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## Arboricultural Impact Assessment Report

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**Prepared for:**

Galway City Council

**Proposed site:**

Merlin Lands

**Prepared by:**

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## 1.0 Executive Summary

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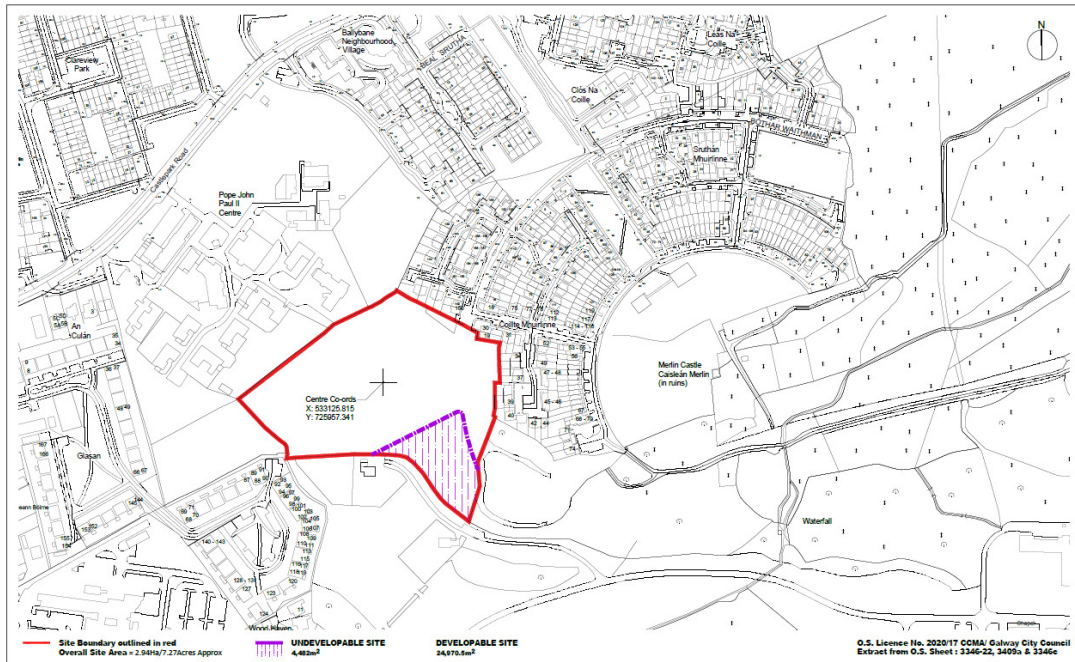
Arbor-Care Ltd (Professional Consulting Tree Service) have been engaged by Dave Ryan Landscape architect on behalf of Galway City Council to undertake, a Tree Survey, an Arboricultural Impact Assessment and a tree protection plan identifying trees that may be impacted on by the proposed development. The surveyed trees contained within this report are located within or adjacent the parameters of the proposed site. The proposed site consists of a green field area within Merlin park. There are few trees of quality on the site and it mainly consist of scrub hawthorn and dense areas of black thorn

The Tree Survey and inventory report is based on the British standard *BS 5837:2012 Trees in relation to design, demolition and construction. Recommendations*, this standard gives recommendations and guidance on the principles to be applied to achieve a satisfactory juxtaposition of trees, including shrubs, hedges and hedgerows, with structures. It sets out to assist those concerned with trees in relation to construction to form balanced judgements. The survey commenced on the 24<sup>th</sup> of September 2020 .

The objective of the below report and tree survey was to undertake a tree survey and impact assessment. This Arboricultural Impact Assessment will be accompanied by a tree protection plan showing all trees to be retained and/or removed.



Figure 2. Site location highlighted in red.



<b>GALWAY CITY ARCHITECTS</b> Galway City Council City Hall College Road Galway Phone: (091) 336 400 Fax: (091) 336 150 Email: architects@galwaycity.ie	NOTE: This drawing is for information purposes only. Information shown addresses current planning acts. This drawing is not intended to demonstrate compliance with the current building regulations nor is it intended for construction purposes. Do not scale from this drawing. Work only from fixed dimensions. All errors and omissions to be reported to the architect.		PROJECT: Housing at Merlin Park (GCC-011)	DRAWING: Stage 1 Submission Site Location Map	JOB NO: A-1910
	DATE: 01/01/2020	TIME: 10:00:00	DRAFT	SITE: Merlin Park Galway	SCALE: 1:2,500 @ A3
CLIENT: Galway City Council	DRAWN BY: L.F.	APPROVED: E.H.	DATE: 01/01/2020	DRAWN BY: L.F.	APPROVED: E.H.



