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US 41 Conversion

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US 41 INTERSTATE CONVERSION STUDY ENVIRONMENTAL DOCUMENT TYPE MEMO

Date: May 23, 2013

Re: ID 1133-00-00
IH 94 – IH 43
US 41
Kenosha, Racine, Milwaukee, Waukesha, Washington, Dodge, Fond du Lac,
Winnebago, Outagamie, and Brown Counties

Recommendation

As the project has progressed through the NEPA process, the project team evaluated the US 41 Interstate Conversion Study's direct, indirect, and cumulative impacts and conducted public meetings throughout the study corridor. The project team has determined that the potential impacts of interstate conversion are not significant and there is no controversy associated with the project. Given that, WisDOT feels that the originally proposed tiered environmental impact statement (EIS) is no longer the appropriate document type. After consulting with and obtaining concurrence from WisDOT Region and Central Office environmental staff, the project team recommends the tiered process no longer be followed, and the project NEPA document be changed from an EIS to an Environmental Report (ER).

Following the Background, the remainder of this memorandum describes the project impacts and why the impacts are not an impediment to changing the document type from an EIS to an ER.

Background

In summer 2007, WisDOT and the Federal Highway Administration (FHWA) began the US 41 Interstate Conversion Study. At that time, both agencies felt a tiered environmental impact statement (EIS) was the appropriate document type because of uncertainty about the project's potential impacts and the level of controversy. The three impact categories associated with interstate conversion that WisDOT and FHWA felt could result in significant impacts included:

- Potentially significant direct human impacts caused by the Interstate's more restrictive oversize and overweight (OSOW) regulations and off-property outdoor advertising regulations, and the change in route number and potentially exit numbers;
- Potentially significant indirect and cumulative impacts; and
- Future improvement projects required to bring US 41 up to interstate standards that might have significant impacts

The original intent was that the Tier 1 document would focus on broad issues (convert to interstate or not), and the Tier 2 documents would focus on the direct impacts of improving US 41 features that do not meet interstate standards, as well as their associated costs, and mitigation measures.

Since early 2011, WisDOT has developed a clearer understanding about the range and significance of the project's potential impacts and the reaction of the business community, trucking industry, outdoor advertising industry, and the public to the project. In general, the outreach completed has shown that the public supports the project and there is no controversy.

The text below discusses the magnitude of impacts and level of controversy for each of the impact categories noted above.

Potentially significant direct human impacts due to size and weight restrictions

Concerning the project's impact on oversize/overweight vehicles, proposed federal legislation would keep current oversize/overweight policies and practices in place with interstate conversion thus avoiding significant impacts associated with implementation of the Interstate's truck size and weight standards.

Because it is uncertain whether federal OSOW legislation for the US 41 conversion will pass prior to the environmental document being signed, WisDOT has committed to not convert US 41 to an Interstate until the grandfathering OSOW legislation is law. A letter from WisDOT committing to postponing interstate conversion pending the passage of the federal grandfathering oversize/overweight legislation will be included in the ER.

Potentially significant direct human impacts due to new outdoor advertising restrictions

With interstate conversion, the permitting process for off-property signs will follow stricter federal regulations. It is expected that most of the existing legally permitted off-property signs will become non-conforming, which means they will be able to remain in place for their useful life, but they will not be able to be improved beyond 50 percent of their replacement value, reconstructed or replaced. It is not; however, WisDOT's intention to purchase signs as part of the project. In spring 2012, WisDOT approached the Outdoor Advertising Association about holding a meeting to discuss the project's potential impacts to off-property signs and obtain the industry's input. The Association declined to meet with WisDOT and stated they surveyed several member companies that would be affected by interstate conversion and the member companies are confident that they have a good grasp of the scope of the project and its impact on their billboard sites. Neither the Outdoor Advertising Association nor its member companies attended the six public information meetings in May. Concerning the level of controversy surrounding the possibility of more restrictive signing regulations, no input was received from the outdoor advertising industry, and there were no public comments opposed to more restrictive off-property signing regulations.

Evidence that the Outdoor Advertising Association's potentially affected member companies understand the project scope is seen in the amount of work being done to improve off-property signs adjacent to the corridor. WisDOT has noted that the outdoor sign industry is actively improving off-property signs. It seems clear that the outdoor advertising industry anticipates a change in the off-property sign regulations with interstate conversion and its members are reinforcing signs prior to conversion to maximize the useful life of the signs. Because non-conforming off-property signs will be allowed to remain following interstate conversion, the project would not create significant outdoor advertising impacts.

