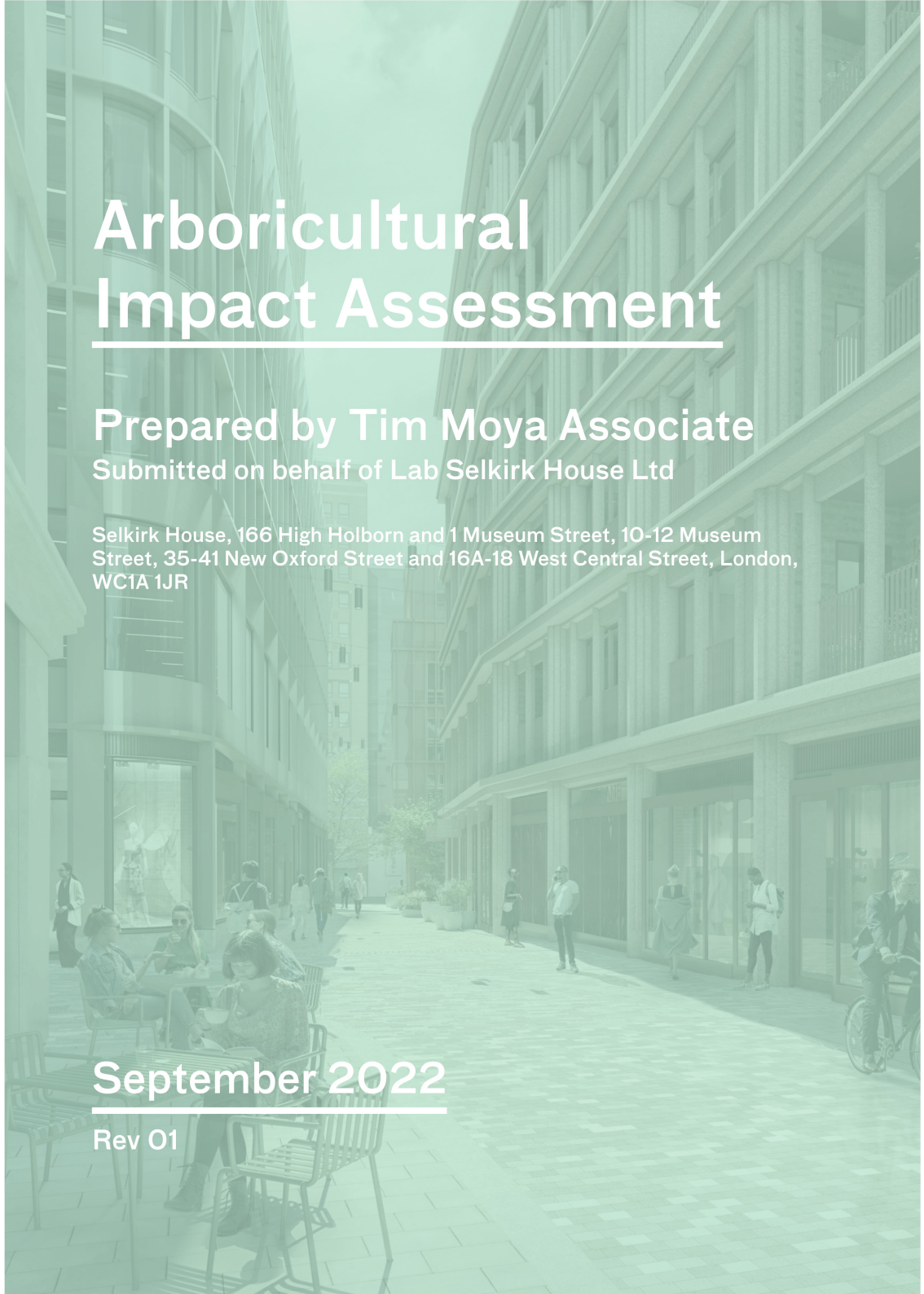


Arboricultural Impact Assessment

Prepared by Tim Moya Associate

Submitted on behalf of Lab Selkirk House Ltd

Selkirk House, 166 High Holborn and 1 Museum Street, 10-12 Museum Street, 35-41 New Oxford Street and 16A-18 West Central Street, London, WC1A 1JR

September 2022

Rev 01

TIM MOYA ASSOCIATES

Arboricultural Impact Assessment

Selkirk House, 166 High Holborn & 1 Museum Street, 10-12 Museum Street, 35-41 New Oxford Street, & 16A-18 West Central Street
London
WC1A 1JR

September 2022

191004-PD-11g

Project	191004-PD-11g – 1 Museum Street
Report Type	Arboriculture (Planning)
Author	Chris Wright
Checked by	Tim Moya
Date Checked	19 Jan 2021
Date of production	04 Jul 2022
Date of last amendment	04 Jul 2022

CONTENTS PAGE

1 EXECUTIVE SUMMARY

1.1 This report has been prepared in support of the detailed planning application being submitted by *Lab Selkirk House Ltd* (the Applicant') to the *London Borough of Camden* (‘the Council') for the redevelopment of the land at *Selkirk House, 166 High Holborn and 1 Museum Street, 10-12 Museum Street, 35-41 New Oxford Street and 16A-18 West Central Street, London, WC1A 1JR* (‘the site').

1.2 The detailed planning application seeks planning permission for the following description of development: “*Redevelopment of Selkirk House, 166 High Holborn and 1 Museum Street following the substantial demolition of the existing NCP car park and former Travelodge Hotel to provide a mixed-use scheme, providing office, residential, and town centre uses at ground floor level. Works of demolition, remodelling and extension to 10-12 Museum Street, 35-41 New Oxford Street, and 16A-18 West Central Street to provide further town centre ground floor uses and residential floorspace, including affordable housing provision. Provision of new public realm including a new pedestrian route through the site to link West Central Street with High Holborn. Relocation of cycle hire docking stations on High Holborn.*”

1.3 The proposed development has evolved through an extensive pre-application and wider stakeholder consultation process, which has included collaborative discussions with the Council, *Greater London Authority* (‘GLA'), *Transport for London* (‘TfL'), *Historic England* (‘HE'), and a number of other key stakeholders.

1.4 The proposed development provides the opportunity to regenerate this strategically important site through the demolition and refurbishment of the existing poor-quality buildings and replacement with a highly sustainable mixed-use development. The proposed development will deliver all the key master planning requirements and uses specified by the *Local Plan* (2017) and the *Holborn Vision and Urban Strategy* (2019), providing the opportunity to deliver a wide range of planning and public benefits.

1.5 The proposed development includes the removal of 9x trees, including a single *Category B* early-mature London plane tree (T1) and 8x *Category C* trees. The loss of T1 is the sole noteworthy removal, in arboricultural terms, with the other trees being low-quality specimens.

1.6 A total of 10x new trees are proposed (all London plane trees, except for a single honey locust), at ground level, within the general area of specified tree removals. The planting of new London plane trees ensures that the character of the Site and public realm is protected, for the long term.

1.7 A total of 5x retained London plane trees require some crown pruning, in order to permit the required access for works associated with implementing the proposed

development. The specified works are localised and will not adversely impact on the condition and amenity value of these trees.

1.8 At this stage, detailed protection measures are unable to be specified, as the protection of the retained trees is predominantly associated with construction logistics (that are yet to be developed in detail). However, it is evident that the retained trees can be suitably protected. These details should be provided as part of a detailed *Arboricultural Method Statement* - or a series of these documents, in the event that the technical details are developed in distinct phases.

2 INTRODUCTION

Instruction

2.1 This *Arboricultural Impact Assessment* (the 'Report') has been instructed by *Lab Selkirk House Ltd* (the 'Applicant').

Author

2.2 This report was written by Christopher Wright. Christopher is a senior arboricultural consultant dealing with trees in relation to all forms of human activity including built development. He is a *Technician Member* of the *Arboricultural Association*, a member of the *Royal Forestry Society*, a member of the *Institute of Chartered Foresters*, holds the *Level 6 Diploma in Arboriculture (ABC)*, the *Professional Tree Inspection certificate* (*LANTRA*), and has received a *BSc (Hons) Conservation and Environment* (2:1) from *Writtle University College*.

Proposed development

2.3 The proposed development at *Selkirk House, 166 High Holborn and 1 Museum Street, 10-12 Museum Street, 35-41 New Oxford Street and 16A-18 West Central Street, London, WC1A 1JR* ('the site' - see *Map 1* below) - described as the "*Redevelopment of Selkirk House, 166 High Holborn and 1 Museum Street following the substantial demolition of the existing NCP car park and former Travelodge Hotel to provide a mixed-use scheme, providing office, residential, and town centre uses at ground floor level. Works of demolition, remodelling and extension to 10-12 Museum Street, 35-41 New Oxford Street, and 16A-18 West Central Street to provide further town centre ground floor uses and residential floorspace, including affordable housing provision. Provision of new public realm including a new pedestrian route through the site to link West Central Street with High Holborn. Relocation of cycle hire docking stations on High Holborn*" ('the proposed development') - is within the area administrated by *London Borough of Camden* ('the Council').

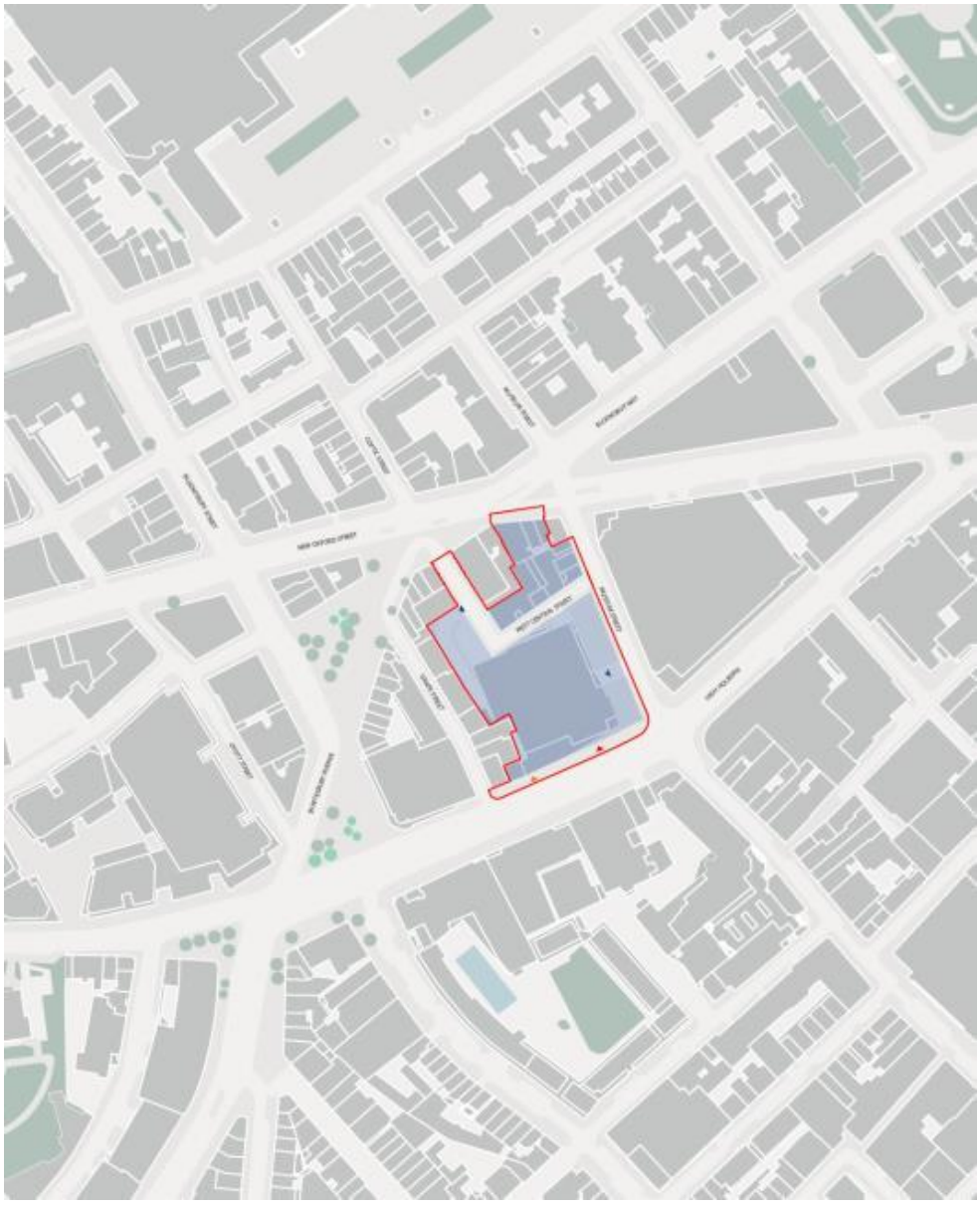
Scope

2.4 This report has been provided to assist all parties involved in the planning process, in accordance with *British Standard 5837:2012 - Trees in relation to design demolition and construction - Recommendations* ('BS5837').

