



Assessment of Drainage Proposals

55 Fitzroy Park, Camden

January 2021



BRINGING NATURE TO THE HEART OF DESIGN

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Figure 9 – Site Drainage Layout over Proposed Layout (Landscape Masterplan)

Introduction

JFA Environmental Planning were asked to assess the impact of the proposed drainage layout on both the existing and proposed landscape at 55 Fitzroy Park, Camden, London by affected neighbours. The impact on existing and proposed vegetation has been summarised in the following table and illustrated on the appended drawing overlays.

Potential for tree or shrub roots to impact on drainage/ foul sewer assets is related to:

- Species - some species are more shallow rooting and therefore potential for impacts are reduced. However all trees and shrubs have the potential to impact on drainage features dependant on soil type, and climate (i.e. drought conditions); and
- Rooting extent - generally the area of potential impact or RPA is the width of the canopy, which increases with the maturity of the plant. Therefore, the possible extent of the rooting zone should be based on the mature tree or shrub canopy size.

Identified Conflicts Between Drainage Proposals and Landscape

Existing trees on site - Identified Conflicts						
Proposal	Tree Numbers	Species	Current Canopy (maximum reach)	Potential canopy spread	Conflict	Reference
Gravel/infill trench pipework to the south of plot 5	T552	Hawthorn	5m	4-8m	Pipework runs through RPA of tree	See Figure 6 of JFA overlays
	T553	Sycamore	5m	10-25m	Pipework runs through RPA of tree	
	Trees in neighbouring land to south of site	Unknown	Unknown	Unknown	They may have RPAs that extend into the site where the gravel trench and pipework is proposed	
Foul water holding tank and pump chamber on north-western corner of site	T557	Eucalyptus	3m	7-15m	Within RPA of tree	
Storm drain pipework between the existing weir and the gravel trench	T557	Eucalyptus	3m	7-15m	Pipework runs through RPA of tree	
	T558	Eucalyptus	5m	7-15m	Pipework runs through RPA of tree	
Foul and storm drains running alongside and behind plots 1 and 4	T536	Apple	3.5m	4-8m	Tree canopy and roots could potentially enter the easement area	
	T563	Silver birch	4m	10m	Tree canopy and roots could potentially enter the easement area	
	T567	Ash	4m	20m	Tree canopy and roots could potentially enter the easement area	
Storm water pipework south of plot 4	T520	Walnut	6.5m	15m	Tree canopy and roots could potentially enter the easement area	
Proposed vegetation - Identified Conflicts						
Proposal	Proposed Vegetation reference	Species	Conflict			Reference
Storm drain pipework between the existing weir and the gravel trench	H2 hedge planting along north-western boundary	Hawthorn, Field Maple, Dog rose, Hornbeam;	Some of these species too close to easement / sewer			See Figure 9 of JFA overlays
	Tree planting indicated	Beech, Oak, Hornbeam, Silver birch, Holly and Rowan	Some of these species too close to easement / sewer			
Gravel/infill trench pipework to the south of plot 5	NS Native hedge planting along southern boundary	Holly, Yew, Hawthorn, Hornbeam, Beech and Hazel	Some of these species too close to easement / sewer			
	SP Structure planting along southern boundary	Hawthorn, Hazel, Dog rose, Wayfaring tree, Guelder rose	Some of these species too close to easement / sewer			
Foul and storm drains running alongside and behind plots 1 and 4	H2 hedge planting either side of access path	Hawthorn, Field Maple, Dog rose, Hornbeam;	Some of these species too close to easement / sewer			
	Tree planting indicated	Beech, Oak, Hornbeam, Silver birch, Holly and Rowan	Some of these species too close to easement / sewer			
	Orchard planting	Apple and plum varieties	Some of these species too close to easement / sewer			

Conclusion

The overlay of the Tree Protection Plan onto the Proposed Drainage Layout highlights several existing trees that are to be retained whose canopy / root protection areas will be directly affected by the drainage proposals.

Some existing trees also have the potential to grow much larger in the future and as a result their roots could grow into the easement corridors of the proposed sewer runs.

Trees in neighbouring land whose root protection areas overrun into the site could also be affected by excavations for the proposed sewers.

