The Asia Pacific Gateway and Corridor Initiative:
Toronto Workshop

June, 2010

Transport Canada Transports Canada

Research Paper: 2010-05

THE WINDSOR-DETROIT CROSSING: ISSUES IN P3S WHEN INFRASTRUCTURE CROSSES BORDERS

WILLIAM P. ANDERSON[1]

[1] Ontario Research Chair in Cross-Border Transportation Policy, University of Windsor

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William P. Anderson

Ontario Research Chair in Cross-Border Transportation Policy
University of Windsor

Abstract: The Windsor-Detroit crossing at the Detroit River is one of the busiest international trade corridors in the world. The great majority of the trade passing through this corridor is carried by the Ambassador Bridge, which is over 80 years old and privately owned. In an attempt to address transportation deficiencies in the corridor the governments of the United States, Canada, Ontario and Michigan came together in the Detroit River International Crossing (DRIC) initiative. The paper reviews the history and progress of the DRIC, with particular emphasis on the current impasse in gaining legislative approval to begin the process of building a second Detroit River bridge under a public-private partnership (P3) model.

Introduction

Major infrastructure projects face substantial challenges that go beyond technological limitations. These include creating political consensus, satisfying environmental regulations, conducting public consultation and avoiding the systemic problem of cost overruns. For a major infrastructure project across an international border these challenges are even more onerous because more than one government is involved and a failure by any government to clear any hurdle could leads to failure of the entire project. This paper describes plans for a project comprising a new bridge crossing the Detroit River between Windsor, Ontario, and Detroit, Michigan. Despite years of study and an innovative four-government planning approach, this project is currently in some doubt because of the reluctance of the legislative branch in one of the four partner governments: the State of Michigan.

The paper is organized as follows. The first section provides background on the Windsor-Essex corridor, which is one of the busiest border crossings in the world. This is followed by a review of the Detroit River International Crossing (DRIC) initiative by which the governments of the United States, Canada, Ontario and Michigan plan to build new crossing infrastructure. Since the DRIC plan consists of a pair of public private partnership (P3) projects, the next section briefly reviews the P3 approach, emphasizing some points that are especially relevant to the case at hand. This is followed by a review of the progress of one of the projects: the Windsor-Essex Parkway, which is wholly located in Ontario. The next section reviews the truly international part of the plan, the DRIC Bridge project, with a description of the current political problems that threatens to derail or at least substantially delay the plan. The concluding section includes some consideration of political differences between the United States and Canada that may be relevant to the current impasse.

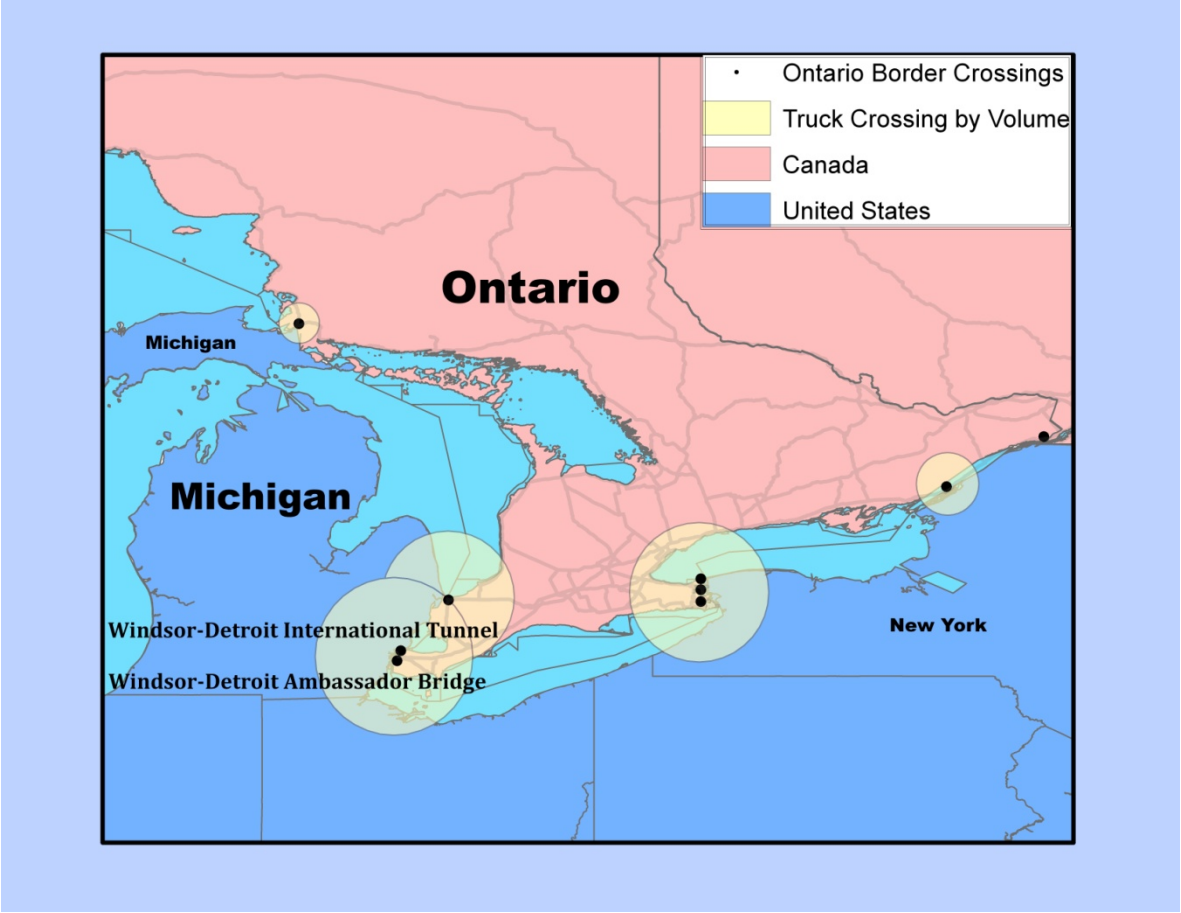
The Windsor-Detroit Crossing

Ontario, which accounts for about one half of Canada's exports, is one of the most trade-dependent jurisdictions in the world, with exports accounting for 47% of its GDP in 2009.[1] This is roughly equivalent to the export intensity of Germany and much higher than most other OECD

