Volume 1

North Ontario Interchange Area Management Plan

Ontario, Oregon

March 2005

Volume 1

North Ontario Interchange Area Management Plan

Ontario, Oregon

Prepared For:

The Oregon Department of Transportation

Region 5

3012 Island Ave

La Grande, OR 97850

(541) 963-1344

Prepared By:

Kittelson & Associates, Inc.

610 SW Alder, Suite 700

Portland, OR 97205

(503) 228-5230

In Association with:

CH2M HILL

Angelo Eaton & Associates, Inc.

Jeanne Lawson & Associates, Inc.

Project No. 5829.00

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Preface

The progress of this plan was guided by the Project Planning Management Team (PPMT) and the Stakeholder Advisory Committee (SAC) identified below.

Project Planning Management Team (PPMT)

Marc Hanson
ODOT Region 5

Jon Beal
Malheur County

Gian Paolo Mammone
Ontario community Development

Teresa Penninger
ODOT Region 5

Jim Kimberling
Malheur County

Steve Gaschler*
Ontario Public Works

Tom Kuhlman*
ODOT Region 5

Scott Trainor
Ontario City Manager

Jim Farrens
ODOT Region 5
* Non-voting member

Stakeholder Advisory Committee (SAC)

Manny Alvarado
Citizen at large

Gil Green
Idaho Power

Mark Radabaugh
DLCD

Kent Belleque
ODOT Preliminary Design

Joseph Gray
ODOT Region 5

Mike Ramirez
Housing Authority

Tom Busche
ODOT, District 14

Dan Joyce
Malheur County Commissioner

Dan Rau
Ontario State Park

LeRoy Cammack
Mayor - City of Ontario

Carl Judy
Local property owner

Brent Siebold
Ontario State Park

Gary Davis
Rural Road District

Tom Kuhlman
ODOT Region 5

Dave Warrick
ODOT Preliminary Design

Kelly Edwards
Idaho Power

Connie Nysingh
Ontario Chamber of Commerce

Stephanie Williams
Malheur County Counsel

John Gaskill
Ontario City Council President

Norm Poole
Local property owner

Jeff Wise
County Rural Road District

The PPMT and SAC members devoted a substantial amount of time and effort to the development of the North Ontario IAMP, and their participation was instrumental in the development of the recommendations that are presented in this report.

Project Consultant Team:

Kittelson & Associates, Inc.
CH2M HILL
Angelo Eaton & Associates, Inc.
Jeanne Lawson & Associates, Inc.

Section 1

Introduction

Introduction

Located in the northwestern portion of the City of Ontario, OR 201 (*Olds Ferry–Ontario Highway #455*) crosses I-84 at the North Ontario freeway interchange. Inspections of the existing two-lane bridge structure that caries OR 201 over I-84 have revealed a functionally obsolete and structurally deficient bridge structure. As part of its January 16, 2002 proceedings, the Oregon Transportation Commission (OTC) approved Oregon Transportation Investment Act (OTIA) funding to design and construct a new freeway interchange and bridge structure. As a condition of funding, the OTC required that an Interchange Area Management Plan (IAMP) be prepared in association with the design of the new interchange/bridge structure before funds for construction were to be released.

Based on this condition, an Interchange Area Management Plan (IAMP) has been developed specifically for the North Ontario interchange. Encompassing a wide variety of components, the North Ontario IAMP documents the land use planning, transportation planning, access management, public involvement and preliminary design work that went into the recommendations for a new interchange and bridge structure.

INTERCHANGE AREA MANAGEMENT PLAN (IAMP) STUDY AREA

The initial study area for the North Ontario IAMP was selected based on a review of the surrounding roadway network and land use patterns, existing and near-term future travel patterns, and input from the technical review and advisory committees. At a minimum, the IAMP study area to the north and south includes all land uses and roadways located within approximately 1,320 feet of the existing I-84 / OR 201 interchange. This distance corresponds to the spacing standard outlined in the OAR 734-051 Division 51 rules for interchange ramps. In general, the study area is bounded to the north by the Malheur River, to the west by N. Verde Drive, to the south by Malheur Drive, and to the east by the Snake River/Ontario State Park. From these general parameters, Figure 1-1 illustrates the North Ontario IAMP study area.

IAMP GOALS AND OBJECTIVES

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." From this definition, the generalized objectives if the North Ontario IAMP are to:

- Develop a new North Ontario interchange form and alignment through a collaborative effort involving design professionals, jurisdictional representatives, and local citizens and business owners.
- Ensure that the interchange form meets projected near-term and long-term travel demands between the intersecting facilities of I-84, OR 201, and the Yturri Beltline.
- Protect the long-term function of the interchange through access management techniques and the development of a planned supporting local roadway infrastructure.

North Ontario Interchange Area Management Plan

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North Ontario IAMP Study Area Map

Figure 1-1

DEVELOPMENT OF THE NORTH ONTARIO IAMP

The North Ontario IAMP was guided by the Project Planning Management Team (PPMT), a technical review committee made up of representatives from the Oregon Department of Transportation (ODOT), the City of Ontario, and Malheur County. In addition to the PPMT, a group of local citizens, property owners, and business owners made up the Stakeholder Advisory Committee, a special advisory committee to the PPMT. The PPMT and SAC roster list is provided in the Preface of this document. The PPMT and SAC convened throughout the course of the project to review and guide the technical analysis prepared by the consultant team. Appendix "A" of *North Ontario IAMP Technical Appendix* provides a summary of the individual PPMT/SAC meetings.

Public Involvement

In addition to the technical review work provided by the PPMT and SAC, the project consultant team also met with interested citizens and adjacent property/business owners on a regular basis providing them with opportunities to comment on the design of the future interchange structure and the supporting local circulation network. Public notices for the community open houses were provided via the local newspaper, local radio stations, and mailed meeting notices to property owners located within the study area. Summaries of the public meetings are also provided in Appendix "A" of *North Ontario IAMP Technical Appendix*.

NORTH ONTARIO IAMP OUTLINE

The development of the North Ontario IAMP began in July 2003 when the project development team first met with the PPMT and SAC committees. Since July 2003, these groups have undergone an extensive process that has involved a review of existing and future transportation conditions, future land use analyses, interchange alignment and design, and supporting local access and circulation planning. Technical memorandums documenting this extensive work effort have been prepared throughout the course of the project and are provided in the *North Ontario IAMP Technical Appendix.* In an effort to summarize this process, the remainder of this document provides an overview of the following sections of the IAMP:

- **Section 2** outlines the existing land use patterns and transportation facilities within the IAMP study area;
- **Section 3** documents the future land use conditions and how they were addressed by the study effort;
- **Section 4** provides a description of the transportation planning efforts involving the selection of a preferred interchange form and alignment as well as the supporting local access and circulation network;
- **Section 5** documents the North Ontario IAMP and the associated transportation improvement projects that are necessary to ensure the continued long-term safety and function of the North Ontario interchange; and
- **Section 6** documents how the North Ontario IAMP complies with the OTC's original conditions of approval as well as the Oregon Administrative Rules for the development of an interchange area management plan.

Section 2

Existing Land Use/Transportation Conditions

Existing Land Use / Transportation Conditions

The existing conditions section provides a brief overview of the land use and transportation facilities located within the North Ontario IAMP. A more detailed assessment of existing land use/transportation conditions can be found in Appendices "B" and "C" of the *North Ontario IAMP Technical Appendix*.

EXISTING LAND USE INVENTORY

Existing land uses in the study area include light industrial and general commercial to the south, southwest, and northeast of the interchange and agricultural uses (Exclusive Farm Use, EFU) to the northwest. There are also some residential uses in the City's Urban Growth Area (UGA) located west of the interchange, as well as existing residences located within city limits, south of the interchange.

Given that the IAMP study area consists of a number of different land uses and that these uses are located within the jurisdictions of both the City of Ontario and Malheur County, sub-area classifications have been created for ease in describing the land use inventory. These different sub-areas are described below and are illustrated in Figure 2-1.

- Sub-Area "A" includes the individual land parcels located north of I-84 on the east side of OR 201;
- Sub-Area "B" includes the individual land parcels located north of I-84 on the west side of OR 201;
- Sub-Area "C" includes the individual land parcels located north of Falcon Drive and southwest of I-84;
- Sub-Area "D" includes the area consisting of the Ontario State Park;
- Sub-Area "E" includes the individual land parcels located along the southwest side of OR 201 and southeast of the Dork Canal; and
- Sub-Area "F" includes the individual land parcels located within the area east of N. Verde Drive, south and west of Falcon Drive, and north of the Malheur Drive corridor.

Malheur County

Malheur County has land use planning jurisdiction for the area north and northwest of the existing interchange. County land directly to the north of the interchange and I-84 is zoned C-1 and hosts a mixture of uses, including industrial, commercial and residential development. This land is outside the City of Ontario urban growth boundary (UGB). Figure 2-2 illustrates the Malheur County planning jurisdiction and the respective land use and zoning classifications within the North Ontario IAMP.

North Ontario Interchange Area Management Plan

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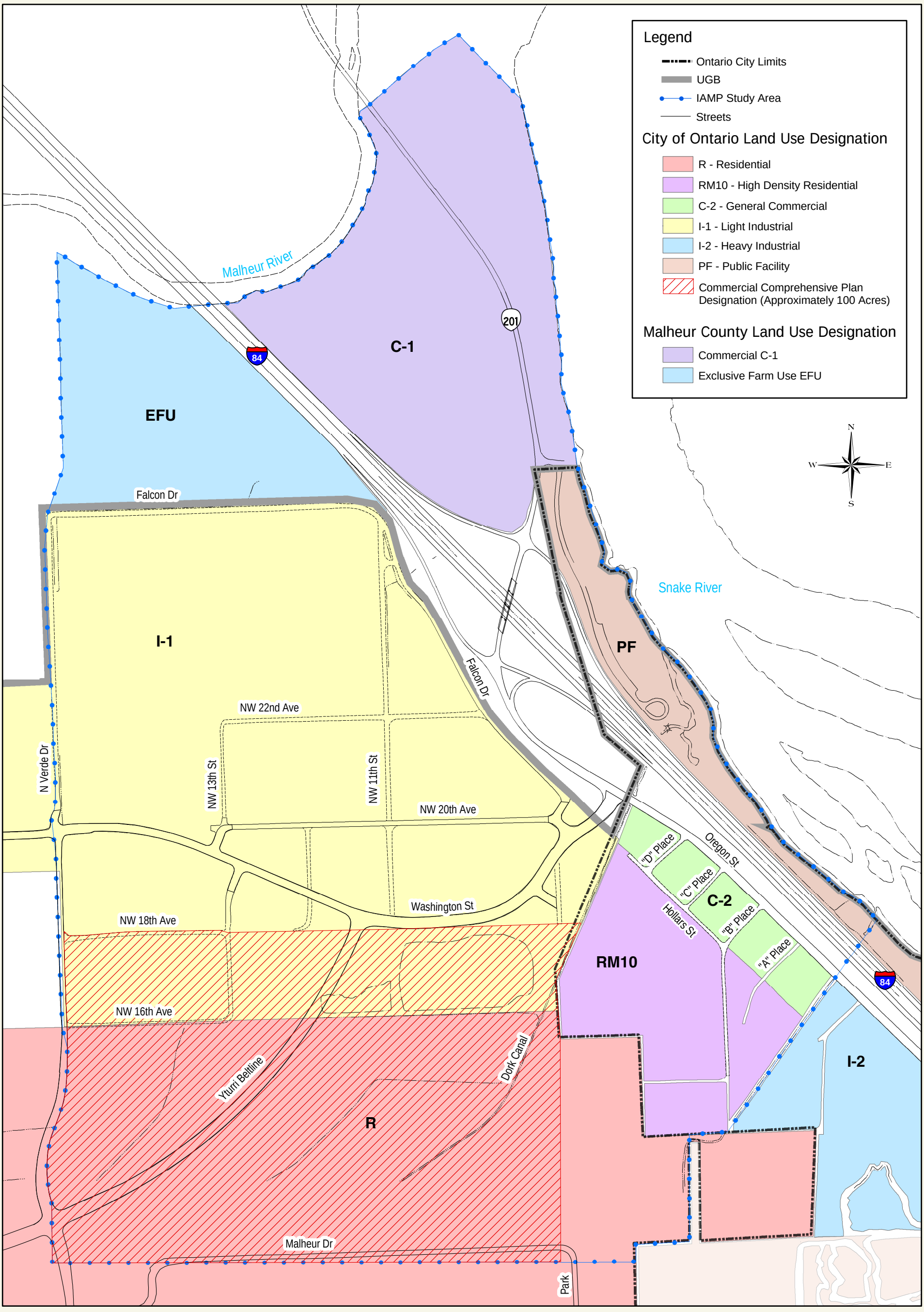
Sub-Area Map

Figure 2-1

North Ontario Interchange Area Management Plan



OREGON TRANSPORTATION INVESTMENT ACT

Study Area and Zoning Classifications

Figure 2-2

Sub-Area "A"

Sub-Area "A" is zoned C-1 by Malheur County and consists of parcels east of OR 201, north of the interchange, and adjacent to the Snake River. The County's C-1 Zone is intended to provide for a broad range of commercial operations and services associated with commercial centers or shopping districts. Existing development in sub-area "A" includes a 27-unit RV Park, single-family homes, vacant/undeveloped parcels, and an auto repair facility. Access to each individual land parcel occurs via a driveway connection to OR 201.

Sub-Area "B"

Sub-Area "B" is also zoned C-1 by Malheur County. This area directly north of the interchange is also zoned for commercial uses. Located north of I-84, west of OR 201, and east of the Malheur River, access to each individual land parcel occurs via a driveway connection to OR 201. The majority of this sub-area is occupied by an Idaho Power electric substation with the remainder of the land parcels consisting of several single-family homes, a truck and diesel repair shop, and a mini-storage facility. The land to the immediate north, south and west of the electric sub-station is currently owned by Idaho Power, however the land is predominately undeveloped with the exception of a network of power transmission poles and power lines.

Sub-Area "C"

Sub-Area "C" is located just north of the Ontario urban growth boundary. It is zoned EFU, a zone reserved for farm-related activities and uses. The soils in this sub-area are classified "high value" per the United States Department of Agriculture, Soil Conservation Service. The land is irrigated and considered prime, Class II farmland.

City of Ontario

Most of the land in the immediate vicinity of the interchange is within the City of Ontario's urban growth boundary but outside the current city limits. This area west of the interchange is governed by an Urban Growth Area Joint Management Agreement between Malheur County and the City. This zone is intended to provide land use and development standards to unincorporated areas of the Ontario Urban Growth Area (UGA) designed for light industrial and residential use.

In 1999 the City Council adopted an ordinance that revised the Urban Growth Boundary and rezoned land in the UGA in order to accommodate a projected deficit in land available for residential, commercial and public facilities. The buildable lands analysis and subsequent changes to the City's Comprehensive Plan were prescribed by the City's Periodic Review work program with the State. As part of this action, 103 acres south of the North Ontario Interchange previously designated residential were reclassified as commercial as illustrated in Figure 2-2. While the City of Ontario's Comprehensive Plan was amended per the 1999 ordinance to reflect this change, commercial zoning was to take place "as soon as feasible (p. 8, Exhibit A Findings of Fact, Ordinance No. 119-01-26-99)." At the start of the North Ontario IAMP development process, the zoning of the 103 acres had not yet been changed to commercial, leaving the underlying zoning as UGA Residential.

Sub-Area "D"

Sub-area "D" consists solely of the Ontario State Park. This area is located inside the Ontario city limits and within the urban growth boundary. The Public Facility designation allows government or public facilities, including those developed by public and utility agencies. The state-owned recreation facility is

a day-use park with restrooms, fishing, boat ramp, and picnic areas. According to data provided by the Oregon Parks & Recreation Farewell Bend Management Unit, the average yearly visitor attendance from 2000 to 2002 was estimated to be 123,000 visitors. The peak visitation month is during August, when an estimated 15,900 people visit the park. The average daily attendance is approximately 300 visitors per day (150 vehicles). It is not expected to redevelop with urban uses as allowed by the PF zone.

