



Landscape Architecture



Landscape Planning



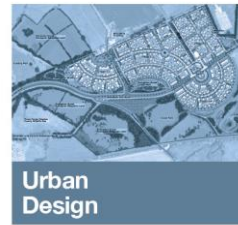
Arboriculture & Tree Works



Ecology & Habitat Management



Land Adoption & Weed Eradication



Urban Design

JAMES BLAKE

A S S O C I A T E S

Arboricultural Impact Assessment

Old Brickyard Farm, Great Horwood Road, Winslow

on behalf of

Bloor Homes South Midlands

10 October 2023

JBA 21/303 AR01 Issue D

Over 30 Years of Service, Value and Innovation

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Project	Old Brickyard Farm, Great Horwood Road, Winslow
Report	Arboricultural Impact Assessment
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1 SUMMARY

- 1.1 This Arboricultural Impact Assessment has been commissioned by Bloor Homes South Midlands to accompany their planning submission for the construction of a new 120 dwelling housing development with associated infrastructure, parking provision and open spaces.
- 1.2 This report has been prepared in accordance with British Standard 5837: Trees in relation to design, demolition and construction – Recommendations (2012). This document provides best practice advice, assessment and guidance with regards to the design, planning and implementation of new developments.
- 1.3 This report concludes that the proposal is acceptable subject to an extensive scheme of new tree planting and successful tree protection and the construction methodology.

2 INSTRUCTIONS

- 2.1 James Blake Associates has been instructed to carry out a survey of trees and significant vegetation within and directly adjoining land at Old Brickyard Farm, Great Horwood Road, Winslow in relation to the application for redevelopment of the site.
- 2.2 Our assessment was carried out in accordance with BS 5837:2012 'Trees in relation to design, demolition and construction - Recommendations'.
- 2.3 All trees were visually inspected from ground level only and no diagnostic equipment or detailed decay investigation was carried out.
- 2.4 Our report is prepared to provide supporting evidence and justification for redevelopment in relation to the existing trees and vegetation within and neighbouring the site.
- 2.5 The contents of this report are copyright of James Blake Associates and may not be copied without the author's permission. James Blake Associates' Terms and Conditions apply to this report and all associated works in conjunction with this project.

Documents provided

- 2.6 This report has been prepared with reference to the following documentation;
 - Topographical survey reference 30071_T_REV 1 by Greenhatch Group
 - Proposed site layout reference SM5145-PL-001 AC 110.08.23 NMA (Stripped Layout) by Bloor Homes

3 OBSERVATIONS

Site visit

- 3.1 The site was visited by Peter Brais, Principal Arboriculturist, 7 October 2021 to identify, measure and locate trees and significant vegetation within and directly adjoining the site.

Site and context

- 3.2 The site is an existing property and its surrounding land located to the north of Winslow, Buckinghamshire.
- 3.3 The roughly rectangular-shaped site is surrounded by trees and hedgerows with fields located to the north and west.
- 3.4 The B4033 runs along the north western boundary, with a disused railway line abutting the south-eastern boundary, with more intensive residential development beyond.
- 3.5 A continuous hedge runs along the north-western boundary, with a wider area of deciduous woodland extending along the south and western side of the site. A larger area of more mature trees of trees occupies the centre of the site. Two internal across roads cross the site along the northern boundary
- 3.6 Throughout the site there are a range of specimen trees and groups that contribute significantly to the wider landscape.
- 3.7 However, the overall quality varies considerably, and some are of low value as individuals due to structural defects or poor historical management.



Fig 1. Approximate site boundary in relation to its surroundings

4 VIEWS OF TREES



Photograph 1 (above). H1, mixed species (centre), located to the north of the main site entrance. Viewed looking towards the north-east.



Photograph 2. G3, ash, located to the north of H2, elm, ash, hazel and blackthorn. Viewed looking towards the south-west.



Photograph 3 (above). T4, ash, located to the south of H2. Viewed looking towards the north-west.



Photograph 4 (right). T6, ash, located in the southwest corner of the site. Viewed looking towards the west.



Photograph 5 (above). Woodland W7, mixed species, located along the southern boundary, showing T8, ash, (centre). Viewed looking towards the east from the far south of the site.



Photograph 6. Overview of G10, mixed species. Viewed looking towards the north-east from the central part of the eastern site boundary.



Photograph 7 (above). G12, Leyland cypress, located to the north of the eastern boundary. Viewed looking towards the northeast.



Photograph 8. T15, high quality apple (right) and northern section of G17 (left). Viewed looking towards the west.

Photograph 9 (right). T22, ash. Viewed looking towards the northeast.



Photograph 10 (below). G26, ash. Viewed looking towards the northwest.





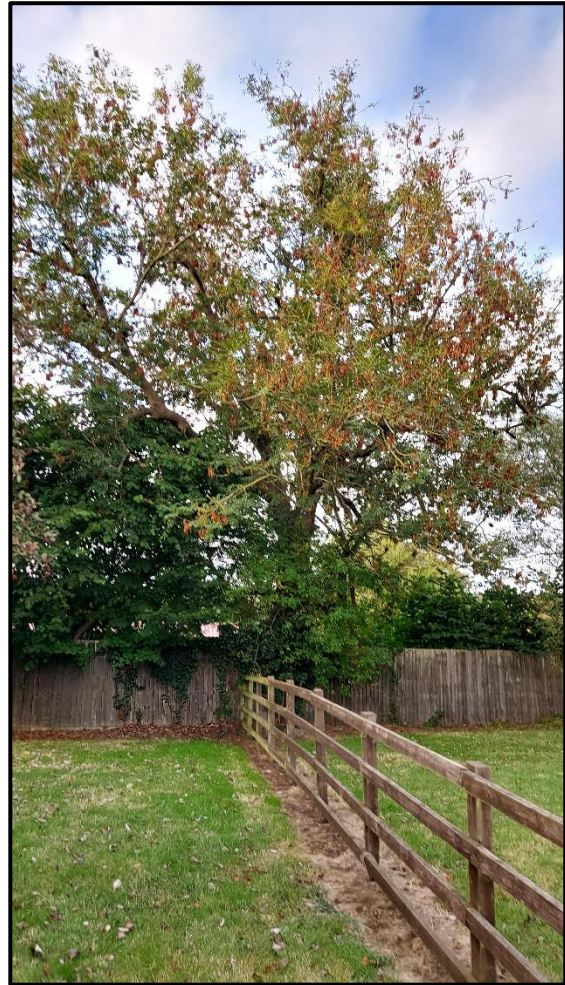
Photograph 11. T37, ash. Viewed looking towards the south.



Photograph 12. T39, English oak. Viewed looking towards the southeast.



Photograph 13. T56, white willow. Viewed looking towards the north from the centre of the northern boundary.



Photograph 14. T62, ash. Viewed looking towards the north.



