

ARBORICULTURAL IMPACT ASSESSMENT (AIA)

December 2023

Lawford Boarding Kennels

Greensbridge Lane

Tarbock Green

Liverpool

L35 1QH

U R B A N
G R E E N

QUALITY MANAGEMENT

Project No.:	UG2172			
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1. Executive Summary

- 1.1.1. Urban Green has been instructed by Mr. John Morgan to carry out an Arboricultural Survey to British Standard 5837: 2012 guidelines at Lawford Boarding Kennels, Greensbridge Lane, Halewood, Tarbock Green, Liverpool and produce our findings in a report.
- 1.1.2. It is proposed to demolish the existing onsite structures and develop the site into thirty-three plots of residential accommodation and one apartment complex, alongside new access road and landscape improvements such as parking and soft landscaping. Full details of the proposed site layout can be seen on the plans included in Appendix 4.
- 1.1.3. The proposed development would necessitate the removal of one section each from two tree groups assessed as BS 5837: 2012 'Moderate Quality' Retention Category 'B'; and one tree group assessed as BS 5837: 2012 'Low Quality' Retention Category 'C' within the site boundary. It is recommended that this tree loss is mitigated against through onsite replacement tree planting and the production of a robust soft landscaping scheme.
- 1.1.4. Three further tree groups would require removal due to being unsuitable for retention alongside the proposed development, in accordance with Arboricultural best practice.
- 1.1.5. Before any tree works are carried out trees should first be assessed for their suitability for protected species by a suitably qualified and experienced ecologist.
- 1.1.6. Temporary tree protective fencing and ground protection will need to be installed at the alignment shown on the Tree Protection Plan in Appendix 4 before any construction activity takes place.
- 1.1.7. It will also be necessary to carry out Arboricultural supervised excavation with possible root pruning within the predicted Root Protection Areas (RPAs) of retained trees and tree groups G3, G4, T11, T13 & T14, as indicated on the Tree Protection Plan.
- 1.1.8. Information regarding the layout of new utilities and drainage and final site levels should be submitted to the Arboricultural Consultant so that the impact of these on the retained trees can be assessed.

2. Introduction

2.1. Instructions and References

- 2.1.1. Urban Green have been instructed by Mr. John Morgan to carry out an Arboricultural Impact Assessment (AIA) in accordance with BS 5837: 2012 Trees in relation to design, demolition and construction – Recommendations at the site location and produce our findings in a report to be submitted with a detailed planning application.
- 2.1.2. All trees, regardless of their statutory status, are a material consideration in a planning application. BS 5837: 2012 recognises the potential conflict between trees and development. The standard sets out to assist those concerned with trees in relation to construction and aid with decision making. This is achieved by providing impartial and balanced information on trees and their potential impacts.
- 2.1.3. Due to the size and nature of the site, it was decided that the survey methodology would include broadly grouping trees that share very similar characteristics. This method is in line with point 4.4.2.3 of BS 5837: 2012 that states *'Trees forming groups...should be identified and considered as groups where the arboriculturist determines that this is appropriate... It may be appropriate to assess the quality and value of trees as a whole, rather than individuals.'*
- 2.1.4. The site is located in the area shown in Figure 1. The Ordnance Survey (OS) Grid Reference is SJ 45642 86579.



Figure 1 – Site Location Plan.

2.2. Scope

- 2.2.1. The AIA considers any potential impacts on existing trees including the effect of any tree loss required to implement the design and recommendation for the establishment of new trees.
- 2.2.2. The AIA will also assess any potentially damaging activities proposed in the vicinity of retained trees and the effect that the retained trees may have on the development such as potential nuisance caused by excessive leaf/fruit litter, lighting levels and potential damage to structures.

2.3. Documents Provided

- 2.3.1. A scaled plan has been provided with tree positions already plotted. Any extra trees found on site that were not included on the original plan have been plotted according to measurements taken on site and/or using aerial photography.
- 2.3.2. Tree locations which have been estimated are illustrated on the plans included in Appendix 4, by their identifying number with a “#” suffix. The exact locations of these trees must be verified, and any discrepancies discussed with the Arboricultural Consultant before starting works on site.
- 2.3.3. A plan outlining the development proposals has been overlaid with the Tree Constraints Plan to assess the potential impacts.

2.4. Limitations

- 2.4.1. This report is based upon a visual inspection. The consultant shall not be responsible for events that happen after the date of the report due to factors that were not apparent at the time, and the acceptance of this report constitutes an agreement with the guidelines and the terms listed in this report.
- 2.4.2. The consultant accepts no liability in respect of the trees unless the recommendations of this report are carried out under their supervision.
- 2.4.3. Assessing the potential influence of trees upon load bearing soils, beneath existing and proposed structures resulting from water abstraction by trees or rehydration of shrinkable soils was not included in the contract brief and is therefore not considered in the report. The consultant cannot be held responsible for damage arising from such action.
- 2.4.4. Trees are living organisms whose health, condition and structure can change over time. The contents of this report are valid for a period of one year from the date of the report.
- 2.4.5. Potentially hazardous trees are highlighted, and appropriate recommendations are made. However, this report is not a substitute for a full tree risk assessment or management plan which are specifically designed to reduce risk and liability associated with responsibility for trees.

2.5. The Site

- 2.5.1. The site is located at the junction of Greensbridge Lane and Cartbridge Lane, Halewood, Tarbock Green, Liverpool and comprises the former Lawford Boarding Kennels. The site is bounded by agricultural land to the north and east; an ongoing residential development to the south; and Netherley Brook and public open space to the west, beyond which lies existing residential property.

2.6. Geology

- 2.6.1. Reference to the Cranfield Soil and Agrifood Institute's Soilscape Viewer suggests the underlying geology of the site is characterised as a seasonally wet; slowly permeable; base-rich; slightly acidic loamy and clayey soil; with impeded drainage and moderate fertility. This geological profile is typical of grassland and some arable and woodland environments.

