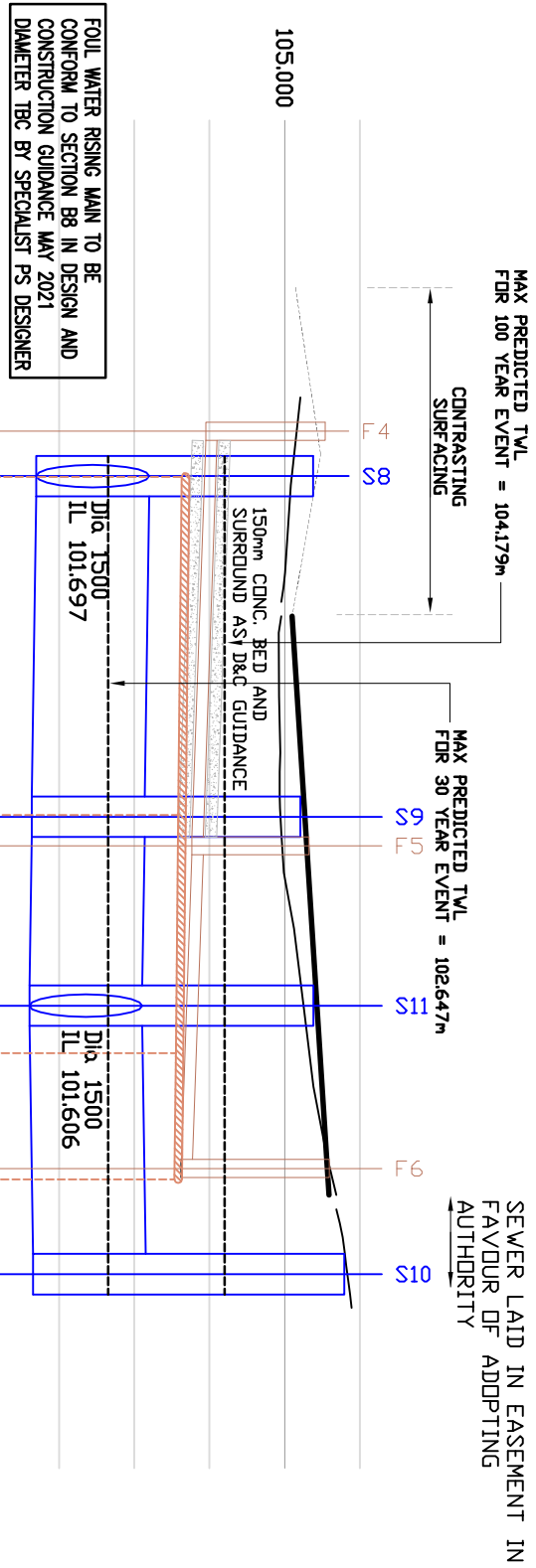
