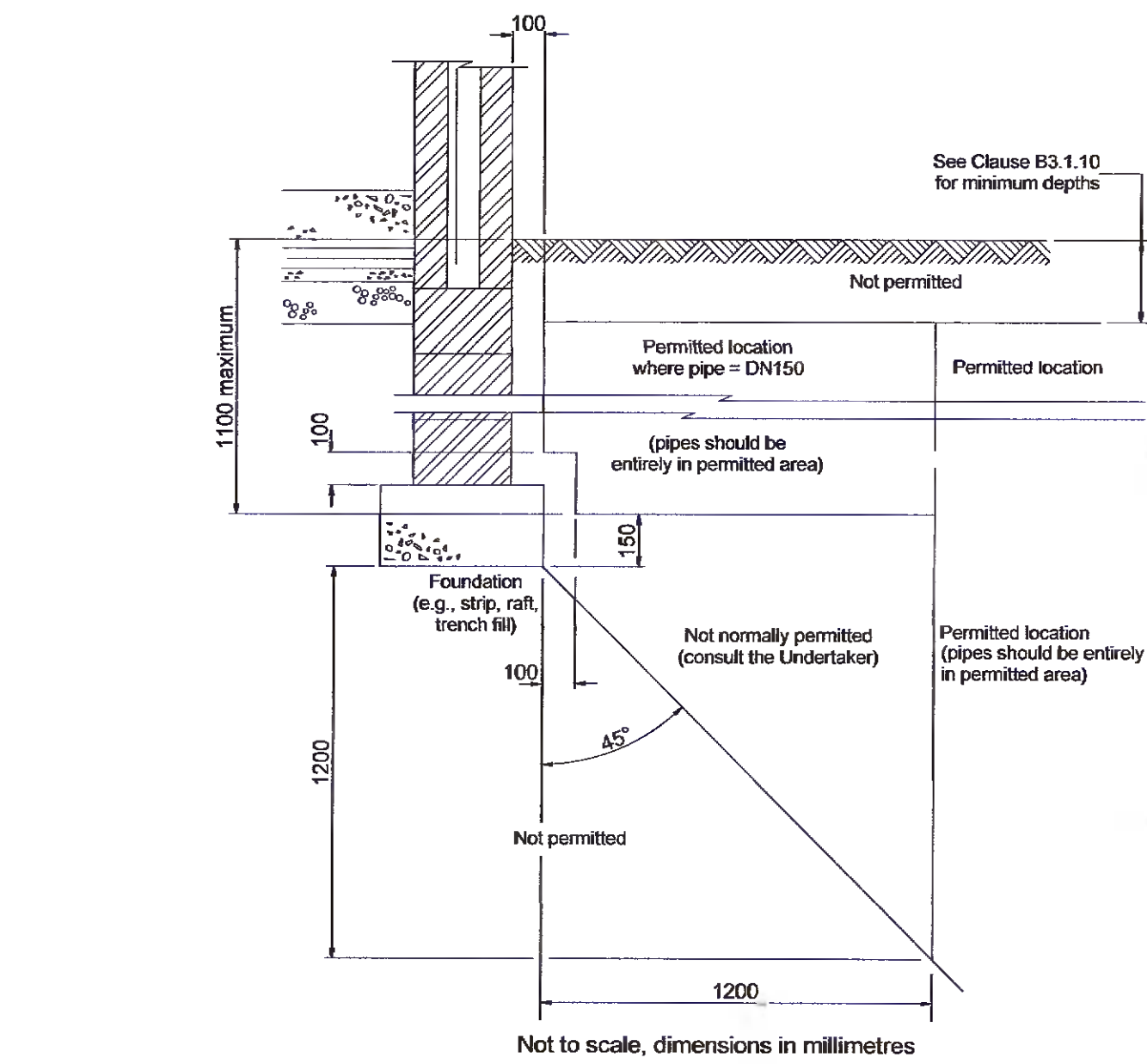
