



Canada-United States-Ontario-Michigan Border Transportation Partnership

Practical Alternatives Evaluation Working Paper

Economic Impact

May 2008

PREFACE

The Detroit River International Crossing (DRIC) Environmental Assessment Study is being conducted by a partnership of the federal, state and provincial governments in Canada and the United States in accordance with the requirements of the Canadian Environmental Assessment Act (CEAA), the Ontario Environmental Assessment Act (OEAA), and the U.S. National Environmental Policy Act (NEPA). In 2006, the Canadian and U.S. Study Teams completed an assessment of illustrative crossing, plaza and access road alternatives. This assessment is documented in two reports: *Generation and Assessment of Illustrative Alternatives Report (Draft November 2006)* (Canadian side) and *Evaluation of Illustrative Alternatives Report (December 2006)* (U.S. side). The results of this assessment led to the identification of an Area of Continued Analysis (ACA) as shown in Exhibit 1.

Within the ACA, practical alternatives were developed for the crossings, plazas and access routes alternatives. The evaluation of practical crossing, plaza and access road alternatives is based on the following seven factors:

- Changes to Air Quality
- Protection of Community and Neighbourhood Characteristics
- Consistency with Existing and Planned Land Use
- Protection of Cultural Resources
- Protection of the Natural Environment
- Improvements to Regional Mobility
- Cost and Constructability

This report pertains to the Protection of Community and Neighbourhood Characteristics factor and is one of several reports used in support of the evaluation of practical alternatives and the selection of the technically and environmentally preferred alternative. This report will form a part of the environmental assessment documentation for this study.

Additional documentation pertaining to the evaluation of practical alternatives is available for viewing/downloading at the study website (www.partnershipborderstudy.com).

Economic Impact Evaluation Working Paper

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1.

Introduction

As part of the Canadian Study Team for the Detroit River International Crossing (DRIC) Environmental Assessment, Hemson Consulting Ltd. is responsible for the Economic Impact Analysis (EIA) component of the study. The primary objective of the EIA is to identify the positive and negative impacts of the various access road, plaza and crossing alternatives on the local and the broader economies of the Windsor Area and Southern Ontario. Economic impact data generated will be used in conjunction with data from other disciplines in the overall evaluation of the practical alternative assessment.

Having completed the economic impact analysis for the long list of Illustrative Alternatives in phase one of the EIA, this phase is a more detailed examination of the economic and business impacts that may occur as a result of the practical alternatives. Economic impacts were split into two categories: impacts within the Area of Continued Analysis (ACA) and impacts beyond the ACA. Economic impacts within the ACA refer to the economic impacts associated with the displacement and disruption of businesses within the ACA. Effects in the area beyond the ACA refers to associated economic impacts occurring either as a result of the business displacements and disruptions within the ACA or as a result of a new border crossing and access road connection. This report is intended to provide the detailed qualitative and quantitative results.

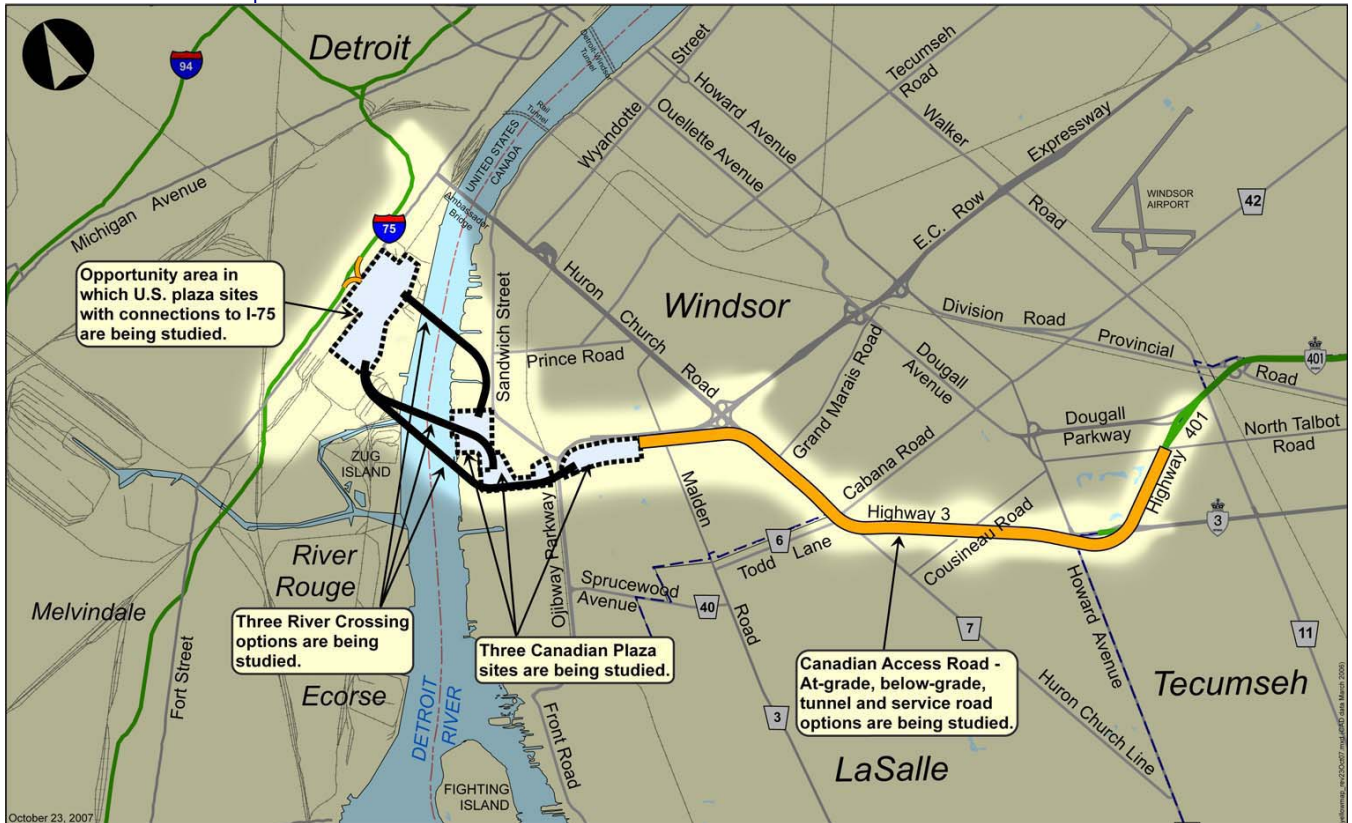
The report is split into four chapters. The remainder of this chapter provides descriptions of the study area, access road alternatives and plaza-crossing combinations, and the economic impact assessment. The second chapter discusses the methods used to assess the economic impacts within the ACA, provides a detailed account of businesses displaced and disrupted, and discusses the implications of the access road alternatives and the alternative plaza-crossing combinations. The third section discusses the method used to assess the economic impacts beyond the ACA and provides a description of the economic impacts to businesses and economies beyond the ACA. The final section provides general conclusions regarding the access road and plaza-crossing alternatives, based on the assessment of economic impacts within the ACA and economic impacts beyond the ACA.

1.1. Area of Investigation

The purpose of this analysis is to assess the economic impacts to the businesses along the proposed access road and within the proposed border plaza-crossing locations, as well as to provide a general assessment of the business and economic impacts outside of the ACA and to the regional and provincial economies. The area of investigation for the economic impact assessment can be described as four distinct areas.

- The Area of Continued Analysis (ACA). This is the principal area of focus and is the area highlighted in Exhibit 1. The area consists of the areas immediately surrounding the proposed access road, running along Highway 401, Highway 3, Huron Church Road and E.C. Row Expressway, and the areas included within and surrounding the four potential plazas and three border crossings, located in west Windsor principally between the Detroit River, Ojibway Parkway and Sandwich Street.
- Businesses outside of the ACA located along Huron Church Road, north from the E.C. Row Expressway to the Ambassador Bridge. This area was considered separately from other areas outside of the ACA since it serves as the approach to the Ambassador Bridge border crossing and because of the nature of the businesses found in the area. These businesses would not be physically affected by any of the proposed alternatives.
- Other businesses outside of the ACA, focusing primarily on businesses within the City of Windsor and the Towns of LaSalle and Tecumseh that could potentially be affected by the proposed access road and plaza-crossings.
- Finally, consideration is also given to the economic impacts of a new crossing and access road on the broader geographic area.

EXHIBIT 1. KEY PLAN OF THE AREA OF CONTINUED ANALYSIS (HIGHLIGHTED)



1.2. Access Road Alternatives and Plaza-Crossing Locations

There are six practical alternatives for the proposed access road and seven different combinations for plaza-crossing locations. The six alternatives for the proposed access road differ based on the built form of the highway and/or service roads. Each of the six access road alternatives (1A, 1B, 2A, 2B, 3 & the Parkway Alternative) have two different road alignments in certain segments resulting in slightly different impacts. The economic impact assessment has been completed using a total of 19 separate access road alternatives.

Alternative 1A is an at-grade six-lane freeway with one-way service roads on either side.

Alternative 1B is a below-grade six-lane freeway with one-way service roads on either side.

Alternative 2A is an at-grade six-lane freeway with two-way service roads located south of the freeway.

Alternative 2B is a below-grade six-lane freeway with two-way service roads located south of the freeway.

Alternative 3 is a cut-and-cover tunneled six-lane freeway below the two-way service roads.

The Parkway Alternative is a predominately below-grade six-lane freeway with an at-grade two-way service road located both north and south of the freeway in different areas.

There are three proposed locations for the new river crossing in the west Windsor area and four plaza alternatives. In total, seven combined plaza-crossing combinations have been proposed:

Plaza A-Crossing A is a bridge crossing south of the Brighton Beach power generation station and plaza located south of E.C. Row Expressway, east of Ojibway Parkway. The approach road between the plaza and crossing generally runs alongside Broadway Street.

Plaza A-Crossing B is a bridge crossing north of the Brighton Beach power generation station and plaza located south of E.C. Row Expressway, east of Ojibway Parkway. The approach road alignment runs alongside Sandwich Street and Broadway Street.

Plaza A-Crossing C (Alignment 1) is a bridge crossing and plaza located south of E.C. Row Expressway, east of Ojibway Parkway. The approach road alignment runs alongside Sandwich Street and Broadway Street.

Plaza A-Crossing C (Alignment 2) is a bridge crossing and plaza located south of E.C. Row Expressway, east of Ojibway Parkway. The approach road alignment runs along Sandwich Street and the western extension of Ojibway Parkway.

Plaza B-Crossing C is a bridge crossing in the industrial port lands near Russell Street and Sandwich Street and a plaza located at the southern end of Sandwich Street, north of Broadway Street. The approach road generally runs alongside Sandwich Street.

Plaza B1-Crossing B is a bridge crossing north of the Brighton Beach power generation station directly connected to a plaza located at the southern end of Sandwich Street, running the entire length of Broadway Street.

Plaza C-Crossing C is a bridge crossing in the industrial port lands near Russell Street and Sandwich Street and a plaza located west of Sandwich Street, south of Prospect Avenue. The approach road generally runs alongside Sandwich Street.

1.3. Economic Impact Assessment

The impacts assessed include economic impacts within and beyond the ACA. Economic impacts within the ACA include both the displacement and disruption of businesses. The displacement of businesses located within the ACA refers to the physical removal of a business from its current location due to the alignment of the access road (and service roads), plaza or border crossing. A disruption to a business is defined as the alignment of the access road (and service roads), plaza or border crossing physically encroaching on a business' property, decreasing the amount of passing car and/or truck traffic, and altering traffic access and/or visibility.

The economic impacts beyond the ACA relate to the effects that result from either the displacement or disruption to businesses within the ACA or as a result of a new border crossing and connecting access road. This includes businesses located north of the E.C. Row Expressway along Huron Church Road, other businesses located outside of the ACA, and the broader geographic area.

A large portion of the report is focused on the discussion of displaced and disrupted businesses within the ACA and the associated economic implications. The impacts of the alternatives on these businesses can be more easily assessed as they can vary depending on the location of the alternatives. The economic impacts beyond the ACA, by their nature, are more widely dispersed and less amenable to specific measurement. Economic impacts within the ACA and beyond the ACA should not be viewed as any more or less important based on the detail presented in this report.

Almost all major transportation infrastructure investments undertake some form of socio-economic impact assessment as required for environmental assessment or other approval processes. Economic impact assessments both in Ontario and other jurisdictions follow a similar format of assessing economic impacts related to business displacement and disruption, as well as economic impacts beyond the defined study area. This format is similar to the Government of Ontario's *Assessing Financial and Economic Impacts: A Guide to Informed Decision Making*; however, some of the key data requirements to complete such an economic impact assessment have not been gathered for the purposes

of this analysis. In the United States, similar recent studies that have been reviewed for approach and method include the Economic Impact Study of I-86 and U.S. 11 Corridor in New York State and the Economic Impacts of U.S. 31 Corridor Improvements Study in the State of Indiana.

The following chapter provides a detailed review of the economic impacts associated with the displacement and disruption of businesses within the ACA as a result of the proposed access road and plaza-crossing alternatives.

2. Economic Impacts within ACA

This chapter provides a detailed account of the displaced and disrupted businesses within the ACA related to the proposed access road alternatives and plaza-crossing locations, as well as the associated implications. The chapter begins with a description of the specific methodology used.

