Detroit River
INTERNATIONAL CROSSING
S T U D Y

Welcome to the Walpole Island First Nation Community Meeting

for the

DETROIT RIVER INTERNATIONAL CROSSING

E N V I R O N M E N T A L A S S E S S M E N T

February 26, 2008

>> Please Sign In <<

Members of the Study Team are available to discuss any questions that you may have.

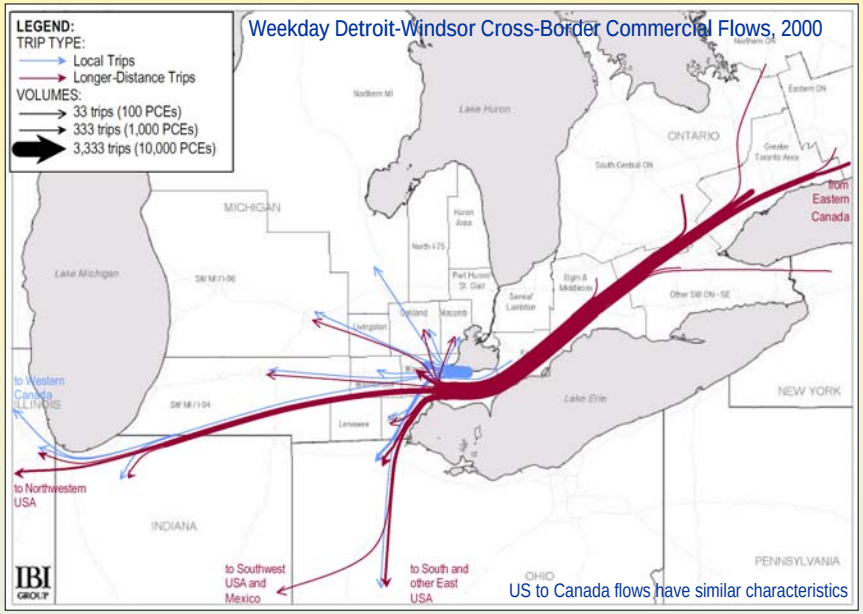
Canada | U.S. Department of Transportation Federal Highway Administration | Ontario | MDOT Michigan Department of Transportation | URS

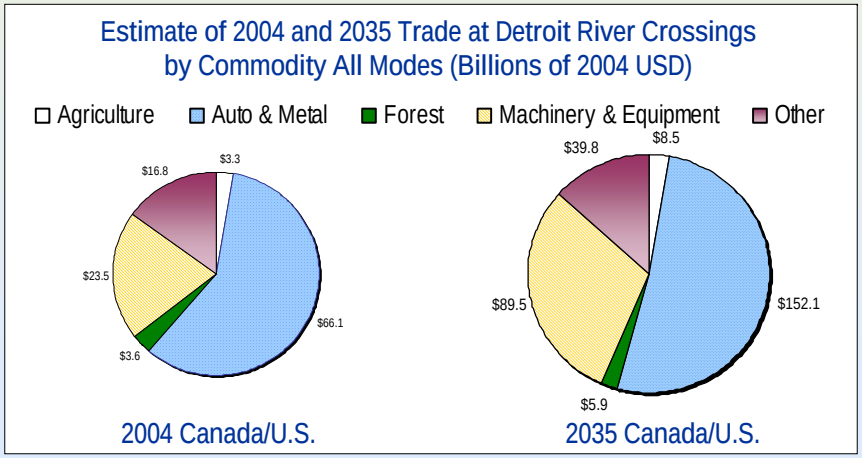
The Border Transportation Partnership

The Detroit River International Crossing Study follows an Environmental Assessment process that is a proven, legislated process used throughout Ontario and Canada on infrastructure projects, ranging from simple road widenings to complex long span bridges.

The task of completing the DRIC EA falls to the Border Transportation Partnership, a dedicated bi-national team of leading engineers, planners, and policy experts from Transport Canada, the Ontario Ministry of Transportation, the U.S. Federal Highways Administration, and the Michigan Department of Transportation – committed to a new border crossing by 2013.

Windsor-Detroit: A Vital Link





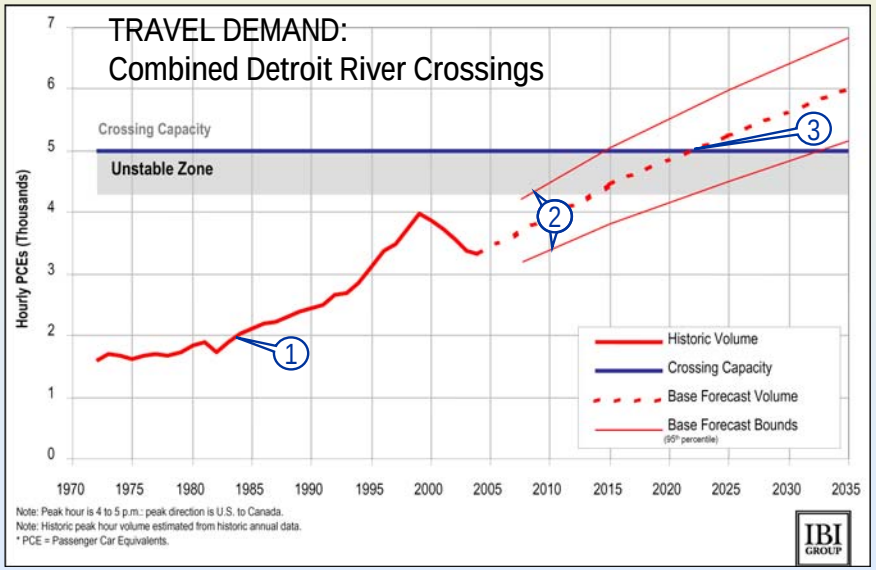
- Approximately 28% of Canada-U.S. surface trade passes through Windsor-Detroit
- Over 80% of all goods crossing the Detroit River are carried by truck
- 50% of truck traffic and 90% of car traffic crossing the border is generated locally (i.e. Windsor, Essex/Detroit)
- The corridor is significant to the economies of two nations
- Given the importance of this trade corridor to the economies of both nations, the partnering governments must take all reasonable steps to reduce the likelihood of disruption to transportation service in this corridor.

Windsor-Detroit: Future Capacity Needs

The current border crossings and associated connections are nearing capacity. Within 10 to 15 years, the border crossings in Windsor and Detroit will likely suffer from poor operations and unreliable crossing times.

Crossing	Year Capacity Reached				
	US Road Access	US Border Processing	Bridge / Tunnel	CAN Border Processing	CAN Road Access
Ambassador Bridge	> 30 years	5 to 10 years	10 to 15 years	5 to 10 years	5 to 10 years
Detroit-Windsor Tunnel	0 to 5 years	5 to 10 years	30 years*	5 to 10 years	5 to 10 years

* If no improvements are made at the Detroit River there would be some diversion of car traffic from the Ambassador Bridge to the Detroit-Windsor Tunnel. Diversion of car traffic may move the timeframe that capacity is reached to between 25 and 30 years. Physical restrictions of the tunnel limit diversion of most types of trucks to the Detroit-Windsor Tunnel.



