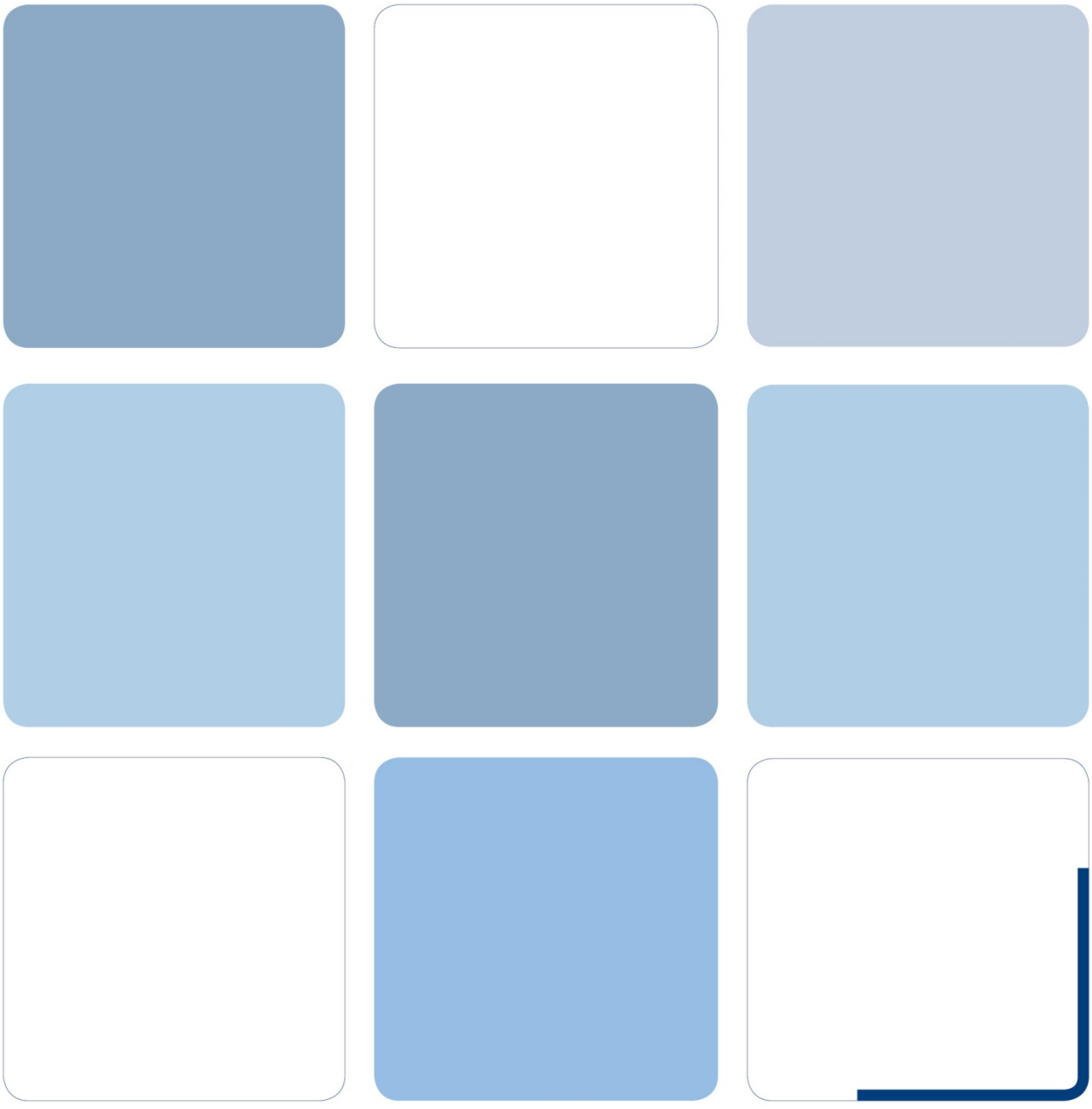
Former St. Cyres School Site, Dinas Powys

Arboricultural Impact Assessment



3rd August 2017

Our Ref: JSL2735_775B

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QUALITY MANAGEMENT

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Status:	**For Planning**

CONTENTS

1 INTRODUCTION

1.1 This Arboricultural Impact Assessment report was commissioned by Barratt Homes in respect development proposals in the grounds of the former St Cyres School and an area of additional land adjacent to the old school. The site is located in Dinas Powys, Penarth in the Vale of Glamorgan.

1.2 The scheme consists of the redevelopment of the Former St Cyres Lower School for a mixed-use development comprising residential, community/recreational uses with associated landscaping and infrastructure.

1.3 A series of tree surveys of the site were carried out by RPS at the end of January 2017, in accordance with the requirements set out in BS5837: 2012 'Trees in relation to design, demolition and construction – Recommendations'[1]. This Arboricultural Impact Assessment utilises the findings of these surveys.

1.4 The purpose of this report is to:

- Assess the landscape and visual amenity value of the existing trees and to identify the constraints associated with the trees prior to any potential redevelopment of the site. An assessment of the quality of the trees has been made, with reference to the categories and sub-categories listed within Table 1 - BS5837:2012[1].
- Provide additional arboricultural information and advice in relation to the protection of trees throughout the development of the site.
- Provide a Tree Removal Plan to detail the proposed protective measures to be taken in respect of the trees during development of the site.

1.5 The Tree Protection Plans JSL2735_710 and 711 identify the following:

- Trees to be retained;
- Trees requiring removal;
- Alignment and design of protective fence;
- Root Protection Area (RPA) of trees;
- Methods of construction / implementation within RPA of retained existing trees

1.6 This report was authorised by Chris Chambers, a Chartered Forester, Chartered Landscape Architect and Senior Arborist of RPS group.

2 SUMMARY OF TREE SURVEY FINDINGS

2.1 A tree survey of the application site was carried out by RPS in accordance with the requirements set out in BS5837: 2012 'Trees in relation to design, demolition and construction – Recommendations[1].

Methodology

2.2 The tree survey involved a visual inspection from the ground of individual specimens and groups of trees in order to record their amenity value, management recommendations and dimensions. Where observed, the general condition of the trees has been noted.

2.3 Trees were not climbed or inspected below ground level and inaccessible trees will have best estimates made about the location, physical dimensions and characteristics.

2.4 Tree characteristics recorded during survey are detailed in the tables in table 2 of this document.

2.5 The locations of the trees were based upon topographic survey produced by Zenith Land Surveys Limited in Nantgarw, December 2016.

Site Description

2.6 The site comprises the grounds of the former St Cyres School and an area of additional land adjacent to the old school. The survey site is located in Dinas Powys, Penarth in the Vale of Glamorgan roughly 5 miles south west of central Cardiff and lying on the north shore of the Severn Estuary at the southern end of Cardiff Bay. The survey site is centred on OS grid reference ST163707. Access is to the east of the site via Murch Road and the nearest postcode is CF64 4RE.

2.7 The survey site comprises the remnant footprint of the demolished school and a large rectangular area of semi- improved grassland formerly the school playing fields. To the west of the sports fields a series of smaller rectangular grassed areas are enclosed by trees and vegetation.

2.8 To the north and the further west the land is the residential housing of Dinas Powys. The southern boundary is formed by treed areas and hedgerows borders, beyond which further trees, woodland and semi- improved grass pasture are located.

2.9 The soil-scape of the area typically consists of 'Non-alluvial clayey soils that crack deeply in dry seasons, but are slowly permeable when wet. They have a coarse blocky or prismatic structure and no prominently mottled non-calcareous subsurface horizons within 40 cm depth'[2].

Surveyed trees

2.10 There were a large number of pedunculate oaks that were identified as category 'A' of the BS5837: 2012 tree grading criteria. These were located throughout the site with concentrations to the peripheries of the site and within the tree belts bounding the grass areas

2.11 The survey identified numerous fine field maple and ash of high amenity value which with other native species, holly, cherry, birch, alder, hawthorn and blackthorn that complimented the climax oak canopy character of the site.

2.12 The tree cover was predominantly native but a number of ornamental trees were identified. The surveyed Corsican Pine stand provides evergreen interest and at a great height is visible from some distance.

2.13 There were some trees such as the large poplar to the north of the and certain willows where structural faults were noted; however, these trees still provide good amenity to the site and it is reasonable to assume they will continue to do so for a number of years, if undisturbed.

2.14 Generally trees were in good structural condition however a number of the larger mature trees display typical structural defects – inner rot, altered wood, poorly attached limbs deadwood and decay. Consideration should be given to routine monitoring of the structural condition of these trees particularly within the context of increased pedestrian traffic associated with the re-development of the site. Should a decline in condition be noted remedial tree surgery works should be undertaken as a matter of urgency.

2.15 Poplar species were identified northern part of the site can also be particularly problematic to incorporate into re-development proposals. They have vigorous and expansive root systems that often stretch out from the tree to considerable distances. Furthermore, when the roots become damaged they often produce vigorous suckers.

2.16 The vegetation bounding the demolished footprint of the former school of consists of smaller ornamental trees and trees in mixed condition. These were likely planted to relate to layout of the school grounds and in the context of possible redevelopment are of limited value.

Limitations

2.17 The findings of this survey are not valid following adverse or unpredictable weather conditions or for any failure due to ‘force majeure’ or unpredictable events.

2.18 Trees were not climbed or inspected below ground level and inaccessible trees will have best estimates made about the location, physical dimensions and characteristics.

2.19 Trees and woody vegetation were not assessed for their potential impact upon future construction issues such as foundation designs (r.e.: NHBC chapter 4.2[3]). Whilst this report may assist in assessing likely future impacts, it should not be classed as a comprehensive vegetation survey in relation to impact upon future designs.

Root Protection Areas

2.20 The RPA for single stem trees broadly equates to a radius 12 times the stem diameter of the tree at 1.5m above ground level or the extent of canopy spread, whichever is the greater. For multi-stemmed, low branching trees or those with trunks with an irregular girth the point of stem diameter measurement is adjusted in consideration of these factors and in accordance with the illustrations in BS5837:2012 (Annex C).

2.21 The Root Protection Areas (RPA) have been plotted onto the Tree Survey Plan as circles, with the tree located centrally, extending to encompass the area of ground, and thus the rootable soil volume, required for protection.

2.22 The survey may identify trees where constraints to root development were noted and this could comprise hardstanding, built form, terrain or other features. It is likely that these constraints have

inhibited the growth and morphology of the roots. However, as a detailed investigation of the rhizosphere is beyond the scope of this survey the rootable soil volume area will be calculated in accordance with BS5837 and plotted as a circle.

3 ARBORICULTURAL IMPACT ASSESSMENT

Introduction

3.1 Trees have finite energy reserves, developed each year throughout the growing season, which are utilised for biological processes such as growth and defence against pests or diseases throughout the following year.

3.2 Any development in proximity to trees has the potential to cause harm to those trees unless control measures are identified and acted upon; as such it is essential to consider the relationship between the proposed development and the retained trees to identify what precautions are necessary, proportionate and appropriate.

3.3 Damage that is not immediately evident but which can cause long term harm to retained trees includes things such as damage to the soil structure by compaction causing root damage and levels changes altering the water table and affecting moisture availability.

3.4 To minimise the potential for harm to occur to retained trees all works must be carried out with regard to the Tree Protection measures detailed within this report.

3.5 In general it can be seen that, by adopting appropriate methods of working, precautionary and protective measures, significant harm to retained trees can be avoided.

3.6 In particular the establishment of a Construction Exclusion Zone (CEZ) by erection of Tree Protection Fencing will minimise the potential for harm to occur to retained trees.

Brief Description of Proposed Development

3.7 The redevelopment proposal for the site comprises a mixed unit housing development, related infrastructure and facilities.

Statutory Tree Protection

3.8 The Vale of Glamorgan Council confirmed by email (21-03-2017) that there is a Tree Preservation Orders closely bounding the site to the west and a treed area on the northern tip of the survey site covered under a Tree Preservation Order. The site is *not* within a Conservation Area. The Tree Preservation Orders are shown on the Tree Protection Plans in appendix 1 of this report.

3.9 Under the UK planning system, local authorities have a statutory duty to consider the protection and planting of trees when granting planning permission for proposed development. The potential effect of development on trees, whether statutorily protected (e.g. by a tree preservation order or by their inclusion within a conservation area) or not, is a material consideration that is taken into account in dealing with planning applications.

3.10 Trees can offer many benefits, including the provision of visual amenity, softening or complementing the effect of the built environment, and adding maturity to new developments by making places more comfortable in tangible ways e.g. contributing screening and shade, reducing wind speed and turbulence, intercepting snow and rainfall, and reducing glare.

3.11 Particular care is needed regarding the retention of large, mature trees which become enclosed within the new development. Where such trees are retained, adequate space should be allowed for their long-term physical retention and future maintenance. The majority of trees on this site were located at the borders, however consideration should still be given to their RPAs during the design phase, see below.

