



Arboricultural Impact Assessment

Prepared for:

Limerick City & County Council

Proposed site:

Quins Cross to Raheen Rounabout Cycle Scheme

Prepared by:

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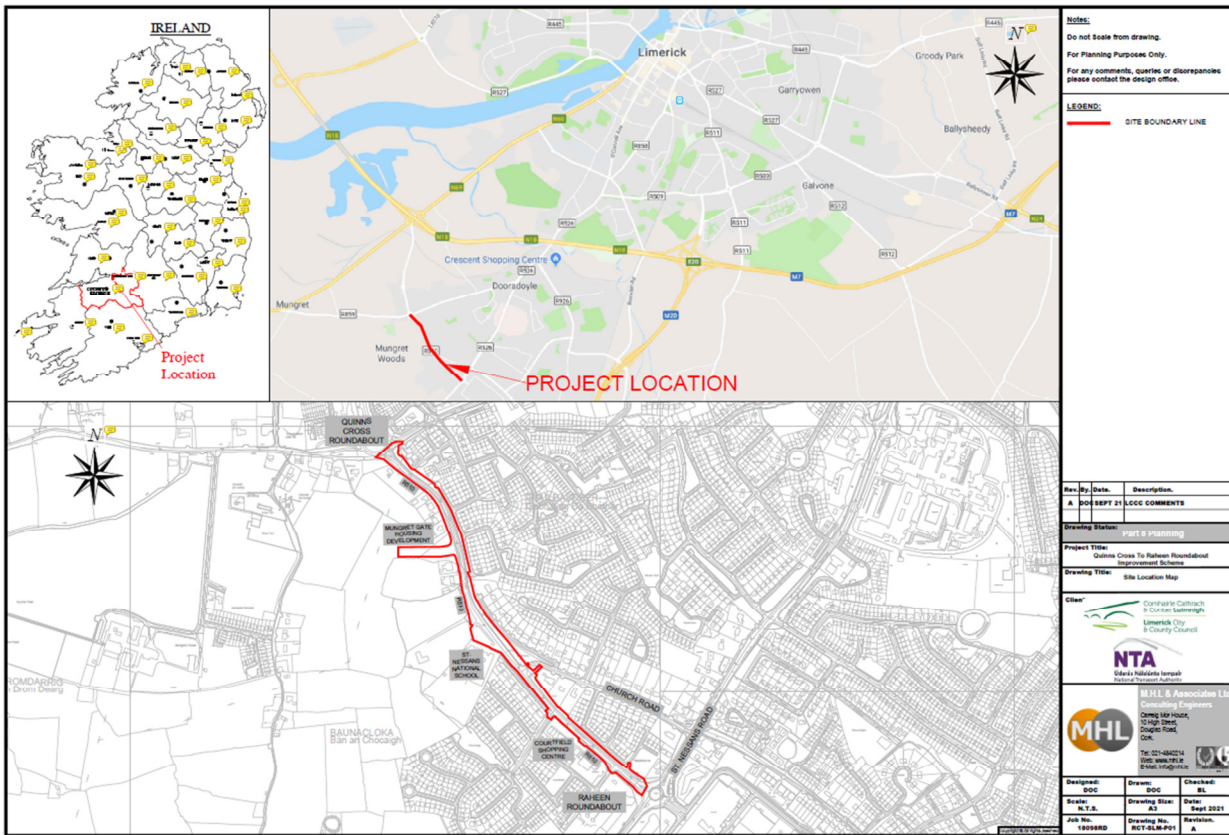
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1.0 Introduction.

- 1.1 Arbor-Care Ltd (Professional Consulting Tree Service) was retained by Limerick City & County Council on behalf of the National Transport Agency (NTA) to undertake an Arboricultural Impact Assessment, and a Tree Protection Plan identifying the trees, groups of trees that may be impacted on by the proposed scheme. The surveyed trees contained within this report are located within or adjacent to the proposed route as per (Figure 1.0 below). The objective of the impact assessment was to identify the areas that contained trees, groups of trees or hedgerows, and to ensure where possible that these areas would be retained and to identify the trees that are to be removed to facilitate the development.
- 1.2 The survey commenced on the 5th June 2021. The survey commenced at the Raheen roundabout and continued north to Quinn's cross. The survey assessed the trees along the eastern side then proceed south to Raheen roundabout assessing the trees along the west of the proposed route
- 1.3 The below impact assessment 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. This impact assessment report will be accompanied by an inventory of trees and hedgerows on site and a tree protection plan. The Arboricultural Impact Assessment and a tree protection plan was prepared for the site identifying trees that may be impacted on by the proposed development based on the proposed design.