3. Legislation

3.1. Tree Protection Status

- 3.1.1. A Tree Preservation Order (TPO) is an order made by a Local Authority to protect specific trees, groups of trees or woodlands in the interests of amenity. A TPO prohibits the cutting down, topping, lopping, uprooting and wilful damage or destruction of trees without the Local Authority's written consent.
- 3.1.2. Access to Knowsley Metropolitan Borough Council's online interactive mapping facility on 18/09/2023 confirmed there are no TPOs currently in effect at the site, nor does the site lie within a Conservation Area. There are two TPOs in effect in the site vicinity – Tree Preservation Order No 1-1969 (ref: 69/00001/TPO) affords protection to the woodland plantation to the east of the site; while Tree Preservation Order No. 4 -2008 (ref: 08/00004/TPO) protects the linear area of woodland to the southwest of the site.
- 3.1.3. It is recommended that the Local Authority is consulted before any tree works are undertaken, as new TPOs may have been created since the time of enquiry, and heavy fines exist for unauthorised works to protected trees.
- 3.1.4. All works to trees covered by a TPO require permission from the Local Authority, including any pruning. However, this does not include trees that are dead or have become dangerous. The removal of dead branches is also excluded from a TPO. Although the above exceptions exist, it is advisable to give the Local Authority five days' notice in writing of any intended removal. Permission is not needed where tree work is required to implement an approved planning application.
- 3.1.5. It is an offence to remove more than five cubic metres of timber in any one calendar quarter without having first obtained a felling licence from the Forestry Commission. It must be noted, however, that this excludes sites where planning permission has already been granted.

3.2. Wildlife

- 3.2.1. Prior to the commencement of any tree works, the trees should be assessed for the presence of protected species, some of which are subject to the *Wildlife and Countryside Act 1981* (as amended) and the *Conservation of Habitats and Species Regulations 2017*.
- 3.2.2. Where there is evidence that bats, birds, or other protected species are present, the advice of a suitably qualified ecologist should be sought.
- 3.2.3. If tree works are carried out during the bird nesting season (March to September inclusive), trees would need to be inspected by a qualified ecologist within the forty-eight-hour period prior to the commencement of works.

4. Arboricultural Impact Assessment (AIA)

4.1. Summary of the Development

- 4.1.1. It is proposed to demolish the existing onsite structures and develop the site into thirty-three plots of residential accommodation and one apartment complex; alongside a new access route; and landscape improvements such as parking and soft landscaping. Full details of the proposed site layout can be seen on the plans included in Appendix 4.

4.2. Tree Constraints

- 4.2.1. BS 5837: 2012 recognises that conflicting requirements of the planning system for development means that trees are only one factor which need to be taken into consideration. Although there may be certain specimens that can pose significant constraints to development due to their importance, it is essential that inappropriate tree retention is avoided.
- 4.2.2. Trees can be adversely affected on development sites if their protection is not factored into the wider project management of onsite operations. The tree survey plan has been transposed over plans detailing current proposals to assess the impact on surveyed trees.
- 4.2.3. It is essential that roots are protected from construction works including physical damage from excavation and changes in soil structure from compaction and changes in ground levels.

4.3. Root Protection Areas (RPAs) Explained

- 4.3.1. The Root Protection Area (RPA) is an area of ground around the base of a tree indicated on the Tree Constraints Plan as an ochre yellow circle centred around the stem which is calculated in relation to the stem diameter.
- 4.3.2. Most tree roots grow within the upper 600mm of the soil profile where most nutrients are available as the result of the decomposition of organic matter close to the surface. Rooting conditions become less favourable at depth as the soil density increases, creating anaerobic conditions.
- 4.3.3. BS 5837: 2012 states that the default position for proposed structures should always be outside the RPA. It is recognised that this may not always be possible, yet tree retention would be desirable. In this instance, technical solutions might be available that prevent damage to the retained trees.

4.4. Surveyed Trees

- 4.4.1. The survey assessed five individual trees; nine tree groups; and one hedgerow, the quality and value of which are summarised below. Full details of the surveyed trees, tree groups and hedgerow can be viewed in the Tree Data Schedule in Appendix 1.
- 4.4.2. One individual tree was assessed as BS 5837: 2012 'High Quality' Retention Category 'A'; four individual trees and five tree groups were assessed as BS 5837: 2012 'Moderate Quality' Retention Category 'B'; three tree groups and one hedgerow were assessed as BS 5837: 2012 'Low Quality' Retention Category 'C'; and one tree group was assessed as BS 5837: 2012 'Unsuitable' Category 'U'.
- 4.4.3. All the surveyed trees and tree groups are within the site or on the boundaries. Tree groups G3 & G4 may lie outside the site ownership boundaries, however, at the time of the survey this was not possible to determine.
- 4.4.4. The tree cover comprises mainly of low-to-moderate quality boundary screening groups, apart from T14 which is an individual tree of high quality, and G2, which was deemed to be unsuitable for retention at the time of the survey.
- 4.4.5. Trees and tree groups G1, G3, G4 & G9-T15 are visually important in terms of their contribution to the character and appearance of the area. Trees internal/central to the site are of secondary importance in visual terms.

