

Sewer details shown are taken from Thames Water records and CCTV survey and are to be confirmed by Contractor prior to commencement of the works

Surface Water discharge point subject to approval by Thames Water

Location of existing services along drainage route to be confirmed by Contractor prior to any start of works

General Notes

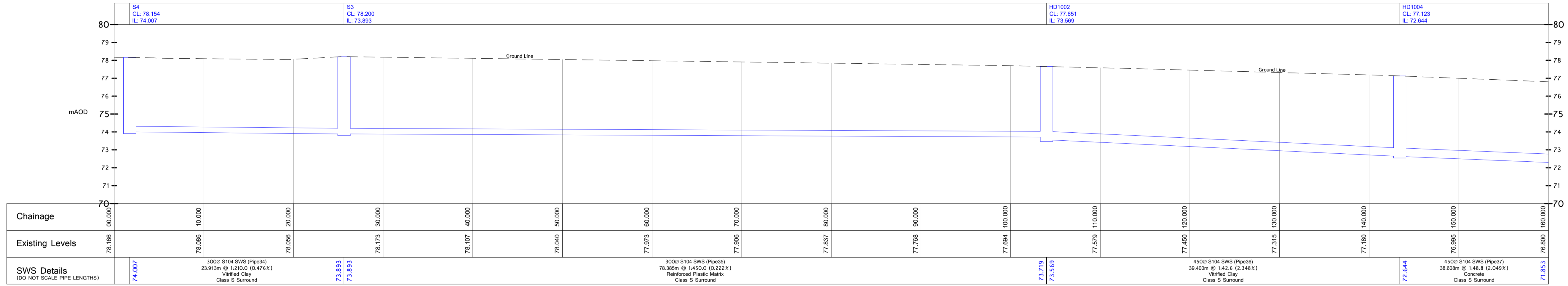
- DO NOT SCALE.
- This drawing is to be read in conjunction with all other relevant drawings and details.
- Should there be any conflict between the details indicated on this drawing and those on other drawings the Engineer should be informed PRIOR to construction on site.
- Until technical approval has been obtained from the relevant Authority, it should be understood that all drawings issued are Preliminary and NOT for construction. Should the contractor commence site work prior to such approval being given it is entirely at his own risk.
- Sketch proposals are for illustrative purposes only & as such are subject to detailed site investigation including ground conditions / contaminants, drainage, design & planning/density negotiations.
- All dimensions are in millimetres unless otherwise stated.
- The Farrow Walsh Consulting Designers Risk Assessments for this project must be reviewed PRIOR to the commencement of any work on site.

NOTES

This Drawing is to be read in conjunction with:

FW1263 800 S102 Layout Sheet 1 of 2  
FW1263 801 S102 Layout Sheet 2 of 2  
FW1263 802 S102 Long Sections