Figure 1.0 Proposed route



Notes:
Do not scale from drawing.
For Planning Purposes Only.
For any comments, queries or discrepancies please contact the design office.

LEGEND:
SITE BOUNDARY LINE

Rev. No.	Date	Description
A	08 SEPT 21	LCC COMMENTS

Drawing Status: PART 2 PLANNING

Project Title: Guinne Cross To Raheen Roundabout Improvement Scheme

Drawing Title: Site Location Map

Client: Connaught Cathrach & Connaught Limerick City & County Council

NTA
Gáirí Náisiúnaí le hAontas

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Designed:	Drawn:	Checked:
DOC	DOC	SL

Scale:	Drawing Size:	Date:
A1:1	A3	Sept 2021

Job No.	Drawing No.	Revision:
100980	ECT-GLM-P01	A

(Source: NTA)

2.0 Policy Context

- 2.1 The National Planning Framework (NPF) seeks to ensure that new development is sustainable and underlines the importance of Green Infrastructure, of which trees form an integral part. This encompasses recognition of the importance of trees in relation to the management of air, soil and water quality along with other associated ecosystem services and climate change adaptation. The NPF also seeks to achieve the protection and enhancement of landscapes and a net gain in biodiversity.
- 2.2 I have reviewed the Draft Limerick City and County Council development plan 2022-2028. There are no TPO's identified within the study area.
- 2.4 'BS5837:2012 Trees in relation to design demolition and construction – Recommendations (BS5837)' provides a framework which sets out how trees should be considered in this context and also explicitly applies to development where planning consent is not required.
- 2.5 BS5837 recommends that a tree survey is undertaken to identify the quality and benefits of trees and the spatial constraints associated with them. This is then used to produce a Tree Constraints Plan showing the above and below ground constraints associated with trees. This drawing is used to inform the design process and to allow the retention of good quality trees where appropriate.
- 2.5 An Arboricultural Impact Assessment (Please refer to appendix 1) is then developed to identify the likely direct and indirect impacts of the Proposed Development, and a Tree Protection Plan is prepared to identify trees to be removed or retained and to illustrate how retained trees are to be protected. An Arboricultural Method Statement is often required as a condition of planning consent to detail how sensitive operations are to be achieved in close proximity to retained trees. These elements are the minimum normally required for a planning application and are intended to ensure both a sustainable and harmonious relationship between trees and new development.

3.0 Methodology Employed

- 3.1 An initial tree survey and visual condition assessment was on the 15th of June 2021. 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 at location D02 and finished at location D08 of figure 1. All trees were individually tagged with a metal disc. This was placed on the northern side of the tree where practical. Where trees were located within private property a virtual tag number was used this has been denoted with the letter T P* in the tree schedule and protection plan.

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.

- 3.2 The survey concentrated primarily on the significant trees/hedgerows and groups located within and adjacent to the proposed scheme area. 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 2 for the tree inventory.**
- 3.3 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.
- 3.4 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%

4.0 Trees surveyed

4.1 The survey commenced on the 15th June 2021. A total of 96 trees were surveyed. The impact of the development on the trees surveyed will be assessed in the Arboricultural Impact Assessment.

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

Category	Quantity	Category %
A-Tree of high quality	3	3%
B-trees of good quality	82	85%
C (Low quality or trees less than 75mm diameter)	10	10%
U (remove due to poor condition)	1	1%
Total Trees surveyed	96	100%

5.0 Arboricultural Impact Assessment

Trees to be removed on site

5.1.1 The arboricultural impact of the proposed development on the site will be low. It is proposed to remove 22 trees out of a total of 96 surveyed to facilitate the scheme.

5.1.2 Of the trees to be removed to accommodate the proposed design, these consist of 1 no. category A trees, 18 no. category B and 3 no. category C trees and 0 no. category U trees.

