



THE  
ENVIRONMENT  
PARTNERSHIP

---



## GLAN CLWYD HOSPITAL BODELWYDDAN

### ARBORICULTURAL IMPACT ASSESSMENT IN SUPPORT OF OUTLINE PLANNING (SITE 1 AND SITE 2)

TEP  
8 Trinity Street  
London  
SE1 1DB

Tel: 020 3096 6050  
E-mail: [london@tep.uk.com](mailto:london@tep.uk.com)  
[www.tep.uk.com](http://www.tep.uk.com)

Offices in Warrington, Market Harborough, Gateshead, London and Cornwall

Document Title	Arboricultural Impact Assessment in support of Outline Planning (Site 1 and Site 2)
Prepared for	BAM Construction Ltd
Prepared by	TEP - Warrington
Document Ref	8166.01.001

Author	Jonathan Smith
Date	July 2020
Checked	Tom Popplewell
Approved	Tom Popplewell

Amendment History					
Version	Date	Modified by	Check / Approved by	Reason(s) issue	Status
0.1	01.07.20	JGS	TDP	Draft for comment	Draft
1.0	14/08/20	JGS	TDP	Issue	Final

<b>CONTENTS</b>	<b>PAGE</b>
Executive Summary .....	1
1.0 Scope.....	2
2.0 Baseline .....	3
3.0 Effects .....	13
4.0 Mitigation.....	16

<b>TABLES</b>	<b>PAGE</b>
Table 1 Existing canopy coverage.....	4
Table 2 Summary of BS 5837 quality categorisation .....	6
Table 3 Effects of the proposed development without mitigation .....	14

<b>FIGURES</b>	<b>PAGE</b>
Figure 1 Site location and approximate boundary (OS Street View ® 1:10 000 scale) .....	3
Figure 2 Trees along southern boundary of Site 1; G10 and stag-headed ash T31 .....	4
Figure 3 Vegetation along the western boundary of Site; G7 and T28.....	5
Figure 4 Trees along eastern boundary of Site 2; G1 and dead elms in G2 .....	5
Figure 5 Trees along southern boundary of Site 2; T13 to T21 .....	6
Figure 6 Extract from Denbighshire County Councils Interactive Online map .....	8

## **APPENDICES**

- APPENDIX A: Arboricultural Survey Data  
APPENDIX B: Survey Method

## **DRAWINGS**

- Drawing 1 - Site Location Plan  
Drawing 2 - Tree Constraints Plans (2 sheets)  
Drawing 3 - Illustrative Masterplan Site 1  
Drawing 4 - Illustrative Masterplan Site 2

## Executive Summary

1. TEP has been commissioned to conduct a survey of land at Glan Clwyd Hospital in Bodelwyddan and a review of designations, policies and other instruments of relevance to arboriculture. This report presents the results, and known and anticipated effects of proposed development on trees.
2. The scope of the survey covered two parcels of land supporting a tree population comprising mostly middle age, native and naturalised broadleaved species in generally fair or good condition. Elm trees across the both sites are suffering from Dutch Elm Disease.
3. Based on an objective assessment made in accordance with BS 5837:2012 Trees in relation to design, demolition and construction – Recommendations, there are 1 high quality (Category A), 5 moderate quality (Category B), 27 low quality (Category C), and 5 poor quality (Category U) features (trees or groups) on or within influencing distance of the site. 1 hedge was recorded but not allocated a category.
4. A site survey and desktop searches identified no Tree Preservation Orders; no trees within a Conservation Area; no veteran trees; no ancient woodland; and 1 Habitat of Principal Importance *Hedgerow*. Tree Preservation Orders and a Conservation Area are located close to, but outside the application sites.
5. The capacity of trees to support roosting bats has been assessed by an ecologist as part of an Ecological Assessment. This identified no trees with bat habitat suitability but 3 trees with ivy that may be obscuring features suitable for bats.
6. Outline planning permission is sought for the erection of a hospital unit alongside associated landscaping and site vehicular access on Site 1 and the erection of a multi-storey car park with associated works on Site 2.
7. The layout elements that would be determined in detail by this application would not necessitate the removal or pruning of any trees. Both developments would utilise the existing hospital road network and car park access points.
8. The development would give rise to no unavoidable adverse effects that cannot be mitigated. It is reasonable to presume that a final detailed layout could be developed which would allow for the retention of the vast majority of trees, including all high value trees and those with potential suitability for bats. This is demonstrated by the Indicative Masterplans shown at Drawings 3 and 4.
9. If outline planning permission is granted, an Arboricultural Impact Assessment describing all effects on arboriculture based on the final layout, and identifying clearly which trees would be retained, removed or pruned; an Arboricultural Method Statement detailing protection measures and working methods to be observed during construction; and a scheme of new tree and hedgerow planting. This information should be based on a topographical survey.

## 1.0 Scope

- 1.1 TEP has been commissioned by BAM Construction Ltd to conduct an arboricultural survey of land at Glan Clwyd Hospital in Bodelwyddan and to make an assessment in accordance with BS 5837:2012 Trees in relation to design, demolition and construction - Recommendations.
- 1.2 This report has been produced to support an outline planning application. It describes the findings of field and desktop surveys; the known and anticipated effects on arboriculture that would arise following the grant of outline planning permission; and measures that should be incorporated in the proposed development and/or detailed at reserved matters.

### **Survey**

- 1.3 The survey was undertaken on 16th April 2020 in accordance with BS 5837 by a qualified arboriculturist. The survey method is included at Appendix B.
- 1.4 Aerial photography was used to record the position of trees and vegetation.
- 1.5 Trees on private land outside the application boundary, and at inaccessible locations<sup>1</sup> were surveyed insofar as was practicable. Whilst reasonable effort has been made to ensure the accuracy and comprehensiveness of such records, it cannot be guaranteed.

### **Limitation**

- 1.6 This report relates to an outline development proposal and should not be interpreted as advice in any other circumstance, including but not limited to; the promotion or assessment of any particular schemes; the design of buildings and foundations; management of tree risk; and tree-related subsidence.
- 1.7 This report constitutes a valid basis for the evaluation of impacts on trees resulting from the grant of outline planning permission for a period not exceeding 2 years. After this, it would be necessary to review baseline data and conclusions to ensure reliability. Conclusions are drawn based on professional judgement, experience and the information provided. If the proposed development changes, the conclusions of this report may cease to be reliable.

---

<sup>1</sup> Limitations to the survey are described at Appendix A

## 2.0 Baseline

### The Sites

- 2.1 The application sites are both operational car parks located within the grounds of Glan Clwyd Hospital. The approximate extent of the area covered by this assessment is shown in Figure 1 and Drawing 1.
- 2.2 Site 1 (central grid reference SJ 00082 75991) is approximately 0.9 ha in size and is located in the south-west corner of the hospital campus. The site is bounded to the north and east by existing hospital buildings and access roads, to the west by agricultural land and to the south by residential housing.
- 2.3 Site 2 (central grid reference SJ 00472 76103) is approximately 0.8 ha in size and is located in the north-east corner of the Glan Clwyd Hospital campus and accessed off Sarn Lane. The site is bounded to the north, south and west by existing hospital access roads, and to the east by a single carriageway road.
- 2.4 The wider area surrounding the hospital campus comprises agricultural land to the north, east and west of the campus, and residential development to the south. The main A55 dual carriageway is located beyond the residential area.



Figure 1 Site location and approximate boundary (OS Street View @ 1:10 000 scale)

Contains OS data © Crown copyright and database right 2016

- 2.5 The topography of both survey areas is relatively flat with only minor undulations in the form of bunds or ditches.
- 2.6 Weather conditions during the survey was dry and bright.
- 2.7 Inspection of trees was restricted in some cases, more so on Site 1 by dense vegetation. These trees were surveyed insofar as was possible from accessible areas of the site<sup>2</sup>.



## Tree Survey

- 2.8 28 individual trees (T1-T21 and T27-T33), 10 groups of trees (G1-G3 and G7-G13) and 1 hedgerow (H1) were recorded within influencing distance of the application sites. Reference numbers do not run sequentially because the tree survey also covered land not included in this assessment. All arboricultural information for trees located on both sites is presented at Appendix A.
- 2.9 Feature locations, their quality categories, canopy spreads and root protection areas are shown on Drawing 2. The following table provides the total canopy area for mapped trees and the total length of mapped hedgerow on Drawing 2. In some cases this may be more than the absolute area of cover due to canopy overlap between adjacent features.

*Table 1 Existing canopy coverage*

	Trees	Groups	Woodland	Hedgerow
Site 1	359.6ha	2861.4ha	0.0m <sup>2</sup>	0.0m
Ste 2	418.7m <sup>2</sup>	121.8m <sup>2</sup>	0.0m <sup>2</sup>	121.6m

## Overview

- 2.10 The survey recorded 7 individual trees and 7 groups of trees on Site 1. They are confined to the western and southern periphery and comprise predominantly out-grown hedge and self-set trees forming dense thickets in places. 4 larger oak trees (T29, T30, T32 and T33) with varying crown condition are rooted close to the southern boundary; detailed inspection was restricted due to dense vegetation. There are two clusters of dead elm trees (G8 and G11) along the southern boundary that have succumbed to the vascular condition Dutch Elm Disease.



