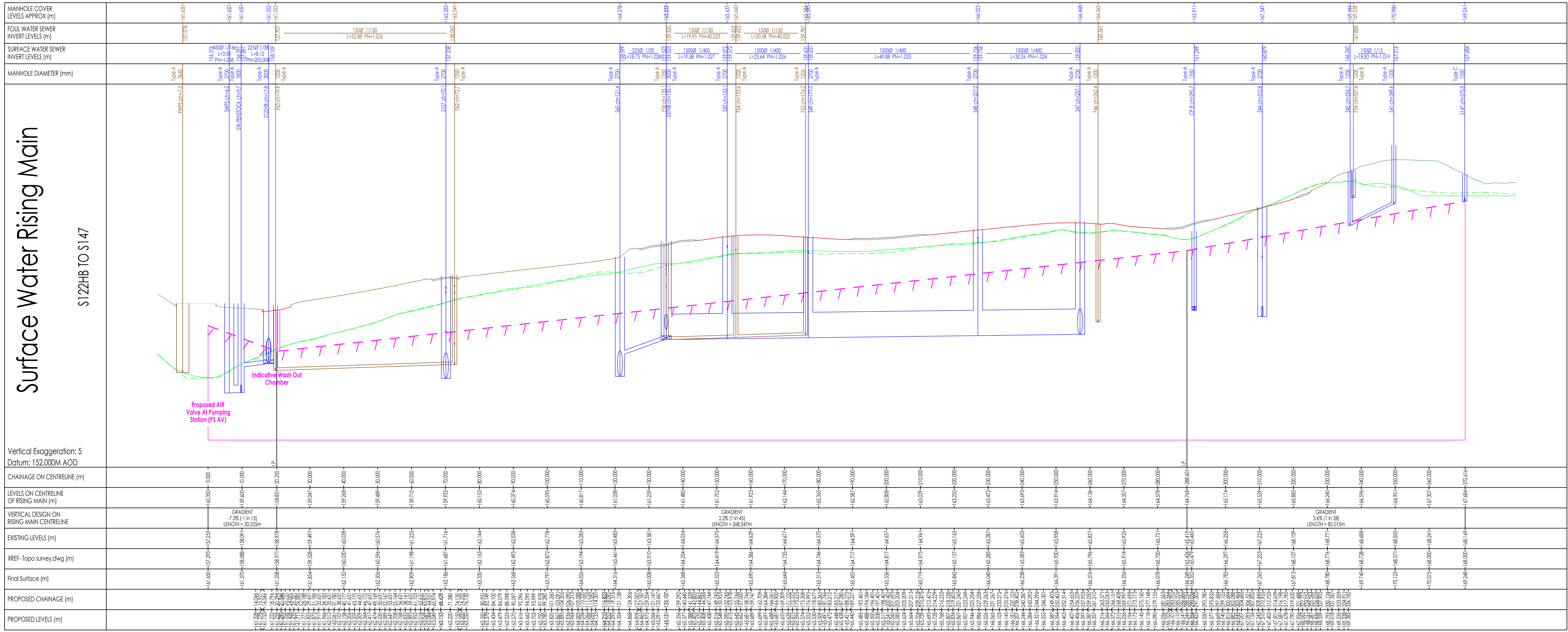
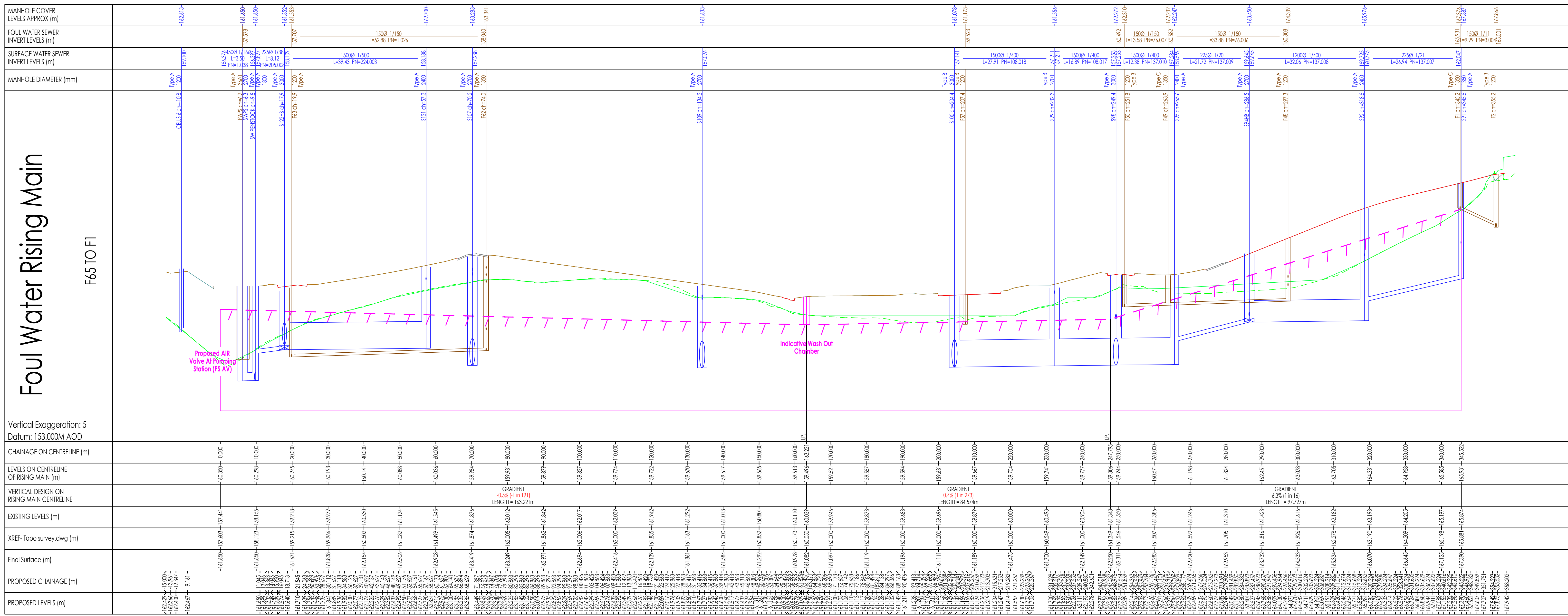




