IH-43 North-South Freeway Corridor Study Silver Spring Drive to WIS 60 Milwaukee and Ozaukee Counties Project I.D. 1229-04-01 County Line Road Interchange Phased Construction Request



Technical Memorandum

| Date: To: | June 23, 2014 Tracey Blankenship, Major Projects Program Manager / Team Leader Federal Highway Administration |
|--------------|----------------------------------------------------------------------------------------------------------------------|
| From: | Brian Bliesner, P.E. Project Development Chief, WisDOT Manojoy Nag, P.E. Supervisor, Major Projects, WisDOT |
| Project ID: | 1229-04-01 |
| Project: | IH-43 North-South Corridor Study |
| | Silver Spring Drive to WIS 60 |
| | Milwaukee and Ozaukee Counties |
| Subject: | County Line Road Interchange Phased Construction Request |

Introduction

The Department requests that FHWA consider phased construction of the County Line Road interchange. With this approach, a partial interchange (the existing configuration), with access to and from the south, would be constructed as part of the I-43 expansion project. Ramps to and from the north would be added at a later date as outlined within this Technical Memorandum. See Attachment 1.

As part of the I-43 North-South Freeway Corridor Study, WisDOT and FHWA have considered a range of alternatives for reconstructing the existing partial interchange at County Line Road. The existing interchange provides only movements to and from the south, which conflicts with FHWA's design policy that all interstate interchanges provide for all traffic movements. Through on-going discussions with FHWA, it has been determined that full access must be provided at County Line Road. Although WisDOT fully evaluated the Partial Interchange in the Draft Environmental Impact Statement (DEIS), the Split Diamond Hybrid, (without Grade Separation), a full interchange, was the

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preferred alternative and is the selected alternative in the Final Environmental Impact Statement (FEIS).

The purpose of this Technical Memorandum is to request FHWA's consideration of phased construction of the Split Diamond Hybrid (without Grade Separation at Katherine Drive) a full interchange alternative, at County Line Road.

Modifications to Existing Interchange

FHWA has indicated that since existing access is being reconfigured at County Line Road, and a new interchange is being constructed, a full access interchange must be provided as the ultimate condition.

As part of the I-43 corridor study, the existing partial interchange is being reconstructed for two reasons: to accommodate the expanded 6-lane I-43 typical section and to alleviate an existing safety concern. Currently, the northbound off-ramp essentially overlaps with the northbound on-ramp from the Brown Deer Road interchange. This current weaving condition is not desirable on the interstate system. Moving the northbound off-ramp to the north would provide for less weaving and a safer interchange configuration, enhancing the operation of the interstate system. The location of the existing southbound on ramp would be unchanged. Ramps to and from the north would be added at a later date as outlined within this Technical Memorandum. See Attachment 1.

FHWA's Interstate Access Information Guide

The FHWA – Interstate System Access Informational Guide provides guidance on how and what should be addressed in requests for new or modified access to the interstate system. Partial interchanges and the characteristics of them are discussed in several sections of this FHWA document. The document stresses it is critical that partial interchanges are only allowed under favorable conditions and that, among other items, they don't have a negative effect on the interstate or local street systems. The unique situation of the partial interchange at County Line Road with both the parallel arterial street system and the built-out nature of the surrounding area, greatly enhances the potential for acceptance of a temporary partial interchange at this location.

Specifically the FHWA Guide indicates that all new or revised access points to the interstate system:

• Are considered using a decision-making process that is based on information and analysis of the planning, environmental, design, safety and operational affects of the proposed change.

As part of the I-43 North-South Freeway Corridor Study NEPA process, WisDOT and FHWA have considered a range of alternatives for reconstructing the existing partial interchange at County Line Road. This range of alternatives included both full access interchange alternatives and partial interchange options. Both options were fully evaluated through the Department's public involvement process, which included local stakeholder meetings and regular meetings with a Technical Advisory Committee and a Community Advisory Committee. Both alternatives were fully evaluated in the corridor study EIS, which is scheduled for completion in August 2014.



• Support the intended purpose of the Interstate System.

The interstate system was established for the movement of both military and civilian equipment, freight, and personnel over long distances between and within States. Of utmost importance is the structural and operational integrity of the interstate system.

The proposed alternative for partial access at the County Line Road interchange with I-43 is expected to accommodate the year 2040 forecasted volumes in a safe, efficient manner. There is no anticipated infringement on the operational characteristics of I-43 at the County Line Road Interchange.

• Do not have an adverse impact on the safety or operations of the Interstate System and connecting local roadway network or other elements of the transportation system.

