



**Baglan Way,
Port Talbot**

**Arboricultural
Method
Statement**

(Incorporating
Impact Assessment
and Tree Protection
Measures)

Prepared by:
**The Environmental
Dimension
Partnership Ltd**

On behalf of:
Glass Systems Ltd

May 2022
Report Reference
edp7017_r005c

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This version is intended for electronic viewing only

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Section 1

Introduction

- 1.1 This Arboricultural Method Statement (AMS) has been prepared by The Environmental Dimension Partnership Ltd (EDP) on behalf of Glass Systems Ltd (hereafter referred to as 'the Applicant') in relation to the proposed development Baglan Way, Port Talbot (hereafter referred to as 'the Site'). It sets out the nature and extent of tree losses and provides mitigation and protection measures to ensure the viable long-term retention of retained trees in the context of the development proposals.

Site Context

- 1.2 The Site is located to the north-west of Port Talbot and the south-east of Baglan. The Site is located within the Local Planning Authority (LPA) of Neath Port Talbot Council (NPTC). It currently comprises undeveloped land.
- 1.3 This AMS has been prepared using EDP's arboricultural constraints information contained within the Arboricultural Baseline Note as **Appendix EDP 1**. This baseline survey data was collected by EDP on 16 July 2021.

Development Proposals

- 1.4 The purpose of this AMS is to inform a detailed planning application for a New Production Unit.

General Scope and Purpose of the AMS

- 1.5 Purpose: The purpose of this AMS is to assess the proposed impacts (Arboricultural Impact Assessment found in **Section 2**) and to provide detailed guidance regarding the measures to be taken to protect existing trees from direct or indirect damage during the construction phase of the project.
- 1.6 The Parties: The parties to the approved AMS are anticipated to be Glass Systems Ltd ('the Applicant') and Neath Port Talbot Council (NPTC) ('the Local Planning Authority').
- 1.7 Approved Contractor: The Applicant will appoint an 'approved contractor' to undertake the works specified in the AMS. The approved contractor shall abide by the provisions of the AMS.
- 1.8 Arboricultural Clerk of Works: The AMS will identify the requirement for an Arboricultural Clerk of Works (ACW), who shall be an appropriately qualified and experienced individual familiar with written best practice and a proven track record in management of construction projects affecting existing trees.

Relevant Baseline Documents

- 1.9 EDP's Arboricultural Baseline Note (**Appendix EDP 1**) is relevant to the provisions of this AMS. It should be read in conjunction with this AMS where applicable.
- 1.10 The following best practice guidance and informative standards are relevant to the provisions of the AMS and should be read in conjunction with the AMS where applicable:
- BS 5837: 2012 *Trees in Relation to Design, Demolition and Construction – Recommendations* BSI 2012; and
 - BS 3998:2010 *Tree Work – Recommendations*. BSI 2010.

Section 2

Arboricultural Impact Assessment

- 2.1 This Arboricultural Impact Assessment (AIA) has been prepared following Site-based observations, a desktop study of the baseline survey data and consideration of the Proposed Site Plan (**Appendix EDP 2**). In particular, it relates to the Tree Constraints Plan (contained within **Appendix EDP 1**), which is overlaid onto the Proposed Site Plan. The resulting drawing, a Tree Protection Plan (**Plan EDP 1**).
- 2.2 This AIA recognises that construction activities pose a threat to subject trees if treated inappropriately and assesses the likely impacts of the proposals on the tree stock and where appropriate, provides mitigation with the view of achieving a harmonious relationship between the trees and the built form.
- 2.3 Assessment of the impact of the proposals has been determined following consideration of the constraints each surveyed item poses by virtue of its position, branch spread and designated root protection area (RPA).
- 2.4 Consideration should be given to retaining all trees where possible. However, ultimately the removal of any tree is dependent on its proximity to the footprint of any proposal and associated landscaping.

Tree Removals for Reasons of Sound Arboricultural Management

- 2.5 The BS 5837:2012 compliant survey identified one category U item, the condition of which was considered to be impaired to such an extent that it should be removed irrespective of any development proposals, and it is therefore not included in the calculations to follow. This is summarised in **Table EDP 2.1** below and detailed in the Tree Survey Schedule contained within **Appendix EDP 1**.
- 2.6 Off-Site items remain outside of control of the development and require the landowners' consent prior to any works or removals.
- 2.7 Due to their condition, category U items often have ecological value and therefore any work to or removal of category U items require cross-referencing with the ecological assessment prior to any work or felling taking place.
- 2.8 If category U items are to be retained as an ecological asset, arboricultural advice should be sought to ensure this can be achieved.

Table EDP 2.1: Tree Removal for Reasons of Sound Arboricultural Management.

Tree Number	Tree Species	Tree Grade
T11	Common ash (<i>Fraxinus excelsior</i>)	U

Damage to Rooting Environment during Construction Activities

- 2.9 The required RPA for each item is described in the tree survey schedule and depicted on the Tree Constraints Plan, both found within **Appendix EDP 1**. To ensure appropriate protection is afforded to the roots, the extent of the RPAs shall be defined by means of the installation of protective barriers in accordance with the recommendations given in Section 6.2 of BS 5837:2012, the specification for which is enclosed as **Appendix EDP 3**.

Items Impacted by Development Proposals

- 2.10 Assessment of the Proposed Site Plan (**Appendix EDP 3**) determines that 17 items are impacted by the development proposals; these are detailed within **Table EDP 2.2**. Four items are category B, of moderate quality and 13 items are category C, of low quality.

Table EDP 2.2: Items Impacted by Development Proposals.

Ref. Number	Species	Impact	Category Grading
G1	Common ash (<i>Fraxinus excelsior</i>) Goat willow (<i>Salix caprea</i>) Alder sp. (<i>Alnus</i> sp.)	Partial Removal	C
G2	Common ash (<i>Fraxinus excelsior</i>) Alder sp. (<i>Alnus</i> sp.)	Partial Removal	C
T3	Alder sp. (<i>Alnus</i> sp.)	Complete Removal	C
G4	Common ash (<i>Fraxinus excelsior</i>) English oak (<i>Quercus robur</i>) Goat willow (<i>Salix caprea</i>) Alder sp. (<i>Alnus</i> sp.)	Complete Removal	C
G5	Pine sp. (<i>Pinus</i> sp.)	Complete Removal	B
G6	Blackthorn (<i>Prunus spinosa</i>) Common ash (<i>Fraxinus excelsior</i>) Goat willow (<i>Salix caprea</i>) Alder sp. (<i>Alnus</i> sp.)	Complete Removal	C
G7	Common hawthorn (<i>Crataegus monogyna</i>) Goat willow (<i>Salix caprea</i>) Alder sp. (<i>Alnus</i> sp.)	Complete Removal	C
T8	English oak (<i>Quercus robur</i>)	Complete Removal	B
T9	English oak (<i>Quercus robur</i>)	Complete Removal	C
T10	English oak (<i>Quercus robur</i>)	Complete Removal	C
T12	Goat willow (<i>Salix caprea</i>)	Complete Removal	C
T13	Goat willow (<i>Salix caprea</i>)	Complete Removal	C
G14	Common ash (<i>Fraxinus excelsior</i>) Goat willow (<i>Salix caprea</i>) Sycamore (<i>Acer pseudoplatanus</i>) Alder sp. (<i>Alnus</i> sp.)	Partial Removal	B
T15	Goat willow (<i>Salix caprea</i>)	Complete Removal	C
G16	Common ash (<i>Fraxinus excelsior</i>) Goat willow (<i>Salix caprea</i>) Sycamore (<i>Acer pseudoplatanus</i>) Alder sp. (<i>Alnus</i> sp.)	Partial Removal	B

Ref. Number	Species	Impact	Category Grading
G17	Goat willow (<i>Salix caprea</i>)	Partial Removal	C
G22	Goat willow (<i>Salix caprea</i>) Silver birch (<i>Betula pendula</i>)	Complete Removal	C

Summary of Tree Losses and Retention

- 2.11 A summary of the tree losses and retention based upon the Proposed Site Plan (**Appendix EDP 3**) is provided within **Table EDP 2.3**. In this context, the term 'affected' means partial removal of a retained item.

Table EDP 2.3: Summary of Tree Losses and Retention.

	Existing	Trees, Groups and Hedgerows Lost Due to Proposals	Trees, Groups and Hedgerows Affected by Proposals	Trees, Groups and Hedgerows Unaffected by Proposals
Category B	8	2	2	4
Category C	14	10	3	1
Totals	22	12	5	5

Damage to Rooting Environment during Construction Activities

- 2.12 The required RPA for each item is described in the tree survey schedule and depicted on the Tree Constraints Plan both found within **Appendix EDP 1**. To ensure appropriate protection is afforded to the roots, the extent of the RPA shall be defined by means of the installation of protective barriers in accordance with the recommendations given in Section 6.2 of BS 5837:2012, the specification for which is enclosed as **Appendix EDP 3**.

Mitigation

- 2.13 Existing trees identified for retention on the appended Tree Protection Plan (**Plan EDP 1**) will continue to be managed in accordance with BS 5837:2012. Critically this requires the implementation of physical protection measures to safeguard the retained trees, including robust protection in the form of a barrier to BS 5837:2012 (**Appendix EDP 3**), during the demolition and construction phases. The importance of such matters cannot be overlooked if a successful outcome is to be ensured.

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Section 3

Arboricultural Method Statement

- 3.1 This section sets out management and protection details that should be implemented to ensure successful tree retention and should be read in conjunction with **Plan EDP 1**.
- 3.2 The existing trees to be retained are indicated on **Plan EDP 1** with blue or grey circles, representing category B and C items respectively, along with proposed protection measures for the construction phase of the development. Items requiring removal are indicated with a dashed red line.

Sequence of Operations

- 3.3 At the time of preparation of this AMS, a detailed construction programme had not been produced.
- 3.4 The day to day running of the Site will take full account of the tree protection measures set out in this AMS, a copy of which will be kept on Site at all times. All Site personnel will be briefed on tree protection requirements as part of the Site induction process.
- 3.5 A programme for the arboricultural inputs needed at different phases of development is set out in **Appendix EDP 4**. To ensure the viable retention of retained trees, it is proposed that the following phase of arboricultural inputs and Site activities is adhered to:
- Appointment of ACW;
 - Pre-commencement Site meeting;
 - Pre-commencement tree works (if required);
 - Installation of Site-specific protection measures (**Plan EDP 1**);
 - Monitor and maintain tree protection throughout demolition and construction phases; and
 - Dismantle tree protection measures.

