Arborist Associates Ltd.

An Arboricultural Assessment on the Site Area at Cornelscourt Village on 'Old Bray Road', Cornelscourt, Dublin 18.

Prepared for: Cornel Living Limited.

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

Date: 11th October 2021

94 Ballybawn Cottages, Enniskerry, Co. Wicklow. Tel: 2742011
Mobile: 087 2629589
Email: arborist@eircom.net

1.0 Instructions

1.1 I have been instructed by Cornel Living Limited (planning applicant) to assess the site area of c.2.15ha at Cornelscourt Village, 'Old Bray Road', Cornelscourt, Dublin 18 and report on the following:

a. To assess the present condition of this tree vegetation. See 'Appendix 2' and 'Drawing No.OBR001' which has been prepared as a constraints plan for detail.

b. To assess the impact of the proposed development layout on the tree vegetation located within and adjoining the site area indicating those for removal and retention. See 'Section 5.0' of this report and 'Drawing No. OBR002 for detail.

c. To prepare this drawing as a tree protection plan showing the line of protective fencing to be erected around the tree vegetation being retained along with other mitigation measures to aid in their successful retention.

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 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).

3.0 Aims and Report Brief

3.1 Arborist Associates Ltd. has been commissioned to provide a condition assessment of the existing tree vegetation on the site area, to prepare an arboricultural implication study and to recommend tree protective measures for those trees for retention within the proposed development.

3.2 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 onto 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

3.3 Their retention category has been assessed and categorised 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** – Including 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, commemorative value.

3.4 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. Most of these will be recommended for removal for reasons of sound Arboricultural practice/ management.

The removal of these trees would be seen as necessary either now or in the short-term as the most appropriate management option.

From our assessment of the tree vegetation within or adjoining this site area, no trees have been identified as category ‘U’.

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

These trees would be seen to have the best potential to form part of the long-term tree cover.

From our assessment of the tree vegetation within or adjoining this site area, no trees have been identified as category 'A'.

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

These trees would be seen as having the potential to contribute to the tree cover of these grounds for the medium to long-term.

Any category 'B' trees within this site area have been identified on our drawings (Nos.OBR001 & OBR002) with a 'Blue' donut around their trunk positions.

Category C – Trees of low quality/value with a minimum of 10 years life expectancy or of a young age class/size that can be easily replaced with new planting.

These trees would be seen as having the potential to provide tree cover for the short to medium term. These trees should not been seen as a considerable constraint on the development of these grounds, but should be considered for retention where viable.

Any category 'C' trees within this site area have been identified on our drawings (Nos.OBR001 & OBR002) with a 'Grey' donut around their trunk positions.

3.5 The trees have been plotted onto the attached drawing (DWG No.OBR001) by a land survey company and are assumed to be accurate. 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. This drawing has been developed as a constraints plan for the design team to aid the final development layout.

The constraints for each tree were worked out as per the formulas in BS5837 2012 and have been shown on this drawing using an 'Orange Circle' to aid the design team in their final development layout to ensure tree vegetation proposed for retention is retained successfully. The Root Protection Area (RPA) is the minimum area around individual trees to be protected from disturbance during construction works and is usually expressed as a radius in meters 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, open 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.

3.6 On drawing No.OBR002, I have shown the tree vegetation that will need to be removed to accommodate the proposed development or due to their condition or as part of the most appropriate management with a 'Red Hatched' crown spread and those to be retained with a 'Green Hatched' crown spread. For those trees proposed for retention, I have also shown the position of the protective fencing (orange hatching) that will need to be erected prior to the construction works commencing and to be retained in place for the duration of the construction works in order to protect their roots and to ensure their successful retention within the finished development.

4.0 Summary of Survey Findings

4.1 The site area is located off the 'Old Bray Road', Cornelscourt, Dublin 18 and is broadly rectangular in shape. The site is bounded by the 'N11 Dual Carriageway' to the east, by the 'Old Bray Road' and associated commercial / residential developments to the west and to the north by the 'AIB Bank' grounds and to the south by existing residential development area known as 'Willow Grove'.

