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**A Review of the Economic Impact
of the Windsor-Essex Parkway
and
DRICs May 2008 Economic Impact Study and
Technical Memorandum of December 2008**

for:

The City of Windsor

submitted: February 2009

A handwritten signature in blue ink that reads "Garry M. Stamm". The signature is written in a cursive style with a large, prominent initial 'G'.

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Executive Summary

1. The economic benefits provided by the Windsor-Essex Parkway or any access road alternative are predominantly felt by the larger economies of Ontario and Quebec Michigan, Ohio, and the surrounding states of the American side, while the negative economic costs are borne principally by the municipal corporation and residents of the City of Windsor.
2. The significance that the project has to the economies that rely on its services can be demonstrated by example. Congestion costs are approximately \$90 per hour for a large truck. If, for example, the project were to reduce or prevent congestion of a cumulative 1,000 truck hours daily, that saves an estimate \$90,000 daily, or about \$33 million dollars annually and represents a major benefit which, along with economic savings in security and other costs, filters back to the benefit of the provincial and state economies.
3. The immediate loss of the current economic uses on the land adjacent to the corridor itself in addition to the negative environmental effects of the Windsor-Essex Parkway on the residential properties within 300 metres of the Parkway is not only a significant direct economic cost to the property owners but also to the City of Windsor as a whole. The City will lose approximately \$1.5 million annually in tax revenue, with just over \$1 million resulting from the direct property takings along the corridor itself, and an estimated \$500,000 for property value assessment degradation of homes that remain.
4. Of the approximately 360 homes that are to be acquired by DRIC for the construction and development of the Windsor-Essex Parkway, almost 200 are in the City of Windsor. If the average contemporary value of each displaced property is estimated at approximately \$170,000 (close to replacement value) an economic value to the local economy can be associated with them. With approximately 45 years of economic life remaining, the residential accommodation value added has a discounted present value of about \$230,000 for each of the displaced homes. The economic opportunity cost (at present value) of the taking of the houses in Windsor alone is on the order of \$44 million dollars; for the local Windsor-LaSalle-Tecumseh economy, this amounts to almost \$80 million.
5. With City of Windsor records showing that about half of the total displaced businesses described in the DRIC December 2008 Technical Memorandum as being located directly in Windsor, it can be estimated that about half of the displaced jobs (about 220) will be direct job losses in Windsor, with some specialized workers unlikely to find similar jobs, or migrating to the US or elsewhere in Canada for similar work. Where the annual value-added to the Canadian Economy per worker is about \$62,000 per year, in Windsor alone, if 50% of the workers cease working or transfer out of the area, an annual direct reduction in labour value-added of about \$7 million dollars is lost to the local economy. Allowing for a 10 year transition to regain this loss, the discounted present value of the lost opportunity cost of the labour value-added is about \$60 million. For the Windsor-LaSalle economies combines, this negative impact would be doubled to account for the job losses outside the City of Windsor.

6. The DRIC Economic Impact Report dated May 2008 and the Economic Report Technical Memorandum dated December 2008 do not address these economic costs and economic benefits associated with the Windsor-Essex Parkway as balanced between the relatively small local Windsor area economy and large regional economies. Thus they do not address a significant benchmark that decision-makers need in order to accurately assess the significance of the overall cost difference between the various access road alternatives.
7. Failing to address the imbalance as between burden and benefit ignores the fundamental principles of equity. It ignores the fact that local interests, public as well as private, are forced to carry a burden of economic loss completely out of proportion to any economic benefits that are received by those same local interests.
8. For these reasons alone the DRIC Economic Impact Report dated May 2008 and the Economic Report Technical Memorandum dated December 2008 cannot be considered legitimate economic impact analyses. Rather, they present a narrowly channeled analysis of the business impacts concentrated on the immediately affected business/industrial properties along the proposed Windsor-Essex Parkway route. Providing no quantitative analysis they assume away negative economic impact on the local economy and the municipal corporation of the City of Windsor assuming that the current economic activities will just migrate to other location in the local area.
9. Even then, both Reports oversimplify and misconstrue the economic business and industrial impacts (i.e. economic losses) likely to be acutely felt by the Windsor area, ignoring the practical reality that where business activity in the immediately affected area is lost, that which is export oriented basic activity is very much more likely to be shifted to other competing locations elsewhere in North America where those same firms do business. That will reduce the support base for the indirectly dependent non-basic jobs. In consequence there will be a direct and indirect loss of economic activity to the local Windsor economy.
10. As such, the selection of a Technically and Environmentally Preferred Alternative and The Recommended Plan as outlined in the May 2008 Economic Impact Report and the December 2008 Technical Memorandum was undertaken without the benefit of a legitimate economic impact analysis.
11. Without the benefit of a legitimate economic analysis being conducted, the selection of the Windsor-Essex Parkway as the preferred alternative for the access road completely ignores fundamental principles of equity whereby the local Windsor economy is expected to carry a burden of economic impacts completely out of proportion to the positive economic impacts that are the larger provincial, national and North American economies of scale will receive.
12. It is self-evident that alternatives such as tunneling would greatly diminish the negative economic impact by prevent the on-going negative impacts on residential and commercial neighbourhoods within the properties along the corridor. Depending on design, if that also requires the taking of much less economically active property, and then permits the more economically and efficient use of the surface area of the land, it would do less economic damage as well. The Economic Impact study of May 2008 is not sufficiently complete to permit such an alternative to be properly evaluated.

