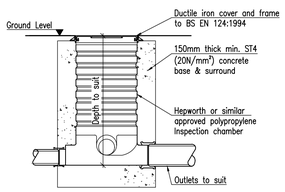
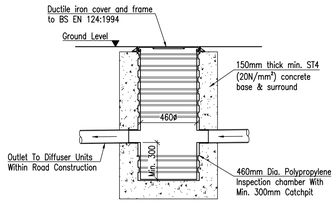


Detail for non trafficked area, medium duty cover in car parks (Class C250 to be EN 124)

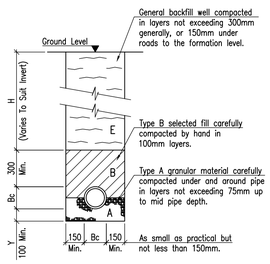
Light Duty Rodding Eye Detail
Scale 1:25



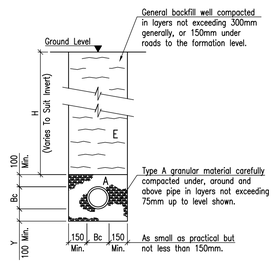
Typical Polypropylene Inspection Chamber
Scale 1:25



Typical Polypropylene Catchpit Inspection Chamber
Scale 1:25



Type B Pipe Bedding
(Granular bed & surround)
Scale 1:25

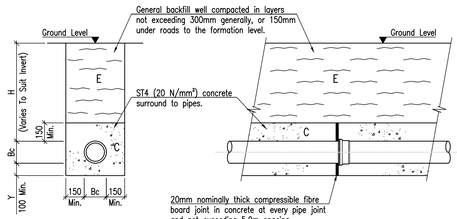


Type S Pipe Bedding
(Granular bed & surround)
Scale 1:25

PERMITTED PIPE/BEDDING TYPES		
	DEPTH OF COVER WITHIN LIGHTLY TRAFFICKED AREAS	
	1.2m–3.5m	0.9m–3.5m
PIPE BEDDING	TYPE B	TYPE S
PIPE TYPE	VITRIFIED CLAY TO BS:65, WITH FLEXIBLE JOINTS SUPER STRENGTH CLASS FOR 225 AND 300mmø. EXTRA STRENGTH CLASS FOR ALL OTHER SIZES.	THERMOPLASTIC: UPVC TO BS EN 1404+ PP TO BS EN 1852+ STRUCTURE WALL PLASTIC PIPE TO BS EN 13476 ALL WITH NOMINAL RING STIFFNESS SN4
COVER DEPTH	<1.2m	<0.9m
PIPE BEDDING	TYPE Z	TYPE Z
PIPE TYPE	VITRIFIED CLAY TO BS:65, WITH FLEXIBLE JOINTS SUPER STRENGTH CLASS FOR 225 AND 300mmø. EXTRA STRENGTH CLASS FOR ALL OTHER SIZES.	THERMOPLASTIC: UPVC TO BS EN 1404+ PP TO BS EN 1852+ STRUCTURE WALL PLASTIC PIPE TO BS EN 13476 ALL WITH NOMINAL RING STIFFNESS SN4

Table A
Granular bedding and sidefill material for vitrified clay pipes

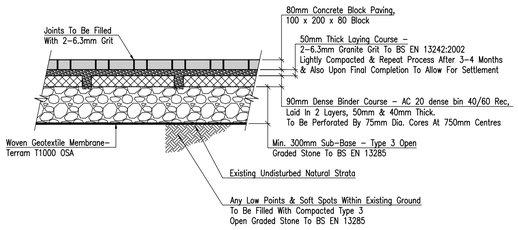
PIPE SIZE DN (mm)	MAX. PARTICLE SIZE (mm)	NOMINAL SINGLE SIZE (mm)	GRADED SIZE (mm)	MAXIMUM CFE VALUE FOR AS–DUG
110	10	10	NOT PERMITTED	0.15
OVER 110 to 160	15	10 or 14	14 to 5	0.15
OVER 160 to 300	20	10,14 or 20	14 or 20 to 5	0.15
OVER 300 to 600	20	14 or 20	14 or 20 to 5	0.15



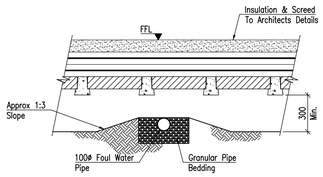
Section Through Pipe Trench

Section Along Pipe Trench

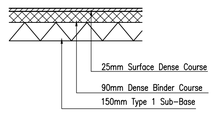
Type Z Pipe Bedding
(Concrete surround)
Scale 1:25



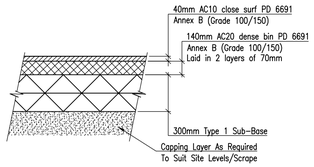
Permeable block paved car parking construction
Scale 1:25



