21-31 NEW OXFORD STREET, LONDON

Planning condition 12 response report, considering feasibility and method statement for the protection and retention of 3 existing street trees (T22, 23 and 24) on New Oxford Street, London

Prepared for

21-31 NEW OXFORD STREET DEVELOPMENT LIMITED

by

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1.0 Introduction

1.1 Adams Habermehl have been commission by 21-31 New Oxford Street Development Limited to prepare an arboricultural feasibility and method statement report to address pre-commencement planning condition 12 of the LB Camden Planning Permission Ref. 2014/5946/P, for redevelopment of 21-31 New Oxford Street, London.

1.2 Condition 12 states:

Condition 12: Notwithstanding the recommendations of the submitted Landscape Statement, details of a report of feasibility and method statement for the protection during construction and retention of the 3 existing street trees (T22, 23 and 24) on New Oxford Street shall be submitted to and approved by the local authority in writing before any works of construction are commenced. Such details shall follow guidelines and standards set out in BS5837:2012 "Trees in Relation to Construction". The development shall thereafter not proceed other than in accordance with the approved details.

- 1.3 Adams Habermehl have previously prepared an arboricultural assessment of the same trees considered by Condition 12, following a survey in April 2014 and subsequent report in July 2014, that formed part of the planning application submission (attached as Appendix 1). The tree survey was prepared in accordance with guidelines from BS5837: 2012 'Trees in relation to design, demolition and construction. Recommendations'.
- 1.4 Trees 22-24 form a loose group along New Oxford Street and are described in the arboricultural report:
 - 2.5. There are 3 semi-mature sycamore trees to the highway edge of the New Oxford Street site frontage. The trees do not form part of the direct development site though it is feasible that they would be within an area sought for development enabling works such as scaffolding and protected / 'roofed' pedestrian pavements that are often the norm when building in close proximity to the street.
 - 4.6 Sycamore trees 22 to 24 on New Oxford Street are of variable quality and have been significantly crown pruned in the past to limit conflicts with the adjoining highway and passing traffic. These trees are spaced along the road and have a limited group effect which slightly enhances their individual categorisation. These trees are proposed to be replaced within the Gillespies masterplan and their replacement with better stock would be to the overall benefit of the street scene and street tree stock. It is recommended that proposed trees should be nursery prepared with sufficiently tall clear stems to avoid traffic impact and consequent remedial pruning.
- 1.5 As set out in the Appendix 1 report and summarised from the report tables:

Tree 22 is a Sycamore in fair condition with crown slightly lopsided to the west, suppressed by the site building and pruned to avoid traffic. This tree provides a partial group effect with trees 23 & 24. The tree is defined as Category C2 / C3, with a recommendation to retain or replace;

Tree 23 is a Sycamore in fair condition with a wide spreading crown. The leader has been removed and the tree has been crown pruned to avoid traffic. This

tree forms a partial group effect with trees 23 & 24. The tree is defined as Category C2 / C3 and recommendation is to retain or replace.

Tree 24 is a Sycamore in fair/poor condition. This tree has a heavily pruned crown to avoid traffic conflicts and provides a partial group effect with trees 22 & 23. The tree is defined as Category C2 / C3, with a recommendation to retain or replace.

- 1.6 Photos of the trees and context are included within the Appendix 1 arboricultural report. The tree locations, with their BS5837:2012 defined root protection areas are also shown in Appendix 1 plan 0534.1.1 Rev A, which formed the survey plan to the original arboricultural report.
- 1.7 This report considers the feasibility for tree retention, with consideration of requirements for retention or replacement of the three New Oxford Street trees. As will be set out, tree retention is not considered a practicable option within the current development process and consequently, a tree retention and protection method statement in line with B\$5837:2012 will not be appropriate. This report therefore provides broad recommendations and conclusions to address replacement planting proposals within the detailed design stages.