Appointment of Arboricultural Clerk of Works

- 3.6 The developer shall appoint an ACW who shall act in the interest of ensuring that retained trees are, as far as possible, not adversely affected by the works. The ACW shall be an appropriately qualified and experienced individual, familiar with written best practice and with a proven track record in management of construction projects affecting existing trees.

- 3.7 The ACW shall be appointed at the developer's cost prior to the commencement of development and shall be retained throughout the construction period. The ACW will be responsible for monitoring and overseeing the discharge of the tasks and operations set out within this AMS.

Pre-commencement Meetings

- 3.8 Prior to the pre-commencement meeting, the Applicant's appointed contractor shall produce a detailed construction programme, thus enabling the ACW to phase and programme arboricultural inputs and monitoring with the construction programme.
- 3.9 Prior to the commencement of any Site operations, a pre-commencement Site meeting between the Applicant, their appointed contractor, the ACW and NPTC's Tree Officer will be held. The purpose of the meeting will be to confirm arrangements of the tree protection measures and details concerning timing of Site inspections and reporting procedures.

Installation of Site-Specific Protection Measures

- 3.10 Prior to the commencement of any demolition or construction works, protective measures will be installed in accordance with BS 5837:2012. Protective barriers are reproduced as **Appendix EDP 3** and as depicted on **Plan EDP 1**.
- 3.11 Protective barriers are to be set out in accordance with **Plan EDP 1**.
- 3.12 The area enclosed by the protective barriers should be considered sacrosanct and is to remain undisturbed throughout the construction programme. Protective barriers shall be marked with all-weather notices, an example of such a notice is appended as **Appendix EDP 5**.
- 3.13 Prior to commencement of any construction works, the appointed ACW will undertake an inspection of all protective barriers to ensure that both positioning, and specification comply with **Plan EDP 1**.

Site Specific Construction Methodologies in Proximity to Trees

Installation of Services

- 3.14 The routes of all services will be located outside of the RPAs of retained trees.

Tree Protection Measures

Monitor and Maintain Tree Protection Measures Throughout Construction Phase

- 3.15 All tree protection measures should remain fit for purpose and serviceable throughout the construction phase of the development. The ACW shall undertake a periodic monitoring and inspection programme in accordance with the interval agreed at the pre-commencement meeting.
- 3.16 The main contractor shall contact the ACW to inform of any conflicts with the tree protection measures set out in this document and at any other time issues are raised relating to trees on Site. Once notified, the ACW shall then make recommendations and/or conduct a monitoring visit as required.
- 3.17 Any changes to on-Site specifications departing from those set out in this document will be agreed in writing with NPTC prior to implementation.
- 3.18 Written records of each monitoring visit will be kept in the form of a Site inspection report (**Appendix EDP 6**) outlining activities undertaken. Each report will be made available to the NPTC upon their request.
- 3.19 Upon completion of the construction programme, an email will be sent to the Applicant, main contractor and NPTC advising of compliance with, and completion of, the agreed programme.

Site Set Up and Operation

Site Compound

- 3.20 Activities related to the establishment of a temporary Site compound have the potential to impact upon retained trees by various means. In particular, the storage and mixing of chemicals and materials, such as concrete, can have a damaging effect on tree health. To prevent harm occurring to trees, provision for materials storage, site offices, deliveries and other related activities should be made available in areas away from retained trees.

Plant and Machinery

- 3.21 All plant and vehicles engaged in Site set-up and ongoing construction works will be required to operate within defined zones outside of the protected areas, as agreed at the pre-commencement meetings.

Additional Precautions

- 3.22 No storage of materials or lighting of fires will take place within any protected areas; no mixing or storage of materials will take place upon a slope where they may subsequently leak and contaminate a protected area.

- 3.23 No fires will be lit within 20m of any tree stem and will take into account fire size and wind direction so that no flames come within 5m of any foliage.
- 3.24 No notice-boards, cables or other services will be attached to any tree.
- 3.25 Materials that may contaminate the soil will not be discharged within 10m of any tree stem. When undertaking the mixing of materials, it is essential that any slope of the ground does not allow contaminants to run towards a tree root area.

Responsibilities

- 3.26 It will be the responsibility of the main contractor to ensure that the planning conditions attached to planning consent are adhered to at all times.
- 3.27 It will be the responsibility of the main contractor to comply with the provisions and principles of this AMS.
- 3.28 The ACW will be responsible for the monitoring regime regarding tree protection.
- 3.29 The main contractor will be responsible for contacting the ACW at any time that issues are raised related to the trees on Site.
- 3.30 If at any time pruning works are required, the main contractor must inform the ACW. No works may proceed until written consent has been received from NPTC.
- 3.31 The main contractor will ensure the build sequence is appropriate to ensure that no damage occurs to the trees during the construction processes. Protective measures will remain in position until completion of all construction works on the Site.
- 3.32 The main contractor will be responsible for ensuring that sub-contractors do not undertake any process or operation that is likely to adversely impact upon any tree on Site.

Dismantle Tree Protection Measures

- 3.33 Upon completion of the construction programme, or phases of the construction programme, and prior to residential occupancy, all tree protection measures may be dismantled following receipt of written consent from NPTC.

Appendix EDP 1
Arboricultural Baseline Note
(edp7017_r002)

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Baglan Way, Port Talbot

Arboriculture Baseline Note

edp7017_r002a

1. Introduction

- 1.1 The Environmental Dimension Partnership Ltd (EDP) has been commissioned by Glass Systems Ltd (hereafter referred to as 'the Applicant') to undertake a BS 5837:2012 *Trees in Relation to Design, Demolition and Construction* compliant survey of trees in relation to the proposed development of land off Baglan Way, Port Talbot (hereafter referred to as 'the Study Area').
- 1.2 EDP is an independent environmental planning consultancy with offices in Cirencester, Cardiff and Cheltenham. The practice provides advice to private and public sector clients throughout the UK in the fields of landscape, ecology, archaeology, cultural heritage, arboriculture, rights of way and masterplanning. Details of the practice can be obtained at our website www.edp-uk.co.uk.
- 1.3 The Study Area is located to the north-west of Port Talbot and the south-east of Baglan. The site is located within the Local Planning Authority (LPA) of Neath Port Talbot Council (NPTC). It currently comprises undeveloped land.

2. Methodology and Limitations

- 2.1 The methodology adopted for this survey is based on guidelines set out in BS 5837:2012 *Trees in Relation to Design, Demolition and Construction*, especially Section 4.4, 'Tree Survey'. Site trees and other significant vegetation are as noted on the Tree Constraints Plan (**Annex EDP 1**) and this data has been derived from the Topographic Survey (drawing number 2149 A02). All surveyed items are detailed in **Annex EDP 2**. No other trees are covered by this survey.
- 2.2 All trees have been visually inspected from ground level unless otherwise stated, with no climbing or further detailed investigative tests being undertaken. The comments on their condition are based on observable factors present at the time of inspection. All measurements are metric and have been recorded in accordance with the measurement conventions set out in Section 4.4.2.6 of BS 5837:2012.
- 2.3 Any recommendations given regarding longer-term management are made on the basis of optimising the life expectancy of site trees, given their current situation and any effects that may result from the development proposals.



- 2.4 The schedule in **Annex EDP 1** provides information about the following factors in accordance with Section 4.4.2.5 of BS 5837:2012:
- Sequential reference number (recorded on **Annex EDP 1**);
 - Species;
 - Height;
 - Stem diameter;
 - Branch spread;
 - Canopy clearance above ground level;
 - Life stage;
 - Physiological condition;
 - Structural condition;
 - Comments/notes;
 - Recommendations (and tree work priority);
 - Estimated remaining contribution;
 - Category grading; and
 - Root protection radius.
- 2.5 Due to the changing nature of trees and other site circumstances, this report and any recommendations made are limited to a 24-month period from the survey date. Any alterations to the Study Area could change the current circumstances and may invalidate this report and any recommendations made.
- 2.6 Trees are dynamic structures that can never be guaranteed 100% safe; even those in good condition can suffer damage under average conditions. Regular inspections can help to identify potential problems before they become acute.

2.7 A lack of recommended work does not imply that a tree is safe and likewise, it should not be implied that a tree will be made safe following the completion of any recommended work.

2.8 The subject trees have not been tagged for identification purposes.

3. Aims and Objectives

3.1 The purpose of this Technical Note is to:

- Identify principal trees suitable for retention; and
- Identify the constraints associated with retained trees to inform the design and layout of any forthcoming proposals and, in turn, inform an Arboricultural Impact Assessment.

4. Summary of Tree Stock

4.1 The survey has identified 10 individual trees and 13 groups of trees, totalling 23 items. Of these 23 items, 8 have been categorised as B, of moderate quality; and 14 have been categorised as C and are of low quality. In addition, 1 item has been categorised as U and is considered unsuitable for retention irrespective of development.

4.2 All surveyed items are as noted on **Annex EDP 1** and detailed in the schedule at **Annex EDP 2**.

4.3 An illustrative summary of the species diversity, age distribution and grading categorisation for the Study Area is provided in **Annex EDP 3**.

4.4 Overall, the items identified across the Study Area are primarily of low or no value, with the exception of 8 category B items. These category B items are located either off-site or around the periphery and therefore do not adversely constrain the main body of the Study Area. The items located within the actual footprint of land comprise self-sown trees and shrubs, the majority of which are either of poor form or have little arboricultural value.

5. Statutory Protection

Tree Preservation Orders and Conservation Areas

5.1 Consultation with NPTC still needs to be undertaken to determine whether any Tree Preservation Orders (TPOs) are registered on, or adjacent to, the Study Area. The Study Area is not within a designated conservation area. No conservation areas lie close to, or abuts, the Study Area.

6. National and Local Planning Policy

Neath Port Talbot Council's Local Planning Policy

Local Development Plan 2011-2026 (Adopted January 2016)

6.1 Policy EN7: Important Natural Features states:

“Development proposals that would adversely affect ecologically or visually important natural features such as trees, woodlands, hedgerows/field boundaries, watercourses or ponds will only be permitted where:

- 1. Full account has been taken of the relevant features in the design of the development, with measures put in place to ensure that they are retained and protected wherever possible; or*
- 2. The biodiversity value and role of the relevant feature has been taken into account and where removal is unavoidable, mitigation measures are agreed.”*

7. Protected Wildlife and Trees

Bats

- 7.1 All species of British bat are listed as European Protected Species (EPS) on Schedule 2 of the Conservation Regulations (Annex IV (a) to the Habitats Directive). This affords bats protection under the *Conservation of Habitats and Species Regulations 2017* (as amended); further information is provided in **Annex EDP 4**.

