



**TfL Landholdings at
Northwood**

**Arboricultural Impact
Assessment**

and

**Arboricultural Method
Statement**

For

BuroHappold

Project No.: RBUH108/004/001/001

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FIGURE 1: SITE LOCATION

FIGURE 2: TREE CONSTRAINTS PLAN (TCP01)

FIGURE 3: TREE PROTECTION PLAN (TPP01)

1. Summary

- 1.1.1 Transport for London (TFL) is proposing the development of TFL Landholdings at Northwood, London. The proposals involve demolition of existing buildings to provide 92 residential units (C3) and associated car parking, 1,440 sq.m. retail (A1-A5), a new operational station (Sui Generis) with step free access and associated car parking for the station, new bus interchange, and a new piazza. Outline planning consent for up to 34 residential units, car parking (all matters reserved apart from access) and refurbishment works to existing retail units along Station Approach.
- 1.1.2 BuroHappold (BH) commissioned Thomson Ecology Ltd (TE) to produce an Arboricultural Impact Assessment (AIA) and Arboricultural Method Statement (AMS) for the development. This document details the AIA and AMS. An arboricultural survey was undertaken by Thomson Ecology Ltd in May 2015 for BH and was carried out in accordance with BS5837:2012 '*Trees in Relation to Design, Demolition and Construction - Recommendations*' (BS5837: 2012). The results are detailed in Thomson Ecology Ltd report ref.: RBUH108/001/001/002.
- 1.1.3 The AIA concluded that the proposed development will result in the loss of 14 trees and six groups of trees from the site. However, all of the trees and four of the groups of trees are Category C and Category U and these losses will be offset with new tree planting which will ultimately increase the arboricultural value of the site. The full AIA is found in the main body of the report (Section 3).
- 1.1.4 The AMS details how existing hard standing will provide an adequate level of protection for trees that are to be retained during the proposed works. The full AMS is found in the main body of the report (Section 4).

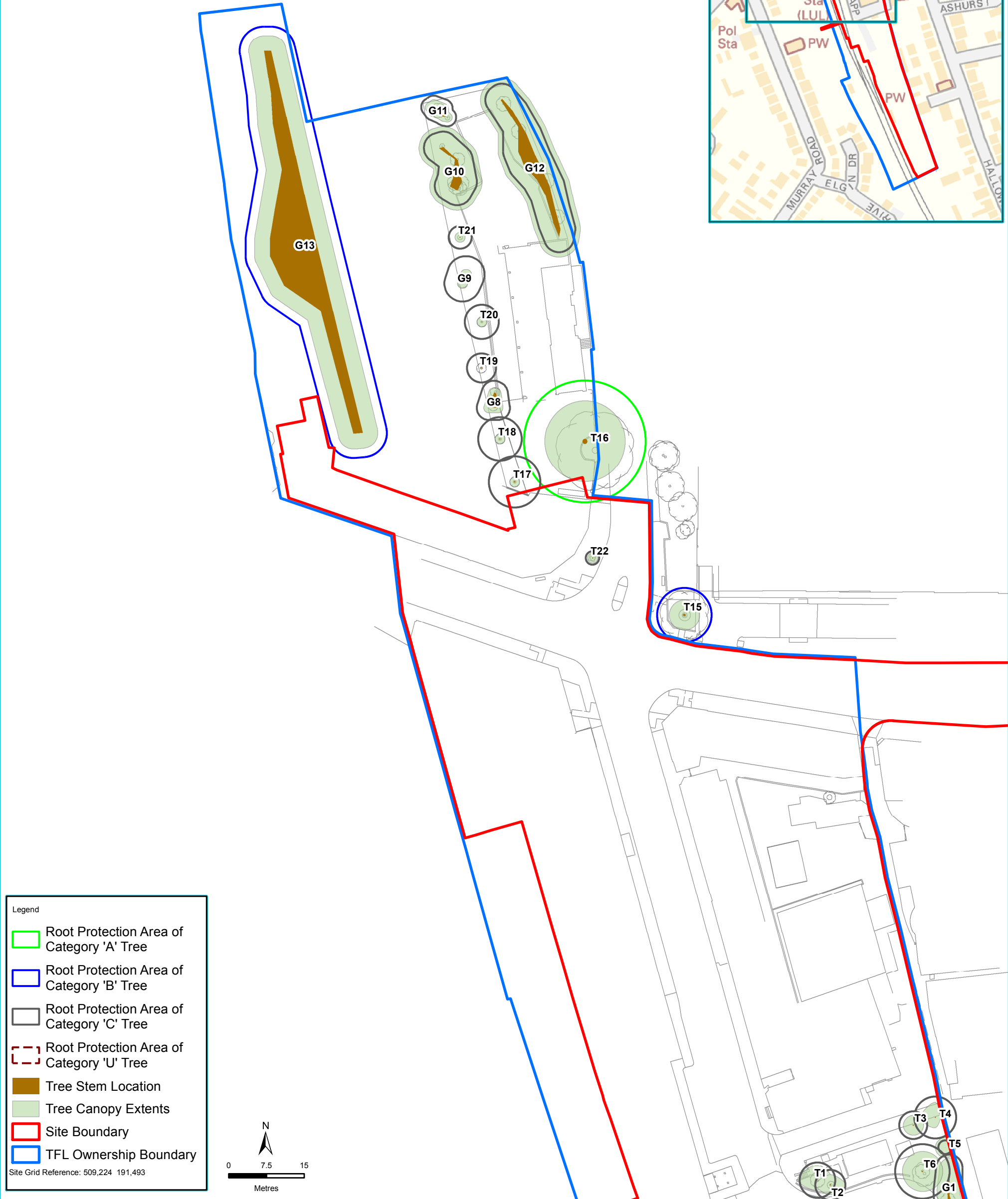


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Figure Number	1		Scale at A4	1:50,000	
Figure Title	Site Location		Drawn	KM	Checked NS
			Date	15/05/2015	Date 15/05/2015

