range actions will accommodate existing development needs, unless property is intended to be purchased by ODOT.**

IMPLEMENTING ACTION: The CITY will incorporate where appropriate in their on-going TSP Update an ***Access Management Strategy for US 97 (6th Street) and North Canal Blvd.*** (Attachment 3) and Figures 5.5a – 5.5c (Attachment 4). The TSP Update will state that in Table 5-1, the short-range actions are intended to be implemented during the construction of the Project's US 97 interchange. The medium-range actions are intended to be completed within 5 to 10 years, while 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.

IMPLEMENTING ACTION: The CITY will amend ***Chapter 12***, ***Policies*** Section, sub-section ***State Highways (Policies 20 – 24)*** of the adopted Comprehensive Plan to incorporate an access management strategy for US 97 (6th Street) and North Canal Blvd.

IMPLEMENTING ACTION: The CITY will amend ***Article IV***, ***Site and Design Review Standards, Section 8.3035, Design Review Criteria, Sub-Section 9 (City of Redmond Access Management Standards)*** to incorporate an access management strategy for US 97 (6th Street) and North Canal Blvd.

EXHIBIT D
Key Long-Term Decision-making for entire length of US 97 through Redmond (Refinement Planning)

The following is a list of decision-making items which will be included in the final US 97 Redmond Refinement Plan for future Phases of US 97, representing the long term range of improvements for US 97 through Redmond, from the O'Neil Highway Junction (MP 118.52) to Quarry Avenue (MP 126.20). The following decision-making items are either consistent with or in addition to those items enumerated in Exhibits B (Access Management Plan) and C (Interchange Area Management Plan).

In the event of a conflict with Exhibit D and the final US 97 Redmond Refinement Plan, the approved or adopted Refinement Plan will control over Exhibit D.

1. The entire length of US 97 through Redmond will be planned to eventually function as an Expressway.

2. The long-term plan for improvements to US 97 through Redmond include the Project (US 97 Reroute Phase 1); a southerly extension of US 97 from the Project (as shown on Attachment 4); and future proposed US 97 interchange improvements to be determined through a Transportation System Plan (TSP) level analysis, associated with a new Interchange Area Management Plan (IAMP) effort for US 97 in the central area of Redmond. The new IAMP effort will be conducted by ODOT in partnership with the CITY, scheduled to begin in 2007. The new IAMP effort will also address at a minimum the long term plans and strategies for the Project (US 97 Reroute Phase 1) at-grade intersections of US 97 and Antler Avenue, Hemlock Avenue and Larch Street.

3. To ensure the Project (US 97 Reroute Phase 1) will meet Oregon Highway Plan (OHP) and CITY operational and safety standards through the planning period (2026), prior to completion of the Project's US 97 new alignment construction, ODOT and the CITY will form an Access Management Committee (AMC). The AMC will:

    a. Consist of the following representatives from ODOT and the CITY: ODOT's Region 4 Manager, Access Management Engineer, and Traffic Engineer; and Redmond's City Manager, Public Works Director, and Community Development Director.

    b. Conduct an annual review of the operational and safety performance of local connections to the Project's new US 97 alignment, including evaluation of each at-grade intersection of the new US 97 alignment and the city streets. As operational or safety problems are discovered, the AMC will develop and initiate immediate, intermediate, and long-term actions,

which could include a range of changes or improvements such as additional channelization, a reduction of allowed intersection turning movements, or disconnecting and/or grade-separating a local street from the Project's new US 97 alignment.

c. Conduct reviews and decision-making consistent with the strategies identified in the Project's new US 97 Interchange IAMP, as well as strategies which will be identified in the new IAMP effort identified in above item number 2 of this Exhibit (D).

d. With an understanding that ODOT will closely involve the CITY as illustrated in Items 3a, b, and c above, recognize the ODOT Region 4 Manager as having final decision-making authority regarding the modification or closure of intersections between the Project's new US 97 alignment and city streets.

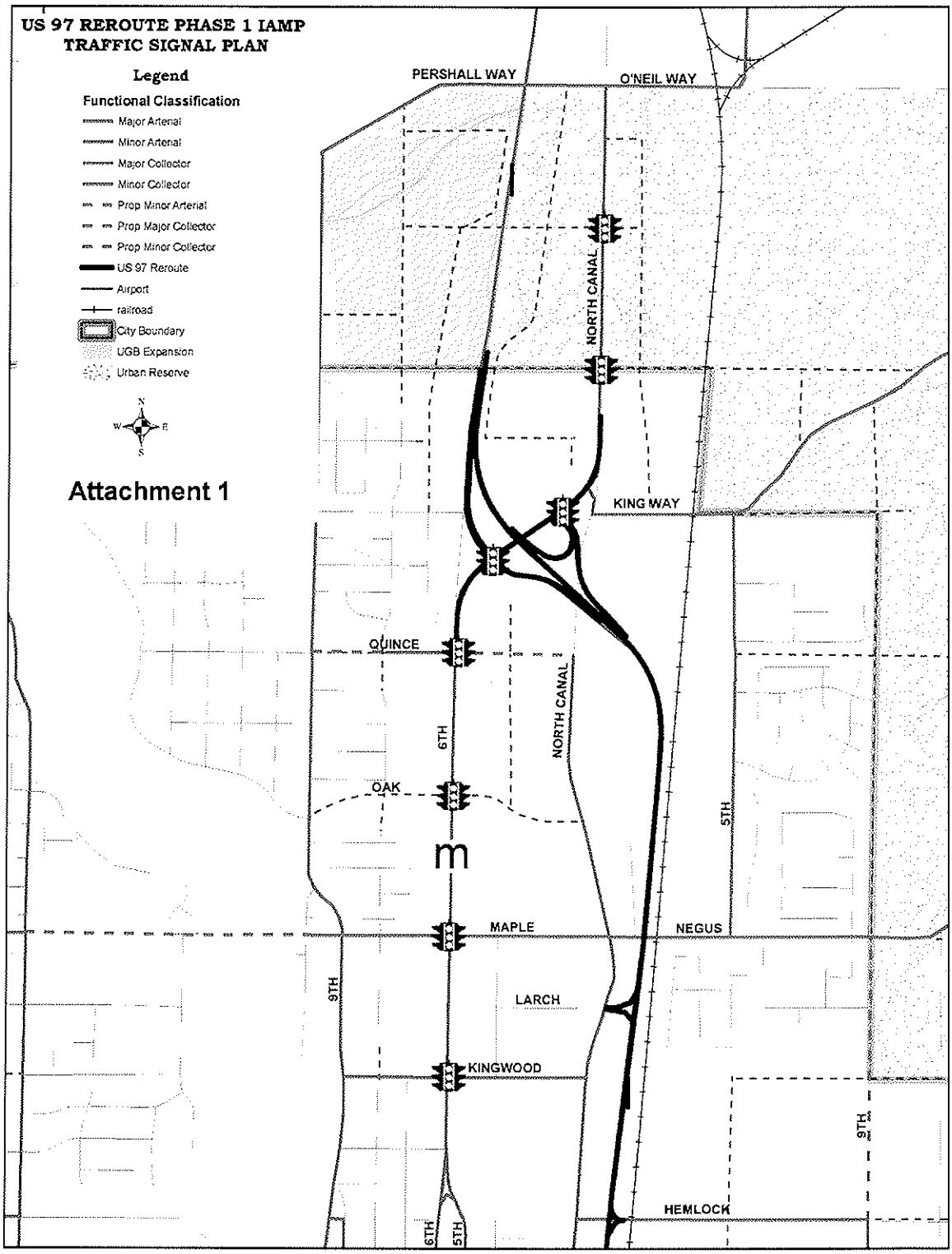
4. The final US 97 Redmond Refinement Plan will include a requirement for the CITY, in cooperation with ODOT, to develop and adopt a land use and transportation plan for the area (Area Plan, see Attachment 3) north of the Project's new US 97 interchange, south of Pershall Way/O'Neil Highway, east of North Canal Blvd, and west of NW 10th Street. The outcome is to adopt, as part of the Redmond Comprehensive Plan, Redmond TSP, and implementing ordinances, a land use and local street network plan that will:

   a. Establish the type, location and intensity of development to be allowed in the Area Plans's study area, to avoid adversely effecting the operations of the local street system, US 97, and the Project's new US 97 interchange, through 2026;
   b. Establish a network of local streets, including frontage/backage roads on both sides of US 97 that will adequately serve the proposed land uses and eliminate all direct access to US 97; and
   c. Identify a grade separated crossing of Pershall Way/O'Neil Way with US 97 as the long-term solution for this intersection.