2.1 Methodology

Methodology for this economic impact assessment refers to the type of information collected, the methods used to collect it and all underlying assumptions and limitations. A broad amount of data was collected in order to gain a full understanding of the economic impacts related to business displacement and disruption within the ACA, occurring as a result of a new crossing and access road. All available methods of collection were utilized.

2.1.1 Information Collected

As previously mentioned, economic impacts within the ACA can be split between those businesses that are displaced and those that are disrupted. Business displacement impacts are more easily assessed, as there is no judgment made as to the degree of impact, the business is either displaced or it is not. On the other hand, economic impacts associated with business disruption are entirely a matter of degree, and do not lend themselves to precise quantitative measure. For example, if the highway visibility of a business is reduced as a result of one of the access road alternatives, it may be clear that some impact will occur but the degree of that economic impact must be largely discussed qualitatively.

The first stage in assessing the economic impacts within the ACA was to determine which businesses within the ACA would be displaced or disrupted by the various access road and plaza-crossing alternatives. This was determined through site inspections and an analysis of aerial photos detailing the alternatives. Through this analysis, and in discussions with the study team, the impact to each business was established.

Once it was determined which businesses were going to be displaced and which were going to be disrupted, it was necessary to determine the severity of the impact. The principal method of data collection was through the administration of surveys to all businesses located within the ACA. The detailed surveys (samples are attached in Appendix A) collected both quantitative and qualitative information and were intended to provide a detailed overview of each particular business, their customer base (i.e. local or non-local) and their reliance on the existing highway corridor.

The surveys administered within the plaza-crossing locations in west Windsor differed somewhat from those used for the businesses along the access road. This is due to the differing nature of the businesses found in those respective areas. The businesses along the access road are primarily commercial in nature (e.g. restaurants, gas stations and retail stores) while those in the plaza-crossing locations are primarily industrial. The surveys were designed to account for these differences.

Other sources of information that were used to assess the economic impacts within the ACA included municipal business directories, municipal assessment offices, discussions with local business owners and field analysis (firsthand business site inspection and observation of operation). Provided below is a list of the key information/data collected and the source of such data.

- **Type of Business** -- Attained through business surveys, business directories and field analysis.
 - Commercial -- businesses whose primary source of revenue is through the sale of a product or service. In the ACA, commercial businesses primarily consist of food & beverage establishments as well as auto shops and financial institutions.
 - Industrial -- businesses whose primary source of revenue is manufacturing, trade, and warehouse and distribution.
 - Travel-Tourism -- businesses that derive a large portion of their revenue from non-local customers. This includes hotels, gas stations, recreational facilities, truck stops and specific tourist destinations, such as the Windsor Casino. Note: Travel-Tourism businesses are commercial by nature, but have been separated for analysis purposes.
 - Other -- Any business that does not fit into any of the other categories.
- **Employment** -- typical full employment of a business. Measured as 1 job for each full-time employee and 0.5 jobs for each part-time or seasonal employee. Where employment is entirely seasonal, the number of employees when the business is in operation was counted. This information was attained through business surveys and business directories.
- **Revenue** -- total gross revenue of a business accrued in an average year. This information was attained through business surveys and business directories.
- **Assessed Property Value** -- assessed market value of the property based on the 2006 assessed municipal property value. Municipal assessment offices provided this information.

- **Customer Profile** -- both the place of origin (local or non-local) and the type (individuals and/or corporate). Attained through business surveys, business directories, discussions with business owners/employees and field analysis.
- **Transportation Profile** -- how customers, employees and suppliers travel to and from the business, as well as the degree of reliance of the business on passing traffic volumes. This information was attained through business surveys, discussions with business owners/employees and field analysis.

2.1.2 Assumptions and Limitations

Because of the scale and detail of information required for this study and its reliance on information voluntarily provided, data gaps do exist. In terms of the survey, a number of businesses within the ACA chose not to participate. The response rate, as illustrated in Table 1, was over 60% of the 75 businesses surveyed. While not complete, we would consider this a reasonably high level of participation. The response rate was much higher for businesses along the access road in comparison to those businesses within the west Windsor industrial area. This is due primarily to the fact that most businesses along the access road are smaller locally-owned establishments, whereas the majority of businesses within the west Windsor industrial area are large national and multi-national companies that typically have more restrictions on providing business information.

TABLE 1. BUSINESS SURVEY RESPONSE RATE WITHIN THE ACA

Section	Number of Businesses Contacted	Number of Businesses that Responded	Response Rate
Access Route	41	30	73%
West Windsor Industrial Area	34	17	50%
Total ACA	75	47	63%

Note: Windsor Crossing Outlet Mall is counted as one business within this table, as only one survey was administered on the basis that the mall is a trust and reports as a collective business.

Furthermore, of the businesses that did respond, not all were willing to disclose certain pieces of information, such as gross revenues and employment figures. Where other sources of information were not available, estimates were made for employment and gross revenues in order to provide complete economic impact assessments for the entire ACA. Estimates of employment and revenues were arrived at through a variety of methods, which included comparisons to similar businesses for which that data was available; for publicly traded companies, estimations were based on information provided in public documents, such as annual reports; and, through a variety of sources specific to some of the business sectors represented by the individual firms in the ACA.

For the purposes of this Economic Impact Assessment, a business is defined as: any privately owned, for profit, entity that occupies a built space. Public utilities, such as the Windsor wastewater plant and the Ontario Power Generation (OPG) facility, and public institutions, such as schools and hospitals, are not considered businesses for the purpose of this report. However, it should be recognized that all possess attributes, such as employment and monetary revenues, like businesses. They are unique facilities that need to be addressed in terms of their own attributes and the essential public services they provide. These facilities will be addressed as part of the Social Impact Assessment and incorporated into the final engineering considerations.

A list of 119 businesses identified within the ACA is provided in Table 2. It should be noted that businesses located within the Ambassador Industrial Park (principally located at the north-west intersection of Huron Church Road and the E.C. Row Expressway) and Del Duca Industrial Park (located south of Highway 401 between Talbot Road and Provincial Road), while partially located within the ACA, are not specifically included in the impact assessment as there are no significant economic impacts on any businesses within these business parks.

TABLE 2. BUSINESSES ASSESSED WITHIN ACA

Businesses Located Along Access Road Huron Church Road – Highway 3	Businesses Located Within Plaza-Crossing Combinations West Windsor
Century Fire Equipment Garry St. John Auto Blue Bell Motel & Restaurant Comfort Inn Golden Griddle Feelgoods Restaurant King Kone Petro Canada Lambton Plaza A.C. Soccer First Choice Restaurant Gino's Pizza Lily's Nails Montessori Preschool C.K. Havana Shop Scholars Choice Second Edition World Source Financial Outbreak Sportz Aqua Turf Euro Tech Best Western Tim Horton's Fred's Farm Fresh LA Collision Auto Service Sand Castle Recreation Joe's Woodcraft Mac's Variety Town and Country Animal Clinic Windsor Crossing Outlet Mall (45 stores) Alibi's Sports Bar Autobahn Car Wash XTR Gas & Convenience Vachon Bakery Outlet Natures Health Sleep Factory Dualfelx Weston Bakery Philips Tool & Mould Tyler Hard Chrome Hellenic Banquet Hall Daytona Carwash	CTX Lafarge Windsor CBM St. Mary's Sterling Marine Fuels Windsor Window Imaging K-Scrap Resources Van Dehogen Group Vollmer & Associates The Auto Shop (Vollmer) Essex Aggregates Windsor Salt Company Sure Seal Agency Fuels Air-O Systems Judrick's Enterprises Standard Induction Castings Xcel Manufacturing Andlauer Transport Harwood Windsor Auto Parts Shurlok Globaltex 2000 Ltd. Narmco Group Novelletto Rosati Complex Southwestern Sales Corporation Karter Carriers Prism-Berlie West Windsor Power – Suez Power Generation Nematik Canada ¹ A&P Metals Mayson Machining Globe Manufacturing Kenwil Services Howards Backhoe, Trucking and Bobcat

¹ In February 2008 it was announced that the Nematik Aluminum Plant would be closing. The analysis in this report assumes a similar business would occupy the space once current operations cease.

2.2 Economic Impacts – Access Road

The proposed access road runs along Highway 401, Highway 3, Huron Church Road and the E.C. Row Expressway. There are 19 practical alternatives for the proposed access road, each differing by the built-form of the access road, the location of service roads and in the case of the tunnel option (Alternative 3) its connection to either Plaza A or Plaza B, B1, or C results in differing impacts. The following section provides a detailed account of all businesses displaced and disrupted along the access road and discusses the implications associated with these impacts.

2.2.1 Summary Economic Impacts – Access Road

The total economic impacts for the proposed access road alternatives range significantly as a result of there being five alternatives and two options within each alternative. The range of business displacement is between 26 and 48 businesses, loss of employment between 199 and 361 employees, loss of gross revenues roughly between \$20 to \$43.6 million, and loss of assessed property values between \$13.8 and \$29.1 million. Table 3 summarizes the economic impacts associated with each of the access road alternatives. A number of businesses in each of the access road alternatives are disrupted and range from 31 to 57.

TABLE 3. SUMMARY TOTAL ECONOMIC IMPACTS -- ACCESS ROAD ALTERNATIVES

Access Road Alternatives	Number of Businesses Displaced	Number of Businesses Disrupted	Gross Revenues Displaced (\$ Millions Average)	Number of Jobs Displaced	Assessed Property Value Displaced (\$Millions)
Alternative 1A Option 1 (Plaza B, B1 or C)	31	51	\$28.0	239	\$16.5
Alternative 1A Option 1 (Plaza A)	30	52		235	\$15.9
Alternative 1A Option 2 (Plaza B, B1 or C)	46	36	\$41.2	339	\$27.3
Alternative 1A Option 2 (Plaza A)	45	37		335	\$26.7
Alternative 1B Option 1 (Plaza B, B1 or C)	31	51	\$28.0	239	\$16.5
Alternative 1B Option 1 (Plaza A)	30	52		235	\$15.9

TABLE 3 (CONT). SUMMARY TOTAL ECONOMIC IMPACTS -- ACCESS ROAD ALTERNATIVES

Access Road Alternatives	Number of Businesses Displaced	Number of Businesses Disrupted	Gross Revenues Displaced (\$ Millions Average)	Number of Jobs Displaced	Assessed Property Value Displaced (\$Millions)
Alternative 1B Option 2 (Plaza B, B1 or C)	46	36	\$41.2	339	\$27.3
Alternative 1B Option 2 (Plaza A)	45	37		335	\$26.7
Alternative 2A Option 1 (Plaza B, B1 or C)	26	57	\$19.1	199	\$13.8
Alternative 2A Option 1 (Plaza A)	25	58		195	\$13.2
Alternative 2A Option 2 (Plaza B, B1 or C)	41	42	\$32.2	300	\$24.6
Alternative 2A Option 2 (Plaza A)	40	43		296	\$24.0
Alternative 2B Option 1 (Plaza B, B1 or C)	26	57	\$19.2	199	\$13.8
Alternative 2B Option 1 (Plaza A)	25	58		195	\$13.2
Alternative 2B Option 2 (Plaza B, B1 or C)	41	42	\$32.2	300	\$24.6
Alternative 2B Option 2 (Plaza A)	40	43		296	\$24.0
Alternative 3 (Plaza B, B1 or C)	45	36	\$39.9	332	\$26.2
Alternative 3 (Plaza A)	43	37	\$39.2	326	\$27.1
Parkway Alternative (All Plazas)	48	31	\$43.6	361	\$29.1

