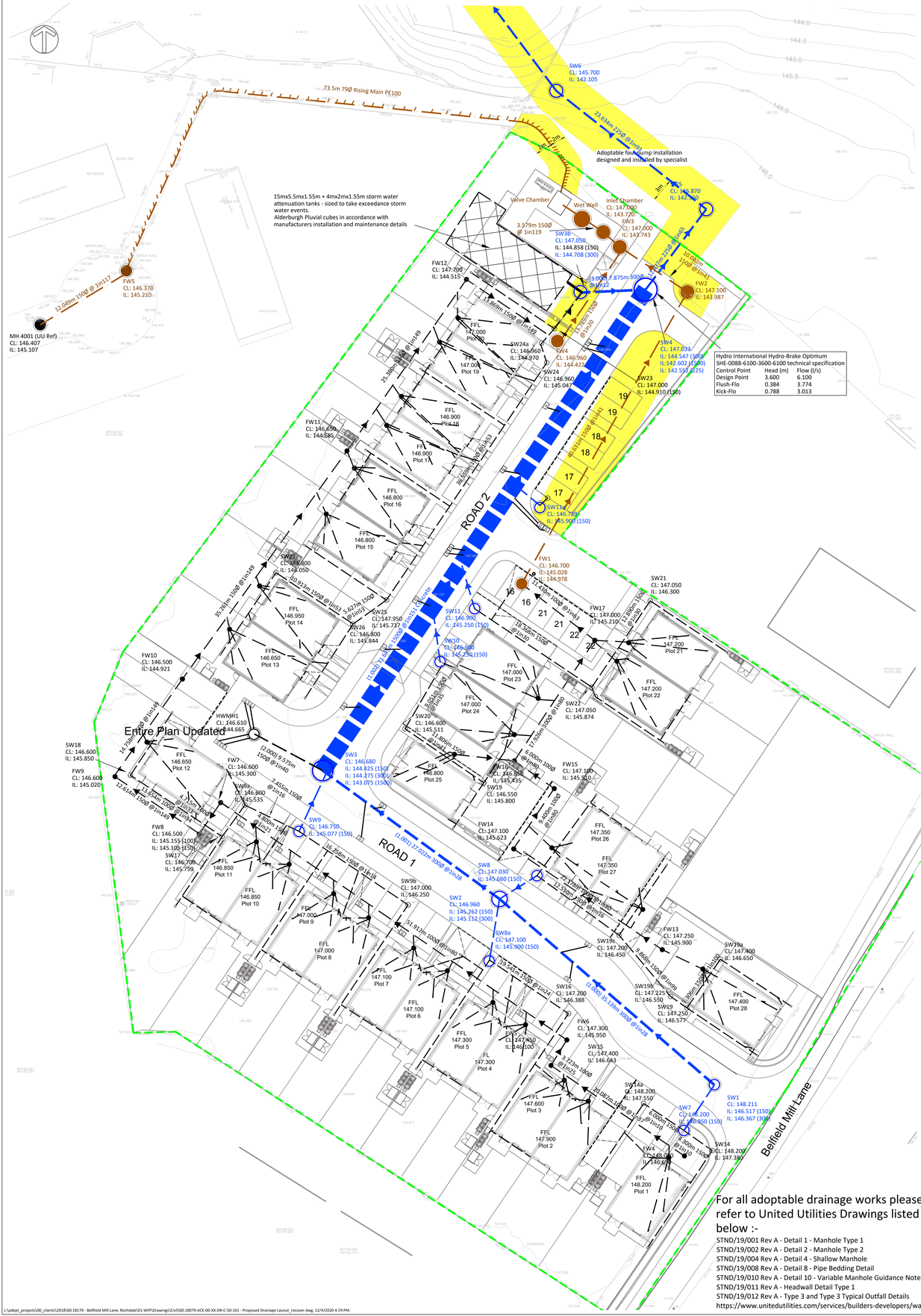

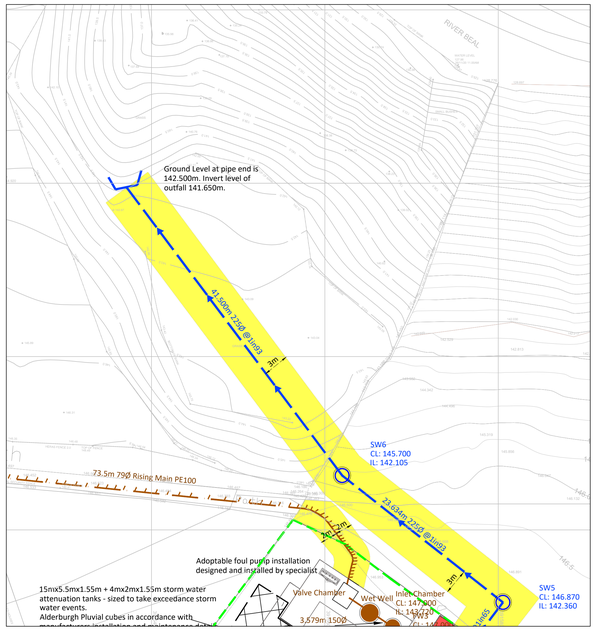

Surface Water Manhole Schedule

MH. Ref	Incoming Invert Levels	MH Diag	Outgoing Invert Levels	Cover Levels	Depth to Soffit	Chamber Type	Chamber Size (mm)	Cover Type	Cover Size (mm)	Co-ordinates Easting	Co-ordinates Northing
SW1	Ⓐ145.517 150Ø		Ⓧ146.367 300Ø	148.211	1.544	1	1200	D400	600x600	391581.546	413943.342
SW2	Ⓐ145.262 150Ø Ⓑ145.112 300Ø		Ⓧ145.112 300Ø	146.960	1.548	1	1800	D400	600x600	391554.976	413966.339
SW3	Ⓐ145.348 150Ø Ⓑ144.425 150Ø Ⓒ144.275 300Ø		Ⓧ143.075 1500Ø	146.680	2.105	2	2400	D400	600x600	391533.106	413982.210
SW3b	Ⓐ144.858 150Ø Ⓑ144.708 300Ø		Ⓧ144.708 300Ø	147.050	2.042	1	1500	D400	600x600	391565.173	414041.343
SW4 Flow control Ref. Dwg182	Ⓐ144.547 300Ø Ⓑ142.602 1500Ø		Ⓧ142.552 225Ø	147.033	4.256	Flow control Ref. Dwg182	2700	D400	1220x675	391573.040	414041.694
SW5	Ⓐ142.360 225Ø		Ⓧ142.360 225Ø	146.870	4.285	1	1350	D400	600x600	391580.548	414051.643
SW6	Ⓐ142.105 225Ø		Ⓧ142.105 225Ø	145.700	3.170	2	1350	D400	600x600	391561.933	414066.282
SW7	Ⓐ146.950 150Ø		Ⓧ146.950 150Ø	148.200	1.100	4	1350	D400	750x750	391577.774	413937.710
SW8	Ⓐ145.680 150Ø		Ⓧ145.680 150Ø	147.030	1.200	4	1350	D400	750x750	391559.613	413969.220
SW8a	Ⓐ145.900 150Ø		Ⓧ145.900 150Ø	147.100	1.050	4	1350	D400	750x750	391553.695	413958.663
SW9	Ⓐ145.077 150Ø		Ⓧ145.077 150Ø	146.750	1.005	4	1350	D400	750x750	391530.185	413974.692