When the Proposed Drainage Layout is overlaid onto the Landscape Masterplan it is clear that the proposed tree and larger shrub planting that falls within the sewer easements would not be achievable.



Figure I -TREE REMOVAL PLAN – Bosky trees



Key

- Tree protection fencing
- Canopy spread
- Trunk position
- Tree number
- Tree group canopy outline
- Hedge line
- Measurement from trunk to fence
- Areas where ground protection is to be installed during construction

BOSKYTREES

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Frome, BA11 1EB
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Tel: 01373 832778

Project Name:	
55 Fitzroy Park Highgate	
Drawing Title:	
Tree Protection Plan	
Drawing Number:	Revision
TPP-1	
Client:	
Mr G Springer	
Agent:	
Date:	
23-4-2018	
Scale:	
1:400 @ A3	

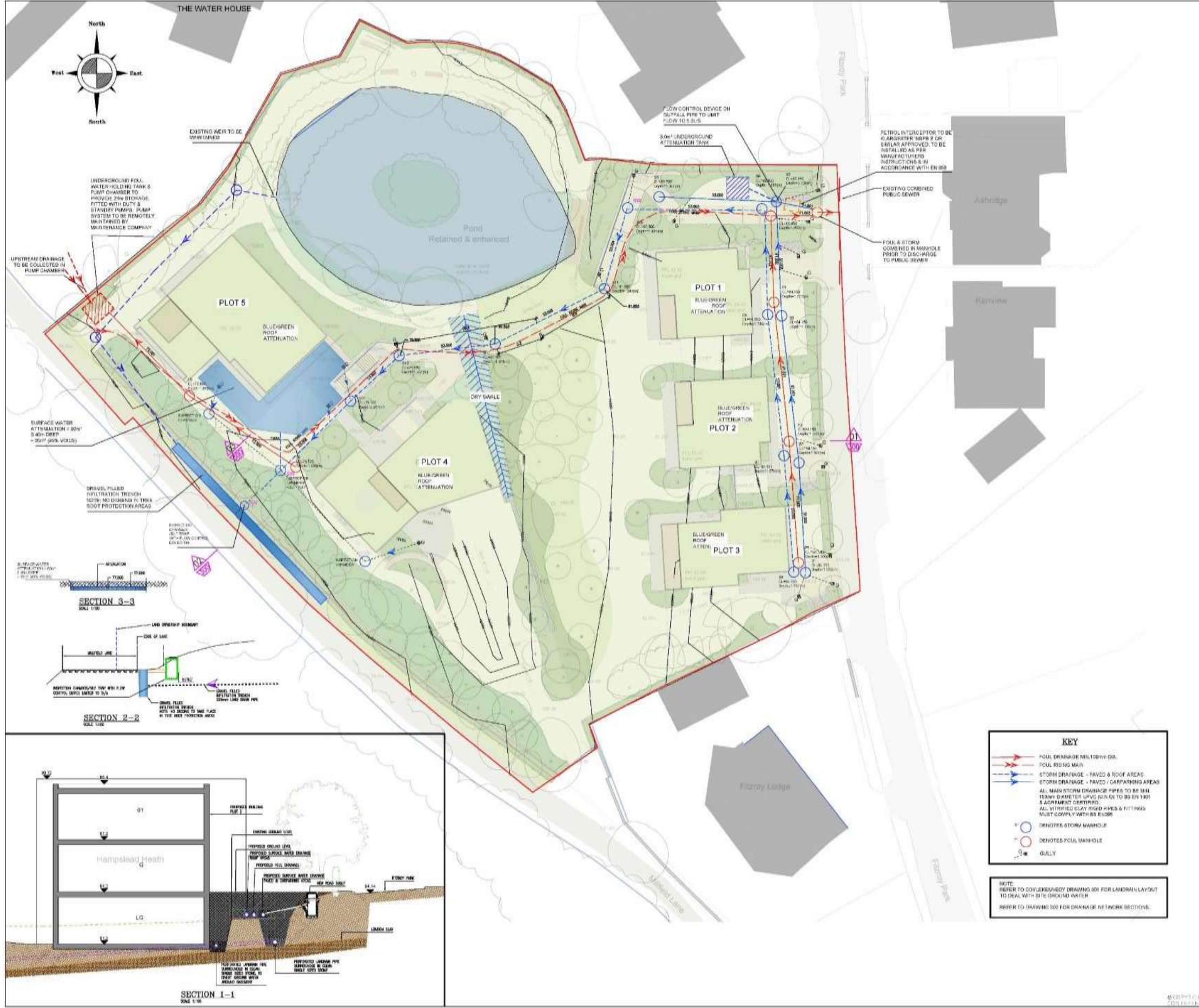
Figure 2 - TREE PROTECTION PLAN – Bosky Trees

