Date: November 8, 2010
To: Mark Willrett, City of Klamath Falls
     Stan Strickland, Klamath County
cc: Project Management Team, Technical Advisory Committee,
     Citizens Advisory Committee
From: Cathy Corliss, Darci Rudzinski, and Becky Dann
Re: Klamath Falls Urban Area Transportation System Plan Update
     Draft Technical Memorandum #1: Plans and Policy Review

I. Introduction

This memorandum provides an overview of federal, state, regional, and local documents that comprise the policy framework for transportation planning in the Klamath Falls Urban Area. Although each document reviewed contains many policies, only the policies and information most pertinent to the Klamath Falls Urban Area Transportation System Plan (TSP) Update are included to help focus this work. The information in this memorandum is meant to provide a framework for this planning process. New policies considered for inclusion in the updated Draft TSP should be consistent with the currently adopted policies reviewed here.

Section II of this memorandum is an assessment of how adopted City and County plans and ordinances meet the Transportation Planning Rule (TPR) OAR 660, Division 12. Table 1 in this section serves as the basis for identifying City and County polices or requirements that may be out-of-date or inconsistent with each other. This table reviews the requirements of TPR Section -0045, Implementation of the Transportation System Plan, lists the applicable implementation elements of the TPR, and demonstrates where the adopted City or County regulations comply and where amendments to code language are needed to comply with the TPR.

Section III provides summaries of regulatory documents that contain information pertinent to the development and adoption of an updated TSP for the City Klamath Falls and Klamath County. State documents and requirements were reviewed for applicability to transportation planning within the Klamath Falls Urban Growth Boundary (UGB). Regional planning documents that contain policies or regulations with potential impacts to the City and County’s transportation system are also reviewed. In the final subsection of this memorandum, the City and County’s adopted land use and transportation policies and regulations are summarized.

The following documents are reviewed in Section III for policies and regulations applicable to the City and County’s transportation planning and resulting TSP Update. The page number where each document's review begins in this memorandum is included for quick reference in the following list.
STATE OF OREGON

Transportation System Planning Guidelines (2008) 27
Oregon Transportation Plan (2006) 28
Oregon Highway Plan (1999, last amended 2006) 29
Oregon Bicycle and Pedestrian Plan (1995) 38
Oregon Rail Plan (2001) 39
Oregon Public Transportation Plan (1997) 40
Access Management Rule (OAR 734-051) 41
Freight Moves the Oregon Economy (1999) 41
Oregon Aviation Plan (2000) 41
State Transportation Improvement Program (2000-present) 42

REGIONAL AND COUNTY PLANS

Klamath County Comprehensive Plan (2010) 44
Klamath County Rural Transportation System Plan (2010) 46
Klamath County Land Development Code 50
Basin Transit Service Transit Development Plan (1995) 51
Klamath Falls Urban Area Economic Opportunity Analysis (2009) 54

LOCAL PLANS AND ORDINANCES

City of Klamath Falls Comprehensive Plan (1981) 57
Klamath Falls Urban Area Transportation System Plan (1998) 58
Klamath Falls West Side Refinement Plan (2006) 60
Orindale/Balsam Sub-Area Transportation Master Plan (2007) 60
Campus Area Sub-Area Master Plan (2008) 62
Klamath Falls Community Development Ordinance 64
Basin View Planned Unit Development Standards (1990) 65
Klamath Falls, Oregon Parks Master Plan (1998) 65
Klamath Falls Airport Master Plan (2005) 67
2020 Klamath Vision (2010) 68
II. TRANSPORTATION PLANNING RULE COMPLIANCE

Statewide Planning Goal 12, Transportation, requires cities, counties, metropolitan planning organizations, and ODOT to provide and encourage a safe, convenient, and economic transportation system. This is accomplished through development of Transportation System Plans (TSPs) based on inventories of local, regional and state transportation needs. The Transportation Planning Rule (TPR) implements the state’s transportation policies and requires all jurisdictions to complete a transportation system plan (TSP), including local policies and ordinances to implement that plan. Klamath Falls Urban Area TSP was adopted in 1998. The City and County are updating the TSP to accurately reflect the current transportation system and plan for Klamath Falls UGB’s future transportation needs. The goal of the update is to establish a set of land use and transportation measures and plans that incorporate recent and planned state and local transportation investments and to reflect the existing population and expected future growth. Specifically, amendments to the TSP will address new development and plans for development within the City’s Urban Growth Boundary (UGB).

The City’s adopted Community Development Ordinance (CDO) implements transportation policy within city limits and is the principal focus of the following TPR compliance assessment. The County’s adopted Land Development Code (LDC) implements transportation policy in the county, including areas within the City’s Urban Growth Boundary (UGB), but outside of the city limits. A similar compliance review has been conducted for County ordinances. The tables below list TPR implementation requirements, related existing code language, and, where relevant, TSP and other regulatory provisions that address the requirements. Table 1 reviews City compliance with the TPR; Table 2 contains the County review. These tables include recommendations for changes to the CDO and LDC that will likely be needed to fully implement the updated TSP for the Klamath Falls Urban Area and bring City and County regulations into compliance with the TPR. Recommended changes to local regulatory documents, indicated in bold text, are intended to provide guidance to project staff during the update of the TSP. Proposed amendments to the CDO and LDC will be drafted during the planning process and become implementation recommendations for inclusion in the draft TSP.1

The applicable portion of the TPR is found in OAR Section 660-12-0045, Implementation of the Transportation System Plan. In summary, the Transportation Planning Rule requires that local governments revise their land use regulations to implement the TSP. The following TPR requirements are paraphrased from Section -0045:

- Amend land use regulations to reflect and implement the Transportation System Plan.
- Adopt land use or subdivision ordinance measures, consistent with applicable federal and state requirements, to protect transportation facilities, corridors and sites for their identified functions, to include the following topics:
  - access management and control;
  - protection of public use airports;

1 Draft implementation language will be prepared as part of Task 6: Draft TSP and Implementing Ordinances (WOC #7 under PA #27456), which will include proposed text amendments to the Community Development Ordinance that will implement the updated TSP and address TPR compliance.
- coordinated review of land use decisions potentially affecting transportation facilities;
- conditions to minimize development impacts to transportation facilities;
- regulations to provide notice to public agencies providing transportation facilities and services of land use applications that potentially affect transportation facilities;
- regulations assuring that amendments to land use applications, densities, and design standards are consistent with the Transportation System Plan.

☐ Adopt land use or subdivision regulations for urban areas and rural communities to provide safe and convenient pedestrian and bicycle circulation and bicycle parking, and to ensure that new development provides on-site streets and accessways that provide reasonably direct routes for pedestrian and bicycle travel.

☐ In MPO areas, adopt land use and subdivision regulations to reduce reliance on the automobile.

☐ Identify improvements to facilitate bicycle and pedestrian trips in developed areas.

☐ Establish street standards that minimize pavement width and total right-of-way.

<table>
<thead>
<tr>
<th>TPR Requirement (OAR Section 660-12-0045)</th>
<th>Ordinance Compliance/Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Each local government shall amend its land use regulations to implement the TSP.</td>
<td>The table in CDO Section 12.005, Uses Permitted by Zone, does not specifically list transportation-related improvements as a permitted use. <strong>Recommendations:</strong> The CDO should be amended to allow transportation improvements in all zones, provided that the proposed improvements implement the transportation system plan and/or can be shown to be consistent with adopted policy. In contemplating this change to the permitted use table, the City should also consider if there is a need to differentiate between the types of street improvements allowed outright and those that will be permitted conditionally (e.g., surfaced travel lanes, curbs, gutters, drainage ditches, sidewalks, transit stops, landscaping and related structures and facilities located within rights-of-ways controlled by a public agency; expansion, widening or adding improvements within the right-of-way.)</td>
</tr>
</tbody>
</table>
Table 1. TPR Requirements and City of Klamath Falls Compliance

<table>
<thead>
<tr>
<th>TPR Requirement (OAR Section 660-12-0045)</th>
<th>Ordinance Compliance/Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>(c) Where a transportation facility, service or improvement is determined to have a significant impact on land use or requires interpretation or the exercise of factual, policy or legal judgment regarding the application of a comprehensive plan or land use regulation, the local government shall provide a review and approval process that is consistent with 660-012-0050 (Transportation Project Development). Local governments shall amend regulations to provide for consolidated review of land use decisions required to permit a transportation project.</td>
<td>TPR Section -0050 addresses project development and implementation - how a transportation facility or improvement authorized in a TSP is designed and constructed. Project development may or may not require land use decision-making. The TPR directs that during project development, projects authorized in an acknowledged TSP will not be subject to further justification with regard to their need, mode, function, or general location. Through the update project, the Klamath Falls Urban Area TSP will make decisions about transportation need, mode, function and general location for facilities or improvement as required by the TPR. Project development may involve land use decision-making to the extent that determining compliance with applicable local requirements involves policy or legal interpretations. Examples include regulations protecting or regulating development within floodways and other hazard areas, identified Goal 5 resource areas, and local regulations establishing land use standards or processes for selecting specific alignments. A local review and approval process that is consistent with this TPR requirement needs to include public notice and hearing requirements where transportation projects involve land use decision-making. The local approval process needs to include notice to affected transportation facility and service providers, MPOs, and ODOT. Chapter 10, General Provisions, of the CDO includes Section 10.815, Agency Involvement. This Section allows, but does not require, the City to refer any application to the appropriate local, state, and federal agencies for their review and comment. For applications that require a transportation impact study (TIS), which includes proposals for sites that directly access a state highway, submittal of the TIS to ODOT is required (Section 14.050) [City to verify citation]. CDO Section 10.535, Concurrent Applications, allows multiple land use requests to be processed concurrently, a provision that indicates that the local process required to permit a transportation project will be streamlined. The 1998 TSP also documents the coordinated review procedures outlined in Section 9 of the Urban Growth Management Agreement (1981) between the City and the County (See TSP Appendix G). This document establishes procedures between the two jurisdictions for land use actions</td>
</tr>
</tbody>
</table>
### Table 1. TPR Requirements and City of Klamath Falls Compliance

<table>
<thead>
<tr>
<th>TPR Requirement (OAR Section 660-12-0045)</th>
<th>Ordinance Compliance/Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>on land outside city limits but within the UGB. The UGMA also states that the City and County will cooperatively develop standards for these areas, including those for roads so that they will be compatible with City street alignments and extensions (Section 7 of the UGMA).</td>
<td></td>
</tr>
<tr>
<td><strong>Recommendations:</strong> Section 10.815 should be amended to state that agencies will be notified of applications that may have an impact on their facilities. This section could also indicate what types of agencies (ODOT, DEQ, etc.) and could be expanded to include special districts (e.g. Basin Transit).</td>
<td></td>
</tr>
<tr>
<td>The CDO does not contain specific requirements for notice to ODOT for applicable land use applications. Section 10.610, Notice of Hearing, could include provisions to notice ODOT when a proposal may impact state facilities. For example, under current requirements the City would not be required to notify ODOT of a proposal to modify a land use designation. Proposals that allow more intensive development and are in the vicinity of a State facility, but may not take direct access onto a highway (thereby triggering a traffic impact study and ODOT notice), may still have potential or projected impacts that are of interest to ODOT.</td>
<td></td>
</tr>
<tr>
<td>(2) Local governments shall adopt land use or subdivision ordinance regulations, consistent with applicable federal and state requirements, to protect transportation facilities for their identified functions.</td>
<td></td>
</tr>
<tr>
<td>CDO Chapter 14, Private Site and Public Facility Standards, contains access control standards. Section 14.050 Access and Driveways specifies the minimum spacing requirements for access (public or private) on highways (based on category) and arterial streets.</td>
<td></td>
</tr>
<tr>
<td>The 1998 TSP’s Access Management Plan (Chapter 10) includes recommended guidelines for preliminary site plan requirements addressing access for development proposals that directly or indirectly access a state highway or an arterial. The TSP also recommended applying local access spacing standards as part of the site review process (Appendix G, Plans and Policies Review).</td>
<td></td>
</tr>
</tbody>
</table>

(a) Access control measures.
<table>
<thead>
<tr>
<th>TPR Requirement (OAR Section 660-12-0045)</th>
<th>Ordinance Compliance/Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Recommendations:</strong> The requirements of the CDO currently control access on arterials. Access measures could be expanded to include limiting access onto collectors, as well as standards for driveway and public road spacing, median control, and signal spacing standards on local facilities. Additional access control measures to consider include limiting the number of access points based on land use type and enabling the City to require shared access as a condition of land division approval or design review. CDO standards should be updated to implement the recommendations of the TSP and be consistent with the functional classification of roads. The updated TSP's Access Management Plan will be used as a guide to develop updated code language.</td>
<td></td>
</tr>
<tr>
<td>(b) Standards to protect the future operations of roadways and transit corridors</td>
<td>The CDO requires a traffic impact study (TIS) for all proposed zone changes, subdivisions, partitions, new development and or/redevelopment if the proposal is for a site that directly accesses a state highway, if a comprehensive plan amendment is required, or if there is a traffic safety or operational deficiency recognized in the adopted TSP and the proposal exceeds specific generation or mitigation thresholds (Section 14.050.10) [City to verify citation.]. Proposals that require a TIS must submit the information to both the City of Klamath Falls and ODOT for review. CDO Section 14.051, Traffic Impact Study Requirements, lists the requirements for the traffic analysis. The Public Works Engineering Manual requires that all development proposals submit a traffic analysis with the Development Review application (Section 8-2, Traffic Studies). New development that will cause degradation below acceptable operating levels (generally, LOS D during the PM peak hour) is required to provide mitigating transportation system improvements that will restore the level of service to the acceptable standard. The Public Works Engineering Manual includes a list of information typically required for a TIS (p. 8-4). The 1998 TSP also includes recommendations for required elements of a TIS (Chapter 10), not all of which are codified in the CDO. <strong>Recommendation:</strong> While the existing TIS requirement should provide decision-makers with adequate information</td>
</tr>
<tr>
<td>TPR Requirement (OAR Section 660-12-0045)</td>
<td>Ordinance Compliance/Recommendations</td>
</tr>
<tr>
<td>------------------------------------------</td>
<td>-------------------------------------</td>
</tr>
<tr>
<td>with which to determine the impacts of land use decisions on the transportation system, the City should consider simplifying the TIS requirement by applying it to all development proposals that meet a given trip threshold. In addition, minor improvements to Section 14.051 could be made to distinguish between submittal requirements and approval criteria. Adding cross-references to the Public Works Engineering Manual can also clarify what is required for a TIS and the circumstances under which mitigation will be required. Also recommended is adding a statement in CDO Section 14.051 that confirms the City’s ability to condition approval to require needed transportation improvements.</td>
<td></td>
</tr>
<tr>
<td>(d) Coordinated review of future land use decisions affecting transportation facilities, corridors or sites</td>
<td>The CDO does not provide a process for coordinated review of future land use decisions that affect transportation facilities. <strong>Recommendations:</strong> Section 10.815, Agency Involvement, should be amended to state that agencies will be notified of applications that may have an impact on their facilities. Amending CDO Section 10.610, Notice of Hearing, to include requirements to provide notice to ODOT and relevant transportation service providers or special interest transportation groups (such as those advocating bicycle or freight interests) could help ensure “coordinated review” of land use decisions affecting transportation facilities.</td>
</tr>
</tbody>
</table>
| (e) Process to apply conditions to development proposals in order to minimize impacts and protect transportation facilities | The CDO does not explicitly call out a process to apply development conditions in order to minimize impacts to transportation facilities. The CDO does, however, give the City the following authority. The CDO contains provisions to condition approval of conditional uses (11.110 Decision - Conditions of Approval) through an Administrative Action (approval by the Planning Director). Types of conditions listed include requiring an increase in street width (3) and requiring dedication and improvement of additional right of way (4). The City also has the authority to condition approval of a planned unit development (Section 12.372 Criteria for Approval). Review Criteria for proposed tentative subdivision plans enable the Planning Commission to require street dedication as a condition of approval (11.815(6)). **Recommendations:** The CDO should explicitly give the
### Table 1. TPR Requirements and City of Klamath Falls Compliance

<table>
<thead>
<tr>
<th>TPR Requirement (OAR Section 660-12-0045)</th>
<th>Ordinance Compliance/Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>City the ability to apply conditions of approval to new development and should specify that one of the objectives in imposing conditions will be to minimize impacts to transportation facilities. The subdivisions section (11.810 Tentative Plan Content) should be amended to include a requirement that development proposals include data on the potential traffic impacts where a TIS is required pursuant to Section 14.050.10. For additional related recommendations, see the TPR requirements in section 660-012-0060 below.</td>
<td></td>
</tr>
<tr>
<td>(f) Regulations to provide notice to public agencies providing transportation facilities and services, MPOs, and ODOT of: land use applications that require public hearings, subdivision and partition applications, applications which affect private access to roads, applications within airport noise corridor and imaginary surfaces which affect airport operations.</td>
<td>Section 10.610, Notice of Hearing, of the CDO does not specify the types of decisions that require notice to public agencies, nor which public agencies should receive notice. <strong>Recommendations:</strong> The City should amend the CDO to include a requirement that ODOT and other affected public agencies (DEQ, Oregon Department of Aviation, Klamath County, Basin Transit etc.) receive notification of land use applications that meet the descriptions in this TPR requirement.</td>
</tr>
<tr>
<td>g) Regulations assuring amendments to land use designations, densities, design standards are consistent with the function, capacities, and levels of service of facilities designated in the TSP.</td>
<td>Pursuant to CDO Section 10.105, text amendments to Chapters 10, 11, 12, 13 or 14 may only be initiated by the City Council or Planning Commission. Under Section 10.505, zone changes may be initiated by the property owner or by the City (Council or Commission). Chapter 10 does not include approval criteria for zone changes or plan or ordinance amendments. <strong>Recommendations:</strong> At a minimum, the CDO should dictate that approval of plan or ordinance (text) amendments is contingent on finding that the proposed amendment complies with all applicable Statewide Planning Goals, which would include compliance with the TPR. The City should consider further amending the CDO to specifically state that approval of amendments to land use designations, densities, and design standards is contingent on findings of consistency with the planned transportation system, as adopted in the City’s TSP. Criteria for zone change approval (Section 10.505) should include the provision that adequate public facilities, services, and transportation networks are in place or are planned to be provided concurrently with the development of the property.</td>
</tr>
<tr>
<td>TPR Requirement (OAR Section 660-12-0045)</td>
<td>Ordinance Compliance/Recommendations</td>
</tr>
<tr>
<td>------------------------------------------</td>
<td>-------------------------------------</td>
</tr>
<tr>
<td>In addition, because Klamath Falls has a one-map system and a zone change constitutes an amendment to the Comprehensive Plan land use designation [City, please verify], code language should be revised to include reference to TPR Section –0060 (see Section 660-12-0060 below), or should include language from this TPR section that states under what circumstances a plan or land use regulation amendment “significantly affects a transportation facility” and the mitigation that is required. The options for ensuring that allowed land uses are consistent with the function, capacity, and level of service of the facility identified in the TSP should be included in the CDO or, at a minimum, code language should reference the relevant TPR section.</td>
<td></td>
</tr>
</tbody>
</table>

(3) Local governments shall adopt land use or subdivision regulations for urban areas and rural communities as set forth in 660-012-0040(3)(a-d):

(a) Provide bicycle parking in multifamily developments of 4 units or more, new retail, office and institutional developments, transit transfer stations and park-and-ride lots. Section 14.046, Bicycle Parking Facilities, meets this TPR requirement.

