RECORD OF DECISION
For

I-94 North-South Corridor
(I-94/USH 41 Interchange to Howard Avenue)
Kenosha, Racine and Milwaukee Counties, Wisconsin
Lake County, Illinois
WisDOT Project I.D. 1030-20-00
FHWA-WISC-EIS-07-01-F

Decision
The 35-mile I-94 north-south corridor extends from the USH 41/I-94 interchange in Lake County, Illinois to Howard Avenue in Milwaukee County. See Final EIS Exhibit 1-1. Improvements are proposed to address safety and traffic operations, accommodate future traffic volumes at an acceptable level of service, maintain a key link in the state and regional transportation network and replace deteriorated pavement. The selected improvement alternative is described in detail in Section 2 (Alternatives/Preferred Alternative) of the Final EIS approved by the Federal Highway Administration (FHWA) on March 25, 2008.

The selected alternative is to widen I-94 to eight lanes in the study area (Safety and Design Improvements with Added Capacity Alternative). The selected alternative provides the best balance among sound engineering design, addressing long-term travel demand and safety, and minimizing overall social, economic, and natural resource impacts.

Selection was based on evaluation and consideration of all comments received during the public involvement process, public hearing testimony and other public comments received during the EIS availability period, comments received from state and federal review agencies, environmental and engineering factors, consistency with local and regional transportation/land use plans, and documentation on how the proposed improvements will address long-term traffic and safety needs.

New Information since Final EIS Approval
On March 12, 2008 the U.S. Environmental Protection Agency (EPA) announced it is lowering the primary National Ambient Air Quality Standard for ground-level ozone from 0.084 parts per million to 0.075 parts per million. The final rule appeared in the Federal Register on March 27, 2008 and took effect on May 27, 2008.

The Clean Air Act and implementing regulations establish a deliberate sequence of events, including milestones and timeframes, for the various components that must be in place to implement a new air quality standard and to establish a basis for regulating transportation conformity. Given the current likely schedule for Wisconsin, demonstration of transportation conformity with the a new State Implementation Plan (SIP) based upon the new 0.075 parts per million (ppm) national ambient air quality standard for ozone will not likely be required until 2015-2016. Until such time as new or revised motor vehicle emissions associated with a new or revised SIP become effective, States and Metropolitan Planning Organizations (MPO’s) are required to continue demonstrating conformity against current SIP provisions.
On March 27, 2008 EPA issued Wisconsin a finding of failure to submit an ozone attainment demonstration and reasonable further progress plans for the Milwaukee and Sheboygan ozone nonattainment areas subject to the 8-hour national ambient air quality standard for ozone. This finding in no way invalidated the current Wisconsin ozone SIP. The Wisconsin Department of Natural Resources is engaged in the process of completing the required SIP and anticipates submittal to EPA by April 2009. Until such time as new or revised motor vehicle emissions associated with a new or revised SIP become effective, States and MPOs are required to continue demonstrating conformity against current SIP provisions.

Corrections
Page 4-47 of the Final EIS incorrectly references Wisconsin Statute 84.20 in regard to WisDOT operating assistance for urban mass transit systems. The correct reference is Wisconsin Statute 85.20.

Alternatives Considered
WisDOT and FHWA developed and evaluated a wide range of alternatives. The alternatives were presented to the public and assessed to determine their environmental impacts and the extent to which they meet the purpose of the project. The initial range of alternatives considered:

- No-Build Alternative—No safety or capacity improvements would be made. The study-area freeway system would eventually be replaced as needed in its current configuration with six lanes, left-hand entrance and exit ramps.

- Transportation Demand Management—Attempts to reduce the number of auto trips through increased transit ridership. The public transit system element of the 2035 regional transportation system plan recommends several ways to increase bus service in Kenosha, Racine, and Milwaukee Counties including a rapid transit bus system operating on freeways to provide commute and reverse commute service, and an express bus system operating on a grid of higher speed, limited-stop arterials.

- Transportation System Management—Involves ways to maximize the efficiency of the highway system to help alleviate or postpone the need to expand capacity. Transportation System Management measures are designed to improve traffic flow and safety such as improving intersection capacity, widening shoulders, removing street parking or restricting parking to non-peak traffic periods, adding traffic signals, ramp metering, and providing access management including relocating or consolidating driveways where practicable.

- Build Alternatives
  - Spot Improvement—Replace the existing roadway and bridges and address those safety issues than can be fixed without acquiring any new right-of-way.
  - Safety and Design Improvements—Replace the existing roadway and bridges and address the safety issues described in the Final EIS Section 1, Purpose and Need for the Proposed Action.
Safety and Design Improvements with Added Capacity — This is the same as the Safety and Design Improvements Alternative, but also includes adding one new general purpose travel lane in each direction to address congestion.

WisDOT and FHWA evaluated a new interchange with I-94 at Drexel Avenue and a “full” interchange with I-94 at 27th Street, replacing the existing “half” interchange.

Several other alternatives have been considered and dismissed for various reasons.

- Level of Service C Alternative. WisDOT and FHWA developed an alternative that would provide level of service C on the urban portion of the study-area freeway system (I-94 north of Ryan Road). This alternative would have roughly the same configuration as the selected alternative but with even more added capacity. The right-of-way and relocation impacts of this alternative are much greater than the other Build Alternatives. Based on the residential and business relocation impacts, this alternative was eliminated from consideration.

- High-Occupancy Vehicle/High-Occupancy Toll Lanes. WisDOT and FHWA considered adding lanes for the exclusive use of vehicles carrying two or more passengers (HOV lanes). In some cities, single-occupant vehicles that pay a toll are allowed to use HOV lanes. These lanes are referred to as high-occupancy/toll (HOT) lanes. HOV/HOT lanes would make the freeway wider because the HOV/HOT lanes would need their own shoulder in addition to the shoulder on the general-purpose lanes. Final EIS Exhibit 2-13 illustrates the width of a freeway under different combinations of general purpose and HOV/HOT lanes. The increased width of I-94 with HOV/HOT lanes would dramatically increase the number of residential relocations in Milwaukee County compared to the other Build Alternatives. At least 60 residential relocations would be required in Milwaukee County under this alternative based on WisDOT’s cursory analysis, compared to 4 residential relocations under the selected alternative.

- Reversible Lanes. WisDOT and FHWA considered reversible lanes as a way to provide the functionality of HOV/HOT lanes with less right-of-way impact. Reversible lanes are freeway traffic lanes designated for use by the direction of traffic having the highest volume. Reversible lanes are effective where there is a large directional split in the morning and evening rush hour traffic. In the I-94 north-south corridor, there is not enough of a directional split to make reversible lanes effective.

- 27th Street direct access from northbound I-94. During the Draft EIS public comment period an alternative was suggested that provided direct access to the 27th Street interchange from northbound I-94. Under this scenario, a vehicle would exit northbound I-94 south of the Mitchell Interchange, and a ramp would allow the vehicle to travel through the Mitchell Interchange and merge with the westbound I-894/43 exit ramp to 27th Street. However, under this alternative, no direct access would be provided from the 27th Street interchange to southbound I-94. This is similar to the alternative illustrated in Final EIS Exhibit 2-2a. This alternative was eliminated from consideration because FHWA and WisDOT object to the practice of providing access to an interchange but not providing a return movement from the interchange. Additionally, several residential relocations would be required as a result of this alternative.
Selected Alternative
The selected alternative is the Safety and Design Improvements with Added Capacity Alternative. Under this alternative I-94 will be reconstructed to provide 8 travel lanes between the Wisconsin/Illinois state line and the Mitchell Interchange. I-894/43 between the Mitchell Interchange and 35th Street would also be reconstructed, as would I-94/43 between the Mitchell Interchange and Howard Avenue.

Other key features of the selected alternative:

- the Airport Spur would be reconstructed between I-94 and Howell Avenue and the Airport Spur interchange with I-94 would be reconstructed;

- the Ryan, Rawson, College and Layton Avenue interchanges would be reconstructed as tight diamond interchanges.

- the selected alternative does not provide direct access from the 27th Street interchange with I-894/43 to I-94 southbound; and no direct access from I-94 northbound to the 27th Street interchange with I-894/43.

- all left-hand entrances and exits in the Mitchell interchange would be converted to right-hand exits and entrances to eliminate unsafe weaving and improve safety. Collector-distributor roads would be provided between the Airport Spur interchange and the Mitchell Interchange. Auxiliary lanes would be provided on I-94/43 between the Mitchell interchange and Howard Avenue.

- the Drexel Avenue interchange with I-94 is part of the selected alternative. The Drexel Avenue interchange would improve the freeway ramp and local street intersection traffic operations at the adjacent Ryan Road and Rawson Avenue interchanges to acceptable levels of service. The southbound exit ramp at Rawson Avenue would operate at level of service E without the Drexel Avenue interchange and level of service C with the Drexel Avenue interchange. The southbound exit to Ryan Road would operate at level of service D without the Drexel Avenue interchange and level of service C with the interchange. In addition, the Drexel Avenue interchange would improve the operation of I-94 near the Rawson Avenue interchange. The Drexel Avenue interchange is included in the Southeast Wisconsin Regional Planning Commission's (SEWRPC) 2003 A Regional Freeway Reconstruction Plan for Southeastern Wisconsin, the 2035 regional transportation plan, and Oak Creek and Franklin land use plans. FHWA gave its tentative approval, subject to the completion of a NEPA document, for the Drexel Avenue interchange in December 2007 (see Final EIS Appendix D).

- the interchange at 27th Street and I-94, near the Racine-Milwaukee County line, would be moved about ½-mile north and converted to a full interchange.

- Frontage roads adjacent to I-94 in Kenosha and Racine Counties would be reconstructed and moved further away from mainline I-94.

The selected alternative is illustrated in Exhibit 2-3 at the back of the Final EIS.

The selected alternative is based on engineering and environmental factors and input from citizens, state and federal resource agencies, and local officials. The selected alternative meets all elements of the project's purpose and need and strikes a balance between providing a safe and
efficient study-area freeway system, and minimizing impacts to the natural and built environment in the I-94 north-south corridor to the extent possible and practicable.

Impacts of both Build Alternatives, Safety and Design Improvements and Safety and Design Improvements with Added Capacity, are shown in Final EIS Exhibit 5-1, Impact Summary Table, and documented in Final EIS Section 4, Environmental Consequences. The difference in impacts between the two Build Alternatives is relatively small as shown in the Impact Summary Table. This was a key factor in the decision to designate the Safety and Design Improvements with Added Capacity as the selected alternative.

Identification of the selected alternative was performed in accordance with the Clean Water Act’s Section 404(b)(1) Guidelines for Specification of Disposal Sites for Dredged or Fill Material (40 CFR Part 230), administered by U.S. EPA and 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 minimize adverse effects are undertaken.

Section 4(f) / 6(f)

The U.S. Department of Transportation’s Section 4(f) law (49 USC 303) states that federal funds may not be approved for projects that use land from a significant publicly owned park, recreation area, wildlife or waterfowl refuge, or any significant historic site unless it is determined that there is no feasible and prudent alternative to the use of land from such properties, and the action includes all possible planning to minimize harm to the property resulting from such use.

Section 6(f) of the Land and Water Conservation Fund Act (LWCF) states that property purchased or developed with funds under the act may not be converted to any use other than outdoor public recreation uses. The Act also states that land required from such properties must be replaced with property of at least equal fair market value and of reasonably equivalent usefulness and location, or be compensated through other means in consultation with DNR, the agency responsible for administering the LWCF and other aspects of the Act.

The selected alternative will affect Milwaukee County’s Falk Park, which is subject to Section 4(f) and Section 6(f) requirements. Detailed information on Section 4(f)/6(f) resources in the I-94 north-south corridor and their relationship to the selected alternative are provided in Final EIS Section 5. Following is a brief summary of the conclusions discussed in Section 5. Description of the Section 4(f)/6(f) Resource

Falk Park is a Section 4(f) and Section 6(f) resource in the area of potential effect of the selected alternative. Falk Park would be affected by the new interchange on I-94 at Drexel Avenue. Falk Park is located on the west side of I-94 between Rawson Avenue and Drexel Avenue. The park and the freeway right-of-way share a property line (FEIS Exhibit 5-1). Falk Park is owned by Milwaukee County.

The park is 216 acres. It is undeveloped except for a park office/pavilion and small parking area located off Rawson Avenue and unpaved trails in the north half of the park. The pavilion is available for rent. School groups and nature groups use the northern half of the park.

Most of Falk Park was acquired with LWCF (FEIS Exhibit 5-2). U.S. Department of Housing and Urban Development Community Development Block Grant (CDBG) funds were used in
conjunction with LWCF in the northern half of the park. Falk Park had two LWCF grants according to DNR Southeast Region. Five parcels totaling 116 acres were approved in a 1975 grant and additional properties totaling 36 acres were acquired in a 1978 grant. A portion of the park along I-94 was not acquired with special funds.

**Impacts to the Section 4(f)/6(f) Resource**
Under the selected alternative (Safety and Design Improvement with Added Capacity), the 8-lane I-94 would be approximately 12 feet closer to Falk Park than the existing 6-lane I-94.

The I-94/Drexel Avenue interchange would be a diamond interchange (see Final EIS Exhibit 5-3). As part of the diamond interchange configuration, the entrance and exit ramps would intersect Drexel Avenue close to the freeway in order to minimize impacts to adjacent residences and Falk Park. However, as illustrated in Final EIS Exhibits 2-10 and 5-3, the interchange’s southbound ramp from I-94 to Drexel Avenue would require acquisition of approximately 2 acres from the 216-acre Falk Park. The 2-acre acquisition is part of a larger area in the park that is enrolled in the Conservation Reserve Program. Milwaukee County has begun prairie restoration in this area.

**Coordination**
Milwaukee County supports a new interchange at Drexel Avenue (See Final EIS Appendix C, page C-29). WisDOT met with the Milwaukee County Parks System staff twice in 2006 to inform them of the project and the potential impact to Falk Park and Root River Parkway. In March 2007, November 2007 and April 2008 WisDOT met with Milwaukee County Parks System staff to discuss potential mitigation measures.

In November 2007, WisDOT received a letter from the Milwaukee County Parks System stating that it will continue to work with WisDOT, FHWA, and DNR during the design phase of the project to finalize appropriate mitigation for Falk Park. Although WisDOT offered excess right-of-way contiguous to Falk Park near Rawson Avenue to mitigate the Falk Park impact, Milwaukee County indicated “Milwaukee County Parks System will continue to work with WisDOT to identify suitable lands to exchange with WisDOT to accommodate the proposed interchange at Drexel Avenue.” The mitigation may include other parcels than the potentially excess right-of-way near the reconstructed Rawson Avenue interchange (see Milwaukee County Parks System letter in Final EIS Appendix D).

DNR will recommend approval of the Falk Park conversion to the National Park Service (see Final EIS Appendix D, DNR comment number 79).

**Final Section 4(f)/6(f) Finding**
WisDOT and FHWA evaluated several alternatives for a new interchange with I-94 at Drexel Avenue.

The No-Build Alternative would not be consistent with SEWRPC’s regional transportation plan, *A Regional Transportation System Plan for Southeastern Wisconsin: 2035*, which recommends construction of the I-94/Drexel Avenue interchange. The Cities of Oak Creek and Franklin oppose the No-Build Alternative.

An alternative that would avoid impacts to Falk Park would require the relocation of six residences from the west side of I-94 and 16 acres of right-of-way would be acquired. Under the selected diamond interchange, there would only be two residential relocations and 7 acres of right-of-way acquisition. The City of Oak Creek opposes the Falk Park Avoidance Alternative. Based on the
additional residential relocations, increased right-of-way impacts, and local government opposition, this alternative is not a prudent and feasible course of action.

WisDOT and FHWA have minimized impacts to Falk Park during the study phase by developing a tight diamond interchange and will continue to refine the alignment of this interchange in an attempt to further reduce impacts to the park. WisDOT and FHWA will continue to work with Milwaukee County, DNR, and National Park Service during the design phase to develop appropriate compensation or mitigation for the impact such as the replacement land of comparable value or enhancements to the remaining property.

Based on the above considerations, there is no feasible and prudent alternative to the use of land from Falk Park. The proposed action includes all possible planning to minimize harm to the park resulting from such use.

**Measures to Minimize Harm**

Detailed discussion of measures to minimize harm is provided in Final EIS Section 4.11. Following is a summary of key measures relative to traffic management during construction, air quality, noise, property acquisition, water quality, floodplain and hydraulics, wetlands, and threatened or endangered species.

**Traffic Management**

During the design phase WisDOT and FHWA will evaluate the diversion routes to determine if improvements to these 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 will be staged to ease disruptions to the extent possible. Other mitigation measures may include:

- Workshops to determine which methods could be employed to reduce the effects of construction on area businesses, residents, commuters, community services, and special events.
- 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 schedules and/or shipping schedules to avoid peak traffic hours.
- Improving detour routes and other routes due to increased traffic resulting from construction.

**Air Quality**

Air quality impacts during construction would be generated by motor vehicle, 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 within certain areas. Construction vehicle emission impacts will be mitigated through implementing and maintaining a comprehensive traffic control plan, enforcing emission
standards for gasoline and diesel construction equipment requiring use of ultra-low sulfur fuel in construction equipment and requiring the construction contractor to develop and implement a dust control plan on the construction site. WisDOT and FHWA will evaluate several other air quality construction mitigation best practices to reduce diesel emission impacts from construction equipment including reducing idle times, properly maintaining equipment, stipulating that unnecessary idling and equipment operation is to be avoided, and retrofitting diesel engines with diesel emission control devices.

