Arborist Associates Ltd.

An Arboricultural Assessment of the Tree Vegetation on the Site Area for 'Phase 2' of the Knockrabo Large Scale Residential Development, Mount Anville Road, Goatstown, Dublin 14.

Prepared for: Knockrabo Investments DAC (Planning Applicant)

Prepared by: Felim Sheridan F. Arbor. A, RFS Dip, Nat. Dip & NCH in Arboriculture

Date:18th October 2024

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1.0 Instructions

1.1 I have been instructed by "Knockrabo Investments DAC" (planning applicant) to assess the tree vegetation located within the site area for 'Phase 2' of the "Knockrabo Large Scale Residential Development (LRD)", Mount Anville Road, Goatstown, Dublin 14 and to report on the following:

A - To assess the present condition of the trees within this site area. See **'Appendix 2'** and 'Drawing No.KB-P2-001' which has been prepared as a Tree Constraints Plan for detail.

B - To assess the impact of the proposed development layout on the trees located within and adjoining the site area indicating those for removal and retention. See 'Section 5.0' of this report and 'Drawing No.KB-P2-002' for detail.

C - To show on a drawing the position of the line of protective fencing that is to be erected around the trees to be retained at the very start of the works and be maintained until all construction works are complete. See 'Section 6.0' and **'Appendix 1'** of our report and 'Drawing No.KB-P2-003' for detail.

1.2 This report and associated drawings have been prepared by Mr. Felim Sheridan who holds the following qualification in arboriculture and has over 25 years of experience in working in the industry and is a Fellow of the Arboricultural Association (F. Arbor. A).

- Professional diploma Arboriculture (higher degree equivalent),
- National diploma Arboriculture (ND)
- National certificate Horticulture (NCH).

We have been involved in numerous large scale development projects from the preplanning stage through to full planning and implementation of the projects on the ground.

2.0 Report Limitations

2.1 The inspection has been carried out from ground level only and is a preliminary report. It does not include climbing inspections or below ground investigations. Should a more detailed inspection be thought necessary on any tree/s, then this will be highlighted within my recommendations.

2.2 The assessment is based on what was visible at the time and recommendations made are subject to the knowledge and expertise of the qualified Arboriculturist that carried out the above inspections.

2.3 Trees should be inspected on a regular basis as their health and condition can change rapidly due to biotic and abiotic agents. The recommendations within this

report are valid for a 12-month period only and this may be reduced in the case of any change in conditions to or in the proximity of the trees.

2.4 Before undertaking any work to these trees, it would be advisable to check whether or not there is any planning or tree preservation controls are in operation, if they are it will be necessary to obtain consent before undertaking any works (pruning or felling). The 'Forestry and Wildlife Acts' will also need to be taken into consideration prior to carrying out any tree works and these will need to be completed in consultation with an ecologist to mitigate impact on wildlife such as bats and nesting birds.

3.0 Survey Data Collection and Methodology

3.1 The Arboricultural data which is presented within the attached tree schedule (see **'appendix 2'**), has been recorded in line with BS 5837:2012. The tree survey was conducted by collecting and assessing the following information on all significant trees located on site and plotted on the land survey map provided.

- Tree Number (metal tags attached to each tree).
- Tree species both common and botanical.
- Dimensions (Trunk diameter, height, crown spread and crown clearance).
- Age Class
- Physiological Condition
- Structural Condition
- Preliminary Recommendations
- Estimated remaining contribution within their present environment
- Retention category

3.2 Each tree included within this assessment has either been marked previously with a small aluminum tag with a reference number or where no tag reference number was present /visible, they have been numbered numerically.

3.3 The inspection of the trees involves a visual assessment from ground level only and does not include any invasive means of assessing the trees internally, their below ground parts or the aerial parts that are not visible from the ground. Good, fair and poor have been used to summarize the physiological and structural conditions of these trees with the comments giving more detail. Other items that may limit the assessment of a tree included Ivy cover, scrub vegetation and/or basal suckers.

3.4 Their retention category has been assessed and categorized according to their quality and value within the existing context (BS-4.5), and not in conjunction with any proposed development plans. In making this assessment, particular consideration was given to;

Arboricultural Value: An assessment of the trees health, structural form, life expectancy, species and its physical contribution to or affects on other features located on site.

Landscape Value: An assessment of a trees locality including its contributions to other features as well as to the site as a whole.
Cultural Value: Additional contributions made such as conservation, historical or commemorative value.

3.5 The trees have been divided into one of the following categories, in accordance with the cascade chart illustrated in table 1 of BS 5837:2012. The classification process begins by determining whether the tree falls within the (U) category, if not then the process will continue by assuming that all trees are considered according to the criteria for inclusion in the high category (A). Trees that do not meet these strict criteria will then be considered in light of the criteria for inclusion in the moderate category (B) and failing this, they will be allocated a low category (C).

The following summarizes each of the categories:

Category U – Those trees in such a condition that any existing value would be lost within 10 years.

These would be seen as trees that have little or no potential either due to their physiological and/or structural condition and their removal would be seen necessary either now or in the short-term as the most appropriate management option. Due to the condition of these trees, they should not be considered a constraint on the design layout of the proposed development of this site area.

Any category 'U' trees within this site area have been identified on our drawings (Nos.KB-P2-001 & KB-P2-002) with a 'Red' donut around their trunk positions.

Category A - Trees of high quality/value with a minimum of 40 years life expectancy.

These would be seen as trees that have the potential to contribute to the tree cover of these grounds for the long-term and consists of trees of all age classes from semi-mature to mature.

Any category 'A' trees within this site area have been identified on our drawings (Nos.KB-P2-001 & KB-P2-002) with a 'Green' donut around their trunk positions.

Category B – Trees of moderate quality/value with a minimum of 20 years life expectancy.

These would be seen as trees that have the potential to contribute to the tree cover of these grounds for the medium term and consists of trees of all age classes from semi-mature to mature.

Any category 'B' trees have been identified on our drawings (Nos.KB-P2-001 & KB-P2-002) with a 'Blue' donut around their trunk positions.

Category C – Trees of low quality/value with a minimum of 10 years life expectancy

These trees would be seen as having the potential to provide tree cover for the short to medium term. This category consists of trees of all age classes from young to mature. These trees should not be seen as a considerable constraint on the development of these lands, but should be considered for retention where viable.

The category 'C' trees within this site area have been identified on our drawings (Nos.KB-P2-001 & KB-P2-002) with a 'Grey' donut around their trunk positions.

3.6 The trees have been plotted onto the attached 'drawing (DWG No.KB-P2-001)' by a land survey company and their positions are assumed accurate. This drawing has been developed as a constraints drawing to aid the design team in the layout of the development and the tag numbers referred to in the condition tree report have been shown on this drawing along with their crown spreads and their retention category colour coded as recommended by BS 5837 2012. The constraint (Minimum Root Protection Area) for each tree has been shown with an 'Orange Circle' and all proposed development should be planned to be positioned outside those trees proposed for retention allowing for additional space for construction activities.

The Root Protection Area **(**RPA) is the minimum area around individual trees to be protected from disturbance during construction works; RPA is usually expressed as a radius in metres measured from the tree stem.

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, drainage ditches 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.

4.0 Brief Site Description and Survey Findings

4.1 The site area is made up of the formal grounds of “Cedar Mount” and a small part of the adjoining site area known as “Knockrabo Lands” which have been developed for a permitted residential development. They initially comprised of two separate properties that had been incorporated into one when these grounds were used as the “Bank of Ireland Sports Grounds” and have since been divided up again into two properties. The grounds around “Knockrabo” had been left derelict for many years and the grounds around “Cedar Mount” were developed as a private residence with formal landscaping carried out for this purpose and these have also now been left derelict.

Figure 1: Shows the Survey area outlined in red.
Line for illustrative purposes only

4.2 The site area slopes generally uniform and gentle except at the extreme northern end of the site where the land falls away towards the proposed ‘Eastern Bypass’ reservation. It is adjoined to the north by other lands originally belonging to this property that have been set aside for a road reservation and further north of this again, the lands have been developed for another residential scheme. To the south it is adjoined by the existing ‘Mount Annville Road and cordoned off from this by a stone wall’, to the east by the remaining grounds of ‘Knockrabo’ which have been developed and to the west by a neighbouring residential house and a plot of land set aside for allotments.

4.3 This site area is located within a mature, suburban area on lands with a zoning of ‘A’ within the County Development Plan which seeks to provide residential development and improve residential amenity while protecting the existing

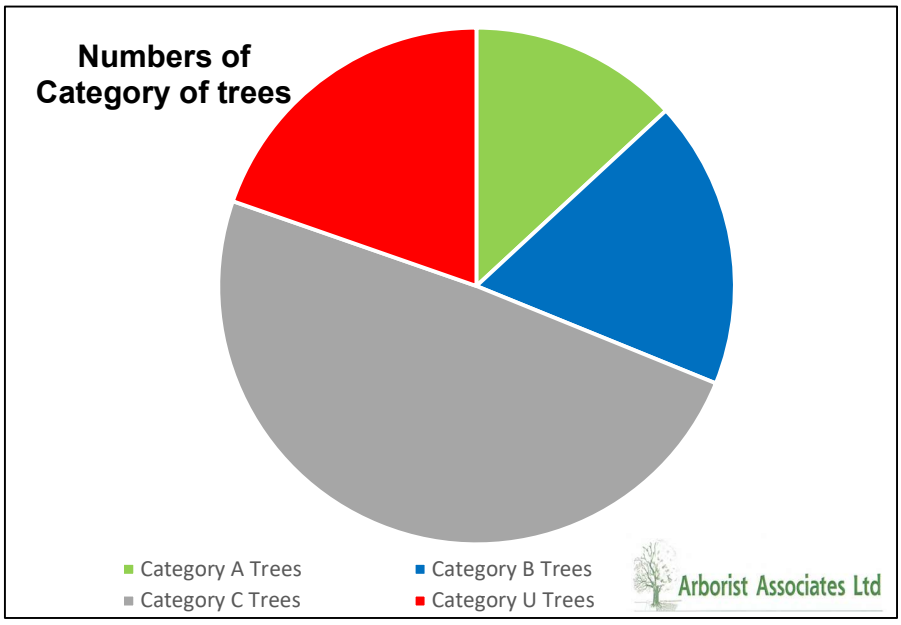
residential amenities and is sperate to the additional tree objective on site which seeks to protect and preserve trees, woodland and hedges.

4.4 The grounds of 'Cedar Mount" had been maintained formally up until recent years and had open lawn areas with the bulk of the trees being located around its perimeter. There is a mix of tree species present from those that formed part of the original planting on these grounds which includes species such as Horse Chestnut, Ash, Sycamore, Beech, Oak, Cedar and Pine to those that have been added as part of landscaping of these grounds in the last twenty or so years particularly along the eastern boundary separating it from the 'Knockrabo Lands'. A diverse mix of tree species have been used in this landscape planting which includes a number of Wellingtonia, Larch and Cedar trees which are in keeping with the tree species used in the original planting layout. The bulk of these trees would appear to have been planted as either extra heavy standards or large semi-mature trees and most of these would appear to be establishing well and have the potential to form part of the long-term tree cover on these grounds.

4.5 Since the grounds have lain derelict, the tree and ornamental shrub and hedge planting has been allowed to grow unmanaged with coarse weed and scrub species such as Bramble allowed to establish with most of this area now overgrown.

4.6 A planning permission was granted on this site area under planning reference 'D17A/1124' and this grant of planning permission has now expired. Under this grant of planning permission, site clearance works were undertaken which included the removal of trees to leave what is now present on site. From our current review of the site area in February 2024, 59No. Tree entries have been recorded along with two hedges, four tree groups and one scrub area which have been numbered numerically.

The following pie chart and table give a breakdown of their category grading based on our review of their physiological and structural condition as per 'BS5837 2012'.



Category Grade	No. of trees
Category U **10 Tree Entries**	**Tree Nos.** 0660, 0678, 1389-1390, 0693, 0715, 1392, 0492, 0741, 0489 & 0490.
Category A **8 Tree Entries**	**Tree No.** 0664, 0710, 0711, 0734, 0491, 1394, 1395 & 1396.
Category B **11 Tree Entries**	**Tree Nos.** 0659, 0666, 0681-0682, 0692, 0712, 0713, 0714, 0744, 1397, 1398 & 0996
Category C **30 Tree Erees** + **4 tree groups +** **2 hedges +** **1 Scrub Area**	**Tree Nos.** 0656, 0657, 0661, 0662, 0663, 0665, 0679-0680, 1386-1387, 1388, 0684, 0685, 1391, 0694, 0695, 1393, 0708, 0716, 0717, 0737, 0740, 0742, 0765, 0802, 0804, 0805, 1399-1400, Tree 1, Tree 2, Tree 3 &Tree 4. Tree group 1, 2, 3 (0722-0733) & 4, **Hedge Nos.** 1 & 2 Scrub area No.1
Total	**59Tree Entries + 4 tree groups + 2 Hedges + 1 scrub area**

4.7 Site Photographs

Figure 2: The Site at 'Cedar Mount'.