Photograph 15 (above). T69, English oak.
Viewed looking towards the northwest from
the existing site entrance.



Photograph 16 (left). T70, silver birch.
Viewed looking towards the north from the
north-west corner of the site.

5 TECHNICAL INFORMATION

Statutory protection

- 5.1 According to Aylesbury Vale District Council Protected Tree Search <https://www.aylesburyvaledc.gov.uk/protected-tree-search> (online) the site is not located within the Conservation Area, nor were any of the trees within or adjacent to the site the subject of a Tree Preservation Order.

Soils and Geology

- 5.2 This information is obtained from The British Geological Survey (online) 'Geology of Britain Viewer' but is provided only as a guideline to assist with assessment of site conditions in relation to rooting habits of trees.
- 5.3 Soil conditions have the potential to affect tree growth, rooting depth and extent, species selection and foundation design and therefore a detailed soil assessment should be carried out by a competent person.
- 5.4 Bedrock geology is described as being Weymouth Member - Mudstone. Superficial deposits are shown as being Glaciofluvial Deposits, Mid Pleistocene - Sand and Gravel.

Planning policy

- 5.5 The National Planning Policy Framework sets out the government's planning policies for England and how these should be applied. The document replaces all previous documents and came into action in July 2018, subsequently updated February 2019.
- 5.6 The NPPF supports and promotes sustainable development, which it defines as having three dimensions; social, economic and environmental. It goes on to state that these three dimensions are mutually dependent and to achieve sustainable development they must be sought simultaneously.
- 5.7 Specifically, the NPPF states that "development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland or ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists".
- 5.8 No veteran or ancient trees were identified in the tree and vegetation survey.

6 ARBORICULTURAL APPRAISAL

- 6.1 Dimensions, comments and information gathered for each survey entry are provided in the tree schedule in **Appendix 1**. The location, root protection area, crown spread and BS5837 categorisation is shown on the appended tree survey drawing JBA 21/303 TCP01 in **Appendix 2**.
- 6.2 Of the 70 survey entries, 40 were assessed as being semi-mature, ten were early mature and 20 were mature.
- 6.3 The survey assessed the tree population as consisting predominantly of moderate and high-quality trees. Of the 70 survey entries 15 were of low quality and value (category C), 49 were assessed as being moderate quality and value (category B) three were high quality (category A) and the remaining three were category U.

Identified impacts

- 6.4 Drawing JBA 21/303 TRP01 Rev D in **Appendix 2** shows the proposed layout and tree removals necessary to implement the proposed development.
- 6.5 The arboricultural impacts have been assessed and are deemed to be acceptable. In respect of the proposal the following have been identified as being of most significance;
- Tree removals and reductions
 - No dig construction
 - Hard surface removal and construction under supervised excavation
 - Tree protection requirements
 - Replacement planting

Tree removals and reductions

- 6.6 In order to implement the proposal, it will be necessary to remove a total of 44 trees, hedges or groups, as specified in the table below:
- Three tree features T18, T19 and G35 are recommended for removal irrespective of development. Due to a life expectancy of below 10 years.

Tree Number	Species	Work Requirements	Reason(s) for works
H1	Mixed species	Remove	Incompatibility with the proposed access road.
H2	Elm Hazel Ash Blackthorn	Remove one small section in the centre and a larger section to the south.	Incompatibility with the southern part of the proposed footpath and cycleway link.
T5	Ash	Remove	Incompatibility with the proposed layout.
T6	Ash	Remove	Incompatibility with the proposed layout.
T13	Elder	Remove	Incompatibility with the proposed layout.
G14	Ash	Remove	Incompatibility with the proposed layout and access road.
G17	Ash	Remove southern half	Incompatibility with the proposed access road and parking spaces.
T18	Pear	Remove	Reduced life expectancy irrespective of development.
T19	Hawthorn	Remove	Reduced life expectancy irrespective of development.
T20	Ash	Remove	Incompatibility with the proposed access road.
T21	White willow	Remove	Incompatibility with the proposed access road.
G23	Hawthorn Elder English oak Lime & Field maple	Remove northern third of the central section.	Incompatibility with the proposed access road and parking spaces.
G28	Ash English oak Hawthorn	Remove southern half of group.	Incompatibility with the proposed parking spaces.
G29	Ash Hawthorn	Remove northern section north of group.	Incompatibility with the proposed access road.
T30	Weeping willow	Remove	Incompatibility with the proposed wall construction for SUDS basin.
G31	Ash Apple	Remove	Incompatibility with the proposed layout.

Tree Number	Species	Work Requirements	Reason(s) for works
G32	Hawthorn Bullace	Remove	Incompatibility with the proposed layout.
G33	Silver birch Ash Hawthorn	Remove	Incompatibility with the proposed layout.
G34	Ash Hawthorn	Remove	Incompatibility with the proposed layout.
G35	Apple	Remove	Reduced life expectancy irrespective of development.
H36	Hawthorn Elm & Ash Blackthorn Lawson cypress Cherry	Remove five sections. Three to the west, one in the centre and a larger section to the east.	Incompatibility with the proposed layout and access road.
T40	Honey locust	Remove	Incompatibility with the proposed SUDS drainage basin.
T41	Atlas cedar	Remove	Incompatibility with the proposed layout and access road.
G42	Pear	Remove	Incompatibility with the proposed layout and access road.
G43	Apple Norway maple	Remove	Incompatibility with the proposed layout and access road.
T44	Sycamore	Remove	Incompatibility with the proposed layout.
G45	Cherry Indian Bean tree Apple	Remove	Incompatibility with the proposed layout.
G46	Cypress	Remove	Incompatibility with the proposed SUDS drainage basin.
T47	Snake bark maple	Remove	Incompatibility with the proposed layout.
G48	Cockspur thorn Japanese maple	Remove	Incompatibility with the proposed layout.
G49	Jacquemont's birch Sycamore	Remove	Incompatibility with the proposed access road.
G50	Lime Leyland cypress	Remove	Incompatibility with the proposed layout.
G51	Cherry	Remove	Incompatibility with the

Tree Number	Species	Work Requirements	Reason(s) for works
			proposed layout and parking spaces.
G52	Corsican pine Sycamore Leyland cypress Silver birch	Remove	Incompatibility with the proposed layout and access road.
G53	Cedar of Lebanon Sycamore Cherry & Oak	Remove	Incompatibility with the proposed layout and access road.
T54	Silver birch	Remove	Incompatibility with the proposed access road.
T55	Common lime	Remove	Incompatibility with the proposed parking spaces.
T56	White willow	Crown lift to 4m to the south	To allow access to parking spaces.
T57	Cypress	Remove	Incompatibility with the proposed access road.
G58	Swedish whitebeam	Remove	Incompatibility with the proposed layout.
G59	Lime	Remove	Incompatibility with the proposed layout.
G60	Swedish whitebeam	Remove	Incompatibility with the proposed access road and pavement.
G61	Common lime Swedish whitebeam	Remove	Incompatibility with the proposed building layout.
T63	Swedish whitebeam	Remove	Incompatibility with the proposed parking spaces.
G64	Lime Grey alder Swedish whitebeam	Remove	Incompatibility with the proposed building layout.
G65	Swedish whitebeam Silver birch	Remove	Incompatibility with the proposed building layout.
G66	Common lime Swedish whitebeam	Remove	Incompatibility with the proposed access road.
G67	Lime Swedish whitebeam	Remove	Incompatibility with the proposed access road.