Potentially significant direct human impacts due to a change in route and exit numbers

There are four areas that could be affected by a change in route numbers:

- The US 41 and US 45 corridor between Green Bay and the Zoo Interchange in Milwaukee that will be the subject of interstate conversion;
- The segment of US 41 between the US 45/US 41/WIS 175 interchange on Milwaukee's north side and the Stadium Interchange where US 41 joins I-94;
- The segment of US 41 between the Mitchell Interchange and the Stadium Interchange; and
- The segment of existing interstate (I-894 and I-94) between the Zoo Interchange and the south project terminus.

In the four areas noted above, existing access patterns will be the same as today. Any potential impacts related to a change in route number would be limited to businesses that may have to update advertising and other materials that describe the business location to reflect the change in route number.

US 41/45 Corridor (Green Bay to the Zoo Interchange)

While businesses adjacent to US 41 and US 45 corridor between Green Bay and the Zoo interchange do not use either highway as part of their mailing addresses, US 41 and US 45 are regularly used in websites to provide directions to businesses along the corridor. Updating business websites, telephone books, and other documents that describe the business location will have minor costs for business owners, but those costs would not be significant. It is worth noting that Chambers of Commerce in the study area support interstate conversion. With interstate conversion, the US 41/45 corridor between Green Bay and the Zoo Interchange will be dual signed I-41 and US 41/45. The selection of I-41 as the interstate designation and the concurrent signing of US 41/45 will minimize impacts on businesses.

US 41 Corridor (US 45 to I-94)

The segment of US 41 between US 45 and I-94 near Miller Park, known locally as Lisbon Avenue and Appleton Avenue, will be re-designated to a yet to be decided state trunk highway number. Currently, the mailing addresses for businesses along that corridor use Appleton Avenue or Lisbon Avenue rather than US 41. An internet search of businesses along Appleton Avenue and Lisbon Avenue revealed that the addresses used on websites refer to their street names rather than US 41. Given this, there would be minimal or no costs incurred by those businesses to change their advertising. The cost to business owners to change their advertising would not rise to the level of a significant impact.

To further minimize the impacts of re-designating US 41 (Appleton Avenue), WisDOT has committed to the following:

- The re-designated segment of US 41 will remain a connecting highway
- The re-designation will not affect state funding for the route
- The re-designation will not have costs for local communities
- The re-designation will not require construction

Project team members met with the City of Milwaukee and Milwaukee County on October 29, 2012 to discuss changing the route number of US 41 (Appleton Avenue) and both entities support the re-designation.

US 41 Corridor (Mitchell Interchange to the Stadium Interchange)

Removing the US 41 designation from the I-94 corridor from the Mitchell Interchange to the Stadium Interchange would have minimal to no impacts on businesses. Because I-94 is the higher tier highway number and I-94 has been in place since the early 1960's, while US 41 has only followed that path since 2000, most business advertising along that section of highway refers to I-94, which is unaffected by interstate conversion.

I-894 and I-94 (Zoo Interchange to the south project terminus)

Adding an additional interstate sign to the interstate portion of the study area (I-894 and I-94) would have minimal to no impacts on businesses. Because I-894 and I-94 would be unaffected by interstate conversion, existing business advertising that refers to either or both interstates would still be accurate. A business that decides to revise its advertising to include the new interstate designation would do so because of a perceived advantage rather than out of necessity. In any case the cost to business owners to change advertising would be minor and not rise to the level of a significant impact.

Public Outreach

WisDOT plans to hold public hearings along the corridor in summer 2013. Information will be presented about the minor costs that businesses may incur because of renumbering the US 41 and US 45 corridors, relocating US 41, and adding an additional interstate designation to I-894 and I-94 between the Zoo Interchange and the south project terminus.

In November 2012, AASHTO, FHWA, and WisDOT determined that, with interstate conversion, US 41 would be designated I-41. Because of that decision, FHWA concurred with a WisDOT memorandum proposing the existing exit numbers should remain unchanged with the I-41 designation. Therefore, there are no direct impacts due to exit number signing.

Potentially significant indirect and cumulative impacts

The project's indirect and cumulative effects analysis is based on the six-step process outlined in WisDOT's *Guidance for Conducting an Indirect Effects Analysis* and the eleven-step process outlined in WisDOT's *Guidance for Conducting a Cumulative Effects Analysis*.

