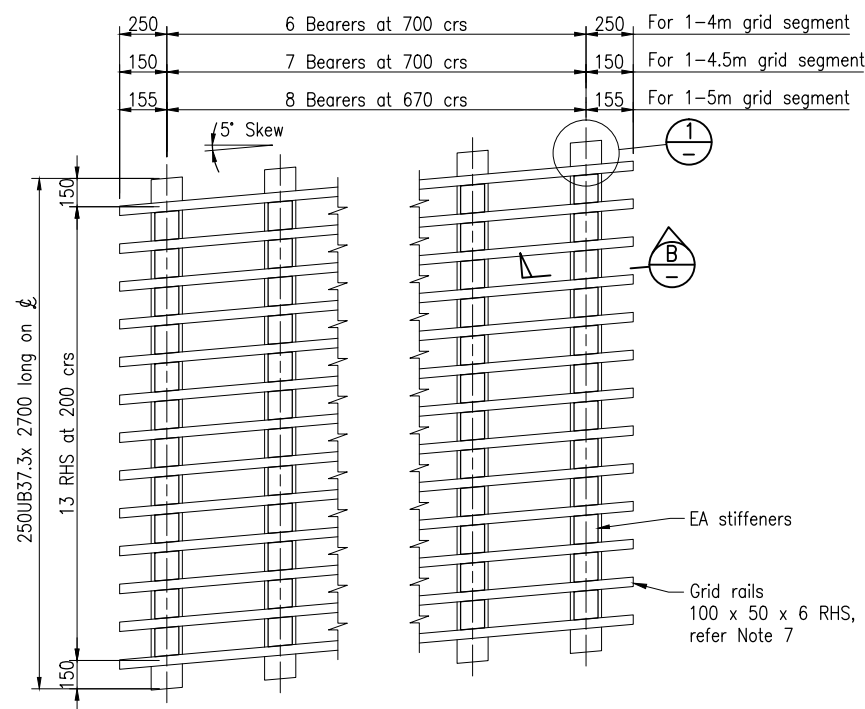
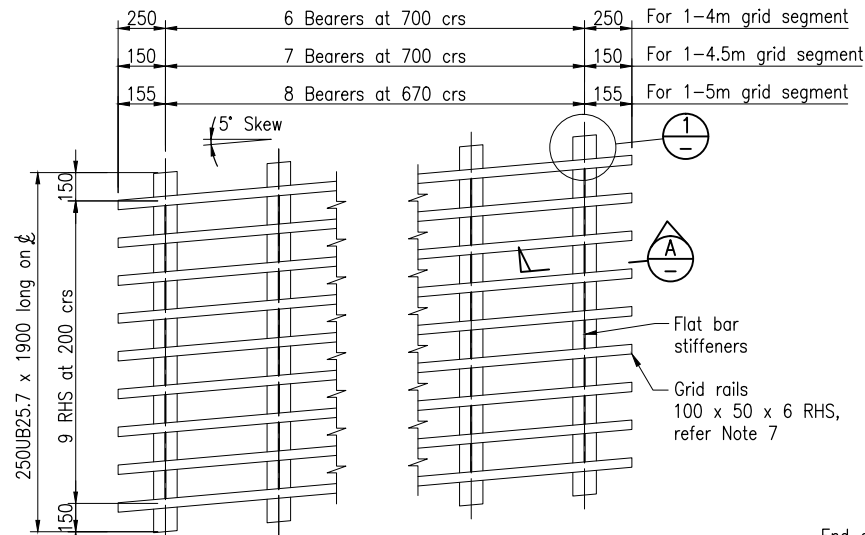
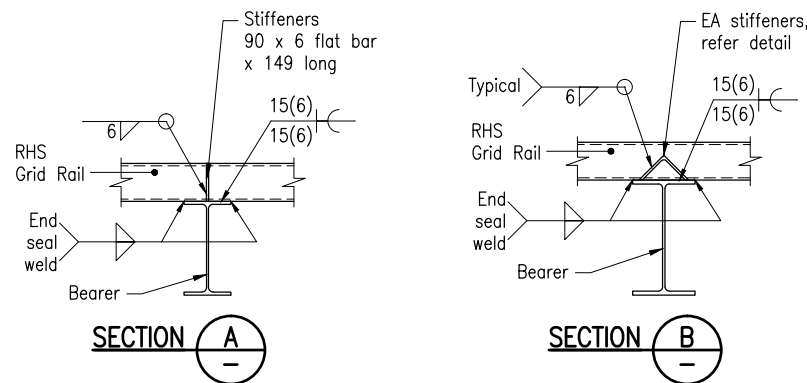


