Viewport C
Scale 1:500

FDCP23
CL:149.100
IL:148.350

150mmFD

FDCP24
CL:147.300
IL:146.550

150mm FD

Clay Pipe 225mmØ
12.898

FDCP16
CL:146.650
IL:147.300

Cut line
Continuation on Viewport B

100mm FD 1:100

FDCP17
CL:147.350
IL:146.600

S9.1 1200mm
CL: 146.975m
IL: 145.550m

150mm FD 1:150

FDCP18
CL:146.325
IL:145.600

150mm FD 1:150

FDCP25
CL:146.500
IL:145.850

11.000
Clay Pipe
225mmØ
45.012m
IMP Area: 0.082Ha

S9.2 1200mm
CL: 145.950m
IL: 144.550m

11.001
Clay Pipe 225mmØ
37.864m
IMP Area: 0.082Ha

S9.3 1200mm
CL: 145.200m
IL: 143.800m

SC6.1 1800mm
CL: 144.750m
IL: 141.110m

10.001
Concrete Pipe 600mmØ
12.440m
IMP Area: 0.34Ha

FDCP26
CL:145.450
IL:144.650

150mm FD

FDCP26a
CL:144.900
IL:144.100

12.000
Clay Pipe 150mmØ
29.346m
IMP Area: 0.094Ha

150mm FD

FDCP20
CL:144.850
IL:144.100

150mm FD 1:150

150mm FD 1:150

FDCP19
CL:145.650
IL:144.950

11.002
Clay Pipe 225mmØ
29.739m
IMP Area: 0.082Ha

FDCP21
CL:144.250
IL:143.500

S9.4 1200mm
CL: 144.325m
IL: 142.600m

225mm

FDIP27
CL:143.875
IL:142.500

SC5.1
1500mm
CL: 143.600m
IL: 141.175m

Concrete Pipe
525mmØ
1 in 98
30.796m

FDIP28
CL:145.200
IL:142.300

FDIP29
CL:145.050
IL:144.300

FDCP29a
CL:145.000
IL:143.915

225mm 1:200

100mm FD 1:100

100mm FD 1:100

FDIP30
CL:144.000
IL:141.900
BD IL: 143.465

225mm 1:200

Cut line
Continuation on Viewport D

FDCP34
CL:143.725
IL:142.875

FDIP31
CL:143.800
IL:143.300

FDCP32
CL:144.075
IL:143.150

150mm FD

FDCP33
CL:144.230
IL:143.000

150mm FD

150mm FD

Marshalls Kerb Drain

Marshalls Kerb Drain

Marshalls Kerb Drain

14.000
Clay Pipe 225mmØ
1 in 40
13.053m
IMP Area: 0.010Ha

S11.1 1200mm
CL: 143.350m
IL: 141.925m

French Drain Size Calculation
Allowance for a 150mm pipe within an aggregate area of 450mm wide x 600mm deep(Max water storage depth).

Equivalent pipe size = 0.6m x 0.45m - (πx0.075m2/) = 0.252m2/
Area of porosity within the aggregate = 0.252m2/ x 0.3 = 0.0756m2/
Full area = 0.0756m2/ + (πx0.075m2/) = 0.0933m2/

Equivalent pipe diameter for french drain = 2x sqr(0.0933/π) = 0.344mmØ

Coal Measure 'Highwall'
Approx Ch 620m - 640m

Viewport D
Scale 1:500

FDIP37d
Connection to
existing land drain
CL:141.100
IL:139.900 TBC

FDCP37b
CL:140.800
IL:140.000

150mm FD

150mm FD

FDCP37a
CL:142.200
IL:141.600

18.001
Clay Pipe 225mmØ
13.194m
IMP Area: 0.037Ha

Track

Ex private Drain collecting from
Hoyland village, property and
highways, Catchment area approx.
0.578Ha

