Appendix F: Performance Measures Work Group Materials

Performance Measures Report

The Performance Measures work group focused on travel times; safety; greenhouse gas emissions; and overall benefit/cost. Project scenarios included the following:

- *Locally Preferred Alternative (2030):* Replacement river crossing with three through lanes and three add/drop lanes; I-5 highway improvements, including improvements at seven interchanges; extension of light rail from the Expo Center to Clark College in Vancouver; bicycle and pedestrian facility improvements; tolling at the river crossing; and, transportation demand and system management measures.
- *Locally Preferred Alternative – Phase 1 (2030):* Includes all elements of the Locally Preferred Alternative (LPA) except construction of the I-5 braided on- and off-ramps at Victory Boulevard, the Marine Drive interchange flyover, and the northern half of the I-5/SR 500 interchange. This scenario also assumes the new Columbia River bridges would be striped for 10 highway lanes (three through lanes and two add/drop lanes) not for 12 highway lanes; however, there is no difference in overall bridge width when shoulders are included.
- *No Build (2030):* Assumes the CRC project is not built. Also assumes that the same population and employment growth occurs; and, the same transportation and land use projects are built, that are assumed in the LPA scenarios.
- *Existing (2005):* Baseline information derived from the existing transportation network, population and employment levels from year 2005.

Travel times

Travel times were summarized for each mode along I-5 including auto/commuter, freight, transit and auto/commuter on I-205 for the most highly used routes for each specific mode. Listed below is a very brief summary of the findings, more detailed information is available if requested.

Overall travel time findings

The work group found that both the LPA Full Build and LPA Phase 1 scenarios provide significant improvements over existing conditions and the No-Build scenarios. General findings on build scenarios:

- **Peak a.m. southbound** travel times on I-5 are significantly improved. Southbound traffic from connecting east/west facilities benefit from dramatically improved travel times in Washington due to reduced delays and queues on SR 500 and SR 14 entering southbound I-5. Southbound a.m. travel times are limited by downstream bottlenecks at Going Street/ I-405 and the Rose Quarter.
- **Peak p.m. northbound** travel times on I-5 are dramatically improved. The LPA Full Build is slightly faster than the LPA Phase 1 alternative due to increased operations near the I-5 Bridge.
- **Both Build scenarios** provide significant benefit to freight compared to the No Build scenario considering freight typically travels off peak and the number of hours of uncongested times increases from 9 hours under the No Build scenario to 22 hours under the Build scenarios.
- **I-205 northbound and southbound** travel times are improved with both CRC Build scenarios because the combination of improved transit, lane capacity and the DEIS level of toll keeps traffic in the I-5 corridor compared to the No Build which diverts significant I-5 traffic to I-205 because excessive I-5 No Build congestion levels.
- **Transit rider travel times benefit significantly in both CRC Build scenarios** for riders whose trips would include light rail and those who would take express buses from elsewhere in Clark County.
- **Full LPA and LPA Phase I benefits vary little between them.** Most travel times for all modes were effectively the same whether only Phase I were construction or the Full LPA as previously defined were constructed.

Automobile Commuters

- **Southbound a.m.** travel times under both the No Build and Existing scenarios showed significant delays at SR 500 and SR14 westbound to I-5 southbound, creating queues and increased travel time due to backups on these facilities.
- **Southbound a.m**. travel times in both CRC Build scenarios improve significantly over Existing and No Build. Even more significant potential travel time savings are constrained due to downstream bottlenecks at Going/ I-405 and the Rose Quarter/ I-84.
- **Northbound p.m.** travel times under both CRC Build scenarios demonstrate dramatic travel time savings. For example between the Morrison Street merge and SR 500 the travel time is reduced from 40 minutes in No Build to 17 minutes with the LPA Full Build. A slight difference of one minute between the Full Build compared to LPA Phase 1 was due to increased traffic near the I-5 Bridge.

Freight

- **Southbound a.m.** travel times for most freight origin/destination pairings had modest improvements for the CRC Build over existing conditions and No-Build scenarios due to the affects of upstream and downstream metering at different bottlenecks under different scenarios. Travel times to and from Mill Plain and Going Street follow similar patterns as summarized under for the commuter patterns.
- **Southbound a.m. freight entering I-5 at Marine drive** will experience longer travel times for the two CRC Build scenarios compared to the No Build scenario due to the interactions of existing bottlenecks upstream and downstream of Marine Drive and the I-5 Bridge metering downstream throughput under the No Build scenario versus trucks entering I-5 in a congested segment under the Build scenarios.
- **Northbound p.m.** CRC Build alternatives provided dramatic travel time improvements to freight in both build scenarios similar to that received by commuters (16 minutes for LPA Full Build scenario vs. 43 minutes for the No Build scenario from I-84 spilt to Mill Plain Boulevard).
- **Southbound a.m. and northbound p.m. build scenarios** provide significant benefit to freight (freight travels more off peak than during peak), allowing for 22 hours of uncongested off-peak freight travel time vs. only 9 available uncongested off peak hours in a 24-hour period with no-build.

Transit

Transit travel times were run on the Regional Model, and were based on a representative urban to urban commute (downtown Vancouver to downtown Portland), and a representative suburban to urban commute (99th Street Vancouver to Pioneer Square Portland). These two scenarios provide a good example on which to examine the level of performance for commuters living in closer proximity to the LRT park-and-ride commute-shed, and those who live further out that may choose to take express bus from outer suburban areas. The following conclusions were made:

- Both LPA and LPA Phase I scenarios greatly benefit both express bus and LRT transit over a no-build scenario
- Downtown to Downtown Route (LRT) is a faster commute than a no-build express bus, with benefits even more significant on the northbound commute
    - SB LRT both build scenarios 32 minutes vs. 43 minutes via Route 105 bus no-build
    - NB LRT both build scenarios 32 minutes vs. 47 minutes via Route 105 bus no-build
- Express bus service is faster under both build scenarios, with more significant time savings on the northbound commute
    - SB express via Route 199 bus is 53 minutes in both build scenarios vs. 58 minutes no build
    - NB express via Route 199 bus is 37 minutes in both build scenarios vs. 52 minutes no build

I-205

- **Southbound** peak travel times for both CRC Build scenarios demonstrate slightly improved travel times compared to the No Build scenario. The combination of improved transit and lane capacity along with the moderate toll rate for the CRC Build alternatives keeps I-5 traffic in the I-5 corridor compared to the No Build scenario which diverts traffic to I-205 because of excessive I-5 congestion.
- **Northbound** peak travel times demonstrate slightly more savings for the CRC Build scenarios compared to Existing and No Build scenarios as compared to southbound peak travel times.

Safety

Project scenarios were compared with respect to the total number of accidents expected on an annual basis in the project area. Both the Full Build and LPA Phase 1 scenarios reduced the number of accidents compared with the No Build scenario. Most of the reductions in accidents were realized in the reduction of substandard merges, diverges, and weaving sections, and reduced congestion throughout the project area, particularly areas where heavy volumes of trucks are entering and exiting I-5.

- Existing accidents – 400/yr
- 2030 No-Build accidents -750/yr
- 2030 Full Build accidents – 200/yr
- 2030 LPA Phase 1 accidents – 210-240/yr

Greenhouse Gas Emissions

Project scenarios were compared for their contributions of greenhouse gas emissions (GHG). The methodology for calculating GHG follows the same analysis peer-reviewed by the CRC Greenhouse Gas Emissions Expert Review Panel in late 2008. This methodology calculates GHG emissions based on energy consumed during construction and operation of the CRC project. Findings show the most GHG benefits for the Build scenarios when compared to the No Build scenario.

GHG emissions are estimated both in the project area itself and for the region accounting for diversion to I-205 and other arterials. According to these estimates, the Full Build LPA has 0.5 percent fewer emissions region-wide and 4.4 percent fewer emissions in the project area compared to the No Build scenario. The LPA Phase 1 has the same regional emissions as the Full Build LPA. In the project area, emissions are 1.1 percent reduced from the Full Build LPA.

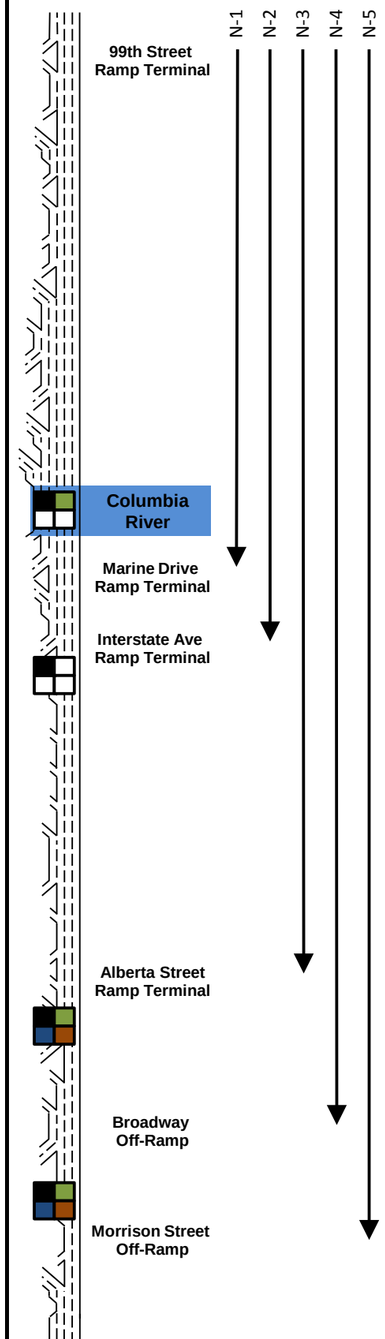
Benefit/Cost

A calculated benefit/cost ratio was developed for each of the scenarios to provide a basis for comparing the multiple benefits and costs associated with project performance. The analysis was conducted using methodologies and metrics recognized and championed by the US Department of Transportation, including FHWA and FTA. The principal categories of benefit considered are congestion management benefits to the area, mobility improvement benefits, economic development benefits in the region, and bridge lift time savings.

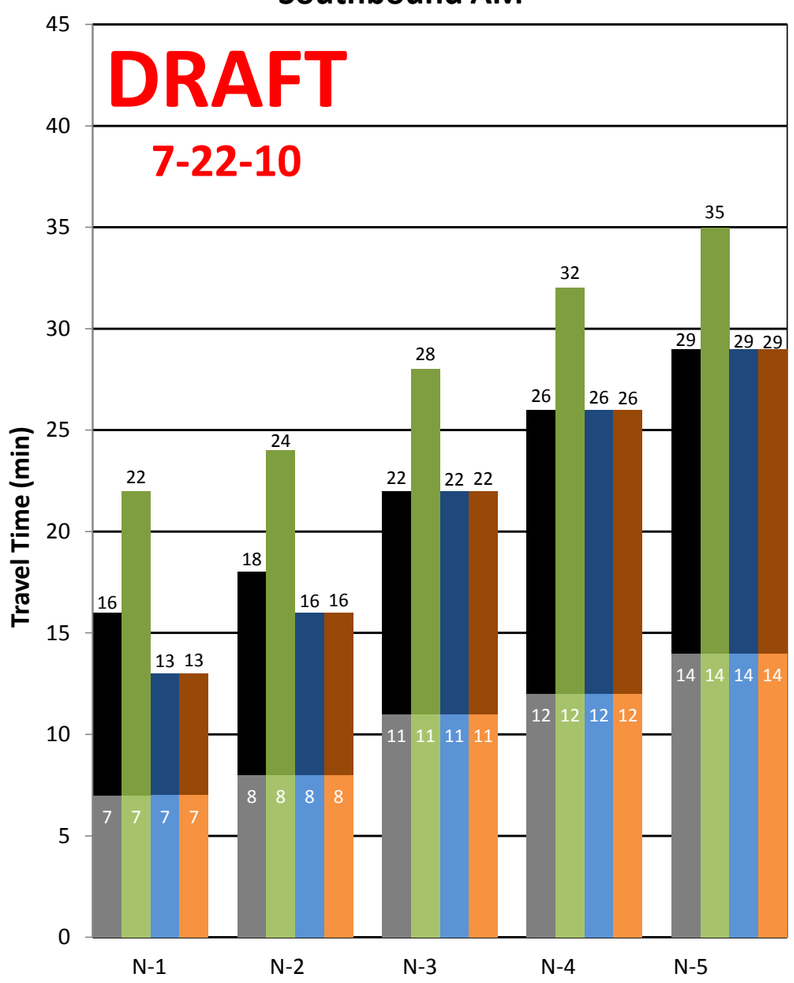
CRC convened a panel of stakeholders and subject matter experts, including practitioners and local academic experts to scrutinize the evaluation methodology, the inputs used to conduct the evaluation and the analytic method. The stakeholder panel reviewed the calculations used in each benefit category and provided input on adjustments and refinements and suggestions on appropriate input values. The Full Build and LPA Phase 1 were assessed using this updated methodology. Either build option demonstrates substantial benefit per cost compared to the No Build.