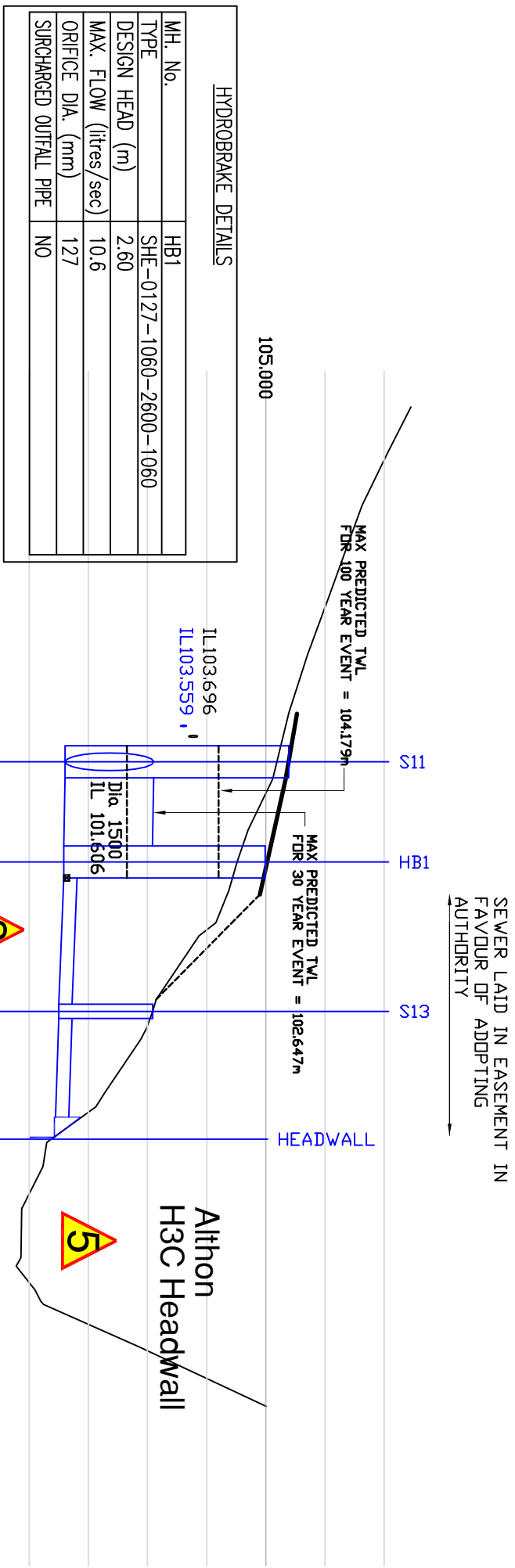
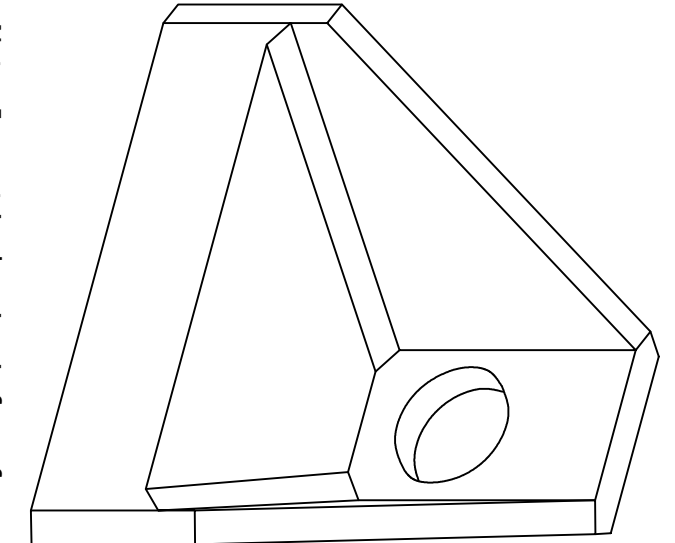
