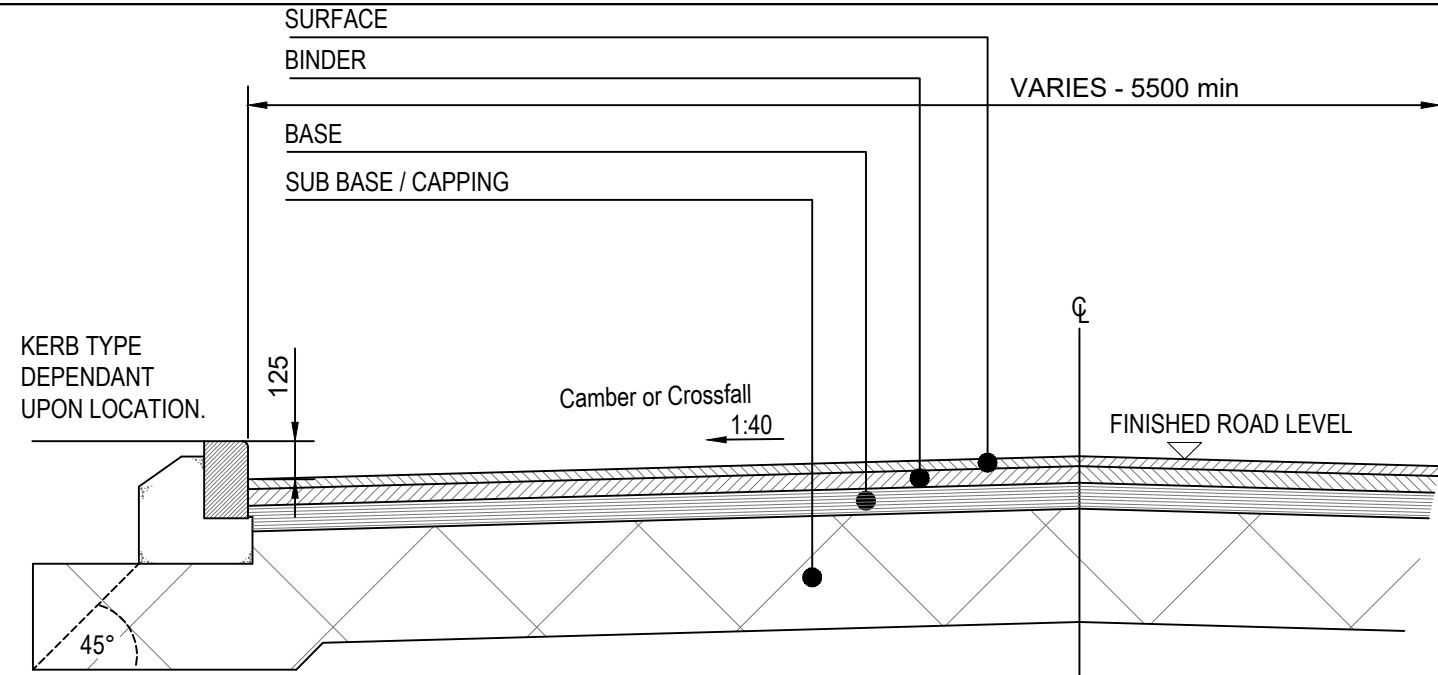


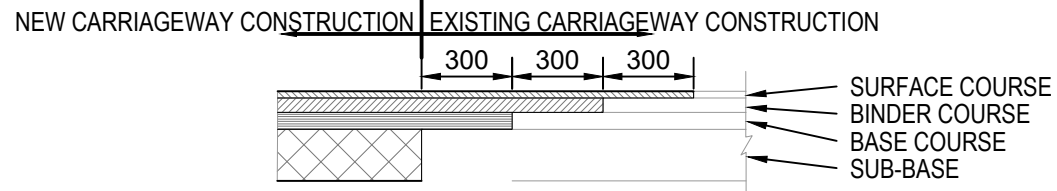


TARMACADAM/BLOCK PAVED CARRIAGEWAY

SEE TABLES FOR CONSTRUCTION DETAILS

SPEC 1

SCALE 1:25



BOND COAT, TACK COAT OR BITUMINOUS SPRAY TO BE APPLIED TO EXISTING TARMACADAM IN ACCORDANCE WITH CLAUSE 920 OF SHW.