Sub–Floor Pipe Bedding Detail Within B&B Void Zone
Scale 1:25



Typical Private Footpath construction
Scale 1:25



Tarmac Road Construction Detail
Scale 1:25

Suitably Graded & Well Compacted Site Won Chalky Material to be used as Capping wherever possible, where not utilise 6F5 material

MINIMUM DIMENSIONS FOR ACCESS FITTINGS AND INSPECTION CHAMBERS

TYPE OF ACCESS	DEPTH TO INVERT FROM COVER LEVEL (m)	MINIMUM INTERNAL DIMENSIONS (1)		MINIMUM CLEAR OPENING SIZE (2)	
		LENGTH x WIDTH (mm x mm)	CIRCULAR (mm)	LENGTH x WIDTH (mm x mm)	CIRCULAR (mm)
RODDING EYE	–	AS DRAIN BUT MINIMUM 100mm.	–	–	SAME SIZE AS PIPEWORK
ACCESS FITTING SMALL 150mm DIA. SMALL 150x100mm LARGE 225x100mm	0.6m OR LESS EXCEPT WHERE SITUATED IN A CHAMBER	150 x 100 225 x 100	150 225	150 x 100 (1) 225 x 100 (1)	SAME SIZE AS ACCESS FITTING
INSPECTION CHAMBER					
SHALLOW	0.6m OR LESS	225 x 100	190 (2)		190 (1)
MEDIUM	1.2m OR LESS	450 x 450	450	MIN 430 x 430	430
DEEP	GREATER THAN 1.2m	450 x 450	450	MAX 300 x 300 (3)	ACCESS RESTRICTED TO MAX 350 (3)

NOTES:
(1) THE CLEAR OPENING MAY BE REDUCED BY 20mm IN ORDER TO PROVIDE PROPER SUPPORT FOR THE COVER AND FRAME.
(2) DRAINS UPTO 150mm DIAMETER.
(3) A LARGER CLEAR OPENING COVER MAY BE USED IN CONJUNCTION WITH A RESTRICTED ACCESS. THE SIZE IS RESTRICTED FOR HEALTH AND SAFETY REASONS TO DETER ENTRY.

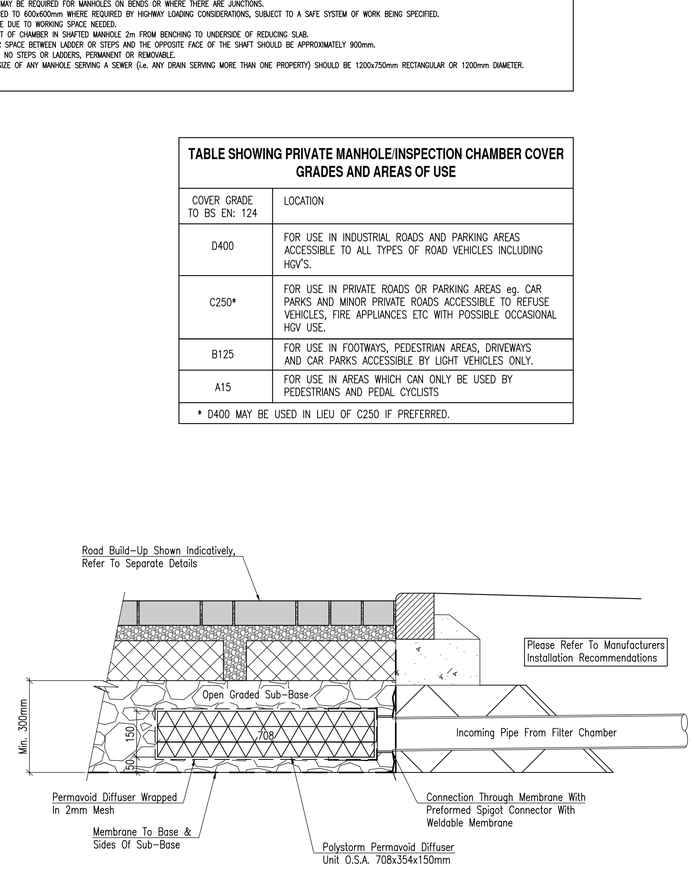
MINIMUM DIMENSIONS FOR MANHOLES

TYPE OF ACCESS	SIZE OF LARGEST PIPE (DN)	MINIMUM INTERNAL DIMENSIONS (1)		MINIMUM CLEAR OPENING SIZE (2)	
		RECTANGULAR LENGTH x WIDTH (mm x mm)	CIRCULAR DIAMETER (mm)	RECTANGULAR LENGTH x WIDTH (mm x mm)	CIRCULAR DIAMETER (mm)
MANHOLE LESS THAN 1.5m DEEP TO SOFFIT	LESS THAN OR EQUAL TO 150	750 x 675 (7)	1000 (7)	750 x 675 (2)	N/A (3)
	225	1200 x 675	1200	1200 x 675 (2)	
	300	1200 x 750	1200		
	GREATER THAN 300	1800 x (DN+450)	THE LARGER OF 1800 or (DN+450)		
MANHOLE GREATER THAN 1.5m DEEP TO SOFFIT	LESS THAN OR EQUAL TO 225	1200 x 1000	1200	600 x 600	600
	300	1200 x 1075	1200		
	375–450	1350 x 1225	1200		
	GREATER THAN 450	1800 x (DN+775)	THE LARGER OF 1800 or (DN+775)		
MANHOLE SHAFT (4) GREATER THAN 3.0m DEEP TO SOFFIT OF PIPE	STEPS (5)	1050 x 800	1050	600 x 600	600
	LADDER (5)	1200 x 800	1200		
	WINCH (6)	900 x 800	900		