4.5. Impacts of Development

- 4.5.1. The proposed development would necessitate the removal of one section each from two tree groups (G8 & G9) assessed as BS 5837: 2012 'Moderate Quality' Retention Category 'B'; and one tree group (G1) assessed as BS 5837: 2012 'Low Quality' Retention Category 'C' within the site redline boundary, as detailed in the Tree Removal Plan and Tree Works Schedule in Appendix 4.
- 4.5.2. Two further tree groups (G5 & G6) assessed as BS 5837: 2012 'Low Quality' Retention Category 'C' and one further tree group (G2) assessed as BS 5837: 2012 'Unsuitable' Category 'U' could be retained alongside the proposed development, however due to their condition and location would require removal, in accordance with Arboricultural best practice.
- 4.5.3. The removal of these trees and tree groups would have moderate, long-term, albeit localised impacts on the wider visual amenity of the site, which is only partially visible from external public points of vantage. It is recommended the removal of these trees be mitigated against through onsite replacement tree planting of appropriate species, and the production of a robust soft landscaping scheme.
- 4.5.4. Although 'Low Quality' Retention Category 'C' tree groups G1, G5 and G6 to the northeastern and western boundaries are reasonably well-suited to the site's current use, they would be unsuitable for retention alongside the proposed residential development. Removal and replacement of these trees with low-to-mid canopy maturing trees, woody shrubs and hedgerows of native species would have a short-term impact on the site as viewed from the east and west. However, in the medium-to-long term, removal and replacement of these trees would create a sustainable soft boundary feature, more in-keeping with the proposed residential development and landscape context.

- 4.5.5. The remaining trees, tree groups, and hedgerow are to be retained and can be protected throughout the proposed development in accordance with the standards and practices detailed in BS 5837: 2012 and in this report.
- 4.5.6. Arboricultural supervised excavation with possible root pruning would be required within the predicted RPAs of retained trees and tree groups G3, G4, G8, T11, T13 & T14 to facilitate construction of the proposed dwellings and footpaths, as indicated on the Tree Protection Plan in Appendix 4. These excavations would need to be carried out using hand-operated tools only, avoiding the use of plant machinery, to prevent undue damage to the rooting environment of the retained trees. As an additional precaution, these works should be carried out under the supervision of an appropriately qualified and experienced Arboricultural Consultant, who shall also undertake any necessary root pruning in accordance with section 7.2 of BS 5837: 2012.
- 4.5.7. Temporary tree protective fencing would need to be installed at the alignment indicated on the Tree Protection Plan before commencement of any onsite operations. Guidance at section 4.7. of this report should be adhered to when positioning and installing temporary protective fencing in the vicinity of trees to be retained.
- 4.5.8. Temporary ground protection would also be required within portions of the predicted RPAs of trees and tree groups G3, G4, G8, T11, T13, T14 & T15, as indicated on the Tree Protection Plan. Guidance at section 4.8. of this report and in the Tree Protection Index in Appendix 4 should be adhered to when installing temporary ground protection within the predicted RPAs of trees to be retained.
- 4.5.9. Remedial pruning works (crown lifting) would be required to retained trees and tree groups G3, G4, T11 & T13 to provide sufficient clearance for onsite operations and to create a more sustainable relationship between the trees and the proposed development. These works are relatively minor in nature and, provided they are carried out in accordance with the standards and practices detailed in BS 3998: 2010 Tree Work – Recommendations, should not negatively impact the long-term health, appearance, or retention value of the retained trees.

4.6. Tree Surgery Works

- 4.6.1. Tree works that are recommended within the Tree Works Schedule in Appendix 4 are works required to facilitate development and include details or remedial works. Tree works stated in the Tree Data Schedule in Appendix 1 are of a general maintenance nature and can be carried out at any time as per recommendations.
- 4.6.2. Tree works required to facilitate the development will be carried out prior to the commencement of any onsite operations. This should allow sufficient space for approved construction to be carried out.
- 4.6.3. Any unforeseen tree works that become apparent during the construction process will require written consent from the Local Authority Tree Officer.
- 4.6.4. All tree works should be carried out in accordance with the standards and practices detailed in BS 3998: 2010. It is recommended that any required tree works are carried out by a contractor approved by the Arboricultural Association.

4.7. Protective Fencing

- 4.7.1. Temporary protective fencing will need to be installed at the alignment indicated on the Tree Protection Plan in Appendix 4, prior to the commencement of any construction activities onsite including the delivery of materials and site facilities.
- 4.7.2. Any fencing that is damaged so that it is no longer able to protect retained trees must be replaced/repared immediately with appropriate fencing.
- 4.7.3. The required specification for protective fencing is illustrated in the Tree Protection Index (Insert 1).
- 4.7.4. The 'in-ground' system involves driving vertical scaffold poles approximately 0.6m into the ground onto which are affixed horizontal scaffold poles and bracing struts. 2m high anti-climb weldmesh panels are then wired to the scaffold framework. The vertical scaffold poles should be at a maximum of 3m apart.
- 4.7.5. No fixing shall be made to any tree and all possible precautions shall be taken to prevent damage to the tree roots when locating uprights.
- 4.7.6. A 600mm x 300mm warning sign reading "TREE PROTECTION AREA KEEP OUT" shall be fixed to every 10m of protective fencing, as illustrated on the Tree Protection Index (Insert 2).

4.8. Ground Protection for Pedestrians or Light Vehicles

- 4.8.1. The primary method of ground protection is the installation of a compressible layer (e.g. woodchip) over a geotextile fabric with side butting scaffold boards.
- 4.8.2. Ground protection measures whilst working the RPA must be capable of supporting the expected loads and avoid compaction of the soil.
- 4.8.3. The boarding will be left in place until the construction works are finished.
- 4.8.4. Scaffolding may first be erected with the uprights on spreader boards and the ground protection installed around the uprights.

4.9. Demolition and Removal of Surfaces in the RPA

4.9.1. During demolition, the following restrictions will apply:

- Where direct damage by falling masonry is likely, the tree should be protected by exterior grade plywood sheets constructed around the main stem.
- The main body of any mechanical excavator will operate outside the RPA.
- Masonry will be pulled away from trees where possible.
- When breaking masonry, a fine water spray will be used to minimise dust particles.
- Excessive dust particles on trees will be removed each day by spraying with water.
- Hard surfaces should be kept in place for as long as possible during construction works in order to prevent soil compaction in the RPA.
- During surface removal, the following restrictions will apply:
 - Only hand operated tools will be used to lift existing surfaces and sub-base. No mechanical excavators are to be used.
 - No excavation below the existing sub-base will occur.
 - All surface removal within the RPA will be supervised by the Arboricultural Consultant or the Local Authority Tree Officer.

