

**EXISTING SIGN FACE**  
 Non-compliant hazard markers to be removed.  
 Outline of an typical size 4000 x 400 shown here. Other sizes likely.

**STIFFENERS**  
 Utilise compliant hazard marker size fitted with type 1 stiffeners only.  
 • Type 2 stiffeners not permitted.  
 • Non-compliant hazard marker to be removed and stowed.  
 Replace with compliant hazard marker and type 1 stiffeners only.

**SIGN FACE**  
 2 – 2000 x 400mm existing hazard markers shown.  
 Replace with compliant 2 – 1600 x 400 hazard markers.

**CHS POST CAP TREATMENT**  
 – cap with approved galvanised post caps.

**NEW POST AND FOOTING**  
 CHS steel posts to be installed where required. Refer Notes.

**EXISTING POST AND FOOTING**  
 CHS steel posts to remain where required to provide sufficient post spacings.

**EXISTING POST TO BE REMOVED**  
 Remove existing steel posts that are not required for new arrangement. Cut post flush with top of concrete footing. Plug the post hole by filling with concrete or other accepted method.

**REAR ELEVATION**

**SECTION A**  
**AT NEW POST**

**SIGN ARRANGEMENT (REHABILITATION)**

3 Post outcome shown. It is possible that 4 or more post may be required.

**NEW POST AND FOOTING NOTES:**

- Standard post shall be 60.3 OD, wall thickness 2.9.  
 For other posts size refer Table 1 on Standard Drawing 1363.
- Footing depth ('L') is the embedment depth:-  
 – 450 deep suitable for cohesive clay soils.  
 – 750 deep suitable for cohesionless sand soils.  
 Disregard loose top soil and fill when measuring footing depth.
- All other post sizes and footing dimensions shall be in accordance with Standard Drawing 1363 and a project specific design shall be developed for approval prior to construction.

**NOTES:**

**SCOPE:**

- SC1. This concept can be applied to other signs where a potential hazard due to sign sparring into a vehicle may exist.
- SC2. This drawing provides details for the rehabilitation of existing sight boards (hazard markers) and other signage at T intersections parallel to a continuous carriageway. This drawing details the replacement of non compliant elements and arrangements with compliant elements and arrangements.
- SC3. Non-compliant elements: Oversized hazard markers, type 2 stiffeners, use of non heavy duty clamps, splice plate assembly and post locations.
- SC4. Compliant elements: 2 – 1600 x 400 hazard markers; type 1 stiffeners; heavy duty clamp as detailed and splice plate assembly as detailed.
- SC5. Posts: This drawing also covers post placement where new posts are required or existing posts are to be removed.
- SC6. Guideline: This drawing shall be read in conjunction with the Design Guide for Roadside Signs.

**GENERAL NOTES:**

- G1. Standard traffic sign support design which includes support and stiffener spacing as well as sign and stiffener overhang limits, in various soil and wind categories, shall be limited to specifications set down in the Design Guide for Roadside Signs or automated design tool TraSiS.  
 A specific structural engineered design shall be required for installations having specifications falling outside those found in the Design Guide for Roadside Signs.
- G2. Refer to MUTCD guidelines for sign clearances from kerb face and shoulder edge and sign orientation to road.
- G3. Refer to Standard Drawing 1369 for dimensions, specifications and fixing of aluminium panel stiffener rails.
- G4. Removed/recoverable fixings and materials shall be stowed for reuse elsewhere as directed by Principal.
- G5. Dimensions are in millimetres unless shown otherwise.

**STEEL NOTES:**

- S1. Steelwork shall be fabricated to the requirements of MRTS78.
- S2. CHS shall be Grade 350LO to AS/NZS 1163.

**CONCRETE NOTES:**

- C1. Concrete shall be S32/20 to MRTS70.
- C2. Concrete shall be poured directly against augered hole.
- C3. Mechanically vibrate full depth of concrete.
- C4. Concrete shall be minimum 25MPa before sign erection.