3.12 Under the UK planning system, local authorities have a statutory duty to consider the protection and planting of trees when granting planning permission for proposed development. The potential effect of development of trees, whether statutorily protected (e.g. by a tree preservation order or by their inclusion within a conservation area) or not, is a material consideration that is taken into account in dealing with planning applications.

3.13 Trees can offer many benefits, including the provision of visual amenity, softening or complementing the effect of the built environment, and adding maturity to new developments by making places more comfortable in tangible ways by contributing screening and shade, reducing wind speed and turbulence, intercepting snow and rainfall, and reducing glare.

3.14 Particular care is needed regarding the retention of mature trees which become enclosed within the new development. Where such trees are retained, adequate space should be allowed for their long-term physical retention and future maintenance.

Tree Removal

3.15 The realisation of the development will require the removal of a single category ‘A’ tree, thirteen category ‘B’ trees, 25 category ‘C’ and two ‘U’. Four category ‘B’ trees groups, two partial groups and eight category ‘C’ groups, six partial will be removed.

3.16 The attached Tree Protection Plans JSL2735_705 to 707 (Appendix 1) indicate the trees to be removed

Proposed works within the Root Protection Area (RPA)

3.17 The proposed installation of the parking on the south eastern edge/ entrance to the site will be undertaken within the RPA of two oak trees (T72 & T73), which are to be retained.

3.18 Similarly, works will be undertaken within the RPA of tree T29 although this will only directly affect a small proportion of the RPA and in this respect it is considered that the works will significantly affect the continued health and vigour of the tree.

3.19 Soil levels should be reduced gradually and a banksman should be present to look out for tree roots. Any required root pruning should be done using secateurs or a pruning saw, making a clean cut at right angles, free from ragged ends. The edges of the excavation should be lined to prevent leaching of detrimental materials and the gap filled with top soil immediately to prevent desiccation of roots. Should any roots over 25mm diameter be noted, excavation shall cease and advice on how to proceed should be sought from an arborist.

3.20 The works have the potential to cause root damage which may result in a decline in the condition of the trees. However, subject to ground protection measures, protective fencing, and adherence to the recommendations within this document, it is not considered that such decline would be terminal and it is likely that the trees will adapt to the changes successfully over time.

3.21 The control measures are set out in the following sections of this document. Works within Root Protection Areas shall be carried out in strict accordance with the advice contained within the Arboricultural Checklist (Section 7).

3.22 The RPA should become an exclusion zone during construction works and for any development. It should be fenced-off and protected in accordance with BS5837:2012. The canopy is likewise susceptible to damage during construction work and requires similar protection.

Demolition of structure adjacent to the trees

3.23 The proposals include the demolition of a small building relating to the former school. Where this is bound by retained trees and vegetation protection measures must be installed in advance of the demolition works to protect the underlying soil and tree on the edge of the existing structures.

3.24 All plant and vehicles engaged in demolition works must unless impracticable operate outside the RPA, or run on ground protection. Where such ground protection is required, it should be installed prior to commencement of operations. Where trees are located adjacent or in close proximity to structures to be removed, the demolition should be undertaken inwards within the footprint of the existing buildings.

3.25 Where underground structures are present within the RPA are, or will become, redundant these shall be left in situ, as their removal could damage adjacent tree roots. Where there is a significant build-up of dust on the foliage the trees shall be hosed down with clean water

Remedial Tree Works

3.26 It is not anticipated that significant works will be required within the canopies of the retained trees.

3.27 Where low hanging braches may be susceptible to damage during construction work the remedial tree works to the canopy of should be undertaken in advance of any construction works to avoid undue damage to the canopy by plant / machinery etc. Tree works should maintain a natural shape and balance to the canopy of the tree.

4 TREE WORKS

Standard of Work

4.1 All tree work shall be carried out by suitably qualified, competent and insured arboricultural contractors in accordance with BS 3998:2010[6] Tree Work and latest arboricultural best practice.

4.2 All green and woody waste generated by the tree works shall be removed from site and disposed of in an environmentally sustainable manner.

4.3 When a branch is removed at its point of attachment, injury of the wood and bark of the parent stem or branch above the cut shall be avoided. If a branch collar is visible, the final cut shall be just outside it and care shall be taken to avoid tearing retained wood and bark when the cut is made. Preliminary cuts shall be made, if necessary, so as to remove weight, before a final cut is made. Care shall be taken to prevent falling branches from harming other parts of the tree (including its roots), its surroundings, people or property. Heavy branches shall be removed in sections and, where necessary, shall be lowered with ropes[7].

4.4 Prior to the commencement of any tree works an appropriate risk assessment shall be produced to describe the measures required to fulfil the statutory safety obligations. It shall aim to identify and prioritise the necessary control measures and precautions.

4.5 Following the works it is recommended that the trees are monitored on a regular basis to ensure their ongoing vitality and health. These inspections shall be completed by a suitably qualified and experienced person.

Timing of Works

4.6 All tree works and tree protection works shall be completed prior to commencement of any construction works on the site.

4.7 All works shall be timed to have regard to the phenological cycles of protected species that are associated with trees; notably birds and bats.

4.8 Nesting birds are protected by law and any removal / tree works should not be carried out during the bird nesting season (March-August inclusive). Should any vegetation be outlined for removal during this period, then an ecological inspection would be required to check that no nesting birds are present. Should checks reveal nesting birds the vegetation must remain until September or until an ecologist has certified that the fledglings have left the nest.

5 TREE PROTECTION MEASURES

Construction Exclusion Zone

5.1 The Construction Exclusion Zone (CEZ) will be defined by the protective fence line. This zone shall not be disturbed and the protective fencing shall not be moved or taken down at any time.

5.2 Within the Construction Exclusion Zone there must be no mechanical digging or scraping, no alteration to existing ground levels including soil stripping, no earthworks, no handling or discharge of any chemical substance, concrete washings or of any fuels.

5.3 Furthermore vehicular or pedestrian access and the storage of any materials is prohibited within the Construction Exclusion Zone.

5.4 Additionally no materials that may contaminate the soil such as concrete mixings, diesel oil and vehicle washings shall be discharged within 10m of the stem of any tree and no fires shall be lit within 10m of the maximum extent of a trees crown.

Tree Protection Fencing

5.5 Once the protective barrier is in place it must remain in situ throughout the course of the development until the completion of development.

5.6 Copies of the Tree Protection Plan shall be placed in the site office for reference by all site staff.

5.7 Signs detailing the purpose of the protective barrier shall be attached to the barriers at 10m intervals. Signs must be replaced as necessary should they be removed or become illegible.

5.8 Following erection of the protective barriers and prior to commencement of the development it is recommended that an inspection of the site, by either the Council's Tree Officer or the Arboricultural Consultant, is arranged to confirm fencing has been installed in accordance with the Tree Protection Plan and any relevant conditions that may be attached to a grant of planning consent for the development.

5.9 In addition to the erection of protective fencing consideration shall be given to ground protection measures.

Site Compounds and Materials Stores

5.10 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 if precautions are not taken.

5.11 To prevent harm occurring to trees provision for materials storage, deliveries and other related activities shall be made available in areas away from retained trees.

Ground protection

5.1 Ground protection has been recommended in areas of increased trafficking and areas unable to be enclosed by tree protective fencing, for example because of the need for access for works.

5.2 Ground Protection measures are to be laid down prior to the traverse or transit of any wheeled/ tracked machinery or excessive pedestrian movements.

5.3 In some instances Ground protection may be staged, e.g. laid down only when tree protection fencing is temporarily re-aligned to allow access into a trees RPA, and then removed and tree protection fencing re-aligned to its original alignment following completion of the necessary works.

5.4 Depending on site requirements and usage, the ground protection might comprise one of the following:

a) for pedestrian movements only, a single thickness of scaffold boards placed either on top of a driven scaffold frame, so as to form a suspended walkway, or on top of a compression-resistant layer (e.g. 100 mm depth of woodchip), laid onto a geotextile membrane;

b) for pedestrian-operated plant up to a gross weight of 2 t, proprietary, inter-linked ground protection boards placed on top of a compression-resistant layer (e.g. 150 mm depth of woodchip), laid onto a geotextile membrane;

c) for wheeled or tracked construction traffic exceeding 2 t gross weight, an alternative system (e.g. proprietary systems or pre-cast reinforced concrete slabs) to an engineering specification designed in conjunction with arboricultural advice, to accommodate the likely loading to which it will be subjected.'

Reporting

5.5 Should any arboricultural issues become apparent during the works the site manager should immediately contact the Arboricultural Consultant or the Council's Tree Officer for advice upon how to proceed.

6 REFERENCES

[1] British Standards Institute. *British Standard (BS5837) Trees in Relation to Design, Demolition and Construction - Recommendations*. 2012.

[2] DEFRA. 'Magic Map Application'. www.magic.gov.uk. Accessed 19th June 2017.

[3] NHBC. 'Chapter 4.2- Building Near Trees'. *NHBC Standards 2016.* 2016.

[4] The Vale of Glamorgan Council confirmed (01-03-2017)

[5] Patch, D. Holding B. *Arboricultural Practice Note 12 (APN12), Through the Trees to Development*. Arboricultural Advisory and Information Service (AAIS). 2006.

[6] British Standards Institute. *British Standard (BS3998) Trees Work - Recommendations*. 2010.

[7] Hazell, J, et al. *Guidance Note 8, Framework for Tree Work Contracts: Standard Conditions of Contract between Client and Contractor and Specifications for Tree Work (English Edition).* Arboricultural Association. 2008.

7 ARBORICULTURAL CHECKLIST

Ref	Work Activity	Tree Reference	Schedule of Works	Refer	Recommendations
General site works and tree related operations					
01	Pre-start site meeting		Pre-start site meeting with LPA tree officer, site manager, client representative and arboriculture consultant to agree scope of works.		
02	Protect trees to be retained		Barriers should be fit for the purpose of excluding construction activity, and should remain rigid and complete. Barriers are to be located in accordance with RPS Tree Protection Plans.	Tree Removal and Protection Plans JSL2735_710 to 711	Ongoing monitoring by appointed person
03	Protective barrier to be inspected by LPA (if required)		Give LPA at least 2 working days' notice of the erection of the temporary protective fencing.		Appointed person to contact LPA prior to completion of fencing.
04	Maintain the temporary protective barrier		Ensure the temporary protective barrier is maintained throughout the entire construction period and record any breach of the tree protection.	Tree Removal and Protection Plans JSL2735_710 to 711	Appointed person responsible for arboricultural protection measures shall monitor fencing at regular intervals (minimum monthly), recording details and making good as necessary to ensure tree protection is in place at all times.
05	Removal identified vegetation		Identify vegetation and agree the extent of all tree works. Carry out inspection of ivy for presence of bats / nesting birds as appropriate; Vegetation identified for removal shall be	Arboricultural Association Standard Conditions Of Contract And Specifications For Tree Works (2008) Edition	All tree work should be carried out by a suitably qualified tree surgeon, preferably an Arboricultural Association

Ref	Work Activity	Tree Reference	Schedule of Works	Refer	Recommendations
			removed with care in accordance with current H&S requirements and good arboricultural practice to avoid damage to adjacent trees / property	BS 3998:2010 Tree Work Tree Removal and Protection Plans JSL2735_710 to 711	approved contractor. All works shall be agreed in advance with the Tree Officer
06	Tree stump and established shrub roots removal		Stumps within the RPA of retained trees should not be dug or pulled out but mechanically ground or chipped to a maximum depth of 300mm. Where this is not possible owing to the presence of roots from adjacent retained trees, only grind out the stump and leave the wider root plate *insitu*.	Arboricultural Association Standard Conditions Of Contract And Specifications For Tree Works (2008) Edition BS 3998:2010 Tree Work Tree Removal and Protection Plans JSL2735_710 to 711	All tree work should be carried out by a suitably tree qualified tree surgeon, preferably an Arboricultural Association approved contractor
07	Removal of arisings		Removal of all arisings off site unless instructed otherwise by the CA. Fires are NOT permitted on the site	Arboricultural Association Standard Conditions Of Contract And Specifications For Tree Works (2008) Edition BS 3998:2010 Tree Work	Ongoing monitoring by appointed person
Specific tree and construction works					
09	Works within the Root Protection Area (RPA)		Adopt hand dig methods for reducing levels to avoid damage to roots. Where limited root pruning is unavoidable it will be made at a suitable place within the root system, avoiding damage to surrounding tissue. Final pruning cuts shall be made at right angles to the axis of the root. The final cut wound will be smooth and as small as possible, free from ragged torn ends. Where root pruning is required to roots over 25mm in diameter. Any root pruning will be completed in accordance with BS 3998:2010.	Arboricultural Association Standard Conditions Of Contract And Specifications For Tree Works (2008) Edition BS 3998:2010 Tree Work Tree Removal and Protection Plans JSL2735_710 to 711	Ongoing monitoring by appointed person