A. Introduction and Purpose

Stamm Research Associates was retained by the City of Windsor to:

1. evaluate the Detroit River International Crossing ("DRIC") Study Teams May 2008 Economic Impact Analysis undertaken and submitted as part of the DRIC Environmental Assessment Process;
2. comment on the adequacy of that analysis in providing a complete report on the potential economic impacts of the Windsor-Essex Parkway and thereafter serving as the basis for the selection of the Windsor-Essex Parkway as the Technically and Environmentally Preferred Alternative, later to become the Recommended Plan in the Economic Impact Technical Memorandum of December 2008; and
3. provide a summary analysis of the types of economic impacts that will likely arise from the Windsor-Essex Parkway.

As is explained in more detail below, the very nature and scale of a project such as the Windsor-Essex Parkway *prima facie* results in very significant economic impacts to both the local Windsor-LaSalle area and the Province of Ontario. These impacts, both positive and negative, must be systematically and reasonably assessed as part of the overall Environmental Assessment Process before a decision can be reached.

B. The Methods of Measuring Economic Impact

The positive and negative economic impacts of the Windsor-Essex Parkway as felt in the immediate Windsor area must be thoroughly and reasonably assessed for an overall economic analysis to have any meaning. A variety of well-known economic methods are then available, such as:

- cost benefit analyses; and
- rate of return analyses.

Where there is a question as to whether or not a project has an overall positive or negative economic impact, it is necessary to estimate the overall economic benefit of the project as a whole as compared to the overall economic cost of that project. Normally this involves the projection of a future stream of economic benefits to compare with a future stream of economic costs with discount rates applied so as to develop "present value" economic benefits and economic costs. Where a project results in a departure from current or future trajectory economic uses of land, the concept of "economic opportunity cost" is applied over a time period that represents the "transition" period associated with the depreciation of the existing economic uses of land whose use is being displaced or disrupted.

Where different versions of a project are to be compared, it becomes possible to calculate the differences in the present value of the opportunity cost to measure differences in the overall economic impact.

For example, where a project involves expropriation of houses and businesses along an urban developed transportation corridor, the difference in economic impact can be developed from estimates of value where the average value of the expropriated homes are estimated through

indexing from census data.

Therefore, where the project forces unemployment on middle aged workers who are unlikely to find employment again (as it would require the acquisition of appropriate capital at depreciated prices), the remaining income of their working lives represents an "opportunity cost" being imposed by the project. Where the efforts of such a worker would provide a "value added" to the local economy of approximately \$62,000 annually¹ for an additional 20 years, that represents a lost income stream of \$620,000 for 10 years and \$1.2 million over the 20 years of the remaining working life of that worker. Even when discounted at 3% per year to achieve a "present value", that is a loss to the economy with a "present value" of \$530 for ten years and over \$890,000 per worker for 20 years. If the economic impact were to have a only 25% of the workers migrate outside of the Windsor local economy and 10% find themselves unemployable, the negative economic impact for the coming 10 years can be estimated (after discounting at 3% per year) at \$41 million. That number would double for the Windsor area economy as a whole.