**ASSOCIATED DEPARTMENTAL DOCUMENTS:**

- Manual of Uniform Traffic Control Devices (MUTCD)
- Traffic and Road Use Management Volume 3 Part 5: Design Guide for Roadside Signs (TRUM Vol 3, Part 5)

**SIGNS:**

- D4-1-1A-Q03 Hazard Marker

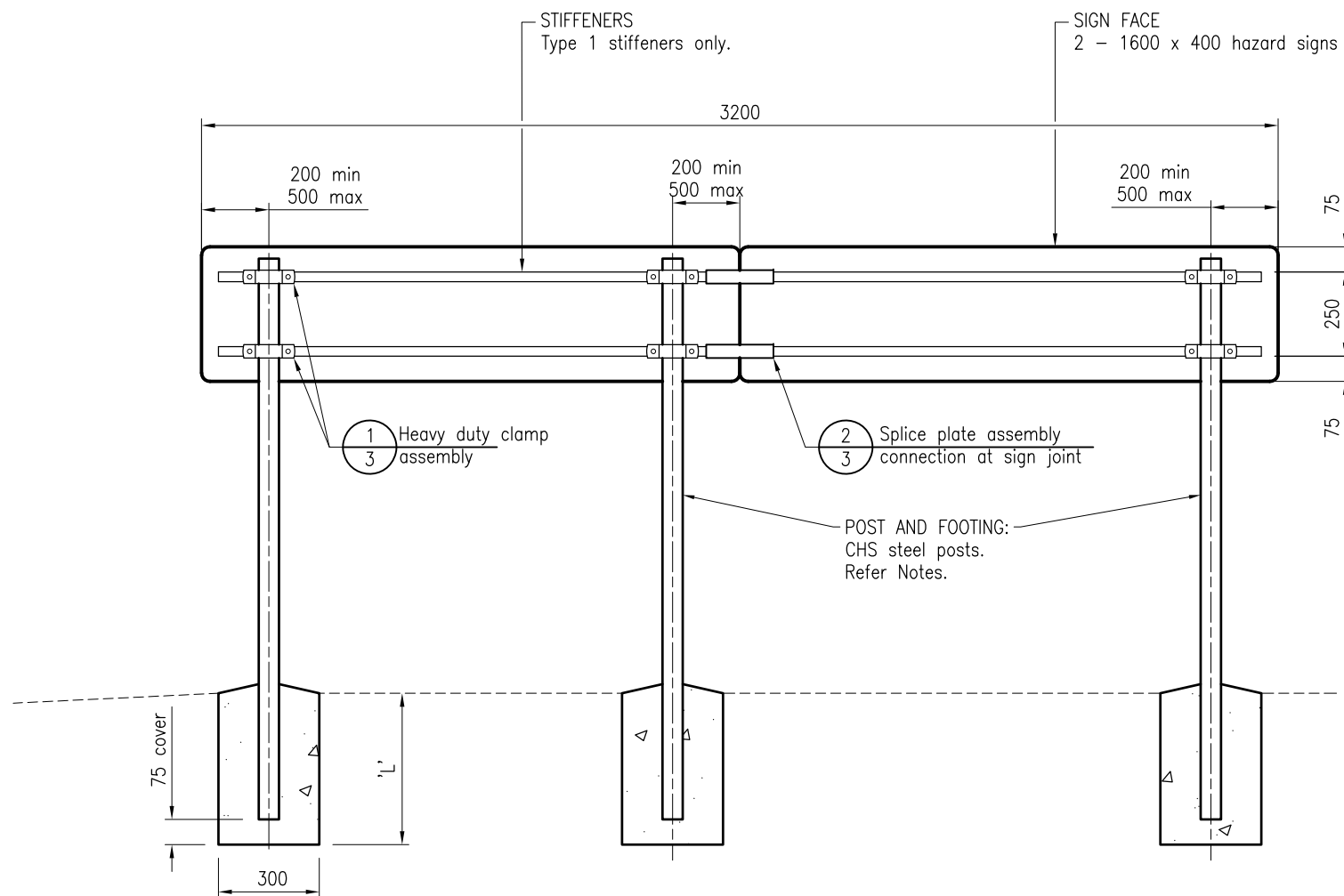
**REFERENCED DOCUMENTS:**

- Departmental Standard Drawings:  
 1363 Traffic Sign – Multiple Traffic Sign Support Standard Posts  
 1369 Traffic Sign – Details of Sign Stiffening Extrusion

