

# DETROIT RIVER INTERNATIONAL CROSSING ENVIRONMENTAL ASSESSMENT

*Armanda Street Residents Meeting*

May 10<sup>th</sup>, 2006

## Meeting Outline

1. Project Status
2. Generation and Assessment of Practical Alternatives
3. What's Next
4. Questions
5. Closing Remarks

## Project Status

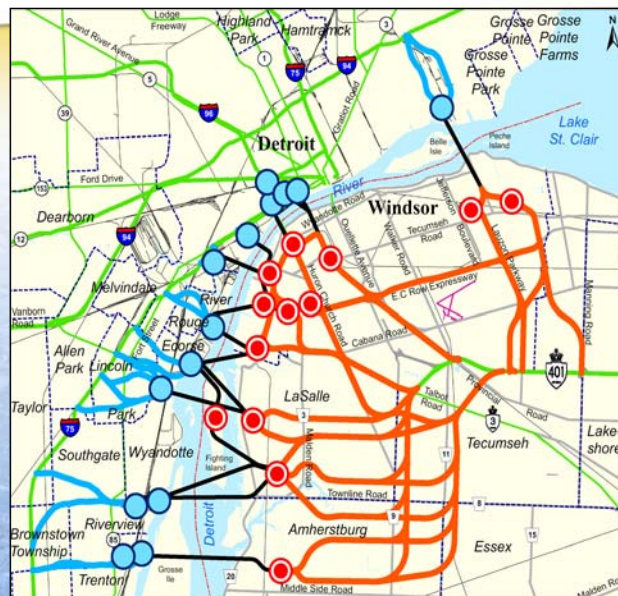
## The Border Transportation Partnership



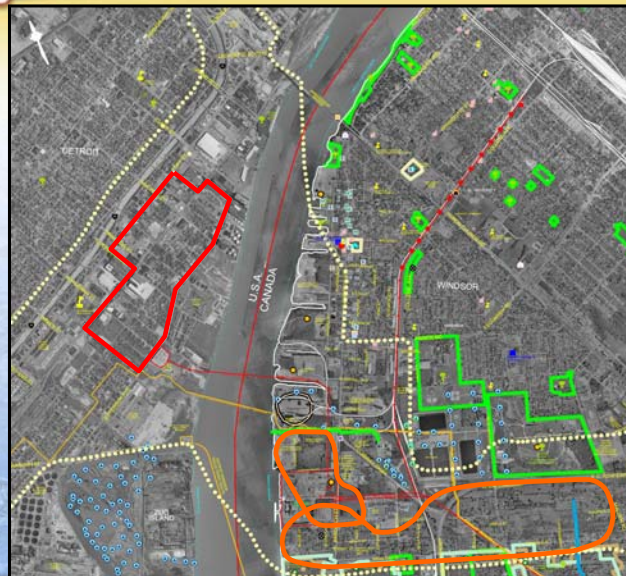
## Key Milestones

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
Specific Crossing, Plaza and Access Road Options	March '06	PIOH3
Results of Social, Economic, Environmental and Engineering Assessments	Winter '06	PIOH4
Preferred Crossing Location, Plaza Locations & Connecting Routes in Canada and the U.S.	Spring '07	PIOH5
Finalize Engineering and Mitigation Measures	Summer '07	PIOH6
Document Study and Submit for Approvals	End of '07	Public Review

