

Detroit River International Crossing Practical Alternative #4

PRELIMINARY
(AS OF 11/15/2006)



LEGEND

- U.S. Plaza & Interchange Footprint
 - Interchange & Local Streets
 - Canadian Plaza A (X-10A)
 - Canadian Plaza A (X-10B)
 - Canadian Plaza B (X-10B)
 - Crossing X-10A
 - Crossing X-10B
 - Existing Noise Level (Decibel dBA)
- CO: Carbon Monoxide Concentration (ppm)
(2035 Peak hr - incl. 3.4ppm background)
- BU: # of Active Business Units
- RU: # of Occupied Residential Units

Alternative 4 – Preliminary Summary of Impacts

EVALUATION FACTOR	PERFORMING MEASURE	UNITED STATES SUMMARY				CANADIAN SUMMARY			
		INTERCHANGE NO.	PLAZA NO.	CROSSING		X-10A/PLAZA A	X-10B/PLAZA A	X-10B/PLAZA B	
				X-10A	X-10B				
PROTECT COMMUNITY NEIGHBORHOOD CHARACTERISTICS	TRAFFIC	9	14	0	0	7	9	12	
	NOISE (NOTE: TO BE MITIGATED BY SOUND WALLS)	107	101	0	0	21	21	23	
	POTENTIAL ACQUISITION	171	151	0	0	67	70	36	
MAINTAIN CONSISTENCY WITH LOCAL PLANNING	ACTIVE BUSINESSES	25	18	3	2	0	0	1	
	PLACES OF WORSHIP/SCHOOLS	5-FIRST LATIN BAPTIST, DETROIT FRIENDS MEETING QUAKERS, ALL SAINTS, MILITARY AVE CHURCH, BEARD SCHOOL (PARTIAL)	3-NEW DAY CHURCH, SAINT PAUL CHURCH, ABUNDANT LIFE CHURCH	0	0	1-SOCIAL FEATURE (INSTITUTIONAL)-ERIE WILDLIFE RESCUE	1-SOCIAL FEATURE (INSTITUTIONAL)-ERIE WILDLIFE RESCUE	1-SOCIAL FEATURE (INSTITUTIONAL)-ERIE WILDLIFE RESCUE	
	ENVIRONMENTAL SITES AFFECTING PLAN	9	6	2	2	No	No	Yes	
PROTECT CULTURAL RESOURCES	ABOVE GROUND HISTORIC	0	0	0	0	6	6	8	
	POTENTIALLY ELIGIBLE STRUCTURE	4-ALL SAINTS CHURCH, PRODUCE TERMINAL, FISHER BODY, APART BLDG	1-ST. PAUL A.M.E	0	0	0	0	0	
	ARCHAEOLOGIC SITES	0	2	0	0	6	6	6	
PROTECT THE NATURAL ENVIRONMENT	PARKLANDS	0	1-RADEMACHER PARK	0	0	1-OJIBWAY PARK (0.7 ha)	1-OJIBWAY PARK (0.7 ha)	1-OJIBWAY PARK (0.7 ha)	
	SIGNIFICANT HABITAT (ED-Endangered / PL-Potential)	0	0	0	0	2.9 ha TALLGRASS PRAIRIE, 0.2 ha FISH, BUTLER GARTERSNAKE	2.9 ha TALLGRASS PRAIRIE, 0.2 ha FISH, BUTLER GARTERSNAKE	2.9 ha TALLGRASS PRAIRIE, 0.2 ha FISH, BUTLER GARTERSNAKE	
IMPROVE REGIONAL MOBILITY (Sized to 2035 Volumes)	2035 AVERAGE DAILY CROSSING VOLUME 2-WAY (ADT)	2035 ADT	SEE CROSSING DATA	SEE CROSSING DATA	30,100	30,100	30,100	30,100	
CONSTRUCTABILITY (All System Components are Constructable)	KEY ISSUES	REFER TO INDIVIDUAL CROSSING COMPONENT	UTILITY RELOCATION, POTENTIAL CONTAMINATED SOILS	UTILITY RELOCATION, BRAIDED RAMPS	BRIDGE LENGTH /COMPLEXITY, CONTAMINATED	CONTAMINATED SOILS, UTILITIES	POWER STATION/UTILITIES, RAIL LINE	POWER STATION/UTILITIES, RAIL LINE	
MAINTAIN AIR QUALITY	CO CONCENTRATION HOTSPOTS		REFER TO GRAPHIC				INCREASES IN PM2.5 AND NOx IN VICINITY OF CROSSING, APPROACH ROADWAY, AND PLAZA.		

