Supplementary Information

The following information is associated with Network Rail Standard:
NR CIV/SD/2518 Rev A

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CAD Drawing

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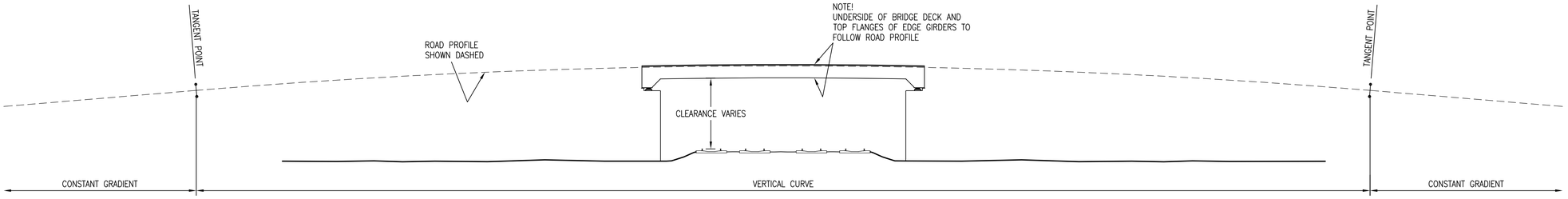
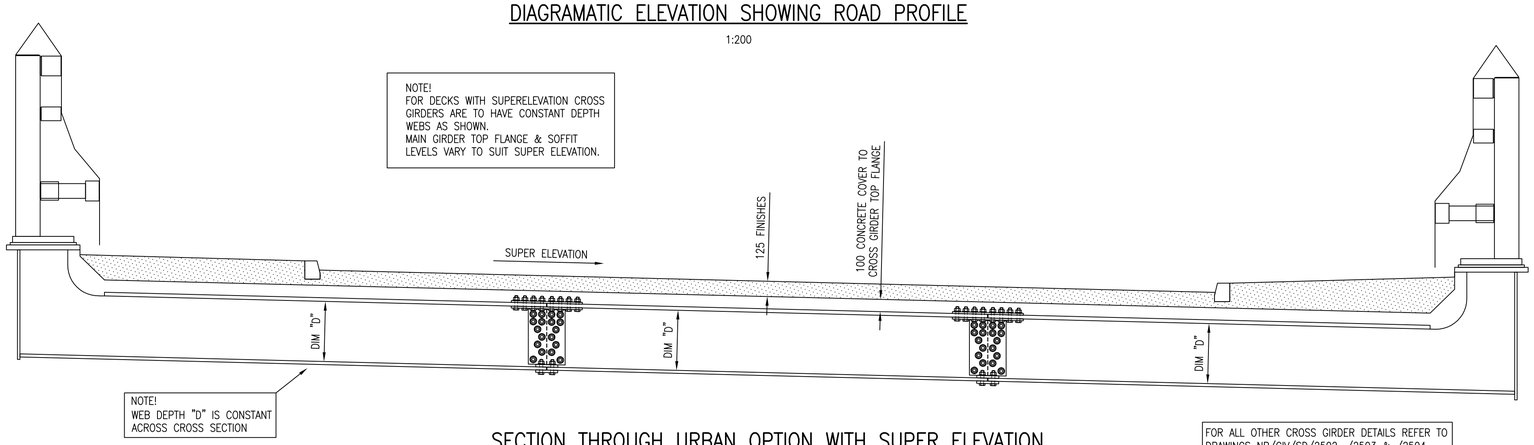


DIAGRAMATIC ELEVATION SHOWING ROAD PROFILE

1:200



SECTION THROUGH URBAN OPTION WITH SUPER ELEVATION

1:25

FOR ALL OTHER CROSS GIRDER DETAILS REFER TO DRAWINGS NR/CIV/SD/2502, /2503 & /2504

DECK OPTION	WEB DEPTH (D)
ACCOMMODATION	300mm
RURAL ALL PURPOSE	430mm
URBAN	*490mm OR *495mm

*DEPENDING ON SKEW
490 FOR SKEWS >30°
495 FOR SKEWS <30°

DECK TYPE	LONGITUDINAL BEARING CENTRES (METRES)	DEAD + SUPERDEAD DEFLECTIONS (mm)	50% LIVE LOAD LMla DEFLECTIONS (mm)	RESIDUAL CAMBER (SITE DEPENDENT – TO BE CONSIDERED IN CONJUNCTION WITH VERTICAL ALIGNMENT)	TOTAL PRECAMBER (mm)
ACCOMMODATION	8.5m	2.4	0.5	X1	3 + X1
	10m	4.6	1.0	X2	6 + X2
	12m	9.6	2.0	X3	12 + X3
	14m	17.8	3.0	X4	21 + X4
	16m	29.1	10.6	X5	40 + X5
	18m	45.1	13.2	X6	58 + X6
	20m	58.5	15.7	X7	74 + X7
	22m	77.3	17.0	X8	94 + X8
	24m	97.7	20.7	X9	118 + X9
	25.4m	112.4	23.7	X10	136 + X10
RURAL ALL PURPOSE	8.5m	4.6	1.0	Y1	6 + Y1
	10m	8.7	2.0	Y2	11 + Y2
	12m	18.1	2.7	Y3	21 + Y3
	14m	27.2	4.0	Y4	31 + Y4
	16m	36.1	5.7	Y5	42 + Y5
	18m	40.5	6.7	Y6	47 + Y6
	20m	50.1	8.0	Y7	58 + Y7
	22m	61.5	9.4	Y8	71 + Y8
	24m	72.7	11.8	Y9	85 + Y9
	25.4m	74.0	12.5	Y10	87 + Y10
URBAN	8.5m	5.5	0.5	Z1	6 + Z1
	10m	10.6	1.0	Z2	12 + Z2
	12m	19.0	1.9	Z3	21 + Z3
	14m	26.1	3.0	Z4	29 + Z4
	16m	37.0	4.1	Z5	41 + Z5
	18m	41.7	4.9	Z6	47 + Z6
	20m	51.7	6.3	Z7	58 + Z7
	22m	63.9	8.9	Z8	73 + Z8
	24m	71.7	9.4	Z9	81 + Z9
	25.4m	71.9	9.4	Z10	81 + Z10