Dust control during construction would be accomplished in accordance with WisDOT’s Standard Specifications for Road and Bridge Construction, which require the application of water or other dust control measures during grading operations and on haul roads and through those measures proposed in the contractors dust control plan. The location and operation of concrete batch plants would be in accordance with the Standard Specifications, and any special provisions developed during coordination with DNR regarding air quality standards and emissions. Open burning of waste material or brush would be done in accordance with, and where allowed by, local ordinances and in accordance with DNR Bureau of Air Management permit requirements as applicable. Any portable material plants would 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 NR447).

Construction air quality mitigation measures that are adopted by FHWA will ultimately be placed in the specifications that the construction contractors must follow. For this project, there will be multiple construction contracts. Before committing to additional construction air quality mitigation measures, WisDOT and FHWA need to carefully consider the type and extent of construction equipment that will be used in each contract before putting mitigation measures in place. This process will occur during final design as the overall project is divided into the individual construction contracts.

**Noise**

Based on the criteria of 23 CFR 772 and within the framework of WisDOT’s criteria, various methods were reviewed to mitigate the noise impact of the proposed improvements.

TRANS 405, Siting Noise Barriers, has established criteria for determining feasibility and reasonableness and is summarized as follows:

- The barrier must provide a minimum 8-dB reduction.
- The total cost of the barrier may not exceed $30,000 per abutting residence.
- There must be a formal resolution from the local government supporting the noise barrier.
- The local government must provide documentation of land use controls, which would reasonably eliminate the need for noise barriers adjacent to future developments that abut freeways or expressways.

Noise barriers were analyzed at 25 locations adjacent to the study-area freeway system. All of the noise barriers analyzed meet WisDOT’s feasibility criteria. Under the selected alternative, 15 noise walls meet both TRANS 405’s definitions for feasible and reasonable noise mitigation.
There are numerous areas adjacent to the study-area freeway system where individual receptors or small groupings of residences exceed the National Ambient Criteria, especially in Kenosha and Racine Counties. However, it is impossible to design a noise barrier for these receptors that would provide an 8-decibel reduction and still meet the TRANS 405, $30,000 per residence criteria.

Based on the study, WisDOT intends to replace the existing noise barriers as required by the widening of I-94. WisDOT also commits to installing the additional feasible and reasonable noise barriers, pending future public and local government involvement. A final decision on the installation of new abatement measures will be made upon completion of the project design and a separate public/local unit of government involvement process.

If final design results in substantial changes in roadway design from modeled conditions, noise abatement measures will be reviewed.

**Property Acquisition**

Federal property acquisition law provides for payment of just compensation for businesses and residences displaced for a federally funded transportation project (Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended [Uniform Act]). Acquisition price, replacement dwelling costs, moving expenses, increased rental or mortgage payments, closing costs, and other relocation costs are covered for residential displacements. Acquisition and relocation costs for business displacements are also covered under federal law. State law (Wisconsin’s Eminent Domain Law under Section 32.05, Wisconsin Statutes) would cover increased rental or mortgage payments and closing costs for businesses.

Under state law, no person or business would be displaced unless a comparable replacement dwelling, business location, or other compensation (when a suitable replacement business location is not available) would be provided. Compensation is available to all displaced persons without discrimination.

Property acquisition not involving residential, business, or other building relocations is also compensated in accordance with state and federal laws. In consultation with the owners, the value of affected land would be appraised, and the owner compensated at fair market value. Owners are given the opportunity to obtain an independent appraisal. In the event agreement on fair market value cannot be reached, the owner would be advised of the appropriate appeal procedure.

Any septic tanks, drain fields, or wells on acquired properties would be abandoned in accordance with state regulations and local zoning standards. WisDOT will survey all buildings that will be demolished to determine whether asbestos or lead paint is present. All 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 the requirements of the U.S. EPA regulations, National Emission Standards for Asbestos, the Occupational, Safety, and Health Administration regulations on asbestos removal, all applicable regulations, and local government regulations.

The most recent editions of all applicable standards, codes, or regulations shall be in effect. In addition, any person performing asbestos abatement must comply with all 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 properly notify the 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.”

**Water Quality**

Storm water treatment measures will be evaluated during the project’s design phase.

Best management practices (BMPs) can be utilized when dealing with storm water management. BMP options include:

- Retention Basins (Wet Detention Basins)—Retention basins have a permanent pool of water year-round. The permanent pool allows pollutant particles in storm water runoff to settle out over an extended period of time and nutrient uptake also occurs through biological activity. This BMP will be unavailable for most of the Milwaukee County portion of the project because of proximity to General Mitchell International Airport. Federal Aviation Administration guidelines (FAA Advisory Circular N. 150/5200-33A, July 27, 2004) restrict construction of open water ponds near airports (the ponds attract birds, which pose a risk for aircraft). WisDOT has identified about 7 to 9 locations in Kenosha and Racine Counties where wet detention basins/ponds may be located outside of the existing right-of-way. Each would be 1 to 2 acres and would be located adjacent to the frontage roads. The exact size and locations have not been determined. Potential locations are illustrated on Exhibit 2-2 and 2-3 at the back of the Final EIS.

- Dry Detention Basins—A dry detention basin is typically designed to store runoff volume and discharge it slowly to reduce the peak discharge downstream. As normally designed, these basins typically have little effect on the volume of storm water 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 infiltration basins, trenches, grass swales or rain gardens. Infiltration devices are used to slow down the 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. The majority of the storm water quality control in Racine and Kenosha Counties and the southern part of Milwaukee County will be achieved with this BMP.

- Trapezoidal Swale through Infield—This BMP may be used within airport zones where wet detention is not allowed. It combines grass ditch treatment with peak flow reduction and is considered 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. This BMP provides peak flow reduction and may provide infiltration benefits depending on soil conditions.
**Floodplain and Hydraulics**

All structures would have adequate capacity for 100-year flood flow without public or emergency vehicle interruption from damage to the roadway or structures. None of the floodplain crossings would cause a substantial potential for interruption or termination of a transportation facility needed for emergency vehicles or the community’s only evacuation route. Crossings would be consistent with local floodplain management goals and objectives.

Many of the communities in the project corridor allow compensatory storage when a project causes an encroachment into the floodplain. The amount of compensation varies by community and can vary based on whether the impact is to the flood fringe or floodway.

The WisDOT/DNR Cooperative Agreement describes WisDOT's responsibilities related to projects that cause an encroachment into mapped flood hazard areas. WisDOT is required to compute the 100-year regional flood elevation for all new or replacement culverts and provide the results of the analysis to DNR. If an increase in backwater results, WisDOT is required to notify all affected landowners upstream of the project by certified letter, return receipt requested. The local zoning authority must also be notified of the project even in cases with no increase in elevation. When a floodplain ordinance is in effect, “appropriate legal arrangements” are required, which may include certified verification from the affected property owners that notification letters were received; acquisition of property rights or other compensation; or initiation of condemnation proceedings. DNR is responsible for providing assistance to the local unit of government or floodplain zoning authority during the ordinance amendment process. DNR notifies WisDOT if significant problems arise during the amendment process that could affect the project schedule. If a community fails to amend its ordinance within a timely manner and if appropriate legal arrangements have been made, WisDOT may proceed with construction of the project after consultation with DNR. The entire text of the Agreement can be found in the FDM, Procedure 20-30-1.

**Wetland**

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 discussion summarizes wetland mitigation strategies for the I-94 North-South Corridor Study.

Compensation for unavoidable wetland loss will be carried out in accordance with the interagency *Wisconsin Department of Transportation Wetland Mitigation Banking Technical Guideline* (Guideline) developed as part of the WisDOT/DNR Cooperative Agreement on Compensatory Wetland Mitigation. A wetland mitigation plan will be developed during the project’s design phase, in consultation with state and federal agencies.

WisDOT is pursuing the acquisition of a new consolidated wetland mitigation parcel in the Fox River watershed; however, once the proposed acquisition is finalized, the restoration of this parcel will not be constructed for approximately 5 years. In addition, 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 I-94 north-south corridor project is in accordance with the terms of the Guideline.
Threatened and Endangered Species

Plants. A conservation plan will be developed in cooperation with the DNR Bureau of Endangered Resources that will address conservation measures required in the proposed project area for the state threatened seaside crowfoot. All populations of the state threatened plant occurring in the construction footprint will be avoided, if possible, and if this is not possible impacts to this species will be minimized to the extent practicable. An incidental take authorization will be required for unavoidable impacts to the listed plant species. The authorization requires a determination that this loss would not jeopardize the continued existence and recovery of the species in the state. WisDOT will develop a plan to relocate those plants that cannot be avoided.

WisDOT will avoid impacts to all but about 15 plants in a key bluestem goldenrod patch in Milwaukee County. The state endangered plants that cannot be avoided will be addressed through the incidental take process. No other known protected plant species will be affected. DNR recommends relocating two special concern plant species, although DNR acknowledges that WisDOT is under no obligation to do so because the plants are not designated as threatened or endangered. WisDOT may voluntarily relocate some of the two special concern plants that would be affected.

If Illinois DOT reconstructs I-94 in the Lake County portion of the study area, it would coordinate with the Illinois Department of Natural Resources to develop appropriate mitigation measures for the state endangered alkali bulrush.

Herpetiles (Snakes and Turtles). In cooperation with DNR Bureau of Endangered Resources, WisDOT will prepare a plan to avoid or minimize impacts to the Blanding's turtle and eastern massasauga rattlesnake in southern Kenosha County. Installing fencing around construction areas and hand collecting Blanding's turtles and eastern massasauga rattlesnakes from inside the fencing will be a key element of the plan.

Pending the outcome of DNR's genetic testing of Butler's garter snakes in southern Milwaukee County, WisDOT may develop mitigation measures for the Butler's garter snake. WisDOT and DNR agreed at the January 31, 2007, meeting to wait for the results of this genetic testing before developing mitigation measures.

Fish. WisDOT will avoid in-water construction between March 15 and May 15. All in-water construction would be accomplished under "dead water" conditions, per DNR's request. During culvert installation, WisDOT will maintain stream flow such that fish passage is not interrupted. All demolition and construction will be designed to limit material falling into streams. WisDOT will attempt to remove bridge decks in sections rather than knocking it down into the waterway. If a structure must be knocked down, devices will be used to catch falling debris. Material that inadvertently enters the water will be removed. Existing bridge piers in streams would be removed down to approximate stream bed locations.
Wetlands Only Practicable Alternative Finding

The project has been developed pursuant to Presidential Executive Order 11990—Protection of Wetlands. Based on evaluation of all alternatives, it has been determined that there is no practicable alternative to the proposed construction in wetlands and that the proposed action includes all practicable measures to minimize harm to wetlands and related resources that may result from such action. A detailed discussion on how wetland impacts were avoided or minimized, measures to minimize harm to wetlands that cannot be avoided, and the conceptual compensation plan for unavoidable wetland loss is provided in the Final EIS Section 4.11.7, “Wetlands—Only Practicable Alternative Finding”.

Monitoring or Enforcement Program

Monitoring and enforcement programs will consist of ensuring that contractors carry out project construction in accordance with WisDOT contract special provisions or special coordination will continue throughout the engineering design phase to ensure maximum protection of environmental resources. Project development will be monitored by WisDOT and FHWA to ensure conformance with the mitigation commitments made in the EIS prior to authorization of Federal-aid highway funds. Specific monitoring/enforcement actions identified in the EIS include the following:

- When particular project segments proceed to the design engineering phase, WisDOT will re-evaluate the Final EIS in consultation with FHWA to determine whether there have been any substantial changes in the affected environment, selected alternative, impacts, mitigation measures, or environmental commitments as presented in the Final EIS.

- Prior to construction activities requiring discharge of fill material into waters of the United States, including wetlands, 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 meeting Section 404(b)(1) Guidelines for Specification of Disposal Sites for Dredged or Fill Material, and obtaining water quality certification from the 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). A Relocation Assistance Plan under Section 33.25, Wisconsin Statutes, will be required for displaced residences and businesses, and will be subject to approval by the Wisconsin Department of Commerce.

- Further coordination with DNR would occur in a future engineering phase to confirm in-stream construction constraint dates to protect threatened or endangered fish species and to develop a construction avoidance plan for the Blanding's turtle and Eastern massasauga rattlesnake, a relocation plan for the seaside crowfoot, and an incidental take permit for the bluestem goldenrod.
Comments on Final EIS

Notice of availability of the Final EIS was published in the Federal Register on April 4, 2008 with comments due by May 5, 2008. Comments on the Final EIS were received from the following agencies:

- U.S. Army Corps of Engineers
- U.S. Environmental Protection Agency
- City of Milwaukee (Mayor Barrett and Aldermen Hines, Murphy and Bauman)
- City of Milwaukee Department of Public Works
- Milwaukee Public Schools

These letters and FHWA's response to their comments are in Appendix A.

In addition, over 100 comments were received from the public. Many who support the selected alternative, Safety and Design Improvements with Added Capacity, cited the need to rebuild the roadway with an additional lane in order account for future transportation demand and keep traffic moving along this important economic corridor for years to come. Responses cited the potential for economic growth in the region and the vital economic link I-94 provides not only for Southeastern Wisconsin, but the entire state. It was also noted that freight shipments to and from businesses in the area need to know they can travel across Southeast Wisconsin without delays. Responses also mentioned that this reconstruction will need to account for many years of traffic growth and it should be expanded now so it does not need to undergo major work in the future.

Responses opposing the WisDOT and FHWA selected alternative were similar to those submitted during the Draft EIS comment period. Many who are opposed to the selected alternative suggested that I-94 does need to be improved, but WisDOT should select the Safety and Design Improvement Alternative and the cost difference between this alternative and the selected alternative should be used to help fund mass transit options. The Kenosha-Racine-Milwaukee (KRM) commuter rail system was often provided as an example of a mass transit option the additional funds should be spent on. Another reason cited for prioritizing mass transit is to give people a choice of transportation modes as gas prices increase. Other areas of concern for those who oppose the selected alternative include air quality, water quality, general pollution, global warming, greenhouse gases, compliance with NEPA requirements, funding sources for the project and environmental justice, among other concerns.

27th Street Freeway Access Comments

Comments received were related to freeway access at 27th Street and I-894. WisDOT and FHWA's selected alternative limits direct access to the 27th Street interchange from I-94 south of the Mitchell Interchange. Under this alternative, the 27th Street interchange with I-894/43 will remain in place providing access both eastbound (to downtown) via I-94/43 and westbound (to the Hale Interchange) via I-894. The selected alternative does eliminate direct access from northbound I-94 to the 27th Street interchange and direct access from the 27th Street interchange to southbound I-94. Motorists wanting to make these movements would use the Layton Avenue, Howard Avenue or Loomis Road ramps as an alternative. Comments focused on the change in access and the impact it would have on local businesses, quality of life and property values in the area. Concern was also expressed regarding increased travel times for emergency vehicles to St. Luke's Hospital.
A 3,068-person petition and 200 letters from businesses in the 27th Street area were submitted during the comment period. The petition and letters opposed the change in access to 27th Street from I-94 northbound. Comments submitted by and on behalf of the 27th Street Business Association claim the Final EIS is inadequate, violates NEPA and its implementing regulations, and should be reissued with an adequate consideration of the Association’s comments and a new public comment period. Cited reasons for the FEIS’s inadequacy include: not adequately responding to the Association’s or other parties’ comments; WisDOT’s change in position and reasoning whether the full access at 27th Street is possible with reasonable impacts/cost; not adequately considering an alternative developed by the association that would provide full access at 27th Street; not adequately analyzing CO2 impacts; ignores request to conduct a full MSAT analysis; should conduct a new project specific conformity analysis for ozone; and, the estimate of gas prices relied upon by WisDOT is grossly inadequate. See Frequently Asked Questions on pg. 15 and Other Comments received on pg. 18.

Noise Barrier Comments
Comments were also submitted requesting noise barriers at various locations along the study corridor. Noise barriers were requested in the vicinity of Ryan and Oakwood Roads, along 18th Street south of Layton Avenue for the condominiums at Bostonian Village South and extended south from Ramsey Avenue. Three comments were received requesting a noise barrier to protect the Deer Haven Subdivision in Racine County on the west side of I-94, north of the County C overpass.

Drexel Avenue Interchange Comments
Comments received also addressed the proposed Drexel Avenue interchange. Those who support the interchange state that access will be important for businesses in the area and the interchange will relieve congestion at the Ryan Road and Rawson Avenue interchanges. The opposing comment says that interchanges at Ryan Road, Rawson Avenue and College Avenue will be adequate.

Racine and Kenosha Counties Service Interchange Comments
A handful of comments were submitted in regards to service interchanges with I-94 in Racine and Kenosha Counties. While these comments have been noted, WisDOT and FHWA completed a study of these service interchanges in 1996 to determine the best way to improve the interchanges to current design standards. An Environmental Assessment documented the need for the proposed interchange upgrades, alternatives considered and the impacts of the recommended alternatives at each interchange. Following a public comment period, a Finding of No Significant Impact was approved by FHWA in December 1996.

Frequently Asked Questions and Responses
The following frequently asked questions address the most common concerns of those who submitted comments in opposition to the selected alternative.

1. Comment: Why can’t an alternative for the 27th Street interchange with I-894 provide full access to/from I-94 from the south?

Under the selected alternative, the 27th Street interchange with I-894/43 will remain in place providing access both eastbound (to downtown) and westbound (to the Hale Interchange). The selected alternative does eliminate direct access from northbound I-94 to the 27th Street interchange and direct access from the 27th Street interchange to southbound I-94.
The primary reason for eliminating the direct connection from northbound I-94 to the 27th Street interchange and the direct connection from the 27th Street interchange to I-94 southbound is the impacts that would be incurred to provide these connections safely. Providing these connections would result in 26 residential relocations (16 apartment units and 10 single-family houses). The additional cost to provide these connections would be $40 to $50 million and require that a less efficient single-point interchange be constructed. Additionally, to construct this direct access to I-94 from the south, 27th Street over I-894 would have to be closed for 1 year.

