

Updated Results of the Analysis of the Seven Evaluation Factors: Plaza and Crossing Alternatives

At the initial stages of the environmental assessment, the study team identified seven evaluation factors that would provide the basis for the assessment of alternatives. At the Public Information Open Houses (PIOHs) in December 2006 the Canadian study team reported on the preliminary results of the analysis of the practical crossing, plaza and access road alternatives based on the seven evaluation factors. The community has also expressed its local goals for the project as:

- **Improving quality of life**
- **Taking trucks off local streets**
- **Improving the movement of traffic across the border.**

We have now updated the analysis of the Practical Alternatives for the plaza and river crossing in light of new data and public input. Key findings of analysis to date are summarized as follows:

Changes to Air Quality

- Each of the four plaza alternatives studied (Plazas A, B, B1 and C) results in increases in the predicted maximum PM_{2.5} and NO_x concentrations in the vicinity of the plaza. These increases are experienced up to 250 m (820 ft) away from the property boundaries of each plaza.
- None of the plaza options would result in a discernible difference in the maximum predicted concentrations of PM_{2.5} and NO_x for Sandwich Towne.
- All alternatives would result in an increase in concentrations over the no-build alternative for the Armanda Street area. The potential to mitigate these changes would need to be further examined.
- Plaza A results in marginally higher concentrations for Armanda Street than Plaza B due to the alignment of the connecting access road under certain conditions.
- Only Crossing C has the potential for slight increases in air pollutant concentrations, relative to the no-build option, for portions of Sandwich Towne within 250 m (820 ft) of the crossing under worst case meteorological conditions, which usually occur between dusk and dawn or in cloudy conditions with light windspeeds.

Protection of Community and Neighbourhood Features

- Plaza A conflicts with cohesiveness and residential/natural character of the neighbourhood.
- Plaza A results in approximately 62-66 displaced households, the highest number of displaced households of the plaza alternatives.
- Plaza B results in 38 households displaced, Plaza B1 results in 36 households displaced, and Plaza C results in 35 households displaced.
- The noise generated from the plaza locations is not expected to cause a high noise impact for areas closest to the plazas. In most cases, homes are more than 50 m (164 ft) away from the plazas.
- With Crossing C alternatives, over 100 households predicted to have change in noise levels greater than 5 dB. Noise levels of 3 dB are barely audible. The cost-effectiveness of a barrier to

reduce the change in noise levels for these households and other mitigation measures requires further study.

- Crossing C is perceived as encroaching too far into the community, thus potentially changing the existing character, quality of life of its residents, and future development plans.
- Between five and six businesses are displaced with the Crossing C combinations. The other alternatives displace one business.
- Potential economic loss due to business impacts will likely be offset by relocation of the affected businesses or gains by competitors.

Consistency with Existing and Planned Land Use

- Plaza A located within the Spring Garden Planning Area, an area with residential and natural open space uses, is not consistent with existing and planned land uses. It has the potential to conflict with the neighbourhood characteristics of the area and may disrupt the manner in which this area functions. Plazas B, B1 and C alternatives and Crossings A and B alternatives are situated primarily in the industrial and Portland areas of west Windsor and are considered to be more consistent with existing and planned land use in this area. Plaza activities are considered more compatible with industrial land uses. Plaza C disrupts water dependant land use (Southwest Sales).
- Plaza C and Crossing C are located closest to the Sandwich residential community. Recently, the City of Windsor adopted the *Olde Sandwich Town Community Planning Study Report*, which provides direction for residents and business owners to actively participate in the plan-making and priority-setting process for the community. According to the study, Crossing C would be located on lands designated for waterfront industrial uses. Crossing C disrupts a water dependant use (marine fuelling station).

Protection of Cultural Resources

- Of the remaining lands to be examined, half have no archaeological potential, and a portion of Plaza B, B1 and C are within the area of a 1749 French Settlement.
- There are no significant differences among the options in terms of impacts to historical, cultural and archaeological features.

Protection of the Natural Environment

- PlazaC/Crossing C is considered to have a relatively low impact because this combination avoids the natural heritage features associated with the Brighton Beach area and the area north of Chappus Road.
- Plaza B1/Crossing C, Plaza B/Crossing C, and Plaza A/Crossing C via Ojibway Parkway are considered to have a relatively moderate impact. Crossing A and Plazas B and B1 encroach on the Ojibway Black Oak Woods ESA.
- Plaza A/Crossing C via Brighton Beach, Plaza A/Crossing C, and Plaza A/Crossing A are considered to have the potential to displace more provincially rare vegetation communities and species at risk in the Brighton Beach area and the area north of Chappus Road.

