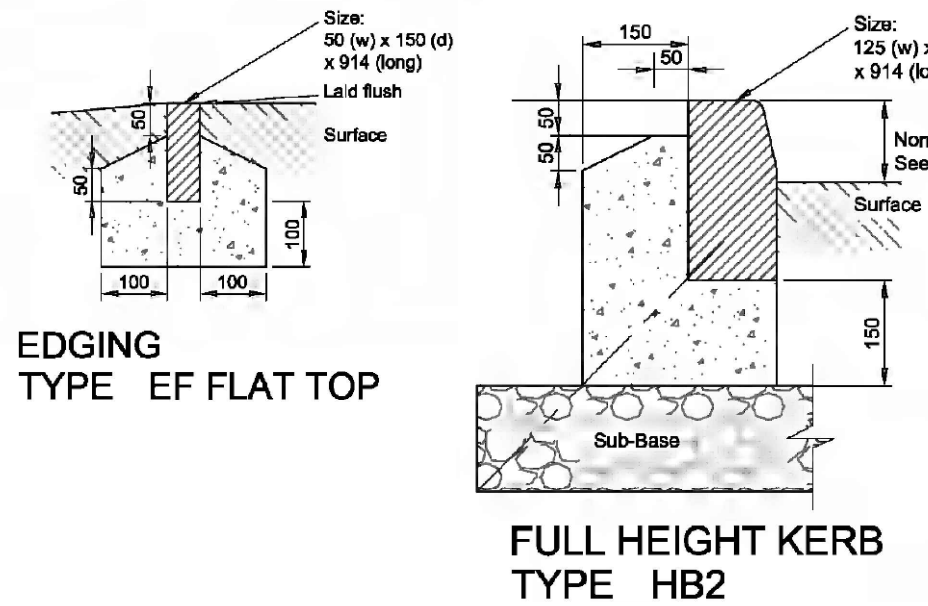
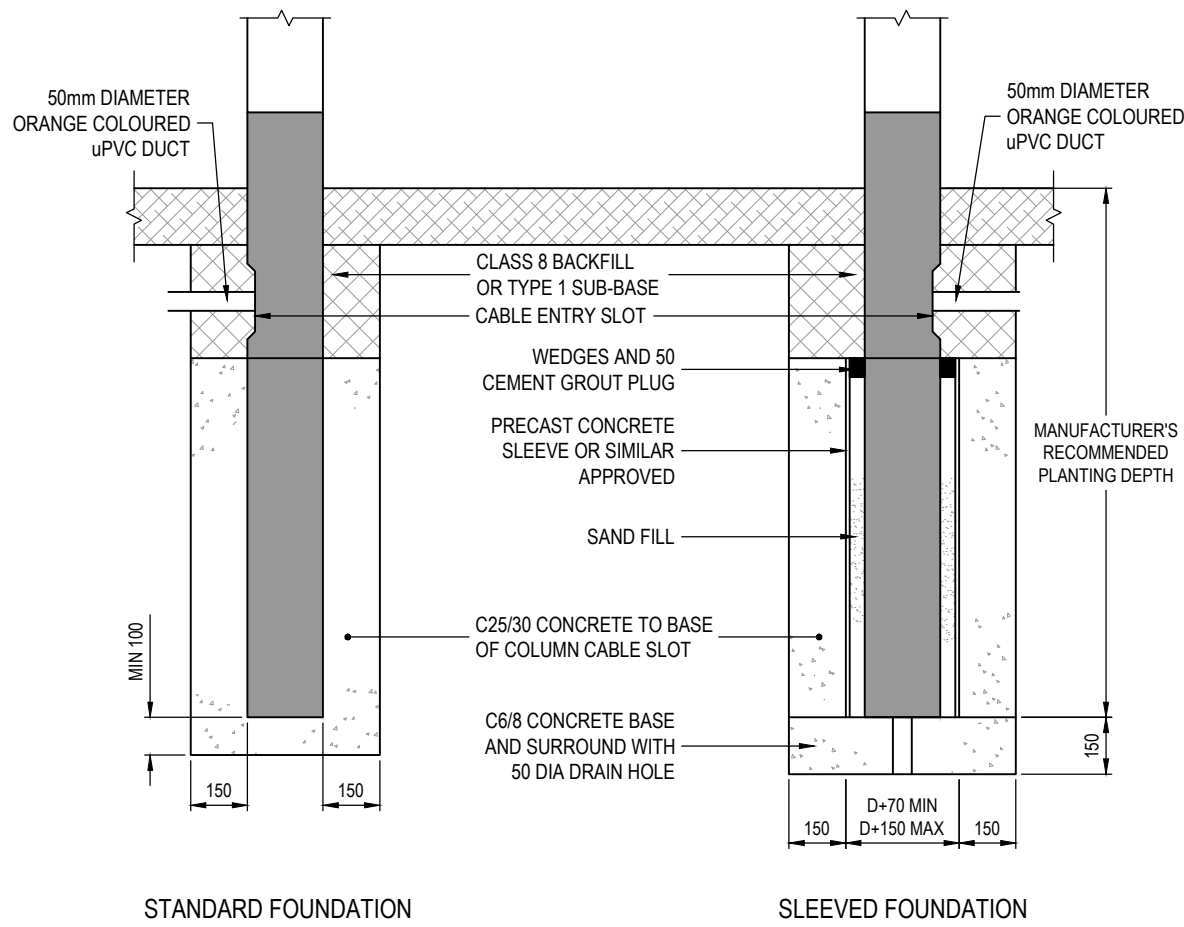
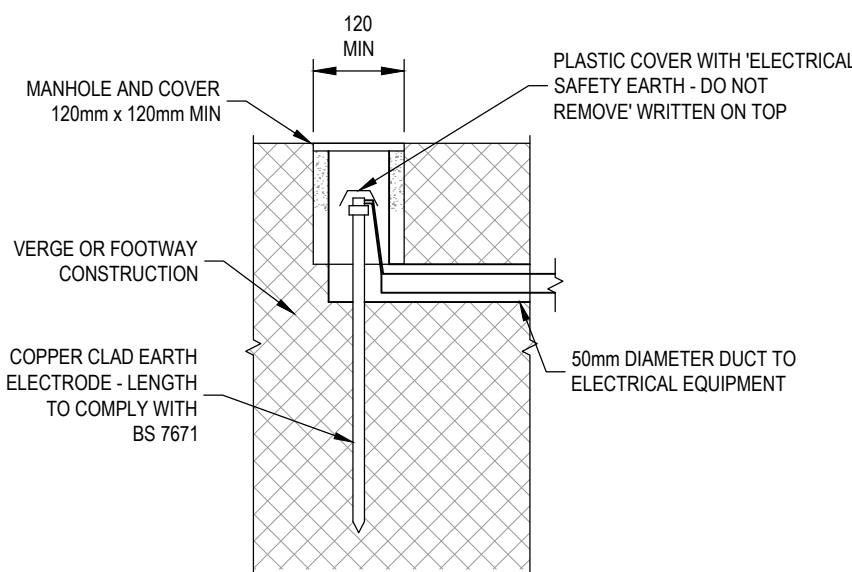