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Legend

- Root Protection Area of Category 'A' Tree
- Root Protection Area of Category 'B' Tree
- Root Protection Area of Category 'C' Tree
- Root Protection Area of Category 'U' Tree
- Tree Stem Location
- Tree Canopy Extents
- Site Boundary
- TFL Ownership Boundary

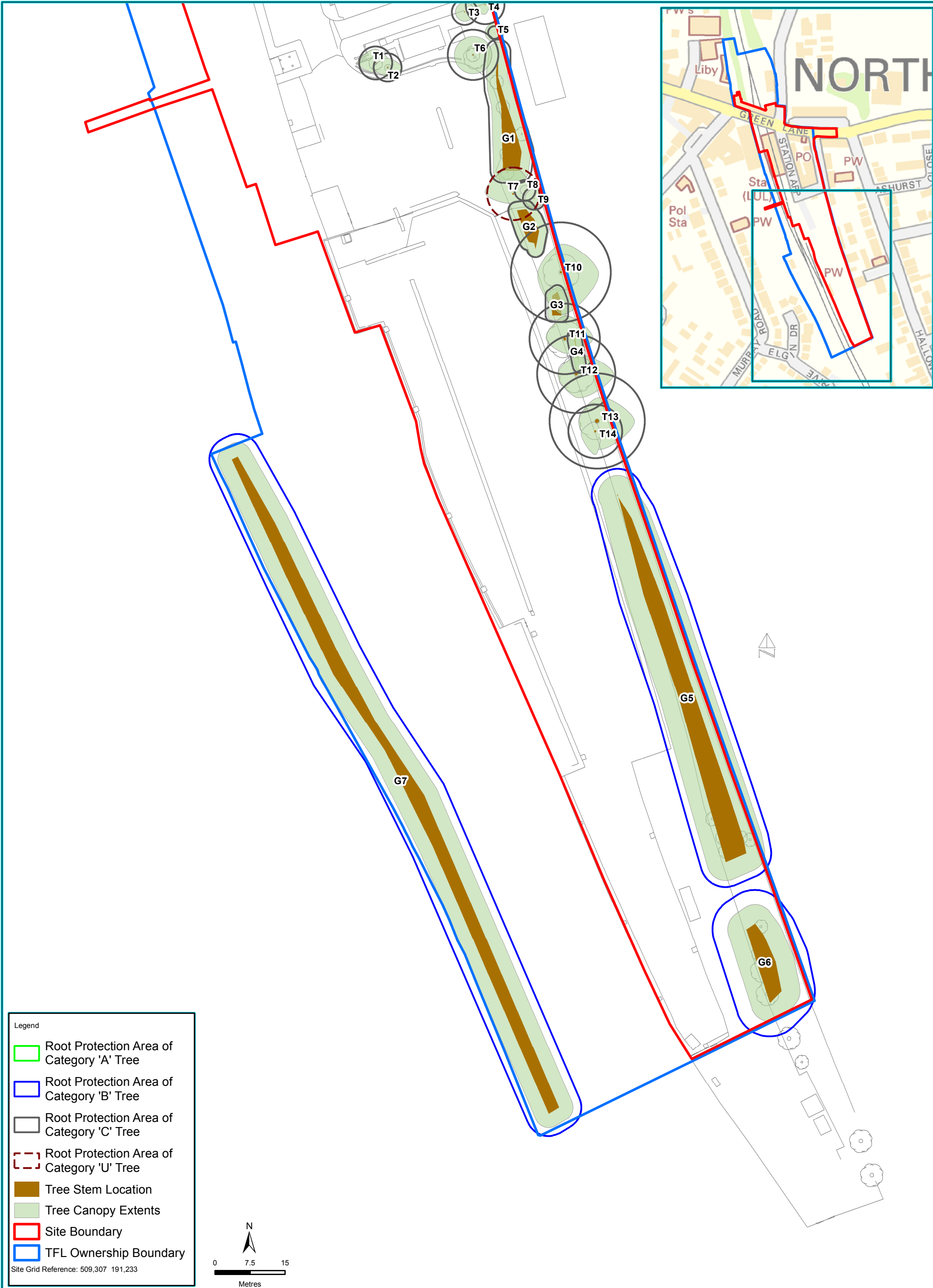
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Figure Title	Tree Constraints Plan (TCP01)		Drawn		Checked	
			KM		NS	
			Date		Date	
			14/05/2015		14/05/2015	