2.2.2

Detailed Account of Displaced and Disrupted Businesses – Access Road

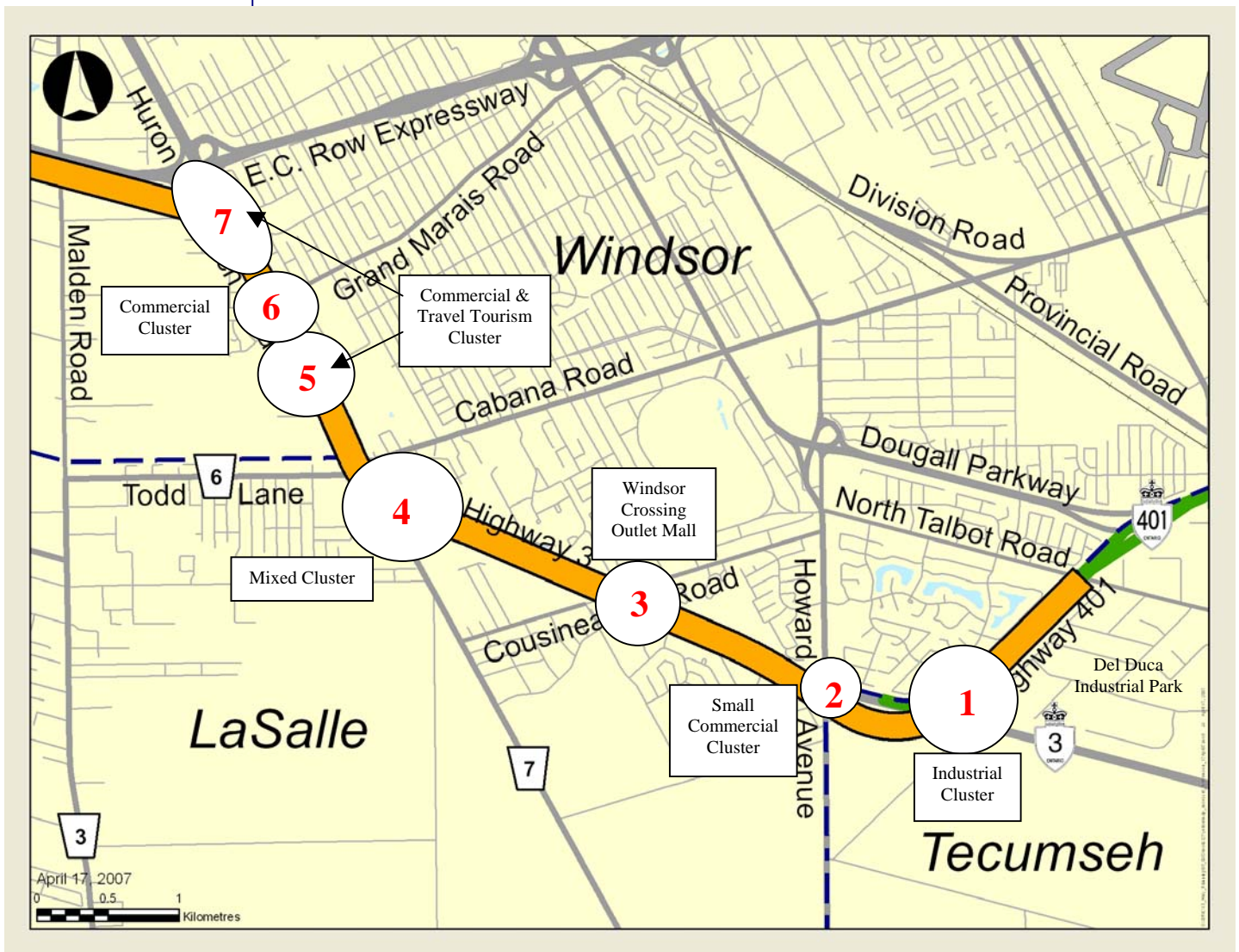
There are a number of distinct clusters of businesses along the proposed access road, following from Highway 401 through to the E.C. Row Expressway. As shown on Exhibit 2, these clusters, starting from the east, are:

- (1) Located at the current intersection of Highway 401 and Highway 3, west of Highway 3 along Outer Drive, is the primary concentration of industrial businesses.
- (2) Immediately north on Highway 3 there is a small concentration of commercial businesses at the intersection of Howard Avenue.
- (3) Further along Highway 3, after a largely residential section, at the intersection of Sandwich Parkway is the Windsor Crossing Outlet Mall, the single largest concentration of commercial businesses along the entire access road. There is one other commercial business at this intersection.
- (4) Where Highway 3 (Talbot Road) and Huron Church Road merge, near the Todd Lane/Cabana Road intersection, is a node of industrial, commercial and travel-tourism businesses.
- (5) Further along Huron Church is a mix of commercial and travel-tourism businesses, including a major chain hotel and a coffee shop.
- (6) At Huron Church Road and Lambton Road is another large concentration of commercial businesses, including the Lambton Plaza.
- (7) Finally, along Huron Church Road, between Lambton Road and the E.C. Row Expressway is a concentration of commercial and travel-tourism businesses including two hotel/motels.

This section expands on the summary of the economic impacts within the ACA along the proposed access road. For analysis, the access road corridor is split into six segments. For each of the segments, there is a detailed account of the economic impacts for each of the five construction alternatives. The economic impacts assessed include the number of businesses, jobs, gross revenues and assessed property value displaced as well as the number of businesses disrupted. This section provides a quantitative account of the economic impacts along the proposed access road; the implications of these economic impacts are addressed in the next section.

The gross revenue data collected or estimated for each of the businesses along the access road within the ACA, due to its sensitive nature and confidentiality agreements, cannot be published on a business-by-business basis. Additionally, since the number of businesses in each of the access road segments is so small, and, in most cases, varies only by one or two businesses for each alternative, it is possible to ascertain gross revenue data for specific businesses. As a result, gross revenue data is only provided in the previous summary table for each of the entire access road alternatives in order to maintain confidentiality.

EXHIBIT 2. BUSINESS CLUSTERS ALONG PROPOSED ACCESS ROAD



Highway 401 from North Talbot Road to Highway 3

This segment of the access road is a controlled access freeway. Under all alternatives, this segment of Highway 401 will be widened from 4 to 6 lanes. The Del Duca Industrial Park backs onto the south side of the existing highway corridor. No businesses will be impacted in this particular segment.

Highway 401 to Howard Avenue

Eleven businesses were identified within this segment. They are located in two distinct areas. There is a group of six commercial businesses located at the intersection of Howard Avenue and Highway 3 and five primarily industrial businesses located along Outer Drive, east of the Highway 401 connection at Highway 3. The businesses located within this segment are:

- XTR Gas & Convenience;
- Vachon Bakery Outlet;
- Natures Health Consulting;
- Sleep Factory;
- Autobon Carwash;
- Kentown Power Equipment;
- Dualflex Company Ltd;
- Weston Bakery;
- Philips Tool & Mould;
- Tyler Hard Chrome; and
- Hellenic Banquet Halls.

With the exception of the Parkway Alternative, all of the access road alternatives in this segment have the same alignment and access. For these alternatives, the number of businesses displaced and disrupted is the same. Four businesses located at the south-eastern corner of Howard Avenue and Highway 3 will be displaced – XTR Gas & Convenience, Vachon Bakery Outlet, Natures Health (sells natural care products) and Sleep Factory (bedroom furniture sales). As outlined in Table 4, it is estimated that there will be a loss of 14 jobs and loss of assessed property value of less than one million dollars associated with this impact.

Based on the interchange configuration developed for Highway 3-Highway 401, five businesses – Dualflex (sanding, polishing & grinding systems), Weston Bakery, Philips Tool & Mould (manufactures plastic injections moulds), Tyler Hard Chrome (plating) and Hellenic Banquet Halls – are disrupted in terms of access, as Outer Drive would no longer connect with Highway 3. Dualflex also has some property disruption.

Due to an alternative interchange configuration for Highway 3-Highway 401 in the Parkway Alternative, Hellenic Banquet Halls is displaced while the other businesses in the area are unaffected. Similar to the other alternatives, the four businesses located at the south-east corner of Howard Avenue and Highway 3 are displaced. The Parkway Alternative is estimated to result in a loss of 24 jobs and a loss of assessed property value of over two million dollars.

TABLE 4. ESTIMATED ECONOMIC IMPACTS – HIGHWAY 401 TO HOWARD AVENUE

	Number of Businesses		Gross Revenues (\$ Millions)	Number of Jobs	Assessed Property Value (\$Millions)
	Displaced	Disrupted	Displaced	Displaced	Displaced
Alternatives 1A, 1B, 2A, 2B & 3	4	5	<i>Suppressed for confidentiality</i>	14	< \$ 1
Parkway Alternative	5	0	<i>Suppressed for confidentiality</i>	24	\$2.1

Howard Avenue to Cousineau Road

Forty-six businesses were identified within this segment. All except one are located in the Windsor Crossing Outlet Mall, which is located south of Highway 3 at Sandwich West Parkway. Some of the stores and restaurants within the mall are: Adidas, Nike, Aldo, Applebee's, The Body Shop, Tommy Hilfiger and Guess. The mall generates the most significant retail business activity along the entire access road corridor. The other business in this segment of the access road is Alibis Sports Bar, located at the intersection of Howard Avenue and Highway 3.

Alignment Option 1 for alternatives 1A, 1B, 2A and 2B all have the same impact, while alignment Option 2 for alternatives 1A, 1B, 2A, 2B and both alignment options for alternative 3 have the same impact. The impacts of the Parkway Alternative are unique to this alternative.

There are no businesses displaced in alignment Option 1, 15 businesses displaced in alignment Option 2 and 16 businesses displaced in the Parkway Alternative. The businesses displaced in Option 2 and all but one in the Parkway Alternative are all part of the Windsor Crossing Outlet Mall and are located within the two buildings that front Highway 3. The mall has a total of 300 employees and a property value of \$32.5 million. As outlined in Table 5, the loss of 15 businesses, taken as a percentage, would result in the loss of 100 jobs and \$10.8 million in assessed property value (data was not provided for each separate business within the mall). Alibis Sports Bar is displaced in the Parkway Alternative. The displacement of Alibis results in an additional loss of 12 employees and \$480,000 in assessed property value.

In alignment Option 1, all of the 46 businesses in the segment are disrupted, which includes all businesses located within the Windsor Crossing Outlet Mall and Alibis Sports Bar. In Option 2, 31 businesses are not displaced, and are instead disrupted – this includes 30 businesses located within the Windsor Crossing Outlet Mall and Alibis Sports Bar. For the Parkway Alternative, the 30 businesses located within the Windsor Crossing Outlet Mall are disrupted. For each, the disruption is related to passing traffic volumes, access and/or visibility.

TABLE 5. ESTIMATED ECONOMIC IMPACTS – HOWARD AVENUE TO COUSINEAU ROAD

Alternatives	Number of Businesses (Option 1 / Option 2)		Gross Revenues (\$ Millions)	Number of Jobs (Option 1 / Option 2)	Assessed Property Value (\$Millions) (Option 1 / Option 2)
	Displaced	Disrupted	Displaced	Displaced	Displaced
Alternative 1A	0 / 15	46 / 31	<i>Suppressed for confidentiality</i>	0 / 100	0 / \$10.8
Alternative 1B	0 / 15	46 / 31	<i>Suppressed for confidentiality</i>	0 / 100	0 / \$10.8
Alternative 2A	0 / 15	46 / 31	<i>Suppressed for confidentiality</i>	0 / 100	0 / \$10.8
Alternative 2B	0 / 15	46 / 31	<i>Suppressed for confidentiality</i>	0 / 100	0 / \$10.8
Alternative 3	15 / 15	31 / 31	<i>Suppressed for confidentiality</i>	100 / 100	\$10.8 / \$10.8
Parkway Alternative	16 / 16	30 / 30	<i>Suppressed for confidentiality</i>	112 / 112	\$11.3 / \$11.3

Cousineau Road to Lennon Drain

There are no businesses located within this segment of the access road. There is currently a 10.9-acre vacant parcel of land, designated commercial, located south of Highway 3 west of Cousineau Road.

Lennon Drain to Pulford Street

There are a total of eight businesses within this segment. Two businesses are located at the intersection of Huron Church Line and Highway 3, three at the southwest corner of Todd Lane and Huron Church Road and three along Huron Church Road south of Pulford Street. The businesses are a mix of commercial, industrial and travel-tourism operations. The businesses located within this segment are:

- LA Collision Auto Service;
- Town and Country Animal;
- Mac's;
- Sand Castle Recreation;
- Fred's Farm Fresh;
- Joe's Woodcraft;
- Tim Horton's; and
- Best Western.

Five businesses are displaced by all access road alternatives. Best Western (hotel), Sand Castle Recreation (private recreation facility), LA Collision Auto Service, Mac's (convenience store), and Town and Country Animal Clinic. In alternatives 1A, 1B, 3 and the Parkway Alternative, two additional businesses are displaced – Tim Hortons and Fred's Farm Fresh (grocery store). Alternatives 2A and 2B both displace one additional business – Joe's Woodcraft (manufactures furniture). As outlined in Table 6, the economic impact for all road alternatives is approximately the same, with a loss of roughly 100 jobs and \$5-\$6 million in assessed property value.

Alternatives 2A and 2B disrupt two businesses – Tim Hortons and Fred's Farm Fresh. The two businesses are disrupted in terms of passing traffic volumes, access and in some cases visibility. The Parkway Alternative has a minor disruption to Joe's Woodcraft in terms of access.

TABLE 6. ESTIMATED ECONOMIC IMPACTS – LENNON DRAIN TO PULFORD STREET

Alternatives	Number of Businesses		Gross Revenues (\$ Millions)	Number of Jobs	Assessed Property Value (\$Millions)
	Displaced	Disrupted	Displaced	Displaced	Displaced
Alternative 1A	7	0	<i>Suppressed for confidentiality</i>	104	\$6.2
Alternative 1B	7	0	<i>Suppressed for confidentiality</i>	104	\$6.2
Alternative 2A	6	2	<i>Suppressed for confidentiality</i>	95	\$5.2
Alternative 2B	6	2	<i>Suppressed for confidentiality</i>	95	\$5.2
Alternative 3	7	0	<i>Suppressed for confidentiality</i>	104	\$6.2
Parkway Alternative	7	1	<i>Suppressed for confidentiality</i>	104	\$6.2

Pulford Street to Malden Road

Twenty businesses were identified within this segment. The businesses are spread along the entire segment of Huron Church Road. Ten of the businesses are located within Lambton Plaza at the southwest corner of Lambton Road and Huron Church Road. The businesses are almost all commercial or travel-tourism oriented. The businesses located within this segment are:

- Montessori (Lambton Plaza);
- C.K. Havana Shop (Lambton Plaza);
- Scholars Choice (Lambton Plaza);
- Outbreak Sportz (Lambton Plaza);
- Second Edition (Lambton Plaza);
- World Source Finan. (Lambton Plaza);
- First Choice Rest. (Lambton Plaza);
- Lily's Nails (Lambton Plaza);
- Gino's Pizza (Lambton Plaza);
- A.C. Soccer (Lambton Plaza);
- Century Fire Equipment;
- Blue Bell Motel & Restaurant;
- Feelgoods Restaurant;
- Comfort Inn;
- Petro Canada;
- Golden Griddle;
- King Kone;
- Garry St. John Auto;
- Euro Tech; and
- Aqua Turf.

