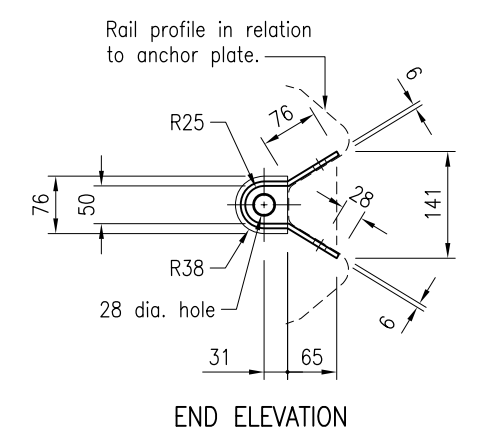
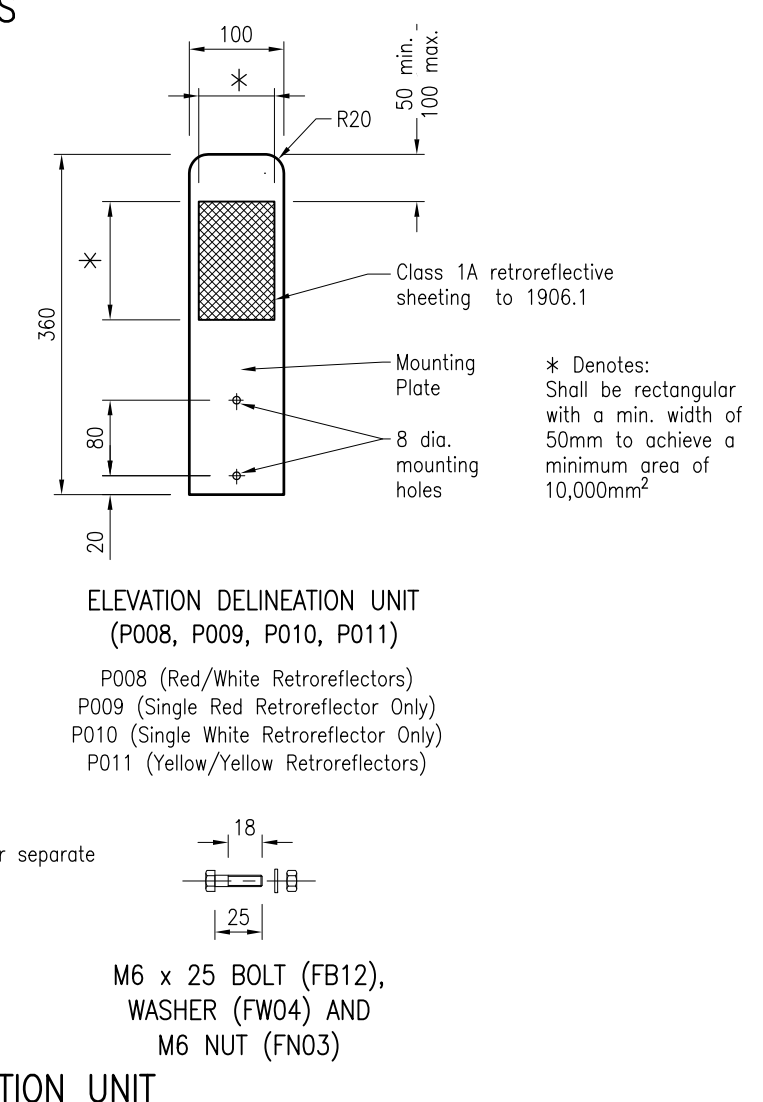