- Plaza A/Crossing C via Ojibway Parkway has less impacts to natural features than Plaza A/Crossing C via Brighton Beach.

Improvements to Regional Mobility

- All plazas can accommodate the future (2035) travel demands at the border crossing. The new plazas are being developed in consultation with the Canada Border Services Agency, the U.S. Department of Homeland Security Customs and Border Protection Branch to provide sufficient areas for primary inspection lane booths and on-site secondary inspection of people and goods. All plaza alternatives will allow dedicated NEXUS and FAST lanes and provide for substantial improvement of border crossing capabilities.
- Canadian Border Services Agency has reviewed and tested functional layouts of the Canadian plaza alternatives to confirm their suitability under future traffic conditions. All plaza alternatives were found to be acceptable.
- The new Detroit River crossing is being developed as a six-lane bridge, providing three Canada-bound lanes and three U.S.-bound lanes. The capacity of the new crossing will accommodate future travel demand, both in terms of meeting capacity and providing flexibility to stream traffic on the crossing to improve border processing (e.g. designated NEXUS/FAST) lane.
- A bridge type study has been produced to determine the preferred bridge alternatives at each of the three crossing locations.

Cost and Constructability

- Costs for Crossing A are significantly higher than for the other crossings due to the length of the span required.
- With respect to the plaza locations, a major difference in cost and constructability is associated with Plaza C. Plaza C would require the relocation of the Keith Transformer Station, which would add considerable time and costs to the project.
- The crossing options being carried forward for further study involve a clear span of the river, and do not have piers in the water. The resulting navigation envelopes satisfy requirements of the U.S. and Canadian Coast Guards.
- Suspension and cable stayed bridges are being considered for Crossing B and C. The clear span at Crossing A is over 1.2 km (0.7 miles), which is not considered a practical alternative for a cable stayed bridge at this location. Therefore, only a suspension bridge is being considered for Crossing A.
- The bridge types being considered in the study are constructible. Analysis to date indicates that the crossings do not pose unprecedented technical challenges based on an assessment of scale, location, geology or site. We are awaiting the results of the geotechnical deep drilling program to confirm the integrity of the underlying bedrock at Crossings B and C.
- Preliminary comparative cost estimates (excluding property costs) for the construction of the crossing including the approach roadway are as follows:
 - Crossing A \$770 million to \$920 million (USD)
 - Crossing B \$430 million to \$540 million (USD)
 - Crossing C \$450 million to \$580 million (USD).

Next Steps

Work on the remaining deep boreholes as part of the geotechnical drilling program is scheduled to be completed in Summer 2007. Cross-hole geophysics has begun and is expected to be completed shortly after the drilling. The results of the drilling program, including geophysics results and preliminary recommendations will be reviewed by a Geotechnical Advisory Group established for the study and will be used in the evaluation process for selecting the preferred alternative of the new international bridge crossing.

The DRIC study team will complete the technical and environmental studies and continue to consult with the public. Workshops will take place following the PIOHs. We will continue to work with local municipalities and the public. Your input is important to us.

The results of the technical and environmental studies together with input from federal departments, provincial ministries, agencies, municipalities and stakeholders as well as the general public, will be incorporated in the evaluation of the Practical Alternatives and will shape the decisions made in selecting a single technically and environmentally preferred alternative.

All alternatives will be evaluated based on the seven major evaluation factors.

The study team is seeking the alternative that provides the best balance of advantages and disadvantages when considering the transportation and mobility benefits, the impacts to social, cultural, economic and natural features, as well as cost and constructability. The evaluation of all options will be considered in the context of the international and national significance of the Detroit River crossing in terms of the economy, security, and ability to provide continuous river crossing capacity. With our U.S. partners, the DRIC study team will present a single technically and environmentally preferred alternative for the access road, plaza and crossing. Final study documents will be sent to approving agencies and made available for public review. Following approvals, construction will take place and a new border crossing will be completed.

For more information on the Detroit River International Crossing study, including reports, maps and public meeting notices, please visit our website at www.partnershipborderstudy.com.