



Critique of WISDOT's Draft Environmental Impact Statement



I-94 East-West Corridor Milwaukee

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1000 Friends of Wisconsin advocates and promotes uses of land, water and air that shape healthy communities where people want to live, work, and play. Our work focuses on helping communities make the connection between our everyday land use and transportation decisions and our state's economic, environmental and cultural health.

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Executive Summary

Wisconsin Department of Transportation (WisDOT) has released an environmental impact statement that seeks to expand 3.5 miles of Interstate 94, through historic neighborhoods and cemeteries in Downtown Milwaukee. The plan provides two alternatives, both of which result in expansion. Although the City of Milwaukee has passed a resolution against the proposal, WisDOT continues to maintain that the expansion is essential to the South Eastern Wisconsin Freeway System. The DEIS relies on faulty data and analysis to justify the expansion project. We found the following shortcomings:

- WisDOT ignores projections that show driving flat lining or declining into the future. There are cheaper and more cost effective ways to address congestion compared to highway expansion.
- WisDOT ignores its own mission statement “WisDOT envisions an integrated multimodal transportation system that maximizes the safe and efficient movement of people and products throughout the state, enhancing economic productivity and the quality of Wisconsin’s communities while minimizing impacts to the natural environment” by planning to expand the highway. There are no multimodal alternatives selected. The expansion alternatives will actively degrade quality of life in nearby communities.
- WisDOT does not adequately seek to understand the impacts of the projects on minority and marginalized communities and misrepresents data in claiming negligible impacts.
- WisDOT does not address the real safety issues on the corridor – severe crashes that are caused due to excessive speeding and driving under the influence of alcohol. The proposed expansion is likely to exacerbate these problems. The most effective thing we can do to improve safety is also the cheapest: invest in features that slow and calm traffic, and make walking, cycling, and transit more attractive
- There is no mention of how to mitigate proposed greenhouse gas emissions that will increase as a result of the project. At a time when climate change threatens Wisconsin’s way of life, this omission is glaring.
- WisDOT does not take into account the huge maintenance and rehabilitation costs the expanded highway will require. In addition, there is no clear understanding of the economic benefits the expansion will provide due to a lack of cost-benefit analyses. The total capital cost of building WisDOT’s “double decker option” on this 3.5-mile stretch of highway is greater than the entire annual roadway maintenance and rehabilitation cost for every single highway and road in Wisconsin
- WisDOT has failed to keep up to its own goals when it fails to seriously consider a transit alternative by saying it is out of its jurisdiction. Their long-range transportation plan states “The department will seek to streamline and consolidate complex and disjointed

funding and operating structures. In addition to more efficient operations, improved coordination will support more transit options for the public, improve access to jobs, and expand the area accessible by transit (including areas on the urban fringe)”.

Our analysis reveals that there are several more cost effective ways to enhance transportation system performance in Milwaukee. Highway capacity expansion will reduce quality of life, increase GHG emissions and further marginalize frontline communities in Milwaukee.

Introduction

The portion of Interstate 94(I-94) in Milwaukee under consideration was completed in 1963 – and was a vestige of the indiscriminate urban highway development that took place in that era. Like other urban freeways, it was intended to provide access to downtown cores, revitalize economic activity and bring suburban populations in and out of city limits easily. However, many cities have since realized that these highways have been responsible for several societal ills. Vibrant communities were bifurcated to make way for high-speed access controlled roads that shut down local businesses. Cities lost valuable and taxable real estate. Urban freeway corridors, due to their high speed and access control became dead zones that did not contribute to any economic activity. These freeways also served to perpetuate the marginalization of communities of color, as it was most often these areas that were chosen for freeways. With many of these roads now reaching the end of their useful life, including this stretch of I94 in Milwaukee, cities are exploring options to determine their future.

With the aging of this particular section of the freeway, WisDOT has been presented with a unique opportunity to produce and implement a plan for the region that is in line with unprecedented demographic changes taking place in Wisconsin and across the nation.

In the case of Milwaukee, the DEIS prepared by WisDOT proposes an expansion of the highway, citing a combination of outdated infrastructure standards, large expected increases in traffic, high crash rates and the importance of this particular link to the local and regional economy. The DEIS ultimately provides two alternatives for the corridor – both of which involve adding automobile capacity. The first is an at-grade expansion that seeks to install an additional lane in each direction through a combination of infrastructure changes – that includes the closure of certain exits and entrances onto the highway. The second option calls for “double decking” one portion of the stretch, with one direction of traffic relegated to a proposed upper bridge.

This report explores the EIS and objectively tests WisDOT’s assumptions, data and conclusions and presents evidence that their justifications for recommending increasing capacity in the corridor are flawed. We find that WisDOT paints a misleading picture of the need for this project, justifying it with cherry picked data that ignores the needs and wants of Milwaukeeans. These errors in judgment could cost Wisconsin taxpayers over \$1.2 billion in capital investment alone, in addition to hundreds of millions of dollars in future maintenance, operations and rehabilitation. Future residents will be stuck

with the bill for a project that current data indicates will be underused and detrimental to the region as whole.

Section 1

Discrepancies in Traffic Counts

WisDOT uses traffic projections produced by the South East Wisconsin Regional Planning Commission (SEWRPC), which predict a steady half-percent increase in traffic yearly by 2040. WisDOT claims (page 1-23) that approximately 159,000 vehicles use the freeway between Hawley Road and Mitchell Boulevard daily. This is expected by WisDOT to increase to 186,000 vehicles per day by 2040.

