

Analysis of CRC Traffic Forecasts

Tolls will cause half of I-5 traffic to divert to other routes

Joseph Cortright, Impresa, Inc., April 2013

Up to half of all current users of the I-5 bridges will divert to other routes when the bridges are tolled, according to the preliminary traffic estimates prepared as part of the CRC “investment grade” analysis by consulting firm CDM Smith. These users will divert to other routes—probably clogging traffic on I-205, I-84 and SR 14, and delaying travel to and from Portland International Airport—but the CDM Smith report doesn’t address how traffic will be affected on these arterials. In 2030, according to CDM Smith, it is most likely fewer vehicles will use the new \$3.4 billion I-5 bridges than use it today. These new traffic forecasts contradict the forecasts the CRC has been using for several years, and invalidate the analysis contained in the project’s environmental impact statement.

About half of all users will stop using the I-5 bridges when they are tolled

Today, about 128,000 vehicles per day cross the two I-5 bridges. When pre-completion tolls are implemented on the existing bridges in 2016, traffic will drop to between 64,000 and 97,000 vehicles per day, according to the CDM Smith forecasts. This means that between 31,000 and 64,000 vehicles that would have crossed the I-5 bridge will divert to other routes or destinations.

Diverted traffic is likely to clog other important regional routes

CDM Smith has constructed a regional traffic model but has not reported where diverted traffic will go and how this will affect congestion in other corridors. It is highly likely that cross-river trips would clog traffic flows on I-205, and on major East-West routes connecting to the I-205 corridor, such as I-84 and SR-14. These traffic increases could dramatically increase travel times to and from Portland International Airport, arguably much more time-sensitive and economically important than I-5 trips.

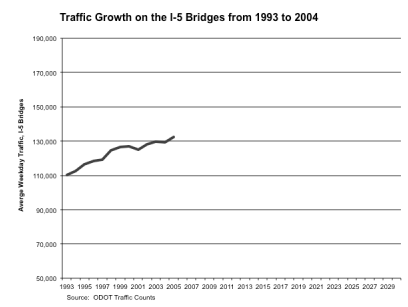
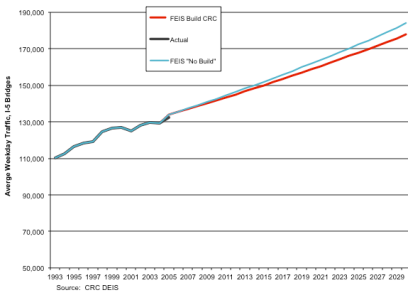
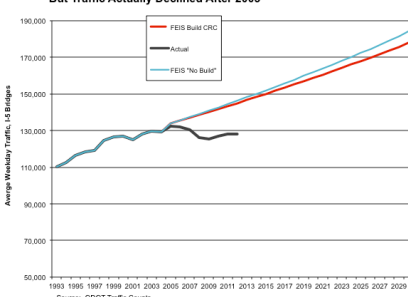
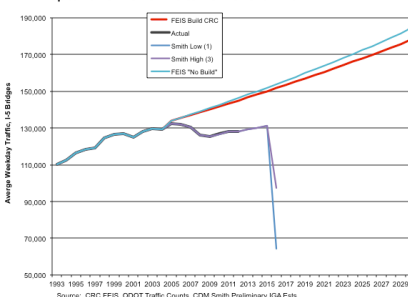
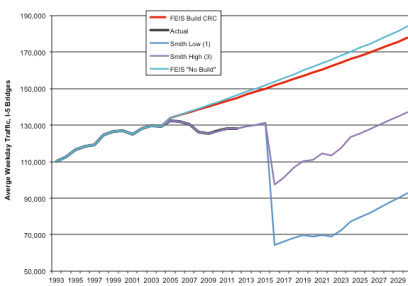
In 2030, fewer people will use the new I-5 bridges than use them today

In the 2030 design year, CDM Smith predicts traffic levels on a tolled I-5 bridge will be between 93,000 and 137,000 vehicles per day, a range that is at most only slightly higher than current traffic volumes, to as low as only three-fourths of current travel volumes.