[1] Ontario Ministry of Finance, *Ontario Economic Accounts, 2nd Quarter of 2010,* Table 8. http://www.fin.gov.on.ca/en/economy/ecaccts/ecat8.html

countries. More than 85% of Ontario's exports are to the United States and are shipped by land transportation, mostly truck. Because the borders between Ontario and US states are defined by bodies of water, there are only a few crossing points located on the St. Lawrence, Niagara, Detroit and St. Clair Rivers, plus one at Sault Ste. Marie where Lake Superior flows into Lake Huron (see Figure 1.) This means that Ontario's producers are highly dependent upon a small number of bridges and tunnels to ship their goods to market in the US.

Figure 1: Ontario Border Crossings by Truck Volumes



By far the busiest of these crossings is at the Detroit River between the cities of Windsor, Ontario and Detroit, Michigan. Highway infrastructure at this crossing includes a tunnel and truck ferry, but the Ambassador Bridge carries over 95% of truck movements, accounting for 23% of all truck movements between Canada and the United States in 2009.[2] Because shipments through this corridor are of relatively high value, it accounted for over 29% of the value of

[2] Transport Canada, 2010, table R019.

Canada-US trade by road in 2009,[3] which is more than half of Ontario – US trade by road. There is also a rail tunnel in the corridor, which carried 17.5% of Canadian rail exports and 20% of rail imports by value in 2009.[4]

One reason for the high share of freight movements through the Windsor-Detroit Corridor is its role as a conduit for the movement of components in cross-border automotive supply chains. Integration of the Canadian and American automotive industries long predates NAFTA. The Canada-US Auto Pact of 1965 first permitted duty free treatment of cars, trucks and parts (Anastakis, 2005). This was a "managed" rather than free trade agreement because it contained guaranteed production shares for Canada, but it made it possible for the Detroit Three automotive manufacturers to end the inefficient practice of duplicating production in their US and Canadian plants (Holmes, 2004). In order to achieve scale economies and exploit location advantages such as lower labour costs in Canada, the Detroit Three automotive manufacturers source many components for Canadian assembly plants in the US and *vice versa* (Andrea and Smith, 2002). Most of these cross-border component movements take place across the Ambassador Bridge. Failure to maintain inexpensive and reliable movement across the Detroit River could therefore have serious implications for the automotive industry. Other manufacturing industries that have extended supply chains across the border since the implementation of NAFTA are similarly vulnerable.

There are questions about the adequacy of the Ambassador Bridge to play this critical role in the cross-border economy. It is now over 80 years old and while it passes regular inspections its useful lifetime is limited, although the owners have a plan to replace it with a new bridge with 50% greater capacity. Capacity and age are not the only problems, however. The lack of redundancy in cross-border infrastructure leaves many firms and employees vulnerable to any event that would result in a shutdown of the Bridge.

It is also privately owned, which is a matter of great political controversy. There are no close substitutes to the bridge for moving goods in automotive and other manufacturing supply chains. The Detroit-Windsor tunnel cannot accommodate the most common type of trucks. The Blue-Water Bridge between Sarnia, Ontario and Port Huron, Michigan, which is the nearest bridge

[3] Transport Canada, 2010, table EC10.
[4] Transport Canada, 2010, table RA21, RA22.

that can accommodate full-sized trucks, is about 2 hours away on the Canadian side. Since most of the shipments are travelling relatively short distances there is limited scope for switching to intermodal rail (Anderson, 2008). Thus, the Ambassador Bridge has extraordinary market power in the corridor, although it is not clear that it has abused that power.

An additional problem is that the location of the Ambassador Bridge results in the movement of a very large volume of trucks causing a high concentration of particulate emissions in a densely settled area. This last problem is exacerbated by the lack of appropriate access roads on the Canadian side. At present, trucks move from the Western terminus of Ontario Highway 401 to the Bridge over municipal roads with numerous signalized intersections. A standard joke in transportation circles is that you can travel from Montreal to Miami and only pass through 17 stop lights – all of them in Windsor, Ontario.

Despite the limitations of a single bridge with poor highway connection, cross-border automotive and other manufacturing supply chains appear to have functioned smoothly for the 25 years following the 1965 Auto Pact. The attacks of September 11, 2001, change the picture significantly. New security procedures at the border initially led to crossing delays measured in hours rather than minutes. A combination of increased staffing by border agencies, institutional and technological innovations in security procedures and reduced demand due to the economic crisis have resulted in much shorter delays after 2008. While average crossing times are low, however, there is still a high degree of unpredictable variability (Anderson and Coates, 2010). Uncertainty in crossing times is a serious problem in the just-in-time supply chains of the automotive and other manufacturing industries. Since a late shipment can shut down a production line, shippers must either build time buffers into schedules or store buffer inventory on the far side of the border, both of which have significant costs (Anderson, 2009).

