

RECORD OF DECISION

United States Department of Transportation Federal Transit Administration

Woodward Avenue Light Rail Transit Project
Detroit, Michigan

Decision

The Federal Transit Administration (FTA) has determined that the requirements of the National Environmental Policy Act (NEPA) of 1969 have been satisfied for the Woodward Avenue Light Rail Transit (LRT) Project proposed by the City of Detroit. This FTA decision applies to the Preferred LRT Alternative, which is described and evaluated in the "Woodward Avenue Light Rail Transit Project Final Environmental Impact Statement" (Final EIS), signed on June 3, 2011. Neither the Final EIS nor this Record of Decision constitutes an FTA commitment to provide financial assistance for the construction of this project.

The Preferred LRT Alternative consists of a 9.3-mile LRT line along Woodward Avenue, from the Central Business District in downtown Detroit to the Michigan State Fairgrounds at 8 Mile Road. The Preferred Alternative includes a total of 19 stations, ancillary facilities include eight traction power sub-stations, one park and ride lot, one possible temporary vehicle storage and maintenance facility, and one permanent vehicle storage and maintenance facility. The project is mostly within the cities of Detroit and Highland Park.

Background

FTA published an early scoping notice in the *Federal Register* on July 17, 2007 (72 FR 39131), for the Detroit Transit Option Growth Study (DTOGS) to alert the public that FTA and the City were exploring alternative means of implementing rapid transit improvements in the Detroit area. The DTOGS examined 14 transit corridors and 13 transit technologies for evaluation. A systematic approach, which involved public input, was used to narrow down the number of alternatives. The result was selection of the Locally Preferred Alternative (LPA): light rail transit (LRT) on Woodward Avenue between downtown Detroit and the Michigan State Fairgrounds near 8 Mile Road. The Environmental Impact Statement evaluated LRT on Woodward Avenue for compliance with NEPA.

FTA published the Notice of Intent (NOI) in the *Federal Register* on July 30, 2010 (75 FR 45008), which began the NEPA process and preparation of the Draft EIS. The Draft EIS identified and evaluated potentially significant and adverse environmental impacts to the human and natural environment caused by implementation of the LRT system. It also presented two transit alternatives, median-running LRT service (Option A) and curb-running LRT service (Option B), along Woodward Avenue and three downtown design options (Options 1, 2, and 3) in the central business district. The Draft EIS also included a draft Section 4(f) analysis. The U.S. Environmental Protection Agency (EPA) published the Notice of Availability (NOA) for

the Draft EIS in the *Federal Register* on January 28, 2011 (76 FR 5156), which began the mandatory 45-day comment period from January 28, 2011 – March 14, 2011.

The City evaluated another downtown design option, A4, based on public comments received during the public comment period. The A4 option became the Preferred Alternative for inclusion in the Final EIS. A final Section 4(f) analysis and a signed Section 106 Memorandum of Agreement (MOA) with the Michigan State Historic Preservation Officer (SHPO) were also included in the Final EIS. The U.S. Environmental Protection Agency (EPA) published the Notice of Availability (NOA) for the Final EIS in the *Federal Register* on July 1, 2011 (76 FR 38650), which began the 30-day review period from July 1, 2011 – August 1, 2011.

What Alternatives, Including the Preferred Alternative, Were Considered?

The Final EIS evaluated a No Build Alternative and the Preferred LRT Alternative. The No Build Alternative includes capacity-related transportation projects listed in SEMCOG's financially-constrained Regional Transportation Plan (RTP) for the Corridor. It also includes all capacity-related transportation system projects listed in SEMCOG's Transportation Improvement Program (TIP) for the Detroit-Warren-Livonia MSA for fiscal years 2008 through 2011. The No Build Alternative includes transit, roadway, and non-motorized elements, but it does not include light rail transit along Woodward Avenue.

The selected Preferred Alternative is depicted in a graphic appended to this decision (Appendix A). The Preferred Alternative was developed following receipt of public comments on the Draft EIS, and is a hybrid of several downtown design options that were evaluated in the Draft EIS.

The Preferred Alternative consists of light rail trains operating in the center median of Woodward Avenue from the State Fairgrounds to Park Avenue/Witherell Street and then transitioning to curbside operations. When in the center median, the LRT would run separately from vehicular traffic and may include a physical barrier. The median running segment includes 14 stations, the platforms of which would be located in the median. The downtown portion, which includes stations south of I-75, includes five stations, two of which (Foxtown/Stadium and Grand Circus Park) are median-running.

The Preferred Alternative has been defined as an at-grade system entirely within existing rights-of-way. The Preferred Alternative would be fully functional as a stand-alone project, but it would be designed to accommodate possible future extensions.

Several variations of the Build Alternative were evaluated in the environmental process, including two mainline design options, Operating Option A (median-running) and Operating Option B (curbside). Four Downtown Design Options, A1, B2, B3, and A4, were also evaluated. Each of the Downtown Design Options would lie entirely within existing available right-of-way. All the options are depicted in Appendix A.

- Alternative A1 – median-running with Downtown Design Option 1; 16 stations;
- Alternative B2 – curbside with Downtown Design Option 2; 21 stations;
- Alternative B3 – curbside with Downtown Design Option 3; 18 stations; and

- Alternative A4 – combination of median- and curb-running with Downtown Design Option 4; 19 stations.

In the Draft EIS, Alternative A1 evaluated 15 stations. Before the City had selected Alternative A4 as the Preferred Alternative, another station at Grand River Avenue was evaluated for Alternative A1. The Grand River Avenue station is included in the Final EIS since its impacts were not examined in Alternative A1 under the DEIS.

The Preferred Alternative also includes a vehicle storage and maintenance facility (VSMF), for which two potential sites were evaluated in the Final EIS, nine traction power substations (TPSS), and a park and ride lot. Four construction staging areas were also identified in the Final EIS. The City intends to build the entire 9.3 mile LRT system at once, which includes Phases I and II. However, if the Preferred Alternative is constructed in two phases, Phase I would involve construction of LRT tracks, 12 LRT stations, and 4 TPSS sites between Downtown and Grand Boulevard. A temporary VSMF would be constructed at the Amsterdam site to service the Phase I LRT system until Phase II is built. Phase II construction would involve construction of the northern segment of the Woodward Avenue LRT Project from Grand Boulevard to the Michigan State Fairgrounds, comprising LRT tracks, seven LRT stations, four TPSS sites, and the permanent VSMF at the Highland Park Ford Plant site. Following completion of the permanent VSMF construction, the temporary facility at Amsterdam Avenue would cease operations. Nine traction power substations sites were identified in the Final EIS. The locations would be refined during the Preliminary Engineering and Final Design phases of the project. The park and ride lot is to be located near the site of the proposed Shoppes at Detroit's Gateway Park, the southeastern corner of 8 Mile Road and Woodward Avenue.

What Is the Basis for the Decision?

The June 2011 Final EIS constitutes a detailed statement on the environmental impacts of the Preferred Alternative as required by NEPA, the Clean Air Act Amendments of 1990 and Federal transit laws (49 United States Code Chapter 53).

The Preferred Alternative includes a median-running LRT system, which was a stated preference by more than 90 percent of comments received during the environmental process. The Preferred Alternative meets the purpose and need of the LRT Project, by improving public transit service and providing greater mobility options for the Corridor. It will improve transportation equity among all travelers, improve transit capacity along the corridor and improve linkages to major activity centers along on the Corridor. It is a new, premium transit service along the Woodward Avenue Corridor. The most substantial beneficial effects from building the improvements along the Corridor would be improved accessibility and travel times to regional business and activity centers. Additionally, the Preferred Alternative connects the Rosa Parks Transit Center, which currently connects with several bus lines that serve downtown Detroit, with the LRT system. Because the Preferred Alternative will be a permanent investment, this new transit service has the potential to positively influence job creation and economic development along the Corridor consistent with community plans.

The Preferred Alternative is projected to improve travel times in the Corridor and provide much relief to the over-crowded conditions of the current bus system. Moreover, because significant portions of the Preferred Alternative will operate within a media-running guide way, the new

service is expected to be more reliable than the current bus system, which must operate within the existing traffic.

The adverse social, economic, and environmental impacts of the project are commensurate with its transportation benefits. Where impacts cannot be avoided, they will be minimized as discussed in the Final EIS and summarized below.

How Was the Public Allowed to Participate in the NEPA Process?

Extensive public participation strategies and activities have been used throughout the environmental process during preparation of the Draft EIS and Final EIS. Public participation was used to disseminate project information and solicit and receive public input and comment on project-related issues, concerns, and potential environmental impacts of the No Build and Build Alternatives, including the Preferred Alternative.

The Project milestones involving public participation were as follows:

- Notice of Intent to prepare an Environmental Impact Statement (EIS) was published in the *Federal Register* (75 FR 45008) by FTA on July 30, 2010;
- Two public scoping meetings were held on August 14, 2010, at the Considine Little Rock Family Life Center (Auditorium) in Detroit, located at 8904 Woodward Avenue in a central part of the Project corridor;
- Notice of Availability for the Draft EIS was published in the *Federal Register* (76 FR 5156) on January 28, 2011, and a 45-day comment period from January 28, 2011 through to March 14, 2011 was provided for the public to review and comment on the Draft EIS;
- Two public hearings were held on the Draft EIS on February 12, 2011, at the Detroit Public Library, Main Branch;
- Two additional public meetings were held by the City of Detroit on March 8 and 10, 2011 within the Draft EIS 45-day comment period for the environmental justice communities in the Project area; and,
- The Notice of Availability for the Final EIS was published in the *Federal Register* (76 FR 38650) on July 1, 2011, and a mandatory 30-day review period from July 1, 2011 through August 1, 2011 was provided on the Final EIS.

