

TABLE 1
MINIMUM HORIZONTAL CLEARANCES TO A STRUCTURE
(MEASURE FROM TRACK CENTRE LINE TO NEAREST POINT OF STRUCTURE)

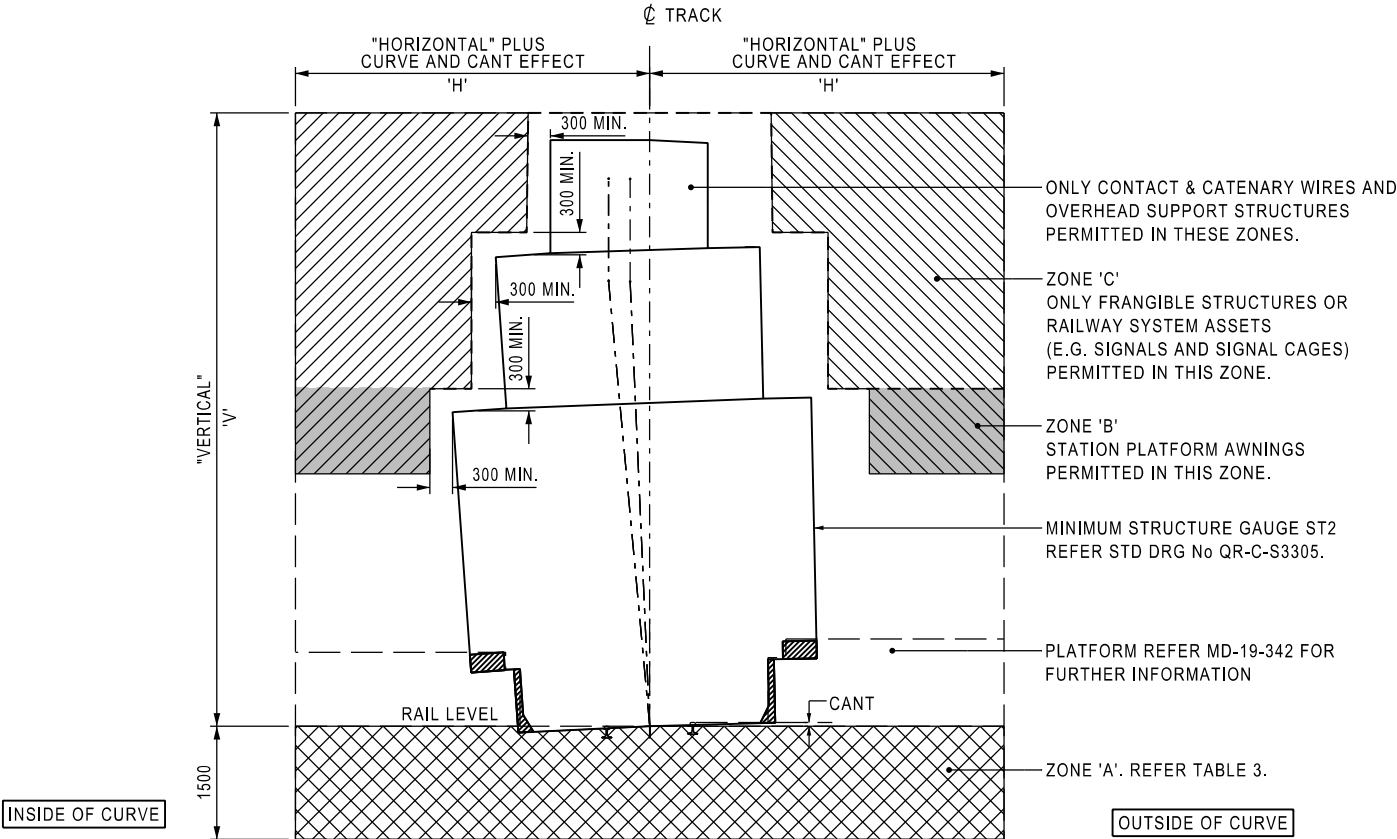
DIMENSION 'H'	STRUCTURE CATEGORY AND DESCRIPTION
4700	TO ALL STRUCTURES, INCLUDING MID-SECTION FOOTBRIDGES AND TEMPORARY STRUCTURES (ALLOWS FOR MAINTENANCE PERSONNEL ACCESS OUTSIDE DANGER ZONE).
4550	FOOTBRIDGES ON STATION PLATFORMS. (REFER TO MD-18-322).
3900	TUNNEL WHICH INCLUDES A WALKWAY (ALLOWS A 1200mm WIDE WALKWAY).
3000	ELECTRIFICATION SUPPORT MASTS
3000*	HANDRAILS ON A BRIDGE OR SIMILAR, REFER TO DRAWING QR-C-S3200
3000	RAILWAY ASSETS ONLY - SIGNAL POST OR CAGE, POLES AND SIGNS (ZONE 'B' & ZONE 'C') 'ZONE B' - 3000mm MIN WHEN GREATER THAN 3300mm ABOVE RAIL LEVEL. 'ZONE C' - 2705mm MINIMUM WHEN GREATER THAN 4600mm ABOVE RAIL LEVEL 1785mm MINIMUM WHEN GREATER THAN 6740mm ABOVE RAIL LEVEL ALL STRUCTURES IN ZONE 'B' AND ZONE 'C' SHALL HAVE APPROVAL FROM MANAGER HV SYSTEMS.
2700	TEMPORARY CONSTRUCTION HOARDING, DEMARCATION STRUCTURES
2300*	STATION PLATFORM AWNING (ZONE 'B' - STRAIGHT TRACK ONLY) 'ZONE B' - 2300mm MINIMUM WHEN GREATER THAN 3300mm ABOVE RAIL LEVEL ENSURING AWNING DOES NOT OBSTRUCT SIGNALS ALL INFRASTRUCTURE IN 'ZONE B' SHALL HAVE THE APPROVAL BY MANAGER HV SYSTEMS
1800*	BRIDGE EDGE PROTECTION HANDRAIL (810mm MAXIMUM HEIGHT ABOVE LOW LEG RAIL LEVEL). REFER DRAWING QR-C-S3208
ADDITIONAL HORIZONTAL CLEARANCE REQUIREMENTS NOTES	
(1)	DRAIN WIDTH TO BE ADDED TO CLEARANCES - SITE SPECIFIC
(2)*	DIMENSION ONLY VALID FOR STRAIGHT TRACK SCENARIOS - WHERE STRUCTURE IS TO BE PLACED ON CURVED TRACK A SITE SPECIFIC STRUCTURE GAUGE ANALYSIS IS REQUIRED. REFER MD-19-342.