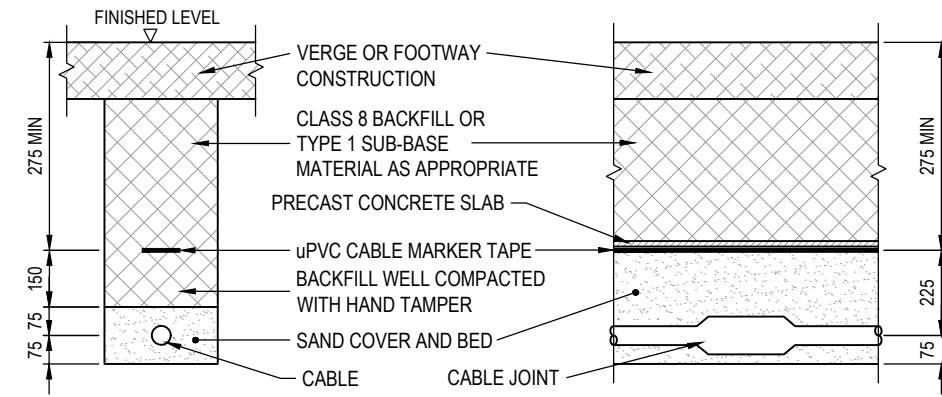
- NOTES**
- Do not scale from this drawing.
 - Kerbs to be butt jointed. Where kerb alignments incur 'minor open joint tapers' between formed surfaces mortar jointing shall be used as directed by Highway Inspector.
 - All full length PCC kerbs are to be mechanically handled.
 - All precast concrete Kerbs & Edgings shall be to BS EN 1342 & laid to BS 7533-6.
 - All sets of natural stone shall be to BS EN 1342 & laid to BS 7533-7.
 - All Kerbs & Edgings bed & backing to be Concrete Class ST1 (C6/8), well compacted. Unless otherwise stated this shall be a minimum bed thickness of 150mm.
 - The minimum length of any cut kerb shall be 450mm (Half kerb).
 - The correct radius kerbs shall be used for all radii of 12m or less. For radii between 12m and 20m 600mm long straight units shall be used. Radius kerbs shall be used to form corners of laybys and lapers.
 - Suitable transition kerbs shall be used for all drop kerb and upstand variation locations.
 - Suitable quadrant kerbs shall be used to form corners of square areas and refuge islands.
 - Full height kerb upstand shall be as shown unless otherwise agreed by WSOE under a formal request.
 - Drop kerb upstand shall be 0-6mm for pedestrian crossings, 25mm for vehicular crossings.
 - Refer to drawing 01 for laying methods.