(b) Provide “safe and convenient” (per subsection 660-012-0045.3(d)) pedestrian and bicycle connections from new subdivisions/multifamily development to neighborhood activity centers; bikeways are required along arterials and major collectors; sidewalks are required along arterials, collectors, and most local streets in urban areas except controlled access roadways. Subdivision design standards (Chapter 11, Section 11.805) include provisions for sidewalks, requiring that they are installed on both sides of all streets, in any special pedestrian ways within the land development, and “when the Commission determines such improvements are necessary.” The City may require a sidewalk or bikeway “to connect to a cul de sac or to pass through an unusually long or oddly shaped block or otherwise provide appropriate circulation.” CDO Chapter 14, which contains the City’s site development standards, does not expressly require that new subdivisions or multifamily developments include non-motorized access ways to reach activity centers. However, where a TIS is required, development proposals must address bike and pedestrian use and the availability of transit to serve the development (Section 14.051(6)). Each lot and parcel in a development is required to abut an improved street with sidewalks for the entire length of the lot frontage (Section 14.050(1)). Planned Unit Development (PUD) applications are required to
<table>
<thead>
<tr>
<th>TPR Requirement (OAR Section 660-12-0045)</th>
<th>Ordinance Compliance/Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>show proposed access and circulation patterns for vehicle, bicycle, pedestrian and, where applicable, transit systems but there is no further code guidance on placement or intended function of pedestrian and bicycle routes (Section 12.380 Development Plan Submittal Requirements). The Public Works Engineering Standards provide that sidewalks on Major Arterials in commercially zoned areas can be as wide as 8 feet. Major Arterials, Major Collectors, and Minor Collectors with on-street bike lanes are required to have 6-foot sidewalks. Local streets are required to have 5-foot sidewalks with four-foot planter strips on both sides of the street. <strong>Recommendations:</strong> Consistent with this TPR requirement, code and public works standards specify where bikeways are required (based on street classification) and their construction design (width, material). The CDO also enables the City to require bicycle and pedestrian pathways to provide “appropriate circulation.” The City should consider adding clarifying language in the CDO that providing bikeways and sidewalks along arterials and collectors is required.</td>
<td></td>
</tr>
<tr>
<td>(c) Off-site road improvements required as a condition of development approval must accommodate bicycle and pedestrian travel, including facilities on arterials and major collectors</td>
<td>City code language does not specifically indicate that off-site road improvements can be required as a condition of development approval. <strong>Recommendations:</strong> As part of the TIS requirements, add a statement in CDO Section 14.051 that confirms the City's ability to condition approval to require needed transportation improvements. Add similar language to 11.805, Design Standards, so that it also applies to subdivision approval where a TIS is not required.</td>
</tr>
<tr>
<td>(e) Provide internal pedestrian circulation within new office parks and commercial developments</td>
<td>The CDO does not include requirements that new office and commercial developments provide pedestrian circulation internal to the site. <strong>Recommendation:</strong> Design Review standards (Section 11.068 Criteria for Approval) and Design Standards for subdivisions (Section 11.805) should be amended to meet this TPR requirement. Proposed language should require that the planned pedestrian system internal to the development connect building entrances, adjacent streets, and nearby transit stops. (Note: Appendix G of the TSP includes some methods for meeting this TPR requirement.)</td>
</tr>
</tbody>
</table>
Table 1. TPR Requirements and City of Klamath Falls Compliance

<table>
<thead>
<tr>
<th>TPR Requirement (OAR Section 660-12-0045)</th>
<th>Ordinance Compliance/Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>(4) To support transit in urban areas containing a population greater than 25,000, where the area is already served by a public transit system or where a determination has been made that a public transit system is feasible, local governments shall adopt land use and subdivision regulations as provided in (a)-(g) below:</td>
<td>The updated Klamath Falls Urban Area TSP will identify transit routes and determine appropriate standards for these transportation facilities, consistent with this section of the TPR.</td>
</tr>
<tr>
<td>(a) Transit routes and transit facilities shall be designed to support transit use through provision of bus stops, pullouts and shelters, optimum road geometrics, on-road parking restrictions and similar facilities, as appropriate;</td>
<td>Transit Stops are not currently identified in the existing TSP. Information from Basin Transit will be reviewed and incorporated into the updated TSP. The CDO does not currently identify specific development standards for development near major transit stops. <strong>Recommendation:</strong> Design Review standards (Section 11.068 Criteria for Approval) and Design Standards for subdivisions (Section 11.805) should be amended to meet this TPR requirement. Specifically, these CDO sections should identify development standards consistent with TPR -0045(4) for development proposals that are within a certain distance from a major transit stop.</td>
</tr>
<tr>
<td>(b) New retail, office and institutional buildings at or near major transit stops shall provide for convenient pedestrian access to transit through the measures listed in (A) and (B) below.</td>
<td></td>
</tr>
</tbody>
</table>
Table 1. TPR Requirements and City of Klamath Falls Compliance

<table>
<thead>
<tr>
<th>TPR Requirement (OAR Section 660-12-0045)</th>
<th>Ordinance Compliance/Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>intersecting street or provide a pedestrian plaza at the transit stop or a street intersection; (ii) A reasonably direct pedestrian connection between the transit stop and building entrances on the site; (iii) A transit passenger landing pad accessible to disabled persons; (iv) An easement or dedication for a passenger shelter if requested by the transit provider; and (v) Lighting at the transit stop.</td>
<td>Instead of requiring that all new retail, office and institutional development meet development requirements that satisfy -0045(A) and (B), the City has the option of requiring these standards within designated pedestrian districts. <strong>Recommendation:</strong> The City should determine if it is necessary or desirable to implement -0045(4)(b)(A) and (B) though the designation of pedestrian districts.</td>
</tr>
<tr>
<td>(c) Local governments may implement (4)(b)(A) and (B) above through the designation of pedestrian districts and adoption of appropriate implementing measures regulating development within pedestrian districts. Pedestrian districts must comply with the requirement of (4)(b)(C) above;</td>
<td>The Off Street Parking and Loading sections of Chapter 14 do not include a section that requires preferential parking for carpools or vanpools. <strong>Recommendation:</strong> Amend Chapter 14 to require that all new developments with designated employee parking areas provide preferential parking for employee carpools and vanpools. (Note: Appendix G of the existing TSP includes a recommended requirement for employers with 50 employees or more to dedicate 10% of the required parking spaces for car/vanpools.)</td>
</tr>
<tr>
<td>(d) Designated employee parking areas in new developments shall provide preferential parking for carpools and vanpools;</td>
<td>The CDO does not address redevelopment of sites for transit-oriented uses. <strong>Recommendation:</strong> Chapter 14 should be revised to allow redevelopment of existing parking spaces for transit oriented uses. The City could also consider amending the CDO to allow for a reduction in the number of minimum required parking spaces if the development proposes transit-related amenities such as transit stops, pull-outs,</td>
</tr>
<tr>
<td>(e) Existing development shall be allowed to redevelop a portion of existing parking areas for transit-oriented uses, including bus stops and pullouts, bus shelters, park and ride stations, transit-oriented developments, and similar facilities, where appropriate;</td>
<td></td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>TPR Requirement (OAR Section 660-12-0045)</th>
<th>Ordinance Compliance/Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>shelters, and park and ride lots, or when the development is abutting a street with transit service. (Note: Appendix G of the existing TSP recommends allowing a 10% reduction in required parking spaces for sites that are within 400 feet of a transit route and are proposing a transit stop or amenity as part of the development.)</td>
<td></td>
</tr>
<tr>
<td>(f) Road systems for new development shall be provided that can be adequately served by transit, including provision of pedestrian access to existing and identified future transit routes. This shall include, where appropriate, separate accessways to minimize travel distances;</td>
<td>The TSP update will identify existing and planned transit routes; the location and design of planned new roadways will be consistent with existing and planned transit service. <strong>Recommendation:</strong> Section 11.805, Design Standards for subdivisions, should be amended to require that new development provide pedestrian access to existing and planned future transit routes. (Note: The 1995 Basin Transit Service Transit Development Plan, reviewed in Section III of this memorandum, includes recommendations pertaining to access to transit.)</td>
</tr>
<tr>
<td>(g) Along existing or planned transit routes, designation of types and densities of land uses adequate to support transit.</td>
<td>Transit routes are not currently identified in the existing TSP. Information from Basin Transit will be reviewed and incorporated into the updated TSP. <strong>Recommendation:</strong> When updating the transit element of the TSP, review existing land uses and consider land use changes that would support the viability of transit on existing or planned routes. (Note: The recommendation in Appendix G of the TSP is to develop specific corridor plans for transit route in the community that would address urban design issue, including access and transit-supportive land uses. The 1995 Basin Transit Service Transit Development Plan also includes recommendations pertaining to transit supporting land uses.)</td>
</tr>
<tr>
<td>(6) As part of the pedestrian and bicycle circulation plans, local governments shall identify improvements to facilitate bicycle and pedestrian trips to meet local travel needs in developed areas.</td>
<td><strong>Recommendation:</strong> This requirement should be addressed by the TSP update planning process. The requirement can be met by adopting improvements in developed areas that meet the needs identified in the TSP’s pedestrian and bicycle circulation elements.</td>
</tr>
<tr>
<td>(7) Local governments shall establish standards for local streets and accessways that minimize pavement width and total ROW consistent with the operational needs of the facility.</td>
<td>The design standards in the CDO (Section 11.805) call for a minimum right-of-way width of 60 feet for local roads, 36 feet of that curb-to-curb paving. The CDO does not provide for a narrower street width when on-street parking is restricted to one side or is prohibited.</td>
</tr>
</tbody>
</table>
Table 1. TPR Requirements and City of Klamath Falls Compliance

<table>
<thead>
<tr>
<th>TPR Requirement (OAR Section 660-12-0045)</th>
<th>Ordinance Compliance/Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>The existing TSP (Figure 7-3) requires a 50 to 60-foot right-of-way and 36 feet of paved road (for parking on both sides).</td>
<td></td>
</tr>
<tr>
<td>The Public Works Engineering Standards has another set of requirements, specifying that local streets with parking on both sides have to be constructed with 65-66 feet of right-of-way and 42 feet of curb-to-curb pavement (Drawing No. 8-200). The state’s Transportation and Growth Management program has developed a guidebook (Neighborhood Street Design Guideline) that suggests the following local street standards:</td>
<td></td>
</tr>
<tr>
<td>Pavement Right of-Way</td>
<td></td>
</tr>
<tr>
<td>No On-Street Parking 20’ 42-48’</td>
<td></td>
</tr>
<tr>
<td>Parking on One Side 24’ 47-52’</td>
<td></td>
</tr>
<tr>
<td>Parking on Two Sides 28’ 52-56’</td>
<td></td>
</tr>
<tr>
<td>The City’s TSP, the CDO and the Public Works standards require both a wider right-of-way and a wider paved local street than the options illustrated in the Neighborhood Street Design Guidelines. The street cross-section for a local street with no on-street parking, as shown in the existing TSP, is closest in design to the state guidelines, providing a right-of-way that is less wide and a paved width only slightly wider than the guidelines. See Table 2 in this section of the memorandum for a comparison of the City’s standard.</td>
<td></td>
</tr>
<tr>
<td>Recommendations: The Street Standards table in Section 11.805 should be amended to be consistent with the updated TSP. The City should evaluate whether narrower local streets, consistent with the model language discussed above, will be permitted and under what circumstances. In Section 11.805 the City may also want to distinguish the different designs for local streets (parking allowed on one or both sides, or prohibited) to identify where the narrower standards are appropriate. If the City prefers to further define under what circumstances a narrower street right-of-way design may be approved (slopes under a certain grade, roadways carrying under a certain volume of traffic, etc.), the standards must be clear and objective.</td>
<td></td>
</tr>
<tr>
<td>(Note: Local street width was one of the topics addressed in a 2004 Comprehensive Plan and Code Audit funded through the Transportation and Growth Management (TGM) Program. The Citizen’s Advisory Committee guiding the project had concerns over emergency vehicle access and snow removal and ultimately agreed not to</td>
<td></td>
</tr>
</tbody>
</table>
Table 1. TPR Requirements and City of Klamath Falls Compliance

<table>
<thead>
<tr>
<th>TPR Requirement (OAR Section 660-12-0045)</th>
<th>Ordinance Compliance/Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>forward a recommendation to reduce pavement width of local streets to the City Council. In the Final Audit Report the Project Management Team recommended the city revisit reducing pavement widths on local streets and discuss further areas or situations where narrower local streets might be appropriate in Klamath Falls in order to comply with the TPR.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TPR Requirement (OAR Section 660-12-0060)</th>
<th>Ordinance Compliance/Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amendments to functional plans, acknowledged comprehensive plans, and land use regulations that significantly affect an existing or planned transportation facility shall assure that allowed land uses are consistent with the identified function, capacity, and performance standards of the facility.</td>
<td>Recommendations: Revise the CDO to include language that is consistent with the language of this section of the TPR. Section -0060 was amended in March 2005 and includes new provisions for local jurisdictions on how to make a determination whether or not an amendment to the City’s adopted plans or land use regulations has a significant affect on a transportation facility. The TPR includes a category of facilities, improvements, and services that can be assumed to be “in-place” or committed and available to provide transportation capacity (-0060)(4)). For the City of Klamath Falls, these include projects in the STIP or locally adopted TIP or CIP and projects that are authorized in the local TSP for which a funding plan or mechanism is in place. The TPR also allows applicants and decision-makers to rely on transportation improvements that are “reasonably likely to be provided by the end of the planning period” (-0060 (4)(b)(D) when considering amendments to local plans and land use regulations. Through this TSP update process, the City of Klamath Falls has an opportunity to identify what, if any, planned improvements in the adopted TSP may be considered “reasonably likely” to be funded and built within the 20-year planning horizon. Pending the 20-year transportation improvement needs and the development of a corresponding funding element, revisit -0060 determination of “reasonably likely” transportation projects.</td>
</tr>
</tbody>
</table>
### Table 2. TPR Requirements and Klamath County Compliance

<table>
<thead>
<tr>
<th>TPR Requirement (OAR Section 660-12-0045)</th>
<th>Ordinance Compliance/Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Each local government shall amend its land use regulations to implement the TSP.</td>
<td>The zone districts in Chapter 50, Land Use Zones, do not specifically list transportation-related improvements as a permitted use. <strong>Recommendations:</strong> The Land Development Code (LDC) should be amended to allow transportation improvements in all zones, provided that the proposed improvements implement the transportation system plan and/or can be shown to be consistent with adopted policy. The County should consider including transportation facilities in the definition of Extensive Impact Services and Utilities (Article 11, Definitions), a conditional use in County zoning districts.</td>
</tr>
<tr>
<td>(b) To the extent, if any, that a transportation facility, service, or improvement concerns the application of a comprehensive plan provision or land use regulation, it may be allowed without further land use review if it is permitted outright or if it is subject to standards that do not require interpretation or the exercise of factual, policy or legal judgment.</td>
<td>Section 32.030, Types of Notice, includes the provision that notice of quasi-judicial land use hearings for actions wholly or partially within an Urban Growth Boundary must be mailed to all owners of real property within 100 feet. <strong>Recommendations:</strong> Section 32.030 could be expanded to require notification to state agencies when applications have the potential to impact their facilities, regardless of distance from the subject property. The LDC does not contain specific requirements for notice to ODOT for applicable land use applications. Section 32.030 could include provisions to notice ODOT when a proposal may impact state facilities. See further discussion in Table 1 under this TPR requirement.</td>
</tr>
<tr>
<td>(c) Where a transportation facility, service or improvement is determined to have a significant impact on land use or requires interpretation or the exercise of factual, policy or legal judgment regarding the application of a comprehensive plan or land use regulation, the local government shall provide a review and approval process that is consistent with 660-012-0050 (Transportation Project Development). Local governments shall amend regulations to provide for consolidated review of land use decisions required to permit a transportation project.</td>
<td></td>
</tr>
<tr>
<td>(2) Local governments shall adopt land use or subdivision ordinance regulations, consistent with applicable federal and state requirements, to protect transportation facilities for their identified functions.</td>
<td>LDC Section 71.160, Access Permits, requires a County access permit prior to the construction of any driveway or road which connects with a public or county road or a permit from the</td>
</tr>
<tr>
<td>TPR Requirement (OAR Section 660-12-0045)</td>
<td>Ordinance Compliance/Recommendations</td>
</tr>
<tr>
<td>-----------------------------------------</td>
<td>-------------------------------------</td>
</tr>
<tr>
<td>State Highway Division if access is on a state highway. <strong>Recommendaions:</strong> Article 71, Vehicular Access and Circulation, does not include access spacing requirements. The LDC standards should be updated for the Klamath Falls Urban Area consistent with the recommendations of the updated TSP. See further discussion in Table 1 under this TPR requirement.</td>
<td></td>
</tr>
<tr>
<td>(b) Standards to protect the future operations of roadways and transit corridors</td>
<td>The LDC does not require that development proposals or proposals for legislative land use changes include a traffic analysis to assess the impacts of the proposal on the transportation system. <strong>Recommendation:</strong> The County should codify a requirement for a traffic impact analysis or study for development proposals that are expected to generate a significant amount of traffic. Code amendments should include the circumstances under which an analysis is required and what must be included in the study. To satisfy TPR -0060 requirements (see discussion in this table), the County should also require a traffic assessment in association with changes to the land use designations that significantly affect a transportation facility. Note: The City of Klamath Falls CDO Section 14.050, Access and Driveways, includes this requirement. The comparable LDC section is Article 71, Vehicular Access and Circulation.</td>
</tr>
<tr>
<td>(d) Coordinated review of future land use decisions affecting transportation facilities, corridors or sites</td>
<td>LDC Chapter 30, Public Hearings, Notice, and Appeal, does not provide a process for coordinated review of future land use decisions that affect transportation facilities. <strong>Recommendations:</strong> Article 32, Public Notice, should be amended to state that agencies will be notified of applications that may have an impact on their facilities. Amending Section 32.030, Types of Notice, to include a general requirement to provide notice other government agencies, including ODOT and relevant transportation service providers or special interest transportation groups, could help ensure “coordinated review” of land use decisions affecting transportation facilities.</td>
</tr>
<tr>
<td>(e) Process to apply conditions to development proposals in order to minimize impacts and protect</td>
<td>The LDC does not explicitly call out a process to apply development conditions in order to minimize impacts to transportation facilities. The CDO does, however, give the</td>
</tr>
<tr>
<td>TPR Requirement (OAR Section 660-12-0045)</td>
<td>Ordinance Compliance/Recommendations</td>
</tr>
<tr>
<td>------------------------------------------</td>
<td>-----------------------------------</td>
</tr>
<tr>
<td>transportation facilities</td>
<td>City the following authority.</td>
</tr>
<tr>
<td></td>
<td>Article 44, Conditional Use Permit, requires a Conditional Use Permit for all uses within the UGB (except Extensive Impact Services and Utilities), as well as subdivision and planned unit development applications as part of a Type II Administrative Review Procedure (Article 22) or Planning Commission Review Procedure (Article 26). The review body may condition approval, based on findings of fact that it deems necessary “to ensure compliance with the Klamath County Comprehensive Plan, Land Development code, and sound land use planning principles (Section 44.030.D)” Conditional Use Permit applications for all uses within the Urban Growth Boundary except for Extensive Impact Services and Utilities involving land located within an Urban Growth Boundary and those in conjunction with a subdivision or planned unit development. The CDO contains provisions to condition approval of conditional uses (11.110 Decision - Conditions of Approval) through an Administrative Action (approval by the Planning Director). Types of conditions listed include requiring an increase in street width (3) and requiring dedication and improvement of additional right of way (4). The City also has the authority to condition approval of a planned unit development (Section 12.372 Criteria for Approval). Review Criteria for proposed tentative subdivision plans enable the Planning Commission to require street dedication as a condition of approval (11.815(6)). <strong>Recommendations:</strong> Article 44 could be amended to explicitly state that conditions of approval may include requirements related to minimizing traffic impacts and protecting the transportation system. Article 45, Land Partition, should be amended to include a requirement that development proposals include data on the potential traffic impacts where a transportation impact analysis is required. For additional related recommendations, see the TPR requirements in section 660-012-0060 below.</td>
</tr>
<tr>
<td>(f) Regulations to provide notice to public agencies providing transportation facilities and services, MPOs, and ODOT of: land use</td>
<td>Article 32, Public Notice, does not specify the types of decisions that require notice to public agencies, nor which public agencies should receive notice. <strong>Recommendations:</strong> The County should amend the LDC to</td>
</tr>
</tbody>
</table>
Table 2. TPR Requirements and Klamath County Compliance