The ten businesses located within Lambton Plaza as well as the Golden Griddle (restaurant), the Comfort Inn, Aqua Turf (lawn and garden irrigation) and Euro Tech (auto service) are displaced by all of the access road alternatives. In alternatives 1A and 1B to Plaza B, B1 & C and the Parkway Alternative, all businesses within the segment are displaced, which also include: Century Fire Equipment, Garry St. John (auto service and sales), Blue Bell Motel & Restaurant, Feelgoods (bar/restaurant), King Kone (ice cream stand) and Petro Canada. In alternatives 1A and 1B to Plaza A, all are displaced except for the Blue Bell Motel & Restaurant. In alternatives 2A and 2B to Plaza B, B1 & C, two other businesses are displaced – Century Fire Equipment and the Blue Bell Motel & Restaurant. In the alignment to Plaza A, Century Fire Equipment is displaced. In alternative 3 in alignment with Plaza B, B1 & C, five other businesses are displaced – Garry St. John, Blue Bell Motel & Restaurant, Feelgoods, King Kone and Petro Canada. In the alignment to Plaza A, Feelgoods, King Kone and Petro Canada are displaced. As outlined in Table 7, the economic impact for all road alternatives varies considerably, with a loss of between 85 and 120 jobs and between \$7.1 and 9.4 million in assessed property value.

In alternatives 1A and 1B to Plaza A, the Blue Bell Motel & Restaurant is disrupted in terms of visibility and passing traffic volumes. In alternatives 2A and 2B in alignment with Plaza B, B1 & C, four businesses are disrupted; Garry St. John in terms of access; and Feelgoods, King Kone and Petro Canada in terms of visibility, access and passing traffic volumes. In alternatives 2A and 2B to Plaza A, in addition to Garry St. Johns, Feelgoods, King Kone, Petro Canada, and the Blue Bell Motel & Restaurant are also disrupted in terms of visibility, access and passing traffic volumes. In alternative 3 in alignment with Plaza A, the Blue Bell Motel & Restaurant is disrupted in terms of visibility and passing traffic volumes.

TABLE 7. ESTIMATED ECONOMIC IMPACTS – PULFORD STREET TO MALDEN ROAD

Alternatives	Number of Businesses (Plaza B, B1 & C / Plaza A)		Gross Revenues (\$ Millions) (Plaza B, B1 & C / Plaza A)	Number of Jobs (Plaza B, B1 & C / Plaza A)	Assessed Property Value (\$Millions) (Plaza B, B1 & C / Plaza A)
	Displaced	Disrupted	Displaced	Displaced	Displaced
Alternative 1A	20 / 19	0 / 1	<i>Suppressed for confidentiality</i>	120 / 116	\$9.4 / \$8.8
Alternative 1B	20 / 19	0 / 1	<i>Suppressed for confidentiality</i>	120 / 116	\$9.4 / \$8.8
Alternative 2A	16 / 15	4 / 5	<i>Suppressed for confidentiality</i>	90 / 86	\$7.7 / \$7.1
Alternative 2B	16 / 15	4 / 5	<i>Suppressed for confidentiality</i>	90 / 86	\$7.7 / \$7.1
Alternative 3	19 / 17	0 / 1	<i>Suppressed for confidentiality</i>	114 / 108	\$9.2 / \$8.3
Parkway Alternative	20 / 20	0 / 0	<i>Suppressed for confidentiality</i>	120 / 120	\$9.4 / \$9.4

2.2.3

Implications of Displaced and Disrupted Businesses – Access Road

This section discusses the implications of the displaced and disrupted businesses along the proposed access road. Since there are a number of businesses displaced and disrupted, varying by alternative, the discussion of implications is split between major business types – commercial, industrial, travel-tourism and other. As outlined in section 2.1.1, travel-tourism businesses are those that derive a large portion of their revenue from non-local customers, including hotels/motels, recreational facilities and gas stations. Industrial businesses are those businesses whose primary sources of revenue are manufacturing, trade, and warehouse and distribution. Commercial businesses are businesses whose primary source of revenue is through the sale of a product or service, including most food & beverage and retail establishments, as well as auto shops. All other businesses are categorized as other.

Commercial

A number of commercial businesses along the access road are either displaced or significantly disrupted, varying by the access road alternatives. The economic impact of the displacement of the commercial businesses along the access road, which include Mac’s, Sleep Factory, Fred’s Farm Fresh, Tim Hortons, Golden Griddle, Feelgoods, King Kone, Gary St. John, Euro Tech, L.A. Collision, Alibis Sports Bar and all businesses within the Lambton Plaza, are relatively minor to the economy of the Windsor area. All of these

businesses have the opportunity to relocate to other available locations within or in the vicinity of the ACA. Since the majority of the revenues of these businesses are derived from local customers, relocation to suitable locations would allow these businesses to maintain their current revenue base. For those businesses that do not relocate, the loss of these businesses will be offset through gains by businesses elsewhere in the area. All of the products and services currently supplied by these businesses will be able to be provided by nearby competing businesses.

Many commercial businesses in the area rely to a high degree on local and non-local highway traffic for business, with little to no walk-in traffic. For this reason, associated impacts or disruptions to the volume of passing traffic (local and non-local), access and/or visibility can have significant impacts on a business. In two of the alternatives, Tim Hortons, Alibis, Fred's Farm Fresh, Feelgoods and King Kone are disrupted. Disruptions to passing traffic volumes (especially non-local) access, and visibility would significantly reduce annual revenues.² Access is disrupted, as there is only a limited number of freeway interchanges proposed, and visibility is disrupted as the freeway is entirely below-grade in certain areas.

The impacts to the Windsor Crossing Outlet Mall are addressed separately from other commercial businesses due to the size of the mall in terms of revenues and employment. The Windsor Crossing Outlet Mall, discussed as a single business, is by far the largest business along the access road, employing roughly 300 people.³ In some of the access road alternatives, approximately 15 of the mall's 45 businesses are displaced. The displacement of these businesses is of little overall economic concern, as the mall has both vacant stores and land where the displaced stores could be relocated. In conversation with mall management, Windsor Crossing Outlet Mall has confirmed its intention to move all displaced stores to this available space if necessary. However, the mall has expressed a concern that any net loss of stores may reduce the attractiveness of the mall as a shopping destination.

However, like other commercial businesses along the access road, the disruption to the mall could have a greater impact to the mall and the individual lessees. Windsor Crossing Outlet Mall is disrupted in terms of both access and visibility, which are both of prime importance to the mall and the businesses within. In alternatives 1B, 2B and the Parkway

² A disruption is considered significant in our assessment if it could result in a reduction of 10% or more of annual gross revenues. Changes of this magnitude are significant enough for employment and property values to be affected. Greater than 10% is considered to be a reasonable measure since anything below 10% is at a scale that could be attributable to a general economic cycle.

³ Windsor Crossing Outlet Mall is an income trust, reporting its own earnings and employment as a single business entity. As a carefully planned and managed shopping centre, it is well aware of the employment and revenues of each of the (inter)national chains located within the centre. It also has the opportunity to provide for relocation of displaced businesses in other parts of the shopping centre through expansion. For these reasons, it is appropriate to treat the Windsor Crossing as a single business entity (recognizing that the leases are, in fact, separate businesses within the complex).

the freeway is below grade in the vicinity of the mall affecting visibility. In alternatives 1A and 2A, westbound vehicles may be able to see the outlet mall; however, visibility is still reduced for eastbound vehicles. In Alternative 3, no part of the mall would be visible since the freeway is underground.

There is no freeway interchange in close proximity to the mall, affecting the ease of access for automobiles. The location and design of the service road adjacent to the freeway may also affect the mall and other businesses in terms of visibility and accessibility.

While Windsor Crossing is mostly a destination shopping centre, a large portion of the mall's business is derived from customers making unplanned stops. Without appropriate mitigation, revenues may be reduced as a result of fewer unplanned stops.

Industrial

The industrial businesses displaced along the proposed access road in some of the access road alternatives include Joe's Woodcraft, Aqua Turf, and Century Fire Equipment. The displacement of these businesses would have no economic impact on the Windsor area. Similar to the displaced commercial businesses, the loss of the business would be offset by gains in competing businesses or, since these businesses have no specific locational needs, they can relocate to appropriate locations elsewhere in the Windsor area.

The economic impacts associated with the disruption of industrial businesses, which include Weston Bakery, Philips Tool & Mould, Tyler Hard Chrome, and Dualflex, are also minimal. Due to the nature of industrial businesses, there is little to no reliance on passing traffic volumes, customer access and visibility. These businesses, located at the intersection of Highway 3 and Highway 401, are disrupted in terms of property disturbance and/or trucking access. Neither would have any significant impacts on any of the industrial businesses. Further, proposals are currently being considered that would improve interchange and access in the area of Highway 401 and Highway 3.

Travel-Tourism

There are only six distinct travel-tourism related businesses along the proposed access road. These include three hotel/motels, two gas stations and a recreational facility. All of these businesses are displaced in at least one of the access road alternatives. There will be no negative economic impact associated with the displacement of the hotel/motels. The immediate loss of employment and revenue will be offset by gains by competitors. Windsor had a hotel room occupancy rate of 52.8% in 2006, one of the lowest rates in Canada (*National Market Report 2006*, PFK Consulting). It is estimated that there are approximately 2,000 accommodation rooms in the Windsor area, with the Best Western, Blue Bell Motel and the Comfort Inn accounting for roughly 165 rooms, or 8%. The loss of some of these rooms, depending on the alternative, would improve room occupancy rates in competing hotels as well as the overall occupancy rate in the Windsor area.

The loss of the two gas stations will also have little economic impact. Like other commercial oriented businesses, it is likely that the loss of the business will be offset by gains in competing businesses. However, since a large portion of the two gas station businesses was derived from non-local customers, locations with similar traffic volumes where the gas stations will be able to relocate would be limited only to the proposed new access road interchanges.

Similarly, the Sandcastle Recreation centre (a private facility with various sports amenities), due to its broad customer base and lack of specific locational needs, would be able to relocate in the Windsor area. However, since the Sandcastle Recreation centre is unique, without direct competitors, if it chose not to relocate, the loss of the business would have a negative impact, as few or no other competing businesses stand to gain from the loss.

Petro Canada and the Blue Bell Motel & Restaurant are the only two travel-tourism related businesses to be disrupted in at least one of the access road alternatives. For both, the disruption is related to a decrease in passing traffic volumes, access and visibility. A large portion of their revenue is generated from non-local traffic. The proposed access road will: significantly reduce the amount of passing non-local traffic; limit visibility, since the freeway is either below-grade or tunnelled in the vicinity of these businesses; and affect accessibility, as there are no planned freeway interchanges in the near vicinity. The Blue Bell Motel & Restaurant is currently for sale, making possible a change in business operators or that it may no longer be in operation by the time the access road is complete, changing the economic impacts that might be associated with the access road disruption.

Other

There are only two businesses along the proposed access road that do not fall into the previous categories: Town & Country Animal Clinic is displaced in all access road alternatives; while the Hellenic Banquet Halls is displaced in the Parkway Alternative. Both of the businesses' client bases are relatively broad, ranging over much of the Windsor Area, and have no specific locational needs that would be difficult to meet elsewhere. The businesses could relocate, allowing the business and its economic activity to continue. Additionally, there are a number of other animal clinics and event halls in the Windsor area that would gain from the loss of the businesses if they chose not to relocate.

No "other" businesses are significantly disrupted.

Finally, there is a large vacant parcel of land, designated commercial, located along Highway 3 at the intersection of Cousineau Road. The site is 10.9 acres and is currently listed for \$3.8 million. This property is discussed in detail in the *Existing and Future Land Use Assessment Report*.

Overall Implications

With very few exceptions, the displacement of businesses along the proposed access road will have only a limited economic impact. Despite the immediate loss of jobs and revenue, the loss of businesses will be either offset by gains in other businesses, or the displaced businesses will relocate to other suitable areas, meaning no reasonable expectation of a significant economic loss to the economy of the Windsor area.

The disruption to businesses along the access route will also have only a marginal affect. The majority of all the businesses disrupted rely most heavily on local customers, from either the immediate neighbouring communities, or from the Windsor area. The negative economic impact associated with business disruption is predominately related to the portion of each business' revenues derived from non-local customers. Declines in passing traffic (local and non-local), as well as reduced visibility and/or access as a result of the access route, will result in the loss of some of their customer base. The degree to which they are affected depends on their reliance on non-local traffic and the severity of the disruption. Some mitigation measures, such as signage and advertising, can be taken to offset the negative economic impacts associated with disruptions to businesses along the proposed access road; these will be considered as part of the detailed design of the preferred alternative.

A portion of the losses arising from the decline in out-of-town through traffic and reduced visibility and access could result in net losses to the Windsor area economy (e.g. some through traveller might choose to have lunch in Chatham instead of Windsor). However, relative to the economic activity in this corridor and in the Windsor area, these net losses will be small.