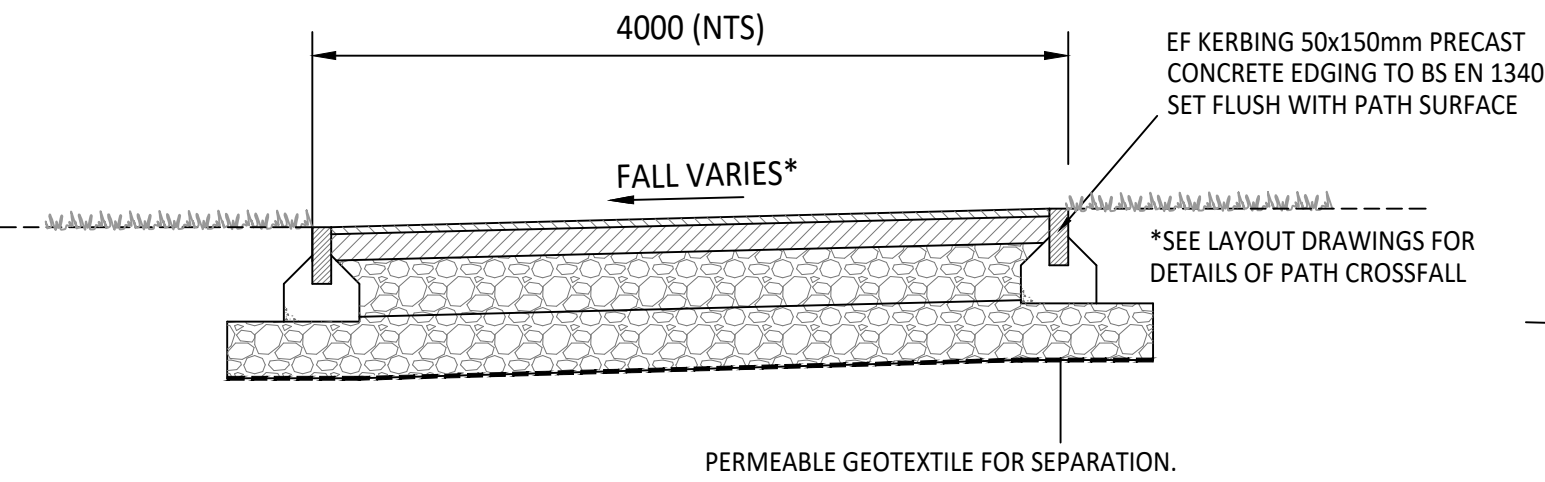
EXISTING CARRIAGEWAY TO BE COLD MILLED IN ACCORDANCE WITH CLAUSE 709 OF SHW.

TIE IN TO EXISTING CARRIAGEWAY

SCALE 1:25

LAYER	SPECIFICATION	THICKNESS (mm)
SURFACE	ASPHALT CONCRETE SURFACE COURSE COMPLYING WITH BS EN 13108-1. AC6 CLOSE SURF, BINDER GRADE 100/150.	25mm
BINDER	DENSE BITUMEN MACADAM (DBM) BINDER COURSE COMPLYING WITH BS EN 13108-1. AC20 DENSE BIN, BINDER GRADE 40/60. SEALING GRIT FOR BINDER COURSE, IF REQUIRED, SHALL BE BITUMEN PRE-COATED GRIT, NOT EXCEEDING 3mm NOM. SIZE.	75mm
BASE	TYPE 1 (4/20) GRANULAR MATERIAL TO CLAUSE 803, TABLE 8/2 OF SHW.	150mm
SUB BASE	TYPE 1 (4/20) GRANULAR MATERIAL TO CLAUSE 803, TABLE 8/2 OF SHW. MINIMUM CBR OF 20%. THICKNESS DEPENDANT UPON CBR TESTING.	*CBR <2% - 225mm CBR >2.5% - 150mm

*CBR TESTS UNDERTAKEN AT REGULAR INTERVALS OF 20-30m AND RESULTS REPORTED TO THE ENGINEER.