ATTACHMENT 1

US 97 REROUTE PHASE 1 IAMP

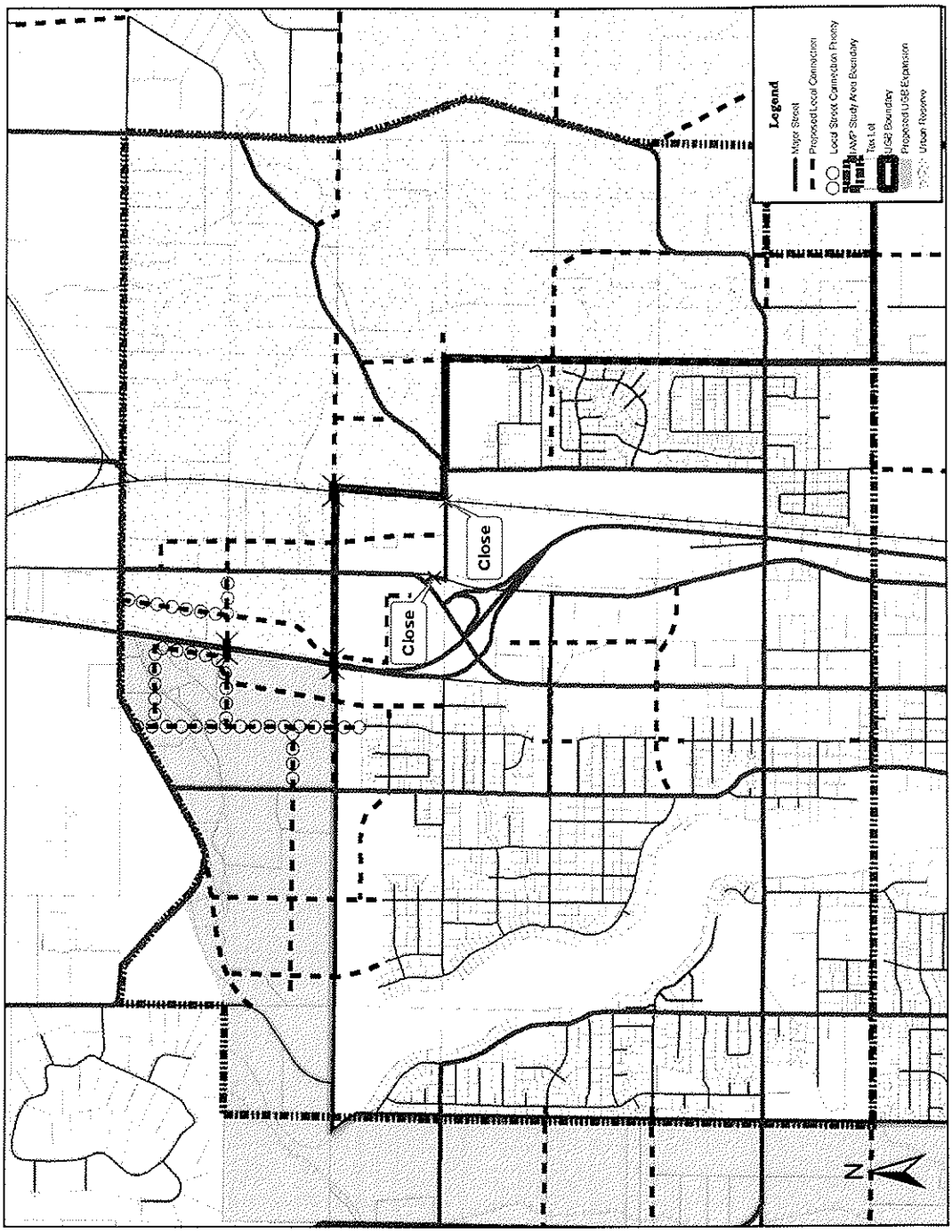
Traffic Signal Plan



ATTACHMENT 2

US 97 REROUTE PHASE 1 IAMP

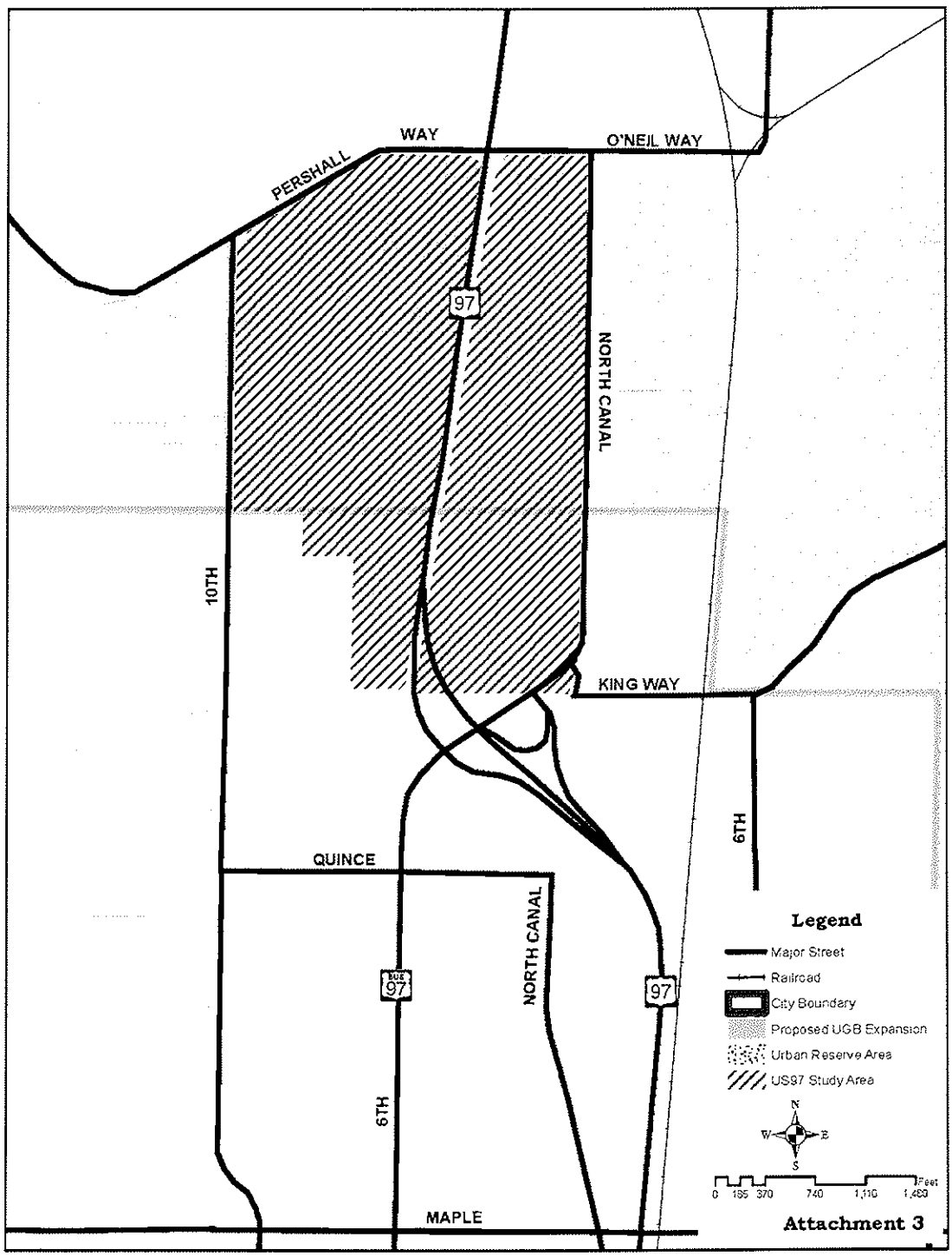
Local Street Connectivity Plan



ATTACHMENT 3

US 97 REROUTE PHASE 1

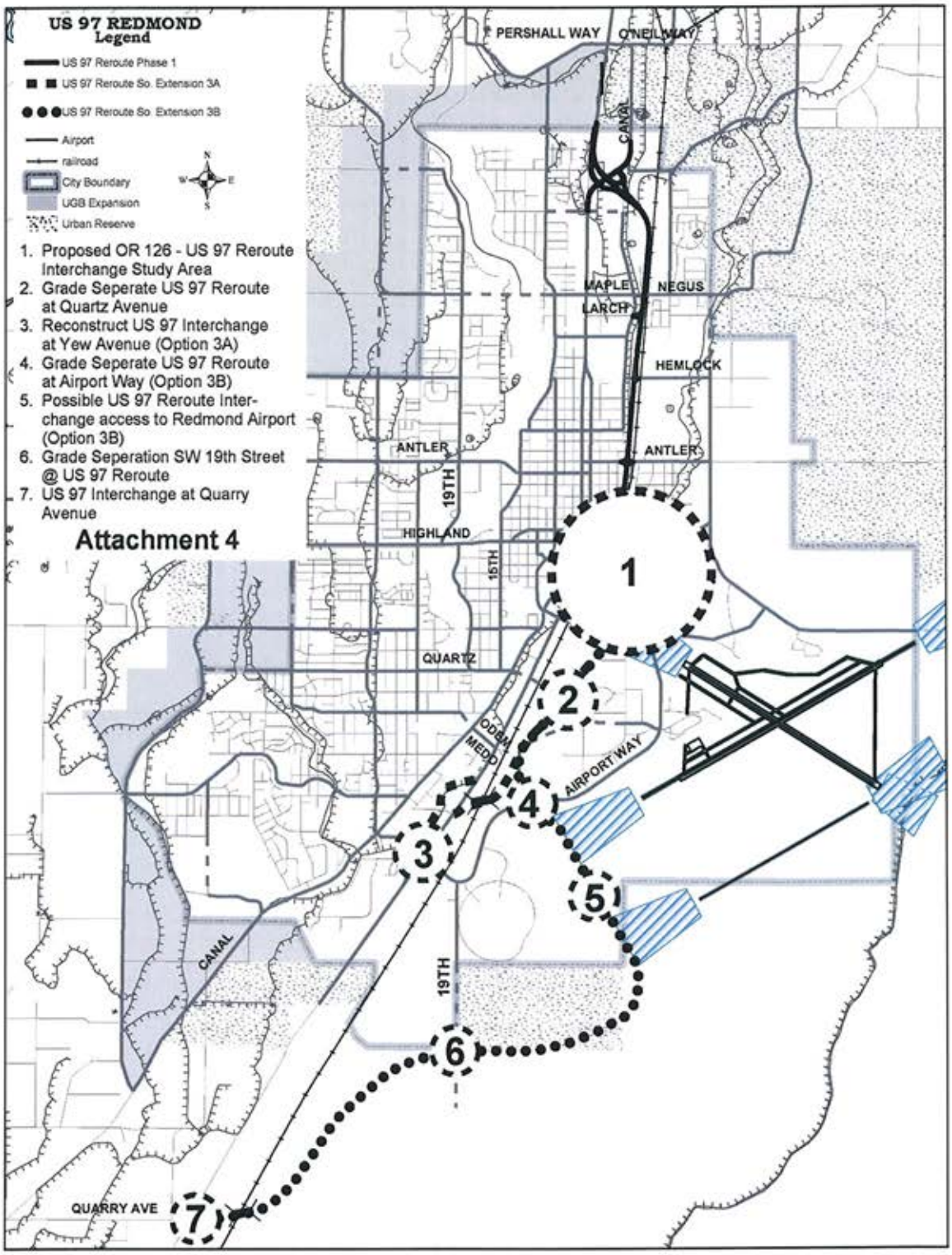
Area Plan - North US 97 Interchange to O'Neil Junction