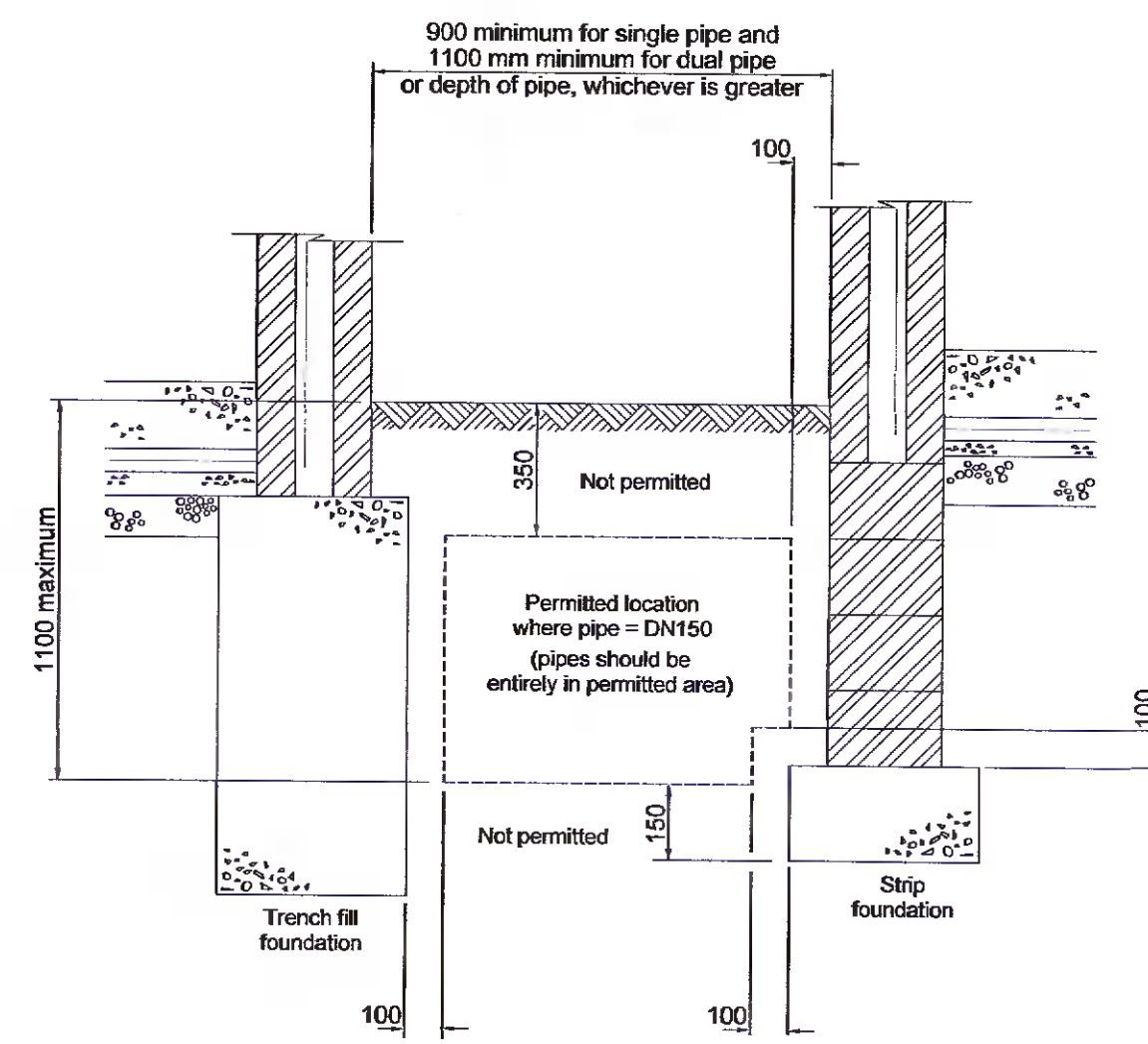


