

Arborist Associates Ltd.

An Arboricultural Assessment of the Tree Vegetation on the Site Area at 'Jacob's Island', Cork, Co. Cork.

Prepared for: Hibernia Star Limited.

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Arboriculture

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1.0 Instructions

- 1.1 I have been instructed by Hibernia Star Limited (planning applicant) to assess the site area at 'Jacob's Island', Cork, Co. Cork and to report on the following:
- A- To assess the present condition of the tree vegetation within this site area. See 'Appendix 2' of this report for details of our assessment and drawing No.JIC001 which has been prepared as a tree constraints plan to aid the design team in finalizing the design of the development for this site area.
 - B - To assess the impact of the proposed development layout on the tree vegetation located within the site area indicating those for removal and retention. See 'Section 5.0' of our report and drawing No.JIC002 for detail.
 - C - To show on this drawing the position of the tree protective fencing and other tree protection measures that need to be put in place and be maintained in place until all construction works are complete. See 'Section 6.0' of our report and drawing No.JIC002 for detail.

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 in operation, if they are it will then be necessary to obtain consent before undertaking any works (pruning or felling). The wildlife and forestry acts also need to be taken into consideration when deciding to carry out any tree works in order to ensure compliance with these acts.

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 this site area.
- 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 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** – including health, structural form, life expectancy, species and its physical contribution to or effects on other features located on site.
 - **Landscape Value** – an assessment of a tree's 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 summaries 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.

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.

Any category 'U' trees within this site area have been identified on our drawings (Nos.JIC001& JIC002) with a 'Red' donut around their trunk positions.

Category A - Trees of high quality/value with a minimum of 40 years life expectancy. These trees would be seen as having the potential to contribute to the tree cover of these grounds for the long-term.

Any category 'A' trees within this site area have been identified on our drawings (Nos.JIC001& JIC002) with a 'Green' donut around their trunk positions.

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-term.

Any category 'B' trees within this site area have been identified on our drawings (Nos.JIC001& JIC002) 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 and they should not be seen as a considerable constraint on the development of these lands, but where viable, they should be retained.

Any category 'C' trees within this site area have been identified on our drawings (Nos.JIC001& JIC002) with a 'Grey' donut around their trunk positions.

- 3.5 The bulk of the trees have been plotted onto the attached drawing (DWG. No. JIC001) by a land survey company and where they haven't been plotted, they have been positioned by ourselves to the best of our ability and their positions may not be fully accurate. The tree reference 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 detailed above and recommended by BS 5837 2012.

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 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, 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.

4.0 Summary of Survey Findings

- 4.1 The site area is located within an area known as 'Jacob's Island' and has lain derelict for the last 15 or so years. It is adjoined to its north by the Cork South Ring Road (N40) and to its south, east and west by a Local Distributor Road and south of this road is a residential area.



- 4.2 Since the site has lain derelict for the last 15 or so years, it has become covered in natural regeneration of trees consisting of Sycamore, Goat Willow, Poplar, Ash and Alder all of a semi-mature age class with large areas of scrub being dominated by Bramble which has made access through the site difficult.
- 4.3 Within the site area at the north- eastern end, the following tree vegetation is present:
- There is a one large mature Beech (tag No.0495) which is in poor condition physiologically and structurally with basal decay present which will impact on its long-term potential and as a result, this tree has been given a category grade of 'U' with an estimated life expectancy of less than ten years. Due to the structural issues, this tree would not be seen as suitable for retention within a developed area.
 - There is also a large prominent mature Sycamore (tag No.0497) which is in better condition and this has been given a category grade of 'B'. There is a cellar located on its southern side.
 - North -east of this, is the remnants of a mature Monkey Puzzle tree which fell and the stump has produced a sucker which is competing with the surrounding scrub vegetation and this has been given a category grade of 'C'. This was also once a large prominent tree within this area.
 - Within the south- eastern end of the site, a scrub area being dominated by Goat Willow with dense understory of Bramble and other scrub species has been allowed to establish since the site area has been derelict (since around 2008). Within this area, the larger self-seeded trees have been tagged (Nos.0484-0494, 0496, 0499 – 0502) and a linear tree belt numbered numerically (Tree Line No.1) and these have been given a category grade of 'C'. The tree species include Sycamore, Ash, Poplar Alder and Willow of a semi- mature to early mature age class.
- 4.4 Outside the sites boundary, the following trees where included within our assessment:
- Along the northern boundary between the site boundary fence and the slip road from the N40, a linear belt of trees (Tree Belt No.1) has been planted as part of the road development works and this consists of a mix of Pine, Lime, Birch, Goat Willow, Sycamore and Ash with an undergrowth of Bramble. This is establishing well and screens off the site from the road creating a buffer and has been given a category grade of 'B'.
 - Along the southern boundary of the site area, a line of trees has been planted into the linear grass verges on either side of the road between the roadside kerb and the public footpath and these have been number Tree Line Nos.1 & 2. The tree species used in these tree lines consists of short section of

Norway Maple, Flowering Cherry and Rowan currently of a semi-mature age class. These trees help to provide a leafy ambiance to this road, however this growing environment would be considered difficult for these trees and as a result, they have been given a category grade of 'C' with some of the tree species such as the Norway Maple probably needing to be removed in the future as part of management to prevent structural damage being caused to the public footpath and road side kerb line.