<table>
<thead>
<tr>
<th>TPR Requirement (OAR Section 660-12-0045)</th>
<th>Ordinance Compliance/Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>applications that require public hearings, subdivision and partition applications, applications which affect private access to roads, applications within airport noise corridor and imaginary surfaces which affect airport operations.</td>
<td>include a requirement that ODOT and other affected public agencies (DEQ, Oregon Department of Aviation, City of Klamath Falls, Basin Transit etc.) receive notification of land use applications that meet the descriptions in this TPR requirement.</td>
</tr>
<tr>
<td>g) Regulations assuring amendments to land use designations, densities, design standards are consistent with the function, capacities, and levels of service of facilities designated in the TSP.</td>
<td>Legislative amendments to the Klamath County Comprehensive Plan, Land Development Code, or zoning map require findings of consistency with Oregon Statewide Planning Goals and state statutes (Section 49.020). <strong>Recommendations:</strong> The County’s approval criteria for legislative amendments, found in Article 49, satisfy this TPR requirement.</td>
</tr>
<tr>
<td>(3) Local governments shall adopt land use or subdivision regulations for urban areas and rural communities as set forth in 660-012-0040(3)(a-d):</td>
<td></td>
</tr>
<tr>
<td>(a) Provide bicycle parking in multifamily developments of 4 units or more, new retail, office and institutional developments, transit transfer stations and park-and-ride lots</td>
<td>Article 68, Off-Street Parking and Loading, does not include requirements for bicycle parking. <strong>Recommendations:</strong> Amend LDC Article 68 to include requirements for bicycle parking, consistent with this TPR requirement.</td>
</tr>
<tr>
<td>(b) Provide “safe and convenient” (per subsection 660-012-0045.3(d)) pedestrian and bicycle connections from new subdivisions/multifamily development to neighborhood activity centers; bikeways are required along arterials and major collectors; sidewalks are required along arterials, collectors, and most local streets in urban areas except controlled access roadways</td>
<td>Chapter 60, Planning Department Development Standards, includes standards for developing sites within the Klamath Falls Urban Growth Area. There are no requirements for pedestrian and bicycle connectivity in Chapter 60. The County does, however, requires sidewalks for all subdivisions within the Klamath Falls Urban Growth Area where the average lot size of the development is not greater than 20,000 square feet (Public Works Department Development Standards, Section 71.050.A). The County may also require dedicated “pedestrian ways to permit access to cul-de-sacs, to pass through oddly shaped or unusually long blocks, or to provide access to schools, parks or other public or private areas (Section 71.050.E).” <strong>Recommendations:</strong> Consistent with this TPR requirement, the LDC should specify where bikeways, as well as sidewalks, are required. The residential density standard on which the current sidewalk requirements are based</td>
</tr>
</tbody>
</table>
## Table 2. TPR Requirements and Klamath County Compliance

<table>
<thead>
<tr>
<th>TPR Requirement (OAR Section 660-12-0045)</th>
<th>Ordinance Compliance/Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Section 71.050.A) should be reexamined in light of updated TSP recommendations. (Note: The current Urban Area TSP includes roadway design standards based on street classification. Table 7-1 of the County’s TSP includes requirements for sidewalks and bicycle lanes, based on roadway classifications; however these standards are not for the Klamath Falls Urban Area.) The County should also consider amending development standards in Chapter 60 to include language that addresses this “safe and convenient” TPR requirement for non-motorized modes of transportation.</td>
<td></td>
</tr>
<tr>
<td>County code language does not specifically indicate that off-site road improvements can be required as a condition of development approval. <strong>Recommendations:</strong> As part of the recommended requirement for a transportation impact analysis, add a statement that confirms the County’s ability to condition approval to require needed transportation improvements. Similar language is recommended for Article 44, Conditional Use Permit, so that conditions of approval may include requirements related to protecting the planned transportation system.</td>
<td></td>
</tr>
<tr>
<td>The LDC does not include requirements that new office and commercial developments provide pedestrian circulation internal to the site. <strong>Recommendation:</strong> Chapter 60, Planning Department Development Standards, should be amended to meet this TPR requirement. Proposed language should require that the planned pedestrian system internal to the development connect building entrances, adjacent streets, and nearby transit stops.</td>
<td></td>
</tr>
<tr>
<td>The updated Klamath Falls Urban Area TSP will identify</td>
<td></td>
</tr>
</tbody>
</table>

(c) Off-site road improvements required as a condition of development approval must accommodate bicycle and pedestrian travel, including facilities on arterials and major collectors

(e) Provide internal pedestrian circulation within new office parks and commercial developments

(4) To support transit in urban areas containing a population greater than 25,000, where the area is already served by a public transit system or where a determination has been made that a public transit system is feasible, local governments shall adopt land use and subdivision regulations as provided in (a)-(g) below:

(a) Transit routes and transit facilities shall
### Table 2. TPR Requirements and Klamath County Compliance

<table>
<thead>
<tr>
<th>TPR Requirement (OAR Section 660-12-0045)</th>
<th>Ordinance Compliance/Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>be designed to support transit use through provision of bus stops, pullouts and shelters, optimum road geometrics, on-road parking restrictions and similar facilities, as appropriate;</td>
<td>transit routes within the Urban Area and will determine appropriate standards for these transportation facilities, consistent with this section of the TPR.</td>
</tr>
<tr>
<td>(b) New retail, office and institutional buildings at or near major transit stops shall provide for convenient pedestrian access to transit through the measures listed in (A) and (B) below.</td>
<td>Transit Stops are not currently identified in the Rural TSP. Information from Basin Transit will be reviewed and incorporated into the updated (Urban Area) TSP. The LDO does not currently identify specific development standards for development near major transit stops. <strong>Recommendation:</strong> Chapter 60, Planning Department Development Standards, should be amended to meet this TPR requirement. Specifically, this chapter should identify development standards consistent with TPR - 0045(4) for development proposals that are within a certain distance from a major transit stop.</td>
</tr>
<tr>
<td>(A) Walkways shall be provided connecting building entrances and streets adjoining the site;</td>
<td></td>
</tr>
<tr>
<td>(B) Pedestrian connections to adjoining properties shall be provided except where such a connection is impracticable. Pedestrian connections shall connect the on site circulation system to existing or proposed streets, walkways, and driveways that abut the property. Where adjacent properties are undeveloped or have potential for redevelopment, streets, accessways and walkways on site shall be laid out or stubbed to allow for extension to the adjoining property;</td>
<td></td>
</tr>
<tr>
<td>(C) In addition to (A) and (B) above, on sites at major transit stops provide the following:</td>
<td></td>
</tr>
<tr>
<td>(i) Either locate buildings within 20 feet of the transit stop, a transit street or an intersecting street or provide a pedestrian plaza at the transit stop or a street intersection;</td>
<td></td>
</tr>
<tr>
<td>(ii) A reasonably direct pedestrian connection between the transit stop and building entrances on the site;</td>
<td></td>
</tr>
<tr>
<td>(iii) A transit passenger landing pad accessible to disabled persons;</td>
<td></td>
</tr>
<tr>
<td>(iv) An easement or dedication for a</td>
<td></td>
</tr>
<tr>
<td>TPR Requirement (OAR Section 660-12-0045)</td>
<td>Ordinance Compliance/Recommendations</td>
</tr>
<tr>
<td>----------------------------------------------------------------------------------------------------------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>passenger shelter if requested by the transit provider; and</td>
<td>Instead of requiring that all new retail, office and institutional development meet development requirements that satisfy - 0045(A) and (B), the County has the option of requiring these standards within designated pedestrian districts.</td>
</tr>
<tr>
<td>(v) Lighting at the transit stop.</td>
<td><strong>Recommendation:</strong> The County, in consultation with the City of Klamath Falls, should determine if there are any areas within the Urban Area where it is necessary or desirable to implement -0045(4)(b)(A) and (B) though the designation of pedestrian districts.</td>
</tr>
<tr>
<td>(c) Local governments may implement (4)(b)(A) and (B) above through the designation of pedestrian districts and adoption of appropriate implementing measures regulating development within pedestrian districts. Pedestrian districts must comply with the requirement of (4)(b)(C) above;</td>
<td>Article 68, Off-Street Parking and Loading, does not include a section that requires preferential parking for carpools or vanpools.</td>
</tr>
<tr>
<td>(d) Designated employee parking areas in new developments shall provide preferential parking for carpools and vanpools;</td>
<td><strong>Recommendation:</strong> Amend the development standards in Chapter 60 to require that all new developments with designated employee parking areas provide preferential parking for employee carpools and vanpools. (Note: Appendix G of the existing Urban Area TSP includes a recommended requirement for employers with 50 employees or more to dedicate 10% of the required parking spaces for car/vanpools.)</td>
</tr>
<tr>
<td>(e) Existing development shall be allowed to redevelop a portion of existing parking areas for transit-oriented uses, including bus stops and pullouts, bus shelters, park and ride stations, transit-oriented developments, and similar facilities, where appropriate;</td>
<td>The LDC does not address redevelopment of sites for transit-oriented uses.</td>
</tr>
<tr>
<td>(f) Road systems for new development shall be provided that can be adequately served by transit, including provision of pedestrian access to existing and identified future transit routes. This shall include, where appropriate, separate accessways to minimize travel distances;</td>
<td>The TSP update will identify existing and planned transit routes; the location and design of planned new roadways will be consistent with existing and planned transit service.</td>
</tr>
<tr>
<td></td>
<td><strong>Recommendation:</strong> Chapter 60 should be amended to require that new development provide pedestrian access to existing and planned future transit routes. (Note: The 1995 Basin Transit Service Transit Development Plan, reviewed in Section III of this memorandum, includes recommendations pertaining to access to transit.)</td>
</tr>
</tbody>
</table>
Table 2. TPR Requirements and Klamath County Compliance

<table>
<thead>
<tr>
<th>TPR Requirement (OAR Section 660-12-0045)</th>
<th>Ordinance Compliance/Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>(g) Along existing or planned transit routes, designation of types and densities of land uses adequate to support transit.</td>
<td>Transit routes are not currently identified in the existing Rural TSP. Information from Basin Transit will be reviewed and incorporated into the updated TSP. <strong>Recommendation:</strong> See discussion in Table 1 under this TPR requirement.</td>
</tr>
<tr>
<td>(6) As part of the pedestrian and bicycle circulation plans, local governments shall identify improvements to facilitate bicycle and pedestrian trips to meet local travel needs in developed areas.</td>
<td><strong>Recommendation:</strong> This requirement should be addressed by the TSP update planning process. The requirement can be met by adopting improvements in developed areas that meet the needs identified in the TSP’s pedestrian and bicycle circulation elements.</td>
</tr>
<tr>
<td>(7) Local governments shall establish standards for local streets and accessways that minimize pavement width and total ROW consistent with the operational needs of the facility.</td>
<td>Section 71.050, Improvements in the Klamath Falls Urban Area, includes the standards for roadway improvements for subdivisions within the Klamath Falls Urban Growth Area. The LDC does not specify right-of-way widths, but for developments where average lot sizes are one acre or less, a minimum of 36 feet of paved roadway is required. For developments where average lot size is 20,000 square feet or less, street improvements must include sidewalks. For developments where average lot sizes are over one acre, the requirement is 24 feet of paved roadway with 4-foot gravel shoulders. Table 7-1 of the County’s TSP includes roadway classifications and associated standards. The requirement for paved lanes on a local street is 10-11 feet. These standards, however, do not apply to the Klamath Falls Urban Area. The state’s Transportation and Growth Management program has developed a guidebook (Neighborhood Street Design Guideline) that suggests the following local street standards:</td>
</tr>
<tr>
<td></td>
<td>Pavement</td>
</tr>
<tr>
<td></td>
<td>No On-Street Parking</td>
</tr>
<tr>
<td></td>
<td>Parking on One Side</td>
</tr>
<tr>
<td></td>
<td>Parking on Two Sides</td>
</tr>
<tr>
<td></td>
<td>The LDC requires a wider paved local street in the Urban Area than the options illustrated in the Neighborhood Street Design Guidelines. <strong>Recommendations:</strong> The Street Standards table in Section 71.050 should be amended to be consistent with the</td>
</tr>
<tr>
<td>TPR Requirement (OAR Section 660-12-0045)</td>
<td>Ordinance Compliance/Recommendations</td>
</tr>
<tr>
<td>------------------------------------------</td>
<td>-------------------------------------</td>
</tr>
<tr>
<td></td>
<td>recommendations of the updated (Urban Area) TSP.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TPR Requirement (OAR Section 660-12-0060)</th>
<th>Ordinance Compliance/Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amendments to functional plans, acknowledged comprehensive plans, and land use regulations that significantly affect an existing or planned transportation facility shall assure that allowed land uses are consistent with the identified function, capacity, and performance standards of the facility.</td>
<td><strong>Recommendations:</strong> Revise the LDC to include language that is consistent with the language of this section of the TPR. See the recommendation in Table 1 under this TPR requirement.</td>
</tr>
</tbody>
</table>
### Table 3. Comparison of Klamath Falls Urban Area Local Street Width Standards

<table>
<thead>
<tr>
<th>Street Widths, City of Klamath Falls Urban Area Transportation Systems Plan</th>
<th>Public Works Engineering Standards, City of Klamath Falls</th>
<th>Klamath Falls Community Development Ordinance</th>
<th>Klamath County Land Development Code</th>
<th>Recommended Neighborhood Street Design Guidelines*</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>No On-Street Parking</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22’</td>
<td>35-45’</td>
<td>28’</td>
<td>51-52’</td>
<td>36’</td>
</tr>
<tr>
<td><strong>Parking on One Side</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30’</td>
<td>45-55’</td>
<td>35’</td>
<td>58-59’</td>
<td>36’</td>
</tr>
<tr>
<td><strong>Parking on Two Sides</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>36’</td>
<td>50-60’</td>
<td>42’</td>
<td>65-66’</td>
<td>36’</td>
</tr>
</tbody>
</table>

1 Standards shown are for development where the average lot size is greater than 1 acre; LDC Section 71.050.

III. PLAN & POLICY REVIEW

STATE OF OREGON

Transportation System Planning Guidelines (2008)

ODOT’s Transportation System Plan Guidelines (“Guidelines”) document is comprised of four chapters: an overview of transportation system planning (Chapter 1); guidance for the preparation of a jurisdiction’s first TSP and of TSP updates (Chapters 2 and 3); and policy guidance on transportation and land use issues in a series of technical appendices (Chapter 4). The 2008 Guidelines differ from the 2001 Guidelines in that the updated guidelines focus more on TSP updates, make stronger connections between local transportation needs and the availability of transportation funding, and provide more guidance related to mobility standards, the OTP, and project financing in the technical appendices. The Guidelines also provide electronic links throughout the document for easy access to additional resources.

The chapter on TSP updates is divided into three steps: determining if an update is needed and scoping the update project; preparing an assessment; and addressing recent regulatory and policy changes. The last two steps are relevant to the Klamath Falls Urban Area TSP update, at this point in the planning process.

The TSP Guidelines direct TSP updates to address recent policy and regulatory changes, and call out recent changes to the Oregon Transportation Plan, Oregon Highway Plan, and Transportation Planning Rule. A review of these documents and how they relate to the TSP update is provided in other sub-sections of this memorandum.

Several important changes have been made to state policy since the adoption of the Klamath Falls Urban Area TSP in 1998. The 2006 Oregon Transportation Plan (OTP) emphasizes maintaining facilities, optimizing existing system performance through technology and better system integration, creating sustainable funding, and investing in strategic capacity enhancements. Amendments to the Oregon Highway Plan (OHP) that have potential relevance to transportation planning in Klamath Falls include changes to Policy 1B (Land Use and Transportation), which requires a management plan for Special Transportation Areas on state highways that are also designated as State Freight Routes, and revisions to Policy 1F (Mobility Standards) that allows for the adoption of alternative mobility standards where “practical difficulties make conformance with the highway mobility standards infeasible.” OHP Appendix C (Access Management Spacing Standards) was revised in 2004 to be consistent with amendments to the Access Management Rule, OAR 734-051 (as reviewed later in this memorandum).

The Guidelines detail amendments to the TPR (last updated in 2005), which also have bearing on the TSP update, as well as any other potential Comprehensive Plan amendments in the city. Section -0050 (Project Development) revisions protect determinations of need, mode, function and general location for projects identified in TSPs. Revisions to Section -0060, relating to plan amendments, include the following:

- Require local jurisdictions to balance the need for development with the need for transportation improvements;
• Address "significant effect" by establishing the end of the planning period as the measure for determining whether proposed amendments would cause an imbalance between development and the transportation network serving that development;
• Identify the transportation improvements that a local government can consider in determining whether a proposed amendment will significantly affect transportation facilities; and
• Identify methods for local jurisdictions to determine whether or not a needed transportation facility is reasonably likely to be provided within the planning horizon.

Oregon Transportation Plan (2006)

Originally adopted in 1992, the Oregon Transportation Plan (OTP) is a policy document developed by ODOT in response to federal and state mandates for systematic planning for the future of Oregon’s transportation system. The OTP is intended to meet statutory requirements (ORS 184.618(1)) to develop a state transportation policy and comprehensive long-range plan for a multi-modal transportation system that addresses economic efficiency, orderly economic development, safety, and environmental quality. The 2006 OTP expands on the policy objectives of the 1992 plan, with an emphasis on maintaining assets in place,\(^2\) optimizing existing system performance through technology and better system integration, creating sustainable funding, and investing in strategic capacity enhancements.