- Full Build benefit/cost: 1.9:1
- LPA Phase 1 benefit cost: 2.0:1
- LPA Phase 1 with Marine Dr flyover and Victory Braid: 1.9+:1

Commuter Movements to and from 99th Street Ramp Terminal



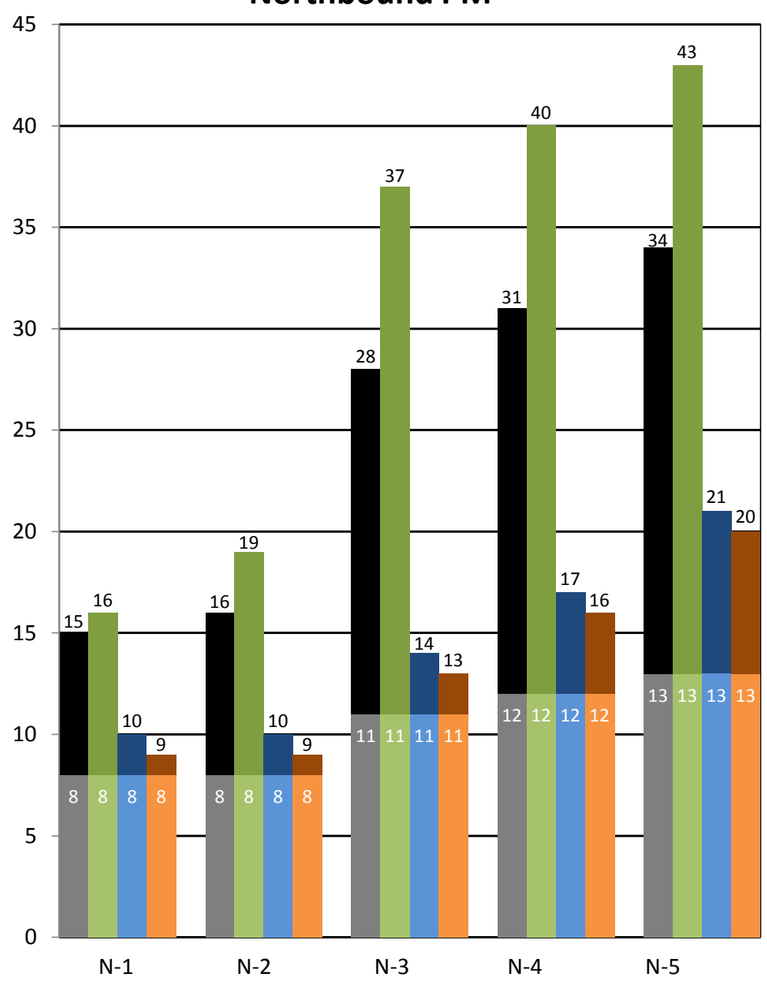
Southbound AM



Travel Time Segment Designation

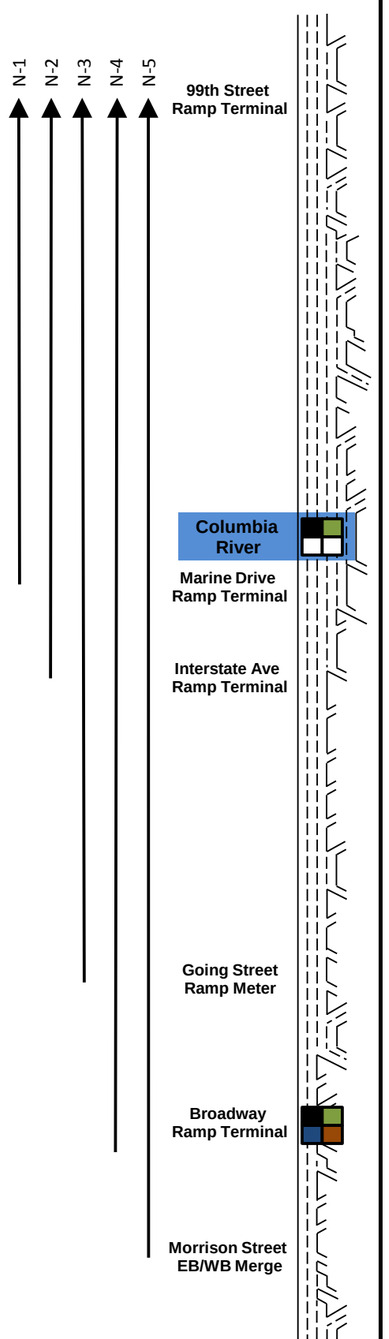
N-1 - 99th Street ramp terminal to Marine Drive ramp terminal
N-2 - 99th Street ramp terminal to Interstate Avenue ramp terminal
N-3 - 99th Street ramp terminal to Alberta Street ramp terminal
N-4 - 99th Street ramp terminal to Broadway off-ramp
N-5 - 99th Street ramp terminal to Morrison Bridge off-ramp

Northbound PM



Travel Time Segment Designation

N-1 - Marine Drive ramp terminal to 99th Street ramp terminal
N-2 - Interstate Avenue ramp terminal to 99th Street ramp terminal
N-3 - Going Street ramp meter to 99th Street ramp terminal
N-4 - Broadway ramp terminal to 99th Street ramp terminal
N-5 - Morrison EB/WB merge to 99th Street ramp terminal



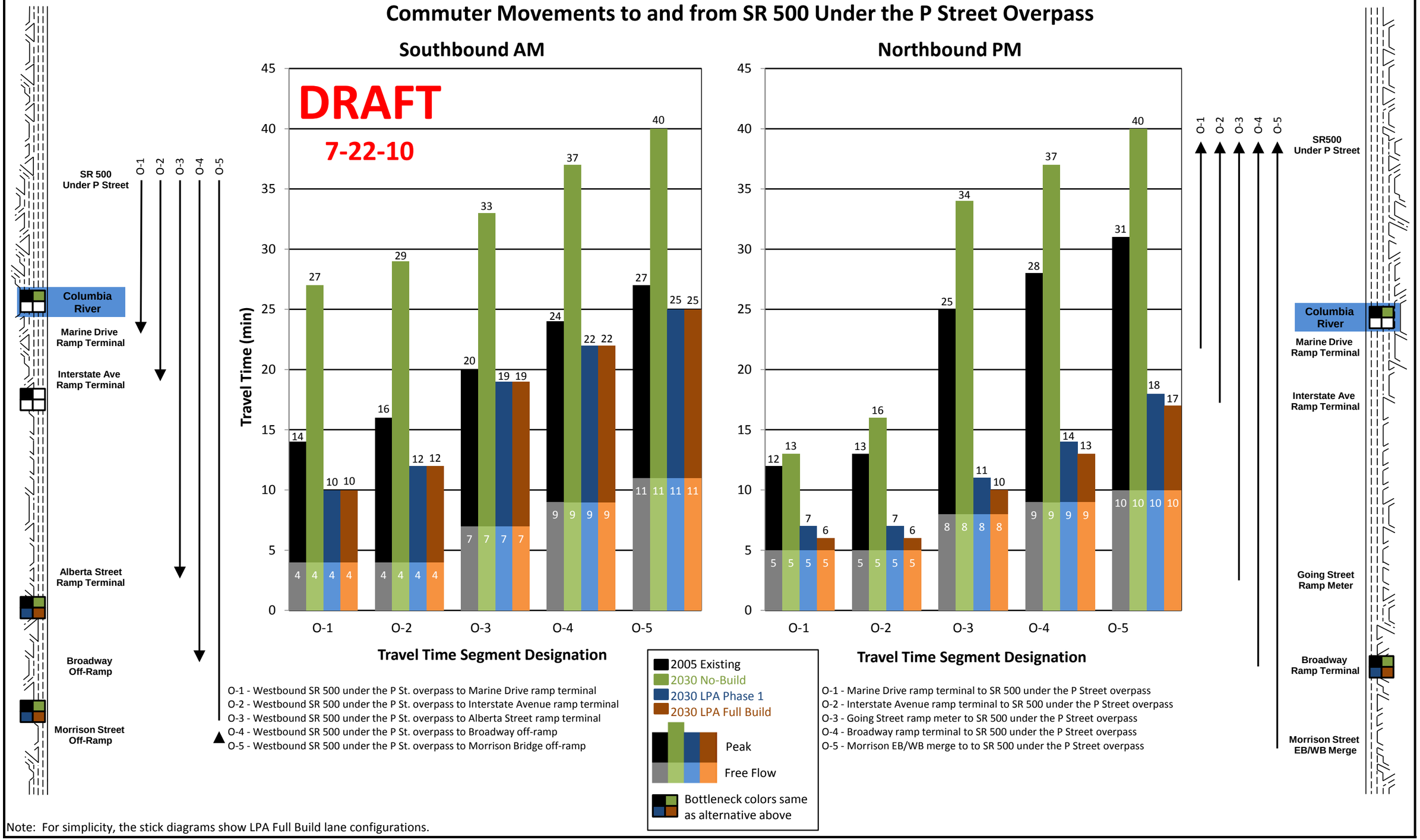
2005 Existing
2030 No-Build
2030 LPA Phase 1
2030 LPA Full Build

Peak
Free Flow

Bottleneck colors same as alternative above

Note: For simplicity, the stick diagrams show LPA Full Build lane configurations.

Commuter Movements to and from SR 500 Under the P Street Overpass

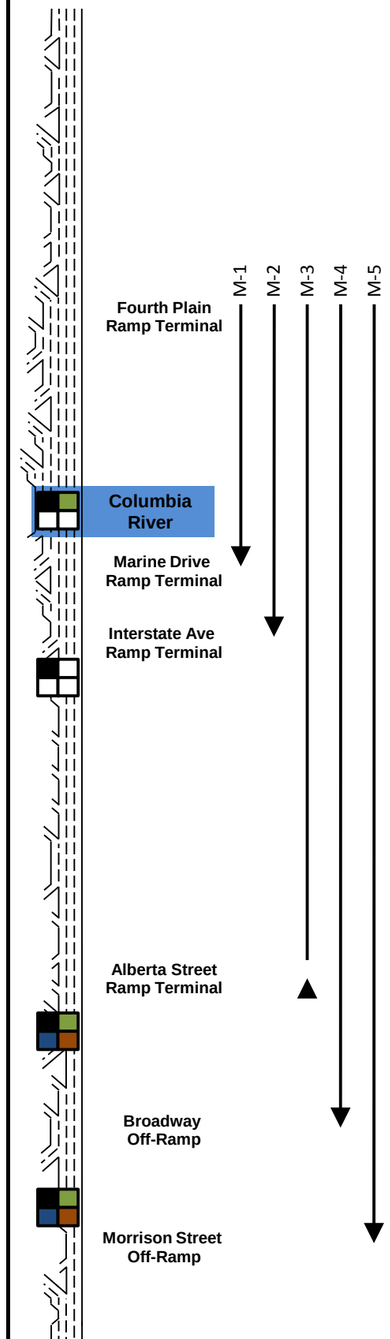


O-1 - Westbound SR 500 under the P St. overpass to Marine Drive ramp terminal
O-2 - Westbound SR 500 under the P St. overpass to Interstate Avenue ramp terminal
O-3 - Westbound SR 500 under the P St. overpass to Alberta Street ramp terminal
O-4 - Westbound SR 500 under the P St. overpass to Broadway off-ramp
O-5 - Westbound SR 500 under the P St. overpass to Morrison Bridge off-ramp

O-1 - Marine Drive ramp terminal to SR 500 under the P Street overpass
O-2 - Interstate Avenue ramp terminal to SR 500 under the P Street overpass
O-3 - Going Street ramp meter to SR 500 under the P Street overpass
O-4 - Broadway ramp terminal to SR 500 under the P Street overpass
O-5 - Morrison EB/WB merge to to SR 500 under the P Street overpass

Note: For simplicity, the stick diagrams show LPA Full Build lane configurations.

