



- To be read in conjunction with Eastwood & Partners drawings prefixed 4584.
- All pipes shall be either:
A - Vitrified clay to BS EN 295 with a minimum crushing strength as follows:
150 dia - 40 kN/m
225 dia - 45 kN/m
300 dia - 72 kN/m
B - PVC (certified to BS 4350-1 & BS EN 13476)
C - Class 120 concrete to BS 5911-1:2002/EN 1916
- All pipes should always connect soffit to soffit unless noted otherwise.
- All sewers to have BSI kilnmark status (certified to BS 4350-1 & BS EN 13476). Maximum pipe length to be 3m. Plastic channel sections in manholes are not acceptable. Clay channel sections shall be used.
- Sewers to be laid in Class 'S' Bedding (150mm granular bed and surround). Where depth of cover to top of the sewer is less than 1.2m in highways and verges (or less than 900mm in non-vehicular access areas) then a concrete slab should be provided above granular bed and surround.
- Manhole covers shall have a clear opening of 600 and shall be class D400 to BS EN 124 with 150 deep frames in highways.
- Pipes entering manholes and road gullies shall have a flexible joint within 600 of the inside the manhole or gully joining with a short Rocker pipe.
- The adoptable sewers should be a minimum of 1m and manholes 0.5m from kerb faces and service margins.
- Sewers must have 5m clearance from trees and hedges.
- All trenches in roads and paved areas shall be backfilled with Type 1 DOT granular sub-base material, or other granular material approved by the highway authority.
- Fill ground must be filled and consolidated under the supervision and to the satisfaction of Yorkshire Water before any sewer works are carried out.
- All in situ concrete to be designated mix FN22 to BS 8500 - unless agreed otherwise.
- The invert levels at the proposed points of connection to existing public sewers shall be checked before any new drains are constructed. Any variation to the levels shown on the drawing shall be notified to Eastwood & Partners.
- The chamber size of manholes with more than one connection in them may need to be increased an increment to accommodate the connections and bends.
- Cover levels are indicative only. Covers to be set to suit camber/gradients of existing and proposed roads.
- Cover slabs must carry the BSI Kilnmark or will be rejected by Yorkshire Water Inspector. Where the clear opening of the Kilnmarked products is different to that of the cover and frame, a loading warning slab should be fitted above the cover side to bring the size down to 600mm x 600mm for the Yorkshire Water specified cover size. Please refer to Concrete Pipe Systems Association (CPSA), 'Technical Bulletin' issued Autumn 2004 for Kilnmarked cover slab opening sizes.
- All foul lateral sewers and drains to be 1500 unless noted otherwise.
- Yorkshire Water policy is that Type 'C' brick manholes and 1050mm dia manhole rings are not preferred. Instead it is preferred that you use a type 'B' manhole with 1200mm dia or 1500mm dia rings, with the opening sized over the channel where depth of cover to pipe soffit is 1 - 1.5m.
- Manhole covers shall have a clear opening of 600mm and shall be Class D400 to BS EN 124 with 150mm deep frames in highways.
- Where a B125 cover and frame has been approved, this must not be coated in plastic and must have lifting eyes suitably sized to accommodate standard lifting keys. Screw down covers are not acceptable.
- All adoptable sewer works and material to be in accordance with 'Code for Adoption'. The Relevant British/European and Yorkshire Water's Standards/Requirements/Adoptions to the Mechanical and Electrical Specification and Kilnmark.
- Yorkshire Water is not obliged to accept filter drain/land drainage run-off into the public sewer network or adoptable drainage system (directly or indirectly). An alternative method of disposal of the land drainage run-off will therefore be required and you will have to liaise with the Local Authority, Land Drainage Section with regard to the disposal of the filter drain/land drainage run-off.
- Sulphate resistant cement (C20-D2) and precast concrete products must be used or a laboratory report provided proving that such precautions are not necessary.
- Bedding and backfill material to conform to the requirement of Water Industry Specification 4-08-02 (Table A2).
- Adoptable plastic sewer pipes to be BSI Kilnmarked (certified to BS 4350-1 and BS EN 13476). Adoptable plastic sewer pipes to be laid in maximum 3 metre lengths unless there is a specific operational need to lay longer lengths. Plastic channel sections in manholes are not acceptable and Yorkshire Water would prefer clayware channel in manholes. We have found that plastic channels are difficult to set in concrete because they float and a satisfactory finish cannot be obtained on the benching.
- The clearance of the crossover points (min 300mm) between the surface water, foul sewers, rising main and other services should be sufficient clearance to provide 150mm surround of a certain mm that exceeds this (200mm).
- All adoptable laterals to be 1500 and VC unless stated otherwise.

KEY:

- Proposed Surface Water Sewer
- Proposed Surface Attenuation
- Proposed Foul Sewer
- Proposed Gully
- Proposed Sewer Easement
- Private Surface Water Tank
- Indicative land/drain if required

REV	DESCRIPTION	SIG	CHK	DATE
P01	First issue.			03.11.23

HOOPER HOMES

WEST STREET, WOSBROUGH, BARNSELY

DRAINAGE LAYOUT

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ECE PROJECT No	SCALE AT A1	STATUS	SUITABLE FOR
48404	1:250	S0	Initial

DRAWING NUMBER	REV
48404 - ECE - XX - XX - DR - C - 0002	P01

Project Originator Zone Level Type Role Number

Private Attenuation:
Tank to be lined with an impermeable membrane. Joints to be welded.
Tank to be smoke tested before being made live.
Two layers of polystyrene or similar approved 20m x 6m x 10m
Volume: 130m³ at 95% voids.
Min CL: 54.35
IL: 82.75 (1 in 30yr top water level).

NOTE:
PROPOSED DISCHARGE RATE TO BE AGREED WITH LLFA. ANY REDUCTION FROM 15 l/s WILL REQUIRE ADDITIONAL ATTENUATION.
OVERSIZED PIPES BELOW HIGHWAY WILL NEED AGREEING AND MAY REQUIRE AN AIP

ATTENUATION IN DRIVEWAYS WILL BE REQUIRED TO MEET THE SHORTFALL IN THE MODEL EQUATING TO CIRCA 90m³

Flow Control Device:
24000
SHE-0076-3500-2000-3500
Design Head: 2.0m
Minimum Practical Flow Rate: 15l/s
30yr TWL 52.750

