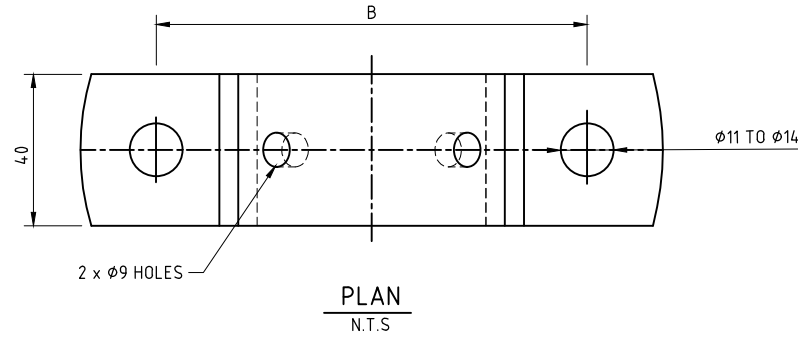
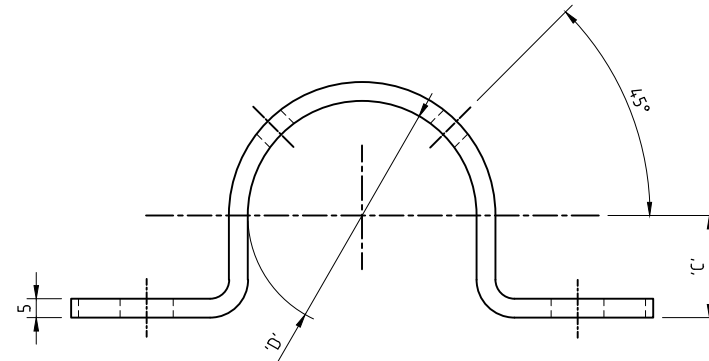


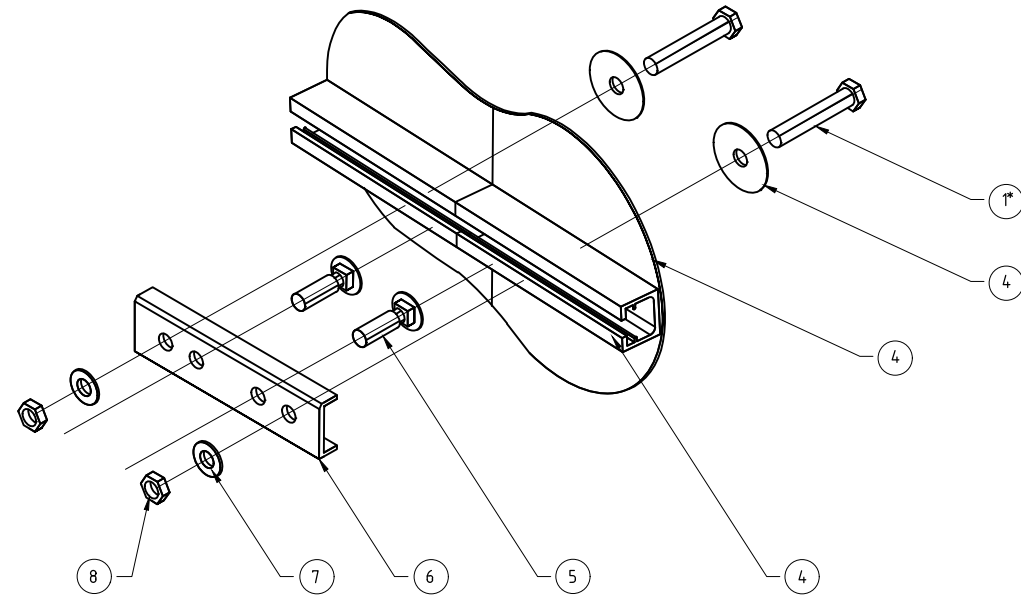
**DETAIL 1: HEAVY DUTY CLAMP ASSEMBLY**  
N.T.S



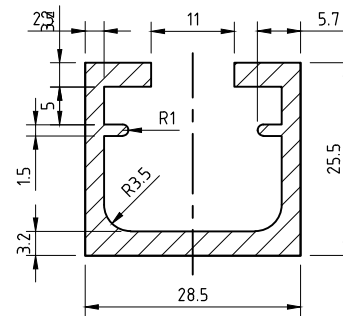
**PLAN**  
N.T.S



**DETAIL 3: HEAVY DUTY CLAMP**  
N.T.S



**DETAIL 2: SPLICE PLATE ASSEMBLY CONNECTION AT SIGN JOINTS**  
N.T.S



AREA= 242 mm<sup>2</sup> I<sub>yy</sub>= 27000 mm<sup>4</sup>  
I<sub>xx</sub>= 154.00 mm<sup>4</sup> w=0.698 kg/m