**Detroit River International Crossing Study
Evaluation of Practical Alternatives
Supporting Data - Alternative 04**

DRAFT
FOR DISCUSSION PURPOSES ONLY
11-15-06

Evaluation Factor	Performance Measure Category	Description/Units	Interchange	Plaza	Crossing X10A	Crossing X10B	
Protect Community / Neighborhood Characteristics	Traffic Impacts	Streets Closed (permanently)	Number	9	see Public Safety	0	0
		Streets Crossed	Number	12	see Public Safety	2	2
		Streets Rerouted	Number	3	see Public Safety	0	0
		Streets with Interchange	Number	2	see Public Safety	NA	NA
	Noise	Railines Crossed	Number	5	see Public Safety	1	2
		Frontline Exposure	Number of dwelling units exposed	107	101	0	0
		Significant Receptors ¹ Exposures	Number /Specity	7	2	2	2
	Community Cohesion/ Character	Positive/Negative/Neutral		Neutral ⁵	Neutral ⁵	Neutral ⁶	Neutral ⁶
	Potential Acquisition	Residential Units	Occupied	171	151	0	0
			Vacant	1	4	0	0
		Residential Population	Number	419	370	0	0
			Business Units	Active	25	18	3
		Business Units	Vacant	16	11	0	0
			Estimated Employees in affected Census Blocks ²	Number	90-130	281	151
		Other Land Uses Affected ³	Schools - Partial take Parking Lot	1	0	0	0
			Senior Service Facilities	0	0	0	0
			City/Government Facilities	0	2	0	0
			Places of Worship	4	3	0	0
			Medical Facilities	0	0	0	0
			State/Federal Government Facilities	0	1	0	0
	Community Services/Parks		0	0	0	0	
	Vacant		0	0	0	0	
	Environmental Justice / Title VI	EJ Populations in affected Census Block Groups	EJ Population (non poverty)	6757	1524	490	490
			Population Groups Affected	American Indian, Hispanic	African American, American Indian,	African American, American Indian,	African American, American Indian,
			% Households in Poverty / Above or Below 9.9% Regional Threshold ⁴	33.7%/Above	39.6%/Above	36.2%/Above	36.2%/Above
		Households in poverty	953	296	76	76	
	Title VI Groups in Census Tracts	Presence of Regionally Prominent Ancestral Groups	None	None	None	None	
	Public Safety/ Security (Plaza & Crossing)	Proximity to Industry ⁶	Number of heavy industry businesses w/ 1/2 mile	N/A	3	3	3
			Number of medium industry businesses w/ 1/2 mile	N/A	6	1	1
			Number of light industry/office businesses w/ 1000ft/300m	N/A	4	0	0
		Proximity to Residential / Retail	Number of residences w/ 500ft/150m	N/A	49	16	13
			Number of businesses w/ 500ft/150m	N/A	10	4	4
Proximity to Hazardous Materials		Number of EPA/DEQ Hazmat TSD Facilities w/ 500ft/150m	N/A	0	0	0	
		Emergency Response	Distance to nearest fire station (mi)	N/A	0.6	0.14	0.14
			Distance to nearest police station (mi)	N/A	0.9	1.4	1.4
Number of streets closed (perm.)	N/A		14	0	0		
Number of streets closed (during const.)	N/A		11	1	1		
Mainline Railines Rerouted	N/A	2	0	0			

1. Sensitive noise receptors are historic sites, medical facilities, parks, places of worship, schools, within fifty meters of an alignment, plaza, or crossing.

Interchange: Old Landmark Church, Faith Tabernacle Church, New Beginning, El Abrigo Altismo, Michigan Bell Bldg, Fort & Green Police Station

Plaza: Historic Fort Wayne & Southwestern High School

Crossing Alt. 1-13 are Historic Fort Wayne & Delray Park Public Boat Launch

2. Employee estimates provided by Tetrad Computer Applications and are based on employees per Census Block Group - proportionately disaggregated to the block level for blocks within or partially within plaza boundaries. Plazas have been field surveyed to determine occupancy status of businesses.

3. Potential Acquisitions

Interchange: Beard Early Learning Center, First Latin America, Detroit Friends Meeting Quakers, All Saints Church, Military Ave. Church

Plaza: Rademacher Recreation Center, Detroit Sewer and Water Department, New Day Church, Saint Paul AME, Abundant Life Apostolic Overcoming Holy Church, Family Independence Agency

4. The poverty threshold for the SEMCOG region is 9.9%. Block groups with percentage of households living in poverty above 9.9% qualify as environmental justice communities.

PPO Receptors: Southwestern High School, Apt. Bldg @ Campbell and Fischer Service Dr., Ft. Wayne, Unemployment Office

5. Community Cohesion could/will be improved as a result of the master planning for the area relating to the urban fabric and how the crossing system fits with that fabric.