COLUMN FOUNDATION DETAILS



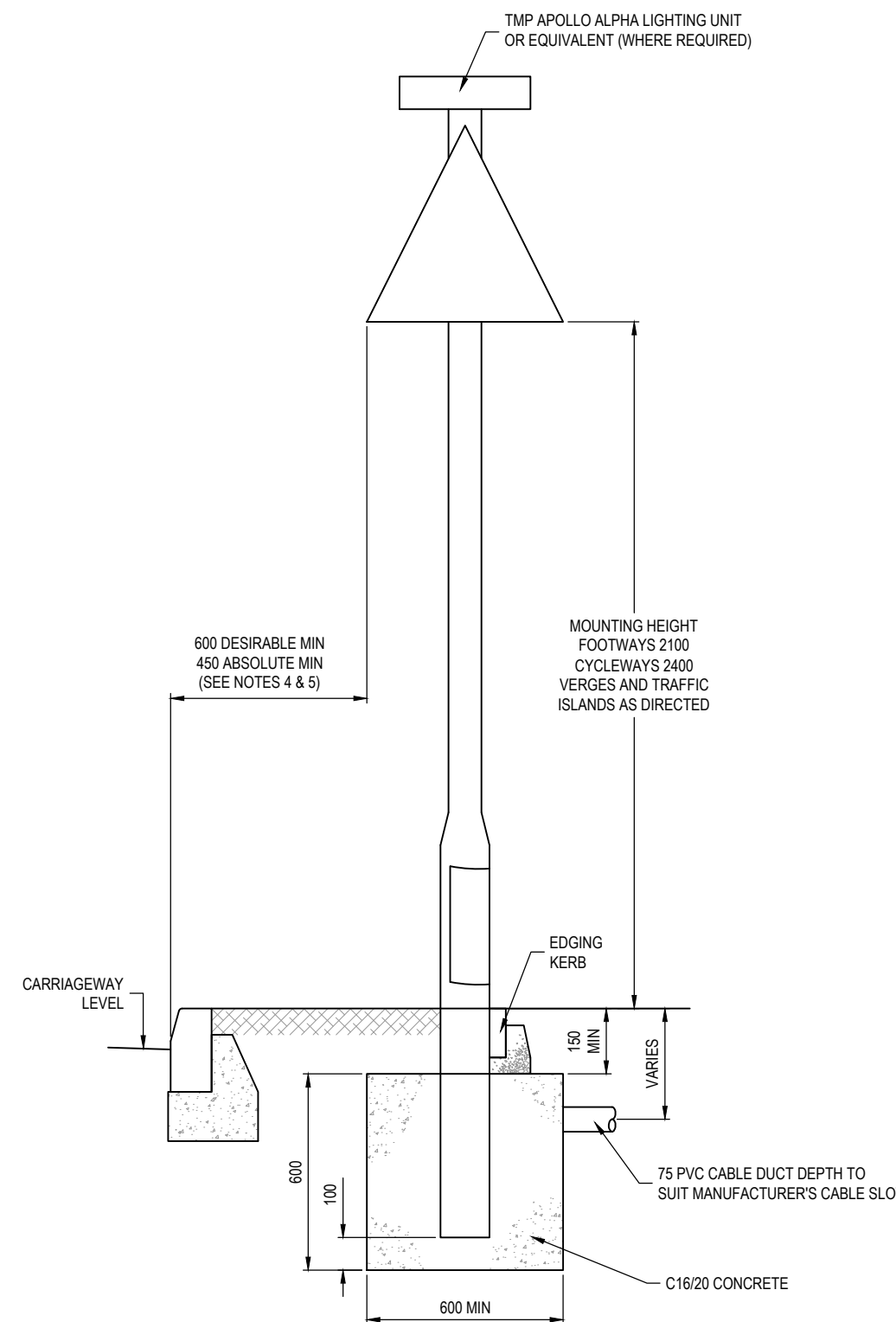
DETAIL A EARTH ELECTRODE DETAIL



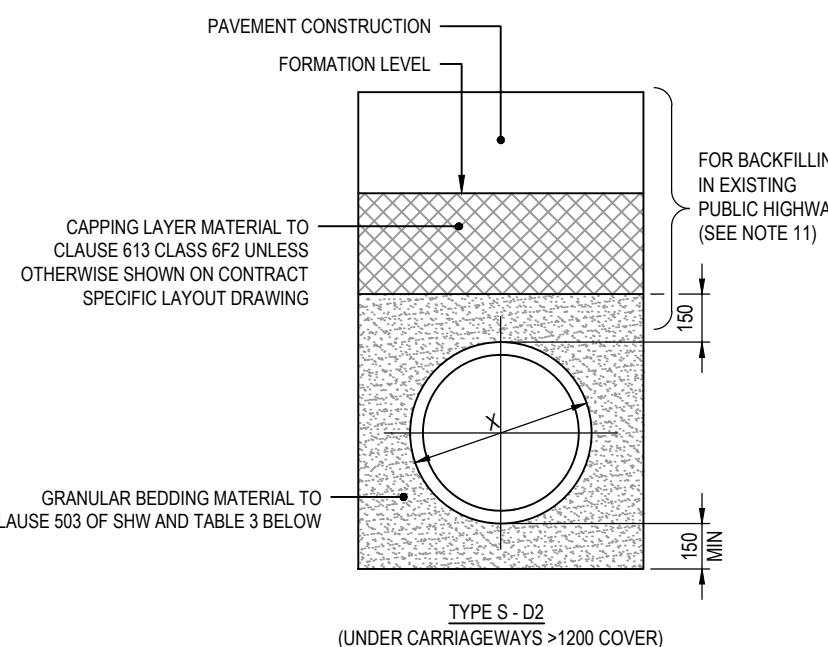
TYPICAL SECTIONS CABLE TRENCH (SEE NOTE 13)

- NOTES:**
- ALL DIMENSIONS IN MILLIMETRES.
 - ALL EQUIPMENT TO BE TO THE SPECIFICATION AND/OR APPROVAL OF THE ENGINEER.
 - ALL EQUIPMENT TO BE SITED WITHIN THE HIGHWAY BOUNDARY.
 - LIGHTING COLUMNS MUST BE SITED TO SUIT THE DESIGN OF THE SYSTEM AND WILL NORMALLY BE ERECTED AT THE BACK OF FOOTWAY, CYCLEWAY OR HIGHWAY VERGE. A MINIMUM CLEARANCE OF 1800 FROM THE FACE OF KERB IS REQUIRED.
 - ILLUMINATED SIGNS OR SIGNS OVER 600 WIDE MUST NOT BE FIXED TO LIGHTING COLUMNS.
 - ALL COLUMNS TO BE PAINTED WITH TWO COATS OF GLOSS PAINT TO BS4800 COLOUR AS SPECIFIED.
 - GALVANISED COLUMNS TO BE PAINTED WITH ETCHING PRIMER PRIOR TO GLOSS PAINTING.
 - COLUMNS TO BE PAINTED TO 250 ABOVE GROUND LEVEL WITH BLACK BITUMASTIC PAINT.
 - ALL COLUMNS SHALL BE PLANTED SO THE DOOR IS SAFELY ACCESSIBLE.
 - BACKFILL TO EXCAVATIONS IN PAVED AREAS MUST BE TYPE 1 SUB-BASE MATERIAL.
 - CLASS 8 LOWER TRENCH FILL TO BE TO CLAUSE 503.
 - WHERE POSSIBLE ALL CABLES MUST BE LAID IN 100 DIA. ORANGE uPVC DUCT.
 - AN EARTH ELECTRODE MUST BE FITTED ON THE LAST COLUMN OF EACH RUN.
 - EARTH RODS TO COMPLY WITH IEE REGULATIONS. MIN LENGTH 1500.
 - ALL COLUMNS MUST BE IDENTIFIED BY A UNIQUE NUMBER STENCILED IN BLACK PAINT. THE NUMBERS WILL BE PROVIDED BY THE ENGINEER.

