

# Interstate I-94, I-894, and U.S. Highway 45 (Zoo Interchange)

Project I.D. 1060-33-01

## Record of Decision



U.S. Department of Transportation  
Federal Highway Administration



February 2012

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## Appendix A: Agency Comments on Final EIS

**RECORD OF DECISION  
INTERSTATE I-94, I-894, AND U.S. HIGHWAY 45  
(ZOO INTERCHANGE)**

**124th Street to 70th Street  
Lincoln Avenue to Burleigh Street  
Milwaukee County, Wisconsin  
Project I.D. 1060-33-01  
FHWA-WISC-EIS-09-01-F**

## Decision

Proposed improvements to the Zoo Interchange will maintain a key link in the local, state, and national transportation network by addressing the obsolete design of the study-area freeway system, replacing deteriorating pavement and bridges, and accommodating future traffic volumes at an acceptable level of service. The project includes the system interchange of I-94, I-894, and US 45 and the four approach legs. Termini are 124th Street on the west, 70th Street on the east, Burleigh Street on the north, and Lincoln Avenue on the south (**Exhibit 1**). The service interchanges at Highway 100 at I-94, Greenfield Avenue, 84th Street, Bluemound Road, Wisconsin Avenue, Watertown Plank Road, Swan Boulevard, Highway 100 at US 45, and North Avenue are included because of their proximity to the system interchange, and to each other on the north leg, and their effect on traffic flow.

The purpose of the proposed action is to address the deteriorated condition of the study-area freeway system, obsolete design of the roadway and bridges, current and future capacity, and high crash rate. The need for the project is based on an aggregation of factors, including system linkage and route importance, freeway deficiencies, traffic demand and operations, and safety concerns. The Zoo Interchange connects three major highways and serves nearly 300,000 vehicles per day traveling within and through Metropolitan Milwaukee. The roadways are fast approaching the end of their useful lives, and some bridges are deteriorating faster than expected because of physical decay and traffic volumes that are much greater than those for which they were designed. By 2035, the level of service is expected to be E or F, on a scale of A through F, for significant parts of the day on all four interchange legs. Without improvements, the interchange and connecting freeways will be unable to safely and efficiently handle future traffic volumes at an acceptable level of service. Three of the five bridges were completely replaced in 2010 because of accelerated deterioration and decreasing ability to carry oversize loads.<sup>1</sup>

The Wisconsin Department of Transportation (WisDOT) and Federal Highway Administration (FHWA) selected the Reduced Impacts Alternative with the Adjacent Arterials Component (summarized on pages 3 through 7) as the Preferred Alternative for addressing project purpose and need. More detailed information is provided in Section 2 of the Final Environmental Impact Statement (EIS).

Selection of the Reduced Impacts Alternative with the Adjacent Arterials Component was based on evaluation and consideration of all comments received during the public involvement process including comments on the Draft (approved May 2009), Supplemental Draft (approved February 2011) and Final EIS (approved October 2011), input received as a result of the 2009 and 2011 public hearings, comments from state and federal review agencies, environmental and engineering factors, cost, consistency with regional transportation/land use plans, and documentation on how the proposed improvements will address long-term traffic and safety needs.

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<sup>1</sup> The three structures were constructed by WisDOT and FHWA with the understanding that they may be removed before they reach the end of their useful life if the Zoo Interchange is reconstructed. Their construction did not influence the NEPA process or the selection of the preferred alternative

## Corrections

Page 2-69 of the Final EIS incorrectly states that traffic volumes on Glenview Avenue will be 3,000 vehicles per day lower under the Reduced Impacts Alternative than under the No-Build Alternative. The traffic volumes on Glenview Avenue will be about the same under both alternatives. This information is correctly provided in the Final EIS on page 3-43.

The legend on Final EIS Exhibit 2-27 sheet 1 is incorrect. The correct legend is:

XXXX Future AWDT with Full Access and Capacity Expansion

XXXX Future AWDT with Limited Access and Capacity Expansion

## Alternatives Considered

The No-Build Alternative and range of build alternatives presented in the Final EIS are summarized below. Section 2 of the Final EIS contains detailed information.

### No-Build Alternative

The No-Build Alternative does not include any safety or capacity improvements. Only maintenance and minor improvements would be performed. The No-Build Alternative is not a feasible course of action because it would not address the mobility and safety concerns identified in the project's purpose and need. This alternative serves as a baseline of comparison to the build alternatives.

### Transportation Demand Management Alternative

Transportation Demand Management (TDM) measures were proposed and analyzed in the Southeast Wisconsin Regional Planning Commission (SEWRPC) regional transportation plan. The plan recommends a 100 percent increase in public transit (in terms of revenue vehicle-miles of service), to include establishment of rapid and express transit systems and substantial expansion of local bus services. However, even with such an increase in public transit, traffic volumes on the study-area freeway system are expected to increase 18 percent by 2035. The TDM Alternative would minimize environmental impacts, but alone it would not fully address other elements of the project's purpose and need, such as mobility and safety concerns.

### Transportation System Management Alternative

Transportation System Management (TSM) measures in the study area include ramp metering, HOV lanes on entrance ramps, freeway monitoring combined with driver messaging, live feeds to the internet and news media, crash investigation sites, enhanced freeway patrols, and a telephone-based "511" highway information system. The Preferred Alternative may include TSM elements, but TSM alone would not meet the purpose of and need for the project, especially safety concerns. The TSM Alternative is not a reasonable course of action as a stand-alone alternative.

### Build Alternatives

#### Replace-in-Kind Alternative

The Replace-in-Kind Alternative would include pavement and bridge replacement but would not address safety concerns, design deficiencies, or future traffic volumes. Because it would not fully address the project's purpose and need, the Replace-in-Kind Alternative was removed from consideration.

#### Spot Improvement Alternatives

Spot Improvement Alternatives 1, 2, and 3 would replace pavement and provide various options for a network of service roads to control access to the freeway from service interchanges at Highway 100, Greenfield Avenue, Bluemound Road, and 84th Street. The service roads would reduce weaving between the Zoo Interchange and the service interchanges. The Spot Improvement Alternatives were removed from consideration because they do not address future traffic volumes, and only partly address safety concerns and design deficiencies.

## Modernization Alternatives

The Modernization Alternatives would include replacing the existing roadway and bridges and reconfiguring the study-area freeway system to address safety issues and design deficiencies. The 8-lane Modernization Alternative would add one new lane in each direction to address congestion. All Modernization Alternatives were eliminated in response to the testimony and comments received during the Supplemental Draft EIS comment period and the March 2011 public hearing. Some aspects of the Modernization Alternatives were modified and carried forward in the Reduced Impacts Alternatives.

**Core.** The core of the Zoo Interchange is defined as I-94 from roughly 92nd Street to Highway 100, and US 45 from Schlinger Avenue to Bluemound Road. The core design of the Zoo Interchange is similar under all the Modernization Alternatives:

- All exits on the right; through traffic stays left
- Full 8- to 12-foot shoulders on all ramps and freeways
- Three lanes on all through routes
- Four lanes on all four approach legs
- Five levels in the interchange rather than three, making it about 30 to 40 feet higher than it is today
- Ramps with two lanes instead of one:
  - From I-94 eastbound to I-894/US 45 southbound
  - From I-894/US 45 northbound to I-94 westbound
  - From US 45 southbound to I-94 eastbound
  - From I-94 westbound to US 45 northbound
- Smoother curves on all interchange ramps (minimum 45 mph design speed)
- 60-mph design speed on I-94 and US 45

**6-Lane Alternatives.** The 6-lane alternatives were eliminated because they would not adequately address design year traffic demand, as specified in the project's purpose and need. This set of alternatives would meet most purpose and need elements by addressing deterioration and safety concerns and much of the expected increase in traffic volumes through 2035. However, the 6-lane alternatives would have greater congestion and therefore a lower level of service compared to the 8-lane alternatives. It would cost more than the Spot Improvement Alternatives and less than the 8-Lane Modernization Alternatives, and its environmental impacts would be less than those of the 8-Lane Modernization Alternatives. The City of Milwaukee initially supported the 6-Lane Modernization Alternative in its August 2009 comments on the Draft EIS.

**8-Lane Alternatives.** The 8-lane alternatives were eliminated because of environmental impacts, high cost, public input, and opposition from the City of Milwaukee. At the May and October 2008 public information meetings public input supported the 8-Lane Modernization Alternatives more than the other build alternatives. At the 2009 public hearing the 8-lane Modernization Alternative received the most support of all the build alternatives, however there were more public comments supporting the No-Build Alternative over any of the build alternatives. The City of Milwaukee opposes adding capacity to the freeway system anywhere within its boundaries and initially preferred modernization with no added capacity, based on their August 2009 comments on the Draft EIS. The 8-Lane Modernization Alternatives would cost the most of the build alternatives and incur the most environmental impact.

## Reduced Impacts Alternative

The Reduced Impacts Alternative was developed in response to testimony and comments received during the Draft EIS comment period and June 2009 public hearing (**Exhibit 2**). Two of the most-often heard comments were concern over the project's cost and impacts. In keeping with the spirit of the NEPA process, WisDOT and FWHA developed the Reduced Impacts Alternative based on public and local government input. It balances traffic service, geometric improvements, and safety with reduced environmental impacts and reduced costs. An 8-lane Reduced Impacts Alternative would result in less efficient traffic operation and increased congestion through 2035 than any of the 8-Lane Modernization Alternatives developed, although the change in traffic operations and

congestion is not significant. The Reduced Impact Alternative meets the purpose and need of the project. A 6-lane version of the alternative was eliminated from consideration because it would not provide acceptable traffic operations.

Primary design features of the Reduced Impacts Alternative include the following:

- All exits on the right; through traffic stays left
- Full 8- to 12-foot shoulders on all ramps and freeways
- Four lanes on each approach leg
- Three lanes on US 45 northbound and southbound through the core of the interchange
- Two lanes on I-94 eastbound and westbound through the core of the interchange
- Ramps with two lanes instead of one:
  - From I-94 eastbound to I-894/US 45 southbound
  - From I-894/US 45 northbound to I-94 westbound
  - From US 45 southbound to I-94 eastbound
  - From I-94 westbound to US 45 northbound
- Smoother curves on all freeway-to-freeway interchange ramps (minimum 45 mph design speed)
- 60 mph design speed on I-94 and US 45
- Access to and from US 45/I-894 provided to US 18 (Bluemound Road), but no direct access between I-94 and Bluemound Road

**Core.** The core of the Reduced Impacts Alternative differs from that of the Modernization Alternatives in the following respects (**Exhibit 3**):

- There would be two lanes on I-94 eastbound and westbound. (Modernization Alternatives have three lanes on I-94 eastbound and westbound.)
- Minimum eighteen-foot inside shoulders on I-94 eastbound and westbound could be converted to an additional through lane in the future.
- The interchange would have four levels rather than five, making it about 20 feet lower than the Modernization Alternatives core design (but 20 feet higher than the existing core).
- The merge points for on- and off-ramps to adjacent service interchanges would be in the interior of the core, improving ramp spacing by eliminating several ramp braids and structures and by adding an auxiliary lane section in each cardinal direction.
- Adding new auxiliary lane sections along with ramp braids in selected locations eliminates the need for the Modernization Alternative core loop ramp in the northwest quadrant, and the need for a sub-alternative to provide access from I-94 eastbound to Greenfield Avenue.
- The modified configuration avoids the need to relocate the zoo facilities, utility towers, and other facilities adjacent to the freeway, compared to the Modernization Alternative.
- It is not compatible with any of the approach legs under the various Modernization Alternatives presented in the Draft EIS, and as a result is a “stand-alone” alternative.

**West Leg.** The west leg of the Reduced Impacts Alternative is nearly identical to Modernization Alternative W3 except for the retention of the westbound I-94 to southbound Highway 100 free-flow loop ramp and the westbound I-94 to northbound Highway 100 slip ramp. The key impact of the Reduced Impacts Alternative for the West Leg is one commercial relocation in the northwest quadrant. These impacts are comparable to those required under the West Leg options of the Modernization Alternatives (Final EIS Exhibit 2-23).

**East Leg.** The east leg of the Reduced Impacts Alternative is similar to Modernization Alternative E3 (standard diamond interchange configuration). All exits and entrances to/from the freeway would be at 84th Street, as

occurs today (Final EIS Exhibit 2-24). The service drives south of I-94 (Kearney Street) and north of I-94 (O'Connor Street), each east of 84th Street, would remain in place.

By moving the 84th Street interchange's westbound on-ramp and eastbound off-ramp merge points with I-94 to the interior of the core, the need for ramp braiding is eliminated, and merging operations are significantly improved. The resulting configuration is narrower than Modernization Alternative E3 and limits relocations to an 8-unit residential building north of I-94 and east of 92nd Street. There would be no relocations along Adler Street (**Exhibit 4**).

**South Leg.** The south leg of the Reduced Impacts Alternative is similar to Modernization Alternative S3 (standard diamond interchange configuration). By moving the Greenfield Avenue interchange's northbound on-ramp and southbound off-ramp merge points with US 45/I-894 to the interior of the core, the need for ramp braiding is eliminated, and merging operations improve significantly. The resulting configuration is narrower than that for Modernization Alternative S3 and eliminates the need to encroach into the utility corridor east of I-894. The change to a diamond off-ramp in the southeast quadrant of the interchange eliminates the need for relocations along Greenfield Avenue, and provides space for stormwater management elements or the return of a small amount of right-of-way back to abutting landowners or the City of West Allis (Final EIS Exhibit 2-25).

**North Leg.** The north leg of the Reduced Impacts Alternative is described in the following paragraphs (Final EIS Exhibit 2-26 sheets 1 through 3).

***Between the Core and the South End of the US 45/Watertown Plank Road Interchange.*** The Reduced Impacts Alternative is similar to Modernization Alternative N2 in this area. Similarities include (1) access at Bluemound Road to and from US 45 only (no access to/from Bluemound to I-94); (2) no service drives between Bluemound Road and Wisconsin Avenue (or farther north); (3) continuation of 95th Street as a local road connection between Bluemound Road and Wisconsin Avenue; (4) cul-de-sac of 97th Street near Bluemound Road; and (5) no provision for the extension of Innovation Drive across US 45 north of Wisconsin Avenue (although that connection could be made at a future date, as part of a local street improvement project).

Major differences include (1) no relocation of the Zoofari Conference Center and less impact on the County Zoo overflow parking lot (**Exhibit 5**); (2) reduced impact in front of the Parkside Pool Apartments; (3) no relocation of a building in the Behavioral Health Complex at the Watertown Plank Road interchange; and (4) no collector-distributor roads between the Bluemound Road and Watertown Plank Road interchanges.

***The US 45/Watertown Plank Road Interchange.*** The Reduced Impacts Alternative includes a new and distinct Watertown Plank Road interchange configuration (**Exhibit 6**). It includes free flow access to and from all directions; that is, no signals would be required along Watertown Plank Road, which would significantly increase the capacity of the interchange. A combination of loop ramps (southwest and northeast quadrants) and U-ramps (both north and south of the US 45 bridges over Watertown Plank Road) are included. By eliminating the ramp braids included in the Modernization Alternatives and including auxiliary lanes between Bluemound Road and Watertown Plank Road on the freeway, overall right-of-way impact is reduced. Impacts are increased in the southwest and northeast quadrants of the interchange (immediately adjacent to Watertown Plank Road) but reduced in the northwest and southeast quadrants, and along the east side of US 45 as it approaches the Swan Boulevard overpass.

Swan Boulevard would be separated from the Watertown Plank Road interchange, with access to and from Swan Boulevard to US 45 provided exclusively by the extension of Swan Boulevard to the south and west, intersecting with Watertown Plank Road at a new signalized intersection at the existing Innovation Drive/Watertown Plank Road intersection. A sub-alternative was presented at public information meetings early in the study that would relocate and extend Swan Boulevard as an element of a US 45/Swan Boulevard interchange. Based on impacts and feedback, that concept was dismissed before the public hearing was held. This feature would reintroduce the need to relocate a number of Milwaukee County Department of Public Works (DPW) facilities along Watertown Plank Road west of US 45.

After the public hearing in March 2011, WisDOT decided to increase the design speed of the Watertown Plank Road loop ramps from 25 to 30 mph. This resulted in more right-of-way acquisition in the northeast and southwest quadrants. The curves would not be as tight with a 30-mph design speed as they would be with the 25-mph design speed shown in the Supplemental Draft EIS. A 30-mph ramp decreases the speed differential on

the freeway and on Watertown Plank Road, which allows for safer movement of traffic entering and exiting US 45 at Watertown Plank Road.

***Between the US 45/Watertown Plank Road Interchange and the Northern Terminus of the Project at the Burleigh Street Interchange.*** The Reduced Impacts Alternative mimics each of the Modernization Alternatives in this segment. A slip ramp to northbound Highway 100 (Mayfair Road) would remain, and a double-loop ramp configuration is proposed at the North Avenue interchange. No change in impacts is anticipated between the Reduced Impacts Alternative and the other Modernization Alternatives in this segment.

### **Other Alternatives Considered**

The Final EIS (Section 2.3) documents several other alternatives that have been considered and dismissed for various reasons including an alternative that would have provided enough capacity to operate at level of service C (compared to D or E in some cases for the Modernization and Reduced Impacts Alternative) during the peak hour. WisDOT and FHWA also considered adding high-occupancy vehicle lanes or high-occupancy toll lanes.

Other freeway, non-freeway and off-alignment alternatives suggested by the public were evaluated and dismissed from consideration. One of the alternatives, suggested the Highway J Citizens Group, a grass roots group formed in 2001 in opposition to widening WIS 164 between I-94 in Waukesha County and US 41/45 in Washington County, was to build a new 4-lane roadway in Waukesha County, on one of two proposed routes. The group's two suggested routes were evaluated but would not meet the purpose and need of the project and would have much higher natural environmental impacts and relocation impacts than the Reduced Impacts Alternative.

### **Summary**

In general, choosing the Reduced Impacts Alternative over the Modernization Alternatives accepts higher peak period congestion in exchange for reduced impacts to abutting properties and environmental resources. Based on traffic modeling, the Reduced Impacts Alternative operates at a slightly lower average speed during the evening peak hour than the Modernization Alternatives (56 mph versus 60 mph). In the evening peak hour, the Reduced Impacts Alternative also operates at a lower level of service with an average density of 25 passenger cars per mile per lane, while the Modernization Alternatives would operate with an average density of 21 passenger cars per mile per lane. This is roughly a 20 percent increase in vehicle density. In exchange, the Reduced Impacts Alternative reduces relocations. A worst-case 8-lane Modernization Alternative requires a maximum of 39 relocations, whereas the Reduced Impacts Alternative requires only 8 residential relocations (one 8-unit apartment building), 2 business relocations<sup>2</sup>, and relocation of select buildings at the Milwaukee County DPW yard site. This alternative responds to feedback related to environmental impacts (stormwater management, public use lands, and total right-of-way acquisition). More detail regarding the comparison of the impacts of these alternatives is provided in Section 3 of the Final EIS.

### **Adjacent Arterials Component**

The Adjacent Arterials Component was added as a result of analysis conducted for the various alternatives and a study of ongoing development in the northern part of the study area, the West Suburban Traffic Impact Analysis. Because I-94 access to and from Bluemound Road and Wisconsin Avenue would be precluded by the Modernization and Reduced Impacts Alternatives, some traffic that would have used the interchange would instead use Highway 100, Watertown Plank Road, and 84th Street/Glenview Avenue to access areas adjacent to the Bluemound Road/US 45 interchange. The Adjacent Arterials Component is an element of both the Modernization Alternatives and the Reduced Impacts Alternative. It is not an element of the No-Build Alternative.

Newly obtained traffic information, along with observations of traffic operations during the Zoo Interchange emergency bridge replacement in 2010, confirmed the need to investigate arterial improvements as part of freeway reconstruction because of the close relationship between local traffic traveling on and off the freeways throughout the project corridor. As a result, potential improvements to selected arterials studied in the West

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<sup>2</sup> The Final EIS stated that three businesses would be relocated under the Reduced Impacts Alternative. After the Final EIS was approved the design has been modified to avoid one of the business relocations (a coffee shop on Highway 100).

Suburban Traffic Impact Analysis (Highway 100, Watertown Plank Road, and WIS 181/84th Street/Glenview Avenue) were included in the Supplemental Draft EIS as integral components of the overall reconstruction and modernization purpose and need.

**Highway 100.** Highway 100 is a 6-lane urban arterial through much of the study area, carrying more than 30,000 vehicles per day. Proposed improvements to Highway 100 include widening to 8 through lanes, access changes, added turn lanes, and added width for bicyclists to the outside lane (Final EIS Exhibit 2-28).

**Watertown Plank Road.** Watertown Plank Road is a 4-lane divided urban arterial carrying up to 22,000 vehicles per day through the project area. The segment of Watertown Plank Road included for analysis is between Highway 100 on the west and 87th Street on the east. Improvements to Watertown Plank Road include widening from 4 to 6 through lanes, adding turn lanes and turn-lane storage, and access modifications (Final EIS Exhibit 2-29). Right-of-way acquisition is expected along the entire segment, but no relocations are required.

**WIS 181 (84th Street/Glenview Avenue).** 84th Street/Glenview Avenue is a 2- to 4-lane urban arterial carrying up to 14,000 vehicles per day of north-south traffic through the east side of the study area. Improvements would focus on adding left-turn lanes and enhancements. Turn-lane improvements at Bluemound Road and Wisconsin Avenue may result in strip right-of-way acquisitions along both sides of 84th Street/Glenview Avenue (Final EIS Exhibit 2-30).

## Selected Alternative

### Basis for Selection

After evaluating the environmental and engineering information contained in both the Draft and Supplemental Draft EISs and reviewing comments from the public, local units of government, and agencies on both, WisDOT and FHWA selected the Reduced Impacts Alternative with the Adjacent Arterials Component as the Preferred Alternative as identified in the Final EIS.

The Adjacent Arterials Component could stand on its own merits as an independent project to facilitate some level of increase in system operational efficiencies. However, because of the interconnection between efficient operations on key arterials adjacent to the freeway and efficient freeway operations, WisDOT and FHWA decided that the Adjacent Arterials Component will be an element of the Modernization Alternatives and the Reduced Impacts Alternative.

As a basis for selecting the Preferred Alternative, the following factors were evaluated:

- Freeway and local street traffic operations
- Safety considerations
- Environmental and socioeconomic impacts
- Public and agency comments as a result of the public hearings and the availability of the Draft and Supplemental Draft EISs

The Reduced Impacts Alternative will increase capacity over the existing condition. Eight lanes (four lanes in each direction) will be provided in the north-south direction (six through the core of the interchange [three lanes in each direction]). Because of high volume turning movements, only four east-west lanes are needed through the core (two lanes in each direction). Additional functional capacity in the form of auxiliary lanes will be provided east and west of the core to accommodate future traffic volumes.

The Reduced Impacts Alternative including the Adjacent Arterials Component is the “environmentally preferred alternative,” providing a balance of sound engineering design, addressing long-term mobility needs and safety concerns, and minimizing impacts to the existing built environment and natural resources, including wetlands, to the maximum extent practicable.

## Transportation Management

**Freeways.** Traffic flow on the study-area freeway system with the 6-Lane Modernization Alternatives generally would operate at levels of service D, E, and F during the morning and evening rush hour in 2035. Four segments of freeway would experience level of service F. The 8-Lane Modernization Alternatives would improve traffic flow compared to the 6-Lane Modernization Alternatives by adding an additional travel lane on each approach leg. The 8-Lane Modernization Alternatives generally would operate at level of service D or better, and no freeway segments would operate at level of service F.

Similarly, the Reduced Impacts Alternative would operate at level of service D or better. No freeway segments are expected to operate at level of service F. The Reduced Impacts Alternative will result in more segments of the freeway operating at LOS D compared to the 8-Lane Modernization Alternatives; however, one location is expected to operate at LOS E. Average operating speeds are minimally less on the Reduced Impacts Alternative, slightly increasing flow density and average delay, but not significantly enough to noticeably decrease LOS. The Reduced Impacts Alternative would have 8 lanes northbound and southbound and 6 lanes eastbound and westbound.

**Local Roads.** The No-Build and all 6-Lane Modernization Alternatives would divert freeway traffic to local streets during morning and afternoon rush hour, because there would not be enough capacity on the freeway system in the study area to handle the anticipated traffic volumes. The 8-Lane Modernization Alternatives and Reduced Impacts Alternative would not divert freeway traffic to local streets because of lack of capacity. For example, 84th Street/Glenview Avenue would carry about the same amount of traffic under the No-Build Alternative as it would under the Reduced Impacts Alternative.

**Safety.** The Modernization and Reduced Impacts Alternatives would reduce crash rates by eliminating substandard design features. The 8-Lane Modernization and Reduced Impacts Alternatives may further reduce crashes by reducing the level of congestion compared to the 6-Lane Modernization Alternative. Research suggests that the crash rate on a roadway may vary based on the level of congestion, and that increased congestion leads to increased crash rates.

## Access to Facilities and Services

The Modernization Alternatives and the Reduced Impacts Alternative would maintain access to facilities and services, though in some areas access would be modified. Both alternatives would eliminate direct freeway access to and from I-94 and Bluemound Road (via US 45). Vehicles on US 45 southbound and I-894/US 45 northbound would be able to access Bluemound Road under the various Modernization Alternatives or the Reduced Impacts Alternative. The Reduced Impacts Alternative, with the free-flow Watertown Plank Road interchange, better responds to concerns expressed by the City of Milwaukee, the City of Wauwatosa, and the Milwaukee Regional Medical Center about lack of I-94 access to Bluemound Road/Wisconsin Avenue than the Modernization Alternatives.

At the 84th Street interchange, Modernization Alternative E1 would use the Texas U-turn option, which increases out-of-direction travel to enter and exit I-94 as compared to a conventional diamond interchange, as well as would likely divert substantial traffic to 76th Street, increasing volumes along a residential street. Modernization Alternative E1/E3 Hybrid and the Reduced Impacts Alternative would maintain the conventional diamond interchange thereby being more responsive to the concerns of the City of West Allis and State Fair Park Board regarding out-of-direction travel at the interchange.

## Utilities

The utility impacts of the Modernization Alternatives and Reduced Impacts Alternatives would be similar, except for the impact on transmission towers and the Milwaukee County Zoo. With the Modernization Alternatives, up to 61 electrical transmission towers would need to be relocated. The Reduced Impacts Alternative would relocate 30 to 50 towers. Beyond the difference in the number of transmission towers affected, the Modernization Alternatives would require a 3- to 4-acre utility easement from the Milwaukee County Zoo along I-94 to accommodate relocated towers. Some of the vegetation buffer between I-94 and the Zoo would be removed from the easement. Milwaukee County Zoo expressed concern over having overhead electrical transmission lines in

what is now the vegetative buffer area between I-94 and the Zoo because of the loss of the buffer and visual impact of the towers and wires. The Reduced Impacts Alternative would not require a utility easement from the Milwaukee County Zoo or affect the buffer.

