

Arboricultural Impact Assessment (AIA) Version 6

Trevor Basin, Llangollen.
Prepared for: Canal and River Trust

Prepared by Simon Brain *Chartered arboriculturist*

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- 1 Tree Protection Plan
- 2 Survey sheets (updated as a result of AIA)
- 3 AMS / typical no dig specification

1.0 Introduction

1.1 Instruction, Scope, Methodology, Mitigation & Limitations

- 1.2 My name is Simon Brain, I am a chartered arboriculturist, with over twenty years field experience holding the LANTRA Professional Tree Inspection certificate. I have been instructed by the client to prepare the following Arboricultural Impact Assessment (Version 4) for land at Trevor Bason, Llangollen.
- 1.3 This Arboricultural Implications Assessment (AIA) is based on the proposed developments as shown on the GA Proposed Site Plan Trevor Boat Base GA landscape plan V14 and incorporated into the Tree Protection Plans (TPP) in Appendix 1 of this report.
- 1.4 The assessment will be carried out in line with the recommendations in BS 5837:2012 *Trees in relation to design, demolition and construction – Recommendations* and will evaluate the direct and indirect impacts of the proposed design and where necessary recommend mitigation.
- 1.5 The AIA considers constraints posed above and below ground and where appropriate makes recommendations to mitigate impacts associated with development sites and retained trees.
- 1.6 Where specialist design, construction techniques or in areas where supervision of the works is required a Special Measure Area (SMA) has been shown on the TPP for the study areas.
- 1.7 Below ground constraints are influenced by the root protection area and are determined in line with the recommendations set out in BS 5837:2012. These recommendations quantify the root protection area based on a measured stem diameter in accordance with Annex C, and the root protection area determined from Annex D.
- 1.8 It is important to understand that when considering the Root Protection Area (RPA) with regards to the circular plot as delineated on the TPP

that a number of site factors can influence root morphology and disposition of tree roots.

- 1.9 Above ground constraints are considered above and below ground and in line with the recommendations in BS 5837:2012 to include; shade, dominance, current and future crown spread as well as the ultimate height of those retained trees.
- 1.10 Impacts associated with development sites and retained trees can be associated with single or multiple site operations that can subject trees to multiple impacts (*root severance, compaction, loss of photosynthetic material*), where this is applicable it will be highlighted in the AIA.
- 1.11 The mitigation measures proposed in this report are essential to ensure that trees marked for retention are adequately protected during the period of post/preconstruction.

2.0 Arboricultural Impact Assessment

2.1 Area for proposed development

2.2 The proposed development has been embedded within the Tree Constraints Plan which indicates the following developments associated with this site to have an arboricultural impact:

- Access arrangements and new surfacing
- Installation of proposed development infrastructure requiring tree removal

2.3 The arboricultural impacts of these items have been identified below.

2.3.1 Access alignments and new surfacing

New hard surfacing in the RPA of retained trees is located within a designated Special Measure Area (SMA) and construction will be managed by the following means, and shall be referred to as 'no dig' construction:

- Establishment of the California Bearing Ratio of the land in question order to inform engineers of type and capacity of load bearing cellular confinement system to be used.
- Appoint and confirm engineer for design and supply of a suitable load bearing geo cellular confinement system requiring no more than 25cm of excavation for top soil preparation only.
- Driveway is constructed and finished to the agreed specifications before any other general building activity commences on site.
- The cellular confinement system shall be guaranteed by the supplier so as not to cause subsequent compaction for a period of ten years.

- Typically, a 'no dig' approach (based on APN12 Driveways close to trees) will be taken with the confinement system being laid directly onto the existing ground level; where local cuts and fills are required this shall be no more than 75-100mm in depth.
- Typically, a confinement system of 150mm in depth is used.
- Edge restraints shall be required, and they shall be secured by means of small metal ties approximately 50cm+ long at appropriate intervals.
- The cellular confinement system shall be laid by pedestrian means under the consultant's on-site supervision. Small excavators can be used on the surface when it is newly laid and when ground boarding is provided.
- The system shall be filled with granular material that retains porosity and maintain a porous finished wearing surface such as pea gravel or resin bonded gravel. Proprietary surface coverings that may be suitable for some surfaces include Flexipave and Permadrive.
- All surface construction when complete shall be covered in on ground boarding throughout the SMA for the remainder of the build period.
- All surface construction is located with Special Measure Areas (SMA) which is designated on the Tree Protections Plan (TPP). All construction shall be supervised on site by a qualified arboricultural consultant whom shall record all progress and oversee all new surface installations in the RPA's affected and document the installation in the event of any future third party claims.

A typical no dig specification has been provided in Appendix 3.

NOTE: The chronological order of events shall be as follows.