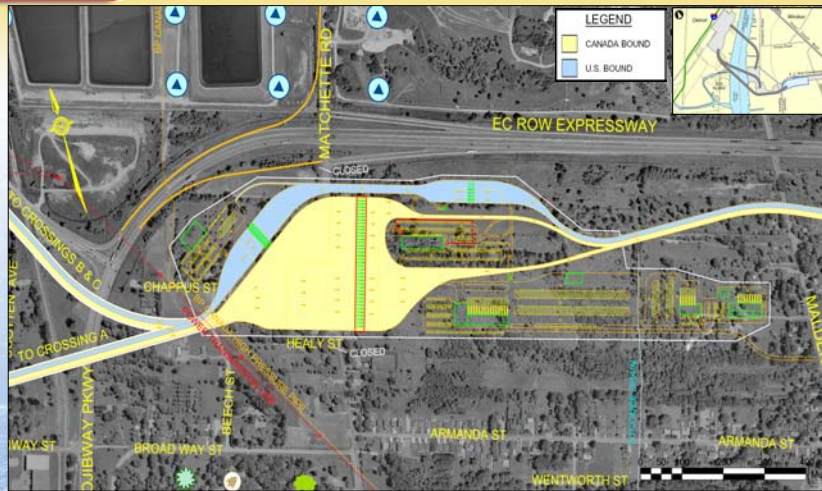
## Illustrative Route Alternatives







## Inspection Plaza Alternative A



**Area:** Approx. 35 ha (85 acres)

**Primary Inspection Lanes:** 20 Passenger; 19 Commercial.

**Other Major Functions:** Secondary Inspection (Passenger/Commercial); Vehicle and Inspection System (VACIS); Agriculture Inspection; Toll Facilities.

**Can Connect with:** Crossings A, B & C

**Land Uses Directly Affected:** Residential; Industrial; Commercial.

**Displacements:** 66 Residential Existing; 19 Residential Under Construction

**Utility Easements/ROWs:** Power Transmission Line; BP Canada High Pressure Pipe

**Realignments/Closures:** Chappuis St.; Beech Street; Healy St.; Matchette Rd.

## Inspection Plaza Alternative A







**Area:** Approx. 35 ha (85 acres)

**Primary Inspection Lanes:** 20 Passenger; 19 Commercial.

**Other Major Functions:** Secondary Inspection (Pass/Comm); Supplementary Inspection (VACIS); Agriculture Inspection; Toll Facilities.

**Can Connect with:** Crossings B & C

**Land Uses Directly Affected:** Brighton Beach; OPG Parking; Transformer Station; Nemak; Ojibway Natural Area.

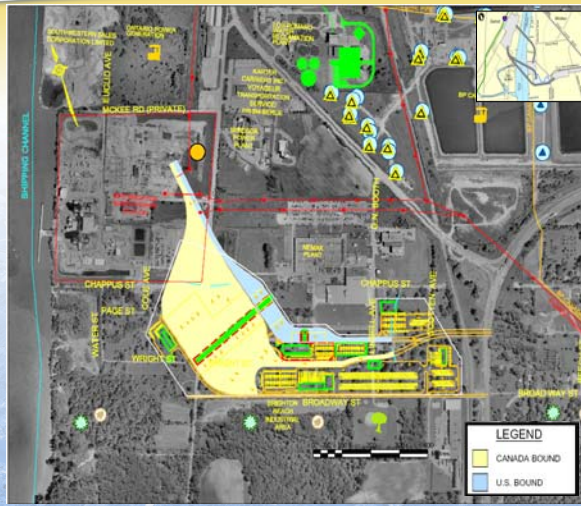
**Displacements:** 12 Residential; 1 Manufacturing; 1 Utilities

**Existing Easements/ROWS:** Power Transmission Line

**Realignments/Closures:** Water St; Scott Ave; Cole Ave; Audrey Ave; Sandwich St; Chappus St.; Page St.; Wright St.; Broadway St.; Healy St.; Reed Ave.; DuPont St.



## Inspection Plaza Alternative B1



**Area:** Approx. 33 ha (82 acres)

**Primary Inspection Lanes:** 20 Passenger; 19 Commercial.

**Other Major Functions:** Secondary Inspection (Pass/Comm); Supplementary (VACIS); Agriculture Inspection; Toll Facilities.

**Can Connect with:** Crossings B & C

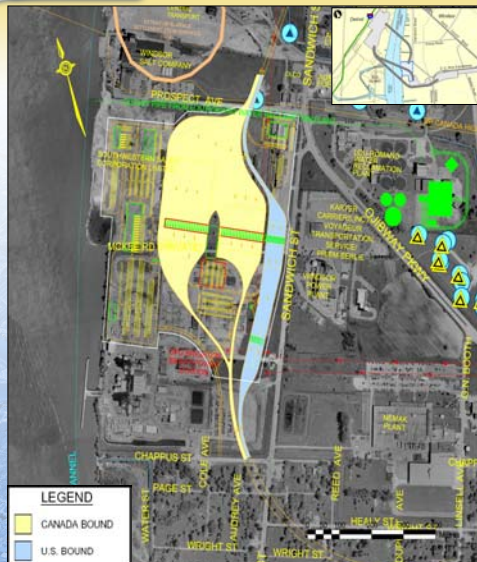
**Land Uses Directly Affected:** Brighton Beach; OPG Parking; Transformer Station; Nemak; Ojibway Natural Area.