The CDM Smith model contradicts and invalidates the traffic projections used in the CRC planning and environmental impact reports over the past 7 years

These new forecasts for traffic levels on a tolled I-5 bridge completely contradict the forecasts the CRC has used for the past seven years, and cast serious doubt on the project’s environmental impact statement, the need for the project, supposed transit benefits and also pose the risk of extreme traffic diversion.

The Dramatic Shift in I-5 Travel Forecasts

 <p style="text-align: right;">2005</p>	<p>1. Historical Trend Through 2005</p> <ul style="list-style-type: none"> From 1993 to 2005, traffic on the I-5 bridges increased from 90,000 vehicles to about 131,000 vehicles per day This formed the base period for CRC traffic forecasts, which used models calibrated based on 1990s travel behavior (and cheap gasoline).
 <p style="text-align: right;">2008</p>	<p>2. CRC Forecast (DEIS, 2008)</p> <ul style="list-style-type: none"> The CRC DEIS forecast, developed in 2007, predicted rapid growth through 2030 to 184,000 vehicles per day under the No-Build, and 178,000 vehicles per day with a tolled CRC bridge Claims about future congestion, accidents, and economic benefits rely on these forecasts.
 <p style="text-align: right;">2012</p>	<p>3. Actual Traffic through 2012</p> <ul style="list-style-type: none"> In reality, after 2005, traffic plateaued and declined—due to high gas prices. By 2012, actual traffic levels were 18,000 vehicles per day less than the CRC forecast for that year The CRC did not include this new data in the FEIS or change its forecast
 <p style="text-align: right;">2013</p>	<p>4. CDM Smith: Toll I-5 in 2016</p> <ul style="list-style-type: none"> In 2016, the CRC will impose pre-completion tolls on I-5. According to CDM Smith this will cause 25 to 50 percent of current bridge users to divert to other routes or destinations. 31,000 to 64,000 vehicles will divert away from I-5 in the face of tolls
 <p style="text-align: right;">2013</p>	<p>5. CDM Smith: Tolling I-5 through 2030</p> <ul style="list-style-type: none"> After the new bridge is completed in 2022, CDM Smith predicts that traffic will grow, but in most scenarios will still be much less in 2030 than today 2030 I-5 traffic may be only about half of the 178,000 vehicles predicted by CRC in the DEIS and FEIS

Analysis

Panel 1 shows the historical pattern of traffic on the I-5 bridges from 1993 to 2005. This was the period that immediately preceded planning for the Columbia River Crossing. CRC modelers incorporated data from this period (through 2005) in their traffic modeling. Between 1993 and 2005, traffic grew from about 110,000 vehicles per day to about 130,000 vehicles, an increase of 1.5 percent per year. During most of this time period, the price of gasoline averaged \$1.00 to \$1.25 per gallon, and consistently exceeded \$2.00 only in 2005.

Panel 2 shows the forecasts that the CRC developed. First published in 2007, and reflected in the project's April 2008 Draft Environmental Impact Statement (DEIS), these forecasts used a 2005 base year, and assumed (incorrectly) that 2005 traffic was 134,000 vehicles per day (in fact it was 132,603, according to official ODOT statistics). CRC prepared forecasts of what would happen to I-5 traffic if no improvements were made and the current bridge was retained ("No-Build") as well as forecasts of the level of traffic associated with a 12-lane crossing with tolls and a light rail extension to Vancouver ("Locally Preferred Alternative" or LPA). According to these CRC forecasts, by 2030, if nothing were done, traffic across the I-5 bridges would increase to 184,000 vehicles per day under the No-Build scenario. If the project were built, and light rail and tolls put in place, then traffic on the I-5 bridge would increase to 178,000 vehicles per day in 2030 under the locally preferred alternative.

