

Welcome to the First Public Information Open House

for the

DETROIT RIVER INTERNATIONAL CROSSING ENVIRONMENTAL ASSESSMENT

June 2005

>> Please Sign In <<

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

The Project Team

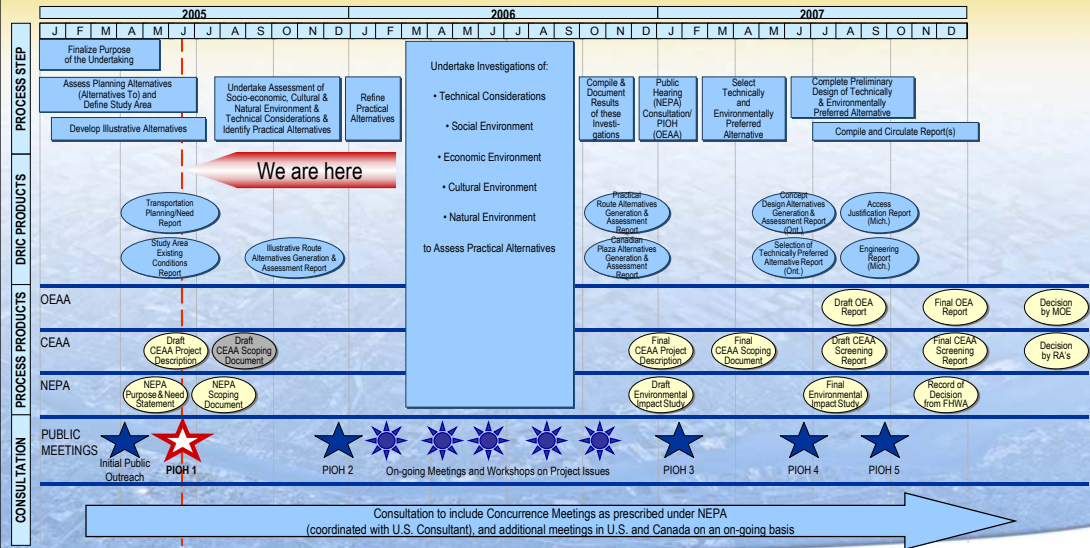


The Partnership representing the governments of Canada, the United States, Ontario and Michigan is moving forward with the Environmental Assessment (EA) phase of the Detroit River International Crossing (DRIC) project to improve traffic flow and trade movement at the Windsor-Detroit border.

The Ontario Ministry of Transportation (MTO) is leading the Canadian work program in coordination with Transport Canada. The Michigan Department of Transportation (MDOT), in coordination with the U.S. Federal Highways Administration, is leading the U.S. work program. URS Canada Inc. has been retained to assist MTO in undertaking the route planning and environmental assessment in accordance with the Ontario Environmental Assessment Act (OEA) and Canadian Environmental Assessment Act (CEAA). MDOT has also retained a consultant team to undertake the U.S. route planning and environmental impact study in accordance with the requirements of the National Environmental Policy Act (NEPA).

Study Process Schedule

The activities and studies for the DRIC project will be conducted in accordance with the requirements of approval agencies in Canada and the U.S.



Updated: June 20, 2005

Key Milestones

Consultation activities will generally be tied to the following key milestones:

Study Area Features, Opportunities & Constraints	April '05	Initial Public Outreach
Initial Set of Crossing Alternatives, Plaza Locations & Connecting Routes in Canada and the U.S.	June '05	PIOH1
Final Set of Alternatives	December '05	PIOH2
Results of Social, Economic, Environmental and Engineering Assessments	Winter '06	PIOH3
Preferred Crossing Location, Plaza Locations & Connecting Routes in Canada and the U.S.	Spring '07	PIOH4
Finalize Engineering and Mitigation Measures	Summer '07	PIOH5
Document Study and Submit for Approvals	End of '07	Public Review

We are here

In addition, other consultation activities will be held throughout the project. Join the project contact list or visit the project website to learn more about upcoming activities.

Initial Public Outreach Summary

IPOs were held March 5 in Windsor, and March 6 in LaSalle. There were a total of 179 sign-ins; 127 comment sheets were received.