STREET LIGHTING FOUNDATION DETAILS



FOUNDATION FOR SIGN POST WITH ELECTRICAL BASE HOUSING (STRAIGHT POST SIMILAR - DUCT OMITTED)

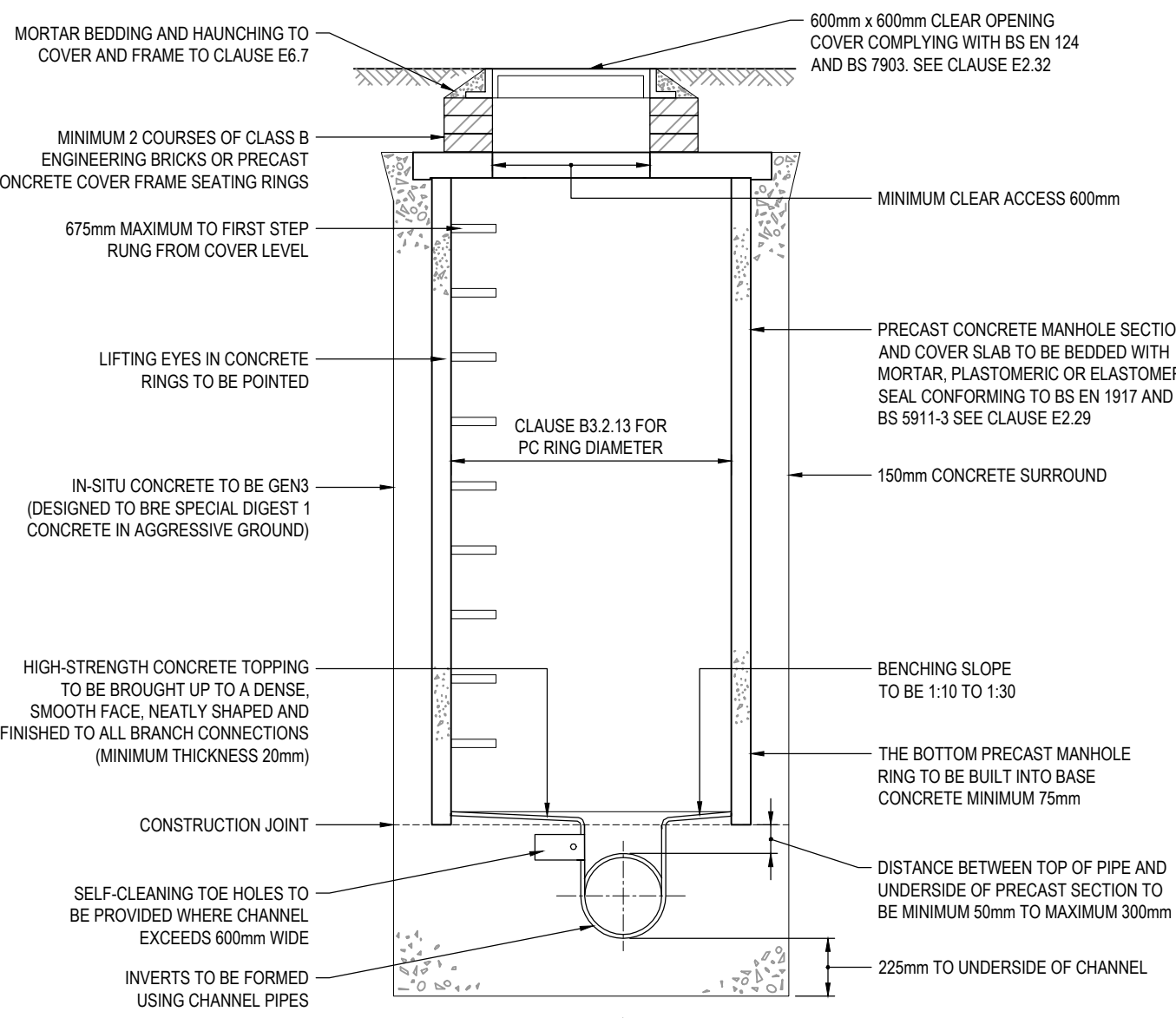


PIPE BEDDING NOTES

- DO NOT SCALE THIS DRAWING.
- ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.
- WIDTH OF TRENCHES SHALL BE X=600 (MAX) OR X=300 (MIN).
- WIDTH OF DUEL TRENCHES SHALL BE 2X + X/2 +300 EXCEPT WHERE LAYOUT DICTATES A WIDER SPACING TO ACCOMMODATE MANHOLES AND/OR ADOPTING AUTHORITY REQUIREMENTS.
- ALL PIPES AND CULVERTS SHALL HAVE FLEXIBLE WATERTIGHT JOINTS.
- DESIGN D3/4 SHALL BE USED WHEN THE COVER FROM TOP OF PIPE TO FINISHED LEVEL IS LESS THAN 1200 WITHIN THE HIGHWAY & 900 IN VERGES ETC.
- IN DESIGN D3/4 A 20 GAP SHALL BE FORMED IN THE CONCRETE SURROUND AT THE OUTER END OF THE SOCKET AT EACH FLEXIBLE JOINT. THE GAP SHALL EXTEND TO THE FULL THICKNESS OF THE CONCRETE & SHALL BE FILLED WITH SOFT FIBRE BOARD, EXPANDED POLYSTYRENE OR SIMILAR APPROVED MATERIAL.
- CONCRETE SURROUND MAY EXTEND TO THE SIDES OF THE TRENCH, OR BE OF A MINIMUM WIDTH. CLASS 8 MATERIAL MATERIAL IS TO BE USED TO FILL ANY VOIDS SO FORMED.
- CONCRETE COVER MAY BE FORMED TO A RADIUS BATTER OR HORIZONTAL SURFACE.
- ALL TO BE IN ACCORDANCE WITH DEPARTMENT OF TRANSPORT SPECIFICATION FOR HIGHWAY WORKS (SHW) 1996 AND SUBSEQUENT AMENDMENTS (INCLUDING APPENDICES).