These forecasts are important because a wide range of claims made in the project's Environmental Impact Statement hinge on the accuracy of these forecasts. For example, claims about the future number of hours of delay associated with the No-Build alternative depend directly on the accuracy of the claim that if nothing is done, 184,000 vehicles would use the bridge daily. Similarly, claims that the project would reduce crashes, pollution and greenhouse gases are directly tied to the accuracy of forecasts showing that 6,000 fewer vehicles (184,000 – 178,000) would use the bridge daily under the LPA than under the No-Build in 2030.

Panel 3 shows ODOT's official counts of average weekday traffic on the I-5 bridges through 2012. After 2005, traffic on the I-5 bridges leveled off and declined, consistent with a strong national decline in vehicle miles traveled. Today, traffic has declined to 2002 levels, at 128,000 vehicles per day. The CRC traffic forecast for the No-Build alternative implies that traffic should have been increasing about 1.3 percent per year during this time period, and that at that rate, by 2012, traffic should have been 146,000 vehicles per day. So the CRC model over-estimated traffic growth by about 18,000 vehicles per day in 2012. With nearly one-third (7 of 25 years) of the forecast period completed this suggests that these traffic models had dramatically over-estimated the rate of traffic growth.

In the fourth quarter of 2011, the project published its Final Environmental Impact Statement (FEIS). Even though six years had elapsed since the base period of its original forecasts (2005), the project did not revise the forecasts from the Draft Environmental Impact Statement. In fact, the Final Environmental Impact Statement contains no post-2005 traffic data: CRC planners simply ignored everything that happened after 2005, and stuck with their original forecasts.

In the fourth quarter of 2012, the CRC commissioned CDM Smith, a national traffic forecasting company, to prepare an Investment Grade Analysis (IGA) of CRC traffic levels and associated toll revenues. In February 2013, CDM Smith released a preliminary analysis showing a range of possible CRC traffic levels. The CDM Smith traffic forecasts begin in the year 2016, when the CRC is scheduled to impose “pre-completion” tolls on the *existing* I-5 bridges. Toll rates will vary based on time of day, and be \$2.50 per peak hour vehicle and \$1.87 off peak with a \$1.50 surcharge for vehicles that do not have transponders. Panel 4 shows CDM Smith’s estimates of travel over the I-5 bridges when these tolls take effect. (The CDM Smith estimates do not show either baseline or pre-tolled estimates, so we have extrapolated 2012 to 2015 traffic levels with growth at 0.74 percent per year, which was the actual rate of growth from 2009 through 2012. At that rate, 131,000 vehicles per day would cross the I-5 bridges—with no tolls—in 2015).

Panel 4 shows that according to the CDM Smith estimates, after tolls are imposed, traffic levels will range from at little as 64,000 under its low forecast to as much as 97,000 vehicles per day in 2016. This represents a decline of 25 percent to 50 percent from the 2012 level of 128,000 vehicles per day. The CDM Smith figures are stated in annual transactions per year and are converted to Average Weekday Traffic (AWT) for comparison to published ODOT and EIS statistics.

The figures presented in the CDM Smith report do not explain what happens in 2016 to the roughly 30,000 to 64,000 current users of the I-5 bridges who no longer use them, or how their changed travel patterns affect the I-205 bridge and other major roads in the Portland area. These figures are also at odds with the projections of the Draft and Final Environmental Impact Statements, which predict only a trivial amount of diversion to the I-205 bridge.