Early in the study, a preliminary alternative was presented at a public meeting that showed the direct I-94-to-27th Street connection with relatively few impacts. Further engineering analysis during the study revealed that this connection could not be provided without the impacts noted above and was eliminated from consideration.

Currently, approximately 1,500 vehicles per day use the 27th Street/I-894/43 ramp to access 27th Street from northbound I-94. This represents approximately 6 percent of trips made to the 27th Street corridor (between Layton Avenue and Oklahoma Avenue) on an average weekday.

Based on WisDOT’s traffic analysis, Layton Avenue can adequately handle the additional traffic with minor improvements to the Layton Avenue/27th Street intersection and trailblazing signs from I-94 to the 27th Street commercial area. Travel times between I-94 and 27th Street would increase approximately 3 minutes via Layton Avenue compared to I-894.

2. **Comment:** The Kenosha-Racine-Milwaukee (KRM) commuter rail project should be funded before the freeway is expanded.

Several public comments suggested that WisDOT should reconstruct the study-area freeway system as a 6-lane freeway and contribute the $200 million cost difference between the 6-lane ($1.7 billion) and 8-lane ($1.9 billion) alternatives toward implementing the KRM commuter rail project. Many also suggested that widening the study-area freeway system would not be necessary if KRM were implemented instead.

SEWRPC’s 2035 regional transportation plan clearly shows that the recommended transit improvements in the corridor, including light rail and commuter rail, will not eliminate the need to add capacity to the study-area freeway system and that both modes, highway and transit, are needed to provide an efficient transportation network. Likewise, detailed commuter rail ridership forecasts developed during the current KRM study, of which WisDOT participates and partially funds, show no substantial effect on I-94 north-south corridor traffic forecasts, or on the need for additional lanes. The future traffic forecasts for the I-94 north-south corridor used for this study assume full implementation of the regional transportation plan, including doubling bus mass transit, four potential commuter rail lines, and six potential light rail lines. WisDOT concurs with the regional transportation plan’s recommendations for the KRM and other transit improvements.

However, Wis. Stat. 59.58(6) places responsibility for “coordinating of transit and commuter rail programs in the region” on regional transit authorities rather than WisDOT. The state legislature, in the 2003-2004 biennial budget, also approved a measure that created a commuter rail grant program that caps WisDOT’s funding of any commuter rail systems at 50 percent of the non-federal share or 25 percent of the total, whichever is less (Wis. Stat. 85.064). WisDOT provides over $100 million annually to support mass transit operating costs around the state. In 2003, WisDOT’s transit operating support ranked 11th nationally.
3. Comment: SEWRPC developed its 2035 regional transportation plan and traffic forecasts using the assumption that the cost of gas was $2.30 per gallon in 2035. Gas is much more expensive today. If the recommendation to expand I-94 was based on that assumption, then the recommendation is flawed.

Several public comments stated that the future traffic forecasts used for this study incorrectly assumed the price of gasoline would remain steady at $2.30 per gallon. This statement is not accurate. The travel forecasting conducted for the regional transportation plan and this study makes assumptions about the price of gasoline and the average fuel efficiency of cars and trucks. Together these factors result in a fuel cost per mile of travel.

The forecast of motor fuel cost per gallon is based on forecasts prepared annually by the U.S. Department of Energy. The forecast in early 2005 was $2.19 per gallon. At the time this gasoline forecast was made, gas prices were $1.95 per gallon. Thus, the Department of Energy’s forecast anticipated that the price of gas would increase at a rate higher than inflation. Over the previous 25 years, the price of gas did not increase as quickly as inflation (gas prices increased 92 percent between 1980 and 2005; inflation increased 137 percent over the same period). Based on the Department of Energy forecast, the gas price used by SEWRPC in their traffic forecast was $2.30 per gallon in 2005 dollars. This was adjusted for inflation at 3 percent per year, which is typical of the last several years and slightly less than the last 25 years. This equates to a price of about $5.60 per gallon in 2035.

The other side of the equation, SEWRPC assumed that average fuel efficiency would increase from 22 miles per gallon to 30 miles per gallon. However, federal legislation has recently raised the mandated average fuel efficiency standard to 35 miles per gallon for new vehicles by 2020. Therefore, the average vehicle fuel efficiency in 2035 may be expected to be 35 miles per gallon, higher than the forecast 30 miles per gallon.

Accounting for this higher fuel efficiency under the SEWRPC 2035 forecast of 18.7 cents for gasoline cost per mile ($5.60 per gallon divided by 30 miles per gallon) would result in an increase in the SEWRPC forecast of motor fuel to $6.50 per gallon in the year 2035.

WisDOT concurs that this is a reasonable methodology.

4. Comment: The cost of the selected alternative, $1.9 billion, is not funded. How will this project be paid for?

The project will be funded with a combination of state and federal funds. In the 2007–2009 biennial state budget the Governor and the Legislature showed a strong commitment to the project by including $245 million of project costs in fiscal year 2008 and fiscal year 2009. Wisconsin law prevents the current Legislature from committing future Legislatures to a particular course of action; therefore, the specific source of funds for completing the project cannot be identified at this time. WisDOT will continue to work with the Governor and Legislature to develop funding alternatives for completing the project as scheduled. This is the same process that was used to fund the Marquette Interchange.
5. Comment: According to the FEIS, "The Safety and Design Improvements with Added Capacity Alternative would decrease travel times on SB I-94 during the evening rush hour by over 10 minutes between Howard Avenue and College Avenue in 2035, compared to the Safety and Design Improvements Alternative. Travel times would not vary by as much south of College Avenue. In Racine and Kenosha Counties, there would be little difference in travel times between the two alternatives." Why is WisDOT spending $200 million for capacity expansion when it is doing little to improve travel times?

There are factors other than travel time to consider when evaluating these two alternatives in Racine and Kenosha Counties. While travel times may not significantly decrease in Racine and Kenosha Counties with the added capacity alternative, the level of service will improve from level of service D/F to level of service C/D. Level of service is a measure of the congestion on the freeway. The American Association of State Highway and Transportation Officials document A Policy on Design Standards for the Interstate System recommends a level of service in rural areas of level of service C. Also, while better level of service does not significantly affect travel times, it does indicate less congestion on the freeway. Safety is a factor to consider since as freeway congestion decreases, so does the crash rate.

6. Comment: On March 12, 2008 U.S. EPA lowered the ground level ozone standard. On March 24, 2008 U.S. EPA informed Wisconsin DNR that it had not submitted a state implementation plan that demonstrates how the state will attain and maintain the ozone standard. As a result the state faces sanctions if the state implementation plan is not updated. The Final EIS should be re-circulated with this information.

See New Information Since Final EIS Approval on page 1 of this Record of Decision.

Other Comments Received

1. Comment - The comment period for the I-94 North-South Final Environmental Impact statement should have been extended. "Until April 23, 19 days into the 30-day comment period, the Wisconsin Department of Transportation's web site for the North-South I-94 project failed even to mention the existence of the comment period." Information about it was posted only after it was brought to WisDOT's attention.

"The department is obligated to give full notice of a 30-day comment period on its major communications vehicle for the project. Information about the comment period for the Draft EIS was posted there, and a reasonable person certainly would expect to be able to find similar information comment period for the final document. Failure to give full notice on the web site obviously reduced public knowledge and awareness of the opportunity to comment on the FEIS and inevitably reduced the number of comments filed."

When the extension was requested "WisDOT argued that the official notice of the comment period was published in the Federal Register, and that information also was included in newspaper ads and on 13,000 postcards the agency sent out.

- The Federal Register is not a very good public outreach tool, to say the least. The Federal Register is a dense, difficult publication and is not widely read by the general public.
- The contention that adequate notice can be given through newspaper ads when newspaper readership is in rapid decline is fatally flawed.
• 13,000 postcards is not anywhere near enough to provide notice all of those who might wish to comment on the FEIS.”

Response – Notice of the FEIS comment period was published in the Federal Register, included in newspaper ads in newspapers along the corridor, was provided on postcards sent out to over 13,000 citizens on the project mailing list and was located on the cover of the FEIS which was provided on WisDOT’s project web site.

2. Comment – “The report’s analysis of greenhouse gas impacts is inadequate. The analysis is not much of an improvement over the Draft Environmental Impact Statement, which did not mention greenhouse gases at all. The Final EIS talks about greenhouse gases, but doesn’t say much useful and offers no mitigation plans.” The FEIS violates NEPA requirements by not committing to mitigation of GHG emissions.

Response – FHWA’s position is that greenhouse gas emissions/climate change is a global issue, the affected environment is the entire planet, and no individual project’s emissions will be large enough to perceptibly impact global greenhouse gas emissions and/or climate. FHWA commits to mitigation measures when 1) the impacts for which the mitigation is proposed actually result from the proposed action, and 2) the proposed mitigation represents a reasonable public expenditure (23CFR 771.105(d)).

Because global climate change cannot be attributed to a specific project FHWA will not mitigate potential greenhouse gas emission impacts of the proposed action.

To date, no national standards have been established regarding greenhouse gases, nor has the U.S. EPA established criteria or thresholds for greenhouse gas emissions. On April 2, 2007, the U.S. Supreme Court issued a decision in Massachusetts et al. v. Environmental Protection Agency et al. that the U.S. EPA does have authority under the Clean Air Act to establish motor vehicle emissions standards for carbon dioxide emissions. The U.S. EPA is currently determining the implications to national policies and programs as a result of the Supreme Court decision. However, the Court’s decision did not have any direct implications on requirements for developing transportation projects.

FHWA is actively engaged with the U.S. DOT Center for Climate Change to develop strategies to reduce transportation’s contribution to greenhouse gases—particularly carbon dioxide emissions—and to assess the risks to transportation systems and services from climate change. FHWA will continue to pursue these efforts as productive steps to address this important issue.

3. Comment – “The study wrongly dismisses U.S. EPA concerns over air quality modeling. The U.S. EPA said that the air modeling WisDOT used was ‘not consistent with current academic literature and other published guidance.’ WisDOT rejected the suggestion of other methodologies.”

Response – U.S. EPA’s comments reflect a general difference between FHWA and U.S. EPA positions on the health impacts of MSATs. EPA’s comments do not dispute FHWA’s position that available models cannot accurately assess MSAT levels at specific locations. Nor does U.S. EPA note concern with the statement that MSAT emissions will decrease markedly under either Build Alternative.
4. **Comment** - "WisDOT's plan does not consider the induced demand generated by an expanded freeway."

**Response** - Section 4.2.1, Indirect Effects, of the FEIS considers the induced demand generated by an expanded freeway. Additionally, traffic forecasts for an 8-lane freeway are higher than those for a 6-lane freeway which shows that if the freeway is expanded, more people will use the freeway (FEIS Exhibit 4-3).

5. **Comment** - "The plan puts a disproportionate burden on the city of Milwaukee and its residents. WisDOT acknowledges that construction of an interchange in Oak Creek may have negative impacts on efforts to redevelop the 27th St. business corridor on the south side of Milwaukee and may negatively affect older business corridors in general."

**Response** - Section 4.2.1 of the FEIS states that "The interchange (Drexel Avenue) may also redirect development from other areas within southern Milwaukee County to this area." However, as a result of the proposed action the Mitchell Interchange and the adjacent portions of the study-area freeway system in the City of Milwaukee will be much safer and provide lower travel times. Several parcels of land, including an 11-acre parcel at Layton Avenue, may be made available for redevelopment within the City of Milwaukee. WisDOT has begun working with Milwaukee residents and business owners near I-94 to develop aesthetic enhancements for the freeway and interchanges.

6. **Comment** - "The FEIS does not include available documentation regarding work commuting patterns of residents living in predominantly low-income and minority neighborhoods in the project area, which would shed substantial light on the issues of who benefits from the expansion proposal and who does not."

**Response** - Section 4.5.5 Environmental Justice (page 4-48) of the FEIS discusses the different aspects of who benefits from the project. This discussion is based in part on University of Wisconsin-Milwaukee research on this issue and WisDOT's analysis of that research.

7. **Comment** - "The FEIS discusses the state's contributions to transit systems, but does not directly address how this massive project would affect future transit funding. WisDOT's decision to fund freeway construction instead of transit disproportionately affects low-income and minority populations that are more reliant on transit. SEWRPC, in the 2035 regional transportation plan, said significant additional funding would be needed to implement and maintain its transit recommendations including 'an annual 4 to 5 percent increase' in state funding. WisDOT notes that it is not its responsibility to coordinate transit systems in the region. It does not discuss whether it has any responsibility to provide a balanced transportation system."

**Response** - Transit funding and WisDOT's funding directives put in place by the legislature are discussed at the bottom of pg. 7-7 of the FEIS.
8. **Comment** - "Cumulative impacts analysis for air pollution is flawed because it is based on air quality conformity analysis for ozone that incorporates transit projects that are not fiscally constrained” and won’t be implemented. Most traffic growth will be in freight transport, which has “relatively less strict air pollution requirements than cars.”

**Response:** It is speculative to state that none of the transit recommendations will be implemented over the 30-year planning horizon of the regional transportation plan. WisDOT reliance on FHWA, FTA and EPA conformity finding of the SIP and TIP cannot be called arbitrary and capricious. The comment letter refers to a FHWA report on freight movement. This report’s statement about “relatively less strict air pollution requirements on the freight sector” refers to all modes of freight movement not just trucks. The report goes on to say that “Due to efficiency gains and emission regulations, freight pollutant emissions per mile and per ton-mile are generally declining. However, these emission rates are declining more for trucks than for the other freight modes.”

The 2035 regional transportation plan (page 140) states that approximately 142,220 trips are made by transit in the region on an average weekday. This represents about 2.1 percent of all trips in the region (page 139). The 2035 plan, which recommends doubling mass transit service in terms of revenue vehicle miles of service, still estimates 2 percent of trips will be made by transit in the region (page 449). So if the assumption that mass transit service will double does not come to fruition, it will not have a dramatic impact on trips.

9. **Comment** - “The FEIS, although it indicates that negative health impacts may be attributable to vehicle emissions, does not include adequate protections for students and staff at schools near the Interstate. Numerous studies show that traffic-generated particulates and pollution have adverse affects on health, particularly among children. A recent study shows that students attending schools within 500 meters of a freeway can suffer permanent lung damage. In Milwaukee, schools within 500 meters of the North-South freeway within the project area include Cooper, Garland, Lowell and Whittier elementary schools; Ronald Wilson Reagan College Preparatory High School, IDEAL Charter School and Professional Learning Institute at the Sholes Educational Complex; St. Roman Parish; and Salam School.”

**Response** - Page 4-48 of the FEIS discusses air quality effects on residents and students in the study area. Also, page 4-77 describes some of the specific air quality screening analysis at schools adjacent to the corridor. Particulate matter and MSATs are expected to drop under both Build Alternatives. See Appendix B of the FEIS.

10. **Comment** - “Without a financing plan, conclusion is inescapable that public transit funding will be cut.”

**Response:** A financial plan will be prepared by WisDOT and approved prior to the start of construction. A project-level EIS such as this one is not the appropriate place to speculate on future state legislature’s or future congress’s funding priorities or funding decisions.

11. **Comment** - “The FEIS fails to analyze the potential environmental and economic impacts of alternative fuels most likely to be adopted in the future.”

**Response** - It is outside the scope of this NEPA document to anticipate and evaluate future alternative fuel sources.
12. Comment - "The project would have potentially unacceptable negative impacts on many threatened and endangered plant and animal species, and the FEIS does not contain adequate mitigation plans."

Response - Section 4.11.8, Measures to Minimize Adverse Effects - Threatened and Endangered Species, and Appendix C, page C-6, of the FEIS note that WisDOT and the DNR met in January 2007 to discuss appropriate mitigation measures for unavoidable impacts. DNR agrees that mitigation measures will be developed during the project's design phase.

13. Comment - "The FEIS does not analyze or discuss potential light pollution from the project. This is a significant omission because homes and businesses - particularly those in Milwaukee - would be nearer to the freeway."

Response - The lighting is primarily in the median of the freeway today and will primarily remain in the median, roughly the same distance away from homes.

14. Comment - "The FEIS does not adequately analyze impacts of the project on traffic speeds and traffic volumes on adjacent streets. The report, for example, lists eight streets that may see a 5,000+ increase in traffic volume during project construction. There are other streets and neighborhoods however that will be significantly affected by detoured traffic. While they may not see 5,000-vehicle increases, they also may be built to handle a much smaller volume of traffic than the streets listed. Smaller traffic increases on those streets would still have extremely negative consequences. The overall traffic impact analysis is lacking in substance and does not adequately explain the completed project's potential impacts on local-street volumes and safety, or on neighborhood environs."

Response- The FEIS discusses the traffic impact to local roads on pg. 4-30. The traffic impacts on local roads during construction are discussed in section 4.9.3 on pg. 4-86 of the FEIS. The details of the traffic mitigation plan, including routes and speed limits will be determined when the construction traffic mitigation plan is developed.

15. Comment - "The FEIS does not adequately address the impacts of Milwaukee County's likely designation as a non-attainment area for particulates."

Response - The FEIS recognizes that in the future the region may be in non-attainment for PM 2.5 and that WisDOT and FHWA will comply with whatever PM2.5 conformity requirements apply at that time. (FEIS pg. 4-80.) The potential for PM 2.5 non-attainment status in the project area is also discussed on pg. 4-48 of the FEIS.