**DETAIL 4: TYPE 1 STIFFENER CROSS SECTIONAL VIEW**  
N.T.S

**NOTES:**

**SCOPE:**

1. THIS CONCEPT CAN BE APPLIED TO OTHER SIGNS WHERE A POTENTIAL HAZARD DUE TO SIGN SPEARING INTO A VEHICLE MAY EXIST.
2. THIS STANDARD DRAWING PROVIDES ASSEMBLY DETAILS FOR THE HEAVY DUTY CLAMP CONNECTION AND SPLICE PLATE CONNECTIONS. THIS IS ONLY USE FOR THE INSTALLATION OF HAZARD MARKER SIGNS AS DETAILED ON STANDARD DRAWING CS3516 AND CS3517 WHERE:
  - 2.1. THE USE OF HEAVY DUTY CLAMPS BOLTED THROUGH THE STIFFENER RAILS AND SIGN FACE
  - 2.2. SIGN JOINER (SPLICE PLATE) BOLTED THROUGH THE STIFFENER RAIL AND SIGN FACE.
  - 2.3. THE USE OF TYPE 1 STIFFENER RAILS ONLY.

**GENERAL NOTES:**

1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.

**STEEL NOTES:**

1. STEEL WORK SHALL BE FABRICATED TO THE REQUIREMENTS OF AS/NZS 3679.1, AS/NZS 3678, AS/NZS 4600 AND AS/NZS 1163.
2. ALL BOLTS AND NUTS SHALL BE HOT DIPPED GALVANISED TO AS1214. ALL OTHER STEELWORK SHALL BE HOT DIP GALVANISED TO AS/NZS 4680 UNLESS SHOWN OTHERWISE.
3. STEEL PLATE SHALL BE MINIMUM GRADE 250 TO AS/NZS 3678.
4. STEEL FLAT BARS SHALL BE GRADE 300 TO AS/NZS 3679.1.

**STIFFENER NOTES**

1. STIFFENER SHALL BE FABRICATED WITH STRUCTURAL ALUMINIUM GRADE 6061-T6 OR 6063-T6 AS PER AS/NZS 1866.
2. TOLERANCE FOR FABRICATION AS STATED IN AS/NZS 1866.
3. NO COPYRIGHT ON TYPE 1 SECTIONS IS HELD OR WILL BE ACKNOWLEDGED AS BEING HELD BY ANY COMPANY WHILE THE SECTION IS SPECIFIED AS BEING SUITABLE FOR USE AS SIGN STIFFENERS

COMPONENT LIST	
ITEM	DESCRIPTION
1	M10 x 55 HEX BOLT GRADE 4.6 GALVANISED
2	FLAT WASHER 4.0 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 HEC SELF-TAPPING SCREW
11	SIGN POST GALVANISED

\* 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						
CHS	POST DIMENSIONS	'D' Dia.	'A'	'B'	'C'	COMMENTS
	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		

THIS DRAWING IS DERIVED FROM DEPARTMENT OF TRANSPORT AND MAIN ROADS QUEENSLAND, STANDARD DRAWING 1452 SHEET 3, STANDARD DRAWING 1369 SHEET 3, AND ADOPTED FOR NT CONDITIONS.

No.	DESCRIPTION	DATE	NAME	DEPT/COMPANY
0	ISSUED AS A STANDARD DRAWING	MAR 2019	S.SHI	EES/DIPL
AMENDMENTS				

**WARNING**  
BEWARE OF UNDERGROUND SERVICES. THE LOCATIONS OF UNDERGROUND SERVICES ARE APPROXIMATE ONLY AND THEIR EXACT POSITION SHOULD BE PROVEN ON SITE. NO GUARANTEE IS GIVEN THAT ALL EXISTING SERVICES ARE SHOWN.

DRAWN S.SHI	CHECKED S.HATZI
DATE JAN 2019	DATE JAN 2019
DESIGNED -	CHECKED -
DATE -	DATE -
DESIGN LEADER -	DESIGN DIRECTOR S.HATZI
DATE -	DATE JAN 2019



STANDARD DRAWINGS  
ROAD FURNITURE & SIGNS

HAZARD MARKER  
CONNECTIONS DETAILS

FILE No.	ASSET No.	SHEET No.	DRAWING No.	AMEND.	SHEET SIZE
-	-	1 OF 1	CS3518	0	A1