Figure 3 shows Tree Nos. 0656-0666.

Figure 4 shows Tree Nos. 0678-1391.

Figure 5 shows Tree No.0491 a large prominent tree in this area.

Figure 6 shows Tree Nos.1393 & 0708.

Figure 7 shows Tree Nos.0712-0715.

Figure 8 shows Tree No.0734 a large prominent tree.

Figure 9 shows some of the large semi mature Wellingtonia trees that were planted in recent years as part of the landscaping of this area when the main house was returned to a private residential house.

Figure 10 shows Tree Nos.1 – 4.

Figure 11 shows Tree No.0996 a large prominent mature Monterey Cypress Tree.

Figure 12 shows Tree Nos.0489 & 0490 two large mature Corsican Pine.

5.0.0 Arboricultural Implication Study

5.1.0 Introduction

5.1.1 Knockrabo Investments DAC intend to apply for permission for a Large-scale Residential Development (for a period of 7 years) with a total application site area of c. 2.54 hectares, at Knockrabo, Mount Anville Road, Goatstown, Dublin 14. The proposed development relates to Phase 2 of the development on the 'Knockrabo' lands. Phase 1 of 'Knockrabo' was granted under Dún Laoghaire-Rathdown County Council (DLRCC) Reg. Ref. D13A/0689/An Bord Pleanála (ABP) Ref. PL06D.243799 and DLRCC Reg. Ref. D16A/0821 (Phase 1) and DLRCC Reg. Ref. D16A/0960 (Phase 1A) and comprises a total of 119 No. units.

The site is bounded to the south-east by Mount Anville Road; to the south by 'Mount Anville Lodge' and by the rear boundaries of 'Thendara' (a Protected Structure – RPS Ref. 812), 'The Garth' (a Protected Structure – RPS Ref. 819), 'Chimes', 'Hollywood House' (a Protected Structure – RPS Ref. 829); to the south-west by existing allotments; to the north by the reservation corridor for the Dublin Eastern By-Pass (DEBP); and to the east by the site of residential development 'Knockrabo' (Phase 1, permitted under DLRCC Reg. Ref. D13A/0689 / An Bord Pleanála (ABP) Ref. PL.06D.243799 and DLRCC Reg. Ref. D16A/0821 (Phase 1); and DLRCC Reg. Ref. D16A/0960 (Phase 1A)). The site includes 'Cedar Mount' (a Protected Structure- RPS Ref. 783), 'Knockrabo Gate Lodge (West)' (a Protected Structure RPS Ref. 796), including Entrance Gates and Piers.

The development with total of c.17,312.2 sq.m. gross internal area (GIA) will consist of the construction of 158 No. residential units (12 No. houses and 146 No. apartments (35 No. 1 beds, 81 No. 2 beds, 3 No. 3 beds and 27 No. 3 bed duplex units), a childcare facility (c.400 sq.m. GIA) and Community / Leisure Uses (c. 223 sq.m. GIA), as follows:

Block E (c.1,077 sq.m. GIA): a 5-storey including semi-basement podium level apartment block, comprising 8 No. apartments (1 No. 1 bed and 7 No. 2 beds); Block F: (c.8,390.8 sq.m. GIA): a part 2 to part 8 storeys including semi basement podium apartment block, comprising 84 No. units (31 No. 1 beds, 50 No. 2 beds and 3 No. 3 bed duplex units);

Block G: (c.2,022.1 sqm GIA): a part 4 to part 5-storey apartment block, comprising 20 No. units (3 No. 1 bed units, 14 No. 2 bed units and 3 No. 3 bed units); (with sedum roof/PV panels at roof level of Blocks E, F and G; a communal Roof Terrace of c. 198 sqm on Block F; and balconies/wintergardens on all elevations of Blocks E, F and G);

Duplex Blocks: (c. 3,292.6 sqm GIA): 1 No. 3 storey and 1 No. 4 storey block, comprising a total of 32 No. units (8 No. 2 bed units and 24 No. 3 bed duplex units);

10 No. (new build) houses: 6 No. 4 bed 2.5-3 storey terraced/semi-detached units (ranging in size from c.162.1 sqm GIA to c.174.2 sq.m. GIA); 1 No. 3 bed 2

storey detached unit (126.2 sq.m. GIA); 1 No. 3 bed 2 storey mid terrace unit (c.127.4 sq.m. GIA); 1 No. 3 bed 2 storey end of terrace unit (c.127.9 sq.m. GIA); and 1 No. 1 - 2 storey 'Gate House' (c. 122.6 sq.m. GIA) to the west of proposed repositioned entrance to Cedar Mount from Mount Anville Road;

The use of existing 'Coach House' as a residential dwelling and for internal / external repair / refurbishment works at ground and first floor levels, including the removal of 3 No. roof lights, 1 No. metal clad dormer roof window and external water tank; the construction of 2 No. single storey flat roof extensions (c.35.5 sq.m. GIA), revisions to the external facade including the addition of 1 No. new window ope on the south facade and rendered finish to all original facades, solar panels at roof level; removal / re-use of stone to form new garden wall; to provide 1 No. 2 bed house (c. 99.5 sq.m. GIA) with refurbished stone shed (c. 13.9 sq.m. for storage GIA).

The use of Knockrabo Gate Lodge (West) (a Protected Structure) as a residential dwelling; and for repair / refurbishment works including demolition of existing section of extension on top of stone boundary wall; removal of 1 No. roof light and 1 No. internal partition wall; construction of replacement extension (c.77.5 sq.m. GIA) to provide 1 No. 3-bed unit (c. 128 sq.m. GIA) with solar panels at roof level, bin storage, landscaping, all repair works to the existing Gate and Piers, and all associated internal and external elevational changes.

The proposed development comprises works to Cedar Mount (a Protected Structure) to provide: 1 No. Childcare Facility at Lower Ground Floor level (c.400 sq.m. GIA) with associated external play and bin storage areas; Community / Leisure Uses at Ground Floor Level (c. 223 sq.m. GIA), comprising Gym / Studio (c.35.6 sq.m. GIA), Library / Office (c. 35.9 sq.m. GIA), Meeting room (c.28.4 sq.m. GIA) and Conservatory room (c. 21.6 sq.m. GIA); and 2 No. 2 bed apartments at 1st floor level, (c.77.6 sq.m. GIA and c.88.2 sq.m. GFA). The works to Cedar Mount to consist of:

At lower ground floor/ basement level, the removal of internal walls and sections of external and internal walls and access doors; insertion of openings through external and internal walls; repair of existing "loggia" (covered external corridor) on northern, north-western and north-eastern facades, with revised elevations comprising glazed panels / glazed entrance doors located within loggia opes; the additional area (c. 58 sq.m. GIA) to form part of proposed Childcare Facility;

At ground floor level removal of wooden staircase to 1st floor level and replacement with open-tread staircase, and construction of conservatory room (c. 21.6 sqm GIA) with flat roof on south - western side of Cedar Mount with sedum roof; removal of 1 No. WC;

At 1st floor level removal of sections of internal walls; insertion of doors through internal walls;

Re-instatement of 1 no. new chimney stack on the western end of the existing roof; replacement of rubble masonry finish with lime and sand plaster finish on all elevations relating to sections of original façade; removal of security bars from existing windows in front porch; replacement / reconfiguration of rainwater

downpipes, hopper heads and associated roof outlets; Re-modelling of extension on northern side including replacement of timber / pressed metal cladding with brick / zinc cladding and glazing at ground and 1st floor levels, removal / replacement of external doors and windows; replacement of flat roof deck, parapet, eaves and roof-light with flat roof comprising brick / zinc clad parapet and removal of internal link at 1st floor level; repair works to external walls at ground floor level; Construction of rendered blockwork wall and steel handrail to terrace and associated repair works to section of existing parapet wall on eastern side of Cedar Mount; all hard and soft landscaping; revisions to garden wall and pillars on western side of Cedar Mount; and all associated internal and elevational changes; and

The repositioning of existing access (including gates and piers) to Cedar Mount (a Protected Structure) on Mount Anville Road to the northeast with associated works to boundary wall to Mount Anville Road.

The development will also provide 130 No. car parking spaces consisting of 117 No. residential spaces (comprising 54 No. at podium level, 63 No. on-street and on curtilage spaces, 6 No. visitor spaces and 2 No. on-street car sharing spaces); and 5 No. non-residential spaces; provision of 366 No. bicycle parking spaces (consisting of: 288 No. residential spaces, 70 No. (residential) visitor spaces, 6 No. (non-residential) spaces and 2 No. visitor (non-residential) spaces); and 9 No. motorcycle parking spaces.

All other ancillary site development works to facilitate construction, site services, piped infrastructure, 1 No. sub-station, plant, public lighting, bin stores, bike stores, boundary treatments, provision of public, communal and private open space areas comprising hard and soft landscaping, site services all other associated site excavation, infrastructural and site development works above and below ground. In addition to the repositioned access to Cedar Mount (a Protected Structure) as referenced above, the development will be served by the permitted access road 'Knockrabo Way' (DLRCC Reg. Ref. D13A/0689; ABP Ref. PL.06D.243799, DLRCC Reg. Ref. D16A/0821 and DLRCC Reg. Ref. D16A/0960). The application does not impact on the future access to the Reservation for the Dublin Eastern Bypass.

5.1.2 The current proposed site layout has been generated in consultation with the projects design team which have worked closely to retain a substantial number of the better-quality existing trees on site and this was in accordance with BS5837:2012, "Trees in relation to design, demolition and construction – Recommendations". The tree cover of this area will be strengthened with new tree, shrub and hedge planting using a mix of tree species including native species within the completed landscaped development. Engineering requirements for drainage and utilities have also been integrated into the overall site while being mindful of the required root zones around the trees being retained.

5.1.3 This section of my report is designed to assess the impact of the proposed development layout on the existing tree vegetation on this site area and to look at the necessary measures that will need to be undertaken to help retain the trees

shown for retention free from adverse impacts for the duration of the construction period.

5.1.4 On the accompanying ‘drawing (DWG. No.KB-P2-002)’, I have marked the trees for retention with ‘Green Hatched’ crown spreads, those for removal as a result of the proposed development layout with ‘Red Hatched’ crown spreads and those for removal solely as a result of their condition as part of management and not impacted upon by the proposed development layout with an open red crown spread.

5.1.5 On the accompanying drawing (DWG. No.KB-P2-003) I have shown the position of the protective fencing using ‘Orange Hatching’ and this needs to be erected at the very start of the works and be maintained in place throughout the construction works period around those trees to be retained.

5.2.0 Impact on Tree Vegetation

5.2.1 The following is a list of the trees for removal either due to condition/management or due to the proposed development layout:

Reason for Removal	Tree No.	Category Grade
Being removed directly due to condition as part of management.	**Tree Nos. 0660, 0678, 0693, 0715, 1392, 0741 & 0492.** These trees are in poor condition physiologically and/or structurally with limited remaining life expectancy and their removal is being recommended as part of active management. These trees are not directly affected by the proposed development layout.	**U** (7No. Tree entries)
Being removed directly due to the development layout.	**Tree Nos. 1389-1390, 0489 & 0490.** These trees are also in poor condition physiologically and/or structurally with limited remaining life expectancy and their removal is being recommended as part of active management irrespective of the development going ahead.	**U** (3No. tree entries)
	Tree Nos. 0710 & 0711. Tree No.0710 is a large prominent mature Copper Beech of some prominence within the treescape of this area and forms part of the earlier tree planting. Tree No.0711 is a semi mature Blue Cedar of good quality but currently of a relatively small size and not prominent within the treescape of the greater area yet, but in time has the potential to contribute to this.	**A1** (2No. tree entries)
	Tree Nos. 1397 & 1398 These are two relatively young Wellingtonia trees planted in more recent years as part of the landscaping on this house and currently of a size where they are not significant within the treescape of the greater area.	**B1** (2 No. tree entries)
	Tree Nos. 0661, 0684, 0685, 1388, 1391, 1393, 0708, 0765, 0802, 1399-1400, 0804 & Tree Nos.1 – 4.	**C1** (15No. Tree entries)
	Tree groups 1, 2 & 3 (0722-0733).	**C2** (3No. group entries)
	Hedge Nos.1 & 2 and scrub area No.1.	**C2** (3No. entries)

5.2.2 **Breakdown of Trees for Removal:**

From the 59No. Trees entries within the site area, 29 (49%) are being shown for removal to accommodate the current proposed development layout or as part of active management and this is made up of a mix of tree species, age classes and sizes and these are dispersed out over the entire site area.

