



WISCONSIN

UNIVERSITY OF WISCONSIN-MADISON



Highway Safety “Safety 365”

Transportation Information Center
thanks its partners for their support
and assistance



The Need for Rural Road Safety



Roadway Geometry- Top of Grade



Roadway Geometry- Approaching Curve Near Bottom



Roadway Geometry- Upgrade View from Center of Curve



Truck at Final Rest



Developing Safety Priorities

- What do we need to know to be able to develop priorities and get approval?
- What can we do starting now?

What is the purpose of a Strategic Highway Safety Plan (SHSP)?

Each state is required to have a SHSP, which includes engineering, management, education, enforcement, and emergency service elements of highway safety as key factors in improving highway safety. In Wisconsin it can all come together at County Highway Safety Commissions.



WI SHSP 2023-2027



SHSP Priorities based on Data

Improve Safety Culture, Safety Data, Safety Technology	Increase Occupant Protection
Reduce Driver Distraction/ Improve Driver Alertness	Improve Safety of Intersection
Reduce Alcohol & Drug-Impaired Driving	Reduce Lane Departure Crashes
Reduce the incidence and Severity of Motorcycle Crashes	Improve Work Zone Safety
Improve Non-Motorist Safety	Curb Aggressive Driving/ Reduce Speed-Related Crashes
Improve Driver Performance (Teens, Older, and Competent)	



Why focus on intersection crashes?

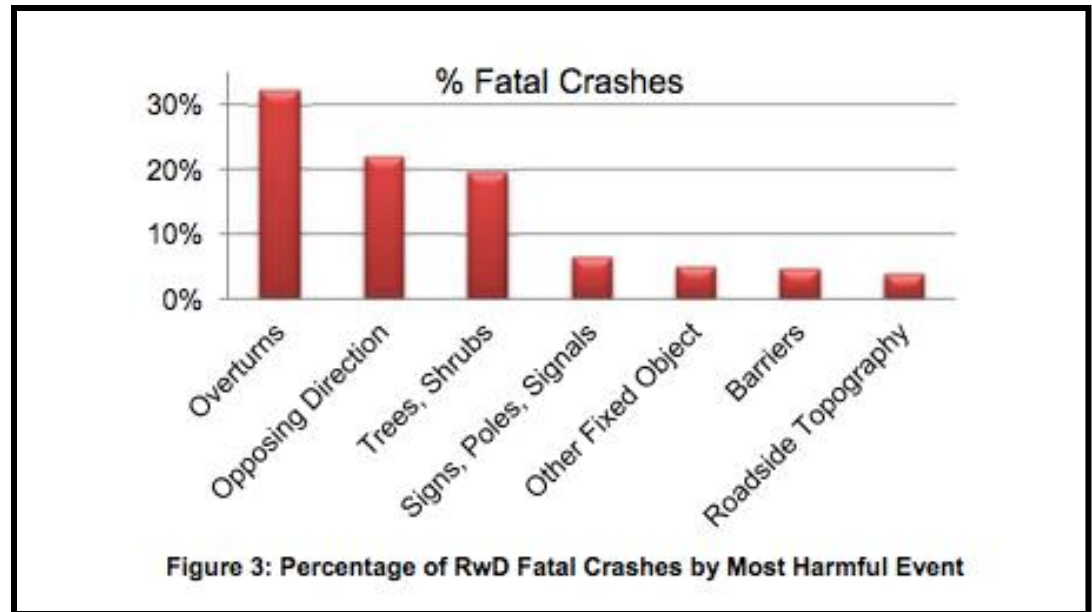
- Intersections are a small portion of the road system yet in Wisconsin they account for
 - 25% of all fatal crashes
 - 29% of all fatalities
 - 37% of all crashes
 - 50% of all non-fatal injuries
 - 39% of all incapacitating injuries
- Intersections always have points of conflict where drivers make critical decisions



Roadway Departure Crashes
Account for 51 Percent
of Fatal Crashes



Why focus on roadway departure crashes?



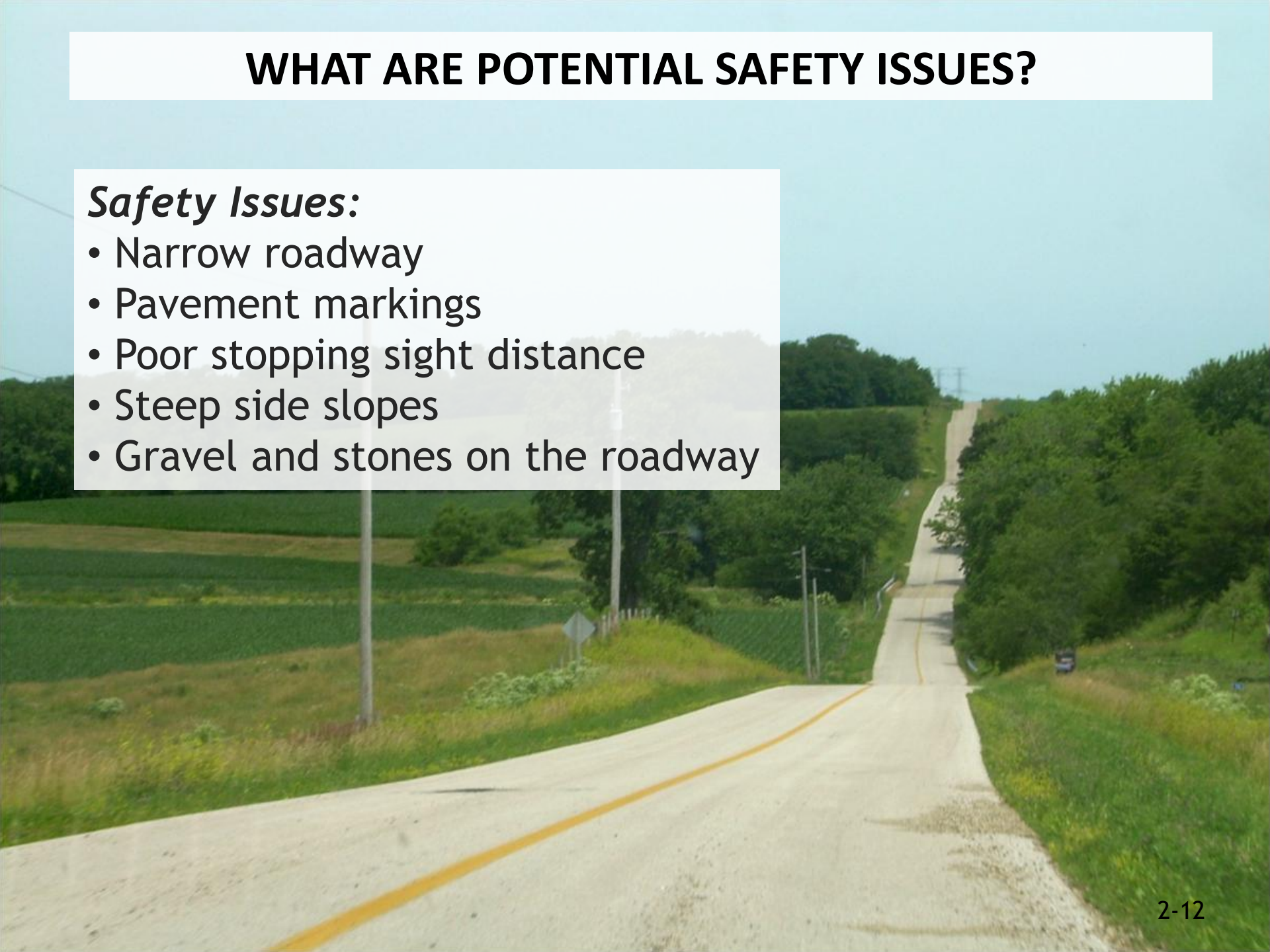
Road Departure Resource
FHWA Office of Safety
Link to website

<http://safety.fhwa.dot.gov/roadwaydept/>

WHAT ARE POTENTIAL SAFETY ISSUES?

Safety Issues:

- Narrow roadway
- Pavement markings
- Poor stopping sight distance
- Steep side slopes
- Gravel and stones on the roadway



WHAT ARE POTENTIAL SAFETY ISSUES?