There also exists the opportunity for new businesses to locate in areas adjacent to the new access road corridor, potentially offsetting some of the negative economic impacts associated with business displacement and disruption. Through the diversion of traffic, the new access route will make the service roads and new trail system attractive for use by local traffic, pedestrians and cyclists, creating the potential for new commercial areas on adjacent lands. Furthermore, some of the service roads proposed for the new access road will permit more access to lands currently vacant or under-utilized, creating opportunities for commercial and travel-tourism businesses.

Finally, while there will be little difference in terms of economic impact between access road alternatives, it is recognized that there may be disruptions to businesses (that are not displaced) associated with the construction phase of a new access road. Measures to maintain accessibility to the businesses and limit other disruptions will be addressed in the final engineering and staging plans for the preferred access road.

2.3 Economic Impacts – Plaza-Crossing Combinations

There are four potential plaza and three border crossing locations in the west Windsor industrial area, principally between the Detroit River, Ojibway Parkway and Sandwich Street. Seven potential combinations have been proposed. The following section provides a detailed account of all businesses displaced and disrupted as a result of the plaza-crossing combinations and discusses the implications associated with these impacts.

2.3.1 Summary Economic Impacts – Plaza-Crossing Combinations

The total economic impacts for the seven plaza-crossing alternatives range from almost no economic impact to significant losses of revenue, employment and property values. The range of businesses displaced is between 1 and 6 businesses, loss of employment between 5 and 260 employees, and loss of assessed property values between \$125,000 and \$7.3 million. Table 8 summarizes the economic impacts associated with the plaza-crossing alternatives. The number of businesses disrupted in the plaza-crossing alternatives ranges from 0 to 5.

TABLE 8. SUMMARY TOTAL ECONOMIC IMPACTS – PLAZA-CROSSING ALTERNATIVES

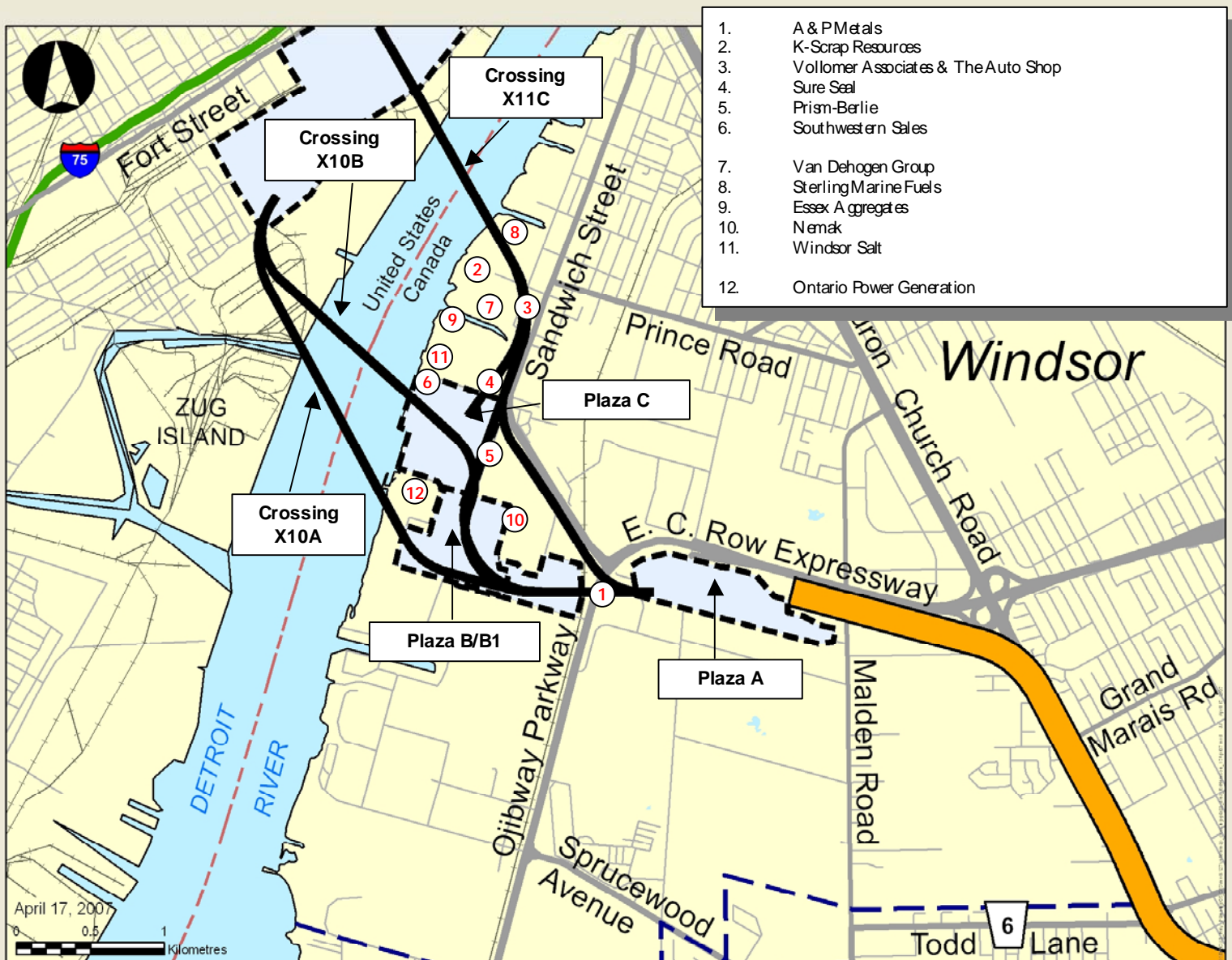
Access Road Alternatives	Number of Businesses Displaced	Number of Businesses Disrupted	Gross Revenues Displaced (\$ Millions)	Number of Jobs Displaced	Assessed Property Value Displaced (\$Millions)
Plaza A-Crossing A	1	0	<i>Suppressed for confidentiality</i>	5	\$0.125
Plaza A-Crossing B	1	1	<i>Suppressed for confidentiality</i>	5	\$0.125
Plaza A-Crossing C (Sandwich-Ojibway)	6	5	<i>Suppressed for confidentiality</i>	260	\$7.1
Plaza A-Crossing C (Sandwich-Broadway)	5	5	<i>Suppressed for confidentiality</i>	252	\$3.9
Plaza B-Crossing C	5	5	<i>Suppressed for confidentiality</i>	252	\$3.9
Plaza B1-Crossing B	1	2	<i>Suppressed for confidentiality</i>	5	\$0.125
Plaza C-Crossing C	5	4	<i>Suppressed for confidentiality</i>	252	\$7.3

2.3.2

Detailed Account of Displaced and Disrupted Businesses – Plaza-Crossing Combinations.

All of the businesses in the proposed plaza-crossing combinations are industrial businesses, ranging from light to heavy industries. These businesses are shown on Exhibit 3.

EXHIBIT 3. BUSINESSES WITH WEST WINDSOR INDUSTRIAL AREA



This section expands on the summary of the economic impacts resulting from the plaza-crossing alternatives within the ACA provided in section 2.3.1 of the report. A detailed account of the economic impacts for each of the seven plaza-crossing alternatives is provided. The economic impacts assessed include the number of businesses, jobs, gross revenues and assessed property value displaced as well as the number of businesses disrupted. This is a quantitative account of economic impacts resulting from the proposed plaza-crossing alternatives; the implications of the economic impacts are addressed in the next section.

The gross revenue data collected or estimated for each of the businesses within the plaza-crossing alternatives within the ACA cannot be published on business-by-business basis due to its sensitive nature and commitments to confidentiality. Additionally, since the number of businesses in each of the plaza-crossing alternatives is small, and, in most cases, varies only by one or two businesses for each alternative, it is possible to ascertain gross revenue data for specific businesses. As a result, gross revenue data is not provided for any of the plaza-crossing alternatives in order to maintain the confidentiality of the information.

There are three operations no longer in business in the area. These are Central Transport, OLCO gas station and Pegasus Express. The former properties of Pegasus and OLCO are displaced and Central Transport disrupted in all combinations that involve Crossing C. In addition, the Ontario Power Generation (OPG) facility is also located in the area. In a number of combinations, the OPG property and its access are disrupted. As mentioned in the report, the OPG facility is not considered a business in this analysis despite the fact that the facility employs a large number of people and generates significant amounts of revenue.

Plaza-Crossing Combination: Plaza A-Crossing A

There is only one business affected in this combination. This is because the crossing and connecting road are located south of most businesses in the west Windsor area, while the plaza is located in a largely vacant residential area south of the E.C. Row Expressway. The business that is affected is A&P Metals, a metal recycling company located close to the proposed customs plaza. The company is displaced as a result of the Matchette Road realignment. The displacement of A&P Metals will result in the loss of a small number of employees, little gross revenue and assessed property value.

Plaza-Crossing Combination: Plaza A-Crossing B

There are only 2 businesses affected in this combination. The crossing and connecting road alignment is such that all businesses are directly avoided, and the plaza is located in a largely vacant residential area south of the E.C. Row Expressway. The only business displaced is A&P Metals, which is located close to the proposed customs plaza and is displaced as a result of the realignment of Matchette Road.

Southwestern Sales Corporation is the only business disrupted. The business distributes and sells construction aggregates and dry-bulk cargos. It is disrupted in terms of property disturbance, as the proposed crossing cuts directly across the middle of the property. It is our understanding that the bridge approach will be sufficiently elevated to allow the continuation of the business operations beneath and abutting the structure. Therefore, the business will experience some disruption from property disturbance, but it will not result in displacement.

Plaza-Crossing Combination: Plaza A-Crossing C

There are 11 businesses affected in this combination. The crossing and the two potential connecting road alignments are located in an area with a variety of industrial businesses. The connecting road alignment that runs along Sandwich Street and Ojibway Parkway, as well as the crossing and plaza, displace a total of 6 businesses. These businesses are K-Scrap Resources (industrial scrap metals), Vollmer & Associates (construction, fabrication and maintenance for various construction projects), The Auto Shop (auto maintenance), Sure Seal (roofing and siding), Prism Berlie (fertilizer production) and A&P Metals. All of the businesses are located along Sandwich Street, with the exception of A&P Metals, which is close to the plaza. If the alternative connecting road which runs along Sandwich Street and Broadway Street is used, the same businesses are displaced, with the exception of Prism Berlie, which is not displaced in this option. As outlined in Table 9, the economic impacts for both options would be a loss of roughly 250 jobs and between \$4-7 million in assessed property value.

The connecting road alignment that runs along Sandwich Street and Ojibway Parkway, as well as the crossing, disrupts five businesses: Sterling Marine Fuels (marine fuelling station), Van Dehogen Group (transportation and warehousing), Essex Aggregates (distribution and sales of various aggregates), Windsor Salt Company (salt manufacturing and processing) and Nemac (auto parts manufacturing). Five businesses are also disrupted if the alternative connecting road is used. They are the same businesses, except Southwest Sales Corporation is disrupted rather than Nemac.

TABLE 9. ESTIMATED ECONOMIC IMPACTS – PLAZA A-CROSSING C

Alternatives	Number of Businesses		Gross Revenues (\$ Millions)	Number of Jobs	Assessed Property Value (\$Millions)
	Displaced	Disrupted	Displaced	Displaced	Displaced
Road Alignment 1 (Sandwich-Ojibway)	6	5	<i>Suppressed for confidentiality</i>	260	\$7.1
Road Alignment 2 (Sandwich-Broadway)	5	5	<i>Suppressed for confidentiality</i>	252	\$3.9

Plaza-Crossing Combination: Plaza B-Crossing C

There are 10 businesses affected in this combination. The crossing, connecting road and plaza are located in an area with a number of industrial businesses. The businesses that are displaced are K-Scrap Resources, Vollmer & Associates, The Auto Shop, Sure Seal and A&P Metals. As outlined in Table 10, the economic impacts would be a loss of approximately 250 jobs and \$3.9 million in assessed property value.

There are five businesses disrupted in terms of either property disruption or access as a result of this combination: Sterling Marine Fuels, Van Dehogen Group, Essex Aggregates, Windsor Salt Company and Nematik.

TABLE 10. ESTIMATED ECONOMIC IMPACTS – PLAZA B-CROSSING C

Alternatives	Number of Businesses		Gross Revenues (\$ Millions)	Number of Jobs	Assessed Property Value (\$Millions)
	Displaced	Disrupted	Displaced	Displaced	Displaced
Plaza B – Crossing C	5	5	<i>Suppressed for confidentiality</i>	252	\$3.9

Plaza-Crossing Combination: Plaza B1-Crossing B

There is only one business displaced in this combination. The crossing and connecting road alignment is such that all businesses are directly avoided, and the plaza is located in a largely vacant residential area south of the E.C. Row Expressway. The only business displaced is A&P Metals, which is displaced as a result of the freeway connection to the plaza.

Southwestern Sales Corporation and Nematik are the only businesses disrupted. Both are affected in terms of property disturbance.

Plaza-Crossing Combination: Plaza C-Crossing C

There are five businesses displaced in this combination: K-Scrap Resources, Vollmer & Associates, The Auto Shop, Southwestern Sales and A&P Metals. All of the businesses are located along Sandwich Street, with the exception of A&P Metals, which is displaced as a result of the freeway connection to the plaza. The economic impacts are larger than any of the other plaza-crossing combinations, due primarily to the size of some of the businesses displaced: Vollmer & Associates, K-Scrap and Southwestern Sales. As outlined in the Table 11, the economic impact would be a loss of 252 jobs and \$7.3 million in assessed property value.