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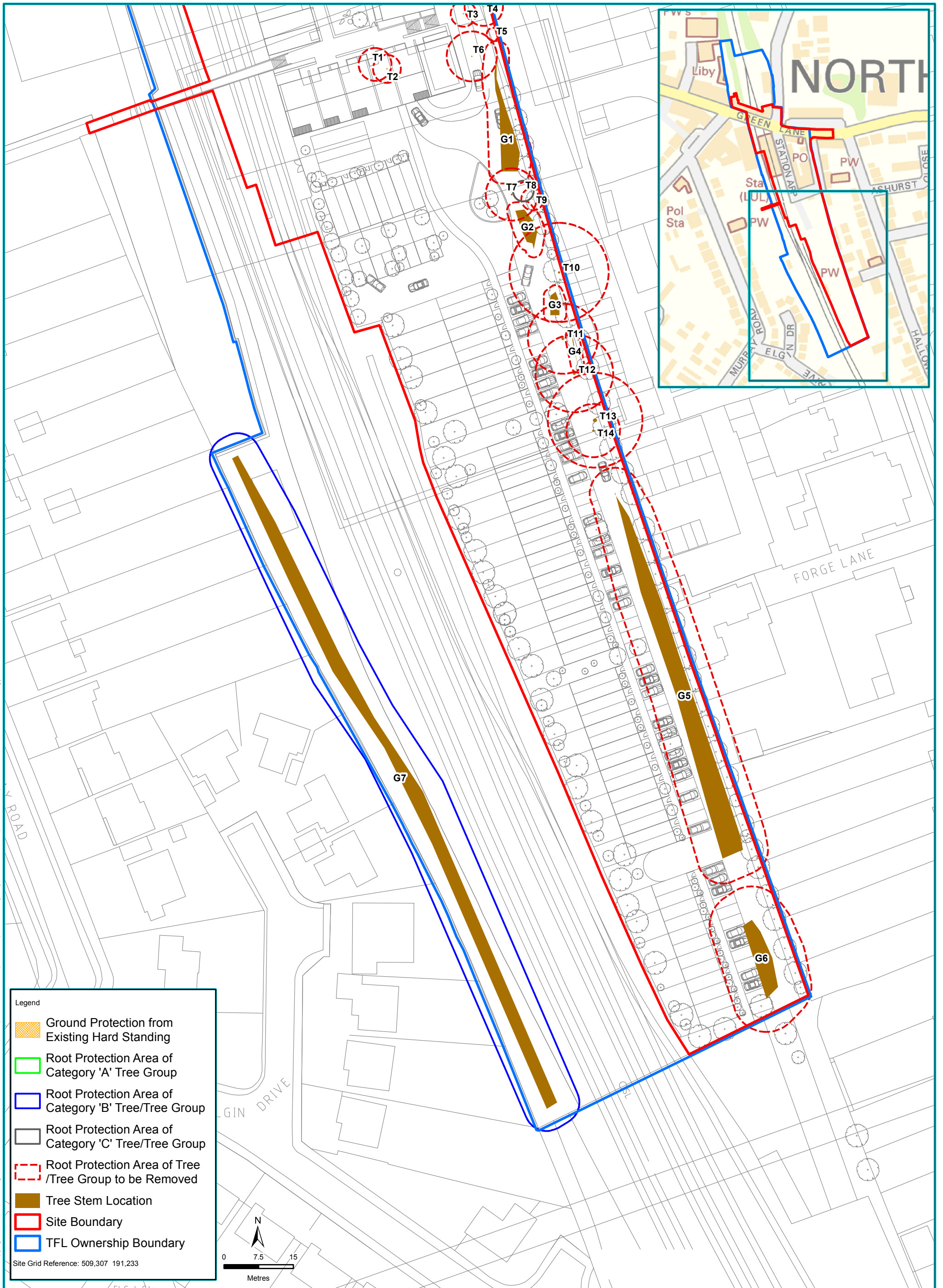
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Client	BuroHappold		Drawing Ref	RBUH108/18515/1	
Figure Number	2b		Scale at A3	1:750	
Figure Title	Tree Constraints Plan (TCP01)		Drawn	KM	Checked NS
			Date	14/05/2015	Date 14/05/2015

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Client	BuroHappold	Drawing Ref	RBUH108/MapN/1	 www.thomsonecology.com enquiries@thomsonecology.com	
Figure Number	3b	Scale at A4	1:750		
Figure Title	Tree Protection Plan (TPP01)	Drawn	KM	Checked	NS
		Date	01/10/2015	Date	01/10/2015

2. Introduction

2.1 Development Background

2.1.1 TFL is proposing the development of TFL Landholdings at Northwood, London, HA6 2QB. The proposals will submit Hybrid planning application for comprehensive redevelopment of the site comprising full planning permission involving demolition of existing buildings to provide 93 residential units (C3) and associated car parking, 1,440 sq.m of new retail (A1-A5), a new operational railway station (Sui Generis) with step free access and associated station car parking; new bus interchange, and a new piazza. Outline planning consent for up to 34 residential units, car parking (all matters reserved apart from access) and refurbishment works to existing retail units along Station Approach.

2.1.2 The proposed development is located on an approximately 1.91 ha area of land, as shown in Figure 1. The site is located on the junction of Green Lane (B469) and Eastbury Road within the London Borough of Hillingdon (LBH). The area affected by the proposed development is hereafter referred to as 'the site'.

2.1.3 The site comprises land north and south of Green Lane including part of the highway. The area of land north of Green Lane comprises a parade of single storey retail units located over the railway bridge with a two storey adjoining unit on the Corner of Eastbury Road. The northern part of the site is bounded by the Eastbury Surgery to the north; Green Lane to the south; Eastbury Road to the east and the retail units on the bridge to the west.

2.1.4 The majority of the site lies south of Green Lane, in Northwood and comprises the existing underground station and a mix of A-Class uses, residential flats, a light industrial use, dental practice and area of surface car parking. The southern part of the site is bounded by Green Lane to the north; the London Underground compound to the south; the railway line to the east; and the rear boundaries of the Northwood Central Club, St John's United Reformed Church and residential properties fronting Hallowell Road to the west.

2.1.5 There are a number of trees within the site and adjacent to the site boundary that may be affected by the proposed development.

2.2 Arboricultural Background

2.2.1 An arboricultural survey was undertaken by Thomson Ecology (TE) at the site in May 2015. The results of the survey can be found in TE report ref.: RBUH108/001/001/002. The survey was undertaken in accordance with BS5837:2012.

2.2.2 A total of 22 individual trees and 13 groups were recorded during the survey and listed in the Tree Schedule (see Appendix 1). The survey recorded one Category A tree, one Category B tree, four Category B groups, 19 Category C trees, nine Category C groups and one Category U tree located within or adjacent to the site. Definitions of each retention category can be seen in Appendix 2.

2.3 Brief and Objectives

2.3.1 BH commissioned Thomson Ecology Ltd on 10th August 2015 to produce an Arboricultural Impact Assessment (AIA) and Arboricultural Method Statement (AMS) including a Tree Protection Plan.