**Displacements:** 10 Residential; 1 Manufacturing; 1 Utilities

**Existing Easements/ROWS:** Power Transmission Line

**Realignments/Closures:** Water St; Scotten Ave; Cole Ave; Audrey Ave; Sandwich St; Chappus St; Page St; Wright St.; Broadway St.; Healy St.; Reed Ave.; DuPont St

## Inspection Plaza Alternative C



**Area:** Approx. 35 ha (85 acres)

**Primary Inspection Lanes:** 20 Passenger; 19 Commercial.

**Other Major Functions:** Secondary Inspection(Pass/Comm); Supplementary Vehicle Inspection (VACIS); Agriculture Inspection; Toll Facilities.

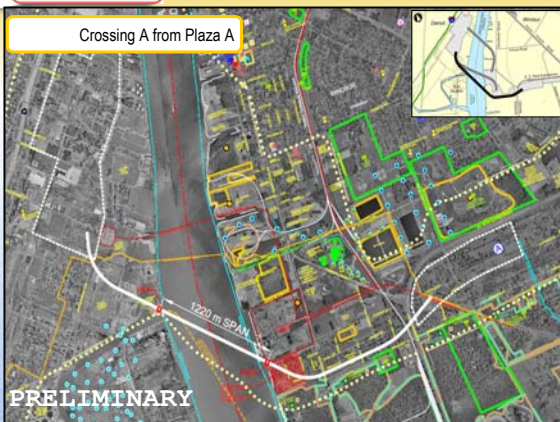
**Land Uses Directly Affected:** Hydro One Transformer Station; Aggregate Operation; Windsor Salt; OPG Parking

**Displacements:** Hydro One Transformer Station, Aggregate Operation; OPG Parking

**Easements/ROWS Relocation:** Power Transmission Lines

**Realignments/Closures:** Prospect Ave.; McKee St.; Euclid Ave.



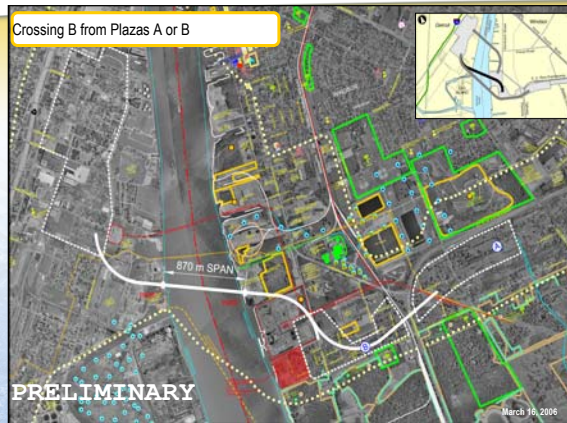


	Connecting to PLAZA A
Main Span Length:	1220 m
Number of Lanes:	6
Distance to Touchdown:	1000 m
Maximum Height over River:	50 m
Approx Height over River at Shoreline:	40 m
Approx. Height of Towers:	160 m
Distance from River to Plaza:	1740 m

