

NOTES

- Drainage design and construction is in accordance with Sewerage Guidance and any additional requirements of United Utilities.
- All SVP, RWP and BIC connections are indicative and must be cross referenced with architect's block plans.
- Pipe gradients out of building to connecting manhole to be laid on 1:40 in accordance with Part H of the 2015 Building Regulations. All inverts to SVP within 3 storey buildings must be 750mm in accordance with Building Regulations.
- Tolerances to be in accordance with SSG Clause E5.9.
- All rocker pipes to be in accordance with SSG Clause E6.6.2 and Table E13.
- Engineering bricks shall not contain frogs or holes.
- Brickwork to manholes to be English Bond.
- Where pipes surrounded in concrete, flexibility to be maintained at pipe joints by the use of suitable compressible material eg. "flexcell" or "fibreboard".
- All manhole covers and frames must comply with BS EN124. Covers in roads to be Grade D400 and be 150mm deep. Manhole covers in car parking areas and drives to be Grade B125, whilst landscaped areas may be Grade A15. All to be sized in accordance with Part H of Building Regulations 2015.
- All incoming pipes shall be surrounded with 150mm of concrete to the face of the collar of the first flexible joint and the outgoing pipe shall also be surrounded to within 50mm of the first flexible joint and a compressible filler used as a former between the concrete surround and downstream pipe collar.
- All underground services to be confirmed by contractor prior to commencement on site. Any discrepancies to be reported to engineer.
- Private sewers not located in roads to be Class F granular bed and surround as per standard details.
- Sewers located under adopted roads to be Class S granular bed and surround (more than 1.2m cover).
- Sewers located under private roads and car parking bays to be Class F granular bed and surround as per standard details unless adopted, then provide class S (if more than 1.2m cover)
- Private sewers with less than 0.6m of cover to be concrete surrounded as class Z on standard details.
- Adopted sewers with less than 1.2m cover, provide Class Z concrete bed and surround. Concrete haunching may be suitable for large diameter storage sewers, guidance must be sought from adopting authority prior to use.
- No deep or wide routed trees to be planted within close proximity of the proposed and existing public sewer system.

ADOPTABLE SEWER PIPE MATERIALS

- 150mm, 225mm and 300mm to be clay pipework
- 375mm, 450mm and 525mm to be concrete pipework
- 600mm and above to be concrete pipework

KEY

- Proposed surface water sewers
- Proposed foul water sewers
- Existing combined sewers
- Proposed highway drainage
- Site boundary
- FFL 94.600 Proposed finished floor levels
- Proposed gully and 150Ø connection
- Easement
- Cellular Storage

Proposed Cellular Storage 3

Maximum storage to volume - 89.6m³
2no. layers of 400mm depth units.
Vented.

To be confirmed with local authority at detailed design stage.

Catchpit
CL: 151.245mAO
IL: 148.021mAO
Base Level: 147.521mAO(500mm sump)
225Ø 1/167

Cells
CL: 151.057mAO
Cells IL: 148.037mAO

Length x Width x Depth =
7m (7 cells) x 1.6m (32cells) x 0.8m (2 cells)
Unit Cell Size = 1.0 x 0.5m x 0.4m

Proposed Cellular Storage 2

Maximum storage to volume - 75.6m³
3no. layers of 400mm depth units.
Vented.

To be confirmed with local authority at detailed design stage.

Catchpit
CL: 144.710mAO
IL: 142.007mAO
Base Level: 141.507mAO(500mm sump)
225Ø 1/150

Cells
CL: 144.585mAO
Cells IL: 142.026mAO

Length x Width x Depth =
7m (7 cells) x 9m (18cells) x 1.2m (3 cells)
Unit Cell Size = 1.0 x 0.5m x 0.4m

Proposed Cellular Storage 1

Maximum storage to volume - 160m³
5no. layers of 400mm depth units.
Vented.

To be confirmed with local authority at detailed design stage.

Catchpit
CL: 152.229mAO
IL: 148.996mAO
Base Level: 148.496mAO(500mm sump)
225Ø 1/167

Cells
CL: 152.191mAO
Cells IL: 149.012mAO

Length x Width x Depth =
20m (20 cells) x 4m (8cells) x 2.0m (5 cells)
Unit Cell Size = 1.0 x 0.5m x 0.4m

Proposed Outfall for Foul Network (F74)

Existing Cover level - 129.870mAO
Invert level - 126.219mAO (Interpolated)
Exact location to be confirmed prior to any construction.

Existing UU MH 0302

Existing Cover level - 130.08mAO (UU Sewer Records)
Invert level - 126.11mAO (From UU Sewer Records)

Proposed Outfall for Network 3 (S61HW)

Existing Cover level - TBC
Invert level - 128.66mAO
Discharge Rate: 6.3/s (Unrestricted)

Exact location to be confirmed prior to any construction.