Most Frequent Comments:

Concerned with potential impacts:

- to Ojibway Area, including Spring Garden Life ANSI and Black Oak Prairie Heritage Park
- to natural features of area, including wildlife
- to residential areas and effect on property value
- on human health, including air quality
- related to options in the Schwartz Report
- related indirectly to improvements (e.g. noise, vibration, quality of life)

Consider:

- using existing transportation corridors (e.g. road, rail) and infrastructure
- a tunnel (includes tunnel options with air quality control)
- other modes, including rail and truck ferries

IPO Comment Sheet Question #2:

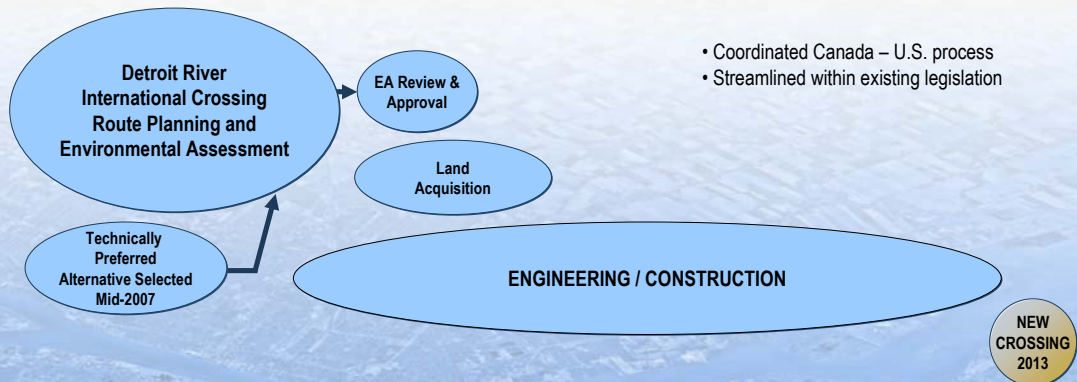
The Project Team has identified guiding principles to be used in generating and developing new or expanded crossing alternatives and connections to existing highways, which are listed below. On a scale of 1 to 5, how would you rate the importance of each of these principles?

Question 2 Principles	Total Resp.	Very Important					Not Important		Avg.
		1	2	3	4	5			
Develop alternatives that are efficient/direct	95	56	17	16	4	2			1.7
Utilize existing infrastructure and/or transportation corridors	101	56	14	15	8	8			2.0
Seek areas of land uses that are compatible with transportation corridors	93	56	18	13	3	3			1.7
Minimize/avoid impacts to significant study area features	99	86	8	2	1	2			1.2

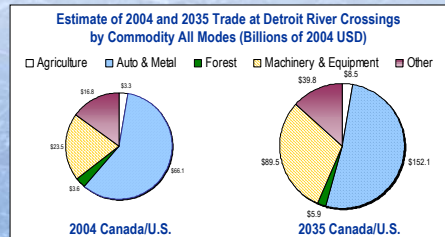
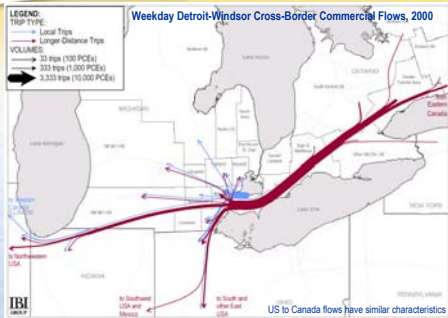
Attendees generally considered each of these guiding principles to be of high importance; this input will be considered by the Project Team in the development of Illustrative and Practical Alternatives.

DRIC Project Time Line

2005	2006	2007	2008	2009	2010	2011	2012	2013
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Detroit River INTERNATIONAL CROSSING PROJECT



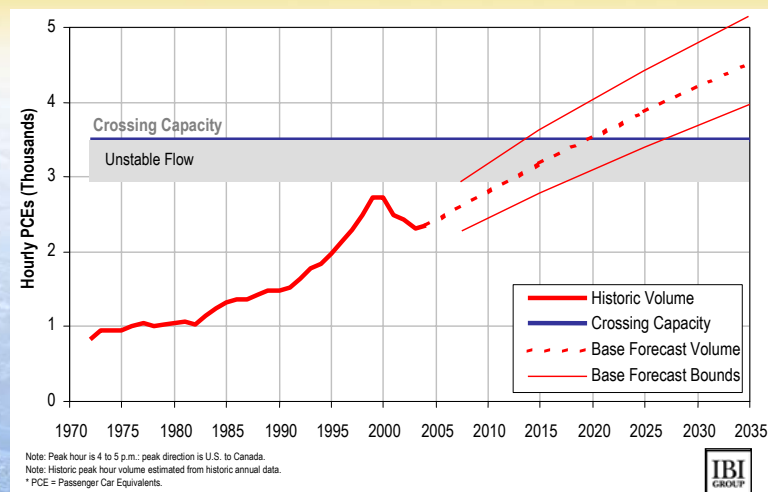
Windsor-Detroit: A Vital Link

- 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
- 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.

