# Appendix A.3
# Arboricultural Report

# Simon Pryce Arboriculture

# Report

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|---|---|
| **Client:** | **Burd Haward Architects** |
| **Site:** | **Land near 25 Wolsey Mews, Kentish Town, London, NW5 2DX** |
| **Subject:** | **Tree and proposed new building** |
| **Inspection date:** | **9 January 2015** |
| **Report date:** | **24 June 2015** |
| **Reference:** | **14/138** |
| **Author:** | **Simon Pryce, B.Sc., F.Arbor.A, C.Biol, MSB, MICFor**<br>**Arboricultural Association Registered Consultant** |

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Arboricultural Association
REGISTERED CONSULTANT

## 1 Introduction

1.1 This report has been prepared on the instructions of Burd Haward Architects in connection with a proposal to build on the site.

1.2 I have been asked to inspect a tree growing on the adjacent site and to prepare a report on it, as set out in British Standard 5837: 2012, Trees in relation to design, demolition and construction.

1.3 The site was visited and the tree inspected on 9 January 2015. On 12 March 2015 I inspected a trial pit that had been dug on the site boundary near the tree.

1.4 The tree was measured, its maturity, health and structural condition assessed and it was assigned to retention category C of the four [A,B,C,U] specified by BS5837. The individual description and other relevant information are contained in the attached schedule and it is shown on the site plans, based on originals prepared by Burd Haward Architects.

## 2 Background

### The site

2.1 The site is on the east side of Wolsey Mews near its northern end, bounded to the right (south) by no.25 and left by the garden of 3 - 7 Islip Street. It is about 12.5m wide by about 14m deep and currently most of it is covered by oversite concrete left where a block of three garages was demolished. The northern part is grass that was formerly part of the garden of 3 - 7 Islip Street.

2.2 The local planning authority is Camden Council and the site is in the Bartholomew Estate Conservation Area.

### Proposal

2.3 This is shown on the drawings produced by Burd Haward and is to construct a new building, which takes up most of the site and has two main storeys and a basement.

## 3 Tree

3.1 This growing in the grass in the communal garden of 3 - 7 Islip Street and is a mature rowan or mountain ash. It is in reasonable condition, but is aging naturally and there are signs of decay in some old pruning cuts where lower branches were removed in the past.

3.2 As part of the normal site investigation Chelmer Site Investigations dug a trial pit just inside the site boundary opposite the tree on 12 March 2015. This revealed made ground down to 1.4m, giving way to clayey gravel just before it terminated at 1.5m. It contained a few scattered roots up to about 1mm diameter in the made ground, with some hair and fibrous roots in the material below that. (see photo attached)

## 4 Discussion

### General comments

4.1 The two main functions of tree roots are 1) physical support and 2) the supply of water and nutrients from the soil. Roots will grow wherever conditions are favourable i.e. there is a suitable supply of air and water, so most tend to be in about the upper 600mm of the soil and even shallow excavation or minor level changes can be harmful. Construction near trees can also be harmful in less direct ways, such as soil compaction caused by heavy machinery and spillage of toxic materials such as diesel oil and cement.

4.2 British Standard 5837: 2012, Tree in relation to design, demolition and construction – Recommendations, specifies measures to avoid or minimise damage to trees that are retained on or near construction sites. This recommends that root protection areas [RPAs] are established round retained trees and that no ground work takes place within them unless measures are taken to safeguard the trees. RPAs are normally enclosed by suitable fencing such as weld mesh sections supported by scaffold poles driven into the ground.

**Root protection area**

4.3 The size of the RPA is based on the size of the tree concerned. The starting point is that for a single trunked tree it has an area equivalent to a circle with a radius 12 times the trunk diameter at 1.5m. The shape of the RPA can be modified where there is evidence that root spread is uneven or where there is sufficient rooting space in other directions to compensate for working closer to the tree.

**Implications for this case**
***Direct effects***

4.4 In this case rooting conditions in the immediate vicinity of the tree appear uniform, as its immediate surroundings are grass or concrete slab paving, which will not inhibit root growth, so a circular or nearly circular RPA will be appropriate here.