Commuter Movements to and from Fourth Plain Ramp Terminal



Southbound AM

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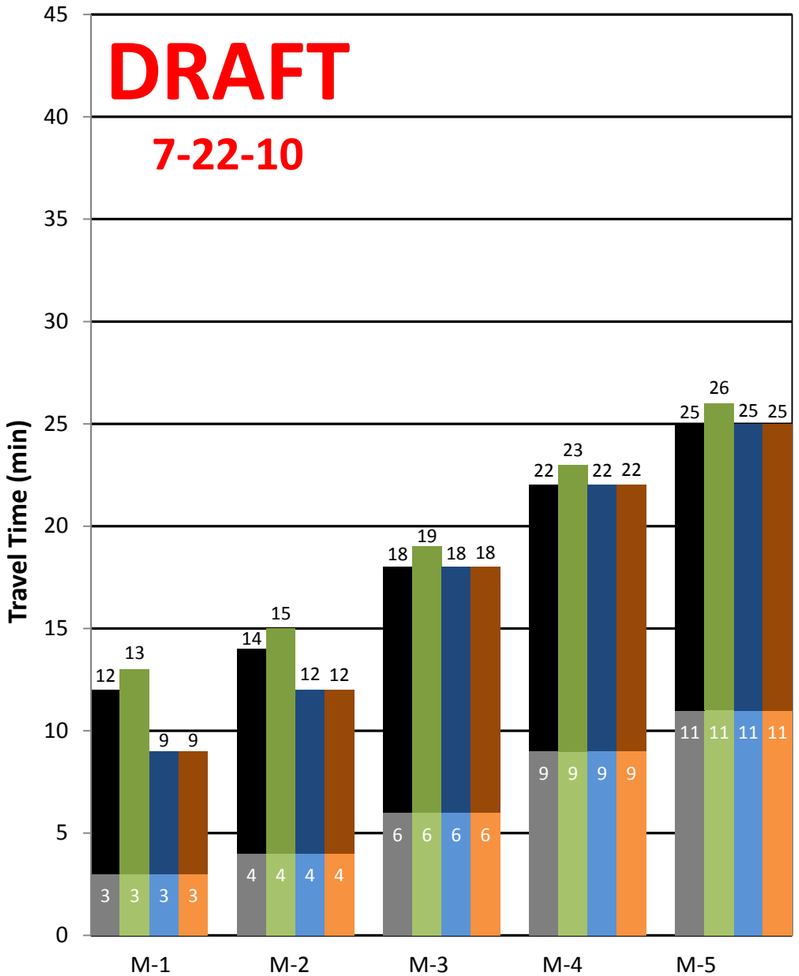
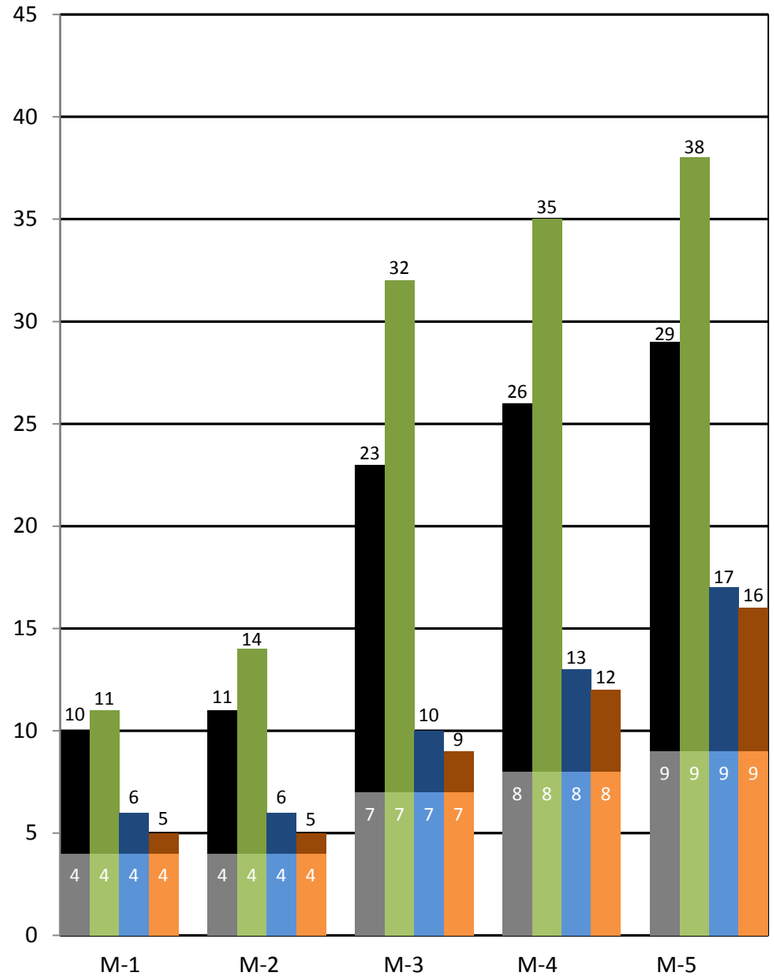


Travel Time Segment Designation

M-1 - Fourth Plain ramp terminal to Marine Drive ramp terminal
M-2 - Fourth Plain ramp terminal to Interstate Avenue ramp terminal
M-3 - Fourth Plain ramp terminal to Alberta Street ramp terminal
M-4 - Fourth Plain ramp terminal to Broadway off-ramp
M-5 - Fourth Plain ramp terminal to Morrison Bridge off-ramp

Northbound PM



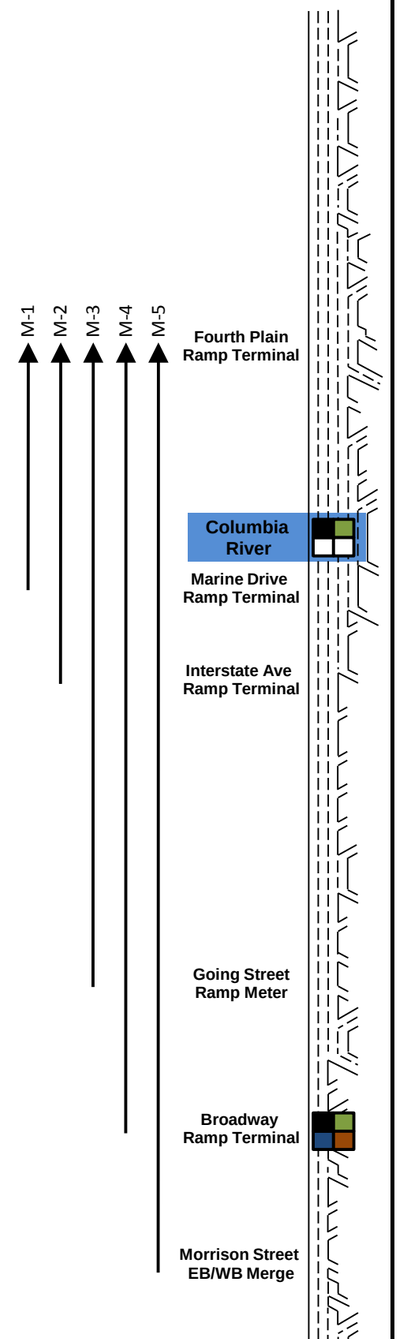
Travel Time Segment Designation

M-1 - Marine Drive ramp terminal to Fourth Plain ramp terminal
M-2 - Interstate Avenue ramp terminal to Fourth Plain ramp terminal
M-3 - Going Street ramp meter to Fourth Plain ramp terminal
M-4 - Broadway ramp terminal to Fourth Plain ramp terminal
M-5 - Morrison EB/WB merge to Fourth Plain ramp terminal

2005 Existing
2030 No-Build
2030 LPA Phase 1
2030 LPA Full Build

Peak
Free Flow

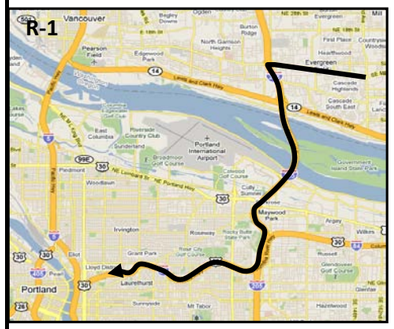
Bottleneck colors same as alternative above

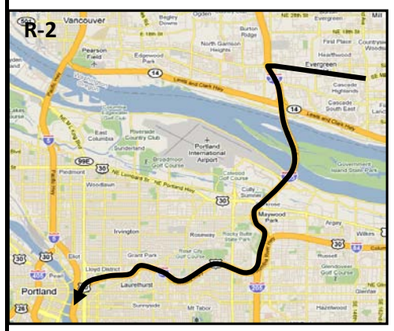


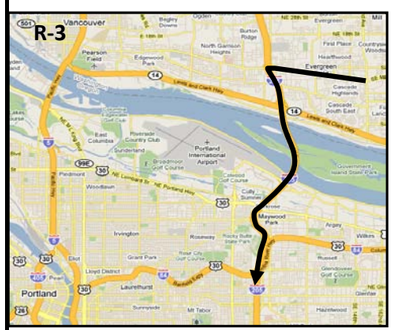
Note: For simplicity, the stick diagrams show LPA Full Build lane configurations.

Commuter Movements to and from Mill Plain at 164th

(Regional Travel Demand Model)







Southbound AM

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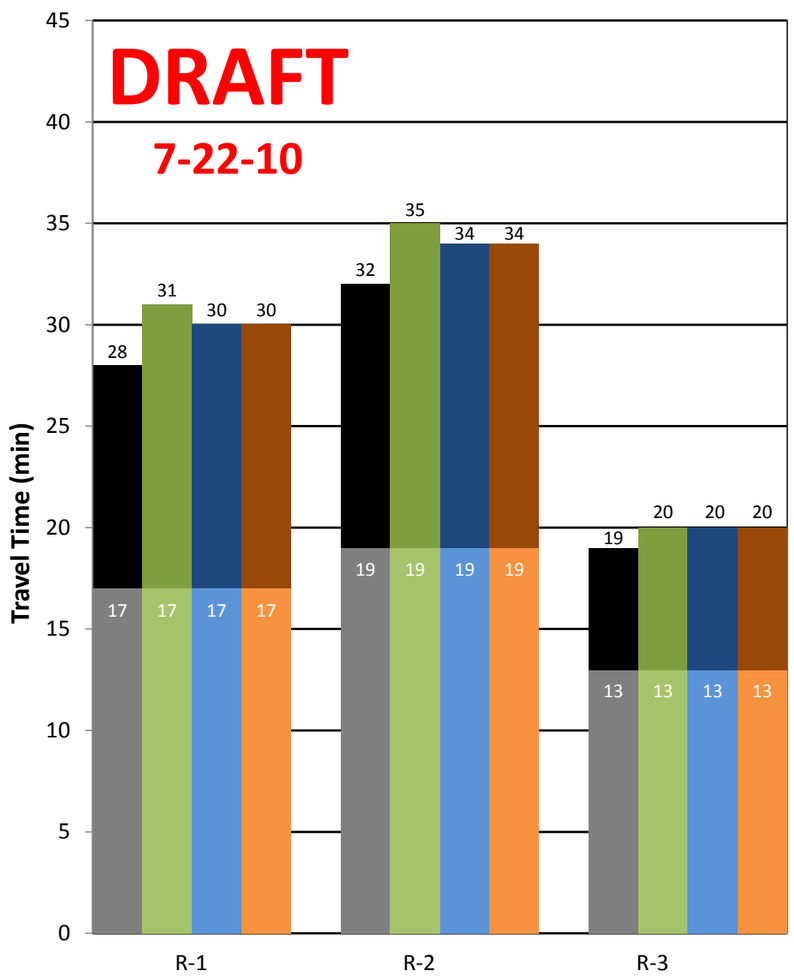
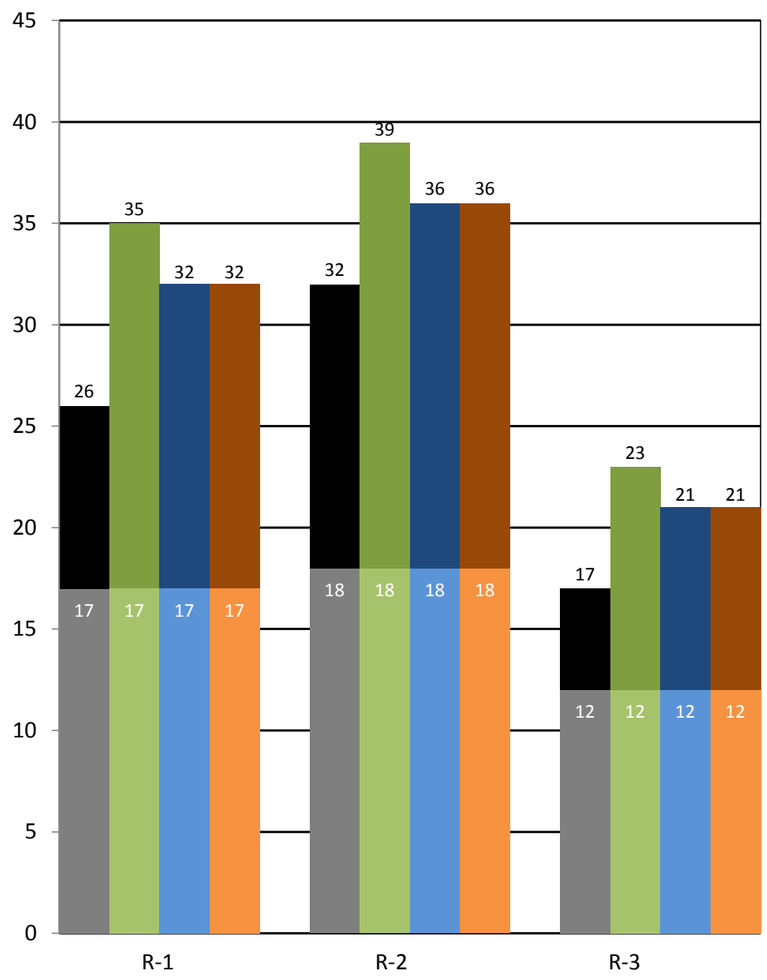