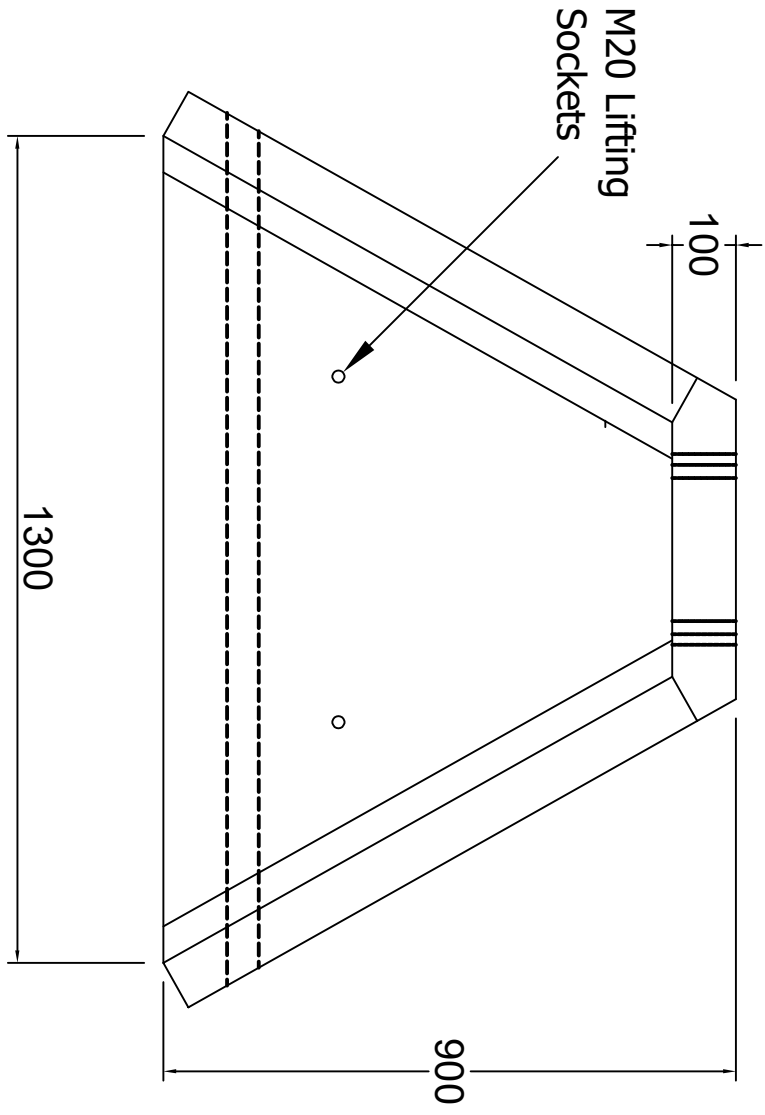