Personal travel across the border has changed radically since 2001. It is likely that a significant proportion of people avoid crossing the border because of unease with the stricter security regime. More importantly, under the US Government's Western Hemisphere Travel Initiative a passport or enhanced driver's license is required to cross land borders. This narrows the pool of potential crossers since many Canadians and most American's hold neither of these documents.

Transportation activity is down significantly in recent years with both car and truck traffic at the Ambassador Bridge and car traffic at the Detroit-Windsor tunnel falling by 35% or more between 2005 and 2009.[5] It is difficult to say how much of this is due to the current economic crisis and how much is due to a less permeable border, but the general negative trend was evident by 2007 before the onset of the crisis.[6]

The DRIC Process

The Detroit River International Crossing (DRIC) process began in 2000 with a partnership among the US Federal Highway Administration (FHWA), Transport Canada, the Michigan Department of Transportation (MDOT) and The Ontario Ministry of Transportation (MTO). The involvement of four transportation agencies under the administration of separate federal, state and provincial governments was a novel and necessary approach given the various dispersed assignment of responsibilities. Highway infrastructure is normally the responsibility of provincial governments in Canada and state governments in the US, although in the latter case the majority of funding often comes to the state from a highway trust fund based on federal gasoline tax revenue and administered by FHWA. The involvement of the federal governments was of course necessary due to the need to extend infrastructure across the border. But the involvement of four separate governments implied the danger that any planned project would fail if the support of a single government were withdrawn.

The initial task of the partnership was to conduct a study of the future transportation demands and the adequacy of infrastructure in the Windsor-Detroit corridor. Two crucial documents emerged from this partnership.[7] The first was an economic impact study concluding that by 2030 increased freight delays in the Windsor-Detroit corridor would cost the US economy over $11 billion (2000 dollars) in lost output and productivity and 91,000 full time equivalent jobs per year. The corresponding numbers for Canada were $2.1 billion and almost 35,000 jobs (HLB, 2004).

[5] Transport Canada, 2010, table RO19, RO20.

[6] Econometric studies that try to separate the impacts of heightened border security post 2001 from other factors affecting exports provide interesting but still somewhat inconsistent results (see Burt, 2007; Globerman and Storer, 2009).

[7] These documents, plus an extraordinarily large volume of technical reports, updates, reports on public consultation, FAQs and others are available at http://www.partnershipborderstudy.com/index.asp

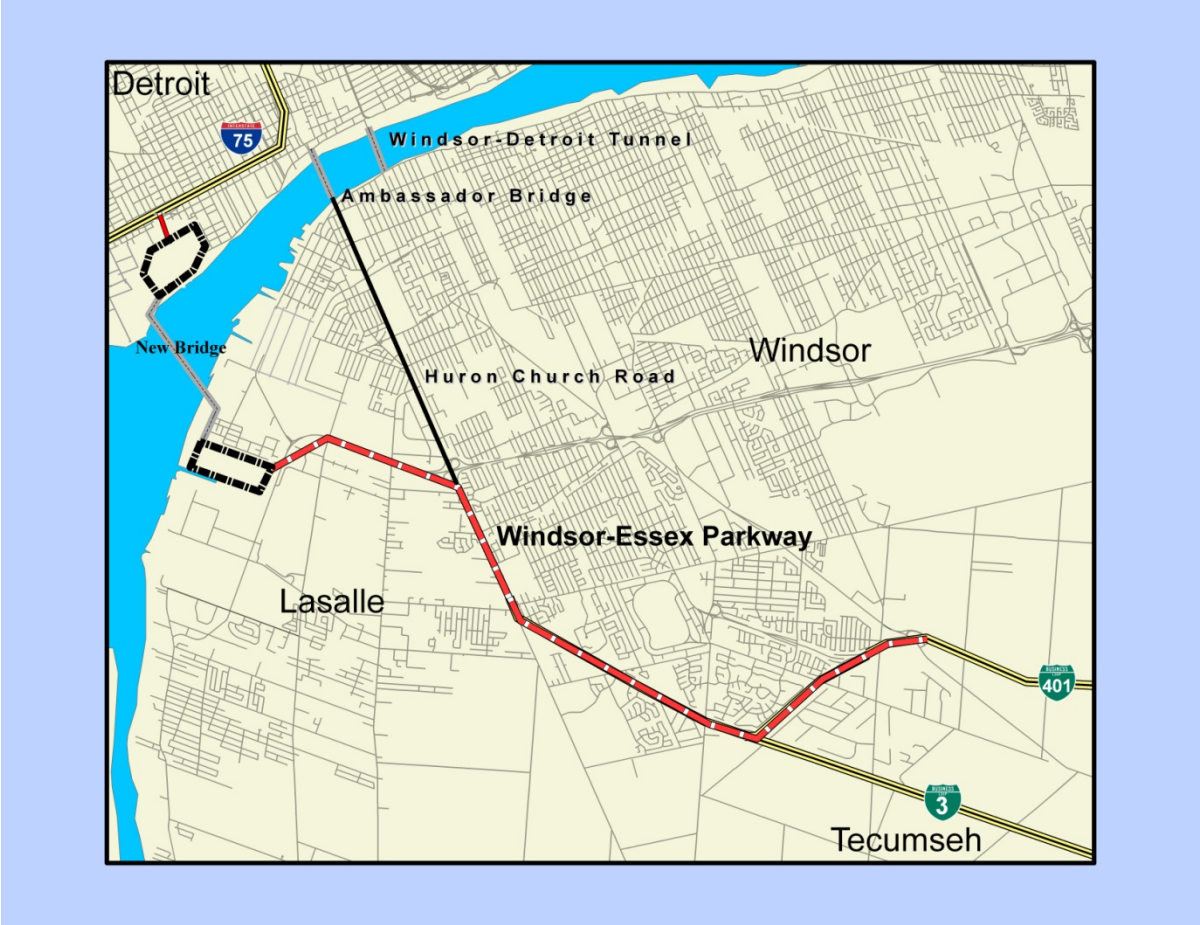
The second was a planning needs and feasibility study report (PNF report) whose purpose was to recommend a long-term strategy for improving transportation in the corridor (URS, 2004). While transit, rail and even marine strategies were considered, the focus was quickly directed to highway infrastructure since cross-border movements were dominated by the truck mode. The infrastructure problem in the corridor was not limited to the Ambassador Bridge as a bottleneck. The lack of a limited access highway from the end of Ontario Highway 401 to the bridge was an equally serious problem. (Highway connectivity problems on the Michigan side existed at the time of the study but were corrected by the Ambassador Bridge Gateway Project, discussed further below.) So the challenge was to choose a best combination for the access road alignment and new or expanded bridge location. Several options were examined, including creation of a highway corridor along the city roads currently used by trucks to pass from the 401 to the Ambassador Bridge and a "twinned" or otherwise expanded version of that bridge. A "central alternative" which envisioned a second bridge two kilometers downriver (to the southwest) from the Ambassador Bridge was defined, as shown in Figure 2. While the PNF Report did not make a final recommendation, the central alternative had the most positive assessment. The final decision was made in the context of environmental assessment processes in both Canada and the United States in 2008.[8]

