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TECHNICAL MEMORANDUM #2

Date:	March 28, 2012	Project #: 11881
To:	Project Team	
From:	Hermanus Steyn, PE, and Matt Kittelson	
Project:	OR 66 Green Springs Highway Interchange Area Management Plan (IAMP)	
Subject:	Technical Memorandum #2: IAMP Goals, Objectives, and Evaluation Criteria	

The purpose of this memorandum is to provide an overview of the OR 66 Green Springs Highway Interchange Area Management Plan (IAMP) project including the purpose and intent of the project, goals, objectives, and evaluation criteria, and proposed study area. The project will result in the development of an IAMP that will ensure safe and efficient connections between The Dalles-California Highway (US 97), Lake of the Woods-South Klamath Falls Highway (OR 140), and Green Springs Highway (OR 66) into the future.

Purpose and Intent

The IAMP is intended to protect the function of the US 97/OR 66 Green Springs interchange and provide safe and efficient connections between all roadways within the vicinity of the interchange. The IAMP will identify land use management strategies, short-term and long-term transportation improvements, access management, and strategies to fund identified improvements.

The intent is that the IAMP planning efforts will result in policies, ordinances, and other provisions to be adopted into the Klamath Falls Urban Area Transportation System Plan (TSP) and the City of Klamath Falls and Klamath County Comprehensive Plans. The IAMP will be considered for adoption by the Oregon Transportation Commission (OTC) as an amendment to the Oregon Highway Plan.

As defined in the scope of the project:

A. The interchange must improve highway-to-highway connectivity, safety, mobility, and provide bicyclists and pedestrians a better way to navigate through a rural, high-speed area.

B. Identify current accesses to the highways that will need to be relocated, consolidated, or closed,

C. Provide a design level of sufficient detail for the future interchange and associated street and intersection improvements to allow efficient local street connectivity,

D. Prepare for right of way purchases and easements during land use approval for any affected properties in the area,

E. Link appropriate land uses in the surrounding area to the capacity of the improved transportation system, and

F. Identify a funding strategy and cost sharing for needed improvements.

Interchange Function

The interchange is located near the southwestern edge of the Klamath Falls area urban growth boundary (UGB). The function of the interchange is to:

- serve local and long distance freight movements by providing a connection between US 97 and the shared alignment of OR 66 and OR 140,
- provide access to existing local businesses as well as a large amount of developable lands near the interchange, and
- provide a connection to greater Klamath Falls for residents living near the interchange.

Given these wide range of interchange functions, the long term vision for the US 66 Green Springs Highway Interchange needs to take into account the many different users expected to rely about the interchange for commerce or personal travels.

Below is a description of the roadways in the vicinity of the interchange.

- **US 97** is designated as a Statewide Highway (Expressway) and serves as a major north-south connection from California to Washington through Central Oregon. The route serves a variety of regional traffic and has historically been a major freight route.

