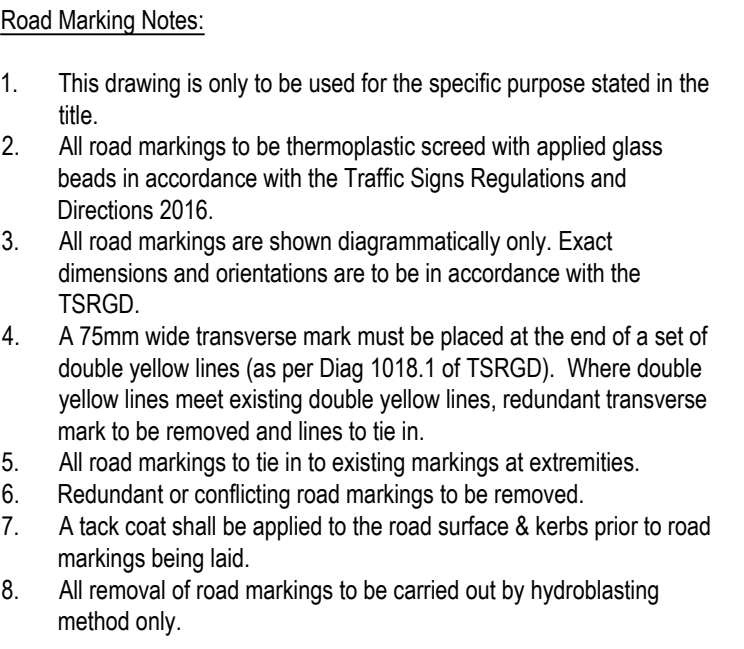
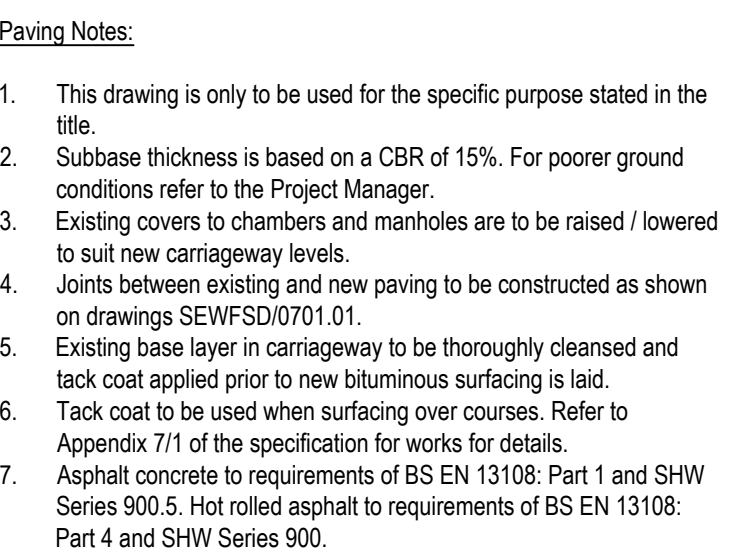
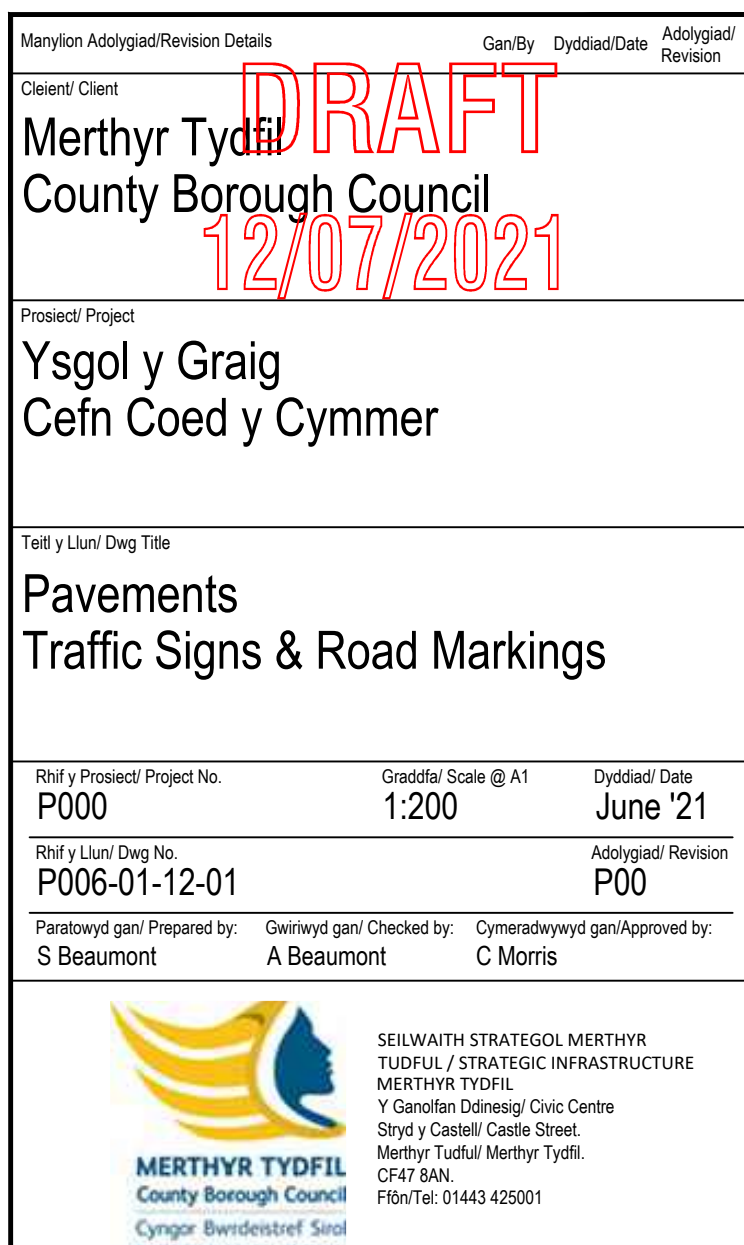


