Expansion of Kingsgate Primary School and Redevelopment of Liddell Road

Aboricultural Impact Assessment

Submitted in support of
Application 01 for Phase 01
Application 02 for Phase 02
December 2014

Camden

London Borough of Camden
Kingsgate Primary School

1. Introduction

1.1 This report contains a detailed analysis of the likely impact upon existing trees of the proposed phased re-development of the Liddell Road Industrial Estate, Maygrove Road, London NW6 2EW, within and adjacent to the red line boundary of the site.

1.2 The report considers the health and safety of the trees under their current growing conditions and measures the likely impact of the proposed development measured against the advice and guidance set out in *BS5837 2012: Trees in relation to design, demolition and construction – Recommendations.*

1.3 The original site inspection for the tree survey on which this report is based took place on the afternoon of Tuesday 25 and the morning of Wednesday 26 March 2014 in overcast but dry conditions. Data checks were made on Tuesday to Wednesday 19 to 21 August and Wednesday 10 September 2014 in dry, sunny conditions on all occasions.

1.4 This report was commissioned by Kate Cornwall-Jones the client's Project Manager in an email dated 21 March 2014.

1.5 The **Tree survey schedule** and **Tree survey plan** in **Appendix a** cover a total of 163 trees standing within Liddell Road Industrial Estate, in adjacent Maygrove Peace Park, on an area of community open space between the Liddell Road Industrial Estate and Maygrove Road (referred to below as the Maygrove Road Bank), on private land to the south of Liddell Road Industrial Estate (T042C), on and adjacent to the northern embankment of the railway lines running along the northern boundary of the site, and within the footpaths on both sides of Maygrove Road.

1.6 This analysis refers only to trees within influencing distance of the proposed development however, 92 trees in total, of which 33 are within the red line boundaries of its 2 stages.

1.7 At time of commissioning I was provided with digital OS data in dwg format covering the Liddell Road Industrial Estate and surrounding areas. On 13 June 2014 I was issued with a digital (dwg) copy of APR Services Drawing No. 914153 2 – Liddell Road Land Survey. A revised final version (Revision C) was issued on 24 June 2014.

1.8 Subsequently I have been issued with a full set of proposed design drawings by Mc Creanor Lavington Architects and JCLA Landscape Architects, the project architects and landscape architects respectively.

1.9 The **Tree survey plan** in **Appendix a** is based on APR Services Drawing No. 914153 2 Revision C and upon on-site measurements. The **Tree constraints** and **removals plans** also in **Appendix a** are based on JCLA Drawing No. KL037.D.01.LP.Rev E - Kingsgate Liddell Landscape Plan issued on 25.11.14.

2. Background information

2.1 Site layout, boundaries and topography

2.1.1 With one exception (042C – Field Maple), all the trees referred to in this analysis stand on land owned and managed by the London Borough of Camden.

2.1.2 The **Tree survey plan** in **Appendix a,** which is based on the full topographical survey referred to in 1.9 above, shows tree locations under existing conditions.

2.2 Geology and soils

2.2.1 According to British Geological Survey open-source data the site is situated upon deep Palaeogene London Clay bedrock. It is likely, however, that the surface layer of much of the total area is Made Ground.

2.2.2 No soil sampling was carried out on site.

2.3 Planning constraints

2.3.1 The property is not within a Conservation Area

2.3.2 None of the trees referred to in this report are covered by a Tree Preservation Order (TPO).

2.4 The trees

2.4.1 The **Tree survey schedule** in **Appendix a** describes 163 trees or tree groups but the impact analysis in Section 3 of this report covers only part of the total resource, that is 92 trees that are within influencing distance of the two separate stages of the proposed development. 33 of these are within the red line boundaries of the combined development. The remaining 59 stand outside but close to the site boundary.

2.4.2 The notes immediately below refer to the total resource of 163 trees and tree groups. Because they stand on several different sites of different types, whole-resource statistics with regard to age structure, species composition and visual amenity value are likely to be misleading. The component parts of the total tree resource are therefore considered separately below

2.4.3 The whole tree resource can be conveniently divided into 5 separate component parts:

- Trees on the Maygrove Road Bank and adjacent private land (T042C) (Trees 001 – 045 inclusive)
- Trees within the boundary of Liddell Road Industrial Estate (Trees 046 – 070 inclusive and 079)
- Trees within Maygrove Peace Park (Trees 071-078A and 080-124 inclusive)
- Trees immediately to the north of the railway lines that run along the northern boundary of the combined sites (Trees 125-134 inclusive)
- Trees within the footpaths bordering Maygrove Road (Trees 135-157 inclusive)

Maygrove Road Bank (Trees 001 – 045)

2.4.4 The Maygrove Road has a diverse structure with an upper canopy comprised principally of mature Grey Poplars (*Populus canescens*), Sycamore and a single Lombardy Poplar (*Populus nigra 'Italica'*).

2.4.5 Between April and August 2014, London Borough of Camden parks department, which is responsible for the management of this area of public open space, has removed a number of leaning and decayed stems flagged up in an earlier version of this survey (April 2014). As a result the main framework of the tree resource is now very coherent and no urgent maintenance works are required.

2.4.6 Below the upper canopy there is a diverse mixture of younger tree species including a fine Hornbeam (T037), a Field Maple (T030) and a Red Oak (T031) all with very good potential

2.4.7 There is also a vigorous understorey, rather patchily distributed, but with some fine groups of Holly that provide year-round screening between the residents of the houses in Maygrove Road and the Liddell Road Industrial Estate.

2.4.8 All the elements required for the successful perpetuation of this valuable tree resource are in place – a healthy upper canopy component with a rather narrow species range but with no urgent maintenance requirements, a diverse mixture of established, future-upper-canopy trees and a vigorous understorey.

2.4.9 Bearing in mind the significant changes that proposed development within the boundaries of the Liddell Road Industrial Estate will bring to the residents of the houses in Maygrove Road, reinforcing the understorey layer must be a major priority. Shade bearing evergreen species, particularly those that flower freely (Laurustinus (*Viburnum tinus*) for example) or bear berries (larger *Cotoneasters* and female Hollies), are an obvious choice. There are existing spaces for additional understorey planting.

2.4.10 It is important to continue the process of establishing the next generation of upper canopy trees. There is potential at the east end of the bank to gradually remove some of the less vigorous trees (decrepit Wild Cherry T001 and Horse Chestnut T002 for example) and replant with choices from a wider range of species.

2.4.11 Field Maple 042C standing on adjacent private land is a valuable feature tree.

2.4.12 There are patches of Japanese Knotweed in the immediate vicinity of Trees 036 and 042C. As long as no excavated material in the vicinity of these 2 infestations is removed from or re-used within the proposed development site, the outbreak can be treated in situ using approved-for-this-use systemic herbicides.

Liddell Road Industrial Estate (Trees 046-070 and 079)

2.4.13 The entrance to the estate is bordered by several different groups of, mainly ornamental, species - T046 (6 Purple Leaved Plums), T047-049 (3 young Horse Chestnuts) and T050-052 inclusive (3 Wild Cherries).

2.4.14 There is a regularly spaced line of middle aged Claret Ash (*Fraxinus oxycarpa 'Raywood'*) trees running along the full length of the estate. These trees are in variable condition and some, at least, may not respond well to change in their immediate vicinity (spreading branch systems combined with a tendency to shed limbs in later years, typical of the variety). They provide welcome visual amenity benefits within the estate but are not visible in the wider landscape as they are screened from view by the parallel lines of workshops).

Maygrove Peace Park (Trees 080-124)

2.4.15 The tree population within this part of the survey area is vigorous and diverse with a good age structure, weighted a little toward the older age classes.

2.4.16 Of particular note are Maple and Lime group T071 – 078A, standing in a fenced enclosure abutting the Liddell Road Industrial Estate. These trees constitute a critical visual buffer between the park and the workshop units and should not be sub-divided or disturbed unnecessarily.

2.4.17 Within the park proper, London Planes T092 and 099, False Acacia group T093-096, Evergreen Oak group T097, 098 and 100, Silver Maples T101-103 and Horse Chestnuts T105 and 106 all deserve special mention.

Trees to the north of the railway line (Trees 125-134)

2.4.18 The tree resource described in this section is in many ownerships and has no common character. The most prominent component is a group of middle aged Sycamores of natural origin (T 134) within the railway boundary fence.

Maygrove Road street trees (Trees 135-157)

2.4.19 Another diverse component within the resource as a whole, with a fine London Plane (T145), some still vigorous but rather unruly (massive lank spreading crowns over the highway) Claret Ashes (T136-138 and141), a much-reduced Tree of Heaven (*Ailanthus altissima* T153) and a number of young to middle-aged replacements including Hybrid Cockspur Thorn, Field Maple and Rowan.

2.5 The proposed development

2.5.1 The re-development proposals discussed in this report are in two separate stages referred to below as Phase 1 and Phase 2. Each phase will be submitted as a separate planning application as follows:

- Application 1 - Phase 1 of a comprehensive, mixed-use redevelopment of the site, involving demolition of existing buildings, site clearance and site preparation (enabling) works. Construction of new school buildings for Kingsgate Primary School for pupils aged 3 to 7 years old, creation of a new access road, associated car parking and implementation of temporary landscaping works.

- Application 2 - Phase 2 of a comprehensive, mixed-use redevelopment involving the construction of three new buildings: building 1 (5 storeys) and building 2 (11 storeys) to provide 106 mixed tenure residential units (Class C3) and building 3 (5 storeys) to provide 3,700 sq. m (GIA) of mixed commercial use (Class B1) and associated public realm and landscaping works.