TABLES, FIGURES & APPENDICES

TABLE 1

Tree characteristics recorded during survey

Tree Ref No:	Sequential reference number of trees or groups of trees. Avenues, woodlands and hedgerows were also recorded on the tree survey plan. # - denotes inaccessible trees (best estimates are made about the location, physical dimensions and characteristics.)				
Species	Species listed by common name, with scientific names (italic lettering).				
Height (m)	Estimated height of canopy to nearest metre.				
Branch Spread	branch spread, taken as a minimum at the four cardinal points, to derive an accurate representation of the crown				
Stem diameter @ 1.5 m (m)	Measured diameter of trunk at 1.5 m above ground level in metres unless otherwise indicated, multi-stemmed trees being measured in accordance with Annex C: BS5837				
Existing height above ground level	To inform on ground clearance, crown/stem ratio and shading the estimated height of the first significant branch and direction of growth and canopy above ground level.				
Stem No.	Number of stems (if necessary) of individual tree.				
Life Stage	Expressed as:-	Y SM EM M	(Young) (Semi-mature) (Early-mature) (Mature)	OM V D	(Over-mature) (Veteran) (Dead)
Physical Condition	Apparent condition expressed as the following categories, based upon a brief visual inspection from the ground only:-	Good Fair Poor Dead			
Comments / Management Recommendations	General observations, particularly of structural and/or physiological condition (e.g. the presence of any decay and physical defect), and/or preliminary management recommendations and potential for wildlife habitats (not exhaustive).				
Estimated remaining contribution (years)	Estimated remaining contribution, in years (<10, 10+,20+,40+)				
Tree Quality Assessment Value: **Category**	Criteria grading with regards to Table 1: BS 5837:2012, expressed as:-	**A** (Trees/Vegetation of high quality and value) **B** (Vegetation of moderate quality and value) **C** (Trees/Vegetation of low quality and value) **U*** (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)			
	* Category U trees can have existing or potential conservation value which might be desirable to preserve.				
Tree Quality Assessment Value: Sub - Category	Criteria grading with regards to Table 1: BS 5837:2012, expressed as:-	**1** (Trees with mainly *arboricultural* value) **2** (Trees with mainly *landscape* value) **3** (Trees with mainly *cultural / conservation* value)			

TABLE 2

Tree Survey Schedule JSL2735_750

Tree Survey Schedule

Site: Former St Cyres, Dinas Powys, Penarth
Project schedule ref: JSL2735_750
Drawing reference: JSL2735_700
Survey date: 13/01/2017 - 20/01/2017

Surveyor: C Chambers
Status: For information
Revision: .
Notes:

Ref. no.	Species	Height (m)	Crown spread (m)				Stem dia. (m)	Stem no. at 1.5m	Height of crown clearance (m)	Dir/ height	Age class	Structural Physiological condition	General observations Management recommendations	Estimated remaining contribution (years)	Tree Quality Category (BS5837)
			N	E	S	W									
1	Salix cinerea Grey Willow	8.0	4.0	7.0	4.0	2.0	0.15 0.15 0.20 0.37	4.00	-	E	M	Fair	Multi-trunked. Ivy. Could lapse long in the limb.	+ 15	C2
2	Salix cinerea Grey Willow	8.0	4.5	3.0	6.0	5.0	ave 0.17	M	-	W	M	Fair	Multi-trunked with Ivy into mid-crown.	+ 15	C2
3	Salix cinerea Grey Willow	10.0	7.0	7.0	7.0	7.0	ave 0.24	M	-	N	M	Fair	Ivy into mid crown. Dead wood.	+ 15	C2
4	Fraxinus excelsior Common Ash	12.0	8.0	7.0	7.0	7.0	0.3 0.28 0.22 0.18	5.00	0.50	N	M	Fair	Appears to be an established low hedge bank group or a grown out coppice.	+ 20	B2
5	Acer campestre Field Maple	9.0	1.0	5.0	4.0	4.0	0.29 0.22 0.15 0.16	4.00	0.50	E	M	Fair	Suppressed to the north by neighbouring Ash. Ivy on bole.	+ 20	B2
6	Fraxinus excelsior Common Ash	12.0	6.0	7.0	6.0	7.0	ave 0.24	M	-	-	M	Fair	Limbs lost/collapsed and regrowing vigorously. Ivy.	+ 20	B2
7	Acer campestre Field Maple	11.0	1.0	4.0	4.0	4.0	ave 0.17	M	-	-	M	Fair	Former mult bole/fused limbs. Ivy and dead wood.	+ 20	B2
8	Acer campestre Field Maple	4.0	3.0	3.0	3.0	3.0	ave 0.11	M	-	-	M	Fair	Supressed. Multi-trunked.	+ 15	C2
9	Fraxinus excelsior Common Ash	14.0	5.5	5.5	5.5	5.5	0.20 0.26 0.22	3.00	0.50	-	MA	Fair	Three closely estalished trunks. Typically vigorous.	+ 15	B2
10	Quercus robur Pedunculate Oak	16.0	8.0	9.0	10.0	8.0	0.92	1.00	2.00	N	M	Fair	Evidence of storm damage. Dead wood in crown.	+ 35	A2

Note: This survey is based on a brief visual inspection from the ground.
It is not intended as a full arboricultural inspection.
- Indicates estimated / offsite tree

Tree Survey Schedule

Site: Former St Cyres, Dinas Powys, Penarth
Project schedule ref: JSL2735_750
Drawing reference: JSL2735_700
Survey date: 13/01/2017 - 20/01/2017

Surveyor: C Chambers
Status: For information
Revision: .
Notes:

Ref. no.	Species	Height (m)	Crown spread (m)				Stem dia. (m)	Stem no. at 1.5m	Height of crown clearance (m)	Dir/ height	Age class	Structural Physiological condition	General observations Management recommendations	Estimated remaining contribution (years)	Tree Quality Category (BS5837)
			N	E	S	W									
11	Fraxinus excelsior Common Ash	12.0	4.0	0.5	4.0	4.0	0.38	1.00	3.50	-	M	Fair/Poor	On edge of sunken lane, somewhat precariously on a limestone shelf. Damage to bole. Ivy.	+ 20	B2
12	Fraxinus excelsior Common Ash	12.0	7.0	2.0	2.0	2.0	0.29 0.23 0.22	3.00	3.50	-	M	Fair/Poor	On sunken lane steep side.	+ 20	B2
13	Quercus robur Pedunculate Oak	11.0	6.0	4.0	4.0	4.0	0.44	1.00	3.50	N	M	Fair	Ivy on bole. Tree has established on side of a sunken lane. Abrasion damage to bole.	+ 20	A2
14	Acer campestre Field Maple	9.0	1.5	1.5	1.5	1.5	0.28	1.00	3.50	-	EM	Fair	Ivy to the tips. Strong apical growth/flailed.	+ 20	B2
15	Fraxinus excelsior Common Ash	9.0	4.0	1.0	4.0	6.0	0.36	1.00	2.00	W	M	Fair	Strong bias to the east. Vigorous.	+ 15	C2
16	Quercus robur Pedunculate Oak	9.0	3.0	3.0	3.0	3.0	0.62	1.00	3.50	-	OM	Poor	Moribund with occasional living branches. Ivy clad.	-5	U
17	Fraxinus excelsior Common Ash	12.0	4.0	3.0	4.0	4.0	ave 0.22	M	2.00	N	M	Fair	Multi-trunked tree.	+ 20	B2
18	Fraxinus excelsior Common Ash	10.0	6.0	3.0	3.0	1.0	ave 0.21	M	2.00	N	M	Fair	Multi-trunked tree.	+ 20	C2
19	Fraxinus excelsior Common Ash	9.0	5.0	4.0	4.0	4.0	0.34 0.32	2.00	2.50	N	M	Fair	Twin-trunked tree. Weak union. Ivy may conceal defects.	+ 15	C2
20	Quercus robur Pedunculate Oak	8.0	4.0	3.5	3.5	3.5	0.32	1.00	2.50	N	M	Fair	Ivy into mid crown. Fair form.	+ 25	B2
21#	Fraxinus excelsior Common Ash	14.0	8.0	5.0	7.0	7.0	ave 0.32	M	2.00	N	M	Fair	Damage noted on bole. Ivy. Spreading form.	+ 25	B2

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Tree Survey Schedule

Site: Former St Cyres, Dinas Powys, Penarth
Project schedule ref: JSL2735_750
Drawing reference: JSL2735_700
Survey date: 13/01/2017 - 20/01/2017

Surveyor: C Chambers
Status: For information
Revision: .
Notes:

Ref. no.	Species	Height (m)	Crown spread (m)				Stem dia. (m)	Stem no. at 1.5m	Height of crown clearance (m)	Dir/ height	Age class	Structural Physiological condition	General observations Management recommendations	Estimated remaining contribution (years)	Tree Quality Category (BS5837)
			N	E	S	W									
22#	Quercus robur Pedunculate Oak	13.0	5.0	5.0	5.0	2.0	0.32 0.28	2.00	2.00	-	M	Fair	Ivy. Fair, upright form.	+ 20	B2
23#	Acer campestre Field Maple	7.0	2.5	2.5	2.5	2.5	0.10 0.12 0.29 0.13	4.00	2.00	N	M	Fair	Multi-trunked. Ivy with a slightly stunted appearance.	+ 15	C2
24#	Quercus robur Pedunculate Oak	9.0	4.0	4.0	4.0	4.0	0.39	1.00	2.00	E	M	Fair	Fair form, off site.	+ 20	B2
25#	Quercus robur Pedunculate Oak	9.0	4.5	4.5	4.5	4.5	0.36	1.00	2.00	-	M	Fair	Fair form, off site.	+ 20	B2
26#	Quercus robur Pedunculate Oak	9.0	4.5	4.5	4.5	4.5	ave 0.32	3.00	2.00	-	M	Fair	Fair form, off site.	+ 20	B2
27	Quercus robur Pedunculate Oak	6.5	6.0	5.0	4.0	4.0	0.30	1.00	1.25	S	EM	Fair	Fair form with potential. Leans to the north-east.	+ 20	C2
28	Acer campestre Field Maple	5.5	2.5	2.5	2.5	2.5	0.20	1.00	2.50	-	EM	Fair	In fair general condition.	+ 25	C2
29	Acer saccharinum Silver Maple	16.0	10.0	10.0	10.0	10.0	0.85	1.00	2.00	-	M	Fair	Wide-spreading crown. Damage to bark on trunk and scaffold limbs with bark loss and infected sap. Dead wood in crown, otherwise in good vigorous condition.	+ 20	A2
30	Acer saccharinum Silver Maple	14.0	3.5	4.0	7.0	4.0	0.35	1.00	2.50	S	M	Fair	Slightly one-sided. Southern bias.	+ 20	C2
31	Prunus avium Wild Cherry	11.0	1.0	4.5	7.0	4.5	0.29	1.00	3.00	S	M	Fair	Typically vigorous. Bias to the south.	+ 20	C2
32	Prunus avium Wild Cherry	13.0	4.0	4.0	4.0	4.0	0.22 0.22	2.00	3.00	-	M	Fair	Ivy into mid-crown.	+ 20	C2

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Tree Survey Schedule

Site: Former St Cyres, Dinas Powys, Penarth
Project schedule ref: JSL2735_750
Drawing reference: JSL2735_700
Survey date: 13/01/2017 - 20/01/2017

Surveyor: C Chambers
Status: For information
Revision: .
Notes:

Ref. no.	Species	Height (m)	Crown spread (m)				Stem dia. (m)	Stem no. at 1.5m	Height of crown clearance (m)	Dir/ height	Age class	Structural Physiological condition	General observations Management recommendations	Estimated remaining contribution (years)	Tree Quality Category (BS5837)
			N	E	S	W									
33	Acer pseudoplatanus Sycamore	12.0	7.0	5.0	5.0	6.0	0.38	1.00	>4	E	M	Fair	Ivy on bole. Typically vigorous.	+ 20	C2
34	Pinus nigra 'Maritima' Corsican Pine	19.0	1.0	4.0	7.0	4.0	0.42	1.00	>4	S	M	Fair	Lean/ growth bias to the south. Evergreen presence.	+ 20	B2
35	Acer campestre Field Maple	13.0	5.0	5.0	7.0	5.0	0.32 0.24 0.17	3.00	>2	-	M	Fair/Good	Multi-trunked native. Rot pockets noted.	+ 20	B2
36	Acer campestre Field Maple	12.0	5.0	5.0	5.0	5.0	0.3 0.24 0.10	3.00	?2	-	M	Fair/Good	Multi-trunked native. Rot pockets noted.	+ 20	B2
37	Fraxinus excelsior Common Ash	11.0	7.0	7.0	9.0	7.0	0.50	1.00	>2	-	M	Fair	Heavily Ivy clad.	+ 20	B2
38	Populus x canescens Grey Poplar	17.0	7.0	11.0	8.5	4.0	0.68	1.00	3.00	E	M	Fair	Dead wood in crown. Large sprawling form, visually of significance to the properties to the north of the survey site.	+ 25	B2
39	Populus x canescens Grey Poplar	17.0	10.0	10.0	11.0	10.0	0.71	1.00	>3	N	M	Fair	Dead wood in crown. Large sprawling form, visually of significance to the properties to the north of the survey site.	+ 25	B2
40	Populus sp. Poplar sp.	24.0	9.0	9.0	9.0	9.0	0.72	1.00	2.50	-	M	Fair	Large wide-spreading crown. Dead wood noted with Ivy on bole.	+ 25	B2
41	Populus sp. Poplar sp.	22.0	9.0	12.0	9.0	9.0	0.74	1.00	2.50	E	M	Fair	Leans to the east.	+ 25	B2
42	Populus sp. Poplar sp.	22.0	9.0	9.0	8.0	9.0	0.43 0.39	2.00	2.50	S	M	Fair	Large wide-spreading crown. Dead wood noted with Ivy on bole.	+ 25	B2
43	Populus sp. Poplar sp.	21.0	7.0	9.0	12.0	11.0	0.66	1.00	-	-	M/OM	Fair/Poor	Strong bias to the south. Significant dead wood in crown with lower scaffold limbs practically devoid of bark. Storm damage noted.	+ 15	B2

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Tree Survey Schedule

Site: Former St Cyres, Dinas Powys, Penarth
Project schedule ref: JSL2735_750
Drawing reference: JSL2735_700
Survey date: 13/01/2017 - 20/01/2017

Surveyor: C Chambers
Status: For information
Revision: .
Notes:

Ref. no.	Species	Height (m)	Crown spread (m)				Stem dia. (m)	Stem no. at 1.5m	Height of crown clearance (m)	Dir/ height	Age class	Structural Physiological condition	General observations Management recommendations	Estimated remaining contribution (years)	Tree Quality Category (BS5837)
			N	E	S	W									
44	Populus sp. Poplar sp.	22.0	10.0	10.0	10.0	10.0	0.72	1.00	2.50	-	M	Good	Large wide-spreading crown. Dead wood noted with Ivy on bole.	+ 25	B2
45	Betula pendula Silver Birch	9.0	3.0	4.4	4.0	4.0	0.29	1.00	2.00	E	OM	Fair/Poor	Rot pockets on large limb scar on the main trunk. Off-kilter.	-10	C2
46	Prunus avium Wild Cherry	4.0	3.0	3.0	1.0	2.0	0.14	1.00	1.25	N	OM	Poor	Severe damage to bole. Practically moribund. Remove.	-5	U
47	Betula pendula Silver Birch	9.0	2.5	2.5	2.5	2.5	0.22	1.00	1.25	-	OM	Poor	Damage to bole. Dead wood. Trunk twins at 1.25m.	-10	C2
48	Betula pendula Silver Birch	10.0	3.0	3.0	3.0	3.0	0.24	1.00	1.25	-	OM	Poor	Damage to bole and dead wood.	-15	C2
49	Betula pendula Silver Birch	8.0	2.0	3.5	2.0	2.0	0.18	1.00	1.25	-	OM	Poor	Poor condition.	-15	C2
50	Betula pendula Silver Birch	6.0	2.5	1.5	1.5	1.5	0.12	1.00	1.25	-	OM	Poor	Poor condition, dead wood.	-15	C2
51	Betula pendula Silver Birch	7.0	4.0	3.0	3.0	3.0	0.24	1.00	1.25	-	OM	Poor	Poor condition, dead wood.	-15	C2
52	Prunus avium Wild Cherry	8.0	4.5	4.5	4.5	4.5	0.34	1.00	2.00	S	M	Fair	Dead wood. Fair general condition.	+ 10	C2
53	Prunus avium Wild Cherry	6.0	2.5	3.0	2.5	2.5	0.18	1.00	2.00	E	M	Fair/Poor	Bias to the east. Dead wood.	+ 10	C2
54	Salix babylonica Weeping Willow	12.0	6.0	7.0	6.0	6.0	0.34 0.29	2.00	2.00	-	M	Fair	Fair form. Dead wood stubs. Minor rot pockets.	+ 15	C2

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Tree Survey Schedule

Site: Former St Cyres, Dinas Powys, Penarth
Project schedule ref: JSL2735_750
Drawing reference: JSL2735_700
Survey date: 13/01/2017 - 20/01/2017

Surveyor: C Chambers
Status: For information
Revision: .
Notes:

Ref. no.	Species	Height (m)	Crown spread (m)				Stem dia. (m)	Stem no. at 1.5m	Height of crown clearance (m)	Dir/ height	Age class	Structural Physiological condition	General observations Management recommendations	Estimated remaining contribution (years)	Tree Quality Category (BS5837)
			N	E	S	W									
55	Quercus robur Pedunculate Oak	10.0	6.0	6.0	5.0	6.0	0.39	1.00	1.25	E	MA	Fair	Established on edge of building footprint. Dead wood. Roots high and visible.	+ 20	B2
56	Fraxinus excelsior Common Ash	7.0	1.0	1.5	1.0	1.0	0.15	1.00	1.50	-	EM	Poor/Fair	Trunk divides to three at 1.5m which may have impications for future structural condition - monitor.	+ 10	C2
57	Fraxinus excelsior Common Ash	5.0	0.5	0.5	0.5	0.5	0.09	1.00	-	-	Y/EM	Fair	Suckers. Immature.	+ 10	C2
58	Fraxinus excelsior Common Ash	8.0	3.0	3.0	2.0	2.0	0.19	1.00	2.00	-	EM	Fair	Slightly easterly bias. Vigorous.	+ 15	C2
59	Acer saccharinum Silver Maple	14.0	8.0	6.5	4.0	5.0	0.36 0.19	2.00	1.75	N	M	Fair/Poor	Twin-trunked with the third trunk cut and part healing, part robbing creating a poor main union at 0.75m.	-15	C2
60	Acer saccharinum Silver Maple	14.0	8.0	8.0	7.0	6.0	0.43	1.00	1.75	N	M	Fair	Dead wood in crown. Fair general condition.	+ 20	C2
61	Quercus robur Pedunculate Oak	16.0	8.0	4.0	8.0	10.0	0.68	1.00	2.00	W	M	Fair	Off site tree with a strong growth bias to the west. The branches to the east are display dieback.	+ 35	A1/2
62	Fraxinus excelsior Common Ash	14.0	6.0	7.0	7.0	7.0	0.44	1.00	1.25	W	M	Fair	Ivy on bole. Dead wood in crown. Vigorous.	+ 25	B2
63	Fraxinus excelsior Common Ash	13.0	5.0	7.0	6.0	7.0	0.28	1.00	1.25	W	M	Fair	Ivy on bole. Dead wood in crown. Vigorous.	+ 25	B2
64	Fraxinus excelsior Common Ash	12.0	4.0	6.0	6.0	7.0	0.36	1.00	1.25	N	M	Fair	Ivy on bole. Dead wood in crown. Vigorous.	+ 25	B2
65	Fraxinus excelsior Common Ash	9.0	5.0	5.0	5.0	5.0	0.37	1.00	1.25	N	M	Fair/Poor	Ivy on bole. Dead wood in crown. Vigorous. Canker noted on scaffold branches.	+ 25	B2

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Tree Survey Schedule

Site: Former St Cyres, Dinas Powys, Penarth
Project schedule ref: JSL2735_750
Drawing reference: JSL2735_700
Survey date: 13/01/2017 - 20/01/2017

Surveyor: C Chambers
Status: For information
Revision: .
Notes:

Ref. no.	Species	Height (m)	Crown spread (m)				Stem dia. (m)	Stem no. at 1.5m	Height of crown clearance (m)	Dir/ height	Age class	Structural Physiological condition	General observations Management recommendations	Estimated remaining contribution (years)	Tree Quality Category (BS5837)
			N	E	S	W									
66	Fraxinus excelsior Common Ash	11.0	5.0	6.0	3.0	5.0	0.32	1.00	1.25	N	M	Fair	Ivy on bole. Dead wood in crown. Vigorous.	+ 25	B2
67	Acer pseudoplatanus Sycamore	11.0	6.0	6.0	6.0	6.0	0.36	1.00	-	-	M	Fair	Vegetated to the ground. Typically vigorous.	+ 25	B2
68	Acer pseudoplatanus Sycamore	14.0	7.0	7.0	7.0	7.0	0.54	1.00	-	-	M	Fair	Vigorous. Ivy on bole. Cluttered main union.	+ 25	B2
69	Acer pseudoplatanus Sycamore	13.0	7.0	7.0	6.0	7.0	0.44	1.00	0.50	E	M	Fair	Ivy on bole. Damage noted on scaffold limb possibly squirrel. Forms … boundary.	+ 25	B2
70	Acer pseudoplatanus Sycamore	13.0	5.0	6.0	7.0	6.0	0.46	1.00	0.50	E	M	Fair	Ivy on bole. Damage noted on scaffold limb possibly squirrel. Forms … boundary.	+ 25	B2
71	Quercus robur Pedunculate Oak	14.0	9.0	8.0	8.0	8.0	0.64	1.00	0.50	S	M	Good	Dead wood noted, otherwise in good general condition.	+ 40	A1/2
72	Quercus robur Pedunculate Oak	17.0	10.0	8.0	11.0	10.0	1.10	1.00	3.00	N	M	Good	On hedgebank. Large well formed Oak. Excellent skyline amenity. Snags and dead wood.	+ 40	A1/2
73	Quercus robur Pedunculate Oak	11.0	6.0	8.0	6.0	6.0	0.72	1.00	2.00	E	M	Fair/Good	Ivy into tips. Gnarled form with character. Dead wood.	+ 35	A1/2
74	Quercus robur Pedunculate Oak	11.0	5.0	7.0	5.0	4.0	0.95	1.00	2.00	E	M/V	Fair	Significant epicormic growth. Dead wood. Veteranising.	+ 40	A1/2
75	Quercus robur Pedunculate Oak	12.0	5.0	8.0	6.0	7.0	0.68	1.00	2.00	W	M	Good/Fair	Large wide spreading crown. High in skyline amenity.	+ 45	A1/2
76	Acer campestre Field Maple	11.0	2.0	4.0	7.0	4.0	0.3 0.34	2.00	3.00	S	M	Fair	Twin-trunked tree. Heavily Ivy clad.	+ 30	B2

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Tree Survey Schedule

Site: Former St Cyres, Dinas Powys, Penarth
Project schedule ref: JSL2735_750
Drawing reference: JSL2735_700
Survey date: 13/01/2017 - 20/01/2017

Surveyor: C Chambers
Status: For information
Revision: .
Notes:

Ref. no.	Species	Height (m)	Crown spread (m)				Stem dia. (m)	Stem no. at 1.5m	Height of crown clearance (m)	Dir/ height	Age class	Structural Physiological condition	General observations Management recommendations	Estimated remaining contribution (years)	Tree Quality Category (BS5837)
			N	E	S	W									
77	Quercus robur Pedunculate Oak	12.0	6.5	6.5	6.5	6.5		1.00	2.00	W	M	Fair/Good	Large wide spreading crown. High in skyline amenity.	+ 45	A1/2
78	Quercus robur Pedunculate Oak	8.0	3.0	3.0	3.0	6.0	0.63	1.00	3.00	W	M/V	Fair/Poor	Heavily cloaked in Ivy. Practically moribund.	#-10	C3
79	Quercus robur Pedunculate Oak	12.0	7.0	7.0	8.5	7.0	0.64	1.00	3.00	W	M	Fair/Good	Ivy on bole. Dead wood. Twisting, asymmetrical form, typical of Oak.	+ 35	A1/2
80	Crataegus monogyna Common Hawthorn	6.0	3.0	1.0	1.0	1.0	0.26	1.00	-	-	M	Fair/Poor	Heavily Ivy clad.	-10	C2
81	Quercus robur Pedunculate Oak	11.0	7.0	7.0	7.0	8.0	0.52	1.00	3.00	W	M	Good	Wide spreading, attractive form.	+ 35	A1/2
82	Crataegus monogyna Common Hawthorn	7.0	1.5	1.5	1.5	1.5	0.21 0.20	2.00	-	-	M	Poor	Heavily Ivy clad. Suppressed.	-10	C2
83	Quercus robur Pedunculate Oak	17.0	12.0	10.0	11.0	10.0	1.35	1.00	1.50	SW	M/V	Good	Large, well formed tree. Low sweeping scaffold to south west.	+ 50	A3
84	Quercus robur Pedunculate Oak	16.0	1.0	4.0	11.0	4.0	0.52	1.00	1.50	SW	M	Fair	Bias to the south-west. Damage noted on northern side of main trunk. Dead wood snags.	+ 45	A1/2
85	Quercus robur Pedunculate Oak	16.0	7.0	7.0	7.0	7.0	0.53	1.00	-	-	M	Fair/Good	Dead wood snags. Well formed.	+ 45	A1/2
86	Quercus robur Pedunculate Oak	7.0	4.0	4.0	1.0	1.0	0.54	1.00	-	-	M	Poor	Remaining trunk likely high in ecological value.	+ 15	B2
87	Quercus robur Pedunculate Oak	14.0	7.5	7.5	7.5	7.5	0.52	1.00	3.00	S	M	Fair/Good	Closely established to T88. Ivy on bole.	+ 40	A1/2