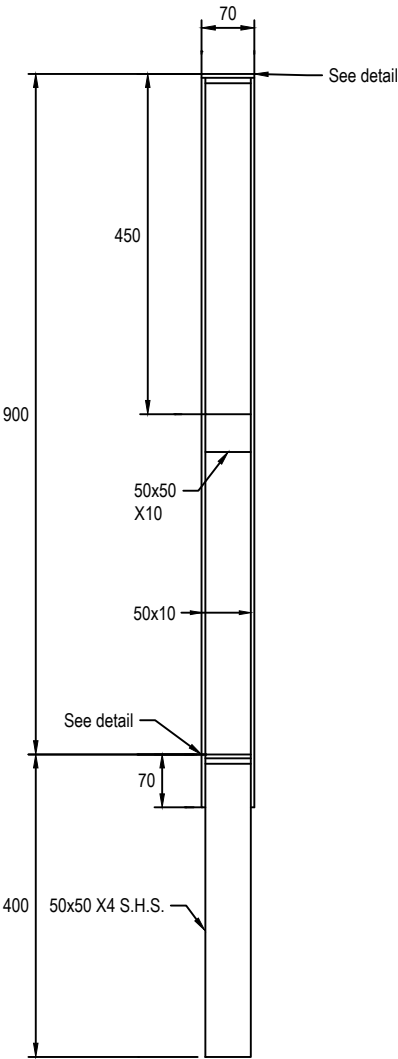


Signing Notes

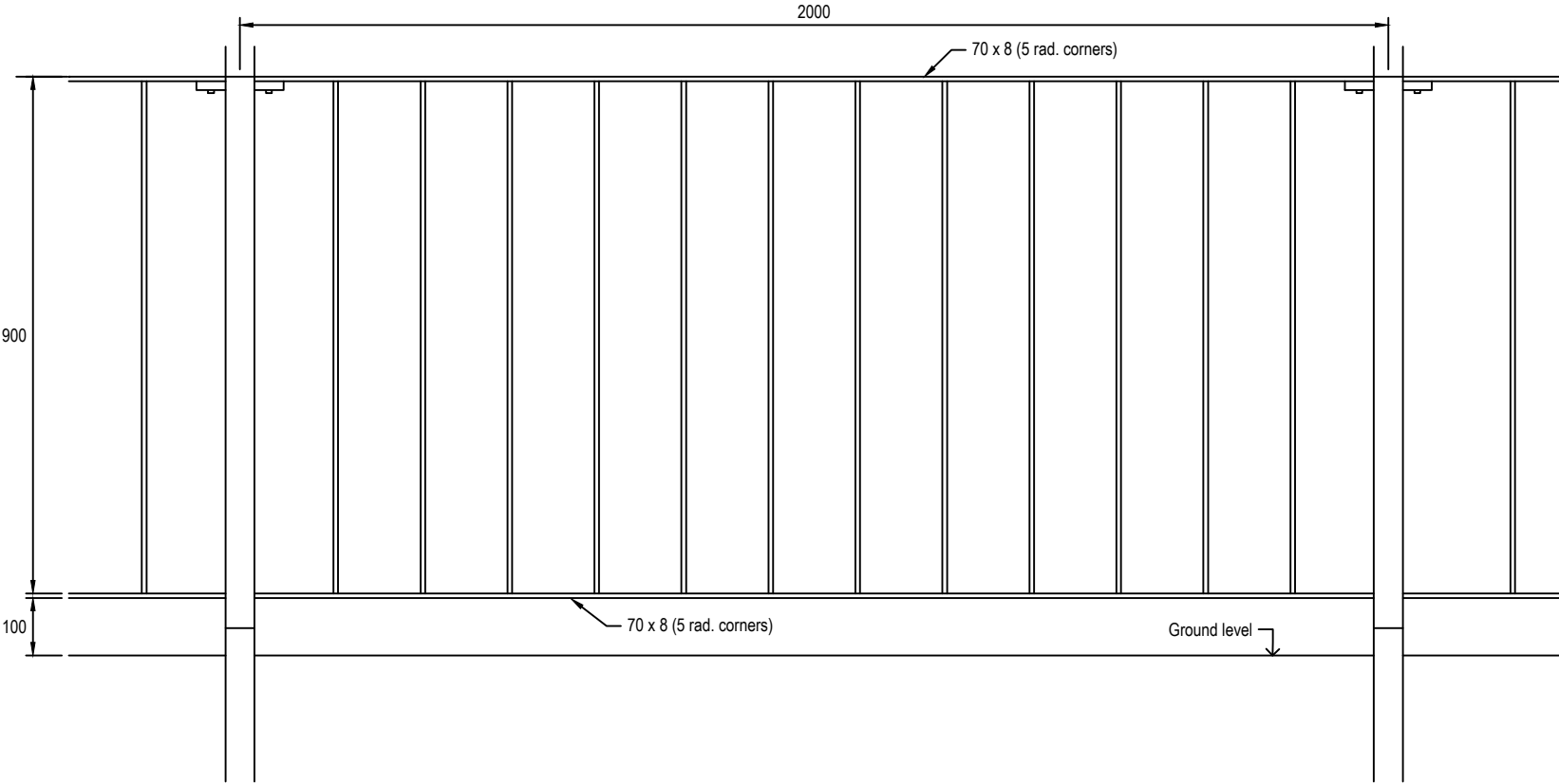
1. This drawing is only to be used for the specific purpose stated in the title.
2. All traffic signs to be in accordance with the Traffic Signs Regulations and General Directions 2016.
3. All traffic sign posts are to be positioned at the back of the footway unless shown otherwise. A minimum footway width of 1.2 metres is to be maintained.
4. No part of the sign assembly or bollard to be within 450mm of the edge of the carriageway.
5. Exact location of signs to be agreed on site with the Site Supervisor to ensure conflict with other items is avoided. Any issues that cannot be resolved on site should be reported to the design engineer.
6. Any vegetation obscuring visibility (to LTN 1/94 Appendix A) of signs to be cleared in consultation with Overseeing Organisation / ecology advice.
7. Any existing signs to be taken down are only to be removed after becoming redundant.
8. All sign posts located in grass verges are to be provided with a moving strip 900x900mm around the post, constructed from ST4 concrete 150mm thick.
9. Lit signs to have new private supplies.
10. Traffic sign posts are to be erected outside the working width (800mm) of the VRS (see 04 series of drawings).
11. For details of signs including size and mounting height, see Traffic Sign Standard drawings. In general, all signs in footways are to be mounted at a maximum height of 2.3m.
12. All bilingual signs to have Welsh above English unless specifically specified.
13. Traffic Sign Posts
 - a. Traffic sign posts to be illuminated must be of a tubular steel large base type to BS 873 Part 7:1994 and be capable of passing the tests described in BS 873.
 - b. The posts shall be hot dipped galvanised and shall comply with BS EN 1461:1999 and shall be manufactured from steel complying with the requirements of BS 4360 1986 Welded Steel, complete with double lock flush fitting wind resistant doors, fitted with anti-vandal stainless steel M8-8mm centre pin recessed socket screw lock door bolts.
 - c. Large base posts shall be of a steel gauge not less than 3.2mm thick and shall be cylindrical with a base diameter of not less than 139.7mm and a shaft diameter of not less than 76.1mm as a minimum.
 - d. An internal backboard of dimensions not less than 450mm x 95mm x 12mm, manufactured from a substantial non-hygroscopic material, shall be fixed in the housing and an earth bolt shall be provided. The opening to the housing shall be not less than 450mm x 95mm and shall be positioned to afford easy access to the control equipment.
 - e. An access slot of not less than 75mm x 150mm high for cabling purposes shall be provided approximately 300mm below ground level.



POST



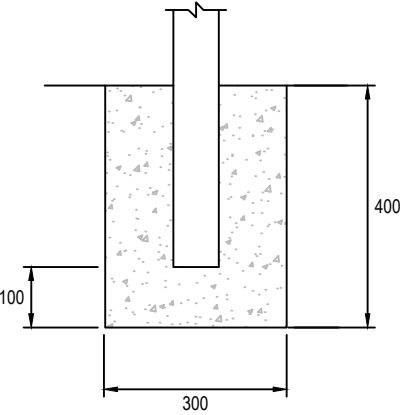
PANEL ELEVATION



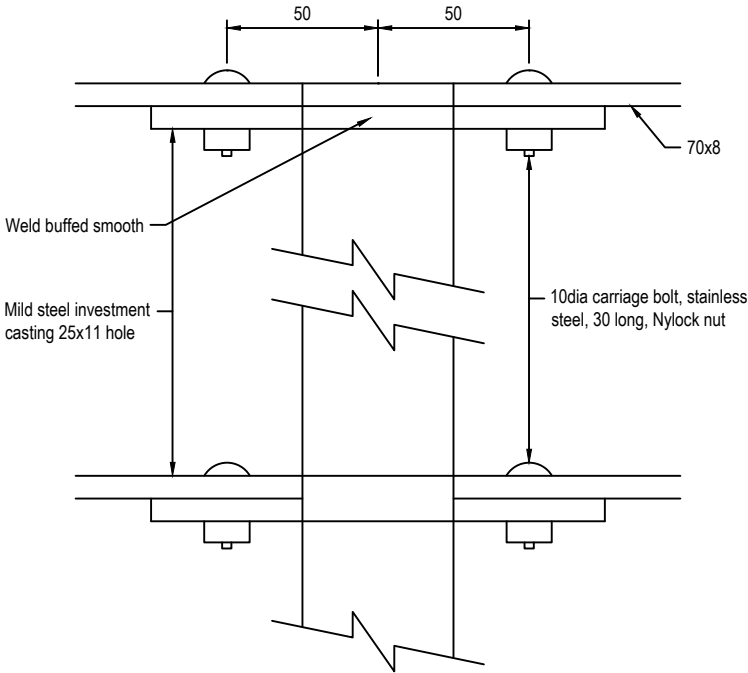
PLAN SECTIONS

PANEL TYPE	PANEL LAYOUT	OPTIMUM SIGHT ANGLE	TYPICAL USES
TYPE 1		2.5° to 5°	Straight roads, moderate to high speeds.
TYPE 2		5° to 14°	Straight roads, low to moderate speeds. Curves
TYPE 3		more than 14°	Curves less than 15m radius, eg. bellmouths