- EXCAVATION, BACKFILLING AND REINSTATEMENT IN PUBLIC HIGHWAYS SHALL BE CARRIED OUT IN ACCORDANCE WITH THE REQUIREMENTS OF THE STREET WORKS (REINSTATEMENT) REGULATIONS 1992 AND RELEVANT PROVISIONS OF THE HAUC SPECIFICATION FOR THE REINSTATEMENT OF OPENINGS IN HIGHWAYS JUNE 1992 BOTH MADE UNDER SECTION 21 OF THE NEW ROADS AND STREET WORKS ACT 1991.
- INSITU CONCRETE - STANDARDISED PRESCRIBED CONCRETE MIX ST4 (UNREINFORCED) IN ACCORDANCE WITH BS 8500-2 AND BS EN 206-1 SHALL BE USED WITH A 20mm NOMINAL MAXIMUM SIZE OF AGGREGATE AND A CLASS S2 (75mm) SLUMP. ADMIXTURES (INCLUDING CALCIUM CHLORIDE AND PIGMENTS) SHALL NOT BE USED IN THE PRODUCTION OF CONCRETE. COMPRESSIVE STRENGTH TESTING SHALL NOT BE USED TO JUDGE THE COMPLIANCE OF A CONCRETE, BUT WHERE REQUIRED BY THE ADOPTING AUTHORITY, THE CONTRACTOR SHALL PROVIDE EVIDENCE OF THE BATCH MASSES USED TO PRODUCE ANY CONCRETE.

NB STANDARDISED PRESCRIBED CONCRETE PRODUCED USING SULPHATE-RESISTING PORTLAND CEMENT IS NOT INTENDED TO PRODUCE SULPHATE-RESISTING CONCRETE. WHERE THE DESIGN SULPHATE CLASS IS HIGHER THAN DESIGN CHEMICAL CLASS DS-2, INSITU (AND PRECAST) CONCRETE, WHERE APPLICABLE) SHALL BE AS DESIGNATED ON THE CONTRACT SPECIFIC DRAINAGE LAYOUT DRAWING, MANHOLE SCHEDULE OR SPECIFICATION.