There are four businesses disrupted as a result of this combination: Sterling Marine Fuels, Van Dehogen Group, Essex Aggregates, and Windsor Salt Company.

TABLE 11. ESTIMATED ECONOMIC IMPACTS – PLAZA C-CROSSING C

Alternatives	Number of Businesses		Gross Revenues (\$ Millions)	Number of Jobs	Assessed Property Value (\$Millions)
	Displaced	Disrupted	Displaced	Displaced	Displaced
Plaza C – Crossing C	5	4	<i>Suppressed for confidentiality</i>	252	\$7.3

2.3.3 Implications of Displaced & Disrupted Businesses – Plaza-Crossing Combinations

This section discusses the implications of the businesses that are displaced and significantly disrupted within the proposed plaza-crossing combinations. Since the number of businesses displaced and disrupted is relatively low, the implications are discussed on a business-by-business basis.

Displaced

- **A & P Metals** is displaced in all plaza-crossing combinations as a result of the rerouting of Matchette Road or the routing of the proposed access road. The loss of the business and the service it provides would be minimal to the Windsor area economy, as it would be offset by gains in competing businesses in the Windsor area. Further, the business does not have any specific locational needs beyond a suitably zoned industrial site, and therefore would be able to relocate to another area that permits such activities.

- **K-Scrap Resources** is displaced in three of the plaza-crossing combinations (Plaza A–Crossing C; Plaza B–Crossing C; and, Plaza C–Crossing C) as a result of the alignment of Crossing C. Similar to A&P Metals, the loss of the business and the service provided would have very little impact to the Windsor area economy since such loss would be offset by gains in another business within the Windsor area. Additionally, since the business does not have any specific locational needs that would limit it to its current location, K-Scrap Resources could relocate to another industrial area in Windsor.

- **Vollmer & Associates** is displaced in three of the plaza-crossing combinations (Plaza A–Crossing C; Plaza B–Crossing C; and, Plaza C–Crossing C) as a result of the alignment of Crossing C. Vollmer & Associates has only a limited number of competitors in the Windsor area and is relatively large in terms of employment and the physical size of the operation. As a result, if Vollmer & Associates were not to relocate, it is unlikely that existing competitors would be able to absorb all of Vollmer’s business, and as a result some business would be lost to businesses outside of the Windsor area. However, since the business does not have any specific locational needs, it could relocate to a number of large vacant industrial sites within the Windsor area.

- **The Auto Shop** is displaced in three of the plaza-crossing combinations (Plaza A–Crossing C; Plaza B–Crossing C; and, Plaza C–Crossing C) as a result of the alignment of Crossing C. The Auto Shop is owned by Vollmer & Associates and is housed in the same facility. The displacement of the Auto Shop would have no overall economic impact to the Windsor economy as the business could be relocated or the loss offset by gains in one of the many auto service centres in the Windsor area.

- **Sure Seal** is displaced in three of the plaza-crossing combinations (Plaza A–Crossing C; Plaza B–Crossing C; and, Plaza C–Crossing C) as a result of the alignment of the connecting roadway between Crossing C and the various plazas. The displacement of Sure Seal would not be economically significant as the business could be relocated or the loss offset by gains in other businesses in the Windsor area that are involved in home construction and renovation.

- **Prism Berlie** is displaced in three of the plaza-crossing combinations (Plaza A–Crossing C; Plaza B–Crossing C; and, Plaza C–Crossing C) as a result of the alignment of the connecting ramp between Crossing C and the various plazas. Prism Berlie is under contract by the City of Windsor to convert local sludge from the City’s two water treatment plants to fertilizer. Prism Berlie is a unique business in that it is a public-private partnership with the City of Windsor which requires the facility to be in close proximity to the two sewage treatment facilities. Therefore, it can be assumed that if Prism Berlie were to be displaced, it would not cease operation and would almost certainly relocate to another area. Since the sludge is shipped by truck, the operation could relocate in the Windsor area; however, possible areas for the business to relocate are limited due to the nature of the operation.

- **Southwestern Sales** is displaced in Plaza C-Crossing C combination due to the location of the plaza. The loss of Southwest Sales would be offset by gains in competing businesses within the Windsor-Essex Area, such as Essex Aggregates and Lefarge. However, while the loss of the business could be offset, the relocation of the business would not be easy as it has a

specific locational requirement in its need for water access. There are only a limited number of sites, some already owned by Southwestern Sales, in the Windsor area where the operation could move.

Disrupted

The businesses within west Windsor are industrial in character and have little to no reliance on passing traffic volumes, or the need for good access and visibility. Since most businesses are involved in manufacturing, distribution and storage, disruptions resulting from the plaza-crossing combinations in this area relate primarily to physical property disruption or disruption to employees and trucks accessing the business.

For almost every business disrupted in the west Windsor industrial area, the economic impacts of these disruptions are small. That is, the businesses could continue to operate in virtually the same manner as before with no impact on employment and revenues and with little or no impacts on property values. Some of the businesses disrupted, including Southwest Sales, Sterling Marine Fuels, Essex Aggregates, Namac and Windsor Salt Company, are very large operations in terms of employment, revenues and physical size, and have very specific locational needs, i.e. large parcels of land and/or water access. The location and alignment of the plaza-crossing combinations allows for these businesses to carry on operation with minimal disruption.

It is estimated that only one business in the west Windsor industrial area is significantly disrupted. A disruption is considered significant in the assessment if, in our view, it could result in a reduction of 10% or more of annual gross revenues. Changes of this magnitude are sufficient that employment and property values could be affected. Greater than 10% is considered to be a reasonable measure since anything below 10% can be attributed to a general economic cycle.

The Van Dehogen Group is disrupted in combinations Plaza A-Crossing C, Plaza B-Crossing C and Plaza C-Crossing C. The disruption includes property disturbance, resulting in the displacement of a storage and truck parking facility. It is possible that both could be relocated elsewhere on the Van Dehogen property or to other available property in close proximity.

The Ontario Power Generation facility is not considered a business for the purposes of this analysis. However, it should be noted that the facility is disrupted in a number of the plaza-crossing combinations. The disruptions range from very minor access issues to significant property disruptions. All of the combinations have been designed to ensure that the facility is disrupted as little as possible and can continue to operate in the same manner. All impacts to the facility are to be mitigated as much as possible in the final detailed design of the chosen plaza-crossing alternative.

Overall Implications

The economic impacts associated with the businesses displaced within the west Windsor industrial area range by the various plaza-crossing alternatives. With only a few exceptions, the business displacements would have little impact on the Windsor economy due to either the loss of the business being offset by gains by competitors, or by the possibility for the business to relocate in the Windsor area. The only exceptions to this are Southwestern Sales due to its need for water access, Vollmer & Associates due to the scale of the operation, and to a lesser degree, Prism Berlie due to the unique nature of the operation and the limited number of sites suitable for it to relocate to.

The economic impacts associated with the disrupted businesses in the west Windsor area are minor due to the current design of the plaza-crossing alternatives and the nature of the businesses. With the exception of the Van Dehogen Group, all businesses in the west Windsor area are able to operate in the same manner with little to no impact on revenues, employment and property values.

Similar to the construction of the access road, there will be some negative economic impacts associated with the construction of the plaza and border crossing. However, due to the nature of the businesses in the west Windsor area, the economic impacts will be minor. Construction of the plaza and new border crossing will reduce the amount of traffic in the area and limit access to some businesses. These factors are likely to be of little concern to the primarily industrial businesses in west Windsor. Measures to limit disruptions associated with construction will be addressed in the final engineering and staging plans of the preferred plaza-crossing alternative.

The next chapter looks at the economic impacts and implications beyond the ACA associated with a new border crossing and access road.

3. Economic Impacts beyond the ACA

This section provides a detailed description of the economic impacts beyond the ACA associated with the proposed access road alternatives and proposed plaza-crossing locations. The section begins with a description of the specific methodology used.

3.1 Methodology

The methodology for completing the associated economic impact assessment beyond the ACA refers to the type of information collected, the methods used to collect it and all underlying assumptions and limitations, recognizing that such impacts are limited in scope.

3.1.1 Information Collected

Economic impacts beyond the ACA were assessed for: Huron Church Road north of E.C. Row Expressway, businesses outside the ACA, and the broader geographic area. Huron Church Road north of the E.C. Row Expressway was singled out due to the nature of the businesses in the area and its historic role as the approach to the Ambassador Bridge border crossing. It was felt that the area could potentially experience the most significant economic impacts associated with the new border crossing and access road outside of the ACA.

Where information collection was warranted for these two areas, the reliance is on published material and knowledge of the broader economic context in the community as well as general field surveys of the areas. Effects in these areas are so widely dispersed that no more specific data collection would be helpful to the analysis or conclusions.

The area where specific data collection is warranted, however, was on Huron Church Road, north of E.C. Row. Because of the direct effect on traffic patterns in the area, this is the only identified area outside of the ACA itself, where economic impacts might be sufficiently concentrated, that original data collection is appropriate.

In Phase 1 of the DRIC process, the economic impact assessment used field surveys to count and identify the businesses on Huron Church Road, north of E.C. Row, when this corridor was considered among the list of illustrative alternatives. This information was then used as a starting point for considering associated impacts in this area. The principal method of additional data collection has been through the administration of surveys to selected businesses located along Huron Church Road, north of E.C. Row. The surveys were the same as the surveys used for businesses within the ACA along the access road, with some questions eliminated in order to reflect the nature of the impacts. The surveys collected both quantitative and qualitative information and were intended to provide a

detailed overview of each particular business, their customer base and their relationship to the existing highway corridor.

The businesses selected for the survey were those that were identified as having a potential consequential effect caused by the change in traffic patterns and volumes on Huron Church Road as a result of a new crossing. These businesses are primarily those serving a travel and tourism market or providing services of interest to those using the international crossing. Those identified as having a potential for impact were gas stations, restaurants and accommodation services.

As necessary, other sources of information that were used to assess the economic impacts on Huron Church Road, north of E.C. Row, included municipal business directories, municipal assessment offices, traffic forecasts, discussions with local business owners and field analysis. Provided below is a list of the key information/data collected and the source of such data.

- **Type of Business** – Attained through businesses surveys, business directories and field analysis.
 - Commercial – businesses whose primary source of revenue is through the sale of a product or service. In the case of the businesses assessed, this primarily relates to retail and food & beverage establishments, as well as such businesses as gas stations, auto shops, and financial institutions.
 - Industrial – businesses whose primary sources of revenue are manufacturing, trade, and warehouse and distribution.
 - Travel-Tourism – commercial businesses that derive a large portion of their revenue from non-local customers. This includes hotels, recreational facilities, truck stops and specific tourist destinations, such as the Windsor Casino.
- **Employment** – typical full employment of a business. Measured as 1 job for each full-time employee and 0.5 jobs for each part-time or seasonal employee. Where employment is entirely seasonal, the number of employees when the business is in operation was considered. This information was attained through business surveys and business directories.
- **Revenue** – total gross revenue of a business accrued in an average year. This information was attained through business surveys and business directories.

- **Customer Profile** – both the place of origin (local or non-local) and the type (individuals and/or corporate). Attained through businesses surveys, business directories, discussions with business owners/employees and field analysis.
- **Transportation Profile** – how customers, employees and suppliers travel to and from the business, as well as the degree of reliance of the business on passing traffic volumes. This information was attained through business surveys, discussions with business owners/employees and field analysis.

In addition to the collection of data, the qualitative nature of this analysis was greatly assisted by discussions with various businesses in the corridor and surrounding areas. This included meetings with the Huron Church business association as well as the various public information open houses. These informal discussions provided a good basis to identify where and in which businesses some associated impacts are likely to occur.

3.1.2 Assumptions and Limitations

Among the businesses selected for survey on Huron Church Road, north of E.C. Row, the interest level was quite low. A selection of businesses was sent a copy of the survey and was contacted one or more times thereafter. Despite these efforts, the response rate was only 3 of 19 surveyed, or 16%. The low response rate can be attributed to the fact that the majority of the businesses surveyed are outlets or franchises of large national and multi-national companies where all communications must go through head office; such companies tend to be less willing to divulge sensitive data. Unfortunately, as a result of the low response rate, the results of the survey are of a limited analytical value, but, in conjunction with the various conversations with business owners throughout the process, did provide some useful insight.

3.2 Economic Impacts beyond the ACA

This section examines the economic impacts on businesses and economic activity beyond the Area of Continued Analysis. For analysis, economic impacts can be split into industry categories: commercial, industrial and travel-tourism. Factors similar to those considered for economic impacts within the ACA, such as revenues and employment, as well as opportunities for current and future development are considered where appropriate.