The land use surrounding I-43 in the vicinity of County Line Road is generally residential. Land use just north of County Line Road along Port Washington Road is commercial retail. Local land use plans show little to no change in the commercial and residential land uses in the vicinity that the interchange services. As a result, the County Line Road interchange and adjacent system of surface streets is expected to experience minimal traffic growth and continued operational sufficiency (see attachments 5 and 6). The planned commercial and residential development north of Mequon Road up to the Village of Grafton is readily served by the Brown Deer Road, Mequon Road and WIS 60 interchanges and the proposed Highland Road interchange.

Mainline expansion of I-43 is expected to provide acceptable conditions for year 2040 traffic (LOS D or better in Milwaukee County and LOS C or better in Ozaukee County.)

All existing access points to local streets along Port Washington Lane and Katherine Drive are maintained in the phased construction of the Split Diamond Hybrid (without Grade Separation) alternative.

There are no operational issues or history of incidents relating to the current partial configuration and none are anticipated under the proposed condition.

The proposed alternative for partial access at the County Line Road interchange with I-43 is expected to accommodate the year 2040 forecasted volumes in a safe, efficient manner.

• Are designed to acceptable standards.

Geometric elements of the County Line Road Interchange are designed to current WisDOT and FHWA standards. The FHWA – Interstate System Access Informational Guide provides additional guidance throughout the document on criteria related to the approval, design and operational characteristics of partial interchanges. This additional information includes discussion of the following:

Commitments have been made to accommodate the ultimate design (Right-of-way etc.).



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For the phased construction of the interchange, design of the full interchange would progress to 60% completion. Information from the 60% plans would then be utilized to generate right-of-way requirements for the ultimate condition so it can be purchased along with the right-of-way needed for the rest of the project.

• Upon exiting the freeway, there is an expectancy that drivers will be able to re-enter the freeway at the same location they exited.

Due to the unique configuration of the County Line Road interchange with the parallel system of arterials immediately adjacent to the freeway, drivers inadvertently exiting the freeway have an available route back to all directions of I-43 within 1.7 miles. This eliminates the potential problem of someone needing to drive miles out of their way to re-enter the freeway.

The parallel alignment of Port Washington Road, (CTH W), provides a straightforward way to re-enter both northbound and southbound I-43 at either Brown Deer Road (1.5 miles south) or Mequon Road (1.7 miles north). Wayfinding signs at the County Line Road interchange would direct users to the nearest full access interchange in the event of an inadvertent exit from I-43.

For example, drivers inadvertently exiting from northbound I-43 at County Line Road would be directed back to northbound I-43 by turning left onto Port Washington Road and continuing north for 1.7 miles until reaching the Mequon Road interchange which would then provide full access to I-43. This entire movement can be completed without a significant increase (less than ¼ mile) to vehicle miles traveled, as compared to using I-43.

Also, "No Freeway Re-Entry" signs will be clearly posted in advance of the northbound exit at I-43 to proactively reduce this occurrence.

• Conversion to a full interchange can occur with limited impact should the need for the additional movements emerge.

The interim interchange is easily converted to the ultimate interchange with the addition of the northern ramps. One potential construction schedule scenario is to rebuild this interchange beginning in 2020. At that time the County Line Road interchange would be constructed in the interim condition (without the ramps to and from the north). This interim condition would include all mainline improvements, the reconstruction of the County Line Road and Port Washington Road bridges and all other side road improvements shown in Attachment 1.

Constructing the ultimate condition, or full interchange, which includes minor impacts to Port Washington Road and Katherine Drive, would require minimal impact to traffic and local stakeholders. The new northern ramps would be added onto the existing configuration without the removal of any newly constructed infrastructure. It is anticipated that the ultimate condition would be implemented by the design year of 2040, or earlier, as warranted based on future public input or based on operational



issues at County Line Road or adjacent interchanges. Attachments detailing the interim and ultimate conditions have been provided.

- The surrounding network of interchanges and surface streets has been analyzed to ensure operations will not degrade as a result of the partial interchange.
- Like the existing partial interchange, the proposed phased construction does not have undesirable operational characteristics.

While the intent of the FHWA policy against partial interchanges is understandable and applicable in most cases, the unique situation which occurs at County Line Road with low volumes, a parallel system of arterial streets which minimizes concerns with re-entry to the freeway, no operational concerns, and a construction plan that essentially replaces the existing partial interchange, lends itself to the consideration of a short term policy variance until the full interchange is constructed.

Implementation

It is anticipated that the ultimate condition would be implemented by the design year of 2040 or earlier, as warranted based on future public input or based on operational issues at County Line Road or adjacent interchanges. In the interim condition, traffic seeking to go to and from the north at County Line Road would likely use the Mequon Road interchange. There is a potential for some congestion and operational issues at the Mequon Road interchange in the design year of 2040 and implementation of the ultimate interchange at County Line Road in advance of the design year of 2040 would mitigate these operational concerns and provide additional capacity at the Mequon Road interchange. Earlier implementation of the ultimate interchange configuration would be based on the emergence of operational issues at adjacent interchanges or the presence of public pressure.

