Green Sheet: Project Mitigation Summary^a Detroit River International Crossing DEIS

Impact Category	Mitigation Measures
I. Social and Economic	
a. Visual Effects	Buffers/barrier walls are planned for the plaza perimeter for all DRIC alternatives. Buffer/barrier wall construction materials and aesthetic concepts were discussed with the DRIC project team during a series of Context Sensitive Solution (CSS) workshops held in the community. Follow-up CSS meetings will be held during the design process to continue to address the plaza buffer/barrier wall options for the Preferred Alternative.
b. Relocations	Adequate replacement housing and industrial/commercial space is available to replace the 414 dwelling units and 56 businesses that could be relocated. Implementation of the land use plan adopted by the City of Detroit will assist in the identification of replacement housing locations. Forty-three of 50 business interviewed prefer to stay in or near the Delray
	A number of business owners indicated they chose their current location
	because it fell within the Detroit Empowerment Zone and/or Renaissance Zone. Some have requested that they be relocated to another place within these zones. If possible, these zones will be extended or modified to allow relocated businesses to remain in the area. See Conceptual Stage Relocation Plan in Appendix A.
c. Environmental Justice/Title VI	The impacts of the proposed Practical Alternatives will have an adverse effect on all EJ/Title VI population groups in the study area. However, as previously stated in Section 3.1.5 of the DEIS, the Practical Alternatives will be further evaluated to determine if the impacts would have a disproportionately high and adverse effect on low-income populations in the study area. To mitigate for any adverse impacts to EJ/Title VI population groups, and other impacts that may have a disproportionately high and adverse effect on low-income population groups, MDOT, along with other agencies and the community, have developed mitigation measures that would avoid, minimize and/or mitigate for any adverse impacts. The mitigation measures include: 1) A Conceptual Stage Relocation Plan that outlines the expected relocations at this stage of the study and the availability of replacement residential and commercial properties, and relocation assistance as defined in the plan. The conceptual stage relocation plan will be updated for the FEIS; and, 2) Barrier Walls for security around the plaza perimeter. These mitigation measures are just two of the measures MDOT is proposing for this project. More mitigation measures may be developed, if additional impacts are identified.
d. Parks	Rademacher Park and its associated Recreation Center, plus Post-Jefferson Playlot, would fall within the plaza footprint, requiring mitigation for the acquisition of this land. Mitigation could take a number of forms and is being discussed with the Detroit Recreation Department.
e. Noise	Project noise levels exceed FHWA Noise Abatement Criteria along I-75 and, could, at some points around the plaza. Barrier walls are planned as part of the plaza for security purposes. In noise sensitive areas, these barrier walls will be designed to also provide noise abatement. ^b At the Practical Alternatives stage for Alternatives #3 and #11 approximately 1,400 feet of wall could be built between Springwells and Green Alternative #5 could see walls between Springwells and Green and also Waterman to Livernois. Alternative #14 could have walls along most of the length of I-75 on its north side. Alternative #16 could have two walls (separated by an off-ramp), both between Springwells and Green. Meetings will be held with affected residents and the City of Detroit during the design phase to address noise barrier location/aesthetics and fire hydrant/emergency access.

f. Economic	The FHWA and MDOT will partner with the City of Detroit and other federal, state and local agencies and cities to develop concepts by which enhancements can be made to Delray as it becomes the "Host Community" for the DRIC project. Concepts include supporting SEMCOG'S air quality studies, installing other infrastructure and making CSS improvements, as included in the Record of Decision.
g. Infrastructure	MDOT will invest in a boulevard to improve local north south circulation by non-commercial vehicles in west Delray.
h. Pedestrian and Bicycle Effects	The Build Alternatives would remove between two and four of the five existing pedestrian/bicycle bridges over I-75. All bridges for motorized traffic that remain over I-75 will have sidewalks. Options for replacement of the pedestrian/bicycle bridges will be reviewed following selection of the Preferred Alternative. Any replacement structures would meet Americans with Disabilities Act guidelines. Information will be included in the FEIS.
i. Lighting	Proposed plaza and new structure lighting requirements will be reviewed for the Preferred Alternative to minimize potential impacts to adjacent residents, properties, and wildlife. Coordination will occur during design to balance the safety and navigation lighting needs on the bridge of FHWA, MDOT, the Federal Aviation Administration, U.S. Coast Guard, and U.S. Army Corps of Engineers, along with migratory bird review by the U.S. Fish and Wildlife Service. Further CSS meetings will be held during design to receive local community input for proposed plaza and bridge lighting that provides safe, attractive, energy efficient, and low-maintenance lighting.
II. Natural Environment	
a. Wetlands	A maximum of 0.01 acres of impacted wetlands (Alternatives #7, #9, and #11) will be replaced under the "moment of opportunity" arrangement where the mitigation will be rolled into another mitigation project elsewhere in the state. A permit will be obtained from the Michigan Department of Environmental Quality for using this wetland.
b. Tree Removal/ Clearing/Landscaping	Mature trees will be preserved, where possible. Property owners will be notified before any trees in front of their residences are removed and replacement trees will be offered. Landscaping opportunities will be determined drawing on input from the local community from previous CSS meetings and a follow-up meeting during the design phase for the Preferred Alternative.
c. Water Quality	For runoff, stormwater management facilities could include detention basins, oversized pipes and grassy swales. Stormwater management will be incorporated into the project's final design. The sealing of water wells, septic systems, and sewer lines will be ensured by enforcement of MDOT specifications required of contractors during construction. The contractor must also meet Michigan Department of Community Health requirements. Water pumped during de-watering operations for the new bridge foundations will be treated prior to discharge.
d. Air Quality	A construction emissions plan will be formulated to include actions such as: retrofitting off-road construction equipment; using ultra-low sulfur fuels for all equipment; limiting the age of off-road vehicles used in construction projects; minimizing engine operations; restricting construction activities around certain more-sensitive receptors, like Southwestern High School (when it is in session); instituting fugitive dust control plans; using diesel particulate traps and oxidation catalysts; and, using existing power sources or clean fuel generators, rather than temporary power generators.
e. Migratory Birds	Coordination with the U.S. Fish and Wildlife Service will continue after a Preferred Alternative is selected. Coordination will be documented in the FEIS.