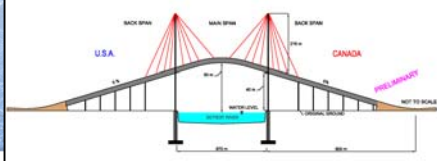
CONCEPTUAL PROFILE – CROSSING A



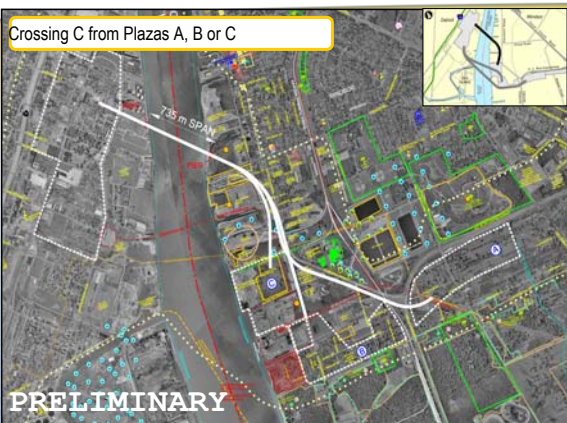




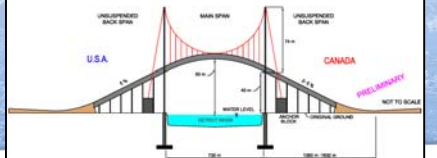
CONCEPTUAL PROFILE – CROSSING B AS CABLE-STAYED BRIDGE



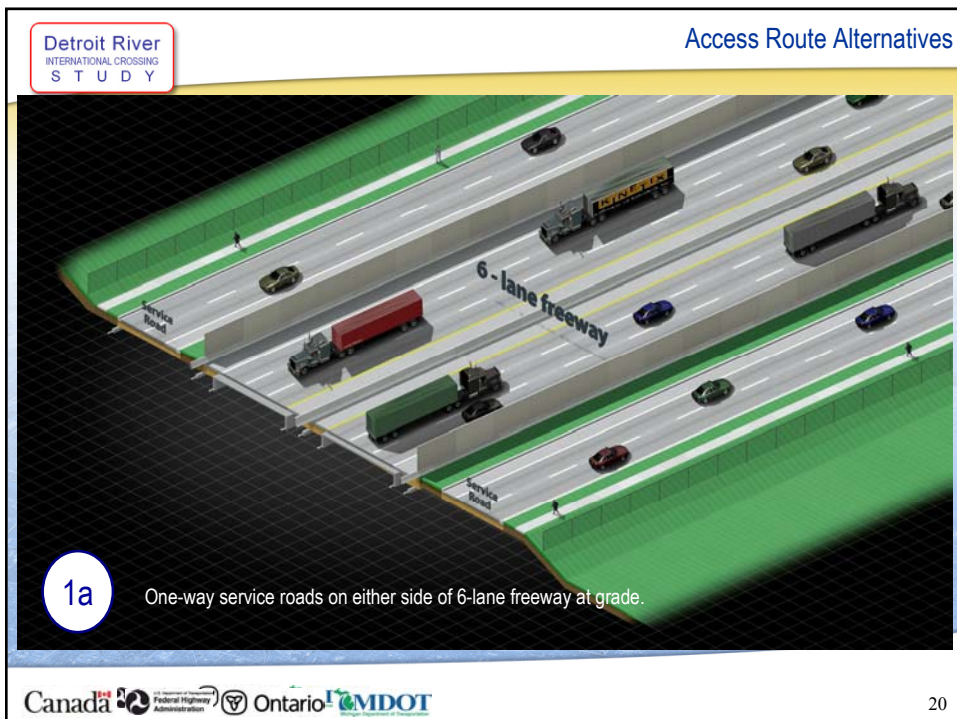
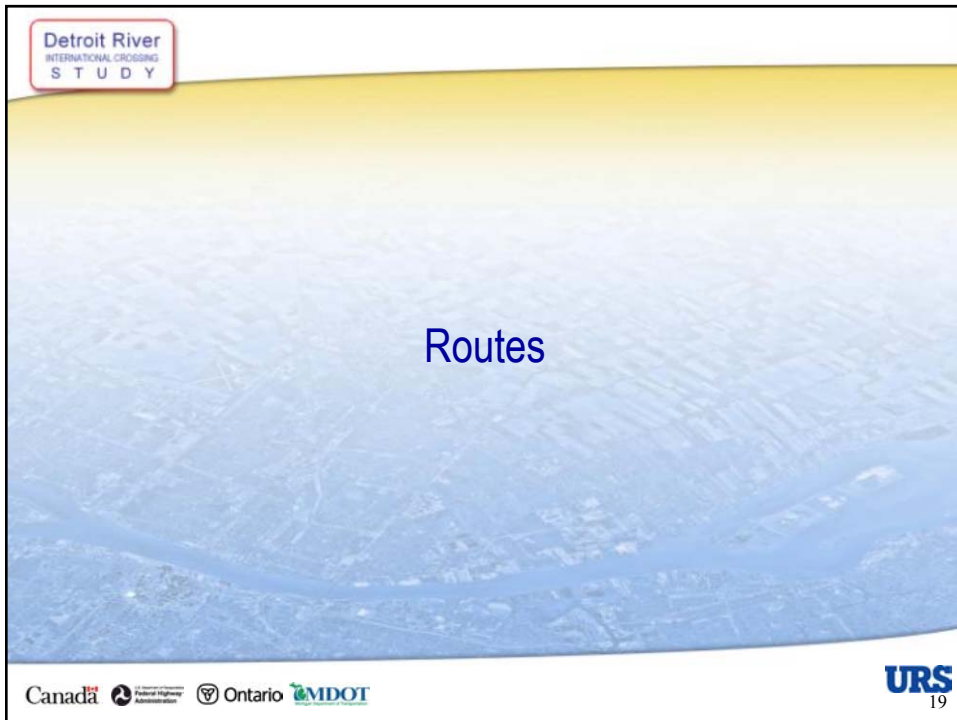
	Connecting to PLAZA A	Connecting to PLAZA B
Main Span Length:	870 m	870 m
Number of Lanes:	6	6
Distance to Touchdown:	1120 m	975 m
Maximum Height over River:	50 m	50 m
Height over River at Shoreline:	40 m	40 m
Height of Towers:	125–260 m	125–260 m
Distance from River to Plaza :	2120 m	760 m