*Figure 2 Trees along southern boundary of Site 1; G10 and stag-headed ash T31*



*Figure 3 Vegetation along the western boundary of Site; G7 and T28*

- 2.11 The survey recorded 21 individual trees and 3 groups of trees at Site 2. They are confined to the eastern and southern car park verges and comprise trees planted for amenity around hospital infrastructure. The largest and best quality individual is a mature cherry (T16), one of several surrounding the main hospital entrance junction. There is a small cluster of dead elm trees (G2) mid-way along the eastern boundary that have also succumbed to Dutch Elm Disease.



*Figure 4 Trees along eastern boundary of Site 2; G1 and dead elms in G2*





Figure 5 Trees along southern boundary of Site 2; T13 to T21

### Tree Quality

- 2.12 Under BS 5837 trees are objectively assigned one of four categories to describe their quality. The table below includes a description of each category and the amount of trees within it. This information is presented by canopy area to allow comparison between features of varying size and maturity. Hedgerows have not be categorised.

Table 2 Summary of BS 5837 quality categorisation<sup>2</sup>

Category	Description	Total existing	
		Site 1	Site 2
A	Trees of high quality, typically with a long remaining life expectancy; and with clear and identified merit as specimens, visually, culturally or for conservation.	113.7m <sup>2</sup>	0.0m <sup>2</sup>
B	Trees of moderate quality, typically with at least a medium remaining life expectancy; with remediable defects only; or low quality but with collective merit.	316.6m <sup>2</sup>	88.2m <sup>2</sup>
C	Trees of low quality, typically with at least a short remaining lift expectancy; unremarkable trees; young or small trees that could be replaced.	2334.0m <sup>2</sup>	434.5m <sup>2</sup>
U	Trees that cannot realistically be retained in the current land use for 10 years; with serious and irreparable defects, pathogens or decline.	456.7m <sup>2</sup>	17.8m <sup>2</sup>

<sup>2</sup> Refer to Appendix B for the full table

- 2.13 The majority of trees recorded by area are low quality (Category C) due to their relatively young age or scrubby nature. Those that are more mature and provide inherently greater wildlife or landscape benefits have attained moderate to high quality categories (Category A or B); it would typically take longer to replicate such values via replacement tree planting.

#### Root Protection Areas

- 2.14 Using the results of the field survey a Root Protection Area (RPA) has been calculated in accordance with BS 5837 using each tree's stem diameter at 1.5 metres<sup>3</sup>. The RPA represents the minimum area around each tree that must be left undisturbed to ensure its survival.
- 2.15 Where a trees rooting pattern is considered to have been influenced by site conditions the RPA has been adjusted or offset to most accurately represent the likely spread of roots<sup>4</sup>. On this site the primary influences on root morphology are considered to be the existing road network and Clatter Brook.

### **Policy, designations and protection**

#### Planning Policy

- 2.16 All trees are a material consideration in the planning process. Effects on trees will therefore be considered by the consenting authority. Adverse effects that cannot be mitigated and which are not acceptable on balance against other benefits may weigh against the granting of planning permission.
- 2.17 There should be a common sense ambition to limit tree loss to that which is strictly required to facilitate the proposal, and to achieve a good design. Trees which are retained should not be harmed and the proposal should present a reasonable account of the prospects for tree retention in accordance with BS 5837.

#### *Planning Policy Wales*

- 2.18 Planning Policy Wales (PPW) has an overarching environmental objective. This embeds protection and enhancement of the natural environment and biodiversity in decision making<sup>5</sup>.
- 2.19 Planning policies and decision making should recognise the ecological value of trees and their contribution to the character or amenity of a particular locality or green infrastructure function<sup>6</sup>.
- 2.20 PPW requires local authorities to consider the importance of native woodland and valued trees. Permanent removal of woodland should only be permitted where it would achieve significant and clearly defined public benefits. Where woodland or trees are removed as part of a proposed scheme, developers will be expected to provide compensatory planting.

---

<sup>3</sup> Refer to Appendix A for RPA area calculations

<sup>4</sup> See Drawing 1 for RPA shapes

<sup>5</sup> PPW paragraph 12

<sup>6</sup> PPW paragraph 6.4.25

- 2.21 There is a strong policy presumption against loss or deterioration of irreplaceable habitats such as ancient woodland and ancient or veteran trees. Development resulting in their loss or deterioration should be refused unless there are significant and clearly defined public benefits<sup>7</sup>.

#### *Local Planning Policy*

- 2.22 Denbighshire County Council has an adopted Local Development Plan (LDP) that contains policies that seek to preserve and enhance the natural environment, including trees.
- 2.23 Policy RD1 of the LDP sets out the requirement that existing landscape features be incorporated into new developments and that suitable landscaping be included in all new developments.
- 2.24 In addition, Denbighshire Council has a Supplementary Planning Guidance Note on trees and landscaping (July 2016) that offers guidance to assist developers prior to the submission of planning applications and assist the council in handling and determining planning applications. The Note can be accessed via the following link:

<https://www.denbighshire.gov.uk/en/resident/planning-and-building-regulations/local-development-plan/ldp-spg/spg-documents/adopted-spg-documents/Supplementary-Planning-Guidance-Note-Trees-Landscaping.pdf>

#### Tree Preservation Orders

- 2.25 A check with the local authority was undertaken on 17th April 2020. Their online mapping system confirmed that 2 Tree Preservation Orders (Ref: St Asaph, Bodelwyddan and Land West of Lowther Court, Bodelwyddan) are in effect covering trees close to, but outside the application sites. None of the protected trees were included in the tree survey due to their location.



*Figure 6 Extract from Denbighshire County Councils Interactive Online map*

*Contains OS data © Crown copyright and database right 2020*

---

<sup>7</sup> PPW paragraph 6.4.26

- 2.26 Works to TPO trees must only be undertaken with the written consent of the Local Authority, given in the form of a planning permission (other than an outline planning permission), discharge of reserved matters, or via a TPO application.
- 2.27 In the context of a planning application, the presence of a TPO is material but it does not necessitate the retention of protected trees within proposed development. Equally, the lack of a TPO does not mean that removal of any particular tree would be without significant impact. The existence of a TPO may indicate the local authority's view regarding priorities for tree retention and amenity value. BS 5837 recommends that TPOs should be considered in the design process.

#### Conservation Areas

- 2.28 A check with the local authority was undertaken on 17th April 2020. Their online mapping system confirmed that no trees within and/or adjacent to the site are within a Conservation Area. Bodelwyddan Conservation Area lies directly south of the hospital complex as can be seen in Figure 6 (solid red fill).

#### Ancient Woodland

- 2.29 Ancient Woodland is defined in Wales as any area that has been wooded continuously for over 400 years; it is regarded as 'irreplaceable'<sup>8</sup>. The distribution of Ancient Woodland has been assessed on the basis of Natural Resources Wales Ancient Woodland Inventory via:

<http://lle.gov.wales/map#m=-3.159,51.47832,8&b=europa&l=60:>

- 2.30 There is no ancient woodland within and/or adjacent to the site.

#### Veteran Trees

- 2.31 PPW defines veteran trees as irreplaceable natural resources that have significant landscape, biodiversity and cultural value<sup>9</sup>.
- 2.32 There is no comprehensive national register of veteran trees. The Woodland Trust maintains an inventory of significant trees which includes some ancient and veteran individuals<sup>10</sup>. At the time of writing it contained no records of relevance to the site.
- 2.33 An assessment of each tree was made by a qualified arboriculturist as part of the tree survey. There are no veteran trees within or adjacent to the site.
- 2.34 Not all mature trees or those of high habitat interest are veterans. Trees with individual or simple assemblages of features typically associated with veteran trees were also noted<sup>11</sup>. Such trees may become veterans but should not be treated as such for the purposes of impact assessment.

---

<sup>8</sup> PPW paragraph 6.4.26

<sup>9</sup> PPW paragraph 6.4.26

<sup>10</sup> <https://ati.woodlandtrust.org.uk/>

<sup>11</sup> See Appendix A



### Habitats of Principal Importance

- 2.35 A list<sup>12</sup> of habitats which are of principal importance for the purpose of conserving biodiversity is maintained by the Welsh Government<sup>13</sup>. The list includes habitat types that are defined by woody vegetation, which are listed below.
- 2.36 All public authorities, including local planning authorities and statutory undertakers have a duty to maintain and enhance biodiversity whilst carrying out their functions<sup>14</sup>. Habitats of Principal Importance provide a means of evaluating effects on biodiversity, and thereby a metric to demonstrate the discharge of this duty. In the context of planning, adverse effects on Habitats of Principal Importance that cannot be mitigated are material to decision making.