ATTACHMENT 4

US 97 REROUTE PHASE 1

US 97 Redmond Refinement Plan



9. PLA-01

Oregon Department of Transportation **PROCEDURE**	NUMBER PLA 01	SUPERSEDES NEW
	EFFECTIVE DATE 10/12/06	PAGE NUMBER 01 OF 12
	VALIDATION DATE	
	REFERENCE OAR 731-015-0065 (1)	
SUBJECT **ODOT TRANSPORTATION FACILITY PLAN ADOPTION PROCESS**	APPROVED SIGNATURE	

PURPOSE

The purpose of this procedure is to establish the process and requirements that the Oregon Department of Transportation (Department) shall use in the adoption of transportation facility plans. The procedure lays out the steps to seek adoption of a facility plan by the Oregon Transportation Commission (OTC). This procedure is designed to improve coordination, better define roles and responsibilities, and clarify work components completed by the Region Planners and local governments.

Attachment A defines facility plans, provides additional information on the facility plan adoption process, and lists acronyms. Attachment B is a diagram of procedure steps. This procedure does not address the specific development of facility plans (which is typically done by the local government) including technical and environmental issues, input from stakeholders, and coordination with affected agencies.

BACKGROUND

The purpose of facility plans is to identify the function and existing and future needs for using the transportation facility. Facility plans also include plans for managing the existing transportation facilities and plans for improving the facilities so that the facilities continue to operate at acceptable levels for twenty years. The policies and investment priorities identified in the Oregon Transportation Plan (OTP) and mode/topic plans are further refined in facility plans. The adoption of facility plans affecting the Oregon Highway Plan (OHP) shall be processed as amendments to the OHP. When a facility plan goes before the OTC for adoption there are two primary amendments to the OHP. The first are those facility plans that amend <u>and</u> implement the OHP. This occurs primarily when a facility plan adoption leads to a designation change (highway segment designations, freight routes, scenic byways, and functional class) or new proposed alignments. The second type of amendment is for facility plans that are developed to implement the OHP that do <u>not</u> change policy, make or change a designation, or include new alignment

Department Region Planners develop most of the facility plans affecting state facilities in conjunction with local governments. There are numerous types of facility plans that shall follow this procedure. The typical ones include corridor plans, refinement plans, specific area refinement plans, access management plans, access management plans for interchanges, interchange area management plans, expressway management plans, scenic byway plans, intersection plans, and safety corridor plans. This procedure shall also be followed when highway segment designations require a management plan. If a management plan is not required, this procedure is not applicable. Policy 1.B of the OHP outlines when highway segment designations and/or management plans are required. *(See Attachment A – Facility Plans)*

This procedure also does not apply to access management strategies, conditions reports, and environmental documents as they are not facility plans. Local Transportation System Plans (TSP) are also not Department facility plans and are not adopted by the OTC. While TSPs may address state transportation facilities, they do so only in the context of guidance, policies, and standards provided through the OHP and other modal plans in light of a local government's vision and direction.

PRIOR TO OTC ADOPTION PROCESS

The preferred process for facility plan adoption is to have local government approval or adoption of a facility plan before it goes to the OTC. Therefore, while working with local governments on development of a facility plan, the local government needs to understand the established process for the OTC's adoption of the plan. An intergovernmental agreement (IGA) or memorandum of understanding (MOU) may help guide development of the plan. *(See Attachment A – IGAs and MOUs)*

Prior to adoption by local government, some facility plans may need to go to the OTC for review and guidance on such issues as the proposed design alternatives being considered and community impacts and tradeoffs. The Region Planning Manager and Region Manager need to work in concert with the Deputy Director and the Chief of Staff to determine whether a facility plan issue needs to go before the OTC for review and guidance. This "OTC check-in" shall be handled either as a one-on-one discussion with each of the commissioners or placed on the OTC agenda for informational purposes. This procedure assumes that the appropriate Region review and support by the Region Manager of the facility plan occurs prior to the Region Planning Manager bringing the plan to Planning Business Line Team (PBLT).

Prior to submitting the facility plan for OTC approval, complete the following steps as indicated:

- Development of a draft plan in collaboration with jurisdiction(s).
- Review by appropriate Department staff and Department of Justice (DOJ).
- The ODOT Chief Engineer and/or designee approval of facility plans affecting state highways if they include planned designs for the facility. In addition, the Access Management Engineer and District Manager (or designee) shall approve facility plans if

they include aspects that could impact access management and/or maintenance. http://intranet.odot.state.or.us/ssb/bss/del/d_sub-04.pdf

- Depending on the complexity and/or controversial nature of the facility plan, prior discussions with OTC may be appropriate (as mentioned above).
- Fulfillment of the required public review process *(See Attachment A – Facility Plan Development)* recognizing that the primary stakeholder involvement has occurred during the development of the draft plan.
- PBLT coordination. PBLT reviews the draft plan and listens to the proposed OTC presentation to provide comments and support for bringing the plan to the OTC.

OTC ADOPTION PROCEDURE

Location on OTC Agenda

The recommendation whether the facility plan should be a regular agenda item or on the consent calendar shall be made by Region and Transportation Development Division (TDD) staff working together with PBLT on a case-by-case basis. This recommendation will typically occur during the PBLT meeting described in the Prior to OTC Adoption Process section above.

This determination depends on several issues including complexity of the plan, level of controversy, multiple actions associated with the facility plan (change in functional class or a jurisdictional transfer), number of times the facility plan has been to the OTC, and whether there are parties who wish to testify.

Agenda huddle by executive staff shall be the forum for the final decision for where the item shall be placed on the agenda. The facility plan packet that goes to the OTC remains the same, whether it is located on the regular agenda or on the consent calendar.

Submittal to the OTC

The appropriate Region staff person shall prepare the cover memo, staff report, and other attachments in accordance with the Highway Finance Office (HFO) requirements for OTC packets. The following need to be included within the packet:

Cover Memo

The cover memo shall contain a summary of the issues, requested action, and motion language. The summary of issues needs to be clear about what the OTC is adopting and how it affects the State and local TSPs. (*See Attachment A - Relationship to the OTP, SAC, and TPR)* The requested action is adoption of the facility plan and any amendment of the OHP or any other modal and/or topic plan as necessary.

When developing the motion language, care needs to be taken that the Department does not exceed its authority when adopting a facility plan. The motion language shall be based on the requested action section of the cover memo. The motion includes

adoption of findings and the components of the plan for which the Department has responsibility. The findings shall specifically state how the existing local plan, policy, code provisions, and the facility plan are consistent.

Staff Report

The staff report, which is typically Attachment A of the OTC packet, shall briefly identify:

- A description of the public involvement process including notification (if applicable);
- The components of the plan for which the local governments are responsible for;
- The components of the plan for which the Department is responsible for;
- How the facility plan implements the subject modal system plan;
- If necessary, what policies, standards, actions, appendices, maps, and other exhibits are being amended with this action;
- A summary of the draft findings that are proposed in support of the adoption; and
- A Requested Action that frames the proposed motion language that:
    - Summarizes what is proposed to be adopted;
    - The OTC is accepting and agreeing to the conclusions and decisions of the plan that shall guide future Department and local government's actions; and
    - Includes language to the effect that the findings in the packet are adopted as part of the OTC action.

Findings

The findings are typically Attachment B of the OTC packet. The findings adopted by the OTC shall highlight those actions for which it has the authority to approve, such as issues related to highway operations, mobility standards, access management, etc. *(See Attachment A of this procedure – Findings)* The OTC packet for the facility plan shall make findings to address the following State Agency Coordination Program (SAC) (Oregon Administrative Rules (OAR) 731-15-065) findings:

- Compatibility with acknowledged comprehensive plans of affected counties and cities;
- Compatibility with Statewide Planning Goals which specifically apply; see OAR 660-030-0065(3) (d); and
- Compliance with all provisions of other statewide planning goals that can be clearly defined if local plan does not include general or specific provisions affected by the facility plan.

In addition, the findings shall address the following:

- Compatibility with affected modal plans and the OTP
- Adequate coordination with local governments during plan preparation
- Adequate public involvement during plan preparation
- Statement that the Department is not exceeding its authority
- Compatibility with Metropolitan Planning Organization Regional Transportation Plans
- Consistency with the Highway Design Manual if the facility plan includes planned designs

The Facility Plan

The plan itself is typically Attachment C of the OTC packet.