2.3.2 The objective of the report was to assess the impact of the proposed development on the trees within or immediately adjacent to the site and to show how retained trees will be protected throughout the proposed development stage. The brief was to produce:

- an Arboricultural Impact Assessment (AIA) and Arboricultural Method Statement (AMS) based on the proposed site layout and the results of the tree survey found in Thomson Ecology Ltd Report: RBUH108/001/001/002; and
- a Tree Protection Plan.

2.4 Limitations

2.4.1 The information provided within this report and in the accompanying Tree Schedule covers only those trees that were inspected and their condition at the time of survey (May 2015).

2.4.2 This report contains the AIA, AMS and TPP only. The results of the survey and the Tree Constraints Plan can be seen in Thomson Ecology Ltd report ref.: RBUH108/001/001/002.

2.4.3 This report is based on the development boundary and layout shown on document '1323_Northwood_drawings_150512' (the blue line boundary on Figure 1). A revised survey boundary was provided (the red line boundary on Figure 1), incorporating areas not included within this survey. However, as no trees occur within the unsurveyed area, this does not impact the conclusions of this survey..

3. Arboricultural Impact Assessment (AIA)

3.1 Introduction

3.1.1 The purpose of the AIA is to assess the likely impact of the proposed development on the existing trees on site and to determine which trees are to be removed or retained during the construction phase.

3.1.2 The protection of retained trees is paramount to their survival during the development process and their consequent long term contribution to the site. The Root Protection Areas (RPAs) identified in the arboricultural survey and Tree Constraints Plan (TCP) (see Figure 2) should remain protected throughout the proposed development to avoid potential damage, such as:

- soil compaction;
- root severance due to excavation;
- soil coverage with impermeable material;
- alterations in ground level;
- leaks and spillages from stored materials; and
- vehicle and heavy plant collision.

3.2 Documents

3.2.1 This assessment has been based on documents produced by Fletcher Priest Architects (FPA). The details of these documents can be seen in Table 1.

Table 1: Documents upon which this assessment has been based

Originator	Reference No.	Title
Fletcher Priest Architects	A 1323 GA 0501	Proposed Masterplan
Fletcher Priest Architects	A 1323 GA 2002	Zone A/B/E Blocks 1-7 Ground Floor Plan

3.3 Tree Removals

3.3.1 A total of 14 trees and six groups of trees require removal as part of this proposed development. A breakdown of the associated categories assigned to these specimens can be seen in Table 2 and the species of tree to be removed in Table 3.

Table 2: Number of trees to be removed within each retention category

	Category 'A' Trees	Category 'B' Trees	Category 'C' Trees	Category 'U' Trees
Number of Trees	-	-	13	1
Number of Groups of Trees	-	2	4	-

Table 3: Details of trees to be removed

Tree Number	Species	Category	Reason
T1	<i>Prunus padus</i> ; bird cherry	C1;2	To facilitate the proposed development
T2	<i>Prunus padus</i> ; bird cherry	C1;2	To facilitate the proposed development
T3	<i>Acer pseudoplatanus</i> ; sycamore	C1	To facilitate the proposed development
T4	<i>Prunus spinosa</i> ; blackthorn	C1	To facilitate the proposed development
T5	<i>Prunus spinosa</i> ; blackthorn	C1	To facilitate the proposed development
T6	<i>Prunus spinosa</i> ; blackthorn	C1	To facilitate the proposed development
T7	<i>Populus x canadensis</i> ; hybrid black poplar	U	For sound arboricultural reasons
T8	<i>Prunus spinosa</i> ; blackthorn	C1	To facilitate the proposed development
T9	<i>Fraxinus excelsior</i> ; ash	C1	To facilitate the proposed development
T10	<i>Populus x canadensis</i> ; hybrid black poplar	C1;2	To facilitate the proposed development
T11	<i>Populus x canadensis</i> ; hybrid black poplar	C1;2	To facilitate the proposed development

Tree Number	Species	Category	Reason
T12	<i>Populus x canadensis</i> ; hybrid black poplar	C1;2	To facilitate the proposed development
T13	<i>Populus x canadensis</i> ; hybrid black poplar	C1;2	To facilitate the proposed development
T14	<i>Populus x canadensis</i> ; hybrid black poplar	C1;2	To facilitate the proposed development
G1	<i>Prunus spinosa</i> ; blackthorn; <i>Fraxinus excelsior</i> ; ash; <i>Sambucus nigra</i> ; elder; <i>Acer pseudoplatanus</i> ; sycamore	C2	To facilitate the proposed development
G2	<i>Fraxinus excelsior</i> ; ash; <i>Quercus robur</i> ; pedunculate oak; <i>Prunus spinosa</i> ; blackthorn	C1	To facilitate the proposed development
G3	<i>Betula pubescens</i> ; downy birch; <i>Fraxinus excelsior</i> ; ash; <i>Crataegus monogyna</i> ; hawthorn	C1	To facilitate the proposed development
G4	<i>Fraxinus excelsior</i> ; ash; <i>Ilex aquifolium</i> ; holly	C1	To facilitate the proposed development
G5	<i>Fraxinus excelsior</i> ; ash; <i>Acer platanoides</i> ; Norway maple; <i>Acer pseudoplatanus</i> ; sycamore; <i>Prunus spinosa</i> ; blackthorn; <i>Crataegus monogyna</i> ; hawthorn	B2;3	To facilitate the proposed development
G6	<i>Fraxinus excelsior</i> ; ash	B2	To facilitate the proposed development

3.4 Trees to be Retained

3.4.1 Of the trees surveyed eight individual trees and seven groups of trees are to be retained and protected throughout the proposed development. The RPAs of trees T16 and T17 will be protected by existing hard standing. Drawing A 1323 GA 0501 Proposed Masterplan does not show any proposed development works in the RPAs of the retained trees T18, T19, T20, T21 and T22 or in the RPAs of the retained groups of trees G7 - G13, see Figures 3a-3b.

