

***I am requesting that MDOT provide answers to the following questions for the record being created before the Subcommittee on Transportation Appropriations.***

***- Rep. David J. Agema***

***1. Why did MDOT create a new traffic model for the DRIC that is significantly different from the methodology used for the Ambassador Bridge Gateway Study and the Blue Water Bridge Plaza study when it is essentially looking at the same traffic? Didn't the Gateway Project traffic study observe that traffic in the most recent years should be "weighted" more than past trends - why would that not be true now where border traffic is down every year for almost a decade?***

The Detroit River International Crossing (DRIC) team did not, strictly speaking, create a “new” model. They combined four existing models, the Southeast Michigan Council of Government (SEMCOG) and Michigan Department of Transportation (MDOT) statewide models on the U.S. side, and the Windsor and Ontario Ministry of Transportation (MTO) Provincial models on the Canadian side.

Additionally, since the proposed DRIC Project is intended to specifically service the international traffic, we took an in-depth look at that traffic - breaking down the commercial traffic into five commodity categories and dividing the passenger car traffic into commuting and recreational/vacation categories. The existing models all treat international traffic as external stations (one for each crossing), and the growth rates for those stations are based on simple regressions of historic traffic counts.

Since the DRIC study involves traffic on both sides of the border, it was necessary to model both sides of the border. As noted above, the team combined the existing models and added an in-depth analysis of the international traffic into one comprehensive model. This model used the TRANSCAD modeling software, which is used by MDOT for its own statewide modeling activities.

This has all been extensively documented in the following four documents, which have been independently reviewed by internationally recognized experts in the fields of travel demand modeling and freight forecasting:

- [Travel Demand Analysis Process Working Paper](#) (January 2004) 167 pages;
- [Existing and Future Travel Demand Working Paper](#) (January 2004) 265 pages;
- [Travel Demand Model Update Working Paper](#) (September 2005) 118 pages;
- [Travel Demand Forecast Working Paper](#) (September 2005) 150 pages.

The focus of both the Gateway Study and the Blue Water Bridge Plaza Study was strictly on the American side of the border, making the SEMCOG regional travel demand forecasting model perfectly capable of providing all the forecasting support necessary for those two studies.

Another reason the Gateway Project traffic forecast could not be used for the DRIC study is because the horizon year for the Gateway Project traffic forecast was 2015, and the

Gateway model was based on socio-economic data from the 1990 census. The DRIC model has a horizon year of 2035, and is based on the 2000 census socio-economic data.

Regarding the weighting of recent years, as was done in the Gateway Project - when the travel demand modeling for the Gateway Project was being conducted in the mid 1990's the North American Free Trade Agreement (NAFTA) had only recently gone into effect. So, placing extra emphasis on the few years of post-NAFTA data available was reasonable when looking at long term trends. The recent downturn in traffic is due to conditions that are expected to be temporary. Evidence of this is that both governments (U.S. and Canadian) are actively looking for ways to restore the ease of border crossings to pre-9/11 levels without sacrificing security.

***2. Why is MDOT spending \$230 million in taxpayer funds on the Gateway Project at one bridge that connects to three highways (I-75, I-96, I-94) when MDOT now plans to divert 76% of that traffic to the DRIC bridge? Doesn't this approach violate the common sense of maximizing existing infrastructure?***

No. The Gateway Project is being constructed as part of MDOT's obligation to efficiently manage current border traffic at an existing border crossing that is an important part of its border crossing network. It should be noted that much of the construction cost is to reconstruct I-75 and I-96, two vital links that need repair to handle the large amounts of local traffic that does not necessarily cross the border. The Gateway Project is an efficient use of transportation dollars in that it repairs vital interstates and helps an important part of our border crossing network work better.

