Highway-Rail Grade Crossing Safety

What Are Highway-Rail Grade Crossings?

A highway-rail grade crossing is where a railway and roadway at the same level intersect. There are approximately 232,000 grade crossings in the United States.

Grade crossings are equipped either with train-activated “active warning devices” such as gates and flashing lights, or with “passive warning devices” such as signs or markers. These devices are intended to alert drivers and pedestrians that a train is approaching, and require drivers or pedestrians to stop and stay until the train has passed.

There are approximately 294,000 grade crossings in the United States.

Michigan has gone into making highway-rail grade crossings safer over the past three decades. The graph above traces the positive results of these efforts by showing a reduction in grade crossing collisions by 81 percent since 1980. These trends are impressive, and efforts need to be continued to make highway-rail grade crossings even safer.

From 1980 through 2011, the number of grade crossing collisions fell 81 percent, injuries associated with collisions fell 75 percent, and fatalities fell 70 percent. The grade crossing collision rate has fallen every year since 1978.

The vast majority of grade crossing collisions are the result of motorists’ actions, only a very small number result from the actions of trains or signals. According to the U.S. Department of Transportation report, “Milestones in Progress: The Drive Toward Zero Fatalities at Railroad grade crossings” from 1994-2003.

Almost all grade crossing collisions are preventable. Parents and guardians need to talk to their children about the dangers of trains and the tracks they ride on. Adults need to stay safe, stay off the tracks.

Stay Safe, Stay Off The Tracks

The rate of safety at highway-rail grade crossings is determined as high traffic at the intersection at the top of this page. Much effort has gone into making highway-rail grade crossings safer over the past thirty years. The graph above traces the positive results of these efforts by showing a reduction in grade crossing collisions by 81 percent since 1980. These trends are impressive, and efforts need to be continued to make highway-rail grade crossings even safer.

Motorists need to pay attention to railroad crossing signals and signs. Other scenarios include kids fishing on the tracks, wearing headphones unable to hear the train approaching from behind, individuals trying to catch a train for a joy ride.

All of these activities are dangerous and illegal as it is against the law for anyone to be on a railroad property without formal permission. It is tempting, and individuals can be held and fined for these illegal acts.

- Support Operation Lifesaver, a nationwide non-profit organization that educates the public about the need for proper behavior at grade crossings and on railroad property.

Michigan Rail Update is a publication of Michigan Railroads Association, 120 N. Washington Square, Suite 601, Lansing, Michigan 48933. President: Robert J. Chaprnka. Phone (517) 482-9413. Members of the Michigan Railroads Association can contact Sam Crowl at (248) 823-7037 or email samcrowl@comcast.net or visit mra@michiganrailroadsassociation.com or www.michiganrailroadsassociation.com • Phone: (517) 482-9413 • 120 N. Washington Square, Suite 601, Lansing, Michigan 48933 • FAX: 482-9225.
Glands containing odontogenic cysts need to be restricted through a mix of dental and non-dental treatments.

Safety Must Be the Top Priority
Guided course accidents can best be reduced through joint efforts of engineering, education, and enforcement, including:

- Adopt a uniform national grade crossing clearance program, combined with a focus on the overall number of grade crossings within substates. Ultimately, clearance grade crossings on the National Highway System.
- Continuously fund Operation Lifesaver, as well as a research and development program to design effective loco-active warning systems by grade crossing.
- Examine the effectiveness of other types of warning devices such as frequent quakes.

- Require that grade crossing safety be part of commercial railway operations, operational contracts, and alternative rough positions for grade crossing traffic situations.

CN Donates $500,000 to Michigan Tech’s Rail Transportation Program

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It is not only a generous gift from CN, but a program,” said Bill Worek, dean of Michigan Tech’s College of Engineering. “Our students are highly skilled and become valuable to the rail industry, given our high transit, engineering, technical, backgrounds, and further education. We start to develop educational and vocational programs for the rail industry. CN is at the forefront of the challenges in the rail industry. CN is a leader, and we are very grateful for their support.