Travel Time Segment Designation

R-1 - SE Mill Plain/SE 164th to I-84/Lloyd District ramp terminal
R-2 - SE Mill Plain/SE 164th to I-5/I-84/Morrison Bridge ramp terminal
R-3 - SE Mill Plain/SE 164th to I-205/Glisan (Gateway) ramp terminal

Northbound PM

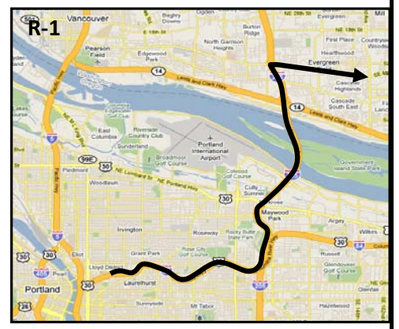


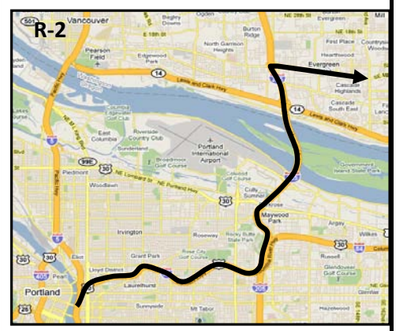
2005 Existing
2030 No-Build
2030 LPA Phase 1
2030 LPA Full Build

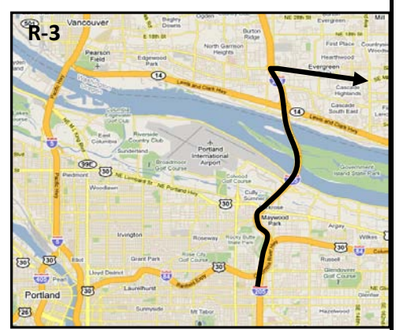
Peak
Free Flow

Travel Time Segment Designation

R-1 - I-84/Lloyd District ramp terminal to SE Mill Plain/SE 164th
R-2 - I-5/I-84/Morrison Bridge ramp terminal to SE Mill Plain/SE 164th
R-3 - I-205/Glisan (Gateway) ramp terminal to SE Mill Plain/SE 164th

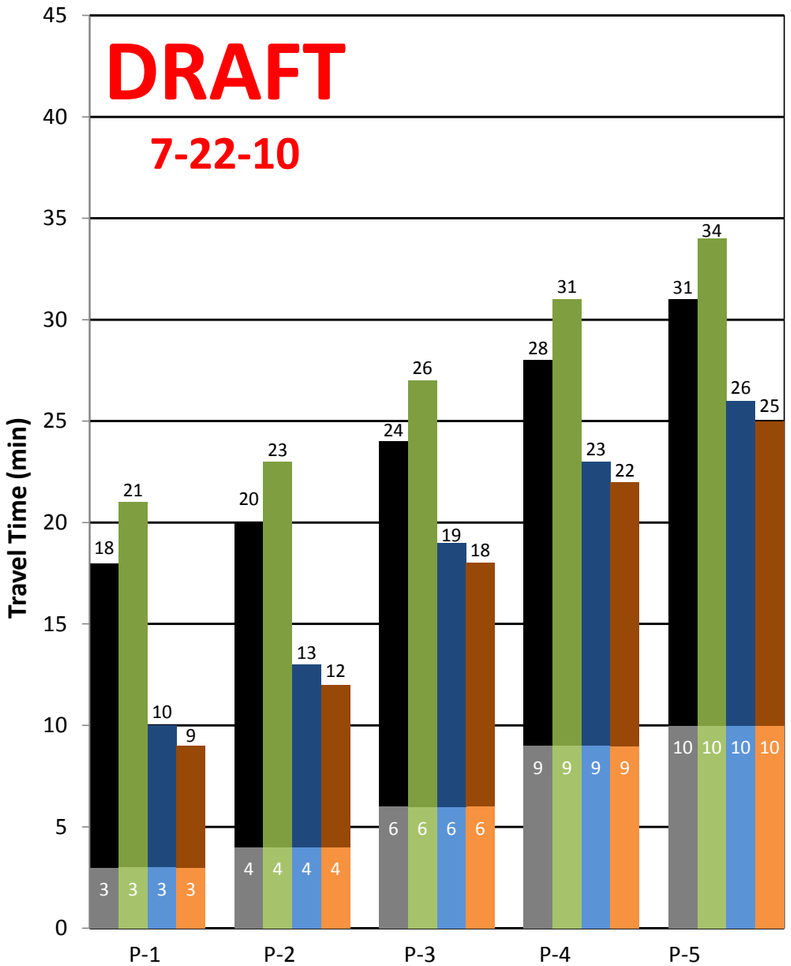






Commuter Movements to and from SR 14 Under Land Bridge

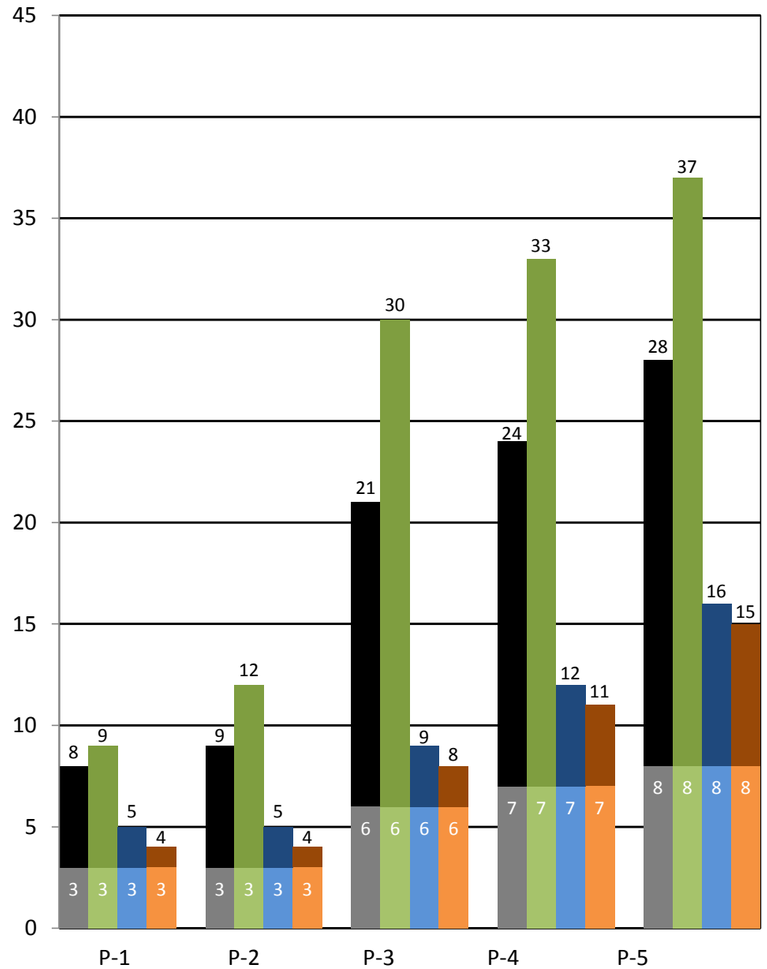
Southbound AM



Travel Time Segment Designation

P-1 - SR 14 under land bridge to Marine Drive ramp terminal
P-2 - SR 14 under land bridge to Interstate Avenue ramp terminal
P-3 - SR 14 under land bridge to Alberta Street ramp terminal
P-4 - SR 14 under land bridge to Broadway off-ramp
P-5 - SR 14 under land bridge to Morrison Bridge off-ramp

Northbound PM



Travel Time Segment Designation

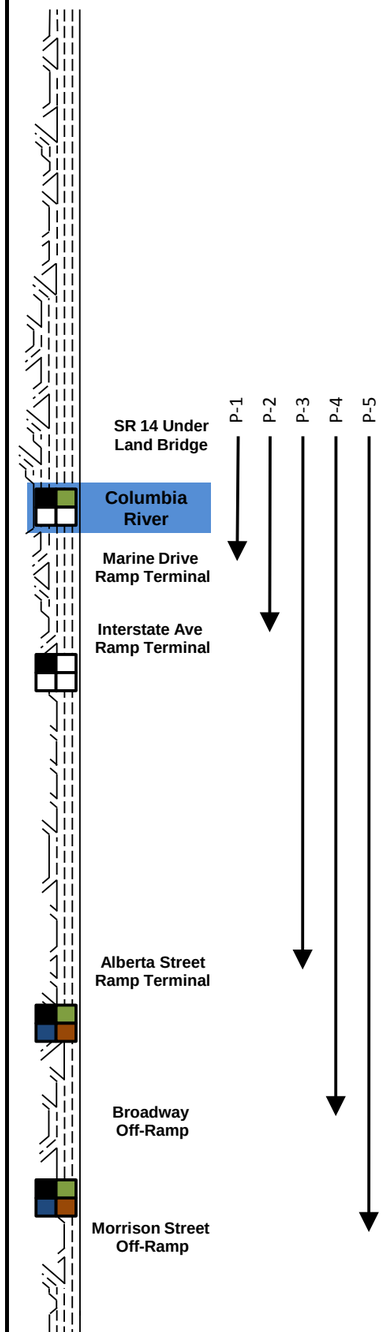
P-1 - Marine Drive ramp terminal to SR 14 under land bridge
P-2 - Interstate Avenue ramp terminal to SR 14 under land bridge
P-3 - Going Street ramp meter to SR 14 under land bridge
P-4 - Broadway Ramp Terminal to SR 14 under land bridge
P-5 - Morrison EB/WB merge to to SR 14 under land bridge

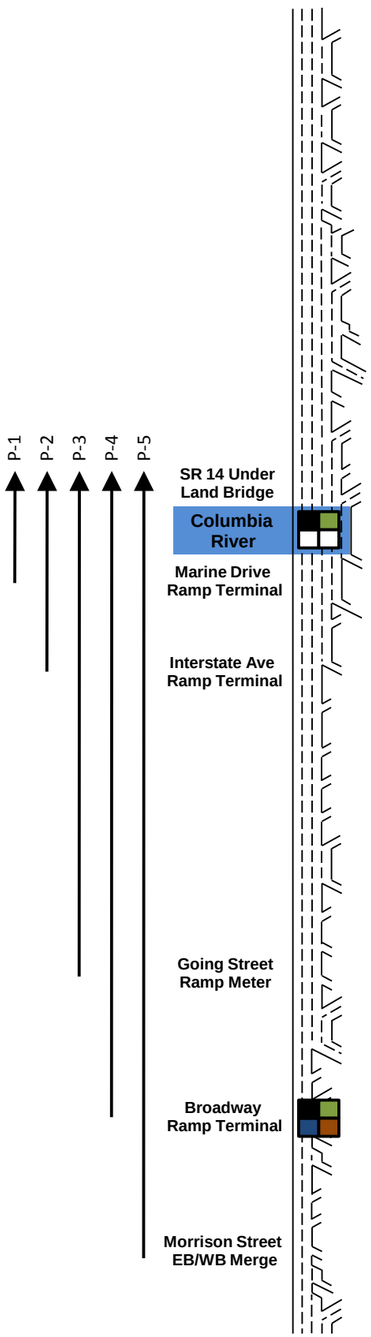
2005 Existing
2030 No-Build
2030 LPA Phase 1
2030 LPA Full Build