PERMITTED LOCATION OF SEWERS AND LATERAL DRAINS IN PROXIMITY TO BUILDINGS

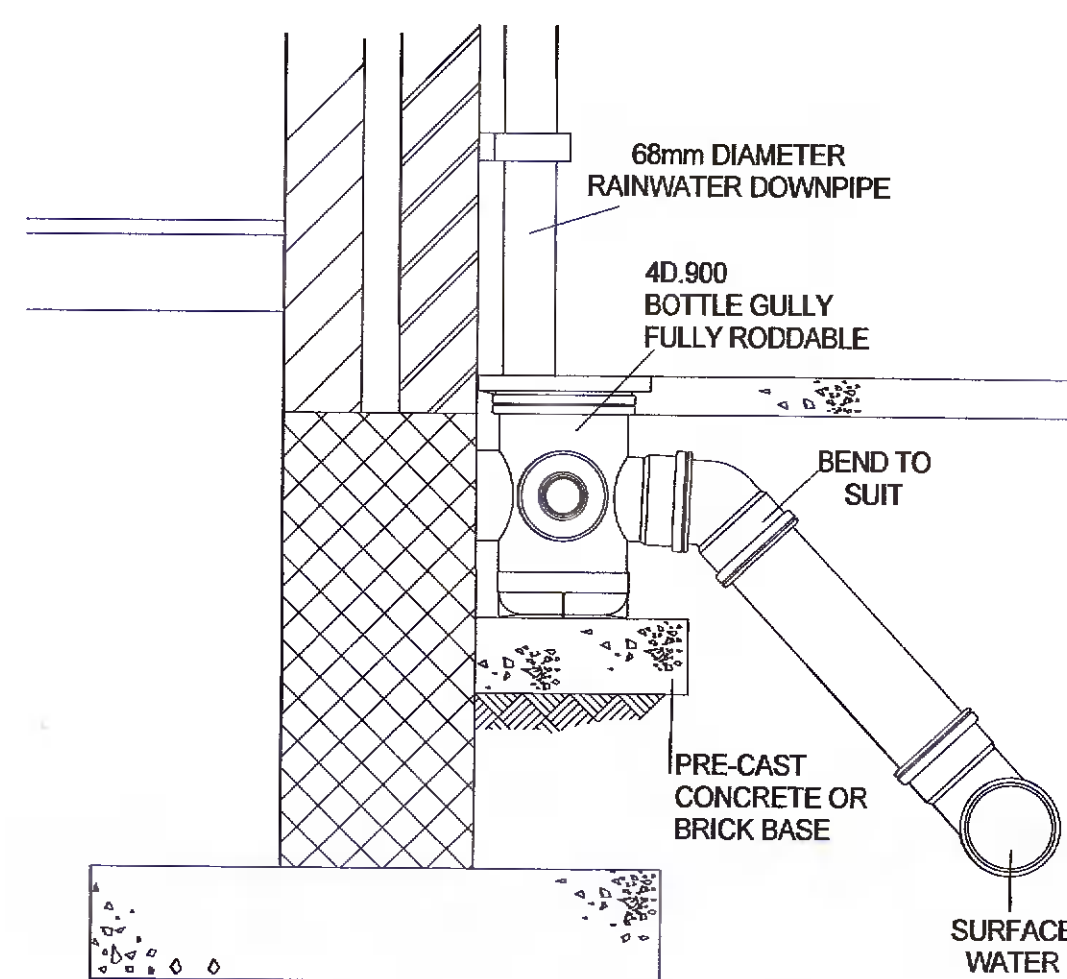


NOTE:
TRENCHES FOR PIPES NEAR FOUNDATIONS TO BE EXCAVATED IN SHORT SECTIONS TO AVOID UNDERMINING OF FOUNDATIONS. EXCAVATION, PIPELAYING AND CONCRETE BACKFILL TO BE CARRIED OUT ON THE SAME DAY. CONTRACTOR TO SUBMIT METHOD STATEMENT FOR REVIEW BY THE ENGINEER PRIOR TO EXCAVATION BEING CARRIED OUT.
- WHERE 'D' IS LESS THAN 1m
CONCRETE FILL TO LEVEL OF FOUNDATION BOTTOM
- WHERE 'D' IS MORE THAN 1m AND LESS THAN 2m
GRADE 35N/20 MASS CONCRETE FILL TO LEVEL OF FOUNDATION BOTTOM (U.N.O BY STRUCTURAL ENGINEER)
-150mm