- **OR 140** is designated as a Statewide Highway west of the interchange and a Statewide Highway (Expressway) east of the interchange. This highway originates in the west in Medford, Oregon and serves as a mountain pass between Mt. McLoughlin and Brown Mountain. Within Klamath Falls, the highway serves as the Southside Expressway, a southern bypass around the urban core of Klamath Falls. The highway then extends generally east and serving a variety of small communities in Southern Oregon, eventually terminating at US 95 in Nevada. OR 140 shares an alignment with OR 66 in the vicinity of the interchange.
- **OR 66** is designated as a District Highway. This facility serves as a connection between Ashland, Oregon in the west and Klamath Falls in the east. OR 66 terminates at an intersection with OR 140 approximately 550 feet west of the interchange. OR 66 shares an alignment with OR 140 in the vicinity of the interchange.
- **Delap Road** intersects with the shared alignment of OR 140 and OR 66 just west of the interchange. This facility is a local road operated by Klamath County. It servers a small number of uses northwest of the interchange before terminating.
- **Greenspring Drive** is designated as a collector and is operated by Klamath County. This facility intersects with OR 140 just east of the interchange. To the north, the road serves a mixture of industrial and residential uses before terminates at Riverside Drive, serving as a local street alternative to US 97 to access downtown Klamath Falls.
- **Memorial Drive** is an extension of a second northbound US 97 off-ramp just north of the interchange and intersects with Greensprings Drive. It terminates just north of the Southside Expressway (no access is provided to the Southside Expressway from Memorial Drive from the north). However, Memorial Drive does intersect with the Southside Expressway on the south side and extends south to serve industrial uses and single-family homes.
- **Balsam Drive** is designated as a collector and has portions of the roadway operated by both the City of Klamath Falls and Klamath County within the study area. The facility serves as a major east/west connection for residents within the Orindale-Balsam area.
- **Orindale Road** is north/south collector that serves as a connection between OR 66 and OR 140 west of the interchange. This facility provides Orindale-Balsam residents access to OR 66 and OR 140 and provides an alternative for area residents to make local connections other than using the state highway system.

The area to the west of the interchange was the subject of the Orindale/Balsam Sub-Area Master Plan, which was completed in 2007 (see Exhibit 1 below). It is worth nothing that the large commercial

property in the southwest quadrant of the interchange was not part of this sub-area study. This plan evaluated the long-term development potential of the area located west of US 97 and OR 140 to the western UGB boundary. The area is currently mostly comprised of residential uses with supporting commercial land. The area has a large inventory of developable lands, including, but not limited to, lands in the following subdivisions; Southview, Badger Flats, and Stewart Lenox.

Exhibit 1 – Orindale/Balsam Sub-area Master Plan Area

To the east, development is largely sporadic. A country club, with few residences, comprises most of the development in the southeast quadrant though industrial uses currently exist along Lake Ewauna. The northeast quadrant has low density industrial and retail development near the interchange, including an active fueling station on Greensprings Drive, and transitions to an established residential neighborhood farther to the north.

To the north, Delap Road serves a small number of residential units and the Forestry center.

Goals and Objectives

The IAMP process is intended to protect the function of the interchange for the next 20 years while accounting for changes in land use and traffic patterns. The project area has a large amount of developable lands, highlighting the need to a document vision for the transportation system in the vicinity of the interchange. As stated in Policy 3C of the 1999 Oregon Highway Plan, "it is the policy of the State of Oregon to plan for and manage grade-separated interchange areas to ensure safe and efficient operation between connecting roadways." To this end working collaboratively with the Project Team (PT) and public, the goals, objectives, and priorities of the OR 66 Green Springs Highway IAMP are to:

1. Identify a safe, functional design of the future interchange
2. Protect the function and operation of the OR 66 Green Springs Interchange as a local service facility and US 97 as a facility of statewide significance
3. Improve highway-to-highway connectivity (US 97, OR 66, and OR 140), safety, and mobility
4. Provide adequate bicyclists and pedestrian facilities and integration with public transportation services
5. Provide for efficient local street connectivity
6. Ensure that the interchange will function to support future local economic development while being respectful of existing developments.
7. Manage the allowed land uses within the vicinity of the interchange to provide for future economic growth over the next 20 years.
8. Identify current accesses to the highways that will need to be relocated, consolidated, or closed by defining access locations for developed and undeveloped parcels
9. Prepare for right-of-way purchases and easements during land use approval for any affected properties in the area

10. Collaborate throughout the planning process with design professionals, jurisdictional representatives, developers, local property owners, and the general public.
11. Identify a funding strategy and cost sharing for needed improvements
12. Identify a phased implementation approach to construct fundable interim improvements that lead to the ultimate interchange configuration.
13. Comply with the intent of Statewide Planning Goal 1: Public Involvement, 2: Land Use Planning, 5: Natural Resources, 6: Air, Water and Land Resources Quality, 7: Areas Subject to Natural hazards, 8: Recreation Needs, 9: Economic Development, 12: Transportation, and 14: Urban Growth Boundaries.
14. Develop implementation policies to be adopted into the City and County comprehensive plans, transportation system plans, interchange access standards, and zoning ordinances, as appropriate.

