

DETROIT RIVER INTERNATIONAL CROSSING STUDY

Community Consultation Group Meeting

May 21, 2008

Agenda

1. Opening Remarks
2. Review of August 21, 2007 Meeting Notes
3. Public Comment
4. Noise Impact Assessment
5. Update on Canadian Study Progress
 - Access Road
 - Plaza and Crossing
6. Update on U.S. DRIC Study Progress
7. Public Comment
8. Next Steps
9. Closing Remarks


Review of August 21, 2007 Meeting Notes


Public Comment


Detroit River
International Bridge
STUDY

Noise Impact Assessment

Canada

 U.S. Department of Transportation
Federal Highway
Administration

 Ontario

 MDOT
Michigan Department of Transportation

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Detroit River
International Bridge
STUDY


Noise Impact Assessment


What is Noise?

- Unwanted sound
- Measured sound is the decibel (dB)
- Sounds levels used to represent human hearing are assigned the unit abbreviation dBA

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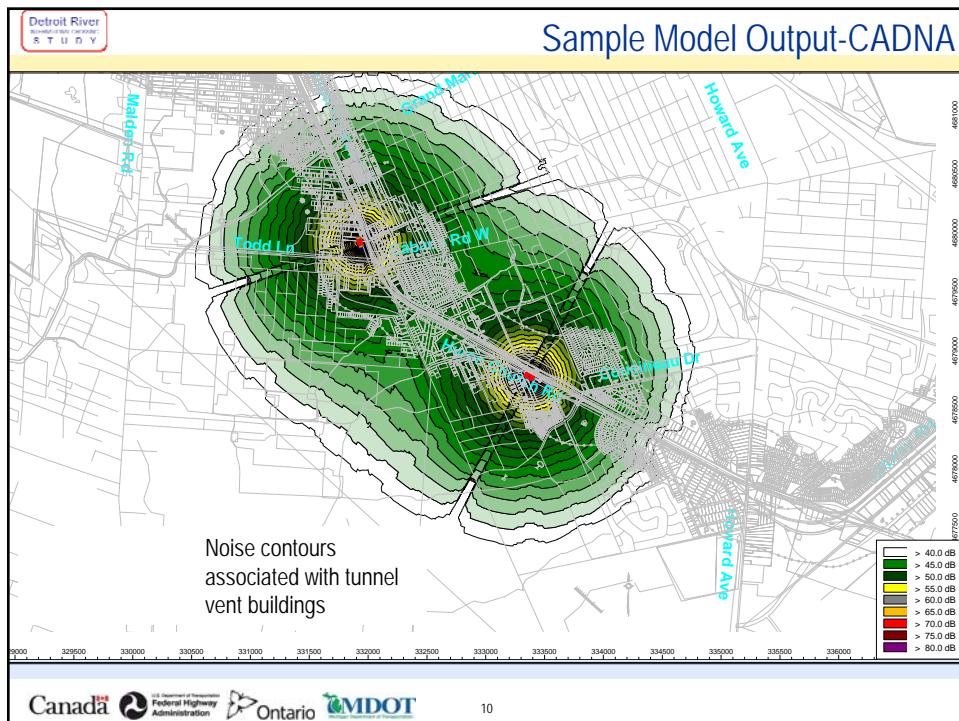
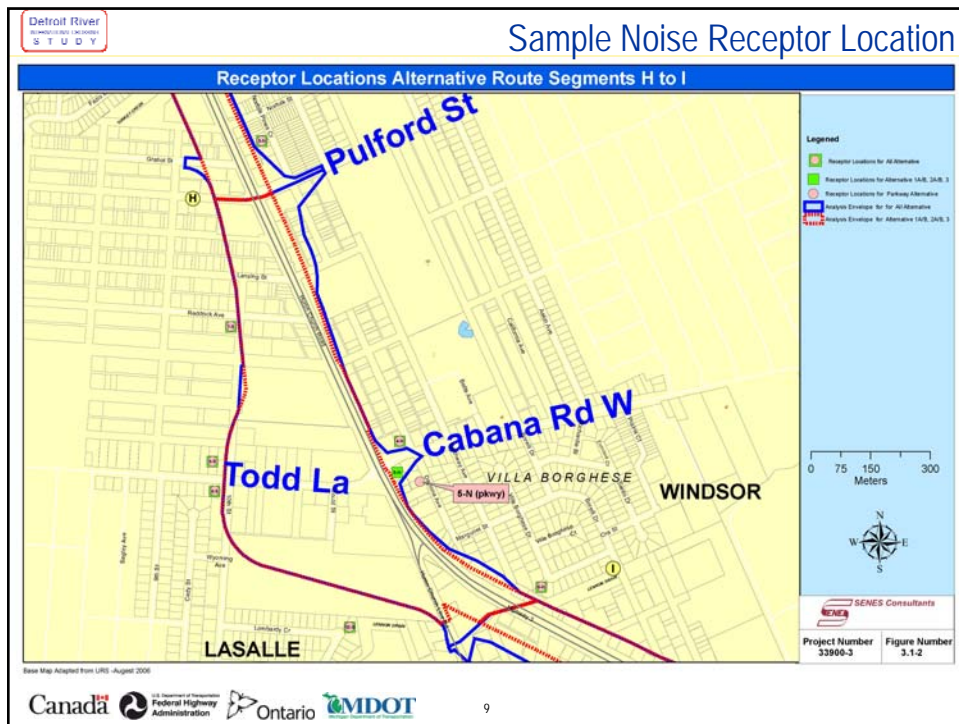
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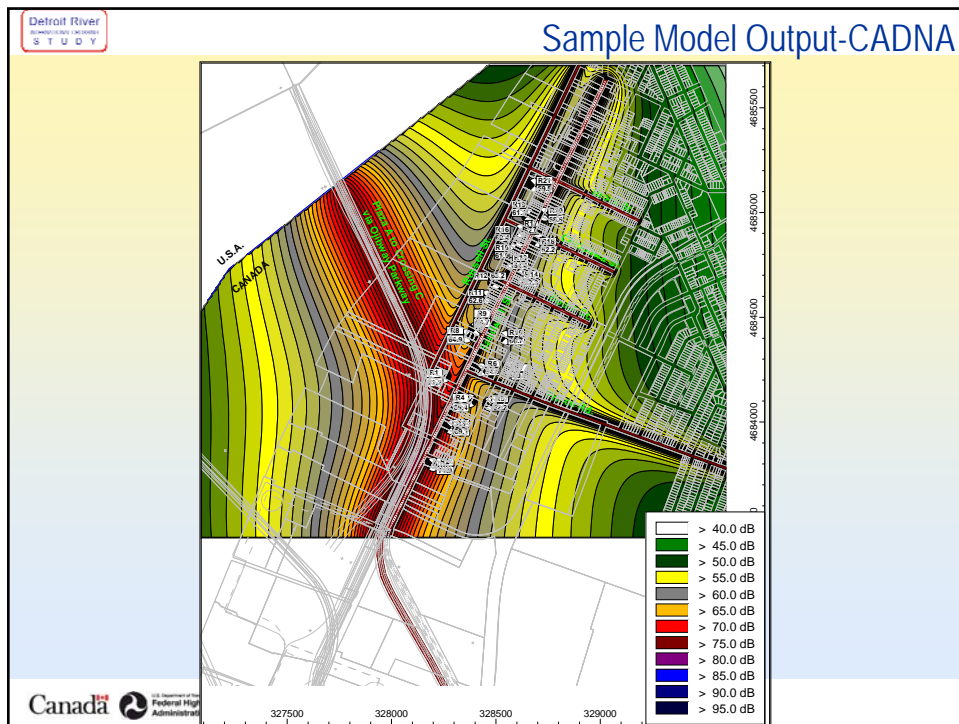
How are noise impacts determined?