STRENGTHENED FARM ACCESS TRACK (WITH FARM VEHICLES UP TO 20T)

SPEC 3

All formations will require inspection by Engineer and formation to be proof rolled and soft spots removed. Soft spots will be backfilled with 6F material.

TARMACADAM CARRIAGEWAY

LAYER	SPECIFICATION	THICKNESS (mm)
SURFACE **	HIGH STONE CONTENT HOT ROLLED ASPHALT (HRA) SURFACE COURSE COMPLYING WITH BS EN 13108-4 TABLE 4. 55/10C HRA SURF, BINDER GRADE 40/60, MINIMUM PSV = 65, MAXIMUM AAV = 12.	45mm
BINDER	DENSE BITUMEN MACADAM (DBM) BINDER COURSE COMPLYING WITH BS EN 13108-1. AC20 DENSE BIN, BINDER GRADE 40/60. SEALING GRIT FOR BINDER COURSE, IF REQUIRED, SHALL BE BITUMEN PRE-COATED GRIT, NOT EXCEEDING 3mm NOM. SIZE. WHERE USED FOR CONSTRUCTION TRAFFIC	65mm
BASE	DENSE BITUMEN MACADAM (DBM) BASE COMPLYING WITH BS EN 13108-1. AC32 DENSE BIN, BINDER GRADE 40/60.	210mm
SUB BASE	TYPE 1 SUB-BASE MATERIAL TO CLAUSE 803, TABLE 8/2 OF SHW. THICKNESS TO BE DETERMINED FROM CBR VALUE MEASURED ONSITE. ALL TEST AND DECISIONS ON SUB-BASE REQUIREMENTS ARE TO BE MADE BY THE HIGHWAY AUTHORITY.	240mm
CAPPING	CLASS 6F1 OR 6F2 GRANULAR CAPPING MATERIAL TO CLAUSE 613 OF SHW. REQUIREMENT AND THICKNESS DEPENDANT UPON CBR TESTING. ALL TESTS AND DECISIONS ON CAPPING REPLACEMENT ARE TO BE MADE BY THE HIGHWAY AUTHORITY.	210mm *

* THE ABOVE DESIGN APPLIES WHERE THE FORMATION CBR 5% INSITU. CBR TEST TO BE CARRIED OUT BY THE CONTRACTOR AT 20-30m INTERVALS AND RESULTS REPORTED TO THE HIGHWAY AUTHORITY/ENGINEER.

** FOR AREAS OF BLOCK SURFACE IMPRINTING, 15mm SURFACE OVERLAY ONTO SURFACE COURSE TO BE APPLIED BY KEYING IN AT LIMITS. FINAL PATTERN AND COLOUR TO BE AGREED WITH WBC, SUGGESTED BRICK PATTERN IN GREY BY RHINO ASPHALT SOLUTIONS (WWW.RHINO-UK.COM) OR SIMILAR APPROVED.

ALL THICKNESSES STATED ARE FINISHED COMPACTED THICKNESSES.

FOR FROST SUSCEPTIBLE SOILS MINIMUM CONSTRUCTION DEPTH IS 450MM. ADDITIONAL SUB-BASE LAYER IS TO BE LAID BELOW THE SUB-BASE TO ACHIEVE THE OVERALL CONSTRUCTION DEPTH OF 450MM.