Shading

- 3.4.2 The retained trees are all to the perimeter of the proposed development, meaning that any light lost to windows through shading should be minimal. However, proposed buildings should be designed to take into account existing trees, their ultimate size and density of foliage and the effect these will have on the availability of light.

3.5 Tree Works

- 3.5.1 No works for any tree located on the site are required prior to proposed development works commencing.

3.6 Construction Work within RPAs

- 3.6.1 The footprint of a building already encroaches into the RPAs of retained trees T16 and T17. There are no proposed excavation operations required within the RPAs of these retained trees for this proposed development and they will have ground protection from the existing hard standing (see Figure 3a). There are no other proposed works in the RPAs of trees to be retained.

3.7 Services and Utilities

- 3.7.1 Detailed drawings of underground services are not available at this time. Therefore it is not possible to identify any specific potential impacts associated with the site at this stage.
- 3.7.2 Where existing services situated within RPAs require upgrading, care must be taken to minimise any disturbance, and where feasible trenchless techniques are to be employed, and only where necessary should manual excavation be considered.
- 3.7.3 If new services are to be introduced into the site they should be located outside of the RPAs where they will not interfere with tree roots. Final positions of any proposed services should be verified and approved by an arboricultural consultant and the Local Authority Tree Officer before implementation.
- 3.7.4 If service installation is required within RPAs then the guidelines within National Joint Utilities Group publication (NJUG4, 2007) should be adhered to.

3.8 Post Development Management

- 3.8.1 As there will be a significant change in the use of the existing car park to residential properties, any new trees planted as part of the final landscaping scheme should be subject to some form of tree management system. Guidance on the level of tree management required can be found in the National Tree Safety Group publication, '*Common sense risk management of trees*' (NTSG, 2011).

3.9 New Planting

- 3.9.1 New tree planting is to be included as part of the proposed development of the existing car park to new residential properties. The level of this new planting will be sufficient to compensate for the losses incurred to facilitate the proposed development. Species such as rowan (*Sorbus*

aucuparia) and Himalayan birch (*Betula utilis*) are suitably sized trees for the site and its future use.

3.10 Conclusion

- 3.10.1 The proposed development will result in the removal of 14 trees and six groups of trees from the site. However, all the trees and four of the groups of trees are Category C and Category U features and their removal should not have a significant detrimental effect on the arboricultural value of the site. Their losses will be offset with new tree planting which will help reduce the visual impact of the tree losses and will, given time for the new trees to mature, increase the arboricultural value of the site.
- 3.10.2 There should be no harm caused to any trees planned for retention by these proposals subject to the use of existing hard standing to offer ground protection.
- 3.10.3 Once detailed finalised drawings for the underground services have been produced, they should be reviewed by an arboricultural consultant prior to approval by the London Borough Hillingdon Tree Officer.

4. Arboricultural Method Statement (AMS)

4.1 Introduction

- 4.1.1** The purpose of this AMS is to demonstrate how work will be undertaken on the site to avoid an unacceptable impact on, and provide an adequate level of protection for, the retained trees.
- 4.1.2** This AMS sets out the tree protection required to facilitate the proposed development, and should not be read as a definitive engineering or construction statement for this site. Matters relating to construction or engineering detail should be referred to a qualified structural engineer for further information and specification.
- 4.1.3** This AMS is to be used in conjunction with the Tree Protection Plan (TPP01) in Figure 3.

4.2 Documents

- 4.2.1** This AMS has been based on documents produced by FPA. The details of these documents can be seen in Table 4.

Table 4: Documents upon which this assessment has been based

Originator	Reference No.	Title
Fletcher Priest Architects	A 1323 GA 0501	Proposed Masterplan
Fletcher Priest Architects	A 1323 GA 0502	Proposed Masterplan Application Boundaries

- 4.2.2** The relationship between the trees and the proposed development are shown on the Tree Protection Plan (TPP) (see Figure 3), which is based on the Tree Constraints Plan (TCP01) and the drawings detailed in Table 4.

4.3 Supervision

- 4.3.1** As there is no requirement to work within the RPAs of the retained trees, there should be no need for any part of the construction phase to require arboricultural supervision.
- 4.3.2** However, any changes to the nature and sequence of works specified in this AMS regarding the retained trees should be agreed with an arboricultural consultant at least 48 hours before their realisation.

4.4 List of Contacts

- 4.4.1** The list of contacts within Table 5 should be used as reference if any deviations from, or issues with, any part of this AMS arise.

Table 5: List of contact details for relevant parties

Name	Job Title	Organisation	Contact Email	Contact Number
Neil Francis	Senior Arboriculturist	Thomson Ecology Ltd	neil.francis@thomsonecology.com	0113 2473784
John Gurr	Tree Officer	London Borough of Hillingdon	jgurr@hillington.gov.uk	01895 277685
TBC	Site Manager	-	-	-
Alastair Hunter	Architect	Fletcher Priest Architects	ahunter@fletcherpriest.com	020 7034200

4.5 Tree Removals and Pruning

4.5.1 The 14 individual trees and six groups of trees, T1 - T14 and G1 - G6 shall be felled to ground level. The stumps of the felled trees shall be left in place or ground out to below ground level. All arisings are to be removed and the site is to be left in as tidy and orderly manner as possible.

4.5.2 Care is to be taken of the ground around retained trees to make sure that it does not become compacted as a result of tree surgery operations. No equipment or vehicles such as timber lorries, tractors, excavators or cranes should be parked or driven beneath the crowns of any retained trees, to prevent subsequent soil compaction and root death.

4.6 Protective Fencing

4.6.1 There is no requirement for protective fencing to be installed for this proposed development.

4.7 Ground Protection

4.7.1 There is no requirement for ground protection to be installed for this proposed development. However, where the footprint of the existing building encroaches into the RPA of trees T16 and T17, the existing hard standing will offer ground protection to the RPAs of these trees.