TABLE 2
MINIMUM VERTICAL CLEARANCES TO A STRUCTURE
(MEASURE FROM TRACK CENTRE LINE TO NEAREST POINT OF STRUCTURE)

DIMENSION 'V'	STRUCTURE CATEGORY AND DESCRIPTION
7900**	ALL STRUCTURES CROSSING THE TRACK
6440	STATION FOOTBRIDGES IN BRISBANE SUBURBAN AREA, - GREATER CLEARANCE MAY BE REQUIRED - WITH A MINIMUM 500mm CLEARANCE FROM 25kV ENERGISED EQUIPMENT AND 200mm FROM THE RETURN CONDUCTOR.
5300	TUNNEL WHERE TRACK IS FIXED TO A CONCRETE SLAB. THE OVERHEAD WIRING ARRANGEMENT (CONVENTIONAL WIRING OR ROCB) MUST ACHIEVE 4500mm MINIMUM WIRE HEIGHT AND 500mm STATIC ELECTRICAL CLEARANCE
** TO BE CONFIRMED WITH MANAGER HV SYSTEMS ENGINEERING	

TABLE 3
ITEMS ALLOWED IN ZONE 'A' 1500 mm BELOW RAIL LEVEL


- TRACK STRUCTURE.
- FORMATION.
- PLATFORM FOOTINGS.
- LEVEL CROSSING PAVEMENT OR STRUCTURE.
- RAIL BRIDGE OR DRAINAGE STRUCTURE.
- SERVICES INSTALLED IN ACCORDANCE WITH CIVIL ENGINEERING TECHNICAL REQUIREMENTS MD-20-173 OR MD-20-348.
- OTHER STRUCTURES AS APPROVED BY THE DISCIPLINE HEAD TRACK AND STRUCTURES.
- FOUNDATIONS FOR RAIL SYSTEM ASSETS, ELECTRIFICATION MASTS, SIGNALS.