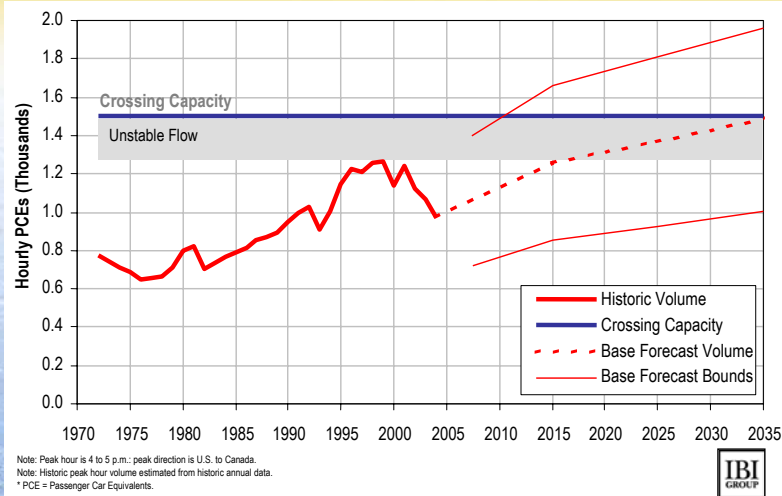
Detroit River INTERNATIONAL CROSSING PROJECT

Travel Demand vs. Capacity:

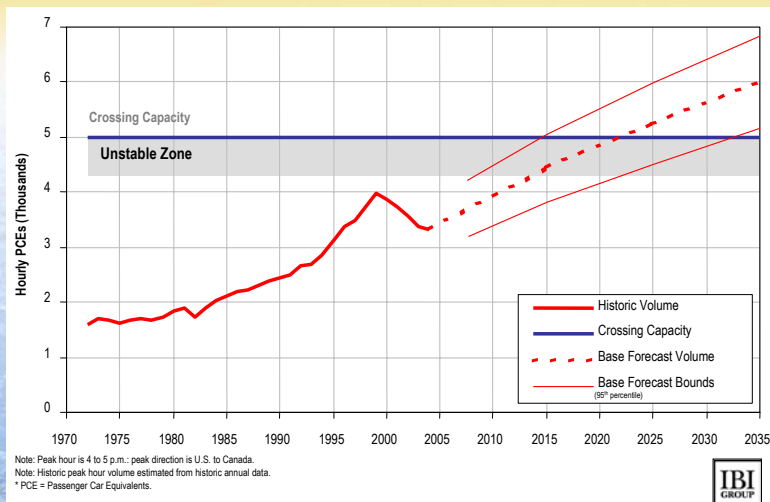
Ambassador Bridge



Travel Demand vs. Capacity: Detroit-Windsor Tunnel



Travel Demand vs. Capacity: Combined Detroit River Crossings



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. Due to the significance of this border crossing to the national, provincial/state and local economies, governments must take all reasonable steps to provide for the continuous flow of people and goods at this important border crossing.

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.

Preliminary For Discussion Purposes Only

Sensitivity Analyses: What if ... ?

In light of the uncertainties inherent in trade and traffic forecasting, the Project Team tested a number of What If...? scenarios to determine whether another crossing is needed within the timeframe of this study (i.e. within 30 years):

Scenario	Year Capacity Reached
Base Forecast	10 to 15 yrs
Sensitivity Analyses:	
High Trade Growth	Advance 3 yrs
Low Trade Growth	Defer 4 yrs
Diversion to Intermodal Rail	Defer 2 yrs
High Diversion to St. Clair River Crossing	Defer 6 yrs
High Passenger Car Demand	Advance 3 yrs
Low Passenger Car Demand	Defer 3 yrs
Combined 95 th Percentile High Scenario ¹	Advance 7 yrs
Combined 95 th Percentile Low Scenario ²	Defer 11 yrs

Under the most pessimistic of scenarios, additional crossing capacity is needed by 2035 to meet increased travel demand

¹ Combines the optimistic scenarios, consisting of High Trade Growth and High Passenger Car Demand Forecast Scenarios (95th percentile).
² Combines the pessimistic scenarios, consisting of Low Trade Growth, Diversion to Intermodal Rail, High Diversion to St. Clair River crossing and Low Passenger Car Demand Forecast Scenarios (95th percentile).