The CDM Smith forecasts assume that the new bridge will be completed and open to service in 2022, and tolls will be raised to \$3.62 (in 2022 dollars), plus a surcharge for those who do not purchase transponders of \$1.77. **Panel 5** shows that according to these estimates traffic will increase following the opening of the new bridge (in spite of the jump in toll rates). By 2030, traffic on the new I-5 bridges would total between 93,000 in the low forecast to 137,000 vehicles in the high forecast. In the low estimate, traffic on the bridge would be 23 percent lower than it is today; in the high estimate, traffic would be only 2,000 vehicles more per day than the CRC assumed would be the level of traffic in the base year of 2005. These forecasts are dramatically different than those in the FEIS, which claimed that traffic would be

178,000 vehicles per day. The CDM Smith estimates show that the FEIS overstated 2030 traffic levels on the I-5 bridge by between 30 percent and 92 percent.

In sum, the results of the CDM Smith report imply:

- The unintended consequences of tolling just one bridge could produce even worse traffic congestion on alternative, non-tolled routes, especially those leading to the Portland airport (which are arguably far more time-sensitive and economically important than truck or commuter traffic across the present I-5 bridges).
- Although the project is supposedly needed to expand capacity, tolling the I-5 bridges will reduce demand for the foreseeable future to a level that could easily be accommodated with the existing structure.
- Half or more current bridge users do not value the trip highly enough to pay the toll; this is critical, since toll revenues are expected to cover perhaps a third of the cost of the project.

Long term growth rates assumed for the CRC with tolls have not been validated by the experience of other tolled facilities. The CDM Smith analysis assumes that in the long term, growth rates on the I-5 bridges with tolls will range from 2.1 percent to 3.0 percent per year. In the past decade, with no tolls, the growth rate of traffic across the Columbia River on the I-5 and I-205 bridges combined has averaged -0.05 percent per year and has exceeded 0.5 percent in only one year (2005). Yet the CDM Smith figures assume that traffic will grow faster on a tolled bridge than it has grown on the existing non-tolled bridges, and do so on a sustained basis. The CDM Smith report does not include their estimates of I-205 vehicle travel, which makes it impossible to evaluate the reasonableness of this forecast.

The CDM Smith Forecasts Invalidate the Traffic Forecasts Contained in the FEIS

The traffic projections contained in the DEIS are the foundation of many of the key conclusions about the project's environmental, economic and social impacts. The newly released CDM Smith projections show the estimates used in the FEIS are incorrect—the amount of traffic that will be carried on the I-5 bridges will be 30 to 92 percent less in 2030 than the 178,000 vehicles estimated in the FEIS, and this invalidates many of the conclusions contained in the FEIS.

Although the CDM Smith estimates omit the critical No-Build no-toll, and build, no-toll baseline numbers, it is evident that their estimates and the past seven years of stagnant to declining traffic volumes on the I-5 totally discredit the FEIS estimate of 184,000 vehicles per day for the No-Build alternative. There is no evidence that traffic levels on I-5 in the No-Build case will ever reach the levels of 184,000 vehicles per day forecast in the Draft and Final Environmental Impact Statements. The bridges currently carry about 128,000 vehicles per day, and in fact, traffic levels

have actually declined over the past five years. Traffic levels for the existing bridge are now about 19,000 vehicles per day below the level forecast for 2010 in the DEIS. CRC proponents have conspicuously ignored declines in traffic: the project's vintage 2006 projections were not updated in the Final EIS, issued in September 2011; the FEIS contains no post-2005 data on actual traffic levels on the bridges.

The No-Build estimates contained in the EIS create a fictional and exaggerated baseline that makes the proposed project seem more necessary and environmentally benign than it actually is. In effect, the traffic levels ascribed to the No-Build scenario have served to create a high traffic, high delay, high pollution straw man against which the build alternatives could be shown to have better performance.