- Methodology was identified in DRIC Work Plan (May 2006)
 - Conducted in accordance with MTO/MOE protocol for transportation projects
 - Compares noise levels at sensitive receptors with the project against the no-build noise levels under future traffic conditions
 - Where the change in noise levels (build vs. no-build) > 5 decibels (dB), mitigation s to be considered.
- Noise impacts feeds in to Social Impact Assessment discussion of disruption to neighbourhoods

What methodology was used to assess noise impacts for the DRIC Study?

- Accepted models –
 - Access Road - STAMSON
 - Plaza and Crossings - CADNA
- Inputs:
 - traffic volumes and mix for the base year (2006), future years (2015, 2025 and 2035) for build and no-build scenarios
 - Road elevation
 - Local topography and ground conditions
 - Sensitive noise receptors identified considering dwellings most potentially impacted (i.e. subject to frontline exposure) and other sensitive uses (e.g. schools)
- Outputs:
 - Future sound levels at the receptors





Noise Impact Assessment

Access Road

- No areas along access road alternatives where changes in noise exceed 10 dBA (with mitigation)
- Mitigation (berms and/or barriers) can reduce change in noise levels < 5 dBA in most areas
 - Spring Garden/Malden Road area requires further investigation

Logos: Canada, U.S. Department of Transportation Federal Highway Administration, Ontario, MMDOT.

Plazas and Crossings

- Mitigation can limit changes in noise < 5 dBA
- With Crossing C, level of mitigation required is greater than other crossings
 - Protection for 100+ residences
- With Plaza A, residences are sufficiently far away that any noise impacts can be limited to < 5 dBA

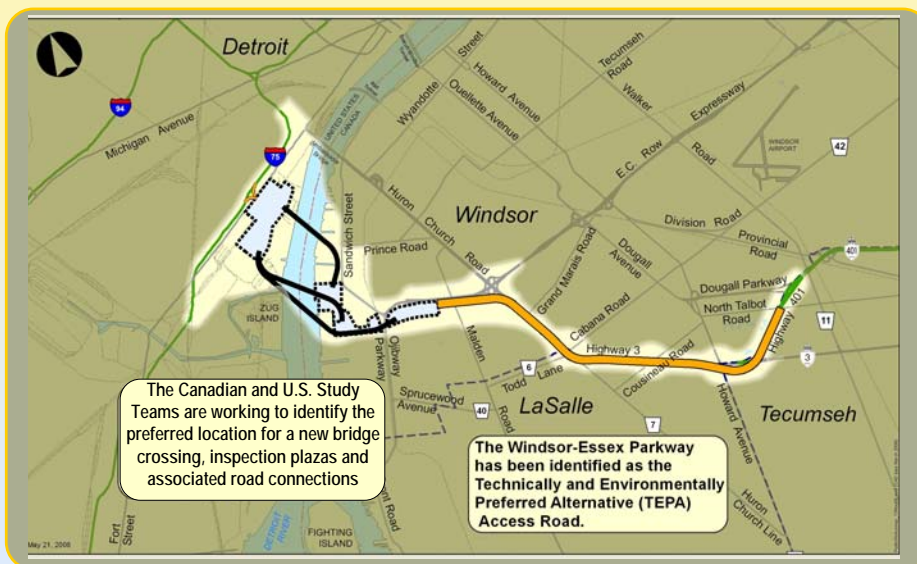
Results of Access Road Assessment

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Practical Access Road Alternatives-March 06



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:



2a Six-lane freeway at-grade, parallel to Huron Church/Highway 3:



2b Six-lane freeway below grade, parallel to Huron Church/Highway 3:



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

Summary of Analysis – August 2007

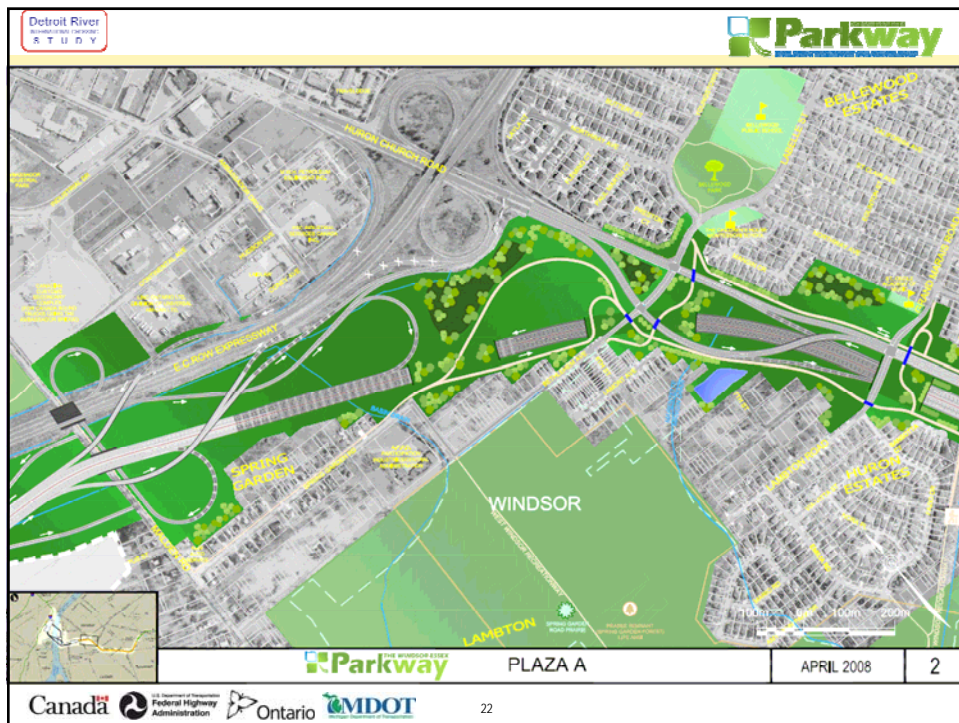
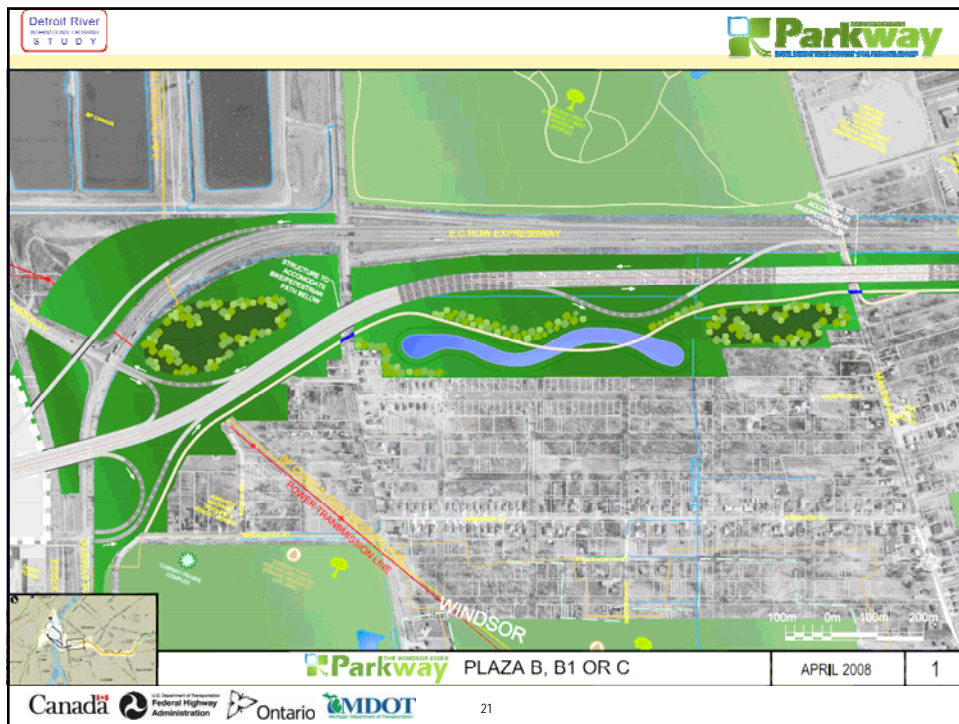
- The results of the analysis do not support further consideration of an at-grade roadway (Alternatives 1A and 2A)
 - Least costly solution and fewer constructability risks
 - Fewer benefits in terms of protecting community and neighbourhood characteristics
- The results of the analysis do not support further investigation of an end-to-end tunneled access road (Alternative 3)
 - No significant benefits to justify significant additional cost when compared to other alternatives
 - Other alternatives are available that offer similar benefits with less cost and less risks
- The Parkway alternative consisting of a below-grade access road with tunnel sections was developed based on refinements to the below grade and tunneled alternatives