Preliminary For Discussion Purposes Only

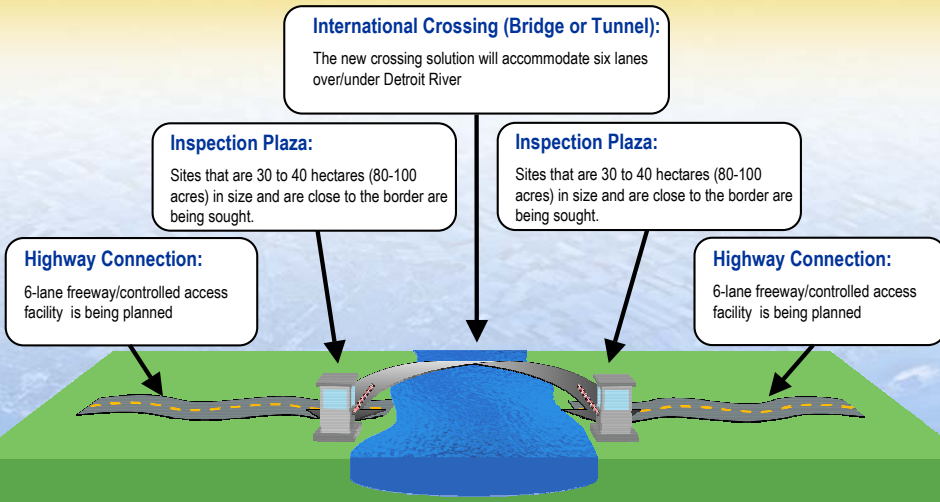
Purpose of the DRIC Project

- The purpose of a new or expanded Detroit River crossing with connections to the freeway systems in Ontario and Michigan is to provide for the safe, efficient and secure movement of people and goods across the Canadian-U.S. border in the Detroit River area to support the economies of Ontario, Michigan, Canada and the U.S.
- In order to meet 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)
- Given the importance of this trade corridor to the local, regional and national economies and recognizing the negative effects associated with poor traffic operations and congestion, the partnering governments must take all reasonable steps to reduce the likelihood of disruption to transportation service in this corridor.

The DRIC Study will:

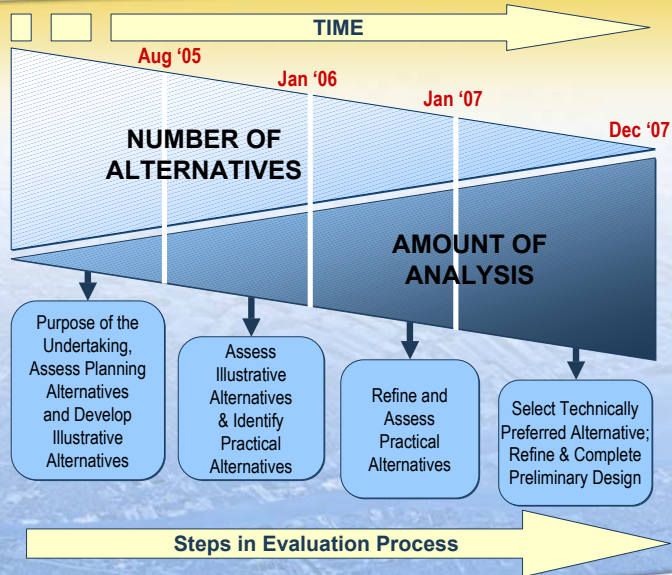
- Coordinate the U.S. and Canadian work programs
- Investigate the engineering, social, economic, cultural and natural environment attributes of route and crossing alternatives
- Publicly present the assessment of direct and indirect impacts of the alternatives for public review
- Incorporate public and agency input in decision-making and development of mitigation

Components of New or Expanded International Crossing

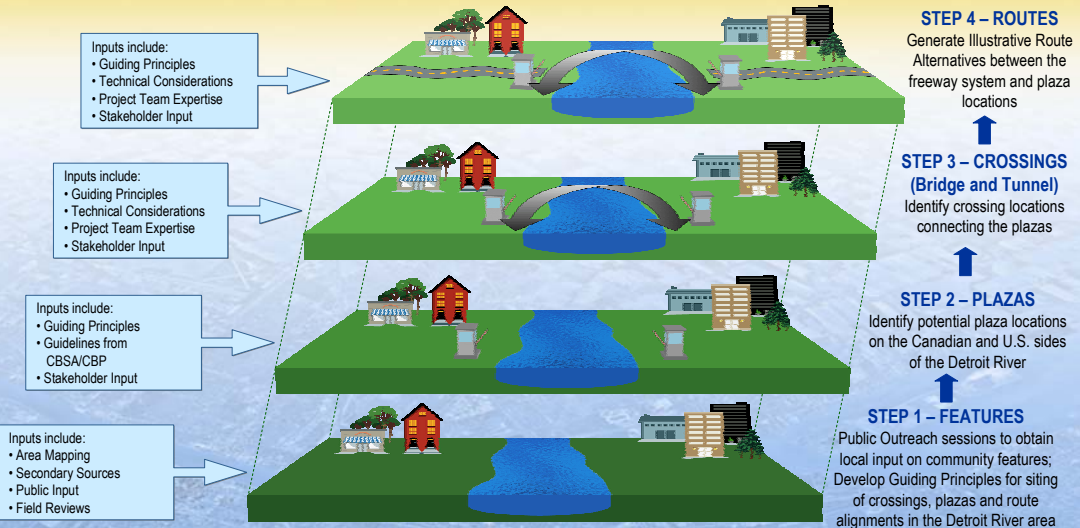


Evaluation Process

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



Development of Illustrative Alternatives



- Information on area features were identified by the following means:
 - Published data provided by ministries, agencies, municipalities and others;
 - Windshield surveys and field investigations;
 - Public input.