This is broken down into the following category grades:

- 10No. (100%) category **'U'** trees with 3No. needing to be removed directly due to the development layout and 7No. being recommended for removal as part of active management.
- 2No. (25%) category '**A'** trees.
- 2No. (18%) category '**B'** tree.
- 15No. (50%) category **'C'** trees plus 3No. Small Tree Groups, 2No. Hedges and one scrub area.

In respect of arboricultural considerations pertaining to retained and removed trees at the subject site, we note 84No. Trees have been previously removed, as permitted under DLRCC Reg. Ref. D17A/1124 (now expired - Refer to 'Appendix 3' of this report for full schedule of trees which were assessed and removed as permitted under DLRCC Reg. Ref. D17A/1124) with a further 4No. Trees also removed or have fallen since giving a total of 88No. trees lost from the site area. A further 29No. existing trees are now proposed to be removed as part of the current scheme, resulting in a total loss of 117No. trees from the site area over the permitted / proposed schemes. We note that the proposed landscaping of the development provides for the additional planting of 188No. trees and in this regard, the proposed quantum of planting will result in a net gain in the number of trees on this site area 71No. trees.

5.2.3 All efforts have been made to retain as much of the tree and shrub vegetation around the site area that is important to its treescape and sylvan character. The loss of the above list of trees will have minimal impact on the overall treescape and sylvan character of this area as the bulk of the trees requiring removal to facilitate the proposed development are of a small size, many of which had been planted in more recent years (within the last 20 years) as part of a landscaping project when 'Cedarmount House' was separated from the 'Knockrabo' lands and refurbished as a private residential home.

To help compensate for the loss of tree vegetation from this area as a result of the proposed development layout; condition and to improve the diversity and continuity of tree cover on these grounds, new tree, shrub and hedge planting using a variety of species and sizes including extra heavy standards (35-40 cm girth) are to be used in the landscaping of these grounds once the development is completed. See 'Landscape Architects Drawings' and 'Schedules' for details.

5.2.4 The majority of the large prominent mature trees that are important to the treescape of these grounds and the greater area are being retained within open areas within this development and will continue to be an asset to the treescape of this area for the future.

For those trees proposed for retention, all necessary protection measures will need to be put in place in order to prevent or reduce impact to its very minimum. protection measures used will include the erection of protective fencing at the very start of the works, monitoring of the works by the project Arboriculturist throughout the construction process and the use of tree friendly techniques and products for the construction process.

For the most part, the trees are being retained within open spaces around the proposed development and will be easily incorporated into these open spaces with no impact from the works. It will be important that the root zones of these trees as shown on our tree protection plan are cordoned off at the commencement of the construction works by strong sturdy protective fencing as shown in the sample of such fencing on our tree protection plan and within **'Appendix 1'** of this report. Landscaping within the root zone of the trees will need to be kept simple with minimal hard landscaping and planting within these root zones and where surfacing is required for paths, these will need to be installed over the existing ground levels using a No-Dig methodology to avoid causing soil and root damage within the root zone of the surrounding trees.

5.2.5 **Main areas for consideration during the proposed development/ construction works are:**

Item	Comments
Tree Pruning	As part of the initiating works, the crowns of some of the trees are to be pruned to remove dead/unstable growth, the pruning of individual limbs/branches or entire crowns to reduce size due to structural weaknesses or to improve their juxtaposition within the built environment. A preliminary list of these works is given within the condition tree assessment in **'Appendix 2'** of this report and these are to be reviewed on site prior to being carried out. All tree felling and pruning work will need to be carried out by qualified and experienced tree surgery firm *before* any construction work commences and all tree works are to be in accordance with *BS3998 (2010) Tree Work – Recommendations.* All trees for removal will need to be identified by the project arborist and to be felled to stumps. All stumps in particular those which are located within the root zone of trees being retained will need to be ground out using a mechanical stump grinder taking care not to cause root damage to the trees being retained. To abate concerns over safety, the necessary remedial tree surgery works required to promote health and safety will need to

Item	Comments
	be carried out by a competent tree surgery firm. It will also be necessary for the trees health and safety to be reviewed by a suitably qualified Arboriculturist on a regular basis preferably over 12 months and the necessary remedial tree surgery works carried out when required.
Tree Protection	Trees being retained will need to be protected from unnecessary damage during the construction process by effective construction-proof barriers that will define the limits for machinery drivers and other construction staff. Ground protected by the fencing will be known as the 'Work Exclusion Zone' and sturdy protective fencing will need to be erected along the points identified in the Tree Protection Plan (DWG No.KB-P2-003) **prior** to any soil disturbance and excavation work starting on site. This is essential to prevent any root or branch damage to the retained trees. The British Standard BS5837: *Trees in relation to design, demolition and construction (2012)* specifies appropriate fencing, see **'Appendix 1'** for details. The fencing will need to be 2.3m high and constructed in accordance with 'figure 2 of BS 5837 2012' (see **'Appendix 1'** for detail) using vertical and horizontal scaffold bars well braced together with the verticals spaced out at a maximum of 3m centres and onto this, weld mesh panels are to be securely fixed with wire or scaffold clamps. All weather notices will need to be erected on the fences with words such as: "Tree Protection Fence — Keep Out". When the fencing has been put in place, then construction work can commence. The fencing should be inspected on a regular basis during the duration of the construction process and shall remain in place until heavy building and landscaping work have finished and its removal is authorized by the project Arboriculturist.
Construction	It will be important that good housekeeping is in place at all times so that the site does not become congested. All construction works are to be well planned in advance so as not to put pressure on the protective zone around the trees. All works are to occur from outside the protective zones. Where work space between the works area and the protective fence lines is limited/ restricted, alternative work methods will need to be looked at so as to keep the work areas to their minimum in order to reduce the extent of soil and root damage occurring to the trees proposed for retention. See 'Section 6.2.3 of BS5837 2012' for detail on working within the RPA of trees. Care will need to be taken when planning site operations to ensure that wide or tall loads or plant with booms, jibs and counterweights can operate without coming into contact with retained trees. Such contact can result in serious damage to

Item	Comments
	them and might make their safe retention impossible. Materials, which can contaminate the soil, e.g. concrete mixings, diesel oil and vehicle washings, cannot be discharged within 10m of a tree stem. Fires are not to be lit in a position where their flames can extend to within 5 m of foliage, branches or trunk. This will depend on the size of the fire and the wind direction. Notice boards, wires and such like are not to be attached to any trees. Site offices, material storage and contractor parking are to be located outside the work exclusion zones of the tree vegetation being retained.
Services	Services entering and leaving the site area are routed so they run outside the work exclusion zones (fenced off areas) of the trees being retained. There is sufficient space on the site to allow this to occur and in consultation with the project engineers a satisfactory juxtaposition has been achieved. See 'Project Engineer's Drawings' for detail for service routes. Prior to the installation of any services, these are to be marked out on site for review by the project Arboriculturist and a detail method statement is to be prepared by the installation contractor in conjunction with the project Arboriculturist on how these services are to be installed while providing protection to the tree vegetation shown for retention.
Landscaping	The existing ground levels within the RPA of the trees are to be retained and incorporated into the finished landscaped development. Where changes in levels occur, these are to be either graded into the finished levels starting outside the RPA or alternatively, retaining wall structures are to be used differentiating between the different levels. All soft and hard landscaping within the RPA of the trees to be retained are to be carried out manually and the soil levels are not to be lowered or raised resulting in root damage to the trees. All surfaces are to be porous to allow the free movement of air and moisture to the roots below. Recommendations of 'sections 8 of BS5837 2012' are to be adhered to during the landscaping within the RPA's of these trees. The following are the main areas where landscaping is proposed within the root protection area of the trees being retained: • Grass seeding will require the preparation of the ground. This should be planned in advance of the finishing landscaping of the development as it will take time to

Item	Comments
	implement. The existing vegetation is to be strimmed off tight to ground level and left to sprout again. Then it is to be sprayed off with an appropriate herbicide to kill off the regrowth. Any loose material is to be removed manually and a thin layer of good quality top soil (50-100mm) is to be spread out over the area to create a level surface and a seed bed for the grass. No machinery is to be allowed into the root zone of the trees during these works and the ground for barrow routes should be protected by boarding. • Some paths run through the RPA of trees to be retained. Where these paths encroach into the RPA of trees, they will need to be laid above the existing ground levels prepared in advance similar as the area for grass seeding. To help create a stable surface, 100mm CellWeb should be laid on the existing ground, filled with a 20-40mm clean angular stone and the desired surface laid on this. See 'Section 6.8' of this report for further detail on installing a 'No Dig' path taking on board the product supplier's guidance and the advice of the project engineers.
Boundary Treatments	Along the southern (roadside) boundary, the existing wall is to be made good where defective. To accommodate access in order to carry out these works, it will be necessary in places to carry out some cutting back of the tree and shrub vegetation. This should be kept to the minimum and should not have any negative impact on the treescape of this area. Where screening is weak or is weakened by this pruning, new tree and shrub planting can be added as mitigation. Some of the new proposed boundary treatments come within the RPA of the trees to be retained and where this occurs, these will need to be of a fence/rail type structure where there will only be a need to excavate small diameter holes for the uprights. To accommodate these works, it will be necessary for the pruning of the undergrowth in particular and in some instances the lower crowns of trees to facilitate these fences/railings and their erection. Again this pruning will need to be kept to a minimum and will not impact on the trees. For the boundary fences/ railings where they run through the root zone of trees small diameter holes will need to be dug for the uprights. These holes for the uprights are to be dug manually with no machinery allowed inside the root protection areas. Work zones within the root protection areas of these trees will need to be protected during the construction of the boundary fences by boarding as per 'section 6.2.3 of BS 5837 2012'.

5.3.0 Monitoring

5.3.1 Any construction works in close proximity to retained trees are advised to be undertaken in accordance with approved method statements prepared by the construction contractor under the direct supervision of a qualified consultant Arboriculturist and will comply with BS5837: 2012. Therefore, during the construction works, a professionally qualified Arboriculturist is recommended to be retained by the principal contractor or site manager to monitor and advice on any works within the RPA of retained trees to ensure successful tree retention and planning compliance.

5.3.2 It is advised that tree protection fencing, any required special engineering and supervision works must be included in the main tender documents, including responsibility for the installation, cost and maintenance of tree protection measures throughout all construction phases.

5.3.3 Copies of the tree removal and tree protection plans '(DWG No. KB-P2-002 & KB-P2-003)' a copy of 'BS 5837(2012)' and 'NJUG 4 (2007)' should all be kept available on-site during development. All works are to be in accordance with these documents.

5.3.4 On the completion of the construction works, all trees retained are to be reviewed by the project Arboriculturist and any necessary remedial tree surgery works required to promote the health of the trees and safety are to be implemented and these works will need to comply with BS3998: 2010 and be carried out by a competent tree surgery firm.

6.0 Arboricultural Method Statement/Tree Protection Strategy

6.1 The objective of this arboricultural method statement/tree protection strategy is to provide information for the main contractor/site manager on how the trees to be retained are to be protected during a construction project and so that they can prepare their own site-specific detailed method statement for their works.

6.2 It is necessary for tree protective fencing to be erected and all other mitigation measures required to be put in place prior to the development works commencing on site and these are to enclose and protect the root zone of the trees proposed for retention. See 'Drawing DWG No. KB-P2-003', for the position of the protective fencing and other mitigation measures.

6.3 The protection of the vegetation shown for retention within this proposed development is divided into three main sections starting with the preconstruction stage right through to post construction and the reassessment of this retained vegetation.

Stage 1:

6.4.0 Pre-Construction Works

6.4.1 Prior to the main construction works commencing on site the following needs to be planned:

1. The developer or main contractor needs to appoint an Arboriculturist for the duration of the project. The Arboriculturist is to make regular site visits to ensure that the tree protection measures are in place and adhered to.
2. The main contractors and all sub-contractors work force are to be briefed on the tree protection and ensure that these measures are to be kept in place throughout the construction period.
3. All personnel are to adhere to the recommendations of the appointed Arboriculturist.
4. Any issues in relation to the trees shown for retention must be discussed with the appointed project Arboriculturist and the necessary mitigation measures put in place without delay and prior to the works being carried out.

6.5.0 Site meeting

6.5.1 Prior to any works commencing on site, it is necessary that a meeting be arranged between the project manager, site foremen, the project landscape architect, the project Arboriculturist and local authority to identify and finalize the vegetation for removal and the line of the protective fencing.