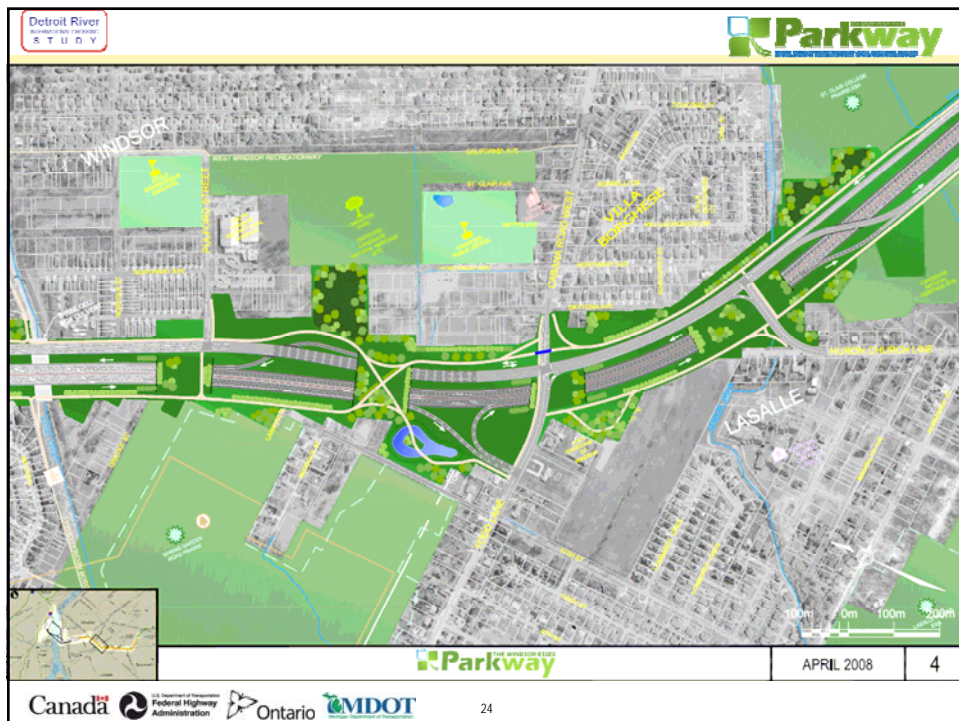
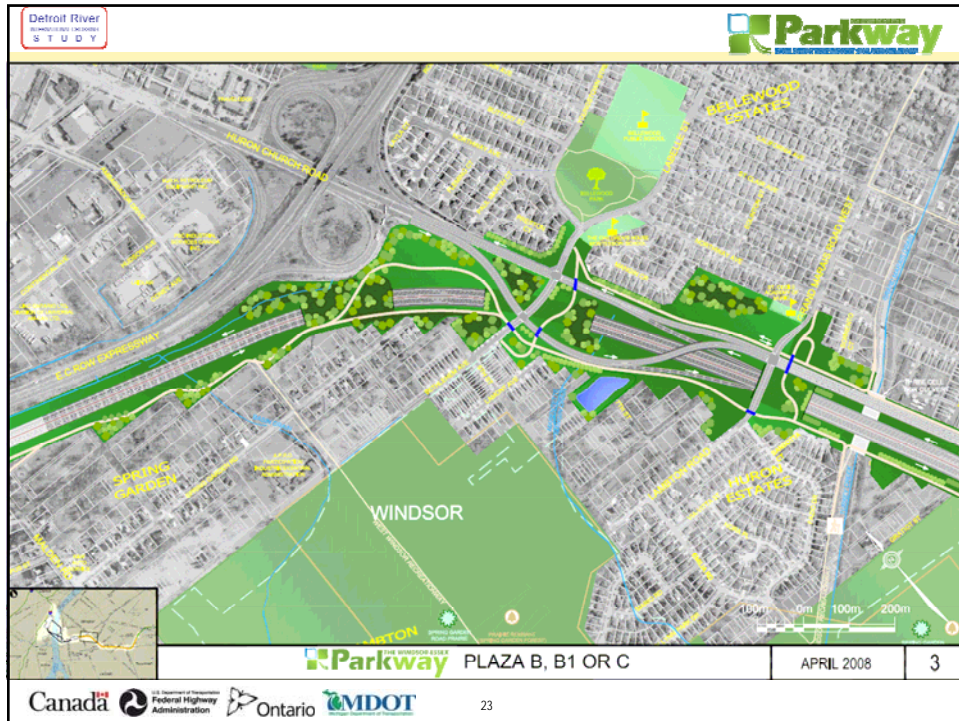
- Following the last round of PIOHs in August of 2007, the Parkway was refined to include:
 - Additional Tunnel in vicinity of Spring Garden
 - Location and Length of Tunnel at Oliver Estates revised
 - Overall length of tunnels increased to 1.86 km
 - Other Tunnel lengths and locations refined
 - Pedestrian and Cyclists Trails refined
 - New Loop ramp at Todd Lane (EW-S)
 - Howard Avenue Interchange modified to include connection to possible future Laurier Parkway Extension

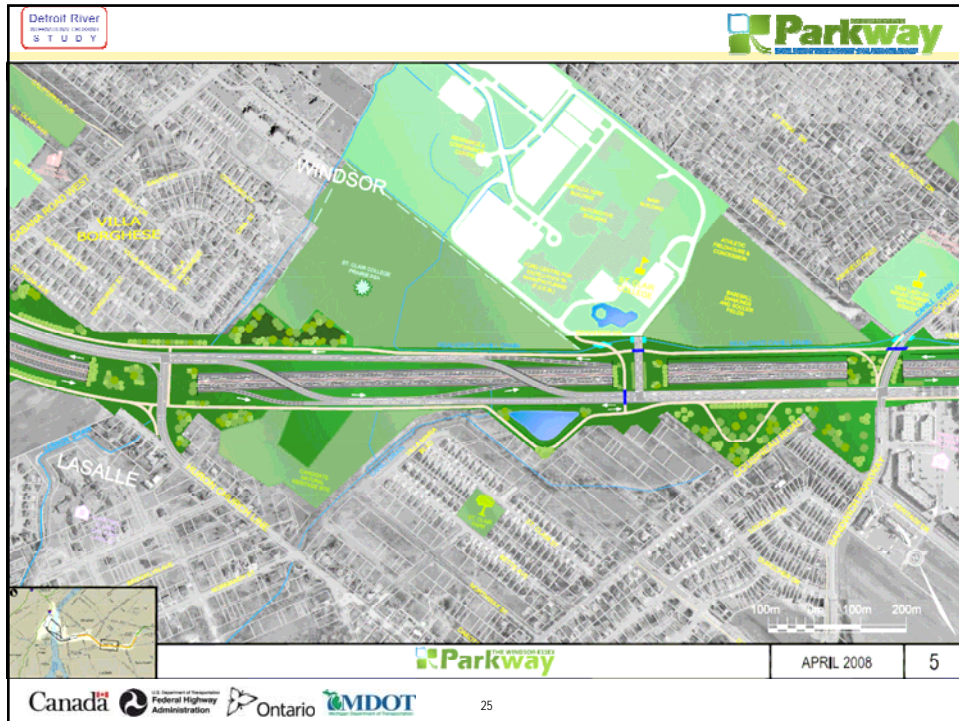
The Windsor-Essex Parkway:

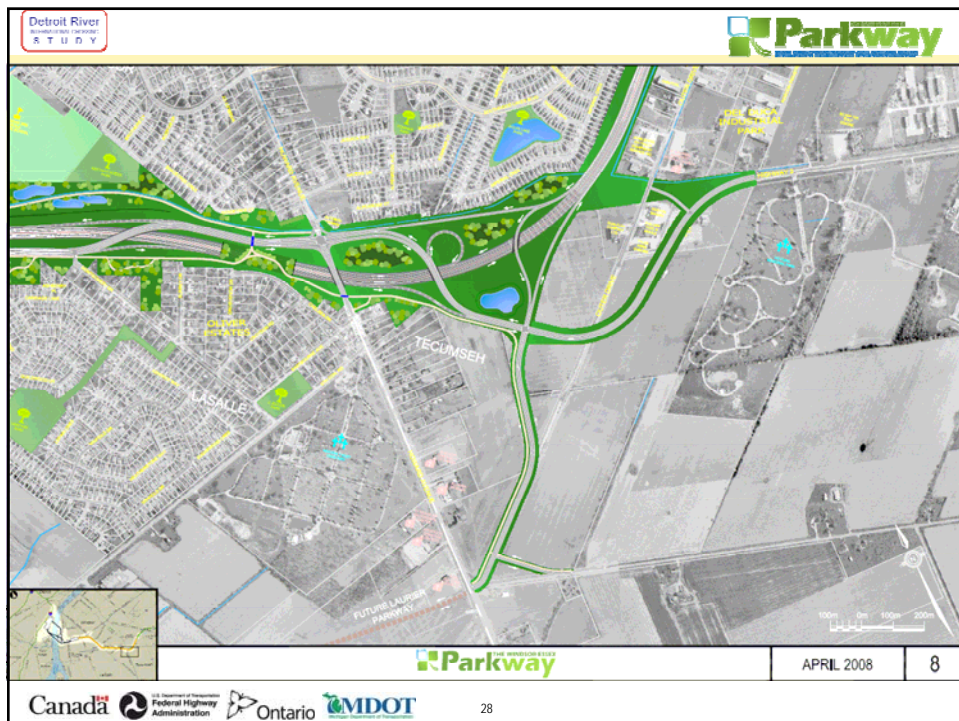
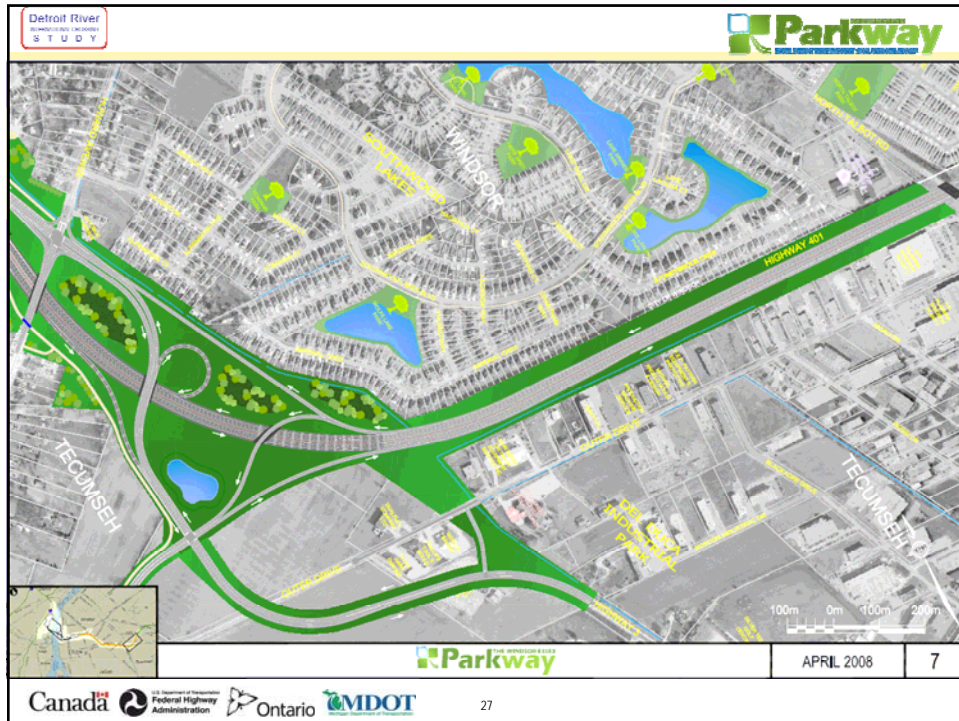
- A six-lane below-grade freeway
- Includes a four lane service road
- At least 240 acres of open space
- 11 tunnels
- Over 20 kms of new pedestrian and cyclists trails
- Built to provincial safety standards
- Accommodates a 100-year storm
- Accessible through 20 interchange ramps