TABLE 1 – MAIN GIRDER PRECAMBERS

DECK TYPE	SKEW ANGLE	DEAD + SUPERDEAD DEFLECTIONS (mm)	50% LIVE LOAD DEFLECTIONS (mm)	RESIDUAL CAMBER (@ 1:500)	TOTAL PRECAMBER (mm)
ACCOMMODATION	0°	6.7	0.9	6.0	14
	15°	7.6	0.9	6.0	14
	30°	9.6	1.1	6.0	17
RURAL ALL PURPOSE	0°	22.9	2.6	11.0	37
	15°	24.9	2.7	11.0	39
	30°	34.8	3.1	11.0	49
URBAN	0°	25.6	2.4	12.2	40
	15°	28.5	2.5	12.2	43
	30°	38.3	3.0	12.2	54

TABLE 2 – CROSS GIRDER PRECAMBERS

DECK TYPE	LONGITUDINAL BEARING CENTRES (METRES)	ERECTION FRAME SUPPORT CENTRES (METRES)	UB REQ'D FOR Le = 3m	MID SPAN DEFLECTION (NOMINAL) (mm)	RESIDUAL CAMBER (SITE DEPENDENT – TO BE CONSIDERED IN CONJUNCTION WITH VERTICAL ALIGNMENT)	MAIN GIRDER PRECAMBERS (mm)	TOTAL ERECTION FRAME PRECAMBER/PACKING REQUIREMENTS (mm)
ACCOMMODATION	8.5m	10.4	533x210x82 UB	13	X1	3 + X1	16 + X1
	10m	11.9	533x210x82 UB	23	X2	6 + X2	29 + X2
	12m	13.9	533x210x82 UB	42	X3	12 + X3	54 + X3
	14m	15.9	533x210x82 UB	73	X4	21 + X4	94 + X4
	16m	17.9	610x229x125 UB	59	X5	40 + X5	99 + X5
	18m	19.9	610x229x125 UB	90	X6	58 + X6	148 + X6
	20m	21.9	610x229x125 UB	133	X7	74 + X7	207 + X7
	22m	23.9	762x267x173 UB	95	X8	94 + X8	189 + X8
	24m	25.9	762x267x173 UB	132	X9	118 + X9	250 + X9
	25.4m	27.3	762x267x173 UB	162	X10	136 + X10	298 + X10
RURAL ALL PURPOSE	8.5m	10.4	610x229x101 UB	12	Y1	6 + Y1	18 + Y1
	10m	11.9	610x229x101 UB	20	Y2	11 + Y2	31 + Y2
	12m	13.9	610x229x101 UB	37	Y3	21 + Y3	58 + Y3
	14m	15.9	610x229x101 UB	63	Y4	31 + Y4	94 + Y4
	16m	17.9	762x267x147 UB	47	Y5	42 + Y5	89 + Y5
	18m	19.9	762x267x147 UB	73	Y6	47 + Y6	120 + Y6
	20m	21.9	762x267x147 UB	106	Y7	58 + Y7	164 + Y7
	22m	23.9	914x305x201 UB	81	Y8	71 + Y8	152 + Y8
	24m	25.9	914x305x201 UB	112	Y9	85 + Y9	197 + Y9
	25.4m	27.3	914x305x201 UB	139	Y10	87 + Y10	226 + Y10
URBAN	8.5m	10.4	610x229x101 UB	12	Z1	6 + Z1	18 + Z1
	10m	11.9	610x229x101 UB	21	Z2	12 + Z2	33 + Z2
	12m	13.9	610x229x101 UB	38	Z3	21 + Z3	59 + Z3
	14m	15.9	610x229x101 UB	66	Z4	29 + Z4	95 + Z4
	16m	17.9	762x267x147 UB	49	Z5	41 + Z5	90 + Z5
	18m	19.9	762x267x147 UB	76	Z6	47 + Z6	123 + Z6
	20m	21.9	762x267x147 UB	111	Z7	58 + Z7	169 + Z7
	22m	23.9	914x305x201 UB	85	Z8	73 + Z8	158 + Z8
	24m	25.9	914x305x201 UB	117	Z9	81 + Z9	198 + Z9
	25.4m	27.3	914x305x201 UB	144	Z10	81 + Z10	225 + Z10

TABLE 3 – ERECTION FRAME MAIN SUPPORT GIRDER PRECAMBERS

Rev	Date	Description of revision	Design'd	C'kd
A	Aug '10	1st Issue	SB	AM

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OVERBRIDGE

VERTICAL ALIGNMENT, SUPERELEVATION DETAILS & GIRDER PRECAMBERS

Scale	AS NOTED	
Drawing Number	NR/CIV/SD/2518	A

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