While the travel demand model does forecast that as much as 76% of the traffic during peak hour might be diverted, we believe that overstates the true diversion because a traditional travel demand model focuses on minimizing travel time. As a result, small changes in travel time can result in large shifts in traffic assignments. Since the purpose of an environmental document is to measure "worst case" impacts, the fact that the model may overstate the amount of traffic that is likely to be diverted is consistent with the intent of the process. The DRIC Technical Report, "[Level 2 Traffic Analysis Part 1: Travel Demand Model and Results](#)" includes an alternative approach to the modeling assignment, called a "Nested Logit Assignment" that we believe more accurately divides traffic between the proposed DRIC crossing and the existing crossing. This approach was included in the Technical Report as a result of recommendations from independent reviewers.

Both the Gateway and DRIC projects will provide drivers with easy access to both the interstate highway network and Michigan's trunkline network.

The DRIC project addresses the fact that any incident involving the Ambassador Bridge, its plazas, or its approach roads can have significant impacts on the local, state, and national economies.

***3. We've heard testimony about the traffic projections being overstated - doesn't this call into question the decisions made during the feasibility and needs portion of the study of whether this DRIC bridge is even needed right now? MDOT used "passenger car equivalents" (PCE's) and now says we should look at trucks separately, even though more trucks are Custom's pre-cleared than ever before - Isn't MDOT trying to have it both ways just to justify a DRIC bridge at all costs?***

First, only one entity, the Detroit International Bridge Company (DIBC), owners of the Ambassador Bridge, has charged that traffic projections are overstated. Other testimony received by the committee (SEMCOG, Brookings Institute, Chrysler, Ford, etc.) indicated that they believed the DRIC forecasts were reasonable.

The DIBC has offered up its own forecast of no growth in international traffic over the next 40 years. Everyone else who has been asked to comment on the DIBC's "no growth" forecast has declared it to be "unreasonable." We believe this raises questions about the credibility of the dissenting forecast.

Second, When doing capacity analysis, it has long been recognized that all vehicles are not created equal, nor should they be treated so. Passenger Car Equivalents (PCE's) are the units that are used to calculate capacity. Cars, Pick-up trucks and SUV's are all convert to one PCE. Both the size and the performance characteristics of trucks require that they be counted as more than one PCE. The minimum conversion is 1 truck= 2.5 PCE, and the conversion factors increase depending on the length and steepness of grades (hills), frequency of intersections (traffic stoppages), and the numbers of trucks in the travel corridor. PCE's as high as 1 truck = 8 PCE's have been used, depending on circumstances. For the purposes of the DRIC study, a conversion factor of 1 truck = 3 PCE's has been determined to be appropriate.

Pre-clearance has no impact on PCE's. MDOT's focus on the truck portion of the traffic flow is not inconsistent with the use of PCE's

***4. Is it true that the DRIC Bi-national Partnership has commissioned an "investment grade traffic study" in November 2007 but that MDOT's Draft Environmental Statement makes absolutely no mention of this important fact? Doesn't this indicate that there is some significant question about the credibility of the current DRIC traffic projections?***

No it is not true. The Government of Canada has commissioned an "investment grade traffic study", not the Bi-National Partnership.

In conducting the traffic forecast for an environmental study, we are interested in assessing the impacts of a worst-case scenario. Therefore, the use of a travel demand model that assumes the attractiveness of an alternative is dependant solely on how quickly (efficiently) that alternative moves traffic is the industry preferred methodology. In this type of model, small improvements in travel time may generate large shifts in user

preferences. We identified this aspect of travel demand models in our DRIC draft Environmental Impact Statement (DEIS). The travel demand model effectively assumes that all crossings are tolled (or not tolled) in a similar manner.

The DRIC study assumes that current “pricing” relationship of the existing crossings will not change, and that the new crossing would be “priced” similarly. One of the major functions of an investment grade analysis is to look at the potential impacts to traffic if the pricing relationship changes.

An investment grade traffic analysis relies heavily on stated preference surveys and other economic analyses to gauge the willingness of the public to pay a particular toll to cover the facility’s costs. They are also used to gauge the potential risk associated with a competitive environment where the “attractiveness” of one facility over another may be affected by its relative cost compared to the “competing” facilities, or by some other controllable factor other than the simple travel time analysis used in a Travel Demand Model.