On the Canadian side, the central alternative initially follows the route normally taken by trucks from the 401 to the Ambassador Bridge, but veers to the west before reaching the final approach along Huron Church Road and leads to the new bridge in an area called Brighton Beach. This has several advantages from the Canadian perspective. First, it avoids the construction of a limited access highway down the densely settled Huron Church Road corridor. That would be a problem both because of the large number of homes and business that would be taken and also because a limited access corridor in this location would be a greater impediment to circulation of traffic and pedestrians within the city. Second, it allows for construction of bridge approaches and an inspection plaza in the relatively unsettled Brighton Beach, which is an industrial district with a large amount of vacant land. On the Michigan side, the bridge and inspection plazas would be in the Detroit's predominantly low income Del Ray neighborhood. The Plaza would be located close the Interstate 75 (I-75) highway but a relatively complex interchange would be needed.

[8] DRIC FAQs, question 5 found at http://www.partnershipborderstudy.com/pdf/12_2008_DRIC_FAQ74.pdf

As I will discuss below, the ultimate selection of the central alternative over the option of building the access road up to the Ambassador Bridge is a major point of controversy to this day. In addition to the issues mentioned above, the PNF Report noted that preferred alternative provides better time savings and has higher projected demand than a twinned Ambassador Bridge corridor (page 100). There are a couple of other advantages that were not addressed in the PNF but are commonly made in public discussions and the media. The first is the addition of a second bridge eliminates the monopoly position held by the Ambassador Bridge. The second is that a second bridge provides redundancy, making the economic catastrophe of a complete crossing closure (at least for trucks) less likely. On the other hand, the Ambassador Bridge has argued that it is willing to build an expanded bridge adjacent to its existing bridge at no public expense.

Figure 2: The Central Alternative



The outcome of the DRIC process has been the initiation of two functionally interdependent but formally independent projects. The first is the access highway leading from the terminus of the 401 to Brighton Beach, as shown in Figure 2. This project, called the Windsor-Essex Parkway, is entirely located within Ontario and is therefore the unique responsibility of MTO, although the Canadian federal government has committed to covering half of its cost. The second is the bridge itself, along with inspection plazas on both sides of the river and the interchange with the I-75. This is commonly known as the DRIC Bridge project. Both projects have now received all necessary environmental approvals. The Windsor-Essex Parkway and the bridge have been conceived as Public Private Partnership (P3) projects. The majority of funding for the Detroit side plaza will come from the General Services Agency (GSA), a branch of the US federal government that owns and operates property and facilities. The initial expectation was that the I-75 interchange would be funded by a combination of State of Michigan and FHWA funds, but as I will explain below that expectation has changed.

Public Private Partnerships

The P3 model for infrastructure development assigns responsibility for design, construction, operation and maintenance of a facility to a private firm.[9] This is in contrast to the conventional procurement model where design and construction are contracted separately while operation and maintenance are either done directly by a government agency or contracted out separately. The benefit is to provide an appropriate incentive structure, whereby the firm will design the infrastructure in a way that can be efficiently built and will build in sufficient quality and robustness to minimize life-cycle costs. The firm is also generally required to finance the project and then receive payments over the service lifetime in the form of revenues from user charges such as tolls, "availability payments" made directly from the contracting government agency, or some combination of the two. Since the firm does not receive any payment until the project is completed it has an incentive to finish on time. Also, since P3 contracts generally limit the firm's recourse for any cost overruns it has an incentive to finish on budget. Thus, the P3 model can be seen as a way of addressing the endemic problem of cost overruns in major infrastructure projects that has been documented by Flyvbjerg *et al* (2003) and others.

[9] The discussion here refers to the use of the P3 model for developing new infrastructure, but as Mallett (2008) points out another class of P3s involves leasing existing public facilities to the private sector.