Following installation of the CEZ access is installed under supervision to no dig specification provided and all new surfacing's are protected by on ground boarding such as scaffold boards prior to any other construction activity commencing in the vicinity. It is however critical that ground boarding is proportionate to the load anticipated to be exerted on the surface. Therefore, in areas of proposed driveway where vehicular (car) and pedestrian traffic is anticipated during / post construction scaffold boarding is enough above the newly laid surface. However, heavier construction related deliveries may be required and ground boarding shall be upgraded to bog mat or similar which must bear the anticipated load. Both types of on ground boarding are required for the construction duration.

2.3.2 Installation of proposed development infrastructure requiring tree removal. The impact of the installation of development requires the removal of the following nineteen tree references:

G9;T40;T41;T42;T43;T44;T45;G5;G8;G11;T19;T21;T26;T31;T36;T37;T38;T39;T62.

Five trees are affected for health and safety reasons (Cat. U trees):

- T50;T51;T55;T59;T20

3.0 Tree Preservation Orders

3.1 I have not checked with The Local Council over Conservation Area or Tree Preservation Order and if they apply to this site.

4.0 Trees to be removed and retained

4.1 The following trees have been identified for management due to their condition (Category U): T50;T51;T55;T59;T20

- 4.2 A total of twenty individual tree references are identified to be removed / partially removed for the direct impact of development as listed in section 2.3.2.
- 4.3 The remaining trees are due to be retained and protected as outlined on the TPP.
- 4.4 Retained and removed trees – analysis.

There are twenty individual tree references lost for these developments, some of which are better to be replaced than retained in order to bolster long term visual amenity through a replanting scheme (Cat. C trees).

The removal of trees and their replacement with suitably sustainable species provides an opportunity to ensure further longer-term visual amenity is added to the immediate and wider landscape.

5.0 Root Protection Areas (RPA)-modifications

- 5.1 Root Protection Areas have been plotted in line with the guidance given in BS 5837: 2012 where ground constraints have had or are likely to effect the root morphology of trees e.g. where underground utilities or building foundations have obstructed root growth this shall require formal confirmation by excavation to establish presence or absence of significant rooting material. No RPA modifications have been shown for this scheme.

6.0 Post construction considerations

- 6.1 Not applicable due to nature of proposals (non-residential)

7.0 Tree pruning to facilitate development and future pruning

- 7.1 There are no requirements for minor levels of tree pruning to facilitate the proposed development.

8.0 New surfacing and ground level modifications

- 8.1 New surfacing is required in SMA/RPA of numerous retained trees as shown on the TPP in two areas. Refer to section 2.3.1 and appendix 3 for details of construction.

Note: Construction in RPA must be no dig.

9.0 Construction Exclusion Zones and Special Measure Areas

- 9.1 The Construction Exclusion Zone has been shown as a black fenced polyline on the TPP in Appendix 1 and shall be constructed using heras panels and rubber feet securely staked to the ground.
- 9.2 The CEZ must be installed as signed off as fit for purpose before any other works commence on site.

10.0 Site supervision and monitoring

- 10.1 Where a tree has been delineated on the TPP as requiring retention there will be a requirement to oversee construction operations in these areas in order to ensure that no damage occurs to the retained tree.
- 10.2 To ensure that there is an auditable system of site monitoring, reports will be compiled by an appointed arborist and following site visits they issued to the site manager and design team, copies of which will be available on site at all times for inspection by a Council planning/Tree officer.

11.0 Installation of below ground infrastructure

- 11.1 Plans (Drainage Layout V17) have been provided specifying the location of site utilities and where necessary design change has been provided previously in earlier revision of the drainage document.

- 11.2 Specialist advice with regards to the position of utilities will need to be sought from engineers and must be reviewed by the consulting arboriculturist prior to commencement on site.
- 11.3 The usual construction techniques for installing site utilities within an RPA will be unacceptable due to the level of root severance that would occur. The impact of root severance will have a detrimental effect on tree health as trees require a healthy root system in order to maintain water and mineral uptake from the soil. Trees need to maintain a balance between shoot and root growth to ensure that the resources supplied by each can meet the demand of the other. Severance of tree roots caused by trenching can lead to reduced water uptake which in turn impacts on the trees ability to supply water to the canopy, resulting in desiccation. A further complication associated with root severance can be problems associated with tree stability. The tree relies on an intact root system in order to maintain stability; this stability will be compromised by root severance.
- 11.4 The use of trenchless techniques can be acceptable provided the depth of service run that is excavated is below the anticipated root depth.

12.0 Design change requirements

- 12.1 Design change requirements have been necessary in earlier stages of the design development. Such change has now been implemented within the proposal to maximise tree retention across the site.

13.0 Amenity Value

The retention of significant arboricultural assets affords for maintenance of the existing visual amenity of the local area. It is considered that the successful establishment of replacement trees referred to in section in 4.4. shall mean an improvement in the long term wider visual public amenity associated with the trees on this site.