FOOTING DETAILS



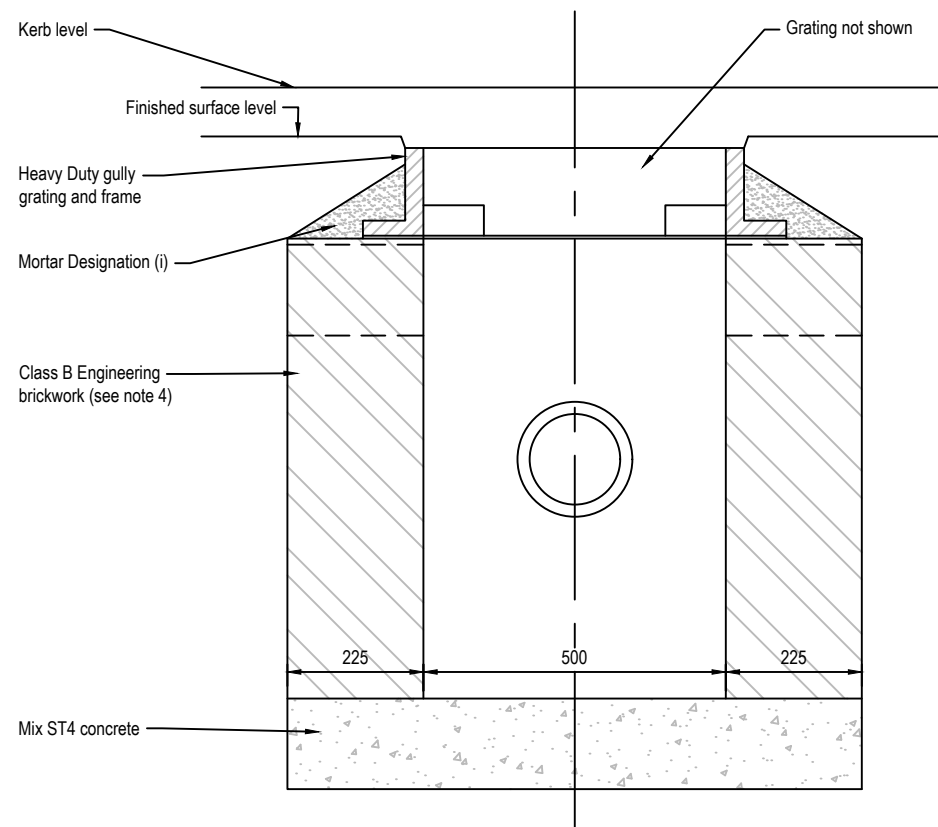
POST DETAILS



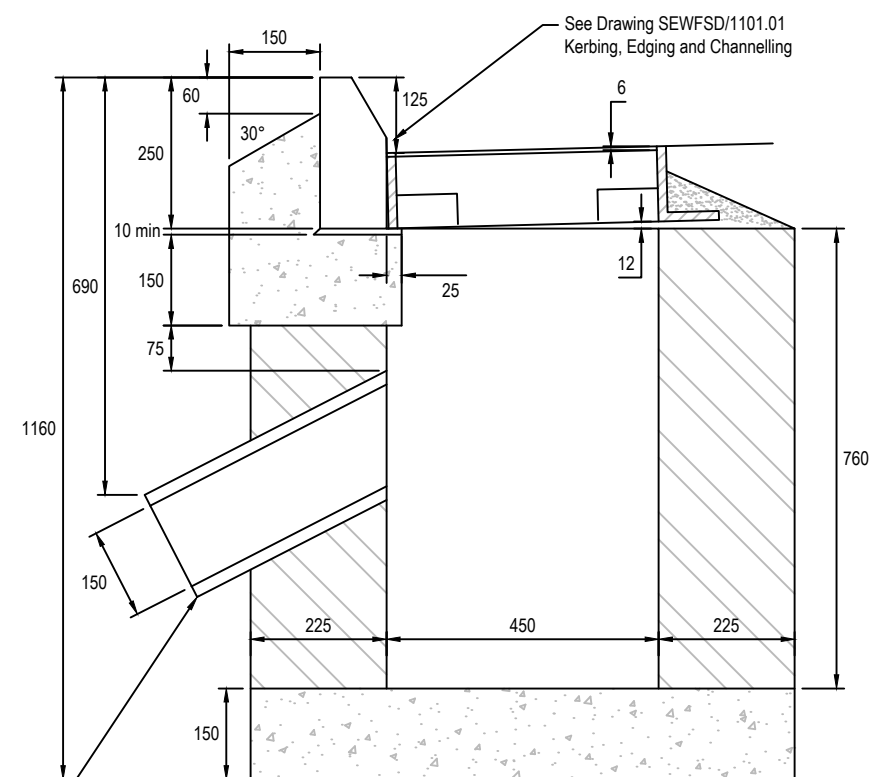
NOTES

1. Do not scale from this drawing.
2. All dimensions in millimetres
3. Steel to be Grade 43C to BS EN 10025
4. Welds to be 5 fillet welds to BS EN ISO 5135
5. Design and construction to BS7818
6. Standard finish hot dip galvanised to BS EN ISO 1461
7. Concrete for post footings to be Mix ST5 to Specification for Highway Works 1998, as amended.
8. For guardrailing erected on a slope the rails shall be parallel to the slope and the infill bars / panels shall be vertical.
9. All standards referenced are to be current amendments.

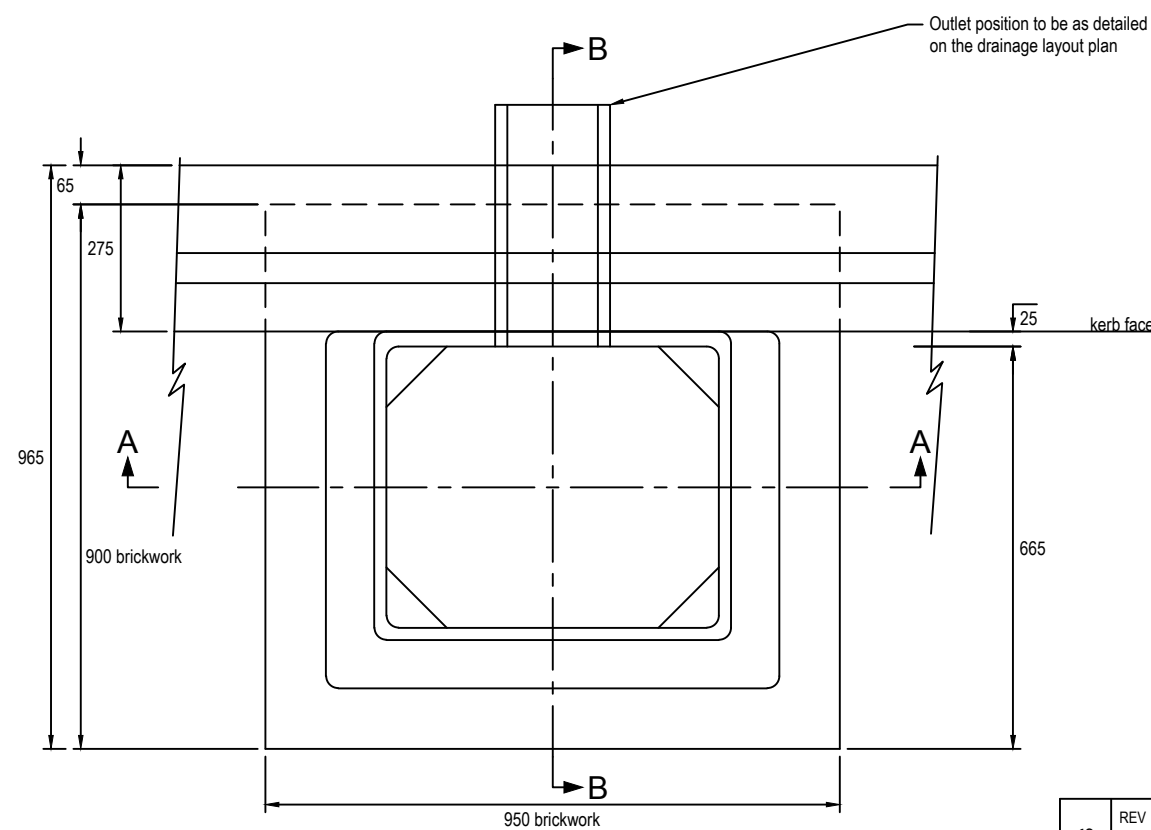
AMENDMENTS	REV	DETAILS	DATE	MADE BY	CHKD BY	Drawn	JS	SOUTH EAST WALES FRAMEWORK 2018 STANDARD DETAIL	
						Ch'kd	CF		
						Appr'd	LS		
						Date	Nov '17		
Drg No.	SEWFSD/0401.01				Rev.	Scale	NTS	High Visibility Guardrail	



