Regional Over-Dimensional Truck Study

Final Existing Conditions Report

Prepared by

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Metro

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Chapter 1: Introduction and Purpose of Document

1.1 General overview

Over-dimensional freight movement is a specialized and important type of freight movement. A load is deemed over-dimensional (over-sized) when it exceeds the standard legal limits to safely drive and turn. An over-dimensional load can be any combination of per axle weight, height, width, and length that is non-divisible and exceeds legal dimensions. Within Oregon, permits are required for loads that exceed legal dimensions for weight, height, width, and length. Section 2.0 details the conditions required for an over-dimensional permit.

Maintaining access routes for over-dimensional freight movements within the Portland metropolitan region is a priority for transportation agencies. The over-dimensional route network is a key component of a complete transportation system, which serves industry and supports an economically vibrant region.

1.2 Intended purpose of document

This report seeks to define the state of the over-dimensional freight transport network in the greater Portland region including Clackamas, Multnomah, and Washington counties. Included in the report are:

- Over-dimensional policies and permitting practices
- Key findings from an analysis of over-dimensional permit data
- Documented conditions on commonly used corridors.

Chapter 2: Over-Dimensional Permitting Procedures

2.1 ODOT Permitting Procedures

ODOT's Motor Carrier Transportation Division (MCTD) issues single-trip and annual variance permits for over-weight, over-height, over-width, over-length, and other unusual truck loads. The permits include routing plans, road restriction information, pilot vehicle requirements, and other permit conditions. Permit routing covers state and federal highways. They can also cover county roads, with county approval.

Truckers will need an over-dimension variance permit whenever their vehicle combination exceeds maximum size and/or weight limits. A permit is needed to haul any single, non-divisible load for which any one of the following conditions apply:

- Width of the load or hauling equipment exceeds 8 feet 6 inches
- Height of vehicle or vehicle combination and load exceeds 14 feet
- Vehicle and/or combination length exceeds those authorized on Group Map 1 and Route Map 7
- Front overhang exceeds 4 feet beyond the front bumper of the vehicle
- Load greater than 40 feet, exceeding 5 feet beyond the end of the semi-trailer
- Load length 40 feet or less, as long as rear overhang does not exceed 1/3 of the wheelbase of the combination, trailer length does not exceed 40 feet, and overall length (including rear overhang) does not exceed 60 feet
- Gross combination weight exceeds 80,000 pounds
- Any single axle weight exceeds 20,000 pounds
- Any tandem axle weight exceeds 34,000 pounds
- Gross weight of a group of axles exceeds those set forth in the legal weight table shown on Permit Weight Table 1.

A special class of over-dimensional movements are referred to as *Superloads*. A load is defined as a superload if it exceeds the following dimensions:

- Over 16 feet wide on the Interstate
- Over 14 feet wide on any State two-lane highway
- Over 17 feet high on any highway
- Mobile homes or Modular units with a box width over 14 feet wide and/or overall width greater than 15 feet
- Overall length greater than 150 feet.

Permits to exceed the legal dimensions above must be obtained prior to movement of the oversize load in Oregon. ODOT's Entry Policy provides more detail on the permitting regulations. Applications for a Single Trip oversize permit can be submitted online using an Oregon Trucking Online account or by phone (503) 373-0000 during regular business hours.

MCTD issues nearly 100,000 complex single-trip permits each year and manages the work of private parties that process requests for about 50,000 continuous, annual variance permits each year (see Permit Agents). Permits are available through the Motor Carrier Transportation Division, Over-Dimension permit unit located in Salem and can be obtained online, in person or by phone. Annual or "Continuous Operation Variance Permits" (COVP) can be obtained through an authorized agent or through the Motor Carrier Division. Authorized agents include: The Oregon Trucking Associations, A Work Safe Service, Lane County Transportation Permits, Marion County Public Works Department, and Clackamas County Motor Carrier Division or at the Jantzen Beach Port of Entry.

ODOT provides detailed information on over-dimensional operations and requirements at ODOT Motor Carrier Over-Dimension Operations.

2.2 Clackamas County Truck Policies and Permitting Procedures

The Clackamas County Transportation System Plan (TSP) contains a number of broad policies with regards to truck freight as shown in TSP section 5.V. Freight Trucking Policies:

- 5.V.1 Support the Truck Freight Route System, while not prohibiting the use of other roads for local pickup and delivery of goods and services. (See Maps 5-9a and 5-9b).
- 5.V.2 Improve and maintain the countywide Truck Freight Route System, the Regional Transportation Plan Freight Routes and Oregon Freight Plan Routes, as shown on Maps 5-9a and 5-9b.
- 5.V.3 Consider Heavy and Oversize Freight Movement requirements on State and County facilities when developing plans for transportation improvements and land use changes along freight routes designated as ORS 366.215 Corridors, as shown on Maps 5-9c and 5-9d.

Clackamas County over-dimensional freight permitting process covers three distinct: intake, trip information, and review.

Intake – Permit requests are generated from three sources:

- Annual permits – direct request from hauler
- Request from ODOT for loads that will move on county roads as part of a longer route
- Single moves within Clackamas County – relatively rare, only projects moving between job sites without accessing state roads

Information – Details about the permit request:

- Hauler
- Load Dimensions (height, width, length, weight)
- Number of axles
- Weight table
- Type of Load

- Proposed Route – beginning, every street turn by turn, ending

Review – Agency review of the permit request:

- Clackamas County Weighmaster staff review request to identify any problem points on the proposed route. If necessary, Weighmaster staff adjusts route
- Identify pilot car requirements
- Clackamas County Weighmaster staff issues approval
- Hauler has 10 days to complete permitted movement

Clackamas County does not approve any OD Freight permit requests for cities within the county. When the Clackamas County Weighmaster receives a permit request that includes movement through one or more cities that request is forwarded to the responsible individual in the city or cities for their approval. In the case of the larger cities that is usually a staff member. In the smaller cities that is usually a consultant whose contract with the city includes such services.

2.3 Multnomah County Permitting Procedures

Multnomah County (County) contracts with the Oregon Department of Transportation's (ODOT) Motor Carrier Transportation, Over-Dimensional Operations Division to permit over-dimensional vehicles on approved Multnomah County roads. The County and ODOT developed criteria for vehicle dimensions that ODOT can approve without additional input from the County.

In instances where vehicles are larger than the established dimensions (or for carriers who wish to use routes other than the approved list of County routes), the County requires additional review of the permit using the following process:

- ODOT contacts staff within the Transportation and Development Section of the County on behalf of the carrier to determine route restrictions and additional requirements such as height poles or pilots.
- The County then issues a permit with its own restrictions and requirements. F
- With the County's input and approval, ODOT issues the over-dimensional permit.

Where required, the County coordinates with the City of Gresham since Gresham maintains all the intersection signals on County roadways. The County also coordinates with the County Sheriff's Office if escorts are needed.

Multnomah County Policies and Codes that support this work:

- Multnomah County Road Rules (2004) Section 15.000 Truck and Transit Restrictions
    - 15.100 Local Roads Restrictions: Through trucks of any size and transit vehicles are prohibited on local roads within the County's jurisdiction that are not arterials or collectors.

- 15.200 Truck/Transit Size Restrictions: The County Engineer may prohibit or regulate truck or transit movements as authorized under State and Federal law on all roads established as arterial and collectors.
- 15.300 Truck Routes: Consistent with State and Federal law, the County Engineer may designate through truck routes for movement of trucks in the County road system.

- Multnomah County Comprehensive Framework Plan (1977), Strategy under Policy 34 Trafficways
- Strategy 7. Freight movement: County trafficways shall provide for the movement of freight on facilities designed and built to accommodate the types and frequency of freight trips, and which provide for convenient access to major highways, industrial areas and resource extraction sites.
- Multnomah County Resolution No. 2012-091 (July 2012), endorsing the East Metro Connections Plan which one of the primary goals is to improve the north-south arterial network to provide better connections between I-84 and US-26. Economic development and freight mobility were key focus topics for this regional plan.

2.4 Washington County Permitting Procedures

Washington County and the State of Oregon through its Transportation Department have entered into an agreement whereby permittees may obtain a Washington County single trip permit through a state permit office. Washington County provides a list of roads that may be approved by the state with predetermined conditions and limitations. If a road does not have a preapproval or if the applicant's vehicle exceeds the thresholds provided by the preapproval, ODOT will contact Washington County to obtain the necessary approval. The permittee submits the Washington County permit fee to the state at the time of issuance and then the state reimburses the county on a periodic basis.

Continuous Operation Variance Permits (COVP) are obtained in a similar fashion. Washington County provides ODOT with a list of roads that are not authorized for use under the COVP program. This is called a County Attachment and is provided to the motor carrier at the time the permit is issued. Typical restrictions include "No Thru Truck" routes, bridge load restrictions, and length limited roadways. There are five agents throughout the state that issue COVP's on behalf of Washington County. Fees are collected in a similar manner as the single trip permit program.

If a single trip permit request exceeds the pre-approved thresholds, Washington County will review the permit request to determine pilot vehicle requirements, hours of operation, routing alterations, height limitations and bridge capacity. Sometimes the motor carrier is required to pre-run the route and identify conflicts. All of these conditions are reported back to ODOT and included with the permit.

Approvals are now obtained through e-mail. This has made approval more efficient and creates a record of the communication that can reduce errors inherent in communicating via telephone.

2.5 City of Portland Permitting Procedures

City of Portland Bureau of Transportation (PBOT) issues permits for over-dimensional loads on city streets meeting the following criteria:

- Total vehicle and load height: 14 feet
- Total vehicle and load width: 8 feet 6 inches
- Total vehicle and load length: 55 feet single and 60 feet combination
- Total vehicle and load weight: >80,000 lbs.

PBOT does not currently have an official O-D permit application form. Instead, PBOT staff takes the hauling company's information (load, route) via phone and records it on an Excel form. PBOT staff review process includes:

- Verification of the hauling company's insurance. Note that the City of Portland liability insurance requirements are more stringent than the state's requirements. PBOT will not authorize a permit without proof of adequate liability insurance coverage. PBOT staff verifies insurance through the City Attorney's Office.
- The hauling company provides PBOT the proposed O-D route.
- Over-weight loads that cross bridge structures are reviewed by PBOT Bridge Engineering staff.
- Over-height loads are reviewed by PBOT Signals & Lighting group for clearance issues.
- Pilot car requirement are dictated based on load width. The Portland Truck Map in Appendix A identifies preferred wide load routes.
- City of Portland permits are typically valid for 10 days after being issued. Certain permittees that haul continuous loads (e.g. Evraz Steel) are granted for longer time periods - i.e., 6 months.
- City of Portland issued permits do not warranty a safe operating route or sufficient clearances and the permittee is responsible for determining whether vehicles of the size permitted are appropriate for a particular street.

Chapter 3: Analysis of Over-Dimensional Freight Movement

3.1 ODOT Permit Data Analysis Findings

The evaluation of permitted over-dimensional moves seeks to identify what types of freight and its over-dimensional parameters are traveling on which routes. For example, knowing ranges of length, height, weight commonly transported along which corridors in order to better plan a network of corridors to meet demand for this freight move.

ODOT provided permit records from permit data from December 2012 to December of 2015. The following analysis of over-dimensional freight movement included 20,611 permit records.

A. Over-Dimensional Commodities and Routes

Table 1 ranks routes in the study area in order of frequency of over-dimensional freight movement. The most frequent over-dimensional commodity is excavators, followed by cranes and log loaders.

Table 1. Frequent Over-Dimensional Commodities

Commodity	Permits issued	Percent of total moves
Excavator	2676	13.0%
Crane	1836	8.9%
Log Loader	1426	6.9%
Asphalt Profiler	845	4.1%
Dozer	520	2.6%
Feller Buncher	483	2.3%
Processor	472	2.3%
Air Handling Unit	280	1.4%
Grinder	271	1.3%
Self-Propelled Concrete Pump	266	1.3%
Steel Beams	257	1.2%
Scraper	249	1.2%
Forklift	241	1.2%
Loader	199	1.0%
Shovel	198	1.0%

Table 2 lists roadways used by over-dimensional loads in order of frequency. Over-dimensional loads originate and terminate on city streets and local roads. The majority share common major freeway and arterial segments such as I-5, US26, I-205, Tualatin Sherwood Rd, OR217. The following table is a sampling of the most frequently used road facilities in the

Table 2. Frequent Routes for Over-Dimensional Freight Movement

Route	% of Total Movement	Route	% of Total Movement
I-5	7.6%	OR8	0.6%
City Streets (not specified	5.7%	Boones Ferry Rd	0.6%
US26	5.4%	Evergreen Pkwy	0.6%
I-205	4.9%	US30 Bypass	0.5%
I-84	3.2%	OR224/OR211	0.5%
I-405	3.2%	Sandy Blvd	0.5%
Tualatin Sherwood Rd	2.4%	OR18	0.5%
OR217	2.3%	US97	0.4%
Brookwood Pkwy	1.7%	Day St	0.4%
OR211	1.7%	Mathias Rd	0.4%
OR99W	1.5%	Glencoe Rd	0.4%
OR224	1.5%	US20	0.4%
OR47	1.0%	OR219	0.4%
OR213	1.0%	OR6	0.4%
OR212/OR224	1.0%	Cornell Rd	0.4%
Cornelius Pass Rd	0.9%	OR141	0.4%
US30	0.8%	OR551	0.4%
Grahams Ferry Rd	0.8%	Brookwood Ave	0.4%
OR99E	0.8%	Tonquin Rd	0.3%
OR212	0.8%	238th Dr	0.3%
OR214	0.6%	Columbia Blvd	0.3%

B. Commodity Dimensions

Table 3 contains the average dimension of the most frequent over-dimension commodities. Excavators are the most frequently occurring, followed by log loaders, self-propelled cranes and asphalt profilers.

Table 3. Average Dimensions of Most Frequent Commodities

Commodity	Width (ft.)	Height (ft.)	Length (ft.)	Weight (lbs.)
Excavator	12	14	82	140100
Log Loader	12	14.5	87	144300
Self-Propelled Crane	10	14	75	146500
Asphalt Profiler	8.5	14	76	110900

The maximum over-dimensional commodity moves included transformers, steel skirts, heat exchangers. These loads occurred less frequently, accounting for less than 0.5% of total permits.

Table 4. Summary of Maximum Over-Dimensional Commodities

Description	Dimension	Commodity	Percent of Total Permits
Heaviest	662,212 lbs.	Transformer	0.4%
Widest	25 ft.	Steel skirt	<0.1%
Longest Overall	225 ft.	Heat exchanger	<0.1%
Tallest	18 ft. 2 in	Transformer	0.4%

C. Over-Dimensional Loads by Weight

Figure 1 shows the distribution of weights of over-dimensional loads. The most frequently encountered weight is between 120,000 and 160,000 for excavators and log loaders. The heaviest items are transformers. Table 5 is a brief overview of origin and destination of some of the heaviest over-dimensional loads in the past 3 years of data.

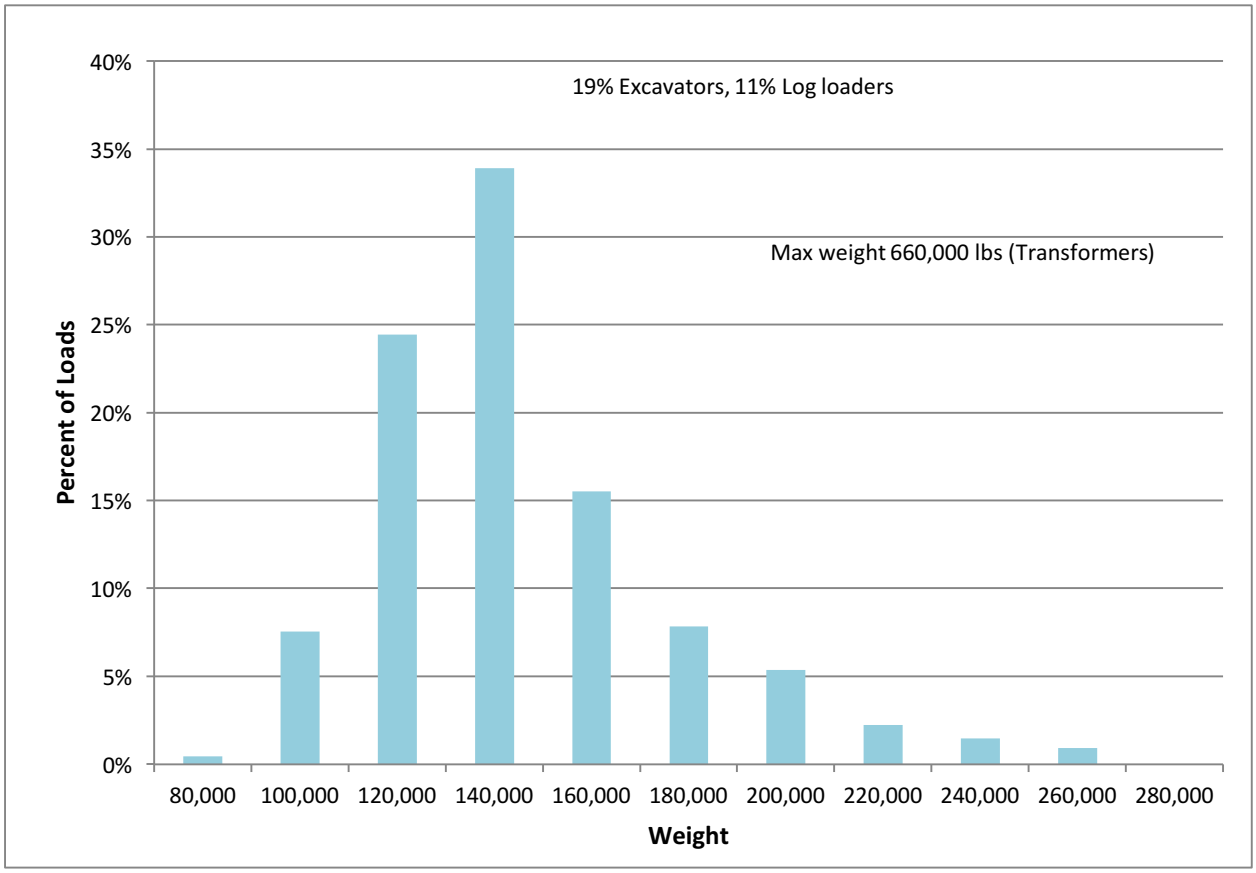


Figure 1. Range of Weights Over-Dimensional Commodities

Table 5. Heaviest Over-Dimensional Commodities and Routes

Commodity	Pounds	Origin	Destination
Transformer	662,212	Oregon City	Clackamas
Tank	558,000	Portland	OR/NV Border at US95
Transformer	498,541	Portland	Klamath Falls
Transformer	475,201	OR/WA Border at I-205	Hillsboro

D. Over-Dimensional Loads by Width

Loads with widths over 8'6" are classified as over-dimensional. Figure 2 shows the largest percentage of over-dimensional loads are excavators which represent 24% of the 11 to 12-foot range. Dozers and excavators also represent 14% and 9%, respectively of the 13 to 14 foot range. The widest loads transported were steel skirts, dam gates and steel plates. Table 6 is an overview of the origins and destinations of the widest over-dimensional commodities.

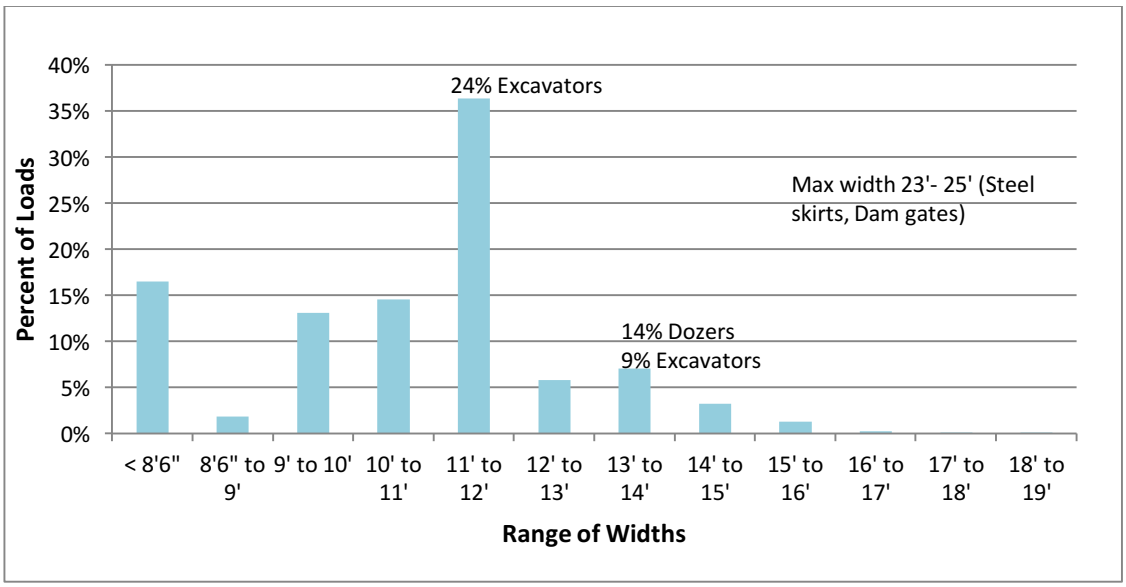


Figure 2. Range of Widths of Over-Dimensional Commodities

Table 6. Widest Over-Dimensional Commodities and Routes

Commodity	Width	Origin	Destination
Steel skirt	25 ft.	Newberg	Portland
Dam gates	24 ft.	OR/WA border at I-205	OR/CA Border at I-5
Carbon steel plate skirt	23 ft.	Newberg	Portland

E. Over-Dimensional Loads by Height

Over-dimensional height is any load and vehicle combination exceeding 14 feet. Figure 3 groups ranges of over-dimensional loads. Excavators represent 18% of the 14 to 15-foot range of over-

height loads and 9% of the 15 to 16 foot over-height loads. Transformers were the tallest loads 18 feet. Table 7 is an overview of origin and destinations of the tallest over-dimensional commodities. Transformers

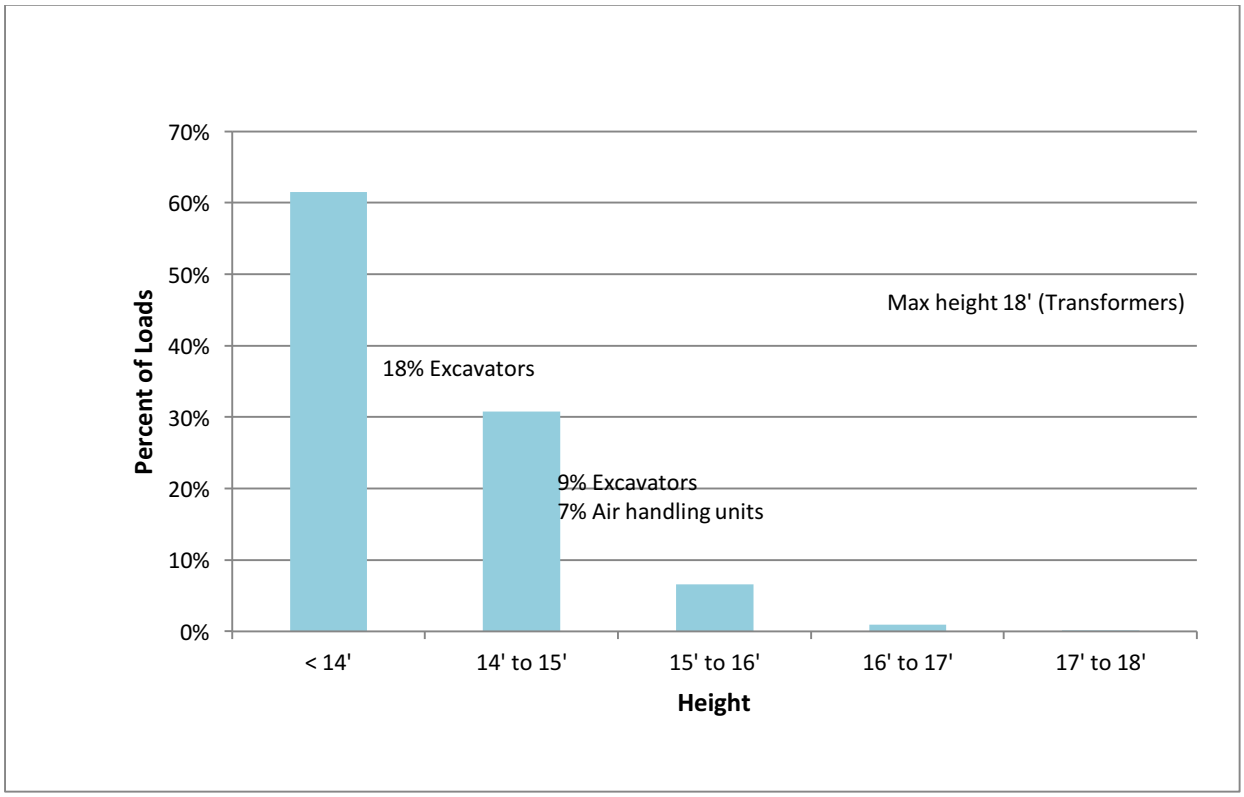


Figure 3. Ranges of Height of Over-Dimensional Loads

Table 7. Tallest Over-Dimensional Commodities and Routes

Commodity	Feet	Origin	Destination
Transformer	18 ft.	Happy Valley	Oregon City
Transformer	18 ft. 2in	Happy Valley	Oregon City
Transformer	18 ft.	Clackamas	Oregon City
Tank	18 ft.	Portland	OR/NV Border at US95

F. Over-Dimensional Loads by Length

Lengths of loads exceeding 40 feet are considered over-dimensional. The greatest percent of over-dimensional length loads are in the 70 to 90-foot range. Excavators make of 15% of the commodities in both the 70 to 80 foot and 80 to 90 foot ranges. The maximum length was a heat exchanger 225 feet, transformers at 217 feet, and a cold box. Table 8 is an overview of the original and destinations of the longest commodities.

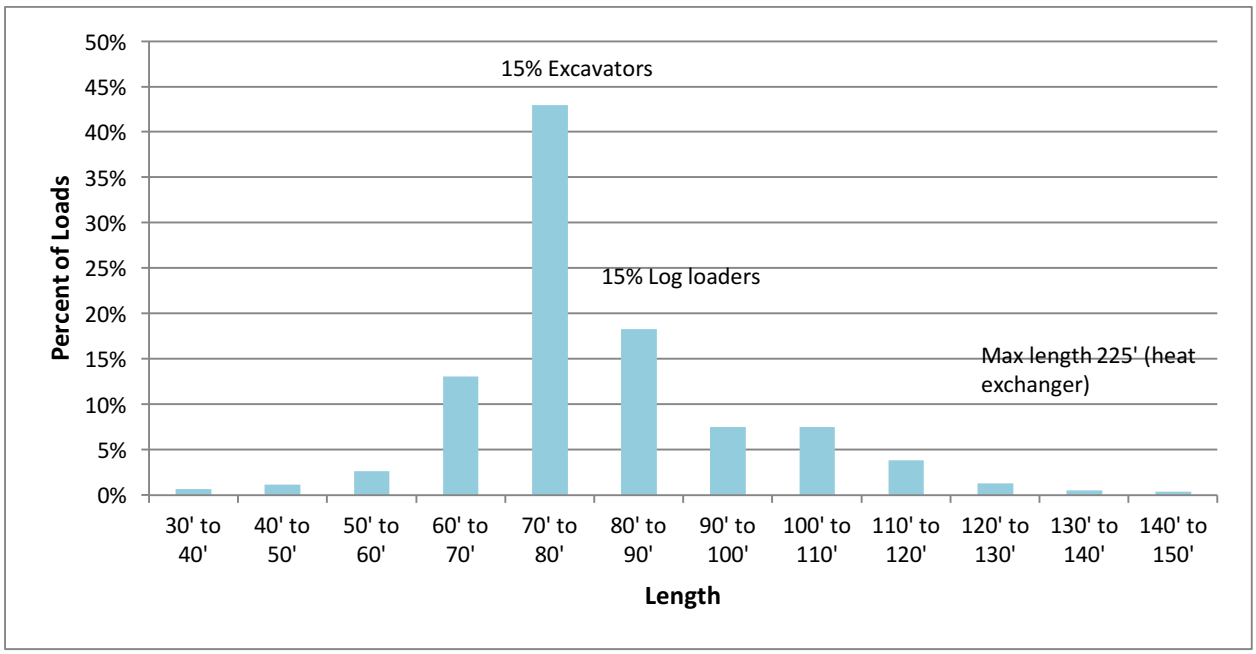


Figure 4. Ranges of Length of Over-Dimensional Loads

Table 8. Longest Over-Dimensional Commodities and Routes

Commodity	Feet	Origin	Destination
Heat exchanger	225	OR/WA Border at I-205	Hillsboro
Transformers	217	Oregon City	Clackamas
Unladen heavy haul combinations	217	Clackamas	Oregon City
Cold box loaded in float	207	OR/WA Border at I-205	Hillsboro

3.2 PBOT Permit Data Analysis Findings

Portland Bureau of Transportation provided 850 records of over-dimension permit data from April 2014 to December 2015. Table 9 shows the most frequently occurring roadways for over-dimensional permits.

Table 9. PBOT Most Frequently Occurring Roadways

Route	% of Total Routes	Route	% of Total Routes
Columbia Boulevard	12%	N Denver	1%
N Lombard St	5%	NE MLK	1%
30 BYP	4%	NW 15th	1%
I-5	4%	OSM	1%
N Portland Rd	3%	Harborgate	1%
N Marine Dr	3%	99E	1%
Columbia Parkway	2%	N Ramsey Blvd	1%
US 30	2%	NE Columbia	1%
NW Front	1%	N Going St	1%
N Rivergate Blvd	1%	N Richmond	1%
NE Airport Way	1%	N Vancouver	1%
I-205	1%	NE 181st	1%
NW 21st	1%	NE Broadway	1%
NW Nicolai	1%	NE 158th	1%
I-405	1%		

The following table displays frequency of commodities as a percent of total commodities. Excavators are the single most common over-dimensional commodity, followed by log loaders and cranes.

Table 10. PBOT Most Frequent Over Dimensional Commodities

Commodity	% of Total Moves
Excavator	19%
Log Loader	4%
Non-Divisible Loads	4%
Crane	4%
Forest Machine/Excavator	2%
Steel Plate	2%
Wheel loader	2%
Skidder	2%
Drill	2%
Steel Plates	2%
Feller Buncher	2%
Modular Building	2%
Grinder	2%

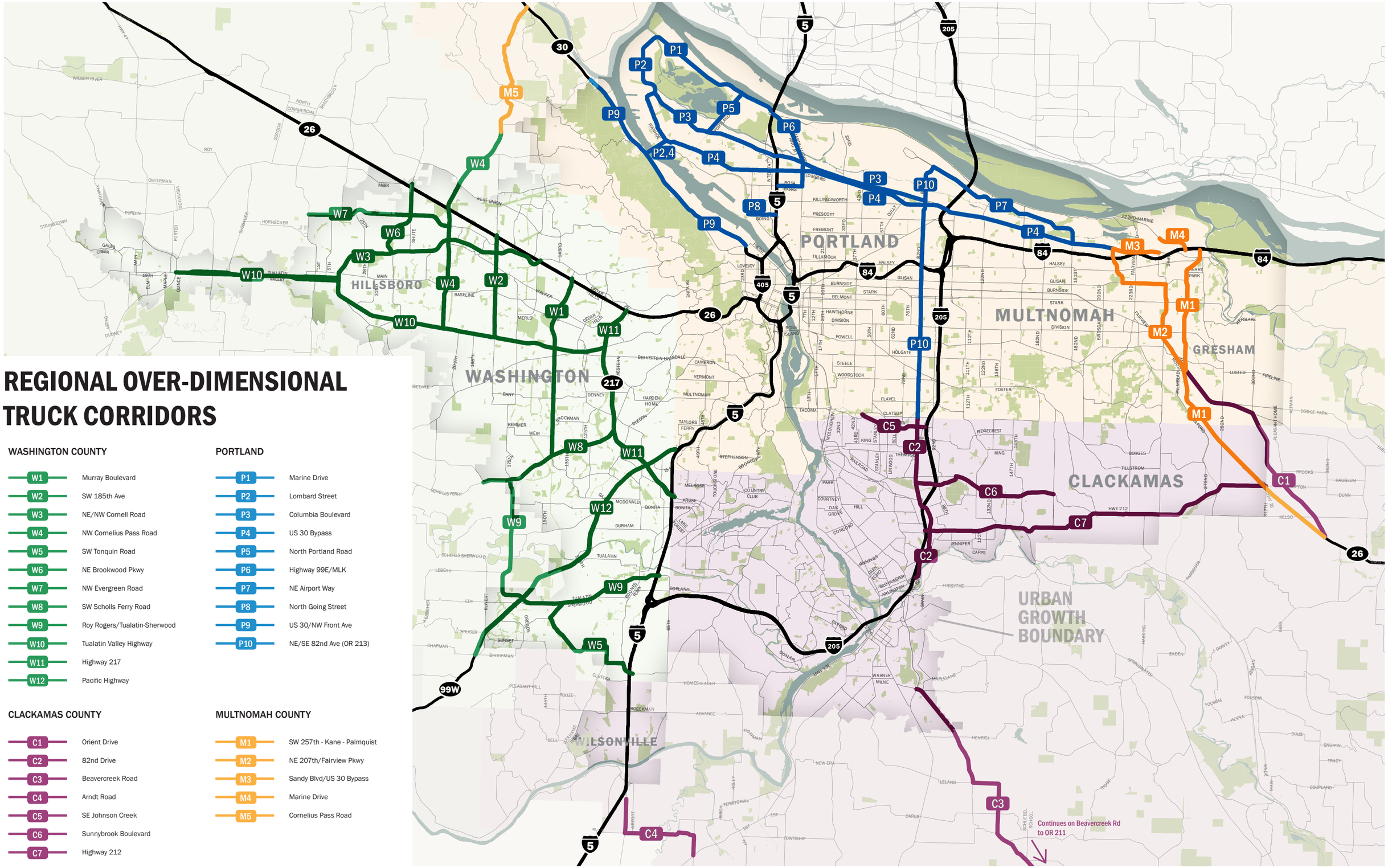
Chapter 4: Priority Regional Over-Dimensional Truck Route Corridors Inventory

Chapter 4 details existing conditions for over-dimensional truck route corridors in Portland tri-county region. The chapter sections are distinguished by Clackamas County, Multnomah County, Washington County and the City of Portland. Each corridor includes a general description, policy review, roadway and operational characteristics, permit analysis, bridge and crossing details, and identified projects on the corridor.

Figure 5 provides a map of the 31 over-dimensional corridors in the Portland tri-county region.

Appendix B provides a map of state highways in the Portland Metro region that are subject to ORS 366.215 Reduction Review Route guidelines. Refer to the following ODOT link for more information on ORS 366.215: www.oregon.gov/ODOT/MCT/Pages/mobility.aspx#ORS_366.215_Guidelines

REGIONAL OVER-DIMENSIONAL TRUCK CORRIDORS



WASHINGTON COUNTY

- W1 — Murray Boulevard
- W2 — SW 185th Ave
- W3 — NE/NW Cornell Road
- W4 — NW Cornelius Pass Road
- W5 — SW Tonquin Road
- W6 — NE Brookwood Pkwy
- W7 — NW Evergreen Road
- W8 — SW Scholls Ferry Road
- W9 — Roy Rogers/Tualatin-Sherwood
- W10 — Tualatin Valley Highway
- W11 — Highway 217
- W12 — Pacific Highway

PORTLAND

- P1 — Marine Drive
- P2 — Lombard Street
- P3 — Columbia Boulevard
- P4 — US 30 Bypass
- P5 — North Portland Road
- P6 — Highway 99E/MLK
- P7 — NE Airport Way
- P8 — North Going Street
- P9 — US 30/NW Front Ave
- P10 — NE/SE 82nd Ave (OR 213)

CLACKAMAS COUNTY

- C1 — Orient Drive
- C2 — 82nd Drive
- C3 — Beavercreek Road
- C4 — Arndt Road
- C5 — SE Johnson Creek
- C6 — Sunnybrook Boulevard
- C7 — Highway 212

MULTNOMAH COUNTY

- M1 — SW 257th - Kane - Palmquist
- M2 — NE 207th/Fairview Pkwy
- M3 — Sandy Blvd/US 30 Bypass
- M4 — Marine Drive
- M5 — Cornelius Pass Road

4.1 Clackamas County Over-Dimensional Truck Route Corridors

C1. Orient Drive Over-Dimensional Truck Route (Palmquist Rd to US26 in Sandy)

A. Corridor Description

The Orient Drive over-dimensional truck route is about 8 miles long, and has just under 5 miles within rural Clackamas County and just over 3 miles in Multnomah County. The route stretches between US 26 west of Sandy and the intersection of Kane Road, Palmquist Road and Orient Drive in Gresham. It is used primarily as an over-height freight route alternative to US 26. This route connects to the SW 257th / Kane / Palmquist Corridor (Multnomah County Corridor, M-1)

- Within Clackamas County, Orient Drive is County Road #24037 and is maintained by Clackamas County for its entire length in the County.
- Within unincorporated Multnomah County, Multnomah County owns and maintains the segment between the County line and Gresham city limits. This segment is approximately 2 miles long.
- Within the City of Gresham's, the city owns and maintains the segment between Palmquist Road and the Gresham city limits. This segment is approximately 1.15 miles long.

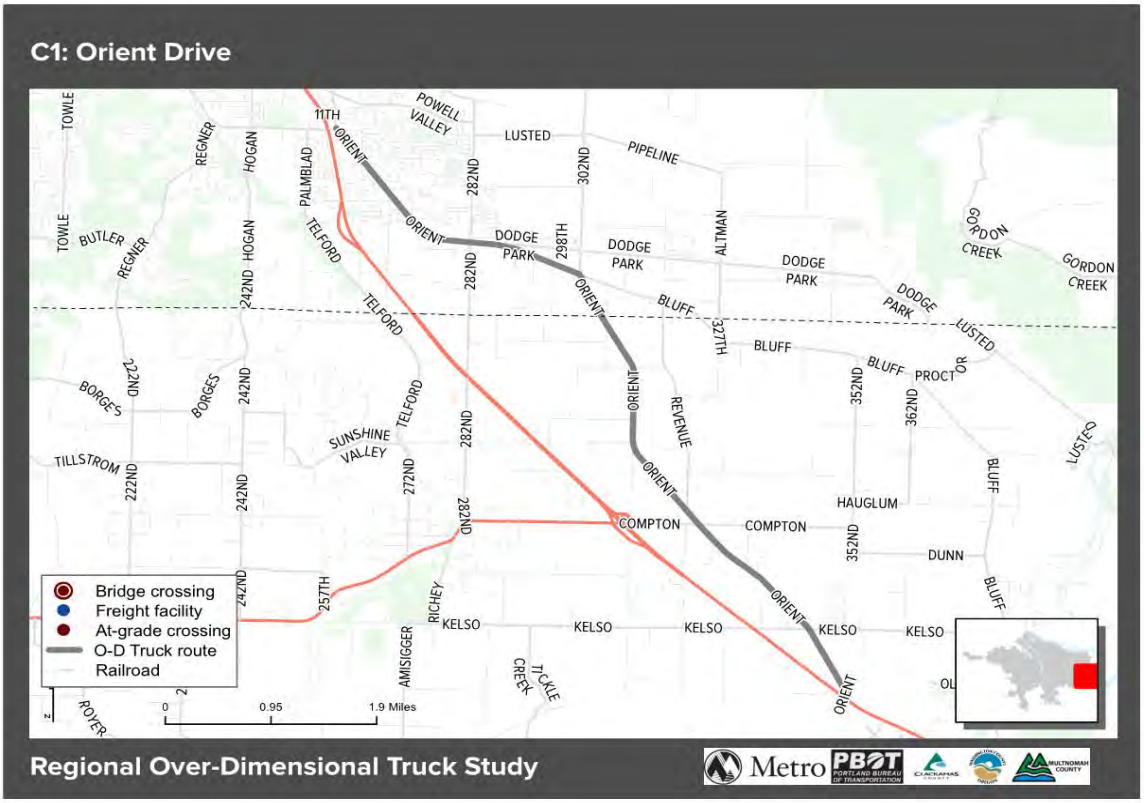


Figure 6. C1 Orient Drive Corridor

B. Policy Designation

Local Functional Classification – Orient Road is classified as a Minor Arterial as show on Clackamas County TSP Map 5-4b. Orient Drive in unincorporated Multnomah County is classified as a Rural Arterial in the Multnomah County's Functional Classification Maps. Orient Drive in the City of Gresham is classified as a Standard Arterial in the Gresham TSP.

Truck Freight Route – Orient Road is classified as a Truck Freight Route as shown on Clackamas County TSP Map 5-9b.

OD Freight Route – Orient Road is not identified as an ORS 366.215 Corridor on the Clackamas County TSP Maps.

Regional Freight Network Designation – Orient Drive is classified as a Road Connector in the 2014 Regional Transportation Plan's Regional Freight Network.

Federal/NHS Classification – Orient Drive is not on the Federal National Highway System.

C. Roadway Characteristics

Table 11. C1 Roadway Characteristics

Number of travel lanes	2 lanes beginning at US 26 and continuing to SE Salquist Road in Gresham; 3 to 4 lanes between SE Salquist and SE Palmquist in Gresham.
Average travel lane width	Various from 11' to 12'
Curb-to-curb width	Various from 24' and 30', wider at some intersection and at the west end of the route Within unincorporated Multnomah County, width varies between 30' and 48'.
Surface type	multi-lift asphalt (AC)
Surface condition	For unincorporated Multnomah County portion, Good or Excellent condition (Pavement Condition Index ratings between 63 and 90 as recorded in 2015).

D. Roadway Operations

Table 12. C1 Roadway Operations

Locations on Orient Drive in Multnomah County	ADT
North of Salquist Road (City of Gresham)	17,985 (2011)

Between Gresham city limit and Dodge Park Boulevard (unincorporated Multnomah County)	7,552 (2013) with 86% auto and 12.2% truck*
Between Dodge Park Boulevard and County Line (unincorporated Multnomah County)	3,725 (2013) with 77.8% auto and 18.8% truck*
Location on Orient Drive in Clackamas County	**ADT**
South of the Multnomah County Line	3,535 (2011)
South of Compton Road	4,280 (2011)
South of Kelso Drive	3,775 (2011)

*Note: Multnomah County truck split includes: 2 axle 6 tire trucks; 3 axle single truck; 4 axle single truck; double with less than 5 axles; 5 axle double truck; 6 axle double truck, and multiple trailer trucks. Auto split includes cars/trailers and 2 axle long vehicles. Motorcycles and buses are not included in these ratios.

E. Over-dimensional Single Trip Permit Table

Summary: Approximately 96 STP permits were issued for a 3-year period for Orient Dr.
Note: These counts do not reflect loads operating under an annual Continuous Trip Permit.

Analysis of Widest Loads: *The widest load permitted was for a 17'6' wide transformer moved by Omega Rigging & Machinery. This load moved from Beaverton (21535 Quatama St) to Estacada (33831 E Faraday Rd). The load was also 16'10" high, 195' overall length, and 470,500 lbs.*

Table 13. Analysis of Widest Loads

Overall Width	Number of Permits Issued
8'6" or less (legal width)	10
8'7" to 10'00"	10
10'01" to 11'00"	10
11'01" to 12'00"	31
12'01" to 13'00"	3
13'01" to 14'00"	8
14'01"-15'00"	18
15'01"-16'00"	5

Over 16’00”	1

Analysis of Highest Loads: *The highest loads permitted were for 17’4” high transformers moved by Omega Rigging & Machinery. The loads moved from Portland (NW Front St at Nicolai St) to Klamath Falls (Joe Wright Rd). The loads were also 16’ wide and 195’ overall length, and up to 498,541 lbs.*

Table 14. Analysis of Highest Loads

Overall Height	Number of Permits Issued
14’00” or less (legal height)	34
14’01” to 14’6”	10
14’7” to 16’00”	34
16’01”-17’00”	14
Over 17’00”	4

Analysis of Longest Loads: *The longest loads permitted were 195’ overall length for transformers moved by Omega Rigging & Machinery. The loads moved from Portland (NW Front St at Nicolai St) to Klamath Falls (Joe Wright Rd). The loads were also 16’ wide and 17’4” high, and up to 498,541 lbs.*

Table 15. Analysis of Longest Loads

Overall Combination Length (including any overhang)	Number of Permits Issued
70' or less	14
71' to 80'	24
81' to 90'	21
91' to 100'	8
101' to 110'	3
111’ to 120’	4
121’ to 140’	17
Over 140’	5

Analysis of Heaviest Loads: *The heaviest loads permitted were transformers that weighed up to 498,541 lbs. moved by Omega Rigging & Machinery. The loads moved from Portland (NW Front St at Nicolai St) to Klamath Falls (Joe Wright Rd). The loads were also 16' wide, 17'4" high, and 195' overall length.*

Table 16. Analysis of Heaviest Loads

Gross Weight	Number of Permits Issued
80,000 lbs. or less (legal weight)	42
80,000 lbs. to 98,000 lbs.	5
98,001 lbs. to 120,000 lbs.	7
120,001 lbs. to 140,000 lbs.	11
140,001 lbs. to 160,000 lbs.	2
160,001 lbs. to 180,000 lbs.	7
180,001 lbs. to 200,000 lbs.	2
Over 200,000 lbs.	20

Analysis of Combinations: *The above types of combinations were used to move the loads on this report. The majority of combinations used were truck-tractor/semitrailer combinations. The trailers were tow-away units, stretch trailers, expanded trailers, and fixed trailers. The longest trailer permitted was 66 feet. The second most common combination used was the heavy haul combination (truck-tractor/jeep/semitrailer/booster). The longest trailer in this combination was 175 feet. There were also mobile homes permitted with a trailer length up to 80 feet.*

Table 17. Vehicle Combinations Permitted

Types of Vehicle Combinations Permitted
Truck (Solo Vehicle) or Self Propelled Units (like cranes)
Doubles
Truck + Trailer
Log Truck + Pole Trailer
Truck-Tractor + Semitrailer or Truck-Tractor +Tow-Away Unit

Heavy Haul Combination (Truck-Tractor/Jeep/Semitrailer/Booster)
Toter + Mobile Home
Pickup Truck + Trailer

F. Crossings and Bridge Structures (City/State Bridge ID)

Clackamas County Portion of this Route.

