2. Background information

2.1 Site layout, boundaries and topography

2.1.1 No. 7 is on the south side of Kidderpore Avenue. The existing dwelling, a brick-built, two storey (plus an attic floor) dwelling approximately 100 years old, stands in a large rectangular plot, the longer axis of which runs roughly north east to south west.

2.1.2 The large rear garden is fenced with timber panel fencing. At the front of the dwelling the garden is separated from the adjacent property to the east by an approximately 1500mm high brick boundary wall. There is a low brick wall reinforced with a hedge along the front, Kidderpore Avenue, boundary.

2.1.3 The front garden slopes very gently downwards from Kidderpore Avenue to the dwelling.

2.1.4 At the rear of the house there is an existing external terrace shown on the partial topographic survey of the site at a level of around 8.25, a little below internal floor level (8.48).

2.1.5 From the base of the terrace, the rear garden slopes downwards quite steeply. About 12m to the south of the terrace, the angle of slope increases significantly to form a steep narrow bank dropping about 500mm in less than 2000mm horizontal travel. From the foot of this bank to the rear boundary of the garden, the angle of slopes eases considerably. Overall the rear garden drops by about 2000mm between the base of the terrace retaining wall (7.30) and the base of a large Oak tree (T001 in the **Tree survey schedule** in **Appendix a**).

2.1.6 The existing site configuration is shown on the **Tree survey plan** in **Appendix a**.

2.2 Geology and soils

2.2.1 According to the British Geological Survey Sheet 256 (North London) the site is situated close to the boundary between deep Palaeogene London Clay bedrock and that of the Claygate beds, clays, silts and fine sands of similar but more recent age to the London Clay.

2.2.2 No soil sampling was carried out on site.

2.3 Planning constraints

2.3.1 The property is within the London Borough of Camden Redington and Frognal Conservation Area

2.3.2 It is not known whether any 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 in detail the 15 trees and shrubs referred to in this report.

2.5 The proposed development

2.5.1 The main elements of the proposed development are:

- Extension of the existing dwelling at ground floor level
- The construction of a habitable basement level beneath footprint of the existing dwelling/terrace
- Associated landscaping and access improvement works

3. Discussion

3.1 General

3.1.1 The **Tree constraints plan (Drawing No.** in **Appendix a** shows the recommended Root Protection Area (RPA) for each tree, re-configured where appropriate to allow for the effects of known barriers to the spread of roots. Each RPA highlights the primary potential area of conflict between proposed development and retention of existing trees, namely conflicting demands for space at and below ground level

3.1.2 Possible secondary constraints, for example physical limits to upward development imposed by existing tree branches and light shading have also been taken into consideration where appropriate.

3.1.3 It has been assumed that there will be only limited spread of tree roots below the carriageway of 7 Kidderpore Avenue. The extent of this root spread has been assumed to be 1000mm.

3.2 Trees to be removed

3.2.1 **Table 1** below lists trees and shrubs that are to be removed to enable the proposed development.

Tree/ Shrub No.	Species	Comments	Category
002	Laurel (*Prunus laurocerasus)*	Low level hedge screen	C
003-005	3 x Western Red Cedar (*Thuja plicata*)	Low level hedge screen	C
006	Laurel (*Prunus laurocerasus)*	Low level hedge screen	C
007	Pittosporum (*Pittosporum tenuifolium*)	Component in a shrub border adjacent to the front drive	C
010	Smoke Bush (*Cotinus coggygria*)	Component in a shrub border adjacent to the front drive	C
011	Laburnum (*Laburnum anagyroides*)	Dying and diseased	U

Table 1: Trees to be removed

Trees/shrubs 002-006

3.2.2 The removal of trees and shrubs 002-006 inclusive will result in some loss of low-level screening between the rear garden of 7 Kidderpore Avenue and the immediately adjacent garden to the east. Groups of vegetation of similar age and stature standing within neighbouring proprty will be retained however, and will mitigate the loss of T002-006.