18.002
Clay Pipe 225mmØ
47.423m
IMP Area: 0.037Ha

18.003
Clay Pipe 225mmØ
33.734m
IMP Area: 0.037Ha

SHEFFIELD ROAD

FDCP42
CL:139.975
IL:139.375

S15.2.1 1200mm
CL: 139.900m
IL: 138.475m

21.000
Clay Pipe 225mmØ
41.400m
IMP Area: 0.036

S15.2.2 1200mm
CL: 138.775m
IL: 137.350m

Clay Pipe 225mmØ
12.056m

S15.2 1350mm
CL: 138.150m
IL: 135.920m
BD IL: 136.775m

20.000
Clay Pipe
225mmØ
1 in 132
30.261m
IMP Area: 0.052

S15.1 1200mm
CL: 137.500m
IL: 136.150m

Cut line
Continuation on Viewport A

Cut line
Continuation on Viewport C

FDIP38a
CL:142.300
IL:141.550

FDIP36
CL:143.500
IL:141.650

FDCP37
CL:142.300
IL:141.490

FDIP38
CL:141.450
IL:140.750

S14.2 1200mm
CL: 141.350m
IL: 139.925m

225mm FD 1:200

18.000
Clay Pipe 225mmØ
10.769m
IMP Area: 0.037Ha

225mm FD 1:200

FDCP34
CL:143.725
IL:142.875

150mm FD

150mm FD

S14.3 1200mm
CL: 141.015m
IL: 139.590m

18.004
Clay Pipe 225mmØ
7.370m
IMP Area: 0.037Ha

20.001
Clay Pipe 225mmØ
18.107m
IMP Area: 0.138

150mmFD

FDIP43
CL:137.950
IL:136.400

FDCP35
CL:142.725
IL:142.025

150mm FD

S14.1 1200mm
CL: 141.490m
IL: 140.065m

150mm FD

SFLD14.6 1800mm
CL: 138.975m
IL: 135.800
BD IL: 137.550
Highway and existing private
drain catchement remaining
= 0.434Ha

S15.3 1200mm
CL: 136.400m
IL: 134.975m

225mm

FDIP44
CL:137.600
IL:136.175

20.002
Clay Pipe 225mmØ
13.952m

FDCP45
CL:135.100
IL:134.600

225mm FD

1.014
CSR Pipe
1500mm
1 in 22
47.749m
IMP Area: 0.766

FDCP46
CL:132.725
IL:132.600

225mm FD

150mm FD

Marshalls Kerb Drain

Marshalls Kerb Drain

Marshalls Kerb Drain

FDCP39
CL:140.910
IL:140.110

S14.4 1200mm
CL: 140.390m
IL: 138.965m

FDCP40
CL:139.650
IL:138.900

FDCP41
CL:138.275
IL:137.675

Coal Measure 'Highwall'
Approx Ch. 935m - 950m

Coal Measure 'Highwall'
Approx Ch. 1085m - 1105m

18.005
Concrete Pipe
750mmØ
1 in 331
13.219m

FDIP59
CL:134.700
IL:133.350

S16.1 1200mm
CL: 133.472m
IL: 130.401m

FDCP60
CL:132.730
IL:132.190

150mm FD

10m SCALE 1:500

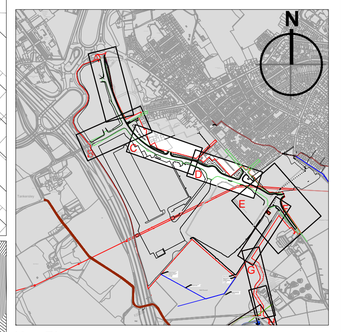
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Notes

1. This drawing has been prepared in accordance with the scope of RPS's appointment with its client and is subject to the terms and conditions of that appointment. RPS accepts no liability for any use of this document other than by its client and only for the purposes for which it was prepared and provided.
2. If received electronically it is the recipients responsibility to print to correct scale. Only written dimensions should be used.
3. This drawing should be read in conjunction with all other relevant drawings and specifications.
4. Masterplan taken from PHP drawing 4400-001 Rev P25, received 15/06/2020.
5. All works to be carried out in accordance with the Specification for Highway Works, the South Yorkshire Residential Design Guide and the requirements of Barnsley Metropolitan Borough Council.
6. Foul water designed in line with Sewer Sector Guidance, Flows from:
   - Industrial plots based on 0.6l/s/Ha
   - Residential plots based on 4000/unit/day peak flow.
7. Adopted Surface water designed in line with Sewer Sector Guidance.
8. Highway drains designed to DMRB and SSG specifications.
9. Kerb drainage based on detailed design by Marshalls PLc.
10. Embankment toe drains are connected to existing drainage outfalls to both provide a base flow to those habitats and to maintain ground water drains. Catchments for all toe drains connections are greatly reduced vs the original site.

Key

- Planning Boundary
- Proposed Highway Gully
- Proposed Kerb Drainage
- Proposed Surface Water Sewer
- Proposed Highway Surface Water Sewer
- Proposed Private Surface Water Sewer
- Proposed Foul Water Sewer
- Proposed Foul Water Rising Main
- Proposed Toe Drain



Key Plan
Not to scale

Rev	Description	By	Ckd	Date
C09	Highway Drainage Amended to suit site request	SMC	ANT	27.01.22
C08	Highway Drainage Amended to suit S104 updates	SMC	ANT	07.12.21
C07	Highway Drainage Amended	SMC	ANT	30.06.21
C06	Highway Drainage Amended	SMC	ANT	22.06.21
C05	DRAFT Highway Drainage Amended	SMC	ANT	21.06.21
C04	Updated Land & Highway drains + 'Highwalls'	SMC	ANT	08.05.21
C03	Updated Land & Highway drains + 'Highwalls'	SMC	ANT	08.05.21
C02	Updated Land Drain	MF	AE	06.04.21

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Client: newlands developments

Project: Hoyland

Title: Highway Drainage Layout (Sheet 2 of 5)

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