Guiding Principles for Generating Alternatives

The overall guiding principles used to generate the Illustrative Crossing, Route and Inspection Plaza Alternatives were as follows:

1. **Utilize existing infrastructure to the maximum extent** - taking advantage of existing transportation and other linear corridors may improve usage of the transportation network and/or reduce impacts to other land uses;
2. **Seek areas or land uses that are compatible, or areas in transition to compatible land uses** - compatible areas are those that are less impacted by new route alignments than other land uses; areas in transition allow the opportunity to incorporate new route alignments in the area planning;
3. **Minimize impacts to significant natural features** - such features are usually regionally unique, protected by legislation/designations and may preclude a transportation facility; and
4. **Minimize impacts to city centres** - such areas generally provide a focus for cultural, social and economic activities.

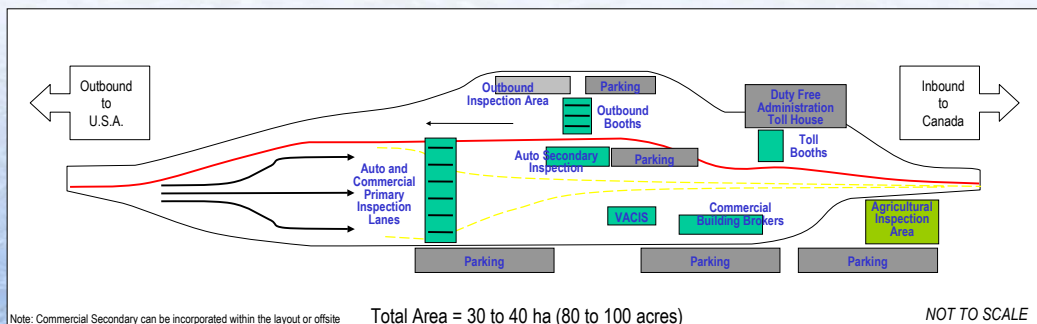
Alternative Inspection Plaza Sites

- In addition to the overall guiding principles for generating illustrative alternatives, specific design guidelines were developed for generating alternative inspection plaza sites through discussions with the Canadian Border Service Agency and the U.S. Department of Homeland Security Customs Border Protection Branch.
 - Site Area:** The potential site must provide ability to expand; adequate space for traffic queues, turn-around drives and installation of equipment systems prior to and after inspection points. For the DRIC Project, a plaza area of 30 to 40 ha (80 to 100 acres) is required;
 - Adjacent Land Use:** The site should be located away from residential areas, schools and other community uses; sites should generally not be viewable from neighbouring lands; good visibility to surrounding areas and approaches; consider undeveloped or lightly developed lands; avoid hazardous adjacent land uses such as chemical plants and fuel depots;
- As well, the following factors were considered in developing alternative inspection plaza sites:

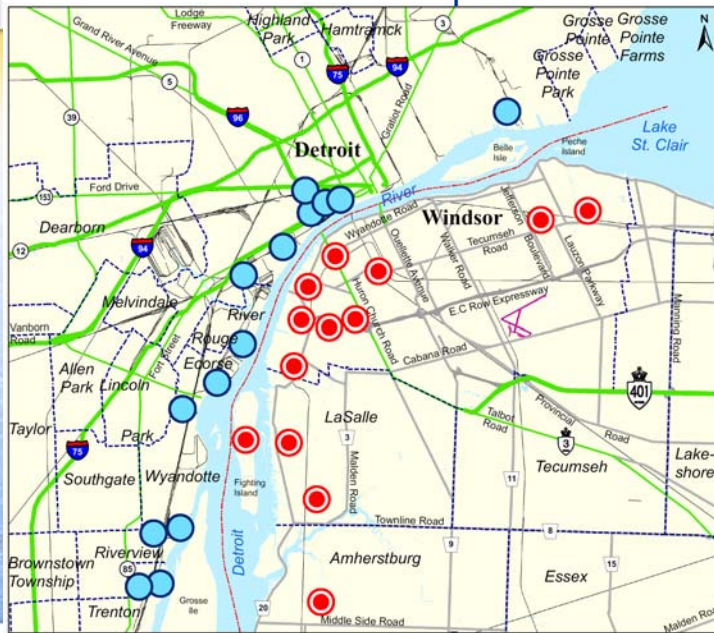
• Utility Access	• Environmental Issues	• Existing Structures	• Water Availability
• Existing Easements and Right-of-Ways	• Historic & Archaeology Issues	• Temporary Facilities	• Emergency Services and Access
• Security	• Proximity to border	• Site Topography	

Plazas: Conceptual Layout

The following is a conceptual layout of what a new inspection plaza may look like. The Partnership will continue to work with Border Agencies in Canada and the U.S., as well as local communities, in defining the functions, shape and location of alternative inspection plazas.