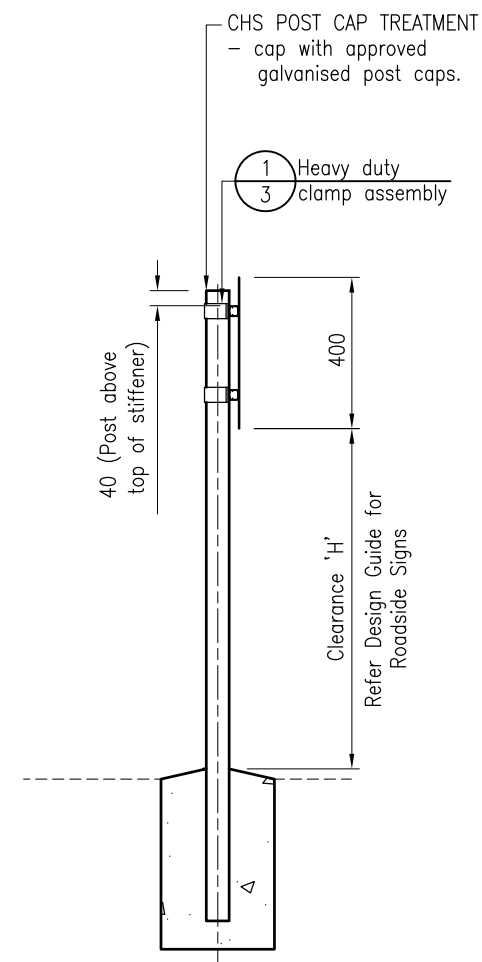
**Departmental Specifications:**

- MRTS14 Road Furniture
- MRTS70 Concrete
- MRTS78 Fabrication of Structural Steelwork

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TRAFFIC SIGN			
SIGHT BOARD INSTALLATION DETAILS FOR REHABILITATION OF EXISTING		A3	Standard Drawing No
SHEET 1 OF 3		Not to Scale	1452
		Date	7/2024
A	B	C	D



REAR ELEVATION



SIDE ELEVATION

**SIGN ASSEMBLY  
(NEW INSTALLATION)**

**NEW POST AND FOOTING NOTES:**

1. Standard post shall be 60.3 OD, wall thickness 2.9.  
For other posts size refer Table 1 on Standard Drawing 1363.
2. Footing depth ('L') is the embedment depth:-
  - 450 deep suitable for cohesive clay soils.
  - 750 deep suitable for cohesionless sand soils.
 Disregard loose top soil and fill when measuring footing depth.
3. All other post sizes and footing dimensions shall be in accordance with Standard Drawing 1363 and a project specific design shall be developed for approval prior to construction.

**NOTES:**

**SCOPE:**

- SC1. This concept can be applied to other signs where a potential hazard due to sign spearing into a vehicle may exist.
- SC2. This drawing provides installation details for new sight board installation (hazard markers) and other new signage at intersections parallel to continuous carriageway. This drawing details the installation of compliant elements and sign arrangement.
- SC3. Compliant elements: 2 - 1600 x 400 hazard markers; type 1 stiffeners; heavy duty clamp as detailed and splice plate assembly as detailed.
- SC4. Guideline: This drawing shall be read in conjunction with the Design Guide for Roadside Signs.

**GENERAL NOTES:**

- G1. Standard traffic sign support design which includes support and stiffener spacing as well as sign and stiffener overhang limits, in various soil and wind categories, shall be limited to the specifications set down in the Design Guide for Roadside Signs or automated design tool TraSiS.  
A specific structural engineered design shall be required for installations having specifications falling outside those found in the Design Guide for Roadside Signs.
- G2. Refer to Standard Drawing 1369 for dimensions, specifications and fixing of aluminium panel stiffener rails.
- G3. Selection of foundation type and strength category shall be approved by the Project Administrator.
- G4. Dimensions are in millimetres unless shown otherwise.

**STEEL NOTES:**

- S1. Steelwork shall be fabricated to the requirements of MRTS78.
- S2. CHS shall be Grade 350L0 to AS/NZS 1163.

**CONCRETE NOTES:**

- C1. Concrete shall be S32/20 to MRTS70.
- C2. Concrete shall be poured directly against augered hole.
- C3. Mechanically vibrate full depth of concrete.
- C4. Concrete shall be minimum 7 days old and minimum 25MPa before sign erection.

