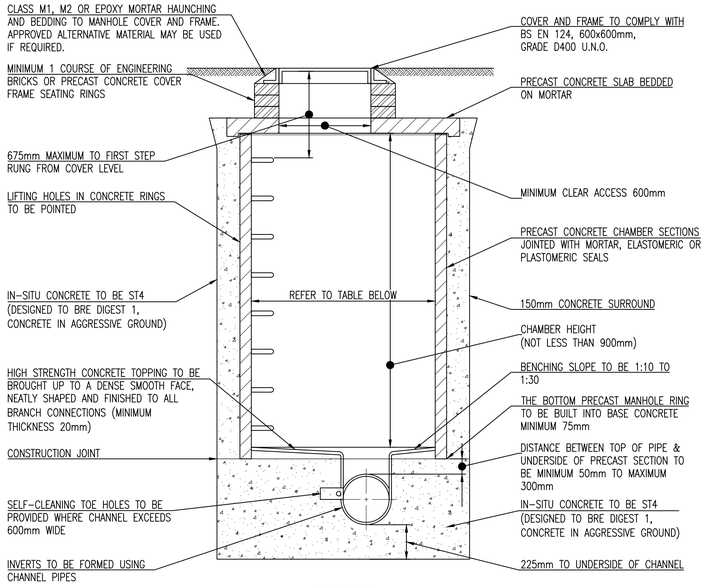
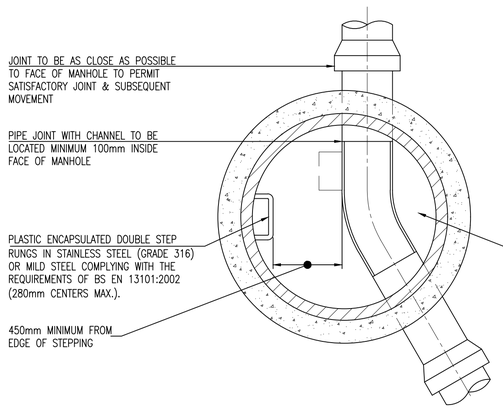


SECTION



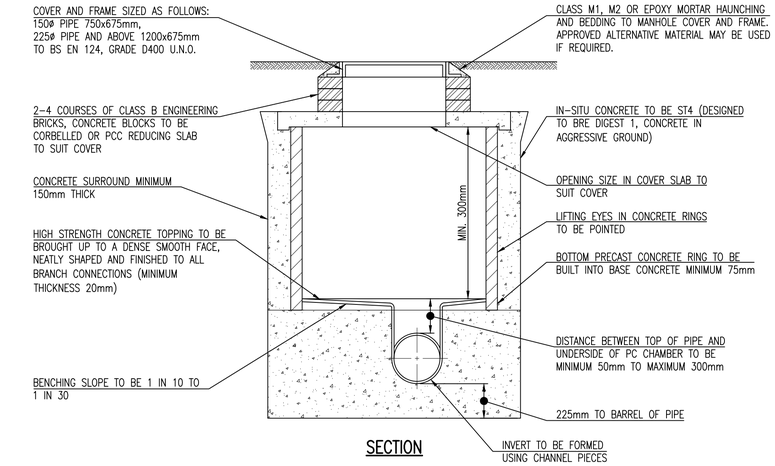
SHOULD THE CONTRACTOR PREFER THE USE OF THERMOPLASTIC MANHOLE CHAMBER RINGS COMPLYING WITH BS EN 13598-2 IS PERMITTED

MINIMUM CHAMBER DIAMETER	
LARGEST PIPE SIZE	MIN. DIAMETER
≤450	1200
>450	THE LARGER OF 1800 OR DN+450

PLAN

PRE-CAST MANHOLE DETAIL 1.5-3.0m TO SOFFIT

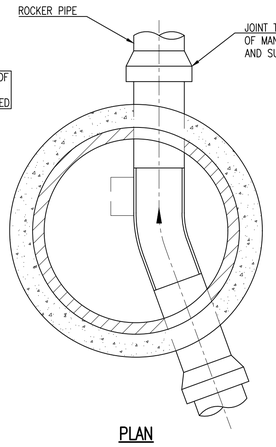
SCALE 1:20



SECTION

SHOULD THE CONTRACTOR PREFER THE USE OF THERMOPLASTIC MANHOLE CHAMBER RINGS COMPLYING WITH BS EN 13598-2 IS PERMITTED

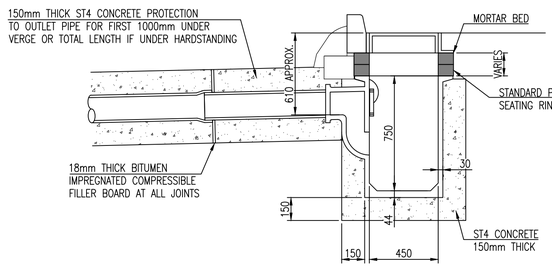
MINIMUM CHAMBER DIAMETER	
LARGEST PIPE SIZE	MIN. DIAMETER
≤150	1000*
225	1200
300	1200
>300	THE LARGER OF 1800 OR DN+450
* IF SERVING MORE THAN ONE PROPERTY 1200ø MIN.	