16. Comment - "The FEIS does not adequately analyze CO2 impacts, even though it acknowledges that GHG emissions are "a concern along the I-94 north-south corridor." FEIS at 4-20. The DEIS completely ignored CO2 impacts related to the project and the 27th Street access closing. To remedy this problem, WisDOT added a few paragraphs to the FEIS discussing CO2 generally, but without any sort of quantitative analysis. As the WDNR noted in its comments on the DEIS, WisDOT should have conducted an analysis of greenhouse gas ("GHG") emissions, including CO2 related to the project. Instead, in the FEIS WisDOT alleges that "no accepted quantitative tools to estimate greenhouse gases at the project level exist", which is simply false. Id. U.S. DOT itself has performed numerous GHG emissions studies and various models are available. (See http://climate.dot.gov/areas.html. For example, the U.S. DOT has analyzed transportation related GHG emissions in New York state. The report is available at
http://climate.dot.gov/publications/estimating_greenhouse_ry/. EPA also has various estimating methodologies readily available (see, e.g., http://www.epa.gov/oms/climate/420f05004.htm) and a list of some of the estimating models is available at http://www.bts.gov/publications/journal_of_transportation_and_statistics/volume_08_number_02/html/paper_04/index.html.”

Response: In December 2007 the project team consulted with FHWA air quality experts regarding the availability of project-level greenhouse gas emissions models. WisDOT and FHWA stand by the statement that accepted project-level greenhouse gas emissions models have not been developed. The three examples cited in the comment letter are not project level models.

a. http://climate.dot.gov/areas.html: this study addresses state-wide efforts in New York state to quantify GHG emission. While the model does discuss “bottom up” efforts at the MPO-level to characterize regional transportation emissions by mode, it does not address project level GHG emission.

b. http://epa.gov/oms/climate/420f05004.htm: this is not a project level model

c. http://www.bts.gov/publications............; these are not project level models; this site lists models that could be used to measure compliance with the 1997 Kyoto Accord.

17. Comment – “A rough estimate of GHG emission is fairly easy to perform. According to the Sightline Institute, which is a nonprofit, nonpartisan, wholly independent research institute, adding one mile of new highway lane will increase CO2 emissions by more than 100,000 tons over 50 years.”

Response: The Sightline Institute GHG emissions model is a rough estimate, in its own words. It is based only on the number of lanes and not on actual traffic projections. It also includes GHG emissions from vehicle manufacture, petroleum extraction and transport. It is too simplistic to be of use on this project.

18. Comment – “WisDOT failed to adequately consider rail transit as an alternative to expansion, which would actually reduce GHG emissions significantly.”

Response: See Section 2.2.2 of the FEIS.

19. Comment – “WisDOT ignored the Association’s (27th Street Business Association), EPA’s and DNR’s request to conduct a full mobile source air toxics (MSAT) analysis.”

Response: WisDOT and FHWA did conduct a mobile source air toxics analysis. See Section 4.7 and Appendix B of the Final EIS. U.S. EPA’s comments are related to the impact of MSATs; their comments do not ask for further analysis.

20. Comment – “Wisconsin recently decided to exempt cars built in 1995 or earlier from emission testing requirements in ozone nonattainment areas, which will apply in Milwaukee County. According to the Legislative Fiscal Bureau, this change will result in an 18-21% increase in air emissions related to this program in the year 2009. Because of this changed circumstance and other changes identified in prior comments, WisDOT should conduct a new project specific conformity analysis for ozone.”
Response: Legislative Reference Bureau goes on to say that there will be little difference in emissions, as a result of this change, by 2018. The impact of changing the testing program was conducted at the program level, which is appropriate. Re-analysis of the air quality impacts for every project is not required, nor is it productive. The change in emissions testing will affect both the 6-lane and 8-lane alternatives.

21. Comment - “WisDOT dismissed the potential for the project to cause disproportionate harm to minority and low income communities by (incorrectly) asserting that neighborhoods through which the Project passes do not have the highest percentage of minority or low-income populations in the region, and ‘that there is not a large minority or low-income population in the study area, compared to the respective community or county population as a whole.’ As a result it claimed that the proposed action ‘will not have a disproportionately high and adverse impact on low income or minority communities.’ FEIS at 4-49.”

"However, this reasoning reflects a serious misunderstanding of environmental justice requirements and a complete disregard of racially segregated housing patterns in Wisconsin, and in Southeastern Wisconsin in particular." “The Milwaukee neighborhoods affected by the construction of additional lanes within the City ... may not have the highest minority population percentage of all neighborhoods in the City, but compared to the outer suburbs within Milwaukee County, to other Counties in the region, and to the State’s population, they have a disproportionally high percentage of minority residents. WisDOT’s failure to analyze, and then to address, the environmental justice impacts of this Project violates the requirements of Title VI of the Civil Rights Act, of the implementing regulations, and of FHWA Order 6640.23 (12/2/98), in the multiple manners cited in our previous comments."

Response: EPA final guidance on implementing environmental justice into its NEPA review (April 1998, Section 2.1.1) refers back to the federal interagency work group (IWG) guidance on the issue of determining the affected area. The geographic scope against which the affected population is compared is not explicitly identified in the IWG guidance, rather it is left to the environmental justice practitioner. The IWG cautions against deflating or inflating the minority percentage when selecting the appropriate geographic analysis. To take the minority percentage of only certain neighborhoods adjacent to I-94 only in Milwaukee and compare to the region or state or Milwaukee County suburbs, as the comment suggests, would be arbitrary.

Final EIS Figure 3-8 illustrates that 17 percent of the population within ¼-mile of the study-area freeway system in the City of Milwaukee is minority. This is well below the City of Milwaukee and Milwaukee County percentage of minority residents and just above Wisconsin’s 12 percent minority.

In the sub-neighborhoods where the minority percentage is closer to the Milwaukee County average of 38 percent the key issue is whether any minority or low-income populations will experience disproportionately high and adverse effects as a result of the project. In these areas there will be between zero and one residential relocation, narrow strip acquisitions of right-of-way comparable to or less than the rest of the study area, and removal of up to eight garages that can be rebuilt after the project is completed. Air quality and noise impacts will be the same as the other parts of the study area. Unlike the less densely populated areas
in Oak Creek, Racine and Kenosha Counties that will experience adverse noise impacts, the adverse noise impacts in these neighborhoods meet mitigation criteria at several locations so the Milwaukee neighborhoods may receive noise walls. Several areas of re-developable land may become available in the City of Milwaukee as well. Furthermore, Exhibits 2-2 and 2-3 at the back of the Final EIS illustrate how subtle the differences are between the two Build Alternatives in the City of Milwaukee.

22. **Comment** - “The FEIS now includes an additional, disparate impact: in the City of Milwaukee (the only majority-minority city in the region), currently existing, convenient access to I-94 Southbound at the South 27th Street interchange is to be eliminated while in Oak Creek (a predominately white community), a new interchange is to be constructed at Drexel Avenue. The FEIS does not indicate that any consideration whatsoever was given to the environmental justice impacts of these disparate decisions.”

**Response:** The change in access at 27th Street interchange with I-894 will occur in an area that has below average minority population compared to the City of Milwaukee and Milwaukee County and will affect 1,500 trips per day out of the 25,000 trips to that segment of the 27th Street corridor (about 6 percent of the trips). Other routes are available. Given the demographics of the area, removing the direct access from I-94 northbound to 27th Street cannot be defined as a disproportionately high and adverse impact to low income or minorities.

23. **Comment** - “However, what is also strikingly absent from the FEIS is any discussion or analysis whatsoever of the environmental justice effects of the "hybrid" alternative consisting of safety improvements together with additional lanes outside of Milwaukee and no additional lanes in Milwaukee which the Wisconsin DNR specifically requested be analyzed. In fact, DNR’s request is not discussed at all in the FEIS, and is not responded to in any way.” “Nor does the FEIS even acknowledge that SEWRPC staff’s recommendation for the 2003 Regional Freeway Reconstruction Plan was to adopt precisely such a hybrid approach; nor does the FEIS discuss the Milwaukee county Board’s resolution, and the resolution of the Board of School Directors of the Milwaukee Public Schools to similar effect, opposing additional highway lanes in the city of Milwaukee.”

**Response:** DNR stated that the hybrid alternative was addressed in the EIS. MPS board resolution was included in the Draft EIS, their comments on the Draft EIS are included in the Final EIS and have been responded to. MPS’ comments on the Final EIS are included in this Record of Decision. Neither WisDOT nor FHWA received a resolution from the Milwaukee County board regarding this project. It is the sponsoring agencies responsibility to determine which alternatives are deemed reasonable, not commenting agencies. Recently SAFETEA-LU Section 6002 reiterated that after the required opportunity for involvement the lead agency, in this case FHWA, shall determine the range of alternatives to be considered in “any document which the lead agency is responsible for preparing for the project.”

24. **Comment** - “The American Association of State Highway and Transportation Officials ("Highway Association"), of which WisDOT is a member, commissioned a report on MSATs that the EPA characterized as representing ‘current professional practices of air quality experts...’ This report recognizes the existence of ‘reasonable scientific evidence’ showing adverse impacts from MSAT emissions particularly at locations in close proximity
to concentrated motor vehicle activity.' The report concludes that '[m]odeling tools are widely available that are capable of predicting MSAT impacts from transportation projects.'

**Response:** The Final EIS addresses the ICF report and FHWA's disagreement with the conclusions of that report. Appendix B also addresses this comment.

25. **Comment** - "The FEIS violates NEPA by failing to mitigate adverse air impacts."

**Response:** This Record of Decision commits FHWA to certain construction air quality mitigation measures (page 7). Other measures remain under consideration.

26. **Comment** - FEIS did not adequately respond to 27th Street Business Association comments as required by 40CFR 1502.9(b) and 40CFR 1503.4(b).

**Response:** The Final EIS pages 4-34, 4-35 and 7-6 note the opposition by the 27th Street Business Association to the selected alternative at 27th Street/1-894. The Association's suggested alternative is discussed on page 2-45 of the Final EIS. 40 CFR 1503.4(b) allows FHWA to summarize public comments when the comments are "exceptionally voluminous." WisDOT and FHWA received 602 public comments on the DEIS.

27. **Comment** - "WisDOT changed its position and reasoning in the FEIS on why full access at 27th Street is not possible. FEIS at 2-12. In the DEIS, WisDOT stated that full access would increase the cost of the project by $10 million, but then changed this number to $40-50 million in the FEIS without specifying any rationale for this increase. At a minimum, the FEIS should explain this inconsistency to the public and the Association. Moreover, as stated in prior comments, a full socio-economic impact analysis of this alternative should have been conducted, as WisDOT's new unexplained estimate surely does not consider impacts to local businesses."

**Response:** The EIS does not say that full access at 27th Street is not possible; rather, the Final EIS says that the cost of providing full access is not considered prudent for the reasons noted in Section 2. WisDOT researched the socio-economic issues raised by the 27th Street Business Association, documented in an April 28, 2008 (updated May 14, 2008) memo.

28. **Comment** - "The FEIS does not adequately consider the third alternative the Association proposed: leaving open the I-94 NB exit without the on-ramp to I-94 SB. WisDOT eliminates this as an alternative by simply saying that the FHWA generally "object[s] to the practice of providing partial access at an interchange and not providing for all movements." FEIS at 2-45. There are two problems with WisDOT's position on this critical issue. First, WisDOT has provided no evidence that it even contacted the FHWA to attempt to obtain an exemption from this general practice for 27th Street. Second, and perhaps more importantly, WisDOT's preferred alternative at 27th Street clearly violates the FHWA's general practice of not allowing partial access to/from interstates. Adding one exit ramp from I-94 NB would provide more access to motorists than WisDOT's preferred alternative, not less."

**Response:** See Final EIS page 2-45. WisDOT and FHWA discussed the issue and confirmed that an exception to this policy is not prudent in this case. The preferred alternative for the 27th Street interchange provides full access to I-894/43, consistent with FHWA policy.
29. **Comment** - The FEIS does not include adequate plans for mitigating wetland loss in the affected watersheds, citing the U.S. EPA’s Draft EIS comments.

   **Response** - This comment was responded to in Section 4.11.7 of the FEIS. Additionally, a WisDOT letter sent to U.S. EPA on April 4, 2008 provides detailed information regarding the search for compensatory mitigation sites. U.S. EPA’s comments on FEIS note that this issue can and will be addressed during the Section 404 permitting stage.

30. **Comment** - “The study’s proposal for dealing with invasive plant species is inadequate in light of WisDOT’s own history dealing with invasives.”

   **Response** - WisDOT will work with DNR during the design phase to develop and assess the feasibility of measures to minimize the spread of invasive species.

31. **Comment** - “The study fails to adequately address flooding and runoff issues.” “WisDOT offers no specific mitigation plans to reduce flooding problems for homeowners and business operators.”

   **Response** - WisDOT will comply with TRANS 401 and statute 88.87. Storm water treatment measures will be evaluated during the project’s design phase. Section 4.11.5 of the FEIS lists best management practices that may be utilized when dealing with storm water management and run-off.

32. **Comment** - “The study acknowledges that areas adversely affected by increased noise levels attributable to the expanded freeway would not qualify for soundwalls, according to the report. Conversely, the visual blight of sound walls would be constructed in about a dozen areas where they do not now exist.”

   **Response** - Section 4.11.3 of the FEIS explains in detail the criteria and framework used to mitigate the noise impact of the preferred alternative.

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**Conclusion**

Based on the analysis and evaluation documented in the EIS, and after careful 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 this project.

[Signature]

Allen R. Radliff  
Division Administrator  
Federal Highway Administration  
Wisconsin Division

[Date] 5/30/08
Appendix A

Agency Comments on Final EIS

U.S. Army Corps of Engineers

U.S. Environmental Protection Agency

City of Milwaukee, Office of the Mayor

City of Milwaukee, Department of Public Works

Milwaukee Public Schools
April 23, 2008

Mr. Roberto Gutierrez
Wisconsin Department of Transportation
District 2
P.O. Box 798
Waukesha, Wisconsin 53187-0798

Dear Mr. Gutierrez:

We have completed our review of the Final Environmental Impact Statement (FEIS) that was prepared for the I-94 North-South Corridor (Interstate I-94, I-43, I-894, and STH 119 (Airport Spur) I-94/USH 41 Interchange to Howard Avenue), Project ID # 1030-20-00. The project is located in Kenosha, Racine, and Milwaukee Counties, Wisconsin; and Lake County, Illinois.

Our evaluation of the FEIS included the review of the draft FEIS and copies of the Corps previous comments generated during our review of the preliminary EIS. We have determined that our previous general editorial and specific comments have been adequately addressed and incorporated within the FEIS.

Our December 19, 2007, letter commenting on the draft FEIS requested that copies of the indirect and cumulative effect report cited on page 4-3 be forwarded to the Corps. Appendix D of the FEIS indicates that copies of the requested document were provided. To date, we have not received the referenced document. Please forward a copy of the report to the following Corps Regulatory personnel:

Dale Pfeiffle
Waukesha Field Office
First Federal Savings Bank Bldg. Room 101,
1617 East Racine Ave.
Waukesha, WI 53186

Tamara Cameron,
St. Paul District Office
190 E 5th Street
St. Paul, MN 55101
1. This oversight has been corrected. Copies of the indirect and cumulative effects report have been sent.
Thank you for the opportunity to review the FEIS. If you have any questions, contact Dale Pfeiffle in our Waukesha office at (262) 547-0868. In any correspondence or inquiries, please refer to the Regulatory number shown above.

Sincerely,

Dale A. Pfeiffle

For Robert J. Whiting
Chief, Regulatory Branch
Mr. David Scott  
Federal Highway Administration-WI Division  
525 Junction Rd, Suite 8000  
Madison, WI 53717

Mr. Roberto Gutierrez  
Wisconsin Department of Transportation  
Southeast Regional Office  
141 N.W. Barstow St.  
Waukesha, WI 53187-0798

Re: Final Environmental Impact Statement (FEIS) for the Interstate-94 North-South Corridor Study, Project ID: 1030-20-00, Interstate I-43, I-894, and SH 119 (Airport Spur), I-94/US 41 Interchange to Howard Avenue, Kenosha, Racine, and Milwaukee Counties, Wisconsin and Lake County, Illinois, CEQ#: 20080121

Dear Mr. Scott & Mr. Gutierrez:

In accordance with Section 309 of the Clean Air Act and the National Environmental Policy Act (NEPA), the U.S. Environmental Protection Agency (EPA) has reviewed the Final Environmental Impact Statement (FEIS) issued by the Federal Highway Administration (FHWA), for the project listed above.

U.S. EPA noted the preferred alternative of the Draft Environmental Impact Statement (DEIS) as EC-2, Environmental Concerns-Insufficient Information. Our concerns from the Draft BIS related to how wetland impacts and air quality concerns were characterized and how mitigation strategies would be evaluated. In the paragraphs below, we will discuss your responses to our comment letter on the DEIS. We appreciate that you highlighted all of the areas that were changed from the DEIS to the FEIS. This helped with our review immensely.

Impacts to Aquatic Resources (Wetlands and Streams)

We appreciate the incorporation of the description of the Advanced Identification (ADID) wetlands in Southeast Wisconsin on page 4-73 of the FEIS.

Thanks for including a table in the FEIS with more detailed information about wetland impacts in the I-94 corridor, which includes both mainline and interchange work evaluated in this project, other Wisconsin Department of Transportation-sponsored projects along I-94 and any frontage road work along I-94 in these counties. This more complete description provides more context for wetland mitigation decisions.

We appreciate the clarity reached with the Federal Aviation Administration on the mitigation search to avoid restoring wetlands within 10,000 feet of larger airports (and 5000 feet for airports serving smaller aircraft only) as depicted (but not fully labeled) on Exhibit 4-7a.

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Excluding a mitigation search beyond 10,000 feet should occur only with project-specific consideration of wildlife impacts.

The Least Environmentally Damaging Practicable Alternative (LEDPA) discussion, in section 4.11.7 of the FEIS, documents important information on the effort to reduce the wetland impacts of this project. As we suggested in our comments on the DEIS, you clarified the need for compensatory mitigation at a ratio of 2:1 for ADID wetland impacts and 1.5:1 for most other wetland impacts.