6.6.0 Tree works

6.6.1 The client or the main contractor is to appoint a tree surgery company competent of carrying out the remedial tree surgery works and tree felling that are required on this site. The tree surgery contractor is to produce a method statement detailing how he plans to undertake the works and informing the site foreman of the process so the necessary steps can be taken to ensure the works are carried out safely and efficiently. The works are to be carried out by appropriately trained personnel taking account of the recommendations of 'BS3998 2010'.

6.6.2 **Tree removal -** Trees for removal are to be identified by the project Arboriculturist and the method of removing the stumps is to be carried out to the recommendations of the project Arboriculturist. The trees in the way of the development layout are to be removed in such a manner not to cause damage to those being retained. Where necessary to avoid damage to the trees to be retained, these are to be removed in sections by a tree surgeon (Arborist). Where necessary, the roots and stumps are to be dug out with a digger except where the stumps are located within the RPA (root protection area) of trees being retained. In this instance, the stumps are to be ground out with a mechanical stump grinder taking care not to cause damage to the roots of trees being retained.

6.6.3 **Remedial tree surgery works -** The necessary remedial tree surgery works required to promote health and safety of the trees to be retained is to be carried out. A schedule of these works is to be produced by the project Arboriculturist taking into consideration the trees within their new built environment and prior to these works being carried out; they are to be agreed with the local authority.

6.7.0 Erection of the protective fencing

6.7.1 Once the trees have been removed, the line of the protective fencing that is required around the trees being retained **must be** erected as per 'DWG. No.KB-P2-003'.

6.7.2 Where it is expected that there will be a high concentration of construction works, the fencing will need to be 2.3m high and constructed in accordance with 'figure 2 of BS 5837 2012' (see fencing detail 1 within **'Appendix 1'**) using vertical and horizontal scaffold bars well braced together with the verticals spaced out at a maximum of 3m centres and onto this, weld mesh panels are to be securely fixed with wire or scaffold clamps.

6.7.3 Signs need to be attached to these fences warning people to 'keep out'. See detail within 'Drawing No.KB-P2-003' & **'Appendix 1'**.

6.7.4 Once the protective fence line is erected, then the main construction works can commence on site.

6.7.5 **Storage of Material, Work Yards and staff car parking -** These areas must be identified on the work drawings prior to the construction works starting. These must be positioned outside the root protection areas around the trees being retained.

6.8.0 Ground Protection Installation for Pathways and Working Areas

6.8.1 The ground protection is to take the form of a product such as 'CellWeb' and this will need to be installed in the following manner under the guidance of the project Arboriculturist and engineer:

Step 1 - The existing ground cover vegetation (e.g. grass/weeds) if necessary is to be killed off using an appropriate herbicide (see Pesticides Handbook [15]). Herbicides that can leach through the soil, e.g. products containing sodium chlorate, are not be used.

The soil surface is not to be excavated to establish a sub base for the finished surfaces.

Loose organic matter, woody vegetation and/or turf are to be removed carefully using hand tools.

If there is a delay in installing the surface following clearing, the soil surface once prepared is to be covered immediately either with hessian sacking or plastic to prevent the surface drying out until the new surface is installed.

Step 2 – Place the geotextile separation filtration layer over the prepared ground surface. Use a Fibertex F4M non-woven geotextile with dry joints overlapping by 300mm.

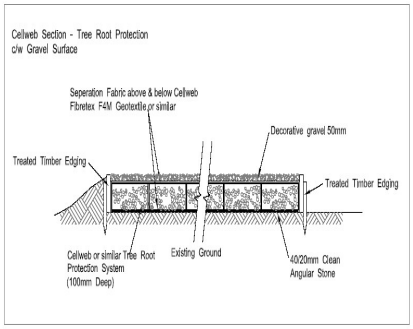
Step 3 – Place constraints along the edges to contain the fill material. These can be of such material as treated timber or railway sleepers.

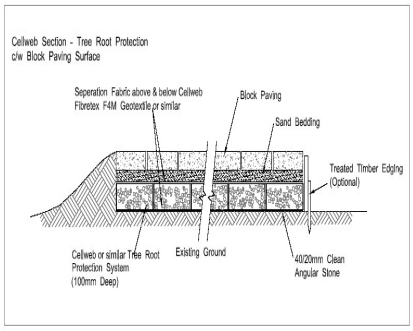
Step 4 – Place the required cellular confinement system (Cell Web150-200mm) over the geotextile and pin/anchor the cell walls open for infilling.

Step 5 – Place the infill material of a 20-40mm clean sharp stone in the open cells of the Cell Web pushing the infill ahead of you so that the machinery is driving on the filled CellWeb. Compact the infill material to the desired density.

Step 6 – Slightly surcharge the Cell Web product with 25mm of 40/20mm clean angular stone.

Pictures show the Cell Web being installed on the ground.
The below diagram shows how the Cellular confinement system should be installed.





Stage 2:

6.9.0 The Construction Works Stage

6.9.1 **Protective fencing -** During the course of the works, special attention must be paid to ensure that these fences and all other tree protection measures are kept in place, in good order and remain upright, rigid and complete at all times. They must be checked daily by the main contractor/foreman and any damage noted will need to be fixed immediately.

If works need to take place inside the protective fence lines, then the project Arboriculturist will need to be informed in advance of the works taking place and the mitigation measures required to reduce impact on the tree vegetation will be agree. These mitigation measures will include the supervisions of these works by the project Arboriculturist.

The protective fencing and all other protection measures are to remain in place throughout the construction works phase and will only be removed when all the works are complete and at this stage incorporated into the finished landscape.

6.9.2 **Excavations -** The excavation works are only to commence once the protective fence line and all other protection measures are in place.

The excavations need to be viewed on site once marked out with the project manager, site foreman and the project Arboriculturist in advance of excavation to determine the extent of the impact and the work space required to allow for the construction works to proceed and to assess what additional mitigation measures will be required to protect the trees to be retained. In certain areas, it may be necessary to use an alternative method of excavating to prevent encroachment into the RPA of the vegetation to be retained and this may include such methods as retaining walls or similar.

Where roots of trees to be retained are exposed during the excavation works, these are to be assessed by the project Arborist and pruned back beyond damaged material. The excavated face is then to be covered with soil or with Hessian sacking to prevent further drying out and death of root material. Where the Hessian sacking is used, it will be necessary to keep this moist especially during dry periods.

6.9.3 **Working within the RPA** *(Root Protection Area)* – If it becomes necessary to carry out works within the RPA of a tree being retained, these must be discussed and agreed with the project Arboriculturist. All works must be carried out manually. Root pruning is to be undertaken by an Arboriculturist using proprietary cutting tools such as a secateurs or hand pruning saw.

The ground within the RPA of the trees must be protected from damage as per the recommendations of '**section 6.2.3** of BS5837 2012'. See detail within **'Appendix 1'** on ground protection using boarding for pedestrian loading.

6.9.4 **Finished ground levels/Landscaping -** The existing ground levels within the RPA of trees must be retained and incorporated into the finished landscaped development. Where changes in levels occur, these are to be either graded into the finished levels starting outside the RPA or alternatively, retaining wall structures are to be used differentiating between the different levels.

All soft and hard landscaping within the RPA of the trees to be retained must be carried out manually and the soil levels must not be lowered or raised resulting in root damage to the trees. All surfaces are to be porous to allow the free movement of air and moisture to the roots below. Recommendations of 'sections 8 of BS5837 2012' must be adhered to during the landscaping within the RPA of the trees being retained.

6.10.0 Other items

6.10.1 The following is a list of additional activities ***that will not be allowed*** within the RPA or within the vicinity of the trees being retained.

1 - Storage of equipment, fuel, construction material, or the stockpiling of soil or rubble.
2 - Burning rubbish
3 -The washing of machinery
4 - Attaching notice boards, cables or other services to any part of the tree.
5 - Using neighbouring trees as anchor points.
6 - Care is required when using machinery such as Tele-porters, cranes or other equipment close to trees so as not to damage the crown or any other parts.

Stage 3:

6.11.0 Post Construction Works

6.11.1 This project is not to be considered complete until all retained trees have been re-examined by the project Arboriculturist and the remedial works necessary to ensure the health of the trees and the immediate safety of the end user of this development are implemented.

This report has been produced as part of a planning application for these lands and is for the sole use of the above-named client and refers to only those trees identified within. Its use by any other person(s) in attempting to apply its contents for any other purpose renders the report invalid for that purpose.

Signed Felim Sheridan Date 18/10/2024

Felim Sheridan
F. Arbor. A, RFS Dip, Nat. Dip & NCH in Arboriculture

Felim Sheridan's qualifications:
Fellow of the Arboricultural Association (F. Arbor. A), Professional diploma Arboriculture (RFS), National diploma Arboriculture (ND) and National certificate Horticulture (NCH).

Appendix 1

1.1 Sample of Temporary Tree Protection Fencing Detail.

1.2 Sample of Ground Protection within Root Zone.

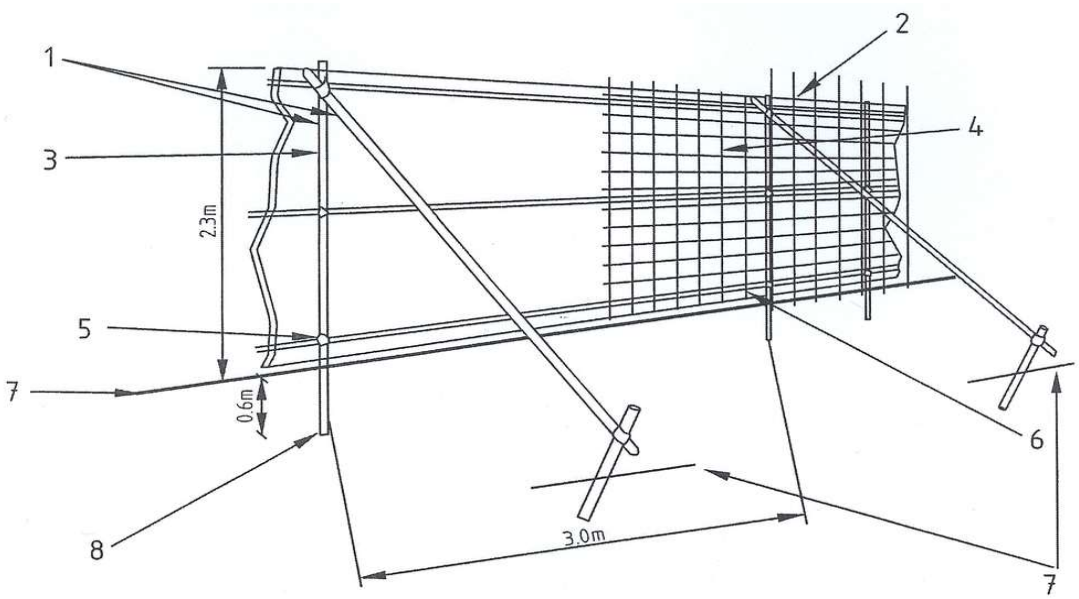
1.3 Sample of Trunk Protection

1.4 Sample of Toolbox Talk Sheet

1.5 Sample of Site Monitoring Sheet

Appendix 1.1

Protective Fence



1 Standard scaffold poles
2 Uprights to be driven into the ground
3 Panels secured to uprights with wire ties and, where necessary, standard scaffold clamps
4 Weldmesh wired to the uprights and horizontals
5 Standard clamps
6 Wire twisted and secured on inside face of fencing to avoid easy dismantling
7 Ground level
8 Approx. 0.6m driven into the ground

Figure 2. – Protective fencing for RPA

Sample of signage to be placed on fence pannels.