A corrected baseline No-Build forecast, coupled with lower estimates of traffic and higher estimates of diversion associated with tolling the proposed new I-5 bridges would produce dramatically different results from those portrayed in the CRC Environmental Impact Statement. Specifically, such changes would:

- **Invalidate traffic congestion analysis.** The FEIS claims that toll driven diversion to I-205 will be minimal. The CDM Smith figures show that many more vehicles will divert away from I-5 because of tolls—between 31,000 and 64,000 in 2016. Many, if not most of these trips will divert to I-205, and will also produce additional traffic and congestion on other key routes (I-84, SR-14 and other East-West connectors). The FEIS does not analyze the effects of this congestion, and is therefore invalid.
- **Invalidate the freight analysis.** Similarly, the FEIS claims that freight travel will face increasing congestion and delay on the I-5 bridges. These forecasts hinge on a comparison with the inaccurate baseline. And in fact, traffic levels have not been increasing on the I-5 bridges, and the fraction of the cross-river truck traffic carried by I-5 has decreased dramatically in the past five years.
- **Invalidates safety analysis.** The FEIS claims that the number of crashes on the I-5 bridges will increase from 400 to 700 under the No-Build, but would decrease to 250 with a new bridge. A realistic baseline would show far fewer crashes.
- **Invalidates cost-benefit analysis.** The CRC has published a cost benefit analysis, which is based on assumed travel savings for the 178,000 vehicles estimated to cross the bridge in 2030 under the FEIS. Since far fewer vehicles will use the bridge, there will be far smaller benefits. Moreover, the cost-benefit analysis doesn't include an analysis of the costs associated with the delays from congestion on parallel and alternate routes because the FEIS

traffic projects failed to accurately estimate these flows. This invalidates the cost benefit analysis.

- **Invalidates the analysis of transit benefits.** The comparison of bus service times under the No-Build analysis with light rail service times under the LPA is strongly influenced by the high levels of traffic congestion in the No-Build. A more realistic No-Build scenario with less traffic congestion would show much smaller (and perhaps negative) transit travel time benefits with light rail.

It is not possible to reconcile the DEIS and FEIS forecasts with the forecasts provided by CDM Smith. CRC officials have made misleading claims about the nature of the forecasts. Officials have claimed that the numbers presented in the EIS are a “worst-case” for estimating environmental impacts, and that the project uses a different and lower set of traffic numbers to gauge financial feasibility.

To claim that a forecast with a higher or lower level of traffic on I-5 is better or worse, or represents a worst case analysis, is simply incorrect. Different projections imply different environmental impacts.

- Neither federal highway regulations nor federal environmental regulations authorize or direct using multiple conflicting forecasts for a single project, or using one set of traffic numbers for one purpose, and a different set for another.
- The CRC FEIS projections of LPA traffic levels do not, in any case, represent an environmental worst-case because the IGA shows that there will be a diversion of 31,000 to 64,000 vehicles to other routes/destinations with tolling; this is a far higher level than the minimal diversion estimated in the FEIS. This diversion has far larger and more negative environmental effects than previously disclosed.
- The CRC projections in fact, create a fictitiously bad “No-Build” scenario that serves to make the build alternatives seem less environmentally harmful than they actually are.
- Federal regulations require that CRC certify that it has used only a single, consistent set of forecasts as part of its application for federal transit funds. (Nancy Boyd, New Starts Certification of Technical Methods and Planning Assumptions September 7, 2012).
- The CDM Smith report already contains both a high and low estimate of traffic; and even under the “high” estimate, traffic levels will be far different (and on I-5, much lower) than forecast in the FEIS. As noted here, the lower

traffic numbers on I-5 are not environmentally benign because they mean higher levels of traffic and more congestion and pollution on other routes.

Important Questions Remain About the Reliability of the CDM Smith Forecasts

The preliminary CDM Smith numbers show that even in the highest range of assumptions, traffic levels on I-5 will be dramatically less than forecast in the FEIS. Even so, the CDM Smith preliminary estimates leave other important questions about specific traffic demand markets unanswered. The report doesn't show traffic effects by vehicle type, by trip purpose, time of day, or by income level. This is important because some trips are highly sensitive to toll levels. Each of these factors means that diversion could be greater, and adverse effects even worse than those implied in the preliminary estimates.