- 6.7 Other recommended tree work, not required to implement the proposal, is specified in the tree schedule in **Appendix 1**.
- 6.8 Whilst the internal vegetation to be removed is numerous its loss to public amenity is reduced as it lacks visual presence and there is the ability for it to be replaced with high quality planting.
- 6.9 Highly visible hedges and trees along public roads and other vegetation are to be retained and can be adequately protected throughout the development process.

No Dig Construction

- 6.10 Parking spaces and hard surfacing encroach into the precautionary root protection area (RPA) of T70, mature silver birch.
- 6.11 Parking spaces encroach into the RPA of T56, a mature white willow.
- 6.12 Due to the construction of hard surfacing running beneath the crown of the tree a cellular confinement system will be used to form a “tabletop” which will then be finished with permeable block pavers or other porous wear layer.
- 6.13 Edges will consist of staked railway sleepers to avoid any excavation for kerbs within the RPA.
- 6.14 A small area to the west of T62’s RPA will be excavated to install hard surfacing and construct building foundations. The risk of root damage in such a small area is considered to be negligible provided the excavation and construction is carried out under supervision.

Hard Surface Removal and Construction under Supervision

- 6.15 Existing hard surfacing will be removed from within the root protection area of the semi-mature English oak, T69, adjacent to the entrance to the site to create an open space, parking spaces and a new footpath alongside the access road.
- 6.16 As the area is already covered by hard, non-permeable, surfacing the likelihood of finding major roots in this area is expected to be low.
- 6.17 The removal of hard surfacing will be undertaken using hand tools, including pneumatic drills, removed in sections down to the sub-base and working backwards away from the trees. This will ensure the risk of root damage is minimised.

- 6.18 Excavations within RPAs of T8, T9, T37, T38, and T39 will be carried out under the direct supervision of the appointed arboricultural consultant, and the following measures will be undertaken to minimise the risk of root damage.
- 6.19 Excavations will be carried out manually using appropriate hand tools OR using an air lance to expose tree roots to minimise the potential for root damage.
- 6.20 Where roots **below** 25mm diameter are encountered, pruning will only be carried out by the arboricultural consultant, using sharp, sterile tools suitable to the size of the root to be cut i.e., sharp hand saw or secateurs (if appropriate). Where possible roots will be pruned cleanly back to a side branch.
- 6.21 If roots **exceeding** 25mm in diameter are encountered, no severance must take place without first consulting the project arboriculturist, to assess any potential impact of removal on tree health and stability.

Tree Protection

- 6.22 Drawing JBA 21/303 TPP01 Rev D in **Appendix 2** shows the position and extent of tree protection that will be required during construction, except for trees T37, T38, T39, T56 and T70. Here tree protection will initially be installed on the outer edge of the RPA or crown spread, whichever is the greater, and moved to the position shown on JBA 21/303 TPP01 Rev D immediately prior to works within their RPAs.
- 6.23 With the exception of the no dig areas and supervised hard surface removal and construction no other specialised methods are required and all other works are outside precautionary RPAs of retained trees.
- 6.24 Tree protection will therefore consist of robust fencing secured to a solid framework as recommended within BS5837:2012.

Replacement planting

- 6.25 Due to the significant loss of canopy cover throughout the site, it is recommended that the development proposals include a comprehensive landscape strategy which includes significant tree, shrub and hedgerow planting.
- 6.26 As part of the proposals a significant number of new trees will be planted at key locations throughout the development.
- 6.27 These new trees offer the opportunity to compensate for tree removals and enhance the retained tree population, ensuring the continuation of visual and green amenity for future generations.

7 CONCLUSIONS AND RECOMMENDATIONS

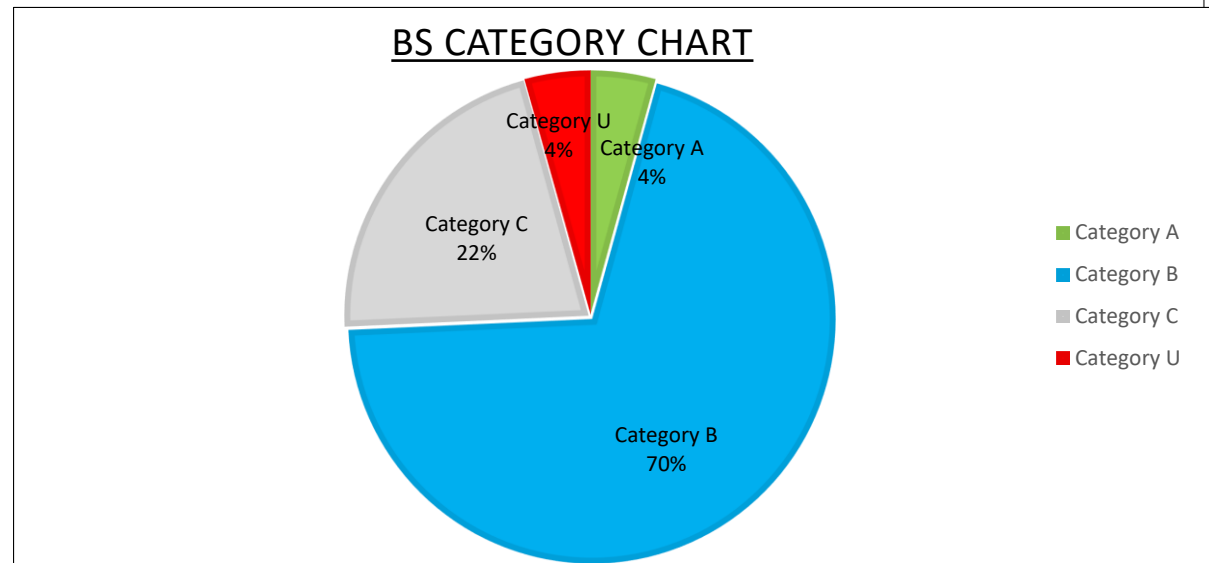
- 7.1 The constraints that existing trees and vegetation pose to development have been assessed in accordance with BS5837: 2012 and through ongoing liaison between the design team and James Blake Associates.
- 7.2 This continuing involvement has culminated in a proposal that seeks to improve and enhance the tree scape of the site and the wider area whilst offering a sustainable approach to development.
- 7.3 Minor encroachment into root protection zones has been designed to ensure the health and stability of affected trees is not compromised.
- 7.4 A pre-commencement meeting and arboricultural supervision for key stages in the development, that have a potentially detrimental impact on trees, is recommended to ensure that the tree protection, and other methodology, is clearly understood and correctly implemented.
- 7.5 It is recommended that the proposal is approved subject to a scheme of new tree planting and successful tree protection and construction methodology.

