

# GRADE CROSSING CLOSURE STUDY

## OLD HIGHWAY 18 CLOSURE STUDY

### STOCKTON, WISCONSIN

#### Parties with Interest

Office of the Commissioner of Railroads (OCR)

Wisconsin Central Limited (WCL)

Town of Stockton, Wisconsin

Date: September 29, 2005  
Revised: June 12, 2007  
Project No. 13460.001

# **TKDA**

ENGINEERS • ARCHITECTS • PLANNERS

750 Shoreline Drive, Suite 100  
Aurora, IL 60504-6192

(630) 499-4110  
(630) 499-4119 Fax  
[www.tkda.com](http://www.tkda.com)

AURORA, ILLINOIS

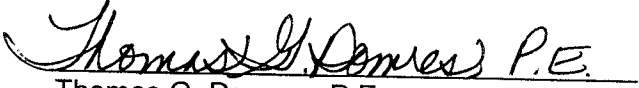
SEPTEMBER 29, 2005  
REVISED JUNE 12, 2007

**GRADE CROSSING CLOSURE STUDY  
OLD HIGHWAY 18 - STOCKTON, WISCONSIN**

**WISCONSIN CENTRAL LIMITED (WCL)**

**TKDA PROJECT NO. 13460.001**

I hereby certify that this Report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Wisconsin.

  
Thomas G. Domres, P.E.  
Wisconsin License No. 38627-006

## Table of Contents

Investigative Findings .....	4
Old Highway 18 (DOT No. 692529E) .....	4
Approaching Sight Distance .....	5
Clearing Sight Distance .....	7
Traffic Data .....	7
Area Characteristics .....	7
Emergency Services .....	8
Area Growth .....	9
School Bus Service .....	10
Closure Analysis .....	11
Stockton Road Grade Separation .....	11
Brilowski Road Grade Separation .....	11
Travel Time Analysis .....	13
Conclusions and Recommendations .....	14

## Table of Figures

Figure 1: Aerial Photo of Old Highway 18 Crossing .....	6
Figure 2: Closure Options for Old Highway 18 .....	12

## Appendices

- Appendix A: Federal Railroad Administration (FRA's) Data
- Appendix B: Field Review
- Appendix C: Contact List & Record of Conversation
- Appendix D: Landowner Data

# INVESTIGATIVE FINDINGS

## Background

The staff and consultants of WCL have investigated the feasibility of closing the public highway crossing of WCL tracks with Old Highway 18 (DOT #692529E) in the Town of Stockton, Portage County. The Old Highway 18 crossing is located at Milepost (MP) 244.3 on WCL's Neenah Subdivision. Thomas G. Domres, a TKDA Registered Engineer, reviewed the crossing in August 2005. This report summarizes the findings, analysis and recommendations of this investigation.

## Old Highway 18 (DOT #692529E)

As seen in Figure 1, Old Highway 18 is an east-west county road connecting Highway 10 in Stevens Point to 6<sup>th</sup> Street in Custer. Old Highway 18 crosses the CN mainline just north of the Old Highway 18/Burbank Road intersection. Burbank Road is a north-south road connecting Old Highway 18 to County Road HH.

In the vicinity of the crossing, the land to the west is primarily used for agricultural purposes and residences. To the north of the crossing, there is a historic Stockton schoolhouse located on a private parcel. To the east of the crossing on Old Highway 18, there are more residences and a trailer park. South of the crossing, there are farm fields and a residential area on Burbank Road which consists of some residences and one business. Access to some of these residences is provided by BJ Court.

Old Highway 18 crosses the WCL tracks at-grade at a 55° skew. Old Highway 18 intersects with Burbank Road 30 feet south of the crossing. From the intersection, Burbank Road continues to the south, and Old Highway 18 continues to the east.

In the vicinity of the grade crossing, Old Highway 18 is a 22-foot wide bituminous road with 4-foot wide grass shoulders. Burbank Road is a 20-foot wide bituminous road that intersects Old Highway 18 just south of the crossing. The speed limit on Old Highway 18 is posted at 35 miles per hour (mph). The Town of Stockton currently classifies Old Highway 18 as a Rural Local Road. According to the Town Chairman, there are weight restrictions on Old Highway 18 during the spring due to frost.