The FEIS presents the highlights of the search for compensatory mitigation sites. Thanks for your letter dated April 4, 2008 to Sherry Kunkle, of my staff, which provides additional information about the search for compensatory mitigation sites. The letter provides information beyond that found in the FEIS. We will be responding to the letter in a separate correspondence. Because the search for compensatory mitigation sites is an issue still being worked on, our DEIS concerns will carry over to the Clean Water Act Section 404 permitting process. For the Section 404 permitting process, it will be critical to document the search for mitigation sites in the Des Plaines and Root River watersheds, as well as provide documentation for the search in other project-area watersheds. We continue to emphasize that the compensatory mitigation for this project should address wetland quality values (services) that the lost wetlands have provided. We recognize that the search for good compensatory mitigation sites is an ongoing process with a number of constraints; we hope that some of your current leads on effective mitigation sites will prove to be practicable. Please include U.S. EPA in the key discussions for compensatory mitigation during the 404 permitting process.

Mobile Source Air Toxics (MSATs)

In addition to those MSATs explicitly discussed in FHWA’s interim guidance, the guidance acknowledges numerous studies providing evidence that populations living near major roadways faced adverse health outcomes. The guidance also notes that FHWA cannot assess validity of these studies. However, numerous publications, including those of EPA and the Centers for Disease Control and Prevention, have reviewed available public health studies of current populations exposed to certain levels of traffic-related air pollution. The available reviews conclude that there is consistent evidence across a range of different studies for several health endpoints, including respiratory effects (lung developmental decrements, exacerbation of respiratory symptoms in asthmatics and non-asthmatics, and onset of asthma and allergic disease), cardiovascular disease or mortality, and all-cause mortality in adults (Adar and Kaufman, 2007; Salam et al., 2008; Samet, 2007). Available information suggests a portion of the observed health decrements and populations living near major roads may be attributable to mechanically-generated particles from brake and tire wear, ultrafine particles, or other pollutants not herein defined as MSATs.

At this time, we are not asking for additional MSATs studies to be done for this project. We do want to remind you that U.S. EPA, can provide technical advice and assessments of available mitigation options to help alleviate any public health concern due to MSATs or mechanically-generated particles.
1. Extensive site searches within the 10,000 feet to 5 mile radius have not identified suitable wetland mitigation sites.

2. WisDOT will continue to document the efforts to secure acceptable compensatory mitigation sites. U.S. EPA will also be included in the key discussions for compensatory mitigation during the 404 permitting process.

3. Thank you for comments regarding the February 2006 interim guidance on MSATs.

   Approved air quality models do not allow for a site specific comparison of MSAT levels between the alternatives.

   If the study-area freeway system is widened and, as a result, moves closer to some receptors, the localized level of MSAT emissions could be higher than if the freeway were not widened, but this could be offset due to increases in speeds and reductions in congestion (which are associated with lower MSAT emissions). Also, MSATs will be lower in other locations when traffic shifts away from local streets. However, as shown with the MSAT results presented in Appendix B of the FEIS, on a regional basis, U.S. EPA’s vehicle and fuel regulations, coupled with fleet turnover, will over time cause substantial reductions that, in most cases, will cause region-wide MSAT levels to be significantly lower than today.
Air-Quality Mitigation during Construction

We continue to recommend that FHWA and WisDOT make a firm commitment in the Record of Decision (ROD) to the air-quality mitigation measures for construction that we outlined in detail in our DEIS comment letter. In addition, we recommend that WisDOT formalize their actions by making a commitment to develop and implement a construction emissions reduction plan.

Thank you for giving us the opportunity to review the FEIS. Please send us a copy of the ROD. If there are any questions, please call Julie Guenther, of my staff, at 312-886-3172 or email her at guenther.julia@epa.gov.

Sincerely,

[Signature]

Kenneth A. Westlake, Supervisor
NEPA Implementation
Office of Enforcement and Compliance Assurance

cc: Donald Reed, SEWRPC
4. Section 4.9.2 of the FEIS provided information about potential air-quality mitigation measures based on the information provided in the U.S. EPA's DEIS comment letter. These potential air-quality mitigation measures are reiterated in this Record of Decision. WisDOT will review these measures at the Plan, Specifications and Estimate phase for possible implementation during construction.
May 5, 2008

Roberto Gutierrez
WisDOT Project Manager
Wisconsin Department of Transportation
Southeast Regional Office
141 N.W. Burstow Street
Waukesha, WI 53187-0798

Dear Mr. Gutierrez:

We wish to submit public comments on the Federal Highway Administration’s and the Wisconsin Department of Transportation’s Final Environmental Impact Statement for the I-94 North-South Corridor reconstruction and expansion project.

Specifically, we must re-emphasize the need for a comprehensive and balanced approach to transportation in our region. The 2035 Regional Transportation Plan for Southeastern Wisconsin calls for investment in both freeways and mass transit alternatives. Additionally, local road infrastructure for municipalities faces many current challenges. There is no better time to consider these issues as part of a balanced transportation approach than during the I-94 North-South Corridor Study.

The I-94 reconstruction and expansion project is a $1.9 billion effort—the largest in the history of the State of Wisconsin. Given the enormous price tag, the skyrocketing costs of gas and energy, and the tremendous opportunity that this project presents to advance many modes of transportation, we must reiterate our continued disappointment that the DEIS and the FEIS for the I-94 North-South Corridor Study have not incorporated mass transit into the mix of alternatives.

The I-94 project represents yet another example of the State Department of Transportation’s failure to invest in mass transit alternatives at a level on par with its commitment to freeway spending. A recent analysis by the City of Milwaukee found that in the period between 1992 and 2007, WisDOT spent $19.2 billion on highways, yet rail and mass transit investment reached just $2.2 billion. Clearly this does not represent a balanced approach, and WisDOT must play an equivalent lead role in regional mass transit initiatives as it does with freeway projects.

Office of the Mayor • City Hall • 200 East Wells Street • Milwaukee, Wisconsin 53202
(414) 286-2200 • fax (414) 286-3191 • mayor@milwaukee.gov
1. WisDOT concurs that the need for a comprehensive and balanced approach to transportation in the region is important. WisDOT also supports the findings of the 2035 Regional Transportation Plan for Southeastern Wisconsin.

2. The 2035 regional transportation planning process was designed and conducted to explicitly link the regional transportation planning conducted by SEWRPC with the subsequent NEPA studies for the plan's recommendations and in particular the recommendation for freeway reconstruction with additional traffic lanes. This included the range of alternatives considered in the regional plan, the way in which the travel impacts of the alternatives were considered, and the involvement of local officials and Federal and state resource agencies. This was done so that projects could be comprehensively and efficiently considered and implemented, and so that alternatives considered and dismissed in regional transportation planning would not have to be reconsidered in preliminary engineering. Federal and state resource agencies and local officials were directly involved in preparing the regional plan either on the Advisory Committee guiding, directing and approving the plan step-by-step and chapter-by-chapter or on a work group of Federal and state resource and transportation agencies, or both.

Additionally, the traffic forecasts assume a 100 percent increase in transit service and still show additional capacity on I-94 is required.

3. Several state statutes focus WisDOT's resources on highways rather than transit. Conversely, the state legislature has made it clear that mass transit is the responsibility of local governments or regional transit authorities.
At the same time, better balance in our regional transit strategy should also be applied to the State’s investment in local roads. In 1999, the City of Milwaukee received $27.8 million in State dollars for roads and streets; in 2008 the City received $26.32 million – when adjusted for inflation that represents a 32% decrease over the past 10 years.

Milwaukee, meanwhile, has increased its expenditures to cover this shortfall. The 2005 City Local Streets Capital budget was $4.2 million; in 2008 it stands at $5.5 million – an increase of more than 31%.

These are the critical dollars that repair our streets and fix potholes that wreak havoc on our cars, buses and trucks. If we are to consider spending hundreds of millions of dollars for new freeway construction and expansion, we must also address how to upgrade and maintain our current infrastructure that is showing wear and tear – wear and tear that is much more difficult to fix because of decreased local road aids to Milwaukee and other local communities.

The urgent need for better balance in State transportation spending assumes greater urgency when considering the I-94 North-South Corridor project. The Southeastern Wisconsin Regional Planning Commission has found that 94% of all trips on I-94 between Kenosha and Milwaukee are local trips that start and end inside the region. This suggests that commuter rail service could accommodate much of the local travel demand along this corridor since the majority of trips do not go through the region, but rather are between cities along the I-94 North-South corridor. This could potentially preclude the need for freeway expansion, and ever-increasing gas prices only reinforce the need for greater mass transit alternatives like commuter rail.

Additionally, the FEIS itself acknowledges that freeway expansion in most sections of the I-94 North-South Corridor would result in little or no changes in drive times. Specifically the FEIS states, “Travel times would not vary by as much south of College Avenue. In Racine and Kenosha Counties, there would be little difference in travel times between the two alternatives (the Safety and Design Improvements with Added Capacity Alternative, and the Safety and Design Improvements Alternative).”

WisDOT estimates expanding the freeway from the Mitchell Interchange to the State Line from six to eight lanes would represent $200 million of the project’s total $1.9 billion cost. In light of serious questions raised about the need for freeway expansion, this money could be better spent implementing a balanced transit strategy that includes mass transit alternatives and increased local road aids.

Let us be clear, it is not our suggestion that the State should halt investment in the I-94 North-South Corridor. We support freeway maintenance and believe WisDOT should invest $1.7 billion on freeway reconstruction as planned.
4. Comment noted.

5. Traffic forecasts from SEWRPC have shown that even with an assumed 100 percent increase in transit service, additional capacity along I-94 will still be required.

6. Travel time is only one way to measure the benefits of added capacity. Adding capacity will provide a better level of service in Racine and Kenosha Counties. Improving level of service results in less congestion and improved safety on the freeway system by lowering crash rates.
But the fact remains that WisDOT and the State Legislature continue to treat regional mass transit improvements as a local responsibility, and cap State funding for mass transit at levels far below those freely distributed for freeway construction. WisDOT and the State Legislature have also failed to keep local road aids on pace with inflation, putting additional strain and burden on municipal budgets. The time is now for WisDOT to be as proactive in identifying and securing the necessary funding for regional mass transit projects and local road aids as it is with freeway projects.

The I-94 North-South Corridor project represents a tremendous opportunity to do just that — invest in our region's critical freeways, but also move forward on key mass transit projects and provide local municipalities the support they need to maintain local roads. Instead of spending $200 million to reduce drive time by just 10 minutes for only those travelling southbound between Howard Avenue and College Avenue 30 years from now, WisDOT would better serve the public interest by investing these resources on important mass transit alternatives and increased local road aids that, in tandem with freeway reconstruction and renovation, move the region and Wisconsin forward.

WisDOT's core responsibility is to provide the policy, resources and network to enable all segments of the State's residents to move freely around Wisconsin via the most effective and sustainable modes of transportation available, not just highways. Our region's and our State's growth must be planned with balanced, multi-modal transportation options -- options such as mass transit and local road aids that are presented fairly, accurately and with the same vigor and support as are current freeway plans.

To that end, we urge the Wisconsin Department of Transportation to invest $1.7 billion to reconstruct the I-94 North-South Corridor between the Mitchell Interchange and the State Line, and reserve $200 million for mass transit alternatives and increased local road aids.

Sincerely,

[Signatures]

Tom Barrett
Mayor, City of Milwaukee

Willis Hines
President, Milwaukee Common Council

Michael J. Murphy
Ald, Michael Murphy
Chairman, Finance and Personnel Committee

Robert Bauman
Ald, Robert Bauman
Chairman, Public Works Committee
7. The letter notes, correctly, that the Wisconsin Legislature treats regional mass transit improvements as a local responsibility. Several state statutes focus WisDOT’s jurisdiction and status as “lead agency” on highways rather than transit capital projects. Wisconsin Statute 85.20 allows WisDOT to provide operating assistance to local transit operators, which it does to a greater extent than most states. However, the statute does not allow WisDOT to fund transit capital improvements.

Various regional modal choices have been outlined in the Regional Transportation Plan. WisDOT’s role in implementing those transit recommendations is to fund a portion of transit system costs, once a locally-supported component or combination of elements are “approved”. Further, Wis. Stat. 59.58(6) places responsibility for the “coordinating of transit and commuter rail programs in the region” on a regional transit authority rather than on WisDOT. Also, the state legislature in 2003 created a commuter rail grant program that caps WisDOT’s funding of any commuter rail systems at 50 percent of the non-federal share or 25 percent of the total, whichever is less (Wis. Stat. 85.046).
May 5, 2008

Mr. Robert Gutierrez, Project Manager
Wisconsin Department of Transportation
Southeast Region
PO Box 798
Waukesha, WI 53187-0798

Subject: I-94 North-South Corridor Study
Project: I.D. 1030-20-00
Final Environmental Impact Statement (FEIS)

Dear Mr. Gutierrez:

We have reviewed the Final Environmental Impact Statement (FEIS) for the I-94 North-South Corridor Study, sent on April 1, 2008. While we appreciate the explanations to our concerns, which we communicated to you in two letters dated December 28, 2007 and January 25, 2008, we are disappointed that the DEIS and the FEIS do not incorporate mass transit alternatives. We believe that WisDOT needs to take a more active role in the implementation of a balanced transportation system and not continue to focus on one component, the highway component, of the regional transportation plan. The I-94 North-South Corridor is the perfect opportunity to begin to incorporate a comprehensive and balanced approach for improving transportation in Southeastern Wisconsin.

In an effort to gain input from an outside review of the DEIS/FEIS, Smart Mobility, Inc., a consulting firm based in Norwich, Vermont, that integrates transportation and land use modeling, engineering, and planning, was hired. The Smart Mobility report (attached) supports the idea of a more balanced transportation system and questions the need for an expanded I-94 North-South Freeway due to shifting demographics, travel habits, and development trends. Smart Mobility also shares multiple successful examples of how other States in the US have taken proactive approaches to developing and maintaining a balanced transportation system through significant investment in mass transit strategies. We are submitting this report for your records and for your consideration.

In general, we fully understand the need to reconstruct the I-94 North-South Freeway and are supportive of select design improvements to increase safety. However, given WisDOT’s core responsibility for providing intercity transportation facilities, we believe
1. The 2035 regional transportation planning process was designed and conducted to explicitly link the regional transportation planning conducted by SEWRPC with the subsequent NEPA studies for the plan's recommendations and in particular the recommendation for freeway reconstruction with additional traffic lanes. This included the range of alternatives considered in the regional plan, the way in which the travel impacts of the alternatives were considered, and the involvement of local officials and Federal and state resource agencies. This was done so that projects could be comprehensively and efficiently considered and implemented, and so that alternatives considered and dismissed in regional transportation planning would not have to be reconsidered in preliminary engineering. Federal and state resource agencies and local officials were directly involved in preparing the regional plan either on the Advisory Committee guiding, directing and approving the plan step-by-step and chapter-by-chapter or on a work group of Federal and state resource and transportation agencies, or both.

CEQ Guidance calls for all reasonable alternatives to be evaluated at a comparable level of detail. Section 2 of the EIS explains why transit-based alternatives, while considered, are not a reasonable alternative; it would not satisfy the purpose and need for the project. In short, the traffic forecasts assume a 100 percent increase in transit services and still show additional capacity on I-94 is required. WisDOT concurs with the need for a comprehensive and balanced approach to transportation in the region. However, while WisDOT partially funds other transportation modes, the highway component of the regional plan is the only component of the plan that WisDOT has jurisdiction over.

2. The Smart Mobility report describes several demographic trends in southeast Wisconsin such as an aging population, slower rate of employment growth, declining household size, and evolving housing preferences. The report states that these trends, and growing concerns over greenhouse gas emissions, may reduce automobile vehicles miles of travel in the future. The second part of the report proposes that the Safety and Design Improvements Alternative (6-lane reconstruction) coupled with the KRM commuter rail line would eliminate the need for added capacity.

For this study WisDOT and FHWA used SEWRPC traffic projections that are based on SEWRPC’s fourth generation regional travel demand model. Because the Smart Mobility report raises several regional issues that are tied to the regional travel demand forecast, WisDOT asked SEWRPC to review the Smart Mobility report. Excerpts of SEWRPC’s review of the Smart Mobility report are included here to help respond to the issues raised in the report.

"First, the consultant report suggests that the Kenosha-Racine-Milwaukee (KRM) commuter rail and other transit options could preclude the need for the proposed addition of two traffic lanes to I94 as part of reconstruction projects programmed over the years 2009 to 2016. However, no data to support this position is provided in the report. In cooperation with the Wisconsin Department of Transportation and the City of Milwaukee, the Regional Planning Commission has, as part of the year 2035 Regional Transportation Plan and KRM commuter rail corridor alternatives analysis..."
planning efforts, analyzed in depth the travel and traffic impacts of the KRM commuter rail combined with an extensive expansion of public transit options. The conclusion of these planning efforts has been clear, specifically that the commuter rail and other public transit improvements may be expected to have only a modest impact on IH 94 traffic volumes and congestion. This finding was confirmed most recently in special traffic forecasting work for the IH 94 project. As a result, the regional transportation plan for the year 2035 recommends both the addition of two traffic lanes to IH 94 between the Wisconsin-Illinois State Line and the Mitchell Interchange and the KRM commuter rail service, along with an overall doubling of transit service in the southeastern Wisconsin region. We would note that the additional travel lanes, providing an increment of 33 percent in traffic carrying capacity at a marginal project construction cost of about 12 percent, not only have congestion reduction and safety value during peak travel periods, but provide substantial marginal capacity to carry traffic during accidents and other incidents and during the inevitable periods of pavement repair and resurfacing in the years to come.