- Specimen trees were planted on the two roundabouts on this road and they consist of a Blue Cedar (Tree No.1) within the eastern roundabout and a Copper Beech (Tree No.2) within the western roundabout and they are establishing well with good potential, and as a result they have been given a category grade of 'A'.

4.5 Within the overall site area 19No. Trees were tagged (Nos.0484-0502) along with 2No.Trees, 2No.Tree Belts and 2No. Tree Lines numbered numerically.

The following table gives a breakdown of their category grading:

Category Grade	No. of Trees
Category U Trees = 2	Trees Nos. 0495 & 0500.
Category A Trees = 2	Tree Nos. Tree No. 1 & Tree No. 2.
Category B Trees = 1	Tree Nos. 0497.
+1 Tree Belt	Tree Belt No. 1.
Category C Trees = 16	Tree Nos. 0484, 0485, 0486, 0487, 0488, 0489, 0490, 0491, 0492, 0493, 0494, 0496, 0498, 0499, 0501 & 0502.
+1 Tree Belt +2 Tree Lines	Tree Belt No. 2. Tree Line No. 1 & 2.
Totals:	21 Trees + 2 Tree Belts + 2 Tree Lines

5.0.0 Arboricultural Implication Study

5.1.0 Introduction

- 5.1.1 It is proposed to develop this site area for a new residential development which will consist of:

The construction of a Strategic Housing Development of 489 no. apartments, crèche and offices in 5 no. buildings ranging in height from part-1 to part-8 no. storeys over lower ground and semi-basement podium levels. The development will contain 1 no. studio, 158 no. 1 bedroom apartments and 330 no. 2 bedroom apartments.

Blocks 12 and 13 will contain ancillary commercial areas including a crèche (381 sq m) and offices (4,143 sq m). The development will also contain supporting internal resident amenity spaces (576 sq m) and external communal amenity spaces.

Block 11 is part-3 to part-6 no. storeys over semi-basement podium and lower ground levels and will contain 101 no. apartments.

Block 12 is part-1 to part-4 no. storeys over undercroft car parking and lower ground level office building (4,112 sq m) comprising 2,934 sq m of office floor area.

Block 13 is part-2 to part-8 no. storeys over lower ground levels and will contain a crèche over 2 no. levels (381 sq m) and 39 no. apartments.

Block 14 is part-3 to part-6 no. storeys over lower ground level and contains 130 no. apartments.

Block 15 is part-3 to part-6 no. storeys over semi-basement, podium and lower ground level and contains 219 no. apartments and ancillary resident amenity spaces (576 sq m).

The proposed development also provides for hard and soft landscaping, boundary treatments, public realm works, car parking, bicycle parking, bin stores, signage, lighting, PV panels, sprinkler and water tank, substations, plant rooms and all ancillary site development works above and below ground.

- 5.1.2 A portion of the site area at the north-western end is located outside this planning applications red line boundary and a separate planning application (Ref No.2240809) is being made for the development of this site area and a central part of the site area along the southern boundary is also to be developed under a separate planning application (ABP Ref No.301991-18 as amended under ABP Ref No.310378-21).
- 5.1.3 This section of our report is designed to assess the impact of the proposed development layout on the tree vegetation within this site areas red line boundary and to look at the necessary measures that will need to be undertaken to help

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

- 5.1.4 On drawing No.JIC002, I have shown the trees for removal due to the proposed development layout with 'Red Hatched' crown spreads and those to be retained with a 'Green Hatched' crown spread.

I have also shown on this drawing the position of any necessary tree protection measures in order to protect the root zone of the tree vegetation being retained within the vicinity of where the construction works will occur. These work exclusion zones are shown on this drawing using 'Orange Hatching' and these areas will need to be cordoned off by the erection of fencing or other means at the start of the works and this will need to be maintained in place until all works are completed. This fencing is to protect the root zone of the trees and to ensure their successful integration into the development of this site area.

- 5.1.5 The comments made within this impact assessment study are based on my understanding of the proposed development and what is required to allow for its construction.