4.8 Removal of Hard Surfaces within the RPA

4.8.1 There is no requirement for the removal of hard surfaces within the RPAs of any of the retained trees for this proposed development.

4.9 Construction within RPAs

4.9.1 There is no requirement to undertake any construction work within the RPAs of any of the retained trees for this proposed development.

4.10 Services and Utilities

- 4.10.1 All underground services and drainage routes shall be located so that no excavations are required within the RPAs of the retained trees. In this instance, the best route onto the site is along the southern boundary or the north-west corner of the site.
- 4.10.2 In the event that an incursion into an RPA is unavoidable, the installation shall comply with the methods and guidelines detailed in '*Guidelines for the Planning, Installation and Maintenance of Utility Services in Proximity to Trees*' NJUG 4 (2007). If this does occur, then an arboricultural consultant shall be consulted before any works commence within the RPA to agree the methodology for the excavation.

4.11 Landscaping

- 4.11.1 The plans provided do not show any landscaping with the RPAs of the retained trees. However, if any is to be undertaken post-construction, the following principles of the Construction Exclusion Zone (CEZ) should still be adhered to with particular reference to level changes, root severance and 'capping' with impermeable materials:
- existing ground levels shall not be altered;
 - no excavation shall occur to avoid root severance;
 - no plant or vehicles shall enter the CEZ;
 - impermeable surfacing shall not be laid down over soil ('capping');
 - no materials, fuels or chemicals shall be stored within any of these areas;
 - no fires to be lit where flames may reach within 5 m of the CEZ;
 - no structures or fixtures of any kind shall be fastened in any way to the trunks of the retained trees;
 - no drainage or irrigation pipes shall be installed within the RPAS of the retained trees; and
 - any unwanted vegetation shall be removed by hand.
- 4.11.2 If impermeable surfaces are to be laid within the RPA of any of the retained trees then they should not cover greater than 20% of the area.
- 4.11.3 It is suggested that an area of mulch be added to the base of the trees should any soft landscaping take place. An area of 1 m² and 5-10 cm depth of shredded bark, bark chips or well-composted green waste to conform to PAS 100 (BSI, 2005) is suggested. Mulch should not be spread so that it is piled against the base of the tree.

4.12 Sequence of Works

4.12.1 A logical sequence of events is to be observed as show in Table 6.

Table 6: Sequence of works.

Stage	Event	Arboricultural Supervision required
Stage 1	Remove all trees identified for removal on the TPP (see Figure 3)	No
Stage 2	Complete main construction phase of development.	No
Stage 3	Complete all the landscaping.	No
Stage 4	Removal of all machinery from site.	No

5. References

- 5.1.1 British Standards Institution (2012) BS5837:2012 Trees in Relation to Design, Demolition and Construction - Recommendations. BSI, London.
- 5.1.2 British Standards Institution (2005) *Publicly Available Specification 100 (PAS 100:2005)*. BSI, London.
- 5.1.3 National Joint Utilities Group (NJUG) (2007) Guidelines for the planning, installation and maintenance of utility services in proximity to trees. NJUG, London.
- 5.1.1 National Tree Safety Group (NTSG) (2011) *Common sense risk management of trees*. Forestry Commission. Edinburgh.
- 5.1.2 Thomson Ecology Limited (2015) Arboricultural Survey RBUH108/001/001/001. Guildford

6. Appendix 1 - Tree Schedule

Tree/ Group No.	Species	Height (m)	Stem Diameter (mm)	Canopy Spread (m)				Height of Lowest Limb and Direction (m)	Crown Clearance (m)	Age Class	Estimated Remaining Contribution (years)	Condition		Comments	Preliminary Management Recommendations	BS Category	RPA (m ²)
				N	E	S	W					Physiology	Structure				
T1	<i>Prunus padus</i> ; bird cherry	7	150, 160, 110, 120, 110	3	3	2	4	2.5 W	2	Middle- aged	10-20	Fair	Fair	Five stems; central stem dead; basal epicormic	Remove dead stem	C1;2	39
T2	<i>Prunus padus</i> ; bird cherry	6	250	2	3	2	3	3 W	3	Middle- aged	10-20	Fair	Fair	Small crown; basal epicormic; dead ivy on stem	-	C1;2	28
T3	<i>Acer pseudoplatanus</i> ; sycamore	7	230	2	2	2	2	3 W	2	Young	>40	Good	Fair	Self-set; growing close to fence; basal epicormic	-	C1	24
T4	<i>Prunus spinosa</i> ; blackthorn	5	240, 250	3	1	2	3	1.5 S	1.5	Mature	10-20	Fair	Fair	Twin stem; covered in dense ivy	Sever ivy to aid future inspection	C1	54
T5	<i>Prunus spinosa</i> ; blackthorn	4	80, 80	2	2	2	2	1.5 N	2	Young	20-40	Good	Fair	Twin stem	-	C1	6
T6	<i>Prunus spinosa</i> ; blackthorn	5	250, 250, 280	4	4	4	4	1.5 SE	1	Mature	10-20	Fair	Fair	Triple stem; covered in dense ivy; pruning stubs; basal epicormic growth	Sever ivy to aid future inspection	C1	92
T7	<i>Populus x canadensis</i> ; hybrid black poplar	15	390, 260	6	4	2	6	4 W	5	Middle- aged	<10	Poor	Poor	Twin stem; lean to north; diffuse cankers in crown; dense ivy; deadwood	Fell to ground level	U	99
T8	<i>Prunus spinosa</i> ; blackthorn	4	100, 110, 110	1	1	1	1	1 N	0.5	Middle- aged	10-20	Fair	Poor	Triple stem; crossing limbs	-	C1	16