#### *Deciduous Woodland*

- 2.37 Six distinct types of woodland<sup>15</sup> are listed under the habitat type 'Deciduous Woodland'.
- 2.38 The survey identified no tree cover that meets the description of any type of Deciduous Woodland.

#### *Wood Pasture and Parkland*<sup>16</sup>

- 2.39 Wood-pasture and parkland are mosaic habitats valued for their trees, especially veteran and ancient trees, and the plants and animals that they support. They are exclusively associated with some species of insects, lichens and fungi which depend on dead and decaying wood. Grazing animals and continuity of management are fundamental to the existence of the habitat and it can be a type of ancient woodland.
- 2.40 The survey identified no land or tree cover that meets the description of Wood Pasture and Parkland.

#### *Traditional Orchards*<sup>17</sup>

- 2.41 Traditional orchards are defined, for priority habitat purposes, as groups of fruit and nut trees planted on vigorous rootstocks at low densities in permanent grassland; and managed in a low intensity way. Habitat structure rather than vegetation type, topography or soils, is the defining feature of the habitat.
- 2.42 Traditional Orchards have been mapped by Natural Resources Wales on the Lle Geo-Portal. It has no records of Traditional Orchards at the site.

---

<sup>12</sup> <https://www.biodiversitywales.org.uk/Environment-Wales-Act>

<sup>13</sup> Environment (Wales) Act 2016 Section 7

<sup>14</sup> Section 6 of the Environment (Wales) Act 2016

<sup>15</sup> Upland Oakwood; Lowland Beech and Yew Woodland; Upland Mixed Ashwoods; Wet Woodland; Lowland Mixed Deciduous Woodland; Upland Birchwoods

<sup>16</sup> [http://jncc.defra.gov.uk/docs/UKBAP\\_BAPHabitats-65-WoodPastureParkland2011.doc](http://jncc.defra.gov.uk/docs/UKBAP_BAPHabitats-65-WoodPastureParkland2011.doc)

<sup>17</sup> [http://jncc.defra.gov.uk/Docs/UKBAP\\_BAPHabitats-56-TraditionalOrchards.doc](http://jncc.defra.gov.uk/Docs/UKBAP_BAPHabitats-56-TraditionalOrchards.doc)

### *Hedgerow<sup>18</sup>*

- 2.43 Hedgerow is any boundary line of trees or shrubs over 20m long and less than 5m wide, and where any gaps are less than 20m wide. It may include banks, walls, ditches, herbaceous vegetation, climbing plants or trees within 2m of the centre line. All hedgerows which comprises at least 80% woody native species are included.
- 2.44 The survey identified 1 hedgerow<sup>19</sup> which meets the description of the Habitat of Principal Importance.

### Protected Species

- 2.45 No assessment of the presence of protected species has been made during the production of this report. Features of possible interest that were observed incidentally during the tree survey are recorded in Appendix A.
- 2.46 Works to and around trees have the capacity to affect protected species where present, particularly including birds, bats, great crested newts, badgers, dormice, otters and water voles. Contractors should be familiar with the locations and sensitivities of any protected species that are present and take reasonable avoidance measures or comply with the requirements of any licence agreement in accordance with the advice of an ecologist.

### *Birds*

- 2.47 Intentional harm to a wild bird, egg, or a nest that is in use or being built is an offence<sup>20</sup>. Disturbance of certain wild birds that are building a nest, or are in, on or near a nest containing eggs or young, or disturbance of dependent young is also an offence<sup>21</sup>.
- 2.48 All trees are a potential habitat for nesting birds so tree work should ideally, but not essentially, be undertaken outside the bird nesting season. Between March and August, a detailed inspection of each tree should be undertaken by a qualified ecologist to confirm the absence of nesting birds immediately prior to works.
- 2.49 Some birds nest outside the core nesting season. If an active nest is found at any time of year, work likely to affect the nest must be halted until the nest becomes inactive. This will vary depending on the species of bird but is typically up to six weeks. The advice of an ecologist regarding the duration and size of a protection buffer around the nest should be sought.

### *Bats*

- 2.50 It is an offence to damage, destroy or obstruct access to any structure or place which is used for shelter or protection<sup>22</sup>, or breeding or resting<sup>23</sup> by a bat. Mature trees often contain cavities, splits and ivy, which may be attractive to bats.

---

<sup>18</sup> [http://jncc.defra.gov.uk/Docs/UKBAP\\_BAPHabitats-17-Hedgerows.doc](http://jncc.defra.gov.uk/Docs/UKBAP_BAPHabitats-17-Hedgerows.doc)

<sup>19</sup> See Appendix A

<sup>20</sup> Wildlife and Countryside Act 1981, 1 (1)

<sup>21</sup> Wildlife and Countryside Act 1981, 1 (5)

<sup>22</sup> Wildlife and Countryside Act 1981, 9 (4)

<sup>23</sup> The Conservation of Habitats and Species Regulations 2017, 43 (1)

- 2.51 Ecological Assessment (Reference: 5810.81.003) identified 2 trees as having potential for roosting bats. An ash tree (assumed to be T3 on Drawing 1) was assessed as having low potential and a beech tree (towards the centre of W1 but not identified individually on Drawing 2) was assessed as moderate potential due to the presence of a single large cavity on its trunk.
- 2.52 If the presence of a bat, or a roost or resting site is suspected whilst undertaking works on any trees, operations must be halted and the advice of appropriately licensed ecologist should be sought.
- 2.53 One elm tree in the east of Site 1 (in G12) was assessed as having Low suitability to support roosting bats. Although no obvious features such as cracks or crevices were observed, the tree is ivy clad and the ivy may be hiding features that could support roosting bats.
- 2.54 None of the trees on Site 2 two field maples to the east of the site (in G1) were assessed as having Low suitability to support roosting bats due to the presence of ivy which may hide features that could support roosting bats.

## 3.0 Effects

### Proposed development

- 3.1 The planning application is for outline planning permission with all matters reserved, for the erection of a hospital unit alongside associated landscaping and site vehicular access on Site 1 and the erection of a multi-storey car park with associated works on Site 2.
- 3.2 The proposed Illustrative Masterplans are reproduced at Drawings 3 and 4.

### Types of Effect

- 3.3 In simple terms, the effects on arboriculture comprises an account of which existing trees, groups of trees, hedgerow and woodland would not be retained within the proposed development; what significance they have; and whether adverse effects would or can be mitigated or offset.
- 3.4 This report supports an outline planning application. Tree removal and retention is a reserved matter and would not be determined by this application, except for tree removal that is necessary to facilitate detailed parts of the layout.
- 3.5 To reflect the varying levels of detail that are available for different aspects of the final development, this report describes two types of effect on arboriculture:
- (i) **Known effects** are those that can be described in detail now and would occur, pending the discharge of any pre-commencement conditions. Outline planning permission would determine them;
  - (ii) **Anticipated effects** are those that can be inferred from the preliminary design and type of development that is proposed, based on professional judgement and experience. It is reasonable to assume that similar effects would arise but the particulars would not be determined or secured by this application.

#### Known effects

- 3.6 The known effects are associated with detailed elements of the layout, and any tolerable changes to retained trees necessitated or caused by a change in context.
- 3.7 For this application the main site access to both sites would utilise the existing road and access points and there would therefore be no tree removal to facilitate their creation.

#### Anticipated effects

- 3.8 The anticipated effects are derived from the Indicative Masterplans, reproduced at Drawings 3 and 4, and professional judgement. If the sites were to be developed in broad accordance with the Indicative Masterplans the vast majority of tree cover could be retained.



- 3.9 On Site 1 it is likely that the isolated, low value cherry tree T27 would be removed to create an extended access road. The facing up of the outgrown hedges G7 and G9 may also be desirable in the context of the new building and therapies garden. The removal of the dead elms forming group G8 would be necessary and would create further space for new planting within the formal gardens. All high and moderate quality trees could be retained.
- 3.10 On Site 2, it is likely that the isolated, low value ash tree T1 would be removed to create adequate construction space and stand-off from the final structure. The removal of the dead elms forming group G2 would be desirable but is recommended in their current context irrespective of development. All remaining trees could be retained.
- 3.11 Mitigation and offsetting measures would not be determined in full by the current application, partly because the required scope cannot yet be established. However, it is reasonable to assume that an appropriate level of mitigation in the form of tree planting could be accommodated with the design. Where the detailed design can incorporate the majority of the existing trees and hedgerow, development is likely to result in an increase of both.
- 3.12 There are no anticipated effects on TPO trees or those within a Conservation Area.
- 3.13 There are no anticipated effects on Habitat of Principal Importance *Hedgerow*.
- 3.14 The anticipated effects of the proposed development on protected species and significance thereof is considered by the Ecological Assessment (Ref: 5810.81.003). Under the Indicative Masterplan all trees identified as having bat potential could be retained.

### Summary of effects

- 3.15 The following table gives a summary of the effects that would arise following the grant of outline planning consent. It assesses the effect on each of the receptors identified as being present on the site in Section 2.0.