5.2.0 Impact Assessment

- 5.2.1 Within the site area itself, it is proposed to remove all vegetation with the exception of Tree No.0497 a prominent mature Sycamore tree. This tree will be retained on an open space and incorporated into the completed landscaped development which will include the construction of a retaining wall along its southern and western sides of its root zones. The use of a retaining wall will reduce the impacts on this tree as it reduces the amount of re-grading of the ground around this tree to incorporate it into the surrounding finished levels which are lower to the existing levels within this area.
- 5.2.2 Along the southern boundary of the site area, it will be necessary to remove two lots of three trees from Tree Line No.1 which is a line of relatively evenly spaced out trees within a linear grass verge between the public footpath and roadside kerb line to facilitate access points in off this road including sight lines, redesigned footpaths and connections to services within this verge.
- 5.2.3 The blow table summarizes the vegetation that is proposed for removal to accommodate the proposed development within the sites red line boundary and/or as part of active management and these have been shown on Drawing No. JIC002 with 'Red Hatched' crown spreads:

Category Grade	No. of Trees for Removal
Category U 1 Tree	Tree No. 0500
Category A 0 Trees	Tree No. --
Category B 0 Trees	Tree Nos. --
Category C 11 Trees + 1No. Linear Belt & Scrub Areas	Tree Nos. 0491, 0493, 0498, 0501 & 0502 Tree Belt No.2 (c.66m long) plus 6No. Trees from tree line No.1. Scrub Areas with natural regeneration of trees.
Total	12 Individual Trees + 1 Tree Belt and Scrub Areas.

- 5.2.4 The loss of the above tree vegetation is to be mitigated against within the landscaping of this completed development with new tree, shrub and hedge planting that will complement the development and will help provide good quality and suitable long-term tree cover. See landscape architects drawings and schedules for detail.

A range of tree sizes are proposed within the finished landscape ranging from whips to semi- mature trees and as these establish and grow in size, they will be continuously mitigating any negative impacts created in the first place with the loss of the above trees, and will enhance and secure the treescape of this area into the future.

- 5.2.5 For the duration of the construction works, the trees being retained will need to be cordoned off by the erection of fencing to enclose the calculated root protection areas as shown on drawing No.JIC002 and this is to remain in place for the duration of the works within these areas. The fencing is to be of a strong

robust build capable of withstanding the works that are proposed within its vicinity. The fencing will need to be 2.3m high and constructed in accordance with figure 2 of BS 5837 2012 using vertical and horizontal scaffold bars well braced together with the verticals spaced out at a maximum of 3m centers and onto this, weld mesh panels are to be securely fixed with wire or scaffold clamps. See sample of fencing type within 'Appendix 1' of this report and on drawing No. JIC002.

5.3.0 Main areas for consideration during the proposed construction process:

Item	Comments
Tree Pruning	<p>As part of the initiating works, the crowns of some of the trees being retained 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.</p> <p>All tree felling and pruning work will need to be carried out by qualified and experienced tree surgeons <i>before</i> any construction work commences; all tree work should be in accordance with <i>BS3998 (2010) Tree Work – Recommendations</i>.</p> <p>All trees for removal will need to be felled to stumps taking care not to cause damage during the process to the trees being retained and all stumps, in particular those which are located within the root zone of trees being retained that need to be removed are to be ground out using a mechanical stump grinder taking care not to cause root damage to the trees being retained.</p>
Tree Protection	<p>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.</p> <p>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.JIC002) 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: <i>Trees in relation to design, demolition and construction (2012)</i> specifies appropriate fencing, see 'Appendix 1' for details.</p> <p>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.</p> <p>All weather notices will need to be erected on the fences with words such</p>

Item	Comments
	<p>as: "Tree Protection Fence — Keep Out".</p> <p>When the fencing has been erected, 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.</p>
Construction	<p>It will be important that good housekeeping is in place at all times so that the site does not become congested.</p> <p>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.</p> <p>Where work space between the building lines 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.</p> <p>For light weight work areas such as for the storage of work material and pedestrian paths, this protection could be provided by the use of boarding and for heavier loading, these areas will need protection with the use of Cell Web of similar product.</p> <p>Where this occurs, the tree protective fence lines are not to be moved to accommodate these works until such time as the required ground protection is signed off by the project engineers and arborist and put in place to the recommendations of section 6 of BS5837 2012.</p> <p>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 them and might make their safe retention impossible. Materials, which can contaminate the soil, e.g. concrete mixings, diesel oil and vehicle washings, are not to 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 will need to be located outside the work exclusion zones of the tree vegetation being retained.</p>
Services	<p>See project engineer's drawings for detail for service routes. We have overlaid the surface water and foul pipe layouts onto our tree protection plan to assess impacts.</p>

Item	Comments
	Prior to the installation of any services routed near trees being retained, they are to be marked out on site for review by the project Arboriculturist and a detailed 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.
Boundary Treatments	It is my understanding that all boundary treatments where required along by the trees being retained are to be of a fence type structure where there will only be a need to excavate small diameter holes for the fence uprights and these will need to be dug manually or with an augur with no machinery allowed to operate within the work exclusion zones fenced off by the tree protection fencing. The working ground area required during these works will need to be protected from impacts/damage by a suitable ground protection such as scaffold planks laid butt jointed on a bed of woodchip in accordance with Section 6.2.3 of BS5837 2012.
Landscaping	<p>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. See landscape architects drawings and sections for detail.</p> <p>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.</p> <p>It will be important within these areas that all works are carried out manually with minimal intervention with machinery and where machinery is required; this will need to be of a small light weight type and all works will need to be supervised by the project arborist. Where this machinery needs to transverse the root protection areas of trees, the route for this will need to be protected by boarding or other means to meet the requirements of Section 6.2.3 of BS5837 2012.</p>

5.4.0 Monitoring

- 5.4.1 Any construction works within 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. 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.