14.0 Concluding statement

- 14.1 The proposed scheme was assessed in line with guidance provided in BS 5837:2012 *Trees in relation to design demolition and construction – Recommendations* with the aim to achieve a harmonious relationship between trees and structures that can be sustained in the long term.
- 14.2 It is my professional opinion as an arboriculturist that the proposed development should be allowed to proceed claiming the design proposal has achieved a harmonious balance of retained and removed trees.
- 14.3 It is considered that a significant improvement in the longer-term visual amenity associated with the site will materialise through the suggested re plantings indicated in section 4.4.
- 14.4 A detailed Arboricultural Method Statement (AMS) will be needed to support the planning application.

Appendix 1 Tree Protection Plan

Appendix 2 Survey sheets (updated as a result of AIA)



TREE PROTECTION PLAN

Retention value key

(RETENTION VALUE A)

(RETENTION VALUE C)

(RETENTION VALUE B)

(RETENTION VALUE U)

Root Protection Areas (RPA) & Construction Exclusion Zones (CEZ)

Root Protection Areas (RPA's) have been identified and are based on BS5837:2012. RPA's and Construction Exclusion Zones (CEZ) have been shown as detailed below. The CEZ shall act as the protective barrier for retained trees.

CEZ (Protective barrier)

RPA

Canopy extent

Special Measure Areas (SMA)

Special Measure Areas (SMA's) have been identified for construction in these areas and they have been shown as detailed below.

SMA. New permanent hard surfacing proposed. All surfacing to be no dig and installed under arboricultural supervision.

Refer to Arboricultural Implications Assessment (AIA) for details of recommended construction in SMA's.

NOTES

This drawing shall not be reproduced in black and white.
This drawing is produced for Planning and Construction

Client:

CRT

Project:

Trevor Basin

Detail:

TREE PROTECTIONS PLAN

Drawn By:

SB

Date:

29.03.2022

Scale:

1:500@A3

Drg No:

TR-01

Revision:

V6

- 

EDGING TREATMENTS
- 

= Flat PPC dropped flat top kerb
- 

= Bullnose PPC Dropped Kerb
- 

= Low domed metal studs (near site entrance)
- 

= Raised footway edging boards, no dig, pegged in
- 

= Dropped edging, type TBC
- 

= Edging transition to raised no dig footway TBC
- EXTERNAL WALLS



= Proposed stone retaining wall, estate rail fixed onto top of coping



= Proposed stone retaining or screening wall (1.2m high)



= Proposed railway sleeper retaining boundary

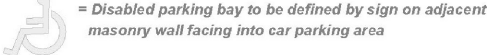
OTHER



= Speed bump location



= Jakure® treated timber bollards, rounded chamfered top (or similar)



= Disabled parking bay to be defined by sign on adjacent masonry wall facing into car parking area



= External Bike Stand , traditional Sheffield Style (x3)



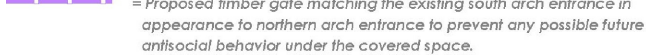
= Traditional mooring ring, black painted finish. Fixing methodology and location to be approved by Canal & River Trust Heritage Advisor



= Micro surface recessed LED.



= External bike Sheffield style stands x 3



= Proposed timber gate matching the existing south arch entrance in appearance to northern arch entrance to prevent any possible future antisocial behavior under the covered space.

LEVELS



= Approximate Proposed external finish level (MAMSL)



= Approximate Ground level as existing (MAMSL)

BOATING SERVICES



= Fuel service point



= Foul service point



= Electricity service point



= Water service point

DRAINAGE

NOTE THAT SURFACE WATER ARRANGEMENTS TO DRAIN TO MADE PERMEABLE GROUND OR CANAL AS SHOWN WITHIN SUBMITTED PROPOSED DRAINAGE PLAN, DRAWING REFERENCE 1938.34 V16 'DRAINAGE PLAN'

PLEASE NOTE - DRAWINGS ARE BASED ON AN O.S AND TOPOGI SURVEY, EXACTING AND LOCATIONS MEASUREMENTS TO BE C SITE AND CONTRACTOR TO INFORM OF ANY INCORRECT OR AN DATA. DRAWINGS TO BE CHECKED, APPROVED BY A STRUCTL ENGINEER PRIOR TO ANY WORKS ON SITE. MEASUREMENTS, L CO-ORDINATES SHOULD BE CHECKED ON SITE AND CONFIRME FABRICATIONS OR INSTALLATIONS.

PLEASE NOTE : STRUCTURAL & DRAINAGE DESIGN WORK TO B AND CONFIRMED AT DETAILED DESIGN STAGES BY SPECIALIS CONSULTANTS

TREE PROTECTION PLAN

Retention value key



(RETENTION VALUE A)



(RETENTION VALUE C)



(RETENTION VALUE B)



(RETENTION VALUE U)

Root Protection Areas (RPA) & Construction Exclusion Zones (CEZ)

Root Protection Areas (RPA's) have been identified and are based on BS5837:2012. RPA's and Construction Exclusion Zones (CEZ) have been shown as detailed below. The CEZ shall act as the protective barrier for retained trees.