4.2 The site is mostly in unmaintained grass / exposed soil and slopes from the 'Old Bray Road' down towards the N11 Dual Carriageway. There is just one tree on the site area, (No.0441) which is an early-mature Holly located on the south - western boundary. There are some isolated clumps of scrub around the site area consisting of Elder, Buddleia and Bramble developing due to the lapsed management.

4.3 There are a number of trees located off site which have been included in the survey. Along the north-western boundary of the site within the grounds of the AIB Bank, there is one Sycamore (Tree No.1) and two Cedar trees (Nos. 2 & 3) of an early-mature age class establishing well with the two Cedars being of reasonable good quality with potential to add to the treescape of this area as they grow in size. Along the roadside grass verge outside the sites east boundary bordering with the N11 Dual carriageway, there is a line of 7No. Semi-mature Lime trees (Nos.4-13) that are establishing well with future potential to add to the tree cover of this area.

5.0 Arboricultural Impact Assessment

5.1 The current planning application is to develop this site area for a new residential development of build to rent dwellings and it will be necessary to allow for infrastructural works such as services.

5.2 Following the production of a constraints drawing, this information has been used by the design team in finalizing the layout of the proposed development. I have examined the proposed development layout and liaised with the design team and from my understanding of this; I have drawn up my Arboricultural Impact Assessment and Tree Protection Plan.

5.3 On drawing No.OBR002, I have shown the trees for removal due to the proposed development or due to condition or as part of the most appropriate management option with a 'Red Hatched' crown spread and those proposed for retention have been shown with a 'Hatched Green' crown spread. On drawing No.OBR002, I have shown the position of the protective fencing (Orange Hatching) for those trees being retained and other mitigation measures that will need to be installed prior to the construction works commencing and will need to be retained for the duration of the construction works in order to protect their roots and to ensure their successful retention within the finished development.

5.4.0 Impacts on the tree vegetation

5.4.1 The current proposed development layout will require the removal of the following tree along with areas of scrub being dominated by Bramble, Elder and Buddleia.

- Tree No.0441 an early- mature Holly which has been given a category 'C' grade indicating a low quality tree needs to be removed to accommodate the proposed boundary treatment of a new wall.

5.4.2 The main items of works to occur within or next to the trees being retained are as follows and comments and mitigation can be found within the following table:

- **Site Clearance –** See item 1 in the following table for more detail.
- **Tree Protection –** See item 2 in the following table for more detail.
- **Construction General -** See item 3 in the following table for more detail.
- **Services -** See item 4 in the following below for more detail.
- **Boundary wall construction along by the boundary with the N11 –** See item 5 in the following table for detail.
- **Landscaping -** See item 6 in the following table for more detail.

- **Shared surfaced path on grass median along N11 -** See item 6 in the following table for detail.

Item	Works	Comments/Mitigation
1	**Site Clearance**	All trees for removal will need to be felled to stumps and all stumps in particular those which are located within the root zone of trees being retained are to be ground out using a mechanical stump grinder taking care not to cause root damage to the trees being retained. Some of the trees will require pruning to deal with current physiological and structural issues. See a preliminary list of these within 'Appendix 2'. All tree work will need to be carried out by qualified and experienced tree surgeons *before* any construction work commences; all tree work should be in accordance with *BS3998 (2010) Tree Work – Recommendations.*
2	**Tree Protection**	The tree vegetation 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 machine drivers and other construction staff. Protective fencing is to be erected prior to the construction works commencing on site to enclose the root protection area around the trees to be retained as per drawing No.OBR002. This is to be marked out on site by the project Arboriculturist and once erected; it is to remain in place for the duration of the project. The British Standard BS5837: *Trees in relation to design, demolition and construction (2012)* specifies appropriate fencing; see 'Figure 1' in appendix 1 for detail/sample. All weather notices should be erected on the fences with words such as: "Tree Protection Fence — Keep Out". When the fencing has been erected, the construction work can commence. The fencing should be inspected on a regular basis during the construction process and needs to remain in place until heavy building and landscaping work have finished and its removal is authorised by the project Arboriculturist.
3	**Construction General**	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 building lines and the protective fence lines is limited/ restricted, alternative