The crossing is in a fill section. Traveling in the southbound direction on Old Highway 18 north of the crossing, there is a +7% slope as the road rises to meet the railroad. From the eastbound direction on Old Highway 18, the road climbs at approximately a +4% grade up to the Old Highway 18/Burbank Road intersection. Directly south of the crossing, Burbank Road slopes at approximately a +8% grade in the northbound direction to the crossing.

The railroad is in a fill section through the Stockton area. The crossing currently consists of one mainline track (115-pound continuous welded rail). The warning devices at the crossing are crossbucks, two 30-inch stop signs (for each approach), and reflectorized tape on the crossbuck posts. The crossing has an asphalt surface.


The Old Highway 18 crossing is located east of a passing siding. This siding provides additional capacity for trains to move into and out of the Stevens Point Yard. The maximum timetable speed over the Old Highway 18 crossing is 60 mph; however, there are trains that operate at slower speeds as they enter or exit the siding.

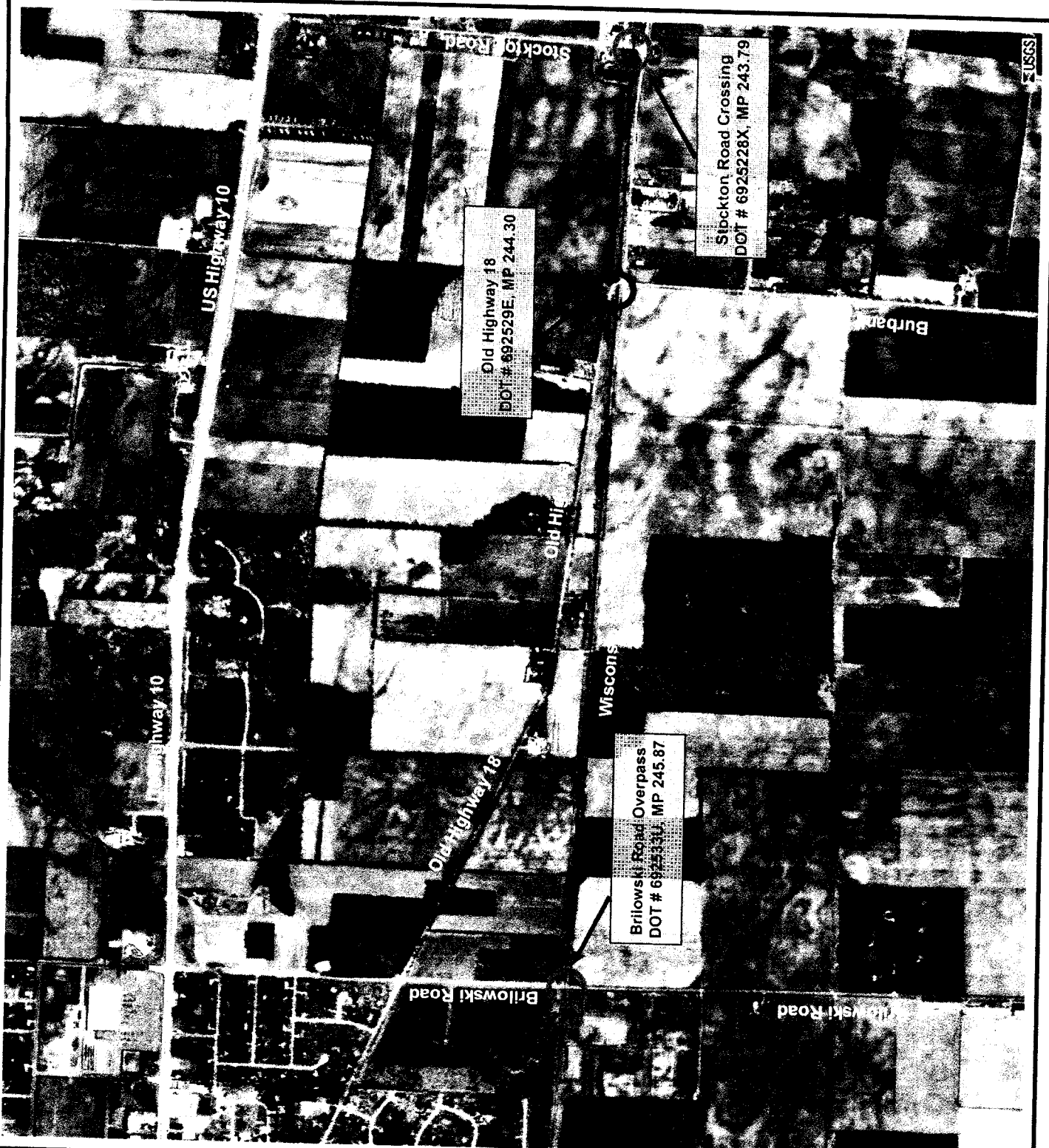
During the summer, the WCL currently operates an average of 18.4 through-train movements per day over the Old Highway 18 crossing, and an average of 17.9 through-train movements per day over the Old Highway 18 crossing during the winter. Approximately 60% of the trains run from 6:00 a.m. to 6:00 p.m., and 40% of the daily through-trains run from 6:00 p.m. to 6:00 a.m.

