

KEY	
	S104 Storm water manhole
	S104 Foul water manhole
	S104 Storm water sewer
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	Combined sewer
	Gully
	Yard gully
	Channel Drain
	Easement
	S104 Storm water rising main

## NOTES

- For longitudinal sections refer to drawing 0906/03/06.
- No services are to be sited directly over, or within 1m of, an adoptable sewer or manhole.
- Private drainage connections to adoptable sewers to be via 45° junction.
- Off site manholes already built must have invert levels checked prior to connection to the off site drainage.
- Any connections to existing sewers/manholes are to be supervised by Yorkshire Water.
- All connections to proposed public sewers to be minimum 150mmØ.
- Any land drain or water course on site to be diverted as not to pass under proposed buildings. Diversion to be approved and inspected on site by the Local Authority.
- All outfall locations and invert levels to be confirmed prior to works commencing.

### Yorkshire Water General Notes

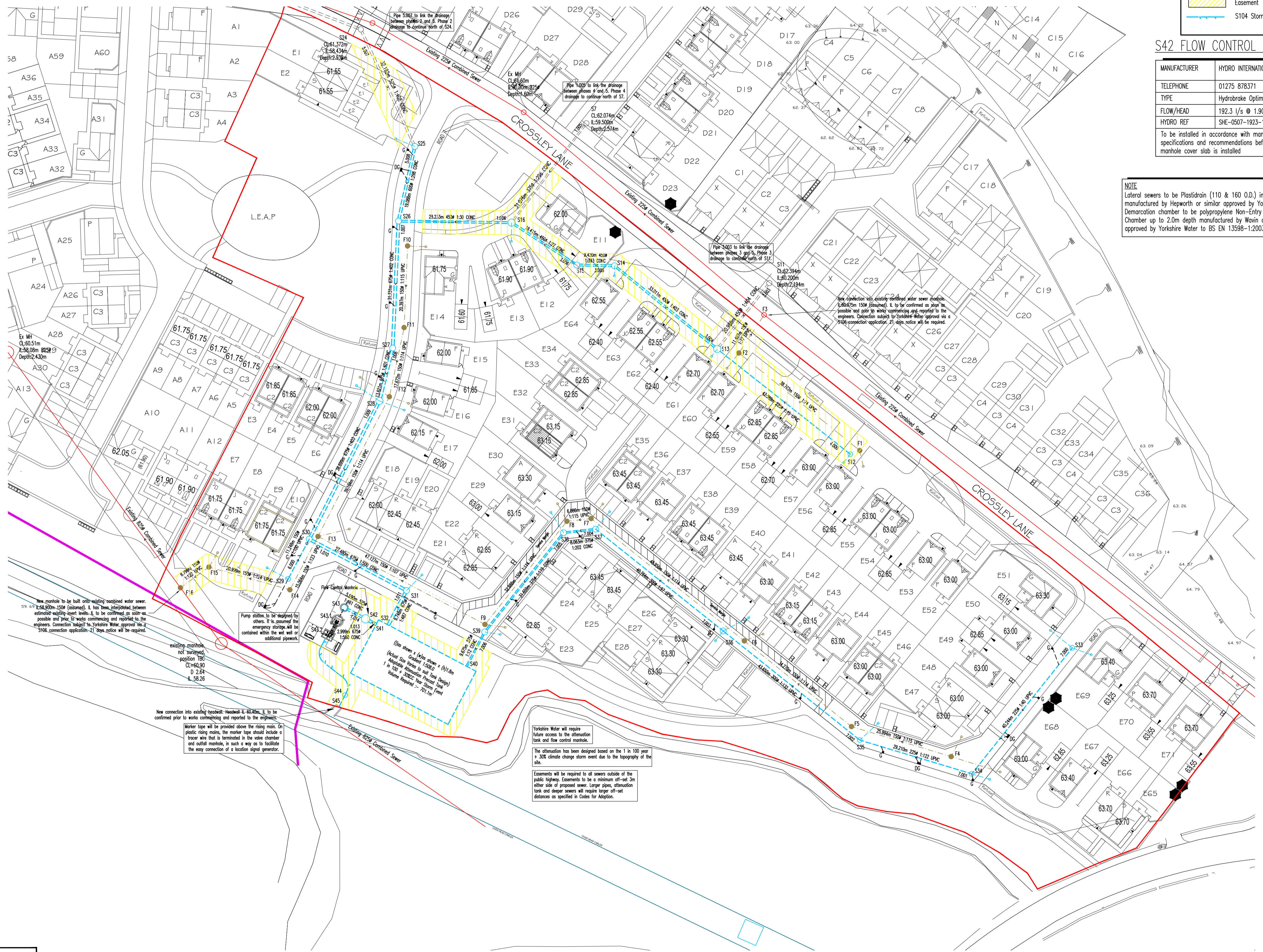
- All adoptable sewer works and material to be in accordance with Sewerage Sector Guidance Design and Construction Guidance [Code for Adoption]. The Relevant British/European and Yorkshire Water's Standards/Requirements/Local Practice for the Adoption of Small Submersible Foul and Surface Water Pumping Stations and Kitemarked.
- Manhole covers shall have a clear opening of 600mm and shall be Class D400 to BS EN 124 with 150mm deep frames in highways.
- Filled ground must be filled and consolidated under the supervision and to the satisfaction of Yorkshire Water before any sewer works are carried out.
- 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.
- The adoptable sewers should be a minimum of 1m and manholes 0.5m from kerb faces and service margins.
- Sewers must have 5 metres clearance from trees and hedges or the width of the canopy at mature height.
- 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.
- There must be enough clearance at crossovers to accommodate bedding to both pipes, approx. 300mm; if crossover is near the rocker then the clearance needed may be increased.
- Bedding and backfill material to conform to the requirement of Water Industry Specification 4-08-02 (Table A2).
- Adoptable plastic sewer pipes to be BS1 Kitemarked (certified to WIS 4-35-01 and BS/EN13476). 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.
- The minimum crushing strength for clay pipes should be as follows: 100mm dia. 40KN/m, 150mm dia. 40KN/m, 225mm dia. 45KN/m and 300mm dia. 72KN/m. The minimum crushing strength for concrete pipes should be - (Class 120 to EN 1916/BS5911-1 2002). Plastic pipes should conform to WIS 4-35-01 and BS EN13476.
- 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 sited over the channel where depth of cover to pipe soffit is 1 - 1.5m.
- 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.