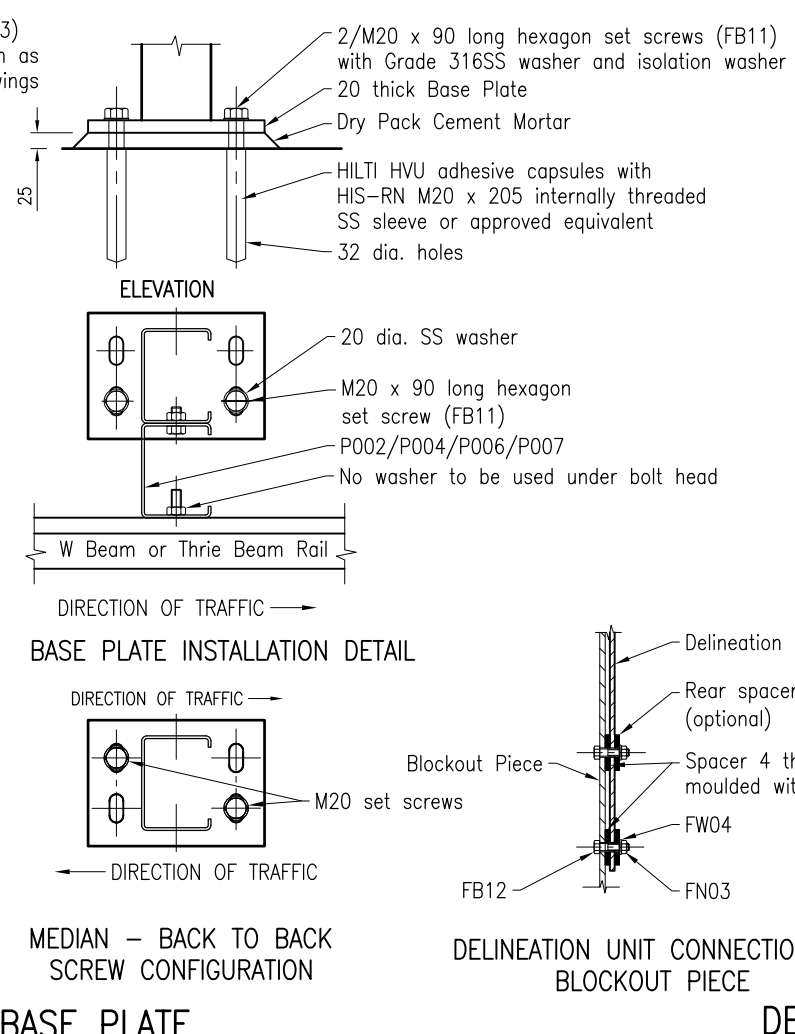
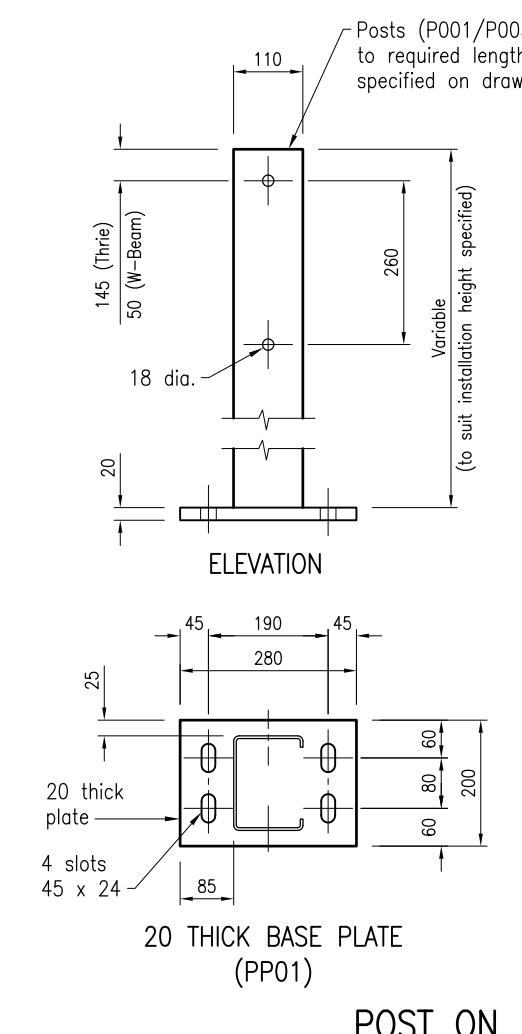