There are no crossing or bridges on the Clackamas County portion of this corridor.

Multnomah County Portion of this Route.

There are no crossing or bridges on the Multnomah County portion of this corridor

G. Identified Capital improvements

There are no committed projects on the Clackamas County portion of this corridor.

RTP Project #10430 (City of Gresham) Orient Drive between 257th and Gresham city limits: Upgrade to a four-lane arterial. $13,300,000 planned for years 2018-2024, on the Financially Constrained project list.

Multnomah County Capital Improvement Plan (2015) Project No. 706, widen Orient Drive to create eastbound left turn lane to Bluff Road, and realign Bluff Road and Teton Drive to create perpendicular intersection. Estimated cost of $685,000.

Multnomah County Capital Improvement Plan (2015) Project No. 703, widen Orient Drive at intersection of Dodge Park Boulevard to create an eastbound left turn lane. Estimated cost of $374,000.

C2. 82nd Drive Over-Dimensional Truck Route (I-205 to Clackamas)

Combined with corridor P10

Figure 7. 82nd Avenue/82nd Drive Realignment

C3. Beavercreek Road Over-Dimensional Truck Route (OR213 to OR211)

A. Corridor Description

Beavercreek Road over-dimensional truck route is a rural route that runs parallel to OR 213 South and provide an alternate path to over-dimensional freight movement in central Clackamas County. This route runs from the intersection of Beavercreek Road and OR 213 South in Oregon City to the end of Beavercreek Road at OR 211 just north and east of Molalla, a distance of some 15.5 miles. This route serves an area that is heavily involved in agricultural and forestry land uses. Beavercreek Road is County Road # 52033 and is maintained by the County for its entire length.

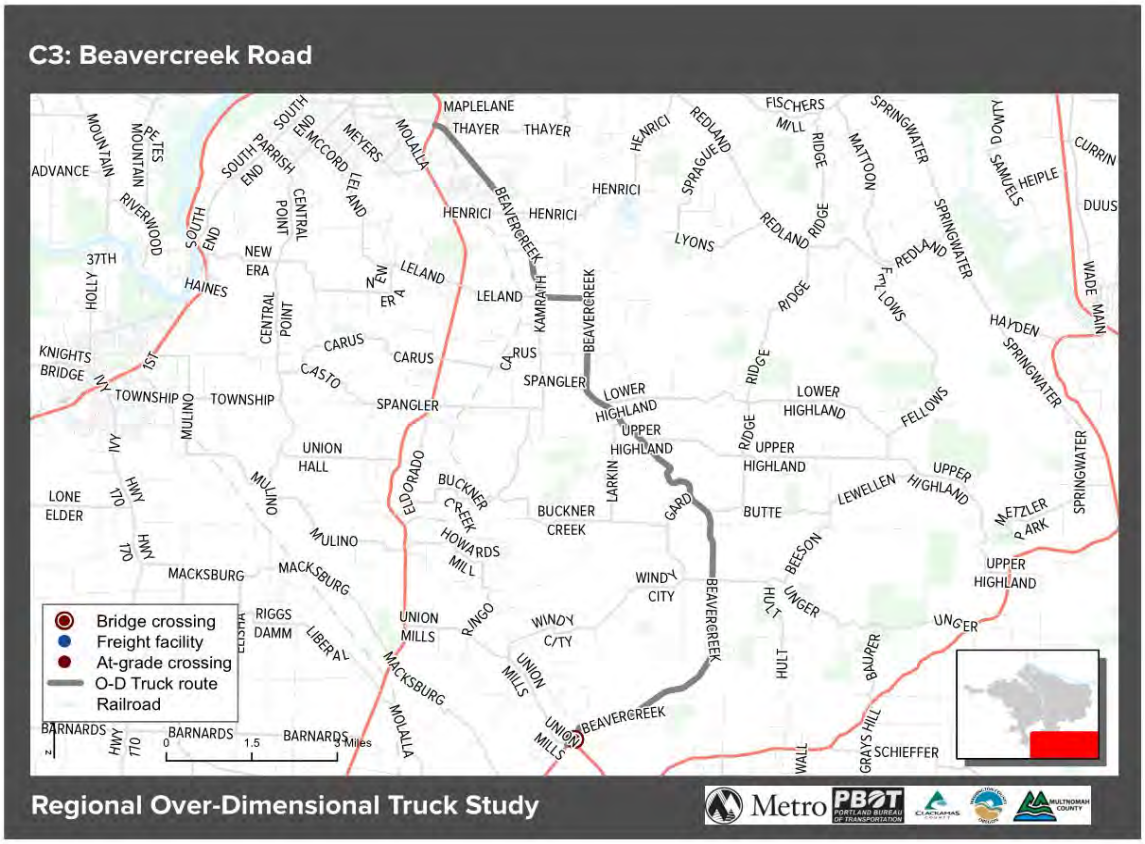


Figure 8. Beavercreek Road Corridor Map

B. Policy Designation

Local Functional Classification – Beavercreek Road is classified as a Major Arterial as shown on TSP Maps 5-4b and 5-4a.

Truck Freight Route – Beavercreek Road is NOT classified as a Truck Freight Route in the rural areas as shown on TSP Map 5-9b. But it is classified as a Truck Freight Route in the urban area between OR 213N and Meyers Road as shown on TSP Map 5-9a.

OD Freight Route – Beavercreek Road is not identified as an ORS 366.215 Corridor on the TSP Maps This corridor is also designated as a Regional Road Connector

Regional Freight Network Designation – Road connector

Federal/NHS Classification – Not on NHS

C. Roadway Characteristics

Table 18. Beavercreek Roadway Roadway Characteristics

Number of travel lanes	Varies from 2 to 4 lanes with the UGB. South of the UGB, 2 lanes
Average travel lane width	Various from 11' to 12'
Curb-to-curb width	Various, with the UGB varies from 87' to 29'. South of the UGB varies from 39' to 23"
Surface type	Multi-lift asphalt (AC)
Surface condition	Insert surface condition

D. Roadway Operations

Table 19. Roadway Operations

Location on Beavercreek Road	2011 ADT
North of OR 211	1,965
South of Upper Highland Road	1,800
North of Upper Highland Road	3,065
South of Spangler Road	5,000
North of Spangler Road	4,575
East of Kamrath Road	6,395
North of Leland Road	7,215
South of Henrici Road	8,180
North of Henrici Road	10,460
South of Thayer Road	18,720
East of OR 213 S	28,530

E. Over-dimensional Single Trip Permit Table

Summary: Approximately 170 STP permits were issued for a 3-year period for Beavercreek Road from the junction of OR213 to OR211.

Note: These counts do not reflect loads operating under an annual Continuous Trip Permit.

Overall Width	Number of Permits Issued
8’6” or less (legal width)	13
8’7” to 10'00"	30
10'01" to 11'00"	35
11'01" to 12'00"	51
12'01" to 13'00"	5
13'01" to 14'00”	8
Over 14’00”	28

Analysis of Widest Loads: *25 loads were permitted between 14’1” and 20’10” wide. These were for transformers, unladen heavy haul combinations, mobile homes and sheds. There were 6 loads 20’10” wide. The rest were 16’0” or less in width.*

Overall Height	Number of Permits Issued
14’00” or less (legal height)	105
14’01” to 14’6”	30
14’7” to 16’00”	29
Over 16’00”	6

Analysis of Highest Loads: 6 loads were permitted between 16’3” and 17’11” high. These all were transformers.

Overall Combination Length (including any overhang)	Number of Permits Issued
70' or less	16
71' to 80'	43
81' to 90'	50
91' to 100'	27
101' to 110'	8
111’ to 120’	8
Over 120’	18

Analysis of Longest Loads: *18 loads were permitted between 120’ and 217’ overall length. These were for transformers, unladen heavy haul combinations, and wood poles.*

Gross Weight	Number of Permits Issued
80,000 lbs. or less (legal weight)	41
80,000 lbs. to 98,000 lbs.	4
98,001 lbs. to 120,000 lbs.	29
120,001 lbs. to 140,000 lbs.	43
140,001 lbs. to 160,000 lbs.	26
160,001 lbs. to 180,000 lbs.	9
180,001 lbs. to 200,000 lbs.	3
Over 200,000 lbs.	15

Analysis of Heaviest Loads: *15 loads permitted were between 206,000 lbs. and 662,212 lbs. These were transformers and unladen heavy haul combinations.*

Types of Vehicle Combinations Permitted
Truck (Solo Vehicle) or Self Propelled Units (like cranes) 28
Doubles - 0
Truck-Tractor + Semitrailer or Truck-Tractor +Tow-Away Unit - 71
Truck +Trailer -0
Log Truck + Pole Trailer - 8
Heavy Haul Combination (Truck-Tractor/Jeep/Semitrailer/Booster) - 40
Toter + Mobile Home- 21
Pickup Truck + Trailer - 2

Analysis of Combinations: *The Truck-Tractor/Semitrailer and Truck-Tractor/Tow-Away Unit was the most common vehicle combination permitted. The trailers used were fixed trailers, stretch trailers, and tow-away fixed loads. The longest trailer was a 70' stretch trailer. The second most common combination used was the Heavy Haul Combination (Tractor/Jeep/Semitrailer/Booster). The longest trailer permitted in this combination was a 213' trailer inclusive of dollies.*

F. Crossings and Bridge Structures (City/State Bridge ID)

The following bridges are on Beavercreek Road but do not provide any restrictions to OD freight movement.

- Buckner Creek Beavercreek Road Bridge (#02779)
- Mill Creek Beavercreek Road Bridge (#06198)

G. Identified Capital Improvements

There is committed project in the 20-year Capital Improvement Program to construct a roundabout at the Beavercreek Rd/Leland Rd/Kamrath Rd

H. **Corridor Photos**

Figure 9. S. Beavercreek Road Bridge over Buckner Creek

Figure 10. Beavercreek Road Bridge over Milk Creek

C4. Arndt Road Over-Dimensional Truck Route (County Line to Barlow Rd)

A. Corridor Description

The Arndt Road over-dimensional truck route is a multi-jurisdictional freight route that connects OR 99E, SW Clackamas County and the City of Canby with I-5. The route is owned by Clackamas County, Marion County and ODOT and is located in ODOT Region 2. This route is a little more than 4 miles in length.

The Arndt Road route is comprised of the follow roads (from east to west)

- Barlow Road, County Road # 41025 between OR 99E and Arndt Road. This Road is maintained by the County
- Arndt Road, County Road # 31024 between Barlow Road and the intersection of Arndt Road and Knights Bridge Road. This Road is maintained by the County
- Arndt Road, County Road # 30062 between the intersection of Arndt Road and Knights Bridge Road and the intersection of Arndt Road and Airport Road. This Road is maintained by the County
- Arndt Road west of the intersection of Arndt Road and Airport Road is a public road # P0022. This road is not maintained by the County but is maintained by Marion County under the provision of an intergovernmental agreement between the two counties.
- Highway 551 (Hubbard Cutoff Road) from the intersection of Arndt Road and Highway 551 to the on ramps to I-5. This road is located in ODOT Region 2 and maintained by ODOT Maintenance District 3.

Figure 11. Arndt Road Corridor Map

B. Policy Designation

Local Functional Classification – Arndt Road, Barlow Road and proposed Arndt Road Extension to OR 99E are all classified as a Major Arterials as shown in TSP Map 5-4b.

Truck Freight Route – Arndt Road and Barlow Road are classified as Truck Freight Routes as shown on TSP Map 5-9b.

OD Freight Route – Arndt Road and Barlow Road are not classified as ORS 366.215 Corridors as shown on the TSP Maps

Regional Freight Network Designation – Not on RTP freight network

Federal/NHS Classification – Not on NHS

The County TSP has identified this corridor as an area the needs additional study to develop a set of access solution to the SW portion of the County.

5.DD. Special Transportation Plans and Studies

5.DD.1 Designate the following as Special Transportation Plans:
G. The Exception to Statewide Planning Goal 3 (Agricultural Lands), Goal 11 (Public Facilities & Services) and Goal 14 (Urbanization), pursuant to OAR 660, Division 12, to allow for the Arndt Road improvement listed as project number 2029 on Table 5-3b and shown on Map 5-11e. (For findings of fact and statement of reasons, see Board Order 2003-104.)

5.DD.2 During the existing and future conditions analysis of the transportation system, there were some problem locations where defining solutions was beyond the scope of the TSP update. Specific solutions will need to be identified for these locations through additional studies for the following locations:

Study 2057- Conduct an alternatives analysis and land use study to identify and consider roadway improvements to address access to I-5 within the southwest portion of the county and address capacity deficiencies along Arndt Road

C. Roadway Characteristics

Table 20. Arndt Road Roadway Characteristics

Number of travel lanes	Varies generally 2 lanes form OE 99E to Arndt and Airport Way with additional turn lanes at some intersections. Arndt is 3 to 4 lanes between Airport Way and OR 551 OR 551 is typically 2 lanes with a split 4 lane road at the north end where it joins I-5 and a 4 to 5 lane section at the Arndt Road / OR 551 intersection
Average travel lane width	Various from 12’ to 14’

Curb-to-curb width	Various from 24' and 28" between OR 99E and the Arndt Road Airport Way Intersection. 60' at the intersection Arndt Road is about 60' between Airport Way and OR 551. OR 551 varies between 36' and 80'
Surface type	Multi-lift asphalt (AC)
Surface condition	Insert surface conditions

D. Roadway Operations

Table 21. Roadway Operations

ODOT Highway 551 Wilsonville – Hubbard	2013
Mile Post 1.47 – just north of Arndt Road	11,500
Marion County	2014
Arndt Road East of OR 551	10,300
Arndt Road West of Airport Way	11,544
Location on Arndt Road in Clackamas County	2011 ADT
East of Airport Road	15,115
East of Knights Bridge Road	8,415
North of OR 99E – on Barlow Road	10,170

E. Over-dimensional Single Trip Permit Table (Arndt Rd – Clackamas County)

Summary: Approximately 165 STP permits were issued for a 3-year period for Arndt Road from the Clackamas County line to Barlow Road.

Note: These counts do not reflect loads operating under an annual Continuous Trip Permit.

Overall Width	Number of Permits Issued
8'6" or less (legal width)	19
8'7" to 10'00"	17
10'01" to 11'00"	31
11'01" to 12'00"	50
12'01" to 13'00"	17
13'01" to 14'00"	17
Over 14'00"	14

Analysis of Widest Loads: *14 loads were permitted between 14'6" and 25' wide. These were for empty steel tanks, a fiberglass tank, a mobile home, a haul truck and a loader. 6 of these loads were between 20'00" and 25'00" wide which were for a crane and steel plate skirts.*

Overall Height	Number of Permits Issued
14’00” or less (legal height)	59
14’01” to 14’6”	40
14’7” to 16’00”	64
Over 16’00”	2

Analysis of Highest Loads: 2 *loads were permitted at 16’7” high. These were for empty steel beer tanks.*

Overall Combination Length (including any overhang)	Number of Permits Issued
70' or less	26
71' to 80'	63
81' to 90'	32
91' to 100'	10
101' to 110'	20
111’ to 120’	12
Over 120’	2

Analysis of Longest Loads: *2 loads were permitted between 126’ and 132’ overall length. These were for a tractor (126’) and a loader (132’).*

Gross Weight	Number of Permits Issued
80,000 lbs. or less (legal weight)	48
80,000 lbs. to 98,000 lbs.	9
98,001 lbs. to 120,000 lbs.	20
120,001 lbs. to 140,000 lbs.	35
140,001 lbs. to 160,000 lbs.	23
160,001 lbs. to 180,000 lbs.	14
180,001 lbs. to 200,000 lbs.	13
Over 200,000 lbs.	3

Analysis of Heaviest Loads: *3 loads were permitted between 206,000 lbs. and 253,000 lbs. These were for a tractor, a loader, and a tracked crusher.*

Types of Vehicle Combinations Permitted
Truck (Solo Vehicle) or Self Propelled Units (like cranes)
Doubles
Truck-Tractor + Semitrailer or Truck-Tractor +Tow-Away Unit
Truck +Trailer
Log Truck + Pole Trailer
Heavy Haul Combination (Truck-Tractor/Jeep/Semitrailer/Booster)
Toter + Mobile Home
Pickup Truck + Trailer

Analysis of Combinations: *The Truck-Tractor/Semitrailer and Truck-Tractor/Tow-Away Unit was the most common vehicle combination permitted. The trailers used were fixed trailers, stretch trailers, tow-away fixed loads, trailers with flip axles, and a number of trailers were in the "float" position. The longest trailer was a 67' stretch trailer, and the longest Tow Away unit being 86'. The second most common combination used was the Heavy Haul Combination (Tractor/Jeep/Semitrailer/Booster). The longest trailer permitted in this combination was a 78' expanded trailer.*

F. Crossings and Bridge Structures (City/State Bridge ID)

The following bridges are on Arndt Road but do not provide any restrictions to OD freight movement.

- Pudding River Arndt Road Bridge (#06521A)
- Pudding River Overflow Arndt Road Bridge (#06080A)

G. Identified Capital Improvements

There is a committed project to improve Arndt Road. The final concept/cross-section has not yet been identified.

H. Corridor Photos

Figure 12. Pudding River Overflow Arndt Road Bridge (#06080A)

Figure 13. Pudding River Arndt Road Bridge (#06521A)

C5. Johnson Creek Boulevard Over-Dimensional Truck Route (45th Avenue to I-205)

A. Corridor Description

Johnson Creek truck route – I-205 to SE 45th Place – Is a little over 2 miles in length and passes through the City of Milwaukie, the City of Portland and Clackamas County.
The Johnson Creek Boulevard route is comprised of the follow roads (from east to west)

- Johnson Creek Boulevard is owned and maintained by ODOT between OR 213 N (82nd Avenue and 92nd Avenue)
- Johnson Creek Boulevard is County Road 12028 west of 82nd Avenue to 45th Place

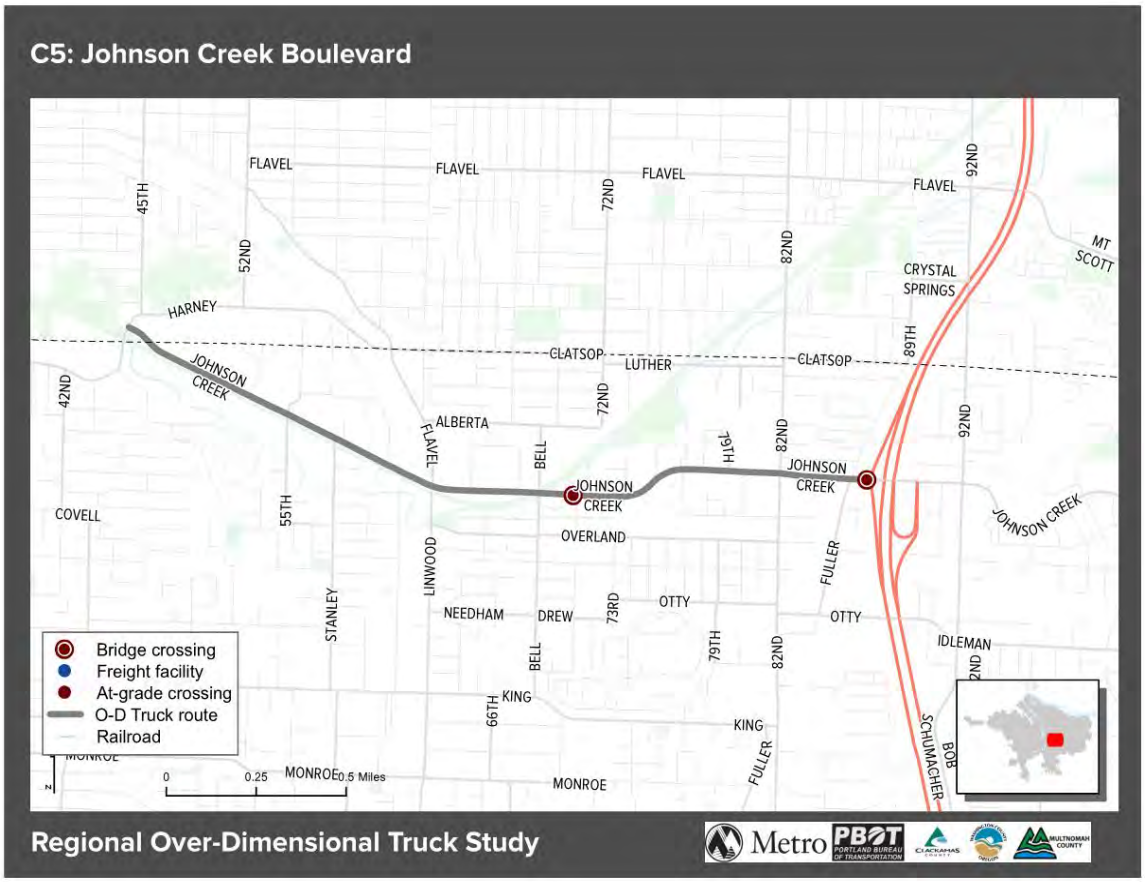


Figure 14. Johnson Creek Boulevard Corridor Map

B. Policy Designation

Local Functional Classification – Johnson Creek Boulevard is classified as a Major Arterial between I-205 and Linwood Avenue and a Minor Arterial between Linwood Avenue and 45th Place as shown on TSP Map 5-4a.

Truck Freight Route – Johnson Creek Boulevard is classified as a Truck Freight Route as shown on TSP Map 5-9a.

OD Freight Route – Johnson Creek Boulevard is not identified as an ORS 366.215 Corridor on the TSP Maps.

Regional Freight Network Designation – Johnson Creek Boulevard is classified as a Metro Regional Road Connector between I-205 and the Clackamas/Multnomah County line.

Federal/NHS Classification – Not on NHS

C. Roadway Characteristics

Table 22. Johnson Creek Boulevard Roadway Characteristics

Number of travel lanes	Varies from 2 to 3 lanes between 45th Place and SE 80th Avenue Varies from 4 to 6 lanes between 80th Avenue and I-205
Average travel lane width	Various from 12' to 14'
Curb-to-curb width	Varies from 28' to 48' between 45th Place and SE 80th Avenue Varies from 62' to 102' between 80th Avenue and I-205
Surface type	Multi-lift asphalt (AC)
Surface condition	Insert surface conditions

D. Roadway Operations

Table 23. Roadway Operations

Location on Johnson Creek Boulevard	2011 ADT
East of OR 213 N (82nd Avenue)	36,850
West of OR 213 N (82nd Avenue)	21,415
West of Bell Avenue	19,655
West of Linwood Avenue	16,720

E. Over-dimensional Single Trip Permit Table (Johnson Creek Blvd – Clackamas County)

Summary: Approximately 140 STP permits were issued for a 3-year period for Johnson Creek Boulevard from OR213 to I-205.

Note: These counts do not reflect loads operating under an annual Continuous Trip Permit.

Overall Width	Number of Permits Issued
8'6" or less (legal width)	11
8'7" to 10'00"	65
10'01" to 11'00"	7
11'01" to 12'00"	15
12'01" to 13'00"	30
13'01" to 14'00"	3
Over 14'00"	9

Analysis of Widest Loads: *9 loads were permitted between 14'2"and 15'11" wide. These were for bridge girders, transformer, power house, metal clad building, vacuum furnace, switchgear enclosures and an unladen dual-lane trailer. All of these originated or were delivered to an address on JCB.*

Overall Height	Number of Permits Issued
14'00" or less (legal height)	116
14'01" to 14'6"	9
14'7" to 16'00"	13
Over 16'00"	2

Analysis of Highest Loads: *2 loads were permitted between 17'1" and 17'6". These were for transformers.*

Overall Combination Length (including any overhang)	Number of Permits Issued
70' or less	29
71' to 80'	83
81' to 90'	19
91' to 100'	0
101' to 110'	4
111' to 120'	2
Over 120'	3

Analysis of Longest Loads: *3 loads were permitted between 121' and 160' overall length, for a transformer and for two unladen oversize combinations of vehicles. All 3 originated or were delivered to a JCB address.*

Gross Weight	Number of Permits Issued
80,000 lbs. or less (legal weight)	78
80,000 lbs. to 98,000 lbs.	11
98,001 lbs. to 120,000 lbs.	9
120,001 lbs. to 140,000 lbs.	18
140,001 lbs. to 160,000 lbs.	17
160,001 lbs. to 180,000 lbs.	2
180,001 lbs. to 200,000 lbs.	2
Over 200,000 lbs.	3

Analysis of Heaviest Loads: *3 loads were permitted for weight between 225,000 lbs. and 260,000 lbs., all for transformers. All originated or were delivered to a JCB address.*

Types of Vehicle Combinations Permitted	Number of Permits Issued
Truck (Solo Vehicle) or Self Propelled Units (like cranes)	21
Doubles	0
Truck-Tractor + Semitrailer or Truck-Tractor +Tow-Away Unit	104
Truck +Trailer	0
Log Truck + Pole Trailer	0
Heavy Haul Combination (Truck-Tractor/Jeep/Semitrailer/Booster)	10
Toter + Mobile Home	1
Pickup Truck + Trailer	4

Analysis of Combinations: *104 permitted loads utilized a truck-tractor/semitrailer combination, the most common. The trailers included one fixed-load tow-away unit, stretch trailers, and semitrailers with flip axles. Other combinations included pickups and trailers, heavy haul combinations with jeep and booster, some with a dolly and a trailer in float position. The longest trailer in combination was 88' in float position. The second most common combination permitted was self-propelled crane with boom dolly. In all, 83 of the 140 permits issued either originated from or were delivered to an address on JCB*

F. Crossings and Bridge Structures (City/State Bridge ID)

The following bridges are on Johnson Creek Boulevard but do not provide any restrictions to O-D freight movement.

- Johnson Creek – Johnson Creek Boulevard Bridge (#06545) located 0.9 mile west of the I-205 interchange.
- ODOT I-205 / Johnson Creek Boulevard Interchange which includes the MAX Green Line bridge structure with a vertical clearance of 17 feet 11 inches.

G. Identified Capital Improvements

There is a committed project to add signals at the intersection of Johnson Creek Blvd. and either 80th Ave or 79th Place.

H. Corridor Photos

Figure 15. Johnson Creek/I-205 Interchange Bridge Including MAX Green Line Bridge Structure - facing west

Figure 16. ODOT I-205 / Johnson Creek Boulevard Interchange which includes the MAX Green Line bridge structure with a vertical clearance of XX feet – facing east.

Figure 17. Johnson Creek Boulevard Bridge over Johnson Creek

C6. Sunnybrook Boulevard / Sunnyside Road Over-Dimensional Truck Route (OR213/82nd Drive to 172nd Avenue @ SE Sunnyside Rd)

A. Corridor Description

OR 213 N to Sunnyside Road just under 5 miles and goes through Clackamas County and the City of Happy Valley – have been substantially rebuilt over the last two decades. The Sunnybrook Boulevard / Sunnyside Road route is comprised of the follow roads (from east to west)

- Sunnyside Road, County Road #12154 from 172nd Avenue to Sunnybrook Boulevard
- Sunnybrook Boulevard, County Road # 22450 from Sunnyside Road to OR 213N (82nd Avenue)

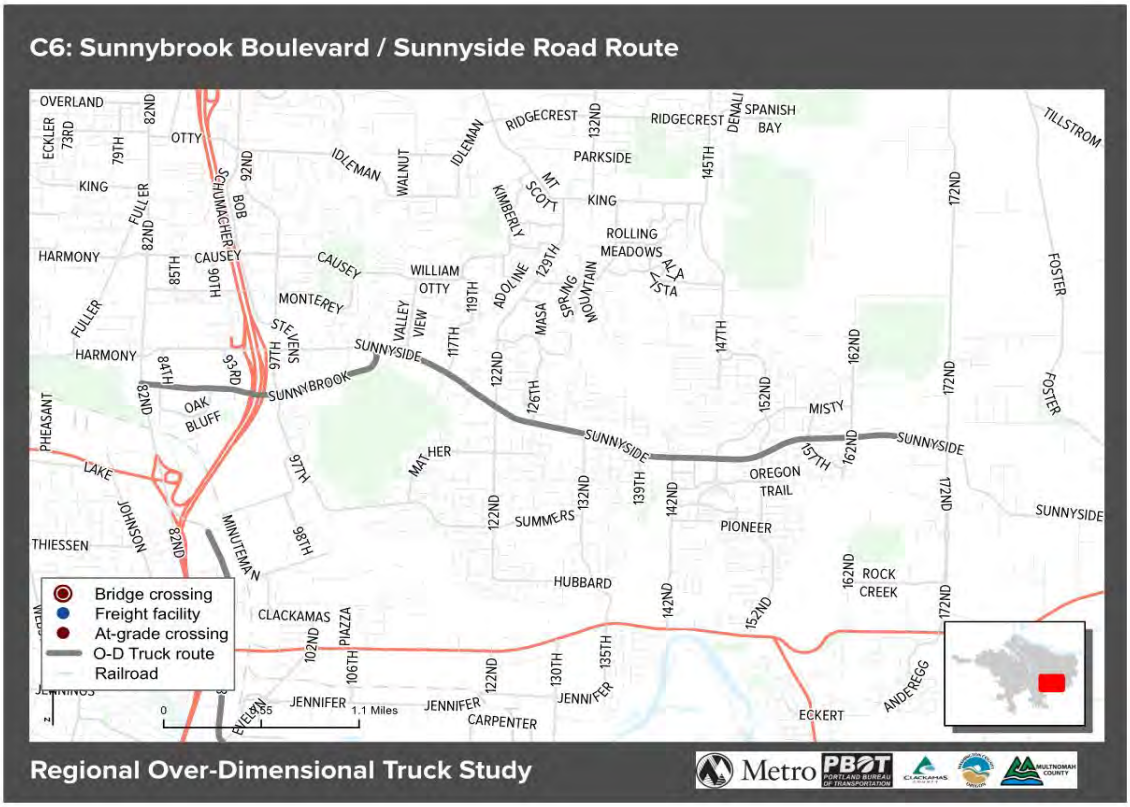


Figure 18. Sunnybrook Boulevard / Sunnyside Road Corridor Map

B. Policy Designation

Local functional Classification – Sunnybrook Boulevard and Sunnyside Road are classified as a Major Arterials as shown on TSP Map 5-4a.

Truck Freight Route – Sunnybrook Boulevard and Sunnyside Road are not classified as Truck Freight Routes as shown on Map 5-9a.

OD Freight Route – Sunnybrook Boulevard and Sunnyside Road are not identified as ORS 366.215 Corridors on the TSP Maps.

Regional Freight Network Designation – Not on RTP freight network

Federal/NHS Classification – Not on NHS

C. Roadway Characteristics

Table 24. Sunnybrook Boulevard / Sunnyside Road Roadway Characteristics

Number of travel lanes	Varies from 4 to 5 lanes between 172nd Avenue and 122nd Avenue, wider at some intersections Varies from 6 to 7 lanes between 122nd Avenue and the intersection of Sunnyside Road and Sunnybrook Boulevard, wider at some intersections Varies from 4 to 5 lanes from the intersection of Sunnyside Road and Sunnybrook Boulevard to SE 97th Avenue, wider at some intersections ODOT Section from 97th Avenue to 93rd Avenue including the Sunnybrook Interchange varies from 6 to 8 lanes. Varies from 5 and 6 lanes between SE 93rd Avenue and SE 82nd Avenue (OR 213N)
Average travel lane width	Various from 12' to 14'
Curb-to-curb width	Varies from two 25' lanes with medians to 92' between 172nd Avenue and 122nd Avenue, wider at some intersections Varies from 95' to 102' between 122nd Avenue and the intersection of Sunnyside Road and Sunnybrook Boulevard, wider at some intersections Varies from 57' to 80' from the intersection of Sunnyside Road and Sunnybrook Boulevard to SE 97th Avenue, ODOT Section from 97th Avenue to 93rd Avenue including the Sunnybrook Interchange varies from 90' to 109'. Varies from 60; to 82'between SE 93rd Avenue and SE 82nd Avenue (OR 213N)
Surface type	Sunnybrook Boulevard is Portland Concrete (PCC) Sunnyside Road is multi-lift asphalt (AC)
Surface condition	Insert surface conditions

D. Roadway Operations

Table 25. Roadway Operations

Location on Sunnybrook Boulevard / Sunnyside Road	2011 ADT
Sunnybrook Boulevard	
West of 93rd Avenue	15,180
East of 93rd Avenue	12,530
West of 97th Avenue	23,180
East of 97th Avenue	12,815
Sunnyside Road	
West of Sunnybrook Boulevard	34,250
West of 122nd Avenue	42,775
East of 122nd Avenue	31,885
West of 139th Avenue	30,220
East of 142nd Avenue	25,610
West of 157th Avenue	19,440
East of 157th Avenue	15,480
West of 172nd Avenue	13,560

E. Over-dimensional Single Trip Permit Table (Sunnybrook Blvd – Clackamas County)

Summary: Approximately 110 STP permits were issued for a 3-year period for Sunnybrook Boulevard from OR213 to Sunnyside Road.
Note: These counts do not reflect loads operating under an annual Continuous Trip Permit.

Overall Width	Number of Permits Issued
8’6” or less (legal width)	20
8’7” to 10'00"	9
10'01" to 11'00"	13
11'01" to 12'00"	33
12'01" to 13'00"	9
13'01" to 14'00”	23
Over 14’00”	3

Analysis of Widest Loads: *3 loads were permitted between 14’6” and 15’0” wide. These were mobile homes and a compacter with blade. The rest were 14’0” or less.*

Overall Height	Number of Permits Issued
14’00” or less (legal height)	61
14’01” to 14’6”	27
14’7” to 16’00”	22
Over 16’00”	0

Analysis of Highest Loads: *22 loads were permitted between 14'8" and 15'9" high. These were mobile homes, transformers, scrapers, compactor with blades, and forwarders. More than half of these were mobile homes.*

Overall Combination Length (including any overhang)	Number of Permits Issued
70' or less	6
71' to 80'	53
81' to 90'	8
91' to 100'	16
101' to 110'	1
111' to 120'	4
Over 120'	22

Analysis of Longest Loads: *22 loads were permitted between 125' and 195' overall length. These were concrete girders, a drill and an unladen heavy haul combination. 14 of these were concrete girders.*

Gross Weight	Number of Permits Issued
80,000 lbs. or less (legal weight)	23
80,000 lbs. to 98,000 lbs.	4
98,001 lbs. to 120,000 lbs.	22
120,001 lbs. to 140,000 lbs.	27
140,001 lbs. to 160,000 lbs.	11
160,001 lbs. to 180,000 lbs.	4
180,001 lbs. to 200,000 lbs.	1
Over 200,000 lbs.	18

Analysis of Heaviest Loads: *18 loads permitted were between 208,000 lbs. and 266,600 lbs. These were concrete girders, excavators, transformers and drills.*

Types of Vehicle Combinations Permitted
Truck (Solo Vehicle) or Self Propelled Units (like cranes) - 2
Doubles - 0
Truck-Tractor + Semitrailer or Truck-Tractor +Tow-Away Unit - 63
Truck +Trailer - 0
Log Truck + Pole Trailer - 0
Heavy Haul Combination (Truck-Tractor/Jeep/Semitrailer/Booster) - 29
Toter + Mobile Home - 15
Pickup Truck + Trailer - 1

Analysis of Combinations: *The Truck-Tractor/Semitrailer and Truck-Tractor/Tow-Away Unit was the most common vehicle combination permitted. The trailers used were fixed trailers, tow-away fixed loads, trailers with flip axles, and a number of trailers were in the "float" position. The longest trailer was a 64' stretch trailer. The second most common combination used was the Heavy Haul*

Combination (Tractor/Jeep/Semitrailer/Booster). The longest trailer permitted in this combination was a 100' trailer inclusive of dollies.

F. Crossings and Bridge Structures (City/State Bridge ID)

The following bridges are on Sunnybrook Boulevard / Sunnyside Road but do not provide any restrictions to O-D freight movement.

- Sunnybrook Boulevard Interchange Bridge
- Bridge over unknown stream – Sunnybrook Boulevard (west) (#18311)
- Bridge over unknown stream – Sunnybrook Boulevard (east) (#18310)
- Mt Scott Creek Sunnyside Road Bridge (#19879)
- Sieben Creek Sunnyside Road – Concrete Box Culvert
- Rock Creek Sunnyside Road Bridge (#20532)

G. Identified Capital Improvements

There are not committed projects on this route.

H. Corridor Photos

Figure 19. Sunnybrook Boulevard Interchange Bridge – facing west

Figure 20. Sunnybrook Boulevard Interchange Bridge – facing east

Figure 21. Sunnybrook Boulevard Bridge over unknown stream – facing west

Figure 22. Sunnybrook Boulevard Bridge over unknown stream - facing east

Figure 23. Sunnyside Road Bridge over Mt. Scott Creek - facing northwest

Figure 24. Sunnyside Road Bridge over Mt. Scott Creek – facing southeast

C7. Highway 212 Over-Dimensional Truck Route
(from I-205 east past Highway 224 through Damascus and Boring to US26)

A. Corridor Description

OR 212/224 (Clackamas Hwy/Clackamas-Boring Hwy) from the I-205 interchange runs east to US26 (Mt. Hood). This segment is approximately 12 miles and goes through Clackamas County and the City of Boring prior to the connection of US26 Mt. Hood Hwy.
The corridor characteristics have changed with the new mainline extension of the Milwaukie Expressway from I-205 to SE 122nd Avenue. Full opening scheduled for summer of 2016.

- I-205 SB can now take Exit#13 prior to the congested Exit#12A, I-205 to SE 122nd Avenue interchange/corridor. The permanent change at this exit is the closure of 82nd Drive previously used as the over-height route from I-205 Exit#13 to Exit#11. Because of this permanent change ODOT has raised SE Strawberry lane structure to a height of 18'-8" to accommodate the closure.
- I-205 NB can now take Exit#12 (previous Exit#11) to head east to US26 Mt. Hood Hwy.

B. Policy Designation

<u>Local classifications</u>

Regional Freight Network Designation – Main roadway route

Federal/NHS Classification – NHS Route

<u>Clackamas County Policies</u>

The Clackamas County Transportation System contains several broad policies with regards to truck freight as shown in TSP section 5.V. Freight Trucking Policies

- 5.V.1 Support the Truck Freight Route System, while not prohibiting the use of other roads for local pickup and delivery of goods and services. (See Maps 5-9a and 5-9b).
- 5.V.2 Improve and maintain the countywide Truck Freight Route System, the Regional Transportation Plan Freight Routes and Oregon Freight Plan Routes, as shown on Maps 5-9a and 5-9b.
- 5.V.3 Consider Heavy and Oversize Freight Movement requirements on State and County facilities when developing plans for transportation improvements and land use changes along freight routes designated as ORS 366.215 Corridors, as shown on Maps 5-9c and 5-9d.

Functional Class – The Sunrise Corridor is classified as a New Principal Expressway as shown on TSP Map 5-4a. The former 212/224 corridor remains classified as a Principal Arterial.

Truck Freight Route – Sunrise Corridor is classified as a Truck Freight Route as shown on Map 5-9a.
OD Freight Route – Sunrise Corridor and 212/224 are identified as ORS 366.215 Corridors on the TSP Maps.

C. Roadway Characteristics

Table 26. C7 Roadway Characteristics

Number of travel lanes	• 212/224 segment is 5-6 lanes between I-205 and Rock Creek Junction (connection to Clackamas – Estacada Hwy) wider at some intersections for Right turn lanes • 212 segment is 2-3 lanes from the Rock Creek Junction (connection to Clackamas – Estacada Hwy) and US26 (Mt. Hood Hwy) wider at some intersections for Right turn lanes. • Milwaukie Expressway Extension (Sunrise Corridor) segment varies from 2-4 lanes.
Average travel lane width	• 212/224 segment primarily 12' travel lanes and 14' Left/Right turn lanes • 212 segment varies 12'-14' travel lanes and 14' Left/Right turn lanes • Milwaukie Expressway Extension (Sunrise Corridor) segment constructed primarily with 12' travel lanes, transitions to 14' lanes at intersection of SE 122nd Ave. and OR212/224
Curb-to-curb width	• 212/224 Varies from 71'- 98' from I-205 to the Rock Creek Junction with raised medians between MP 5.12 and 5.51 • 212 segment has a primary curb-to-curb width at MP 2.52 – 2.98 that varies from 48'-65' • 212 segment w/o curbs vary from 28'-48' • Milwaukie Expressway Extension (Sunrise Corridor) varies from 66'-72'
Surface type	Primarily asphalt apart from the UPRR bridges on 212/224 and Milwaukie Expressway which are Portland Cement Concrete (PCC)
Surface condition	• 212/224 segment from I-205 to UPRR Structure is in good condition. • 212/224 segment from the UPRR Structure to SE Sunnyside Road is in poor condition. • 212 segment from SE Sunnyside Road to SE Grange Street (Boring) is in fair condition. • 212 segment from SE Grange Street (Boring) to US26 On-ramp is in poor condition.

	• 212 segment from the On-ramp to connection of US26 is in fair condition.

D. Roadway Operations

Table 27. Roadway Operations

Location on 212/224 Clackamas – Boring Hwy	2014 ADT	Percent Auto/Truck
212/224		
West of SE 82nd Drive	49,200	94/6
East of SE 102nd Ave.	38,700	95/5
East of SE 125th Court	33,800	95/5
East of SE 142nd Ave.	32,500	95/5
West of Rock Creek	31,500	95/5
East of 224 Clackamas-Estacada split	16,300	98/2
West of SE Tong Rd.	15,000	98/2
West of SE Sunnyside Rd.	14,800	98/2
West of SE Foster Rd.	18,900	98/2
East of SE Foster Rd.	22,200	98/2
East of SE 222nd Drive	18,000	98/2
West of SE 242nd Ave.	16,100	98/2
East of Peterson Rd.	12,300	96/4
East of SE Grange St./SE Richey Rd.	14,100	96/4
East of SE 282nd Ave./Boring Rd.	10,000	96/4
West of the 212/US26 On-ramp	9,900	96/4

E. Over-dimensional Single Trip Permit Table (OR212/OR224, OR212)

Summary: Approximately 3793 STP permits were issued for a 3-year period for OR212/OR224, OR212.

Note: These counts do not reflect loads operating under an annual Continuous Trip Permit.

Overall Width	Number of Permits Issued
8’6” or less (legal width)	433
8’7” to 10'00"	489
10'01" to 11'00"	607
11'01" to 12'00"	1252
12'01" to 13'00"	238
13'01" to 14'00”	358
Over 14’00”	416

Analysis of Widest Loads: *416 loads were permitted between 14’1” and 21’10” wide. These were for dam gates, dump bodies, aircraft tooling, steel forms, steel plates, vessel sections, rocket rings, tanks*

and tank sections, pump skids, stators, horizontal stabilizers, control buildings, mobile homes, heat treatment machines, fiberglass pools, pressure domes, switch gears, windmill tower base sections, crew boats, power houses, boat support frames, aircraft wings, pipe casings, concrete forms, sheds, ship propellers, dozer with blades, trusses, ball mill shells, steel vent systems, AC units, combines.

Overall Height	Number of Permits Issued
14'00" or less (legal height)	1922
14'01" to 14'6"	1107
14'7" to 16'00"	698
Over 16'00"	66

Analysis of Highest Loads: *66 loads were permitted between 16'1" and 17'00" high. These were for mobile units, tanks, steel pipe, electrical buildings, transformers, power boats, spillways, forklifts, scrapers (majority were mobile units).*

Overall Combination Length (including any overhang)	Number of Permits Issued
70' or less	595
71' to 80'	1599
81' to 90'	545
91' to 100'	405
101' to 110'	473
111' to 120'	110
Over 120'	66

Analysis of Longest Loads: *66 loads were permitted between 121' and 145' overall length. These were for steel and concrete girders, slag transporters, drills, cranes, poles, excavators, jaw crushers, rail grinders, autoclaves, crusher parts, steel vessels, trailer bridge sections.*

Gross Weight	Number of Permits Issued
80,000 lbs. or less (legal weight)	1149
81,000 lbs. to 98,000 lbs.	188
98,001 lbs. to 120,000 lbs.	752
120,001 lbs. to 140,000 lbs.	810
140,001 lbs. to 160,000 lbs.	352
160,001 lbs. to 180,000 lbs.	202
180,001 lbs. to 200,000 lbs.	231
Over 200,000 lbs.	109

Analysis of Heaviest Loads: *109 loads were permitted between 200,000 lbs. and 260,000 lbs. These were for drills, transformers, excavators, jaw crushers, link belts, pavement profilers, scrapers, yarders, oscillators, cone crushers, concrete beams.*

Types of Vehicle Combinations Permitted
Truck (Solo Vehicle) or Self Propelled Units (like cranes)

Doubles
Truck-Tractor + Semitrailer or Truck-Tractor +Tow-Away Unit
Truck +Trailer
Log Truck + Pole Trailer
Heavy Haul Combination (Truck-Tractor/Jeep/Semitrailer/Booster)
Toter + Mobile Home
Pickup Truck + Trailer

Analysis of Combinations: *The Truck-Tractor/Semitrailer and Truck-Tractor/Tow-Away Unit was the most common vehicle combination permitted. The trailers used were fixed trailers, stretch trailers, tow-away fixed loads, trailers with flip axles, and several trailers were in the "float" position. The longest trailer was a 101' stretch trailer. The second most common combination was the heavy haul combination (Tractor/Jeep/Semitrailer/Booster). The longest trailer permitted in this combination was a 95' expanded trailer.*

F. Crossings and Bridge Structures (City/State Bridge ID)

- Union Pacific Rail Road Overpass (Br #07867A) located just east of the I-205/Hwy 212 interchange. There are no restrictions to use of this structure. Bridge was constructed in 1984, includes 1 span, is 236 feet long and 40 feet wide eastbound and 40 feet wide westbound and separated by a raised median. The structure is a reinforced concrete deck slab.