MINIMUM CLEARANCES REQUIRED TO STRUCTURES
SCALE 1 : 50

GENERAL NOTES

- DRAWING TO BE READ IN CONJUNCTION WITH MD-19-342 RAILWAY INFRASTRUCTURE - STRUCTURE CLEARANCES.
- WHERE THE REQUIREMENTS OF TABLES 1,2 & 3 CANNOT BE MET, REFER TO MD-19-342 FOR FURTHER GUIDANCE.
- STRUCTURES OVER MULTIPLE TRACKS ARE TO CLEAR SPAN ALL TRACKS WITH NO SUPPORTING COLUMNS OR PIERS BETWEEN TRACKS.
- CLEARANCES SHALL BE INCREASED WHERE DIRECTED BY QUEENSLAND RAIL TO ALLOW FOR:
 - SERVICES;
 - MAINTENANCE ACCESS, INCLUDING ALLOWANCE FOR RAILWAY MAINTENANCE ACCESS ROAD (RMAR);
 - OPERATIONAL REQUIREMENTS;
 - SIGHT LINES TO SIGNALS;
 - AVOIDANCE OF SERVICE DISRUPTION OR SPEED RESTRICTION DURING CONSTRUCTION,
 - SAFE PLACE
- VERTICAL CLEARANCE SHALL BE INCREASED AS NECESSARY ABOVE OVERHEAD MASTS AND SUPPORTING EQUIPMENT. ELECTRICAL CLEARANCE (500mm MINIMUM) SHALL BE PRESERVED TO ALL LIVE CONDUCTORS AND PARTS OF THE SUPPORTING EQUIPMENT IN ACCORDANCE WITH MD-10-191.
- CLEARANCES APPLY TO NARROW GAUGE TRACKS ONLY.
- FOR FREIGHT LINES CARRYING DANGEROUS GOODS - SITE SPECIFIC DESIGN IS REQUIRED.
- FOR TRACK CENTRES, ACCESS ROADS AND OTHER FORMATION WORKS REFER TO DRAWING Nos.QR-C-S3307 THRU QR-C-S3313.

FILE No		ALTERATIONS				1. THE PURPOSE OF THIS DRAWING IS TO PROVIDE TYPICAL STANDARD DETAILS. THE SUITABILITY OF THIS DRAWING SHALL BE DETERMINED AND CERTIFIED BY A RPEQ ENGINEER FOR THE SPECIFIC PROJECT.	DESIGNED	SUPERCEDES STD DRG. Nos. 2461 & 2754.	APPROVED		 QueenslandRail ACN 132 181 090 <small>COPYRIGHT PROTECTS THIS PUBLICATION EXCEPT FOR PURPOSES PERMITTED BY THE COPYRIGHT ACT. REPRODUCTION BY WHATEVER MEANS IS PROHIBITED WITHOUT THE PRIOR WRITTEN PERMISSION OF Queensland Rail Limited. ENQUIRIES SHOULD BE ADDRESSED TO MANAGER TRACK & CIVIL DESIGN, Queensland Rail, GPO BOX 1429, BRISBANE 4001.</small>	Network - Civil Engineering		DRAWING NUMBER	ISSUE	
17/21855	ISSUE	DESCRIPTION	NAME	RPEQ	DATE		DES CHK		<u>B. GILL</u> — — — 19/05/18 DESIGN ENGINEER DATE	ISSUE AUTHORISED		STANDARD - STRUCTURE GAUGES		QR-C-S3306	B	
	A	UPDATE SIGNAL CLEARANCE TO ZONE 'B'	D. GIBB	13065	19/03/17		DRAWN		G. DUTTON			APR. '18	STRUCTURE CLEARANCE			
	B	TABLES UPDATED, GENERAL NOTES REVISED	D. GIBB	13065	19/12/23								ELECTRIFIED LINES			
SCALES SHOWN ARE FOR AN A1 SIZE ORIGINAL DRAWING							DRG CHK		<u>W. BOLTON</u> — — — 20/06/18 DESIGNER DATE	CLEARANCES REQUIRED TO NEW STRUCTURES						