Regional Over-Dimensional Truck Route Study

Portland City Council: July 19, 2017

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What are Over-Dimensional Loads? (ODOT Permitting Procedures)

- Width of load exceeds 8 feet 6 inches.
- Height of vehicle and load exceeds 14 feet.
- Length greater than 40 feet, exceeding 5 feet beyond end of trailer.
- Gross Vehicle Weight (GVW) exceeding 80,000 lbs.
  - Any single axle weight exceeding 20,000 lbs.
  - Any tandem axle weight exceeding 34,000 lbs.

Common Over-Dimensional Loads

Construction Equipment like Excavators are the most frequent over-dimensional Items Moved

Super Loads

WIND TURBINE BLADES ARE SPECIALIZED OVER-DIMENSIONAL LOADS

- Over 16 feet wide on interstate highway
- Over 14 feet wide on any state two-lane highway
- Over 17 feet high on any highway
- Overall length >150 feet
- Mobile homes/modular units width over 14 feet, overall width > 15 feet.

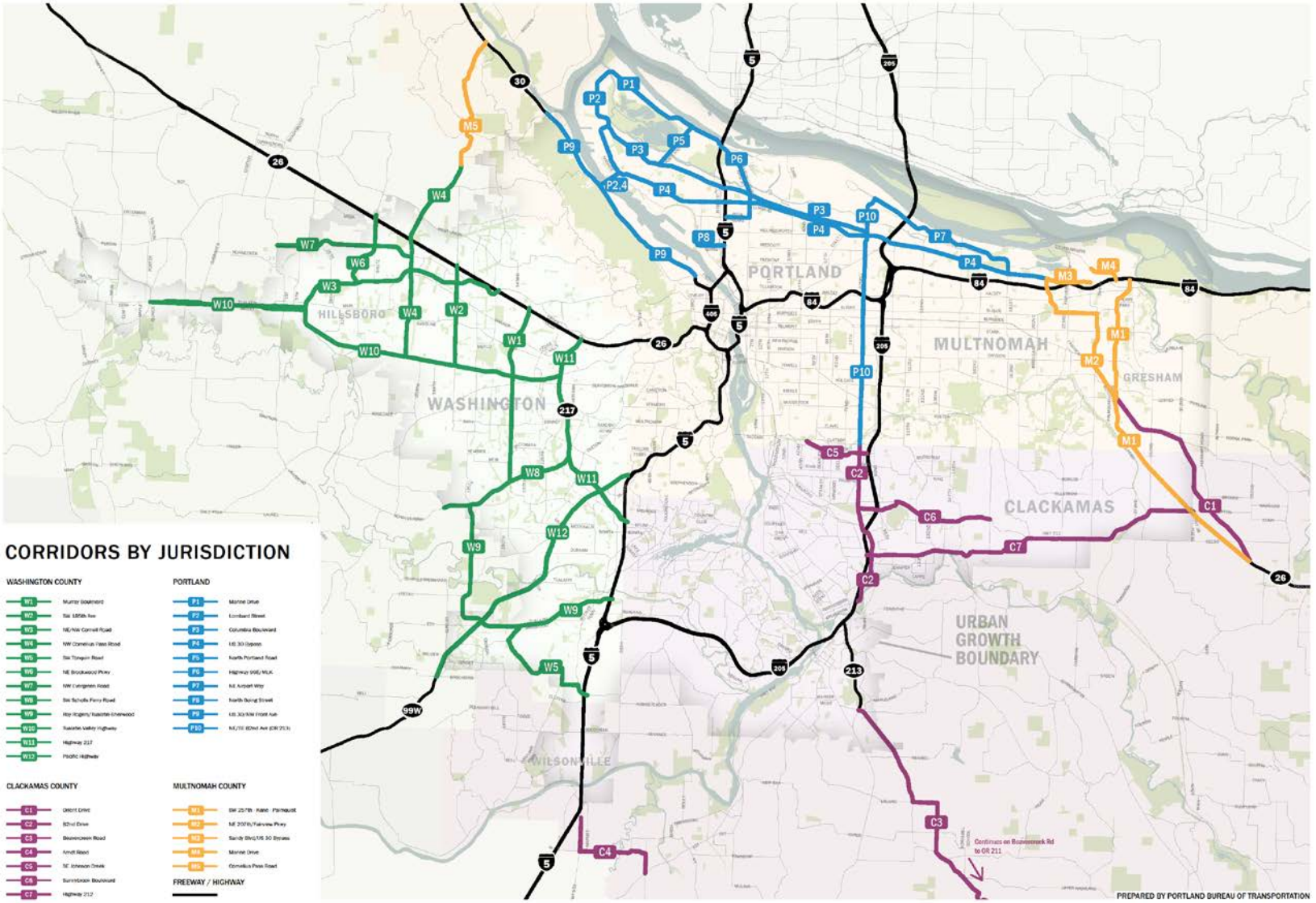
Project Background and Purpose

- Recommended as an implementing action in the Portland Freight Master Plan.
- Identified as a need in the 2035 Regional Freight Plan.
- Project funded through Metro's Regional Flexible Funding (RFF) Program.
- Partner agencies involved ODOT, Metro, COP, Clackamas, Multnomah and Washington Counties.
- Purpose: Provide local jurisdictions with a comprehensive assessment of over-dimensional truck movements to more effectively plan for their safe and efficient routing in and through the Metro region.
- Outcome: Provide the technical foundation for identifying capital improvement needs that remove system barriers for inclusion in local Transportation System Plans.

Key Project Elements

- Project Timeline: Initiated in Fall 2015 and completed in Spring 2017.
- Stakeholder Involvement: Hauling industry representatives and local permitting agency staff provided strategic input during the project duration.
- System Inventory: Identifies 34 strategic over-dimensional truck corridors in the Metro region and the most common load type and dimensions.
- System Constraints: Identifies existing constraints and physical barriers located along each corridor (primarily bridge structure height or weight limitations).