Peak

Free Flow

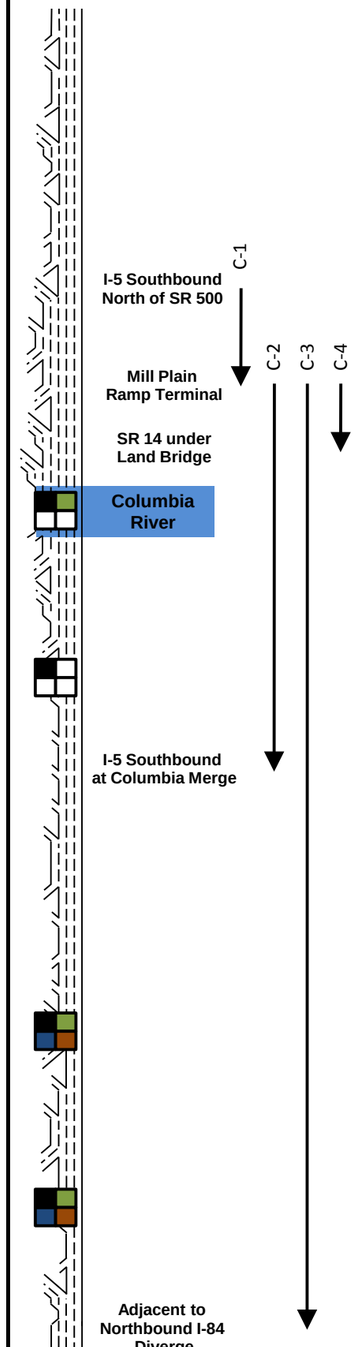
Bottleneck colors same as alternative above





Note: For simplicity, the stick diagrams show LPA Full Build lane configurations.

Freight Movements to and from Mill Plain Ramp Terminal



Southbound AM

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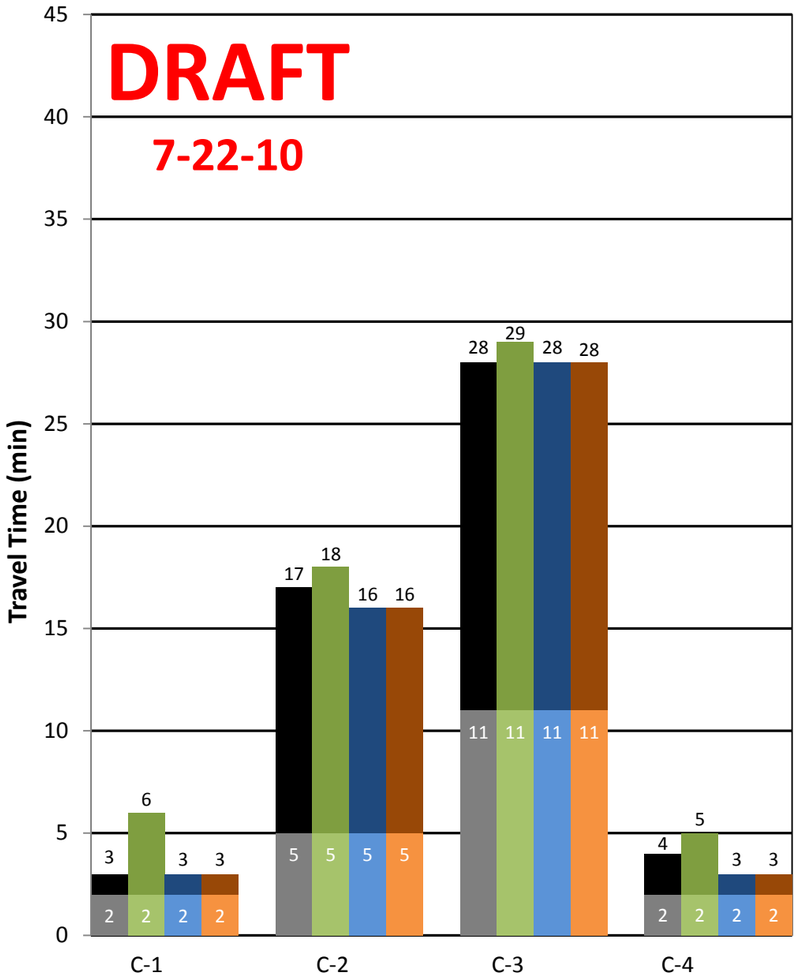


Travel Time Segment Designation

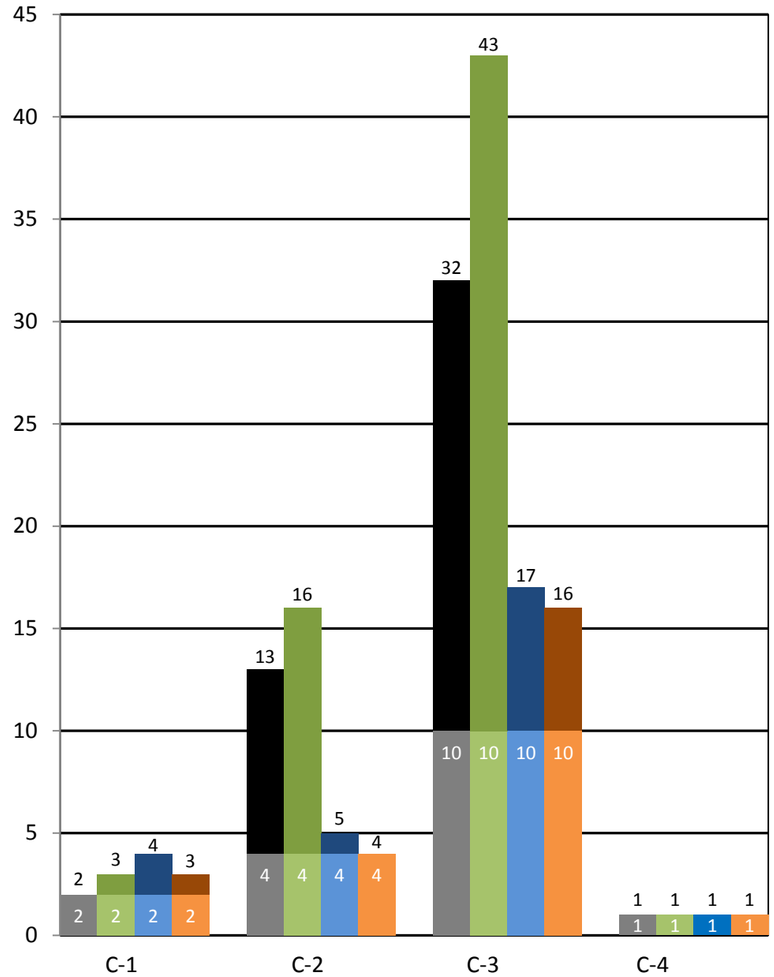
C-1 - I-5 southbound north of SR 500 to Mill Plain ramp terminal
C-2 - Mill Plain ramp terminal to I-5 southbound at Columbia merge
C-3 - Mill Plain ramp terminal to I-5 southbound adjacent to northbound I-5 to I-84 diverge
C-4 - Mill Plain ramp terminal to SR 14 under the land bridge

2005 Existing
2030 No-Build
2030 LPA Phase 1
2030 LPA Full Build

Peak
Free Flow

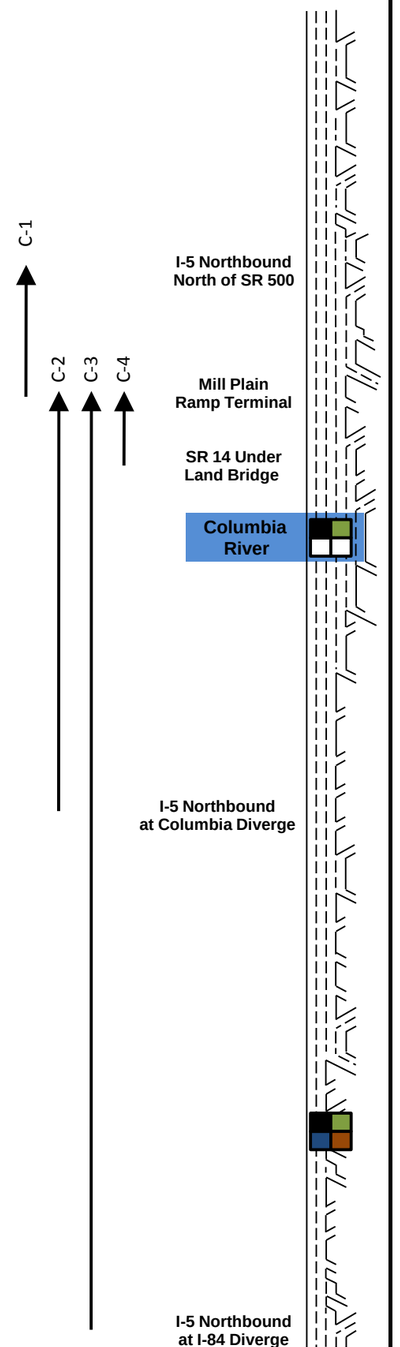
Bottleneck colors same as alternative above

Northbound PM



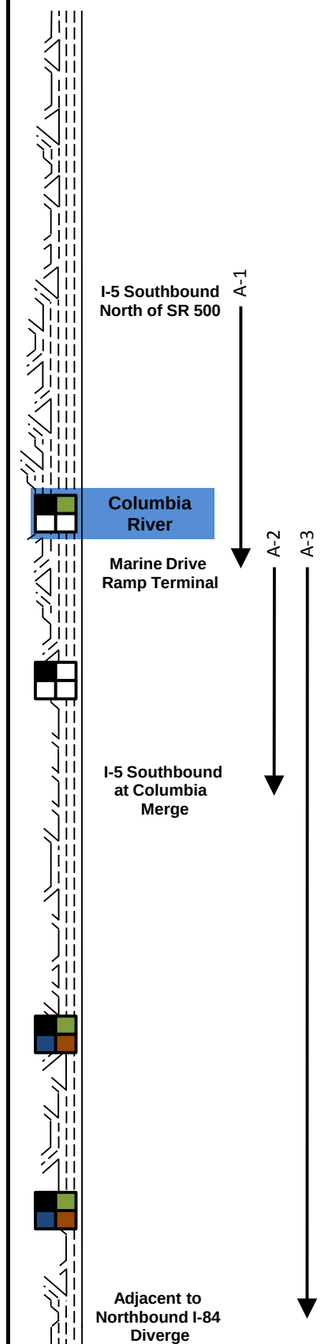
Travel Time Segment Designation

C-1 - Mill Plain ramp terminal to I-5 northbound north of SR 500
C-2- I-5 northound at Columbia diverge to Mill Plain ramp terminal
C-3 - I-5 northbound at I-84 diverge to Mill Plain ramp terminal
C-4 - SR 14 under the land bridge to Mill Plain ramp terminal



Note: For simplicity, the stick diagrams show LPA Full Build lane configurations.