In fall 2011, the study team conducted an online survey to understand potential economic impacts associated with designating US Highway 41 as an Interstate. Invitations to complete the survey were sent to economic and community development representatives at the local, regional, and state level. The project team used an economic survey and expert panel to assist in understanding the project's potential indirect effects. In fall 2012, the study team solicited opinions from a panel of local experts and stakeholders on potential indirect effects and cumulative impacts associated with interstate conversion. All areas of the corridor were represented with 30 panelists participating in one of three meetings. Panel members included local elected officials, local and regional land use and transportation planners, economic development professionals, and agricultural, natural, and cultural resource experts. Panelists were asked to complete an online survey and mapping exercise in addition to attending a workshop. The expert panel questionnaire included questions pertaining to land development, economic development, resource, environmental justice, and other possible impacts associated with converting US 41 to an interstate highway. As part of the mapping exercise, panelists were asked to identify areas where land development may occur as a result of designating US 41 an interstate highway compared to keeping it a US highway,

Listed below is a summary of the key indirect impacts. The complete ICE report is available from the Northeast Region.

Indirect Impacts

Traffic Impacts

In 2007, WisDOT's traffic forecasting section developed traffic volumes for the Interstate conversion study for the planning period 2010 and 2035. Forecasted traffic volumes in 2010 ranged from 31,000 to 146,600 Average Annual Daily Traffic (AADT). Forecasted traffic volumes in 2035 ranged from 40,000 to 179,500 AADT. The maximum growth in traffic was 53.8 percent north of Fond du Lac, and the average growth in traffic for the study corridor was 34.6 percent.

The traffic projections assume that new traffic generators will be developed in the Germantown and Slinger areas, but otherwise no major new traffic generators will be developed in the area served by US 41 over the course of the planning period. Historical traffic count trends will continue increasing at a decreasing rate. The project's indirect and cumulative effects analysis (ICE) concluded that new development attributable to Interstate conversion will occur in areas currently planned, zoned, and prepared for development. The ICE analysis also concluded that conversion may increase the pace of development, but not the amount of land developed. Therefore, the 2010 to 2035 traffic projections account for potential growth from Interstate conversion.

Noise Impacts

Decibels, the unit of measure for noise levels, are measured on a logarithmic scale. Thus, a doubling of the energy of a noise source, such as doubling of traffic volume, would increase the noise level by 3 decibels and a halving of the energy would result in a 3 decibel decrease. It is generally agreed that for a healthy ear, a 3 decibel increase in noise is barely perceptible. Given that traffic volumes in the corridor will not double (see traffic discussion above), noise levels from the highway will not be a significant impact.

Air Quality

Traffic modeling and forecasting completed by the study team indicated that traffic volumes in the corridor have been decreasing since 2007 and that interstate conversion will not result in volumes in excess of those forecast for year 2035. Further, either directly or indirectly, interstate conversion would not add capacity to the overall transportation system, which in turn will not significantly increase traffic or associated air quality impacts.

Economic Development

The “interstate brand” resulting from interstate conversion is anticipated to positively impact economic development and boost tourism for communities located along the corridor. As suggested by economic and land development experts, designation of US 41 as an interstate highway may lead to slightly more varied opportunities for business creation and job growth.

Land Development

While the “interstate brand” is anticipated to yield positive economic impacts, interstate conversion is not anticipated to induce additional land development, meaning that new development would occur in areas planned for such by local governments. This assumption is consistent with the state’s requirement that local plans be consistent with zoning and development decisions. In general, local governments plan to preserve environmental corridors and natural resources and to develop areas where development would most logically occur (i.e. areas served by utilities and located outside of floodplains and wetland areas).

The study team and expert panel agreed, however, that interstate conversion may lead to a slight increase in the pace of non-residential development and redevelopment, particularly at interchanges and other visible locations. Again, such locations are planned for development by local governments and are not likely to include significant natural resource features. Panelists also agreed that higher quality development may also occur. Notably, the recent economic downturn has slowed land development in the corridor over the past few years and interstate conversion may simply increase the pace of land development back to pre-recession levels.

Farmland

Expert panel members agreed that farmland conversion will occur in step with land development (i.e. at a slightly accelerated pace and within areas planned for development). Farmland located at interchanges and areas with high visibility from the corridor may develop at a slightly faster rate as a result of interstate conversion. In such instances property owners would potentially benefit from the increased value and sale of agricultural land at locations desirable for development. As mentioned previously, land development will not likely occur where long-term agricultural use is planned, but rather locations that are specifically planned for development. Further, the overall pace of land development/farmland conversion will be linked to market conditions and the overall economic recovery.