4.5 If the RPA is drawn as a circle about 8.4m$^2$ is under the building footprint, amounting to about 15% of the circle area. The new building has a basement, so pile and beam foundations would not reduce the amount of ground disturbance at rooting depths. However the incursion into the circle is well within what a healthy tree like this will tolerate, particularly as the trial pit found that only a few roots up to about 1mm diameter had grown across the site boundary. The tree has ample rooting space in other directions under the grass and concrete paving in the grounds of 3 - 7 Islip Street. Adjusting the RPA to exclude the proposal site and road, as shown on the plan, gives a slightly truncated circle with a radius only about 750mm larger than the full circle. All of this RPA is still under grass or light paving and there is ample space for roots to spread farther still to the north and east. Therefore the proposed building will not harm the tree, although some measures will be needed to protect it from incidental damage during the work, as outlined below.

4.6 Part of the tree's crown overhangs the site and some lower and mid level branch ends will touch the building, which is about 5m high to the eaves. However sufficient clearance can be created by pruning the ends of three branches 30 - 40mm in diameter, which will have no appreciable effect on the tree's condition or appearance.

**Indirect effects**

4.7 This is a small scale project and the tree is off the site, which makes it much less vulnerable than it might otherwise be to incidental damage from things such as vehicle impacts and soil compaction. It will be necessary to carry out some of the work from the grounds of 3 - 7 Islip Street and the work space there will need to be surrounded by a site security fence, which will also protect the tree and is shown in blue on the proposed site plan. Most of the ground in the work space is hard surfaced and outside the RPA. The small area of soft ground within the RPA and the work space can be covered with suitable ground protection to safeguard any underlying roots from the effects of compaction or contamination. This is hatched blue on the proposed site plan.

4.8 The site plan showing the proposed layout shows layouts for the protective measures and serves as the tree protection plan (TPP) recommended by BS5837:2012. Once the layout is finalised, this can be the basis of an arboricultural method statement, which can be made a condition of consent.

## 5 Summary and conclusions

5.1 Rooting conditions round the tree are reasonably uniform, so root spread is likely to be even and a circular or nearly circular RPA will be appropriate here.

5.2 If the RPA is drawn as a circle about 15% is under the building footprint and, as it has a basement, pile and beam foundations are not an option. However the trial pit found no sizeable roots under the site and that is well within what the tree will tolerate. A minor adjustment to the shape of the RPA to exclude the site still allows ample space for root growth, so the tree will not be harmed by the proposed building.

5.3 Some pruning of side growth will be needed to clear the building, but that involves minor shortening of small branches and will not affect the tree's health or appearance.

5.4 Work space will be needed within the grounds of 3 - 7 Islip Street and a combination of the site security fence and protection on the soft ground where the work is in the RPA will safeguard the tree against incidental damage.

5.5 Once the layout is finalised tree protection measures can be specified in more detail in an arboricultural method statement.

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**Photograph**

Trial pit dug near the tree on 12 March 2015

**Site:** **Site near 26 Wolsey Mews, Kentish Town, London, NW5**

**Inspection date:** **29 January 2015**

| Tree no. | Species | Age / vigour | Ht. m | Spread | | | | Dia. mm | RPA rad m | RPA area $m^2$ | Crwn ht. m | Comments and recommendations | Cat |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | N | S | E | W | | | | | | |
| The tree is growing in the adjacent site, as shown on the plan. | | | | | | | | | | | | | |
| 1 | Rowan *Sorbus aucuparia* | M/N | 13 | 4 | 4 | 3 | 4 | 320 | 3.8 | 46 | 6 | Old tree with a narrow fork at 3.5m where the trunk divides into two steeply ascending stems and a similar fork at about 6m. These could not be inspected closely, but appear reasonably sound. There are some old pruning cuts on the trunk where lower branches have been removed in the past and mower damage to root buttresses and the tops of surface roots visible in the grass. | C1 |

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**Notes**

Observations are made from ground level unless stated otherwise.
Trunk diameters are measured in millimetres at 1.5m above ground or at the narrowest point between the root buttresses and branch flare in multiple trunked trees; in such cases this is indicated by [c].
Crown spreads are taken from the trunk centre to the end of the longest live branches in the directions indicated [usually the four cardinal compass points]
Crown height is the clearance under the lowest significant branches.