1. Historically, traffic volumes crossing the tunnel have grown over the past 30 years at an average compound rate of 2.0% per year;
2. The high and low forecast bounds that form an envelope around the Base Forecast line represent the range of uncertainty in future traffic growth. The envelope is based on the historic variation in traffic;
3. Based on an average compound growth rate of 1.8% per year, the Detroit-Windsor Crossings are expected to collectively reach capacity in 10 to 15 years.

Purpose of the DRIC Study

To provide for the safe, efficient and secure movement of people and goods across the Canada-U.S. border in the Detroit River area to support the economies of Ontario, Michigan, Canada and the U.S.

To construct a new end-to-end transportation system that will link Highway 401 to the U.S. interstate system with inspection plazas and a new river crossing in between.

In meeting the purpose, this study must address the following regional transportation and mobility needs:

- Provide new border crossing capacity to meet increased long-term travel demand;
- Improve system connectivity to enhance the continuous flow of people and goods;
- Improve operations and processing capabilities at the border; and
- Provide reasonable and secure crossing options (i.e. network redundancy).

The Study Team seeks to implement transportation solutions which minimize community and environmental impacts as much as possible. In particular, the Canadian Study Team is looking to address the local communities' goals to:

- *Improve quality of life*
- *Take trucks off local streets*
- *Improve traffic movement across the border*

Coordination of CEAA & Ontario EA Processes

This study is being undertaken through a coordinated federal-provincial Environmental Assessment (EA) process. Both governments have agreed to coordinate their respective EA processes as outlined in the *Canada-Ontario Agreement on EA Cooperation* (November, 2004), which states that federal and provincial governments:

> *"will coordinate the environmental assessment processes whenever projects are subject to review by both jurisdictions…The agreement maintains the current level of environmental standards and the legislative and decision-making responsibilities of both governments. While projects requiring both provincial and federal environmental assessment approvals will still require separate approvals, decisions will be based on the same body of information and there will be an ability to make decisions concurrently".*

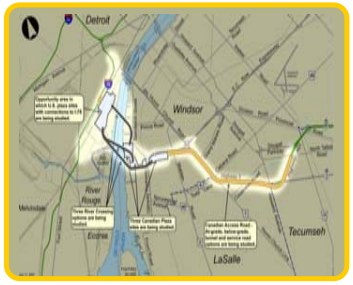
The federal EA process was initiated early in the project planning stages in order to maximize opportunities for coordination with the provincial EA process.

All technical studies being prepared as part of the provincial individual EA process will form the basis for meeting the requirements of the *Canadian Environmental Assessment Act.*

Federal departments provided input into the development of the Work Plans developed for each of the various disciplines required for this study, as part of the coordinated process.

Relationship between DRIC Study and Ambassador Bridge Enhancement Project

The Detroit River International Crossing Project and the Ambassador Bridge Enhancement Project are two separate studies.



DRIC

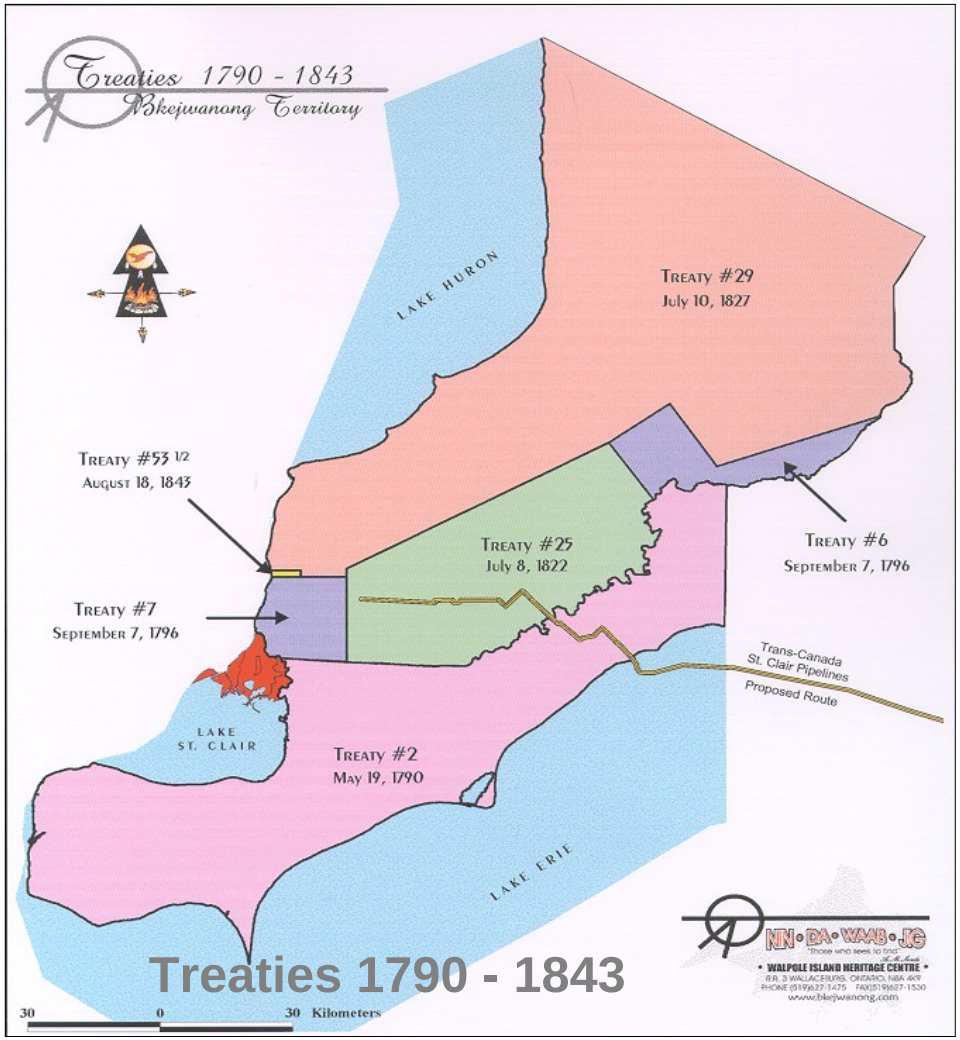
- Bi-national effort of four government transportation agencies
- Connects freeway networks in Michigan and Ontario
- Planning for bridge, plaza and freeway connection to 2035
- Coordinated Federal/Provincial EA in Canada
- Federal EA triggered by proponency and regulatory permits
- Provides an additional crossing alternative