55, FITZROY PARK, CAMDEN



Figure 3 - LANDSCAPE MASTERPLAN – LUC Architects

55, FITZROY PARK, CAMDEN



NOTES

GENERAL NOTES:

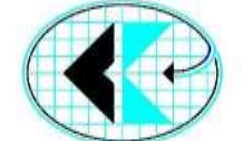
1. ALL WORK SHALL BE IN ACCORDANCE WITH THE BUILDING REGULATIONS AND ALL OTHER APPLICABLE LEGISLATION.
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DRAINAGE NOTES:

1. THE DRAINAGE SYSTEM SHALL BE DESIGNED TO ACCORDANCE WITH THE BUILDING REGULATIONS AND ALL OTHER APPLICABLE LEGISLATION.
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Rev.	Revision	Date

DRAWING STATUS		
P PRELIMINARY	A APPROVAL	T TENDER
C CONSTRUCTION	R RECORD	I INFORMATION



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KEY

- POUL DRAINAGE (MIL. 150MM DIA.)
- POUL RISING MAIN
- STORM DRAINAGE - PAVED & ROOF AREAS
- STORM DRAINAGE - PAVED / CARPARKING AREAS
- ALL MAIN STORM DRAINAGE PIPES TO BE MIN. 150MM DIA. (UP TO 300 BY 150) & ACCURATELY CERTIFIED.
- ALL VITRIFIED CLAY RIGID PIPES & FITTINGS MUST COMPLY WITH BS EN 50420.
- Ø DENOTES STORM MANHOLE
- Ø DENOTES POUL MANHOLE
- Ø DENOTES GULLY

NOTE: REFER TO COYLEKENNEDY DRAWING 301 FOR LANDRAIN LAYOUT TO DEAL WITH SITE GROUND WATER. REFER TO DRAWING 302 FOR DRAINAGE NETWORK SECTIONS.

Figure 4 - SITE DRAINAGE LAYOUT – Coyle Kennedy Engineers 55, FITZROY PARK, CAMDEN



Key

- Root Protection Area
- Canopy spread
- Trunk position
- Tree number
- Trees scheduled for removal

BS5837:2012 - Tree Category

- Category A Trees**
High quality and value
At least 40 years life-expectancy
- Category B Trees**
Moderate quality and value
At least 20 years life-expectancy
- Category C Trees**
Moderate quality and value
At least 10 years life-expectancy
- Category U Trees**
Poor quality and value
Less than 10 years life expectancy

KEY

- FOUL DRAINAGE MIN. 100mm DIA.
- FOUL RISING MAIN
- STORM DRAINAGE - PAVED & ROOF AREAS
- STORM DRAINAGE - PAVED / CARPARKING AREAS
- ALL MAIN STORM DRAINAGE PIPES TO BE MIN. 150mm DIAMETER UPVC (U.N.O) TO BS EN 1401 & AGREEMENT CERTIFIED.
- ALL VITRIFIED CLAY RIGID PIPES & FITTINGS MUST COMPLY WITH BS EN295
- DENOTES STORM MANHOLE
- DENOTES FOUL MANHOLE
- GULLY

NOTE:
REFER TO COYLEKENNEDY DRAWING 301 FOR LANDRAIN LAYOUT TO DEAL WITH SITE GROUND WATER
REFER TO DRAWING 302 FOR DRAINAGE NETWORK SECTIONS