Tree ages are estimated as below, based on the normal life expectancy of a tree of the species concerned on the site:

| | | |
|---|---|---|
| Immature. | [IM] | Newly planted or self-set tree. |
| Young | [Y] | Young tree that is established but has not yet attained the size or form of a fully developed example of its type. |
| Middle aged | [MA] | Between one third and two thirds of its estimated lifespan. |
| Mature | [M] | Over two thirds of it's estimated life span. |
| Over mature | [OM] | Declining and/or approaching the end of it's natural lifespan. |
| Dying/Dead | [D] | Dead/dying or so badly decayed that it should be removed without delay if a potential threat. |

Vigour is assessed on the basis of what is normal for that the species concerned as:

| | |
|---|---|
| High | [H] |
| Normal | [N] |
| Low | [L] |
| Dead / dying | [D] |

**Root protection areas [RPAs] - BS5837:2012**

For single trunked trees these are calculated as an area equivalent to a circle with a radius 12 times the trunk diameter at 1.5m. For multiple trunked trees it is based on the diameter of a single trunk that would have the same cross sectional area at 1.5m.

Any deviation from a circular plot should take into account the following factors whilst still providing adequate protection for the roots.

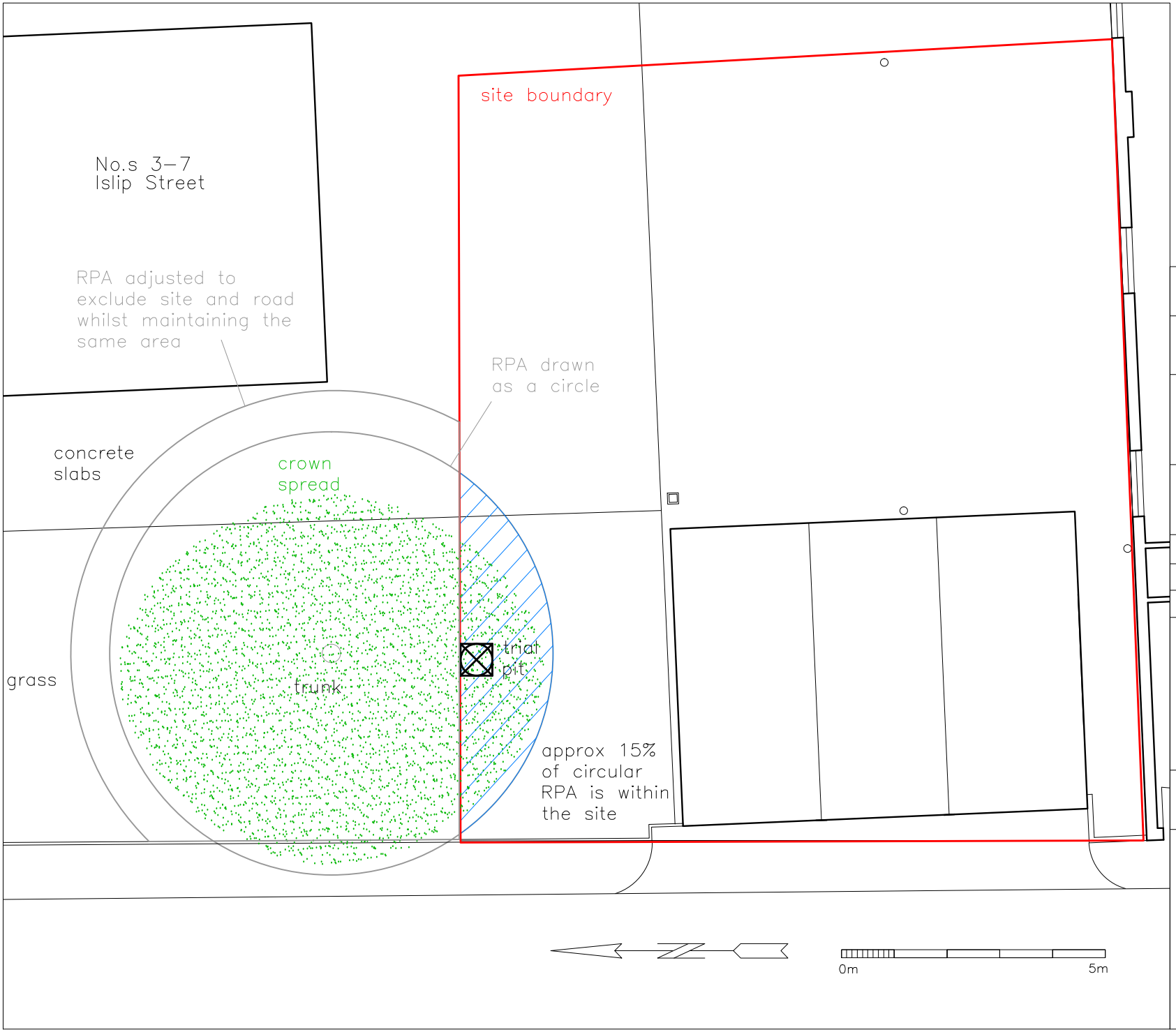
- The shape and disposition of the root system when known to be influenced by past or existing site conditions, such as the presence of roads, structures and underground services.
- Topography and drainage.
- The soil type and structure.
- The likely tolerance of the tree to root disturbance based on factors such as species, age and past management.