5.1.3 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. 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

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

Tree number	Species	Age Class	Tree category	Category % removal
2089	Whitebeam	Mature	B2	B=6.6%
2090	Ash	Mature	C2	C=5.2%
2094	Oak	Mature	C2	U= 0.1%
2097	Horse chestnut	Mature	A2	
2114-2115 x 3	Norway maple	Mature	B2	
2118 x 2	Poplar	Mature	B2	
2119 x 4	Horn beam	Mature	B2	
2120	Sycamore	Early- Mature	C2	
2121-22 x 8	Norway maple	Mature	B2	

A total of 22 trees will be removed. Please refer to the Tree Protection Plan and Appendix 1 for further information

Trees to be retained on site

5.2 It is proposed to retain all other trees on site at this stage of the development. Some trees may require remedial works to facilitate the development. Such works include having the lowest limbs crown raised and or to have any deadwood within the canopies removed.

6.0 Tree Removal

All trees that are destined for removal shall be removed prior to any construction or demolition works on this site. Any tree/hedgerow remedial works that are required shall also be undertaken prior to any construction or demolition activity on the site. All the above shall be carried out by qualified and insured tree surgeons and in accordance with *BS 3998:2010 Tree works Recommendations*.

7.0 Tree Protection

7.1 Prior to any construction or demolition works on this site all trees and hedgerows destined for retention need to be protected by the use of protective barriers and or ground protection, fit for the purpose of ensuring the successful long-term preservation of the trees. In order for the retained trees to be adequately protected on the site a construction exclusion zone needs to be identified. This zone is calculated based on the root protection area (RPA), which is the minimum area in m² which should be left undisturbed around each retained tree. The RPA should be calculated as an area equivalent to a circle with a radius 12 times the stem diameter for a single stem tree and 10 times basal diameter measured immediately above the root flare for trees with more than one stem arising below 1.5m above ground level.

Number of Stems	Calculation
Single Stem Tree	$\text{RPA (m}^2\text{)} = \left\{ \frac{\text{stem diameter (mm) @ 1.5m} \times 12}{1000} \right\}^2 \times 3.142$
Tree with more than one Stem arising below 1.5m above Ground level	$\text{RPA (m}^2\text{)} = \left\{ \frac{\text{Basal Dia. (mm)} \times 10}{1000} \right\}^2 \times 3.142$

Note: The Calculated RPA should be capped to 707m² e.g. which is the equivalent to a circle with a radius of 15m or a square with approximately 26 m sides.

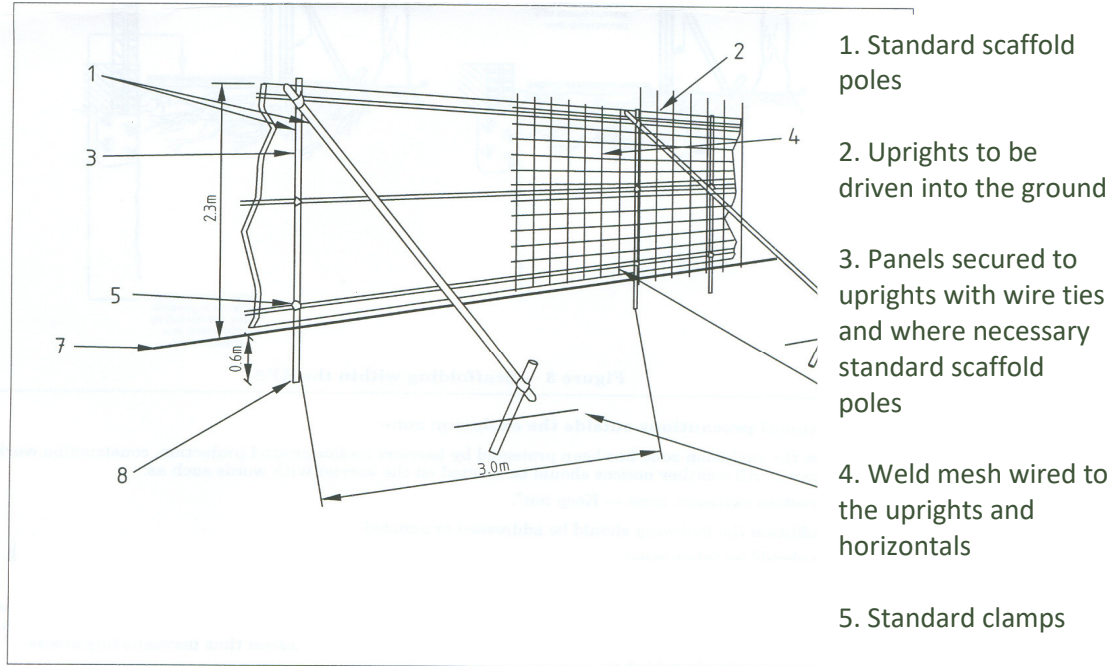
Protective Barriers

7.2 Trees and hedgerows that are indicated to be retained must be protected by barriers, 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. 4 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 signage must state the following;

- No construction activity is to take place within the R.P.A. (unless pre-agreed 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.

