C L A R K E
P E N M A N

Design and Access Statement
September 2018

10 Clorane Gardens, NW3 7PR

Site Location Plan
Source - 2012-2018 Apple inc.

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ANNEXE

Existing Front Elevation

Existing Rear Elevation

1.0 Introduction

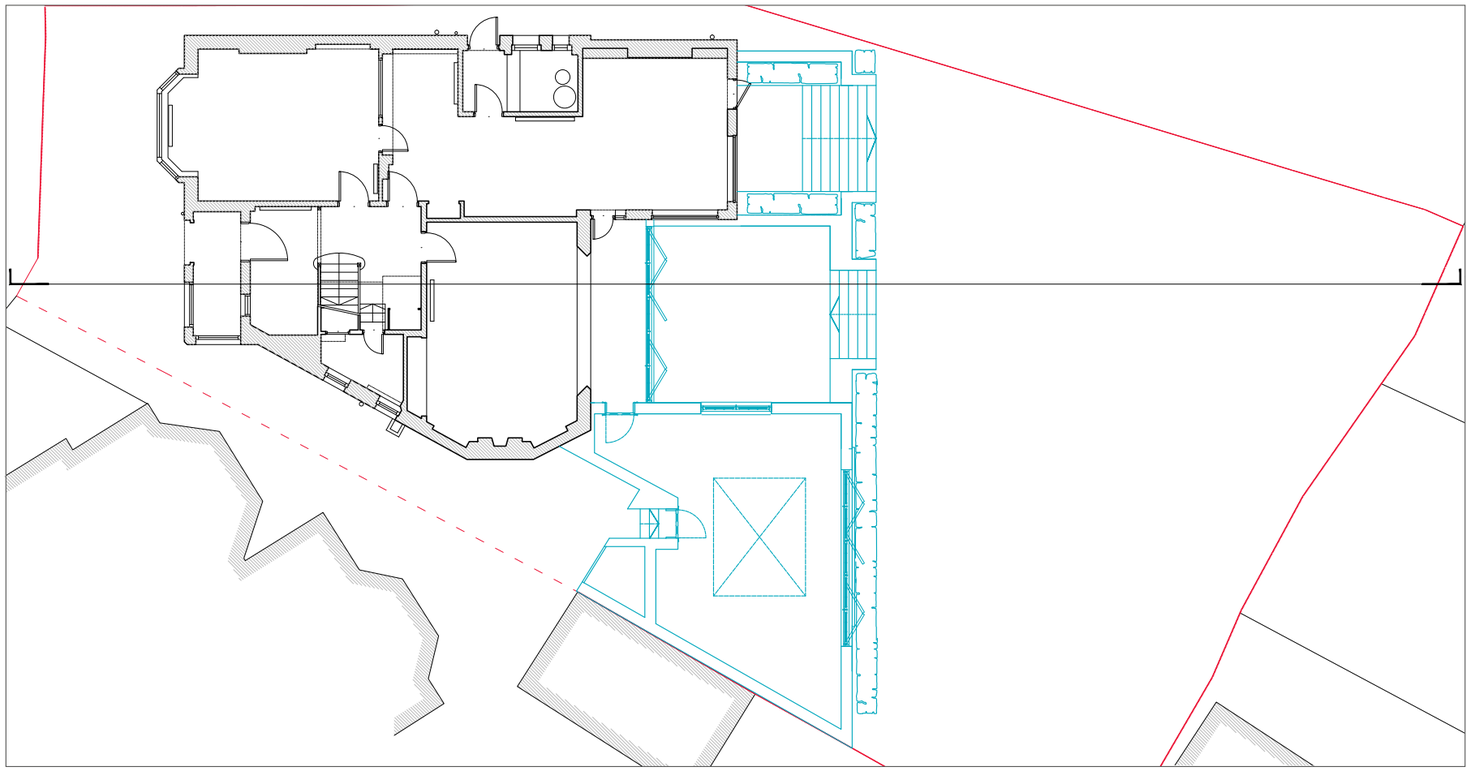
Clarke Penman Architecture have been appointed by the prospective new owners of 10 Clorane Gardens to prepare a planning submission for the renovation, re-modelling and extension of the property to create a high quality family home in line with current modern standards and specification.
The property is situated within the Reddington & Frognal Conservation Area notable for the works of architect Charles Quennell. The house dates from circa1890.

The accommodation is currently arranged over three levels: ground floor, first floor and a second floor built within the roof space of the original house.

Over the years the property has grown into disrepair and has subsequently been vacant for over two years. The external fabric has been somewhat damaged by the addition of a ‘slurry’ type textured render to parts of the property that were originally finished in brickwork. We understand that there have been incidents over the last year or so of parts of the render from the flank walls and chimney falling off so works to rectify this need to be implemented promptly.

The proposals aim to seek planning permission from Camden Council Planning and Regulatory Services for the following:

- Demolition of the existing garage to the rear of the house on the boundary to number 12.
- Replacement of the garage with a new rear extension at a reduced level to the existing ground floor providing level access to the existing garden.
- Replacement/renewal of all existing boundary fences to the rear garden.
- Restoration of the entire external fabric to all four elevations the property wherever practicably possible restoring the original detailing of the house.
- Replacement of all existing windows with new casement windows to match the original windows to the house.
- Create a new security screen with access doors to the gap between numbers 10 & 12 similar to that of the screen between numbers 8 & 10.
- Provide new hard & soft landscaping to the front and rear garden.



Granted Scheme 2015/6734 - Plan

2.0 Planning History

The property has the use of a recent planning approval 2015/6734/P granted on 22 03 17.

That permission albeit conditional has an approval for a large basement addition. The new owners have no wish to carry out these basement works.

However, this application seeks to modify the alignment of the existing ground floor rear extension as shown in the adjacent drawings.

Granted Scheme 2015/6734 - West Elevation

Granted Scheme 2015/6734 - Rear Elevation

Site Location Plan
Source - 2012-2018 Apple inc.

Site Location Plan
Source - Google Maps

3.0 Site Description

Clorane Gardens is situated at the western edge of the Reddington & Frognal conservation area. It runs north to south between Briardale Gardens and Platt's Lane. Number 10 is situated at the midpoint of the street on the western side of Clorane Gardens at a pivot point where the road cranks. The pivot point runs along the gap between numbers 10 & 12 creating an asymmetrical relationship between the two properties. All the properties along the western side are semi-detached apart from number 10 which is detached. Numbers 12 to 18 are designed by the architect Charles Quennell. Although number 10 has similar type Quennell detailing it is not classified as a Quinnell house.

Front Elevation


West Elevation


Garages to the rear of the shared ownership space between no. 10 and 12


Existing rear boundary


Roof parapets in poor conditions


Existing render treatment

3.0 Continued

As previously described the house is in a poor state of repair and has been somewhat damaged by the addition of a ‘slurry’ type textured render.

The front of the house has no boundary wall. It is almost entirely hard landscaping consisting of both stone slabs and concrete. There is an existing low-level boundary wall to the front garden boundary to number 8 which abuts a timber security door/screen. A new timber panelled fence with additional trellising to the top forms the boundary to number 8.