Nesting Birds

- 7.2 The main bird nesting season is between March and August inclusive. Current legislation relating to breeding birds, under the *Wildlife and Countryside Act 1981* (as amended) and the *Countryside and Rights of Way Act 2000*, confirms that birds, as well as their nests and eggs are protected. Further information is provided in **Annex EDP 4**.

8. Site Specific Constraints

- 8.1 As shown by **Annex EDP 1**, the surveyed items located across the Study Area are primarily self-sown trees of low or no arboricultural value.
- 8.2 T23 is located outside, but adjacent to the Study Area, and therefore is not under the control of the Applicant and requires consideration. The above- and below-ground constraints from off-site items will need to be considered in during the design process.



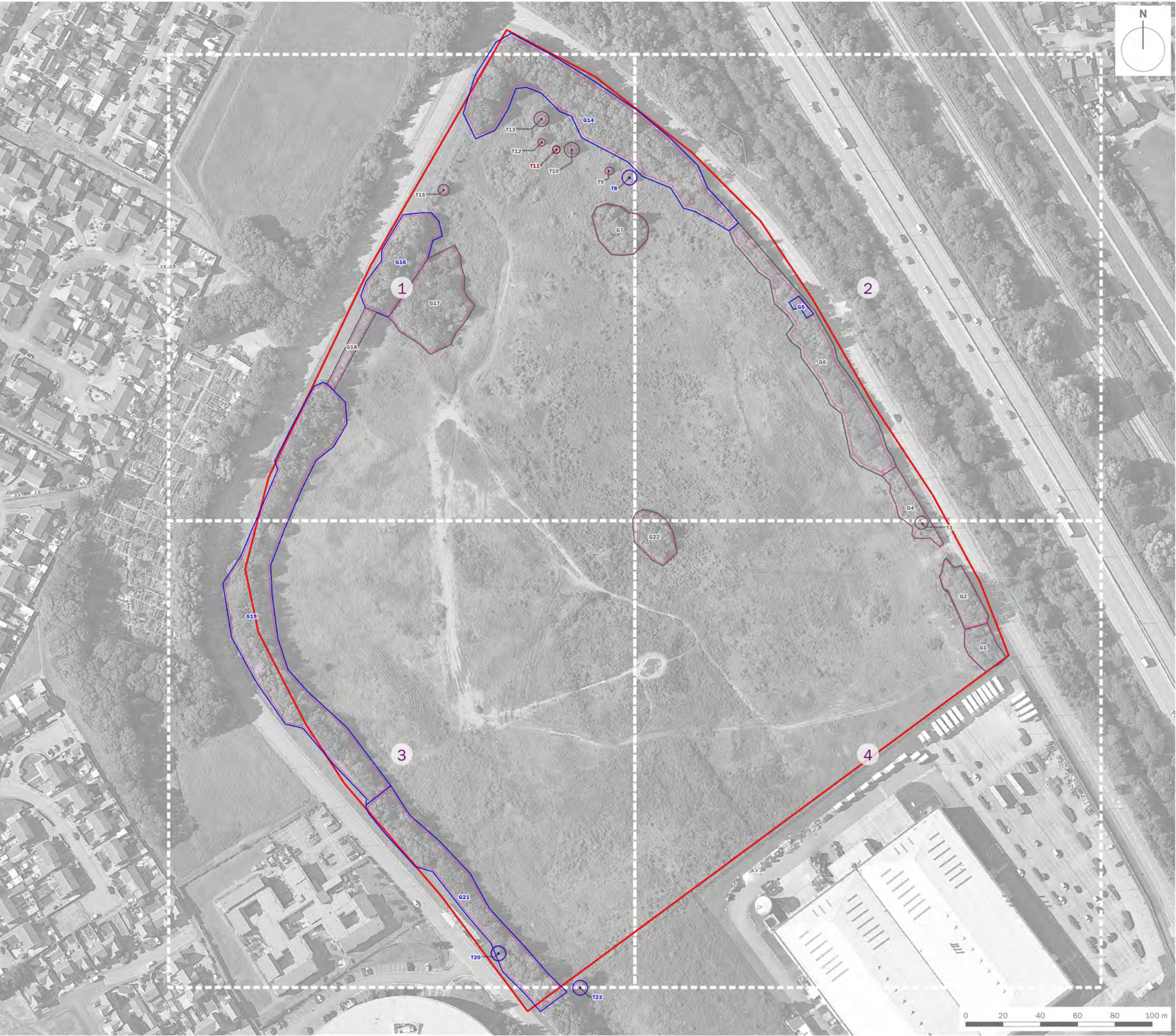
- 8.3 Further information on above and below ground arboricultural constraints is provided in **Annex EDP 5.**

9. Conclusion

- 9.1 Of the items surveyed, 8 have been categorised as B, of moderate quality. These items should be prioritised for retention, where practicable. These items are primarily around the perimeter of the Study Area and off-site and therefore do not adversely constrain development.
- 9.2 The default position when designing any forthcoming scheme should be the retention of all items, as so far as is practicable, regardless of category grading. All trees provide positive environmental and ecological contributions, irrespective of current condition.
- 9.3 The arboricultural constraints information provided within this Technical Note will feed into the detailed design and layout of the scheme and, in turn, will be used to undertake an Arboricultural Impact Assessment, to be submitted as part of the planning application.



Annex EDP 1
Tree Constraints Plan
(edp7017_d001a 22 October 2021 TC/DG)



Site Boundary

T1

Tree/Group Number

Tree/Group Canopy

Tree Stem

Root Protection Area

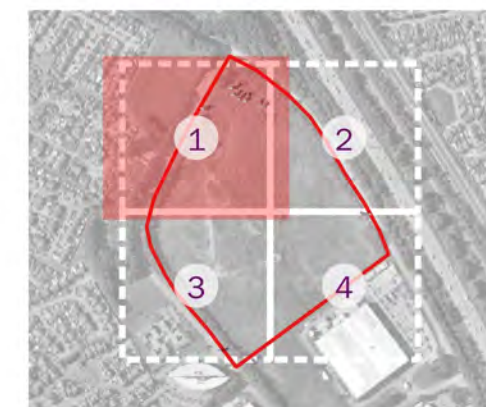
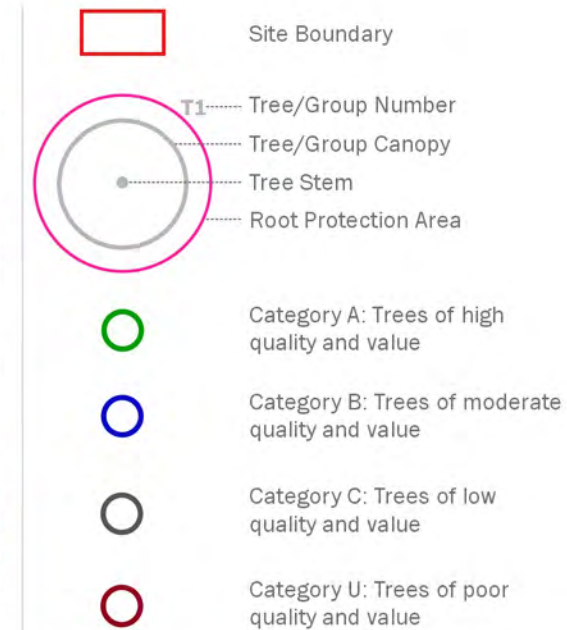
Category A: Trees of high quality and value

Category B: Trees of moderate quality and value

Category C: Trees of low quality and value

Category U: Trees of poor quality and value

client	Glass Systems Ltd		
project title	Baglan Way, Port Talbot		
drawing title	Annex EDP 1: Tree Constraints Plan (Overview)		
date	22 OCTOBER 2021	drawn by	TC
drawing number	edp7017_d001a	checked	DG
scale	1:2,000 @ A3	QA	JTF



client

Glass Systems Ltd

project title

Baglan Way, Port Talbot

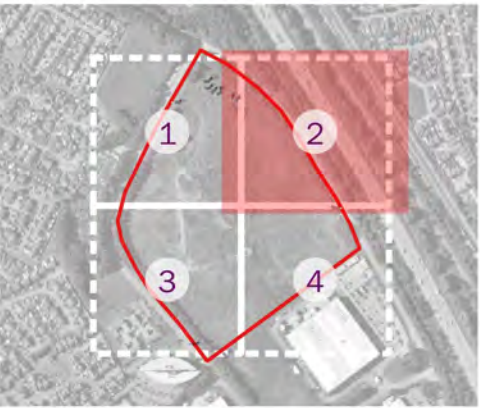
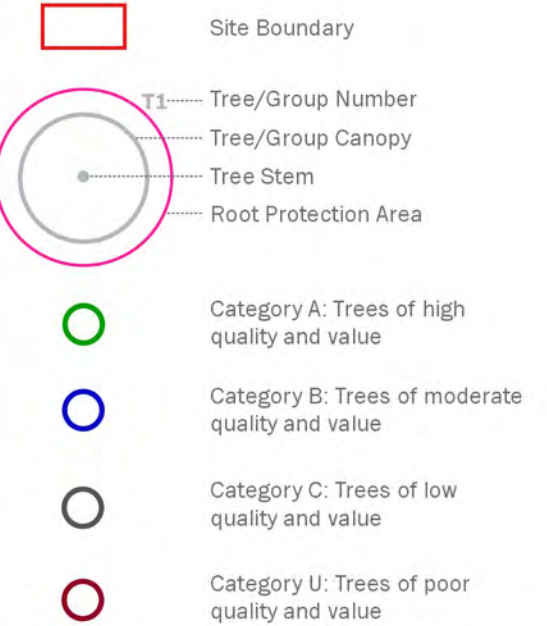
drawing title

**Annex EDP 1: Tree Constraints Plan
(Sheet 1 of 4)**

date	22 OCTOBER 2021	drawn by	TC
drawing number	edp7017_d001a	checked	DG
scale	1:1,000 @ A3	QA	JTF