Sub-Area "E"

The northwest portion of Sub-Area "E" is located inside Ontario City limits and consists of parcels zoned C2-General Commercial and RM10-High Density Residential. Parcels within sub-area E have access to Oregon Street. Several parcels zoned RM10-High Density Residential are located behind the commercially zoned properties, on Hollars Street. Current uses in the commercial area include a U-Haul rental business, two motels, a radio station, a machine and repair shop, a trailer sales lot, and several single-family homes. For the most part, the residential areas within the City limits include existing single-family homes and parcels that are largely vacant or are being employed for farm-related uses.

Sub-Area "F"

All of Sub-Area "F" is located within Ontario's Urban Growth Area, but outside current city limits. Title 10, Section 10-14-6, of the City of Ontario Development Code regulates land uses in this area of the County prior to annexation to the City. Existing land uses include single-family homes, vacant land, two gas stations, small commercial businesses, and an assortment of light-industrial uses.

City of Ontario Ordinance No. 119-01-26-99 amended the Comprehensive Plan to accommodate more commercial, residential and public facilities land in the UGB. As part of this action, 103 acres of UGA Residential were reclassified as UGA Commercial. Part of the area subject to this change falls within Sub-Area "F." The Comprehensive Plan designation has changed for this area, but it has not been rezoned to commercial. No commercial development can take place until a zone change has been approved. However, the City's intention that this area to the southwest of the interchange be available for future commercial development is clearly detailed in the 1999 ordinance's supporting findings.

Discussions with City of Ontario staff and residents indicate that the City is interested in encouraging travel oriented commercial uses in the OR 201/I-84 area. Since the Yturri Beltline is a main truck route, commercial services that would accommodate this activity include hotel/motel establishments and gasoline service stations. These uses are also allowed in the City of Ontario's C-2, General Commercial Zone. The most flexible of the City's commercial designations, C-2-H, Heavy General Commercial Zone allows outright all of the principle uses in the C-1 (Neighborhood Commercial) and C-2 zones, as well as "truck stop with transient motel." When annexed to the City, the areas designated UGA Commercial will likely be rezoned to General Commercial or Heavy General Commercial in order to accommodate the types of travel and automotive-related uses envisioned for this area.

Additional discussion on the 103 acres located in Sub-Area F and how potential future commercial oriented uses will impact the North Ontario IAMP are provided in Section 3 of this plan.

EXISTING TRANSPORTATION INVENTORY

Roadway Facilities

Interstate 84 (I-84) and OR 201 are the primary roadways serving the North Ontario IAMP study area. NW 20th Avenue, Falcon Drive, NW 11th Street, and N. Verde Drive serve as secondary roadways and make up a larger system of collector and local street routes serving area residents and business establishments.

Interstate 84

I-84 is a four-lane interstate highway that runs along the northern boundary of the City of Ontario. I-84 is the main east-west travel route within the State of Oregon providing connections between the City of Portland, Oregon and the City of Boise, Idaho. I-84 is designated by the *1999 Oregon Highway Plan* as an *Interstate Highway*, a *Freight Route*, and is considered a part of the National Highway System.

Within the North Ontario IAMP study area, I-84 contains two travel lanes in each direction separated by a grass median. According to the *2002 Transportation Volume Tables* maintained by ODOT, the average daily traffic along I-84 within the vicinity of the OR 201 interchange is approximately 10,400 vehicles. Of this total, approximately 27 percent is made up of truck traffic as defined by the FHWA vehicle classification types.

OR 201 (Olds Ferry-Ontario Highway #455)

The other major roadway within the North Ontario IAMP study area is OR 201. OR 201 enters the study area from the north as a two-lane highway and intersects I-84 at the North Ontario interchange. This portion of OR 201 is classified by the 1999 Oregon Highway Plan as a *District Highway.*

South of I-84, the state highway classification of OR 201 used to follow Oregon Street southeast into the urban center of Ontario and then west along SW 4th Avenue to the area known as Airport Corner. However, in the summer of 2003, ODOT completed a three-lane access controlled beltline around the northwest portion of the City of Ontario known as the Yturri Beltline. Although not yet formally adopted by the Oregon Transportation Commission (OTC), it is the intention that the Yturri Beltline will be designated as the new OR 201. In anticipation of this future designation, ODOT and the City of Ontario recently executed a jurisdictional transfer agreement giving the City of Ontario ownership and maintenance control over the roadways (Oregon Street, SW 4th Avenue, SW 2nd Street) that used to make up the OR 201 route through the main part of the City.

Yturri Beltline

As previously stated, the Yturri Beltline is a new limited access three-lane facility located within the North Ontario study area. This facility was recently constructed from the OR 201/SW 4th Avenue intersection, around the northwest portion of the City, where it presently terminates just south of the North Ontario interchange at Washington Avenue.

Other Secondary Roadways

In addition to I-84 and OR 201, the North Ontario IAMP study area contains a number of local and collector street facilities that serve area residents and business establishments. These Malheur County owned and maintained roadways include NW 20th Avenue, Falcon Drive, NW 11th Street, and N. Verde

Drive. NW 20th Avenue and N. Verde Drive are both classified by Malheur County as collector roadways, while NW 11th Street and Falcon Drive are considered local streets.

Tables 2-1 and 2-2 summarize the characteristics of I-84, OR 201, and the secondary transportation facilities in the North Ontario IAMP study area, while Figure 2-3 illustrates the existing lane configurations and traffic control devices at the respective key study intersections.

Table 2-1
Existing Transportation Facilities and Roadway Designations

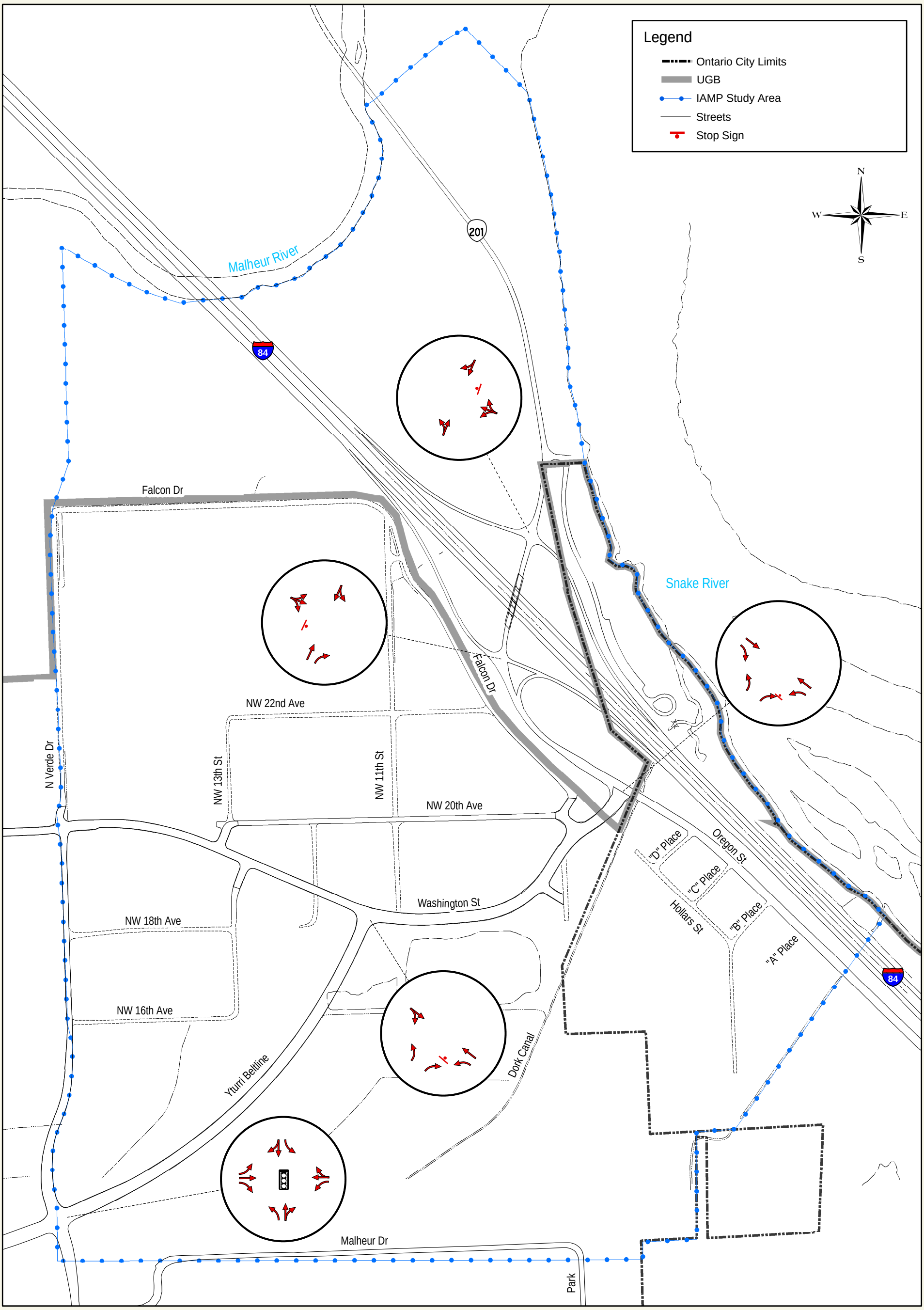
Roadway	Existing Ownership and Functional Classification	Posted Speed	Side-walks?	Bicycle Lanes?	On-Street Parking?
Interstate 84	ODOT - Interstate Highway	65 mph	-	-	-
OR 201	ODOT - District Highway	45 mph[1]	None	None	None
Oregon Street	City of Ontario - Minor Arterial	45 mph	None	None	None
NW 20th Avenue	Malheur County - Major Collector	35 mph	None	None	None
Falcon Drive	Malheur County - Local Street	35 mph	None	None	None
NW 11th Street	Malheur County - Local Street	25 mph	None	None	None
N. Verde Drive	Malheur County - Major Collector	35 mph	None	None	None
Yturri Beltline	ODOT - (not presently classified)	45 mph	None	Yes	None
Washington Avenue	ODOT - (not presently classified)	35 mph	None	Yes	None

[1] The posted speed along OR 201 increases to 55 mph north of the Malheur River bridge.

Table 2-2
Existing Transportation Facilities and Roadway Designations (Cont.)

Roadway	Cross Section	Travel Way Width	Surface Type	Surface Condition
Interstate 84	4 lanes (2 lanes each direction)	24 feet per direction	Paved	Good
OR 201	2 lanes	24 feet	Paved	Fair
Oregon Street	4 lanes	44 feet	Paved	Poor
NW 20th Avenue	2 lanes	24 feet	Paved	Fair
Falcon Drive	2 lanes	24 feet	Paved	Fair
NW 11th Street	2 lanes	~24 feet	Gravel	-
N. Verde Drive	2 lanes	24 feet	Paved	Good
Yturri Beltline	3 lanes	~60 feet[2]	Paved	Good
Washington Ave	3 lanes	~60 feet[2]	Paved	Good

North Ontario Interchange Area Management Plan



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Existing Lane Configurations and Traffic Control Devices

Figure 2-3

EXISTING ROADWAY ACCESS CONDITIONS

ODOT currently has the authority to regulate roadway and public/private driveway access along state highways such as OR 201 through the rules and regulations stipulated in OAR 734-051. To gain an understanding of the existing access conditions along OR 201 within the North Ontario IAMP study area, an access inventory was prepared. Figure 2-4 shows the existing public and private roadway approaches to the existing OR 201 alignment within the North Ontario IAMP study area. In addition, Figure 2-4 shows the access control lines that ODOT has established along the newly constructed sections of the Yturri Beltline and Washington Avenue. As illustrated in Figure 2-4, OR 201 maintains 10 public approaches and 17 private approaches within the study area. Table 2-3 provides detailed information regarding each public or private access along the Highway.

The *1999 Oregon Highway Plan* stipulates that the desired distance between an interchange ramp terminal and the first major highway approach (public or private) is 1,320 feet, or ¼ mile. Figure 2-4 illustrates that the approaches north of I-84 along OR 201 (#7 though #16) fall within this desired minimum freeway interchange access spacing distance. South of I-84 approaches #19 through #22 fall within the same minimum freeway interchange spacing distance.

Table 2-3
OR 201 Public/Private Approach Inventory

Approach Type	Figure 2-6 Access Number	Intersection Name	Property Owner/ Business Name	Serves (Tax Map) & Tax Lot Number	OR 201 Mile Post	Side
Private	1	OR 201 / Private Driveway	Longtin, Walter W	(17 47 33) #794	M.P. 24.70	East
Private	2	OR 201 / Private Driveway	Hess, Rita Marie ETAL	(17 47 33) #700	M.P. 24.74	East
Private	3	OR 201 / Private Driveway	Idaho Power Co	(17 47 33) #900	M.P. 24.72	West
Private	4	OR 201 / Private Driveway	Judy, Carl C & Katherine A	(17 47 33) #701	M.P. 24.76	East
Private	5	OR 201 / Private Driveway	Judy, Carl C & Katherine A	(17 47 33) #792	M.P. 24.80	East
Public	6	OR 201 / Private Driveway	County of Malheur	(17 47 33B) #700, #800, #600, #1000	M.P. 24.87	West
Private	7	OR 201 / Private Driveway	Belisle, Albert C	(17 47 33B) #1200	M.P. 24.91	West
Private	8	OR 201 / Private Driveway	Plummer, Buckley	(17 47 33B) #400	M.P. 24.91	East
Public	9	OR 201 / Private Driveway	County of Malheur	(17 47 33B) #1400, #1300, #1500	M.P. 24.98	West
Private	10	OR 201 / Private Driveway	Clark, Gary C ETAL	(17 47 33B) #300	M.P. 24.98	East
Private	11	OR 201 / Private Driveway	Baker, Minnie Trust	(17 47 33B) #1600	M.P. 25.00	West
Private	12	OR 201 / Private Driveway	Clark, Gary C ETAL	(17 47 33B) #300	M.P. 25.00	East
Private	13	OR 201 / Private Driveway	Oregon, Dept of Transportation	(17 47 33B) #200	M.P. 25.02	East
Public	14	OR 201/ Ontario State Park access	Oregon, Dept of Transportation	(17 47 33D) #200	M.P. 25.05	East
Private	15	OR 201 / Private Driveway	Baker, Minnie Trust	(17 47 33B) #1601	M.P. 25.02	West
Private	16	OR 201 / Thayer Road		(17 47 33B) #100	M.P. 25.09	West
Public	17	OR 201/ I-84 WB On-Off Ramp	Oregon, Dept of Transportation	N/A	M.P. 25.13	West
Public	18	OR 201/ I-84 EB On-Off Ramp	Oregon, Dept of Transportation	N/A	M.P. 25.25	West
Public	19	OR 201 / Washington Avenue	Oregon, Dept of Transportation	N/A	M.P. 25.41	West
Private	20	OR 201 / Private Driveway	Easly, John E	(17 47 33D) #2000	M.P. 25.44	West
Private	21	OR 201 / Private Driveway	Wright, Barry K & Vihra V	(17 47 33D) #1900	M.P. 25.47	West
Public	22	OR 201 / "D" Place	City of Ontario	N/A	M.P. 25.49	West

Approach Type	Figure 2-6 Access Number	Intersection Name	Property Owner/ Business Name	Serves (Tax Map) & Tax Lot Number	OR 201 Mile Post	Side
Public	23	OR 201 / "C" Place	City of Ontario	N/A	M.P. 25.55	West
Private	24	OR 201 / Private Driveway	Patel, Bharatkumar ETUX	(17 47 33D) #1500	M.P. 25.57	West
Public	25	OR 201 / "B" Place	City of Ontario	N/A	M.P. 25.60	West
Private	26	OR 201 / Private Driveway	Horizon Broadcasting Group LLC	(17 47 33D) #1400	M.P. 25.62	West
Public	27	OR 201 / "A" Place	City of Ontario	N/A	M.P. 25.65	West

North Ontario Interchange Area Management Plan

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Existing OR201
Public/Private Access Locations

Figure 2-4

EXISTING ROADWAY DEFICIENCIES

The main roadway deficiency within the North Ontario IAMP study area is the OR 201 interchange with I-84. The Oregon Department of Transportation has declared this interchange "functionally obsolete and structurally deficient" for the projected future travel demands on OR 201 and I-84. According to the latest ODOT Structure and Inventory Appraisal/Bridge Inspection Report, identified deficiencies include the following:

Deck Width

The existing OR 201 bridge overpass has two lanes that do not meet current design guidelines, nor is the bridge deck wide enough to allow for future widening. Additionally, there are no sidewalks or bike lanes on the bridge.

