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**REPORT ON POTENTIAL RETENTION
OF CYPRESS TREES ADJOINING
BASEMENT WORKS**

AT

**69 CROMWELL AVENUE
HIGHGATE
LONDON
N6 5HS**

BY

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**Our ref: J65.17
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1. EXPLANATORY SHEETS, TREE INSPECTION SHEET
2. TREE CONSTRAINTS PLAN, DRAWING NO J65.17/01

1. INTRODUCTION

- 1.1 Broad Oak Tree Consultants Ltd. received instructions from Mr. Andreas Weiskam through Edencoast Ltd to inspect a cluster of Cypress trees in proximity to permissioned basement works at No. 69 Cromwell Avenue, Highgate, London, N6 5HS. The purpose of the inspections was to advise as to whether the trees could be safely/practically retained given the proximity of the required excavations and their likely impact on root systems in relation to health and stability.
- 1.2 The trees were inspected on 4th December 2023 by Tim Laddiman, BSc.(Hons) M.I.C.For. M.Arbor.A., Chartered Arboriculturist and Principal Consultant of Broad Oak Tree Consultants Ltd.
- 1.3 At the time of reporting online checks with Haringey Council did not indicate any Tree Preservation Orders to be present. However, they did indicate that the site is within a Conservation Area. As such 6 weeks' notice of intent to undertake any tree works/removal (trees over 75mm diameter and not dead) would need to be given to the Council.
- 1.4 The assessment below is based on the supplied MHA Structural Design "Basement and Ground Floor GAs" plan, drawing no. 2201-MHA-22-22-DR-S-110 Rev. T02.

2. TREE INSPECTIONS

- 2.1 The tree indicated to be of interest is a maturing 14m height Lawson Cypress with two smaller (<10m) Lawson Cypress either side forming one overall canopy. All three trees are presumed to have been planted at the same time to provide evergreen screening of the adjoining neighbour's building. The central tree became dominant with the two smaller trees leaning out due to inter tree crowding for space.
- 2.2 A tree survey sheet and explanatory notes are included in Appendix 1. This describes the trees as a group, as they form one overall crown. Due to the interaction between trees as they have developed there is very limited live foliage on the largest stem to the east and west below 5m.
- 2.3 The location of the trees are indicated on the Tree Constraints Plan, drawing no. J65.17/01 in Appendix 2.
- 2.4 The trees appear to have been topped at circa 7.5m in the past with multi stemmed regrowth on the largest stem. Overall, all three trees appear in reasonable health.
- 2.5 Growth potential is considerable and if allowed to develop to full maturity they could readily exceed 25m in height. Their potential mature dimensions would be disproportionate to the location between buildings.

3. POTENTIAL IMPACT OF PERMISSIONED WORKS ON CYPRESS TREES

- 3.1 To consider the general impact of any proposed excavation on the health and stability of a tree a common assessment utilised the root protection area (RPA) calculation recommended in BS5837:2012 "Trees in Relation to Design, Demolition and Construction - Recommendations".
- 3.2 The calculated RPA does not represent the entire root system, rather what is considered the minimum radial distance and area for the tree to remain healthy and to avoid stability issues. This calculation is based on stem diameter at 1.5m above ground level.
- 3.3 The following has been calculated for the largest central stem in G1.

Stem diameter (cm)	Radial RPA (m)	Total RPA (m ²)
35	4.2	55

- 3.4 From the supplied referenced drawing the nearest existing wall to the north is 4.1m from the stem with foundations to the north-east at 4.8m and 3m to the north-west. It is anticipated that the roots from the Cypress' will be present throughout this space upto the existing building foundations.
- 3.5 The permissioned basement footprint is indicated to be 1.5m from the stem of the largest Cypress, cutting across the theoretical arc of the roots across the RPA.
- 3.6 Conversations with the builder indicated that a greater cut back would be required to shutter up the basement wall. Potentially the full extent of the excavation would be within 1m of the stem of the Cypress.
- 3.7 The extent of the required excavation would cause significant root severance to the Cypress'. The degree of root loss could result in a rapid decline in the health of the tree and the proximity of the cut to the stem would render the Cypress' at risk of root plate failure. Being evergreen and between buildings, where wind tends to funnel and vortex, the risk of wind related failure would be considerable.
- 3.8 Whilst reducing the height of the Cypress' could reduce the risk of wind related root plate failure the extent of the root loss would still be likely to result in a terminal decline in condition.
- 3.9 Given the circumstances and permissioned works, retention of the Cypress' are not considered viable. All three trees would be recommended for removal. New planting of smaller potential mature size trees or evergreen shrubs could be considered, once the works have been completed.

4. OTHER TREES AND SHRUBS

- 4.1 Whilst not part of the main inspection the following are comments on some of the other trees/shrubs present. The species references cross reference to the Tree Constraints Plan.