- Rock Creek Overpass (Br #01439B) located three miles east of the I-205/Hwy 212 interchange and just west of the Hwy 212/224 split. There are no restrictions to the use of this structure. Bridge was constructed in 1985, includes 1 span, is 193 feet long and 35 feet wide eastbound and 35 feet wide westbound and separated by a raised median. The structure is a reinforced concrete deck girder.

G. Committed Projects

There are no committed projects on this route after completion of the current improvement during 2016.

4.2 Multnomah County Over-Dimensional Truck Routes

M1. SW 257th Avenue/Kane – Palmquist Corridor (I-84 to Palmquist Rd)

A. Corridor Description

SW 257th Avenue from Interstate 84 to SE Stark Street is a 2-mile segment owned and maintained by Multnomah County. SW 257th Avenue is a designated over-dimensional truck route for Multnomah County and the Oregon Department of Transportation. While this is an important freight route connecting I-84 to US-26, SW 257th Ave also serves local trips connecting downtown Troutdale through residential areas, commercial areas and major area schools.

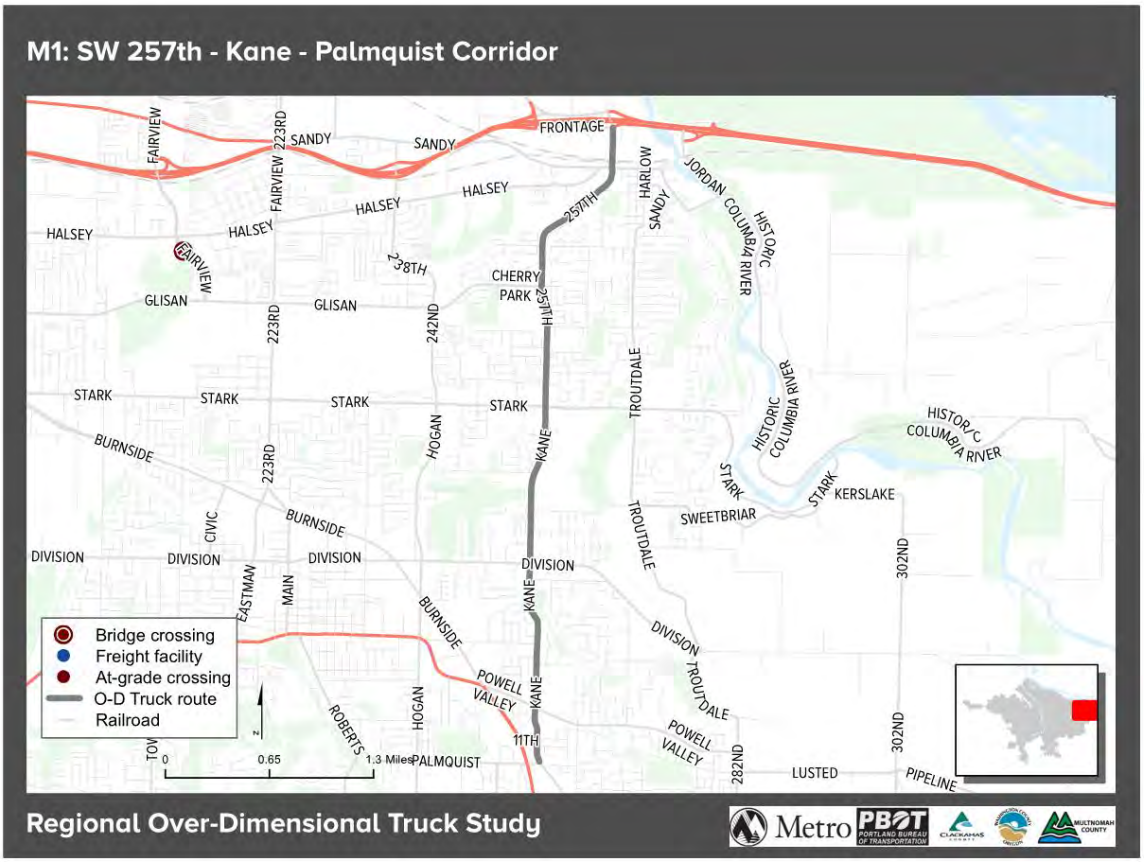


Figure 20. SW 257th-Kane-Palmquist Corridor Map

B. Policy Designation

Local functional classification – SW 257th Avenue is designated as a Minor Arterial in Multnomah County's Functional Classification Maps.

RTP classification - As part of the East Metro Connections Plan the Regional Freight Network was revised to include SW 257th Avenue/ NE Kane Drive between I-84 and US 26 at Palmquist Road as a "Road Connector" in the freight network, and will be included in the next Regional Freight Network Map in the 2018 RTP.

Federal/NHS Classification: SW 257th Avenue is not on the National Highway System.

C. Roadway Characteristics

Table 28. SW 257th Avenue (Between I-84 and SE Stark St) Roadway Characteristics

Number of travel lanes	4 lanes from I-84 to Cherry Park Rd, much with a raised planted center median; 5 lanes (4 travel, 1 center) from Cherry Park Rd to Stark St
Average travel lane width	Average travel lane width is 12 feet (with some portions of SW 257th Avenue having 11-foot travel lanes)
Curb-to-curb width	80 ft. (between I-84 and Historic Columbia River Highway); 74 ft. between (between Historic Columbia River Highway and Cherry Park Rd); and 72 ft. (between Cherry Park Rd and Stark St)
Surface type	Asphalt concrete except for segment between Historic Columbia River Highway and Cherry Park Road that is Portland concrete.
Surface condition	Very good or excellent (Pavement Condition Index ratings of 78 – 98, recorded in 2014)

D. Roadway Operations

Table 29. Roadway Operations

Road Segment	ADT	Auto/Truck Mode Split
SW 257th Ave (I-84 – Historic Columbia River Highway)	20,177 (2013)	unavailable
SW 257th Ave (HCRH – 65' N Cherry Park Rd)	18,498 (2013)	87.7% autos / 10.3% truck
SW 257th Ave (65' N Cherry Park Ave – Stark St)	18,090 (2013)	91 % autos / 7.7% truck (count taken at between Hensley and Cherry Park) 93.2% autos / 5.9% truck (count taken between Hensley and Stark)

*Note: Multnomah County truck split includes: 2 axle 6 tire trucks; 3 axle single truck; 4 axle single truck; double with less than 5 axles; 5 axle double truck; 6 axle double truck, and multiple trailer trucks. Auto split includes cars/trailers and 2 axle long vehicles. Motorcycles and buses are not included in these ratios.

E. Over-dimensional Single Trip Permit Table (SW 257th; Kane Dr; Palmquist Rd Corridor - Multnomah County)

Summary: Approximately 378 STP permits were issued for a 3-year period for SW 257th Avenue; Kane Drive; Palmquist Road Corridor.
Note: These counts do not reflect loads operating under an annual Continuous Trip Permit.

Overall Width	Number of Permits Issued
8'6" or less (legal width)	36
8'7" to 10'00"	38
10'01" to 11'00"	88
11'01" to 12'00"	154
12'01" to 13'00"	12
13'01" to 14'00"	22
Over 14'00"	28

Analysis of Widest Loads: *28 loads were permitted between 14'6" and 20'8" wide. These loads were transformers, empty steel tanks, mobile homes, and steel trusses. 1 steel truss was 20'8", the rest were 17'10" or less.*

Overall Height	Number of Permits Issued
14'00" or less (legal height)	221
14'01" to 14'6"	88
14'7" to 16'00"	48
Over 16'00"	21

Analysis of Highest Loads: *21 loads were permitted between 16' and 17'4" high. These were for tanks, boats and transformers. 6 of these were 17'4" high and were for transformers. The rest were 17' or less.*

Overall Combination Length (including any overhang)	Number of Permits Issued
70' or less	41
71' to 80'	160
81' to 90'	82
91' to 100'	34
101' to 110'	22
111' to 120'	13
Over 120'	26

Analysis of Longest Loads: *26 loads were permitted between 125' and 195' overall length. These were wood poles, light trail vehicles, fabricated steel trusses and transformers. 7 of these were 195' overall length. The rest were 135' or less.*

Gross Weight	Number of Permits Issued
80,000 lbs. or less (legal weight)	81
80,001 lbs. to 98,000 lbs.	15
98,001 lbs. to 120,000 lbs.	48
120,001 lbs. to 140,000 lbs.	123
140,001 lbs. to 160,000 lbs.	37
160,001 lbs. to 180,000 lbs.	23
180,001 lbs. to 200,000 lbs.	23
Over 200,000 lbs.	28

Analysis of Heaviest Loads: *28 loads permitted were between 203,000 lbs. and 498,541 lbs. These were for transformers, crushers, light rail vehicles, yarders and shovels. 7 of these were transformers that exceed 470,437 lbs. the rest were 232,500 lbs. or less.*

Types of Vehicle Combinations Permitted
Truck (Solo Vehicle) or Self Propelled Units (like cranes)
Doubles
Truck-Tractor + Semitrailer or Truck-Tractor +Tow-Away Unit
Truck +Trailer
Log Truck + Pole Trailer
Heavy Haul Combination (Truck-Tractor/Jeep/Semitrailer/Booster)
Toter + Mobile Home
Pickup Truck + Trailer

Analysis of Combinations: *The Truck-Tractor/Semitrailer and Truck-Tractor/Tow-Away Unit was the most common vehicle combination permitted. The trailers used were fixed trailers, stretch trailers, tow-away fixed loads, trailers with flip axles, and a number of trailers were in the "float" position. The longest trailer was an 80' stretch trailer. The second most common combination used was the Heavy*

Haul Combination (Tractor/Jeep/Semitrailer/Booster). The longest trailer permitted in this combination was a 165' trailer inclusive of dollies.

F. Crossings and Bridge Structures (City/State Bridge ID)

1. 257th Avenue UPRR Overcrossing between I-84 and Historic Columbia River Highway – No height or weight restrictions. Bridge was constructed in 1992, is made up of three spans, is 169 feet long and 89 feet wide with five travel lanes. The structure is made up of pre-stressed concrete girders and a concrete deck.

G. Identified Capital Improvements

2014 Regional Transportation Plan Projects on Financially Constrained list:

- RTP Project #10403, SW 257th Avenue (Stark – Cherry Park) Pedestrian improvements at intersections and mid-block crossings". On the Financially Constrained list. $1,800,000 planned for years 2014-2017
- RTP Project #11684, "Safety corridor: Cherry Park/257th {Cherry Park - Division}". On the Financially Constrained project list. $3,850,000, planned for years 2018-2024

Other 2014 Regional Transportation Plan Projects (unconstrained)

- RTP Project #11299, "257th/Kane Dr.: Arterial Corridor Management (ACM) w/ Adaptive Signal Timing". Install upgraded traffic signal controllers, establish communications to the central traffic signal system, provide arterial detection (including bicycle detection where appropriate) and routinely update signal timings. Provide real-time and forecasted traveler information on arterial roadways including current roadway conditions, congestion information, travel times, incident information, construction work zones, current weather conditions and other events that may affect traffic conditions. NOT on the Financially Constrained project list. $4,100,000, planned for years 2018-2024

Other Projects:

- Multnomah County Capital Improvement Plan Project #207, "257th Avenue Utility Undergrounding", $1,030,000. Ranked lower priority in 2014-2018 adopted CIP.
- US 26: Boring Road (SE 282nd Avenue) Bridge Raising, raise vertical clearance to 17' 4" and resurface bridge deck.

M2. NE 207th Ave / Fairview Parkway Corridor
(US 30 Bypass to US-26 via Fairview Parkway – NE Glisan St – NE 242nd Drive – SE Hogan Road)

A. Corridor Description

The NE 207th Avenue / Fairview Parkway Corridor is a Multnomah County designated over dimensional truck route that travels through the cities of Fairview, Wood Village and Gresham, connecting Interstate 84 to US Highway 26. NE 207th Avenue north of Interstate 84 provides access to several industrial and manufacturing sites.

*Note that Multnomah County owns and maintains the northern half of NE Glisan Street (from center line) between 207th Avenue and 242nd Avenue. City of Gresham owns and maintains southern half. Multnomah County owns and maintains the western half of SE 242nd Avenue (from center line) between NE Glisan Street and Troutdale/Gresham city boundary. City of Gresham owns and maintains the eastern half.

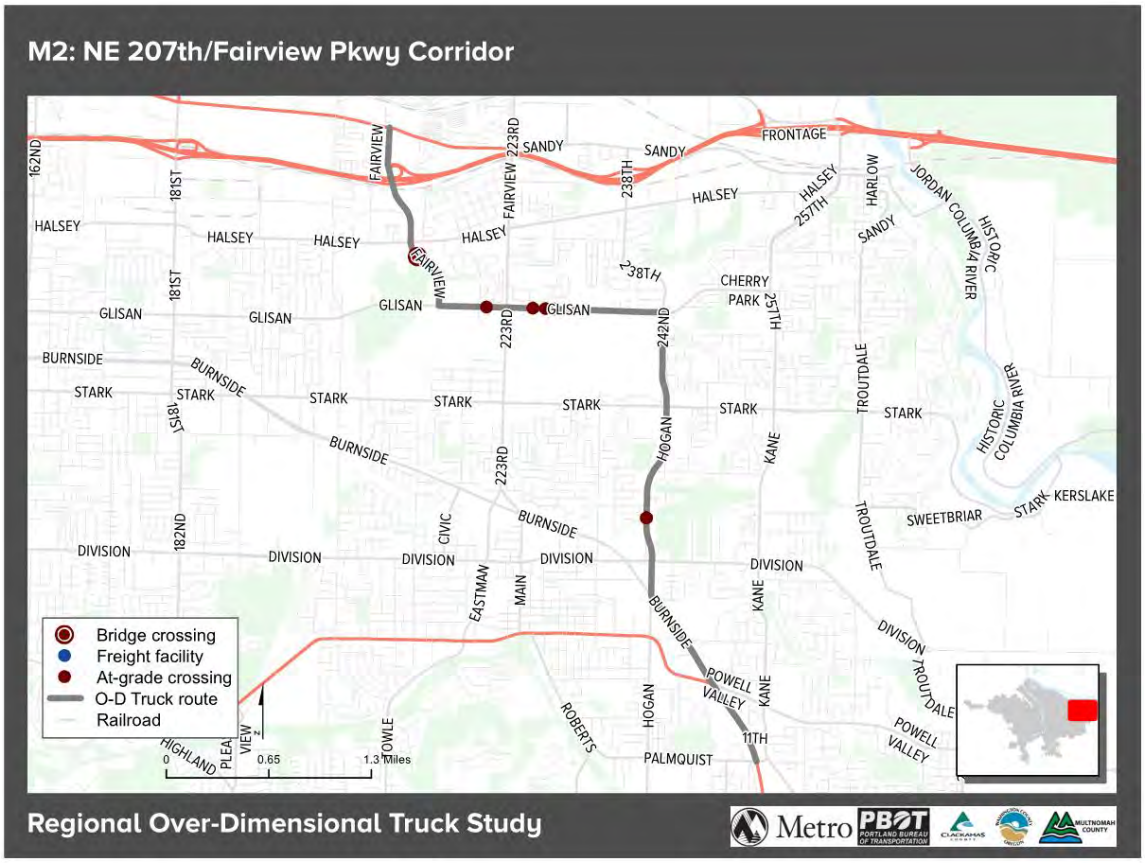


Figure 21. NE 207th/Fairview Pkwy Corridor Map

B. Policy Designation

Local: According to Multnomah County's Functional Classification Maps, the following segments are classified as:

- 207th Avenue / Fairview Parkway: Major Arterial
- Glisan Street: Major Arterial
- 242nd Avenue (between Glisan and Stark): Principal Arterial

RTP classification: 207th Avenue / Fairview Parkway, Glisan Street, and 242nd Avenue are all classified as Road Connectors in the 2014 Regional Transportation Plan's Regional Freight Network.

Federal/NHS: 207th Ave/Fairview Parkway, Glisan Street, and 242nd Avenue (between Glisan and Stark) are all designated at NHS Mainline routes.

C. Roadway Characteristics

Table 30. 207th Ave / Fairview Parkway Roadway Characteristics

Number of travel lanes	3 lanes (2 travel plus center turn) between I-84 and Sandy Blvd; and 4 travel lanes plus raised planted median between I-84 and Glisan Street.
Average travel lane width	Average travel lane width of 12 feet
Curb-to-curb width	54 feet between I-84 and Sandy Blvd; and 70-feet between I-84 and Glisan Street
Surface type	Asphalt Concrete between I-84 and Sandy Blvd; Portland Concrete from I-84 and Glisan Street
Surface condition	Very Good (PCI of 79, measured in 2014) between I-84 and Sandy Blvd; Excellent (PCI of 98, measured in 2014) between I-84 and Glisan Street

Table 31. Glisan Street Roadway Characteristics

Number of travel lanes	4 travel lanes plus center turn lane
Average travel lane width	Actual travel lane widths are unknown. Multnomah County standards call for 11-14-foot travel lanes, and 12-15 foot medians / center turn lanes.
Curb-to-curb width	72-84 feet

Surface type	Portland Cement between 207th Ave and just west of Wood Village Blvd; Asphalt Concrete between just west of Wood Village Blvd and 242nd Ave.
Surface condition	Very Good or Excellent (Pavement Condition Index scores between 77 and 91, measured in 2014).

Table 32. 242nd Avenue (between Glisan St and Stark St) Roadway Characteristics

Number of travel lanes	4 travel lanes with center turn lane / raised planted median
Average travel lane width	Actual travel lane widths are unknown. Multnomah County standards call for 11-14-foot travel lanes, and 12-15 foot medians / center turn lanes.
Curb-to-curb width	54 feet
Surface type	Asphalt Concrete
Surface condition	Very Good (Pavement Condition Index score of 81, measured 2014).

D. Roadway Operations

Table 33. Roadway Operations

Road Segment	ADT	Auto / Truck Mode Split
207th Avenue (I-84 to Sandy Blvd)	7,785 (2013)	90% /8.8%
207th Avenue (I-84 – Halsey)	19,133 (2013)	91.5% / 6.9%
207th Avenue (Halsey – Glisan)	16,086 (2013)	Data unavailable
Glisan (207th – 242nd)	24,760 (between 207th and 223rd, 2013) 12,762 (between 223rd and 242nd, 2013)	92.4% / 6.5% 90.1% / 7.9%
242nd (Glisan – Stark)	Data unavailable (does Gresham have?)	Data unavailable (does Gresham have?)

*Note: Multnomah County truck split includes: 2 axle 6 tire trucks; 3 axle single truck; 4 axle single truck; double with less than 5 axles; 5 axle double truck; 6 axle double truck, and multiple trailer trucks. Auto split includes cars/trailers and 2 axle long vehicles. Motorcycles and buses are not included in these ratios.

E. Over-dimensional Single Trip Permit Table (207th; Fairview Parkway; Glisan; 242nd; Hogan Corridor - Multnomah County)

Summary: Approximately 410 STP permits were issued for a 3-year period for 207th; Fairview Parkway; Glisan; 242nd; Hogan Corridor.

Note: These counts do not reflect loads operating under an annual Continuous Trip Permit.

Overall Width	Number of Permits Issued
8'6" or less (legal width)	73
8'7" to 10'00"	68
10'01" to 11'00"	61
11'01" to 12'00"	137
12'01" to 13'00"	10
13'01" to 14'00"	28
Over 14'00"	33

Analysis of Widest Loads: *33 loads were permitted between 14'6" and 17'6" wide. These loads were transformers, unladen heavy haul combinations, empty steel tanks, mobile homes, boats, and bridge sections. 1 transformer was 17'6", the rest were 16' or less*

Overall Height	Number of Permits Issued
14'00" or less (legal height)	240
14'01" to 14'6"	100
14'7" to 16'00"	48
Over 16'00"	22

Analysis of Highest Loads: *22 loads were permitted between 16' and 17'4" high. These were for mobile homes, tanks, and transformers. 6 of these were 17'4" high and were for transformers. The rest were 17' or less*

Overall Combination Length (including any overhang)	Number of Permits Issued
70' or less	86
71' to 80'	133
81' to 90'	89
91' to 100'	44
101' to 110'	40
111' to 120'	9
Over 120'	9

Analysis of Longest Loads: *9 loads were permitted between 125' and 195' overall length. These were transformers, cranes and bridge sections. 7 of these were 195' overall length. The rest were 140' or less.*

Gross Weight	Number of Permits Issued
80,000 lbs. or less (legal weight)	115
80,001 lbs. to 98,000 lbs.	23

98,001 lbs. to 120,000 lbs.	65
120,001 lbs. to 140,000 lbs.	114
140,001 lbs. to 160,000 lbs.	35
160,001 lbs. to 180,000 lbs.	24
180,001 lbs. to 200,000 lbs.	22
Over 200,000 lbs.	12

Analysis of Heaviest Loads: *12 loads permitted were between 202,000 lbs. and 498,541 lbs. These were for transformers, crushers and cranes. 7 of these were transformers that exceed 470,437 lbs. the rest were 232,500 lbs. or less.*

Types of Vehicle Combinations Permitted
Truck (Solo Vehicle) or Self Propelled Units (like cranes)
Doubles
Truck-Tractor + Semitrailer or Truck-Tractor +Tow-Away Unit
Truck +Trailer
Log Truck + Pole Trailer
Heavy Haul Combination (Truck-Tractor/Jeep/Semitrailer/Booster)
Toter + Mobile Home
Pickup Truck + Trailer

Analysis of Combinations: *The Truck-Tractor/Semitrailer and Truck-Tractor/Tow-Away Unit was the most common vehicle combination permitted. The trailers used were fixed trailers, stretch trailers, tow-away fixed loads, trailers with flip axles, and several trailers were in the "float" position. The longest trailer was an 80' special use trailer. The second most common combination used was the Heavy Haul Combination (Tractor/Jeep/Semitrailer/Booster). The longest trailer permitted in this combination was a 165' trailer inclusive of dollies.*

F. Crossings and Bridge Structures (City/State Bridge ID)

- Union Pacific Rail Road Overpass located on 207th Avenue just south of I-84. There are no restrictions to use the structure. Bridge was constructed in 1996, includes 1 span, is 70 feet long and 89.2 feet wide. The structure is pre-stressed concrete girders, concrete deck.
- County-owned bridge on 207th Avenue just south of Halsey, crossing Fairview Creek. There are no restrictions to use the structure. Bridge was constructed in 1998, includes 1 span, is 78 feet long and 70 feet wide. The structure is pre-stressed concrete slabs.
- Box culverts are located on 207th Avenue, south of Halsey and south of the bridge. There are no restrictions to use the structure.
- Multiple culverts located along NE Glisan Street between 207th Avenue and 223rd Avenue, including a 36-inch in-stream culvert owned by City of Gresham over Clear Creek (between 219th and 223rd).

G. Identified Capital Improvements

2014 Regional Transportation Plan Projects on Financially Constrained list:

- RTP Project #11690, Intersection improvements at Hogan and Glisan. $4,400,000 planned for years 2018-2024
- RTP Project #10386, Glisan St. Multi-modal Improvements. Reconstruct Glisan Street to provide multimodal connection between Gresham-Fairview Trail and Salish Ponds Natural Area. Include bike lanes, sidewalks, two travel lanes in each direction, and on-street parking. 4 lanes. Design green-street treatment for drainage improvements, including Fairview Creek culvert replacement. South side of Glisan St is in Gresham, north is City of Fairview. $17,000,000 planned for years 2018-2024. (Also Project #110 in the adopted Multnomah County 2014-2018 Capital Improvement Plan)

Other 2014 Regional Transportation Plan Projects (unconstrained):

- RTP Project #11297, NE 207th Ave.: Arterial Corridor Management (ACM), Install upgraded traffic signal controllers, establish communications to the central traffic signal system, provide arterial detection (including bicycle detection where appropriate) and routinely update signal timings. Provide real-time and forecasted traveler information on arterial roadways including current roadway conditions, congestion information, travel times, incident information, construction work zones, current weather conditions and other events that may affect traffic conditions. $2,300,000 planned for years 2018-2024. (Also Project in the adopted Multnomah County 2014-2018 Capital Improvement Plan)
- RTP Project # 11254, Glisan St.: Arterial Corridor Management (ACM). Install upgraded traffic signal controllers, establish communications to the central traffic signal system, provide arterial detection (including bicycle detection where appropriate) and routinely update signal timings. Provide real-time and forecasted traveler information on arterial roadways including current roadway conditions, congestion information, travel times, incident information, construction work zones, current weather conditions and other events that may affect traffic conditions. $7,900,000 planned for years 2018-2024
- RTP Project #11300, 238th/242nd Ave/Hogan Dr.: ACM with Adaptive Signal Timing. Includes the ACM project with signal systems that automatically adapt to current arterial roadway conditions. $6,800,000 planned for years 2018-2024, (Project in the adopted Multnomah County 2014-2018 Capital Improvement Plan)

M3. Sandy Blvd / US 30 Bypass Corridor
(Portland City Limits to I-84 at NE 238th Drive)

Combined with P4. US 30 Bypass Corridor

M4. East Marine Drive Corridor (I-84 to Sundial Road)

A. Corridor Description

NE Marine Drive from I-84 to Sundial Road is a 1-mile segment of road that provides direct access to the interstate system via NW Frontage Road as well as access to a light industrial park and Troutdale Reynolds Industrial Park (TRIP) via Sundial Road. This segment of Marine Drive borders the Troutdale Airport which can be access from NW Frontage Road.

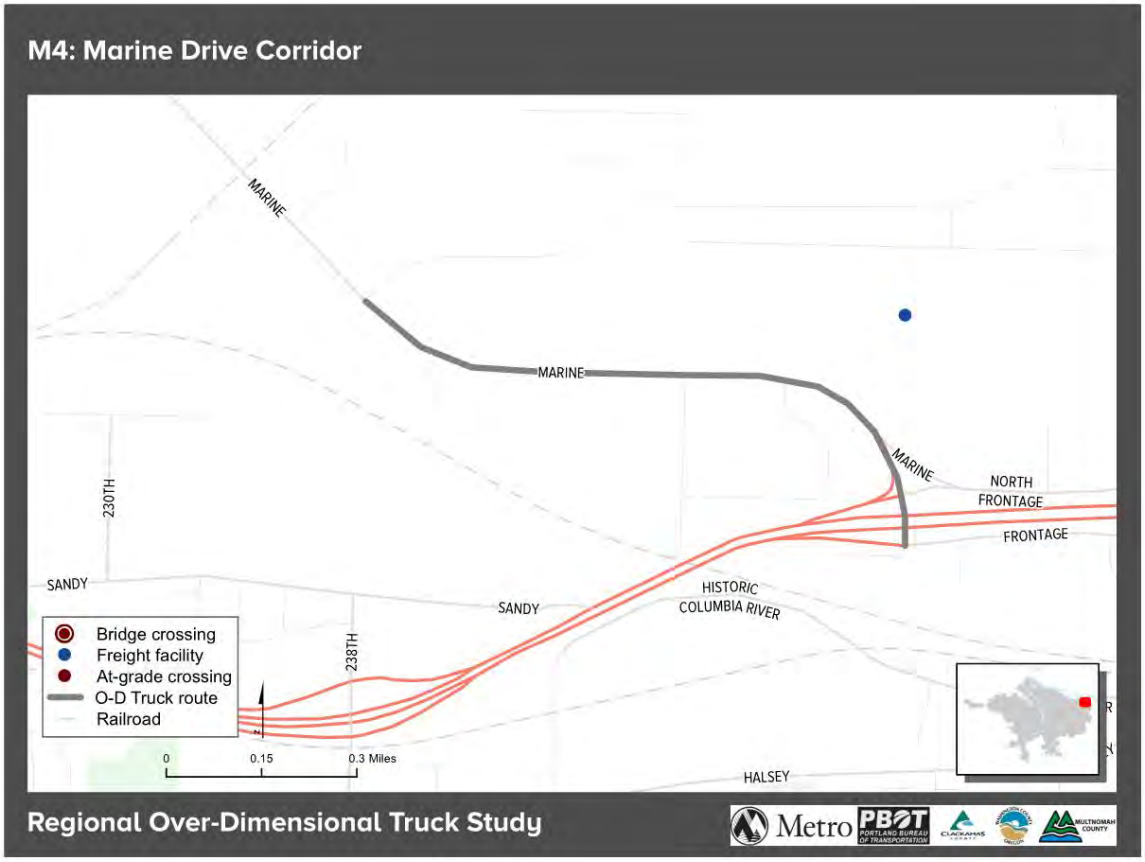


Figure 22. East Marine Drive Corridor Map

B. Policy Designation

Local Functional Classification – NE Marine Drive is designated as a Major Collector on Multnomah County's Functional Classification Maps

RTP Functional Classification – NE Marine Drive is classified as a Road Connector on the 2014 Regional Transportation Plan's Regional Freight Network.

Federal/NHS Classification – This segment of NE Marine Drive is not on the National Highway System.

C. Roadway Characteristics

Table 34. NE Marine Drive (from I-84 to Sundial Drive) Roadway Characteristics

Number of travel lanes	4 travel lanes, with center turn lane
Average travel lane width	Average travel lane width of 12 feet
Curb-to-curb width	58 feet
Surface type	Asphalt Concrete
Surface condition	Good (Pavement Condition Index of 51, as reported in 2014)

D. Roadway Operations

Traffic counts completed in 2011 for this segment of NE Marine Drive report an Average Daily Traffic (ADT) of 6,366. Approximately 76% of traffic counted was auto traffic, and approximately 21.1% of traffic counted was truck traffic.

*Note: Multnomah County truck split includes: 2 axle 6 tire trucks; 3 axle single truck; 4 axle single truck; double with less than 5 axles; 5 axle double truck; 6 axle double truck, and multiple trailer trucks. Auto split includes cars/trailers and 2 axle long vehicles. Motorcycles and buses are not included in these ratios.

E. Over-dimensional Single Trip Permit Table

Summary: Approximately 265 STP permits were issued for a 3-year period for Marine Drive (any portion that belongs to the county).

Note: These counts do not reflect loads operating under an annual Continuous Trip Permit.

Overall Width	Number of Permits Issued
8’6” or less (legal width)	20
8’7” to 10'00"	37
10'01" to 11'00"	16
11'01" to 12'00"	146
12'01" to 13'00"	22
13'01" to 14'00”	17
Over 14’00”	7

Analysis of Widest Loads: *7 loads were permitted between 14’6” and 17’ wide. These were log stackers, excavators and cranes. 2 cranes were 17’ in width. The rest were 15’ or less.*

Overall Height	Number of Permits Issued

14’00” or less (legal height)	117
14’01” to 14’6”	112
14’7” to 16’00”	36
Over 16’00”	0

Analysis of Highest Loads: *36 loads were permitted between 14’7” and 15’11” high. 16 of these loads were permitted between 15’6” and 15’11” high. These were for restrooms, excavators, scrapers, cranes and forklifts.*

Overall Combination Length (including any overhang)	Number of Permits Issued
70' or less	71
71' to 80'	73
81' to 90'	42
91' to 100'	9
101' to 110'	33
111’ to 120’	34
Over 120’	3

Analysis of Longest Loads: *3 loads were permitted between 124’ and 140’ overall length. These were for drill and a crane.*

Gross Weight	Number of Permits Issued
80,000 lbs. or less (legal weight)	46
80,000 lbs. to 98,000 lbs.	5
98,001 lbs. to 120,000 lbs.	35
120,001 lbs. to 140,000 lbs.	74
140,001 lbs. to 160,000 lbs.	22
160,001 lbs. to 180,000 lbs.	36
180,001 lbs. to 200,000 lbs.	18
Over 200,000 lbs.	29

Analysis of Heaviest Loads: *29 loads were permitted between 206,000 lbs. and 260,000 lbs. These were crushers, cranes and track drills.*

Types of Vehicle Combinations Permitted
Truck (Solo Vehicle) or Self Propelled Units (like cranes) - 12
Doubles - 0
Truck-Tractor + Semitrailer or Truck-Tractor +Tow-Away Unit - 155
Truck +Trailer - 0
Log Truck + Pole Trailer - 0

Heavy Haul Combination (Truck-Tractor/Jeep/Semitrailer/Booster) -92
Toter + Mobile Home - 1
Pickup Truck + Trailer - 4
Tow Truck w/ Disabled Vehicle - 1

Analysis of Combinations: *The Truck-Tractor/Semitrailer and Truck-Tractor/Tow-Away Unit was the most common vehicle combination permitted. The trailers used were fixed trailers, stretch trailers, tow-away fixed loads, and trailers with flip axles. The longest trailer was a 66' stretch trailer with flip axle deployed. The second most common combination used was the Heavy Haul Combination (Tractor/Jeep/Semitrailer/Booster). The longest trailer permitted in this combination was a 100' trailer inclusive of dollies.*

F. Crossings and Bridge Structures (City/State Bridge ID)

- There are multiple culverts located along NE Marine Drive between I-84 and Sundial Road, including two in-stream culverts. The first in-stream culvert is a 4-foot wide culvert for Salmon Creek, located approximately 500 feet north of the intersection with NW Frontage Road.
- The second in-stream culvert is a 4-foot culvert for Arata Creek, located between Dunbar Avenue and Sundial Road. Both culverts do not have any traffic restrictions.

G. Identified Capital Improvements

2014 Regional Transportation Plan Projects on Financially Constrained list:

- RTP Project #10401, Reconstruct Marine Drive from Interlachen to I-84. $28,300,000 planned for years 2025-2032
- RTP Project #10863, Troutdale Interchange (Exit 17) Improvements. Improve eastbound off-ramp, widen South Frontage Road, improve intersection at Graham Road. Also includes initial reconstruction of west end of interchange (NW Marine Dr.) $36,200,000 planned for years 2014-2017

Other 2014 Regional Transportation Plan Projects (unconstrained):

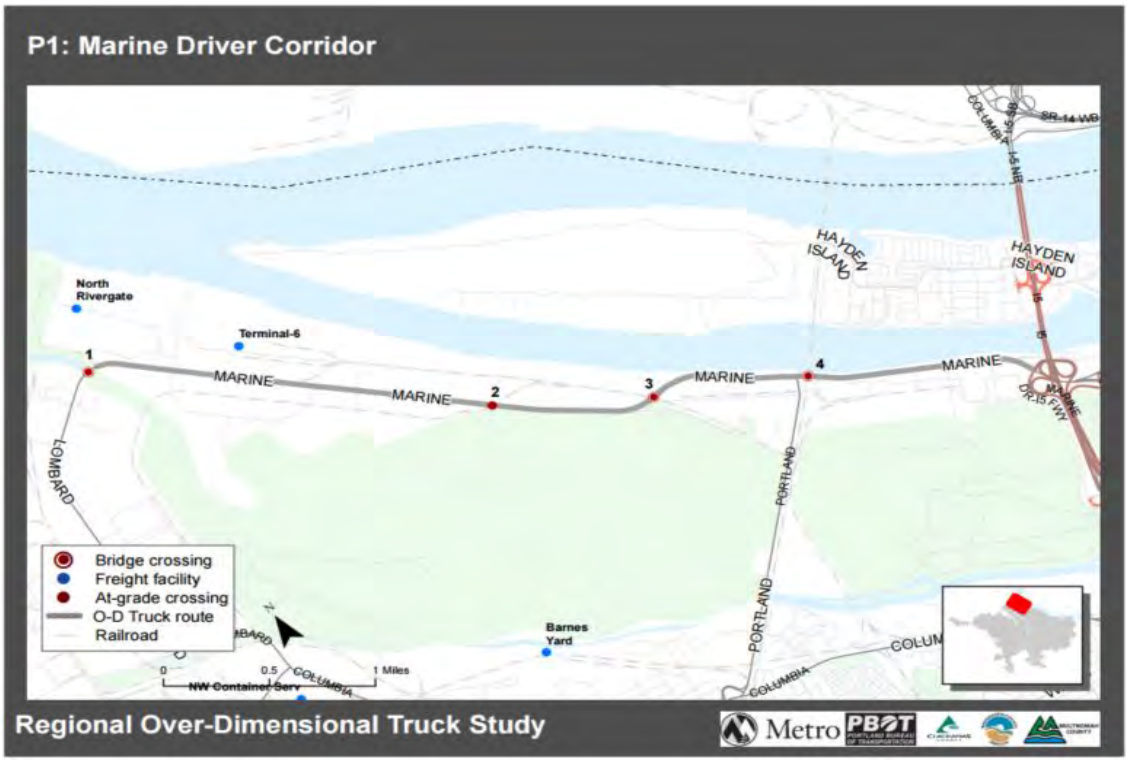
- RTP Project #10402, Reconstruct new road north of I-84, Exit 16. Conduct design options alternatives (DOA) study for new connection between Sandy Blvd and Marine Dr. Construct new connector linking industrial sites with I-84. $36,000,000 with no designated planned years.
- ODOT STIP Region 1 K#19763 I-84: Graham Rd. Bridge Replacement is scheduled for construction in 2018, $15,000,000 is shown as the latest STIP Approved Cost

4.3 City of Portland Over-Dimensional Truck Routes

P1. Marine Drive Corridor
(I-5 to Lombard St. @ Kelley Point/Slough Bridge)

A. Corridor Description

Marine Drive is a 3.5-mile corridor located in the City of Portland that extends between the I-5/Marine Drive interchange and the Hwy 99E/MLK Corridor (P6) to the east and transitions into the N. Lombard Street Corridor (P2) at the Columbia Slough Bridge (BR-105) at Kelley Point to the west. This segment of Marine Drive also connects to the North Portland Road Corridor (P5) just west of the BNSF Railroad Bridge. Marine Drive is the primary route serving the Rivergate Industrial District connecting many of the region's major intermodal freight terminals (Port Terminals 5 and 6) with the Interstate Highway network (I-5) and US 30 via the St. Johns Bridge.



P1. Marine Drive Corridor Map

B. Policy Designation

The City of Portland Freight Master Plan[1] and Transportation System Plan[2] classifies this segment of Marine Drive as a Priority Truck Street and a Major Emergency Response Street within a designated Freight District. The Portland Truck Map[3] identifies this segment of Marine Drive as a

[1] City of Portland Freight Master Plan, Adopted May 2006.

[2] City of Portland Transportation System Plan. Policy 6.4 Classifications Descriptions, Adopted April 2007.

[3] City of Portland Map C-51A, February 2013.

preferred wide-load truck route. This segment of Marine Drive is also designated as a Regional Road Connector and federal NHS Connector Route. Based on the adopted Portland Freight Master Plan and the City's TSP Design Objectives:

- Priority Truck Streets serve as primary routes for access and circulation in and between Freight Districts and Regional Truckways and to accommodate high truck volumes and provide high-quality mobility and access. Priority Truck Streets should be designed to facilitate the movement of all truck classes and over-dimensional loads, as practicable.
- Major Emergency Response Streets serve primarily the longer, most direct legs of emergency response trips. Design treatments should enhance mobility for emergency response vehicles by employing preferential or priority treatments. Major Emergency Response Streets are not eligible for traffic slowing devises in the future.

Regional Freight Network Designation – Regional Road Connector

Federal/NHS Classification – NHS Connector Route

C. Roadway Characteristics

The 3-mile segment of Marine Drive from I-5 to the Leadbetter Rd/T-6 intersection is primarily a linear four-lane concrete roadway with center left turn lanes. The segment west of Leadbetter transitions into a two-lane asphalt facility. The table below summarizes the roadway characteristics of Marine Drive:

Table 35. Marine Drive Roadway Characteristics

Number of travel lanes	Varies from 4 to 5 lanes between I-5 and Leadbetter Rd. and transitions to 2 lanes west of Leadbetter
Average travel lane width	Various from 11' to 12'
Curb-to-curb width	Various from 56'-90' between I-5 and Leadbetter and 35'-59' west of Leadbetter
Surface type	Portland Concrete (PCC) between I-5 and Leadbetter Rd. and multi-lift asphalt (AC) west of Leadbetter
Surface condition	AC section (west of Ledbetter) is poor to very poor condition; PCC portion is very good to excellent condition

D. Roadway Operations

The most recent 2009 traffic counts along Marine Drive shows 28,000 average daily traffic (ADT) west of I-5 and 14,000 ADT west of N. Portland Rd. There are four signalized intersections located on this corridor at the I-5 interchange, N. Force Avenue, N. Portland Road and Leadbetter Rd/T-6.

E. Over-dimensional Single Trip Permit Table (OR120/Swift Highway)

Summary: Approximately 95 STP permits were issued for a 3-year period for OR120/Swift Highway/Marine Dr. from MP 2.49 (just east of Force Ave. /Delta Park) to I-5.

Note: These counts do not reflect loads operating under an annual Continuous Trip Permit.

Overall Width	Number of Permits Issued
8'6" or less (legal width)	33
8'7" to 10'00"	25
10'01" to 11'00"	14
11'01" to 12'00"	17
12'01" to 13'00"	2
13'01" to 14'00"	4
Over 14'00"	0

Analysis of Widest Loads: *No loads were permitted over 14'0" wide. There were 4 permits between 13'01" to 14'0". These were for a dozer w/blade, a modular unit, and 2 cranes.*

Overall Height	Number of Permits Issued
14'00" or less (legal height)	73
14'01" to 14'6"	13
14'7" to 16'00"	9
Over 16'00"	0

Analysis of Highest Loads: *No loads were permitted over 16'0" high. There were 9 permits between 14'7" to 16'0" high. These were for a modular unit, a mobile unit, hopper trailers, a crane, a lift truck, a forklift, an oven, a material transport vehicle and a shed.*

Overall Combination Length (including any overhang)	Number of Permits Issued
70' or less	25
71' to 80'	45
81' to 90'	15
91' to 100'	4
101' to 110'	2
111' to 120'	3
Over 120'	1

Analysis of Longest Loads: *1 load was permitted over 120' length; it was 130' overall length for movement of wood poles.*

Gross Weight	Number of Permits Issued
80,000 lbs. or less (legal weight)	30
80,000 lbs. to 98,000 lbs.	1
98,001 lbs. to 120,000 lbs.	35
120,001 lbs. to 140,000 lbs.	14
140,001 lbs. to 160,000 lbs.	10

160,001 lbs. to 180,000 lbs.	1
180,001 lbs. to 200,000 lbs.	2
Over 200,000 lbs.	2

Analysis of Heaviest Loads: *2 loads were permitted between 214,000 lbs. and 220,000 lbs. These were for cranes.*

Types of Vehicle Combinations Permitted
Truck (Solo Vehicle) or Self Propelled Units (like cranes)
Doubles
Truck-Tractor + Semitrailer or Truck-Tractor +Tow-Away Unit
Truck +Trailer
Log Truck + Pole Trailer
Heavy Haul Combination (Truck-Tractor/Jeep/Semitrailer/Booster)
Toter + Mobile Home
Pickup Truck + Trailer

Analysis of Combinations: *The Truck-Tractor/Semitrailer was the most common vehicle combination permitted. The trailers used were fixed trailers, stretch trailers, mobile units, trailers with flip axles, and a mechanical steer log truck. The longest trailer was a 70' stretch trailer. The second most common combination used was the Heavy Haul Combination (Tractor/Jeep/Semitrailer/Booster). The longest trailer permitted in this combination was a 65' trailer.*

F. Crossings and Bridge Structures (City/State Bridge ID)

There are four main crossing structures located along the Marine Drive Corridor:

- BNSF Railroad Bridge Undercrossing (BR# 003/25B03): A BNSF owned steel structure located just east of the N. Portland Rd intersection with a reported vertical clearance of 16'8''. A center concrete support structure and island separates east and westbound traffic with an estimated minimum curb-to-curb width of 38' for westbound and 32' for eastbound traffic.
- BNSF Railroad Bridge Overcrossing (BR# 049/17199): A city owned concrete bridge structure crossing the BNSF railroad west of Suttle Road. The deck width is 70 feet and this structure is not posted (weight limited) for legal sized loads[4].
- BNSF Railroad At-Grade Crossing: A signalized at-grade crossing of a single track of the BNSF railroad located between N. Portland Rd and Leadbetter Rd. There are no known constraints for over-dimensional truck movements at this crossing.
- Columbia Slough Bridge Overcrossing (BR#105/25B105): A city owned concrete bridge structure linking the west end of the Marine Drive Corridor to the Lombard Street Corridor. This structure has a deck width of 32 feet and was rehabilitated in 2012 to accommodate legal sized loads.

[4] Legal loads: 50,000 lbs. for single unit trucks and 80,000 lbs. for combination units.

G. Identified Capital Improvements

- Marine Drive ITS (TSP 30038): Install CCTV at N Portland Rd and changeable message signs at Portland Rd, Vancouver and 185th.
- Marine Dr Rail Overcrossing (TSP 30039): Reroute rail tracks and construct an above-grade rail crossing at Rivergate West entrance to improve safety and reduce vehicle and rail traffic conflicts.