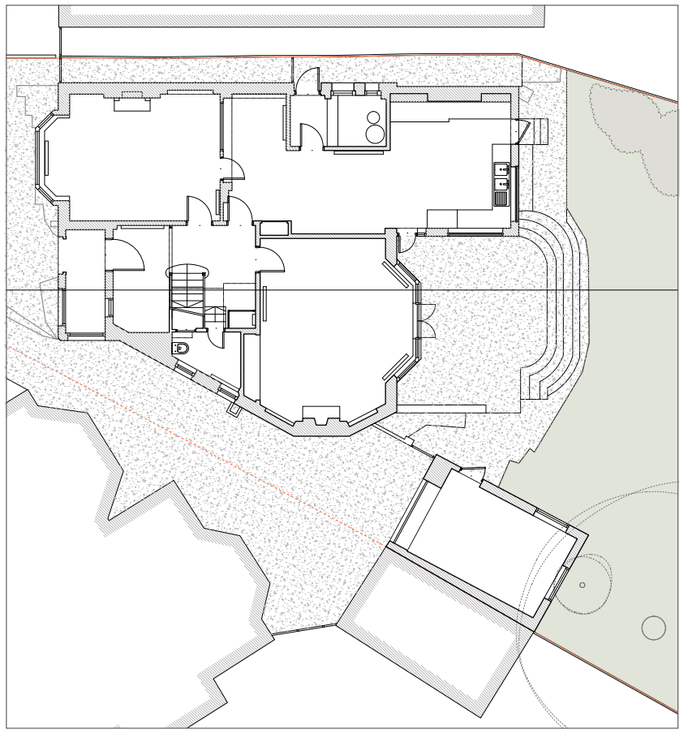
There is no defined boundary as such to number 12 to the front of house. The residual space between the two properties is in shared ownership from the front boundary all along the flank walls to both properties to the front face of two garages to the rear. The gap between the two properties (+/-1.9 metres) is more or less the same as the gap between numbers 8 and 10. It does not meet the access requirements for most modern vehicles and the garages remain an historical anomaly between the two properties. The current condition leaves both properties vulnerable from a security point of view.
The boundary to number 12 continues beyond the garages through the rear garden with a similar fence and trellising to the boundary to number 8.

There are remnants of a boundary fence to the rear of the garden but most of it is either collapsed or missing all together.

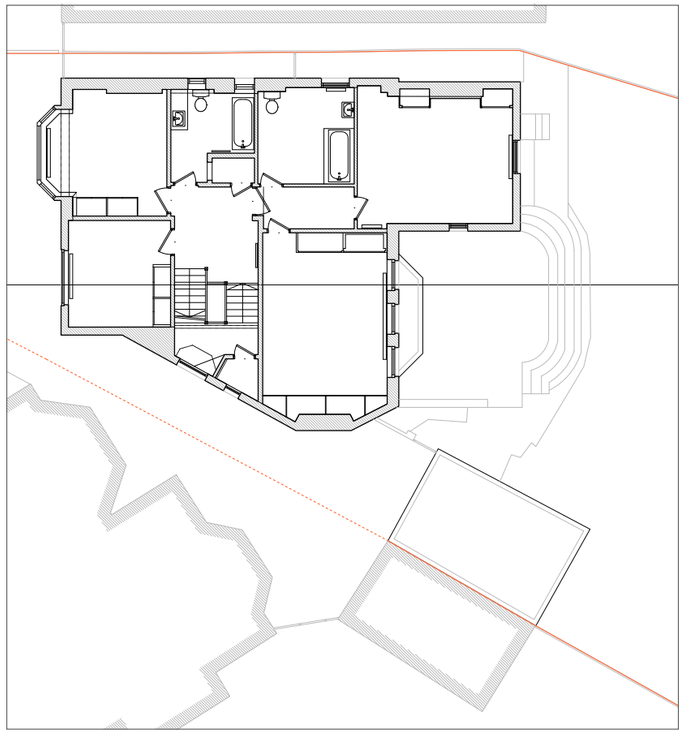
The rear boundary has a number of mature trees some in poor condition. An arboricultural report on all of the trees to the rear garden was provided for the previous planning application 2015/6734/P. This is resubmitted as part of this application. The previous planning permission includes permission to remove the existing Eucalyptus tree.

The internal ground floor level to the house sits level with the outside to the front of the house. The ground falls away to the west along the flank walls to the property and continues to fall away through the garden. The existing garden sits approximately 1metre below the existing internal ground floor level.

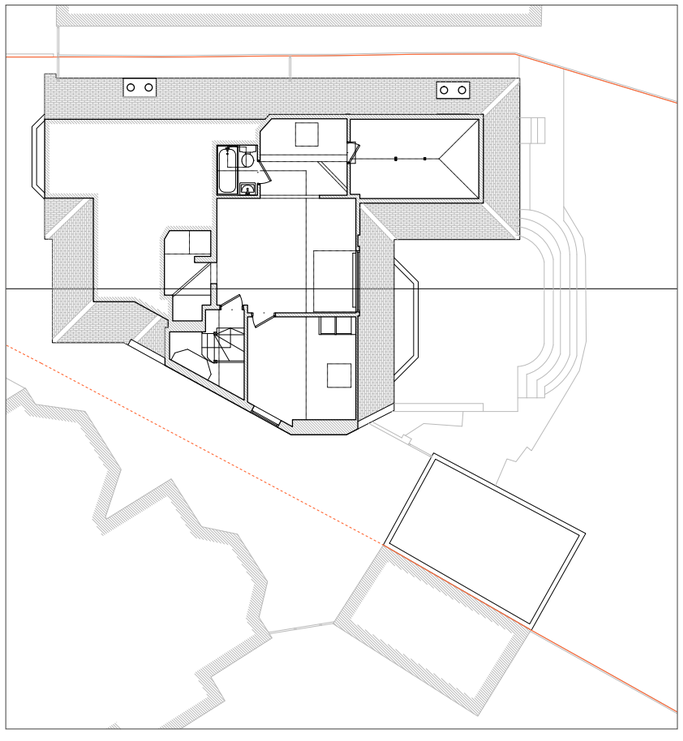
All the other properties to this side of Clorane Gardens, namely, numbers 2 to 8 and 12 to 18 have rear extensions of varying sizes and designs.