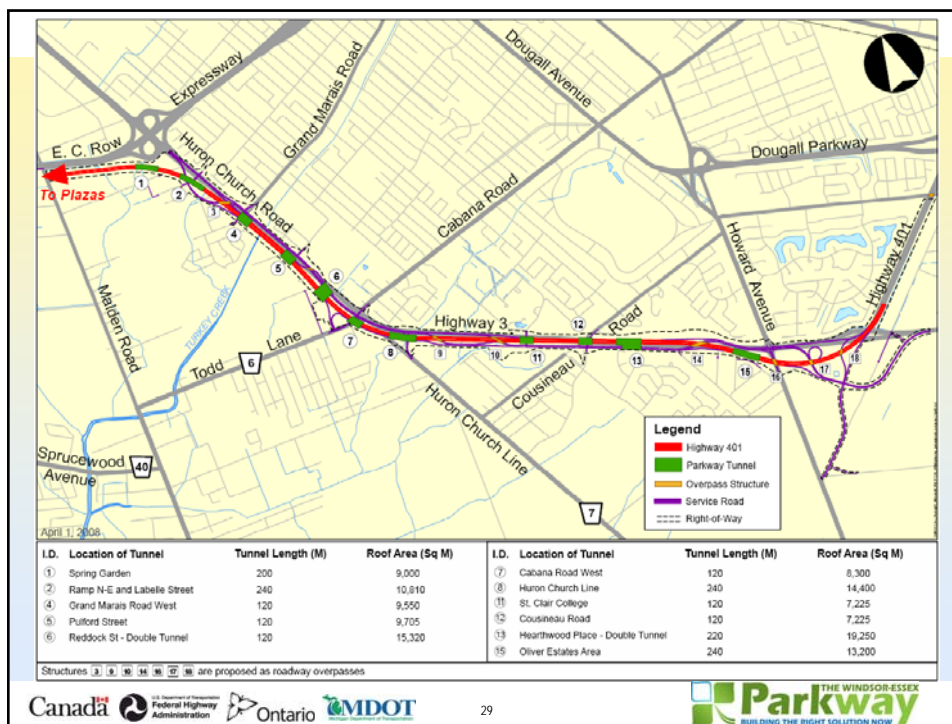












Detroit River
STUDY

Seven Evaluation Factors

- Changes in Air Quality
- Protect Community & Neighbourhood Characteristics
- Maintain Consistency with Existing & Planned Land Use
- Protect Cultural Resources
- Protect the Natural Environment
- Improve Regional Mobility
- Cost and Constructability

Canada U.S. Department of Transportation Federal Highway Administration Ontario M.D.O.T.

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Changes in Air Quality

- All alternatives provide a net benefit to local air quality by reducing tailpipe emissions and reducing traffic diversion to city streets
- No substantive difference in changes in air quality among all alternatives considered
- End-to-end tunnel with ventilation buildings can result in minor reductions in particulate concentrations within 50 to 100m of right-of-way when compared to other alternatives
- The Windsor-Essex Parkway has similar benefits to air quality as other below-grade alternatives

Protect Community & Neighbourhood Characteristics

All Alternatives:

- Reduce international traffic on local streets
- Have no predicted noise impacts
- Have impacts in the Spring Garden Road / Malden Road area
- Have similar effect to neighbourhoods/businesses/social features
- Affect the same neighbourhoods to varying degrees

Plaza A connection has greater impacts than Plaza B/C connections

Below-grade alternatives provide aesthetic benefits

Protect Community & Neighbourhood Characteristics

- The Windsor-Essex Parkway provides greater buffer between neighbourhoods and roadway and as such requires more property
 - New tunnel connections reduce the 'barrier effect' of the roadway
 - New recreational and greenspace areas are possible along the corridor
 - Buffering effect reduces exposure of residences adjacent to roadway



* **THE WINDSOR-ESSEX Parkway** preferred
BUILDING THE RIGHT SOLUTION NOW

Maintain Consistency with Existing & Planned Land Use

- Windsor-Essex Parkway design enables buffer areas and landscaping
- Recreational uses can be developed with the Windsor-Essex Parkway, consistent with Windsor and LaSalle planning policies promoting active and healthy communities
- Parkway converts taxable property uses to passive/recreational uses
- The Windsor-Essex Parkway is consistent with Provincial Planning Policies
- Plaza A connection has greater impacts than Plaza B/C connection

* **THE WINDSOR-ESSEX Parkway** preferred
BUILDING THE RIGHT SOLUTION NOW

Protect Cultural Resources

- No difference among alternatives in terms of built heritage and archaeological features impacted
- Windsor-Essex Parkway provides greater opportunities for new parks/recreation areas linked to existing parks/trails



Protect the Natural Environment

- No significant difference among alternatives
- The Windsor-Essex Parkway provides greater opportunities for restoration, enhancement and ecological connections
- Plaza A connection has greater impacts than Plaza B/C connection

Improve Regional Mobility

- All alternatives provide a high benefit to regional mobility
 - Add capacity
 - Separate international and local traffic
 - Get trucks off local streets
- The Windsor-Essex Parkway provides
 - Better access between freeway and service road
 - Better service road operation

*  preferred
BUILDING THE RIGHT SOLUTION NOW

Cost and Constructability

- The Windsor-Essex Parkway alternative (\$1.6 billion) is comparable in construction cost to other below-grade alternatives
- Cost estimates (\$CDN for year 2011, Highway 401 to Malden Road)
 - At-grade alternatives: \$620 million to \$920 million
 - Below-grade alternatives: \$1.0 billion to \$1.4 billion
 - Tunnel alternatives: \$3.6 billion to 3.8 billion
- The Windsor-Essex Parkway cost is higher than at-grade alternatives but much less than end-to-end tunnel

Summary of Assessment

Factor	Preferred Alternative
Air Quality	No Clear Preference
Community & Neighbourhood	Parkway
Land Use	Parkway
Cultural Resources	Parkway
Natural Environment	No Clear Preference
Regional Mobility	Parkway
Cost & Constructability	At-grade