#### Approaching Sight Distance

Field observation revealed the following:

- Old Highway 18 Eastbound/Southbound (north of the crossing) – At a point 80 feet from the centerline of the crossing, the approaching sight distance to the east extends for about 1,500 feet due to a tree and vertical and horizontal curvature of the road. The approaching sight distance to the west extends for about 65 feet due to the skew of the crossing and the curvature of the road.
- Old Highway 18 Westbound (southeast of the intersection) – At a point 220 feet from the Old Highway 18/Burbank Road intersection, the approaching sight distance to the north extends about 100 feet due to the height of the tracks. The approaching sight distance to the south extends about 300 feet due to a tree and some other roadside vegetation.
- Burbank Road Northbound (south of the crossing) – The approaching sight distance in the northbound direction extends approximately 250 feet on the east side of Burbank Road, due to some trees and the skew of the crossing. To the west of Burbank Road, the approaching sight distance is 1000+ feet with some blockage from trees and farm irrigation equipment at a point 115 feet from the crossing.

NO.	DATE	REVISIONS
<b>TKDA</b>		
ENGINEERS • ARCHITECTS • PLANNERS		
		
LOCATION:	Stockton, Wisconsin	
FACILITY:	Old Highway 18	
DRAWING TITLE:	Portage County	
DRAWN BY:	ALF	
CHECKED BY:	ALF	
DATE:	9/5/2006	PROJECT CODE: 13460.001
SCALE:	1	FIGURE: 1
WORK ORDER:	CE NUMBER:	



### Clearing Sight Distance

Field observation revealed the following:

- Old Highway 18 Eastbound/Southbound (north of the crossing) – At a point 30 feet from the centerline of the crossing, the clearing sight distance to the east extends for about 1500 feet or to the next crossing. The clearing sight distance to the west extends about 60 feet due to the skew of the crossing and the curvature of the road.
- Old Highway 18 Northbound/Westbound (south of the crossing) – At a point 30 feet from the centerline of the crossing, the clearing sight distance to the east extends about 50 feet due to the skew of the crossing and the curvature of the road. The clearing sight distance to the west extends 1000+ feet.

### Traffic Data

The WCL collected traffic data using tube counters on Old Highway 18 from Wednesday, May 9, 2007, to Wednesday, May 16, 2007. Old Highway 18 currently carries an average of 352 vehicles per day. As seen in Appendix B, the morning peak hour is from 6:00 to 7:00 am, and an average of 18 vehicles use Old Highway 18. The afternoon peak hour is from 4:00 to 5:00 pm, and an average of 33 vehicles use Old Highway 18. Based on the train and traffic data, the exposure factor at this crossing is 6,477. Pedestrian appears to be minimal; however, two pedestrians were observed using the crossing during the site review in August of 2005.