The Rail Transportation Program, headed by Jim Landis, has been highly regarded within the rail industry since its formal reception more than five years ago. Sponsored research, coordinated by Landis, sport, or research, and education, and has also been a major role in the Michiana Engineering and Activities Club. Michigan Tech offers major programs in rail transportation and engineering, as well as rail-related curricula.

The level runs an annual Rail Night event, which provides both academic and social events for nearly 150 students, staff, and faculty every spring and summer, and nearly 1,000 students, staff, and faculty every spring.

CN’s donation makes up one of the largest corporate gifts to Michigan Tech, according to a report by University Development.

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Dr. Paul G. O’Donnell, president of Michigan Tech, said that the donations come from a wide range of degree programs and include courses about rail transportation, engineering, and leadership. The Operation Lifesaver program hopes to establish a multi-program partnership, which includes courses about rail transportation, engineering, and leadership. The program hopes to establish a multi-program partnership, which includes courses about rail transportation, engineering, and leadership. The program hopes to establish a multi-program partnership, which includes courses about rail transportation, engineering, and leadership. The program hopes to establish a multi-program partnership, which includes courses about rail transportation, engineering, and leadership. The program hopes to establish a multi-program partnership, which includes courses about rail transportation, engineering, and leadership. The program hopes to establish a multi-program partnership, which includes courses about rail transportation, engineering, and leadership. The program hopes to establish a multi-program partnership, which includes courses about rail transportation, engineering, and leadership. The program hopes to establish a multi-program partnership, which includes courses about rail transportation, engineering, and leadership. The program hopes to establish a multi-program partnership, which includes courses about rail transportation, engineering, and leadership. The program hopes to establish a multi-program partnership, which includes courses about rail transportation, engineering, and leadership. The program hopes to establish a multi-program partnership, which includes courses about rail transportation, engineering, and leadership. The program hopes to establish a multi-program partnership, which includes courses about rail transportation, engineering, and leadership.

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**MOVING MICHIGAN**

### Conrail Shared Assets - Detroit Operations

**Detroit Headquarters:** Livernois Yard, Detroit, MI (313) 287-5641

**Manager of Field Operations:** Joseph Price

**Employees in Michigan:** 235

**Michigan Truck Miles:** 356

**Major Commodities:** Finished Vehicles, Auto and Truck Parts, Coal, Minerals, Paper, Scrap, Chemicals, and Steel.

Joseph Price, Manager of Field Operations, leads Conrail operations in the Detroit area and oversees the 235 employees who work there. Since the beginning of the season in spring 2013, Conrail has been slowly rising, employing 154 more people. Michigan has been building a young, career-oriented workforce, ensuring strong roots for long-term growth.

**Safety, Service, and Efficiency**

Since its inclusion as a switching and terminal railroad, Conrail has improved its performance in the areas of safety, service, and efficiency. Employee injuries have been reduced by 65%, derailments have been reduced by 85%, and through initiatives with the Michigan Department of Transportation, grade crossing accidents have been reduced by 75%. Technology has played an important role in improving safety and service. Remote control technology was first introduced in Conrail Detroit in 2002 and for the past six years control implementation has averaged 68% less human factor derailments than the previous 20 years in the area of service quality and efficiency. Conrail is now implementing tablet reporting devices as a customer service initiative. These handheld computer devices allow conductors to immediately document train and car movements, increasing reporting speed and accuracy and providing better information for customers.

Beyond technological improvements, Conrail has also begun serving every customer a minimum of five times a week. This means that cars are delivered to customers at least as prompt after arrival on Conrail, and overall car cycle times are reduced.

On the engineering side, the Conrail physical plant continues to be...