SECTION A-A



SECTION B-B

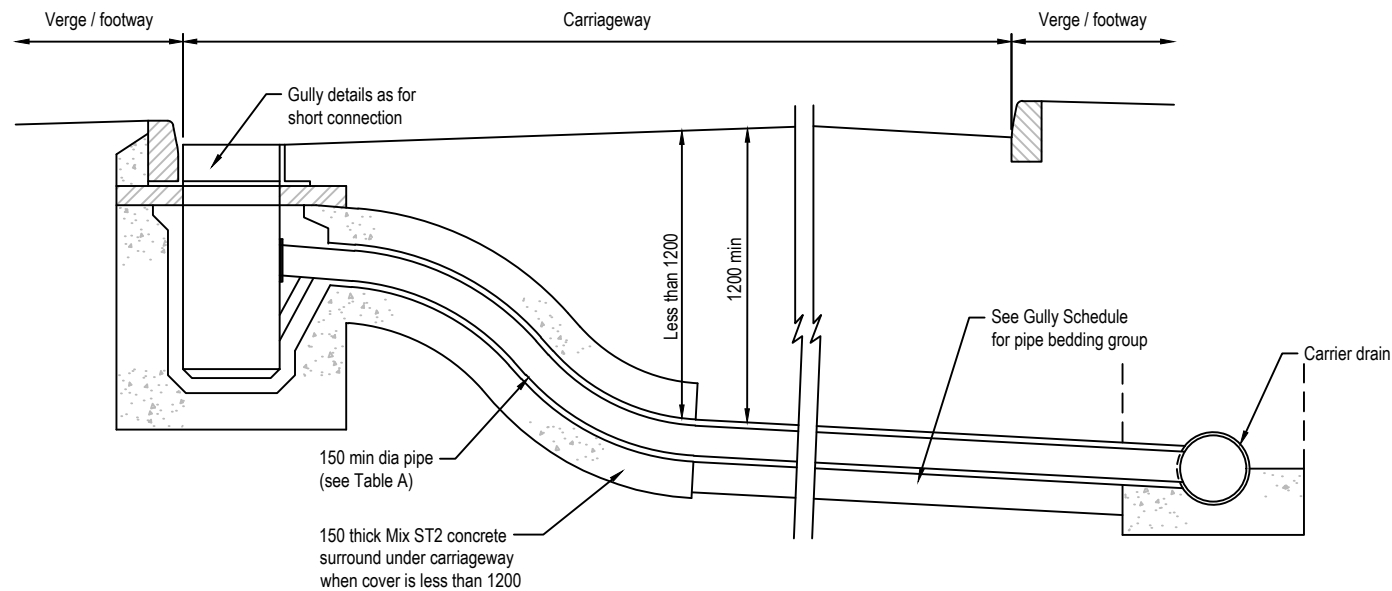


PLAN

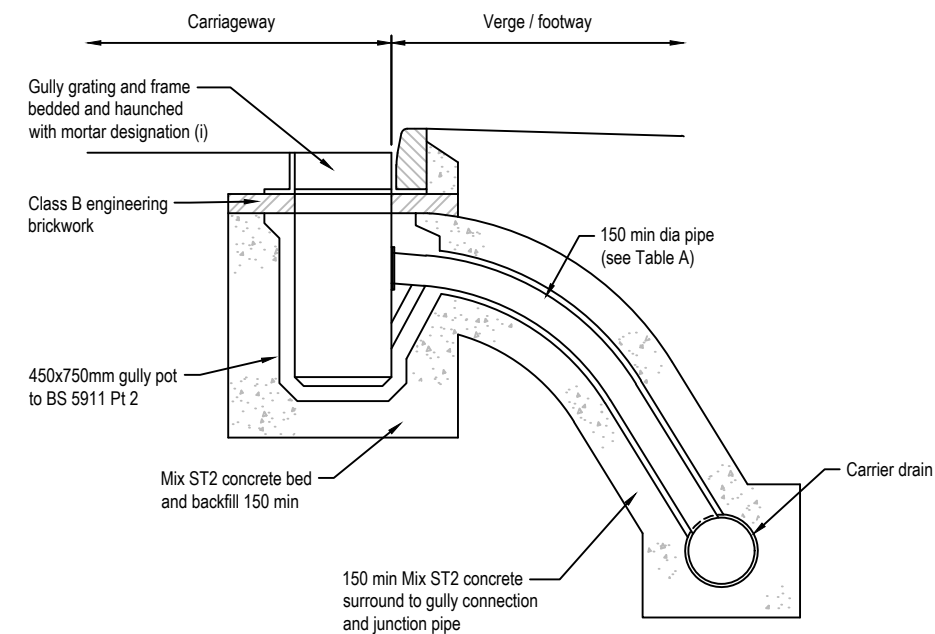
NOTES

1. Do not scale from this drawing
2. All dimensions are in millimetres
3. The provisions of Clause 508 of the Specification for Highway Works 1998, as amended, for gullies and connections shall apply unless otherwise stated.
4. Class B engineering bricks to BS 3921 to be used
5. Brickwork built in mortar Designation (i) to Clause 2404 of the Specification for Highway Works 1998, as amended.
6. Grade A Class 1 single piece hinged gully gratings and frames to comply with BS EN 124 for use in carriageways unless stated otherwise in the contract. The hinge is to be located adjacent to the kerb face.
7. For details of gully connection see drawing number SEWFSD/0503.04.
8. All standards referenced are to be current amendments.

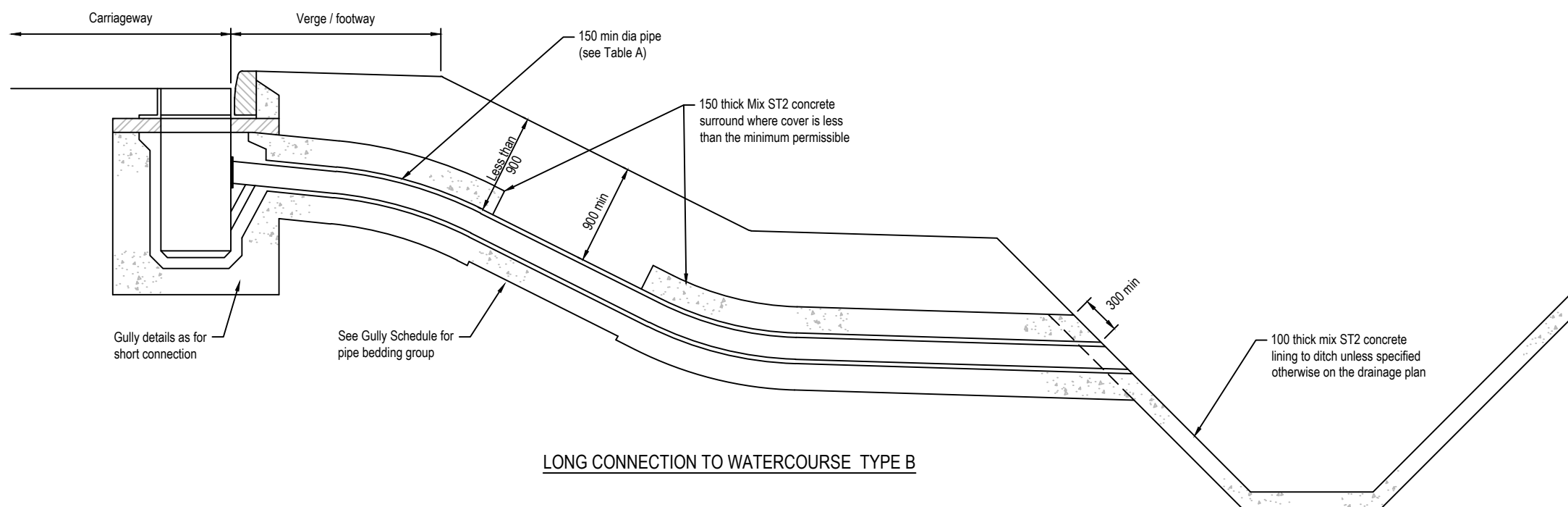
AMENDMENTS	REV	DETAILS	DATE	MADE BY	CHKD BY	Drawn	JS	SOUTH EAST WALES FRAMEWORK 2018 STANDARD DETAIL	
						Ch'kd	CF		
						Appr'd	LS		
						Date	Nov '17		
Drg No.	SEWFSD/0503.01				Rev.	Scale	NTS	Brick Gully	



LONG CONNECTION TO CARRIER DRAIN TYPE B



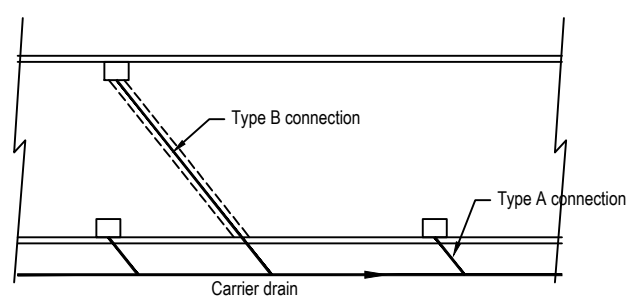
GULLY WITH SHORT CONNECTION TYPE A



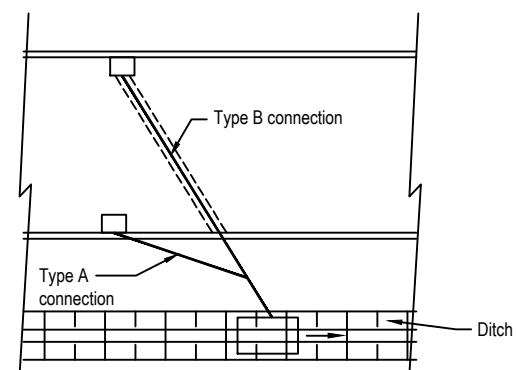
LONG CONNECTION TO WATERCOURSE TYPE B

NOTES

1. Do not scale from this drawing.
2. All dimensions are in millimetres.
3. Where G.V.C. pipes are used, that portion of the connection which is surrounded by concrete may be of standard strength.
4. Those portions of connections not surrounded with concrete shall have the appropriate bedding as specified for carrier drains.
5. All joints shall be flexible where pipes are not surrounded with concrete. Pipes surrounded with concrete may have mortared spigot and socket joints.
6. For details of pipes and bedding see Appendix 5/1 of the Specification and Highway Construction Details drawings nos F1 & F2.
7. All standards referenced are to be current amendments.