- 5.4.2 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.
- 5.4.3 Copies of the tree retention and protection plan (DWG No. JIC002) a copy of BS 5837(2012) and NJUG 4 (2007) should all be kept available on site during the construction works and all works are to be in accordance with these documents.
- 5.4.4 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 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 building contractor/site manager on how trees need 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 tree vegetation proposed for retention. See drawing DWG No.JIC002, for the position of the protective fencing and other mitigation measures.
- 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.

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 Arboriculturist and local authority to identify and finalize the trees for removal and the line of the protective fencing.

6.6.0 Tree works

6.6.1 The developer 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 they plan 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. JIC002.

6.7.2 The fencing needs to be 2.3m high and constructed in accordance with figure 2 of BS 5837 2012 (see fencing detail on drawing No.JIC002 & 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 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.JIC002 & 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.

Stage 2:

6.8.0 The Construction Works Stage

- 6.8.1 **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 must be fixed immediately.

If works need to take place inside the protective fence lines, then the project Arboriculturist must be informed in advance of the works taking place and the mitigation measures required to reduce impact on the tree vegetation agreed. 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 must only be removed when all the works are complete and at this stage incorporated into the finished landscape.

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

The excavations in the vicinity of the tree vegetation being retained will 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 those 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 trees to be retained and this may include such methods as retaining walls or similar.

No roots greater than 25mm in diameter are to be severed by the construction works without prior approval by the project Arboriculturist. Where roots are encountered, the project Arboriculturist is to assess these prior to cutting and these are to be pruned back to appropriate pruning points beyond the excavation line. Where roots cannot be cut; alternative methods of construction will need to be considered. The excavated face is then to be covered with soil or with Hessian sacking to prevent further drying out and the death of root material. Where the Hessian sacking is used, it will be necessary to keep this moist especially during dry periods.

- 6.8.3 **Working within the RPA (Root Protection Area)** – If it becomes necessary to carry out works within the RPA of a tree/trees, 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.

- 6.8.4 **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.

6.9.0 Other items

- 6.9.1 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
- 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:

6.10.0 Post Construction Works

6.10.1 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 18th May 2022

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.

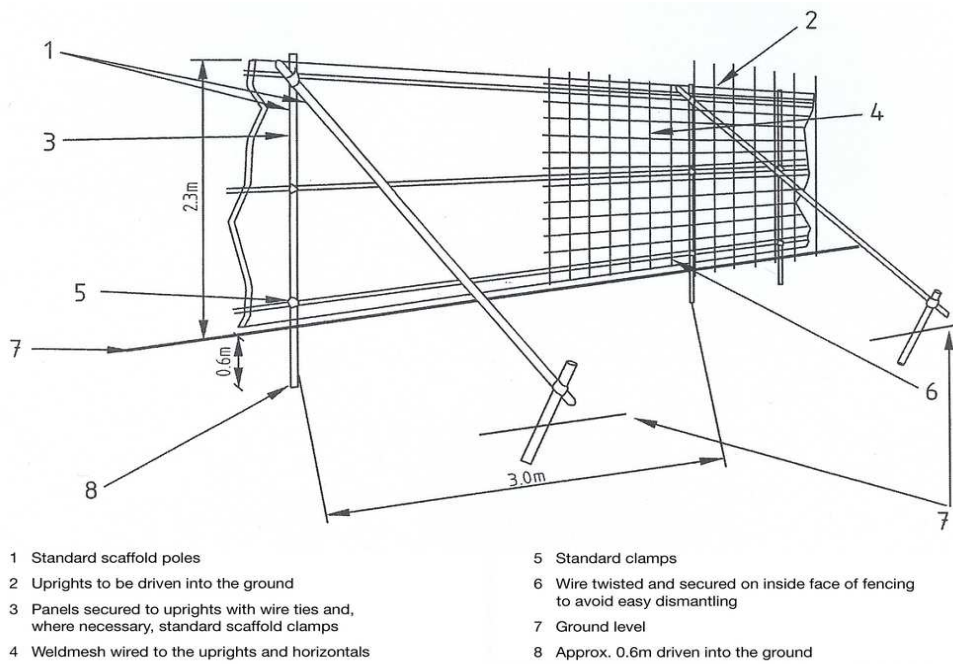


Figure 2. – Protective fencing for RPA



Sample of signage to be placed on fence panels.