The OTP’s goals, policies and strategies guide the development of state multimodal, modal/topic\(^3\) and facility plans and regional and local transportation system plans. The OTP provides the framework for prioritizing transportation improvements and funding, but it does not identify specific projects for development.\(^4\) As required by Oregon and federal statutes, the OTP guides development and investment in the transportation system through:

- Transportation goals and policies,
- Transportation investment scenarios and an implementation framework, and
- Key initiatives to implement the vision and policies.

Goals in the OTP include: Mobility and Accessibility; Management of the System; Economic Vitality; Sustainability; Safety and Security; Funding the Transportation System; and Coordination, Communication and Cooperation. Policies and strategies under many of these goals emphasize increasing coordination and cooperation among federal and state agencies, regional and local governments and private entities to achieve these goals.

---

\(^2\) The OTP defines “asset management” as a “systematic process of maintaining, upgrading and operating physical assets cost-effectively. It combines engineering principles with sound business practices and economic theory, and it provides tools to facilitate a more organized, logical approach to decision-making. Asset management provides a framework for handling both short- and long-range planning.”

\(^3\) Modal or topic plans, as developed by ODOT and other state agencies, include plans for aviation, bicycle and pedestrian facilities, highways, marine ports and waterways, public transportation and rail.

\(^4\) Projects are identified through facility plans and regional and local transportation system plans, and sometimes through modal plans.
The Implementation Framework section of the OTP describes the implementation process and how state multimodal, modal/topic plans, regional and local transportation system plans and master plans will further refine the OTP’s broad policies and investment levels. Local transportation system plans can further OTP implementation by defining standards, instituting performance measures, and requiring that operational strategies be developed.5

The Implementation section also describes three investment levels, examples of the investment priorities for each level of investment, and their impacts on the transportation system. These levels are described as “flat funding” (Level 1), “maintaining and improving existing infrastructure” (Level 2), and “expanding facilities and services and services” (Level 3). The recommendation in the OTP is for the State to invest at levels closer to Level 3 “in order to be competitive economically and to have the transportation infrastructure and services that allow communities to function well.”

Finally, a list of “key initiatives” describes the OTP’s implementation priorities. The key initiatives are intended to help frame plan implementation and reflect the directions of the OTP including system optimization, integration of transportation modes, integration of transportation, land use, the environment and the economy, and the need to make strategic investments using a sustainable funding structure. The key initiatives envision creating the sustainable funding plan using both traditional and new revenue sources.

**Oregon Highway Plan (1999, last amended 2006)**

The Oregon Highway Plan (OHP), an element and modal plan of the state’s comprehensive transportation plan (OTP), guides the planning, operations, and financing of ODOT’s Highway Division. Policies in the OHP emphasize the efficient management of the highway system to increase safety and to extend highway capacity, partnerships with other agencies and local governments, and the use of new techniques to improve road safety and capacity. These policies also link land use and transportation, set standards for highway performance and access management, and emphasize the relationship between state highways and local road, bicycle, pedestrian, transit, rail, and air systems.

The Oregon Transportation Commission adopted the Highway Plan on March 18, 1999. In July 2006, ODOT published an update that includes amendments made from November 1999 through January 2006. The updated TSP will need to be consistent with the OHP and the planning process will review and reference the recent changes to the OHP, where applicable.

The policies found within the OHP that apply to the Klamath Falls Urban Area TSP include:

Policy 1A: State Highway Classification System;

Policy 1B: Land Use and Transportation;

Policy 1C: State Highway Freight System

5 As stated in the Implementation section of the OTP, requirements for regional and local transportation system plans (TSPs) are found in the Transportation Planning Rule (OAR 660-012). Regional and local TSPs must be consistent with the state TSP (the OTP), state multimodal, modal/topic and transportation facility plans.
Policy 1D: Scenic Byways

Policy 1F: Highway Mobility Standards;

Policy 1G: Major Improvements

Policy 1H: Bypasses

Policy 2B: Off-System Improvements;

Policy 2E: Intelligent Transportation Systems (ITS);

Policy 2F: Traffic Safety;

Policy 2G: Rail and Highway Compatibility

Policy 3A: Classification and Spacing Standards;

Policy 3B: Medians;

Policy 3C: Interchange Access Management Areas

Policy 3D: Deviations;

Policy 4A: Efficiency of Freight Movement;

Policy 4B: Alternative Passenger Modes;

Policy 4D: Transportation Demand Management

Policy 4E: Park-and-Ride Facilities; and

Policy 5A: Environmental Resources

Policy 1A: State Highway Classification System.

The 1991 Highway Plan’s Level of Importance Policy classifies the state highway system into four levels of importance (Interstate, Statewide, Regional and District) to provide direction for managing the system and a basis for developing funding strategies for improvements. Remaining unclassified state highways are considered Local Interest Roads. ODOT uses the state highway classification system to guide management and investment decisions regarding state highway facilities. The system guides the development of corridor plans, transportation system plans, major investment studies, review of local plan and zoning amendments, periodic review of local comprehensive plans, highway project selection, design and development, and facility management decisions including road approach permits.

The federal government, as part of the Intermodal Surface Transportation Efficiency Act of 1991, required the establishment of a National Highway System (NHS) to provide an interconnected system of principal arterial routes that will serve “interstate and inter-regional travel.” ODOT has an obligation to ensure that NHS roadways in Oregon adequately perform this function of serving a larger geographic area. Nearly all roadways designated by ODOT as Interstate and Statewide
highways are part of the NHS, as are a smaller number of Regional highways. Highways in and around Klamath Falls that are part of the NHS are listed on the following page.

Within Klamath Falls and the surrounding area, there are state highways with Statewide, Regional, and District Levels of Importance, as described on the following page. The purpose and management objectives of each of these classifications are summarized below.

- **Statewide Highways** typically provide inter-urban and inter-regional mobility and provide 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 management objective is to provide safe and efficient, high-speed, continuous-flow operation. In constrained and urban areas, interruptions to flow should be minimal.

- **Regional Highways** typically provide connections and links to regional centers, Statewide or interstate Highways, or economic or activity centers of regional significance. The management objective for these facilities is to provide safe and efficient, high-speed, continuous-flow operation in rural areas and moderate to high-speed operations in urban and urbanizing areas. A secondary function is to serve land uses in the vicinity of these highways.

- **District Highways** are facilities of county-wide significance and function largely as county and city arterials or collectors. They provide connections and links between small urbanized areas, rural centers and urban hubs, and also serve local access and traffic. The management objective is to provide for safe and efficient, moderate to high-speed continuous-flow operation in rural areas reflecting the surrounding environment and moderate to low-speed operation in urban and urbanizing areas for traffic flow and for pedestrian and bicycle movements.

**ODOT** also classifies certain state highways as “Expressways.” Expressways are complete routes or segments of existing two-lane and multi-lane highways and planned multi-lane highways that provide for safe and efficient high speed and high volume traffic movements. Their primary function is to provide for interurban travel and connections to ports and major recreation areas with minimal interruptions. A secondary function is to provide for long distance intra-urban travel in metropolitan areas. In urban areas, speeds are moderate to high. In rural areas, speeds are high. Usually there are no pedestrian facilities, and bikeways may be separated from the roadway.

The classification of the state highways that pass through and around Klamath Falls is described below.

- **The Dalles-California Highway (US 97)** runs north-south through Klamath Falls, connecting the city with Bend in the north and connecting to I-5 south of the California border. Through Klamath Falls, US 97 is part of the NHS and is designated with a Statewide Level of Importance.

- **Oregon State Route 140 (OR 140)** runs roughly northwest and southeast, skirting the southern edge of the city. Called Lake of the Woods northeast of the city, South Klamath Falls as it passes south of the city, and Klamath Falls-Lakeview to the southeast, OR 140 is also part of the NHS with a Statewide Level of Importance designation. Between its junction with OR66 and its junction with OR 39, OR 140 is also classified as an Expressway.
• Oregon State Route 39 (OR 39), which is called the Klamath Falls-Malin Highway for most of its length in Klamath Falls, is also part of the NHS, but it is designated with a Regional, rather than a Statewide, Level of Importance.

• Oregon State Route 66 (OR66), called the Green Springs Highway, runs southwest to northeast, and terminates at the junction with US 97 in the southwest corner of Klamath Falls. OR66 is classified with District Level of Importance and is not part of the NHS, except where it briefly overlaps with OR 140, where it shares OR 140’s Statewide Level of Importance and NHS designation.

Policy 1B: Land Use and Transportation. Policy 1B applies to all state highways. It is designed to clarify how ODOT will work with local governments and others to link land use and transportation in transportation plans, facility and corridor plans, plan amendments, access permitting and project development. Policy 1B recognizes that state highways serve as the main streets of many communities and strives to maintain a balance between serving local communities (accessibility) and the through traveler (mobility). This policy recognizes the role of both the State and local governments related to the state highway system and calls for a coordinated approach to land use and transportation planning. The policy also provides for three types of highway segment designations – Special Transportation Areas (STAs), Urban Business Areas (UBAs) and Commercial Centers – that provide tools to implement more compact community development patterns.

Policy 1C: State Highway Freight System. The primary purpose of the State Highway Freight System is to facilitate efficient and reliable interstate, intrastate, and regional truck movement through a designated freight system. This freight system, made up of the Interstate Highways and certain Statewide, Regional and District Highways, the majority of which are on the National Highway System, includes routes that carry significant tonnage of freight by truck and serve as the primary interstate and intrastate highway freight connection to ports, intermodal terminals, and urban areas. Highways included in this designation have higher highway mobility standards than other Statewide Highways.

As shown on the maps below, US 97 and OR 140 in Klamath Falls are classified as Freight Routes, as is OR 39 south of the junction with OR 140.
Policy 1D: Scenic Byways. The Oregon Transportation Commission has designated Scenic Byways throughout the state on federal, state, and local roads which have exceptional scenic value. As shown on the maps below, the Lake of the Woods highway (OR 140), the small segment of OR66 that connects OR 140 to US 97, and US 97 south from that junction into California are part of the “Volcanic Legacy” Scenic Byway, which is designated by the federal government as an “All American Road.” For designated Scenic Byways, ODOT will consider aesthetic and design elements along with safety and performance considerations in managing and maintaining the roadway and will develop guidelines for aesthetic and design elements within the public right-of-way.
Policy 1F: Highway Mobility Standards Access Management Policy. This policy addresses state highway performance expectations for planning and plan implementation or amendment, as well as providing guidance for managing access and traffic control systems. For Klamath Falls, this policy pertains to all state highways (see Policy 1A). Action 1F.1 states that highway mobility standards apply to all state highway sections; for areas outside of the Portland Metro area, the maximum volume to capacity ratios for peak hour operating conditions in Table 6 apply. 1F.5 states that within transportation system plans, where the volume-to-capacity (v/c) ratio is worse than the identified standards in the OHP and transportation improvements are not planned, the performance standard for the highway shall be to improve performance as much as feasible and to avoid further degradation of performance.
The Methodology Memorandum and Existing Conditions Memorandum to be provided in Task 3 of the TSP update will present the study intersections and corresponding current mobility standards.

**Policy 1G: Major Improvements.** This policy requires maintaining performance and improving safety by improving efficiency and management before adding capacity.

**Policy 1H: Bypasses.** Bypasses are highways designed to maintain or increase mobility for through traffic, often by providing an alternate route around a downtown, an urban or metropolitan area or an existing highway. In Klamath Falls, there are two highway segments designated as Bypasses: US 97 from its junction with OR 39 to Klamath Falls city limits, and OR 140 from the junction with OR66 to the junction with OR 39.

In order for a bypass to work effectively over the long term, local planning and zoning and the local street network must support the function of the bypass. Local transportation plans and ordinances should assure that land development patterns in the vicinity of the bypass will not use cul-de-sac or other interrupted street network patterns which cause reliance on the new facility for a large number of local trips. In most cases local streets should not directly access the new bypass facility. ODOT and the local governments must agree on the location of connections to the local street network and agree that local streets will be disconnected if they negatively affect the through function of the highway. Local governments and ODOT must agree on the amendment to the TSP or local transportation plan which incorporates the bypass.

**Policy 2B: Off-System Improvements.** This policy recognizes that the state may provide financial assistance to local jurisdictions to make improvements to local transportation systems if the improvements would provide a cost-effective means of improving the operations of the state highway system.

**Policy 2E: Intelligent Transportation Systems (ITS).** This policy seeks to improve the safety and efficiency of transportation facilities, and to generally maximize operations in a cost-effective way. The policy requires coordination with the Oregon Intelligent Transportation Systems Strategic Plan.

**Policy 2F: Traffic Safety.** This policy emphasizes the state’s efforts to improve safety of all users of the highway system. Action 2F.4 addresses the development and implementation of the Safety Management System to target resources to sites with the most significant safety issues.

**Policy 2G: Rail and Highway Compatibility.** This policy seeks to increase safety and transportation efficiency through the reduction and prevention of conflicts between railroad and highway users. Actions to address this policy include eliminating at-grade crossings wherever possible, designing highway projects to avoid at-grade crossings, coordinating highway projects affecting rail crossings with the ODOT Rail Division and the railroads, and addressing pedestrian and bicycle access when designing grade-separated crossings. (See the Oregon Rail Plan review section in this memorandum for an overview of the existing rail system in Klamath Falls.)

**Policy 3A: Classification and Spacing Standards.** This policy addresses the location, spacing, and type of road and street intersections and approach roads on state highways. It includes standards for each highway classification. The adopted standards can be found in Appendix C of the Oregon Highway Plan; generally, the minimum access spacing distance increases as either the highway’s importance or posted speed increases. The access management spacing standards established in
the OHP are implemented by OAR 734, Division 51.\(^6\) Table 1 illustrates the unsignalized intersection access spacing standards as they apply to Urban highways of various levels of importance. (Spacing for at-grade urban expressway intersections is 2,640 feet.)

### Table 1 Access Spacing Standards for Private and Public Approaches\(^1\)

<table>
<thead>
<tr>
<th>Posted Speed (miles per hour)</th>
<th>Minimum Space Required (feet)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Statewide</td>
</tr>
<tr>
<td>≤ 25</td>
<td>520</td>
</tr>
<tr>
<td>30 and 35</td>
<td>720</td>
</tr>
<tr>
<td>40 and 45</td>
<td>990</td>
</tr>
<tr>
<td>50</td>
<td>1,100</td>
</tr>
<tr>
<td>≥ 55</td>
<td>1,320</td>
</tr>
</tbody>
</table>

\(^1\) These access management spacing standards do not apply to approaches in existence prior to April 1, 2000 except as provided in OAR 734-051-0115(1)(c) and 734-051-0125(1)(c).

* Measurement of the approach road spacing is from center to center on the same side of the roadway.

Traffic signal spacing standards supersede access management spacing standards for approaches. For signalized intersections on statewide and regional highways such as US 97, OR 140, and OR 39, OAR 734-020-470 identifies a desired minimum spacing of ½ mile (2,640 feet) be maintained between signalized intersections.

**Policy 3B: Medians.** This policy establishes the state’s criteria for the placement of medians. It includes Action 3B.3 which requires the consideration of non-traversable medians for modernization of all urban, multi-lane Statewide (NHS) Highways as well as all urban, multi-lane Regional Highways where posted speeds are 45 mph or greater. The criteria for consideration include:

- Forecasted average daily traffic greater than 28,000 vehicles per day during the 20-year planning period;
- A higher-than-average accident rate;
- Pedestrian crossing safety issues; and
- Topographic and alignment issues resulting in inadequate left-turn sight distances.

**Policy 3C: Interchange Access Management Areas.** This policy addresses management of grade-separated interchange areas to ensure safe and efficient operation between connecting roadways. Action items include developing interchange area management plans to protect the function of the interchange to provide safe and efficient operations between connecting roadways and to minimize the need for major improvements of existing interchanges. The local jurisdiction’s role in access

---

\(^6\) Oregon Revised Statute (OAR) 734, Division 51, was amended in September 2005 to be consistent with August 2005 OHP revisions to Policy 1B. Specifically, the spacing standards in OAR 734-051 were amended to be consistent with the OHP tables in Appendix C, Access Management Standards.
management is stated in Policy 3C as follows: “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 (Action 3C.2).” Access management standards are detailed in Policy 3C and include the distance required between an interchange and approaches and intersections.

Policy 3D: Deviations. This policy provides the foundation for requests for state highway approach permits that require deviation(s) from access management standards. Procedures for requesting deviations are included in OAR 734-051. Action 3D.5 identifies conditions to consider in evaluating requests for deviations: queuing that increases delays and unsafe operations, pedestrian and bicycle circulation, traffic controls, local road system requirements, improving connectivity to adjacent properties or local road system, potential use of channelization, or potential use of nontraversable medians.

Policy 4A: Efficiency of Freight Movement. This policy emphasizes the need to maintain and improve the efficiency of freight movement on the state highway system. US 97, OR 140, and a portion of OR 39 are designated State Highway Freight Routes. Action 4A.8 under this policy recognizes that local truck routes are important linkages in the movement of freight throughout the state and that truck routes can serve to detour trucks off the state highway system. This action obligates ODOT to coordinate with local jurisdictions when designating, managing and constructing a project on a local freight route. The local truck routes are shown in the following graphic [City of Klamath Falls source?].

Policy 4B: Alternative Passenger Modes. This policy encourages the development of alternative passenger services and systems as part of broader corridor strategies and promotes the
development of alternative passenger transportation services located off the highway system to help preserve the performance and function of the state highway system.

Policy 4D: Transportation Demand Management. This policy establishes the state’s interest in supporting demand management strategies that reduce peak period single occupant vehicle travel, thereby improving the flow of traffic on the state highway system.

Policy 4E: Park and Ride Facilities. This policy seeks to maximize the existing transportation system and passenger capacity by supporting and developing park-and-ride facilities. Basin Transit Service operates two transit centers in Klamath Falls that function as transfer points for the various bus routes, but neither of these provides dedicated parking for transit riders.

Policy 5A: Environmental Resources. This policy intends to protect the natural and built environment – including air quality, fish and wildlife habitat, migration routes, vegetation, and water resources from impacts from state highways and ODOT facilities. Impacts to identified natural resources must be avoided or mitigated by any proposed construction or reconstruction projects on state facilities in Klamath Falls.

Oregon Bicycle and Pedestrian Plan (1995)

The Oregon Bicycle and Pedestrian Plan is a modal element of the Oregon Transportation Plan and provides guidance for planning, design and operation of facilities for bicycle and pedestrian travel. The plan contains the standards and designs used on state highway projects for these facilities.

The plan includes two parts: the Policy and Action Plan and the Planning, Design, Maintenance, and Safety part. The policy section provides background information, including relevant state and federal laws, and contains the goals, actions, and implementation strategies proposed by ODOT to improve bicycle and pedestrian transportation.