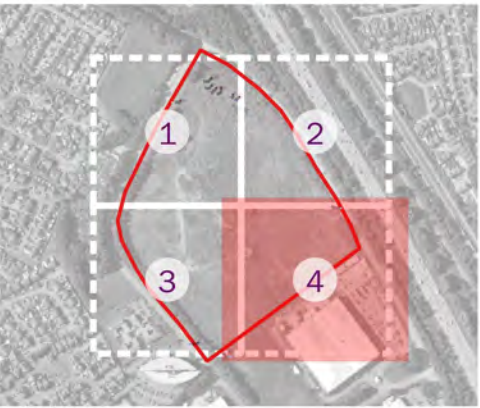
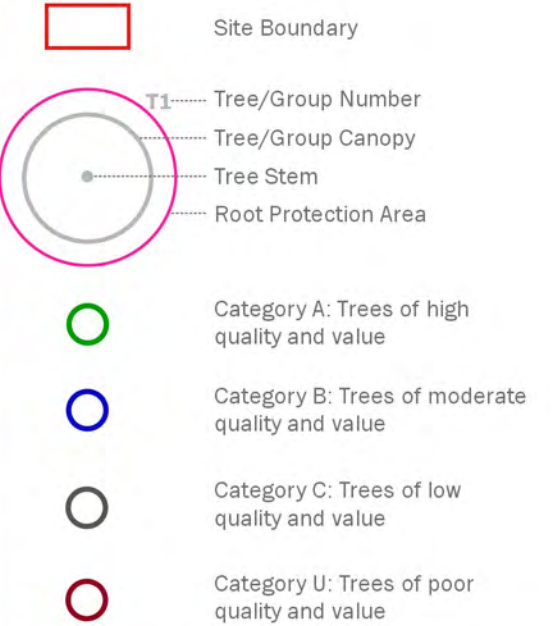
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dimension partnership

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client	Glass Systems Ltd		
project title	Baglan Way, Port Talbot		
drawing title	Annex EDP 1: Tree Constraints Plan (Sheet 2 of 4)		
date	22 OCTOBER 2021	drawn by	TC
drawing number	edp7017_d001a	checked	DG
scale	1:1,000 @ A3	QA	JTF





client	Glass Systems Ltd		
project title	Baglan Way, Port Talbot		
drawing title	Annex EDP 1: Tree Constraints Plan (Sheet 4 of 4)		
date	22 OCTOBER 2021	drawn by	TC
drawing number	edp7017_d001a	checked	DG
scale	1:1,000 @ A3	QA	JTF



Annex EDP 2
Schedule EDP 1
Tree Survey Key and Schedule

Sequential Reference Number	T - Individual specimen; G - Group of trees that form cohesive arboricultural features either aerodynamically, visually or culturally; H - Linear group of specimens that form a hedge or boundary; and W - A larger group or area of trees that should be regarded as a single woodland unit.
Species	Scientific names and common English names provide, the latter are used wherever possible for simplicity.
Height	An approximation of height (in metres) is provided for the highest point of the tree.
Stem Diameter	This is the measurement of stem diameter in millimetres taken in accordance with Annex C of BS 5837:2012 (# is used if estimated).
Branch Spread	This is taken at four cardinal points, with a stated value in metres to enable an accurate representation of the crown, as shown on Plan EDP 1 .
Canopy Clearance Above Ground Level	An approximation of height (in metres) of crown clearance above adjacent ground level.
Life Stage	There are five classes to which trees are assigned: Young; Early Mature; Mature; Over Mature; and Veteran.
Physiological Condition	An indication of the tree's physiological condition is represented and classed as good, fair, poor or dead, this is informed by the following: Canopy density: It should be taken that, unless otherwise stated with each individual entry, the canopy density of the trees is typical of the species; and Leaf size and colouration: It should be taken that, unless otherwise stated with each individual entry, leaf size and colouration is typical of the species.

Structural Condition	An indication of the tree's structural condition is represented and classed as good, fair, poor or dead. This is informed by "the presence of any decay and physical defect¹".
Comments/Notes	Observations on structural or physiological condition, historic pruning, any Site-specific constraints etc. noted at the time the survey is undertaken.
Recommendations (and Tree Work Priority)	These are made on the basis of optimising the life expectancy of site trees, given their current situation and that which may result from the development proposals. The survey process pays particular attention to implications for life and/or property; defects recorded under the structural condition have the necessary mitigation measures proposed within this section of the schedule. Priority codes from 1 to 3 have been given for trees requiring work. The definition of the codes used is as follows: Priority 1: Work that should be undertaken urgently due to the identification of a potential hazard; Priority 2: Work that should be undertaken prior to any demolition or construction works commencing on Site; and Priority 3: Work that should be undertaken following the completion of the development.
Estimated Remaining Contribution	The definitions of the terms used are as follows and describe the estimated length of time (in years) over which the tree can be expected to make a safe contribution to local amenity: Less than 10; 10+; 20+; and 40+.
Category Grading	Trees have been assigned either U or category grading A to C in accordance with the cascade chart given in BS 5837:2012.
Root Protection Radius	Measurement (in m) based on the stem diameter and calculated in accordance with BS 5837:2012.

¹ BS 5837:2012 Section 4.4.2.5

Client:	Glass Systems Ltd	Site:	Baglan Way, Port Talbot
Date of Survey:	16/07/2021	Consultant	David Garrick
Tagged	N/A	Weather	Clear & Bright

Sequential Reference No.	Species	Height (m)	Stem Diameter (mm)	Branch Spread (m)				Canopy Clearance (m)	Life Stage	Physiological Condition	Structural Condition	Comments / Notes	Management Recommendations (Priority)	Estimated Remaining Contribution (Years)	Category Grading	Root Protection Radius (m)
				North	East	South	West									
G1	Common ash (Fraxinus excelsior) Goat willow (Salix caprea) Alder sp. (Alnus sp.)	4	# 100	1	1	1	1	1	Young	Fair	Fair	Scrubby regeneration	No Work Recommended	10+	C2	1.2
G2	Common ash (Fraxinus excelsior) Alder sp. (Alnus sp.)	8	# 200	3	3	3	3	2	Early Mature	Fair	Fair	Ash dieback	No Work Recommended	10+	C2	2.4
T3	Alder sp. (Alnus sp.)	6	# 200	4	3	3	4	1	Early Mature	Fair	Fair	Access to inspect base - Not possible Ivy or climbing plant Not plotted on plan, location estimated	No Work Recommended	10+	C1	2.4
G4	Common ash (Fraxinus excelsior) English oak (Quercus robur) Goat willow (Salix caprea) Alder sp. (Alnus sp.)	3	# 80	1	1	1	1	N/A	Young	Fair	Fair	Ash dieback	No Work Recommended	10+	C2	0.96
G5	Pine sp. (Pinus sp.)	9	# 200	3	3	3	3	2	Early Mature	Fair	Good	Deadwood - Minor	No Work Recommended	20+	B2	2.4
G6	Blackthorn (Prunus spinosa) Common ash (Fraxinus excelsior) Goat willow (Salix caprea) Alder sp. (Alnus sp.)	5	# 100	3	2	2	2	N/A	Early Mature	Fair	Fair	Ash dieback	No Work Recommended	10+	C2	1.2
G7	Common hawthorn (Crataegus monogyna) Goat willow (Salix caprea) Alder sp. (Alnus sp.)	7	# 200	3	3	3	3	N/A	Early Mature	Good	Fair	No Significant Faults Observed	No Work Recommended	10+	C2	2.4
T8	English oak (Quercus robur)	5	# 190 160 180	4	4	4	4	N/A	Early Mature	Fair	Fair	Multiple stems from base	No Work Recommended	20+	B1	3.68
T9	English oak (Quercus robur)	4	# 160	2	3	2	2	N/A	Young	Fair	Fair	No Significant Faults Observed	No Work Recommended	10+	C1	1.92
T10	English oak (Quercus robur)	5	160 140	4	4	4	4	N/A	Early Mature	Fair	Fair	Multiple stems from base	No Work Recommended	10+	C1	2.55
T11	Common ash (Fraxinus excelsior)	5	220	2	2	2	2	2	Early Mature	Poor	Poor	Ash dieback	No Work Recommended	<10	U	2.64
T12	Goat willow (Salix caprea)	4	150	2	2	2	2	N/A	Young	Fair	Fair	No Significant Faults Observed	No Work Recommended	10+	C1	1.8
T13	Goat willow (Salix caprea)	6	210	4	4	4	4	N/A	Early Mature	Fair	Fair	No Significant Faults Observed	No Work Recommended	10+	C1	2.52
G14	Common ash (Fraxinus excelsior) Goat willow (Salix caprea) Sycamore (Acer pseudoplatanus) Alder sp. (Alnus sp.)	8	# 200	4	4	4	4	N/A	Early Mature	Fair	Fair	Ash dieback	remove stems with ash dieback (2)	20+	B2	2.4
T15	Goat willow (Salix caprea)	3	80	3	3	3	3	N/A	Early Mature	Fair	Fair	Multiple stems from base	No Work Recommended	10+	C1	2.15
G16	Common ash (Fraxinus excelsior) Goat willow (Salix caprea) Sycamore (Acer pseudoplatanus) Alder sp. (Alnus sp.)	8	# 250	4	4	4	4	2	Early Mature	Fair	Fair	Ash dieback	remove ash dieback stems (2)	20+	B2	3
G17	Goat willow (Salix caprea)	5	# 180	3	3	3	3	N/A	Early Mature	Fair	Fair	No Significant Faults Observed	No Work Recommended	10+	C2	2.16
G18	Goat willow (Salix caprea)	5	# 180	3	3	3	3	N/A	Early Mature	Fair	Fair	No Significant Faults Observed	No Work Recommended	10+	C2	2.16

Sequential Reference Number -T - Individual specimen; G - Group. Trees that form cohesive arboricultural features either aerodynamically, visually or culturally; H - Linear group of specimens that form a hedge or boundary; W - A larger group or area of trees that should be regarded as a single woodland unit.

Species -Common English names are used wherever possible for simplicity.

Height -An approximation of height (in metres) is provided for the highest point of the tree.

Stem Diameter -This is the measurement of stem diameter in millimetres taken in accordance with Annex C of BS5837:2012.

Branch Spread -This is taken at four cardinal points, with a stated value in metres to enable an accurate representation of the crown, as shown on Plan EDP 1.

Canopy Clearance -An approximation of height (in metres) of crown clearance above adjacent ground level.

Life Stage -There are five classes to which trees are assigned: Young; Early Mature; Mature; Over Mature; Ancient; Dead.

