

THE ROAD ZIPPER SYSTEM™

For Construction

- + Reduces Congestion
- + Increases Safety
- + Speeds construction
- + Improves efficiency
- + Better quality repairs
- + Quick traffic control changes



ROAD ZIPPER™

Construction Applications

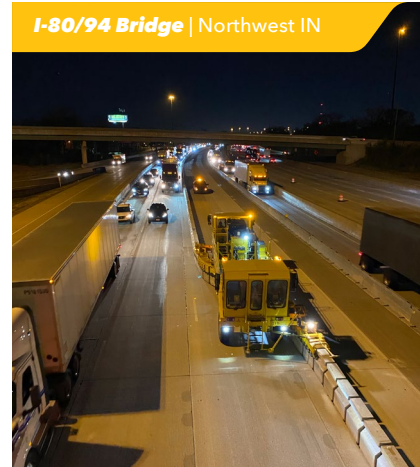
The Road Zipper System® is designed to create a flexible, positive traffic barrier between opposing lanes of traffic, or between motorists and construction work zones. The system uses a wall of interlocked 1-meter barriers that can be lifted and repositioned by a transfer machine to quickly reconfigure travel lanes creating additional work zone space for construction crews and/or providing additional travel lanes in the peak travel direction to mitigate congestion.

Many projects are challenged to maintain motorist mobility during peak travel hours and provide safety for both workers and motorists. Plastic delineators are often used to create off-peak lane closures which may decrease safety for the project. The Road Zipper provides flexible barrier that is deployed to provide positive barrier separation between live travel lanes and the closed work zone to increase work zone safety and peak travel hour mobility.

For partial width construction with traffic switches, the Road Zipper reduces congestion by enabling more lanes to be open during peak travel period. The barrier is moved several times per day to reconfigure the roadway in real time, maximizing the number of lanes available for peak traffic.

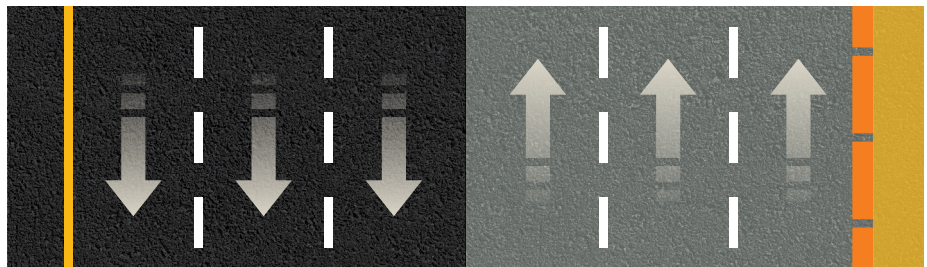
Off-Peak Lane Closures with Barrier Separation

When working in the shoulder or median, the Road Zipper allows the contractor to expand the work zone during off-peak travel hours by quickly closing one or more lanes to traffic. More work zone space or roadway width allows the use of larger, more efficient equipment. These options help the contractor combine stages and accelerate construction for early job completion with better quality repairs.

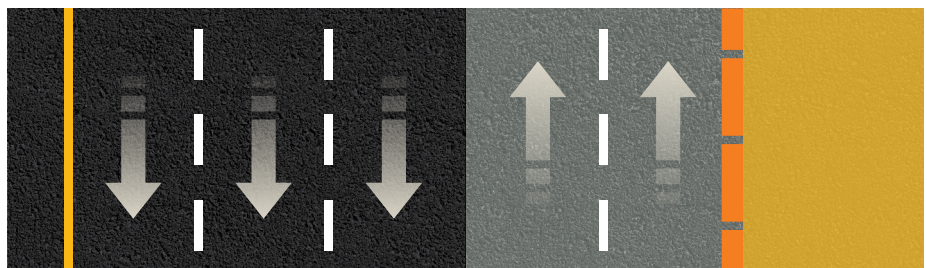


Safe & efficient expanded work zone during off-peak period (shoulder and middle lane rehab)

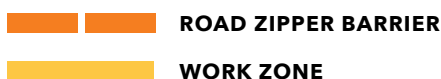
Roadway Cross-Sections (Shoulder Work Zone)



Peak Traffic Condition



Off-Peak Traffic



Improved safety

Workers and motorists have the safety of high-level positive barrier separation at all times.