*Table 3 Effects of the proposed development without mitigation*

Receptor	Known effects	Anticipated effects
Tree canopy cover	Neutral	Positive
Tree Preservation Order	Neutral	Neutral
Conservation Area	Neutral	Neutral
Ancient Woodland	Neutral	Neutral
Veteran Trees	Neutral	Neutral
Deciduous Woodland	Neutral	Neutral

Receptor	Known effects	Anticipated effects
Wood Pasture and Parkland	Neutral	Neutral
Traditional Orchard	Neutral	Neutral
Hedgerow	Neutral	Positive

3.16 The conclusions in the table above can be relied upon in respect of known effects.

3.17 Anticipated effects are a forecast and may change within the final scheme. They may assist the consenting authority in its understanding of the proposed development, and inform planning conditions.

### Policy compliance

#### Planning Policy

##### *Planning Policy Wales*

3.18 The removal of trees, without mitigation, constitutes an adverse effect that is likely to be regarded by consenting authorities as contrary to the overarching environmental objective to protect and enhance the natural environment and biodiversity.

3.19 The **known effects** of the development do not include any tree removal. The proposed development considers the wider benefits from natural capital and ecosystem services, including trees and woodland by minimising impacts and making provision for net gains.

3.20 There would be no **known effects** or **anticipated effects** on ancient woodland or veteran trees that are prejudicial to compliance with this aspect of national planning policy.

##### *Local Planning Policy*

3.21 It will be for the consenting authority to evaluate compliance with local planning authority. There are however, no **known effects** or **anticipated effects** that are prejudicial to compliance with local planning policy insofar as it relates to arboriculture.

## 4.0 Mitigation

### Tree Work

- 4.1 This section describes opportunities to mitigate or offset adverse effects described by the previous section. It summarises measures that are part of the proposed development and which are relied upon by this report, and measures that are not proposed but could be secured by planning condition or agreement. Conclusions are drawn regarding overall effects, and the requirements that should be imposed in order to secure the outcomes described.
- 4.2 Mitigation for **known effects** is not required in this instance as no adverse effects on trees will arise from detailed elements of the outline application.
- 4.3 Mitigation for **anticipated effects** is not required at this stage and cannot be estimated until the effects have been resolved.

### Proposed measures

- 4.4 The following measures are proposed and would be secured by a planning permission referencing and requiring compliance with this report:

#### Layout

- 4.5 The removal of trees in association with the detailed elements of the proposed layout would be observed by the developer and all appointed contractors; no tree removal would be permitted without further consent.
- 4.6 The Indicative Masterplan is a supporting document and is intended to establish broad layout principles. On this basis this application would establish that the majority of peripheral vegetation and that within established verges would not be affected by the development.

### Recommended measures

- 4.7 The following measures should be secured by planning condition or other agreement.

#### Layout

- 4.8 In areas that have not yet been detailed, the layout should seek to avoid or minimise all adverse effects that would not be determined by this application (including those described by this report as **anticipated effects**).

#### Arboricultural Impact Assessment

- 4.9 The effects of the detailed development layout on arboriculture should be assessed in an Arboricultural Impact Assessment. This should be produced in accordance with BS5837 and should describe the effects on a contemporary assessment of all aspects of the arboricultural baseline described in Section 2.0.
- 4.10 As a minimum, the Arboricultural Impact Assessment should include:
- (i) Tree Constraints Plans based on a topographical survey;

- (ii) Details of the proposed layout, including buried services, utilities, ground works and any other construction element that could affect trees;
- (iii) A Tree Works Plan clearly establishing which trees would be retained, removed or pruned. This should include the tree removal shown on Drawing 2;
- (iv) A specification for any pruning works that are proposed;
- (v) Details of any mitigation or offsetting measures that are relied upon by the assessment;
- (vi) Conclusions regarding net effects on arboriculture.

- 4.11 The Arboricultural Impact Assessment should be presented in the form of a report and drawings.

#### Arboricultural Method Statement

- 4.12 An Arboricultural Method Statement should be produced in accordance with BS5837. It should include:

- (i) A Tree Protection Plan showing trees that would be retained and the arrangement of temporary protection measures that would be installed prior to the commencement of development;
- (ii) A methodology for any special construction that is required to ensure the success of proposed tree retention;
- (iii) A detail for any temporary construction measures, products or construction methods that are specified; and
- (iv) Details of any proposed watching brief, monitoring or reporting.

#### Planting

- 4.13 A scheme of tree and hedgerow planting should be produced and implemented in response to the effects on existing trees and opportunities to augment tree and hedgerow.
- 4.14 Provision should be made for the maintenance of new planting in accordance with British Standard 8545:2014 Trees: from nursery to independence in the landscape - Recommendations, and replacement of failures for a period of at least 5 years.

#### **Conclusion**

- 4.15 Known effects and anticipated effects on arboriculture can be mitigated and/or offset in accordance with the recommendations of this report.
- 4.16 The anticipated effects described by this report can and should be minimised or avoided during detailed design and described by a future assessment.



## **APPENDIX A: Arboricultural Survey Data**



# APPENDIX A: Arboricultural Survey Data Sheets

Surveyor Jonathan Smith  
 Survey Date 16.04.20  
 Site Glan Clwyd Hospital, Bodelwyddan (Sites 1 & 2)  
 Drawing Ref D8166.01.001

*Italicised Feature Ref: Inspection of this feature was restricted*  
*Italicised Values: Feature value was estimated*

Ref	Species	Height	Canopy Ground Clearance	Stem Diameter (or range)	No. of stems/ individuals	Crown Spread North	Crown Spread South	Crown Spread East	Crown Spread West	Lowest Branch Height	Lowest Branch Direction	Maturity	Condition	Comments on form, condition, health and significant defects	Management recommendations in current context	BS 5837 Quality Category	Estimated Remaining Contribution
		(m)	(m)	(mm)	arising below 1.5m	(m)	(m)	(m)	(m)	(m)	(N,S,E,W)	Young, Middle Age, Mature	Good, Fair, Poor, Veteran			A,B,C,U (1,2,3)	Long, Medium, Short, Very Short
<b>Trees</b>																	
T1	Common ash	6.0	0.5	240	1	3.0	3.0	3.0	3.0	0.5	E	Middle Age	Good	Vigorous tree. No pruning history.		C ,1	Long
T2	Common ash	6.0	1.0	240	1	4.0	3.0	4.0	4.0	1.5	NE	Middle Age	Good	Vigorous tree rooted atop a 0.5m slab retaining wall. Part of a short row of amenity trees.		C ,1	Long
T3	Common ash	7.0	2.0	220	1	3.0	3.0	3.5	3.5	1.5	SW	Middle Age	Good	Vigorous tree rooted atop a 0.5m slab retaining wall. Part of a short row of amenity trees.		C ,1	Long
T4	Common ash	5.0	2.5	220	1	2.5	2.5	2.5	2.5	2.0	E	Middle Age	Good	Vigorous tree rooted atop a 0.5m slab retaining wall. Part of a short row of amenity trees.		C ,1	Long
T5	Crack willow	11.0	2.5	569	10	5.0	4.5	3.5	3.5	2.5	SW	Middle Age	Fair	Basally multi-stemmed typical for species. Small branch failures throughout crown.		C ,1	Long
T6	Wild cherry	4.0	1.5	120	1	2.0	1.0	1.5	0.5	1.5	NE	Middle Age	Fair	Ornamental planting on grass mound. Slightly suppressed form due to adjacent willow.		C ,1	Long
T7	Wild cherry	4.0	2.5	120	1	2.0	2.0	2.0	2.0	2.0	SW	Middle Age	Good	Ornamental planting on grass mound. Good form and balanced crown.		C ,1	Long
T8	Wild cherry	4.0	0.5	71	3	2.0	2.0	3.0	2.0	0.5	E	Middle Age	Fair	Ornamental planting on grass mound. Multi-stemmed from base.		C ,1	Long
T9	Wild cherry	4.0	1.0	112	3	3.0	3.0	3.0	2.5	1.0	N	Middle Age	Fair	Ornamental planting on grass mound. Slightly congested central Crown.		C ,1	Long
T10	Common hawthorn	2.0	1.0	60	1	1.0	1.0	1.0	1.0	1.0	N	Middle Age	Fair	Ornamental planting on grass verge with support stake still in place. Stake tie is beginning to girdle the main stem.	Remove stake and tie.	C ,1	Medium
T11	Common hawthorn	4.0	0.5	113	8	2.0	2.5	2.5	2.5	20.5	SW	Middle Age	Good	Ornamental planting on grass verge. Good form and balanced crown.		C ,1	Long
T12	Small-leaved lime	4.0	1.0	180	1	2.5	1.0	2.5	2.0	1.0	NW	Middle Age	Fair	Ornamental planting in grass verge. Suppressed by adjacent cherry with stem lean north-East.		C ,1	Long
T13	Common hawthorn	6.0	1.5	250	1	3.5	2.5	3.0	3.0	2.0	N	Mature	Fair	Ornamental planting in grass verge. Previously unsympathetically reduced to 3m but with a reasonably rounded secondary crown.		C ,1	Medium
T14	Rowan	1.0	0.2	50	2	1.0	0.5	1.0	0.5	0.2	N	Young	Fair	Basally twin-stemmed with stem lean and canopy bias to the north-East.		C ,1	Long
T15	Rowan	1.0	0.2	30	1	1.0	0.5	0.5	0.5	0.2	N	Young	Poor	Basal decay due to repeated strimmer damage. Snapped central leader.		U	Very Short
T16	Wild cherry	8.0	1.0	470	1	6.0	5.0	5.0	6.0	1.5	N	Mature	Good	One of several mature cherry trees surrounding the main hospital entrance and internal road junction. Multi-stemmed at 1.5m but with Good overall form.		B ,1	Medium
T17	Whitebeam	4.0	1.5	190	1	2.0	2.0	2.0	2.0	1.5	W	Middle Age	Fair	Reasonable overall form. Flush cuts on main stem and minor basal strimmer damage.		C ,1	Long
T18	Whitebeam	4.0	1.5	210	1	2.5	2.0	2.5	2.5	1.5	SW	Middle Age	Fair	Reasonable overall form. Flush cuts on main stem and minor basal strimmer damage.		C ,1	Long
T19	Rowan	1.0	0.4	36	2	1.0	0.5	0.5	0.5	0.2	N	Young	Fair	Tight twin-stemmed union at ground level. Basal decay from repeated strimmer damage.		C ,1	Short
T20	Rowan	1.0	0.5	35	3	0.5	0.5	0.5	0.5	0.5	W	Young	Fair	Basal decay from repeated strimmer damage.		C ,1	Short
T21	Wild cherry	5.0	1.5	318	3	2.5	2.5	3.0	3.0	1.0	E	Mature	Fair	Unsympathetically reduced to 2m in the past, now with a reasonably rounded secondary crown. Large crossing branch in Central Crown.		C ,1	Medium
T27	Cherry species	3.0	1.5	40	1	0.5	0.5	0.5	0.5	1.5	N	Young	Fair	Ornamental planting in car park verge. Minor tip dieback in upper crown.		C ,1	Long
T28	Pedunculate oak	7.0	1.5	240	1	3.0	3.0	3.0	2.5	1.5	S	Middle Age	Fair	Small individual tree within out-grown hedgerow. Growing on western side on field margin. Doesn't overhang the application site beyond the hedgerow.		C ,1	Long
T29	Pedunculate oak	12.0	2.0	700	1	6.0	5.0	7.0	5.0	2.0	W	Mature	Fair	Inspected from afar due to access restrictions and dense vegetation. Some branch tip dieback and previous branch failures evident. One of the older trees in the area.		B ,1, 3	Long
T30	Pedunculate oak	15.0	4.0	850	1	7.0	6.0	7.0	5.0	4.5	NW	Mature	Good	Inspected from afar due to access restrictions and dense vegetation. Stem also obscured by dense ivy growth. Attractive crown shape. High canopy due to lifting over adjacent private garden.		A ,1	Long
T31	Common ash	13.0	3.0	600	1	3.0	2.0	3.0	2.5	3.0	N	Mature	Poor	Inspection undertaken from afar due to access and dense vegetation. Severe decline and stag-headed form. Live growth visible in lower Central canopy but likely to be reactive shoot growth.	Reduce height by half to prevent deadwood failure into adjacent private gardens.	U	Very Short