Appendix 1.2 – Samples of ground protection within root zones

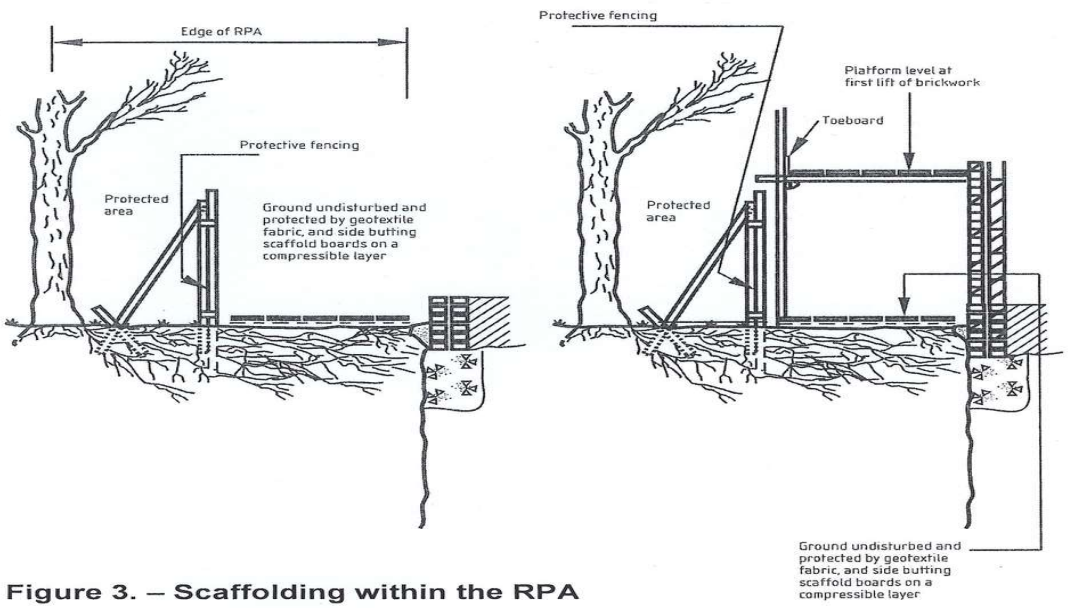
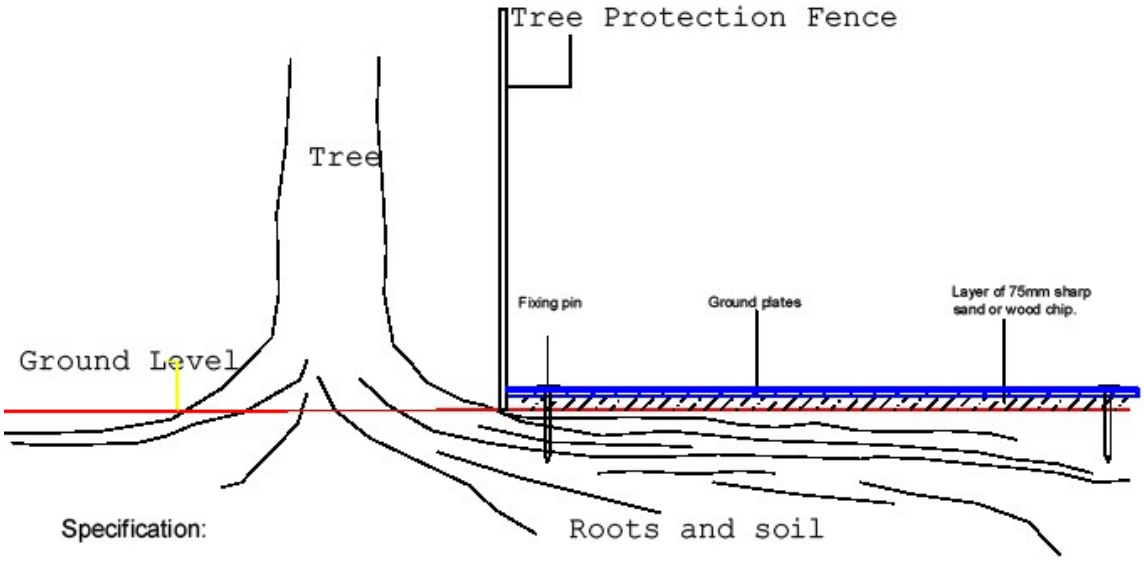


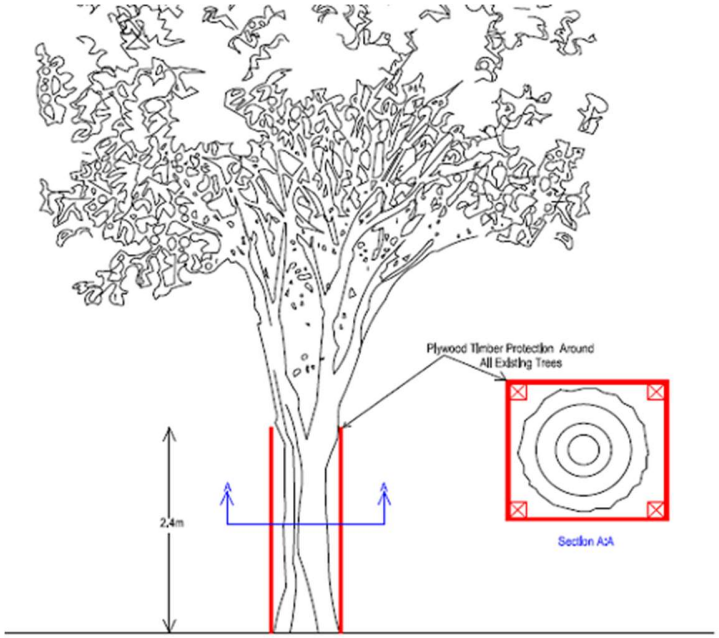
Figure 3. – Scaffolding within the RPA



Specification:

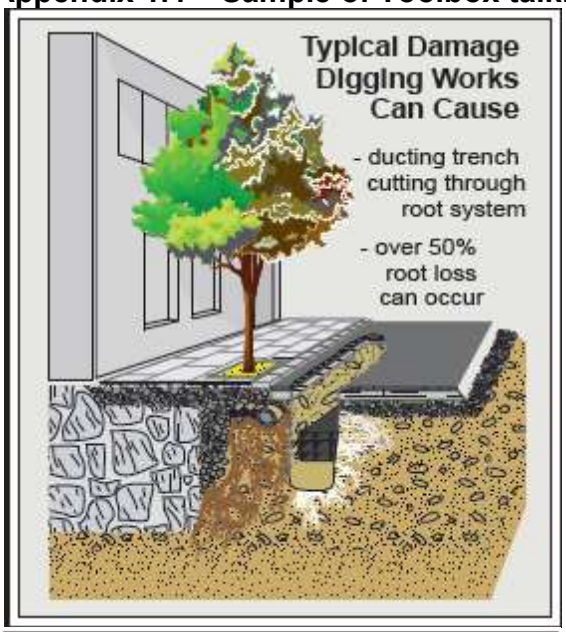
1. Lay min. 75m depth of sharp sand/wood chip over identified ground area
2. Lay side-butting scaffold boards/15mm poly propylene road plate over sand/wood chip
3. Fix ground protection cover into place with pins/pegs
4. Erect protection fence (where feasible).
5. Remove ground protection upon completion/landscaping only.

Appendix 1.3 – Sample of trunk protection.



Detail on individual trunk protection

Appendix 1.4 – Sample of Toolbox talk.



Do

- ✓ when excavations are to be carried out within 10m of a tree ask a foreman or site engineer for the correct procedures
- ✓ report any signs of trees roots to your foreman or site engineer
- ✓ always have the tree specialist on site when excavations are in close proximity to urban trees
- ✓ always use a vacuum extractor or air spade for excavations under or near urban trees even if the trees are located on the pavement
- ✓ cover any exposed tree roots with hessien matting and soak matting throughout the period of excavation
- ✓ backfill excavations near trees with similar soils that were originally excavated

Don't

- ✘ Dig near any trees without asking the foreman or site engineer for the correct procedures
- ✘ Use an digger/excavator or hand dig within 10m of a tree on the street
- ✘ Excavate near trees without having the tree specialist on site to monitor the works
- ✘ Leave trees roots uncovered or dried out

Appendix 1.5 – Sample of site monitoring sheet

Protected Tree Monitoring Form
Site Inspection Report

Zone:	
Location:	
Tree Group / Number	
Tree Protection Checked By:	**Date:**
Status of tree protection:	
Remedial measures / comments:	
Copied to:	
Project Manager	**Yes / No**
Project Manager's Arboricultural Consultant:	**Yes / No**
Copied To Project Manager:	**Yes / No**
Contact Name	
Signed:	**Date**

Appendix 2

Condition Tree Assessment

Of the Tree Vegetation on the Site Area for 'Phase 2' of the Knockrabo Large Scale Residential Development, Mount Anville Road, Goatstown, Dublin 14.

Date: 22nd February 2024

Survey Notes

All codes referred to in this report are approximate and serve as a general guide only.

Reference to Numbers: The trees have metal tags attached and these correspond with the numbers in this report.

Reference to age class is as follows:

Young: A tree, which has been planted in the last 10 years.

Semi Mature A tree that is less than 1/3 the expected height of the species in question.
Early Mature: A tree, which is between a 1/3 and 2/3's the expected height of the species in question.
Mature: A tree that has reached the expected height of the species in question, but still increasing in size.
Over Mature: A tree at the end of its life cycle and the crown is starting to break up and decrease in size.

Reference to Physiological, Structural Condition and other comments:

Physiological Condition

Good: A tree with no major defects, but possibly including some small defects.
Fair: A tree with some minor defects such as bark Wounds, isolated decay pockets or structure affected due to overcrowding.
Poor: A tree with more serious defects such as extensive deadwood, decay or effective to the point of being dangerous.

Structural condition and other comments –
This records noted visual defects and other information about the trees health and structure.

Estimated Remaining Contribution in years

This is based on an Arboricultural assessment of the tree and is estimated based of the findings noted at time. Trees still need to be reviewed on a regular basis, preferably annually.

Less than (<) 10 years remaining contribution
10 + years remaining contribution
20 + years remaining contribution
40 + years remaining contribution.

Retention Categories

The purpose of the tree categorization method is to identify the quality and value of the existing tree stock, allowing informed decisions to be made concerning which trees should be removed or retained should development occur.

It is carried out in accordance with section 4.5 (Tree Categorization Method) of BS 5837 2012.

Summary

Main categories
Category U – Those trees in such a condition that any existing value would be lost within 10Years. Most of these will be recommended for removal for reasons of sound Arboricultural practice.
Category A - Trees of high quality/value with a minimum of 40 years life expectancy.
Category B – Trees of moderate quality/value with a minimum of 20 year life expectancy.
Category C – Trees of low quality/value with a minimum of 10 years life expectancy

Sub categories

1 – Mainly Arboricultural Values
2 – Mainly Landscape values
3- Mainly Cultural and conservation value

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.

If a layout design places Category U trees in an inaccessible location such that concerns over public safety are reduced to an acceptable level, it may be preferable or possible to defer the recommendation to fell.

The terms ‘Group, woodland or tree line’ is intended to identify trees that form cohesive Arboricultural features either aerodynamically (e.g. trees that provide companion shelter), visually (e.g. avenues or screens) or culturally including for biodiversity (e.g. parkland or wood pasture), in respect to each of the three subcategories.

Reference to Crown spread, Height and Trunk Diameter:
This gives a guide to the area taken up by the tree.
Trunk diameter is the diameter of the main trunk taken at a height of 1.5m and is recorded in millimeters (mm).
Height records the overall height of the tree and is given in meters (m).
Crown Spread records the extent of the branches normally in a north, south, east and west direction from the base of the tree and is given in meters (m).
Clear crown height records the distance between the ground and the first branch form the base of the tree and is given in meters (m)

Tree No.	Tree Species	Ht. (m)	Stem Dia. (mm)	Branch Spread (m)	C-Ht. (m)	Age Class	Phys Con.	Structural Condition Other Comments	Preliminary Works	Remaining years	Cat. Grade
								N-North **S-**South **E-**East **W-**West **Ht.-** Height **C-**Crown **Phy Con.-** Physiological Condition	**A-** Average **Dia.-** Diameter **Cat.-** Category		
		A condition Assessment of the trees within the Site Area for 'Phase 2' of the Knockrabo Large Scale Residential Development (LRD), Mount Anville Road, Goatstown, Dublin 14.							**Note:** See section 5 of report for detail on trees to be removed to facilitate the proposed development.		
		The survey starts in the south east corner of the site area along the boundary with the neighbouring private property.									
0656	**Ornamental Apple** *Malus cv. Profusion*	5	100, 180, 150	2N 2S 2E 2W	1	Early Mature	Fair/ Poor	Fair/ Poor It forms part of the group canopy formation and provides lower bulking within this area. The lower branches have been removed in the past in order to raise up its crown. This tree is being suppressed by neighbouring trees, in particular the adjacent Beech Tree (No. 0657). There is heavy Ivy cover on its main trunk.	Retain as part of the bulking at the present time. Cut Ivy at ground level and clear around the base to allow re-inspection.	10+	C1
0657	**Weeping Beech** *Fagus sylvatica 'Pendula'*	14	400	2N 4S 2E 4W	0	Semi Mature	Fair	Fair/Poor It leans at an angle from base and is growing from underneath the canopy of a neighbouring tree and its structure has been affected as a result. It has an asymmetrical crown, leaning south and it has been left more open/exposed by the removal of neighbouring trees. There is a steel bar embedded in its lower trunk, creating a structural weakness and twisting on the lower trunk. Ivy cover on the main trunk is beginning to extend up into its crown.	Retain at present and monitor stability. Cut Ivy at Ground level and clear around the base to allow re-inspection.	10+	C1
0659	**Sycamore** *Acer pseudoplatanus*	15	650	6N 7S 5E 6W	4	Mature	Fair	Fair A large prominent mature tree with heavy Ivy cover on main trunk extending up into its crown limiting our assessment to some degree. It is slightly asymmetrical weighed into the neighbouring property to the west. It contains some deadwood within its crown.	Remove dead/unstable growth from within its crown. Cut Ivy at ground level and clear around the base to allow re-inspection.	20+	B1