Not Disaggregated by Vehicle Type: The CDM Smith preliminary results do not show results by vehicle type. According to the CRC financial plan, commercial trucks are expected to provide about 25 percent of gross toll revenue. Careful studies of trucker travel patterns and behavior conducted by the Transportation Research Board show that most truckers dislike tolls, and avoid tolled routes, especially independent truckers who are paid a fixed price on a per trip basis, and who are not reimbursed for tolls, and who have ample delivery windows. Already, without tolls, truck traffic on the I-5 bridges has fallen 23 percent since 2007, and a further decline in traffic would have major implications for toll revenue estimates.

Not Disaggregated by Trip Purpose: The CDM Smith preliminary results do not show results by trip purpose. Journey to work trips across the two bridges account for almost half of all trips. But a high fraction of trips are shopping and personal/social trips. A significant fraction of these trips is Washington residents shopping in Oregon to avoid sales taxes. Many occasional and personal trips may divert away from I-5 because of the high cost of tolls: For those who do not purchase a transponder, the cost of a peak hour round trip when the new bridge opened in 2022 would be \$10.78: a \$3.62 base toll, plus a \$1.77 surcharge each way ($\$3.62 + \$1.77 = \$5.39$; $\$5.39 * 2 \text{ trips} = \10.78). Over the past two decades, cross-border retail activity has shifted substantially to the East, with the development of large scale retail at Cascade Station and other big box retail on Airport Way, both served by I-205. Activity at the Jantzen Beach Mall, served by I-5, has stagnated. Given the motivation of these trips (saving about \$8.50 per hundred dollars of taxable retail purchases), retail shoppers may be deterred from using the I-5 bridge and instead travel to the East. Also, the value of time of shoppers is likely to be much lower than the \$10.80 to \$18.00 estimates used by CDM Smith (see page 9).

Not Disaggregated by Time of Day: The CDM Smith preliminary results do not show results by time of day of travel. Tolls charged vary by time of day, as does the attractiveness of alternative routes. The experience with the SR 520 Floating Bridge in Seattle shows that the biggest traffic drop off is in off-peak hours, when the non-

tolled route offers free traffic flow. Travelers are much less likely to choose a tolled route when there is no congestion on the un-tolled route.

Not Disaggregated by Income Level: The CDM Smith preliminary results do not show results by the income level of bridge users. Different income groups have very different values of time. Low income travelers generally have a much lower value of time, and will modify travel patterns to avoid tolls; while higher income travelers value time savings more highly than toll costs. The CDM Smith model uses a single value of time for each category of vehicle trips. If the results were disaggregated by income group, the model would likely show higher rates of diversion, especially for lower income groups.

Model Not Demonstrated to Accurately Forecast Tolled Traffic. The materials provided to document the findings do not show whether the CDM Smith model, which is based on the Metro transportation model (see CDM Smith, page 11) has addressed the methodological limitations identified by an ODOT commissioned study which concluded that the current four-step traffic forecasting models used in the Portland area were incapable of accurately predicting traffic volumes on tolled facilities.

Vehicle Operating Costs are Under-estimated. The CDM Smith model assumes that peak hour per mile vehicle operating costs are 18 to 20 cents per mile in 2011 dollars (CDM Smith, page 10). These figures are very low. At 20 miles per gallon and \$4.00 per gallon, the cost of fuel alone is 20 cents per mile, leaving nothing for tires, maintenance or insurance. Moreover, these estimates make no allowance for future increases in fuel costs in excess of inflation. Between 1999 and 2008, per mile fuel costs tripled from 7 cents per mile to 20 cents per mile.