Illustrative Inspection Plaza Alternatives



Crossing Types: Bridges & Tunnels

Examples of the types of crossings being considered for the DRIC Project:

SUSPENSION BRIDGES



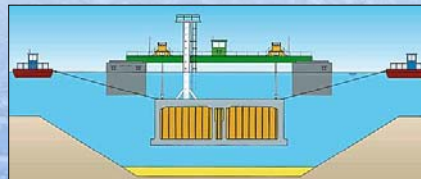
CABLE STAY BRIDGES



TUNNEL BORING MACHINE (Rock or Soft Ground Tunneling)



SUBMERGED TUNNEL



Feasibility of Bridge and Tunnel Alternatives

- Given the geological conditions along the Detroit River, foundations and structural experts on the Project Team assessed the feasibility of crossing types on the Detroit River.

**DETROIT RIVER INTERNATIONAL CROSSING
GEOTECHNICAL SUMMARY OF CROSSING OPTIONS AND CONCERNS**

Location	Area of Fighting Island	Area of Zug Island	Area of Ambassador Bridge	Area of Belle Isle
Bridge	- Solution mining - Foundations on bedrock, 15 to 20 m below ground surface - Potential artesian groundwater - Methane and hydrogen sulphide - Approach embankments on compressible soils	- Solution mining - Foundations on bedrock, 25 to 30 m below ground surface - Methane and hydrogen sulphide - Potential artesian groundwater - Dry salt mining	- Foundations on bedrock, 35 to 40 m below ground surface - Methane and hydrogen sulphide - Potential artesian groundwater - Approach embankments on compressible soils	- Foundations on bedrock, 40 to 50 m below ground surface - Methane and hydrogen sulphide - Potential artesian groundwater - Approach embankments on compressible soils
Immersed Tube	- Solution mining - Excavations in bedrock required - Potential artesian groundwater - Sediment disturbance and disposal	- Solution mining - Excavations may penetrate near the bedrock interface - Potential artesian groundwater - Sediment disturbance and disposal - Dry salt mining	- Excavations may penetrate near the bedrock interface - Potential artesian groundwater - Sediment disturbance and disposal	- Tunnel potentially seated on soft clay - Sediment disturbance and disposal
Soft Ground Tunnel	- Solution mining - Insufficient ground cover in river bed therefore not feasible for 13 m diameter tunnel - Groundwater control	- Solution mining - Insufficient ground cover in river bed therefore not feasible for 13 m diameter tunnel - Groundwater control - Dry salt mining	- Insufficient ground cover in river bed therefore not feasible for 13 m diameter tunnel - Groundwater control	- Groundwater control - Approach construction in soft soil
Rock Tunnel*	- Solution mining - Potential artesian groundwater - Approach construction, excavations of 15 to 20 m - Use of double-shield rock TBM	- Solution mining - Groundwater control - Gas control - Approach construction, excavations of 25 to 30 m - Dry salt mining - Use of double-shield rock TBM	- Approach construction, excavations of 30 to 35 m - Groundwater control - Gas control - Use of double-shield rock TBM	- Groundwater control - Gas control - Approach construction, excavations of 40 to 50 m, beyond practical limit - Use of double-shield rock TBM

Feasible, technically challenging, issues may be overcome pending further analysis and design effort
Potentially feasible pending further investigation, analysis and design effort but may also include such significant risks that render the option not suitable for further consideration (e.g. solution mining)
May not be feasible

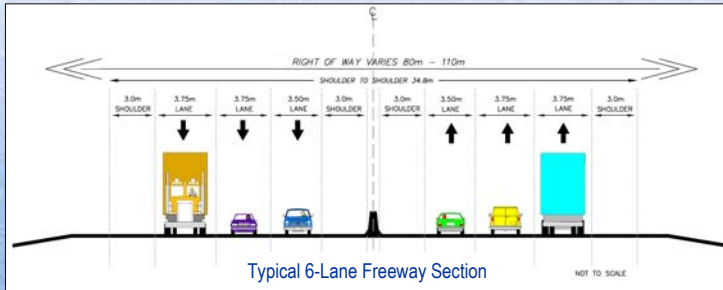
- Based on these findings, bridge options will be considered at each of the proposed crossing locations. Tunnel options will be considered for those locations between Zug Island and the east limits of the Detroit River.