There are two critical distinctions between economic impacts within the ACA, addressed in the previous section of the report, and economic impacts beyond the ACA addressed in this section:

- Economic impacts beyond the ACA are very different in nature from those within the ACA. Unlike business displacement and disruption, such impacts cannot be specifically mapped or counted. Because they are associated impacts, the linkage between the access road alternatives and business activities is, by definition, far less traceable, more widely dispersed and typically much smaller than any of the impacts within the ACA. As a result, the approach to considering economic impacts beyond the ACA is less quantitative and more a matter of identifying where and to what types of businesses some impacts may occur.
- The purpose of this report is to assist in choosing a preferred alternative from among the identified practical alternatives within the ACA. Because the economic impacts are in areas outside of the ACA, these impacts do not assist in distinguishing between the alternatives. For example, north of E.C. Row on Huron Church Road, the impact of interest is the diversion of traffic to the new crossing; it is of little consequence in this area whether the traffic diversion occurs on a surface or depressed access road or on which side the service roads are located.

Therefore, the economic impacts beyond the ACA that assist in decision-making between the practical alternatives within the ACA are limited in scope and less quantitative in nature. However, the overall effects of building a new crossing and access road remain of interest to the overall DRIC study process and, to assist in that overall consideration, are generally addressed in this section.

3.2.1

Huron Church Road North of E.C. Row Expressway

The businesses on Huron Church Road north of E.C. Row are expected to experience some economic impacts as a result of the new traffic patterns associated with a new crossing and access road. These effects are not expected to differ in any consequential way between the practical alternatives being assessed in this report — the same effects, both positive and negative, would arise in this area in response to any of the practical alternatives under analysis.

For the overall DRIC study, however, there remains an interest in the economic effects to the businesses along Huron Church Road, north of E.C. Row, of constructing a new crossing and access road. There are two types of businesses in the corridor, each with its own profile for economic impact:

- Commercial and travel-tourism related businesses. Those businesses rely, in some significant measure, on non-local traffic using the existing bridge crossing. These include restaurants, gas stations, accommodation, and certain retail outlets. These comprise the 19 identified businesses approached to provide survey information.
- The remaining businesses are the other commercial businesses and a small number of industrial businesses in the corridor that do not, in a significant way, rely on passing bridge-related traffic for sales. There are a total of 46 businesses of this type. None were approached for the purposes of the survey.

The following table provides the names of the commercial and travel-tourism related businesses approached to provide survey information.

TABLE 12. BUSINESSES CONTACTED ALONG HURON CHURCH ROAD, NORTH OF E.C. ROW EXPRESSWAY

Businesses Surveyed
Travelodge Windsor Ambassador Bridge
Ambassador Motel
Super 8 Motel
Sunoco Energy Products
Harvey's
Holiday Inn Select
Econo Lodge Motel
Hampton Inn & Suites
Tim Hortons
KFC
Dairy Queen
Pizza Hut
Taco Bell
Arby's
Pharma Plus
Swiss Chalet
Wendy's
Shell
McDonald's

For those businesses relying in some measure on passing non-local traffic, the anticipated traffic counts are the best basis for considering the possible scale of the impact of the diversion of traffic to a new crossing and access road. Tables 13 and 14 provide the forecast traffic counts for automobiles and trucks in this section of Huron Church Road:

TABLE 13. FORECAST AUTOMOBILE COUNTS BY ORIGIN ON HURON CHURCH ROAD, NORTH OF E.C. ROW WITH NEW CROSSING IN WEST WINDSOR INDUSTRIAL AREA

Year	Local Automobiles	International Automobiles	Total Automobiles
2004	36,740	9,880	46,620
2015	50,350	7,870	58,220
2025	51,910	8,220	60,130
2035	53,050	8,480	61,530

Note: Forecasts are for both north- and southbound traffic between Malden Road and Totten Road/Prince Road, taking into account the construction of a new access road and border crossing in the west Windsor area.

TABLE 14. FORECAST TRUCK COUNTS BY ORIGIN ON HURON CHURCH ROAD, NORTH OF E.C. ROW WITH NEW CROSSING IN WEST WINDSOR INDUSTRIAL AREA

Year	Local Trucks	International Trucks	Total Trucks
2004	1,140	9,360	10,500
2015	1,530	2,120	3,660
2025	1,630	2,400	4,030
2035	1,710	2,950	4,640

Note: Forecasts are for both north- and southbound traffic between Malden Road and Totten Road/Prince Road, taking into account the construction of a new access road and border crossing in the west Windsor area. Totals may not add due to rounding.

The traffic forecasts indicate a decline in passing international automobile traffic after completion of the new crossing (assumed to be completed by 2014), but recovering somewhat later in the forecast period. Local automobile traffic increases throughout the forecast period, more than compensating for the loss of international automobile traffic. International truck traffic decreases significantly as a result of the new crossing and access road, while local truck traffic increases marginally over the forecast period.

Based on the traffic forecasts, associated economic impacts of the new plaza-crossing and access roads on businesses located along Huron Church Road, north of E.C. Row, are as follows:

- The primary traffic diversion is that of trucks. The loss of truck traffic is perceived as an opportunity and advantage to nearly all of the businesses in this corridor. Current congestion and very large volumes of truck traffic are a disincentive to some local traffic for commercial journeys. This was confirmed in discussions with a number of business owners in the area as well as local residents, many of whom often avoid the area because of congestion. The decline in truck traffic will improve the attractiveness for these local trips and will therefore result in increased revenues from this segment of the market. While this effect cannot reasonably be measured or forecast, Huron Church Road will become a more attractive place to shop. This, for local consumers, will at least partially compensate for any business losses that might arise in this area as a result of the new crossing and access road⁴.

- Based on the (limited) survey results and discussions with business owners in the area, as well as survey results of similar businesses within the ACA, it is estimated that among the businesses relying on passing international traffic, roughly 15% to 25% of business activity is dependent on such traffic.

- Based upon the business surveys and discussions with business owners, as well as first-hand observations, the businesses in this corridor have almost no reliance on truck traffic. In fact, most of these businesses cannot physically accommodate large trucks in their parking areas.

- Loss of international automobile traffic on this section of Huron Church is likely to be more than balanced by increased opportunities for sales to local traffic. The balance between the two cannot be precisely measured; however, an example will demonstrate how such a balancing of economic activity might occur. Declines in international automobile traffic at their greatest would be down approximately 20% in 2015 from 2004. *If this translated to a proportionate loss in business* and applied to the greatest reliance on international traffic at 25% of revenues, the effect on business would be a total decrease of about 5%. *If sales were likewise tied to local automobile traffic*, the 37% increase in local automobile traffic applied to the 75% of businesses that rely on local business, would mean an increase in sales of 28% over the same time frame. While every business has its own specific characteristics so sales will not move in lock step with traffic, it can be concluded that the effect on businesses from the loss of international car traffic in this corridor is not likely to be significant, given the potential opportunities that may be offered by the increased local use of Huron Church.

⁴ While all other types of direct and indirect impacts assessed in this report are cited in studies in other locations, this particular effect in Windsor has little comparison elsewhere. Hemson was unable to find comparisons with the unique characteristics of Huron Church as an international truck route and the dramatic change that would result from the new crossing.

Based on this analysis, there is no expectation of significant economic losses to the businesses along Huron Church Road corridor as a result of the new access road and plaza-crossing alternatives.

For the businesses in this corridor that were not identified as having a reliance on passing international automobile traffic, the effect of the new crossing will present opportunities and advantages to increase business activity as a result of the diversion of truck traffic and the greater attractiveness of the street for local trips. As above, this effect cannot reasonably be measured or forecast, but must be recognized as a positive economic impact for businesses in this area.

3.2.2 Other Businesses Beyond the ACA

Other businesses outside the ACA will also have associated economic impacts related to the new plaza-crossing and access road. Like Huron Church Road, these overall effects are not expected to differ in any consequential way between the practical alternatives being assessed in this report — similar overall effects, both positive and negative, would arise in this area in response to any of the alternatives under analysis.

There would be two types of economic impacts in this broader area: effects arising from the displacement or disruption to businesses within the ACA; and effects on businesses arising from increased accessibility to and within this part of Windsor.

The economic impacts associated with the alternatives were identified earlier in this report. Of the businesses displaced and disrupted within the ACA, very few are likely to be overall losses to the economy of the Windsor area. This is because business activity lost within the corridor is likely to be largely reflected in increases in activity in similar business outside of the ACA — the displacement of a restaurant within the corridor means either other similar establishments in the area will pick up the trade or the business itself will relocate. In either case, there is no significant net loss in overall economic activity. These economic effects are measured as the compensating positive associated economic effect of the economic impacts within the ACA, identified elsewhere in the report.

The increase in accessibility in the vicinity of the ACA has the greatest economic advantage to the businesses located within the industrial parks in this area, as well as other business parks in the Greater Windsor Area. Industrial businesses in business parks located close to and partially inside the ACA, such as the Ambassador Industrial Park, Howard Business Park, and the Del Duca Industrial Park, will be positively affected. This will be due to an improved transportation network, less traffic congestion as a result of reduced local and border-related traffic congestion, and increased highway capacity. There is a cost to existing businesses of the current congested road system. Reduction in this congestion will therefore translate into an economic benefit.

Additionally, there is likely to be increased interest from new industrial businesses to locate in these, and other, areas due to the improved transportation network and ease of access to the U.S. Access to major transportation infrastructure, such as highways and border crossings, is among the most important factors affecting the location and success of business parks. In fact, most municipalities in Southern Ontario cite the importance of having good transportation access in their Official Plans and economic development strategies. While there are numerous other factors affecting development within a business park, such as market demand and workforce availability, any transportation improvement will make business parks more attractive to future development.

Like the industrial users, the economic impacts on commercial and tourism-travel related businesses and future development opportunities outside of the ACA will be positive. Due to the speed and ease of travel to the border, the new access road and border crossing will result in a significant increase in non-local residents traveling into and out of Windsor. This will increase business at certain commercial and travel-related businesses, such as hotels and restaurants. At the same time, it will also result in significant reduction in traffic, especially truck, congestion on local streets making some businesses more accessible to local and non-local residents. However, some of the positive impacts of more people traveling into and out of the Windsor area may be offset, as it is less likely that non-local travelers will make unplanned stops.

The Windsor Casino should be individually recognized in this discussion. It is one of Windsor's largest employers and relies to a great degree for its clientele on people from the Detroit metropolitan area. More recently, the Casino has had competition from new casinos in Michigan. Improved ease of border crossing will be critical to the Casino remaining competitive in this increasingly competitive business.

3.2.3 The Broader Geographic Area

While there is no difference among the alternatives, it is important to recognize that there are broader economic effects associated with the DRIC project. The impact the new border crossing will have on economic activity in the broader geographic area will be significant and entirely positive.

From a trade perspective, international exports account for \$225 billion in Provincial GDP; this represents over 40% of Ontario's Gross Domestic Product (GDP). It is estimated that the Windsor CMA accounts for over 3%, or \$7.5 billion, of the Province's international export GDP. Given the economies of scale, any improvement to the speed and efficiency of goods and services crossing the border will have a tremendous impact on the economies of both Ontario and the Windsor-Essex region. This expected improvement in trade would benefit numerous industrial businesses, increasing gross revenues and employment. Furthermore, there would be much greater opportunity for future industrial development along the 401 corridor.

For commercial and tourism-travel related businesses, the benefits will also be positive. Principally, the new border crossing and highway connection will increase the speed and ease of travel for people, thus increasing the number of people traveling through the Windsor-Essex region and Southern Ontario. This will in turn enhance business and future opportunities for numerous commercial and tourism-travel related businesses in these areas, especially along Highway 401, such as hotel/motels, restaurants, gas stations, retail stores, and tourist attractions. The improved movement of goods will also positively affect these businesses, as supplies will be able to be transported more quickly and efficiently.

The actual construction of the proposed access road and plaza-crossing will also have significant economic impacts on the region and the Province. The cost of construction is estimated to range between \$1.5 billion and \$5.4 billion (2011 dollars) depending on the chosen access road and plaza/crossing combination. Using the Statistics Canada input-output multiplier for major transportation investments, it is estimated that the construction of the crossing, plaza and access road will result in between 11,000 and 42,000 new direct and indirect person years of employment in Ontario during construction.

The Ministry of Transportation has estimated that the construction of the \$1.6 billion Parkway alone could provide 12,000 person years of Ontario employment with positive direct and indirect GDP benefits of approximately \$800 million.⁵ It is also anticipated that two thirds of the newly created jobs would be located in the in the Windsor region.

An improved border crossing and access road in Windsor will have positive economic impacts for businesses beyond the ACA and for economic activity in the broader geographic area.

⁵ Based on Letter prepared by the Ministry of Transportation included in Appendix B.

4.