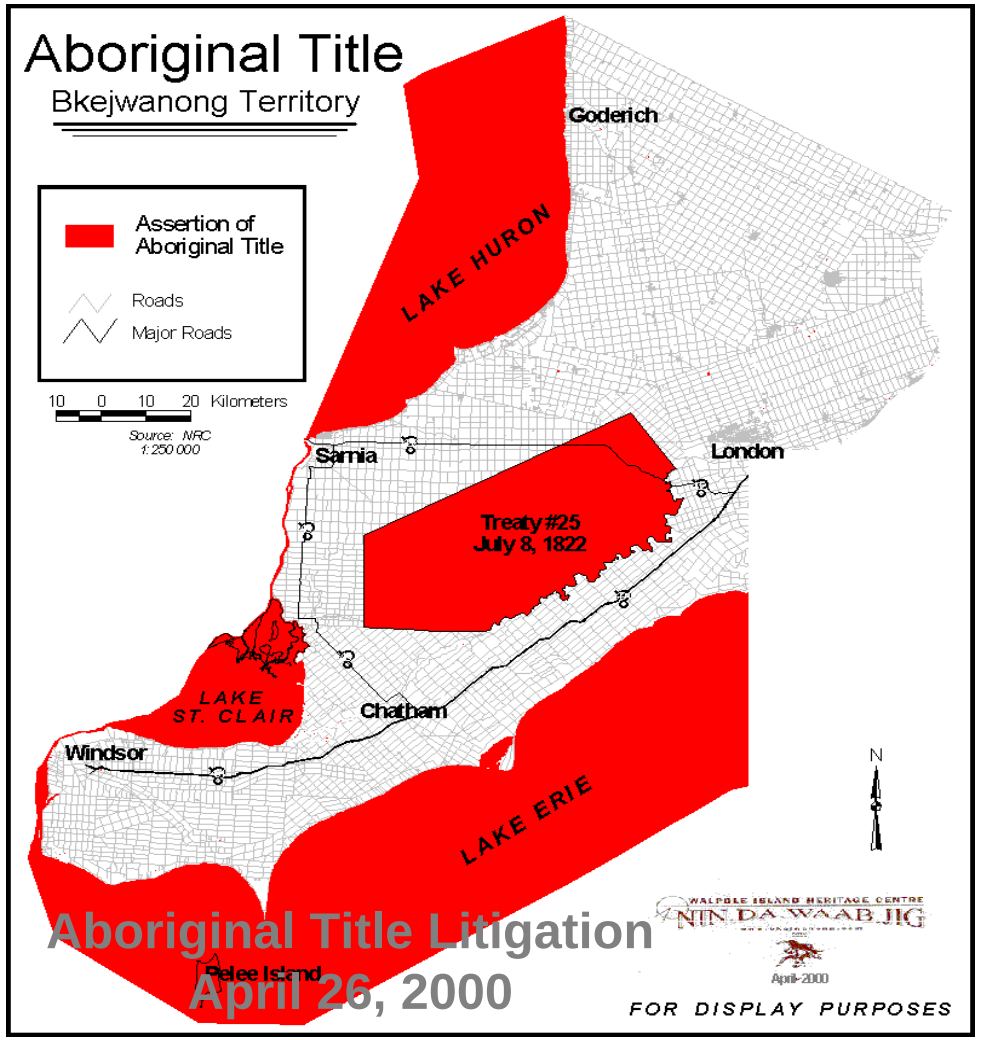
Ambassador Bridge Enhancement Project

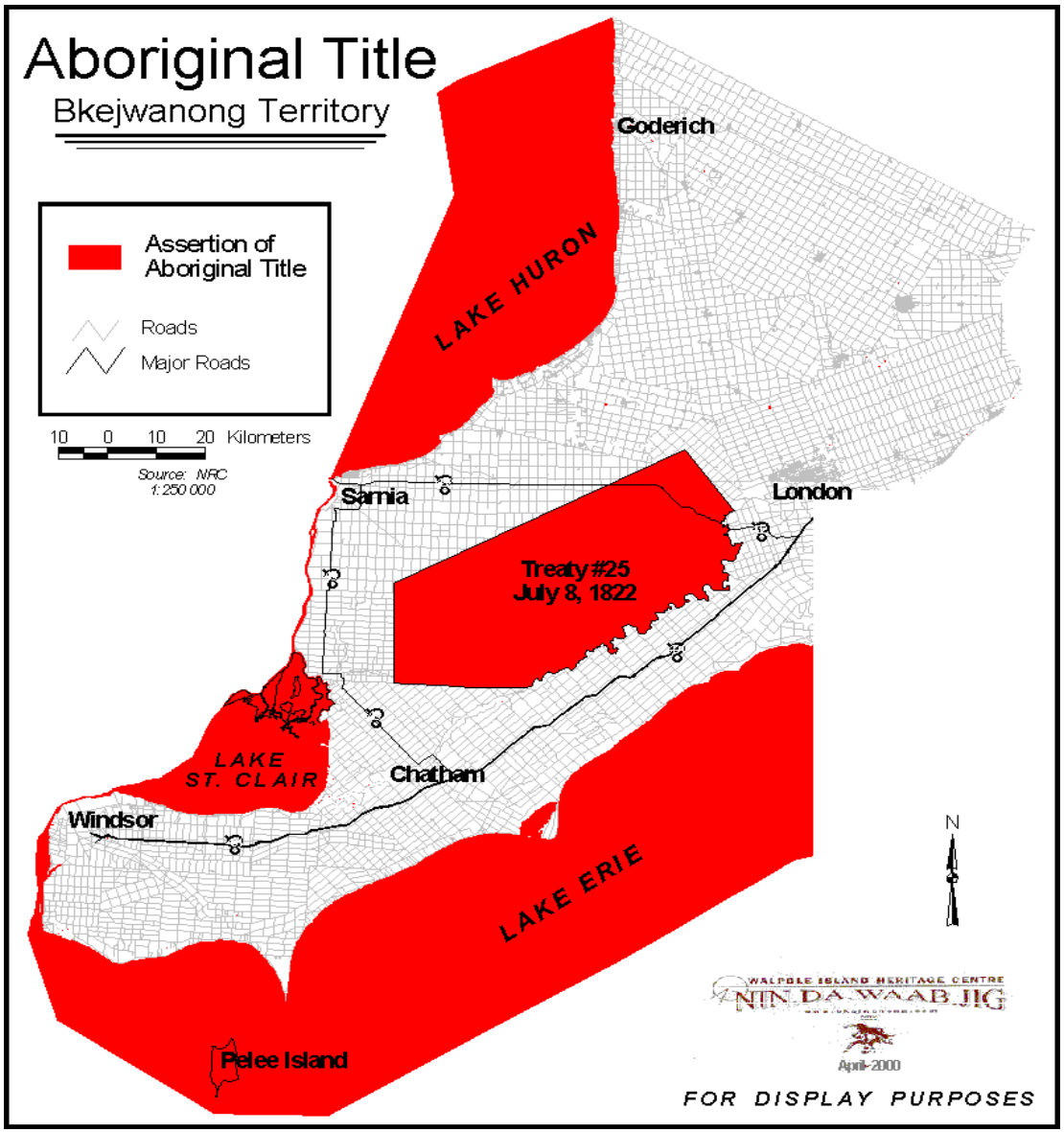
- Initiated by owners of Ambassador Bridge
- Focus on the bridge only (no Canadian plaza or access road expansions)
- Project developed to address issues related to age of existing bridge
- Federal EA in Canada
- Federal EA triggered by the need for regulatory permits

Both studies are moving forward and both crossings are needed to meet future travel demand.