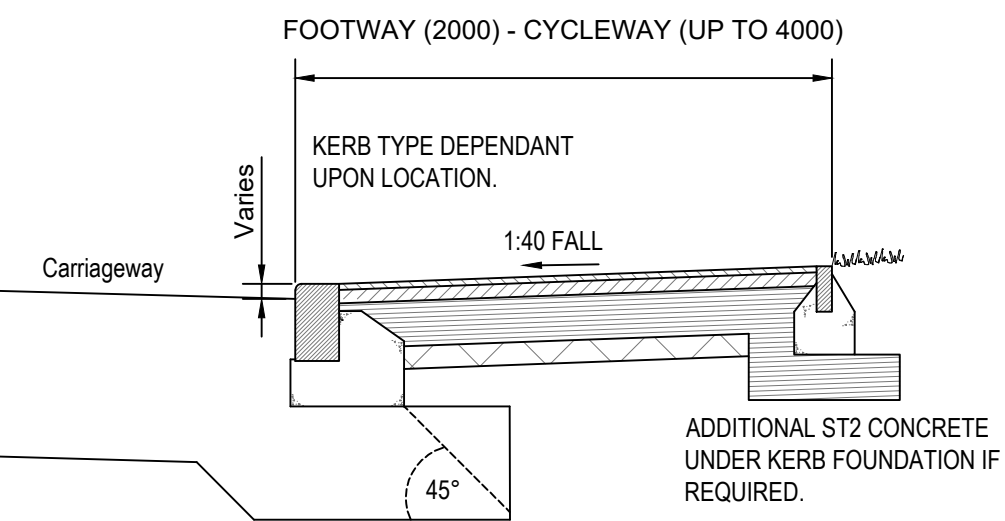
BASE, SUB-BASE AND CAPPING LAYERS SHOULD BE COMPACTED IN ACCORDANCE WITH DTP "SPECIFICATION FOR HIGHWAY WORKS".

ALL FORMATIONS TO BE PROOF ROLLED IMMEDIATELY PRIOR TO COMMENCEMENT OF CONSTRUCTION. THE FORMATION SHALL THEN BE PROTECTED FROM THE WEATHER DURING THIS PERIOD.

TARMACADAM FOOTWAY/ CYCLEWAY CONSTRUCTION

LAYER	SPECIFICATION	THICKNESS (mm)
SURFACE	DENSE GRADE ASPHALT CONCRETE SURFACE COURSE COMPLYING WITH BS EN 13108. AC 6 DENSE SUR, BINDER GRADE 100/150 PEN	25mm
BINDER	DENSE GRADE ASPHALT CONCRETE BINDER COMPLYING WITH BS EN 13108. AC 20 DENSE BIN, BINDER GRADE 40/60 PEN	75mm
SUB BASE	TYPE 1 SUB-BASE MATERIAL TO CLAUSE 803, TABLE 8/2 OF SHW. MINIMUM CBR OF 20%. THICKNESS DEPENDANT UPON CBR TESTING.	320mm *

* THE ABOVE DESIGN APPLIES WHERE THE FORMATION CBR 5% INSITU. CBR TEST TO BE CARRIED OUT BY THE CONTRACTOR AT 20-30m INTERVALS AND RESULTS REPORTED TO THE HIGHWAY AUTHORITY/ENGINEER.