THE STEPS

The steps listed below outline the facility plan adoption process before the OTC. The actual development of the facility plan and the outreach process to stakeholders and the local jurisdiction(s) needs to have occurred prior to beginning the OTC approval process. *(See Attachment A of this procedure – Facility Plan Development – Local Process)* The actions below are also shown in a diagram format. *(See Attachment B)*

RESPONSIBILITY	STEP	ACTION *
Region Planning Manager	1	After obtaining Region Manager approval of the facility plan, inform PBLT of OTC agenda item at least three months prior to anticipated OTC meeting. Discuss with PBLT Team Leader and together determine if a presentation before PBLT is needed and decide on the adoption process. A draft of the proposed OTC action (motion) needs to be included in the presentation to PBLT. (This step shall occur before the local government approves the facility plan.) It may be appropriate for DOJ to review the draft findings.
	2	PBLT and TDD staff recommendations are relayed to Executive staff via the Region Planning Manager. The recommendations include the level of OTC participation, location on agenda, and clarification of requested action. (If the facility plan includes a functional classification change, it needs to follow that procedure as well.)
	3	Comply with public review and public notice requirements. The OTC hearing for the facility plan shall occur after the 45-day review period which is required by federal regulations for amendments to the plan. The 30-day SAC review

RESPONSIBILITY	STEP	ACTION *
		requirement can run concurrently. The notice establishing the start date for both review periods shall include key stakeholders such as Department of Land Conservation and Development (DLCD). The plan findings shall be included as part of the SAC notice requirements to address plan consistency expectations. The scheduling for the OTC meeting can occur earlier, which includes providing copies of the recommended plan to stakeholders. *(See Attachment A – Outreach)* Follow the HFO submittal schedule for getting on the OTC agenda – http://intranet.odot.state.or.us/highwaybudget/Program%20and%20Funding%20Svcs/index.htm
	4	Provide packets to HFO Coordinator for review at least one month prior to OTC meeting.
	5	Determine how many copies of facility plan packet are needed to complete adoption process and produce copies, if necessary. Packet includes cover memo, staff report, plan document, and SAC findings. *(See OTC Adoption Procedure Section)* The staff report shall include appropriate motion language. The adoption language may differ if amending the OHP versus implementing the OHP.
	6	Present locally adopted or approved facility plan at OTC meeting. OTC adopts facility plan as an amendment to a modal plan.
Region Planner	7	Provide copies of final facility plan and findings to DLCD, affected agencies, TDD, and others who request to receive a copy. Depending on the circumstances, if the OTC revises the facility plan, the local government may need to amend their adopted facility plan.
	8	Work with OHP Plan Manager on updating the OHP registry of amendments and providing access to the facility plan. *(See After OTC Adoption Process Section)* If facility plan involves other modes, then work with other Modal Plan Managers to coordinate access of the adopted facility plan for individuals that would like to read or have a copy of the plan.

* There are multiple steps in these processes. This procedure focuses only on the Department's facility planning adoption process.

AFTER OTC ADOPTION PROCESS

A significant change to an adopted facility plan requires an action by the OTC. It may be appropriate for the PBLT to determine if the amendment is significant enough to require OTC action.

All amendments to the OHP are listed in the registry of amendments on the Department's webpage by the OHP Plan Manager which helps the Department maintain a more accurate and accessible database of these facility plans.

ATTACHMENT A

Facility Plans

A facility plan may address issues for one transportation mode, such as pipeline, aviation, rail, public transit, or bike/ped; or it may address issues for multiple modes, such as a highway corridor plan, a downtown plan, or Special Transportation Area management plan that includes components for access management, public transit, traffic safety, and/or bike/ped improvements. Facility plans consider specific geographic issues and affect the application of specific Statewide Planning Goals and, therefore, contain land use decisions.

The State Agency Coordination Rule (OAR 731-015-0015) defines "*facility plan*" in a similar light, "*a plan for a transportation facility such as a highway corridor or airport master plan*."

Statewide Planning Goal 2 also provides guidance as to what any plan shall include, such as:

A. An adequate factual basis for the plan,
B. Inventories and other forms of data as needed to support the policies of the plan,
C. Applicable statewide planning goals, and
D. Elements that establish policies and implementation measures that address any special needs or desires of the people in the area and specify time periods for implementation of the plan.

With respect to highways, there are numerous types of facility plans and the typical ones include corridor plans, refinement plans, specific area refinement plans, access management plans, access management plans for interchanges, interchange area management plans, expressway management plans, scenic byway plans, intersection plans, and safety corridor plans.

As defined in OAR 734-051-0010, an access management plan is a plan for a designated section of highway that identifies the location and type of approaches and necessary improvements to the state highway or local roads and that is intended to improve current conditions of the section of highway by moving in the direction of the access management spacing standards. An access management plan for an interchange is an access management plan developed to manage the influence area of an interchange. An access management strategy is a project delivery strategy that identifies the location and type of approaches and other necessary improvements to the highway and that is intended to improve current conditions of the section of highway by moving in the direction of the access management spacing standards

IGAs and MOUs

The Department and the local government may enter into an IGA or MOU at the commencement of the facility plan process that describes the anticipated planning and adoption process, outlines issues to be addressed, and serves as a statement of good faith to work through the process to a mutually agreeable conclusion. The purpose of the agreement

is to establish an understanding and not to commit either agency to a predetermined outcome of facility plan adoption. The agreement shall include a schedule for Department and local government implementation. The agreement, addressing general processes and explanations, is not a land use action. Local jurisdictions may choose to adopt the facility plan as an amendment to their TSP when the facility plan is complete, or they may choose to defer adoption until their next scheduled TSP or Regional Transportation Plan update. While the agreement is not mandatory, it is useful to clarify Department and local government expectations. The Department Region Planner leading the facility plan process shall determine whether an agreement will increase the effectiveness of the process before investing the time and resources to enter into one.

Facility Plan Development – Local Process

The table below identifies the major steps associated with the required public review process and the coordination with the Region Planner that needs to take place prior to the OTC adoption process.

Facility Plan Development – Local Process	
1	Develop facility plan draft work scope. DOJ review required.
2	Prepare draft facility plan. Provide copy to TDD for comments if TDD indicates interest. DOJ review required.
3	Submit request to be on Planning Commission and/or City Council agenda and notify affected agencies and stakeholders.
4	Hold the public hearing at local level and adopt the facility plan. Local governments identify any specific or general plan requirements which apply and determine whether the draft facility plan is compatible with the acknowledged TSP.
5	Prior to adoption by local government, some facility plans may need to go to the OTC for review and guidance (such as comment on or support of an alternative). Facility plan is reviewed by PBLT and coordinated with the Chief of Staff before OTC review.

Relationship to the OTP, SAC, and Transportation Planning Rule (TPR)

This procedure is framed around the relationship between the OTP, the SAC, and the TPR. It was developed using the definition of a facility plan in the SAC and definition of a refinement plan in the TPR.

The State TSP is comprised of the OTP, modal plans, and facility plans. The SAC and Oregon Revised Statutes (ORS) 184.618 require consideration of the following modal elements: aviation, highways, mass transit, pipelines, rail, waterways, and ports. The modal plans further develop policy guidance specific to their topic areas. Facility plans are the first level of refinement in the modal system plans. The term “facility plan” as used in this procedure is consistent with the definition of refinement plan in the TPR and facility plan in the SAC.

The TPR (OAR 660-012-0005) defines “*Refinement Plan*" as, *“an amendment to the transportation system plan, which resolves, at a systems level, determinations on function,*

mode or general location which were deferred during transportation system planning because detailed information needed to make those determinations could not reasonably be obtained during that process."

The SAC rule allows for both a major and minor amendment process that applies to any changes to facility plans or modal plans. The major amendment process for a facility plan is articulated in the SAC (OAR 731-15-065 (1) Coordination Procedures for Adopting Final Facility Plans). The process outlined in this procedure is for major amendments. Facility plans that are amending and/or implementing the OHP are considered major amendments. OAR 731-015-0055 provides direction on facility level issues that may be included in amendments to modal system plans (i.e. designating a new facility) as major amendments to those plans.

Minor amendments are considered technical adjustments as outlined in the delegated authority given to the Director. Delegation Order No. 2 was revised on June 13, 2001, to add the authority from the OTC to the Director to make technical corrections to the OHP (paragraph 4). The revision authorized the Director to add or remove designated portions of highway from the state highway system under limited circumstances and make these technical corrections to the OHP. The fourth paragraph of Delegation Order No. 2 states:

> *"The statutory duty of OTC to make technical corrections to the Oregon Highway Plan including, but not limited to, corrections to the highway designations and classifications."*

These technical corrections are declared not to be amendments under the coordination procedures of OAR 731-015-0005 *et seq.* However, the Department shall provide notice of the proposed corrections and provide the public an opportunity to review. This involvement may take the form of press releases, mailings, meetings, or other means that the Department determines are appropriate for the circumstances.

After the Director signs the order that makes the technical corrections to the OHP, the Director shall post the technical corrections in the Registry of Amendments on the Department website and maintain an official record of the action in the General Files of the Department.

Findings

Findings are written statements adopted by an agency to explain why a decision is made. They assure that the applicable legal standards have been addressed and show that the decision complies with the applicable law. The SAC (OAR 731-015-0075(7)) says that the Department shall make findings concerning compatibility with comprehensive plans. To be upheld on appeal to the Land Use Board of Appeals, the Department's findings shall be supported by substantial evidence in the whole record (evidence that a reasonable prudent person would rely on in reaching a decision). They can not be mere conclusions and generalizations and shall contain a sufficient statement of facts on which they are based. Findings shall establish a causal or other relationship between the basic facts and the conclusions of law and fact.