Safety Issues:

- Water on roadway
- No shoulder/edgeline

WHAT ARE POTENTIAL SAFETY ISSUES?



Safety Issues:

- Bleeding pavement
- Lack of delineation

WHAT ARE POTENTIAL SAFETY ISSUES?

Safety Issues:

- Trees in clear zone
- Limited sight distance
- Lack of signs and delineation

WHAT ARE POTENTIAL SAFETY ISSUES?



Safety Issues:

- Fixed objects in clear zone
- Unrecoverable steep side slopes

WHAT ARE POTENTIAL SAFETY ISSUES?



Safety Issue:

- Bridge structure is a fixed object

WHAT ARE POTENTIAL SAFETY ISSUES?



Safety Issue:

- Pavement edge drop-off



Safety Issues:

- Faded pavement markings
- Concrete fixed object

WHAT ARE POTENTIAL SAFETY ISSUES?

WHAT ARE POTENTIAL SAFETY ISSUES?



Safety Issue:

- Deteriorated sign retroreflectivity

WHAT ARE POTENTIAL SAFETY ISSUES?



Safety Issue:

- Fence blocks sidewalk path

Safety for All Road Users



Challenges to Road Safety

Limited...

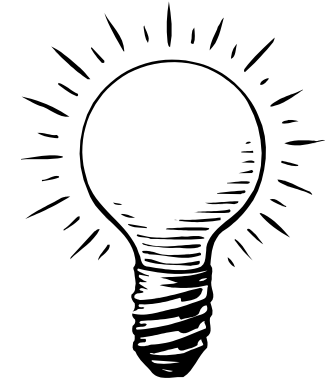
- Budgets
- Staffing
- Time
- Crash data
- Traffic and road information
- Understanding or awareness of safety issues
- Training

In addition to...

- Lack of coordination between agencies
- Competing priorities
- Politics
- Staff turnover
- Empowerment



Some Ways to Overcome Some Challenges



- Develop safety awareness
- Identify and train staff on what to look for
- Identify simple, low cost ways to improve road safety ...example in maintenance ops.
- Incorporate safety into the “Big Picture”

What are some of the safety issues that can occur in rural areas?

Related to

- Drainage problems
- Steep edge drop-offs
- Trees close to the roadway
- Poor lighting
- Sharp curves
- Steep hills
- Inadequate or poor signage



Name some common challenges to improving road safety.

- Limited budget and resources
- Lack of coordination between departments/staff
- Limited understanding of safety issues
- Limited training
- Politics
- Inadequate crash data



Highway Safety Improvement Program

- Projects to reduce the number and severity of crashes on all public roads
- Federal reimbursement program and NOT a federal grant program
- 90% federal HSIP funds available for most projects; 10% match required
- Applications due February 15th and August 15th
- Application requirements:
 - HSIP application form (DT1501), sketch of proposed project, collision diagram, crash history, site photos, itemized cost estimate



Typical Eligible Projects

- Spot
 - Intersection safety improvements (installing/modifying traffic signals, roundabouts, etc)
 - Straightening isolated curves or hills
 - Improving sight distance
 - Installing signs, pavement markings, and delineators
- Corridor
 - Corridor signal upgrades
 - Road diets and two-way left turn lane (TWLTL) conversions
 - Pavement marking and rumble strips above current standards
 - Chevrons



For More Information

- WisDOT Safety
 - Wisconsin Department of Transportation Highway Safety Improvement Program (HSIP) (wisconsindot.gov)
 - HSIP application materials available for download at this site
- WisDOT HSIP Staff
 - WisDOT Regional HSIP Coordinators and Safety Engineers
 - General program information
 - Questions about specific potential projects and applications
 - Statewide HSIP Manager
 - General program/policy information
 - Mike Finkenbinder, 608-266-1620, michael.finkenbinder@dot.wi.gov



Using *WisTransPortal* Crash Data Tools



Wisconsin Traffic Operations and Safety Laboratory The WisTransPortal Project

The WisTransPortal Project serves the computing and data management needs of the [Wisconsin Traffic Operations and Safety \(TOPS\) Laboratory](#). The project scope includes support for ITS data archiving, real-time traffic information services, transportation operations applications, and transportation research. [Learn more.](#)

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Welcome to the WisTransPortal

[Data Services](#)

WisTransPortal data requests and login account information.

[Data Products](#)

Traffic operations and engineering datasets and related resources.

[Web Applications](#)

WisTransPortal data retrieval and analysis tools, other applications.

[Documentation](#)

Database documentation, project architecture, and other documentation.

[WisDOT Traffic Video](#)

LINK video sharing and public safety information service.

[Developer Resources](#)

Resources for TOPS and WisTransPortal system development.

Quick Links

[Crash Data](#)

[Traffic Data](#)

[Lane Closures](#)

[Traffic Incidents](#)

[Traffic Video](#)

[Storm Report](#)

[ITS / Other](#)

Last Modified on Thu, 02 Feb 2012, 11:06:32 AM. Please send comments to transportal@topslab.wisc.edu.

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User Account Request Form

For assistance, see the [account services](#) page or email transportal@topslab.wisc.edu.

Step 1: To request a WisTransPortal login account, complete the information below and press **Next**. Required fields are marked with asteriks. Press **Cancel** to return to the account services page without completing your request.

Title:

*First Name:

*Last Name:

Desired User ID: Ex: bbadger. See note below.

*Email Address:

*Confirm Email:

*Job Title:

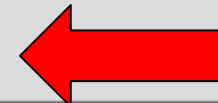
*Organization:

*Phone: Ex: 555-555-5555

*Resources:

Indicate which parts of the WisTransPortal you are requesting to access.

Comments: Identify what you want here



Next

Reset

Cancel





Wisconsin Traffic Operations and Safety Laboratory The WisTransPortal Project

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WisTransPortal Documentation

This page contains links to technical documentation and project overviews related to the WisTransPortal system. Resources containing system details are password protected.

[Database Documentation](#)

WisTransPortal database documentation, data dictionaries, and related information. Password protected.

[Handouts and Presentations](#)

Handouts and slide presentations on key WisTransPortal operational areas. Password protected.

[WisTransPortal ITS Project Architecture](#)

WisTransPortal ITS project architecture generated from Turbo. Public access.

[WisTransPortal System Metrics](#)