SW10	Ⓐ145.250 150Ø		Ⓧ145.250 150Ø	146.900	1.500	1	1200	D400	600x600	391547.620	413995.682
SW11	Ⓐ145.250 150Ø		Ⓧ145.250 150Ø	146.900	1.500	1	1200	D400	600x600	391551.898	414002.244
SW11a	Ⓐ145.900 150Ø		Ⓧ145.900 150Ø	146.729	0.679	4	1200	D400	750x750	391559.966	414014.744

Foul Water Manhole Schedule

MH. Ref	Incoming Invert Levels	MH Diag	Outgoing Invert Levels	Cover Levels	Depth to Soffit	Chamber Type	Chamber Size (mm)	Cover Type	Cover Size (mm)	Co-ordinates Easting	Co-ordinates Northing
FW1	Ⓐ145.028 100Ø		Ⓧ144.978 150Ø	146.700	1.572	1	1200	D400	600X600	391557.715	414005.316
FW2	Ⓐ143.987 150Ø		Ⓧ143.987 150Ø	147.100	2.963	1	1500	D400	600x600	391578.201	414041.408
FW3	Ⓐ143.743 150Ø		Ⓧ143.743 150Ø	147.000	3.107	1	1350	D400	600x600	391569.842	414046.973
FW4	Ⓐ144.422 150Ø		Ⓧ144.422 150Ø	146.960	2.388	1	1350	D400	600X600	391562.129	414035.338
FW5	Ⓐ145.210 79Ø		Ⓧ145.210 150Ø	146.370	1.010	4	1350	D400	1220x675	391508.831	414044.039
Inlet Chamber	Ⓐ143.720 150Ø		Ⓧ143.720 150Ø	147.000	3.280	1	1500	D400	1000x750	391567.812	414048.818
Wet Well	Ⓐ143.690 150Ø		Ⓧ145.800 80Ø	147.000	4.600	refer to xylem detail	1800	FACTA Class B	special split cover	391565.172	414050.427
Valve Chamber	Ⓐ145.800 80Ø		Ⓧ145.800 80Ø	147.000	1.120	refer to xylem detail	1800 x 2400	FACTA Class B	2400x1800	391562.293	414052.410
MH4001 (Ref)	Ⓐ145.107 150Ø		Ⓧ145.107 150Ø	146.407	1.150	n/a	n/a	n/a	n/a	391498.178	414037.359