The findings for the OTC shall be complete and definitive in support of the OTC's action. Development of the findings includes showing compatibility with the OHP, OTP, and other

modal plan policies as appropriate. In addition, development of the findings includes extracting appropriate elements of the local findings and editing them as necessary to make them appropriate for the OTC action. Incorporation by reference is not appropriate. The level of detail of the findings may vary according to the complexity of the plan. The language shall be carefully worded, paying close attention to timing, tense, facts, and conclusion summaries.

From a process standpoint, the main change in the way we adopt facility plans is the content of the findings and the motion before the OTC. The OTC's motion language is slightly different if amending a facility plan. However, the type of action being approved does not change the public process, the determination as to whether or not the facility plan belongs on the regular or the consent agenda, or modify the packet that is prepared for the OTC. Some of the findings can be simplified for facility plans that are only implementing existing modal system plans.

Outreach

Before the OTC hearing occurs, there is a 45-day review period required by federal regulations and a minimum 30-day review period required by the SAC which includes providing copies of the recommended plan to stakeholders including the local governments, DLCD, other affected agencies, and freight interests. The 45-day and 30-day review periods can run concurrently. Notice to DLCD shall be directed to Robert Cortright, Transportation Planning Coordinator. At that time he shall receive a copy of the plan. Department Region staff shall include DLCD's comments in response to the plan in the OTC packet. If the Region has been working with the DLCD field representative, the representative shall be provided a courtesy copy of the notice and copy of the plan.

ACRONYMS

DLCD	Department of Land Conservation and Development
DOJ	Department of Justice
HFO	Highway Finance Office
IGA	Intergovernmental Agreement
MOU	Memorandum Of Understanding
OAR	Oregon Administrative Rules
OHP	Oregon Highway Plan
ORS	Oregon Revised Statutes
OTC	Oregon Transportation Commission
OTP	Oregon Transportation Plan
PBLT	Planning Business Line Team
SAC	State Agency Coordination Program
TDD	Transportation Development Division
TPR	Transportation Planning Rule
TSP	Transportation System Plan

Attachment B: Diagram of procedure steps

Note: Document requires 8-1/2 x 14 size paper

Attachment B

Facility Plan Adoption Procedure Diagram

September 25, 2006

Facility Plan Development – Local Process

1.
Develop facility plan draft work scope. DOJ review required.

2.
Prepare draft facility plan. Provide copy to TDD for comments if TDD indicates interest. DOJ review required.

3.
Submit request to be on Planning Commission and/or City Council agenda and notify affected agencies and stakeholders.

4.
Hold public hearing at local level & adopt the facility plan. Local governments identify any specific or general plan requirements which apply and determine whether the draft facility plan is compatible with the acknowledged TSP.

5.
Prior to adoption by local government, some facility plans may need to go to the OTC for review & guidance (such as comment on or support of an alternative). Facility plan is reviewed by PBLT and coordinated with Chief of Staff before OTC review.

OTC Adoption of Facility Plan

1.
With Region Manager support for the plan, inform PBLT of OTC agenda item at least 3 months prior to OTC meeting. Discuss with PBLT Team Leader and together determine if a presentation before PBLT is needed & decide on the adoption process. A draft of the proposed OTC action (motion) needs to be included. (This step shall occur before the local govt. approves the facility plan.) DOJ review of findings may be appropriate.

2.
PBLT and TDD staff recommendations are relayed to Exec staff via Region Planning Manager to help determine level of OTC participation, location on agenda & clarification of requested action. (If the facility plan includes a functional classification change, it needs to follow that procedure as well.)

3.
Comply with public review & public notice requirements. OTC hearing must occur after 45-day review period. 30-day SAC review can run concurrently. Notice includes key stakeholders such as DLCD. Plan findings must be included as part of the SAC notice requirements. Scheduling for OTC meeting can occur earlier. (See Attach. A – Outreach.) Follow HFO submittal schedule for getting on OTC agenda.

4.
Provide packets to HFO Coordinator for review at least one month prior to the OTC meeting.

5.
Determine number of facility plan packet copies needed to complete adoption process and produce copies if necessary. Packet includes cover memo, staff report, plan document, and SAC findings. (See OTC Adoption Procedure section.) Staff report must include appropriate motion language.

6.
Present locally adopted or approved facility plan at OTC meeting. OTC adopts facility plan as an amendment to a modal plan.

7.
Provide copies of final facility plan and findings to DLCD, affected agencies, TDD and others who request to receive a copy.

If facility plan involves other modes, then need to work with other Modal Plan Managers to coordinate access of the adopted facility plan.

8.
Work with OHP Plan Manager on updating OHP registry of amendments & providing access to the facility plan. *(See After OTC Adoption Process Section.)*

10. SAC Notice

Oregon
Theodore R. Kulongoski, Governor

Oregon Department of Transportation
73000
Program and Planning Unit
63034 O.B. Riley Rd
Bend, OR 97701

NOTICE OF INTENT TO ADOPT

45 DAY NOTICE

PROJECT TITLE: North Redmond US 97 Interchange Area Management Plan

NOTICE DATE: 31 January 2007

As required by Oregon Department of Transportation (ODOT) Administrative Procedure PLA 01 for the adoption of facility plans by the Oregon Transportation Commission (OTC), ODOT Region 4 Program and Planning Unit is hereby providing the required 45 days notice of the Departments' intent to take the North Redmond US 97 Interchange Area Management Plan for adoption by the OTC at their regular meeting scheduled for 22 March 2007. This notice is also intended to satisfy its requirement under the State Agency Coordination requirement *731-015-0065* of the required 30 day notice for adoption of a facility plan.

Enclosed with this notice is a copy of the draft North Redmond US 97 Interchange Area Management Plan. By this notice ODOT hereby requests that you identify any specific plan requirements which apply, any general plan requirements which apply and whether the draft North Redmond US 97 Interchange Area Management Plan is compatible with the acknowledged comprehensive plan.

If no reply is received from an affected city, county or metropolitan planning organization within 30 days of the Department's request for a compatibility determination, the Department shall deem that the draft plan is compatible with that jurisdiction's acknowledged comprehensive plan.

Please direct all correspondence to this notice to:

Ed Moore, AICP
Sr. Region Planner
Area 5, District 5
644 North "A" Street
Springfield, OR 97477
541.747.1354 (Voice)
541.726.2509 (Fax)
ed.w.moore@odot.state.or.us

11. OTC Findings

North Redmond US 97 Interchange Area Management Plan

Findings of Compliance with Existing Plans and Policies

Overview

Interchange Area Management Plan (IAMP) development involves close cooperation between ODOT and local government agencies. Management of the US 97 Redmond Reroute interchange at the north end of Redmond involves coordination between ODOT and the City of Redmond. State and federal policies and rules, as well as local policies and codes and a history of public involvement, play a key part in the development, adoption, and implementation of IAMPs. Policies and code language from local documents form a policy framework and serve as provisions to manage transportation and land use in the interchange influence area with the goals of protecting interchange function, providing for safe and efficient operations, and minimizing the need and expense for additional major improvements to the interchange through the 2025 planning horizon.

The review of state and local planning documents can be found in Appendix 1. Appendix 7 presents local policies and code provisions that effectively support management of the US 97 Redmond Reroute interchange.

The following sections summarize the analysis of how the proposed interchange complies with federal, state, and local plans, policies, goals, and regulations.

State Plans, Policies, and Regulations

Oregon Transportation Plan (2006)

The goal of the Oregon Transportation Plan (OTP) is to promote a safe, efficient, and convenient transportation system that improves livability and facilitates economic development for residents of the state. The OTP sets out seven goals with numerous policies and strategies to support their achievement. Many of these policies do not apply to the US 97 Redmond Reroute Interchange Project, but relate more to the establishment of regional transportation plans. Those elements that do apply are addressed below.

Goal 1 – Mobility and Accessibility

To enhance Oregon's quality of life and economic vitality by providing a balanced, efficient, cost effective and integrated multimodal transportation system that ensures appropriate access to all areas of the state, the nation and the world, with connectivity among modes and places.

Policy 1.1 – Development of an Integrated Multimodal System

Strategy 1.1.4 - *In developing transportation plans to respond to transportation needs, use the most cost-effective modes and solutions over the long term, considering changing conditions and based on the following:*

- *Managing the existing transportation system effectively.*
- *Improving the efficiency and operational capacity of existing transportation infrastructure and facilities by making minor improvements to the existing system.*
- *Adding capacity to the existing transportation system.*
- *Adding new facilities to the transportation system.*

Finding: The US 97 Redmond Reroute Interchange Project is identified in the Redmond Comprehensive Plan and the Redmond TSP as a means to address traffic congestion and safety problems that currently affect US 97.

Policy 1.3 – Relationship of Interurban and Urban Mobility

Strategy 1.3. - *In coordination with affected jurisdictions, develop and manage the transportation network so that local trips can be conducted primarily on the local system and the interstate and statewide facilities can primarily serve intercity movement and interconnect the systems. Develop, maintain and improve parallel roadways, freight rail, transit, bus rapid transit, commuter rail and light rail to provide alternatives to using intercity highways for local trips where possible.*

Finding: The IAMP contains a Local Connectivity Plan that identifies a local streets plan that will allow for access to local business and other activities so that ODOT can restrict access to US 97 and allow US 97 to operate as a through route. This will minimize local trips on the statewide facility to maintain and improve longer distance mobility.

Goal 2 - Management of the System - To improve the efficiency of the transportation system by optimizing the existing transportation infrastructure capacity with improved operations and management.

