

SCALE 1:1250

SCALE 1:200

The Contractor shall check all tie-ins for line and level with existing before commencing any works. The Engineer shall be responsible for the design of the tie-ins and any other works.

Any discrepancies or omissions whatever nature, must be reported to the Engineer prior to the commencement or continuance of any further works. It is the responsibility of the Contractor to report any such discrepancies or omissions to the Engineer. The Engineer will accept no claims whatsoever in respect of any omissions or damage caused in respect of such apparatus, structures or works, however caused.

It is the responsibility of the Contractor to execute the works at all times in strict accordance with the requirements of the Health and Safety Regulations and the Building Regulations 2010. The Contractor will be deemed to have accepted full and complete responsibility for the design and construction of the works in full liaison with the planning supervisor, within his rates.

All private drainage works to be in accordance with the requirements of Building Regulations 2010, Part F, Drainage and Waste Disposal.

Should any departure from the slab level be considered, the Engineer shall be notified in writing. The Engineer's agreement shall be sought from the Engineer immediately. The Contractor shall be responsible for the works and shall take full account of all restrictions to the slab level.

This drawing is to be read in conjunction with all other relevant Engineering and Architects details

All work is to be carried out in accordance with the current British Standards, Building Regulations and 'Sewers for Adoption 6th Edition'.

Highway construction materials and workmanship shall be in accordance with the Highway Authority's current general specification for roadworks. The Principal Contractor shall be responsible for checking the existing line and invert levels of any connection points for both the foul and surface water systems, and for the installation of any new drainage works. Any deviation to the levels and positions indicated on the drawing should be brought to the immediate attention of the Project Engineer.

The following pipe strengths shall be adopted unless noted otherwise:

- Clay Class 120 or 28KN/m crushing strength to BS.EN 295-1 (500)
- Clay Class 160 or 36KN/m crushing strength to BS.EN 295-1 (2250)
- Clay Class 160 or 48KN/m crushing strength to BS.EN 295-1 (3000)
- Class 120 (H) concrete to BS EN 1916 / BS 5911 (3750 >)

Alternatively PVCu to BS EN 1401-1 may be used :-
 Polypipe 'Polysewer' or similar pipes may be used up to
 600mm dia, Polypipe 'Ridgisewer' or similar pipes 450mm dia
 900mm dia, subject to approval by the engineer / adopting
 authority.

- All pipe runs to be laid with flexible joints.
- All pipes entering and exiting manholes are to be connected with pipe soffits level unless noted otherwise.
- All connections to be turned in direction of flow using pipe

*, All inverts specified are outgoing based on largest pipe size except backdrop)

0. Bedding and surround to be Class 'S' unless noted otherwise.

2. All drains to be tested prior to backfilling, after backfilling and upon completion of hard landscaping. In addition all rains to be inspected by CCTV methods prior to hard

3. The concrete mixes are to be class C10 GEN1 / C 20 GEN3 (all in accordance with BS5328).

4. The above concrete mixes have been selected for BS 5328 Class 2 Sulphates. All precast concrete products (ie pipes, manholes rings etc.) shall be of suitable concrete mix to cater for Class 2 sulphates.

Use	BS Reference
Service yards/Stn's & Access Roads.	BS EN 124 Class D400
Kerbside drainage	BS EN 124 Class C250
Footways, pedestrian & car parking.	BS EN 124 Class B125
Landscaping	BS EN 124 Class A15

- 5, Pre-formed channels are to be used in manholes where applicable.
- 6, Granolithic concrete benching to be steel trowelled to a dense smooth face neatly shaped and finished to all branch connections.
- 7, Manholes with outgoing pipes greater than 600mm diameter shall be fitted with guard bars, safety chains of other

8. Internal inspection chambers & access fittings to be provided with lockable double sealed manhole cover & frames grade A15, B125 or D400 to BSEN 124 to suit loading conditions.

9. Road gully connections to be 150mm dia. laid at a minimum gradient of 1:150 unless noted otherwise.

1. All drainage works within the zone of influence of trees are to be constructed in accordance with the NHBC standards and tree preservation offices requirements.
2. All SVP's & RWP's to have a vertical rodding access positioned above ground level. Exact position of all SVP's & RWP's and setting out of these items to be confirmed by

size and position of Syphonic Rainwater pipes and connections to be confirmed by specialists prior to construction.

Storm Design:- 2YR Return Period
(Hardstandings etc RFI=50mm/hr)
(Roof Drainage RFI=75mm/hr)

Foul Design:- BS EN 752 : 1998

3. All pipes to be 100mm internal diameter, unless stated otherwise on the layout.

P2	STORM OUTFALL AMENDED.	OJB	13.04.21
P1	STORM AND FOUL SEWERS AMENDED TO SUIT THE LATEST ROAD ALIGNMENT.	OJB	18.02.21
P0	INITIAL ISSUE.	OJB	12.08.19

REV	AMENDMENT	BY	DATE
	PROJECT EXECUTION CLASS: N/A		
	All materials supplied in relation to those specified on this drawing are to be CE marked in accordance with the European Union Declaration of conformity		

PURPOSE OF ISSUE

DETAILED DESIGN

CONCEPT

CCE
Consulting Engineers
Civil & Structural

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CLIENT 		

PROJECT
RESIDENTIAL DEVELOPMENT @
SALTERSFORD LANE, ALTON

DRAWING TITLE					
SECTION 104 WORKS DRAINAGE LAYOUT					
DESIGNED BY	CHECKED BY	DATE	SCALE	PROJECT NO.	SHEET NO.

SHEET SIZE: A0	SCALE: 1:200	DATE: AUG 2019	DRAWN: OJB	CHECKED: MS	STATUS: -
CCE PROJECT No. c7481		DRAWING No. 210			REV P2