Site survey

2.5 The Site was visited, and the trees and other vegetation surveyed, referring to the recommendations of BS5837, on 21st October 2019 by the Author. The details of this survey are found within the Report appendices.

2.6 The survey was not an assessment of the health and safety of the trees. However, any trees identified as a current notable risk to people and property will have been highlighted in the schedules, at Appendix B. Given that the survey was undertaken during 2019, it is nonetheless the case that this Report should not be relied upon for any assessment of current tree risk.



Map 1: *Showing the location of the site within the red line area.*

Report preparation

External documents

2.7 This report has been prepared, with reference to (but not limited to) the following supplied documents and information:

- *1MS - Level 8 Landscape Terrace Plan - Planting 295A-DSD-1MS-08-DR-L-20.135*;
- *1MS - Level 11 Landscape Terrace Plan - Planting 295A-DSD-1MS-11-DR-L-20.136*;
- *1MS - Proposed Ground Floor Plan 295A-DSD-1MS-00-DR-A-20.100*;
- *Location Plan 295_DSD-SITE-ZZ-DR-A-P10.001*;
- *Piling Around Tree Root Protection Zones 2413-MHT-ST-DR-02100, 2413-MHT-ST-DR-02101, & 2413-MHT-ST-DR-02102*;
- *Proposed Ground Floor Site Plan 95_DSD-SITE-00-DR-A-21.100*;
- *Proposed Landscape - GF - GA Plan 295_DSD-SITE-00-DR-L-20.006*;
- *Proposed Landscape - GF- Levels and Drainage Intent Plan 295_DSD-SITE-00-DR-L-20.011*;
- *Proposed Site Plan 295_DSD-SITE-ZZ-DR-A-20.003*;
- *Site Wide Incoming Utility Services Layout 5259-SP-SW-ZZ-DR-Z-700 & 5259-SP-SW-ZZ-DR-Z-701*.

Appendix

2.8 The appendices of this report include:

- Appendix A (plans); and
- Appendix B (schedules).

3 SITE INFORMATION

Current Site use

3.1 The site is located within the *Holborn and Covent Garden Ward* of the *London Borough of Camden* (the Council'). The site comprises a number of individual different buildings within the red line area, which includes *Selkirk House* (*1 Museum Street*), *10-12 Museum Street*, *35-41 New Oxford Street* and *16A-18 West Central Street*.

Photo 1: *Looking north-west towards the Site showing the Travelodge hotel with T1 (left) for reference.*

Geotechnical information

BGS data

3.2 The *British Geological Survey* ('BGS') provides on-line information, regarding the general soil properties of an area, including the underlying bedrock and any superficial deposits that overlay the bedrock. This information indicates that the Site is situated upon a bedrock of *London Clay Formation* (comprised of clays, sands, and silts), over which the recorded superficial deposits are *Lynch Hill Gravel Member* (comprised of gravels and sands).

3.3 There are publicly available borehole logs within and immediately adjacent to the Site within the area of the surveyed trees (including *TQ38SW799/A-D* from the 1950s and *TQ38SW3603* from 1992) that confirm the presence of made ground within the upper layers of soil, comprised of constituent parts including clay and gravel. It is likely that the ground has been disturbed, on many occasions, with the gravels and sands located at a depth of a few metres.

3.4 At the time of this Report being produced, no investigations have been undertaken at the site, regarding current soil conditions.

Root morphology

3.5 Considering that the data available on soils indicates layers of made ground, it is difficult to gauge how the surveyed trees have rooted within the soil structure. It is probable that roots extend to a depth of at least a few metres below the current ground level, growing opportunistically within the made ground in areas where rooting is viable - this may include under the adjacent roads, beneath compacted sub-bases[1].

1 - Forestry Commission. (2005) Information Note FCN078 - The influence of soils and species on tree root depth.

4 TECHNICAL ARBORICULTURAL DETAILS

Environmental details

Distribution

4.1 The surveyed trees are located at the south-eastern area of the site, at and by the crossroad where *High Holborn* (A40) and *Museum Street* intersect with *Drury Lane*, within the public realm.

Visibility

4.2 By virtue of the position of the trees within the site where they are located at a busy crossroad, all of the surveyed trees are clearly visible from the public realm of which they are a part. In particular, the larger London plane trees are of the greatest visibility (i.e., T1, T3, T4, T5, T7, T9, and T10), due to their size and position in relation to *High Holborn* (where they can be viewed head-on as approaching from the east - see *Photo 2* below).

Photo 2: *Looking west towards the Site and towards the London plane trees with T5 (centre) for reference.*

BS5837 details

Survey criteria

4.3 The surveyed trees and other vegetation items have been generally categorised, in terms of the arboricultural and landscape criteria as defined in BS5837. These criteria consider the arboricultural merits of individual trees, in addition to the wider value afforded in contributing to the character of the landscape.

BS5837 categorisation

4.4 The surveyed trees comprise a total of:

- 6x Category A trees (all of which are mature London plane trees);
- 4x Category B trees (all of which are London plane trees, including one early-mature specimen);
- 8x Category C trees (all of which are stunted maple and London plane trees, for various environmental and contextual reasons - see *Photo 3* below and the *Tree Schedule* at Appendix A for details).

Statutory protections

Conservation Areas

4.5 The LPA publishes details of its *Conservation Areas* ('CAs') online. According to this information, the surveyed trees are not within a CA.

Tree Preservation Orders

4.6 The LPA does not publish details of its *Tree Preservation Orders* ('TPOs') online. It is not therefore known whether TPOs apply to any of the surveyed trees.

Photo 3: *Looking south-east towards the Category C maples showing T15 (centre) for reference.*

5 PLANNING POLICY AND GUIDANCE

National

Background information

5.1 Planning policy at national level is set out in the government's *National Planning Policy Framework* (the 'NPPF')[2] that was published in July 2021.

5.2 At this level, policy addresses the key principles of development. At its core, there is a presumption in favour of sustainable development incorporating good and durable design, by combining economic, social, and environmental strands in a balanced manner. Trees comprise an element of green infrastructure, which is one aspect of the environmental strand of sustainability.

National Planning Policy Framework 2021

5.3 In the context of the proposed development, the NPPF provides the following guidance that is relevant in terms of the surveyed trees:

- **Paragraph 131** - "*Trees make an important contribution to the character and quality of urban environments, and can also help mitigate and adapt to climate change. Planning policies and decisions should ensure that new streets are tree-lined, that opportunities are taken to incorporate trees elsewhere in developments (such as parks and community orchards), that appropriate measures are in place to secure the long-term maintenance of newly-planted trees, and that existing trees are retained wherever possible. Applicants and local planning authorities should work with highways officers and tree officers to ensure that the right trees are planted in the right places, and solutions are found that are compatible with highways standards and the needs of different users.*"
- **Paragraph 174** - "*Planning policies and decisions should contribute to and enhance the natural and local environment by: ... b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services including the economic and other benefits of ... trees and woodland*".

Greater London

Background information

5.4 Planning policy at the Greater London level is set out in the *London Plan 2021* (the 'LP').

2 - Ministry of Housing, Communities and Local Government (2021). National Planning Policy Framework.

London Plan 2021

5.5 In the context of the proposed development, the LP provides the following guidance that is relevant in terms of the surveyed trees:

- **Policy D8 Public Realm** - "*[D]evelopment proposals should: ... i) incorporate green infrastructure such as street trees and other vegetation into the public realm to support rainwater management through sustainable drainage, reduce exposure to air pollution, moderate surface and air temperature and increase biodiversity*".
- **Policy G1 Green Infrastructure** - "*London's network of green and open spaces, and green features in the built environment, should be protected and enhanced. Green infrastructure should be planned, designed and managed in an integrated way to achieve multiple benefits*".
- **Policy G5 Urban Greening** - "*Major development proposals should contribute to the greening of London by including urban greening as a fundamental element of site and building design, and by incorporating measures such as high-quality landscaping (including trees), green roofs, green walls and nature-based sustainable drainage*".
- **Policy G7 Trees and Woodlands** - "*Development proposals should ensure that, wherever possible, existing trees of value are retained. If planning permission is granted that necessitates the removal of trees there should be adequate replacement based on the existing value of the benefits of the trees removed, determined by, for example, i-tree or CAVAT or another appropriate valuation system. The planting of additional trees should generally be included in new developments particularly large-canopied species which provide a wider range of benefits because of the larger surface area of their canopy*".

Local

Background information

5.6 Planning policy at the local level is currently set out in the Council's *Camden Local Plan 2017* (the 'LDP'). Further and more nuanced guidance is provided through the *Camden Planning Guidance: Trees 2019* document (the 'SPD').

Local Plan 2017

5.7 In the context of the proposed development, the current LDP provides the following guidance that is relevant in terms of the surveyed trees:

- **Policy D1: Design** - "*The Council will seek to secure high quality design in development. The Council will require that development: ... k. incorporates high quality landscape design (including public art, where appropriate) and maximises*

opportunities for greening for example through planting of trees and other soft landscaping";

- **Policy D2: Heritage** - "*The Council will: e. require that development within conservation areas preserves or, where possible, enhances the character or appearance of the area; ... g. resist development outside of a conservation area that causes harm to the character or appearance of that conservation area; and h. preserve trees and garden spaces which contribute to the character and appearance of a conservation area*"; and
- **Policy A3: Biodiversity** - "*The Council will protect, and seek to secure additional, trees and vegetation. We will: j. resist the loss of trees and vegetation of significant amenity, historic, cultural or ecological value including proposals which may threaten the continued wellbeing of such trees ... [and] l. expect replacement trees or vegetation to be provided where the loss of significant trees or vegetation or harm to the wellbeing of these trees and vegetation has been justified in the context of the proposed development*".

Camden Planning Guidance: Trees 2019

5.8 This SPD has additional and more specific guidance, relating to the management of trees in the context of development. The following elements are considered to be of most importance:

- **Key Message 2:** "*The Council will aim to preserve existing tree and canopy coverage where possible as well as increase and improve tree coverage in the design of new developments and through planning contributions*".
- **Paragraph 2.24:** "*The Council has a statutory duty to consider the preservation of trees when granting planning permission. The potential effect of development on all trees is a material consideration irrespective of whether they are protected by Tree Preservation Order / conservation area status, or not*".
- **Paragraph 2.43:** "*Developers should avoid development within a Root Protection Area, including the routing of underground services and drains. The default position is that structures are located outside the RPAs of trees to be retained. Where there is an overriding justification for construction within, or in proximity to, the RPA, technical solutions to prevent damage should be explored*".
- **Paragraph 2.46:** "*Permeability of the RPA should be maintained or improved through the avoidance of compaction and the use of appropriate materials. It may be necessary to quantitatively assess the extent of root spread by undertaking sensitive tree root excavations*".