Special Measure Areas (SMA)

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SMA. New permanent hard surfacing proposed. All surfacing to be no dig and installed under arboricultural supervision.

Refer to Arboricultural Implications Assessment (AIA) for details of recommended construction in SMA's.

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Making life better by water

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Sheet

GA Landscaping Plan

Project

Trevor Hire Boat Base

Origin Date/ Auth

RB

Drawing No.

2019 38 32

Conts

Client:		
CRT		
Project:		
Trevor Basin		
Detail:		
TREE PROTECTIONS PLAN		
Drawn By:	Date:	Scale:
SB	29.03.2022	1:500@A3
Drg No:		Revision:
TR-01		V6

Tree No.	Common Name	Latin name	Age	Diameter(mm)	Stems	Height (m)	Crown Height (m)	North (m)	South(m)	East (m)	West (m)	Category	Life Exp	Comments	Recommendations following AIA	RPA-R	RPA-Sqm
T1	Hornbeam	Carpinus betulus	EM	180	1	7	2	3	3	3	3	B2	40+		Unaffected, install CEZ as shown	2.2	15
T2	Ash	Fraxinus excelsior	M	510	1	11	2	5	5	5	5	A2	40+		Unaffected, install CEZ as shown	6.1	118
T3	Hornbeam	Carpinus betulus	EM	280	1	8	2	3	3	3	3	B2	40+		Unaffected, install CEZ as shown	3.4	35
T4	Hornbeam	Carpinus betulus	EM	170	1	6	2	2	2	2	2	B2	40+		Unaffected, install CEZ as shown	2	13
T5	Hornbeam	Carpinus betulus	EM	240	1	7	2	3	3	3	3	B2	40+		Unaffected, install CEZ as shown	2.9	26
T6	Hornbeam	Carpinus betulus	EM	290	1	7	2	3	3	3	3	B2	40+		Unaffected, install CEZ as shown	3.5	38
T7	Ash	Fraxinus excelsior	EM	290	0	8	2	4	4	4	4	B2	40+		Unaffected, install CEZ as shown	3.5	38
T8	Damson	Prunus domestica	M	358	3	10	2	4	4	4	4	B2	40+		Unaffected, install CEZ as shown	4.3	58
T9	Italian Alder	Alnus cordata	M	417	2	12	2	4	4	4	4	B2	40+		Unaffected, install CEZ as shown	5	79
T10	Ash	Fraxinus excelsior	M	590	1	14	2	6	6	6	6	A2	40+		Unaffected, install CEZ as shown	7.1	157
T11	Ash	Fraxinus excelsior	M	552	2	12	2	4	4	4	4	B2	40+		Unaffected, install CEZ as shown	6.6	138
T12	Crack Willow	Salix fragilis	M	670	1	15	2	6	6	6	6	B2	40+		Unaffected, install CEZ as shown	8	203
T13	Silver Birch	Betula pendula	M	430	1	15	2	4	4	4	4	B2	40+		Unaffected, install CEZ as shown	5.2	84
T14	Silver Birch	Betula pendula	M	375	1	12	2	4	4	4	4	B2	40+		Unaffected, install CEZ as shown	4.5	64
T15	Common Alder	Alnus glutinosa	M	773	2	12	2	6	6	6	6	B2	40+		Unaffected, install CEZ as shown	9.3	270