PLAN

CIRCULAR PRE-CAST MANHOLE DETAIL LESS THAN 1.5m TO SOFFIT

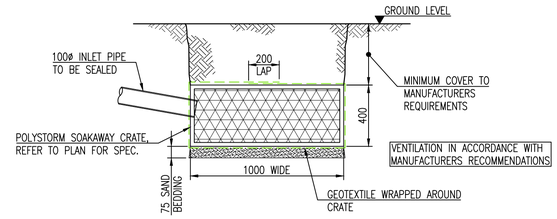
SCALE 1:20



TYPICAL TRAPPED ROAD GULLY DETAIL

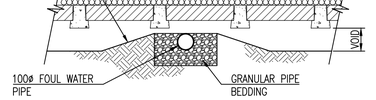
SCALE 1:20

GULLY NOTES
1) COVER AND FRAME TO BE UNCOATED IRON.
2) CLASS M1, M2 OR EPOXY MORTAR BED & BENCHING.
3) STANDARD PRE-CAST SEATING RINGS TO COMPLY TO BS 5911-4:2010.
4) ALL IN SITU CONCRETE TO BE ST4 WITH SULPHATE RESISTING CEMENT UNLESS AGREED OTHERWISE.
5) POSITION OF OUTLET PIPE VARIES IN PLAN.
6) INSITU ST4 CONCRETE 150mm THICK SURROUND TO OUTLET PIPE FOR FIRST ONE METRE UNDER VERGE OR TOTAL LENGTH IF UNDER CARRIAGEWAY.
7) WHERE GRATING IS TO BE TRAFFICKED OR LAID AGAINST WITHIN 24 HOURS OF FRAME BEING PLACED IN POSITION, THEN A SUITABLE ULTRA RAPID HARDENING MORTAR AND CONCRETE (MONOSET 241 OR SIMILAR) SHALL BE USED TO BED COVER AND FRAME.



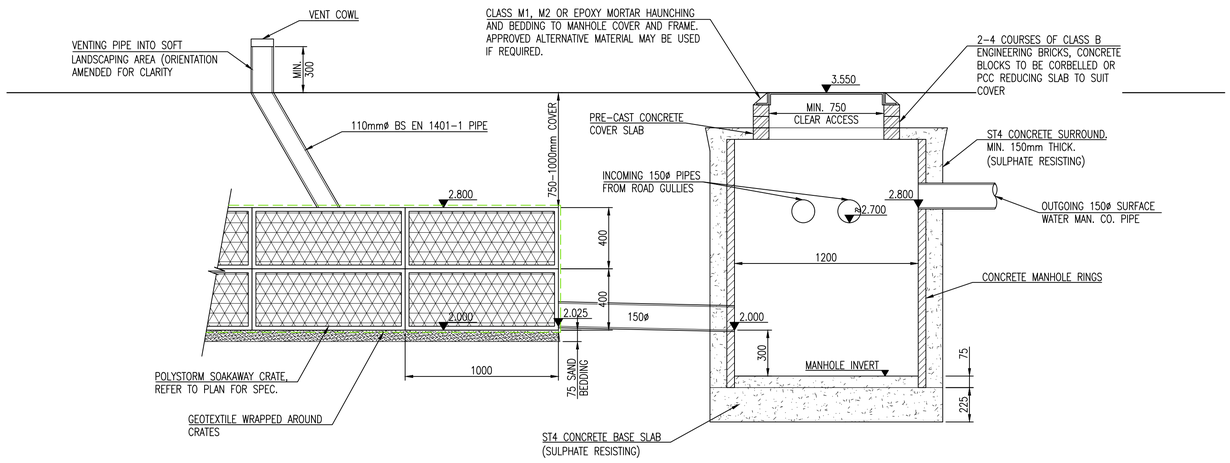
TYPICAL SOAKAWAY CRATE DETAIL

SCALE 1:20



SUB-FLOOR PIPE BEDDING DETAIL WITHIN B&B VOID ZONE

SCALE 1:20



TYPICAL SECTION THROUGH SOAKWAY CRATES & S01

SCALE 1:20

GENERAL DRAINAGE NOTES

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT ENGINEERS AND ARCHITECTS DETAILS.

2. ALL MATERIAL & WORKMANSHIP TO BE IN ACCORDANCE WITH 'SEWERAGE SECTOR GUIDANCE APPENDIX C: DESIGN AND CONSTRUCTION GUIDANCE'.

3. ALL WORK IS TO BE CARRIED OUT IN ACCORDANCE WITH THE CURRENT BRITISH STANDARDS, B.S. CODES OF PRACTICE & BUILDING REGULATIONS.

4. REFER TO SSG DCG SPECIFICATION FOR CONCRETE GRADES & SAND/CEMENT MORTAR GRADES. ALL PRECAST & IN-SITU CONCRETE TO CONTAIN A MINIMUM CLASS 3 SUPHATE RESISTING CEMENT.