The letter also questions the forecasts of increased traffic which support the need for additional lanes, noting that vehicle-miles of travel per capita increased in the past, but may not be expected to increase in the future, due to the projected increase in the elderly portion of the population, and an increased market for higher-density centralized development. The Commission’s travel forecasts are based on a regional land use plan which recommends a departure from the historic trends of land development in southeastern Wisconsin, and specifically proposes that future developments be substantially more centralized and higher density in nature. Between 1972 and 2001, vehicle-miles of travel (VMT) per capita increased from 11.5 to 20.5 in southeastern Wisconsin, an 80 percent increase over 30 years. The forecast increase in VMT per capita in southeastern Wisconsin over the next 30 years from 2001 to 2035 is from 20.5 to 23.7, an increase of 15 percent over the next 30 years. Hence, the consultant’s [Smart Mobility] comments are already reflected in the Commission’s regional planning work.

The report also suggests that adding lanes to IH 94 between the Wisconsin-Illinois State Line and the Mitchell Interchange will significantly increase vehicle-miles of travel. However, Commission travel simulation model analyses have indicated that the increase in vehicle-miles of travel in southeastern Wisconsin due to all regional plan proposed highway capacity expansion—127 miles of freeway widening, 13 miles of new freeway, 226 miles of surface arterial widening, and 75 miles of new surface arterials—is in total about 1 percent, and includes the potential effect of the rerouting of traffic (to take a longer, but faster route), of an increase in trip length (due to potential for faster travel), and of reduced transit travel (due to faster highway travel times).

Lastly, the report suggests the need for public transit improvement and expansion to be implemented along with freeway reconstruction. The
Commission certainly agrees. As noted above, Commission plans recommend freeway capacity expansion and KRM commuter rail, along with other substantial public transit improvement and expansion in the IH 94 corridor. Indeed, the Commission’s regional transportation plan recommends freeway system reconstruction, including capacity expansion, and the significant expansion—a doubling—of transit service for the entire Southeastern Wisconsin Region. We would note that under State law, the freeway system is the primary responsibility of the State of Wisconsin. By contrast, the public transit system, including commuter rail, is the primary responsibility of local government, with the State providing financial aid. To achieve transit system expansion, it will be incumbent on local Milwaukee area governments in the coming months to collectively support, through State legislation, the creation of a permanent Regional Transit Authority in southeastern Wisconsin, and the provision to that Authority of a local/regional dedicated funding source adequate to maintain and expand the transit system. Nearly every other metropolitan area the size of Milwaukee has accomplished this goal and is in the process of building and operating areawide transit systems using a variety of transit technologies. The Smart Mobility report notes that compared to other states, Wisconsin has flexed, or transferred, a limited amount of Federal Highway Administration (FHWA) Surface Transportation (STP) and Congestion Mitigation and Air Quality (CMAQ) funds to public transit projects. We would note that in 2002, $10.7 million of FHWA Surface Transportation Program—Milwaukee Urbanized Area funds were made available for the Milwaukee Downtown Connector transit project, but to date, the city and County of Milwaukee have yet to come to agreement on a project to use those funds.”
that the Smart Mobility report further warrants our recommendation of a multimodal approach within this corridor and continue to recommend the evaluation of mass transit improvements as alternatives to, and in combination with freeway improvements within the subject corridor.

If you have any questions related to the Smart Mobility report please do not hesitate to contact us.

Very truly yours,

[Signature]
Jeffrey A. Polenske, P.E.
City Engineer

[Signature]
Jeffrey J. Mantes
Commissioner of Public Works

JSP:amh

Attachment(s)
Review of Draft Environmental Impact Statement
and Section 4(f) and Section 6(f) Evaluation (DEIS) for Interstate I-94, I-43, I-894
and STH 119 (Airport Spur from the I-94/US 41 Interchange to Howard Avenue)

Prepared for:
City of Milwaukee

Prepared by:
Norman Marshall
Lucinda Gibson

Smart Mobility, Inc.

With contributions from:
Tony Smith
Johanna Nyden
S. B. Friedman & Company

DRAFT
February 21, 2008
1. Overview

We have reviewed the Draft Environmental Impact Statement and Section 4(f) and Section 6(f) Evaluation (DEIS) for Interstate I-94, I-43, I-894 and STH 119 (Airport Spur from the I-94/USH 41 Interchange to Howard Avenue). We also have reviewed other materials supplied by the Wisconsin Department of Transportation and the Southeastern Regional Planning Commission including regional travel demand modeling files and level-of-service analysis worksheets.

The core theme in the DEIS is that widening I-94 is required to accommodate future traffic growth and to promote economic development in the region. However, we believe that this is an incomplete picture of the travel needs in the region that does not adequately take into account shifting demographics, travel habits, and development trends. The recent past has been dominated by increases in suburban jobs and suburban housing, and resulting growth in freeway travel. Between now and 2035, the period covered by the DEIS, these trends will shift sharply. Over half of projected population growth in the region is in persons over the age of 65. With this aging population, the labor force will grow slowly. National data show that people over 65 are net sellers of homes, and are looking for different types of housing—specifically, maintenance-free units such as condominiums and townhomes located in walkable proximity to retail, amenities, and transportation. Nationally, the hottest real estate markets for both residential and commercial development are in urban areas with good transit systems. This region badly needs improved transit services to meet the needs of the aging population and the changing economic development environment.

The backbone of improved transit would be the KRM Commuter Link that would link the Milwaukee, Racine and Kenosha urban centers and provide connections to Chicago. The KRM Commuter Link is not just a transportation project but also an economic development project. The planning documents for the KRM Commuter Link estimate that development and reversion that "may be specifically attributed to the implementation of commuter rail" include 17,100 jobs and 12,800 residential units. As much as 71,000 jobs and 23,000 units could develop around rail stations.

Shifting development towards the rail station locations from more decentralized locations in the region would have significant transportation and environmental benefits. The DEIS modeling files show that widening I-94 will increase traffic volumes and congestion on intersecting local roads. Widening I-94 will also increase regional vehicle miles traveled (VMT) and associated greenhouse gas emissions. Shifting travel to transit and encouraging more compact transit-oriented development will help mitigate these negative impacts.

Other state Departments of Transportation contribute heavily to commuter rail. The Maryland Transit Administration (MTA), part of the Maryland Department of Transportation, operates a 200-mile, 42-station commuter rail system. Over 2/3 of MTA’s funding is from state sources. The Virginia state government contributes more than twice as much as local sources to the budget of the Virginia Railway Express (VRE) that provides commuter rail service from the Northern Virginia suburbs to Alexandria, Crystal City and downtown Washington, D.C.

In general, Wisconsin lags behind other states in transit funding. A striking example is in the share of flexible federal transportation funds that are spent on transit. Over the period 1992-2006, Wisconsin flexed only $0.95 per person per year. This compares with a
national average of $3.25 per person per year. If Wisconsin had flexed at the national average rate, an additional $185 million would have been available to support transit over the period 1992 – 2006.

2. The KRM Corridor in the 21st Century

2.1 Population

The greater Milwaukee region has a moderately-growing, aging population. The Southeastern Wisconsin Regional Planning Commission (SEWRPC) projects that population will grow from 1.931 million to 2.276 million between 2000 and 2035.\(^1\) As shown in the Figure below, over half of the projected population growth between 2008 and 2035 will be people aged 65 and over. This contrasts strongly with recent history. The great majority of the population growth between 1990 and 2008 was among cohorts aged 45-64.

**ACTUAL AND PROJECTED POPULATION IN THE REGION BY GENERAL AGE GROUP: 1950-2035 (INTERMEDIATE PROJECTION)**

![Population Graph](image)

**Source:** U.S. Bureau of the Census and SEWRPC.


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This aging is consistent with national trends. The U.S. Census projects that the number of individuals age 65 or older will double from nearly 35 million today to more than 62 million by 2025. According to “Aging Americans: Stranded Without Options”, a report published in 2004 by the Surface Transportation Policy Project (STPP), a national transportation policy and advocacy organization, one in five older Americans do not drive and of these non-drivers, approximately 54% stay home on any given day for a variety of reasons.

This pattern, when combined with housing preference trends among aging Americans described later in this review, suggests that mobility strategies for the coming decades that emphasize transportation choice—specifically, provision of options that do not require driving. Further, the travel habits of these expanding older cohorts are likely to cause overall reductions in per-capita Vehicle Miles Traveled (VMT), thus affecting congestion levels and the need for new roadway expansion.

2.2 Employment

The employment growth rate is projected to be less than the population growth rate as the 65 and over population will reach retirement age and limit growth in future employment. A SEWRPC report states:

The future rate of employment growth in the Region is expected to be lower than occurred during the 1970s, 1980s, and 1990s, when jobs increased by an average of about 146,000 jobs per decade. Commission forecasts indicate that a leveling-off in the regional labor force—persons available to fill jobs—may be expected beginning in about 2015, as much of the baby-boom generation (those born from 1946 through 1964) reaches retirement age. The aging of the population, along with relatively stable labor force participation rates, may be expected to moderate the number of jobs able to be accommodated in the Region without substantial in-migration.

SEWRPC projects 11.9 percent employment growth between 2000 and 2035 – or about 2/3 of the 17.9 percent projected increase in population.

2.3 Households and Housing

Household size has declined in the region and throughout the U.S. in recent decades as families have had fewer children and there are more 1 and 2-person households. SEWRPC projects these trends will continue and that there will be 23.6 percent more households in the region in 2035 than in 2000 (compared to a 17.9 percent increase in population).

An aging population is consistent with the household size decline projections because it includes a large number of 1-person and 2-person households. However, the aging population also suggests significant changes in the housing market. This issue is addressed in the current issue of the Journal of the American Planning Association in an article by Myers and Ryo. They write:

The giant baby boom generation born between 1946 and 1964 has been a dominant force in the housing market for decades. This group has always provided the largest age cohorts, and has created a surge in demand as it passed through each stage of the life cycle. As its members entered into home

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2 SEWRPC, Planning Report No. 48, p. 146, 149.
buying in the 1970s, gentrification in cities and construction of starter homes in suburbs increased. Their subsequent march into middle age was accompanied by rising earnings and larger expenditures for move-up.\(^3\)

In contrast, the authors found that those 65 and over are net sellers of housing as shown in the figure below.

![Diagram showing age groups and buy/sell rates](image)

Figure 3. Average annual percent of persons buying and selling homes in each age group, for the United States, 1995 to 2000.

Source: Myers, Dowell and SungHo Ryu, 2008.

These senior citizens will need to live somewhere, but they will likely be downsizing and choosing housing that is different from the large lot, single-family housing that has dominated housing construction in recent years. In 2006, before the housing bubble burst, Nelson wrote:

> With changing demographics, homeownership at a historically high rate, and rising energy and construction prices, maintaining the 2003 distribution of housing units by type may be unlikely. The preference survey results also suggest that the market is currently significantly oversupplied with detached single family homes on large lots relative to demand in 2025.\(^4\)

### 2.4 Economic Development

In the latter parts of the 20\(^{th}\) century, the hot land development areas were freeway-oriented shopping centers, suburban office parks, and large residential subdivisions. In recent years, the hottest markets have been walkable, mixed-use urban centers. As they have reported in each of the past several years, the authoritative Urban Land Institute/PricewaterhouseCoopers annual Emerging Trends in Real Estate 2008 report concludes:

> The top markets to watch, according to the report, are those that have positioned themselves as 24-hour cities with a global pathway to international

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markets. They all have a major international airport and/or shipping port, export-import hubs, an educated workforce and walkable residential neighborhoods. They have made a concerted effort to revitalize downtown areas or nearby "urban burbs" that have made them magnets for corporate headquarters, business elites, the best and the brightest of the workforce as well as the largest share of investor dollars.\(^5\)

Chicago is a neighboring dramatic example of this phenomenon and the resurgence in downtown Milwaukee also is well underway. Downtown Milwaukee was listed as one of the top 20 places to retire nationwide in Kyle Ezell’s book, Retire Downtown: The Lifestyle Destination for Active Retirees and Empty Nesters for its “dramatic natural setting on Lake Michigan, the Riverwalk, the city’s attention to historic preservation and architectural innovation, Old World charm, fabulous festivals, and for being a city-lover’s kind of city with a steady focus on downtown redevelopment.”\(^6\)

The hot urban markets in the U.S. either have high-quality transit systems already and/or are making major investments in them, and a major rationale for these investments is the economy. For example, the Denver area has committed to a 12-year $6.1 billion FasTracks transit expansion program in 2004, which 79 percent of metro-area residents think was a good decision.\(^7\)

Investments in rail transit, working in concert with shifting market preferences, have shown a strong influence in concentrating development activity in close walking proximity and in having significant impacts on property values.

In Dallas, the Dallas Area Rapid Transit (DART) rail system recently underwent a significant expansion, from 20 miles to 44 miles in total system length. As of 2003, new development around DART stations was estimated to be worth approximately $1 billion. Moreover, between 1997 and 2001 the value of office properties near DART stations increased 53% more than similar properties not served by rail; and at the same time residential properties near rail increased 39% more than properties not served by rail.\(^8\)

Midwestern cities are also recognizing the benefits of expanding existing rail service. The first leg of the Twin Cities’ Hiawatha light rail line was completed in 2004 and includes 17 stations over 12 miles. Even prior to its opening, the anticipated construction of this new rail line resulted in significant development activity within close proximity to station sites. Between 2003 and 2007, 11,931 housing units and 1,054,436 square feet of commercial space were built, are under construction, planned, or proposed within a one-half mile radius of stations in Minneapolis.\(^9\)

http://www.udl.org/AM/Template.cfm?Section=Home&CONTENTID=112285&TEMPLATE=/CM/ContentDisplay.cfm


\(^7\) http://www.rid-FasTracks.com/main-1


In the Chicago suburb of Palatine, Illinois, a downtown development boom has occurred since 2000 following municipal and federal investment in a new Metra commuter rail station and parking facility. Since 2000, nearly 1,400 housing units have been built near the Metra station, as well as a substantial increase in retail square footage. The total station-area private real estate investment over this period is conservatively estimated at $250 million.\textsuperscript{10}

A 1998 study of 96 commuter rail and rapid transit stations in Metropolitan Chicago found that proximity to transit produced significant positive effects on residential property values. The study found that buyers of single-family homes located between 300 feet and one-mile from a rail station pay an accessibility premium of approximately one percent for every 100 feet closer to the station. As a result, a single family home 1000 feet away from a train station received a 20 percent increase in value versus a comparable property located a mile away.\textsuperscript{11}

\subsection*{2.5 Traffic Volume}

The total amount of traffic is measured in total vehicle miles traveled (VMT), the two drivers of which are total population and VMT per capita. Between 1970 and 1998, total annual VMT for the State of Wisconsin grew steadily, in part through population growth, but primarily due to more driving per person. However, per capita annual VMT in Wisconsin has leveled off over the past 10 years, as illustrated in the figure below.

\begin{figure}[h]
\centering
\includegraphics[width=0.5\textwidth]{wi_vmt.png}
\caption{Wisconsin VMT/person/year}
\end{figure}

Sources: Wisconsin Department of Transportation (VMT) and Wisconsin Department of Administration Demographic Services Center (population)

While year-to-year VMT frequently fluctuates due to short-term economic conditions, the underlying factors of this 10-year change are long-term and permanent. During the steep growth


period from the early 1980s until the late 1990s, labor force participation rates and vehicle ownership rates increased during a period of declining real gasoline prices. In the future, labor force participation rates are projected to decline due to the aging population. Auto ownership is already almost universal, and it is unlikely that gasoline prices will return to the low historical price levels. Therefore, there is no reason to expect a return to growth in VMT per person per year.

On the other hand, two factors may push VMT per person per year lower than it is today. The first is demographics. As discussed above, over half of the regional population growth projected is comprised of people aged 65 and over. As shown in the figure below, drivers aged 65 and over drive only half as much as those aged 20-55 on average. It should also be noted that this data is on a per-driver basis, and a significant proportion of those aged over 65 do not drive at all.

![Average VMT per Driver per Year](image)

Source: 2001 National Household Travel Survey

Therefore, the aging of the population will tend to reduce average VMT per person.

The other factor likely to reduce future VMT is growing concern about greenhouse gas emissions. On April 5, 2007, Governor Doyle signed Executive Order 191 creating a Task Force on Global Warming. With the following mission:

a. Present viable, actionable policy recommendations to the Governor to reduce greenhouse gas emissions in Wisconsin and make Wisconsin a leader in implementation of global warming solutions; and

b. Advise the Governor on ongoing opportunities to address global warming locally while growing our state's economy, creating new jobs, and utilizing an appropriate mix of fuels and technologies in Wisconsin's energy and transportation portfolios; and

c. Identify specific short term and long term goals for reductions in greenhouse gas emissions in Wisconsin that are, at a minimum consistent with the Wisconsin's
proportionate share of the reductions that are needed to occur worldwide to minimize the impacts of global warming.\textsuperscript{12}

This Commission has been meeting regularly. At its December 18, 2007 meeting, one of the presentations was a "Transportation Policy Options Review."\textsuperscript{13} In the transportation area, the largest single reduction would result from adopting the California Tailpipe Emissions standards. The second largest reduction would be achieved through "Transportation Planning and Funding" including:

- Incentives for compact and infill development
- Economic development reforms
- "Fix it first"
- "Complete Streets"
- Model ordinance for market pricing of parking
- WisDOT planning methodology
- Technical assistance and
- Model ordinances

Another large reduction would be achieved through "Travel Demand Management" including:

- Provide employer incentives to promote alternative transportation modes
- Parking pricing mechanisms
- Promote commuting alternatives

Together, these initiatives are estimated to reduce Wisconsin VMT by about 15 percent in 2020 relative to the reference case. To achieve this level of reduction, it is likely that reductions in urban areas, including the greater Milwaukee region, would need to exceed this percentage, as it would be more difficult to achieve reductions in most rural areas with these techniques.