Vertical Clearance

The existing clearance over I-84 is only 15.92 feet. This insufficient clearance has resulted in collisions by several high loads in recent years.

Deck Condition

There is delamination of the concrete deck throughout about 35% of the deck area. This delamination has caused much of the reinforcing steel to be exposed.

Girder Condition

One of the girders has a hole cut in the web area to arrest a crack in the girder

Column Condition

The columns have severe cracking, spalling and exposed reinforcing steel. As a result some of the reinforcing steel has actually experienced section loss

Guardrail Condition

The bridge rails, rail transitions and rail ends do not meet current design standards

Section 3

North Ontario IAMP Land Use Issues

North Ontario IAMP Land Use Issues

Background Information

As previously discussed in Section 2's land use summary, the City of Ontario adopted an ordinance in 1999 that revised the Urban Growth Boundary and designated land uses in the UGA in order to accommodate a projected deficit in land available for residential, commercial, and public facilities. The buildable lands analysis and subsequent changes to the City's Comprehensive Plan were prescribed by the City's Periodic Review work program with the State. As part of this action, 103 acres of land within the North Ontario IAMP study area previously designated residential were reclassified as commercial. While the City of Ontario's Comprehensive Plan was amended per the 1999 ordinance to reflect this change, commercial zoning was to take place "as soon as feasible." When the development of the North Ontario IAMP began, the zoning of the 103 acres had not yet been changed to commercial, leaving the underlying zoning as UGA Residential.

Given the discrepancy between the Comprehensive Plan and Zoning Map, it was noted that an official rezoning action sometime in the future could potentially allow land uses and densities that are inconsistent with the land use assumptions based off of the official zoning map. In an effort to help develop official land use zoning requirements for the 103 acres within the IAMP study area and to help clarify future transportation forecast volumes for the purposes of the North Ontario IAMP, the project team was assigned to assist the City of Ontario with the official rezoning of the 103-acres.

On April 12, 2004, the City of Ontario and the project team began the process of developing an official zoning designation and draft code language for the 103 acres. At the time this document was being prepared, the City was still refining the specific land use parameters of the zone; however, the overall vision and intent of the zone had essentially been agreed upon. Appendix "D" of the *North Ontario IAMP Technical Appendix* contains two summary memorandums prepared by Angelo Eaton & Associates documenting the process and the resulting draft land use regulation language for a new zone known as the "Employment Zone."

Future Land Use Assumptions

Based in part on the draft land use regulation language for the envisioned "Employment Zone", specific future year buildout assumptions were developed and used throughout the development of the North Ontario IAMP that reflect potential land uses that would be allowed under the "Employment Zone". In the event that an official zoning designation does not take place in a timely manner following the adoption of the North Ontario IAMP, these assumptions were also evaluated against future buildout assumptions under the existing 103-acre UGA Residential designation. Table 3-1 provides a summary overview of the future buildout assumptions that were used in the development of the North Ontario IAMP. The table illustrates the specific changes that occur as a result of the 103-acre UGA Residential (Scenario #1) versus 103-acre commercial "Employment Zone" (Scenario #2). As shown, Sub-Area "F" under Scenario #1 will result in a development potential of approximately 500 single-family homes, where as Sub-Area "F" under Scenario #2 will result in a development scenario of approximately 640,000 square feet of commercial uses.

Table 3-1
2025 Future Vacant/Buildable Lands Assumptions

Sub-Area	Zoning Designation	Future Land Use Assumption of Vacant/Underdeveloped Land Parcels	Assumed Redevelopment Coverage	Future Buildout Estimate
A	C-1 Commercial	Auto Machinery / Sales / Service	25%	20,000 s.f.
	C-1 Commercial	Shopping Center	25%	110,000 s.f.
B	C-1 Commercial	No Future Development		
C	EFU – Exclusive Farm Use	Will remain as farm use		
D	PF - Public Facility	Will remain as Ontario State Park		
E	C-2 General Commercial	Motel / Shopping Center	25%	47,000 s.f.
	RM-10 High Density Res.	Multi-Family Apartments	10 units/acre	109 units
	R - Residential	Single-Family Homes	5,000 s.f. lot size	52 homes
Scenario #1 – 103 acres of Sub Area "F" would remain residentially zoned				
F	I-1 Light Industrial	Warehouse / Distribution Centers	25%	530,000 s.f.
		General Light Industrial	25%	60,000 s.f.
	R- Residential	Single-Family Homes	5,000 s.f. min. lot	500 homes
Scenario #2 – 103 acres of Sub Area "F" will be rezoned to the future "Employment Zone"				
F	I-1 Light Industrial	Warehouse and Distribution Centers	25%	530,000 s.f.
		General Light Industrial	25%	50,000 s.f.
	Assumed new "E - Employment Zone"	Shopping Center / Motels / Restaurants / Gas Stations / etc.	25%	640,000 s.f.

Using the buildout volumes from Table 3-1, forecast 2025 traffic volumes were developed and used in the evaluation of the various interchange design types. A detailed description of this process and the forecast 2025 traffic operations analysis are provided in Appendix "E" and "G" of the of the *North Ontario IAMP Technical Appendix.*

Section 4

Development of the
North Ontario IAMP

Development of the North Ontario IAMP

The development of the North Ontario IAMP has been an extensive process that began in June of 2003. From this point, the project team, the PPMT, and SAC have undertaken an iterative process to uncover many of the transportation planning, land use, and design issues that are important in the reconstruction of major highway interchange projects. The technical memorandums that document this process are provided in the compendium document, *North Ontario IAMP Technical Appendix*. In an effort to summarize this extensive process, this section provides a brief synopsis of the transportation planning, design, and public involvement efforts that went into the development of the selected North Ontario IAMP interchange form, alignment, and supporting transportation network. Included is a discussion on the following:

- Development of the new North Ontario interchange form and alignment; and
- Development of a supporting local access and circulation network

BACKGROUND INFORMATION

The foundation of the North Ontario interchange planning process was laid back in 1998 with the completion of the *Ontario Transportation Solution Package*. This study was undertaken to assist ODOT and the City of Ontario with the evaluation of a series of proposed transportation alternatives to help solve congestion, connectivity, and safety issues within the City. As a result of this planning effort, the Citizens Advisory Committee and other officials involved in the study made the following recommendations as they pertain to the development of the North Ontario IAMP:

- Construct a new limited access, higher speed roadway around the northwest portion of the City of Ontario that would eliminate the need for trucks and other through traffic from having to traverse the City of Ontario grid network.
- Connect this new limited access facility to I-84 via the reconstruction of the existing North Ontario interchange. It should be noted that other locations for the new interchange were evaluated, however the final recommendation was to reconstruct the North Ontario interchange within the same general location of the existing North Ontario interchange.

These final committee recommendations were then subsequently included in the City of Ontario and Malheur County Transportation System Plans. The recently completed Yturri Beltline project is a result of the recommendation to construct a new limited access roadway around the urban core of the City of Ontario. The North Ontario IAMP builds upon this original work in order to plan for the connection of the Yturri Beltline to a reconstruction of the North Ontario interchange.

The remainder of this section outlines the development of the future North Ontario interchange and supporting local access and circulation network.

INTERCHANGE DESIGN DEVELOPMENT

Initial Twelve Interchange Design Concepts

The development of the initial interchange design concepts for the North Ontario IAMP began with a series of design workshops with the PPMT/SAC and with interested citizens, business owners, and landowners in a public open house setting. Following the completion of the design workshops, the consultant team developed a series of individual design concepts based on the ideas generated during the workshop exercises. Appendix "F" of the *North Ontario IAMP Technical Appendix* contains detailed descriptions and graphical representations of these initial twelve interchange concepts.

Four Screened Interchange Design Concepts

Following a qualitative review of the initial twelve interchange design concepts, the PPMT and SAC committees deemed that Concepts #8, #9, #10, and #12 merited further technical evaluation. A description of these selected concepts are provided below.

Concept #8

Figure 4-1 shows the interchange and local circulation design Concept #8. Concept #8 proposes a diamond interchange with a Single Loop PARCLO-B ramp serving westbound off-ramp movements to OR 201. This off-ramp would connect to OR 201 approximately 300 feet north of the existing ramp terminal location. At this new ramp terminal location, an access drive would be constructed to serve the Ontario State Park. Based on current ODOT design standards, the WB I-84 on-ramp would require a widening of the existing westbound I-84 Malheur River Bridge to provide adequate acceleration and merge distances. OR 201 north of I-84 would move slightly to the west before connecting back to the existing alignment ¼-mile prior to the Malheur River Bridge. South of I-84, OR 201 would be extended northeasterly of its present terminus at Washington Avenue to the new I-84 interchange.

Properties north of I-84 located within the 1,320-foot spacing distance of the interchange would be served by a series of backage/frontage roads. Properties south of I-84 and north of Washington Avenue would take access to a series of local and collector roadways with NW 22nd Avenue crossing under the Yturri Beltline extension via an underpass structure.

Concept #9

Figure 4-2 shows the interchange and local circulation design Concept #9. Concept #9 proposes a traditional diamond interchange design form. The location of the interchange would be moved approximately 300 feet west of its current location so that OR 201 could be aligned more perpendicularly to I-84. To achieve this perpendicular alignment, OR 201 would be extended north of Washington Avenue partially along the NW 11th Street corridor before connecting to the I-84 interchange. North of I-84, OR 201 would be offset to the west before ultimately connecting back to its existing alignment approximately 800 feet prior to the Malheur River Bridge. Based on current ODOT design standards, the WB I-84 on-ramp would require a widening of the existing westbound I-84 Malheur River Bridge to provide adequate acceleration and merge distances.

Properties north of I-84 located within the 1,320-foot spacing distance of the interchange would be served by a series of backage and frontage roads. Properties south of I-84 and north of Washington Avenue would take access to a series of local and collector roadways with NW 22nd Avenue crossing under the Yturri Beltline extension via an underpass structure.

North Ontario Interchange Area Management Plan

OREGON TRANSPORTATION INVESTMENT ACT

Concept #8
Functional Layout

Figure
4-1

North Ontario Interchange Area Management Plan

OTIA
OREGON TRANSPORTATION INVESTMENT ACT

Concept #9
Functional Layout

Figure
4-2

Concept #10

Figure 4-3 shows the interchange and local circulation design Concept #10. Concept #10 proposes a traditional diamond interchange form with minimal alignment changes to OR 201. South of I-84, OR 201 would be extended northeasterly of its present terminus at Washington Avenue and connect into the proposed interchange. North of I-84, a short section of OR 201 would be offset slightly to the west to connect into the new interchange bridge structure. Based on current ODOT design standards, the WB I-84 on-ramp would require a widening of the existing westbound I-84 Malheur River Bridge to provide adequate acceleration and merge distances.

Properties north of I-84 located within the 1,320-foot spacing distance of the interchange would be served by a series of backage and frontage roads. Properties south of I-84 and north of Washington Avenue would take access to a series of local and collector roadways while Oregon Street would be extended to Falcon Drive and would cross under the Yturri Beltline extension via an underpass structure at the NW 24th Avenue alignment.

Concept #12

Figure 4-4 shows the interchange and local circulation design Concept #12. Concept #12 is similar to Concept #10 in that it proposes a Traditional Diamond interchange design moved further west of the existing interchange. In an attempt to eliminate the need for new frontage or backage roads to serve properties north of I-84, the new alignment of OR 201 would shift further to the west along the eastern Idaho Power electric substation border. As a result of this alignment shift, most properties north of I-84 would continue to use the abandoned OR 201 alignment for access. Properties south of I-84 and north of Washington Avenue would take access to a series of local and collector roadways with NW 22nd Avenue crossing under the Yturri Beltline extension via an underpass structure and connect to Oregon Street.

Based on current ODOT design standards, the WB I-84 on-ramp would require a widening of the existing westbound I-84 Malheur River Bridge to provide adequate acceleration and merge distances.

North Ontario Interchange Area Management Plan

OTIA
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Concept #10
Functional Layout

Figure
4-3

North Ontario Interchange Area Management Plan

OTIA
OREGON TRANSPORTATION INVESTMENT ACT

Concept #12
Functional Layout

Figure
4-4

Detailed Quantitative Evaluation – Concepts #8, #9, #10, & #12

Following the initial interchange concept screening, a more detailed technical evaluation was undertaken on the four screened interchange concepts. This detailed evaluation centered on the formally adopted set of evaluation criteria developed during the initial stages of the North Ontario IAMP process. These evaluation criteria were assembled to ensure that each concept would be evaluated for consistency with the overall intent of the community and the project. Five broad evaluation criteria were formally adopted as outlined below.

- Transportation Operations: This category consists of those criteria that assess the ability for motorized and non-motorized vehicles to travel through and within the study area. Special considerations within this category include multimodal options, safety, connectivity, mobility, truck accommodation, and local circulation.
- Land Use: This category consists of those criteria that assess right-of-way impacts, the consistency with adopted land use plans, impacts to utilities, and economic development impacts.
- Cost: This category consists of those criteria that assess the practicality of a design concept from a construction cost and feasibility perspective.
- Environmental/Social: This category consists of those criteria that assess the degree to which an alternative is compatible with the natural and built environment.
- Accessibility: This category consists of those criteria that assess the ability to access properties and businesses within the study area to/from the regional infrastructure network.

Based on the detailed quantitative assessment of each Concept as more thoroughly documented in Appendix "F" *of the North Ontario IAMP Technical Appendix*, a summary overview of the key findings are provided below:

Transportation Operations

From a transportation operations perspective, the detailed assessment of each Concept revealed the following:

- All of the Concepts equally enhance the multimodal transportation options within the study area.
- All of the Concepts improve upon the noted existing safety concerns with Concepts #8, #10, & #12 providing the most improved level of roadway geometrics.
- All of the Concepts decrease the level of local street connectivity because of the extension of the Yturri beltline to the new I-84 interchange structure.
- The traffic operations analysis reveals a relatively consistent operational performance of the key study intersections through the year 2025. This is directly related to the small degree of fluctuation in traffic volumes between the various Concepts. As a result, the operations analysis has determined that there is a consistent level of infrastructure improvement necessary for each Concept to accommodate future year 2025 design hour traffic volumes.

- All of the Concepts accommodate through truck movements, however it was noted that Concept #8 enhances westbound to southbound truck movements by eliminating the westbound to southbound left-turn movement due to the single loop ramp interchange design.

Land Use

From a land use perspective, the detailed assessment of each Concept revealed the following:

- Concept #9 requires the highest degree of right-of-way and structural displacements.
- All of the Concepts support the objectives of the locally adopted land use plans.
- Utility impacts are anticipated to be more significant under Concepts #8 and #12 than under Concepts #9 and #10.
- All of the Concepts are anticipated to enhance and support economic development within the study area.
- All of the Concepts provide interchange improvements that provide opportunities to enhance the image of the interchange as a western gateway to the City of Ontario.

Cost

From a cost and constructability perspective, the detailed assessment of each Concept revealed the following:

- Concept #8 has the highest estimated construction cost while Concept #10 has the lowest estimated construction cost.
- All of the Concepts possess certain construction staging challenges; however there are no design features that completely inhibit the ability to maintain existing traffic flows.