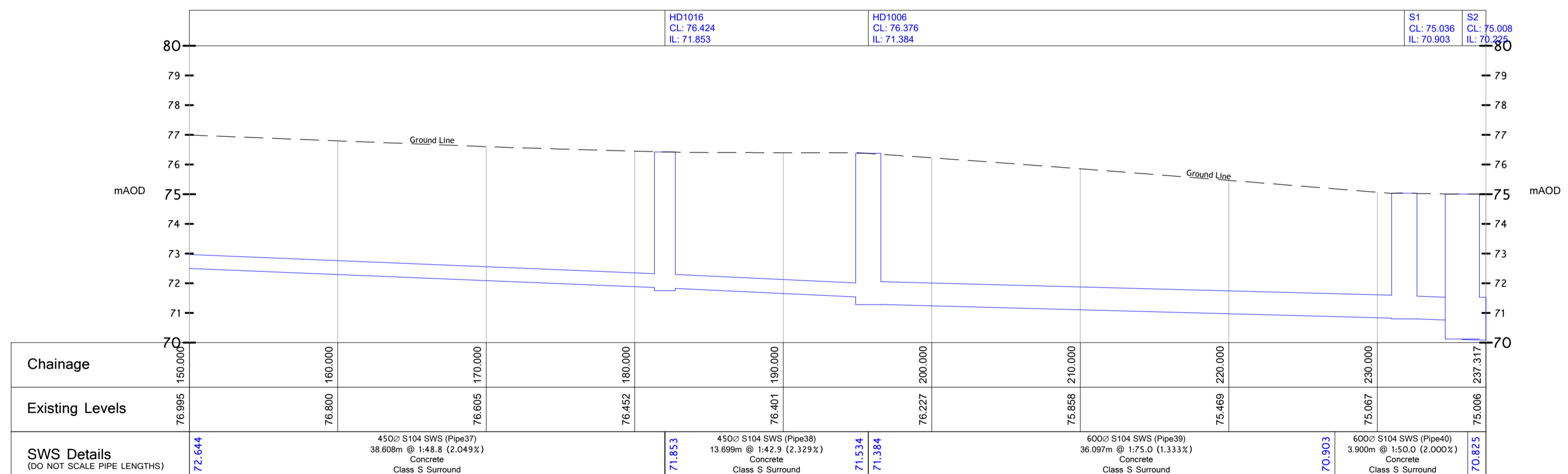
- This drawing to be read in conjunction with all other relevant Engineers and Architect's details.
- All work is to be carried out in accordance with the current British Standards, codes of practice, building regulations and with Sewers for Adoption 6th Edition guidance.
- The exact position, level, size and use of existing sewers to be confirmed on site. Any discrepancies to be reported to the engineer prior to commencement of works.
- All uncovered and shallow pipework to be protected against construction traffic as part of the contractors temporary works requirements.
- Cover levels shown are approximate only, subject to the Architect's external works and landscaping scheme.
- All connections to road gullies and channels shall be 150mm nominal bore pipework. Connections to RWP's to be 100mm nominal bore pipework subject to confirmation of RWP sizes and/or design flow. No pipe work to be downsized in the direction of flow.
- Connections to foul terminal fittings to be 100mm nominal bore pipework subject to confirmation of above ground pipe diameters and/or design flow. No pipe work to be downsized in the direction of flow.
- All pipework to be Vitrified Clay unless otherwise noted.
- All pipes connecting to adopted manholes up to and including 300mm dia. to be Vitrified Clay.
- All pipes connecting to adopted manholes greater than 300mm dia. to be Concrete.
- All pipework entering and exiting manholes to be connected with pipe soffits level.
- Pre-formed channels to be used at all manholes.
- High strength concrete benching to be steel trowelled to a dense smooth face neatly shaped and finished to all branch connections and laid in accordance with the specification.
- Pipe bends to be provided to suit direction of flow.
- All manhole covers and frames to be ductile iron heavy duty Grade D400 double triangular to BS EN 124 unless otherwise noted. Covers to be labelled 'FW' and 'SW' as appropriate.
- Gully tops and manhole covers to be provided in accordance with BS EN 124.
- All manhole covers located internally, to be recessed, double seal, airtight type, aluminium or steel. Recess depth to Architect's requirements to suit finishes etc.
- All new drainage to be constructed adjacent new and proposed tree planting to be protected against root activity using 'rootcontrol' root barrier material by green-tech. All in accordance with the manufacturer's recommendations.
- First flexible joint in pipes adjacent to a manhole shall be 600mm max. From inside face of manhole, connecting to rocker pipe. For pipe diameters 150mm - 450mm the rocker pipe length shall be 500mm - 750mm and for pipe diameters 451mm - 675mm the rocker pipe length shall be 750mm - 1000mm.
- Manholes with outgoing pipes greater than 600mm dia. Shall be fitted with guard bars, safety chains or other approved safety devices.
- All soft spots encountered in the trench formation to be removed and replaced with graded granular material unless instructed otherwise.
- Where the formation of a pipe trench is above original ground level, levels are to be made up with compacted DTP Type 2 material or better.
- All private drives which fall towards a public highway and exceed two parking bays in area are to be provided with a suitable gully or drainage channel to prevent water discharging onto the highway.
- All buried concrete must cater for Class 2 sulphates conditions in accordance with table 1 of BRE digest 363.
- Concrete protection shall be provided to all pipes with less than 300mm cover in pedestrian areas, to all pipes with less than 600mm cover in private driveways not used by commercial vehicles, and to all pipes with less than 1200mm cover in roads or private driveways used by commercial vehicles. Where concrete surround is specified flexibility of joints is to be maintained by using compressible bitumen impregnated fibreboard at each point.
- The design of any temporary works required shall be the responsibility of the contractor.
- All work is to be to the satisfaction of the engineer and Anglian Water.
- The contractor is responsible for and must take all necessary precautions to ensure the stability of the works at all times during construction.
- All workmanship and materials are to be to current British standards.
- All services are to be located and protected as necessary by the contractor prior to the commencement of the works.



Drainage Alignment  
Horiz. 1:200, Vert. 1:100

MH Ref.	Cover Level	Invert Level	Pipe Dia. (mm)	MH Type	Easting (m)	Northing (m)
HD1002	77.651	73.569	450	Existing	521173.397	208415.566
HD1004	77.123	72.644	450	Existing	521172.086	208454.945
HD1006	76.376	71.384	600	Existing	521163.332	208504.031
HD1016	76.424	71.853	450	Existing	521158.674	208491.148
S1	75.036	70.903	600	Existing	521148.783	208537.066
S2	75.008	70.225	1200	Existing	521145.844	208539.630
S3	78.200	73.893	300	Existing	521190.984	208339.180
S4	78.154	74.007	300	Existing	521178.625	208318.709

Pipe Ref.	Upstream IL	Downstream IL	Diameter (mm)	Distance (m)	Fall (m)	Pipe Gradient 1:X	Pipe Gradient %	Pipe Material
HD1002 - HD1004	73.569	72.644	450	39.400	0.925	1:42.6	2.348%	Vitrified Clay
HD1004 - HD1016	72.644	71.853	450	38.608	0.791	1:48.8	2.049%	Concrete
HD1006 - S1	71.384	70.903	600	36.097	0.481	1:75.0	1.333%	Concrete
HD1016 - HD1006	71.853	71.534	450	13.699	0.319	1:42.9	2.329%	Concrete
S1 - S2	70.903	70.825	600	3.900	0.078	1:50.0	2.000%	Concrete
S3 - HD1002	73.893	73.719	300	78.385	0.174	1:450.0	0.222%	Reinforced Plastic Matrix
S4 - S3	74.007	73.893	300	23.913	0.114	1:210.0	0.476%	Vitrified Clay



Drainage Alignment  
Horiz. 1:200, Vert. 1:100

Revision

PRELIMINARY

JOB: COMET HOTEL, HATFIELD

S102 LONG SECTIONS

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DRAWN: op CHECKED: jd  
SCALE: 1:250 @ A1  
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FW1263 802

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