Item	Works	Comments/Mitigation
		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 and ground protection. For light access works within the work exclusion zone, the installation of suitable ground protection in the form of scaffold boards, woodchip mulch or specialist ground protection mats/plates may be acceptable. These will need to be reviewed with the project Arboriculturist and installed to their recommendations. See detail in 'Appendix 1' of this report for sample of ground protection for light weight construction works. Care should be taken when planning site operations to ensure that wide or tall loads or plant machinery with booms, jibs and counterweights can operate without coming into contact with retained trees. Such contact can result in serious damage to them and might make their safe retention impossible. Materials, which can contaminate the soil, e.g. concrete mixings, diesel oil and vehicle washings, should not be discharged within 10m of a tree stem. Fires should not 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 should not be attached to any trees. Site offices, materials storage and contractor parking should all be outside the work exclusion zone.
4	**Services**	See project engineers drawings for detail on service routes. From my review of these, I don't see any conflicts with the tree vegetation shown for retention. Prior to the installation of any services near trees being retained, all services in close proximity 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. No trench digging or other excavation works for services etc. will be permitted in the root protection area unless approved and supervised by a qualified

Item	Works	Comments/Mitigation
		Arboriculturist using methods outlined in BS5837: *Trees in relation to design, demolition and construction (2012)*.
5	**Boundary Treatments**	From our review of the boundary treatments for this site area, the only boundaries where there will be potential conflict with the tree vegetation being retained is along the boundary of the site area with the adjoining N11 grass median along the northern boundary with the adjoining AIB Bank grounds. This boundary treatment will consist of a low wall and railing along by Tree Nos. 1 & 7- 11 and a high wall along by Tree Nos.12 & 13. Along by Tree Nos.1 & 7- 11, the calculated root zone for these trees extends slightly into the site area and the proposed low wall will run through the outer periphery of these root zones and to mitigate impact, it is proposed to construct these walls using a pile/pad and beam type foundation to carry the walls over the root zones of the trees. This will result in minimal excavations within the root zone of the trees. The pile/pad locations will need to be kept outside the root zones and if a pad is required within the root zone of the trees, this will need to be kept to a small size and dug out manually working around the root material from the trees. These excavations will also need to be carried out under the supervision of the project Arboriculturist. The wall in front of Tree Nos.12 & 13 is located outside the calculated root zone of these trees so a traditional strip type foundation can be used for this section of wall. The work zones for the construction of these walls will need to be marked out on site and ground protection to the recommendations of Section 6 of BS5837 will need to be put in place to protect the soil from damage such as compaction. No machinery is to be allowed to drive into or work within the root zones of the trees and all works are to be carried out manually. The tree protection fence line is to be erected to cordon off the root zones of these trees until such time as the ground protection has been put in place and at this time, it can be moved/ adjusted to accommodate the works. The ground protection will need to stay in place until all works on the boundary treatment have been completed. To accommodate the boundary treatments and the incorporation of these trees into this built environment, it will be necessary to carry out some light pruning to the lower branches and basal suckers; and the lower

