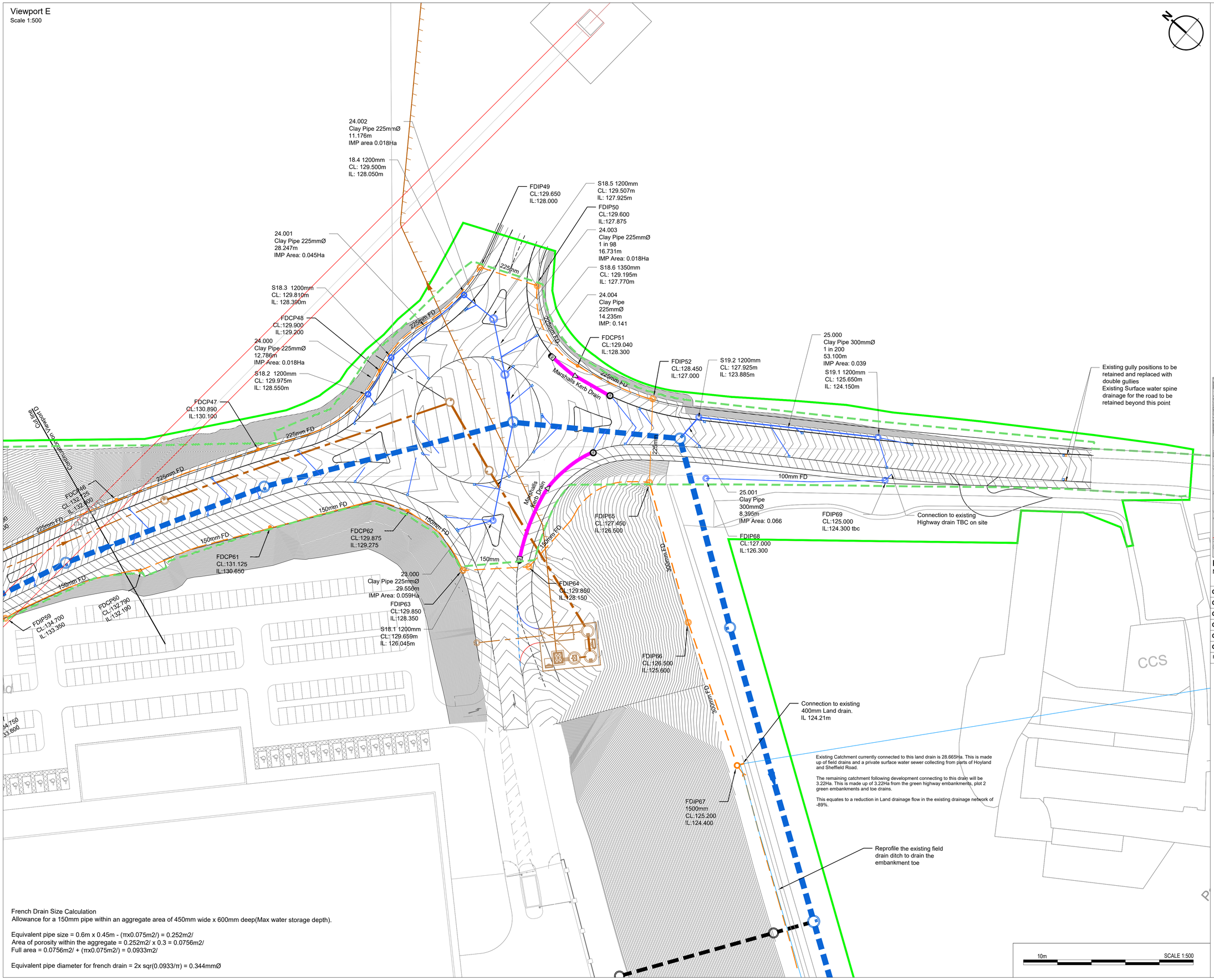
Viewport E
Scale 1:500



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

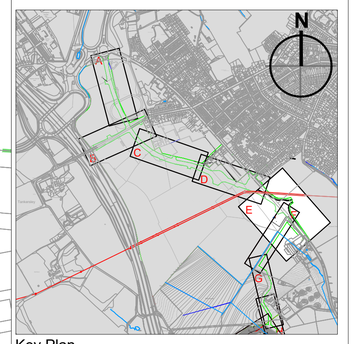
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3. This drawing should be read in conjunction with all other relevant drawings and specifications.
4. Masterplan taken from PHP drawing 4400-001 Rev P25, received 15/06/2020.
5. All works to be carried out in accordance with the Specification for Highway 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 4000l/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 highway French Drain