Table: Other trees and shrubs

Species	Comments	Recommendations
6m Silver Birch adjoining Cypress	Inappropriate location for growth potential. Very drawn up, slender stem.	Fell.
4m Buddleia	Outgrowing location.	Could be heavily reduced to circa 1m and will resprout and can be managed at more compact dimensions.
Dead Cherry	Dead.	Fell – Safety.

- 4.2 For all other trees there would be a risk of root damage if the soils are not protected from compaction during the works. The open areas of ground around the trees should either be fenced off or covered in boards to avoid compaction.
- 4.3 Any tree work should be carried out by a competent tree surgeon to comply with BS3998:2010 “Tree Work - Recommendations”.
- 4.4 All trees recommended for felling or tree surgery works should be checked for the presence of bats or nesting birds prior to works commencing. Disturbance to bats or nesting birds could contravene the Wildlife and Countryside Act 1981 and result in prosecution.

5. CONCLUSIONS

- 5.1 Due to the proximity of the required excavation for the foundations to the Cypress the root damage that will occur would render the trees liable to wind related collapse and/or terminal dieback.
- 5.2 The removal of the three Cypress would be recommended. Post construction replanting should choose species with smaller potential mature dimensions that can be easily maintained and will suit the space.
- 5.3 As the trees are located within a Conservation Area six weeks’ notice of intent to remove the trees will need to be given to the Council.

Tim Laddiman
Chartered Arboriculturist
Broad Oak Tree Consultants Ltd.

APPENDIX 1

TREE SURVEY EXPLANATORY SHEET

Height	in metres (estimated where ground uneven or access restricted).
Stem count	number of stems
Stem diameter	in mm. at 1.5m. above ground level.
Branch spread	radial spread in metres at four main compass points (estimated where no access).
Age class	Young - Y Semi Mature - SM Mature - M Over mature - OM Veteran - V
Height of crown clearance	in metres. Normally range of heights of outer branches above ground level, e.g. 2-4m.
Physiological condition	Good, Fair, Poor, Dead, Variable
Estimated remaining contribution	in years e.g. less than 10, 10-20, 20-40, 40+
Category grading	see attached sheet
Structural condition	comment on presence of defects, decay, crown form, past management, deadwood, other features worthy of note. N.B. If trees are ivy clad, no full structural assessment will have been possible.
Preliminary management recommendations	requirements of further investigations, works necessary to alleviate potential hazards based on current setting and levels of access. NB: Works that may be necessary in relation to development are not included here