These benefits come with a number of costs. It is often more expensive for private firms to arrange financing than for governments and the complex contracts necessary for P3 relationships add to transactions costs. Also, transferring risks from the public sector to the private firms is not without costs. Firms add risk premiums to their bid prices when they know that any unforeseen expenses will fall on them.

A comprehensive review of P3s is beyond the scope of this paper.[10] But there are a few points about P3s that are especially relevant to the case of the Windsor-Detroit corridor. First, they are complex relationships that require a significant amount of work on the part of both the government agency and private firm to execute properly. It is not a simple matter to determine whether a particular project is an appropriate candidate for the P3 model, or whether conventional contracting is more appropriate. Also, since the contracts involved are so comprehensive and operate over such long periods of time, they are extraordinarily complex and require specific experience and expertise. The Government of Ontario has established Infrastructure Ontario (IO) as a public corporation for the execution of P3s. IO has developed many hospitals, municipal buildings and other public facilities under a specific P3 model that it calls Alternative Financing and Procurement (AFP). The provinces of British Columbia, Alberta and Quebec as well as the Canadian federal government have established similar agencies. By contrast, the State of Michigan, who will have principal responsibility for the US side of the DRIC Bridge project, does not even have legislation in place for P3s at the time of this writing (October 2010.)

A second point is that most analysts agree that the optimal design of a P3 relationship assigns risks to those parties who are best able to manage them (Iacobucci, 2010). For example, construction risks are best managed by the private firm because it is doing the construction and has not only the expertise but also the incentive to manage those risks. On the other hand, the firm has no ability to manage traffic risks arising from uncertainty regarding future use of the highway, bridge or other facility. When P3s for highway projects are specified such that the

[10] For useful reviews and discussions from somewhat different perspectives see Boardman and Vining (2007), Iacobacci (2008, 2010), Murphy (2008), Vining and Boardman (2008). See Mallett(2008) for a review of P3 transportation infrastructure projects in the U.S.

revenue is exclusively from tolls, the firm assumes all of the traffic risk. Since it has no control over this risk it will assign a very high premium to it. So there is not necessarily any efficiency argument to using tolls rather than availability payments. But it is often assumed that the P3 mechanism is an efficient alternative only if it can be fully financed by tolls.[11] I will return to this issue in the specific context of the DRIC Bridge.

A final point is that the P3 model involves relinquishing a degree of political control over the course of a project's lifetime. Under normal procurement, both public agencies and legislative bodies are able to make policy adjustments after the project is complete or even while it is in its construction phase. At least in principle, the P3 model implies that once the contract is signed government players have very limited ability to interfere with the construction and operation of the infrastructure so long as the firm meets its contractual obligations. Thus there is a political cost to legislators who are less able to respond to complaints from or to provide benefits to constituents. I will suggest later that this cost may be more severely felt in the US political systems than in the Canadian system.

The Windsor-Essex Parkway

The six-lane Windsor-Essex Parkway project will extend 11 kilometers from the terminus of the 401 to the Canadian Plaza for the DRIC Bridge at Brighton Beach. Despite its relatively short length it is expected to be the most expensive single highway project in the history of Ontario, with an anticipated cost of CAN$1.6 billion. The reason for the high cost relates to the challenges of building highway infrastructure through an urban area in a socially and environmentally sensitive way. The entire Parkway is below grade with 11 tunnel sections. The tunnels are "land bridges" intended to prevent the virtual bisection of the city as limited access roads have done in many places. Despite the fact that the alignment avoids the very dense Huron Church corridor, it still passes through residential neighborhoods, so design elements that mitigate noise pollution are used extensively. By preventing the stop-and-go truck traffic in the existing access road with its 17 signalized intersections, it will reduce overall vehicular emissions. Still, there was serious concern about the effect of emissions on abutting neighborhoods, especially given the high proportion of large trucks in corridor traffic and the

[11] Boardman and Vining (2007) observe that an unstated reason for government's preference for the P3 model is that it is easier for get the public to accept toll financing on a privately operated facility.

localized emissions plumes associated with particulates from diesel engines.[12] Because the Parkway is set in a much broader corridor than the roads it replaces it is necessary to take a total of 900 commercial and residential properties either by amicable purchase or expropriation.

The environmental assessment process for the Parkway did not go smoothly. The City of Windsor was not satisfied that the basic design proposed by MTO gave sufficient protection to local residents. It took the unusual step of hiring Sam Schwartz, a prominent urban transportation consultant from New York City, to produce an alternative design encompassing much longer tunnel sections and more creation of green space. Over the course of a boisterous public consultation phase, some adjustments were made to the MTO plan to move it in the direction the City's plan, but by the end of 2009 the environmental assessment was approved by the governments of Ontario and Canada over the City's objections. (Ultimately, a détente was achieved when MTO made some further adjustments and provided some additional transportation improvements for the City of Windsor.)

With approvals in place Infrastructure Ontario commenced the P3 contracting process by issuing a request for qualifications (RFQ). Five companies were deemed qualified to undertake the process and of these the three highest ranked were short-listed, which means they were selected to make bids on the project. The selection was based on the following criteria:

- Approach to project development;
- Approach to partnering including with local contractors;
- Design capability and experience;
- Construction capability and experience;
- Maintenance and rehabilitation management and experience; and
- Financial and financing information and their ability to successfully reach a financial close.