Policies in the first part of the plan state that bikeway and walkway systems will be established on rural highways by widening shoulders as part of modernization projects, as well as on many preservation overlays, where warranted. For urban highways, implementation may take place:

• As part of modernization projects (bike lanes and sidewalks will be included);
• As part of preservation projects, where minor upgrades can be made;
• By restriping roads with bike lanes;
• With minor betterment projects, such as completing short missing segments of sidewalks;
• As bikeway or walkway modernization projects;
• By developers as part of permit conditions, where warranted.

Part Two of the plan addresses maintenance and construction issues, and establishes facility design standards for the following bicycle and pedestrian facilities: on-road bikeways (pp. 66-70), restriping existing roads with bike lanes (p. 86), walkways (pp. 91-92), multi-use paths (p. 117), signing and marking (starting p. 143), and street crossings and intersections (crosswalks, raised crosswalks and raised intersections, p. 111-112; intersections pp. 134-135). The plan section on street crossings
(Section II.5) includes standards and guidance for crosswalks, intersections, medians, and islands and refuges.

Standard widths for bike lanes and walkways are six feet. Minimum widths are five feet for bike lanes and walkways, when bike lanes are adjacent to curbs or parking lanes, and four feet for bike lanes when they are on uncurbed shoulders or in other severely constrained areas. For shoulder bikeways, recommended for rural highways, the plan refers to Highway Design Manual standards. Widths should be six feet for roadways with ADT of 400-2000 and eight feet for roadways with ADT greater than 2000.

The Bicycle and Pedestrian Plan is in the process of being updated. While many new pedestrian and bicycle treatments have been developed and incorporated into the update, ODOT program staff report that few design standards for bike and pedestrian facilities will change. However, staff indicate that standards for rumble strips may change, potentially making the strips “friendlier” to bikes.7 Once adopted, the updated Oregon Bicycle and Pedestrian Plan Design Standards and Guidelines will be referenced where bicycle or pedestrian facilities are planned as part of improvements to any of the state-owned facilities in Klamath Falls.

Oregon Rail Plan (2001)

The Oregon Rail Plan is a modal element of the OTP. It is intended to implement the OTP’s long-range vision of a viable freight and passenger rail system in Oregon.

Chapter 1, Rail Policies and Planning, includes federal requirements for rail freight. This chapter includes a section addressing compliance with Statewide Planning Goals. ODOT’s certified State Agency Coordination (SAC) Program and Oregon Administrative Rules Chapter 31, Division 15 describe the procedures that ODOT will follow when developing and adopting plans to assure that they comply with the statewide planning goals and are compatible with acknowledged comprehensive plans. Relevant to a TSP update for the City of Klamath Falls, the stated focus of ODOT’s efforts to establish compatibility with acknowledged comprehensive plans will be at the facility planning and project planning stages of the planning program. Policy 1 under Freight Rail is “increase economic opportunities for the State by having a viable and competitive rail system.” Regarding passenger rail policy, the OTP supports intercity rail passenger service as part of a balanced transportation system. Convenient connections with other modes should integrate passenger train service into a network linking all areas of the state, nation, and the world.

Chapter 2 is the Freight Element of the Oregon Rail Plan. The element has four major purposes: (1) describe Oregon’s freight rail system in terms of the carriers and the individual properties that make up the state railroad system, (2) describe the commodities transported by rail in Oregon, (3) identify funding needs and potential funding sources for railroads in Oregon, (4) assess what shippers

7 Note: This information was obtained from ODOT as part of a 2009 document review for the South US 97 Corridor Plan. Staff indicated that new standards were expected to reflect updated standards in AASHTO’s Guide for the Development of Bicycle Facilities, and that these national standards were slated for update in 2009. (The 1999 edition of the Guide for the Development of Bicycle Facilities is available at AASHTO’s online bookstore.) ODOT’s 2009 Traffic Manual states that: “The Department of Transportation has adopted the AASHTO publication, Guide for the Development of Bicycle Facilities, to establish bikeway design and construction standards, to establish traffic control devices guidelines for bikeways, and recommend illumination standards (6.3 Bicycle Facilities).”
require of rail service in Oregon. Burlington Northern and Union Pacific have rail lines running through Klamath Falls. The two companies share the tracks that run north from Klamath Falls, and have separate tracks running southeast and southwest on the south side of Klamath Falls.

The Passenger Element is in Chapter 3. Amtrak operates passenger rail through Klamath Falls on the Coast Starlight route, which connects Seattle, Portland, Eugene, Sacramento, the San Francisco Bay Area, San Jose, and Los Angeles. The train provides the only direct intercity service to Oregon communities between Portland and Klamath Falls, and overnight service south to California. The Coast Starlight is an important element in Oregon’s tourism and recreational industries. Sparse population between Eugene and Klamath Falls is unlikely to support a state-sponsored corridor train extension, but increasing popularity of the Coast Starlight may eventually require Amtrak to consider additional through service on the route. Station building improvements and improved passenger platforms at the Klamath Falls station are needed to meet current and projected passenger usage (p. 108).

There is also daily inter-city bus service from Klamath Falls to Medford, Ashland, Lakeview, Chemult, and Bend.

**Oregon Public Transportation Plan (1997)**

The Oregon Public Transportation Plan forms the transit modal plan of the Oregon Transportation Plan. The vision guiding the Public Transportation Plan is as follows:

> The public transportation plan builds on and begins implementing the OTP’s long-range vision for public transportation in the State of Oregon. That vision includes:

- A comprehensive, interconnected and dependable public transportation system, with stable funding, that provides access and mobility in and between communities of Oregon in a convenient, reliable, and safe manner that encourages people to ride
- A public transportation system that provides appropriate service in each area of the state, including service in urban areas that is an attractive alternative to the single-occupant vehicle, and high-quality, dependable service in suburban, rural, and frontier (remote) areas
- A system that enables those who do not drive to meet their daily needs
- A public transportation system that plays a critical role in improving the livability and economic prosperity for Oregonians.

The plan contains goals, policies, and strategies relating to the whole of the state’s public transportation system. The plan is intended to provide guidance for ODOT and public transportation agencies regarding the development of public transportation systems.

Basin Transit Service (BTS) provides bus and trolley service within Klamath Falls. The Basin Transit Service Transit Development Plan (TDP) is reviewed in a later subsection of this memorandum. Proposed policies and projects that result from this TSP update process will be reviewed in consultation with Basin Transit Service for consistency with the TDP and recent BTS planning efforts.
Access Management Rule (OAR 734-051)

Oregon Administrative Rule 734-051 defines the State’s role in managing access to highway facilities in order to maintain functional use and safety and to preserve public investment. The provisions in the OAR apply to all roadways under state jurisdiction within Klamath Falls. The access management rules include spacing standards for varying types of state roadways. It also lists criteria for granting right of access and approach locations onto state highway facilities.

The access management rule also provides criteria for granting right of access and approach locations onto state highway facilities (0080) and for potential deviations from spacing standards (0135). Section –0155 identifies when, how and why ODOT will develop access management plans and interchange area management plans for particular sections of a highway.

Freight Moves the Oregon Economy (1999)

This report summarizes a variety of information about issues and needs surrounding the transport of freight by roads, rail lines, waterways, aircraft, and pipelines. The document’s stated purpose is to demonstrate the importance of freight to the Oregon economy and identify concerns and needs regarding the maintenance and enhancement of current and future mobility within the state of Oregon.

The report describes the US 97 corridor as “the most important north-south corridor for freight movements east of the Cascade Mountains” and notes that it provides an important alternative for freight moving between the Willamette Valley and northern California. The highways identified in the OHP as part of the NHS, including US 97 and OR 140, are significant for freight movement. The importance of freight movement will be a consideration during the Klamath Falls Urban Area TSP update as it pertains to access to US 97 and OR 140 and how the local roadway system intersects with Union Pacific and Burlington Northern rail operations.

In addition, Pacific Gas Transmission has natural gas transmission lines that run from the California border to the Washington border and pass through Klamath Falls, with another line from Klamath Falls to Medford.

Klamath Falls also has one of seven large (over 500,000 bushels of capacity) grain elevators in the state where grain is brought in by truck and shipped out by rail, providing an important link between modes of freight movement.

Oregon Aviation Plan (2000)

The 1999 Oregon Aviation Plan (OAP) defines policies and investment strategies for Oregon’s public use aviation system for the next 20 years. It further refines the goals and policies of the Oregon Transportation Plan and is part of the OTP. The plan provides an overview of the airports in the system and the jurisdictional responsibilities at all levels of government for the management,
City of Klamath Falls Transportation System Plan Update
TM #1 Plans and Policy Review
11/08/10 TAC/CAC REVIEW DRAFT

maintenance, operation, and funding of Oregon’s airports. It also categorizes airports based on functional role and service criteria. The plan contains policies and recommended actions to be implemented by Oregon Aeronautics in coordination with other state and local agencies and the Federal Aviation Administration. It also presents system level service measures and needs analysis based on these measures.

The Klamath Falls International Airport is classified as a Category I commercial service airport. The significant function of this class of airport, according to the OAP, is to accommodate scheduled major/national or regional/commuter commercial air carrier service. The Klamath Falls Airport is categorized as a small/medium airport based on existing commercial air service. However, many facility requirements are dictated by the unique military activity at the airport. (See the Klamath County Rural Transportation System Plan review (under “Regional Plans” heading) and the Klamath Falls Airport Master Plan review (under “Local Plans”) of this memorandum for summaries of services and land uses at the Klamath Falls Airport.)

State Transportation Improvement Program (2000-present)

The State Transportation Improvement Program (STIP) is the programming and funding document for transportation projects and programs statewide. The projects and programs undergo a selection process managed by ODOT Regions or ODOT central offices. The document covers a period of four years and is updated every two years. Listed below are projects in Klamath County from the current, adopted STIP from 2008 through 2011, that are funded for FFY 2010 and 2011. A draft STIP for 2010 through 2013 is under development and has not been adopted at this time. [Need City and County to identify which projects are within the UGB.]

<table>
<thead>
<tr>
<th>Section Route</th>
<th>Highway Name</th>
<th>Total Cost</th>
<th>Description</th>
<th>Year (FFY)</th>
</tr>
</thead>
<tbody>
<tr>
<td>OR140: BEATTY CURVES</td>
<td>OR-140</td>
<td>KLAMATH FALLS-LAKEVIEW</td>
<td>$3,955,000</td>
<td>REALIGN HIGHWAY TO CORRECT CURVE, IMPROVE SAFETY &amp; FREIGHT MOBILITY</td>
</tr>
<tr>
<td>OR140: BNSF (DAIRY) BRIDGE REPLACEMENT</td>
<td>OR-140</td>
<td>KLAMATH FALLS-LAKEVIEW</td>
<td>$2,622,000</td>
<td>REPLACE BRIDGE #02147</td>
</tr>
<tr>
<td>OR39: ALAMEDA AVE PARTIAL VIADUCT BRIDGE #06741</td>
<td>OR-39</td>
<td>KLAMATH FALLS-MALIN</td>
<td>$1,658,000</td>
<td>REPLACE BRIDGE #06741</td>
</tr>
<tr>
<td>OR422: WILLIAMSON RIVER BRIDGE #01959</td>
<td>OR-422</td>
<td>CHILOQUIN</td>
<td>$1,113,000</td>
<td>DECK REPLACEMENT. NEW RAILS.</td>
</tr>
<tr>
<td>OR66:GREEN SPRINGS INTERCHANGE AREA MANAGEMENT PLAN</td>
<td>OR-66</td>
<td>GREEN SPRINGS</td>
<td>$425,000</td>
<td>PLANNING PROJECT</td>
</tr>
<tr>
<td>Section Description</td>
<td>Route</td>
<td>Highway Name</td>
<td>Total Cost</td>
<td>Description</td>
</tr>
<tr>
<td>----------------------------------------------------------</td>
<td>-------</td>
<td>-----------------------</td>
<td>------------</td>
<td>------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>OR39: LINK RIVER BRIDGE #01579 (KLAMATH FALLS)</td>
<td>OR-39</td>
<td>KLAMATH FALLS-LAKEVIEW</td>
<td>$231,000</td>
<td>DECK OVERLAY; REPAIR CRACKED SUPERSTRUCTURE &amp; SUBSTRUCTURE BRIDGE 01579</td>
</tr>
<tr>
<td>OR39: MATNEY - MERRIL N CITY LIMITS</td>
<td>OR-39</td>
<td>KLAMATH FALLS-MALIN</td>
<td>$629,000</td>
<td>PAVEMENT PRESERVATION, T-UP INTERSECTION, ADD RIGHT TURN DECEL LANE</td>
</tr>
<tr>
<td>Klamath Falls Adaptive Signal Timing</td>
<td>OR-39</td>
<td>KLAMATH FALLS-MALIN</td>
<td>$75,000</td>
<td>INSTALL COMMUNICATION INFRASTRUCTURE &amp; SOFTWARE FOR SIGNAL TIMING SYSTEM</td>
</tr>
<tr>
<td>OR140 @ Washburn Way (KLAMATH FALLS)</td>
<td>OR-140</td>
<td>SOUTH Klamath Falls</td>
<td>$50,000</td>
<td>INTERSECTION MODERNIZATION IMPROVEMENT</td>
</tr>
<tr>
<td>OR39 @ Gettle (KLAMATH FALLS)</td>
<td>OR-39</td>
<td>KLAMATH FALLS-MALIN</td>
<td>$44,000</td>
<td>INTERSECTION IMPROVEMENT</td>
</tr>
<tr>
<td>US97: Mississippi Dr - Crescent Ranger Station</td>
<td>US-97</td>
<td>The Dales-California</td>
<td>$865,000</td>
<td>PAVEMENT PRESERVATION; REPLACE GUARDRAIL &amp; SIGNS; INSTALL OR REPLACE CURBS &amp; SIDEWALKS</td>
</tr>
<tr>
<td>US97: Hagelstein Park - N Shady Pine</td>
<td>US-97</td>
<td>The Dales-California</td>
<td>$1,606,000</td>
<td>DEVELOP PROJECT TO WIDEN SHOULDERS, ADD ROCKFALL PROTECTION &amp; DECEL LANE</td>
</tr>
<tr>
<td>Region 4 Chip Seal Projects on OR58 &amp; US97 HWYS</td>
<td>VARIOUS HIGHWAYS</td>
<td></td>
<td>$2,800,000</td>
<td>CHIP SEAL PRESERVATION PROJECTS ON OR58 MP70-86 &amp; US97 MP195-240</td>
</tr>
<tr>
<td>OR39: 6TH ST (AUSTIN AVE) - MERRILL/LAKEVIEW W JCT</td>
<td>OR-39</td>
<td>KLAMATH FALLS-MALIN</td>
<td>$250,000</td>
<td>PAVEMENT PRESERVATION</td>
</tr>
<tr>
<td>OR140: Curve Corrections (MP43-45)</td>
<td>OR-140</td>
<td>KLAMATH FALLS-LAKEVIEW</td>
<td>$800,000</td>
<td>CURVE CORRECTIONS</td>
</tr>
<tr>
<td>Bonanza Safe Walk Project</td>
<td>OR-70</td>
<td>Dairy-Bonanza</td>
<td>$391,000</td>
<td>BIKE &amp; PEDESTRIAN IMPROVEMENTS AND TRAFFIC CALMING</td>
</tr>
</tbody>
</table>

Source: [http://highway.odot.state.or.us/cf/STIPSrch/index.cfm](http://highway.odot.state.or.us/cf/STIPSrch/index.cfm)
REGIONAL AND COUNTY PLANS

Klamath County Comprehensive Plan (2010)

The Klamath County Comprehensive Plan was originally adopted in 1984 and last updated in January 2010. The Comprehensive Plan includes general transportation policies in the Goal 12 chapter, but more detailed transportation policies are included in the Klamath County Rural Transportation System Plan, reviewed separately in this memorandum. Relevant policies from the Comprehensive Plan are listed below by Goal.

Goal 2 – Land Use:

13. POLICY: The County shall encourage commercial/industrial development and identify potential industrial and commercial sites for uses that are compatible and related to airports in Klamath County.

Implementation: Lands proposed for rezoning that lay within the Airport/Transportation Development Zone will be restricted to commercial and industrial development. If land proposed for application of this development zone is designated for agricultural/forestry use, an exception to the applicable Statewide Planning Goals, through the plan amendment process, will be required.
Goal 10 – Housing:

11. POLICY: The County will encourage the use of planned unit development (PUDs) and other forms of clustered housing that introduce innovative and cost-effective approaches to siting, block layout, design and landscaping.

Goal 11 – Public Facilities:

1. POLICY: In order to achieve the requirements of State-wide Planning Goal 11, the County shall, in cooperation with the City of Klamath Falls, prepare and adopt a public facilities plan describing the water, sewer, transportation, and other urban facilities and services which are to support land uses within the Klamath Falls UGB.

2. POLICY: The County may encourage the development of a public facility or service in an urbanizable area only when there is provision for the coordinated development of all other urban facilities and services appropriate to the area.

Goal 12 – Transportation:

4. POLICY: The County shall encourage the extension of rail lines to serve major industrial developments, provided that such rail lines do not disrupt auto traffic or transport hazardous cargoes through residential areas.

5. POLICY: The width and spacing of driveways along arterials shall be restricted. Where necessary, turning lanes cut out of abutting property or the construction of parallel frontage roads shall be required, if adequately proven to be necessary by the governing body or agency.

Implementation: The Land Development Code establishes development standards regulating ingress and egress of land uses abutting major arterials.

6. POLICY: Higher density residential development should when feasible, be located within walking distance (1,000 feet to one quarter mile) of major arterials.

Implementation: The land use plan should locate, when feasible, higher density residential development near major arterials, and the Land Development Code shall require pedestrian walkway along future streets.

7. POLICY: The County shall encourage local governments to improve the convenience and safety of pedestrian and bicycle transportation.

8. POLICY: The Country shall encourage existing airports to be maintained and improved, and encourage the development of additional airports as needed.

10. POLICY: Height and use of structures within the approach and departure zones designated for the Klamath Falls Municipal Airport in the 1976 Airport Master Plan shall be limited (Arnold Thompson Associates, Inc., Master Plan, Klamath Falls Municipal Airport, April, 1976); specifically:

A. The height of all structures within the airport approach and departure zones shall be limited.
B. All residential and heavy-use (i.e., uses where large numbers of people congregate) land uses within the airport approach safety zones shall be restricted or prohibited.

C. Uses which would create interference with or hazards to aviation shall be prohibited.

11. POLICY: A safe, convenient and economic transportation system, adequate to serve anticipated growth, shall be developed that will minimize adverse social, economic and environmental impacts and costs of the transportation systems.

Goal 14 – Urbanization:

3. POLICY: During partitioning or subdividing of urban land, the County shall encourage parcels of adequate dimension so as to maximize the utility of land resources and enable the logical and efficient extension of services to such parcels.

Implementation: The land use plan designates residential densities that follow a hierarchy of high to low densities from central to outer areas.

Updated TSP goals and policies will need to be found consistent with County transportation goals and policies that pertain to the Klamath Falls Urban Area.