4.10. Temporary Site Cabins

- 4.10.1. All storage facilities and deliveries will make use of existing hard surfaces to avoid unnecessary compaction within the predicted RPAs of retained trees. The locations will be agreed in writing with the LPA prior to delivery and will remain in the agreed locations unless approved by the LPA.
- 4.10.2. If storage facilities require siting within predicted RPAs of retained trees, every effort will be made to ensure that any damage to aerial parts of retained trees is avoided and that appropriate footings are used to avoid root damage or compaction of the soil.

4.11. Utilities

- 4.11.1. At the time of writing Urban Green have not been made aware of any new utilities or service runs that will be associated with the development. Information regarding the layout of new utilities and drainage and final site levels should be submitted to the Arboricultural Consultant so that the impact of these on the retained trees can be assessed.

4.12. Recommendations

- 4.12.1. An Arboricultural Method Statement (AMS) will be required to provide solutions and working methods so that the impacts identified do not have a detrimental effect on retained trees.
- 4.12.2. All operations that could affect trees on and adjacent to the site must be considered as part of the project management of the proposed development. It is therefore recommended that an Arboricultural Consultant is appointed as part of the design and management team to advise on pre-development issues and supervise onsite operations.
- 4.12.3. The Arboricultural Consultant may also have an advisory role in the preparation of site including tree surgery works and the protection of trees during demolition processes.
- 4.12.4. The Arboricultural Consultant shall be responsible for inspecting all protective fencing prior to the commencement of all onsite activity.

Appendix 1 – Tree Data Schedule

The following pages contain information gathered during the site survey. The reader should refer to Appendices 2 and 3 to correctly interpret the tree survey data.

Reference T= Tree G = Group H = Hedge W = Woodland	Age & Species	Height (m)	Crown Ht (m)	Lowest Branch Height (m)	Lowest Branch Direction	DBH (mm)	Crown Spread (m) W N E S	Notes	Recommendations		Visual Amenity	Physiological Condition	Life Expectancy (yrs)	RPA Radius
									Priority	Inspect Freq (yrs)	1-Low 2-Moderate 3-High 4-Very High	Structural Condition	Retention Category	(m)
G1	Early-Mature Leyland Cypress <i>x Cupressocyparis leylandii</i>	av 11	av 1.2	1.5	n/a	av 500	av 6 6 each	1: A closely spaced linear group of vigorous conifers. 2: No evidence of significant works. 3: Provides screen value only.	No action required.		1	Good	10-20 C2	6.00
									n/a	3				
G2	Early-Mature Leyland Cypress <i>x Cupressocyparis leylandii</i>	av 8	0	1	n/a	av 200	av 6 6 each	1: A minor group on northern boundary. 2: Poor structural form and low vigour due to crown suppression from previously removed vegetation. 3: Limited long-term potential.	No action required.		1	Poor	<10 U	n/a
									n/a	3				
G3	Mature Sycamore <i>Acer pseudoplatanus</i>	av 12	av 2	2.5	n/a	av 600	av 6 6 each	1: A linear group of five trees on northern boundary to rear of old kennels adjacent to highway. 2: Possibly offsite, ownership unclear. 3: All trees densely covered in ivy and in poor health with dieback noted to all trees.	No action required.		2	Poor	10-20 C2	7.20
									n/a	3				
G4	Mature Sycamore <i>Acer pseudoplatanus</i>	av 12	av 2	2.5	n/a	av 700	av 6 6 each	1: A linear group of three trees to rear of old kennels adjacent to highway. 2: Possibly offsite, ownership unclear. 3: All trees have ivy present and are in reasonable condition.	No action required.		2	Fair	20-40 B2	8.40
									n/a	3				
G5	Over-Mature Hybrid Poplar <i>Populus sp.</i>	av 18	av 5	3	n/a	av 800	av 8 8 each	1: Surrounding vegetation restricted inspection. 2: A linear group located on the western boundary. 3: All trees show evidence of previous reduction works at various heights with vigorous regrowth. 4: All trees exhibit major limb failures with several hanging broken limbs present and most trees affected by ivy. 5: Low potential for development, will require major works or removal.	No action required.		1	Poor	10-20 C2	9.60
									n/a	1				
G6	Over-Mature Crack Willow <i>Salix fragilis</i>	av 17	av 5	5	n/a	av 800	av 7 7 each	1: Surrounding vegetation restricted inspection. 2: A linear group of large multi-stemmed trees on the western boundary. 3: Major limb failures and hanging broken branches present with most trees affected by ivy. 4: Low potential for development, major pruning works would be necessary or removal and replacement.	No action required.		1	Poor	10-20 C2	9.60
									n/a	1				