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.

Fig 3. Protective Barrier



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

Fig. 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

- 7.3 Although works within the RPA are not recommended should essential 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. For wheeled or tracked movements within the R.P.A. the ground protection should be designed by an engineer to accommodate the likely loading. Any works within the RPA must be undertaken with prior consultation with the arborist.

Tree Protection Plan

- 7.4 A site specific Tree Protection Plan has been undertaken as a separate document

8.0 Arboricultural Method Statement/Tree Protection Strategy

- 8.1 The objective of this arboricultural method statement/tree protection plan is to provide information for the building contractor/site manager on how the trees or hedgerows 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
- 8.2 It is necessary for the protective fencing to be erected and all other mitigation measures required to be put in place prior to any development works commencing on site to ensure all retained trees and their critical rooting zone are protected for the duration of the works. Refer to tree protection plan (for the position of root protection areas and additional mitigation measures
- 8.3 The protection for trees and hedgerows shown for retention will occur in three stages known as *pre, during and post development.*

Table 2. 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	1. Protective Fencing – management and maintenance	1. Site inspection by arborist to ensure plan adhered to and trees protected
2. Site meeting - consultation with Arborist, developer, main contractor and sub-contractor	2. Excavations – works only commence when protective fencing in place	
3. Tree works – Appointment of professional tree surgeon	3. Working within the RPA – All works within the RPA to be discussed and agreed with the arborist	
4. Erection of protective fencing/Mitigation measures	4. Finished ground levels/Landscaping – All works to ensure the integrity of tree/s Protected.	

Stage 1 - Pre development works

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

1. An arboriculturist (If requested by the Local authority) may need to be appointed for the duration of the project. The arborist is 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.

Site meeting

- 8.5 Prior to any works on site, it may be necessary 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

Tree works

- 8.6 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*.

Erection of protective fencing/Mitigation measures

- 8.7 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 4 and Figure 5 above). Signage must be placed on the fence to highlight its importance. Once the fencing is erected works can commence on-site.

9.0 Stage 2 - The construction works stage

Protective Fencing

- 9.1 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 within 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.

Excavations

9.2 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, cellular confinement systems, no dig technique etc.

Working within the RPA

9.3 If it becomes necessary to undertake works within the RPA of tree/trees, these must be discussed and agreed with the project arborist. All works must be carried out manually root pruning is to be undertaken by an arborist 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. For wheeled or tracked movements within the R.P.A. the ground protection should be designed by an engineer to accommodate the likely loading.

Finished ground levels/Landscaping

9.4 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.

10.0 Stage 3-Post Development Works

10.1 The project is not to be considered complete until the arborist has inspected the site and is satisfied that all retained trees 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.

Appendix 1 - Tree Categorisation

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

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 unsafe

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 Itali





Arboricultural
ASSOCIATION
Professional Member

Appendix 1.