2.5.2 All the likely impacts upon existing trees discussed in this analysis will however, take place in the course of the Phase 1 construction programme which includes enabling works for both the Phase 1 and the Phase 2 sites. The **Tree constraints and removals plans** in **Appendix a** show the Phase 1 Scheme including enabling works (Drawing No. 258.02.01A) and the Phase 1 and 2 schemes combined (Drawing No. 258.02.02A). For the avoidance of doubt, JCLA Drawing No. KL037.D.08.TLP.RevF also in **Appendix a** shows the extent of the enabling works.

3. Impact analysis

3.1 General

3.1.1 The anlysis below refers to the following trees:

- Maygrove Road Bank: Trees 001 – 045 (40 trees in total allowing for tree removals carried out as part of routine management since the site inspection for the survey on which this report is based was carried out) plus one tree (T042C – Field Maple) standing on private land immediately to the west of the western end of the Maygrove Road Bank.
- Liddell Road Industrial Estate: Trees 046-070 inclusive and 079 (26 trees or tree groups)
- Maygrove Peace Park: Trees 071-078A (9 trees)
- Maygrove Road street trees: Trees 135-143 and 151-157 (16 trees)

3.1.1 The **Tree constraints and removals plan** in **Appendix a** of this report shows the Root Protection Area (RPA) of each tree to be retained as defined in *BS5837:2012,* adjusted where appropriate for known barriers to the spread of roots.

3.1.2 In this respect it has been assumed that extent of root spread beneath the carriageway of Maygrove Road and the footprints of existing permanent structures will be limited to 1000mm. The same has been assumed of the boundary wall running parallel to Maygrove Road along the southern boundary of the Liddell Road Industrial Estate.

3.1.3 The proposals described in this report were discussed at a meeting on site on Tuesday 14 October attended by officers from London Borough of Camden's planning, trees and open spaces departments. The proposed layout was subsequently modified in response to comments by officers (the retention of T60, previously scheduled for removal, for example).

3.2 Trees to be removed

3.2.1 **Table 1** overleaf lists 23 trees to be removed for the purposes of the development.

Tree 001 and 040-044 inclusive

3.2.2 The reasons for the proposed removal of T001 and T040-044 are interrelated. Trees 040-044 inclusive are to be removed for the purpose of constructing the main site access to the proposed development from Maygrove Road and this will result in a reduction in the total area of the Maygrove Road Bank at its western end. The proposed provision of an additional area of public open space at the bank's eastern end (immediately adjacent to T001) will partially compensate for this loss.

3.2.3 The group formed by Trees 040 – 044 is a part of a more extensive landscape screen between Liddell Road Industrial Estate and Maygrove Road. Its loss will have a local adverse impact upon public visual amenity.

3.2.4 Willow group T042 has partially collapsed however and 2 other trees in the group (T041 and 043) have only a limited future safe life (less than 20 years).

3.2.5 The location and orientation of the proposed access point has been chosen to minimise visual disruption to the occupants of the dwellings on the opposite side of Maygrove Road and there is no other nearby location where the construction of a new access of equivalent size would result in less disruption.

No.	Species	Comments	Category
001	Wild Cherry (*Prunus avium*)	One large and one smaller stem: one sided crown: ivy growth previously to full height but recently cut: dead wood hanging in lower branches: to be removed in preparation for adjacent open space extension planting	C
040	Sycamore (*Acer pseudoplatanus*)	Single upright stem: quite well balanced in the context of its group: T040-044 inclusive to be removed to enable the construction of the main site access	B
041	Sycamore (*Acer pseudoplatanus*)	Single main upright stem with one small subsidiary stem (probably developed from a basal growth): high crown: ivy to full height: suppressed: see T040	C
042	2 x Willow (*Salix alba*)	Two half-upooted, previously pollarded stems forming a ragged clump; see T040	U
043	Myrobalan Plum (*Prunus cerasifera*)	Single leaning stem: one sided (to W): wide spreading crown: partially obscured by ivy: see T040	C
044	Ash (*Fraxinus excelsior*)	Single upright stem: well balanced crown: stands over a lighting column: see T040	B
047-049	3 x Horse Chestnut (*Aesculus hippocastanum)*	Single upright stem: well balanced crown: to be removed and replaced as part of landscape proposals	C (3)
050-052	Wild Cherry (*Prunus avium*)	A group of single upright stems: individual one sided branch systems make up a fairly well balanced composite crown, previously reduced to 8m: standing within the footprint of proposed residential development	C+ (3)
061-070	10 x Claret Ash (*Fraxinus oxycarpa 'Raywood'*)	Just over 50% of a line of single stemmed Claret Ashes (T054-068) running parallel to and to the south of the main service road within Liddell Industrial Estate, plus 2 trees isolated trees (T069 and 070) of the same variety: standing within the footprints of proposed school and enterprise buildings and associated infrastructure	B (5) C+ (2 C (3))
079	Sycamore (*Acer pseudoplatanus*)	Single upright stem forks at 1m: quite well balanced crown: removal required to enable a site boundary retaining structure to be constructed	C

Table 1: Trees to be removed

3.2.6 T001 is to be removed as a result of its indifferent condition and its proximity to proposed new planting at the eastern end of the Maygrove Road Bank.

3.2.7 In my opinion, when mitigation planting is taken into account, the relatively small disruption that will be caused by proposed tree removals on the Maygrove Road boundary will not cause a significant deterioration in public visual amenity.

Trees 046-049

3.2.8 It is proposed to remove these 3 trees and plant replacements as part of an integrated landscape scheme for the proposed new school (Phase 1).

3.2.9 In my opinion the disruption to public visual amenity that will result from this removal and replacement will be negligible.

Trees 050-052

3.2.10 The removal of this middle aged group will have a local adverse impact upon public visual amenity for users of Maygrove Road and for nearby residents.

3.2.11 New tree planting on the proposed eastern extension of the Maygrove Road Bank will effectively compensate for the loss in the medium-term, however.

3.2.12 It is my view that, when mitigation planting is taken into account, the loss of public visual amenity will be compensated for in the medium-term. In the short-term I do not consider that the loss of group T050-052 will have an unacceptable adverse impact on the quality of the treescape, viewing from Maygrove Road.

Trees 061-070 and 079

3.2.13 The removals of these 11 Claret Ashes and 1 Sycamore are the only losses of significant amenity trees that will be required to enable the proposed development.

3.2.14 Claret Ashes 061 -070 are only visible from within Liddell Road Estate however and their removal will have no adverse impact upon the users of Maygrove Road and local residents living there.

3.2.15 Sycamore T079 is visible from the railway lines running along the northern boundary of the site but as it stands close to a prominent group of middle aged trees that are unaffected by the proposal (T071-078B), its loss will have a very small adverse impact.

3.2.16 Taking these considerations into account and bearing in mind that just under 50% (by number) of the line of Claret Ashes (T054-068) of which T061-068 form a part, are to be retained an integrated into the landscape setting of the proposed new school, I consider that the loss of Trees 061-070 and 079 will not cause an unacceptable loss of public visual amenity.

3.3 Trees to be retained

3.3.1 **Table 2** below summarises the likely impacts upon retained trees.

No.	Species	Comments	Category
002-039	Various (see Tree survey schedule in Appendix a)	An existing retaining wall along the southern boundary of Liddell Road Industrial Estate is to be replaced on its current alignment: it has been assumed that the roots of a number of nearby trees growing on Maygrove Road Bank (Trees 005, 010, 017, 19, 020, 022, 023, 032 034 and 035 in particular) will spread to a limited extent beneath and beyond the foundations of the existing wall: there will be some disruption when the wall is re-built, the extent of which can be controlled to a large extent by tree protection measures and appropriate working practices	B+ (1) B (9) C+ (6) C(15)
042A, 042B, 045	Various (see Tree survey schedule in Appendix a)	The proposed main site access road runs close to but outside the RPAs of these trees on their eastern side: proposed site security fencing will run close but outside the northern edge of the RPA of T042B	C+(1) C(2)
042C	Field Maple	Stands on an adjacent site at the rear of existing commercial premises, approximately 1500mm below the general level of the Liddell Road estate: an existing retaining wall is to be demolished and replaced: similar possible impacts to those noted for Trees 002-039 above	B
046	5 x Purple Leaved Plum (*Prunus cerasifera 'Atropurpurea'*)	Proposed upgrading of the existing access road and the construction of 2 parking bays will overlap the RPAs of the trees at the north and south ends of this group: approximately 16sqm of the total RPA of about 96sqm (17%) will be affected by all the proposed construction activities	C
053-060	Wild Cherry (*Prunus avium)* 7 x Claret Ash (*Fraxinus oxycarpa 'Raywood')*	A proposed sheet pile retaining wall runs through the southern edge of T053 (Wild Cherry) affecting 10.5 sqm out of a total RPA area of 45.2sqm (19%): Claret Ashes T054-060 may be affected by disturbance in the course of external works but the RPAs of all 7 trees are currently beneath concrete hard surfacing: it is proposed to remove this concrete hard surfacing and convert it to open play space at approximately the same general level: there are likely to be substantial improvements to each tree's growing environment as a result	U
071-078A	Various (see Tree survey schedule in Appendix a)	A proposed sheet pile retaining wall runs roughly north to south outside but close to the eastern limits of the RPAs of these trees: precautionary measures will be required to prevent damage to the branch systems of these trees during construction: headroom requirements for piling equipment may necessitate anticipatory crown reduction of T074 and 078A	C
135-143	Various (see Tree survey schedule in Appendix a)	No direct impacts: consideration should be given to the likely impact of construction traffic and where necessary, anticipatory pruning and protective measures implemented	B
151-157	Various (see Tree survey schedule in Appendix a)	No direct impacts: consideration should be given to the likely impact of construction traffic and where necessary, anticipatory pruning and protective measures implemented	C (3)

Table 2: Trees to be retained: summary of impacts

Trees 002-039 inclusive and 042C

3.3.2 It has not yet been established whether replacement retaining walls will require new foundations or whether they can be founded on existing footings.