Tree No.	Tree Species	Ht. (m)	Stem Dia. (mm)	Branch Spread (m)	C-Ht. (m)	Age Class	Phys Con.	Structural Condition Other Comments	Preliminary Works	Remaining years	Cat. Grade
								The Ivy has been cut at ground level in the past and is re-establishing. It is located slightly in from the boundary line.			
0660	**Elm** *Ulmus glabra*	14	340	3N 1S 1E 1W	2	Early Mature	Fair Poor	Poor It is a tall tree growing up for light and it is as part of a group. There is Ivy along the main stem. It is self-seeded and is growing up on the outer canopy edge of Tree No. 0659 with an asymmetrical crown formation as a result. It is causing some overcrowding within this area.	I would recommend its **removal** as part of the selective thinning / management in this area.	<10	U
0661	**Bay Laurel** *Laurus nobilis*	8	100, 80, 50	2N 2S 2E 2W	0	Early Mature	Fair / Good	Fair/Poor It forms a multiple-stemmed tree from base and forms part of the lower bulking. It is growing on the edge of the old driveway and has received little recent maintenance. It is suckering heavily at the base and Holly is beginning to grow into its lower crown. The lower branches have been trimmed in order to maintain clearance with the entrance avenue. These stems may become problematic as they grow larger in size. The removal of the adjacent Elm Tree, (No. 0660) will provide space for this tree to develop.	Remove Holly and tidy up around its base	20+	C2
0662	**Lawson Cypress cv.** Chamaecyparis lawsoniana	10	240	1N 0S 1E 1W	1	Semi Mature	Fair	Fair It is growing up through the canopy of neighbouring trees and forms part of the lower bulking. It has an asymmetrical crown due to growing as part of a group. It has received little maintenance with Ivy on the main stem. The lower branches have been removed in the past in order to raise up its crown. It has suffered bark wounding to lower trunk and construction	Retain as part of the bulking within this area. Remove building material stored within root zone.	20+	C1

Tree No.	Tree Species	Ht. (m)	Stem Dia. (mm)	Branch Spread (m)	C-Ht. (m)	Age Class	Phys Con.	Structural Condition Other Comments	Preliminary Works	Remaining years	Cat. Grade
								material is being stored within root zone.			
0663	**Bay Laurel** *Laurus nobilis* clump	8	200 X 5 Stems	3N 1S 2E 3W	1	Mature	Fair	Fair It consists of a clump of stems growing against the boundary wall with the neighbouring property. It forms part of the lower bulking along this boundary and provides some screening between properties. There are suckers developing from its base with some tall, upright limbs. It is sheltered within its present group environment. Ivy cover on some stems is beginning to extend up into its crown.	Remove dead/ unstable growth from within its crown. Cut Ivy at ground level and clear around the base to allow re-inspection. It may require further works / management in order to contain in the future.	10-20	C2
0664	**Deodar Cedar** *Cedrus deodara*	20	560	6N 4S 5E 5W	5	Early Mature	Fair	Fair It initially formed part of a group, but some neighbouring trees have since been removed leaving it slightly more open / exposed as a result, particularly on the northern side. It contains some naturally suppressed deadwood and storm damage throughout its crown. There is some evidence of minor soil alterations around its base and construction material is being stored within root zone. There is Ivy on the main stem.	Remove all deadwood and unstable growth and storm damage from within its crown. Remove building material stores within root zone.	40+	A1
0665	**Bay Laurel** *Laurus nobilis*	6	130	2N 1S 1E 2W	0	Semi Mature	Fair/ Poor	Fair / Poor It is growing under the canopy of Tree No. 0664. There are some suckers present at its base. It forms part of the lower bulking within this area and some lower branches have been removed in the past in order to raise up its crown. It is somewhat suppressed by neighbouring trees and its crown is showing some stress/decline.	Retain for now and monitor its condition. Remove deadwood within the crown.	10+	C2
0666	**Sycamore** *Acer*	14	500	6N 3S	2	Mature	Fair/ Good	Fair It is a prominent tree within this area. It is	Remove dead/ unstable growth from within its	20+	B1

Tree No.	Tree Species	Ht. (m)	Stem Dia. (mm)	Branch Spread (m)	C-Ht. (m)	Age Class	Phys Con.	Structural Condition Other Comments	Preliminary Works	Remaining years	Cat. Grade
	pseudoplatanus			3E 4W				located close to the base of the boundary wall and is suckering heavily from base and may be causing some structural damage to the wall as a result. Ivy cover on the main trunk is beginning to extend up into its crown. It contains some minor deadwood throughout its crown. The crown is beginning to encroach on the adjoining outbuilding. There has been some construction works within its root zone and construction material is being stored within root zone.	crown. Cut Ivy at ground level. Remove basal suckers; this may help to reduce pressure on the boundary wall and will allow a more detailed assessment of the wall. It may require some pruning in order to maintain clearance with the outbuilding. Tidy up the debris around the base.		
		The following trees run from the entrance in a west to east direction inside the boundary wall with 'Mount Anville' Road. It consists of a number of mature trees with an under planting of ornamental shrubs providing the lower bulking / screening within this area. Some shrub planting has been added in more recent years, particularly on the northern side bordering with the lawn to help improve the bulking / screening within this area. It has been left unmanaged for some time and there are some scrub species and self-seedling trees, developing up through this area, in particular Sycamore seedlings, which are growing tight to the base of the boundary wall and may cause structural damage in the long-term. **The following are the larger, mature trees within this tree line.**							It would benefit from general tidying works. The Sycamore seedlings should be removed as part of management.		C2
Tree Group No. 1	**Cherry laurel** *Prunus laurocerasus*, **Lawson Cypress** *Chamaecyparis lawsoniana*, **Holly** *Ilex aquifolium*,	7	150	2N 2S 2E 2W	0	Early Mature	Fair	Poor. A group on shrubs/trees which have been left to naturalise and become very overgrown and some stems have fallen and died. Flax and bamboo are also growing as part of the dense overgrowth and fallen material has limited access	Retain at present time. Clear back the fallen and dead material and cut back the heavy overgrowth to allow a better inspection of the area.	10+	C2

Tree No.	Tree Species	Ht. (m)	Stem Dia. (mm)	Branch Spread (m)	C-Ht. (m)	Age Class	Phys Con.	Structural Condition Other Comments	Preliminary Works	Remaining years	Cat. Grade
	Acer spp, Hazel *Corylus avellana*										
0678	**Laburnum** *Laburnum Anagyroides*	8	350	4N 4S 4E 4W	2	Mature	Fair/ Poor	Poor It was initially twin stemmed from base and the secondary stem has recently fallen and is caught up in the overgrowth.	I would recommend it is **removal** as part of management.	<10	U
0679-0680	**Bay Laurel** *Laurus nobilis*	8	200, 150, 180, 100	2N 2S 2E 2W	0	Early Mature	Fair	Fair. They are growing tight along the boundary wall and they have received little recent maintenance. They are growing as part of this overgrown group area and are multi-stemmed from the base. They provide screening from the road	Tidy up around the base and outer area of dead material branches suckers.	20+	C2
0681 & 0682	**Lawson Cypress** *Chamaecyparis lawsoniana*	10	270, 280	2N 1S 1E 1W	0	Mature	Fair	Fair. They have asymmetrical crowns due to overcrowding/competition and they are growing as part of a group. Twin stemmed from the base with an acute union formation between stems between stems. They are in an area which is heavily overgrown.	Tidy up around the base and re-inspect.	20+	B2
1386-1387	**Lawson Cypress** (Chamaecyparis lawsoniana)	8	180 150 150	1N 1S E1.5 W1.5	0	Early Mature	Fair	Fair. They are growing as part of a group. They are growing next the boundary wall, they have been suppressed by Ivy and neighbouring trees.	Tidy up and the base. Cut Ivy at ground level.	10+	C2
1388	**Cypress spp**	9	280	4N S1 E1 W1	0	Mature	Fair/ Poor	Fair/Poor It has an asymmetrical crown and it has been suppressed by the neighbouring tree and leans out over the road as a result. It has acute union formations within its crown and contains deadwood.	Best managed as a group structure. Reduce over roadside by 1m.	10+	C2
0684	**Whitebeam**	10	470	4N	0.5	Mature	Fair	Fair.	Cut Ivy at ground level, tidy	10+	C2

Tree No.	Tree Species	Ht. (m)	Stem Dia. (mm)	Branch Spread (m)	C-Ht. (m)	Age Class	Phys Con.	Structural Condition Other Comments	Preliminary Works	Remaining years	Cat. Grade
	Sorbus intermedia			5S 4E 4W				A large mature tree growing as part of a group. There is Ivy on main stem and it has suffered past storm damage. The area has become over grown around this tree.	up around base of dead material and bramble to allow better access.		
1389-1390	**Sycamore** *Acer pseudoplatanus*	10	180, 150, 130, 100	1N 4S 2E 2W	0	Early Mature	Poor	Poor. It is growing tight against the boundary wall and they have self-seeded. They are growing away from the group out over the road. There is Ivy on the main stem and they are multi-stemmed from base	I would recommend their **removal** as part of management.	<10	U
0685	**Lawson Cypress** *Chamaecyparis lawsoniana*	8	230	2N 1S 1E 2W	0	Early Mature	Fair	Fair. It is growing as part of the group and its lower branches have merged with the heavy undergrowth. There is Ivy on main stem. Best managed as a group formation.	Tidy up undergrowth around the base and cut Ivy at ground level.	20+	C2
1391	**Lawson Cypress** *Chamaecyparis lawsoniana*	11	350	2N 2S 2E 2W	0	Mature	Fair	Fair. The area has been allowed to grow wild in recent times and it has a low crown to ground level. Dumping has taken place around its base. The heavy undergrowth has limited the inspection	Clear around the base of debris and under growth to allow re-inspection. Cut Ivy at ground level.	20+	C2
Tree group No. 2	**Magnolia**, **Pine** *Pinus spp*, **Cherry Laurel,** *Prunus laurocerasus* **Pittosporum variegated,** *Pittosporum tenuifolium* **Cherry plum** *Prunus cerasifera*	6	100	1N 1S 1E 1W	0	Early Mature	Fair/ Poor	Fair/ Poor. They have been heavily suppressed by overgrowth of bramble and have had no recent maintenance which has led to their decline.	They would benefit from the removal of the bramble and surrounding undergrowth to give them space to grow.	10+	C2
0692	**Sycamore**	16	600	4N	5	Mature	Fair	Fair	Remove all dead/ unstable	20+	B1

Tree No.	Tree Species	Ht. (m)	Stem Dia. (mm)	Branch Spread (m)	C-Ht. (m)	Age Class	Phys Con.	Structural Condition Other Comments	Preliminary Works	Remaining years	Cat. Grade
	Acer pseudoplatanus			4S 4E 4W				It is growing within a group environment with a slightly open and asymmetrical crown as a result. Light Ivy cover on the main trunk is beginning to extend up into its crown. The lower limbs/ branches have been removed in the past in order to raise up its crown. It has also received pruning due to the overhead utility lines.	growth from within its crown and carry out pruning to help reshape / balance crown. Cut Ivy at ground level and remove basal suckers.		
0693	**Willow** *Salix Fragilis* (2 in total)	9	140	---	---	Semi Mature	Dead	Poor Originally planted into this area to fill the opening where an original tree was removed between Tree Nos. 0692 & 0694. It has failed to establish and has been standing dead for some time.	I would recommend its **removal** without further delay as part of management.	<10	U
0694	**Birch** *Betula pendula*	7	200	2N 1S 2E 2W	2	Semi Mature	Fair	Fair It has been planted as part of the landscaping of this area. The lower branches have been pruned in the past in order to raise up its crown. It has a slightly asymmetrical crown due to its group growing environment. A fence has been constructed close to its base.	Cut Ivy at ground level at present.	20+	C1
0695	**Horse Chestnut** *Aesculus hippocastanum*	20	1040	8N 5S 6E 5W	4	Mature	Fair/ Poor	Fair/Poor It is a large tree with a broad spreading crown. It has been heavily pruned in the past and has developed a multiple-stemmed crown from these pruning points with tall upright stems. It has suffered storm damage in the past with decay pockets developing from the lower pruning points. It contains some tall, poorly tapered, end loaded side limbs/ branches. It divides at a height of c.1.6m into a twin-stemmed tree with an acute union formation between stems with some included bark	Remove dead/ unstable growth from within its crown and carry out structural pruning within its crown to create a better framework of branches from the previous re-growth. It may require further maintenance. Monitor its condition on a 12-month basis.	10+	C2