While it is too early to know whether these programs will be adopted now, it is likely that greenhouse gas regulation at the state or federal level, or both, will work to reduce future VMT during the time period covered by the DEIS (through 2035).

Any actions to reduce future VMT likely will have an even greater reducing effect on future I-94 traffic volumes. As is discussed below, a large percentage of I-94 traffic is comprised of local trips using circuitous routes in order to save time over local roadways. If future VMT is going to be reduced, this type of travel would be a primary target.

Without regulation, focusing transportation investments on freeway expansion will increase regional VMT. The DEIS shows increases in I-94 traffic volumes its Figure 4-3 reproduced on next page). The increase is greatest at the northern end of the project where traffic congestion is the greatest and there are more parallel routes to divert traffic from. At this northern end, the projected increase is 20,000 vehicles per day.

\textsuperscript{12} http://dpr.wi.gov/environment/protect/utfgw/order191.html
\textsuperscript{13} http://dpr.wi.gov/environment/protect/utfgw/documents/MITF20071218.pdf
See exhibits 4-4 and 4-5 for more detail.

**LEGEND**

- **AADT** = Annual Average Daily Traffic
- **LOS** = Level of Service

**EXHIBIT 4-3**

**Future Traffic Volumes and Level of Service**
Although I-94 largely bypasses the population centers of Kenosha and Racine Counties, many short trips originating and ending in population centers to the east appear to use short freeway segments as parts of longer, less direct routes that allow time savings. Wisconsin DOT traffic counts show large volumes of traffic entering and exiting I-94 between the Illinois state line and I-43 on a daily basis. From these data, we have calculated that the average vehicle using this section of I-94 travels only 10 miles out of a total length of 31 miles. During the peak traffic periods that determine design needs, the percentage of through traffic is even lower because much of through traffic occurs outside peak travel times and may even be actively avoiding peak periods (especially through the Chicago metropolitan region).

Increasing travel speeds on the freeway by increasing capacity will attract more short circuitous trips and increase regional VMT. The SEWRPC model files that are the basis of the DEIS analyses show 218,000 more regional VMT per weekday with widening I-94 than in the no build case.14

Because no trip begins or ends on an Interstate, traffic would increase after widening not only on I-94 but also on intersecting roadways. These intersecting roadways are often the most congested points in the regional roadway system because they must accommodate multiple functions, including through traffic, access to the freeway, and access to significant commercial development near interchanges. While widening a freeway may improve travel time for the freeway users, travel times on the side roads accessing the freeway can deteriorate significantly. An example of this in the DEIS modeling is in Kenosha County at Wilmot Road east of I-94. For this roadway segment, the daily traffic volume is modeled as increasing from 17,500 to 22,800 with widening, a difference of 30 percent. This translates into a modeled increase in travel time of 14 seconds for every car using this 0.6-mile section of roadway.

As shown in the graphic on the next page, taken from the DEIS, the population in Racine and Kenosha Counties is primarily located well to the east of I-94. A greater emphasis on transit that serves these communities would help to mitigate the negative traffic impacts of widening I-94 on local roadways that intersect I-94 and on regional VMT/greenhouse gas emissions.

14 The increase of 218,000 VMT per day accounts only for rerouting. Studies of induced travel demand resulting from increased freeway capacity indicate that this is only a partial accounting. There also will be additional VMT due to different trip patterns and different land development. These factors are not accounted for in the DEIS modeling.
The corridor population is estimated by utilizing the Census 2000 population counts. This count is then converted into a population density based on the SEWRPC Regional Land Use Inventory 2000 for each Census Block. The estimated population is then computed based on the amount of residential land within the I-94 corridor.

Three-County Region

<table>
<thead>
<tr>
<th>City</th>
<th>Population</th>
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<tbody>
<tr>
<td>Milwaukee</td>
<td>940,164</td>
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<tr>
<td>Racine</td>
<td>188,831</td>
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<tr>
<td>Kenosha</td>
<td>149,577</td>
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<td><strong>Total</strong></td>
<td><strong>1,278,572</strong></td>
</tr>
</tbody>
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One-Mile Corridor

<table>
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</thead>
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<tr>
<td>Racine</td>
<td>2,000</td>
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<tr>
<td>Kenosha</td>
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<tr>
<td><strong>Total</strong></td>
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Quarter-Mile Corridor

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<th>Population</th>
</tr>
</thead>
<tbody>
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<td>15,335</td>
</tr>
<tr>
<td>Racine</td>
<td>413</td>
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<tr>
<td>Kenosha</td>
<td>474</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>16,222</strong></td>
</tr>
</tbody>
</table>

1 Dot represents 5 Persons

0 20,000 Feet

EXHIBIT 3-6
Total Population Along I-94 Corridor
3. A Balanced Alternative for the 21st Century

3.1 Transportation for an Aging Population

As discussed above, over half of the Milwaukee region’s population between now and 2035 is projected to be people over 65, reaching a total of 500,000 persons aged 65 and over. AARP reports that 1 in 5 U.S. adults aged 65 and over do not drive.\(^{15}\) If this ratio holds in the Milwaukee region, this will represent 100,000 persons in 2035, the DEIS analysis year.

As discussed above, seniors who continue to drive travel a much shorter distance over the course of a year, on average, than younger drivers. Many older people who do drive would be safer if they did not drive or drove less. Fatality and injury rates are very high for the oldest drivers, as shown in the figure below. For those 75-79, the fatality and injury rates per 100 million miles driven are about 3 times that of middle aged drivers; for those 85 and older, the rate is almost 10 times as great as for middle-aged drivers. These people are driving, at least in part, because of inadequate alternatives to driving.


There are particular safety problems involving older drivers and freeways.

Although freeways have the highest safety level (lowest fatality rate) when compared with other types of highways in rural and urban areas, analyses of crashes in the vicinity of freeway interchanges have shown that drivers age 75 or older are overrepresented as the driver at fault in merging and weaving incidents.

\(^{15}\) AARP, Beyond 50.05: A Report to the Nation on Livable Communities: Creating Environments for Successful Aging, 2005, p. 77.
In a Michigan data set, older drivers also were cited most frequently for failing to yield and for improper lane use. Lunenfeld described interchanges as locations where a driver must process a large amount of directional information in a short period of time and at high speeds, while maintaining or modifying a position within the traffic stream. Unfamiliar locations exacerbate this condition. Erratic maneuvers resulting from driver indecisiveness in these situations include encroaching on the gore area and even backing up on the ramp or the through lane. In Lerner and Ratté's research, focus groups cited merging onto the freeway as the most difficult maneuver.16

These problems exist even though older drivers often adapt their driving to their reduced abilities. Adaptations include: driving less, avoid peak traffic periods, avoiding bad weather driving, avoiding night-time driving, driving more slowly, and longer gaps between cars.17

AARP supports older people driving, but encourages alternatives.

Communities should facilitate driving by older individuals by improving the travel environment, supporting driver education, and promoting safe driving throughout the life span.

Communities should take positive steps to enhance mobility options, including public transportation, walking and bicycling, and specialized transportation for individuals with varied functional capabilities and preferences.18

A balanced transportation system for the 21st century must provide transportation alternatives to freeway driving, including greatly improved public transportation.

3.2 Transportation for Economic Development

As discussed above, rail transit has been highly catalytic in encouraging substantial private investment and revitalization in urban centers. A balanced project for the 21st century includes needed reconstruction and safety improvements on I-94 but also a strong push towards transit and walkable transit oriented development (TOD). The cornerstone transit project in this corridor that will help spur TOD is the Kenosha-Racine-Milwaukee Commuter Rail Link.

Preliminary planning for the Kenosha-Racine-Milwaukee Commuter Link (KRM) indicates that:

Commuter rail may be expected to support, and assist in bringing about, planned development around its 9 stations of up to:

- 23,000 residential units
- 71,000 jobs
- 7.6 million square feet of retail space
- 4.7 million square feet of office space

Some of the above development and redevelopment may be specifically attributed to the implementation of commuter rail:

- 12,800 residential units
- 17,100 jobs


18 AARP, 2005. p. 11.
Economic impact of potential development around the 9 commuter rail stations totals:

- Increase in assessed valuation of $7.9 billion
- Increase in annual retail sales of $750 million
- This does not include the spillover of development and redevelopment, and increased land and property values which will occur in neighborhoods adjacent to the immediate station areas.

A balanced transportation system for 21st century economic development must provide transportation alternatives to freeway driving, including greatly improved public transportation.

3.3 Coordinating Freeway and Transit Projects

Coordinating freeway and transit projects can lead to major successes. A notable example is the I-25 "T-REX" project in Denver. The federal Highway Administration highlights this project on their website, stating:

The T-REX's initial footsteps can be traced back to a 1992 congestion study commissioned by the Denver Regional Council of Governments (DRCOG). The study found that traffic volume along the corridor had exceeded its maximum capacity of 180,000 vehicles per day and, within a few years, the freeway would be near gridlock most of the day. Adding to the gloomy forecast of gridlock, planners projected that 150,000 new jobs would be added in the downtown area and at the huge Denver Tech Center, which is 15 miles (24 kilometers) to the south, over the next 20 years. The study not only recommended widening the freeway by several lanes, but it also suggested incorporating some type of mass transit into any future improvements.

In response, the Colorado Department of Transportation and the Denver Area Regional Transportation District in cooperation with the FHWA and the Federal Transit Administration, widened and reconstructed 18 miles of I-25 and I-225, and constructed 19 miles of light-rail transit line with 13 new rail stations. The roadway portion of this project was completed in August 2006 and the light-rail transit line opened for service in November 2006. The T-REX project was completed on time and on budget. While the light-rail transit ridership exceeds expectations and traffic volumes exceed the volumes prior to construction, all T-REX components are operating smoothly and as planned.

The high level of freeway/transit coordination in T-REX was driven in part by the opportunity for costs savings due to the simultaneous construction of both projects were in the same corridor. There is no such direct financial linkage between I-94 and the KRM Commuter Link. Nevertheless, moving ahead on both projects simultaneously as a coordinated mobility strategy for Kenosha, Racine, and southern Milwaukee Counties would show Wisconsin's commitment to a balanced transportation system, and would encourage development around rail stations (and the associated potential for revitalization of existing urban centers) rather than simply facilitating dispersed suburban development around freeway interchanges.

20 [http://www.fhwa.dot.gov/majorcapacity/project06.cfm](http://www.fhwa.dot.gov/majorcapacity/project06.cfm)
3.4 Wisconsin Lags Other States in Supporting Public Transportation

The KRM commuter link project has been under consideration for decades and is at an advanced planning stage today. We understand that the project is currently on hold due to a lack of committed funding. In the current regional long-range transportation plan (SEWRPC Report #49), while the words “budget” or “budgetary” appear 24 times in relation to transit—generally as a limitation on what can be done—they never appear in relationship to road projects. This appears to imply that while transit funding is highly constrained, funding for road construction is available, even if this requires borrowing the money through bonding.

The commuter rail funding obstacle must be overcome, and WisDOT should play a central role. As discussed above, the average vehicle on the section of I-94 between the Illinois state line and I-43 traverses only 10 miles of this roadway section, while the average trip length on the KRM Commuter Link is likely to be significantly longer. This strongly makes the case that the KRM would function as an inter-city (as opposed to local) transportation facility at least as much as I-94 currently does. The KRM Commuter Link is explicitly designed to carry intercity traffic, including passengers to Chicago. It would therefore follow that significant state resources should be made available to the project. The current policy of relying almost exclusively on funding from multiple local jurisdictions to develop an intercity transit system thus far failed to deliver this much-needed project.

Other state Departments of Transportation contribute heavily to commuter rail. For example, the Maryland Transit Administration (MTA), part of the Maryland Department of Transportation, operates a 200-mile, 42-station commuter rail system. As shown in the figure below, over 2/3 of MTA’s funding is from the State of Maryland.

*Maryland Transit Administration Funding Sources*

Source: Maryland Department of Transportation, Maryland Transit Administration (MTA)\(^{21}\)

The Virginia Railway Express (VRE) is a transportation partnership of the Northern Virginia Transportation Commission (NVTC) and the Potomac and Rappahannock Transportation

Commission (PRTC). VRE provides commuter rail service from the Northern Virginia suburbs to Alexandria, Crystal City and downtown Washington, D.C. VRE relies on both state and local funding, but the state supplies over twice as much money as do the local jurisdictions.

**Virginia Railway Express Sources of Revenue**

- Interest income
- Passenger revenue
- Equipment rentals and other
- Commonwealth of Virginia
- Federal
- Jurisdictions

[Image: Pie chart showing the sources of revenue for Virginia Railway Express]

Source: Virginia Railway Express

Federal funds are important to both systems, but obtaining federal funds is dependent on the state funding. More generally, Wisconsin lags other states in applying flexible federal transportation funds for transit. The U.S. Government Accountability Office (GAO) has analyzed the extent to which states use flexible federal transportation funds for transit. The report states:

Since the 1991 creation of the two flexible funding programs this report examines—SIP and CMAQ—$12 billion from these programs has been spent on transit projects, either directly through FHWA or through transfer to FTA. This spending on transit represents 13 percent of the apportionments for these programs since 1992 and 3 percent of the total federal-aid highway program. However, the amount of FTA funding used in some states has been augmented significantly by these funds; in four states, funds transferred from these programs to FTA made up 20 percent or more of total FTA expenditures.

Wisconsin is not one of states highlighted in the GAO case study, and only one number is given for Wisconsin in the report. Over the period 1992 – 2006, Wisconsin applied $76.7 million in flexible federal transportation to transit projects. Using the 2000 state population figure, this is equal to only $0.95 per person per year. This compares with a national average, calculated the same way, of $3.25 per person per year.

If Wisconsin had flexed at the national average rate, an additional $185 million would have been flexed to transit over the period 1992 – 2006. Including the effects of inflation,

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24 We understand that the total funds eligible for flexing is not identical by state on a per capita basis. However, GAO does not provide the total available in the report, so this was the best comparative measure available.
this total is greater than the estimated capital cost of the KRM Commuter Link ($198 million in 2006$). Furthermore, if the money had been flexed to transit, it is likely that it could have been used to leverage additional federal transit funding.

States that are making strong commitments to a balanced transportation system are generally flexing higher-than-average amounts to transit. For example, Washington flexed $3.69 per person per year, and as reported in the GAO report, focused on developing a new rail transit system in the Seattle region:

Sound Transit, established in 1995 to build a mass transit system serving the three counties in the Seattle region, is still in a capital-intensive phase, as it continues to complete the infrastructure for the fixed-route portion of the system, including construction of a light-rail line connecting Seattle with the Seattle-Tacoma airport and extending its commuter-rail service south of Tacoma. It has used more than $112 million in flexible funding for rail car purchases and rail line construction, among other things. In 2007, it was awarded $9 million in flexible funding to purchase the right-of-way for two light-rail stations. (p. 26)

Virginia flexed $3.98 per person per year and used part of these monies to develop new transit services in the Virginia Beach region:

The Virginia Beach area, an urbanized area of about 1.3 million people in southeastern Virginia, has significant traffic congestion due to the northern and southern halves of the area being divided by the confluence of the Elizabeth and James Rivers, which is crossed by seven bridges and tunnels. The regional transit operator, Hampton Roads Transit, uses flexible funding to provide new services to help relieve traffic congestion. According to Hampton Roads Transit officials, obtaining local funding for regional projects can be difficult because cities within the region are sometimes reluctant to pay for services in another city. In this way, officials said, flexible funding can better benefit the community by making new services possible.

The Washington and Virginia experiences are both highly relevant to the KRM Commuter Link project. In the Washington case, flexible federal transportation funds were a key part of the financial plan for constructing a new rail transit system. In the Virginia case, the funding avoided challenges in getting local jurisdictions to “pay for services in another city.”
U.S. Transportation Funds Flexed to Transit Projects per person per year (1992-2006)

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Sources: Total funding transferred from GAO 2007, Figure 5, p. 16, population from 2000 Census.
Resume

NORMAN L. MARSHALL, Principal
nmarshall@smartmobility.com

EDUCATION:
Master of Science in Engineering Sciences, Dartmouth College, Hanover, NH, 1982
Bachelor of Science in Mathematics, Worcester Polytechnic Institute, Worcester, MA, 1977

PROFESSIONAL EXPERIENCE:
Norm Marshall helped found Smart Mobility, Inc. in 2001. Prior to this, he was at Resource Systems Group, Inc. for 14 years where he developed a national practice in travel demand modeling. He specializes in analyzing the relationships between the built environment and travel behavior, and doing planning that coordinates multi-modal transportation with land use and community needs.

Regional Land Use/Transportation Scenario Planning
Chicago Metropolis Plan and Chicago Metropolis Freight Plan (6-county region)—developed alternative transportation scenarios, made enhancements in the regional travel demand model, and used the enhanced model to evaluate alternative scenarios including development of alternative regional transit concepts. Developed multi-class assignment model and used it to analyze freight alternatives including congestion pricing and other peak shifting strategies. Chicago Metropolis 2020 was awarded the Daniel Burnham Award for regional planning in 2004 by the American Planning Association, based in part on this work.

Envision Central Texas Vision (5-county region)—implemented many enhancements in regional model including multiple time periods, feedback from congestion to trip distribution and mode choice, new life style trip production rates, auto availability model sensitive to urban design variables, non-motorized trip model sensitive to urban design variables, and mode choice model sensitive to urban design variables and with higher values of time (more accurate for “choice” riders). Analyzed set land use/transportation scenarios including developing transit concepts to match the different land use scenarios.

Mid-Ohio Regional Planning Commission Regional Growth Strategy (7-county Columbus region)—developed alternative future land use scenarios and calculated performance measures for use in a large public regional visioning project.

