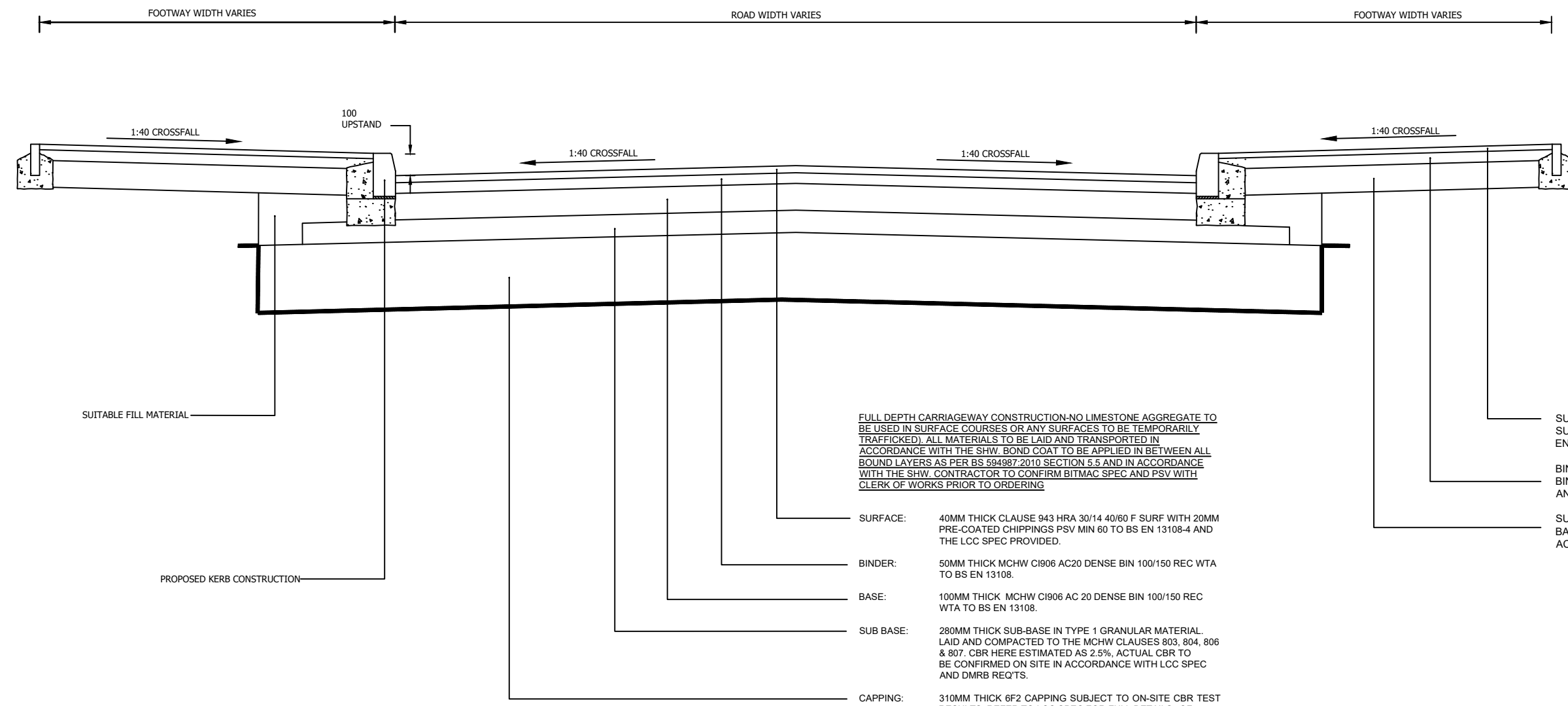


TYPICAL CARRIAGEWAY CONSTRUCTION DETAIL



FULL DEPTH CARRIAGEWAY CONSTRUCTION NO LIME/STONE AGGREGATE TO BE USED IN SURFACE COURSE OR ANY SURFACE TO BE TEMPORARILY OPEN TO TRAFFIC. ALL MATERIALS TO BE CAPABLE OF WITHSTANDING TRAFFIC LOADS IN ACCORDANCE WITH THE SHW. BINDER COURSE TO BE APPLIED BETWEEN ALL BOUNDARY LAYERS AS PER BS EN 12185 SECTION 5.2 AND IN ACCORDANCE WITH THE SHW. CONTRACTOR TO CONSULT WITH MCHW AND PSV WITH CLASS OF WOODS PRIOR TO ORDERING.

**SURFACE:** 40MM THICK CLASS 843 HRA 3014 40/60 F SURF WITH 20MM PRE-COATED CHIPPINGS PSV MIN 60 TO BS EN 13108-4 AND THE LCC SPEC PROVIDED.

**BINDER:** 50MM THICK MCHW CB06 AC20 DENSE BIN 100/150 REC WTA TO BS EN 13108.

**BASE:** 100MM THICK MCHW CB06 AC20 DENSE BIN 100/150 REC WTA TO BS EN 13108.

**SUB-BASE:** 200MM THICK SUB-BASE IN TYPE 1 GRANULAR MATERIAL LAD AND COMPACTED TO THE MCHW CLAUSES 804, 806 & 807. CBR HERE ESTIMATED AS 2.5%. ACTUAL CBR TO BE CONFIRMED ON SITE IN ACCORDANCE WITH LCC SPEC AND DMRB RECS.