Attachments detailing the interim and ultimate conditions have been provided.

Public Comment

While not a criteria in the Interstate System Access Informational Guide, public involvement related to the County Line Road Interchange was a significant part of the corridor study's NEPA process. Three sets of large-scale public involvement meetings were held during the study, and the public hearings on the DEIS were held on April 30, 2014 and May 1, 2014. The associated public comment period ended May 12, 2014. A brief summary of the hearing comments along with comments from additional public outreach associated with the County Line Road area follows.

Throughout the study there has been significant and passionate public response regarding full versus partial access at the County Line Road interchange. The majority of comments supported maintaining partial access, saying that it serves the community well. As an indication that full access is not desired by the community, as many people favored no access as favored full access if the partial interchange were not allowed.

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No Access, Partial Access and Full Access alternatives for County Line Road were presented at Public Involvement meetings in January 2013 and August 2013 and at the public hearings in April and May 2014. The general consensus at each of these meetings was strong support for the Partial Access alternative or access as it exists today. A neighborhood meeting to discuss the County Line Road alternatives was also held in November 2013 with most attendees supporting a partial interchange.

Forty-three testimonials were received at the public hearing related to County Line Road. Twenty-seven of these preferred a partial interchange. Of the twenty-seven, six wanted no access if a partial could not be built and four wanted full access if a partial could not be built. There were seven testimonials supporting a full interchange and nine supporting no access.

While not a complete list, recurring public comments in opposition of the full interchange include:

- Existing interchange operates acceptably
- Full interchange would affect use of local road system
- Negatively impacts surrounding neighborhoods
- Full interchange is a waste of taxpayer money

Being subjective in nature, the impacts of some of these concerns are difficult to quantify. However, the presence of these concerns and the vocal nature of the public in this area influenced the public involvement process and the responses of the local municipalities.

A summary of public hearing comments is presented in attachment 4.

In acknowledgement of the comments made by their citizens, the city of Mequon supports the phased implementation of the Split Diamond Hybrid (without Grade Separation) alternative (see attachment 3), providing testimony at the public hearing outlining their support. The city cited public response in favor of a partial interchange in their testimony. In addition, the city passed Resolution 3193 in support of a partial interchange.



Summary

In summary, the Department is requesting FHWA's approval to move forward with phased construction of the Split Diamond Hybrid (without Grade Separation at Katherine Drive) alternative at the County Line Road interchange. This request is based on the following considerations:

- The design is consistent with current WisDOT and FHWA design standards.
- It does not infringe on the intended purpose of the Interstate System or adversely affect the operations of the system but rather enhances that purpose by improving safety and operations.
- The design of the interim condition is consistent with FHWA's operational requirements of a partial interchange.
- Strong support for the Partial Access alternative from both the public and city of Mequon.
- Partial access serves the surrounding land uses well and access to and from the north is easily provided via the Brown Deer Road and Mequon Road interchanges. Proper signage can further improve local way-finding to the Interstate.
- Maintains existing access.
- Interim partial access acceptably serves existing traffic operations, and the interchange can be easily converted to a full interchange by the year 2040 or earlier when operational issues emerge.



Attachments

- 1. Split Diamond Hybrid (without Grade Separation), Phased Construction Overview
- 2. Split Diamond Hybrid (without Grade Separation), Phased Construction Plan View and Typical Sections
- 3. City of Mequon Correspondence
- 4. County Line Road Public Hearing Testimony Summary
- 5. County Line Road Traffic Volumes 2025 Balanced (Partial Diamond)
- 6. County Line Road Traffic Volumes 2040 Balanced
- 7. County Line Road Interim Signing (Way-finding)



Attachment 1: Split Diamond Hybrid, (without Grade Separation), Phased Construction Overview









I-43 North-South Freeway Corridor Study Project ID: 1229-04-01 | Silver Spring Dr to WIS 60 | Milwaukee and Ozaukee Counties