### 3.0 Assignment

1. To undertake a visual tree survey to, identify any potential impact the new development would have on the trees and vice versa.
2. To provide recommendations for their preservation and or removal.
3. Present a written report on the inspection of the trees and hedgerows
4. To provide a tree protection plan highlighting which trees are to be removed and/or retained.

### 3.1 Limits of the Assignment

Unless otherwise stated tree inspections have been undertaken from ground level and using non-invasive techniques only. Comments on the condition and safety of any tree relate to the condition of that tree at the time of the survey. It should be recognised that tree condition is subject to change due to, for example the effects of disease, wind or nearby development works. Changes in land use are also significant in respect of risk assessment. Trees should therefore be inspected at intervals relative to identified site risks. To note section 4.5.10 of *BS 5837: 2012 Trees in relation to design, demolition and construction. Recommendations* states

### 4.0 Methodology Employed

An initial tree survey and visual condition assessment was on the 24<sup>th</sup> of September 2020. For the purpose of this report and in accordance with *BS 5837: 2012 Trees in relation to design, demolition and construction. Recommendations* only trees with diameters of 75mm or greater were surveyed. Also in accordance with section 4.4.2.3 of the British standard document where trees formed obvious groups these were assessed and recorded as groups. The survey commenced along the western boundary and continued in an northerly direction



*Section 4.4.2.3 of BS 5837: 2012 states:*

*Trees growing as groups or woodland should be identified and assessed as such where the arboriculturist determines that this is appropriate. However, an assessment of individuals within any group should still be undertaken if there is a need to differentiate between them, e.g. in order to highlight significant variation in attributes (including physiological or structural condition).*

*NOTE: The term “group” 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 of each of the three subcategories.*

The survey concentrated primarily on the significant trees located within or adjacent the proposed development area, as highlighted in figure one. The objective of this survey was to gather information regarding the trees location on the proposed development site and the impact the proposed development may have on the trees.

**Please refer to appendix 1 for the tree inventory.**

Significant trees can be equated as those trees whose visual importance to the surrounding area are sufficient to justify special efforts to protect/preserve and whose loss would have an irremediable adverse impact on the local environment. Significance can also be placed depending on the trees age, another variable to imply significance can be the aesthetic merit of the tree based on its unusual size, intrinsic physical features or outstanding appearance or occurring in a unique location or context, and thus provides a special contribution as a landmark or landscape feature.

All above parts of the trees were visually examined. Tree diameters (DBH) were estimated at 1.5 meter above grade as per standard arboricultural practice. Tree height was measured with the use of a clinometer (Where practical). A generalised system was employed to describe the overall health of the trees. The system uses a five tier rating scale with the following descriptors:

*Specimen condition 5-tier rating system*

1. Very poor-1-20%
2. Poor- 21-40%
3. Fair- 41-60%
4. Good- 61-80%
5. Very good 81-100%



## 5.0 Trees surveyed

The survey commenced on the 24<sup>th</sup> September 2020. A total of 46 trees were surveyed.

5.1 A breakdown of the Tree Categories on site as per BS 5837 2012 is set out in the table below:

Category	Quantity
A-Tree of high quality	0
B-trees of good quality	19
C (Low quality or trees less than 75mm diameter)	21
U (remove due to poor condition)	6
Total Trees surveyed	46

## 6.0 Predicted Impact of The Proposed Development.

### 6.1 Trees to be removed on site

The arboricultural impact of the proposed development on the site will initially be high 29 trees to facilitate the development and a further 7 trees are to be removed based on their condition. This totals 36 trees to be removed from the site. However of the 29 trees to be removed to facilitate the development the majority are of low quality trees.

Of the 36 trees to be removed, these consist of 0 no. Category A tree, 7 no. Category B and 22 no. Category C trees and 6 no. category U trees to be removed based on their condition.