First Nations Treaty Boundaries







Oral history, archaeological, historical studies and the absence of treaties have formed the basis of our aboriginal title litigation with the Canadian and Ontario governments.

In recent years, the Canadian Courts have begun to recognize the significance of Aboriginal concerns about development which affects lands where we either have or claim Aboriginal title; or where our Aboriginal or Treaty Rights are affected.

WIFN Meetings to Date

The DRIC Study Team has met with WIFN on numerous occasions and will continue to meet as the study continues.

- June 2005 – Initial Meeting regarding the DRIC Study
- January 2006 – Meeting held to review study progress
- February 2006 – Meeting held to review study progress
- April 2006 – Presentation to WIFN Council
- November 2006 – Meeting held to review study progress
- February 2007 – Meeting held to review study progress
- December 2007 – Meeting held to review study progress
- January 2008 – Meeting held to review study progress
- February 2008 – Presentation to WIFN Council

Issues Raised to Date Include:

- Protection of Cultural Resources
  - Possession of Artifacts
- Protection of Natural Environment
  - Piers in river/disturbance of river bottom
  - Air and water quality
  - Species at Risk
- Introduction of Foreign Species
- Protection of Other Interests
  - Detroit River land claim
  - Legal duty to consult
  - Sharing of information with other First Nations
  - Funding for meaningful participation
  - Economic opportunities
  - Reflect historical presence in naming of bridge

Both the DRIC Study Team and WIFN continue to meet and incorporate issues into the DRIC Study as appropriate.

Components of New or Expanded International Crossing

The Partnership is studying an end-to-end solution connecting Highway 401 in Ontario to the interstate freeway system in Michigan.

International Bridge Crossing

The new bridge crossing will provide six lanes over the Detroit River

Inspection Plaza:

Sites that are 60 hectares (approx. 150 acres) in size and are close to the border are being sought.

Inspection Plaza:

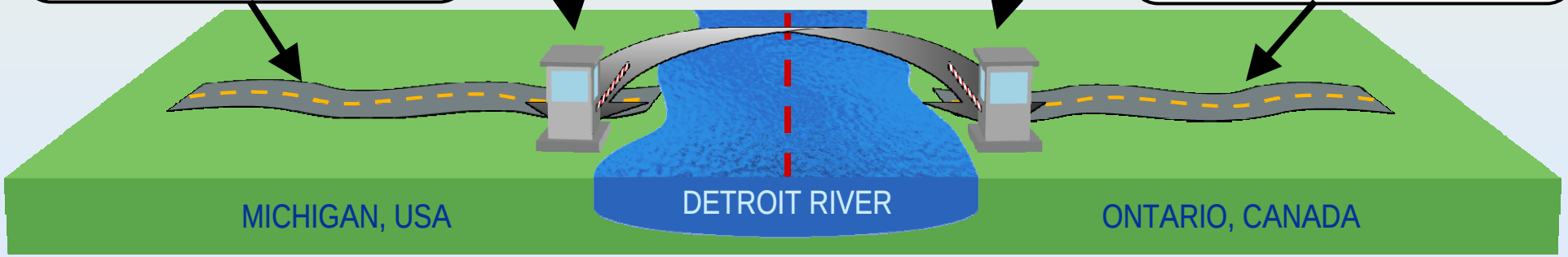
Sites that are 30 to 40 hectares (80-100 acres) in size and are close to the border are being sought.

Highway Connection:

Freeway/controlled access facility is being planned to connect to the interstate freeway system in Michigan.

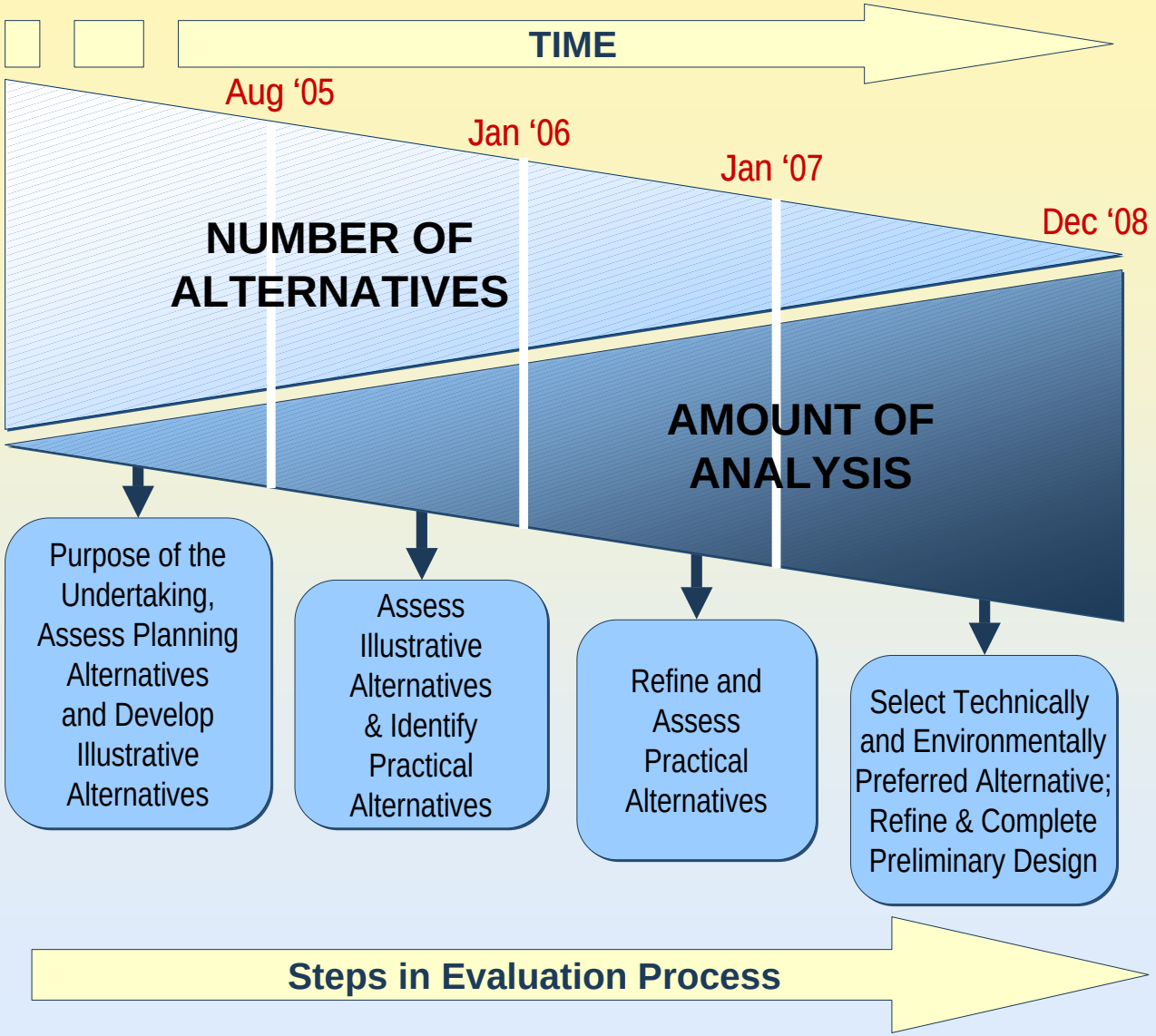
Highway Connection:

Freeway/controlled access facility is being planned to connect to Highway 401 in Ontario.