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.*

Strategy 2.1.2 - *Protect the integrity of statewide transportation corridors and facilities from encroachment by such means as managing access to state highways, limiting interchanges, creating safe rail crossings and controlling incompatible land use around airports, ports, pipelines and other intermodal passenger and freight facilities.*

Findings: The US 97 Redmond Reroute Interchange Project builds a new interchange as part of the US 97 Redmond Reroute that will eliminate direct access to commercial properties that currently have direct access to US 97. The IAMP contains an access

management plan that protects the integrity of US 97, a statewide transportation facility and the important long-term function of the new interchange. The US 97 Redmond Reroute Interchange Project will provide controlled access to US 97. As part of the US 97 Redmond Reroute project, access to US 97 will be restricted to right-in/right-out at Larch Ave, Hemlock Ave, and Antler Ave. (Turn movements controlled through the installation of a non-traversable center median), and signal controlled intersection of OR 126-Evergreen Ave and Highland/Glacier Couplet. These changes will improve safety along the highway and meet state access control guidelines. The plan additionally addresses the concerns for minimizing rail crossings while maintaining east-west access through Redmond.

Goal 3 - Economic Vitality - To promote the expansion and diversification of Oregon's economy through the efficient and effective movement of people, goods, services and information in a safe, energy-efficient and environmentally sound manner.

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.*

Finding: The IAMP provides for more efficient freight movement through the north end of the Redmond Reroute by reducing congestion, separating conflicting movements and limiting accesses to the statewide highway. As part of the reroute of trucks out of the Redmond downtown, the IAMP identifies the facilities and management mechanisms that will increase the efficiency of the freight system in this area.

Goal 5 – Safety and Security - To plan, build, operate and maintain the transportation system so that it is safe and secure.

> ***Strategy 5.1.3 -*** *Ensure that safety and security issues are addressed in planning, design, construction, operation and maintenance of new and existing transportation systems, facilities and assets.*

Findings: The new interchange is designed and will be constructed to enhance safety for the traveling public. Meeting design standards and applying management considerations for an expressway classification of facility through access controls will minimize the conflicts around the interchange.

Goal 7 - Coordination, Communication and Cooperation - To pursue coordination, communication and cooperation among transportation users, providers and those most affected by transportation activities to align interests, remove barriers and bring innovative solutions so the transportation system functions as one system.

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.

Findings: The IAMP was developed in partnership with affected property owners in the interchange area, the City of Redmond, Deschutes County and ODOT. Other stakeholders including interchange users were also included. The general public and local businesses within the study area were notified of public meetings regarding the plan and were provided opportunities to participate outside of the formal project committees.

Oregon Highway Plan (1999)

The 1999 Oregon Highway Plan (OHP) is a modal element of the 2006 OTP and defines policies and investment strategies for Oregon's state highway system over the next 20 years. The plan contains three elements: a vision element that describes the broad goal for how the highway system should look in 20 years; a policy element that contains goals, policies, and actions to be followed by state, regional, and local jurisdictions; and a system element that includes an analysis of needs, revenues, and performance measures.

The OHP is a modal element of the OTP. It addresses the following issues:

- Efficient management of the system to increase safety, preserve the system, and extend its capacity
- Increased partnerships, particularly with regional and local governments
- Links between land use and transportation
- Access management
- Links with other transportation modes
- Environmental and scenic resources

The OHP classifies US 97 as a Statewide highway and is incorporated as part of the National Highway System and as a designated freight route between the California and Washington borders.

The policy element contains several policies and actions that are relevant to the US 97 Redmond Reroute Interchange Project, described in the following subsections.

Policy 1A: State Highway Classification System

It is the policy of the state of Oregon to develop and apply the state highway classification system to guide ODOT priorities for system investment and management.

Action 1A.1 categorizes state highways for planning and management decisions. Under this policy, US 97 is classified as an Statewide Highway, which typically provides inter-urban and inter-regional mobility and provides connections to larger urban areas, ports, and major recreation areas that are not directly served by Interstate Highways. A secondary function is to provide connections for intra-urban and intra-regional trips.

The operational objective for Statewide Highways is to provide safe and efficient, high-speed, continuous-flow operation

Finding: The IAMP supports the US 97 Redmond Reroute Interchange Project and the existing highway classification and will enhance the ability of US 97 to serve its defined functions. Furthermore, by addressing capacity and safety issues, the IAMP will preserve the highway's ability to serve its defined function and support the operational objective for safe and efficient high-speed travel on US 97.

Policy 1B: Land Use and Transportation

This policy recognizes the role of both State and local governments related to the state highway system:

- ***State and local government must work together to provide safe and efficient roads for livability and economic viability for all citizens.***
- ***State and local government must share responsibility for the road system.***
- ***State and local government must work collaboratively in planning and decision-making relating to transportation system management.***

It is the policy of the State of Oregon to coordinate land use and transportation decisions to efficiently use public infrastructure investments to:

Action 1B.4 requires ODOT to work with local governments to develop plans and zoning regulations that are consistent with the Transportation Planning Rule and this policy.

Findings: ODOT has worked with the City of Redmond to develop and adopt a TSP that is consistent with state and local plans, goals and policies. The IAMP is a joint effort that is compatible with the city and county TSPs and comprehensive plans and therefore meet the direction of policy 1B.

Action 1B.6 *requires ODOT to protect the state highway function by working with local jurisdictions in developing land use and subdivision ordinances, specifically:*

- *A process for coordinated review of future land use decisions affecting transportation facilities, corridors or sites;*
- *A process to apply conditions to development proposals in order to minimize impacts and protect transportation facilities, corridors or sites;*
- *Regulations assuring that amendments to land use designations, densities and design standards are consistent with the functions, capacities and highway mobility standards of facilities identified in transportation system plans including the Oregon Highway Plan and adopted highway corridor plans;*

- *Refinement of zoning and permitted and conditional uses to reflect the effects of various uses on traffic generation;*
- *Standards to protect future operation of state highways and other roads; and*
- *Access control measures, for example, driveway and public road spacing, median control and signal spacing standards which are consistent with the functional classification of roads and consistent with limiting development on rural lands to rural uses and densities.*

Finding: The IAMP specifies that as land develops to urban densities within the interchange area, compliance with the IAMP will be required with the access management and circulation plans associated with development. In conjunction with the adoption of the IAMP, a number of amendments will be made to the City of Redmond Comprehensive Plan, Transportation System Plan and development codes to reflect the amendments contained in Appendix 7 and actions outlined in the Memorandum of Understanding in Appendix 8.

Action 1B.8 *directs ODOT to work with local governments to maintain the highway mobility standards on state highways by creating effective development practices through the following means:*

- *Develop an adequate local network of arterials, collectors and local streets to limit the use of the state highway or interchanges for local trips;*

- *Reduce access to the state highway by use of shared accesses, access from side or back roads and frontage roads, and by development of local street networks as redevelopment along state highways occurs;*

- *Cluster development in compact development patterns off of state highways;*

- *Develop comprehensive plan, zoning and site plan review provisions that address highway mobility standards; and*

- *Avoid the expansion of urban growth boundaries along Interstate and Statewide Highways and around interchanges unless ODOT and the appropriate local governments agree to an interchange management plan to protect interchange operation or an access management plan for segments along non-freeway highways.*

Findings*:* The IAMP includes a Local Connectivity Plan that provides for improved circulation in the area around the interchange and facilitate the implementation of the IAMP access management plan that will ultimately eliminate direct access to US 97 from private approaches. Accesses will be removed from the state highway when the local roads are constructed.

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.

***Action 1C.*3** requires ODOT to treat designated freight routes as Expressways where the routes are outside of urban growth boundaries and unincorporated communities. 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.

Finding: US 97 is a part of the statewide freight system. From north of Madras to the Redmond UGB, Milepost 119.98, US 97 is designated as an Expressway. The IAMP recommends, as a separate action by the OTC, that US 97 be re-designated from Urban to an Expressway from Milepost 119.98 to the point where the US 97 Reroute connects back to its original alignment (approximately Milepost 121.66). The US 97 Redmond Reroute and Interchange Project will build a new interchange from the US 97 Reroute mainline to the local arterial road system and be managed as an Expressway. The interchange was designed to meet the demand of vehicles accessing US 97 at this location, including commercial vehicles.

Policy 1F: Highway Mobility Standards

It is the policy of the State of Oregon to use highway mobility standards to maintain acceptable and reliable levels of mobility on the state highway system. These standards shall be used for:

- ***Identifying state highway mobility performance expectations for planning and plan implementation;***
- ***Evaluating the impacts on state highways of amendments to transportation plans, acknowledged comprehensive plans and land use regulations pursuant to the Transportation Planning Rule (OAR 660-12-060); and***
- ***Guiding operations decisions such as managing access and traffic control systems to maintain acceptable highway performance.***

Action 1F.1 requires that highways operate at a certain level of mobility, depending on their location and classification. Part of this action requires that interchanges on Statewide Highways and Freight Routes be managed to maintain safe and efficient operation of the highway through the interchange area. The OHP directs that the maximum volume-to-capacity (V/C) ratio for the ramp terminals of interchange ramps be the smaller of the values of the V/C ratio for the crossroad or 0.85.

Finding: US 97 within the project area and the ramp termini of the proposed project will meet or exceed the OHP and HDM V/C ratio standards. For more detail on V/C ratios, see Chapter 4.

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 *directs agencies to make the fewest number of structural changes to a roadway system to address its identified needs and deficiencies through the 20-year planning horizon, and to protect the existing highway system before adding new facilities to it. The action ranks four priorities of projects, as follows:*

- *Preserving the functionality of the existing system;*
- *Making minor improvements to improve the efficiency and capacity of the existing system;*
- *Adding capacity to the existing system; and finally*
- *Building new transportation facilities.*

Finding: As described below, the US 97 Redmond Reroute Interchange Project falls under the last priority. The project is needed as part of the US 97 Redmond Reroute to achieve adopted OHP mobility standards on US 97 based on forecast growth in traffic. Without the improvement, US 97 would not meet the OHP mobility standard.