Physiological Condition -An indication of the tree's physiological condition is represented and classed as good, fair, poor or dead, this is informed by the following: Canopy Density: It should be taken that, unless otherwise stated with each individual entry, the canopy density of the trees is typical of the species; and Leaf Size and Colouration: It should be taken that, unless otherwise stated with each individual entry, leaf size and colouration is typical of the species.

Structural Condition -Additional notes are provided giving details of the tree's structural condition. This is informed by "the presence of any decay and physical defect".

Management Recommendations -These are made on the basis of optimising the life expectancy of site trees, given their current situation and that which may result from the development proposals. The survey process pays particular attention to implications for life and/or property; defects recorded under the structural condition have the necessary mitigation measures proposed within this section of the schedule.

Tree Works Priority Codes -Priority codes from 1 to 3 have been given for trees requiring work. The definition of the codes used is as follows: Priority 1: Work that should be undertaken urgently due to the identification of a potential hazard; Priority 2: Work that should be undertaken prior to any works commencing on site; and Priority 3: Work that should be undertaken following the completion of the development.

Estimated Remaining Contribution -The definitions of the terms used are as follows and describe the estimated length of time (in years) over which the tree can be expected to make a safe contribution to local amenity: Less than 10; 10+; 20+; and 40+.

Category Grading -Trees have been assigned 'U' or Category Grading 'A' to 'C' in accordance with the Cascade Chart given in BS5837:2012.

Root Protection Radius—The root protection radius from the stem of the tree calculated in line with the recommendations set out in BS5837:2012.

Sequential Reference No.	Species	Height (m)	Stem Diameter (mm)	Branch Spread (m)				Canopy Clearance (m)	Life Stage	Physiological Condition	Structural Condition	Comments / Notes	Management Recommendations (Priority)	Estimated Remaining Contribution (Years)	Category Grading	Root Protection Radius (m)
				North	East	South	West									
G19	Common ash (Fraxinus excelsior) Goat willow (Salix caprea) Sycamore (Acer pseudoplatanus) Alder sp. (Alnus sp.)	8	# 250	4	4	4	4	1	Early Mature	Fair	Fair	Ash dieback	remove stems with ash dieback (2)	20+	B2	3
T20	Alder sp. (Alnus sp.)	10	280	4	4	4	4	N/A	Early Mature	Good	Fair	No Significant Faults Observed	No Work Recommended	20+	B1	3.36
G21	Common ash (Fraxinus excelsior) Goat willow (Salix caprea) Sycamore (Acer pseudoplatanus) Alder sp. (Alnus sp.)	8	# 250	4	4	4	4	1	Early Mature	Fair	Fair	Ash dieback	remove ash dieback stems	20+	B2	3
G22	Goat willow (Salix caprea) Silver birch (Betula pendula)	4	# 100	2	2	2	2	N/A	Young	Fair	Fair	No Significant Faults Observed	No Work Recommended	10+	C2	1.2
T23	Goat willow (Salix caprea)	8	# 250	4	4	4	4	N/A	Early Mature	Good	Fair	Off-site tree, all readings estimated	No Work Recommended	20+	B1	3

Sequential Reference Number -T - Individual specimen; G - Group. Trees that form cohesive arboricultural features either aerodynamically, visually or culturally; H - Linear group of specimens that form a hedge or boundary; W - A larger group or area of trees that should be regarded as a single woodland unit.

Species -Common English names are used wherever possible for simplicity.

Height -An approximation of height (in metres) is provided for the highest point of the tree.

Stem Diameter -This is the measurement of stem diameter in millimetres taken in accordance with Annex C of BS5837:2012.

Branch Spread -This is taken at four cardinal points, with a stated value in metres to enable an accurate representation of the crown, as shown on Plan EDP 1.

Canopy Clearance -An approximation of height (in metres) of crown clearance above adjacent ground level.

Life Stage -There are five classes to which trees are assigned: Young; Early Mature; Mature; Over Mature; Ancient; Dead.

Physiological Condition -An indication of the tree's physiological condition is represented and classed as good, fair, poor or dead, this is informed by the following: Canopy Density: It should be taken that, unless otherwise stated with each individual entry, the canopy density of the trees is typical of the species; and Leaf Size and Colouration: It should be taken that, unless otherwise stated with each individual entry, leaf size and colouration is typical of the species.

Structural Condition -Additional notes are provided giving details of the tree's structural condition. This is informed by "the presence of any decay and physical defect".

Management Recommendations -These are made on the basis of optimising the life expectancy of site trees, given their current situation and that which may result from the development proposals. The survey process pays particular attention to implications for life and/or property; defects recorded under the structural condition have the necessary mitigation measures proposed within this section of the schedule.

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Estimated Remaining Contribution -The definitions of the terms used are as follows and describe the estimated length of time (in years) over which the tree can be expected to make a safe contribution to local amenity: Less than 10; 10+; 20+; and 40+.

Category Grading -Trees have been assigned 'U' or Category Grading 'A' to 'C' in accordance with the Cascade Chart given in BS5837:2012.

Root Protection Radius—The root protection radius from the stem of the tree calculated in line with the recommendations set out in BS5837:2012.



Annex EDP 3
Illustrative Summary of Survey Data

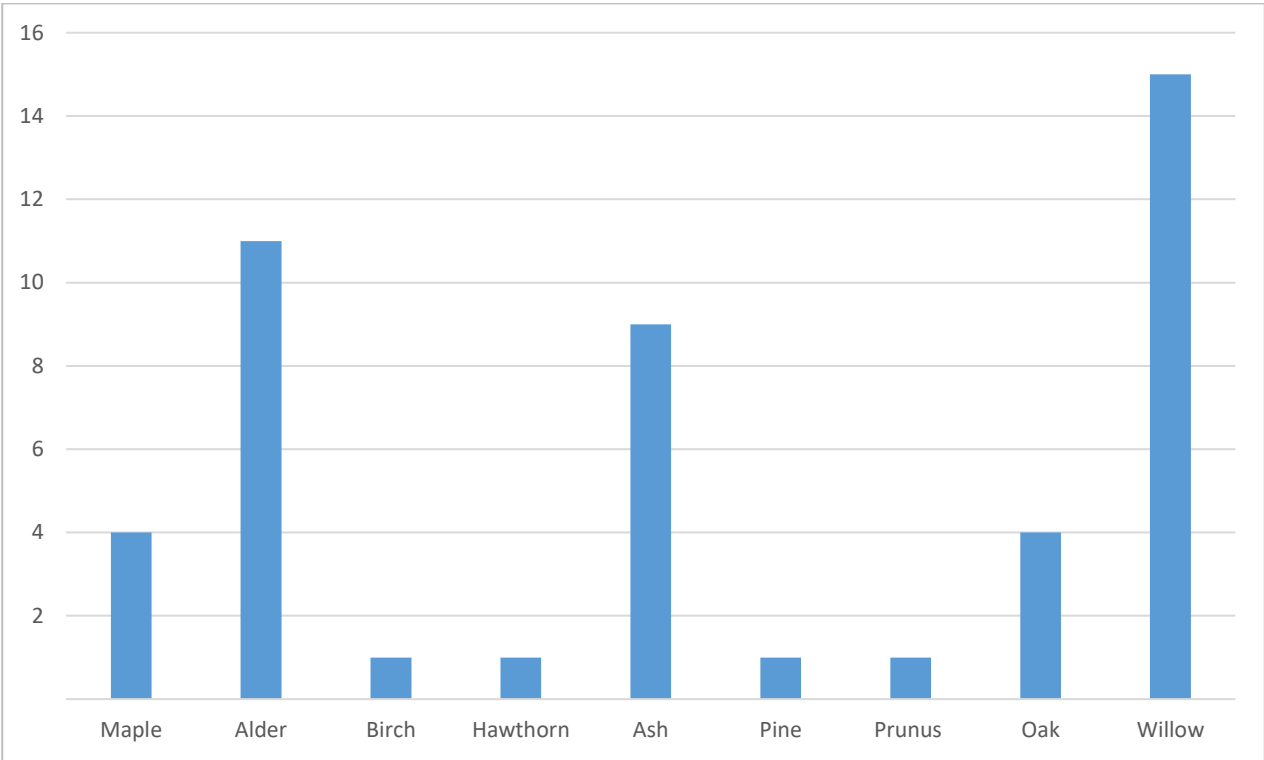


Figure EDP 3.1: Species Diversity.

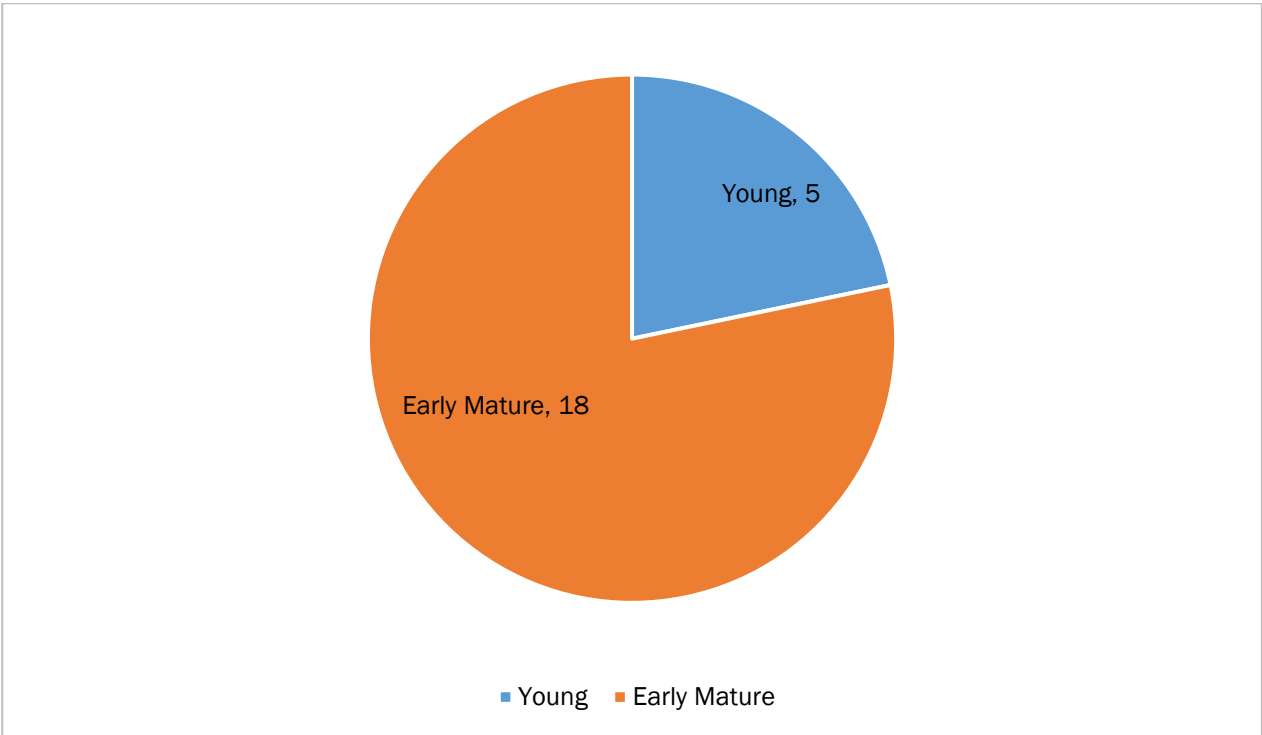


Figure EDP 3.2: Age Distribution.