## APPENDIX A: Arboricultural Survey Data Sheets

Surveyor Jonathan Smith  
 Survey Date 16.04.20  
 Site Glan Clwyd Hospital, Bodelwyddan (Sites 1 & 2)  
 Drawing Ref D8166.01.001

*Italicised Feature Ref: Inspection of this feature was restricted*  
*Italicised Values: Feature value was estimated*

Ref	Species	Height	Canopy Ground Clearance	Stem Diameter (or range)	No. of stems/ individuals	Crown Spread North	Crown Spread South	Crown Spread East	Crown Spread West	Lowest Branch Height	Lowest Branch Direction	Maturity	Condition	Comments on form, condition, health and significant defects	Management recommendations in current context	BS 5837 Quality Category	Estimated Remaining Contribution
		(m)	(m)	(mm)	arising below 1.5m	(m)	(m)	(m)	(m)	(m)	(N,S,E,W)	Young, Middle Age, Mature	Good, Fair, Poor, Veteran			A,B,C,U (1,2,3)	Long, Medium, Short, Very Short
T32	Pedunculate oak	12.0	2.0	600	1	4.0	4.0	5.0	4.0	2.0	N	Mature	Fair	Inspection restricted to afar due to dense vegetation, barely visible. Stag-headed Central leader but vigorous lower crown.		B ,1	Medium
T33	Pedunculate oak	12.0	2.5	600	1	4.0	4.0	4.0	5.0	2.5	E	Mature	Fair	Inspection restricted to afar due to dense vegetation. Minor dead wood but no significant visible defects.		B ,1	Medium
<b>Groups</b>																	
G1	Field maple	5 to 6	1.0	70 to 140	9							Middle Age	Fair	Dense cluster of trees with upright habit. Light ivy on lower stems.		C ,1	Long
G2	Field elm	5 to 6	1.0	90 to 240	2							Middle Age	Dead	Standing dead.	Remove due to proximity to road.	U	Very Short
G3	Field maple	5 to 6.5	1.0	70 to 120	8							Middle Age	Fair	Dense cluster of trees with upright habit. Ornamental shrub understorey.		C ,1	Long
G7	Blackthorn, Common ash, Common hawthorn, Dog rose	3 to 5	0.0	30 to 70	150							Middle Age	Good	Out-grown hedge now managed on the sides only and developing into thickets at both ends.		C ,2	Long
G8	Field elm	5 to 7	1.0	60 to 120	12							Middle Age	Dead	All trees standing dead.	Remove due to proximity to private garden.	U	Very Short
G9	Blackthorn, Common hawthorn, Dog rose	2 to 6	0.0	60 to 100	100							Middle Age	Good	Out-grown hedge forming dense thickets in places. Impenetrable.		C ,2	Long
G10	Blackthorn, Common hawthorn, Grey willow	1.5 to 6	0.0	50 to 150	50							Middle Age	Good	Very dense growth around a pond, now impenetrable. Bramble growth throughout.		C ,2	Long
G11	Field elm	3.5 to 9	1.0	50 to 300	15							Mixed Age	Dead	All trees standing dead.	Remove due to proximity to car park and building.	U	Very Short
G12	Field elm	5 to 8	1.5	70 to 200	8							Middle Age	Fair	Currently in good health but likely to succumb to Dutch Elms Disease in next few years. Hawthorn and blackthorn understorey.		C ,2	Short
G13	Cherry plum, Elder, Grey willow	5 to 6	1.0	350 to 500	3							Middle Age to Mature	Good	Three multi-stemmed individuals forming a single sinuous canopy. Ivy clad boles.		B ,1, 2	Medium
<b>Hedges</b>																	
H1	Common hawthorn	1 to 2		n/a	n/a							Middle Age	Good	Well maintained hedge adjacent to car park and drainage ditch. Several small gaps towards the northern end.		n/a	Long

## **APPENDIX B: Survey Method**

## APPENDIX B: Survey Method

---

The survey of trees is conducted from ground level only. The nature of the soils on site is not assessed.

Trees are dynamic living organisms with a constantly changing structure; even trees in good condition can suffer from damage or stress. The information recorded is presented as being correct at the time of survey.

The following features of each tree, group of trees or wood may have been recorded in the Arboricultural Survey Data Sheets at Appendix 1.

<b>Species</b>	The common name is given. The Latin name may also be given if further clarification is required.	
<b>Height</b>	Top height of tree recorded in metres.	
<b>Stem Diameter</b>	For single-stemmed trees the measurement is taken at 1.5 metres above ground level and recorded in millimetres. For multi-stemmed trees an average all stems measured at 1.5m above ground level is used. For tree groups a range from minimum to maximum diameters is provided based on measurements taken using one of the aforementioned methods.	
<b>No. of Stems</b>	A count of stems arising below a height of 1.5 metres.	
<b>Crown Spread</b>	The N, S, E and W branch spreads are recorded in metres to provide a representative crown shape.	
<b>Height of Lowest Branch</b>	Crown clearance above ground level recorded in metres.	
<b>Direction of Lowest Branch</b>	The direction of growth of the first significant branch from the point of attachment.	
<b>Maturity</b>	<b>Young</b>	Trees that can reasonably be relocated or replaced like for like, without undue cost;
	<b>Middle Age</b>	Trees in the established growth stage of their life with the potential to continue increasing in size;
	<b>Mature</b>	Trees that have reached their ultimate size, given their location and surroundings;
<b>Condition</b>	<b>Good, Fair, Poor.</b> An overall assessment of a tree's physiological and structural state in which factors that may increase its susceptibility to the effects of development are taken into account.  <b>Veteran.</b> Trees that are in such a condition as to significantly increase their biological, cultural or aesthetic value. This is characteristic of, but not exclusive to, individuals surviving beyond the typical age range for the species concerned.	
<b>Comments</b>	A brief evaluation and description of the tree with comments on form, vitality, health and any significant defects or symptoms of ill-health.	