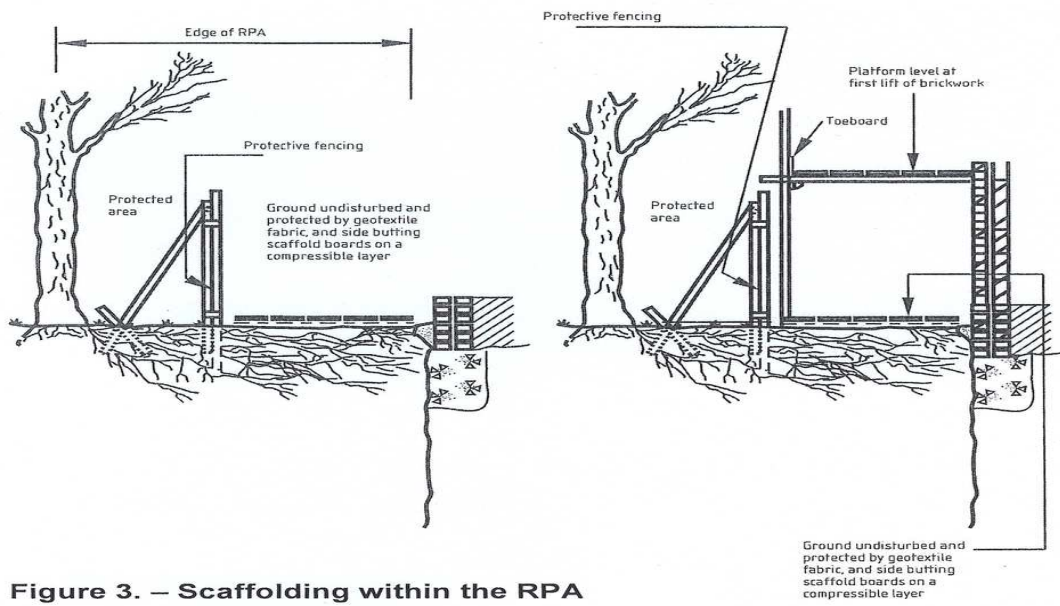


Figure 3. – Scaffolding within the RPA

Appendix 2

Condition Tree Assessment

A Condition Assessment of the Trees Located on the Site Area at 'Jacob's Island', Cork, Co. Cork. '

Date: 7th October 2021

Arborist Associates Ltd. An Arboricultural Assessment of the Tree Vegetation on the Site Area at 'Jacob's Island', Cork, Co. Cork. -May 2022

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.

Arborist Associates Ltd. An Arboricultural Assessment of the Tree Vegetation on the Site Area at 'Jacob's Island', Cork, Co. Cork. -May 2022

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 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 from 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	S	E	W							
				N	S	E	W			N-north S-south E-east W- west Cat.- category Phys.-physiological	A- average Dia- diameter C-Ht.- crown height			
A Condition Assessment of the trees within the Site Area at 'Jacobs Island', Cork, Co. Cork.														
Tree Belt No.1	Pine <i>Pinus sp.</i> Lime <i>Tilia sp.</i> Birch <i>Betula pendula</i> Oak <i>Quercus sp.</i> Goat Willow <i>Salix caprea</i> Gorse <i>Ulex europaeus</i> Bramble <i>Rubus fruticosus</i>	A linear tree belt located along the boundary fence of the site area and the adjoining slip road off the Motorway. It would have initially been planted as a screen barrier as part of the road development works and consists of a mix of tree species including Pine, Lime, Oak and Birch. These are of a semi-mature age class and have established well and form a good screen barrier along the road. There is some Goat Willow establishing on the site side of the boundary fence with an undergrowth of Gorse and Bramble.									The management of this tree belt is taken to be located outside the site area. It would benefit from some selective thinning/management to reduce competition and to allow the better quality trees space to develop.	-	B2	
		A	A	A	A	A	A	A	A					
		8	100-320	3	3	3	3	3	0					
														


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	S	E	W							
				N	S	E	W			N-north S-south E-east W- west Cat.- category Phys.-physiological	A- average Dia- diameter C-Ht.- crown height			
Scrub Area	Goat Willow <i>Salix caprea</i> Dogwood <i>Cornus alba</i> Dog Rose <i>Rosa canina</i> Buddleia <i>Buddleja davidii</i> Gorse <i>Ulex europaeus</i> Cherry <i>Prunus sp.</i> Alder <i>Alnus glutinosa</i> Elm <i>Ulmus sp.</i> Ash <i>Fraxinus excelsior</i> Sycamore <i>Acer pseudoplatanus</i> Oak <i>Quercus robur</i> Turkey Oak <i>Quercus cerris</i> Bramble <i>Rubus fruticosus</i> Seedlings	<p>It extends along the northern boundary of the site area. It consists predominately of a regeneration of Goat Willow, Dogwood, Dogrose, Bramble, Gorse, Buddleia, Cherry, Alder and Birch with Ash and Sycamore seedlings mixed throughout. The ground had previously been cleared of all vegetation and had been disturbed allowing for the development of this natural regeneration. There are some self-seeding Oak, predominately Turkey Oak developing up through the scrub.</p>												
														