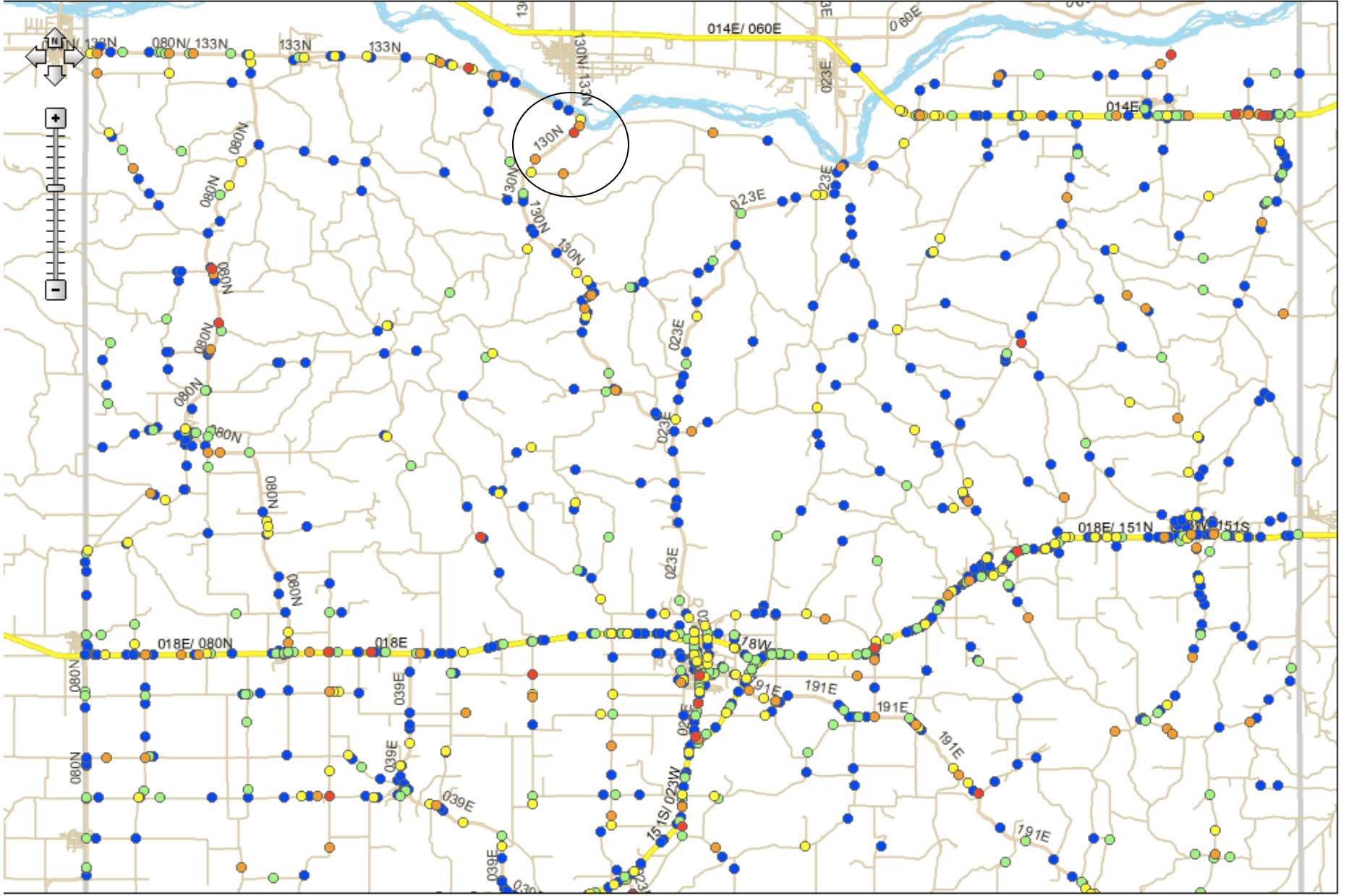
WisTransPortal system statistics and performance measure reports. Public access.

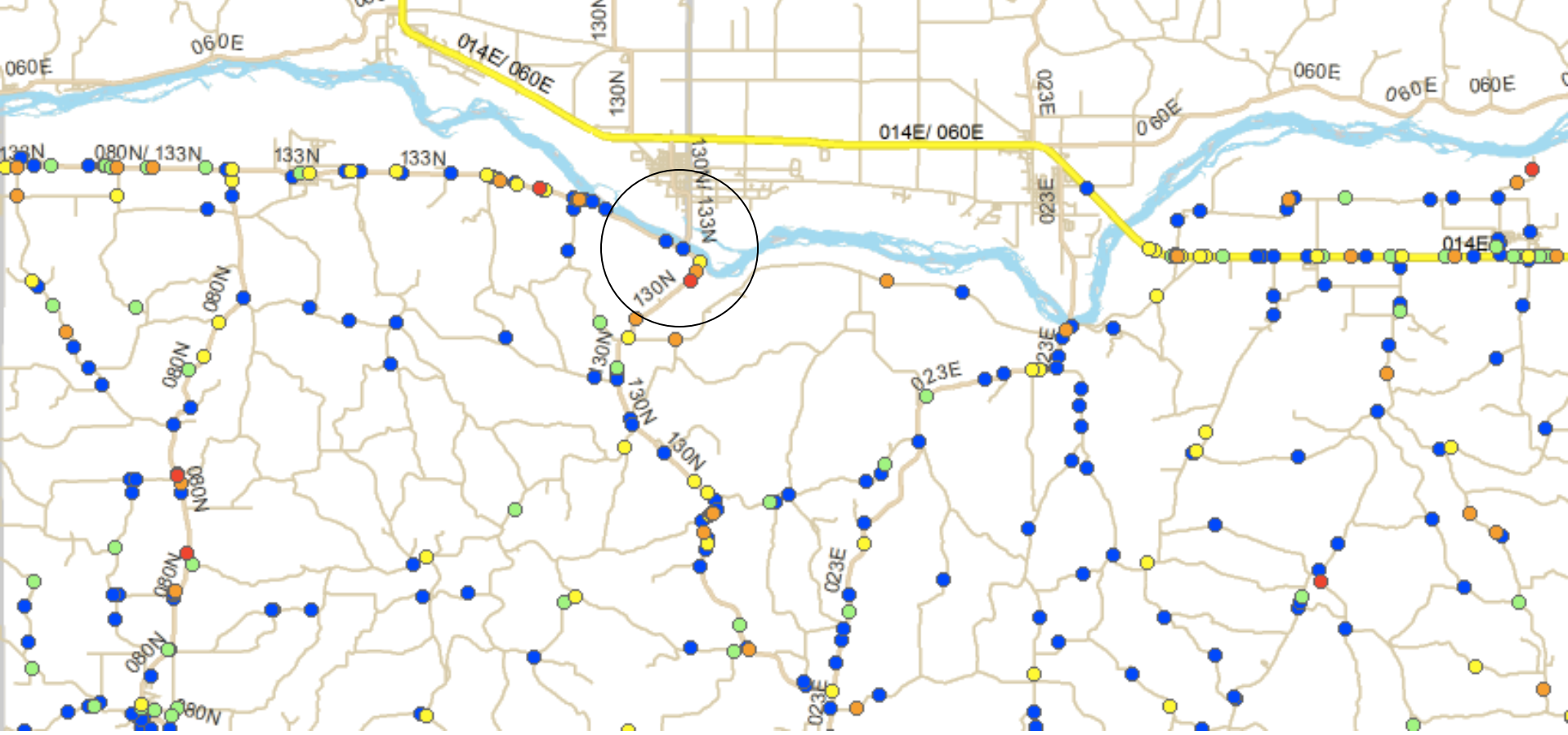

**Training
Materials**

Last Modified on Sat, 07 May 2011, 02:09:40 PM. Please send comments to transportal@topslab.wisc.edu.

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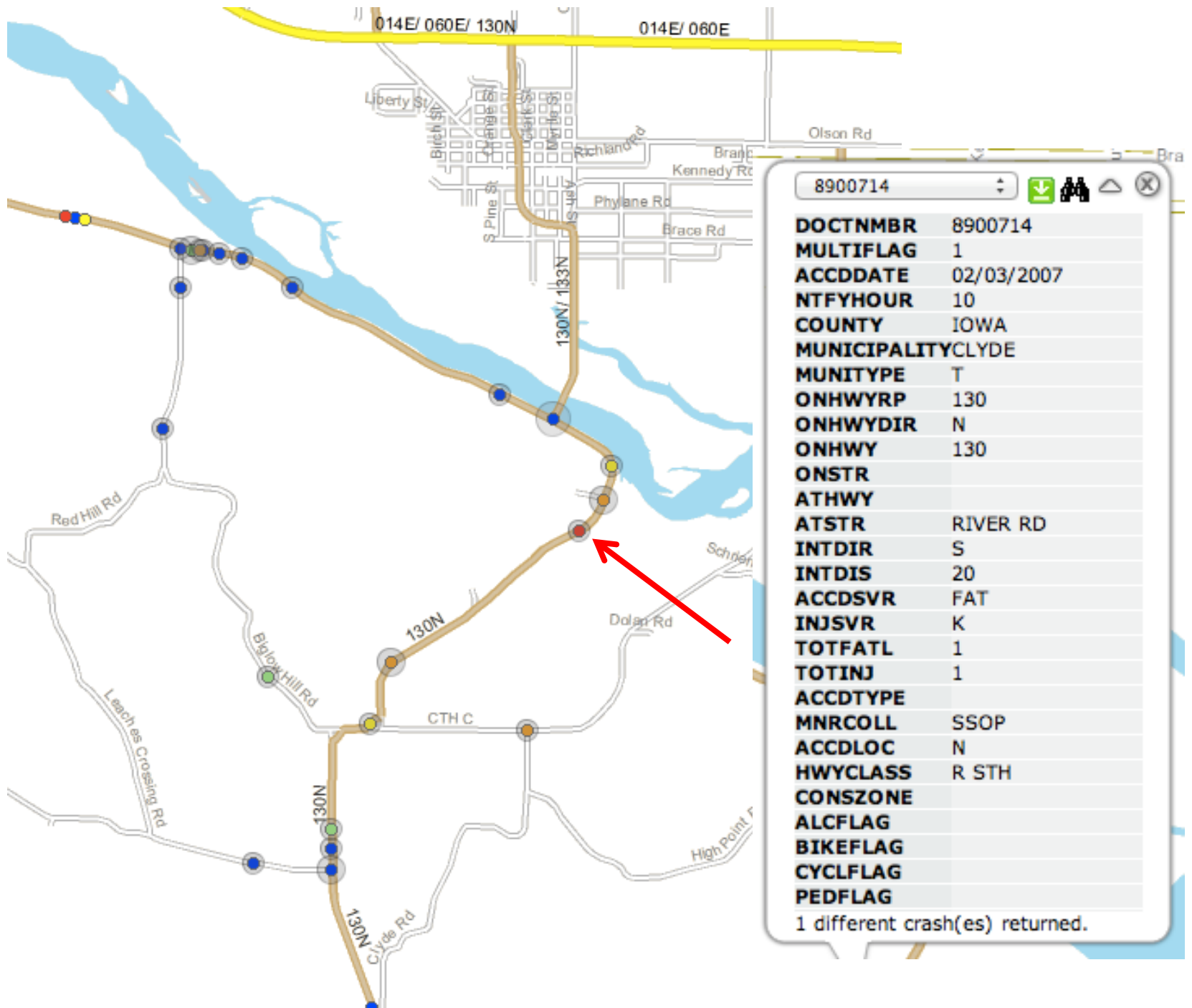