Environmental / Social

From an environmental / social perspective, the detailed assessment of each Concept revealed the following:

- All of the Concepts will have some level of negative environmental impacts.
- All of the Concepts will have some level of negative social impacts, however Concept #9 is anticipated to have a significant social impact due to its alignment south of I-84.
- All of the Concepts are anticipated to have no significant change to the existing Stormwater drainage issues currently being experienced in the study area. The new construction associated with the interchange creates a potential opportunity to incorporate drainage design features that would benefit floodprone areas in the project area.

Accessibility

From an accessibility perspective, the detailed assessment of each Concept revealed the following:

- All of the Concepts balance local property access with the function of OR 201.
- All of the Concepts are consistent with the adopted access management policies. Concept #8 may require an FHWA exception for the Ontario State Park access.

- All of the Concepts provide equal access opportunities to undeveloped properties within the study area.
- Concepts #9, #10, and #12 reduce the overall accessibility to the Ontario State Park when compared to Concept #8 by requiring longer access roads to OR 201.

Following the quantitative review of the four screened interchange design concepts, the PPMT and SAC committees recommended that Concepts #8 and #10 move forward for further study as the two "build alternatives" for a more comprehensive design based evaluation. Citing potential alignment variations to OR 201 north of I-84[1], the committees also recommended that different alignment variations be investigated as part of Concept #10.

Detailed Engineering/Layout Analysis – Build Alternatives #8 and #10

The second to last step in the selection of a preferred interchange form and alignment involved a more detailed engineering based analysis of the two concepts that were selected to move forward as the "build alternatives". These concepts, which included Concepts #8 and #10, were changed to "alternatives" for reference purposes in the evaluation process. This detailed engineering based evaluation involved two main objectives:

- Determine the preferred Alternative #8 and Alternative #10 interchange alignment plans; and
- Based on the preferred interchange alignment plans, use this information to select a preferred interchange design form for inclusion in the North Ontario IAMP.

A more thorough discussion of this evaluation process is provided in Appendix "G" of the *North Ontario IAMP Technical Appendix.* The following paragraphs provide a brief overview of the findings.

Preferred Alternative #8 & Alternative #10 Alignment Plans

Alignment options for the two interchange Alternatives based on formal engineering design standards were investigated. This process developed the following findings:

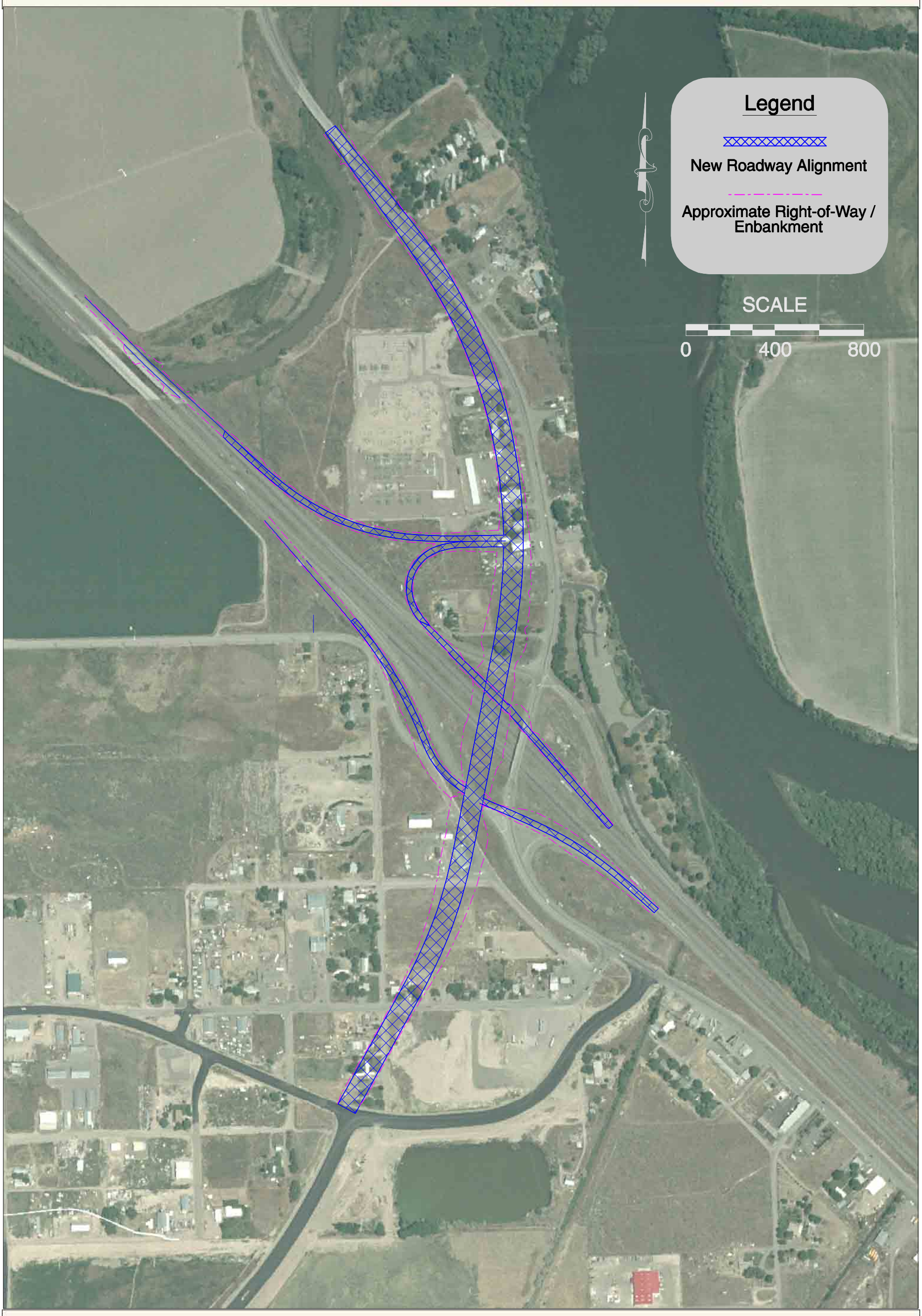
- A new interchange bridge structure would need to be located further west of the existing bridge (under either Alternative) in order to maintain traffic flow through the interchange during construction of a new bridge. As a result, portions of OR 201 north of I-84 would need to shift to the west in order to align to the new bridge structure. To maintain adequate roadway geometrics, it has been found that OR 201 would need to shift as much as 200 feet further to the west, impacting all of the properties in some form or another located between the Idaho Power substation and the exiting OR 201 alignment.
- With a shifting of OR 201 further to the west, a portion of the existing OR 201 roadway could be maintained and used as a frontage road for properties located along the banks of the Snake River under either Alternative.

1 In relation to the OR 201 alignment north of I-84, the consultant team noted that until a more detailed engineering design was performed as part of the subsequent design phase that takes into account all of the structural, land use, and regulatory factors, it is possible that the northerly alignment of OR 201 north of I-84 could occur anywhere between the eastern most boundary of the Idaho Power electric substation and the existing alignment of OR 201.

- A preliminary FHWA review of Alternative #8 indicated that any viable alternative for future Ontario State Park access should be considered over a direct connection to the State Park opposite the westbound I-84 exiting loop ramp. A review of potential alternatives indicated that access to the State Park could be achieved through the use of a frontage road as noted in the previous bullet.
- From the engineering based alignment investigation, it was determined that the impact to the Malheur River Bridge could not be avoided without significant design exceptions under either Alternative.

As a result of these findings, a preferred interchange alignment plan was developed for Alternative #8 and Alternative #10. These preferred alignment and interchange forms are illustrated in Figures 4-5 and 4-6 respectively. These alignment plans illustrates a westerly shift of the OR 201 alignment north of I-84 in both Alternatives, leaving a portion of the existing OR 201 alignment for use as a frontage road for the Ontario State Park and other properties located along the Snake River. South of I-84, OR 201 (Yturri Beltline) would be projected from its present terminus at Washington Avenue up to the new interchange structure.

North Ontario Interchange Area Management Plan

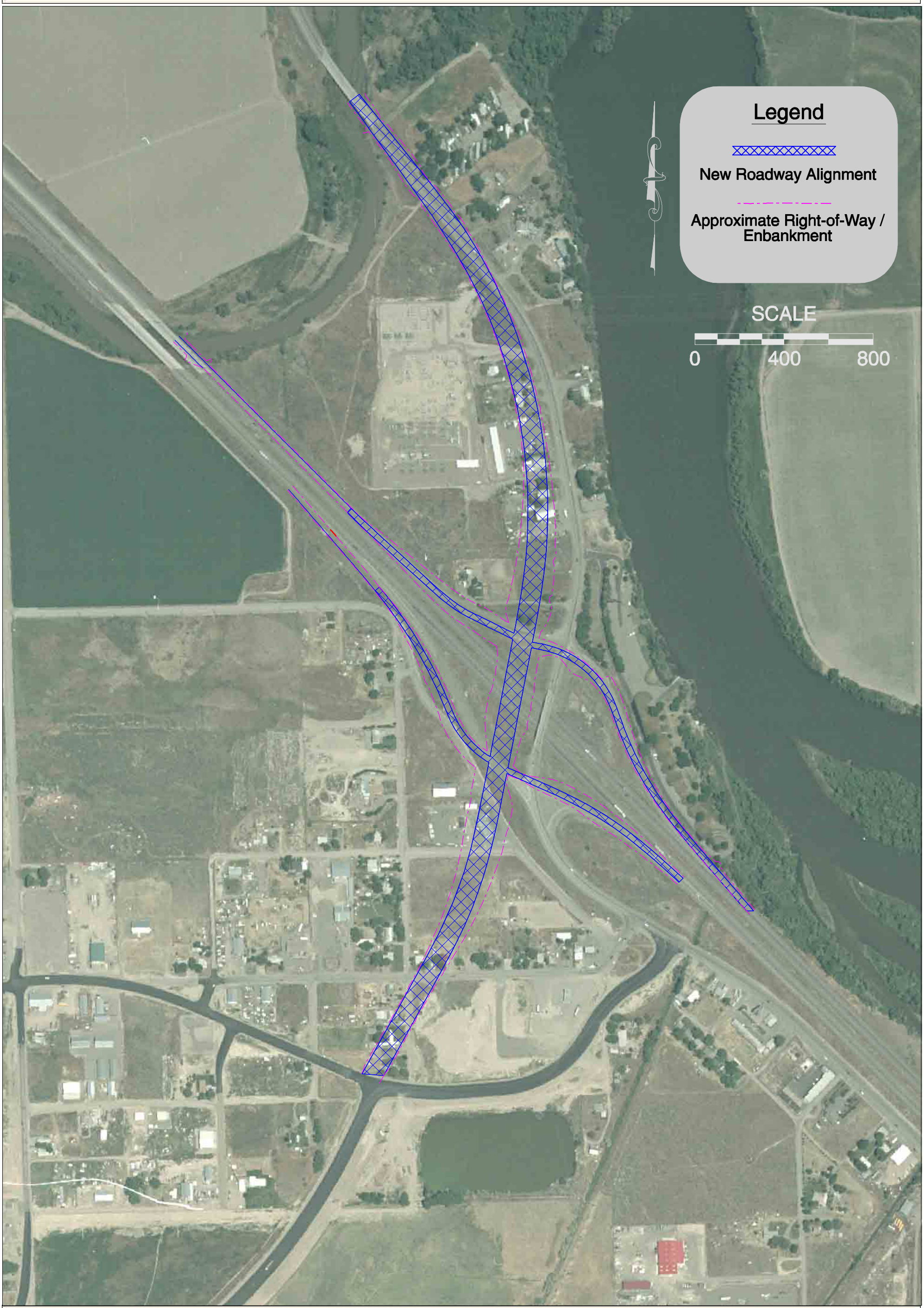


Alternative #8

Preferred Alignment & Interchange Form

Figure 4-5

North Ontario Interchange Area Management Plan



Alternative #10
Preferred Alignment & Interchange Form

Figure 4-6

Selection of a Preferred Interchange Design Form

On June 30, 2004, the PPMT and SAC committee members met to review the detailed alignment and operations assessment of the two recommended build alternatives. In the development and selection of the preferred OR 201 alignment, it was noted that OR 201 under both alternatives would have relatively similar alignments to one another. However, in terms of selecting a preferred interchange form, it was found that Alternative #8 had the following distinct advantages over Alternative #10:

- The westbound exiting loop ramp would eliminate delay associated with the critical left-turn movement of diamond interchanges by converting it to a right-turn movement. Forecast turning movement volumes are anticipated to exceed 300 design hour vehicles by the year 2025.
- Depending upon the ultimate design of the interchange (5-lane bridge structure), the right-turn movement of an exiting loop ramp could be designed such that trucks and vehicles could make a continuous free-flowing right-turn movement onto southbound OR 201 through the use of an add-lane.
- The exiting loop ramp creates a three-legged intersection compared to a four-legged intersection under a traditional diamond interchange design. As such, there is no vehicular conflict for pedestrian and bicycle movements along the east side of the interchange structure. With the Ontario State Park located just to the north, bicycle and pedestrian movements are likely to be a significant travel mode in the region through the year 2025. With vehicular conflicts minimized, this interchange design type would provide more flexibility in the accommodation of bicycle and pedestrian facilities.
- The distinct form of Alternative #8 allows for a greater distance (or spread) between the westbound and eastbound interchange ramp terminals. This distance, approximately 1,000 feet, would meet the minimum long-term queuing and design standard requirements of the ODOT Highway Design Manual. The distance between the two ramp terminals under Alternative #10 would not meet the minimum long-term queuing or design standard requirements.
- In comparison to a diamond interchange under Alternative #10, the exiting loop ramp feature of Alternative #8 has the potential to minimize traffic disruption during the construction staging process.

Based on these main advantages, both the PPMT and SAC committees recommended that the general alignment and interchange form of Alternative #8 be included as part of the North Ontario IAMP.

FINALIZATION OF LOCAL ACCESS & CIRCULATION

The second component of the interchange design process is the supporting local access and circulation network within the vicinity of the interchange. Like the development of the interchange design form, workshops were held for the PPMT/SAC committees as well as interested citizens, business owners, and landowners in a public open house setting.