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Tree Survey Schedule

Site: Former St Cyres, Dinas Powys, Penarth
Project schedule ref: JSL2735_750
Drawing reference: JSL2735_700
Survey date: 13/01/2017 - 20/01/2017

Surveyor: C Chambers
Status: For information
Revision: .
Notes:

Ref. no.	Species	Height (m)	Crown spread (m)				Stem dia. (m)	Stem no. at 1.5m	Height of crown clearance (m)	Dir/ height	Age class	Structural Physiological condition	General observations Management recommendations	Estimated remaining contribution (years)	Tree Quality Category (BS5837)
			N	E	S	W									
88	Quercus robur Pedunculate Oak	9.0	4.0	2.0	4.0	8.0	0.51	1.00	3.00	W	M	Fair	Bias to the west, suppressed by closely neighbouring tree.	+ 40	A1/2
89	Quercus robur Pedunculate Oak	11.0	3.0	3.0	7.0	3.0	0.44	1.00	4.00	S	M	Fair	Bias to the south. Fair form.	+ 35	B2
90	Quercus robur Pedunculate Oak	12.0	6.0	6.0	5.0	6.0	0.47	1.00	3.00	-	M	Fair	Ivy on bole. Dead wood and stubs. Rot in trunk/buttresses - enlarged.	+ 35	A1/2
91	Quercus robur Pedunculate Oak	15.0	7.0	6.0	8.0	6.0	0.87	1.00	3.00	S	M	Fair/Good	Large well formed tree. High in skyline amenity.	+ 45	A1/2
92	Quercus robur Pedunculate Oak	12.0	7.0	6.0	11.0	8.0	0.88	1.00	3.00	N	M	Fair/Good	Rot pockets and dead wood typical of a tree of this age and stature. Large, well formed tree. High in skyline amenity.	+ 45	A1/2
93	Quercus robur Pedunculate Oak	16.0	10.0	10.0	10.0	10.0	0.98	1.00	3.00	N	M	Fair/Good	Rot pockets and dead wood typical of a tree of this age and stature. Large, well formed tree. High in skyline amenity.	+ 45	A1/2
94	Quercus robur Pedunculate Oak	16.0	10.0	9.0	11.0	7.0	1.40	1.00	3.00	N	M/V	Fair	Large bole with cavity and likely columnar rot into heartwood. Tree divides into four large upright scaffold limbs. An impressive sight with high skyline amenity. Nearing the beginning of gradual senescnce.	+ 50	A3
95	Quercus robur Pedunculate Oak	11.0	5.0	5.0	9.0	3.0	0.47	1.00	2.00	E	M	Fair/Good	Forms part of a line of trees.	+ 40	A1/2
96	Quercus robur Pedunculate Oak	11.0	7.0	5.0	4.0	3.0	0.51	1.00	3.00	N	M	Fair/Good	Altered wood/ rot in bole and heartwood. Heavily Ivy clad.	+ 40	A1/2
97	Quercus robur Pedunculate Oak	12.0	7.0	6.0	7.0	5.0	0.52	1.00	2.00	N	M	Fair/Good	Ivy clad.	+ 40	A1/2
98	Quercus robur Pedunculate Oak	13.0	6.0	7.0	6.0	3.0	0.61	1.00	2.00	E	M	Fair/Good	Closely established to T99.	+ 40	A1/2

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Tree Survey Schedule

Site: Former St Cyres, Dinas Powys, Penarth
Project schedule ref: JSL2735_750
Drawing reference: JSL2735_700
Survey date: 13/01/2017 - 20/01/2017

Surveyor: C Chambers
Status: For information
Revision: .
Notes:

Ref. no.	Species	Height (m)	Crown spread (m)				Stem dia. (m)	Stem no. at 1.5m	Height of crown clearance (m)	Dir/ height	Age class	Structural Physiological condition	General observations Management recommendations	Estimated remaining contribution (years)	Tree Quality Category (BS5837)
			N	E	S	W									
99	Quercus robur Pedunculate Oak	14.0	6.0	3.0	6.0	7.0	0.54	1.00	2.00	W	M	Fair/Good	Closely abuts T98, possibly a large twin trunk.	+ 40	A1/2
100	Quercus robur Pedunculate Oak	10.0	1.0	1.0	11.0	11.0	0.34 0.58	2.00	-	SW	M	Fair/Good	Large scaffold limb in south-westerly direction.	+ 40	A1/2
101	Quercus robur Pedunculate Oak	10.0	6.0	2.0	5.0	7.0	0.61	1.00	2.00	S	M	Fair/Good	Heavily Ivy clad.	+ 40	A1/2
102	Quercus robur Pedunculate Oak	11.0	6.0	5.0	7.0	7.0	0.61	1.00	2.00	S	M	Fair/Good	Ivy clad.	+ 40	A1/2
103	Quercus robur Pedunculate Oak	11.0	5.0	3.0	5.0	8.0	0.48	1.00	2.00	N	M	Fair/Good	Westerly bias.	+ 40	A1/2
104	Quercus robur Pedunculate Oak	11.0	7.0	8.0	4.0	9.0	0.56 0.65	2.00	2.50	W	M	Fair/Good	Large bole. Tree bifurcates at 1.5m.	+ 40	A1/2
105	Quercus robur Pedunculate Oak	11.0	3.0	7.0	7.0	8.0	0.68	1.00	2.50	S	M	Fair/Good	Ivy into upper crown.	+ 40	A1/2
106	Quercus robur Pedunculate Oak	13.0	8.0	5.0	2.0	5.0	0.43	1.00	4.00	N	M	Fair	Growth bias to the south. Dead wood and die back. Ivy on bole.	+ 40	A1/2
107	Quercus robur Pedunculate Oak	15.0	8.0	8.0	10.0	8.0	0.88	1.00	4.00	S	M	Fair	Bole leans in a southerly direction and corrects. Vigorous.	+ 45	A1/2
108	Quercus robur Pedunculate Oak	19.0	6.0	3.5	5.0	9.5	0.54	1.00	2.00	W	M	Fair/Poor	Ivy on bole. Dead wood. Crown is suppressed.	+ 30	B2
109	Quercus robur Pedunculate Oak	19.0	9.0	8.0	9.0	10.0	0.51 0.64	2.00	2.50	N	M	Fair	Twin-trunked at base. Ivy on bole. Vigorous.	+ 45	A1/2

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Tree Survey Schedule

Site: Former St Cyres, Dinas Powys, Penarth
Project schedule ref: JSL2735_750
Drawing reference: JSL2735_700
Survey date: 13/01/2017 - 20/01/2017

Surveyor: C Chambers
Status: For information
Revision: .
Notes:

Ref. no.	Species	Height (m)	Crown spread (m)				Stem dia. (m)	Stem no. at 1.5m	Height of crown clearance (m)	Dir/ height	Age class	Structural Physiological condition	General observations Management recommendations	Estimated remaining contribution (years)	Tree Quality Category (BS5837)
			N	E	S	W									
110	Quercus robur Pedunculate Oak	9.0	4.5	4.0	4.5	4.5	0.56	1.00	3.00	SE	M	Fair	Ivy clad. Suppressed.	+ 30	B2
111	Quercus robur Pedunculate Oak	13.0	6.0	5.0	6.0	6.0	0.78	1.00	2.00	N	M	Fair	Internal cavity in central column. Dead wood and die back, vigorous.	+ 30	B2
112	Quercus robur Pedunculate Oak	9.0	4.0	8.0	4.0	1.0	0.46	1.00	2.50	E	M	Fair/Poor	Heavily Ivy clad and suppressed.	+ 20	C2
113	Quercus robur Pedunculate Oak	17.0	9.0	12.0	12.0	12.0	0.88	1.00	2.50	E	M	Fair	Ivy into mid-crown. Large well formed boundary tree.	+ 45	A1/2
114	Quercus robur Pedunculate Oak	11.0	6.0	6.0	6.0	7.0	0.48	1.00	2.50	N	M	Fair/Poor	Heavily Ivy clad and suppressed.	+ 20	C2
115	Quercus robur Pedunculate Oak	12.0	4.5	4.5	4.5	4.5	0.49	1.00	2.00	S	M	Fair	Unusual buttress/flare. Ivy clad. Dead wood.	+ 25	B2
116	Quercus robur Pedunculate Oak	14.0	8.0	3.0	7.0	4.0	0.48	1.00	2.00	E	M	Fair	East leaning, self correcting trunk. Ivy and dead wood.	+ 25	B2
117	Quercus robur Pedunculate Oak	14.0	6.0	3.0	6.0	10.0	0.53	1.00	1.00	W	M	Fair	Bias to the west.	+ 50	A2
118	Quercus robur Pedunculate Oak	18.0	8.0	12.0	10.0	10.0	1.05	1.00	1.00	E	M/ V	Fair/Good	Evidence of storm damage with broken branches and dead wood stubs. Rot pockets. Ivy on bole. High in amenity value.	+ 45	A3
119#	Fraxinus excelsior Common Ash	17.0	6.0	3.0	5.0	7.0	0.37	1.00	4.00	NW	M	Fair	Bifurcates at 2.5m. Fair form. Suppressed to the east.	+ 30	B2
120#	Quercus robur Pedunculate Oak	16.0	8.0	9.0	9.0	9.0	0.98	1.00	3.00	W	M	Fair	Tree bifurcates at 2m. Heavily ivy clad into crown tips.	+ 40	A2

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Tree Survey Schedule

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Project schedule ref: JSL2735_750
Drawing reference: JSL2735_700
Survey date: 13/01/2017 - 20/01/2017

Surveyor: C Chambers
Status: For information
Revision: .
Notes:

Ref. no.	Species	Height (m)	Crown spread (m)				Stem dia. (m)	Stem no. at 1.5m	Height of crown clearance (m)	Dir/ height	Age class	Structural Physiological condition	General observations Management recommendations	Estimated remaining contribution (years)	Tree Quality Category (BS5837)
			N	E	S	W									
121#	Quercus robur Pedunculate Oak	13.0	7.0	5.0	7.0	7.5	0.74	1.00	3.00	W	M	Fair	Ivy clad. Fair form.	+ 40	A2
122#	Acer campestre Field Maple	9.0	5.0	3.5	3.0	3.5	0.35	1.00	2.00	N	M	Fair	Established on hedgebanked boundary. Bias to the north.	+ 35	B2
123#	Quercus robur Pedunculate Oak	14.0	8.0	8.0	8.0	10.0	0.54	1.00	2.00	W	M	Fair	Ivy into crown tips. Fair.	+ 40	A2
124	Acer campestre Field Maple	11.0	5.5	3.0	4.0	3.0	0.36	1.00	2.50	N	M	Fair	Ivy conceals bole into crown tips.	+ 25	B2
125	Fraxinus excelsior Common Ash	13.0	6.0	7.0	7.0	8.0	0.54	1.00	3.50	W	M	Fair	Ivy into mid crown. Fair form.	+ 30	B2
126	Quercus robur Pedunculate Oak	14.0	6.0	5.0	7.0	5.0	0.68	1.00	3.50	N	M/V	Fair	Large cavity and central columnar rot. Tree displays signs of retrenchment and dieback.	+ 35	A2
127#	Crataegus monogyna Common Hawthorn	7.5	4.0	7.0	2.0	4.0	0.35	1.00	2.00	E	M	Fair	Leans east. Dead wood.	+ 15	C2
128	Acer campestre Field Maple	13.0	4.0	10.0	8.0	7.0	0.62	1.00	2.50	N	M	Fair	Heavily Ivy clad, may conceal defects. Damage noted on the scaffold limbs otherwise n fair condition.	+ 45	A2
129	Quercus robur Pedunculate Oak	17.0	4.0	4.0	7.0	7.0	0.82	1.00	>4	NE	M	Fair	Large, wide-spreading crown.	+ 45	A2
130	Quercus robur Pedunculate Oak	17.0	4.0	8.0	10.0	7.0	0.66	1.00	>4	S	M	Fair	Ivy clad Oak.	+ 45	A2
131	Acer campestre Field Maple	17.0	6.0	6.0	6.0	6.0	0.52	1.00	>4	S	M	Fair	Ivy clad, with dead wood snags.	+ 35	A2