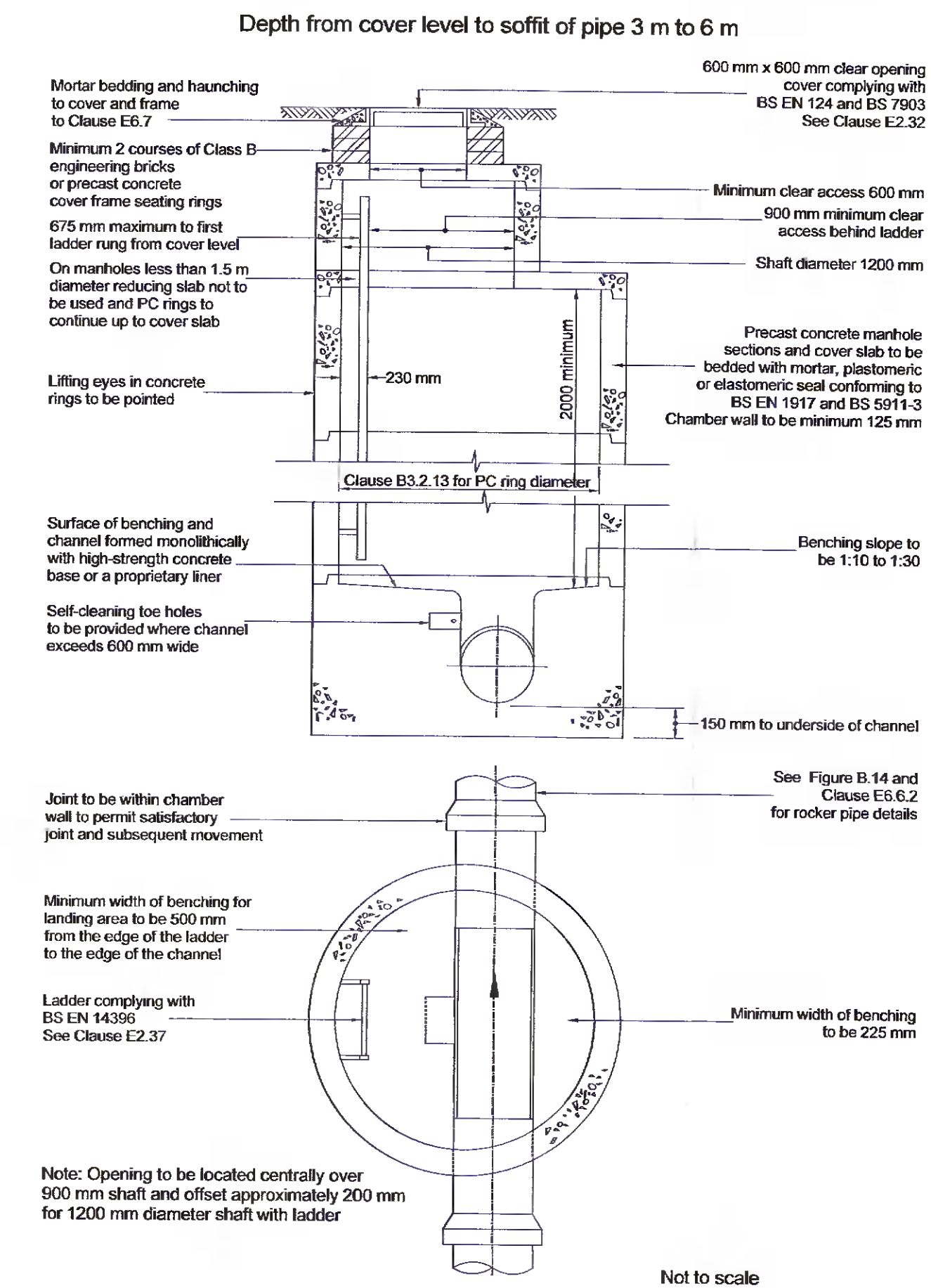
ADDITIONAL DETAIL - PERMITTED LOCATION OF SEWERS AND LATERAL DRAINS BETWEEN BUILDINGS
(where Figure B.1 is not applicable only)



GULLY DETAIL



TYPICAL MANHOLE DETAIL - TYPE 1A (Alternative construction detail)



TRENCH WIDTHS-RIGID PIPES

NOMINAL PIPE DIAMETER (mm)	100	150	225	300	375	450	525	600	750	900	1050	1200	1350
TRENCH WIDTH MIN (mm) (W)	450	500	600	700	950	1050	1150	1250	1400	1950	2100	2300	2450
TRENCH WIDTH MAX (mm) (W)	650	700	800	900	1150	1250	1350	1450	1600	2150	2300	2500	2650