Action 1G.2 requires that major improvement projects to state highway facilities go through a planning process that involves coordination between state, regional, and local stakeholders and the public, and that there is substantial support for the proposed improvement.

Finding*:* The US 97 Redmond Reroute Interchange Project includes a local contribution of $11,400,000 and a federal earmark of $12,180,000 which clearly demonstrate regional and local support for the project.

Action 1G.3 encourages the use of an intergovernmental agreement to implement a cost-sharing agreement when a project has major benefits to the local system, especially when local sponsors of the project envision purposes beyond those needed to meet state transportation objectives.

Finding: ODOT and the City of Redmond have entered into a Memorandum of Understanding (MOU) to establish their agreement on long-term transportation and land use issues in regard to the US 97 Reroute. It identifies the shared responsibilities for the provision of state and local roads that are necessary to carry out the management plan for the interchange area.

Action 1G.4 requires that major improvements be designed for limited access to protect through traffic movements. Develop and implement an access management

intergovernmental agreement and require the local jurisdiction to adopt supporting actions in the local comprehensive plan.

Finding: The IAMP contains an access management plan that protects the through traffic movement by eliminating all accesses to US 97 during the planning horizon. ODOT and the City of Redmond entered into a MOU that makes joint commitment to the plan and requires the city to make changes to their comprehensive plan and ordinances to implement the plan.

Action 1G.5 directs the state to negotiate an intergovernmental agreement with the local jurisdiction affected by a major improvement such as a bypass and transfer the ownership of the state routes that are bypassed to the local jurisdiction at the completion of the project.

Finding: The Memorandum of Understanding between ODOT and the City of Redmond regarding the US 97 Reroute stipulates that when the new highway is constructed the responsibility for the preexisting section of US 97 between MP119 and 121.79 will transfer to the city.

Policy 2D: Public Involvement

It is the policy of the State of Oregon to ensure that citizens, businesses, regional and local governments, state agencies, and tribal governments have opportunities to have input into decisions regarding proposed policies, plans, programs, and improvement projects that affect the state highway system.

Action 2D.1 requires that an effective public involvement program be conducted as part of improvement projects that create opportunities for citizens, businesses, regional and local governments, and state agencies to comment on proposed policies, plans, programs, and improvement projects.

Finding: The IAMP was developed in partnership with affected property owners in the interchange area, the City of Redmond, Deschutes County, and ODOT and other stakeholders, including interchange users. The general public and any interested local business operations within the study area were notified of public meetings related to the IAMP and they were provided opportunities to participate.

Policy 3A: Classification and Spacing Standards

It is the policy of the State of Oregon to manage the location, spacing and type of road and street intersections and approach roads on state highways to assure the safe and efficient operation of state highways consistent with the classification of the highways.

Action 3A.1 directs access management along state highways based on access management guidelines.

Finding*:* US 97 is classified as an statewide highway, and the proposed project complies with adopted policies in the OHP and OAR 734.0051. An access management plan (AMP) was developed as part of the IAMP. The AMP is implemented through the design of the US 97 Reroute and locally adopted plans and development regulations. The Access and circulation issues are addressed in detail in the IAMP.

Action 3A.2 relates to establishing spacing standards on state highways. The spacing standard for non-interstate interchanges is 3 miles in rural areas and 1.9 mile in urban areas. For other private (driveway) and/or public (street) approaches, the spacing standard is 990 and 1320 feet respectively

Finding: The US 97 Redmond Reroute Interchange Project complies with ODOT and the FHWA minimum spacing standards. Deviations have been approved as part of the Short-Term action items. There is no existing or planned interchange within one mile of the US 97 Redmond Reroute Interchange Project. See Chapter 5 of the IAMP for the AMP. All Deviations have been approved by the Engineer of Record (EOR).

Policy 3B: Medians

It is the policy of the State of Oregon to plan for and manage the placement of medians and the location of median openings on state highways to enhance the efficiency and safety of the highways, and influence and support land use development patterns that are consistent with approved transportation system plans.

Action 3B.2 requires the design and construction of non-traversable medians for all new multi-lane highways constructed on completely new alignment;

Finding: A non-traversable median will be constructed as part of the US 97 Reroute project for the entire length of the project. Breaks in the median will only occur at signalized intersection on the Reroute.

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.

Action 3C.1 requires that an IAMP be developed to protect the function of interchanges and provide safe and efficient operations between connecting roadways.

Finding: The US 97 Redmond Reroute IAMP was developed for the project. The intent of the IAMP is to manage the facility and adjacent land use to protect the function of the interchange to ensure safe and efficient operations between US 97 and North Canal Blvd. and NW 6th Street (Business 97). An access management plan is included as an integral component of the IAMP.

Action 3C.2 addresses spacing, access, and other supporting requirements for an interchange improvement project.

Finding: The requirements of this policy are discussed below:

Necessary supporting improvements such as road networks, channelization, medians, and access control in the interchange management area must be identified in the local comprehensive plan and committed with an identified funding source or must be in place. The Redmond Comprehensive Plan, TSP, Development Code and Public Improvement Standards, commit to a network of future local road improvements that have been demonstrated to reduce demand for state highway travel in the interchange management area. These facilities will largely be constructed as a requirement of new development. The proposed US 97 Redmond Interchange project does include channelization, medians and access control as described in the IAMP.

ODOT's minimum spacing standards require that full access to cross streets be no closer than 1,320 feet from an interchange ramp when possible.

Quince Avenue

The nearest full access cross streets to the US 97 Redmond interchange are Quince Avenue approximately 1,000 feet to the south on NW 6th Street and King Way approximately 600 feet to the north. While Quince Avenue exist today as a "T" intersection and is closer to the US 97 ramps than called for by the ODOT spacing standards, not allowing Quince Avenue in order to meet ODOT spacing standards would negatively affect land use and traffic operations. The Quince Avenue connection is essential to maintain local access and total transportation system circulation in the area. Quince Ave is called to be a "Four-Legged" intersection in the TSP.

King Way

King Way connects to North Canal Boulevard in the immediate area of the interchange. In conjunction with the construction of the interchange, North Canal Boulevard will be relocated to connect with NW 6th Street at the US 97 Reroute interchange. As a result, King way will be relocated to the north to connect with North Canal Boulevard. While King Way will be closer to the US 97 ramps than called for by the ODOT spacing standards, not allowing the connection of King Way in order to meet ODOT spacing standards would negatively affect land use and traffic operations. In the long-term, the Local Connectivity Plan developed as part of the IAMP will have this connection closed and King Way relocated north 1,320 feet to the future location of a signalized intersection.

Larch Avenue

The US 97 Reroute Project has incorporated a US 97 southbound right-in/right-out at Larch Avenue. Larch Avenue is located approximate 3600 feet from the end of the US 97

southbound on-ramp. While Larch Avenue will be closer to the US 97 ramps than called for by the ODOT spacing standards, not allowing the connection of Larch Avenue in order to meet ODOT spacing standards would negatively affect land use and traffic operations. In the near-term, the Larch Avenue connection will not cause the operation of US 97 or the interchange to not meet adopted ODOT mobility standards. To ensure that the Larch Avenue connection does not negatively affect the operation of US 97 or the interchange, an operational review will be conducted annually by ODOT and the City of Redmond. At such time as the Larch Avenue connection does not meet ODOT mobility standards, either improvements will be made to the local street system to bring the Larch Avenue connection into compliance with ODOT standards, or the Larch Avenue connection to US 97 will be closed.

While these access locations do not meet the full spacing standards, they do improve on the current condition, will operate adequately, and have been approved through a deviation by the EOR. This IAMP and supporting traffic analysis serve as the documentation to support the deviations from the ODOT spacing standards required for these connections.

Road Classification

The US 97 Redmond interchange connects a Statewide Highway with a major arterial road, NW 6th Street (formerly US 97), which complies with the request that statewide highways connect with state highways, or major or minor arterials.

Alternative Transportation Modes

The US 97 Redmond Interchange Project will create bicycle lanes and sidewalks on both sides to facilitate bicycle and pedestrian movement.

Policy 4A: Efficiency of Freight Movement

It is the policy of the State of Oregon to maintain and improve the efficiency of freight movement on the state highway system and access to intermodal connections. The State shall seek to balance the needs of long distance and through freight movements with local transportation needs on highway facilities in both urban areas and rural communities.

Policy 4B, Action 4B.4

Action 4B.4 requires that highway projects encourage the use of alternative passenger modes to reduce local trips.

Finding: The US 97 Redmond Interchange Project that relates to NW 6th Street would add one bicycle lane and 6-foot sidewalks on both sides of the roadway, where bicycle and pedestrian facilities do not exist today.

Oregon's Statewide Planning Goals

The State of Oregon has established 19 statewide planning goals to guide local and regional land use planning. The goals express the state's policies on land use and related topics. The Oregon Department of Land Conservation and Development (DLCD) has acknowledged that the Redmond Comprehensive Plan is in compliance with the statewide planning goals. Because the US 97 Redmond Reroute Interchange Project is consistent with the City comprehensive plans (as discussed in the Local Plans, Policies, and Codes subsection below), the project is thus consistent with the statewide planning goals. No exceptions to statewide planning goals are needed.

Transportation Planning Rule

The Transportation Planning Rule (TPR) implements Oregon Statewide Planning Goal 12, which encourages construction of transportation facilities that are safe and efficient and designed to reduce automobile reliance. The objective of the TPR is to reduce air pollution, congestion, and other livability problems found in urban areas. Its relation to the proposed interchange project is described in the following subsections.