Reference T= Tree G = Group H = Hedge W = Woodland	Age & Species	Height (m)	Crown Ht (m)	Lowest Branch Height (m)	Lowest Branch Direction	DBH (mm)	Crown Spread (m) W N E S	Notes	Recommendations		Visual Amenity 1-Low 2-Moderate 3-High 4-Very High	Physiological Condition Structural Condition	Life Expectancy (yrs) Retention Category	RPA Radius (m)
									Priority	Inspect Freq (yrs)				
G7	Early-Mature Mixed Species	av 8	av 2	1.5	n/a	av 250	av 3 3 3 each	1: Mixed group containing predominantly hawthorn with willow, sycamore and elderberry. 2: A linear scrub group on western boundary. 3: Provides reasonable screen.	No action required.		1	Good	20-40 B2	3.00
									n/a	3		Good		
G8	Mature Lombardy Poplar <i>Populus nigra 'Italica'</i>	av 18	4	3	n/a	av 600	av 3 3 3 each	1: Located on the southern boundary to rear of fence. 2: Surrounding vegetation restricted inspection. 3: Presumably third party ownership. 4: All trees affected by ivy. 5: Western stem shows signs of previous crown failures.	No action required.		1	Good	20-40 B2	7.20
									n/a	3		Good		
G9	Semi-Mature Mixed Species	av 10	av 1.8	2	n/a	av 200	av 3 3 3 each	1: Located to rear of southern boundary fence. 2: Most trees set back. 3: No significant overhang. 4: Reasonable vigour.	No action required.		1	Good	20-40 B2	2.40
									n/a	3		Good		
H10	Mature Hawthorn <i>Crataegus monogyna</i>	av 6	av 1	1.5	n/a	av 200	av 3 3 3 each	1: An overgrown hedgerow on eastern boundary adjacent to highway. 2: Evidence of highway clearance works. 3: Acceptable condition at present.	No action required.		2	Good	20-40 B2	2.40
									n/a	3		Fair		
T11	Mature Sycamore <i>Acer pseudoplatanus</i>	11	3	2	n/a	580	5 5 5	1: Located on eastern boundary adjacent to highway. 2: Surrounding vegetation restricted inspection. 3: Ivy on stem. 4: Slight decline noted to canopy but good overall symmetry.	No action required.		2	Fair	20-40 B2	6.96
									n/a	3		Good		
T12	Mature Alder (common) <i>Alnus glutinosa</i>	12	4	4	n/a	600	6 6 6	1: A multi-stemmed specimen located on eastern boundary. 2: Stem damage due to recent road works. 3: Slightly sparse crown but good overall symmetry.	No action required.		2	Fair	20-40 B2	7.20
									n/a	3		Fair		

Reference T= Tree G = Group H = Hedge W = Woodland	Age & Species	Height (m)	Crown Ht (m)	Lowest Branch Height (m)	Lowest Branch Direction	DBH (mm)	Crown Spread (m)			Notes	Recommendations		Visual Amenity	Physiological Condition	Life Expectancy (yrs)	RPA Radius
							W	N	E		Priority	Inspect Freq (yrs)	1-Low 2-Moderate 3-High 4-Very High	Structural Condition	Retention Category	(m)
T13	Mature Sycamore <i>Acer pseudoplatanus</i>	12	6	3	n/a	900	6	6	6	1: Located on eastern boundary adjacent to highway. 2: Trifurcated stem at ground level. 3: High crown from previous pruning. 4: Good overall form and vigour.	No action required.		2	Good Fair	20-40 B2	10.80
							6	6	6		n/a	3				
T14	Mature Sessile oak <i>Quercus petraea</i>	12	2	3	n/a	1000	5	8	7	1: Located on eastern boundary. 2: Surrounding vegetation and densely ivy clad stem restricted inspection. 3: Wide spreading crown with good vigour. 4: Evidence of previous crown lifting works. 5: Minor deadwood present.	No action required.		2	Good Good	40+ A2	12.00
							9				n/a	3				
T15	Mature Sycamore <i>Acer pseudoplatanus</i>	10	4	3	n/a	800	6	6	6	1: Located on eastern boundary adjacent to highway. 2: Trifurcated stem at ground level. 3: Densely ivy clad stem. 4: Slightly sparse crown over highway side. 5: High crown from previous pruning.	No action required.		2	Fair Fair	20-40 B2	9.60
							6	6	6		n/a	3				

Appendix 2 - Tree Data Schedule Definition of Terms

Tree Referencing:	Individual Trees T (+number) Grouped Trees G (+number) Hedgerows H (+number) Woodlands W(+number)
Age Category/Life Stage:	Young Usually <15 years Semi-mature Significant growth expected, approximately one third of life expectancy complete Early-Mature Full height achieved with further significant growth possible, up to two thirds of life expectancy complete Mature Full height has been achieved with possible spreading of the canopy, usually past two thirds of overall life expectancy Veteran Usually a tree of significant age with characteristics that give additional cultural, landscape and conservation benefits, Over-mature A tree declining due to age as indicated by deterioration in the health and condition of its crown and trunk.
Species:	Botanical Name conforming to the International Code of Nomenclature for algae, fungi, and plants (ICN). For universal plant recognition. Common Name commonly used names usually on a local and national scale.
Tree Height:	The vertical distance between the base of the tree (where soil and buttress meet) and the tip of the highest branch on the tree.
Crown Height :	Measured from ground level to the height at which the main crown begins.
Stem Diameter (DBH):	Stem diameter is measured at 1.5 m above ground level
Lowest Branch Height & Orientation:	Height above ground level and direction of growth of the lowest lateral branch extending from the main tree stem.
Crown Spread:	Measurements taken from all four cardinal points in metres.
Notes:	Notes are made to inform of any possible defects, peculiarities or points of interest that may relate to the trees position, physiology, safety and possible effects on developments.
Recommendations:	Recommendations are made in accordance with good Arboricultural practice. Recommendations are made regardless to the end usage of the site.
Priority Scale:	Priority is given dependant on the perceived threat and the likelihood of failure given to a possible hazard. The priority of work is given regardless of the end usage of the site. Urgent To be carried out as soon as possible. Very High To be carried out within 1 month. High To be carried out within 3 months. Moderate To be carried out within 1 year. Low To be carried out within 3 years.
Physiological Condition:	Good Usually healthy with no symptoms of poor health or disease. Fair Exhibiting signs of poor health or minor disease infections that are not considered to be hazardous. Poor Disease present in considerable quantities or with very poor physiological vigour. Very Poor Tree is in a moribund state in extremely poor condition, usually with little chance of recovery.
Structural Condition:	Good A tree with no significant structural defects. Fair Minor defects may have been observed but are not considered to be immediately hazardous. Poor Significant defects found. Tree requires monitoring or remedial works. Very Poor Major defects that require immediate remedial work or the removal of the tree.
Life Expectancy:	The estimated number of years before the tree may require removal should no unexpected mechanical or environmental impacts occur to the tree.
Retention Category:	Please refer to Tree retention categorisation table on the next page.