- **Paragraph 3.2:** "*We will take a right tree for the right place' approach with the aim of delivering an attractive treed environment with age and species diversification. ... The landscaping or planting scheme should take into account the impact of trees when they are fully grown and provide sufficient replacement trees to mitigate the loss of canopy cover where appropriate*".

6 ARBORICULTURAL IMPACT ASSESSMENT

Removals

Numerical data

6.1 As part of the proposed development, a total of 9x trees are specified for removal, comprising:

- To facilitate the proposed development (2x): T1 and T2; and
- For landscape improvement (7x): T6, T8, T11, T12, T13, T14, and T15.

To facilitate the proposed development

6.2 In order to directly facilitate the proposed development, two London plane trees along *High Holborn* are specified for removal: T1 and T2 (see Photo 4 below). Their removals are specified, to permit the implementation of a new access route into the Site for deliveries, which has been determined as the most viable location when considering other factors including highway safety.

Photo 4: *Looking east along High Holborn towards T1 (centre) for reference.*

6.3 Of these two specified removals, it is the loss of T1 (a *Category B* early-mature London plane tree) that is most noteworthy. This specimen is a prominent feature of the public

realm, which means that its loss will have an adverse impact upon the character of the public realm and how it is perceived. In accordance with the relevant planning policies, it is therefore a tree that will require a replacement tree to be planted, to address its loss and provide long-term mitigation. Details pertaining to proposed new tree planting are discussed, within the following sub-section of this Report.

For landscape improvement

6.4 A further 7x trees are specified for removal, primarily to facilitate the implementation of a long-term strategy for urban greening within the Site, ensuring that it contributes effectively to the character of the public realm for many decades to come. These trees are all *Category C* specimens, in BS5837 terms.

6.5 Whilst these trees do contribute to the character of the public realm, their condition is such - by way of suppression from adjacent larger London plane trees, restricted rooting environments, or poor crown architecture - that they are auxiliary elements of the existing green infrastructure at the Site. Their loss, whilst discernible, is less significant due to the retention of the much larger London plane trees, which are the core components of the public realm. Therefore, subject to appropriate specifications of mitigation tree planting, the loss of these smaller and less impactful trees is not considered to be a significant issue.

Mitigation tree planting

Within the public realm

6.6 Within the public realm, in order to address the specified loss of 9x trees, a total of 10x new trees are to be planted.

6.7 Generally, the locations of these new trees are in the positions where existing trees are specified for removal (i.e., to the south of the Site along *High Holborn* (2x new trees) and to the east along *Museum Street* (7x new trees)). An additional tree is specified, within the proposed new link (i.e., *Vine Lane*) between *West Central Street* and *High Holborn*.

6.8 Except for the tree along the new link that improves the connectivity of the public realm (a honey locust), the proposed new trees are all London planes and will provide an improvement on the Site compared to the condition of the trees that are specified for removal. The basis of this approach is rooted in the fact that London plane is a species iconic to *Central London*, including the Site in its current iteration where this species prevails. In planting more of this species into the Site, its character and therein the character of the public realm by extension is safeguarded for the long term.

6.9 The fact that London plane has a demonstrable tolerance of current Site conditions (as evidenced by the existing mature trees at the Site), it is further considered that it is an

appropriate species to plant by way of mitigation. There is a risk that alternate species may not be able to sufficiently tolerate Site conditions, which has been the case for the maple trees (T11-T15) - especially, if considering how species may endure (or fail to endure) over the longer term.

6.10 The indicative landscape scheme that is submitted as part of this proposed development also includes the overall uplift of the public realm, by introducing new shrubbery and pedestrian level within new raised planters - in general, the proposed alterations will improve the Site's ability to positively contribute to the public realm, which can be considered an auxiliary means of mitigation greening to address the specified tree losses. The logistics of implementing this landscape scheme are discussed, further into this section of this Report.

Upon terraces

6.11 Further tree and shrub planting is specified, on the terraces of the proposed development. Due to the surrounding area generally comprising tall buildings and trees, direct views of these terraces and any vegetation within them will be limited and generally provide for private amenity. However, when considering the terrace tree planting, it is the case that the net gain in trees at the Site does increase (and environmental benefits will also accrue).

Pruning

Numerical data

6.12 As part of the proposed development, a total of 5x trees are specified for pruning, comprising:

- For general access around the proposed development: T3, T4, T7, T9, and T10; and
- For access enabling the use of a piling rig: T4, T7, and potentially T9.

Access for demolition and construction

6.13 The proposed development requires the demolition of the existing building and the construction of a building with an increased massing (where the existing ground floor area is extending up much of the new building and thereby removing the stepped-back element that currently exists). Therefore, it will be necessary for the adjacent retained London plane trees to be pruned back, establishing a clearance from the proposed development's massing of between around 2.5-3m.

6.14 These London plane trees have in some locations previously been pruned, to manage their relationship with the existing building on Site. It may therefore be possible for these pruning points to be utilised, in the event that they enable an appropriate clearance to be established. However, in the event that new pruning points are established, these will need to avoid first-order branches that therein ensures the crown architecture of the affected tree is retained.

6.15 It may be necessary for these pruning works to be supervised by the project arboriculturist, to ensure that the impact to the affected trees is minimised to a reasonably practicable degree. However, in general terms, any likely impact to these trees - notably in terms of their amenity value - will be low, as existing crown management practices and the form of the trees is such that their crown structures will predominantly be retained anyway (see *Photo 5* below).

Photo 5: *Looking up into the crowns of T9 and T10 showing past management and general juxtaposition to the building.*

Access for piling

6.16 As part of the proposed development, new piles are required beneath much of the existing basement structure to ensure that the increased load of the new building is supported (i.e., a form of underpinning). This will require - on the eastern side of the Site adjacent to the retained trees within T4-T10 - access for a piling rig, to install these piles. When in operation, this rig has a height of 11.5m above ground level, which requires such a clearance to be established beneath the affected areas of tree crowns. Whilst some branches will need to be pruned (or tied back) to facilitate this, the architecture/form of the trees is such that any pruning is likely to be minimal and localised (and therein of low impact).

6.17 It will be necessary for these pruning works to be supervised by the project arboriculturist, to ensure that the impact to the affected trees is minimised to a reasonably practicable degree, considering that it is not possible at this stage to provide an exact specification of pruning. An exact measure will become evident, following further details that can be acquired at a later stage.

6.18 Matters relating to the logistics of the piling works and the means of tree protection are discussed below, further into this section of this Report.

Retained tree juxtapositions

6.19 In relation to the massing of the proposed development, the retained trees can be retained on a similar crown management regime as compared to the existing situation.. This is because many of these trees grow up against the eastern elevation, which is where the existing NCP car park massing has required that these trees be managed up much of the height of the western crown aspects. In this sense, the ongoing management of these trees can predominantly be sustained, subject potentially to slightly increase pruning amounts in localised places.

6.20 Considering the mixed-use nature of the proposed development, it is considered very unlikely that there will be an increased pressure for these trees to be more heavily pruned or removed, because of the screening value they provide including improving privacy and the sense of enclosure within a heavily urbanised environment. Solar gain is also considered to not be a significant factor, as the proposed development is office-led (and not residential-led).

Demolition works

6.21 The proposed development requires significant demolition works, adjacent to the retained trees. At this stage of the process, detailed specifics pertaining to the logistics of demolition are not established (only outline information is developed).

Consequently, this Report recommends that developed and technical details be provided within a detailed *Arboricultural Method Statement* ('AMS'). This document (or series of documents, in the event that the works are distinctly phased and details are not simultaneously developed) is best provided in response to a planning condition.

6.22 At this stage, this Report does nonetheless conclude that demolition works can be achieved successfully, ensuring that the retained trees are suitably protected from harm. Relevant details are discussed below.

Superstructure demolition

6.23 The demolition of the existing superstructure adjacent to the retained trees will need to be undertaken with careful consideration of tree crowns, as much of the demolition occurs above the height of the existing canopies.

6.24 Logistical details relating to the use of tower cranes and other large plant are not yet developed in detail, which means that specific details that relate to demolition operations are not able to be determined. It is nonetheless certain that demolition works will need to include some elements of supervision, at the south-east corner of the Site, to ensure that there is no risk of a collision between a tree branch and demolition plant.

Construction works

6.25 The proposed development requires significant construction works that includes piling, adjacent to the retained trees. At this stage of the process, specifics pertaining to the logistics of construction are not established in extensive detail though they have been considered in general terms of viability. Consequently, this Report recommends that developed and technical details be provided within a detailed AMS, for the same reasons as outlined within the above sub-section - it is likely to be the case that the specifications of tree protection will change at least once, during the construction phase, as piling works finish and superstructure works commence, due to the different demands for space around the trees.

6.26 At this stage, this Report does nonetheless conclude that construction works can be achieved successfully, ensuring that the retained trees are suitably protected from harm. Relevant details are discussed below.

Piling works adjacent to retained trees

6.27 Three new piles to pick up the increased weight of the proposed building are located immediately west of T5, T7, T9, and T10, which comprise the retained trees along the eastern side of the Site as it borders *Museum Street*. The locations of these piles are outside of the RPAs of these trees, though works to install these piles will take place within RPAs and beneath their crowns (that, as stated above, are to be pruned and/or tied back during piling works - also see *Photo 6* below).

6.28 The *Tree Protection Plan* ('TPP') for the construction phase (at *Appendix A*) outlines the provisional positions of the piling rig, in relation to the adjacent trees, in addition to the intended route into this area past T9 (i.e., sweeping in from the north where the existing vehicular entrance to the NCP car park is).

6.29 It will be necessary for tree protection measures to be installed, to suitably protect the stems of these trees and the soil environment (upon which a piling mat will need to be laid). As logistical details relating to piling have only been developed to a nominal degree, the TPP does not specify methods of protection for piling works (as these will naturally develop and can be provided within an AMS), though this Report considers that the required space beneath the trees can be secured while the adjacent trees are appropriately protected (by way of ground protection and stem protection as appropriate).