Tree No.	Common Name	Latin name	Age	Diameter(mm)	Stems	Height (m)	Crown Height (m)	North (m)	South(m)	East (m)	West (m)	Category	Life Exp	Comments	Recommendations following AIA	RPA-R	RPA-Sqm
T16	Sycamore	Acer pseudoplatanus	EM	586	2	14	2	6	6	6	6	B2	40+		Unaffected, install CEZ as shown	7	155
T17	Ash	Fraxinus excelsior	M	500	1	14	2	6	6	6	6	A2	40+	Part of linear group.	Unaffected, install CEZ as shown	6	113
T18	Ash	Fraxinus excelsior	M	600	1	14	2	6	6	6	6	A2	40+	Part of linear group.	Unaffected, install CEZ as shown	7.2	163
T19	Goat Willow	Salix caprea	M	804	4	8	2	7	7	7	7	B2	40+	Part of linear group. Ivy on stem. Unable to inspect stem due to Ivy. Included bark present in main fork.	Lost for unit, replace within landscape plan	9.6	292
T20	Sycamore	Acer pseudoplatanus	M	375	1	10	2	4	4	4	4	U	<10	Dead.	Remove following bat review	4.5	64
T21	Goat Willow	Salix caprea	M	590	4	10	2	5	5	5	5	B2	20+		Remove for development	7.1	157
T22	Common Alder	Alnus glutinosa	M	691	5	12	2	5	5	5	5	B2	20+		Unaffected, install CEZ as shown	8.3	216
T23	Goat Willow	Salix caprea	M	350	1	12	2	5	3	5	5	B2	20+		Unaffected, install CEZ as shown	4.2	55
T24	Goat Willow	Salix caprea	M	300	1	12	2	2	6	5	5	B2	20+		Unaffected, install CEZ as shown	3.6	41
T25	Ash	Fraxinus excelsior	M	400	1	15	2	5	5	5	5	B2	40+		Retained within CEZ	4.8	72
T26	Common Alder	Alnus glutinosa	EM	190	1	8	2	3	3	3	3	C2	40+		Remove for development	2.3	16
T27	Damson	Prunus domestica	M	420	1	8	2	4	4	4	4	C2	40+		Unaffected, install CEZ as shown. SMA applies for no dig surfacing in RPA	5	80
T28	Common Alder	Alnus glutinosa	EM	170	1	8	2	3	3	3	3	C2	40+		Unaffected, install CEZ as shown. SMA applies for no dig surfacing in RPA	2	13
T29	Ash	Fraxinus excelsior	EM	591	4	13	2	5	5	5	5	B2	40+		Unaffected, install CEZ as shown	7.1	158

