



**WIS 57, Allouez and De Pere  
ID 4085-38/39-00  
Stakeholder Meeting #3  
Agenda**



**July 23, 2014; 6:00 – 8:00 pm**

**Members: Village of Allouez,  
City of De Pere  
Mead & Hunt, Inc.  
Wisconsin Department of Transportation**

- I. Introductions – Please sign in**
- II. Meeting Objectives**
  - a. Present Traffic Model Results and discuss environmental constraints.**
  - b. Determine preferred lane configurations within the corridor based on the results of the traffic analysis and the environmental constraints.**
- III. Discussion of project corridor**
  - a. Comparison of Other Similar Roadways.**
  - b. Environmental, Cultural and Physical Corridor constraints.**
  - c. Corridor Goals and Priorities.**
  - d. Speed Study Results.**
  - e. Traffic Model Results.**
- IV. Preliminary Roadway Configuration Review**
- V. Preferred lane configuration based on discussion**
- VI. Schedules**
  - a. Roadway Alternatives and Public Outreach**
    - i. Meeting #4 – August 2014**
    - ii. Public Information Meeting #2 – September 2014**
    - iii. Meeting #5 – October 2014**
- VII. Discuss next steps**
- VIII. Review of meeting Action Items**

# WIS 57 Roadway Comparison Information

## Introduction:

The following information is intended to provide members of the WIS 57 Stakeholder Committee with a frame of reference when reviewing alternatives for the WIS 57 corridor improvements in Allouez and De Pere. Similar roadways in terms of traffic and/or roadway cross-sectional geometry were identified as well as two-lane roadways that have been constructed with two way left turn lanes. This summary is intended to provide examples but is not intended to be all inclusive of these types of roadways.

## Definitions:

**Annual Average Daily Traffic (AADT)** - The total volume of vehicle traffic of a highway or road for a year divided by 365 days

**Road Diet** - also called a lane reduction or road re-channelization, is a technique in transportation planning whereby the number of travel lanes and/or effective width of the road is reduced in order to achieve systemic improvements.

**Two way left-turn-lane (TWLTL)** - Two-way left-turn lanes (TWLTLs) consist of a traffic lane in the median area, 14-16 feet in width, delineated by pavement marking strips. The lane serves as a separation for opposing lanes of travel, an acceleration lane for vehicles turning left to enter the street from midblock driveways, and can be utilized as a detour route for maintenance work in adjacent lanes. It also allows easier and safer emergency vehicle movement, particularly during peak-hour periods.

TWLTLs are intended for use by vehicles traveling in either direction for *deceleration* and *refuge* while making a *midblock left-turn* maneuver. Use of two-way left-turn lanes for passing maneuvers is prohibited and must be signed appropriately.

**Vehicles per day (VPD)** – Vehicles per Day

## WIS 57 Traffic Volumes

### Riverside Drive/Broadway South of WIS 172 (Randall Avenue – WIS 172)

<u>Existing Traffic Volumes</u>		<u>Projected Traffic Volumes</u>	
AADT (2012)	15,700 – 16,500 vpd	AADT (2038)	19,700 – 21,300 vpd

### Riverside Drive North of WIS 172 (WIS 172 – Marine Street)

<u>Existing Traffic Volumes</u>		<u>Projected Traffic Volumes</u>	
AADT (2012)	13,400 – 13,800 vpd	AADT (2038)	14,700 – 16,700 vpd

## Webster Avenue Traffic Volumes (Existing Volumes Only)

**N. Webster Avenue (North of WIS 172), Allouez** AADT (2012) = 16,900

**S. Webster Avenue, (South of WIS 172), Allouez** AADT (2012) = 17,600

**S. Webster Avenue, (South of WIS 172), De Pere** AADT (2012) = 13,200

# WIS 57 Roadway Comparison Information

## Alternatives currently under consideration for WIS 57:

- 2 Lane Roadway with center two way left-turn-lane (TWLTL)
- 4 Lane Undivided Roadway
- 4 Lane Divided Roadway utilizing a combination of raised median and TWLTL

## Alternative Descriptions/Characteristics:

### 2-Lane Roadway with TWLTL

#### Description

Converting a four-lane facility to a 3-lane TWLTL - commonly referred to as a "Road Diet". When considering a roadway diet, the following conditions should exist:

- High accident rates involving left turning movements, sideswipes, rear-ends, or crossing traffic
- The need for traffic calming (Lowering the average through traffic speeds and reducing weaving)
- Pedestrian and bicyclist safety issues
- The existing four-lane facility actually operates similar to a 3-lane facility. The inside lanes operate as the left turn lane and the outside lanes operate as the through lane.
- Projected traffic volumes do not show a drastic increase.

Converting a four-lane undivided section to a three-lane cross section may result in less right of way impacts, less environmental impacts and less costs than converting to a wider TWLTL or raised median cross section. The conversion from four to three lanes may also allow the use of wider or designated bike lanes.