### BS 5837 Tree Quality Assessment

The tree quality assessment is based on Table 1 of BS 5837:2012 (See below). Four categories (A, B, C and U) are used to denote tree quality (A= High, B = Moderate, C = Low, U= Unsuitable for retention). Subcategories (1-3) denote the specific function value of the trees and the reasoning behind the allocation of a specific category (the subcategories may be used in combination but do not accumulate collective weight).

### Root Protection Area (RPA)

The RPA is allocated to ensure that a sufficient area is left undisturbed during development. It is provided as an area (m<sup>2</sup>) and as the radius of a circle (m) typically plotted from the centre of the stem.

The RPA is calculated using a mathematical equation included in BS 5837:2012 (Section 4.6 and Table D.1) and is based on a tree's stem diameter. In some cases the RPA may need to be adapted to best reflect the likely area and position of roots required to ensure survival; this may be based on criteria such as the tree's condition, species, crown spread and any barriers to growth. Any alteration must be justifiable but is made at the Arboricultural Consultants discretion.

### Recommendations

Recommendations for arboricultural works, etc. are based on the **current** land use, and take into account the tree or group attributes without bias to the proposed development.

### Estimated Remaining Contribution

An estimation of the life expectancy as healthy functioning tree. This will be influenced by species and the condition of the tree at the time of survey.

<b>Long</b>	> 40 years
<b>Medium</b>	20 – 40 years
<b>Short</b>	less than 20 years



## APPENDIX B: Survey Method

Table 1 Cascade chart for tree quality assessment

Category and definition	Criteria (including subcategories where appropriate)			Identification on plan
Trees unsuitable for retention (see Note)				
<b>Category U</b> Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years	<ul style="list-style-type: none"><li>Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other category U trees (e.g. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning)</li><li>Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline</li><li>Trees infected with pathogens of significance to the health and/or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality</li></ul> <p><i>NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve; see 4.5.7.</i></p>			See Table 2
	1 Mainly arboricultural qualities	2 Mainly landscape qualities	3 Mainly cultural values, including conservation	
Trees to be considered for retention				
<b>Category A</b> Trees of high quality with an estimated remaining life expectancy of at least 40 years	Trees that are particularly good examples of their species, especially if rare or unusual; or those that are essential components of groups or formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue)	Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)	See Table 2
<b>Category B</b> Trees of moderate quality with an estimated remaining life expectancy of at least 20 years	Trees that might be included in category A, but are downgraded because of impaired condition (e.g. presence of significant though remediable defects, including unsympathetic past management and storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation	Trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality	Trees with material conservation or other cultural value	See Table 2
<b>Category C</b> Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories	Trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value; and/or trees offering low or only temporary/transient landscape benefits	Trees with no material conservation or other cultural value	See Table 2

**British Standards Institute (2012) BS5837:2012 Trees in relation to design, demolition and construction – Recommendations.**  
p.9

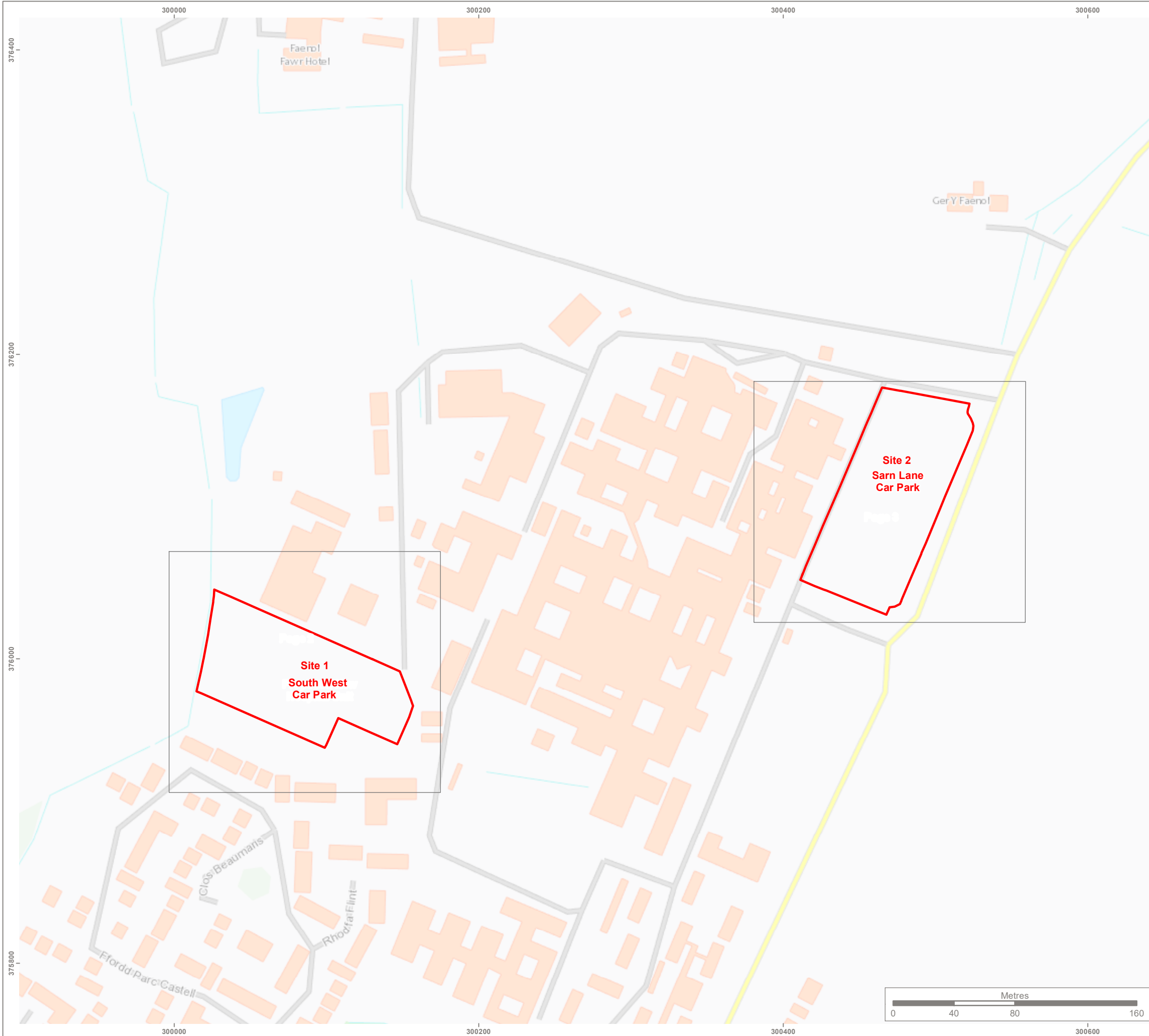
### NOTES:

All young trees are assessed as quality category 'C' but this does not preclude their retention within a development.

For hedges the height, canopy spread and number of stems is recorded but they are not assigned a quality category.

## **DRAWINGS**

- Drawing 1 - Site Location Plan**
- Drawing 2 - Tree Constraints Plans (2 sheets)**
- Drawing 3 - Illustrative Masterplan Site 1**
- Drawing 4 - Illustrative Masterplan Site 2**



**KEY**

Site boundary

Reproduced by permission of Ordnance Survey on behalf of Her Majesty's Stationery Office.

Contains OS data © Crown Copyright and database right 2020. All rights reserved. Reproduced from Ordnance Survey digital map data © Crown copyright 2020. All rights reserved. Licence number 0100031673

**Site Map**

The inset map shows a larger area including locations like 'n-Y-Marf', 'Terfyn House', 'White edge', 'St Margaret's Row', 'Bodelwyddan House', 'Ger Y Faerol', 'Sarn Lodge', 'Brlyn-Carrag Farm', and 'Peng Naf'. A black rectangle on the inset map indicates the area covered by the main map. The scale is 1:30,000.