Since no single firm would excel in all of these areas, the applicants were consortia of firms assembled specifically for the project at hand. Each included at least one of the following: a large scale highway construction firm, a financial institution, firms with experience managing highway concessions, and engineering / design firms. Given the prominence of P3 arrangements for

[12] Detailed information on the Windsor-Essex Parkway is available at http://www.weparkway.ca/

highway infrastructure in Europe it is not surprising that European firms are represented prominently in two of the three consortia.[13]

The next step was preparation of a request for proposals (RFP) which was given to the three short-listed groups on December 29, 2009. Naturally the RFP is an extremely complex document. Also, it must strike a balance between the objectives of being specific enough to allow the preparation of accurate cost estimates, but general enough to allow for design initiative on the part of the bidders. The three short-listed groups were given until July of 2010 to prepare their bids. This was eventually extended to August of 2010. At the time of this writing, the bids have been delivered and Infrastructure Ontario is in the process of determining the winner, with announcement planned by the end of the year. This will be followed by the complex process of negotiating the final contract, which will take several months. Construction under the contract is expected to begin sometime in 2011.

There is a problem, however. While the contracting process for the Windsor-Essex Parkway has been moving along on schedule, the corresponding process for the DRIC Bridge has been stalled because of legislative resistance in Michigan.

The DRIC Bridge

The government of the State of Michigan has authority over the bridge construction (jointly with Canada) and construction of the interchange with the I-75 highway. While the governor of Michigan supports the project, legislative approval from both the Michigan House of Representatives and the Senate is also needed. This legislation is necessary not only to allow MDOT to begin activities such as taking properties and initial construction, but also to create a legal framework for P3s in Michigan. By 2009 it became evident that this approval might not be forthcoming. I will discuss the possible reasons for this in more detail below, but the main argument was that in its current fiscal situation the State of Michigan could not afford to commit expenditure or to take the risk that financial responsibility would fall on the taxpayer should the private entity in a P3 become bankrupt.

[13] A complete list of the firms in the three consortia is found in a Government of Ontario press release dated October 8, 2009 with the title "The Windsor-Essex Parkway Project Builders Shortlisted." At the time of writing it is available at http://www.weparkway.ca/pdfs/NR-RFQ-short-list_2009-10-08.pdf

To head off a possible failure of bills in the House and Senate, on April 29, 2010 the Government of Canada offered to increase its financial participation in the project by US$550 million. While the money is described as a loan, it is to be repaid out of toll revenues and therefore should not imply a long term financial commitment from Michigan. Taking the new Canadian funds into account, MDOT and Transport Canada jointly issued the following analysis of project costs and responsibilities:

Table 1: DRIC Project Component Costs and Funding Sources (US$Million)[14]

	I-75 Interchange	US Customs Plaza	Bridge	Canadian Customs Plaza	Windsor-Essex Parkway
Total Cost	385.9	413.6	949.1	387.6	1,670
Michigan / FHWA	0	0	0	0	0
GSA	0	263.6	0	0	0
Canada (including Ontario)	385.9	150.0	0	387.6	1,670
P3 Partner	0	0	949.1	0	0

The key aspect of this table is the row of zeros for "Michigan / FHWA." The lack of participation by FHWA presumably reflects the unwillingness of Michigan to pay its 20% match under the funding formula for federal-aid highway projects. The promised Canadian funds have been assigned partly to the I-75 interchange and partly to that portion of the US plaza that will not be covered by GSA. Thus we have the extraordinary situation of the Canadian government funding highway infrastructure located entirely in the United States. (Although the argument can be made that given the high proportion of Canadian GDP represented by trade to the US, the Canadian economy is highly dependent on US highway infrastructure.) There is another implication from this table. The fact that the expenditure for the bridge is assigned exclusively to the P3 partner means that revenue must come from tolls rather than availability payments. The document from which Table 1 is drawn also says Michigan would not be liable for any costs

[14] source: *Backgrounder: Detroit River International Crossing, Financial Arrangements under a Public-Private Partnership (P3),* issued May 27, 2010, available at http://www.partnershipborderstudy.com/news.asp

from the DRIC project. Even in the case of a bankruptcy of the P3 partners, the project lenders would be responsible for completing the contract.

On May 26, 2010 the necessary legislation was passed by the Michigan House of Representatives by a margin of 56 to 51. The vote was along party lines with no Republicans in the "aye" column. This cast doubt on the prospects of the bill in the State Senate, which has a Republican majority. At the time of this writing, (late October 2010) the legislation has not yet come to a vote in the Senate. Anticipating that legislation exactly consistent with the House bill would not pass, the chairman of the Senate Transportation Committee circulated a revised draft that would create a public authority specifically to develop the bridge under a P3 structure, but not provide general authorization to P3s. It would also explicitly prohibit the State of Michigan from spending any of its own money on the project.[15] The revised bill also explicitly prohibits Michigan from making availability payments and requires that toll revenues in excess of what is needed to cover costs to be distributed 40% to Michigan and 40% to Canada, leaving only 20% for the P3 partner, which would make the project less attractive to potential private bidders. Despite the new changes, the bill did not come to a vote before the Senate adjourned for November 2 elections. The bill may still come before a lame duck session later in 2010, but if it fails to pass at that time it will have to start the process over, coming before the new elected House and Senate in 2011. There is also the problem that neither of the candidates for governor is on record as supporting the project, as the out-going governor was.

It would appear that the State of Michigan is passing up an opportunity to get a major infrastructure facility with substantial economic benefits at no cost. One might attribute this to the influence of the Ambassador Bridge, which stands to lose substantial revenue if the DRIC project is completed and whose principal owner is a major contributor to political campaigns. But even if the Ambassador Bridge supports the opposition, that opposition must have some arguments. In what follows I will briefly describe some of the main arguments against the project as they appear in Michigan media.