Klamath County Rural Transportation System Plan (2010)

The Klamath County Rural Transportation System Plan (“County TSP”) provides for transportation development in the rural areas of the County. The planning area for the Klamath County TSP is generally outside the Klamath Falls Urban Growth Boundary. The plan includes transportation issues related to the incorporated cities of Chiloquin, Bonanza, Merrill and Malin; the TSP also addresses proposed capital investments in rural communities. Overall, the TSP includes transportation issues related to state and county facilities, and not city facilities.

Chapter 3 identifies major county roadways and briefly describes their current use and condition; appendices A, B, and C provide detailed information about county roads and their current condition, including paving and presence of certain features such as sidewalks. Chapter 3 notes that all of the most heavily used county roads identified have one lane in each direction, that none have curbs, sidewalks or parking, and that traffic controls are stop signs.

Chapter 3 also identifies dedicated bike facilities in the county, including the State Park Trail, a paved “Rails to Trails” corridor extending east from Klamath Falls to the rural community of Olene, utilizing the old railroad right-of-way.

The County TSP includes a description of the Klamath Falls Airport (Kingsley Field). The Airport offers commercial air service (7 percent of operations), general aviation services (56 percent), air taxi services (7 percent), and also is home to the Oregon Air National Guard 173rd Fighter Wing (30

10 The County TSP includes county roadways that traverse the Klamath Falls Urban Area, as well as the city limits. The updated City TSP will need to be consistent with the County’s policies, roadway classifications, and planned improvements for these facilities.
percent). The airport is served by Horizon Air, which provides three daily flights to and from Portland, and currently serves about 30,000 annual passengers. Land uses adjacent to the airport include:

- An industrial park developed by Klamath Economic Development group
- A new Business Park adjacent to the airfield, developed by the airport on airport property
- Agricultural lands
- Minor residential development

The County TSP also notes that both Bel-Tec and Qwest have fiber optic lines in Klamath County, and that Bel-Tec has two lines that are entirely within the City of Klamath Falls. One hub is located at 403 Pine St, and the other hub is located at the Sheriff's Office on Vandenberg Rd.

Chapter 7 includes sections addressing roads, transit, bicycle and pedestrian facilities. The Roadway Element includes a map of roadway functional classification around Klamath Falls, reproduced below, and a description of each classification.

The purpose and management objectives of each of these classifications are summarized below.
• Rural Principal Arterials (State Highways) serve as the primary gateways in and out of the Klamath County area. These highways are critical to the county because they generally serve the highest traffic volumes and longest trips between major attractors. Access control is critical on these facilities to ensure that they operate safely and efficiently.

• The Rural Minor Arterial System, in conjunction with the rural principal arterial system, links cities, larger towns, and other traffic generators that are capable of attracting travel over longer distances; provides routes for interstate and inter-county travel; runs within a reasonable distance of all developed areas of the state; and provide for relatively high travel speeds and minimum interference to through movement.

• Rural Collector routes generally serve intra-county rather than statewide travel with predominant travel distances shorter than on arterial routes and more moderate speeds.
  o Major Collector Roads serve county seats not on arterial routes, larger towns not directly served by the higher systems, and other traffic generators of equivalent intra-county importance; link these places with nearby larger towns or cities, or with routes of higher classifications; and serve the more important intra-county travel corridors.
  o Minor Collector Roads accumulate traffic from local roads and bring all developed areas within reasonable distances of collector roads; provide service to smaller communities; and link locally important traffic generators with their rural hinterland.

• The rural local road system primarily provides access to land adjacent to the collector network and serves travel over relatively short distances. The local road system constitutes all rural roads not classified as principal arterials, minor arterials, or collector roads.

Table 7-1 of the TSP (reproduced below) summarizes the design standards that are found in the Klamath County Department of Public Works Standard Drawing, which is Appendix “A” to the Land Development Code.

### Recommended Design Standards for Klamath County Road Department

| Roadway Design Standards | Truck Route = 12 feet  
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Vehicle Lane Widths:</td>
<td>Arterial = 12 feet</td>
</tr>
<tr>
<td>(minimum widths)</td>
<td>Collector = 12 feet</td>
</tr>
<tr>
<td></td>
<td>Local = 10-11 feet</td>
</tr>
<tr>
<td></td>
<td>Turn Lane = 10-14 feet</td>
</tr>
<tr>
<td>On-Street Parking:</td>
<td>Not Applicable</td>
</tr>
</tbody>
</table>
| Bicycle Lanes:           | Arterials = 4’ paved shoulder  
| (minimum widths)         | Collectors = 4’ paved shoulder  
|                          | Curb & Gutter Streets = 5’  
|                          | Standard Bike Lane = 6’    |
| Sidewalks:               | Shoulder or separated pathway  
| Landscape Strips:        | Optional                  |
| Medians:                 | Optional                  |
| Neighborhood Traffic Management / Traffic Calming: | None |
| Turn Lanes:              | When warranted            |
| Maximum Grade:           | Arterials = 6 %           |
|                          | Collectors = 6 %          |
|                          | Local Streets = 10 %      |
In Klamath County, rural roadways generally do not require separate bicycle or pedestrian facilities. Bicyclists and pedestrian are generally accommodated on the shared roadway or on a shoulder, depending on traffic volumes. Bike lanes or shared roadway facilities may be provided on arterials and collectors in areas where forecasted traffic volumes and bicycle use warrant their consideration. In areas with high bicycle and/or pedestrian activity, the standards suggest a pathway, preferably located on both sides of the roadway, separated from the roadway by at least five feet of greenbelt or a drainage ditch.

The Roadway Element also addresses access management, acknowledging ODOT’s standards for state roadways, and lists proposed access management guidelines by roadway functional classification for county roads in Table 7-5, reproduced below. These access management guidelines are generally not intended to eliminate existing intersections or driveways; they are intended to be applied as new development occurs.

<table>
<thead>
<tr>
<th>Functional Class</th>
<th>System Spacing</th>
<th>Minimum Spacing</th>
<th>Corner Clearance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural Major Arterial</td>
<td>1 mile</td>
<td>1,000</td>
<td>1,000</td>
</tr>
<tr>
<td>Rural Minor Arterial</td>
<td>1 mile</td>
<td>500</td>
<td>600</td>
</tr>
<tr>
<td>Rural Major Collector</td>
<td>¼ mile</td>
<td>250</td>
<td>100</td>
</tr>
<tr>
<td>Rural Minor Collector</td>
<td>¼ mile</td>
<td>250</td>
<td>50</td>
</tr>
<tr>
<td>Rural Local Street</td>
<td>200-400 feet</td>
<td>75</td>
<td>25</td>
</tr>
</tbody>
</table>

The project list included in Chapter 7 for roadways and freight includes several projects in the vicinity of Klamath Falls urban area. The project team will work with City, County and regional ODOT staff to identify projects within the Klamath County Rural Transportation System Plan that have the potential to influence projects and alternatives developed as part of the Klamath Falls Urban Area TSP update.

The implementation chapter (Chapter 9) notes that because the scope of the TSP does not include the Klamath Falls urban area, the focus of the recommended plan and code amendments pertain to:

- Rural portions of the county and urban areas for the remaining cities;
- Protecting street and road operations including implementing access controls and conditions on new development;
- Encourage alternatives to automobile use by providing safe and convenient pedestrian and bicycle circulation; and
- Reduced parking requirements where possible.

However, one of the proposed amendments to the county’s development code applies within the Klamath Falls UGB:

62.040

*Front setbacks of 25 feet are required for the CN, CG, CR, and CT zones.*

*This standard should be reduced to 0 feet (for areas inside the Klamath*
**Falls UGB** and to 5 feet (for areas outside the Klamath Falls UGB).

Comment: While creating a good pedestrian environment is not a TPR requirement, it is very difficult to attain between major streets and parking areas. People generally walk in these places because they have to and not because they want to. Required setbacks such as these encourage commercial development to have parking in the front and the building in the rear. New commercial development should at least be given the option of locating the building near the street with parking to the rear or side.

**Klamath County Land Development Code**

The Land Development Code (LDC) regulates all land development within Klamath County that is not within an incorporated city, including land within the Klamath Falls UGB that is not inside city limits. Requirements pertaining specifically to the Klamath Falls Urban Area are located throughout the LDC. An assessment of LDC compliance with the requirements of the Transportation Planning Rule, as code requirements relate to the Urban Area, is found in Section II, Table 2 of this memorandum.

Chapter 10 includes general provisions about the use of the code. Chapter 20 establishes uniform procedures for reviewing permit applications and for making decisions on matters pertaining to the use and development of lands within Klamath County; Chapter 30 prescribes procedures for public hearings, public notice and appeal of decisions reached as a result of the review procedures described in Chapter 20. Chapter 40 provides standards and criteria for development permit and change of land use applications. Chapter 50 establishes land use zones to implement the goals and policies of the Comprehensive Plan, defines the purpose of each zone, and specifies the types of land uses appropriate for each zone.

Chapter 60 and 70 establish site development standards. Chapter 60 includes planning standards, such as Lot Size and Shape (Article 61); Building Heights and Setbacks (Article 62); Fences, Walls and Screening (Article 64); Landscaping (Article 65); Signs (Article 66); and Parking (Article 68). Chapter 70 has public works standards addressing vehicular access and circulation; street names, numbers and signs; and other infrastructure. Section 71.050, Improvements in the Klamath Falls Urban Area, contains required right-of-way improvements for the Urban Area. Section 71.100 limits cul-de-sacs in the Urban Area to 500 feet in length and they may not serve more than 18 dwelling units. Water and sewer service in Urban Areas are governed by Article 74; Urban Area utilities are addressed in Article 76.

Chapter 80 establishes supplementary property development standards for land uses that present unique or complex land use planning opportunities or constraints, including standards for Planned Unit Development; manufactured dwellings, recreational vehicles, and parks; destination resorts; and other uses. Chapter 90 includes only a Sensitive Bird Species Habitat Overlay.

The following sections of the LDC contain provisions that regulate transportation facilities and improvements in Klamath County:

- **62.060 - Vision Clearance (Building Setbacks)**
- **64.020 - Vision Clearance (Fences, Walls, and Screening)**
- **Article 71 - Vehicular Access AND Circulation**
Basin Transit Service Transit Development Plan (1995)

Basin Transit Services is the public transit agency for the Greater Klamath Falls Urban Area. The Transit District extends from Terminal City in the north to Kingsley Field in the south and from the Klamath Falls city limits to an area just beyond OR 39 in the east. Within this area, BTS provides a combination of fixed route and demand responsive services.

The Transit Development Plan (TDP) was developed in December 1995. Its purpose was to develop a program of detailed service improvements for Basin Transit over a ten year timeline with a series of options to pursue over the long term. The restructuring plan prepared as part of the TDP study (the “no growth improvement plan”) was implemented in August 1995, so many of the changes recommended had been implemented at the time the plan was adopted.

The system represented by the 1995 no growth improvement plan is largely the same system in operation today, with the exception of modifications to two of the routes (Route 4 and Route 6). It consists of six fixed routes; Routes 1 and 2 jointly constitute a “mainline”, while the other four routes leave from transit stations that provide timed transfers. As part of the no growth improvement plan, two transfer stations were consolidated; the exact site of the new transfer station had not been determined at the time of the plan, but it has since been sited at the intersection of Altamont and South 6th. The existing system map (from the Basin Transit Service website) is provided on the following page.
The plan contained two options for expansion of the system beyond the no growth improvement plan, both of which provided increased frequency on the same routes rather than adding additional routes for fixed route service. It also listed two intersections that required improvements (Washburn & Laverne and Avalon & Shasta), noting that the intersections were unsafe at their current traffic volumes. It recommended signals, or, as in interim solution, four-way stops for those intersections.

Chapter 10 of the TDP outlines Basin Transit Services’ policies, goals, and objectives for long-range planning. It notes that service effectiveness, especially for fixed-route service, is strongly impacted by the density and intensity of development. It also notes that increasing the frequency of fixed route service...
services is a higher priority than expanding geographic coverage as frequency has a greater impact on ridership. One of the goals outlined in Chapter 10 is to coordinate transit system development with community planning and development efforts, land use policy, and other transportation services. Related objectives are listed below (p. 10-6).

**Objectives:**

a. Encourage new facilities which may have public transit impacts to locate in current service areas, with pedestrian access from current stops.

b. Encourage any new large developments to provide streets for through-operation of transit, and amenities (signs and shelters) for transit users.

c. Charge new facilities outside service areas which require service incremental cost of new service.

d. Coordinate with private transportation services.

The document also suggests staff review of development proposals in light of BTS standards and guidelines; coordination with local government to implement development guidelines, standards, and incentives to encourage transit oriented development; and staff review for signs and shelters in new developments.

Chapter 10 also includes a set of transit-supportive land use guidelines and policies based on a central concept of intensification of land uses in areas of existing transit service. This section presents two alternative policies that support intensification to assist transit: a mainline transit overlay zone, or an arterial and collector street development policy. The mainline transit overlay zone would entail the designation of an overlay zone within one-half mile of Mainline Route 1; within this area, increased densities would be encouraged. The alternative policy would encourage new multi-family, commercial, and industrial development to locate along streets designated as arterials and collectors in the Transportation System Plan. Basin Transit identified potential incentives including reduction or elimination of permit and development fees, tax breaks, reduction of setback and open space requirements, or reduction of parking requirements. The plan also suggests that the city could create impact fees intended to address demand for future transit service expansion and charge them to developments located outside the overlay district or development other than single-family and two-family residential not on arterials or collectors. Basin Transit also suggests some transit-supportive development requirements:

- Requiring developments adjacent to designated arterial and/or collector streets to provide a clearly defined pedestrian pathway between each structure’s primary entrance and the street right-of-way.

- Requiring new developments and substantial improvements (>25% of the existing development value) in areas zoned for multi-family, commercial, or industrial use to improve any adjacent designated bus stop areas with benches, shelters, lighting, informational displays, etc. up to a limit of 5% of the value of the project.

Chapter 10 also identifies ways in which the city’s street system can support transit, including:

- Signalization projects at identified dangerous intersections (Washburn & Laverne and Avalon & Shasta)
• Providing bus pullouts on new and redeveloping arterial streets in coordination with Basin Transit

• Requiring sidewalk and lighting improvements on both sides of arterial and collector streets and local streets in areas zoned for anything other than single-family or two-family residential (local streets in single-family and two-family residential areas would still be required to provide sidewalks and lighting on one side of the street). Recommended minimum sidewalks widths are shown in the table below.

<table>
<thead>
<tr>
<th>Street Class / Zoning</th>
<th>Residential</th>
<th>Commercial</th>
<th>Light Industrial</th>
<th>Industrial</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local</td>
<td>5’</td>
<td>6’</td>
<td>6’</td>
<td>5’</td>
</tr>
<tr>
<td>Collector</td>
<td>6’</td>
<td>6’</td>
<td>6’</td>
<td>6’</td>
</tr>
<tr>
<td>Arterial</td>
<td>6’</td>
<td>8’</td>
<td>8’</td>
<td>6’</td>
</tr>
</tbody>
</table>

• Limiting curb cuts through shared driveways and minimizing driveway widths

• Including bus shelters at stops where boarding volumes warrant (>10 people per day); guidelines for shelter design are also provided

Klamath Falls Urban Area Economic Opportunity Analysis (2009)

The 2009 Economic Opportunities Analysis and Long-Term Urban Land Need Assessment developed by the firm Johnson and Gardner is referred to as the Klamath Falls Urban Area Economic Opportunity Analysis, or KFEOA. The intent of the document is to provide the City with research and analysis of potential urban growth scenarios to assist in determining urban reserves needs over twenty-year and fifty-year planning periods. The document’s Statement of Purpose confirms that the analysis forecasts employment land demand consistent with State Planning Goal 9 Economic Opportunities Analysis methodology and documentation requirements.

The KFEOA includes goals and policies for the Klamath Falls Urban Area (i.e., land within the urban growth boundary) and, once the KFEOA is adopted, these will guide the City’s future economic development and employment land decisions. Related to the City’s goal to ensure an adequate land supply to accommodate economic growth (Goal 3, p. 70), the City will “Consider the transportation infrastructure needs of target industry opportunities when preparing Transportation System Plan updates and corridor plans to implement the City’s Goal 9 objectives (Implementation 3-5(c)).” The policy section also documents the City’s commitment to working with Basin Transit Service to increase level of service (“encourage efficient use of public facilities” through site selection criteria, Goal 4, Implementation 4-1(c)).

The KFEOA includes an economic trend analysis (national, regional, and local) and explores the area’s regional competitiveness, detailing industry sectors where the local economy is both regionally competitive and/or has growth potential. These sectors include wood products, educational and vocational training, medical services and bioscience, and emerging sectors (renewable energy and regional retail). Specific to transportation forecasting, the KFEOA forecasts employment within the City of Klamath Falls’ Urban Growth Boundary through 2028 (based on demographics from the state)
and, after evaluating site requirements by industry and documenting existing land supply and suitability, identifies needed employment lands for both the 20- and 50-year planning horizon.11

Figure 16 presents a forecast of total employment for Klamath Falls between 2008 and 2028; the baseline employment forecast anticipates an increase of 6,418 jobs, reflecting an average annual growth rate (AAGR) of 1.2%. The KFEOA states:

Significant employment gains are expected in existing employment sectors including Retail Trade and Education & Health Services. The Professional & Business Services sector is expected to continue on an accelerated growth trend. The sector has grown by over 75% during the current decade. Over the course of the planning period, we expect the maturation of the Klamath Falls economy to produce noteworthy growth in professional services on the margin. The State’s regional forecast of manufacturing employment; which includes a pessimistic outlook for Wood Products Manufacturing, produces a limited forecast of less than 100 new Manufacturing jobs in Klamath Falls over the planning period.

The KFEOA also includes alternative growth scenarios, which assume that the City will capture a significant share of the growth in the emerging renewable energy industry over the planning period. Alternative growth scenarios assume a 15% to 30% capture of regional growth forecasts resulting in an emerging industry forecast of 883 to 1,766 new jobs over the planning period (p. 29). In addition to emerging growth from renewable energy, the alternative growth scenarios also assume economic growth above and beyond the State’s demographically driven forecast resulting from:

…broader economic growth, greater competitiveness with neighboring employment areas, the strengthening of existing targeted industries, higher intensity demographic growth, and the City’s goals policy, and aspirations:

Medium Growth Scenario: Assumes a 1.4% AAGR across existing industries and composition.

High Growth Scenario: Assumes a 1.6% AAGR across existing industries and composition.

As stated in the KFEOA, this methodology translates into an additional 4,856 to 8,238 jobs beyond the baseline capture forecast.