660-012-0010—Transportation Planning

Section 660-012-0010 discusses the two phases of transportation planning: transportation system planning, where land use controls are established, and transportation project development, where specific projects are designed to implement the TSP.

Finding: The construction of the US 97 Redmond interchange is recommended in the 2000 Redmond TSP.

660-012-0035 – Evaluation and Selection of Transportation System Alternatives

Section 660-012-0035 describes standards and alternatives available to entities weighing and selecting transportation projects, including benefits to different modes, land use alternatives, and environmental and economic impacts.

Finding: The primary users of the US 97 Redmond Reroute interchange are personal and commercial vehicles. The objective of the proposed project is to improve mobility and safety. A portion of this project would be constructing a new North Canal Blvd. to connect with NW 6th Street and adding bicycle and pedestrian facilities where currently there are none.

660-012-0050—Transportation Project Development

Section 660-012-0050 prescribes that transportation projects be reviewed for compliance with local and regional plans and, where applicable, undergo a NEPA process.

Finding: The EA prepared for the US 97 Reroute documents how the proposed project complies with applicable acknowledged comprehensive plan policies and land use regulations.

ODOT Access Management Rules OAR 734-051

The intention of ODOT's Access Management Rule is to balance the safety and mobility needs of travelers along state highways with the access needs of property and business owners. ODOT's rule sets guidelines for managing access to the state's highway facilities in order to maintain highway function, operations, safety, and the preservation of public investment consistent with the policies of the 1999 OHP.

Finding: This OAR is relevant to the US 97 Redmond Reroute Interchange Project because the project proposes to consolidating approaches to improve safety and mobility along the US 97 corridor. In Appendix D of the OHP, US 97 is classified as a Statewide Highway. As described in the IAMP, all intersections within the area will meet the level of service standards specified in the OHP except for the intersection of US 97 and Larch Avenue. This intersection is projected to fail by the year 2020. As this intersection is planned for limited right-in/right-out movements only, there is little that can be done to mitigate operations. ODOT and the city have committed in the plan to close Larch Avenue if safety and operational problems develop as part of the annual review process outlined in the adopted MOU for the Redmond Reroute (Appendix 8).

734-051-0115, Access Management Spacing Standards for Approaches

Section 734-051-0115 states that access management spacing standards depend on highway classification, type of area, and posted speed, and are to be applied to reconstruction as well as new construction projects.

Finding: The proposed project includes widening North Canal Blvd from roughly 750 feet north of US 97 Redmond Reroute interchange ramp terminals, and south to NW 6th Street, a stretch of roughly 0.45-mile. The project will close or consolidate access from more than 6 businesses to the state highway. Deviations to the access management spacing standards are being requested as part of the project. Section 734-051-0115 allows deviations in cases where a right of access exists, the designated access management standards cannot be accomplished, and where the property(ies) do not have reasonable access. The proposed access management spacing deviation locations at Larch Avenue (right-in, right-out only) and Kings Way, are in areas where development has largely occurred, have proposed modifications to close access, and provide the only reasonable access for many adjacent properties to the public street system.

734-051-0125, Interchange Access Management Area Spacing Standards for Approaches

Section 734-051-0125 calls for a plan to be developed for the management of grade-separated interchange areas to ensure safe and efficient operation between connecting roadways.

Finding: This IAMP addresses access management for the area of the US 97 Redmond Reroute interchange that will provide for improved operations that meet OHP and HDM mobility standards, the proposed interchange and access management elements ensure the safe and efficient operation between the highway and connecting local streets.

734-051-0155, Access Management Plans, Access Management Plans for Interchanges and Interchange Area Management Plans

Section 734-051-0155 encourages the development of highway segment access management plans and interchange area management plans, especially for facilities with high traffic volumes and/or that provide important statewide or regional connectivity, and have the following characteristics: where existing developments do not meet spacing standards, existing development patterns and plans would result in a deviation request, or an access management plan would preserve or enhance the safe and efficient operation of a state highway.

Finding: An access management plan and strategy were developed as part of the IAMP, as part of the US 97 Redmond Reroute and Interchange construction project and addresses this provision of Division 51.

734-051-0165, Design of Approaches

Section 734-051-0165 stipulates access control measures related to the construction or improvement of roads and/or interchanges. In accordance with 734-051-0165, approaches may be mitigated, modified, or closed pursuant to an adopted access management plan or IAMP.

Finding: The proposed plan identifies roughly 17 driveways along the US 97 corridor, North Canal Blvd, and NW 6th Street that will be either closed or consolidated. The plan calls for closing driveways where multiple driveways exist and, where possible, combining driveways to serve multiple businesses. Three accesses would be modified from full access to right-in, right-out only.

A right-in/right-out approach to Larch Street is not consistent with established access management standards. A deviation to authorize this project with lesser spacing is described in this IAMP and has been approved by the Engineer of Record.

State Agency Coordination Program (December 1990) (OAR 731-0015)

State agency coordination programs describe what agencies will do to comply with Oregon's land use planning program. Specifically, they describe how an agency (that is, ODOT) will meet its obligations under ORS 197.180 to carry out its programs affecting land use in compliance with the statewide planning goals and in a manner compatible with acknowledged comprehensive plans. Any needed local agency coordination not already accomplished or underway would occur before or as part of final project design.

The ODOT State Agency Coordination Rule (OAR 731-0015) required the Oregon Transportation Commission to adopt IAMPs as part of and consistent with the adopted policies and direction of the state TSP. These plans must comply with the Statewide Planning Goals and be compatible with local government comprehensive plans.

Finding: The City of Redmond has determined that the IAMP will be consistent with its comprehensive plans with adoption of amendments to existing plans as described in an MOU with ODOT (Appendix 8) and thereby establishing compliance with the statewide planning goals. The IAMP will be adopted as part of the state TSP. The review of the proposed alternatives with local plans and documented herein meets the stipulations of the state agency coordination program.

Freight Moves the Oregon Economy (1999)

As indicated in this publication, "Freight plays a major role in moving the Oregon economy. Most freight moves by truck, rail, waterway, air, and pipeline with truck accounting for the greatest volume of freight."

Finding: By constructing the US 97 Redmond Reroute Interchange to better serve truck and freight traffic (both geometrically and operationally), the US 97 Redmond Reroute interchange is consistent with proposed strategies in this document to reduce delay and eliminate travel barriers. The IAMP is consistent with this plan because it seeks to accommodate the safe and efficient movement of freight.

Local Plans, Policies, and Ordinances

City of Redmond Transportation System Plan (updated 2001)

The Redmond TSP identifies transportation needs to support planned land uses in the city over a 20-year time horizon as defined by the 2000 Redmond Comprehensive Plan. The TSP was created in accordance with the TPR (Oregon Administrative Rule [OAR] 660-012-045) and the Comprehensive Land Use Planning Statute (Oregon Revised Statutes [ORS] 197.712).

Finding: The Redmond TSP identifies the US 97 Redmond Reroute and Interchange Project as the preferred alternative for accommodating through traffic in Redmond. The City of Redmond will be incorporating into their on-going TSP update the required

amendments identified in the IAMP which included a Traffic Signal Plan (Figure 5.3), a Local Street Connectivity Plan (Figure 5.4), and an Access Spacing Standards for NW 6th Street (Business 97) and North Canal Boulevard. The City of Redmond will also be incorporating into their TSP update the local facility improvements identified in the IAMP needed to protect the interchange through the plan period.

City of Redmond Comprehensive Plan (1978, amendments through 2005)

The City of Redmond Comprehensive Plan, which is currently being updated, acts as a guide for future growth and development within the urban area using a framework of goals and policies that respond to current needs and conditions in addition to guiding future City programs, major capital projects, and other funding decisions through the year 2020. The updated plan will extend this period through 2025.

The Comprehensive Plan goals, policies were designed for implementation through the Redmond Urban Area Transportation Plan addressing transportation system management, treatment of state highways, and development of local street systems, street design, and other transportation elements.

Finding: The City of Redmond will be incorporating into their comprehensive plan the required amendments identified in the IAMP which included the requirement that master plans be consistent with the Local Street Connectivity Plan (Figure 5.4), that property annexed to the city must relinquish all direct access rights to the highway, and incorporate the IAMP access management strategy for NW 6th Street (Business 97) and North Canal Boulevard.

Redmond Development Code

These regulations have been adopted for the purpose of promoting the health, safety, peace, comfort, convenience, economic well-being, and general welfare and to carry out the City of Redmond Comprehensive Plan and Statewide Planning Goals. They are intended to promote an orderly use of land within the city to avoid detrimental effects to other land uses and City facilities. Article III of the Development Regulations includes standards for subdividing and partitioning land within the city. These include regulations pertaining to the location and design of future streets, procedures for street dedications, and requirements for the sizes, shapes, and orientation of individual lots.

Article III of the Development Regulations includes standards for subdividing and partitioning land within the city. These include regulations pertaining to the location and design of future streets, procedures for street dedications, and requirements for the sizes, shapes, and orientation of individual lots.

Finding: The City of Redmond will be incorporating into their development regulations the required amendments identified in the IAMP which included the requirement that master plans show direct access to local streets, not the State highway, be consistent with the Local Street Connectivity Plan (Figure 5.4), and property going through the master

planning process relinquish all direct access rights to the highway, US 97. Redmond will also be amending their development regulations to adopt access management standards for 6th Street (Business 97) and North Canal Boulevard consistent with the OHP classification for “Statewide” and “District” highways in urban areas (See Appendix 7 and 8).