APPENDIX 1: TREE SURVEY SCHEDULE

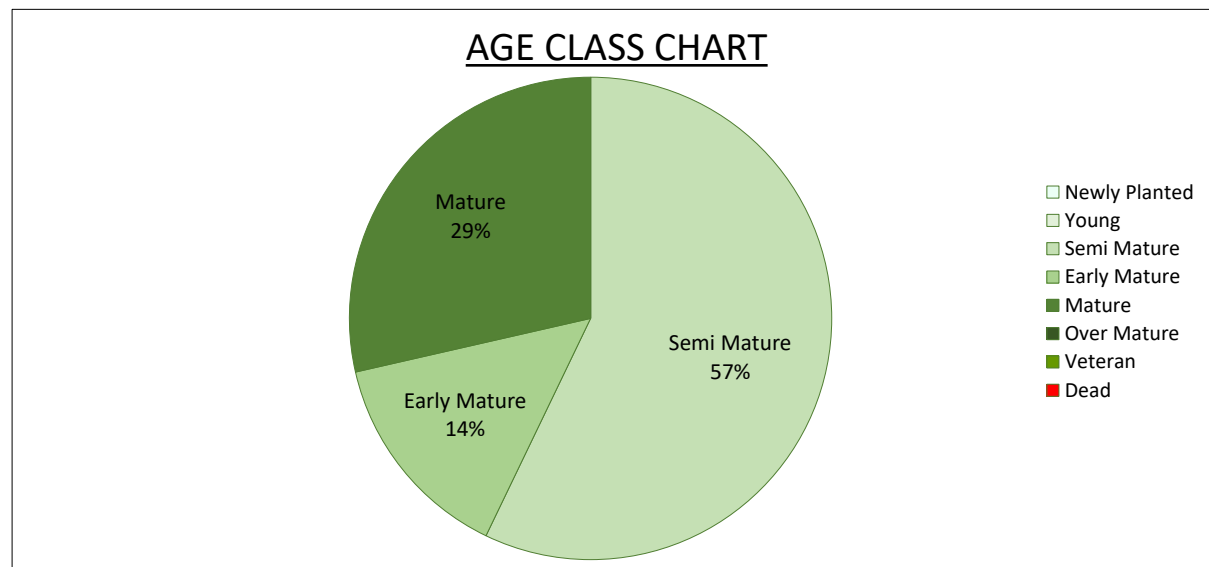
Tree Survey Schedule - Key

Life Stage	Description	Key	Description	BS Category	Description
NP	Newly planted	Stem \emptyset (mm) at 1.5m	Diameter of stem(s) in millimetres measured at 1.5m above ground level in accordance with BS 5837:2012.	A	Tree(s) of high quality with an estimated remaining life expectancy of at least 40 years.
Y: Young	An establishing tree that could be easily transplanted.	Stems	Trees are single-stemmed unless noted otherwise in schedule.	B	Tree(s) of moderate quality with an estimated remaining life expectancy of at least 20 years.
SM: Semi Mature	An established tree still to reach its ultimate height and spread and with considerable growth potential.	Height of (FSB)	Height of first significant branch above ground level.	C	Tree(s) of low quality and value with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm.
EM: Early Mature	A tree reaching its ultimate height and whose growth is slowing however it will still increase in stem diameter and crown spread.	Crown Spread	Crown spread at the four cardinal points, North, South, East and West.	U	Unsuitable for retention. Trees in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years.
M: Mature	A tree with limited potential for further significant increase in size although is likely to have a long safe useful life expectancy.	Condition	Assessment of the physiological and structural condition of the tree observed at the time of surveying.		RPA radius (m) Radius of Root Protection Area (RPA) in metres based on relevant calculation in BS5837:2012 section 4.6.
OM: Over Mature	A senescent or moribund tree with a limited useful life expectancy.	ERC (Years)	Estimated Remaining Contribution in Years (<10, 10+, 20+, 40+)		RPA Area (m2) A layout design tool indicating the minimum area surrounding the tree that contains sufficient rooting volume to maintain the tree's viability, and where the protection of the roots and soil structure is treated as a priority. Size and shape based on calculations and constraints noted in BS5837:2012 section 4.6.
V: Veteran	A tree older than typical for its species and of significant ecological, cultural or aesthetic value.				

BS Category	Total
Category A	3
Category B	49
Category C	15
Category U	3
	70



Age Class	Total
Newly Planted	0
Young	0
Semi Mature	40
Early Mature	10
Mature	20
Over Mature	0
Veteran	0
Dead	0
	70



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Tree Survey Schedule

Site name: Old Brickyard Farm, Great Horwood Road, Winslow
 Client: Bloor Homes South Midlands
 Job Number: 21 / 303

Survey Date: 8 October 2021
 Surveyor: Peter Brais

Tree No.	Tree Species	Life Stage	Stem Ø (mm) at 1.5m	Height (crown height) (m)	Height of (FSB)	Crown Spread				Condition	Comments	Tree Management Recommendations	ERC (Years)	BS Cat	RPA Radius (m)	RPA area (m2)
						N	E	S	W							
H1	Beech (<i>Fagus sylvatica</i>) Hawthorn (<i>Crataegus monogyna</i>) Swedish whitebeam (<i>Sorbus intermedia</i>) Elm (<i>Ulmus</i> sp.)	SM	130	5(0)	-	2.0	2.0	2.0	2.0	Fair	Dense roadside hedge with ivy cover. Contains larger trees and dead elm. Face trimmed to west.	No work recommended	20+	C2, 3	1.6	8
H2	Elm (<i>Corylus avellana</i>) Ash (<i>Fraxinus excelsior</i>) Blackthorn (<i>Prunus spinosa</i>)	EM	180	6 (0)	-	2.5	2.5	2.5	2.5	Fair	Dense roadside hedge mainly elm.	No work recommended	20+	B2, 3	2.2	15
G3	Ash	SM	250	8 (2)	-	5.0	5.0	5.0	5.0	Fair	Estimated diameter unable to access. Die back in most northern tree.	No work recommended	10+	C2	3.0	28
T4	Ash	SM	350	14 (2.5)	4	7.0	7.0	7.0	7.0	Good	Dominant hedgerow tree.	No work recommended	40+	B1	4.2	55
T5	Ash	EM	450	9 (2)	-	7.0	7.0	7.0	7.0	Fair	Dominant hedgerow tree. Truncated form. Estimated diameter.	No work recommended	20+	B1	5.4	92
T6	Ash	SM	320	8 (1.5)	3 N	5.0	5.0	5.0	5.0	Fair	End of hedgerow tree. Sparse canopy. Excavation within RPA to the east. ADB symptoms.	No work recommended	10+	C1	3.8	46
W7	Elm Elder (<i>Sambucus nigra</i>) Hawthorn Ash Field maple (<i>Acer campestre</i>)	SM	190	6 (1)	-	4.0	4.0	4.0	4.0	Fair	Boundary woodland on railway embankment.	No work recommended	20+	B2,3	2.3	16