Doubts about Traffic Growth: Much has changed in the regional economy since the PNF report was issued in 2004. Even before the economic crisis began in 2008, the automotive sector was in

[15] September 8, 2010, Bill Shea, "New bill limits public-private partnerships to just DRIC," *Crain's Detroit Business* (http://www.crainsdetroit.com/) (the text of the revised draft was also available from this source.)

a slump and as noted earlier, both freight and personal transportation in the Windsor-Detroit corridor had started to decline by 2007, with precipitous declines 2008 and 2009. Some question whether there is any rationale for the project based on expected traffic growth. In 2009 MDOT commissioned a new traffic study by Wilbur Smith Associates and the results were published in February 2010 (Smith, 2010). The study found that while growth would be slower than expected in 2004, economic recovery would still lead to ample demand growth to justify the project.

The Ambassador Bridge commissioned the British consultant Halcrow to conduct its own study, which came to different conclusions.[16] Some broad results of the two studies are compared in Table 2. While the short-term projections are similar, the projections for 2035 of both trucks and cars are more than twice as high in the Wilbur Smith study.

Table 2: Comparison or Wilbur Smith and Halcrow Traffic Projections

	Wilbur Smith		Halcrow	
	cars	trucks	cars	trucks
2015			2.92	1.89
2016	3.07	2.74		
2025	4.42	3.92	2.46	2.16
2035	6.00	4.87	2.47	2.35

The Wilbur Smith study employed a far more elaborate methodology than the Halcrow study, which was driven by simple regression models. But the differences probably arise more from different assumptions about the economic future than from methodology. The Halcrow estimates are highly driven by assumed poor economic performance in the automotive sector, while the Wilbur Smith model assumed diversification of the economy and moderate economic growth. Also, the Halcrow estimates were largely based on economic expectations for the local economy

[16] A copy of this study without cover page or title and with the word "Confidential" stamped on every page is available to all at http://www.tollroadsnews.com/sites/default/files/HalcrowDW.pdf

despite the fact that a large proportion of truck movements are coming from or destined to much more dynamic economic regions, including the Greater Toronto Area.

Opponents of the project argue that low traffic growth means that it will not be possible to fund the project with toll revenues. If this is the case, either no private firm will take on the project without revenue guarantees, or if one does it will eventually fail. To counter this argument, MDOT published estimates that the bridge would yield toll revenues of US$60 million in the first year, rising to US$85 million by 2025, which is adequate to fund the project.[17] Also, in order to identify potential P3 partners, MDOT issued a "Request for Proposals of Interest" in January of 2010, despite the fact that no specific P3 model had been defined.[18] A large number of firms responded, although given the vagueness of the request a number of them commented that the project would be better developed under an availability payment model. This is not surprising, since that model involves less uncertainty, and it is noteworthy that a couple of respondent said they actually preferred a toll-based model.[19]

It's not clear to what extent pessimism about future traffic is the result of the obvious reduction in bridge and tunnel traffic in 2008-9, and whether opinions will change in light of the rapid traffic growth that has occurred in 2010.

The Ambassador Bridge: The Ambassador Bridge is an institution in the Michigan business community and its owner, Matty Maroun, has many other business interests in the trucking, real estate and other fields making him one of the most prominent entrepreneurs in the United States. Like many people in a similar position he is a major contributor to political campaigns.[20] Thus he has many allies in the worlds of business and politics who support his efforts to prevent construction of a new bridge. Support for his cause doubtless extends beyond his personal network, as the DRIC project might be interpreted as a case of a government-backed enterprise

[17] June 4, 2010, Bill Shea, "DRIC span annual revenue estimate at $60 million in first year," *Crain's Detroit Business*. (http://www.crainsdetroit.com/)

[18] January 28, 2010, Bill Shea, "MDOT seeks bids for Detroit River bridge project," *Crain's Detroit Business*. (http://www.crainsdetroit.com/)

[19] May 9, 2010, Bill Shea, "Bidders split on best avenue for bridge work payment," *Crain's Detroit Business*. (http://www.crainsdetroit.com/)

[20] The Ambassador Bridge has also pursued legal action claiming, among other things, that the U.S. legislation that authorized construction of the bridge in 1929 gives the bridge owners priority rights for building new cross border infrastructure. It has also purchased land in Del Ray that is part of the planned footprint of the new bridge.

coming along to take revenue away from an independent business – this despite the fact that highway infrastructure has normally been a function of the public sector and that the Ambassador Bridge currently has a virtual monopoly. Of course many business interests, as represented by the Detroit Regional Chamber of Commerce, Ford Motor Company, Chrysler and others, who are vocal supporters of the DRIC project.

A further argument against the DRIC project is that the Ambassador Bridge has repeatedly expressed willingness to provide the needed infrastructure expansion by building a new six lane bridge adjacent to the existing four-lane bridge, which will eventually be retired. In fact, it has already moved ahead with construction in a number of areas including building new ramps that would eventually be the approaches to the new bridge, purchasing property on the Windsor side that would be impacted by a new bridge and gaining approval from Canadian Border Services Agency for a new plaza that would be needed on the Canadian side. However its attempts to gain environmental approval in both the US and Canada are currently stalled. This plan is generally rejected by governments on the Canadian side because it would direct more truck traffic through the denser part of Windsor. Furthermore, it does not solve the problem of inadequate road access from the 401 to the bridge. Correcting this problem would require construction of a limited access road through the dense Huron Church Road corridor. Even if this can be done it will set the process back by several years as an environmental assessment would have to proceed against the inevitable local opposition.