In accordance with *BS 5837: 2012 Trees in relation to design, demolition and construction- Recommendations.*, Category B signifies those trees of a “moderate value and in such a condition as to be able to make a substantial contribution (A minimum life expectancy of 20 yrs is suggested).”. Category C signifies those trees/hedgerows of “a low quality and value that are currently in an adequate condition to remain until new planting could be established (A minimum life expectancy of 10yrs is suggested).” Category U signifies those trees that are in such a condition that any existing value would be lost within 10 years and which should, in the current context, be removed for reasons of sound arboricultural management



**Table 1: Schedule of trees to be removed to accommodate the design** (To be read in conjunction with Appendix 1)

Tree number	Species	Age Class	Tree category
6636 x 3	Hawthorn	Mature	C2
6637	Ash	Mature	C2
6638	Holly	Mature	C2
6639	Hawthorn	Mature	B2
6640	Hawthorn	Mature	B2
6641	Ash	Mature	B2
6642	Ash	Mature	B2
6643	Ash	Mature	B2
6644	Ash	Mature	B2
6645	Hawthorn	Mature	C2
6646	Ash	Mature	B2
6647	Ash	Early mature	C2
6648	Hawthorn	Mature	C2
6649 x 3	Hawthorn	Mature	C2
6650 x 2	Hawthorn	Mature	C2
6651	Ash	Mature	C2
6652	Hawthorn	Mature	C2
6653	Ash	Mature	C2
6666	Hawthorn	Mature	C2
6667	Ash	Mature	C2
6668	Ash	Mature	C2
6669 x 3	Ash	Mature	C2

Total trees removed =29



**Table 2: Schedule of trees to be removed based on their condition** (To be read in conjunction with Appendix 1)

Tree number	Species	Age Class	Tree category
6629	Horse chestnut	Mature	C2
6654	Elm	Mature	U
6655 x 2	Ash	Mature	U
6656	Ash	Mature	U
6657	Ash	Mature	U
6663	Elm	Mature	u

Total trees removed =7

## 7.0 Tree Removal

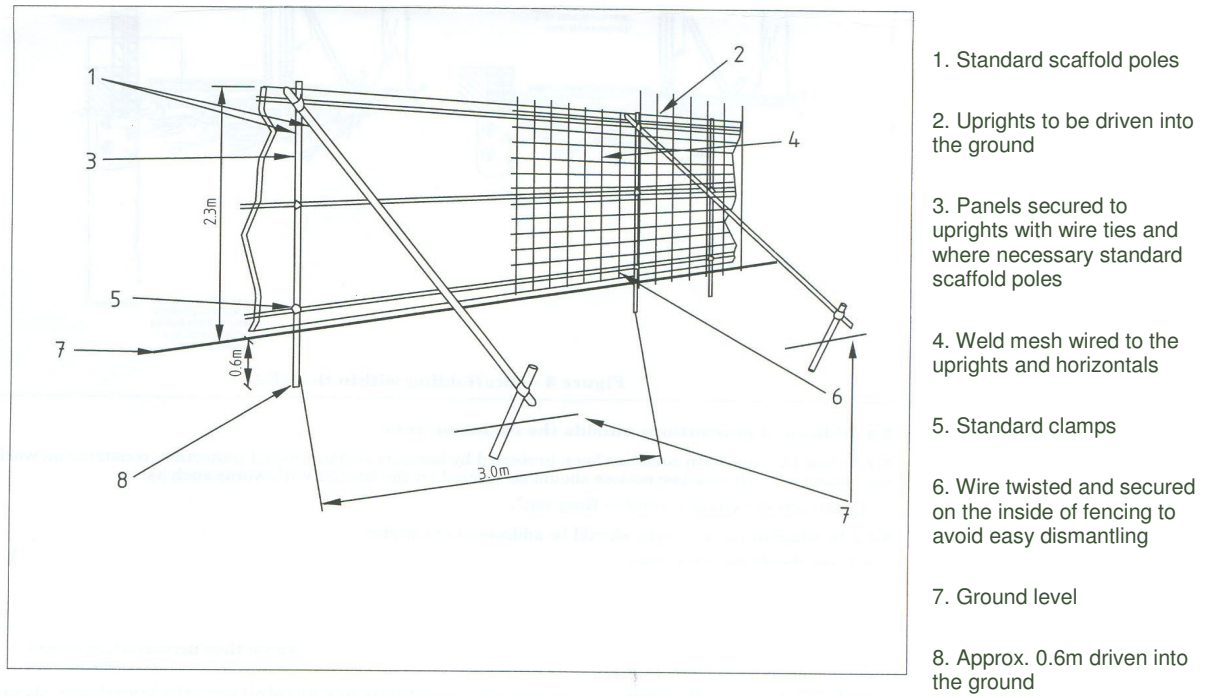
All trees to be removed to facilitate the development of this planning application will be done prior to development and or ground works.