Legend and Summary

INJSVR	Queried	Mapped	Selected
● (K) Fatal	25	24	0
● (A) Incapacitating	109	106	0
● (B) Non-incapacitating	218	211	1
● (C) Possible	315	300	6
● (P) Property Damage	1208	1148	28
Total	1875	1789	35



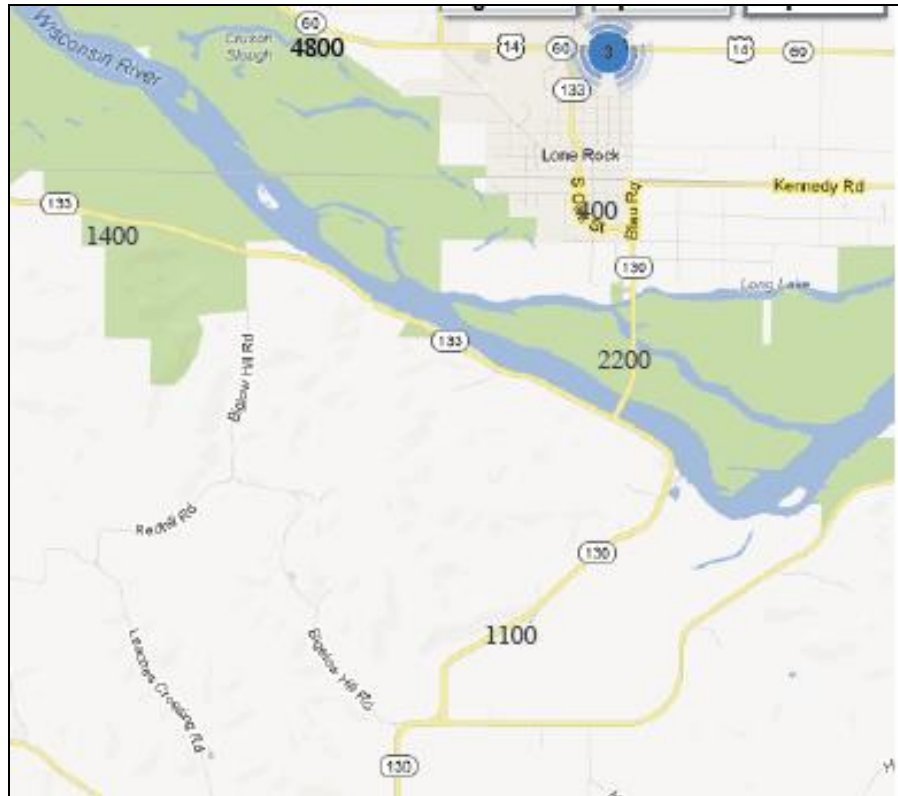
8900714

DOCTNMBR	8900714
MULTIFLAG	1
ACCDDATE	02/03/2007
NTFYHOUR	10
COUNTY	IOWA
MUNICIPALITY	CLYDE
MUNITYPE	T
ONHWYRP	130
ONHWYDIR	N
ONHWY	130
ONSTR	
ATHWY	
ATSTR	RIVER RD
INTDIR	S
INTDIS	20
ACCDSVR	FAT
INJSVR	K
TOTFATL	1
TOTINJ	1
ACCDTYPE	
MNRCOLL	SSOP
ACCDLOC	N
HWYCLASS	R STH
CONSZONE	
ALCFLAG	
BIKEFLAG	
CYCLFLAG	
PEDFLAG	

1 different crash(es) returned.



Iowa County 130N at River Road AADT



[Traffic counts home](#)

Historical traffic counts (2000-2010) by county

Vehicle miles of travel

[Travel](#) > [Travel assistance](#) >

Traffic counts

Traffic counts are reported as the number of vehicles expected to pass a given location on an average day of the year. This value is called the "annual average daily traffic" or AADT and are represented on traffic count or traffic volume maps. The AADT is based on a short-term traffic count, usually 48 hours, taken at the location. This count is then adjusted for the variation in traffic volume throughout the year and the average number of axles per vehicle.

Short-term counts are collected over a three-year cycle at nearly 26,000 rural and urban locations throughout the state. Data from 2000 to 2010 is available on downloadable [traffic count PDFs](#).

Traffic counts are rounded according to the following scheme:

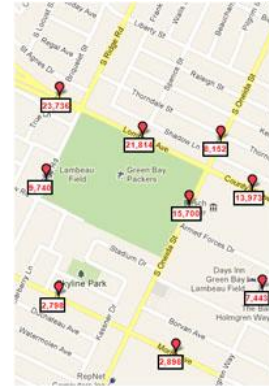
AADT Range	Rounding Scheme
0 - 999	Round to the nearest ten
1,000 – 99,999	Round to the nearest hundred
100,000 or more	Round to the nearest thousand

New → [WisDOT interactive traffic count map](#)

The 2011 traffic counts are part of an [interactive map](#) that allows you to view traffic counts anywhere in the state. The search, pan and zoom features of the map are based on the Google Maps interface. The best way to search for a location in the address box is to insert "WI" after the community name. This will eliminate Google taking you to similar named locations elsewhere in the country.

Recommended browsers for best viewing: Internet Explorer 9, Mozilla Firefox and Google Chrome

Questions about the content of this page:
Bureau of State Highway Programs, traffic.counts@dot.wi.gov
Last modified: February 18, 2013



COMMUNITY
Maps Community Maps@TSC Meetings

The WI Bureau of Transportation Safety values **local-knowledge** and **local-management-of-crash-data**. BOTS encourages **Traffic Safety Commissions** to use **Community Maps** as an **interactive-resource** for **reviewing-fatal** and **incapacitating-injury-crashes** at quarterly TSC meetings.

S. 83.013, Wisconsin Statutes

- (1) traffic safety commissions ... shall designate a person to prepare and maintain a spot map showing the locations of traffic accidents on county and town roads and on city and village streets ...
- (2) the department [of transportation] shall furnish a suitable map for use in spotting accidents.