**Site:** **Site near 26 Wolsey Mews, Kentish Town, London, NW5**

**Inspection date:** **29 January 2015**

**Tree categories – based on BS5837: 2012, Trees in relation to design, demolition and construction - Recommendations**

| **Trees for removal** | | | | |
|---|---|---|---|---|
| **Category and definition** | | | | **Colour code** |
| **Category U** | | | | **Red** |
| Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years | • Trees that have a serious, irremediable structural defect, such that their early loss is expected due to collapse in the foreseeable future, including any that will become unviable after the removal of other U category trees. (e.g. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning.)<br>• Trees that are dead or showing signs of significant immediate and irreversible decline.<br>• Trees infected with pathogens significant to the health and/or safety of other trees nearby, or very low quality trees suppressing better ones nearby.<br>*NOTE: Category U trees can have existing or potential conservation value which it might be desirable to preserve.* | | | |
| **Trees for retention** | | | | |
| **Category and definition** | **Criteria – sub categories** | | | **Colour code** |
| | **1 – mainly arboricultural values** | **2 – mainly landscape values** | **3 – mainly cultural / conservation values** | |
| **Category A** | | | | |
| Trees of high quality with an estimated remaining life expectancy of at least 40 years. | Trees that are particularly good examples of their species, especially if rare or unusual; or those that are essential components of groups or formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue) | Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features | Trees, groups or woodlands of significant historical, commemorative or conservation value. (e.g. veteran trees or wood -pasture) | **Green** |
| **Category B** | | | | |
| Trees of moderate quality with an estimated remaining life expectancy at least 20 years. | Trees that might be included in category A, but are downgraded because of impaired condition (e.g. presence of significant though remediable defects, including unsympathetic past management and storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation. | Trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality | Trees with material conservation or other cultural benefits. | **Blue** |
| **Category C** | | | | |
| Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm | Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories | Trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value; and/or trees offering low or only temporary/transient landscape benefits | Trees with no material conservation or other cultural benefit. | **Grey** |