## 8.0 Tree Protection

Trees that are destined to be retained must be protected by protective fencing, signage and/or ground protection prior to any materials or machinery being brought on site and prior to any development, demolition or soil stripping takes place. Areas that are designated for new plantings should be similarly protected. Barriers should be fit for the purpose of excluding construction activity. In most cases barriers should consist of a scaffold framework (Refer to fig. 3 below) comprising a vertical and horizontal framework, well braced to resist impacts. To ensure the protective barriers are respected, clear concise signage must be affixed to the barrier in an unrestricted easily viewed location.

The protective barriers shall remain in an undisturbed condition and only removed on completion of all construction activity finished grading and sodding. Any breach of the protective fence shall be reported to the consulting arborist.

**Figure 3. Protective Barrier**



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 poles
4. Weld mesh wired to the uprights and horizontals
5. Standard clamps
6. Wire twisted and secured on the inside of fencing to avoid easy dismantling
7. Ground level
8. Approx. 0.6m driven into the ground

The above displays an example of a suitable protective barrier as recommended by *BS. 5837 2012 Trees in Relation to Construction. Recommendations.*

Figure 4. Signage to be placed on all protective fencing



The signage must state the following;

- No construction activity is to take place within the R.P.A. (unless pre-agreed with the arborist)
- No materials of any kind are to be stored within the R.P.A.
- No “Spilling out” of materials shall take place within the R.P.A.
- No fires are to be lit within the R.P.A.

#### *Ground Protection*

Although works within the RPA are not recommended should essentials works be required within the RPA. The installation of ground protection in the form of a single thickness of scaffold boards on top of a compressible layer laid onto a geotextile may be acceptable

### 8.3 Tree Protection Plan

A site specific Tree Protection Plan, please review appendix 2.

## 9.0 Arboricultural Method Statement/Tree Protection Strategy

The objective of this arboricultural method statement and tree protection plan is to provide information for the building contractor/site manager on how the trees on the site need to be protected pre, during and post development works so that they can prepare their own site specific detailed method statement for their works

The protection for trees shown for retention will occur in three stages known as pre, during and post development.

Table 3. Arboricultural Method Statement/Tree Protection Strategy – Management Stages

Arboricultural Method Statement/Tree Protection Strategy – Management Stages		
Stage 1 – Pre development works	Stage 2 - The construction works stage	Stage 3-Post Development Works
1. Consultation with Arborist and developer - <b>Undertaken</b>	2. Protective Fencing – management and maintenance <b>Not required for this development</b> 1.	1. Site inspection by arborist to ensure plan adhered to and trees and hedgerow protected- <b>Not required at this stage of development</b>
3. Site meeting - consultation with Arborist, developer, main contractor and sub-contractor- <b>Undertaken</b>	2. Excavations – works only commence when protective fencing in place- <b>No impact</b>	
4. Tree works – Appointment of professional tree surgeon – <b>Not required at this stage</b>	3. Working within the RPA – All works within the RPA to be discussed and agreed with the arborist- <b>Not an issue</b>	
5. Erection of protective fencing/Mitigation measures- <b>Not required for this development</b>	4. Finished ground levels/Landscaping – All works to ensure the integrity of tree/s protected.- <b>Not an issue</b>	

### *9.1 Stage 1 - Pre development works*

Prior to works commencing on site the following needs to be agreed and implemented:

1. The developer may need if requested by the Local Authority to appoint an arborist for the duration of the project. The arborist if requested to may have to make regular site visits to ensure that the protection measures are in place and are being adhered too.
2. The main contractor and sub-contractors are to be briefed on the tree protection plan and ensure all measures are kept in place for the duration of the project
3. All personnel are to adhere to the recommendations of the appointed arborist
4. Any issues in relation to trees shown for retention must be discussed with the appointed arborist and the necessary mitigation measures put in place without delay and prior to the works taking place.

### *9.2 Site meeting*

Prior to any works on site, if requested to by the Local Authority that a meeting be arranged between the project manager, site foreman, the project landscape architect, the project arborist and the local authority to identify and finalise the trees for removal and the line of protective fencing and any other mitigation measures.