TARMACADAM FOOTWAY/CYCLEWAY

SEE TABLE FOR CONSTRUCTION DETAILS

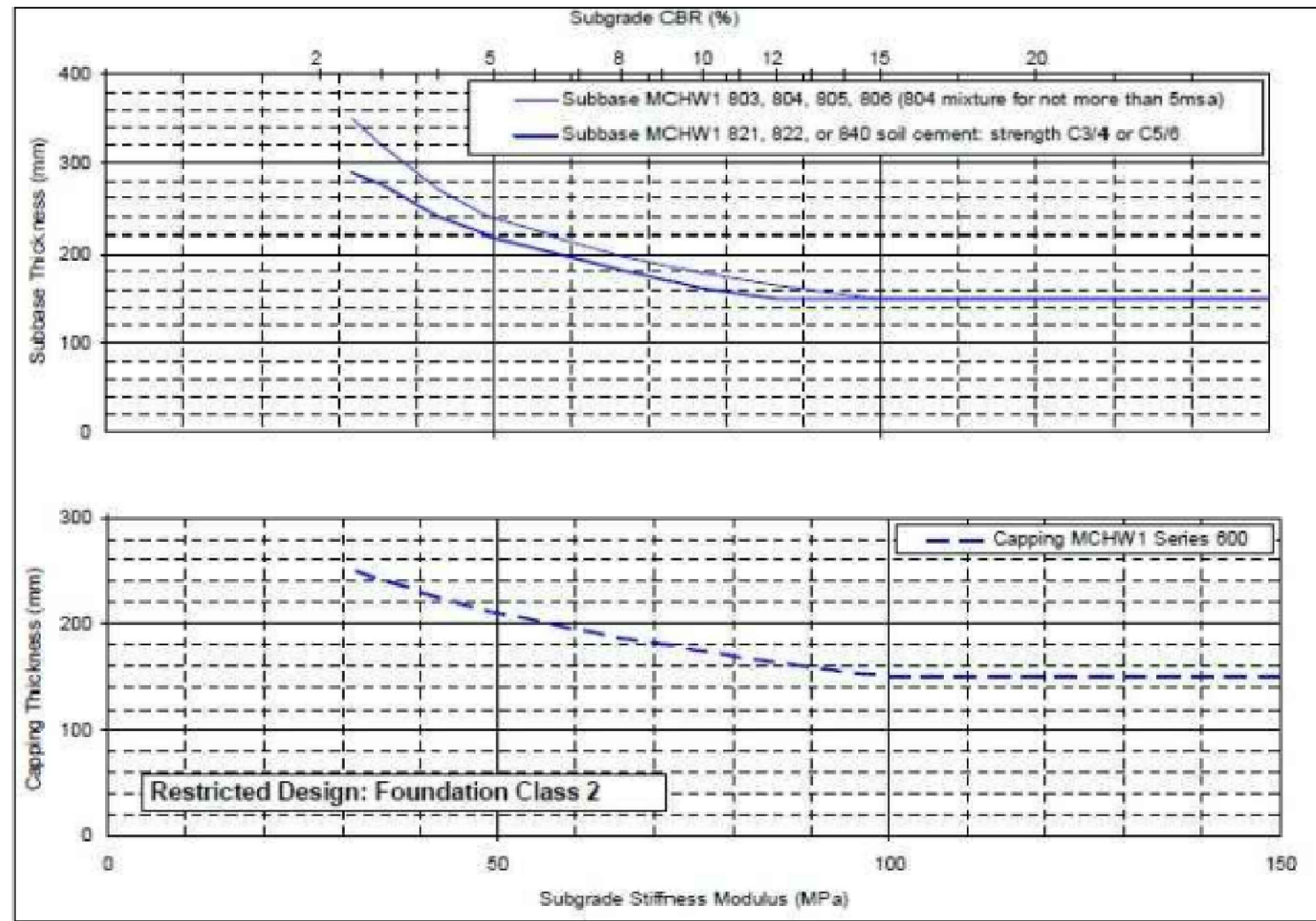
SPEC 2

SCALE 1:25

LAYER	SPECIFICATION	THICKNESS (mm)
BINDER	DENSE BITUMEN MACADAM (DBM) BINDER COURSE COMPLYING WITH BS EN 13108-1. AC20 DENSE BIN, BINDER GRADE 40/60. SEALING GRIT FOR BINDER COURSE, IF REQUIRED, SHALL BE BITUMEN PRE-COATED GRIT, NOT EXCEEDING 3mm NOM. SIZE.	60mm
BASE	DENSE BITUMEN MACADAM (DBM) BASE COMPLYING WITH BS EN 13108-1. AC32 DENSE BIN, BINDER GRADE 40/60.	150mm
SUB BASE	TYPE 1 SUB-BASE MATERIAL TO CLAUSE 803, TABLE 8/2 OF SHW. THICKNESS TO BE DETERMINED FROM CBR VALUE MEASURED ONSITE. ALL TEST AND DECISIONS ON SUB-BASE REQUIREMENTS ARE TO BE MADE BY THE HIGHWAY AUTHORITY.	240mm *
CAPPING	CLASS 6F1 OR 6F2 GRANULAR CAPPING MATERIAL TO CLAUSE 613 OF SHW. REQUIREMENT AND THICKNESS DEPENDANT UPON CBR TESTING. ALL TESTS AND DECISIONS ON CAPPING REPLACEMENT ARE TO BE MADE BY THE HIGHWAY AUTHORITY.	400mm *

