

This drawing is to be read in conjunction with all relevant Architects and Engineer's drawings and the specification.

This drawing should not be scaled.

All dimensions are to be verified by the contractor on site.
All discrepancies should be reported to the C.A. prior to the commencement of the works.

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Drainage Key:

- Proposed SW Drainage
- Proposed FW Drainage
- Proposed Land / Filter Drain
- Existing CW Sewer
- SW Inspection Chamber
- SW Manhole
- SW Soakaway Manhole
- FW Inspection Chamber
- FW Manhole
- FW Pump Chamber
- RWP, Rainwater Pipe
- SVP, Soil Vent Pipe
- KS, Kitchen Sink
- SG, Shower Gully
- Development Boundary

Drainage Notes

All internals foul pipe and rainwater pipe locations to be confirmed by Architect.

Rainwater pipes to be 600mm below finished floor levels, and foul pipes to be 750mm finished floor levels.

All surface water pipes to be 1500, and all foul pipes to be 1000.

Cover levels shown based on outline proposed site levels. Covers to be adjusted to exact ground level during construction.

Highway drainage design to be approved by Kirklees Council and foul water connection to be confirmed by Yorkshire Water.

07/05/19	P01	Issued for Planning / Comment	MDS	RV
Date	Revision	Description	Drawn	Chkd

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Project: **Fernside Avenue Huddersfield**