Water Quality (Surface Water, Groundwater, Wetlands)

Expert panel members indicated that water quality may be slightly impacted where land is developed at a faster rate with interstate conversion. However, the amount and intensity of impacts would be slight due to the fact that additional development beyond that already planned is not an expected outcome of interstate conversion. Further, panelists noted that water quality impacts could be either positive or negative due to variations in existing conditions and the regulatory structure of the local jurisdiction (e.g. higher quality stormwater regulations may yield positive outcomes to water quality with regard to stormwater runoff). Ultimately, the level of impact will vary based on development type, strength of local regulations, mitigation activities, and future conservation efforts.

Endangered Species and Wildlife Habitat

Expert panel members agreed that reduction, fragmentation, and degradation of habitat where land is developed at a faster rate with interstate conversion could further threaten or potentially cause the displacement or loss of endangered species. However, panelists indicated that the amount and intensity of impacts would be minimal due to the fact that additional development beyond that already planned is not an expected outcome of interstate conversion. Further, land planned for future development generally avoids environmental corridors and habitat areas. Ultimately, the level of impact on endangered species and wildlife habitat will vary based on development type, local regulations, and mitigation activities.

Historic and Archaeological Resources

Development and redevelopment activities resulting from conversion may put slight pressure on historic buildings and sites if located at interchanges and other areas planned for development; however, this can be managed through local regulations and state and national historic designations. Panelists also indicated that excavation related to development could result in the discovery of unknown archaeological sites or resources. Overall, panelists indicated that very few if any indirect impacts are anticipated to occur to historic and archaeological resources.

Environmental Justice

Environmental justice populations will not be adversely impacted by interstate conversion due to lack of physical changes in the highway. Some panelists suggested that the above described economic benefits associated with interstate conversion will lead to an overall increase in job opportunities which may benefit environmental justice populations. Other panelists noted, however, that while negative impacts on environmental justice populations are not an anticipated outcome of the interstate conversion, public transportation options may be needed to reach new employment destinations.

Cumulative Effects

The cumulative effects analysis considers the project's direct and indirect impacts and their relationship to past, present, and reasonably foreseeable future actions that may impact the study area. The study area for the cumulative effects analysis aligns with municipal boundaries and includes portions of Brown, Calumet, Dodge, Fond du Lac, Milwaukee, Oconto, Outagamie, Ozaukee, Washington, Waukesha, and Winnebago counties. Certain resources, such as habitats and surface water, do not follow these boundaries so other geographic areas, such as watersheds and ecosystems, were also considered in the analysis. The timeframe for this cumulative effects analysis is 20 years, which corresponds with the planning horizon of the majority of local comprehensive plans; however, it can be assumed that many of the effects identified in this analysis would continue to be valid after 20 years if local policies and regulations remain the same.

Other Actions Associated with Interstate Designation of US 41

The ICE analysis evaluated the projects that will be completed as part of the WisDOT-FHWA interstate conversion agreement. The projects in the agreement, which will be implemented over the short term (2012-2013) and midterm (2014-2027), will address features WisDOT identified along the US 41 mainline and interchanges that do not meet interstate standards. The deficiencies include the following categories: geometrics, structural capacity, cross section elements (lane widths, shoulders widths, curbs and parapets, medians, pavement and shoulder cross-slopes), lane arrangement, access control, and safety and operations. The projects are shown in the table attached to this memorandum and are further discussed in "Future physical improvement projects that are directly due to the conversion of US 41 to an Interstate facility" on page 10. For the purposes of this analysis, the study team has determined that there are no significant direct impacts associated with the improvements to upgrade US 41 to interstate standards.

The cumulative effects associated with the short-term and mid-term improvements to US 41 between 2012 and 2027 will be negligible because these improvements are generally limited to minor safety upgrades to guardrails, beam guard, delineation, shoulder widening and median barriers or to maintenance (resurfacing and rehabilitation).

No long-term improvements are included as part of this study because they are not reasonably foreseeable as they occur in the distant future and we cannot predict the level of improvement that would be required for these improvements. The current facility generally meets acceptable freeway standards. One example of a long term improvement would be a future interchange reconstruction. The current interchanges either meet freeway standards or have approved exceptions. However, in the future more significant reconstruction may be required to reduce or eliminate exceptions and/or to exceed minimum standards and achieve desired standards. Resources and other factors will be considered in the future when determining to what degree full Interstate standards will be required.