Figure 27 illustrates where vacant sites are located in Klamath Falls’ UGB and Figure 27, Vacant Land Supply by General Land Type, identifies that most of this land is heavy industrial. The 20-Year Supply/Demand Reconciliation section includes the estimates of gross demand and need for employment land by type (“site category”). Figure 33 provides detailed assessment of employment land demand and need (gross acres) by site quality through 2028. The results reflect three employment growth scenarios and correlate to employment site demands (provided in Figure 22). Klamath Falls will have a surplus of 52 gross acres of office commercial land under the Baseline Scenario and will need an additional 37 gross acres under the High Growth Scenario to meet economic opportunities identified in this analysis. The City has a significant amount of industrial land and only has a land need under the High Growth Scenario (97 acres). However, the KFEOA

11 Because the planning horizon for the KFEOA is greater than the planning period that will be considered for the TSP update, only information relevant to the 20-year economic horizon will be summarized in this memorandum.
documents that the supply of adequate sites for a large industrial use is not available over the short-term; Klamath Falls does not have an unconstrained "shovel-ready" industrial parcel in the vicinity of 35 acres (p. 60). Under the Baseline Scenario, the City has a surplus of retail commercial (93 acres), but will need 223 gross acres suitable for retail commercial development over the planning period, particularly "Large" and "Medium" sites. The KFEOA does not include a locational analysis indicating where land needs may be satisfied in the future.

Also relevant to forecasting future transportation demand, the KFEOA includes a subregional commercial land analysis (Appendix G). This analysis divides the urban area into four subregions (North, South, East, and West) and documents that under current conditions, the majority of Klamath Falls' commercial activity occurs along its major corridors on the east side of the river; specifically South 6th Street, Klamath Downtown, and Washburn Way, and that very little commercial services exist on west of the Klamath River. Appendix G includes an analysis of commercial land needs on a subregional basis, based on residential and non-residential support; Table 8 summarizes the short-term subregional supply and demand; the following conclusions wrap up the subregional commercial land needs analysis.

- **Over a five-year period, the North and South Subregions have sufficient short-term supply of land under any demand scenario. This is largely a function of significant short-term supply in each subregion.**

- **Only the West Subregion has a short-term deficit of short-term commercial land posting a net deficit range of 27.1 to 37.9 acres.**

- **Over the twenty-year planning period, only the South Subregion has a long-range commercial land supply surplus.**
LOCAL PLANS AND ORDINANCES

City of Klamath Falls Comprehensive Plan (1981)

Once adopted, the Transportation Systems Plan will become the transportation element of the City’s Comprehensive Plan. The City of Klamath Falls Comprehensive Plan was adopted in 1981 and the document itself has not been updated since that time.\textsuperscript{12} Much of the background documentation describing existing transportation conditions was generated in the late 1970’s and is not relevant to planning the future transportation system. Despite the age of the document, the adopted Comprehensive Plan remains the City’s policy basis on which to make decisions. However, because of the age of the document, the fact that the City adopted updated transportation goals in the 1998 TSP, and considering that the TSP update process will result in revised and new transportation policies, based on up-to-date facts and analysis, the goals and policies from the Comprehensive Plan Transportation Element are not included in this memorandum. The following goals and policies also have bearing on transportation planning and are from other elements of the Comprehensive Plan.

\textbf{K. HOUSING ELEMENT}

\textit{Housing - Policies}

97. \textit{The interrelationship of transportation, job sites, shopping sites, recreation, open space and scenery, education, and similar activities will be emphasized to provide maximum and efficient use of public facilities and service.}

\textbf{U. LAND USE ELEMENT}

\textit{Land Use - Policies}

231. \textit{Residential densities adjacent to major arterials will be increased.}

233. \textit{Core area residential densities will be as high as practical for energy and transportation advantages.}

234. \textit{Maintenance and improvement of established residential areas will be promoted.}

238. \textit{Strip commercialism will be avoided, due to its adverse effects on traffic, energy, safety, and convenience.}

\textsuperscript{12} In September 2003 the City of Klamath Falls convened a stakeholder committee to participate in a Comprehensive Plan and Code Audit funded by the Transportation and Growth Management (TGM) Program. The Final Audit Report (Angelo Eaton & Associates, 2004) contains recommendations for Comprehensive Plan and Community Development Ordinance amendments that are consistent with “smart development” principles, which are also described in that Report. A Comprehensive Plan update followed the audit, resulting in a May 2005 draft document that included updated land use and transportation policies. The 2005 Draft City of Klamath Fall Comprehensive Plan was not adopted by the City.
V. URBANIZATION ELEMENT

Urbanization - Policies

153. Coordination of comprehensive planning with State and County officials will be promoted.

It is recommended that, upon completion of the TSP update, the City formally adopt the revised transportation goals and policies as the transportation element of the Comprehensive Plan and that the adoption ordinance state that the policy chapter of the TSP replaces the Transportation Element in the Comprehensive Plan.

Klamath Falls Urban Area Transportation System Plan (1998)

In the late 1990s, with the participation of ODOT, Klamath County and Basin Transit, the City undertook a study of the Klamath Falls urban area that resulted in the adoption of the Klamath Falls Urban Area Transportation System Plan (TSP). The current TSP project will update the 1998 document. The current adopted TSP is described as both a multimodal plan, one that includes strategies to manage growth and the community's various transportation needs over a 20-year time horizon, as well as an intermodal plan that identifies important linkages between passenger transport services and freight.

The analysis of existing and future conditions (Chapters 3, 4, and 5) and subsequent evaluation of five primary alternatives, led to a recommended preferred alternative that is detailed in Chapter 6. As described in the Executive Summary, the preferred alternative includes a mixture of transportation-efficient land use strategies, enhancement of the existing pedestrian and bicycle system, expansion of Basin Transit Service (BTS) bus service, coordination of rail, air and highway passenger and cargo transportation, and improvements to the existing street system. The preferred alternative included the extension of the Eastside Expressway.

The City’s transportation goals in Chapter 2 of the TSP are based on relevant policies from the Klamath County and City of Klamath Falls Comprehensive Plans and the Oregon Transportation Plan. Because of the age of the TSP and the changes that have occurred in the Klamath Falls area, and in light of updates to the OTP (see the review of the OTP in Section III of this memorandum), these goals will be reviewed and updated as part of the TSP update process. Chapter 2 also provides a summary of the content of the TSP chapters that follow.

Chapter 7 includes the recommended set of design standards to guide future construction of pedestrian, bicycle, and automobile facilities. This chapter includes the recommended street functional classification system (Figure 7-2), and the proposed facility design standards, based on classification (Table 7-1, Figure 7-3). Street width standards, including pedestrian and bicycle requirements, are discussed in Section II of this memorandum. Spacing standards and access management requirements are also provided in Chapter 7 (Table 7-2). The state classifications for highway segments through Klamath Falls and the associated access management standards can be found in Table 7-3.

The cost analysis and financing plan for the preferred alternative is in Chapter 8. Figure 8-2 shows the thirty-three street improvement projects needed to upgrade or increase the local street (collectors and arterials) and the highway system within the urban area. The cost for bicycle, pedestrian, and transit facilities is broken out for each mode. Table 8-3 lists possible funding responsibility (city,
county, ODOT) and sources for each planned improvement, as well as the timing of the needed improvement (0-5 years-short term; 6-10 years-intermediate; 11-20 years-long term).

Chapter 9 is the Transportation Systems Plan, containing recommendations for each modal plan that makes up the TSP: bicycle and pedestrian; transit; rail, air, water, pipeline; and street. Under the subheading “Personal Mobility,” this chapter summarizes Basin Transit Service’s adopted Transit Development Plan (TDP, also summarized in this memorandum). The TDP recommended restructuring the fixed-route bus system and outlined a ten-year plan to expand and finance operations. The TSP states that BTS fixed-route and dial-a-ride services are “essential to providing a balanced land use/transportation system in the Klamath Falls urban area.” The TSP includes recommendations that are consistent with the TDP, including plans to expand service, periodically replace existing fixed-route vehicles, and developing a new transit center (which was completed by the time the TSP was adopted). The transit element of the TSP will be updated to reflect current BTS operations; recommended street system improvements will accommodate the needs of buses, consistent with the existing and planned transit system.

The pedestrian element of the TSP focuses on addressing the need for accessibility in downtown and improved safety in the South Sixth Street and Washburn Way areas. Sidewalk improvement projects are summarized in Table 9-1 and shown of Figure 9-1. The bicycle element of the TSP incorporates the goals from an earlier Bicycle Master Plan (1994) and expands on the recommendations of that plan to provide a comprehensive bicycle network. Table 9-3 and Figure 9-2 illustrate the recommended improvements.

The recommended local street system (arterials and collectors) is shown on Figure 9-3, Future Highway and Street Plan. Chapter 9, Section 8, includes a detailed list of street system improvements; Appendix F describes the type of improvement (capacity, upgrade, safety) for each project. This chapter also includes a list of needed highway improvements (Section 9).

Chapter 10 is the Recommended Transportation and Land Use Policies, or implementation, section of the TSP. It includes an Access Management Plan, which contains guidelines for what should be required on a preliminary site plan for development proposals that directly or indirectly access a state highway or an arterial. This section also includes the traffic impact study (TIS) requirement threshold, as well as the minimum required elements of a TIS. Chapter 10 also houses the Transportation Demand Management (TDM) Plan. The City’s TDM goals are to reduce the rate of daily vehicle trips by 5 percent over the next twenty years and to increase the use of alternative modes, particularly transit. The TDM Plan includes recommendations for a parking management plan, bicycle and pedestrian improvements, and a Basin Transit service expansion plan.

The 1998 TSP was developed based on growth and development assumptions at the time and the resulting plan, as well as subsequent refinement plans, provides the standards and recommendations that continue to guide development and transportation improvements in the Urban Area. This current planning project will update the TSP using current forecasts and projections and, based on transportation modeling, will develop policy and implementation recommendations for transportation planning in the Urban Area for the next 20 years. Growth in unincorporated urban areas, coordination between the City of Klamath Falls and Klamath County, and consistency issues related to providing integrated and consistent transportation facilities within the Urban Area and between service providers will be a focus of the TSP update project.
Klamath Falls West Side Refinement Plan (2006)

The West Side Refinement Plan (Refinement Plan) was developed to address transportation needs for approximately 2,000 acres west of Highway 97, south of Lakeshore Drive, and north of Oregon 140/Oregon 66 (see figure on p. 2 of the Refinement Plan). The Refinement Plan addresses recent growth and planned development in the West Side, including the Southview PUD and the Castle Ridge Destination Resort. The Refinement Plan includes an assessment of the existing transportation system, provides an evaluation of the impacts of growth, identifies possible improvements, and concludes with the improvement projects that comprise preferred alternative.

The stated objectives for the Refinement Plan include planning the transportation system to accommodate future build-out of the area (approximately the year 2025), maintaining the functional classification of Lakeshore Drive, and access management for OR 140 that is consistent with state requirements (p. 4). Traffic conditions were evaluated for 2005 and 2025; level of service and volume-to-capacity ratios were generated for study area intersections to assess traffic operations (Table 2). The Refinement Plan shows that several intersections and highway interchange ramps will not meet operational standards by 2025 if no improvements or new facilities are constructed (p. 6-7).

Seventeen “packages” of transportation system alternatives to mitigate future traffic impacts were developed and analyzed for the Refinement Plan. With input from the public, these alternatives were refined, then analyzed using ODOT modeling techniques to find a combinations of improvements that could be phased to meet the development demands of the area. The modeling assumed approximately 3,827 single-family homes in the West Side. The results of the modeling confirmed that both highway and collector street improvements to optimally disperse traffic throughout the transportation network. A future collector street would provide a direct connection between population centers in the West Side, would delay needed capacity improvements on OR 140, and would help moderate the cost and complexity of the future US 97/OR 140/US 66 interchange replacement project (p. 10). The Refinement Plan evaluated six different collector street options, determining that the Cypress Avenue connection attracted the most trips to and from the West Side, making it the top-ranked corridor for connecting the West Side to downtown Klamath Falls. Due to possible technical engineering issues, and at the direction of the Technical Advisory Committee, the Refinement Plan recommended a second option for the collector street connection, one north of Lindley Way as an "alternate connection for connecting the West Side to Klamath Falls’s regional transportation network (p. 12, also see Figure 3).” The recommended TSP project list is provided in Table 6; improvements are shown in Figure 2 of the Refinement Plan.

Orindale/Balsam Sub-Area Transportation Master Plan (2007)

The Orindale/Balsam Sub-Area Master Plan & Transportation SDC Methodology ("Sub-Area Plan") memorandum was developed by Kittelson and Associates in 2007 to present the transportation master plan for the Orindale/Balsam Sub-Area ("study area") and the recommended transportation System Development Charge methodology to fund the anticipated transportation improvements for the study area. The study area comprises approximately 1,115 acres southwest of OR-140; approximately 200 acres are within the City of Klamath Falls city limits and the remainder is within the City’s UGB, in Klamath County. Downtown Klamath Falls, northeast of the study area, is a primary destination for employment, retail, and recreational traffic from the study area (shown in Figure 1 of the Sub-Area Plan). For analysis purposes the study area was divided into sub-sections north and south of OR-66 (Sub-Area Plan Figure 2). Highway 97, OR-140, and OR-66 are the primary
highways in the project vicinity. Orindale Road, running north-south, and Balsam Road, running east-west, are the primary arterial roads in the study area.

The Klamath Falls West Side Refinement Plan ("Refinement Plan," reviewed earlier in this memorandum) included much of the Sub-Area Plan’s study area. However, the early plan assumed little development south of OR-140; the Sub-Area Plan was developed in response to the City’s anticipating higher development north and south of OR-66, the focus of this 2007 study. The Sub-Area Plan considered the development potential of City and County property beyond what was assumed for this area in the Klamath Falls West Side Refinement Plan. As noted in the Sub-Area Plan, the Refinement Plan identified intersection improvements for three intersections within the Orindale/Balsam study area, including two concepts for the OR-66/OR-140 intersection. The Refinement Plan concluded that additional traffic in the Orindale/Balsam study area will trigger mitigation needs east of the OR-66/OR-140 intersection.

The Sub-Area Plan describes exiting conditions in the study area as more than 80 percent residential, with most of the land within the city limits zoned Medium Density, 5,000 square-foot lot size. The remainder of the residential land within the city limits and nearly all of the residential land in the study area outside the city limits is zoned Suburban Residential, which has a minimum lot size of 10,000 square-feet. There are also approximately 75 acres of commercial land and 65 acres of industrial land in the study area, most of which is adjacent to Highway 97 south of OR-66 (see Sub-Area Plan Figure 3). At the time of the Sub-Area Plan’s completion, most of the study area was undeveloped, with only a few neighborhood developments and a minimal number of small agricultural land uses in the study area (p.2).

Table 1 in the Sub-Area Plan summarizes the characteristics of the key roadways in the study area; the list intersections analyzed can be found on page 6. Figure 4 illustrates the location of the study intersections, the existing lane configurations, and the associated traffic control devices. The existing conditions analysis indicates that all of the study intersections currently operate under capacity and at level of service (LOS) C or better and the ODOT managed intersections operate at a 0.32 v/c ratio or better. The Sub-Area Plan noted that its results are consistent with the existing conditions operations analysis provided in the Refinement Plan.

Consistent with the Refinement Plan, the Sub-Area Plan uses the forecast year 2025 for the "No Development Scenario," which assumes continued regional growth, but no new development within the study area (see regional growth assumptions on p. 8). To analyze future traffic conditions, the Sub-Area Plan assumed that the forecast transportation improvements identified for OR-140 in the Refinement Plan will occur. For the Local Build-Out Conditions scenario, it was assumed that undeveloped land would build-out at the maximum density permitted under the current zoning, with a few exceptions due to topographic or other constraints. The specific build-out assumptions, for both the northern and southern subsections, are discussed on pages 12-13; Figure 7 shows the location and size of the land uses expected to occur. Table 2 shows the corresponding estimated trip generation for the northern and southern sub-sections and for the entire study area. Consistent with the Local Build-Out Conditions assumptions, a total of 2,005 (1,625 in the north and 380 in the south) new homes could be built in the study area. In addition, 644,000 square feet of commercial property could be built and 70 acres of industrial land could be developed. Build-out of the study area could generate approximately 36,455 new trips daily with 2,270 occurring during the weekday a.m. peak hour and 3,600 occurring during the weekday p.m. peak hour (p. 16).

Year 2025 Local Build-Out traffic volumes shows the forecast total traffic operations associated with build-out of the study area in year 2025 (Figure 11). Page 17 includes a list of recommended
roadway improvements to accommodate the projected traffic volumes; a list of intersection improvements needed to achieve the operational conditions (Figure 11) follows on p. 17 and 18. Table 3 lists the necessary mitigation improvements required for build-out of the study area (including associated costs), Figure 12 shows their location, and Figure 13 shows the proposed traffic control and lane configurations associated with the recommended improvements. The discussion of system development charge (SDC) alternatives begins on page 24.

**Campus Area Sub-Area Master Plan (2008)**

The Campus Area Sub-Area Master Plan (“Campus Area Plan”) is a transportation master plan for approximately 1,085 acres northeast of US-97 in the northeast corner of the City in the vicinity of the Oregon Institute of Technology (OIT). The City commissioned the Campus Area Plan to provide a better understanding of the potential impacts of growth on the transportation system, future deficiencies, and estimated costs to plan and construct necessary roadway improvements. The work also includes a transportation System Development Charge (SDC) methodology to fund the anticipated transportation improvements for the OIT study area. The SDC methodology section begins on p. 37. As described in the Campus Area Plan, the SDC was developed by considering the existing land uses and traffic conditions in the study area, identifying the potential for future development in the study area, and determining necessary transportation mitigations and associated costs for the build out scenario.

Figure 1 of the Campus Area Plan shows the site vicinity and the study area. The study area was divided into four sub-sections, as shown on Figure 2. Approximately 880 acres (80 percent of the study area) are within the city limits, with the remainder lying within the Urban Growth Boundary (UGB) in Klamath County. The 20 percent of the study area that is outside city limits is shown as undesignated zoning on the City of Klamath Falls zoning map and is zoned Residential by Klamath County. The Campus Area Plan documents that much of this undesignated land is on steep topography and may not be developable. The remaining study area is within the City limits and includes a mix of land use zoning, including residential, commercial (primarily located along Highway 97), heavy industrial and professional uses (medical) and public uses associated with the OIT campus (see Figure 3). At the time the Campus Area Plan was developed, almost sixty percent of the study area was undeveloped and existing development was comprised of primarily residential developments, the OIT campus, and medical and commercial uses.

Table 1 summarizes the characteristics of the key roadways in the study area, which include Highway 97, Highway 39 (Highway 97 Business Route/Crater Lake Parkway), Campus Drive, Dan O’Brien Way, and North El Dorado Avenue. Study intersections are found on p. 5. The existing conditions analysis found that all of the study intersections operated under capacity and at LOS D or better, except for the intersection of Campus Drive and Daggett Avenue in the AM peak hour, which operates at LOS F on the westbound approach.
To model future transportation needs (“Year 2030 Regional Growth Conditions”), traffic volumes for the 2030 regional growth conditions were developed by growing existing 2007 traffic volumes on Highway 97 by one percent per year to 2030 and then adding the traffic associated with the addition of the four approved “in-process” developments to the study area roadways. The four developments are listed beginning on p. 10 and include the OIT expansion, residential growth in the Valley Vista development, Harbor View Subdivision, and the Somerlande PUD. The methodology assumes that the planned roadway extensions connecting Daggett Avenue and Dahlia Street to Dan O’Brien Way will be constructed. The future traffic operational concludes that the Campus Drive/Daggett Avenue intersection will likely operate below City of Klamath Falls standards (Figure 6).