- Solutions and Recommendation: Recommends capital project solutions for identified constraint and approximate cost range based on engineering factors.

Corridor Map



CONSTRUCTION CRANE

20,611 ODOT Single Trip Permit Records were evaluated (2012-2015):

- 30% of items moved were excavators, cranes and log loaders.
- 90% of high loads were 15 feet or less.
- 35% of wide loads between 11-12 feet (24% were excavators).
- 60% of long loads between 70-90 feet (15% were excavators).
- 75% of heavy loads between 120,000-160,000 (20% were excavators).

P3: NE Columbia Blvd Corridor
UPRR Bridge under I-5

Constraint:

Underpass height limit below UPRR at **16 ft., 5 inches.**

Solution:

- ✓ Lower roadway to achieve **17 ft., 4 inch** vertical clearance standard.

Challenges:

- Underground pressurized jet fuel pipeline in roadway.
- Impacts to bridge piers may require expensive structural modifications.

UPRR Bridge over NE Columbia Blvd at I-5

P3: NE Columbia Blvd Corridor
George Middle School Pedestrian Bridge

Constraint:

Pedestrian bridge has a **16 ft.** vertical clearance limiting some over-height loads.

Solutions:

- ✓ Rebuild/raise pedestrian bridge to achieve **17 ft., 4 inch** vertical clearance standard.
- ✓ Remove bridge and construct pedestrian-activated signalized at-grade crossing.

George Middle School Pedestrian Bridge over Columbia Blvd

P5: North Portland Road Corridor
Columbia Slough Bridge

Constraint:

State-owned bridge currently posted to **105,500 lbs**. **GVW,** limiting **98%** of over-weight moves in the region.

Solution:

- ✓ Retrofit or replace existing bridge structure to support over-weight loads.

N Portland Rd Columbia Slough Bridge

Next Steps

- ✓ Accept this Study as a strategy for accommodating Over-dimensional freight movement in the City of Portland.
- ✓ Include the following three project recommendations in the next Transportation System Plan update:

    1. NE Columbia Blvd./UPRR Bridge Underpass.
    2. NE Columbia Blvd./George Middle School Pedestrian Bridge
    3. North Portland Rd Columbia Slough Bridge

Questions?

For more information see the Final Report on the PBOT website:
https://www.portlandoregon.gov/transportation/73902
or contact:
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