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Tree No.	Tree Species	Life Stage	Stem Ø (mm) at 1.5m	Height (crown height) (m)	Height of (FSB)	Crown Spread				Condition	Comments	Tree Management Recommendations	ERC (Years)	BS Cat	RPA Radius (m)	RPA area (m ²)
						N	E	S	W							
T8	Ash	SM	310	12 (3)	3.5	5.0	5.0	5.0	5.0	Good	Dominant tree within woodland. Good form and condition.	No work recommended	20+	B1	3.7	43
T9	Ash	EM	400 350 300	16 (3.5)	4 N	6.5	6.5	6.5	6.5	Good	Forms three stems at ground level. Dominant tree.	No work recommended	40+	B1	7.3	168
G10	Hawthorn Ash Blackthorn (Prunus spinosa) Lawson cypress (Chamaecyparis lawsoniana)	SM	300	9 (0)	-	4.0	4.0	4.0	4.0	Good	Dense boundary group. Unable to access for detailed assessment. Edge of woodland.	No work recommended	20+	B2,3	3.6	41
T11	Hawthorn	M	200 150 300	8 (2)	-	5.5	5.5	5.5	5.5	Good	Forms three stems at ground level. Typical minor deadwood in crown.	No work recommended	20+	B1	4.7	69
G12	Leyland cypress (Cupressus x leylandii)	M	450	18 (2)	-	4.0	4.0	4.0	4.0	Good	Dominant group with mutual crown.	No work recommended	20+	B2	5.4	92
T13	Elder	M	80 x 8	4.5 (0)	-	2.0	2.0	2.0	2.0	Poor	Multi-stemmed . Partially dead canopy.	No work recommended	10+	C1	2.8	24
G14	Ash	SM	180 150 270 120	10 (2.5)	-	4.5	4.5	4.5	4.5	Good	Pair of intermediate trees. Fours stems at 1m. Unable to access. Estimated diameter.	No work recommended	20+	B1	4.6	65
T15	Apple (Malus domestica)	M	550 530	14 (1.5)	4 N	10.0	7.0	10.0	7.0	Fair	Notable tree. Forms two stems at ground level. Dense ivy cover, potentially supressing crown and increasing wind loading.	Cut ivy and resurvey	40+	A1	8.8	241
G16	Elder Hawthorn	EM	150	6 (0)	-	4.0	4.0	4.0	4.0	Fair	Unremarkable hedgerow.	No work recommended	10+	C2, 3	8.8	241

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Tree No.	Tree Species	Life Stage	Stem Ø (mm) at 1.5m	Height (crown height) (m)	Height of (FSB)	Crown Spread				Condition	Comments	Tree Management Recommendations	ERC (Years)	BS Cat	RPA Radius (m)	RPA area (m ²)	
						N	E	S	W								
G17	Ash Hawthorn	SM	510	12 (2)	3 E	8.0	8.0	8.0	8.0	Good	Dominant group within hedgerow. Old layered hawthorn to south.	No work recommended	20+	B2, 3	6.1	118	
T18	Pear (Pyrus sp.)	M	350	4 (0.5)	-	2.0	2.0	4.0	2.0	Fair	Browsing damage to main stem by livestock. Significant deadwood.	No work recommended	<10	U	4.2	55	
T19	Hawthorn	M	200	5 (0)	-	3.0	3.0	3.0	3.0	Dead	Dead hedge row tree. Estimated diameter and spread.	No work recommended	<10	U	2.4	18	
T20	Ash	EM	650	12 (2)	-	8.0	8.0	8.0	8.0	Poor	Intermediate tree. Major deadwood up 3m x 50mm diameter. Unable to access for detailed assessment.	No work recommended	10+	C1	7.8	191	
T21	White willow (Salix alba)	SM	400 510 500	10 (2)	4 S	9.0	9.0	9.0	9.0	Good	Group with mutual crown formation.	No work recommended	20+	B2,3	9.8	304	
T22	Ash	M	720	18 (0)	-	10	12	10	10	Good	Dominant tree. Forms two stems at 3m with normally formed union.	No work recommended	40+	B1	8.6	234	
G23	Hawthorn Elder oak (Quercus robur) Lime (Tilia sp.) maple (Acer campestre)	English Field	M	360	6 (0)	-	5.0	5.0	5.0	5.0	Fair	Group with mutual crown formation. Maximum diameter recorded.	No work recommended	20+	C2, 3	4.3	59
G24	Ash Hawthorn	M	500	14	-	6.0	6.0	6.0	6.0	Fair	Group with mutual crown. Estimated maximum diameter recorded.	No work recommended	40+	B2,3	6.0	113	
T25	Ash	M	490 540	16 (2)	3 W	10	10	10	10	Good	Dominant tree. Forms two stems at ground level. V-shaped union and bulging. Good extension growth and crown density.	No work recommended	40+	A1	8.8	241	