For information about using **Community Maps**, please contact the Wisconsin Transportation Information Center (TIC):

- Joni — graves@epd.engr.wisc.edu
- Andrea — loehholz@epd.engr.wisc.edu
- Steve — pudloski@epd.engr.wisc.edu

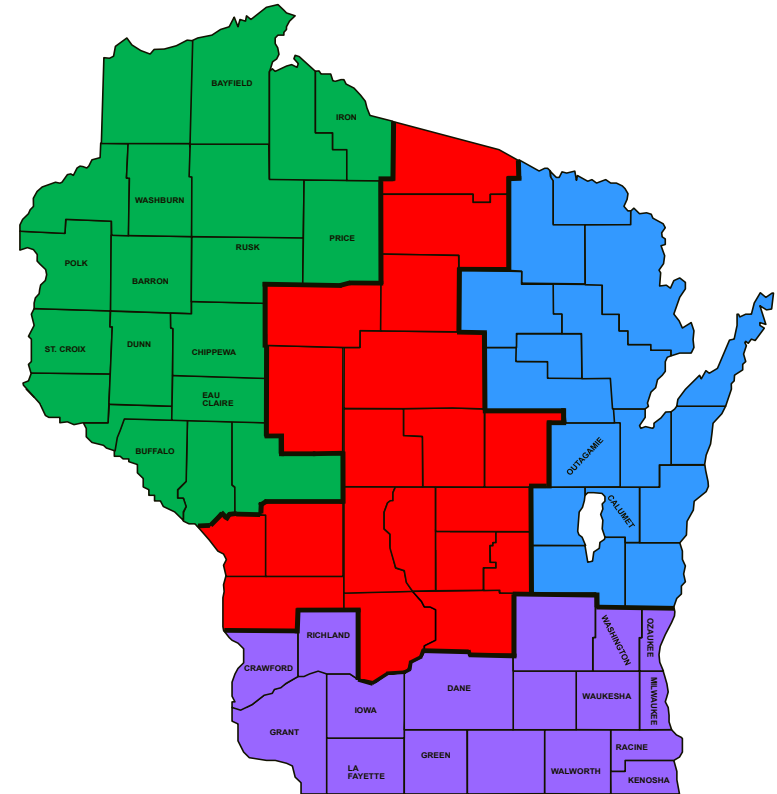


Wisconsin's multi-disciplinary Traffic Safety Commissions

TSCs

- Required by Statute
- Fatalities (K) and Serious Injury Crashes (A)
- Includes all safety partners
- Meets quarterly
- Data driven problem solving and coordination
- Traffic Safety Coordinator
- Assisted by BOTS

WisDOT
Bureau of Transportation Safety
REGIONAL PROGRAM MANAGERS
Central



11-12-12



Iowa County -- Fatal Crashes in Community Maps



Community Maps - Crash Record Information for Wisconsin
Data Populated by the TIC and Local Traffic Safety Stakeholders



[About](#) [Search](#) [Advanced](#) [Admin](#) [Contact](#) [Help](#)

Home > Community Maps > Crash > Search

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Search Results

Collection: COUNTY CRASH DATA

[New Search](#)

Fatality Injury Property Damage

There were **35** crashes meeting the following criteria.

Countries:
- IOWA
Begin Date: 01/01/2006
End Date: 12/31/2012
Crash Severity: FATAL
Manner Of Collision: SELECT ALL
Checked Flags:
NONE

[Check All](#) | [UnCheck ALL](#) | [Zoom To Selected](#)

Sort By: Display:

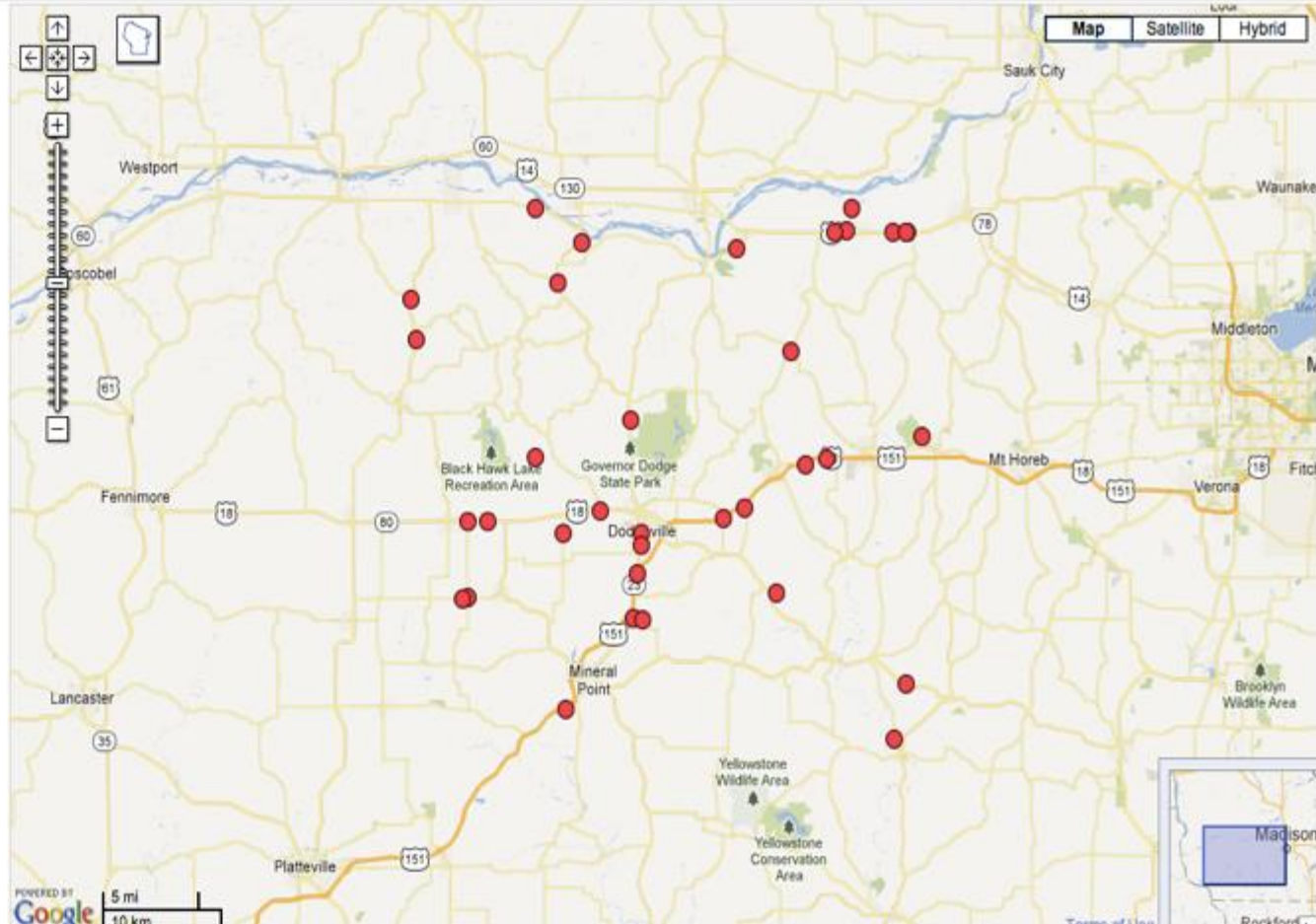
- BERG RD AT 18**
EDEN (T), IOWA County
05/12/2007
FATAL 1

- CLAY HILL RD S AT 191**
RIDGWAY (T), IOWA County
07/11/2009
FATAL 2

- 23 / IOWA ST N AT 191 / DIVISION ST W**
DODGEVILLE (C), IOWA County
11/04/2010
FATAL 3

- 151 (MP44) AT 23**
DODGEVILLE (T), IOWA County
11/23/2011
FATAL 4

- 18 / 151 AT BB**





You Can Zoom In



Iowa County -- All Crashes In Community Maps



Community Maps - Crash Record Information for Wisconsin
Data Populated by the TIC and Local Traffic Safety Stakeholders