Illustrative Crossing Alternatives



Generation of Connecting Routes

- Illustrative route alternatives connecting plaza sites to the provincial highway system were developed based on the Guiding Principles identified in the TOR, as well as the following objectives:
 - Develop alternatives that are efficient/direct;
 - Meet objectives and design requirements of Partnership agencies;
 - Reflect the needs of border agencies; and
 - Minimize/avoid impacts to significant features to the extent possible.

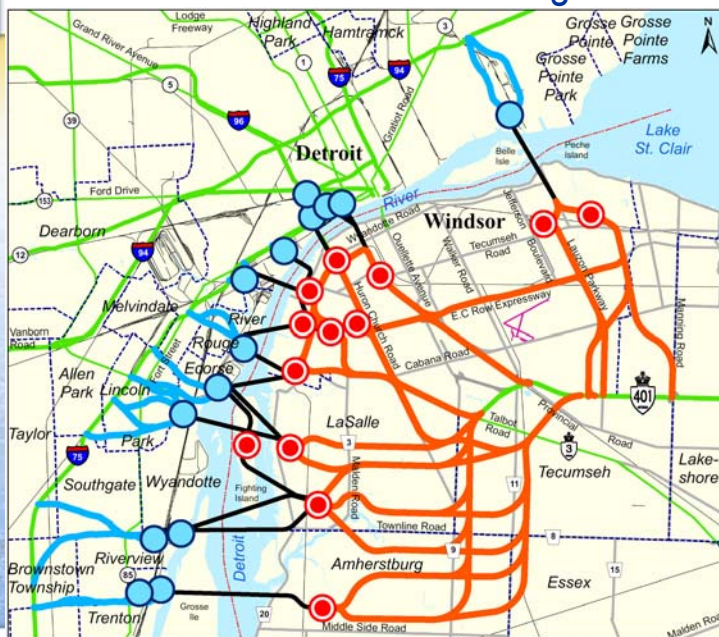


Above Grade Example: Gardiner Expressway, Toronto ON



Below Grade Example: Brooklyn-Queens Expressway, New York, NY

Illustrative Connecting Route Alternatives



- Impacts associated with the illustrative and practical alternatives will be identified according to factors / criteria such as those listed in the chart on the accompanying board.
- The evaluation of alternatives 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. An alternative must meet the stated purpose of the undertaking:

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

- Assessment of impacts & benefits will be conducted in accordance with environmental work plans. Draft work plans are available for review at this Open House, on the project website, and at the Windsor project office.

In conducting the evaluation, the team will consider:

- National and international significance of the crossing
- Issues and concerns identified during consultation
- Government legislation, policies and guidelines
- Municipal policies (e.g. Official Plans)

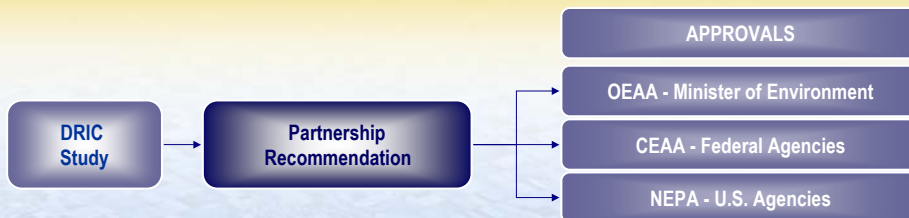
Reasoned Argument Method	Arithmetic Method
▪ Considers advantages and disadvantages of each alternative	▪ Assigns a numeric weight to each factor
▪ Compares relative significance of impacts	▪ Compares weighted scores