Baltimore Vision 2030—working with the Baltimore Metropolitan Council and the Baltimore Regional Partnership, increased regional travel demand model’s sensitivity to land use and transportation infrastructure. Enhanced model was used to test alternative land use and transportation scenarios including different levels of public transit.

Burlington (Vermont) Transportation Plan—Leading team developing Transportation Plan focused on supporting increased population and employment without increases in traffic by focusing investments and policies on transit, walking, biking and Transportation Demand Management.
Transit Planning

Regional Transportation Authority (Chicago) and Chicago Metropolis 2020 – evaluating alternative 2020 and 2030 system-wide transit scenarios including deterioration and enhance/expand under alternative land use and energy pricing assumptions in support of initiatives for increased public funding.

Capital Metropolitan Transportation Authority (Austin, TX) Transit Vision – analyzed the regional effects of implementing the transit vision in concert with an aggressive transit-oriented development plan developed by Calthorpe Associates. Transit vision includes commuter rail and BRT.

Bus Rapid Transit for Northern Virginia HOT Lanes (Breakthrough Technologies, Inc and Environmental Defense.) – analyzed alternative Bus Rapid Transit (BRT) strategies for proposed privately-developing High Occupancy Toll lanes on I-95 and I-495 (Capital Beltway) including different service alternatives (point-to-point services, trunk lines intersecting connecting routes at inline stations, and hybrid).

Central Ohio Transportation Authority (Columbus) – analyzed the regional effects of implementing a rail vision plan on transit-oriented development potential and possible regional benefits that would result.

Essex (VT) Commuter Rail Environmental Assessment (Vermont Agency of Transportation and Chittenden County Metropolitan Planning Organization)—estimated transit ridership for commuter rail and enhanced bus scenarios, as well as traffic volumes.

Georgia Intercity Rail Plan (Georgia DOT)—developed statewide travel demand model for the Georgia Department of Transportation including auto, air, bus and rail modes. Work included estimating travel demand and mode split models, and building the Departments ARC/INFO database for a model running with a GIS user interface.

Roadway Corridor Planning

Hudson River Crossing Study (Capital District Transportation Committee and NYSDOT) – Analyzing long term capacity needs for Hudson River bridges which a special focus on the I-90 Patroon Island Bridge where a microsimulation VISSIM model was developed and applied.

State Routes 5 & 92 Scoping Phase (NYSDOT) — evaluated TSM, TDM, transit and highway widening alternatives for the New York State Department of Transportation using local and national data, and a linkage between a regional network model and a detailed subarea CORSIM model.

Twin Cities Minnesota Area and Corridor Studies (MinnDOT)—improved regional demand model to better match observed traffic volumes, particularly in suburban growth areas. Applied enhanced model in a series of subarea and corridor studies.

Developing Regional Transportation Model

Pease Area Transportation and Air Quality Planning (New Hampshire DOT)—developed an integrated land use allocation, transportation, and air quality model for a three-county New Hampshire and Maine seacoast region that covers two New Hampshire MPOs, the Seacoast MPO and the Salem-Plaistow MPO.
Syracuse Intermodal Model (Syracuse Metropolitan Transportation Council)—developed custom trip generation, trip distribution, and mode split models for the Syracuse Metropolitan Transportation Council. All of the new models were developed on a person-trip basis, with the trip distribution model and mode split models based on one estimated logit model formulation.

Portland Area Comprehensive Travel Study (Portland Area Comprehensive Transportation Study)—Travel Demand Model Upgrade—enhanced the Portland Maine regional model (TRIPS software). Estimated person-based trip generation and distribution, and a mode split model including drive alone, shared ride, bus, and walk/bike modes.

Chittenden County ISTEA Planning (Chittenden County Metropolitan Planning Organization)—developed a land use allocation model and a set of performance measures for Chittenden County (Burlington) Vermont for use in transportation planning studies required by the Intermodal Surface Transportation Efficiency Act (ISTEA).

**Research**

Obesity and the Built Environment (National Institutes of Health and Robert Wood Johnson Foundation) — Working with the Dartmouth Medical School to study the influence of local land use on middle school students in Vermont and New Hampshire, with a focus on physical activity and obesity.

The Future of Transportation Modeling (New Jersey DOT)—Member of Advisory Board on project for State of New Jersey researching trends and directions, and making recommendations for future practice.

Trip Generation Characteristics of Multi-Use Development (Florida DOT)—estimated internal vehicle trips, internal pedestrian trips, and trip-making characteristics of residents at large multi-use developments in Fort Lauderdale, Florida.

Improved Transportation Models for the Future—assisted Sandia National Laboratories in developing a prototype model of the future linking ARC/INFO to the EMME/2 Albuquerque model and adding a land use allocation model and auto ownership model including alternative vehicle types.

**Critiques**

*C-470 (Denver region)* — Reviewed express toll lane proposal for Douglas County, Colorado and prepared reports on operations, safety, finances, and alternatives.

*Intercounty Connector (Maryland)* — Reviewed proposed toll road and modeled alternatives with different combinations of roadway capacity, transit capacity (both on and off Intercounty Connector) and pricing.

Foothills South Toll Road (Orange County, CA) — Reviewed modeling of proposed toll road.

I-93 Widening (New Hampshire) — Reviewed Environment Impact Statement and modeling, with a particular focus on induced travel and secondary impacts, and also a detailed look at transit potential in the corridor.

Stillwater Bridge — Participated in 4-person expert panel assembled by Minnesota DOT to review modeling of proposed replacement bridge in Stillwater, with special attention to land use, induced travel, pricing, and transit use.
Ohio River Bridges Projects—Reviewed Environmental Impact Statement for proposed new freeway bridge east of Louisville Kentucky for River Fields, a local land trust and historic preservation not-for-profit organization.

Indiana I-69 — Reviewed model analyses from Indiana statewide travel demand model of proposed new Interstate highway for coalition, including the Environmental Law and Policy Center of the Midwest.

Washington, DC region — Reviewed modeling of Potomac River bridge crossings.

Phoenix, Arizona — Reviewed conformity analyses and long-term transportation plan under contract to Tempe, a municipality in the Phoenix region.

Atlanta, Georgia — Critiqued conformity analyses and long-term transportation plan for an environmental coalition.

Daniel Island (Charleston, South Carolina) — Reviewed Draft Environmental Impact Statement for large proposed Port expansion (the “Global Gateway”) for an environmental coalition.

**PUBLICATIONS AND PRESENTATIONS (partial list)**

*Understanding the Transportation Models and Asking the Right Questions.* Lead presenter on national Webinar put on by the Surface Policy Planning Partnership (STPP) and the Center for Neighborhood Technologies (CNT) with partial funding by the Federal Transit Administration, 2007.


Chicago Metropolis 2020: the Business Community Develops an Integrated Land Use/Transportation Plan with Lucinda Gibson, P.E., Frank Beal and John Fregonese, presented at the Institute of Transportation Engineers Technical Conference on Transportation’s Role in Successful Communities, Fort Lauderdale FL, March 2003.

Evidence of Induced Travel with Bill Cowart, presented in association with the Ninth Session of the Commission on Sustainable Development, United Nations, New York City, April 2001.

Induced Demand at the Metropolitan Level — Regulatory Disputes in Conformity Determinations and Environmental Impact Statement Approvals, Transportation Research Forum, Annapolis MD, November 2000.

Subarea Modeling with a Regional Model and CORSIM” with K. Kaliski, presented at Seventh National Transportation Research Board Conference on the Application of Transportation Planning Methods, Boston MA, May 1999.


Multimodal Statewide Travel Demand Modeling Within a GIS with S. Lawe, Transportation Research Board Annual Meeting, Washington DC: January 1996.


MEMBERSHIPS/AFFILIATIONS

Member, Institute of Transportation Engineers
Individual Affiliate, Transportation Research Board
Member, American Planning Association
Member, Congress for the New Urbanism
Resume

LUCINDA GIBSON, PE, Principal
lgibson@smartmobility.com

EDUCATION
- Master of Science in Engineering Sciences, Dartmouth College, Hanover, NH, 1988
- Bachelor of Science in Civil Engineering, University of Vermont, Burlington, VT, 1983

SELECTED PROFESSIONAL EXPERIENCE:
Ms. Gibson helped found Smart Mobility, Inc. in 2001. Prior to this, she was employed for 7 years at the Two Rivers-Ottawaquechee Regional Commission as a Senior Transportation Planner, and for the previous 6 years at Resource Systems Group, Inc. Her current work at Smart Mobility focuses on context sensitive and multi-modal traffic engineering, preparing alternative transportation solutions for conventional roadway projects, and preparing comprehensive, multimodal community transportation plans. This work includes bicycle and pedestrian planning and design, scenic byway corridor planning, and moving beyond conventional traffic engineering by addressing traffic congestion through improving transportation networks, consideration of land use and development patterns, and broadening the range of options in terms of both routes and modes.

Representative Project Experience
Two Lane Plan for PA Route 41—Prepared conceptual plan alternative to a Four lane limited access widening proposed by Pennsylvania DOT for PA Route 41 through Chester County, PA. Used RODEL for roundabout analysis and design, and VISSIM for developing corridor-wide measures and informational display. Sub-contracted with Barry Crown of Rodel Software, and Faber Maunsell, UK Distributors of VISSIM. Plan is currently under review by PennDOT for consideration as an alternative.

Halfmoon, NY Transportation Analysis and Plan—As part of a project team with Behan Planning Associates to develop an innovative plan for hamlet and mixed use center development in a rapidly growing suburb outside Albany, NY. Plan elements included improves street connectivity within proposed growth areas, pedestrian oriented designs and in the hamlet and mixed use areas, and illustrating access management concepts for the main highway corridors.

Transportation Plan for Montpelier, Vermont—Comprehensive, multimodal transportation plan for the City of Montpelier, Vermont to be integrated into their updated municipal plan. Planning process included public visioning workshop, a review of all modes of transportation, travel demand management and parking options, and options to increase street connectivity. In collaboration with ORW, Landscape Architects.

Chicago Metropolis 2020 Plan for Growth and Transportation—Contributed to this APA Burnham Award-winning project to explore alternative scenarios for growth and transportation investment and management for the Chicago Region. Developed alternative transportation investment strategies and budgets, and prepared modeling input files to analyze these scenarios with an advanced regional TransCAD model.
Dresden School Transportation Committee—Conducted study on the Feasibility of Queue Jump Lane for the Ledyard Bridge Approach in Norwich, Vermont. Reviewed options and obstacles for establishing a bus-only during morning peak hours for buses, with the goal of reducing bus travel time and encouraging school bus and public transit use between Norwich, Vermont and Hanover, New Hampshire.

Barnard Villages Traffic and Growth Management Plan—Developed a plan for Barnard, Vermont’s two village areas, including intersection safety, pedestrian circulation, traffic calming, establishing village identity, re-designing lakefront parking on Silver Lake, and exploring opportunities for infill development.

Prairie Crossing Boulevard Plan, Grayslake, Illinois—Developed context sensitive integrated transportation and land use alternative plan for an abandoned Tollway right-of-way through a new urbanist development in Grayslake, Illinois. Integrated traffic and transportation design into community street network and land use patterns. Plan features landscaped boulevards, roundabouts, and improved street connectivity in the area.

Monadnock Traffic Calming Foundation—Developed conceptual traffic calming plan and design criteria for a NHDOT traffic calming project on Route 101 through the center of Dublin, New Hampshire.

NEPA Document Reviews—Reviewed and prepared comments on several EIS and EA documents for community groups and other stakeholders for a variety of projects, including the I-93 Salem to Manchester, NH Widening; the Ohio River Bridges in Louisville, Kentucky; US 202 Section 100 in Chester County, PA.

PROFESSIONAL CERTIFICATIONS AND MEMBERSHIPS

- Professional Engineer – P.E., Vermont Board of Professional Engineering, License #6133
- Member, Institute of Transportation Engineers (ITE)
- Member, Congress for the New Urbanism, Transportation Planning Committee
- Member, Board of Directors, CNU New England Chapter of CNU
- Member, ITE/CNU Design Standards Task Force

PUBLICATIONS

Context Sensitive Design Approach for the Route 41 Corridor, Gibson, Lucinda E., and Dee Durham. Presented the Historic Roads National Conference in Portland, OR. Described multi-faceted approach including research, public involvement and education, used to develop a context sensitive plan for improvements to PA Route 41, an NHS route through scenic rural landscapes and Amish farms. April, 2004.


SPEAKING ENGAGEMENTS (Partial List)

Smarter Alternatives to Highway Projects. Presented at the American Planning Association annual meeting in San Antonio, TX, April, 2006.


Success Stories and How-To's, Vermont Bicycle and Pedestrian Coalition Annual Meeting, Randolph, VT, April, 2002.


How Engineers Think, Vermont Historic Preservation Annual Conference, Manchester, VT, June, 1999.
Opposition to I-94 North-South Corridor Expansion within the City of Milwaukee
Comments on the Final Environmental Impact Statement
May 2, 2008

In February of 2006, the Milwaukee Board of School Directors voted to formally oppose proposed freeway expansion in the City of Milwaukee. This opposition includes, but is not limited to, the freeway lane expansion planned as part of the I-94 North-South corridor construction within the City of Milwaukee.

The MPS Board and Administration have a number of concerns related to the health of students and staff members, the impact that freeway expansion will have on the City’s tax base and the effects of expansion on MPS schools and infrastructure in close proximity to the current freeway system.

As was noted previously, during the initial comment period for the I-94 Corridor Environmental Impact Statement, one of the district’s primary concerns is with the specific effects of air pollution in locations adjacent to proposed areas of expansion. The district continues to be particularly concerned about PM 2.5 or fine particulate matter, which is pollution that is localized in nature, is attributable to diesel exhaust and is related to asthma.

As noted in the Final Environmental Impact Statement, particulate pollution is also related to increased respiratory symptoms, such as irritation of the airways, coughing, or difficulty breathing; decreased lung function; development of chronic bronchitis; irregular heartbeat; nonfatal heart attacks; and premature death in people with heart or lung disease.

The district understands that the Department of Natural Resources is preparing information for review by the U.S. Environmental Protection Agency (EPA) to determine whether or not areas in southeastern Wisconsin meet new PM 2.5 standards (35 ug/m3 per 24 hours).

The second paragraph on the page numbered 3-68, of the draft environmental impact statement related to the expansion of the I-94 north-south corridor (FHWA-WISC-EIS-07-01-D), reads as follows:
As stated above, the study area in Wisconsin is in attainment for PM2.5, as based on the present designation. The air quality monitoring network in southeastern Wisconsin indicates that it is likely that a portion of the study areas may be designated as being in non-attainment for the revised PM2.5 standard, which became effective on December 17, 2006. The DNR is presently preparing information for review by U.S. EPA. A final determination on the attainment designation is expected near the end of 2009. If the designation changes from attainment to non-attainment, SEWRPC and the DNR will develop measures to control PM2.5 emissions in accordance with U.S. EPA guidelines so that the region will be in attainment by 2015. (Emphasis added)

Given the evidence that a portion of the environmental impact study area is likely to be out of compliance with EPA guidelines and given the fact that Milwaukee Public Schools has high incidence of asthma within its student population, and given that a number of schools are adjacent to the I-94 corridor, the district has previously commented that it is extremely concerned that planning measures are not being taken now to control for PM 2.5 emissions.

After a review of the Final Environmental Impact Statement it appears that no action has been taken, and there are no stated plans for it to be taken, with regard to the school district’s concerns.

The Final EIS again makes clear that regions within the study area will likely attain non-attainment status. On the page numbered 4-20, the Final EIS makes clear that southeastern Wisconsin “may be designated as non-attainment for PM 2.5 as soon as 2009, based on recent readings that indicate the region exceeds the NAAQS for PM 2.5.”

Again on the page numbered 4-80 of the Final EIS, the statement is made that southeast Wisconsin is currently in attainment status for PM2.5, “[h]owever, DNR has indicated that PM 2.5 levels have exceeded the NAAQS threshold at some monitoring locations in the project area.” On page 4-82, the document also makes clear that “some air quality pollutants may present health issues for sensitive populations at levels below the NAAQS thresholds.”

The Environmental Protection Agency clearly lays out the serious health problems related to particle pollution and the especially harmful effects of finer particles such as PM 2.5. The environmental impact study related to this project clearly lays out the likelihood that areas in this region will be in noncompliance with the Environmental Protection Agency’s PM 2.5 standards. The north-south corridor environmental impact study provides clear demographic information detailing the number of people in the study area as well as the number and type of schools within the region.

The Final Environmental Impact Study again makes clear that SEWRPC and the DNR will not act in a proactive manner in order to avoid anticipated non-compliance with EPA standards.
1. As noted on p. 4-80 of the FEIS, WisDOT and FHWA will comply with whatever PM$_{2.5}$ conformity requirements apply at that time.

2. According to U.S. EPA, the 2007 heavy-duty engine standards resulted in the introduction of new, highly effective control technologies for heavy-duty engines, beginning in 2007. Particulate matter emission levels are expected to be 90 percent lower on a per vehicle basis than 2000 standards levels due to the 2007 diesel engine and fuel program. On-road diesel trucks began to use Ultra Low Sulfur Diesel in the fall of 2006. As older heavy-duty diesel vehicles are replaced with newer less polluting vehicles, the heavy-duty diesel truck fleet emission rate is projected to decrease over 80 percent through the 2035 design year.
This finding within the Final Environmental Impact Statement continues to be unsettling as it sets aside the Milwaukee Public School district’s previous comments on the draft EIS and again underscores the school district’s stated concerns regarding freeway expansion as it relates to negative health impacts on Milwaukee’s children. Milwaukee Public Schools stands opposed to freeway expansion within the City of Milwaukee.