Similarly where residential capital stock with a normal full depreciation lifespan of 70 years is removed, the lost "opportunity cost" is the value of the future stream of the accommodation service of that residential capital stock. For a typical house, with a replacement value of \$170,000, returning an accommodation stream valued at about \$9,500 in net rent annually (after depreciation)². Expecting the investment in these housing units to continue providing their accommodation services for an additional 45 years (until the end of the useful life of the investment), the taking removes a present value of over \$230,000 from the local economy.³ Taking or not taking 200 homes in this represents a loss of approximately \$46 million in the City of Windsor, and over \$80 million for the Windsor-LaSalle local economy as a whole. While under the system of expropriation of Ontario there is some compensation to private interests for the takings of the property, it is based on time-based market value and does not replace the full potential economic value to the local economy of the lost future accommodation of the residential capital in place.⁴

Furthermore, where the impact of the ongoing use involves value and use degradation, such as the effect of air quality differences, noise and vibration problems, the same methods can be used by quantifying a "proportionate reduction" (as in the imputed annual value of the residential accommodation) and developing a "present value" of the loss. If, for example, the 1700 homes that are within the 300 metre band of city of Windsor homes only were to suffer a 10% degradation in accommodation value, that would represent homeowner equity loss that equates to the total loss of tax revenue to a municipal corporation of approximately 50 homes, and private sector losses in equity losses in home equities by close to \$30 million, and a cost to the local economy of close to \$40 million.

¹ Approximately the average "value added" from labour services to the GDP of Canada per worker.

² The annual Gross Domestic Product accounts of Canada imputes an annual accommodation service value per homeowner unit in this manner.

³ A similar assessment can be made of the non-residential real estate assets such as shopping centres and industrial premises and the cessation of the useful life of the "machinery and equipment" assets.

⁴ As present economic conditions (February 2009) show, especially in the excellent example of the US housing market, the "market value" of assets at a moment of time can be very much below the "economic value" seen from the perspective of the "present value" of a longer term stream of annual economic value-added of the future accommodation services provided by that housing. Where the market value is the lower, that is a loss to the local economy in perpetuity where the housing is permanently withdrawn from use.

In all cases, and especially in matters of environmental assessment where the intent is to compare the various ways of accomplishing the same overall economic benefit amongst alternative ways of accomplishing those benefits, it is therefore necessary to quantify the overall differences in costs involved and determine the measurable quantitative differences where the "present value" differences of the impact is then added to the overall economic assessment.

C. Using the Economic Impact Information: Feasibility and Equity

The purpose behind assessing economic impact information independent from direct project costs is

1. to evaluate the overall feasibility of the project by measuring its overall economic benefit stream as compared to its overall economic cost stream;
2. to test the ability of the on-going economic benefit stream to reasonably meet not only its direct cost structure but to also meet it in a manner that satisfies desired local environmental, economic and social objectives;
3. to permit the differences in the impact costs of the alternatives to be assessed against the overall net economic benefit of the project (as well as against each other); and,
4. to sort out the vital equity issues involved, not only in terms of "fair treatment" to the workers, business and homeowners directly impacted, but also in terms of the equity as between the local economy of the City of Windsor (as the institution that relies on and supports the local economy) and the Province of Ontario, who gains direct benefits to the broader provincial economy from an improved access route and border crossing.

For these purposes, economic impact data alone is of no assistance, since a project with the lowest "impact cost" may be seen to have those savings offset by the highest construction costs, without providing decision makers with the most fundamental information needed to determine whether or not the project is "feasible" as providing an overall positive benefit to the local economy. As a result, the differences in "economic impact" benefits and costs must then be placed into the economic matrix as a whole in relation to the differences in total benefits and costs to both the local and provincial economies relative to the above mentioned equity issues.

In terms of overall "equity" issues, ascertaining the economic impacts that fall under the respective local economy versus provincial economy columns simply involves the question of "who benefits and who pays". Once each economic impact is identified as either a benefit or cost to either the local or provincial economy, when placed into an overall equity context, it permits decision makers to pass judgment as to whether the incremental costs to achieve environmental improvement and reductions in local impact (such as destroying fewer houses and losing fewer man-years of work) would in fact take a project from "feasible" to "not feasible", or, conversely, whether the added incremental costs are in fact minor in comparison to overall net benefit to the broader economy.

On application of the equity principle, there generally should be no negative economic effects on a local economy so as to benefit the larger economy. In other words, a project should not bring about a negative increased burden on a municipal corporation that operates the underlying infrastructure and social programs so as to provide greater economic benefits to the larger

provincial economy. In particular, local workers, businesses and homeowners should not be penalized for the greater good of the wider provincial economy.