In addition to the projects included in the WisDOT-FHWA agreement, the project team evaluated projects included in WisDOT's Corridors 2030 Plan which identifies numerous projects that are planned for study or construction from 2008-2030. Of the projects listed in the plan, the study team identified a number of projects in the Green Bay area, Fox Valley, Fond du Lac area and Milwaukee and Racine County as the most likely to result in a cumulative impact in terms of induced land development and associated resource impacts; however, the cumulative impacts would not be significant.

Economic Development

The positive economic impacts associated with "interstate brand" resulting from interstate conversion may improve the marketability of sites and lead to an increase in the rate at which sites are prepped for future development (i.e. grading, and/or provision of utilities and roads). However, as discussed in the indirect impacts section, the amount and location of new development will ultimately be tied to land use plans, zoning, and an overall economic recovery in addition to the "shovel-readiness" of sites.

Interstate conversion may slightly increase the volume of tourism-related travel on the corridor as US 41 may be considered a viable alternative to I-43, particularly for out-of-state travelers. Improvements associated with other highway projects in the vicinity could potentially strengthen this connection.

Land Development

The slight increase in pace of non-residential development associated with interstate conversion may naturally lead to job creation and subsequently more demand for housing. Further, higher quality non-residential development may improve the ability of communities along the corridor to compete for residential growth. New residential growth will most likely occur in areas planned for such by local communities. Notably, some of this residential growth may occur in urban areas which would minimize conversion of farmland or natural resource impacts. On the other hand, scattered rural residential, if permitted, may have impacts to farmland areas and rural upland habitat areas (see related sections below).

Other future transportation projects in the study area, in combination with interstate conversion of US 41, may support additional development activity than might otherwise occur. Such development is most likely to occur in planned growth areas, at interchanges, and at visible locations along adjacent highway corridors where improvements are constructed. As indicated above, however, new development will ultimately be tied to land use plans, zoning, whether the site is shovel-ready, and the overall economic climate. Redevelopment of brownfield and grayfield sites as an indirect outcome of interstate conversion would also likely lead to less or delayed development of greenfield sites.

Farmland

The combined effect of urbanization, suburbanization, and development of scattered rural housing has resulted in considerable loss of agricultural lands over the past half century. Past transportation projects and land development has led to the fragmentation of active agricultural lands, which negatively impacts the economic viability of farm operations. Non-agricultural land uses in close proximity to farming, particularly residential, often results in conflicts, such as odors (manure spreading), noise (night fieldwork), and pesticide applications. Each of these trends, though unrelated to interstate conversion, has historically had significant impacts to farmland. Fortunately these trends will be countered by state farmland preservation law and the adoption of farmland preservation zoning by many local governments. Further, there are no projects where new state highways or bypasses are planned in the study area; therefore farmland fragmentation impacts are not anticipated.

The slight increase in pace of non-residential development associated with interstate conversion may increase land values in the vicinity of the corridor, particularly at interchanges and other highly visible locations. Higher land values provide an incentive for landowners to sell land to developers and may make acquisition of land for agriculture purposes more costly for farmers, a fact that is compounded by an overall increase in competition for agricultural land. Agricultural lands adjacent to existing interstate interchanges will likely experience a higher degree of development pressure when development activities begin to occur. The rate of farmland conversions to non-agricultural uses will ultimately be a factor of economic conditions, local plans, and each community's desire to preserve agriculture.

Water Quality (Surface Water, Groundwater, Wetlands)

Water quality in the study area has been affected over the years by urban and agricultural land use practices as well as pollutants associated with chemical storage, road salt, accidental spills, leaking underground storage tanks, leaking underground pipes and sewers, animal feed lots, fertilizers, septic tanks, sewage lagoons, sumps and dry wells, improperly abandoned wells, and stormwater runoff.

Additional impervious surfaces associated with new development with interstate conversion may slightly increase stormwater runoff and/or reduce the quality and ecological integrity of water resources. However, many communities in the study area have recently adopted regulations that are more protective of water resources than had previously been in place. New

development in those communities will be required to meet the new, stricter standards. In certain cases, new development, or redevelopment, may slightly reverse negative impacts to water quality.