- Overall: Advantages of Windsor-Essex Parkway outweigh higher costs and constructability concerns associated with this alternative

*  **Parkway** preferred
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- Pavement Engineering Planning Report
- Cultural Heritage Report
- Archaeological Heritage Report
- Constructability Report
- Storm Water Management Report
- Traffic Operations Report
- Natural Heritage Report
- Preliminary Foundation Investigation and Design Report
- Structural Planning Report
- Air Quality Impact Assessment Report
- Noise and Vibration Impact Assessment Report
- Social Impact Assessment Report
- Mobility and Access Technical Memo
- Existing and Future Land Use Assessment Report
- Waste and Contamination Report

Detroit River
INTERNATIONAL CROSSING STUDY

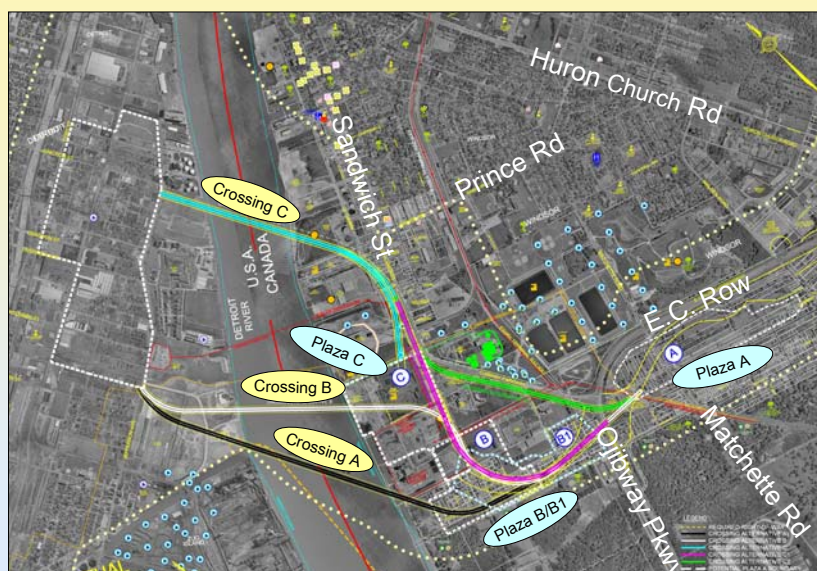
Plaza & Crossing










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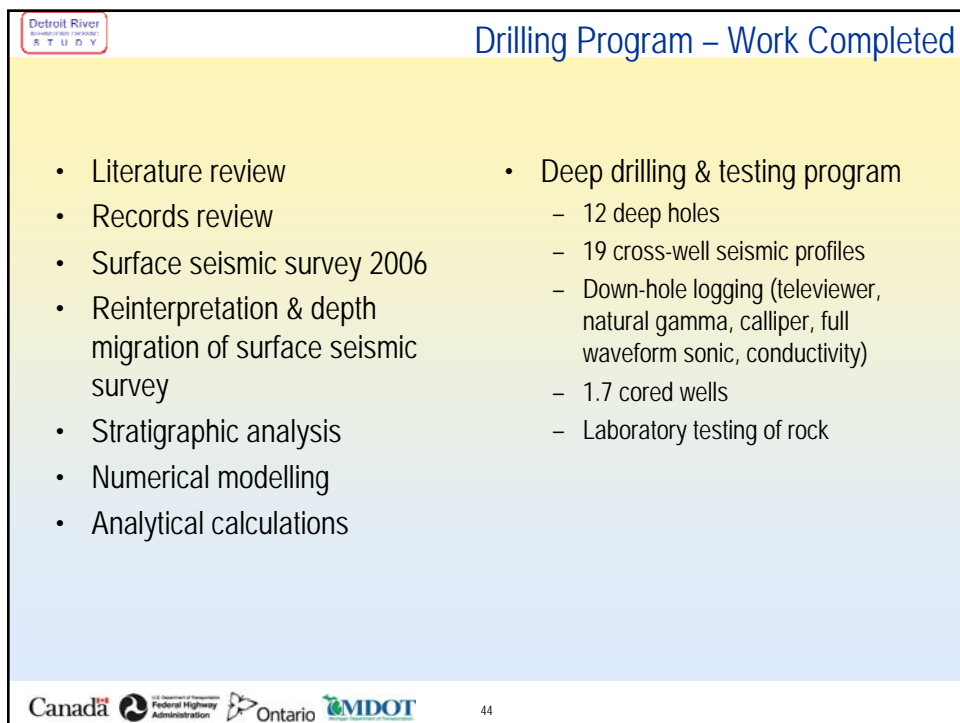
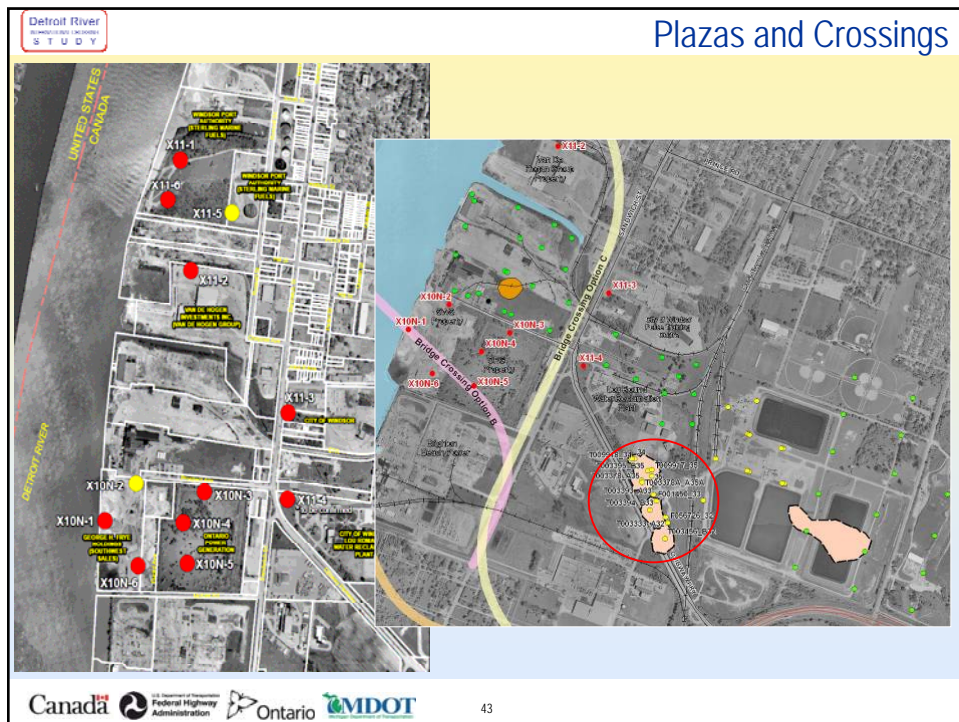
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INTERNATIONAL CROSSING STUDY