H. Corridor Photos

Figure 25. P1 Marine Drive BNSF at-grade crossing looking west

Figure 26. P1 Marine Drive BNSF Rail Bridge BR003 looking east

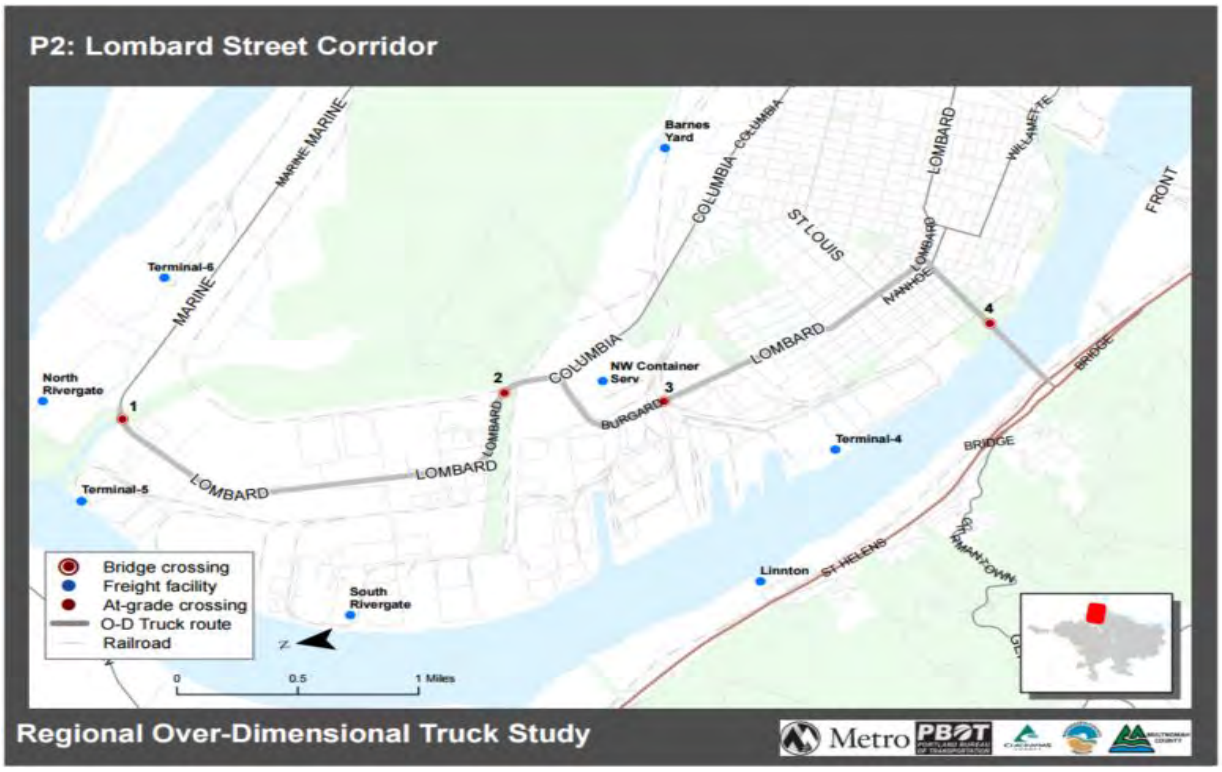
Figure 27. P1 Marine Drive BNSF Rail Bridge BR003 looking west

Figure 28. P1 Marine Drive BNSF Rail Bridge Overcrossing BR049 looking west

P2. Lombard Street Corridor
(Marine Dr. @ Kelley Point to U.S. 30 via the St. Johns Bridge)

A. Corridor Description

The Lombard Street Corridor is a 5.1-mile corridor located in the City of Portland that extends from N. Marine Drive at the Columbia Slough Bridge (BR-105) to U.S. Highway 30 via the St. Johns Bridge. The Corridor includes portions of N. Burgard Rd., N. Ivanhoe St., and N. Philadelphia Ave. This corridor transitions to the Marine Drive Corridor (P1) at the Columbia River Slough Bridge and the U.S. 30 Bypass Corridor (P4) at the west end of the St. Johns Bridge. The Lombard Street Corridor connects the Rivergate Industrial District and Terminal 4 with U.S. 30 and the N Marine Drive Corridor, which connects to the Interstate Highway Network (I-5).



P2. Lombard Street Corridor Map

B. Policy Designation

The City of Portland Freight Master Plan and Transportation System Plan classifies this segment of the Lombard Street Corridor as a Priority Truck Street and a Major Emergency Response Street within a designated Freight District between the Columbia Slough Bridge and N. Weyerhaeuser Ave. The Portland Truck Map identifies N. Lombard St. from the Colombia Slough Bridge to N. Burgard Rd. as a Preferred Wide-Load Truck Route. At that point, N. Lombard is classified as a Preferred City Truck Route to N. Philadelphia Ave., where the route becomes a State Highway.

RTP Functional Classification – Lombard Street corridor is also designated as a Regional Road Connector

Federal/NHS Classification – Lombard Street is a federal NHS Connector Route.

C. Roadway Characteristics

The roadway characteristics along the 5.1-mile Lombard Street Corridor from the Columbia Slough Bridge to the west end of the St. Johns Bridge are variable. The section from the Columbia Slough Bridge to N. Rivergate Blvd. is an asphalt facility comprised of two travel lanes and a center turn lane. From N. Rivergate to N. Burgard Rd., the roadway is two-lanes. At N. Burgard Rd., the roadway transitions from a four-lane roadway down to three for a short 0.25-mile segment, at which point it transitions to a two-lane facility through St. Johns to the intersection of N. Philadelphia Ave. At this point, it is a four-lane roadway until the west end of the St. Johns Bridge.

The table below summarizes the roadway characteristics of the Lombard Corridor:

Table 36. Lombard Street Roadway Characteristics

Number of travel lanes	Variable – mostly 2 lanes with some areas of 4 lanes.
Average travel lane width	Ranges from 11' to 12'
Curb-to-curb width	Varies from 42' to 50' in the Columbia Slough Bridge segment, 36'-55' from N Rivergate Blvd. to N Philadelphia, and 40' at the St. Johns Bridge
Surface type	Multi-lift AC the entire length
Surface condition	Fair to poor from Richmond to St. Louis, Very good from St. Louis to Reno, Fair to poor from Reno to Burgard, Excellent from Burgard to Columbia, and Fair to good from Columbia to Kelly Point Park

D. Roadway Operations

Recent 2012 traffic counts along the Lombard Corridor show 8,000 average daily traffic (ADT) at N. Lombard St. and N. Reno Ave., of which 24% of the vehicles were trucks. A 2010 traffic count at N. Lombard St. and N Simmons Rd. counted 7,000 ADT, of which 35% were trucks. There are seven signalized intersections located along this corridor at N. Burgard Rd., N. Terminal Rd., N. Reno Ave., N. St. Louis Ave., N. Baltimore Ave., N. Philadelphia Ave., and the west end of the St. Johns Bridge.

E. Over-dimensional Single Trip Permit Table

Note: ODOT permit data not available for this corridor

F. Crossings and Bridge Structures (City/State Bridge ID)

There are four main crossing structures located along the Lombard Street Corridor:

- N. Burgard St. Viaduct (BR #001/25B01): A city-owned concrete bridge structure that crosses the UP Railroad to link N. Burgard Rd. to N. Lombard St. This structure has a deck width of 48.7 feet and is not posted (weight limited) for legal sized loads.
- Columbia Slough Bridge Overcrossing (BR#105/25B105): A city owned concrete bridge structure linking the west end of the Marine Drive Corridor to the Lombard Street Corridor.

This structure has a deck width of 32 feet and was rehabilitated in 2012 to accommodate legal sized loads.

- South Rivergate Connector (BR 172/17199): This concrete structure is owned by the city and crosses the UP railroad north of Burgard Rd. The deck width is 44.5 feet and this structure is not posted (weight limited) for legal sized loads.
- St John's Bridge: A major state owned bridge structure crossing the Willamette River linking North Portland with the US30 Corridor (P9) in NW Portland.

G. Identified Capital Improvements

- Burgard St Viaduct Replacement (TSP 30068): Replace the existing N Burgard St Viaduct #001) over the UPRR tracks. Include pedestrian and bicycle facilities. Project design will consider freight movement needs, consistent with policies, street classification(s) and uses.
- Burgard/Lombard Corridor Improvements (TSP 30080): Improve the intersection of Burgard & Time Oil Rd to add turn lanes and construct a multi-use path along Burgard.
- St Johns Truck Strategy, Phase 2 (TSP 30070): N. Lombard Segment from Bruce - St Louis. Widened travel lanes to 12-feet by removing on-street parking, improve truck movement and pedestrian safety along the reverse curve at St Johns Avenue and install smart traffic signal at Reno to improve crossing safety

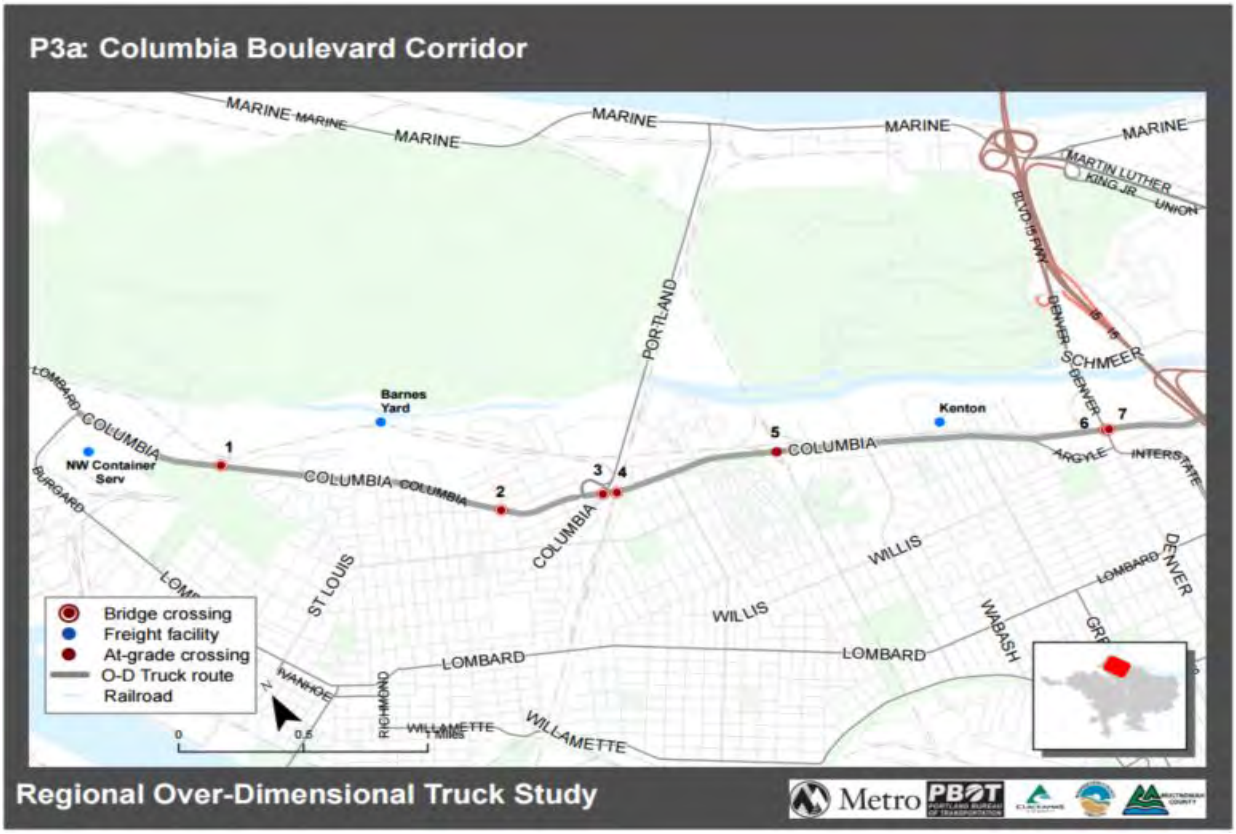
H. Corridor Photos

Figure 29. P2 - BR 105 Columbia Slough Bridge

P3. Columbia Boulevard Corridor
(Killingsworth/US 30B to N. Lombard St. @ N. Burgard Rd.)

A. Corridor Description

The Columbia Boulevard Corridor is a 10.1-mile corridor located in the City of Portland that extends from N. Burgard Rd. on the west end to NE Killingsworth St. to the east. This corridor connects Rivergate Industrial District and the US Hwy. 30 corridor to I-5 and I-205. It transitions to the Marine Drive and the Lombard Street Corridors to the east and provides a link to the Hwy 99E/MLK Corridor and the NE/SE 82nd Ave Corridor.



P3a. Columbia Boulevard Corridor Map

B. Policy Designation

The City of Portland Freight Master Plan and Transportation System Plan classifies Columbia Boulevard as a Priority Truck Street and a Major Emergency Response Street. The corridor lies within or borders a designated Freight District for its entire length. The Portland Truck Map[5] identifies Columbia Boulevard as a Preferred Wide-Load Truck Route.

RTP Functional Classification – This corridor is designated as a Regional Road Connector.

[5] City of Portland Map C-51A, February 2013.

Federal/NHS Classification – This corridor is designated as a federal NHS Connector Route.

C. Roadway Characteristics

The 10.1-mile Columbia Boulevard Corridor from N. Burgard Rd. to NE Killingsworth St. is a two to five lane asphalt roadway. For most of its length (N. Burgard Rd. to NE 60th Ave. and NE 82nd Ave. to N. Killingsworth St.) the roadway is four lanes with a center left turn lane. The section from NE 60th Ave. to NE 82nd Ave. is comprised of two travel lanes and a center turn lane.

The table below summarizes the roadway characteristics of Columbia Boulevard.

Table 37. Columbia Boulevard Roadway Characteristics

Number of travel lanes	2 – 5 depending on location but mostly 4
Average travel lane width	Varies from 11' – 12'
Curb-to-curb width	Varies from 64 ft. to 74 ft. between N Burgard and N Argyle Way, 44 ft. to 64 ft. between N Argyle and N Columbia Pkwy., and 82 ft. along N Columbia Pkwy.
Surface type	Mostly multi-lift AC with intermittent portions of PCC
Surface condition	Fair to very good from N. Lombard to N Vancouver, fair from N Vancouver to NE 13th, very good from NE 13th to I-205

D. Roadway Operations

Recent traffic counts along the Columbia Corridor show higher ADT along the eastern portion of the corridor. In 2010, there was a count of 12,500 ADT at N Columbia Blvd. and N Upland Dr. in the west end of the corridor, 20,000 ADT at N Denver Ave. and N. Columbia Blvd., and 25,000 ADT at NE Columbia east of NE 82nd Avenue. There are 20 signalized intersections located along this corridor.

E. Over-dimensional Single Trip Permit Table

Note: ODOT permit data not available for this corridor

F. Crossings and Bridge Structures (City/State Bridge ID)

The following summarized the main crossing structures located along the Columbia Boulevard Corridor:

- UPRR Overcrossing (BR-126): A city owned concrete bridge structure over the UPRR tracks. The structure has a deck width of 75.3 feet. This structure is not posted (weight limited) for legal sized loads.
- George School Pedestrian Overpass (BR-004/25B04): This city-owned steel pedestrian bridge connects provides a connection to George Middle School from the neighborhoods on the north side of Columbia Blvd. The bridge has a 16 ft. vertical clearance.

- Columbia Way Overcrossing BR-079: A city-owned concrete bridge with a 74.5 ft. deck width. This structure is not posted for weight restrictions.
- BNSF Railroad Overcrossing BR-078/09685 &BR-078A/09685A: This crossing is comprised of two bridges – the original (BR-078) is a city-owned steel structure with a concrete surface that was originally constructed in 1909. It has a deck width of 40.7 ft. The second bridge (BR-078A), constructed in 1968, is also a steel structure owned by the city. It has a deck width of 33.9 ft. Neither is posted for legal-sized loads.
- UPRR Railroad At-Grade Crossing: Three signalized at-grade crossings of a single track of the BNSF railroad located east of N. Portland Rd. There are no known constraints for over-dimensional truck movements at these crossings.
- N. Denver Ave Bridge (ODOT): A state-owned structure crossing over Columbia Blvd and the adjacent Union Pacific Road with a vertical clearance of 24 feet and horizontal clearance of 45 feet.
- Interstate MAX/Vanport Bridge (TriMet): The Interstate MAX bridge structure crossing over Columbia Blvd is located immediately east of the Denver Ave Bridge and has a vertical clearance of about 30-35 feet and horizontal clearance of 22-feet eastbound and 22-feet westbound for a total horizontal clearance of about 44-feet.
- Railroad Bridge at I-5 (UPRR): This Union Pacific-owned structure crosses over Columbia Blvd at a diagonal and has a vertical clearance of 16-feet, 5-inches for eastbound traffic and 16-feet, 7-inches for westbound traffic, which limits the clearance envelope for over height loads. Bridge support piers and guardrails are located in the middle of the roadway (two travel lanes in each direction) providing a 24-foot horizontal clearance for eastbound traffic and a 24-foot, 6-inch horizontal clearance for westbound traffic. The UP rail bridge also crosses under the I-5 bridge mainline structure and the Columbia Blvd./I-5 southbound on-ramp structure at this location. While the vertical clearance between the top of the UP rail bridge and the bottom of the two I-5 bridge structures is unknown, the minimum permanent vertical clearance, per Code of Federal Regulation, shall be 23-feet, 4-inches measured from the top of the highest rail to the lowest obstruction under the structure. This UPRR structure over Columbia Blvd is a known choke point and limits the use of Columbia Blvd as a continuous route for over-dimensional vehicles.
- I-5 Bridge (BR#08882) and Southbound I-5 Ramp (BR#20651): A state-owned bridge structure crossing over Columbia Blvd and adjacent to the UP Rail Bridge with a reported vertical clearance of 23 feet, 6 inches for the southbound I-5 on ramp structure. There are no center support piers dividing east and westbound traffic which allows for a wider horizontal clearance envelope compared to the adjacent UP Railroad Bridge structure.
- NE 33rd Ave. Undercrossing (BR-103): This concrete structure is owned by the city and has an 82 ft. deck width. There are no legal sized load postings on this bridge.
- NE 33rd Ave. Ramp Overcrossing (BR-009A): This city-owned structure crosses over Columbia Blvd to provide access to northbound vehicles on NE 33Rd Ave. to westbound Columbia Blvd. The bridge has a 22 ft. deck with an 18 ft. vertical crossing over Columbia Blvd. This structure is not posted for legal-sized loads.
- 82nd Ave Bridge (08401B): A state-owned non-divided bridge structure crossing over NE 82nd Ave (P10) with a horizontal deck width of 62 feet.

- UPRR Undercrossing at NE Columbia Pkwy (BR-181): A city-owned steel structure constructed in 2009 with a vertical clearance of 17-feet, 7-inches. The roadway width is separated by concrete support piers with a width of 24-feet in each direction.

G. Identified Capital Improvements

- Columbia Blvd/Railroad Bridge Replacement (TSP 30005): Replace the existing fracture critical Columbia Blvd bridge (#078) over railroad tracks with a new structure, and perform seismic upgrades on parallel bridge (#078A).
- Columbia Blvd ITS (TSP 30008) (I-205 - Burgard): Install communications infrastructure including closed circuit TV cameras, truck priority detection, variable message signs for remote monitoring and control of traffic flow for six signals.
- St Johns Truck Strategy, Phase 2 (TSP 30070): Address pedestrian safety, bicycle safety and neighborhood livability impacts associated with cut-through truck traffic on N St Louis Ave and N Fessenden St. Construct pedestrian crossing safety and traffic calming improvements,
- Columbia Blvd/Columbia Way Bridge Replacement (TSP 30084): Replace the existing structurally deficient Columbia Blvd bridge (#079) over Columbia Way with a new structure.
- NE 47th Ave Corridor Improvements (TSP 40009): Improve street and reconfigure intersections between Columbia and Cornfoot to better facilitate freight access to industrial areas. Street improvement will include pedestrian and bicycle facilities.
- Columbia/Alderwood Intersection Improvements (TSP 40032): Reconstruct intersections to provide left turn pockets, enhance turning radii, and improve circulation for trucks serving expanding air cargo facilities south of Portland. Improve traffic operations and freight mobility on Columbia Blvd between Cully and Alderwood.
- Columbia/MLK Intersection Improvements Phase 1 (TSP 40061): Intersection and signalization improvements with right turn lane from westbound Columbia to northbound MLK.

H. Corridor Photos

Figure 30. P3 - BR004 George Middle School Pedestrian Bridge

Figure 31. P3 Interstate MAX and Denver Ave Bridges looking west

Figure 32. P3 BR 009A NE 33rd Ave ramp overcrossing looking east

Figure 33. P3 BR 078 and 078A looking west

Figure 34. P3 N. Denver Ave Bridge looking eastbound

Figure 35. P3 UPRR Bridge Under I-5

Figure 36. P3 UPRR Bridge I-5 looking east

Figure 37. P3 UPRR Bridge I-5 looking west

P4. US 30 Bypass Corridor
(US 30/St. Johns Bridge to Fairview Parkway)

A. Corridor Description

US 30 Bypass Corridor

The US 30 Bypass (aka: NE Portland Highway/State Hwy #123) is a state-owned facility that extends 18.7 miles from US 30 in NW Portland to the Gresham city limits at NE 165th Ave and continues through the City of Fairview and the I-84 interchange in Wood Village at NE 238th Drive. The City of Portland segment is 14 miles long. The US 30 Bypass runs along the following streets before rejoining US 30 in Fairview: NW Bridge Avenue, NW St. Johns Bridge, N Philadelphia Avenue, N Ivanhoe Street, N Richmond Avenue, N Lombard Street, NE Lombard Street, NE Portland Highway, NE Killingsworth Street, NE Columbia Boulevard, NE Sandy Boulevard and NE 238th Drive.

The US 30 Bypass links to the Lombard Street Corridor (P2) at N. Ivanhoe Street; the Columbia Boulevard Street Corridor (P3) at NE Lombard Place, NE 60th Ave, NE 42nd Ave, NE Cully Blvd, and NE Columbia Parkway Blvd; the NE/SE 82nd Ave (OR 213) Corridor (P10); the NE Airport Way Corridor (P7); and the NE 207th/Fairview Parkway Corridor (M2). The US 30 Bypass serves as a critical east-west route for over-dimensional vehicles linking I-205 with US 30 via the St. Johns Bridge. This corridor is particularly critical for high loads that cannot continue along Columbia Blvd (the preferred truck route in the City of Portland) due to height limitations of UPRR Bridge just west of I-5 which has a vertical clearance of 16'5", and the George Middle School pedestrian bridge which has a vertical clearance of 16 feet.

The US 30 Bypass between I-5 and I-205 closely parallels the Columbia Blvd Corridor (P3) located to the north and are linked by the following connections:

NE Lombard Place Connection

Lombard Place provides a critical connection for over-dimensional vehicles that must transition from Columbia Blvd to the US 30 Bypass due to the height limited UPRR Bridge over Columbia Blvd jest west of I-5. Lombard Place is a narrow 20-foot wide two-lane concrete roadway that extends 1,900-feet at a diagonal between Columbia Blvd and Lombard Street and crosses an at-grade single track of the UPRR's Kenton Line at NE 11th Ave. This facility provides direct access to the adjoining industrial properties with on-street parking on both sides along the paved and un-paved shoulders.

NE 42nd Avenue Connection

NE 42nd Ave provides access to Columbia Blvd via a narrow 16-foot exit ramp and two-lane roadway which crosses the 42nd Ave Bridge overcrossing (BR 075), a city owed bridge structure currently posted for a maximum weight of 50,000 pounds for single-unit trucks and 80,000 pounds for combined-unit trucks. The ramp and roadway from US30B onto the 42nd Ave Bridge is state owned and the roadway width ranges between 16 and 29 feet.

NE 60th Avenue Connection

NE 60th Ave is a 24-foot wide two-lane facility that extends 500 feet between US 30B/N. Portland Highway and Columbia Blvd with signalized intersections at both US30B and Columbia Blvd. An existing UPRR bridge undercrossing with a vertical clearance of 14-feet limits this connection for

high loads and the limited width from the bridge support piers also limits certain wide loads from using this facility.

NE Cully Blvd Connection

NE Cully Blvd is a 30-foot wide two lane facility that extends 1,300-feet between the signalized intersection at US30B/N. Portland Highway and the stop-controlled intersection at N. Columbia Blvd. This segment of Cully Blvd crosses an at-grade single track of the UPRR's Kenton Line at the north end of this connection. Due to the 16-foot vertical clearance height limitation of the NE 42nd Ave Bridge (BR-075) over US30/N. Portland Highway, this segment of NE Cully serves as an important connection for over-height truck movements along the US30B/Columbia Blvd corridors.

NE Columbia Parkway Connection

Also known as the East End Connector which provides an at-grade intersection from Columbia Blvd just east of NE 82nd Ave to US30B via east and westbound connector roads. The connector roads cross under the UPRR Kenton Line and have a vertical clearance of 17 feet, 6 inches for eastbound traffic and 17-feet, 9 inches for westbound traffic. This project replaced Columbia Blvd with Killingsworth/US30B as the NHS intermodal connector east of the new connection.

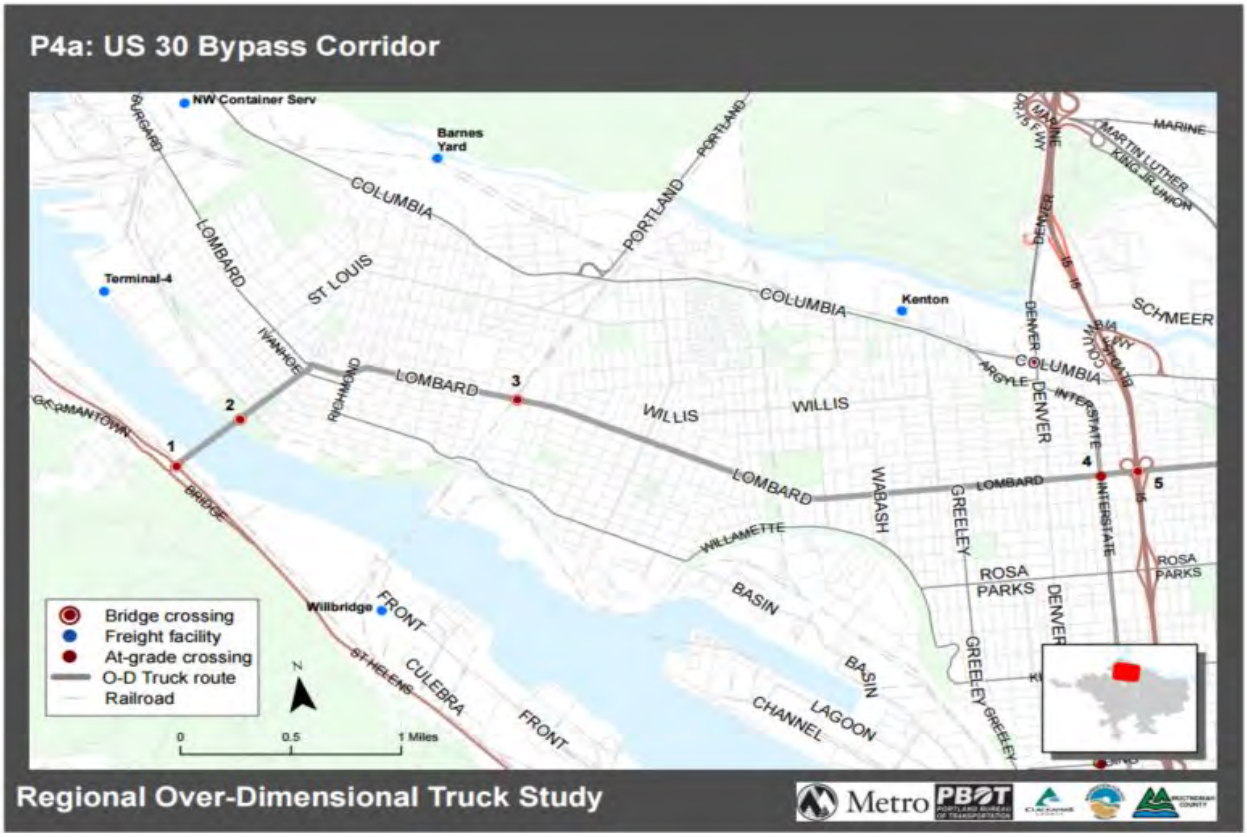


Figure 37. P4a. US 30 Bypass Corridor Map

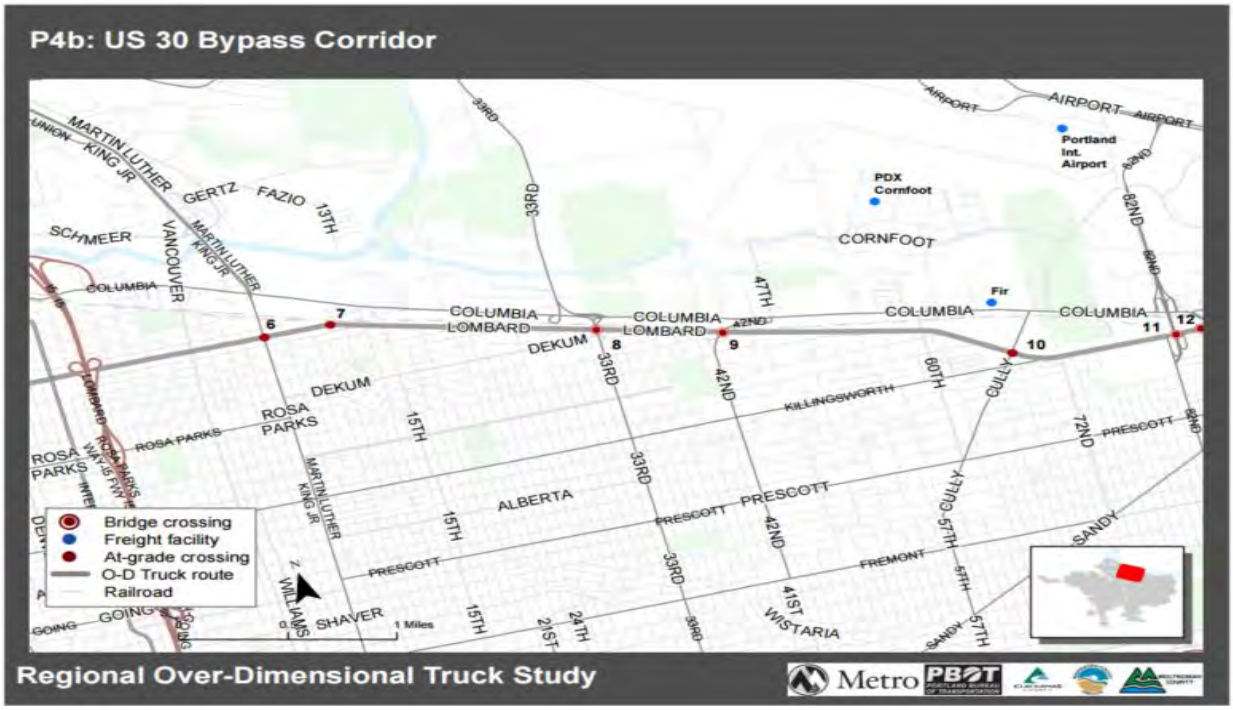


Figure 38. P4b. US 30 Bypass Corridor Map

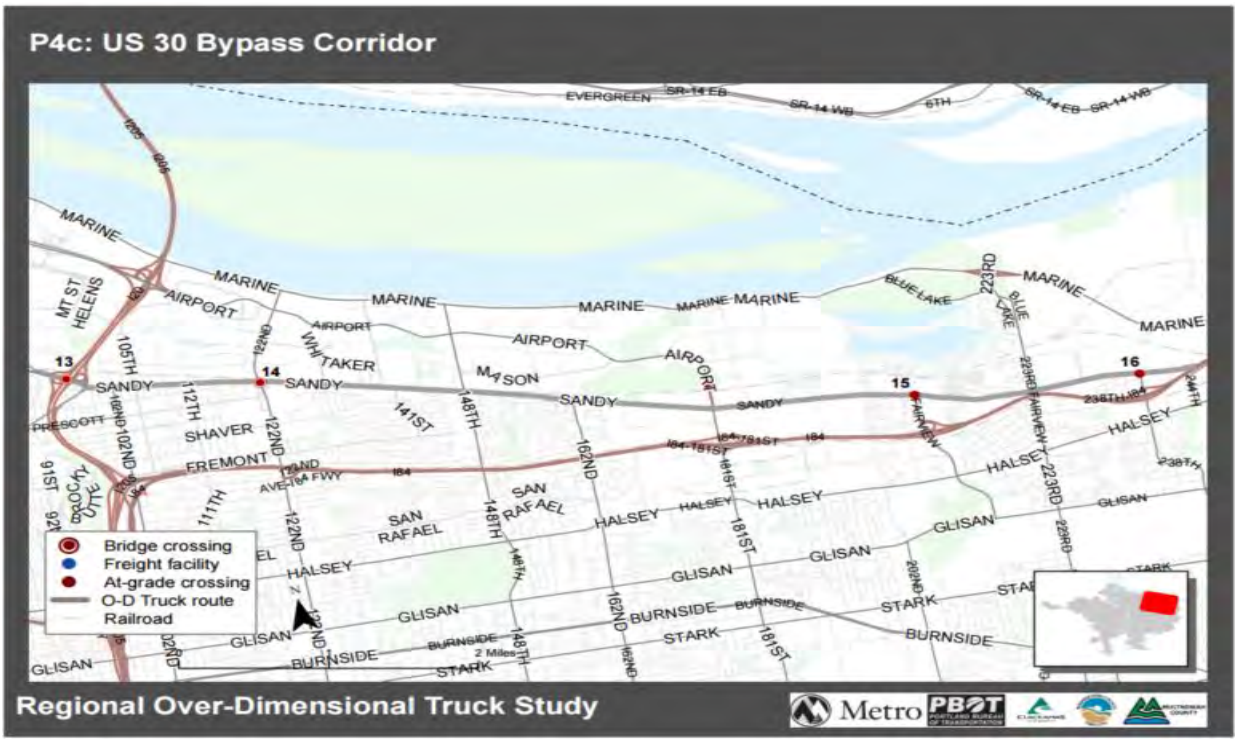


Figure 39. P4c. US 30 Bypass Corridor Map

B. Policy Designation

St Johns Bridge Segment (US30 - Ivanhoe)

The City of Portland Freight Master Plan and Transportation System Plan classifies this segment of US30B as a Priority Truck Street and a Major Emergency Response Street. This segment is also designated as a Regional Road Connector and federal NHS Connector Route and a state ORS 366.215 Reduction Review Route.

Lombard Street Segment (Ivanhoe - MLK/99E)

The Portland Freight Master Plan and Transportation System Plan classifies this segment of US30B as a Truck Access Street and a Major Emergency Response Street. This segment is not classified on the Regional or NHS systems. The segment from Ivanhoe to I-5 is a ORS 366.215 Reduction Review Route.

Lombard Street Segment (MLK/99E – NE Sandy Blvd)

The Portland Freight Master Plan and Transportation System Plan classifies this segment of US30B as a Priority Truck Street and a Major Emergency Response Street. This segment is classified as a Regional Road Connector and Map 21 NHS Principal Arterial.

Sandy Blvd Segment (NE Sandy Blvd – 207th Avenue / Fairview Parkway)

The Portland Freight Master Plan and Transportation System Plan classifies this segment of US30B as a Major Truck Street and a Major Emergency Response Street. This segment is also classified as a Regional Road Connector and Map 21 NHS Principal Arterial.

NE Lombard Place Connection

Portland TSP classifications: Freight District Street and Major Emergency Response Street. This connection is not classified on the Regional or NHS systems.

NE 60th Avenue Connection

Portland TSP classifications: Major Truck Street and Major Emergency Response Street. This connection is not classified on the Regional or NHS systems.

NE Cully Blvd Connection

Portland TSP classifications: Truck Access Street and Major Emergency Response Street.
The Portland Truck Map identifies this connection as a preferred wide-load truck route. This connection is not classified on the Regional or NHS systems.

NE Columbia Parkway Connection/East End Connector

Portland TSP classifications: Priority Truck Street and Major Emergency Response Street. This connection is also classified as a Regional Road Connector and a federal NHS Connector Route.

State of Oregon Classification Notation

In 2005, ODOT amended the freight designation of the US 30 Bypass in the Oregon Highway Plan to include the following notation: "The freight route designation on Lombard Street (US 30 Bypass) is for over-height vehicles only and is temporary until the necessary clearance improvements are made to Columbia Boulevard between the St. Johns Bridge and I-5." Since then, ODOT has put a procedure in place for transferring the Freight and Truck route designation from the state highway to a local street once the necessary improvements are in place.

C. Roadway Characteristics

The tables below summarize the roadway characteristics of the US30 Bypass Corridor.

Table 38. US 30 Bypass Roadway Characteristics

Number of travel lanes	Varies throughout corridor from 2-4 lanes with center left turn lanes.
Average travel lane width	Varies throughout corridor from 11' – 12'
Curb-to-curb width	Varies depending on the following corridor segments: • 36-feet west of St. Johns Bridge. • 50-feet east of S. Johns Bridge/SJ town center to MLK/99E • 72-feet east of Lombard Place connection • 30 to 48-feet east of NE 112th to NE 165th (Gresham city limits) • 48 to 72-feet east of NE 165th to NE 181st
Surface type	Primarily asphalt except on bridge segments which are concrete.
Surface condition	AC Section (East of the St Johns Bridge) is in poor condition up to I-5. I-5 to NE MLK Blvd. (99E) is in very good condition. NE MLK Blvd. to NE 60th Ave. is in fair condition. NE 60th Ave to NE Sandy Blvd is in good condition. NE Sandy Blvd. to NE 122nd Ave. is in fair condition. NE 122nd Ave to NE 144th is in very good condition. NE 144th to Gresham City Limits is in poor condition.

Table 39. NE Sandy Boulevard (from NE 238th Drive to I-84) Roadway Characteristics

Number of travel lanes	2 travel lanes
Average travel lane width	Actual travel lane widths are unknown. Multnomah County standards call for 11-14 foot travel lanes, and 12-15 foot medians / center turn lanes.

Curb-to-curb width	40 feet
Surface type	Asphalt Concrete
Surface condition	Excellent (Pavement Condition Index score of 95 from 2014)

D. Roadway Operations (traffic counts/percent trucks)

Table 40. US 30 Bypass Traffic Counts

Segment	Count Location	Date	ADT	Auto/Truck Percent
St Johns Town Center	N. Ivanhoe west of Charleston Ave	Oct. 2014	8,700	95/5 percent
N. Interstate Ave. Connection	N. Lombard at N. Interstate	Oct. 2014	19,200	95/5 percent
NE Martin Luther King Jr Blvd. Connection	N. Lombard west of MLK	Oct. 2014	19,800	95/5 percent
NE Martin Luther King Jr Blvd. Connection	N. Lombard east of MLK	Oct. 2014	22,300	94/6 percent
NE Cully Blvd Connection	NE Portland Hwy, east of NE Cully Blvd.	Oct. 2014	24,300	95/5 percent
OR213 (82nd Ave) Connection	NE Portland Hwy. west of NE 82nd Ave.	Oct. 2014	32,000	95/5 percent
OR213 (82nd Ave) Connection	NE Portland Hwy. east of NE 82nd Ave.	Oct. 2014	29,300	95/5 percent
I-205 Connection	NE Portland Hwy. west of I-205	Oct. 2014	48,600	95/5 percent
I-205 Connection	NE Portland Hwy. east of I-205	Oct. 2014	29,800	95/5 percent
NE 162nd Ave. Connection	NE Portland Hwy. west of NE 162nd	Oct. 2014	15,000	84/16 percent
NE 162nd Ave. Connection	NE Portland Hwy. east of NE 162nd	Oct. 2014	11,400	84/16 percent
NE 181st Connection	NE Sandy Blvd. west of NE 181st Ave	Nov. 2014	11,988	

NE Sandy Boulevard (from NE 238th Drive to I-84)

Traffic counts completed in April 2015 indicate an Average Daily Traffic (ADT) of 1,328, with approximately 51.5% of traffic from autos and 45.6% of traffic from trucks.
*Note: Truck split includes: 2 axle long trucks; 2 axle 6 tire trucks; 3 axle single truck; 4 axle single truck; double with less than 5 axles; 5 axle double truck; 6 axle double truck, and multiple trailer trucks. DOES NOT INCLUDE: motorcycles, buses or autos.

E. Over-dimensional Single Trip Permit Table (Sandy Blvd (US 30 Bypass) - Multnomah County)

Summary: Approximately 5296 STP permits were issued for a 3-year period for US30 Bypass from US30 to MP 14.67 (near 165th Ave.).

Note: These counts do not reflect loads operating under an annual Continuous Trip Permit.

Overall Width	Number of Permits Issued
8'6" or less (legal width)	498
8'7" to 10'00"	861
10'01" to 11'00"	1081
11'01" to 12'00"	2204
12'01" to 13'00"	333
13'01" to 14'00"	225
Over 14'00"	94

Analysis of Widest Loads: *94 loads were permitted between 14'2" and 18'00" wide. These were for dozers, concrete forms, empty tanks, excavators, log stackers and stacker chassis, mobile and modular units, pre-manufactured steel structures, transformers, vessel sections, inner and outer steel silo shells, paver, pipe casing, powerboat, rail car, crane body, compressor skid, rock truck, air handling unit, a building and 4 unladen heavy haul combinations with special use trailers.*

Overall Height	Number of Permits Issued
14'00" or less (legal height)	2946
14'01" to 14'6"	1562
14'7" to 16'00"	741
Over 16'00"	47

Analysis of Highest Loads: *47 loads were permitted between 16'2" and 17'4" in height. These were for control buildings, empty tanks and tank sections, power boats, inner and outer storage silo shells, mobile and modular units, transformers, excavators, wheel loaders, a generator base, hopper cones and a trailer frame.*

Overall Combination Length (including any overhang)	Number of Permits Issued
70' or less	887
71' to 80'	2638
81' to 90'	688

91' to 100'	282
101' to 110'	520
111' to 120'	191
Over 120'	90

Analysis of Longest Loads: *90 loads were permitted between 121' and 195' in overall length. These included cranes, excavators, scrapers, material handlers, log loaders, log stackers, a yarder, wheel loaders, a rock truck, drills, a compressor skid, a drill rig, a rail grinder, steel structures, control buildings, transformers, bridge girders, wood poles, unladen heavy haul combinations, and disabled combination of vehicles in tow.*

Gross Weight	Number of Permits Issued
80,000 lbs. or less (legal weight)	1165
80,000 lbs. to 98,000 lbs.	300
98,001 lbs. to 120,000 lbs.	1321
120,001 lbs. to 140,000 lbs.	1209
140,001 lbs. to 160,000 lbs.	536
160,001 lbs. to 180,000 lbs.	272
180,001 lbs. to 200,000 lbs.	303
Over 200,000 lbs.	190

Analysis of Heaviest Loads: *190 loads were permitted between 200,400 lbs. and 498,541 lbs. These were for cranes, excavators, crane and excavator bodies, dozers, scrapers, wheel loaders, material handlers, logging equipment including log processors, loaders, stackers, yarders and shovels, rock crushers, drills, and a rail grinder, drill rigs and truck-mounted cranes, transformers, steel structures, unladen heavy haul combinations with special use trailers, and disabled combination of vehicles in tow. 5 of the loads were transformers with permitted gross weights exceeding 470,000 lbs.*

Types of Vehicle Combinations Permitted
Truck (Solo Vehicle) or Self Propelled Units (like cranes)
Doubles
Truck-Tractor + Semitrailer or Truck-Tractor +Tow-Away Unit
Truck +Trailer
Log Truck + Pole Trailer
Heavy Haul Combination (Truck-Tractor/Jeep/Semitrailer/Booster)
Toter + Mobile Home
Pickup Truck + Trailer
Tow Truck + Disabled Combination of Vehicles

Analysis of Combinations: *The Truck-Tractor/Semitrailer and Truck-Tractor/Tow-Away Unit was the most common vehicle combination permitted. The trailers used were fixed trailers, stretch trailers, tow-away fixed loads, and trailers with flip axles. The longest trailer was a 95' stretch trailer. The second most common combination used was the Heavy Haul Combination (Tractor/Jeep/Semitrailer/Booster). The longest stretch trailer in a heavy haul configuration was 76' in length. The 5 extremely large and heavy transformer loads had 175' trailers, inclusive of dollies.*

F. Crossings and Bridge Structures (City/State Bridge ID)

The following summarizes the main crossing structures located along the US30 Bypass Corridor:

- St. Johns Bridge (/06497): A major state owned bridge structure crossing the Willamette River linking North Portland with the US30 Corridor (P9) in NW Portland.
- St. Johns Bridge (/06497): A major state owned bridge structure crossing the Willamette River linking North Portland with the US30 Corridor (P9) in NW Portland.
- BNSF Railroad Bridge Overcrossing (/OM089): A railroad owned bridge structure built in 1909 with horizontal clearance of 40 feet.
- N. Interstate Ave/Max LRT Crossing: At-grade intersection of N. Interstate Ave and the Interstate MAX line with a 21 foot 11 ½ inch vertical clearance of the LRT catenary wires.
- I-5/Lombard Bridge and Interchange (/08996): A state owned bridge structure with a horizontal clearance of 64 feet. There is no access for northbound I-5 traffic. Southbound I-5 access ramps provide for both east and westbound Lombard/US30B traffic flows. There is no access to Lombard/US30B for southbound I-5 traffic and only eastbound Lombard/US30B access for northbound I-5 traffic via Exit 305A.
- Highway 99E/MLK Intersection: At grade intersection of the Hwy99E/MLK Corridor (P6).
- N. Lombard Street/Lombard Place Intersection: Key connector route between US30B and Columbia Blvd Corridor (P3).
- NE 33rd Ave Bridge Undercrossing (BR 009B/20133): A city owed concrete bridge structure crossing US30B and the UPRR with a vertical clearance of 17 feet 2 inches.
- NE 42nd Ave Bridge Undercrossing (BR 075/02485): A city owed steel bridge structure crossing US30B with a vertical clearance of 15 feet 10 inches. This is the lowest bridge vertical clearances on the entire US30B corridor.
- NE Cully Blvd Intersection: At grade intersection of Cully Blvd connector (insert turning radius for all movements).
- NE 82nd Ave/OR 213 Bridge and Interchange (/08402): A state owned bridge and interchange with the 82nd Ave/OR213 Corridor (P10) with access to north and southbound 82nd Ave for both east and westbound Killingsworth/US30B traffic. Horizontal clearance of the bridge structure is 62 feet.
- NE Columbia Parkway Intersection: At-grade intersections with the Columbia Parkway connector.
- I-205 Bridge and Interchange (/09666): A state owned bridge structure and interchange with both north and southbound I-205 access from east and westbound Killingsworth St/US30B. Access to east and westbound Killingsworth/US30B is provided for both north and southbound I-205 traffic via Exits 23A and 23B, respectively. Horizontal clearance of the bridge structure is 93 feet.
- NE 122nd Ave Bridge Overcrossing (/09059): A state owed bridge structure crossing NE 122nd Ave. Horizontal clearance of the bridge structure is 56 feet 4 inches.
- Fairview Parkway Intersection: At grade intersection with Fairview Parkway Corridor (M2).