TRENCH WIDTHS-FLEXIBLE PIPES

NOMINAL PIPE DIAMETER (mm)	100	150	200	250	300
TRENCH WIDTH MIN (mm) (W)	450	450	600	600	700
TRENCH WIDTH MAX (mm) (W)	600	600	700	700	850

DIMENSION-"bc"

NOMINAL PIPE DIAMETER (mm)	100-450 incl.	525-600 incl.	750	900	1050	1200
bc (mm)	100	150	200	225	250	300

DIMENSION-"b"

	PIPES UP TO AND INC. 600mm DIA.	PIPES GREATER THAN 600mm DIA.
UNIFORM SOIL	100mm	200mm
ROCK	200mm	300mm

TYPE "A" MATERIAL :

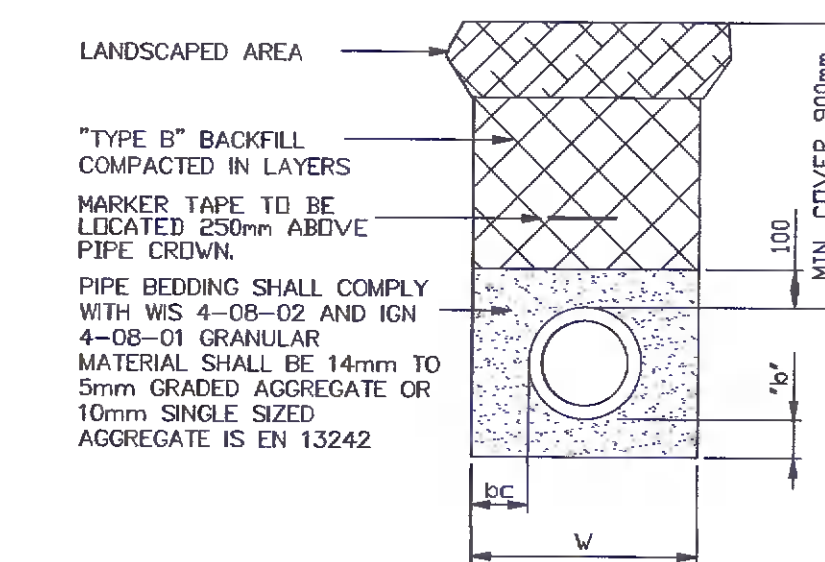
- BROKEN STONE OR GRAVEL, GRADING AS FOLLOWS:-
- 1) RIGID PIPES - PIPE DIAMETER UP TO AND INCLUDING 600mm
- SIEVE SIZE GREATER THAN 5mm AND LESS THAN 12mm
- PIPE DIAMETER GREATER THAN 600mm DIA
- SIEVE SIZE GREATER THAN 5mm AND LESS THAN 19mm
- 2) FLEXIBLE PIPES : SIEVE SIZE GREATER THAN 5mm AND LESS THAN 10mm

TYPE "B" MATERIAL :

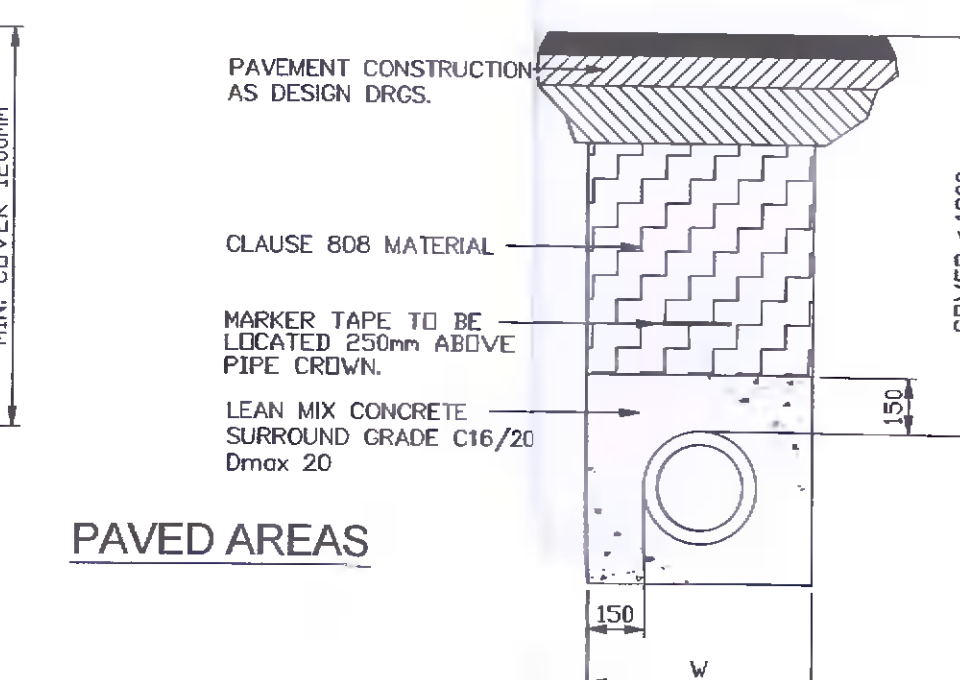
- SELECTED FILL UNIFORM READILY COMPACTABLE MATERIAL FREE FROM : CLAY LUMPS RETAINED IN 75mm SIEVE, STONES RETAINED IN 25mm SIEVE, TREE ROOTS, VEGETABLE MATTER, BUILDING RUBBISH AND FROZEN SOIL.