However, a separate set of traffic count information provided to our organization by a WisDOT project engineer, showed AADT on the segment between Hawley Road and Mitchell Boulevard was 147,000 vehicles per day – a difference of 11,300 vehicles (Appendix A). This difference alone would take sixteen years to materialize, based on the 0.5% annual growth in traffic WisDOT predicts for the corridor. This data provided separately shows that traffic counts on that stretch of highway have, in fact never reached the level claimed by WisDOT in the DEIS.

This discrepancy is even more significant when considered along with the volume of cars that WisDOT asserts would need to be taken off the freeway to prevent expansion as Section 2-17 of the DEIS states. *“In order to reach a level of service D on I-94 under the At-grade alternative with no Hawley Road interchange, at least 4,400 vehicles per day, including 350 cars in the afternoon peak hour, must be diverted off of the freeway and on to adjacent roads”.*

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With a discrepancy of 11,300 cars in WisDOT’s own data – it is baffling that a decision to expand the highway at up to a cost of \$1.2 billion could be made. WisDOT’s own dataset of actual traffic counts contradicts the claimed need for expansion.

Ignoring Demographic Changes

Data from across the nation and in Wisconsin shows that the rate of driving has decreased or stagnated over the last decade. In Wisconsin, vehicle miles traveled have fallen consistently since peaking in 2007 – keeping in line with national trends. [1] Young people are leading this drop, with “millennials” choosing to acquire licenses at a rate far lower than preceding generations. [2] In addition, there is a nationwide surge in public transit and commuter rail usage [3]. Biking is up – with many states reporting increased bicycle share over the last five years [4]. There is a renewed interest in living in compact, mixed-use localities where owning a car is not necessary and there is easy access to public transit, walking and biking [5]. Several studies show that these changes are likely long term and are reflective of future transportation trends [6]. In Milwaukee, specifically, driving has fallen to such an extent that as an urbanized

area, it was found to rank second in the nation in terms of a decline in miles driven [7]. Wisconsin is also an increasingly aging state, with almost all of the population increase over the next fifty years going to be composed of those over 60 [8]. They will require an increased level of accessible transportation when they are unable to drive.

The DEIS, however appears to cherry pick data that portray traffic as increasing on a large scale. For example, this comment on the DEIS (pg 1-24) *"Between 1989 and 2009, traffic volumes on I-94 east of the Stadium Interchange increased approximately 5 percent, and traffic volumes west of the Stadium Interchange increased approximately 17 percent"*. However, an analysis by 1000 Friends of Wisconsin found that over the last ten years traffic in the corridor has actually declined by 8%. The DEIS also does not take into account, or mention the demographic changes that predict a decline, or no increase in driving into the future [9]. If current trends continue – a simple extrapolation shows that traffic on the corridor would be approximately 20,000 vehicles per day (vpd) lower than current levels. While this may seem unrealistic, this is the same methodology that is being used to predict increased future traffic on the corridor.

An analysis by 1000 Friends of Wisconsin found that over the last ten years traffic in the corridor has actually declined by 8%.

Lack of Comprehensive Alternative Development Criteria

In developing alternatives WisDOT based their methodology on four specific criteria (DEIS, 2-27).

- *Maintain a key link in the local, state, and national transportation network.*
- *Address the obsolete design of the I- 94 East- West Corridor to improve safety and decrease crashes.*
- *Replace deteriorating pavement.*
- *Accommodate existing and future traffic volumes at an acceptable level of service.*

WisDOT selected four final alternatives after discarding several others. The discarded alternatives were non-expansion options including as a no-build alternative, high occupancy vehicle (HOV) or “managed” lanes, using shoulders for additional capacity, travel demand management, and transportation systems management. Each of these alternatives were dismissed due to a combination of not appearing to satisfy the agency’s criteria (DEIS 2-27).

These criteria promote highway expansion over all other alternatives due to their inherent bias in measurement.

It is our assessment that the planning objectives for the project are severely inadequate. The criteria put forth by WisDOT rely only on automobile service indicators such as roadway level of service, average speed and vehicle travel quality (pavement conditions). These criteria, if taken on their own, promote highway expansion over all other alternatives due to their inherent bias in measurement. They do not take into account several other factors that are important to maintain quality of life in the region.

The alternatives put forward run contrary to WisDOT's own stated transportation goals. *"WisDOT envisions an integrated multimodal transportation system that maximizes the safe and efficient movement of people and products throughout the state, enhancing economic productivity and the quality of Wisconsin's communities while minimizing impacts to the natural environment"* (Connections 2030, WisDOT, 2013). None of the alternatives enhance multimodality nor do they focus on improving the quality of life in communities adjacent to the project.

There are also several negative side-effects resulting from expansion that would have long ranging repercussions in the region including:

- Induced vehicle travel – that reduce or negate congestion benefits touted in the DEIS [10].
- Increased road maintenance and parking costs [11].
- Determining Highway Maintenance Costs [12].
- Decreased land values and the loss of taxable property [13].
- Increased particulate matter and greenhouse gas emissions [14].
- Increased fuel and energy consumption [10].
- Further restrictions on access and mobility for marginalized communities [15].

Other departments of transportation are recognizing that merely measuring automobile level of service is at odds with their own environmental goals. The state of California, for example has moved from a level of service (LOS) based assessment system to one that tracks if a project reduces greenhouse gas emissions, develops multimodal transportation, preserves open spaces and promotes diverse land uses and infill development [16]. By only selecting a few narrow auto-centric goals in developing alternatives, WisDOT is missing an unprecedented opportunity to create lasting and positive impact on the locality, city and regional transportation system.