Table 3	
Pipe Size (mm)	Pipe Bedding Granular Material (To BS EN 12620)
100 - 150	Size 4/10
225 - 300	Size 4/10, 10/20 or 4/20
375 - 500	Size 10/20 or 4/20
> 600	Size 10/20, 20/40, 4/20 or 4/40

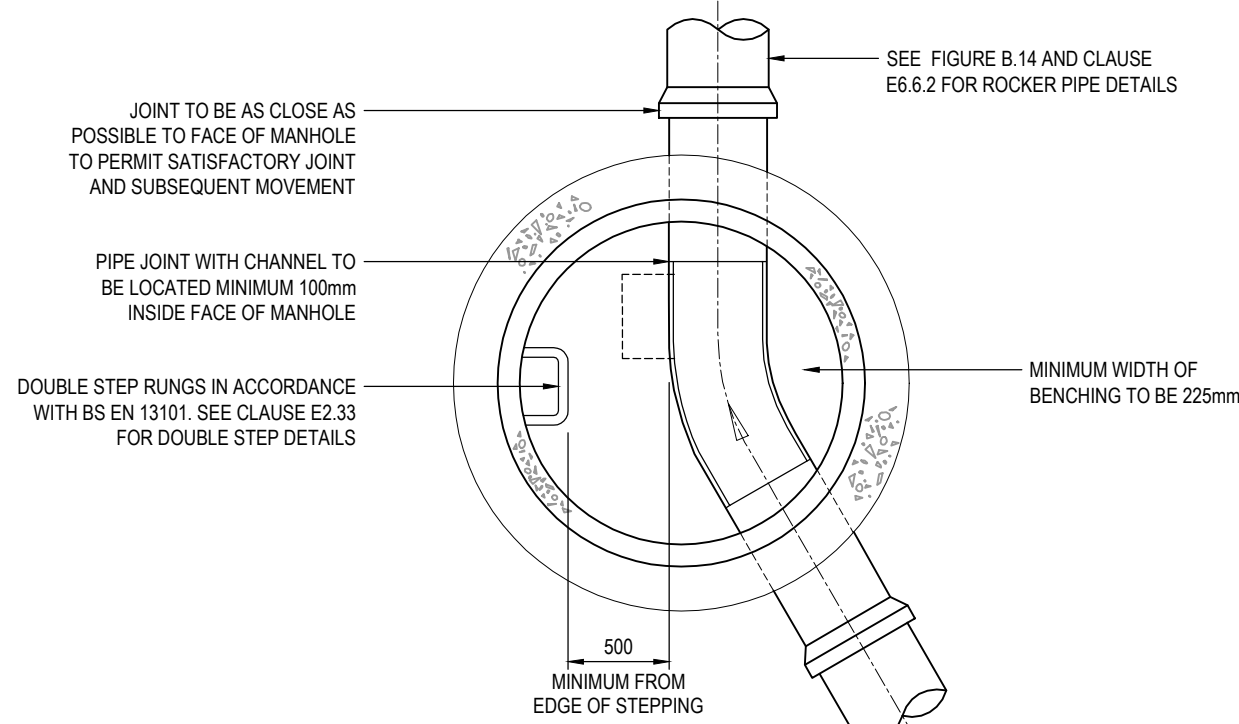


NOTES:

- DO NOT SCALE FROM THIS DRAWING. USE FIGURED DIMENSIONS ONLY. ALL DIMENSIONS ARE IN MILLIMETRES.
- FOR DATED REFERENCES, SUBSEQUENT AMENDMENTS TO, OR REVISIONS OF, ANY OF THESE PUBLICATION DO NOT APPLY. FOR UNDATED REFERENCES, THE LATEST EDITION OF THE PUBLICATION REFERRED TO APPLIES.
- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS AND THE SPECIFICATION.
- MANHOLE COVERS AND FRAMES - SHALL COMPLY WITH THE RELEVANT PROVISIONS OF BS EN 124. THEY SHALL BE OF A NON-ROCKING DESIGN WHICH DOES NOT RELY ON THE USE OF CUSHION INSERTS. CLASS D400 COVERS SHALL BE USED (INCLUDING PEDESTRIAN STREETS), HARD SHOULDERS AND PARKING USED BY ALL TYPES OF ROAD VEHICLE. CLASS B125 SHALL BE USED IN FOOTWAYS, PEDESTRIAN AREAS AND COMPARABLE LOCATIONS. MINIMUM FRAME DEPTHS FOR NRSWA ROAD CATEGORIES I TO IV SHALL BE 150mm (EXCEPT RESIDENTIAL CUL-DE-SACS WHERE THE MINIMUM FRAME DEPTH SHALL BE 100mm). ALL MANHOLES COVERS SHALL BE THE NON-VENTILATING TYPE AND HAVE CLOSED KEYS. IN VERGES COVERS SHALL BE POSITIONED ON THE SIDE FURTHEST FROM THE CARRIAGEWAY.
- ACCESS - DOUBLE ENCAPSULATED STEP RUNGS ARE TO BE FITTED WITHIN THE MANHOLE FOR ACCESS. THE TOP RUNG SHOULD BE A MAXIMUM OF 675mm BELOW GROUND LEVEL.
- MORTAR - SHALL BE CLASS 8 ENGINEERING COMPLYING WITH THE RELEVANT PROVISIONS OF BS 3921. ALL BRICKS SHALL BE FROST RESISTANT CATEGORY F.
- MORTAR - SHALL BE MIXED ONLY AS AND WHEN REQUIRED, IN THE PROPORTION 1:3 CEMENT SAND BY VOLUME. ALL MORTAR SHALL BE CONVEYED FRESH TO THE WORKS AS REQUIRED FOR USE. MORTAR WHICH HAS BEGUN TO SET OR WHICH HAS BEEN MIXED FOR A PERIOD OF MORE THAN 1 HOUR SHALL NOT BE USED.
- SANDS FOR MORTAR - SHALL BE WASHED SAND, COMPLYING WITH BS 1200 AND GRADED IN ACCORDANCE WITH TABLE 1 OF THAT STANDARD.
- CEMENT (FOR INSITU CONCRETE AND MORTAR) - SHALL BE SULPHATE RESISTING PORTLAND CEMENT (SRPC) COMPLYING WITH BS 4027.
- CEMENT (FOR PRECAST CONCRETE PIPES OR MANHOLES) - SHALL BE A COMBINATION OF CEMENT CONFORMING TO BS 12 AND G 6.8.5 OR P.P.A. OR CEMENT CONFORMING TO BS 4027 ALONE TO MEET UP TO AND INCLUDING DESIGN SULPHATE CLASS DS-3 AS DEFINED IN BRE SPECIAL DIGEST 1, 2001.
- WATER FOR USE WITH CEMENT - SHALL BE OF POTABLE QUALITY.

MANHOLE DIAMETERS	
NOMINAL INTERNAL DIAMETER OF LARGEST PIPE IN MANHOLE (mm)	MINIMUM NOMINAL INTERNAL DIMENSION OF MANHOLE (mm)
LESS THAN 375	1200
375 - 450	1350
450 - 700	1500
700 - 900	1600
GREATER THAN 900	PIPE DIAMETER + 900

ROCKER PIPE LENGTH	
NOMINAL DIAMETER (mm)	EFFECTIVE LENGTH (mm)
150 - 600	600
600 - 750	1000
OVER 750	1250



TYPICAL MANHOLE DETAIL - TYPE 2 DEPTH FROM COVER LEVEL TO SOFFIT OF PIPE UP TO 3m

PIPE BEDDING DETAILS

Mark	Revision	Date	Drawn	Chkd	Appd

SCALING NOTE: Do not scale from this drawing. If in doubt, ask.
UTILITIES NOTE: The position of any existing public or private sewers, utility services, plant or apparatus shown on this drawing is believed to be correct, but no warranty to this is expressed or implied. Other such plant or apparatus may also be present but not shown. The Contractor is therefore advised to undertake their own investigation where the presence of any existing sewers, services, plant or apparatus may affect their operations.

Drawing Issue Status FOR INFORMATION

LYMINSTER BYPASS - SOUTH NORTH LITTLEHAMPTON HIGHWAY CONSTRUCTION DETAILS SHEET 1 OF 2

Client					
					
Date of 1st Issue		Designed		Drawn	
23.06.2017		-		CL	
A1 Scale		Checked		Approved	
AS SHOWN		MJP		DTH	
Drawing Number				Revision	
35944/2001/003				-	


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