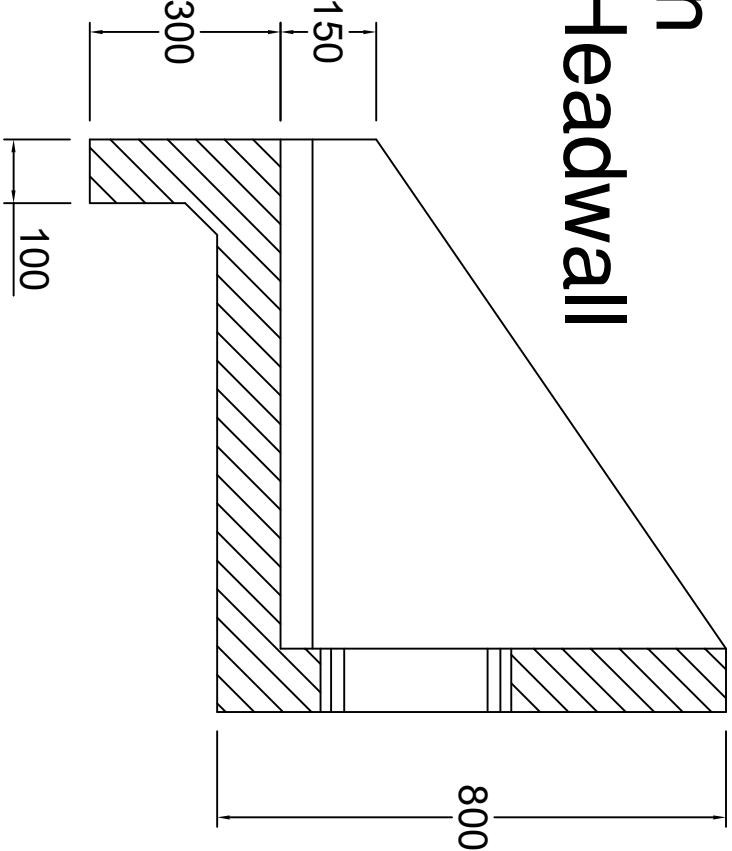
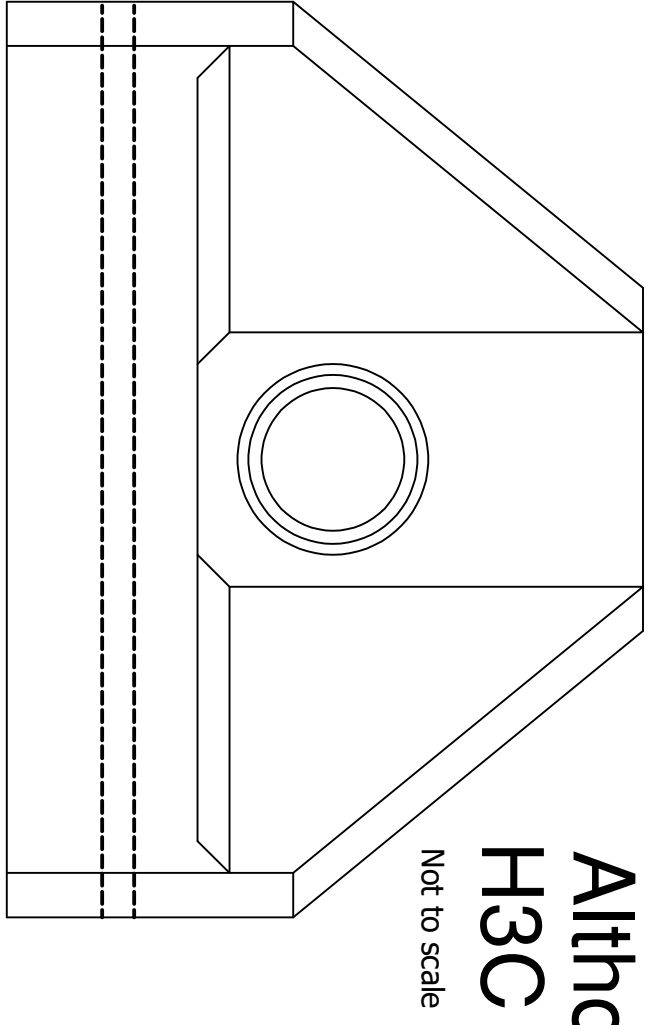
ROAD 2		DATUM 100.000
EXISTING GROUND LEVEL	104.955	104.937
ALIGNMENT LEVEL	105.100	105.097
VERTICAL ALIGNMENT	G= 1.272% 1: 78.6	
HORIZONTAL ALIGNMENT	R= 2000	
STORMWATER DETAILS	CL105.380 IL101.697 Pipe 1005 Circular 300 CL 101.697 Dio 1500 1: 78.6	Pipe 1005 Circular 300 CL 101.697 Dio 1500 1: 78.6
FULL WATER DETAILS	CL105.538 IL103.950 Pipe 1003 Circular 200 CL 103.950 Dio 1500 1: 78.6	Pipe 1003 Circular 200 CL 103.950 Dio 1500 1: 78.6
FULL WATER R/MAIN	IL103.632 1 in -472 62.268 IL103.585 1 in -477 13.761 IL103.552 1 in -466 8.408 IL103.534	Pipe 1004 Circular 200 CL 103.534 Dio 1500 1: 78.6
CHAINAGE	0.000	38.516