Any transportation project that is significant to localities and the region as a whole should seek to improve transportation system efficiency. It has been argued that when projects are analyzed, they should be scored on their value in creating a stronger community by providing more transportation options, cleaner air and access to destinations [16] .

FHWA of USDOT released the following principles for transportation projects that came about through a partnership with US EPA and HUD [17].

1. Provide more transportation choices.
2. Expand location- and energy-efficient housing choices.
3. Improve economic competitiveness of neighborhoods by giving people reliable access to employment centers, educational opportunities, and other basic services.
4. Target federal funding toward existing communities—through transit-oriented development and place-based policies.
5. Align federal policies and funding to remove barriers to collaboration, leverage funding, and increase the effectiveness of existing programs.
6. Enhance the unique characteristics of all communities, whether rural, suburban, or urban.

It does not appear that any of these principles were taken into account during alternative development. Doing so would steer decision makers towards a final alternative that is modern and benefits all users of the transportation system in and around Milwaukee.

Inadequate Alternative Development

WisDOT did not independently develop a transit alternative for the project. They refer to the South East Wisconsin Regional Planning Commission's (SEWRPC) regional transit plan, finding it comprehensive enough to preclude the need for their own alternative. Page 2-30 of the DEIS states *"SEWRPC independently concluded in its regional plan that doubling transit revenue service miles in the region would not eliminate the need to add capacity on I-94."*

It is however noteworthy that expansion on the corridor could be avoided, by WisDOT's own estimate through expanding transit (page 2-32). *"If increased transit ridership alone were to avoid the need to add a lane to I-94, transit ridership on eastbound I-94 in the morning rush hour and westbound I-94 in the evening rush hour would need to increase about three-fold, to between 2,000 trips (eastbound) and 2,200 trips (westbound), to avoid the need to add capacity (one freeway lane can carry a maximum of 2,000 to 2,100 vehicles in an hour).*

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WisDOT eliminates this possibility by saying *"Considering that the traditional eastbound morning and westbound evening commute serves 700 riders in the peak hour, it is unlikely that express bus transit service for the harder-to-serve reverse commute could attract 2,000 riders in the peak hour."* The DEIS goes on to say *"Without a strong incentive to use transit, such as increased downtown parking rates, decrease in car ownership, or something that significantly increases the cost of commuting by single-occupancy vehicle, it will be difficult to achieve the*

dramatic increase in transit ridership required to avoid the need to add capacity. These incentives are outside WisDOT's jurisdiction."

It is unlikely that 2000 car users would need to be removed off the road to prevent the need for expansion. A percentage reduction in urban vehicle mileage tends to produce about twice the percentage reduction in traffic congestion delays [18]. For example, a 5% reduction in traffic volumes on a congested highway (for example, from 2,000 to 1,900 vehicles per hour) may cause a 10-30% increase in average vehicle speeds (for example, increasing traffic speeds from 35 to 45 miles per hour).

WisDOT is summarily dismissive of transit improvements as a viable option on the corridor, without appearing to have made any real analysis of potential ridership projections. Even assuming there is a need to remove 2000 cars off the roadway in peak-hour, a three-fold increase in transit ridership on the corridor is not unimaginable. For example, upon construction of the Blue Line transit system between downtown Minneapolis and St. Paul in neighboring Minnesota, actual ridership estimates six months into operation already exceed initial projections for 2030 [19]. It is not unlikely that an additional 1300 car-users could switch to transit upon investment in a viable system in Milwaukee. It is important to keep in mind that WisDOT's projections of increased traffic volumes and resulting congestion look out 25 years into the future – meaning that expanded transit services would not need to immediately remove 2000 cars from the highway, but rather the shifting of more and more commuters from single-passenger automobiles to robust transit services could occur over a number of years.

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It is also worrying that WisDOT, as the state transportation agency does not seek to play a leading role to help put in place incentives that could increase transit ridership and prevent the need for highway expansion – and instead seeks to wash their hands off any responsibility.

Stunted and Misleading Crash Analysis

One of the key elements in the Purpose and Need section of the DEIS is a call to “address the obsolete design of the I-94 East – West corridor to improve safety and decrease crashes”. The DEIS mentions the following breakdown of crash types:

Crash Type	Percentage
Rear end crashes	58
Single vehicle off road crashes	24
Sideswipe crashes	15

DEIS, pg 4-12

The DEIS then explains that rear-end and sideswipe crashes are often indicators of congestion and maintains that the addition of lanes will improve safety on the corridor. Their analysis

appears to lump all crashes together and simply provides a crash rate that compares the corridor to similar corridors in Wisconsin. The DEIS fails to connect the proposed safety improvements to specific crash types, and only speaks of crashes in vague terms, without even mentioning the corridors used to compare these findings to.

In order to objectively verify WisDOT’s findings, 1000 Friends of Wisconsin obtained a crash data set for the corridor from the University of Wisconsin’s Traffic Operations and Safety Laboratory and carried out an independent analysis. Using WisDOT’s own timeframe in the DEIS, we found the following:

- There were five fatalities that occurred on the stretch between 2005 and 2009. All of these happened outside of peak hour congestion periods, usually late at night or early in the morning.
- Of 42 incapacitating injuries that occurred – only 11 took place at peak hour.
- Of a total of 1373 crashes that resulted in injury, or possible injury in the selected time period, speeding was a factor in over forty percent.
- Alcohol was a factor in 35% of all crashes that resulted in incapacitating injury or death.
- Of a total of 4745 crashes, 71% were rear-ended and sideswipe crashes. Only sixteen of 2659 rear end crashes resulted in incapacitating injury (6%) – and speed was a factor in fifty percent of those. Half of these crashes occurred outside peak hour, even though the corridor has far lesser traffic volume during that time