Item	Works	Comments/Mitigation
		epicormic growth should also be removed as part of management.
6	**Landscaping**	A pedestrian path within this site area will run within the calculated root zone of Tree No. 1 & along by Tree Nos.4 – 7 and it is proposed to route new shared surface paths leading from the pedestrian entrance northwards to the junction with 'Old Bray Road' and this will be routed on the grass verge between these trees and the boundary wall with the 'AIB Bank'. These paths will be located within the root zone of Tree Nos.1, 6 & 7 and these sections of path are to be installed using a No-Dig method incorporating a 'CellWeb' product to provide support and to carry the path surface over the existing ground levels containing the roots of these trees. The root zones of these trees are to remain closed off from the surrounding works by the tree protection fencing until such time as the ground protection has been put in place in accordance with Arboricultural Guidance Note 12 – 'The Use of Cellular Confinement Systems Near Trees', A guide to good practice. See general installation arrangements under 6.8.0 of this report. Around the site area, the existing ground levels within the RPA *(Root Protection Area)* 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.

5.5.0 Monitoring

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

5.5.2 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.

5.5.3 Copies of the tree retention and protection plan (DWGNo.OBR002) 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.

5.5.4 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.

6.0 Tree Protection Strategy

6.1 The objective of this tree protection plan/ strategy is to provide information for the main building contractor/site manager on how trees need to be protected during a construction project and so that they can prepare a site specific detailed method statement.

6.2 It is necessary for tree protective fencing to be erected prior to the development works commencing on site and these are to enclose the root zone of the tree/ shrub vegetation proposed for retention. See drawing No.OBR002 for the position of the protective fencing.

6.3 The protection of the tree 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 the retained trees.

6.4.0 Pre-Construction Works

6.4.1 Prior to the main construction works commencing on site the following is recommended:

1. The developer or main contractor appoints an Arboriculturist for the duration of the project. The Arboriculturist is to be given the authority 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 tree vegetation shown for retention will need to 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.

6.4.2 **Site meeting -** Prior to any works commencing on site, it is recommended that a meeting be arranged between the project manager, site foremen, the project architects, the project Arboriculturist and Local Authority to identify and finalize the vegetation protection detail.

6.4.3 **Tree works -** The developer or the main contractor will need 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 will need to be carried out by appropriately trained personnel taking account of the recommendations of BS3998 2010.

Tree removal - Trees for removal along with their stumps will need to be identified by the project Arboriculturist. The trees in the way of the development layout will need 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 and surrounding structures, these will need to be removed in sections by a tree surgeon (Arborist).

Remedial tree surgery works - The necessary remedial tree surgery works required to promote health and safety of the trees to be retained will need to be carried out. A schedule of these works will need 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 will need to be agreed with the local authority.

6.4.4 **Erection of the protective fencing -** Once the tree vegetation has been removed to facilitate the proposed development, the line of the protective fencing that is required around the trees being retained will need to be erected.

The fencing will need to be 2m high and constructed in accordance with figure 2 of BS 5837: 2012 (see fencing detail on drawing OBR002 & Appendix 1) using vertical and horizontal scaffold bars well braced together with the verticals spaced out at a maximum of 3m centres. Onto this, weld mesh panels will need be securely fixed with wire or scaffold clamps.

Signs will need to be attached to these fences warning people to ‘keep out, a protected area’, with the details of people to contact and the procedures to follow if the fences get damaged or works need to take place inside the protective fence.

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

6.5.0 The Construction Works Stage

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

6.5.2 **Protective fencing -** During the course of the works, special attention will need to be paid to ensure that these fences remain upright, rigid and complete at all times. They will need to be checked daily by the main contractor/foreman and any damage noted needs be fixed immediately.

If works need to take place inside the protective fence lines, then the project Arboriculturist and the local authority will need to be informed in advance of the works taking place and the mitigation measures required to reduce impact on the trees agreed. These mitigation measures will need to include the supervision of these works by the project Arboriculturist and the use of ground protection to the recommendations of section 6.2 of BS5837 2012. See 'Appendix 1' for detail on ground protection using boarding.

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

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

6.5.4 **Working within the RPA** *(Root Protection Area)* – If it is necessary to carry out any works within the RPA of a tree/trees, these need to be discussed and agreed with the project Arboriculturist. All works are to be carried out manually.