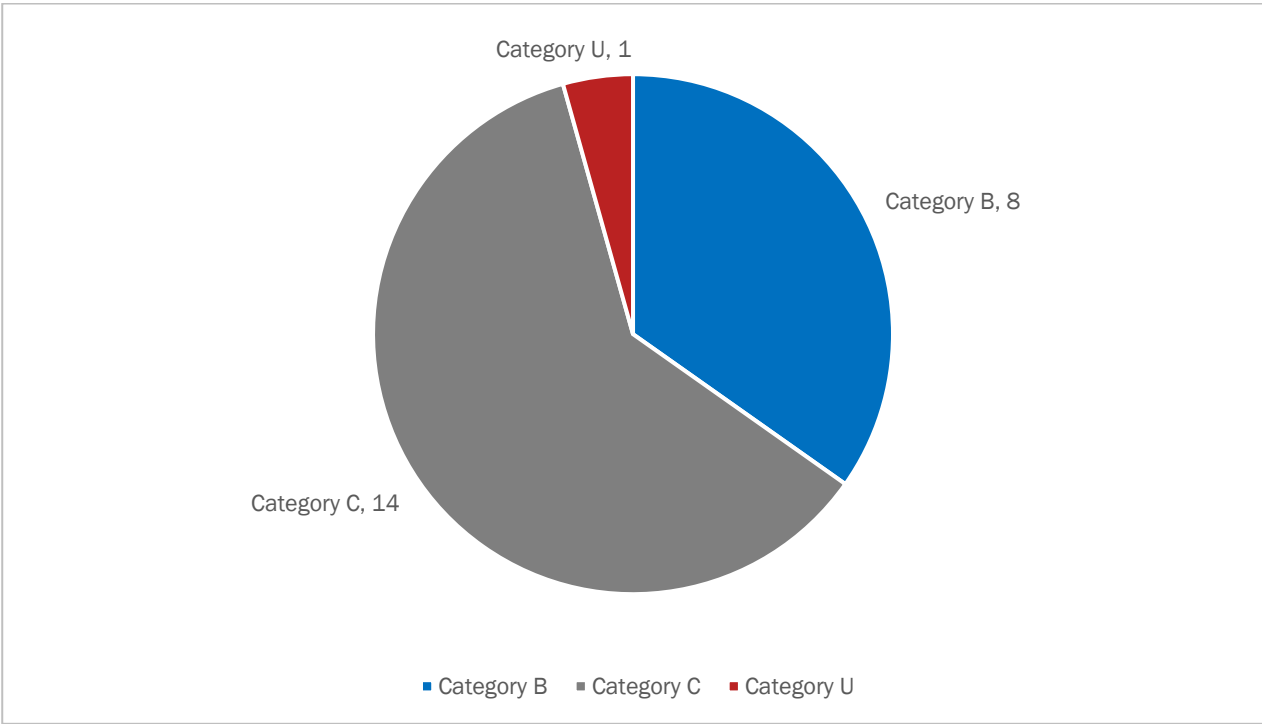


Figure EDP 3.3: Category Grading.

Annex EDP 4 Protected Species

Bats

- A4.1 All species of British bat are listed as European Protected Species (EPS) on Schedule 2 of the Conservation Regulations (Annex IV (a) to the Habitats Directive). This affords bats protection under the Conservation of Habitats and Species Regulations 2017 (as amended), making it an offence to:
- Damage or destroy a breeding site or resting place of a wild individual of an EPS;
 - Deliberately capture, injure or kill a wild individual of an EPS;
 - Deliberately disturb a wild individual of an EPS wherever they occur, in particular any disturbance which is likely to impair their ability to survive, to breed or reproduce or, in the case of hibernating or migratory species, to hibernate or migrate; or
 - Affect significantly the local distribution or abundance of the species to which they belong.
- A4.2 Additional protection for bats is also afforded under the Wildlife and Countryside Act 1981 (as amended) and the Countryside Rights of Way Act 2000, making it an offence to intentionally or recklessly disturb bats whilst they are occupying a structure or place that is used for shelter or protection, or to obstruct access to this structure or place. As bats tend to re-use the same roosts, legal opinion is that roosts are protected whether or not bats are currently occupying these resting places/places of shelter.
- A4.3 Prior to undertaking any tree works or tree removal further advice should be sought from a suitably qualified ecologist.

Nesting Birds

- A4.4 The main bird nesting season is between March and August inclusive. Contractors have a legal responsibility to comply with current legislation relating to breeding birds. Under the Wildlife and Countryside Act 1981 (as amended) and the Countryside and Rights of Way Act 2000, birds, as well as their nests and eggs are protected, and it is an offence to:
- Take, damage or destroy the nest of any wild bird while it is in use or being built;
 - Take or destroy the egg of any wild bird; and
 - To disturb any wild bird while it is nest building, or at a nest containing young, or disturb the dependent young of such a bird.

Annex EDP 5

Consideration of Trees within the Design Process

- A5.1 Construction activities pose a threat to the successful retention of trees if handled inappropriately. It is important to consider the relationship between development and trees during the design process.

Below-ground Constraints – Root Protection Area

- A5.2 The below-ground constraints are defined as the likely spread and distribution of the root system and are depicted on **Plan EDP 1** with pink outlined areas, representing root protection area (RPA) around each surveyed item.
- A5.3 The RPA is defined as the minimum area (in m²) around the tree that is deemed to contain sufficient roots and rooting volume to maintain the tree's viability.
- A5.4 Where pre-existing site conditions or other factors indicate that rooting has occurred asymmetrically, the shape of the RPA may be modified, but not reduced in area, and its shape should reflect a soundly based assessment of the likely root distribution.
- A5.5 Any deviation in the RPA from the original circular plot should take account of the following factors whilst still providing adequate protection for the root system:
- The morphology and disposition of the roots, when known to be influenced by past or existing site conditions (e.g. the presence of roads, structures and underground services);
 - Topography and drainage;
 - The soil type and structure; and
 - The likely tolerance of the tree to root disturbance or damage, based on factors such as species, age and condition and presence of other trees.

Above-ground Constraints – Proximity of Trees to Structures

- A5.6 The above-ground parts of a tree whilst being more visible and easily protected are a potential constraint to development and consideration should be given to the current and ultimate height and spread of the trees.

A5.7 Where the current and/or ultimate height of a category A, B or C trees will cause an unreasonable obstruction to the proposed development, this must be considered as a constraint. This is usually considered in terms of issues relating to shade and light.

A5.8 The above ground constraints can be a combination of factors such as:

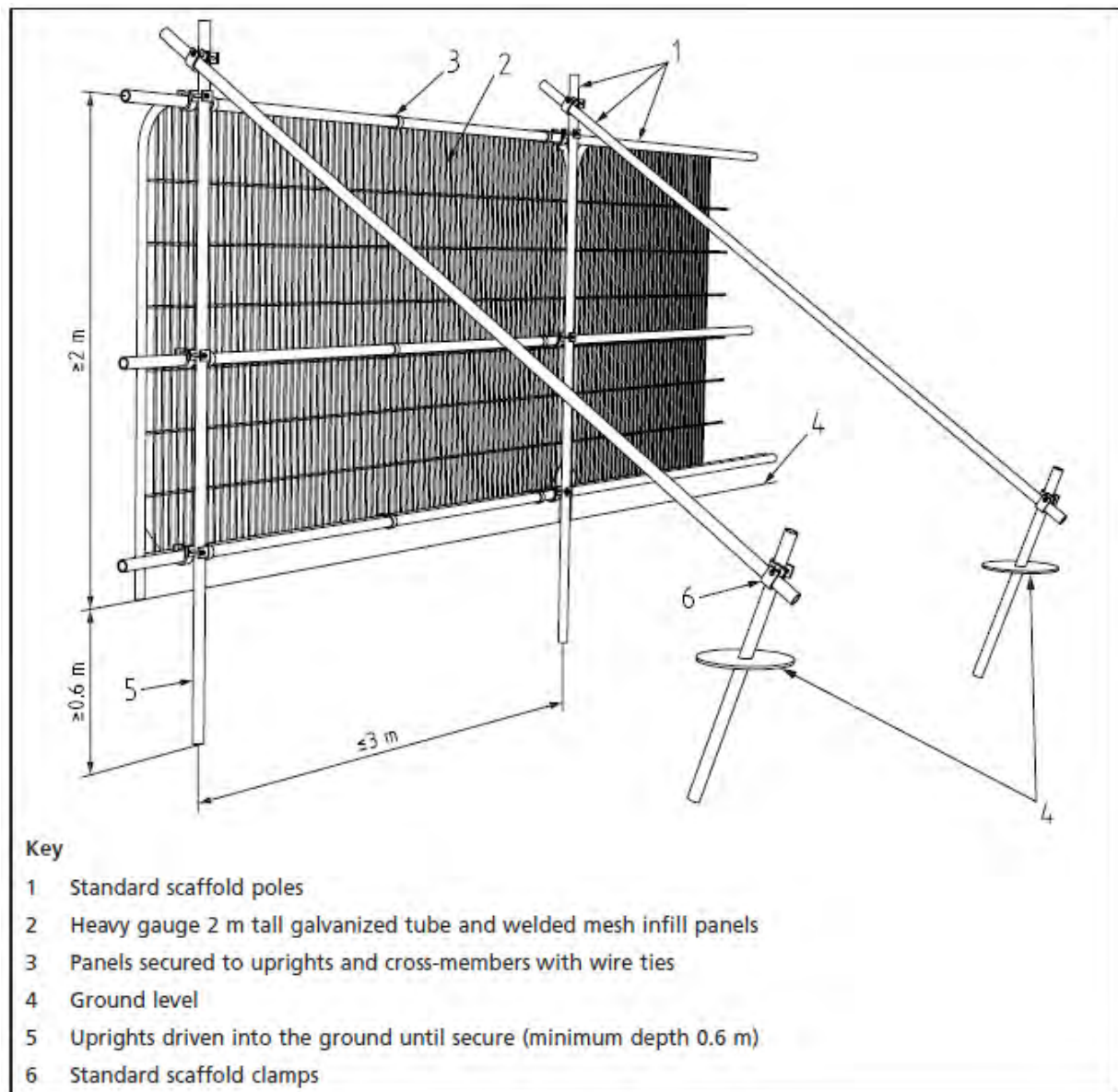
- Shading of buildings and open space – a detailed daylight study may be necessary if any proposed buildings are in the immediate vicinity of retained trees;
- Direct damage to structures;
- Future pressure for removal;
- Seasonal nuisance (e.g. leaf fall blocking gutters, fruit fall creating slippery patches and honey dew dripping on vehicles and surfaces);
- Whether the tree is deciduous or evergreen; and
- Density of foliage.