		<p>The following trees are located within the scrub area inside the boundary railing.</p>												
0484	Flowering Cherry <i>Prunus avium</i>	10	220/ 110/	3	3	4	4	1	Early Mature	Fair/ Good	Fair Multiple-stemmed from base and forms	It would benefit from general tidying works around it to allow it space	20+	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 Recommendation	Remain Contribute in years	Cat. Grade
				N	S	E	W							
											N-north S-south E-east W- west Cat.- category Phys.-physiological	A- average Dia- diameter C-Ht.- crown height		
			80								part of the bulking along the boundary fence.	to develop.		
0485-0486	Sycamore <i>Acer pseudoplatanus</i>	A 10	A 200/ 240	A 5	A 5	A 5	A 5	0	Early Mature	Fair/ Good	Fair It consists of a group of self-seeded trees growing up together forming part of the one group/ canopy formation. They are establishing up over the height of the surrounding scrub vegetation.	They are best maintained/ managed within their present group structure. Tidy up the undergrowth.	20+	C2
Tree Group 0487 – 0490	Poplar <i>Populus tremula</i> (3 in total) Field Maple <i>Acer campestre</i> (0487)	A 12	A 280	3	3	2	3	2.5	Early Mature	Fair	Fair/ Poor They have all established from seed on disturbed ground with raised root plates as a result and this may raise concerns over stability as they grow in size. They are growing up together and are establishing above the height of the undergrowth of scrub. They are growing within a group environment and they provide support/ shelter to one another. Tree No. 0488 is twin-stemmed from base.	They are best maintained within their present group environment. Tidy up undergrowth.	10-20	C2
		There is a clump of 'Japanese Knotweed' (<i>Fallopia Japonica</i>) growing on a soil mound to the north of the above Tree Group (Nos. 0487 – 0490.)												
0491 – 0492	Poplar <i>Populus tremula</i>	A 13	A 260	A 3	A 3	A 3	A 3	2	Early Mature	Fair	Fair Tree No. 0492 is the largest of these trees. They are growing up together at close spacing and they form part of the one group/ canopy formation. They are establishing above the surrounding vegetation. They are suckering from	They would benefit from general tidying works around their bases. Maintain lower epicormic growth and basal suckers.	20+	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 Recommendation	Remain Contribute in years	Cat. Grade
				N	S	E	W							
											N-north S-south E-east W- west Cat.- category Phys.-physiological	A- average Dia- diameter C-Ht.- crown height		
											their bases.			
0493	Poplar <i>Populus tremula</i>	13	280	3	3	3	3	2.5	Early Mature	Fair	Fair/ Poor It has established up over the surrounding scrub vegetation and is now visible within this area. It has a single with a slight lean on the main trunk.	Tidy up the undergrowth.	10-20	C2
0494	Ash <i>Fraxinus excelsior</i>	9	140/ 160	4	4	2	5	1	Semi Mature	Fair/ Good	Fair Self-seeded and is growing on the outer canopy edge (south-east) of Tree No. 0495 with an asymmetrical crown as a result. It forms a twin-stemmed tree from base and has established above the surrounding scrub vegetation. Ivy cover on the main trunk is extending up into its crown.	Cut Ivy at ground level and tidy up undergrowth. Retain as part of the bulking within this area.	20+	C1
Tree Nos. 0495 & 0497 are the two large prominent trees on this site area.														


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	S	E	W							
				N	S	E	W				N-north S-south E-east W- west Cat.- category Phys.-physiological	A- average Dia- diameter C-Ht.- crown height		
														
0495	Beech <i>Fagus sylvatica</i>	19	1200	7	10	10	9	0	Late Mature	Fair/ Poor	Poor It is a large, prominent, visual tree within this site area and it stands out within the locality. Extensive basal decay is present and it is also infected at numerous points by the fungus 'Ganoderma Sp.' This decay will eventually impact on its stability and its safety is of concern. Heavy Ivy cover on the main trunk is extending up into its crown. Its upper crown is showing signs of stress/ decline with deadwood throughout its crown.	It will either need to be removed or allowed to fall naturally within this site area.	<10	U
0496	Sycamore <i>Acer pseudoplatanus</i>	8	170/ 180	4	4	4	4	1	Semi Mature	Fair/ Good	Fair/ Poor Self-seeded into this area and has established up over the surrounding	Requires no work at the present time.	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	S	E	W							
										N-north S-south E-east W- west Cat.- category Phys.-physiological	A- average Dia- diameter C-Ht.- crown height			
										scrub vegetation. It forms a twin-stemmed tree from c. 0.5m up with an acute union formation between stems with included bark present and this may develop into a structural weakness.				
0497	Sycamore <i>Acer pseudoplatanus</i>	17	800	9	8	9	8	4	Mature	Fair / Good	Fair It is a large, prominent visual tree within the local area. It is suckering from base and soil alterations have occurred around its base in the past. It has suffered a large size bark wound on the lower trunk on its north side and this bark wound extends up to a height of c. 2m and has exposed the underlying timbers to decay and may lead to structural issues in the long-term. The remnants of an old tree house / laths are present within its lower crown.	Remove dead/ unstable growth and lighten in any heavy, structurally weakened limbs/ branches. Tidy up the area around its base. It may require further remedial works in time.	20+	B2
		The following Monkey Puzzle was once also a large prominent tree within the treescape of this area before it fell.												


