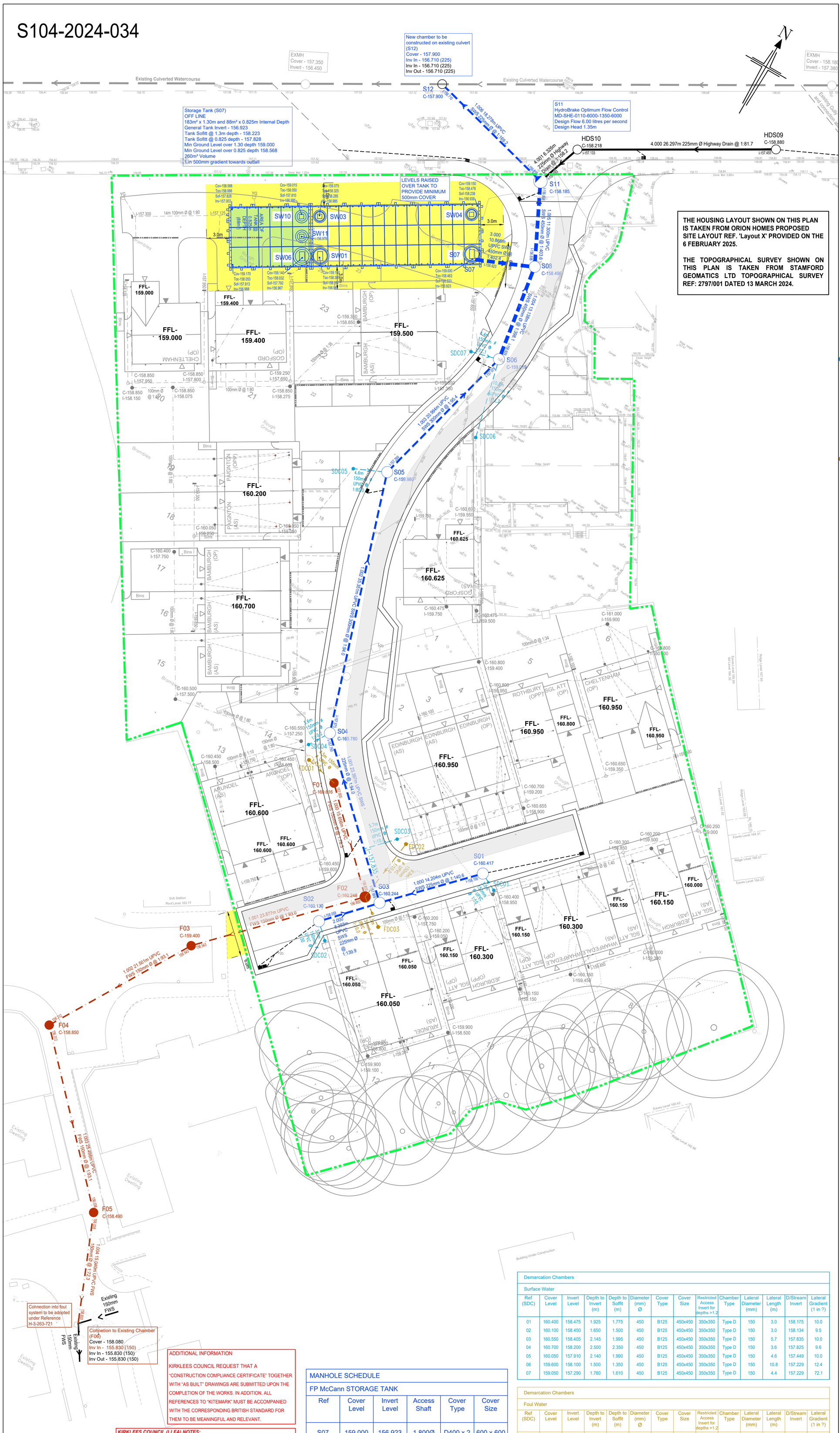
S104-2024-034



THE HOUSING LAYOUT SHOWN ON THIS PLAN IS TAKEN FROM ORION HOMES PROPOSED SITE LAYOUT REF. 'Layout X' PROVIDED ON THE 6 FEBRUARY 2025.

THE TOPOGRAPHICAL SURVEY SHOWN ON THIS PLAN IS TAKEN FROM STAMFORD GEOMATICS LTD TOPOGRAPHICAL SURVEY REF: 2797/001 DATED 13 MARCH 2024.

ADDITIONAL INFORMATION

KIRKLEES COUNCIL REQUEST THAT A "CONSTRUCTION COMPLIANCE CERTIFICATE" TOGETHER WITH "AS BUILT" DRAWINGS ARE SUBMITTED UPON THE COMPLETION OF THE WORKS. IN ADDITION, ALL REFERENCES TO "KITEMARK" MUST BE ACCOMPANIED WITH THE CORRESPONDING BRITISH STANDARD FOR THEM TO BE MEANINGFUL AND RELEVANT.