6.5.5 **Finished ground levels/Landscaping -** The existing ground levels within the RPA of trees will need to be retained and incorporated into the finished development.

All soft and hard landscaping within the RPA of the trees to be retained will need to be carried out manually and the soil levels are not to be lowered or raised resulting in root damage to the trees. Recommendations of section 8 of BS5837 2012 will need to be adhered to during the landscaping within the RPA'S of the trees being retained.

6.5.6 **Ground Protection Installation for Pathways and Working Areas**

The ground protection is to take the form of a product such as 'Cell Web' 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.

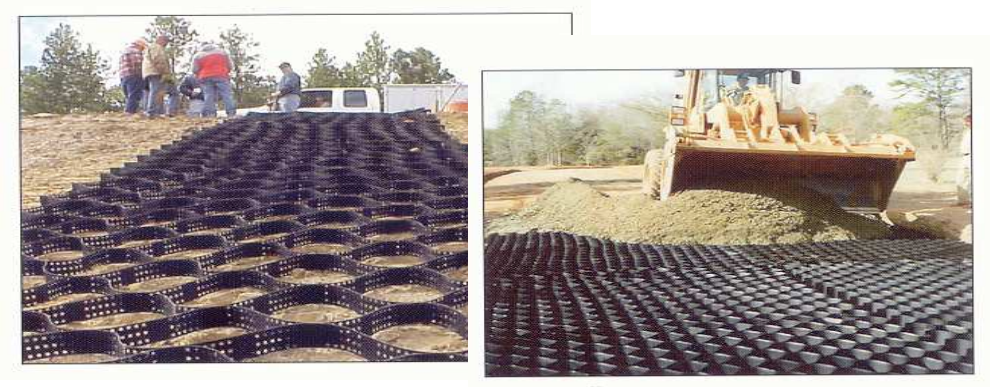
Step 2 – Place the geotextile separation filtration layer over the prepared ground surface. Use a Fibretex F4M non-woven geotextile with dry joints overlapping by 300mm.

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.

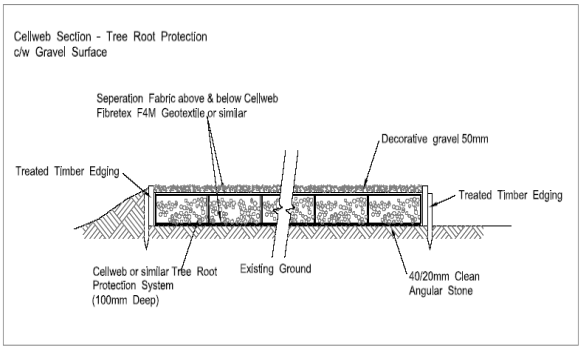
Step 5 – Place the infill material of a 20-40mm clean sharp stone in the open cells of the Cell Web pushing the infill ahead of you so that the machinery is driving on the filled Cell Web. Compact the infill material to the desired density.

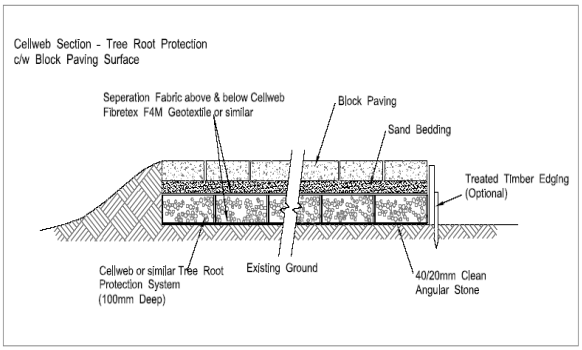
Step 6 – Slightly surcharge the Cell Web product with 25mm of 40/20mm clean angular stone.



Pictures show the Cell Web being installed on the ground.

The below diagram shows how the Cellular confinement system should be installed.





6.5.7 **Other items -** The following is a list of additional activities ***that are not 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 or allowing run off from such activities to run into the root zones of trees being retained.
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.