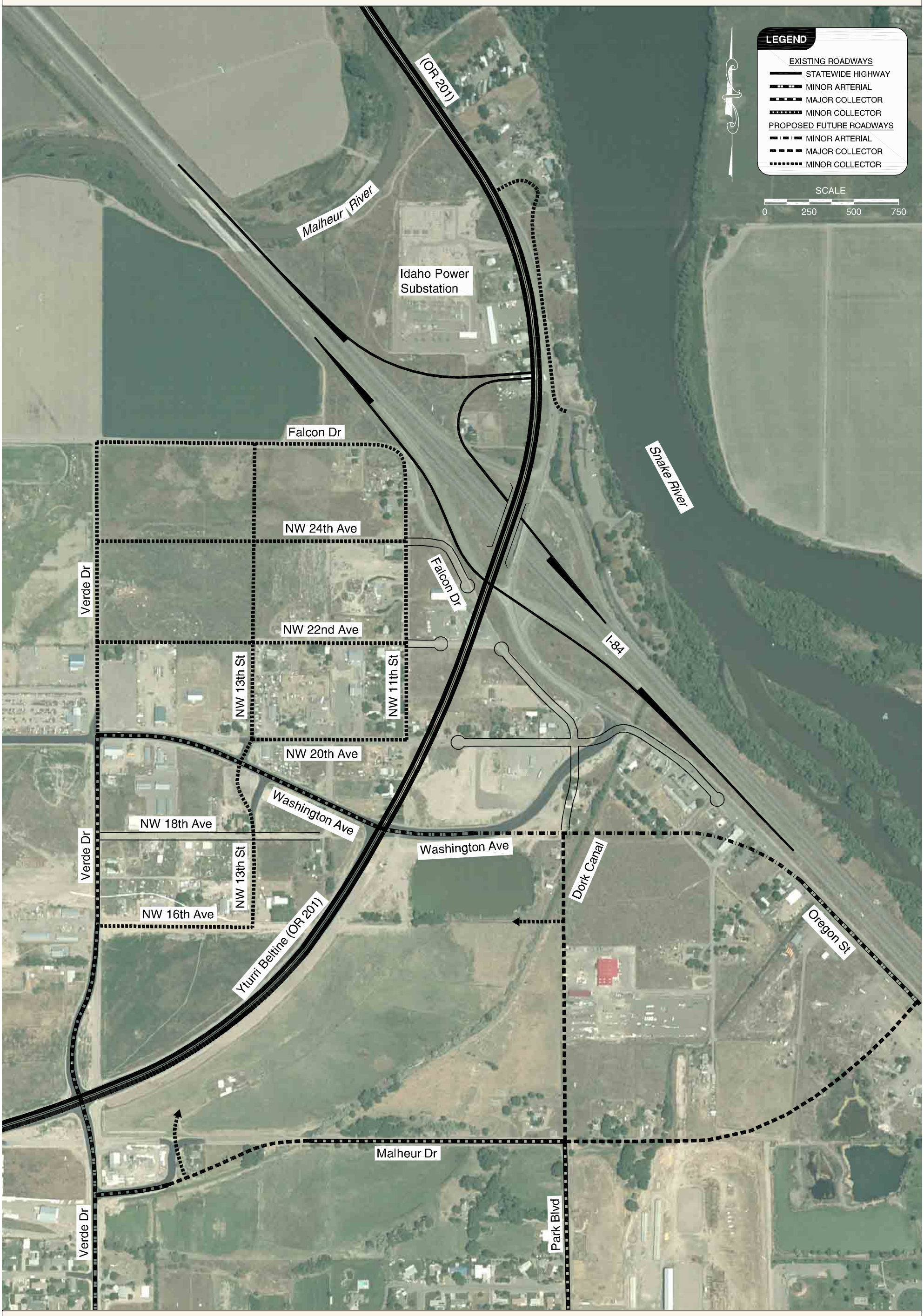
Following the completion of the access and circulation workshops, the consultant team developed a series of individual access and circulation alternatives for the interchange study area based on the ideas generated during the workshop exercises. Appendix "J" of the *North Ontario IAMP Technical Appendix* contains detailed descriptions and graphical representations of these initial five alternatives.

Preferred Local Access & Circulation

Following a qualitative review of the five local access and circulation concepts, the PPMT and SAC committees determined that the components of Alternative #5 should be included in the North Ontario IAMP. A description of these major components are provided below while Figure 4-7 provides a graphical illustration.

- The elimination of the Washington Avenue/Oregon Street intersection and a subsequent realignment of Washington Avenue to Oregon Street.
- An extension of Park Boulevard to Falcon Drive and an extension of Malheur Drive from Park Boulevard to Oregon Street.
- A new roadway (linking to the existing OR 201 roadway) that would provide access to the Ontario State Park and other adjacent properties located along the east side of OR 201. This roadway would connect to OR 201 approximately 1,125 feet north of the westbound I-84 ramp terminal.
- A realignment of Malheur Drive near Verde Drive to eliminate the series of sharp roadway curves.
- Minor collector roadways located a minimum of 500 feet south of Washington Avenue and 500 feet east of Verde Drive to serve potential future development within the "Employment Zone" east of the Yturri Beltline.

North Ontario Interchange Area Management Plan



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Preferred Local Access & Circulation Plan

Figure 4-7

Section 5

North Ontario Interchange
Area Management Plan

North Ontario Interchange Area Management Plan

The North Ontario IAMP provides a detailed description of the future transportation infrastructure required to maintain the operational integrity, safety, and function of the North Ontario interchange and study area.

The IAMP describes the future transportation network, necessary short- and medium/long-term transportation improvements, street cross-section elements, traffic control, and site access locations for the North Ontario IAMP study area. Through adoption by the City of Ontario, Malheur County, and ODOT, future development located within the IAMP study area will be required to make half-street improvements, right-of-way dedications, and circulation and access improvements identified in this plan. Implementation of the IAMP improvements will ensure that the North Ontario interchange and Yturri Beltline will maintain their functional integrity over time and that viable access will be provided to all existing and future land uses.

SHORT-TERM TRANSPORTATION IMPROVEMENTS

The North Ontario IAMP short-term transportation improvement projects include the initial phase of the new North Ontario interchange and bridge structure. This initial phase incorporates right-of-way acquisition and an interim interchange design that will allow the project to be constructed within initial budgetary limitations. In addition, the short-term transportation improvements include other infrastructure improvements that are required as a result of the initial interchange project such as the acquisition of access control and the development of supporting access and local circulation roadways. Together, these short-term improvements will allow the interchange to be re-constructed in the immediate short-term (based on the current project schedule, the interchange is anticipated to be completed and open for travel by the year 2007) while still allowing for the ultimate lane configurations and widening improvements required through the 2025 planning horizon year. Table 5-1 along with Figure 5-1 provides a detailed description and illustration of the required short-term transportation improvement projects, an estimated cost to complete the project, and potential funding sources.

MEDIUM- AND LONG-TERM TRANSPORTATION IMPROVEMENTS

The North Ontario IAMP medium/long-term transportation improvements are required to address future traffic demands and new development/redevelopment in the interchange area through the 2025 horizon year. With respect to the Yturri Beltline extension and OR 201 interchange, an expansion of this facility will be required in order to meet ODOT's operational standards through the 2025 planning horizon. This expansion will include signalization of the I-84 ramp terminals and Washington Avenue, additional travel lanes (as illustrated in Figure 5-2), and the development of a separated bicycle/pedestrian bridge over I-84. Based on an assumed linear traffic growth forecast, signalization of Washington Avenue and the I-84 ramp terminals will likely be needed five to ten years after buildout of the near-term interchange design, and expansion of the interchange is anticipated to be needed within ten to fifteen years of the near-term interchange design. Other transportation improvements will be required within the North Ontario IAMP study area as adjacent properties develop/redevelop. Table 5-2 along with Figure 5-3 provides a detailed description and illustration of the required medium/long-term transportation improvement projects, an estimated cost to complete the project, and potential funding sources.

Table 5-1
Short-Term Improvement Project Summary

Road Segment / Intersection	Description of Short-Term Improvement	Estimated Cost[1] (Year 2004 $)	Funding Sources
1 New North Ontario Interchange	– Construct a new I-84 freeway interchange and OR 201 bridge/ramp structure. This improvement will involve the following: o Extend the Yturri Beltline from its present terminus at Washington Avenue to the new interchange/bridge structure. Construct the extension to include two 12' through travel lanes, a 14' center turn lane, and a separated bicycle/pedestrian travel way. Purchase access control along this extension of the Beltline. o North of I-84, realign OR 201 to the west to match into the new interchange/bridge structure. Purchase access control along this realigned portion of OR 201 to a point approximately 1,125 feet north of the westbound ramp terminal. o Reconstruct the eastbound I-84 on and off ramps to match the new bridge structure and location. o Construct a new westbound exiting loop ramp and on-ramp.	$15,000,000	– OTIA
2 I-84 Malheur River Bridge	– Associated with the new North Ontario interchange, widen the I-84 Malheur River bridge in the westbound direction to accommodate a longer freeway on-ramp acceleration lane.	Cost included as part of Project #1 cost.	– OTIA
3 New OR 201 Westbound Ramp Terminal	– Construct a northbound left-turn lane onto the westbound I-84 on-ramp. – Construct a southbound right-turn deceleration lane onto the westbound I-84 on-ramp. – Construct separate eastbound left- and right-turn lanes from the westbound exiting loop ramp onto OR 201. – Where practical, install conduit for future mid/long-term signalization.	Cost included as part of Project #1 cost.	– OTIA
4 New OR 201 Eastbound Ramp Terminal	– Construct a northbound right-turn deceleration lane onto the eastbound I-84 on-ramp. – Construct a southbound left-turn lane onto the eastbound I-84 on-ramp. – Construct separate eastbound left- and right-turn lanes from the eastbound exit ramp onto OR 201. – Where practical, install conduit for future mid/long-term signalization.	Cost included as part of Project #1 cost.	– OTIA
5 Yturri Beltline / Washington Ave Intersection	– Modify the existing three-legged intersection to accommodate the extension of the Yturri Beltline to the new interchange. – Provide separate left, through, and right-turn lanes on both the northbound and southbound Yturri Beltline approaches. – Widen Washington Avenue to provide an eastbound left-turn lane from Washington Avenue onto the Yturri Beltline. – Purchase additional access control on Washington Avenue west of the Yturri Beltline to NW 13th Street. – Where practical, install conduit for future mid/long-term signalization.	Cost included as part of Project #1 cost.	– OTIA

Road Segment / Intersection	Description of Short-Term Improvement	Estimated Cost[1] (Year 2004 $)	Funding Sources
6 -NW 20th Ave -NW 22nd Ave -Falcon Drive	– Vacate portions of NW 20th Avenue, NW 22nd Avenue, and Falcon Drive to accommodate the extension of the Yturri Beltline. Construct cul-de-sacs or another form of turn around feature on the portions of these roadways that will be bisected by the extension of the Yturri Beltline.	Cost included as part of Project #1 cost.	– OTIA
7 OR 201 Access Road	– Construct a new access road connection at a point approximately 1,125 feet north of the I-84 westbound ramp terminal. – On the east side of OR 201, construct a new roadway that would connect this access point to what will be the old OR 201 alignment for the purposes of providing access to the Ontario State Park and other adjacent properties. – On the west side of OR 201, construct a new access driveway to serve the Idaho Power substation and any other remaining properties located between the Idaho Power substation and the realigned portion of OR 201 that are still developable or not acquired though the right-of-way acquisition process.	Cost included as part of Project #1 cost.	– OTIA
8 Washington Ave / Oregon Street	– Construct a minor realignment of the Washington Avenue/Oregon Street intersection in order to provide a continuous free-flow movement between the two roadways.	$520,000	– OTIA

Note: Identified Funding Sources:
OTIA – Oregon Transportation Investment Act

[1] The reported project costs are conceptual level planning estimates that are reflective of 2004 dollars.

North Ontario Interchange Area Management Plan

LEGEND

(#) PROJECT IDENTIFICATION NUMBER

EXISTING TRANSPORTATION SYSTEM

SHORT-TERM IMPROVEMENT

SCALE

0 250 500 750

(OR 201)

Malheur River

Idaho Power Substation

Snake River

I-84

Falcon Dr

NW 22nd Ave

NW 20th Ave

NW 18th Ave

NW 16th Ave

NW 13th St

NW 11th St

Verde Dr

Washington Ave

Yturri Beltine (OR 201)

Dork Canal

Oregon St

Malheur Dr

Park Blvd

A

A

1 2 3 4 5 6 7 8

OTIA OREGON TRANSPORTATION INVESTMENT ACT

Short-Term Transportation Improvement Plan

Figure 5-1

Table 5-2
Medium/Long-Term Transportation Improvement Project Summary

Road Segment / Intersection	Description of Improvement	Estimated Cost[1] (Year 2004 $)	Potential Funding Sources
9 New North Ontario Interchange	– When required to meet ODOT's mobility standards: o Widen the North Ontario interchange to a five-lane roadway section from Washington Avenue to the westbound I-84 ramp terminal. This would include an interchange bridge widening as well as the ramp terminal improvements listed under projects #10, #11 & #12. The bicycle and pedestrian bridge element would be eliminated and shifted to a separated facility as described in Project #21.	– $6,200,000	– STIP
10 I-84 Westbound Ramp Terminal	– Install a traffic signal when warranted. Where practical, configure the pole placements for future long-term intersection widening as described in the following bullet. – When required to meet ODOT's mobility standards: o Reconfigure the westbound exiting loop ramp to provide a continuous free-flowing right-turn movement onto OR 201 through the use of an add lane. The add lane would be done in conjunction with the widening of the North Ontario interchange. o Develop a second northbound through lane in association with the widening of the interchange. This second through lane should taper back into one through lane a minimum of 500 feet north of the westbound ramp terminal.	– Cost included as part of Project #9 cost.	– STIP
11 I-84 Eastbound Ramp Terminal	– Install a traffic signal when warranted, and where practical, configure the pole placements for future long-term intersection widening as described in the following bullet. – When required to meet ODOT's mobility standards: o Widen the eastbound exit ramp to provide dual right-turn lanes onto OR 201 southbound. o Widen the northbound approach to provide an additional through travel lane. o Widen the southbound approach to provide an additional through travel lane.	– Cost included as part of Project #9 cost.	– STIP
12 Yturri Beltline / Washington Ave Intersection	– Install a traffic signal when warranted, and where practical, configure the pole placements for future long-term intersection widening as described in the following bullet. – When required to meet ODOT's mobility standards: o Widen the northbound and southbound Yturri Beltline approaches to include an additional through travel lane. o Widen the eastbound Washington Avenue approach to include a right-turn lane onto the Yturri Beltline.	– $250,000	– STIP – PDF – LID – SDC
13 OR 201 Access Road	– Widen the northbound and southbound OR 201 approaches to include a left-turn lane at the OR 201 access road. – Develop a local street connector roadway that would serve properties along the east side of OR 201 as they redevelop in order to reduce reliance on OR 201 for direct access.	– $150,000	– STIP – PDF – LID – GSF

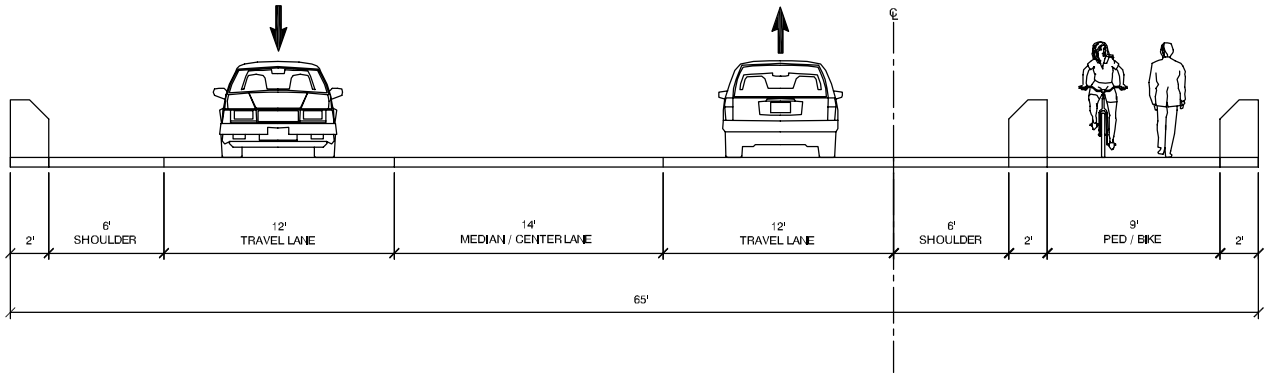
Road Segment / Intersection	Description of Improvement	Estimated Cost[1] (Year 2004 $)	Potential Funding Sources
14 NW 24th Avenue	– Develop a minor collector roadway along the NW 24th Avenue corridor from NW 11th Street to N. Verde Drive. – Extend NW 24th Avenue to Falcon Drive and eliminate the Falcon Drive/NW 11th Street intersection.	– $1,125,000	– LID – PDF – SDC – GSF
15 NW 13th Street	– Develop a minor collector roadway along the NW 13th Street corridor from NW 22nd Avenue to Falcon Drive. – Realign NW 13th Street south of Washington Avenue to eliminate offsetting intersections. Establish access control south of Washington Avenue to NW 18th Street.	– $750,000	– LID – PDF – SDC – GSF
16 NW 22nd Avenue	– Develop a minor collector roadway along the NW 22nd Avenue corridor from NW 13th Street to N. Verde Drive.	– $500,000	– LID – PDF – SDC – GSF
17 Malheur Drive	– As documented in the existing Ontario Transportation System Plan, extend Malheur Drive from Park Boulevard to Oregon Street. – Realign Malheur Drive near Verde Drive to eliminate a series of sharp curves in the roadway. Establish access control along the realigned Malheur Drive for a distance of 500 feet.	– $1,475,000	– LID – PDF – SDC – GSF
18 Park Boulevard	– As documented in the existing Ontario Transportation System Plan, extend Park Boulevard from Malheur Drive to the realigned portion of Washington Avenue. Establish access control along Park Boulevard 500 feet south of Washington Avenue and 330 feet north of Washington Avenue. – Extend Park Boulevard north of the realigned Washington Avenue to connect into a modified local street network.	– $1,200,000	– LID – PDF – SDC – GSF
19 Employment Zone Access	– Establish access off of the future extension of Park Boulevard at least 500 feet south of the realigned portion of Washington Avenue. This access point will serve a future network of local and collector roadways to be developed as part of the future "Employment Zone" district. – Establish access off of Malheur Drive at least 500 feet east of Verde Drive. This access point will serve a future network o f local and collector roadways to be developed as part of the future "Employment Zone" district.	– Unknown	– LID – PDF – SDC – GSF
20 Yturri Beltline/ Verde Drive Intersection	– Provide dual westbound left-turn lanes and a right-turn lane. – In association with the dual westbound left-turn lanes, widen Verde Drive south of the Yturri Beltline for a distance of approximately 500 feet. – Provide a northbound and southbound right-turn lane.	– $180,000	– STIP – LID – PDF – SDC
21 I-84 Bike/Pedestrian Bridge	– Construct a separated bicycle/pedestrian bridge over I-84 to connect the Ontario State Park to the south side of the North Ontario IAMP study area.	– $600,000	– STIP