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Search Results

Collection: COUNTY CRASH DATA

New Search

Fatality Injury Property Damage

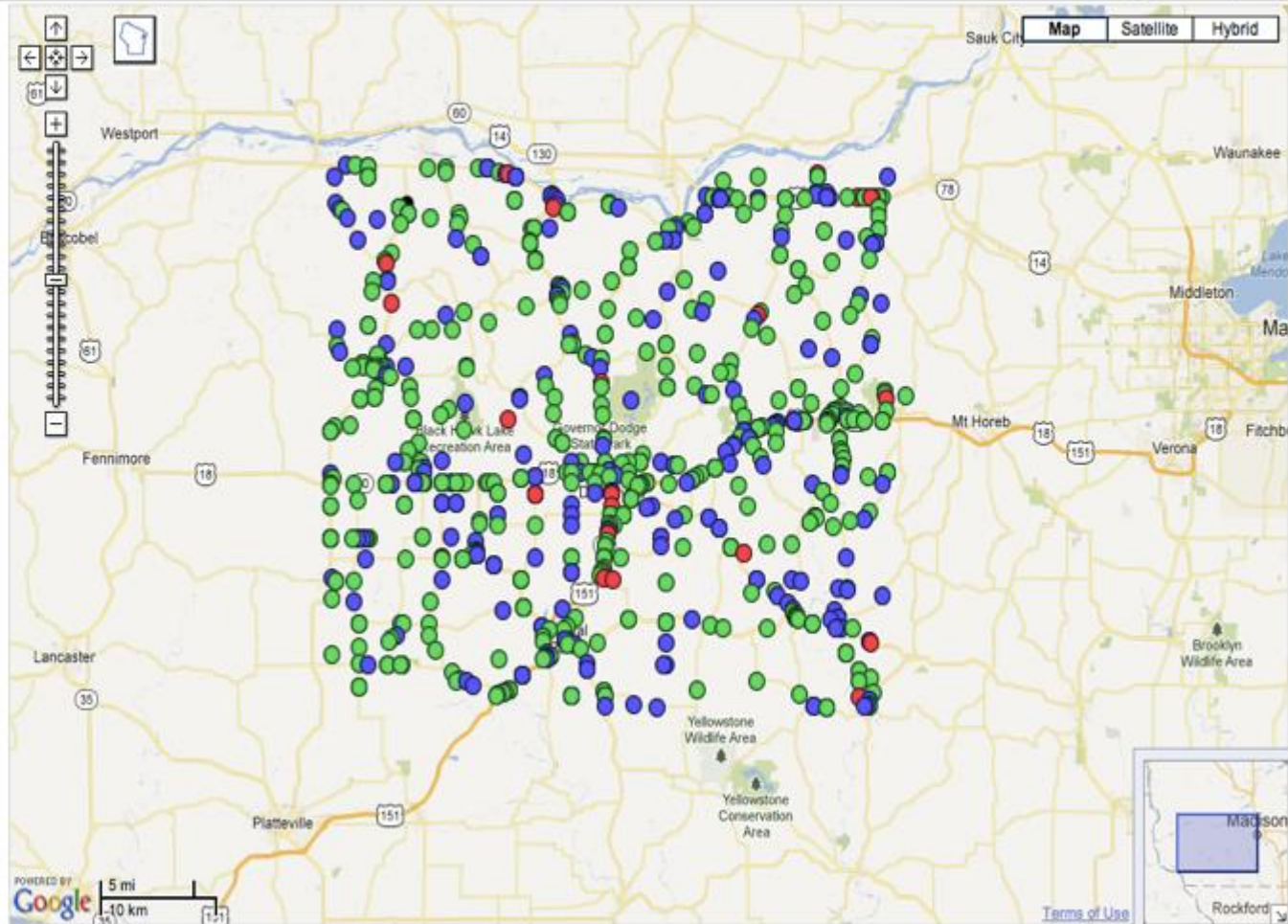
There were 1042 crashes meeting the following criteria.

Countries:
- IOWA
Begin Date: 01/01/2007
End Date: 12/31/2012
Crash Severity: SELECT ALL
Manner of Collision: SELECT ALL
Checked Flags:
NONE

Check ALL | UnCheck ALL | Zoom To Selected

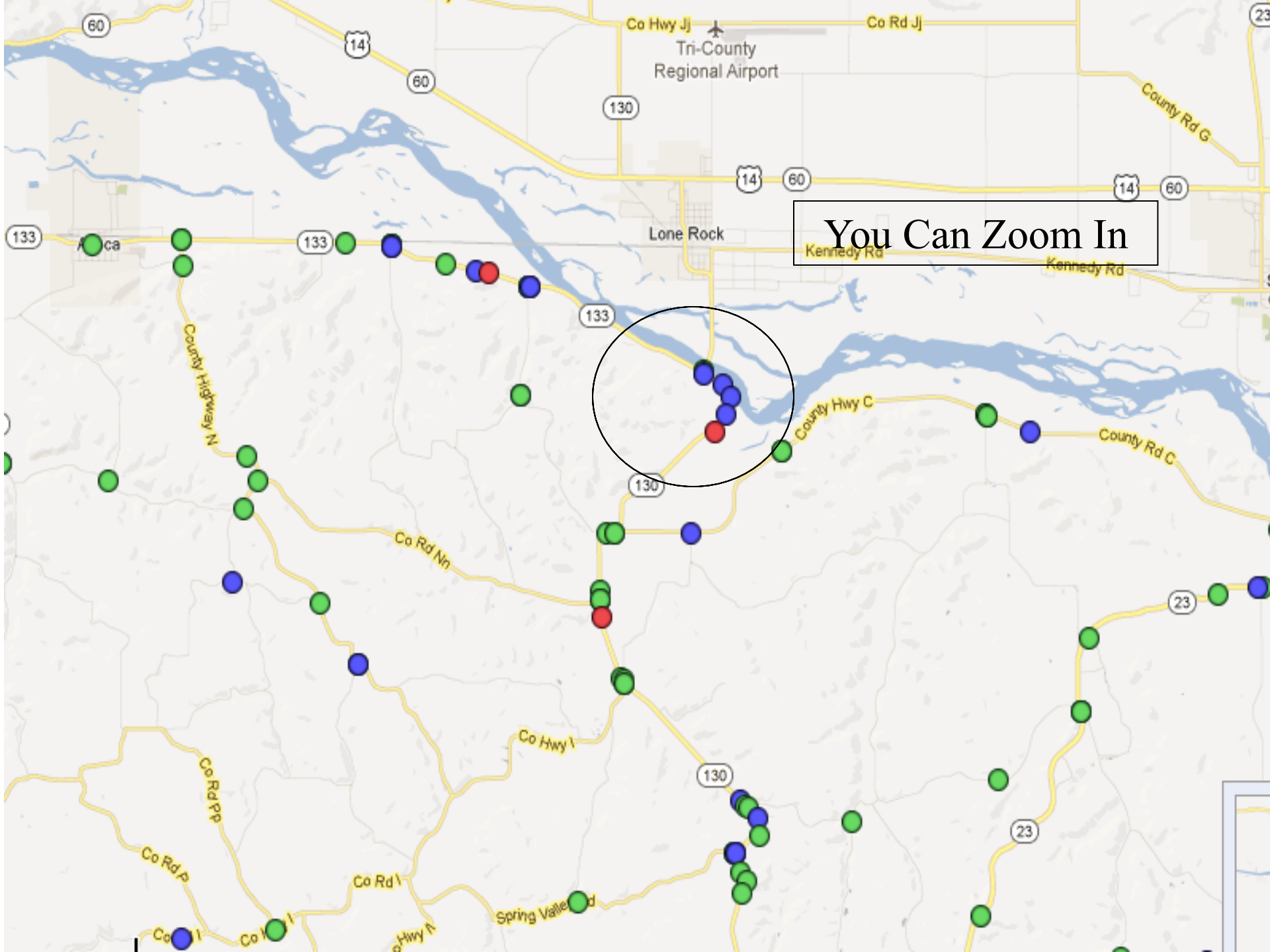
Sort By: Location Display: Points

- * KNIGHT HOLLOW RD (8623) AT ARENA (T), IOWA County
09/03/2012
PROPERTY DAMAGE 1
- AT 1246 23 MINERAL POINT (T), IOWA County
09/08/2012
PROPERTY DAMAGE 2
- 133 AT 130 CLYDE (T), IOWA County
02/08/2010
PROPERTY DAMAGE 3
- 133 AT 130 CLYDE (T), IOWA County
01/12/2012
PROPERTY DAMAGE 4
- 133 AT 130 CLYDE (T), IOWA County