Conclusions

There are six principal conclusions related to the economic impact assessment of the proposed new plaza-crossing and access road:

- 1) Business losses due to displacement and disruption in the ACA are not net losses to the economy. A very large proportion of the economic activity lost because of displacement or disruption could be accommodated by the relocation of the affected businesses or the absorption of the business activity by existing businesses in the vicinity of the ACA.
- 2) Local economic impacts associated with business disruption are predominately related to losses in revenue associated with non-local customers. This is largely due to reduced visibility and/or access as a result of the access route. Some mitigation measures, such as signage and advertising, can be taken to offset the negative economic impacts associated with disruptions to businesses; these will be considered as part of the detailed design phase.
- 3) Alternative 2A alignment Option 1 has the least business displacements and a limited degree of disruption associated with visibility and access, since the access road is at-grade rather than below-grade or tunneled. Plaza A-Crossing A has the least business displacements and disruptions.
- 4) The access road and plaza-crossing combinations with the greatest combined effect on individual businesses is access road Alternative 3 and Plaza C-Crossing C. These alternatives displace a large number of businesses, and, in the case of the access road, have a high degree of disruption associated with visibility and access, since the access road is underground. Parkway Alternative displaces the greatest number of businesses of any alternative. However, since businesses that would be disrupted under other alternatives are displaced under the Parkway Alternative, the Parkway disrupts the fewest businesses among the alternatives.
- 5) Economic impacts to the Huron Church corridor, north of E.C. Row, will be largely positive. Some businesses will have limited losses associated with the diversion of traffic to the new crossing. Such loss of economic activity would be made up elsewhere in the Windsor area economy. Businesses in this corridor have a significant opportunity to increase business activity, as the diversion of truck traffic will enhance the attractiveness of the location for local consumers.
- 6) There are economic benefits to businesses and economies outside the ACA. These associated gains include the longterm benefits associated with the improved transportation network and reduced vehicle congestion. Additionally, there will be

significant shortterm benefits associated with the construction of the access road and border crossing. These benefits vary based on the cost of the project, but it is estimated that the construction of the access road, plaza and border crossing will create between 11,000 and 42,000 person years of Ontario employment.

This report has provided a detailed account of the economic impacts to businesses both within and outside the ACA. The findings of this report will be used as input for choosing a preferred access road alternative and plaza-crossing combination. Options for mitigating the negative economic impacts associated with declines in passing traffic volumes and reduced visibility and access resulting from the preferred alternative will be considered. Opportunities to enhance access, visibility and signage will be part of the overall design of the new access road alternative and plaza-crossing combination.

APPENDIX A
BUSINESS SURVEYS

This information is being collected for the Detroit River International Crossing Environmental Assessment, to be used in the assessment of route and crossing alternatives. Be assured that all information and results will be kept strictly confidential as outlined in the *Freedom of Information and Protection of Privacy Act*.

**DETROIT RIVER INTERNATIONAL CROSSING
ENVIRONMENTAL ASSESSMENT
ECONOMIC IMPACT ANALYSIS QUESTIONNAIRE
WEST WINDSOR BUSINESS COMMUNITY**

PART A: IDENTIFICATION

Company Name: _____

Address: _____

Contact Person: _____

Phone #: _____ Fax # _____ Email: _____

Website: _____

PART B: NATURE OF YOUR BUSINESS

1. First, would you briefly describe the nature of your business. Specifically, what types of goods and services do you provide?

2. How long has the business been operating?

Under present owner _____ years.

Under previous owner _____ years.

3. Including yourself, how many people do you employ?

Full-time: _____ Part-time: _____ Seasonal: _____

This information is being collected for the Detroit River International Crossing Environmental Assessment, to be used in the assessment of route and crossing alternatives. Be assured that all information and results will be kept strictly confidential as outlined in the *Freedom of Information and Protection of Privacy Act*.

4. Have you recently made any physical improvements or expanded your business? If **YES**, please describe.

5. What, if any, plans do you have for changing or expanding your business over the next five years or so?

6. What changes have you noticed in your business over the last 5 to 10 years? (in terms of: type of customers, volume of business, national/international trends, etc.)

PART C: PROFILE OF YOUR CUSTOMERS & SUPPLIERS

7. Please describe the characteristics of your customers and suppliers (e.g. location, type of business, etc)

This information is being collected for the Detroit River International Crossing Environmental Assessment, to be used in the assessment of route and crossing alternatives. Be assured that all information and results will be kept strictly confidential as outlined in the *Freedom of Information and Protection of Privacy Act*.

8. What share of your business revenues are from:

Local Customers (Greater Windsor Area) _____ %
 Regional Customers (Southwest Ontario) _____ %
 Rest of Ontario & Canada _____ %
 United States _____ %
 Other International _____ %

9. What is the primary mode of transportation for customers and suppliers to access your business?

Customers

Suppliers

Automobile	_____ %	Automobile	_____ %
Transport truck	_____ %	Transport truck	_____ %
Small Truck or Van	_____ %	Small Truck or Van	_____ %
Rail	_____ %	Rail	_____ %

10. Approximately how much of your business comes from the United States?
 _____ %

11. Of your U. S. customers or suppliers, approximately what share is from Michigan?
 _____ %

12. Briefly describe the primary transportation route for your customers and suppliers to access your business (please list the names of all roads and highways)

PART D: ROLE OF LOCAL ROAD AND HIGHWAY SYSTEM

13. How important is it for your business to have direct access to a local road or highway?

Very _____
 Somewhat _____
 Not important _____

Please explain:

This information is being collected for the Detroit River International Crossing Environmental Assessment, to be used in the assessment of route and crossing alternatives. Be assured that all information and results will be kept strictly confidential as outlined in the *Freedom of Information and Protection of Privacy Act*.

14. Do you have any dependence on drive-by traffic on the local road or highway system

Yes _____
No _____
Not Sure _____

15. What share of your total annual gross revenue depends on drive-by traffic using the local road or highway network _____ %

Please explain:

16. How important is it for your business to have access to, or be near, a border crossing to the U.S.

Very _____
Somewhat _____
Not important _____

17. What effect, if any, does your location near an existing or future border crossing have on your business?

18. What were the approximate gross revenues of your business last year? _____.
Please remember that the results of this survey are kept in the strictest of confidence.

19. What changes to your business, if any, would you make, assuming a major access road to a new international crossing is constructed in the West Windsor area?

This information is being collected for the Detroit River International Crossing Environmental Assessment, to be used in the assessment of route and crossing alternatives. Be assured that all information and results will be kept strictly confidential as outlined in the *Freedom of Information and Protection of Privacy Act*.

20. Do you have any further comments that would assist us in evaluating the economic impact of a new international border crossing with the highway connection to the existing Highway 401?

Thank you for taking the time to complete this questionnaire. It is greatly appreciated.

If you have any questions or concerns regarding this survey please call Andrew Sjogren, collect, at Hemson Consulting Ltd. (416) 593-5090.

This information is being collected for the Detroit River International Crossing Environmental Assessment, to be used in the assessment of route and crossing alternatives. Be assured that all information and results will be kept strictly confidential as outlined in the *Freedom of Information and Protection of Privacy Act*.

**DETROIT RIVER INTERNATIONAL CROSSING
ENVIRONMENTAL ASSESSMENT
ECONOMIC IMPACT ANALYSIS QUESTIONNAIRE
HURON CHURCH/TALBOT BUSINESS COMMUNITY**

PART A: IDENTIFICATION

Company Name: _____

Address: _____

Contact Person: _____

Phone #: _____ Fax # _____ Email: _____

Website: _____

Ownership: Lease: _____ Own: _____

PART B: NATURE OF YOUR BUSINESS

1. First, would you briefly describe the nature of your business. Specifically, what types of goods and services do you sell?

2. How long has the business been operating?

At present location _____ years
Under present owner _____ years.
Under previous owner _____ years.

3. Including yourself, how many people do you employ?

Full-time: _____ Part-time: _____ Seasonal: _____ Total: _____

This information is being collected for the Detroit River International Crossing Environmental Assessment, to be used in the assessment of route and crossing alternatives. Be assured that all information and results will be kept strictly confidential as outlined in the *Freedom of Information and Protection of Privacy Act*.

4. Have you made physical improvements or expanded your business in the past five or so years? If **YES**, please describe.

5. What, if any, plans do you have changing or expanding your business over the next five years or so?

6. What trends or changes have you noticed in your business over the last 5 to 10 years? (in terms of: car and truck traffic, boarder crossings, local vs. non-local customers.)

PART C: PROFILE OF YOUR CUSTOMERS

7. Please describe the main character of your customers (e.g. local residents, commuters on the way to work, local trades people/renovators, etc.).

Local Residents: _____ Commuters: _____ Cdn. Industry: _____
Tourists: _____ US Residents: _____ US Businesses: _____
Truck Operators: _____ Other: _____

This information is being collected for the Detroit River International Crossing Environmental Assessment, to be used in the assessment of route and crossing alternatives. Be assured that all information and results will be kept strictly confidential as outlined in the *Freedom of Information and Protection of Privacy Act*.

8. What share of your business revenues are from local customers vs. highway traffic?
_____ %Local _____ %Highway
9. What is the primary mode of transportation for customers to access your business?
- Automobile _____ %
Transport truck _____ %
Other (bus, walking/bike, etc.) _____ %
10. Approximately how much of your business comes from the United States?
_____ %
11. Of your U. S. customers, what is the approximate share from Michigan?
_____ %

PART D: ROLE OF HURON CHURCH/TALBOT ROAD

12. How important is it for your business to have direct access to Huron Church/Talbot Road?
- Very _____
Somewhat _____
Not important _____
Please Explain _____
-
13. How important is it to have visual exposure to drive-by traffic on Huron Church/Talbot Road?
- Very _____
Somewhat _____
Not important _____
Please Explain _____
-
14. What share of your total annual gross revenue depends on direct access to traffic using Huron Church/Talbot Road _____ %
15. What were the approximate gross revenues of your business last year? _____. Please remember that the results of this survey are kept in the strictest of confidence and will be used only for analyzing economic impact. ***Revenue information will not be published for businesses on an individual basis.***

This information is being collected for the Detroit River International Crossing Environmental Assessment, to be used in the assessment of route and crossing alternatives. Be assured that all information and results will be kept strictly confidential as outlined in the *Freedom of Information and Protection of Privacy Act*.

16. What changes to your business, if any, would you make, assuming a Huron Church/Talbot Road becomes Highway 401, serving as a major access road to a new international crossing in the west Windsor area?

17. Do you have any further comments that would assist us in evaluating the economic impact of a new international border crossing with the highway connection to the existing Highway 401?

Thank you for taking the time to complete this questionnaire. It is greatly appreciated.

If you have any questions or concerns regarding this survey please call Andrew Sjogren, collect, at Hemson Consulting Ltd. (416) 593-5090 (extension 25)

APPENDIX B
MINISTRY OF TRANSPORTATION
ECONOMIC AND FINANCIAL ANALYSIS FOR
THE WINDSOR GATEWAY INITIATIVE

Ministry of Transportation

Windsor Border Initiatives Implementation
Group (Windsor BIIG)

Director's Office

2nd Floor, Suite 200
439 University Avenue
Toronto, Ontario M5G 1Y8
Tel Number: (416) 326-6877
Fax Number: 416 326-7056

Ministère des Transports

Groupe de mise en oeuvre des
initiatives frontalières de Windsor
(GMOIF de Windsor)

Bureau de la direction

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Toronto (Ontario) M5G 1Y8
Tél. : (416) 326-6877
Télécopieur : (416) 326-7056



April 23, 2008

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**SUBJECT: ECONOMIC AND FINANCIAL ANALYSIS FOR THE
WINDSOR GATEWAY INITIATIVE**

The purpose of this memo is to provide an overview of the economic and financial analysis conducted for the Windsor Gateway Initiative. In consultation with the Ministry of Finance (MOF) and the Ministry of Economic Development and Trade (MEDT), the Windsor Border Implementation Group (Windsor BIIG) utilized economic impact models to evaluate and develop employment projections and Gross Domestic Product (GDP) impacts. The models used by MOF and MEDT are consistent with methodology followed for recent Ontario announcements.

The analysis was conducted with the following assumptions provided by Windsor BIIG:

- Cost estimate for Parkway 2008 of \$1.6B (2011 dollars);
- Project timeline from 2008 to 2013; and,
- 90% of spending for highway construction and 10% for engineering and consulting.

The MOF analysis examined direct and indirect impacts for Ontario using the Ontario Finance Input – Output (IO) Model which is based on detailed Statistics Canada IO tables for Ontario. The IO model results represent an average Ontario highway road construction project, given the production structure existing in 2004. Hence, all cost estimates were deflated to 2004. Based on their analysis, MOF concluded that the project will support an estimated total of 12,000 person years of full-time equivalent jobs (FTE) across Ontario during the construction phase. The direct and indirect GDP impacts in Ontario amount to approximately \$800 million.

.../2

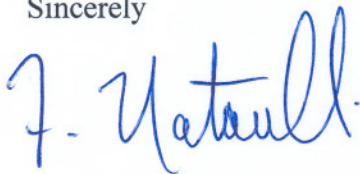
The MEDT analysis examined the impacts for Ontario and Windsor using the Regional Model developed by the Centre of Spatial Economics. MEDT concluded that two thirds of jobs created by the project would be within the Windsor region.

The job impact represents the individuals who directly work on the project and those who work in producing materials, equipment and services that are purchased for these projects (known as indirect spending). It does not count the jobs created when people spend the income earned in these activities (known as induced spending). A “job” is defined as the equivalent of one person working full time for a year. However, in practice, it could consist of two people working half a year. The jobs created by these investments are expected to last for the duration of the project.

Finally, as the project details and cost estimates for the Windsor Gateway Initiative are further developed, Windsor BIIG will continue to seek advice from its colleagues from MOF and MEDT to further refine these employment projections and GDP impacts.

If you have any questions regarding the analysis conducted, please contact Enzo Sorgente, Senior Transportation Planner, Policy and Coordination Office, Windsor BIIG at enzo.sorgente@ontario.ca or 416-326-7055.

Sincerely

A handwritten signature in blue ink that reads "F. Natarelli". The signature is fluid and cursive, with the first letter of each name being capitalized and prominent.

Fausto Natarelli
Director

cc: Enzo Sorgente
Roger Ward