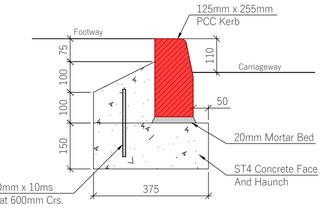
NOTES:
(1) LARGER SIZES MAY BE REQUIRED FOR MANHOLES ON BENDS OR WHERE THERE ARE JUNCTIONS.
(2) MAY BE REDUCED TO 600x600mm WHERE REQUIRED BY HIGHWAY LOADING CONSIDERATIONS, SUBJECT TO A SAFE SYSTEM OF WORK BEING SPECIFIED.
(3) NOT APPLICABLE DUE TO WORKING SPACE NEEDED.
(4) MINIMUM HEIGHT OF CHAMBER IN SHAFTED MANHOLE 2m FROM BENCHING TO UNDERSIDE OF REDUCING SLAB.
(5) MINIMUM CLEAR SPACE BETWEEN LADDER OR STEPS AND THE OPPOSITE FACE OF THE SHAFT SHOULD BE APPROXIMATELY 900mm.
(6) WINCH ONLY – NO STEPS OR LADDERS, PERMANENT OR REMOVABLE.
(7) THE MINIMUM SIZE OF ANY MANHOLE SERVING A SEWER (i.e. ANY DRAIN SERVING MORE THAN ONE PROPERTY) SHOULD BE 1200x750mm RECTANGULAR OR 1200mm DIAMETER.

TABLE SHOWING PRIVATE MANHOLE/INSPECTION CHAMBER COVER GRADES AND AREAS OF USE

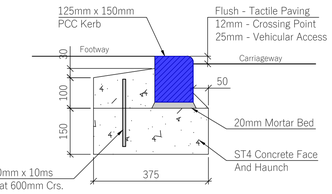
COVER GRADE TO BS EN: 124	LOCATION
D400	FOR USE IN INDUSTRIAL ROADS AND PARKING AREAS ACCESSIBLE TO ALL TYPES OF ROAD VEHICLES INCLUDING HGV'S.
C250*	FOR USE IN PRIVATE ROADS OR PARKING AREAS eg. CAR PARKS AND MINOR PRIVATE ROADS ACCESSIBLE TO REFUSE VEHICLES, FIRE APPLIANCES ETC WITH POSSIBLE OCCASIONAL HGV USE.
B125	FOR USE IN FOOTWAYS, PEDESTRIAN AREAS, DRIVEWAYS AND CAR PARKS ACCESSIBLE BY LIGHT VEHICLES ONLY.
A15	FOR USE IN AREAS WHICH CAN ONLY BE USED BY PEDESTRIANS AND PEDAL CYCLISTS
* D400 MAY BE USED IN LIEU OF C250 IF PREFERRED.	



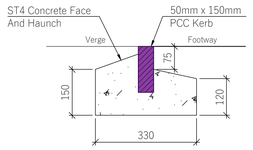
Diffuser Unit Construction Detail
Scale 1:10



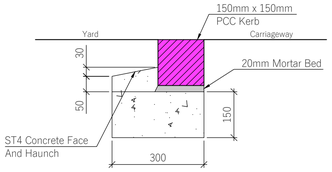
Typical Standard Kerb Detail (HB2 125x255mm)
Scale 1:10



Typical Bull Nose Kerb Detail (BN 125x150mm)
Scale 1:10



Typical Edging Kerb Detail (EF 50x150mm)
Scale 1:10



Typical Channel Block Detail (CB 150x150mm)
Scale 1:10

Rev.	Revision	Drn	App	Date
P1	PRELIMINARY – FOR APPROVAL	APW	APW	04/21

SHIELDS WILSON
e: info@shieldswilson.co.uk t: 01775 729252
STRUCTURAL AND CIVIL ENGINEERING

Status: FOR APPROVAL

Client: Burmor Construction Ltd.

Project: Proposed COOP Store, Church Street, Donnington

Title: Proposed Details For Drainage & External Works

Date	Apr. '21	Scale @A1	Drawing No.	Rev
Appr	APW	1:25 1:10	21–133/102	P1

COPYRIGHT SHIELDS WILSON LIMITED. ALL RIGHTS RESERVED.