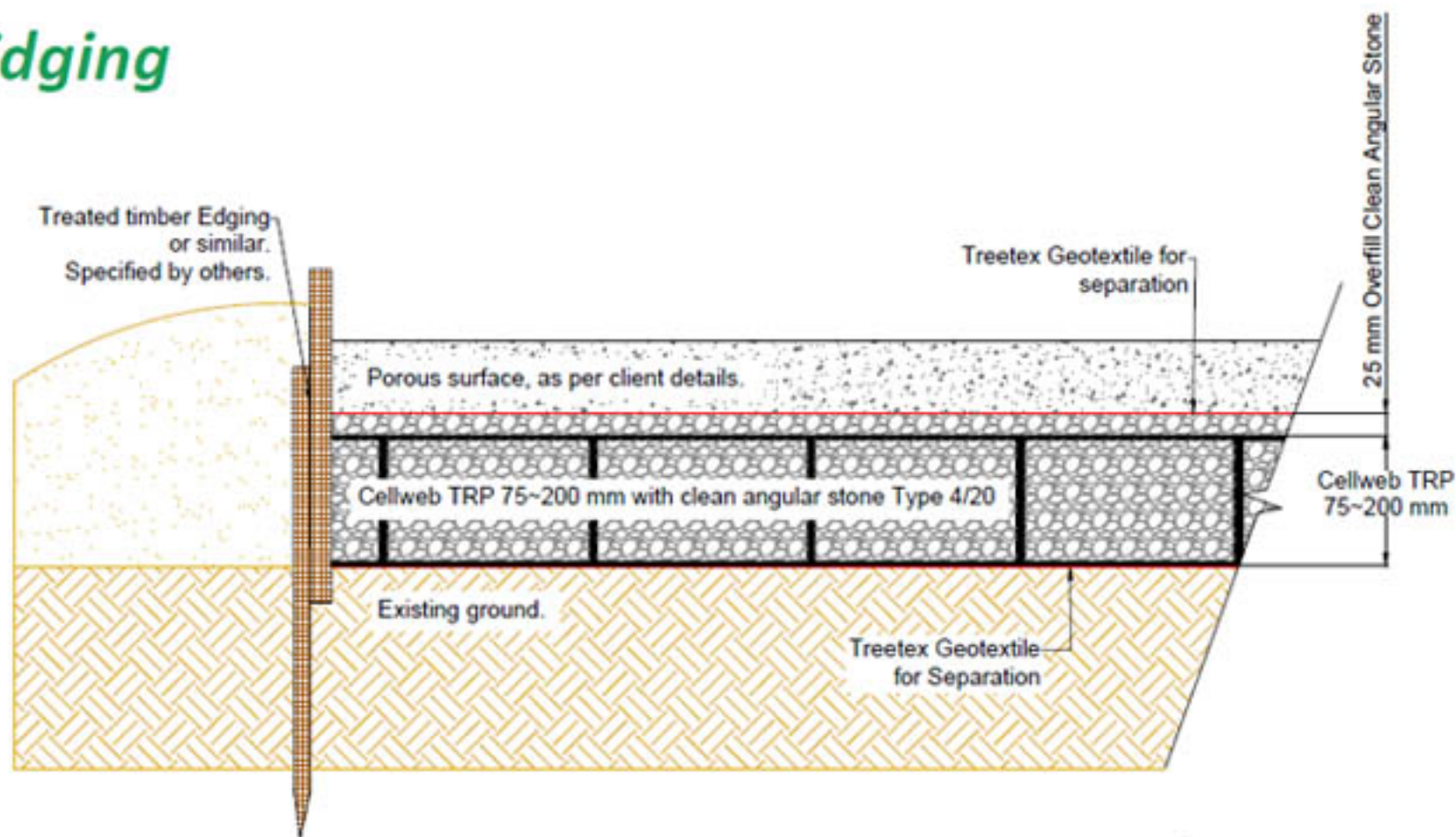
Tree No.	Common Name	Latin name	Age	Diameter(mm)	Stems	Height (m)	Crown Height (m)	North (m)	South(m)	East (m)	West (m)	Category	Life Exp	Comments	Recommendations following AIA	RPA-R	RPA-Sqm
T30	Ash	Fraxinus excelsior	EM	513	2	13	2	5	5	5	5	B2	40+		Unaffected, install CEZ as shown	6.2	119
T31	Ash	Fraxinus excelsior	M	555	2	13	2	3	5	6	5	B2	40+		Remove for development	6.7	139
T32	Sycamore	Acer pseudoplatanus	M	430	1	13	2	4	4	4	4	B2	40+		Unaffected, install CEZ as shown	5.2	84
T33	Ash	Fraxinus excelsior	M	607	3	13	2	5	5	5	5	B2	40+	Part of linear group.	Unaffected, install CEZ as shown	7.3	167
T34	Ash	Fraxinus excelsior	M	478	2	13	2	5	5	2	7	B2	40+	Part of linear group. Unbalanced crown shape. Crown distorted due to group pressure.	Unaffected, install CEZ as shown	5.7	103
T35	Ash	Fraxinus excelsior	M	610	2	14	2	6	4	5	5	B2	40+	Part of linear group. Unbalanced crown shape. Crown distorted due to group pressure.	Unaffected, install CEZ as shown	7.3	168
T36	Ash	Fraxinus excelsior	M	689	5	13	2	4	4	7	3	B2	40+	Part of linear group.	Remove for development	8.3	215
T37	Ash	Fraxinus excelsior	M	461	2	13	2	3	3	3	3	C2	40+	Part of linear group. Low bud/leaf density.	Remove for development	5.5	96
T38	Ash	Fraxinus excelsior	M	390	1	13	2	3	3	1	5	C2	40+	Part of linear group.	Remove for development	4.7	69
T39	Ash	Fraxinus excelsior	M	742	4	13	2	5	5	5	5	B2	40+	Part of linear group.	Remove for development	8.9	249
T40	Bird Cherry	Prunus padus	OM	545	1	14	2	6	4	4	4	C2	40+	Part of linear group.	Lost for development	6.5	134
T41	Goat Willow	Salix caprea	OM	865	1	12	2	8	4	6	6	C2	10+	Part of linear group.	Lost for development	10.4	338
T42	Silver Birch	Betula pendula	M	450	1	12	2	4	4	4	4	B2	20+	Part of linear group.	Lost for development	5.4	92
T43	Ash	Fraxinus excelsior	EM	325	1	12	2	4	4	4	4	B2	20+	Part of linear group.	Lost for development	3.9	48
T44	Goat Willow	Salix caprea	EM	379	3	9	2	4	5	4	4	C2	20+	Part of linear group.	Lost for development	4.5	65
T45	Ash	Fraxinus excelsior	EM	300	1	9	2	3	5	3	3	C2	20+	Part of linear group. Unbalanced crown shape. Crown distorted due to group pressure.	Lost for development	3.6	41

Tree No.	Common Name	Latin name	Age	Diameter(mm)	Stems	Height (m)	Crown Height (m)	North (m)	South(m)	East (m)	West (m)	Category	Life Exp	Comments	Recommendations following AIA	RPA-R	RPA-Sqm
T46	Ash	Fraxinus excelsior	M	375	1	12	2	4	4	4	4	B2	20+	Part of linear group.	Retained within CEZ	4.5	64
T48	Ash Goat Willow Bird Cherry Sycamore	Fraxinus excelsior, Salix caprea, Prunus padus, Acer pseudoplatanus	M	520	1	16	2	5	5	6	3	B2	20+	Part of linear group.	Retained within CEZ	6.2	122
T49	Ash Goat Willow Bird Cherry Sycamore	Fraxinus excelsior, Salix caprea, Prunus padus, Acer pseudoplatanus	M	575	1	18	2	6	6	6	6	B2	20+	Part of linear group.	Retained within CEZ	6.9	150
T50	Ash	Fraxinus excelsior	M	450	1	18	2	4	4	3	5	U	<10	Part of linear group. Cavity on stem. Major bark wounding on stem.	Pollard following bat review	5.4	92
T51	Goat Willow	Salix caprea	EM	397	2	10	2	5	5	6	3	U	20+	Low vitality. Declining. Part of linear group. Unbalanced crown shape. Crown distorted due to group pressure.	Pollard following bat review	4.8	71
T52	Sycamore	Acer pseudoplatanus	EM	520	2	14	2	5	5	5	5	B2	40+	Part of linear group. Unbalanced crown shape. Crown distorted due to group pressure.	Retained within CEZ	6.2	122
T53	Sycamore	Acer pseudoplatanus	M	375	1	14	2	5	3	5	5	B2	40+	Part of linear group. Unbalanced crown shape. Crown distorted due to group pressure.	Retained within CEZ	4.5	64
T54	Sycamore	Acer pseudoplatanus	M	350	1	14	2	4	4	4	4	B2	40+	Part of linear group. Unbalanced crown shape. Crown distorted due to group pressure.	Retained within CEZ	4.2	55
T55	Goat Willow	Salix caprea	M	450	1	10	2	4	4	4	4	U	<10	Dead. Part of linear group. Cavity on stem. Major bark wounding on stem. Unbalanced crown shape. Crown distorted due to group pressure.	Pollard following bat review	5.4	92