According to the FRA's database, there have been three reported crashes at the Old Highway 18 crossing. These crashes occurred in 1976, 1998, and 2001.

The crash on November 4, 2001, resulted in a fatality. The crash occurred around 9 p.m., and even though it was dark, the weather was clear. The female driver was heading eastbound (southbound through the crossing) and stopped at the crossing per the posted stop sign. The driver then proceeded through the crossing where a train struck the vehicle. The driver was taken to a hospital and pronounced dead later that evening.

The Highway Commissioner for the Portage County Highway Department supports closure of this crossing because of the dangerous way the road connects through the crossing. He stated the alignment of the track with the road is terrible. The speed of the trains is very high and increases the likelihood of another fatal crash. He also stated in a quad axle truck, it is almost impossible to see the tracks and to get a good sight distance because of the skew of the crossing. The Highway Commissioner did not see a reason why this crossing could not be closed.

### **Area Characteristics**

Additional information was collected from the Town of Stockton, Stevens Point school district, Portage County Planning and Zoning, and Emergency Management Services. This section provides a summary of emergency management services, area growth, and school bus services.

## Emergency Services

The Town of Stockton relies on the Portage County Sheriff for police services. The Portage County Sheriff is located in the City of Stevens Point, which is to the northwest of the Town, approximately 12 miles away. The Sheriff indicated that the Sheriff's Patrol Unit does use the crossing, and that removal of the crossing would effect the response time. The Sheriff admitted this is a dangerous crossing and noted improvements have been put in place. The Sheriff supports improving the crossing because local traffic uses the crossing. The Sheriff was concerned that if the crossing was removed, it would greatly affect the neighboring residents including the trailer park located just east of the crossing.

The Sheriff said if the crossing is removed, the Patrol Units could use Stockton Road to get around the crossing. The Sheriff indicated the department could survive without the crossing, but would still be opposed to the removal of the crossing at Old Highway 18. The Sheriff did not think the growth in the area would affect traffic patterns because most of the traffic would be heading west to the nearby commercial areas.

For fire and rescue services, the Town of Stockton relies on assistance from the Village of Plover Fire Department. The Village of Plover Fire Department currently has a total of 43 paid-on-call firefighters and emergency medical technicians and ten units (trucks and pieces of equipment). In 2002, the Village of Plover Fire Department responded to approximately 554 calls including 100 fires, 63 rescues, and 385 responders-EMS calls.

The Village of Plover Fire Department covers the Town of Stockton west of Burbank Road. The Plover station is located at 2400 Post Road, which is approximately 8.5 miles to the southwest. In talking with Dale Garski, who is a Captain at the Village of Plover Fire Department, he indicated when they respond to emergencies in the Town of Stockton, they use a route from the south that includes County Road HH, Burbank Road, and Old Highway 18. He indicated they rarely use the Old Highway 18 crossing as they can access residences and farms from the west using Brilowski Road and Old Highway 18. When asked about a closure of the crossing, the Village of Plover Fire Department would not be opposed to the closure since there would be no impact on their operations/response.

In addition, Captain Garski indicated the Stockton Road grade separation does not have adequate vertical clearance for the Fire Department's equipment, and the policy is to not use Stockton Road. If there is an emergency north of the WCL tracks in the Town of Stockton, the Fire Department will use Highway 10.

The Town of Amherst Fire Department covers the Town of Stockton east of Burbank Road. In fact, the Old Highway 18 crossing is not in their jurisdiction, but the area that is just east of the crossing is under the Town of Amherst's Fire Department. The Town of Amherst Fire Department is a volunteer force based in the Town of Amherst and is funded by the local municipalities. The Amherst Fire Station is located on Fairground Road, in the Town of Amherst, approximately 12 miles away from Old Highway 18. The Town of Amherst also has a volunteer rescue group called "First Responders." They are located in the same building as the Fire Station. The Town of Amherst's Fire Department rarely uses the crossing because it is not in their jurisdiction. In talking with the Fire Chief, Victor Voss, the Fire Department would not be opposed to closing Old Highway 18 because it does not affect them.