5. PRE-FORMED CHANNELS ARE TO BE USED AT MANHOLES.

6. GRANOLITHIC CONCRETE BENCHING TO BE STEEL TROWELLED TO A DENSE SMOOTH FACE NEATLY SHAPED & FINISHED TO ALL BRANCH CONNECTIONS & LAID IN ACCORDANCE WITH THE SPECIFICATION.

7. ALL DIMENSIONS ARE IN MILLIMETRES U.N.O.

8. PIPE BENDS TO SUIT DIRECTION OF FLOW.

9. MANHOLE COVERS AND FRAMES TO BE TO EN 124. USE GRADE D400 COVERS IN VEHICULAR MOVEMENT AREAS AND GRADE A15 COVERS IN NON-VEHICULAR AREAS.

10. ALL TRENCHES UNDER CARRIAGEWAY TO BE BACKFILLED WITH TYPE 1 SUB-BASE, WELL COMPACTED IN LAYERS NOT EXCEEDING 150mm LOOSE DEPTH.

NOTES ON BEDDING DETAILS

GENERALLY VITRIFIED CLAY DRAINAGE PIPEWORK SHOULD BE LAID IN ACCORDANCE WITH BS 65 AND BS 8301.

A-TYPE A GRANULAR MATERIAL SHALL COMPLY WITH WIS NO. 4-08-01 AND SHALL BE:-
(A) IMPORTED SINGLE SIZE OR GRADED AGGREGATE IN ACCORDANCE WITH BS 882 AS SHOWN IN THE TABLE A.
(B) SELECTED AS-DUG GRANULAR BEDDING AND SIDEFILL MATERIAL SHALL BE FREE FROM ORGANIC MATTER, COMBUSTABLE MATERIALS, FROZEN SOIL, CLAY LUMPS LARGER THAN 75mm AND STONES LARGER THAN THE MAXIMUM PERMITTED PARTICLE SIZE SPECIFIED IN TABLE A DEPENDING ON PIPE SIZE. THE SELECTED MATERIAL SHALL BE EVALUATED USING THE COMPACTION FRACTION TEST DETAILED IN APPENDIX A OF WIS NO. 4-08-01.
MATERIAL EXCAVATED FROM TRENCHES DUG THROUGH LAND CONTAMINATED WITH DOMESTIC, BUILDING OR INDUSTRIAL WASTE SHOULD NOT BE USED.

B-TYPE B SELECTED FILL SHALL BE:
UNIFORM READILY COMPACTABLE MATERIAL WHICH IS FREE FROM TREE ROOTS, VEGETABLE MATTER, BUILDING RUBBISH, FROZEN SOIL, CLAY LUMPS AND MATERIAL RETAINED ON A 40mm SIEVE.

C-CONCRETE PROTECTION TO PIPE. FOR CONCRETE GRADE REFER TO NOTE 4 AND CONCRETE MIX SPECIFICATION

E-GENERAL BACKFILL SHALL BE:
SUITABLE EXCAVATED MATERIAL FROM THE TRENCH (OR IMPORTED) EXCLUDING BOULDERS, LUMPS OF CONCRETE, TIMBER AND VEGETABLE MATTER. DO NOT USE HEAVY COMPACTORS BEFORE THERE IS 600MM COVER OF MATERIAL OVER THE PIPES.

Bc-EXTERNAL DIAMETER OF PIPE.

H-WHEN 'H' (DEPTH OF COVER) IS LESS THAN 0.9m BELOW THE FINISHED SURFACE OF A ROAD OR LESS THAN 0.3m ELSEWHERE USE BEDDING CLASS A OR Z AS APPROPRIATE FOR THE MATERIAL BEING USED, OR; ELSEWHERE USE BEDDING CLASS B OR P AS APPROPRIATE FOR THE PIPE BEING USED. PROVIDE TEMPORARY PROTECTION DURING CONSTRUCTION AGAINST MECHANICAL DAMAGE AND FROST.

Y-DEPTH OF GRANULAR BEDDING Y SHALL BE NOT LESS THAN 100mm BENEATH PIPE BARRELS AND SHALL BE GREATER IN SOFT OR WET CONDITIONS OR WHERE THE TRENCH BOTTOM IS IRREGULAR.

0 0.2 0.4 0.6 0.8 1.2 1.6 2m
1:20

REV.	DESCRIPTION	DRN.	APP.	DATE
-	PRELIMINARY - FOR APPROVAL	MRB	APW	21.07.23

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

STATUS FOR INFORMATION

CLIENT SEAGATE HOMES

PROJECT 6 PLOT RESIDENTIAL DEVELOPMENT
37 FLEET ROAD, HOLBEACH,
LINCOLNSHIRE, PE12 8LA

TITLE PROPOSED DRAINAGE DETAILS
(SHEET 2 OF 2)

DATE	JUNE '23	SCALE @A1	DRAWING NO.	REV.
DRAWN	MRB	1:20	SW23-218-107	-

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