FACTOR	CRITERIA
Socio-Economic Environment	
Property and Access	1) Impacts to residential areas (i.e. property, access impacts) 2) Impacts to commercial/industrial areas (i.e. property, access impacts) 3) Impacts to agricultural operations
Community Effects	4) Nuisance impacts (e.g.. noise, lighting) 5) Impacts to cemeteries, schools, places of worship, unique community features 6) Effects on community activity / mobility 7) Effects on aesthetics / community character
Governmental Land Use Strategies	8) Compatibility with government goals / objectives / policies 9) Effects on approved private development proposals
Cultural Environment	
Archaeology	10) Impacts to historic/archaeological sites
Heritage and Recreation	11) Impacts to built heritage features and cultural landscape units 12) Impacts to National, State/Provincial and local parks/recreation sites
Natural Environment	
Groundwater	13) Impacts to groundwater recharge and discharge areas, as well as identified wellhead and source protection areas and areas susceptible to groundwater contamination
Aquatic Habitat, Fisheries, and Surface Water	14) Impacts to critical fish habitat features (spawning, rearing, nursery, important feeding areas) 15) Number of watercourse crossings required 16) Impacts to water bodies, including channel realignments and fill
Agricultural	17) Impacts to prime agricultural areas
Wetlands	18) Impacts to Provincially Significant Wetlands and wetland function 19) Impacts to evaluated and unevaluated wetlands
Wildlife	20) Effects on species at risk / endangered species (vegetation, fish and wildlife) 21) Effects on ecologically functional areas such as connective corridors or travel ways
Special Areas	22) Impacts to important wildlife areas such as deeryards, heronries, waterfowl areas, important bird areas (IBA). Other areas to be considered are any identified wildlife management, rehabilitation and research program sites. 23) Impacts to environmentally significant features such as Environmentally Sensitive Areas (ESAs), Areas of Natural and Scientific Interest (ANSIs) or other areas of provincial, regional or local significance and the functions of these features 24) Impacts to special spaces including the Detroit River, Conservation Authority Lands and NEPA 4(f) lands including the function of these features
Air Quality	25) Effects on sensitive receptors to air quality 26) Air pollutants and GHG emissions
Woodlands	27) Impacts to significant forest stands and woodlots (including interior forest habitat)
Resources	28) Impacts to mineral, petroleum and mineral aggregate resources
Property Waste & Contamination	29) Effect on operating and closed waste disposal sites 30) Impacts to other known contaminated sites
Technical Considerations	
Transportation	31) Transportation Operations 32) Continuous/ongoing river crossing capacity (i.e. redundancy) 33) Operational Considerations of Crossing System (River Crossing and Plaza) 34) Network Compatibility 35) Border Processing
Engineering	36) Constructability Issues
Cost	37) Cost

Your Input is Needed

- Please help the team understand the level of importance of key issues by completing a Evaluation Factor Rating Tool (available at this PIOH or the Project Website). The rating tool includes a list of major factors or concerns to be considered during this study. These factors cover a broad range of issues, including the ability of the alternative to meet the project's purpose and needs, as well as natural, social, cultural, economic and technical considerations. Please review the information and provide your opinion as to how highly (on a scale of 0 to 100) the Project Team should consider each of the factors in deciding on what alternatives to carry forward for additional study.
- Instructions as to how to complete the exercise are provided on the Rating Tool.

Who Decides?



- The **ability to meet the Purpose**, as well as technical and environmental data (including information gained from consultation activities held throughout the project) will be considered in preparing **recommendations for improvements**.
- **Full documentation** of work prepared by the Partnership will be provided to the Federal and Provincial Agencies in Canada, as well as the State and Federal Agencies in the United States for their **formal review and approval**.
- In deciding whether to approve the Project, these agencies will consider the **engineering and environmental work, the level of public and agency involvement and the overall benefits and impacts** of the project on the local communities.
- On this basis, the Partnership is a strong believer in **consulting with as many people as possible**, starting early in the process and continuing as often as possible as we move forward to a recommended plan.

Community Consultation Group (CCG)

- A CCG, consisting of a diverse cross section of interest groups and individuals, has been convened for the DRIC Project and will meet regularly during the Environmental Assessment.
- The CCG will provide input on issues identified by the Project Team as well as community interests in the Windsor / Essex area.
- For the U.S. component of this study, a Local Advisory Committee (LAC) was also established.
- Information on these meetings is available on the project website.

How can you stay involved?

- The DRIC Project is an important project for the communities in the Detroit River area; this project is also a unique opportunity for the public to get involved in the decisions that will have a lasting effect on Windsor/Essex County.
- Your participation is welcomed and encouraged!
 - Complete an Evaluation Factor Rating Form and let the Project Team know your views on key project issues
 - Sign-up to participate in a project issue workshop (Registration forms are available at this Open House or on the project website)
 - Complete a comment sheet and share your views with the Project Team (any comments will become part of the public record)
 - Check website for progress updates
 - Contact the Project Team at any time to obtain information or ask questions
 - Attend the Public Information Open Houses (next Open Houses are scheduled for December 2005)

- Information and comments received from this PIOH will be considered in refining and assessing the illustrative route, plaza and crossing alternatives.
- The practical alternatives that will be studied in greater detail will be identified.
- The evaluation of illustrative alternatives and the selected practical alternatives will be presented at the second Public Information Open Houses scheduled for December 2005.
- The Partnership will undertake investigations of technical, social, economic, cultural and natural environment issues. Ongoing consultation with agencies, stakeholders and the public will be incorporated in this work.
- The practical alternatives will be evaluated to identify a technically and environmentally preferred alternative.

THANK YOU FOR ATTENDING!

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