Crash Type	Frequency
Angle	113
Head on collision	27
No Collision	1175
Rear End	2659
Rear to Rear	13
Sideswipe (opposite direction)	16
Sideswipe (same direction)	742
Total	4745

Crash Type and Frequency on I-94 EW, 2005-2009 (MV4000 Database, TOPS Lab, UW-Madison)

It is important to ensure the safety of all users of the freeway. But, It is also important to recognize that not all crashes are equal. Accidents that result in death or severe injury impose a far greater emotional and financial burden on society than those that result simply in minor property damage. A comprehensive crash analysis would make this distinction and identify and prioritize the reduction of fatal and severe

Not all crashes are equal; rear end and sideswipe crashes that occur during congestion rarely result in severe injury, and have never led to a fatality.

injury crashes. Our analysis has shown that rear end and sideswipe crashes that occur during congestion rarely result in severe injury, and have never led to a fatality on the corridor in the time period analyzed. This is in keeping in line with research that shows that congestion is less likely to be associated with severe crashes in urban conditions [20]. An increase in the number of freeway lanes is also correlated with an increase in severe crashes [21].

The design issues on the highway that include a combination of left and right hand entrance and exit ramps, as well as closely spaced interchanges do need to be addressed. However, these can be carried out well within the existing footprint of the roadway and at a far lower cost compared to the alternatives provided by WisDOT. USDOT has released guidance that emphasizes the flexibility available in the standard design manual used by state departments of transportation across the country – A Policy on Geometric Design of Highways and Streets (6th Edition). *“There are a number of options available to state and local highway agency officials to aid in achieving a balanced road design and to resolve design issues: including maintaining the road’s existing horizontal and vertical cross section and undertake only resurfacing, restoration and rehabilitation (3R) improvements”* ([22]. WisDOT’s plan blatantly appears to ignore these directives.

The crash analysis section of the DEIS makes no mention of WisDOT’s own Strategic Highway Safety Plan – that aims to significantly reduce fatalities and serious injuries on all public roads. The top issue areas identified by the plan are:

- Increasing seat belt use
- Improving the design and operation of intersections.
- Reducing speed related crashes.
- Reducing impaired driving.
- Designing safer work zones [23].

The plan mentions the following *“Nationally, speeding, driving under the influence of alcohol or drugs, failing to yield, and running red lights contribute to approximately 93 percent of traffic crashes. In 57 percent of these crashes, driver behavior is the sole reason for the crash. In Wisconsin, the consequences of poor driver behavior are also documented.”*

Our analysis corroborates the Strategic Highway Safety Plan’s findings and identified that the real safety issue on the corridor is one of excessive speeds during off-peak hours that are abetted by the width of the roadway. Driving under the influence of alcohol is also an important factor in crashes on the corridor. We

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conclude that the alternatives proposed by WisDOT do not adequately address safety issues on the corridor and could in fact worsen the problem.

Lack of Cost Benefit Analyses and Disregard for Economic Costs

In WisDOT's latest budget request to the state legislature, the agency predicts a shortfall of close to a billion dollars in the coming biennium and recommends a slew of measures to increase revenues that include raising the gas tax, increased borrowing and additional taxes and fees on drivers. For this project, the DEIS estimates the cost of the 'modernization' alternative at \$1.15 billion (DEIS pg 3-123). The alternatives will also cost the city over \$5 million through the loss of taxable land base. It is noteworthy that the capital cost of improving this 3.5

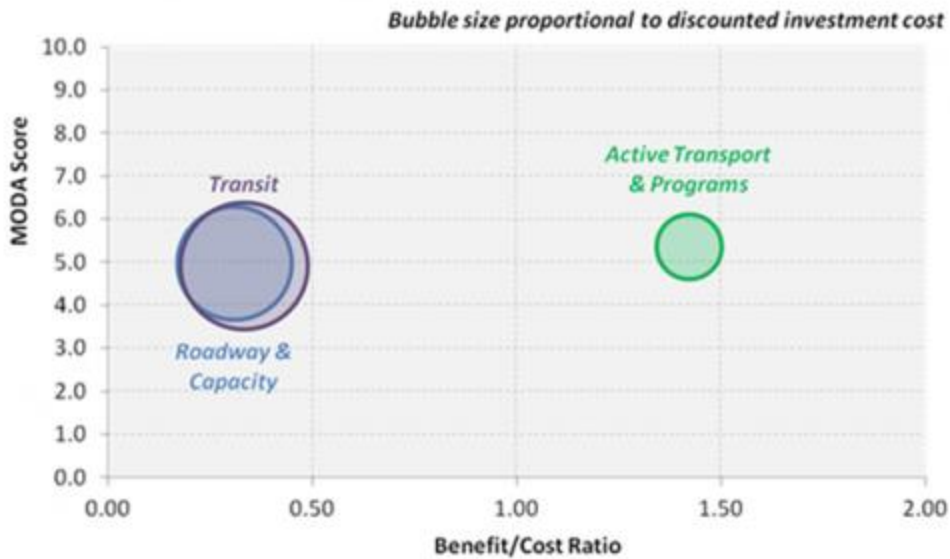
The capital cost of improving this 3.5-mile stretch of freeway is greater than the yearly roadway maintenance and rehabilitation cost for the entire state of Wisconsin.

mile stretch of freeway is greater than the yearly roadway maintenance and rehabilitation cost for the entire state of Wisconsin [24]. Time savings benefits also seem negligible - there would only be 3.5 minutes saved in the evening peak hour in 2040 according to WisDOT (pg 3-142).