Legal notices were placed in newspapers, including the *Detroit Free Press* and the *Detroit News*, announcing project milestones and associated public meetings. The notices listed the meeting dates, times, locations, and contact information, and included specific contact information for those requiring special needs assistance. Spanish- and Arabic-language advertisements were also placed in the *El Central Hispanic News* and the *Arab American News*. Postcards and email blasts were sent to those in the mailing database, as well.

Hard copies of the Draft EIS and Final EIS were available at local libraries along the Corridor, Detroit Department of Transportation offices, and the City of Highland Park and were circulated to Local, State, and Federal agencies. The electronic copy of the Draft EIS and Final EIS were also available on the Project website at www.woodwardlightrail.com.

The Project website (<http://www.woodwardlightrail.com/>) provides up-to-date project information, including Project documents. The public could also provide comments on the Draft EIS and Final EIS through the website.

All comments received on the Draft EIS, along with responses, were included in Appendix H of the Final EIS. Any substantive issues identified in the comments received during the 30-day review period that have not been previously and/or adequately addressed in either the Draft EIS or Final EIS are addressed in this Record of Decision.

Have Substantive Issues Been Raised Following Issuance of the Final EIS?

Below are the substantive issues which have been raised during the 30-day review period of the Final EIS and have not been addressed in the Draft EIS or Final EIS and/or need additional explanation.

1. The Machester Street station will move approximately 350 feet north from the original A1 station location. The station will be located along Woodward Avenue, between two driveways access points to the Model-T Shopping Plaza. Since the LRT is median-running along this portion of Woodward Avenue, the station will be a shared center platform. No additional environmental impacts are expected to occur with this change.
2. The McNichols Street Station will move approximately 400 feet south from the original A1 station location. The station will be located along Woodward Avenue just south of McNichols Road. Since the LRT is median-running along this portion of Woodward Avenue, this station will be a shared center platform. No additional environmental impacts are expected to occur with this change.
3. The southern end of the State Fairground Station moved 100 feet north from the original A1 location. The ramp extended 75 feet north toward Winchester Ave. A 75-foot ramp was added to the landing of the pedestrian bridge on State Fairgrounds property. No additional environmental impacts are expected to occur with this change. FTA maintains its Section 4(f) finding as stated in the Final EIS: There is no use of property from the State Fairgrounds Historic District; thus, Section 4(f) does not apply.
4. An alignment was proposed that would travel down Woodward, detouring at McNichols Road, going west until Livernois, going down Livernois, then back down 8 Mile Road to the State Fair Grounds. The area around this alignment was considered in the Alternative Analysis study (DTOGS) in 2006; however, this alignment was eliminated early in the process due to low projected ridership and higher need for an alignment straight down Woodward Avenue.
5. The City of Detroit has continued to work on transportation engineering issues since the Final EIS was published, and more specific details have been developed for transportation mitigation. Please see Appendix C for the specific details.

What Mitigation Measures Will Be Used to Minimize Harm Caused by the Impacts?

Mitigation measures for adverse environmental impacts resulting from the construction, operation, and maintenance of the Preferred Alternative are described in Table 1 of Appendix C. The adverse environmental impacts of the project are vastly outweighed by the transportation benefits. Where these impacts cannot be avoided, they will be minimized with mitigation.

The City of Detroit will implement all mitigation measures announced in the Final EIS and will coordinate with other public agencies on design issues related to the project as stipulated in the Final EIS. FTA will require that the City of Detroit include in its Project Management Plan (PMP) a process for ensuring the implementation of all mitigation commitments. This process will ensure that mitigation commitments are incorporated into design documents, cost estimates and schedules. Mitigation commitments contained in the Final EIS will be implemented and monitored by the City of Detroit through quarterly updates of a Mitigation Monitoring Program or by other means presented in the PMP and approved by FTA.

FTA, the Michigan State Historic Preservation Officer (SHPO), and the City of Detroit have executed a Section 106 Memorandum of Agreement (MOA) (Appendix G of the Final EIS and Appendix C of this Record of Decision) to address historic resources mitigation. Mitigation measures include design workshops for stations, vehicle storage and maintenance facilities, and traction power substations, plus National Register nominations for one visually adversely affected historic district and historic building. The MOA also contains mitigation measures and conditions the City of Detroit will follow to minimize adverse effects to historic properties.

What are FTA's Determinations and Findings?

The environmental record for the Woodward Avenue LRT Project is included in the Draft EIS (January 2011) and the Final EIS (June 2011). These documents represent the detailed statement required by 49 U.S.C. § 5324(b), and include:

- The environmental impacts of the project;
- The adverse environmental impacts which cannot be avoided should the proposed project be implemented;
- Alternatives to the proposed project; and,
- Irreversity and irretrievable impacts on the environment.

On the basis of the evaluation of social, environmental, and economic impacts contained in the Final EIS, and the written and oral comments offered by the public and other agencies, the FTA has determined, in accordance with 49 U.S.C. § 5324(b) that:

- Adequate opportunity was afforded for the presentation of views by all parties with a significant economic, social, or environmental interest in the project and that fair consideration has been given to the preservation and enhancement of the environment and to the interests of the community in which the proposed project is to be located; and
- All reasonable steps have been taken to minimize the adverse environmental effects of the proposed project and where adverse environmental effects remain, no feasible and prudent alternative to avoid or further mitigate such effects exists.

Finding

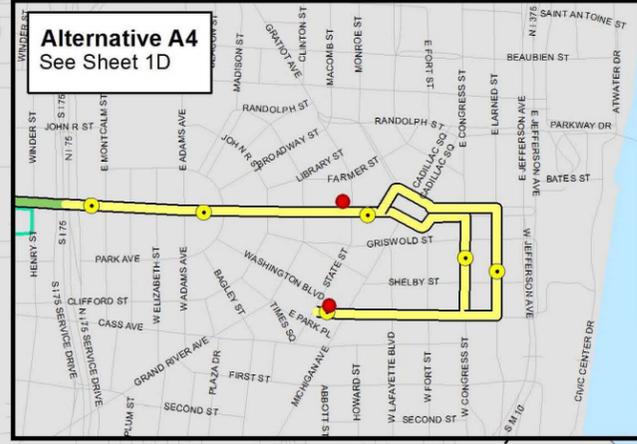
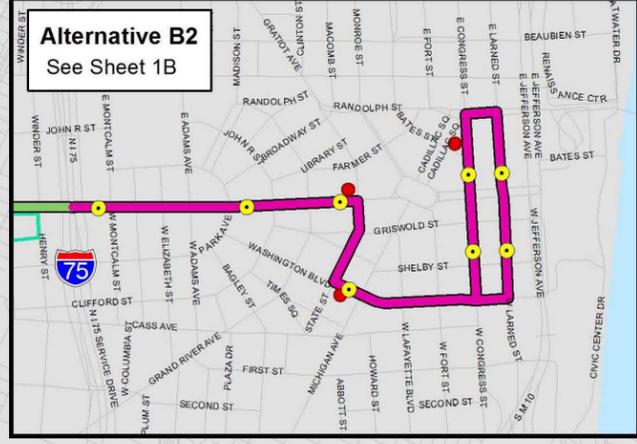
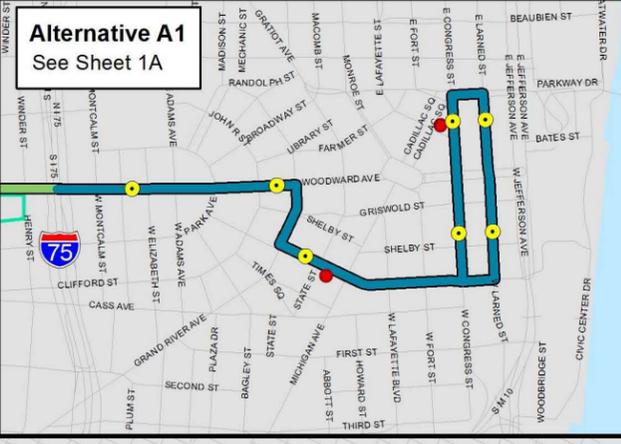
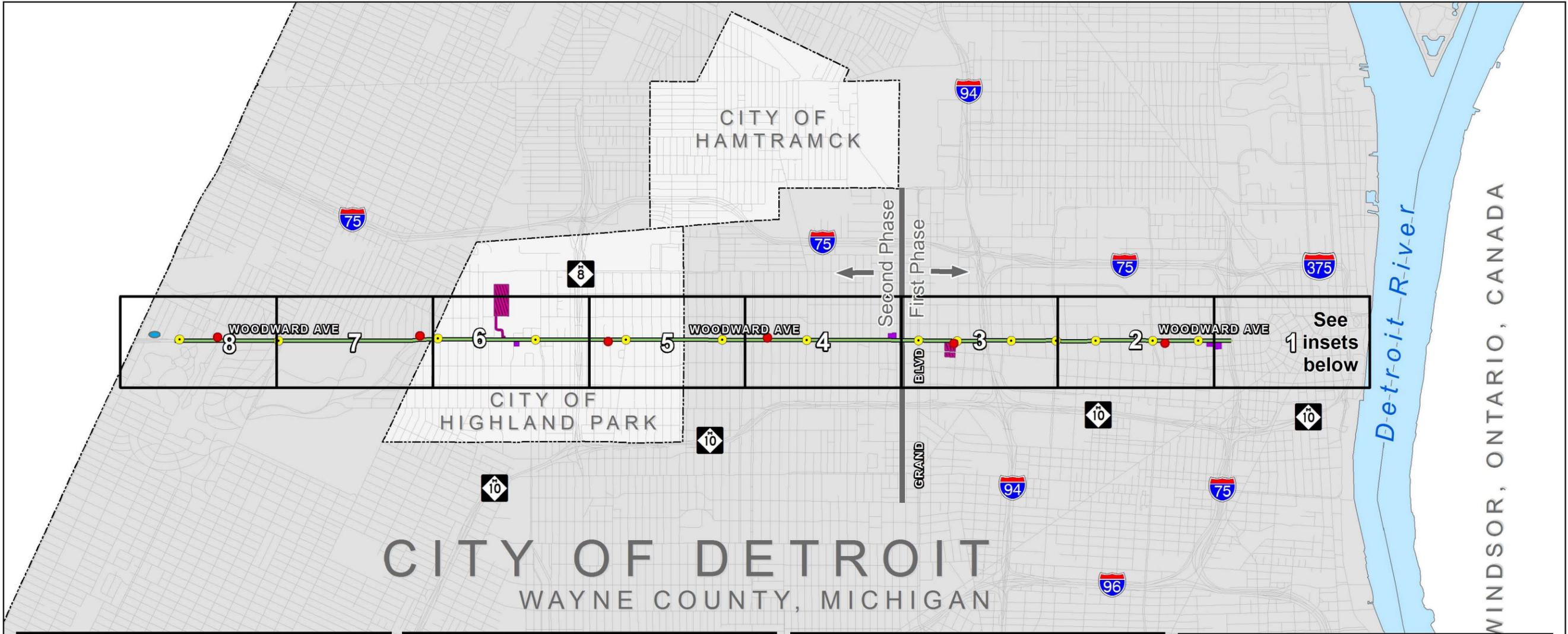
On the basis of the environmental record for this proceeding, the requirements of the National Environmental Policy Act of 1969 (42 U.S.C. §4332); Federal Transit Laws (49 U.S.C. §5301(e), §5323(b) and §5324 (b)); the Clean Air Act of 1970, as amended; 49 U.S.C. §303 (formerly Department of Transportation Act of 1966, §4(f)); National Historic Preservation Act of 1966, §106 (16 U.S.C. §470f); Executive Order 12898 (Environmental Justice); and other applicable legal and program requirements have been satisfied for the Woodward Avenue Light Rail Transit Project in Detroit, Michigan.

for *Bronda Seed*
Marisol Simon
FTA Regional Administrator
Region V

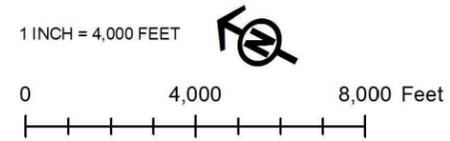
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Date

Appendix A: Project Map
Appendix B: Environmental Impacts
Appendix C: Mitigation and Monitoring Commitments
Appendix D: Section 106 Memorandum of Agreement

Appendix A
Project Map



WOODWARD LIGHT RAIL



- Proposed Station
- Locally Preferred Alternative (LPA)
- Alternative A1
- Alternative B2
- Alternative B3
- Alternative A4
- Traction Power Substation (TPSS)
- Park and Ride Lot
- Construction Staging Area (CSA)
- Vehicle Storage Maintenance Facility (VSMF)

**Woodward Avenue
Light Rail Transit Project
May 2011**

Location Map

Appendix B
Environmental Impacts

Table 1. Summary of Environmental Impacts

Evaluation Measures		Preferred Alternative
ENVIRONMENTAL IMPACTS¹		
Air Quality impact		No impact
Hazardous Materials impact		Potential hazardous materials present on each of the two potential VSMF and the TPSS sites; One or more known or suspected contaminated sites near almost all LRT stations and at two railroad underpasses
Historic Properties Effects Determinations	<i>Adverse Effect</i>	13 historic properties
	<i>No Adverse Effect</i>	30 historic properties
	<i>No Effect</i>	71 historic properties
Archaeological Resources impact		Potential Impacts to Fort Lernout, the Original Protestant Cemetery, and Capitol Park
Displacements/Property Acquisition		1 building/ 1 business
Environmental Justice impact		No impacts with implemented mitigation measures
Noise impact		6 sites
Vibration impact		1 site
Ground-borne vibration-related noise impact		5 sites
Land Use, Zoning, Public Policy impact		Limited visual impacts on neighborhoods from TPSSs
Neighborhood Character impact		Temporary construction-phase disruption of traffic and pedestrian travel patterns
Community Facilities and Services impact		Temporary construction-phase disruption of direct access to community facilities and pedestrian travel patterns
Parkland impact		Temporary construction-phase disruption of vehicular and pedestrian access to parklands
Visual and Aesthetic Conditions impact		Minor impact
Utilities impact		Temporary service disruptions and traffic detours during required utility relocations
Energy impact		Likely decrease in overall energy use with LRT operation; Temporary increase in energy use for construction
Parking impact		Loss of 156 spaces

Table 1. Summary of Environmental Impacts

Evaluation Measures	Preferred Alternative
Roadways and Levels of Service (LOS) impact	All major signalized intersections would operate at Level of Service D or better; Traffic re-routings and detours would be required along discrete alignment segments during construction
Storm Water Management impact	Limited impact due to an increase in impervious surface and subsequent runoff
Indirect impact	Would encourage new development near some LRT stations May encourage infill redevelopment of underutilized or vacant parcels near some LRT stations
Cumulative impact	Would enhance economic development opportunities in northern part of study area; Gentrification may occur over an extended period of time
Section 4(f) Use	No 4(f) resources used
TRANSPORTATION BENEFITS AND IMPACTS	
Encourages transit ridership by providing linkages to existing transit	Positive impact
Provides transportation options (modal choices)	Would provide LRT as an additional transit option
Provides transit access to schools, shopping, events, healthcare and other services, and cultural attractions in the Corridor ²	49 attractions
Transit travel time: range during peak hours for the given Alternative's entire route	34 – 36 minutes
Transit travel time reliability	South of Grand Circus Park, travel time would be dependent on traffic volume and conditions.
Vehicular travel time north of Downtown	8 – 10 minutes longer than No-Build
Corridor capacity and traffic operations	LOS D or better
Motor vehicle safety	Minor positive impact
Pedestrian safety	Minor positive impact
Bicycle safety	Minor positive impact
TRANSPORTATION EQUITY AND ENVIRONMENTAL JUSTICE	
Improves public transit service and provides greater mobility options along Woodward Avenue	Yes

Table 1. Summary of Environmental Impacts

Evaluation Measures	Preferred Alternative
SUPPORT ECONOMIC AND COMMUNITY DEVELOPMENT GOALS	
Consistent with City of Detroit Master Plan	Yes
Provides transit connections to existing and planned economic development areas	Yes
Potential for future transit-supportive and new economic development	Moderate positive impact

Source: Woodward Avenue LRT Project Team, 2010-2011

¹ Measures will be implemented to mitigate these impacts.

² Attractions directly served by alternative calculated within ¼ miles of LRT stations.

Appendix C
Mitigation and Monitoring Commitments

City of Detroit – Detroit Department of Transportation (DDOT)
Woodward Avenue Light Rail Transit Project

Measures to Mitigate Environmental Impacts

The mitigation measures and other project features that reduce adverse impacts, to which FTA and the grantee committed in the Final EIS and Record of Decision, are set forth in Table 1, "Measures to Mitigate Environmental Impacts." These mitigation measures may not be eliminated from the project except by FTA's written consent following a supplemental environmental review. FTA will determine the appropriate level of supplemental environmental review in this case. The summary table is included as an attachment to the Record of Decision to facilitate the monitoring of the implementation of those mitigation measures during final design and construction. The detailed descriptions of the mitigation measures in the Final EIS remain in effect. It is the responsibility of the project sponsor (*i.e.*, the City of Detroit) to ensure that the mitigation commitments are accomplished in accordance with the Final EIS and Record of Decision.

Table 1. Mitigation Commitments and Monitoring

**CITY OF DETROIT – DETROIT DEPARTMENT OF TRANSPORTATION (DDOT)
WOODWARD AVENUE LRT PROJECT
MEASURES TO MITIGATE ENVIRONMENTAL IMPACTS**

Mit. Number	Impact/Mitigation¹	Implementation and Monitoring	Responsible Party	Timing	Status
PUBLIC TRANSPORTATION					
PT 1.	Construction may prevent buses from pulling into existing stops	<p>Bus stops will be re-located outside the immediate construction zone</p> <p>A clear and accessible path connecting sidewalks to the relocated bus stops through the construction zone will be provided and maintained</p>	DDOT	Design & Construction	
PT 2.	Temporary detours or bus stop relocations may be necessary for buses and passengers	DDOT and any other affected service provider will issue a Rider Alert, which would be posted at the affected stops, on buses, at schedule distribution outlets, and on the DDOT website	DDOT	Design & Construction	

Table 1. Mitigation Commitments and Monitoring

**CITY OF DETROIT – DETROIT DEPARTMENT OF TRANSPORTATION (DDOT)
WOODWARD AVENUE LRT PROJECT
MEASURES TO MITIGATE ENVIRONMENTAL IMPACTS**

Mit. Number	Impact/Mitigation¹	Implementation and Monitoring	Responsible Party	Timing	Status
PT3.	Temporary detours may be necessary for motor vehicles and bicycles	Traffic detours for motor vehicles and bicycles will be posted	DDOT	Design & Construction	
SAFETY AND SECURITY					
SS1.	Potential for conflict between LRT and autos at signalized left-turn lanes	Left turns will be allowed at signalized intersections and prohibited elsewhere; all other existing indirect left turns or protected left turn treatments to be considered where necessary (i.e., dedicated left-turn signal)	DDOT; City of Detroit Public Works; MDOT	Design & Construction	
SS2.	Potential increase in pedestrians jay-walking due to longer wait times at signalized intersections	Install signalized or unsignalized crosswalks where crossing distances	DDOT; City of Detroit Public	Design	

Table 1. Mitigation Commitments and Monitoring

**CITY OF DETROIT – DETROIT DEPARTMENT OF TRANSPORTATION (DDOT)
WOODWARD AVENUE LRT PROJECT
MEASURES TO MITIGATE ENVIRONMENTAL IMPACTS**

Mit. Number	Impact/Mitigation¹	Implementation and Monitoring	Responsible Party	Timing	Status
		exceed one-quarter mile	Works; MDOT		
		Install signage to guide pedestrians to designated crosswalks			
SS3.	Bicycles continue to ride in the right most travel lane with vehicles	Account for Complete Streets legislation during design	DDOT	Design	
SS4.	Enhance passenger safety and security at stations	Station features will include lighting and security systems	DDOT	Design & Construction	
		In the event of an emergency, LRT drivers would notify a dispatcher who would notify the Detroit Police Department			

Table 1. Mitigation Commitments and Monitoring

**CITY OF DETROIT – DETROIT DEPARTMENT OF TRANSPORTATION (DDOT)
WOODWARD AVENUE LRT PROJECT
MEASURES TO MITIGATE ENVIRONMENTAL IMPACTS**

Mit. Number	Impact/Mitigation¹	Implementation and Monitoring	Responsible Party	Timing	Status
		Informational and educational campaigns will be conducted prior to construction and again prior to operation			
SS5.	Left turns prohibited at some unsignalized intersections for fire trucks	Fire trucks may receive emergency-only signals at some intersections; addressed through Fire & Life Safety Committee	DDOT and MDOT with coordination from Detroit Fire Department	Design & Construction	
PARKING					
P1.	Temporary loss of downtown parking during construction	Off-street or side street parking will be identified and made available	DDOT	Design & Construction	
P2.	Partial closure of some streets, including Woodward, during construction	Maintain one travel lane in each direction during peak hours	DDOT and MDOT	Design & Construction	
		Maintain left turn lanes at certain signalized intersections and right turns at all intersections			

Table 1. Mitigation Commitments and Monitoring

**CITY OF DETROIT – DETROIT DEPARTMENT OF TRANSPORTATION (DDOT)
WOODWARD AVENUE LRT PROJECT
MEASURES TO MITIGATE ENVIRONMENTAL IMPACTS**

Mit. Number	Impact/Mitigation¹	Implementation and Monitoring	Responsible Party	Timing	Status
VEHICULAR OPERATIONS					
VO1.	Removal of travel lane in each direction along some parts of the Corridor during construction	Maintain one travel lane in each direction during peak hours Maintain left turn lanes at certain signalized intersections and right turns Traffic signal operations would be optimized to reduce overall traffic delay during construction.	DDOT and MDOT	Design & Construction	
VO2.	Center turn-lane eliminated	Diverted movements will be provided for at signalized intersections; vehicles make U-turns at next signalized intersection. Travel lane widths increase to 11 feet per FHWA guidelines.			
VO3.	Lefts turns onto/from Woodward Ave. prohibited at unsignalized intersections	Diverted movements will be provided for at signalized intersections;			

Table 1. Mitigation Commitments and Monitoring

**CITY OF DETROIT – DETROIT DEPARTMENT OF TRANSPORTATION (DDOT)
WOODWARD AVENUE LRT PROJECT
MEASURES TO MITIGATE ENVIRONMENTAL IMPACTS**

Mit. Number	Impact/Mitigation¹	Implementation and Monitoring	Responsible Party	Timing	Status
		vehicles make U-turns at next signalized intersection			
VO4.	Commercial vehicles prohibited from making some U-turns	Commercial vehicles will make left and right turns at signalized intersections. Alternative truck routings from freeway exit will be developed.			
ROADWAY PERMITS & APPROVALS					
RPA1.	Negotiate Lease Agreement		City of Detroit in coordination with FHWA and MDOT	Design & Construction; must be completed prior to operation	
RPA2.	Obtain Permit to Construct		City of Detroit in coordination with FHWA and MDOT	Prior to Construction	
RPA3.	Secure Utility/Drainage Permits		Utility owners and	Prior to Construction	

Table 1. Mitigation Commitments and Monitoring

**CITY OF DETROIT – DETROIT DEPARTMENT OF TRANSPORTATION (DDOT)
WOODWARD AVENUE LRT PROJECT
MEASURES TO MITIGATE ENVIRONMENTAL IMPACTS**

Mit. Number	Impact/Mitigation ¹	Implementation and Monitoring	Responsible Party	Timing	Status
			operators in coordination with the City of Detroit		
AIR QUALITY					
AQ1.	Fugitive dust and diesel emissions during construction	Adhere to State and local regulations regarding dust control – MDOT’s Standard Construction Specification Sections 107.15(A) and 107.19.	City of Detroit	Construction	
		Construction contracts require the use of diesel engine retrofit technology on diesel construction vehicles and diesel-powered equipment			
HAZARDOUS MATERIALS					

Table 1. Mitigation Commitments and Monitoring

**CITY OF DETROIT – DETROIT DEPARTMENT OF TRANSPORTATION (DDOT)
WOODWARD AVENUE LRT PROJECT
MEASURES TO MITIGATE ENVIRONMENTAL IMPACTS**

Mit. Number	Impact/Mitigation¹	Implementation and Monitoring	Responsible Party	Timing	Status
HM1.	Conduct proper due diligence to avoid long-term effects from purchasing contaminated property	Update Phase I ESAs and conduct Phase II ESAs on Rosa Parks Transit Center Station and VSMFs and TPSSs	City of Detroit	Prior to purchase and acquisition	
		Conduct BEA to comply with Michigan state regulations at time of purchase and acquisition		Prior to purchase and acquisition	
		Follow BMPs and pollution prevention techniques to minimize potential exposure		Prior to acquisition and during construction	
HM2.	If contaminated materials are found, minimize exposure	Testing and proper removal and disposal of materials. Removal of contaminated soils, installation of vapor mitigation systems, installation of barrier(s) to eliminate direct contact with contaminated soil/groundwater	City of Detroit	Immediately if/when contamination is found	

Table 1. Mitigation Commitments and Monitoring

**CITY OF DETROIT – DETROIT DEPARTMENT OF TRANSPORTATION (DDOT)
WOODWARD AVENUE LRT PROJECT
MEASURES TO MITIGATE ENVIRONMENTAL IMPACTS**

Mit. Number	Impact/Mitigation ¹	Implementation and Monitoring	Responsible Party	Timing	Status
		Conduct remediation plan in accordance with NREPA.			
HISTORIC & CULTURAL RESOURCES					
HCR1.	Mitigate visual adverse effects on historic resources from the LRT system	Implement mitigation as outlined in the Section 106 MOA. Design project elements consistent with the Corridor’s historic context. Conduct design workshops with the SHPO and Section 106 Consulting parties for the LRT stations, VSMFs, and TPSSs for SHPO comment or approval. Prepare NR nominations for the adversely affected Gabriel Richard Building and the Woodward-West Palmer-Cass-West Kirby Historic District.	City of Detroit	Design	

Table 1. Mitigation Commitments and Monitoring

**CITY OF DETROIT – DETROIT DEPARTMENT OF TRANSPORTATION (DDOT)
WOODWARD AVENUE LRT PROJECT
MEASURES TO MITIGATE ENVIRONMENTAL IMPACTS**

Mit. Number	Impact/Mitigation ¹	Implementation and Monitoring	Responsible Party	Timing	Status
HCR2.	Potential impacts to archaeological resources at Capitol Park/pre-1805 City	Develop a construction archaeological monitoring program	City of Detroit	Prior to construction; plan is implemented if/when archaeological resources are discovered	
Develop a preliminary data recovery plan		Prior to construction; submit to SHPO for approval before construction; plan is implemented if/when archaeological resources are discovered			
Special Note	The project design will not allow for the placement of any billboards/vertical structures/vertical elements on top of/extending from the LRT stations.				

Table 1. Mitigation Commitments and Monitoring

**CITY OF DETROIT – DETROIT DEPARTMENT OF TRANSPORTATION (DDOT)
WOODWARD AVENUE LRT PROJECT
MEASURES TO MITIGATE ENVIRONMENTAL IMPACTS**

Mit. Number	Impact/Mitigation¹	Implementation and Monitoring	Responsible Party	Timing	Status
NOISE					
N1.	Impacts are predicted at six receptor sites. Relocation of special track work; automatic lubrication of tracks on tight curves. Vehicle design must include wheel dampeners, vehicle skirts, and/or undercar absorption. Install building insulation where above actions fail to eliminate noise impacts.	Include in design and contract drawings	City of Detroit	Design & Construction	
N2.	Comply with all local noise ordinances, including Chapter 10-5 of the City of Detroit Noise Ordinance during construction	Include in design and contract drawings	City of Detroit	Design & Construction	
VIBRATION					
V1.	Impacts are predicted at five sites. Move special track work. Vehicle design must include resilient wheels. Install track fasteners/track frogs wherever needed to eliminate vibration impacts.	Include in contract drawings and specifications	City of Detroit	Design & Construction	

Table 1. Mitigation Commitments and Monitoring

**CITY OF DETROIT – DETROIT DEPARTMENT OF TRANSPORTATION (DDOT)
WOODWARD AVENUE LRT PROJECT
MEASURES TO MITIGATE ENVIRONMENTAL IMPACTS**

Mit. Number	Impact/Mitigation¹	Implementation and Monitoring	Responsible Party	Timing	Status
V2.	Comply with all State and local ordinances. Include vibration control measures in construction specifications. Conduct transfer mobility tests.	Include in contract drawings and specifications	City of Detroit	Design & Construction	
ACQUISITIONS & DISPLACEMENTS					
AD1.	Provide compensation and relocation assistance to affected business owners for acquisition of properties	Comply with the <i>Uniform Relocation Assistance and Real Property Acquisitions Policies Act of 1970</i> ; address business impacts in the Real Estate Acquisition Management Plan (RAMP)	City of Detroit	Design, ROW, Acquisition	
LAND USE, ZONING AND PUBLIC POLICY					
LU1.	Context-sensitive design for TPSSs near residential uses	Design project elements consistent with the Corridor’s historic context. SHPO comment or approval.	City of Detroit; SHPO; Consulting Parties	Design	

Table 1. Mitigation Commitments and Monitoring

**CITY OF DETROIT – DETROIT DEPARTMENT OF TRANSPORTATION (DDOT)
WOODWARD AVENUE LRT PROJECT
MEASURES TO MITIGATE ENVIRONMENTAL IMPACTS**

Mit. Number	Impact/Mitigation¹	Implementation and Monitoring	Responsible Party	Timing	Status
NEIGHBORHOOD CHARACTER					
NC1.	Minimize construction effects on neighborhoods. Utilize appropriate signage and notifications of sidewalks and roadways closings.	Ongoing public coordination with the public and the Corridor’s neighborhoods	City of Detroit	Construction	
COMMUNITY FACILITIES AND SERVICES					
CFS1.	Install safety equipment for operation of and access to community facilities and services	Ongoing public coordination with the public and the Corridor’s neighborhoods	City of Detroit	Construction	
	Enhanced traffic signals, crosswalks, striping, signage, and notifications of sidewalks and roadways closings				
PARKLAND					

Table 1. Mitigation Commitments and Monitoring

**CITY OF DETROIT – DETROIT DEPARTMENT OF TRANSPORTATION (DDOT)
WOODWARD AVENUE LRT PROJECT
MEASURES TO MITIGATE ENVIRONMENTAL IMPACTS**

Mit. Number	Impact/Mitigation¹	Implementation and Monitoring	Responsible Party	Timing	Status
P1.	Alternative access points will be marked and identified so access to parks is maintained	Coordination with the Detroit Recreation Department to minimize effects on users during construction	City of Detroit; Detroit Recreation Department	Design & Construction	
VISUAL					
V1.	Context-sensitive design for LRT stations, VSMFs and TPSSs	Design project elements consistent with the Corridor’s historic context. SHPO comment or approval.	City of Detroit; SHPO; Consulting Parties	Design	
V2.	Include vegetation, landscaping, reduced lighting impacts from glare, minimization of structural bulk in Final Design	Design project elements consistent with the Corridor’s historic context. SHPO comment or approval.	City of Detroit; SHPO; Consulting Parties	Design	
V3.	Movement of equipment, placement of fences and screens, storage areas	Written measures included in contract specifications to minimize visual impacts	City of Detroit; Construction companies	Design & Construction	
UTILITIES					
U1.	Utility search to identify underground	Search must be completed	City of	Design,	

Table 1. Mitigation Commitments and Monitoring

**CITY OF DETROIT – DETROIT DEPARTMENT OF TRANSPORTATION (DDOT)
WOODWARD AVENUE LRT PROJECT
MEASURES TO MITIGATE ENVIRONMENTAL IMPACTS**

Mit. Number	Impact/Mitigation¹	Implementation and Monitoring	Responsible Party	Timing	Status
	utilities and develop strategies to minimize impacts	during design and before construction	Detroit; coordination with utility owners and operators	ROW, construction	
U2.	Plan construction activities to minimize service outages. Notify affected users of any outages.	Include in construction contract specifications	City of Detroit; coordination with utility owners and operators	Design, ROW, construction	
U3.	Coordinate utility relocation with respective utility owners	Include in construction contract specifications	City of Detroit; coordination with utility owners and operators	Design, ROW, Construction	
ENERGY					
E1.	Planned energy conservation, focusing on recycling materials, using indigenous plants for landscaping, and applying BMPs for maintenance and energy efficiency	Include in contract specifications. Monitor construction sites.	City of Detroit,	Design & Construction	

Table 1. Mitigation Commitments and Monitoring

**CITY OF DETROIT – DETROIT DEPARTMENT OF TRANSPORTATION (DDOT)
WOODWARD AVENUE LRT PROJECT
MEASURES TO MITIGATE ENVIRONMENTAL IMPACTS**

Mit. Number	Impact/Mitigation¹	Implementation and Monitoring	Responsible Party	Timing	Status
CONSTRUCTION					
C1.	Employ BMPs	Include in contract specifications. Monitor construction sites.	City of Detroit; coordination with construction companies	Design & Construction	
C2.	Use fencing and security lighting around CSAs; concrete barriers and fencing along construction area.	Include in contract specifications. Monitor construction sites.	City of Detroit; coordination with construction companies	Design & Construction	
C3.	Water/cover with tarps exposed surfaces and dirt/debris piles	Include in contract specifications. Monitor construction sites.	City of Detroit; coordination with construction companies	Design & Construction	
C4.	Use tarps on trucks hauling debris	Include in contract specifications. Monitor construction sites.	City of Detroit; coordination with construction	Design & Construction	

Table 1. Mitigation Commitments and Monitoring

**CITY OF DETROIT – DETROIT DEPARTMENT OF TRANSPORTATION (DDOT)
WOODWARD AVENUE LRT PROJECT
MEASURES TO MITIGATE ENVIRONMENTAL IMPACTS**

Mit. Number	Impact/Mitigation¹	Implementation and Monitoring	Responsible Party	Timing	Status
			companies		
C5.	Maintain equipment and vehicle engine conditions	Include in contract specifications. Inspect construction equipment.	City of Detroit; coordination with construction companies	Design & Construction	
C6.	Prohibit truck idling	Include in contract specifications. Monitor equipment.	City of Detroit; coordination with construction companies	Design & Construction	
C7.	Use diesel engine retrofit technology	Include in contract specifications. Inspect construction equipment.	City of Detroit; coordination with construction companies	Design & Construction	
C8.	Use grease and sediment traps; detention basins/ditches to control runoff	Include in contract specifications. Monitor construction sites.	City of Detroit; coordination with construction	Design & Construction	

Table 1. Mitigation Commitments and Monitoring

**CITY OF DETROIT – DETROIT DEPARTMENT OF TRANSPORTATION (DDOT)
WOODWARD AVENUE LRT PROJECT
MEASURES TO MITIGATE ENVIRONMENTAL IMPACTS**

Mit. Number	Impact/Mitigation¹	Implementation and Monitoring	Responsible Party	Timing	Status
			companies		
C9.	Notify businesses and residents of construction activities	Follow City’s public involvement plan for transportation projects.	City of Detroit	Design & Construction	
ROADWAYS AND LEVEL OF SERVICE					
RLOS1.	Traffic signal retiming	Signalized intersections to be optimized to provide improved operations during peak and non-peak hours	City of Detroit; MDOT	Design & Construction	
RLOS2.	Develop and implement comprehensive Transportation Management Plan (TMP)	Plan will be completed prior to construction and followed during construction	City of Detroit; MDOT	Design, Construction, Operation	
STORMWATER MANAGEMENT					
SWM1.	Adhere to approved sediment- and erosion-control plans, including BMPs.	Include in contract specifications	City of Detroit; construction companies	Construction	
SWM2.	Regulate/control storm water runoff.	Obtain Section 402/Part 31 – NPDES Permit	City of Detroit in coordination with MI	Prior to Construction	

Table 1. Mitigation Commitments and Monitoring

**CITY OF DETROIT – DETROIT DEPARTMENT OF TRANSPORTATION (DDOT)
WOODWARD AVENUE LRT PROJECT
MEASURES TO MITIGATE ENVIRONMENTAL IMPACTS**

Mit. Number	Impact/Mitigation¹	Implementation and Monitoring	Responsible Party	Timing	Status
			Department of Environmental Quality		
WETLANDS – None Required					
NATURAL HABITATS – None Required					
THREATENED AND ENDANGERED SPECIES – None Required					
FLOODPLAINS – None Required					
PRIME AND UNIQUE FARMLANDS – None Required					
SURFACE WATER FEATURES – None Required					
INDIRECT AND CUMULATIVE EFFECTS – None Required					
ENVIRONMENTAL JUSTICE					
EJ1.	See Mitigation Measures above for Transportation, Air Quality, Haz-Mat, Noise and Vibration	See Mitigation Measures above for Transportation, Air Quality, Haz-Mat, Noise and Vibration	City of Detroit	Design, ROW, Acquisition, Construction	

Table 1. Mitigation Commitments and Monitoring

**CITY OF DETROIT – DETROIT DEPARTMENT OF TRANSPORTATION (DDOT)
WOODWARD AVENUE LRT PROJECT
MEASURES TO MITIGATE ENVIRONMENTAL IMPACTS**

Mit. Number	Impact/Mitigation¹	Implementation and Monitoring	Responsible Party	Timing	Status
SECTION 4(F) – None Required					
Notes: ¹ See Final Environmental Impact Statement for complete descriptions of impacts and proposed mitigation measures.					
Acronyms:					
BEA – Baseline Environmental Assessment BMP – Best Management Practices CSA – Construction Staging Area DDOT – Detroit Department of Transportation ESA – Environmental Site Assessment FHWA – Federal Highway Administration FTA – Federal Transit Administration LOS – Level of Service LRT – Light Rail Transit MDOT – Michigan Department of Transportation MOA – Memorandum of Agreement			NPDES – National Pollutant Discharge Elimination System Permit NR – National Register NREPA – Natural Resources and Environmental Protection Act RAMP – Real Estate Acquisition Management Plan SHPO – State Historic Preservation Officer TMP - Transportation Management Plan TPSS – Traction Power Substation VSMF – Vehicle Storage and Maintenance Facility		

Appendix D
Section 106 Memorandum of Agreement

**SECTION 106
MEMORANDUM OF AGREEMENT
BETWEEN
THE FEDERAL TRANSIT ADMINISTRATION
AND
THE MICHIGAN STATE HISTORIC PRESERVATION OFFICE
REGARDING
THE WOODWARD AVENUE LIGHT RAIL TRANSIT PROJECT
IN DETROIT, MICHIGAN**

WHEREAS, the Federal Transit Administration (FTA) is proposing to provide funding to the City of Detroit to construct a new Light Rail Transit system along Woodward Avenue from downtown Detroit near the Detroit River north to the State Fairgrounds near 8 Mile Road (the Project), and has determined the Project to be a Federal undertaking subject to the National Historic Preservation Act, 16 USC §470 (NHPA); and

WHEREAS, FTA has determined that the Project would introduce elements that would result in adverse effects on the following historic properties:

- The Detroit Financial District;
- the State Savings Bank;
- the Gabriel Richard Building;
- the Washington Boulevard Historic District;
- the Grand Circus Park Historic District;
- the First Unitarian Church of Detroit;
- the Col. Frank J. Hecker House;
- the East Ferry Avenue Historic District;
- the Woodward-West Palmer-Cass-West Kirby Historic District;
- the New Center Commercial Historic District
- the Temple Beth-El;
- St. Joseph's Episcopal Church;
- Central Woodward Christian Church;

WHEREAS, the FTA and the City of Detroit have consulted with the Michigan State Historic Preservation Officer (SHPO) about the Project in accordance with the regulation implementing Section 106 of the NHPA (36 CFR part 800); and

WHEREAS, the FTA notified the Advisory Council on Historic Preservation (ACHP) about the adverse effects of the Project, and the ACHP declined to participate in the Section 106 consultation for this Project; and

WHEREAS, the FTA and the City of Detroit have consulted with the National Park Service of the U.S. Department of the Interior regarding potential adverse effects of the Project on National Historic Landmarks, pursuant to 36 CFR 800.10; and

WHEREAS, the organizations and tribes listed in Exhibit 1 have been treated as consulting parties in the Section 106 review process in accordance with 36 CFR 800.2(c)(3); and

WHEREAS, the FTA, in consultation with SHPO, the City of Detroit, and the other consulting parties, determined the Area of Potential Effects (APE) for the Project pursuant to 36 CFR 800.4(a) (Exhibit 2), identified and evaluated the properties listed on, or eligible for listing on, the National Register of Historic Places (NRHP) within that APE pursuant to 36 CFR 800.4(b)-(d), and assessed the adverse effects of the Project on the identified historic properties in accordance with 36 CFR 800.5; and

WHEREAS, the various Section 106 determinations and evaluations and this Agreement were developed with appropriate public involvement (pursuant to 36 CFR 800.2(d) and 800.6(a)), coordinated with the scoping process, the process for public review and comment, and the public hearings conducted to comply with NEPA and its implementing regulations; and

WHEREAS, the FTA and the Michigan SHPO are signatories to this Agreement; and

WHEREAS, the FTA requires that its grant applicant, the City of Detroit, be an invited signatory to the Agreement;

NOW, THEREFORE, the FTA, the SHPO, and the City of Detroit (collectively referred to as “Signatories”) agree that the Project will be implemented in accordance with the following stipulations.

STIPULATIONS

FTA will ensure that the terms of this Agreement are carried out and will require, as a condition of any approval of FTA funding for the Project, adherence to the stipulations of this Agreement. The City of Detroit, the project sponsor, will take the lead in the implementation of each stipulation unless otherwise noted in the stipulation.

I. HISTORIC CONTEXT AND DESIGN

- A. The City of Detroit shall require in its final design contract(s) for the Project, that any element of the Project that has the potential to visually affect any one of the historic properties listed in this Agreement be designed to be compatible with its historic context. The Project design shall not include or allow the placement of large advertising billboards above any station where it would visually affect any one of the historic properties listed in this Agreement. Following the project’s completion, the City of Detroit will not allow the addition of any vertical elements or rooftop structures.
- B. The City of Detroit's design team will include a historical architect who meets the Secretary of the Interior’s Professional Qualifications (36 CFR Part 61) for that discipline. This historic preservation architect will guide all aspects of the compliance with this Agreement during design and construction of each Project phase

with the exception of those related to archaeology under Stipulation III, and will make presentations to SHPO and generate all reports to SHPO required by this Agreement.

- C. The City of Detroit or its design contractors shall hold Project design workshops with the SHPO and consulting parties at approximately the 30%, 60%, and 90% stage of Project design for each phase of the Project to review and discuss proposed design plans for all elements of the Project with the potential to adversely affect any historic properties.
- D. The City of Detroit shall submit the design coming out of each design workshop prescribed in Stipulation I.C to the SHPO for comment or approval. If the SHPO does not respond to a submission of drawings within 21 days, the City of Detroit shall deem that the SHPO has approved that design.
- E. The historical architect working on the Project under Stipulation I.B shall be selected in consultation with SHPO and shall be responsible for assisting SHPO in all reviews and approvals required of SHPO by this Agreement.

II. NRHP NOMINATIONS

- A. The City of Detroit shall complete a NRHP nomination for the Gabriel Richard Building and the Woodward-West Palmer-Cass-West Kirby Historic District, which have been determined eligible for listing in the NRHP. The nominations shall meet the standards and requirements of the NRHP and the Michigan SHPO. Final products for each nomination shall include the following: (1) two original copies of the nomination form; (2) photographs; (3) Site Plan; (4) one set of 35mm color slides; and (5) copies of all research materials. The NRHP nominations shall be developed in consultation with the SHPO by or under the direct supervision of the person who fulfills the Secretary of the Interior's Professional Qualifications (36 CFR Part 61) as an architectural historian.

III. ARCHAEOLOGICAL RESOURCES

- A. The City of Detroit will develop a construction archeological monitoring program for areas of the Project that have the potential to affect Capitol Park (20WN785) or elements of the pre-1805 city. These areas are the north side of State Street adjacent to Capitol Park, Washington Boulevard south of Fort Street, those portions of Larned Avenue and Congress Street between Washington Boulevard and Griswold Street, and the north side of Larned Avenue near the east side of Woodward Avenue. All ground disturbing activities reaching 0.6 meter (24 inches) below grade in these areas shall be monitored by a professional archaeologist who meets the Secretary of Interior's qualifications for that discipline (36 CFR Part 61).