- NE 238th Drive Intersection: At grade intersection with NE 238th Drive which connects to the I-84 interchange, the eastern terminus of US30B. Access to both east and westbound I-84 is provide via NE 238th Drive. Access to US30B is provided for westbound I-84 traffic via Exit 16.

G. Identified Capital Improvements

- NE 42nd/47th Ave Bridge & Corridor Improvements (TSP 40007): Replace the weight-restricted NE 42nd Ave Bridge (#075) over NE Portland Hwy and the adjacent railway, and add pedestrian and bicycle facilities to the bridge and the roadway from Killingsworth to Columbia. This project will remove the weight restriction, maintain vertical clearance for over-dimensional freight, and provide pedestrian and bicycle facilities.
- Outer Sandy Blvd Corridor Improvements (TSP 50035) (NE 141st – City Limits): Widen street to three lanes with a sidewalk and bike lanes. Project design will consider freight movement needs, consistent with policies, street classification(s) and uses.
- Killingsworth/I-205 Southbound Interchange Improvements (TSP 110910): Widen the southbound I-205 on-ramp at NE Killingsworth to three lanes.

H. Corridor Photos

Figure 38. P4 BR 009B NE 33rd Ave Bridge looking west

Figure 39. P4 BR 009B NE 33rd Ave Bridge looking east

Figure 40. P4 BR 075 NE 42nd Ave Bridge looking east

Figure 41. P4 BR 075 NE 42nd Ave Bridge looking west

Figure 42. P4 NE Columbia Parkway Connection looking westbound

Figure 43. P4 NE Lombard Place

Figure 44. P4 UPRR Bridge on NE 60th looking north

Figure 45. P4 UPRR crossing on Cully Blvd looking north

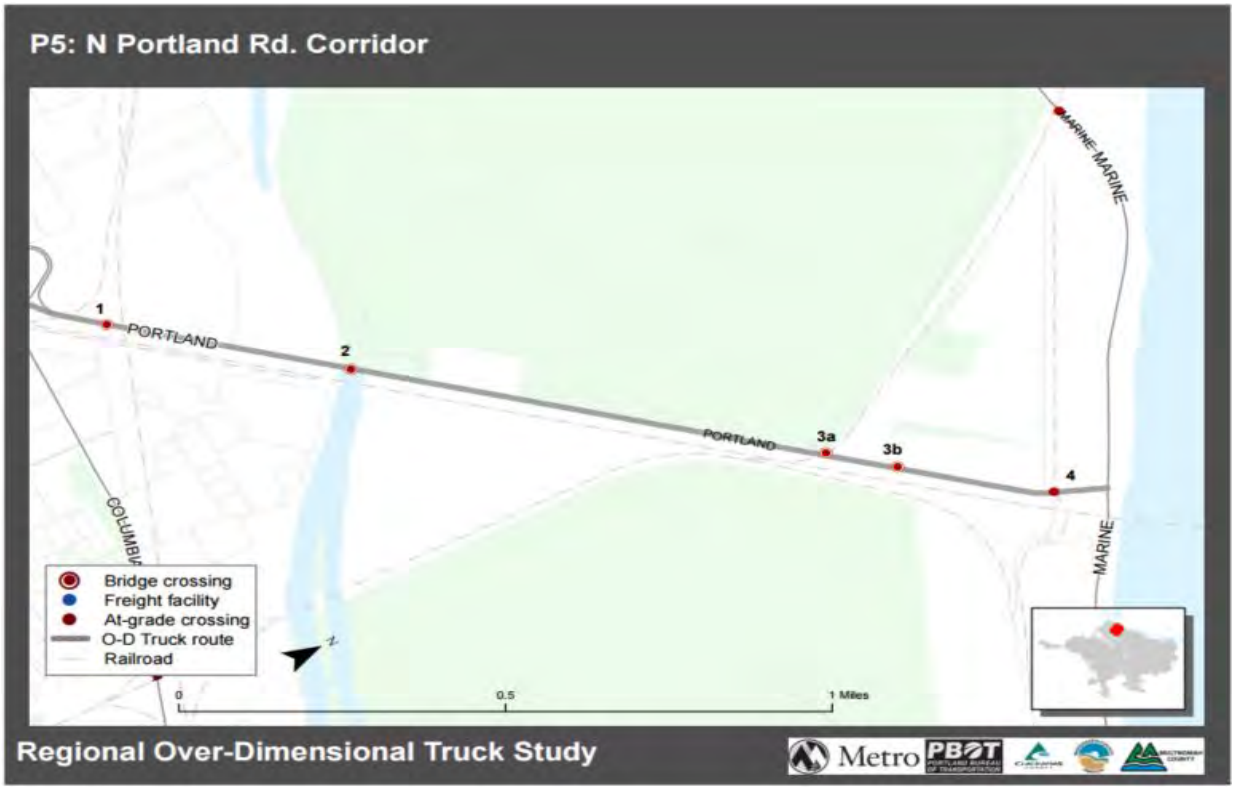
Figure 46. P4 WB Columbia Blvd at Lombard Pl

Figure 47. P4 WB Lombard Pl at Lombard St

P5. North Portland Road Corridor
(Marine Drive to Columbia Blvd)

A. Corridor Description

North Portland Road, also known as the Swift Highway, is a 1.7-mile corridor that connects the Marine Drive Corridor (P1) and the Columbia Boulevard Corridor (P3).



P5. N Portland Rd Corridor Map

B. Policy Designation

N Portland Rd. is classified as a Priority Truck Street and a Major Emergency Response Street within a Freight District in the City of Portland Master Freight Plan and the Transportation System Plan. The Portland Truck Map classifies N Portland Rd. as a Preferred Wide Load Route.

This corridor is also designated as a Regional Road Connector and a federal NHS Connector Route.

C. Roadway Characteristics

For most of the extent of N Portland Rd. between N. Marine Dr. and N. Columbia Blvd. varies between a two-lane facility though at key intersections and business entrances the road widens to a two-lane facility with a center turn lane. For the 550-foot two-lane segment between the two BNSF Railroad over crossings, the travel lanes are separated by a concrete median. There is 24 ft. of pavement between the median and the shoulder edge in that median segment. The 500 feet between the UPRR Bridge and Columbia Blvd. is characterized by two southbound lanes.

Table 41. North Portland Road Roadway Characteristics

Number of travel lanes	2 lanes
Average travel lane width	Varies from 11' to 12'
Curb-to-curb width	Ranges from 38 ft. at some sections with 2 lanes to 58 ft. in areas with 2 travel lanes and a center turn lane.
Surface type	Multi-lift AC from Columbia Blvd north, one section of PCC from Suttle Rd. to Marine Dr.
Surface condition	Most of the AC is considered fair with some parts good. PCC section is very good to excellent.

D. Roadway Operations

Traffic counts from 2009 show 11,000 average ADT on Portland Rd. south of Suttle Rd. Of these vehicles, 83% were cars and 17% were trucks. There are two signalized intersections: one at N Marine Dr. and one at N Columbia Blvd.

E. Over-dimensional Single Trip Permit Table

Summary: Approximately 95 STP permits were issued for a 3-year period for OR120/Swift Highway/Marine Dr. from MP 2.49 (just east of Force Ave./Delta Park) to I-5.

Note: These counts do not reflect loads operating under an annual Continuous Trip Permit.

Overall Width	Number of Permits Issued
8'6" or less (legal width)	33
8'7" to 10'00"	25
10'01" to 11'00"	14
11'01" to 12'00"	17
12'01" to 13'00"	2
13'01" to 14'00"	4
Over 14'00"	0

Analysis of Widest Loads: *No loads were permitted over 14'0" wide. There were 4 permits between 13'01" to 14'0". These were for a dozer w/blade, a modular unit, and 2 cranes.*

Overall Height	Number of Permits Issued
14'00" or less (legal height)	73
14'01" to 14'6"	13
14'7" to 16'00"	9
Over 16'00"	0

Analysis of Highest Loads: *No loads were permitted over 16'0" high. There were 9 permits between 14'7" to 16'0" high. These were for a modular unit, a mobile unit, hopper trailers, a crane, a lift truck, a forklift, an oven, a material transport vehicle and a shed.*

Overall Combination Length (including any overhang)	Number of Permits Issued
70' or less	25
71' to 80'	45
81' to 90'	15
91' to 100'	4
101' to 110'	2
111' to 120'	3
Over 120'	1

Analysis of Longest Loads: *1 load was permitted over 120' length; it was 130' overall length for movement of wood poles.*

Gross Weight	Number of Permits Issued
80,000 lbs. or less (legal weight)	30
80,000 lbs. to 98,000 lbs.	1
98,001 lbs. to 120,000 lbs.	35
120,001 lbs. to 140,000 lbs.	14
140,001 lbs. to 160,000 lbs.	10
160,001 lbs. to 180,000 lbs.	1
180,001 lbs. to 200,000 lbs.	2
Over 200,000 lbs.	2

Analysis of Heaviest Loads: *2 loads were permitted between 214,000 lbs. and 220,000 lbs. These were for cranes.*

Types of Vehicle Combinations Permitted
Truck (Solo Vehicle) or Self Propelled Units (like cranes)
Doubles
Truck-Tractor + Semitrailer or Truck-Tractor +Tow-Away Unit
Truck +Trailer
Log Truck + Pole Trailer
Heavy Haul Combination (Truck-Tractor/Jeep/Semitrailer/Booster)
Toter + Mobile Home
Pickup Truck + Trailer

Analysis of Combinations: *The Truck-Tractor/Semitrailer was the most common vehicle combination permitted. The trailers used were fixed trailers, stretch trailers, mobile units, trailers with flip axles, and a mechanical steer log truck. The longest trailer was a 70' stretch trailer. The second most common combination used was the Heavy Haul Combination (Tractor/Jeep/Semitrailer/Booster). The longest trailer permitted in this combination was a 65' trailer.*

F. Crossings and Bridge Structures (City/State Bridge ID)

There are four main crossing structures located along the N. Portland Road Corridor:

- BNSF Railroad At-Grade Crossing: This at-grade crossing of the BNSF at N. Suttle Rd has an overhead crossing signal with a vertical clearance of 18-feet, 3-inches for the west arm over the southbound travel lane and 17-feet, 4-inches for the east arm over the northbound travel lane.
- BNSF Railroad Bridge Undercrossings (2 structures): This is one of two BNSF steel structures crossing over N Portland Blvd. approximately 550 ft. apart with a raised concrete support structure dividing north and southbound traffic between the two structures. The north span located 1,200 feet south of N. Suttle Rd has a vertical clearance of 17-feet, 1-inch northbound and 17-feet, 2-inches southbound. The south span has a vertical clearance of 16', 11-inches northbound and 17-feet, 1-inch southbound. The roadway width between the concrete support structures for both structures is 25 feet for northbound and 25-feet for southbound traffic.
- Columbia Slough, Hwy 120 Bridge (07126): This ODOT owned composite structure has a deck width of 24 ft. This bridge structure is currently posted as weight limited for 20,000 lbs. single axle, 34,000 lbs. tandem axle, and 105,500 lbs. total gross vehicle weight.
- N Portland Rd UPRR Overcrossing (BR #092/17965): A city-owned concrete bridge structure with a 55 ft. deck width. This bridge is not posted for legal loads.

G. Identified Capital Improvements

- St Johns Truck Strategy, Phase 2 (TSP 30070): Redesign the Columbia/Portland Rd intersection as outlined in the St Johns Truck Strategy Phase II.

H. Corridor Photos

Figure 48. P5 BNSF bridge crossings with concrete barrier northbound

Figure 49. P5 BNSF grade crossing warning light structure southbound at Suttle Rd

Figure 50. P5 BR 092 Bridge over UPRR northbound

Figure 51. P5 Columbia Slough Hwy120 Bridge looking north

P6. Hwy 99E/MLK Corridor
(I-5 Interchange @ N. Marine Dr. to Rosa Parks Way and I-5 Ramps)

A. Corridor Description

Hwy 99E/MLK Corridor

The Hwy 99E/MLK Corridor (aka: Pacific Hwy No. 1E) extends 0.77 mile from the I-5/Marine Drive Interchange to N. Rosa Parks Way. The segment north of N. Lombard (US30 Bypass) is state owned and city-owned south of Lombard. The corridor extents westward on N. Rosa Parks Way (a city-owned facility) for 0.84 mile to the I-5/Rosa Parks Interchange. The Hwy 99E/MLK Corridor connects to the Marine Drive Corridor (P1) at the Marine Drive/I-5 Interchange, the Columbia Boulevard Corridor (P3) and the US 30 Bypass Corridor (P4).

N. Rosa Parks Way to I-5 Interchange Connection

Rosa Parks Way connects to 99E/MLK via a signalized intersection and extends westward 4,410 feet to the signalized I-5 Interchange.

P6. Hwy 99E/MLK Corridor Map

B. Policy Designation

Hwy 99E/MLK

The City of Portland Freight Master Plan and Transportation System Plan classifies the segment of 99E/MLK between the Marine Drive/I-5 interchange and N Lombard St (US30Bypass) as a Priority Truck Street and a Major Emergency Response Street. This segment is also designated as a Regional Road Connector and a ORS 366.215 Reduction Review Route.
.

The segment of 99E/MLK between Marine Drive/I-5 and Columbia Blvd is classified as a federal NHS Connector.

N. Rosa Parks Way to I-5 Interchange Connection

Portland TSP classifications: Truck Access Street and Major Emergency Response Street.
This connection is not classified on the Regional or federal systems.

C. Roadway Characteristics

The table below summarizes the roadway characteristics of Hwy 99E/MLK:

Table 42. Hwy 99/MLK Roadway Characteristics

Number of travel lanes	A four-lane partially divided facility between Marine Drive and Rosa Parks Way. The segment south of Lombard is partially divided with tree planter.
Average travel lane width	Varies from 4 lanes with center left turn lanes, and planted medians to N. Rosa Parks Way
Curb-to-curb width	Varies depending on the following corridor segments: • 72-feet south Marine Drive • 56-feet at the Columbia Slough Bridge • 68-feet at NE Columbia Blvd. • 40-feet over UPRR Structure • 55-feet at US30 Lombard/Portland Hwy • Varies from 23-55 feet from US30 south to N. Rosa Parks Way
Surface type	Primarily asphalt except on bridge segments which are concrete.
Surface condition	Marine Drive south to NE Columbia Blvd. is in poor condition. NE Columbia Blvd to US30 Lombard/Portland Hwy. is in fair condition. South of US30-Lombard is now COP Jurisdiction

Table 43. Rosa Parks Way Roadway Characteristics

Number of travel lanes	Primarily an undivided three-lane facility with on-street bike lanes.
Average travel lane width	Varies throughout corridor
Curb-to-curb width	Varies
Surface type	Asphalt
Surface condition	Get roadway condition data from Michael Magee

D. Roadway Operations (traffic counts/percent trucks)

Table 44. Hwy 99/MLK Traffic Classification Counts

Segment	Count Location	Date	ADT	Auto/Truck Percent
Marine Drive Interchange	MLK south of interchange	Oct. 2014	14,300	91/9 percent
MLK Jr. Blvd.	MLK north of N. Columbia Blvd.	Oct. 2014	17,100	91/9 percent

*No recent traffic classification counts on Rosa Parks Way

E. Over-dimensional Single Trip Permit Table

Note: ODOT permit data not available for this corridor

F. Crossings and Bridge Structures (City/State Bridge ID)

The following summarizes the main crossing structures located along the Hwy 99E/MLK Corridor:

- I-5 Overcrossing (#8995C): A state owned bridge part of the I-5/MLK and Marine Drive interchange. The total horizontal clearance is 82 feet.
- Union Court Overcrossing (#7400A): A state owned bridge part of the Union Court-Marine Way interchange. The total horizontal clearance is 72 feet.
- Walker St/Gertz Rd (NE 6th Dr.) Overcrossing (#7297): A state owned bridge crossing Walker St and Gertz Rd. Horizontal clearance is 34 feet southbound and 34 feet northbound.

- N. Vancouver Way/Schmeer Rd Overcrossing (#7298): A state owned bridge crossing N. Vancouver Way and Schmeer Rd. Horizontal clearance is 29 feet 4 inches southbound and 39 feet northbound.
- Columbia Slough Overcrossing (#1377C): A state owned bridge crossing the Columbia Slough. Horizontal clearance is 27 feet southbound and 27 feet northbound.
- UPRR Overcrossing (#5290): A state owned bridge crossing the Union Pacific Railroad – Kenton Line. Total horizontal clearance is 41 feet both north and southbound.

G. Identified Capital Improvements

- Columbia/MLK Intersection Improvements Phase 1 (TSP 40061): Intersection and signalization improvements with right turn lane from westbound Columbia to northbound MLK.

H. Corridor Photos

Figure 51. P6 ODOT1377C Columbia Slough Bridge southbound

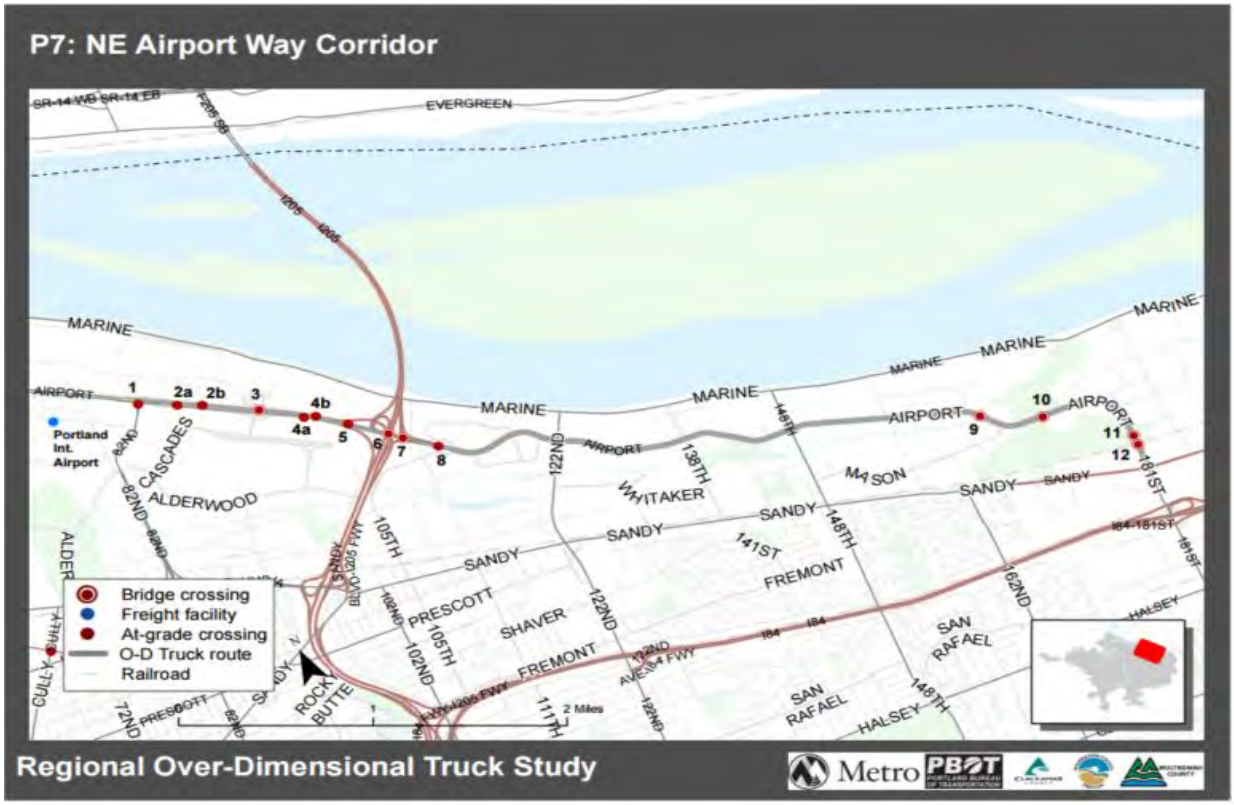
Figure 52. P6 Union Court Bridge ODOT7400A northbound

Figure 53. P6 UPRR Bridge 5290 northbound

P7. NE Airport Way Corridor
(NE 82nd Ave to US 30 Bypass in Gresham)

A. Corridor Description

The Airport Way Corridor extends 5.5 miles between the NE 82nd Ave Corridor (P10) in Portland to the US 30 Bypass Corridor (P4) and the I-84 interchange in Gresham, linking the Airport Industrial District to the interstate highway and state roadway networks.



P7. NE Airport Way Corridor Map

B. Policy Designation

The City of Portland Freight Master Plan and Transportation System Plan classifies Airport Way as a Priority Truck Street and a Major Emergency Response Street in a designated Freight District (within the Portland city limits). The Portland Truck Map identifies NE Airport Way between I-205 and the city limits as a Preferred Wide-Load Truck Route.

The entire segment of Airport Way between PDX and I-84 is designated as a Regional Road Connector and a federal NHS Connector Route between PDX and I-205.

C. Roadway Characteristics

For most of its length, the 5.5-mile Airport Way Corridor is a four-lane asphalt facility. In many areas, a vegetated median is present; however, a center left turn lane is present at most intersections or along the frontage of some facilities. The 0.25-mile segment west of Holman

transitions into a four lane concrete roadway separated by a median. The table below summarizes the roadway characteristics of Marine Drive:

Table 45. NE Airport Way Corridor Roadway Characteristics

Number of travel lanes	Varies from 4 to 6 – 4 lanes in most locations
Average travel lane width	11 ft. to 12 ft.
Curb-to-curb width	Varies from 58 ft. to 96 ft. – 70 ft. along mu
Surface type	PCC from I-205 to Holman, Multi-lift AC from Holman to NE 181st/Sandy
Surface condition	Both PCC and AC section are good to very good

D. Roadway Operations

The most recent traffic counts along the Airport Way Corridor are from 2009. This shows 11,000 average daily traffic (ADT) east of NE Riverside Parkway on the far eastern end of the corridor. There are nine signalized intersections located along this corridor: at NE 82nd Ave, the I-205 interchange, NE Holman St., NE Winsivers Dr., NE 122nd Ave, NE 138th Ave., NE 148th, NE 158th, and NE Riverside Pkwy.

E. Over-dimensional Single Trip Permit Table

Note: ODOT permit data not available for this corridor

F. Crossings and Bridge Structures (City/State Bridge ID)

There are various crossing structures located along the Airport Way Corridor:

- Airport MAX Crossing at NE 82nd Ave: At-grade intersection of NE 82nd Ave and Airport MAX Red Line with an 18 feet, 6-inch vertical clearance of the LRT catenary wires.
- Fixed Overhead Signs: Two fixed overhead signs east of NE 82nd Ave one in both the east and westbound directions have an estimated vertical clearance of 19 feet based on the ODOT clearance data for the similar fixed overhead sign locations at #5 and #8 below.
- NE Mt Hood Ave Bridge (BR 164): West of the I-205 interchange NE Airport Way crosses under the Mt Hood Ave Bridge (a Port owned facility) which has a vertical clearance of about 18 feet.
- Fixed Overhead Signs: Two fixed overhead signs east of NE 82nd Ave one in both the east and westbound directions have a vertical clearance of 19 feet based on the ODOT clearance data for the similar fixed overhead sign locations at #5 and #8 below.
- Fixed Overhead Sign: A fixed overhead sign spans over both east and westbound NE Airport Way just west of the I-205 bridge structure has a vertical clearance of 19-feet, 2-inches westbound and 18-feet, 11-inches eastbound.

- I-205 Bridge Undercrossing (Br#13507 and 13507A): A state owned bridge structure of I-205 crossing over NE Airport Way with a vertical clearance range of 16 feet, 8 inches to 17 feet, 2 inches.
- I-205 Multi-Use Path Pedestrian Bridge (13507D): A state owned pedestrian and bicycle bridge over NE Airport Way. With a vertical clearance of 17 feet, 11 inches.
- Fixed Overhead Sign: A fixed overhead sign spans over both east and westbound NE Airport Way just west of NE Glen Widing Dr. has a vertical clearance of 19-feet, 2-inches westbound and 19-feet, 7-inches eastbound.
- Columbia Slough Bridge A (BR 136/25B136): This city-owned concrete structure has a deck width of 73 feet and is not posted for legal loads.
- Drainage Canal Bridge B (BR 137/25B137): A concrete structure crossing Osborn Creek owned by the city with a deck width of 73 feet. This bridge is not posted for legal loads.
- Multnomah County Slough/UPRR Bridge: A county-owned concrete bridge structure crossing Osborn Creek and the UP Kenton Line located just north of US 30 Bypass in Gresham.
- Union Pacific Rail Bridge: A UPRR owned bridge structure with a vertical clearance of 23-feet, 4-inches located just north of the I-84 interchange in Gresham.

G. Identified Capital Improvements

- Airport Way ITS (TSP 50016) (I-205 - 158th): Install needed ITS infrastructure (communication network, new traffic controllers, CCTV cameras, and vehicle /pedestrian detectors). These ITS devices allow us to provide more efficient and safe operation of our traffic signal system.

H. Corridor Photos

Figure 54. Airport Way Sign Gantry

Figure 55. Airport Way Fixed Overhead Sign

Figure 56. Airport Way and Mt. Hood Avenue Bridge Overpass

Figure 57. Locations of Overhead Structures on Airport Way

Figure 58. P7 Airport way I-205 underpass westbound

Figure 59. P7 BR 137 Drainage Canal Bridge eastbound

Figure 60. P7 Columbia Slough Bridge BR136

Figure 61. P7 I-205 Multi-Use Path Crossing Airport Way eastbound

Figure 62. P7 Mt Hood Ave Bridge BR164 eastbound

Figure 63. P7 Mt Hood Ave Bridge BR164 westbound

Figure 64. P7 Multnomah County Slough and UPRR Bridge westbound

Figure 65. P7 NE Airport Way Fixed Overhead Sign westbound

Figure 66. P7 UPRR Bridge over Airport Way I-84 westbound

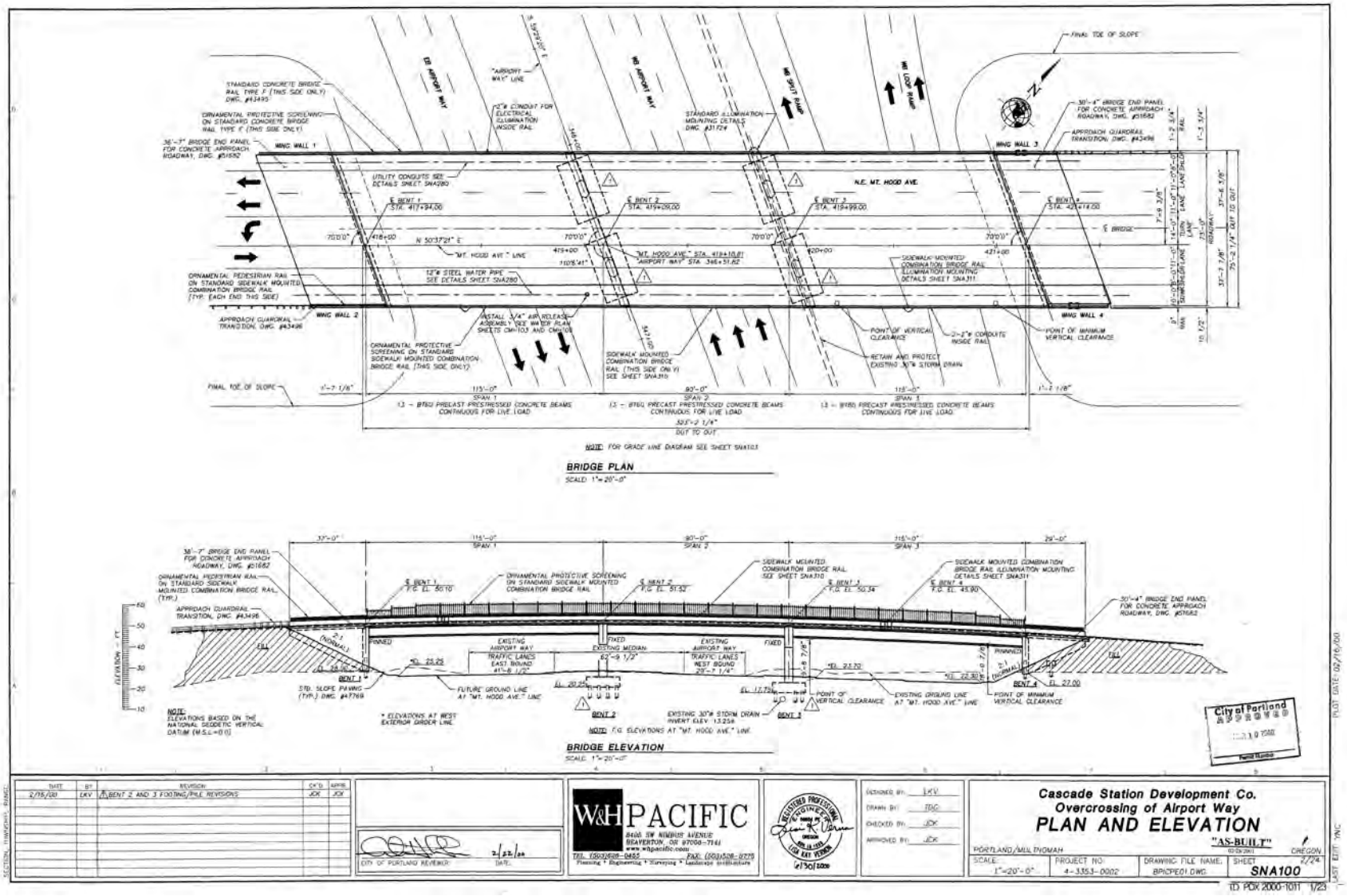


Figure 67, Cascade Station Overcrossing of Airport Way

P8. N Going Street Corridor
(I-5 to Swan Island)

A. Corridor Description

The 1.0-mile N Going Street corridor extends from I-5 west to Swan Island, connecting the Interstate Highway network to the 450-acre Swan Island Industrial District.

P8. Going Street Corridor Map

B. Policy Designation

The City of Portland Freight Master Plan and Transportation System Plan classifies this segment of Going Street as a Priority Truck Street and a Major Emergency Response Street. The portion of the corridor located to the west of the N Going Street – Swan Island Bridge (BR 012) is within a designated Freight District. The Portland Truck Map identifies N. Going Street from N. Interstate Ave to Swan Island as a Preferred Wide-Load Truck Route. West of I-5 N.

Going Street is a designated Regional Road Connector and a federal NHS Connector Route.

C. Roadway Characteristics

East of the N Going Street – Swan Island Bridge, the roadway is a five-to-six lane asphalt facility (the portion from N. Interstate to I-5 is asphalt over concrete). West of the bridge, the roadway transitions to an eight lane asphalt facility. The table below summarizes the roadway characteristics of N. Going Street.

Table 46. N Going Street Corridor Roadway Characteristics

Number of travel lanes	5-6 lanes from I-5 to Swan Island, 8 lanes on Swan Island
Average travel lane width	11 ft. to 12 ft.
Curb-to-curb width	Varies from 56 ft. at I-5 to 80 ft. to Swan
Surface type	Multi-lift AC from Swan Island to Interstate, Composite AC on PCC from Interstate to I-5
Surface condition	Very good from Swan Island to Greeley, fair to good from Greeley to Interstate, fair to poor from Interstate to I-5

D. Roadway Operations

The most recent 2010 traffic count along Going St. shows 22,000 average daily traffic (ADT) west of Interstate Ave. There are three signalized intersections located along this corridor at N Port Center Way, N Interstate Ave., and N. Maryland Ave.

E. Over-dimensional Single Trip Permit Table

Note: ODOT permit data not available for this corridor

F. Crossings and Bridge Structures (City/State Bridge ID)

There are three main crossing structures located along the Going Street Corridor:

- N Going Street – Swan Island Overcrossing (BR 012/25B12): A city-owned concrete bridge structure over the UPRR tracks. This structure has a deck width of 92.4 ft. and is not posted for legal sized loads.
- N Greeley Ave Bridge Undercrossing (BR 013/25B13): This concrete bridge structure passes under Greeley Street and is owned by the City. It has a deck width of 86.3 ft. and a vertical clearance of 17 ft. 8 in. The bridge is not posted for legal loads.
- N Going Street Pedestrian Overpass (BR 032/25B32): This pedestrian bridge is a concrete structure that is owned by the city. It has a deck width of 9.5 ft. and a vertical clearance of 18 ft.

G. Identified Capital Improvements

- Going St ITS (TSP 30015) (N. Interstate - Greeley): Install needed ITS infrastructure (communication network, new traffic controllers, CCTV cameras, and vehicle /pedestrian

detectors). These ITS devices allow us to provide more efficient and safe operation of our traffic signal system.

H. Corridor Photos

Figure 68. P8 BR 013 Rail Bridge undercrossing eastbound

Figure 69. P8 BR 032 Pedestrian Bridge overcrossing eastbound

Figure 70. P8 Going St BR 012 overcrossing of UPRR eastbound

P9. US 30/NW Front Ave Corridor
(I-405 to Cornelius Pass Road, including Nicolai, St. Helens Rd, and Front Ave)

A. Corridor Description

US 30 Corridor

The US 30 Corridor is a state-owned facility (aka: Lower Columbia River Highway No. 2W) that extends 11 miles from the I-405 ramps in NW Portland to Cornelius Pass Road in unincorporated Multnomah County. The segment of US 30 within Portland is 8 miles and follows NW Yeon Ave between I-405 and NW Kittridge Ave and NW St. Helens Road to the city limits. US 30 links to the US30 Bypass Corridor (P4) at the St. Johns Bridge and the Cornelius Pass Rd Corridor (M5) in Multnomah County. Several parallel freight route connections are located along US 30 that provide access to the surrounding industrial land uses in NW Portland that include:

NW Nicolai/St Helens Rd Connection

NW Nicolai/St Helens Rd is a three-lane facility that extends 12,000 feet (2.25 miles) from the signalized Yeon/I-405 intersection and reenters US 30 at the signalized intersection with Kittredge Ave to the north.

NW Front Avenue Connection

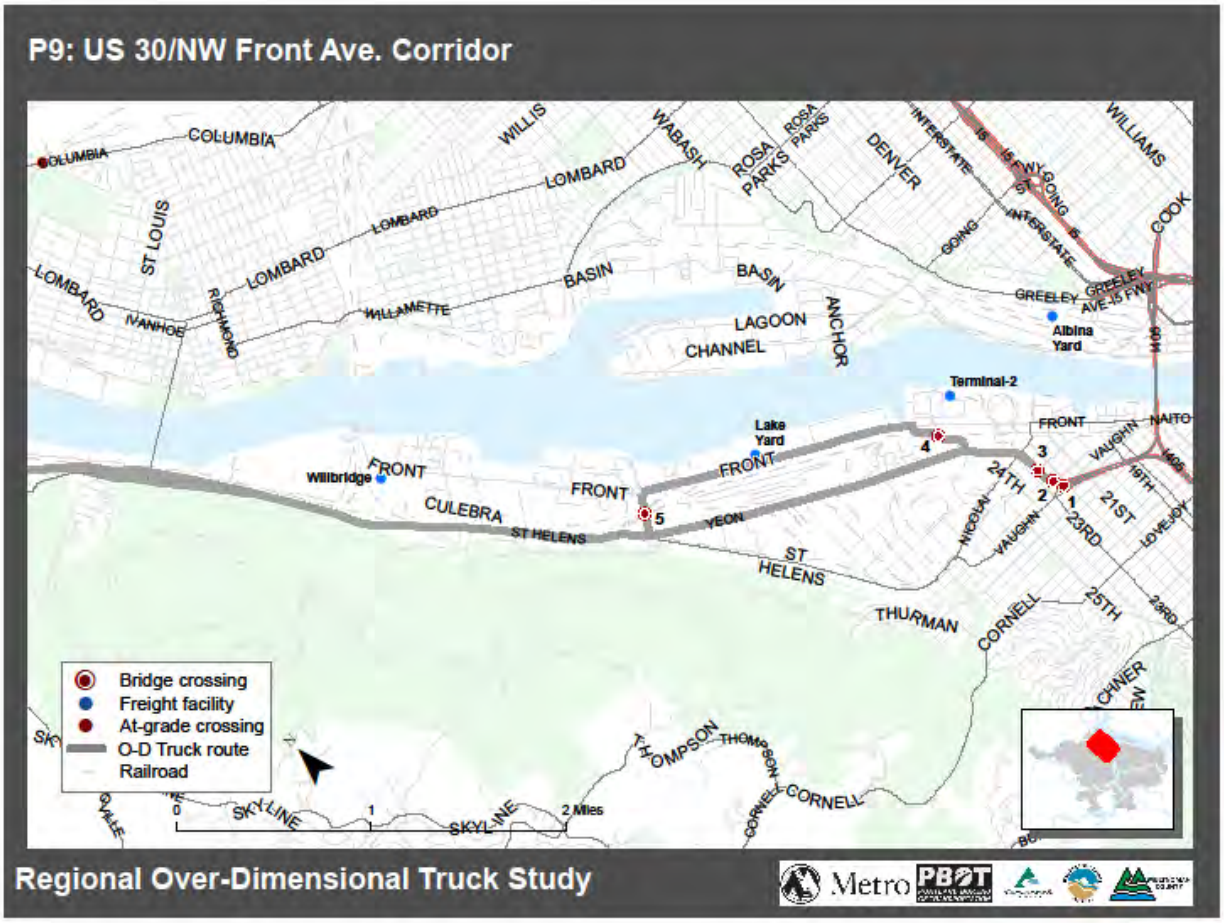
NW Front Ave is a key freight route serving the NW Industrial District that includes the BNSF intermodal Lake Yard, Port marine Terminal 2, major petroleum storage and distribution facilities and major industrial manufacturing and freight distribution facilities including Gunderson, Esco Corporation, and Georgia-Pacific. Front Ave is a two-lane facility with primary access to US 30 via the NW 26th Drive Bridge to the south and NW Kittridge Ave Bridge to the north. North of Kittridge Front Ave terminates at the Siltronics site just west of the BNSF mainline. Due to the at-grade rail crossing closures at NW Balboa and NW Doane Ave no direct access to US 30 is provide north of the Kittridge Ave crossing.

NW 26th Avenue Connection

NW 26th Ave is a city-owned bridge structure (BR-129) that crosses the BNSF Railroad to link US30 with NW Front Ave with signalized controlled intersections at both the north and south ends.

NW Kittridge Avenue Connection

NW Kittridge is a 1,200-foot-long city-owned roadway and bridge overcrossing (BR-010) of the BNSF Railroad that connects US 30 with Front Ave with signalized controlled intersections at both the north and south ends.



P9: US 30/NW Front Ave Corridor

B. Policy Designation

US 30

The City of Portland Freight Master Plan and Transportation System Plan classifies US 30 as a Regional Truck Way and a Major Emergency Response Street. This segment of US 30 is also designated as a Regional Main Roadway Connector and federal NHS Route.

NW Nicolai/St Helens Rd Connection

Portland TSP classifications: Priority Truck Street and a Major Emergency Response Street. This connection is also classified as a Regional Road Connector but is not classified on the federal NHS system.

NW Front Avenue Connection

Portland TSP classifications: Priority Truck Street and Major Emergency Response Street. This connection is also classified as a Regional Road Connector and a federal NHS Connector Route.

NW 26th Avenue Connection

Portland TSP classifications: Priority Truck Street and Major Emergency Response Street. This connection is also classified as a Regional Road Connector and a federal NHS Connector Route.

NW Kittridge Avenue Connection

Portland TSP classifications: Priority Truck Street and Major Emergency Response Street. This connection is not classified on the Regional or federal systems.

C. Roadway Characteristics

The table below summarizes the roadway characteristics of US30.

Table 47. US 30 Roadway Characteristics

Number of travel lanes	Primarily a four lane facility with a center left turn lane from I-405 to Cornelius Pass Road.
Average travel lane width	Varies throughout corridor (have ODOT complete)
Curb-to-curb width	Varies depending on the following corridor segments: • 82-96 feet between I-405 and NW Kittridge. • 60-78 feet from Kittridge to Cornelius Pass.
Surface type	Primarily asphalt except on bridge segments which are concrete.
Surface condition	The surface condition from I-405 to NW Kittridge Ave is in good condition. West of NW Kittridge Ave to NW Harborton Drive is in poor condition. West of NW Harborton Drive to NW McNamee Road is in fair condition.

D. Roadway Operations (traffic counts/percent trucks)

Table 48. US 30 Traffic Classification Counts

Segment	Count Location	Date	ADT	Auto/Truck Percent
NW Front Ave	East of 61ST AVE	01/04/2010	2,973	65/35 percent
US30	West of NW Kittridge Ave	Oct. 2014	24,200	91/9 percent
US30	East of St Johns Bridge US30/Bridge Ave.	Oct. 2014	23,000	91/9 percent
US30	West of St Johns Bridge US30/Bridge Ave.	Oct. 2014	21,000	94/6 percent
US30	East of Sauvie Island Bridge	Oct. 2014	16,800	94/6 percent
US30	West of Sauvie Island Bridge	Oct. 2014	16,900	94/6 percent
US30	East of NW Cornelius Pass Rd.	Oct 2014	17,200	94/6 percent

E. Over-dimensional Single Trip Permit Table

Note: ODOT permit data not available for this corridor

F. Crossings and Bridge Structures (City/State Bridge ID)

The following summarizes the main crossing structures located along the US 30/NW Front Ave Corridor and Connectors:

- NW Vaughn Street Undercrossing (#16511): A state owned bridge part of the I-405 off-ramp structure crossing US30. Vertical clearance 17-feet eastbound, 17-feet, 4-inches westbound; horizontal clearance 39-feet eastbound and 46-feet westbound.
- NW Wilson Street Undercrossing (#16510): A state owned bridge crossing over US30 at NW Wilson Street. Vertical clearance 17-feet, 5-inches eastbound and 18-feet, 4-inches westbound; horizontal clearance 38-feet eastbound and 50-feet westbound.
- NW York Street Undercrossing (#16509): A state owned bridge crossing over US30 at NW York Street. Vertical clearance 17-feet, 3-inches eastbound and 16-feet, 11-inches westbound; horizontal clearance 49-feet, 5-inches eastbound and 60-feet, 6-inches westbound.
- NW 26th Avenue Overcrossing (BR-129): A city owned bridge crossing the BNSF Railroad connecting US30 with NW Front Ave. This structure is 1,420-foot-long with a deck width of 49 feet and two 15-foot travel lanes and is not posted (weight limited) for legal sized loads.

- NW Kittridge Avenue Overcrossing (BR-010): A city owned bridge crossing the BNSF Railroad connecting US30 with NW Front Ave. This structure is 763 feet long with a deck width of 55 feet and four 11-foot travel lanes and is not posted (weight limited) for legal sized loads. This structure is identified in PBOT's 2014 Bridge Inventory as functionally obsolete.

G. Identified Capital Improvements

- Yeon/St Helens ITS (TSP 60023): Install needed ITS infrastructure (communication network, new traffic controllers, CCTV cameras, and vehicle /pedestrian detectors). These ITS devices allow us to provide more efficient and safe operation of our traffic signal system.

H. Corridor Photos

Figure 71. P9 NW 26th Ave Overcrossing BR 129 northbound

Figure 72. P9 NW Kittridge Ave Overcrossing BR 010 northbound

Figure 73. P9 NW Vaughn Street Undercrossing 16511 northbound

Figure 74. P9 NW Wilson St Undercrossing 16510 northbound

Figure 75. P9 NW York St Undercrossing 16509 northbound

P10. NE/SE 82nd Ave (OR 213) Corridor (NE Airport Way to I-205 Interchange and 82nd Drive)

A. Corridor Description

NE/SE 82nd Avenue (OR 213) Corridor

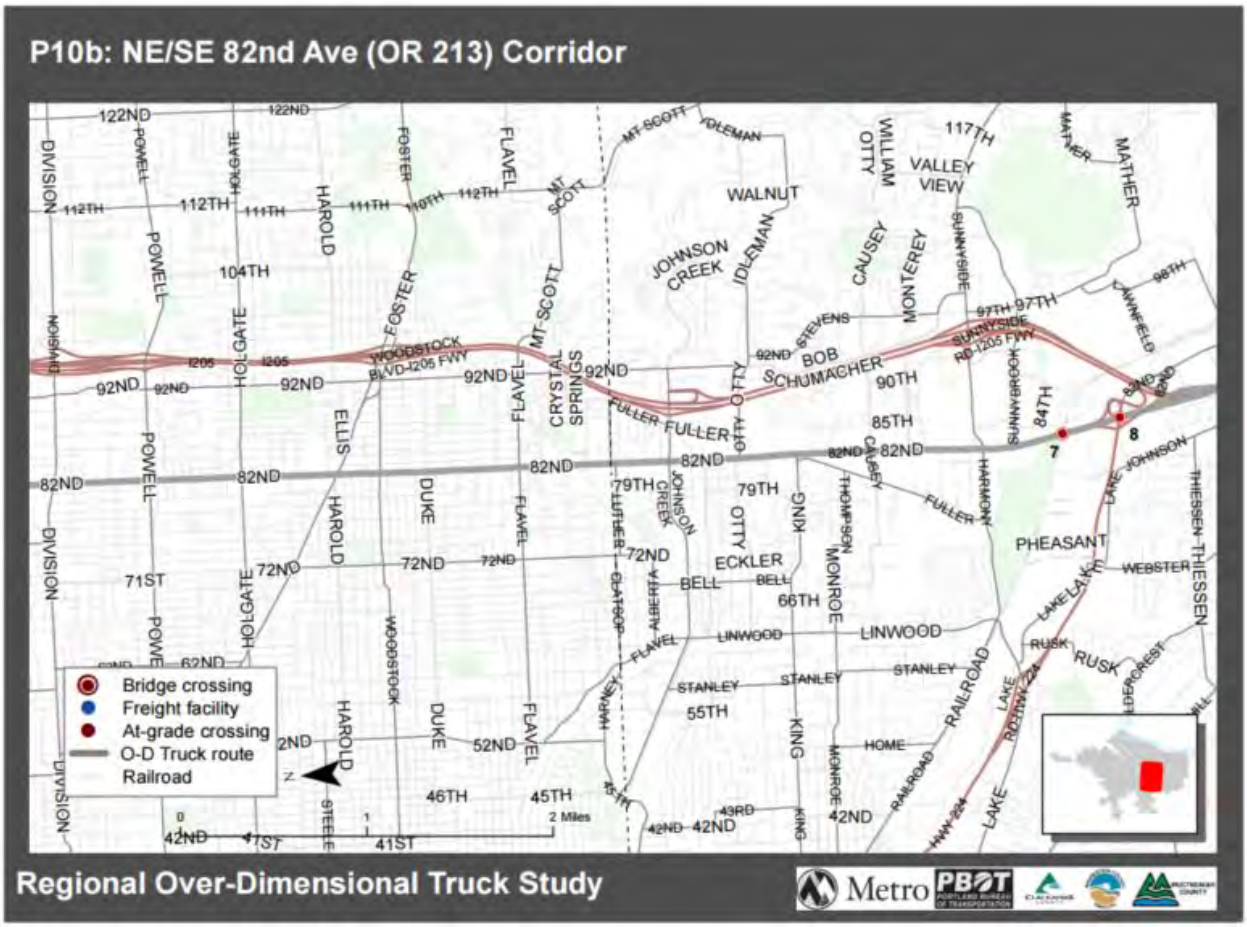
The NE/SE 82nd Avenue Corridor is a state owned facility that extends 11.5 miles from NE Airport Way in Portland to the I-205 interchange in Clackamas County. The 82nd Ave corridor intersects many other major east-west arterials including NE Airport Way (P7), NE Columbia Blvd (P3), NE Killingsworth/US30 Bypass (P4), Powell Blvd/US26, SE Johnson Creek Blvd (C5), SE Sunnybrook Blvd (C6), and 82nd Drive (C2). The adjoining land uses along the 82nd Ave Corridor south of NE Killingsworth are predominately commercial. North of Columbia Blvd NE 82nd Ave extend 1.25 miles to NE Airport Way which is located within the PDX Airport Industrial District.