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**Profile Detroit Operations**

Conrail operates approximately 350 miles of track in the Detroit area, serving 72 industries along its lines. Operations are focused on the corridor connecting Toledo/Ten-Ten, Livernois, and Sterling Heights. Trails originate out of four main yards Livernois, North Yard, River Rouge, and Sterling. In 2012, Conrail handled almost 32,000 cars, an 8% increase from the line that handled 29,000 cars handled during the 2004 season in the Livernois terminal facilities. Conrail boredom over the last five years has reduced by 65%, as has the number of trainable drivers in the area.

**Employee Workforce:**

- Thomas the Tank days at the Henry Ford in Dearborn
- Michigan State Police Safety Conference in Lansing
- Rail Fan Days at Crossroads Village near Flint
- Train Show at Avondale High School, Auburn Hills
- Profile Detroit Operations (3600 in attendance)
- Thomas the Tank days at the Henry Ford in Dearborn
- Michigan State Police Safety Conference in Lansing
- Rail Fan Days at Crossroads Village near Flint

(Continued on page 6)
Michigan Operation Lifesaver News

Good news in regard to highway/railroad grade crossing safety in 2012 in Michigan represented only one car-train crash fatality. This is reduced good news as there were eight fatalities in 2011 and as many as 40 back in 1983. Tim Tierney, Michigan Operation Lifesaver State Coordinator says, “The safety is remarkable and a credit to all those in government, law enforcement, the railroad industry and every individual involved in promoting crossing safety at the crossings. It is nothing short of a major step forward.”

The Operation Lifesaver organization continued to spread the all safety message across the state at many events last year including the following:

- Thomas-the-Tank engine at the Henry Ford in Dearborn (hundreds attended).
- Saginaw Safety Days.
- National Guard and Army Safety Days in Grand Ledge.
- Senior Citizen Safety Days in Mount Pleasant.
Amtrak And The Michigan Department of Transportation
Gearing Up For Higher Speed Rail Passenger Service

Amtrak and the Michigan Department of Transportation (MDOT) are gearing up for faster intercity railroad travel under a $560 million federal grant to purchase 13 new railcars and install an improved electrical control system in Michigan’s corridor between Detroit and Chicago. The agreement, which was reached in 2012, provides a $560 million grant to Amtrak and covers the cost of new railcars, electrical equipment, and support services.

Amtrak and MDOT are also working to expand the Amtrak Michigan Service route to increase intercity rail service to more cities, including Muskegon, Holland, and Battle Creek. This expansion will allow for more frequent and faster train service between Detroit and Chicago, which is expected to significantly reduce travel times between the two cities.

MDOT and Amtrak have been working together for years to improve rail service in Michigan, with a focus on increasing the frequency and speed of rail service between Detroit and Chicago. The new railcars will be able to travel at speeds of up to 110 miles per hour, making the trip between the two cities much faster than before.

In addition to the new railcars, Amtrak and MDOT are also working on improvements to existing rail infrastructure, including the construction of new rail bridges and the installation of new signaling equipment. These improvements will help to ensure the safety and reliability of the rail network, allowing for faster and more frequent rail service in the future.

Overall, the Amtrak and MDOT partnership is a significant step forward in improving rail service in Michigan, and is expected to benefit both passengers and businesses alike. The new railcars and improvements to the rail network will help to make travel between Detroit and Chicago faster, more convenient, and more affordable for everyone.
2012. Some of these courses included schools, driver training, classes, work zone schools, school bus drivers, farm enforcement, emergency responder training classes, office on the train enforcement programs, fair and festival events.

These new 315 presentations made by certified presenters in Michigan, which included 13 rail safety for emergency responders, were grade crossing.

Amtrak service between Chicago and colleges in Michigan: http://www.tappingtheirfeettothegangnamstylebeat.com

In February, passengers celebrated the one-year anniversary of 110 mph service between Chicago and Chicago at about five hours.

Another $37 million in fuel was purchased from several Michigan companies. Pettibone in Baraga, MI., in 2012. Another $37 million in fuel was purchased from several Michigan companies. MDOT used a grant from the Federal Railroad Administration to purchase 135 miles of railroad for $140 million. The result is nearly 80 percent of the Wolverine purchase.