

# QUICKCHANGE REACTIVE TENSION BARRIER

## REVISION REGISTER

Revision	Description	Date
1	Issued for use.	09/04/2020
1 A	MASH crash tests added. Point of redirection updated.	13/10/2022

Quickchange Reactive Tension Barrier (i.e Quickchange Barrier) is a moveable reinforced concrete barrier system designed to be shifted laterally using a Barrier Transfer Machine. The barrier system is approved for temporary and permanent use by Main Roads WA under the following conditions.

**Image:**



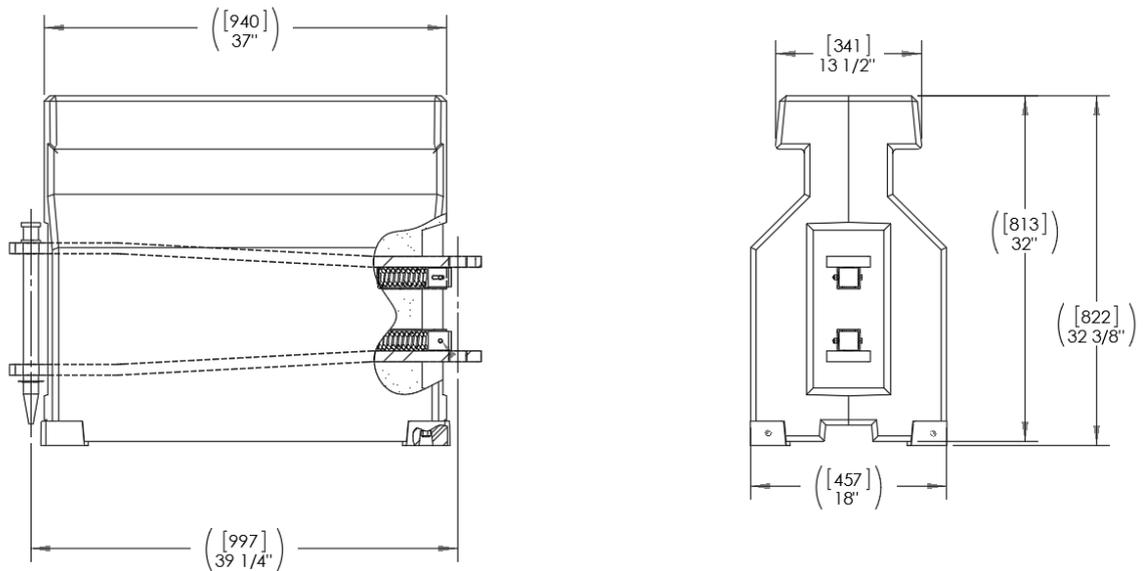
Photograph of the Quickchange Reactive Tension Barrier Module



Photographs of typical Barrier Transfer Machines shifting barriers. Typical Permanent applications (left) and Typical Temporary or Construction applications

# QUICKCHANGE REACTIVE TENSION BARRIER

## Drawing:



Cross section of Quickchange Reactive Tension Barrier Module

**Ownership:** Lindsay Transportation Solutions, LLC

**Supplier:** Lindsay ANZ  
19 Spencer Street  
Toowoomba, QLD 4350  
AUSTRALIA  
Ph: +61 (7) 4613 5000

Lindsay Transportation Solutions, LLC  
Suite 100, 18135 Burke Street  
Omaha, Nebraska 68022  
U.S.A.  
Ph: 1 402 829 6800 Fax: 1 402 829 6834  
<http://www.lindsay.com>

**Test Level:** Approved to NCHRP350 TL-3

Test Level	Test Description	Deflection	Working Width
MASH - TL3	2270 kg at 100 km/hr and 25°	1.05 m	1.52 m

## Accepted Design Speed:

For Temporary Installation

- Up to 70 km/hr

For Permanent Installation

- Up to 100 km/hr

## QUICKCHANGE REACTIVE TENSION BARRIER

### Configuration:

- The Quickchange Barrier consists of concrete barrier modules tensioned via the spring-loaded hinges at each end of the module. The modules are connected together using steel pins.
- The Quickchange Barrier must only be relocated (shifted) using the approved Barrier Transfer Machine.

### Design:

- Design to be in accordance with Lindsay Transportation Solutions' "RTS Barrier Deployment and Maintenance Manual", dated 24 January 2017.
- The barrier must not be installed on grades greater than 16.7%
- It is recommended that the barrier should be offset from the edge of traffic lane by:
  - traffic speed 40 km/h or less – 0.2m;
  - traffic speed 41 to 60 km/h – 0.3m;
  - traffic speed 61 to 80 km/h – 0.5m;
  - traffic speed greater than 80 km/h – 1.0m.

### Minimum Length:

- 80 m excluding terminals

### Terminal Permitted:

For Temporary Installation

- ABSORB 350 Plastic Terminal

For Permanent Installation

- The exposed ends must be shielded by approved permanent barriers and overlapped by minimum of 85 metres.

### Point of Redirection:

- 85m from the interface between the terminal and barrier

### Limitation:

- May only be used at locations that are approved by Main Roads WA Road and Traffic Engineering Branch
- Screens and other attachments are incompatible with the Barrier Transfer Machine.

### Installation and Maintenance:

- In accordance with the Lindsay Transportation Solutions' "RTS Barrier Deployment and Maintenance Manual", dated 24 January 2017.

### Parts to be Replaced after Impact:

- All damaged or deformed components must be replaced. Repaired components must not be used.

### Parts Typically Re-Useable after Impact:

- Undamaged units

### Reference:

- Main Roads WA file 16/3057