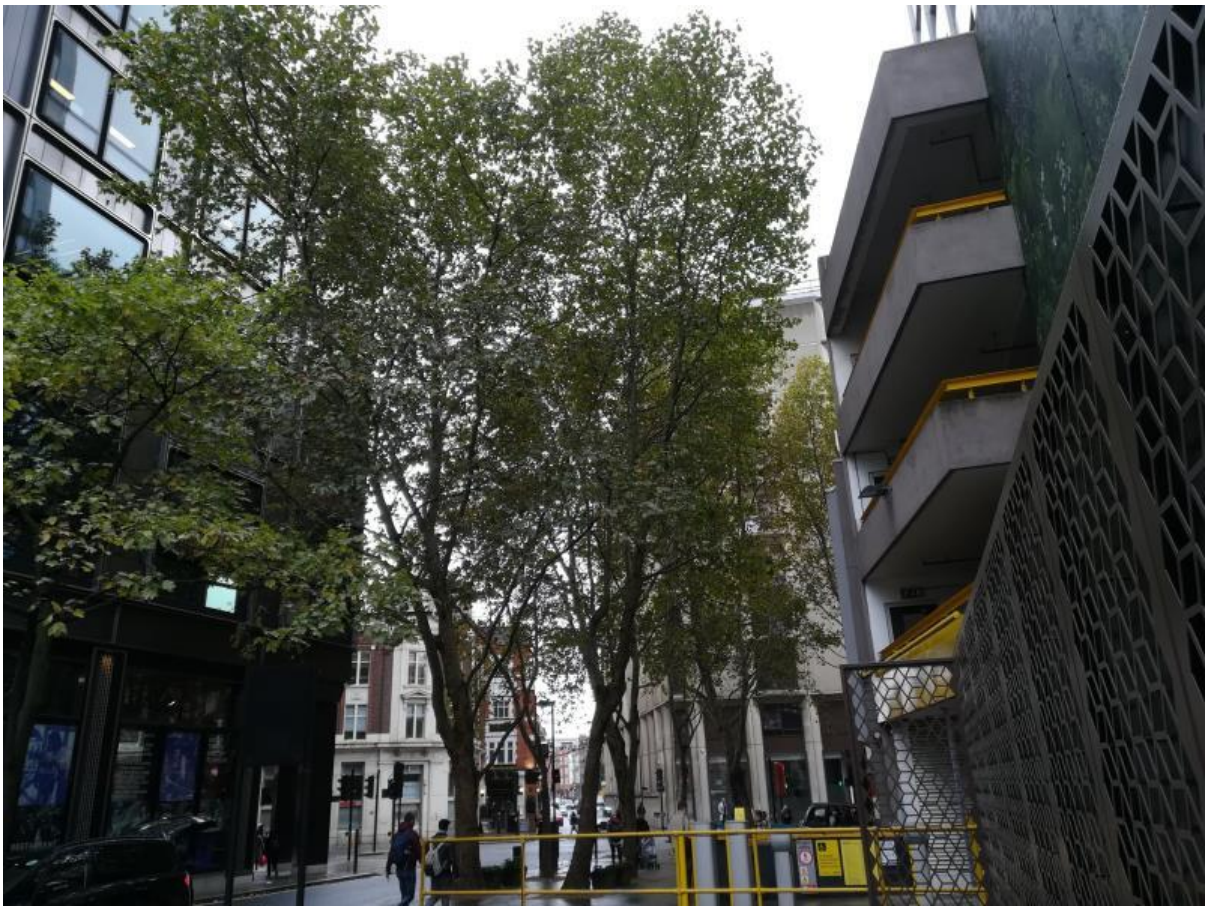


Photo 6: *Looking south towards the London plane trees to the east of the NCP car park showing T9 (centre) for reference.*

Superstructure construction

6.30 The construction of the proposed superstructure adjacent to the retained trees will need to be undertaken with careful consideration of tree crowns, as much of the construction occurs above the height of the existing canopies - much akin to the nature of demolition works, as outlined above within this section.

6.31 Again, logistical details relating to the use of tower cranes and other large plant (as well as scaffold, potentially) are not yet developed in detail, which means that specific details that relate to construction operations are not able to be determined. However, construction works will need to include some elements of supervision, at the south-east corner of the Site, to ensure that there is no risk of a collision between a tree branch and rotating plant.

6.32 Depending on the duration of the construction phase, it may also be necessary for the crowns of the retained trees to be pruned back to the points established during the initial enabling phase (as set out within this Report). Should this be required, any impact to the condition of the affected trees is likely to be insignificant, insofar as the works are undertaken in accordance with best-practice guidelines.

Indicative landscaping works

6.33 The proposed development involves the alteration of the existing surfaces - and in some places an increase in levels - within the *Root Protection Areas* ('RPAs') of the retained trees. At this stage of the process, specifics pertaining to the logistics of landscaping are not established in extensive detail though it is assumed that this phase of works will be the final phase and thus by this point most tree protection measures will have been removed (e.g., fencing and ground protection). Consequently, this Report recommends that developed and technical details be provided within a detailed AMS, for the same reasons as outlined within the above sub-sections.

6.34 At this stage, this Report does nonetheless conclude that the indicative landscaping works can be achieved successfully, ensuring that the retained trees and their soil environments are suitably protected from harm. Relevant details are discussed below.

Hard surface replacement

6.35 The existing paving slabs beneath the London plane trees are proposed to be removed and replaced (see *Photo 7* below), as part of the landscape scheme. The indicative intention is to re-use the existing subgrade, effectively replacing the existing finished surface with a new surface comprised of various products ranging from slabs to setts, which are set around the new planters (discussed below).

6.36 Considering that this element of the landscape works will not require excavations into the soil environment beneath the subgrade, it is very unlikely that any tree roots will be impacted. However, it remains necessary for the works to be undertaken manually and under supervision by the project arboriculturist, which is reflected in the principles of works as outlined on the TPP for the landscape phase at *Appendix A*. Developed details will be required, within a detailed AMS.

Photo 7: *Looking north-east away from the south-eastern corner of the Site towards the London plane trees and the existing pedestrian surfaces.*

Planter construction

6.37 As well as the replacement of the existing paving slabs, the indicative landscape scheme includes the construction of shallow planting beds around the retained London plane trees (T3, T4, T5, T7, T9, & T10) and within their RPAs.

6.38 The edges of these raised planters are intended to comprise a steel upstand that is pinned or otherwise fixed into the ground, avoiding any tree roots in excess of 25mm diameter. Whilst no excavations have yet been undertaken to identify where roots of these trees are (as it has not been possible to lift up the slabs and investigate the public realm area), the localised and minor demands of any steel upstand anchoring is likely to ensure that there will be no significant impact to any roots. To further achieve this, this item of work will need to be undertaken under supervision by the project arboriculturist.

6.39 The localised increase in permeable surfaces through which air and water can penetrate is also to be considered of benefit to the retained London plane trees, which allows for a slight improvement to their growing context. However, their observed physiological condition at the time of the initial survey indicates that they have acclimated to their current growing environment successfully.

Services and utilities

6.40 The proposed development provides indicative plans that show how the services and utilities that connect to the building will be managed, though these plans are not at this stage detailed, and there are no level details relating to crown and invert levels (for example). Consequently, no precise details relating to works are provided, within this Report; instead, matters relating to works will need to be provided within a detailed AMS, which will be able to appropriately address the necessary matters.

6.41 For clarity, the works include the disconnection of a mains water supply, within the RPAs of T5, T8, and T10, in addition to the disconnection of a *Virgin Media* cable within the RPAs of T9 and T10. The precise approach to disconnection is not known, though the risk of harm to these trees can be managed by employing appropriate techniques that limit the extent of excavations (or control the risks of harm by excavating in a particular manner - e.g., using a vacuum excavator of an appropriate power).

6.42 At this stage, further works to access existing utilities that run through RPAs (e.g., electricity and gas) are not specified, though this does remain a to-be-confirmed item (i.e., confirmation will be provided, once technical details are developed).

6.43 Overall, at a more general level, the Site is within a central London location and mature trees (including many London plane trees) routinely exist in close proximity to pipes, ducts, manholes, and service chambers. The proposed development does not present any notable greater level of risk of harm to these trees than may otherwise already be the case, given that the maintenance of such apparatus (even in the existing context) is a routine and necessary matter. In as much as works are undertaken in accordance with arboricultural best-practice (i.e., working to an AMS), the risk of harm to trees in any such instance can be considered to be of a tolerable level.

7 CONCLUSIONS

Arboricultural impacts

Tree removals

7.1 The proposed development includes the removal of 9x trees, including a single *Category B* early-mature London plane tree (T1) and 8x *Category C* trees. The loss of T1 is the sole noteworthy removal, in arboricultural terms, with the other trees being low-quality specimens.

Mitigation tree planting

7.2 A total of 10x new trees are proposed (all London plane trees, except for a single honey locust), at ground level, within the general area of specified tree removals. The planting of new London plane trees ensures that the character of the Site and public realm is protected, for the long term.

Tree pruning

7.3 A total of 5x retained London plane trees require some crown pruning, in order to permit the required access for works associated with implementing the proposed development. The specified works are localised and will not adversely impact on the condition and amenity value of these trees.

Tree protection

7.4 At this stage, detailed protection measures are unable to be specified, as the protection of the retained trees is predominantly associated with construction logistics (that are yet to be developed in detail). However, it is evident that the retained trees can be suitably protected, in principle (subject to the development of further detail and full adherence to said detail). These details should be provided as part of a detailed *Arboricultural Method Statement* - or a series of these documents, in the event that the technical details are developed in distinct phases.

Landscape impacts

7.5 The largest London plane trees within the Site are being retained, as part of the proposed development. Therefore, even in considering the loss of 9x trees, the Site will be able to continue to positively contribute to the public realm.

7.6 The provision of 10x new trees at street level (within the area where tree loss is specified) will ensure that the Site's contribution to the public realm can persist for the long term.

Policy compliance

7.7 The proposed development has considered the relevant planning policies and their implications to an appropriate degree, up to this stage. Ongoing compliance is considered to be viable, subject to the provision of refined arboricultural information throughout the later stages of the planning process, which will include the implementation of the proposed development (i.e., supervision by the project arboriculturist at appropriate times as specified provisionally within this Report).

8 APPENDICES CONTENTS

APPENDIX A - Plans

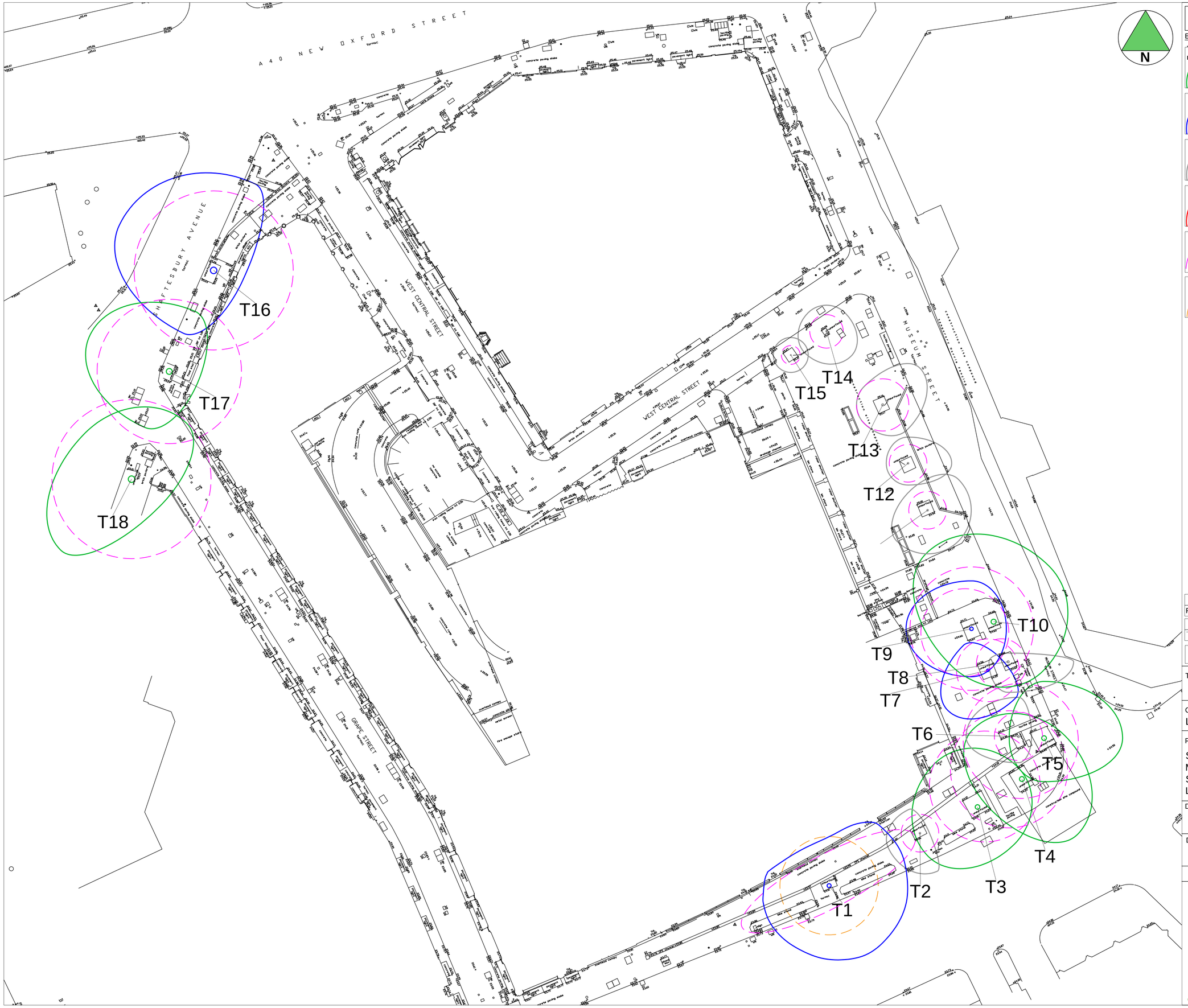
- 191004-P-20 Tree Survey
- 191004-P-21 Proposed Layout and Tree Works
- 191004-P-22 Tree Protection Plan (Demolition)
- 191004-P-23 Tree Protection Plan (Construction)
- 191004-P-24 Tree Protection Plan (Landscaping)