PLAN OF CONNECTIONS TO CARRIER DRAIN



PLAN OF CONNECTIONS TO DITCH OR WATERCOURSE

TABLE A, GULLY CONNECTIONS		Pipe and strength category	
TYPE	CONCRETE SURROUND *	G.V.C.	Concrete
Short connection with carrier drain	Whole length including junction pipe	Standard	Standard
Long connection to carrier drain	i) Where cover is less than 1.2m (0.9m under field or verge loading conditions) ii) Around junction pipe if carrier drain is concrete	Extra strength	
Long connection to ditch or watercourse	i) Where cover is less than 1.2m (0.9m under field or verge loading conditions)		

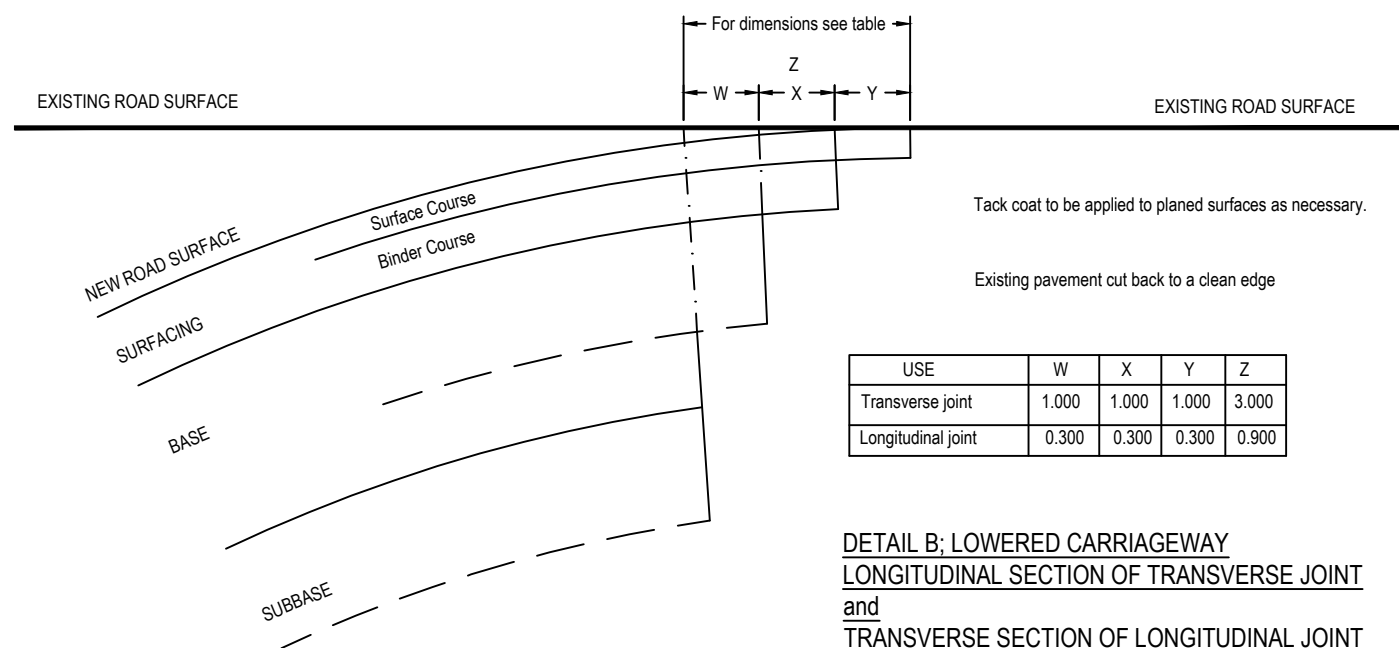
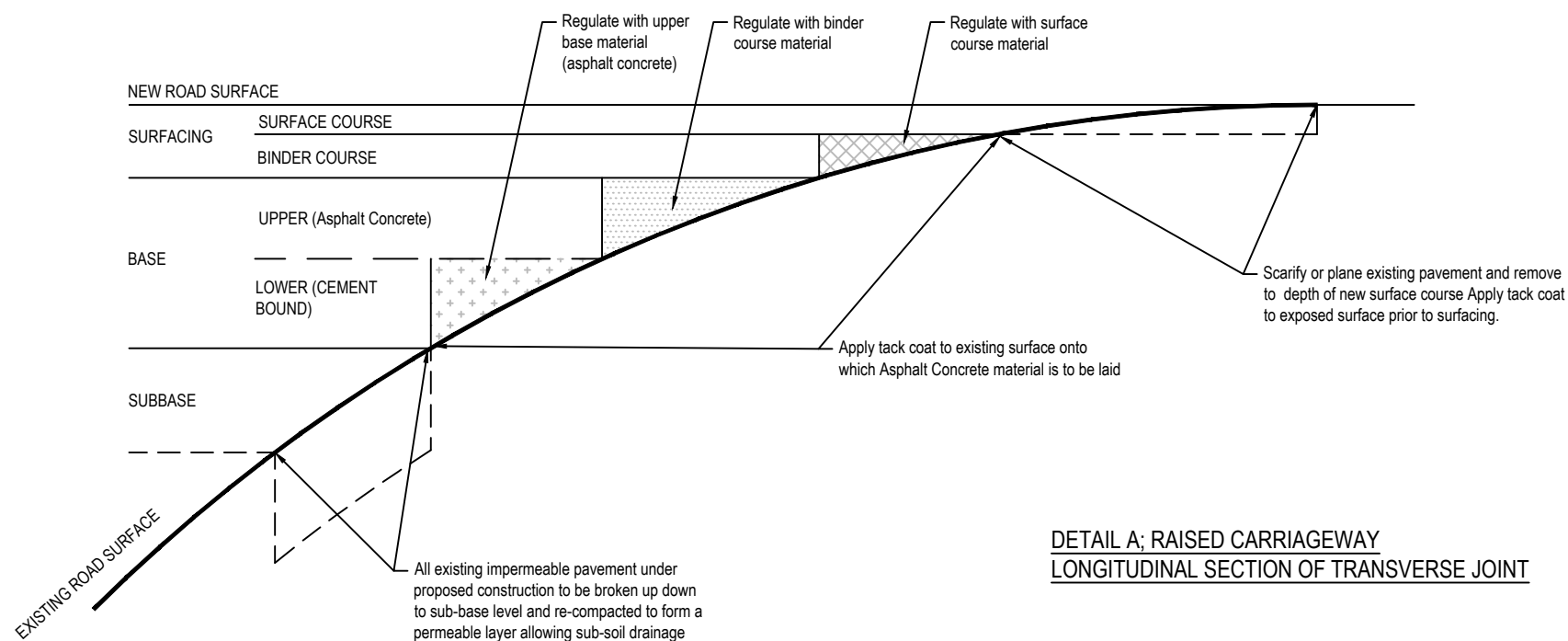
* See note 3

AMENDMENTS	REV	DETAILS	DATE	MADE BY	CHKD BY	Drawn	JS
						Ch'kd	CF
						Appr'd	LS
						Date	Nov '17
Drg No.		SEWFSD/0503.04			Rev.	Scale	NTS

**SOUTH EAST WALES FRAMEWORK 2018
STANDARD DETAIL**



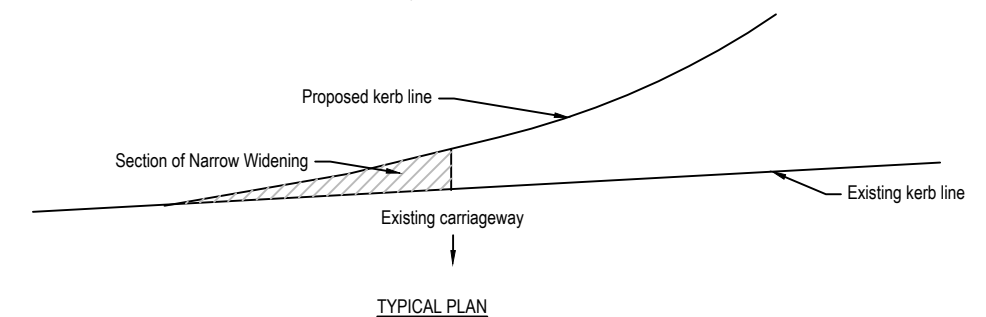
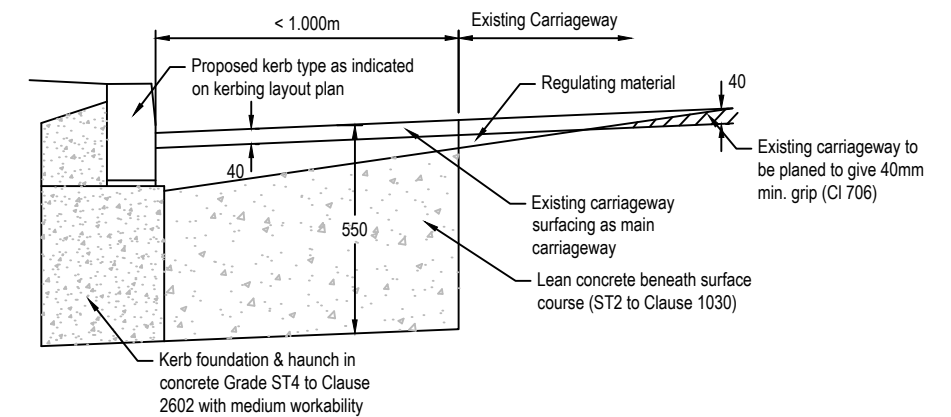
Gully Connections



