

YW REF NO:

H-3-264-976

MANHOLE COVER LEVELS (m)		-176.300		-177.370	-177.450
FOUL WATER SEWER INVERT LEVELS (m)					
SURFACE WATER SEWER INVERT LEVELS (m)			6.5m x 1.9m CONCRETE TANK 1544 BEDDING TYPE S L=28.00 PW=3.000	4500 CONC 1/181 BEDDING TYPE S L=9.04 PW=3.001	
MANHOLE DIAMETER (mm)		Type A Chamber Ø200	Type A Chamber Ø200	Type A Chamber Ø200	
S8 - S10					
Datum: 169.000M AOD					
CHAINAGE ON CENTRELINE (m)		0.00	10.00	20.00	30.00
LEVELS ON CENTRELINE OF CARRIAGEWAY (m)		-175.524	-176.088	-176.652	-177.216
LEVELS ON LEFT HAND CHANNEL (m)		-175.469	-176.032	-176.596	-177.160
LEVELS ON RIGHT HAND CHANNEL (m)		-175.590	-176.144	-176.708	-177.272
VERTICAL DESIGN ON CARRIAGEWAY CENTRELINE			GRADIENT 5.6% (1 in 18) LENGTH = 35.599m		
HORIZONTAL DESIGN ON CARRIAGEWAY CENTRELINE			STRAIGHT LENGTH = 20.841m	STRAIGHT LENGTH = 14.757m	
EXISTING LEVELS (m)		-175.145	-176.050	-176.373	-176.696

YW NOTES:

1. ALL ADAPTABLE SEWER WORKS AND MATERIAL TO BE IN ACCORDANCE WITH "CODE FOR ADOPTION", THE RELEVANT BRITISH/EUROPEAN AND YORKSHIRE WATER'S STANDARDS/REQUIREMENTS/ADDENDUM TO THE MECHANICAL AND ELECTRICAL SPECIFICATION AND KITEMARKED.
2. 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.
3. FILLED GROUND MUST BE FILLED AND CONSOLIDATED UNDER THE SUPERVISION AND TO THE SATISFACTION OF YORKSHIRE WATER BEFORE ANY SEWER WORKS ARE CARRIED OUT.
4. YORKSHIRE WATER IS NOT OBLIGED TO ACCEPT FILTER DRAIN/LAND DRAINAGE RUN-OFF INTO THE PUBLIC SEWER NETWORK OR ADAPTABLE DRAINAGE SYSTEM (DIRECTLY OR INDIRECTLY). 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 REGARDING THE DISPOSAL OF THE FILTER/LAND DRAINAGE RUN-OFF.
5. THE ADAPTABLE SEWERS SHOULD BE A MINIMUM OF 1.0m AND MANHOLES 0.5m FROM KERB FACES AND SERVICE MARGINS.
6. SEWERS MUST HAVE A 5.0m CLEARANCE FROM TREES AND HEDGES OR THE WIDTH OF THE HIGHWAY AT STRUCTURE.
7. 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 0.9m IN NON VEHICULAR ACCESS AREAS**) THEN A CONCRETE SLAB SHOULD BE PROVIDED ABOVE GRANULAR BED AND SURROUND.
8. BEDDING AND BACKFILL MATERIAL TO CONFORM TO THE REQUIREMENT OF WATER INDUSTRY SPECIFICATION 4-08-02 (**TABLE A2**).
9. YORKSHIRE WATER POLICY IS THAT TYPE "CC" BRICK MANHOLES AND 1050mm DIAMETER MANHOLES RINGS ARE NOT PREFERRED. INSTEAD, IT IS PREFERRED THAT YOU USE A TYPE "B" MANHOLE WITH 1200mm DIAMETER OR 1500mm DIAMETER RINGS, WITH THE OPENING SITED OVER THE CHANNEL. MINIMUM DEPTH OF COVER TO THE PIPE IS 1.0m, 1.5m.
10. ADAPTABLE PLASTIC SEWER PIPE TO BE BS KITEMARKED (**CERTIFIED TO WIS 4-35-01 AND BS EN 13476**). ADAPTABLE 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 REQUIRE CLAYWARE CHANNELS IN MANHOLES.
11. THE MINIMUM CRUSHING STRENGTH FOR CLAY PIPES SHOULD BE AS FOLLOWS: 100mm DIA 40kN/M, 150mm DIA 40kN/M, 225mm DIA 45kN/M, 300mm DIA 72kN/M. THE MINIMUM CRUSHING STRENGTH FOR CONCRETE PIPES SHOULD BE - (CLASS 120 TO EN 1916 / BS 5911-1 2002). PLASTIC PIPES SHOULD CONFORM TO WIS 4-35-01 AND BS EN 13476.
12. WHERE A B125 COVER AND FRAME HAS BEEN APPROVED, THIS **MUST NOT** BE COATED IN PLASTER AND MUST HAVE LIFTING EYES SUITABLY SIZED TO ACCOMMODATE STANDARD LIFTING KEYS. SCREW DOWN COVERS ARE NOT ACCEPTABLE.
13. THERE MUST BE ENOUGH CLEARANCE AT CROSSOVERS TO ACCOMMODATE BEDDING TO BOTH PIPES, APPROX. 300mm; IF A CROSSOVER IS NEAR THE ROCKER THEN THE CLEARANCE NEEDED MAY NEED TO BE INCREASED.