In the case of the Windsor-Essex Parkway, the economic benefits of a reduction in traffic congestion and an increase in border security would be provided by any access route regardless of which alternative is chosen as the preferred alternative for construction. Furthermore, this benefit falls almost entirely onto the broader economies of the region that utilizes the transportation corridor (being southern Ontario and the nearby States of Michigan, Ohio, Indiana and Illinois). On the other hand, the current and future "impact costs" of the Windsor-Essex Parkway fall not only on the local economy in terms of the properties and businesses impact, but also in terms of the local infrastructure and social programs supported by the municipal corporation.

Even assuming that the overall economic benefit is "the same" for all of the alternatives, it is still necessary to compare the costs of each alternative to an estimate of the overall positive economic benefit to be generated for the regional economy (southern Ontario and the nearby States of Michigan, Ohio, Indiana and Illinois). The key outcome would then be to determine whether or not any of the access road alternatives, such as the full tunneled alternative, minimizes not only the immediate environmental impacts, but also avoids the debilitating urban spatial structure effects that include warping an efficient urban spatial land use structure by introducing inefficiencies and increasing the capital costs of future development for land use expansion that inevitably flow from an obstacle such as an expressway.

As a general comment it is important to note that one component of the overall "value" of the project can be measured in the reduction of the congestion experienced along the existing transportation corridor, and lowered costs associated with improved security that prevails at the new border crossing in normal economic times. Hypothetically, for example, the reduction of congestion by 1,000 truck-hours daily, at a cost of \$90 per hour cumulates to \$90,000 daily, or about \$33 million dollars annually. Set into an economic context, the decision-making process is only well informed, not only about the need for the project, but also in regards to the scale of project affordability in terms of the "differences" in cost amongst each of the possible access road alternatives when such an analysis is provided.

D. The Economic Characterization of the Project and Categories of Economic Impact

The Windsor-Essex Parkway has a number of impacted areas that can be categorized jointly as the area affected and the economic sectors affected. From an urban and regional economics perspective, the economic impacts of the Windsor-Essex Parkway can be characterized in the following manner:

1. Generally speaking, the project makes possible the elimination of the costs of traffic congestion associated with the current transportation corridor situation, and the extremely high costs of ensuring security that are currently shared amongst the larger provincial and state economies on either side of the river;
2. From a more local perspective, the project imposes a major expressway corridor partly through an developed urban area. Expressways can either be positive or negative in their urban and regional economic effect. Going through existing developed areas, they

become major negative impediments in the spatial economic functioning of existing local economic system while providing greater broadly distributed beneficial effect.

3. Also from a local perspective, like railways and rivers, expressways and other transportation corridors like the Windsor-Essex Parkway can be major urban economic land use dividers, providing connections between local urban infrastructure only with great difficulty⁴. Generally speaking, major expressways such as the Windsor-Essex Parkway require major bridging at a high local cost, impacting the ability of the municipal corporation to allow for the development of functionally complete neighbourhoods in accordance with their own land use objectives, as well as causing major increases in capital and operating costs for the expansion and maintenance of the existing, segregated municipal urban infrastructure.

These economic impacts can then be further broken down in terms of the specific local or regional area affected.

1. Area of the Major Regional Economy Affected

- (a) The removal of the economic disruption costs of the congestion and security at the existing border crossing - through lowered transportation and security costs resultant from an addition border crossing - will greatly benefit the economic performance of southern Ontario and the nearby States of Michigan, Ohio, Indiana and Illinois. While that impact is small as measured against the gross domestic product of this combined regional economy, it is very large in relation to the overall project cost.
- (b) As previously outlined, a hypothetical example of the reduction of traffic congestion by 1,000 hours daily, associated with a cost of \$90 per hour, accumulates to a cost savings of approximately \$90,000 daily, or about \$33 million dollars annually to the larger regional and national economies of scale.

2. Windsor and Surrounding Area

- (a) At the level of the Windsor local economy, the Windsor-Essex Parkway will cause major disruption in the functioning of the existing (and possibly future) spatial economic relationships as among major geographic sectors of the Windsor area local economy.
- (b) Expressways are by nature "structuring elements" in an urban region; when retrofitted through an area "after the fact" - as was the case with the building of the Gardiner Expressway, then the QEW, through in southwest Toronto region (southern Etobicoke) in 1937-1939 - it sets off a traumatic chain of events whereby re-development will take generations to be completed. In specific circumstances it can also develop offsetting spatial economic benefits as specifically occurring in Windsor, LaSalle and Tecumseh.
- (c) As previously discussed, where employment is lost to the local economy through displacement and disruption, such as migrating outside the local economy, there is a loss to the Windsor area local economy as well as to the workers directly with the disruption unemployment that can often become permanent and is not compensated by expropriation. According to the Technical Memorandum report of December 2008 some 447 jobs are to be displaced, approximately 220 from the Windsor side. Especially in periods of economic downturn that forced disruption of the income-earning process using the business and industrial assets being expropriated will bring substantial permanent

loss to many of the workers, as discussed above. That loss is not compensated. To the community it brings a greater reduction since out-migration losses that economic support activity are permanently.