Figure 5 - TREE REMOVAL PLAN OVERLAID ONTO DRAINAGE LAYOUT

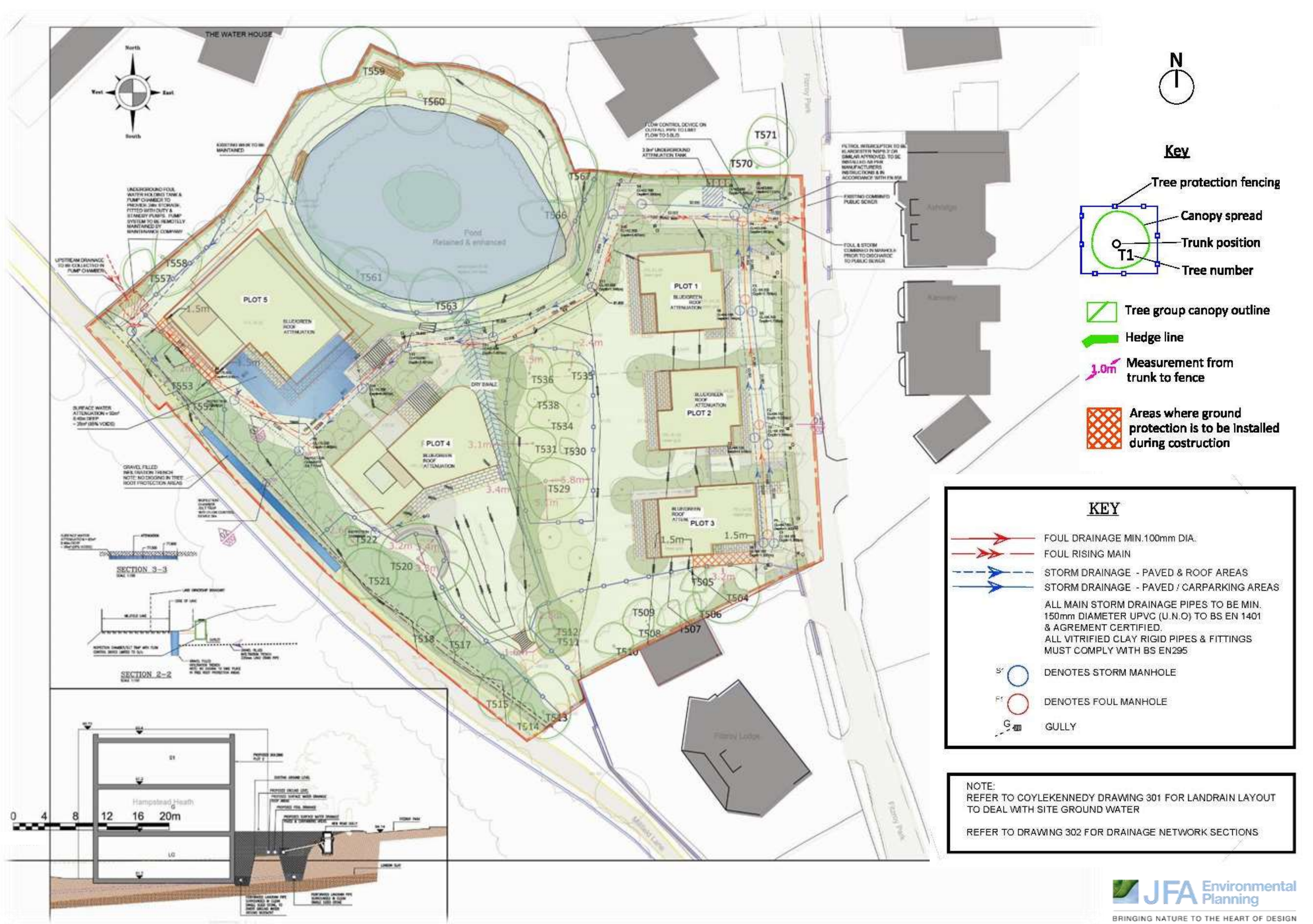
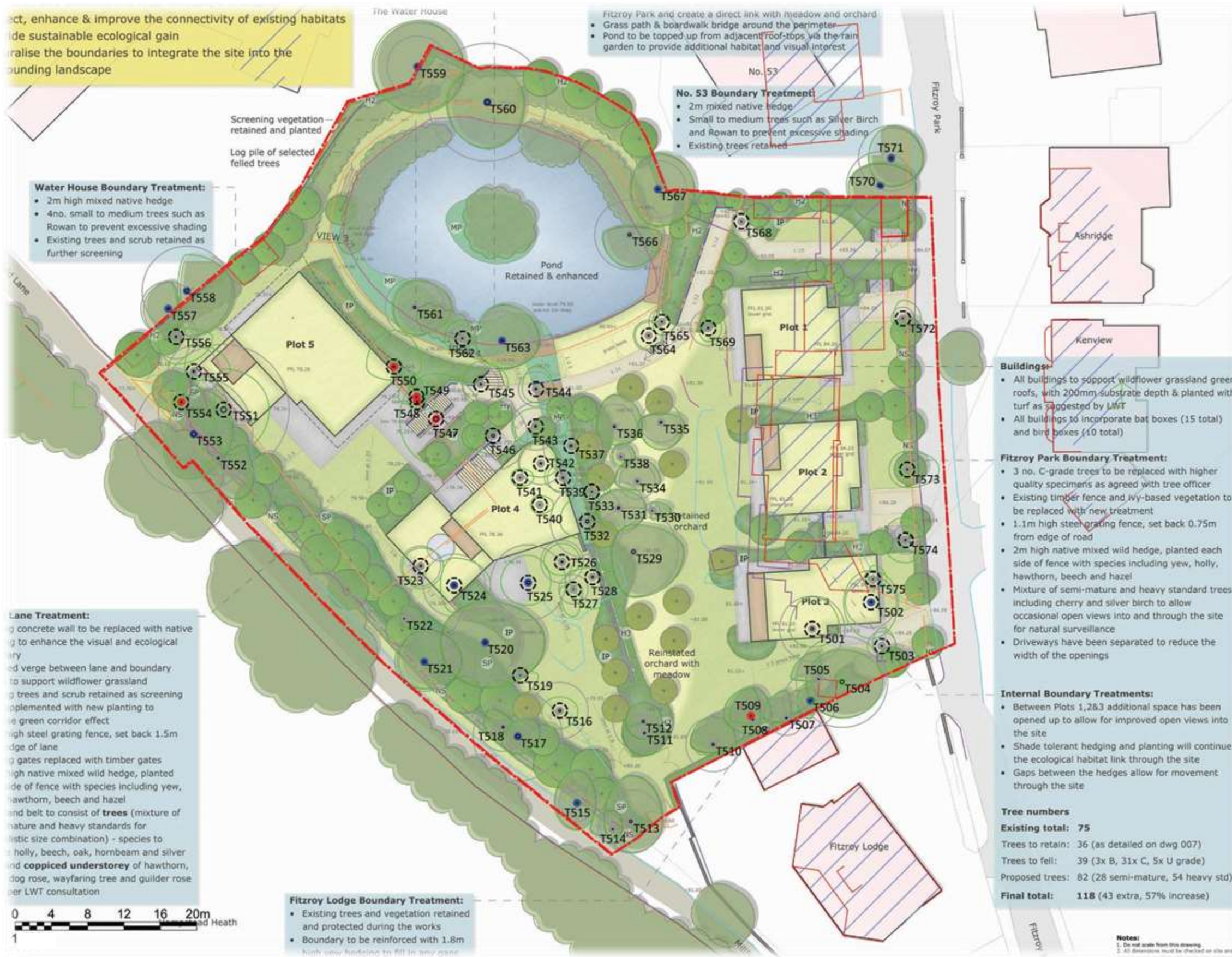