Appendix 3 – Tree Retention Categories

The following table provides an explanation of the BS 5837: 2012 Tree Retention Categories and Subcategories used during the survey and in the report.		
Trees to be Removed:		Colour on Plan
BS 5837: 2012 Category U Includes trees of very low quality that offer little or no amenity value.	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.	RED
Trees to be Considered for Retention:		
BS 5837: 2012 Retention Category A Trees of a high quality, with an estimated life of expectancy of at least 40 years	Trees that are excellent examples of their species, usually mature, especially if rare or unusual including veteran trees. Category A trees are likely to enhance a development and should be retained wherever possible.	GREEN
BS 5837: 2012 Retention Category B Trees of moderate quality with an estimated remaining life expectancy of at least 20 years.	Trees that are good examples of their species. B category trees are usually mature or younger trees with the potential to reach A category in the future. Although the retention of these trees is desirable, some losses may be acceptable.	BLUE
BS 5837: 2012 Retention 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 150 mm.	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories.	GREY
BS 5837: 2012 Tree Retention Subcategories:		
BS 5837: 2012 Retention Subcategory 1	Trees possessing mainly Arboricultural qualities.	n/a
BS 5837: 2012 Retention Subcategory 2	Trees possessing mainly landscape qualities.	n/a
BS 5837: 2012 Retention Subcategory 3	Trees possessing mainly cultural values, including conservation.	n/a
NOTE 1: Trees may be assessed as belonging to more than one BS 5837: 2012 Tree Retention Subcategory depending on their perceived value and/or contribution, i.e., A1.2; B2.3 etc. NOTE 2: Trees that are viewed as borderline and do not fit neatly into either of the categories are given a plus or minus rating (+/-) in the tree data schedule. Therefore, C+ would denote a tree being borderline C/B although C is deemed to be the most appropriate category. Similarly, B- would denote a tree being borderline B/C with B seen as the most appropriate category.		

Appendix 4 - Site Plans

The site plans referred to in the report follow this page which include the following:

- Tree Constraints Plan
- Tree Removal Plan
- Tree Works Schedule
- Tree Protection Plan
- Tree Protection Inserts

Although included plans are usually to scale, they are only intended to indicate positions of surveyed trees and dimensions should not be taken from these drawings.



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Notes:-

BS 5837: 2012 Retention Category A Tree, Group or Hedge

BS 5837: 2012 Retention Category B Tree, Group or Hedge

BS 5837: 2012 Retention Category C Tree, Group or Hedge

BS 5837: 2012 Category U Tree, Group or Hedge

Root Protection Area (RPA)

Position Estimated on Site

Redline Site Boundary

REV.	DATE	DESCRIPTION	DRAWN	CHK'D	

U R B A N
G R E E N

A: Ground Floor, The Tower,
Deva City Office Park, Trinity Way,
Manchester M3 7BF

T: +44 (0) 161 312 3131

weareurbangreen.co.uk

Client:

MR. JOHN MORGAN

Project:

**LAWFORD BOARDING
KENNELS, TARBOCK GREEN**

Title:

TREE CONSTRAINTS PLAN

Issue:

PLANNING

Drawn:	AH	Checked:	AB	Approved:	AB
Project:	UG2172	Scale @ A1:	1:500	Date:	18/12/23
Dwg No:	UG_2172_ARB_TCP_01	Revision:	00		

Tree Works Schedule				
Tree Number	BS 5837: 2012 Retention Category	Species	Works Required	Reason
G1	C	Leyland Cypress	Fell to ground level and grind or grub out the stumps	To facilitate the proposed development
G2	U			Arboricultural best practice
G3	C	Sycamore	Crown lift to a height of 3 metres over proposed garden areas, as indicated on the Tree Removal Plan	To facilitate the proposed development
G4	B			
G5	C	Hybrid Poplar	Fell to ground level and grind or grub out the stumps	Arboricultural best practice
G6		Crack Willow		
G8	B	Lombardy Poplar	Fell northernmost section to ground level, as indicated on the Tree Removal Plan, and grind or grub out the stumps	To facilitate the proposed development
G9		Mixed Species		
T11		Sycamore	Crown lift to a height of 3 metres over proposed road, as indicated on the Tree Removal Plan	
T14	A	Sessile Oak	Crown lift to a height of 3 metres over proposed garden area, as indicated on the Tree Removal Plan	

REV.	DATE	DESCRIPTION	DRAWN	CHKD
------	------	-------------	-------	------

U R B A N
G R E E N

A: Ground Floor, The Tower,
Deva City Office Park, Trinity Way,
Manchester M3 7BF

T: +44 (0) 161 312 3131

weareurbangreen.co.uk

Client:
MR. JOHN MORGAN

Project:
**LAWFORD BOARDING
KENNELS, TARBOCK GREEN**

Title:
TREE WORKS SCHEDULE

Issue:
PLANNING

Drawn:	AH	Checked:	AB	Approved:	AB
Project:	UG2172	Scale @ A1:	N/A	Date:	18/12/23
Dwg No:	UG_2172_ARB_TWS_01			Revision:	00



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Notes:-

BS 5837: 2012
Retention Category A
Tree, Group or Hedge

BS 5837: 2012
Retention Category B
Tree, Group or Hedge

BS 5837: 2012
Retention Category C
Tree, Group or Hedge

BS 5837: 2012 Category U
Tree, Group or Hedge

Retained Tree

Root Protection Area (RPA)