### *9.3 Tree works*

The developer or the main contractor is to appoint a professional tree surgery company to undertake any tree removal or surgery works identified. The works are to be undertaken in accordance with *BS 3998 2010*. *This is not required at this stage*

### *9.4 Erection of protective fencing/Mitigation measures*

The erection of protective fencing is to be erected to the fence line shown in tree protection plan. The fencing must adhere with BS 5837: 2012 (Figure 3 and Figure 4 above). Signage must be placed on the fence to highlight its importance. Once the fencing is erected works can commence on-site. *This is not required at this stage*

## **10.0 Stage 2 - The construction works stage**

### *10.1 Protective Fencing*

During the course of the construction works the integrity of the fencing must be respected and remain in place at all times. No building materials or soil heaps are to be stored within this area. Should essential works need to take place with the root protection area the project arborist must be informed in advance and any mitigation measures are to be put in place. The protective fencing must remain in situ for the duration of the project and must only be removed upon completion of all works.

### *10.2 Excavations*

Excavation works are only to commence once the protective fence line is in place. The excavations need to be viewed on site once marked out with the project manager, site foreman and the project arborist in advanced of excavation to determine the extent of the impact and the works space required to allow the construction works proceed and to assess any additional mitigation measures that may be required to protect the retained trees. In certain areas it may be necessary to use alternative methods of excavation to prevent encroachment into the RPA of the trees to be retained and this may include such methods as retaining walls, no dig technique etc.

### *10.3 Working within the RPA*

If it becomes necessary to undertake works within the RPA of tree these must be discussed and agreed beforehand with the project arborist. All works must be carried out manually, and root greater than 100mm in diameter must be pruned using hand held equipment such as a handsaw.

For pedestrian movements within the R.P.A. the installation of ground protection in the form of a single thickness of scaffold boards on top of a compressible layer laid onto a geotextile may be acceptable.

### *10.4 Finished ground levels/Landscaping*

The existing ground levels within the RPA of the retained trees must be retained and incorporated into the finished landscaped development. Where changes in level occurs 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 RPAs must be carried out manually and the soil levels must not be lowered or raised resulting in root damage to the trees. All finished surfaces are to be porous to allow the free movement of water and gaseous exchange to the roots.

### **11.0 Stage 3-Post Development Works**

The project is not to be considered complete until the arborist has inspected the site and is satisfied that all retained trees and hedgerows have been protected in accordance with the site specific Tree Protection Plan and there has been no negative impact on the retained trees on site as a result of the development.

### **12.0 Conclusion**

The arboricultural impact of the proposed development on the site will initially be high 29 trees will require removal to facilitate the development and a further 7 trees are to be removed based on their condition. This totals 36 trees to be removed from the site. However of the 29 trees to be removed to facilitate the development the majority are of low quality trees.

Of the 36 trees to be removed, these consist of 0 no. Category A tree, 7 no. Category B and 22 no. Category C trees and 6 no. category U trees to be removed based on their condition.

In accordance with *BS 5837: 2012 Trees in relation to design, demolition and construction-Recommendations.*, Category B signifies those trees of a “moderate value and in such a condition as to be able to make a substantial contribution (A minimum life expectancy of 20 yrs is suggested)..”. Category C signifies those trees/hedgerows of “a low quality and value that are currently in an adequate condition to remain until new planting could be established (A minimum life expectancy of 10yrs is suggested).” Category U signifies those trees that are in such a condition that any existing value would be lost within 10 years and which should, in the current context, be removed for reasons of sound arboricultural management

A comprehensive landscape plan which will involve planting additional site appropriate trees that will enhance the arboreal footprint of the site (Please refer to separate landscape plan).

I consider subject to implementing proposed landscape plan the above Arboricultural Method Statement/Tree Protection Strategy that there is unlikely to be significant long term detrimental impact as a consequence of the development proposal.

## Tree Categorization.

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Tree Categorization.

### Category U

This category signifies those trees that are in such a condition that any existing value would be lost within 10 years and which should, in the current context, be removed for reasons of sound arboricultural management.