CONCEPTUAL PROFILE – CROSSING C AS A SUSPENSION BRIDGE



	Connecting to PLAZA A	Connecting to PLAZA B	Connecting to PLAZA C
Main Span Length:	735 m	735 m	735 m
Number of Lanes:	6	6	6
Distance to Touchdown:	1830 m	1920 m	1360 m
Maximum Height over River:	50 m	50 m	50 m
Height over River at Shoreline:	45 m (CAN)	45 m (CAN)	45 m (CAN)
Height of Towers:	115 – 225 m	115 – 225 m	115 – 225 m
Distance from River to Plaza:	2935 m	1955 m	1275 m





1b

One-way service roads either side of 6-lane freeway depressed.



2a

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





## Evaluation Factors and Performance Measures

## Evaluation Factors and Performance Measures

### Changes in Air Quality

- Concentrations of pollutants associated with vehicle exhaust will be determined through computer modelling of future traffic conditions
- Model will predict ambient concentrations at sensitive receptors both with and without the project
- Results will be compared to MOE Ambient Air Quality Criteria and National Ambient Air Quality Objectives

### Protect Community and Neighborhood Characteristics

This work will include assessment of

- local access traffic impacts
- potential increases in noise levels at sensitive receptors
- # of residences and businesses potentially displaced and disrupted
- # of social features displaced and disrupted
- potential impacts to delivery of public transit, school bus routes, emergency services and other services
- public safety and security
- impacts to community cohesion and character
- examine direct and indirect effects on existing businesses in Area of Continued Analysis

### Maintain Consistency with Existing and Planned Land Use

- potential impacts to present and approved land uses and development applications
- displacement/disruption effects to known contaminated sites or disposal sites
- displacement/disruption effects to areas of potential for contamination
- review land use types adjacent to connecting routes



### Protect Cultural Resources

- National historical sites displaced/disrupted
- Provincially designated properties displaced/disrupted
- Heritage easements displaced/disrupted
- Municipally-listed built heritage features displaced/disrupted
- Locally identified built heritage features displaced/disrupted
- Number of known archaeological sites or areas of high potential displaced/disrupted
- Cultural landscapes displaced/disrupted
- Disturbance of areas of archaeological site potential
- Parklands affected

### Protect the Natural Environment

- identify impacts to ecological landscapes
- identify impacts to terrestrial communities/ecosystems
- identify and evaluate impacts to aquatic communities/ecosystems
- identify and evaluate impacts to Species at Risk
- identify impacts to surface water, including stormwater and existing drainage in the study area
- identify potential impacts to groundwater resources, including proximity to drinking wells

## Evaluation Factors and Performance Measures

### Improve Regional Mobility

#### Highway Network Effectiveness

- Service Levels on freeway and service roads
- Operations at interchanges/intersections

#### Continuous/ongoing river crossing capacity (i.e. redundancy)

- Assessment of access to crossing
- Separation of international and local traffic

#### Operational Considerations of Crossing System (River crossing and Plaza)

- distance to plaza from international border;
- accessibility;
- serviceability;
- security,
- flexibility for expansion

## Evaluation Factors and Performance Measures

### Constructability and Preliminary Construction Costs

- Preliminary Construction Cost
  - millions of \$ (2005)
  - (e.g. property, maintenance, capital, staging)
- Constructability
  - site constraints (e.g. utilities, land uses)
  - geotechnical constraints (e.g. soils, brine wells)
  - construction staging/duration
  - assessment of construction risks
  - degree of disruption due to construction
  - degree of impact on traffic during construction
  - length of alternatives (e.g. length of roadway skew angle of international crossing)