Tree No.	Common Name	Latin name	Age	Diameter(mm)	Stems	Height (m)	Crown Height (m)	North (m)	South(m)	East (m)	West (m)	Category	Life Exp	Comments	Recommendations following AIA	RPA-R	RPA-Sqm
T56	Goat Willow	Salix caprea	M	600	1	10	2	4	4	6	4	C2	20+	Part of linear group. Unbalanced crown shape. Crown distorted due to group pressure.	Retained within CEZ	7.2	163
T57	English Elm	Ulmus procera	M	685	4	18	2	7	7	7	7	B2	20+	Part of linear group.	Retained within CEZ	8.2	212
T58	Hawthorn	Crataegus monogyna	M	350	1	9	2	4	4	6	4	B2	20+	Part of linear group. Ivy on stem. Unable to inspect stem due to Ivy.	Retained within CEZ	4.2	55
T59	English Elm	Ulmus procera	M	350	1	10.5	2	4	4	4	4	U	<10		Pollard following bat review	4.2	55
T60	Ash	Fraxinus excelsior	M	400	1	15	2	5	5	5	5	B2	40+	Part of linear group. Ivy on stem.	Retained within CEZ	4.8	72
T61	Hawthorn	Crataegus monogyna	M	300	1	9	2	4	4	6	4	B2	20+	Part of linear group. Ivy on stem. Unable to inspect stem due to Ivy.	Retained within CEZ	3.6	41
T62	Cypress	Cuppressus	Y	100	0	4	2	2	2	2	2	C2	20+		Remove for development	1.2	13
G1	Goat Willow Silver Birch Sycamore Rowan	Salix caprea, Betula pendula, Acer pseudoplatanus, Sorbus aucuparia	EM	220	1	7	2	2	2	2	2	B2	40+		Unaffected, install CEZ as shown	2.6	22
G2	Silver Birch	Betula pendula	M	495	2	12	2	4	4	4	4	B2	40+		Unaffected, install CEZ as shown	5.9	111
G3	Common Alder Ash Hazel	Alnus glutinosa, Fraxinus excelsior, Corylus avellana	EM	495	2	12	2	4	4	4	4	B2	40+		Unaffected, install CEZ as shown	5.9	111
G4	Goat Willow Sycamore Common Alder	Salix caprea, Acer pseudoplatanus, Alnus glutinosa	EM	250	1	10	2	3	3	3	3	B2	40+	Part of linear group.	Unaffected, install CEZ as shown	3	28
G5	Sycamore Goat Willow Common Alder	Acer pseudoplatanus, Salix caprea, Alnus glutinosa	EM	250	1	6	2	3	3	3	3	C2	20+		Lost for development	3	28
G6	Goat Willow	Salix caprea	M	350	1	10	2	2	6	5	5	C2	20+		Unaffected, install CEZ	4.2	55
G7	Goat Willow Sycamore	Salix caprea, Acer pseudoplatanus	EM	250	1	8	2	3	3	3	3	C2	40+		Unaffected, install CEZ	3	28
G8	Goat Willow Sycamore	Salix caprea, Acer pseudoplatanus	EM	300	1	10	2	4	4	4	4	C2	40+		Lost for development	3.6	41