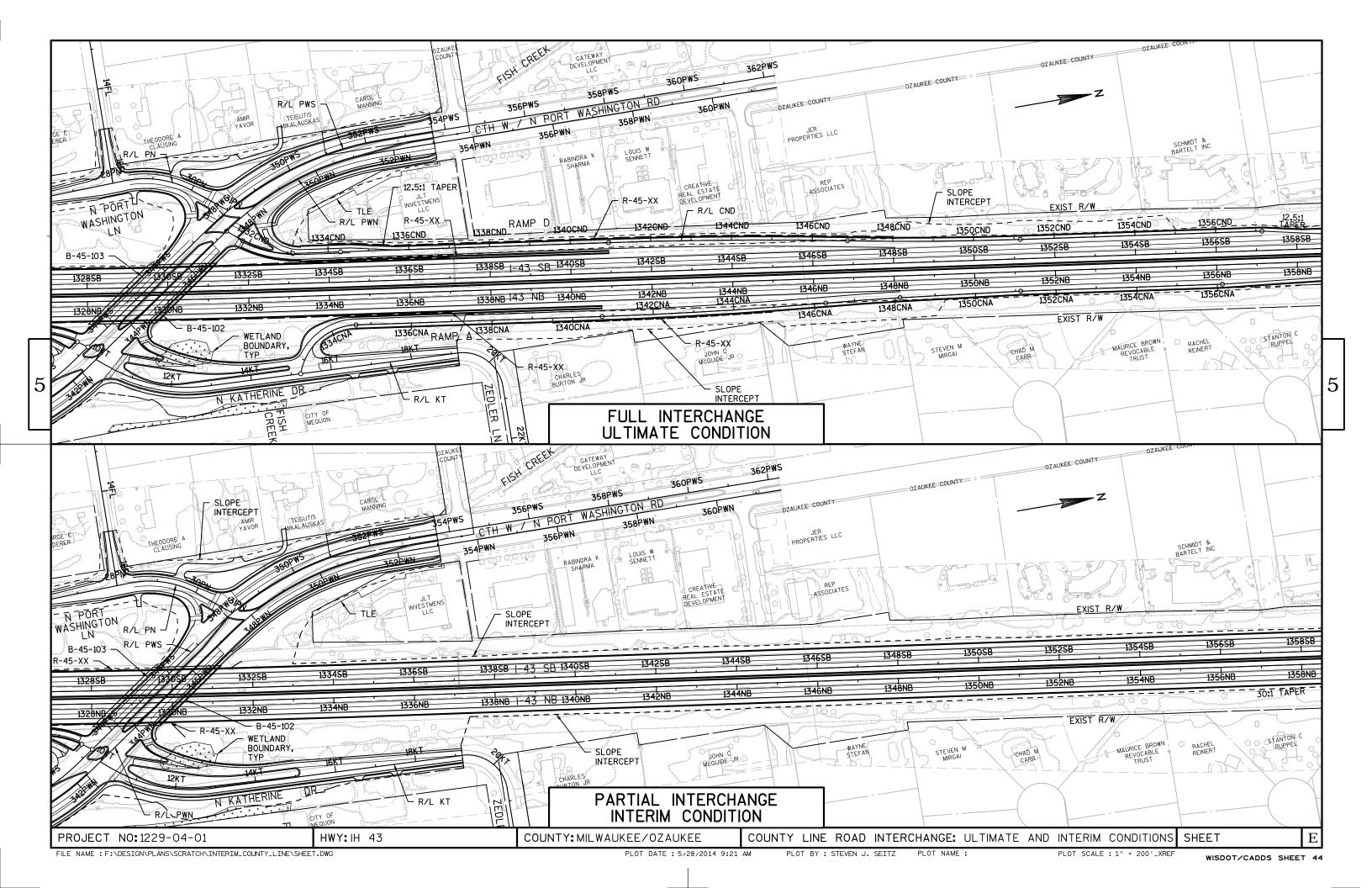


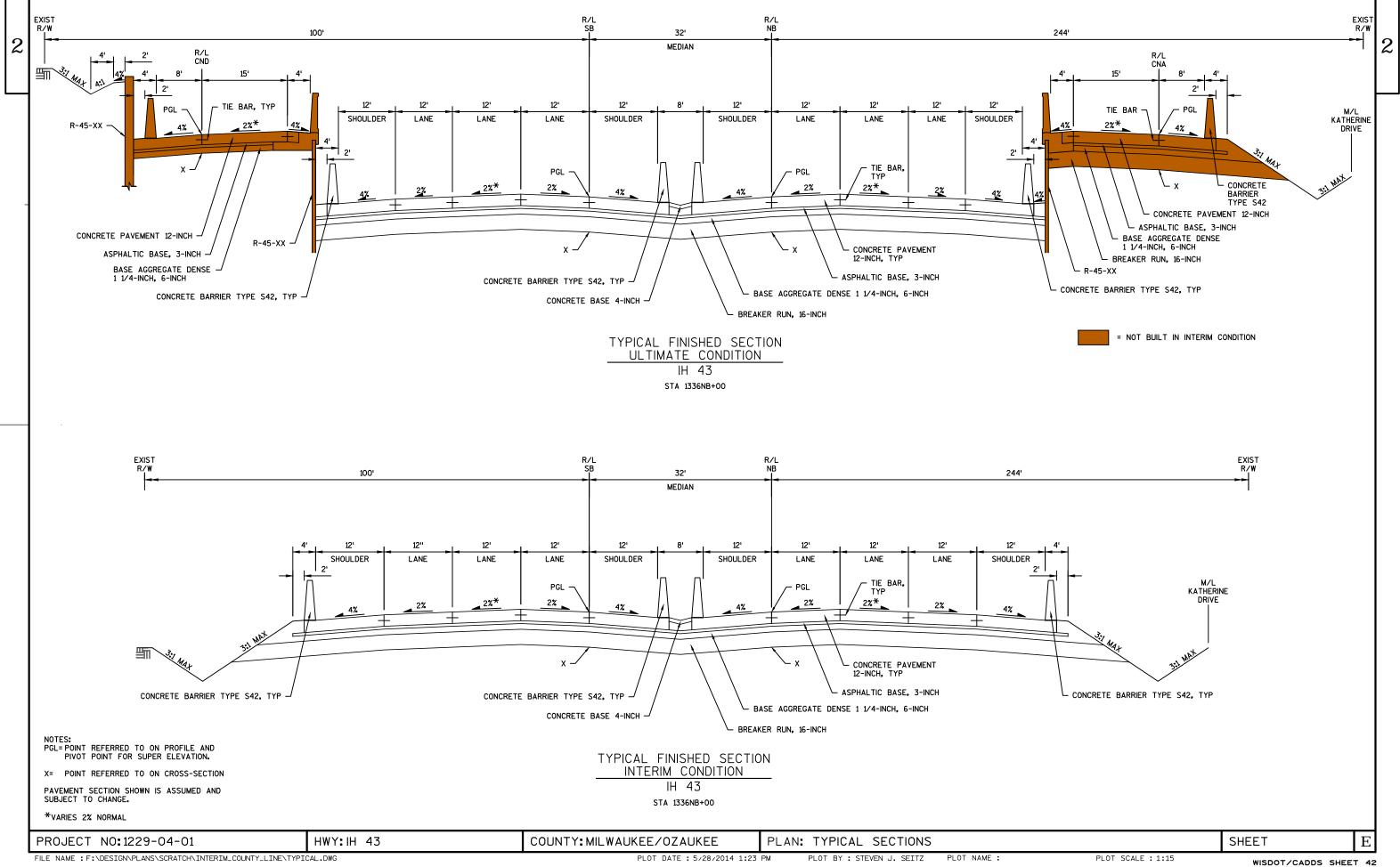
County Line Road Interchange Partial Diamond*

* Interchange alternative is compatible with 6-lane (shown) I-43 mainline alternative.

Attachment 2: Split Diamond Hybrid, (without Grade Separation), Phased Construction Plan View and Typical Sections







Attachment 3: City of Mequon Correspondence







Lee Szymborski

11333 N. Cedarburg Road 60W Mequon, Wisconsin 53092 Phone (262) 236-2941 Fax (262) 242-9819 Iszymborski@ci.mequon.wi.us

May 12, 2014

Steve Hoff Wisconsin Department of Transportation 141 NW Barstow Street P.O. Box 798 Waukesha, WI 53187

Sent Via Email: DOTI43NS@dot.wi.gov

Dear Mr. Hoff:

Thank you for the opportunity to provide additional testimony on matters pertaining to WisDOT's I-43 Corridor Study. On behalf of Mayor Abendroth and the entire Mequon Common Council, I am writing to reiterate the city's position as it concerns the interchange at I-43 and Port Washington Road/County Line Road. Please enter this letter into the official public hearing record.

As you know, in December 2013 the city passed Resolution 3193 supporting a partial interchange at this intersection with I-43. In that resolution, the city acknowledged that the US Department of Transportation and Federal Highway Administration considers modifications to the Port Washington Road/County Line Road interchange to warrant a change to the entire configuration, and thus requiring a full interchange in conformity with FHWA policy. Yet, and since then, the city has undertaken a considerable effort to make the case for the retention of a partial interchange. Not the least of that effort has been the city's appeal to your agency seeking a waiver to FHWA policy.

We understand that FHWA has declined the waiver request, per the April 21, 2014 letter written by FHWA's Division Administrator. We further understand from Mr. Poirier's letter, however, that the FHWA has no objections to continue evaluating the option.

At its most recent meeting on this topic, the Common Council, meeting as a Committee of the Whole this past Tuesday May 6, 2014, again reiterated its preference for a partial interchange. In the last five months since the Council approved Resolution 3193, city officials continue to hear from residents in the surrounding area, and even others not in the general vicinity, about the wisdom of retaining a partial interchange. It makes the most financial and environmental sense.