Figure 6 -TREE PROTECTION PLAN OVERLAID ONTO DRAINAGE LAYOUT

ect, enhance & improve the connectivity of existing habitats
 ide sustainable ecological gain
 aralise the boundaries to integrate the site into the
 ounding landscape



Water House Boundary Treatment:

- 2m high mixed native hedge
- 4no. small to medium trees such as Rowan to prevent excessive shading
- Existing trees and scrub retained as further screening

Fitzroy Park and create a direct link with meadow and orchard

- Grass path & boardwalk bridge around the perimeter
- Pond to be topped up from adjacent roof-tops via the rain garden to provide additional habitat and visual interest

No. 53 Boundary Treatment:

- 2m mixed native hedge
- Small to medium trees such as Silver Birch and Rowan to prevent excessive shading
- Existing trees retained

Lane Treatment:

- Existing concrete wall to be replaced with native planting to enhance the visual and ecological connectivity
- Existing verge between lane and boundary to be replaced with native planting to support wildflower grassland
- Existing trees and scrub retained as screening
- Lane to be supplemented with new planting to create a green corridor effect
- Lane to be enclosed with 1.1m high steel grating fence, set back 1.5m from edge of lane
- Lane gates replaced with timber gates
- Lane to be enclosed with 2m high native mixed wild hedge, planted on each side of fence with species including yew, hawthorn, beech and hazel
- Lane to be enclosed with a hedge and belt to consist of **trees** (mixture of mature and heavy standards for a diverse size combination) - species to include holly, beech, oak, hornbeam and silver birch
- Lane to be enclosed with **coppiced understorey** of hawthorn, dog rose, wayfaring tree and guelder rose per LWT consultation

Fitzroy Lodge Boundary Treatment:

- Existing trees and vegetation retained and protected during the works
- Boundary to be reinforced with 1.8m high native hedging to fill in any gaps

Buildings:

- All buildings to support wildflower grassland green roofs, with 200mm substrate depth & planted with turf as suggested by LWT
- All buildings to incorporate bat boxes (15 total) and bird boxes (10 total)

Fitzroy Park Boundary Treatment:

- 3 no. C-grade trees to be replaced with higher quality specimens as agreed with tree officer
- Existing timber fence and ivy-based vegetation to be replaced with new treatment
- 1.1m high steel grating fence, set back 0.75m from edge of road
- 2m high native mixed wild hedge, planted each side of fence with species including yew, holly, hawthorn, beech and hazel
- Mixture of semi-mature and heavy standard trees including cherry and silver birch to allow occasional open views into and through the site for natural surveillance
- Driveways have been separated to reduce the width of the openings

Internal Boundary Treatments:

- Between Plots 1,2&3 additional space has been opened up to allow for improved open views into the site
- Shade tolerant hedging and planting will continue the ecological habitat link through the site
- Gaps between the hedges allow for movement through the site

Tree numbers

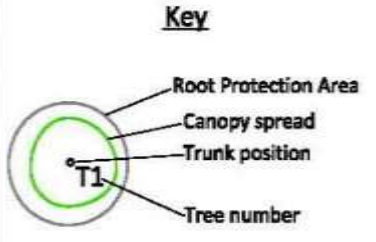
Existing total: 75

Trees to retain: 36 (as detailed on dwg 007)

Trees to fell: 39 (3x B, 31x C, 5x U grade)

Proposed trees: 82 (28 semi-mature, 54 heavy std)

Final total: 118 (43 extra, 57% increase)



BSS837:2012 - Tree Category

	Category A Trees High quality and value At least 40 years life-expectancy
	Category B Trees Moderate quality and value At least 20 years life-expectancy
	Category C Trees Moderate quality and value At least 10 years life-expectancy
	Category U Trees Poor quality and value Less than 10 years life expectancy

Notes:

1. Do not scale from this drawing.
2. All dimensions must be checked on site and as per LWT consultation.

Figure 7 - TREE REMOVAL PLAN OVERLAID ONTO PROPOSED LAYOUT 55, FITZROY PARK, CAMDEN

Protect, enhance & improve the connectivity of existing habitats
 Provide sustainable ecological gain
 Clarify the boundaries to integrate the site into the surrounding landscape



Key

- Tree protection fencing
- Canopy spread
- Trunk position
- Tree number
- Tree group canopy outline
- Hedge line
- 3.0m Measurement from trunk to fence
- Areas where ground protection is to be installed during construction

Buildings

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 Trees to fell: 39 (3x B, 31x C, 5x U grade)
 Proposed trees: 82 (28 semi-mature, 54 heavy std)
Final total: 118 (43 extra, 57% increase)

Notes:

- Do not scale from this drawing.
- All dimensions must be checked on site and all discrepancies verified with landscape architect.
- All dimensions are drawn in mm.
- Landscape drawing only.
- All materials/brand used to be as specified or