TKDA contacted Ms. Sandra Curtis on Tuesday, August 29, 2006. Ms. Curtis, who is the Director of Emergency Management for the Town of Stockton, indicated that the Town of Stockton is serviced by the Village of Plover Fire Department which covers the area west of Burbank Road. The Plover Fire Station is located at 2400 Post Road in Plover. For the area east of Burbank Road, the Town of Stockton currently relies on the Town of Amherst's Fire Department. The Amherst Fire Station is located at 4585 Fairground Road

According to Ms. Curtis, the Town of Stockton started the Volunteer Fire Department in 2005. The station is located at 7252 6<sup>th</sup> Street. When this information was gathered, this department is still in the development stage and is not fully functional, but has hired Assistant Chief Mike Spencer. The Town of Stockton has trained 16 volunteer firemen for rescue and fire services. Once operational, the Town of Stockton personnel will assist the Amherst Fire District and the Village of Plover Fire Department respond to emergencies in the town. The Town of Stockton will be able to support its own fire department within three years.

The hospital that serves these fire departments is St. Michael's Hospital located at 900 Illinois Avenue in Stevens Point. Ms. Curtis didn't see any issues with rerouting traffic if either of these crossings were to be closed, but says they would need plenty of notice in order to reroute emergency calls.

#### Area Growth

The Town of Stockton is located just east of the City of Stevens Point. The Town of Stockton estimates the population to be approximately 3,016 residents. The Town has not projected population growth as of yet. Most residents of the Town work in Stevens Point.

Old Highway 18 runs east-west south of Highway 10 and north of County Road HH. These three main roads provide access for the Town in the east-west directions. There is some concern about removing the Old Highway 18 crossing. Township Supervisor, Jeanie Dodge, feels closing the Old Highway 18 crossing without providing another access road is not sufficient enough for the Town.

The Town is working with the Portage County Planning and Zoning Department to work through future plans for the Town of Stockton. There currently are proposals to develop certain areas of the Town residentially, commercially, and industrially. The Town Chairman reported the Town of Stockton is the fastest growing town in Portage County. For about the last six years, approximately 20 new houses have been built per year. Recently, there have been 200 new lots open for sale and 300 build-able lots open for development. New subdivisions have been developed and there are a few proposals for more subdivisions to be built.

The City of Stevens Point has Extraterritorial Rights on certain areas of the Town of Stockton. One of those areas to be developed is just southwest of Stevens Point in the Town of Stockton. The new zoned area will house commercial and residential development within the boundaries of Highway 10 in the north, and the Town line at Kennedy Avenue/Brilowski Road (Stevens Point/Stockton town line) in the west, County Road HH in the south and Burbank Road in the east. This rectangular area of land currently has rural residential, residential and some commercial/industrial development. The City of Stevens Point is negotiating with landowners in the area to purchase about 800 acres of land for the proposed development.

Another area for a proposed zoning change is located near County Road J and Highway 10 which is east of the Old Highway 18 crossing. Currently, this area is zoned for rural residential or agricultural use. The area extending west to Stockton Road and just south of Highway 10 has been planned for use as commercial and industrial areas. County Road J is currently an at-grade crossing which has recently been funded for a grade separation. According to the Portage County Director of Planning and Zoning, some of the Town of Stockton's council members would like to see the construction of restaurants and hotels the area just east of Highway 10 and County Road J.

The Portage County Director of Planning and Zoning does not think this area will grow as fast as projected, partly because the area does not have any utilities in place. In addition, he indicated in the next 20 or 25 years, Highway 10 may be relocated between County Road HH and Porter Road (to the south of its current alignment). He is concerned that if the Town zones the area south of Highway 10 for commercial/industrial growth and Highway 10 is relocated, the proposed businesses may not survive due to most of the traffic using the new Highway 10 alignment.