- B. If unanticipated archaeological artifacts, structures, human remains, or other resources are encountered, the City of Detroit will: (1) stop work involving subsurface ground disturbance in the area of the find and, as determined by the professional archeologist, in the surrounding area where further subsurface finds can be reasonably expected; (2) notify the SHPO, the FTA, and Indian tribes (if appropriate) about the discovery; (3) have the archaeologist investigate the discovery and recommend to SHPO either: (a) that construction be permitted to resume, or (b) that the discovery be further investigated and if FTA determines, consultation undertaken, to determine if it is eligible for the NRHP. Construction may resume if the qualified archaeologist so recommends and SHPO agrees. Should SHPO fail to respond within 21 calendar days after receipt of the notification and investigation, the City of Detroit shall proceed in accordance with the qualified archaeologist's recommendation.
- C. If the qualified archaeologist recommends further investigation of the discovery, an expedited process shall be followed in accordance with 36 CFR 800.13(b) which: (1) determines the eligibility of the archaeological resource; (2) if the resource is deemed eligible and SHPO agrees, determines the extent of the resource affected by the Project; (3) considers Project changes to avoid an eligible archaeological resource, if feasible; (4) develops a data recovery plan if the resource is not avoidable; (5) executes the data recovery plan for the resource; and (6) curates the results. Details of these activities shall be expeditiously developed and executed by the qualified archaeologist in consultation with SHPO. SHPO's failure to respond within seven days of any written request for comment or concurrence shall be deemed concurrence.
- D. The City of Detroit shall develop a preliminary data recovery plan before construction begins and must submit that data recovery plan to SHPO for approval before construction may begin.

IV. ADMINISTRATIVE PROVISIONS

- A. Implementation Schedule. The City of Detroit shall develop a schedule for the implementation of the provisions of this Agreement (schedule should be developed before construction begins and included as an attachment to the Agreement). The schedule will include milestones for completion of deliverables and will be posted on the Project website. The City will update the schedule, as necessary, and will include an up-to-date schedule in each monitoring report required by Stipulation IV.C below.
- B. Dispute Resolution
 - 1. In the event SHPO objects in writing to any design or submission presented pursuant to this Agreement within the timeframe specified in this Agreement or, if no timeframe is specified, within 21 calendar days of its receipt, the City of Detroit will consult further with SHPO to seek resolution. If either the City of Detroit or SHPO determines that SHPO and the City of Detroit cannot resolve the

objection, that agency will notify FTA in writing of the SHPO's objection. FTA will attempt to resolve the objection. If FTA determines that the objection cannot be resolved, FTA will invite the ACHP to review all documentation relevant to the dispute, including FTA's proposed resolution. The City of Detroit will prepare the documentation about the subject of the dispute required by 36 CFR 800.11(g) for transmittal by FTA to ACHP with FTA's proposed resolution. ACHP is expected to provide its comments to FTA within 30 days of receipt of the documentation. FTA will then take these comments into account in reaching a final decision concerning the dispute. If ACHP fails to respond within the 30-day period, then FTA will assume that ACHP has no comment and proceed with its final decision.

2. Should the SHPO or the City of Detroit object in writing within 30 (thirty) days to any action proposed pursuant to this Agreement, the FTA shall consult with the objecting party to resolve the objection. If the FTA determines that the objection cannot be resolved, the FTA shall forward all documentation relevant to the dispute to the Advisory Council on Historic Preservation (Council). Within 45 (forty-five) days after receipt of all pertinent documentation, the Council will either: (1) provide the FTA with recommendations, which the FTA will take into account in reaching a final decision regarding the dispute; or (2) Notify the FTA that it will comment pursuant to 36 CFR 800.7(c) and proceed to comment. Any Council comment provided in response to such a request will be taken into account by FTA in accordance with 36 CFR 800.7(c)(4) with reference to the subject of the dispute.
3. This process for resolving disputes will pertain only to the subject of the dispute. The responsibilities of the Signatories to implement all actions pursuant to this Agreement that are not affected by the dispute remain unchanged.

C. Monitoring and Reporting

1. Any Signatory to this Agreement may request in writing, at any time, a review of the implementation of the terms of this Agreement. Such review shall take place through a meeting or a conference telephone call within two weeks of the request unless extended for good cause.
2. Quarterly & Semi Annual Reports: During the final design and construction of the Project, a meeting or conference call between the City, the SHPO and the FTA, shall be held on a quarterly basis for the first year following the implementation of this Agreement. If, after the first year, it is determined that semi-annual meetings would be sufficient, the meetings shall be held every six months. If it is determined that quarterly meetings are beneficial, then the parties shall continue to meet every three months. During the final design and construction of the Project, the City of Detroit shall report every three months to the other Signatories through a meeting, a conference call, or a written memorandum, the status of the implementation of this Agreement.

3. A report shall be posted on the Project's public website and shall include any scheduling changes proposed, any problems encountered, and any disputes or objections received during efforts to carry out the terms of the Agreement. Sensitive information about the location of archaeological resources or traditional cultural resources shall be withheld from the written reports.
 4. The SHPO may monitor activities carried out pursuant to this Agreement at the SHPO's discretion upon reasonable notice.
- D. Emergency Situations: Immediate rescue and salvage operations conducted to preserve life or property are exempt from the provisions of Section 106 of the NHPA and this Agreement. In the event that an emergency situation should occur during the Project, FTA shall follow the provisions of 36 CFR 800.12. The FTA will provide an incident report to the SHPO detailing any impacts to historic properties as a result of said operations.
- E. Amendments of this Agreement:
1. This Agreement may be amended when such an amendment is agreed to in writing by all Signatories. Any signatory to this Agreement may propose to the other Signatories in writing that it be amended, whereupon the Signatories will consult in accordance with 36 CFR 800.6(c)(7) to consider such an amendment.
 2. The amendment will be effective on the date a copy signed by all of the Signatories is filed with the Advisory Council.
- F. Termination
1. This Agreement will terminate upon completion of construction of the Project or 5 years after it was submitted to the ACHP, whichever occurs first.
 2. Any signatory to this Agreement may terminate it by providing ninety (90) days written notice to the other parties, provided that the parties will consult during the period prior to termination to seek agreement on amendments or other actions that would avoid termination. In the event of termination, the FTA will comply with 36 CFR Sections 800.3 through 800.13 with regards to the undertakings covered in this Agreement.
 3. The signatory proposing to terminate this Agreement shall so notify all Signatories in writing to this Agreement explaining the reasons for termination and affording at least sixty (60) days to consult and seek alternatives to termination. The Signatories shall then consult.
 4. Should such consultation fail, the FTA or the SHPO may terminate the Agreement by so notifying all Signatories in writing. Should this Agreement be

terminated, the FTA shall either: (a) consult in accordance with 36 CFR § 800.6 to develop a new Agreement; or (b) request the comments of the Council pursuant to 36 CFR § 800.7. Upon termination of the Agreement, FTA may cancel its involvement in the project and recover all FTA funds dedicated to the project.

G. Execution of Counterparts. This Agreement may be executed in one or more counterparts each of which shall be deemed an original but all of which together shall constitute one and the same instrument. Signed signature pages may be transmitted by facsimile or email, and any such signature shall have the same legal effect as an original.

EXECUTION of this Memorandum of Agreement by the FTA, the Michigan SHPO and the City of Detroit, the submission of documentation and filing of this Memorandum of Agreement with the ACHP, pursuant to 36 CFR 800.6(b)(1)(iv), and implementation of its terms evidence that FTA has taken into account the effects of this undertaking on historic properties and afforded the ACHP an opportunity to comment.

Signatories

FEDERAL TRANSIT ADMINISTRATION

By: _____ Date: _____
Name: Marisol Simon
Title: FTA Regional Administrator

MICHIGAN STATE HISTORIC PRESERVATION OFFICER

By: _____ Date: _____
Name: Brian D. Conway
Title: Michigan State Historic Preservation Officer

Invited Signatory

CITY OF DETROIT

By: _____ Date: _____
Name: Norman White
Title: City of Detroit Woodward Avenue LRT Project Manager

terminated, the FTA shall either: (a) consult in accordance with 36 CFR § 800.6 to develop a new Agreement; or (b) request the comments of the Council pursuant to 36 CFR § 800.7. Upon termination of the Agreement, FTA may cancel its involvement in the project and recover all FTA funds dedicated to the project.

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Signatories

FEDERAL TRANSIT ADMINISTRATION

for By: Reionda M. Reed Date: 6/2/11
Name: Marisol Simon
Title: FTA Regional Administrator

MICHIGAN STATE HISTORIC PRESERVATION OFFICER

By: _____ Date: _____
Name: Brian D. Conway
Title: Michigan State Historic Preservation Officer

Invited Signatory

CITY OF DETROIT

By: _____ Date: _____
Name: Norman White
Title: City of Detroit Woodward Avenue LRT Project Manager

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Signatories

FEDERAL TRANSIT ADMINISTRATION

By: _____ Date: _____
Name: Marisol Simon
Title: FTA Regional Administrator

MICHIGAN STATE HISTORIC PRESERVATION OFFICER

By: Brian D. Conway Date: 6-2-11
Name: Brian D. Conway
Title: Michigan State Historic Preservation Officer

Invited Signatory

CITY OF DETROIT

By: _____ Date: _____
Name: Norman White
Title: City of Detroit Woodward Avenue LRT Project Manager

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Signatories

FEDERAL TRANSIT ADMINISTRATION

By: _____ Date: _____
Name: Marisol Simon
Title: FTA Regional Administrator

MICHIGAN STATE HISTORIC PRESERVATION OFFICER

By: _____ Date: _____
Name: Brian D. Conway
Title: Michigan State Historic Preservation Officer

Invited Signatory

CITY OF DETROIT

Norman P. White
By: _____ Date: 6-3-11
Name: Norman White
Title: City of Detroit Woodward Avenue LRT Project Manager