### S42 FLOW CONTROL DATA

MANUFACTURER	HYDRO INTERNATIONAL
TELEPHONE	01275 878371
TYPE	Hydrabreak Optimum
FLOW/HEAD	192.3 l/s @ 1.900m
HYDRO REF	SHE-0507-1923-1900-1923

To be installed in accordance with manufacturers specifications and recommendations before the manhole cover slab is installed

**NOTE**  
Lateral sewers to be Plastidrain (110 & 160 O.D.) in UPVC and manufactured by Hepworth or similar approved by Yorkshire Water. Demarcation chamber to be polypropylene Non-Entry Inspection Chamber up to 2.0m depth manufactured by Wavin or similar approved by Yorkshire Water to BS EN 13598-1:2003.



New manhole to be built onto existing combined water sewer. L=58.00m x 150m (circular). It has been interpolated between estimated weighty level. It to be confirmed as soon as possible and prior to works commencing and reported to the engineers. Connection subject to Yorkshire Water approval via a 3106 connection application. 21 days notice will be required.

Pump station to be designed by others. It is assumed the emergency storage will be contained within the wet well of additional pipework.

New connection into existing foulwater. Headset L=62.00m. It to be confirmed prior to works commencing and reported to the engineer.

Marker tape will be provided above the rising main. On plastic rising mains, the marker tape should include a tracer wire that is terminated in the valve chamber and outfall manhole, in such a way as to facilitate the easy connection of a location signal generator.

Yorkshire Water will require future access to the attenuation tank and flow control manhole.

The attenuation has been designed based on the 1 in 100 year + 30% climate change storm event due to the topography of the site.

Easements will be required to all sewers outside of the public highway. Easements to be a minimum off-set 3m either side of proposed sewer. Larger pipes, attenuation tank and deeper sewers will require larger off-set distances as specified in Codes for Adoption.

SUBJECT TO THE APPROVAL OF ALL RELEVANT AUTHORITIES

Rev	By	Date	Revision	MI	MI
1	DJG	26.01.24	Issued for approval		

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TITLE	SECTION 104 LAYOUT PARCEL 5		
PROJECT	CROSSLEY LANE HUDDERSFIELD		
CLIENT	MINERVA WORKS DEVELOPMENTS LTD		
DRAWING STATUS	PRELIMINARY		
Scale	1:500 @ A1	Date	JAN 24
Drawn	DJG	Chk.	MI
Dwg. No.	0906/03/03		Rev /