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	S	E	W							
				N	S	E	W				N-north S-south E-east W- west Cat.- category Phys.-physiological	A- average Dia- diameter C-Ht.- crown height		
														
0498	Monkey Puzzle <i>Araucaria araucana</i>	3	110	2	2	2	1	0.5	Mature	Fair/ Poor	Poor I suspect that it is a sucker growing from the original stump left of the tree that fell or was removed. Scrub is growing up through its crown and its top would appear to have suffered branch breakage in the past.	Carry out some formative pruning to address structure. It would benefit from general tidying works and the clearing back of the scrub vegetation to allow its more space to develop.	20+	C1
0499	Crack Willow <i>Salix fragilis</i>	11	250/ 160/	4	4	4	4	0	Early Mature	Fair	Fair/ Poor Multiple-stemmed from base and is growing up through the chain link fence	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	S	E	W																					
										N-north S-south E-east W- west Cat.- category Phys.-physiological	A- average Dia- diameter C-Ht.- crown height																	
			80							which is damaging the lower trunk. It has established above the height of the scrub vegetation and forms an internal tree within the site area. Structurally, it is prone to storm damage.																		
Tree Belt No. 2	Grey Alder <i>Alnus incana</i> Crack Willow <i>Salix fragilis</i> Sycamore <i>Acer pseudoplatanus</i>	<p>It is a linear tree belt consisting of predominately Grey Alder with some Crack Willow and Sycamore. It is of a semi- early mature age class in fair/ good condition physiologically and in fair condition structurally. It has most likely established on the side of a soil embankment from seed and allowed to grow up together at close spacing to form part of a linear tree belt. They are beginning to establish up over the surrounding vegetation with and undergrowth of Bramble with Buddleia and Goat Willow on the outer edges. Due to their group growing environment, they are dependent on one another for support/ shelter and this will need to be taken into consideration during their management.</p> <table border="1" data-bbox="430 836 1039 933"> <tr> <td>A</td> <td>A150</td> <td>A</td> <td>A</td> <td>A</td> <td>A</td> <td>A</td> </tr> <tr> <td>10</td> <td>(3 stems)</td> <td>4</td> <td>4</td> <td>4</td> <td>4</td> <td>1</td> </tr> </table>										A	A150	A	A	A	A	A	10	(3 stems)	4	4	4	4	1	It would benefit from general tidying works.	20+	C2
A	A150	A	A	A	A	A																						
10	(3 stems)	4	4	4	4	1																						
																												