Roadways with stop and go traffic such as school buses and delivery trucks or where slow moving heavy vehicles such as long trucks and farm machinery will result in increased through traffic delays. An increased delay for access from side roads may also result with the conversion to three-lanes. A design year ADT of 15,000 - 17,500 is typically the maximum capacity for a three-lane TWLTL cross section, but check for adequate Level of Service (LOS)

#### Traffic Capacity

A design year AADT of 15,000 - 17,500 is typically considered the maximum capacity for a three-lane TWLTL cross section. However, some case studies throughout the United States have achieved capacities over 20,000.

## WIS 57 Roadway Comparison Information

Similar Highway Corridors:

**2-lane roadways with two way left turn lanes**

*(Roadway name with associated AADT)*

4<sup>th</sup> Street, Tomahawk, WI (8,400 – 12,200) – converted from a 4-lane to a 2-lane roadway with a TWLTL.

Chicago Street, CTH G, DePere (3,900-8,200)

Lineville Road, CTH M, Howard (12,400) - includes roundabouts on each end of segment

S. Broadway (4,100 – 6,200)

Eaton Rd, CTH JJ (9,600)



*Typical 2-lane roadway with TWLTL/Median (South Broadway, Ashwaubenon)*

Advantages	Disadvantages
<ul style="list-style-type: none"> <li>• Fewer rear-end and angle crashes associated with left turns</li> <li>• Physically separates opposing travel lanes</li> <li>• Reduced delay due to left turns</li> <li>• Increasing operational flexibility</li> <li>• Shortens pedestrian crossing lengths and allows for refuge in the median</li> </ul>	<ul style="list-style-type: none"> <li>• No pedestrian refuge area in median where TWLTL exists.</li> <li>• Reduces roadway capacity and capacity of roadway network.</li> </ul>

# WIS 57 Roadway Comparison Information

## 4-Lane Undivided Roadway

### Description

Similar to WIS 57 as it is now.

### Traffic Capacity

AADT = 16,000-18,000 (ideal conditions stretch capacity to 41,000-50,000)\*

\*ideal conditions include - wide lanes, no parking stalls, exclusive turn lanes, good access control, good signal timing and coordination, etc.

### Similar Roadways to WIS 57 North of WIS 172 in terms of traffic volume

N. Riverside Drive (AADT = 13,200):

<i>Roadway</i>	<i>AADT</i>	<i>Roadway Configuration</i>
S. Packerland Drive	13,400	4-lane undivided
Velp Ave, USH 141	12,900 – 18,800	4-lane undivided
N. Cardinal Lane	11,700	4-lane undivided
University Ave, STH 54	14,600 – 16,100	4-lane undivided



*Typical 4-lane undivided roadway (N. Cardinal Lane, Howard)*

Advantages	Disadvantages
<ul style="list-style-type: none"> <li>Additional lanes increase capacity</li> </ul>	<ul style="list-style-type: none"> <li>Requires more street and right-of-way width</li> <li>Left-turning vehicles introduce delay to through vehicles</li> <li>May create safety problems associated with rear-end and lane-changing conflicts</li> <li>Longer pedestrian crossing length with no refuge.</li> </ul>

## WIS 57 Roadway Comparison Information

### 4-Lane Divided Roadway

#### Description

Four lane roadway separated by a median with a minimum width of 14-feet. This roadway section allows for exclusive turn lanes and pedestrian refuges.

#### Traffic Capacity

AADT = 22,000-23,000 (ideal conditions stretch capacity to 41,500-51,000)\*

\*ideal conditions include - wide lanes, no parking stalls, exclusive turn lanes, good access control, good signal timing and coordination, etc.

#### Similar Roadways to WIS 57 South of WIS 172 in terms of traffic volume

S. Riverside Drive/N. Broadway (AADT = 15,800):

<i>Roadway</i>	<i>AADT</i>	<i>Roadway Configuration</i>
N. Packerland Drive	14,700	4-lane divided
S. Military Ave	13,100-16,600	4-lane divided
Main St., USH 141	17,000	4-lane divided
S. Cardinal Lane	18,100	4-lane divided



*Typical 4-lane Divided Roadway (N. Packerland Drive, Green Bay)*

Advantages	Disadvantages
<ul style="list-style-type: none"> <li>• Additional lanes increase capacity</li> <li>• Fewer rear-end and angle crashes associated with left turns</li> <li>• Physically separates opposing direction of travel.</li> <li>• Increases operational flexibility.</li> </ul>	<ul style="list-style-type: none"> <li>• Requires substantially more street and right-of-way width.</li> <li>• May increase delay to left-turning vehicles</li> <li>• Indirect routing required for long trucks</li> <li>• Reduced operational flexibility due to median.</li> </ul>

Other Similar Corridors: WIS 54/West Mason Street and Lombardi Avenue