

DETROIT RIVER INTERNATIONAL CROSSING ENVIRONMENTAL ASSESSMENT

Community Consultation Group Meeting

June 9, 2005

Introduction & Review of Agenda

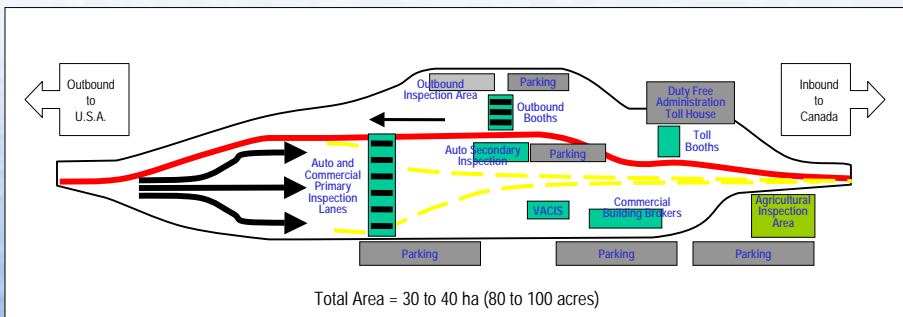
1. Introduction and Review of Agenda
 2. Public Comment
 3. Review of May 11th Meeting Notes
 4. Presentation on Plazas
 5. Discussion of Initial Findings on Crossing Types (Bridge/Tunnel)
 6. Review of Illustrative Alternatives Evaluation Process
 7. Overview of Upcoming PIOH Meetings
 8. Other Business
 9. Public Comment
- Closing Remarks*

Public Comment

Review of May 11th Meeting Notes

Plazas

Plazas – Conceptual Layout



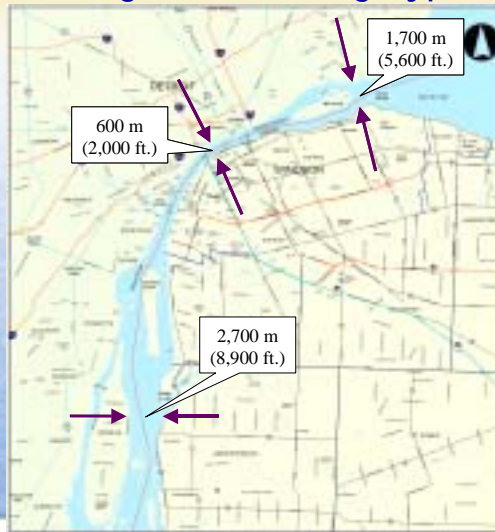
Alternative Inspection Plaza Sites

- **Specific Design Guidelines/Requirements** developed through discussions with:
 - Canadian Border Service Agency and
 - U.S. Department of Homeland Security Customs Border Protection Branch.
- **Site Area:** a plaza area of 30 to 40 ha (80 to 100 acres) is required;
- **Adjacent Land Use:** consider undeveloped or lightly developed lands;
- Other Factors:
 - Utility Access
 - Environmental Issues
 - Historic & Archaeology Issues
 - Existing Easements and Right-of-Ways
 - Existing Structures
 - Temporary Facilities
 - Site Topography
 - Water Availability
 - Emergency Services and Access

Crossing Types

Initial Findings on Crossing Types

WIDTHS OF DETROIT RIVER



Crossing Types - Bridge

SUSPENSION BRIDGES

Suitable for spans > 450 m (1,500 ft.)

- e.g. Ambassador Bridge 564 m (1,850 ft.)
- e.g. Golden Gate Bridge 1,280 m (4,200 ft.)



CABLE STAY BRIDGES

Suitable for spans < 900 m (3,000 ft.)

- e.g. Sunshine Skyway (Tampa, U.S.A.) – 366 m (1,200 ft.)
- e.g. Tatara Bridge (Japan) – 890 m (2,920 ft.)