It has been MDOT’s experience in the past (with bond financed projects) that potential investors prefer to do their own investment grade analysis.

MDOT’s DEIS clearly indicates that both sides of the border are looking at several different governance options for the proposed new bridge. Since no decision on governance has been made at this time, and since the investment grade study initiated by Transport Canada is just one of the tools they are using to inform their choice, it is not necessary for that study to be specifically identified in our DEIS.

***5. Has MDOT had meetings or discussions with private investors that may be interested in investing in the DRIC proposal? If so who and under what authority? Have there been any financial studies been done to determine if this proposal can even be done without subsidy by the taxpayers? If so, please provide copies of those studies so that justify the business case for the DRIC.***

Other than to identify that a public-private partnership is one of the governance options being considered for the proposed new bridge, the DRIC team has not had any discussions with any parties regarding any specific proposal(s). We will not do a financial viability analysis until we determine a preferred alternative. We will be happy to share that assessment with the legislature when it has been completed.

***6. Canada announced at the beginning of May the "route to the border" from Highway 401 and then on June 18 announced their preferred location for the DRIC bridge. Isn't it true that this route comes within 2 kilometers from the Ambassador Bridge and the Gateway connections that MDOT is building right now, which would provide an "end to end solution"? Doesn't it make more sense for Canada to fix 2 kilometers than to demand that Michigan reproduce another crossing less than a mile***

***away, destroy hundreds of homes in Delray and cost Michigan taxpayers \$1.5 billion dollars?***

Almost, the distance from the existing Ambassador Bridge plaza to the proposed interchange with the proposed DRIC access road is closer to 2 miles, or 3.5 kilometers.

One of the reasons the “twinning” of the Ambassador Bridge was rejected by the DRIC team was the impacts of that option on a historic Windsor neighborhood called Sandwich Towne. “Fixing the last 2 miles” would have significant impacts on this same neighborhood. Additionally, if the DRIC bridge does not get built, then the DRIC access road also does not get built, so its not a question of just “fixing” 2 miles of roadway, we’re back to finding a way to “fix” a six mile long corridor.

The DRIC crossing will not cost Michigan taxpayers \$1.5 billion. The cost of the DRIC crossing will only be borne by users of the new facility, the majority of which are not Michigan taxpayers.

***7. Did MDOT analyze the Ambassador Bridge proposal in both US and Canada or did MDOT analyze a government owned bridge adjacent to the Ambassador Bridge? Isn't it true that a separate government owned bridge would require duplicate facilities and more land on both sides of the river that if the Ambassador Bridge enhances its current facilities?***

No differentiation was made in either the U.S. or in the Canadian DRIC analyses for whether the bridge was to be owned privately or by the government. MDOT analyzed the Ambassador Bridge proposal in the U.S. specifically as defined by the Ambassador Bridge in its Enhancement Project. In Canada, the Ambassador Bridge proposal for its plaza has been summarily rejected by the Canadian Border Services Agency as being "overcrowded and dysfunctional." As a result of input from the Canadian Border Services Agency (CBSA) the DRIC study analyzed a Canadian plaza of approximately 120 acres. CBSA continues to insist on an expanded Canadian plaza (in the neighborhood of an additional 100 acres) for the Ambassador Bridge Enhancement Project. This has been communicated, both verbally and in writing, to the owners of the Ambassador Bridge on several occasions, including as recently as June 17, 2008. The size of the expanded plaza currently being requested by CBSA is approximately the same size as that analyzed by the DRIC team.

***8. If redundancy and homeland security are somehow MDOT's mission, then what is MDOT doing to ensure redundancy at the Blue Water Bridge as the department prepares to spend \$433 million on plaza improvements at that twin bridge? Since Detroit is the busiest border and Port Huron is second, why isn't MDOT trying to fix this supposed risk at when it is fully under its current responsibility?***

First, if we were building the second span of the Blue Water Bridge today, in the post 9/11 environment, we would be looking at putting some additional separation between the two structures.