### **Residential Displacements**

The Modernization Alternatives would require residential displacements in the core (5 residential displacements), north leg (one residential relocation), and south leg (zero to six residential displacements). On the east leg, the Modernization Alternatives would require between zero (Alternative E1), 18-19 (E1/E3 Hybrid Alternative) and 27 (Modified E3 Alternative) residential displacements. Under the Reduced Impacts Alternative no residential displacements will occur in the core, north or south legs of the Zoo Interchange. Under the Reduced Impacts Alternative, eight residential displacements will occur on the east leg, all at a multi-family residence adjacent to Chester Street.

In total, the Modernization Alternatives would require 6 to 39 residential displacements. The Reduced Impacts Alternative would displace 8 residences.

### **Commercial Displacements**

The Modernization Alternatives would have business displacements in the core (one business), north leg (one business), south leg (two to three businesses), and west leg (two businesses). On the east leg, there is a difference between Alternative E1 (no businesses relocated) and the E1/E3 Hybrid and Modified E3 Alternatives (one business relocated). Under the Reduced Impacts Alternative, there will be no business relocation impacts in the core or east and south legs and one (a hotel) on the west leg. On the north leg, an automotive oil and lubrication shop will be relocated, as it would under all the Modernization Alternatives<sup>3</sup>. Under the Adjacent Arterials Component, an additional two businesses, both located in one commercial building on the east side of Highway 100 south of Wisconsin Avenue, would be relocated. The displaced businesses are a cosmetic surgery office and a law office.

### **Institutional and Public Service Displacements**

Both the 6-lane and 8-lane Modernization Alternatives would require the relocation of one of the Milwaukee County Child and Adolescent Treatment Center buildings and acquire a portion of a surface parking lot and outdoor vehicle storage area from the Milwaukee County DPW site along the north leg. The Reduced Impacts Alternative would also acquire land from the parking and vehicle storage area at the Milwaukee County DPW site. This alternative would also require the relocation of a Milwaukee County owned greenhouse and salt dome, along with a fueling facility for county vehicles. None of the buildings at the Milwaukee County Child and Adolescent Treatment Center would be relocated under the Reduced Impacts Alternative.

### **Milwaukee County Zoo**

A notable difference between the Modernization Alternatives and the Reduced Impacts Alternative is the potential impact at the Milwaukee County Zoo. The Modernization Alternatives would affect about 15 acres of County Zoo property, including acquisition of the maintenance facility and Zoofari Center. Additionally, the Modernization Alternatives would require a 3- to 4-acre utility easement from the Milwaukee County Zoo along I-94 to accommodate relocated electrical transmission towers. The Reduced Impacts Alternative and Adjacent Arterials component would affect 7.68 acres without displacing any buildings. The Reduced Impacts Alternative and Adjacent Arterials component would not require a utility easement from the Milwaukee County Zoo.

### **Construction and Maintenance Costs**

The 6-Lane Modernization Alternatives would cost \$2.10 billion in year-of-construction dollars, including real estate acquisition, design costs, construction, and a contingency. The 8-Lane Modernization Alternatives would cost \$2.28 billion and the Reduced Impacts Alternative \$1.71 billion.

<sup>3</sup> The Final EIS stated that three businesses would be relocated under the Reduced Impacts Alternative. After the Final EIS was approved the design has been modified to avoid one of the business relocations (a coffee shop on Highway 100).

Maintenance costs for the 8-Lane Modernization and Reduced Impacts Alternatives would be greater than for the 6-Lane Modernization Alternatives because both require more pavement to maintain, resurface, and eventually replace. Snow removal would cost more under the 8-lane Modernization and Reduced Impacts Alternatives.

## Agency and Local Government Concurrence on Preferred Alternative Selection

Comments received from the resource agencies (U.S. Army Corps of Engineers (Corps), U.S. EPA, and Wisconsin DNR) are supportive of the Reduced Impacts Alternative. None of the agencies noted concern regarding the Reduced Impacts Alternative. The Corps' letter of June 2011 identified the Reduced Impacts Alternative as the Least Environmentally Damaging Practicable Alternative (Final EIS Appendix F, page F-93). The U.S. EPA (Final EIS Appendix F, page F-95) and DNR (Final EIS Appendix F, page F-97) concurred with the selection of the Reduced Impacts Alternative in their letters of June 2011. Appendix A contains comments on and responses to the Final EIS from the Corps and U.S. EPA.

The City of Milwaukee DPW (Final EIS Appendix F, page F-27) opposes an 18-foot shoulder on I-94 through the core of the Zoo interchange that could be converted to a third travel lane in the future. The City of Milwaukee also notes concern over noise levels adjacent to the study-area freeway system and its support for the "Texas U-turns" at 84th Street, which would eliminate the need to acquire an 8-unit apartment building. The City urges WisDOT to consider transit options including preserving a north-south transit corridor from the Hank Aaron State Trail north to the Milwaukee County Zoo, Regional Medical Center and Milwaukee County Research Park. Appendix A contains comments on the Final EIS from the City of Milwaukee.

A resolution from the City of Milwaukee Common Council dated April 2011 (Final EIS Appendix F, page F-40) stated support for the DPW's statements and added that the project should not acquire any property from the Milwaukee Montessori School on the east side of US 45 just north of the Zoo Interchange.

Comments from and responses to Milwaukee County, the City of Milwaukee, the City of Wauwatosa, and the City of West Allis on the Supplemental Draft EIS and the Preferred Alternative are included in Appendix F of the Final EIS.

## Environmental Impacts

**Table 1** lists the environmental impacts for the Reduced Impacts Alternative with the Adjacent Arterials Component as presented in the Final EIS. Additional information can be found in Section 3 of the Final EIS. Primary impacts include eight residential and four business displacements and impacts to public use land.

TABLE 1

**Environmental Impacts Summary for the Reduced Impacts Alternative with Adjacent Arterials Component**

Environmental Factors	Impacts
Total Project Cost (design, construction, real estate, utilities, & contingency; year of construction)	\$1.71 B
New Right-of-Way <sup>a,b</sup>	76 acres
Residential Displacements	8
Commercial Displacements	4
Public Building Displacements	2
100-Year Floodplain Crossings (no new crossings)	5
Floodplain	0.5 acre
Stream Crossings (no new crossings)	4
Wetland	1.6 acres
Section 4(f) properties	
Parkland <sup>a</sup>	8.45 acres
Historic Sites Affected	0-1

TABLE 1

**Environmental Impacts Summary for the Reduced Impacts Alternative with Adjacent Arterials Component**

Environmental Factors	Impacts
Wildlife and Waterfowl Areas	0
Threatened and Endangered Species (yes/no) <sup>c</sup>	Yes
Primary Environmental Corridor <sup>a</sup>	0.6 acre
Primary Environmental Corridor Crossings (no new crossings) <sup>a</sup>	3
Isolated Natural Resource Area	0.2 acre
Archaeological Sites Affected	0
Environmental Justice Impact (yes/no)	No
Air Quality Permit	No
Noise Receptors Affected (Design Year 2035) <sup>d</sup>	426
Potential Contaminated Sites	92

<sup>a</sup> Total new right-of-way, parkland and primary environmental corridor acres impacted and corridor crossings do not include land for proposed stormwater retention/detention ponds.

<sup>b</sup> Easements may also be required for utility relocation beyond right-of-way acquisition.

<sup>c</sup> Pertains to the Butler's garter snake, a State of Wisconsin Threatened Species, located along the North Leg and the potential for habitat for the Blanding's turtle, a State of Wisconsin Threatened Species.

<sup>d</sup> To assist in noise modeling, all noise receptors were assigned to a leg; thus, no noise receptors were assigned to the core.

The Reduced Impacts Alternative is compatible with the Clean Water Act's Section 404(b)(1) Guidelines for Specification of Disposal Sites for Dredged or Fill Material, which state that dredged or fill material should not be discharged into aquatic ecosystems (including wetlands), unless it can be demonstrated that there are no practicable alternatives to such discharge, that such discharge will not have unacceptable adverse impacts, and that all practicable measures to minimize adverse effects are undertaken.

This project is included in SEWRPC's *Regional Transportation System Plan for Southeastern Wisconsin: 2035* and SEWRPC's *2011-2014 Regional Transportation Improvement Program - Project Number 17: "Reconstruction of the Zoo Interchange and approaches on I-94, I-894, and US 45 in Milwaukee County."* The regional transportation system plan was amended on September 14, 2011, consistent with the Zoo Interchange Reduced Impact Alternative, to include the improvement of Highway 100 (North 108<sup>th</sup> Street/North Mayfair Road) between I-94 and Watertown Plank Road from six to eight lanes. The FHWA and Federal Transit Administration determined the SEWRPC Regional Transportation Plan as amended and Transportation Improvement Program to be in conformance with the transportation planning requirements of Titles 23 and 49 U.S.C., the Clean Air Act Amendments, and related regulation on September 14, 2011.

The PM<sub>2.5</sub> Qualitative Hot-Spot Analysis Report, which was included in the FEIS, concluded on September 29, 2011 that the Zoo Interchange project meets all the project level conformity requirements, and that the Zoo Interchange project will not cause or contribute to a new violation of the PM<sub>2.5</sub> NAAQS, or increase the frequency or severity of a violation, and will not delay timely attainment. Therefore, the project meets the conformity hot-spot requirements in 40 CFR §93.116 and §93.123 for PM<sub>2.5</sub>.

All practicable means to avoid or minimize environmental harm from the Reduced Impacts Alternative have been adopted. A monitoring and enforcement program will be adopted, as described on page 28.

## Section 4(f)

### Affected Properties and Impacts

The Reduced Impacts Alternative with the Adjacent Arterials Component will have impacts to public use lands and historic properties as described below. None of the properties have used funds from the Land and Water

Conservation Fund Act (LWCF) as amended (16 USC 4601). Therefore, LWCF Section 6(f) requirements do not apply. See Section 4 of the Final EIS for more information.

### **Underwood Creek Parkway (includes Wil-O-Way Underwood Special Recreation Center and Oak Leaf Trail)**

Underwood Creek Parkway is a Section 4(f) property and owned by Milwaukee County. Construction of a new US 45 bridge over the parkway on the east side of the north leg of the interchange will be 49 feet wider than the existing bridge and require 0.25-acre of right-of-way from this resource. An additional 0.01 acre will be required from the Wil-O-Way Underwood Special Recreation Center, and the freeway will be moved 42 feet closer to its playground and 51 feet closer to its building. The Oak Leaf Trail will be closed temporarily to accommodate freeway construction. Underwood Creek Parkway will also be realigned to intersect with the extended Swan Boulevard, removing the existing direct access to Watertown Plank Road.

At the south end of Underwood Creek Parkway south of I-94 a stormwater pond will be built in the parkway. The existing roadway through the parkway will be removed and the Oak Leaf Trail will be reconstructed on new location (within the parkway) to accommodate the pond's construction.

### **Milwaukee County Zoo**

The Milwaukee County Zoo is a Section 4(f) property and owned by Milwaukee County. Construction will require a total of 7.68 acres of right-of-way from this resource: strip acquisition of 6.46 acres from part of the overflow parking lot located west of southbound US 45, 0.63 acre from the south edge of the Zoo located adjacent to westbound I-94, 0.53 acre from the maintenance facility located south of eastbound I-94, and a strip acquisition of 0.06 acre from the southeast corner of the Bluemound Road/Highway 100 intersection.

### **Chippewa Park**

The park is a Section 4(f) property and owned by Milwaukee County. The construction of I-94 eastbound lanes will require the acquisition of 0.31 acre of right-of-way in the southeast corner of the park, and the widening of I-94 will move the freeway 14 feet closer to the west side of the park.

### **Honey Creek Parkway**

The parkway is owned by Milwaukee County and is considered a Section 4(f) property because of its historic significance and as a publically owned recreation facility. Construction of a new I-94 westbound ramp will require the strip acquisition of 0.2 acre of right-of-way from the southwest corner of the parkway.

### **Union Pacific Railroad Truss Bridge**

Section 4(f) applies to the bridge because of its historic significance. Under the Reduced Impacts Alternative the bridge could be removed from service and possibly demolished, after appropriate mitigation measures per the Section 106 Memorandum of Agreement are completed.

### **Section 4(f) Properties Evaluated But Not Impacted**

Several other Section 4(f) properties are located in the study area and were evaluated but are not affected by the proposed action:

- Milwaukee County Parks Building
- Eschweiler Buildings
- Greenfield Avenue Presbyterian Church
- Muirdale Sanitorium
- Rockway and Brookside Places Residential Historic District
- St. Jude the Apostle Roman Catholic Church Complex

## Mitigation and Coordination

Because of the proximity of Section 4(f) properties listed above to I-94 and US 45 and the interchanges, there are no feasible and prudent alternatives that will completely avoid impacts to these properties. The Reduced Impacts Alternative includes several changes from the Modernization Alternatives, including reduced lanes and geometric changes to avoid impacts to the Milwaukee County Zoo buildings and to reduce impacts to the Underwood Parkway, Wil-O-Way Underwood Special Recreation Center, Oak Leaf Trail, Milwaukee County Zoo, Chippewa Park, and the Honey Creek Parkway.

### **Underwood Creek Parkway (includes Wil-O-Way Underwood Special Recreation Center and Oak Leaf Trail)**

The Reduced Impacts Alternative was designed to minimize unavoidable impacts to the Underwood Parkway, including the Wil-O-Way Underwood Special Recreation Center and Oak Leaf Trail, to the maximum extent practicable. Specific measures to minimize and mitigate impacts include the following:

- Keeping the US 45 northbound exit ramp to Highway 100 as close to mainline US 45 as possible
- Providing a bridge over the Underwood Creek Parkway and Oak Leaf Trail, as opposed to an at-grade crossing to avoid bisecting the trail
- Using retaining walls to minimize right-of-way acquisition from the Wil-O-Way Underwood Special Recreation Center
- Eliminating the Swan Boulevard interchange alternative
- Providing landscaping around the stormwater pond that will be constructed in the Underwood Parkway and reconstructing the portion of the Oak Leaf Trail that currently lies in the location of the planned pond. The Oak Leaf Trail is routed along a little-used roadway. WisDOT would remove the roadway and relocate the trail to a location within Underwood Creek Parkway that is suitable to the Milwaukee County Parks Department.
- Compensating Milwaukee County for right-of-way acquisition
- Constructing visual screening, plantings, or modifications to the US 45 bridge to better blend with the natural surrounding environment
- Constructing visual screening between US 45 and Wil-O-Way that may include a berm, a screening wall, or both. WisDOT will continue to work with Milwaukee County Parks Department and the Office for Persons with Disabilities during the design phase.
- Working with the City of Wauwatosa Historic Preservation Committee and the Milwaukee County Parks Department during the community sensitive design process to develop an appropriate bike/pedestrian gateway at the Watertown Plank Road/Underwood Parkway intersection.

The project team discussed the project's potential impacts to these Section 4(f) properties with County Parks' staff at meetings held in May, October, and November 2008, January 2009, and four meetings in 2011. County Parks' staff expressed no concerns regarding the project's potential impact to Underwood Parkway, the Oak Leaf Trail, and the Wil-O-Way Underwood Special Recreation Center provided the above-mentioned mitigation measures are implemented. Milwaukee County Parks Department had no concerns about the proposed action's effect on attributes of the parkway that make it eligible for the National Register of Historic Places. In November 2008, March 2009, March 2011 and November 2011, the project team also discussed the project's potential impacts to the Wil-O-Way facility with staff from Milwaukee County's Office for Persons with Disabilities. Additional meetings will be held with the Office for Persons with Disabilities during the design phase to further investigate potential mitigation measures.

## **Milwaukee County Zoo**

There are no prudent or feasible alternatives that will avoid impacts to the Milwaukee County Zoo. WisDOT and FHWA have minimized impacts to the Zoo during the study phase by pulling in the core Zoo Interchange ramps as tightly as possible and potentially using retaining walls. WisDOT and FHWA will continue to refine the alignment of the Zoo Interchange core to further reduce impacts to the Milwaukee County Zoo, if possible. Specific measures to minimize and mitigate impacts include the following:

- Before reconstructing the Zoo Interchange, WisDOT and FHWA will compensate Milwaukee County for property acquired from the Zoo.
- If the vegetative buffer on the southwest side of the Zoo is removed, mitigation will include screening walls or new landscaping.
- WisDOT will mitigate the loss of parking with a parking structure or adding parking on land immediately south of the County Zoo currently owned by American Transmission Company or land under the reconstructed Zoo Interchange.

The project team met with Milwaukee County Zoo officials several times between 2008 and 2011. If the County Zoo impacts are mitigated to the satisfaction of County Zoo officials, they will have no objections to the project.

## **Chippewa Park**

There are no prudent or feasible alternatives that would avoid impacts to Chippewa Park. Shifting the alignment of the I-94 westbound entrance ramp from Highway 100 to the south to avoid impacts to Chippewa Park will affect the Hank Aaron State Trail, an important transportation facility in the study area.

The Reduced Impacts Alternative was designed to minimize the need to acquire new right-of-way from Chippewa Park. WisDOT and FHWA will continue to refine the alignment of I-94 and the Highway 100 entrance ramp to further reduce or eliminate impacts to Chippewa Park, if possible. Specific measures to minimize and mitigate impacts include the following:

- Before reconstructing I-94, WisDOT will compensate Milwaukee County for acquisition from Chippewa Park.
- If the vegetative buffer is removed, mitigation will include screening walls or new landscaping.

The project team presented the project's potential impacts upon the park to Milwaukee County Parks Department staff at three meetings in 2008. County Parks' staff expressed no concerns regarding the project's potential impact to Chippewa Park provided the above-mentioned mitigation measures are implemented.

## **Honey Creek Parkway**

There are no prudent or feasible alternatives that would avoid impacts to Honey Creek Parkway. Alternatives that avoid Honey Creek Parkway would require residential relocations on the south side of I-94.

WisDOT and FHWA will continue to refine the alignment of I-94 and the 84<sup>th</sup> Street entrance ramp to reduce or eliminate impacts to Honey Creek, if possible. Before reconstructing I-94, WisDOT will compensate Milwaukee County for acquisition from Honey Creek Parkway.

The project team discussed the project's potential impacts to Honey Creek Parkway with County Parks Department staff at four meetings held in 2008 and 2009. They had no concerns in regards to the 0.2-acre right-of-way impact to Honey Creek Parkway.

## **Union Pacific Railroad Truss Bridge**

As noted in Section 4.3.7 of the Final EIS, the Reduced Impacts Alternative may result in the railroad alignment shifting and removing the bridge from service. The bridge's owner, the Union Pacific Railroad, might then demolish it.

WisDOT and FHWA have worked with the SHPO and the Union Pacific Railroad to develop appropriate mitigation measures if the rail line is realigned and the truss bridge taken out of service. Mitigation measures include photographic documentation of the bridge and offering the bridge to those interested in preserving the bridge. These measures are included in a Memorandum of Agreement among WisDOT, FHWA, and SHPO, executed in September 2011.

The project team discussed the project's potential impacts to the bridge at meetings with the Union Pacific Railroad and its representatives in January, September, and December 2008. In April 2009, Union Pacific said that it does not have concerns over potential removal of the bridge. SHPO concurs that the potential impact to the truss bridge is the only potential adverse effect to historic properties.

### **Final Section 4(f) Approval and Basis for Approval**

The Section 4(f) evaluation in Section 4 of the Final EIS includes a description of the public use land resource/historic property, applicability of Section 4(f) and related requirements, discussion of impacts and alternatives to avoid and minimize impacts, measures to minimize harm for unavoidable impacts, and coordination with officials having jurisdiction over the affected resources. Based on the Section 4(f) evaluation provided in the Final EIS, FHWA has concluded that there are no feasible and prudent alternatives to the use of land from the Underwood Creek Parkway (including the Wil-O-Way Underwood Special Recreation Center and Oak Leaf Trail), Milwaukee County Zoo, Chippewa Park, and Honey Creek Parkway properties, potential use of the historic Union Pacific Railroad truss bridge, and that the proposed action includes all possible planning to minimize harm to these properties resulting from such use.

## **Measures to Minimize Harm and Environmental Commitments**

### **Indirect and Cumulative Effects**

WisDOT policies and practices include measures to mitigate potential adverse cumulative effects, as noted in Section 3.2.2 of the Final EIS. The Preferred Alternative was developed with a sensitivity to avoid and minimize impacts in a densely developed urban setting that includes resources important to the community such as parks, natural resources, historic structures and established neighborhoods and commercial centers. WisDOT will continue to coordinate with the City of Wauwatosa and local businesses to explore additional opportunities to maintain access and provide alternative parking solutions on Bluemound Road.

The Preferred Alternative modifies previous alternatives to reduce the overall project footprint while still meeting purpose and need.

### **Utilities**

WisDOT will compensate utilities for relocating their facilities, if required. WisDOT and FHWA will continue to coordinate with utilities, municipalities, and Milwaukee County to avoid or minimize interruptions in service during construction.

### **Visual Character/Aesthetics**

WisDOT is using a Community Sensitive Design process to enhance visual aesthetics where practicable. Design efforts will identify existing viewsheds and vistas and develop concepts for visual benefits and minimization of impacts resulting from a larger-scale freeway and core interchange. Similar to efforts undertaken for the Marquette Interchange and I-94 North-South Corridor projects, a Community Sensitive Design Committee has been formed to identify aesthetic treatments and beautification measures to blend the highway corridor into the surrounding environment.

### **Residential Development**

Federal property acquisition law provides for payment of just compensation for residences displaced for a federally-funded transportation project (Uniform Relocation Assistance and Real Property Acquisition Policies Act

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### **Residential Development**

Federal property acquisition law provides for payment of just compensation for residences displaced for a federally-funded transportation project (Uniform Relocation Assistance and Real Property Acquisition Policies Act

of 1970, as amended). Acquisition price, replacement dwelling costs, moving expenses, increased rental or mortgage payments, closing costs, and other relocation costs are covered for residential displacements.

Under state law, no person may be displaced unless a comparable replacement dwelling is provided. Compensation is available to all displaced persons without discrimination. Before appraisals are made and property is acquired, an authorized relocation agent will interview each owner and renter to be relocated to determine their needs, desires, and unique situations associated with relocating. The agent will explain the relocation benefits and services each owner may be eligible to receive.

Before initiation of property acquisition, WisDOT provides information explaining the acquisition process and the state's Eminent Domain Law under Section 32.05, Wisconsin Statutes. A professional appraiser inspects the property to be acquired. Property owners are invited to accompany the appraiser to ensure that full information about the property is taken into consideration. Property owners may also obtain an independent appraisal. Based on the appraisal, the value of the property is determined and that amount offered to the owner. If agreement on fair market value cannot be reached, the owner would be advised of the appropriate appeal procedure.

A search of available housing from local realtor listings in September 2011 reported more than 175 homes with similar price (\$125,000 to \$230,000) within 0.5 mile of the study area. A search of replacement rental housing was also conducted, and revealed 32 rental properties similar to the units that would be needed. One-, two-, and three-bedroom units are within 1 mile of the study area, starting at \$535 per month. Replacement rental housing available includes duplexes and apartment buildings.

Any septic tanks, drain fields, or wells on acquired properties will be abandoned in accordance with state regulations and local zoning standards. WisDOT will survey all buildings to be demolished to determine whether asbestos or lead paint is present. Appropriate and applicable engineering and regulatory controls will be followed during the handling and disposal of asbestos-containing material and lead-based paint. Contractors must comply with U.S. EPA regulations; National Emission Standards for Asbestos; the Occupational, Safety, and Health Administration regulations on asbestos removal; local government regulations; and other applicable regulations. The most recent editions of all applicable standards, codes, or regulations shall be in effect. Persons performing asbestos abatement must comply with training certification requirements, rules, regulations, and laws of the State of Wisconsin regarding asbestos removal.

Before a contractor demolishes a building that may contain or is known to contain asbestos, the contractor must notify DNR and Wisconsin Department of Health and Family Services at least 10 working days before starting the work, using DNR Form 4500-113: "Notification of Demolition and/or Renovation and Application for Permit Exemption."

Demographic data for areas in which residential displacements will occur do not indicate age or income level characteristics that would require special relocation consideration or services. If unusual circumstances arise during real estate activities, WisDOT real estate personnel will provide appropriate relocation services.

## **Commercial Development**

Commercial acquisitions and relocations will be done in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended. In addition to providing just compensation for property acquired, other benefits are available to eligible displaced businesses, including relocation advisory services, reimbursement of moving expenses, and down-payment assistance. Under state law, no person would be displaced unless a comparable business location or other compensation (when a suitable business location replacement is not practical) is provided. Compensation is available to all displaced businesses without discrimination.

Before initiating property acquisition activities, property owners would be contacted and given a detailed explanation of the acquisition process and Wisconsin's Eminent Domain Law under Section 32.05, Wisconsin Statutes. Acquired property will be inspected by one or more professional appraisers. The property owner will be invited to accompany the appraiser during the inspection to ensure that the appraiser is informed of every aspect of the property. Property owners will be given the opportunity to obtain an appraisal by a qualified appraiser that

will be considered by WisDOT in establishing just compensation. Based on the appraisal, the value of the property would be determined and that amount offered to the owner.

Before a contractor demolishes a building that may contain or is known to contain asbestos, the contractor must notify DNR and Wisconsin Department of Health and Family Services at least 10 working days before starting the work, using DNR Form 4500-113: "Notification of Demolition and/or Renovation and Application for Permit Exemption."

There is no known age, ethnic, handicapped, or minority characteristics that will require special relocation consideration for any business displacement. No unusual requirements are expected that would preclude successful relocation.

According to the Multiple Listing Service, there are enough available properties to provide appropriate relocations for the displaced businesses. As these businesses are relocated, the number of business and commercial listings may change, but it appears likely that sufficient replacement business buildings will be available when required.

## **Institutional and Public Services**

WisDOT and FHWA will fairly compensate schools, churches, Milwaukee County, and State Fair Park for buildings or land acquired as part of the project.

WisDOT and FHWA will work with State Fair Park Board and Pettit Center Board to develop options for replacing lost parking space, including construction of parking structures. WisDOT and FHWA will work with Milwaukee County regarding land acquired as part of the project including the use of functional replacement where requested and agreed to by WisDOT and FHWA as required under federal relocation law.