* SUB-BASE THICKNESS IS BASED ON DESIGN CBR 5% IN AREAS OF CUTTING AND ASSUMED 5% CBR ON IMPORTED FILL. LONG-TERM AND SHORT TERM CBR VALUE IS REQUIRED TO BE VERIFIED ON SITE, AND THE WORST VALUE TAKEN, PRIOR TO CONSTRUCTION COMMENCING AND INCREASED IN ACCORDANCE WITH TABLE 2 IF REQUIRED. THE LONG TERM CBR IS TO BE BASED ON LABORATORY TESTING TO BS EN1377.

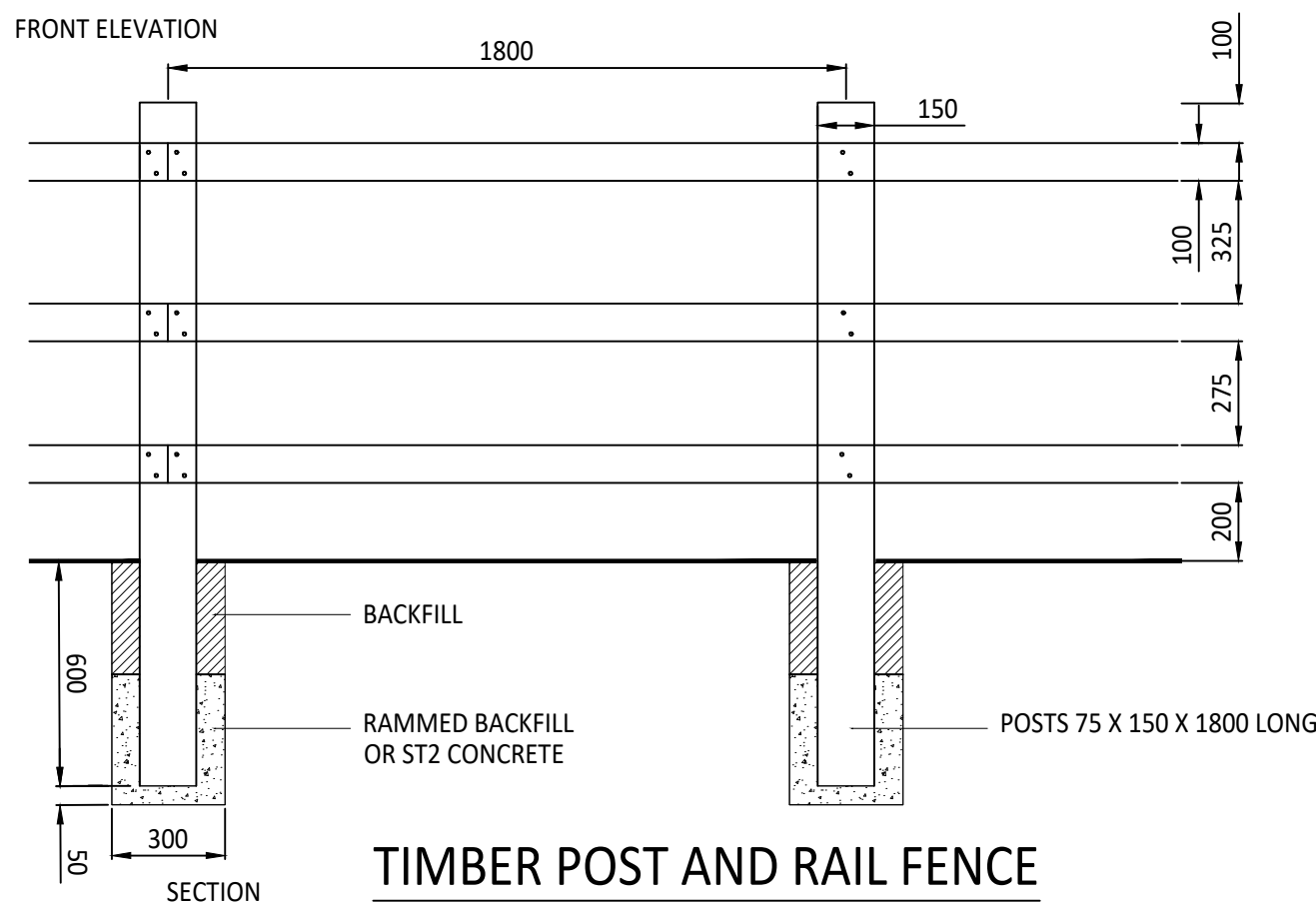
CARRIAGEWAY SUB-BASE OR CAPPING ONLY



CARRIAGEWAY SUB-BASE ON CAPPING

CBR (%)	Subbase on Capping (mm)		Subbase Only (mm)
	Subbase	Capping	Ground Stabilisation
≤2.5	350	250	450
2.6 – 2.9	320	240	400
3.0 – 3.9	270	220	360
4.0 – 4.9	240	210	320
5.0 – 5.9	210	200	300
6.0 – 7.9	200	180	270
8.0 – 9.9	180	160	250
10 – 11.9	170	160	230
12.0 – 14.9	150	150	200
15.0+	150	150	200

(figures used in the table above have been extracted from figures 3.1 and 3.2 of IAN 73/06 Rev 1)



TIMBER POST AND RAIL FENCE

SCALE 1:20

TIMBER POST AND RAIL FENCE NOTES:

- BS 1722 part 7 'Specification for Wooden Post and Rail Fence' applies unless otherwise stated.
- Fence comprises of sawn square section vertical posts (150x75mm, 1.8m long), with three horizontal sawn square section rails (100x38mm, 3.6m long), nailed to the posts.
- Posts may be supported by rammed backfill or ST2 concrete, subject to ground conditions and engineer's recommendations, post every 1.8m.
- All fixings to be hot dip galvanised mild steel. Rails to be screwed to posts with 100mm galvanized screw (2 screws at each attachment point).
- All timber to sawn treated softwood (for a lifespan of 25+ years).
- Posts to be weathered.

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GENERAL NOTES:

- This drawing is to be read in conjunction with and checked against all other drawings, Engineering details, Specification and any structural, Geotechnical or other specialist document provided.