Notes

- This drawing is to be read in conjunction with the standard details, the layouts, schedules and specifications for the development.
- A 1% gradient represents a rise of 1m in 100m.
- Left and right hand channels are on the left and right hand side respectively, when standing at each change and looking along the road.
- A level of any point 'X' m from the start of a vertical curve is given by the formula:
$$\text{level} = \text{level at start of curve} + \frac{a}{100} \left(\frac{x}{200} \right)^2$$

where 'a' and 'x' are the gradients at the start and end of the curve respectively and having the algebraic signs '+/-'.
5. Pipe sizes are stated in millimetres and levels are shown in metres A.O.D.
6. All pipes to have flexible joints with granular bedding (class 3) unless stated otherwise, where 150mm concrete bed and surround is specified the concrete must be taken of the joint position to the exterior of a flexed pipe.
7. Connections to existing sewers are to be 100% to 100% unless noted otherwise.
8. All verified CLAYs to be extra strength to 8.5, 45, 1991.
9. W.V. is equal to the rate of change of gradient and is calculated from the formula:
$$W.V. = 100 \times \frac{[A - B]}{L}$$

Where A and B are as in note 4 above.
10. Existing levels to be confirmed on site prior to commencement of works.
11. All CONCs to be class 'M'.
12. Refer to Betts Associates drainage layout drawing BLS06-1001-1002 for further drainage notes.
13. All adoptable drainage is to be designed and constructed in accordance with sewers for Adoption 6th edition and United Utilities standard details.

Legend

- Existing Ground Level
- Proposed Ground Level
- Foul Water Sewer
- Surface Water Sewer
- Foul Water Rising Main
- Surface Water Rising Main

NOTE

DETAILS ON THIS DRAWING ARE SUBJECT TO TECHNICAL APPROVALS

PO1 15.11.25 Preliminary issue for review WM

Revised Date Details Revision History

Drawing originator

BETTS HYDRO
BETTS ASSOCIATES
BETTS GEO
Technical Services

Client

Project title

Land off Hollingworth Road
Littleborough

Drawing title

Road & Sewer Longitudinal Section
Foul & Surface Water Rising Main

Scale: 1:100(v), 1:500(h) for the original size of A0

Drawn by: WM Checked by: CP Plotted by: [blank] Date: Nov' 2025

Drawing detail

For Approval

Job No: Drawing No: Project Origin: Volume: Level: Paper: Disc: Number: Revision:

BLH36 XX | BE | ZZ | XX | DR | C | 1021 | P01

Do not scale this drawing

A 7.0 Metre from back sight, near Road, looking Northwards, CH3.5 T

www.bettsassociates.co.uk

© Betts Geo 2025