Rev	Description	Drawn	Approved	Date

**THE ENVIRONMENT PARTNERSHIP**

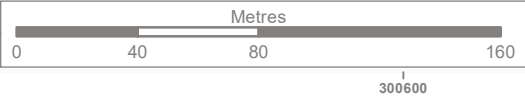
Genesis Centre, Birchwood Science Park, Warrington WA3 7BH  
 Tel 01925 844004 e-mail [tep@tep.uk.com](mailto:tep@tep.uk.com) www.[tep.uk.com](http://tep.uk.com)

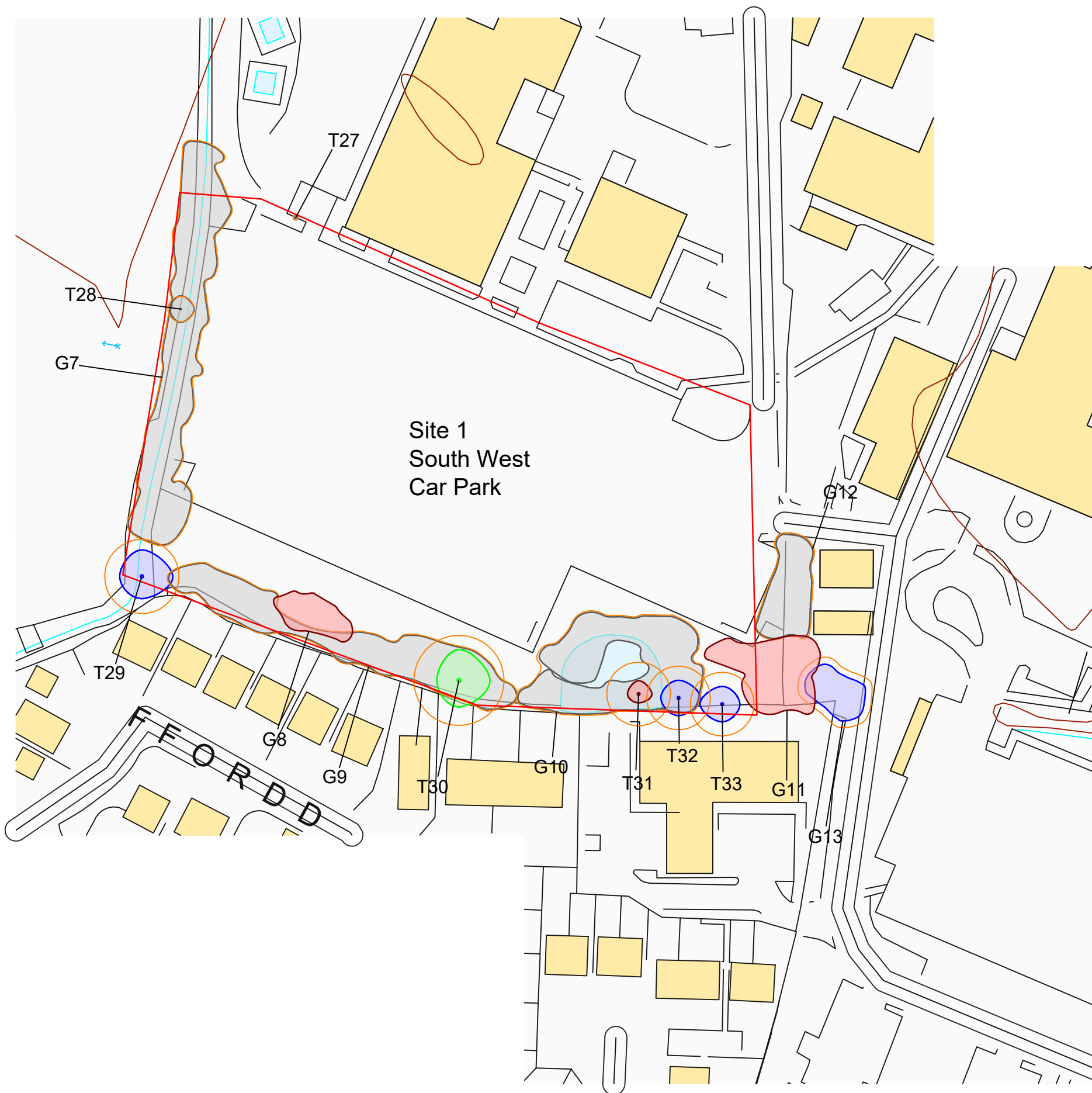
Project  
**Glan Clwyd Hospital, Bodelwydda**

Title  
**Site Location Plan**

Drawing Number  
**D8166.01.001**

Drawn	Checked	Approved	Scale	Date
CW	MK	JGS	1:2,500 @ A3	01/07/2020





# KEY

[This drawing must be reproduced in colour]

- T1/G1/W1 Existing trees
- Root Protection Area (RPA)
- Survey Boundary

## Tree Quality Categorisation

(Based on BS 5837:2012 Trees in relation to design, demolition and construction - Recommendations)

- Category A (High quality)
- Category B (Moderate quality)
- Category C (Low quality)
- Category U (Unsuitable for retention)

## NOTES:

This drawing should be read in conjunction with the respective Arboricultural Survey Data (Appendix A).

All tree locations have been plotted using aerial photography and should be regarded as approximate.



Reproduced by permission of Ordnance Survey on behalf of Her Majesty's Stationery Office.

Contains OS data © Crown Copyright and database right 2020. All rights reserved. Reproduced from Ordnance Survey digital map data © Crown copyright 2020. All rights reserved. Licence number 0100031673

Rev	Description	Drawn	Approved	Date
-----	-------------	-------	----------	------



THE ENVIRONMENT PARTNERSHIP

Genesis Centre, Birchwood Science Park, Warrington WA3 7BH  
Tel 01925 844004 e-mail [tep@tep.uk.com](mailto:tep@tep.uk.com) [www.tep.uk.com](http://www.tep.uk.com)

Project  
Glan Clwyd Hospital, Bodelwyddan

Title  
Drawing 2: Tree Constraints Plan - Site 1  
Sheet 1 of 2

Drawing Number  
D8166.01.002.1

Drawn	Checked	Approved	Scale	Date
JGS	RMG	TDP	1:1,000 @ A3	06/05/2020



KEY

[This drawing must be reproduced in colour]

- T1/G1/W1 Existing trees
- H1 Existing hedgerow
- Root Protection Area (RPA)
- Survey Boundary

Tree Quality Categorisation  
(Based on BS 5837:2012 Trees in relation to design, demolition and construction - Recommendations)

- Category A (High quality)
- Category B (Moderate quality)
- Category C (Low quality)
- Category U (Unsuitable for retention)
- Hedgerow (Not categorised)

NOTES:  
This drawing should be read in conjunction with the respective Arboricultural Survey Data (Appendix A).  
All tree locations have been plotted using aerial photography and should be regarded as approximate.

Reproduced by permission of Ordnance Survey on behalf of Her Majesty's Stationery Office.  
Contains OS data © Crown Copyright and database right 2020. All rights reserved.  
Reproduced from Ordnance Survey digital map data © Crown copyright 2020. All rights reserved. Licence number 0100031673

Rev	Description	Drawn	Approved	Date
-----	-------------	-------	----------	------



Genesis Centre, Birchwood Science Park, Warrington WA3 7BH  
Tel 01925 844004 e-mail tep@tep.uk.com www.tep.uk.com

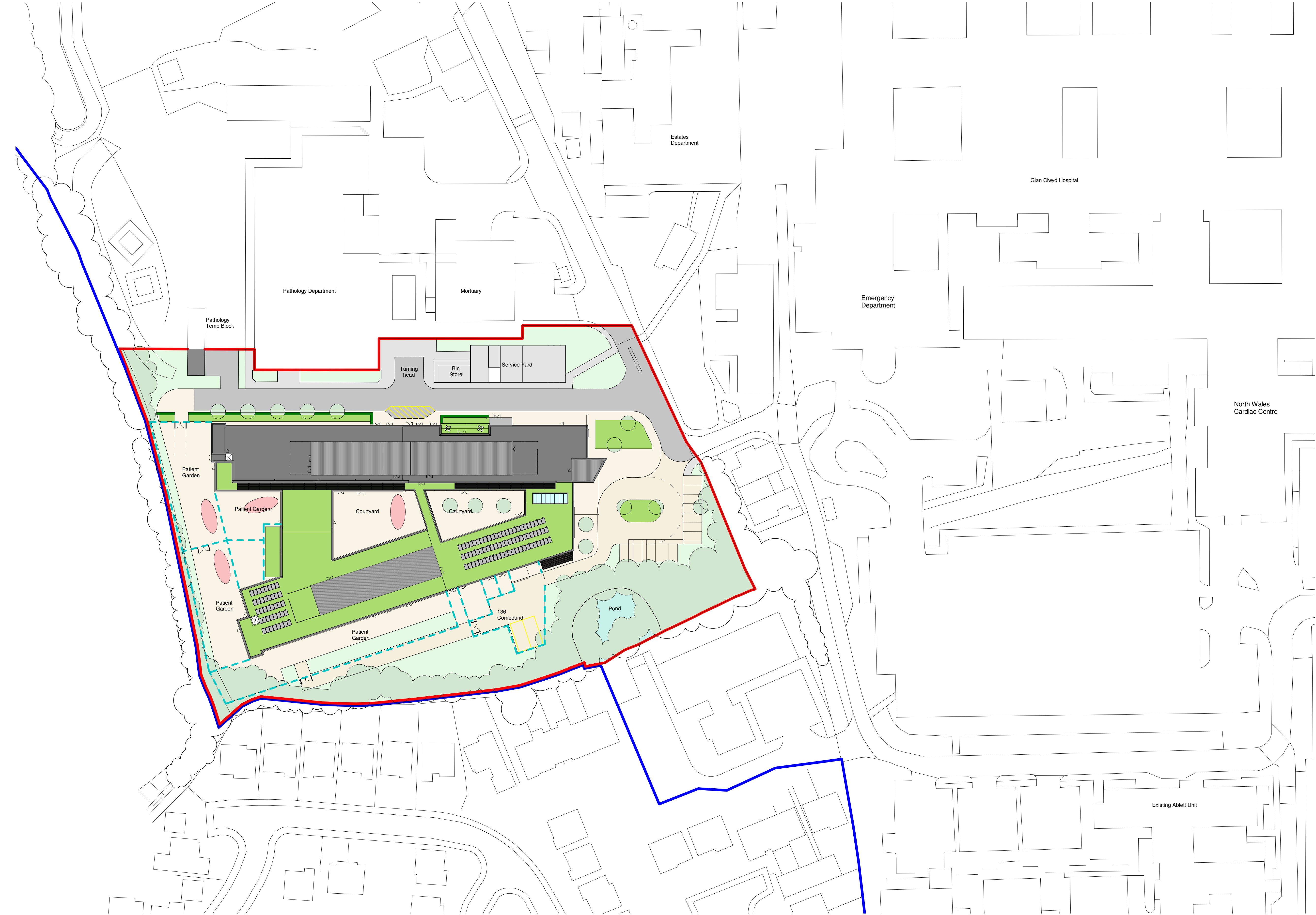
Project  
Glan Clwyd Hospital, Bodelwyddan