82nd Drive (OR 213) Corridor in Clackamas County

The 82nd Drive over-dimensional truck route travels parallel to I-205 between the Gladstone Interchange and the OR 224, a distance of approximately 3 miles. This route is used primarily by Over Height Freight Route for loads that need to detour off I-205 and by freight accessing the Clackamas Industrial Area.

There are several improvements currently being made to the freight facilities in this corridor including improvements to the Strawberry Lane overpass which will address height restrictions on I-205. In addition, the Sunrise JTA project, which will open in 2016, is making major modification to the north end of this route including detaching the existing connection between 82nd Drive and OR 224. This connection will be replaced with a new direct connection between OR 213 N (82nd Avenue) and 82nd Drive.

82nd Drive is County Road # 22230 and is maintained by the County beginning approximately 1000 feet south of the Hanson Court and continuing to the south boundary of ODOT's Intersection of 82nd Drive and OR 212/224. The County also maintains the north boundary of ODOT's Intersection of 82nd Drive and continuing the intersection of Lawnfield Road and 82nd Drive.



P10: 82nd Avenue (OR213) Corridor

B. Policy Designation

<u>South of NE Killingsworth to City Limits</u>

The City of Portland Freight Master Plan and Transportation System Plan classifies this segment as a Major Truck Street and Major Emergency Response Street. This segment is not classified on the Regional or federal NHS system.

<u>NE Killingsworth to NE Airport Way</u>

The Portland TSP classifies this segment as a Priority Truck Street and Major Emergency Response Street. This segment is also designated as a Regional Road Connector and a federal NHS connector north of NE Columbia Boulevard.

<u>South of I-205 interchange to 82nd Drive</u>

Local Functional Classification – 82nd Drive is classified as a Minor Arterial as shown on TSP Map 5-4a.

Truck Freight Route – 82nd Drive is not classified as a Truck Freight Route as shown on TSP Map 5-9a.

OD Freight Route – 82nd Drive Road is not identified as an ORS 366.215 Corridor on the TSP Maps.

Regional Freight Network Designation – The segment of NE 82nd Ave from US30 Bypass to NE Airport Way is classified as a Regional Road Connector. The segment south of US30 Bypass is not on the regional freight network.

Federal/NHS Classification – The segment of NE 82nd Ave from US30 Bypass to NE Airport Way is classified as an NHS Intermodal Connector. The segment south of US30 Bypass to I-205 is classified as a MAP 21 NHS Principal Arterial.

C. Roadway Characteristics

The table below summarizes the roadway characteristics of NE/SE 82nd Avenue.

Table 49. NE/SE 82nd Ave (OR 213) Roadway Characteristics

Number of travel lanes	Primarily 4 lanes throughout the corridor with center left turn lanes.
Average travel lane width	Various throughout the corridor from 10-14
Curb-to-curb width	Varies depending on the following corridor segments: • 60-feet US30 Portland Hwy. – NE Sandy Blvd. • 52-58 feet NE Sandy Blvd. – NE Halsey Street • 59' 6" feet/inches structure over I-84 • 54-60 feet NE Wasco St. – SE Division St. • 60 feet SE Division St. – US26 (Powell Blvd.) • 60 feet US26 (Powell Blvd.) – SE Foster Rd. • 58-46 feet SE Foster Rd. – SE Johnson Creek Blvd. • 46-78 feet SE Johnson Creek Blvd. – SE Sunnyside Rd. 78-62 feet SE Johnson Creek Blvd. – End Hwy Limit
Surface type	Primary surface type asphalt.
Surface condition	Portland Hwy to SE Division St. is in poor condition SE Division St. to SE Flavel St. is in very poor condition SE Flavel St. to End Hwy limit is in poor condition

Table 50. 82nd Drive Roadway Characteristics

Number of travel lanes	Varies with turn lanes at some intersections, 3 lanes south of OR 212/224 and 3 lanes north of OR 212/224
Average travel lane width	Various from 12' to 14'

Curb-to-curb width	Various from 42' to 54', wider at major intersections
Surface type	Multi-lift asphalt (AC)
Surface condition	Insert surface conditions

D. Roadway Operations

Table 51. NE/SE 82nd Ave (OR 213) Traffic Classification Counts

Segment	Count Location	Date	ADT	Auto/Truck Percent
OR213	South of NE Portland Hwy.	Oct, 2014	8500	96/4 percent
OR213	South of Airport Connection	Oct. 2014	15,600	96/4 percent
OR213	North of Sandy Blvd.	Oct. 2014	15,800	96/4 percent
OR213	South of Sandy Blvd.	Oct. 2014	19,400	96/4 percent
OR213	North of Halsey Ramp to I-84 west	Oct. 2014	25,100	96/4 percent
OR213	North of NE Glisan Street	Oct. 2014	26,200	96/4 percent
OR213	South of NE Glisan Street	Oct. 2014	25,400	96/4 percent
OR213	South of SE Morrison Street	Oct. 2014	26,200	96/4 percent
OR213	North of SE Division Street	Oct. 2014	26,000	96/4 percent
OR213	South of SE Division Street	Oct. 2014	25,800	96/4 percent
OR213	North of US26 (Powell Blvd)	Oct. 2014	26,500	96/4 percent
OR213	South of US26 (Powell Blvd)	Oct. 2014	26,500	96/4 percent
OR213	North of SE Foster Rd.	Oct. 2014	22,500	98/2 percent
OR213	South of SE Foster Rd.	Oct. 2014	24,600	98/2 percent
OR213	North of SE Johnson Creek Blvd.	Oct. 2014	29,300	98/2 percent

OR213	South of SE Johnson Creek Blvd.	Oct. 2014	32,800	98/2 percent
OR213	North of SE Sunnyside Rd.	Oct. 2014	27,900	98/2 percent
OR213	North of OR224 Interchange	Oct. 2014	34,000	98/2 percent

Table 52. 82nd Drive Roadway Operations

Location on 82nd Drive	2011 ADT
South of Strawberry Lane	15,280
South of Jennifer Street	17,225
North of Jennifer Street	9,195
South OR 212 / 224	14,670
North OR 212 / 224	16,775
South of Lawnfield Road	17,600

E. Over-dimensional Single Trip Permit Table (82ND Dr. - Clackamas County)

Summary: Approximately 730 STP permits were issued for a 3-year period for OR213 between MP 0 (near Columbia Blvd.) and MP 10 (jct. w/ I-205).

Note: These counts do not reflect loads operating under an annual Continuous Trip Permit.

Overall Width	Number of Permits Issued
8'6" or less (legal width)	90
8'7" to 10'00"	119
10'01" to 11'00"	129
11'01" to 12'00"	281
12'01" to 13'00"	63
13'01" to 14'00"	27
Over 14'00"	21

Analysis of Widest Loads: *21 loads were permitted between 14'2" and 17'00" wide. These were for dozers, excavators, mobile units, transformers, prefab shelters, empty tanks, propulsion hubs, boat propellers, communication shelters, froth screen and the largest equipment was 1 log stacker at 17'00".*

Overall Height	Number of Permits Issued
14'00" or less (legal height)	391
14'01" to 14'6"	237
14'7" to 16'00"	96
Over 16'00"	6

Analysis of Highest Loads: 6 *loads were permitted between 16'1" and 17'06" high. These were for a shed, excavator, loaders, and 2 transformers at 17'06" each.*

Overall Combination Length (including any overhang)	Number of Permits Issued
70' or less	100
71' to 80'	336
81' to 90'	94
91' to 100'	41
101' to 110'	97
111' to 120'	35
Over 120'	27

Analysis of Longest Loads: *27 loads were permitted between 121' and 202' overall length. These were for scrap handlers, crane, excavators, unladen heavy haul combination, and 18 concrete bridge girders.*

Gross Weight	Number of Permits Issued
80,000 lbs. or less (legal weight)	74
80,000 lbs. to 98,000 lbs.	34
98,001 lbs. to 120,000 lbs.	221
120,001 lbs. to 140,000 lbs.	180
140,001 lbs. to 160,000 lbs.	88
160,001 lbs. to 180,000 lbs.	58
180,001 lbs. to 200,000 lbs.	40
Over 200,000 lbs.	35

Analysis of Heaviest Loads: *35 loads permitted were between 201,000 lbs. and 266,600 lbs. These were for cranes, excavators, scrap handlers, tractors, wheel loaders, log stacker, concrete bridge girders.*

Types of Vehicle Combinations Permitted
Truck (Solo Vehicle) or Self Propelled Units (like cranes)
Doubles
Truck-Tractor + Semitrailer or Truck-Tractor +Tow-Away Unit
Truck +Trailer
Log Truck + Pole Trailer
Heavy Haul Combination (Truck-Tractor/Jeep/Semitrailer/Booster)
Toter + Mobile Home
Pickup Truck + Trailer

Analysis of Combinations: *The Truck-Tractor/Semitrailer and Truck-Tractor/Tow-Away Unit was the most common vehicle combination permitted. The trailers used were fixed trailers, stretch trailers, tow-away fixed loads, trailers with flip axles, and a number of trailers were in the "float" position. The longest trailer was a 75' stretched trailer. The second most common combination used was the Heavy Haul Combination (Tractor/Jeep/Semitrailer/Booster). The longest trailer permitted in this combination was an 83' fixed trailer.*

F. Crossings and Bridge Structures (City/State Bridge ID)

The following summarizes the main crossing structures located along the NE/SE 82nd Avenue Corridor from north to south:

- NE Airport Way Frontage Rd/Airport MAX Crossing: At-grade intersection of NE Airport Way and the Airport MAX line with an 18 feet, 6 inch vertical clearance of the LRT catenary wires. This intersection also includes a crossing island and channelized right-turn lane and MAX LRT crossing arms.
- NE Columbia Ave Undercrossing (08401B): A state owned bridge structure with center support piers and guard rails dividing the north and southbound travel lanes with a vertical clearance of 15 feet, 8 inches for both north and southbound lanes. Horizontal clearance of 37 feet, 6 inches northbound and 39 feet, 6 inches southbound.
- UPRR Undercrossing (08401A): A state owned bridge with a center concrete support structure and guard rails dividing the north and southbound travel lanes and with a vertical clearance of 15 feet north and southbound and a horizontal clearance of 37 feet, 6 inches northbound and 39 feet, 9 inches southbound.
- NE Killingsworth/US30Bypass Undercrossing (08402): A state owned bridge with a center guard rail dividing the north and southbound travel lanes but no center bridge support structure. Note the posted vertical clearance is 14 feet 2 inches while the ODOT bridge log shows a 14 foot, 9 inch and 14 foot, 10-inch VC for north and southbound, respectively. The horizontal clearance is 38 feet, 8 inches northbound and 37 feet, 4 inches southbound.
- NE Halsey Street Undercrossing (07999): A state owned bridge without a center guard rail or bridge support structure and with a vertical clearance of 15 feet, 6 inches and a horizontal clearance of 72 feet.
- I-84/UPRR/MAX Bridge Overcrossing (01994): A state owned bridge structure with a horizontal clearance of 59 feet, 6 inches.
- UP Rail Bridge/Scott Creek Overcrossing (02135A): Hwy 213 bridge crossing the UPRR line in Clackamas County located to the south of Sunnybrook Blvd and just north of I-205 and a horizontal clearance of 68 feet.
- Hwy 224/Milwaukie Expressway Underpass (09386): A state owned bridge with center support piers and concreate barriers dividing the north and southbound travel lanes and a vertical clearance of 17 feet, 3 inches northbound and 17 feet, 1 inch southbound and a horizontal clearance of 55 feet northbound and 39 feet southbound.
- South of I-205 interchange: There are no bridges or structures on this route.

G. Identified Capital Improvements

There are no committed projects beyond the improvements that are currently underway.

H. Corridor Photos

Figure 76. NE 82nd Ave at NE Airport Way Northbound

Figure 77. NE Columbia Blvd Undercrossing Southbound

Figure 78. NE Halsey Street Ramp Undercrossing Southbound

Figure 79. NE Killingsworth Undercrossing Northbound

Figure 80. P10 UPRR Undercrossing southbound

Figure 81. NE Killingsworth Undercrossing Northbound

Figure 82. P10 Hwy 224-Milwaukie Expressway Underpass southbound

4.4 Washington County Over-Dimensional Truck Routes

W1. Murray Boulevard Corridor
(US 26 to SW Scholls Ferry Rd/OR 210 in Beaverton)

A. Corridor Description

Murray Blvd is a 5.9-mile corridor that extends from US-26 at the northern end to SW Scholls Ferry Rd (W8) at the southern end. Murray Blvd runs north-south and is parallel to Highway 217. The corridor crosses SW Tualatin Valley Hwy (W10) 2.4 miles south of US-26 and 3.5 miles north of Scholls Ferry Rd. The corridor is located within both the City of Beaverton and unincorporated Washington County. It connects major employment sites (Nike and Tektronix campuses) to Highway 26.

Figure 83. W1. Murray Blvd Corridor Map

B. Policy Designation

Murray Blvd is under Washington County jurisdiction and classified as an Urban Arterial with 4-5 lanes. The corridor is designated as an over-dimensional truck permit route of 3+ lanes, but the segment from SW Tualatin Valley Hwy to US-26 is designated as 3+ Lanes with Exceptions.

Regional Freight Network Designation – Regional road connector

Federal/NHS Classification – The segment of Murray Blvd from US 26 to OR 8 is classified as a NHS Route. The segment from OR 8 to OR 210 is classified as a MAP 21 NHS Principal Arterial.

C. Roadway Characteristics

Table 53. Murray Blvd Roadway Characteristics

Number of travel lanes	Murray Blvd is 5 lanes, except for a .41-mile segment from SW Terman Rd to SW Millikan Way, where it is 4 lanes of travel (no center turn lane).
Average travel lane width	Varies from 11' – 12'
Curb-to-curb width	Varies from 32' (where there is a median strip between the directional travel lanes) to 74'.
Surface type	Asphalt concrete
Surface condition	Most of the roadway is classified as 'good' or 'very good.' **The segment from Jenkins Rd to SW Terman Rd (.28 miles) and from SW Osprey Drive** to SW Scholls Ferry Rd (0.31 miles) are classified as 'fair.'

D. Roadway Operations

The most recent 2014 traffic counts along Murray Blvd show annual average daily traffic counts ranging from 24,400 just north of SW Tualatin Valley Highway to 28,900 at Butner. There are 19 traffic signals along this corridor at the following locations: US-26 ramp, Butner Road, Walker Road, Bowerman Drive, Jenkins Road, SW Millikan Way, SW Tualatin Valley Hwy, SW Farmington Road, SW 6th St, SW Allen Blvd, SW Davis Road, SW Hart Rd, SW Sexton Mountain Drive, SW Maverick Terrace, SW Brockman Street, SW Weir Rd, SW Osprey Dr, SW Teal Blvd, and SW Scholls Ferry Road.

E. Over-dimensional Single Trip Permit Table

Summary: Approximately 175 STP permits were issued for a 3-year period for Murray Blvd. These counts do not reflect loads operating under an annual Continuous Trip Permit.

Analysis of Widest Loads: *The widest load permitted was for a 15'4" wide transformer. The next widest load was for a 14'6" wide crusher tower. All other loads over 14'00" wide (but less than 15'4" wide) were for mobile homes. The base width on the mobile homes did not exceed 14' wide.*

Table 54. Analysis of Widest Loads

Overall Width	Number of Permits Issued
8'6" or less (legal width)	37

8’7” to 10'00"	39
10'01" to 11'00"	21
11'01" to 12'00"	52
12'01" to 13'00"	04
13'01" to 14'00”	13
Over 14’00”	03

Analysis of Highest Loads: *The highest load permitted was for a 15’9” high transformer. All other loads permitted were between 14’8”-15’8” high for mobile homes, scraper, compactor, forklifts, and a shed.*

Table 55. Analysis of Highest Loads

Overall Height	Number of Permits Issued
14’00” or less (legal height)	138
14’01” to 14’6”	20
Over 14’6”	11

Analysis of Longest Loads: *The longest load permitted was 120’ overall length to move a transformer. All of the loads permitted between 101’-110’ overall length were for cranes and excavators.*

Table 56. Analysis of Longest Loads

Overall Combination Length (including any overhang)	Number of Permits Issued
70' or less	50
71' to 80'	62
81' to 90'	38
91' to 100'	14
101' to 110'	06
Over 110’	01

Analysis of Heaviest Loads: *The heaviest load permitted was 215,000 lbs. to move a transformer. All of the loads permitted between 180,001 lbs.-200,000 lbs. were for cranes, an excavator, and a self-propelled crane.*

Table 57. Analysis of Heaviest Loads

Gross Weight	Number of Permits Issued
80,000 lbs. or less (legal weight)	30
80,000 lbs. to 98,000 lbs.	01
98,001 lbs. to 120,000 lbs.	45

120,001 lbs. to 140,000 lbs.	65
140,001 lbs. to 160,000 lbs.	19
160,001 lbs. to 180,000 lbs.	08
180,001 lbs. to 200,000 lbs.	05
Over 200,000 lbs.	01

Analysis of Combinations: *The above types of combinations were used to move the loads described above. The majority of the combinations used were truck-tractor/semitrailer combinations. The trailers used were fixed trailers, stretch trailers, and trailers with flip axles. The longest trailer permitted for this combination was a 58' fixed trailer. The second most common combination used was the heavy haul combination (truck-tractor/jeep/semitrailer/booster). The longest trailer permitted in this combination was a 95' trailer (inclusive of dolly). There were also mobile homes permitted, with a trailer length up to 75'.*

Table 58. Analysis of Combinations

Types of Vehicle Combinations Permitted
Truck (Solo Vehicle) or Self Propelled Units (like cranes)
Truck-Tractor + Semitrailer or Truck-Tractor +Tow-Away Unit
Heavy Haul Combination (Truck-Tractor/Jeep/Semitrailer/Booster)
Toter + Mobile Home
Pickup Truck + Trailer

F. Crossings and Bridge Structures (City/State Bridge ID)

There are two bridges along the corridor. The first crosses over the MAX light rail line, Terman Rd, and Beaverton Creek at milepost 4.197. This bridge cannot handle any overweight loads in the southern direction, and in the northern direction it cannot handle loads over 150K pounds. The second crosses Cedar Mill Creek at milepost 5.086. There is also a highway overpass at US-26 at the northern end of this corridor.

G. Identified Capital Improvements

Several projects along this corridor have committed funding and are under construction, or will be soon. These include:

- Farmington Rd - Murray to Hocken road widening, currently under construction. This project will widen Farmington Road to 5 lanes at the intersection with Murray. There will be double left turns in all directions, and right turn lanes in the east, west and south bound direction.
- Jenkins Rd – 158th to Murray road widening. This project will widen Jenkins Road to 5 lanes up to the intersection with Murray.
- Walker Rd – Schendel Ave to Murray road widening. This project will widen Walker Road to the intersection with Murray, and include continuous bike and pedestrian facilities.

W2. SW 185th Avenue
(US 26 to Tualatin Valley Highway/OR-8)

A. Corridor Description

SW 185th Avenue is a 3.27-mile corridor that extends from Tualatin Valley Highway/OR-8 (W10) at the southern end to US 26 at the northern end. 185th runs north-south, and intersects with Evergreen Rd (W7) .24 miles south of Hwy 26, and Cornell Rd (W3) .52 miles south of Hwy 26.

Figure 84. W2 SW 185th Ave Corridor Map

B. Policy Designation

SW 185th Avenue is an urban arterial. The TSP classification is 6 to 7 lanes from Cornell Rd to Hwy 26, and 4-5 lanes for the rest of the corridor. It is designated as an over-dimensional permit route, from TV Highway to Baseline is 3+ lanes with exceptions; the rest is 3+ lanes.

Regional Freight Network Designation – Not on the regional freight network.

Federal/NHS Classification – This corridor is classified as a MAP 21 NHS Principal Arterial.

C. Roadway Characteristics

Table 59. 185th Avenue Roadway Characteristics

Number of travel lanes	185th Avenue varies from 4 – 7 lanes
Average travel lane width	Varies from 11' – 12' for most of corridor. Immediately north of Tualatin Valley Highway in the northern direction, lanes are only 10'.
Curb-to-curb width	The most southern segment of the road, immediately north of Tualatin Valley Highway, is only 25 feet from curb to curb due to the concrete median. The most northern segment, at the interchange with US 26 widens to 134 feet. Most of the corridor is 74 feet, but some segments have raised center medians that limit the paved width to 32 feet across in one direction.
Surface type	Portland cement from just north of Walker Rd to SW Alexander St. Asphalt concrete for rest of corridor.
Surface condition	The segment from Tualatin Valley Highway to just north of Walker Rd is rated 'Very Good,' from Walker Rd to the Highway 26 ramps is rated 'Good.' The segment that crosses over Highway 26 is rated 'Fair.'

D. Roadway Operations

Traffic counts (from 2014) on this corridor range from a high of 54,500 at Evergreen Pkwy to 20,600 at Tualatin Valley Highway.

There are 15 signals along the corridor. These are located at: Tualatin Valley Highway, Johnson St, Stepping Stone Drive, Baseline Rd, SW Salix Terrace, Heritage Parkway, NW Holly Street, halfway between Holly Street and Walker Road, Walker Road, about halfway between Walker and Eider Court (at McKinley Elementary), Eider Court, Cornell Rd, halfway between Cornell and Evergreen Road, Evergreen Road, Highway 26 ramp.

E. Over-dimensional Single Trip Permit Table

Summary: Approximately 212 STP permits were issued for a 3-year period for SW 185th Ave from US26 to Farmington Rd. These counts do not reflect loads operating under an annual Continuous Trip Permit.

Analysis of Widest Loads: *The widest loads permitted were for tanks which were between 15'-15'2" in width. The next widest loads were between 13'-14'10" and were for mobile homes with eaves, trusses, dozers, compactors, excavators, air handling units, a jaw crusher and a hopper.*

Table 60. Analysis of Widest Loads

Overall Width	Number of Permits Issued
8'6" or less (legal width)	40
8'7" to 10'00"	39
10'01" to 11'00"	34
11'01" to 12'00"	60

12'01" to 13'00"	12
13'01" to 14'00”	15
Over 14’00”	12

Analysis of Highest Loads: *The highest loads permitted were for tanks which were between 16’4”-16’11” high. The next highest loads were between 14’8”-16’ and were for mobile homes, cranes and other equipment, air handlers, generators, and tanks.*

Table 61. Analysis of Highest Loads

Overall Height	Number of Permits Issued
14’00” or less (legal height)	144
14’01” to 14’6”	38
14’7” to 16’00”	24
Over 16’00”	6

Analysis of Longest Loads: *The longest load permitted was 125’ overall length to move an excavator. The next longest load was 115’ to move a crane. There were also a number of loads permitted between 102’-110’ to move cranes and other types of equipment and some mobile homes.*

Table 62. Analysis of Longest Loads

Overall Combination Length (including any overhang)	Number of Permits Issued
70' or less	69
71' to 80'	80
81' to 90'	34
91' to 100'	13
101' to 110'	14
111’ to 120’	1
Over 120’	1

Analysis of Heaviest Loads: *The heaviest load permitted was 200,000 lbs. to move a crane. The next heaviest loads were between 182,600 lbs.-197,000 lbs. to move cranes and other types of equipment.*

Table 63. Analysis of Heaviest Loads

Gross Weight	Number of Permits Issued
80,000 lbs. or less (legal weight)	38
80,000 lbs. to 98,000 lbs.	10
98,001 lbs. to 120,000 lbs.	67
120,001 lbs. to 140,000 lbs.	67
140,001 lbs. to 160,000 lbs.	14

160,001 lbs. to 180,000 lbs.	7
180,001 lbs. to 200,000 lbs.	9
Over 200,000 lbs.	0

Analysis of Combinations: *The above types of combinations were used to move the loads described above. The majority of the combinations used were truck-tractor/semitrailer combinations. The trailers used were fixed trailers, stretch trailers, and trailers with flip axles. The longest trailer permitted for this combination was a 66' expanded trailer. The second most common combination used was the heavy haul combination (truck-tractor/jeep/semitrailer/booster). The longest trailer permitted in this combination was a 63' stretch trailer. There were also mobile homes permitted, with a trailer length up to 75'. Mobile homes can be permitted up to 80' in length (including the tongue).*

Table 64. Vehicle Combinations Permitted

Types of Vehicle Combinations Permitted
Truck (Solo Vehicle) or Self Propelled Units (like cranes)
Truck-Tractor + Semitrailer or Truck-Tractor +Tow-Away Unit
Heavy Haul Combination (Truck-Tractor/Jeep/Semitrailer/Booster)
Toter + Mobile Home
Pickup Truck + Trailer

F. Crossings and Bridge Structures (City/State Bridge ID)

185th includes two bridge crossings: 1-mile north of TV highway, at Willow Creek and the intersection with Baseline. Approximately .43 miles north of TV highway there is a bridge over Beaverton Creek. There's a highway overpass with US 26 at the northern end of the corridor. There is also an at-grade MAX crossing just north of Baseline Rd.

G. Committed Projects

- ODOT TV Highway / 185th Avenue Safety Project will add lighting and make minor lane geometry modifications between SW Alexander and Blanton Streets in Aloha.

W3. NE/NW Cornell Rd
(US 26 to OR-8 in Hillsboro)

A. Corridor Description

Cornell Road is a 7.53-mile corridor. It runs east-west. Cornell Road links the employment areas and airport in Hillsboro to Highway 26. It runs parallel to Highway 26, although it is about 5 miles (road distance) south of the highway where it starts in Hillsboro until it intersects the highway 7.5 miles later. It also runs parallel with Evergreen Pkwy (W7). It can be used as an alternative route when Highway 26 is congested. It intersects with NE Brookwood Pkwy (W6), NW Cornelius Pass Rd (W4), NW Evergreen Rd (W7), SW 18th Ave (W2). There are major employers and large shopping centers directly off Cornell Rd.

Figure 85. W3: NE/NW Cornell Rd Corridor Map

B. Policy Designation

This corridor is an Urban Arterial. The TSP classification is for 6-7 lanes for a short distance in Hillsboro from OR-8 to E Main Street, and for 4-5 lanes for the rest of the corridor. The entire corridor is designated as an over-dimensional truck permit route for 3+ lanes, no exceptions.

Regional Freight Network Designation – Regional Road Connector.

Federal/NHS Classification – This corridor classified as an NHS Route.

C. Roadway Characteristics

Table 65. Cornell Road Roadway Characteristics

Number of travel lanes	Cornell Road ranges from 4 – 7 lanes.
Average travel lane width	Varies from 11' – 12'
Curb-to-curb width	Much of the corridor is 72 feet from curb to curb. In places with a median, it ranges from 28 feet to 46 feet. There are two interchanges (at 185th and at Bethany) where the curb to curb width is approximately 100 feet.
Surface type	Asphalt concrete for most of corridor. Portland cement from Cornelius Pass to 185th.
Surface condition	The segment from Tualatin Valley Hwy to Elam Young Parkway is rated 'Fair.' From Elam Young Parkway to NE Ray Circle, it is rated 'Good.' From Ray Circle to Cornelius Pass is rated 'Fair.' From Cornelius Pass to 185th is rated 'Very Good.' From 185th to US 26 is rated 'Good.'

D. Roadway Operations

Traffic counts (from 2014) on this corridor range from 23,700 at NW Bethany Blvd to 33,000 at NE Brookwood Pkwy.

There are signals at the US-26 ramps, NW Bethany Court, NW 167th Place, NW 173rd Ave, Evergreen Parkway, NW 185th Ave, NW 188th Ave, NW 192nd Ave, NW Amberglen Pkwy, NW Amberwood Dr, NW John Olsen Ave, NW Aloclek Dr, NW Cornelius Pass Rd, NE Walbridge St, NW 229th Ave, Orenco Station Pkwy, NE Elam Young Pkwy, NE Shute Rd, NE Brookwood Pkwy, NE 34th Ave, NE 25th Ave, NE Arrington Rd, NE Grant St, E Main St, SE Washington St, SE Baseline St.

E. Over-dimensional Single Trip Permit Table

Summary: Approximately 311 STP permits were issued for a 3-year period for NW Cornell Rd from US26 to OR8. These counts do not reflect loads operating under an annual Continuous Trip Permit.

Analysis of Widest Loads: *The widest loads permitted were for 16' wide aircraft wings (1). The next widest loads were for 15'10" wide tanks (8). All other loads over 14'00" wide (but less than 15'10" wide) were for a pavement profiler, scrubber bottom, tanks, and a mobile home.*

Table 66. Analysis of Widest Loads

Overall Width	Number of Permits Issued
8'6" or less (legal width)	56
8'7" to 10'00"	60
10'01" to 11'00"	38
11'01" to 12'00"	91

12'01" to 13'00"	20
13'01" to 14'00"	26
Over 14'00"	19

Analysis of Highest Loads*: The highest load permitted was for a 16'10" high walkway. The next highest load was for a 16'2" high silo.*

Table 67. Analysis of Highest Loads

Overall Height	Number of Permits Issued
14'00" or less (legal height)	175
14'01" to 14'6"	87
14'7" to 16'00"	46
Over 16'00"	02

Analysis of Longest Loads: *The longest load permitted was 130' overall length to move a walkway. The next longest load was 125' overall length to move an excavator.*

Table 68. Analysis of Longest Loads

Overall Combination Length (including any overhang)	Number of Permits Issued
70' or less	52
71' to 80'	160
81' to 90'	53
91' to 100'	13
101' to 110'	25
111' to 120'	05
Over 120'	02

Analysis of Heaviest Loads: *The heaviest load permitted was 218,000 lbs. to move a crusher. The other 4 loads were between 204,000 lbs.-216,000 lbs. to move a crane, and crushers (3).*

Table 69. Analysis of Heaviest Loads

Gross Weight	Number of Permits Issued
80,000 lbs. or less (legal weight)	92
80,000 lbs. to 98,000 lbs.	28
98,001 lbs. to 120,000 lbs.	41
120,001 lbs. to 140,000 lbs.	84
140,001 lbs. to 160,000 lbs.	31
160,001 lbs. to 180,000 lbs.	20
180,001 lbs. to 200,000 lbs.	09

Over 200,000 lbs.	05

Analysis of Combinations: *The types of combinations listed above were used to move the permitted loads. The majority of these combinations were for truck-tractor/semitrailer and truck-tractor/tow-away trailers. The trailers used were fixed trailers, stretch trailers, tow-away fixed loads, trailers with flip axles. The longest trailer permitted for this combination was a 72' stretch trailer and a 72' fixed trailer. The second most common combination used was the heavy haul combination (truck-tractor/jeep/semitrailer/booster). The longest trailer permitted in this combination was a 70' trailer (inclusive of dolly).*

Table 70. Vehicle Combinations Permitted

Types of Vehicle Combinations Permitted
Truck (Solo Vehicle) or Self Propelled Units (like cranes)
Truck-Tractor + Semitrailer or Truck-Tractor +Tow-Away Unit
Heavy Haul Combination (Truck-Tractor/Jeep/Semitrailer/Booster)
Toter + Mobile Home
Pickup Truck + Trailer

F. Crossings and Bridge Structures (City/State Bridge ID)

There is a bridge crossing Rock Creek at 2.68 miles from US 26 (just east of Cornelius Pass Road). There is a highway overpass with US 26 at the northern end of the corridor.

G. Identified Capital Improvements

- Improvements to intersection with Cornelius Pass Rd, as Cornelius Pass is widened to 7 lanes and a trail is added.
- Signalized pedestrian and bike crossing at Rock Creek Trail.

W4. NW Cornelius Pass Rd
(Tualatin Valley Hwy, Multnomah County Line, US30)

A. Corridor Description

NW Cornelius Pass Road is a 7.15-mile corridor. It runs north-south and is parallel to three of the corridors in this study: Murray Blvd (W1), SW 185th Ave (W2), and NE Brookwood Pkwy (W6). It intersects with two of the other corridors in this study: NE/NW Cornell Rd (W3) and NW Evergreen Rd (W7). Cornelius Pass Road links major employment areas to Highway 26 and Tualatin Valley Highway. Intel's largest campus (Ronler Acres) is located just west of the corridor and has an access driveway off Cornelius Pass Rd. There are also large shopping centers off Cornelius Pass Rd. This corridor serves as an alternative route to the Port of Portland Terminals at Rivergate and PDX, and is regularly used by carriers when US 26 is congested. Hazardous materials use this route instead of US 26 because they cannot use the Vista Ridge Tunnel.

NW Cornelius Pass Road in Multnomah County is a Multnomah County-owned rural arterial that provides a key connection from US Highway 30 to both Tualatin Valley Highway (OR 8) and Sunset Highway (US 26) in Washington County. US 26 prohibits transporting hazardous materials, making NW Cornelius Pass Road the primary non-highway route for freight movement carrying hazardous materials through the region. NW Cornelius Pass Road has been the subject of a major safety study involving the local community. Multnomah County is currently designing additional safety improvements to be made in the near future.

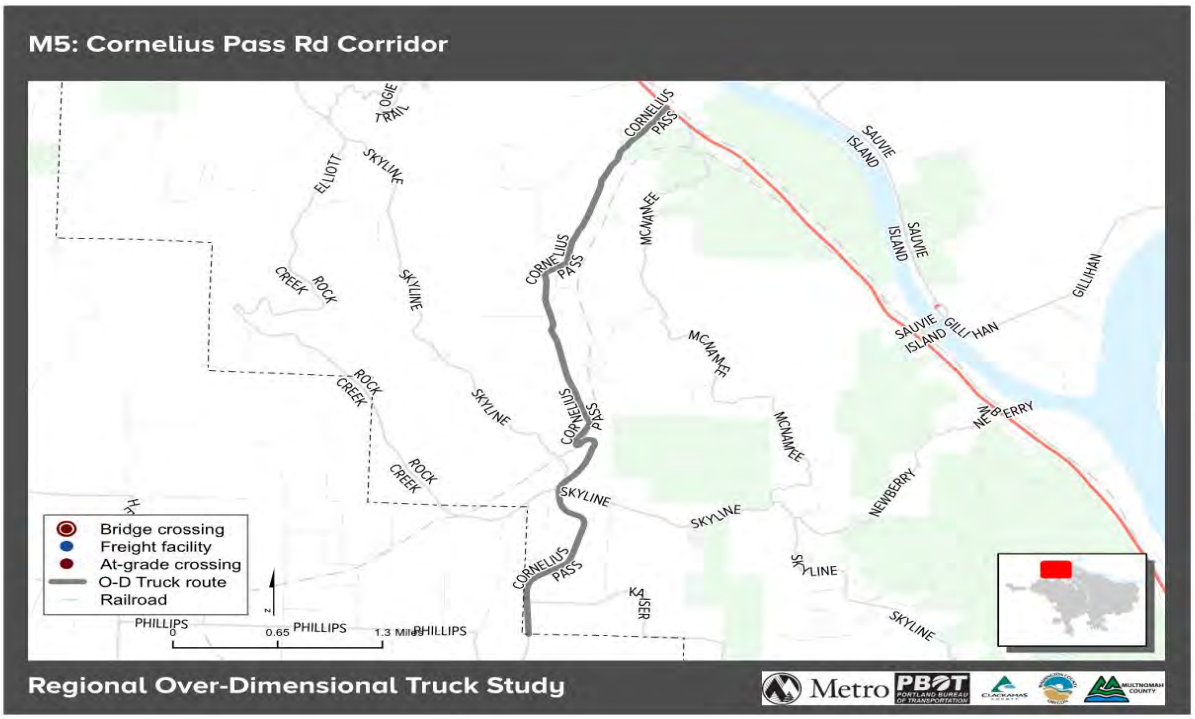


Figure 86. M5 NW Cornelius Pass Road Corridor Map, Multnomah County line to US30

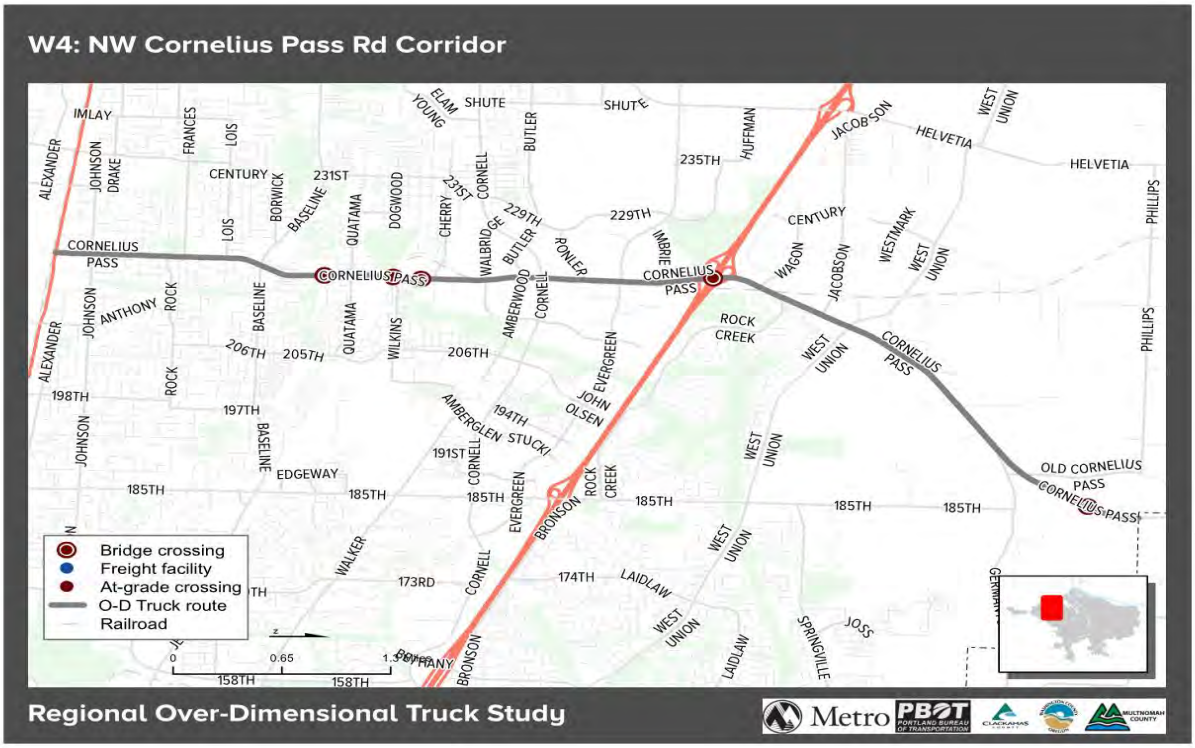


Figure 52. W6 NW Cornelius Pass Road Corridor Map, Washington County

B. Policy Designation

NW Cornelius Pass Rd is an urban arterial from Tualatin Valley Hwy to West Union Rd. The TSP classification is for 4-5 lanes for most of the urban corridor, except from Cornell Rd to Hwy 26 where it is 6-7 lanes. It is a rural arterial from West Union to the county line. It is an over-dimensional truck permit route with the following permit designations: 2 lanes from county line south to West Union, 3+ lanes from West Union Rd to Cornell Rd, 3+ lanes with exceptions from Cornell to Baseline, 3+ lanes to TV Highway.

NW Cornelius Pass Road is classified as a Rural Arterial in Multnomah County's Functional Classification Maps.

Regional Freight Network Designation – Regional Road Connector.

Federal/NHS Classification – Not on the NHS network.

NW Cornelius Pass Road in Multnomah County is designated as a Road Connector in the 2014 Regional Transportation Plan's Regional Freight Network.

Federal/NHS Classification – TBD

Washington County segment??

NW Cornelius Pass Road in Multnomah County is not on the National Highway System.

C. Roadway Characteristics

Table 71. Cornelius Pass Roadway Characteristics

Number of travel lanes	Two lanes from County line to West Union. From West Union south, it is 4-5 lanes. From Frances Street to the intersection with Tualatin Valley Highway it is 3 lanes. Two travel lanes in rural Multnomah County
Average travel lane width	Varies from 11' – 12'
Curb-to-curb width	No curbs from just north of West Union to the end of the corridor. 26' at the bridge over Rock Creek. Rest of corridor ranges from 28'-92.' Segment in Multnomah County is 24 feet.
Surface type	Asphalt Concrete
Surface condition	Pavement is 'good' from county line to West Union Rd. It is 'fair' from West Union Rd to NE Walbridge Dr. It is 'good' from NE Waldbridge to SE Frances St, and 'fair' from SE Frances St to Tualatin Valley Hwy Segment in Multnomah County is Good to Very Good (Pavement Condition Index recorded in 2014 ranges 64-78)

D. Roadway Operations

Traffic counts (from 2014) on this corridor range from a high of 43,300 at Imbrie Dr to a low of 9,800 at Germantown Rd (near county line).
There are signals at the following locations: NW Old Cornelius Pass Rd (flasher), West Union Rd, NW Jacobson Rd, NW Rock Creek Blvd, NW Wagon Way, US 26 ramp (both north and south ends), NW Imbrie Dr, NW Ronler Dr, Intel access, NW Cornell Rd, NW Amberwood Dr, NW Aloclek Dr, NW Cherry Ln, NW Wilkins St, NW Quatama Rd, W Baseline Rd, SE Lois St, SE Frances St, SW Tualatin Valley Hwy.

In Multnomah County:

- NW Cornelius Pass Road, south of Skyline Blvd, has an ADT of 9,576 (last measured in 2011), with an auto to truck ratio of 82.7% / 14.6% trucks*.
- NW Cornelius Pass Road, north of Skyline Blvd, has an ADT of 11,180 (last measured in 2011) with an auto to truck ratio of 79.8% auto to 16.9% truck*.

NW Cornelius Pass Road is a high-crash corridor. The lack of shoulders and narrow two-lane cross-section often require closing the corridor completely following major crashes, making this route sometimes unreliable for travel times.

*Note: Truck split includes: 2 axle 6 tire trucks; 3 axle single truck; 4 axle single truck; double with less than 5 axles; 5 axle double truck; 6 axle double truck, and multiple trailer trucks. Auto split

includes cars/trailers and 2 axle long vehicles. Motorcycles and buses are not included in these ratios.

E. Over-dimensional Single Trip Permit Table

Summary: Approximately 240 STP permits were issued for a 3-year period for NW Cornelius Pass Rd from US26 to the Multnomah County Line. These counts do not reflect loads operating under an annual Continuous Trip Permit.