- (d) Furthermore, the process of expropriation of locationally fixed real estate turns the asset value into liquid monetary form, that is no longer subject to property tax, even if it were to remain in Windsor or the Windsor local economy. There is absolutely no basis for the assumption that the financial expropriation compensation will be invested in replacement Windsor-based real estate that will be subject to Windsor property tax. The expropriation process does not compensate for those losses to the municipality, nor for the lost investment in the public infrastructure that was developed to support the business and residential asset that is operating currently.

3. The Immediate Corridor and Adjacent Band of Economic Land Use

- (a) At the more immediate local level the Windsor-Essex Parkway creates the most easily understood impacts - but not necessarily the most important scale of impacts - where it is possible to measure the economic effects of the change in economic use of the surrounding lands (i.e., the change in employment, business gross revenue, the measure of revenue of accommodation services lost and so forth) on either side of the proposed Parkway route. This would necessarily result from either an at grade or below grade expressway channel as leaving mass areas of development isolated from existing areas of development.
- (b) For example, the location of the existing Windsor Outlet Mall will suddenly find its spatial market relationship undermined through being changed from a "central place" commercial location on a prominent arterial road to an "edge" location against an expressway boundary. In other words, it will find itself on the "wrong side" of the expressway and will be cut off from effective service to probably 70% and 80% of its current market. Furthermore, the result would not just be a physical reduction in size of current markets, but also that the remainder of the centre will rapidly slide into very low grade uses.
- (c) With such an impact on private interests, it then becomes possible to simulate and measure the larger impact effect on the municipal sector as a whole where in addition to having a negative impact on the municipal revenue stream, the Windsor-Essex Parkway can cause increases in the capital and operating costs borne by the City of Windsor. For example, the Windsor-Essex Parkway can force major revisions to current and future transportation systems, and possibly other infrastructure systems, requiring considerable rebuilding and re-orientation of municipal capacity.
- (d) I am informed by City of Windsor Staff that Statistic Canada 2006 Census data indicates that there are approximately 1900 residential households within 300m of the proposed Windsor-Essex Parkway route. From the work of the City's Air Quality consultants I am informed that a distance of 300m from the edges of the corridor was identified as the distance to which negative air quality impacts will occur as a consequence of the Windsor-Essex Parkway. While the homes businesses and institutions will remain in place there will be a loss of value in them leading to homeowner equity losses on about 1,700 homes and the indirect municipal tax losses as the assessment must be reduced.

F. Review of the May 2008 Report entitled Economic Impact and the December 2008 Economic Impact Technical Memorandum

The DRIC Economic Impact Report dated May 2008 sets out to "to identify the positive and negative impacts "... on the local and the broader economies of the Windsor Area and Southern Ontario ...", of the various access road alternatives.⁵

The review we have conducted leads to the following findings:

1. The May 2008 Economic Impact Report and the December 2008 Economic Impact Technical Memorandum are not a legitimate economic impact analyses by any measure including their own; rather they are narrowly channeled business impact reports that concentrate on the immediately affected business/industrial properties.
2. The reports do not include an estimate of the economic benefit of the project to the regional economy, thus leaving a significant benchmark that decision-makers need in order to accurately assess the significance of the cost difference as amongst the alternatives.⁶
3. The reports oversimplify and misconstrue the economic impacts that would be felt by the Windsor area beyond the immediately affected area defined as the Area of Continued Analysis ("ACA") by stating that the impact is "typically much smaller than impacts within the ACA".⁷ There is no validity to the assumption that the impact outside the ACA is smaller than inside; the impact felt outside the ACA may be less intense, but collectively, is likely to be far greater.
 - (a) In particular, with respect to the impact on the existing Huron-Church Road North of the E.C. Row expressway, the report lists a number of very significant impacts that relate to the Daytona Drive and Ambassador Drive businesses, of which the number is 66 in total. For many of these businesses the re-routing of traffic is critical, indirectly if not directly. But of these 66 business, only those 19 that are either food services or accommodation related businesses were contacted with respect to whether or not "traffic congestion" is seen as a negative impact on their local business, so as to welcome the diversion of the trucks onto a different access route.⁸
 - (b) With reliance on the recovery of certain traffic levels, the report assumes that without the traffic congestion, non-transport truck vehicles that use the facilities of the 19 businesses would continue to frequent those services. There is no empirical data or other analytical material to indicate that the US destined