**ASSOCIATED DEPARTMENTAL DOCUMENTS:**

Traffic and Road Use Management Volume 3 Part 5: Design Guide for Roadside Signs (TRUM Vol 3, Part 5)

**SIGNS:**



D4-1-1A-Q03 Hazard Marker

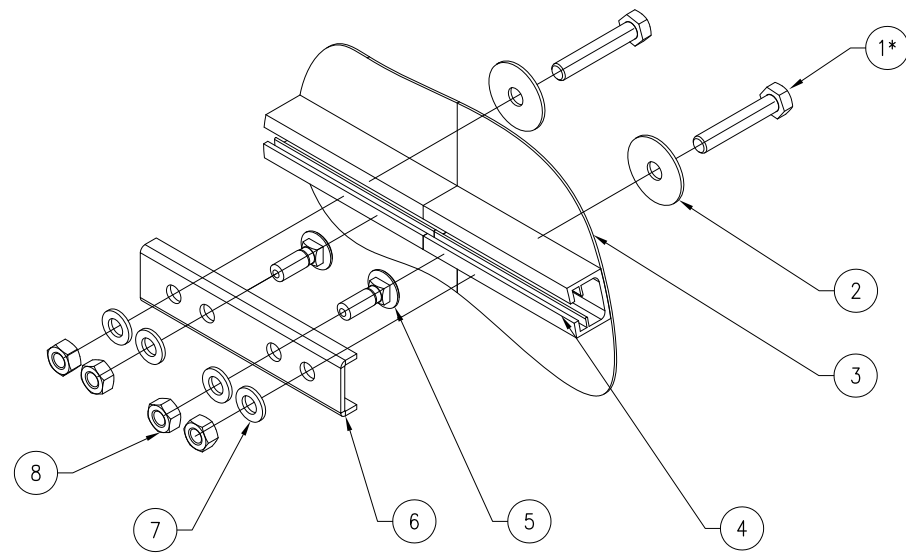
**REFERENCED DOCUMENTS:**

Departmental Standard Drawings:  
1363 Traffic Sign - Multiple Traffic Sign Support Standard Posts  
1369 Traffic Sign - Details of Sign Stiffening Extrusion

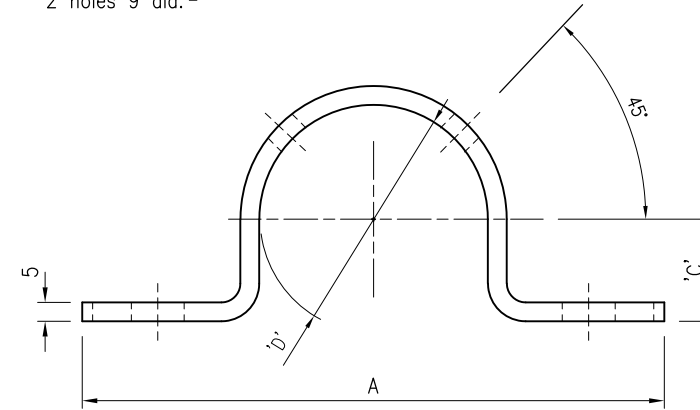
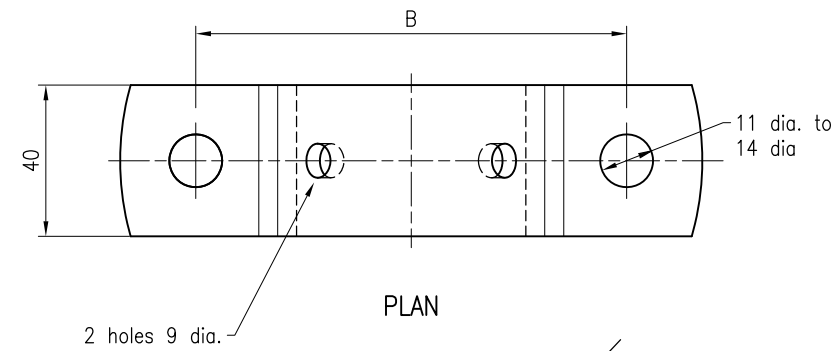
**Departmental Specifications:**

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MRTS78 Fabrication of Structural Steelwork