SURFACE WATER DUTFALL	
GROUND LEVEL	107.453
	106.502
	105.775
	105.186
	104.426
	103.176
	101.902
	101.014
	100.870
	100.846
STORMWATER DETAILS	CL105.384 IL101.606 CL104.986 IL101.584 Pipe 1008 Circular 300 CL 101.584 Dio 1500 1: 78.6



Note: Isometric drawing is for reference only.
details may not accurately represent actual design -
please see detailed views for technical information



SECTION 104 & 38 NOTES

1. All adoptable drainage works have been designed and are to be constructed in accordance with 'Design and Construction Guidance' & Local Practices
2. All clay pipe work shall be Extra Strength Clayware to B.S. EN 285:1991 Part 1
3. All precast concrete pipework shall be to the class stated on the drawings in accordance with BS EN 1916:2002
4. All manholes and chambers shall be to BS EN 1916:2002
5. All plastic pipes being installed for adoption shall be to BS EN 13476-1 and WS 4-35-01 and must comply with BS EN 13476-1
6. All levels relate to an Ordnance Datum.
7. This drawing is to be read in conjunction with all other relevant drawings.
8. House drainage connections to sewers must be 150mm ϕ and unless otherwise stated laid to the droptail invert level shown.
9. House drainage runs to be kept within the curbside of the plot they serve wherever possible.
10. The Contractor shall be responsible for ensuring that any existing invert levels indicated on drawings are correct before work commences.
11. The Contractor should satisfy himself as to the position and depth of any existing Statutory Undertakers plant which could effect the works before the works are commenced.
12. Road gully connections are to be 150mm ϕ connecting either directly to manholes shown, or to sewer runs using pre-formed junctions.
13. All connections to adoptable sewers shall be by manufactured junction pipes. Saddle connections will not be permitted.
14. All sewers for adoption with greater than 120 metres cover in roads or 0.9 metres cover in fields shall have a minimum of 150mm SRA concrete or 0.9 metres cover in fields shall have a minimum of 150mm SRA concrete or similar approved joint filter bricks in the concrete around of each pipe joint.
15. Any sewer for adoption with less than 1.2 metres cover in roads or 0.9 metres cover in fields shall have a minimum of 150mm SRA concrete or 0.9 metres cover in fields shall have a minimum of 150mm SRA concrete or similar approved joint filter bricks in the concrete around of each pipe joint.
16. Pumping Station to be designed and constructed in accordance with Design and Construction Guidance and United Utilities Pumping Station Addendum

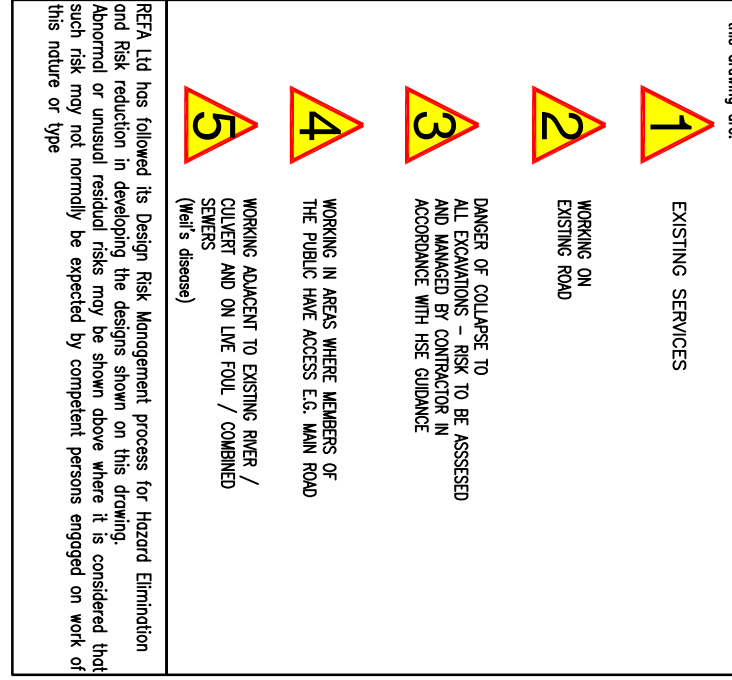
All pipes to have class "S" bed and surround unless shown otherwise
All concrete pipes to be class 120
All clay pipes to be extra strength vitrified clay
All pipe pipes to comply with BS 4660:2000 & BS 4660:2000
Mox. pipe length to be 3.0m
Foundations to be designed / constructed to suit the depth of the excavation and depth of adjacent sewers and drains in accordance with Design & Construction Guidance

Contractor to be aware of and take account of any existing structures, foundations or other features does not occur as a result of any excavation works undertaken in accordance with the designs shown on this drawing
Contractor to be aware of and take account of the above he should seek advice before commencing excavation work.