APPENDIX B - Schedules

- 191004-PD-20 Tree Schedule
- 191004-PD-22 Tree Work Schedule

APPENDIX A - Plans

- 191004-P-20 Tree Survey
- 191004-P-21 Proposed Layout and Tree Works
- 191004-P-22 Tree Protection Plan (Demolition)
- 191004-P-23 Tree Protection Plan (Construction)
- 191004-P-24 Tree Protection Plan (Landscaping)



BS 5837:2012 TREE RETENTION CATEGORIES

The original of this drawing was produced in colour - a monochrome copy should not be relied upon.

Category A
Trees of high quality with an estimated remaining life expectancy of at least 40 years.

Category B
Trees of moderate quality with an estimated remaining life expectancy of at least 20 years.

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.

Category U
Those in such a condition that the tree cannot realistically be retained as living trees in the context of the current land use for longer that 10 years.

BS5837 Root Protection Areas
Precautionary areas within which tree roots and soil structure must be protected. All works within these areas will require special methods of work

Theoretical BS5837 Root Protection Area
Theoretical RPA not accounting for the adjacent road and building footprint - RPA amended to reflect these constraints though the theoretical circle remains for context.

REV	DATE	DESCRIPTION	DRAWN
-	-	-	-

Base Drawing
Original survey carried out 2019

0 1m 5m 10m 15m 20m

Title
Tree Survey

Client
Lab Selkirk House Ltd

Project
Selkirk House, 1 Museum Street, 10-12 Museum Street, 35-41 New Oxford Street and 16A-18 West Central Street, London, WC1A 1JR

Date	Drawn by	Checked by
May 2022	HR	-

Drawing No	Rev	Scale
191004-P-20	-	1:200@A1

DO NOT SCALE Use only figured dimensions

TIM MOYA ASSOCIATES
The Barn, FeltimoresPark, Chalk Lane,Harlow, Essex CM17 0PF
0845 094 3268 | info@tma-consultants.co.uk
www.timmoyaassociates.co.uk
arboriculture ecology landscape innovation

The original of this drawing was produced in colour -a monochrome copy should not be relied upon.

BS 5837:2012 TREE RETENTION CATEGORIES

Category A
Trees of high quality with an estimated remaining life expectancy of at least 40 years.

Category B
Trees of moderate quality with an estimated remainin life expectancy of at least 20 years.

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.

Category U
Those in such a condition that the tree cannot realistically be retained as living trees in the context of the current land use for longer that 10 years.

BS5837 Root Protection Areas
Precautionary areas within which tree roots and soil structure must be protected. All works within these areas will require special methods of work.

Trees to be removed to facilitate development shown shaded grey.

Trees to be removed for landscape improvement shown shaded yellow.

Tree to be pruned back shown shaded orange.
- For general access around the proposed development: T3, T4, T7, T9, and T10; and
- For access enabling the use of a piling rig: T4, T7, and potentially T9.

FW Fire water supply
GAS Natural gas supply
HV High voltage ductwork
LV Low voltage ductwork
WATER Mains water supply
BT Telecoms ductwork

REV	DATE	DESCRIPTION	DRAWN
-	-	-	-

Base Drawing
- 13.05.22 295A-DSD-SITE-ZZ-DR-A-20.003

0 1m 5m 10m 15m 20m

Title
Proposed Layout and Tree Works

Client
Lab Selkirk House Ltd

Project
Selkirk House, 1 Museum Street, 10-12 Museum Street, 35-41 New Oxford Street and 16A-18 West Central Street, London, WC1A 1JR

Date	Drawn by	Checked by
May 2022	HR	-

Drawing No	Rev	Scale
191004-P-21	-	1:200@A1

DO NOT SCALE Use only figured dimensions

TIM MOYA ASSOCIATES
The Barn, FeltimoresPark, Chalk Lane,Harlow, Essex CM17 0PF
0845 094 3268 | info@tma-consultants.co.uk
www.timmoyaassociates.co.uk
arboriculture ecology landscape innovation

ARBORICULTURAL METHOD STATEMENT

TREE WORKS

Only the tree works specified within this report may be undertaken, after the appropriate planning consents have been acquired and in order to implement the consent. In the event of any uncertainty regarding tree works, the retained arboricultural consultant will be consulted and where appropriate the Local Planning Authority.

All tree works will be undertaken, in accordance with the best-practice recommendations provided in BS 3998:2010. The statutory responsibilities as outlined in the Wildlife and Countryside Act 1981 (as amended) and the Habitat Regulations 2010 will also be complied with.

TREE PROTECTION FENCING

The tree protection fencing and (where appropriate) ground protection, will be installed as specified within this plan, prior to the commencement of any demolition and construction works. No plant or materials will be delivered to site prior to the construction of the tree protective fencing other than those required to install the tree protection fencing. On every third panel, a sign will be fixed that states "*Tree Protection Zone (TPZ). Keep out. Any incursion into this area must be agreed in advance with the retained arboricultural consultant and Local Planning Authority.*" An example of this sign is provided within this plan.

The position of the tree protection fencing must not be amended and no individual panels will be uncoupled, without the agreement of the retained arboricultural consultant and/or Local Planning Authority.

SITE SUPERVISION

Site supervision schedule to be determined within a detailed Arboricultural Method Statement, following the development of details relating to demolition works.

GENERAL PROTECTION METHODS

No fires will be permitted, within 20m of the crown of any tree or other area of vegetation that includes hedgerows and groups of trees.

No changes in soil level will occur, within the TPZs and RPAs, without agreement in advance with the retained arboricultural consultant.

The TPZs will at all times remain free of liquids, materials, vehicles, plant, and personnel, without agreement in advance with the retained arboricultural consultant.

Any liquid materials spilled on site will immediately be cleared up. If liquids are spilled within 2m of any TPZ or RPA, the incident will immediately be reported to the retained arboricultural consultant, to determine the appropriate response.

All damage to trees and other vegetation will immediately be reported to the retained arboricultural consultant, to determine the appropriate response.

T14
T15
T13
T12
T10
T9
T7
T5
T4
T3

Indicative line for tree protection that does not consider pedestrian routeing through the Site. Refined details to be provided with a detailed *Arboricultural Method Statement*.

N

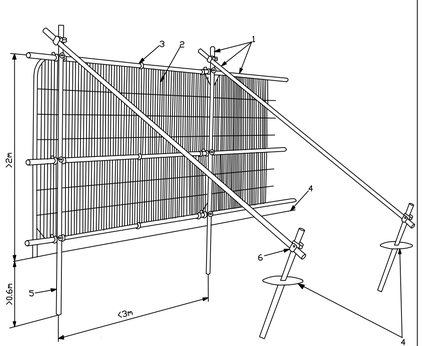
TREE PROTECTION AREA

KEEP OUT!

ANY INCURSION INTO THE PROTECTED AREA MUST BE WITH THE AGREEMENT OF THE LOCAL AUTHORITY OR ARBORICULTURAL CONSULTANT

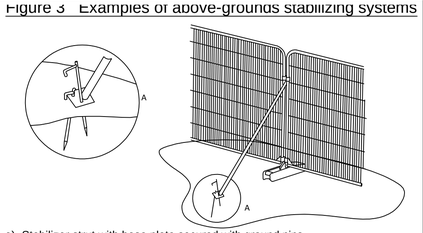
TIM MOYA ASSOCIATES 0845 094 3268

Figure 2 : Protective Fencing Specification

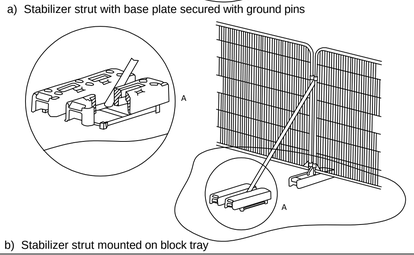


Key
1 Standard scaffold poles.
2 Heavy gauge 2m tall galvanized tube and welded mesh infill panels.
3 Panels secured to upright and cross-members with wire ties.
4 Ground level.
5 Uprights driven into the ground until secure (minimum depth 0.6m).
6 Standard scaffold clamps.

Figure 3 Examples of above-grounds stabilizing systems



a) Stabilizer strut with base plate secured with ground pins



b) Stabilizer strut mounted on block tray

The original of this drawing was produced in colour -a monochrome copy should not be relied upon.

BS 5837:2012 TREE RETENTION CATEGORIES

Category A
Trees of high quality with an estimated remaining life expectancy of at least 40 years.

Category B
Trees of moderate quality with an estimated remaining life expectancy of at least 20 years.

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.

Category U
Those in such a condition that the tree cannot realistically be retained as living trees in the context of the current land use for longer that 10 years.

Position of protective fencing and tree protection zones.

Area work-side of any barrier fencing (here shown indicatively) to be appropriately managed, in order to protect the soil environment beneath. Ground protection may be required, depending on point loads applied. No level reductions permitted, in principle. Any works to the work-side ground area to be undertaken under supervision by the project arboriculturist.

REV	DATE	DESCRIPTION	DRAWN
-	-	-	-

Base Drawing

0 1m 5m 10m 15m 20m

Title
Tree Protection for Demolition

Client
Lab Selkirk House Ltd

Project
Selkirk House, 1 Museum Street, 10-12 Museum Street, 35-41 New Oxford Street and 16A-18 West Central Street, London, WC1A 1JR

Date	Drawn by	Checked by
May 2022	HR	-
Drawing No	**Rev**	**Scale**
191004-P-22	-	1:200@A1

DO NOT SCALE Use only figured dimensions

TIM MOYA ASSOCIATES
The Barn, FeltimoresPark, Chalk Lane,Harlow, Essex CM17 0PF
0845 094 3268 | info@tma-consultants.co.uk
www.timmoyaassociates.co.uk
arboriculture ecology landscape innovation

ARBORICULTURAL METHOD STATEMENT

TREE WORKS

Only the tree works specified within this report may be undertaken, after the appropriate planning consents have been acquired and in order to implement the consent. In the event of any uncertainty regarding tree works, the retained arboricultural consultant will be consulted and where appropriate the Local Planning Authority.

All tree works will be undertaken, in accordance with the best-practice recommendations provided in BS 3998:2010. The statutory responsibilities as outlined in the Wildlife and Countryside Act 1981 (as amended) and the Habitat Regulations 2010 will also be complied with.