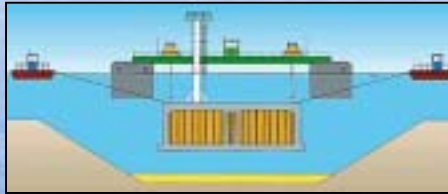
Crossing Types - Tunnels



Hard Rock TBM



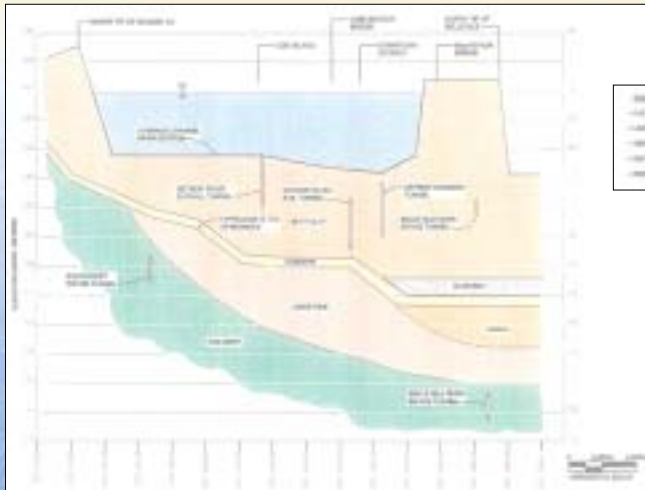
Soft Ground Tunneling



Submerged
Tunnel

Courtesy of NTH Consultants

Crossing Types - Tunnels



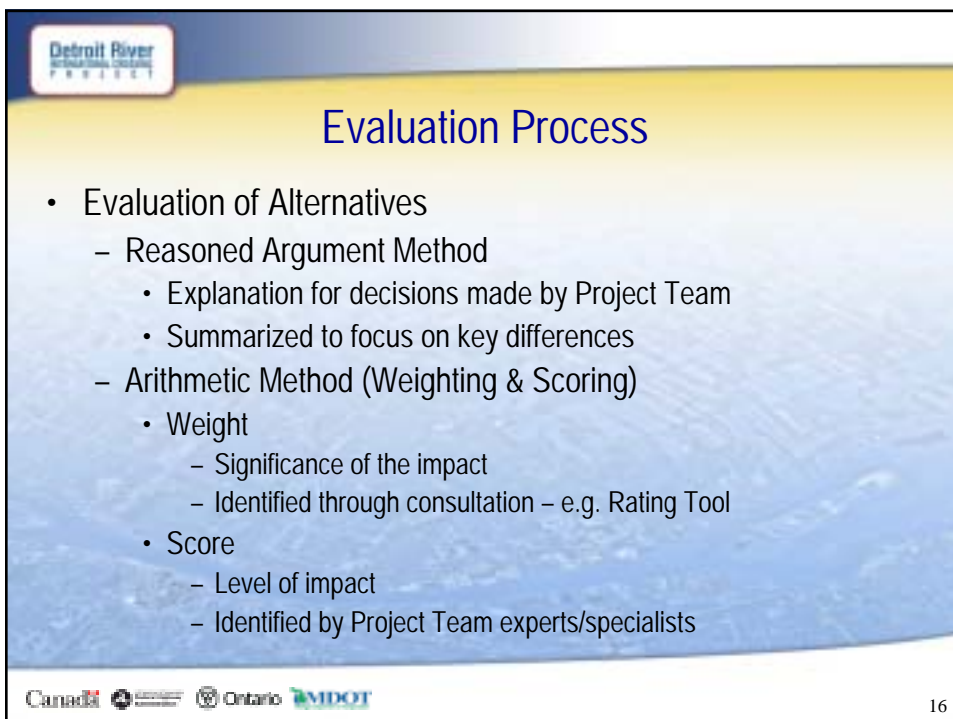
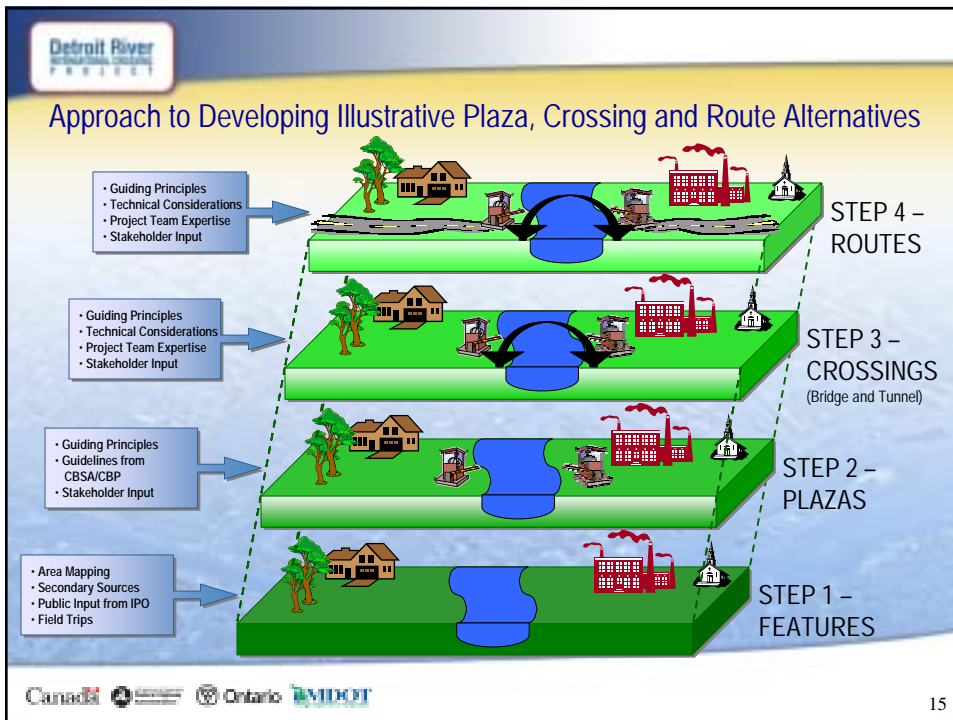
Legend:
 - Sand
 - Silt
 - Clay
 - Gravel
 - Rock
 - Tunnel
 - Water Table