3.3.3 On the assumption that new foundations will be required, it is important that any necessary excavations are restricted to the smallest possible extent and that all groundworks are carried out from the Liddell Road side of the boundary with *zero* working room allowance on the Maygrove Road Bank side of the existing wall or, in the case of T042C, within the private land on which this tree stands.

3.3.4 It is possible that large diameter roots (50mm or greater) may pass under the existing wall and that it may be necessary to incorporate simple bridging structures into the new wall foundations to allow such roots to be retained undamaged.

3.3.5 Access for handwork on the Maygrove Road side of the wall (block laying, brickwork pointing and rendering for example) must be agreed beforehand with the relevant department of the London Borough of Camden and carried out from a ground proetection layer. The same consideration applies to works in the vicinity of T042C.

3.3.6 Japanese Knotweed outbreaks on the Maygrove Road Bank adjacent to T036 and on private land at the base of T042C, are close enough to the boundary wall for there to be a risk that the excavations referred to above will spread the infestations, if construction operations are not tightly controlled.

3.3.7 It may be practicable to collect excavated material in the immediate vicinity of both current infestations and bury it on –site at depth, thus avoiding the need for costly disposal of contaminated material off-site.

3.3.8 A simple Japanese Knotweed Management plan is required setting out appropriate control measures. It should be one of the main contract documents.

Trees 042A, 042B, 045, 046, 053, 054-060, 071-078A

3.3.9 Where there are incursions into the RPAs of the trees referred under this sub-heading (T046 for example) , none are large enough in my opinion to significantly prejudice their future safe lives, as long as *unnecessary* disruption is avoided by means of appropriate protective measures, working practices and supervision at key stages of the works

3.3.10 If the works are carried out in accordance with best practice, then there should be no significant detrimental effects upon Trees 042A, 042B, 045, 046 and 071-078A and significant positive benefits for Trees 053-060 inclusive.

Trees 135-143 and 151-157

3.3.11 These street trees have been included in this analysis to ensure that the impact of construction traffic is properly considered and that, where appropriate, anticipatory pruning is carried out and protective measures are put in place.

4. Conclusions

4.1 As far as existing trees are concerned, this complex development proposal can be achieved with only local disruption to public visual amenity.

4.2 92 trees are within influencing distance of the combined phases of the proposed development of which 33 are within the proposed site boundaries – 30 in the Phase 1 site and 3 (T050-053) in Phase 2.

4.3 Of the 23 trees to be removed, 19 are within the Phase 1 site boundary, 3 are within Phase 2 and 1 (040 Sycamore) stands on adjacent land owned and managed by London Borough of Camden.

4.4 In terms of Retention category, 7 of the trees to be removed are classified as Category B, 14 as Category C or C+ and 2 as Category U (remove under existing conditions). The 3 trees to be removed to enable Phase 2 are all Category C+.

4.5 Mitigation planting on the site boundary and landscaping of the proposed school grounds will effectively compensate for this disruption. In this respect it is proposed to replant a total of 37 trees, 18 (plus 7 fruit trees trained to form an espaliered hedge) in the course of Phase 1 and 19 during Phase 2.

4.6 The removal of Claret Ashes 061-070 will have only a local impact upon public visual amenity as the trees are not visible in the wider landscape outside Liddell Road Industrial Estate. The proposed Stage 1 internal landscaping scheme and mitigation planting on Maygrove Road Bank and improvements to the growing conditions of neighbouring trees 053 – 060 will provide positive benefits to counter-balance any loss.

4.7 A Japanese Knotweed Management Plan complying with the advice and guidance set out in the *The knotweed code of practice [Environment Agency: 2006]* and forming part of the main contract dcuments, must be prepared prior to the start of works to ensure that contaminated material from two Japanese Knotweed outbreaks, adjacent to Trees 036 and 042C, is contained and neutralised.

4.8 It is vital to ensure that all the other protective measures and working practices referred to in this report are incorporated into an Arboricultural Method Statement (AMS) forming part of the main contract.

4.9 A full arboricultural method statement (AMS) covering all the measures referred to in this analysis will be submitted at the detailed design stage for approval via Planning Condition.

Appendix a

Tree survey schedule
Tree survey plan
Tree constraints plans
Enabling works plan

Explanatory notes

For general information on any entry in the detailed survey text, refer to the notes below which are organised on a column by column basis.

Tree number
All trees have been numbered in the survey text to correspond to the location numbers shown on the accompanying Tree Survey Plan. No trees have been marked on site.

Species
Common English names have been used wherever possible and Latin names are listed (in brackets in *italics*) in all cases.

Dimensions

Height - are recorded in m.

Stem diameter – recorded in mm at breast height (1.5m) wherever possible. Where measurement at 1.5m is not possible, one of the alternative methods set out in *Annex C of BS5837:2012* has been used.
If the diameter has been measured at a different height, this has been recorded, e.g. 60 @ 1m = 60mm diameter at 1m height.
Other abbreviations used:

av - average	est/e - estimated	
ms - multi-stemmed	max – maximum	gl - ground level

Crown spread - radial crown spreads in metres have been recorded at four points on the circumference of the crown (north, east, south and west). The accompanying Tree survey plan shows approximate crown shapes based on these measurements

Crown height - the height of the first major branch and the height of the lowest point of the crown are recorded in metres eg 3/3

Explanatory notes

Age

Y	Young	SM	Semi-mature
EM	Early mature	M	Mature
OM	Over-mature		

Where the precise age of a tree is known, it has been recorded in brackets adjacent to the general classification i.e. M(7).

Condition

Physiological condition

Gives a measure of biological vigour and of the presence or absence of disease, insect attack or other debilitating factors.

G	Good
F	Fair
P	Poor

Structural condition

Gives a measure of each tree's physical form and mechanical stability.

G	Good
F	Fair
P	Poor

Comments

See also **discussion** and **conclusions** in the accompanying report.

Explanatory notes

Recommendations
Preliminary management recommendations under existing conditions

Life expectancy
An approximate estimate for each tree's anticipated future safe life in the following ranges:

<10 years
10-20 years
20-40 years
40+ years

Retention category
This grading is based on the recommendations set out in BS 5837:2012 *Trees in relation todesign, demolition and construction - Recommendations*. The categories are summarised in the standard as follows:

A Trees of high quality with an estimated remaining safe life of at least 40 years
B Trees of moderate quality with an estimated remaining safe life of at least 20 years
C Trees of low quality with an estimated remaining safe life of at least 10 years, or young trees with a stem diameter below 150mm
U Trees in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years

In addition the British Standard requires one or more subcategories to be applied to the main Retention Category. In summary these are as follows:

1 Mainly arboricultural qulaities (that is individual aesthetic characteristics)
2. Mainly landscape qualities
3. Mainly cultural values, including conservation

Tree No.	Species	Height (m)	Diam (mm)	Crown Spread (m)				Crown Height (m)	Age	Physiological Condition	Structural Condition	Comments	Recommendations	Life Expectancy	Retention Category	Retention Sub-category
				N	E	S	W									
Maygrove Road Frontage																
001	Wild Cherry (*Prunus avium*)	11	100/ 250	3	4	4	1	0/3	EM	G	P	One large and one smaller stem: one sided crown: ivy growth previously to full height but recently cut: dead wood hanging in lower branches	Remove dead wood	20-40	C	2
002	Horse Chestnut (*Aesculus hippocastanum*)	7	220	0	3	4	0	2/2	SM	G	P	Single leaning stem: very one sided (to S): ivy growth previously to full height but recently cut	No action required	20-40	C	2
003	Grey Poplar *(Populus canescens)*											Removed prior to August 2014				
004	Grey Poplar *(Populus canescens)*	16	420	4	9	6.5	-2	4/3	M	G	F	Single leaning stem: very one sided (to S and E): ivy growth previously to full height but recently cut: see 003	No action required	20-40	C	2
005	Grey Poplar *(Populus canescens)*	14	280	2	3	2	3	4/5	M	F	P	Single upright stem: high narrow crown previously reduced to 10m: very close to adjacent units: see 003	Fell to near ground level	10-20	C	2
006	Grey Poplar *(Populus canescens)*	16	370	6	5	4	2	8/9	M	G	G	Single slightly leaning stem: quite well balanced crown overall: see 003	No action required	20-40	C+	1/2
007	Hawthorn (*Crataegus monogyna*)	9	170	2	1	1	3	2/3	M	G	G	Single upright stem forks at 2m into 2: high narrow crown: understorey component	No action required	20-40	C	2
008	Grey Poplar *(Populus canescens)*	16	350	2	4	5	2	7/5	M	G	F	Single leaning stem with 'dog leg' at 2m: one sided (to E): large branch stubs from previous pruning: 008-011 inclusive make up an interdependent group	No action required	20-40	C+	1/2
009	Grey Poplar *(Populus canescens)*	5	130	0	3	2	-1	3/3	Y	F	P	Single leaning stem: very one sided (to E): suppressed: see 008	No action required	10-20	C	2
010	Grey Poplar *(Populus canescens)*	16	260/ 300	5	4	4	-2	1/5	M	G	F	Single leaning stem forks at 1m into 2: one sided (to S): many branch stubs from previous pruning: see 008	No action required	20-40	C+	1/2
011	Grey Poplar *(Populus canescens)*	9	220	-2	2	3	1	7/6	EM	F	F	Single leaning stem: one sided (to S): heavily reduced: see 008	No action required	20-40	C+	2
012	Hornbeam (*Carpinus betulus*)	8	150	4	4	4	4	2/1	SM	G	F	Single upright stem: main branch fork at 2m: flat spreading crown	No action required	40+	C+	1/2
013	Grey Poplar *(Populus canescens)*	16	330	2	8	2	-4	6/4	M	G	F	Single very heavily leaning stem: very one sided (to E): 013-017 make up an interdependent group	No action required	20-40	C	2
014	Grey Poplar *(Populus canescens)*	4	230	0	3	1	0	2/2	M	F	P	Single leaning stem: heavily reduced: see 013	Fell to near ground level	20-40	U	2