Freight Movements to and from Marine Drive Ramp Terminal



Southbound AM

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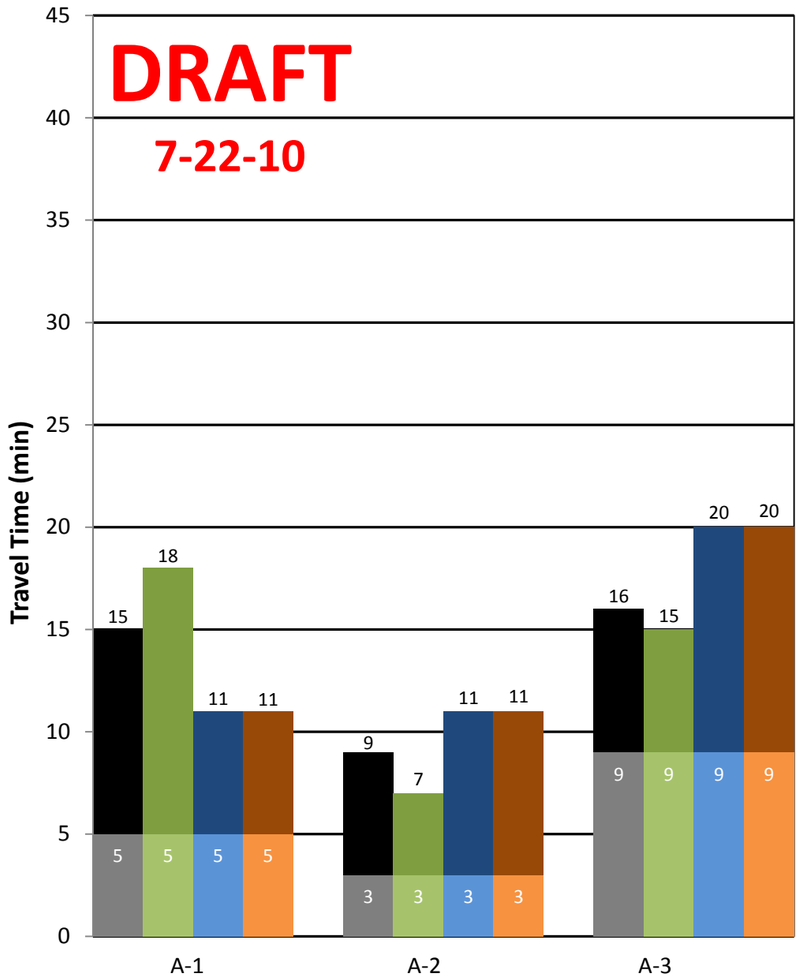
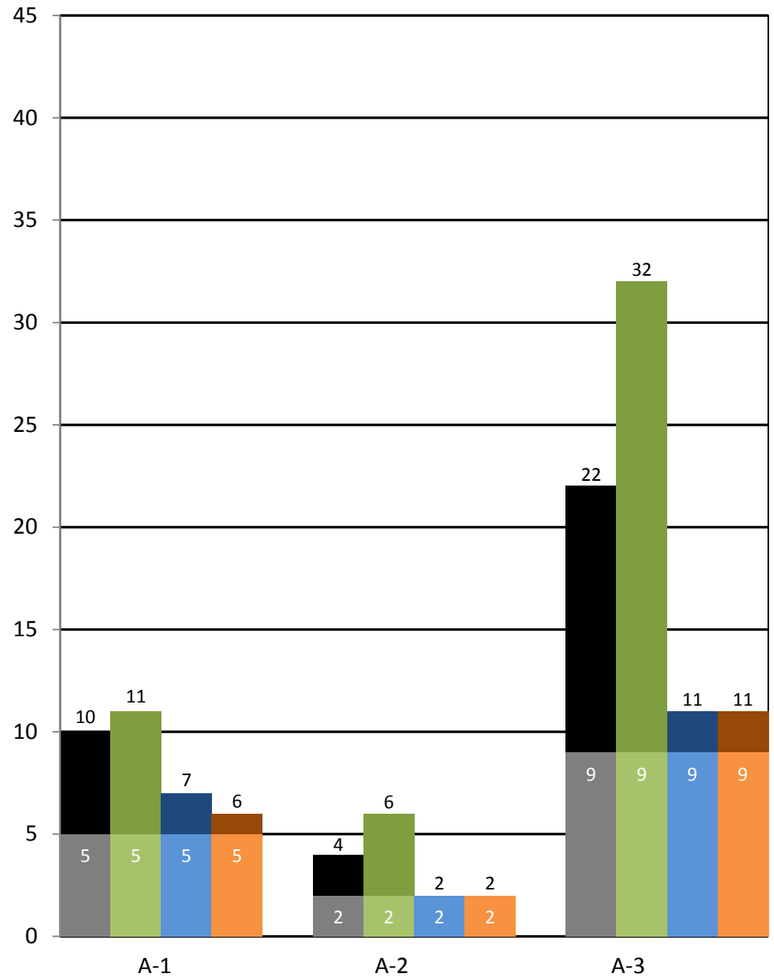
7-22-10



Travel Time Segment Designation

A-1 - I-5 southbound north of SR 500 to Marine Dr. ramp terminal
A-2 - Marine Dr. ramp terminal to I-5 southbound at Columbia merge
A-3 - Marine Dr. ramp terminal to I-5 southbound adjacent to northbound I-5 to I-84 diverge

Northbound PM



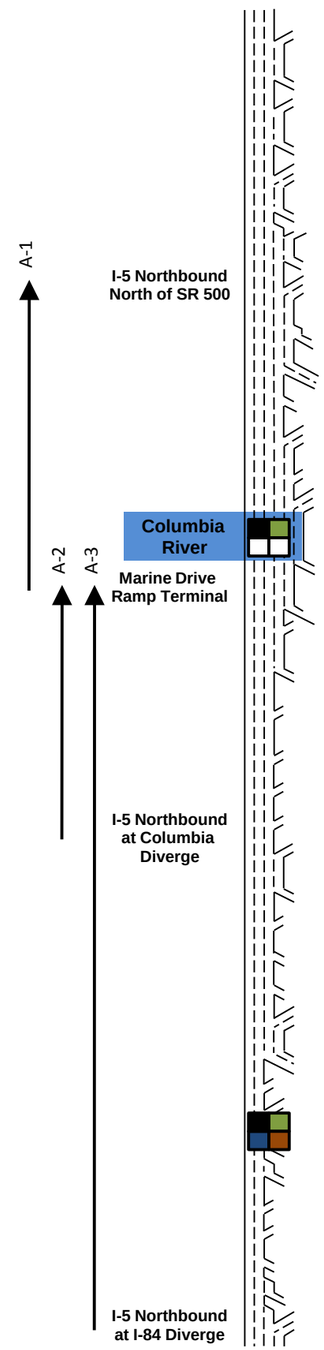
Travel Time Segment Designation

A-1 - Marine Dr. ramp terminal to I-5 northbound north of SR 500
A-2 - I-5 northbound at Columbia diverge to Marine Dr. ramp terminal
A-3 - I-5 northbound at I-84 diverge to Marine Dr. ramp terminal

2005 Existing
2030 No-Build
2030 LPA Phase 1
2030 LPA Full Build

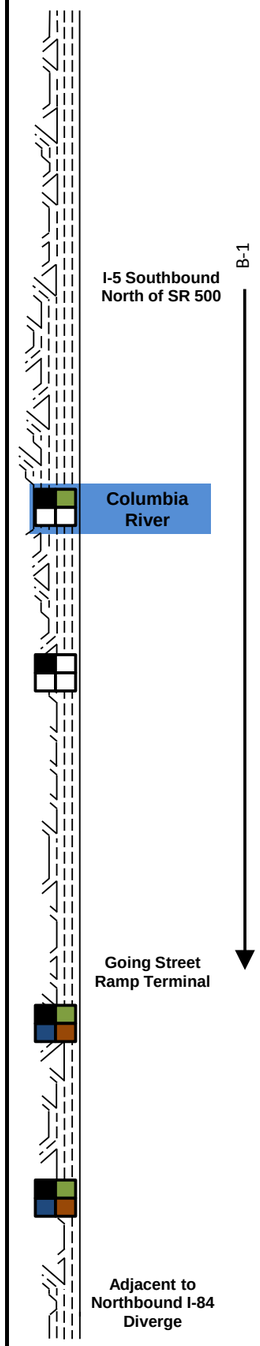
Peak
Free Flow

Bottleneck colors same as alternative above



Note: For simplicity, the stick diagrams show LPA Full Build lane configurations.

Freight Movements to and from Going Street Ramp Terminal



Southbound AM

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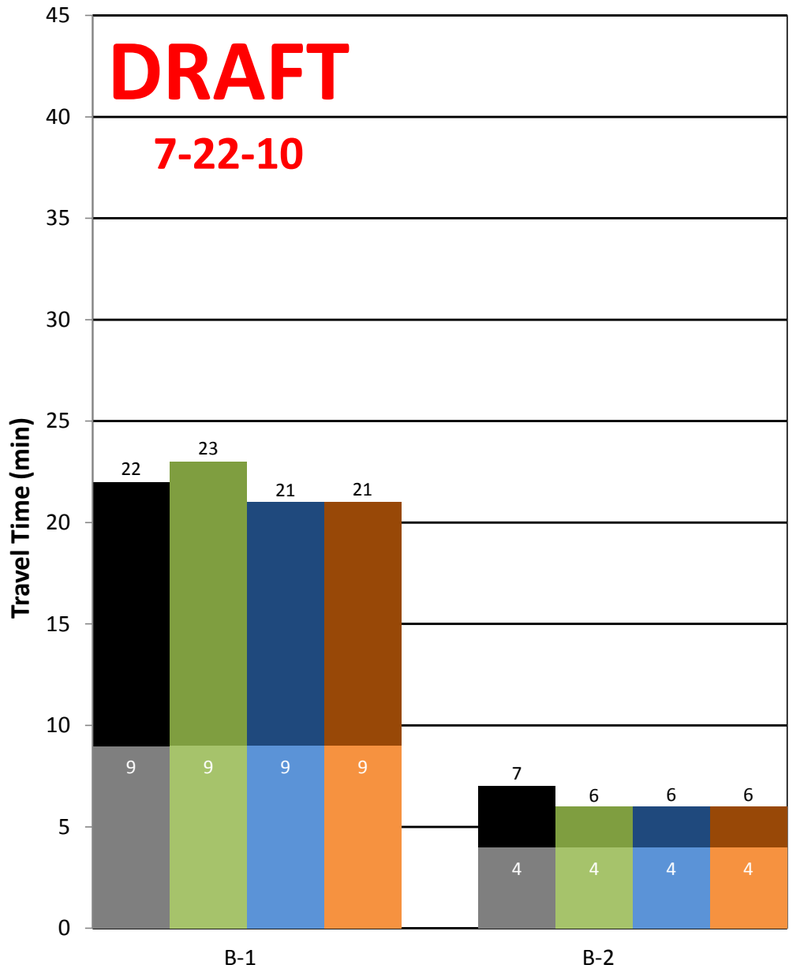
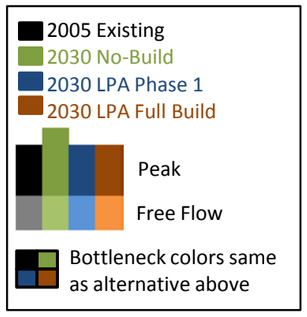
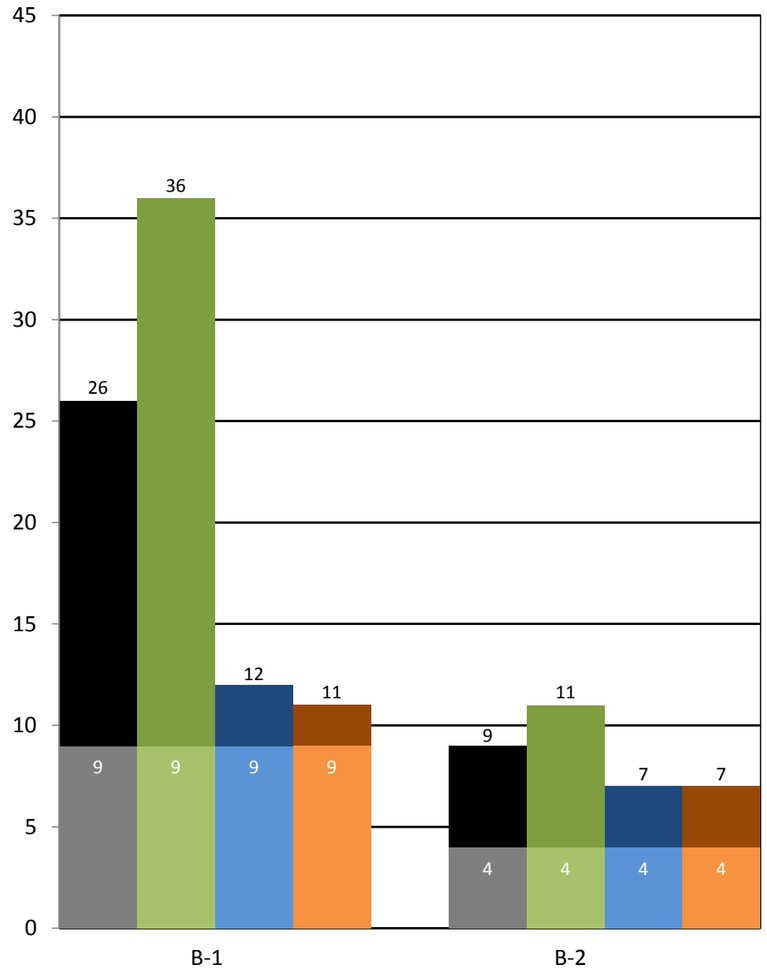