⁵ Page 1, May 8 report

⁶ The only hint given (page 43) is that exports comprise \$225 billion of the Ontario GDP with an estimate that Windsor accounts for \$7.5 billion, or 3%. No estimate of the economic benefit to the project to that export flow is provided. Furthermore, since imports also flow over the border, the report is also incomplete since it ignores the import side of Canada-US trade.

⁷ Page 38 of the May 2008 report

⁸ Page 41 of the May 2008 report

"passers by" that now utilize these 19 businesses would not also bypass these services, and continue onto the new bridge and find themselves staying overnight elsewhere on the US side. The report also assumes that Canadian bound traffic would somehow "back-track" from the new corridor rather than continue on via Highway 401 eastward.

4. The reports dismiss the economic impact on the local economy across the Windsor area based on the following invalid assumptions made in the report

"Similar to the displaced commercial businesses the loss of business [of industrial operations] would be offset by gains in competing businesses or, since these businesses have no specific location needs, then can relocate to appropriate locations elsewhere in the Windsor area."⁹

"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 reflected in increases in activity in similar businesses outside of the ACA."¹⁰

These assumptions ignore the connection between primary export oriented industrial business and the non-basic local-oriented business that relies on the primary export oriented businesses.

For example, these assumptions imply that if an auto-parts manufacturer were to close in Windsor, that other auto-parts manufacturing plants in Windsor would immediately pick up the work and hire the displaced staff, and the non-basic workers in the associated restaurant workers would remain supported by restaurants by switching over to restaurants elsewhere in the City. This assumption is fundamentally and categorically incorrect insofar. Where a Windsor plant producing for the North American market closes, involves very specialized machinery and labour skills it is more likely that the business would be shifted to another plant run by the same firm located elsewhere in North America (including Mexico) and the reduction in "basic industry" support would immediately cause a cessation of "non-basic" industry support.

The report provided neither a separation of the primary business nor an estimate of the secondary effect of the loss, but instead assumes them to be the same and then dismisses it.

5. While the reports set out an itemized business impact analysis, developing some data as to the "displacement" or "disruption" of businesses, offering incomplete data on the "gross revenue displacement", and itemizing an estimate of the number of "jobs displaced", they do not convert this into a true "opportunity cost estimate" that would permit a comparison against construction cost differences or economic benefit estimates of the other alternatives (if these were undertaken).
6. The reports do not deal with the most critical economic business indicator, being the effect of employment displacement or disruption on the local economy. The report does not provide any empirical or analytical data related to employees that would lose their jobs in terms of age or earnings categories, and no estimate of the man-years of potential

⁹ Page 23 op. cit

¹⁰ Page 42 op. Cit.

worker productivity that would be lost. This impact is necessarily greater than the "annual gross revenue" of the firms involved and is a fundamental flaw in terms of providing any economic impact analysis.

7. The reports completely ignore the economic impacts on the residential sector, and the impact on the loss of houses within and adjacent to the Windsor-Essex Parkway transportation corridor. Similar techniques to those used by Statistics Canada in constructing the GDP accounts could have been, and should have been used. In scale it is quite probable that this negative impact exceeds that of the business sector because of the large number of houses that are entirely removed in addition to those largely impacted by the proposed Parkway route.
8. The reports completely ignore the impact on the City of Windsor and the aspects of the municipal capital and operations that will be affected by the construction of the Windsor-Essex Parkway as the preferred alternative.

G. Applying the Principle of Equity to Windsor

The Windsor-Essex Parkway is a response to the larger provincial and national need to dramatically improve border-crossing facilities between Canada and the United States. Given that over 40% of the value of cross-border cargo shipments crosses the St. Clair River Frontier, the importance of efficient and border crossing facilities is self-evident.

Equally self-evident is the fact that the economic benefits provided by the Windsor-Essex Parkway are predominantly felt by the economies of Ontario and Quebec on the Canadian side, and Michigan, Ohio, and the surrounding states of the American Side.