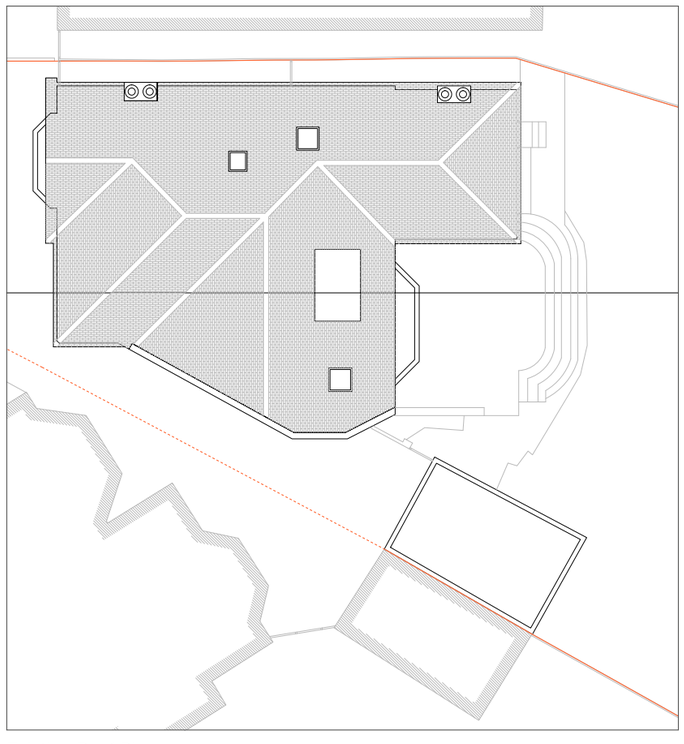
Existing Ground Floor



Existing First Floor



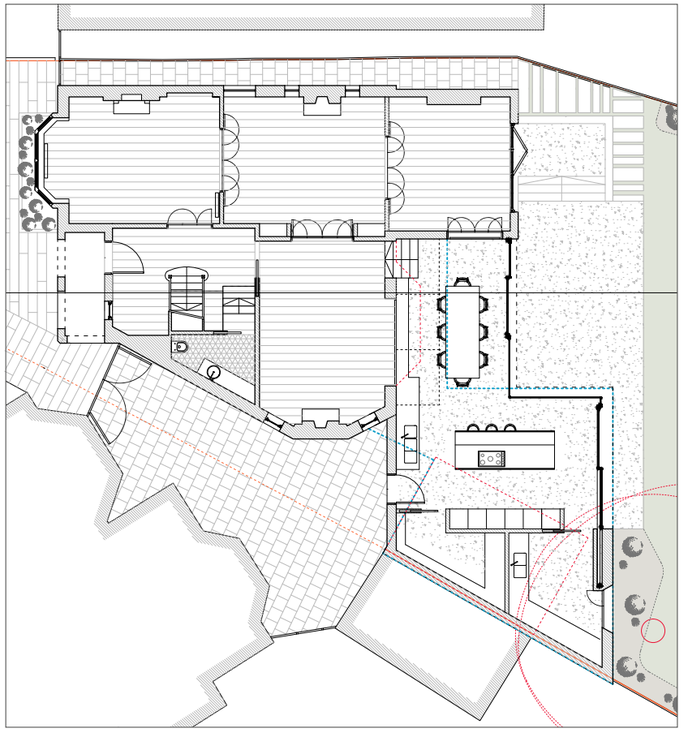
Existing Second Plan



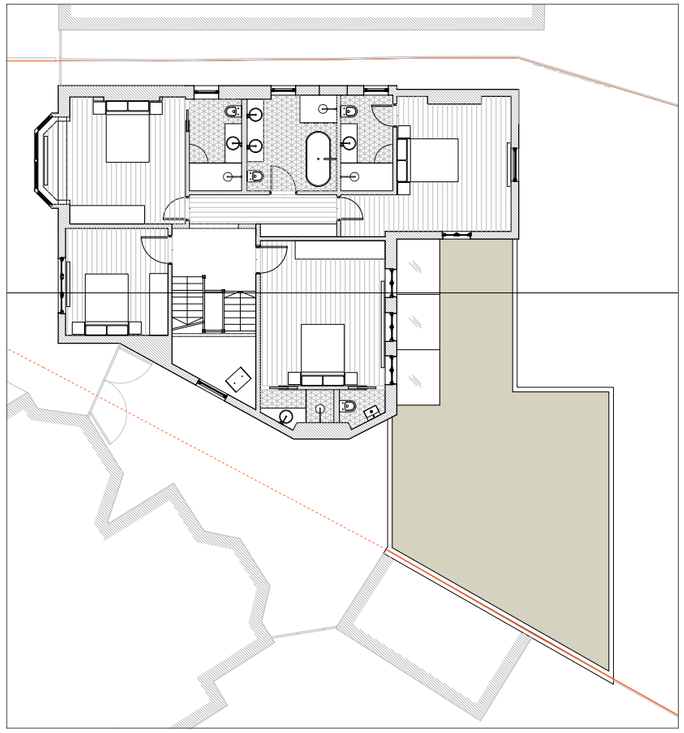
Existing Roof Plan

Existing Floor Areas

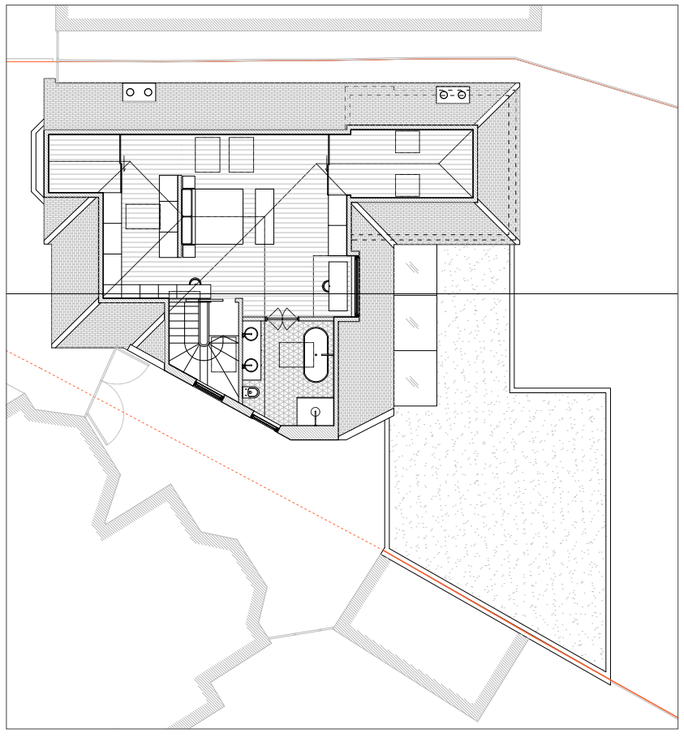
Site Area	548 m²
Ground Floor Area	112 m²
First Floor Area	115 m²
Second Floor Area (inc. loft storage)	74 m²
TOTAL	301 m²



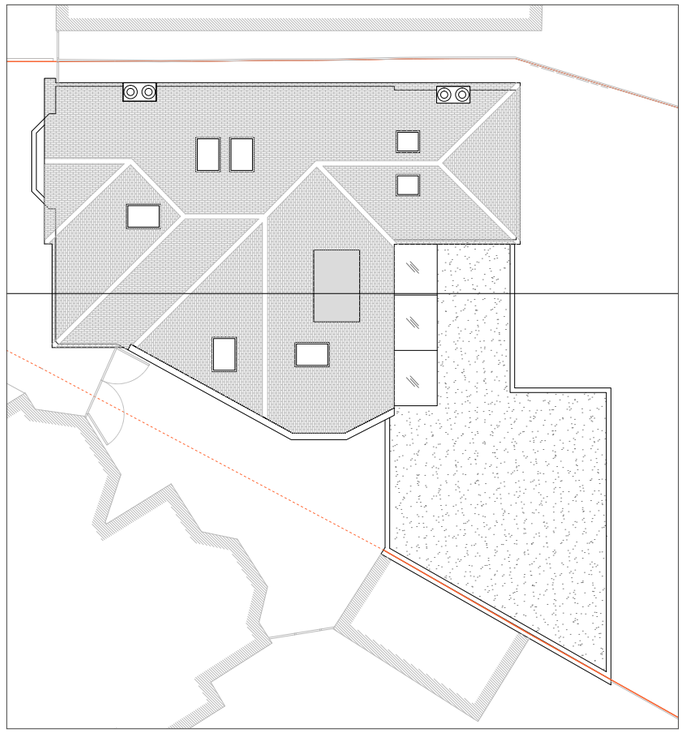
Proposed Ground Floor



Proposed First Floor



Proposed Second Plan



Proposed Roof Plan

4.0 Design and access statement

4.1 Design Approach and Layout

Unlike almost all of the other properties to the western side of Clorane Gardens number 10 has not been extended since it was originally constructed apart from the addition of the rear garage which lies adrift of the property on the boundary to number 12.