2.0 Existing trees in relation to development: feasibility for retention or replacement

- 2.1 The proposed final development building line to New Oxford Street remains broadly unchanged from the existing building line shown on Appendix 1 tree survey plan 0534.1.1 rev A. The survey plan shows the existing trees 22, 23 and 24 crown canopies, trunk positions and, their root protection line defined in accordance with BS5837:2012.
- 2.2 Access and offloading requirements for the proposed site demolition and development are very significantly constrained by highway requirements. Notwithstanding the existing street trees and, following consultation with LB Camden, the New Oxford Street frontage has been identified by the main contractor Laing O'Rourke (LOR) as the least constrained location for an offloading bay area for the tower cranes with the highest degree of activity, and providing the only practicable location for these development activities.
- 2.3 In addition to the built development of 21-31 New Oxford Street itself, LOR propose to build a colonnade to all street elevations and a gantry structure on the New Oxford Street elevation for the duration of the construction period. The colonnade and gantry is required to provide protection to the pavement and pedestrians, as well as allowing demolition and construction access to the development. The colonnade and gantry will also accommodate the erection of scaffolding, supporting construction site cabins and will provide a craning point and a protective bridge over the pavement for offloading materials arriving by lorry, to minimise materials handling at street level.
- 2.4 The colonnade and gantry proposals have been developed by LOR and are shown in their Logistics Layout Construction plan TPB-LOR-SK-002. The LOR proposals have been discussed with LB Camden and are attached at Appendix 2 to inform considerations for tree retention / removal.

- 2.5 The Appendix 2 illustrations show the colonnade and gantry location (subject to approval of LBC) bridging the pedestrian pavement to the New Oxford Street frontage. The structure is set over the location of all three street trees or their crowns. Whilst providing a pavement bridge, the colonnade and gantry could not practicably be built high enough to clear the 6m tree crowns whilst maintaining its construction function.
- 2.6 Trees 22, 23 and 24 are semi mature age class but are not high quality street trees. Their condition and establishment growth has been constrained by their challenging street environment and they have undergone past crown reduction works to accommodate traffic movement. In current circumstances it is not feasible to attempt to retain these trees within a methodology that would concur with BS5837:2012. At the same time, attempts to retain these trees would be a significant constraint to the development process whilst providing little benefit to the street scene or arboricultural resource of the area.

3.0 Replacement planting opportunities

- 3.1 The Gillespies landscape masterplan submitted with the original planning application recognised the vulnerability, difficulty of retention and limited value of the current trees, and proposed replacement of the existing tree stock at that time (a copy of the masterplan is contained within the Appendix 1 arboricultural report). The masterplan proposals have now been refined to provide a General Arrangement plan (OX5160 1-100) for landscape and public realm works and this is included in draft form at Appendix 3.
- 3.2 The Gillespies General Arrangement proposals omit the 3 existing trees and propose 4 new trees, evenly spaced along the New Oxford Street frontage. This addition closes the frontage gap in the planting and provides an improved relationship of trees to streetscape. At a more detailed level, introduction of new trees will allow optimal placing of trees in relation to proposed retail entrances to assist building legibility and pedestrian circulation, as well seeking 'best fit' with established and proposed service runs.
- 3.3 Whilst the General Arrangement provides scheme development, it is understood that LB Camden will be undertaking the detailed landscape / public realm design and implementation. It is noted that the planning obligations provide contributions for public realm and highway works, including identified street tree budgets. The landscape budgets appear comprehensive and the project timetable allows approximately 2 years before street tree planting will be able to take place. It would be reasonable to assume that replacement trees could be pre-ordered as semi-mature stock (at least 20-25cm girth, 4.5-5.5m tall), with the supplying nursery preparing the trees as tall clear stem specimens to avoid vehicle impact and provide an amenity benefit and enhanced arboricultural resource to the street scene.
- 3.4 It is commonly known that some tree species can thrive in harsh urban conditions and accommodate management by pruning better than others. London Plane is such a species, with notable local trees including the group of

London Planes on Museum Street, and with the potential to be used as the replacement planting species on New Oxford Street. However, it is not the purpose of this report to put forward detailed design proposals, with that work having been undertaken by Gillespies and future public realm design and choice of tree species to be by undertaken by LB Camden. The nature of proposed street tree planting on New Oxford Street, Museum Street and its adjacent public realm paved area should allow LB Camden to identify appropriate species to create an immediate sense of place, as well as contributing to LB Camden's broader street corridor or borough-wide arboricultural strategies.