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Tree Survey Schedule

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Project schedule ref: JSL2735_750
Drawing reference: JSL2735_700
Survey date: 13/01/2017 - 20/01/2017

Surveyor: C Chambers
Status: For information
Revision: .
Notes:

Ref. no.	Species	Height (m)	Crown spread (m)				Stem dia. (m)	Stem no. at 1.5m	Height of crown clearance (m)	Dir/ height	Age class	Structural Physiological condition	General observations Management recommendations	Estimated remaining contribution (years)	Tree Quality Category (BS5837)
			N	E	S	W									
132#	Quercus robur Pedunculate Oak	16.0	9.0	9.0	10.0	8.0	0.74	1.00	>3	S	M	Fair	On edge of neighbouring property. Ivy into mid-crown.	+ 45	A2
133	Fraxinus excelsior Common Ash	16.0	9.0	9.0	9.0	9.0	0.72	1.00	3.00	S	M	Fair	Ivy on main bole.	+ 45	A2
134	Quercus robur Pedunculate Oak	11.0	7.5	7.5	7.5	7.5	0.62 0.68	2.00	3.00	S	M	Fair/Poor	Lower limbs cut back in management. Deadwood throughout.	+ 25	B2
135	Quercus robur Pedunculate Oak	6.0	3.5	3.0	3.5	3.0	0.35	1.00	2.00	-	MA	Fair/Poor	Trunk oddly contorted with crown overhanging to balance. No apparent defects. Minor scars on lower bole otherwise in fair condition.	+ 25	B2
136#	Quercus robur Pedunculate Oak	16.0	6.0	10.0	9.0	10.0	0.84	1.00	3.00	E	M	Fair	Heavily ivy clad, wide spreading crown. Tree is high in skyline amenity. Dead wood snags.	+ 45	A1/2
137#	Fraxinus excelsior Common Ash	11.0	0.5	4.5	6.0	4.5	0.29	1.00	3.00	S	MA	Fair/Poor	Suppressed with a strong bias to the south.	+ 15	C2
138#	Acer campestre Field Maple	15.0	9.0	9.0	9.0	9.0	0.74	1.00	3.00	S	M	Fair	Large, well formed tree. Ivy and dead wood.	+ 45	A1/2
139#	Quercus robur Pedunculate Oak	20.0	13.0	13.0	13.0	13.0	1.50	1.00	4.00	N	M/V	Good	Tree of titanic proportions. Ivy on bole, dead wood snags. High in skyline and amenity value.	+ 45	A1/2
140	Fraxinus excelsior Common Ash	7.5	0.5	2.0	4.5	2.0	0.19	1.00	2.00	S	MA	Fair	Suppressed to the south.	+ 15	C2
141#	Quercus robur Pedunculate Oak	19.0	9.5	9.5	9.5	9.5	0.79	1.00	2.00	N	M	Good	Ivy into mid-crown. Skyline amenity.	+ 45	A1/2
142	Fraxinus excelsior Common Ash	11.0	2.5	2.5	2.5	2.5	0.21	1.00	3.00	-	M	Good	Strong apical growth.	+ 15	C2

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Tree Survey Schedule

Site: Former St Cyres, Dinas Powys, Penarth
Project schedule ref: JSL2735_750
Drawing reference: JSL2735_700
Survey date: 13/01/2017 - 20/01/2017

Surveyor: C Chambers
Status: For information
Revision: .
Notes:

Ref. no.	Species	Height (m)	Crown spread (m)				Stem dia. (m)	Stem no. at 1.5m	Height of crown clearance (m)	Dir/ height	Age class	Structural Physiological condition	General observations Management recommendations	Estimated remaining contribution (years)	Tree Quality Category (BS5837)
			N	E	S	W									
143	Quercus robur Pedunculate Oak	10.0	5.5	5.5	5.5	5.5	0.34	1.00	3.00	-	M	Fair/Good	Well formed.	+ 35	B2
144	Acer campestre Field Maple	9.0	4.5	4.5	4.5	4.5	0.25 0.19	2.00	-	-	M	Fair	Ivy clad.	+ 25	B2
145#	Quercus robur Pedunculate Oak	18.0	9.0	9.0	7.0	10.0	0.84	1.00	3.00	W	M	Good	Large, well formed tree, minor dead wood and stubs. Provides enclosure and skyline amenity.	+ 45	A1/2
146#	Quercus robur Pedunculate Oak	17.0	6.0	7.0	2.0	6.0	0.42	1.00	2.00	E	M	Fair/Good	Suppressed by 145.	+ 35	B2
147#	Quercus robur Pedunculate Oak	15.0	4.0	3.0	4.0	8.0	0.54	1.00	2.00	W	M	Good	Bias to the west.	+ 35	B2
148#	Quercus robur Pedunculate Oak	17.0	6.5	6.5	6.5	6.5	0.49	1.00	2.00	W	M	Fair	Large, well formed tree, minor dead wood and stubs. Provides enclosure and skyline amenity.	+ 45	A1/2
149#	Quercus robur Pedunculate Oak	17.0	8.0	8.0	8.0	8.0	0.51	1.00	4.00	E	M	Fair/Good	Dead wood in crown. Strong upright growth.	+ 35	A1/2
150#	Quercus robur Pedunculate Oak	19.0	9.5	9.5	9.5	9.5	0.54	1.00	2.50	N	M	Fair/Good	Large, well formed tree, minor dead wood and stubs. Provides enclosure and skyline amenity.	+ 45	A1/2
151#	Quercus robur Pedunculate Oak	17.0	8.0	7.0	8.0	9.0	0.49	1.00	2.50	W	M	Fair	Bias to the west.	+ 40	A1/2
152#	Quercus robur Pedunculate Oak	18.0	10.0	10.0	10.0	10.0	1.15	1.00	2.50	E	M	Fair	Large, well formed tree, minor dead wood and stubs. Provides enclosure and skyline amenity. Large root flare and rot pockets.	+ 45	A1/2
153#	Quercus robur Pedunculate Oak	17.0	8.0	7.0	8.0	9.0	0.95	1.00	2.50	E	M	Fair	Large, well formed tree, minor dead wood and stubs. Provides enclosure and skyline amenity.	+ 45	A1/2

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Tree Survey Schedule

Site: Former St Cyres, Dinas Powys, Penarth
Project schedule ref: JSL2735_750
Drawing reference: JSL2735_700
Survey date: 13/01/2017 - 20/01/2017

Surveyor: C Chambers
Status: For information
Revision: .
Notes:

Ref. no.	Species	Height (m)	Crown spread (m)				Stem dia. (m)	Stem no. at 1.5m	Height of crown clearance (m)	Dir/ height	Age class	Structural Physiological condition	General observations Management recommendations	Estimated remaining contribution (years)	Tree Quality Category (BS5837)
			N	E	S	W									
154#	Acer campestre Field Maple	13.0	5.0	2.0	5.0	6.0	0.45	1.00	2.50	W	M	Fair	Ivy into mid crown. Dead wood.	+ 35	B2
155#	Quercus robur Pedunculate Oak	11.0	0.5	2.5	7.0	4.0	0.45	1.00	2.50	S	M	Fair	One sided. Rot in buttresses likely columnar heart decay.	+ 25	B2
156	Quercus robur Pedunculate Oak	17.0	10.0	8.0	8.0	8.0	0.89	1.00	3.00	-	M	Fair	Previous storm damage noted comprising loss of lower scaffold limb. Rot in root flare/buttress likely inner decay. Impressive nonetheless.	+ 40	A2
157	Quercus robur Pedunculate Oak	13.0	6.0	10.0	6.0	0.0	0.75	1.00	0.50	-	M	Fair	Strong bias to the east and acute lean. Dead wood, snags.	+ 30	B2
158	Acer pseudoplatanus Sycamore	13.0	7.0	7.0	7.0	7.0	ave 0.22	M	-	-	M	Poor	Typically vigorous, non-native.	+ 20	C2
159	Quercus robur Pedunculate Oak	12.0	6.0	1.0	6.0	6.0	0.35	1.00	3.00	W	M	Fair	Established on lower hedge bank.	+ 30	B2
160	Quercus robur Pedunculate Oak	7.0	2.0	3.0	7.0	4.0	0.35	1.00	3.00	S	M	Fair	Established on lower hedge bank.	+ 30	B2
161	Quercus robur Pedunculate Oak	11.0	7.0	4.0	4.0	4.0	0.32	1.00	2.00	N	M	Fair/Good	Established on lower hedge bank.	+ 30	B2
162	Quercus robur Pedunculate Oak	11.0	6.0	7.0	6.0	2.0	0.36	1.00	2.00	E	M	Fair/Good	Established on lower hedge bank.	+ 30	B2
163	Quercus robur Pedunculate Oak	16.0	7.0	7.0	7.0	7.0	0.38	1.00	2.00	E	M	Fair/Good	Established on lower hedge bank.	+ 30	B2
164	Quercus robur Pedunculate Oak	8.0	3.0	8.0	7.0	2.0	0.56	1.00	2.00	E	M	Fair	Strongly leaning tree.	+ 35	A2

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Tree Survey Schedule

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Project schedule ref: JSL2735_750
Drawing reference: JSL2735_700
Survey date: 13/01/2017 - 20/01/2017

Surveyor: C Chambers
Status: For information
Revision: .
Notes:

Ref. no.	Species	Height (m)	Crown spread (m)				Stem dia. (m)	Stem no. at 1.5m	Height of crown clearance (m)	Dir/ height	Age class	Structural Physiological condition	General observations Management recommendations	Estimated remaining contribution (years)	Tree Quality Category (BS5837)
			N	E	S	W									
165	Quercus robur Pedunculate Oak	17.0	7.0	7.0	7.0	7.0	0.68	1.00	2.00	-	M	Fair/Good	Large, well formed tree, minor dead wood and stubs. Provides enclosure and skyline amenity.	+ 45	A1/2
166	Quercus robur Pedunculate Oak	17.0	9.0	9.0	9.0	9.0	0.72	1.00	2.00	-	M	Fair/Good	Large, well formed tree, minor dead wood and stubs. Provides enclosure and skyline amenity.	+ 45	A1/2
167	Quercus robur Pedunculate Oak	16.0	7.0	7.0	7.0	7.0	0.59	1.00	2.00	-	M	Fair/Good	Large, well formed tree, minor dead wood and stubs. Provides enclosure and skyline amenity.	+ 45	A1/2
G1	Salix caprea, Fraxinus excelsior, Prunus spinosa, Quercus robur Goat Willow, Common Ash, Blackthorn, Pedunculate Oak	7.0	as shown				-	-	-	-	-	Fair	Linear mid-storey shrub group. Mixed species with a Bramble and Ivy ground layer.	+ 15	C2
G2	Acer campestre Field Maple	7.0	as shown				-	-	-	-	MA	Fair	Line of trees bounding the grass area. Vegetation to the ground, these form a transition between the woodland and possible enclosure.	+ 15	C2
G3	Prunus spinosa, Fraxinus excelsior, Ulmus sp., Crataegus monogyna Blackthorn, Common Ash, Elm, Common Hawthorn	>4.5	as shown				-	-	-	-	M	Fair	Mixed understory group. Partly over-run by Bramble.	+ 15	C2
G4	Fraxinus excelsior, Quercus robur, Crataegus monogyna, Acer campestre Common Ash, Pedunculate Oak, Common Hawthorn, Field Maple	6.5	as shown				-	-	-	-	M	Fair	understory edge, multi-trunked.	+ 25	C2
G5	Acer saccharinum Silver Maple	11.0	as shown				-	-	-	-	M	Fair	Group on edge of school ground. Effective deciduous screen.	+ 20	B2
G6	Prunus avium, Fraxinus excelsior, Acer campestre, Acer pseudoplatanus Wild Cherry, Common Ash, Field Maple, Sycamore	11.0	as shown				0.22 0.22	-	-	-	M	Fair	Forms edge of wooded area on a low ditch/depression. Many are heavily ivy clad and lapsed.	+ 20	B2

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Survey date: 13/01/2017 - 20/01/2017

Surveyor: C Chambers
Status: For information
Revision: .
Notes:

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G7	Prunus avium, Prunus spinosa, Fraxinus excelsior, Salix caprea, Betula pendula Wild Cherry, Blackthorn, Common Ash, Goat Willow, Silver Birch	8.0	as shown				-	-	-	-	EM/Y	Fair	Fringed with Sloe, the group comprises vigorous Ash regeneration.	+ 15	C2
G8	Pinus nigra 'Maritima' Corsican Pine	22.0	as shown				ave 0.4	-	-	-	M	Fair	Established with woodland area. Evergreen tops visible from afar. In some instances trees have co-dominant forks.	+ 20	B2
G9	Acer pseudoplatanus, Acer campestre Sycamore, Field Maple	14.0	as shown				-	-	-	-	M	fair	Ivy clad. Forming a screen/green massing.	+ 20	C2
G10	Populus x canescens, Prunus avium Grey Poplar, Wild Cherry	9.0	as shown				ave 0.2	-	-	-	EM/y	Fair	Typically vigorous Poplar regeneration and to a lesser extent, Cherry.	+ 15	C2
G11	Prunus avium, Fraxinus excelsior Wild Cherry, Common Ash	6.0	as shown				-	-	-	-	Y/EM	Fair	In various stages of regeneration.	+ 15	C2
G12	Betula pendula Silver Birch	11.0	as shown				ave 0.25	-	-	-	EM	Fair	Typically vigorous. Bias to the south.	+ 15	C2
G13	Populus sp., Betula pendula, Acer campestre Poplar, Silver Birch, Field Maple	9.0	as shown				-	-	-	-	EM	Fair	Vigorous regeneration.	+ 15	C2
G14	Acer campestre Field Maple	8.0	as shown				-	-	-	-	MA	Fair	Shrubby, multi-trunked trees on the edge of wood.	+ 5	B2
G15	Quercus robur, Fraxinus excelsior, Betula pendula, Acer campestre, Corylus avellana Pedunculate Oak, Common Ash, Silver Birch, Field Maple, Common Hazel	12.0	as shown				-	-	-	-	MA	Fair	The wooded area is formed of Ash and Birch with an understory of Hazel. Open character likely managed - cleaned out regularly.	+ 20	B2
G16	Populus sp., Prunus avium, Fraxinus excelsior Poplar, Wild Cherry, Common Ash	12.0	as shown				-	-	-	-	MA	Fair	Wood has established on slope. The upper canopy is dominated by the large Poplar with much shrub layer regeneration.	+ 20	B2

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Surveyor: C Chambers
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Notes:

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G17	Betula pendula, Fraxinus excelsior Silver Birch, Common Ash	8.0	as shown				-	-	-	-	M	Fair	Established on boundary fence line. Provides some enclosure.	+ 20	B2
G18	Alnus sp., Betula pendula, Fraxinus excelsior Alder, Silver Birch, Common Ash	9.0	as shown				-	-	-	-	M	Fair	Established on boundary fence line. Provides some enclosure.	+ 20	B2
G19	Pinus sp., Acer campestre, Fraxinus excelsior, Crataegus monogyna, Quercus robur Pine, Field Maple, Common Ash, Common Hawthorn, Pedunculate	18.0	as shown				-	-	-	-	M	Fair	Pine rich woodland with a mid storey containing Field Maple, Oak and Ash. Bound by Hawthorn.	+ 25	B2
G20	Quercus robur Pedunculate Oak	24.0	as shown				-	-	-	-	M	Good	Off site group formed of large Oak trees.	+ 40	A2
G21	Fraxinus excelsior, Crataegus monogyna Common Ash, Common Hawthorn	15.0	as shown				-	-	-	-	M	Fair/Poor	Scrappy group in grass.	+ 15	C2
G22	Crataegus monogyna, Prunus spinosa, Quercus robur Common Hawthorn, Blackthorn, Pedunculate Oak	7.0	as shown				-	-	-	-	EM	Fair	Largely regenerated, vigorous, dense with occasional Oak.	+ 15	C2
G23	Fraxinus excelsior, Quercus robur, Crataegus monogyna, Euonymus europaeus Common Ash, Pedunculate Oak, Common Hawthorn, Spindle Tree	7.0	as shown				-	-	-	-	EM	Fair	Largely regenerated, vigorous, dense with occasional Oak on hedgebank.	+ 15	C2
G24	Crataegus monogyna, Acer campestre, Fraxinus excelsior, Euonymus europaeus Common Hawthorn, Field Maple, Common Ash, Spindle Tree	8.0	as shown				-	-	-	-	M	Fair	Group of mid-storey trees beneath larger climax Oak. Regeneration at ground level Ash and Spindle Tree.	+ 20	B2
G25	Quercus robur Pedunculate Oak	17.0	as shown				-	-	-	-	M	Fair/Good	Off site group of large, well formed Oak.	+ 45	A1/2

Note: This survey is based on a brief visual inspection from the ground.
It is not intended as a full arboricultural inspection.
- Indicates estimated / offsite tree

Tree Survey Schedule

Site: Former St Cyres, Dinas Powys, Penarth
Project schedule ref: JSL2735_750
Drawing reference: JSL2735_700
Survey date: 13/01/2017 - 20/01/2017

Surveyor: C Chambers
Status: For information
Revision: .
Notes:

Ref. no.	Species	Height (m)	Crown spread (m)				Stem dia. (m)	Stem no. at 1.5m	Height of crown clearance (m)	Dir/ height	Age class	Structural Physiological condition	General observations Management recommendations	Estimated remaining contribution (years)	Tree Quality Category (BS5837)
			N	E	S	W									
G26	Ilex aquifolium, Quercus robur, Euonymus europaeus, Fraxinus excelsior, Corylus avellana Common Holly, Pedunculate Oak, Spindle Tree, Common Ash, Common Hazel	11.0	as shown				-	-	-	-	M	Fair/Good	Understory boundary group. Native rich.	+ 30	B2
G27	Cornus sanguinea, Corylus avellana, Fraxinus excelsior, Prunus spinosa Common Dogwood, Common Hazel, Common Ash, Blackthorn	3.0	as shown				-	-	-	-	Y/EM	Fair	Vigorous regeneration on … boundary edge; species rich.	+ 20	C2
G28	Salix sp., Prunus spinosa, Corylus avellana Willow, Blackthorn, Common Hazel	5.0	as shown				-	-	-	-	Y/EM	Fair	Regenerated vegetation forming the woodland edge.	+ 15	C2
G29	Fraxinus excelsior, Quercus robur, Prunus laurocerasus, Crataegus monogyna, Corylus avellana, Euonymus europaeus, Salix sp. Common Ash, Pedunculate Oak, Cherry Laurel, Common Hawthorn, Common Hazel, Spindle Tree,	12.0	as shown				-	-	-	-	M	Fair	Species-rich group under larger climax Oak and running on the slope down to sunken lane.	+ 25	B2
G30	Acer campestre Field Maple	7.0	as shown				-	-	-	-	OM	Fair/Poor	Small group, in some instances collapsing under the weigh of overgrown ivy.	+ 15	C2
G31	Prunus spinosa, Crataegus monogyna, Euonymus europaeus, Fraxinus excelsior Blackthorn, Common Hawthorn, Spindle Tree, Common Ash	5.0	as shown				-	-	-	-	EM	Fair	Regenerated edge to fields. Dense, vigorous.	+ 15	C2
G32	Corylus avellana, Acer campestre, Quercus robur, Crataegus monogyna Common Hazel, Field Maple, Pedunculate Oak, Common Hawthorn	8.0	as shown				-	-	-	-	MA	Fair	Dese, Ivy clad. Hazel coppice stools.	+ 20	C2
G33	Chamaecyparis lawsoniana Lawson Cypress	11.0	as shown				-	-	-	-	MA	Fair/Good	Line of trees - remnant outgrown boundary vegetation.	+ 15	C2

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It is not intended as a full arboricultural inspection.
- Indicates estimated / offsite tree

Tree Survey Schedule

Site: Former St Cyres, Dinas Powys, Penarth
Project schedule ref: JSL2735_750
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Survey date: 13/01/2017 - 20/01/2017

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Notes:

Ref. no.	Species	Height (m)	Crown spread (m)				Stem dia. (m)	Stem no. at 1.5m	Height of crown clearance (m)	Dir/ height	Age class	Structural Physiological condition	General observations Management recommendations	Estimated remaining contribution (years)	Tree Quality Category (BS5837)
			N	E	S	W									
G34	Prunus spinosa, Crataegus monogyna, Euonymus europaeus, Fraxinus excelsior Blackthorn, Common Hawthorn, Spindle Tree, Common Ash	5.0	as shown				-	-	-	-	EM	Fair	Regenerated edge to fields. Dense, vigorous.	+ 15	C2
G35	Fraxinus excelsior Common Ash	>9	as shown				-	-	-	-		Fair	Regenerated Ash. Typically vigorous.	+ 20	C2
G36	Corylus avellana, Acer campestre, Quercus robur Common Hazel, Field Maple, Pedunculate Oak	9.0	as shown				-	-	-	-	M/MA	Good	Mid-sized trees and coppice established on low hedge bank.	+ 30	B2
G37	Prunus spinosa, Crataegus monogyna, Euonymus europaeus, Fraxinus excelsior Blackthorn, Common Hawthorn, Spindle Tree, Common Ash	5.0	as shown				-	-	-	-	EM	Fair	Regenerated edge to fields. Dense, vigorous.	+ 15	C2
G38	Prunus spinosa, Crataegus monogyna, Euonymus europaeus, Fraxinus excelsior Blackthorn, Common Hawthorn, Spindle Tree, Common Ash	5.0	as shown				-	-	-	-	EM	Fair	Regenerated edge to fields. Dense, vigorous.	+ 15	C2
G39	Alnus sp., Populus sp., Salix sp., Acer campestre Alder, Poplar, Willow, Field Maple	8.0	as shown				-	-	-	-	EM	Good	Vigorous linear group of dense likely rapidly establishing pioneer trees.	+ 20	C2
G40	Prunus spinosa, Crataegus monogyna, Euonymus europaeus, Fraxinus excelsior Blackthorn, Common Hawthorn, Spindle Tree, Common Ash	5.0	as shown				-	-	-	-	EM	Fair	Regenerated edge to fields. Dense, vigorous.	+ 15	C2
G41	Prunus spinosa, Crataegus monogyna, Euonymus europaeus, Fraxinus excelsior Blackthorn, Common Hawthorn, Spindle Tree, Common Ash	5.0	as shown				-	-	-	-	EM	Fair	Regenerated edge to fields. Dense, vigorous.	+ 15	C2

Note: This survey is based on a brief visual inspection from the ground.
It is not intended as a full arboricultural inspection.
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Tree Survey Schedule

Site: Former St Cyres, Dinas Powys, Penarth
Project schedule ref: JSL2735_750
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			N	E	S	W									
G42	Prunus spinosa, Crataegus monogyna, Euonymus europaeus, Fraxinus excelsior Blackthorn, Common Hawthorn, Spindle Tree, Common Ash	5.0	as shown				-	-	-	-	EM	Fair	Regenerated edge to fields. Dense, vigorous.	+ 15	C2
W1	Acer campestre, Betula pendula, Fraxinus excelsior, Prunus avium, Salix sp., Quercus robur Field Maple, Silver Birch, Common Ash, Wild Cherry, Willow, Pedunculate Oak	12.0	as shown				-	-	-	-	EM	Fair	Fairly mature, vigorous wooded area. Ivy. Ground layer and much young regeneration, chiefly Ash. Part of the woodland to the south and off site contains larger climax specimens.	+ 15	B2
H1	Quercus robur, Acer campestre, Corylus avellana, Cornus sanguinea, Pedunculate Oak, Field Maple, Common Hazel, Common Dogwood	4.5	as shown				-	-	-	-		Fair	Vigorous, sided-up/flailed hedge to the sunken lane. 1.25m above lane.	+ 25	B2

Note: This survey is based on a brief visual inspection from the ground.
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- Indicates estimated / offsite tree

APPENDIX 1

Tree Protection Plans JSL2735_710A & 711A

Notes

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Rev	Description	Date	Initial	Checked
A	Site boundary updated	08/08/2017	JMB	SH

Key

Site boundary.

T1 — Tree with numbered reference. Canopy spread and BS5837:2012 tree quality category as shown below.

T1# — Tree (in off-site or estimated location) with numbered reference. Canopy spread and BS5837:2012 tree quality category.

G1 — Vegetation group with numbered reference. Canopy extents and BS5837:2012 tree quality category as shown below.

H1 — Hedge with numbered reference. Width and BS5837:2012 tree quality category as shown below.

BS 5837:2012 Tree Quality Categories - Table 1

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

T1 — Tree/ vegetation protected by Tree Preservation Order

Root protection area (RPA) Calculated in accordance with Section 4.6 - BS5837:2012

Tree to be removed with numbered reference. Canopy spread and BS5837:2012 tree quality category.

Vegetation group or hedge to be removed with numbered reference. Canopy spread and BS5837:2012 tree quality category.

Temporary protective fencing in accordance with Section 6.2 - BS5837:2012. See inset details for example barriers.

Excavation to be completed by hand, any required root pruning to be in accordance with BS 3998. Pruning of roots over 25mmØ to be monitored by arboriculturalist, with ongoing monitoring of trees condition by an aboriculturalist being recommended.