Client: London Borough of Camden
Location: Liddell Road NW6 2EW
Date: 05.09.14
Job No.: 258

Tree No.	Species	Height (m)	Diam (mm)	Crown Spread (m)				Crown Height (m)	Age	Physiological Condition	Structural Condition	Comments	Recommendations	Life Expectancy	Retention Category	Retention Sub-category
				N	E	S	W									
015	Grey Poplar (*Populus canescens*)	14	280	5	7	3	4	3/3	M	G	F	Single leaning stem: very one sided (to E): see 013	No action required	20-40	C	2
016	Grey Poplar (*Populus canescens*)	4	270	5	7	3	4	2/2	M	P	P	Single leaning stem: heavily reduced: see 013	Fell to near ground level	20-40	U	2
017	Grey Poplar (*Populus canescens*)	16	400	5	7	3	4	6/5	M	G	F	Single leaning stem: main branch fork at 6m (divides into 2 principal upper stems): very one sided (to E): see 013	No action required	20-40	C+	1/2
018	Grey Poplar (*Populus canescens*)	7	70	1	2	1	2	3/3	Y	G	G	Single upright stem: a sapling	No action required	40+	C	2
019	Sycamore (*Acer pseudoplatanus*)	17	400	4	5.5	5	3	5/2	EM	G	G	Single leaning stem: one sided (to S): 019-024 make up an interdependent group: crown dimensions are for 019/020 together	No action required	40+	B	1/2
020	Grey Poplar (*Populus canescens*)	16	280	4	5.5	5	3	5/7	EM	G	F	Single leaning stem with a 'dog leg' at 4m: one sided (to E): see 019	No action required	20-40	C	1/2
021	Grey Poplar (*Populus canescens*)	14	280	3	8	5	0	5/3	EM	G	F	Single leaning stem: one sided (to SE): see 019	No action required	20-40	C	1/2
022	Grey Poplar (*Populus canescens*)	17	390	5	7	6	4	5/7	M	G	G	Single leaning stem but useful group component: crown dimensions are for 022/023 as a group: see 019	Remove dead wood	20-40	B	1/2
023	Grey Poplar (*Populus canescens*)	16	400	5	7	6	4	5/7	M	G	G	Single leaning stem: 'dog leg' at 3m: crown dimensions are for 022/023 as a group: see 019	Remove dead wood	20-40	B	1/2
024	Hawthorn (*Crataegus monogyna*)	6	200	0	1	3	3	1/2	M	G	F	Single leaning stem forks at 1m into 2: one sided (to S): see 019	No action required	20-40	C	2
025	Silver Birch (*Betula pendula*)	11	140	2	2	1	2	5/5	SM	G	F	Single upright stem: quite well balanced crown: rather suppressed	No action required (but see 026)	20-40	C+	2
026	Grey Poplar (*Populus canescens*)											Removed prior to August 2014				
027	Hornbeam (*Carpinus betulus*)	13	310	6	6	5	4	3/1	EM	G	G	Single upright stem: well balanced crown:	Cut back competing Hollies to give adequate space for growth	40+	B+	1
028	Holly (*Ilex aquifolium*)	6	70	2	2	2	2	0/0	M	G	G	A larger than average stem with a single stem and a well balanced crown standing in a clump	No action required	40+	C	2

Client: London Borough of Camden
Location: Liddell Road NW6 2EW
Date: 05.09.14
Job No.: 258

Tree No.	Species	Height (m)	Diam (mm)	Crown Spread (m)				Crown Height (m)	Age	Physiological Condition	Structural Condition	Comments	Recommendations	Life Expectancy	Retention Category	Retention Sub-category
				N	E	S	W									
029	Hawthorn (*Crataegus monogyna*)	3	70/ 120	0	2	2	1	0/2	M	G	F	Single leaning stem: a lateral limb originating at 0.5m has grown upwards to form a subsidiary stem: one sided (to S)	No action required	20-40	C	2
030	Willow (*Salix species*)											Removed prior to August 2014				
031	Red Oak (*Quercus rubra*)	10	170	3	3	4	4	2/1	SM	G	G	Single upright stem: well balanced crown: good potential	No action required	40+	B	1
032	Field Maple (*Acer campestre*)	12	240	2	3	5	2	1/3	SM	G	G	Single upright stem: first lateral limb originates at 1.5m: main branch fork at 2m: one sided (to S)	No action required	40+	B	1
033	Silver Birch (*Betula pendula*)	11	150	2	1	3	3	5/5	SM	F	F	Single upright stem: high narrow crown: rather suppressed	No action required	20-40	C	1/2
034	Grey Poplar *(Populus canescens)*	16	240/ 380	7	9	7	9	5/5	M	G	G	A two stemmed tree that relies on 035 for shelter and visual context: together 034 and 035 make an important 4 stemmed group, with a well balanced crown spread: crown dimensions are for the group as a whole: between 034 and 039, there is an off-site patch of Japanese Knotweed	Remove dead wood	20-40	B	1/2
035	Grey Poplar *(Populus canescens)*	16	250/ 360	7	9	7	9	5/5	M	G	G	See 034	Remove dead wood	20-40	B	1/2
036	Lombardy Poplar *(Populus nigra 'Italica')*	24	740	3	3	3	3	2/2	M	G	G	Single upright stem appears stable and undecayed: well balanced fastigiate crown: significant minor dead wood	Remove dead wood	20-40	B	1
037	Hawthorn (*Crataegus monogyna*)	6	100	2	2	2	4	1/2	EM	G	G	Single upright stem: main branch fork at 1.5m: quite well balanced overall	No action required	20-40	C	2
038	Ash (*Fraxinus excelsior*)	10	240	2	3	3	3	4/5	EM	F	F	Single upright stem: heavily reduced in height and spread	No action required	20-40	C	1/2
039	Sycamore (*Acer pseudoplatanus*)	15	210/ 220/ 270	4	5	5	3	0/3	EM	G	F	A semi-prostrate stem from which 3 former lateral limbs have grown upwards to form new stems: makes a group with 040 and 2 fine understorey level Hollies standing on the industrial estate boundary.	No action required	40+	B	1/2
040	Sycamore (*Acer pseudoplatanus*)	15	440	5	2	6	7	3/5	M	G	G	Single upright stem: see 039: quite well balanced in its group context	No action required	40+	B	1/2
041	Sycamore (*Acer pseudoplatanus*)	10	100/ 300	3	3	3	3	5/5	EM	F	F	Single main upright stem with one small subsidiary stem (probably developed from a basal growth): high crown: ivy to full height: suppressed	No action required	10-20	C	2
042	2 x Willow (*Salix alba)*	9 max	300/ 300 @ gl	2	2	4	3	0/0	OM	P	P	Two half-upooted, previously pollarded stems forming a ragged clump	Fell to near ground level: remove stumps	<10	U	2
042A	Hawthorn (*Crataegus monogyna*)	9	150	2	2	2	2	2/2	EM	F	F	Single stem with a narrow crown growing out of an understorey thicket	No action required	20-40	C	2