Future development assumptions (“Year 2025 Local Build-Out Conditions”) can be found starting on p. 13 by sub-subsection; a series of figures illustrate future land uses in each sub-section (Figures 7, 8, 9 and 10). Table 2 summarizes the development potential of each sub-section and shows the estimated trip generation for each sub-section and for the entire study area. The Campus Area Plan concludes that a total of 432 new homes or dwelling units could be built in the study area, as well as approximately 1,795,000 square-feet of industrial uses, approximately 420,000 square-feet of commercial uses, and 182,000 square-feet of office/medical professional. In total, build-out of the study area could generate approximately 26,900 new trips daily with 1,800 occurring during the weekday a.m. peak hour and 3,100 occurring during the weekday p.m. peak hour (p. 23). All study area intersections are expected to fail during the weekday a.m. and/or p.m. peak hour study periods with the full local build-out in the study area (Figure 13).

The Campus Area Plan also includes a discussion of the improvements recommended by the 1999 Highway 97 Klamath Falls Campus Area Access and Circulation Refinement Plan (p. 24 and Attachment 1). It concludes that, because of the significant increase in traffic along Highway 97, Campus Drive, and Dan O’Brien Way, additional improvements are needed beyond those described.
in the Campus Area Refinement Plan. The Campus Area Plan builds on Alternative 4-Option 1 of the Refinement Plan, which calls for the grade-separation of Dan O'Brien Way at Highway 97. All access to Highway 97 between Dan O'Brien Way and Campus Drive will be removed as part of Alternative 4-Option 1 and a local roadway network will be needed to distribute traffic to Dan O'Brien Way and Campus Drive. Other necessary roadway improvements are listed on p. 32 and shown on Figure 15; needed intersections improvements are shown in Figure 16. With the improvements detailed in the Campus Area Plan the planned transportation system can accommodate 65 percent of local build-out, with all intersections operating within the City of Klamath Falls and ODOT standards except for the intersection of Highway 97 and the Dan O'Brien Way ramp terminal, which is forecast to operate with a v/c > 1.0 and a LOS F during the weekday a.m. peak hour.

**Klamath Falls Community Development Ordinance**

The Community Development Ordinance (CDO) consists of Chapters 10 through 14 of the City's Code. The CDO regulates all land development within the City Limits. Chapter 10 establishes the application and hearings procedures for land use decisions within the City. Chapter 11 governs land development review and includes procedures and requirements for Design Review, Conditional Use Permits, land division, variances, and zone changes. Chapter 12 establishes the zoning in the City, including the uses permitted and the site standards for each zone. City boundary amendments and annexation procedures are governed by Chapter 13, which details procedures and provides the equivalency table of County/City land use and zoning classification to determine what zone should be applied to property upon annexation. Site development standards are contained in Chapter 14. Chapter 14 includes requirements for access, parking, landscaping, and bicycle facilities. Ordinance provisions that implement the City's TSP are reviewed in Table 1 of this memorandum.

The following sections of the CDO contain provisions that regulate transportation facilities and improvements in the city:

- Sections 12.360-12.395 Planned Unit Development
- Section 14.010 Off-Street Parking Requirements.
- Section 14.050 Access and Driveways
- Section 14.390 Vision Clearance
- Sections 14.450-14.490 Bikeways
An assessment of CDO compliance with the requirements of the Transportation Planning Rule is found in Section II of this memorandum.

**Basin View Planned Unit Development Standards (1990)**

The process for planned unit development (PUD) approval, as codified in Chapter 12 of the CDO, requires a zoning map amendment and a master plan for the entire subject property.

*12.375 Master Plan Submittal Requirements.* All development within the Planned Unit Development shall comply with the Master Plan as approved and adopted by the Council. Any application for a change in zone to establish a Planned Unit Development shall contain as a part of that application a Master Plan indicating the nature of the proposed development relative to the intent and purpose of Sections 12.360 to 12.395.

Upon approval, the PUD master plan governs the allowed uses and development standards for the land with the PUD zone. The Basin View PUD was adopted in 1990. The adopting ordinance includes permitted land uses and development standards for the Basin View area and includes the provision that the Architectural Committee must approve all plans.

Single- and multi-family residential are permitted in the Basin View PUD, as well as a limited list of neighborhood commercial uses. Land use designations must be located in conformance with Exhibit B of the ordinance. For lots zoned commercial located south and west of Basin View Drive, the permitted uses are defined in the CDO [reference?] and are subject to design review procedures. Single family dwellings may not be less than 1,000 square feet (1,200 square feet in the North Hills subarea). Single-family residential structures may not occupy more than 30% of the lot area; other uses have a 50% lot area restriction. No single neighborhood commercial use may occupy more than 20,000 square feet of building area.

**City of Klamath Falls Public Works Engineering Standards Manual (2003)**

Standards for the construction of streets, sidewalks, and bike lanes are found in the City's Public Works Engineering Standards (January 2003) document. Drawing number 8-200 is a table that includes the design standards for the street classifications (major arterial, major collector, minor collector and local street). As discussed in Section II of this memorandum, the engineering standards are not consistent with the street standards in the Community Development Ordinance (Section 11.805), nor do they reflect the cross sections shown in the TSP (Figure 7-3).

**Klamath Falls, Oregon Parks Master Plan (1998)**

The Parks Master Plan is the policy document that describes the City’s strategy for meeting existing and future parks needs in Klamath Falls. It assesses future park and recreation needs, establishes policies and guidelines for park development, identifies the location of future parks, trails, open space and other recreation facilities, and describes funding strategies. The Parks Master Plan is intended to be the park and recreation element of the Comprehensive Plan.
Section III of the Parks Master Plan describes existing conditions in the urban area, including the information that, at the time of plan adoption, there were 12 miles of trails, 10.5 of which were paved bike or walking trails. Table 4 is the Summary of Trails/Pathways in the planning area. Section V contains the recommendations for each element of the City’s park and recreation system. Section 5.5 Trails and Pathways includes policies for providing walking, bicycling, and other non-motorized recreational facilities and opportunities. These types of facilities are identified as a way to travel throughout the community, but are distinct from routes that are incorporated into street designs. The Definition section (5.5.1) states:

*By providing a link to other areas and facilities, they can provide non-vehicular options for travel throughout the community. Trails can be designed for a single type or multiple types of users. The trails and pathways emphasized here are those that are recreational and multiple use in nature. Bike routes located primarily on streets are not included in this study.*

Policies pertaining to Trails and Pathways clarify that the City will accommodate trails on public land, when possible, but will require trails as part of proposed development as a condition of approval (5.5.2(2)). Development Criteria (5.5.3) for trails includes the following:

1. *The primary purpose of recreation trails is to provide a recreation experience with transportation objectives as a secondary objective.*
2. *Whenever possible, recreation pathways and trails should not be part of a street roadway, however where routes use existing streets, the pathway should be designed to minimize potential conflicts between motorists and trail users.*
5. *Trails should be planned, sized, and designed for multiple uses, except for dedicated nature trails, and/or areas that cannot be developed to the standard necessary to minimize potential user conflicts.*
6. *Centralized and effective staging areas should be provided for trail access. They should include parking, orientation and information, and any necessary specialized unloading features. Where possible, primary trailheads should be located at major park sites that contain the normal support facilities. Secondary trailheads need only limited parking and signage. Trail connections, locations and orientation should encourage users to walk or bicycle to the trail. Depending upon the expected and desired level of use, secondary trailheads may have 3-8 parking spaces, whereas primary trailheads may have 20 or more parking spaces.*
7. *Trails should be looped and interconnected to provide a variety of trail lengths and destinations. They should link various parts of the community, such as schools, shopping, and park sites.*
8. *Trails should be located and designed to provide a diversity of challenges. Enhance accessibility wherever possible, with high priority given to nature trails and trail loops or destination opportunities.*

Table 15, Summary of Trail Recommendations, represents a combination of paved and unpaved trails “that can be used for recreation as well as transportation purposes (p. V-27).” Table 23, Summary of all Recommended Improvements Klamath Falls Parks Master Plan, also includes a list of planned new or extended trails. Recommendations in the updated TSP should be consistent with the City’s trail planning. In particular, the bicycle and pedestrian plan in the TSP should show a
Klamath Falls Airport Master Plan (2005)

Klamath Falls Airport is operated by the City of Klamath Falls. The airport facility, Kingsley Field, is situated on a 1,166-acre site about 5 miles southeast of downtown Klamath Falls. The Klamath Falls Airport Master Plan (“Master Plan”) documents existing airport facilities and operations, as well as future facility, land, and transportation needs based on projected growth.

Klamath Falls Airport is classified as a non-hub primary commercial service airport in the National Plan of Integrated Airport Systems 2001-2005, and is classified in the Oregon Aviation Plan as a Category 1, Commercial Service Airport. It serves virtually all of the aviation needs of the Greater Klamath Basin, including all of Klamath County and parts of Siskiyou and Modoc Counties in California. The Klamath Falls Airport serves a mixture of military, commercial, and general aviation use (see Chapters 1 and 2). Horizon Air provides four daily round trip flights between Klamath Falls and Portland. Much of the airport’s use, however, is from general aviation (non-military, non-scheduled) users, such as non-scheduled air-taxi service, U.S. Forest Service fire suppression, agricultural spray applicators, flight school, scenic flights, corporate aviation, and air cargo. Military use of the Klamath Falls Airport is also substantial, and includes refueling of military aircraft; emergency support, air traffic control, and disaster relief by the Oregon Air National Guard; and military training.

Chapter 2 of the Master Plan includes an analysis of existing (2002) and projected future (2022) demand at the airport. Table 2L of the Master Plan summarizes the existing and projected demand for each component of the airport’s use. Annual passenger boardings for commercial airline service at the Klamath Falls Airport ranged between 30,000 and 33,000 in the years leading up to the development of the Master Plan and are projected to grow to roughly 45,500 in 2022. Growth is also projected for military and general aviation usage. The Master Plan notes that the types of aircraft based at Klamath Falls Airport will change over the course of the 20-year planning period, and predicts a future need for larger hangars and more paved apron space.

The airport is bounded on the north side by the South Side By-Pass, on the east side by Homedale Road and the Burlington Northern Santa Fe Railroad (BNSF), and by the Lost River Diversion Channel and the Union Pacific Railroad to the south and west (p.1-10). The airfield has an X-shaped configuration formed by the two active runways. The primary building area is located northwest of the runway intersection. Though there are a few other buildings located elsewhere on the airport, development outside of the primary building area has been limited by safety setbacks defined by the military, clear areas required for airport navigational aids and radar, and wetlands (p.1-15). The main parking lot in the passenger terminal complex provides 250 parking spaces while an overflow lot constructed in 2002 provides an additional 190 spaces. Airport tenants occupy a substantial portion of the airport; tenants often maintain their own secure airside apron, buildings and facilities, and vehicle parking areas (p.1-21).

The City of Klamath Falls and Klamath County have jurisdiction over land use in the airport’s environs. The airport property is currently designated Public Facility. Lands to the east, west and south are designated Exclusive Farm Use – Crop Land. Immediately adjacent to the airport to the comprehensive network for non-motorized transportation that ties in with the planned trail system.

[Note: There is a placeholder on p. V-8 for a “Facilities Plan Map,” where the trails should be shown, but this map is not included in the Park Plan document.]
northwest and northeast are lands designated for various types of commercial and industrial uses. Several pockets of land north of the airport are designated Suburban Residential (p.1-5).

Airport access and circulation presents some existing and future challenges. Improvements along the South Side Bypass required the relocation of the main airport entrance from Altamont Drive to Washburn Way in 1997. The new route, via Washburn Way and Joe Wright Road, reduces airport traffic through the local neighborhoods in addition to improving the South Side Bypass. However, airport traffic is now forced to cross the Union Pacific Railroad tracks twice (p.1-20). Airline terminal access will be provided with a dedicated access-loop road at some point in the future, requiring altered on-site vehicular traffic patterns. Similarly, corporate development will increase traffic on the airport’s access roadways. Finally, future development on the airport’s east side will be enhanced by a dedicated access point connecting to the South-side bypass (p.5-3).

Expansion of airport facilities is constrained by airfield setbacks, physical barriers, airport property limitations, military safety setbacks and leased areas, existing facilities, roadway access, and potential environmental constraints (p. 5-2). Chapter 5 of the Master Plan identifies five sites that present growth opportunities for aviation and/or non-aviation uses; two of the five sites are planned for at least some non-aviation uses. Conceptual development plans for several of the sites noted a need for improved or revised access and/or circulation in order to facilitate development.

Chapter 5 also presents additional recommendations on land use and transportation that will shape the airport’s future growth, including improvements to the Homedale Road interchange and east airport access, acquiring or protecting land on the airport’s east side for future expansion, and railroad track consolidation and removal. ODOT has evaluated several alternatives to improve safety at the Homedale Road/South-Side Bypass intersection. The previous master plan study recommended relocating the airline terminal to the airport’s east side; the 2005 master plan does not recommend terminal relocation but does note that roadway improvements to connect the airport’s east side to population/business centers would help stimulate aviation and compatible non-aviation development in targeted airport development areas. The Airport Layout Plan (ALP) includes a local roadway connection and interchange similar to those that were under consideration by ODOT (p.5-11 – 5-13). The Master Plan also notes that duplicative railroad tracks currently constrain both the east and west side of the airport, and that some dialogue has already occurred between the City of Klamath Falls and the railroad operators regarding the potential to close and remove sections of track. Given the timeline of track closures and an unknown preference as to which track is most easily closed, however, the ALP retains the tracks as a permanent constraining influence on airport growth potential.


The result of a process guided by the Klamath County Economic Development Association (KCEDA) and the Klamath County Chamber of Commerce, this vision document focuses on three main themes - Community, Economy, and Sustainability – and is organized around nine different topics: Education, Government, Health and Human Services, Image, Job Creation, Natural Resources, Recreation, Sustainability, and Transportation. The Klamath Vision document records the results of a series of facilitated conversations, where citizens were invited to choose among the various topics and to develop visions, ideas, and action items to implement the visions. Each group met several times and their input resulted in the Klamath Vision publication. Based on the stated focus of the planning effort, the intent of the document is to provide direction to community leaders involved in
community planning and economic and community development. The document is aspirational, with desired outcomes articulated as “vision” statements followed by implementation actions.

The Vision for Sustainability chapter includes the following goals that are related to the transportation system:

- Safe, walkable, affordable, friendly neighborhoods, with a mix of housing types and costs, in which people can live, shop, recreate, and work

- A well-planned transportation system that accommodates people, bikes, and non-polluting vehicles and encourages a walkable community

- Easy access to parks, trails, community spaces, and natural areas to connect people with nature and with other people

The Transportation subsection in this chapter provides a vision of the future transportation system and is included here:

**Transportation**

By 2020, the Klamath Basin will have a multi-layered, neighborhood and regional transportation system that moves people and goods around the region with minimal reliance on fossil fuels.

**Vision 1:** Klamath citizens will be aware of the need to reduce our reliance on fossil fuels and have available to them ways to do so.

A. Local governments and community agencies will work to ensure a knowledgeable citizenry by distributing information on ways to reduce reliance on fossil fuels and use energy efficiently.

1) **Measurable Outcome:** Information is distributed to citizens of Klamath County

2) **Timeline:** Ongoing

3) **Stakeholders:** City of Klamath Falls, Klamath County, State of Oregon, Basin Transit System, Local Utility Companies

4) **Funding Considerations:** Grants, TBD

5) **Related Vision Teams:** Government

**Vision 2:** Our community will make available a transportation infrastructure that does not depend on fossil fuels.

A. More citizens will use public transportation, and our local transit system will include vehicles designed or converted to run on electricity and locally-produced biofuels.

1) **Measurable Outcome:** Use of public transportation increases and local transit system will replace fleet with electric or biofuel vehicles
2) Timeline: Complete by 2020

3) Stakeholders: Basin Transit System, Klamath County, Local Citizens

4) Funding Considerations: Grants, TBD

5) Related Vision Teams: Natural Resources, Transportation, Government

B. Car sharing cooperatives will enable people to use biofuel, electric, or hybrid electric/biofuel vehicles without purchasing one.

1) Measurable Outcome: A car sharing cooperative is established

2) Timeline: 2020

3) Stakeholders: Citizens, Klamath County, BTS, Local Auto Dealers

4) Funding Considerations: Grants, government, private enterprise

5) Related Vision Teams: Transportation, Government, Image

C. Electric cars will have solar-powered charging stations throughout the Klamath Basin.

1) Measurable Outcome: Solar charging stations are located in Klamath County

2) Timeline: 2020

3) Stakeholders: Private Investors, Local Auto Dealers

4) Funding Considerations: Private, government, grants

5) Related Vision Teams: Transportation, Government, Image

D. A portion of Klamath's agricultural production and bio-waste will be used to make biofuels and create local jobs.

1) Measurable Outcome: Production of biofuel crops is increased; more jobs exist in this sector, and less bio-waste is deposited in landfill

2) Timeline: 2020

3) Stakeholders: Farmers, Waste Management, SCOEDD, KCEDA

4) Funding Considerations: Grants, subsidies, private enterprise

5) Related Vision Teams: Natural Resources

E. A local trucking industry using locally-produced biofuels and/or solar electricity moves goods arriving by train to homes and businesses.

1) Measurable Outcome: New local trucking industry – using biofuel or solar to transport goods – is located in Klamath County
F. Neighborhood-level transport businesses that do not rely on fossil fuels, such as pedicabs or small electric jitneys, add economic vitality and ensure no one is isolated from the community beyond the neighborhood.

1) **Measurable Outcome:** Pedicab or similar company is located in Klamath County to provide transportation to the community neighborhoods

2) **Timeline:** 2020

3) **Stakeholders:** BTS, Klamath County, City of Klamath Falls, Private Investors

4) **Funding Considerations:** Grants, Government incentives, private

5) **Related Vision Teams:** Transportation, Natural Resources

G. Local governments, institutions, and organizations will adopt renewable energy-based transportation.

1) **Measurable Outcome:** Local government, institutions and organizations will adopt renewable energy-based transportation as they retire used vehicles

2) **Timeline:** Ongoing

3) **Stakeholders:** City of Klamath Falls, Klamath County, BTS, OIT, KCC, State of Oregon

4) **Funding Considerations:** Government incentives, grants, private

5) **Related Vision Teams:** Transportation, Government, Image

H. Klamath County citizens will walk and bicycle around the community on a safe, interconnected system of trails and pathways.

1) **Measurable Outcome:** Local governments will make creation and maintenance of safe, efficient pedestrian and bicycle routes a community priority

2) **Timeline:** 2020

3) **Stakeholders:** Klamath County, City of Klamath Falls, State of Oregon

4) **Funding Considerations:** Grants, Street funds

5) **Related Vision Teams:** Transportation, Recreation
The 2020 Klamath Vision document is not a City-adopted policy document, but rather reflects the views of self-selecting groups of individuals, representing a variety of interests. It can provide guidance for updating TSP policy regarding how residents would like their transportation system to function in future, but it is not a document that carries the same regulatory weight as the City’s adopted Comprehensive Plan.