CASCADE CHART FOR TREE QUALITY ASSESSMENT

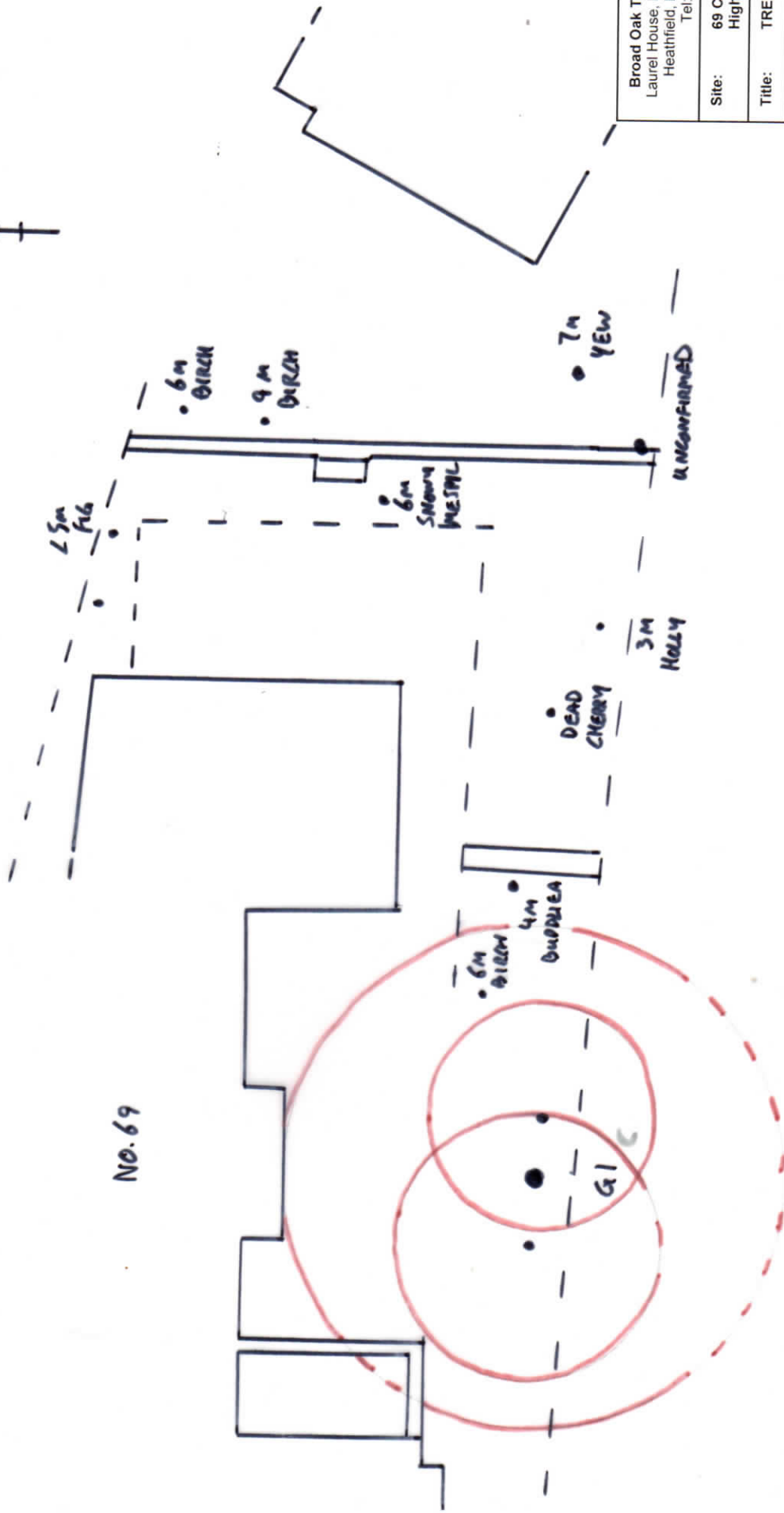
TREES FOR REMOVAL				
Category and definition	Criteria			Identification on plan
Category U Those in such a condition that any existing value would be lost within 10 years and which should, in the current context, be removed for reasons of sound arboricultural management	- Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other R category trees (i.e. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning) - Trees that are dead or are showing signs of significant, immediate and irreversible overall decline. - Trees infected with pathogens of significance to the health and/or safety of other trees nearby (e.g. Dutch elm disease), or very low quality trees suppressing adjacent trees of better quality NOTE Habitat reinstatement may be appropriate (e.g. R category tree used as a bat roost: installation of bat box in nearby tree.)			DARK RED
TREES TO BE CONSIDERED FOR RETENTION				
Category and definition	Criteria - Subcategories			Identification on plan
	1. Mainly arboricultural values	2. Mainly landscape values	3. Mainly cultural values, including conservation	
Category A Those of high quality and value: in such a condition as to be able to make a substantial construction (a minimum of 40 years is suggested)	Trees that are particularly good examples of their species, especially if rare or unusual, or essential components of groups, or of formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue)	Trees, groups or woodlands which provide a definite screening or softening effect to the locality in relation to views into or out of the site, or those of particular visual importance (e.g. avenues or other arboricultural features assessed as groups)	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)	LIGHT GREEN
Category B Those of moderate quality and value: those in such a condition as to make a significant contribution (a minimum of 20 years is suggested)	Trees that might be included in the high category, but are downgraded because of impaired condition (e.g. presence of remediable defects including unsympathetic past management and minor storm damage)	Trees present in numbers, usually as groups or woodland, such that they form distinct landscape features, thereby attracting a higher collective rating than they might as individuals but which are not, individually, essential components of formal or semi-formal arboricultural features (e.g. trees of moderate quality within an avenue that includes better, A category specimens), or trees situated mainly internally to the site, therefore individually having little visual impact on the wider locality	Trees with clearly identifiable conservation or other cultural benefits	MID BLUE
Category C Those of low quality and value: currently in adequate condition to remain until new planting could be established (a minimum of 10 years is suggested), or young trees with a stem diameter below 150mm.	Trees not qualifying in higher categories	Trees present in groups or woodland, but without this conferring on them significantly greater landscape value, and/or trees offering low or only temporary screening benefit.	Trees with very limited conservation or other cultural benefits	GREY
NOTE Whilst C category trees will usually not be retained where they would impose a significant constraint on development, young trees with a stem diameter of less than 150mm should be considered for relocation				

Tree ref. no.	Species	Height (m.)	Stem Count	Stem diameter or equivalent (mm.)	Branch spread (m.)				Age class	Ht. of crown clearance (m.)	Physiological condition	Estimated remaining contribution (years)	Category grading	Structural condition and Notes	Preliminary management recommendations
					N	E	S	W							
G1	3no. Lawson Cypress	<14	1	<350	<3	<2.5	<3	<1	Y	0.9+	Fair	20-40	C2	Three stems. Central dominant and twin stemmed at circa 5m with long vertical weak union. Topped at circa 7.5m in past. Other two trees drawn up and slight lean. Climbers in crown.	

APPENDIX 2



NO. 69



Broad Oak Tree Consultants Limited Laurel House, Burwash Road, Broad Oak, Heathfield, East Sussex, TN21 8SS Tel: 01435 862444	
Site:	69 Cromwell Avenue, Highgate, London, N6 5HS
Title:	TREE CONSTRAINTS PLAN
Key:	- Tree Location - Tree Number - BS calculated root protection area
BS Category of Condition A - most desirable for retention B - desirable for retention C - could be retained U - unsuitable for retention	
Scale: 1:100 @ A3 Date: 14.12.2023	
DRAWING NO.: J65.17/01	