3.5 Whilst a robust species, the existing New Oxford Street sycamore trees have failed to thrive. Their condition will be in part due to hostile growing conditions, with likely limited rooting capacity or opportunity for water and oxygen exchange to the root zone. The development process includes re-paving to the whole of the New Oxford Street frontage, including removal of the site access road and resetting kerbs as required. Given the extent of the repaving works and budgets, there should be clear opportunity to provide significantly enhanced tree establishment and growing conditions through use of proprietary and comprehensive paved area tree planting systems such as Arbor System - Strata Cell by Green Blue Urban – http://greenblueurban.com/product_item/stratacell/; Deep Root Silva Cell

http://www.deeproot.com/products/silva-cell/applications,

4.0 Conclusions

comparable measures.

- 4.1 Planning Condition 12 requires details of a report of feasibility and method statement for the construction stage protection (in line with BS5837:2012) and subsequent retention of trees 22, 23 and 24 on New Oxford Street.
- 4.2 The arboricultural assessment (Appendix 1) submitted with the original planning application found trees 22 to 24 to be of limited value and supported their replacement. The landscape masterplan (within Appendix 1) submitted as part of the application proposed that the trees would be replaced as part of the development. The main contractor has carefully considered requirements for demolition and development and, following broader consultation with LB Camden over layout construction requirements, has determined that retention of the three trees is not feasible within the context of the wider approved development.
- 4.3 Whilst retention of the existing trees is not considered feasible, the project General Arrangement design (Appendix 3) proposes replacement of the 3 poor quality street trees with a better arrangement of 4 trees spaced along the New Oxford Street frontage.
- 4.4 LB Camden are taking forward the detailed public realm and broader street tree design. LB Camden's \$106 budgets include sums for public realm improvements and street tree planting. There is a 2 year period until new street tree planting would take place allowing time for detailed design and nursery

other

preparation of suitable trees. This process allows clear opportunities for design development for a better street tree layout with: considered species choice; use of nursery prepared semi-mature stock; improved tree planting pits and supporting elements to promote tree establishment and positive growth. Whilst retention of trees 22, 23 and 24 is not considered feasible, the scheme includes replacement tree planting which is expected to provide enhanced amenity and arboricultural resource.

Appendix 1	
Adams Habermehl Tree survey July 2014	

21-31 NEW OXFORD STREET ARBORICULTURAL REPORT

Prepared for

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1.0 Introduction

- 1.1 Adams Habermehl have been commission by New Oxford Street Ltd to prepare an assessment of trees to the street frontage surrounding the former Royal Mail sorting office at 21 to 31 New Oxford Street, London. A planning application is to be submitted for the development of the site. The building block has frontages on to High Holborn, Museum Street and, New Oxford Street. Of relevance to this study, the development proposals include localised revisions to the building footprint, and public realm designs to enhance the surrounding streetscape.
- 1.2 An existing topographic survey base showing the existing building footprint, existing street trees and immediate context forms the basis of Figure 1 (providing the tree survey base). Public realm masterplan proposals prepared by Gillespies (Appendix 1) show the proposed building footprint, with design changes to the surrounding streetscape.
- 1.3 The tree survey was carried out in April 2014, in general accordance with the guidelines for tree surveys from sections 4.4 to 4.6 of BS5837: 2012 'Trees in relation to design, demolition and construction. Recommendations'. Reference is made to individual trees in relation to their current condition and an overall grade (U and A to C) is recorded. A more detailed description of the grading is provided in section 3 below, with assessment of individual trees in Table 1 and associated survey drawing as Figure 1.
- 1.4 Full built development details have not been prepared at the time of writing this survey, and this survey does not seek to provide a method statement for protection of trees or carrying out any development in relation to the tree stock.