Tree No.	Species	Height (m)	Diam (mm)	Crown Spread (m)				Crown Height (m)	Age	Physiological Condition	Structural Condition	Comments	Recommendations	Life Expectancy	Retention Category	Retention Sub-category
				N	E	S	W									
042B	Myrobalan Plum (*Prunus cerasifera*)	6	100/ 100	2	2	1	2	2/2	SM	G	F	Two stems with a narrow crown growing out of an understorey thicket	No action required	20-40	C	2
042C	Field Maple (*Acer campestre*)	15	400	4.5	4.5	5	5	3/5	EM	G	G	Single upright stem: well balanced crown: stands on adjacent land approximately 1500mm below the level of the Liddell Road site: dense off-site growth of Japanese Knotweed close to its base	No action required	40+	B	
043	Myrobalan Plum (*Prunus cerasifera*)	9	250	4	3.5	3.5	4.5	1/1	M	F	P	Single leaning stem: one sided (to W): wide spreading crown: partially obscured by ivy	Remove ivy	10-20	C	2
044	Ash (*Fraxinus excelsior*)	15	280	4	4	4	5	5/4	EM	G	G	Single upright stem: well balanced crown: stands over a lighting column	No action required	40+	B	1
045	Field Maple (*Acer campestre*)	12	210	2	3	2	3	2/2	EM	G	F	Single upright stem: crown spread and height recently reduced	Formative pruning (to improve crown shape)	40+	C+	1/2
Liddell Road Industrial Estate																
046	6 x Purple Leaved Plum (*Prunus cerasifera 'Atropurpurea'*	6	100-150	3	3	3	3	0/0	EM	G	G	6 separate trees, mostly multi-stemmed: an interdependent group, well balanced overall: a valuable low level boundary screen	No action required	20-40	C+	2
047	Horse Chestnut (*Aesculus hippocastanum*)	7	180	2.5	2.5	3	2	1/1	Y	G	G	Single upright stem: well balanced crown: ivy to 4m	Cut ivy	40+	C	1
048	Horse Chestnut (*Aesculus hippocastanum*)	6	140	3	1	2.5	2	2/2	Y	G	G	Single upright stem: well balanced crown	No action required	40+	C	1
049	Horse Chestnut (*Aesculus hippocastanum*)	7	140	3	2	3	2	1/1	Y	G	G	Single upright stem: well balanced crown	No action required	40+	C	1
050	Wild Cherry (*Prunus avium*)	11	250 est	4	4	4	4	2/2	EM	G	F	Single upright stem: main branch fork at 2m: one sided (to S): previously reduced (to 8m): 050 -052 make up a group: crown dimensions are for the group as a whole	No action required	20-40	C+ Group	1/2
051	Wild Cherry (*Prunus avium*)	11	300 est	4	4	4	4	2/2	M	G	G	Single upright stem forks at 2m into 3: quite well balanced overall: previously reduced (to 8m): see 050	No action required	20-40	C+ Group	1/2
052	Wild Cherry (*Prunus avium*)	11	220 est	4	4	4	4	2/3	M	G	F	Single upright stem forks at 2m into 2: one sided (to NE): previously reduced (to 8m): see 050	No action required	20-40	C+ Group	1/2
053	Wild Cherry (*Prunus avium*)	12	350	5	5	2	3	1/2	M	G	F	Single upright stem forks at 1.5m into 3: one sided (to N): previously reduced (to 6m)	No action required	20-40	C+ Group	1/2
054	Claret Ash (*Fraxinus oxycarpa 'Raywood'*)	13	320	5	6	6	1	2/3	EM	G	F	Single upright stem: main branch fork at 2m: one sided (to S and E)	No action required	40+	C+	1
055	Claret Ash (*Fraxinus oxycarpa 'Raywood'*)	13	390	7	4	6	5	2/3	EM	G	G	Single upright stem: main branch fork at 2m: quite well balanced crown	No action required	40+	B	1

Tree No.	Species	Height (m)	Diam (mm)	Crown Spread (m)				Crown Height (m)	Age	Physiological Condition	Structural Condition	Comments	Recommendations	Life Expectancy	Retention Category	Retention Sub-category
				N	E	S	W									
056	Claret Ash (*Fraxinus oxycarpa 'Raywood'*)	11	290	5.5	4	5	2	2/3	EM	G	G	Single upright stem: main branch fork at 2m: quite well balanced crown	No action required	40+	B	1
057	Claret Ash (*Fraxinus oxycarpa 'Raywood'*)	12	380	6	3	6	6.5	2/3	EM	G	G	Single upright stem: main branch fork at 2m: quite well balanced crown	No action required	40+	B	1
058	Claret Ash (*Fraxinus oxycarpa 'Raywood'*)	13	380	6	5	6	6	3/3	EM	G	G	Single upright stem: main branch fork at 3m: quite well balanced crown	No action required	40+	B	1
059	Claret Ash (*Fraxinus oxycarpa 'Raywood'*)	14	340	7	5	5	3	2/3	EM	G	G	Single upright stem: main branch fork at 2m: quite well balanced crown	No action required	40+	B	1
060	Claret Ash (*Fraxinus oxycarpa 'Raywood'*)	13	370	6	4	5	5.5	2/3	EM	G	G	Single upright stem: main branch fork at 2m: quite well balanced crown	No action required	40+	B	1
061	Claret Ash (*Fraxinus oxycarpa 'Raywood'*)	15	370	6	5.5	6	4.5	3/3	EM	G	G	Single upright stem: main branch fork at 2m: quite well balanced crown	No action required	40+	B	1
062	Claret Ash (*Fraxinus oxycarpa 'Raywood'*)	14	300	5	5	5	5	2/4	EM	G	G	Single upright stem: main branch fork at 2m: quite well balanced crown	No action required	40+	B	1
063	Claret Ash (*Fraxinus oxycarpa 'Raywood'*)	13	450	7	5	2	3	2/4	EM	G	P	Single upright stem: main branch fork at 2m: large wound on main stem: major dead wood	Remove dead wood: review (future safe life)	40+	R/C	1
064	Claret Ash (*Fraxinus oxycarpa 'Raywood'*)	16	440	7	3	7	7	4/4	EM	G	G	Single upright stem: main branch fork at 4m: quite well balanced crown: above average for the line in which it stands	No action required	40+	B	1
065	Claret Ash (*Fraxinus oxycarpa 'Raywood'*)	13	340	6	5.5	6	4	2/3	EM	G	G	Single upright stem: main branch fork at 2m: quite well balanced crown: rope is tied round the main stem	Remove rope	40+	C+	1
066	Claret Ash (*Fraxinus oxycarpa 'Raywood'*)	14	420	8	2	5	7	2/4	EM	G	G	Single upright stem: main branch fork at 2m: quite well balanced crown: rope is tied round the main stem	Remove rope	40+	C+	1
067	Claret Ash (*Fraxinus oxycarpa 'Raywood'*)	14	490	7	4.5	4	2	1/3	EM	G	G	Single upright stem: sharply forking main branch fork at 1m: quite well balanced crown	No action required	40+	B	1
068	Claret Ash (*Fraxinus oxycarpa 'Raywood'*)	13	420 @ 1m	5	4	6	6	2/3	EM	G	G	Single upright stem: main branch fork at 2m: quite well balanced crown	No action required	40+	B	1
069	Claret Ash (*Fraxinus oxycarpa 'Raywood'*)	15	330	3	5	6	4	6/6	EM	G	G	Single upright stem: high narrow rather one sided crown: stands close to side elevation of adjacent office building	No action required	20-40	C	1
070	Claret Ash (*Fraxinus oxycarpa 'Raywood'*)	15	330	6	6	4	4	4/4	EM	G	G	Single upright stem: high narrow rather one sided crown: stands close to side elevation of adjacent office building	No action required	20-40	C	1

Tree No.	Species	Height (m)	Diam (mm)	Crown Spread (m)				Crown Height (m)	Age	Physiological Condition	Structural Condition	Comments	Recommendations	Life Expectancy	Retention Category	Retention Sub-category
				N	E	S	W									
Maygrove Peace Park																
071	Silver Maple (*Acer saccharinum*)	15	150-200 est	6	6	6	7	0/2	SM	G	G	8 stemmed: a well balanced multi-stemmed clump forming part of a larger group with 072 and 073: crown dimensions are for the group as a whole	No action required	40+	B	1/2
072	Silver Maple (*Acer saccharinum*)	15	350	6	6	6	7	2/3	SM	G	G	Single upright stem: see 071	No action required	40+	B	1/2
073	Norway Maple (*Acer platanoides*)	17	400	6	6	6	7	2/3	SM	G	G	Single upright stem: see 071	No action required	40+	B	1/2
074	Norway Maple (*Acer platanoides*)	15	500	6	7	6	5	2/1	M	G	G	Single upright stem: 074-078A make up an attractive group: crown dimensions are typical for the group as a whole	No action required	40+	B	1/2
075	Lime (*Tilia species*)	15	300	4	4	4	4	2/2	EM	G	G	Single upright stem: 074-078A make up an attractive group: crown dimensions are typical for the group as a whole	No action required	40+	B	1/2
076	Lime (*Tilia species*)	14	300	4	4	4	4	2/2	EM	G	G	Single upright stem: 074-078A make up an attractive group: crown dimensions are typical for the group as a whole	No action required	40+	B	1/2
077	Lime (*Tilia species*)	14	350 est	4	4	4	4	2/2	EM	G	G	Single upright stem: 074-078A make up an attractive group: crown dimensions are typical for the group as a whole	No action required	40+	B	1/2
078	Lime (*Tilia species*)	14	300 est	4	4	4	4	2/2	EM	G	G	Single upright stem: 074-078A make up an attractive group: crown dimensions are typical for the group as a whole	No action required	40+	B	1/2
078A	Lime (*Tilia species*)	14	300 est	4	4	4	4	2/2	EM	G	G	Single upright stem: 074-078A make up an attractive group: crown dimensions are typical for the group as a whole	No action required	40+	B	1/2
079	Sycamore (*Acer pseudoplatanus*)	12	350 @ 0.5m	3	3	3	3	0/2	EM	F	F	Single upright stem forks at 1m: quite well balanced crown	No action required	20-40	C	1/2
080	Lime (*Tilia x europaea*)	14	400	6	3	6	5	2/3	EM	G	G	Single upright stem: main branch fork (into 4) at 2m: makes a group with 081: well balanced overall	No action required	40+	B	1
081	Lime (*Tilia x europaea*)	14	380	4	5	6	3	3/2	EM	G	G	Single upright stem forks at 3m into 3: see 080: well balanced overall	No action required	40+	B	1
082	Poplar (*Populus species*)	12	350 est	4	5	3	3.5	2/1	M	G	F	Single leaning stem with a 'dog leg' at about 3m: rather ragged crown but quite well balanced overall: ivy growth on main stem	Cut ivy	20-40	C+	1/2
083	False Acacia (*Robinia pseudoacacia*)	11	420	6	3	4	4	2/4	M	G	G	Single upright stem with a large callusing bark wound: flat topped quite well balanced crown: nesting box attached to main stem	No action required	40+	B	1/2
084	Ash (*Fraxinus excelsior*)	12	410	5	5	4.5	4.5	2/4	M	G	F	Single upright stem: main branch fork at 2m: well balanced spreading crown	No action required	40+	B	1/2
085	Ash (*Fraxinus excelsior*)	12	190/270	3	5	2.5	-1	1/3	M	F	P	Single upright stem forks near ground level into 2: one sided (to E): close to sports pitch lighting column	Review (future safe life)	10-20	R/C	1/2