Appendix EDP 2
Proposed Site Plan
(Drawing Number 2149 A03 Rev. I)

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Appendix EDP 3

Tree Protection Barrier on Scaffold 2.0m High (Extract from BS 5837:2012, Figure 2 'Protective Barrier')



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Appendix EDP 4

Programme of Arboricultural Inputs

Phase	Activity	Extent of Input
Pre-commencement	Pre-commencement tree works	Developer/ACW to brief appointed arboricultural contractor. A monitoring visit will be conducted to check successful completion of tree works before installation of protective barriers.
	Installation of tree protection measures	The developer to monitor the installation of protective barriers to form Construction Exclusion Zone (CEZ) ensuring distances and specification comply with those specified in Plan EDP 1 and Appendix EDP 3 .
Construction Phase	Monitor and maintain tree protection measures	Tree protection measures will be monitored and maintained by the appointed contractor throughout the construction phases. Any defects will be reported to the developer and remedied by the appointed contractor.
	Phased construction tree inspection	The developer will monitor the health and condition of the retained trees and identify any remedial works after completion of each construction phase.

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Appendix EDP 5

Example of Tree Protection Notice

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TREE PROTECTION AREA!

**THIS FENCING MUST BE MAINTAINED IN
ACCORDANCE WITH THE APPROVED PLANS AND
DOCUMENTS FOR THIS DEVELOPMENT**

**IF ANY DAMAGE TO OR BREACH OF THE TREE
PROTECTION FENCING OCCURS PLEASE CALL:**

01285 740 427

Appendix EDP 6 Sample Site Inspection Record

Site		Date	
		Arboricultural Clerk of Works (ACW)	
Developer		Planning Application Number	
Site Manager		Contact No.	

Notes and overview of today's ACW site visit

Are any special works scheduled for coming build period?		Yes	No
Give details			

General Overview and Checks List:	Yes	No
Protective fencing all as approved?		
Was debris/storage/groundwork evident within CEZ?		
Was there any evidence of damage to trees?		

Signed		Signed	
Name		Name	
Company		Company	
ACW for and on behalf of:		Main Contractor for and on behalf of:	

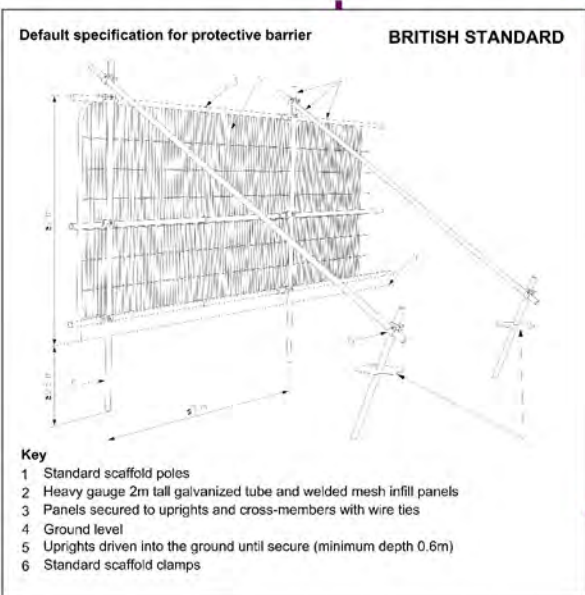
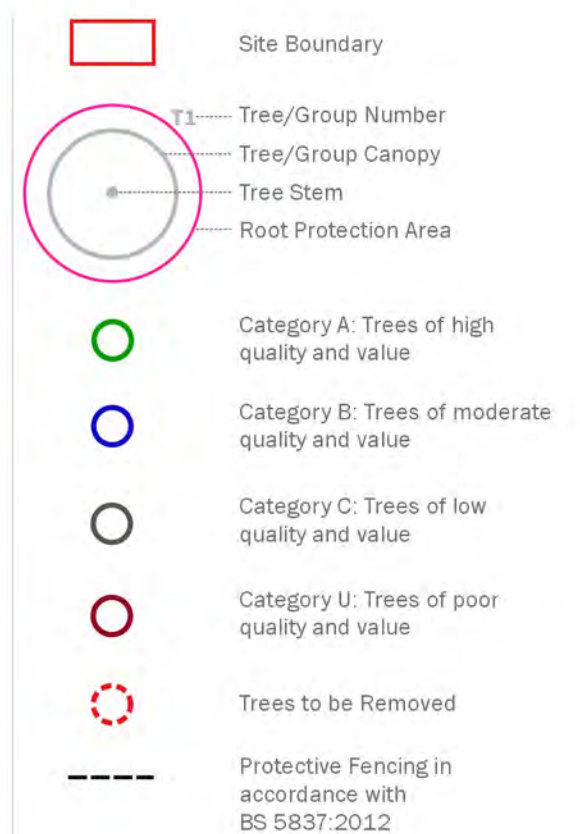
Circulation:	Name	Contact Details
LPA Tree Officer		
Developer Head Office		
Site Agent		

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Plan

Plan EDP 1 Tree Protection Plan
(edp7017_d013c 25 May 2022 GY/DG)

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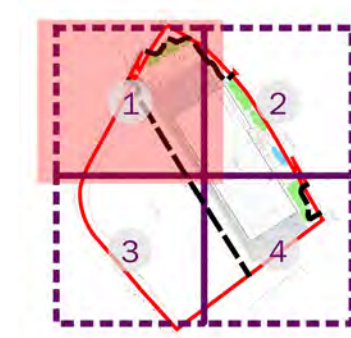
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project title	Baglan Way, Port Talbot		
drawing title	Plan EDP 1: Tree Protection Plan (Overview)		
date	25 MAY 2022	drawn by	GY
drawing number	edp7017_d013c	checked	DG
scale	1:2,000 @ A3	QA	JTF



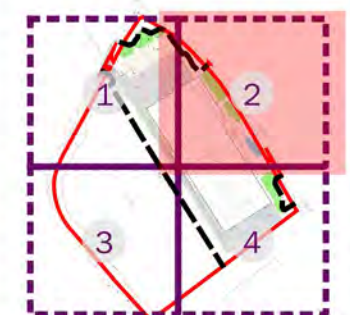
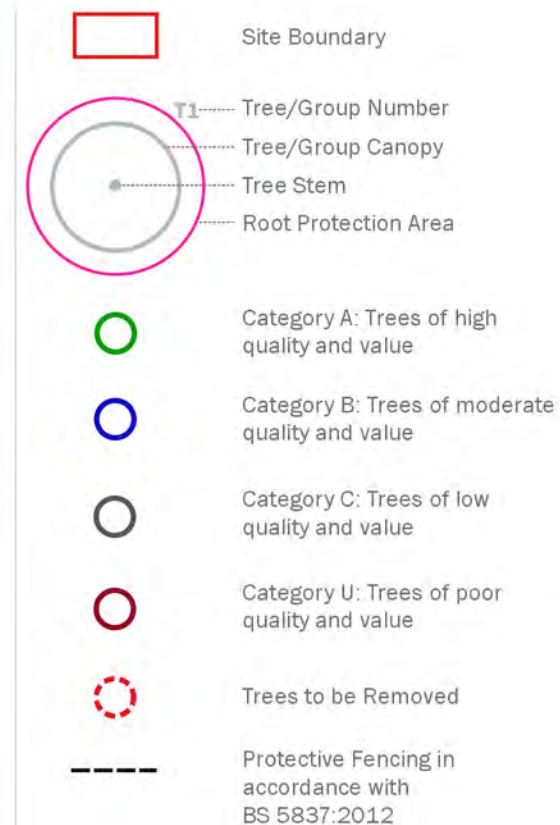
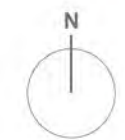
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- Site Boundary
- T1 Tree/Group Number
- Tree/Group Canopy
- Tree Stem
- Root Protection Area
- Category A: Trees of high quality and value
- Category B: Trees of moderate quality and value
- Category C: Trees of low quality and value
- Category U: Trees of poor quality and value
- Trees to be Removed
- Protective Fencing in accordance with BS 5837:2012



client	Glass Systems Ltd		
project title	Baglan Way, Port Talbot		
drawing title	Plan EDP 1: Tree Protection Plan (Sheet 1 of 4)		
date	25 MAY 2022	drawn by	GY
drawing number	edp7017_d013c	checked	DG
scale	1:1,000 @ A3	QA	JTF