Tree No.	Tree Species	Ht. (m)	Stem Dia. (mm)	Branch Spread (m)	C-Ht. (m)	Age Class	Phys Con.	Structural Condition Other Comments	Preliminary Works	Remaining years	Cat. Grade
								present; this may develop into a potential weak point in the future. It has also received pruning on the roadside to maintain clearance with the overhead utility lines. A road and entrance was constructed close to its base to the neighbouring apartments and this may have caused damage to its roots.			
1393 (0707)	**Willow** *Salix sp*	20	580	3N 3S 3E 3W	4	Mature	Fair/ Poor	Fair/ Poor The planting stay wire is now partially incorporated into the main trunk at a height of c.3.5m and is likely to create a point of structural weakness. Construction works have taken place within its root zone and could have compromised the root system. Some decline/dieback evident in its crown with deadwood present.	Remove deadwood. Monitor closely as it may need to be removed if condition deteriorates.	10+	C1
0708	**Weeping Willow** *Salix babylonica*	14	400	4N 4S 4E 4W	0	Mature	Fair	Fair/ Poor It grown into a large size tree. The lower branches have been pruned in the past in order to raise up its crown and the fungus 'Phellinus igniarius' is present at one of these wounds at a height of c.2m. It has filled out well but construction and soil level changes have taken place around its base.	Monitor its condition on a twelve-monthly basis.	10+	C2
0710	**Copper Beech** *Fagus sylvatica 'Purpurea'*	19	940	6N 7S 6E 6W	4	Mature	Fair	Fair It is a large prominent parkland tree located on the open lawn area and forms part of the original planting on these grounds. It contains deadwood within its crown and there is a bark wound at 0.5m up on its south side of the trunk where decay is developing into the underlying timber. It has received pruning in the past to raise up its crown. There have been some	Remove deadwood. Cut Ivy at ground level at present. .	20-40	A2

Tree No.	Tree Species	Ht. (m)	Stem Dia. (mm)	Branch Spread (m)	C-Ht. (m)	Age Class	Phys Con.	Structural Condition Other Comments	Preliminary Works	Remaining years	Cat. Grade
								minor soil disturbances during the previous development works in this area and this may have a knock-on effect on its health.			
0711	**Blue Cedar** *Cedrus Atlantica 'Glauca'*	12	270	3N 3S 3E 3W	1	Semi Mature	Good	Fair It was planted as an extra heavy standard and is established well. It has suffered some lower branch breakage with a branch formation down to near ground level. It is likely to make a good replacement tree in the long-term. It had some recent storm damage and has minor Ivy on the main stem.	Requires no work at the present time.	40+	A1
	The following trees form part of the earlier landscape planting and are growing up within a short line and are prominent trees within this area. Their category grading is based on their collective value within the treescape of this area and not on the merits of the trees individually.										
0712	**Horse Chestnut** *Aesculus hippocastanum*	20	980	4N 4S 5E 6W	4	Mature	Fair	Fair It is a large size tree growing up within a group environment and it has been drawn up for the light as a result. Soil rutting/ damage has been caused due to a service track created in the grass area to the west of this tree and this may have had an impact on the health of this tree. Other construction works has taken place close by. It is showing signs of slight sparseness within its crown and is infected by "Bleeding Canker" of Horse Chestnut. There are decay cavities developing up along the main trunk where lower limbs /branches were removed or broke out in the past.	Remove dead/unstable growth. Monitor its condition on a twelve-monthly basis.	10-20	B2
0713	**Horse Chestnut** *Aesculus hippocastanum*	21	920	3N 3S 5E 5W	4	Mature	Fair	Fair It divides at a height of c. 3.5m into a twin-stemmed tree with an acute union formation between stems with some included bark present. This has created a structural weakness and it may be prone to failure from	Remove all dead/ unstable growth from within its crown and reduce its crown size by c.3m to reduce pressure on the structurally weak union	10-20	B2

Tree No.	Tree Species	Ht. (m)	Stem Dia. (mm)	Branch Spread (m)	C-Ht. (m)	Age Class	Phys Con.	Structural Condition Other Comments	Preliminary Works	Remaining years	Cat. Grade
								this point as a result. There are decay pockets developing at old pruning wounds up along the main trunk. It has suffered storm damage within its crown and its upper crown is showing some signs of stress/decline, most likely related to infection by "Bleeding Canker". There is some suckering developing from its base. There are large pieces of deadwood in the crown, some hung up. Ivy cover on main stem is limiting inspection. There are decay cavities on south side at the base.	formation between the two main stems. Cut Ivy at ground level. Remove suckering growth from base. Monitor its condition on a twelve-monthly basis.		
0714	**Horse Chestnut** *Aesculus hippocastanum*	20	800	5N 3S 4E 4W	3	Mature	Fair	Fair It forms part of the end canopy at the northern end of this short tree line. There is some epicormic growth developing up along the main trunk and it is suckering from base. There are some decay pockets developing where lower limbs / branches have been removed in the past. There is a decay pocket at c. 0.5m up on the west side of its base. The upper crown is showing signs of slight sparseness and decline, possibly associated with an infection by "Bleeding Canker" of Horse Chestnut.	Remove dead/unstable growth. Monitor its condition on a twelve-monthly basis. Remove lower basal suckers and Cut Ivy at ground level.	10-20	B2
0715	**Ash** *Fraxinus excelsior*	23	880	7N 7S 5E 5W	3	Mature	Poor	Poor It is a large prominent tree located out on its own with an independent crown formation. Some lower branches have been removed in the past in order to raise up its crown with decay pockets developing at the larger of the pruning wounds. There is evidence of decline in its upper crown, I suspect as a result of infection by 'Ash Dieback' with a section of the	Due to the extent of the decline, I would recommend it is **removal** as part of management.	<10	U

Tree No.	Tree Species	Ht. (m)	Stem Dia. (mm)	Branch Spread (m)	C-Ht. (m)	Age Class	Phys Con.	Structural Condition Other Comments	Preliminary Works	Remaining years	Cat. Grade
								top beginning to die off and there is large deadwood in its upper crown. A large limb has recently broken off.			
0716	**Mimosa** *Acacia dealbata*	5	200	2N 2S 1E 2W	2	Semi Mature	Fair	Fair / Poor It is suckering heavily around the original stem and now covers a larger area. The tree itself seems to show some signs of stress in its crown. A bamboo cane is still attached to its main stem.	Remove bamboo cane. .	10+	C1
0717	**Pittosporum variegated,** *Pittosporum tenuifolium*	8	240	2N 2S 2E 2W	0	Mature	Fair	Poor. It is growing in a clump in the front of the old lawn area. It is multi stemmed from the base. It was initially part of the landscaped front lawn. A sycamore seedling is growing up within its crown.	Cut the Ivy at ground level and remove poorly formed stems to create a more uniformed tree	10+	C1
1392	**Sycamore** *Acer pseudoplatanus*	4.5	130	1N 1S 1E 1W	0	Young	Poor	Poor It has self-seeded next to Tree No. 0717 in its understorey. It has light Ivy on main stem.	I would recommend it is **removal** as part of management.	<10	U
	The survey now continues to side of ''Cedermount House' in a former garden landscape area.										
Tree Group No.3 (0722-0733)	**Tree ferns**	4	250 ave	1N 1S 1E 1W	3	Early mature	Fair - Poor	Fair -Poor. A group of tree ferns next the original main house. Construction has taken place around them and some have died off and others are in decline.	Remove the dead stems.	10+	C1
0734	**Lucombe Oak** *Quercus x hispanica*	21	960	8N 6S 6E 6W	4	Mature	Fair/ Good	Fair/ Good It is a large prominent, visual tree in this area. It has received some crown pruning in the past; in particular to remove dead/unstable growth with some new deadwood occurring, generally of a small size. Lighting has been attached to the mid crown. Construction work	Remove dead/unstable growth at present. Carryout works to its rootzone to alleviate damage and compaction. Monitor its condition on a 12 monthly basis.	40+	A1

Tree No.	Tree Species	Ht. (m)	Stem Dia. (mm)	Branch Spread (m)	C-Ht. (m)	Age Class	Phys Con.	Structural Condition Other Comments	Preliminary Works	Remaining years	Cat. Grade
								has taken place over the years within its root zone and this may have an effect on the trees roots. .			
0491	***Deodar Cedar*** *Cedrus deodara*	21	760	5N 8S 7E 6W	9	Mature	Fair	Fair It contains a lot of naturally suppressed deadwood throughout its crown. Some lower branches have been removed in the past in order to raise up its crown with stubs remaining. It has a slightly asymmetrical crown formation due to overcrowding / competition from neighbouring trees in the past. Soil alterations have occurred around its base during past development works.	Remove dead/unstable growth at present. Where possible, remove excess soil from within the rootzone of this tree without causing soil or root damage.	40+	A1
0492	**Sycamore** *Acer pseudoplatanus*	10	240	2N 2S 2E 2W	3	Semi Mature	Fair/ Poor	Poor It is growing from underneath the canopy of Tree No.0491. It is self-seeded into this area with suckers growing from its base. Soil levels have been built up around its base, but does not appear to be impacting on its health at present.	Requires no work at present, but I would recommend its **removal** as part of the selective thinning/ management within this area	<10	U
Hedge No.1	**Bamboo Photinia** *Photinia x fraseri Red Robin* **Sycamore** *Acer pseudoplatanus* **Bay Laurel** *Laurus nobilis*	**It is cordoning off the formal grounds around "Cedar Mount House" from the grounds of "Knockraboo" development site.** It was planted to provide screening along this boundary which it is doing so effectively but it has been allowed to grow unmanaged in recent years, losing any formal structure and scrub species such as Bramble and seedling trees are establishing in places.							Carry out general tidying works and reduce scrub species.		C2
1394 (0735)	**Wellingtonia** *Sequoiadendron giganteum*	14	640	3N 3S 3E 3W	3	Early Mature	Fair	Fair It has been planted into this area as a large semi-mature tree with some stay wires still attached to the main trunk. It has established	Replace hard surfacing within root zone to original soft landscaping, taking care not to cause any	40+	A1

Tree No.	Tree Species	Ht. (m)	Stem Dia. (mm)	Branch Spread (m)	C-Ht. (m)	Age Class	Phys Con.	Structural Condition Other Comments	Preliminary Works	Remaining years	Cat. Grade
								well with good growth and it has good potential for the future. Construction work took place around its base which may have damaged roots.	further soil and root damage. It may benefit from soil alleviation works.		
0737	**Larch** *Larix decidua*	13	220	2N 1S 1E 1W	2	Semi Mature	Fair/ Poor	Fair It has been planted to provide bulking within this area and is located between two Wellingtonia trees. The canopy is thin and sparse and the tree is struggling to establish.	It may be considered for removal in the future as part of the selective thinning / management of this area to allow the Wellingtonia trees space to develop.	10+	C1
1395 (0738)	**Wellingtonia** *Sequoiadendron giganteum*	17	700	3N 3S 3E 3W	2	Early Mature	Good	Fair/ Good I suspect that it was planted as a large semi-mature tree. It appears to have established its roots system outside the root ball. It has a low canopy formation and has good potential for the future. There is Ivy cover along the main stem.	Monitor for stability issues. Cut Ivy at ground level.	40+	A1
0739	**Larch** *Larix decidua*	This tree has collapsed at ground level due to basal decay.							Cut up fallen tree.		--
0740	**Larch** *Larix decidua*	- 14	- 250	2N 1S 1E 1W	- 1	Early Mature	Fair	Fair It is growing as part of the group formation and structure has been affected as a result. There is minor Ivy cover on the main stem.	No works at the present time.	10-20	C1
0741	**Western Red Cedar** *Thuja pilcata*	14	440	3N 3S 3E 2W	3	Semi Mature	Poor	Poor It was most likely planted as an extra-large, semi-mature tree and has struggled to establish. 'Dieback' is evident throughout its crown with a large portion of its crown now dead. There is a secondary limb developing from low down.	I would recommend its **removal** as the most appropriate management option.	<10	U
0742	**Larch**	15	220	2N 2S	2	Semi / Mature	Fair	Fair / Poor Construction work has taken place close to its	Requires no work at the present time.	10+	C1