The proposals seek to enhance the amenity of the residence by creating new high quality living space at a new reduced level, level with the rear garden that establish a harmonious relationship between the interior and exterior space provided by the generous garden beyond, increasing the amenity of the property owners and that of subsequent occupants of the dwelling in the future.

It is proposed to extend the property outboard to the rear. The proposed extension follows the profile of the previous application 2015/6734/P to the boundary with number 12, apart from a minor amendment to the profile of the extension facing the shared ownership space to the boundary with number 12.

The previous alignment was contested by the neighbour to number 12 as the profile encroached into the area of shared ownership. Discussions have now taken place with the neighbours who are now in agreement with this revision. They have now provided a signed letter of support to confirm this, which is attached in the annexe at the end of this document.

The previous application profile 2015/6734/P cut back through the centre section of the rear elevation to extend approximately 1.7m outboard from the rear wall to the house. We propose to extend this section further outboard approximately 3.92 metres from the rear wall of the house. This will still sit just behind the south east section of the existing rear elevation which projects outboard by 3.97 metres from the remainder of the existing rear façade. This further extension is still less than the PD allowance of 4metres for a detached property. Also, as it sits behind the existing south east section of the rear elevation it cannot have any change in the amenity condition to number 8.

Furthermore, siting the new rear extension at a reduced level, level with the existing garden will result in a reduced boundary height condition to number 12 approximately 800 mm lower when compared to the previous 2015/6734/P application therefore significantly reducing the visual and amenity impact to this boundary to number 12.

Proposed Front Elevation

Proposed Rear Elevation

4.0 Continued

The current internal layout prevents either a satisfactory visual or physical connection to the garden.

The resultant new profile for the rear extension now provides enough space for a kitchen and dining space all at the same reduced level which will accommodate the requirements of modern family living. A further opening up of the rear elevation to the garden is created by adding new French windows in a language similar to the original casement windows. This opening is sited outboard of the reception room nearest the boundary to number 8 at the same level as the existing ground floor. New steps will be provided to access the garden level.

Sliding glazed screens will form a light, open elevation to the garden. At roof level a structural glazed roof light will provide enhanced daylight to the new extension and to the living room at ground floor level within the main body of the house beyond it. The roof-lights sit within a flat roof that is finished in a sedum green roof, which, will take up to 50% of the rainwater run-off from the existing roofs. Water butts will also be used to harvest the rainwater. A new permeable hard landscaped patio area is proposed outboard of the extension sited level with the internal ground floor. The existing mature garden beyond will blend into the new proposed levels.

The previous application 2015/6734/P proposed to inhabit the existing porch area at the front of the house. We propose to retain this not only as is it a feature of the original house but the existing front garden is very shallow and as big a buffer zone as possible between the house and the street needs to be retained. At present the property does not have a front boundary wall. We propose to provide a new boundary to the front garden with a low-level hedge. The security gate to the access between numbers 8 & 10 will be replaced with a similar new timber security screen. At the boundary between numbers 10 & 12 it is proposed to erect a new timber security screen with access to both properties set behind the alignment of the front porch.

Design precedent: Rear view of Wood Vale completed by this practice, under former name of Martyn Clarke Architecture.

Design precedent: Rear view of Southwood Lawn Road recently completed by Clarke Penman Architecture.

4.0 Continued

There are minor changes to the first floor window positions to both flank elevations and the flank elevation to the projecting gable to the rear. The previous application 2015/6734/P received permission for a new first floor terrace to the rear. The new owners have no wish to carry out these works.

At second floor level we propose to create a new master bedroom suite. We propose to retain the original dormer in its current size albeit smaller than its near neighbours. There are three existing rooflights, two to the south east roof plane (elevation to number 8) and one to the rear. We propose to replace these and reposition two to the front roof plane, three to the south east roof plane (elevation to number 8), one to the rear roof plane and one to the only roof plane facing north west also at the rear of the house

4.2 Scale

The scale of the new proposals are appropriate and subservient in their relationship to the house in terms of height, mass, volume and their relationships with their adjoining owners at No. 8 and No. 12 Clorane Gardens. The proposals maintain relationships with the neighbouring properties comparable to the current condition and better than those in the 2015/6734/P granted proposals.

4.3 Appearance and Materials

General - It is proposed to restore as best as possible all elements of the external fabric back to the original design. That said, the original house like its neighbour at number 8 would have had brickwork elevations to the flank walls and rear elevation. As with the previous application it would not be a realistic proposition to replace the entire 3 elevations with new brickwork. Therefore, we propose to remove the existing render to all elevations above ground floor level and replace with new textured render to match that of the original front elevation. The original brick corbel detail at the eaves level will be rebuilt around all elevations as well the brick corbelling details to the top of the flank walls. All existing windows both original and otherwise will be replaced with new timber casement windows to match the original. The roof tiles will be replaced with new plain clay tiles to match the original. The original dormer cheeks will be clad in lead to match the original with new lead flashings to all parapet abutments and valleys.

4.0 Continued

Front Elevation - It is proposed to remove both the original render to the first floor and additional render to the ground floor and return all back to the original design. At ground floor level inclusive of all works to the porch we propose to restore back to the original red rubber brick facings. It is hoped that sections of this brickwork can be saved with the faces being rebuilt. Some if not all will require full brick slips to reface them. This also applies to both flank wall elevations and the remaining section of the rear elevation outboard of the proposed extension. At first floor level the existing textured render is to be replaced with new to match the existing. Reinstated as per the original.

Flanks Elevations- Rendered first floor to match original textured render to the front elevation. Brickwork to ground floor level to match existing.
Rear Elevation - Rendered first floor to match original textured render to the front elevation. Brickwork to ground floor level to match existing. Reinstatement of brickwork cornicing at eaves level and brickwork corbelling to flank walls.

New Rear Extension

- New brickwork to match existing inclusive of new herringbone band running through the centre of the elevation.
- Proprietary powder coated aluminium glazed screens colour tbc, glazed sliding opening screens and corner windows
- Structural glazed rooflights to new flat roof at the interface with the original house
- Green nature mat roof to provide all year-round coverage to new flat roof to rear extension.

4.4 Sustainability

The new building elements will be thermally efficient in accordance with current building regulations as a minimum standard, and every effort will be made to increase the efficiency of the building. All existing windows are to be replaced with more thermally efficient double-glazed units. The existing heating system will be replaced with a new, more energy efficient one.

Proposed Floor Areas

Site Area	548 m^2
Ground Floor Area	177 m^2
First Floor Area	115 m^2
Second Floor Area (inc. loft storage)	74 m^2
TOTAL	366 m^2

Design precedent: green roofs recently completed by this practice, under former name of Martyn Clarke Architecture.

Design precedent: Rear view of Crouch Hill completed by this practice, under former name of Martyn Clarke Architecture.

5.0 Access

5.1 Pedestrian access

The existing front door access to the house remains unchanged. The house is within walking distance from key services and amenities. The house is within a controlled parking zone (CAU). The existing garage is currently not in use and not suitable for future use as it doesn't meet current standards for access and egress.

5.2 Public transport

The public transport links to the property are relatively good, it is roughly a 20 minute walk from Hampstead Station (Northern Line) and Golders Green (Overground Line and Northern Line). The PTAL rating for the building's location is 3 and is in the Travelcard card zone 3.

6.0 Landscape

The Arboricultural Report prepared for the previous application 2015/6734/P is resubmitted as it remains pertinent to the application. This is attached in the annexe at the end of this document.