6.6.0 Post Construction Works

6.6.1 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 is for the sole use of the above named client and has been produced as part of a planning application for these lands 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.

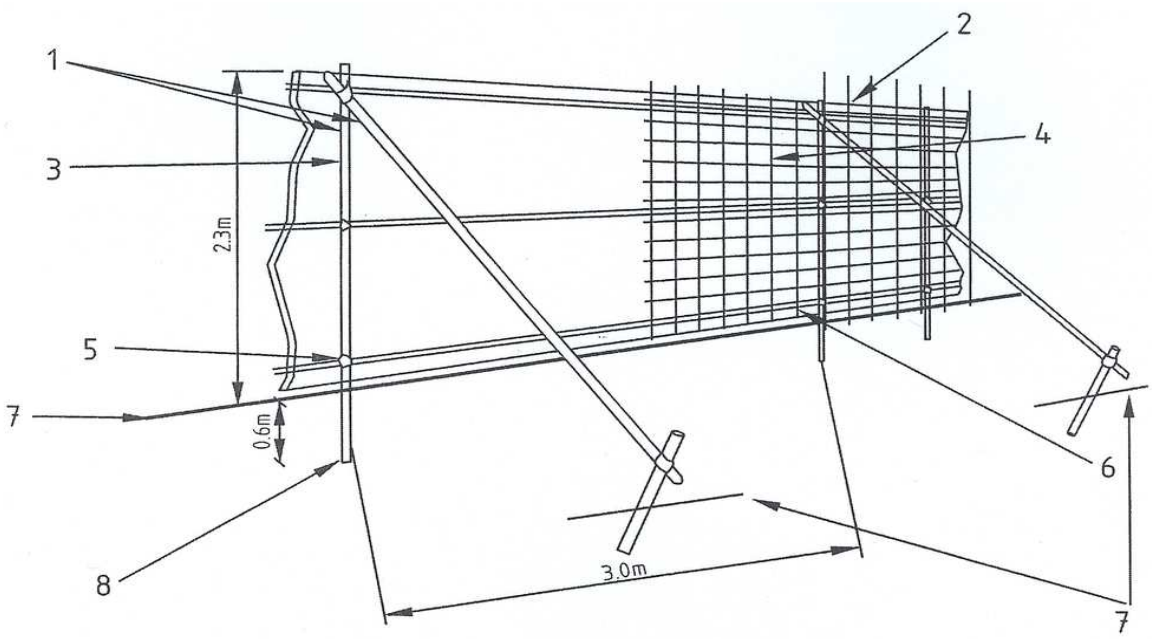
Signed Felim Sheridan Date 11/10/2021

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

Sample of Temporary Tree Protection Fencing Detail and Ground Protection.