client

Glass Systems Ltd

project title

Baglan Way, Port Talbot

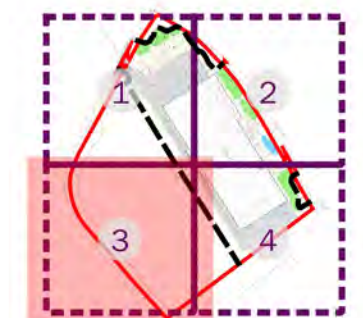
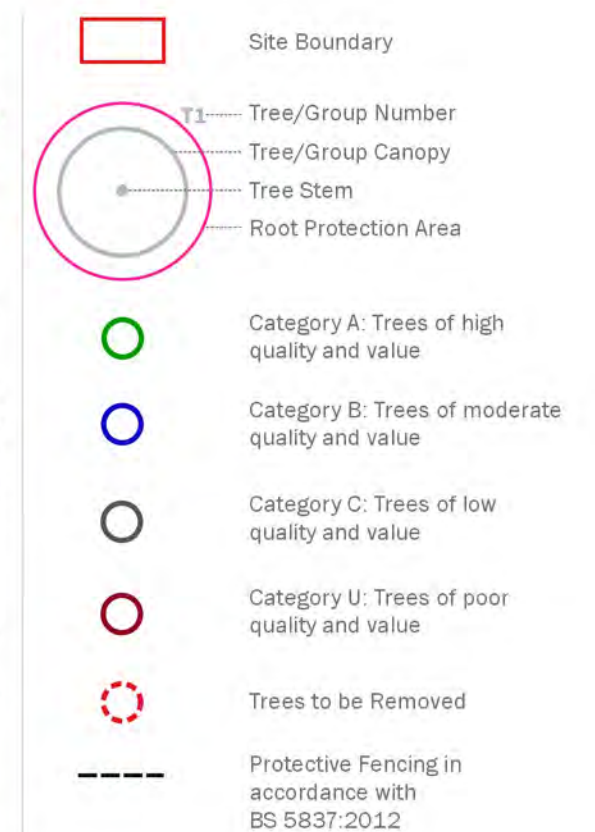
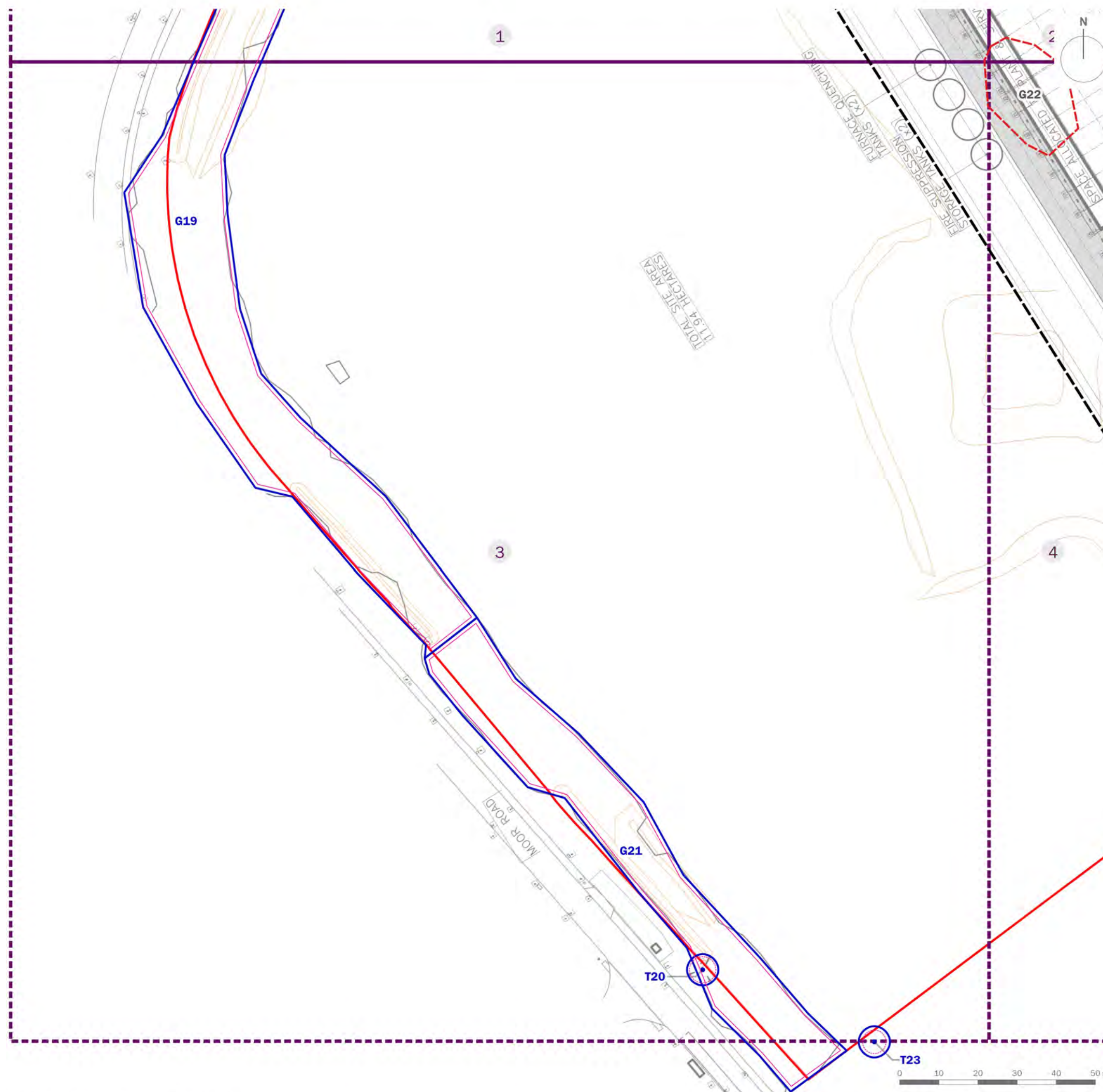
drawing title

**Plan EDP 1: Tree Protection Plan
(Sheet 2 of 4)**

date	25 MAY 2022	drawn by	GY
drawing number	edp7017_d013c	checked	DG
scale	1:1,000 @ A3	QA	JTF



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client

Glass Systems Ltd

project title

Baglan Way, Port Talbot

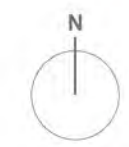
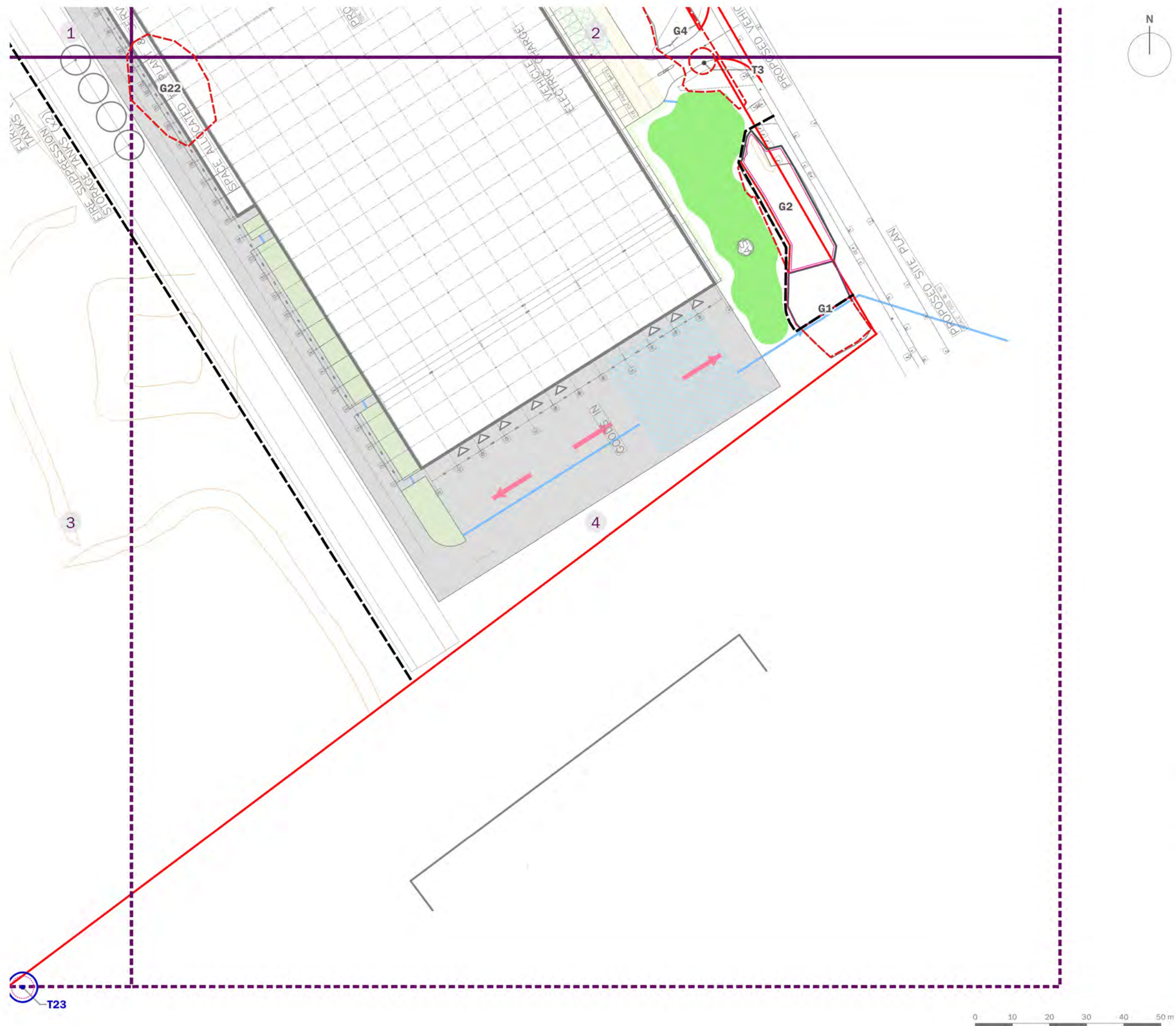
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**Plan EDP 1: Tree Protection Plan
(Sheet 3 of 4)**

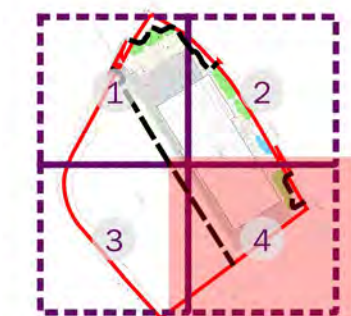
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- Site Boundary
- T1 Tree/Group Number
- Tree/Group Canopy
- Tree Stem
- Root Protection Area
- Category A: Trees of high quality and value
- Category B: Trees of moderate quality and value
- Category C: Trees of low quality and value
- Category U: Trees of poor quality and value
- Trees to be Removed
- Protective Fencing in accordance with BS 5837:2012



client	Glass Systems Ltd		
project title	Baglan Way, Port Talbot		
drawing title	Plan EDP 1: Tree Protection Plan (Sheet 4 of 4)		
date	25 MAY 2022	drawn by	GY
drawing number	edp7017_d013c	checked	DG
scale	1:1,000 @ A3	QA	JTF



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GROUP** REGISTERED
PRACTICE

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**Landscape
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