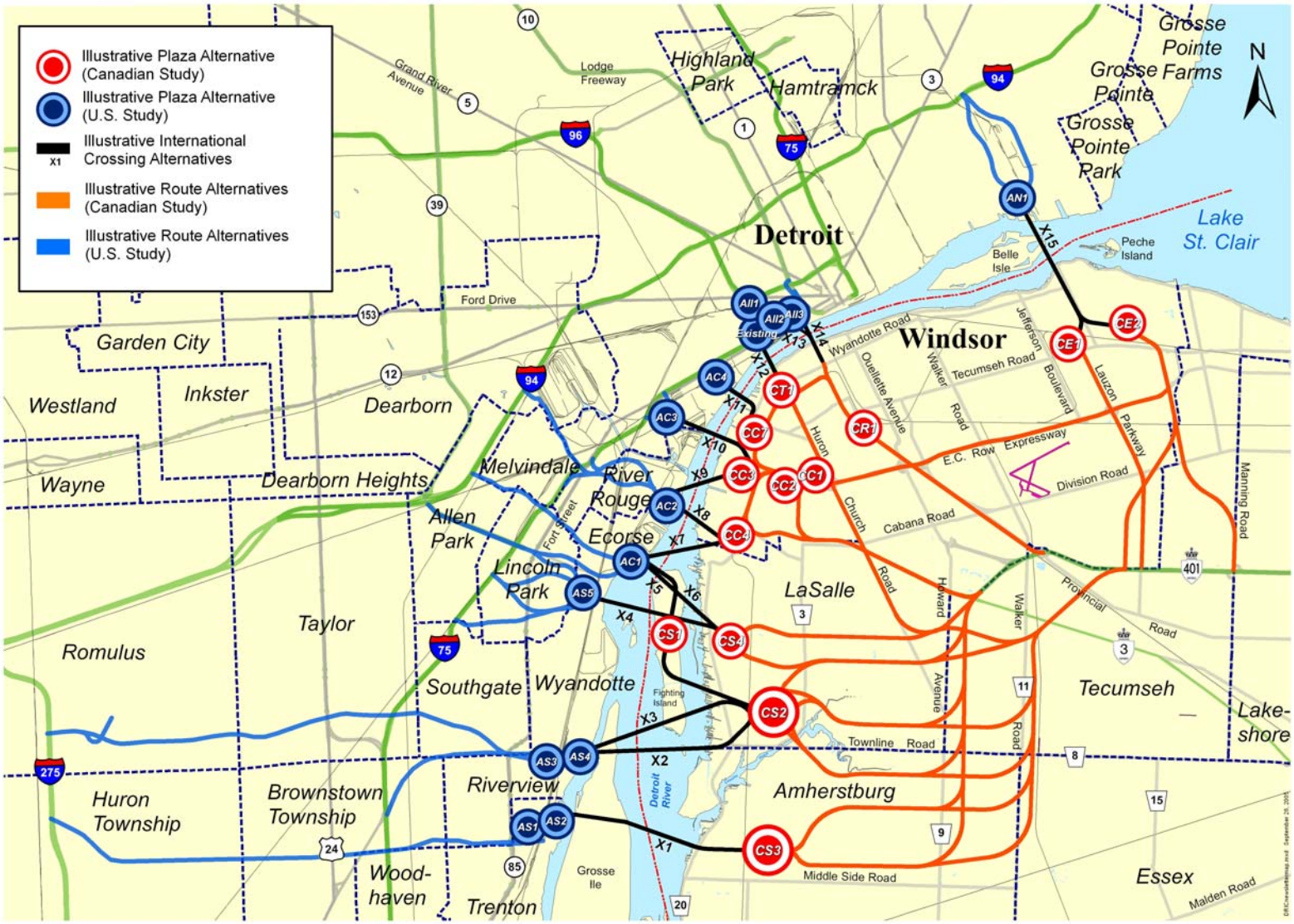


Evaluation Process

- The underlying principle for the alternatives generation and evaluation process is to start with a broad perspective and become more focused/ detailed as the project progresses.