Analysis of Widest Loads: *The widest load permitted was for a 17'6" wide test vessel. All other loads over 14'00" wide (but less than 17'6" wide) were for a steel fixture, empty tank, farm disc, a cylinder, and mobile homes.*

Table 72. Analysis of Widest Loads

Overall Width	Number of Permits Issued
8'6" or less (legal width)	18
8'7" to 10'00"	12
10'01" to 11'00"	49
11'01" to 12'00"	110
12'01" to 13'00"	15
13'01" to 14'00"	29
Over 14'00"	07

Analysis of Highest Loads: *The highest load permitted was for a 17'10" high test vessel. The next highest load was for a 17'3" high cylinder, and the third highest was for a 17'00" high tank.*

Table 73. Analysis of Highest Loads

Overall Height	Number of Permits Issued
14'00" or less (legal height)	143
14'01" to 14'6"	70
14'7" to 16'00"	24
Over 16'00"	03

Analysis of Longest Loads: *The longest load permitted was for a 125' combination hauling a test vessel. The types of loads permitted between 101' and 110' overall length were for log loaders, cranes, processors, yarders, excavators, and mobile homes.*

Table 74. Analysis of Longest Loads

Overall Combination Length (including any overhang)	Number of Permits Issued
70' or less	44
71' to 80'	93
81' to 90'	71
91' to 100'	16
101' to 110'	15
Over 110’	01

Analysis of Heaviest Loads: *The heaviest loads permitted were for 200,000 lbs. to move a crane, and 200,000 lbs. to move a log loader. The other loads permitted over 180,000 lbs. (but under 200,000 lbs.) were for a log loader, log processor, a yarder, and a feller buncher.*

Table 75. Analysis of Heaviest Loads

Gross Weight	Number of Permits Issued
80,000 lbs. or less (legal weight)	37
80,000 lbs. to 98,000 lbs.	24
98,001 lbs. to 120,000 lbs.	68
120,001 lbs. to 140,000 lbs.	57
140,001 lbs. to 160,000 lbs.	33
160,001 lbs. to 180,000 lbs.	15
180,001 lbs. to 200,000 lbs.	06

Analysis of Combinations: *The types of combinations listed above were used to move the permitted loads. The majority of these were for truck-tractor/semitrailer and truck-tractor/tow-away trailers. The trailers used were fixed trailers, stretch trailers, tow-away fixed loads, and trailers with flip axles. The longest trailer permitted was for a 75’ fixed tow-away mobile home trailer. The second most common combination used was the heavy haul combination (truck-tractor/jeep/semitrailer/booster). The longest trailer permitted in this combination was a 78’ trailer (inclusive of dolly).*

Table 76. Vehicle Combinations Permitted

Types of Vehicle Combinations Permitted
Truck (Solo Vehicle) or Self Propelled Units (like cranes)
Truck-Tractor + Semitrailer or Truck-Tractor +Tow-Away Unit
Heavy Haul Combination (Truck-Tractor/Jeep/Semitrailer/Booster)
Toter + Mobile Home

F. Crossings and Bridge Structures (City/State Bridge ID)

There are three bridge crossings along the corridor: .3 miles south of the county line there is a bridge over Rock Creek. .08 miles south of Cherry Ln is another bridge over Rock Creek. .15 miles

south of NW Quatama there is a bridge over Beaverton Creek. There is a highway overpass with US 26.

There is an overpass for the MAX line, with has a height of 17.4' per as-built drawings. This is 1.02 miles south of Hwy 26.

There are four in-stream culverts located along NW Cornelius Pass Road in Multnomah County. These culverts to do have any travel restrictions.

- The first is located at the intersection of NW Cornelius Pass Road and Sheltered Nook Road, and crosses an un-named tributary to McCarthy Creek. The culvert is 4ft wide and is currently in good standing.
- The second culvert is located at the intersection of NW Cornelius Pass Road and NW 8th Avenue, crossing an unnamed tributary to McCarthy Creek. The culvert is approximately 18 inches wide and is currently in good standing.
- The third culvert is located at approximately the intersection of NW Cornelius Pass Road and NW 3rd Avenue, crossing an unnamed tributary to McCarthy Creek. The culvert is approximately 24 inches wide and is currently in poor condition, with 0% passability for fish.
- The fourth culvert is located approximately 600 feet south of the intersection of NW Cornelius Pass Road and NW Columbia Road, and crosses an unnamed tributary to McCarthy Creek. The culvert is approximately 18 inches wide and is in poor condition, with 0% passability for fish.

At-grade stop-controlled intersection at NW Skyline Boulevard and NW Cornelius Pass Road. No known travel restrictions. Note that the County has completed analysis that shows this intersection will fail in the long-term (20+ years). The County has future plans to upgrade this intersection to be fully signalized, however this project is not a County priority nor is there funding identified.

G. Identified Capital Improvements

- Widening to 7 lanes between NE Walbridge Dr and US-26 E, add multi-use trail
- Widening to 5 lanes between Frances and T-V Highway

RTP Project #11295, NW Cornelius Pass Road Reconstruction (north, from US 30 to milepost 2.8). Widen road segments to provide shoulder, new box culvert, possible passing lane segments. The project or a portion of the project is outside the designated urban growth boundary as of March 2014. $32,500,000 planned for years 2018-2024, on the Financially Constrained list

RTP Project #11296, NW Cornelius Pass Road Reconstruction (south, from NW Skyline Blvd to Washington County Line). Widen road segments to provide shoulder, possible passing lane, improve intersection of CPR/Skyline. The project or a portion of the project is outside the designated urban growth boundary as of March 2014. $29,600,000 planned for years 2018-2024, on the Financially Constrained list

RTP Project #10396, Reconstruct NW Cornelius Pass Road (from milepost 2.8 to milepost 3.5). Reconstruct Cornelius Pass Road including passing lane, safety, shoulder and drainage

improvements. The project or a portion of the project is outside the designated urban growth boundary as of March 2014. $66,600,000 planned for years 2018-2024, on the Financially Constrained list

RTP Project #11298, Cornelius Pass Road Safety Improvements from the FHWA Safety Audit, implement system management improvements recommended in FHWA Safety Audit; i.e., targeted shoulder widening, new/additional guard rails. The project or a portion of the project is outside the designated urban growth boundary as of March 2014. $6,750,000 planned for years 2014-2017, NOT on the Financially Constrained list

Photo above. Typical roadway characteristics for NW Cornelius Pass Road in rural Multnomah County (from Washington County Line to US 30)

W5. Tonquin Corridor
(SW Oregon St – SW Tonquin Rd – SW Grahams Ferry Rd – Day Rd – SW Boones Ferry Rd)

A. Corridor Description

The Tonquin corridor is 4-miles long. It is located in a rural part of the county, that may see heavy development over the next twenty years. Despite the rural nature of the corridor, it serves major employers in south Washington County, and handles traffic from a few large industrial operations such as Tigard Sand and Gravel, which is an active quarry. Tonquin Rd provides access from Sherwood's industrial area to I-5, which is just beyond the Day Rd end of the corridor. It is very close to Tualatin-Sherwood Rd (W9) and could be used as an alternate route. Much of this corridor is not improved with curb, gutter and sidewalk.

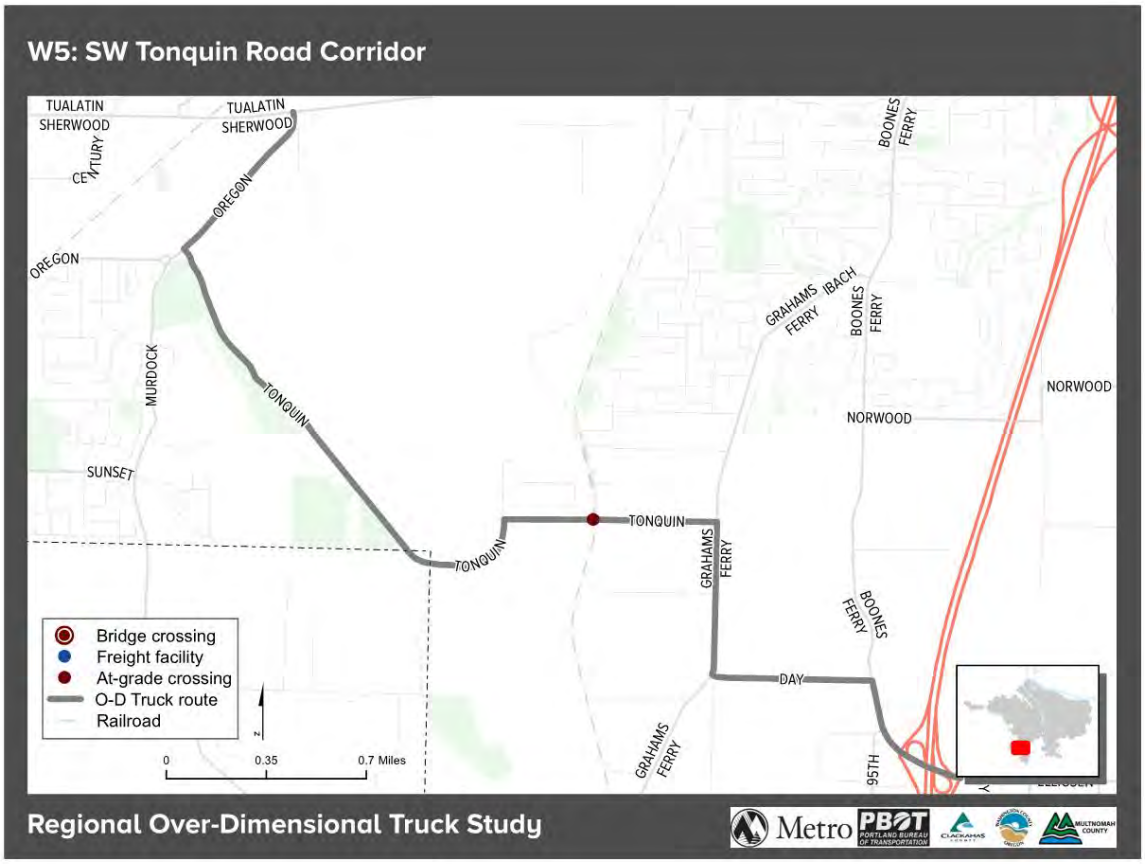


Figure 87. W5 SW Tonquin Road Corridor Map

B. Policy Designation

This corridor is designated as a Rural Arterial. The TSP classification is 4-5 lanes for the corridor. It is a 2-lane over-dimensional truck permit route.

Regional Freight Network Designation – Not on the regional freight network.

Federal/NHS Classification – Not on the NHS network.

C. Roadway Characteristics

Table 77. Tonquin Corridor Roadway Characteristics

Number of travel lanes	2
Average travel lane width	Varies from 11' – 12'
Curb-to-curb width	Only curbs along corridor are a short segment along one side of the road on Graham's Ferry north of Day St, 30.5 feet between guardrails at intersection with SW Waldo Way.
Surface type	Asphalt concrete
Surface condition	Segment from Oregon St .4 miles south is rated 'very Good.' From that point to the crossing with the BNSF rail line is rated 'Poor.' From BNSF to Day road is rated 'Very Good.

D. Roadway Operations

Traffic counts (from 2014) on this corridor were 7,200 at Oregon St, which is the only location recently recorded.

There is a flashing signal at the BNSF line, and a signalized intersection at Grahams Ferry and Day St.

E. Over-dimensional Single Trip Permit Table

Summary: Approximately 987 STP permits were issued for a 3-year period for SW Oregon St/SW Tonquin Rd/SW Grahams Ferry Rd/Day Rd. These counts do not reflect loads operating under an annual Continuous Trip Permit.

Analysis of Widest Loads: *The widest loads permitted were for a couple of 17' wide log stackers. The next widest load was for a 16' wide lumber kiln. All other loads were 15'9" wide or less and were for dozer w/blades, log stackers, and excavators.*

Table 78. Analysis of Widest Loads

Overall Width	Number of Permits Issued
8'6" or less (legal width)	491
8'7" to 10'00"	73
10'01" to 11'00"	85
11'01" to 12'00"	195
12'01" to 13'00"	40
13'01" to 14'00"	81
Over 14'00"	22

Analysis of Highest Loads: *The highest loads permitted were for two loaders that were 16'6" high. All other loads were 16' or less in height.*

Table 79. Analysis of Highest Loads

Overall Height	Number of Permits Issued
14’00” or less (legal height)	658
14’01” to 14’6”	189
14’7” to 16’00”	138
Over 16’00”	2

Analysis of Longest Loads: *The longest loads permitted were between 132’-138’ overall length to move a track crusher, log stacker, excavators, and poles (approximately 5 loads). All other loads were 129’ or less overall length.*

Table 80. Analysis of Longest Loads

Overall Combination Length (including any overhang)	Number of Permits Issued
70' or less	53
71' to 80'	705
81' to 90'	72
91' to 100'	21
101' to 110'	96
111’ to 120’	23
Over 120’	17

Analysis of Heaviest Loads: *The heaviest loads permitted were between 250,000 lbs.-253,000 lbs. to move excavators and a track crusher (approximately 3 loads). All other loads were 248,000 lbs. or less.*

Table 81. Analysis of Heaviest Loads

Gross Weight	Number of Permits Issued
80,000 lbs. or less (legal weight)	57
80,000 lbs. to 98,000 lbs.	176
98,001 lbs. to 120,000 lbs.	398
120,001 lbs. to 140,000 lbs.	170
140,001 lbs. to 160,000 lbs.	54
160,001 lbs. to 180,000 lbs.	31
180,001 lbs. to 200,000 lbs.	63
Over 200,000 lbs.	38

Analysis of Combinations: *The majority of combinations used were truck-tractor/semitrailers. The trailers were fixed trailers, tow-away trailers, stretch trailers, expanded trailers, and trailers with flip axles. The second most common combination used was the heavy haul combination (truck-tractor/jeep/semitrailer/booster). The longest trailer permitted was a 100’ trailer inclusive of dolly in*

a heavy haul combination. There were also mobile homes permitted (the home/trailer can be up to 80' in length).

Table 82. Vehicle Combinations Permitted

Types of Vehicle Combinations Permitted
Truck (Solo Vehicle) or Self Propelled Units (like cranes)
Truck-Tractor + Semitrailer or Truck-Tractor +Tow-Away Unit
Heavy Haul Combination (Truck-Tractor/Jeep/Semitrailer/Booster)
Toter + Mobile Home
Utility Truck + Pole Trailer
Doubles
Log Truck + Pole Trailer

F. Crossings and Bridge Structures (City/State Bridge ID)

There are no bridges on this corridor. There is a railroad crossing on SW Tonquin Rd, at the intersection with SW Tonquin Loop. There is a constraint at the Tonquin and Grahams Ferry intersection due to steep downward grades approaching the intersection.

G. Identified Capital Improvements

124th Avenue extension between SW Tualatin-Sherwood Rd and SW Grahams Ferry Rd will impact the intersection with SW Tonquin Rd. It will create a new continuous roadway that crosses Tonquin Road and will take some of the freight traffic off of Tonquin Road east of 124th Avenue. The project also includes realignment and safety improvements along Tonquin Road and raising the Tonquin Rd and Grahams Ferry intersection so there is no address the grade issue mentioned above.

W6. NE Brookwood Parkway
(US 26 to NE Cornell Rd)

A. Corridor Description

NE Brookwood Parkway is a 2.4-mile corridor. It runs north-south and is parallel to three of the corridors in this study: Murray Blvd (W1), SW 185th Ave (W2), and NW Cornelius Pass Rd (W4). It also intersects two of the corridors in this study: NW Evergreen Rd (W7) and NW Cornell Rd (W3). Brookwood Parkway links major Hillsboro employers as well as the Hillsboro airport (which is directly to the West of the corridor) to Highway 26.

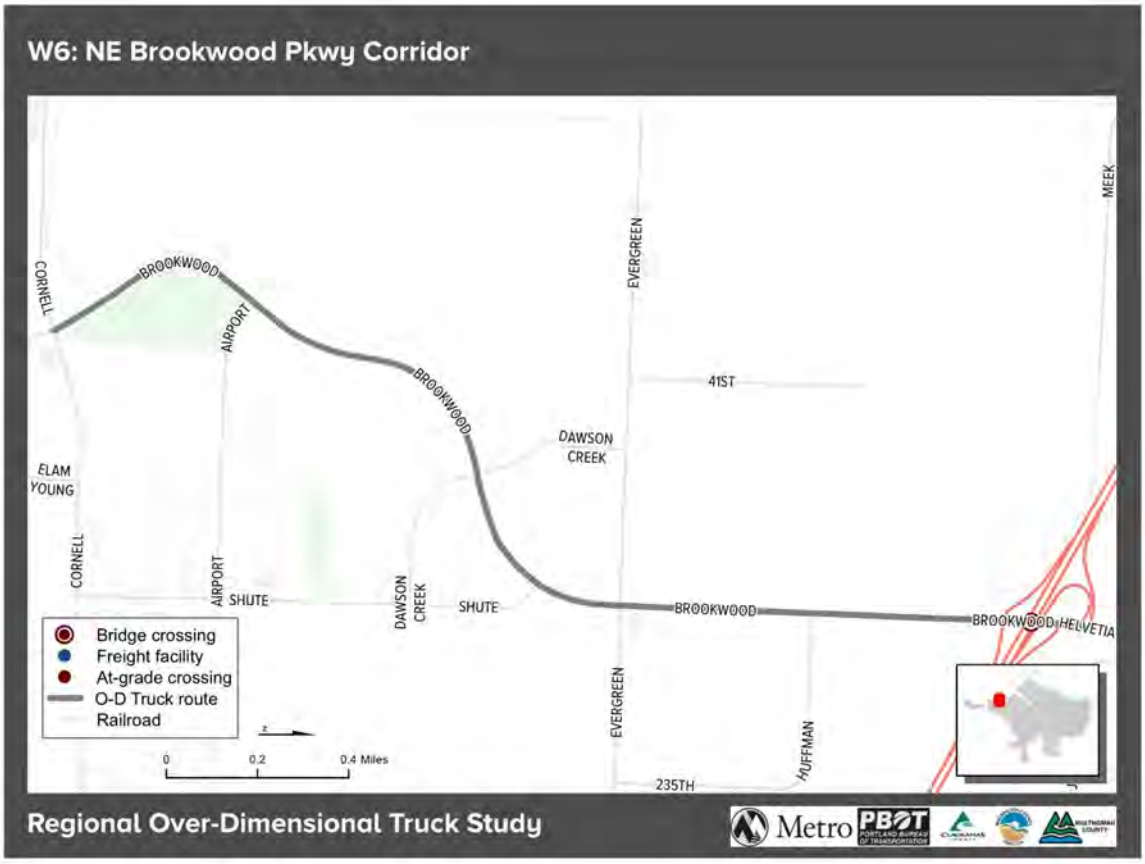


Figure 88. W6 NE Brookwood Parkway Corridor Map

B. Policy Designation

This corridor is an urban arterial and designated as a 3+ lane over-dimensional truck permit route. The TSP classification is for 6-7 lanes from Hwy 26 to NW Evergreen Rd, 4-5 lanes from NW Evergreen Rd to NW Cornell Rd, and 2-3 lanes from NW Cornell Rd to Tualatin Valley Hwy.

Regional Freight Network Designation – Classified as a Regional Road Connector.

Federal/NHS Classification – Not on the NHS network.

C. Roadway Characteristics

Table 83. NE Brookwood Parkway Roadway Characteristics

Number of travel lanes	Between 4 and 5
Average travel lane width	Varies from 11' – 12'
Curb-to-curb width	Ranges from 25 – 64. Parts of corridor have median planter strip.
Surface type	Asphalt Concrete for most of corridor. Portland cement from NW Evergreen Rd to NE Cornell Rd.
Surface condition	From US 26 to Evergreen Rd is rated 'Fair.' From Evergreen to Cornell is rated 'Good.'

D. Roadway Operations

Traffic counts (from 2014) on this corridor were 19,500 at NE Dawson Creek Dr.
There are signals at the US 26 ramp, NW Evergreen Pkwy, NE Shute Rd, NE Dawson Creek Dr, NE Airport Rd, and NE Cornell Rd.

E. Over-dimensional Single Trip Permit Table

Summary: Approximately 2172 (Additional 110 units & 51 Additional Trips) STP permits were issued for a 3-year period for NE Brookwood Parkway from US26 to NE Cornell Rd. These counts do not reflect loads operating under an annual Continuous Trip Permit.

Analysis of Widest Loads: *The widest loads permitted were two generators that were 20' wide. The next widest loads were between 16'-18'6" and were for heat exchangers, aircraft wings, transformers, a cold box, generator rotors, a test vessel, and fabricated steel (11 loads).*

Table 84. Analysis of Widest Loads

Overall Width	Number of Permits Issued
8'6" or less (legal width)	658
8'7" to 10'00"	534
10'01" to 11'00"	204
11'01" to 12'00"	406
12'01" to 13'00"	103
13'01" to 14'00"	181
Over 14'0"	86

Analysis of Highest Loads: *The highest load permitted was a test vessel that was 17'10" high (STP187268). The next highest loads were between 16'1"-17' and were for tanks, generator rotors, heat exchanger, switchgear enclosure, and a walkway.*

Table 85. Analysis of Highest Loads

Overall Height	Number of Permits Issued
14’00” or less (legal height)	1540
14’01” to 14’6”	369
14’7” to 16’00”	246
Over 16’00”	17

Analysis of Longest Loads: *The longest loads permitted were to move transformers, generator rotors, a cold box, and a heat exchanger and were all between 200’-225’ overall length (7 loads). The next longest loads were between 130’-199’ overall length and were for unladen heavy haul combinations, walkway, chiller, generator stator, tanks, crane sideframe, excavator, cranes, decking sections, and concrete beams/girders (approximately 57 loads).*

Table 86. Analysis of Longest Loads

Overall Combination Length (including any overhang)	Number of Permits Issued
70' or less	410
71' to 80'	923
81' to 90'	481
91' to 100'	71
101' to 110'	85
111’ to 120’	108
Over 120’	94

Analysis of Heaviest Loads: *The heaviest loads permitted were between 441,500 lbs.-475,201 lbs. and were to move transformers, generator rotors, a cold box, and a heat exchanger (approximately 7 loads). The next heaviest loads were between 202,500 lbs.-256,000 lbs. to move excavators, cranes, switchgear enclosure, drill rigs, crushers, concrete beams/girders, reach stacker, and steel tanks.*

Table 87. Analysis of Heaviest Loads

Gross Weight	Number of Permits Issued
80,000 lbs. or less (legal weight)	645
80,001 lbs. to 98,000 lbs.	110
98,001 lbs. to 120,000 lbs.	365
120,001 lbs. to 140,000 lbs.	557
140,001 lbs. to 160,000 lbs.	204
160,001 lbs. to 180,000 lbs.	153
180,001 lbs. to 200,000 lbs.	81
Over 200,000 lbs.	57

Analysis of Combinations: *The majority of the combinations used were truck-tractor/semitrailers. The trailers were fixed trailers, tow-away trailers, stretch trailers, expanded trailers, and trailers with flip axles. The second most common combination used was the heavy haul combination (truck-tractor/jeep/semitrailer/booster). The longest trailer permitted was a 125' trailer inclusive of dolly in a heavy haul combination. There were also mobile homes permitted (the home/trailer can be up to 80' in length).*

Table 88. Vehicle Combinations Permitted

Types of Vehicle Combinations Permitted
Truck (Solo Vehicle) or Self Propelled Units (like cranes)
Truck-Tractor + Semitrailer or Truck-Tractor +Tow-Away Unit
Heavy Haul Combination (Truck-Tractor/Jeep/Semitrailer/Booster)
Toter + Mobile Home

F. Crossings and Bridge Structures (City/State Bridge ID)

There are no bridges along this corridor. There is a highway overpass at US-26 at the northern end of the corridor.

G. Identified Capital Improvements

Road Widening to 7 lanes between NE Shute Rd and Highway 26. This project includes buffered bike lanes and intersection widening at Evergreen.

New road (Huffman Road) is being constructed that will intersect Brookwood.

W7. NW Evergreen Parkway (NW Cornelius Pass Rd to NW Glencoe Rd)

A. Corridor Description

NW Evergreen Parkway is a 4.8-mile urban arterial. It runs east to west, and is a parallel route between US-26 and NE Cornell Rd (W3). It can be used as an alternate route for either of those. It also intersects NW Cornelius Pass Rd (W4) and NE Brookwood Pkwy (W6). Evergreen Pkwy links Hillsboro's major employers and the Hillsboro Airport to the north-south corridors.

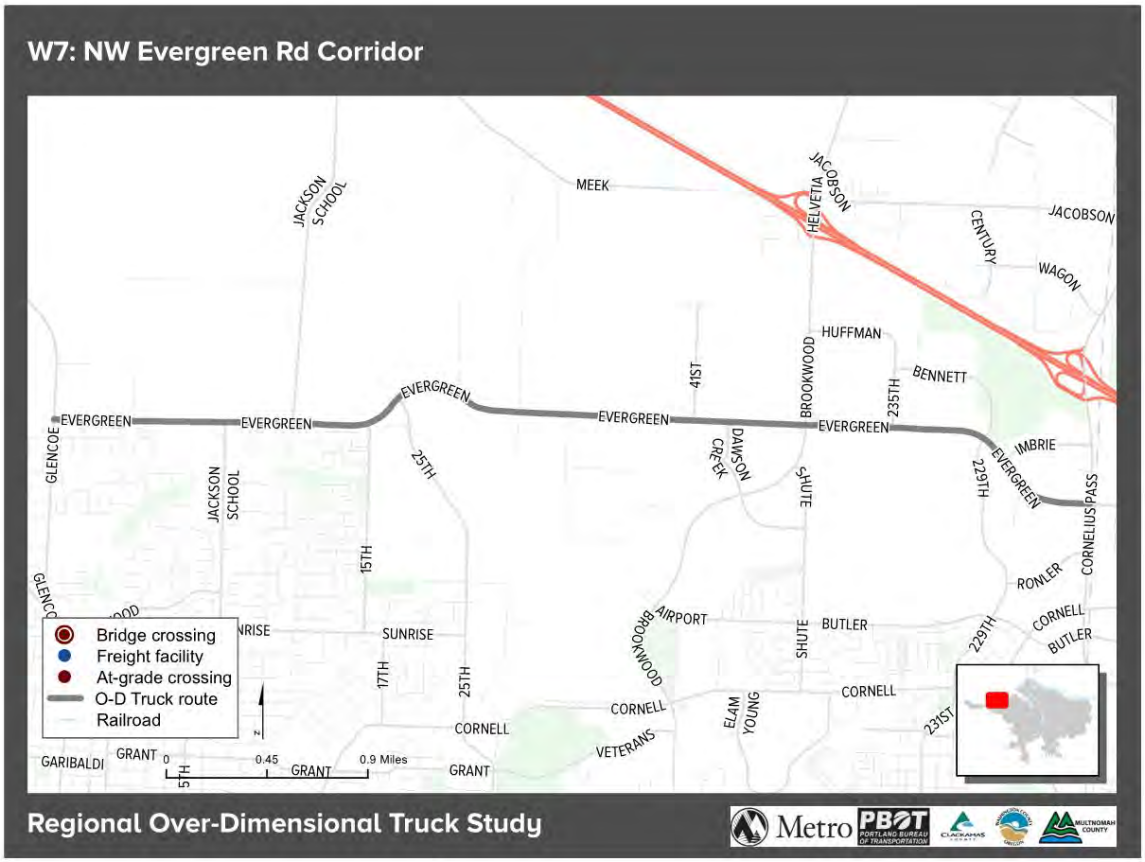


Figure 89. W7 Evergreen Road Corridor Map

B. Policy Designation

Urban Arterial, designated as a 3+ lane over-dimensional permit route, with no exemptions. It has a TSP classification of 4-5 lanes for the entire corridor.

Regional Freight Network Designation – Classified as a Regional Road Connector.

Federal/NHS Classification –Not on the NHS network.

C. Roadway Characteristics

Table 89. NW Evergreen Parkway Roadway Characteristics

Number of travel lanes	Between 3 and 5
Average travel lane width	Varies from 11' – 12'
Curb-to-curb width	32 - 74
Surface type	Asphalt concrete
Surface condition	From Cornelius Pass to Brookwood rated 'Poor.' From Brookwood to 25th rated 'Very Good.' From 25th to Glencoe Rated 'Fair.'

D. Roadway Operations

Traffic counts (from 2014) on this corridor range from a high of 19,800 at 188th Ave, to a low of 10,600 at Glencoe Rd.

There are signals at NW Cornelius Pass Rd, Imbrie Dr, 229th Ave, Intel entrance, 235th Ave, NE Brookwood Pkwy, NE Dawson Creek Dr, NE 25th Ave, NE 15th Ave, NE Jackson School Rd (north), NE Jackson School Rd (south), NW Glencoe Rd.

E. Over-dimensional Single Trip Permit Table (NW Evergreen Rd (between NW Cornelius Pass Rd and NW Glencoe Rd))

Summary: A total of 71 STP permits were issued for a total of 72 trips made.

Analysis of Widest Loads: *10 loads were permitted between 12'4" and 13'6" wide. These were heat exchangers, dozers, a switchgear, an excavator, concrete building, and a train chiller. 1 load was 16'00" wide, which was a combine.*

Table 90. Analysis of Widest Loads

Overall Width	Number of Permits Issued
8'6" or less (legal width)	15
8'7" to 10'00"	10
10'01" to 11'00"	14
11'01" to 12'00"	23
12'01" to 13'00"	5
13'01" to 14'00"	4
Over 14'00"	1

Analysis of Highest Loads: *One load permitted at 15'10" high and 1 load permitted at 16'10" high. Both of these were for switchgear enclosures.*

Table 91. Analysis of Highest Loads

Overall Height	Number of Permits Issued
14'00" or less (legal height)	53
14'01" to 14'6"	17
Over 14'6"	2

Analysis of Longest Loads: *Three of the loads were permitted for 110' for excavators, and 1 load was permitted for 119' for a crusher.*

Table 92. Analysis of Longest Loads

Overall Combination Length (including any overhang)	Number of Permits Issued
70' or less	19
71' to 80'	33
81' to 90'	15
91' to 100'	2
101' to 110'	3
Over 110'	1

Analysis of Heaviest Loads: *One load was permitted at 210,000 lbs. for a switchgear enclosure; the other load was permitted for 214,000 lbs. for a crusher.*

Table 93. Analysis of Heaviest Loads

Gross Weight	Number of Permits Issued
80,000 lbs. or less (legal weight)	5
80,000 lbs. to 98,000 lbs.	5
98,001 lbs. to 120,000 lbs.	21
120,001 lbs. to 140,000 lbs.	27
140,001 lbs. to 160,000 lbs.	7
160,001 lbs. to 180,000 lbs.	2
180,001 lbs. to 200,000 lbs.	3
Over 200,000 lbs.	2

F. Crossings and Bridge Structures (City/State Bridge ID)

There are no bridges along this corridor.

G. Identified Capital Improvements

Cornelius Pass and Brookwood projects will include intersection improvements at Evergreen.

W8. SW Scholls Ferry Rd (OR-217 to Tile Flat Rd)

A. Corridor Description

SW Scholls Ferry Rd is a 4.6-mile corridor. It runs from a major commercial area near Washington Square Mall at OR-217 to a rural part of the county. Originally it was a 'farm to market' road. From Tile Flat Rd to Roy Rogers Rd, there are no curbs, gutters or sidewalks. It provides linkages from Beaverton and Highway 217 to the rural parts of Southwest Washington County. In addition to the connection to OR-217, it also links to SW Murray Blvd (W1) and Roy Rogers Rd (W9), which connect it to major employment areas in both north and south directions. Tile Flat Rd is a 'no thru trucks road.

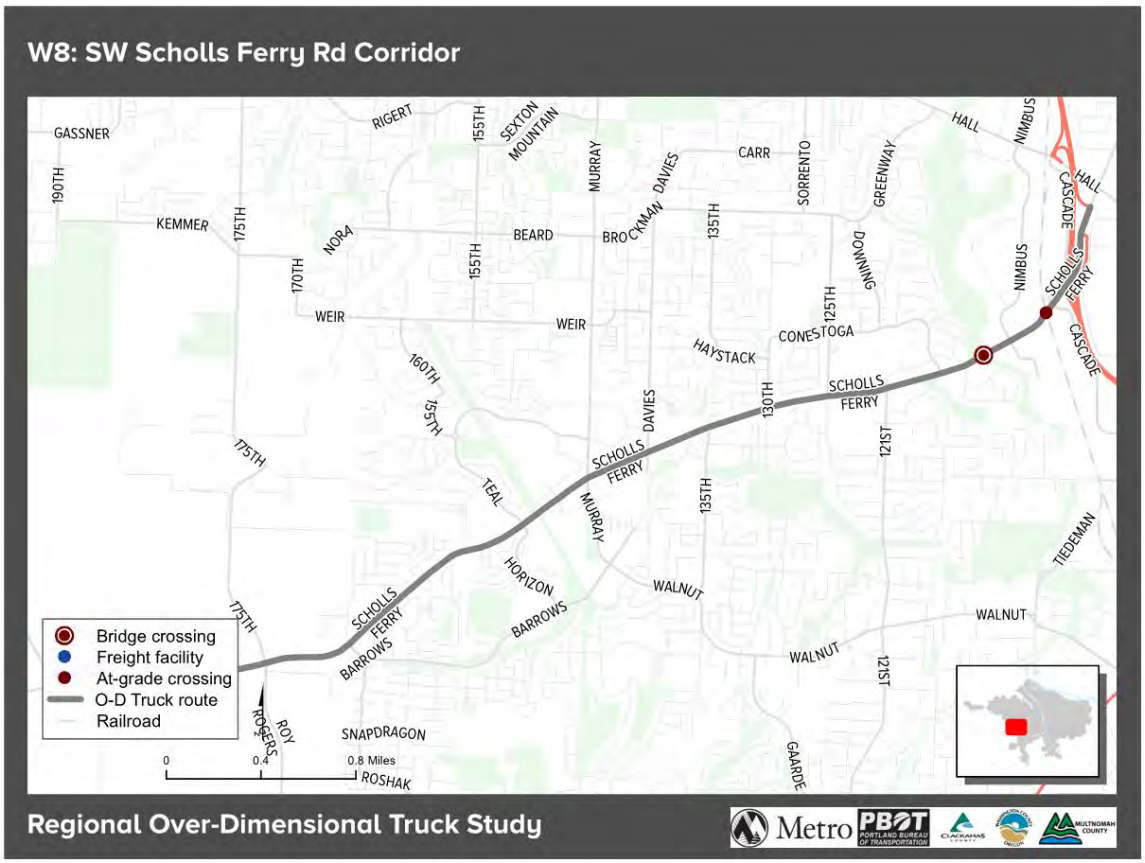


Figure 90. W8 SW Scholls Ferry Road Corridor

B. Policy Designation

This corridor is an urban arterial. It is designated as a 2 lane over-dimensional truck permit route from Tile Flat Rd to SW Murray, 3+ lanes from SW Murray Rd to Conestoga, and 3+ lanes with exceptions from Conestoga to OR-217. The TSP classification is for 6-7 lanes from SW 121st Ave to Hwy 217, and 4-5 for the rest of the corridor to just east of Tile Flat Rd.

Regional Freight Network Designation – Classified as a Regional Road Connector.

Federal/NHS Classification – This corridor is classified as a MAP 21 NHS Principal Arterial.

C. Roadway Characteristics

Table 94. SW Scholls Ferry Rd Roadway Characteristics

Number of travel lanes	Most of corridor is 5 lanes. There are only 2 lanes for .73 miles east of Tile Flat, and there are 6 lanes at Highway 217
Average travel lane width	Varies from 11' – 12'
Curb-to-curb width	No curbs from Tile Flat to just west of intersection with Roy Rogers. Width from rest of corridor is about 74' between curbs.
Surface type	Asphalt Concrete
Surface condition	Condition is rated 'Fair' from US-217 to Murray Blvd, 'Good' from Murray to Horizon, 'Very Good' from Horizon to SW Barrows, and 'Good' from Roy Rogers to Tile Flat.

D. Roadway Operations

Traffic counts (from 2014) on this corridor range from a high at 44,800 at SW Nimbus Ave to a low of 9,300 at Tile Flat Rd.

There are signals at the 217 ramp, SW Nimbus Ave, SW Conestoga Dr, SW 121st Ave, SW 125th Ave, SW 130th Ave, SW 135th Ave, SW Davies Rd, Murray Blvd, SW 147th Terrace, SW Horizon Blvd, SW 158th Ave, SW Barrows/SW Loon, SW 175th/Roy Rogers Rd, and Tile Flat Rd.

E. Over-dimensional Single Trip Permit Table

Summary: Approximately 189 STP permits were issued for a 3-year period for SW Scholls Ferry Rd from OR217 to OR219. These counts do not reflect loads operating under an annual Continuous Trip Permit.

Analysis of Widest Loads: *The widest loads permitted were for mobile homes which had a box width of 14' plus a 6" eave (overall width 14'6"). All other loads were 14'4" wide or less.*

Table 95. Analysis of Widest Loads

Overall Width	Number of Permits Issued
8'6" or less (legal width)	14
8'7" to 10'00"	33
10'01" to 11'00"	27
11'01" to 12'00"	88
12'01" to 13'00"	15
13'01" to 14'00"	08
Over 14'00"	04

Analysis of Highest Loads: *The highest load permitted was for a 16'10" high walkway. All other loads were 15'9" high or less.*

Table 96. Analysis of Highest Loads

Overall Height	Number of Permits Issued
14'00" or less (legal height)	128
14'01" to 14'6"	36
14'7" to 16'00"	24
Over 16'00"	01

Analysis of Longest Loads: *The longest load permitted was 138' overall length to move a track crusher. The second longest load was 130' overall length to move a walkway. All other loads were 113' overall length or less.*

Table 97. Analysis of Longest Loads

Overall Combination Length (including any overhang)	Number of Permits Issued
70' or less	24
71' to 80'	92
81' to 90'	42
91' to 100'	13
101' to 110'	14
111' to 120'	02
Over 120'	02

Analysis of Heaviest Loads: *The heaviest load permitted was 253,000 lbs. to move a track crusher. All other loads were 193,000 lbs. or less.*

Table 98. Analysis of Heaviest Loads

Gross Weight	Number of Permits Issued
80,000 lbs. or less (legal weight)	23
80,000 lbs. to 98,000 lbs.	06
98,001 lbs. to 120,000 lbs.	38
120,001 lbs. to 140,000 lbs.	84
140,001 lbs. to 160,000 lbs.	25
160,001 lbs. to 180,000 lbs.	06
180,001 lbs. to 200,000 lbs.	06
Over 200,000 lbs.	01

Analysis of Combination: *The above types of combinations were used to move the loads described above. The majority of the combinations used were Truck-Tractor/Semitrailer or Truck-Tractor/Tow-Away Unit. The trailers used were fixed trailers, stretch trailers, tow-away fixed loads, and trailers with flip axles. The longest trailer permitted for this combination was a 90' tow-away trailer. The second most common combination used was the Heavy Haul Combination (Tractor/Jeep/Semitrailer/Booster). The longest trailer permitted in this combination was a 97' trailer (inclusive of dolly).*

Table 99. Vehicle Combinations Permitted

Types of Vehicle Combinations Permitted
Truck (Solo Vehicle) or Self Propelled Units (like cranes)
Truck-Tractor + Semitrailer or Truck-Tractor +Tow-Away Unit
Heavy Haul Combination (Truck-Tractor/Jeep/Semitrailer/Booster)
Toter + Mobile Home

F. Crossings and Bridge Structures (City/State Bridge ID)

There is one bridge, approximately half a mile west of OR-217, over Fanno Creek. There is a railroad crossing (for P&W and WES) near the 217 intersection.

G. Identified Capital improvements

None identified in this corridor.

W9. Roy Rogers/ Tualatin-Sherwood Corridor
(Roy Rogers Rd: Scholls Ferry to 99W; Tualatin-Sherwood Rd: 99W to I-5)

A. Corridor Description

Roy Rogers Rd/Tualatin-Sherwood Rd is a 9.2-mile corridor. This corridor starts in what is currently a rural part of the county, but has been planned for 6,000 new housing units over the next twenty years. It is a north-south corridor for the first 3.5 miles, then runs east-west. It connects with SW Scholls Ferry Rd (W8), and intersects the Pacific Highway Corridor (W12). It connects the south Washington County industrial area to I-5 at the south east end. At the northern connection with Scholls Ferry, it provides linkages to major employers and other destinations to the north. The corridor can provide an alternate route to OR-217 (W11). The corridor has some of the highest non-freeway traffic counts in Washington County and carries the most trucks.

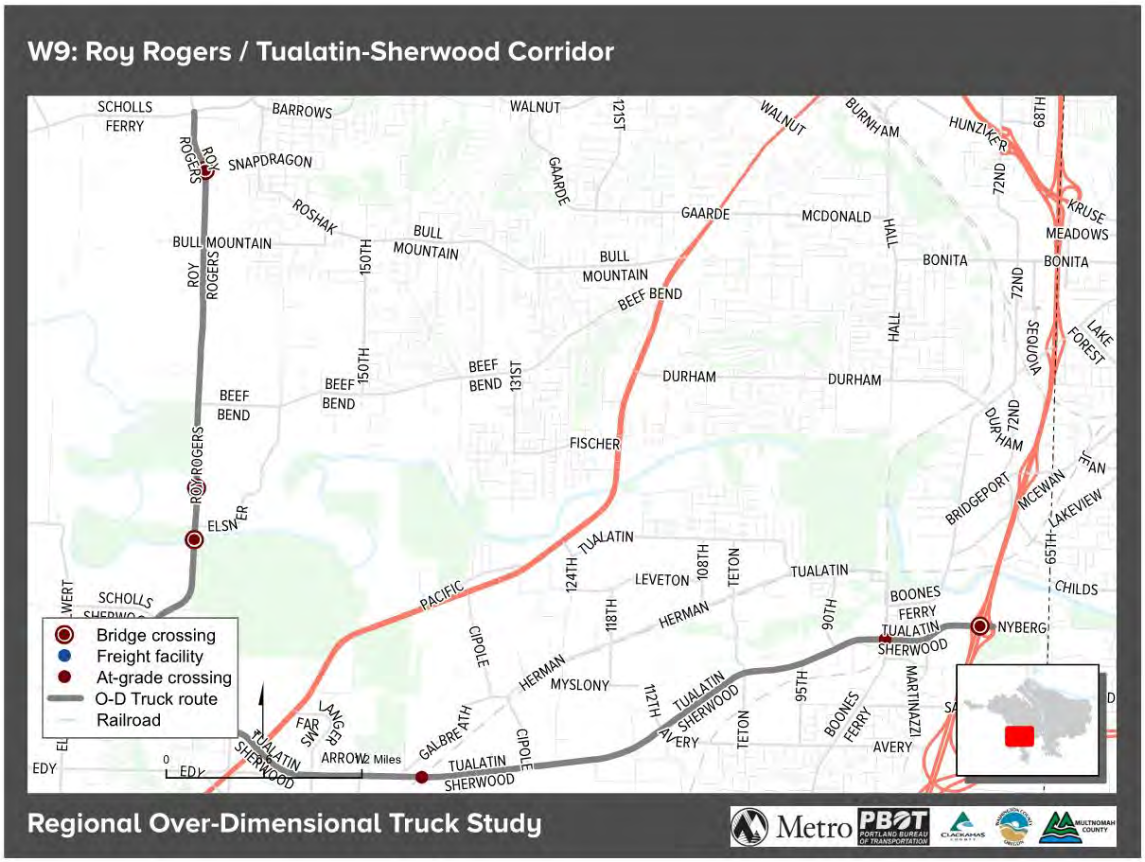


Figure 91. W9 Roy Rogers / Tualatin-Sherwood Corridor

B. Policy Designation

This corridor is an Urban Arterial. It is designated as an over-dimensional truck permit route for lanes with exceptions from Scholls Ferry Rd to 99W, and from 99W to I-5 is 3+ lanes with exceptions. Triple Trailers are allowed. The TSP classification has no lane numbers for the rural part of the corridor from Scholls Ferry Rd to the Sherwood city limits. From there to 99W it is classified for 2-3 lanes, and then 4-5 lanes for the rest of the corridor.

Regional Freight Network Designation – Classified as a Regional Road Connector.

Federal/NHS Classification – Not on the NHS network.

C. Roadway Characteristics

Table 100. Roy Rogers/Tualatin-Sherwood Rd Roadway Characteristics

Number of travel lanes	2 lanes for 3.5 miles south on Roy Rogers from Scholls Ferry. 3 lanes as it turns into Tualatin-Sherwood Rd, until just west of the intersection with SW Teton Ave. Then 5 lanes for most of the rest of the corridor. Widens to 8 lanes at the I-5 interchange.
Average travel lane width	Varies from 11' – 12'
Curb-to-curb width	No curbs from Scholls Ferry to ___. .35 miles south of Scholls Ferry is a bridge which is 38' across. 2.6 miles south of Scholls Ferry is 38' across. Curbs start at 3.69 miles south of Scholls Ferry and are 49' across. 18' feet just north of 99W. Rest of corridor ranges from 28 – 84'.
Surface type	Asphalt Concrete
Surface condition	From Scholls Ferry south 2.5 miles is rated 'Good'. From there for 1.8 miles is rated 'Fair.' From the intersection with Century Dr to Teton Ave is rated 'Very good.' From Teton Ave to I-5 is rated 'Good.'

D. Roadway Operations

Traffic counts (from 2014) on this corridor range from a high on Roy Rogers at Scholls Ferry 20,600 to a low of 16,900 at Scholls Sherwood, and on Tualatin from a high of 44,000 at Boones Ferry Rd to a low of 28,700 at Cipole Rd.

There are signals at the following intersections: Scholls Ferry Rd, Beef Bend Rd, Scholls-Sherwood Rd, SW Borchers Dr, Sherwood Market Place, Langer Dr, Langer Farms Pkwy, Gerda Ln, SW Oregon St, SW Cipole Rd, SW 124th Ave, SW 115th Ave, Avery St, SW Teton Ave, SW 95th Ave, SW 90th Ct, SW 89th Ave, SW Boones Ferry Rd, SW Martinazzi, at Nyberg Rd/Fred Meyer Entrance.

E. Over-dimensional Single Trip Permit Table

Summary: Approximately 3,181 STP permits were issued for a 3-year period for Tualatin-Sherwood Rd. These counts do not reflect loads operating under an annual Continuous Trip Permit.

Analysis of Widest Loads: *160 loads were permitted between 14'2" and 25'00" wide. These were for steel frames, bridge section, metal box, compactor, ducting, condenser, steel panels, steel plates, trash racks, fabricated steel, air handling units, mobile homes, farm tractor with disc, dozer, excavator, boiler panel, tanks, bag house, ag chopper, ag bagger, log stacker, pavement profiler, airplane, ac*

units, hoppers, trusses, steel rings, crane, steel skirt. There were 6 loads between 20'00" and 25'00" wide which were for a crane and steel plate skirts. The rest were 18'6" or less in width.