### Category A.

Those trees of a high quality and value, in such a condition as to be able to make a substantial contribution. ( A minimum of 40 years is suggested)

### Category B

This category signifies those trees of a moderate value and in such a condition as to be able to make a substantial contribution (A minimum life expectancy of 20 yrs is suggested)

### Category C

This category signifies those trees of a low quality and value that are currently in an adequate condition to remain until new planting could be established (A minimum life expectancy of 10yrs is suggested), or young trees with a stem diameter below 150mm. 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.

The above categories have sub-categories attached to the tree categorisation.

Sub-category 1- Mainly Arboricultural Values eg-A1

Sub-category 2- Mainly Landscape Values- B2

Sub-category 3- Mainly cultural values, including conservation C2

## Appendix 1 – Tree Inventory

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### Tree Inventory Legend

*Tree Dimensions* - All dimensions are in meters.

*Ht* - Tree Height

*Crown clearance* - Lowest canopy height (distance from ground level to the first live branch)

*Crown spread* - Tree Canopy Spread measured by radii at north, east, south and west

*DBH* - Stem diameter at approx. 1.50m from ground level.

*RPA* - Root Protection Area, as a radius measured from the tree's stem centre.

#### Physiological Condition

*Good* - A specimen of generally good form and health

*Fair* - A specimen with defects or ill health that can be either rectified or managed typically allowing for retention

*Poor* - A specimen whom through defect, disease attack or reduced vigour has a limited longevity or may be un-safe

*Dead* - A dead tree

*Age Class - 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 approximately 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.

*Structural Condition* - Information on structural form, defects, damage, injury or disease supported by the tree

*PMR (Preliminary Management Recommendations)* – refers to Arboricultural actions or works considered necessary at the time of the inspection and relating to the existing site context and tree condition. *Note is also made of works considered as urgent.*

Species Common name is given; botanical name is also given upon its first entry, in Italics.

Appendix 1 Merlin Lands

Tree #	Species Botanical Name	Age class	DBH Size (mm)	Height (M)	Crown Sp. (M)	Crown Cl.(M)	Condition	Structural/Physiological Observations	Impact of the development	PMR	Category	R.P.A. Meters
6626	<i>Crataegus monogyna</i> Hawthorn	M	280	8	N=4 S=4 E=3 W=3	1	Good	A mature hawthorn in good condition	No impact	Retain	B2	3.8m
6627	Hawthorn	M	280	8	N=4 S=4 E=3 W=3	1	Good	A mature hawthorn in good condition	No impact	Retain	B2	3.8m
6628	Hawthorn	M	280	8	N=4 S=4 E=3 W=3	1	Good	A mature hawthorn in good condition	No impact	Retain	B2	3.8m
6629	<i>Aesculus hippocastanum</i> Horse chestnut	M	400	12	N=3 S=3 E=3 W=3	2	Fair	A large mature chestnut it has suffered significant upper canopy damage and it is in decline	Remove based on its condition	Remove	C2	
6630	<i>Fraxinus excelsior</i> Ash	M	280	12	N=2 S=2 E=2 W=2	2	Good	A mature ash in good condition	No impact	Retain	B2	3.8m

Appendix 1 Merlin Lands

Tree #	Species Botanical Name	Age class	DBH Size (mm)	Height (M)	Crown Sp. (M)	Crown Cl.(M)	Condition	Structural/Physiological Observations	Impact of the development	PMR	Category	R.P.A. Meters
6631	Hawthorn	M	250	8	N=2 S=2 E=3 W=3	2	Good	A mature hawthorn in good condition	No impact	Retain	B2	3.5m
6632	<i>Ulmus glabra</i> Wych elm	M	300	14	N=6 S=6 E=4 W=4	1	Good	A large mature elm displaying a good overall condition	No impact	Retain	B2	4m
6633	Ash	M	320	14	N=6 S=6 E=6 W=6	1	Good	A large mature ash displaying good overall condition. There is minor livestock damage to the lower stem	No impact	Retain	B2	4.2m
6634	Elm	M	300	14	N=6 S=6 E=4 W=4	1	Good	A large mature elm displaying a good overall condition	No impact	Retain	B2	4m
6635	Elm	M	300	14	N=6 S=6 E=4 W=4	1	Good	A large mature elm displaying a good overall condition	No impact	Retain	B2	4m

Appendix 1 Merlin Lands

Tree #	Species Botanical Name	Age class	DBH Size (mm)	Height (M)	Crown Sp. (M)	Crown Cl.(M)	Condition	Structural/Physiological Observations	Impact of the development	PMR	Category	R.P.A. Meters
6636 x 3	Hawthorn	M	220	8	N=1 S=1 E=1 W=1	1	Fair	A group of 3 early mature hawthorns in fair condition	Remove to facilitate the development	Remove	C2	
6637	Ash	M	200	10	N=2 S=2 E=4 W=4	1	Fair	A mature multi-stemmed ash in fair condition it has suffered significant upper stem damage	Remove to facilitate the development	Remove	C2	
6638	<i>Ilex aquifolium</i> Holly	M	200	6	N=2 S=2 E=2 W=2	1	Fair	A mature holly in fair condition it is suppressed with ivy and it has suffered stem damage in the upper canopy	Remove to facilitate the development	Remove	C2	
6639	Hawthorn	M	240	8	N=2 S=2 E=2 W=2	1	Good	A mature hawthorn in good condition	Remove to facilitate the development	Remove	B2	
6640	Hawthorn	M	240	8	N=2 S=2 E=2 W=2	1	Good	A mature hawthorn in good condition	Remove to facilitate the development	Remove	B2	

**Appendix 1                      Merlin Lands**

Tree #	Species Botanical Name	Age class	DBH Size (mm)	Height (M)	Crown Sp. (M)	Crown Cl.(M)	Condition	Structural/Physiological Observations	Impact of the development	PMR	Category	R.P.A. Meters
6641	Ash	M	380	12	N=4 S=4 E=2 W=2	1	Good	A large mature ash in good condition	Remove to facilitate the development	Remove	B2	
6642	Ash	M	380	18	N=4 S=4 E=4 W=4	2	Good	A large mature ash in good condition	Remove to facilitate the development	Remove	B2	
6643	Ash	M	320	12	N=2 S=2 E=4 W=2	1	Good	A large mature ash in good condition	Remove to facilitate the development	Remove	B2	
6644	Ash	M	320	12	N=3 S=3 E=3 W=3	3	Good	A large mature ash in good condition	Remove to facilitate the development	Remove	B2	
6645	Hawthorn	EM	180	8	N=1 S=1 E=1 W=1	.5	Good	An early mature hawthorn	Remove to facilitate the development	Remove	C2	

**Appendix 1 Merlin Lands**

Tree #	Species Botanical Name	Age class	DBH Size (mm)	Height (M)	Crown Sp. (M)	Crown Cl.(M)	Condition	Structural/Physiological Observations	Impact of the development	PMR	Category	R.P.A. Meters
6646	Ash	M	340	18	N=4 S=4 E=6 W=6	1	Good	A large mature ash in good condition	Remove to facilitate the development	Remove	B2	
6647	Ash	EM	180	8	N=2 S=2 E=2 W=2	2	Fair	An early mature ash in fair condition it has been suppressed by the larger trees	Remove to facilitate the development	Remove	C2	
6648	Hawthorn	M	200	8	N=2 S=2 E=4 W=2	1	Fair	A mature hawthorn in fair condition it is suppressed with ivy	Remove to facilitate the development	Remove	C2	
6649 x 3	Hawthorn	EM	180	6	N=2 S=2 E=1 W=1	1	Fair	A group of 3 early mature hawthorns in fair condition	Remove to facilitate the development	Remove	C2	
6650 x 2	Hawthorn	EM	180	6	N=2 S=2 E=1 W=1	1	Fair	A group of 2 early mature hawthorns in fair condition	Remove to facilitate the development	Remove	C2	

Appendix 1

Merlin Lands

Tree #	Species Botanical Name	Age class	DBH Size (mm)	Height (M)	Crown Sp. (M)	Crown Cl.(M)	Condition	Structural/Physiological Observations	Impact of the development	PMR	Category	R.P.A. Meters
6651	Ash	M	300	10	N=2 S=2 E=2 W=2	1	Fair	A large mature ash in fair condition it is suppressed with ivy	Remove to facilitate the development	Remove	C2	
6652	Hawthorn	EM	180	3	N=1 S=1 E=1 W=1	1	Fair	An early mature hawthorn on fair condition it is in decline and suppressed with ivy	Remove to facilitate the development	Remove	C2	
6653	Ash	M	300	12	N=2 S=2 E=3 W=2	1	Fair	A mature ash in fair condition. It is in decline in the upper canopy and has suffered lower stem damage	Remove to facilitate the development	Remove	C2	
6654	Elm	M	220	12	N=2 S=2 E=1 W=1	1	Dead	A large dead elm	Remove due to its condition	Remove	U	
6655 x 2	Ash	M	300	10	N=2 S=2 E=2 W=2	1	Poor	Represents 2 mature ash in decline and with significant cankering throughout	Remove due to its condition	Remove	U	