2.0 General site and tree conditions, and development proposals

- 2.1 Unlike much of the nearby urban context to the north-west, north and east; the site and street frontage areas are not covered by Conservation Area status. The street trees are all in the public realm and are understood to be owned and managed by the London Borough of Camden.
 - High Holborn
- 2.2 The High Holborn site frontage has a broad pavement, and a line of young / young semi-mature sycamore trees along the pavement centre line. However, a significant section of the pavement is in the ownership of 21-31 (the development site) and that building projects at first floor level to over-sail the pavement.
- 2.3 The High Holborn trees are also planted within the 21-31 plot ownership line. As shown in Appendix 1, the proposed planning application

intends to extend the building footprint to the ownership site boundary, requiring the removal of the on-site street trees.

Museum Street

2.4 There are no trees to the site frontage on Museum Street, though there are 3 tree groups to the western side of the street. Those groups consist of a major group of mature and semi-mature London plane trees, a smaller line of semi-mature sycamore and, two recently planted Norway maple. The survey records these trees and, whilst these trees are not on the development site, they form part of a wider street area being proposed for public realm improvement works

New Oxford Street

2.5 There are 3 semi-mature sycamore trees to the highway edge of the New Oxford Street site frontage. The trees do not form part of the direct development site though it is feasible that they would be within an area sought for development enabling works such as scaffolding and protected / 'roofed' pedestrian pavements that are often the norm when building in close proximity to the street.

3.0 Arboricultural assessment

3.1 The key to the survey is as follows:

Species: Common name and (bracketed) Latin name

Height (m): Approximate height in metres (as defined by the topographic survey)

DBH (m): Trunk diameter at breast height (1.5m above GL) in metres

Spread (m): Approx. diameter of branch spread in metres to north, south, east and west taken from ground level and the trunk base.

Branch height: Approx. height above ground level to first significant branch

Canopy height: Approx. height above ground level to main tree canopy

Age / Life stage eg: Imm -Immature; SM - Semi-mature; M - Mature; OM - Over mature

Vigour: H – High; N – Normal; L - Low

Remaining effective contribution - life span in years and overall condition: G-Good; F-Fair; P-Poor;

BS5837 categorisation and summary recommendation necessary for development;

Root protection area proposed to meet the requirements for root zone protection under BS3837;

Radial distance for root protection areas from the centre of the tree stem in line with the BS5837 methodology.

3.2 Grade: Trees are graded in accordance with BS 5837:2012 and their location indicated in the 'arboricultural assessment plan'. Grades U, A-C are summarised from the fuller BS description as follows:

Trees unsuitable for retention:

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. These are coloured dark red on plan;

Trees to be considered for retention:

Category A Trees of high quality with an estimated remaining life expectancy of at least 40 years. These are coloured light green on plan:

- A1 Mainly arboricultural qualities
- A2 Mainly landscape qualities
- A3 Mainly cultural qualities including conservation

Category B Trees of moderate quality with an estimated remaining life expectancy of at least 20 years. These are coloured mid blue on plan:

- B1 Mainly arboricultural qualities
- B2 Mainly landscape qualities
- B3 Mainly cultural qualities including conservation

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. These trees are coloured in grey on plan:

- C1 Mainly arboricultural qualities
- C2 Mainly landscape qualities
- C3 Mainly cultural qualities including conservation

4.0 Assessment findings

- 4.1 The tree survey tables (Table 1) provide detailed of individual trees and the text below provides a response to the survey in the context of the proposed development.
- 4.2 High Holborn trees 1 to 8 are a line of sycamore and, under normal circumstance could be expected to form large growing trees with a full crown. However, the existing trees are significantly suppressed by the over-sailing building, through physical impediment to normal crown development and, to a possibly lesser degree, by light / rain over-shading. Crown development also appears to have been limited by ongoing street tree management to maintain building and road clearance and a relatively compact crown. The resulting trees are in