HARDCORE MATERIAL

- CRUSHED ROCK AS PER "SPECIFICATION FOR CIVIL ENGINEERING WORKS" DOCUMENT IEQ312141-30-SP-0100.

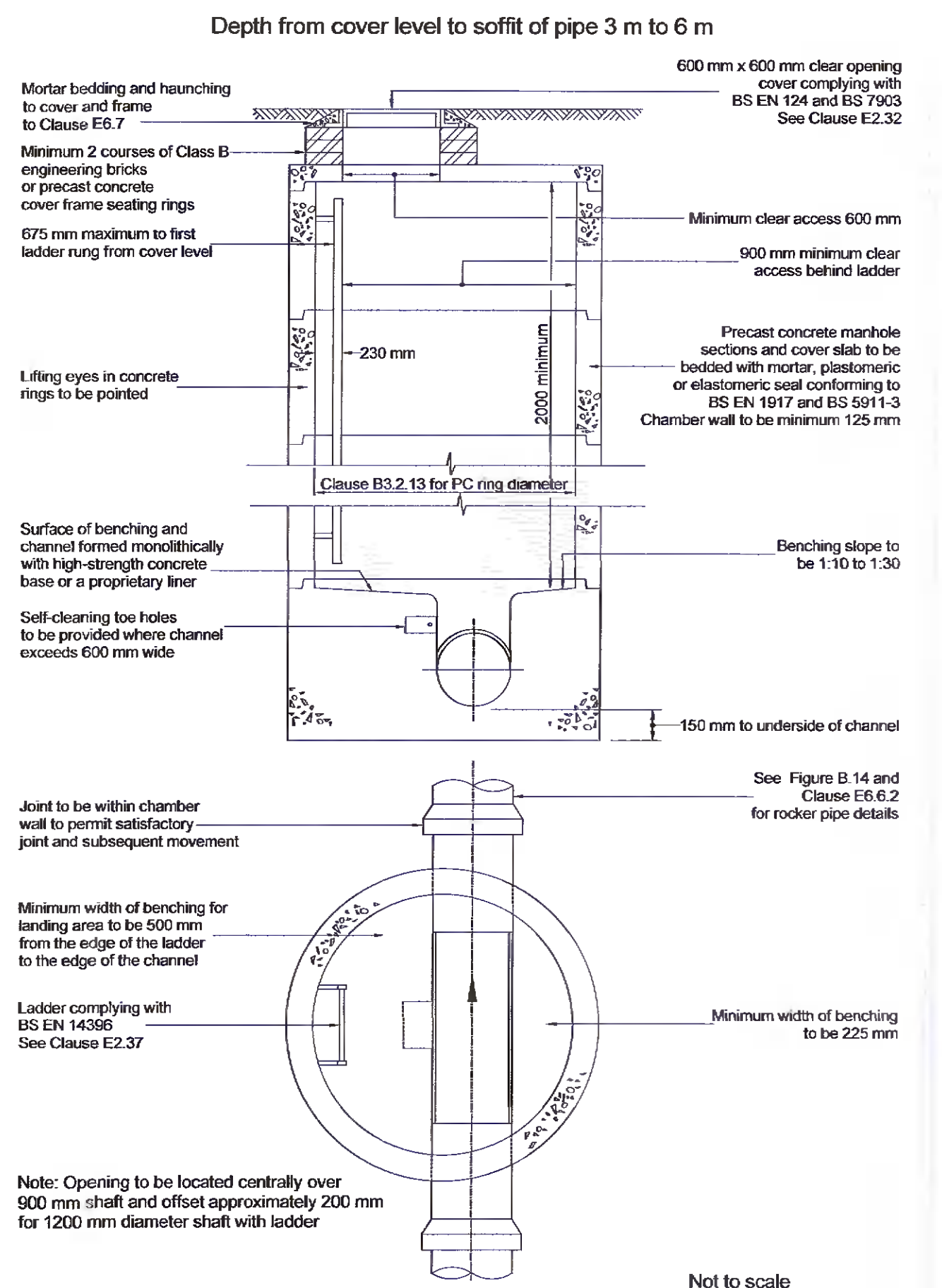


UNPAVED AREAS

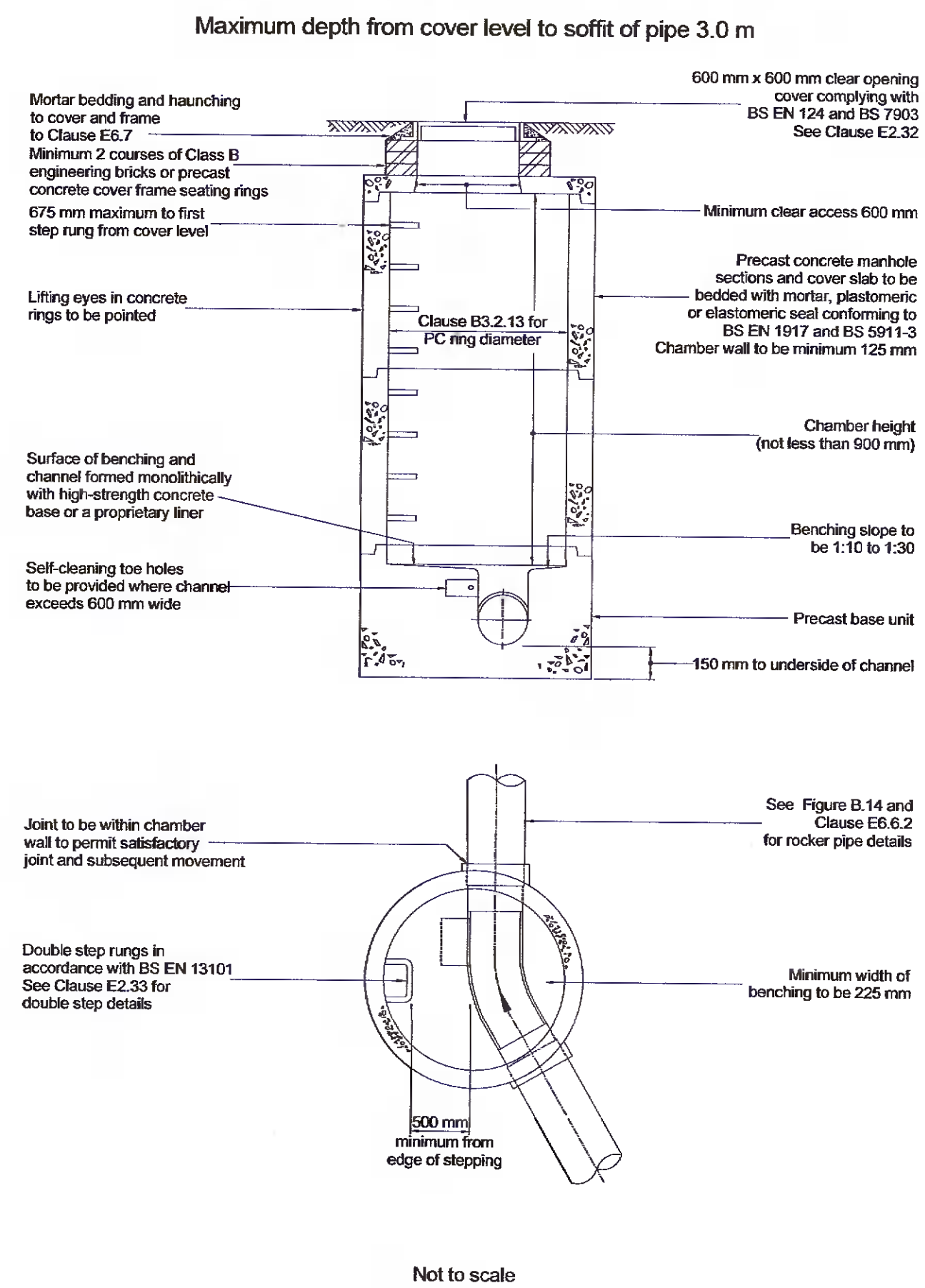


PAVED AREAS

TYPICAL MANHOLE DETAIL - TYPE 1B (Alternative construction detail)



TYPICAL MANHOLE DETAIL - TYPE 2 (Alternative construction detail)



Notes:

- All dimensions to be checked on site. Engineer to be informed immediately of any discrepancies before work proceeds.
- Existing foundations are subject to site inspection.
- All structural steelwork to be grade S355 U.N.O. and shall comply with the requirements of Eurocode 3.
- The contractor must ensure that the location of all masonry control joints is confirmed by the architect and the engineer prior to commencement of the works.
- All blockwork to be dense solid blockwork with a minimum compressive strength of 5N/mm² u.n.o. and shall comply with the requirements of IS 325.
- All blockwork is shown indicatively. Refer to architects drawings for blockwork details including exact setting out.
- All timber shall be minimum grade C16 (U.N.O.) and shall comply with IS 444.