3.2.3 Appropriate replacement planting could rapidly (within 5-10 years) compensate for the loss of screening.

3.2.4 The vegetation removal is required to allow the remodelling of the contours of the sloping rear garden after the proposed refurbishment and extension of the dwelling has been completed.

3.2.5 The re-modelling will require the construction of a retaining structure along the common boundary with the neighbouring rear garden to the east for part of its length. Care will be required to prevent damage to neighbouring vegetation during construction but it is unlikely that such a structure would cause unacceptable damage to the root systems of adjacent small trees and shrubs, because the root systems of T002-006 will predominantly have occupied the area to be developed and because there is already a change of level between the two gardens.

Trees/shrubs 007, 010 and 011

3.2.6 The removal of this vegetation is required to enable access improvements to be made.

3.2.7 The front garden of 7 Kidderpore Avenue is separated from the neighbouring garden to the east by an approximately 1500mm high brick boundary wall. The loss of shrubs 007 and 010 will therefore have a very small impact upon the visual amenities of neighbours. Their removal will be visible from the public highway but, taken in the context of the leafy front gardens of the dwellings in Kidderpore Avenue, the adverse impact will be small.

3.2.8 It will be necessary to remove Laburnum T011 whether or not the development goes ahead as it is diseased and nearly dead.

3.3 Trees to be retained

3.3.1 **Table 2** overleaf summarises the impacts upon retained trees.

Tree 001 (Oak)

3.3.2 Key tree 001 (Oak) will be affected by the proposed re-modelling of the contours of the rear garden.

3.3.3 This proposed re-contouring is not fully described in the layout plans that were available at time of writing of this analysis.

3.3.4 **Drawing No 294.02.01** in **Appendix b** shows very approximate existing contours extrapolated from spot levels shown on Mobile Cad Surveying Drawing No. 1601-01 - Existing site layout. The steep, narrow bank referred to in 2.1.5 is clearly visible.

3.3.5 This drawing illustrates the central issue as far as successful tree retention is concerned, namely that there will be a 'mound' between finished floor level in the proposed basement (5.171) and the area around the base of T001 (5.40 approximately)

Tree No.	Species	Comments	Category
001	Oak (*Quercus robur)*	See detailed analysis	A
012	Pere David's Maple (*Acer davidii*)	Approximately 8% (3sqm) of the RPA will be removed by the proposed basement construction: there may be secondary additional impacts as a result of changes in general levels	C
013	Flowering Cherry (*Prunus species*)	Need not be affected: if necessary can be moved simply and at low cost	C
014	Horse Chestnut (*Aesculus hippocastanum*)	Approximately 4% (20sqm) of the RPA may be affected by changes in general levels as a result of the re-modelling of the rear garden's contours	A
015	Purple Leaved Plum (*Prunus cerasifera 'Atropurpurea'*)	Existing boundary wall to be re-furbished in current location: existing driveway to be re-surfaced	B

Table 2: Trees to be retained

3.3.6 Between the southern edge of the footprint of the new basement and the centre of the stem of T001 this 'mound' reaches a maximum existing level of about 6.50.

3.3.7 The currently proposed external works involve the flattening of this mound, partly by excavation and partly by raising levels around the base of T001. LHQ Services Drawing No. 1302-P-2002 illustrates the concept, a rise in levels of just under 185mm from the threshold abutting the southern elevation of the proposed basement (5.171) to a single 300mm wide step (5.355) rising a further just under 185mm on its southern edge to a general level of 5.838 for the whole of the remaining garden up to its rear boundary.

3.3.8 It is certain that, if this were a detailed proposal rather than a conceptual approach, the amount of cutting and filling involved would cause catastrophic damage to T001 (existing level around 5.40 in the immediate area of the main stem).

3.3.9 An increased number of 300mm wide steps has also been added to the drawing and it can be seen that, by this means, it would be possible to reach existing ground level from the proposed basement floor level of 5.171 in between 6 and 7 steps *without entering the RPA of T001.*