NOTES:

- Refer to RPS Tree Survey Report & Schedule for further details.
- Survey based on a visual inspection from the ground and is not intended as a full arboricultural inspection.
- Plan produced in accordance with recommendations set out in BS 5837:2012 - 'Trees in Relation to design, demolition and construction'.
- Due to the legal protection afforded to breeding birds vegetation removal should not take place during the bird nesting period; generally, although not restricted to, March - August inclusive.
- Survey based upon topographic survey produced by Zenith Land Surveys Limited in Nantgarw, December 2016.
- Pedestrian/ vehicular emergency access routes to be maintained at all times.
- All protective fencing to be completed and approved by LPA / CA prior to commencment of any site works.
- All works to conform with requirements of:
  BS 3998:2010 - Tree Works
  BS 5837:2012 - Trees in relation to design, demolition and construction

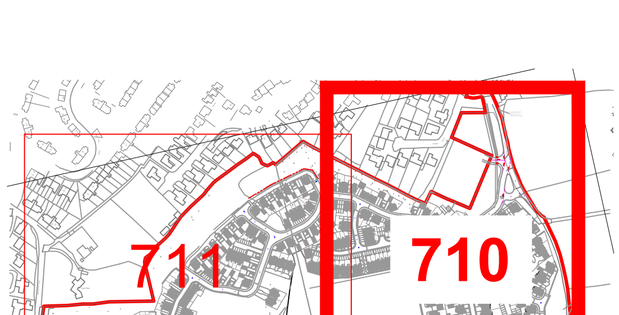
FOUL DISCHARGE TO EXISTING HEAD OF ADOPTED GRAVITY SYSTEM. CONNECTION TO BE MADE VIA A SECTION 106 NOTICE WITH DCWW

ATTENUATION VIA TWO 21.6 x 13.2 x 2.56m DEEP STORMCELL BY HYDRO INTERNATIONAL (2.4 x 1.2 x 0.52m CELL CONFIGURATION). MAX VOLUME = 1,385m³ (95% POROSITY)

SURFACE WATER DISCHARGE FROM SITE LIMITED TO 54.1 l/s CONTROLLED VIA A HYDROBRAKE CHAMBER AND ATTENUATED TO THE 100 YEAR EVENT, PLUS 30% CLIMATE CHANGE.

Scale Bar
0m 25m 50m

Key Plan NTS



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Client: Barratt Homes South Wales Division

Project: Lower Cyres School Dinas Powys

Title: Tree Protection Plan Sheet 1 of 2

Status	Drawn By	PM/Checked by
For information	JB	CC

Job Ref	Scale @ A1	Date Created
JSL2735	1:500	31/07/2017

Drawing Number: 710

Rev: A

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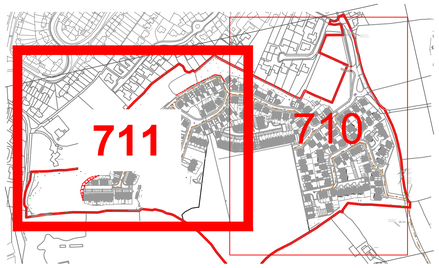

Key Plan NTS

Scale Bar
0m 25m 50m

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Key

- Site boundary.
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- All works to conform with requirements of:
  BS 3998:2010 - Tree Works
  BS 5837:2012 - Trees in relation to design, demolition and construction

Rev	Description	Date	Initial	Checked
A	Site boundary updated	08/08/2017	JMB	SH

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Client: Barratt Homes
South Wales Division

Project: Lower Cyres School
Dinas Powys

Title: Tree Protection Plan
Sheet 2 of 2

Status	Drawn By	PM/Checked by
For information	JB	CC

Job Ref	Scale @ A1	Date Created
JSL2735	1:500	31/07/2017

Drawing Number: 711
Rev: A

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APPENDIX 2

Example Tree Protection Barrier (BS5837:2012 Fig 2 & 3)

Figure 2 **Default specification for protective barrier**

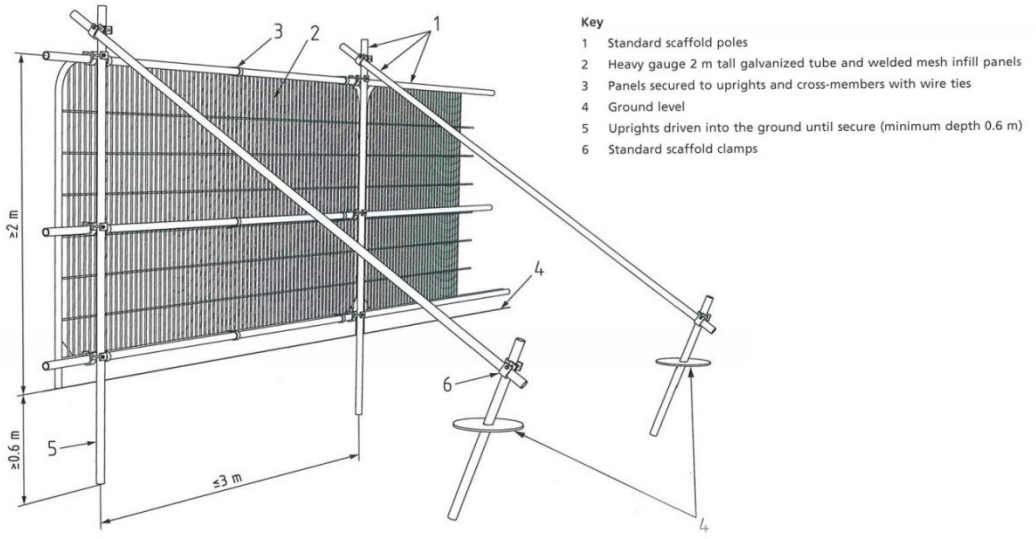
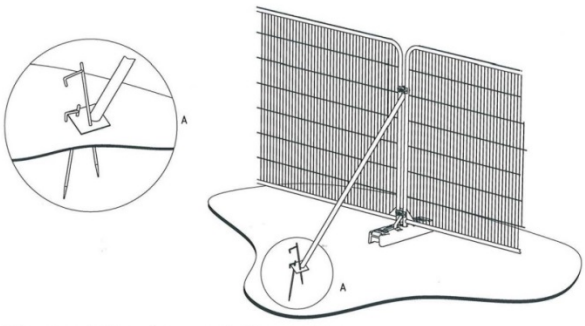
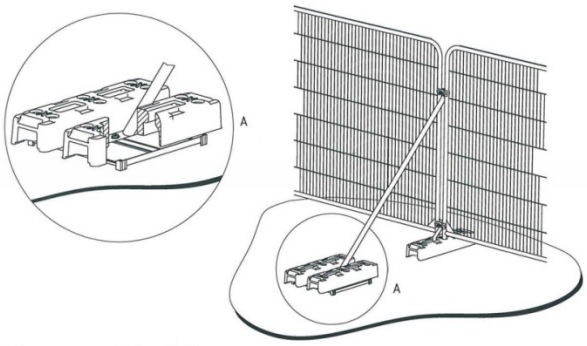


Figure 3 **Examples of above-ground stabilizing systems**



a) Stabilizer strut with base plate secured with ground pins



b) Stabilizer strut mounted on block tray

APPENDIX 4

Arboricultural Glossary

Age-class - A general classification of the tree into either - young, semi-mature, early mature, mature, over-mature, or veteran.

Apical Bud/Shoot – The apical bud, also known as the leading shoot, is responsible for shoot extension and is dominant.

Apical Dominance – A singular, leading shoot remains dominant.

Arboreal - In connection with, or in relation to, trees.

Arboriculturalist – Person who has, through relevant education, training and experience, gained recognised qualifications and expertise in the field of trees in relation to construction.

Arboricultural Implications Assessment (AIA) – Study, undertaken by an arboriculturalist, to identify, evaluate and possibly mitigate the extent of direct and indirect impacts on existing trees that may arise as a result of the implementation of any site layout proposal.

Arboricultural Method Statement (AMS) – Methodology for the implementation of any aspect of development that has the potential to result in the loss of or damage to a tree. Note The AMS is likely to include details of an on-site tree protection monitoring regime.

Basal – Referring to the bottom part of a tree's stem.

Basifugal mortality – A natural process seen in trees in an advanced life stage whereby the trees extremities die back and the inner crown expresses new growth, in order to conserve energy reserves.

Bifurcated - A growth characteristic, where two stems of similar size grow from the same point. Can create an inherent weakness.

Branch union/junction - The point at which a branch joins a larger stem. Can be a point of weakness, especially in certain species.

Brown Rot- Decay caused by certain species of fungus which results in the affected wood becoming brittle and liable to suddenly 'break out', especially if in key structural areas.

Buttress flares – Extensions of the basal stem of a tree that provide additional structural support. See reaction wood. AKA root flare.

Bifurcated- A growth characteristic, where two or more stems of similar size grow from the same point. Can create an inherent weakness.

Canker – A clearly defined area of dead and sunken or malformed bark, caused by bacteria or fungi. Can have a bearing on structural integrity of infected limb(s) depending on size and location.

Compaction - The compressing & hardening of soil around tree root systems, due to vehicular/pedestrian use etc. Loss of pore space between soil granules limits water movement and gaseous exchange, and inhibits root growth.

Competent person – Person who has training and experience relevant to the matter being addressed and an understanding of the requirements of the particular task being approached

Note 1 A competent person understands the hazards and the methods to be implemented to eliminate or reduce the risks that can arise. For example, when on site, a competent person is able to recognise at all times whether it is safe to proceed.

Note 2 A competent person is able to advise on the best means by which the recommendations of this British Standard may be implemented.

Condition – Assessment based on a visual and professional view giving consideration to many factors such as tree health, structural integrity and suitability of its position.

Conservation dead- wooding- Removal of deadwood using 'coronet cuts' that mimic the way a branch would naturally break off, maximising deadwood habitat availability for invertebrates.

Coppice - The method of managing trees by cutting the stems at between 1.0 inch and 1.0 foot from the ground level on a regular cycle, the cut stumps of the trees or shrubs are allowed to re-grow many new stems.

Crown spread - Gives distances between extreme limits of the crown and the stem, usually along the four compass points. Helps to show crown symmetry.

Crown Reduction – The removal of branch ends to reduce the extreme limits of a trees branch spread and height.

Crown Thin – The removal of selected branches within the crown to thin the internal branch structure.

D.B.H. - 'Diameter at Breast Height', an industry standard to gauge tree stem size and development. Within arboriculture, breast height is taken to be 1.5m above ground level.

Dieback - The reduction in crown vigour and extension growth progressing to death of distal parts; often associated with decline.

Epicormic growth - New growth from dormant buds that can often form tenuous attachments. Although some species readily form such shoots, it can be an indication of stress.

Form - A general assessment of the shape and position of the tree within its environment.

Hanger – Term used to describe a branch that has become detached and is being supported by other branches. Can be a hazard to persons and property below.

Hazard Beam – After the loss of a distal part, a limb concentrates growth upwards creating adverse end weights that can render the limb susceptible to failure. .

Included bark – Growth characteristic usually caused when two or more stems/branches growing in close proximity 'fuse' together entrapping the bark from when the parts were separate in the middle, creating a structural weakness.

Invertebrate tower – Pollarding of a (usually dead) tree to a safe height that leaves part of the main stem as a deadwood habitat for invertebrate species.

Occlusion/Occluded – Normally used to describe the overgrowth of a wound. Also, immoveable foreign objects in contact with a tree part can become encased or 'occluded' by the tree as it grows incrementally.

Pathogen - An agent that causes disease, especially a living microorganism such as a bacterium or fungus.

Pollard – The removal and subsequent regular re-removal of the crown of a tree above animal browsing height. Can be an effective method of controlling the size of trees in urban areas. This is ideally begun in the trees early stages and maintained throughout its life.

Reaction wood - Essentially additional wood laid down by the tree to compensate for structural defects such as cavities.

Ring barking/Girdling – the removal of bark around the entire circumference of a stem or branch, causing the death of all distal parts.

Root Protection Area (RPA) – Layout design tool indicating the area surrounding a tree that contains sufficient rooting volume to ensure the survival of the tree, shown in plan form in m^2.

Scaffold limbs - The main structural branches within the crown.

Tree braces – Cable braces used to support the crown of a tree, reduce impacts caused by wind- throw oscillation.

Tree protection plan – scale drawing prepared by an arboriculturalist showing the finalised layout proposals, tree retention and tree and landscape protection measures detailed within the arboricultural method statement (AMS), which can be shown graphically.

U.L.E – 'Useful Life Expectancy' is an estimate based on currently known factors of the possible remaining life of the tree as an asset. AKA 'Estimated remaining contribution'.

Veteran tree – Tree that, by recognised criteria, shows features of biological, cultural or aesthetic value that are characteristic of, but not exclusive to, individuals surviving beyond the typical age range for the species concerned.

Vigour - A general classification, as to the present and future potential growth and development of a tree. A comment regarding the health status of the tree specific to its species.

White Rot - A type of decay caused by certain species of fungi which results in the affected wood becoming flexible with little compressive strength.