KIRKLEES COUNCIL (LLFA) NOTES:

ANY UNRECORDED WATERCOURSES OR SPRINGS FOUND ON SITE SHOULD BE IDENTIFIED TO KIRKLEES COUNCIL paul.farndale@kirklees.gov.uk IMMEDIATLEY WITH PROPOSALS FOR THE MANAGEMENT INCLUDING THE COLLECTION OR DIVERSION OF SUCH FEATURES.

THERE ARE NO LAND DRAINAGE FEATURES PRESENT ON SITE.

THERE ARE NO PRIVATE PIPES OR LOCATED CLOSE TO THE SECTION 38 HIGHWAY BOUNDARY IN CONNECTION WITH LAND DRAINAGE OR UNADOPTABLE SuDS FEATURES THAT REQUIRE MAINTAINING BY THIRD PARTIES.

A CONSTRUCTION PHASE SURFACE WATER MANAGEMENT STRATEGY WILL BE REQUIRED TO BE APPROVED BY KIRKLEES COUNCIL

MANHOLE SCHEDULE

FP McCann STORAGE TANK

Ref	Cover Level	Invert Level	Access Shaft	Cover Type	Cover Size
S07	159.000	156.923	1.800Ø	D400 x 2	600 x 600
SW01	159.150	156.967	1.800Ø	D400 x 2	600 x 600
SW03	159.075	156.985	1.200Ø	D400	600 x 600
SW04	159.150	156.938	1.200Ø	D400	600 x 600
SW06	159.140	156.967	1.800Ø	D400 x 2	600 x 600
SW10	159.015	156.985	1.200Ø	D400	600 x 600
SW11	159.010	156.976	1.200Ø	D400	600 x 600

Refer to FP McCann Detailed Design Drawing for full details

Demarcation Chambers

Surface Water

Ref (SDC)	Cover Level	Invert Level	Depth to Invert (m)	Depth to Soffit (m)	Diameter (mm) Ø	Cover Type	Cover Size	Restricted Access Insert for depths >1.2	Chamber Type	Lateral Diameter (mm)	Lateral Length (m)	D/Stream Invert	Lateral Gradient (1 in ?)
01	160.400	158.475	1.925	1.775	450	B125	450x450	350x350	Type D	150	3.0	158.175	10.0
02	160.100	158.450	1.650	1.500	450	B125	450x450	350x350	Type D	150	3.0	158.134	9.5
03	160.550	158.405	2.145	1.995	450	B125	450x450	350x350	Type D	150	5.7	157.835	10.0
04	160.700	158.200	2.500	2.350	450	B125	450x450	350x350	Type D	150	3.6	157.825	9.6
05	160.050	157.910	2.140	1.990	450	B125	450x450	350x350	Type D	150	4.6	157.449	10.0
06	159.600	158.100	1.500	1.350	450	B125	450x450	350x350	Type D	150	10.8	157.229	12.4
07	159.050	157.290	1.760	1.610	450	B125	450x450	350x350	Type D	150	4.4	157.229	72.1

Demarcation Chambers

Foul Water

Ref (SDC)	Cover Level	Invert Level	Depth to Invert (m)	Depth to Soffit (m)	Diameter (mm) Ø	Cover Type	Cover Size	Restricted Access Insert for depths >1.2	Chamber Type	Lateral Diameter (mm)	Lateral Length (m)	D/Stream Invert	Lateral Gradient (1 in ?)
01	160.500	157.100	3.400	3.250	1200	D400	600x600	N/A	Type A	150	4.5	157.000	45.0
02	160.600	157.700	2.900	2.750	450	B125	450x450	350x350	Type D	150	9.0	156.800	10.0
03	160.200	157.250	2.950	2.800	450	B125	450x450	350x350	Type D	150	4.5	156.800	10.0

Demarcation Chambers to be WAVIN OSMA ULTRARIB POLYPROPYLENE Inspection Chambers

Demarcation chambers to be constructed as a TYPE A, B or C manhole if depth to soffit exceeds 3.0m

Lateral Drains to be WAVIN OSMA ULTRARIB UPVC Pipes

Demarcation chambers located in non trafficked areas then 150mm granular bed and surround required
Demarcation chambers located in single private drives to receive 150mm Gen3 concrete bed and surround will be required

Access Opening restricted to 350mmØ or 350 x350mm if depth to soffit is greater than 1.2m

DEMARCATION CHAMBERS AND LATERAL DRAINS TO BE ADOPTED

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IF IN DOUBT ASK.