Tree No.	Species	Height (m)	Diam (mm)	Crown Spread (m)				Crown Height (m)	Age	Physiological Condition	Structural Condition	Comments	Recommendations	Life Expectancy	Retention Category	Retention Sub-category
				N	E	S	W									
086	Ash (*Fraxinus excelsior*)	12	190	2.5	4	4.5	5	2/4	M	F	F	Single upright stem: main branch fork at 3m: first lateral limb at 2m: well balanced crown: significant dead wood: decay at the base of the main stem	Review (future safe life)	10-20	R/C	1/2
087	Field Maple (*Acer campestre*)	11	400	3.5	5	3	3	2/4	M	G	P	Single leaning stem: one sided (to E): large callusing bark wound to main branch fork: 087 to 091 make up a significant group	No action required	20-40	C	1/2
088	Field Maple (*Acer campestre*)	6	330	4	4	4.5	4	1/3	M	G	G	Single upright stem: main branch fork at 1.2m: quite well balanced crown: see 087	No action required	40+	B	1/2
089	Field Maple (*Acer campestre*)	12	160	1	3.5	3	0	2/2	EM	F	F	Single upright stem: crown very one sided (to E): bark wound (callusing) suppressed (see 087)	No action required	20-40	C	2
090	Silver Birch (*Betula pendula*)											Removed prior to August 2014				
091	Ash (*Fraxinus excelsior*)	13	440	4	6	4.5	5	3/4	M	G	G	Single upright stem: well balanced crown: above CCTV camera and adjacent to sports pitch lighting column: see 087	No action required	40+	B	1
092	London Plane (*Platanus x hispanica*)	16	500	7	6	7.5	5	2/3	M	G	G	Single very slightly leaning stem: well balanced crown	No action required	40+	A	1
093	False Acacia (*Robinia pseudoacacia*)	10	380	2	5	4	1	2/3	M	F	F	Single slightly leaning stem: very one sided (to S): recent damage at base (dogs): adjacent lighting column: significant minor dead wood: 093-096 make up a significant group	Remove dead wood	20-40	C	1/2
094	False Acacia (*Robinia pseudoacacia*)	11	380	2	3.5	5	4.5	2/2	M	G	F	Single upright stem: one sided (to S): some basal decay: minor dead wood: see 093	Remove dead wood	40+	C+	1/2
094A	Japanese Angelica (*Aralia elata*)	4	75/ 75/ 90	3	3	3	3	1/1	SM	G	G	A 3 stemmed large shrub clump	No action required	20-40	C	1
095	False Acacia (*Robinia pseudoacacia*)											Removed prior to August 2014				
096	False Acacia (*Robinia pseudoacacia*)	15	440	6	0	6	6	1/2	M	G	G	Single slightly leaning stem forks at 1.5m into 2: very one sided (away from E): some basal decay: see 093	No action required	40+	B	1/2
097	Evergreen Oak (*Quercus ilex*)	12	340	5	6.5	4.5	2	1/2	M	G	F	Single upright stem: very one sided (to E): minor dead wood	No action required	40+	C+	1/2
098	Evergreen Oak (*Quercus ilex*)	10	360	0	6.5	7	4.5	1/2	M	G	F	Single upright stem forks at 1.2m: very one sided (to S)	No action required	40+	C+	1/2
099	London Plane (*Platanus x hispanica*)	17	570	5	7.5	7	7	2/4	M	G	G	Single upright stem forks at 2.5m into 3: well balanced crown	No action required	40+	A	1
100	Evergreen Oak (*Quercus ilex*)	11	320	4.5	2	4	5	2/2	M	G	F	Single upright stem: very one sided (to W)	No action required	40+	C+	1/2

Tree No.	Species	Height (m)	Diam (mm)	Crown Spread (m)				Crown Height (m)	Age	Physiological Condition	Structural Condition	Comments	Recommendations	Life Expectancy	Retention Category	Retention Sub-category
				N	E	S	W									
101	Silver Maple (*Acer saccharinum*)	14	580	6	7	7	8	2/3	M	G	G	Single upright stem: main branch fork at 2m: well balanced crown	No action required	40+	A	1
102	Silver Maple (*Acer saccharinum*)	14	510	6	7.5	2	7	2/3	M	G	G	Single upright stem: main branch fork at 2m: one sided (to N): makes a group with 103	No action required	40+	B	1/2
103	Silver Maple (*Acer saccharinum*)	14	510	2	6.5	7	7	2/4	M	G	G	Single upright stem: main branch fork at 2m: one sided (to S): cavity at 1m but not yet structurally significant: makes a group with 102	Review (future safe life)	20-40	B	1/2
104	Silver Birch (*Betula pendula*)	8	160	3	0	2	4	2/2	SM	G	F	Single upright stem forks at 2m into 2: one sided (to NW): suppressed	No action required	20-40	C	2
105	Horse Chestnut (*Aesculus hippocastanum*)	15	560	5	6	4.5	6	2/3	M	G	G	Single upright stem forks at 2m into 4: well balanced crown: overhangs playground	Review (future safe life)	20-40	R/B	1
106	Horse Chestnut (*Aesculus hippocastanum*)	15	600	4.5	6	6	5.5	2/4	M	G	G	Single upright stem forks at 2m into 4: well balanced crown: overhangs playground	Review (future safe life)	20-40	R/B	1
107	Wild Cherry (*Prunus avium*)	13	420	6	6	7	8	3/2	M	G	G	Single very slightly leaning stem forks at 3m into 2: one sided (to W): the dominant tree in a group comprising 107-109	No action required	40+	B Group	1/2
108	Wild Cherry (*Prunus avium*)	7	330	6	6	7	8	3/2	M	G	F	Single leaning stem: main branch fork at 2m: one sided (to E and N): see 107	No action required	40+	B Group	1/2
109	Wild Cherry (*Prunus avium*)	7	310	6	6	7	8	3/2	M	G	F	Single leaning stem: main branch fork at 2m: ivy recently cut: see 107	No action required	40+	B Group	1/2
110	Ash (*Fraxinus excelsior*)	17	350	3.5	6	3	6	3/4	EM	G	G	Single upright stem: first lateral limb at 2m: narrow ascending crown	No action required	40+	B Group	1/2
111	Ash (*Fraxinus excelsior*)	17	310	3	4	1	4.5	2/5	EM	G	G	Single upright stem forks at 2m into 2: narrow ascending crown	No action required	40+	B Group	1/2
112	Ash (*Fraxinus excelsior*)	17	370	5	4	3	5	4/4	EM	G	G	Single upright stem forks at 4m into 2: one sided (to N)	No action required	40+	B Group	1/2
113	London Plane (*Platanus x hispanica*)	11	530	3	3	3	3	2/3	M	G	P	Single upright stem with main branch fork at 2m: crown heavily reduced to 5m and allowed to regrow: branch forks are sharp and potentially unstable	Maintain at current height +/- 10%	10-20	C	1/2
114	London Plane (*Platanus x hispanica*)	18	510	8.5	8	7	4	3/2	EM	G	G	Single slightly leaning stem: well balanced crown overall	No action required	40+	B	1
115	Goat Willow (*Salix caprea*)	7	280 est	4.5	5	5	1	0/1	M	G	P	Single heavily leaning stem: one sided (to E): 3 lateral limbs form the crown	No action required	20-40	C	2
115A	Ash (*Fraxinus excelsior*)	8	100	2.5	2.5	2.5	2.5	1/2	Y	G	G	Single upright stem forks at 1m into 2: well balanced crown: of natural seedling origin	No action required	40+	C	1/2
116	Sycamore (*Acer pseudoplatanus*)	17	200/ 400	5	5	6	5	0/3	M	G	G	Two stemmed: each stem forks again in to two within 2m of ground level: quite recently reduced to 15m: 116-118 make up a significant group	No action required	40+	B Group	2

Tree No.	Species	Height (m)	Diam (mm)	Crown Spread (m)				Crown Height (m)	Age	Physiological Condition	Structural Condition	Comments	Recommendations	Life Expectancy	Retention Category	Retention Sub-category
				N	E	S	W									
117	Sycamore (*Acer pseudoplatanus*)	17	300/ 300/ 400	5	5	6	5	0/3	M	G	G	3 stemmed: one stem forks into two not far above ground level: quite recently reduced to 15m: quite well balanced overall: see 116	No action required	40+	B Group	2
118	Sycamore (*Acer pseudoplatanus*)	17	250/ 250/ 250/ 250	5	5	6	5	0/3	M	G	G	Two stemmed at base but each stem forks into two not far above ground level: quite recently reduced to 15m: quite well balanced overall: see 116	No action required	40+	B Group	2
119	Kashmir Birch (*Betula jacquemontii*)	10	210	3	3	3	4	1/1	EM	G	G	Single upright stem: main branch fork at 1.5m: well balanced crown	No action required	20-40	C+	1
120	Whitebeam (*Sorbus aria*)	6	260	2.5	3	2	3	1/2	EM	G	P	Single heavily leaning stem: one sided (to N)	No action required	10-20	C	2
121	Ash (*Fraxinus excelsior*)	14	410	5	5	5	6	2/2	M	G	G	Single upright stem: main branch fork at 2m: quite well balanced crown: old Elderberry stands adjacent	No action required	40+	B	1/2
122	Turkish Hazel (*Corylus colurna*)	11	250	2	2	3	4	1/1	SM	G	G	Single upright stem: one sided (W and S): good potential	No action required	40+	C+	1
123	Goat Willow (*Salix caprea*)	11	350 @ 1m	3	4	3	5.5	1/2	M	F	F	Single leaning stem forks at 1m into 2: one sided (to E): ivy recently cut	Review (remove to benefit 122)	20-40	R/C	1/2
124	Kashmir Birch (*Betula jacquemontii*)	9	200	3	2.2	2	2.5	1/2	SM	G	F	Single leaning stem forks at 1m into 2: well balanced crown: major bark wound: minor dead wood	Review (general condition)	20-40	C	1
Black Walk (rear of Sumatra Walk/ N side of railway line)															C	
125	Sycamore (*Acer pseudoplatanus*)	12	100-200	3	3	3	3	0/3	SM	G	G	6 stemmed clump: quite well balanced	No action required	40+	C	1/2
126	Sycamore (*Acer pseudoplatanus*)	8	200	3	3	3	3	2/2	SM	G	G	Single upright stem: well balanced crown	No action required	40+	C	1/2
127	Purple Leaved Plum (*Prunus cerasifera 'Atropurpurea'*	6	100-200	2	2	2	2	0/1	M	G	G	3 stemmed	No action required	20-40	C	2
128	Rowan (*Sorbus aucuparia*)	8	250 est	3	3	3	3	2/2	EM	G	G	Single stem: quite well balanced crown	No action required	20-40	C	1/2
129	Sycamore (*Acer pseudoplatanus*)	12	300 est	4	4	4	4	2/2	SM	G	G	Single stem: quite well balanced crown	No action required	20-40	C	1/2
130	Hawthorn (*Crataegus monogyna*)	7	70 est	4	4	4	4	2/2	M	G	F	Single stem: quite well balanced crown	No action required	20-40	C	1/2