TREE PROTECTION FENCING

The tree protection fencing and (where appropriate) ground protection, will be installed as specified within this plan, prior to the commencement of any demolition and construction works. No plant or materials will be delivered to site prior to the construction of the tree protective fencing other than those required to install the tree protection fencing. On every third panel, a sign will be fixed that states "*Tree Protection Zone (TPZ). Keep out. Any incursion into this area must be agreed in advance with the retained arboricultural consultant and Local Planning Authority.*" An example of this sign is provided within this plan.

The position of the tree protection fencing must not be amended and no individual panels will be uncoupled, without the agreement of the retained arboricultural consultant and/or Local Planning Authority.

SERVICES AND DRAINAGE

The installation of drainage runs, manholes, storage tanks, and utilities will be positioned outside the root protection areas of retained trees. If the installation of new services and drainage runs are required within the root protection areas (RPAs) of retained trees, all methods of working will follow the guidance within Table 3 of BS 5837 or the National Joint Utilities Group's (NJUG) Guidelines for the planning, installation and maintenance of utility apparatus in proximity to trees (volume 4, issue 2).

Excavation works within the RPAs of retained trees will be undertaken manually with the use of hand tools only (under the supervision of the retained arboricultural consultant), unless otherwise agreed in advance by the retained arboricultural consultant. It is recommended that an air lance - and if required a soil vacuum - is used, to excavate service trenches within RPAs. If soil conditions are not suitable for this method of excavation, alternative hand tools can be used once agreed in advance by the retained arboricultural consultant.

All roots greater than 25mm in diameter will be retained and will immediately be wrapped in hessian or another appropriate material, to prevent desiccation and temperature fluctuations. Roots will be pushed aside to allow for runs to be installed, where this is practical and without causing root damage.

No machinery will be permitted within the TPZ, at any time, unless agreed in advance with the retained arboricultural consultant.

SITE SUPERVISION

Site supervision schedule to be determined within a detailed Arboricultural Method Statement, following the development of details relating to construction works.

GENERAL PROTECTION METHODS

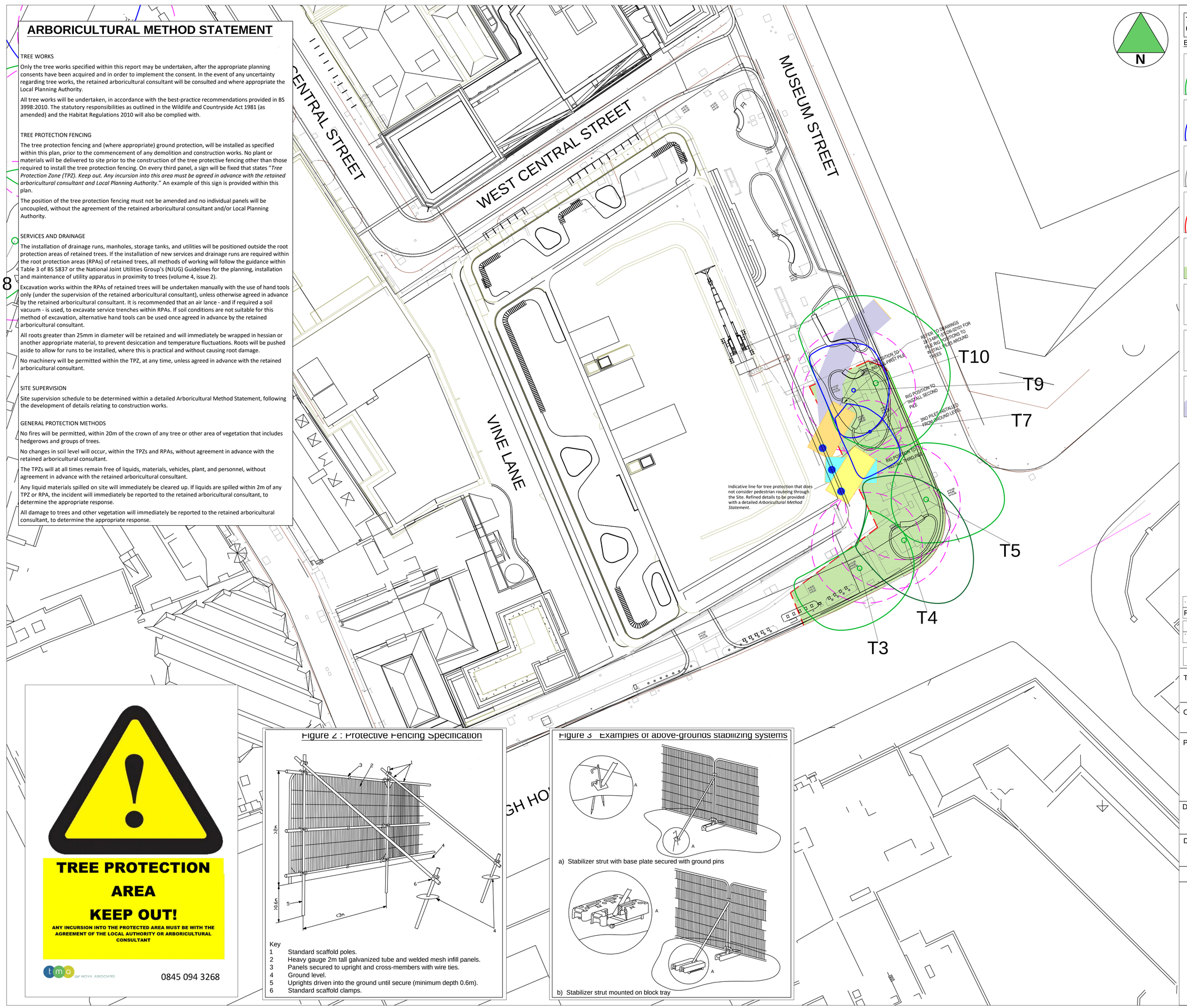
No fires will be permitted, within 20m of the crown of any tree or other area of vegetation that includes hedgerows and groups of trees.

No changes in soil level will occur, within the TPZs and RPAs, without agreement in advance with the retained arboricultural consultant.

The TPZs will at all times remain free of liquids, materials, vehicles, plant, and personnel, without agreement in advance with the retained arboricultural consultant.

Any liquid materials spilled on site will immediately be cleared up. If liquids are spilled within 2m of any TPZ or RPA, the incident will immediately be reported to the retained arboricultural consultant, to determine the appropriate response.

All damage to trees and other vegetation will immediately be reported to the retained arboricultural consultant, to determine the appropriate response.



The original of this drawing was produced in colour -a monochrome copy should not be relied upon.

BS 5837:2012 TREE RETENTION CATEGORIES

Category A
Trees of high quality with an estimated remaining life expectancy of at least 40 years.

Category B
Trees of moderate quality with an estimated remaining life expectancy of at least 20 years.

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.

Category U
Those in such a condition that the tree cannot realistically be retained as living trees in the context of the current land use for longer that 10 years.

Position of protective fencing and tree protection zones.

Location of piles within the RPA of retained trees.

Indicative rig position to install pile. Refined details to be provided with a detailed *Arboricultural Method Statement*.

Indicative route of rig into area. Refined details to be provided with a detailed *Arboricultural Method Statement*.

Figure 2 : Protective Fencing Specification

Key
1 Standard scaffold poles.
2 Heavy gauge 2m tall galvanized tube and welded mesh infill panels.
3 Panels secured to upright and cross-members with wire ties.
4 Ground level.
5 Uprights driven into the ground until secure (minimum depth 0.6m).
6 Standard scaffold clamps.

Figure 3 Examples of above-grounds stabilizing systems

a) Stabilizer strut with base plate secured with ground pins

b) Stabilizer strut mounted on block tray

-	-	-	-
REV	DATE	DESCRIPTION	DRAWN
Base Drawing			
-	13.05.22	295A-DSD-SITE-ZZ-DR-A-20.003	

0 1m 5m 10m 15m 20m

Title
Tree Protection for Construction

Client
Lab Selkirk House Ltd

Project
Selkirk House, 1 Museum Street, 10-12 Museum Street, 35-41 New Oxford Street and 16A-18 West Central Street, London, WC1A 1JR

Date	Drawn by	Checked by
May 2022	HR	-
Drawing No	**Rev**	**Scale**
191004-P-23	*	1:200@A1

DO NOT SCALE Use only figured dimensions

TIM MOYA ASSOCIATES
The Barn, FeltimoresPark, Chalk Lane,Harlow, Essex CM17 0PF
0845 094 3268 | info@tma-consultants.co.uk
www.timmoyaassociates.co.uk
arboriculture ecology landscape innovation

ARBORICULTURAL METHOD STATEMENT

TREE WORKS

Only the tree works specified within this report may be undertaken, after the appropriate planning consents have been acquired and in order to implement the consent. In the event of any uncertainty regarding tree works, the retained arboricultural consultant will be consulted and where appropriate the Local Planning Authority.

All tree works will be undertaken, in accordance with the best-practice recommendations provided in BS 3998:2010. The statutory responsibilities as outlined in the Wildlife and Countryside Act 1981 (as amended) and the Habitat Regulations 2010 will also be complied with.

TREE PROTECTION FENCING

The tree protection fencing and (where appropriate) ground protection, will be installed as specified within this plan, prior to the commencement of any demolition and construction works. No plant or materials will be delivered to site prior to the construction of the tree protective fencing other than those required to install the tree protection fencing. On every third panel, a sign will be fixed that states "*Tree Protection Zone (TPZ). Keep out. Any incursion into this area must be agreed in advance with the retained arboricultural consultant and Local Planning Authority.*" An example of this sign is provided within this plan.

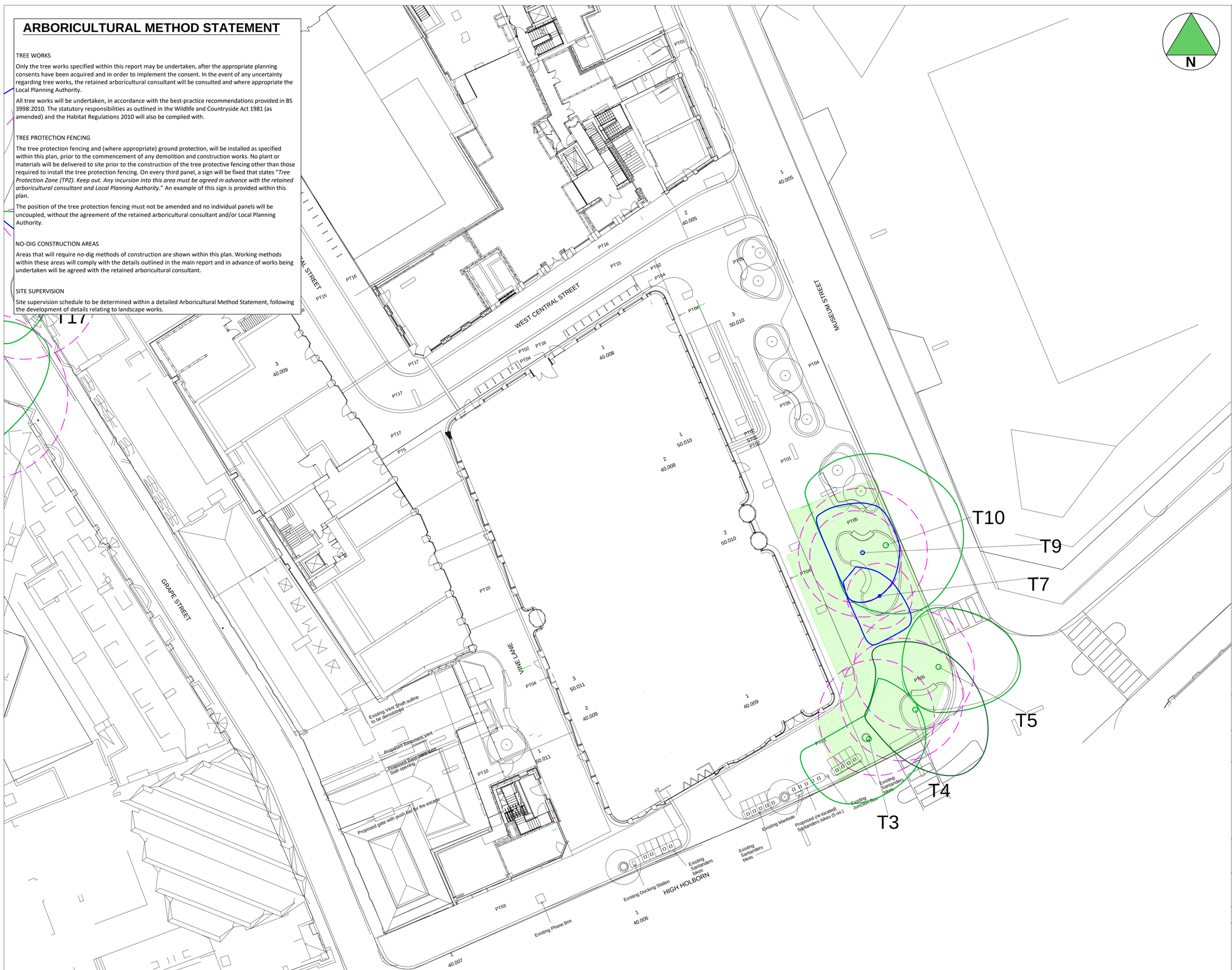
The position of the tree protection fencing must not be amended and no individual panels will be uncoupled, without the agreement of the retained arboricultural consultant and/or Local Planning Authority.