The CDM Smith Report fails to present basic information about its traffic model and its results. As part of constructing its model of traffic over I-5, CDM Smith would also have to forecast traffic flows across the I-205 bridges and on other major connecting links. The CDM Smith preliminary report omits any data on traffic flows or impacts on these other routes. The report also lacks data on total cross-river traffic that would allow independent observers to compare CDM Smith's analysis with that contained in the FEIS. The CDM Smith report also lacks baseline No-Build/no-toll and Build/no-toll analysis that show what traffic flows would be in the absence of tolling the project, so that observers can judge the reasonableness of the CDM Smith toll impact modeling.

About the CRC and CDM Smith Forecasts

The CRC prepared traffic forecasts for the project's environmental impact statement in 2007. These forecasts were based on traffic data through 2005, and on transportation surveys that assessed traveler behavior in the early 1990s. These forecasts predicted very rapid growth in travel on I-5 through 2030—even if a new bridge was not built. CRC did nothing to revise these models when it published the

Final Environmental Impact Statement in late 2011; in fact, the FEIS contains no post-2005 data on traffic levels—even though traffic declined significantly and showed CRC projections were fundamentally flawed.

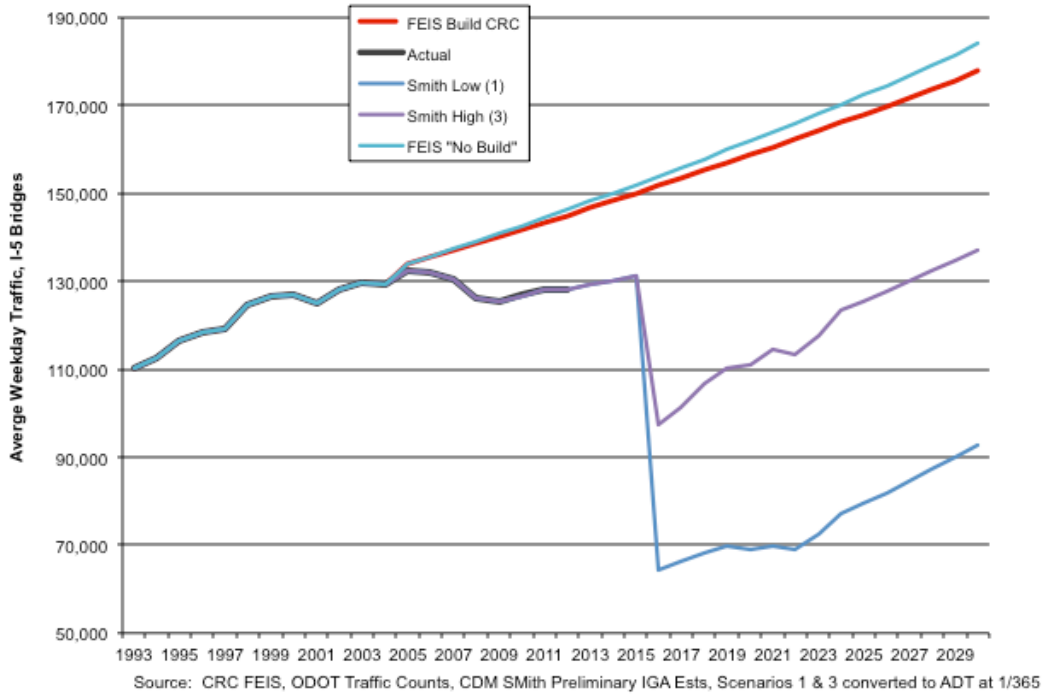
In late 2012, CRC hired CDM Smith to undertake an “Investment Grade Analysis” of the CRC. An Investment Grade Analysis or IGA is a more detailed study of possible traffic levels and toll revenues that would be submitted to potential bond buyers who would be lending money to the project. The IGA will take more than a year, and is not expected to produce final results until December 2013. In February 2013, the CRC released a short memorandum from CDM Smith describing the preliminary results of their study.