6. Plaza: (H) Mistersky Power Station, Detroit Thomas Edison Plant, Lafarge (M) Arvin Meritor, Produce Terminal, Hascal Steel, Progressive Distribution Center, Bridgewater Interiors, Yellow Trucking

Crossing: (H) Zug Island, Lafarge, Detroit Thomas Edison (M) Yellow Trucking

DRAFT
 FOR DISCUSSION PURPOSES ONLY
 11-15-06

**Detroit River International Crossing Study
 Evaluation of Practical Alternatives
 Supporting Data - Alternative 04**

Evaluation Factor	Performance Measure Category		Description/Units	Interchange	Plaza	Crossing X10A	Crossing X10B
Maintain Consistency w/Local Planning	Official Plans	Consistency	YES/NO	Yes	No	Yes	Yes
	Other Plans	Consistency	YES/NO	Yes1	Yes 1	Yes1	Yes1
	Environmental Sites Affecting Plan Implementation (single sites may have multiple designations)	Leaking Undgrd. Stor. Tanks	Number	5	1	0	0
		EPA/DEQ Hazmat TSD Facility	Number	1	0	0	0
		National Priority List (Superfund)	Number	0	0	0	0
		RTK Cerclis (Superfund)	Number	2	2	1	1
Michigan Contaminated Site	Number	1	3	1	1		

Residential-low-to medium density planned SE corner of PPO outline officially and unofficially

1. Based on master planning being designed with community input as part of the D R I C Study.

DRAFT
FOR DISCUSSION PURPOSES ONLY
11-15-06

**Detroit River International Crossing Study
Evaluation of Practical Alternatives
Supporting Data - Alternative 04**

Evaluation Factor	Performance Measure Category	Description/Units	Interchange	Plaza	Crossing X10A	Crossing X10B	
Protect Cultural Resources	Above Ground Historic Resources	Historic Districts	Number	0	0	0	0
		Listed NRHP Sites/Structures	Number	0	0	0	0
		Listed SHRS Sites/ Structures	Number	0	0	0	0
		Locally Listed Sites/Structures	Number	0	0	0	0
		Potentially Eligible Sites/Str. ¹	Number	4	1	0	0
	Archaeology	Prev. Recorded Sites ²	Number	0	2	0	0
	Below Ground Resources ¹	Potential to Find/Record	High/Med/Low	Low	Medium	Medium	Medium
	Parkland	All Public Parks	Number/ Acres	0	1	0	0
		6(f) Parks	Number/Specify	0	0	0	0
		Coastal Zone Management	Number of Projects/Specify	0	0	0/0	0/0

1. Interchange: All Saints Church, 7800 W. Fort; Produce Terminal, 7201 W. Fort; Turnsteads (Fisher Body), 6307 W. Fort; Apartment Bldg, 760 Campbell.

Plaza: St. Paul A.M.E. Church, 581-585 S. Rademacher

2. Plaza: 20WN382, King David's Lodge Cemetery-Jewish 1870 (dating and name of cemetery is believed to be in error. It is more likely the Detroit City Lodge (Jewish) Cemetery located "north of Fort Street west, about 3 miles from City Hall" [Polk's Detroit City Directory 1886:68]); 20WN6, Carsten Mound

DRAFT
FOR DISCUSSION PURPOSES ONLY
11-15-06

**Detroit River International Crossing Study
Evaluation of Practical Alternatives
Supporting Data - Alternative 04**

				Interchange	Plaza	Crossing X10A	Crossing X10B
Evaluation Factor	Performance Measure Category		Description/Units				
Protect The Natural Environment	Surface Water	Floodplain	Number/Acres	0	0	3	0
		Surface Run Off	Acres	14	164	0	0
		Primary Streams ¹	Number/Specify	0	0	1: Detroit R.	1: Detroit R.
		Secondary Streams ²	Number/Specify	0	0	0	0
		Other Water-crossings	Number/Specify	0	0	0	0
	Groundwater	Municipal Wells	Number	0	0	0	0
		Water In-takes	Number/Specify	0	0	0	0
	Significant Habitat	Wetlands	Acres	0	0	0	0
		Fens / Bogs	Number/Acres	0	0	0/0	0/0
		Endangered Species ³	Potential Species	0/0	0	0/0	0/0
		Designated Wildlife Refuges	Number/Acres	0	0/0	0/0	0/0
	Prime/Unique Farmland	Farmland	Acres	0	0	0	0
	Mineral Resources	Salt /Limestone	Type/Specify	Salt	Salt	Salt	Salt

Notes:

1: Primary Streams are classified as water courses with an average width greater than 50ft/15m

2: Secondary streams are classified as water courses with an average width less than 50ft/15m.

3: Based on preliminary site investigation of the plaza sites (viewing from public access points), none of the plant or animal species listed as endangered species within the quads for this region are expected to occur within the boundaries of the plazas .

The crossings includes open portions of the Detroit River and nearshore areas where threatened, endangered, and special concern species are known to have been present. A summary of species with a potential to be present is provided below. This analysis and site investigation are preliminary in nature.

1 animal species listed by the State as Threatened is known to spawn upstream of the crossing corridor at Zug Island. 7 animal species listed by the State as Threatened, Endangered, or Special Concern have the potential to be present within specific habitats within or near the crossing corridor.