Tree/ Group No.	Species	Height (m)	Stem Diameter (mm)	Canopy Spread (m)				Height of Lowest Limb and Direction (m)	Crown Clearance (m)	Age Class	Estimated Remaining Contribution (years)	Condition		Comments	Preliminary Management Recommendations	BS Category	RPA (m ²)
				N	E	S	W					Physiology	Structure				
T9	<i>Fraxinus excelsior</i> , ash	11	200	2	2	2	2	4 SW	4	Middle- aged	20-40	Fair	Fair	Self-set; ivy	-	C1	18
T10	<i>Populus x canadensis</i> ; hybrid black poplar	18	480, 400, 450, 450	6	8	9	5	4 S	4	Mature	20-40	Fair	Poor	Four stems; with forks and included unions; ivy covered; leaning	Sever ivy to aid future inspection	C1;2	360
T11	<i>Populus x canadensis</i> ; hybrid black poplar	20	630	5	6	3	4	7 W	5	Mature	20-40	Fair	Fair	Codominant stems from 2m	-	C1;2	180
T12	<i>Populus x canadensis</i> ; hybrid black poplar	18	700	4	8	5	4	1.5 E	7	Mature	20-40	Fair	Fair	Codominant stems from 1.5m; exposed/damaged roots; occluded basal stem wound	-	C1;2	222
T13	<i>Populus x canadensis</i> ; hybrid black poplar	19	850	5	8	6	4	5 S	5	Mature	20-40	Fair	Fair	Codominant stems from 2m; dense ivy obscuring stem union; pruning stubs	Sever ivy to aid future inspection	C1;2	327
T14	<i>Populus x canadensis</i> ; hybrid black poplar	16	480	2	1	5	3	3	5	Middle- aged	10-20	Fair	Fair	Lean to south; suppressed; ivy covered	Sever ivy to aid future inspection	C1;2	104
T15	<i>Fraxinus excelsior</i> , ash	10	450	3	3	3	3	3 NE	2.5	Middle- aged	20-40	Fair	Fair	Recently crown reduced; lights in crown; bench round stem	-	B2	92
T16	<i>Cupressus sempervirens</i> ; Italian cypress	17	1010	8	8	8	8	5 W	3	Mature	>40	Fair	Good	Small section of fence in stem; pruning wounds; good form	-	A1;2	461
T17	<i>Acer pseudoplatanus</i> ; sycamore	10	310, 290	1	1	1	1	4 N	3	Middle- aged	10-20	Fair	Fair	Twin stem; recently topped/heavily reduced	-	C1	82

Tree/ Group No.	Species	Height (m)	Stem Diameter (mm)	Canopy Spread (m)				Height of Lowest Limb and Direction (m)	Crown Clearance (m)	Age Class	Estimated Remaining Contribution (years)	Condition		Comments	Preliminary Management Recommendations	BS Category	RPA (m ²)
				N	E	S	W					Physiology	Structure				
T18	<i>Acer pseudoplatanus</i> ; sycamore	10	250, 260	1	1	1	1	6 N	6	Middle-aged	10-20	Fair	Fair	Twin stem; recently topped/heavily reduced	-	C1	59
T19	<i>Acer pseudoplatanus</i> ; sycamore	10	240	1	1	1	1	3 SW	3	Middle-aged	10-20	Fair	Fair	Recently topped/heavily reduced	-	C1	26
T20	<i>Acer pseudoplatanus</i> ; sycamore	10	190, 210	1	1	1	1	3 S	3	Middle-aged	10-20	Fair	Fair	Twin stem; recently topped/heavily reduced	-	C1	36
T21	<i>Acer pseudoplatanus</i> ; sycamore	9	190	1	1	1	1	4 S	4	Young	10-20	Fair	Fair	Recently topped/heavily reduced	-	C1	16
T22	<i>Acer platanoides</i> ; Norway maple	7	110	1	1	1	1	2 S	2	Young	20-40	Good	Good	Street tree	-	C1;2	5
G1	<i>Prunus spinosa</i> ; blackthorn; <i>Fraxinus excelsior</i> ; ash; <i>Sambucus nigra</i> ; elder; <i>Acer pseudoplatanus</i> ; sycamore	10	220	2	2	2	2	-	3	Middle-aged	20-40	Fair	Fair	Group of self-set mixed species growing on bank; ivy covered; pruning stubs; flush cuts	-	C2	-

Tree/ Group No.	Species	Height (m)	Stem Diameter (mm)	Canopy Spread (m)				Height of Lowest Limb and Direction (m)	Crown Clearance (m)	Age Class	Estimated Remaining Contribution (years)	Condition		Comments	Preliminary Management Recommendations	BS Category	RPA (m ²)
				N	E	S	W					Physiology	Structure				
G2	<i>Fraxinus excelsior</i> , ash; <i>Quercus robur</i> , pedunculate oak; <i>Prunus spinosa</i> , blackthorn	10	150	2	2	2	2	-	0.5	Young	10-20	Poor	Fair	Area of self-set; mixed species; ash in poor condition; ivy covered	Fell declining ash	C1	-
G3	<i>Betula pubescens</i> , downy birch; <i>Fraxinus excelsior</i> , ash; <i>Crataegus monogyna</i> , hawthorn	10	120	1	1	1	1	-	0.5	Young	10	Fair	Fair	Group of self-set mixed species	-	C1	-
G4	<i>Fraxinus excelsior</i> , ash; <i>Ilex aquifolium</i> , holly	9	120	1	1	1	1	-	0.5	Young	10-20	Fair	Fair	Group of holly and ash; ivy covered; suppressed; minor deadwood	-	C1	-