We do understand that WisDOT has since developed two alternatives for the Port Washington Road/County Line Road interchange. Those options are split diamond hybrid alternatives, one without a grade separation and one with a grade separation. We further understand that in presenting these options that FHWA is open to the idea of designing one of these options but not constructing the northbound entrance and southbound exit until, and only at a time when 2040 traffic projections are met. If that delayed construction timeline is a real possibility, the Common Council has authorized me to state, short of retaining a partial interchange as articulated in its December 2013 Resolution 3193, that it would find the split diamond hybrid alternative without a grade separation constructed in phases - that is, northbound exit and southbound entrance done in a first phase, and the other two ramps constructed at a later date accompanied by justifiable traffic warrants - acceptable.

The city greatly appreciates the efforts undertaken by WisDOT throughout the EIS process to take the city's concerns and input into consideration. If you have any questions, please contact me.

Sincerely,

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City Administrator

Cc: Mayor and Common Council Kristen Lundeen, Director of Public Works

COMMON COUNCIL OF THE CITY OF MEQUON

RESOLUTION NO. 3193

RESOLUTION TO THE FEDERAL HIGHWAY ADMINISTRATION FROM THE CITY OF MEQUON, WI TO CONVEY OFFICIAL SUPPORT OF A PARTIAL INTERCHANGE AT THE I-43 OFF RAMPS AT PORT WASHINGTON ROAD (COUNTY LINE ROAD)

WHEREAS, the Wisconsin Department of Transportation (WisDOT) is currently completing its I-43 Corridor Study; and

WHEREAS, the I-43 Corridor Study includes a proposal to modify the partial interchange at Port Washington Road (County Line Road) to provide full interchange access; and

WHEREAS, the residents within one half mile of the interchange attended a Neighborhood Meeting on November 13, 2013 by majority provided support for the maintenance of a partial interchange; and

WHEREAS, in response to that Neighborhood Meeting the residents requested that the City advocate for them and work to negotiate for a partial interchange; and

WHEREAS, the City acknowledges that the US Department of Transportation (USDOT), Federal Highway Administration (FHWA), considers modifications to the Port Washington Road (County Line Road) interchange to be a new interchange as any change in the design of an existing access point is considered a change to the interchange configuration, even though the number of actual points of access may not change; and

WHEREAS, the City also acknowledges that the USDOT, FHWA, requires that proposed access connects to a public road will provide for all traffic movements; and

WHEREAS, the USDOT, FHWA, issued a Policy on Access to the Interstate System (revision date August 18, 2009) which includes an Application section stating that, "To offer maximum flexibility, however, any proposed change in access can be submitted by a State DOT to the FHWA Division Office for a determination of engineering and operational acceptability. This flexibility allows agencies the option of obtaining this acceptability determination prior to making the required modifications to the Transportation Plan, performing any required conformity analysis, and completing the environmental review and approval process. In this manner, State DOTs can determine if a proposal is acceptable for inclusion as an alternative in the environmental process."

NOW, THEREFORE, BE IT RESOLVED, that the Common Council of the City of Mequon opposes a full interchange at Port Washington Road (County Line Road), supports a partial interchange and directs staff to contact FHWA and other appropriate governing entities to request modification of the Environmental Impact Statement (EIS) to include a partial interchange.

Approved: ____ Dan Abendroth, Mayor 121 21 13 Date Approved:

This is to certify that the foregoing resolution as adopted by the Common Council of the City of Mequon, Wisconsin, at a meeting held on the 10th day of December, 2013.