Travel Time Segment Designation

B-1 - I-5 southbound north of SR 500 to Going Street ramp terminal
B-2 - Going Street ramp terminal to I-5 southbound adjacent to northbound I-5 to I-84 diverge

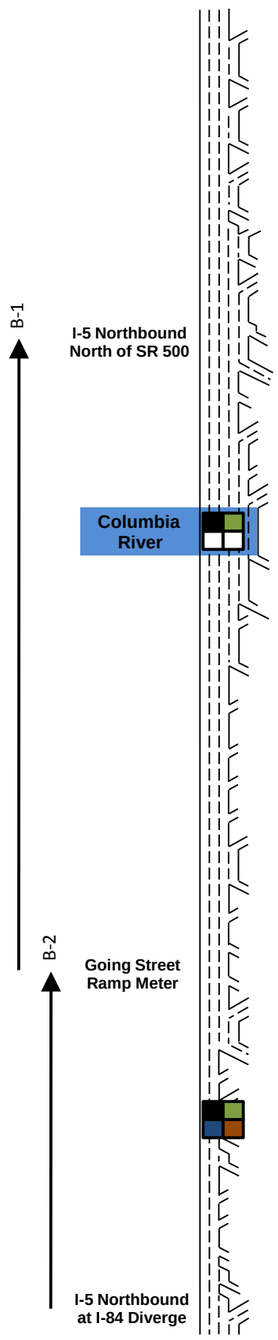


Northbound PM



Travel Time Segment Designation

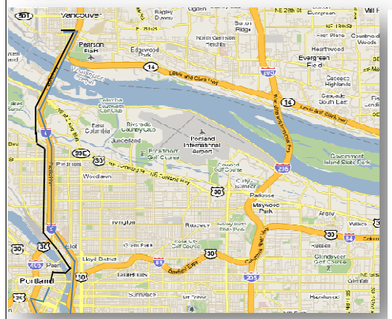
B-1 - Going St. ramp meter to I-5 northbound north of SR 500
B-2 - I-5 northbound at I-84 diverge to Going street off ramp



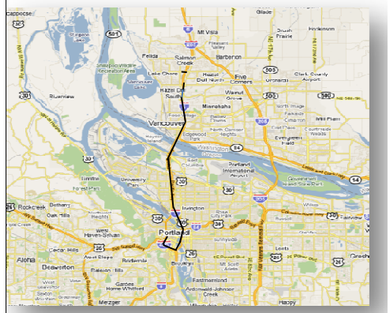
Note: For simplicity, the stick diagrams show LPA Full Build lane configurations.

Transit Travel Times

R-1



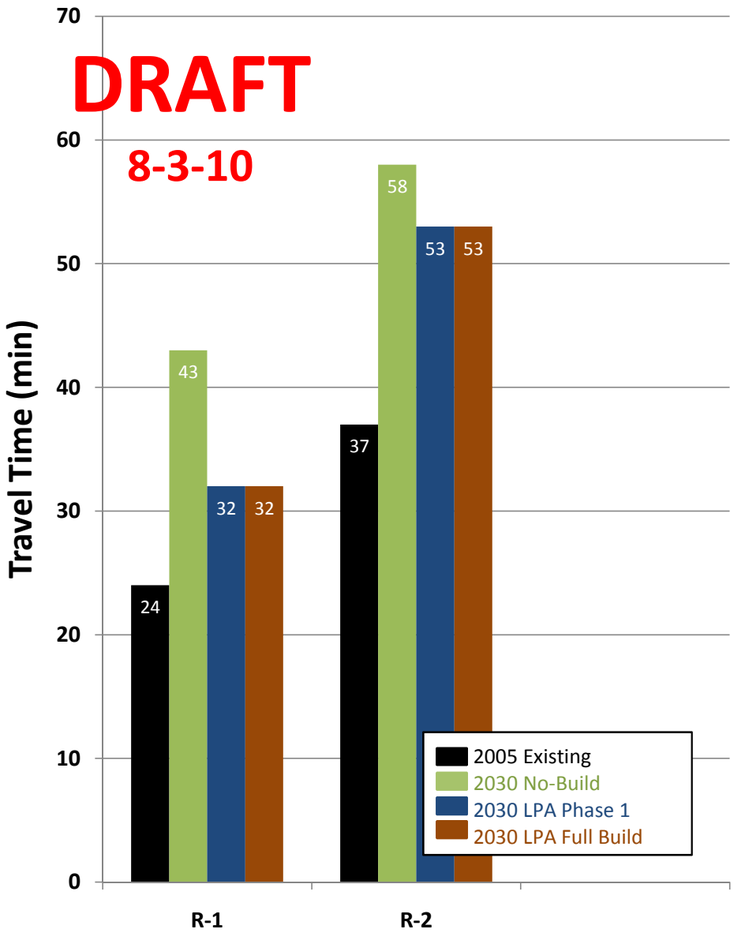
R-2



Southbound AM

DRAFT

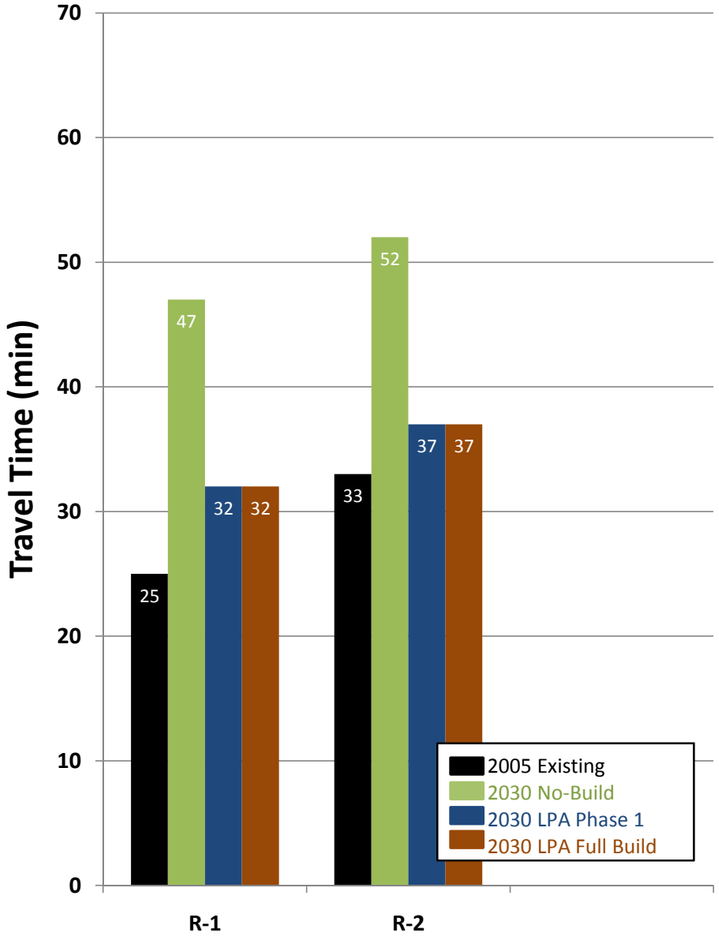
8-3-10



Travel Time Segment Designation

R-1: Downtown Vancouver to Pioneer Square (Existing and No-Build via Route105, LPA via LRT)
R-2: 99th Street Transit Center to Pioneer Square (via Route 199)

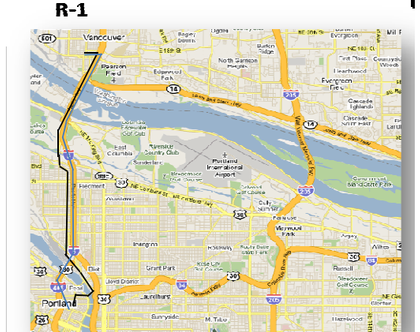
Northbound PM



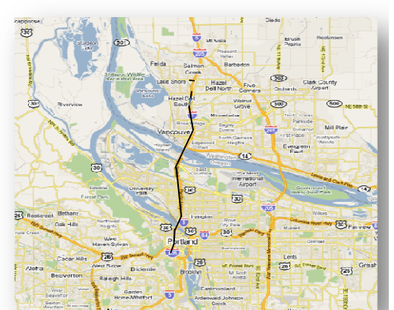
Travel Time Segment Designation

R-1: Pioneer Square to Downtown Vancouver (Existing and No-Build via Route 105, LPA via LRT)
R-2: Pioneer Square to 99th Street Transit Center (via Route 199)

R-1



R-2



Appendix G: Post -Construction Travel Demand Management Work Group Materials

CRC Post-Construction TDM Committee Report
Report to Project Sponsors Council
July 16, 2010

Principle Recommendation

- Develop TDM strategies to shift an additional 11% of peak period person trips crossing the bridge in 2030 to non-SOV modes.
- This shift would reduce 2030 vehicle bridge crossing demand by 10% beyond the 2030 regional travel model forecast used for the LPA.

Recommended Strategies to Reduce Drive-Alone Trips

- Individualized Marketing
    - Provide personalized travel option information to corridor employees and residents
- Financial Incentives:
    - short-term (up to six month) financial incentives for commuters to vanpool, take transit or carpool
    - $0 toll for carpools, vanpools and buses

Projected Trip Reductions Based On:

- Local experience in Vancouver and Washington State (Commute Trip Reduction) and Portland (SmartTrips)
- For example, Portland annually reduces drive alone trips 8-13% in targeted geographic areas using “SmartTrips” individualized marketing programs
- Research related to the cost effectiveness and scalability of rideshare services
- Benchmarking comparison with Central Puget Sound and Bay Area corridors
- Research in WSDOT’s SR-520 Transportation Discipline Report

Benefits of Post-Construction TDM Program

- Increases efficiency of all designs by moving more people in fewer vehicles
- Lengthens functional lifespan of all designs
- Reduces costs for Clark County commuters using travel options
- Reduces fuel consumption and greenhouse gas emissions from all designs

What’s Not in TDM Committee Recommendation that Could Reduce Drive-Alone Further?

- Increased LRT ridership
- HOV / Managed lanes and/or HOV ramps
- $3 peak period toll (which may further reduce peak demand)
- Compact development financial incentives

Implications/Issues

- Increased number of C-TRAN buses in downtown Portland
- Increased demand for Park 'n Ride spaces in Clark County
- Need for regional coordinating or management structure
- Impact of $0 toll incentive on financial plan

2030 Demand and Mode Split Projections

2030 LPA PM Peak 4-Hours I-5 NB without Enhanced TDM Program					
	Vehicles	% of Vehicles	Occupancy	Persons	% of Persons
Drive Alone	23,815	77%	1.0	23,815	54.3%
Carpool	5,025	16%	2.2	10,925	24.9%
Carpool >4 / Vanpools	90	0%	5.0	450	1.0%
Trucks	1,900	6%	1.0	1,900	4.3%
Vehicles(subtotal)	**30,830**	**99.9%**	**1.20**	**37,090**	**84.5%**
Buses	25	0%	51.0	1,275	2.9%
LRT				4,750	10.8%
Transit (subtotal)	**25**	**0.1%**		**6,025**	**13.7%**
Pedestrians				80	0.2%
Bicyclists				700	1.6%
Ped/Bike (subtotal)				**780**	**1.8%**
Total River Crossings	**30,855**	**100.0%**		**43,895**	**100.0%**

2030 LPA PM Peak 4-Hours I-5 NB with Special TDM Program + $0 Carpool Toll					
	Vehicles	% of Vehicles	Occupancy	Persons	% of Persons
Drive Alone	18,749	67%	1.0	18,749	43.1%
Carpool	7,020	25%	2.1	14,916	34.3%
Carpool >4 / Vanpools	136	0%	5.5	750	1.7%
Trucks	1,900	7%	1.0	1,900	4.4%
Vehicles(subtotal)	**27,806**	**99.9%**	**1.31**	**36,315**	**83.4%**
Buses	33	0%	50.8	1,675	3.8%
LRT				4,750	10.9%
Transit (subtotal)	**33**	**0.1%**		**6,425**	**14.8%**
Pedestrians				80	0.2%
Bicyclists				700	1.6%
Ped/Bike (subtotal)				**780**	**1.8%**
Total River Crossings	**27,839**	**100.0%**		**43,520**	**100.0%**