New permeable hard and soft landscaping elements will be incorporated within the new design using high quality materials sympathetic to the existing vernacular. A soft planting scheme has been proposed as per condition 6 of the previous application. This covers the size, species and position of the three replacement trees requested as part of condition 6. The scheme also proposes further appropriate sized small ornamental tree species, along with plants and shrubs that encourage the natural diversity of the local species by providing habitats that encourage native birds and insects to flourish.

Boundary treatments to the rear garden will be feather edged timber fences with soft planted borders and climbing plants.

Design precedent: Rear view of Northchurch Road recently completed by this practice, under former name of Martyn Clarke Architecture.

7.0 Summary

In conclusion, the key design qualities and beneficial features of the proposals are as follows:

- Bring back into use a vacant property which has been empty for over 3 years.
- The restoration and refurbishment of key elements of the external fabric of the original house in accordance with the Reddington & Frognal Conservation area design guidance principles, enhancing the quality of the existing street scape and protecting the character of the area.
- Provide enhanced security to both numbers 10 & 12 by adding a new security screen.
- The creation of high quality contemporary habitable living space within the dwelling, including an open plan kitchen & dining area and family living spaces.
- A significant Increase in natural daylight penetration to both the ground and second floors of the house.
- An enhanced physical and visual relationship between the interior spaces and the external rear garden amenity space beyond.
- The development has no impact on the amenity relationships with the neighbours as the condition remains as existing. This also represents an improvement on the previous granted permission 2015/6734/P

8.0 References

Local Authority Policies

The proposals have been developed in accordance with the Camden development design guidance contained within the following Policy Documentation:

• Conservation Area statement Reddington & Frognal

Further policy documents that have been reviewed for guidance as follows:

Camden Planning Guidance 2011
- CPG 1 Design
- CPG 6 Amenity

Development Policies
- DP24 – Securing high quality design
- DP25 – Conserving Camden's heritage
- DP26 – Managing the impact of development on occupiers and neighbours

ANNEXES

Arboricultural Survey & Report

Implication Assessment and Method Statement in Support of Development

BS5837:2012 Trees in Relation to Design, demolition and construction – Recommendations

CLIENT:	Kyson
SITE REF:	10 Clorane Gardens, London, NW3 7PR
MWA REF:	DEV150825-64-REV1
MWA CONSULTANT:	David Williams ND Arb, M.Arbor.A
REPORT DATE:	08 December 2016

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1.0 Introduction

1.1 We are instructed by Kyson to undertake a tree survey in accordance with BS 5837:2012 'Trees in relation to design, demolition and construction- Recommendations'. The report is to support a Planning Application relating to the development at 10 Clorane Gardens, London, NW3 7PR.

1.2 The proposed development consists of the construction of an extension and basement and the following plans and documents have been supplied by the client:

- Existing and Proposed block plan

1.3 The site survey was undertaken on the 10 September 2015 and the following report is based upon the findings of that visit and the conditions found on that day.

1.3 We have been provided with a digital file of the existing site and the proposed development.

1.4 Tree position was triangulated using a minimum of three reference points.

1.5 **Components of Report**

This report comprises the following elements:

- Baseline tree survey of trees that may be impacted by proposals
- Tree Constraints Plan (TCP)
- Arboricultural Implication Assessment (AIA)
- Preliminary Arboricultural Method Statement (AMS)
- Tree Protection Plan (TPP)

1.6 **Technical Synopsis**

We have recorded a single Category B tree (T1) within the application property with the merits of the retention/removal of this tree discussed in section 6.0.There are other large trees in the immediate vicinity which will reduce the impact of this. There will be no incursions into the root protection areas of retained trees and retained trees can be successfully protected using barriers as specified within this report.

2.0 Scope & Objectives

2.1 This report has been commissioned by Kyson and the scope of the report reflects their instructions.

2.2 The scope of this report is limited to an appraisal of the existing trees on (and/or adjoining) the site and identification of the implications of development on retained trees.

2.3 The brief is to appraise the trees in relation to the proposed development of the site in accordance with British Standard 5837:2012 'Trees in relation to design, demolition and construction - Recommendations'.

2.4 To prepare clear recommendations supported by relevant plans and data in order to facilitate consideration of the Arboricultural implications by the Local Planning Authority.

2.5 To consider the development proposals, identify areas where there are arboricultural issues and to recommend possible solutions.

2.6 To consider additional information supplied, to identify arboricultural issues arising from this information and to recommend possible solutions.

2.7 This report is not a Tree Risk Management Report or a Hazard Analysis Report and its use as such is invalid.

2.8 The trees have been assessed from ground level only. Assessment of condition is based on a visual tree assessment (VTA). No detailed inspection of the upper crown has been carried out. No decay detection equipment (destructive or non-destructive) has been used to further assess the condition of the trees, which is beyond the scope of the survey. Any dangerous trees requiring further assessment on safety grounds will be identified.

2.9 Due to the changing nature of trees and other site circumstances this report and any recommendations made are limited to a 5-year period. Any alteration to the application site or any development proposals could change the current circumstances and may invalidate this report and any recommendations made. Should this be the case this report will require revision to reflect the development Proposals.

2.10 Trees are dynamic structures that can never be guaranteed 100% safe; even those in good condition can suffer damage under average conditions. Regular inspections can help to identify potential problems before they become acute.

2.11 A lack of recommended work does not imply that a tree is safe and likewise it should not be implied that a tree will be made safe following the completion of any recommended work.

2.12 Tree dimensions were measured using a combination of a Trupulse 200 Laser Range Finder, a Leica Disto Laser Rangefinder and a Richter Diameter tape. All instruments were used in accordance with appropriate user guides.

2.13 No soil samples were taken and no soils analysis was undertaken.

2.14 Any legal description or information given to MWA Arboriculture Ltd is believed to be accurate.

2.15 Where solutions to arboricultural problems are specified which require the usage of a third party product e.g. no dig roadway construction. No liability is assumed for the performance or suitability of the product and specialist advice as to the suitability or installation of the product should be sought from the manufacturer or other specialist.

2.16 No responsibility is assumed by MWA Arboriculture Ltd for legal matters that may arise from this report, and the consultant shall not be required to give testimony or to attend court unless additional contractual arrangements are made.

2.17 Any alteration or deletion from this report shall invalidate it as a whole.

3.0 Site Description

3.1 The subject property comprises a detached house in a road with similar properties in a built up art of London.

4.0 Development Proposal

4.1 The proposed development will be an extension to the property including a basement.

4.2 London Borough of Camden publish planning guidance documents and two are relevant to this proposal.

CPG 1 – Design. Published in July 2015. This document makes a tree survey a requirement of a planning application and also that retained trees are protected following the principles set out in BS 5837: 2005 [*sic*]. This report complies with this other than following the more up to date British Standard.

CPG 4 – Basements and Lightwells. Published in July 2015. In respect to trees, this document addresses the issues of building basements close to trees and the importance of root protection areas. The root protection areas of all retained trees are outside the footprint of the basement and other proposed works and therefore no works are required within root protection areas.

5.0 Tree Survey

5.1 The survey of the trees was carried out on 10 September 2015. Tree data is recorded in Table 1 with locations indicated on plans attached to this report.

A total of 13 individual trees, one group of trees and three shrubs were assessed as part of the Survey.

5.2 Overview of category **B** trees recorded during our survey:

Tree ID	Species	Cat	Details
T1	Eucalyptus	**B**	Tall tree visible from outside site. Potential future problems due to lean and twin-stems. Reasonable tree although not characteristic of local area.
T5	Lime	**B**	Offsite tree. Crown and root protection area extend into site.
T6	Sycamore	**B**	Offsite tree. Crown and root protection area extend into site.