DESIGN REVIEW

Design review by:	**	Checked by:	**

Residual hazards:

Health, Safety & Environmental Notes

KEY

- Site Boundary
- Proposed S104 Foul Water Sewer
- Proposed Private Foul Water Drain
- Private Linear Drain
- Existing Foul Water Sewer
- Proposed S104 Surface Water Sewer
- Proposed Private Surface water Drain
- Proposed Cellular Storage Tank
- Proposed UU Easement
- Highway Gulley and Drain

Drainage

1. This drawing should be read in conjunction with Adept specification for drainage works and any other subsequent additions to this list.
2. For external finished ground levels refer to architects external works drawing.
3. All private foul drainage to be 100ø laid at a minimum gradient of 1 in 40, all private surface water drainage to be 100ø laid at a minimum gradient of 1 in 60 unless otherwise noted. Pipework to be laid to inverts shown on schedule. All private drainage is to be Plastic.
4. All Junctions are to be done using a 'Y' junction to direct the flow in line with the main pipe.
5. All cover levels to manholes are approximate only and may be adjusted on site to tie in with Architects proposed levels.
6. Exact location of rainwater downpipes and all internal drainage points to be confirmed by Architect. Rainwater pipe outlets to be rodable.
7. For all setting out, dimensions and current site layout refer to Architects drawing. Do not scale from this drawing
8. Invert levels of all outfall points to be clarified prior to commencing drainage works. Position size and depth of all existing drains and services shall be established prior to commencement on site and any discrepancies reported to engineer.
9. The contractor shall allow for the protection, temporary and permanent support, and temporary and permanent diversion works, as necessary to all existing services
10. The contractor shall allow for all traffic management in connection with road and sewer works
11. The contractor shall allow for keeping trenches and excavations as dry as practicable by pumping from temporary sumps and dewatering as appropriate. The point and method of discharge to be agreed with the drainage authority and Environment Agency
12. Contractor to apply for sewer permits and road opening permits as necessary from the appropriate authorities, prior to commencing works.
13. At changes in pipe diameter Soffits to coincide unless noted otherwise
14. Wherever possible, drainage works are:
    - To commence at outfall
    - To work Upstream

    Where plastic pipework is proposed Water Authority & Highway Authority requirements for strength and durability will vary. Calculations may well be required from the pipe supplier. Min. requirements as below;
    Deformation limit: 5% at 300 days
    Jetting pressure: 4000psi
16. Trees should not be planted within 5m of adoptable sewers, where this is not possible due to planning conditions a suitable root barrier needs to be installed around any tree types that are within the prescribed restrictions as set out in Sewers for Adoption 6th Edition Figure 2.3. Where the Mature tree canopy will overhang the adoptable highway a suitable root barrier will be required to prevent damage to statutory undertakers equipment and the integrity of the highway construction.
17. All pipes for Surface Water and Foul water to be PVCu unless noted otherwise. 150 - 300dia to be Polypipe Polysewer. 400 - 900dia to be Polypipe Ridgsewer.

Date	Revision	By	Chkd	Rev
04.12.20	Outfall amended to suit landowner	AT	WD	P8
17.07.20	Internal Drainage added and foul water gradients amedned	AT	WD	P7
21.05.20	SW7 Manhole added	AT	PG	P6
11.05.20	Rising Main material added	AT	WD	P5
09.03.20	Manhole co-ordinates added, updated to suit UU comments	AT	WD	P4
05.02.20	Updated to suit UU comments	AT	WD	P3
29.11.19	Updated to suit Masterplan	AT	WD	P2
08.11.19	Initial Issue	AT	WD	P1

ADEPT
CIVIL AND STRUCTURAL CONSULTING ENGINEERS
Web: www.adeptcsce.com Originating Office
Email: inbox@adeptcsce.com

Project: Belfield Mill Lane Rochdale

Title: S104 Drainage Plan

Client: Great Places

Scale @ A0	Drawn	Checked	Date
1:250	AT	WD	23.10.19

Suitability	Purpose
S2	Preliminary

UPIN	Originator	Zone	Level	Type	Role	Org. No.	Rev.
00.18179-ACE-00-XX-DR-C-0161-P8							