What Alternatives Were Studied?
Illustrative Alternatives



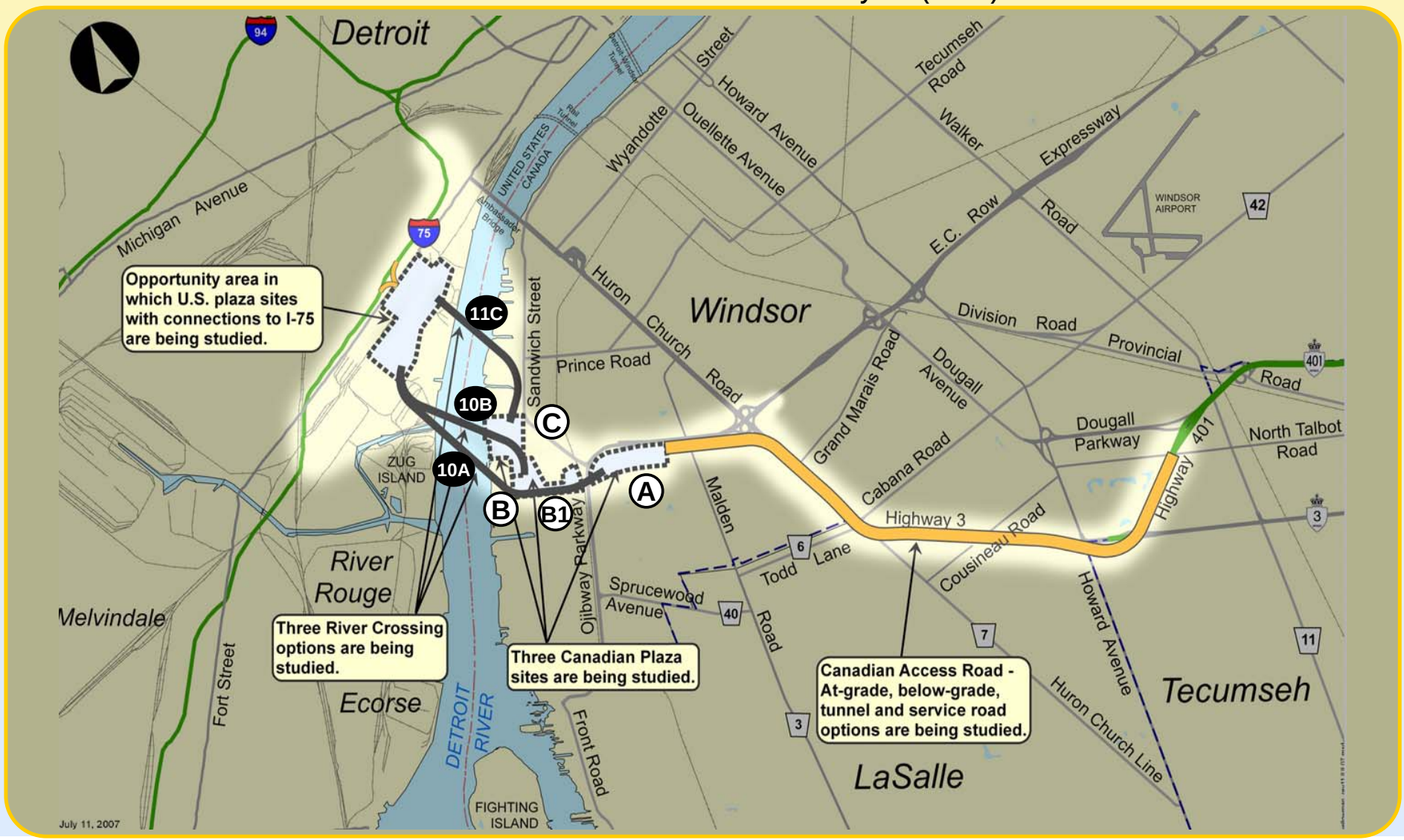
Evaluation Factors

The assessment of Crossing, Plaza and Access Road options is being conducted in accordance with the Environmental and Technical Work Plans and is based on the following factors and measures:

- Changes to Air Quality
- Protection of Community and Neighbourhood Characteristics
  - *includes assessment of residential and business property impacts, social features including schools, impacts to noise levels, access and community features*
- Consistency with Existing & Planned Land Use
- Protection of Cultural Resources
  - *includes parks, historic sites and areas of archaeological significance*
- Protection of Natural Environment
  - *includes plant and animal species and habitat features*
- Improvements to Regional Mobility
- Cost and Constructability

Practical Alternatives

The larger list of illustrative alternatives were evaluated according to the seven evaluation factors to determine a more circumscribed Area of Continued Analysis (ACA).



Access Road Alternatives

These images depict the Practical Access Road Alternatives presented at the Public Information Open Houses in March 2006, December 2006 and August 2007. The Study Team has completed analysis of these five access road alternatives. The results of this analysis are presented on the following displays.

1A One-way service roads on either side of 6-lane freeway at grade.

1B One-way service roads either side of 6-lane freeway below-grade.

3 Cut and cover tunnel below rebuilt Huron Church Road/Highway 3 Corridor.

2A Six-lane freeway at grade, along side Huron Church/Highway 3.

2B Six-lane freeway below-grade, parallel to Huron Church/Highway 3.

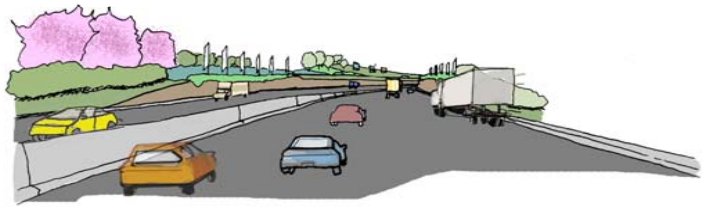
The Parkway: A New Option

A Parkway alternative has been developed, based on refinements to the below-grade Practical Alternatives (Alternatives 1B and 2B), and reflecting the study goals and the community input received to date.

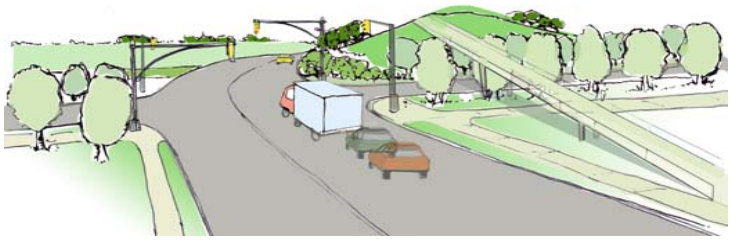
The Parkway will allow communities on both sides of the corridor to reconnect and can provide opportunities for new trails for pedestrians and cyclists and linkages for wildlife. The access road for international traffic would be below-grade from Howard Avenue to E.C. Row Expressway, with a number of short tunnels. The Parkway could address the future transportation and mobility needs of the region and improve traffic operations and safety, protect people and communities.

View of Labelle Street looking east from EC Row Expressway

View of pedestrian path on Labelle Street looking southwest



View of southbound Highway 401 towards Labelle Street



View of Labelle Street looking southwest towards Huron Church Road

Summary of Analysis – Access Road Alternatives

The DRIC Study Team identified seven evaluation factors that would provide the basis for the assessment of alternatives. At the Public Information Open Houses in December 2006 the DRIC 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

Conclusions

- The results of the analysis do not support further analysis of an at-grade roadway (Alternatives 1A and 2A)
  - least costly solution and fewer constructability risks
  - fewer benefits in terms of protecting community and neighbourhood characteristics

- The results of the analysis do not support further investigation of an end-to-end tunnelled access road (Alternative 3)
  - limited benefits do not justify additional cost when compared to other alternatives
  - other alternatives are available that offer similar benefits with less cost and less risks

- An enhanced, Parkway with below-grade access road alternative has been developed based on refinements to Alternatives 1B and 2B

Detroit River INTERNATIONAL CROSSING STUDY

Changes to Air Quality

Summary of Assessment

- Local air quality is more strongly influenced by background sources and transboundary flow than by transportation sources.
- Concentrations of fine particulate are projected to be higher in the corridor than present due primarily to increased road dust as traffic increases. Particulate from vehicle tailpipes are predicted to decrease.
- Tunnel alternative reduces particulate concentrations, but increases concentrations of gaseous pollutants emitted over a larger area beyond the access road corridor from the ventilation buildings.
- Total concentrations of nitrogen oxides (NO_X) are predicted to decrease due to improvements in fuels and engine technologies.
- Below-grade alternatives result in slightly lower particulate and NO_X concentrations in comparison to at-grade alternatives.
- The air quality benefits of a below-grade roadway may be further enhanced through buffer zones, plantings and maintenance practices to reduce road dust.

What's Next?

- Conduct analysis of enhanced Parkway alternative.
- Model additional air pollutants and compare to MOE criteria and guidelines.
- Conduct more detailed analysis of the Technically and Environmentally Preferred Alternative.
- Assess potential construction impacts and recommend mitigation measures.

Protect Cultural Resources – Archaeological Features

Protect Cultural Resources

Summary of Assessment

- Potentially impacted features are without any recognized heritage status – all alternatives are considered to have a low impact.
- All access road alternatives impact six parks/recreation areas. Alternative 2A will disrupt access to the St. Clair College baseball and soccer fields. Other parks/recreation areas will experience minor disruptions.
- Little to no difference between access road alternatives in terms of impact to archaeological features. All access road alternatives have low to medium impact to known archaeological sites.

What's Next?

- Conduct analysis of enhanced Parkway alternative
- Conduct more detailed analysis of the Technically and Environmentally Preferred Alternative.
- Conduct an archaeological site-specific assessment (test unit excavation) on sites within the Technically and Environmentally Preferred Alternative
- Assess potential construction impacts and recommend mitigation measures.
- Stage 2 and 3 Archaeological Assessments for the Technically and Environmentally Preferred Alternative as required.