At a time when funding is purportedly scarce, it is essential to ensure that every dollar invested in a transportation project provides the maximum possible return, for which it is necessary to carry out a cost-benefit analysis. However, WisDOT has conducted no such study and simply reports the estimated cost of their chosen alternatives. The cost estimates provided only include the capital investments that need to be made and do not consider future maintenance, rehabilitation and repair costs.

There is evidence that highway expansion should be considered only if it meets strict performance criteria that can be measured through benefit cost analysis [25]. There is also evidence that investment in public transit has a far greater return than highway expansion. A USDOT sponsored study investigated scenarios where transportation planners stopped building freeway capacity and found that in the first 20 years of a 'no-build' scenario there was a 15 to 20 percent reduction in travel delays from congestion. It also found that investing in mass transit, improving arterial neighborhood streets and increasing investment in bridge maintenance worked more effectively than building new capacity [26]. WisDOT has simply chosen to ignore this evidence and push for infrastructure spending that is amongst the highest in the state.

Other DOTs are finding innovative ways to competitively evaluate projects before deciding on a final alternative. For example, Oregon DOT included seven goals in its state transportation plan and developed a program called Mosaic – a cost-planning tool that takes into account each of those goals.



Sample output from Mosaic Model (Image from State Smart Transportation Initiative, 2014)

The tool compares different categories of investment – such as highway expansion and transit investment and shows how they stack up against each other in terms of a benefit/cost ratio [27].

There is evidence that urban freeways disrupt local businesses and cause detriment to urban downtowns [15]. People driving on the freeway will not patronize local businesses due to a lack of access to the street grid. Environmental costs from urban freeways are estimated to be \$590 million nationwide [28]. Without conducting a thorough cost benefit analysis, simply selecting a highway expansion option amounts to gross negligence and the willful misuse of hundreds of millions of taxpayer dollars.

Disproportionate Impacts on Minorities and Failure to Coordinate with Local Agencies

Minority neighborhoods are often the venue for the construction and expansion of urban freeways. This was a result of explicitly racist and discriminatory land use practices that resulted in the widespread segregation and marginalization of people of color in most of America’s cities. This particular corridor is no exception, with more than half of all residents in the area being people of color [15].

WisDOT estimates that five minority owned businesses would be displaced by the project, including one that employs over 50 people. Troublingly, the language used in the DEIS on the impacts of the project on this population is cavalier at best. For example, the DEIS states “A minority-owned business, INTEC, in the east segment that would be displaced by the Off-alignment alternative has about 50 employees, most of whom are Hispanic. Most of the employees live

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very close to the business. If the business were displaced, it would make it more difficult for these employees to reach their jobs, unless the business relocates to a nearby site” and goes on to say “The businesses do not serve a need that the population cannot obtain elsewhere in the area. Non-minority-owned businesses in the corridor also do not provide services that cannot be obtained elsewhere near the corridor.” This language suggests that even though significant impacts have been identified on the minority and low-income population in the neighborhood, they have been casually dismissed and not taken into consideration during alternative development.

WisDOT admits that those who are transit dependent, or choose to live car-free will not benefit from this project *“People who do not have access to an automobile will not often use I-94, except potentially through local or inter-city bus travel. This population will not benefit from the proposed action as much as those who use I-94 regularly.”* This is in direct contradiction to WisDOT’s own goals for mobility and choice that state that the agency will provide (Page 8-7, Connections 2030, WisDOT):

- More transportation alternatives available to all Wisconsin residents and visitors.
- Improved connections between transportation modes.

The DEIS also states that *“local residents who do not own a vehicle and do not routinely use the bus system would not necessarily benefit from an improved I-94. However, there would be no direct adverse impact on the segment of population that does not own a vehicle.”* Again, this statement does not seem to be made based on any analysis of transit, pedestrian and biking impacts of the project. It is instead, likely that an increase in highway width will further impede connections to the local street network for bicycle and pedestrian users in addition to disruptions from construction activities.

In addition, WisDOT seeks to absolve itself of any responsibility to coordinate implementing SEWRPC’s transit plan, as well as their own commitment to increase the level of transit services for populations that may not have easy access to cars.

Page 2-31 of the DEIS states *“Implementing the transit element of the regional plan is outside WisDOT’s jurisdiction, except for park-and-ride lots and HOV lanes on freeway entrance ramps.”* They also say *“WisDOT’s role in transit, as defined by state statute, is to fund transit-operating cost at the level designated by the state budget. WisDOT cannot unilaterally implement the regional transit strategy.”*

However, their long-range transportation plan, Connections 2030 explicitly mentions working with partners to improve transit service coordination. Page 8-7 of the plan states the following: *“ WisDOT will work with partners to improve transit service, eliminate inefficiencies and improve transit planning. WisDOT will work to expand its role in facilitating communication and coordination among the many transit providers and funding agencies across the state. The*

department will also seek to streamline and consolidate complex and disjointed funding and operating structures. In addition to more efficient operations, improved coordination will support more transit options for the public, improve access to jobs, and expand the area accessible by transit (including areas on the urban fringe).

To achieve this, WisDOT will:

- *Improve system efficiencies through cross-agency coordination of programs and funding*
- *Take a pro-active role in the future of transit planning functions*
- *Facilitate coordination between transit and other modes to provide intermodal connection” [29]*

WisDOT has not engaged the City of Milwaukee, Milwaukee transit providers or local communities in creating a coordinated transit plan that would prevent the need for highway expansion. The statements made in the DEIS indicate a complete disregard of the agency’s own long range transportation plan – and run contrary to their goals of enhancing livability through increased investment in multimodality.