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KEY:

- Existing Culverted Watercourse
- Existing Foul Water Sewer and Manhole
- Proposed Surface Water Sewer and Manhole
- Proposed Surface Water Flow Control Manhole
- Proposed Surface Water Lateral Drain and Demarcation Chamber (Greater than 3.0m deep)
- Proposed Private Surface Water Drain and Inspection Chamber (100mm Ø at 1 in 80 unless specified otherwise)
- Rodding Eye
- Yard Gully
- ACO drainage Channel or Similar
- Proposed Foul Water Sewer and Manhole
- Proposed Foul Water Lateral Drain and Demarcation Chamber (Greater than 3.0m deep)
- Proposed Private Foul Water Drain and Inspection Chamber (100mm Ø at 1 in 40m at top of run and 1 in 80 minimum elsewhere unless specified otherwise)
- Proposed Private Foul Water Mini Inspection Chamber
- Proposed Highway Drain and Manhole
- Proposed Highway Gully and 150mm Ø Connection
- Proposed Easement

YORKSHIRE WATER NOTES:

1. All dimensions in millimeters unless stated otherwise.
2. All adoptable sewer works and material to be in accordance with The Water Services Association "Code for Adoption Design and Construction Guidance", The Relevant British/European and Yorkshire Water's Standards/Requirements/Addendum to the Mechanical and Electrical Specification and Kitemarked".
3. All oversized manhole products (circular vertical units, cover slabs, adjusting and corbel units) and all ancillary concrete products are to be built in full compliance with BS EN1917 and BS 2911-3+A1
4. All precast concrete units in oversized manholes must have a design working life of 100 year minimum in accordance with BS8500-1:2015+A2:2019 - Table A.5.
5. DC-4 design chemical class for concrete in precast concrete manholes (circular vertical units, cover slabs, adjusting and corbel units) including all ancillary concrete products should be constructed for an intended design life of 100 year minimum.
6. Manhole covers shall/must have a clear opening of 600mm and shall be Class D400 to BS EN 124 with 150mm deep frames in highways.
7. Filled ground must be filled and consolidated under the supervision and to the satisfaction of the Yorkshire Water before any sewer works are carried out.
8. Yorkshire Water is not obliged to accept filter drain/land drainage run-off into the public sewer network or adoptable drainage system (directly or in-directly). 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.
9. Cover slabs must carry the BSI Kitemark or will be rejected by the Yorkshire Water Inspector. Where the clear opening of the Kitemarked product is different to that of the cover and frame, a loading bearing slab should be fitted above the cover slab 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 Kitemarked cover slab opening sizes.
10. The adoptable sewers should be a minimum of 1m and manholes 0.5m from kerb faces and service margins.
11. "Sewers must have 5 metres clearance from trees and hedges or the width of the canopy at mature height.
12. 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 none vehicular access areas) then a concrete slab should be provided above granular bed and surround.
13. Bedding and backfill material to conform to the requirement of Water Industry Specification 4-08-02 (Table A2).
14. 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.
15. Yorkshire Water's policy is that brick manholes and 1050mm diameter manhole rings are not preferred. Instead, it is preferred that you use a type "B" manhole with 1200mm diameter, 1350mm diameter or 1500mm diameter rings, with the opening sited over the channel where depth of cover to pipe soffit is 1 - 1.5m
16. Adoptable plastic sewer pipes to be BSI 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. 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.
17. 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.
18. 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.
19. There should 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".

Rev:	Date:	Amendment:	DRN	CHK	APR
L	01.05.25	Foul pipe 1.004 updated and outfall level revised	IE		
K	29.04.25	Surface water attenuation tank and levels updated	IE		
J	25.02.25	Tank amended shallow section increased to 825mm depth	IE		
I	20.02.25	Revised to YW comment from email 20 Feb 2025	IE		
H	12.02.25	Architects layout updated plus associated revisions	IE		
G	13.08.24	Surface water pipe material changed to UPVC	IE		
F	26.07.24	Surface water attenuation tank updated with FP McCan layout	IE		
E	05.07.24	Site layout and associated updates made plus YW comments 26 June 2024	IE		
D	12.06.24	Private foul drainage added for plot 1 and outfall from packaged pump station shown discharging to private combined drains serving existing property	IE		
C	10.06.24	Site layout and associated updates made	IE		
B	23.05.24	Site layout updated to include visitor parking bays	IE		
A	16.05.24	Site layout and associated updates made	IE		

BRYAN G HALL

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Client: Orion Homes

Status:

Scale: 1:250
Size: A1 - 594 x 841
Drawn: IE
Chkd: NB
Appvd:

Project: Residential Development, Whitehall Road West, Birkenshaw

Title: Drainage Layout

Drawing No: 23/341/500/001
Revision: L
Job No: 23-341
Date: 21.02.24

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