These Blockouts can be used to raise W-beam rail height on existing posts up to 180mm.



W BEAM ANCHOR BRACKET (B015)

W BEAM ABRAHAM BLOCKOUT FOR RAISING RAIL HEIGHT ON EXISTING POSTS



NOTES:

- ANCHOR PLATE is from 6.0 BMT plate, Grade HA250 steel to AS/NZS 1594. End plate is from 12.0 BMT plate grade HA250 steel to AS/NZS 3678. Welding is to AS/NZS 1554.1. Weld splatter and welding slag to be removed. Fabricated product treated to AS 1627 and hot dip galvanized to AS/NZS 4680. BMT = Base Metal Thickness.
 - DELINEATION UNITS:
 - The material to be used for mounting plates shall be moulded from non-metallic ultra violet stable material such as Acrylate-Styrene -Acrylonitrile Poly-Carbonate (ASA/PC). All corners shall be rounded.
 - On two-way carriageways the mounting plate shall have red and white retroreflectors attached on opposite sides of the mounting plate (P008). On one-way carriageways the mounting plate shall have the retroreflector attached to one side only. A red retroreflector shall be attached for nearside installation (P009). A white retroreflector shall be attached for offside installation (P010). On two-way carriageways separated by a single median barrier, delineators shall have yellow retroreflectors attached to both sides centrally located on the median barrier (P011).
 - Mounting plates shall be attached to the inside of blockouts (or posts) using M6x25 hexagonal bolt with nut and washer, or an approved fastening system. Hexagonal bolts to AS/NZS 1111.1 (Class 4.6). Hexagonal nuts to AS 1112.1 (Class 5). Nuts shall be tapped to suit galvanized threads. Black steel washers, normal series to AS 1237.1. Bolts, nuts and washers treated to AS 1627 and hot dip galvanizing in accordance with the requirements of AS 1214.
 - Other approved delineation units may be used.
 - Spacing shall be as detailed in the MUTCD unless specified otherwise in the scheme documents.
 - Delineators shall comply with the requirements specified in MRTS14.
 - POST on BASE PLATE:
 - Posts are from 4.3 BMT plate, Grade HA300 steel to AS/NZS 1594. Cross-section dimensions for posts are shown on Standard Drawing 1477. Steel base plate is to AS/NZS 3678, Grade HA250. Post to be welded to base plate in accordance with AS/NZS 1554.1. Weld splatter and welding slag to be removed. Posts and plates treated to AS 1627 and hot dip galvanized to AS/NZS 4680 after fabrication.
 - Hexagon screws to AS/NZS 1111.1 (Class 4.6). Black steel washers, large series to AS 1237.1. Screws and washers shall be hot dip galvanized in accordance with the requirements of AS 1214.
 - Two screws are required to fasten the base plate to a rigid surface. The configuration of the screw locations shall be as shown.
 - Screws shall be snug tight to AS 4100.
 - ABRAHAM BLOCKOUTS are from 4.3 BMT plate, Grade HU 300 steel to AS/NZS 1594, treated to AS 1627 and hot dip galvanized to AS/NZS 4680 after fabrication. BMT = Base Metal Thickness.
 - FLAME CUTTING of components is not permitted.
 - DIMENSIONS are subject to Manufacturer's tolerances except where allowable tolerances are nominated.
 - DIMENSIONS are in millimetres unless shown otherwise.
- ASSOCIATED DEPARTMENTAL DOCUMENTS:
- Standard Drawings Specifications
 - Manual of Uniform Traffic Control Devices (MUTCD)
- REFERENCED DOCUMENTS:
- Departmental Standard Drawings: 1477 Steel Beam Guardrail - Posts and Blockouts, Soil and Bearing Plates, Slip base plate
 - Departmental Specifications: MRTS14 Road Furniture
- Australian Standards:
- AS/NZS 1111.1 ISO Metric Hexagon Bolts and Screws - Product Grade C - Bolts
 - AS/NZS 1554.1 Structural Steel Welding - Welding of Steel Structures
 - AS/NZS 1594 Hot rolled steel flat products
 - AS/NZS 1627 Metal Finishing - Preparation and pretreatment of Surfaces - Method Selection Guide
 - AS/NZS 1906.1 Retroreflective Materials and Devices for Road Traffic Control Purposes - Retroreflective Sheetting
 - AS/NZS 1906.2 Retroreflective Materials and Devices for Road Traffic Control Purposes - Retroreflective Devices (non-pavement application)
 - AS/NZS 3678 Structural Steel - Hot-rolled Plates, Floor Plates and Slabs
 - AS/NZS 3845 Road Safety Barrier Systems
 - AS/NZS 4680 Hot-dip Galvanized (Zinc) Coatings on Fabricated Ferrous Articles
 - AS 1112.1 ISO Metric Hexagon Nuts - Style 1 - Product Grades A and B
 - AS 1214 Hot-dip Galvanized Coatings on Threaded Fasteners (ISO Metric Coarse Thread Series)
 - AS 1237.1 Plain washers for metric bolts, screws and nuts for general purposes - General plan
 - AS 1627 Metal Finishing - Preparation and Pretreatment of Surfaces - Method Selection Guide
 - AS 4100 Steel Structures

Department of Transport and Main Roads			
STEEL BEAM GUARDRAIL			
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DELINEATION UNIT			
POST ON BASE PLATE		A3	Standard Drawing No
ABRAHAM BLOCKOUT		Not to Scale	1478
			Date 10/16
A	B	C	D
E	F		