WisDOT will continue to refine the design in order to further reduce the impacts to Milwaukee Montessori School (see Final EIS page 3-103 and 3-104). WisDOT will work with the school on the design of the barrier that needs to be on top of the retaining wall. The barrier could be a concrete wall with form liners or other design features that WisDOT will work collaboratively with the school to design. The barrier will most likely require a fence; WisDOT will work with the school on the design of the fence as well. To minimize the amount of land required from institutional properties along the freeway corridor, service interchanges were designed with ramps that are located as close to the freeway mainline as possible.

## **Surface Water and Fishery**

The Reduced Impacts Alternative and Adjacent Arterials Component will increase impervious area and therefore increase stormwater runoff from the study area freeway and local roadway system. WisDOT will implement stormwater management techniques to mitigate the increased stormwater runoff. The project will provide the opportunity to implement best management practices (BMPs) to treat the runoff and bring the study area freeway and local roadway system in compliance with Wisconsin's stormwater management regulations that limit the amount of pollution in runoff. WisDOT will meet all applicable stormwater quality and quantity regulations per TRANS 401. Stormwater treatment measures will be evaluated during design and implemented as appropriate. WisDOT will coordinate stormwater treatment measures with the Corps of Engineers per their request (see Corps letter in Appendix A) as well as DNR and Milwaukee Metropolitan Sewerage District (MMSD). The following are BMP options for stormwater management:

- Retention Basins (Wet Detention Basins)—Retention basins have a permanent pool of water year-round. The permanent pool allows pollutant particles in stormwater runoff to settle out over time. Nutrient uptake occurs through increased biological activity.
- Dry Detention Basins—A dry detention basin is typically designed to store runoff and discharge it slowly to reduce the peak discharge downstream. Such basins typically have little effect on the volume of stormwater released to the receiving water. The peak flow reduction is often accomplished through use of a multistage outlet structure that allows increased discharge as water levels in the basin increase.

- Infiltration Devices—Infiltration can be achieved through use of trenches or grass swales. Infiltration devices are used to slow down water flow so that more water is absorbed into the ground and more pollutants are removed from runoff.
- Grass Ditches—This BMP generally helps reduce suspended solids to meet the regulatory goal of TRANS 401, which outlines stormwater management and erosion control procedures for WisDOT projects.
- Trapezoidal Swale through Infield—This BMP combines a grass ditch with peak flow reduction and provides the same level of suspended solid control as grass ditches.
- Vegetated Rock Filters—This BMP may be used at outfalls to waterways or anywhere concentrated runoff leaves the right-of-way. It is similar in concept to a level spreader which attempts to reintroduce sheet flow and also provides a small amount of peak flow and volume reduction.
- Swale Blocks/Ditch Checks—These are small earthen berms constructed in the bottom of a ditch at regular intervals to detain runoff from frequent storms. The BMP provides peak flow reduction and may provide infiltration benefits depending on soil conditions.
- Inline Storage—This method is not desirable from a water quality standpoint, but it would manage water quantity. Storm sewer pipes would be designed larger than normal to provide storage in the sewer during rain events and then the water would be gradually released after the rain event ends.

To make an effort to meet the standards set forth in Wis. Stats. 87.30 and NR 216 and to address concerns raised by MMSD and the City of West Allis, WisDOT and FHWA are investigating retention/detention basins to manage stormwater from the proposed improvements. Retention/detention ponds improve water quality by allowing solid pollutants (sand, grit, etc.) to settle out before the water flows into storm sewers or streams. If retention/detention ponds are built, WisDOT will provide landscaping around them. The following are locations for retention/detention basins:

- West Leg—along the Underwood Creek Parkway south of I-94. Stormwater runoff from the south and west legs would be stored here (see also Final EIS Section 4.3.1 and 4.3.4)(**Exhibit 7**).
- Relocation of the hotel in the northwest quadrant of the Highway 100 Interchange with I-94 will make space available to store stormwater runoff from the Highway 100 corridor south of Bluemound Road. Reconfiguration of the I-94/Highway 100 Interchange will make space available for one pond on land already owned by WisDOT.
- North Leg—in the southwest quadrant of the new US 45/Watertown Plank Road interchange. The basin would collect stormwater runoff from US 45 between the Zoo Interchange and Swan Boulevard. North of Underwood Creek to an area roughly 900 feet south of Burleigh Street, runoff would continue to flow through the freeway storm sewer system, into Wauwatosa storm sewers, and discharge to Underwood Creek. Reconfiguration of the North Leg service interchanges may make space available for several small ponds at Wisconsin Avenue and Watertown Plank Road.
- A pond may also be included on the North Avenue interchange loop ramp. This pond would be located within the roadway right-of-way.
- Core—reconfiguration of the core of the Zoo Interchange may make space available for one or more small ponds within the roadway right-of-way. The core drains into Honey Creek, so ponds there reduce the need for a pond at 84th Street.
- East Leg—No ponds are planned on the east leg. A pond had been considered adjacent to Honey Creek at 84<sup>th</sup> Street, but it will not be needed based on stormwater analysis completed after the Final EIS was approved.
- Adjacent Arterial Component—in the northeast quadrant of the Highway 100/Watertown Plank Road intersection the 1.7-acre pond would be expanded to 2.5 acres, plus the system will utilize a pond on 87<sup>th</sup> Street north of Watertown Plan Road that has already been designed to accommodate increased flow.

WisDOT will assess the different water quality and water quantity management options during the design phase and implement as appropriate.

No fishery mitigation measures have been identified. WisDOT will coordinate with DNR during the design phase to determine if in-stream construction black-out dates are needed.

## **Floodplains and Hydraulics**

All structures will have adequate capacity for 100-year flood flow without public or emergency vehicle interruption from damage to the roadway or structures, and will not increase headwater elevations by more than 0.01 foot. None of the floodplain crossings will cause a substantial potential for interruption or termination of a transportation facility needed for emergency vehicles or the community's only evacuation route. Crossings will be consistent with local floodplain management goals and objectives. Hydraulic data will be provided to local zoning authorities. Floodplain crossings will be designed so as to not make the flood profile worse for adjacent landowners.

## **Groundwater and Water Supply**

WisDOT and FHWA will ensure that access to and maintenance of the County Zoo's well head is not adversely affected.

## **Wetlands**

Presidential Executive Order 11990, Protection of Wetlands, requires federal agencies to avoid, to the extent practicable, long- and short-term adverse impacts associated with the destruction or modification of wetlands. More specifically, the order directs federal agencies to avoid new construction in wetlands unless there is no practicable alternative. The order states that where wetlands cannot be avoided, the proposed action must include all practicable measures to minimize harm to wetlands.

The Clean Water Act's Section 404(b)1 Guidelines for Specification of Disposal Sites for Dredged or Fill Material (40 CFR Part 230) are administered by U.S. EPA and the Corps. The guidelines state that dredged or fill material should not be discharged into aquatic ecosystems (including wetlands), unless it can be demonstrated that there are no practicable alternatives to such discharge; that such discharge will not have unacceptable adverse impacts; and that all practicable measures to mitigate adverse effects are undertaken. In accordance with state and federal agency policies and regulations for wetland preservation, including the Section 404(b)(1) Guidelines for Specifications of Disposal Sites for Dredged or Fill Material (40 CFR part 320), the following sections summarize wetland mitigation strategies for the Zoo Interchange study.

### **Avoid and Minimize Wetland Impacts**

Because wetlands are scattered along all legs of the study-area freeway system, including ditches that drain the freeway, it is not possible to avoid wetland impacts completely during freeway reconstruction. The Preferred Alternative would affect about 1.6 acres of wetlands. Most of the affected wetlands are degraded shallow marsh or degraded wet meadow.

Of the 18 wetlands identified within the project corridor, the Preferred Alternative would avoid impacts to 9 of the wetlands totaling more than 5 acres. Two of the avoided wetlands lie within a primary environmental corridor and, as a result, are classified as Advanced Identification (ADID) wetlands. The wetlands are located in the Underwood Creek Parkway and along Underwood Creek. Efforts to avoid and minimize impacts to ADID wetlands are given extraordinary consideration because of the functions they perform due to their geographic position in the landscape. For example, a wetland within a primary environmental corridor can be degraded floristically but still be considered an ADID wetland because of its function at that location, such as providing flood storage adjacent to a river.

WisDOT will investigate additional measures to minimize wetland impacts, such as keeping roadway side slopes as steep as practicable; disposing of excavated material on new roadway side slopes or in upland areas; minimizing sedimentation and siltation into adjacent wetlands by using strict erosion control measures; and using detention

ponds, where allowed, to reduce pollutant loading and protect cold-water streams from sedimentation. Wetland delineations conducted during design will be conducted in accordance with the 1987 Corps Manual and the Midwest Supplement.

### **Wetland Compensation**

Compensation for unavoidable wetland loss will be carried out in accordance with WisDOT's *Wetland Mitigation Banking Technical Guideline* developed as part of the WisDOT-DNR Cooperative Agreement on Compensatory Wetland Mitigation and the new regulations for compensatory wetland mitigation issued jointly by the Corps and USEPA in May 2008. A wetland mitigation plan will be developed during the design phase, in consultation with state and federal agencies.

WisDOT developed the guideline in 1993 and updated it in 1997 and 2002 in cooperation with DNR, the Corps, U.S. EPA, U.S. Fish and Wildlife Service, and FHWA. Through the guideline, these agencies established a statewide policy regarding the sequence of activities required for WisDOT to compensate for wetland losses. Specifically, the guideline states "preference should be given for compensatory mitigation accomplished in the vicinity of the impacted area (onsite). Where such opportunities are not present or practical, in-watershed (near-site) opportunities should be explored."

For cases in which onsite or near-site opportunities for wetland mitigation are not available, WisDOT can debit the wetland loss at the closest established wetland mitigation bank. Since the time at which the guideline was developed, onsite has been typically interpreted as being within 0.25-mile of the wetland impact, while near-site has been interpreted as within 2.5 miles of the impact area. Therefore, a mitigation site search for a linear corridor, such as the I-94, I-894, and USH 45 corridors, would encompass a 0.5-mile corridor centered on the highway and expand to a 5-mile corridor if onsite opportunities were not available.

The guideline provides ratios for wetland replacement versus wetland loss depending on where the mitigation is to be provided. The replacement ratios increase with the mitigation site's distance from the impacted wetland.

WisDOT has an established statewide wetland mitigation bank located in Walworth County that has remaining acreage available for credit. Debiting wetland acreage credits from this bank to mitigate for the wetland losses from the Zoo Interchange project would be in accordance with the terms of the guideline. The Walworth County site is not in the same watershed as the study area freeway system.

### **Wetland Finding**

Based upon the above factors and considerations, it is determined that there is no practicable alternative to the proposed construction in wetlands of the project area, and that the Preferred Alternative includes all practicable measures to minimize harm to the wetlands that may result from such use.

The Corps has identified the Reduced Impacts Alternative as the Least Environmentally Damaging Practicable Alternative (see Final EIS Appendix F, page F-93).

### **Wildlife**

In the area east of US 45 and north of Watertown Plank Road that provides Monarch butterfly nectaring habitat, WisDOT will work to develop a special seed mix on the berms that may enhance the butterfly habitat. WisDOT will provide room underneath the Swan Blvd bridge to accommodate a pedestrian trail to connect the butterfly area to the south and the DNR Forestry Science Center to the north.

Bridges and culverts have been inspected to determine if any migratory birds are present. WisDOT will remove swallow nests from the underside of bridges before construction, between August 20 and May 15, when the nests are unoccupied. After swallow nests are removed, WisDOT will place nets under the bridge to keep swallows from re-establishing nests on bridges about to be removed.

### **Threatened and Endangered Species**

WisDOT will coordinate with DNR to develop appropriate measures to mitigate adverse effects to the Butler's garter snake, a State of Wisconsin Threatened Species. Butler's garter snake is a reptile that prefers wet-mesic prairies,

marshes, and adjacent grassy and open areas. Reconstruction of the Zoo Interchange could affect the Butler's garter snake by reducing habitat on the north and west legs of the interchange. Potential measures include designing the Preferred Alternative to minimize impacts to the Tier 3 habitat, fencing to keep the snakes out of the construction area, and trapping or hand-collecting snakes from within the fenced area prior to construction. The fencing will be installed before March 15 each year to isolate the area that will be disturbed. If the fencing is in place before March 15, snakes need not be removed from inside the fenced area. Only Tier 3 habitat requires that fencing be put in place. Future DNR strategy may require snake fencing be put in place at Tier 1 and 2 snake habitat areas.

Any area with potential habitat for the Blanding's turtle, a State of Wisconsin Threatened Species, will be fenced with turtle fencing. The fencing will be in place by March 15.

## Noise

Based upon the requirements of 23 CFR 772 and within the framework of the Wisconsin Department of Transportation's *Facilities Development Manual*, Chapter 23, Noise (FDM Noise), various methods were reviewed to mitigate the noise impact of the proposed improvements. Among the mitigation measures considered were restricting truck traffic to specific times of the day, prohibiting trucks, altering horizontal and vertical alignments, property acquisition to create buffer zones to prevent development that could be adversely impacted, insulating public use or nonprofit institutional buildings, berms, and sound barriers.

Restricting or prohibiting trucks is counter to the project's purpose and need. Design criteria and recommended termini for the proposed project preclude substantial horizontal and vertical alignment shifts that would produce noticeable changes in the projected acoustical environment. Because of right-of-way limitations, the construction of noise berms is neither feasible nor reasonable. Therefore, only the construction of noise barriers was reviewed. Abatement is recommended only when it is feasible and reasonable to construct a noise barrier.

*Facilities Development Manual*, Chapter 23 Noise has established the following criteria for determining feasibility and reasonableness:

- The barrier must provide a minimum 5-decibel reduction to be considered feasible.
- One receptor or common use area must meet the 9-decibel design goal for the noise barrier to be considered for reasonableness.
- A noise barrier must reduce noise levels by at least 8 decibels for a receptor or common use area to be considered as benefited for the purposes of determining reasonableness. The total cost of the barrier may not exceed \$30,000 per abutting residence.
- If a common noise environment exists within the project termini, cost averaging of multiple barriers within the common noise environment may be done as part of the reasonableness determination. Noise barriers exceeding \$60,000 per benefited receptor cannot be included in the cost averaging. The order of cost averaging of eligible multiple barriers will start with the most cost-effective barrier, increasing to the second most cost-effective barrier, the third, and so on, until the average cost approaches or equals but does not exceed \$30,000 per benefited receptor. The noise barriers included in the cost averaging may be carried forward for a determination of whether the barriers will be incorporated into the project.
- The department must receive a vote of support for the project from a simple majority of all votes cast by the owners or residents of the benefitted receptors.

Noise barriers were analyzed at 44 locations adjacent to the study-area freeway system. Forty-two of the 44 noise barriers analyzed would meet WisDOT's feasibility criteria. Only eight noise barriers would meet both definitions for feasible and reasonable noise mitigation.

There are numerous areas adjacent to the study-area freeway system at which barriers were considered where individual receptors or small groupings of residences would experience a noise impact. However, it is impossible to design a noise barrier for these receptors that would provide an 8-decibel reduction and still meet the \$30,000 per residence criterion.

Noise mitigation for future developments constructed within the setback distance will be the responsibility of the local communities or the developer. Should additional lanes be added to the Zoo Interchange corridor in the future, noise mitigation along the corridor would be assessed according to the Type 1 requirements of 23 CFR 772 and WisDOT's approved policies in effect at that time.

Based on the noise study conducted as part of the EIS process, WisDOT intends to replace the existing noise barriers and likely will incorporate additional feasible and reasonable noise barriers into the project. See Section 3.19.3 of the Final EIS for more information on the results of the noise study. As locations of the retaining walls are more accurately defined relative to the surrounding areas, the location of feasible and reasonable noise mitigation will be reassessed. If the final design results in substantial changes in roadway design from the conditions modeled for the Draft, Supplemental Draft, or Final EISs, noise abatement measures will be reviewed. A final decision on the installation of abatement measures will be made upon completion of the final design and through the public involvement process, which will solicit the viewpoints of residents and property owners benefited by the construction of feasible and reasonable noise barriers.

Sections 3.19.2 and 3.19.3 of the Final EIS contain more information on noise impacts and mitigation measures.

## **Air Quality**

No project-level air quality mitigation measures are required with respect to long-term operation of vehicles on the study-area freeway system after its reconstruction. With respect to short-term construction, see the Construction section on page 23 for air quality mitigation measures during construction.

## **Hazardous Materials**

An asbestos inspection of the 53 bridges in the study area was conducted in 2009, 2010 and 2011. Asbestos-containing material is present on 44 of the bridges. During the real estate acquisition phase, WisDOT will survey the buildings that need to be demolished to determine whether asbestos is present. Special provision 203-005, bid item 203.0210s) will be included in the plan. The contractor will be responsible for completion of the Notification of Demolition and/or Renovation (DNR form 4500-113).

## **Section 4(f) Properties**

### **Underwood Creek Parkway (includes Wil-O-Way Underwood Special Recreation Center and Oak Leaf Trail)**

The Reduced Impacts Alternative was designed to minimize unavoidable impacts to the Underwood Parkway, including the Wil-O-Way Underwood Special Recreation Center and Oak Leaf Trail, to the maximum extent practicable. Specific measures to minimize and mitigate impacts include the following:

- Keeping the US 45 northbound exit ramp to Highway 100 as close to mainline US 45 as possible
- Providing a bridge over the Underwood Creek Parkway and Oak Leaf Trail, as opposed to an at-grade crossing to avoid bisecting the trail
- Using retaining walls to minimize right-of-way acquisition from the Wil-O-Way Underwood Special Recreation Center
- Eliminating the Swan Boulevard interchange alternative
- Providing landscaping around the stormwater pond that will be constructed in the Underwood Parkway and reconstructing the portion of the Oak Leaf Trail that currently lies in the location of the planned pond. The Oak Leaf Trail is routed along a little-used roadway. WisDOT would remove the roadway and relocate the trail to a location within Underwood Creek Parkway that is suitable to the Milwaukee County Parks Department.
- Compensating Milwaukee County for right-of-way acquisition

- Constructing visual screening, plantings, or modifications to the US 45 bridge to better blend with the natural surrounding environment
- Constructing visual screening between US 45 and Wil-O-Way that may include a berm, a screening wall, or both. WisDOT will continue to work with Milwaukee County Parks Department and the Office for Persons with Disabilities during the design phase.
- Working with the City of Wauwatosa Historic Preservation Committee and Milwaukee County Parks Department during the community sensitive design process to develop an appropriate bike/pedestrian gateway at the Watertown Plank Road/Underwood Parkway intersection.

### **Milwaukee County Zoo**

WisDOT and FHWA will continue to refine the alignment of Zoo Interchange core to further reduce impacts to the Milwaukee County Zoo, if possible. Specific measures to minimize and mitigate impacts include the following:

- Before reconstructing the Zoo Interchange, WisDOT and FHWA will compensate Milwaukee County for property acquired from the Zoo.
- If the vegetative buffer on the southwest side of the Zoo is removed, mitigation will include screening walls or new landscaping.
- WisDOT will mitigate the loss of parking with a parking structure or adding parking on land immediately south of the County Zoo currently owned by American Transmission Company or land under the reconstructed Zoo Interchange.

### **Chippewa Park**

WisDOT and FHWA will continue to refine the alignment of I-94 and the Highway 100 entrance ramp to further reduce or eliminate impacts to Chippewa Park, if possible. Specific measures to minimize and mitigate impacts include the following:

- Before reconstructing I-94, WisDOT will compensate Milwaukee County for acquisition from Chippewa Park.
- If the vegetative buffer is removed, mitigation will include screening walls or new landscaping.

### **Honey Creek Parkway**

WisDOT and FHWA will continue to refine the alignment of I-94 and the 84<sup>th</sup> Street entrance ramp to reduce or eliminate impacts to Honey Creek, if possible. Before reconstructing I-94, WisDOT will compensate Milwaukee County for acquisition from Honey Creek Parkway.

### **Union Pacific Railroad Truss Bridge**

As noted in Section 4.3.7 of the Final EIS, the Reduced Impacts Alternative may result in the railroad alignment shifting and removing the bridge from service. The bridge's owner, the Union Pacific Railroad, might then demolish it.

WisDOT and FHWA have worked with the SHPO and the Union Pacific Railroad to develop appropriate mitigation measures if the rail line is realigned and the truss bridge taken out of service. Mitigation measures include photographic documentation of the bridge and offering the bridge to those interested in preserving the bridge. These measures are included in a Memorandum of Agreement among WisDOT, FHWA, and SHPO, executed in September 2011.

## **Construction**

### **Transportation Management**

During design, WisDOT and FHWA will evaluate the diversion routes to determine if improvements to those routes are necessary. In addition to roadway improvements, signal timing modifications, temporary signals,

parking restrictions, intersection improvements, incident management, and demand management options may be instituted during construction to ease potential congestion and delay. Freeway and local street lane closures would be staged to ease disruptions to the extent possible. Other mitigation measures may include:

- Holding workshops to determine methods to reduce the effects of construction on area businesses, residents, commuters, community services, and special events.
- Implementing a community involvement plan to inform the public, including radio, Internet, print, and television.
- Encouraging the use of transit and carpooling through advertising, temporarily reduced rates, additional routes, and expanded or new park-and-ride lots.
- Encouraging businesses to modify their work and shipping schedules to avoid peak traffic hours.
- Improving detours and other routes due to increased traffic resulting from freeway construction.
- Building the Adjacent Arterials Component first to accommodate diverted traffic from freeway construction.

A Transportation Management Plan will be prepared during the design phase. It will identify coordinated traffic management strategies and how they will be used to minimize construction impacts to the traveling public and surrounding communities. The Transportation Management Plan for the Zoo Interchange reconstruction includes the following:

- During construction, 2 lanes of traffic will be maintained in each direction on I-94 and US 45.
- After a construction staging plan is developed, WisDOT will evaluate possible alternate traffic routes to determine if improvements are needed.
- Incident management measures will be implemented during construction to ease potential congestion and delay.
- WisDOT will keep the public informed about the construction schedule, staging, road closures, and other aspects through the Zoo Interchange project website.

WisDOT and FHWA are coordinating railroad tunnel and bridge construction with Union Pacific Railroad to minimize interruption to rail service while extending the tunnel under Highway 100/Bluemound Road and while replacing the railroad bridges over I-94, US 45, and potentially North Avenue and I-894/US 45 over the Union Pacific Railroad. WisDOT and FHWA will coordinate with Canadian Pacific Railway to minimize interruptions to rail service while replacing the US 45 bridge over the Canadian Pacific rail line.

### **Air Quality**

Air quality impacts during construction will be generated by motor vehicles, machinery, and particulate emissions resulting from earthwork and other construction activities. Construction vehicle activity and the disruption of normal traffic flows may result in increased motor vehicle emissions in certain areas. Emission impacts of construction vehicles could be mitigated by implementing and maintaining a comprehensive traffic control plan, enforcing emission standards for gasoline and diesel construction equipment, and stipulating that unnecessary idling and equipment operation is to be avoided. WisDOT and FHWA will evaluate several air quality construction mitigation best practices for possible inclusion in construction specifications to reduce diesel emission impacts from construction equipment including reducing idle times, properly maintaining equipment, using cleaner fuel, and retrofitting diesel engines with diesel emission control devices.

Dust will be controlled during construction in accordance with WisDOT's *Standard Specifications for Road and Bridge Construction*, which requires the application of water or other dust control measures during grading operations and on haul roads.

The location and operation of concrete batch plants will be in accordance with the *Standard Specifications* and with any special provisions developed during coordination with DNR regarding air quality standards and

emissions. Open burning of waste material or brush will not be allowed. Portable material plants will be operated in accordance with DNR air quality requirements/guidelines. Demolition and disposal of residential or commercial buildings is regulated under DNR's asbestos renovation and demolition requirements (Wisconsin Administrative Code, Chapter NR 447).

## Water Quality/Erosion

Construction in and near waterways will be performed in accordance with WisDOT's *Standard Specifications for Road and Bridge Construction*, and Wisconsin Administrative Code Chapter TRANS 401—Construction Site Erosion Control and Stormwater Management Procedures, and the WisDOT/DNR Cooperative Agreement. Appropriate techniques and best management practices, as described in the WisDOT *Facilities Development Manual*, will be employed to prevent erosion and to minimize siltation to environmentally sensitive resources in the project area. Erosion control devices will be installed before erosion-prone construction activities begin.

Erosion may occur during construction as soils are disturbed by excavation and grading. The project will use standard erosion control devices and best management practices to reduce and control the deposit of sediment into environmentally sensitive resources before erosion-prone construction begins. The construction contractor will be required to prepare an Erosion Control Implementation Plan that includes all erosion control commitments made by WisDOT while planning and designing the project. The construction plans and contract special provisions must include the specific erosion control measures agreed on by WisDOT in consultation with DNR. DNR reviews the Erosion Control Implementation Plan. The following measures may be used during construction:

- Minimizing the amount of land exposed at one time
- Silt fencing
- Sedimentation traps
- Dust abatement
- Turbidity barriers
- Street sweeping
- Inlet protection barriers
- Temporary seeding
- Erosion mats
- Ditch or slope sodding
- Seeding and mulching exposed soils

Per the WisDOT/DNR Cooperative Agreement, *Memorandum of Understanding on Erosion Control and Stormwater Management*, following construction disturbed land would be re-seeded with a mix of fast growing grasses. Drainage systems will be maintained, restored or re-established in a manner that will not impound water.

Additional impact mitigation techniques during construction will include the following, as needed, at particular locations:

- If dewatering is required, dirty water will be pumped into a stilling, or settling, basin before it is allowed to reenter a stream.
- Trenched-in erosion bales will be installed in areas of moderate velocity runoff; clean-aggregate ditch checks will be installed in ditches with moderate to high velocity runoff during and after construction; and ditches will be protected with erosion bales and matting in conjunction with seeding.
- Storing and fueling of construction equipment will be done in upland areas, away from environmentally sensitive areas. Accidental spills during refueling at construction sites or as a result of an accident involving hazardous material haulers will be handled in accordance with local government response procedures. First response will be through local fire departments and emergency service personnel to ensure public safety and to contain immediate threats to the environment. Depending on the nature of the spill, the DNR will then be notified to provide additional instructions regarding cleanup and restoration of any affected resources. The cost of cleanup operations is the responsibility of the contractor or carrier involved in the spill. Further, WisDOT's *Standard Specifications* state that public safety and environmental protection measures shall be enforced by the construction contractor.
- Contractors will be required to follow DNR guidelines for ensuring that construction equipment used in or near waterways is adequately decontaminated for zebra mussels and plant exotics including purple loosestrife and Eurasian milfoil.