The majority of drinking water in the study area is derived from groundwater aquifers; however, many communities in the study area rely on Lake Winnebago and Lake Michigan for potable water. Any land development in the corridor area will likely result in more residents and slightly more consumption which could impact water tables and may stress the groundwater resources. The amount of new land development associated with interstate conversion is anticipated to be minimal; therefore, associated water consumption impacts resulting from interstate conversion are also expected to be minimal.

Endangered Species and Wildlife Habitat

Past transportation projects and land development practices have led to destruction, loss, and/or fragmentation of woodlands and wildlife habitat areas. Future development associated with interstate conversion, if it occurs in woodland areas, may reduce the quantity and quality of wildlife habitat in the study area. However, as described earlier, local governments tend to plan for preservation of environmental corridors and natural resources. In addition, the cost of clearing woodland lots is a deterrent to development. Further, habitat and woodland lots at interchanges and other planned development locations are likely currently compromised due to close proximity to high volume/high speed highways. Therefore, cumulative impacts to woodlands and habitat areas are likely to be minimal.

The Wisconsin Department of Natural Resources (WisDNR) has identified the introduction and spread of invasive species as the greatest threat to the long-term health and sustainability of the state's wetlands. Panelists indicated that the presence of invasive species has long been a concern in the study area. Past human activities, including land development, farming, and recreation have resulted in the introduction and spread of invasive species. While interstate conversion will not directly result in the spread or introduction of invasives, land development and recreational activities, including boating and fishing, may contribute to the continued impact of such resources; however, such impacts are tied to habitat impacts as described above and are likely to be minimal.

Historic and Archaeological Resources

Based on the results of cultural resources literature search, there are no direct impacts under the Interstate Designation Alternative. No specific indirect impacts were identified for historical or archaeological resources. As noted, the overall cumulative effects associated with short-term and mid-term improvements to US 41 between 2012 and 2027 will be negligible because these improvements are generally limited to minor safety upgrades to guardrails, beam guard, delineation, shoulder widening and median barriers, or to maintenance (resurfacing and rehabilitation). Federal regulations protecting cultural resources require WisDOT to avoid cultural resources unless there is no practicable alternative and mitigate impacts when they occur. As a result, impacts due to interstate conversion will likely not cumulatively rise to the level of significance.

Environmental Justice

The availability of public and non-motorized vehicle transportation options (i.e. sidewalks, bike lanes, paths, and trails) varies throughout the study area, with metro areas having a greater abundance of such options. As new development occurs, multiple transportation options beyond the single occupancy vehicle may be needed. Transportation options will be helpful for all individuals in the study area to reach new employment destinations. Also, the need for new, safe, affordable housing will likely occur. In many communities, higher density housing is planned near locations planned for employment. Future development of these areas may fill the need to provide affordable housing in the study area.

Future physical improvement projects that are directly due to the conversion of US 41 to an Interstate facility

There are two types of improvement projects that are associated with interstate conversion, a project in 2014-2015 to install interstate signs and a series of projects to address deficiencies along US 41 identified as part of this project. A description of the potential impacts associated with each type of project is found below.

In addition to the two types of projects associated with Interstate Conversion, there are also several major highway projects, at various stages of completion, in the study corridor that have been undertaken for reasons other than Interstate Conversion. The major projects include US 41 (De Pere to Suamico), US 10/WIS 441 Interchange, US 41 (WIS 26 to Breezewood Lane), the Zoo Interchange, and I-94 North-South (Milwaukee, Racine, and Kenosha Counties). WisDOT defines major highway development projects as the most complex, costly and potentially controversial. They are long-term solutions to the most serious deficiencies on highly traveled segments of the highway system. The major projects' impacts, including any required capacity expansion, have already been addressed in each project's environmental document; therefore, those impacts have no bearing on the environmental document type for this project

Potential Impacts of the Interstate Signing Project

To determine the level of potential impacts associated with installing new interstate signs, US 41 sign posts and sign bridges were field surveyed using hand-held GPS units and entered into a GIS database at coordinate-correct locations. The GIS database includes wetlands, floodplains, architectural/historical sites, archaeological sites (including burial sites), and hazardous material sites within a 1,000-foot radius of the US 41 centerline. The wetland mapping was obtained from the WisDNR, and the flood plain mapping was obtained from the Federal Emergency Management Agency. The architectural/historical, archaeological, and burial site mapping was obtained from the Wisconsin Historical Society, and the hazardous material sites mapping was based on the results of a database search WisDOT purchased. In addition, the project team coordinated with the WisDNR and U.S. Fish and Wildlife Service to determine if there are any state or federal protected species or critical habitat for protected species within a 1,000-foot radius of the US 41 centerline. Both agencies stated that no protected species or critical habitat were located within the search area. Among the resources normally considered in WisDOT transportation projects, these resource categories have a high likelihood of being found in existing right-of-way and significantly affected by proposed roadway improvements. The project team evaluated each sign post and sign bridge location to determine whether it fell within 10 feet of a boundary of the resource categories listed above. Of the range of resources evaluated, the project team found that sign posts on interchange crossroads were located in mapped 100-year floodplains. No other mapped environmental resources were affected. Typically, the floodplain extends well beyond the sign post location and encompasses the cross road. The project team determined that replacing a 4- x 6-inch wood sign post would have a low likelihood of significant impact to floodplain storage capacity or natural values.