Evaluation Criteria

Based on the above objectives, the following draft evaluation criteria were assembled to ensure that each concept would be evaluated for consistency with the overall intent of the community and the project. The eight evaluation criteria are as outlined in Table 1 (next page).

Table 1 Evaluation Criteria

Evaluation Criteria	Description	Purpose & Intent Met (Page 2)	Goal & Objectives Addressed (Page 5 & 6)
Transportation Operations	• Safety • Local connectivity and mobility • Freight mobility	A, C	1, 2, 3, 4, 5
Multimodal Accessibility	• Pedestrian mobility • Bicycle mobility • Transit mobility	A, C	1, 2, 4, 5
Land Use	• Right-of-way impacts • Consistency with adopted land use and economic development plans • Transportation capacity impacts of changes in land use intensity • Impacts to utilities	D, E	6, 7, 8, 9, 13
Economic Development	• Near-term growth (1-5 years) • Mid-term growth (5-15 years) • Long-term growth (15-25 years)	F	6, 7, 13
Environmental, Social, and Equity factors	• Environmental impacts • Socio-economic impacts	D	6, 8, 9, 10, 11
Accessibility and Connectivity	• Access spacing requirements • Future access for undeveloped properties • Local roadway connectivity	A, B, C	3, 4, 5, 6, 7, 8
Cost	• Cost relative to other alternatives	F	11, 12
Implementation	• Ability to construct in phases • Local impacts during construction • Impacts to existing and proposed developments	F	1, 6, 7, 8, 9, 10, 12, 14

Interchange Management Study Area (IMSA)

To provide a comprehensive study and to achieve effective results, the IMSA needs to include developable and re-developable properties and major roadways that would significantly affect the interchange function **over the next 20 years**. At a minimum, the IMSA should include properties, as well as all access points **within ½ mile** from the existing interchange as defined by the IAMP Guidelines. The study area should also take into account facilities and properties that will impact the operations of the interchange and any natural or cultural resources in the vicinity of the interchange.

A draft Interchange Management Study Area (IMSA) map is shown in Figure 1 and Figure 2. As shown, two study boundaries are identified: the **IAMP Operations and Access Study Area** and the **Land Use Study Area**. The following describes the criteria used to create the IMSA map.