## Vibration

Ground-borne vibration can affect nearby buildings. Blasting and impact pile driving are associated with high levels of vibration. Excavation and backfilling can generate vibration that is perceptible or noticeable in nearby buildings. Vibration created by construction vehicles such as graders, loaders, dozers, scrapers and trucks are generally the same order of magnitude as the vibration caused by heavy vehicles traveling on streets and highways. In general, ground-borne vibration from vehicles on streets is not sufficient to affect adjacent buildings.

Buildings that are in good structural condition likely will not be affected by construction-related vibration. WisDOT will coordinate with adjacent property owners before construction to determine if buildings near construction areas are in poor structural condition. For construction work within the City of Milwaukee, WisDOT will adhere to local vibration ordinances. In communities that do not have vibration ordinances, WisDOT will comply with the Wisconsin Department of Workforce Development (formerly Department of Industry, Labor and Human Relations) vibration regulations.

There will be no adverse effect on the Eschweiler Buildings as a result of the project. Based on concerns expressed by the Milwaukee County Historical Society (the buildings are designated Milwaukee County landmarks) WisDOT agreed to conduct a crack-and-damage survey of the buildings prior to construction and monitor vibration during construction activities in the area.

## Material Source/Disposal Sites

The construction contractor is responsible for selecting material source sites. Material most likely will be obtained from local quarries. The contractor will dispose of unusable excavated material in accordance with WisDOT's *Standard Specifications for Road and Bridge Construction*, or special provisions to ensure protection of wetlands and waterways. Local zoning, reclamation plans, and other approvals may be needed for material source/disposal sites.

Soil and excavated material (including vegetation) would be stockpiled or disposed of in an upland area, away from wetlands, streams, and other open water; and, where applicable, silt fence would be placed between the disposal area and wetland and open water areas.

If any material sources are necessary to construct the project, appropriate erosion control measures will be applied to those sites during and following construction; and following use, such sites will be seeded, mulched, and protected from erosion.

Portable materials plants will be treated to prevent erosion, and DNR will be able to review site plans, including any gravel washing operations, high-capacity wells, and site closure/restoration.

## Monitoring and Enforcement Program

The following actions will occur as the project progresses through engineering design and construction:

- WisDOT and FHWA will monitor project development to ensure compliance with the mitigation commitments made in the EIS before authorization of Federal-Aid highway funds.
- During design, WisDOT will coordinate with FHWA to determine whether there have been any substantive changes in the project, affected environment, selected alternative, impacts, mitigation measures, or environmental commitments as presented in the Final EIS that could warrant reevaluation.
- Before construction that requires discharge of fill material into waters of the United States, including wetlands, begins, authorization will be obtained from the U.S. Army Corps of Engineers under Section 404 of the Clean Water Act. Such authorization is contingent on obtaining water quality certification from DNR under Section 401 of the Clean Water Act, and Wisconsin Administrative Code Chapter NR 299.
- Property acquisition and residential or business relocations will be conducted in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (as amended).

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- Property acquisition and residential or business relocations will be conducted in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (as amended).

A Relocation Assistance Plan under Section 33.25, Wisconsin Statutes, will be required for displaced residences and businesses, subject to approval by the Wisconsin Department of Commerce.

- Coordination with DNR and the Corps will continue in the design phase concerning the stormwater management plan, erosion control implementation plan, threatened and endangered species mitigation, wetland mitigation, and in-stream construction constraint dates.
- Contractors must carry out project construction in accordance with WisDOT contract special provisions.
- Per the stipulation in the Section 106 MOA for this project, WisDOT will have an appropriate archaeological field identification survey(s) conducted for borrow, batch plants, waste sites, stormwater/erosion areas, and staging areas to be used for this project. If significant discoveries of non-burial related archaeological properties are discovered, Section 106 procedures pursuant to 36 CFR 800 will be followed or another area will be obtained for borrow, batch plants, waste sites and staging areas.

WisDOT is responsible for ensuring that environmental commitments made during the NEPA project phase are communicated and carried out in the subsequent design and construction phases. A design study report is prepared at the outset of the final design phase. It serves as the bridging document between the preliminary design/NEPA phase and preparation of final construction plans. Its purpose is to document decisions and rationale with respect to design criteria, geometric and safety aspects, exceptions to standards, real estate acquisition needs, utility adjustments, and environmental commitments and approvals. The design study report for the Zoo Interchange reconstruction project will include an attachment that summarizes the environmental commitments presented in the Final EIS and this Record of Decision. It serves as a reference document throughout the final design and construction phases. It is communicated to multidisciplinary WisDOT staff involved in design, maintenance, utilities, real estate acquisition, construction, and environmental monitoring activities. As applicable, environmental commitments in the design study report may also be the basis for developing contract special provisions. The design study report is provided to FHWA under its Federal Oversight Agreement with WisDOT.

Following award of the construction contract, a preconstruction meeting will be held at which such topics as the contractor's plan of operations, environmental commitments, permits, erosion control measures, and other requirements are reviewed and discussed. Environmental permits will be compared to the contractor's plan of operations to ensure those operations are covered.

WisDOT holds frequent meetings with multidisciplinary staff during final design to ensure that environmental commitments are carried forward and reflected in the final plans, specifications, and estimates before finalizing the construction contract documents. Meetings are also held with outside agencies such as the Corps and DNR during Clean Water Act permit activities to ensure that additional environmental commitments that may be identified are included in the final plans.

## Comments on Final EIS

Notice of availability of the Final EIS was published in the *Federal Register* on October 14, 2011. The 30-day review period ended November 14, 2011.

### Agency and Local Government Coordination

Agency comments on the Final EIS and responses as applicable are provided in Appendix A. Key comments are briefly summarized as follows.

#### U.S. EPA

U.S. EPA commented on wetlands, air quality, and wildlife and stated that the Final EIS satisfactorily addressed its comments on the Supplemental Draft EIS. U.S. EPA requested that all measures to minimize air quality impacts be documented in the Record of Decision. Its letter says the particulate matter hotspot analysis performed by WisDOT effectively responds to its earlier comments on the issue.

Regarding wetlands, U.S. EPA commends WisDOT for avoiding ADID wetlands and suggests that adding to the primary environmental corridor should be WisDOT and FHWA's first choice for mitigating unavoidable wetland impacts. Lastly, U.S. EPA urges WisDOT to preserve Monarch butterfly habitat.

### Corps of Engineers

The Corps of Engineers state that the Final EIS provides sufficient identification and evaluation of the impacts of the alternatives and the extent to which the alternatives meet the project's purpose and need. The Corps asks that WisDOT coordinate stormwater management plans with them, and requests that WisDOT use the latest wetland delineation guidance. The Corps also notes that planned reconstruction of Underwood Creek near US 45 may alter wetland boundaries in that area.

### City of Milwaukee Department of Public Works

The DPW's comments are very similar to its April 2011 comments on the Supplemental Draft EIS. The City opposes 18-foot-wide inside shoulders on I-94 through the core of the Zoo interchange that could be converted to an additional (third) travel lane in the future. The City also notes concern over noise levels adjacent to the freeway system in the study area and requests that WisDOT continue to evaluate design modifications that would eliminate the need to acquire the 8-unit apartment building on the east leg. The City also urges WisDOT to consider transit options, including preserving a north-south transit corridor from the Hank Aaron State Trail north to the Milwaukee County Zoo, Regional Medical Center, and Milwaukee County Research Park.

### City of Milwaukee Alderman Michael Murphy

Alderman Murphy e-mailed a copy of the City of Milwaukee Common Council resolution of April 2011 regarding the Zoo Interchange project and the DPW's April 2011 comments on the Supplemental Draft EIS.

### Public Comments

Fourteen people or organizations submitted comments (twelve via e-mail, two letters).

The Highway J Citizens Group submitted comments that were very similar to those included in the Final EIS.

ACLU, Black Health Coalition, NAACP Milwaukee Branch, Milwaukee Innercity Congregations Allied for Hope, and Midwest Environmental Advocates submitted a joint comment letter that states that the level of funding for transit in southeast Wisconsin compared to the level of investment in highways violates Title VI of the Civil Rights Act and that the Final EIS is deficient in several respects because it does not properly assess the adverse effect of the project on low-income and minority residents of Milwaukee County.

Public comments on the Final EIS were considerably fewer in number than those on the Supplemental Draft or the Draft EISs. The few comments received echoed the concerns expressed in previous public comment periods: specific property concerns, concern over potential construction of stormwater ponds in Honey Creek or Underwood Creek Parkways, concerns over widening the study-area freeway system, concern over lack of transit options, and concerns regarding impacts to the environment.

### Public Comments and Responses

#### Individual Property Concerns

1. **Comment (resident):** "The Zoo interchange expansion will affect [a residence on] West Adler Street and some changes will be done to the driveway apron and sidewalk. Will the expansion place the freeway closer to the home, and if so how much closer will it be? Also, will there be a sound barrier constructed to minimize the noise?"

**Response:** A noise barrier will be built at this location. WisDOT will coordinate property-specific issues with the owner.

2. **Comment (St. Therese Church):** "The combined effects of widening US 45, realignment and an additional lane on both W. Blue Mound Road and N. 95th Street requires purchase of additional right-of-way along the west, north and east sides from St. Therese. This will eliminate 35 or more parking spaces, which equates to about

25% of the total parking spaces. Additionally, the north driveway will be eliminated due to the 95<sup>th</sup> Street expansion. This will require reconfiguration of the parking lot to accommodate how traffic flows in and out. Lastly, the grass boulevard in front of the parish house will be eliminated. We assume mitigation measures will be considered for these impacts.”

**Response:** WisDOT will continue to coordinate with St. Therese Church to develop mitigation measures.

### Stormwater

3. **Comment (resident):** “At two different meetings this year, we were told that DOT was looking at placing ponds within the roads' right-of-ways, such as where I-94 and HW 45's ramps intersect, as well as some in-tunnel storage to obviate the need or minimize the need for a pond along Honey Creek. In addition, DOT was going to look at timing flows (pushing them through faster) so as to minimize the need for storage and not add to peak flows. The re-vamping of the Milwaukee Mile and that portion of Honey Creek that flows beneath it were also discussed. However, none of these measures are mentioned in the final EIS.”

**Response:** Section 3.11.3 of the Final EIS (page 3-119) notes that in-line storage is one option WisDOT is considering. Page 3-121 of the Final EIS notes that ponds may be built within the core of the Zoo Interchange.

4. **Comment (Midwest Environmental Advocates (MEA)):** “FEIS has failed to adequately address issues and concerns raised regarding the direct, indirect, and cumulative impacts to water resources (particularly impacts resulting from the dramatic increase in impervious area and resulting impacts on areas already subject to flooding, where decreases in impervious surfaces, not increases, are imperative if basement and building flooding, sewer backups, and sewer overflows are to be reduced).”

**Response:** The direct impacts to water resources are discussed in the following Final EIS sections: Section 3.11, Surface Water and Fishery; 3.13, Floodplains and Hydraulics; 3.14, Groundwater and Water Supply; and 3.15, Wetlands.

This comment from Midwest Environmental Advocates specifically notes concerns regarding flooding impacts resulting from the increase in impervious area, an indirect impact. The Preferred Alternative will increase impervious area and therefore increase the amount of stormwater runoff from the study-area freeway and local roadway system. In response to the potential impacts of increased stormwater runoff, WisDOT and FHWA are evaluating several best management practices (BMPs) to minimize the amount of runoff that enters water bodies, reduce the flow's velocity, and improve the water quality of the runoff (removing sediment and pollutants). Section 3.11.3 of the Final EIS lists and explains in detail several of these BMPs. BMP options that may be used, as appropriate, include retention basins, dry detention basins, infiltration devices, grass ditches, trapezoidal swale through infield, vegetated rock filters, swale blocks/ditch checks, and in-line storage.

No flooding impacts have been identified as a result of the project. WisDOT studied the regional flood impacts of the Zoo Interchange project. This study was completed in December 2011, after the Final EIS was completed. To complete this study, models used by SEWRPC and MMSD to conduct flood studies were modified to incorporate changes in land cover that would be brought about by the proposed project. Flow-frequency analysis of the modified model noted that roadway improvements will increase peak flows in Underwood Creek, Honey Creek, and Menomonee River by 1 to 3 percent for the 50 percent annual probability (2-year) flow event. The model also noted that the project would not have a statistically significant effect on the regional flood flow (100-year event) within these waterways. The project would increase peak flows within local drainage systems as a result of the conversion of existing grass right-of-way to pavement. However, this impact will be small and statistically insignificant. The analysis did not identify increases in the regulatory (100-year) flood event in downstream watercourses as a result of reconstructing the study-area freeway system.

State law requires WisDOT to not make any existing flooding situation worse (Wis. Stats. 88.87 “[WisDOT] shall not impede the general flow of surface water or stream water in any unreasonable manner so as to

cause either an unnecessary accumulation of waters flooding or water-soaking uplands or an unreasonable accumulation and discharge of surface waters flooding or water-soaking lowlands”).

To make an effort to meet the standards set forth in Wis. Stats. 87.30 (floodplain zoning ordinance) and NR 216 (establish criteria defining stormwater discharges needing permits and implement the appropriate performance standards to minimize the discharge of pollutants carried by stormwater runoff) and to address concerns raised by MMSD and the City of West Allis, WisDOT and FHWA are investigating retention/detention basins to manage stormwater from the proposed improvements and will implement as appropriate. This Record of Decision provides locations of the retention/detention basins. These locations include:

- West Leg – Along Underwood Creek Parkway, south of I-94.
- West Leg – The relocation of a hotel in the northwest quadrant of the Highway 100 interchange will provide space for one basin.
- West Leg – Reconfiguration of the I-94/Highway 100 interchange will make space available for one pond on land already owned by WisDOT.
- North Leg – Inside the loop ramp in the southwest quadrant of the new Watertown Plank Road interchange.
- North Leg - A basin may be required in the North Avenue interchange loop ramp.
- Core – There may be one or more basins located in the core. These basins would be located within the interchange on land already owned by WisDOT and would have no additional impacts.
- Adjacent Arterials Component – In the northeast quadrant of the Highway 100/Watertown Plank Road intersection the existing 1.7 acre basin will be expanded to 2.5 acres.
- Adjacent Arterials Component –An existing basin adjacent to 87th Street, north of Watertown Plank Road, has already been designed to accommodate increased water flow off Watertown Plank Road.

The WisDOT/DNR Cooperative Agreement contains a Memorandum of Understanding regarding stormwater discharges to waters of the state. This Memorandum of Understanding requires WisDOT to implement a stormwater management program for its projects that is consistent with Section 402(p) of the Clean Water Act (municipal and industrial stormwater discharges), Chapter 283 of the Wis. Stats. (eliminate the discharge of pollutants into the waters of the state), and Chapter NR 216 Wisconsin Administrative Code.

Wisconsin Administrative Code Chapter TRANS 401 outlines stormwater management and erosion control procedures for WisDOT projects. WisDOT will meet all applicable stormwater quality and quantity regulations per TRANS 401. As applied to this project, this rule requires removal of 40 percent of total suspended solids for the study area, buffer areas upstream of waterways and wetland, and maintaining the 2-year peak discharge rate to the maximum extent practicable.

Sewer backups and sewer overflows are not caused by stormwater runoff entering streams via storm sewers. The backups and overflows occur only when sanitary sewers overflow or in combined sewer service areas and there are no combined sewer services in the study area.

Section 3.2.2 of the Final EIS discusses cumulative effects and environmental consequences. While runoff volumes would increase under the Reduced Impacts Alternative with Adjacent Arterials Component, the water quality analysis notes that using best management practices would reduce the level of pollutants in stormwater runoff compared to the existing conditions. As discussed in Section 3.11 of the Final EIS, WisDOT and FHWA are evaluating several best management practices to minimize the amount of runoff that enters water bodies, reduces flow velocity, and improves the water quality of the runoff. As noted earlier in this response the use of retention/detention basins to manage stormwater from the proposed improvement is being evaluated along all legs of the Zoo Interchange project and will be implemented, as appropriate.

DNR and local governments are responsible for monitoring the performance of stormwater management measures and making corrective actions for non-WisDOT projects. WisDOT will monitor its performance

measures through its WisDOT/DNR Cooperative Agreement (Memorandum of Understanding on Erosion Control and Stormwater Management). The Zoo Interchange reconstruction would implement best management practices for stormwater and monitoring performance and, therefore, would not cumulatively contribute to water quality or quantity impacts.

5. **Comment (MEA):** “FEIS has failed to adequately address issues and concerns raised regarding failure to even mention the pending request by the City of Waukesha to divert water from Lake Michigan and return it via Underwood Creek, adding to the cumulative impacts of expansion of the zoo interchange on flooding.”

**Response:** The Cumulative Effects section (Section 3.2.2) of the Final EIS discusses activities occurring within the project’s area of potential effect that could improve flood storage and habitat and would account for additional water from the City of Waukesha. Milwaukee Metropolitan Sewerage District’s (MMSD) flood management facility was constructed on the Milwaukee County Grounds (see information box on page 3-113 of the Final EIS for more information). The facility is expected to minimize flooding along the Menomonee River by providing approximately 316 million gallons of flood storage. In addition, the rehabilitation of Underwood Creek, between Highway 100 and its confluence with the Menomonee River, will improve natural floodplain functions and help re-establish wetlands along this reach of the creek, which flows under US 45. The first phase of the Underwood Creek rehabilitation (Highway 100 to US 45) was completed in 2010. Construction of the remaining segments is scheduled for 2012-2013.

Before a decision is made on the City of Waukesha’s request to obtain water from Lake Michigan and return it via Underwood Creek, a NEPA document must be prepared. In regards to cumulative effects for this project the limited amount of water that may be returned to Underwood Creek would not impact flooding concerns (It’s still unknown whether Waukesha’s application to withdraw water will be granted and, if so, whether return flow will enter Underwood Creek). According to the City of Waukesha’s water diversion application (<http://dnr.wi.gov/org/water/dwg/waukeshadiversionapp.htm>), the return flow to Underwood Creek would be temporarily paused during high flow events in the creek to prevent the return flow from negatively impacting flooding. The return flow would also be temporarily paused when flow in Underwood creek is above a 2-year recurrence interval flow (approximately 1,000 cfs (cubic feet per second)). The 2-year flood flow is much less than the the 100-year flood flow and by temporarily pausing return flow during flood events greater than the 2-year recurrence interval, the return flow would not cause flood damage downstream of the return flow discharge.

A flow gauge located along Underwood Creek is anticipated to be installed to determine when to pause the return flow.

#### **Widening (Including Shoulder Concerns)**

6. **Comment (resident):** “The revised alternative removes the need for the Texas U-Turn, and there technically are no additional fourth lanes on I-94. However, there would essentially be fourth lanes added, since 2.7 acres of State Fair Park will be used to enlarge the current shoulders to 18 feet on each side of I-94 between 68th and 84th St. To replace the current three noise barriers between 76th and 84th St. alone, required with the enlarged shoulders, the cost would be \$1.4 million according to the Final EIS. Adding the cost for the two at 92nd St., and the total is \$2.7 million.”

**Response:** The eighteen-foot-wide shoulders are only 6 feet wider than the normal twelve-foot shoulders. The additional six-foot width is not the reason for the State Fair Park acquisition, or the need to replace noise walls.

7. **Comment (MEA):** “FEIS has failed to adequately address issues and concerns raised regarding failure to explain or in any clear way that much of the expansion in the project’s impervious area is to build extra-wide 19-foot paved shoulders – representing a “stealth” 8-lane expanded interchange.”

**Response:** As noted in Section 2.5.3 of the Final EIS, through the core of the Zoo Interchange the Reduced Impact Alternative includes eighteen-foot inside shoulders (not nineteen-foot as noted in MEA’s comment) on I-94 eastbound and westbound. These shoulders could be converted to an additional through lane in the

future. If the shoulders were converted to additional through lanes, there would be three through lanes on both I-94 eastbound and westbound through the core and it would not be an eight-lane expanded interchange as noted in MEA's letter.

Any plan to convert the eighteen-foot shoulders to general purpose lanes would require a full analysis and public involvement program under the National Environmental Policy Act (NEPA). The Reduced Impacts Alternative would increase the amount of pavement by about 88 acres on the study-area freeway system. This includes all pavement and not just the eighteen-foot-wide shoulders. The additional six-foot shoulder width in each direction (normal interstate shoulder width is twelve feet) will account for about 4.7 acres of additional pavement, or about 5.3 percent of the 88-acre increase. As noted in response to Comment 4, no increases in the 100-year flood event will occur as a result of the project.

### **Air Pollution/Air Quality**

8. **Comment (MEA):** "FEIS has failed to adequately address issues and concerns raised regarding failure to address compliance with health-based air emission standards for ozone adopted in 2008, or to acknowledge the adverse health impacts from PM<sub>2.5</sub> pollution from the project."

**Response:** The project's air quality impacts are documented in Section 3.2 and 3.20 of the Final EIS. Certain pollutants like ozone cannot be evaluated on a project-level basis because ozone is a regional pollutant. Therefore the project's inclusion in a conforming regional transportation plan and Transportation Improvement Program is an appropriate and relevant evaluation tool.

A PM<sub>2.5</sub> qualitative hot-spot analysis was conducted for the study area (see Appendix G of the Final EIS) and it was determined that the Zoo Interchange project meets all the project level conformity requirements and that the Zoo Interchange project will not cause or contribute to a new violation of the PM<sub>2.5</sub> National Ambient Air Quality Standards (NAAQS), or increase the frequency or severity of a violation and will not delay timely attainment. The NAAQS that U.S. EPA has developed are standards that are based upon well-developed analysis methods and are subject to regular review by scientific experts. These standards were established to protect public health, including the health of sensitive populations, including asthmatics, children and the elderly.

9. **Comment (Highway J Citizens Group (HJCG)):** "The indirect effects and cumulative impacts sections on the Zoo Interchange Study's FEIS fail to properly consider the adverse affects of air pollution (especially Greenhouse Gases). WisDOT claims that it is unable to analyze the project's impact on greenhouse gases as it relates to that specific project because greenhouse gas emissions are a regional problem. However, the Highway J case specifically requires an air pollution analysis be done on a local, individualized basis. What that means is this requires consideration of each federally funded project, not of the broader air quality control regions that may encompass numerous projects. Merely because a project is part of a Transportation Improvement Plan found to comply with a State Implementation Plan (SIP) for air quality does not mean, in any way, that the project automatically satisfies the indirect effects and cumulative impacts examination requirements under NEPA. In addition, NEPA requires each agency to undertake independent review of the environmental consequences of its action (42 U.S.C. § 4332), and federal agencies have long been aware of the greenhouse effect and the role of carbon dioxide as a major greenhouse gas."

**Response:** The project's air quality impacts are documented in Section 3.2 and 3.20 of the Final EIS. Certain pollutants like ozone cannot be evaluated on a project-level basis because ozone is a regional pollutant. Therefore the project's inclusion in a conforming regional transportation plan and Transportation Improvement Program is an appropriate and relevant evaluation tool.

Greenhouse gases are discussed in the Final EIS on pages 3-26 and 3-27. To date, no national standards have been established regarding greenhouse gases, nor has EPA established any ambient standards, criteria or thresholds for greenhouse gas emissions.

## Parkland

- 10. Comment (resident):** “From the EIS exhibits, it appears that the oak savanna north of Swan Blvd which is part of the DNR Forest preserve at the County Grounds will be irreparably impaired. Every effort should be made to avoid this. This is Milwaukee County’s last oak savanna--what is left of it.”

**Response:** Based on this comment, WisDOT contacted the DNR to determine whether this area is an oak savanna. Don Tills, the DNR’s manager of the Forestry Science Center, confirmed that the Forestry Science Center is not an oak savanna. Mr. Tills said the DNR Forestry Science Center is a “typical southern Wisconsin wood lot” with “maple, oak, cherry and a lot of invasive species.” Fewer than ten mature trees will be removed in this area.

- 11. Comment (MEA):** “FEIS has failed to adequately address issues and concerns raised regarding failure to explain or acknowledge that it is in order to “mitigate” the water quality and quantity problems resulting from the expanded wide shoulders that portions of Honey Creek Parkway, Underwood Creek Parkway, the Hank Aaron State Trail, and Wil-O Way Underwood Special Recreation Center are to be sacrificed, impacted, and converted from public park and recreation uses into stormwater basins.”

**Response:** The stormwater management techniques implemented to treat runoff from Zoo Interchange roadways are not being implemented solely because of the eighteen-foot-wide shoulders on I-94 through the core interchange (normal width shoulders on interstate freeways are 12 feet wide). To comply with Wis. Stats. 87.30 (floodplain zoning ordinance) and NR 216 (establish criteria defining stormwater discharges needing permits and implement the appropriate performance standards to minimize the discharge of pollutants carried by stormwater runoff) and to address concerns raised by MMSD and the City of West Allis, WisDOT and FHWA are also investigating retention/detention basins to manage stormwater from the proposed improvements. The retention/detention basins would also improve water quality by allowing solid pollutants (sand, grit, etc.) to settle out of the water before it flows into storm sewers or streams. If these retention/detention ponds are built, WisDOT will provide landscaping around the pond.

- Based on updated designs since the Final EIS, no stormwater retention/detention pond is required in Honey Creek Parkway.
- As noted on page 4-11 of the Final EIS, an existing 1.7-acre stormwater pond in Underwood Creek Parkway near the northeast quadrant of the Highway 100/Watertown Plank Road intersection will be expanded to a 2.5-acre pond. The 0.8 acre expansion would be partially in Underwood Creek Parkway and partly on private property.
- There are no impacts to the Wil-O-Way Underwood Special Recreation Center as a result of mitigation for water quality and quantity. The Reduced Impact Alternative would move the freeway closer to the Recreation Center, but no right-of-way would need to be acquired except for potentially a 0.01 acre acquisition at the south end of the center. WisDOT will use a retaining wall in this area to minimize right-of-way acquisition from the Wil-O-Way Special Recreation Center. WisDOT will construct visual screening between US 45 and Wil-O-Way that may include a berm, a screening wall, or both. WisDOT will continue to work with Milwaukee County Parks Department and the Office for Persons with Disabilities during the design phase.
- There are no impacts to the Hank Aaron State Trail as a result of mitigation for water quality or water quantity.

## River Water Quality

- 12. Comment (HJCG):** “The Milwaukee Zoo Interchange projects FEIS is not in compliance with the Clean Water Act because of the failure to consider other reasonable alternatives (especially the two “off alignment” alternatives previously discussed). The proposed Zoo Interchange expansion will cause severe runoff problems especially into Underwood Creek and Honey Creek and thus violates the Clean Water Act. The plans identified in the FEIS for addressing this runoff are not adequately explained or justified. Furthermore, there is no discussion of off-alignment alternatives (like either the “Power Corridor” and “Highway Y” alternatives in

Waukesha and Washington Counties that would act a pressure-relieving bypass around the Milwaukee Metropolitan area). In addition, the FEIS fails to fully consider the impacts of the Zoo Interchange expansion on several acres of wetlands in the Underwood Creek Parkway area. Our proposed reasonable alternatives previously discussed would minimize and possibly eliminate those impacts.”