5.3 Overview of category C trees recorded during our survey:

Tree ID	Species	Cat	Details
T4	Ash	C	Offsite tree. Crown and root protection area extend into site.
T7	Leyland cypress	C	Small tree of little significance.
T9	Ash	C	Small tree of little significance.
T10	Ash	C	Small tree of little significance.
T11	Ash	C	Small tree of little significance.
T12	Lawson cypress	C	Small tree of little significance.

5.4 Overview of category U trees recorded during our survey:

Tree ID	Species	Cat	Details
T2	Plum	U	Poor condition. Of no significance.
T3	Apple	U	Poor condition. Of no significance.
T8	Unknown	U	Dead and entirely covered in dense ivy. Does not need to be removed as part of the development however it is recommended that it is either removed or closely inspected to assess its structural integrity.
T13	Unknown	U	Dead and entirely covered in dense ivy. Does not need to be removed as part of the development however it is recommended that it is either removed or closely inspected to assess its structural integrity.

Table 1 – Tree Survey Schedule

Tree No.	Species	Hgt (m)	Dia. @ 1.5m (mm)	No of stems	CS N (m)	CS E (m)	CS S (m)	CS W (m)	ER CY	Crown Ht	Age Class	Description & Recommendations	RPA (Radial)	BS Cat
T1	Eucalyptus sp.	17	420 230	2	4.5	4.5	4.5	4.5	<20	3	EM	Twin-stemmed tree in good health. Leaning and twin stem possibly problematic in the future.	**RPA: 5.7**	**B1**
T2	Plum *Prunus domestica*	3	50	3	0.5	0.5	0.5	0.5	<10	-	M	Originally planted as wall trained but now almost entirely covered in ivy.	**RPA: -**	**U**
T3	Apple *Malus domestica*	2.5	150	1	0.5	0.5	0.5	0.5	<10	-	M	Originally planted as wall trained but now almost entirely covered in ivy.	**RPA: -**	**U**
T4	Ash *Fraxinus excelsior*	10	200e	1	3	3	3	3	20+	3	Y	Offsite. Growing adjacent to boundary fence. Overhangs site by c. 3m.	**RPA: 2.4**	**C2**
T5	Common lime *Tilia x europeae*	12	600e	1	4	4	4	4	20+	3	M	Offsite. Previously reduced Overhangs site by c. 2m.	**RPA: 7.2**	**B1**
T6	Sycamore *Acer pseudoplatanus*	14	600e	1	3.5	3.5	3.5	3.5	20+	3	M	Offsite. Unable to see base due to ivy growth. Overhangs site at height by c. 1m.	**RPA: 7.2**	**B1**
T7	Leyland cypress X *Cuprocyparis leylandii*	7	100	1	1.5	1.5	1.5	1.5	20+	1	Y	Small tree of poor form due to suppression. Of little significance.	**RPA: 1.2**	**C2**
T8	Unknown	6	500	-	-	-	-	-	-	-	D	Dead. Entirely covered in dense ivy growth with no visible branches. Good ecological value but integrity of trunk unknown due to ivy growth.	**RPA: -**	**U**

Table 1 – Tree Survey Schedule (continued)

Tree No.	Species	Hgt (m)	Dia. @ 1.5m (mm)	No of stems	CS N (m)	CS E (m)	CS S (m)	CS W (m)	ER CY	Crown Ht	Age Class	Description & Recommendations	RPA (Radial)	BS Cat
T9	Ash	7	150	1	1	1	1	1	20+	-	Y	Self-set. Damaged base and leaning. No long-term future.	**RPA: 1.8**	**C2**
T10	Ash	7	100	1	1	1	1	1	20+	-	Y	Self-set. Poor form. Of little significance.	**RPA: 1.2**	**C2**
T11	Ash	7	150	1	1	1	1	1	20+	-	Y	Self-set. Poor form. Of little significance.	**RPA: 1.8**	**C2**
T12	Lawson cypress *Chamaecyparis lawsoniana*	5	130 60	2	1	1	1	1	10+	-	EM	Poor form. Suppressed. Never likely to make a good tree.	**RPA: 1.7**	**C2**
T13	Unknown	4	-	-	-	-	-	-	-	-	D	Dead. Entirely covered in dense ivy growth with no visible branches. Good ecological value but integrity of trunk unknown due to ivy growth.	**RPA:**	**U**
G1	Elder Lilac Bay Holly Laurel	5	-	-	-	-	-	-	10+	-	EM-M	Mostly entirely covered in dense ivy growth so all individual trees and shrubs are of poor from and condition. Good screening effect and good ecological value.		**C2**
S1	Forsythia	3	-	-	-	-	-	-	-	-	EM	Planted against trellis to grow as a wall shrub but now outgrown position and poorly maintained.		

Table 1 – Tree Survey Schedule (continued)

Tree No.	Species	Hgt (m)	Dia. @ 1.5m (mm)	No of stems	CS N (m)	CS E (m)	CS S (m)	CS W (m)	ER CY	Crown Ht	Age Class	Description & Recommendations	RPA (Radial)	BS Cat
S2	Climbing rose	3	-	-	-	-	-	-	-	-	EM	Planted against trellis to grow as a wall shrub but now outgrown position and poorly maintained.		
S3	Elder	3.5	-	-	-	-	-	-	-	-	EM	Shrub within crown spread of large trees. Of little consequence.		

Headings and Abbreviations:

No. Allocated sequential reference number - Tree ('T'), Group ('G'), Woodland ('W') or Hedge ('H') reference number - refer to plan and to numbered tags where applicable
Species: Common name
Height: In metres, to half nearest metre – where possible approximately 80% are measured using an electronic clinometer and the remainder estimated against the measured trees. In the case of Groups and Woodlands the measurement listed is that of the highest tree
Stem Diam.: Stem diameter in millimetres, to nearest 10mm - measured and calculated as per Annex C of BS5837:2012. MS = multi-stemmed, TS = twin-stemmed
Branch Spread: Crown radius measured (or estimated where considered appropriate) from the four cardinal points (north, east, south and west) to give an accurate visual representation of the crown
Crown Height: Existing height above ground level, in metres, of first significant branch and direction of growth (e.g. 2.5-N) and of canopy at lowest point – to inform on crown to height ratio, potential for shading, etc.
Age Class: Estimated age class - Y = young, SM = semi-mature, EM = early-mature, M = mature, PM = post-mature
ERCY: Estimated Remaining Contribution - in years as per BS5837:2012 (i.e. <10, 10+, 20+, 40+)
BS Cat:: Category Grading - tree retention value listed as U, A, B or C - in accordance with BS5837:2012 Table 1
RPA Radius (m): Root Protection Area Radius - in metres measured from the centre of the stem to the line of tree protection
*** (Estimated Dimensions):** Where trees are located off-site, or are inaccessible for any other reason, and accurate measurements or other information cannot be taken then the information provided is estimated and is duly suffixed with a "#" symbol

6.0 Arboricultural Impact Assessment

6.1 BS5837 (2012) requires that the root protection area is calculated for each of the retained trees on the development. The root protection area is the minimum area in m^2 which should be left undisturbed around each retained tree. The standard calculated RPA's and the protection zone radii are detailed in the Tree Survey Schedule (Table 1) above.

6.2 For single stem trees, the RPA has been calculated as an area equivalent to a circle with a radius 12 times the stem diameter. For trees with more than one stem, one of the two calculation methods below has been used.