Detroit River INTERNATIONAL CROSSING STUDY

Protect the Natural Environment

Summary of Assessment

- There is no significant difference among the alternatives because footprint impacts are comparable.
- None of the access road alternatives directly impact any designated Areas of Natural and Scientific Interest (ANSIs) including the Ojibway Prairie Complex.
- Access road alternatives connecting to Plazas B and C have relatively low impacts.
- Access roads alternatives connecting to Plaza A have relatively moderate impacts, as these displace more provincially rare vegetation communities and species at risk in the Malden Road area.
- Below-grade alternatives (Alternatives 1B and 2B) and tunnel alternative (Alternative 3) may increase the potential risk to nearby natural heritage areas due to dewatering requirements.
- Alternatives 1A, 1B and 3 encroach on the St. Clair College Prairie ESA.

What's Next?

- Conduct analysis of enhanced Parkway alternative.
- Conduct detailed analysis of the Technically and Environmentally Preferred Alternative.
- Perform a site-specific impact assessment and identify environmental protection measures.
- Perform supplemental field investigations where required to identify opportunities for compensation, restoration and enhancement.
- Meet with regulatory agencies to discuss environmental protection measures and secure approvals-in-principle.
- Identify site-specific impacts and environmental protection measures.



Protection of Community and Neighbourhood Characteristics

Summary of Assessment

- Displaced households (households displaced are primarily located beside the Huron Church Road/Highway 3 corridor)

  160 to 230 households for Alternatives 1A and 1B;
  170 to 230 for Alternatives 2A and 2B: and
  140 to 180 for Alternative 3.

- None to marginal noise impacts for all access road alternatives (Alternatives 1A and 1B each result in increases in noise levels greater than 5 dB for one receptor). The use of berms and barriers is being considered along the access road alternatives.
- The tunnel alternative is considered to have the highest overall impacts on businesses when considering the number of displacements and reduced visibility of business from the roadway.
- Both the tunnel and below-grade options improve the aesthetics of the corridor by reducing visibility of the roadway from nearby residences.

What's Next?

- Conduct detailed analysis of enhanced Parkway alternative.
- Identify and evaluate displacement and disruption impacts by neighbourhood community.
- Identify and evaluate effects to social features and municipal services disruptions to neighbourhoods, displacement of homes.
- Conduct analysis of the Technically and Environmentally Preferred Alternative.
- Coordination with noise and air disciplines to determine community impacts.
- Assess potential construction impacts and recommend mitigation measures.
- Agency, community stakeholder consultation.
- Investigate opportunities to enhance visibility and signage for businesses along the new access road alternative.

Cost & Constructability

Summary of Assessment

- All access road alternatives are constructable. Traffic flow can be reasonably maintained in the Huron Church Road/Highway 3 corridor throughout the construction period.
- Construction is complicated by the high water table and relatively poor ground conditions, and those problems increase with the depth of construction.
- Cost estimate ($CDN for year 2011) access road alternatives from Highway 401 to Malden Road is:
  - At-grade alternatives: $620 million to $920 million
  - Below-grade alternatives: $1.0 billion to $1.4 billion
  - Tunnel alternative: $3.6 billion to $3.8 billion
- Complexity of construction, risks to schedule and overall project costs are greatest for a tunnelled option.

What's Next:

- Conduct analysis of enhanced Parkway alternative
- Conduct detailed analysis of the Technically and Environmentally Preferred Alternative.
- Conduct preliminary design for Technically and Environmentally Preferred Alternative.
- Complete the geotechnical deep borehole program to confirm the integrity of the underlying bedrock and any impacts from past salt mining activities in the area for Crossings B and C.

Summary of Analysis – Crossing and Plaza Alternatives

Update

The foundations investigations near the known brine well areas are nearing completion. This information is necessary to make a sound decision on the location of the new river crossing Once the findings of this work are available, the Partnership will be in a position to recommend a preferred crossing location.

Changes in Air Quality

- Each plaza results in increases in fine particulates and nitrogen oxides (N0x) up to 250m from the plaza
- In the vicinity of Plaza A, implementation of any alternative results in increased $PM_{2.5}$ and NO_x concentrations in relation to the No Build Alternative
- The effects of Plazas B, B1 and C are predominantly seen in the area to the west of Ojibway Parkway/E.C. Row Expressway interchange at non-sensitive receptors.

Protection of Community and Neighbourhood Characteristics

- Plaza A alternatives result in the highest residential displacements (between 62-66 households); Plazas B, B1 and C result in 35-38 households displaced
- Crossing C alternatives displace 5-6 businesses, the other crossings displace one business

Consistency with Existing & Planned Land Use

- Plaza A is the least consistent with existing land use, which consists of predominately residential/natural areas
- Crossing B alternatives and Plaza C/Crossing C disrupt water dependent land uses (marine fuelling station)
- Plaza C/Crossing C has the greatest impact to known contaminant sites

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 Natural Environment

- Plazas C/Crossing C has the least impacts to natural features while Plaza A alternatives have the highest impacts to natural features.

Summary of Analysis – Crossing and Plaza Alternatives

Improve Regional Mobility

- All alternatives can accommodate the future (2035) travel demands
- Distance between the border and plaza is the greatest with the Plaza A alternatives
- Proximity to marine fuelling station with Crossing C is a manageable risk

Cost and Constructability

- Based on consultation with Canadian and U.S. agencies and shipping industry representatives, the Study Teams are not considering any alternative with piers in the Detroit River. The new crossing will clear span the entire river.
- The cost estimates for the Canadian inspection plazas and crossings are as follows:
  - Plazas: $180 mil to $280 mil (Yr 2011 CAD)
  - Crossings:
    - Crossing A: $770 mil to $920 mil (Yr 2011 USD)
    - Crossing B: $430 mil to $540 mil (Yr 2011 USD)
    - Crossing C: $450 mil to $580 mil (Yr 2011 USD)
- Crossing C approach roadway crosses known brinewell areas while Crossing B is located adjacent to known brinewells.