Proposed Outfall for Network 2 (S20HW)

Existing Cover level - 130.00mAO
Invert level - 128.66mAO
Discharge Rate: 8.9/s

Exact location to be confirmed prior to any construction.

Flow Control Chamber Manhole S19HB

Hydro International HydroBrake Optimum
SHE-0119-8900-2350-8900
Design head = 2.350m
Restricted discharge max. = 8.9 l/sec
Flow control orifice size 119mm
CL - 131.091mAO
IL - 128.732mAO

Flow Control Chamber Manhole S3HB

Hydro International HydroBrake Optimum
SHE-0100-5000-1400-5000
Design head = 1.400m
Restricted discharge max. = 5.0 l/sec
Flow control orifice size 100mm
CL - 146.011mAO
IL - 142.893mAO

Proposed Cellular Storage 4

Maximum storage to volume - 51.00m³
4no. layers of 400mm depth units.
Vented.

To be confirmed with local authority at detailed design stage.

Catchpit
CL: 145.301mAO
IL: 143.164mAO
Base Level: 142.664mAO(500mm sump)
225Ø 1/167

Cells
CL: 145.349mAO
Cells IL: 143.180mAO

Length x Width x Depth =
8.5m (17 cells) x 6.0m (6cells) x 1.6m (4 cells)
Unit Cell Size = 1.0 x 0.5m x 0.4m

Flow Control Chamber Manhole S44HB

Hydro International HydroBrake Optimum
SHE-0101-6000-2000-6000
Design head = 2.000m
Restricted discharge max. = 6.0 l/sec
Flow control orifice size 101mm
CL - 146.182mAO
IL - 143.725mAO

Flow Control Chamber Manhole S52HB

Hydro International HydroBrake Optimum
SHE-0116-1630-2400-1630
Design head = 2.4m
Restricted discharge max. = 16.3 l/sec
Flow control orifice size 161mm
CL - 145.105mAO
IL - 141.820mAO

Proposed Outfall for Network 1

Existing Cover level - TBC
Invert level - TBC
Discharge Rate: 16.3/s
Exact connection point and location of culverted watercourse to be established.

Flow Control Chamber Manhole S37HB

Hydro International HydroBrake Optimum
SHE-0142-1300-2500-1300
Design head = 2.500m
Restricted discharge max. = 13.0 l/sec
Flow control orifice size 142mm
CL - 146.913mAO
IL - 144.413mAO

Flow Control Chamber Manhole S24HB

Hydro International HydroBrake Optimum
SHE-0100-5000-1400-5000
Design head = 1.400m
Restricted discharge max. = 5.0 l/sec
Flow control orifice size 100mm
CL - 149.701mAO
IL - 149.926mAO

Flow Control Chamber Manhole S32HB

Hydro International HydroBrake Optimum
SHE-0100-5000-1400-5000
Design head = 1.400m
Restricted discharge max. = 5.0 l/sec
Flow control orifice size 100mm
CL - 150.425mAO
IL - 148.382mAO

Existing Culverted Watercourse MH2

CL: 147.080m (From Topographical Survey)
IL: 137.090m (From Topographical Survey)

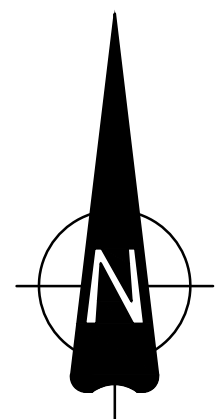
Existing Culverted Watercourse MH1

CL: 146.770m (From Topographical Survey)
IL: 139.770m (From Topographical Survey)

Existing Culverted Watercourse Headwall 900Ø

CL: 142.300m (From Topographical Survey)
IL: 141.370m (From Topographical Survey)

NOTE
DETAILS ON THIS DRAWING ARE SUBJECT TECHNICAL
APPROVALS



Rev	Date	Description	By
G	27.03.23	Amended to suit planning layout Rev E	NR
F	03.03.22	Amended to suit new planning layout	NR
E	29.09.22	Amended to suit RPA	NR
D	22.08.22	Added information about existing watercourse	NR
C	12.08.22	Amended to suit CAD layout	NR
B	08.06.22	Amended to suit layout changes	NR
A	05.05.22	Issued for initial comments	NR

Drawing originator:



Client:

Wain HOMES

Project title:

Dinting Vale
Glossop

Drawing title:

Preliminary
Drainage Design

Scale:

1:500 for the original size of A1

Drawn by:

NR | Checked by: RN | Passed by: RDN | Date: Aug 2022

Drawing status:

Technical Due Diligence

Job No:	Drawing No:	Project	Origin	Volume	Level	Type	Disc.	Number	Revision:
HYD712	XX	BET	ZZ	XX	DR	C	001	G	

Do not scale this drawing

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