Plazas and Crossings



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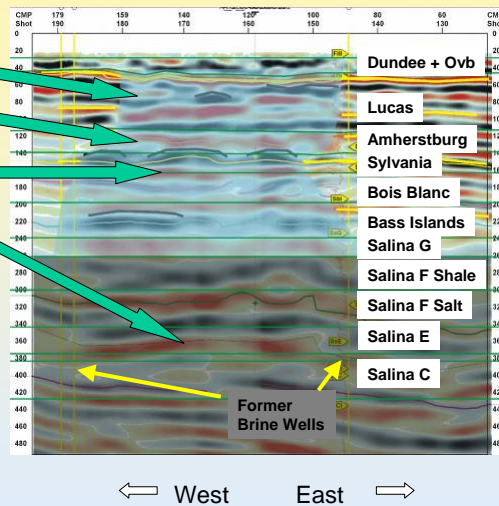
Coring on Southwest Sales
Property, May 2007



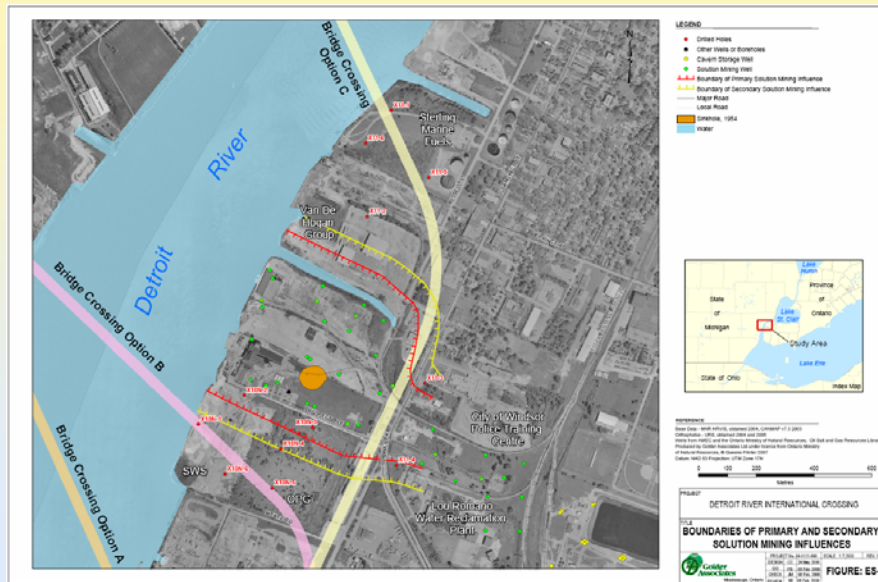
Rotary Drill Rig Setting Up on City
of Windsor Property, May 2007



Low Resolution
Anomalies
Seismically
Disturbed Zones
Uninterpreted data



← West East →



- Crossing A outside the Limits of Primary and Secondary Solution Mining Influence
- Crossing B outside the Limits of Primary and Secondary Solution Mining Influence

- Crossing C main bridge pier locations outside the Limits of Primary and Secondary Solution Mining Influence
 - Proposed approach passes over former solution mining well field
 - Brine-filled cavity, rubble zone, and distributed rock mass
 - "Might experience subsidence ranging up to values on the order of 2m"
 - Additional study..."may still be insufficient to consider supporting structures on the rock within and adjacent to the identified limits of solution mining influence within an acceptable degree of risk."

- Willing Seller/Willing Buyer
- Defined Need for The Windsor-Essex Parkway
- Uncertainty in Plaza-Crossing Areas
- Market Value plus Certain Allowances

- Over 400 Enquiries
- 65 Signed Agreements
- Nearly 200 more in various stages of negotiation

Status of U.S. Study

- Advanced Traffic Management Systems (ATMS)
- Bridge Engineering
- Drainage and Hydrology Engineering
- Electrical and Mechanical Engineering
- Highway Engineering: Preliminary design of the access road and service roads
- Surveying
- Traffic Engineering

- Noise and Vibration
- Air Quality
- Archaeology
- Human Health Assessment
- Natural
- Social
- Economic
- Contaminated Soils

- Public Information Open House (PIOH)
- Coordination and meetings with U.S. Team
- Councils, MAG, CCG, property owners meetings, etc.
- Public Meetings/Workshops

- Ontario Environmental Assessment Report (OEAA)
- Canadian Environmental Assessment (CEAA) Screening Report
- Preliminary Design and Mitigation Report

- Complete evaluation of plaza-crossing alternatives with U.S. Team
- Preferred end-to-end solution anticipated Spring 2008
- Public Information Open Houses, Workshops
 - Dates to be determined
- Additional refinements possible following consultation
- Complete Environmental Assessment Documentation
 - Late Fall 2008



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