Therefore, insofar as the appropriate equity principle is applied, the economies benefiting from the access road should pay for the full cost of any access road construction alternative and leave neutral, or improved, the economic position of the local region in which the access road being built.

It contravenes fundamental principles of equity to have local interests, public as well as private, be forced to carry a burden completely out of proportion to the benefits that are received by those same local interests.

To demonstrate this an analysis of the property assessment and tax losses to the City of Windsor that would occur with the implementation of the WindsorEssex Parkway. Attached are three schedules showing the calculation of the losses associated with

1. the taking of the properties for the building of the corridor,
2. the degradation of the residential properties within a 200 metre band from the edge of the corridor, and
3. the degradation if 300 metre bands corridor is examined.

It should be noted that the analysis is specific to the City of Windsor only.

The results on Schedule A show the following:

- The property takings for the corridor result in the direct loss of \$117 million in total property assessment value of which \$55 million pays taxes to the City of Windsor.
- This represents tax revenue losses to the City of just over \$1 million in revenue yearly, of which \$535,000 is in residential tax revenue and almost \$470,000 is in commercial/industrial tax revenue.

In addition to the direct losses associated with the properties displaced by the Parkway green space, the losses from the deterioration of value in the adjacent area can be judged owing to the negative environmental effects of a large transportation corridor project like the WindsorEssex Parkway. When including these negative effects on properties within the 200 metre bands alongside the corridor, the full tax effects are summarized on Schedule B. Those for a 300 metre band are shown on Schedule C.

Therefore, in addition to the absolute loss of the properties under the Parkway greenspace, the properties effected outside of the direct Parkway corridor to a distance of 200m have a combined assessment value of \$223 million of which \$216 million pays taxes to the City.

- Assuming a 15% loss of assessment value of the residential property in those properties within 200m of the Parkway, due to the negative environmental affects those properties would be subjected to over \$28 million dollars in tax assessment properites are removed from the rolls, costing the city an additional \$406,000 in reduced residential tax income.

Similarly, if the impact area is taken out to 300 metres, then the project affects \$470 million in total assessment property values and \$131 million more than is found within the 200 metre band.

- If a modest degradation of just 7.5% in the value of those additional homes is applied, a further loss to the City of Windsor of about \$125,000 per year in tax revunue is found.

The finding is that the tax losses to the City of Windsor from the direct displacement of homes in combination with degraded property values for those homes remaining are at least on the order of \$1.5 million per year.

These calculations can also be used to estimate the loss of homeowner equity and the effect of the employment losses.

**Schedule A:
Summary of Assessment
and Tax Losses Estimate of the Green Space Parcels Alternative**

	Assessment	Total Taxes	City Residential Tax Revenue	City Other Tax Revenue	Total City Tax Revenue
Total Assessment	116,887,400	1,433,257	534,852	468,599	1,003,451
Sub-Total Assessment Not Paying Taxes	61,530,200	0	0	0	0
Sub-Total Assessment Paying Taxes	55,357,200	1,433,257	534,852	468,599	1,003,451
Residential Assessment Paying Taxes	36,864,200	652,259	534,852	0	534,852
Commercial/Industrial Assessment Paying Taxes	18,493,000	780,998	0	468,599	468,599

**Schedule B:
Summary of Assessment
and Tax Losses Estimate including 200 Metre Bands**

	Assessment	Total Taxes	City Residential Tax Revenue	City Other Tax Revenue	Total City Tax Revenue
Total Assessment	339,673,600	5,740,346	3,246,991	1,068,361	4,315,351
Sub-Total Assessment Not Paying Taxes	67,908,600	–	–	–	–
Sub-Total Assessment Paying Taxes	271,765,000	5,740,346	3,246,991	1,068,361	4,315,351
Residential Assessment Paying Taxes	226,095,200	3,959,745	3,246,991	–	3,246,991
Commercial/Industrial Assessment Paying Taxes	45,669,800	1,780,601	–	1,068,361	1,068,361

**Schedule C:
Summary of Assessment
and Tax Losses Estimate including 300 Metre Bands**

	Assessment	Total Taxes	City Residential Tax Revenue	City Other Tax Revenue	Total City Tax Revenue
Total Assessment	470,723,448	7,915,388	4,924,167	1,146,183	6,070,351
Sub-Total Assessment Not Paying Taxes	79,088,950	0	0	0	0
Sub-Total Assessment Paying Taxes	391,634,498	7,915,388	4,924,167	1,146,183	6,070,351
Residential Assessment Paying Taxes	343,088,000	6,005,082	4,924,167	0	4,924,167
Commercial/Industrial Assessment Paying Taxes	48,546,498	1,910,305	0	1,146,183	1,146,183