NO-DIG CONSTRUCTION AREAS

Areas that will require no-dig methods of construction are shown within this plan. Working methods within these areas will comply with the details outlined in the main report and in advance of works being undertaken will be agreed with the retained arboricultural consultant.

SITE SUPERVISION

Site supervision schedule to be determined within a detailed Arboricultural Method Statement, following the development of details relating to landscape works.



The original of this drawing was produced in colour -a monochrome copy should not be relied upon.

BS 5837:2012 TREE RETENTION CATEGORIES

Category A
Trees of high quality with an estimated remaining life expectancy of at least 40 years.

Category B
Trees of moderate quality with an estimated remaining life expectancy of at least 20 years.

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.

Category U
Those in such a condition that the tree cannot realistically be retained as living trees in the context of the current land use for longer that 10 years.

Manual works only under supervision by the project arboriculturist. No access for plant and vehicles. New surfaces and structures to be constructed upon a re-used subgrade as viable, avoiding level reductions beyond the existing subgrade. Works to pin or fix (e.g., by way of hand-screw piles) in new edges and structures to avoid tree roots in excess of 25mm diameter. Refined details to be provided within a detailed *Arboricultural Method Statement*.

REV	DATE	DESCRIPTION	DRAWN
-	-	-	-
Base Drawing			
-	13.05.22	295A-DSD-Site-00-DR-L-20.006	

0 1m 5m 10m 15m 20m

Title
Tree Protection for Landscape

Client
Lab Selkirk House Ltd

Project
Selkirk House, 1 Museum Street, 10-12 Museum Street, 35-41 New Oxford Street and 16A-18 West Central Street, London, WC1A 1JR

Date	Drawn by	Checked by
May 2022	HR	-
Drawing No	**Rev**	**Scale**
191004-P-24	-	1:200@A1

DO NOT SCALE Use only figured dimensions

TIM MOYA ASSOCIATES
The Barn, FeltimoresPark, Chalk Lane,Harlow, Essex CM17 0PF
0845 094 3268 | info@tma-consultants.co.uk
www.timmoyaassociates.co.uk
arboriculture ecology landscape innovation

APPENDIX B - Schedules

- 191004-PD-20 Tree Schedule
- 191004-PD-22 Tree Work Schedule

191004-PD-20 Tree Schedule

TIM MOYA ASSOCIATES

191004 - 1Selkirk House, 1 Museum Street, 10-12 Museum Street, 35-41 New Oxford Street and 16A-18 West Central Street, London, WC1A 1JR

Tree ID	No.	Species	Height (m)	Stem diameter (cm)	No. of Stems	CROWN SPREAD (m) N	NE	E	SE	S	SW	W	NW	Crown clearance (m)	L.B. (m)	Life stage	Condition Notes	Survey date	RPA (m^2)	RPR (m)	Life expectancy (yrs)	BS Category
Tree T1	1	Platanus x hispanica (London Plane)	17.0	47	1		9.0		9.0		8.0		7.0	2.0	5 N	Mature	Structural condition Fair. Physiological condition Good. Arboricultural work - Historic. Arboricultural work - Recent. Buttresses / buttress roots - Minor adaptive growth / moderate development. Competition - Adjacent trees. Decay / structural defect - Bole. Leaning trunk - Minor. Root environment - Restricted. Juxtaposition to building historically managed with lateral pruning to maintain a 2300mm clearance from elevation. RPA off-centred, to accomodate for likely rooting environment constraints from the public highway and adjacent building.	21/10/2019	99.9	5.6	20-40	B1/B2
Tree T2	1	Platanus x hispanica (London Plane)	14.0	18	1		1.0		4.79		4.0		3.0	5.0	3.8 E/W	Semi Mature	Structural condition Fair. Physiological condition Fair. Bark wound - Minor. Competition - Adjacent trees. Decay / structural defect - Base. Root environment - Restricted. Suppressed crown - Minor.	21/10/2019	14.7	2.2	10-20	C1/C2
Tree T3	1	Platanus x hispanica (London Plane)	20.0	53	1		6.5		6.0		8.0		7.0	5.0	6.5 N	Mature	Structural condition Fair. Physiological condition Good. Arboricultural work - Historic. Branch weight - Heavy. Buttresses / buttress roots - Minor adaptive growth / moderate development. Competition - Adjacent trees. Deadwood - Minor. Root environment - Restricted. Juxtaposition to building historically managed with lateral pruning to maintain a 3100mm clearance from elevation. RPA off-centred, to accomodate for likely rooting environment constraints from the public highway.	21/10/2019	127.1	6.4	40+	A1/A2

Stem **green** Estimated value
Stem **AVE** Average stem diameter for tree groups
Stem **COM** Combined stem diameter in accordance with BS5837
L.B. Height of lowest branch attachment (m) - where relevant

The survey information in this schedule has been gathered following a BS5837 survey for planning purposes. Where hazardous trees have been noted recommendations for works may have been made but this survey cannot be relied upon as a full health and safety assessment of the trees.

Generated By MyTREES tree management software

Tree ID	No.	Species	Height (m)	Stem diameter (cm)	No. of Stems	CROWN SPREAD (m) N	NE	E	SE	S	SW	W	NW	Crown clearance (m)	L.B. (m)	Life stage	Condition Notes	Survey date	RPA (m^2)	RPR (m)	Life expectancy (yrs)	BS Category
Tree T4	1	Platanus x hispanica (London Plane)	21.0	56	1		7.0		9.0		5.0		8.0	4.0	3.7 NW	Mature	Structural condition Fair. Physiological condition Good. Access to inspect base - Restricted / obscured. Arboricultural work - Historic. Base / stems obscured - Debris. Buttresses / buttress roots - Minor adaptive growth / moderate development. Competition - Adjacent trees. Deadwood - Minor. Root environment - Restricted. RPA off-centred, to accomodate for likely rooting environment constraints from the public highway.	21/10/2019	141.9	6.7	40+	A1/A2
Tree T5	1	Platanus x hispanica (London Plane)	21.0	55	1	6.5		9.0		5.0		4.0		8.0	7 NW	Mature	Structural condition Fair. Physiological condition Good. Arboricultural work - Historic. Buttresses / buttress roots - Minor adaptive growth / moderate development. Competition - Adjacent trees. Deadwood - Minor. Decay / structural defect - Bole. Girdling roots - Minor. Leaning trunk - Minor. Root environment - Restricted. Root damage - Evident / observed. Raised surface roots. RPA off-centred, to accomodate for likely rooting environment constraints from the public highway.	21/10/2019	136.8	6.6	40+	A1/A2
Tree T6	1	Platanus x hispanica (London Plane)	14.0	23	1	4.5		1.5		3.0		6.0		5.0	5 NW	Early Mature	Structural condition Fair. Physiological condition Fair. Arboricultural work - Historic. Competition - Adjacent trees. Deadwood - Minor. Leaning trunk - Minor. Root environment - Restricted. Suppressed crown - Minor. Unbalanced crown - Minor.	21/10/2019	23.9	2.8	10-20	C2
Tree T7	1	Platanus x hispanica (London Plane)	18.0	30	1		2.0		4.5		6.5		4.0	4.5	5 W	Early Mature	Structural condition Fair. Physiological condition Fair. Competition - Adjacent trees. Deadwood - Minor. Root environment - Restricted. Suppressed crown - Minor. Unbalanced crown - Major. RPA off-centred, to accomodate for likely rooting environment constraints from the public highway.	21/10/2019	40.7	3.6	20-40	B1/B2

Stem **green** Estimated value
Stem **AVE** Average stem diameter for tree groups
Stem **COM** Combined stem diameter in accordance with BS5837
L.B. Height of lowest branch attachment (m) - where relevant

The survey information in this schedule has been gathered following a BS5837 survey for planning purposes. Where hazardous trees have been noted recommendations for works may have been made but this survey cannot be relied upon as a full health and safety assessment of the trees.

Generated By MyTREES tree management software

Tree ID	No.	Species	Height (m)	Stem diameter (cm)	No. of Stems	CROWN SPREAD (m) N	NE	E	SE	S	SW	W	NW	Crown clearance (m)	L.B. (m)	Life stage	Condition Notes	Survey date	RPA (m^2)	RPR (m)	Life expectancy (yrs)	BS Category
Tree T8	1	Platanus x hispanica (London Plane)	10.0	24	1	1.0		7.5		3.5		2.2		3.0		Early Mature	Structural condition Fair. Physiological condition Fair. Arboricultural work - Historic. Competition - Adjacent trees. Deadwood - Minor. Epicormic growth - Bole / principal stems. Root environment - Restricted. Suppressed crown - Major. Unbalanced crown - Major. RPA off-centred, to accomodate for likely rooting environment constraints from the public highway.	21/10/2019	26.1	2.9	10-20	C2
Tree T9	1	Platanus x hispanica (London Plane)	21.0	42	1	5.5		4.0		5.5		7.5		5.0	6.5 W	Mature	Structural condition Fair. Physiological condition Fair. Arboricultural work - Historic. Buttresses / buttress roots - Minor adaptive growth / moderate development. Bark wound - Minor. Competition - Adjacent trees. Deadwood - Minor. Decay / structural defect - Bole. Leaning trunk - Minor. Root environment - Restricted. RPA off-centred, to accomodate for likely rooting environment constraints from the public highway.	21/10/2019	79.8	5.0	20-40	B1/B2
Tree T10	1	Platanus x hispanica (London Plane)	21.0	59	1		9.0		8.0		7.0		11.0	5.0	3.5 NW	Mature	Structural condition Fair. Physiological condition Good. Arboricultural work - Historic. Branch weight - Heavy. Buttresses / buttress roots - Minor adaptive growth / moderate development. Competition - Adjacent trees. Deadwood - Minor. Root environment - Restricted. RPA off-centred, to accomodate for likely rooting environment constraints from the public highway.	21/10/2019	157.5	7.1	40+	A1/A2
Tree T11	1	Acer pseudoplatanus cv. (Sycamore cv.)	8.5	18	1		5.0		5.0		5.0		3.0	3.5	2 NW	Early Mature	Structural condition Fair. Physiological condition Fair. Arboricultural work - Historic. Bark wound - Minor. Decay / structural defect - Base. Decay / structural defect - Bole. Root environment - Restricted.	21/10/2019	14.7	2.2	10-20	C1

Stem **green** Estimated value
Stem **AVE** Average stem diameter for tree groups
Stem **COM** Combined stem diameter in accordance with BS5837
L.B. Height of lowest branch attachment (m) - where relevant

The survey information in this schedule has been gathered following a BS5837 survey for planning purposes. Where hazardous trees have been noted recommendations for works may have been made but this survey cannot be relied upon as a full health and safety assessment of the trees.