- Unless noted otherwise all joints between 215 solid blockwork and RC walls/columns to be provided with 150 long stainless steel ties at 450 vertical centres (ancon sp21 or similar approved). Ties to slot into channel cast into RC element (ancon 21/18 omega channel or similar approved).
- Stainless steel bed joint reinforcement to be provided to all window openings in 2 courses directly above and below the opening (brickwork by cast metalwork lid or similar approved) bed joint reinforcement to be minimum 175 wide in 215 masonry and to extend minimum 600 past the opening.
- All foundations to be placed on minimum 50mm lean mix blinding (U.N.O.)
- For details of underground drainage services refer to architects' and engineers drawings. For exact location of services, service openings, external ducting and lighting refer to architects engineers drawings.
- All non-structural finishes shall be to architect's details unless noted otherwise.
- All temporary works necessary shall be the sole responsibility of the contractor.
- All steel to be CE certified
- Contractor to provide steel fabrication drawings for review by architect and engineer. Steelwork fabricator must be CE certified
- This drawing to be read in conjunction with all relevant architects and engineers drawings.
- All concrete to be grade 35N/20 with a crushing strength of 35N/mm² after 28 days.
- Minimum of 150mm bearing on all precast elements.
- Reinforcement to have a minimum of 40mm clear cover of concrete unless otherwise noted.
- Do not scale drawing.
- All dimensions in millimeters unless otherwise stated.
- Foundations to be formed on suitable bearing strata with capacity of 100 kN/sq.m.
- Engineers office to be notified 24 hours before concrete pour.
- Foundation design subject to no presence of water. Engineers office to be notified if soil conditions differ.
- Refer to architects drawings for setting dimensions and finishing details.
- All dimensions and setting out to be confirmed and checked with architects drawings. Any discrepancies to be disclosed to architects and engineers office.
- All building works to comply with current building control and regulations (BCAR).

Rev	Description	Date
01	Planning	11.20

Suitability Status:
P1 - Suitable for Planning

Client:
Richard & Elana Quinn

Job title:
Proposed Dwelling at Kilakee Green, Firhouse, D.24

Drawing title:
Proposed Drainage Details Sheet 1 of 2

Original:	Drawn by:	Checked by:	Scale:	Date:	Sheet:
SOS	SOS	BK	as noted	24.11.20	A1

Dwg No:
20A224-SHD-XX-XX-DR-C-0002

PROJECT: ORIGINATOR: VOLUME: LOCATION: TYPE: ROLF: NUMBER
SHD Consultant Engineers

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