Table 101. Analysis of Widest Loads

Overall Width	Number of Permits Issued
8'6" or less (legal width)	802
8'7" to 10'00"	575
10'01" to 11'00"	427
11'01" to 12'00"	810
12'01" to 13'00"	236
13'01" to 14'00"	171
Over 14'00"	160

Analysis of Highest Loads: *35 loads were permitted between 16'1" and 17'00" high. These were for tanks, control buildings, loaders, air handling units, transformers, baghouse, walkway, log stacker, compactor, condenser, and a shed (about half of the permits were for tanks).*

Table 102. Analysis of Highest Loads

Overall Height	Number of Permits Issued
14'00" or less (legal height)	2,104
14'01" to 14'6"	625
14'7" to 16'00"	417
Over 16'00"	35

Analysis of Longest Loads: *37 loads were permitted between 121' and 145' overall length. These were for steel piping, utility poles, chassis assembly, jaw crusher, crane, log stacker, heat exchanger, steel hauler, beams, girders, walkway, excavator, transformer.*

Table 103. Analysis of Longest Loads

Overall Combination Length (including any overhang)	Number of Permits Issued
70' or less	540
71' to 80'	1,497
81' to 90'	488
91' to 100'	253
101' to 110'	249
111' to 120'	117
Over 120'	37

Analysis of Heaviest Loads: *37 loads permitted were between 205,000 lbs. and 253,000 lbs. These were for compactors, drill rigs, crushers, log stackers, cranes, excavators, transformers.*

Table 104. Analysis of Heaviest Loads

Gross Weight	Number of Permits Issued
80,000 lbs. or less (legal weight)	1,575
80,000 lbs. to 98,000 lbs.	174
98,001 lbs. to 120,000 lbs.	480
120,001 lbs. to 140,000 lbs.	539
140,001 lbs. to 160,000 lbs.	198
160,001 lbs. to 180,000 lbs.	112
180,001 lbs. to 200,000 lbs.	67
Over 200,000 lbs.	36

Analysis of Combinations: *The above types of combinations were used to move the loads described above. The majority of the combinations used were Truck-Tractor/Semitrailer or Truck-Tractor/Tow-Away Unit. The trailers used were fixed trailers, stretch trailers, tow-away fixed loads, trailers with flip axles, and a number of trailers which were in the "float" position. The longest trailer permitted for this combination was a 95' stretch trailer. The second most common combination used was the Heavy Haul Combination (Tractor/Jeep/Semitrailer/Booster). The longest trailer permitted in this combination was a 98' trailer.*

Table 105. Vehicle Combinations Permitted

Types of Vehicle Combinations Permitted
Truck (Solo Vehicle) or Self Propelled Units (like cranes)
Doubles
Truck-Tractor + Semitrailer or Truck-Tractor +Tow-Away Unit
Truck +Trailer
Log Truck + Pole Trailer
Heavy Haul Combination (Truck-Tractor/Jeep/Semitrailer/Booster)
Toter + Mobile Home
Pickup Truck + Trailer

F. Crossings and Bridge Structures (City/State Bridge ID)

There are four bridge crossings in the corridor: at .35, 1.9, 2.2, and 3.69 miles south of Scholls Ferry Rd. There are two railroad crossings at Tualatin Sherwood road: P&W .3 miles west of Oregon St and WES at the intersection with Boones Ferry Rd. There is a freeway overpass with I-5 at the eastern end of the corridor.

G. Identified Capital Improvements

- Road widening from Scholls Ferry Rd to Bull Mountain Road.

- This corridor borders the Langer Farms Parkway which will be widened to 5 lanes using MSTIP funds.
- 124th Avenue extension also intersects this corridor.

W10. Tualatin Valley Highway
(OR-8: OR-47 to OR-217)

A. Corridor Description

This is a 14.8-mile corridor. It runs east to west, and provides connections between many of the other corridors studied for this project: Cornell Rd (W3), NW Cornelius Pass Rd (W4), SW 185th Ave, and OR-217. There are major employers located along Tualatin Valley Highway, including an Intel campus, as well as major retail stores. It is also the northern boundary of the South Hillsboro development area (at Cornelius Pass Rd (W4)), which will include about 8,000 new households over the next 20 years.

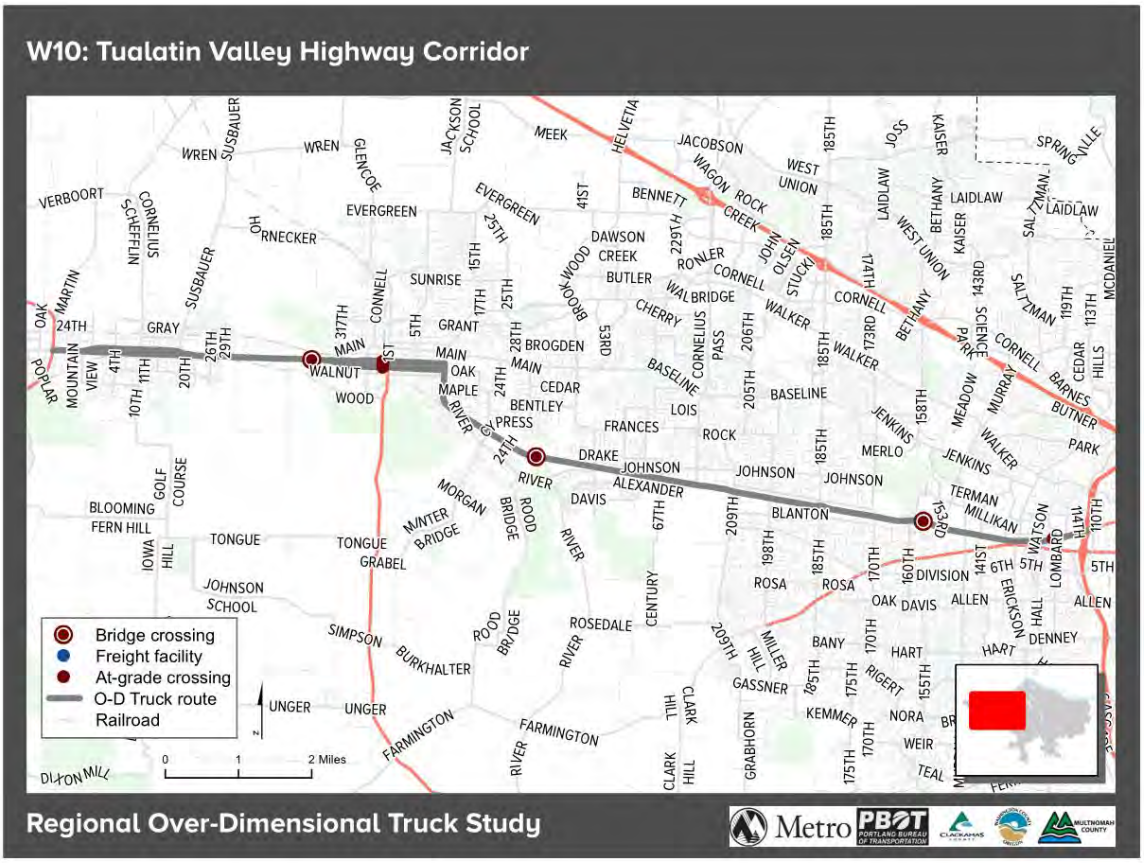


Figure 92. W10 Tualatin Valley Highway Corridor Map

B. Policy Designation

Regional Freight Network Designation – Classified as a Regional Road Connector.

Federal/NHS Classification – Classified as an NHS Route.

State - ORS 366.215 Reduction Review Route.

C. Roadway Characteristics

Table 106. Tualatin Valley Highway Roadway Characteristics

Number of travel lanes	2-5 lanes
Average travel lane width	Varies from 11' – 12'
Curb-to-curb width	29'-76'
Surface type	Asphalt
Surface condition	The segment from OR47 to SE Minter Bridge Road is in good condition. SE Minter Bridge to SW Hocken Avenue is in poor condition. SW Hocken Avenue to OR217 is in fair condition.

D. Roadway Operations

OR8 Tualatin Valley Hwy. Traffic Classification Counts

Segment	Count Location	Date	ADT	Auto/Truck Percent
OR8	East of OR47	Oct. 2014	30,900	97/3 percent
OR8	East of N. 26th Ave.	Oct. 2014	32,900	97/3 percent
OR8	West of SW 17th Avenue	Oct. 2014	33,700	97/3 percent
OR8 (WB) Couplet	West of OR219 intersection	Oct. 2014	15,800	97/3 percent
OR8 (WB) Couplet	East of OR219 intersection	Oct. 2014	17,200	97/3 percent
OR8 (EB) Couplet	West of OR219 intersection	Oct. 2014	17,200	97/3 percent
OR8 (EB) Couplet	East of OR219 intersection	Oct. 2014	18,700	97/3 percent
OR8	East of EB couplet	Oct. 2014	30,700	97/3 percent
OR8	West of SE River Road	Oct. 2014	32,000	97/3 percent
OR8	East of SE River Road	Oct. 2014	27,700	97/3 percent
OR8	East of SE Minter Bridge Road	Oct. 2014	27,200	97/3 percent
OR8	West of SE Brookwood Avenue	Oct. 2014	30,200	97/3 percent
OR8	West of SW Cornelius Pass Road	Oct. 2014	37,300	97/3 percent
OR8	East of SW Cornelius Pass Road	Oct. 2014	42,500	97/3 percent
OR8	West of SW 185th Avenue	Oct. 2014	39,500	97/3 percent
OR8	East of SW 185th Avenue	Oct. 2014	38,300	97/3 percent
OR8	West of SW Murray Blvd.	Oct. 2014	36,200	97/3 percent
OR8	West of SW Cedar Hills Blvd.	Oct. 2014	31,200	97/3 percent
OR8	East of SW Cedar Hills Blvd.	Oct. 2014	32,100	97/3 percent
OR8	West of OR217 Interchange	Oct. 2014	37,300	97/3 percent

There are signals at Quince St (OR-47), Pacific Ave/Mtn View Ln, N 4th Ave, N 10th Ave, N 14th St, N 20th St, Fred Meyer Entrance, 26th Ave, 17th Ave, Main St, Dennis St, 1st Ave, 2nd Ave, 3rd Ave, 5th Ave, 7th Ave, 8th Ave, 10th Ave, Oak St, Walnut St, Maple St, Shute Center Access, River Rd, Minter Bridge Rd, Sunset Esplanade West, Sunset Esplanade East, Brookwood Ave, 234th Ave, 229th Ave, NW

Cornelius Pass Rd, 209th Ave, 205th Ave, 198th Ave, 185th Ave, 178th Ave, 170th Ave, Millikan Way, 153rd Ave, SW Murray Blvd, Hocken Ave, SW Cedar Hills Blvd, SW Watson St, SW Hall Blvd, SW Lombard Ave, SW 117th Ave, SW 115th Ave, OR-217 ramp.

E. Over-dimensional Single Trip Permit Table

Summary: Approximately 1766 STP permits were issued for a 3-year period for OR8.

Note: These counts do not reflect loads operating under an annual Continuous Trip Permit.

Table 107

Overall Width	Number of Permits Issued
8'6" or less (legal width)	263
8'7" to 10'00"	344
10'01" to 11'00"	270
11'01" to 12'00"	531
12'01" to 13'00"	148
13'01" to 14'00"	157
Over 14'00"	53

Analysis of Widest Loads: *53 loads were permitted between 14'3" and 20'00" wide. These were for air handling units, compactors, mobile units, scrapers, transformers and disc rippers. 1 load was 20'00" and was permitted for a platform trailer. All other loads were 17'00' or less in width.*

Overall Height	Number of Permits Issued
14'00" or less (legal height)	1074
14'01" to 14'6"	435
14'7" to 16'00"	253
Over 16'00"	4

Analysis of Highest Loads: *4 loads were permitted between 16'4" and 17'05" high. These were for a mobile unit, generator enclosure, a tank and a transformer. The transformer was 17'05". The rest were 16'07" or less.*

Overall Combination Length (including any overhang)	Number of Permits Issued
70' or less	244
71' to 80'	910
81' to 90'	257
91' to 100'	180
101' to 110'	87
111' to 120'	66
Over 120'	22

Analysis of Longest Loads: *22 loads were permitted between 124'00 and 148'00" overall length. These were for wood poles, unladen heavy haul combinations, jaw crushers, excavators, dozer w/ blades and truck cranes.*

Gross Weight	Number of Permits Issued
80,000 lbs. or less (legal weight)	477
80,000 lbs. to 98,000 lbs.	112
98,001 lbs. to 120,000 lbs.	270
120,001 lbs. to 140,000 lbs.	450
140,001 lbs. to 160,000 lbs.	218
160,001 lbs. to 180,000 lbs.	120
180,001 lbs. to 200,000 lbs.	58
Over 200,000 lbs.	61

Analysis of Heaviest Loads: *61 loads permitted were between 202,000 lbs. and 262,000 lbs. These were for jaw crushers, transformers, truck cranes, excavators, drill rigs, scrapers, log stackers and loaders.*

Types of Vehicle Combinations Permitted
Truck (Solo Vehicle) or Self Propelled Units (like cranes)
Doubles
Truck-Tractor + Semitrailer or Truck-Tractor +Tow-Away Unit
Truck +Trailer
Log Truck + Pole Trailer
Heavy Haul Combination (Truck-Tractor/Jeep/Semitrailer/Booster)
Toter + Mobile Home
Pickup Truck + Trailer

Analysis of Combinations: *The Truck-Tractor/Semitrailer and Truck-Tractor/Tow-Away Unit was the most common vehicle combination permitted. The trailers used were fixed trailers, stretch trailers, tow-away fixed loads, trailers with flip axles, and a number of trailers were in the "float" position. The longest trailer was a 78'00" stretch trailer. The second most common combination used was the Heavy Haul Combination (Tractor/Jeep/Semitrailer/Booster). The longest trailer permitted in this combination was a 76'00" expanded trailer. *Note: the self-propelled units were a close 3rd, these ranged from 3 axle to 11 axle units.*

F. Crossings and Bridge Structures (City/State Bridge ID)

There are three bridge crossings: Dairy Creek (.85 miles east of SW 17th Ave), Rock Creek (.22 miles east of SE 32nd Ave) and Johnston Creek/P&W line (.2 miles east of Millikan Way). There is an underpass at Highway 217 at the eastern end of the corridor.

G. Identified Capital Improvements

- OR-8 and Hwy 47 intersection (STIP project)
- SW Oak Street and SW Baseline Street intersection project nearly complete in Hillsboro.
- Tualatin Valley Highway and 185th Avenue Safety Project (STIP project)
- Highway 8 Safety and Access to Transit Project (STIP)
- ODOT/Washington County TIGER ATMS project

W11. Highway 217
(US 26 to I-5)

A. Corridor Description

This is a 7.6-mile corridor. It is a state route that runs north south, and links Highway 26 in the north to I-5 in the south. It connects with Tualatin Valley Highway (W10), SW Scholls Ferry Rd (W8), Roy Rogers/Tualatin Sherwood (W9), and Pacific Highway (W12). Highway 217 connects major employer, shopping centers, and residential areas to the Metro area's freeways. It runs parallel to SW 185th Ave (W2), NW Cornelius Pass Rd (W4), and Murray Blvd (W1). Murray Blvd is close enough that it can serve as an alternate route, and vice versa, although depending on traffic conditions the other parallel routes may serve that role as well. There are a several overpasses with height restrictions, which cause trucks to divert onto county and city roads.

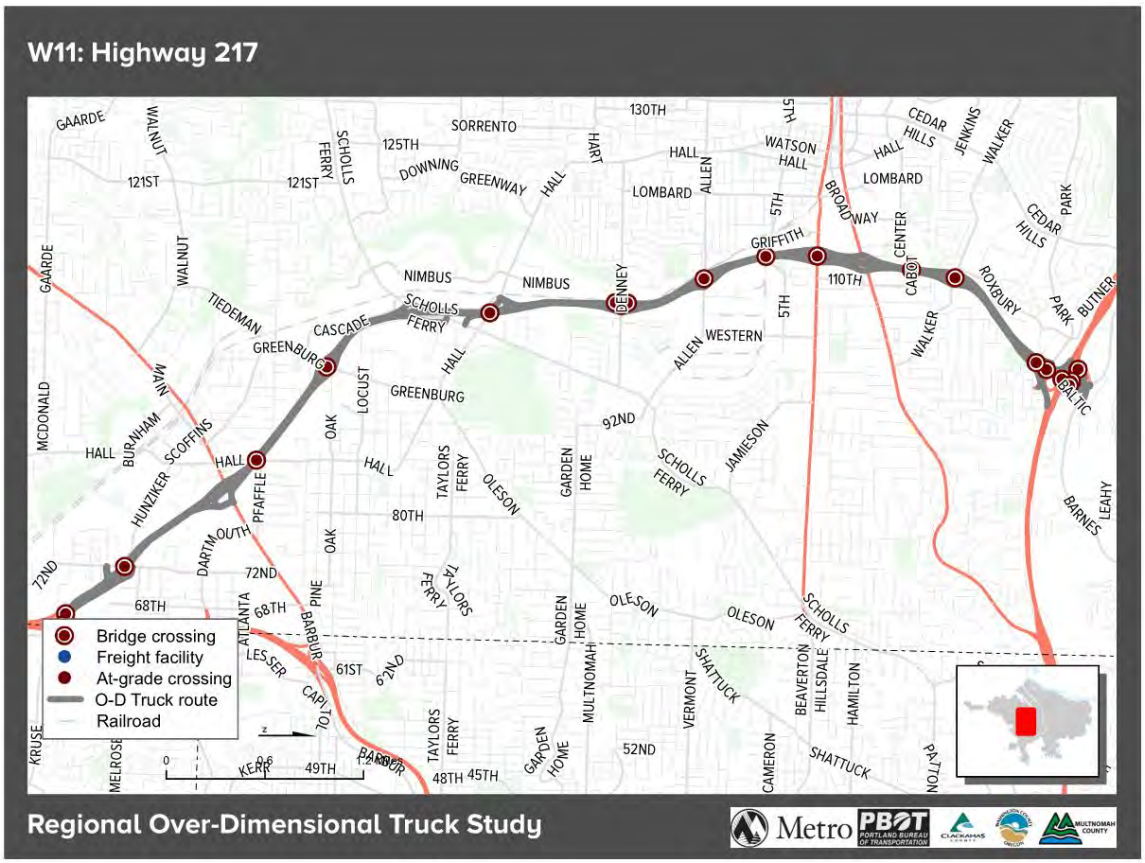


Figure 93. W11 Highway 217 Corridor Map

B. Policy Designation

Regional Freight Network Designation – Classified as a Regional Main Roadway Route.

Federal/NHS Classification – Classified as an NHS Route.

State - ORS 366.215 Reduction Review Route.

C. Roadway Characteristics

Table 108. Highway 217 Roadway Characteristics

Number of travel lanes	4 – 6 lanes, split in either direction
Average travel lane width	11' – 12'
Curb-to-curb width	No curbs along this corridor. In places where there are guardrails or Jersey barriers on either side of the road, width ranges from 42' to 65'.
Surface type	The route is primarily asphalt with the exception of the Portland & Western RR structure with is concrete.
Surface condition	The asphalt on this corridor is in good condition.

D. Roadway Operations

OR217 Beaverton-Tigard Hwy. Traffic Classification Counts

Segment	Count Location	Date	ADT	Auto/Truck Percent
OR217	North of SW Walker Road	Oct. 2014	108,700	98/2 percent
OR217	North of OR8 Interchange	Oct. 2014	113,400	98/2 percent
OR217	South of Portland & Western RR Structure	Oct. 2014	119,800	98/2 percent
OR217	South of SW Allen Blvd.	Oct. 2014	117,100	98/2 percent
OR217	South of SW Denney Road	Oct. 2014	116,500	98/2 percent
OR217	South of SW Hall Blvd. (141)	Oct. 2014	88,400	98/2 percent
OR217	South of SW Scholls Ferry Rd. (143)	Oct. 2014	104,900	98/2 percent
OR217	North of OR99W (Pacific Hwy. West)	Oct. 2014	115,700	98/2 percent
OR217	South of OR99W (Pacific Hwy. West)	Oct. 2014	104,300	98/2 percent
OR217	North of I-5 Interchange	Oct. 2014	106,700	98/2 percent

This is a limited access roadway so there are no signalized intersections. Traffic counts (from 2014) range from 51,500 at the southern interchange with I-5 to 96,500 near the interchange with SW Allen Blvd.

E. Over-dimensional Single Trip Permit Table

Summary: Approximately 5141 STP permits were issued for a 3-year period for OR217.

Note: These counts do not reflect loads operating under an annual Continuous Trip Permit.

Overall Width	Number of Permits Issued
8’6” or less (legal width)	966
8’7” to 10'00"	916
10'01" to 11'00"	728
11'01" to 12'00"	1519
12'01" to 13'00"	287
13'01" to 14'00”	459
Over 14’00”	266

Analysis of Widest Loads: *266 loads were permitted between 14’1” and 23’06” wide. These were for mobile units, excavators, compactors, unladen heavy haul combinations, steel frames, tanks, chiller skidders, pump skids, farm discs, and transformers. There were 4 loads between 17’00” and 23’06” wide which were for fabricated steel, a crane and an airplane. The rest were less than 17’00” in width.*

Overall Height	Number of Permits Issued
14’00” or less (legal height)	3293
14’01” to 14’6”	1137
14’7” to 16’00”	699
Over 16’00”	12

Analysis of Highest Loads: *12 loads were permitted between 16’02” and 16’08” high. These were for mobile units, generator enclosures, box culverts and a shed. The tallest load at 16’08” was for a generator enclosure.*

Overall Combination Length (including any overhang)	Number of Permits Issued
70' or less	815
71' to 80'	2217
81' to 90'	799
91' to 100'	540
101' to 110'	387
111’ to 120’	176
Over 120’	207

Analysis of Longest Loads: *207 loads were permitted between 123’00” and 215’00” overall length. These were for steel beams, utility poles, unladen heavy haul combinations, jaw crushers, girders, bridge sections, excavators and transformers. 6 loads were permitted between 200’00” and 215’00” which were for unladen heavy haul combinations and transformers.*

Gross Weight	Number of Permits Issued
80,000 lbs. or less (legal weight)	1404
80,000 lbs. to 98,000 lbs.	319
98,001 lbs. to 120,000 lbs.	1012
120,001 lbs. to 140,000 lbs.	1338
140,001 lbs. to 160,000 lbs.	483
160,001 lbs. to 180,000 lbs.	242
180,001 lbs. to 200,000 lbs.	196
Over 200,000 lbs.	147

Analysis of Heaviest Loads: *147 loads permitted were between 200,500 lbs. and 475,*201 *lbs. These were for unladen heavy haul combinations, excavators, jaw crushers, scrapers, tanks, and cranes. 3 loads were permits between 328,200 lbs. and 475,201 lbs. These were for transformers.*

Types of Vehicle Combinations Permitted
Truck (Solo Vehicle) or Self Propelled Units (like cranes)
Doubles
Truck-Tractor + Semitrailer or Truck-Tractor +Tow-Away Unit
Truck +Trailer
Log Truck + Pole Trailer
Heavy Haul Combination (Truck-Tractor/Jeep/Semitrailer/Booster)
Toter + Mobile Home
Pickup Truck + Trailer

Analysis of Combinations: *The Truck-Tractor/Semitrailer and Truck-Tractor/Tow-Away Unit was the most common vehicle combination permitted. The trailers used were fixed trailers, stretch trailers, tow-away fixed loads, trailers with flip axles, and a number of trailers were in the "float" position. The longest trailer was a 120'00" stretch trailer. The second most common combination used was the Heavy Haul Combination (Tractor/Jeep/Semitrailer/Booster). The longest trailer permitted in this combination was a 115'00" fixed trailer. *Note: the longest trailer length inclusive of dollies was 138'00".*

F. Crossings and Bridge Structures (City/State Bridge ID)

There are overpasses at SW Park Way (.1 mile south of 26), SW Wilshire (.18 south of 26), SW Walker Rd (.91 south of 26), SW Allen St (2.48 south of 26), Denney Rd (3.04 miles south of 26), SW Hall Blvd (3.83 miles south of 26), OR-210/Scholls Ferry Rd (4.27 miles south of 26), SW Greenberg Rd (5.39 miles south of 26), SW Hall Blvd (6.1 miles south of 26), Pacific Highway/99W (6.34 miles south of 26), SW 72nd Ave (7.15 miles south of 26), and the I-5 off ramp if the truck is proceeding north on I-5 after exiting 217 (7.63 miles south of 26). There are bridges at SW Canyon Rd (1.47 miles south of 26), Beaverton-Hillsdale Hwy (1.76 miles south of 26), and SW 5th St (2.07) miles south of 26).

G. Identified Capital Improvements

Southbound split diamond at Allen Blvd and Denney Road project.

W12. Pacific Highway (OR 99W) Corridor
(Brookman Rd to I-5)

A. Corridor Description

Pacific Highway (OR 99W) is a 10-mile corridor. It connects the cities of Sherwood and Tualatin to the rest of the region. It provides connections between the major employers of Washington County's southeast county area, as well as providing freight access to the rural agricultural areas in southern Washington County and Yamhill County. It intersects with the Roy Rogers/Tualatin-Sherwood Rd Corridor (W9).

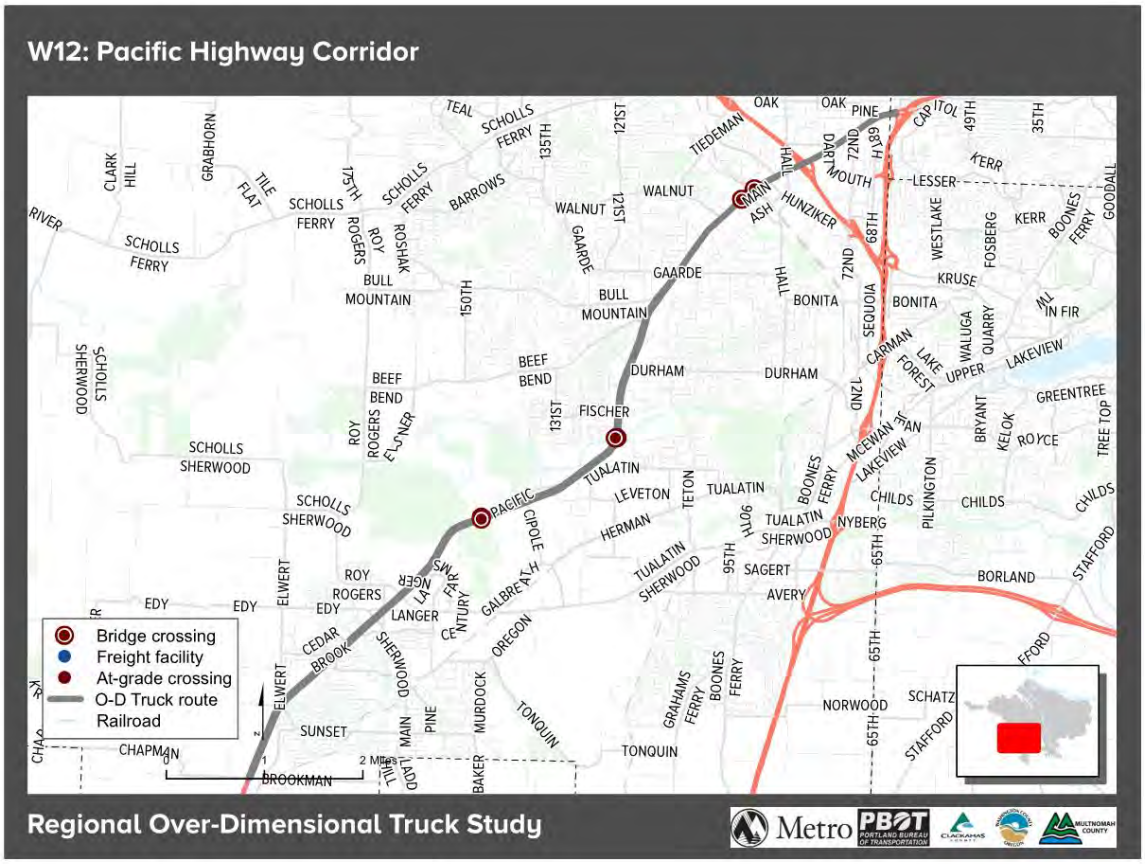


Figure 41. W12 Pacific Highway Corridor Map

B. Policy Designation

Arterial/Principal arterial. The corridor is a 5 lane and 7 lane designation in the TSP.

Regional Freight Network Designation – Classified as a Regional Main Roadway Route.

Federal/NHS Classification – Classified as an NHS Route.

State - ORS 366.215 Reduction Review Route.

C. Roadway Characteristics

Table 109. Pacific Highway Roadway Characteristics

Number of travel lanes	2 - 5 lanes (much of corridor is divided, 2 lanes in either direction). There are 7 lanes in parts of Sherwood and Tigard.
Average travel lane width	11 – 12’
Curb-to-curb width	24’ (Tualatin River Bridge) – 92’
Surface type	Primarily asphalt with the exception of bridge structures (OR217, and Tualatin River Bridge)
Surface condition	The segment between I-5 to SW Gaarde Street is in poor condition. SW Gaarde Street to SW Bull Mountain Road is in good condition. SW Bull Mountain Rd to Tualatin River Bridge is in poor condition. Tualatin River Bridge to SW Brookman Rd. varies from good WB to very good condition EB.

D. Roadway Operations

Traffic counts (from 2014) range from 36,500 at SW Sunset Blvd to 47,600 at the interchange with Highway 217.

Segment	Count Location	Date	ADT	Auto/Truck Percent
OR99W	West of SW 72nd Avenue	Oct. 2014	45,000	97/3 percent
OR99W	East of OR217 (144) Interchange	Oct. 2014	44,500	97/3 percent
OR99W	West of OR217 (144) Interchange	Oct. 2014	48,700	97/3 percent
OR99W	West of Beaverton-Tualatin Hwy (141)	Oct. 2014	42,900	97/3 percent
OR99W	West of SW Durham Road	Oct. 2014	38,800	97/3 percent
OR99W	East of Tualatin-Sherwood Hwy.	Oct. 2014	30,500	98/2 percent
OR99W	West of Tualatin-Sherwood Hwy.	Oct. 2014	37,400	98/2 percent

OR99W	West of SW Sunset Blvd.	Oct. 2014	37,400	98/2 percent

E. Over-dimensional Single Trip Permit Table

Permit data not currently available for this corridor.

F. Crossings and Bridge Structures (City/State Bridge ID)

There are overpasses at Hwy 217 and I-5.

There are bridges at the P&W/WES rail line (.25 miles west of Greenburg Rd) and Fanno Creek (.37 miles west of Greenburg Rd) crossings. There are also bridges over the Tualatin River (.7 miles south of SW Durham Rd) and over Rock Creek (.5 miles west of SW Cipole Rd).

G. Identified Capital Improvements

None identified in this corridor.

PBOT
PORTLAND BUREAU OF TRANSPORTATION

Portland Truck Map

City of Portland Map C-51A June 2015

THIS MAP AUTHORIZES TRAVEL ON CITY OF PORTLAND STREETS AND BRIDGES ONLY

Please contact ODOT and Multnomah County for authorization on State highways and County bridges:

ODOT Permits 503-373-0000
Multnomah County Permits 503-988-3582

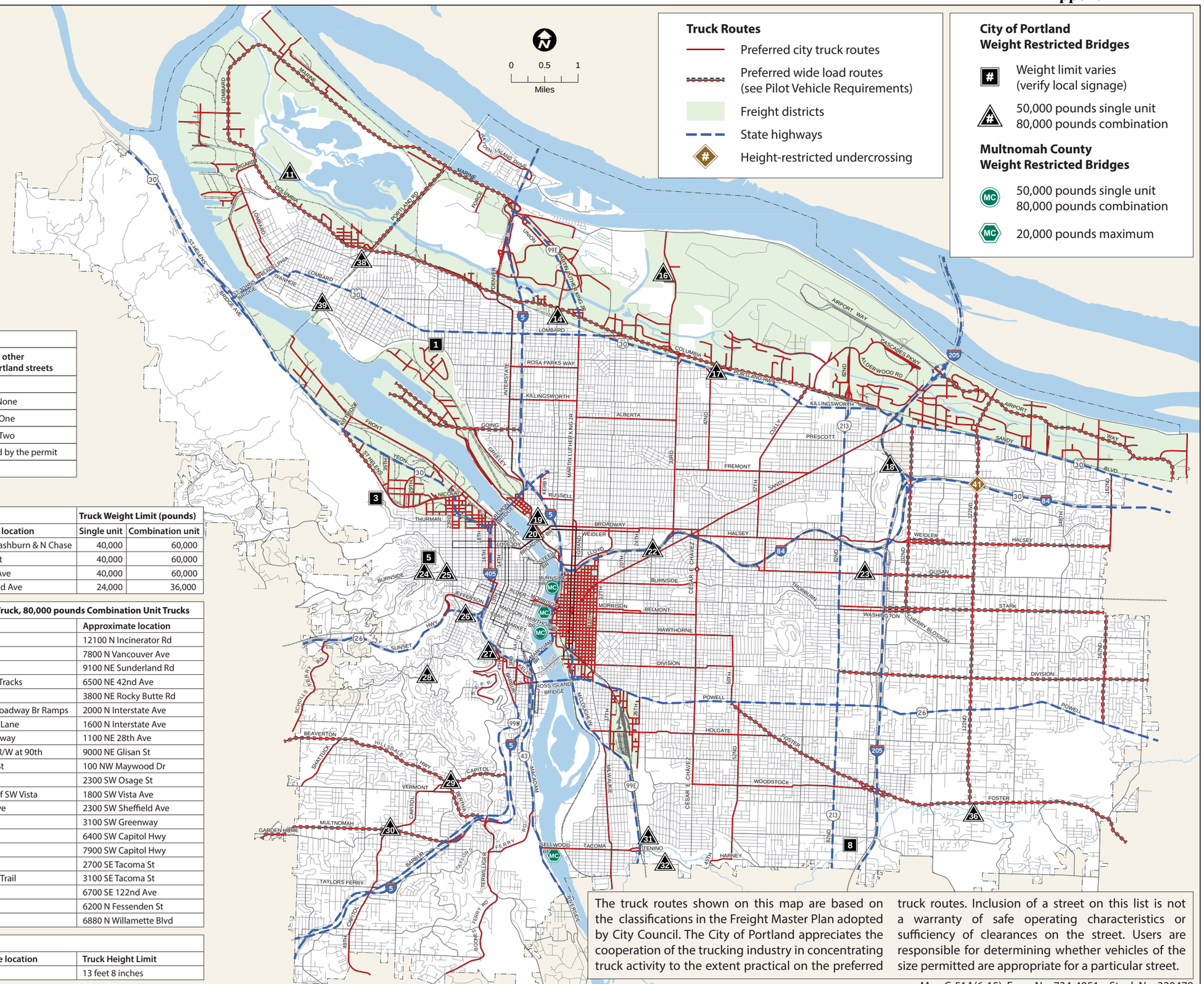
Transporting an oversize or overweight load requires a City Over-dimensional Permit: 503-823-5185

Pilot Vehicle Requirements			
Vehicle width	Designated wide load routes indicated:		All other City of Portland streets
	Multi-Lane	*2-Lane*	
8'7" to 9'	None	None	None
9'1" to 12'	None	None	One
12'1" to 14'	None	One	Two
over 14'1"	As specified by the permit		As specified by the permit
Permittee is responsible for actions of pilot cars.			

#	Structures with Individual Weight Limits (verify local signage)			Truck Weight Limit (pounds)	
Map #	Highway *(City Bridge No.)*	Crossing	Approximate location	Single unit	Combination unit
1	N Willamette Blvd, Eastbound *(B-007)*	Sloped hillside	Between N Washburn & N Chase	40,000	60,000
3	NW Alexandra Ave *(B-014)*	Unnamed creek	NW Gordon St	40,000	60,000
5	NW Maywood Drive *(B-018)*	Hillside	NW Melinda Ave	40,000	60,000
8	SE Lambert Street *(B-098)*	Johnson Creek	East of SE 82nd Ave	24,000	36,000

#	Structures Limited to Maximum Weight 50,000 pounds Single Unit Truck, 80,000 pounds Combination Unit Trucks		
Map #	Highway *(City Bridge No.)*	Crossing	Approximate location
11	N Incinerator Rd Bridge (Metro-owned) *(B-002)*	Columbia Slough	12100 N Incinerator Rd
14	N Vancouver Ave *(B-006)*	UPRR tracks	7800 N Vancouver Ave
16	NE Sunderland Rd *(B-094)*	Drainage ditch	9100 NE Sunderland Rd
17	NE 42nd Ave *(B-075)*	NE Portland Hwy & UPRR Tracks	6500 NE 42nd Ave
18	NE Rocky Butte Rd *(B-143)*	Pedestrian tunnel	3800 NE Rocky Butte Rd
19	N Interstate Ave Ramp - M.P. 1.06 *(B-153)*	Ramp - SB Interstate to Broadway Br Ramps	2000 N Interstate Ave
20	N Interstate Ave Viaduct - M.P.1.00 *(B-152)*	Sloped hillside next to SB Lane	1600 N Interstate Ave
22	NE 28th Ave *(B-027)*	MAX Light Rail & I-84 Freeway	1100 NE 28th Ave
23	NE Glisan St *(B-033)*	Abandoned Mt Hood RR R/W at 90th	9000 NE Glisan St
24	NW Maywood Drive Semi-Viaduct *(B-017)*	Hillside near W Burnside St	100 NW Maywood Dr
25	SW Osage St Semi-Viaduct *(B-035)*	Sloped hillside	2300 SW Osage St
26	SW Vista Ave Semi-Viaduct *(B-041)*	Sloped hillside east side of SW Vista	1800 SW Vista Ave
27	SW Sheffield Ave *(B-019)*	Hillside at SW Sheffield Ave	2300 SW Sheffield Ave
28	SW Greenway Ave *(B-042)*	SW Talbot Rd	3100 SW Greenway
29	SW Capitol Highway *(B-081)*	SW Bertha Blvd	6400 SW Capitol Hwy
30	SW Capitol Highway *(B-082)*	SW Multnomah Blvd	7900 SW Capitol Hwy
31	SE Tacoma St Semi-Viaduct *(B-088)*	Sloped hillside	2700 SE Tacoma St
32	SE Tacoma St/32nd Ave *(B-087)*	Springwater Recreational Trail	3100 SE Tacoma St
36	SE 122nd Ave *(B-099)*	Johnson Creek	6700 SE 122nd Ave
38	N Fessenden Street (BNSF owned)	BNSF Railroad	6200 N Fessenden St
39	N Willamette Blvd (BNSF owned)	BNSF Railroad	6880 N Willamette Blvd

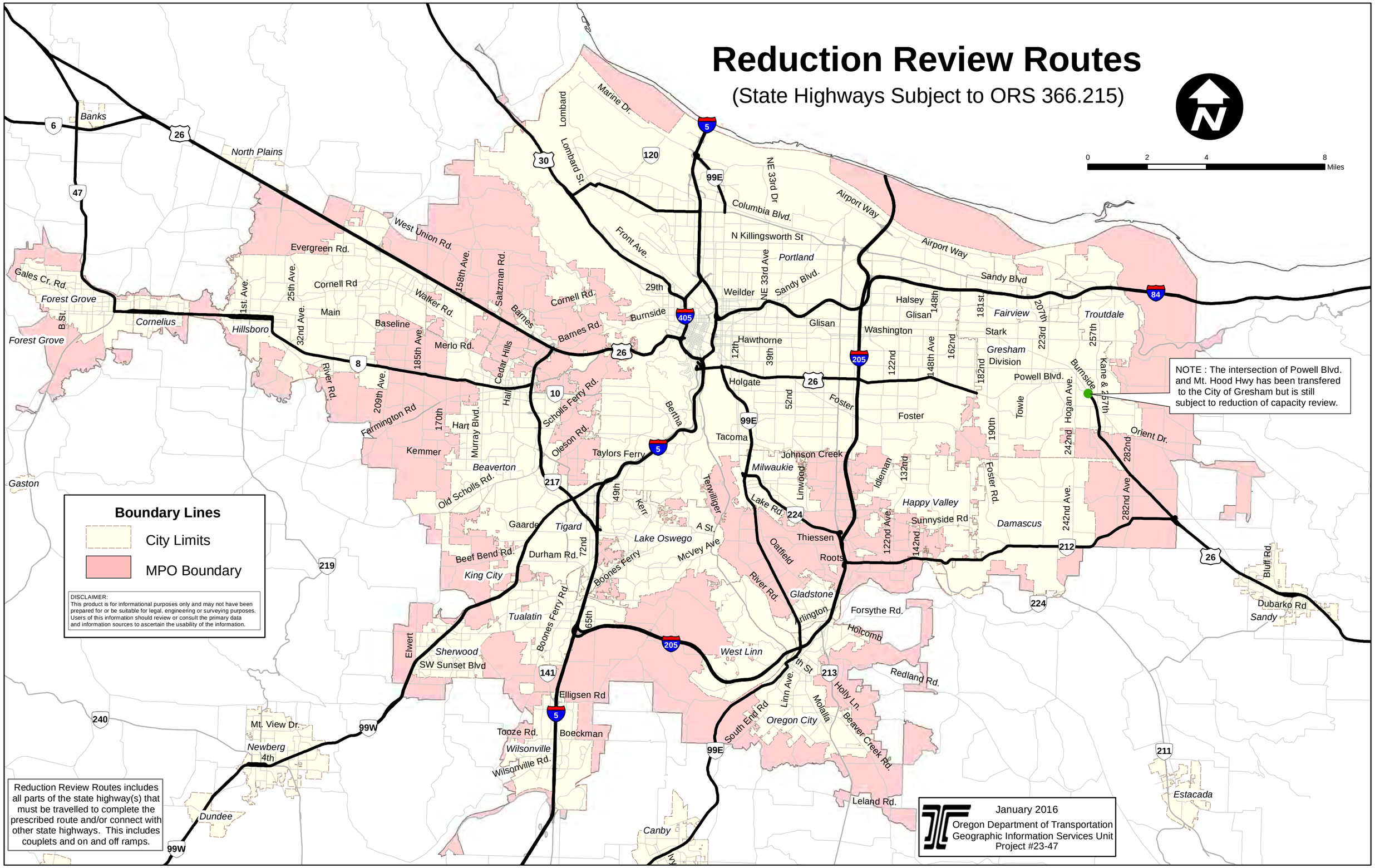
#	Height-restricted Undercrossing			
Map #	Highway	Undercrossing	Approximate location	Truck Height Limit
41	NE 122nd Ave	UPRR Railroad Bridge	North of I-84	13 feet 8 inches



The truck routes shown on this map are based on the classifications in the Freight Master Plan adopted by City Council. The City of Portland appreciates the cooperation of the trucking industry in concentrating truck activity to the extent practical on the preferred truck routes. Inclusion of a street on this list is not a warranty of safe operating characteristics or sufficiency of clearances on the street. Users are responsible for determining whether vehicles of the size permitted are appropriate for a particular street.

Map C-51A(6-15); Form No. 734-4051a; Stock No. 320478

Map C-51A(6-15); Form No. 734-4051a; Stock No. 320478


Reduction Review Routes
(State Highways Subject to ORS 366.215)
0 2 4 8 Miles
Boundary Lines
City Limits
MPO Boundary
DISCLAIMER:
This product is for informational purposes only and may not have been prepared for or be suitable for legal, engineering or surveying purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of the information.
NOTE : The intersection of Powell Blvd. and Mt. Hood Hwy has been transfered to the City of Gresham but is still subject to reduction of capacity review.
Reduction Review Routes includes all parts of the state highway(s) that must be travelled to complete the prescribed route and/or connect with other state highways. This includes couplets and on and off ramps.
January 2016
Oregon Department of Transportation
Geographic Information Services Unit
Project #23-47
Banks
North Plains
Forest Grove
Cornelius
Hillsboro
Gaston
Newberg
Dundee
Beaverton
Tigard
King City
Tualatin
Sherwood
Wilsonville
Tigard
Tacoma
Portland
Milwaukie
Lake Oswego
West Linn
Oregon City
Gladstone
Happy Valley
Damascus
Troutdale
Fairview
Gresham
Estacada
Sandy
Canby
Boeckman
Elligsen Rd
Tooze Rd.
Mt. View Dr.
Gales Cr. Rd.
Evergreen Rd.
Cornell Rd
Main
Baseline
Merlo Rd.
Farmington Rd
Kemmer
Hart
Murray Blvd.
Scholls Ferry Rd.
Oleson Rd.
Taylors Ferry
Barnes Rd.
Burnside
Marine Dr.
Lombard
Columbia Blvd.
N Killingsworth St
Front Ave.
Airport Way
Sandy Blvd
Weilder
Holgate
Foster
Powell Blvd.
Johnson Creek
Lake Rd.
Thiessen
Roots
Sunnyside Rd
Forsythe Rd.
Holcomb
Redland Rd.
Holly Ln.
Beaver Creek Rd.
Leland Rd.
Orient Dr.
Bluff Rd.
Dubarko Rd
Old Scholls Rd.
Beef Bend Rd.
Durham Rd.
Boones Ferry Rd
Elligsen Rd
Wilsonville Rd.
SW Sunset Blvd
Elwert
Halsey
Glisan
Washington
Stark
Division
Hogan Ave.
Kane & 257th
Burnside
Towle
Foster Rd.
242nd Ave.
282nd Ave
Linn Ave.
Molalla
South End Rd
Oatfield
River Rd.
McVey Ave
A St
Terwilliger
Kerr
Lombard St.
NE 33rd Dr
NE 33rd Ave
Cedar Hills
Saltzman Rd.
158th Ave.
West Union Rd.
Walker Rd.
Barnes
River Rd.
209th Ave.
185th Ave.
32nd Ave.
25th Ave.
1st. Ave.
B St.
Bertha
Idleman
122nd Ave.
142nd
132nd
122nd
148th Ave
162nd
182nd
190th
223rd
257th
282nd
148th
181st
207th
52nd
39th
12th
29th
49th
72nd
65th
170th
Linwood
Arlington
Foster
Johnson Creek
Tacoma
Hawthorne
Glisan
Halsey
Sandy Blvd
Columbia Blvd.
Marine Dr.
Lake Rd.
Holly Ln.
Beaver Creek Rd.
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Happy Valley
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