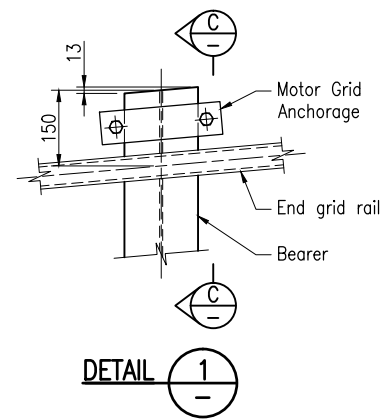
2.7m SPAN – GRID SEGMENT FOR STANDARD MOTOR GRIDS
(Typically used for larger animals like cattle)



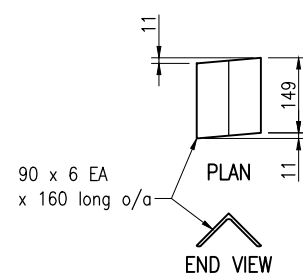
2.7m SPAN – GRID SEGMENT FOR STANDARD MOTOR GRIDS
(With Vermin and Dog Fencing
– refer SD 1353 for Vermin and Dog Fencing details)



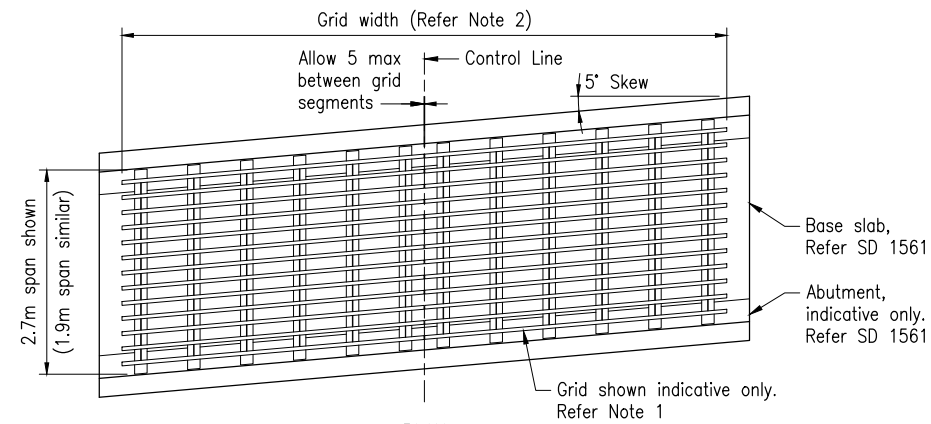
1.9m SPAN – GRID SEGMENT FOR STANDARD MOTOR GRIDS
(Typically used for smaller animals like sheep)



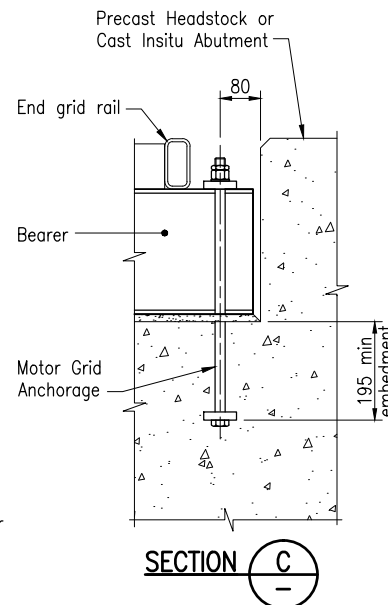
TYPICAL DETAIL ANCHORAGE PLATE
(at top and bottom)



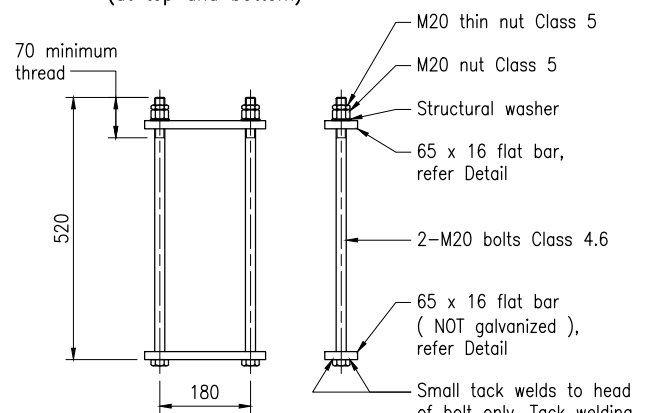
EA STIFFENER DETAIL
FOR GRIDS WITH VERMIN
AND DOG FENCING ONLY



PLAN
TYPICAL GENERAL ARRANGEMENT – GRID SEGMENTS



SECTION C



MOTOR GRID ANCHORAGES
(One at each end of bearers)

NOTES:

- This Standard Drawing shall be read in conjunction with Standard Drawing 1561 for General Notes, Grid Construction Scenarios, General Arrangements for Motor Grids.
- STANDARD SIZES OF GRIDS for normal installation are shown below. For other widths where specifically approved, the standard width may be varied, provided the bearer spacing does not exceed 700 and the rail overhang does not exceed 250.