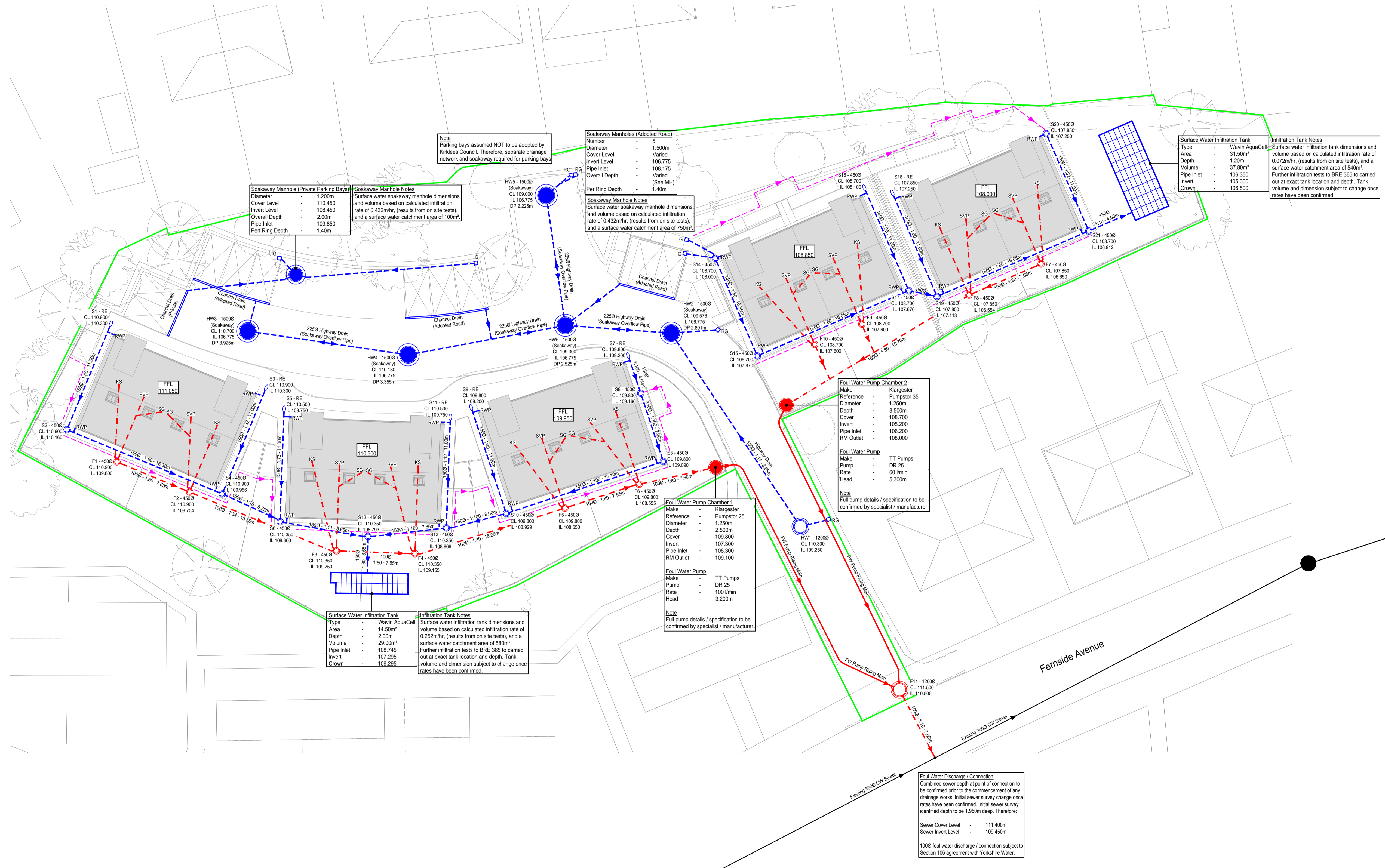
Title: **Below Ground Drainage Layout**

Status: **PLANNING / COMMENT**

Drawn: MDS	Checked: RV
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Scale @ Size: 1:200 @ A1	Date: 07.05.19
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Job/Drawing No: 474/01(DR)100	Revision: P01
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Note
Parking bays assumed NOT to be adopted by Kirklees Council. Therefore, separate drainage network and soakaway required for parking bays

Soakaway Manhole (Private Parking Bays)
Diameter - 1,200m
Cover Level - 110.450
Invert Level - 108.450
Overall Depth - 2.00m
Pipe Inlet - 109.850
Perf Ring Depth - 1.40m

Soakaway Manhole Notes
Surface water soakaway manhole dimensions and volume based on calculated infiltration rate of 0.432m/hr, (results from on site tests), and a surface water catchment area of 100m²

Soakaway Manholes (Adopted Road)
Number - 5
Diameter - 1,500m
Cover Level - Varied
Invert Level - 106.775
Pipe Inlet - 108.175
Overall Depth - Varied
Perf Ring Depth - 1.40m

Soakaway Manhole Notes
Surface water soakaway manhole dimensions and volume based on calculated infiltration rate of 0.432m/hr, (results from on site tests), and a surface water catchment area of 750m²

Surface Water Infiltration Tank
Type - Wavin AquaCell
Area - 31.50m²
Depth - 1.20m
Volume - 37.80m³
Pipe Inlet - 106.350
Invert - 105.300
Crown - 106.500

Infiltration Tank Notes
Surface water infiltration tank dimensions and volume based on calculated infiltration rate of 0.072m/hr, (results from on site tests), and a surface water catchment area of 540m². Further infiltration tests to BRE 365 to be carried out at exact tank location and depth. Tank volume and dimension subject to change once rates have been confirmed.

Foul Water Pump Chamber 2
Make - Klargester
Reference - Pumpstor 35
Diameter - 1,250m
Depth - 3,500m
Cover - 108.700
Invert - 105.200
Pipe Inlet - 106.200
RM Outlet - 108.000

Foul Water Pump
Make - TT Pumps
Pump - DR 25
Rate - 60 l/min
Head - 5.300m

Note
Full pump details / specification to be confirmed by specialist / manufacturer

Foul Water Pump Chamber 1
Make - Klargester
Reference - Pumpstor 25
Diameter - 1,250m
Depth - 2,500m
Cover - 109.800
Invert - 107.300
Pipe Inlet - 108.300
RM Outlet - 109.100

Foul Water Pump
Make - TT Pumps
Pump - DR 25
Rate - 100 l/min
Head - 3.200m

Note
Full pump details / specification to be confirmed by specialist / manufacturer

Surface Water Infiltration Tank
Type - Wavin AquaCell
Area - 14.50m²
Depth - 2.00m
Volume - 29.00m³
Pipe Inlet - 108.745
Invert - 107.295
Crown - 109.295

Infiltration Tank Notes
Surface water infiltration tank dimensions and volume based on calculated infiltration rate of 0.252m/hr, (results from on site tests), and a surface water catchment area of 580m². Further infiltration tests to BRE 365 to be carried out at exact tank location and depth. Tank volume and dimension subject to change once rates have been confirmed.

Foul Water Discharge / Connection
Combined sewer depth at point of connection to be confirmed prior to the commencement of any drainage works. Initial sewer survey change once rates have been confirmed. Initial sewer survey identified depth to be 1.950m deep. Therefore:
Sewer Cover Level - 111.400m
Sewer Invert Level - 109.450m

1000 foul water discharge / connection subject to Section 106 agreement with Yorkshire Water.