#

Position Estimated on Site

Redline Site Boundary

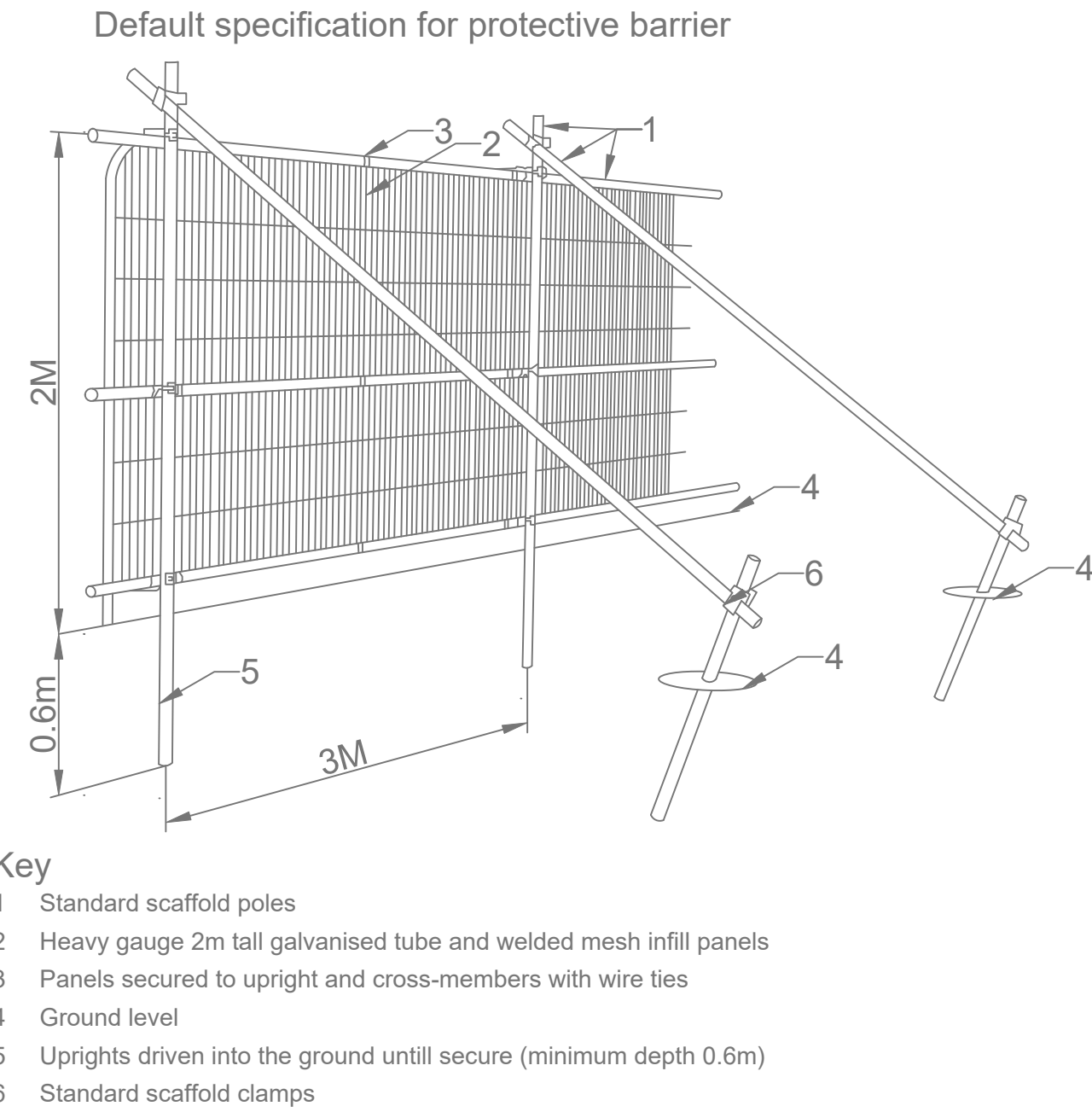
Protective Fencing (See Insert 1 & Insert 2)

Arboricultural Supervised Excavation

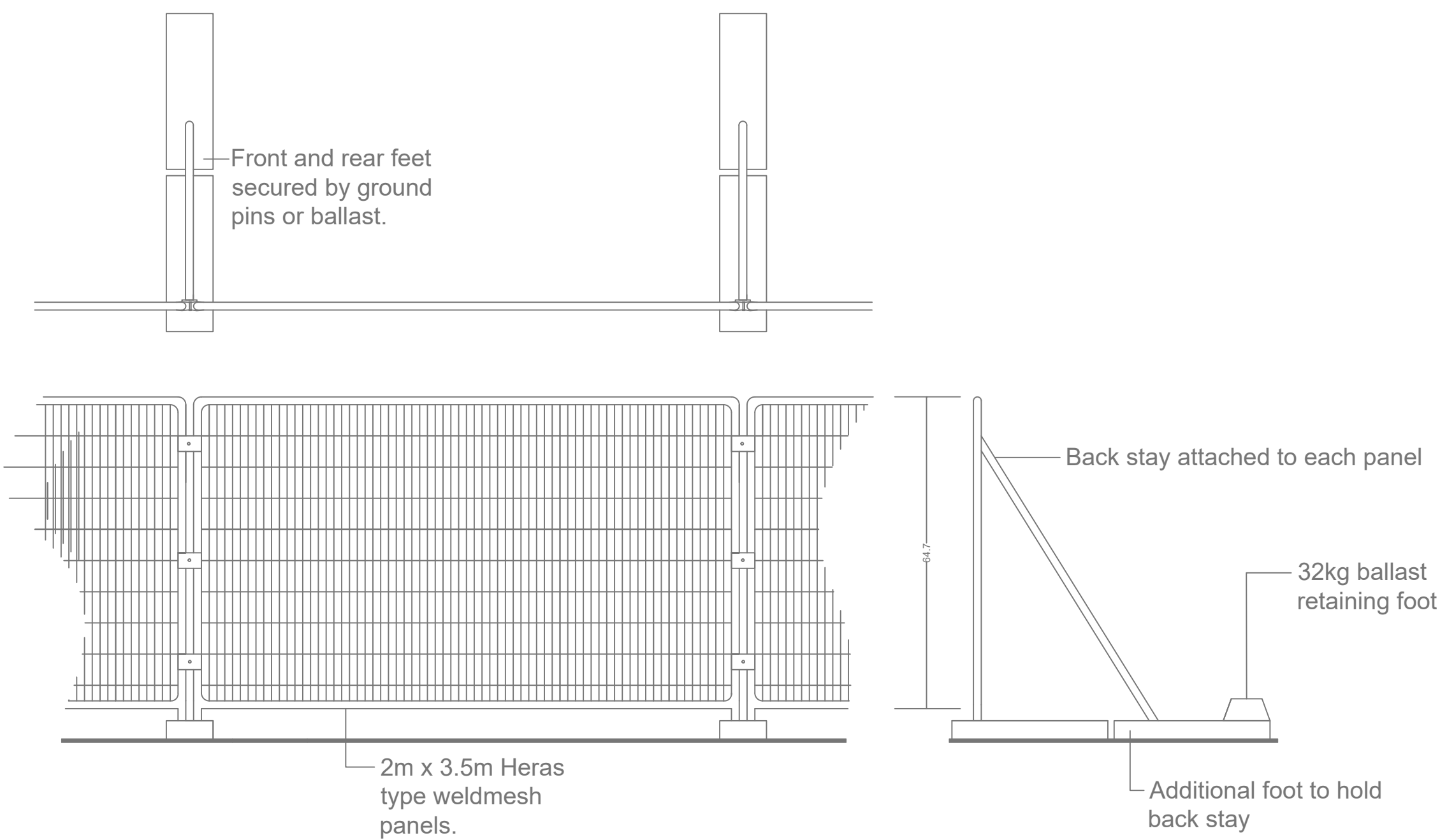
Ground Protection (See Insert 3)