**Response:** WisDOT has not yet applied for permits under the Clean Water Act. The project’s compliance with the Clean Water Act will be determined at a future date. The statement that the Final EIS fails to consider the impacts of several acres of wetland in Underwood Creek is incorrect. The Final EIS fully considers all wetland impacts of the Preferred Alternative. Neither the Corps of Engineers nor U.S. EPA expressed concern over the Final EIS’s documentation of wetland impacts. The Highway J Citizens Group’s Power Corridor alternative in Waukesha County would affect 56 acres of wetland based on WisDOT’s analysis (compared to 1.6 acres for the Preferred Alternative). The Highway Y alternative would affect 12-13 acres of primary environmental corridor based on WisDOT’s analysis (compared to 0.6 acres for the Preferred Alternative).

### Design/Operations

- 13. Comment (resident):** “There is no direct way of getting from northbound US 45 to southbound US 45 without making a U-turn on Watertown Plank Road.”

**Response:** The comment is correct. Given the relatively low number of drivers that will exit at Watertown Plank Road to change directions on US 45, WisDOT and FHWA do not feel that this is a safety issue.

- 14. Comment (resident):** “The Zoo Interchange will not directly serve the Zoo. The additional County Zoo bound traffic will route even more traffic through the Bluemound/Hwy 100 intersection, which Wisconsin has historically rated as one of the State’s most dangerous.”

**Response:** The Bluemound Road/Highway 100 intersection will be reconstructed to safely accommodate increased traffic volumes. County Zoo visitors on northbound and southbound US 45 will still access the County Zoo via the Bluemound Road exit on US 45.

- 15. Comment (resident):** “The EIS reflects that residents might not be able to enter 98<sup>th</sup> Street from eastbound Bluemound Road due to traffic exiting (turning left) from the Zoo Parking lots. Is this the case? Was this specifically discussed with anyone?”

**Response:** Residents will be able to enter 98<sup>th</sup> Street from eastbound Bluemound Road, like they do today.

- 16. Comment (resident):** “Can the Watertown Plank Rd Park’N Ride still be operated out of the SE corner of the Milwaukee County DPW Facilities?”

**Response:** WisDOT is studying various locations for relocating the Park-and-Ride lot. One of those locations is the southeast corner of the Milwaukee County DPW Facilities.

### Other Alternatives

- 17. Comment (HJCG):** “The Milwaukee Zoo Interchange Study’s FEIS failed to properly consider several reasonable alternatives that were “screened out” with no valid explanation. Those alternatives include the “transportation demand management” (TDM) and “transportation system management” (TSM) alternatives, as well as the “Spot Improvement” alternatives. These alternatives were dismissed without an adequate discussion as to why these reasonable alternatives would not solve the traffic congestion and safety problems on the freeway system. When combined with the TDM, TSM and our off-alignment alternatives, these “Spot Improvements” become a very reasonable, cost-effective and environmentally-friendly alternative.”

**Response:** The TSM and TDM alternatives were dismissed from consideration as stand-alone alternatives. Page 2-6 of the Final EIS states that the “Modernization Alternatives assume certain TDM elements will be implemented, and would include certain TSM elements like ramp metering, variable message signs, crash investigation sites and closed-circuit television cameras.” Indeed, many of these elements are in place on the study-area freeway-system today. The TDM alternative assumes a 100 percent increase in mass transit and

the regional plan concludes that the increase will not eliminate the need to add capacity to the study-area freeway system. See Section 2.2.2 and 2.2.3 of the Final EIS.

The Spot Improvement Alternatives were eliminated from consideration because they would not meet the purpose and need of the project, namely, they would not adequately accommodate anticipated future traffic volumes. No local governments have advocated for the Spot Improvement Alternatives and these alternatives have little public support. Also, the Spot Improvement Alternatives are not consistent with the regional transportation plan. See Evaluation of Spot Improvements Against Purpose and Need, Section 2.2.4 of the Final EIS.

Furthermore both the Federal Highway Administration (FHWA) and American Association of State Highway and Transportation Officials (AASHTO) support and actively encourage the use of long-range regional transportation planning to aid in the NEPA process. According to Appendix A of 23 CFR 450, using transportation planning as a part of the NEPA process can lead to streamlined processes by reducing duplication of work, and better decisions by promoting early coordination of planning and environmental staff. The use of regional transportation planning in the NEPA process also has legal precedence. The FHWA cites *North Buckhead Civic Association v. Skinner*, 903 F. 2d 1533 (11<sup>th</sup> Cir. 1990) in a program guidance memorandum. The memorandum reads, “In *North Buckhead Civic Association v. Skinner*, 903 F. 2d 1533 (11<sup>th</sup> Cir. 1990), the Plaintiffs challenged the purpose and need articulated in the EIS for a multi-lane limited access highway connecting two existing highways. The purpose and need was derived from a series of planning studies conducted by the Atlanta Regional Commission. Plaintiffs argued that the purpose and need was crafted in a way that the proposed highway was “conclusively presumed to be required” and a rail alternative perfunctorily dismissed for its failure to fully satisfy the objectives of the project. The Court of Appeals disagreed with the Plaintiffs, stating that their objections reflected “a fundamental misapprehension of the role of federal and state agencies in the community planning process established by the Federal-Aid Highway Act.” The Court went on to explain that the Federal-Aid Highway Act contemplated “a relationship of cooperation between federal and local authorities; each governmental entity plays a specific role in the development and execution of a local transportation project.” The Court emphasized that federal agencies did not have responsibility for long range local planning, and found that the “federal, state and local officials complied with federally mandated regional planning procedures in developing the need and purpose section of the EIS.” 903 F.3d at 1541-42. Although the Court in *Buckhead* acknowledged the validity of a purpose and need based on the results of the planning study, it did not in any way scale back the holdings of other cases relating to purpose and need which caution agencies not to write purpose and need statements so narrowly as to “define competing ‘reasonable alternatives’ out of consideration (and even out of existence).” (Gribbin, D, to Cindy Burbank, Memorandum regarding Integration of Planning and NEPA Processes, February 22, 2005, Federal Highway Administration and Federal Transit Administration.)

- 18. Comment (HJCG):** “The WisDOT’s FEIS again has improperly “screened out” the HJCG’s “Power Corridor” Alternative and fails to even mention the separate and distinct “Highway Y” Alternative – both of which have been presented repeatedly during the Zoo Interchange Project’s EIS process during the past three years. This mistake is very similar to the one made by the WisDOT and their federal agency partners (U.S. Department of Transportation, Federal Highway Administration and U.S. Army Corps of Engineers) in the Highway J Citizens Group, U.A. case (where the federal district court held that these agencies failed to consider the “Highway Y” alternative and ordered these agencies to do so).”

**Response:** The Power Corridor Alternative was proposed by the Highway J Citizens Group during the WIS 164 corridor study and documented in WisDOT and FHWA’s EIS for the WIS 164 project, approved in 2001. The WIS 164 EIS documents the impacts and traffic carrying aspects of that alternative and why it was not selected for implementation. The Highway J Citizens Group was the only entity to advocate for this alternative as part of the Zoo Interchange study. No other members of the public or local, county, regional, state or federal agencies asked WisDOT to consider it as part of the Zoo Interchange study. The Draft EIS did not mention the Power Line Corridor because there is no connection between the power line corridor, located 10-15 miles west of the project area, and the deficiencies in the Zoo Interchange corridor. NEPA requires that all

reasonable alternatives be evaluated. The Power Corridor alternative and County Y alternative failed to rise to the level of other alternatives considered that had the ability to address the project's need factors. In addition, the impacts of both alternatives are greater than the Reduced Impacts Alternatives in terms of right-of-way acquisition, wetland impacts, and residential and commercial relocations. The Final EIS mentions the Power Corridor alternative in Section 2.3.4.

The Power Corridor alternative and Highway Y alternative are both located in the same general area as the WIS 164 improvements constructed by WisDOT. Although the Highway J Citizens Group does not agree with WisDOT's decision to widen WIS 164 instead of the Power Corridor or Highway Y alternative, the fact is that it would not make sense to implement a second highway improvement in the vicinity of WIS 164 that would have the same purpose as the recently constructed WIS 164 widening.

### Hearing Format

- 19. Comment (HJCG):** "WISDOT's "open forum" Public Hearing for the Milwaukee Zoo Interchange Corridor Study which allowed citizens to offer their comments in private to a court reporter is legally inadequate under section 128 of FAHA (as interpreted by the Highway J case). In the Highway J case (September 14, 2009 decision), Judge Adelman held that "a public hearing must allow citizens an opportunity to express their views in front of agency representatives and other citizens." Such a "public hearing" requires, at the least, an opportunity for citizens to make their views generally known to the agency and the community. Such a public hearing forum must be "accessible to or shared by all members of the community."

**Response:** WisDOT provided an opportunity for citizens to express their views in front of agency representatives and other citizens. The Adelman opinion did not state that providing an opportunity for private testimony violates public hearing requirements.

Written testimony is not instantly available for citizens to hear, yet it is an acceptable method of providing comments. All testimony is public record and available for review by anyone.

The "open forum" public hearing for the Zoo Interchange project does meet Federal Highway Administration (FHWA) requirements for public hearings. The hearings offered opportunities for participants to provide comments in a variety of methods and meets the requirements of 23 CFR 771.111

### Discrimination

- 20. Comment (American Civil Liberties Union (ACLU), Black Health Coalition, Midwest Environmental Advocates, Milwaukee Inncity Congregations Allied for Hope, NAACP Milwaukee Branch, herein referred to as ACLU, et al):** "In April, 2011, the Wisconsin Department of Transportation confirmed that it lacks a Title VI plan. It is our understanding that this lack renders WisDOT out of compliance with federal Title VI law. Further, given the previous and continuing lack of a Title VI plan, WisDOT cannot be considered to have followed any legally required process to set baselines for determining what does and does not constitute Title VI compliance, to determine what information and data is necessary and to obtain it, and to consider and address Title VI issues in this FEIS. The FEIS therefore cannot be approved unless and until a proper Title VI plan exists and issues and concerns raised in these and prior comments are addressed in a manner consistent with that plan. The lack of significance WisDOT gives to Title VI is highlighted even more by the fact that the FEIS fails to even mention the term Title VI, much less address the requirements of the statute or its accompanying regulations."

**Response:** The comment from the ACLU, et al mischaracterizes the law. No determination has been made that affects FHWA's authority to make decisions on the project.

The Final EIS mentions and provides an explanation of Title VI on pages 3-100 and 3-106.

- 21. Comment (ACLU, et al):** "At p. 3-107, WisDOT asserts that "[t]he race and income of those who would benefit from the proposed action is difficult to assess, and impossible to quantify." WisDOT, however, fails to explain why such data collection is difficult and why it is impossible to quantify. Moreover, as discussed elsewhere and in prior comments, significant quantifiable evidence in fact exists as to those who likely would (and would

not) benefit from the project, such as persons more (or less) likely to drive and persons more (or less) likely to live in suburban communities. The failure to collect this data means that the issue has not been analyzed or evaluated as required by Title VI and environmental justice requirements.”

**Response:** Title VI and Executive Order 12898 on Environmental Justice are not the same thing and they are not meant to be used interchangeably. While Title VI is a Federal Law of non-discrimination, Executive Order 12898 is a Presidential Order that places further emphasis upon the Title VI protections of race and national origin by directing federal agencies to develop strategies to address disproportionately high and adverse human health or environmental effects of their programs and projects on minority and low-income populations. The implementing U.S. DOT Environmental Justice Order published in the Federal Register on April 15, 1997 (Vol. 62, No. 72), reinforces considerations already embodied in NEPA and Title VI, and promotes the development of a process that integrates the existing statutory and regulatory requirements in a manner that helps ensure that the interests and well being of minority populations and low-income populations are considered and addressed during transportation decision making. Although the implementing regulations/guidance do not require an assessment of the race or income of those who will use a public roadway, WisDOT did assess the race and income of transit and automobiles users in 2007 and concluded that the use of automobiles is primarily determined by income level and not by race (*SE Freeway Analysis on Access to Jobs 7/25/2007*).

WisDOT prepared a comprehensive analysis of the demographics of Milwaukee and Waukesha Counties, a system corridor (a 3 mile by 5 mile area centered on the Zoo Interchange) planning corridor (1 mile on either side of the study-area freeway system) and the alternative analysis corridor (500 feet on either side of the study-area freeway system). The analysis included population, population density, population trends, low income indicators, and means to workplace for minorities, non-minorities, central city workers, low-income, elderly and disabled. Central city workers were also examined separately. The report was completed in October 2009 (*Zoo Interchange Environmental Justice Analysis*).

Based on that analysis, the Final EIS documents the differences in the percentage of Milwaukee County and Waukesha County residents who use transit to commute to work, and the percentage of workers that have no vehicle available to commute to work (Final EIS page 3-92). Page 3-92 of the Final EIS notes that those who do not drive and transit users would not experience the benefits of the proposed action to the extent of those who drive. Page 3-107 of the Final EIS documents the income and race disparities of those who don't own cars and rely on transit, and notes that 81 percent of those individuals in the four-county area reside in the City of Milwaukee.

The commenters would like WisDOT and FHWA to rely on this data and other census of transportation data on commuting patterns to infer the race and income of those who will likely and not likely use the improved study-area freeway system. The Final EIS states that it's difficult to assess because census data do not tell us what route the workers use to reach their job. Such an analysis would require assumptions on the route to work based on the census tract in which the worker resides and the census tract in which they work. The Final EIS states it's impossible to quantify the race and income of those who use the study-area freeway system because to actually determine the race or income of those that use the study-area freeway system would require extensive sampling and/or surveys. Even then, the results would likely result in different people drawing different conclusions about the proportional benefits/impacts of the project. The 2004 National Cooperative Highway Research Program Report 532 *Effective Methods for Environmental Justice Assessment* addresses the issue of proportionality in the distribution of benefits and burdens:

“There has been relatively little case law that directly addresses the core issues presented in EO 12898—namely, how to determine whether a particular population group is disproportionately affected by a project and, if so, how to determine whether such disproportionate impacts are justified. However, in one relatively recent case, *Jersey Heights Neighborhood Association versus Glendening*, the U.S. Court of Appeals for the Fourth Circuit directly addressed some of these issues. In that case, the plaintiffs alleged that the location of a highway in a minority neighborhood violated the nondiscrimination requirements of the federal Fair Housing Act. One of the plaintiffs' arguments was

that “similarly situated residents” are entitled to an “equal distribution” of benefits and burdens of the project. The Fourth Circuit rejected this line of reasoning as follows:

This proportional burden theory is an unmanageable proposition. Under the [plaintiff’s] standard, how is a multicultural society ever to locate a highway? Suppose a roadway runs by a neighborhood that is 35 percent Anglo, 45 percent Latino, and 20 percent African American. Does the predominant ethnic group have a disparate impact claim? What if 35 percent of a route runs proximate to a predominately Asian American neighborhood and 25 percent next to a predominately Hispanic American neighborhood? Will planners have to relocate the corridor to ensure that it affects each ethnicity proportionally? Simply to pose these questions is to demonstrate the absurdity of the result—a twisting, turning, roadway that zigs and zags only to capture equally every subset. Such a standard would lead to race-based decision making of the worst sort. We do not think the drafters of the Fair Housing Act ever contemplated such a reading (See *Jersey Heights Neighborhood Association versus Glendening*, 174 F.3d 180, 193 (4<sup>th</sup> Cir. 1999))

As a matter of legal precedent, the Jersey Heights decision only applies to cases under the Fair Housing Act. However, this case is noteworthy because it signals that courts may be skeptical of lawsuits based on the claim that the benefits and burdens of a transportation project have been distributed disproportionately.”

As part of the Zoo Interchange study’s extensive public involvement program, WisDOT met with a variety of groups who were concerned about impacts to minority groups. The study team offered numerous opportunities for citizens and state and federal review agencies to be involved in the EIS process. The public involvement process was open to all residents and population groups in the study area and did not exclude any persons because of race, income, national origin, sex, age, religion, or handicap.

WisDOT specifically engaged the minority community to ensure their participation in the decision making process. Communication efforts included grassroots outreach through community-based organizations, local leadership, one-on-one-communication, small discussion groups, and convening specific disadvantaged business enterprise (DBE) committees. Specific outreach to the minority communities included:

- As part of the Indirect Effects analysis, WisDOT met with representatives of several minority chambers of commerce.
- Created the Milwaukee County Urban DBE Advisory Committee to improve coordination, communication, and planning of WisDOT’s programs and projects within the communities affected by its projects. The Committee consisted of members drawn from a wide range of transportation industry businesses, agencies, and government. For more information on committee activities please see Section 5.1.16 of the Final EIS or WisDOT’s Zoo Interchange project website (<http://www.dot.wisconsin.gov/projects/sefreeways/zoodbeac.htm>).
- The Milwaukee County DBE Steering Committee was created to involve key management-level stakeholders from labor associations and government agencies. For more information on committee activities please see Section 5.1.16 of the Final EIS or WisDOT’s Zoo Interchange project website (<http://www.dot.wisconsin.gov/projects/sefreeways/zoopublic.htm#committees>).
- As noted in Section 5.1.11 of the Final EIS, in an effort to reach larger numbers of people, the study team made presentations to a variety of labor-related organizations, community-based organizations and neighborhood groups with interest in the project. This effort included meetings with: African American Chamber of Commerce; ACLU, American Indian Chamber of Commerce; Black Health Coalition of Wisconsin; Community Planning Council; Hmong American Friendship; Hmong Radio Station; Milwaukee Inncity Congregations Allied for Hope (MICAH); Student Disability Services Spring Resource Fair; Milwaukee Social Development Commission. At the time of the 2009 meeting MICAH’s main concerns were access to construction jobs.

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- WisDOT worked to ensure that the Hispanic population had access to information. As noted in Section 5.1.15 of the Final EIS meeting notices were produced in Spanish for release in Hispanic media, and Spanish versions of project materials were available as part of the project outreach efforts. Additionally, the Zoo Interchange project website was provided in Spanish (<http://www.dot.state.wi.us/projects/seffreeways/zooindex-spanish.htm>).

**22. Comment (ACLU, et al):** “The FEIS, at p. 3-93, concedes that there are asthma and related health effects related to the project. Although the FEIS fails to include any Title VI or environmental justice analysis of this problem, another Wisconsin agency confirms that asthma is more prevalent and requires more medical intervention in minority communities - especially among African-Americans - than in white communities, and that death rates in Wisconsin are four times higher for African-Americans than whites. The FEIS also fails to evaluate whether the construction process itself will create or exacerbate health problems. Clearly the decision to pursue a project that could affect air quality therefore has a discriminatory effect, one that the FEIS fails to evaluate or mitigate.”

**Response:** In regards to air quality, the project is not expected to have an adverse affect on any residents or students adjacent to the study-area freeway system or in southeast Wisconsin. Page 3-93 of the Final EIS notes that some community groups have raised health impacts as an issue and that asthma rates are higher in Milwaukee County than the rest of the state. However, the Final EIS does not state that there will be “asthma and related health effects related to the project.” Pages 3-104 and 3-105 of the Final EIS discuss air quality effects on residents and students in the study area. Also, Section 3.20.2 of the Final EIS describes the specific air quality screening analysis at locations adjacent to the corridor. No air quality thresholds will be exceeded. Based on air quality analysis completed for the proposed improvements MSAT emissions will decrease and carbon monoxide levels will not exceed the air quality standards (Appendix C of the Final EIS, *Mobile Source Air Toxics*). The PM<sub>2.5</sub> hot-spot analysis prepared for this project in consultation with the DNR, U.S. EPA, City of Milwaukee, Wisconsin Department of Health Services, SEWRPC, Milwaukee County Transit System, City of West Allis, and Milwaukee County (Appendix G of Final EIS, *PM<sub>2.5</sub> Qualitative Hot-Spot Analysis*) concluded the project will not cause or contribute to a new violation of the PM<sub>2.5</sub> National Ambient Air Quality Standards (NAAQS) or increase the frequency or severity of a violation, and will not delay timely attainment. Additionally, Section 3.27.4 discusses air quality issues related to construction.

NAAQS are based on the protection of public health, and are developed by the U.S. EPA. The NAAQS that U.S. EPA has developed are standards that are based upon well-developed analysis methods and are subject to regular review by scientific experts. These standards were established to protect public health, including the health of sensitive populations, including asthmatics, children and the elderly. As a result WisDOT and FHWA do not believe that a disproportionately high and adverse air quality impact on low-income and minority populations will occur as a result of the project.

Based on census data and public outreach efforts WisDOT and FHWA determined the population adjacent to the study-area freeway system has a lower minority percentage and higher income levels than the rest of Milwaukee County (Table 3-9). WisDOT compares neighborhoods adjacent to the study-area freeway system to the respective city, county, and state populations to assess whether low income or minority population adjacent to the study-area freeway system is appreciably different than the community as a whole.

**23. Comment (ACLU, et al):** “The FEIS concedes, at p. 3-104, that the project may cause downstream communities to experience flooding. The FEIS, however, improperly compares the percentage of minorities living in the potentially harmed in Milwaukee’s Valley Park Neighborhood - 54% - to the percentage of minorities in the city of Milwaukee as a whole (most of which will not be affected by flooding), rather than to the percentage of minorities in the project area - at most 14.3%. This falsely creates the impression that persons of color are not disproportionately harmed by potential flooding, when in fact the project will provide benefits to what WisDOT itself considers a predominantly white community while harming a downstream, predominantly minority community.”

**Response:** Flooding is an important issue in Wauwatosa and Milwaukee, as noted on page 3-104 of the Final EIS. However, no flooding impacts have been identified as a result of the project. The Final EIS notes these are concerns expressed by MMSD and the City of Wauwatosa.

In response to these concerns, WisDOT studied the regional flood impacts of the Zoo Interchange project. This study was completed in December 2011, after the Final EIS was completed. To complete this study, models used by SEWRPC and MMSD to conduct flood studies were modified to incorporate changes in land cover that would be brought about by the proposed project. Flow-frequency analysis of the modified model noted that roadway improvements will increase peak flows in Underwood Creek, Honey Creek, and Menomonee River by 1 to 3 percent for the 50 percent annual probability (2-year) flow event. The model also noted that the project would not have a statistically significant effect on the regional flood flow (100-year event) within these waterways.

The project would increase peak flows within local drainage systems as a result of the conversion of existing grass right-of-way to pavement. However, this impact will be small and statistically insignificant. The analysis did not identify increases in the regulatory (100-year) flood event in downstream watercourses as a result of reconstructing the study-area freeway system.

State law requires WisDOT to not make any existing flooding situation worse (Wis. Stats. 88.87 “[WisDOT] shall not impede the general flow of surface water or stream water in any unreasonable manner so as to cause either an unnecessary accumulation of waters flooding or water-soaking uplands or an unreasonable accumulation and discharge of surface waters flooding or water-soaking lowlands”).

- 24. Comment (ACLU, et al):** “Most of the schools in the study area have minority student percentages greater than the percentages of minorities living in the study area, and greater than those of other schools in their districts. The environmental justice section of the FEIS at p. 3-105 admits that three of the six schools which it says are in the study area have minority student percentages greater than in the surrounding neighborhoods. Moreover, most of the thirteen schools that are actually in the study area in fact have greater minority student percentages than the neighborhoods, but the FEIS inexplicably fails to discuss the minority student percentages of seven schools that it also finds are in the study area. This is a glaring, if not deliberate omission: for example, *the school serving children from a residential facility, Plank Road School, which the environmental justice portion of the FEIS fails to mention, is 92% minority and in the heart of the project area.* The FEIS also concedes that the children in the adjacent schools are from lower-income families than are residents in the neighborhood. These facts clearly show that there is a disparate effect on children in schools near the project site, one that WisDOT fails to acknowledge or mitigate. The environmental justice section of the FEIS, 3-105, considers only Wauwatosa West High School, Whitman Middle School, Milwaukee Montessori, St. Jude the Apostle’s School, Wisconsin Lutheran High School, and Good Shepherd’s school. The FEIS fails to provide a map or otherwise note the distance between the schools it believes are in the study area, and other schools.”

**Response:** While the schools mentioned in the Environmental Justice section of the Final EIS are those that are located immediately adjacent (i.e. share a right-of-way line) to the study-area freeway system, Exhibit 3-22 of the Final EIS provides a map that shows the location of all schools in the study area. Page 3-90 of the Final EIS documents the race of students at all the schools, including the Plank Road School, located within the study area. No significant impact to these students, regardless of race, has been identified therefore there is not a disparate effect on school children in the study area.

In response to concerns expressed by the Milwaukee Montessori School, located adjacent to US 45, WisDOT met with the school (Final EIS pages 3-77 and 3-78). Design refinements have reduced the width of the impact to the Milwaukee Montessori School between 20 and 30 feet (0.6 acres to 0.4 acres) depending on the design of the retaining walls. WisDOT will continue to refine the design in an effort to further reduce the impacts to Milwaukee Montessori School.

- 25. Comment (ACLU, et al):** “The FEIS bases the rationale for the project to a great extent on the recommendations of the Southeastern Wisconsin Regional Planning Commission (SEWRPC). See, e.g., pp. 1-7 -

10. The FEIS admits that SEWRPC's regional transportation plan recommended a significant transit increase, p. 1-7; that "SEWRPC's recommendation to widen the southeast freeway system needs to be evaluated in the context of its overall transportation plan," p. 3-106; that "[t]hose that do not have access to an automobile will not often use the study-area freeway system, except potentially through local or inter-city bus travel. This population will not benefit from the proposed action as much as those who use the study-area freeway system on a regular basis," p. 3-107; and that persons of color are less likely to commute to work by car than white persons. However, the FEIS does not mention that the same SEWRPC plan indicated that such an increase was necessary *as a Title VI and environmental justice matter*. Instead, WisDOT refused to incorporate transit improvement and expansion into the project, and failed to address recent state actions that will even further widen the disparities in access to state transportation system investments. See *infra.*, secs. 4.a.ii.(2), 4.c.iii. The cumulative effect of these decisions - implementing many, if not most, highway improvement and expansion recommendations, while failing to act on recommended transit improvements and even reversing transit expansion, clearly have a discriminatory effect that the FEIS neither acknowledges nor mitigates."

**Response:** The role of WisDOT regarding transit funding decisions is discussed on pages 3-106 to 3-108 and 6-7 to 6-8 of the Final EIS.