Lee Szomborski, City Clerk -----

Attachment 4: County Line Road Public Hearing Testimony Summary





| Comment | Number of Comments | Response |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| County Line Road Interchange | | · |
| County Line Road Interchange: Supports Partial Interchange | | |
| Maintain partial diamond interchange or close the interchange. Brown Deer and Mequon Road interchanges serve the area well. | 5 | Comment noted |
| aintain partial diamond interchange: | | All interchanges are designed to current standards impacts to the park. Subsection 3.15.3 discusses |
| It serves surrounding area well. | | relocations would be required with a full interchange |
| Brown Deer and Mequon Road interchange improvements will serve the area well. | | identical to those of the No Access and Partial Dia |
| Full interchange alternatives present a safety risk. | | |
| There is not enough room for a full interchange. Full interchange could impact use of Corporter Park. | 27 | |
| Full interchange could impact use of Carpenter Park.Signage to adjacent interchange would be used to direct drivers to I-43 to and from the north. | 21 | |
| Options for full access are too strange or too much for small area. | | |
| Waste of money. | | |
| Full access interchange creates negative impacts in surrounding neighborhood; too close to Brown Deer and Mequon Road | | |
| If FHWA will not allow a partial interchange, phase in full interchange construction when it's needed. | 2 | Comment noted |
| Does not make sense that Mequon has to fund Highland Road interchange, but not County Line Road interchange. The current interchange is fine as is | 1 | WisDOT's policy requires local funding share for n pay for reconstructing existing interchanges to FH |
| County Line Road Interchange: Supports Full Access Interchange | | |
| Supports Split Diamond Hybrid interchange at County Line Road, assuming that any impact to the immediate local residents is none to minimal. | 12 | Comment noted |
| Prefer option without Katherine Drive grade separation. | | |
| County Line Road Interchange: Supports No Access Alternative | | |
| Makes most sense; other interchanges serve the area well; reduces costs, noise and light pollution | 10 | Comment noted |
| County Line Road Interchange: Opposes No Access alternative | ····• | i |
| Local roads cannot handle traffic to Brown Deer Road | 2 | WisDOT modeled future traffic that would divert to is closed. Modeling indicates Port Washington has Road interchange. The Port Washington Road/Bro exclusive turn lanes to handle traffic volumes. |
| County Line Interchange: General Comments | ····i | i |
| Questions logic of traffic signal at County Line Road/Port Washington Road | 1 | Future traffic operations indicate the need for a tra determine when it is appropriate. |

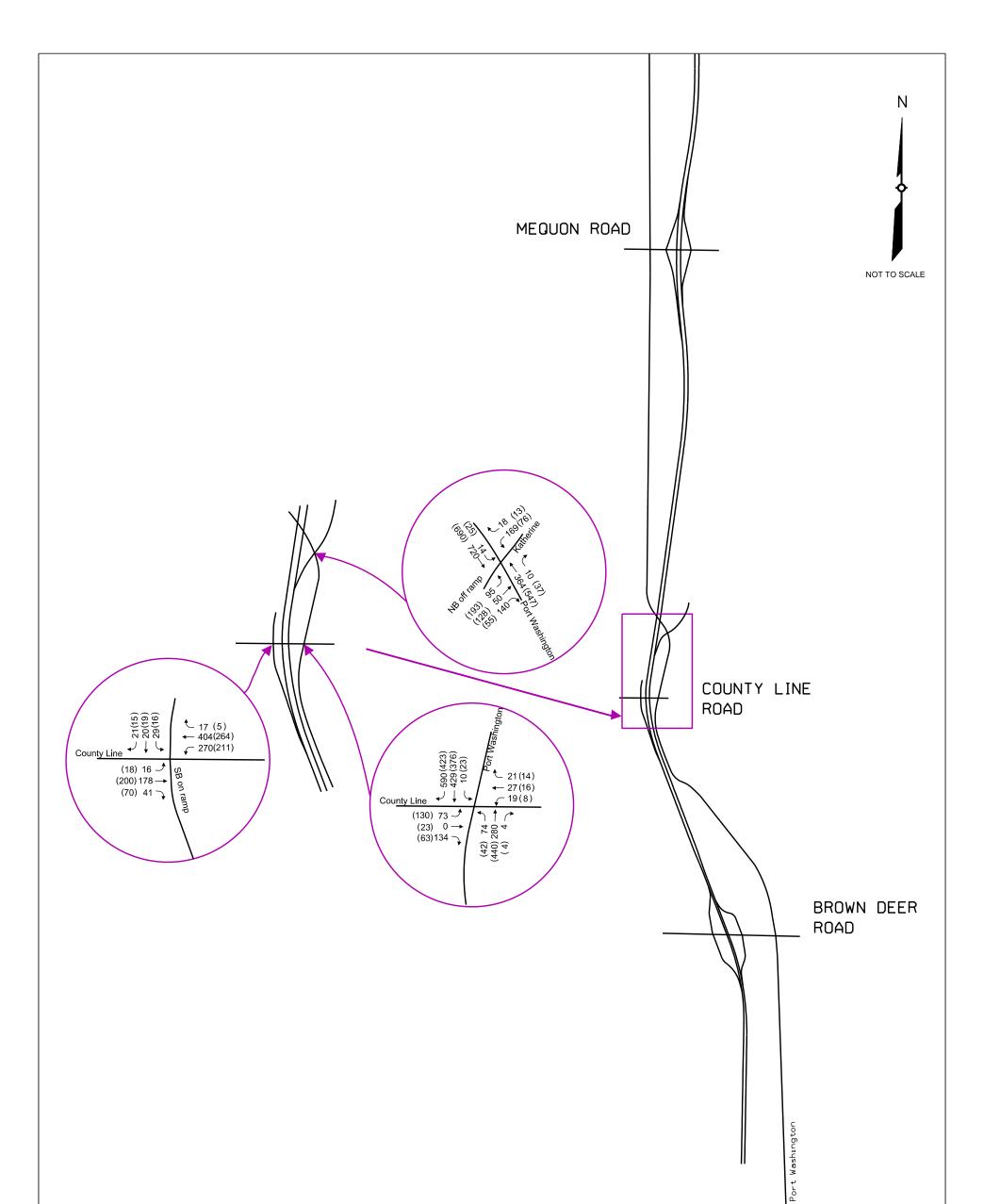
| rds for safety. Subsection 4.3.8 indicates there will be no s that there will be no noise impacts at the park. Also, no ange, and other environmental impacts would be nearly biamond interchange alternatives. |
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| r new interchanges only. Combined federal and state funds HWA Interstate standards. |
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| to other interchanges if the County Line Road interchange as sufficient capacity for traffic diverting to Brown Deer Brown Deer Road intersection would require some |
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| raffic signal. A traffic warrant study will be completed to |
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| Comment | Number of Comments | Response |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Who is supposed to benefit from a full access interchange when Brown Deer road is so close? | 1 | FHWA Interstate policy requires full access at all i logical access to and from the Interstate system. |
| Concerns about impacts to neighborhood west of I-43 in Fiesta Lane area; reduced pedestrian access, travel indirection, snow plowing on a "private lane," greater noise impacts with ramp terminals in the neighborhood and reduced property values | 1 | WisDOT will comply with TRANS 75, which requir during reconstruction. Access at the Port Washing be exactly as it is today. Access remains, but the r Washington Lane is not maintained with the selec snow plowing; noise impacts are provided in detai increase compared to existing conditions but will r |