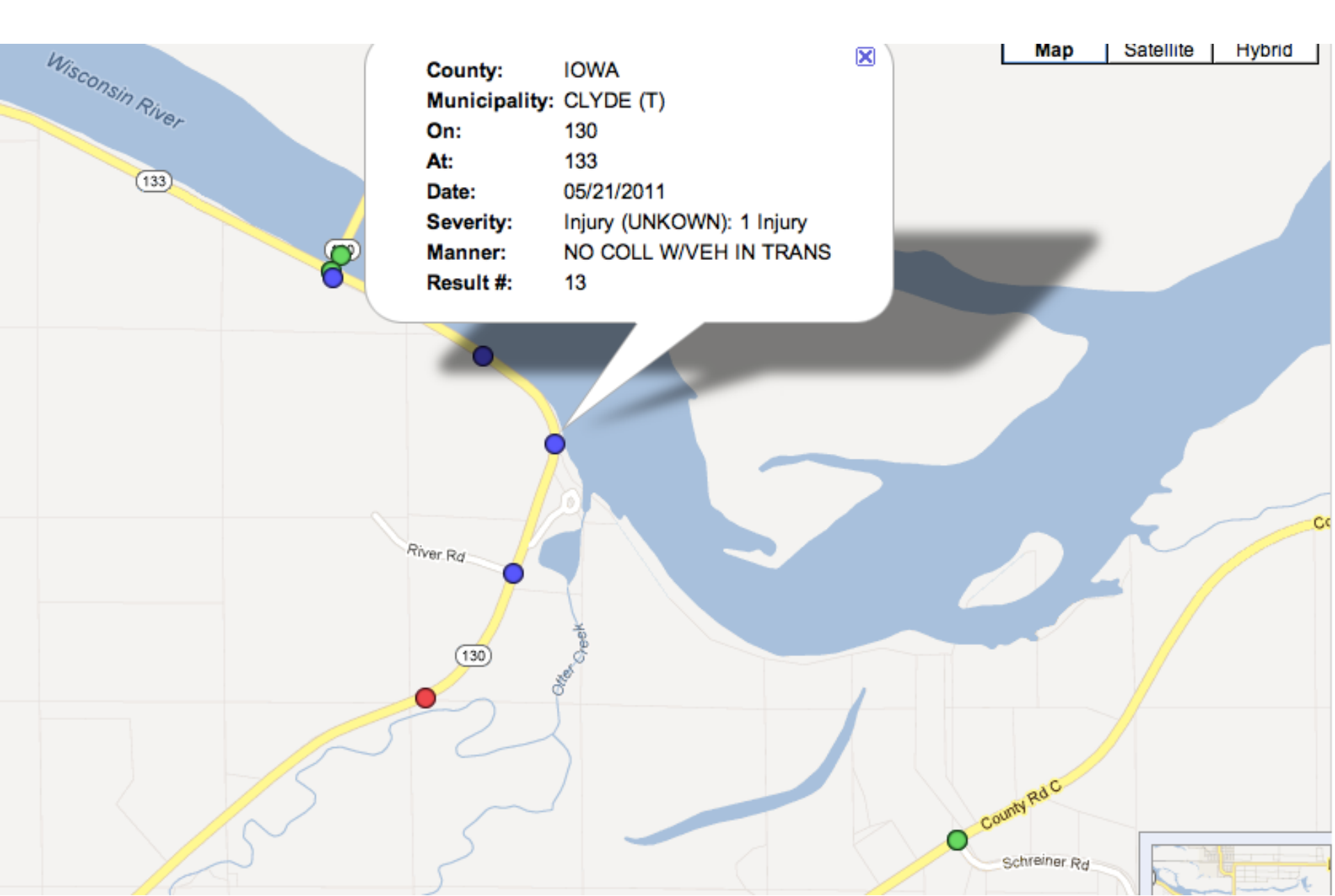
Terms of Use





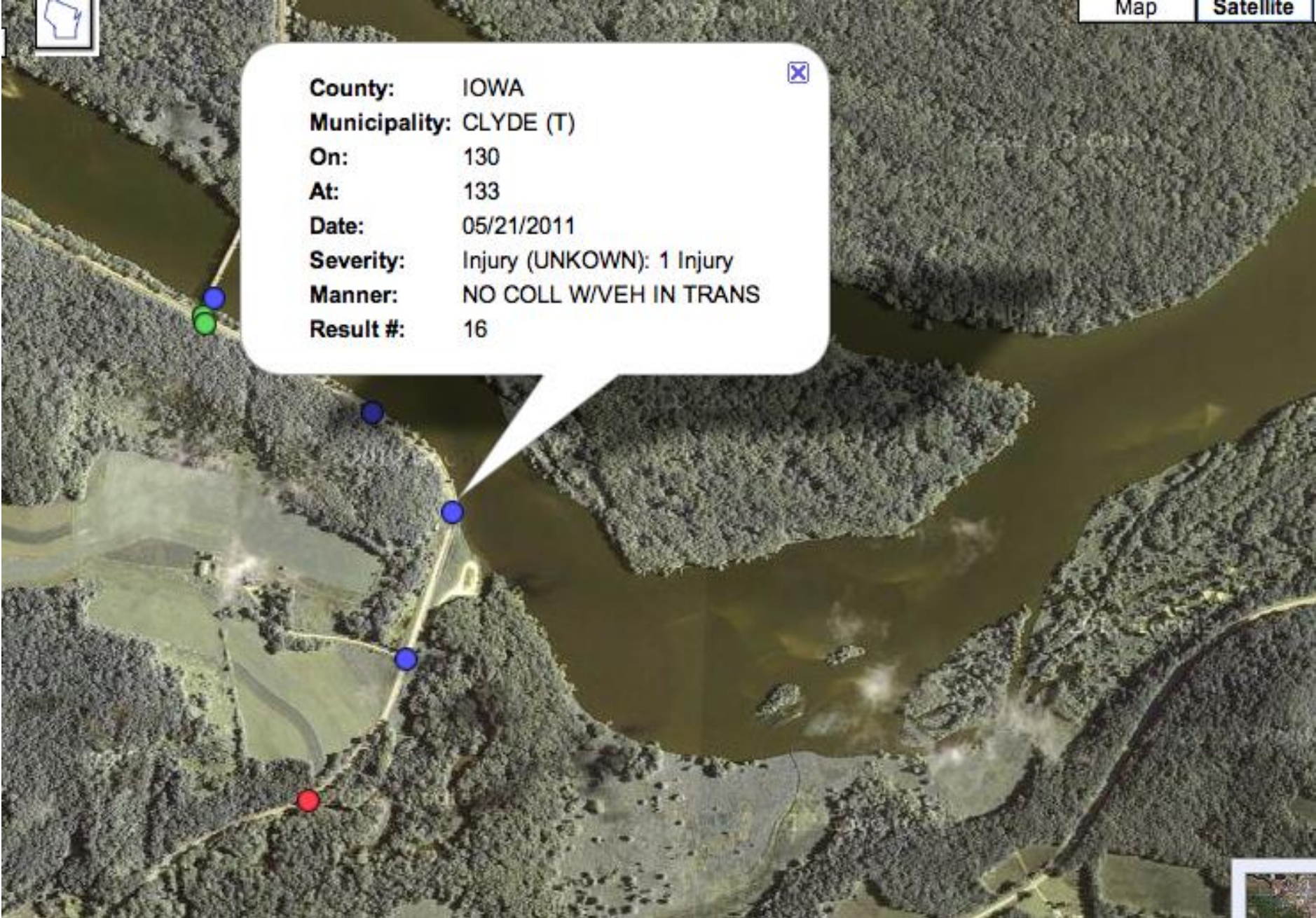
You Can Zoom In



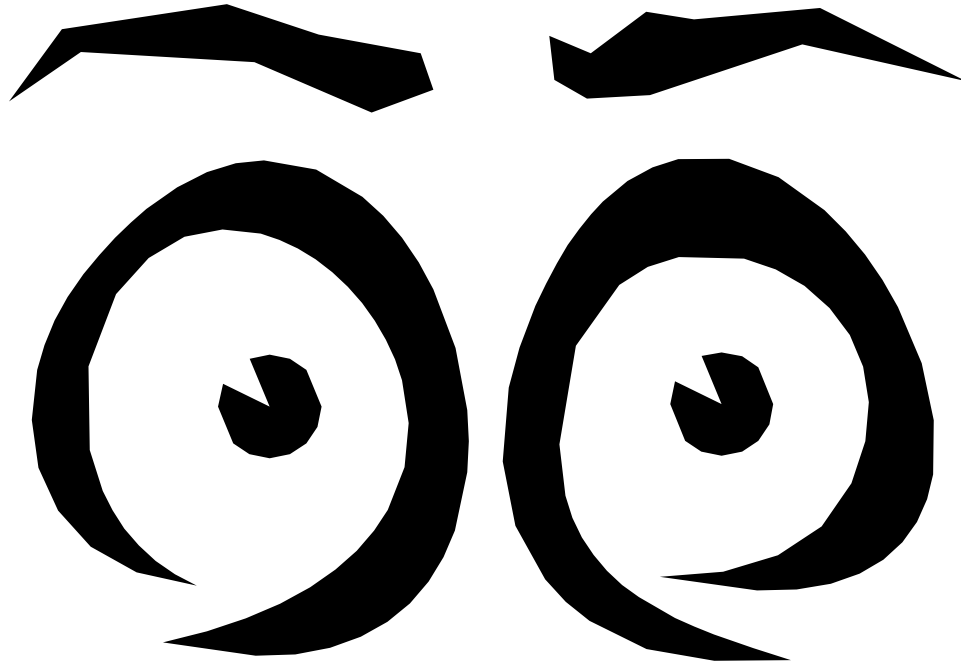




County: IOWA ✕
Municipality: CLYDE (T)
On: 130
At: 133
Date: 05/21/2011
Severity: Injury (UNKOWN): 1 Injury
Manner: NO COLL W/VEH IN TRANS
Result #: 16



Having a Safety Attitude... and Reading the Road



“Extra Eyes for Safety”

Reading the Road



Looking for indications that road users may be having problems travelling a section of roadway.

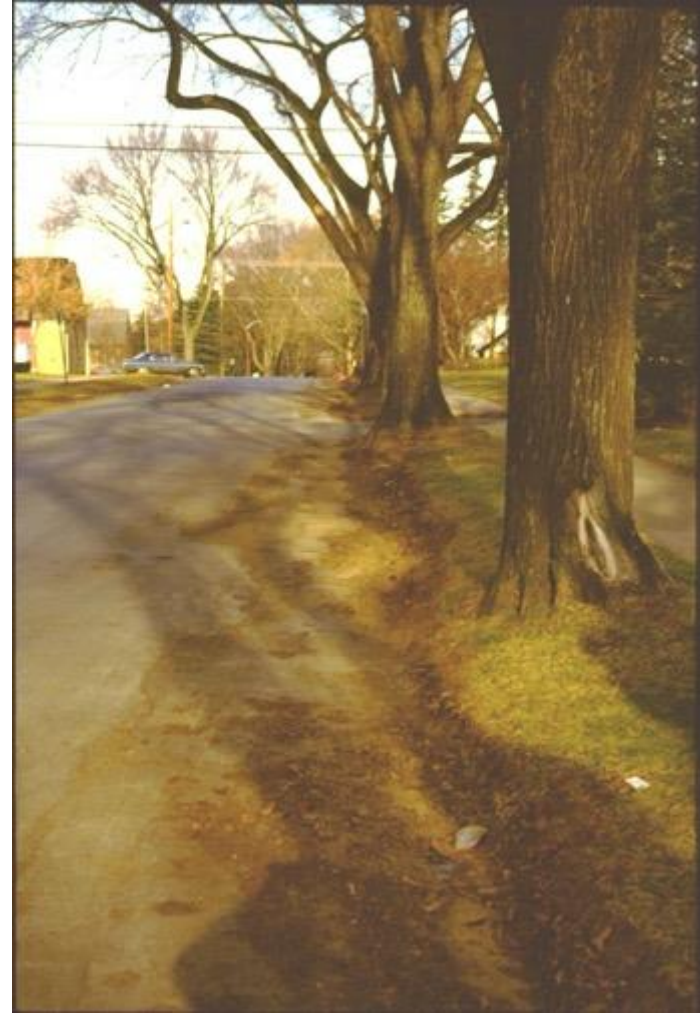
What Indication Do You See?