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

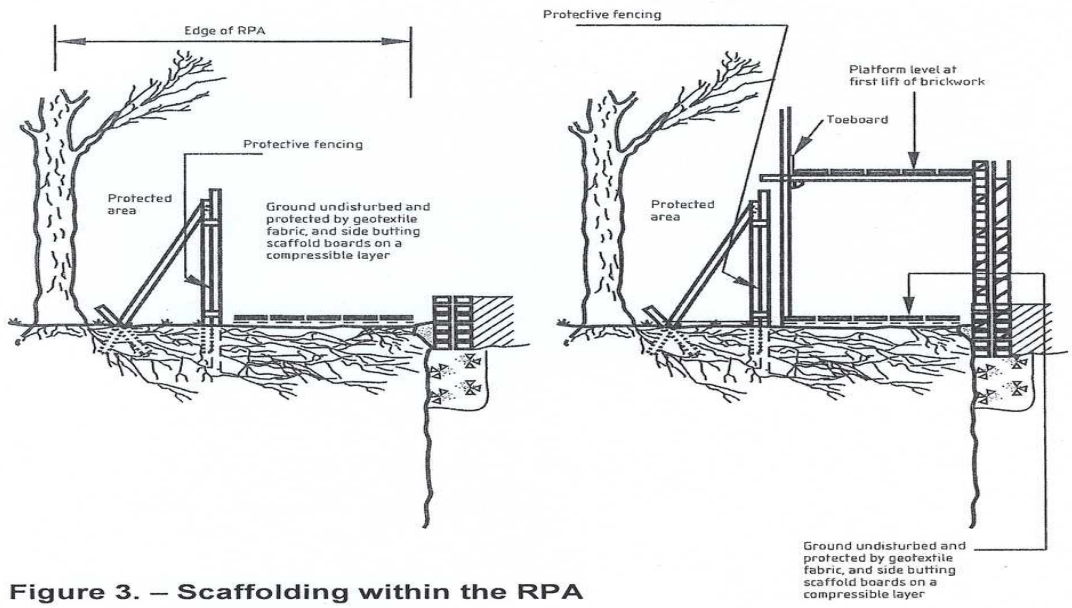


Figure 3. – Scaffolding within the RPA

Appendix 2

Condition Tree Assessment.

On Site Area at 'Old Bray Road', Cornelscourt, Dublin 18.

Date: 11th October 2021

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 defective 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 10 years. 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 millimetres (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 Recommendation	Remain Contribute in years	Cat. Grade
								N-north **S**-south **E**-east **W**- west **Phys.**-physiological.	**A-** average		
		A Condition Assessment of the trees within and adjoining the site area at 'Old Bray Road', Cornelscourt, Dublin 18.									
		The survey commences at the site entrance off the 'Old Bray Road' and proceeds in a clockwise direction around the site area. The survey then proceeds along the northern and eastern boundaries of the site with the trees located just outside the site boundaries.									
		The site contains one tree growing on the western boundary. The remaining vegetation consists of isolated clumps of scrub consisting of Elder, Buddleia, regenerating Sycamore and Bramble. These clumps are dispersed along the western and southern boundaries. The remaining trees included in the survey are located just off the eastern and northern boundaries.									
0441	**Holly** *Ilex sp.*	5	170	1.5N 1S 1.5E 1.5W	2	Early Mature	Fair	Fair It is located on the western boundary and is a single-stem tree growing out of the base of the adjacent fence. It divides at c.2 meters (m) into two co-dominant stems with an acute union formation. The lower branches have been pruned to provide clearance over the ground and adjacent fence.	No works required at the present time	10-20	C1
		The survey continues from just outside the site entrance and proceeds east along the northern boundary.									
Tree No.1	**Sycamore** *Acer pseudoplatanus*	9	350	2.5N 3S 2E 3.5W	1	Early Mature	Fair/ Good	Fair It is most likely a self-sown seedling growing out from the base of the site fence. Originally a twin-stemmed tree, the stem on the west side has been cut down to c.0.5m. The remaining stem divides at c.2.5m into two stems with an acute union formation with included bark present which will become a point of structural weakness in the future. There are suckers developing from its base and epicormic growth up along the main stem. There is evidence to suggest that the ground	Requires no work at the present time.	10-20	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 Recommendation	Remain Contribute in years	Cat. Grade
								N-north **S**-south **E-**east **W**- west **Phys.-**physiological.	**A-** average		
								levels have been raised around its base in the past.			
Hedge No.1	**Privet** *Ligustrum vulgare*	**It extends from Tree No.1 down along the kerb edge to the car parking spaces to the rear of the AIB Bank building.** It is of a mature age class in fair condition physiologically and structurally. It is predominantly Privet with some Bramble developing up through it, particularly on the site side. It is located out from the boundary fence of the site area on the side of an embankment and has been regularly trimmed on the west side, but has been allowed to grow more unmanaged on the site side.							Management of this hedge is outside the control of this site area. It would benefit from more regular trimming to maintain as a formal hedge.	--	C2
		The following two trees are located outside the western boundary of the site area, between the sites boundary fence and Hedge No.1.									
Tree No. 2	**Deodar Cedar** *Cedrus deodara*	10	340	3N 4S 4E 3.5W	0E 1.5W	Early Mature	Fair/. Good	Fair It is growing as one of a pair with Tree No. 3. It is a single-stem tree to c.2m where it divides in two co-dominant stems with a broad union formation. It is growing on a short steep bank and some lower branches particularly on the car park side have been removed to raise up its crown. There have been changes in the ground levels around its base in the past.	The management of this tree is outside the control of the site area. It will require further pruning of lower crown to improve its juxtaposition with this area.	20-40	B1
Tree No. 3	**Deodar Cedar** *Cedrus*	8	350	3N 3S 3E	3E 0.5W	Early Mature	Good	Fair It is growing as one of a pair with Tree No. 2; it is a single-stem tree to c.3m where the leader may	The management of this tree is outside the control of the site.	20-40	B1