Tree No.	Tree Species	Life Stage	Stem Ø (mm) at 1.5m	Height (crown height) (m)	Height of (FSB)	Crown Spread				Condition	Comments	Tree Management Recommendations	ERC (Years)	BS Cat	RPA Radius (m)	RPA area (m ²)
						N	E	S	W							
G26	Ash	M	500 500 400 400	18 (2)	3 W	11	11	11	11	Fair	Dominant elevated group. Some trees contain elevated levels of deadwood up to 60mm x 4m. Cavities in trees to west 100mm diameter @ 5to8m to the south of stem. Branch tear off 300cm x 1.5m @ 3m to south	Cut ivy and resurvey	20+	B2,3	10.9	373
G27	Sycamore (Acer pseudoplatanus) English oak Silver birch (Betula pendula)	SM	280	8 (1)	-	4.0	4.0	4.0	4.0	Fair	Unremarkable group. Die back on some trees.	No work recommended	10+	C2, 3	3.4	35
G28	Ash English oak Hawthorn	SM	300	8 (2)	-	5.0	5.0	5.0	5.0	Good	Mutual crowns	No work recommended	20+	B2, 3	3.6	41
G29	Ash Hawthorn	SM	310 440 360	12 (2)	-	7.0	7.0	7.0	7.0	Fair	Group contains stump. Mutual crowns. Emergent Ganoderma sp. fungal fruiting body at base of southernmost oak.	No work recommended	20+	B2,3	7.8	191
T30	Weeping willow (Salix babylonica)	M	540	10 (0.5)	2 N	7.5	7.5	7.5	7.5	Fair	Intermediate tree. Good form. Fallen stem regenerating to south.	No work recommended	20+	B1	6.5	132
T31	Ash Apple	M	750	12 (2)	-	9.0	9.0	9.0	9.0	Good	Mature pair. Slightly sparse crown. Significant deadwood. Emerging veteran features on apple, cavities and branch tears.	No work recommended	20+	B2	9.0	254
G32	Hawthorn Bullace (Prunus domestica subsp. Insititia)	M	300 140 100	6 (0)	-	4.0	4.0	4.0	4.0	Good	Dense croup with mutual crown. Regeneration from fallen stems.	No work recommended	20+	B2, 3	4.6	65
G33	Silver birch Ash Hawthorn	SM	190	9 (0)	-	3.0	3.0	3.0	3.0	Good	Group of small trees.	No work recommended	20+	B2	2.3	16
G34	Ash Hawthorn	M	400 300	12 (2)	2 N	6.0	6.0	6.0	6.0	Fair	Mutual crown. Browsing damage 400 x 600mm @ 1m to west.	No work recommended	20+	B2	6.0	113

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Tree No.	Tree Species	Life Stage	Stem Ø (mm) at 1.5m	Height (crown height) (m)	Height of (FSB)	Crown Spread				Condition	Comments	Tree Management Recommendations	ERC (Years)	BS Cat	RPA Radius (m)	RPA area (m2)
						N	E	S	W							
G35	Apple (Malus domestica)	SM	150	6 (2)	-	3.0	3.0	3.0	3.0	Poor	Partly dead.	Remove	<10	U	1.8	10
H36	Hawthorn Elm Ash Blackthorn Lawson cypress Cherry (Prunus sp.)	SM	180	5 (0)	-	2.0	2.0	2.0	2.0	Fair	Contains dead elm. Dense ivy cover. Trimmed to 3m	Remove dead elm from hedgerow	20+	B2	1.8	10
T37	Ash	M	740	16 (1.5)	-	8.0	8.0	8.0	8.0	Fair	Dominant tree. Sense ivy cover restricting detailed assessment and crown development.	Cut ivy and reinspect	20+	B1	8.9	248
T38	Ash	EM	410	14 (2)	4 N	7.0	7.0	7.0	7.0	Good	Estimated diameter. Ivy cover to 8m.	Cut ivy and reinspect	20+	B1	4.9	76
T39	English oak.	M	900	16 (2)	4 N	8.0	8.0	8.0	8.0	Good	Not shown on topo. Dominant notable tree. Dense ivy to 12m. Unable to accurately assess stem	Cut ivy and reinspect	40+	A1	10.8	366
T40	Honey locust (Gleditsia triacanthos)	SM	310	9 (2)	2 W	5.0	5.0	5.0	5.0	Good	Dominant tree.	No work recommended	40+	B1	3.7	43
T41	Atlas cedar (Cedrus atlantica)	SM	430	7 (2)	-	3.0	3.0	3.0	3.0	Good	Intermediate tree	No work recommended	20+	B1	5.2	84
G42	Pear (pyrus sp.)	SM	180	7 (2)	-	3.0	3.0	3.0	3.0	Good	Intermediate tree	No work recommended	20+	B2	2.2	15
G43	Apple Norway maple (Acer platanoides)	SM	190 250	8 (2)	1.5 S	3.5	3.5	3.5	3.5	Good	Apple to north forms two stems at 1.3m.	No work recommended	20+	B2	3.7	43

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Tree No.	Tree Species	Life Stage	Stem Ø (mm) at 1.5m	Height (crown height) (m)	Height of (FSB)	Crown Spread				Condition	Comments	Tree Management Recommendations	ERC (Years)	BS Cat	RPA Radius (m)	RPA area (m ²)
						N	E	S	W							
T44	Sycamore	SM	120	4.5 (2)	2	2.5	2.5	2.5	2.5	Good	Single stemmed tree.	No work recommended	20+	C1	1.4	7
G45	Cherry Indian Bean tree (Catalpa bignonioides) Apple	M	390 210	7 (2)	-	5.0	5.0	5.0	5.0	Good	Group within mutual crown.	No work recommended	20+	B2	5.3	88
G46	Cypress (Cupressus sp.)	SM	150	5 (0)	-	2.0	2.0	2.0	2.0	Good	Pair with mutual crown	No work recommended	20+	C2	1.8	10
T47	Snake bark maple (Acer capillipes)	SM	100	4.5 (2)	1.5 E	2.5	2.5	2.5	2.5	Good	Small tree good condition.	No work recommended	10+	C1	1.2	5
G48	Cockspur thorn (Crataegus crus-galli) Japanese maple (Acer palmatum)	SM	160	4 (2)	-	0.5	2.0	0.5	2.0	Good	Pleached avenue.	No work recommended	20+	B2	1.9	12
G49	Jacquemont's birch (Betula Utilis Jacquemontii) Sycamore	SM	330	10 92)	-	5.0	5.0	5.0	5.0	Good	3 birch and one sycamore.	No work recommended	20+	B2	4.0	49
G50	Lime cypress Leyland	SM	420	11 (2)	3 N	5.0	5.0	5.0	5.0	Good		No work recommended	20+	B2	5.0	80
G51	Cherry (x3)	SM	220	8 (2)	-	4.5	4.5	4.5	4.5	Good		No work recommended	20+	B2	2.6	22
G52	Corsican pine (Pinus nigra) Sycamore Leyland cypress Silver birch	EM	510	10 (2)	-	6.0	6.0	6.0	6.0	Good	Dense canopy mutual crown.	No work recommended	20+	B2	6.1	118