Key Plan
Not to Scale

Rev	Description	By	Ckd	Date
C06	Highway Drainage Amended	SMC	ANT	30.06.21
C05	Highway Drainage Amended	SMC	ANT	22.06.21
C04	DRAFT Highway Drainage Amended	SMC	ANT	21.06.21
C03	Highway Drainage Amended	SMC	ANT	07.05.21
C02	Highway Drainage Amended	SMC	ANT	07.05.21
C01	Construction Issue	KA	ANT	13.01.21

MAKING COMPLEX EASY
Sherwood House, Sherwood Avenue,
Newark, Nottinghamshire, NG24 1QQ
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Client: newlands developments

Project: Hoyland

Title: Highway Drainage Layout (Sheet 3 of 5)

RPS Project Number	Scale @ A1	Date Created
NK020040	1:500	08.07.2020
Task Team Manager	**Information Author**	**Task Information Manager**
SG	JNB	SMC

Status: A5 (Approved for Construction)

Document Number: HOYLA-RPS-SI-XX-DR-CR-513
Revision: C06
Project Code - Originator - Zone - Level - Type - Role - Drawing Number

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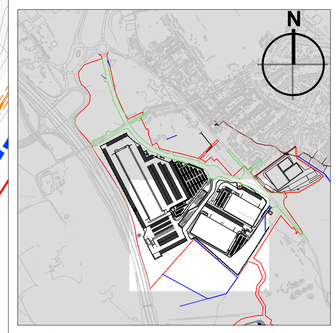
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Key

- Planning Boundary
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- 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

LDCP1 PPIC
CL:135.725
IL:135.225

LDCP2 PPIC
CL:135.725
IL:135.000

LDIP3 1050mm
CL:136.100
IL:134.775

LDIP4 1050mm
CL:136.100
IL:134.565

LDCP5 PPIC
CL:135.725
IL:134.395

LDCP6 1050mm
CL:135.750
IL:134.200

LDCP7 1050mm
CL:135.750
IL:134.005

225mm PE Pipe

Toe drain connected to the existing drainage ditch to maintain the current catchments
CL: 134.600
IL: 133.980

LDCP8 PPIC
CL: 134.800
IL: 134.300

LDCP9 PPIC
CL: 134.300
IL: 133.800

LDCP10 PPIC
CL: 132.000
IL: 131.500

LDCP11 PPIC
CL: 143.300
IL: 142.800

LDCP12 PPIC
CL: 138.150
IL: 137.650

LDCP13 PPIC
CL: 135.300
IL: 134.800

LDCP14 PPIC
CL: 132.800
IL: 132.300

LDCP17 1050mm
CL: 131.300
IL: 130.000

LDIP15 1050mm
CL: 131.160
IL: 130.660

LDIP16 1050mm
CL: 131.100
IL: 130.590

SHW Filter drain Type H (drg F2) with 150mm perforated PE Pipe

Existing 150mm land drain outfall drain retained to wooodland, for the toe drain connection, to maintain a catchment flow.
CL 131.300
Ex.IL 129.88

Existing land drain Ditch through the woods

Existing Ditch retained for flow from the plot 2 green embankments
Edge of site to free drain to ditch

Existing Ditch retained for flow from the plot 2 green embankments
Edge of site to free drain to ditch

Retain the existing land drainage ditch connection to maintain the current catchments
CL: 117.200
IL: 116.400

Reprofile the existing field drain ditch to drain the embankment toe
Ditch to be minimum:
0.5m deep
0.3m base
1:2 side slopes

Reprofile the existing field drain ditch to drain the embankment toe
Ditch to be minimum:
0.5m deep
0.3m base
1:2 side slopes

Bell Ground

Bell Ground House

Path (Dis)

Rev	Description	By	Ckd	Date
P04	Toe drain amended to suit new levels	SMC	ANT	17.08.21
P03	Plan View repositioned	SH	ANT	10.08.21
P02	Toe drain pipe size added	SH	ANT	10.08.21
P01	Information Issue	SM	ANT	30.06.21

MAKING COMPLEX EASY

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Client: newlands developments

Project: Hoyland

Title: Land Drainage Remaining General Arrangement

RPS Project Number	Scale @ A1	Date Created
NK020040	1:1000	30.06.2021
Task Team Manager	**Information Author**	**Task Information Manager**
AE	SMC	SMC

Status: A5 (Approved for Construction)

Document Number: HOYLA-RPS-SI-XX-DR-CR-532
Project Code - Originator - Zone - Level - Type - Role - Drawing Number

Revision: P04

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