Road Segment / Intersection	Description of Improvement	Estimated Cost[1] (Year 2004 $)	Potential Funding Sources
22 Road Reconstruction	– Upon adjacent property redevelopment, reconstruct/pave portions of Verde Drive, Falcon Drive, NW 13th Street, NW 11th Street, NW 16th Avenue, NW 18th Avenue, NW 20th Avenue, and NW 22nd Avenue to the full minor collector standards.	– $3,000,000	– LID – PDF – SDC

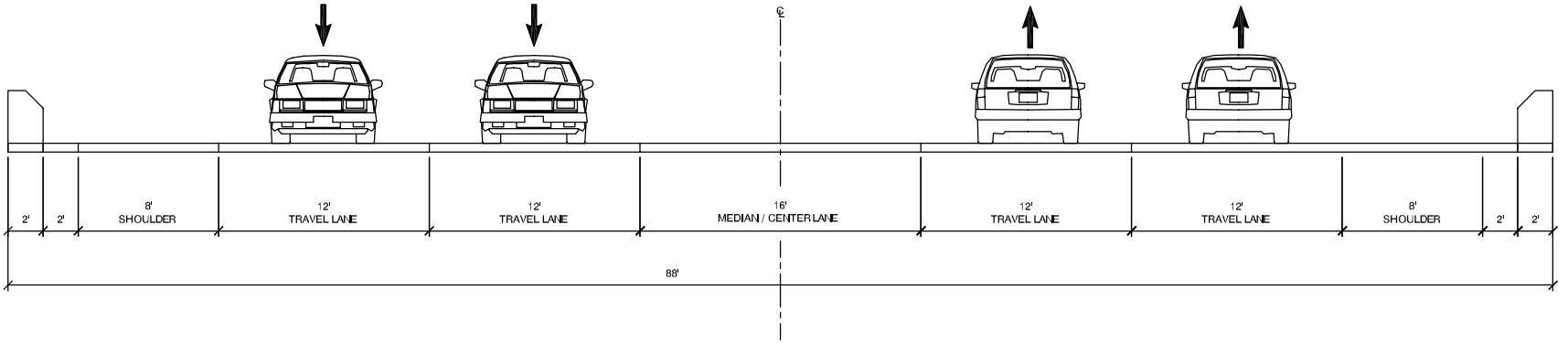
Note: Potential Funding Sources Include the Following:
STIP – Statewide Transportation Improvement Program (ODOT)
LID – Local Improvement District (Malheur County or City of Ontario)
SDC – System Development Charge (Malheur County or City of Ontario)
PDF – Private Development Funds (Malheur County or City of Ontario)
GSF – General Street Fund (Malheur County or City of Ontario)

[1] The reported project costs are conceptual level planning estimates that are reflective of 2004 dollars.

SECTION A-A (FIG 5-1)
SHORT-TERM YTURRI BELTLINE / OR 201 CROSS SECTION



SECTION B-B (FIG 5-3)
LONG-TERM YTURRI BELTLINE / OR 201 CROSS SECTION



YTURRI BELTLINE EXTENSION / OR 201 CROSS SECTIONS

FIGURE
5-2

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North Ontario Interchange Area Management Plan

LEGEND

- (#) PROJECT IDENTIFICATION NUMBER
- EXISTING TRANSPORTATION SYSTEM
- SHORT-TERM IMPROVEMENT
- MEDIUM / LONG-TERM IMPROVEMENT

SCALE
0 250 500 750

(OR 201)
Malheur River
Idaho Power Substation
Snake River
I-84
Falcon Dr
NW 24th Ave
NW 22nd Ave
NW 20th Ave
NW 18th Ave
NW 16th Ave
Verde Dr
NW 13th St
NW 11th St
Washington Ave
Yturri Beltine (OR 201)
Dork Canal
Oregon St
Malheur Dr
Park Blvd
B
B

13 10 11 9 14 15 16 22 21 12 18 19 17 20

OREGON TRANSPORTATION INVESTMENT ACT

Medium- / Long-Term Transportation Improvement Plan

Figure 5-3

ACCESS MANAGEMENT PLAN

As part of the North Ontario IAMP, future access locations and public street connections were evaluated for properties located along OR 201/Yturri Beltline. Access locations were evaluated based on ODOT's Division 51 Access Management standards and an assessment of traffic operations and safety as described in Action 3C.3 of the *1999 Oregon Highway Plan*. Access locations were developed to minimize impacts to primary facilities (Yturri Beltline/OR 201) serving the interchange area. The intent of the Access Management Plan is to identify the location of site-access driveways and internal circulation routes for properties that will be impacted by the new freeway interchange/extension of the Yturri Beltline or for properties located within the interchange area that are likely to redevelop at some point in the future. The plan, as illustrated in Figure 5-4 and described in the following paragraphs, shall be applied by ODOT, the City of Ontario, and Malheur County in future land use decisions involving the properties located within the IAMP study area.

OR 201 (North of I-84)

Short-Term Access Modifications

Currently, all properties north of I-84 have access to OR 201 via individual highway approaches as previously documented in Figure 2-6. Under ODOT's current access management policy, the *1999 Oregon Highway Plan* stipulates that the desired distance between an interchange ramp terminal and the first major highway approach (public or private) should be 1,320 feet (¼ mile). With the development of the new OR 201 freeway interchange, a number of these existing properties will become subject to this policy.

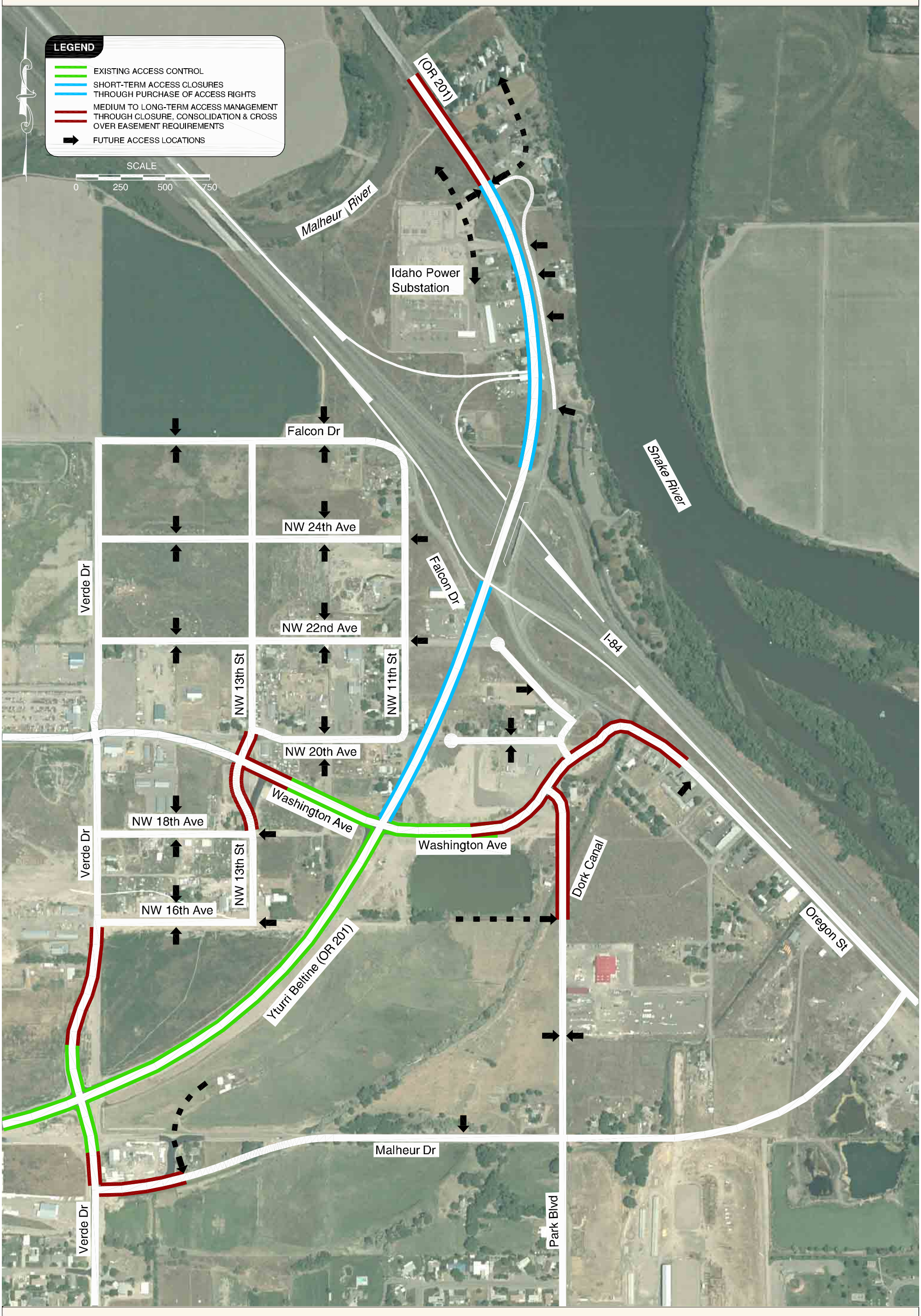
Through the guidance of the North Ontario IAMP planning process, properties located off of OR 201 will take future access via a consolidated access location to be established approximately 1,125 feet north of the new westbound I-84 ramp terminal. This access point will be developed at the time the short-term interchange and bridge structure is constructed. For properties located along the east side of OR 201 including the Ontario State Park, the existing access rights to OR 201 will be bought from the property owners located south of the 1,125 foot consolidated access point to the Ontario State Park. With the new alignment of OR 201 shifting to the west, the old alignment of OR 201 will become a frontage road providing access to these properties. This frontage road will then link to the consolidated access location via a short connecting roadway.

For properties located along the west side of OR 201 including the Idaho Power Substation, the existing access rights to OR 201 will be bought from the property owners and the driveways closed. For any properties remaining after the new OR 201 alignment is shifted to the west, a cross-access easement will be developed and an access road constructed to the consolidated OR 201 access location at 1,125 feet north of the westbound I-84 ramp terminal.

Medium/Long-Term Access Management

As a result of the new North Ontario interchange and bridge structure, the majority of OR 201 highway approaches will be closed with new access provided via parallel frontage and backage roads to a new consolidated access location. For the remaining existing highway approaches located between the consolidated access location and the Malheur River Bridge, the long-term strategy is to work towards the District Highway access management standards/policies through the implementation of the following strategies:

North Ontario Interchange Area Management Plan



OTIA
OREGON TRANSPORTATION INVESTMENT ACT

North Ontario IAMP Access Management & Circulation Plan

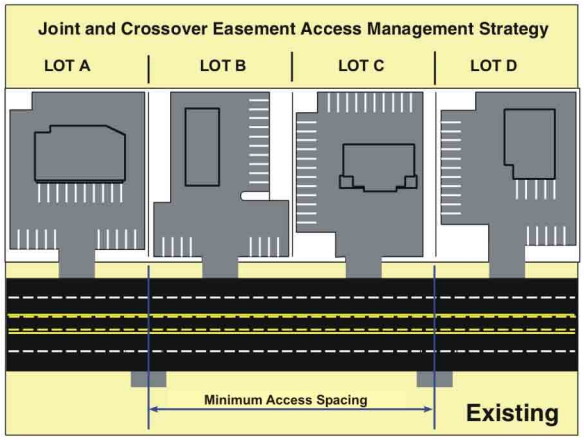
Figure 5-4

- Existing legally permitted approach driveways shall continue to be allowed individual access to OR 201. As redevelopment of property occurs, the access spacing provisions of OAR 734-051 will be implemented.
- Identify illegal approaches and close (those driveways constructed since 1949 without a permit from ODOT) or if appropriate, place under permit. For legal approach permits, condition the permit to state that private access will be eliminated when other alternate, reasonable access becomes available to the property.
- Where properties have alternate, reasonable access by some means other than directly to OR 201, purchase any remaining rights of access to the highway.
- Establish crossover easements on all compatible parcels (considering topography, access, and land use) to consolidate future access between adjoining parcels. Figure 5-5 illustrates how this process could, in the long run, facilitate compliance with access management objectives. As suggested in Figure 5-5 and the supporting text of Table 5-3, driveways along the highway will eventually move in the overall direction of the access spacing standards as development and redevelopment occurs along the study corridor.

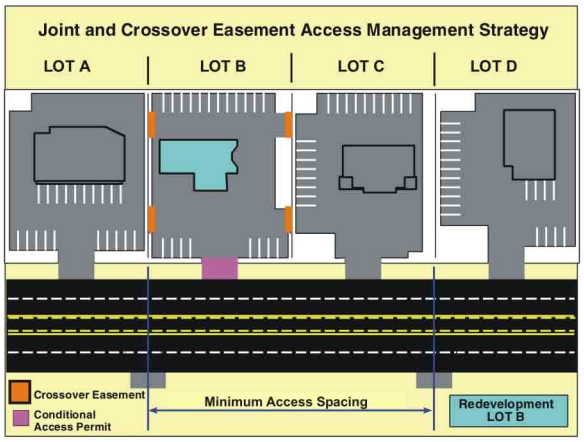
Table 5-3
Example of Crossover Easement / Indenture / Consolidation - Conditional Access Process

Step	Process
1	EXISTING – Currently Lots A, B, C, and D have site-access driveways that neither meet the access spacing criteria nor align with driveways or access points on the opposite side of the highway. *Under these conditions motorists are put into situations of potential conflict (conflicting left turns) with opposing traffic. Additionally, the number of side-street (or site-access driveway) intersections decreases the operation and safety of the highway.*
2	REDEVELOPMENT OF LOT B – At the time that Lot B redevelops, the local jurisdiction would review the proposed site plan and make recommendations to ensure that the site could promote future crossover or consolidated access. Next, the local jurisdiction would issue conditional permits for the development to provide crossover easements with Lots A and C, and ODOT would grant a conditional access permit to the lot. *After evaluating the land use action, ODOT would determine that LOT B does not have either alternative access, nor can an access point be aligned with an opposing access point, nor can the available lot frontage provide an access point that meets the access spacing criteria for this segment of highway.*
3	REDEVELOPMENT OF LOT A – At the time Lot A redevelops, the local jurisdiction and ODOT would undertake the same review process as with the redevelopment of LOT B (see Step 2); however, under this scenario ODOT and the local jurisdiction would use the previously obtained cross-over easement at Lot B to consolidate the access points of Lots A and B. ODOT would then relocate the conditional access of Lot B to align with the opposing access point and provide safe and efficient access to both Lots A and B. *The consolidation of site-access driveways for Lots A and B will not only reduce the number of driveways accessing the highway, but will also eliminate the conflicting left-turn movements on the highway by the alignment with the opposing access point.*
4	REDEVELOPMENT OF LOT D – The redevelopment of Lot D will be handled in the same manner as the redevelopment of Lot B (see Step 2)
5	REDEVELOPMENT OF LOT C – The redevelopment of Lot C will be reviewed once again to ensure that the site will accommodate crossover and/or consolidated access. Using the crossover agreements with Lots B and D, Lot C would share a consolidated access point with Lot D and will also have alternative frontage access via the shared site-access driveway of Lots A and B. *By using the crossover agreement and conditional access permit process, the local jurisdiction and ODOT will be able to eliminate another access point and provide the alignment with the opposing access points.*
6	COMPLETE – After Lots A, B, C, and D redevelop over time, the number of access points will be reduced and aligned, and the remaining access points will either meet or move in the direction of the access spacing plan.