Exhibit 1

Contact Information

For purposes of notices and consulting pursuant to this Agreement, the following addresses and contact information should be used for the following agencies:

Signatories

Federal Transit Administration, Region V
Marisol Simon, Regional Administrator
200 West Adams Street, Suite 320
Chicago, IL 60606

Michigan State Historic Preservation Office
Brian Conway, State Historic Preservation Officer
P.O. Box 30740
702 W. Kalamazoo St.
Lansing, MI 48909

City of Detroit
Norman White, Project Manager
Woodward Avenue Light Rail Transit Project Office
65 Cadillac Square, Suite 4000
Detroit, MI 48226

Consulting Parties

Federal Highway Administration
Dave Williams, Environmental Program Manager
315 W. Allegan Street, Room 2001
Lansing, MI 48933

Michigan Department of Transportation
Lloyd Baldwin, Historian
Van Wagoner Building
425 W. Ottawa Street
P.O. Box 30050
Lansing, MI 48909

Detroit Department of Transportation
Tim Roseboom, Manager
Woodward Avenue Light Rail Transit Project Office
65 Cadillac Square, Suite 4000
Detroit, MI 48226

City of Detroit, Historic Designation Advisory Board
Deborah M. Goldstein, Historic Designation Supervisory Specialist
204 Coleman A. Young Municipal Center
2 Woodward Ave.
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Hannahville Potawatomi Indian Community
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Wilson, MI 49896

Keweenaw Bay Indian Community
Summer Sky Cohen
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Lac Vieux Desert Band of Lake Superior Chippewa Indians
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Little Traverse Bay Band of Odawa
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Match-e-be-nash-shee-wish Band of Potawatomi Indians
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Nottawaseppi Band of Huron Potawatomi
John Rodwan
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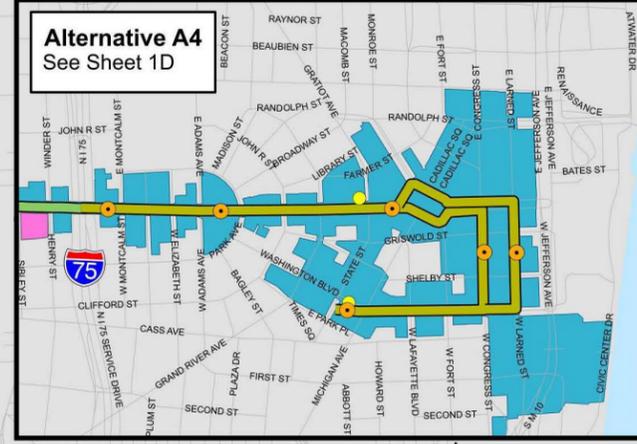
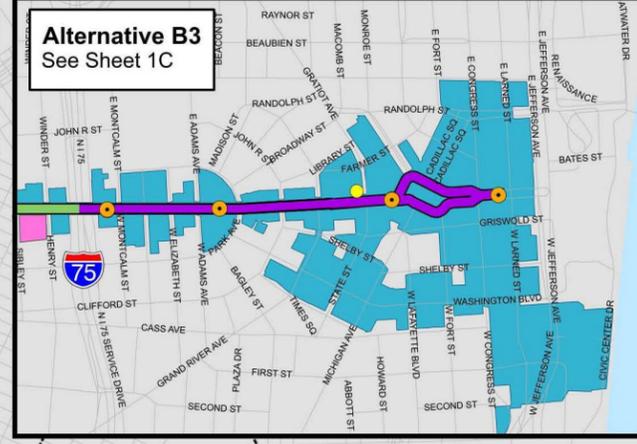
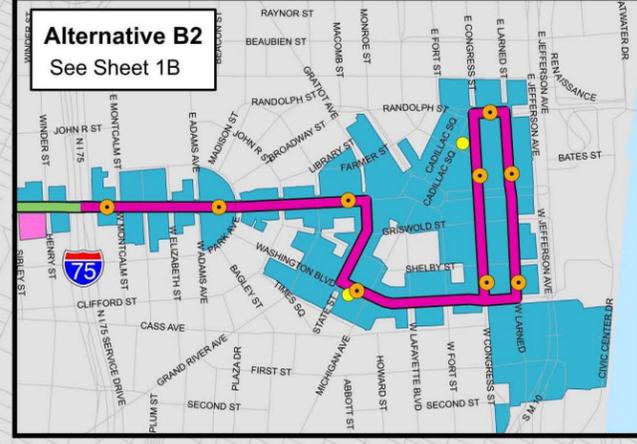
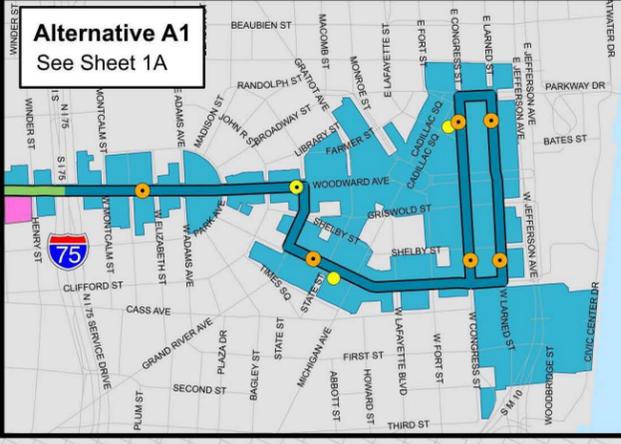
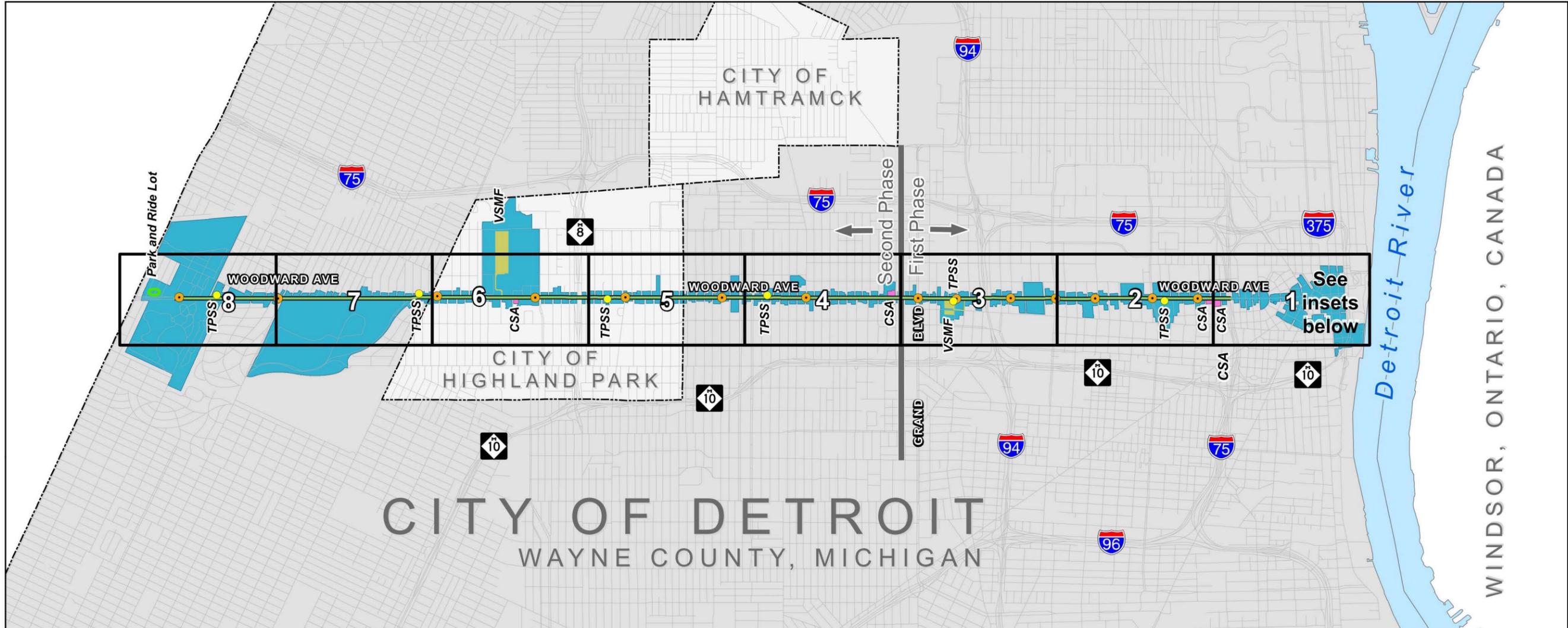
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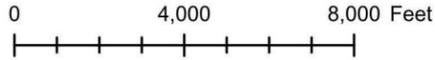
Exhibit 2

Area of Potential Effects Map – June 2011



WOODWARD LIGHT RAIL

1 INCH = 4,000 FEET



- Proposed Station
- Locally Preferred Alternative (LPA)
- Alternative A1
- Alternative B2
- Alternative B3
- Alternative A4
- Traction Power Substation (TPSS)
- Park and Ride Lot
- Construction Staging Area (CSA)
- Vehicle Storage Maintenance Facility (VSMF)

**Woodward Avenue
Light Rail Transit Project**
June 2011
Location Map