Potential Impacts of US 41 Improvement Projects

US 41 is classified as a freeway on the National Highway System and therefore WisDOT uses design standards from the WisDOT Facilities Development Manual (FDM) meeting 70 mph freeway standards. As part of the Interstate Conversion Study, WisDOT prepared a table of roadway design criteria that references AASHTO's *A Policy on Design Standards - Interstate System*, AASHTO's *A Policy on Geometric Design of Highways and Streets*, and the FDM. The table of roadway design criteria establishing Interstate design standards mirrors the FDM 70 MPH freeway standards except in one area – shoulder widths. However, because USH 41 has more than 250 trucks in the design hourly volume (DHV), the shoulder widths in the FDM

standards for 70 mph freeways also match the Interstate standards in the AASHTO *A Policy on Design Standards – Interstate System*. Therefore, future improvement projects on US 41 will be completed to Interstate standards.

WisDOT has developed a list of future improvement projects on US 41 within the study corridor expected to be completed in the short- (2012-2013) and mid-term (2014 through 2027). See attached table. These projects are anticipated to be completed as part of WisDOT's programming, whether or not US 41 is converted to an Interstate. The proposed projects respond to different needs along US 41, one of Wisconsin's most important Corridors 2030 backbone routes. Each of these proposed projects have independent utility and will meet the needs of the highway regardless of whether it is an Interstate. A separate and appropriate environmental analysis will be completed for each project. As part of the pending WisDOT/FHWA agreement for Interstate conversion, WisDOT will likely commit to completing these future improvement projects.

No long-term improvements are included as part of this study because they are not reasonably foreseeable as they occur in the distant future and we cannot predict the level of improvement that would be required for these improvements. The current facility generally meets acceptable freeway standards. One example of a long term improvement would be a future interchange reconstruction. The current interchanges either meet freeway standards or have approved exceptions. However, in the future more significant reconstruction may be required to reduce or eliminate exceptions and/or to exceed minimum standards and achieve desired standards. Resources and other factors will be considered in the future when determining to what degree full Interstate standards will be required.

The table attached to this memorandum identifies the proposed short-term and mid-term US 41 improvement projects along the corridor. The listed improvements could be placed into one of four categories:

1. Not related to Interstate conversion and low likelihood of significant environmental impacts
2. Not related to Interstate conversion and high likelihood of significant environmental impacts
3. Related to interstate conversion and low likelihood of significant environmental impacts
4. Related to interstate conversion and high likelihood of significant environmental impacts

The project team did not place any of the projects in the attached table in categories 2 or 4 because none of the projects have a high likelihood of causing significant environmental impacts. WisDOT placed all of the proposed US 41 improvement projects into categories 1 and 3 for the reasons discussed below.

WisDOT identified six category 1 projects. Three of the six projects already have signed ERs and the other three projects have ERs underway. WisDOT only uses ERs when it is clear that a project will not have significant impacts. Because WisDOT has scoped the category 1 projects and started the design phase without regard to Interstate conversion, these projects are listed as "not related to Interstate conversion and low likelihood of significant environmental impacts."

WisDOT plans to complete the remaining projects whether or not US 41 is converted to an interstate. However, because these projects will be included in the WisDOT/FHWA agreement, they are considered to be related to Interstate conversion. Being related to Interstate conversion does not alter the fact that the remaining projects have independent utility, meaning each is usable and a reasonable expenditure even if the highway is not converted to an Interstate or if no additional transportation improvements in the project area are made. Based on past project experience and review of potential impacts using the project's GIS database, the remaining

proposed projects will have a low likelihood of significant environmental impacts. Therefore, WisDOT placed the remaining projects in category 3 “related to Interstate conversion and low likelihood of significant environmental impacts.” The impacts of the remaining projects will be evaluated in separate and appropriate environmental documents, and these projects will be considered reasonably foreseeable future projects in the cumulative effects analysis of the Interstate Conversion ER. A discussion of the category 3 projects’ potential impacts is found below.