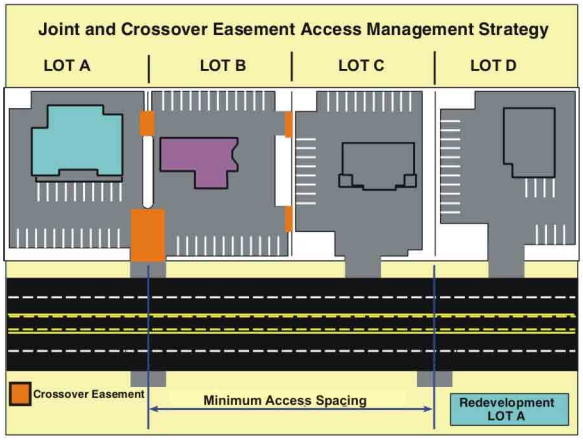
Access Mangement Strategy



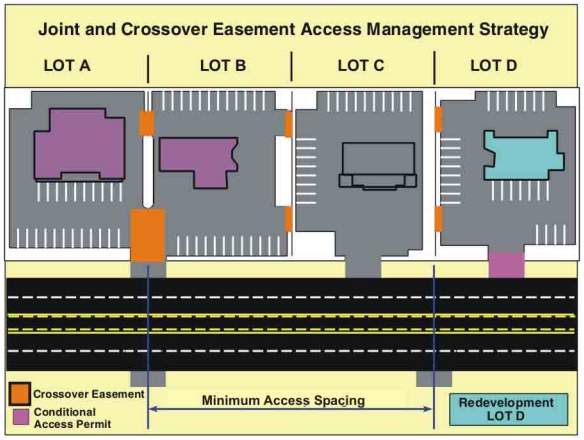
Step 1



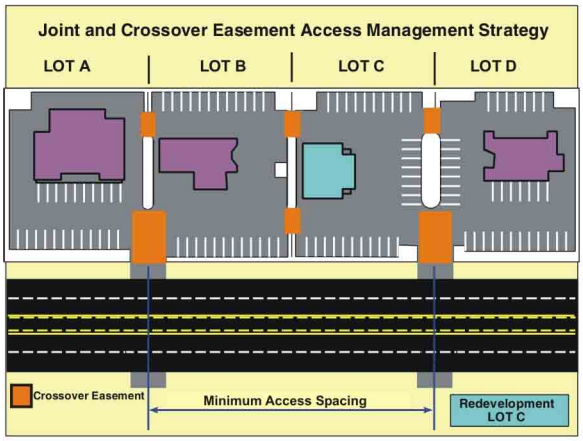
Step 2



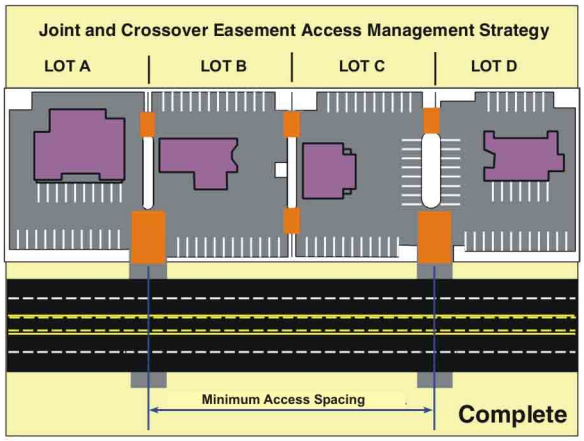
Step 3



Step 4



Step 5



Step 6

EXAMPLE OF CROSS-OVER EASEMENT / INDENTURE / CONSOLIDATION / CONDITIONAL ACCESS PROCESS

FIGURE **5-5**

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Yturri Beltline & Other Supporting Roadways (South of I-84)

Short-Term Access Modifications

ODOT has already established access control along the existing portions of the Yturri Beltline, limiting access along this facility within the North Ontario IAMP study area to N. Verde Drive and Washington Avenue. With the short-term extension of the Yturri Beltline to the new interchange and bridge structure, access control will be established along the extension resulting in a continuous limited access highway south of I-84.

As a result of this roadway extension, NW 20th Avenue, NW 22nd Avenue, and Falcon Drive will be bisected by the highway embankment. As described in Table 5-1, turn-around treatments will be constructed at the bisected roadways. No other short-term access or local circulation modifications are required as a result of the short-term interchange reconfiguration or Yturri Beltline extension.

Long-Term Access Management

With access restricted to the Yturri Beltline, access to future property development/redevelopment will occur from existing and future public road connections located within the North Ontario IAMP study area such as the future extension of Park Boulevard, Malheur Drive, and other collector/local circulation roadways. Specific long-term access management objectives include the following:

- For the Washington Avenue and N. Verde Drive access portals to the Yturri Beltline, the City of Ontario will want to ensure through the development review process that access be restricted along these portals for the purposes of maintaining their long-term safety and operational performance. West of the Yturri Beltline, adjacent property access should be restricted to Washington Avenue between NW 13th Street and the established access control line. East of the Yturri Beltline, adjacent property access should be restricted to Washington Avenue between the future extension of Park Boulevard and the established access control line. This access control should continue along Washington Avenue to Falcon Drive and a portion of Oregon Street.
- Along the future extension of Park Boulevard, access should be restricted south of Washington Avenue for a distance of approximately 500 feet.
- Along the realigned section of Malheur Drive, access should be restricted west of Verde Drive for a distance of approximately 500 feet.
- For the remaining existing and future collector/local circulation roadways, access to individual properties shall be evaluated based on the City of Ontario's existing access management guidelines. Generalized access concepts are illustrated in Figure 5-4 for individual properties based on these current access management guidelines.

Access Management Deviation Process

It should be noted that these strategies mostly apply to new development or redevelopment; existing accesses are allowed to remain as long as the land use does not change. As a result, access management is a long-term process in which the desired access spacing to a street slowly evolves over time as redevelopment occurs. It should also be kept in mind that parcels cannot be land-locked, and must have some way of accessing the public street system. This may mean allowing shorter access spacing than would otherwise be allowed.

Access deviations may be provided to parcels whose highway frontage, topography, or location would otherwise preclude issuance of a conforming permit and would either have no reasonable access or cannot obtain reasonable alternate access to the public road system. In such a situation, a conditional access permit may be issued by ODOT for a single connection to a property that cannot be accessed in a manner that is consistent with the adopted spacing standards. The permit may carry a condition that the access may be closed at such time that reasonable access becomes available to a local public street. Approval conditions might also require a given land owner to work in cooperation with adjacent land owners to provide either joint access points, front and rear crossover easements, or a rear-access upon future development.

IMPLEMENTATION OF THE NORTH ONTARIO IAMP

Implementation of the North Ontario IAMP will occur at several levels of government. As required in the OTC Conditions of Approval for OTIA Funding for the North Ontario Interchange, both the City of Ontario and Malheur County will be required to amend their Transportation System Plans to incorporate the elements of the North Ontario IAMP. This amendment process will include Planning Commission/City Council hearings at the City level and Planning Commission/County Commission hearings at the County level. Following successful adoption at the City and County levels, the North Ontario IAMP will be presented to the OTC for review and approval.

PROPOSED AMENDMENTS

The following outline discusses the major Transportation System Plan amendments that will need to occur at both the City and County levels to support adoption of the North Ontario IAMP.

City of Ontario

- The Roadway Functional Classification Plan as illustrated in Figure 5-6 shall be amended by reference into the City's Transportation System Plan. This includes modifying the current designation of NW 20th Avenue from a Major Collector to a Minor Collector.
- The future short-term and medium/long-term transportation improvement projects listed in Tables 5-1 and 5-2 shall be included in the Street and Highway project list of the Transportation System Plan.
- Amend the official city zoning map to include the 103-acre "Employment Zone".
- Adopt modifications to the City development review standards.

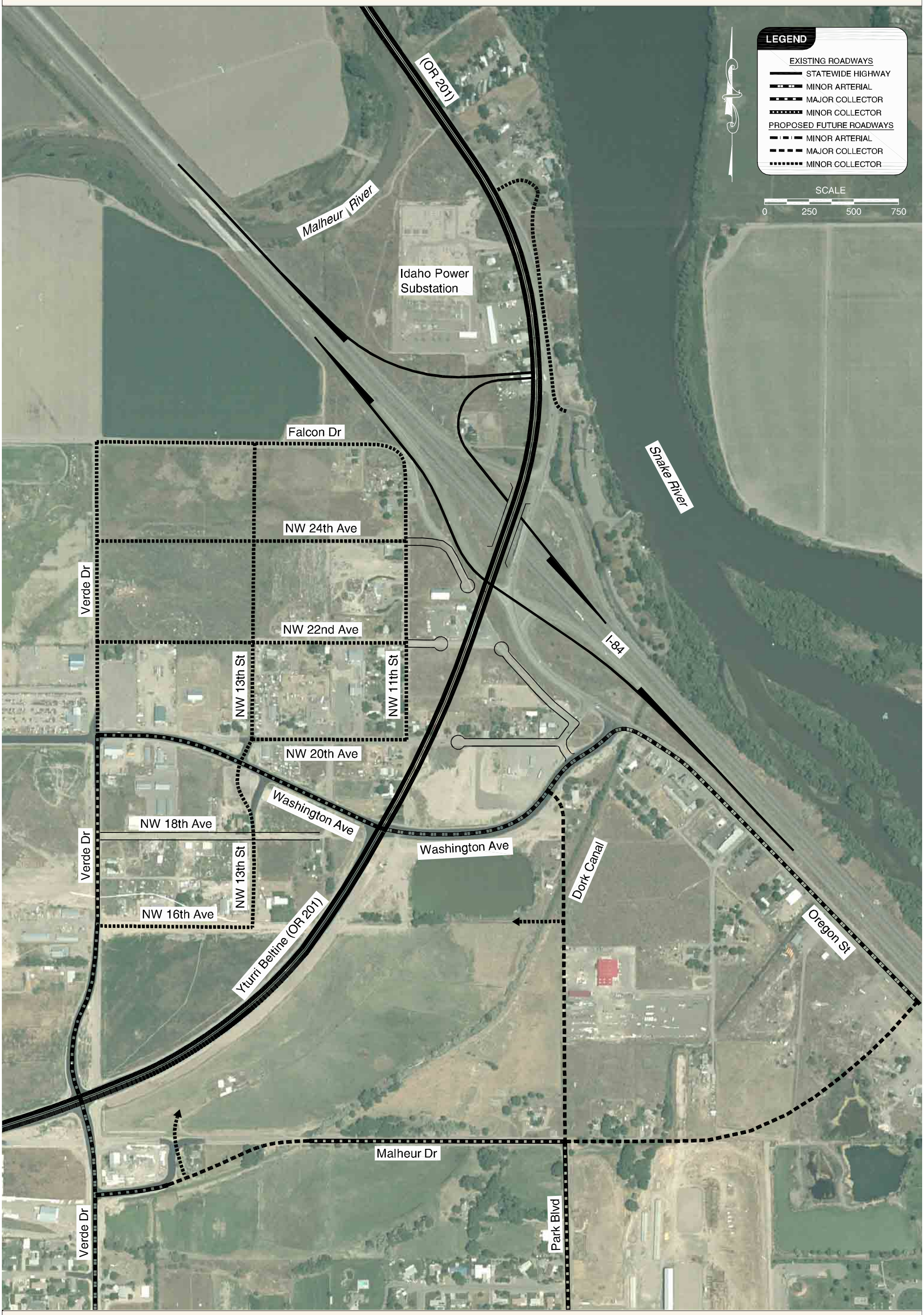
Malheur County

- The Roadway Functional Classification Plan as illustrated in Figure 5-6 shall be amended by reference into the County's Transportation System Plan.
- The future short-term and medium/long-term transportation improvement projects listed in Tables 5-1 and 5-2 shall be included in the Roadway Plan improvement project list of the Transportation System Plan.
- Adopt modifications to the County development review standards.

OTC

- The North Ontario IAMP shall be adopted by the OTC as part of the *1999 Oregon Highway Plan*.

North Ontario Interchange Area Management Plan



OTIA
OREGON TRANSPORTATION INVESTMENT ACT

Roadway Functional Classification Plan

Figure 5-6

Section 6

OTC and OAR Compliance

OTC and OAR Compliance

The following paragraphs discuss the various conditions and policy based compliance issues that pertain to the development of the North Ontario IAMP.

OTC Compliance

As part of its January 16, 2002 proceedings, the Oregon Transportation Commission (OTC) approved Oregon Transportation Investment Act (OTIA) funding to design and construct the North Ontario interchange. As a condition of funding, the OTC required that an Interchange Area Management Plan (IAMP) be prepared in association with the design of the new interchange/bridge structure before funds for construction were to be released. Included with the requirement for preparing an IAMP, the OTC also listed several conditions that needed to be addressed as part of the IAMP itself. Table 6-1 identifies these conditions and documents how the North Ontario IAMP is in compliance.

OAR Compliance

The North Ontario IAMP was developed in collaboration with ODOT, the City of Ontario, and Malheur County and was developed in accordance with the guidelines set forth in the State of Oregon's Oregon Administrative Rules for Interchange Access Management Planning and Interchange Area Management Planning. Table 6-2 identifies the required planning elements from OAR 734-051 and documents how the North Ontario IAMP satisfies the requirements.