Ht. (m)	Stem. Dia. (mm)	Branch Spread (m)	Crown-Ht (m)
A 1.5	-	A2	-

<table>
<tr><th>Tree No.</th><th>Tree Species</th><th>Ht. (m)</th><th>Stem Dia. (mm)</th><th>Branch Spread (m)</th><th>C-Ht. (m)</th><th>Age Class</th><th>Phys. Con.</th><th>Structural Condition Other Comments</th><th>Preliminary Recommendation</th><th>Remain Contribute in years</th><th>Cat. Grade</th></tr>
<tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>N-north S-south E-east W- west
Phys.-physiological.</td><td>A- average</td><td></td><td></td></tr>
<tr><td></td><td>deodara</td><td></td><td></td><td>4W</td><td></td><td></td><td></td><td>have been lost in the past. The main stem has a turn at this point with a large branch developing out to the west. The lower branches have been pruned to provide ground clearance. There have been changes in the ground levels around its base in the past.</td><td>It will require further pruning of lower crown to improve its juxtaposition with this area.</td><td></td><td></td></tr>
<tr><td>Tree Line No.1

Tree Nos. 4-13</td><td>Large Leafed Lime
Tilia platyphyllos ‘Rubra’</td><td colspan="7">This tree line is located just off the northern boundary of the site area on a wide grass verge bordering with the ‘N11’ Motorway.
The trees included in the survey form part of a longer tree line which extends along the ‘N11’ Motorway. The tree line runs in an east-west direction along the side of the ‘N11’ Motorway and consists of 7 No trees.
The trees are of a semi-mature age class and are in good condition physiologically and fair/good condition structurally. They are located between the site boundary fence and the cycle path adjacent to the ‘N11’ Motorway. They are single-stemmed trees and they are developing into an attractive line of trees and will in time become a visually prominent feature. They have been pruned in the past to raise up their crowns, and the side branches on the road side have also been trimmed to maintain clearance with the path. There is epicormic growth on their main trunks with basal suckers present on some trees and their crowns are starting to interfere with the sites boundary fence. Tree No. 6 is growing with a pronounced lean to the east and it may have moved in the past under wind loading, but appears to be stable for now.

<table><tr><th>Ht. (m)</th><th>Stem. Dia. (mm)</th><th>Branch Spread (m)</th><th>Crown-Ht (m)</th></tr><tr><td>A 9</td><td>A260</td><td>A3.5N,/ A3.5S/ A3.5E /A3.5W</td><td>A1.2</td></tr></table></td><td>The management of these trees are outside the control of the site area.

They would benefit from formative pruning to remove basal suckers and branch stubs back to proper target pruning points.
It will also be necessary to carry out pruning to their lower crowns to maintain clearance over the surrounding surfaces and the boundary fence.</td><td>20-40</td><td>B2</td></tr>
<tr><td>Notes:</td><td></td><td colspan="7"></td><td></td><td></td><td></td></tr>
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