Operations and Access Study Area

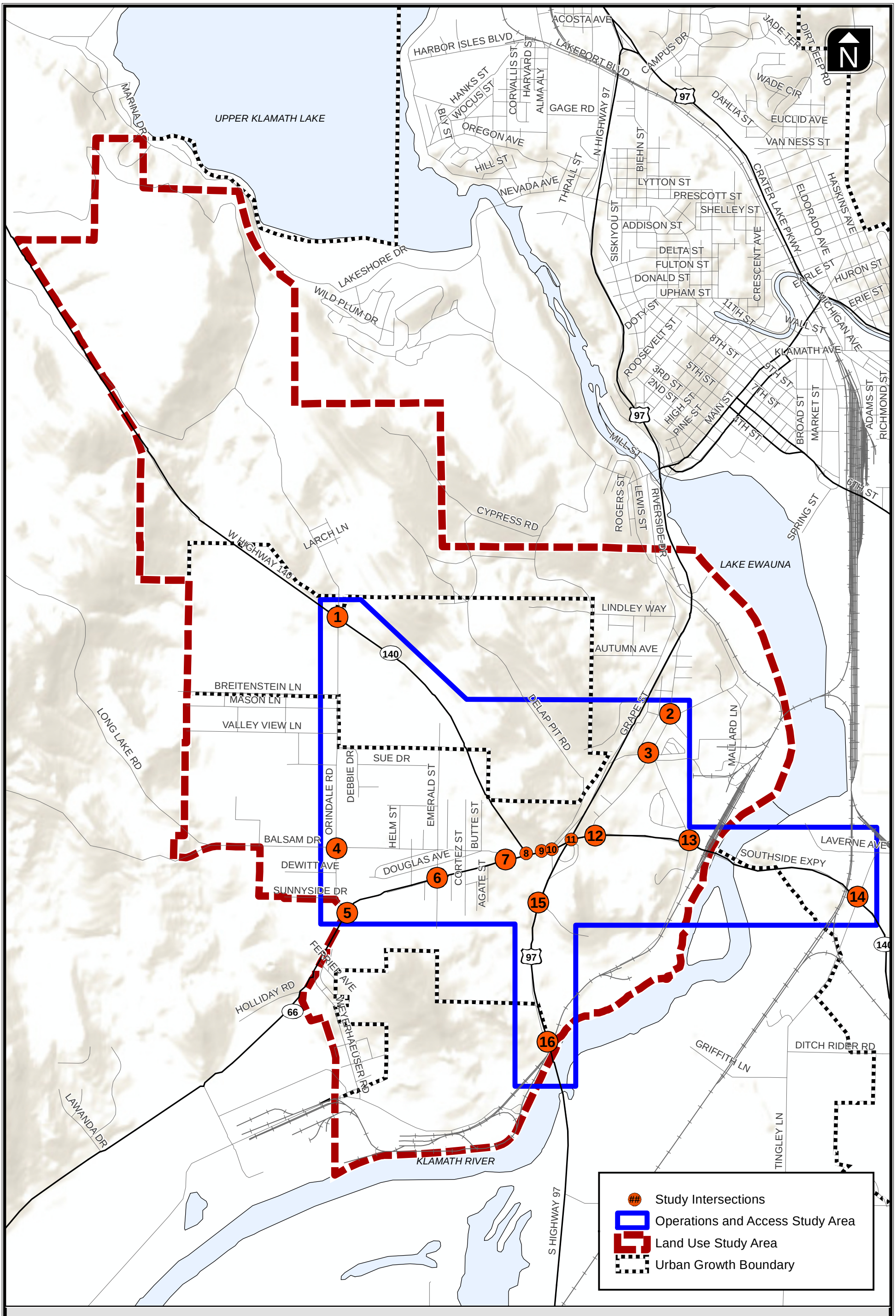
The Operations and Access Study Area includes all access points and intersections within the study area and encompass key intersections that have potential to affect traffic operations in the interchange area over the planning period. This study boundary identifies the area for which operational analysis will be completed and the area that will be considered for the Access Management Plan (although access spacing requirements from the interchange are only ¼ mile). The proposed study intersections include:

1. OR 140/Orindale Road
2. Green Springs Drive/Riverside Drive
3. Green Springs Drive/Memorial Drive
4. Orindale Road/Balsam Drive
5. OR 66/Orindale Road
6. OR 66/Emerald Road
7. OR 66/Balsam Street
8. OR 66/OR 140
9. OR 140/Delap Road
10. OR 140/US 97 Southbound Ramps
11. OR 140/US 97 Northbound Ramps
12. OR 140/Green Springs Drive
13. OR 140/Memorial Drive
14. OR 140/Midland Road/Tingley Lane
15. US 97/Reames Country Club
16. US 97/Columbia Plywood

Land Use Study Area

The Land Use Study Area includes all properties located roughly within the study area and beyond in places to incorporate developable and re-developable properties that are expected to significantly

affect the interchange function. Properties identified with potential to affect the interchange include those that are expected to utilize the OR 66 Green Springs Interchange as the primary connection to US 97 or those that may be necessary to improve local circulation.