l interchanges to benefit the traveling public, by providing .

quires including pedestrian and bike access on local roads nington Road/Port Washington Lane intersection would not he northbound Port Washington Road left turn onto Port elected alternative; reconstructed roads would accommodate etail in Appendix E; noise levels in this area are predicted to vill remain below the Noise Level Criteria conditions. Attachment 5: County Line Road Traffic Volumes – 2025 Partial Diamond





LEGEND

XXXX = AM PEAK HOUR

(XXXX) = PM PEAK HOUR

Note: Forecasts assumes full build (w/ Highland) and I-43 capacity expansion

Interstate 43

County Line Road (Partial Diamond)

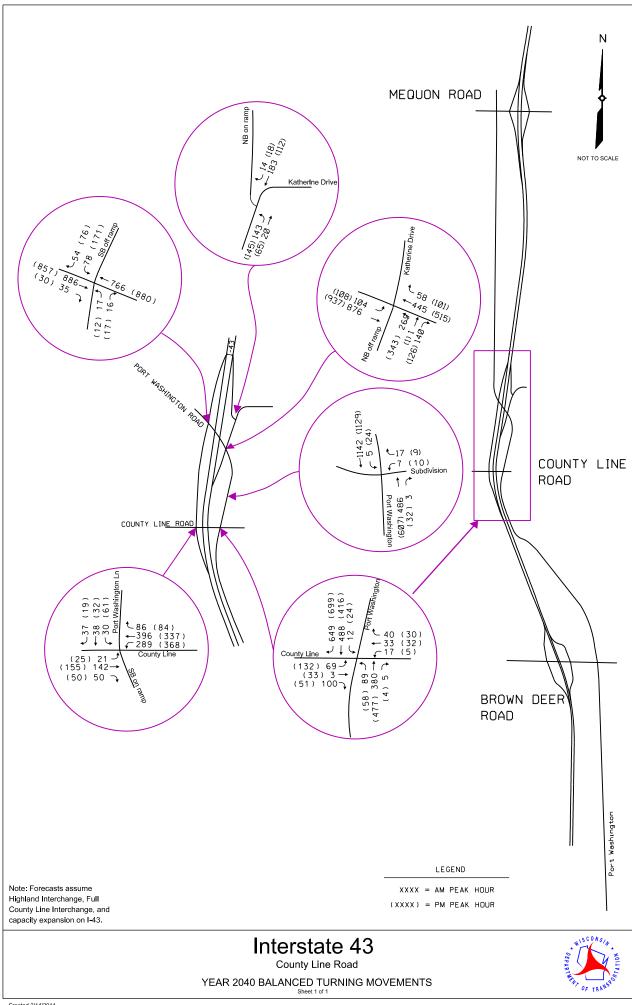
YEAR 2025 BALANCED TURNING MOVEMENTS Sheet 1 of 1



Created: 2/14/14

Attachment 6: County Line Road Traffic Volumes - 2040





Created 2/14/2014

Attachment 7: County Line Road Interim Signing Plan