Tree No.	Tree Species	Ht. (m)	Stem Dia. (mm)	Branch Spread (m)	C-Ht. (m)	Age Class	Phys Con.	Structural Condition Other Comments	Preliminary Works	Remaining years	Cat. Grade
	Larix decidua			1E 2W				base. There is a vertical seam on the lower trunk, possibly an indication of structural weakness and basal decay.	Monitor its condition.		
1396 (0743)	**Wellingtonia** *Sequoiadendron giganteum*	15	900	3N 2S 2E 2W	4	Early Mature	Fair/ Good	Fair/ Good I suspect that it has been planted as an extra-large semi-mature tree. It has suffered bark wounding on the lower trunk, but this appears to be callusing over well. Its lower branches have been removed in the past to raise up its crown. There is Ivy cover on the main stem.	Cut Ivy at ground level. Monitor for stability issues.	40+	A1
0744	**Horse Chestnut** *Aesculus hippocastanum*	16	860	5N 5S 6E 5W	4	Mature	Fair	Fair It forms part of the earlier planting on these grounds. Its lower limbs/ branches have been removed in the past in order to raise up its crown. It has suffered a branch breakage at c.6m on its south side creating a large size tear wound as a result. There is some epicormic growth developing on the main trunk and suckers growing from its base. There is a large decay cavity on the main trunk at a height of c. 2.5m up with decay progressing into the main trunk; this may create a structural weakness. There is a small area of infection by "Bleeding Canker" of Horse Chestnut present and this may have an impact on its long-term health. Lighting has been attached to the main trunk. Some construction damage have taken place tight to its base which may impact its rootzone and its health	Maintain lower epicormic growth and basal suckers and cut Ivy at ground level. Monitor its condition on a twelve-monthly basis. It would benefit from returning area within root zone to soft landscape and soil amelioration works.	20+	B1
1397 (0745)	**Wellingtonia** *Sequoiadendron giganteum*	12	610	3N 3S 3E	3	Early Mature	Fair	Fair I suspect that it has been planted as an extra-large semi-mature tree and it is finding it	Monitor its condition on a twelve-monthly basis. Remove the stay wire, if	20+	B1

Tree No.	Tree Species	Ht. (m)	Stem Dia. (mm)	Branch Spread (m)	C-Ht. (m)	Age Class	Phys Con.	Structural Condition Other Comments	Preliminary Works	Remaining years	Cat. Grade
				3W				difficult to establish. The top may have broken out in the past and there is some damage caused by the stay wire in mid crown.	possible, without causing bark damage to this tree. Cut Ivy at ground level.		
0746-0764	**Larch** *Larix decidua*	These trees have been removed as per granted planning permission D17A/1124.									
0765	**Willow** *Salix fragilis*	17	570	3N 3S 4E 3W	2	Early Mature	Fair	Fair I suspect that it has been planted as an extra-large semi-mature tree. It has suffered storm damage within its crown, leaving it more open/ exposed. It is showing some signs of 'dieback' within its crown.	Monitor its condition on a 12-month basis after construction damage.	10-20	C1
0766 & 0801	***Alder*** *Alnus incana*	These trees have been removed as per granted planning permission D17A/1124.									
0802	**Ash** *Fraxinus excelsior*	8	220	3N 3S 3E 3W	2	Semi Mature	Fair/ Poor	Fair It is growing in the centre of the site. A lot of construction work has taken place close to its base. It shows minor signs of 'Ash Dieback'. It has suffered a branch breakage in its lower crown on its south side.	Requires no work at the present time. Monitor its condition.	10+	C1
	The following trees are located to the rear of the property in the large open space.										
Scrub area 1	**Mimosa,** *Acacia,* **Bramble, Buddleja** *Butterfly Bush,* **Eucalyptus** *Eucalyptus gunnii*	4	-	-	-	Young	Poor	Poor. The area has been let go wild and naturalise since past construction works have taken place. Species have self-seeded or grown back from stumps.	Carry out general tidying works.	10+	C1
1398	**Wellingtonia** *Sequoiadendron giganteum*	9	300	2N 2S 2E 2W	0	Semi mature	Good	Good. It is growing on the open site possibly from the previous garden layout. Construction activities have taken place around its base. It is a	Requires no work at the present time. It may require future soil alleviation works.	40+	B1

Tree No.	Tree Species	Ht. (m)	Stem Dia. (mm)	Branch Spread (m)	C-Ht. (m)	Age Class	Phys Con.	Structural Condition Other Comments	Preliminary Works	Remaining years	Cat. Grade
								possible tree for the future.			
0804	**Norway Maple** *Acer platanoides*	9	300	4N 4S 2E 4W	1	Semi Mature	Fair	Fair/ Poor There is an acute union formation between scaffold limbs with included bark present between stems which may develop into a structural weakness. It has been damaged by a tree tie in the past. It forms part of the bulking along the boundary. A service track has been created through its rootzone which may have caused some soil/ root damage.	Retain as part of the bulking within this area. Tidy up the area around its base. It may require further works in the future due to structural weaknesses.	10-20	C1
	The following trees are located at the edge of the site boundary at the bottom of the site area.										
0805	**Callery Pear** *Pyrus calleryana 'Chanticleer'*	8	180	1N 1S 1E 1W	2	Semi Mature	Fair	Fair It is growing outside the site boundary and is growing well with a good conical habit. Building materials have been piled up around its base.	Remove building materials from around base.	20+	C1
Tree Group No. 4	**Norway Maple** *Acer platanoides*	7	180	1N 1S 1E 1W	1	Semi Mature	Fair	Poor. Growing outside the site boundary they have suffered from past construction activity.	Management is located outside the boundary of the site.	10+	C1
1399-1400	**Goat Willow** *Salix caprea* **Norway Maple** *Acer platanoides* **Pear** *Pyrus Chanticleer 'Bradford'*	7	150, 100, 100.	2N 1S 1E 1W	0	Young	Fair	Poor. The Goat Willow have self-seeded with the Norway Maple and Ornamental Pear being planted. They are heavily suppressed by bramble and have poor stem formation from low down. They received damage and ground level changes from construction.	Clear away Bramble and remove poor formed stems	20+	C2
Hedge No.2	**Beech** *Fagus sylvatica* **Sycamore** *Acer pseudoplatanus* **Ash** *Fraxinus excelsior*	**It extends west from Tree No.0996.** It is of a mature age class in fair condition physiologically and structurally. It was initially maintained as a formal hedge cut to a height of 2m but this cutting has lapsed and it has been allowed to grow up tall into a tree line. Bramble and Dogrose are encroaching out from this hedge to create scrub areas and it has received cutting back on the south side and soil alterations have occurred here also.							Make safe large dead/unstable growth. Cut encroaching scrub species back into the hedge line. Carry out other pruning to address structure of hedge.		C2

Tree No.	Tree Species	Ht. (m)	Stem Dia. (mm)	Branch Spread (m)	C-Ht. (m)	Age Class	Phys Con.	Structural Condition Other Comments	Preliminary Works	Remaining years	Cat. Grade
	Holly *Ilex aquifolium*	**The following trees are located in this hedge.**									
Tree No.1	**Beech** *Fagus sylvatica*	15	240 X 5 stems	6N 3S 5E 4W	5	Mature	Fair	Fair/ Poor It is multiple-stemmed from base and some stems have been cut off on its south side, impacting on crown structure and leaving its remaining crown open/ exposed. Construction work has taken place within this area with soil level changes are evident which may have impacted its rootzone.	Cut Ivy at ground level and re-evaluate	10-20	C1
Tree No.2	**Sycamore** *Acer pseudoplatanus*	16	250 X 9 stems	6N 5S 3E 4W	4	Mature	Fair	Fair/ Poor It is multiple-stemmed from base as a result of being cut/ coppiced into the hedge. Ivy is extending into its crown and its lower limbs/branches have been cut back. It forms part of a group canopy formation. It has poor basal structure with decay cavities at the base.	Requires no work at the present time.	10-20	C1
Tree No.3	**Ash** *Fraxinus excelsior*	16	280 X 7 stems	6N 5S 6E 4W	4	Mature	Fair/ Poor	Fair It is multiple-stemmed from base as a result of being cut/ coppiced into the hedge. Ivy has been cut at ground level in the past and there is deadwood in the crown. It shows signs of decline possibly from 'Ash Dieback' in its crown.	Remove dead/ unstable growth. It may need to be removed in the future if dieback progresses. Monitor its condition on a 12 monthly basis.	10+	C1
Tree No.4	**Beech** *Fagus sylvatica*	15	260 X 5 stems	6N 5S 4E 3W	1.5	Mature	Fair	Fair It is multiple-stemmed from base as a result of being cut/ coppiced into the hedge and it forms part of the hedge bulking. Access has been restricted due to heavy undergrowth and position on the bank	Requires no work at the present time.	10-20	C1
0996	**Monterey Cypress**	29	2200	9N 10S	3.5	Mature	Good	Fair It is a large, prominent visual tree with a broad	Remove dead/unstable growth and reduce end	20+	B2

Tree No.	Tree Species	Ht. (m)	Stem Dia. (mm)	Branch Spread (m)	C-Ht. (m)	Age Class	Phys Con.	Structural Condition Other Comments	Preliminary Works	Remaining years	Cat. Grade
	Cupressus macrocarpa			12E 14W				crown formation and contains heavy scaffold limbs/ branches throughout. It has also been recorded in TROI Records (Tree Register of Ireland). It has received pruning in the past to remove lower branches in order to raise up its crown. It has suffered storm damage with a large branch breaking out in recent winds and contains deadwood throughout. Some ground alterations have occurred around its base in the past. It has suffered a large bark wound at its base, exposing the underlying timbers to decay pathogens on the southern side and this may have an impact on its long-term health and stability. Construction works in this section of the site have come to close to its roots and base.	weight on remaining heavy side limbs / branches to a max of 2m to lessen the risk of further branch failure.		
	The following two Trees (Nos.0489 & 0490) are growing in isolation and would have initially formed part of a larger group of trees with some trees being removed in the past leaving these two trees open / exposed to winds. The soil levels have been raised considerably around the base of these trees during previous development works and this is likely to have a negative impact on their health.										
0489	**Corsican Pine** *Pinus nigra sub sp.*	20	880 MS	5N 6S 5E 7W	5	Mature	Fair/ Poor	Poor It forms a twin-stemmed tree from low down with an acute union formation between stems with included bark present. It has been left more open/ exposed due to the removal / failure of neighbouring trees. It has received pruning to remove deadwood from its crown, but it still contains some pieces. Its rootzone I suspect was significantly damaged in the past due to the construction works.	I would recommend its **removal** as the most appropriate management option.	<10	U
0490	**Corsican Pine** *Pinus nigra sub sp.*	20	700	4N 7S 6E 7W	8	Mature	Fair/ Poor	Poor It has an asymmetrical crown formation due to overcrowding and is weighted in a south-westerly direction. It contains storm damage,	I would recommend its **removal** as part of management.	<10	U

Tree No.	Tree Species	Ht. (m)	Stem Dia. (mm)	Branch Spread (m)	C-Ht. (m)	Age Class	Phys Con.	Structural Condition Other Comments	Preliminary Works	Remaining years	Cat. Grade
								heavy side branches and deadwood in crown. It is infected at its base and up to a height of c.2m on the main trunk by "Phaeolus schweinitzii"; this is an indication of the presence of internal decay. As a result, this tree has limited potential and its suitability for retention within a developed area is questionable. A wire, along with lighting, has been attached to the main trunk at a height of c.8m.			
Notes:											

Appendix 3

List of Trees Removed from Site to Date

As per planning reference D17A/1124 (now expired), the following table identifies the trees that have been removed, trees that were highlighted for removal but are still present and trees that were shown for retention but have been removed/lost for one reason or another.

Status	Tree No.	Total
Shown for removal and have been removed under planning reference D17A/11124	**Tree Nos.** 0650, 0651, 0652, 0653, 0654, 0655, 0667, 0668, 0669, 0670, 0671, 0672, 0673, 0674, 0675, 0676, 0677, 0686, 0689, 0690, 0691, 0492, 0709, 0719, 0720, 0721, 0736, 0746, 0747, 0748, 0749, 0750, 0751, 0752, 0753, 0754, 0755, 0756, 0757, 0758, 0759, 0760, 0761, 0762, 0763, 0764, 0766, 0767, 0769, 0770, 0771, 0772, 0773, 0774, 0775, 0776, 0777, 0779, 0780, 0781, 0782, 0783, 0784, 0785, 0786, 0787, 0788, 0789, 0790, 0791, 0792, 0793, 0794, 0795, 0796, 0797, 0798, 0799, 0800, 0801, 0803, 0804, 0806 & 0807.	84
Shown for removal under planning reference D17A/1124 but are still present.	**Tree No.** 0657, 0660, 0722, 0723, 0693, 0708, 0710, 0711, 0745, 0765, 0768 & 0489	12
Additional trees that have either been removed or fallen and been cleared up.	**Tree Nos.**0658, 0491, 0734 & 0778	4

In summary, we note 84No. trees have been previously removed from this site area, as permitted under DLRCC Reg. Ref. D17A/1124 (now expired) with an additional 4No. trees also removed or have fallen and been removed as part of management giving a total of 88No. trees removed from this site area.