Courtesy of NTH Consultants

Crossing Types - Tunnels

- Rock Tunnels
 - Not common in Detroit River area
 - Issues with rock depth / quality
- Soft Ground Bored Tunnel
 - e.g. St. Clair River Rail Tunnel
 - more suited for areas upriver of Zug Island (adequate depth)
- Submerged Tunnel
 - e.g. Detroit-Windsor Auto Tunnel
 - Environmental and Feasibility Issues

Evaluation Process/Rating Tool



Public Input to Evaluation Process

- Rating Tool
 - Purpose
 - Introduction
 - Descriptions
 - Factors and Performance Measures
 - Rating Tool
- Discussion and Comments

PIOH Meetings

Upcoming PIOH Meetings

Tuesday June 21, 2005

4:00 p.m. – 8:00 p.m.
St. Clair Saints Hall
Holiday Inn Select
1855 Huron Church Road
Windsor, Ontario

Wednesday June 22, 2005

5:00 p.m. – 9:00 p.m.
Holy Cross Elementary
School Gymnasium
2555 Sandwich West Parkway
LaSalle, Ontario

Tuesday June 28, 2005

4:00 p.m. – 8:00 p.m.
Verdi Club
689 Texas Road, R.R. 3
Amherstburg, Ontario

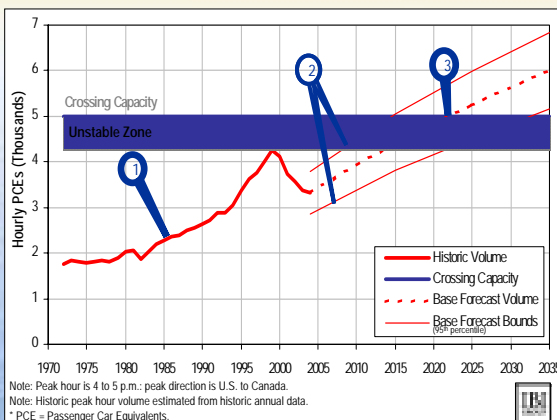
- The Open Houses will provide information on:
 - DRIC Study Process
 - Update on the Problem Statement
 - Assessment of Planning Alternatives
 - Study Area Features
 - Displays of Bridge and Tunnel Types
 - Explanation of Evaluation Methods
 - Next Steps

Other Business

Purpose and Needs

- The purpose of a new 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.
- The regional transportation and mobility needs include:
 - **New border capacity** to meet increased travel demand;
 - **Improved system connectivity** to enhance the continuous flow of people and goods;
 - **Improved operations and processing capabilities at the border**; and,
 - Reasonable and secure **crossing options**
- Given the national and international significance of the Detroit River crossing in terms of the economy, security, and the need to ensure continuous river crossing capacity, the Partnership must take all reasonable steps to reduce the likelihood of disruption to transportation service in this corridor.

Travel Demand vs. Capacity: Combined Detroit River Crossings



- 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 by about 2022.

Windsor-Detroit: More Crossing Capacity Required

- The current border crossings and associated connections are gradually running out of capacity to meet a growing travel demand.
- 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, this condition cannot be allowed to occur. Governments must take all responsible 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 auto traffic may move the timeframe that capacity is reached to between 25 and 30 years. Physical restrictions of the tunnel limit diversion 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

Public Comment

Closing Remarks