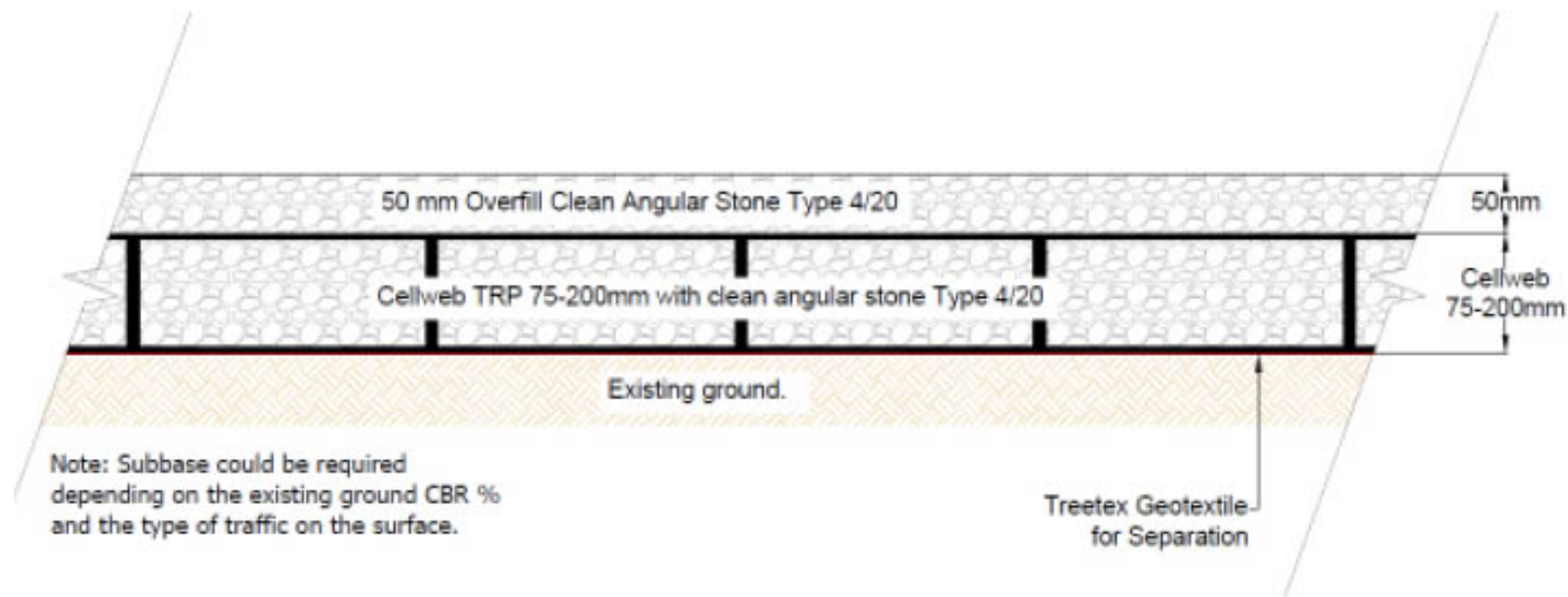
Tree No.	Common Name	Latin name	Age	Diameter(mm)	Stems	Height (m)	Crown Height (m)	North (m)	South(m)	East (m)	West (m)	Category	Life Exp	Comments	Recommendations following AIA	RPA-R	RPA-Sqm
G9	Ash	Fraxinus excelsior	M	350	1	13	2	4	4	4	4	B2	40+	Part of linear group.	4no. Trees on towpath edge to be removed for development	4.2	55
G10	Hawthorn Leyland Cypress	Crataegus monogyna, X Cupressocyparis leylandii	M	200	1	5	2	2	2	2	2	C2	40+	Part of linear group.	Unaffected, install CEZ as shown on plan	2.4	18
G11	Goat Willow Leyland Cypress	Salix caprea, X Cupressocyparis leylandii	EM	300	1	12	2	3	3	3	3	C2	20+	Part of linear group.	Lost for development	3.6	41
G12	Hazel	Corylus avellana	M	300	1	9	2	4	4	4	4	B2	20+	Part of linear group. Unbalanced crown shape. Crown distorted due to group pressure.	Unaffected, install CEZ as shown	3.6	41
G12a	Ash Goat Willow Bird Cherry	Fraxinus excelsior, Salix caprea, Prunus padus	EM	300	1	12	2	3	3	3	3	B2	20+	Part of linear group. Unbalanced crown shape. Crown distorted due to group pressure.	Unaffected, install CEZ as shown	3.6	41
G13	Hazel Ash Goat Willow	Corylus avellana, Fraxinus excelsior, Salix caprea	EM	200	1	9	2	3	3	3	3	B2	20+	Part of linear group.	Unaffected, install CEZ as shown	2.4	18
W1	Ash Sycamore Common Alder Hawthorn	Fraxinus excelsior, Acer pseudoplatanus, Alnus glutinosa, Crataegus monogyna	M	Av. 375	1	14	2	Av.4	Av.4	Av.4	Av.4	A2	40+		Unaffected, install CEZ as shown	4.5	64

Timber Edging



Source; Cellweb-TRP-Technical-Support-Package-, Edging and Transition Details

Gravel



Source; Cellweb-TRP-Technical-Support-Package-, Surfacing options, gravel