- poor condition with poor crown form, and could not grow to meet their natural potential. The proposed development will result in the removal of these trees.
- 4.3 The Group of London plane trees 9-16 at the junction of Museum Street and High Holborn are key trees in this area; in terms of their stature, condition and benefit to the street scene. Whilst one tree (T12) has been felled relatively recently, this group appears likely to remain as a beneficial group over the longer term. The proposed development would not directly impact on these trees, though appropriate care will be needed in protecting the crown during building construction. Though the building development is remote from the root protection area, the Gillespies public realm masterplan shows both re-paving and establishment of a soft landscape zone within this area. Given that the area is already fully paved, no additional primary impacts are likely, but the detailed design and construction process will need to be undertaken with care to safeguard these trees.
- 4.4 The group of 3 sycamore trees 17-19 on Museum Street are in relatively poor condition, with two having significant bark wounds to the lower trunk. All these trees have relatively poor crown form, especially considering their theoretically unimpeded space to develop. These trees form a group which gives them a slightly greater collective value than their individual categorisation. Whilst trees 17-19 could be retained, the Gillespies masterplan takes the opportunity to replace this poor stock as part of a comprehensive re-planting and re-paving programme. Replacement of these poor trees with better stock, detailed to ensure positive planting conditions; adequate tree protection and; long term establishment, would be likely to provide clear enhancement to the street tree stock and amenity of this area.
- 4.5 Norway maple trees 20 and 21 appear to have been planted in the last 1-2 years; are in good condition and have the space to develop. However, the Gillespies masterplan proposals replace this planting as part of the comprehensive design response, to the overall betterment of the street tree stock.
- 4.6 Sycamore trees 22 to 24 on New Oxford Street are of variable quality and have been significantly crown pruned in the past to limit conflicts with the adjoining highway and passing traffic. These trees are spaced along the road and have a limited group effect which slightly enhances their individual categorisation. These trees are proposed to be replaced within the Gillespies masterplan and their replacement with better stock would be to the overall benefit of the street scene and street tree stock. It is recommended that proposed trees should be nursery prepared with sufficiently tall clear stems to avoid traffic impact and consequent remedial pruning.

5.0 Limitations of survey

- 5.1 The tree survey involved brief visual inspection of the identified trees from ground level in order to record the trees' amenity value, general condition and dimensions. Where observed, the general condition of trees has been noted. Trees are complex living organisms. The range of features evident at the time of inspection may not provide a complete picture of the condition, health or future safety of a tree. Trees are subject to and respond continually to a wide range of biological and environmental factors and the nature of these responses change over time.
- 5.2 Therefore the conclusions and recommendations made in this report reflect an assessment at a point in time on the basis of the features which were visible at the time of inspection. The survey does not constitute a full arboricultural condition assessment involving the detailed inspection of trees in relation to their structural condition, decay and any other physical and pathogenic defects.
- 5.3 Trees should be re-inspected periodically to ensure that future changes in their condition, structural performance or the nature and use of their surroundings are identified and assessed.

Radial distance for RPAs from centre of stem (m)	2.76	9.0	9.0	2.4	2.04	1.32
Root Protection Area (RPA in m2)	23.93	1.13	1.13	18.09	13.07	5.47
BS5837 category and recommendations necessary for development	C2/C3 retain or replace	C2 / C3 retain	C2 / C3 retain	C2 / C3 retain or replace	C2 / C3 retain or replace	C2/C3 retain or replace
Comments	Lopsided and pruned crown, space to develop. Part of group.	Newly planted tree. Good crown. Space to develop and good potential	Newly planted tree. Good leader and crown. Space to develop and good potential	Crown slightly lopsided to west, suppressed by the site building and pruned to avoid traffic. Partial group effect with 23 & 24.	Wide spreading crown. leader removed, crown pruned to avoid traffic. Partial group effect with 22 & 24.	Heavily pruned crown to avoid traffic conflicts. Partial group effect with 22 & 23.
Remaining Contribution in Years; & Physiological Condition	20 Fair	20+ Good	20+ Good	20 Fair	10 - 20 Fair	10-20 Fair / poor
Vigour	Z	z	z	Z	Z	Z
Age	SM	<u>E</u>	<u>E</u>	SM	SM	SM
Cleara nce of canopy above GL(m)	4	က	က	4	4	2.5
branch ht. (m) from stem	4	2	2	2	2.5	2
Crown spread W (m)	3	.5	.75	2	3.5	2
Crown spread E (m)	4	.5	.75	3	3.5	2
Crown spread S (m)	1.5	.5	.75	င	3.5	1.5
Crown spread N (m)	4	.5	.75	2	3.5	1.5
Stem Diamet er(cm) @1.5m above ground	23 cm	5 cm	5 cm	20 cm	17 cm	11 cm
Height (m)	6	5	5.5	10	9	4
Species and type–MS=Mulls stemmed	Sycamore (Acer pseudoplatanus)	Norway maple (Acer platanoides)	Norway maple (Acer platanoides)	Sycamore (Acer pseudoplatanus)	Sycamore (Acer pseudoplatanus)	Sycamore (Acer pseudoplatanus)
o Z	19	20	21	22	23	24