H. Summary of Findings

The general conclusions that arise from the review and analysis undertaken in this matter are as follows:

1. The selection of a Technically and Environmentally Preferred Alternative as outlined in the December 2008 Technical Memorandum was undertaken without the benefit of a legitimate economic impact analysis.
2. The immediate loss of the current economic uses on the land adjacent to the corridor itself in addition to the negative environmental effects of the Windsor-Essex Parkway on the residential properties within 300 metres of the Parkway is not only a significant direct economic cost to the property owners but also to the City of Windsor as a whole. The City will lose approximately \$1.5 million annually in tax revenue, with just over \$1 million resulting from the direct property takings along the corridor itself, and an estimated \$500,000 for property value assessment degradation of homes that remain.
3. Of the approximately 360 homes that are to be acquired by DRIC for the construction and development of the Windsor-Essex Parkway, almost 200 are in the City of Windsor. If the average contemporary value of each displaced property is estimated at approximately \$170,000 (close to replacement value) an economic value to the local economy can be associated with them. With approximately 45 years of economic life remaining, the residential accommodation value added has a discounted present value of about \$230,000 for each of the displaced homes. The economic opportunity cost (at present value) of the taking of the houses in Windsor alone is on the order of \$44 million dollars; for the local Windsor-LaSalle-Tecumseh economy, this amounts to almost \$80 million.
4. With City of Windsor records showing that about half of the total displaced businesses described in the DRIC December 2008 Technical Memorandum as being located directly in Windsor, it can be estimated that about half of the displaced jobs (about 220) will be direct job losses in Windsor, with some specialized workers unlikely to find similar jobs, or migrating to the US or elsewhere in Canada for similar work. Where the annual value-added to the Canadian Economy per worker is about \$62,000 per year, in Windsor alone, if 50% of the workers cease working or transfer out of the area, an annual direct reduction in labour value-added of about \$7 million dollars is lost to the local economy. Allowing for a 10 year transition to regain this loss, the discounted present value of the lost opportunity cost of the labour value-added is about \$60 million. For the Windsor-LaSalle economies combines, this negative impact would be doubled to account for the job losses outside the City of Windsor.
5. The DRIC Economic Impact Report dated May 2008 is not a legitimate economic impact analysis; rather it is a narrowly channeled business impact report that concentrates on the immediately affected business/industrial properties.
6. The economic benefits provided by the Windsor-Essex Parkway or any access road alternative are predominantly felt by the larger economies of Ontario and Quebec on the Canadian side, and Michigan, Ohio, and the surrounding states of the American Side,

while the economic costs are borne principally by the municipal corporation and residents of the City of Windsor.

7. The DRIC Economic Impact Report dated May 2008 does not balance the economic benefit of the project to the larger regional economy as against the relative project costs, thus leaving a significant benchmark that decision-makers need in order to accurately assess the significance of the cost difference as amongst the alternatives.
8. The DRIC Economic Impact Report dated May 2008 oversimplifies and misconstrues the economic impacts (i.e. economic losses) likely to be felt by the Windsor area , ignoring the practical reality that where business activity in Windsor is lost, it is more likely that the business would be shifted to another location run by the same firm located elsewhere in North America (including Mexico) outside of Windsor, resulting in a direct loss to the local Windsor economy.
9. The DRIC Economic Impact Report dated May 2008 does not deal with the most critical economic business indicator, being the direct and profound effect of employment displacement or disruption on the local economy. This impact is necessarily greater than the "annual gross revenue" of the business firms involved and is a fundamental flaw in terms of providing any economic impact analysis.
10. The DRIC Economic Impact Report dated May 2008 completely ignores the economic impact of the residential sector, and the impact the loss of houses within and adjacent to the Windsor-Essex Parkway transportation corridor would have on the tax revenue collected by the City of Windsor. These impacts likely exceed that of the business sector because of the large number of houses that are entirely removed in addition to those largely impacted by the proposed Parkway route.
11. The selection of the Windsor-Essex Parkway as the preferred alternative for the access road, without the benefit of a legitimate economic analysis being conducted, completely ignores fundamental principles of equity whereby the local Windsor economy is expected to carry a burden of economic impacts completely out of proportion to the positive economic impacts that are the larger provincial, national and North American economies of scale will receive.