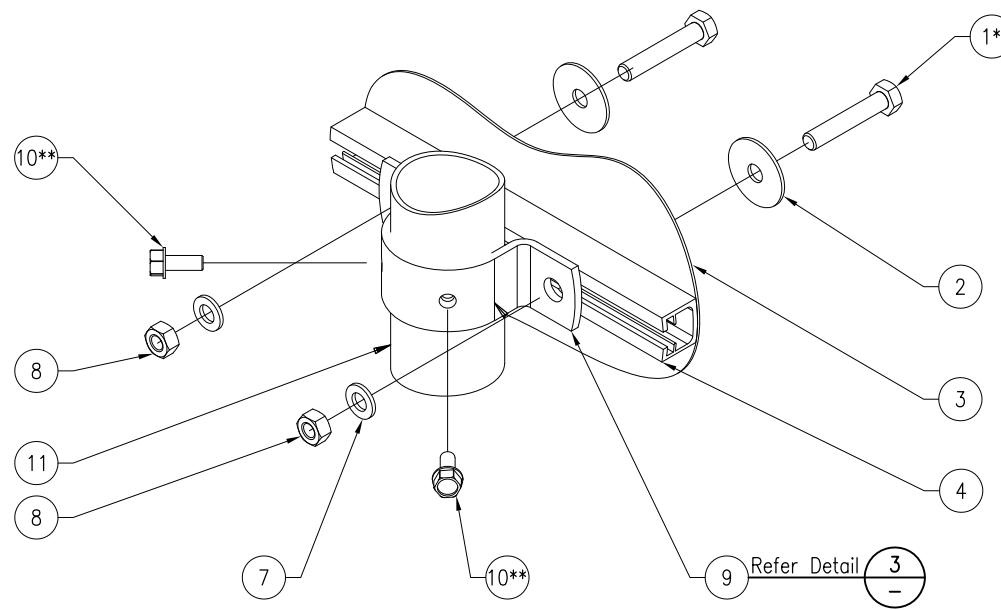
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SIGHT BOARD INSTALLATION DETAILS FOR NEW INSTALLATION SHEET 2 OF 3		A3 Not to Scale	Standard Drawing No <b>1452</b> Date 7/2024
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DETAIL 2 SPLICE PLATE ASSEMBLY  
1,2 CONNECTION AT SIGN JOINT



ELEVATION  
DETAIL 3 HEAVY DUTY CLAMP 9



DETAIL 1 HEAVY DUTY CLAMP ASSEMBLY  
1,2

**NOTES:**

**SCOPE:**

- SC1 This concept can be applied to other signs where a potential hazard due to sign sparring into a vehicle may exist.
- SC2. This standard drawing provides assembly details for the heavy duty clamp connection and splice plate connections. This is for use only for the installation of hazard marker signs as detailed on Sheets 1 and 2. where:-
  - The use of Heavy duty clamps bolted through the stiffener rails and sign face.
  - Sign joiner (splice plate) bolted through the stiffener rail and sign face.
  - The use of Type 1 stiffener rails only.

**GENERAL NOTES**

- G1. Traffic sign clamp shown in this drawing shall be fabricated in accordance with MRTS14 and MRTS78.
- G2. Dimensions are in millimetres unless shown otherwise.

**STEEL NOTES:**

- S1. Steelwork shall be fabricated to the requirements of MRTS78.
- S2. All bolts and nuts shall be hot dipped galvanised to AS 1214. All other steelwork shall be hot dip galvanised to AS/NZS 4680 unless shown otherwise.
- S3. Steel plate shall be minimum Grade 250 AS/NZS 3678.
- S4. Steel flat bars shall be Grade 300 to AS/NZS 3679.1.

**REFERENCED DOCUMENTS:**

- Departmental Standard Drawings:
  - 1363 Traffic Sign – Traffic Sign Support Standard and Breakaway Post Details
  - 1369 Traffic Sign – Details of Sign Stiffening Extrusion
- Departmental Specifications:
  - MRTS14 Road Furniture
  - MRTS78 Fabrication of Structural Steelwork

**COMPONENT LIST**

ITEM	DESCRIPTION
1*	M10 x 55 Hex bolt Grade 4.6 galvanised
2	Flat washer 40 OD x 11 ID x 2mm thick galvanised
3	Aluminium sign face
4	Type 1 Aluminium stiffener rail
5	M10 X 30 Coach bolt. Grade 4.6 galvanised.
6	Splice plate Aluminium
7	M10 Flat washer galvanised
8	M10 Hex nut Grade 4.6 galvanised
9	Heavy duty post clamp galvanised
10**	M8 x 20 Taptite hex self-tapping screw
11	Sign post galvanised

Notes:  
 \* Drill 10 dia. holes through stiffener rail and sign face to fit M10 bolts.  
 \*\* Drill 7.3 dia. holes in post to accept Taptite screws.

**HEAVY DUTY CLAMP DIMENSIONS**

POST SPECIFICATION	CONNECTION STRAPS					Comments
	Post dimensions	'D' Dia	'A'	'B'	'C'	
CHS	60.3 OD	60.5	154	114	27	Typical use
	76.1 OD	76.5	170	130	33.5	Use these sizes only if approved for project specific designs
	88.9 OD	89.5	183	143	41.5	
	101.6 OD	102	196	156	46	
	114.3 OD	115	210	170	51	

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TRAFFIC SIGN			
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