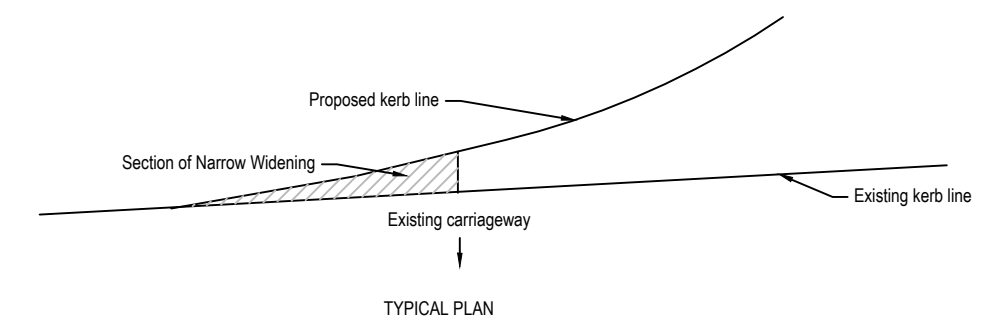
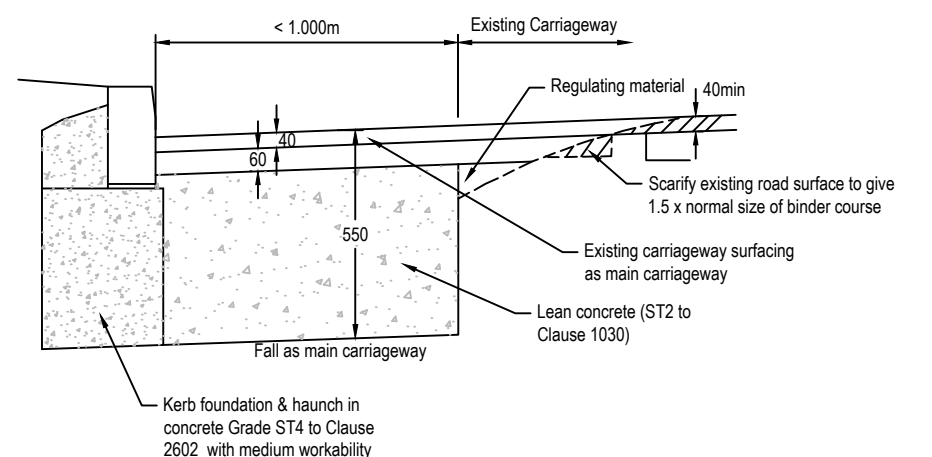
NOTES.

- Do not scale from this drawing use dimensions shown only.
- All dimensions in millimetres unless otherwise stated.
- All existing horizontal surfaces to be overlaid are to be thoroughly cleaned and receive a complete and uniform coating of A1-40 or K1-40 bitumen emulsion, laid at a rate of 0.3-0.5 litres/sq.m.
- All construction methods and materials used are to be in accordance with the latest Specification for Highway Works 1998 as amended.
- All vertical and horizontal surfaces to be cleaned and painted with a thin and uniform coating of 50 or 70 pen hot bitumen or cold applied Thixotropic bitumen compound of a similar grade prior to surfacing taking place.
- All standards referenced are to be current amendments.

NARROW WIDENING TO EXISTING CARRIAGEWAY BOTTOM OF BINDER COURSE BELOW EXISTING CARRIAGEWAY

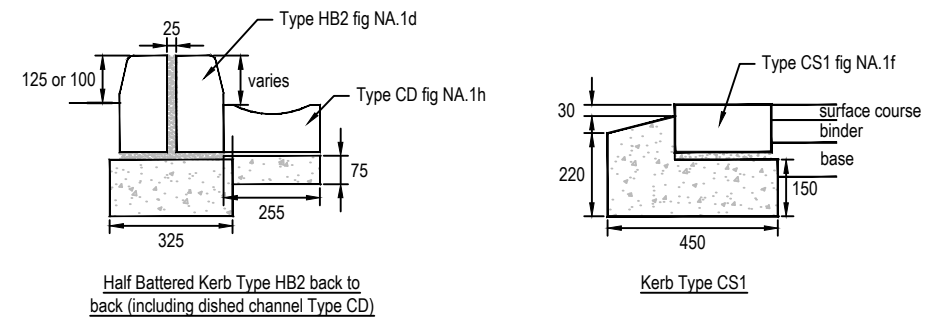
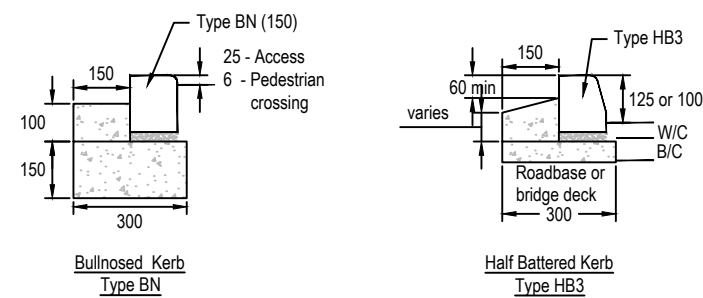
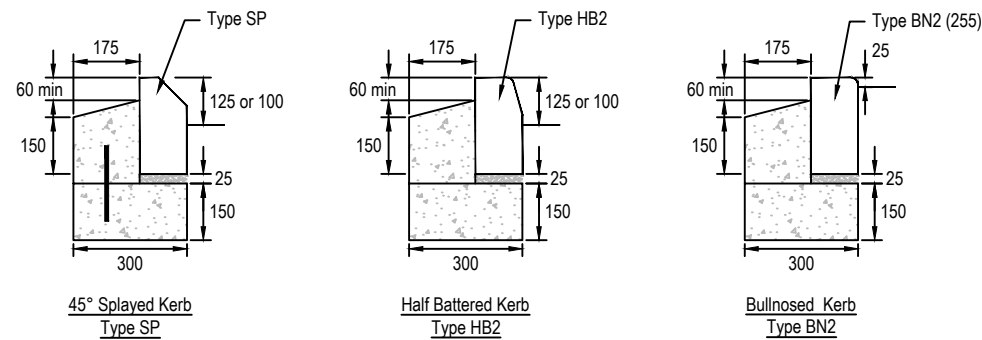


NARROW WIDENING TO EXISTING CARRIAGEWAY BOTTOM OF BINDER COURSE ABOVE EXISTING CARRIAGEWAY

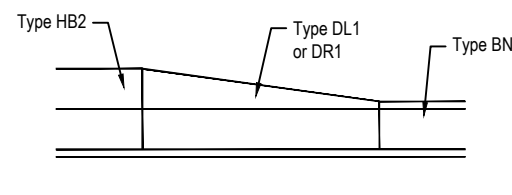
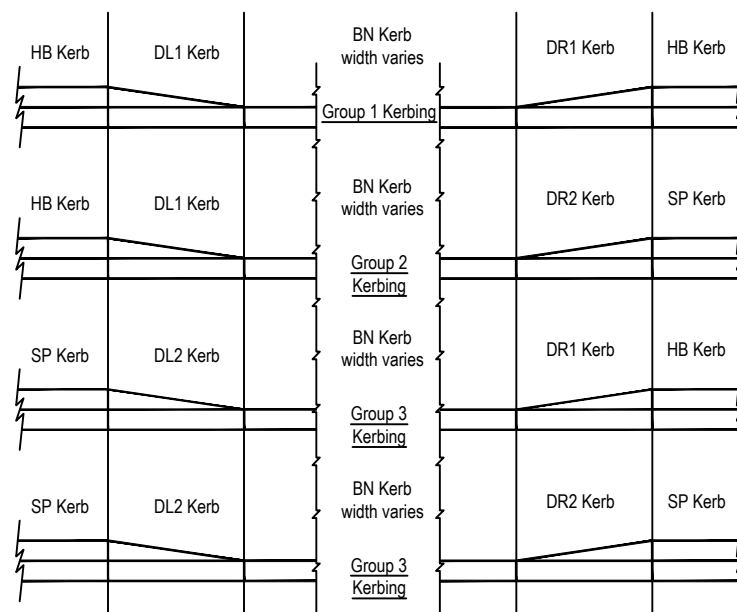