Figure 8 - TREE PROTECTION PLAN OVERLAID ONTO PROPOSED LAYOUT 55, FITZROY PARK, CAMDEN

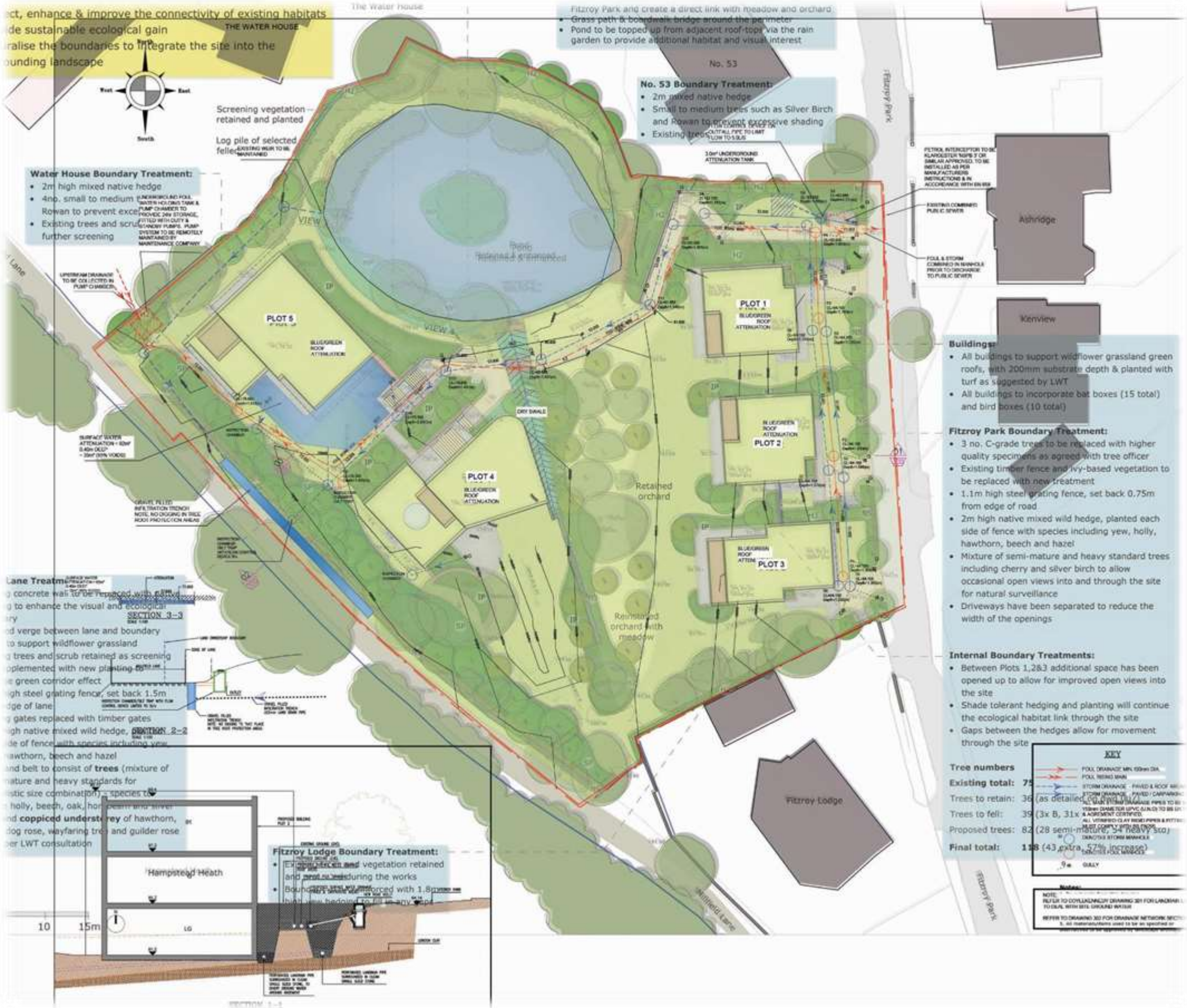


Figure 9 - DRAINAGE LAYOUT OVERLAID ONTO PROPOSED LAYOUT