Tree 1

Tree 2

Tree 3







Tree 4

Tree 5

Tree 6







Tree 7

Tree 8

Tree group 9-16



Tree group 9-16



Tree 17



Tree 18



Tree 19



Tree 20



Tree 21



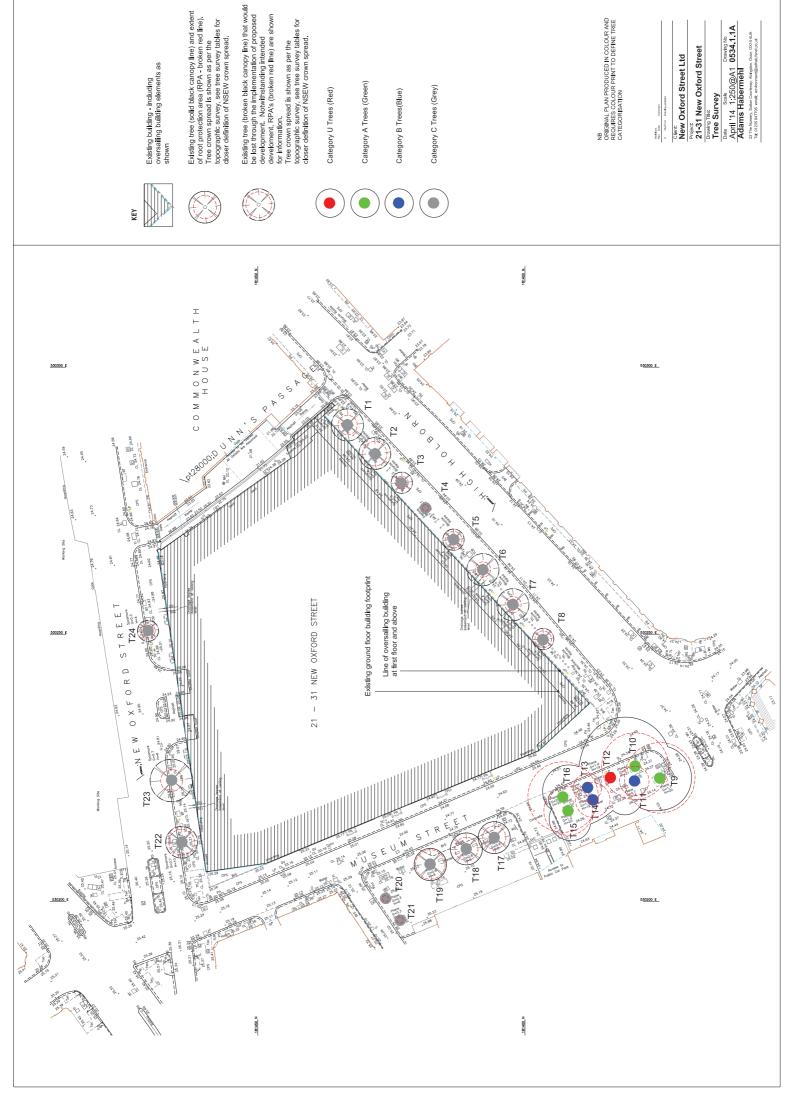




Tree 23



Tree 24



Appendix 1 Public Realm Masterplan. Gillespies 23.07.2014

21-31 New Oxford Street Adams Habermehl Arboricultural Report e/pj/0534/ 28th July 2014