Appendix 1

Merlin Lands

Tree #	Species Botanical Name	Age class	DBH Size (mm)	Height (M)	Crown Sp. (M)	Crown Cl.(M)	Condition	Structural/Physiological Observations	Impact of the development	PMR	Category	R.P.A. Meters
6656	Ash	M	300	12	N=1 S=2 E=1 W=1	1	Poor	A mature ash in poor condition it has suffered significant upper stem damage	Remove due to its condition	Remove	U	
6657	Ash	M	300	16	N=1 S=2 E=1 W=1	1	Poor	A mature ash in poor condition it has suffered significant upper stem damage	Remove due to its condition	Remove	U	
6658	Elm	M	200	10	N=2 S=2 E=3 W=2	1	Fair	A mature multi-stemmed elm in fair condition	No impact	Retain	C2	3m
6659	Elm	M	300	14	N=2 S=4 E=2 W=2	1	Good	A large mature elm in good condition	No impact	Retain	B2	4m
6660	Elm	M	300	14	N=2 S=4 E=2 W=2	1	Good	A large mature elm in good condition	No impact	Retain	B2	4m

Appendix 1

Merlin Lands

Tree #	Species Botanical Name	Age class	DBH Size (mm)	Height (M)	Crown Sp. (M)	Crown Cl.(M)	Condition	Structural/Physiological Observations	Impact of the development	PMR	Category	R.P.A. Meters
6661	Hawthorn	M	200	8	N=2 S=2 E=2 W=2	1	Fair	A mature hawthorn in fair condition	No impact	Retain	C2	3m
6662	Elm	M	280	12	N=3 S=1 E=3 W=3	1	Fair	A mature multi-stemmed elm, in fair condition	No impact	Retain	C2	3.8m
6663	Elm	M	300	8	N=1 S=4 E=1 W=1	1	Poor	A mature elm in poor condition it has suffered significant basal damage	Remove based on its condition	Remove	U	
6664	Hawthorn	M	250	8	N=2 S=2 E=2 W=2	1	Good	A large mature Hawthorn in good condition	No impact	Retain	B2	3.5m
6665	<i>Fagus sylvatica</i> Beech	M	220	14	N=2 S=4 E=2 W=2	1	Fair	A mature beech in fair condition it is being suppressed by the large trees and is leaning severely toward the south	No impact	Consider for removal	C2	3.2m

Appendix 1

Merlin Lands

Tree #	Species Botanical Name	Age class	DBH Size (mm)	Height (M)	Crown Sp. (M)	Crown Cl.(M)	Condition	Structural/Physiological Observations	Impact of the development	PMR	Category	R.P.A. Meters
6666	Hawthorn	M	200	6	N=2 S=2 E=2 W=2	1	Fair	A mature hawthorn in fair condition	Remove to facilitate the development	Remove	C2	
6667	Ash hawthorn cluster	M	250	12	N=3 S=1 E=3 W=3	1	Fair	A cluster of hawthorn and ash in fair condition they have all suffered significant basal damage	Remove to facilitate the development	Remove	C2	
6668	Ash	M	300	12	N=2 S=2 E=2 W=2	1	Fair	A mature ash growing within dense blackthorn scrub	Remove to facilitate the development	Remove	C2	
6669 x 3	Ash	EM	200	8	N=2 S=2 E=2 W=2	1	Fair	A cluster of 3 early mature ash growing within dense blackthorn scrub	Remove to facilitate the development	Remove	C2	
6670	Ash	EM	220	8	N=2 S=2 E=2 W=2	1	Fair	An early mature ash in fair condition suppressed with ivy	No impact	Consider removal for	C2	3.2m



6671	Ash	EM	220	8	N=2 S=2 E=2 W=2	1	Fair	An early mature ash in fair condition suppressed with ivy	No impact	Consider removal	for	C2	3.2m
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**Appendix 2. Tree Protection Plan**





This report was prepared by:

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Arbor-Care Ltd, Professional Consulting Tree Service

*Yours in Conservation.*

*Michael Garry.*

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