STANDARD GRID WIDTHS			
Formation width, m	Pavement width, m	Grid width, m	Grid segments to use
7.5, 8.0	3.5, 4.0	8.0	2–4.0m Segments
8.5, 9.0	6.0, 6.5, 7.0	9.0	2–4.5m Segments
greater than 9.0	6.0, 6.5, 7.0	10.0	2–5.0m Segments

STANDARD GRID SPANS for 1.9m or 2.7m only

- DESIGN TRAFFIC LOADS : W80, A160, SM1600 and HLP400 to AS 5100. DESIGN CRITERIA : Technical Note 18 of Design Criteria for Motor Grids.
- THE SIZE of the motor grid segments is to be as specified in the contract documents.
- STEELWORK to be fabricated to the requirements of MRTS78. RHS to be Grade C450L0 to AS/NZS 1163. All Structural steel hollow section material manufactured to AS/NZS 1163. All Steel flat material manufactured to AS/NZS 1594. All Steel plate material manufactured to AS/NZS 3678. UB, angle and flat bar to be Grade 300 to AS/NZS 3679.1. Holding Down Bolts Class 4.6 to AS 1111.1, nuts Class 5 to AS 1112.1 and thin nuts Class 5 to AS 1112.4. All bolts and nuts to be hot dip galvanised to AS 1214. All other steelwork to be hot dip galvanised to AS/NZS 4680 unless shown otherwise. Prior to galvanising all weld splatter and welding slag is to be removed.
- WELDING symbols conform to AS 1101.3 and all welding to AS/NZS 1554.1. All welds except location tack welds to be SP category. Welding consumables for RHS and CHS to be G493 or T493. Welding consumables for all other structural steel shall be G49X or T49X unless shown otherwise. Welding consumables to AS/NZS ISO 14341 or AS/NZS ISO 17632.
- HIGHER END of the RHS rail in each segment shall be closed with 4mm steel plate, sized to match, welded to RHS to prevent water entering.
- DIMENSIONS are in millimetres unless shown otherwise.

ASSOCIATED DOCUMENTS:

- Main Roads Standard Drawings Roads Manual
- Main Roads Specifications and Technical Standards Manual
- Manual of Uniform Traffic Control Devices (MUTCD)
- Design Criteria for Motor Grids – Technical Note 18
- Design Criteria for Bridges and Other Structures

REFERENCED DOCUMENTS:

- Standard Drawings: 1561 Road Furniture – Motor Grid – General Arrangement 1353 Road Furniture – Vermin and Dog Fencing at Motor Grid

Standard Specifications:

- MRTS78 Fabrication of Structural Steelwork

Australian Standards:

- AS 1101.3 Graphical Symbols for General Engineering – Welding and Non-destructive Examination
- AS 1111.1 ISO Metric Hexagon Bolts and Screws – Product Grade C – Bolts
- AS 1112.1 ISO Metric Hexagon Nuts – Style 1 – Product Grades A and B
- AS 1112.4 ISO Metric Hexagon Nuts – Chamfered thin nuts – Product grades A and B
- AS/NZS 1163 Cold-Formed Structural Steel Hollow Sections
- AS 1214 Hot-dip Galvanized Coatings on Threaded Fasteners (ISO Metric Coarse Thread Series)
- AS/NZS 1554.1 Structural Steel Welding – Welding of Steel Structures
- AS/NZS 1594 Hot rolled steel flat products
- AS/NZS 3678 Structural Steel – Hot-rolled Plates, Floor Plates and Slabs
- AS/NZS 3679.1 Structural Steel – Hot-rolled Bars and Sections
- AS/NZS 4680 Hot-dip Galvanized (Zinc) Coatings on Fabricated Ferrous Articles
- AS 5100 (Set) Bridge Design
- AS/NZS ISO 14341 Welding consumables – Wire electrodes and weld deposits for gas shielded metal arc welding of non alloy and fine grain steels – Classification
- AS/NZS ISO 17632 Welding consumables – Tubular cored electrodes for gas shielded and non-gas shielded metal arc welding of non-alloy and fine grain steels – Classification

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ROAD FURNITURE				A3	Standard Drawing No
MOTOR GRID – STEELWORKS		Not to Scale	1565		Date 3/14
		A			