Oregon Department of Transportation

IAMP Study Areas

Figure 1

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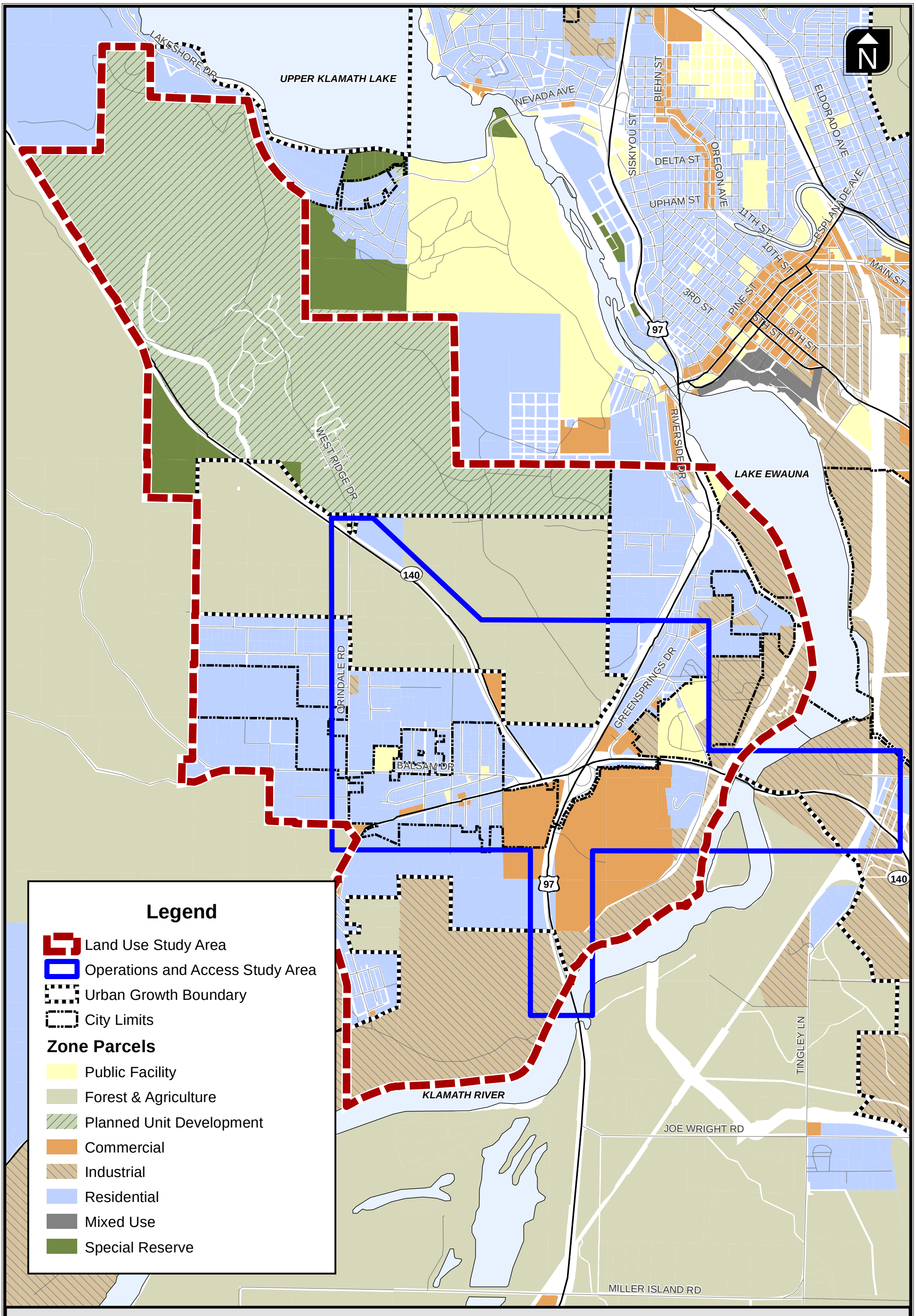

Land Use Zoning Designations

Figure 2

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