Secondly, Detroit and Port Huron already offer some degree of redundancy for each other. It is approximately 220 miles from the I-94/I-69 interchange near Marshall, MI to the 401/402 interchange just east of London, Ontario whether you use the Blue Water Bridge, or the Ambassador Bridge. Similarly, it is approximately 120 miles from the I-94/I-96 interchange in Detroit to the 401/402 interchange east of London using either the Ambassador or Blue Water bridges. So Detroit and Port Huron offer some redundancy for each other when it comes to long distance traffic, although there would likely be capacity issues on the connecting roadways and at the border crossing stations themselves.

The big differences come when you look at local traffic. Only 20 % (1,500 automobiles and 526 trucks) of the 10,200 vehicles per day using the Blue Water Bridge, are local (i.e. they originate in, or have a destination in, the greater Port Huron/Sarnia area). At the Ambassador Bridge, 79% of the automobile traffic (over 12,000 automobiles per day), and 20% of the truck traffic (over 1,900 trucks per day) are local, traveling between Windsor/Essex County and the greater Detroit area (Wayne, Oakland and Macomb Counties). An additional 14% of the truck traffic (1,350 trucks per day) is between Windsor/Essex area and someplace in the U.S. outside Wayne, Oakland and Macomb Counties. The vast majority of those 3,300+ "local" trucks are connected to the auto industry, either directly (testimony was presented to the committee that 1,600 trucks per day use the Ambassador Bridge for Chrysler (1,000) and Ford (600)) or indirectly in connection with one of the hundreds of parts suppliers to the auto industry (and you heard testimony from both a couple of individual suppliers as well as a trade association).

At Port Huron/Sarnia, local truck traffic (approximately 526 trucks per day) can, in an emergency, be accommodated by the existing Blue Water Ferry Service which traverses the St. Clair River between Marine City, Michigan and Sobra, Ontario. This would require expanding ferry operations to 24 hours per day. Most of the local automobile traffic between Port Huron and Sarnia could not also be accommodated by this ferry service unless additional capacity (an additional ferry boat or a tug/barge combination) were to be added.

At the Ambassador Bridge it is a different story. While the Detroit/Windsor Tunnel could accommodate most of the automobile traffic from the Ambassador Bridge (with a significant congestion penalty), it is physically incapable of handling the additional truck traffic (i.e. the tunnel dimensions are too small to handle most of today's trucks). The Detroit-Windsor Truck Ferry can only handle about 10 trucks per hour, or 240 trucks per day if it were allowed to operate 24 hours per day (it is currently limited by local ordinances to daytime operation only). Diverting the remaining 3,000+ trucks to Port Huron would add a minimum of 2 hours of travel time in addition to the delays caused by congestion on the roads and at the border stations serving the Port Huron/Sarnia area

which are not designed to handle the kinds of volumes regularly seen in the Detroit area. Upgrading those roads (over 100 miles of interstate freeway) and border facilities to provide the kind of redundancy that the proposed DRIC bridge would provide would cost significantly more than the estimated \$1.5 billion cost of the DRIC bridge.

***9. Doesn't it make sense that if the traffic projections are so far off from actual traffic since 2004 needs study and the impacts in Michigan are so severe that the legislature should have the opportunity to justify MDOT committing \$1.5 billion? Isn't this exactly what the Senate's budget language does - allow the STUDY to be completed, but for the legislature to vote if the DRIC bridge is truly needed?***

As described above, the traffic projections are not greatly at variance with existing volumes, and there is no reason to think they will be for future years. MDOT will not commit \$1.5 billion in public funds to the DRIC project; if built, the project cost will be repaid from user tolls and may very well be financed privately.

The Michigan Constitution as amended in 1978 assigns matters of transportation policy to the State Transportation Commission, and charges the MDOT Director with executing that policy. However, the Michigan Legislature will continue to have several opportunities to review DRIC activities, and to vote on whether or not to proceed with various aspects of the project.