MANHOLE COVER LEVELS (m)	FOUL WATER SEWER INVERT LEVELS (m)	SURFACE WATER SEWER INVERT LEVELS (m)	MANHOLE DIAMETER (mm)
175.555	174.350	174.350	Type C F1, d=500, L=50
175.167	172.200	172.200	Type B F12, d=400, L=200
174.600	172.000	172.000	Type B F5, d=320, L=100
174.600	172.000	172.000	Type B F10, d=400, L=200
173.220	171.000	171.000	Type C F1, d=500, L=50
173.145	170.800	170.800	Type C F1, d=500, L=50
171.650	170.000	170.000	Type C F7, d=320, L=150
171.517	169.800	169.800	Type C F10, d=400, L=200
169.300	167.300	167.300	Type C F1, d=500, L=50
168.850	166.850	166.850	End of

Datum: 166.000M AOD

EXISTING CHAINAGE (m)	EXISTING LEVELS (m)
0.000	175.515
0.383	175.500
1.563	175.630
7.851	175.075
9.229	175.075
13.975	174.765
15.942	174.500
18.975	174.430
23.897	174.220
24.686	174.240
28.817	174.090
31.693	173.580
33.613	173.300
33.646	173.140
42.412	173.000
43.449	172.800
48.717	172.546
50.169	172.430
54.006	172.010
55.957	171.650
58.381	171.517
62.802	171.240
65.072	171.000
66.986	170.604
70.394	170.300
73.919	170.217
76.193	170.000
78.901	169.938
81.299	169.540
81.656	169.540
86.372	169.071
88.405	168.909
89.427	168.903
92.481	168.794
92.148	168.708

MANHOLE COVER LEVELS (m)		-18.659	-18.372
FOUL WATER SEWER INVERT LEVELS (m)			
SURFACE WATER SEWER INVERT LEVELS (m)		17.000 Type E S15 de=0.3 17.000 1500 CONC 124 BEDDING TYPE 3 L=10.92 PN=1.000 Type B S15 de=0.3 17.150	
MANHOLE DIAMETER (mm)			
S15-S1	The diagram shows a cross-section of a sewer installation. A brown line represents the ground surface, which slopes downwards from left to right. Two blue lines represent the sewer pipe invert levels. The upper blue line is labeled 'EXISTING' and has a value of 17.000 at its left end. The lower blue line is labeled 'PROPOSED' and has a value of 17.150 at its right end. The vertical distance between these two lines is indicated as 0.150 m. The pipe diameter is noted as S15 de=0.3. The bedding is specified as Type 3. The length of the pipe section shown is 10.92 m.		
Datum: 176.000M AOD			
EXISTING CHAINAGE (m)		0.00 1.94 4.83 7.44 10.92	
EXISTING LEVELS (m)		18.345 18.306 18.211 18.110 18.014	
x-survey.dwg (m)		18.345 18.306 18.211 18.110 18.014	
Final Surface (m)		18.345 18.306 18.211 18.110 18.014	

NOTES			
1. THIS DRAWING IS PRODUCED FOR USE IN THIS PROJECT ONLY AND MAY NOT BE USED FOR ANY OTHER PURPOSE. THE CONSULTING ENGINEERS ACCEPT NO LIABILITY FOR THE USE OF THIS DRAWING OTHER THAN THE PURPOSE FOR WHICH IT WAS INTENDED IN CONNECTION WITH THIS PROJECT AS RECORDED ON THE TITLE BLOCK FIELDS 'PURPOSE FOR ISSUE' AND 'FILE STATUS CODE'. 2. THIS DRAWING MAY NOT BE REPRODUCED IN ANY FORM WITHOUT PRIOR WRITTEN AGREEMENT FROM ADVANT ENGINEERS. 3. DO NOT SCALE FROM THE DRAWING, USE WRITTEN DIMENSIONS ONLY. 4. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SPECIFIED. 5. DISCREPANCIES MUST BE REPORTED BACK TO THE ENGINEER PRIOR TO CONSTRUCTION. 6. THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL RELEVANT ADVANT ENGINEERS DRAWINGS AND SPECIFICATIONS.			
I	UPDATED TO CLIENT COMMENTS	MJM	12.03.25
H	UPDATED TO YW COMMENTS	MJM	23.11.24
G	UPDATED TO YW COMMENTS	MJM	08.11.24
F	UPDATED TO YW COMMENTS	MJM	19.10.24
E	UPDATED TO YW COMMENTS	MJM	30.09.24
D	UPDATED TO YW COMMENTS	MJM	12.09.24
C	UPDATED TO YW COMMENTS	MJM	24.07.24
B	DRAINAGE UPDATED	MJM	24.05.24
A	INITIAL ISSUE	MJM	18.04.24
REV	AMENDMENTS	BY	DATE

FOR APPROVAL

STATUS		CHK'D
PRELIMINARY		MJM
FOR COMMENT		MJM
FOR APPROVAL		MJM
FOR CONSTRUCTION		
AS BUILT		



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CLIENT

NORTH PARK
HOMES LTD

CONTRACT

YEW TREE ROAD
BIRCHENCLIFFE
HUDDERSFIELD

TITLE

ROAD AND SEWER
LONG SECTIONS
SHEET 2

DRAWN	MJM	CHK'D	MJM
SCALE	1:200 @ A1	DATE	18.04.24

JOB No 22046	DRG No 116	REV I
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