## Simon Pryce Arboriculture

Client:
Burd Haward Architects

Site:
Land near 26 Wolsey Mews, Kentish Town, London, NW5

Title:
Tree and proposed new building - proposed site and tree protection plan

Date: 24 June 2015

Ref: 14/138 | Rev: a

Scale: 1:100 at A4

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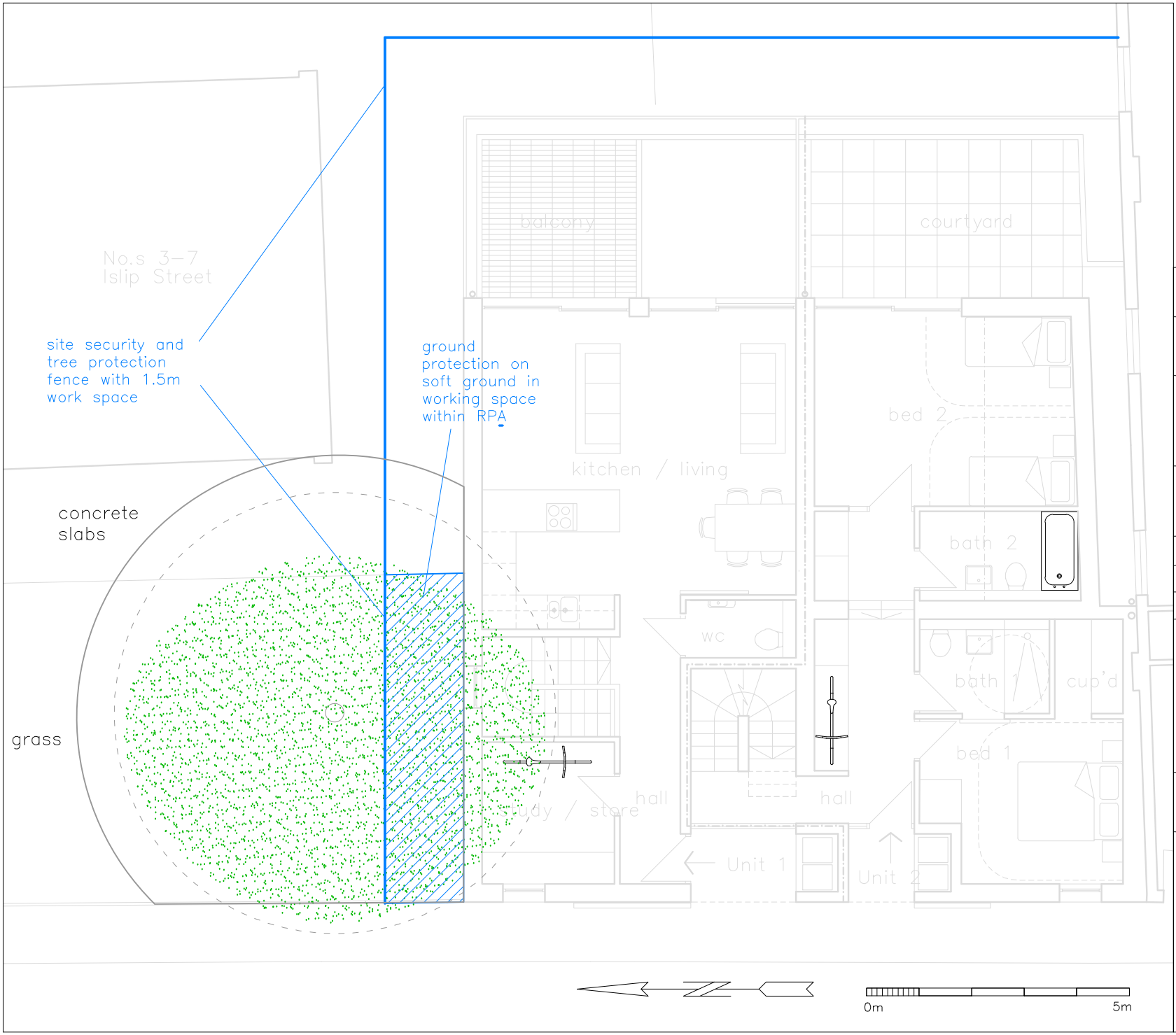
Original drawing:
Burd Haward Architects

Root protection areas [RPAs] are colour coded according to retention category from BS5837:2012, Trees in relation to demolition, design and construction:

A = green
B = blue
C = grey
U = red - dashed - also used to denote dead trees with no RPA

Tree protection fencing = mid blue

Crown spreads = mid green

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