AMENDMENTS	REV	DETAILS	DATE	MADE BY	CHKD BY	Drawn	JS	SOUTH EAST WALES FRAMEWORK 2018 STANDARD DETAIL Jointing of New Road Paving to Existing in Flexible Construction
						Ch'kd	CF	
						Appr'd	LS	
						Date	Nov '17	
Drg No.		SEWFSD/0701.01			Rev.	Scale	NTS	

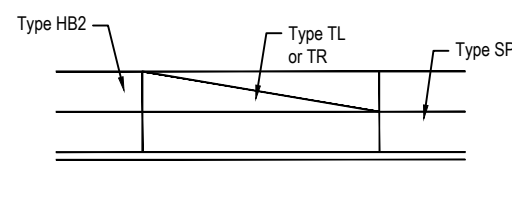
KERBING



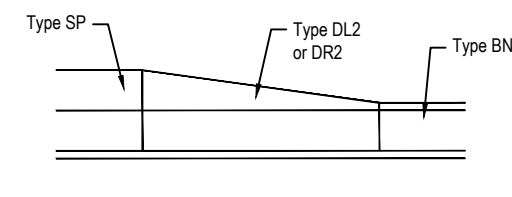
KERBING TO FOOTWAY AND CENTRAL RESERVE PEDESTRIAN CROSSING POINTS



DROPPER KERBS
Kerbing Type DL
Kerbing Type DR1

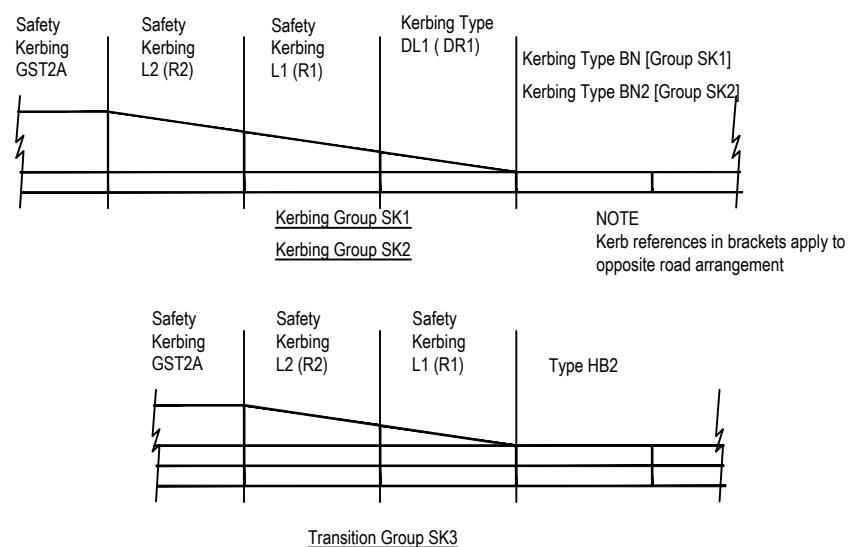


TRANSITION KERBS
Kerbing Type TL
Kerbing Type TR

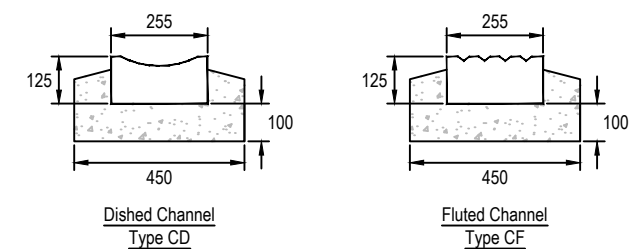


DROPPER KERBS Kerbing
Kerbing Type DL2
Kerbing Type DR2

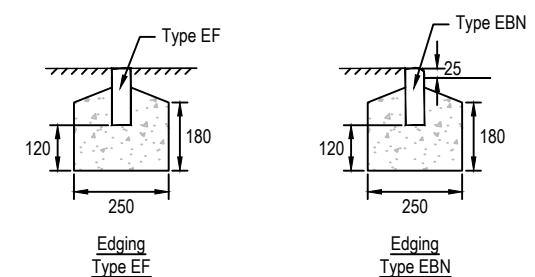
KERBING TO PEDESTRIAN CROSSING POINTS IN CENTRAL RESERVE /SPLITTER ISLANDS WITH SAFETY KERBS



CHANNELLING

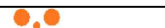


EDGING

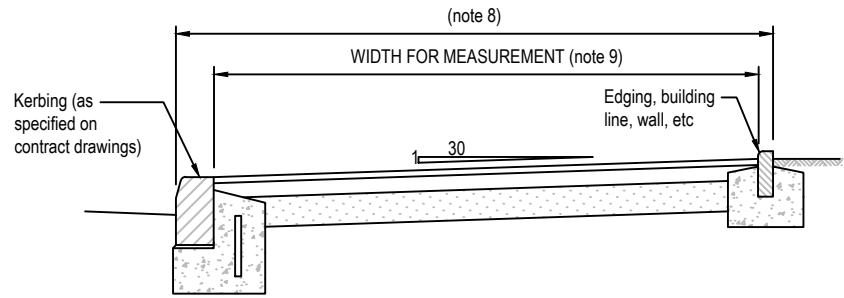


NOTES

- Do not scale from this drawing.
- All dimensions are in millimetres.
- Unless stated otherwise in the contract, precast concrete kerbs, channel, edgings and quadrants shall comply with BS EN 1340 and Clause 1101 of the Specification for Highway Works 1998, as amended and Appendix 11/1 to the Specification.
- Profile Type and figure references are in accordance with BS EN 1340.
- Mortar shall be portland cement to table 24/1, designation (i) of the Specification of Highway Works 1998, as amended, 10mm min and 40mm max. thickness.
- Mix ST1 concrete shall be used for bedding and backing with 200 long x 20 dia dowel bars at 450 centres (typical).
- Channel blocks must be laid with tight butt joints at the ends with a 10 gap left between the kerbs and channel block when laid to allow the placing of a mortar grout.
- BN2 Kerbing is suitable for bus and laybys or heavily trafficked private accesses.
- BN Kerbing is suitable for lightly trafficked private accesses and pedestrian crossings.
- Precast concrete kerbs, channels, edgings and quadrants shall be laid in accordance with BS 7533-3. Code of Practice for Laying.
- Where kerbing is to be laid against existing carriageway, which is not to be surfaced, the gap between the carriageway and the kerb shall be dealt with as follows:-
 - Gaps less than 25mm - clean out to a minimum of 20mm deep and seal to Clause 1017.5 of the Specification for Highway Works 1998, as amended.
 - Gaps greater than 25mm - clean out to a minimum of 50mm deep and fill with fine cold asphalt well compacted.
- All standards referenced are to be current amendments.

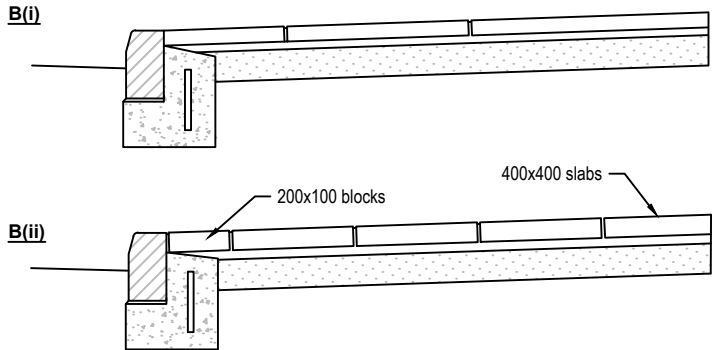
AMENDMENTS	REV	DETAILS	DATE	MADE BY	CHKD BY	Drawn	JS	SOUTH EAST WALES FRAMEWORK 2018 STANDARD DETAIL	
						Ch'kd	CF		
						Appr'd	LS		
						Date	Nov '17		
Drg No.	SEWFS/1101.01				Rev.	Scale	NTS	Kerbing, Edging and Channelling	

PAVING CONSTRUCTION TYPES



A. FLEXIBLE CONSTRUCTION

- SURFACE COURSE** 20mm thick, 6mm nominal size surface course to BS EN 13108:Part 1:Clause 7.6 with 160/220 pen Asphalt Concrete binder and in accordance with Clause 912 of the Specification for Highway Works 1998, as amended.
- BINDER COURSE** 40mm thick, 20mm nominal size Asphalt Concrete as note 11
- SUB-BASE** 100mm granular sub-base as note 12