## Evaluation of Alternatives with the Area of Continued Analysis

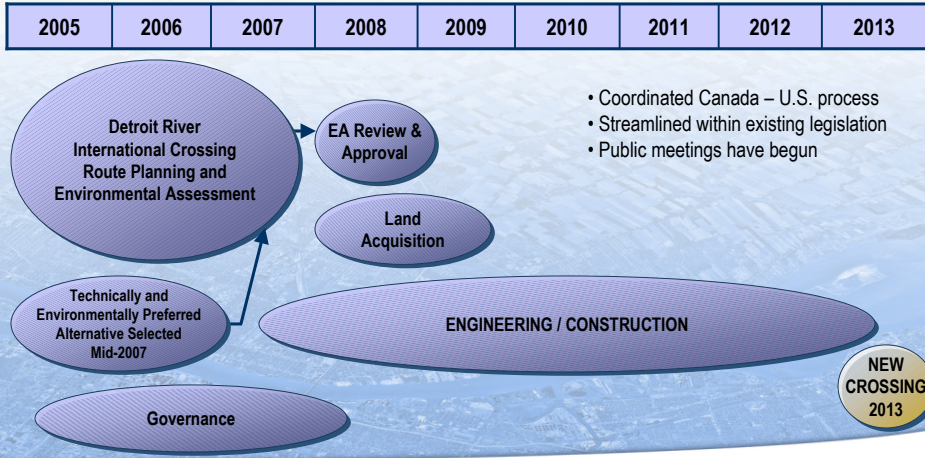
<b>Technical:</b>	<ul style="list-style-type: none"> <li>• Geotechnical Borings</li> <li>• Develop Geometric Design and Cross Sections</li> <li>• Consult Municipalities, and Stakeholders - Access/Connections</li> <li>• Develop Mitigation Measures</li> </ul>
<b>Acoustical and Vibration:</b>	<ul style="list-style-type: none"> <li>• Site Reviews</li> <li>• Noise Assessment (construction and operation) based on Geometric Design, Cross Sections, Traffic, Social, Economic and Mitigation</li> <li>• Consult with Agencies and Stakeholders</li> <li>• Conduct Noise Modeling, Base Case (Without) and With project, 10 years after Implementation, following MOE/MTO Noise Protocol</li> <li>• Develop Noise Mitigation Strategies</li> </ul>
<b>Air Quality:</b>	<ul style="list-style-type: none"> <li>• Site Reviews</li> <li>• Air Quality Assessment (construction and operation) based on Geometric Design, Cross Sections, Traffic, Social, Economic and Mitigation</li> <li>• Consult With Agencies and Stakeholders</li> <li>• Air Quality Modeling, Base Case (Without) and with project, Burden and Dispersion, ( NOx and PM10), for the years 2015, 2025 and 2035).</li> </ul>
<b>Waste and Waste Management</b>	<ul style="list-style-type: none"> <li>• Site Reviews</li> <li>• Consult Agencies and Stakeholders</li> <li>• Develop Waste Management Strategies</li> </ul>
<b>Archaeology:</b>	<ul style="list-style-type: none"> <li>• Stage One Survey</li> <li>• Stage Two Field Surveys at Specific Locations</li> <li>• Consult Agencies, First Nations and Stakeholders</li> <li>• Develop Mitigation Strategies</li> </ul>