Generated By MyTREES tree management software

Tree ID	No.	Species	Height (m)	Stem diameter (cm)	No. of Stems	CROWN SPREAD (m) N	NE	E	SE	S	SW	W	NW	Crown clearance (m)	L.B. (m)	Life stage	Condition Notes	Survey date	RPA (m^2)	RPR (m)	Life expectancy (yrs)	BS Category
Tree T12	1	Acer pseudoplatanus cv. (Sycamore cv.)	8.5	18	1	3.0		5.0		2.5		2.5		3.5		Early Mature	Structural condition Fair. Physiological condition Fair. Bark wound - Minor. Decay / structural defect - Base. Decay / structural defect - Bole. Root environment - Restricted.	21/10/2019	14.7	2.2	10-20	C1
Tree T13	1	Acer pseudoplatanus cv. (Sycamore cv.)	10.0	25	1		6.0		4.0		3.0		3.0	4.0		Early Mature	Structural condition Fair. Physiological condition Fair. Arboricultural work - Historic. Bark wound - Minor. Decay / structural defect - Base. Decay / structural defect - Bole. Root environment - Restricted.	21/10/2019	28.3	3.0	10-20	C1
Tree T14	1	Acer platanoides (Norway Maple)	9.0	16	1		3.0		4.0		3.5		3.0	3.5	3 NW	Semi Mature	Structural condition Poor. Physiological condition Good. Decay / structural defect - Base. Decay / structural defect - Extensive. Decay / structural defect - Bole. Root environment - Restricted.	21/10/2019	11.6	1.9	10-20	C1
Tree T15	1	Acer platanoides (Norway Maple)	7.0	9	1	2.0		2.0		2.0		2.0		3.0		Semi Mature	Structural condition Poor. Physiological condition Fair. Decay / structural defect - Base. Decay / structural defect - Extensive. Decay / structural defect - Bole. Root environment - Restricted.	21/10/2019	3.7	1.1	10-20	C1
Tree T16	1	Platanus x hispanica (London Plane)	21.0	76	1		11.0		3.5		8.0		12.0	7.0		Mature	Structural condition Fair. Physiological condition Good. Arboricultural work - Historic. Buttresses / buttress roots - Minor adaptive growth / moderate development. Competition - Adjacent trees. Deadwood - Minor. Leaning trunk - Minor. Root environment - Restricted. Structural impact - Footpath / highway / drive disturbance. Unbalanced crown - Major. Within the Bloomsbury Conservation Area.	21/10/2019	261.3	9.1	20-40	B1/B2

Stem **green** Estimated value
Stem **AVE** Average stem diameter for tree groups
Stem **COM** Combined stem diameter in accordance with BS5837
L.B. Height of lowest branch attachment (m) - where relevant

The survey information in this schedule has been gathered following a BS5837 survey for planning purposes. Where hazardous trees have been noted recommendations for works may have been made but this survey cannot be relied upon as a full health and safety assessment of the trees.

Generated By MyTREES tree management software

Tree ID	No.	Species	Height (m)	Stem diameter (cm)	No. of Stems	CROWN SPREAD (m) N	NE	E	SE	S	SW	W	NW	Crown clearance (m)	L.B. (m)	Life stage	Condition Notes	Survey date	RPA (m^2)	RPR (m)	Life expectancy (yrs)	BS Category
Tree T17	1	Platanus x hispanica (London Plane)	23.0	69	1		7.5		3.5		7.0		10.0	6.0	7 SW	Mature	Structural condition Fair. Physiological condition Good. Arboricultural work - Historic. Buttresses / buttress roots - Minor adaptive growth / moderate development. Competition - Adjacent trees. Leaning trunk - Minor. Root environment - Restricted. Structural impact - Footpath / highway / drive disturbance. Within the Bloomsbury Conservation Area.	21/10/2019	215.4	8.3	40+	A1/A2
Tree T18	1	Platanus x hispanica (London Plane)	22.0	76	1		9.0		4.5		11.5		7.5	5.0	5.5 NE	Mature	Structural condition Fair. Physiological condition Good. Arboricultural work - Historic. Buttresses / buttress roots - Minor adaptive growth / moderate development. Competition - Adjacent trees. Root environment - Restricted. Structural impact - Footpath / highway / drive disturbance. Within the Bloomsbury Conservation Area.	21/10/2019	261.3	9.1	40+	A1/A2

Stem **green** Estimated value
Stem **AVE** Average stem diameter for tree groups
Stem **COM** Combined stem diameter in accordance with BS5837
L.B. Height of lowest branch attachment (m) - where relevant

The survey information in this schedule has been gathered following a BS5837 survey for planning purposes. Where hazardous trees have been noted recommendations for works may have been made but this survey cannot be relied upon as a full health and safety assessment of the trees.

Generated By MyTREES tree management software

Table 1 of BS5837 (2012) **Cascade chart for tree 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 realistically be retained as living trees in the context of the current land use for longer than 10 years	* Trees that have a serious, irremediable, structural defect, 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 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 it might be desirable to preserve; see 4.5.7			**RED**
	1 Mainly arboricultural qualities	**2 Mainly landscape qualities**	**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	Tree that are particularly good examples of their species, especially if rare or unusual; or those that are essential components of groups or formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue).	Trees, groups or woodlands of particular visual importance as arboricutural and/or landscape features.	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture).	**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.	**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 150 mm	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 collective landscape value; and/or trees offering low or only temporary/transient landscape benefits.	Trees with no material conservation or other cultural value.	**GREY**

191004-PD-22 Tree Work Schedule

Selkirk House, 1 Museum Street, 10-12 Museum Street, 35-41 New Oxford Street and 16A-18 West Central Street, London, WC1A 1JR

TIM MOYA ASSOCIATES

ID	No. / Species	BS5837 Category	Purpose of works Recommended works	Status
T1	1 *Platanus x hispanica* London Plane	B1/B2	To facilitate development Fell - Ground level.	Proposed
T2	1 *Platanus x hispanica* London Plane	C1/C2	Landscape improvement Fell - Ground level.	Proposed
T3	1 *Platanus x hispanica* London Plane	A1/A2	To facilitate development Reduce crown by - Specified extent. Establish a 2.5-3m clearance between the elevation of the proposed development and the crown of this tree, by removing crown material not including first-order branches (i.e., to retain the prevailing architecture/form of the tree). Where existing pruning points exist and to which the crown can be pruned back, these points will comprise the locations of pruning rather than new points being created.	Proposed
T4	1 *Platanus x hispanica* London Plane	A1/A2	To facilitate development Reduce crown by - Specified extent. Establish a 2.5-3m clearance between the elevation of the proposed development and the crown of this tree, by removing crown material not including first-order branches (i.e., to retain the prevailing architecture/form of the tree). Where existing pruning points exist and to which the crown can be pruned back, these points will comprise the locations of pruning rather than new points being created.	Proposed
			To allow access for plant Lift low canopy - Specified extent. Establish a clearance of 11.5m from ground level, on the north-western crown aspect within the indicated location of the piling rig and a further buffer of 1m, to enable the operation of the piling rig beneath the crown. Only minor side laterals generally not exceeding 75mm in diameter will be removed, with branches being instead temporarily tied back, where it is possible to do so. The exact specification of pruning will have to be agreed on Site at the time of the rig being set up with the project arboriculturist, as it is not possible in advance to ensure that the appropriate crown management can be fully achieved.	Proposed
T6	1 *Platanus x hispanica* London Plane	C2	Landscape improvement Fell - Ground level.	Proposed

ID	No. / Species	BS5837 Category	Purpose of works Recommended works	Status
T7	1 *Platanus x hispanica* London Plane	B1/B2	To facilitate development Reduce crown by - Specified extent. Establish a 2.5-3m clearance between the elevation of the proposed development and the crown of this tree, by removing crown material not including first-order branches (i.e., to retain the prevailing architecture/form of the tree). Where existing pruning points exist and to which the crown can be pruned back, these points will comprise the locations of pruning rather than new points being created.	
			To allow access for plant Lift low canopy - Specified extent. Establish a clearance of 11.5m from ground level, on the western crown aspect within the indicated location of the piling rig and a further buffer of 1m, to enable the operation of the piling rig beneath the crown. Only minor side laterals generally not exceeding 75mm in diameter will be removed, with branches being instead temporarily tied back, where it is possible to do so. The exact specification of pruning will have to be agreed on Site at the time of the rig being set up with the project arboriculturist, as it is not possible in advance to ensure that the appropriate crown management can be fully achieved.	Proposed
T8	1 *Platanus x hispanica* London Plane	C2	Landscape improvement Fell - Ground level.	Proposed
T9	1 *Platanus x hispanica* London Plane	B1/B2	To facilitate development Reduce crown by - Specified extent. Establish a 2.5-3m clearance between the elevation of the proposed development and the crown of this tree, by removing crown material not including first-order branches (i.e., to retain the prevailing architecture/form of the tree). Where existing pruning points exist and to which the crown can be pruned back, these points will comprise the locations of pruning rather than new points being created.	Proposed
			To allow access for plant Lift low canopy - Specified extent. Establish a clearance of 11.5m from ground level, on the western crown aspect within the indicated location of the piling rig and a further buffer of 1m, to enable the operation of the piling rig beneath the crown. Only minor side laterals generally not exceeding 75mm in diameter will be removed, with branches being instead temporarily tied back, where it is possible to do so. The exact specification of pruning will have to be agreed on Site at the time of the rig being set up with the project arboriculturist, as it is not possible in advance to ensure that the appropriate crown management can be fully achieved.	Proposed
T10	1 *Platanus x hispanica* London Plane	A1/A2	To facilitate development Reduce crown by - Specified extent. Establish a 2.5-3m clearance between the elevation of the proposed development and the crown of this tree, by removing crown material not including first-order branches (i.e., to retain the prevailing architecture/form of the tree). Where existing pruning points exist and to which the crown can be pruned back, these points will comprise the locations of pruning rather than new points being created.	Proposed
T11	1 *Acer pseudoplatanus cv.* Sycamore cv.	C1	Landscape improvement Fell - Ground level.	Proposed

ID	No. / Species	BS5837 Category	Purpose of works Recommended works	Status
T12	1 *Acer pseudoplatanus cv.* Sycamore cv.	C1	Landscape improvement Fell - Ground level.	Proposed
T13	1 *Acer pseudoplatanus cv.* Sycamore cv.	C1	Landscape improvement Fell - Ground level.	Proposed
T14	1 *Acer platanoides* Norway Maple	C1	Landscape improvement Fell - Ground level.	Proposed
T15	1 *Acer platanoides* Norway Maple	C1	Landscape improvement Fell - Ground level.	Proposed

TIM MOYA ASSOCIATES

arboriculture ecology landscape innovation

The Barn, Feltimores Park, Chalk Lane, Harlow, Essex CM17 0PF

0845 094 3268 | info@tma-consultants.co.uk | www.timmoyaassociates.co.uk