Draft: 7-14-2010

2005 Existing PM Peak 4-Hours I-5 NB	Vehicles	% of Vehicles	Occupancy	Persons	% of Persons
Drive Alone	16,490	77%	1.0	16,490	60.9%
Carpool	3,795	18%	2.1	7,885	29.1%
Carpool >4 / Vanpools	15	0%	5.0	75	0.3%
Trucks	1,025	5%	1.0	1,025	3.8%
Vehicles(subtotal)	**21,325**	**99.8%**	**1.19**	**25,475**	**94.1%**
Buses	50	0%	29.5	1,475	5.4%
LRT				0	0.0%
Transit (subtotal)	**50**	**0.2%**		**1,475**	**5.4%**
Pedestrians				20	0.1%
Bicyclists				100	0.4%
Ped/Bike (subtotal)				**120**	**0.4%**
Total River Crossings	**21,375**	**100.0%**		**27,070**	**100.0%**

Draft: 7-14-2010

2030 No-Build PM Peak 4-Hours I-5 NB	Vehicles	% of Vehicles	Occupancy	Persons	% of Persons
Drive Alone	21,305	75%	1.0	21,305	57.8%
Carpool	4,975	18%	2.1	10,495	28.5%
Carpool >4 / Vanpools	40	0%	5.0	200	0.5%
Trucks	1,900	7%	1.0	1,900	5.2%
Vehicles(subtotal)	**28,220**	**99.8%**	**1.20**	**33,900**	**91.9%**
Buses	60	0%	46.7	2,800	7.6%
LRT				0	0.0%
Transit (subtotal)	**60**	**0.2%**		**2,800**	**7.6%**
Pedestrians				30	0.1%
Bicyclists				150	0.4%
Ped/Bike (subtotal)				**180**	**0.5%**
Total River Crossings	**28,280**	**100.0%**		**36,880**	**100.0%**

Draft: 7-14-2010

2030 LPA PM Peak 4-Hours I-5 NB without Special TDM Program					
	Vehicles	% of Vehicles	Occupancy	Persons	% of Persons
Drive Alone	23,815	77%	1.0	23,815	54.3%
Carpool	5,025	16%	2.2	10,925	24.9%
Carpool >4 / Vanpools	90	0%	5.0	450	1.0%
Trucks	1,900	6%	1.0	1,900	4.3%
Vehicles(subtotal)	**30,830**	**99.9%**	**1.20**	**37,090**	**84.5%**
Buses	25	0%	51.0	1,275	2.9%
LRT				4,750	10.8%
Transit (subtotal)	**25**	**0.1%**		**6,025**	**13.7%**
Pedestrians				80	0.2%
Bicyclists				700	1.6%
Ped/Bike (subtotal)				**780**	**1.8%**
Total River Crossings	**30,855**	**100.0%**		**43,895**	**100.0%**

Draft: 7-14-2010

2030 LPA PM Peak 4-Hours I-5 NB with Special TDM Program					
	Vehicles	% of Vehicles	Occupancy	Persons	% of Persons
Drive Alone	20,490	71%	1.0	20,490	47.1%
Carpool	6,150	21%	2.1	13,175	30.3%
Carpool >4 / Vanpools	136	0%	5.5	750	1.7%
Trucks	1,900	7%	1.0	1,900	4.4%
Vehicles(subtotal)	**28,676**	**99.9%**	**1.27**	**36,315**	**83.4%**
Buses	33	0%	50.8	1,675	3.8%
LRT				4,750	10.9%
Transit (subtotal)	**33**	**0.1%**		**6,425**	**14.8%**
Pedestrians				80	0.2%
Bicyclists				700	1.6%
Ped/Bike (subtotal)				**780**	**1.8%**
Total River Crossings	**28,709**	**100.0%**		**43,520**	**100.0%**

Special TDM Program for Post Construction

Category	**4-Hour Peak Person Trip Reduction**
Telework	187
Compressed work week	188
Vanpooling	300
Carpooling	2,250
Public Transit	400
Total	3,325

Draft: 7-14-2010

TDM Work Group Recommended

2030 LPA PM Peak 4-Hours I-5 NB with Special TDM Program + $0 Carpool Toll					
	Vehicles	% of Vehicles	Occupancy	Persons	% of Persons
Drive Alone	18,749	67%	1.0	18,749	43.1%
Carpool	7,020	25%	2.1	14,916	34.3%
Carpool >4 / Vanpools	136	0%	5.5	750	1.7%
Trucks	1,900	7%	1.0	1,900	4.4%
Vehicles(subtotal)	**27,806**	**99.9%**	**1.31**	**36,315**	**83.4%**
Buses	33	0%	50.8	1,675	3.8%
LRT				4,750	10.9%
Transit (subtotal)	**33**	**0.1%**		**6,425**	**14.8%**
Pedestrians				80	0.2%
Bicyclists				700	1.6%
Ped/Bike (subtotal)				**780**	**1.8%**
Total River Crossings	**27,839**	**100.0%**		**43,520**	**100.0%**

Assumptions:

4% person increase in 2 person carpool from the LPA with Special TDM Program

Special TDM Program for Post Construction

Category	**4-Hour Peak Person Trip Reduction**
Telework	187
Compressed work week	188
Vanpooling	300
Carpooling	3,990
Public Transit	400
Total	5,065

FOR IMMEDIATE RELEASE

Joint Statement: Mayor Adams, Metro President Bragdon on next steps for the Columbia River Crossing

As leaders of two jurisdictions highly dependent on Interstate 5, we have been working for several years to get a new bridge built across the Columbia River. We believe the right bridge must do more than provide a temporary fix for today's traffic woes. It must serve as a transit and highway crossing that tackles those traffic problems with 21st-century tools and policies.

Next Monday, August 9, local elected officials involved in the Columbia River Crossing (CRC) project will vote on several key decisions. These decisions include the width of the new bridge, the interchange design on Hayden Island, and ongoing management of the project during design, construction and operation.

We plan to vote in favor of the joint recommendation developed collaboratively by staff from our two agencies and their colleagues at the City of Vancouver, Clark County, C-Tran, and TriMet, with input from the Ports of Vancouver and Portland and technical support from CRC project staff. This recommendation is to build a highway bridge that can accommodate up to 10 lanes, with a new design for a Hayden Island interchange.

On Hayden Island, we now have an alternative that has broad support from community stakeholders – one that provides non-freeway access for island residents and visitors, has a smaller footprint than previous designs, and allows for long-term redevelopment on the island.

Regarding bridge width, we now have data from a leading national engineering firm demonstrating that a10–lane bridge functions as well as a12-lane span at a lower cost. Preliminary analysis suggests it could be striped for 8 lanes at opening. We will advocate strongly for this approach.

We are glad to see these decisions moving forward. But we must stress that the *only* reason these two important matters have reached resolution - and earned our confidence and support - is that over the past three months, problem-solving has been **shared** between the local and state agencies. This is a marked change from previous practice, where the CRC project staff (working with the two state Departments of Transportation) made decisions without meaningful local involvement.

During the past three months, our local jurisdictions have commissioned independent engineering studies and spent countless hours to move the issues of bridge width and Hayden Island impacts from acrimonious stalemate to innovative resolution.

We believe these breakthroughs, as well as last week's critical report of the Governors' expert review panel, contain lessons for successfully managing this project. When local jurisdictions are a meaningful part of the problem-solving team, problems get solved. When local officials and staff are excluded, as documented in the experts' report, problems fester. Therefore, on Monday we will insist that this success be accelerated by expanding the role of the Project Sponsors Council.

We appreciate the support of Henry Hewitt and Steve Horenstein, the co-chairs of the Project Sponsors Council, as well as excellent technical support from project staff acting as partners in this

mutual effort. We believe that to move forward, the CRC must build on this success and re-align the project management structure so that collaboration and shared responsibility become the norm, not the exception.

Monday's vote does not end the conversation about how the bridge will look, how it will operate, and how it will be funded. Local involvement and oversight will continue to be essential. Project management -- from planning and construction to design and operation -- must remain broadly accountable. Ultimately, when this bridge opens, it must be governed by a bi-state entity whose explicit mission is to manage the crossing over time in a way that ensures minimum traffic congestion and environmental impact, and maximum return on investment.

In addition to these immediate actions, we have set out our vision for what needs to be accomplished over the coming months to ensure project success. We look forward to rolling up our sleeves and getting to work on the tasks to come.

###

Guidelines for Columbia River Crossing next steps

Mayor Sam Adams and Metro President David Bragdon

Aug. 5, 2010

1) Affirm previous Locally Preferred Alternative (LPA) commitments:
   a) Crossing: replacement bridge (not supplemental bridge)
   b) Modal elements:
      i) Lanes: three "through" general purpose travel lanes plus up to three add/drop lanes
      ii) Light rail as an integral part of the project
      iii) Bike and pedestrian facilities that provide world-class access (see notes below in "Functional Design" section)
   c) Bridge structures with "a signature distinctive design given physical limitations and cost considerations" (City of Portland LPA approval resolution, July 9, 2008)

2) Affirm selected Independent Review Panel (IRP) recommendations:
   a) "Consensus…regarding land use, commercial development, and community concerns on Hayden Island must be in place" before decisions about the Hayden Island interchange are finalized (IPR report, p. 13)
   b) Light Rail transit is an essential component of the successful CRC…one won't be built without the other" (IPR report, p. 13)
   c) A different management and governance structure should be created for long-term facility management once it opens: "A number of ideas have emerged around the concept of a bi-state commission, interstate compact, a bridge authority or mobility council as the model to address this critical need…time is of the essence for establishing this project element." (IPR report, p. 15)
   d) Consider the bridge type selection given cost and delay risks: "The current river crossing structure type is unique and presents risk to both the cost and the schedule of the CRC." (IRP report, p. 12); Especially since FHWA, which must approve the bridge design, "strongly recommend[s] against the concept of placing the transit inside a closed box superstructure for security and safety reasons, as well as concerns over the operational reliability of the interstate system." (IRP report, p. 124)

3) Continued existence of the Project Sponsors Council, with additional representation from the Port of Portland, the Port of Vancouver, the Oregon Department of Environmental Quality, and the Washington Department of Ecology

a) Hire a single Project Manager who reports to the PSC and oversees construction of the project to agreed-upon designs and environmental, social and economic goals

b) The Project Sponsors Council, with the Project Manager, will select a Principal Designer for the project who also reports to the PSC.

c) Set initial policy and performance goals for the crossing/district upon completion of construction and opening;

   i) Ensure maximum long-term value of the investment

   ii) Set performance goals for the I-205 bridge and I-5 "downstream of the bridge to protect long-term functionality of the system

   iii) Evaluate whether the CRC can open with 8 lanes striped on the bridge, which is built to ultimately accommodate 10 lanes.

      1) Expand on URS and City of Portland work showing potential for significantly decreased traffic demand projections

      2) Develop a concept design for an 8-lane striping plan throughout the project

      3) Perform operational analysis for safety and truck mobility using lower demand estimates for 2018 and 2030.

d) Implement TDM measures within the next year to assure mobility during construction

e) Finalize the design elements of the project:

   i) Functional design elements

      1) 10-lane permanent bridge

      2) Advance the design of the I-5 crossing of the Columbia River with 5 lanes in each direction and 12-foot shoulders

      3) Hayden Island and Marine Drive interchanges

         a) Support Concept D (see Attachment) to provide arterial access to Hayden Island

            i) Separates local traffic from freeway traffic, allowing the Marine Drive interchange to focus on good freight mobility

            ii) Will extend the life of the Marine Drive interchange for freight purposes (could postpone need for the flyover ramp)

      4) Bicycle/pedestrian facility

         a) Ongoing security and management guarantee and funding

b) Continued improvement of facility design and network connections providing pedestrian and bicycle access (see Attachment)

ii) Aesthetic design elements

1) The Principal Designer will develop an aesthetic design process that includes partnership elements with local artists, architects and designers.

f) Lobby for state and federal funding to complete the project

g) Ensure a viable financial plan that does not cannibalize funding for other local projects

4) Before the project opens, create State-legislative and Congressionally-approved bi-state Columbia River Bridge Authority

a) District boundaries include BNSF railroad bridge, I-5 and I-205 bridges

i) Planning, implementation and funding for future multimodal passenger and freight capacity enhancements within the district boundaries

b) Governing authority includes representatives from states, regional, ports and local governments

i) Sets transport performance and operation policies and goals

1) For the first 5 years, based on performance standards set by Project Sponsors Council

ii) Establish a base toll that will go into effect upon opening of the bridge

1) Base toll level will establish minimum for bond repayment

a) Establish a low-income toll credit

2) Charge the governing commission with adjusting tolls over time to meet performance targets (while continuing to repay bonds and meet operation and maintenance funding requirements including 24-hour security and safety for bicycle/pedestrian facility in lower level of the main span)