Reduces congestion

The Road Zipper reconfigures the travel lanes in real time to open the maximum number of lanes for peak traffic periods.

Speeds construction

Due to the larger work space, contractors can combine or eliminate stages saving months or even entire construction seasons.

Improves efficiency

Dedicated haul lanes create safer, more efficient deliveries and equipment/material staging.

Better quality repairs

More work zone space allows contractors to use larger, more efficient equipment, resulting in better quality repairs that last longer.

Quick traffic control changes

The Road Zipper changes the travel lane configuration in minutes to accommodate traffic control changes in different project stages.

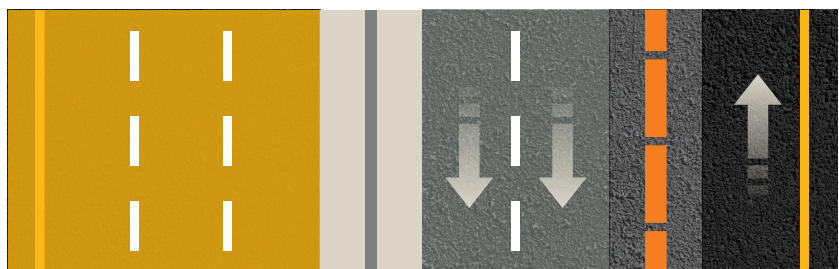
Partial Width Construction with Traffic Switch

During partial width construction, the Road Zipper helps keep more lanes open in the peak travel direction at all times by reconfiguring the road in real time as a "moveable median" with no disruption to live traffic. This significantly reduces traffic queues and user delay costs, and it saves hundreds of thousands, or even millions of dollars in temporary pavement widening to meet minimum traffic flow requirements.



To mitigate traffic congestion, the Road Zipper reconfigures the roadway in real time to give two lanes to the peak travel lanes at all times.

Traffic with Cross Sections



AM Peak Traffic

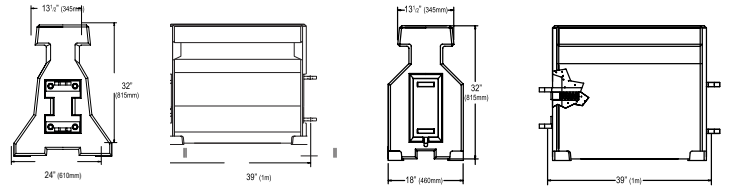


PM Peak Traffic

- ROAD ZIPPER BARRIER**
- WORK ZONE**

BARRIER TRANSFER MACHINE

TRANSFER SPEED	5 mph (8 km/h)
ROADING SPEED	12.5-20 mph (20-32 km/h)
LATERAL TRANSFER	10-18 ft (3-5.5 m)
TRANSFER TIME	1 mile (1.6 km) in 12 minutes



Physical Specifications

24" QuickChange® Moveable Barrier (QMB)

Heavily reinforced concrete barriers have similar deflection and superior vehicle stability when compared to standard Temporary Concrete Barrier. Tested and Approved to NCHRP Report 350, Test Level 3 (100 km/h).

Maximum Deflection

MASH TL-3: 52 in (1.3m)

Mass of Each Barrier Element

Approximately 1433 lbs (650 kg)

18" Concrete Reactive Tension System (CRTS)

Heavily reinforced concrete barriers have superior deflection and vehicle stability when compared to standard Temporary Concrete Barrier.

Permanent Deflection

MASH TL-3: 39 in (990 mm)

NCHRP 350 TL-3: 24 in (610 mm)

Mass of Each Barrier Element

Approximately 1500 lbs (680 kg)



Case Study

Route 220 / Williamsport, Pennsylvania

Type: Multiple bridge replacement & improvement project

Benefits:

- / Expedited construction work and significantly reduced the project duration
- / Facilitated smoother traffic flow in and out of the City of Williamsport through the project area
- / Eliminated six traffic phases, streamlining traffic management and reducing disruptions for travellers
- / Complete closure of one side of the freeway for construction, ensured a separated, efficient and expanded work zone for the contractor
- / Crashworthy moveable median enhanced safety by eliminating crossover crashes while ensuring traffic mobility



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