III. Hazardous / Contam	inated Materials	
a. Contaminated Sites	An Initial Site Assessment and Preliminary Site Investigation Technical Report (ISA/PSI) examined more than 100 commercial, industrial and vacant sites for contamination impacts. Twenty-six sites that could potentially be acquired for the project were identified. Recommendations include Preliminary Site Investigation for most (more soil borings and analysis) and further assessment of the regulatory status and site conditions of others. PSIs will be completed once a Preferred Alternative has been selected and access can be obtained by provisions in Michigan law. Contamination areas will be marked on all construction plans. A Utility Plan will also be prepared to ensure no deep utility cuts will impact and/or spread existing contamination. Design specifications will include provisions on how to handle contaminated material, including groundwater. Structures acquired for the project would be tested for asbestos-containing materials and lead- containing materials before demolition. A Risk Assessment Plan will be developed to include a Worker Health and Safety Plan. All contaminated materials will be properly disposed of. All monitoring wells will be properly	
	sealed and abandoned.	
IV. Cultural Environment		
a. Historic	A number of cultural resources will be affected by the project. Coordination with the SHPO will continue, consistent with the draft Memorandum of Agreement in Appendix E of this DEIS in order to document impacts and mitigation measures. An "unanticipated finds" plan will be developed to provide detailed procedures to deal with significant cultural resources which may be identified during project implementation. This plan will establish procedures to evaluate and treat these resources. The procedures include stopping work, examining findings, determining eligibility and documenting results.	
V. Construction		
a. Vibration	Basement surveys will be offered in areas where vibration effects could occur due to MDOT construction. These areas will be identified during the design phase, where pavement and bridge removal will occur, or where piling and/or steel sheeting is planned.	
b. Maintenance of Traffic	All construction areas and altered traffic patterns will be clearly marked during the construction phase. Access will be maintained to properties to the extent possible. Public awareness will be maintained through the use of a Motorist Information Plan, which will provide information to visitors, motorists, area residents, and business owners through the use of temporary electronic message signs, an MDOT Web site (www.michigan.gov/mdotstudies), and the project hotline (1.800.900.2649).	
c. Utilities	Coordination will continue between MDOT and utilities to plan properly to minimize service interruption to the public.	
d. Permits	Permits under Michigan Public Act 451, Part 31 (Water Quality and Floodplains), 55 (Air Pollution Control), 301 (Inland Lakes and Streams), and 303 (Wetlands) are required from the MDEQ for this project. Coverage under the National Pollutant Discharge Elimination System (NPDES), which is administered by the MDEQ, is also required. Section 9 and Section 10 permits will be required from the U.S. Coast Guard and U.S. Army Corps of Engineers. A Section 404 permit will be needed from the U.S. Army Corps of Engineers. All Detroit River navigational requirements including lighting will be followed.	

 ^a This Project Mitigation Summary Green Sheet contains the project specific mitigation measures being considered at this time. These mitigation items may be modified during the Record of Decision (ROD), final design, right-of-way acquisition, or construction phases of the project.
^b Some elements are part of the plaza design, notably barrier walls for security, which will be part of the buffering of the plaza. In those areas around the plaza where Federal Highway Administration Noise Abatement Criteria are exceeded due to plaza activity, the barrier walls will be designed to reduce plaza project a minimum of 5 dBA noise a minimum of 5 dBA.