The regional Transportation System Plan recommends a significant investment in mass transit in the region but SEWRPC is not responsible for implementing its recommendations. In summary, WisDOT's involvement in transit and the level of funding it devotes to transit is largely guided by state statute rather than the discretion of WisDOT. WisDOT has no authority to implement transit beyond what is authorized by state statute. State-level funding decisions are beyond the scope of this EIS.

No state DOT implementing Title VI can exceed or overrule a Congressional program structure, such as that set forth in the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU). SAFETEA-LU is a funding and authorization bill that governs United States federal surface transportation spending. With guaranteed funding for highways, highway safety, and public transportation totaling \$244.1 billion, SAFETEA-LU represented the largest surface transportation investment in our Nation's history. Within this funding, specific allocations are provided for highway funding and public transportation funding. Some may believe that the highway funding provided in SAFETEA-LU would have been better served in making other investments, including transit, and could have made greater improvement to the minority communities in the Milwaukee – Waukesha region. However, WisDOT and FHWA cannot do this within the parameters of SAFETEA-LU.

26. **Comment (ACLU, et al):** "As the FEIS states at p. 3-11, "the freeway is highly interconnected with local land use, and there construction of the freeway could either hinder or facilitate local economic development depending on the alternative selected." The FEIS, however, fails to evaluate the relative growth and non-growth inducing effects of portions of the proposal, such as the Highway 100 corridor, were it to pursue a no-build option. Further, the FEIS fails to evaluate the relative, Title VI and environmental justice effects of local economic development on low income and minority communities and the extent to which businesses in communities with fewer low income and minority residents may be disproportionately benefitted by the project. The proposal also fails to evaluate the residential growth-inducing effects and their Title VI and environmental justice implications. Additionally, the FEIS fails to compare or address the Title VI and environmental justice impacts of adding freeway capacity while failing to add transit capacity. The FEIS also fails to discuss whether the capacity expansion could lead to induced travel, especially to the predominantly-white western and northwestern suburbs, and the Title VI and environmental justice impacts of doing so."

**Response:** The environmental justice and Title VI issues raised throughout the project are an important issue both in terms of direct impacts and indirect and cumulative impacts. In response to these concerns, the Environmental Justice analysis on pages 3-100 to 3-108 is a discussion of potential indirect environmental justice and Title VI impacts. The specific issues ACLU, et al raise are discussed in this section. The conclusion of the Environmental Justice analysis was that the proposed action would not have a disproportionately high and adverse impact on low income or minority communities.

The Indirect and Cumulative Effects analysis does include a discussion of the Highway 100 corridor (Final EIS page 3-11 and page 3-12). The Indirect and Cumulative Effects analysis did assess the residential growth impacts of the project (See Page 3-10 of the Final EIS). The conclusion of the Indirect and Cumulative Effects analysis is that there will be no significant indirect or cumulative effects as a result of the project. The key to this conclusion is that the study-area freeway system is already in place in a heavily developed urban area. The Regional Medical Center, Milwaukee County Grounds and Milwaukee County Research Park all have robust future development plans. WisDOT and FHWA came to this conclusion based on input from an expert panel, interviews with planning staff from the City of Milwaukee, Wauwatosa and West Allis, review of local plans, and assessment of historic trends. The analysis approach was crafted based on WisDOT and National Cooperative Highway Research Program guidance.

Regarding the comment about capacity expansion leading to induced travel, the traffic forecasts used by WisDOT take that into account.

- 27. Comment (ACLU, et al):** “The FEIS lists at p. 3-17 as a “cumulative effect” a “history of urban and suburban development.” However, it inexplicably limits that comment to 1) history (as opposed to present and future conditions); 2) in Milwaukee County. It fails to in any way mention at all any relationship between highway expansion and residential growth, and fails to address the extent to which such growth has occurred in other counties, especially Waukesha County. It also fails to evaluate the likely greater cumulative effect if, as the project is designed to allow, the oversized shoulders in the east-west direction are converted to additional traffic lanes, facilitating even greater access to Waukesha County. Moreover, despite the fact that the Milwaukee metropolitan area - which includes Waukesha County - is the most racially segregated region in the United States for African-Americans, and among the most racially segregated for Latinos, there is no Title VI or environmental justice analysis of the cumulative effects on minority and low income communities of facilitating growth in overwhelmingly white communities.”

**Response:** Table 3-3 of the Final EIS lists present and reasonable foreseeable future actions as well as historical conditions. Past actions including “historic urban and suburban development”, “construction of I-94”, and “Canadian Pacific and other rail development” occurred in Waukesha County as well as Milwaukee County illustrating inclusion of information beyond Milwaukee County. Thus the Indirect and Cumulative Effects study does include parts of Waukesha County. WisDOT and FHWA’s Indirect and Cumulative Effects analysis concluded that regardless of the alternative selected (including the No-Build Alternative) there will not be a significant change in growth patterns. WisDOT and FHWA came to this conclusion based on input from an expert panel, interviews with planning staff from the City of Milwaukee, Wauwatosa and West Allis, review of local plans, and assessment of historic trends. Further, the analysis was performed based on WisDOT guidance and a National Cooperative Highway Research Program report. Based on this analysis, which is responsive to environmental justice principles, there will not be a cumulative impact on growth, and in turn there is not a disproportionate high and adverse economic impact on low income or minority communities. With respect to future development, as noted in at p. 3-11 of the Final EIS, “Planned development within the APE [including Milwaukee County] is likely to happen regardless of the chosen alternative for the Zoo Interchange project. This was confirmed with participants at the September 2008 focus group meeting. However, the participants acknowledged that the freeway is highly interconnected with local land use, and the reconstruction of the freeway could either hinder or facilitate local economic development depending on the alternative selected. Focus group participants generally felt the No-Build Alternative is likely to hinder the economic development potential within the APE because access to local destinations would become increasingly difficult due to increasing congestion.”

The indirect and cumulative effects analysis does note some indirect effects, such as loss of business parking on Bluemound Road near businesses as well as a possible cumulative impact on air quality, and concludes that these effects are not significant.

In summary, where there will not be a significant indirect or cumulative impact on growth, it follows then that there will not be a disproportionately high and adverse effect on low-income or minority populations.

**28. Comment (ACLU, et al):** “The long-term disparities in improvement and expansion of highways versus transit systems is a cumulative issue that the FEIS fails to identify at all, or evaluate in the context of Title VI and environmental justice.”

**Response:** See also the response to Comment 25. Analyzing the long-term funding levels of highways versus transit systems is beyond the scope of this study. SEWRPC’s Regional Transportation System Plan for Southeastern Wisconsin: 2035

(<http://www.sewrpc.org/SEWRPC/Transportation/2035RegionalTransportationPlan.htm>) and *Transportation Improvement Program for Southeastern Wisconsin: 2011 – 2014*

(<http://www.sewrpc.org/SEWRPC/Transportation/RegionalTransportationImprovement.htm>) and WisDOT’s long-range transportation plan for the state of Wisconsin, *Connections 2030*

(<http://www.dot.state.wi.us/projects/state/connections2030.htm>), assess this issue.

Appendix G of the Transportation Improvement Program discusses the impacts of the regional transportation improvement program on minority and low-income populations in southeastern Wisconsin. Appendix H of the Regional Transportation Plan evaluates the impacts of the year 2035 regional transportation system plan on minority and low-income populations in southeastern Wisconsin. Chapter 15 of the *Connections 2030* plan (<http://www.dot.state.wi.us/projects/state/docs/2030-chapter15.pdf>) evaluates the relationship of the system level plan recommendations to the state’s minority, low-income, age 65 years and older, and zero-vehicle household populations and identifies areas for potential consideration by the department during planning and project-level activities.

**29. Comment (ACLU, et al):** “The environmental justice section of the FEIS simply fails to mention numerous schools that WisDOT knows exist in the study area, including at least one, and likely two, overwhelmingly minority schools. *Supra.*, sec. 3.c. It also fails to evaluate the student population of the schools compared to the residential population of the neighborhoods. In addition, while mentioning “construction effects,” it fails to evaluate the nature or quality of those effects, in particular whether the construction has air quality or other health-related effects on children in nearby schools.”

**Response:** See also the response to Comment 24 for discussion regarding school data. Additionally, Section 3.27.4 of the Final EIS discusses air quality issues related to construction. WisDOT has worked with local schools to minimize impacts during the design process and during construction on other projects. For example, on the I-94 North-South project, WisDOT worked with Lowell Elementary School to develop a roadway design that was located further away from the school and its playground. Near Garland Elementary School, WisDOT installed a new and improved noise wall to help mitigate noise and air quality issues.

The Milwaukee Montessori School, located adjacent to US 45, has expressed concerns on this project (Final EIS pages 3-77 and 3-78). In response, WisDOT met with the school and modified the design of the Reduced Impacts Alternative to reduce the right-of-way acquisition from the school. Additionally, WisDOT continues to work with the school on the design of the barrier that needs to be on top of the retaining wall located near the school. The northbound exit ramp to Bluemound Road will be lower than the adjacent land of the school and WisDOT will build a retaining wall to minimize impacts from sloping. WisDOT will design the wall between the freeway and the exit ramp and between the ramp and the adjacent ground to allow the ramp to be as close to the freeway as reasonable. WisDOT will work with the Montessori School on design features of the barrier facing the school.

**30. Comment (ACLU, et al):** “In multiple sections of the FEIS, WisDOT makes vague assertions, unsupported by data, about the purported benefits or burdens of the project. However, the core issue in Title VI is the *disproportionality* of an action; that is, whether protected groups are harmed to a greater extent than non-protected groups. However, the FEIS omits the actual data regarding those benefits and burdens overall, as well as omitting data on the *relative* benefits and burdens for minority and non-minority and low-income and non-low-income persons.”

**Response:** Some information cannot be quantified with certainty (i.e. how many crashes would be avoided by the safer design under the Preferred Alternative and how those crashes would be divided among minority and non-minority drivers and low-income and non-low-income drivers).

WisDOT and FHWA disagree that the Zoo Interchange reconstruction violates Title VI and have concluded in the Environmental Justice analysis (pages 3-100 to 3-108 of the Final EIS) that the proposed action would not have a disproportionately high and adverse impact on low income or minority communities.

Based on 2010 Census data, the population surrounding the study-area freeway system has a lower minority percentage and higher income than Milwaukee County and the City of Milwaukee and is more comparable to the City of Wauwatosa and City of West Allis. There are no minority or low income residential displacements nor any displacements of minority owned businesses.; no air quality pollutants will exceed National Ambient Air Quality Standards (NAAQS) or cause or contribute to a new violation of NAAQS, nor increase the frequency or duration of a violation and will not delay timely attainment for PM<sub>2.5</sub>. No significant impacts to other resources such as water quantity, water quality, wetlands, primary environmental corridor, threatened or endangered species, floodplain, land use, residences or businesses, socioeconomic characteristics, or archaeological sites has been identified.

The Final EIS Section 3 contains a wide array of information on these and other benefits and impacts of the proposed action. While the comment states that the Final EIS should assess the relative benefits and burdens of the proposed action on minority/non-minority and low-income/non-low-income populations to a greater extent than it does, the Final EIS does document the differences in the percentage of Milwaukee County and Waukesha County residents who use transit to commute to work, and the percentage of workers that have no vehicle available to commute to work (Final EIS page 3-92). Page 3-92 of the Final EIS also notes that those who do not drive and transit users would not experience the benefits of the proposed action to the extent of those who drive. Page 3-107 of the Final EIS documents the income and race disparities of those who don't own cars and rely on transit, and notes that 81 percent of those individuals in the four-county area reside in the City of Milwaukee.

- 31. Comment (ACLU, et al):** "The FEIS admits at p. 3-93 that the project area has higher asthma rates, and higher asthma death rates, than other parts of the state. However, it fails to collect necessary data or analyze that data in a Title VI and environmental justice context even though, as noted above, it is minority communities in the area that are disproportionately burdened. In addition, there is no data collection or analysis of whether and to what extent the actual construction process itself will create air pollution and associated health effects."

**Response:** Asthma rates are indeed higher in Milwaukee County than the rest of Wisconsin. Asthma sufferers are more likely to be affected by particulate matter (PM). PM is a local issue that affects those near the freeway. The standard for PM<sub>2.5</sub> was established by U.S. EPA to protect human public health, including the health of sensitive populations, including asthmatics, children and the elderly. A PM<sub>2.5</sub> qualitative hot-spot analysis was conducted for the study area in cooperation with U.S. EPA, DNR and several other agencies; it was determined that the Zoo Interchange project meets all the project level conformity requirements and that the Zoo Interchange project will not cause or contribute to a new violation of the PM<sub>2.5</sub> National Ambient Air Quality Standards (NAAQS), or increase the frequency or severity of a violation and will not delay timely attainment.

Air quality improvements include PM<sub>2.5</sub> heavy duty diesel truck emission rates that are projected to decrease by approximately 89 percent. Regional projections show that mobile source emissions of PM<sub>2.5</sub> in the three-county nonattainment area will decline by 37% between 2008 and 2035, even with the projected increase in traffic through the Zoo Interchange. The Zoo Interchange reconstruction will further improve highway operations by reducing delay. All of these improvements are expected to reduce PM<sub>2.5</sub> concentrations by reducing idling and acceleration activity.

The environmental justice section of the Final EIS (Section 3.9) notes that the population in the study area, in which PM<sub>2.5</sub> would have an impact on asthma sufferers if it were an issue, has a lower minority percentage and higher income than the rest of Milwaukee County. Section 3.20.2 discusses air quality impacts.

- 32. Comment (ACLU, et al):** “At pp.3-107-108, the FEIS fails to address overall transit-dependence data (not just data on transit or automobile use for employment), or issues such as racially disparate transit use for school, medical care, shopping, and other life activities. In addition, while noting at p. 3-99 that “Transit routes and their riders that use the study-area freeway and local roadway system would benefit” from the project, it fails to evaluate which routes use that area, who the riders of those routes are, whether, as appears likely, many of the routes that use the study-area freeway are commuter routes serving white suburban commuters who work in the city, not persons of color working in or traveling to outlying areas, and the Title VI and environmental justice effects of this.”

**Response:** WisDOT and FHWA agree that transit dependant people are an important consideration. Page 3-92 of the Final EIS notes that those who do not drive and transit users would not experience the benefits of the proposed action to the extent of those who drive. Page 3-107 of the Final EIS documents the income and race disparities of those who don’t own cars and rely on transit, and notes that 81 percent of those individuals in the four-county area reside in the City of Milwaukee. Section 3.3 and Exhibit 3-2 of the Final EIS documents which bus routes use the study-area freeway system and the impact of the project on these routes. The Reduced Impacts Alternative would not directly affect any bus routes in the study area. Under the Adjacent Arterials Component, some bus routes would require temporary bus stops and detoured bus routes.

- 33. Comment (ACLU, et al):** “WisDOT states at p. 3-101 that its environmental justice-related data collection identified minority and low income populations at “(1) a 3.5-mile by 5-mile perimeter around the study-area freeway system limits, (2) within a 1-mile buffer of the freeway centerline, and (3) within a 500-foot buffer from the centerline to understand the impacts which potentially could be felt by the communities located adjacent to the freeway system.” However, the project is not only intended to affect persons within a few miles of the area; to the contrary, WisDOT asserts at p. 1-5 through 1-11 that the project is a “key link” in broader transportation networks. Clearly, the project is not intended to serve only those in a 3.5 by 5 mile perimeter (or a smaller area) around the study area, nor should the data or related evaluation be confined to that area except for issues that are directly correlated with location (e.g., noise effects). As noted above, ... this limitation is also in contrast to the citywide comparison the FEIS uses to discuss flooding effects.”

**Response:** WisDOT and FHWA concur that the project is not meant to serve only those persons within a few miles of the study area. As a result, the demographic analysis was not confined to the 3.5-by-5 mile perimeter or a smaller area. In Tables 3-8 and 3-9 of the Final EIS WisDOT and FHWA compare neighborhoods adjacent to the study-area freeway system to the respective city, county, and state populations to assess whether low-income or minority populations adjacent to the study-area freeway system is appreciably different than the community as a whole. This data illustrates that the low-income and minority population in the study area is comparable to Wauwatosa, West Allis and those areas of Milwaukee that are in the study area and lower than the City of Milwaukee overall and Milwaukee County overall.

Based on WisDOT’s extensive outreach (documented in Section 5 and 6 of the Final EIS and in response to Comment 21) concerns over air quality, Title VI and environmental justice were identified. WisDOT’s environmental justice analysis reflects the input received during public outreach. WisDOT and FHWA’s environmental justice approach is documented in the Impact Analysis Methodology prepared at the beginning of the Zoo Interchange study per SAFETEA-LU Section 6002 and meets the requirements of Executive Order 12898.

- 34. Comment (ACLU, et al):** “The environmental justice – air quality evaluation at p. 3-105 was limited to persons who were within one mile, without any analysis as to whether and to what extent air quality issues related to the project extend for an area broader than one mile, a particular concern in light of the region’s existing non-compliance with air quality standards and the disproportionate asthma rates among minority populations in the region.”

**Response:** This statement is not correct. The air quality analysis reflects the fact the geographic dispersion of air pollutants differs by pollutant. Final EIS page 3-157 documents that ozone and nitrous are regional pollutants. The complex series of reactions that form ozone take place over a period of several hours, maximum concentrations of photochemical oxidants are often found far downwind of the precursor sources. These pollutants are regional problems. The modeling procedures for ozone and NO<sub>2</sub> require long-term meteorological data and detailed area wide emission rates for all potential sources. SEWRPC performs modeling of these pollutants for the State Implementation Plan (SIP) and the Final EIS correctly relies upon this regional analysis.

Conversely, carbon monoxide is a localized issue. A hot-spot modeling analysis was conducted at high volume intersections in the study area to assess whether carbon monoxide levels would exceed NAAQS. Section 3.20 of the Final EIS documents this. As the lead federal agency for air quality, U.S. EPA has developed NAAQS for these six pollutants: carbon monoxide (CO), lead, ozone, nitrogen dioxide (NO<sub>2</sub>), sulfur dioxide (SO<sub>2</sub>), and particulate matter (PM). These standards have been adopted by the Wisconsin DNR, the lead air quality agency for the state. Transportation contributes to four of the six criteria pollutants: ozone, carbon monoxide, particulate matter and nitrogen dioxide.

The Zoo Interchange is in Milwaukee County, part of the Six-County Southeastern Wisconsin Ozone Nonattainment area. The Clean Air Act requires that federal funding and approval goes only to transportation activities that are consistent with air quality goals. The transportation conformity process requires that transportation planning be consistent with air quality goals. The Zoo Interchange project is included in SEWRPC's current long range transportation plan and transportation improvement program. This plan and program have both been found to be consistent with state air quality goals. EPA recently determined that all counties in the state of Wisconsin have attained the 1997 8-hour ozone standard, (76 FR 11080, March 1, 2011).

- 35. Comment (ACLU, et al):** "There is no map or analysis of the location of individual schools relative to the project area, nor any evaluation of whether schools serving more children of color or low income children are closer to the project area."

**Response:** As noted in response Comment 24, Exhibit 3-22 of the Final EIS shows the location of all individual schools in the project area including the high-minority schools.

- 36. 36. Comment (ACLU, et al):** "Among the issues the order on environmental justice instructs the agency to evaluate, as WisDOT admits in note 3 of p 3-100, are "destruction or disruption of community cohesion or a community's economic vitality" and "adverse employment effects," but the FEIS contains no such analysis."

**Response:** Community cohesion and employment impacts are important factors to consider. Community cohesion is discussed in Section 3.9.2 of the Final EIS and employment impacts are discussed in Section 3.9.1 of the Final EIS.

- 37. Comment (ACLU, et al):** "In addition, the EJ order instructs the agency to consider "isolation, exclusion, or separation of minority or low-income individuals within a given community or from the broader community." WisDOT's only response is to assert at p. 3-55 that "[s]ince the proposed action would not create a new corridor, no isolation of distinct groups is anticipated beyond the existing condition," without considering other forms of isolation and exclusion, e.g., those created by lack of equal access to and benefit from transportation system investments and from racially segregated development patterns."

**Response:** Page 3-55 of the Final EIS refers to physical isolation or separation created by the facility itself. With respect to development patterns and future development, note that as discussed in response to Comment 27, a focus group believed development would continue to occur regardless of the alternative chosen. Development for this area has been addressed by SEWRPC's Regional Transportation System Plan for Southeastern Wisconsin: 2035 and *Transportation Improvement Program for Southeastern Wisconsin: 2011 – 2014*, and WisDOT's long-range transportation plan for the state, *Connections 2030*. These studies assess long-term transportation system funding decisions and include an environmental justice analysis. *Connections 2030* specifically notes the executive order 12898's relationship to Title VI. Determination of whether existing or planned development in the APE is racially segregated is not within the scope of the EIS.

Questions regarding isolation created by lack of access to the transportation facility itself (presumably based on a premise that minorities lack access to automobiles) involves a discussion of transit alternatives. As with broader regional development planning, this project is not able to resolve that issue. See also the response to Comment 25.

- 38. Comment (ACLU, et al):** “In refusing to incorporate transit as part of the project in the SDEIS, the WisDOT Secretary said, “The development of transit options ... will fall to local governments and regional transportation authorities...” The FEIS, however, fails to consider the facts that shortly after this statement was made, Wisconsin repealed the law authorizing RTAs and also eliminated a \$100 million capital bonding program for transit in southeastern Wisconsin. To the contrary, these facts are not mentioned at all in the FEIS, nor are their Title VI and environmental justice implications considered. *See also, supra., sec. 3.d.*”

**Response:** See also the response to Comment 25. The environmental justice section of the Final EIS (starting on page 3-109) describes the statutory framework under which WisDOT operates, including its responsibilities for highway and transit programs. It also identifies the funding that the current state budget allocates to transit. A Title VI analysis of the legislature’s decision to repeal RTA authorization and elimination of a transit bonding program are not appropriately within the scope of the Final EIS.

- 39. Comment (ACLU, et al):** “The FEIS should be rejected unless and until the Title VI and environmental justice issues are identified pursuant to a lawful and approved Title VI plan; fully and fairly evaluated; and mitigated to ensure that persons of color are not disproportionately affected by the development of this project in the form proposed by WisDOT.”

**Response:** The comment from the ACLU, et al mischaracterizes the law. No determination has been made that affects FHWA’s authority to make decisions on the project. Environmental justice issues are evaluated in the Final EIS and it has been determined by WisDOT and FHWA that the proposed action will not have a disproportionately high or adverse impact on low-income or minority persons. Therefore no mitigation measures are required.

- 40. Comment (Disability Rights Wisconsin):** “Because of its failure to meet its legal obligations under Title VI and Title II of the American’s with Disabilities Act Amendments Act (ADAAA), WISDOT has been able to freely allocate federal transportation dollars to highway projects to the detriment of public transit systems by not considering the public transportation needs of populations who disproportionately depend on a well-funded and vibrant public transit system in order to access jobs, education, and social and political involvement in their communities. For this reason WISDOT’s Final EIS on the Zoo Interchange project has a discriminatory impact on people with disabilities in the Greater Milwaukee Metropolitan Area. WISDOT should reject the Final EIS until it performs its duties under Title VI of the Civil Rights Act and Title II of the ADAAA.”

**Response:** As stated in response to Comments 25, 37 and 38, WisDOT is subject to restrictions pertaining to highway funding and cannot use highway funds for transit projects. Accordingly, no funding transfers to the detriment of public transit systems have occurred. Likewise, WisDOT’s Final EIS does not have a discriminatory impact on any population including people with disabilities regarding federal funding allocations for the Zoo Interchange project.

WisDOT and FHWA are committed to protecting qualified individuals with disabilities from discrimination on the basis of disability in the services, programs, or activities of all State and local governments under Title II of the Americans with Disabilities Act Amendments Act (ADAAA).

In regards to WisDOT’s funding of highway projects and funding for the Milwaukee County Transit System please see Sections 3.9.2 and 6.4 of the Final EIS for information regarding WisDOT’s role in transit. The Regional Transportation System Plan does recommend a significant investment in mass transit in the region. As stated in prior comments, WisDOT’s authority for transit and the level of funding it for that program is specified by state statute and the state and federal budgeting process. WisDOT has no authority to fund transit beyond what is authorized by state statute. Decisions regarding State funding levels are not project impacts and are not required to be addressed as part of the NEPA process.

### Cost/Need for the Project

41. **Comments (MEA):** "The Final EIS has failed to adequately address issues and concerns raised regarding the cost and need for the project."

**Response:** The need for the project is addressed in Section 1.3 of the Final EIS. The need for Zoo Interchange reconstruction is demonstrated through a combination of factors, including the following:

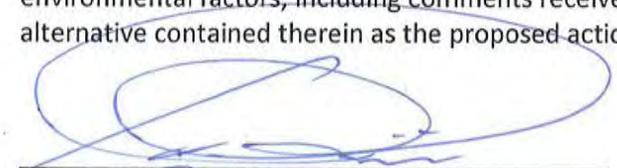
- Regional land use and transportation planning
- System linkage and route importance
- Existing and future traffic volumes
- Crash history
- Existing freeway conditions and deficiencies

Sections 1.3.1 through 1.3.7 of the Final EIS discuss these factors in more detail.

Discussion of the cost of the project is located on pages VII and 2-71 of the Final EIS. The Reduced Impacts Alternative would cost \$1.71 billion in year-of-construction dollars ('year-of-construction' cost estimates account for inflation between now and when construction is expected to begin). This represents the costs of design, right-of-way acquisition, utility relocation, and construction cost in year-of-construction dollars.

### Conclusion

Based on the analysis and evaluation documented in the EIS, and after consideration of all social, economic, and environmental factors, including comments received on the EIS, it is FHWA's decision to adopt the selected alternative contained therein as the proposed action for the project.