REV.	DATE	DESCRIPTION	DRAWN	CHKD		
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Client: MR. JOHN MORGAN						
Project: LAWFORD BOARDING KENNELS, TARBOCK GREEN						
Title: TREE PROTECTION PLAN						
Issue: PLANNING						
Drawn:	AH	Checked:	AB	Approved:	AB	
Project:	UG2172	Scale @ A1:	1:500	Date:	18/12/23	
Dwg No:	UG_2172_ARB_TPP_01				Revision:	00

Insert 1: Tree protective fencing specification



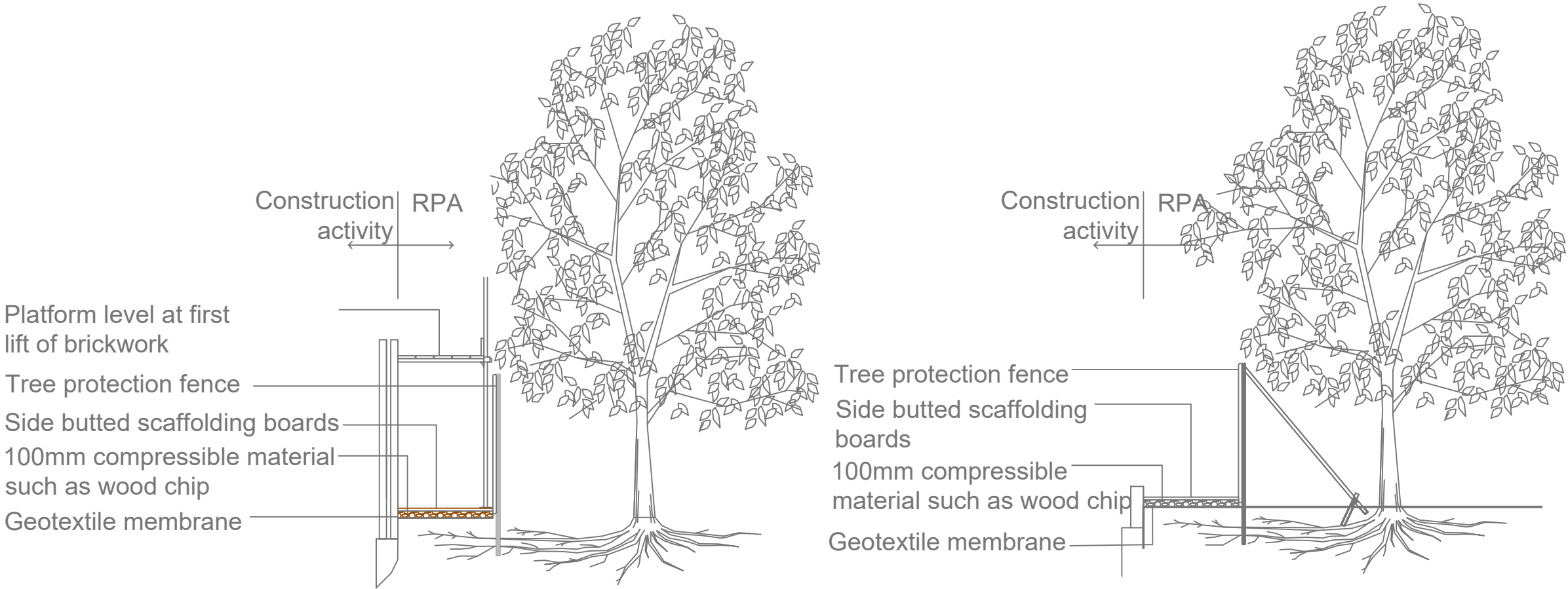
Back-stay support



Insert 2: Tree protection notice



Insert 3: Ground protection specification



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Notes:-

REV.	DATE	DESCRIPTION	DRAWN	CHKD
URBAN GREEN A: Ground Floor, The Tower, Deva City Office Park, Trinity Way, Manchester M3 7BF T: +44 (0) 161 312 3131 weareurbangreen.co.uk				
Client: MR. JOHN MORGAN				
Project: LAWFORD BOARDING KENNELS, TARBOCK GREEN				
Title: TREE PROTECTION INDEX				
Issue: PLANNING				
Drawn: AH	Checked: AB	Approved: AB		
Project: UG2172	Scale @ A1: N/A	Date: 18/12/23		
Dwg No: UG_2172_ARB_TPI_01			Revision: 00	