Disregard for Carbon Emissions and Climate Change Impacts

In Wisconsin, the transportation sector is the second largest and fastest growing source of climate change inducing greenhouse gases (US EPA, 2012). Specific climate change threats to Wisconsin include warmer and drier weather, decreases in the water levels of the Great Lakes, inland lakes and streams, increases in water temperature (lowering water quality and favoring warm water aquatic species); changes in ecosystem and forest composition; increases in droughts and floods (impacting crop productivity); and reduction of snow and ice cover (WDNR and Public Service Commission of Wisconsin).

The DEIS does reference methods to reduce GHG emissions (pg 3-177) *“Currently, the major way to reduce emissions of greenhouse gases from transportation is to reduce the amount of fuel consumed. This can be accomplished by reducing congestion (more efficient driving conditions), reducing driving, and more fuel-efficient vehicle.*

There is however no attempt to quantify any GHG increases that would occur as a result of the project although there is an acknowledgement that the project would increase emissions (pg 3-176) *“While there are no accepted quantitative tools to estimate greenhouse gases at the project level, vehicles using the I-94 East-West corridor can be expected to contribute to greenhouse gas emissions within the region.”* An online literature search revealed that there were in fact several tools available – including estimates of GHG emission increases per mile of highway added. WisDOT has not developed strategies to actively reduce driving on the corridor as a method to reduce GHG and particulate matter emissions. Instead, it claims to reduce emissions through congestion relief from capacity expansion. A 2007 study by Sightline Institute found that adding just one mile of highway lane

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would increase CO2 emissions by more than 100,000 tons over 50 years. Any reductions achieved by congestion relief would be completely eclipsed by increases in driving.

Other studies [30] found that capacity expansion leads to additional vehicle travel from induced demand - a phenomenon explained through basic economic theory: adding capacity decreases travel time, in effect lowering the “price” of driving; when prices go down, the quantity of driving goes up [31]. It is likely that upon expansion, the number of vehicles using the corridor could go up, even if overall driving in the region continues its downward spiral. The study found that some communities have actually reduced highway capacity in order to reduce carbon emissions, and found that there was no noticeable increase in congestion due to fewer drivers choosing to use the selected corridor. This effect was even seen in downtown Milwaukee, when the Park East Freeway was removed in 2003. There was no increase in congestion, and the local street grid proved capable of absorbing any diverted traffic (Syracuse Metropolitan Transportation Council, 2013).

It is likely that because of the induced travel effect, capacity expansion has limited potential as a strategy for reducing congestion or GHG emissions, and actually increases air, water and noise pollution. For a project of this magnitude that deals with one of the most heavily trafficked corridors in the state, a lack of GHG emissions analysis is a surprising omission – and one that could have severely negative implications for the state’s environmental goals.

Section 2

Recommendations and Conclusion

Our analysis found that the DEIS fails to consider and account for the far-reaching negative impacts of the project and simply seeks to fulfill the narrow-minded goal of highway capacity expansion. Justification for this project is based on shaky data that does not stand up to scrutiny. It is apparent that WisDOT has not sought to genuinely explore transportation alternatives for the corridor that could enhance livability, improve the lives of frontline communities within the project limits and ensure a high return on any investment made.

Many state departments of transportation are moving away from major highway expansion projects as a means to achieve efficient transportation, and are instead focusing on reducing the number of miles driven in urban areas through better land use policies, focusing on accessibility instead of automobile mobility, promoting active transportation modes and investing in public transit. The ‘solutions’ identified by WisDOT for this stretch of corridor are outdated and run counter to the latest scientific research in transportation engineering and urban planning.

We present the following recommendations – split into process actions that need to be carried out and additional alternatives that must be studied comprehensively.

New Traffic Patterns Analysis and Revise AADT projections

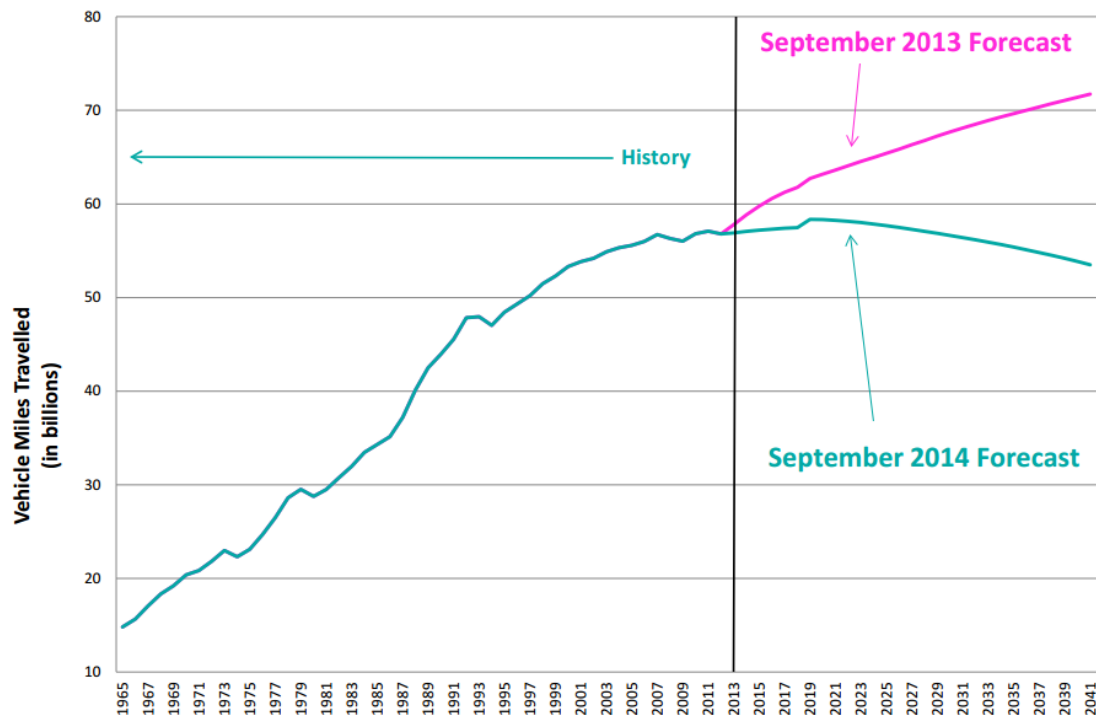
We recommend that WisDOT carry out a revised origin-destination (OD) study for the corridor. Although WisDOT refers to the highway's status as a "Connections 2030 Backbone route" several times in the document, there is no breakdown of traffic patterns that seek to understand how people are using the corridor. An analysis of driver, bike and pedestrian behavior will help identify the complex linkages between transportation, land use, mobility and access needs. If for example, it is found that most people get off the freeway within one or two exits after getting on, it may be more important to focus on the access needs of nearby workplaces and businesses, as opposed to providing high speed mobility for through traffic. An origin-destination study that includes the following data would add significant value to alternative selection:

- The number of trips that are regional – beginning and ending outside the project limits
- The average distance travelled by a user of the corridor.
- The percentage of users who get off the highway within a certain number of exits.
- The demographic profile of commuters on the highway.
- The percentage of large vehicles in the traffic stream.
- The number of pedestrian and bike facilities surrounding the corridor and possible demand for future active transportation mobility.
- Existing and proposed transit service within the region and its relationship to the corridor.

There are examples of sophisticated OD studies carried out for other WisDOT projects. In Madison, WisDOT carried out a traffic flow analysis for US12/18 ('the Beltline'), and found that contrary to previous estimation, very little traffic used the highway for through trips. Over half of all vehicles entering the Beltline during the AM and PM peak hours exited within four interchanges. The study used advanced technology, which included an aerial photographic survey of vehicles on the corridor, traffic counts using Bluetooth counters and WisDOT's automated traffic recorder data. [32] The DEIS for the I94 project mentions no such studies.

In addition, current traffic projections that estimate constant growth into the future are unrealistic. WisDOT must acknowledge revised USDOT guidance that predicts far lower traffic growth than previously thought – with driving per-person expected to remain flat into the future. AADT projections for the corridor must take into account changing travel behavior and the preferences of the millennial generation. Other departments of transportation are recognizing these changes and updating their traffic projections accordingly.

Vehicle Miles Travel Forecast Comparison



Washington DOT's revised traffic forecast is reflective of real driving trends (Image: State Smart Transportation Initiative)

Washington Department of Transportation's new traffic forecast in September 2014, contrary to previous projections, did not estimate an indefinite growth into the future. The new forecast estimates that traffic will flat-line into the near future and eventually decline by 2040. [33] At the very least WisDOT must seek to understand these changes and their potential impacts on future transportation trends, instead of refusing to acknowledge them, as is the case currently.

Actively seek to reduce driving on the corridor

States are now beginning to put in policy frameworks that actively seek to reduce the number of vehicle miles driven, while maintaining and enhancing access and mobility. California, for example now mandates that the California Air Resources Board establish regional goals to reduce GHG emissions from the land-use and transportation sector. Consequently, the state seeks to measure transportation impacts differently, identifying the impact of a project on overall travel, rather than just focusing on the delay faced by cars [16].

We recommend that WisDOT consider using multiple VMT reduction strategies for the corridor. It must be kept in mind that these strategies are not goals in themselves but tools that help achieve the outcomes outlines in WisDOT's long-range transportation plan. A white paper published by Victoria Transport Policy Institute ([34]lays out the following advantages of pursuing VMT reduction targets:

- *"To help achieve specific planning objectives including congestion reduction, facility cost savings, consumer savings, accident reductions, improved mobility for non-drivers, energy conservation, emissions reductions, and improved public health.*

- *To support worthwhile policy and planning reforms, such as more efficient pricing, more neutral transport funding practices, and more integrated transport and land use planning.*
- *For strategic guidance for multiple jurisdictions and agencies, for example, to encourage local governments to implement smart growth development reforms while regional and state transport agencies implement walking, cycling and public transport improvements.*
- *As a way to anticipate future changes in travel demands which reduce the value of roadway expansions and increase the value of improvements to alternative modes.”*

All of these recommendations are relevant to this project and appear to take a long-term view of any transportation improvements that could be made on the corridor.