## Evaluation of Alternatives with the Area of Continued Analysis

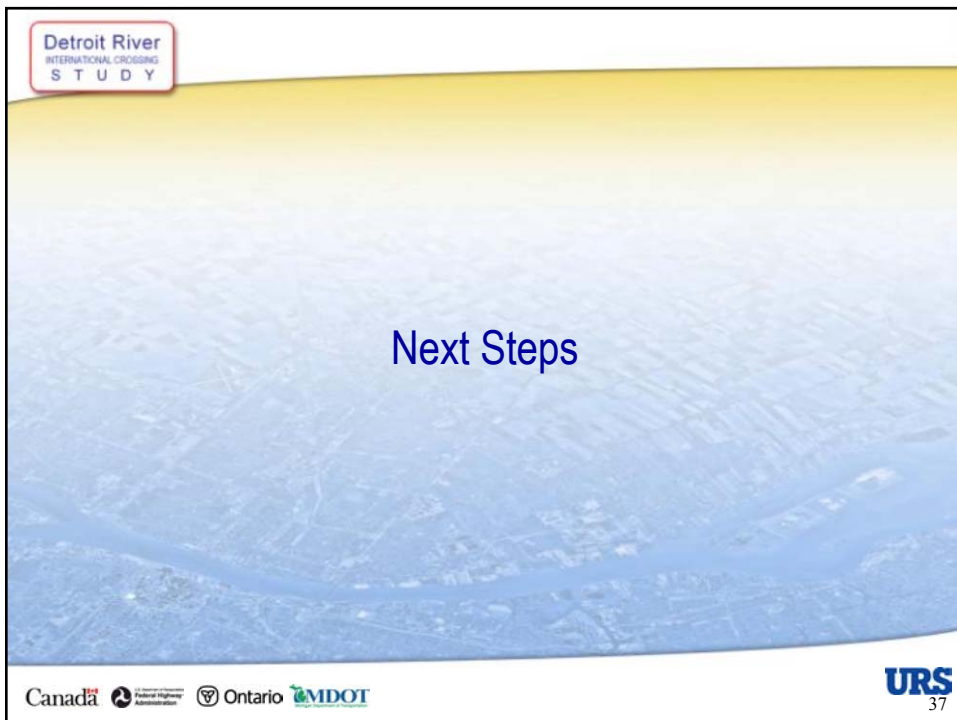
<b>Built Heritage:</b>	<ul style="list-style-type: none"> <li>• Site Reviews/Built Heritage Inventories</li> <li>• Consult Agencies, Communities, and Stakeholders</li> <li>• Identify Sensitive Built Heritage Features</li> <li>• Develop Protection/Mitigation Strategies</li> </ul>
<b>Economic:</b>	<ul style="list-style-type: none"> <li>• Conduct <u>Individual</u> Interviews of Business Owners and Operators</li> <li>• Consult Business Associations/Groups</li> <li>• Develop Protection/Mitigation Strategies</li> </ul>
<b>Social:</b>	<ul style="list-style-type: none"> <li>• Conduct <u>Individual</u> Household Interviews</li> <li>• Consult Community Associations/Groups</li> <li>• Develop Protection/Mitigation Strategies</li> </ul>
<b>Natural Heritage:</b>	<ul style="list-style-type: none"> <li>• Investigations – Fisheries, Migratory Birds, and Vegetation etc..</li> <li>• Consult Agencies and Stakeholders</li> <li>• Conduct Impact Assessment</li> <li>• Develop Environmental Protection Strategies</li> </ul>



## DRIC Project Time Line






## Questions



**Detroit River**  
INTERNATIONAL CROSSING  
STUDY

## Next Steps

- No final decision has been made as to location of new crossing and plaza nor the design of the new access road
- Next steps include:
  - Additional consultation
  - Additional technical and environmental investigations and fieldwork
  - Additional concept design work
  - Coordination with our U.S. Partners
  - Conduct analysis on social and environmental features
  - Presentation of assessment of Practical Alternatives – December 2006

Canada   Ontario  **URS**  
38

## Next Steps

- Active and on-going consultation is proposed throughout the project
- Spring/Summer '06 - Design Workshops/Input to Analysis
- Dec. '06 - Analysis of Practical Alternatives
  - PIOH 4 and Workshops
- Spring '07 - Selection of Technically and Environmentally Preferred
  - PIOH and Workshops

## Closing Remarks



**Ministry of Transportation  
Windsor Border Initiatives  
Implementation Group**

949 McDougall Street, Suite 200, Windsor  
Detroit.River@mto.gov.on.ca

**Mr. Dave Wake**  
**Manager, Planning**  
Tel. 519-873-4559

**Mr. Roger Ward**  
**Senior Project Manager**  
Tel. 519-873-4586

**URS Canada Inc.  
DRIC Project Office**

2465 McDougall Street, Suite 100, Windsor  
info@partnershipborderstudy.com

**Mr. Murray Thompson**  
**Project Manager**  
Tel. 905-882-4401

**Mr. Len Kozachuk**  
**Deputy Project Manager**  
Tel. 905-882-3540

Project Web Site: [www.partnershipborderstudy.com](http://www.partnershipborderstudy.com)  
Toll Free : 1-800-900-2649