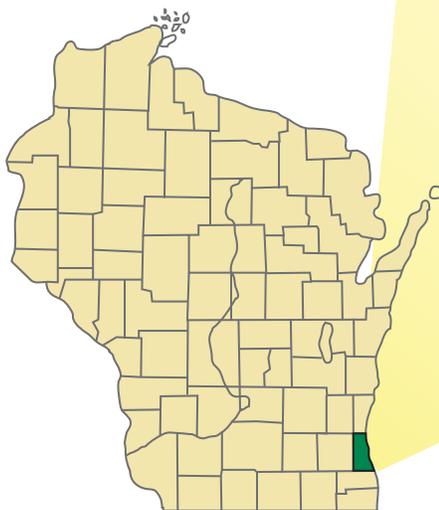
  
\_\_\_\_\_  
George R. Poirier, P.E.  
Division Administrator  
Federal Highway Administration, Wisconsin Division

2-10-12

Date

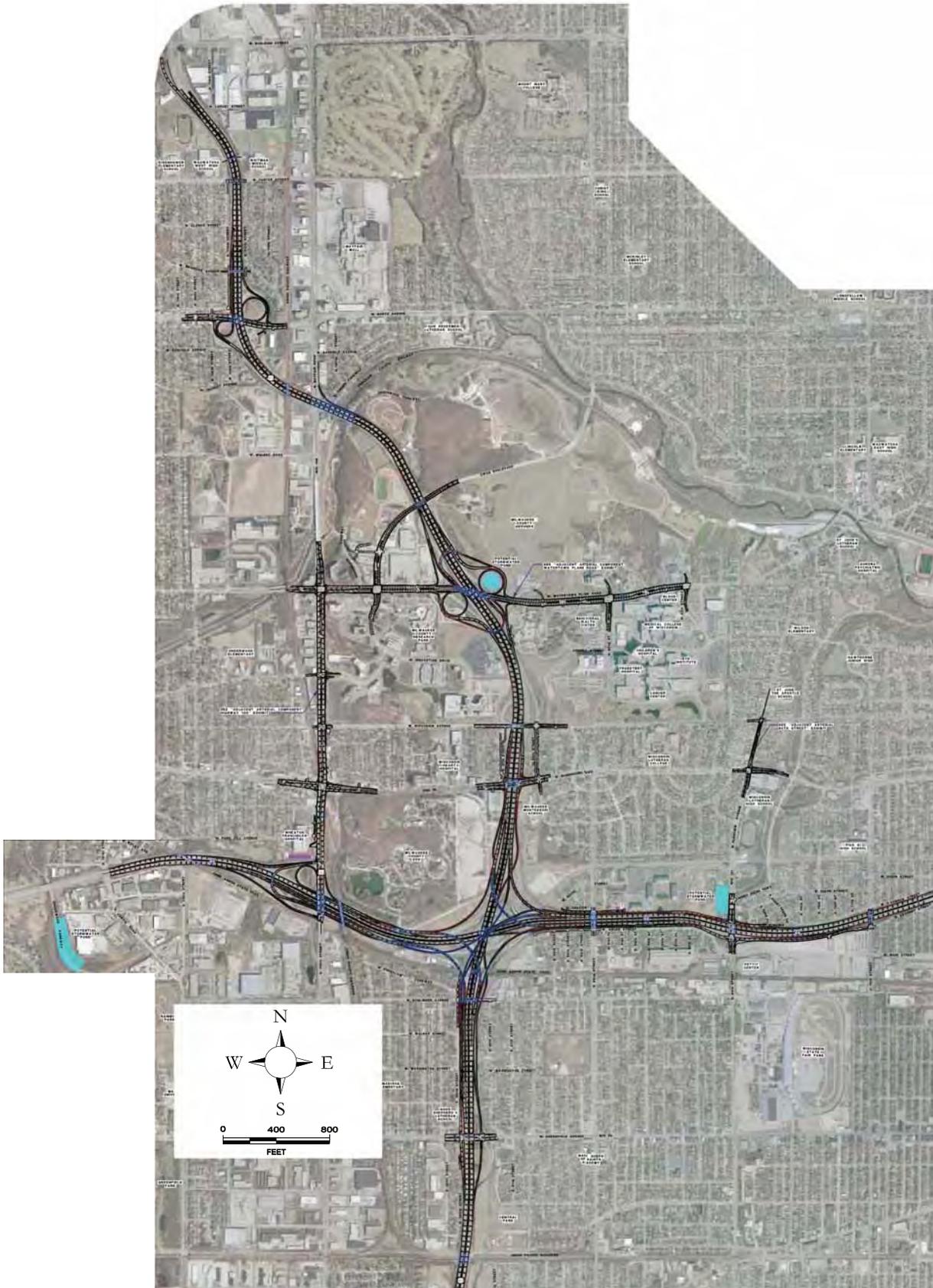
Project I.D. 1060-33-01  
 Zoo Interchange Study  
 Milwaukee County, Wisconsin

**PROJECT  
 LOCATION**



**Exhibit 1**  
 Project Location Map



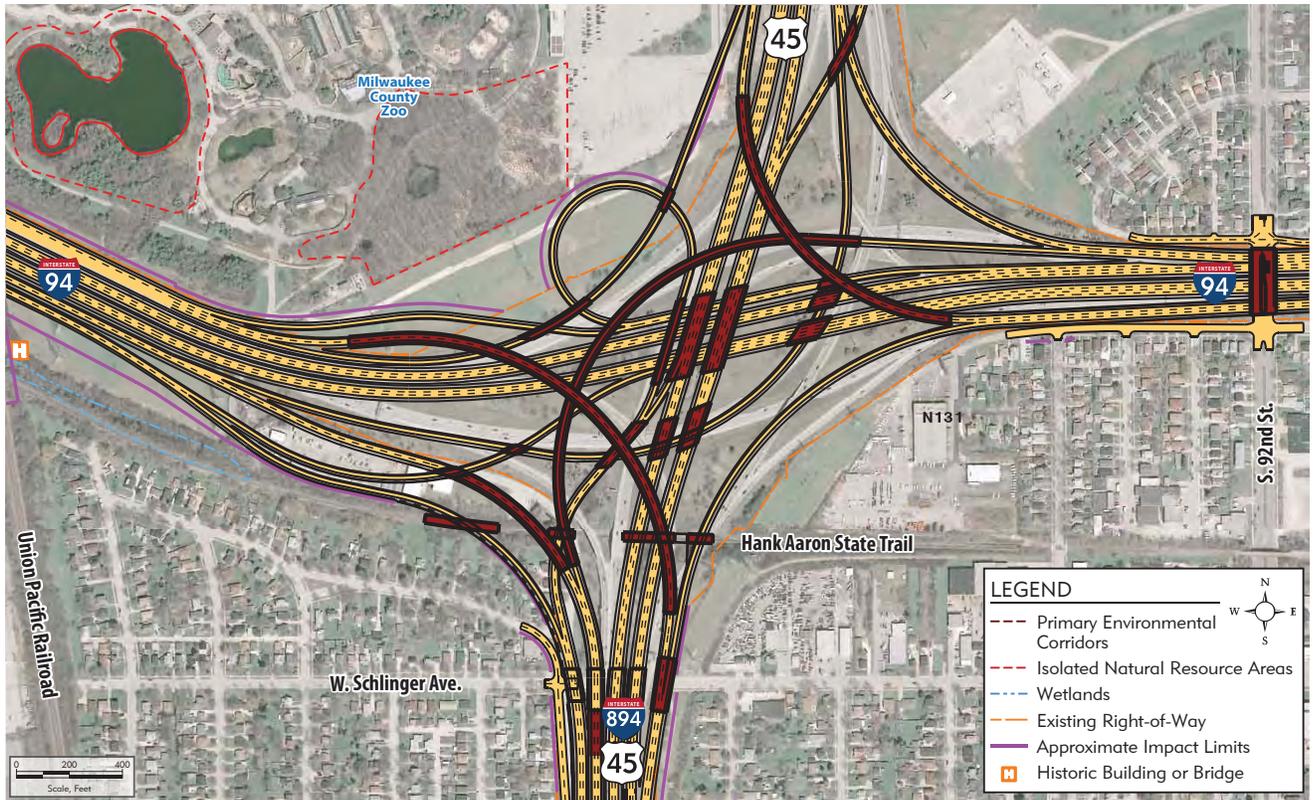


**Exhibit 2**  
**Zoo Interchange Selected Alternative**

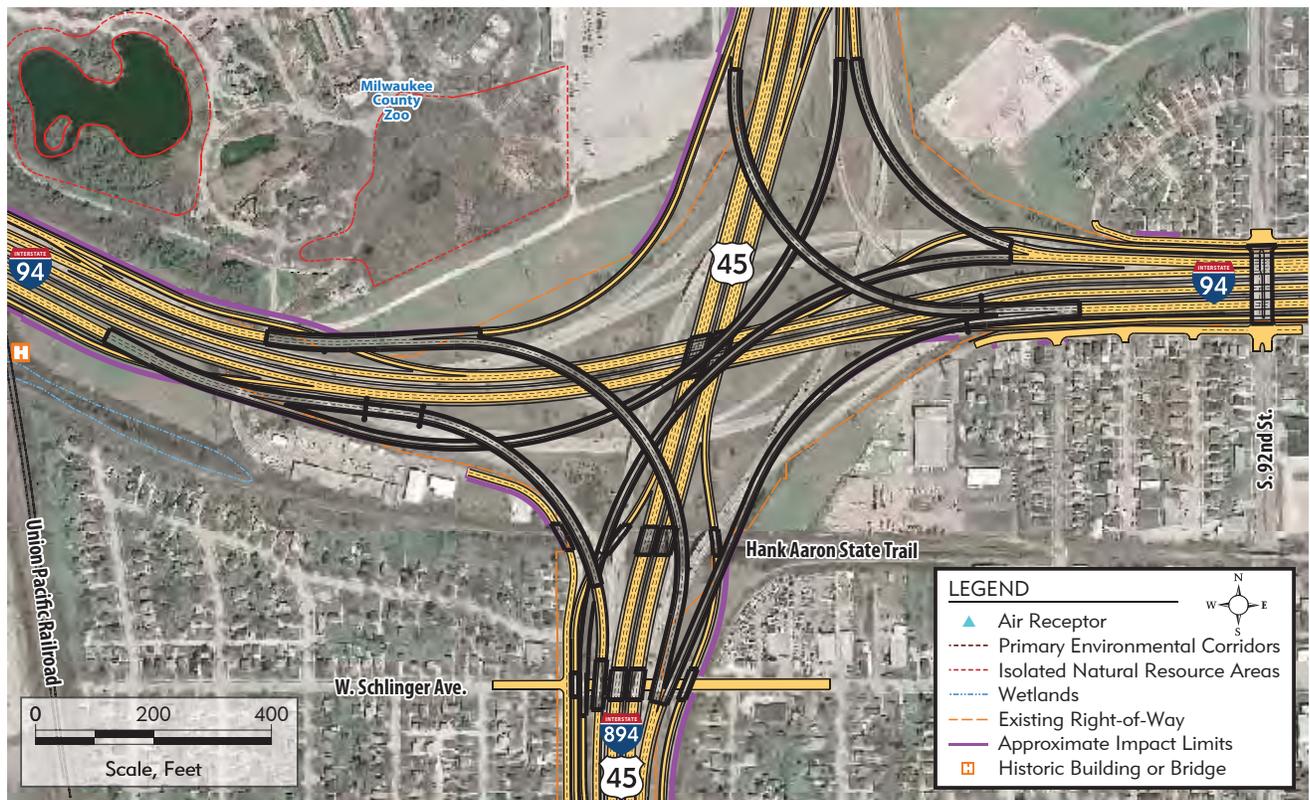
Zoo Interchange Corridor Study | ID 1060-33-01 | Milwaukee County

TB072008001MKE Exhibit 2\_ROD\_Selected\_Alternative\_v8 11.09.11 mjl



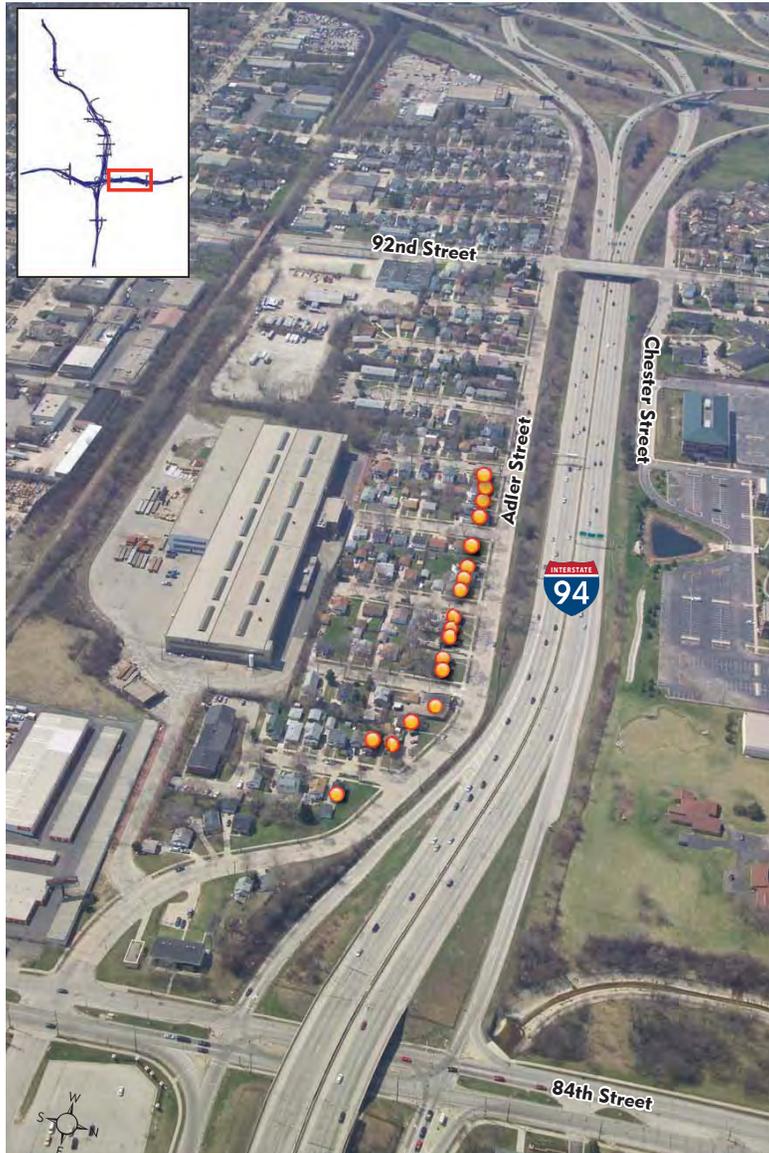


Modernization Alternative - Core

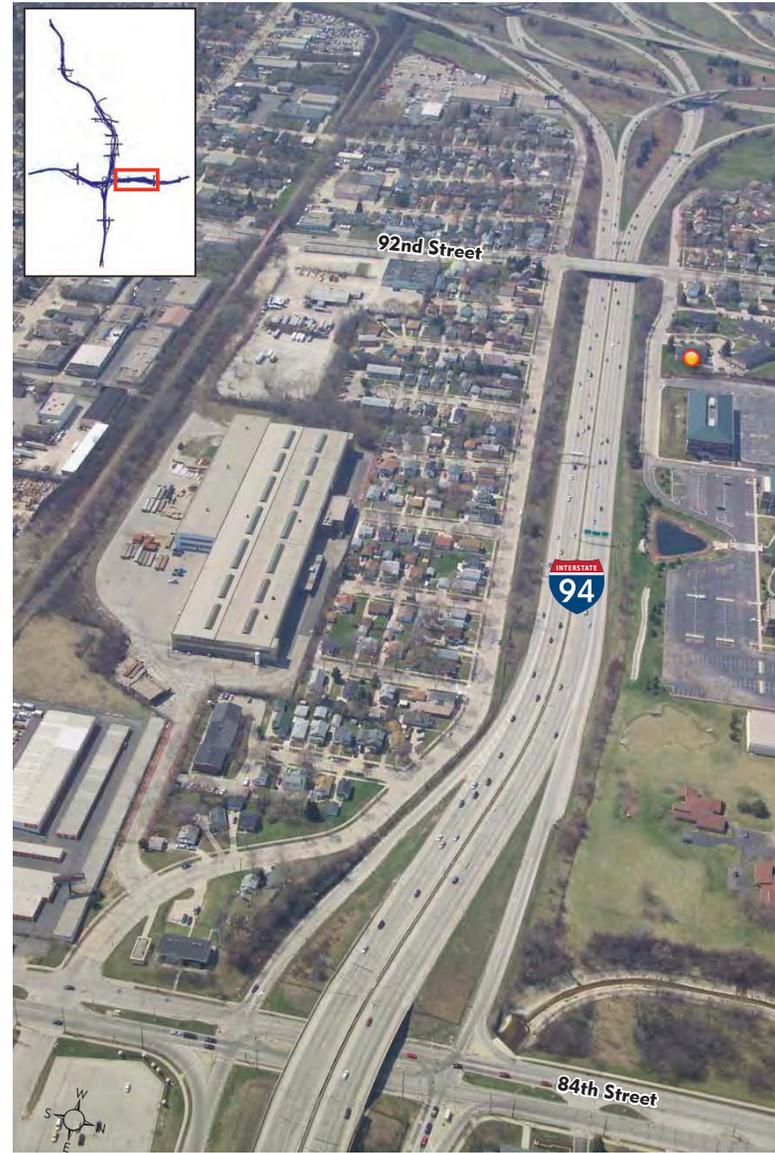


Reduced Impacts Alternative - Core

**Exhibit 3**  
Comparison of Alternatives - Core

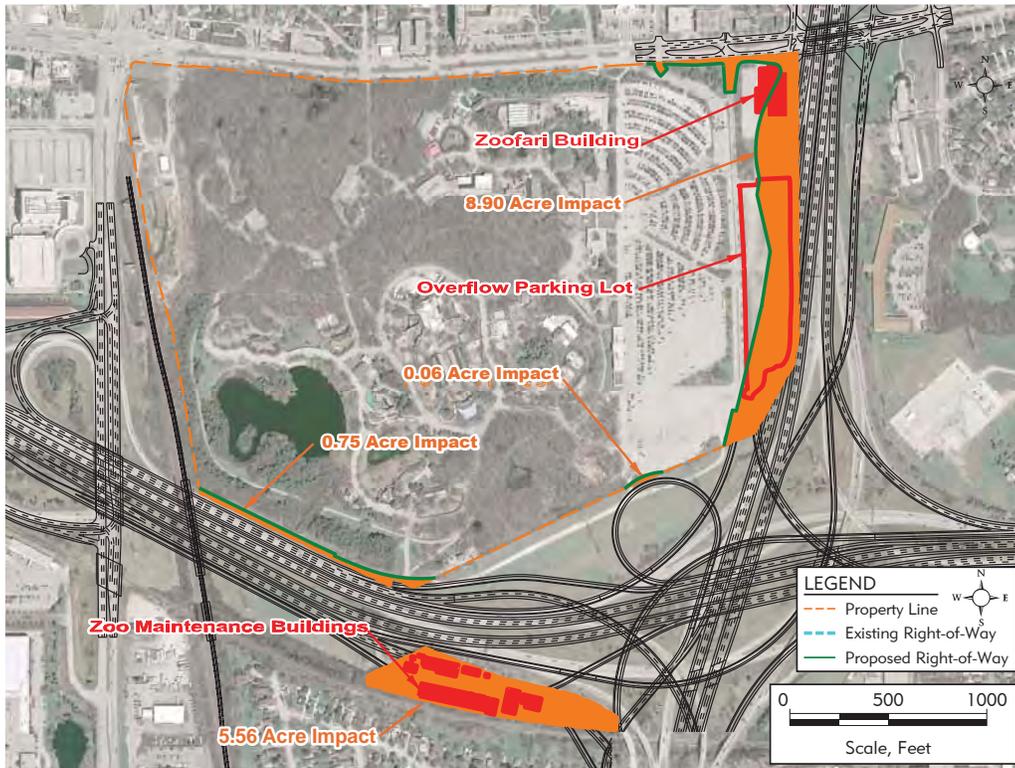


East Leg (Modified E3 Alternative) - Residential Relocations

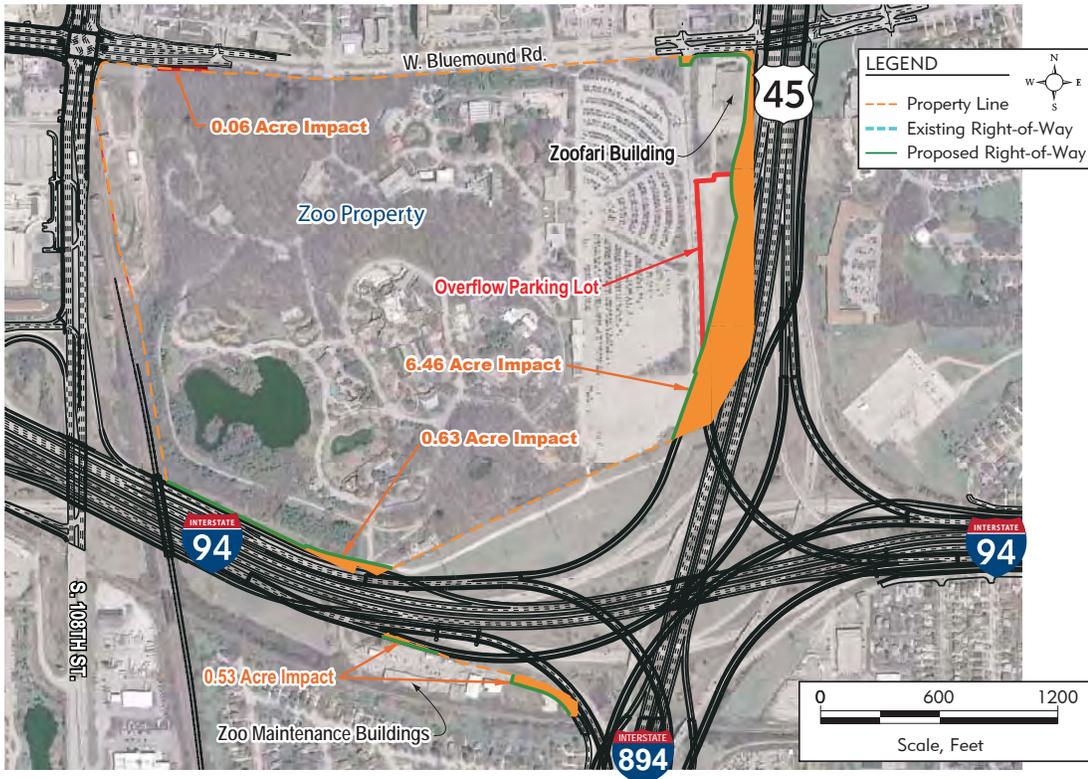


East Leg (Reduced Impacts Alternative) - Residential Relocations

**Exhibit 4**  
Comparison of East Leg Relocation Impacts



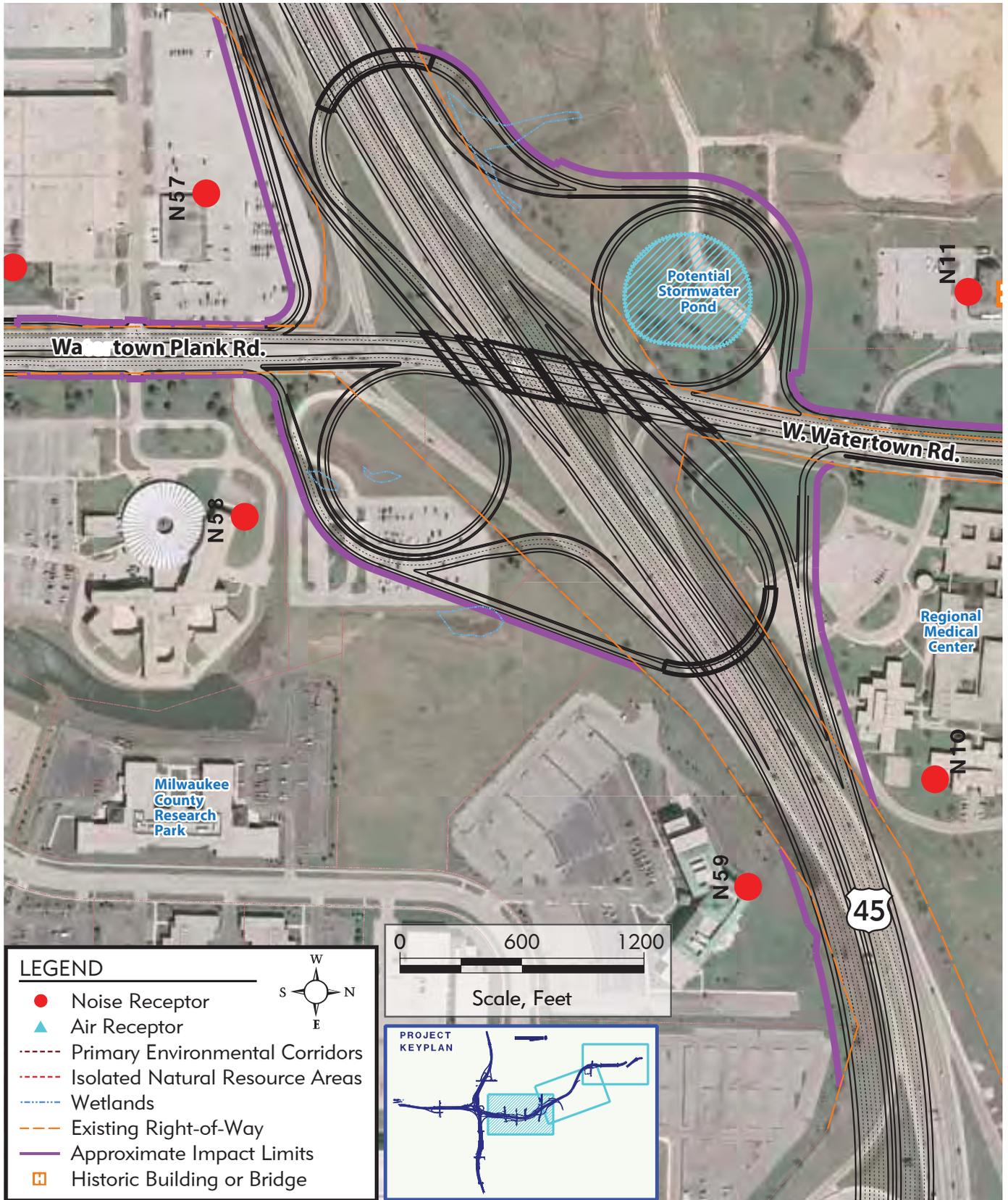
Zoo Property Impacts (Modernization Alternative)



Zoo Property Impacts (Reduced Impacts Alternative and Adjacent Arterials Component)

**Exhibit 5**  
Comparison of Alternatives - Impact to Zoo





## Exhibit 6 Reduced Impacts Alternative North Leg

Zoo Interchange Corridor Study | ID 1060-33-01 | Milwaukee County

TB072008001MKE Exhibit 6\_ROD\_Reduced\_Impacts\_All\_North\_Leg\_v2 11.08.11 mjl





**Exhibit 7**  
 Underwood Creek Parkway Stormwater Pond (West Leg)

Zoo Interchange Corridor Study | ID 1060-33-01 | Milwaukee County

TB072008001MKE Exhibit7\_ROD\_Underwood\_Crk\_Prky\_SWPond\_West\_Leg\_v1 12.28.11 sls



Appendix A  
**Agency Comments on Final EIS**

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 5  
77 WEST JACKSON BOULEVARD  
CHICAGO, IL 60604-3590

NOV 04 2011

REPLY TO THE ATTENTION OF: E-19J

William Mohr, P.E., Major Projects Manager  
Wisconsin Department of Transportation, Southeast Region  
141 N.W. Barstow Street  
Waukesha, Wisconsin 53187

Re: Final Environmental Impact Statement for the Zoo Interchange Corridor  
Study, Milwaukee County, Wisconsin - EIS No. 20110343

Dear Mr. Mohr:

The U.S. Environmental Protection Agency has reviewed the Final Environmental Impact Statement (EIS) for the above-mentioned project prepared by the Federal Highway Administration (FHWA) and the Wisconsin Department of Transportation (WisDOT). Our review is pursuant to the National Environmental Policy Act, the Council on Environmental Quality's NEPA Implementing Regulations (40 CFR 1500-1508), and Section 309 of the Clean Air Act.