East of the proposed new zone around County Road J and Highway 10, the area around Old Highway 18 is already zoned for commercial development, according to the Portage County Planning and Zoning Director. It has been zoned for 8 to 10 years for commercial development; however, the area still has not experienced any significant growth. If the area continues to grow residentially, commercially, and industrially, there will be an increase of traffic on the Town's roads.

#### School Bus Service

The Old Highway 18 area is located in the Stevens Point School District. The School District uses both the Old Highway 18 crossing and the Stockton Road underpass for their services. The buses use the Old Highway 18 crossing no more than six times per day. Usually the buses will traverse the crossing one to two times in the morning anytime between 7 a.m. and 9 a.m., once in the middle of the day between 11 a.m. and 1 p.m., and then again one to two times in the afternoon between 3 p.m. and 5 p.m.

The School District would be opposed to the closure of the Old Highway 18 crossing because the buses would have no place to turn around at the end of Old Highway 18. It must be noted that the Office of the Commissioner of Railroads (OCR) typically orders cul-de-sacs or "T" turnarounds to be constructed as part of a crossing closure which would address the District's concerns. The buses traverse Old Highway 18 west of the crossing to pick up students. The Transportation Director said poor sight distance is not an issue at the crossing but agrees the crossing is not "good" due to the angle of the road. The Transportation Director indicated the School District is in favor of improving the crossing rather than closing it.

## Closure Analysis

There are several options for providing alternative access to the residences and business affected by the Old Highway 18 grade crossing closure. The access options are identified in Figure 2 and are summarized below. Stockton Road and Brilowski Road provide alternative access to the area near the Old Highway 18 crossing. Travel times for these alternative access options are provided in this section.

### Stockton Road Grade Separation (DOT #692528X)

The next public crossing east of the Old Highway 18 crossing is Stockton Road. This facility provides a north-south connection between Highway 10 and Old Highway 18. Stockton Road serves local traffic to the residences and businesses south of Highway 10. In the vicinity of the Stockton Road/Old Highway 18 intersection and grade separation, Stockton Road serves an agricultural facility, residences, and a tavern/restaurant. Stockton Road is an 18 foot bituminous road with 3 foot grass shoulders. It is posted at 35 miles per hour (mph).


The WCL track is in a fill section through Stockton. At MP 243.79, the track is grade separated over Stockton Road. The bridge currently has a posted height restriction of 10 feet, 6 inches. This route will be limited because some trucks will have to use Brilowski Road to the west or County Road J to the east due to the height restrictions on Stockton Road. The WCL is currently replacing the Stockton Road grade separation; however, the WCL indicated the elevation of the new bridge will not change from the existing elevation.

### Brilowski Road Grade Separation (DOT #692533U)

The next public crossing west of the Old Highway 18 crossing is Brilowski Road. This facility connects County Road HH (and areas to the south) to Highway 10. South of the WCL's tracks, Brilowski Road serves the farmland, industrial parks, and new commercial/retail developments. North of the railroad, Brilowski Road serves some farmland, established residential and commercial areas.

Brilowski Road is a four lane divided roadway (four 12-foot lanes) with paved and gravel shoulders. It is posted at 45 miles per hour (mph). There is also a paved recreational trail along the west side of the road. The Brilowski Road/Old Highway 18 intersection is located north of the WCL tracks. Traffic from Old Highway 18 is controlled by a stop sign posted at the intersection.

Brilowski Road is located at MP 245.87, which is east of the Stevens Point Yard. The WCL has two tracks at grade, and Brilowski Road crosses over the WCL tracks with a grade separation. There are no restrictions posted for this overpass.

NO.	DATE	REVISIONS
<b>TKDA</b>		
ENGINEERS • ARCHITECTS • PLANNERS		
		
LOCATION:	Stockton, Wisconsin	
FACILITY:	Old Highway 18 DOT # 692529E, MP 244.30	
DRAWING TITLE:	Portage County	
DRAWN BY:	ALF	
CHECKED BY:	ALF	
DATE:	9/5/2006	PROJECT CODE: 13460.001
SCALE:		FIGURE: 2
WORK ORDER:		CE NUMBER:

