Supplementary Information

The following information is associated with Network Rail Standard:
NR CIV/SD/1701 Rev B

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CAD Drawing

- CIV/SD/1701

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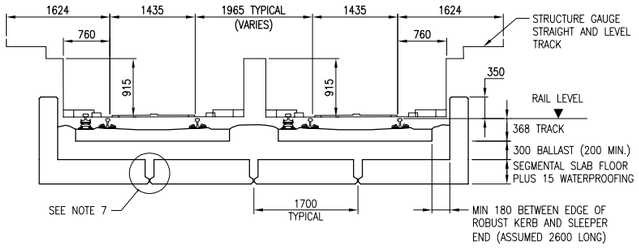
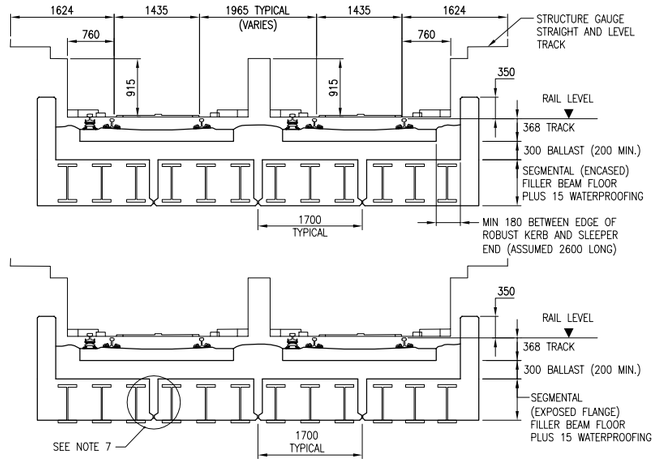
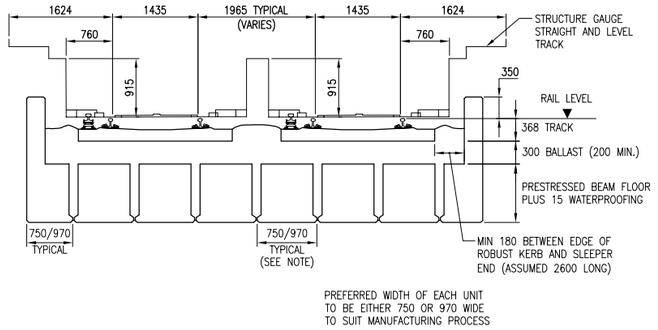
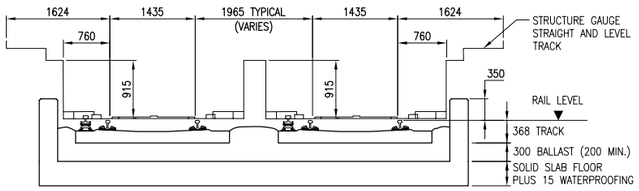
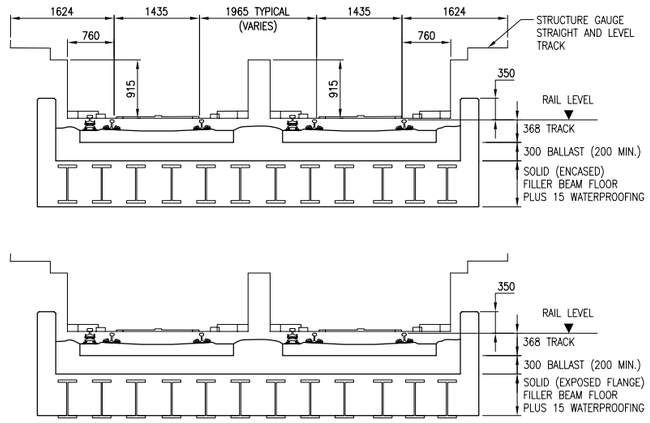
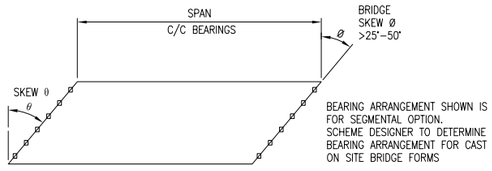
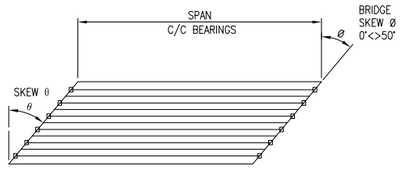
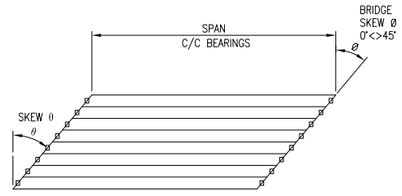
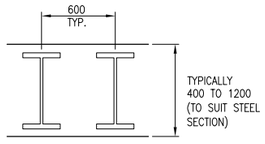
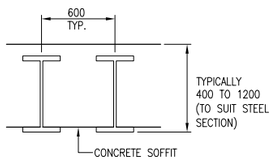
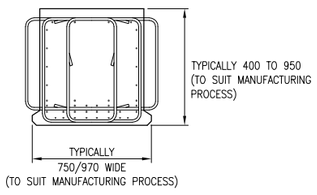
	CONCRETE SLAB (5m SHOWN)	FILLER BEAM (10m SHOWN)	PRESTRESSED BEAM (15m SHOWN)
PRE-CAST OFF SITE BRIDGE FORMS			
CAST ON SITE BRIDGE FORMS			
TYPICAL SPAN RANGE	TYPICALLY UP TO 6m (MAX RANGE 30m)	TYPICALLY UP TO 15m (MAX RANGE 30m)	TYPICALLY UP TO 15m (MAX RANGE 20m)
TYPICAL SPAN DEPTH	TYPICALLY 1:10 (SHORT SPANS) UP TO 1:18 (LONGER SPANS)	TYPICALLY 1:15 (SHORT SPANS) UP TO 1:25 (LONGER SPANS)	TYPICALLY 1:18
TYPICAL ARTICULATION ARRANGEMENT	 TYPICAL SKEWS FROM SQUARE TO 50 DEGREES	 TYPICAL SKEWS FROM SQUARE TO 50 DEGREES	 TYPICAL SKEWS FROM SQUARE TO 45 DEGREES
TYPICAL SECTION		 	

DRAWING No. NR/CIV/SD/1701

NOTES — LIMITS OF APPLICABILITY

1. THE DESIGNER SHALL ENSURE SUITABLE CLEARANCE BETWEEN THE TRACK (INCLUDING SLEEPERS) TO THE INFRASTRUCTURE AND BELOW BALLAST LEVEL.
2. THIS DRAWING SHOWS INDICATIVE ARRANGEMENTS FOR A GIVEN BRIDGE FORM FOR DIFFERENT SPAN AND SKEW ARRANGEMENTS. THE DESIGNER MUST SELECT THE APPROPRIATE ARRANGEMENT FOR THE SCHEME SPECIFIC SKEW, SPAN AND DECK WIDTH AND DESIGN AND DETAIL IN ACCORDANCE WITH NETWORK RAIL CODES AND STANDARDS.
3. WHERE EXISTING SCHEME SPECIFIC ABUTMENT WIDTH PERMITS A WIDER DECK ARRANGEMENT, TO COMPLY WITH THE REQUIREMENT TO HAVE MIN. 1500 TO ROBUST KERB TO NEAREST RAIL, IS PREFERRED.
4. THE DESIGNER SHALL DETERMINE FATIGUE CLASSIFICATION DEPENDING ON THE ANNUAL RAILWAY TRAFFIC TONNAGE PER TRACK AND THE TRAFFIC TYPE.
5. DESIGNER TO DETERMINE APPROPRIATE FLOOR WIDTH ENSURING COMPLIANCE WITH STRUCTURE GAUGE, ELECTRICAL GAUGE TOLERANCE FOR INSTALLATION (POSITIONING OF DECK AND ALSO POSITIONING OF TRACK), CLEARANCE TO SLEEPER ENDS.
6. THE MINIMUM BALLAST DEPTH SHOULD IDEALLY BE NO LESS THAN 300mm. WHERE BALLAST DEPTH IS LESS THAN 300mm PERMANENT WAY APPROVAL IS REQUIRED.
7. JOINT DETAILS (TRANSVERSE DISTRIBUTION) FOR CONCRETE SLAB AND FILLER BEAM DECKS BETWEEN ADJACENT UNITS TO BE PROVIDED (WHERE NECESSARY) BY EITHER IN-SITU STITCH OR TRANSVERSE POST TENSIONING SYSTEM. NO PHYSICAL CONNECTION BETWEEN UNITS IS PERMITTED WHERE RELATIVE DEFLECTIONS BETWEEN UNITS IS SMALL THAT ALLOWS ARTICULATION OF THE JOINT WITHOUT AFFECTING THE DURABILITY OF THE JOINT. ADDITIONAL CHECKS MAY BE REQUIRED FOR EDGE UNIT OVERTURNING UNDER ROBUST KERB LOADING REQUIREMENTS (REFER TO TECHNICAL USER MANUAL).
8. FOR DETAILS OF WALKWAYS REFER TO DRAWING SERIES NR/CIV/SD/1900.

Rev	Date	Description of revision	Design'd	C'kd
B	APR 10	EUROCODE ISSUE	MK	AGW
A	APR 10	FIRST ISSUE	MK	AGW
P2	18.06.09	REVISED WHERE SHOWN	MK	AGW
P1	27.03.09	DRAFT FOR REVIEW	MK	AGW

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Approved	Paul Clark	Snr. Proj. Eng. Manager Infrastructure Investment Building and Civils	P.C.	APR 10
	Name	Position	Signature	Date

Master copy with original signatures held by Network Rail HQ CIVIL ENGINEERING STANDARD DESIGN

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CONCRETE UNDERBRIDGES STANDARD DRAWINGS

GENERAL INFORMATION CONCRETE UNDERBRIDGE FORMS KEY TO TYPES

Scale	AS SHOWN	
Drawing Number	NR/CIV/SD/1701	B

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