Yaw Marks



What Indication Do You See?

Scar on tree



What Indication Do You See?

Water on road



What Indication Do You See?

Object Marker



What Indication Do You See?

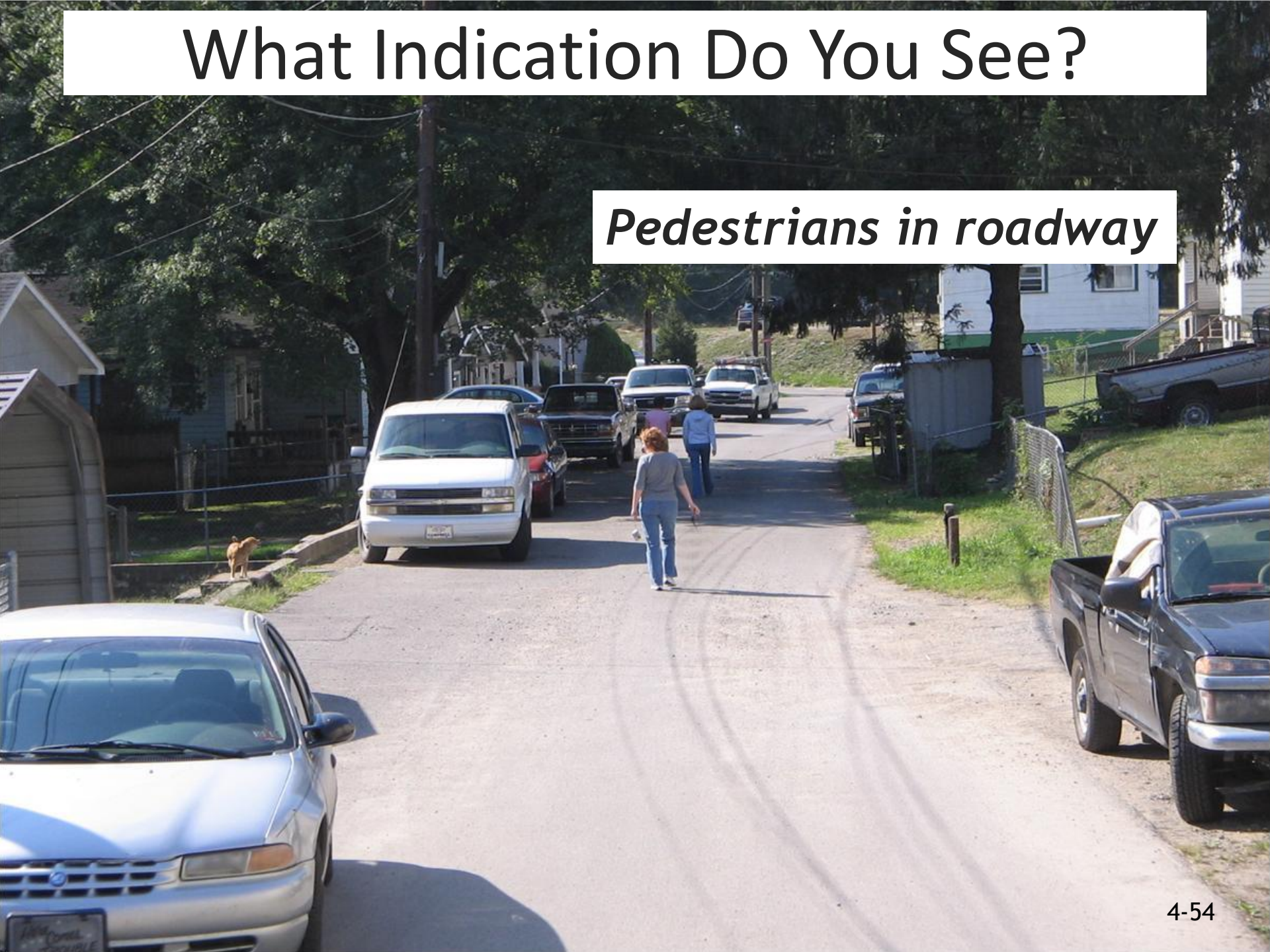


Clear
Creek

Damaged guardrail

What Indication Do You See?

Pedestrians in roadway



What Indication Do You See?

Tracks on gravel shoulder



What Indication Do You See?



Summary

- Explain the meaning of developing a “safety attitude.” How can that be done?
- Explain how to “read the road.” Give an example from your own experience.