Tree Inventory

Tree id	Tag #	Species	HT (m)	DBH (mm)	CR. Sp. N	Cr. Sp. S	Cr. Sp. E	Cr. Sp. W	Cr clearance & Dir.	Physiological/ Structural condition	Condition comments	Life stage	PMR	Tree works to facilitate scheme	Cat.	RPA Radius m	Est. Remaining yrs
T001	2073-2074 x 12	<i>Acer platanoides</i> Norway Maple	16	320	2	2	4	4	1m East	Good	A large mature Horse Chestnut displaying over all good condition	M	No works required	Retain	B2	4.2m	20+
T002	2075-2076 x 7	<i>Salix</i> Willow x 2 <i>Prunus</i> x 3 Cherry Norway maple x 2	18	360	4	4	3	3	2m East	Good	A mixed deciduous group that provide good screening for the hotel	M	No works required	Retain	B2	4.6m	20+
T003	2077	<i>Fagus sylvatica</i> Beech	14	300	2	2	2	2	1m North	Good	An early mature beech	EM	No works required	Retain	B2	4m	20+
T004	2078	<i>Sorbus aucuparia</i> Mountain ash	6	100	3	3	3	3	1m North	Good	A semi-mature mountain ash appropriate for its location	SM	No works required	Retain	B2	2m	20+
T005	2079	Mountain ash	6	100	3	3	3	3	1m North	Good	A semi-mature mountain ash appropriate for its location	SM	No works required	Retain	B2	2m	20+
T006	2080	Norway maple	3	100	2	2	2	2	1m North	Good	A semi-mature maple	SM	No works required	Retain	B2	2m	20+
T007	2081	<i>Betula pendula</i> Birch	3	80	1	1	1	1	1m North	Good	A young birch tree appropriate for its location	Y	No works required	Retain	C2	1.8m	20+
T008	2082	Birch	3	80	1	1	1	1	1m North	Good	A young birch tree appropriate for its location	Y	No works required	Retain	C2	1.8m	20+
T009	2083	Norway maple 'Crimson King'	10	240	3	3	3	3	2m south	Good	An early mature maple	EM	No works required	Retain	B2	3.4m	20+
T010	2084	<i>Sorbus intermedia</i> Swedish whitebeam	14	260	2	2	2	2	2m south	Good	A mature Swedish whitebeam	M	No works required	Retain	B2	3.6m	20+
T011	2085	Swedish whitebeam	10	240	2	2	2	2	2m south	Good	A mature Swedish whitebeam	M	No works required	Retain	B2	3.4m	20+



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Tree id	Tag #	Species	H T (m)	DBH (mm)	CR. Sp. N	Cr. Sp. S	Cr. Sp. E	Cr. Sp. W	Cr clearance & Dir.	Physiological/ Structural condition	Condition comments	Life stage	PMR	Tree works to facilitate scheme.	Cat.	RPA Radius m	Est. Remaining yrs
T012	2086	Swedish whitebeam	10	240	2	2	2	2	2m south	Good	A mature Swedish whitebeam	M	No works required	Retain	B2	3.4m	20+
T013	2087	Norway maple	14	300	3	3	3	3	2m East	Good	A mature maple	M	No works required	Retain	B2	4m	20+
T014	2088	<i>Quercus petraea</i> Sessile oak	6	260	2	2	2	2	1m North	Good	An early mature oak	EM	No works required	Retain	B2	3.6m	20+
T015	2089	<i>Sorbus aria</i> whitebeam	8	240	3	3	3	3	1m North	Good	An early mature white beam	EM	Remove	Remove	B2		20+
T016	2090	<i>Fraxinus excelsior</i> 'Pendula' weeping ash	3	220	1	1	1	1	1m North	Fair	A semi-mature ash in decline	SM	Remove	Remove	C2		10+
T017	2091 x 3	<i>Tilia x europaea</i> Common Lime	18	360	3	3	3	3	2m North	Good	A group of three mature lime	M	No works required	Retain	A2	4.6m	40+
T018	2092	<i>Aer pseudoplatanus</i> Sycamore	16	320	2	2	2	2	2m North	Good	A mature sycamore	M	No works required	Retain	B2	4.2m	20+
T019	2093	Norway maple	14	420	3	3	2	2	2m North	Good	A mature maple	M	No works required	Retain	B2	5.2m	20+
T020	2094	<i>Quercus rubra</i> Red oak	8	240	4	4	3	3	2m south	Fair	An early mature red oak in decline	EM	Remove	Remove	C2		10+
T021	2095	<i>Aesculus hippocastanum</i> Horse chestnut	18	500	4	4	4	4	2m south	Good	A large mature horse chestnut	M	No works required	Retain	A2	6m	20+
T022	2096	Horse chestnut	18	500	4	4	4	4	2m south	Good	A large mature chestnut	M	No work required	Retain	A2	6m	20+
T23	2097 P*	Horse chestnut	18	800	6	6	6	6	2m south	Good	A large mature chestnut on private property	M	Remove	Remove	A2		20+
T024	Group 1 P*	<i>Chamaecyparis lawsoniana</i> Law cypress	18	280	2	2	2	2	1m south	Good	A mature cypress hedge in private property	M	No works required	Retain	B2	3.8m	20+



