

# ARMORGUARD GATE

## REVISION REGISTER

Revision	Description	Date
1	Issued for use.	28/04/16

The ArmorGuard Gate system is a semi-rigid NCHRP 350 TL-3 gate that can be used to provide access through a permanent concrete barrier.

The system is hinged at both ends and uses a compressed air powered jacking system or manual jack system to raise the gate section on caster wheels. This enables the system to be unhinged and swung open from either end, or the whole gate section can be disconnected at both ends and moved in any direction. When the units are not being moved, the caster wheels are raised.

The system consists of 4 m nominal units, transitions to the concrete barrier and hinge assemblies. The transitions are required to be anchored to the pavement.

Note that this system was formerly known as “SafeGuard Gate”.

### Images:

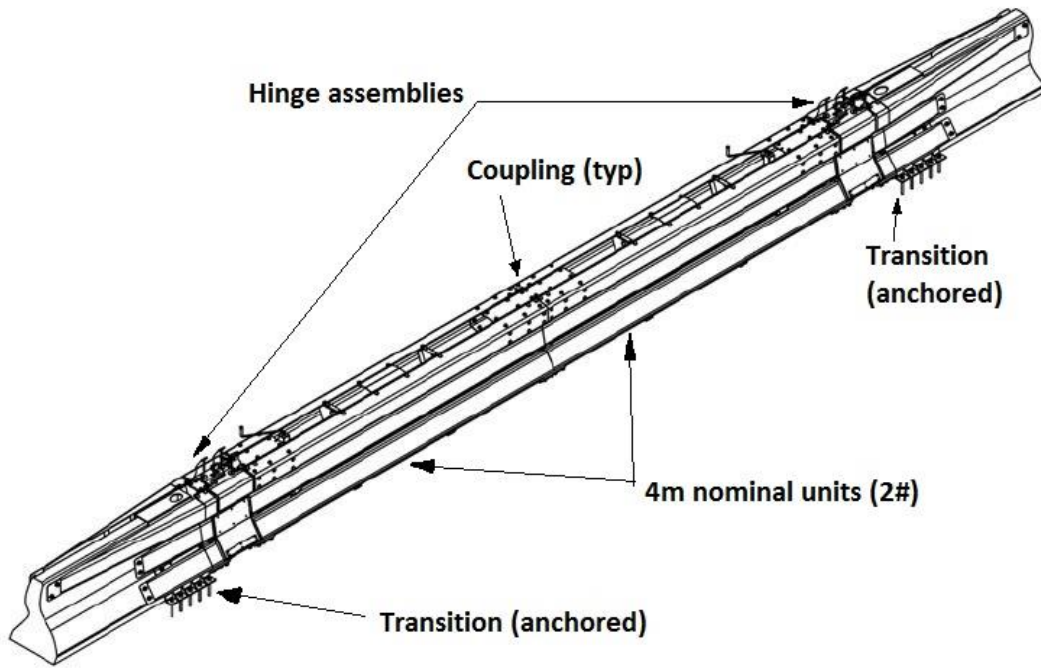


Photograph of ArmorGuard Gate installation



Photograph of ArmorGuard Gate installation

# ARMORGUARD GATE



Drawing of ArmorGuard Gate (showing 2 units, i.e. 8m long)

**Ownership:** Lindsay Transportation Solutions  
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 Rio Vista, CA 94571  
 USA

**Supplier:** Australian Construction Products (ACP)  
 339 Horsley Rd, Milperra NSW 2214  
 Ph: 02 8708 4400 Fax: 02 9792 6272  
<http://www.acprod.com.au>

**Test Level:** NCHRP 350 TL-3.

**Accepted Configuration:**

The ArmorGuard Gate system consists of 4m long units and may be installed in the following lengths:

Length of ArmorGuard Gate (m)	No. of Units
8	2
12	3
16	4

Units must be interconnected using the approved coupling set.

**Design Considerations:**

Design should be undertaken in accordance with relevant manual (ArmorGuard Gate Installation Manual – version 05/30/07 AGG06) provided by the Supplier.

**Deflection:**

0.6 m under TL-3 conditions (2000 kg vehicle at 100 km/h impacting at 25 degrees).

For other speeds use TL-3 deflection.

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## Length of Need:

The whole length of the gate is re-directive.

## Offset from Kerbing:

Kerbing is not to be placed in front of the gate.

Kerbing should not be placed behind the gate within the deflection limits of the system.

Gate shall not be placed on top of kerbing as this reduces the effectiveness of the profile.

## Approach surface:

The approach to the gate system should be a trafficable surface clear of objects and grade changes to allow an errant vehicle to hit the barrier at an appropriate height.

## End Treatments:

Not Applicable.

## Limitations:

- A foundation equivalent to a pavement thickness of 300 mm shall be provided to anchor the transition. The transition anchor block shall be as per the installation manual.
- The units are moved using caster wheels. As such a smooth concrete surface should be provided to facilitate gate operations.
- A clear area is required to operate the gate.
- Gate requires concrete barrier width within the range shown in the product / installation manual.
- As the system deflects there must be adequate room to accommodate the deflection of the system. This area must be flat (1 in 10 or less) to prevent barrier lean and possible roll.
- Objects should not be placed on top of the gate as they are designed to move under impact. "Gawk" screens are not to be attached.
- Not to be used on crossfalls or longitudinal grades greater than 3%.
- Only to be installed on straight horizontal alignments.

## Parts to be Replaced after Impact:

Structural components – Conduct an inspection of all structural assemblies to ensure that all components are structurally sound, properly connected and there are no loose fasteners or damaged components. The hinge pins should be in position and free to move and the hinge covers properly fitted and connected. Any components observed to be non-conforming to the manufacturer's drawings should be replaced or repaired.

Operating systems – Raise, hold and lower the system in accordance with the operating instructions and ensure that the hinge covers, hinge pins, valves, pneumatic system, casters and other functional components operate in the proper manner. Any components observed to be deficient should be repaired or replaced in accordance with the manufacturer's instructions.

## References:

ArmorGuard Gate Installation Manual – version 05/30/07 AGG06

Refer to website: <http://www.acprod.com.au>

## Relevant FHWA Approval Letters:

Refer to website [http://safety.fhwa.dot.gov/roadway\\_dept/policy\\_guide/road\\_hardware/listing.cfm](http://safety.fhwa.dot.gov/roadway_dept/policy_guide/road_hardware/listing.cfm)

Code	Description
B-87	SafeGuard Gate System Approval.
B-173	ArmorGuard Barrier Approval