An additional point is that MDOT has already spent over US$200 million on the Ambassador Bridge Gateway Project, which provides a seamless connection from the bridge to US highways I-75, I-94 and I-96. DRIC opponents argue that this project was billed as the solution to border problems, so why is another project needed now? The problem, of course, is that there is no similar project on the Canadian side, so the Gateway Project amounts to expanding the capacity of one end of a bridge. From any perspective, this is an example of what happens when infrastructure planning in a border region is developed without international cooperation.

Discomfort with P3s: A major complication with gaining political consensus is that specific opposition to the DRIC project falls in line with more general opposition to the P3 model, creating a coalition of sometimes strange bedfellows. For example, Public Interest Group in Michigan (PIRGM), a left of centre group that describes itself as representing the interests of

citizens against powerful interest groups,[21] has been vocally opposed to the legislation described earlier, not specifically because of the DRIC project but because of a general opposition to private involvement in infrastructure provision. Part of the reason for this is that the best known examples of P3s for people living in the US Great Lakes states are two long term leases of existing facilities: the Chicago Skyway and the Indiana Toll Road, both of which are 1950's vintage tolled facilities that were formerly operated by government agencies and have been transferred to private interests under very long leases (99 and 75 years respectively). Much as in the case of Toronto's Highway 407, these arrangements have been unpopular with the public. PIRGM argues that the enabling legislations for P3s will result in similar transfers of existing roads in Michigan. PIRGM is hardly a natural ally of either the Ambassador Bridge or the Michigan Republican Party, but on this issue their interests align.

It is not only left wing groups that distrust P3s. Recent comments by members of the political elite suggest discomfort with the kind of limitations on operational involvements by the legislators that I discussed earlier. Since P3s might be viewed as a way of bringing market discipline and the innovativeness of the private sector into the provision of public services, it is surprising that Republicans seem most uncomfortable with model in Michigan. Mike Bishop, the Republican Senate majority leader recently said of the bill "My main concern is that it constrains the power of the Michigan Legislature and gives away our legislative power and oversight."[22] Republican House member Chuck Moss expressed similar concerns and also expressed discomfort with the Canadian connection: "I'm very nervous when you have unelected officials making those decisions. And it's bad enough to cede control to unelected American people, but to Canadians as well?"[23] On this theme, Mike Bishop has questioned the constitutionality of Michigan entering into an agreement with a foreign state.[24],[25]

[21] http://www.pirgim.org/

[22] June 4, 2010, Tom Henderson, "Lawmakers: don't rush DRIC legislation," *Crain's Detroit Business*. (http://www.crainsdetroit.com/)

[23] Ibid.

[24] June 5, 2010, John Gallagher, Kathy Gray and Chris Christoff, Bishop: Bridge deal may be illegal. *Crain's Detroit Business*. (http://www.crainsdetroit.com/)

[25] In a personal conversation, a Republican member of the Michigan House Transportation Committee described Canada's planned financial contribution as "instrumentality of a foreign government" in Michigan.

Concluding Remarks

Since the focus of this paper is "issues" (read: "problems") faced by the DRIC project, it may have an unduly pessimistic tone about its fate. In fact there is reason to believe that the project will go ahead. Political accommodations may be more easily made in Michigan after the election season is over. Even if legislation cannot be passed, there is the possibility that the US Federal government, which is now somewhat on the sidelines, may enter in some way, including assuming all financial responsibilities for the project.

I will conclude with a couple of perhaps speculative comments about what the experience of the DRIC project tells us about the differences between the US and Canadian political systems. I don't know whether the governments of Ontario and Canada are surprised to find themselves in the current impasse with the Michigan legislators, but the situation illustrates a fundamental difference between the Canadian parliamentary system and the US executive / bicameral system. In Canada, if a prime minister or premier gives his or her support to a project it is a safe bet that the project will stay on track as long as the government of the day stays in power. A US governor on the other hand has less control over things. While Governor Grandholm of Michigan was a consistent supporter of the process, she did not have the authority to control the legislative approval process for two reasons. First, her party did not control both houses. Second, even if the party of an executive (governor or president) controls the legislative branch, there is no guarantee that fellow party members will fall in line because votes are not "whipped" in the Canadian sense. The implication is that in order for complex Canada-US projects to come to fruition, the Canadian and provincial governments must communicate regularly with both the executive and legislative branches of the US state and federal governments.

The second comment also relates to the status of US legislators as relatively free agents, but asks why politicians in Michigan express a level of aversion to the P3 model that is not heard from politicians in Canada. In the US political environment legislators are more likely to build and reinforce their political base by providing specific advantages to their constituents and supporters. Of course Canadian MPs also like to bring home benefits at election time, but the distribution of those benefits is generally determined by the party leadership. In the US, where the legislator can use his or her vote as a bargaining chip, individual dealing is more effective. The process of "earmarking," whereby funds are assigned to very specific projects and purposes

thus bypassing the discretion of executive departments, is characteristic of this style of politics. This is not necessarily a bad thing as it can bring the interest of individual citizens and firms closer to the legislative process. But it implies that legislators get involved at a much more detailed level of public decision making than would be typical in a parliamentary system. It is at least possible that this style of legislative politics is at the root of the aversion expressed by Michigan politician for the P3 model, which essentially closes them out from gaining political benefit from infrastructure projects once the contract with the P3 partner is finalized.

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