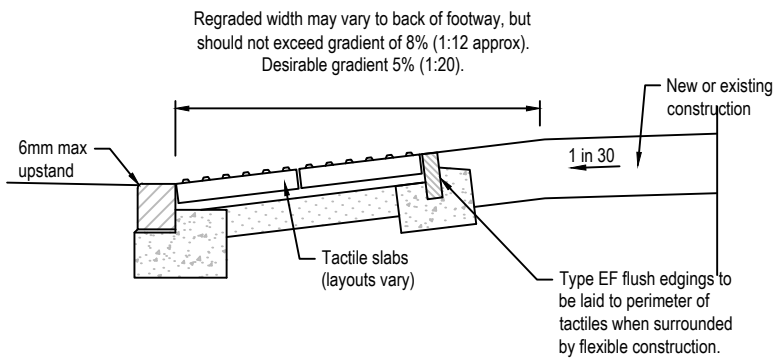
B. PAVED CONSTRUCTION

(i) PAVING FLAGS (>450mm) - Pedestrian loading

- SURFACE COURSE** Precast concrete slabs (see notes 3 & 13).
- LAYING COURSE** 25mm thick compacted mortar bed to clause 2404 of the Specification for Highway Works 1998, as amended. (Table 24/1, mortar designation i)
- SUB-BASE** 100mm thick granular sub-base as note 12

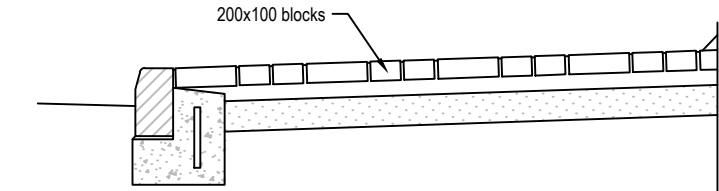
(ii) SMALL ELEMENT PAVING FLAGS (<450mm) - Lightly trafficked

- SURFACE COURSE** Precast concrete slabs (see notes 3 & 13).
- LAYING COURSE** 30mm thick compacted sand to BS 7533 Part 4.
- SUB-BASE** 150mm thick granular sub-base as note 12



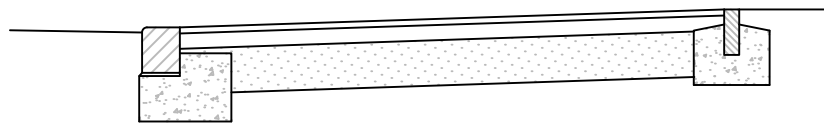
C. TACTILE PAVING

- SURFACE COURSE** Tactile paving (within flexible or paved footway construction) to BS EN 1340. See note 13.
- LAYING COURSE** 30mm thick compacted sand bed to BS 7533 Part 4.
- SUB-BASE** 100mm thick granular sub-base as note 12



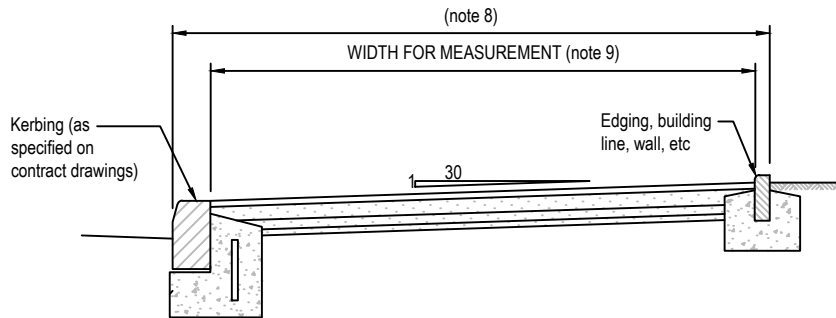
D. CONCRETE BLOCK PAVING

- SURFACE COURSE** Blocks to BS EN 1338. See note 13
- LAYING COURSE** 50mm thick compacted sand bed to BS 7533 Part 3.
- SUB-BASE** 150mm thick granular sub-base as note 12



E. FOOTWAY VEHICULAR CROSSING

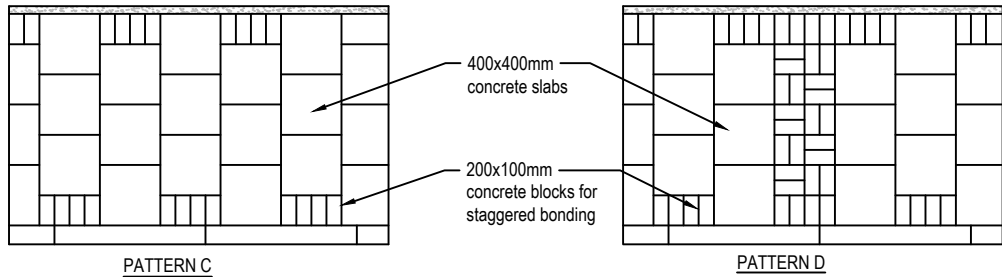
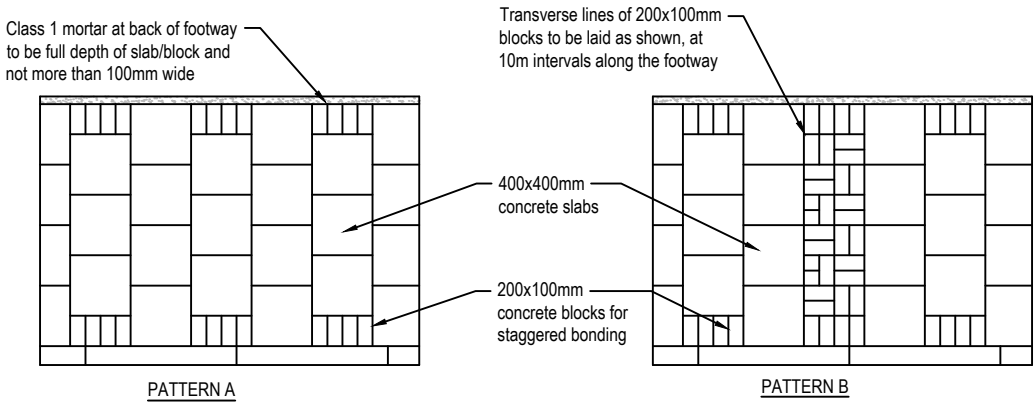
- SURFACE COURSE** 20mm thick, 6mm nominal size surface course to BS EN 13108:Part 1:Clause 7.6 with 160/220 pen Asphalt Concrete binder and in accordance with Clause 912 of the Specification for Highway Works 1998, as amended.
- BINDER COURSE** 60mm thick, 20mm nominal size Asphalt Concrete as note 11
- SUB-BASE** 200mm granular sub-base as note 12



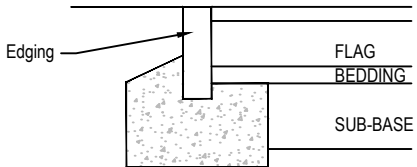
F. REINSTATEMENT OF PAVING WITH FLEXIBLE CONSTRUCTION

- SURFACE COURSE** 30mm thick, 10mm close graded surface course to BS EN 13108:Part 1: Clause 7.6 with 160/220 pen Asphalt Concrete binder and in accordance with Clause 912 of the Specification for Highway Works 1998, as amended.
- SUB-BASE** (i) 50mm thick granular sub-base as note 12
(ii) 80mm thick granular sub-base as note 12
(iii) 100mm thick granular sub-base as note 12

TYPICAL LAYING PATTERNS FOR SMALL ELEMENT PAVING



- NOTES**
- Exact pattern dependant upon width of footway.
 - Colour of slabs and blocks unless otherwise stated colour should be natural grey.



MODIFIED HAUNCHING FOR EDGING TO FOOTWAYS

- NOTES**
- Do not scale from this drawing.
 - All dimensions are in millimetres.
 - Precast concrete flags to be in accordance with clause 1104 of the Specification of Highway Works 1998 as amended (and Appendix 11/1).
 - Flexible footway construction to be in accordance with clause 1105 of the Specification of Highway Works 1998 as amended (and Appendix 11/1.)
 - Concrete block paving to be in accordance with clause 1107 of the Specification of Highway Works 1998 as amended (and Appendix 11/1.)
 - Flags to be places with 150 or 300 bond with joints at right angles to the kerb.
 - Kerbing and edging as detailed on drawing no SEWFSD/1101.01.
 - Footway construction type and width are shown on the 11.....series of drawings.
 - The width of footway used for measurement purposes is the exposed surface, excluding kerbing and edging, as indicated on this drawing.
 - For details of tactile paving see drawing SEWFSD/1101.06.
 - Binder course to be Asphalt Concrete to BS EN 13108: Part 1: Clause 6.5 with 100/150 Asphalt Concrete binder and in accordance with Clause 906 of the Specification for Highway Works 1998, as amended
 - Sub base to be as granular Type 1 to Table 8/2: Clause 803 of the Specification for Highway Works 1998, as amended.
 - Thickness of blocks and paving slabs to be specified in 11/.. series of drawings.
 - All standards referenced are to be current amendments

AMENDMENTS	REV	DETAILS	DATE	MADE BY	CHKD BY	Drawn	JS	SOUTH EAST WALES FRAMEWORK 2018 STANDARD DETAIL	
						Ch'kd	CF		
						Appr'd	LS		
						Date	Nov '17		
Drg No.	SEWFSD/1101.02				Rev.	Scale	NTS	Footways and Paved Areas	