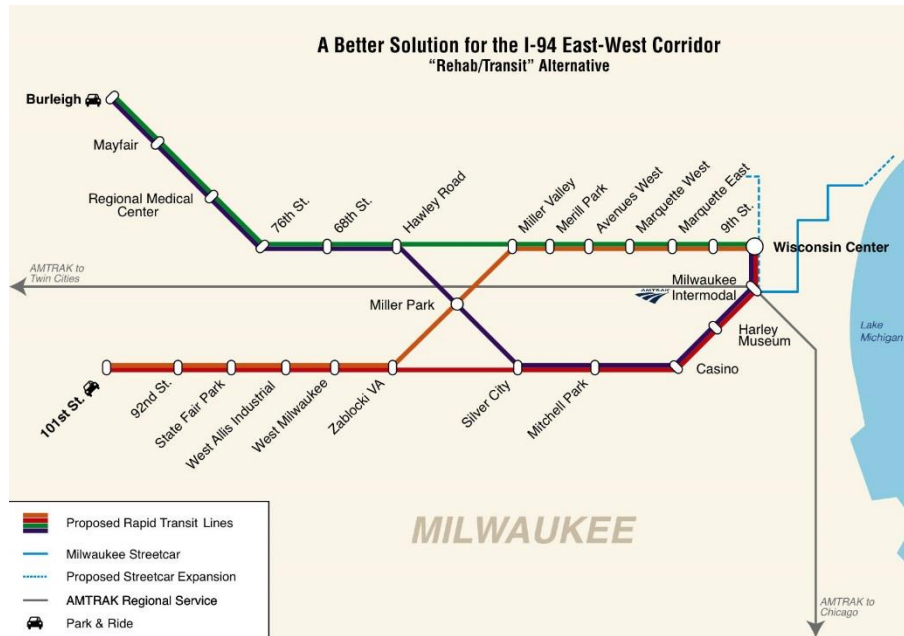
Develop alternatives that are in-line with WisDOT’s own long-term goals

We contend that every transportation project taken on by the state should adhere to WisDOT’s own vision as detailed in their long-range transportation plan. *“Setting policy directions not just for the state trunk highway system, but also for public transit, intercity travel, freight movement, bicycle and pedestrian travel, and funding, project scheduling and prioritization decisions. [29]”* Chapter 8 of the plan *Connections 2030* explicitly mentions the need for increased multimodal investment as a way to reduce congestion. *“A properly integrated transportation network brings multiple modes together through public and private sector coordination of local and intercity transportation services”* and *“when various transportation options are available, individuals can avoid travel on congested modes. For example, a person may choose to take transit or ride a bike than travel by car.”*

As pointed out earlier, the Purpose and Need section of the document does not refer to these – instead focusing on the narrow goals of improved automobile mobility. We recommend that WisDOT develop alternatives based on their own long-term goals. The DEIS must ask if this project:

- Preserves and maintains Wisconsin’s transportation system.
- Promotes transportation safety.
- Fosters Wisconsin’s economic growth
- Provides mobility and transportation choice
- Promotes transportation efficiencies
- Preserves Wisconsin’s quality of life
- Promotes transportation security.

Our analysis suggests that a combination of strategies to reduce driving demand, increase transit use and better transportation systems management will allow the corridor to provide access and mobility without the need for capacity expansion.



The Transit/Rehab Alternative, WISPIRG 2014

In light of the evidence presented earlier in this report, it appears that WisDOT has underestimated the ability of transit and transportation systems management (TSM) to remove the need for capacity expansion. We recommend that WisDOT re-examine the TSM and public transit alternative, in conjunction with more advanced traffic analysis and safety studies. We also recommend carrying out a comprehensive study of the concept plan produced by transportation consultant Dr. Mark Stout for consumer advocacy group WisPIRG [35]. The report found that a high quality rapid transit system for the corridor was feasible and would serve to improve mobility in an economic and environmentally sustainable manner – and is in line with WisDOT’s own long-term goals. WisDOT should take the lead in engaging with other agencies to coordinate the creation of programs and funding that will make transit a viable option. The transit, rehabilitation and transportation systems management alternatives satisfy WisDOT’s long-range transportation goals as summarized in the table below [29].

Alternative Development Criteria	WisDOT expansion alternatives	Transit, TSM and Rehab Option
<i>Preserves and maintains Wisconsin's transportation system.</i>	No. Does not seek to preserve or maintain existing infrastructure. Instead, diverts money away from the maintenance and rehabilitation of dilapidated roadways, transit systems and bike-ped infrastructure across the state.	Yes, maintains current infrastructure without putting future strain on the highway maintenance budget.
<i>Promotes transportation safety.</i>	No. Does not address the real safety issues on the corridor: speed and driver behavior. Likely to increase fatal and injury crashes due to increased speeds.	Yes. Will reduce congestion related crashes, in addition to transit being a much safer transportation option.
<i>Fosters Wisconsin's economic growth</i>	No. Does not adequately address economic growth potential due to a lack of cost benefit analyses and life cycle cost analysis.	Yes, investment in transit and highway maintenance has higher rates of return compared to highway capacity expansion. Improved transit will also boost local businesses and increase property values on the corridor.
<i>Provides mobility and transportation choice</i>	No. Only provides automobile mobility and no additional transportation choice.	Yes, provides mobility and transportation choice for all users of the system - not just cars.
<i>Promotes transportation efficiencies</i>	No. Only seeks to improve automobile travel time. Does not improve transit services or pedestrian and bike efficiency.	Yes, Improves efficiencies for all users of the system.
<i>Preserves Wisconsin's quality of life</i>	No. Actively reduces quality of life for those in the neighborhood due to business closures, increased particulate matter emissions, increased highway speeds, noise and aesthetic impacts. Also impacts quality of life in the state by diverting resources away from maintenance and rehabilitation of existing transportation infrastructure.	Yes, Improved transit is associated with lower financial costs, improved air quality and better health.
<i>Promotes transportation security.</i>	No assessment carried out.	No assessment carried out.

WisDOT Long Range Transportation Goals: Connections 2030

We also suggest that WisDOT look into non-infrastructure solutions for the future of the corridor. For example, re-designate Interstate 894 as Interstate 94 for travelers who are not looking to go downtown, and instead want to use the freeway to access the airport or more southern destinations.

Overall, the DEIS does not adequately address the needs of Milwaukee and Southern Wisconsin and the alternatives provided will worsen quality of life in the region. 1000 Friends of Wisconsin urges WisDOT to follow the recommendations in this document and develop a plan that is more in line with the wants and needs of the community.

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