- Any anomaly or contradiction between any of the above is to be reported to the Engineer.
- WBC Highway Inspector to be present during inspections/CBR testing.
- Gratings and frames shall be to BS EN124 1994. Ref. Class E600/D400 Trafficked areas. Large gratings may only be used by the approval of the overseeing organisation. Dished gratings permissible in footways only.
- Dowel bars may be required with standard kerbs in circumstances where the kerbs are vulnerable
- Blocks shall normally be bedded on 50 sharp sand complying with BS 882 grading C or M.
- In areas where the blocks may be trafficked, or narrow strips of paving are used as a feature, the sand must be substituted by 30 mortar to designation (ii) or (iii) laid on CMBS concrete.
- Flags shall be bedded on 30 mortar to designation (ii) or (iii).
- The laying arrangement shown of tactile slabs are indicative only and shall be in accordance with Guidance on the use of Tactile Paving Surfacing DETR. When the dropped kerb is in direct line of travel the tactile surface shall be laid to a depth of 1200mm
- The siting of the signal poles will be the responsibility of the signal engineer.
- Crossing kerbs shall be flush with the carriageway where tactile flags are used.

P4	08/24	Updated following WBC comments; block paving replaced with tarmac imprint, E600 manhole cover option added and temp track detail updated	SM	SM
P3	06/24	Notes amended for fencing details.	LC	SM
P2	05/24	Amended following design team review	AS	SM
P1	04/24	First issue	LC	SM
Rev	Date	Description	Drawn	Checked

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Client

UNIVERSITY OF READING

Project
**NHM ACCESS ROAD,
SHINFIELD**

Title
**NHM ACCESS ROAD
HIGHWAY CONSTRUCTION
DETAILS SHEET 1**

Status

Scale
AS SHN @ A1

Date
MAR 2024

Drawn
LC

Checked
SM

Drawing No.
HD065-651

Revision
P4