**CAPPING:** 310MM THICK #2 CAPPING SUBJECT TO ON-SITE CBR TEST RESULTS REFER TO LCC SPEC FOR FULL DETAILS. OR CAPPING RECD. LAD AND COMPACTED TO THE SPECIFICATION OF HIGHWAY WORKS CLAUSE 48. CBR TO BE ESTABLISHED ON SITE PRIOR TO STARTING WORKS. CONTRACTOR TO REFER RESULTS TO A REPRESENTATIVE OF THE LOCAL AUTHORITY AND THE DESIGN MANUAL FOR ROADS AND BRIDGES VOLUME 7, SECTION 2, PART 3 CHAPTER 3 FOR FURTHER GUIDANCE ON SUB-BASE CAPPING RELATIONSHIP AND LACS SPEC AS SUPPLIED. APPROPRIATE TERRAM MEMBRANE TO BE LAD BENEATH CAPPING LAYER TO MANUFACTURERS PROPRIETARY REQUIREMENTS.

**SURFACE COURSE:** 25MM THICK AC DENSE SURF 100/150 SUPPLIED AND LAD IN ACCORDANCE WITH THE SHW AND EN13108.

**BINDER COURSE:** 50MM THICK 20MM AC 20 DENSE BIN SUPPLIED AND LAD IN ACCORDANCE WITH THE SHW AND EN13108. 70MM AT VEHICULAR CROSSINGS.

**SUB-BASE:** 150MM TYPE 1 SUB-BASE. 225MM TYPE 1 SUB-BASE AT VEHICULAR CROSSINGS. SUPPLIED AND LAD IN ACCORDANCE WITH THE SHW.

Layer	Carriageway Description	Access ways, mews courts, access collectors	Local distributors	District distributors	Major distributors. Access roads to lorry parks or roads within commercial and industrial estates*
Surface Course	Hot Bitumen Bound <sup>1</sup>	MCHW C906 AC 20 dense bin 100/150 WTA	50 mm	60 mm	-
	Stone Mastic Asphalt	SMA 10 surf 100/150 WTA SMA 12 surf 100/150 WTA	-	40 mm	-
	Hot Rolled Asphalt	HRA 55/10 F or C 100/150 des WTA HRA 30/14 40/60 F surf des	40 mm	40 mm	-
	Continuous Opened Macadam	Approved Proprietary System	-	-	40 mm
Capping	Texture Depth Requirements <sup>2</sup>	SMA, High Stone Content HRA, Opened Macadam	No requirement	0.8mm - 1.3mm	-
	Concrete block surfacing (To be specified in accordance with LCC Details of Materials)	Chipped HRA	1.0mm - 1.5mm	-	-

Table 10 - Pavement construction thicknesses - asphalt and block paver surface  
LCC SURFACE COURSE DESIGN

Layer	Carriageway Description	Access ways, mews courts, access collectors	Local distributors	District distributors	Major distributors. Access roads to lorry parks or roads within commercial and industrial estates*
Binder Course	Hot Bitumen Bound <sup>1</sup>	MCHW C906 AC 20 dense bin 100/150 rec WTA	50 mm	60 mm	-
	Cold Recycled Materials (CRBM) <sup>2</sup>	MCHW C929 AC 20 HDM bin 40/60 des WTA	-	60 mm	60 mm

LCC BINDER COURSE DESIGN

Layer	Carriageway Description	Access ways, mews courts, access collectors	Local distributors	District distributors	Major distributors. Access roads to lorry parks or roads within commercial and industrial estates*
Base Course	Typical Traffic	Public service vehicles/day	None	Up to 25	Up to 50
	Commercial Vehicleday	msa band	< 0.5	0.5 - 2.5	2.5 - 5
	Cement Bound Materials (CBM) and Hydraulically Bound Materials (HBM) <sup>1</sup>	CBM Cus, other HBM Cus	150mm	160 mm	220 mm
	Cold Recycled Bound Materials (CRBM)	MCHW C948 H4 & H5 MCHW C948 H1-3 MCHW C948 H3	150mm	-	-

LCC BASE COURSE DESIGN

Construction traffic	< 600 standard axles	> 600 standard axles
Illustrative size of development	Up to 50 dwellings or 5000m <sup>2</sup> commercial property	Large development roads and Minor Access Road, Major Access Road, Local Distributor Roads within other developments
Subgrade CBR < 2%	Ground improvement will be necessary	
Subgrade CBR 2 to 3% (typically high plasticity heavy clay subgrade)	310 mm	280 mm
Subgrade CBR > 3 to 5% (typically medium plasticity clay subgrade)	310 mm	250 mm
Subgrade CBR > 5 to 7% (typically low plasticity sandy clay subgrade with average good constructive conditions and low water table assumed - otherwise use row above)	310 mm	200 mm
Subgrade CBR > 7 to 14% (typically sandy subgrade)	310 mm	160 mm

Table 7 - Unbound sub-base on stabilised capping foundation thicknesses assuming the sub-base carries the development construction traffic and material deliveries.  
Unbound sub-base to be to MCHW Clause 803, 804, 806 or 807.

NOTES

REV	DETAILS	DRAWN	CHECKED	DATE

CLIENT: **JOHN HARDIE**

PROJECT: **CRABTREE FARM, LANCASHIRE**

DRAWING TITLE: **S278 STANDARD DETAILS**

SCALES: **NTS @ A1**

DRAWN: **LB** CHECKED: **MC** DATE: **JAN 24**

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DRAWING NUMBER: **4289-D004** REVISION: **-**



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