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Tree No.	Tree Species	Life Stage	Stem Ø (mm) at 1.5m	Height (crown height) (m)	Height of (FSB)	Crown Spread				Condition	Comments	Tree Management Recommendations	ERC (Years)	BS Cat	RPA Radius (m)	RPA area (m ²)
						N	E	S	W							
G53	Cedar of Lebanon (Cedrus libani) Sycamore Cherry Oak	EM	440	10 (2)	-	6.5	6.5	6.5	6.5	Good	Group to south of drive, Mutual crown.	No work recommended	20+	B2	5.3	88
T54	Silver birch	EM	190 200 260	12 (2)	4 W	5.0	5.0	5.0	5.0	Good	Forms 3 stems at ground level with V-shaped union and bark inclusion	No work recommended	20+	B1	4.7	69
T55	Common Line (Tilia × europaea)	SM	480	9 (2)	-	6.0	6.0	6.0	6.0	Good	Intermediate tree	No work recommended	40+	B1	5.8	104
T56	White willow (Salix alba)	M	1020	12 (1)	-	9.0	9.0	9.0	9.0	Good	Off-site tree not shown on topo. Damaging fence. Multistemmed form. Estimated diameter.	No work recommended	20+	B1	12.2	470
T57	Cypress (Cupressus sp.)	SM	450	8.0 (0)	-	3.5	3.5	3.5	3.5	Good	Estimated diameter, unable to access.	No work recommended	40+	B1	5.4	92
G58	Swedish whitebeam	SM	180	6.5 (2)	2 N	3.0	3.0	3.0	3.0	Good	Pair of trees with mutual crown.	No work recommended	20+	C2	2.2	15
G59	Lime	SM	360	10 (2)	-	5.0	5.0	5.0	5.0	Good		No work recommended	40+	B2	4.3	59
G60	Swedish whitebeam	SM	160	6 (2)	-	3.0	3.0	3.0	3.0	Good		No work recommended	20+	C2	1.9	12
G61	Common lime Swedish whitebeam	SM	380	8 (2)	-	5.0	5.0	5.0	5.0	Good	Group with mutual crown	No work recommended	40+	B2	4.6	65




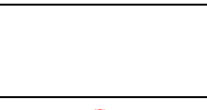

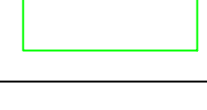
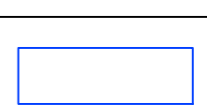
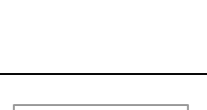

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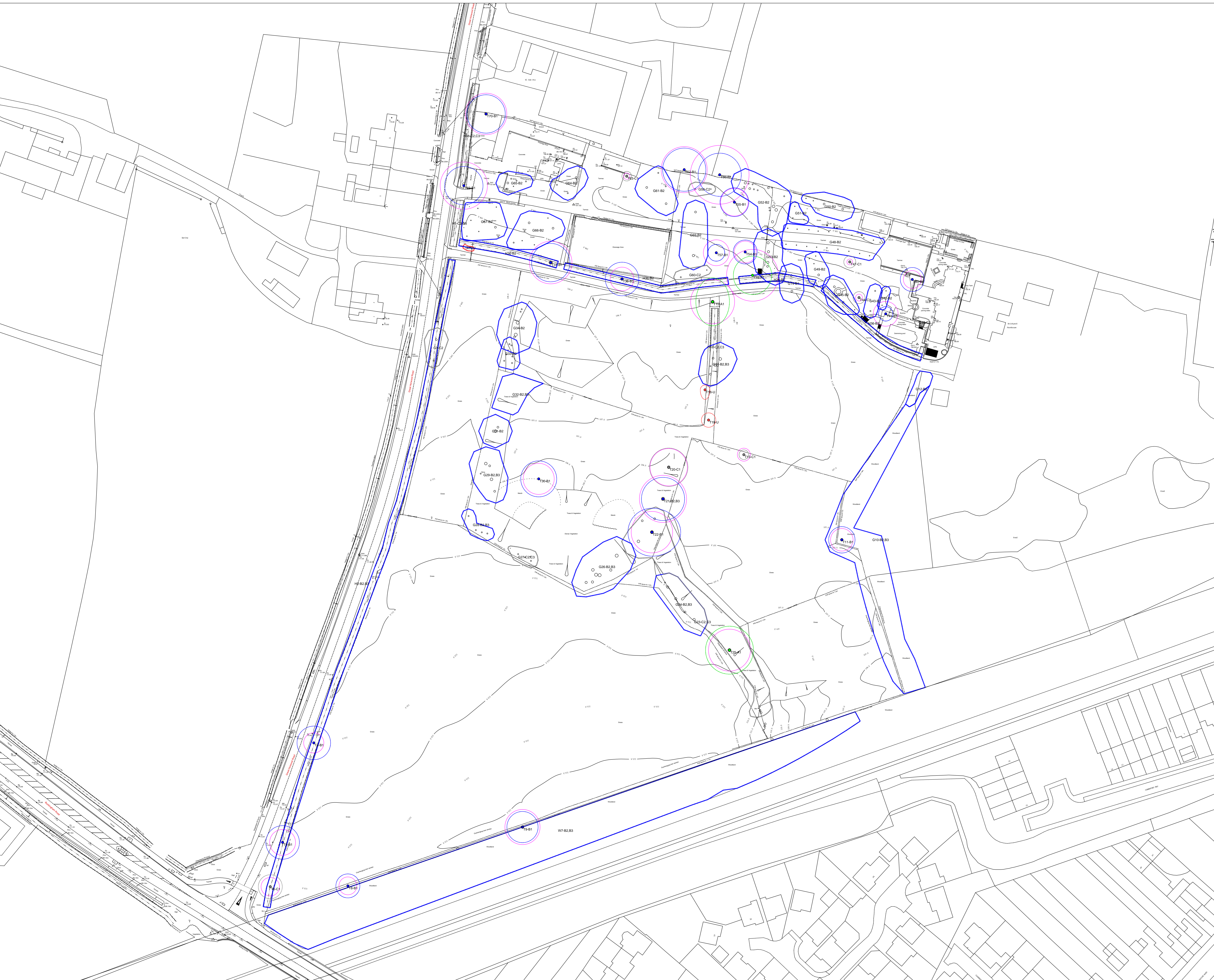
Tree No.	Tree Species	Life Stage	Stem Ø (mm) at 1.5m	Height (crown height) (m)	Height of (FSB)	Crown Spread				Condition	Comments	Tree Management Recommendations	ERC (Years)	BS Cat	RPA Radius (m)	RPA area (m ²)
						N	E	S	W							
T62	Ash	EM	800	12 (3)	5S	9.0	9.0	9.0	9.0	Good	Off-site tree, not on topo.	No work recommended	20+	B1	9.6	289
T63	Swedish whitebeam	SM	110	5 (2)	2 SW	2.0	2.0	2.0	2.0	Fair	Cavity 0.4m x 0.1m to south.	No work recommended	10+	C1	1.3	5
G64	Lime (x1) Grey alder (Alnus incana) Swedish whitebeam	SM	290	8 (2)	-	4.0	4.0	4.0	4.0	Good	Group of three trees.	No work recommended	20+	B2	3.5	38
G65	Swedish whitebeam (x2) Silver birch (x2)	SM	360	10 (2)	-	5.5	5.5	5.5	5.5	Good	Group of four trees. Maximum diameter recorded.	No work recommended	20+	B2	4.3	59
G66	Common lime (x2) Swedish whitebeam (x4)	SM	330	8 (2)	-	5.0	5.0	5.0	5.0	Good		No work recommended	20+	B2	4.0	49
G67	Lime (x1) Swedish whitebeam (x6)	SM	380	9 (2)	-	5.5	5.5	5.5	5.5	Good		No work recommended	40+	B2	4.6	65
H68	Ash Hazel (corylus avellana) Beech Field maple	Elm SM	100	5 (0)	-	2.0	2.0	2.0	2.0	Fair	Contains dead elm. Trimmed at 3m.	Remove dead elm from within hedgerow	10+	C2,3	1.2	5
T69	English oak	SM	820	10 (2.5)	-	8.0	8.0	8.0	8.0	Good	Dominant tree. Unable to access. Estimated diameter.	No work recommended	40+	B1	9.8	304
T70	Silver birch	M	720	13 (2)	2 W	8.0	8.0	8.0	8.0	Good	Notable birch. Good extension growth and crown density.	No work recommended	20+	B1	8.6	234