Tree/ Group No.	Species	Height (m)	Stem Diameter (mm)	Canopy Spread (m)				Height of Lowest Limb and Direction (m)	Crown Clearance (m)	Age Class	Estimated Remaining Contribution (years)	Condition		Comments	Preliminary Management Recommendations	BS Category	RPA (m ²)
				N	E	S	W					Physiology	Structure				
G5	<i>Fraxinus excelsior</i> , ash; <i>Acer platanoides</i> , Norway maple; <i>Acer pseudoplatanus</i> , sycamore; <i>Prunus spinosa</i> , blackthorn; <i>Crataegus monogyna</i> , hawthorn	15	450	4	4	4	4	-	5	Middle- aged	20-40	Fair	Fair	Group of predominantly self- set ash and sycamore with understorey of hawthorn and blackthorn	-	B2;3	-
G6	<i>Fraxinus excelsior</i> , ash	19	600	4	4	4	4	-	2	Mature	20-40	Fair	Fair	Group of large self-set ash growing on bank; all densely ivy covered; southernmost ash in poor condition with dieback in crown (pattern of dieback does not appear to be consistent with Chalara)	-	B2	-

Tree/ Group No.	Species	Height (m)	Stem Diameter (mm)	Canopy Spread (m)				Height of Lowest Limb and Direction (m)	Crown Clearance (m)	Age Class	Estimated Remaining Contribution (years)	Condition		Comments	Preliminary Management Recommendations	BS Category	RPA (m ²)
				N	E	S	W					Physiology	Structure				
G7	<i>Acer pseudoplatanus</i> ; sycamore; <i>Aesculus hippocastanum</i> ; horse chestnut; <i>Fraxinus excelsior</i> , ash; <i>Betula pubescens</i> ; downy birch; x <i>Cupressocyparis leylandii</i> ; Leyland cypress	16	400	3	3	3	3	-	1.5	Mature	20-40	Good	Fair	Group of mixed species growing parallel to train line; no access; measurements estimated; trees not inspected; Leyland cypress at northern extent only; screening value	-	B2	-
G8	<i>Acer pseudoplatanus</i> ; sycamore; <i>Fraxinus excelsior</i> , ash	10	200	1	1	1	1	-	3	Middle-aged	10-20	Fair	Fair	Group of three sycamore and one ash; all recently topped/heavily reduced	-	C1	-

Tree/ Group No.	Species	Height (m)	Stem Diameter (mm)	Canopy Spread (m)				Height of Lowest Limb and Direction (m)	Crown Clearance (m)	Age Class	Estimated Remaining Contribution (years)	Condition		Comments	Preliminary Management Recommendations	BS Category	RPA (m ²)
				N	E	S	W					Physiology	Structure				
G9	<i>Acer pseudoplatanus</i> , sycamore	10	300	1	1	1	1	-	4	Middle- aged	10-20	Fair	Fair	Group of two sycamore; recently topped/heavily reduced	-	C1	-
G10	<i>Fraxinus excelsior</i> , ash; <i>Populus tremula</i> , aspen	13	250	4	4	4	4	-	3	Middle- aged	20-40	Good	Fair	Group of ash and aspen; one aspen leaning to east	-	C1	-
G11	<i>Fraxinus excelsior</i> , ash	10	150	1	1	1	1	-	4	Young	>40	Fair	Fair	Group of four young ash; ivy covered	-	C1	-

Tree/ Group No.	Species	Height (m)	Stem Diameter (mm)	Canopy Spread (m)				Height of Lowest Limb and Direction (m)	Crown Clearance (m)	Age Class	Estimated Remaining Contribution (years)	Condition		Comments	Preliminary Management Recommendations	BS Category	RPA (m ²)
				N	E	S	W					Physiology	Structure				
G12	<i>Fraxinus excelsior</i> , ash; <i>Crataegus monogyna</i> , hawthorn	13	250	4	4	4	4	-	5	Middle-aged	20-40	Fair	Fair	Group of predominantly ash growing above retaining wall	-	C1;2	-
G13	<i>Acer pseudoplatanus</i> , sycamore; <i>Aesculus hippocastanum</i> , horse chestnut; <i>Fraxinus excelsior</i> , ash; <i>Betula pubescens</i> , downy birch;	16	400	3	3	3	3	-	1.5	Mature	20-40	Good	Fair	Group of mixed species growing parallel with train line; no access; measurements estimated; trees not inspected; screening value		B2	-

7. Appendix 2 - Table of Quality Assessment

Category and definition	Criteria (including subcategories where appropriate)			Identification on plan
Trees unsuitable for retention (see Note)				
Category U Those in such a condition that they cannot be retained as living trees in the context of the current land use for longer than 10 years	- Trees that have serious, irremediable, structural defects, such that their early loss is expected due to collapse, including those that will become unviable after removal of other category U trees (e.g. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning) - Trees that are dead or are showing signs of significant, immediate and irreversible overall decline - Trees infected with pathogens of significance to the health and/or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality NOTE Category U trees can have existing or potential conservation value which might be desirable to preserve			DARK RED
	1 Mainly arboricultural values	2 Mainly landscape values	3 Mainly cultural values, including conservation	
Trees to be considered for retention				
Category A Trees of high quality with an estimated remaining life expectancy of at least 40 years	Trees that are particularly good examples of their species, especially if rare or unusual; or those that are essential components of groups or of formal or semi-formal arboricultural features (e.g. the dominant and/or principle trees within an avenue)	Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features	Trees, groups or woodlands of significant conservation, historical commemorative or other value (e.g. veteran trees or wood-pasture)	LIGHT GREEN
Category B Trees of moderate quality with an estimated remaining life expectancy of at least 20 years	Trees that might be included in category A, but are downgraded because of impaired condition (e.g. presence of significant though remediable defects, including unsympathetic past management and storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation	Trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality	Trees with material conservation or other cultural value	MID BLUE
Category C Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150mm	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories	Trees present in groups or woodlands, but without this conferring on them significantly greater landscape value; and/or trees offering low or only temporary/transient landscape benefits	Trees with no material conservation or other cultural value	GREY