The CDM Smith report presents a series of scenarios, ranging from low to high that reflect the range of possible traffic levels it expects on a tolled I-5 crossing, with data showing traffic levels for each year in the forecast. The memorandum “Columbia River Crossing Traffic and Revenue Study, Preliminary Gross Toll Revenue Results, February 22, 2013” is available at: http://www.columbiarivercrossing.org/FileLibrary/TechnicalReports/PreliminaryTollFundsEstimateUpdate_022813.pdf

The CDM Smith report presents 4 scenarios: Scenario 1 corresponds to the lowest level of forecast traffic; Scenario 3 corresponds to the highest level of forecast traffic. We present these two scenarios in this report as CDM Smith Low and CDM Smith High. The CDM Smith data are expressed in annual transactions, rather than the more customary "Average Weekday Traffic" units used in the CRC planning documents and ODOT reports. In order to compare the CDM Smith numbers to data from ODOT and the EIS, we have converted annual transactions to average weekday traffic levels. This is a three-step process: First we convert annual transactions to average daily traffic (by dividing the annual total by 365). Second we translate "average daily traffic" to "average weekday traffic" by multiplying the ADT by 1.034: ODOT's data show that for the past five years, average weekday traffic on the I-5 bridges is about 3.5 percent greater than average daily traffic. Third, for the years 2016 to 2021, during the period of pre-completion tolling, no tolls will be collected on vehicles crossing the bridge after 8 PM and before 5 AM. The CDM Smith estimates do not indicate whether non-tolled trips are counted in the transaction/traffic totals listed in its report. We assume that they are not, and consequently we adjusted these totals to represent non-tolled trips taken during late night and early morning hours. Based on data from 2010, trips between 8 PM and 5 AM represented about 15.8 percent of average weekday traffic. We adjust the total upward by (1/1-.158) to reflect these trips.

Appendix

CDM Smith Shows Much Lower Traffic on I-5 than FEIS



I-5 Traffic Levels and Projections

	ACTUAL	FEIS		CDM Smith	
		"No Build"	LPA	Scenario 1	Scenario 3
1993	110,288	110,288	110,288	110,288	110,288
1994	112,504	112,504	112,504	112,504	112,504
1995	116,589	116,589	116,589	116,589	116,589
1996	118,558	118,558	118,558	118,558	118,558
1997	119,253	119,253	119,253	119,253	119,253
1998	124,516	124,516	124,516	124,516	124,516
1999	126,589	126,589	126,589	126,589	126,589
2000	126,903	126,903	126,903	126,903	126,903
2001	125,006	125,006	125,006	125,006	125,006
2002	128,162	128,162	128,162	128,162	128,162
2003	129,511	129,511	129,511	129,511	129,511
2004	129,198	129,198	129,198	129,198	129,198
2005	132,603	134,000	134,000	132,603	132,603
2006	131,916	135,700	135,522	131,916	131,916
2007	130,389	137,421	137,061	130,389	130,389
2008	126,278	139,164	138,618	126,278	126,278
2009	125,458	140,929	140,192	125,458	125,458
2010	126,700	142,717	141,785	126,700	126,700
2011	128,115	144,527	143,395	128,115	128,115
2012	128,261	146,360	145,024	128,261	128,261
2013		148,216	146,671	129,205	129,205
2014		150,096	148,337	130,157	130,157
2015		152,000	150,021	131,115	131,115
2016		153,928	151,725	64,238	97,384
2017		155,880	153,448	66,277	101,479
2018		157,858	155,191	68,386	106,855
2019		159,860	156,954	69,877	110,324
2020		161,887	158,737	68,881	110,994
2021		163,941	160,539	69,752	114,708
2022		166,020	162,363	69,097	113,329
2023		168,126	164,207	72,692	117,695
2024		170,258	166,072	77,221	123,423
2025		172,418	167,958	79,581	125,564
2026		174,605	169,866	82,017	127,757
2027		176,819	171,795	84,533	130,004
2028		179,062	173,746	87,136	132,304
2029		181,333	175,720	89,828	134,661
2030		184,000	178,000	92,607	137,074