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APPENDIX 2: JBA DRAWINGS

KEY

-  Green - Category A tree of high quality and value.
-  Blue - Category B tree of moderate quality and value.
-  Grey - Category C tree of low quality and value.
-  Red - Category U tree in irreversible decline or dead.
-  Green - Cat A Groups/hedges of high quality and value.
-  Blue - Cat B Groups/hedges of moderate quality and value.
-  Grey - Cat C Groups/hedges of low quality and value.
-  Red - Cat U Groups/hedges that are dead or showing signs of irreversible decline.
-  Root Protection Area as calculated in accordance with BS 5837:2012



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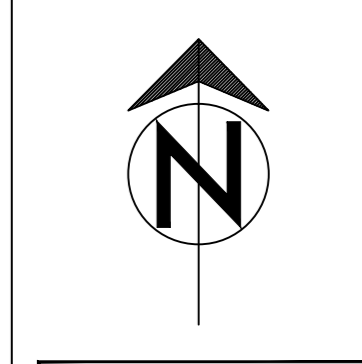
34-32 Old Plough, Bay St Edward, Dublin, D10 3P9. Tel: 01 504 13097
james@jamesblakeassociates.com www.jamesblakeassociates.com

GENERAL NOTE
ALL DIMENSIONS IN METRES
DO NOT SCALE OFF THE DRAWING
ALL DIMENSIONS TO BE CHECKED ON SITE
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NO.	DATE	REVISED
1	15/03/2021	ISSUED FOR PERMIT
2	15/03/2021	ISSUED FOR PERMIT
3	15/03/2021	ISSUED FOR PERMIT
4	15/03/2021	ISSUED FOR PERMIT
5	15/03/2021	ISSUED FOR PERMIT
6	15/03/2021	ISSUED FOR PERMIT
7	15/03/2021	ISSUED FOR PERMIT
8	15/03/2021	ISSUED FOR PERMIT
9	15/03/2021	ISSUED FOR PERMIT
10	15/03/2021	ISSUED FOR PERMIT

KEY

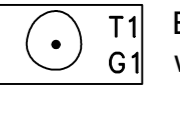

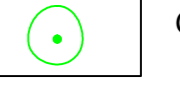
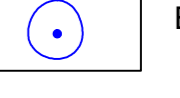


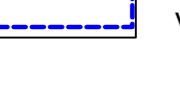

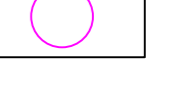
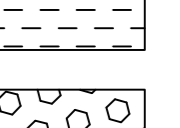

- Existing Tree or Group colour referenced in accordance with BS 5837:2012 as shown below
- Existing hedge or group colour coded as above in accordance with BS 5837.
- Green - Category A tree of high quality and value.
- Blue - Category B tree of moderate quality and value.
- Grey - Category C tree of low quality and value.
- Red - Category U tree of poor quality and value.
- Blue - Cat B Groups/hedges of moderate quality and value.
- Grey - Cat C Groups/hedges of low quality and value.
- Tree or group to be removed.



NO.	DATE	BY	FOR	DWG. TITLE
1	11/10/21	JBL	SCHEMATIC DEVELOPMENT	SCHEMATIC DEVELOPMENT
2	12/10/21	JBL	SCHEMATIC DEVELOPMENT	SCHEMATIC DEVELOPMENT
3	13/10/21	JBL	SCHEMATIC DEVELOPMENT	SCHEMATIC DEVELOPMENT
4	14/10/21	JBL	SCHEMATIC DEVELOPMENT	SCHEMATIC DEVELOPMENT
5	15/10/21	JBL	SCHEMATIC DEVELOPMENT	SCHEMATIC DEVELOPMENT

DESIGNER James Blake Associates Ltd		DWG. TITLE SCHEMATIC DEVELOPMENT	
SCALE AS SHOWN			
DATE 11/10/21			
PROJECT NO. 2021-010			
PROJECT NAME SCHEMATIC DEVELOPMENT			
PROJECT ADDRESS SCHEMATIC DEVELOPMENT			
PROJECT CONTACT SCHEMATIC DEVELOPMENT			
PROJECT PHONE SCHEMATIC DEVELOPMENT			
PROJECT EMAIL SCHEMATIC DEVELOPMENT			
PROJECT WEBSITE SCHEMATIC DEVELOPMENT			

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- ### KEY
-  Existing Tree or Group colour referenced in accordance with BS 5837:2012 as shown below
 -  Existing hedge or group colour coded as above in accordance with BS 5837.
 -  Green - Category A tree of high quality and value.
 -  Blue - Category B tree of moderate quality and value.
 -  Grey - Category C tree of low quality and value.
 -  Red - Category U tree of poor quality and value.
 -  Blue - Cat B Groups/hedges of moderate quality and value.
 -  Grey - Cat C Groups/hedges of low quality and value.
 -  Root Protection Area as calculated in accordance with BS 5837:2012
 -  Area of Arboricultural supervision of groundworks (road and footway) within Root Protection Areas. To be supervised by project arboriculturist.
 -  Area of No-Dig construction. Installation and instatement of hard surfacing to be supervised by project arboriculturist.

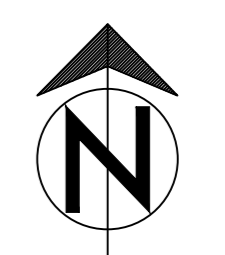


Potential footpath/cycleway
or
actual location subject to
detailed design.

	REVISIONS	
NO.	DATE	BY
1	10/01/2023	JD
2	10/01/2023	JD
3	10/01/2023	JD
4	10/01/2023	JD
5	10/01/2023	JD
6	10/01/2023	JD
7	10/01/2023	JD
8	10/01/2023	JD
9	10/01/2023	JD
10	10/01/2023	JD

GENERAL NOTES

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ALL DIMENSIONS TO BE CHECKED ON SITE.
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CLIENT
Barnes School Works
The Works
100 Barnes Road
London SW13 7SD

PROJECT
100 Barnes Road
London SW13 7SD

DATE
10/01/2023

DWG NO.
20-2300-000

REV.
2

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