The project team evaluated the likelihood of the category 3 project’s causing significant impacts using two methods, past project experience and evaluating natural resource impacts using a GIS database. WisDOT evaluated the impacts of the guardrail upgrade and beam guard end treatment projects and the resurfacing projects based on experience with past projects. WisDOT Northeast Region normally prepares programmatic ERs for guardrail/beam guard projects. The proposed beam guard end treatment improvements involve replacing existing substandard beam guard end treatments with current design standard Midwest Guardrail System Energy Absorbing Terminals (EAT). Minor grading is completed in the area of the new EAT to provide slopes that allow the EAT to function properly. Based on this experience with similar beam guard end treatment improvements, the proposed guardrail improvement projects listed in the attached table are expected to have a low likelihood of significant environmental impacts.

The proposed resurfacing projects in the attached table will include widening shoulders to the minimum-to-remain-in-place Interstate standards as defined in AASHTO’s *A Policy on Design Standards - Interstate System*. The resurfacing projects will also include grading of fore slopes and back slopes to meet minimum-to-remain-in-place clear zone distances where feasible. If it is not feasible to provide grading, proper shielding will be installed. Median barriers will be installed or upgraded as appropriate including grading median slopes as part of the resurface projects. Past experience with similar projects, including the 2009 resurfacing of US 41 from WIS 15 to County J in Outagamie County and resurfacing projects on IH 94 between Madison and Milwaukee, show these projects have non-significant environmental impacts. The 2009 resurfacing of US 41 in Outagamie County was documented with an ER. Based on WisDOT’s experience with similar resurfacing projects, the proposed resurfacing projects in the attached table are expected to have a low likelihood of significant environmental impacts.

WisDOT evaluated the likelihood of causing significant impacts in the remaining category 3 projects using the GIS database described above. As with the signing project, the project team evaluated the potential impacts of the remaining category 3 projects to wetlands, floodplains, architectural/historical sites, archaeological sites (including burial sites). Based on the review of available GIS mapping and the anticipated footprint of the proposed improvements, WisDOT determined the remaining projects will have a low likelihood of significant environmental impacts. Because the category 3 projects would require little to no new right-of-way and would not change existing access patterns, there was no need to evaluate potential impacts to the built environment and resource topics such as environmental justice and displacements in determining whether the projects would cause significant impacts.

It should be noted that in the US 41 Interstate Conversion ER, only the impacts of the signing project will be discussed, not the impacts of the future improvements to US 41 described in the attached table. The future projects have independent utility and will be completed regardless of whether the highway becomes an Interstate. Separate and appropriate environmental documents will be completed to evaluate the impacts of the future projects. The project team will evaluate the applicability of the full range of direct impacts to natural resource and socioeconomic resources found in the ER to the signing project. At this point in the study, it is anticipated that only direct impacts to outdoor advertising and oversize/overweight vehicles will be evaluated in detail.

Path Forward

Prior to approving the change in environmental document type, FHWA wants input from the project's participating and coordinating agencies on this issue. An agency meeting to discuss the document type change among other issues was held February 4, 2013. If FHWA approves the changes recommended in this memorandum, it would rescind the Notice of Intent published in the Federal Register on July 26, 2011.

Although the SAFETEA-LU process is not a requirement for projects using an ER, WisDOT plans to continue implementing a modified SAFETEA-LU process after the planned document type change. The project's Purpose and Need Statement, Agency Coordination Plan and Impact Analysis Methodology were made available to agencies in May 2012. The Agency Coordination Plan and Impact Analysis Methodology has been revised to remove references to the originally proposed EIS and EIS process and provided to agencies for comment in advance of the February 2013 agency meeting. The alternatives section will not be sent to agencies in advance of the ER being signed. WisDOT will conduct a series of public hearings and hold a 30-day public comment period. At the hearings, information will be provided about the minor costs businesses may incur because of renumbering the US 41 and US 45 corridor, relocating US 41, and adding an additional interstate designation to I-894 and I-94 between the Zoo Interchange and the south project terminus. Agency comments on the ER will be posted on the project website. The end of the planned 30-day comment period and posting of agency and public comments on the project website will mark the end of the modified SAFETEA-LU process.