Contractor/client should note the existence of existing buried pipe and or overhead power cables
Contractor must ensure that all work must undertake risk assessment and provide method statement for working in this area in accordance with HSE and power of the above he should seek advice before commencing excavation work.

All existing services to be located at commencement in accordance with underlayers requirements and protected accordingly during construction
All existing services to be located at commencement in accordance with underlayers requirements and protected accordingly during construction

CIVILS DESIGN RISK MANAGEMENT



1. All adoptable sewers and associated works are to comply fully with 'Design and Construction Guidance' & Local Practices
2. All clay pipe work shall be Extra Strength Clayware to B.S. EN 285:1991 Part 1
3. All precast concrete pipework shall be to the class stated on the drawings in accordance with BS EN 1916:2002
4. All manholes and chambers shall be to BS EN 1916:2002
5. All plastic pipes being installed for adoption shall be to BS EN 13476-1 and WS 4-35-01 and must comply with BS EN 13476-1
6. All levels relate to an Ordnance Datum.
7. This drawing is to be read in conjunction with all other relevant drawings.
8. House drainage connections to sewers must be 150mm ϕ and unless otherwise stated laid to the droptail invert level shown.
9. House drainage runs to be kept within the curbside of the plot they serve wherever possible.
10. The Contractor shall be responsible for ensuring that any existing invert levels indicated on drawings are correct before work commences.
11. The Contractor should satisfy himself as to the position and depth of any existing Statutory Undertakers plant which could effect the works before the works are commenced.
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16. Pumping Station to be designed and constructed in accordance with Design and Construction Guidance and United Utilities Pumping Station Addendum

C.D.M. REGULATIONS 2015

In line with the above regulations we are obliged to inform the Client of their responsibilities under section CD15/1, and residual risks that may be encountered in the construction of these works. All design work has been carried out with Health and Safety as a primary consideration. Wherever possible, risks have been eliminated from the design, however due to the very nature of this type of work it is not possible to remove all the risks from the design.

We would also respectfully remind the Client of his responsibilities as a client in ensuring that all safety policy is employed.

1. Support / treatment for ALL excavation work.
2. Guarding to edges of excavations to prevent falling of excavations outside working hours to prevent unauthorised access.
3. Underpinning to adjacent roads or structures.
4. Confined space operations.
5. Bedding with existing services.
6. Traffic management on existing highways.
7. Procedure to be followed in event of accident or emergency.
8. Method of working where contaminated ground is present on site.
9. Confirmation will be required that all operatives are adequately trained, copies of relevant training certificates to be supplied.
10. The above list is by no means exhaustive but it is intended to highlight the main risks to contractors and the general public.

For clarification on any item please contact REPA.

Rev	Revision details	Ready	Date
1	Initial design		
2	Design Stage		
3	Issued		
4	Approved		
5	As Built		

Client	HOLLINS HOMES LIMITED
Job title	LANGLEY LANE BIRCH
Drawing title	LONGITUDINAL SECTIONS 2 OF 2
Drawing Stage	Design Stage
Drawn	Information
Checked	Comments
Issued	Information
Approved	Information
As Built	Information



Job title	LANGLEY LANE BIRCH
Drawing title	LONGITUDINAL SECTIONS 2 OF 2
Drawing Stage	Design Stage
Drawn	Information
Checked	Comments
Issued	Information
Approved	Information
As Built	Information



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Fax: (01942) 230816

DATE: 25.123
SCALE: 1/500H & 1/100V
DRAWING NO: 18070/100/2
REV: 1