6.3 For trees with multiple stems the following rules apply.
a) For trees with two to five stems, the combined stem diameter has been calculated as follows:

$$\sqrt{(\text{stem diameter 1})^2 + (\text{stem diameter 2})^2 \ldots + (\text{stem diameter 5})^2}$$

b) For trees with more than five stems, the combined stem diameter is calculated as follows:

$$\sqrt{(\text{mean stem diameter})^2 \times \text{number of stems}}$$

6.4 The RPA for each tree is plotted as a circle centred on the base of the stem.

6.5 The calculated RPA for each tree has been capped to 707 m^2.

6.6 Where pre-existing site conditions or other factors suggest that rooting has occurred asymmetrically, a polygon of equivalent area has been produced.

6.7 Where modifications to the shape of the RPA have been specified they reflect a soundly based arboricultural assessment of likely root distribution. Any deviation in the RPA from the original circular plot takes account of the following factors whilst still providing adequate protection for the root system:

a) the morphology and disposition of the roots, when influenced by past or existing site conditions (e.g. the presence of roads, structures and underground apparatus);
b) topography and drainage;
c) the soil type and structure;
d) the likely tolerance of the tree to root disturbance or damage, based on factors such as species, age, condition and past management.'

6.8 The proposed development does not impede on the root protection areas of trees to be retained.

6.9 It is recommended that the following works are undertaken prior to the erection of protective fencing and certainly prior to development.

Tree ID	Species	Details
T1	Eucalyptus	Fell to ground level (see below for detail)
T2	Plum	Fell to ground level
T3	Apple	Fell to ground level
S1	Forsythia	Fell to ground level
S2	Climbing rose	Fell to ground level
Part of G1 (see TPP)	Various	Fell to ground level enough to give clearance with new development

6.10 In our opinion, the removal of T1 would be preferable to its retention in the interests of good design and sound arboricultural practice; for the reasons explained below:

6.11 Eucalyptus are fast growing trees achieving significant dimensions in no more than a few decades and whilst T1 has already reached significant proportions, it has the potential to develop further vertically and laterally with the result being a top-heavy exerting significant wind and level stresses upon an inherent structural weakness; the low fork located just below ground level. If the tree is to remain, regardless of the proposed development, significant pruning to reduce the crown will be necessary to ensure the tree remains safe. Eucalyptus trees respond to pruning with accelerated, dense re growth forming from pruning points with the result being, a tree requiring regular pruning to maintain its form.

6.12 The impact of the development (above and below ground) does not automatically require the removal of T1; the tree could be heavily pruned to contain its dimensions close to the rear of the dwelling and, many of the structurally important roots could be preserved through the application of site-specific working methods, engineered solutions and site supervision. However, some root loss (roots >25.0mm diameter) may be necessary and the reduction of the tree would help to restore a balance between the crown volume and root structure. Pre-construction investigations using an airspade would be required to identify the size, depth and distribution of structurally important roots.

6.13 The life expectancy of T1 (probably no more than 20 years in this location/condition) is sufficiently limited for the merits of engineering a site-specific solution to be questionable. The tree could be retained (in our opinion) in terms of the preservation of its root system/rooting environment; however, the ongoing demands of the tree for pruning will disfigure its appearance (visual amenity) leads us to the conclusion that removal and replacement is the correct decision, in the interests of good design and sound arboricultural practice.

6.14 The immediate impact of the loss of T1 would be limited, in broader landscape terms due to the western back drop of neighbouring trees, T4, T5 and T6. The replacement of not only T1, bit T2 and T3 is encouraged and the requirement for a scheme of replanting could be dealt with through the use of a pre commencement planning condition.

6.15 The loss of T1 presents an opportunity for the LPA to enforce high quality re planting as a long-term investment in visual amenity and localised biodiversity. The use of container grown trees with a height, at the time of planting, of 3.5m-4.0m would ensure a degree of 'instant impact'. These trees would, after a few years, be of sufficient dimensions for them to be protected under s.211 of the Town and Country Planning Act 1990 (and subsequent revisions). Any scheme for new tree planting, subject to condition, would require any tree that failed within a 5 year period to be replaced.

6.16 The introduction of 3no new trees is proposed with the emphasis on native species, sustainable long-term dimensions and biodiversity.

6.17 Permissions: Under no circumstances is any tree work to be instigated without having first checked with the Local Planning Authority that no statutory controls apply in respect of the trees. All arborists shall have the relevant NPTC qualifications and shall submit completed risk assessments to the project manager prior to commencement of tree-work.

6.18 All pruning (where necessary) shall be done in accordance with the principles of 'Natural Target Pruning' and in accordance with the current relevant British Standard, **BS3998: 2010** 'Recommendations for Tree Work'. All pruned sections shall be lowered to the ground in a controlled manner such that no damage is done to other trees or vegetation and structures beneath. The implementation of tree works must have regard to the presence of any nesting Birds or Bats and their roosts, which are protected under the Wildlife and Countryside Act (1981) (as amended); the Countryside and Rights of Way Act, 2000; the Natural Environment and Rural Communities Act (NERC, 2006); and by the Conservation of Habitats and Species Regulations (2010).

6.19 Irrespective of our belief that the impact will be limited, in order to safeguard the tree we advise that any excavation undertaken within the RPA is supervised by a competent arboriculturist and that any root pruning which way be necessary is undertaken in accordance with NJUG10.

7.0 Potential incursions in to the RPA (Root Protection Area)

7.1 There are no incursions into the RPAs of trees to be retained.

8.0 Arboricultural Method Statement (preliminary) – Demolition / Removal of existing surfaces

8.1 Where it is intended to undertake demolition or construction operations within the root protection area, precautions should be taken to maintain the condition and health of the root system and in particular to:

a) prevent physical damage to the roots during demolition or construction (such as by soil compaction or severing);

b) make provision for water and oxygen to reach the roots;

c) allow for the future growth of the root system;

d) preserve the soil structure at a suitable bulk density for root growth and function (in particular for soils of a high fines content).

8.2 Throughout the process of demolition or construction, including piling, the soil structure within the root protection area should be protected. The methods of protecting trees from damage during all phases of demolition and construction work will be specified and conform to the specifications laid down in the Standard (BS5837: 2012).

8.3 All plant and vehicles engaged in demolition works will either operate outside the RPA, or will run on a temporary surface designed to protect the underlying soil structure. Where such ground protection is required, it will be installed prior to commencement of operations.

8.4 Should the level of dust build-up on trees become significant, the advice of an arboriculturist will be sought. If considered appropriate by the attending arboriculturist the affected trees will be hosed down immediately.

8.5 Where an existing hard surface is scheduled for removal, care will be taken not to disturb tree roots that may be present beneath it. Hand held tools or appropriate machinery will be used (under arboricultural supervision) to remove the existing surface. Tree roots exposed by such operations will be treated in accordance with details in 8.6.

8.6 Any excavations which have to be undertaken within the root protection area will be carried out carefully using air-spade technology, avoiding damage to the protective bark covering larger roots. Roots, whilst exposed, will be wrapped in dry, clean hessian sacking to prevent desiccation and to protect from rapid temperature changes. Those roots smaller than 25mm in diameter may be pruned back, preferably to a side branch; using a proprietary cutting tool such as secateurs or a handsaw. Roots larger than 25mm in diameter will only be severed following consultation with an arboriculturist, as they may be essential to the tree's health and stability. Prior to backfilling, any hessian wrapping will be removed and retained roots should be surrounded with sharp sand (builders' sand will not be used because of its high salt content which is toxic to tree roots), or other loose granular fill, before soil or other material is replaced. This material will be free of contaminants and other foreign objects potentially injurious to tree roots.