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	S	E	W							
				N	S	E	W				N-north S-south E-east W- west Cat.- category Phys.-physiological	A- average Dia- diameter C-Ht.- crown height		
0500	Grey Poplar <i>Populus x canescens</i>	10	540	6	7	6	6	2	Early Mature	Poor	Poor It is located beside an old E.S.B substation and is growing up through the chain link fence on the edge of the surfaced area and the chain link fencing is causing some damage to this tree. Fire damage has been caused to the lower trunk with dieback evident throughout its crown. This tree has limited future potential.	I would recommend its removal as the most appropriate management option.	<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 Recommendation	Remain Contribute in years	Cat. Grade
				N	S	E	W							
				N	S	E	W			N-north S-south E-east W- west Cat.- category Phys.-physiological	A- average Dia- diameter C-Ht.- crown height			
		<p>The following two trees are located on the southern side of the Scrub Woodland on a high soil bank that runs along the footpath.</p> 												
0501	Goat Willow <i>Salix caprea</i>	7	100 (10 stems)	4	4	4	5	0	Early Mature	Fair/ Good	Fair Multiple-stemmed from base and is self-seeded into this area. Bramble is growing up through its lower crown. It forms part of the higher bulking within this scrub woodland and protrudes up over the height of the main scrub/ woodland area.	Tidy up the undergrowth at the present time.	20+	C1
0502	Goat Willow <i>Salix caprea</i>	7	100 (10 stems)	4	4	4	5	0	Early Mature	Fair/ Good	Fair It is growing on top of the soil bank and is most likely self-seeded into this area. Scrub and Bramble are growing up through its lower crown. It protrudes up	Tidy up the undergrowth at the present time.	20+	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 Recommendation	Remain Contribute in years	Cat. Grade														
				N	S	E	W																					
										N-north S-south E-east W- west Cat.- category Phys.-physiological	A- average Dia- diameter C-Ht.- crown height																	
										over the woodland canopy.																		
Tree Line No. 1	Norway Maple <i>Acer platanoides</i> Flowering Cherry <i>Prunus sp.</i> Rowan <i>Sorbus aucuparia</i>	<p>They are planted within a c.1.5m linear grass verge between the roadside kerb and the public footpath. They were planted at c.6m centres in short sections consisting of Norway Maple, Flowering Cherry and Rowan. They are of a semi-mature age class in fair condition both physiologically and structurally. The bulk of them are establishing well with some showing signs of decline throughout their crowns and are struggling to establish, others have suffered bark wounding on the lower trunks caused by the grass maintenance works. They have received pruning of their lower branches in order to raise up their crowns. Tree species, such as the Norway Maple and Cherry are known to have aggressive rooting systems and may be prone to causing structural damage to the surrounding surfaces, in particular the footpath. Some of the trees are also located within close proximity to the public lighting and may need to be removed as part of management in order to prevent the obstruction of public lighting.</p> <table border="1" data-bbox="430 801 1039 871"> <tr> <td>A</td> <td>A</td> <td>A</td> <td>A</td> <td>A</td> <td>A</td> <td>A</td> </tr> <tr> <td>6</td> <td>120</td> <td>2.5</td> <td>2.5</td> <td>2.5</td> <td>2.5</td> <td>2.2</td> </tr> </table>										A	A	A	A	A	A	A	6	120	2.5	2.5	2.5	2.5	2.2	<p>They will require ongoing maintenance in order to maintain clearance with the surrounding surfaces.</p> <p>They may require selective thinning to reduce density as they grow in size.</p>	10-20	C2
A	A	A	A	A	A	A																						
6	120	2.5	2.5	2.5	2.5	2.2																						
																												

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	S	E	W								N-north S-south E-east W- west Cat.- category Phys.-physiological																
Tree Line No.2	<p>Norway Maple <i>Acer platanoides</i></p> <p>Flowering Cherry <i>Prunus sp.</i></p> <p>Rowan <i>Sorbus aucuparia</i></p>	<p>They are located on the other side of the road and have been planted within a c.1.5m linear grass verge between the roadside kerb and the public footpath.</p> <p>They were planted at c.6m centres in short sections consisting of Norway Maple, Flowering Cherry and Rowan. They are of a semi-mature age class in fair condition both physiologically and structurally. The bulk of them are establishing well with some showing signs of decline throughout their crowns and are struggling to establish, others have suffered bark wounding on the lower trunks caused by the grass maintenance works. They have received pruning of their lower branches in order to raise up their crowns. Tree species, such as the Norway Maple and Cherry are known to have aggressive rooting systems and may be prone to causing structural damage to the surrounding surfaces, in particular the footpath. Some of the trees are also located within close proximity to the public lighting and may need to be removed as part of management in order to prevent the obstruction of public lighting. The top has either broken out or was removed from one tree leaving a tall stump.</p>										10-20	C2																		
		<table border="1"> <tr> <td>A</td> <td>A</td> <td>A</td> <td>A</td> <td>A</td> <td>A</td> <td>A</td> </tr> <tr> <td>6</td> <td>120</td> <td>2.5</td> <td>2.5</td> <td>2.5</td> <td>2.5</td> <td>2.2</td> </tr> </table>							A	A	A	A	A	A	A	6	120	2.5	2.5	2.5	2.5	2.2									
A	A	A	A	A	A	A																									
6	120	2.5	2.5	2.5	2.5	2.2																									
																															

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	S	E	W							
				N	S	E	W				N-north S-south E-east W- west Cat.- category Phys.-physiological	A- average Dia- diameter C-Ht.- crown height		
<p>The following two trees (Nos.1 & 2) have been planted onto the two roundabouts to the south of the site are.</p> <div style="display: flex; justify-content: space-around;">   </div>														
Tree No. 1	Blue Cedar <i>Cedrus atlantica</i> 'Glauca'	11	350	4	4	4	4	0	Semi Mature	Fair/ Good	Fair/ Good It is located on the roundabout as a feature tree and is establishing well. I suspect that it was planted as a large size tree and it is of prominence within this area. The stay wires are still attached to this tree.	The stay wires will need to be checked/ repositioned to ensure that they are not causing damage to this tree and if no longer required, they should be removed.	40+	A1
Tree No. 2	Copper Beech <i>Fagus sylvatica</i>	10	360	4.5	4.5	4	4	0	Semi Mature	Good	Good It is located on the traffic island / roundabout on a raised soil mound. It is establishing well and would appear to be of good quality. I suspect that it was planted as a large size tree (semi mature). It is a focal point on this road.	Requires no work at the present time.	40+	A1
Notes:														