Title  
Drawing 2: Tree Constraints Plan - Site 2  
Sheet 2 of 2

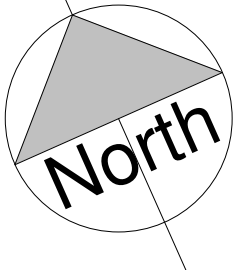
Drawing Number  
D8166.01.003.2

Drawn	Checked	Approved	Scale	Date
JGS	RMG	TDP	1:1,000 @ A3	06/05/2020





Fence Key  
--- Weldmesh Fence



1 00 Site Plan  
1 : 500

This drawing must not be scaled.  
Figured dimensions and levels to be used.  
Any inaccuracies must be notified to the architect.  
Detail drawings and large scale drawings take  
precedence over smaller drawings.

Rev:  
P01 Drawing updated to reflect revised layout

06.08.20 Chk'd:

A1

THIS DRAWINGS IS COPYRIGHT ©



Designed for *Life*: Building for *Wales*  
Cynllun *Oes*: Adeiladu Ar Gyfer *Cymru*

STATUS  
S0 - Initial Status / WIP

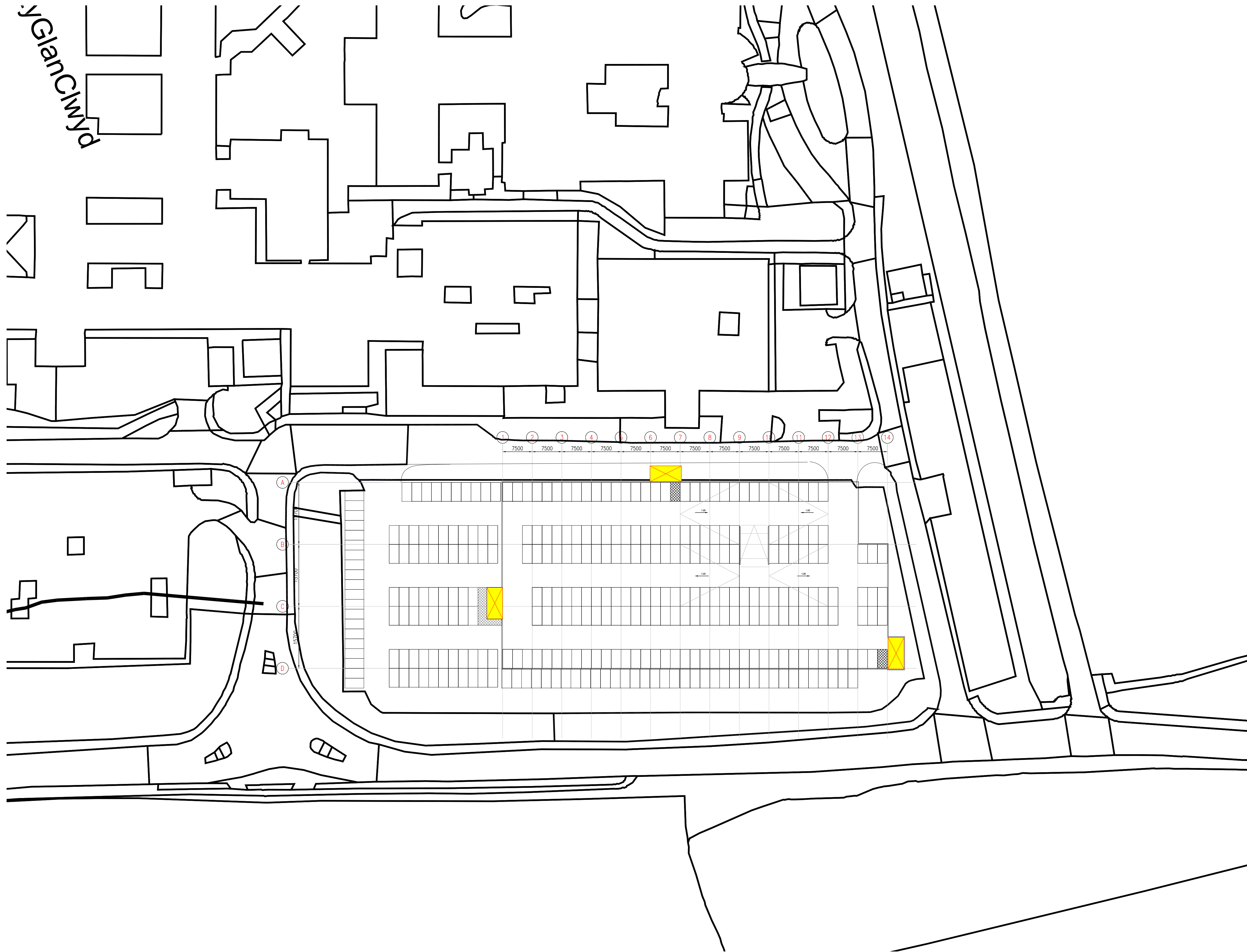
powelldobson  
ARCHITECTS

Cardiff, Swansea, London t +44 (0)33 33 201 001 www.powelldobson.com @PDArchitects

Contract: Betsi Cadwaladr University Health Board  
Ablett Redevelopment, Ysbyty Glan Clwyd  
Title: Proposed Site Plan

PDA Job No: 19095	REV P01
ABL - PDA - ZZ - ZZ-DR - A - - 05112	
UPRN ORIGINATOR VOLUME LEVEL TYPE ROLE CLASS NUMBER	

Scale: As indicated  
Date: 09/07/20  
Drawn: AH  
Checked: RD



PLAN 1:500

SCC DESIGN BUILD LIMITED  
KENWOOD ROAD  
REDDISH, STOCKPORT  
CHESHIRE  
SK5 6PH  
0161 432 7700  
E: REDDISH@SCCDBLTD.CO.UK  
W: WWW.SCCDBLTD.CO.UK

**SCC**  
DESIGN BUILD

GLAN CLWYD HOSPITAL  
2 DECK CAR PARK  
GROUND FLOOR LAYOUT  
SCCDB-MSCP-SK001  
SCALE: 1:500@A1 DATE: 12AUG 20  
REV: 001



---

**HEAD OFFICE**

Genesis Centre,  
Birchwood Science Park,  
Warrington  
WA3 7BH

Tel: 01925 844004  
E-mail: [tep@tep.uk.com](mailto:tep@tep.uk.com)

**MARKET  
HARBOROUGH**

Harborough Innovation  
Centre,  
Airfield Business Park,  
Leicester Road,  
Market Harborough  
Leicestershire  
LE16 7WB

Tel: 01858 383120  
E-mail: [mh@tep.uk.com](mailto:mh@tep.uk.com)

**GATESHEAD**

Office 26, Gateshead  
International Business  
Centre,  
Mulgrave Terrace,  
Gateshead  
NE8 1AN

Tel: 0191 605 3340  
E-mail: [gateshead@tep.uk.com](mailto:gateshead@tep.uk.com)

**LONDON**

8 Trinity Street,  
London,  
SE1 1DB

Tel: 020 3096 6050  
E-mail: [london@tep.uk.com](mailto:london@tep.uk.com)

**CORNWALL**

4 Park Noweth,  
Churchtown,  
Cury,  
Helston  
Cornwall  
TR12 7BW

Tel: 01326 240081  
E-mail: [cornwall@tep.uk.com](mailto:cornwall@tep.uk.com)

---