8.7 Arboricultural Method Statement (preliminary) - Installation of Services (Underground and above ground services)

8.8 Trenching for the installation of underground services severs any roots present and may change the local soil hydrology in a way that adversely affects the health of the tree. For this reason particular care should be taken in the routeing and methods of installation of all underground services.

8.9 At all times where services are to pass within the RPA, detailed plans showing the proposed routeing should be drawn up in conjunction with an arboriculturist. Such plans should also show the levels and access space needed for installing the services and be accompanied by arboricultural method statements (AMS).

8.10 Additional precautions outside the exclusion zone

8.11 Once the exclusion zone has been protected by barriers and/or ground protection, construction work can commence. All weather notices should be erected on the barrier with words such as: “Construction exclusion zone — Keep out”.

8.12 Planning of site operations should take sufficient account of wide loads, tall loads and plant with booms, jibs and counterweights (including drilling rigs), in order that they can operate without coming into contact with retained trees.

8.13 Such contact can result in serious damage to the trees and might make their safe retention impossible. Consequently, any transit or traverse of plant in proximity to trees should be conducted under the supervision of a banks man, to ensure that adequate clearance from trees is maintained at all times. Access facilitation pruning should be undertaken where necessary to maintain this clearance. NOTE In some instances, local planning authority consent for pruning might be required.

8.14 Fires on sites should be avoided if possible. Where they are unavoidable, they should not be lit in a position where heat could affect foliage or branches. The potential size of a fire and the wind direction should be taken into account when determining its location and it should be attended at all times until safe enough to leave. NOTE Local environmental health authorities might have specific restrictions.

8.15 Any materials whose accidental spillage would cause damage to a tree should be stored and handled well away from the outer edge of its RPA. It is essential that allowance should be made for the slope of the ground so that damaging materials such as concrete washings, mortar or diesel oil cannot run towards trees.

8.16 Arboricultural Method Statement (preliminary) - Tree Protection

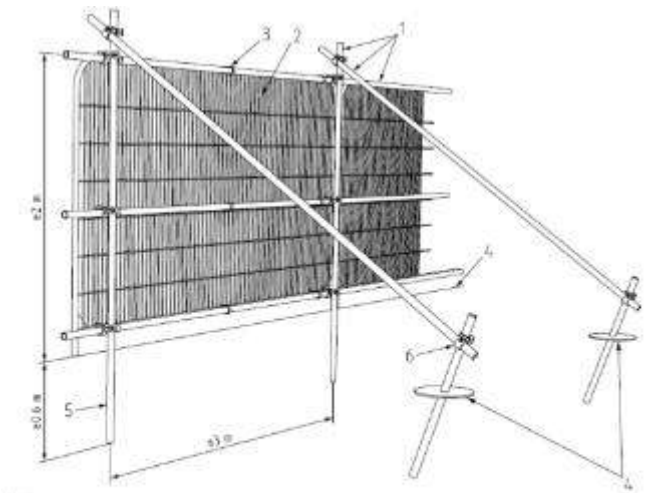
8.17 The exclusion zones as defined in this report will be protected with fencing strong enough to resist impacts and suitable to the degree of construction activity on the site and to be in accordance with that specified within BS5837:2012.

8.18 Where hard surfacing exists within the RPA and where it is to remain, protective barriers will be erected at the edge of the hard surface and the space may be utilised for operational purposes.

8.19 All fencing will be in place prior to any other development work (with the exception of necessary tree works) commencing on site. Such fencing will therefore be erected before any materials or machinery is brought onto site. Once erected the fences will not be moved or altered in any way without prior consultation with the Local Planning Authority other than for operations detailed in this report. If the fencing is damaged in any way it will be re-instated to its original condition before construction work can re-commence Notices will be erected on the fencing stating 'Protected Area – No Operations within Fenced Area'. Protective fences shall be maintained in situ until all equipment, machinery and surplus materials have been removed from the site. Nothing will be stored or placed in any area fenced in accordance with this condition and the ground levels within those areas shall not be altered, nor shall any excavation be made other than those detailed in this report, without the written consent of the Local Planning Authority.

8.20 The total exclusion zones are marked on the accompanying drawing in Appendix 5 (retained trees). British Standard 5837:2012 indicates the recommended areas for the Root Protection Areas (RPA) which should be enforced with protective fencing. Specifications within BS5837:2012 inform our recommendations for both the fencing type as detailed below in figure 2 and the location of this fencing which given the works within the RPA is located at the point where works within the RPA stop.

8.21 All protective fencing (except where specified above) is to be constructed in accordance with BS:5837 (2012) – specification reproduced below.



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

9.0 Conclusion and recommendations

9.1 There are trees within the site which fall within the constraints of BS5837 (2012).

9.2 Thirteen individual trees, one group and three shrubs were assessed in response to a proposed development. We have recommended the removal of three tree trees and two shrubs in order to facilitate the development.

9.3 One tree, a eucalyptus, is a tall tree of some visual significance. However, we have expressed the opinion this tree should be removed in the interests of good design and sound arboricultural practice with high quality replacement planting secured under planning condition.

9.4 There are two dead trees within the site which are entirely covered in dense ivy growth. These trees provide good screening and ecological benefits however their structural integrity is not known and it is recommended that this is assessed if they are to be retained. This is a safety recommendation and is not related to the proposed development.

9.3 The impact of the proposed development has been assessed and in our professional opinion provided that the works take place in accordance with the method statements specified in this report the works will not be detrimental to the retained trees.

9.4 No work shall commence on site until such time as this method statement has been submitted to and approved in writing by the Local Planning Authority. All retained trees on and trees immediately adjoining the site shall be protected from damage as a result of the works on site, to the satisfaction of the Local Planning Authority in accordance with its guidance notes and relevant British Standards (e.g. BS5837:2012) for the duration of the development. In the event that trees become damaged during construction, the Local Planning Authority shall be notified and remedial action agreed and implemented. In the event that any tree(s) dies or is removed without the prior consent of the Local Planning Authority, it shall be replaced within the first available planting season, in accordance with details agreed with the Local Planning Authority.

9.5 All technical issues relating to arboriculture should be addressed to MWA Arboriculture Ltd in the first instance. MWA Arboriculture Ltd will liaise between the Local Planning Authority and any interested parties.

9.6 It is suggested that the development proceeds in accordance with the above recommendations.

10.0 Images

View of eucalyptus T1

View of base of T1 showing lean and twin stem

Offsite lime T2

Offsite sycamore T3

View of group G1

View of ivy covered T2 & T3 and shrubs S1 & S2

T1 Category A - high quality and value

T1 Category B - moderate quality and value

T1 Category C - low quality and value

T1 Category U - unsuitable for retention

Trees to be retained

Trees to be removed

Tree protection barrier

Please refer to full arboricultural report for details

ARBORICULTURE

N

Project	10 Clorane Gardens, London, NW3 7PR
Title	Tree Protection Plan
Client	Kyson
Scale	1:250 @A3
Date	17/09/15
Revision	-
Drawing No	DEV150825-64TPP
Drawing Status	Issue

Catherine Marsh & Nicholas
Field

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7 September 2018

Re planning application for 10 Clorane Gardens, London NW3 7PR

We have been shown plans of a revised planning application in respect of 10 Clorane Gardens. We live next door at 12 Clorane Gardens. We fully support this revised planning application, including the extension into the driveway, and are prepared to waive our legal access rights over the area covered by this extension.

Catherine Marsh

Nicholas Field