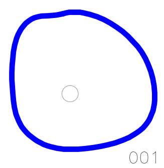
Tree No.	Species	Height (m)	Diam (mm)	Crown Spread (m)				Crown Height (m)	Age	Physiological Condition	Structural Condition	Comments	Recommendations	Life Expectancy	Retention Category	Retention Sub-category
				N	E	S	W									
131	Leyland Cypress (*X Cupressocyparis leylandii*)	8-9	200-300 est	2	2	2	2	0/0	M	G	G	3 stems in a line: good low level screening	No action required	20-40	C	1/2
132	Sycamore (*Acer pseudoplatanus*)	13	300 est	4	4	4	4	2/2	SM	G	G	Single stem: quite well balanced crown	No action required	20-40	C	1/2
133	Ash (*Fraxinus excelsior*)	9	250 est	3	3	3	3	2/2	SM	G	G	Single stem: quite well balanced crown	No action required	20-40	B Group	1/2
134	Sycamore (*Acer pseudoplatanus*)	15 av	200-300 est	4	4	4	4	2/2	EM	G	G	Group of naturally regenerated middle aged stems on the railway embankment	No action required	20-40		1/2
Maygrove Road street trees																
135	Maidenhair Tree (*Ginkgo biloba*)	7	100	1.5	2	1.5	1.5	2/2	Y	G	G	Single upright stem: quite well balanced crown: street tree	No action required	40+	C	1
136	Claret Ash (*Fraxinus oxycarpa 'Raywood'*)	16	400	4	6	8	7	2/2	M	G	G	Single upright stem forks at 1m into 2: wide, spreading rather one sided crown: street tree	No action required	20-40	B	1
137	Claret Ash (*Fraxinus oxycarpa 'Raywood'*)	16	390	1.5	4	7	6.5	3/8	M	G	F	Single leaning stem: vehicle-related bark on street side: one sided crown: street tree	No action required	20-40	B	1
138	Claret Ash (*Fraxinus oxycarpa 'Raywood'*)	16	380	3	5	5.5	3.5	4/5	M	G	F	Single slightly leaning stem forks at 4m: quite well balanced crown: vehicle-related bark on street side: street tree	No action required	20-40	B	1
139	Ash (*Fraxinus excelsior*)	5	80	1	3	2	2	2/2	Y	G	G	Single upright stem: rather one sided crown (to S and E): street tree	No action required	40+	C	1
140	Cider Gum (*Amelanchier laevis?*)	3	40	0.5	0.5	0.5	0.5	2/2	Y	P	P	A recent planting: foliage very small and sparse: street tree	Review (future safe life)	<10	C	1
141	Claret Ash (*Fraxinus oxycarpa 'Raywood'*)	12	350	3	3.5	6	5	3/3	M	G	F	Single upright stem: one sided crown (to S and W): street tree	No action required	20-40	B	1
142	Ash (*Fraxinus excelsior*)	7	120	3	3.5	2	3	3/3	SM	G	G	Single upright stem: significant bark wounds: quite well balanced overall: street tree	No action required	20-40	C	1
143	Field Maple (*Acer campestre*)	5	60	1.5	1.5	1.5	1.5	2/2	Y	G	G	Single upright stem: well balanced crown: street tree	No action required	40+	C	1
144	Field Maple (*Acer campestre*)	4	60	1.5	1.5	1.5	1.5	2/2	Y	G	G	Single upright stem: well balanced crown: street tree	No action required	40+	C	1
145	London Plane (*Platanus x hispanica*)	17	680	8	11	7	7	2/3	M	G	G	Single upright stem: main branch fork at 2.5m: well balanced crown: broken branch stub on street side: a street tree	No action required	40+	A	1
146	Ash (*Fraxinus excelsior*)	12	470	4	3.5	3.5	3.5		M	F	P	Single upright stem with significant bark damage: first whorl of branches at 5m: height and spread of crown severely and recently reduced: street tree	Review (future safe life)	10-20	C	1

Tree No.	Species	Height (m)	Diam (mm)	Crown Spread (m)				Crown Height (m)	Age	Physiological Condition	Structural Condition	Comments	Recommendations	Life Expectancy	Retention Category	Retention Sub-category
				N	E	S	W									
147	Pear *(Pyrus communis)*	5	150	2	2	2	2	2/3	SM	G	G	Single upright stem forks at 2m into 3: well balanced crown: bark wounds on main stem (callusing): basal growths: street tree	Continue current maintenance regime	20-40	C+	1
148	Purple Leaved Plum (*Prunus cerasifera 'Atropurpurea'*	6	180	2	2	2	2	2/3	SM	G	G	Single slighly leaning main stem forks at 2m into 2: quite well balanced overall: bark wounds on main stem (callusing): basal growths: street tree	Continue current maintenance regime	20-40	C+	1
149	Maidenhair Tree (*Ginkgo biloba*)	8	140	1.5	2.5	2	2.5	3/3	SM	G	G	Single upright stem: quite well balanced crown: street tree	No action required	40+	C	1
150	Flowering Cherry (*Prunus serrulata var.*)	5	70	2.5	2.5	2	2	2/2	SM	G	G	Single upright stem: quite well balanced crown: street tree	No action required	20-40	C	1
151	Rowan (*Sorbus aucuparia*)	5	<50	0.5	0.5	0.5	0.5	2/2	Y	G	G	Single upright stem: still staked: street tree	Young tree maintenance	20-40	C	1
152	Rowan (*Sorbus aucuparia*)	8	150	3	3	3	3	2/2	SM	G	G	Single slightly leaning stem: quite well balanced crown: street tree	No action required	20-40	C	1
153	Tree of Heaven (*Ailanthus altissima*)	11	470	4	3	3	3	3/4	M	G	F	Single upright stem: severely reduced in height and spread in the past	Continue current maintenance regime	20-40	C+	1
154	Italian Alder *(Alnus incana)*	12	460	3	3	3	3	3/3	M	G	F	Single upright stem that leans towards the highway above 1m height: crown severely reduce din height and spread in the past on a regular basis	Continue current maintenance regime	20-40	C+	1
155	Hybrid Cockspur Thorn (*Crataegus x lavallei*)	7	150	3	3	3	3	2/2	EM	G	G	Single upright stem: quite well balanced crown	No action required	20-40	B	1
156	Hybrid Cockspur Thorn (*Crataegus x lavallei*)	7	260	3	3	3	3	2/2	EM	G	G	Single leaning stem forks into 3 at 2.5m: crown quite well balanced overall	No action required	20-40	B	1
157	Hybrid Cockspur Thorn (*Crataegus x lavallei*)	7	150	2.5	3	3	3	2/2	EM	G	G	Single upright stem: crown quite well balanced	No action required	20-40	B	

Client:	Drawing Title:
LONDON BOROUGH OF CAMDEN	TREE SURVEY PLAN

Job Title:	Date:	Scale:
LIDDELL ROAD INDUSTRIAL ESTATE MAYGROVE ROAD LONDON NW6 2EW	02.12.14	1:1000 (A3)
	Drawing Number: 258.01.00A	**Drawn by:** RS

KEY



EXISTING TREE

Trees are coloured on plan to correspond to the Retention Categories specified in:
BS5837:20 12 T rees in relation to design, demolition and construction - Recommendations as follows:

Category A - GREEN
Category B - BLUE
Category C - GREY
Category U - RED

Skerratt
arboricultural advice

158 MALDEN ROAD, LONDON NW5 4BT
01274 566539

THIS DRAWING IS BASED ON JCLA DRAWING KL037 KINGSGATE LIDDELL LANDSCAPE DRAWING ISSUED ON 25.11.14

KEY

003 — ROOT PROTECTION AREA as defined in *BS5837 2012 Trees in relation to design, demolition and construction - Recommendations*

044 — TREE TO BE REMOVED

RETAINING WALL

SHEET PILE RETAINING WALL

CLIENT

LONDON BOROUGH OF CAMDEN

JOB TITLE

LIDDELL ROAD RE-DEVELOPMENT
LONDON
NW6 2EW

DRAWING TITLE

TREE CONSTRAINTS AND REMOVALS PLAN
(PHASE 1 INCLUDING ENABLING WORKS)