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Tree Inventory

Tree id	Tag #	Species	H T (m)	DBH (mm)	CR. Sp. N	Cr. Sp. S	Cr. Sp. E	Cr. Sp. W	Cr clearance & Dir.	Physiological/ Structural condition	Condition comments	Life stage	PMR	Tree works to facilitate scheme.	Cat.	RPA Radius m	Est. Remaining yrs
T025	2098	Swedish whitebeam	8	240	2	2	2	2	2m south	Dead	A mature Swedish whitebeam	M	Remove	Remove	U		
T026	2099	Cherry	8	220	2	2	2	2	2m East	Good	A cherry in good condition	EM	No works required	Retain	B2	3.2m	20+
T027	2100	Cherry	8	220	2	2	2	2	2m East	Good	A cherry in good condition	EM	No works required	Retain	B2	3.2m	20+
T028	2101-2102 x 6	Field maple Ash Mountain Ash Silver birch	8	200	2	2	2	2	1m North	Good	A group of mixed deciduous trees in good condition	EM	No works required	Retain	B2	3m	20+
T029	2103	Norway maple	14	260	3	1	2	2	1m North	Fair	A mature maple that has suffered significant stem damage to the southern side and is no longer viable for retention	M	Remove	Remove	C2		10+
T030	2104-2105 x 10	Norway maple	18	360	3	3	3	3	2m North	Good	A group of three mature lime	M	No works required	Retain	A2	4.6m	40+
T031	2092	<i>Aer pseudoplatanus</i> Sycamore	3	75	1	1	1	1	2m North	Good	A row of 10 newly planted trees	Y	No works required	Unknown	C2	2m	20+
T032	2106-2107	Norway maple	12	220	2	2	2	2	2m North	Good	A row of mature Norway maple	M	No works required	Unknown	B2	3.2m	20+
T033	2108 x 2	Mountain ash	6	200	2	2	2	2	2m south	Good	Two mountain ash in good condition	SM	No works required	Unknown	C2	3m	20+
T034	2109 x 3	Norway maple	16	320	3	3	3	3	2m south	Good	Three large mature maples	M	No works required	Retain	B2	4.2m	20+
T035	2110-2111 x 4	Norway maple	16	320	3	3	3	3	2m south	Good	four large mature maples	M	No works required	Retain	B2	4.2m	20+
T36	2112	Norway maple	16	320	3	3	3	3	2m south	Good	A large mature maple	M	No works required	Retain	B2	4.2m	20+
T037	2113	Norway maple	16	320	3	3	3	3	2m south	Good	A large mature maple, it has suffered stem loss on	M	No works required	Retain	C2	4.2m	20+



Appendix 1.

Tree Inventory

Tree id	Tag #	Species	H T (m)	DBH (mm)	CR. Sp. N	Cr. Sp. S	Cr. Sp. E	Cr. Sp. W	Cr clearance & Dir.	Physiological/ Structural condition	Condition comments	Life stage	PMR	Tree works to facilitate scheme.	Cat.	RPA Radius m	Est. Remaining yrs
T038	2114-2115 x 15	Norway maple	16	350	3	3	3	3	2m south	Good	A row of 15 trees. 3 to be removed	M	Remove 3	Remove 3	B2	4.5m	20+
T039	2116-2117 x 5	Norway maple	16	350	3	3	3	3	2m south	Good	A row of mature maples	M	No works required	Retain	B2	3.5m	20+
T040	2118 x 2	Poplar	24	500	3	3	3	3	2m East	Good	Two large mature Poplars that are not appropriate for their location or adjacent a cycle path due to their aggressive root systems and their vulnerability to windthrow	M	Remove	Remove	B2		20+
T041	2119 x 4	Hornbeam	10	200	1	1	1	1	.5m North	Good	A row of 4 hornbeams to be removed	M	Remove	Remove	B2		20+
T042	2120	Sycamore	6	260	1	1	1	1	1m North	Poor	A self seeded sycamore that has been negatively pruned	EM	Remove	Remove	C2		10+
T043	2121-2122 x 8	Norway maple	16	350	3	3	3	3	2m south	Good	A row of 8 trees that will be removed	M	Remove	Remove	B2		20+





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Yours in Conservation,

Michael Garry.

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