After re-evaluating environmental and engineering information and reviewing public, local units of government, and agency comments on the Draft and Supplement Draft EIS documents, WisDOT has selected the Reduced Impacts Alternative and Adjacent Arterials Component as its preferred alternative.

In our April 4, 2011 Supplemental Draft EIS comment letter, our rating of "Environmental Concerns, Insufficient Information – EC2" was based on three issues: 1) the need to clarify whether the latest Advance Identification (ADID) wetlands information was used to determine wetlands impacts, 2) the need for additional information concerning mitigation for non-ADID wetland impacts, and 3) our request that the transportation agencies commit to including all Mobile Source Air Toxics (MSATs) mitigation measures in the Record of Decision (ROD). In addition to the three items mentioned above, we also recommended the Final EIS address issues pertaining to wildlife habitat.

*Air Quality*

We understand from the response to comments that WisDOT will review all mitigation measures for possible implementation during construction and that some mitigation measures are implemented by contractors on their own accord. We appreciate WisDOT's attention to

U.S. EPA Response

1. Comment noted
2. All planned air quality mitigation measures are included in the ROD. Additional measures may be added during the design phase

decreasing air quality impacts through mitigation and request that all planned mitigation measures be stated in the ROD.

2

An Interagency Consultation Team (ITC) was created to address the issue of MSATs. Based on the results of a qualitative hot-spot analysis, the ITC determined the proposed project meets all project level conformity requirements and will not cause or contribute to a new violation of the Particulate Matter<sub>2.5</sub> (PM<sub>2.5</sub>) National Ambient Air Quality Standards and will not delay timely attainment. The proposed project was determined to meet the conformity hot-spot requirements in 40 CFR §93.116 and §93.125 for PM<sub>2.5</sub>. This analysis and conclusion respond to our previous comment.

3

*Wetlands*

We understand that current primary environmental corridor (PEC) boundaries were used to determine wetland impacts. The Final EIS also indicates Advance Identification (ADID) wetlands will be avoided. We commend WisDOT's attention to using current information and avoiding impact to ADID wetlands.

4

We acknowledge the difficulty of finding mitigation options that contribute to the PEC given the nature of the project area. However, we continue to stress that adding to the PEC should be FHWA's and WisDOT's first choice to mitigate for unavoidable wetlands impacts.

*Wildlife*

We acknowledge and applaud WisDOT's efforts to minimize impacts to Monarch butterfly habitat on the County Grounds. The Final EIS indicates WisDOT continues to investigate opportunities to minimize impact to this habitat, and the ROD will document which measures will be implemented. We encourage WisDOT to preserve this habitat for butterflies and for community enjoyment.

5

In summary, the Final EIS satisfactorily addresses the issues stated in our Supplemental Draft EIS comment letter. Please send one copy of the ROD to my attention once it becomes available. Should you have any questions regarding the contents of this letter, please do not hesitate to contact me or Kathy Kowal of my staff at (312) 353-5206 or via email at [kowal.kathleen@epa.gov](mailto:kowal.kathleen@epa.gov).

6

Sincerely,



Kenneth A. Westlake, Chief  
NEPA Implementation Section  
Office of Enforcement & Compliance Assurance

3. U.S. EPA confirmed in December 2011 that the comment should refer to particulate matter rather than MSATs (Dec 16, 2011 phone conversation between Kathy Kowal/U.S. EPA and Charlie Webb/Froward 45).
4. WisDOT has searched, with no success to date, for a feasible on-site or near-site mitigation option for the project's 1.6-acre wetland impact. DOT recognizes the importance of adding to the PEC whenever a viable opportunity exists; however, small, isolated wetland mitigation parcels surrounded by urban development with no connectivity to larger wetland or riparian complexes are generally not viewed favorably by resource agencies. In addition, these parcels over time are invariably invaded by invasive species, such as Reed Canary Grass, which is prevalent species in SE Wisconsin watersheds. DOT willingly explored potential restoration options but avoided putting resources into a mitigation that has, realistically, a very low probability for success. WisDOT continues to evaluate sites for the Project; however, the project, as stated in U.S. EPA's letter, is in a challenging corridor for mitigating wetland impacts on-site or near-site.
5. Comment noted. WisDOT will continue to investigate opportunities to minimize impacts to Monarch butterfly habitat
6. Comment noted.



DEPARTMENT OF THE ARMY  
ST. PAUL DISTRICT, CORPS OF ENGINEERS  
180 FIFTH STREET EAST, SUITE 700  
ST. PAUL MINNESOTA 55101-1678  
November 8, 2011

ATTENTION OF  
Operations  
Regulatory (2007-06778-RMG)

Mr. William Mohr, Major Project Manager  
Wisconsin Department of Transportation, SE Region  
141 N. W. Barstow Street  
Waukesha, Wisconsin 53187

Dear Mr. Mohr:

We have received a request for Corps comments regarding the October 2011 Final Environmental Impact Statement (EIS) prepared for the reconstruction of the Zoo Interchange (Interstate I-94, I-894, and United States Highway 45, FHWA-WISC-EIS-09-01-F). The Zoo Interchange project includes Interstate I-94 from 124<sup>th</sup> Street (west terminus) to 70<sup>th</sup> Street (east terminus), and Interstate I-894/United States Highway 45 from Lincoln Avenue (south terminus) to Burleigh Street (north terminus). The study area for the project lies within Milwaukee County, Wisconsin.

As you are aware, pursuant to Section 404 of the Clean Water Act, the Corps of Engineers has regulatory jurisdiction over the discharge of dredged and fill materials, including discharges associated with mechanical land clearing, in all waters of the United States, which may include wetlands. Please note that for our program purposes, Section 404 authorizations are also required for discharges into riverine systems such as Honey Creek and Underwood Creek. Because we believe this proposal will result in a discharge of fill material into waters of the United States (WOUS), we request that the applicant coordinate these impacts with our agency during design phase of the project.

The Corps regulatory review must determine whether the proposal complies with the guidelines of Section 404(b)(1) of the Clean Water Act (CWA). These guidelines require that when a project is not "water dependent," that is, it does not need to be located in or near wetlands to serve its basic purpose. It is presumed that there are alternative upland sites available and that the use of the upland sites would be less environmentally-damaging than the proposed alteration of the wetland. This presumption is more difficult to overcome when the aquatic resources proposed for impact are advanced identification (ADID). It is our understanding that while the project area may cross and impact Primary Environmental Corridor and Natural Areas, none of the proposed aquatic resource impacts are to occur in ADID wetlands<sup>1</sup>.

We have reviewed the Final EIS provided, and we find that the document provides sufficient identification and evaluation of the impacts of the No-Build, Modernization Alternatives, Reduced Impacts Alternative and Adjacent Arterials Component, as well as the extent to which these alternatives address the project's purpose and need, with the following comments:

<sup>1</sup> Advanced Identification (or ADID) wetlands in the St. Paul District are currently defined as "waters of the United States" that are physically delineated within the boundaries of Primary Environmental Corridors and Natural Areas as identified by the Southeastern Regional Planning Commission.

## Army Corps of Engineers Responses

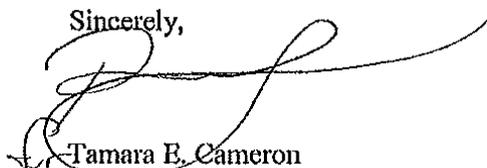
1. WisDOT and FHWA acknowledge the Corps' jurisdiction over discharges into riverine systems such as Honey Creek and Underwood Creek. WisDOT will coordinate with the Corps on discharges into water of the United States during the design phase.

Operations – Regulatory  
(2007-06778-RMG)

1. Because of the likelihood that stormwater features will impact WOUS, notably Honey Creek, we request the Record of Decision include a requirement to coordinate these plans with our agency during design phase (in advance of an application). Coordination with our agency should include information describing why impacts to waters of the United States are unavoidable. 2
2. Please ensure that the identification of wetlands is completed in light of current USACE guidance. Wetland delineations completed in Milwaukee County should be conducted in conformance with the 1987 Corps Manual and the Midwest Supplement. Also, we request that the numbering system used to identify wetlands in the EIS be followed during subsequent planning and permitting phases for consistency. 3
3. Portions of the Underwood Creek and immediately adjacent riparian area (roughly from Mayfair to the river's confluence with the Menomonee River) will be reconstructed as wetland and naturalized river channel to comply with an extant authorization. As such, the wetlands identified in the EIS may not represent the full extent of the aquatic resources in the project area. It is our understanding that this work will resume during 2012. We request that the text of the Record of Decision accommodate the potential for additional impacts to ADID waters of the U.S. in this area. 4
4. Lastly, in the event that the EIS study will not be rapidly followed by construction, we caution you that portions of the document may need updating to reflect any changes that may have occurred within the affected environment. Depending on the number or severity of the changes, a supplement to the document may be sufficient. 5

Thank you for the opportunity to review this document and participate as a cooperating agency. If you have any questions, please contact Anthony Jernigan at (262) 717-9544, in our Waukesha field office. In any future correspondence, please refer to the Regulatory file number provided above.

Sincerely,



Tamara E. Cameron  
Chief, Regulatory Branch

Copies furnished:  
Allen Radliff, FHWA, Madison;  
Eugene Johnson, WDOT BEES, Madison;  
Kathy Kowal, USEPA, Region V;  
Mike Thompson, WDNR.

2. The Record of Decision includes a commitment to coordinate the stormwater plans and information describing why impacts to waters of the United States are unavoidable with the Corps during the design phase.
3. The Record of Decision includes a commitment to use the 1987 Corps Manual and the Midwest Supplement for wetland delineations.
4. The new US 45 bridge over Underwood Creek would likely clear span the creek and any potential new wetland created adjacent to the Creek. WisDOT will coordinate design of the US 45 bridge with Milwaukee Metropolitan Sewerage District's (MMSD) planned reconstruction of the Underwood Creek channel.
5. WisDOT and FHWA will re-evaluate the Final EIS as needed.



Department of Public Works  
Infrastructure Services Division

**Ghassan Korban**  
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November 14, 2011

Mr. Bill Mohr  
Wisconsin Department of Transportation  
Southeast Transportation Region  
141 NW Barstow Street  
Waukesha, WI 53187

Subject: Zoo Interchange Corridor Study  
Final Environmental Impact Statement

Dear Mr. Mohr:

The City of Milwaukee Department of Public Works (DPW) has reviewed the Final Environmental Impact Statement (EIS) for the Zoo Interchange Project dated October 10, 2011.

Again, we commend the WISDOT Zoo Interchange team for considering the public and agency input received during the public comment period associated with the original Draft Environmental Impact Statement (DEIS) dated May 2009 and developing the Reduced Impact Alternative as described in the Supplemental Draft Environmental Impact Statement (SDEIS) dated February 2011. We further appreciate that the WISDOT Zoo Interchange team has addressed some of the concerns expressed in our DPW letter relating to the SDEIS dated April 1, 2011, and expressed in the Milwaukee Common Council Resolution 101565 certified on April 19, 2011 (attached). In particular, we appreciate that the WISDOT has developed a tentative detour route for the Hank Aaron State Trail (HAST) during Zoo Interchange construction, is actively considering providing direct access from the Medical Center to the intersection of W. Wisconsin Ave. and N. 95<sup>th</sup> St., is providing for an exclusive southbound left turn lane at the intersection of W. Bluemound Rd. and N. Glenview Ave. and is providing a northbound look ahead left turn lane at the intersection of W. O'Connor St. and S. 84<sup>th</sup> St.

While the refinements to the Reduced Impact Alternative represent further improvement over the original alternative, we continue to have some specific comments and concerns as follows:

### **Right-of-Way Impacts**

As stated in our April 1, 2011, DPW letter, even though the Reduced Impact Alternative does significantly reduce real estate acquisitions compared with the more extensive modernization alternatives, we believe the E-1 alternative which employed a "Texas T" configuration would

provide a greater improvement along the east leg of the interchange addressing existing safety issues and maintaining access while providing for adequate traffic operations without requiring any residential building displacements. We understand the WISDOT dropped this alternative from further consideration based on strong public input against it. As such, we would ask the WISDOT to make all possible efforts during the final design process to eliminate the need to acquire the 8 unit apartment building.

1

Milwaukee Common Council Resolution 101565 states that the City opposes any Zoo Interchange design elements that in any way impact the Milwaukee Montessori School. The current design of the north leg of the Zoo Interchange under the Reduced Impact Alternative would require the taking of approximately 0.6 acre of school property to provide for a new northbound off-ramp to W. Bluemound Rd. Currently this land is available as school play area. The City continues to request that the final design be adjusted to avoid any encroachment on the Milwaukee Montessori School property.

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### Capacity Expansion

It is noted that Section 2 of the final EIS more prominently indicates that 18 foot shoulders will be provided on east and westbound I-94 through the core of the Zoo Interchange with the Reduced Impact Alternative. According to the WISDOT response to the DPW letter dated April 1, 2011, in the final EIS, it is said that it would be prudent not to preclude future widening of the I-94 east-west corridor during the 75-year design life of the reconstructed Zoo Interchange.

Please be aware freeway expansion in the east-west corridor through the City of Milwaukee would result in dramatic adverse impacts to adjacent neighborhoods and/or impacts to the property tax base. As such, Milwaukee Common Council Resolution 011729 expressly opposes freeway capacity expansion between the Marquette Interchange and the Zoo Interchange within the City of Milwaukee.

Given the City of Milwaukee's opposition to future freeway expansion in the east-west corridor, that traffic volumes in the east leg of the Zoo Interchange are not expected to increase during the plan period, the potential to avoid the acquisition of an 8 unit apartment building with reconstruction of the Zoo Interchange, and reduced noise impacts, it is strongly requested that WISDOT eliminate the future capacity expansion accommodation in the east leg.

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Furthermore, while the Reduced Impact Alternative maintains existing through capacity in the east-west direction, it is our understanding that the 18 foot shoulders are designed such that they could be easily restriped to provide an additional 12 foot general purpose lane and 6 foot shoulder in each direction with Federal Highway Administration approval through the issuance of an Exception to Standards for substandard shoulder width. Please be aware we would consider such a proposal to be a significant new alternative and a departure from the alternatives included in the final EIS. The City of Milwaukee remains opposed to additional capacity and would demand

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## City of Milwaukee Department of Public Works Responses

1. WisDOT will continue to evaluate design modifications regarding the impact on the eight-unit apartment building.
2. After the public comment period, design refinements have reduced the width of the impact to the Milwaukee Montessori School between 20 and 30 feet (0.6 acres to 0.4 acres) depending on the design of the retaining walls. WisDOT will continue to refine the design in order to further reduce the impacts to Milwaukee Montessori School. WisDOT will work with the school on the design of the barrier that needs to be on top of the retaining wall. The barrier could be a concrete wall with form liners or other design features that WisDOT will work collaboratively with the school to design. The barrier will most likely require a fence; WisDOT will work with the school on the design of the fence as well.
3. WisDOT and FWHA believe that it is prudent to not preclude future widening (capacity expansion) of the I-94 east-west corridor. If the option for widening is not preserved now it will not be a feasible option during the 75-year design life of the reconstructed Zoo Interchange. WisDOT recognizes the City of Milwaukee resolution opposing freeway capacity expansion but it is possible that 40, 50 or 60 years from now it will be deemed prudent to widen I-94.

Also, it should be noted that traffic volumes along the east leg of the Zoo Interchange are expected to increase during the plan period, contrary to the City's statement in this letter. As noted on page 1-36 and Exhibit 1-14 of the Final EIS, even without freeway modernization and capacity expansion traffic on I-94 between 84<sup>th</sup> Street and 92<sup>nd</sup> Street is expected to increase from 153,000 vehicles per day in 2009 to 174,000 vehicles per day in 2035.

4. WisDOT concurs that such a plan to convert the 18 foot shoulders to 12 foot general purpose lanes would require a full analysis and public involvement program under the National Environmental Policy Act (NEPA).

that any proposal to convert the 18 foot shoulders to 12 foot general purpose lanes be subject to a full NEPA review and comprehensive public input.

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### **Noise Barriers**

The Reduced Impact Alternative, as currently designed, is expected to result in significant noise impacts to residential neighborhoods along the east leg of the interchange in the City of Milwaukee. According to the WISDOT response to our April 1, 2011 letter in the final EIS, noise barriers are only justified along the south side of I-94 between S. 84<sup>th</sup> Street and the core as well as the replacement of the existing noise barrier on the north side of I-94 east of S. 84<sup>th</sup> St.

Virtually all residences on the north side of the freeway and west of S. 84<sup>th</sup> St. will experience increased noise levels that will exceed the 67 dBA threshold for the consideration of noise barriers. In fact, in the area west of N. 90th St. near where the 8 unit apartment building is proposed to be acquired, noise levels for the remaining residences are expected to be up to 10 dBA above the threshold. It is therefore requested that WISDOT incorporate construction of noise barriers, based on public input, into the Zoo Interchange project in this location as well.

5

### **Transit Accommodations**

While we support the reconstruction and modernization of the Zoo Interchange, we continue to urge the WISDOT to take a more comprehensive and balanced approach to providing regional transportation infrastructure in the southeastern Wisconsin region. In our letter dated August 10, 2009 providing our review of the original Zoo Interchange DEIS, we urged WISDOT to consider transit options in conjunction with the Zoo Interchange design. In response, WISDOT indicated that “the legislature has charged local governments and RTA’s, not WISDOT, with the responsibility for implementing new or expanded transit systems like commuter rail or express bus systems.”

This past summer, State legislation eliminated the formation of RTA’s leaving no other options for the provision of intercity transit service. We continue to believe that WISDOT’s core function is to provide comprehensive intercity transportation services that include both highway and transit options and continue to request that WISDOT take a more proactive role in the development of intercity rapid and Express transit service in the region.

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It is noted that the design for the Reduced Impact Alternative preserves the east-west CP Rail corridor located to the south of the interchange for the Hank Aaron State Trail and a potential future transit corridor. However, DPW would reiterate our request that WISDOT evaluate the potential to incorporate a future north-south transit corridor connecting the CP Rail corridor with major trip generators to the north including the Milwaukee County Zoo, Regional Medical Center, and Milwaukee County Research Park. There may be opportunities to provide such a corridor in conjunction with the HAST tunnel connection to the Milwaukee County Zoo,

5. As presented in the Final EIS, five noise barriers were analyzed for the Reduced Impacts Alternative between the project terminus east of 76<sup>th</sup> Street and the core. Each noise barrier could achieve the minimum noise level reduction of 5 decibels and the design goal of 9 decibels as required by the Wisconsin Department of Transportation's, Facilities Development Manual, Chapter 23, Noise (FDM 23 Noise), effective July 28, 2011. FDM 23 Noise is WisDOT's FHWA approved interpretation of 23 CFR Part 772. However, only one noise barrier, the one analyzed along the south side of I-94, east and west of 92nd Street, met the FDM 23 Noise criteria of not exceeding the cost criteria of \$30,000 per abutting residence. Two more noise barriers, one analyzed north of I-94, east and west of 92nd Street and one analyzed north of I-94 and east of 76th Street also met the FDM 23 Noise cost criteria based on the new cost averaging of multiple barriers within a common noise environment. The noise barrier north of I-94 and east of 84th Street will be replaced since it is an existing noise barrier. Therefore, four of the five noise barriers analyzed for the East Leg will be constructed as part of the project. The fifth noise barrier, analyzed south of I-94 and east of 76th Street exceeded the cost criteria of \$30,000 per abutting residence with the cost averaging and at this time is not considered to be a reasonable mitigation measure. If during final design there are substantial changes in roadway design from the Reduced Impacts Alternatives modeled for the Final EIS, noise abatement measures will be reviewed.
6. See Section 6.4 of the Final EIS for information regarding WisDOT's role in transit. In summary, WisDOT's involvement in transit and the level of funding it devotes to transit is largely guided by state statute rather than the discretion of WisDOT.

As WisDOT noted in its response to the City of Milwaukee's 2009 comments on the Zoo Draft EIS and the City of Milwaukee's April 2011 comments on the Supplemental Draft EIS, new transit corridors first need to be included in a regional transportation plan before a project-level NEPA analysis, like this one, evaluates specific routes and/or modes. SEWRPC's 2035 Regional Transportation Plan does not include the north-south transit corridor that the City of Milwaukee suggests. In the absence of a regional transportation plan that includes such a corridor, WisDOT has no authority to expend funds, incur impacts, or acquire right-of-way for it. WisDOT's preferred alternative does not preclude implementation of any transit projects that are in the approved regional transportation plan.

in conjunction with improvements in the UP railroad corridor being performed with the Zoo Interchange which include extending the rail tunnel under Hwy 100/Blue Mound Road, replacing the railroad bridges over I94, USH 45, and potentially North Ave. and replacing the I894/USH 45 bridge over the UP railroad, or in conjunction with improvements to Hwy 100.

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### Traffic Mitigation

City staff is currently working with the WISDOT and consultant staff in the early stages of developing traffic mitigation plans with the overall goal of maintaining mobility during the reconstruction of the Zoo Interchange. In addition to these efforts, we again request that WISDOT consider restoring the extension of AMTRAK Hiawatha service between Milwaukee and Watertown that was successfully implemented during the 1997-98 east-west freeway resurfacing project.

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### Local Road Design

With the Reduced Impact Alternative, westbound traffic on Blue Mound Road is not able to enter southbound USH 45 and then turn onto westbound I-94 as they can today. This will increase the amount of westbound traffic on Blue Mound west of USH 45. This will also increase the amount of westbound left turning traffic at Blue Mound Road and Mayfair Road (Hwy 100) since the next on-ramp to westbound I-94 is at Hwy. 100. To avoid this increase in traffic on westbound Blue Mound Road and added traffic at the already congested Blue Mound and Mayfair intersection, it would be desirable to provide the ability for westbound traffic on Blue Mound Road to access westbound I-94 from the southbound on-ramp to 45. This might eliminate the need to build the westbound triple left turn lane at Mayfair Road and W. Blue Mound Road.

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It appears that the most current plans continue to show a single northbound left turn lane at the intersection of W. O'Connor St. and S. 84<sup>th</sup> St. With the westbound on-ramp to I-94 now allowing full legal access to westbound I-94, northbound USH 45 and southbound I-894 under this alternative, we are concerned that a single left turn lane may not be able to provide an acceptable level of service and queuing capacity. The proposed new intersection geometry creates offset alignment between the northbound left turn and southbound through movements and will probably require that the northbound left turn movement be operated as a protected only turn movement. This would exacerbate our concern with the ability of the single northbound left turn lane to accommodate future traffic demand. The City would request that we be provided an intersection analysis using future year conditions to verify that a single left turn lane is functional using the existing signal phasing pattern as well as any proposed signal phasing pattern.

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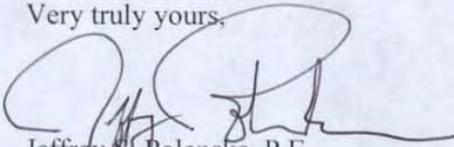
In conclusion, the City appreciated participating in the May 13, 2011 meeting of key stakeholders where the WISDOT announced that the preferred alternative for the Zoo Interchange and the subsequent willingness of the WISDOT to consider some changes to the preferred alternative to take into account the concerns of those key stakeholders. The City looks forward to a cooperative

7. WisDOT welcomes the opportunity to work with the City of Milwaukee and other affected municipalities to develop an effective traffic mitigation plan.
8. WisDOT has studied the issue at length but remains unable to provide this access because of the close proximity of the Zoo Interchange core to Bluemound Road. To address the short spacing, right-of-way needed to provide separate service interchange ramps to and from I-94 (likely braided with or exiting from system ramps) would substantially increase the number of relocations required and the amount of right-of-way needed to construct the necessary connections (see Final EIS Section 2.5.1).
9. WisDOT has reevaluated this intersection (W. O'Connor Street and 84<sup>th</sup> Street) and will be adding look ahead left turn storage south of the eastbound ramps. WisDOT will coordinate this design further with the City of Milwaukee during preliminary design.

Mr. Bill Mohr  
November 14, 2011  
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working relationship with the WISDOT team and other stakeholders as this critical and important part of the transportation infrastructure is reconstructed.

Very truly yours,



Jeffrey B. Polenske, P.E.  
City Engineer



Ghassan Korban  
Commissioner of Public Works

GK:JSP: ns

Attachment

C: Mayor Tom Barrett  
Alderman Willie L. Hines, Jr.  
Alderman Michael J. Murphy  
Alderman Robert Bauman  
Secretary Mark Gottlieb  
File

**From:** Murphy, Michael (Alderman) [<mailto:mmurph@milwaukee.gov>]  
**Sent:** Monday, November 14, 2011 3:16 PM  
**To:** Mohr, Bill - DOT  
**Subject:** Environmental Impact Statement Zoo Interchange

Mr. William Mohr, P.E., WisDOT Major Projects Manager  
Wisconsin Department of Transportation  
Southeast Region  
141 NW Barstow Street  
P.O. Box 798  
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[bill.mohr@dot.wi.gov](mailto:bill.mohr@dot.wi.gov)

Dear Mr. Mohr,

Please review and submit the attached documents that were passed by the Common Council of the City of Milwaukee as a Resolution that I sponsored regarding the Zoo Interchange. You will also be receiving a letter from the Department of Public Works that reinforces the views and concerns of the City of Milwaukee.

Sincerely,

Michael J. Murphy  
Alderman, 10th District  
200 East Wells Street, Room 205  
Milwaukee, WI 53202  
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Alderman Murphy forwarded a copy of the April 2011 City of Milwaukee Common Council resolution regarding the Zoo Interchange reconstruction. The resolution and WisDOT's response to it are included in Appendix F of the Final EIS, page F-40.