DRAWING NO.	SCALE
258.02.01 A	1 : 250 [A1]
DATE	DRAWN BY
28.11.14	RS

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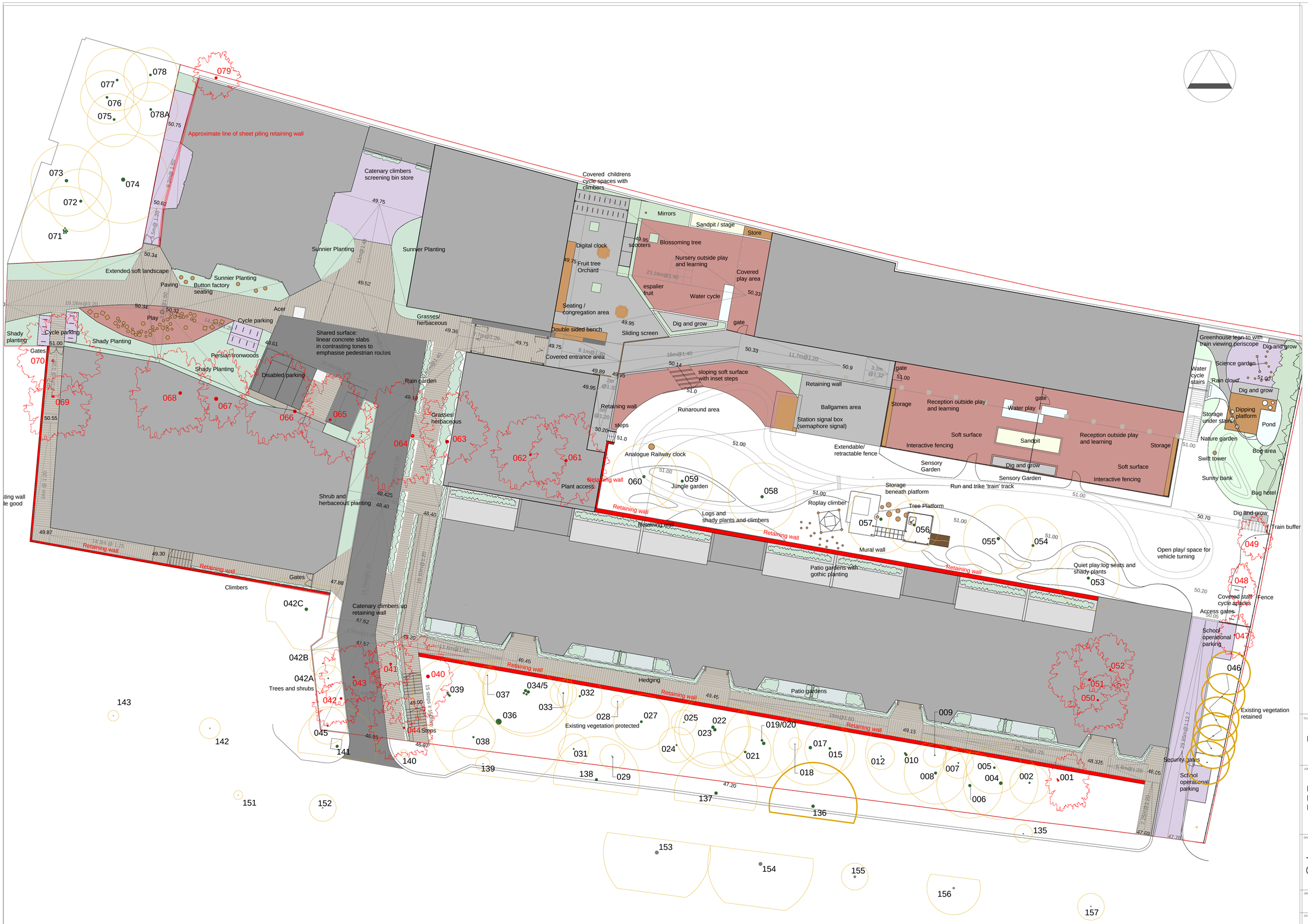

THIS DRAWING IS BASED ON JCLA DRAWING KL037 KINGSGATE LIDDELL LANDSCAPE DRAWING ISSUED ON 25.11.14

KEY

ROOT PROTECTION AREA as defined in *BS5837 2012 Trees in relation to design, demolition and construction - Recommendations*

003

044 TREE TO BE REMOVED

RETAINING WALL

SHEET PILE RETAINING WALL

CLIENT

LONDON BOROUGH OF CAMDEN

JOB TITLE

LIDDELL ROAD RE-DEVELOPMENT
LONDON
NW6 2EW

DRAWING TITLE

TREE CONSTRAINTS AND REMOVALS PLAN
(PHASE 1 AND 2 COMBINED)

DRAWING NO.	SCALE
258.02.02 A	1 : 250 [A1]
DATE	DRAWN BY
28.11.14	RS

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158 MALDEN ROAD, LONDON NW5 4BT
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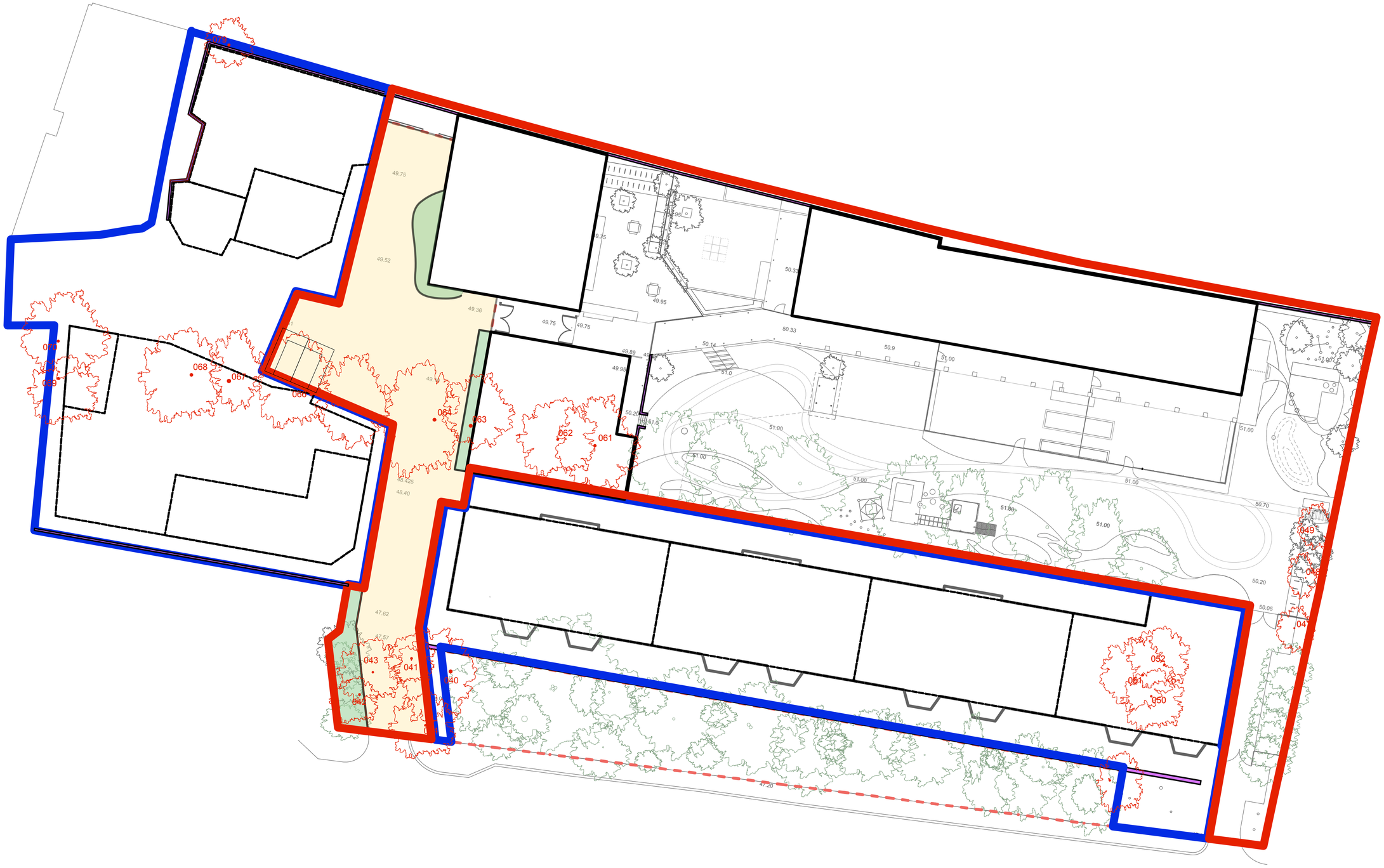

KEY

- Temporary Tarmac Surface in Enabling Works
- Tree and shrub planting in Enabling Works
- Trees to be removed
- Retaining walls to be built in Enabling works
- Phase 2 works area
- Phase 1 School works
- Phase 2 building platforms spot levels

N

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Notes

- Do not scale from drawings.
- To be read in conjuntion with all relevant Architects', Services and Structural Engineers' drawings.
- All existing site, tree and building information has been compiled from different sources.
- All dimensions to be checked on site.

Revisions

Project	Kingsgate Liddell
Project No.	KL037
Client	London Borough of Camden
Date	2 December 2014
Scale	1:250 @ A1
Drawing Name.	Stage D: Enabling works plan
Dwg No.	KL037.D.08.TLP.RevF

Revision F