Table 1
OTC Conditions for the North Ontario IAMP

OTC Conditions for Preparing the North Ontario IAMP	HOW THE ISSUE IS ADDRESSED	REPORT REFERENCE
"Protection of resource lands will be addressed in the interchange management plan."	Through the IAMP process, a mixed-use "employment zone" has been developed for 103-acres of UGB property located immediately southwest of the North Ontario interchange. This IAMP anticipates that the "employment zone" will be adopted by the City of Ontario and included in their development ordinances. This zone calls for the conversion of residential property to commercial employment uses in an area that was recently brought into the City's Urban Growth Boundary. It is intended to provide sufficient land for employment growth as deemed necessary through the City's Periodic Review work program with the State. Based on this upcoming action and the fact that the City amended its UGB as recently as 1999, it is unlikely that resource lands within the vicinity of the North Ontario interchange will be impacted. In fact, the only EFU land within the North Ontario IAMP study area is considered to have the lowest priority for potential inclusion in a UGB expansion as it is classified as "high-value farmland". This designation as well as the need to address established statewide planning goals (Goal 2; Land Use Planning, Goal 3; Agricultural Lands, Goal 11; Public Facilities Planning, Goal 12; Transportation, and Goal 14; Urbanization) will continue the protection of the few resource lands within the North Ontario IAMP Study Area.	Section 2 and Appendix "B"
"The City of Ontario and Malheur County shall adopt the interchange area management plan as part of a legally binding, enforceable intergovernmental agreement between the City of Ontario, Malheur County and ODOT as provided in Oregon Law." *"If the agreement is to be terminated that the City of Ontario and Malheur County give notice to ODOT in advance of a public hearing on the matter and that the public hearing be held prior to the expiration of the agreement."* *"Changes or termination of the agreement in advance of expiration shall require formal affirmative action by the Oregon Transportation Commission and the City of Ontario and Malheur County."* *"The agreement can expire if the City of Ontario and Malheur County includes the interchange area management plan in its respective Transportation System Plan."*	It is intended that the North Ontario IAMP will be included in the Ontario and Malheur County Transportation System Plans. The local hearings and adoption process is scheduled for early 2005.	-

OTC Conditions for Preparing the North Ontario IAMP	HOW THE ISSUE IS ADDRESSED	REPORT REFERENCE
"The interchange management plan will also include measures to prevent growth-induced development on exception lands or urban growth boundary expansion in the vicinity of the interchange."	As recently as 1999, the City of Ontario adopted amendments to the UGB to maintain a 20-year supply of buildable land as required by state law. This recent expansion as well as future employment zone modifications will provide sufficient long-term land supplies thereby limiting the need for future UGB expansions within the North Ontario IAMP study area. North of the North Ontario interchange, there are exception lands that are currently zoned for commercial development under the jurisdiction of Malheur County. However, the vast majority of this land is owned and occupied by the Idaho Power Company for the purposes of housing a major electric substation. The presence of this facility, future right-of-way takings for the purposes of reconstructing the North Ontario Interchange, and the presence of the Malheur and Snake Rivers limit future growth potential within the remaining affected exception lands. The North Ontario IAMP has identified access management and safety related improvements that maintain the function, safety, and integrity of the North Ontario interchange for any future development that may occur as a result of the allowed zoning.	Section 2 and Appendix "B"
"The interchange area management plan will provide for the protection of safe and efficient operation of the interchange between connecting roadways and will minimize the need for major improvements to existing interchanges."	As part of the project, the North Ontario interchange will be completely reconstructed by the year 2007. Based on future through traffic growth along OR 201/Yturri Beltline and additional growth potential within the IAMP study area, specific transportation improvement projects have been identified to ensure that the interchange will continue to operate in a safe and efficient manner through the 2025 planning horizon year.	Section 5
"Designation of OR-201 from Airport Way to Cairo Junction as an expressway as per the definition in the 1999 Oregon Highway Plan."	The *OR 201 Corridor Refinement Plan* has been prepared for the OR 201 corridor between Airport Way and Cairo Junction that addresses the future Expressway designation. This plan presents long-term circulation and access management improvements that can be implemented over time that allow the corridor to be designated as an Expressway. This plan will move into the local adoption process beginning in November 2004 and ultimately be presented to the OTC for approval and adoption.	See the *OR 201 Corridor Refinement Plan.*

Table 2
OAR 734-051 Issues Addressed

OAR 734-051 REFERENCE	OAR 734-051 Requirement	HOW THE ISSUE IS ADDRESSED	REPORT REFERENCE
Access Management Plan for Interchanges			
0155(4)(a)	*"Prepared for a logical segment of the state highway and include sufficient area to address highway operation and safety issues and development of adjoining properties including local access and circulation."*	All intersections located within the 1,320 foot spacing standard of the North Ontario interchange are included in the access management plan. In addition, the IAMP study area extends beyond the 1,320 foot spacing standard and includes that are subject to future development as a result of the interchange reconstruction and Yturri Beltline project.	Section 1 and Section 5
0155 (4)(b)	*"Describe the roadway network, right-of-way, access control, and land parcels in the analysis area."*	The existing transportation network, right-of-way, access control, and land use patterns are described in Section 2 of the North Ontario IAMP.	Section 2 and Appendices "B" & "C"
0155 (4)(c)	*"Developed in coordination with local governments and property owners in the affected area."*	To ensure that adequate project coordination and public participation occurred throughout the development of the North Ontario Interchange Area Management Plan, a series of Project Planning Management Team (PPMT), Stakeholder Advisory Committee (SAC), and Public Workshop meetings were held over the course of the project. The City of Ontario, Malheur County, and ODOT have representatives on each of these committees and have actively participated throughout the development of the IAMP.	Appendix "A"
0155 (4)(d)	"*Are consistent with any adopted Transportation System Plan, Corridor Plan, Local Comprehensive Plan, or Special Transportation Area or Urban Business Area designation, or amendments to the Transportation System Plan..."*	The North Ontario IAMP was developed consistent with the current Transportation System Plans of the City of Ontario and Malheur County. Where modifications to these plans are necessary, specific changes are highlighted under the "Proposed Amendments" heading of Section 5.	Section 5 and Appendix "B"
0155 (4)(e)	"*Consistent with the 1999 Oregon Highway Plan"*	The North Ontario IAMP is consistent with the definition and Actions under Policy 3C of the *1999 Oregon Highway Plan.*	Sections 1-6
0155 (4)(f)	*"Contain short, medium, and long-range actions to improve operations and safety and preserve the functional integrity of the highway system."*	Section 5 of the North Ontario IAMP contains a listing of short and medium/long-term transportation improvement projects that will ensure the functional integrity of the North Ontario interchange through the 2025 planning horizon year.	Section 5
0155 (4)(g)	*"Consider whether improvements to local street networks are feasible."*	Local street improvement recommendations have been evaluated and recommended to meet future development needs within the interchange study area.	Section 5 and Appendix "J"
0155 (4)(h)	*"Promote safe and efficient operation of the state highway consistent with the highway classification and*	Transportation improvement projects are identified to ensure that the transportation infrastructure continues to meet minimum	Section 5 and Appendix "I"

OAR 734-051 REFERENCE	OAR 734-051 Requirement	HOW THE ISSUE IS ADDRESSED	REPORT REFERENCE
	the highway segment designation."	operational standards through the 2025 horizon year.	
0155 (4)(i)	*"Consider the use of the adjoining property consistent with the comprehensive plan designation and zoning of the area."*	The development of the North Ontario IAMP accounted for regional growth in highway traffic as well as reasonable future year buildout of the study area. Based on these growth assumptions, access management, transportation safety and capacity improvement recommendations were made for the existing and future year transportation facilities located within the IAMP study area.	Section 3, 5 and Appendix "I"
0155 (4)(k)	*"Approved by the Department through an intergovernmental agreement and adopted by the local government, and adopted into a Transportation System Plan unless the jurisdiction is exempt from transportation system planning requirements under OAR 660-012-0055."*	It is intended that the North Ontario IAMP will be adopted by the City of Ontario, Malheur County, and the Oregon Transportation Commission per the requirements of OAR 734-051-0155 (6)(i)	Section 5
Interchange Area Management Plan			
0155 (6)(a)	IAMPs..."*Should be developed no later than the time an interchange is designed or is being redesigned"*	The planning process that went into the development of the North Ontario IAMP began in advance of the preliminary interchange design process. This order of events ensured that the recommendations presented in the North Ontario IAMP were reflected in the preliminary design work of the interchange.	Appendix "A"
0155 (6)(b)	IAMPs should..."*Identify opportunities to improve operations and safety in conjunction with roadway projects and property development or redevelopment and adopt strategies and development standards to capture those opportunities."*	The North Ontario IAMP assumed future year buildout of the vacant/undeveloped properties within the IAMP study area. To accommodate the development of these properties, future year access and operational improvements are identified to ensure sufficient traffic operations and safety of the adjacent transportation network.	Section 5
0155 (6)(c)	IAMPs should..."*Contain short, medium, and long-range actions to improve operations and safety and preserve the functional integrity of the highway system."*	See response under 0155 (4)(f).	Section 5
0155 (6)(d)	IAMPs should..."*Consider current and future traffic volumes and flows, roadway geometry, traffic control devices, current and planned land uses and zoning, and the location of all current and planned approaches."*	The development of the North Ontario IAMP accounted for regional growth in highway traffic as well as reasonable future year buildout of the study area. Based on these growth assumptions, access management, transportation safety and capacity improvement recommendations were made for the existing and future year transportation facilities located within the IAMP study area.	Section 5 and Appendices "G" and "I"

OAR 734-051 REFERENCE	OAR 734-051 Requirement	HOW THE ISSUE IS ADDRESSED	REPORT REFERENCE
0155 (6)(e)	IAMPs should... *"Provide adequate assurance of the safe operation of the facility through the design traffic forecast period, typically 20 years."*	Transportation improvement projects are identified to ensure that the transportation infrastructure continues to meet minimum operational standards through the 2025 horizon year.	Section 5 and Appendix "G" and "I"
0155 (6)(f)	IAMPs should... *"Consider existing and proposed uses of all the property in the interchange area consistent with its comprehensive plan designations and zoning."*	A detailed explanation of how existing and proposed land uses were accounted for in the development of the North Ontario IAMP is provided in Section 3 and in Appendix "G".	Section 3 and Appendix "I"
0155 (6)(g)	IAMPs... *"Are consistent with any adopted Transportation System Plan, Corridor Plan, Local Comprehensive Plan, or Special Transportation Area or Urban Business Area designation, or amendments to the Transportation System Plan..."*	See response under 0155 (4)(d).	Section 5 and Appendix "B"
0155 (6)(h)	IAMPs are... *"Consistent with the 1999 Oregon Highway Plan"*	See response under 0155 (4)(e).	Sections 1-6
0155 (6)(i)	IAMPs are... *"Approved by the Department through an intergovernmental agreement and adopted by the local government, and adopted into a Transportation System Plan..."*	See response under 0155 (4)(k).	Section 5

Volume 2

North Ontario IAMP Technical Appendix

Ontario, Oregon

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Volume 2

North Ontario IAMP Technical Appendix

Ontario, Oregon

Prepared For:

The Oregon Department of Transportation

Region 5

3012 Island Ave

La Grande, OR 97850

(541) 963-1344

Prepared By:

Kittelson & Associates, Inc.

610 SW Alder, Suite 700

Portland, OR 97205

(503) 228-5230

In Association with:

CH2M HILL

Angelo Eaton & Associates

Jeanne Lawson & Associates

Project No. 5829.00

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Preface

This document is Volume II of the North Ontario IAMP. The development of the North Ontario IAMP has been an extensive process that began in June of 2003. From this point, the project team, the Project Planning Management Team (PPMT), and Strategic Advisory Committee (SAC) have undertaken an iterative process to uncover many of the transportation planning, land use, and design issues that are important in the reconstruction of major highway interchange projects. To document this work effort, technical memorandums were prepared throughout the process for review by the PPMT, the SAC, and the general public. Volume II of the North Ontario IAMP contains final copies of these technical memorandums, which have been provided to support the findings and conclusions of North Ontario IAMP.

Appendix "A"

Appendix "A" contains a summary of the Project Planning Management Team (PPMT), Stakeholder Advisory Committee (SAC), and Public Workshop meetings.

Appendix "B"

Appendix "B" contains an overview of the regulatory context within which interchange area management planning for the North Ontario IAMP will take place.

Appendix "C"

Appendix "C" documents the current land use conditions as well as the operational and geometric characteristics of the transportation facilities within the IAMP study area.

Appendix "D"

Appendix "D" contains two memorandums prepared by Angelo Eaton & Associates documenting the background work and discussions that went into the development of the 103-acre zoning alternatives analysis.

Appendix "E"

Appendix "E" documents the future baseline conditions analysis under a "no-build" scenario.

Appendix "F"

Appendix "F" documents the development and preliminary evaluation of twelve interchange and local circulation concepts for the new North Ontario interchange.

Appendix "G"

Appendix "G" documents a detailed quantitative evaluation and ranking of four preliminarily preferred interchange concepts chosen by the PPMT and SAC committees for further study.

Appendix "H"

Appendix "H" contains the recommended selection of the two interchange concepts to be included as the two build alternatives in the Environmental Assessment process.

Appendix "I"

Appendix "I" contains the more detailed engineering work and layout analysis that has been prepared for the two recommended interchange build alternatives.

Appendix "J"

Appendix "J" documents the development and evaluation of five local circulation alternatives that have been developed as part of the IAMP process.

Appendix A

Advisory Committee and
Public Involvement
Summary

Advisory Committee and Public Involvement Summary

To ensure that adequate project coordination and public participation occurred throughout the development of the North Ontario Interchange Area Management Plan, a series of Project Planning Management Team (PPMT), Stakeholder Advisory Committee (SAC), and Public Workshop meetings were held over the course of the project. These meeting dates and objectives are summarized below:

Table A-1
Meeting Summary

Meeting Event	Date	Meeting Purpose/Objectives
PPMT/SAC (Meeting #1)	July 29, 2003	The purpose of the PPMT/SAC Meeting #1 was to introduce the North Ontario interchange project and the consultant team, overview the environmental assessment process, draft a purpose and need statement, review existing land use and development patterns, review the project schedule, and set near-term deliverable dates.
PPMT/SAC (Meeting #2)	August 20, 2003	The purpose of the second PPMT/SAC meeting was to adopt the purpose and need statement, review Technical Memorandums 6.1(*IAMP Background Information*) and 6.2 (*Transportation/Land Use Inventory of Existing Conditions*), review the evaluation criteria, and adopt the evaluation criteria.
SAC (Meeting #3)	September 3, 2003	The purpose of the third SAC meeting was to review Technical Memorandum 6.3 (*2025 Forecast Future Travel Demand*), brainstorm potential interchange design forms, and review local access management issues.
Public Workshop (#1) Ontario High School	September 3, 2003	The purpose of the first Public Workshop was to introduce the North Ontario Interchange Area Management Plan study to adjacent property owners and interested citizens. Those in attendance were asked to participate in a mini design charette that focused on potential interchange design forms and circulation alternatives for the adjacent IAMP study area.
PPMT/SAC (Meeting #4)	October 1, 2003	The purpose of the fourth PPMT/SAC meeting was to review Technical Memorandum 6.4a (*IAMP Opportunities & Constraints Analysis – Qualitative Analysis)*, present the initial interchange form concepts developed as part of the mini charette, review the qualitative evaluation of these concepts, and select four of these concepts for further quantitative evaluation.
PPMT/SAC (Meeting #5)	October 30, 2003/October 29, 2003	The purpose of the fifth PPMT/SAC meeting was to review Technical Memorandum 6.4b (*IAMP Opportunities & Constraints Analysis – Quantitative Analysis of the Four Screened Concepts),* review the scoring evaluation of the four screened concepts, and make recommendations for the two interchange forms that would move forward for into the environmental assessment process.
Public Meeting (#2) Ontario High School	November 19, 2003	The purpose of the second Public Meeting was to provide an overview of the process to date, present the PPMT/SAC recommendations for the two selected interchange forms, and gain general feedback from affected property and business owners.
PPMT/SAC (Meeting #6)	June 30, 2004	The purpose of the sixth PPMT/SAC meeting was to review Technical Memorandum 10.1 (*Preferred OR 201 Alignment & Interchange Form*) and develop a committee recommendation for a preferred interchange design alternative for inclusion in the North Ontario IAMP. In addition, a workshop was held with the committee members to discuss local access and circulation issues as it relates to the preferred interchange form and alignment.

Meeting Event	Date	Meeting Purpose/Objectives
Public Workshop (#3) Four Rivers Cultural Center	June 30, 2004	The purpose of the third Public Workshop was to present the PPMT/SAC recommendation for the preferred interchange form and alignment. In addition, a local access/circulation workshop was conducted to address impacts the surrounding circulation system for inclusion in the IAMP.
PPMT/SAC (Meeting #7)	August 11, 2004	The purpose of the seventh PPMT/SAC meeting was to review the decisions made at the 6th PPMT/SAC meeting and to review the public feedback from the June 30th Public Workshop. Local access and circulation alternative recommendations were made for inclusion in the IAMP.
PPMT/SAC (Meeting #8)	September 29, 2004	The purpose of the eighth PPMT/SAC meeting was to review the draft Interchange Area Management Plan.
Public Meeting (#4) Four Rivers Cultural Center	October 13, 2004	The purpose of the fourth Public Workshop was to review the draft Interchange Area Management Plan.

PPMT – Project Planning Management Team
SAC – Stakeholder Advisory Committee

Appendix B

Technical Memorandum
6.1 – IAMP Background
Information and Regulatory
Context for Interchange
Area Management Planning

Appendix C

Technical Memorandum
6.2 – Transportation/Land
Use Inventory of Existing
Conditions

Appendix D

Zoning Alternatives Report
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