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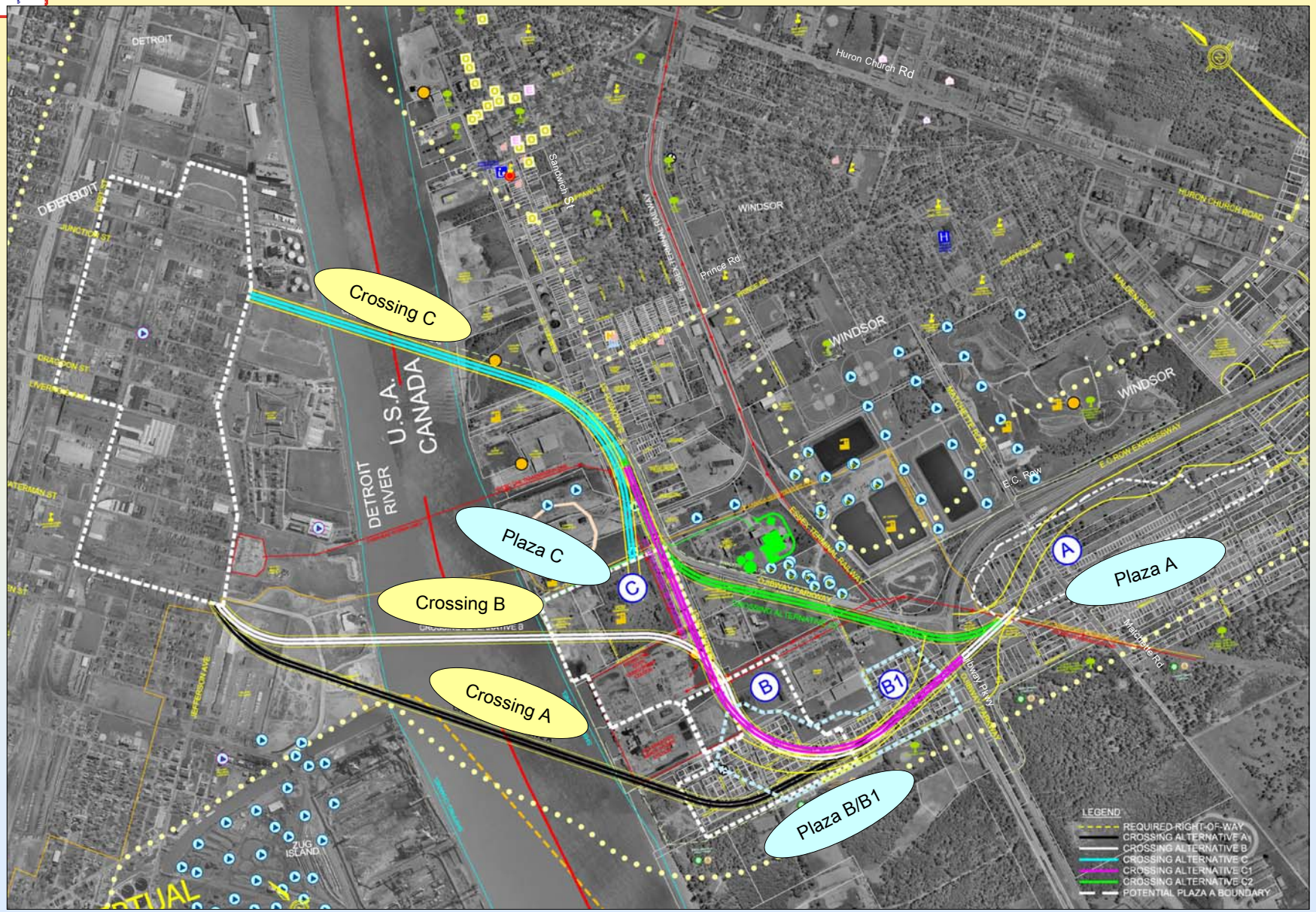
Plazas and Crossings – Findings to Date



Plaza A

Plaza B

Plaza C

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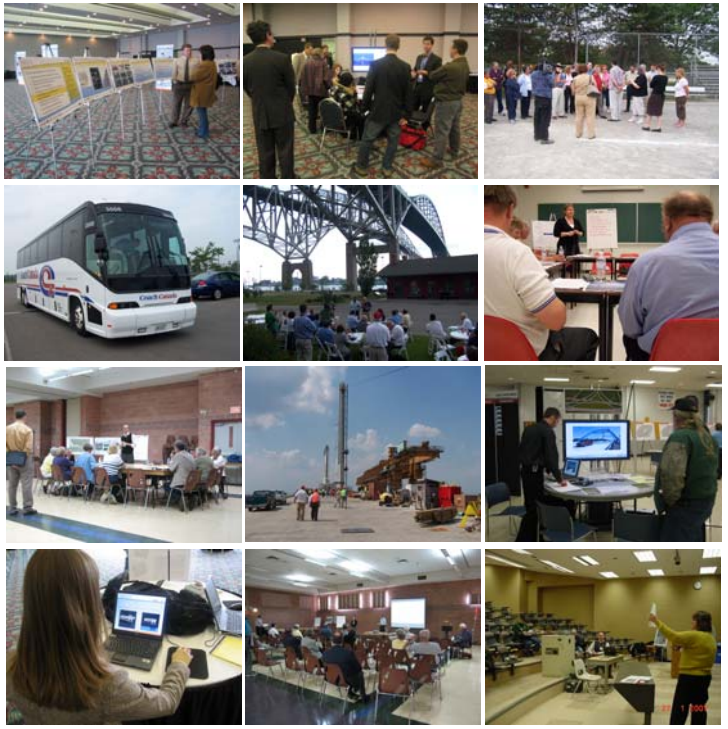
Context Sensitive Solutions (CSS)

A collaborative, interdisciplinary approach to transportation planning that considers the greater context within which a transportation improvement project will exist. CSS involves all stakeholders in the development of a transportation facility that fits its physical setting and preserves the scenic, aesthetic, historic and environmental resources, while maintaining safety and mobility.

CSS is a key component of the development of practical alternatives for DRIC. CSS workshops and activities held over the course of the study included:

- Inspection Plaza Location Development – January 2006
- Access Road Refinement – February 2006 and April 2006
- Context Sensitive Solutions Concept Preference – June 2006
- Bus Tour of Bridges, Toledo, Ohio and Port Huron, Michigan – June 2006
- Bus Tour of Freeway Types, Detroit, Michigan – June 2006
- Access Road and Plaza CSS Themes – October 2006
- Crossing Concepts and Preference Survey – November 2006
- Crossing Concepts and Preference Survey – August 2007 (U.S. Side)



Community Input

Community input continues to provide valuable input and unique perspectives. The concerns of residents, business owners, municipalities and politicians are important as suggestions made by the public are factored into the overall decision-making and assessment process. We are committed to listening to communities, addressing their concerns and incorporating their ideas whenever possible.

Over 230 meetings held since the study commenced

Study Contact List: Over 2,700 Addresses

Mailing Area: 37,000+ Property Owners, Tenants and Businesses

Governance

Public Oversight

The Partnership has heard that public oversight of a new crossing is important. We are committed to protecting the public interest with public oversight. The Partnership is exploring various forms of collaboration and innovation with the private sector, while maintaining an appropriate level of public oversight.

New Crossing and Plaza

The Government of Canada is the lead in the implementation of the bridge and inspection plaza on the Canadian side of the crossing system. Canada has indicted it intends to explore the opportunity for private-sector participation in the construction, financing, and operation of the new bridge. A public-private partnership will not affect the ownership of the new crossing and the Government of Canada remains committed to public ownership of the new bridge and inspection plaza.

New Access Road

Ontario is the lead in the development of the access road from Highway 401 to the new plaza in Canada and is also exploring various roles for the private sector in the delivery of the access road. The Government of Canada, in recognition of the importance of this project, has committed to cover 50 per cent of the eligible capital cost of the new access road.

Next Steps

- Complete analysis of Canadian Practical Crossing, Plaza and Access Road Alternatives
- Meet with U.S. Study team to select preferred end-to-end alternatives
- Hold public meetings on the Technically and Environmentally Preferred Alternatives
- Complete and submit Environmental Assessment Reports

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