Arboricultural Method Statement

Bryn Y Groes, Gresford - Phase 2

Prepared for:

SG Estates

Our Ref: 17/AMS/WXM/198 (Rev A)
Planning Ref: P/2014.0671

15 May 2017

Tree Solutions Ltd

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Tree Solutions Ltd Registration in England & Wales Company No 04548951

1.0 Introduction

1.1 Tree Solutions Ltd has been instructed by SG Estates to provide an Arboricultural Method Statement (AMS) to satisfy and discharge Planning Conditions 5 & 6 Planning Code No: P/2014/0671 – Plots 1-14 & 44-54, Bryn Y Groes, Gresford, LL12 8UA.

1.2 This Method Statement sets out the methodology and protection measures for all works within close proximity to trees located on and adjoining the site boundary indicated on the Tree Protection Plan at ***Appendix 3***. All trees have been surveyed and are detailed within the tree survey schedule sheet at ***Appendix 1***. Compliance with this method statement will be a requirement of all relevant contracts associated with the approved development. Copies of this document will be made available for inspection on site.

1.4 Trees to be retained and details including the designated Root Protection Area and location of tree protective fencing are clearly indicated on the Tree Protection Plan Ref 17/AMS/WXM/198, Drawing No 1 which is at ***Appendix 2*** to this report.

1.5 The purpose of the AMS is to provide information on protection and control measures affecting the existing tree stock. The works, with applicable methodology, are divided into the sequence of operations at paragraph 4.0:

2.0 STATUTORY CONTROLS

2.1 All trees on site are subject to a Tree Preservation Order. As such, statutory planning consent is required prior to undertaking any works not granted consent under previous planning applications.

3.0 SITE PLAN

3.1 The observations and recommendations contained in this document relate to the approved plan Ref: PL1 (Rev N) supplied Cartwright Architectural & Planning Services.

3.2 The method statement should be read in conjunction with the enclosed Tree Protection Plan, which is based upon the above drawing.

4.0 DEVELOPMENT IMPACT TO TREES

4.1 The approved development layout has an adverse impact on tree number 3. The access road to the east of plot numbers 12a & 14 encroaches significantly within the designated RPA. The required lowering of ground levels in this area will require the removal of a large volume of soil and the inevitable loss of many roots that will impair the future health and vigour of this tree and also leave it liable to windthrow due to the compromised root anchorage. It would clearly not be advisable to retain such a tree within such close proximity to residential dwellings and contained in the public open space. As such we have recommended that it be removed and replaced by suitable specimen trees as mitigation.

4.2 A hand dug trial trench has subsequently been excavated and inspected by the LPA Tree Officer in May 2017. He has stated that he is satisfied that the road can be installed and tree retained subject to the attached construction design Ref: WD BMN 12 supplied by Cartwright Architectural & Planning Services



Photo 1 - Tree number 3 (Lime)



Photo 3 - T2 & T3 viewed from SE

5.0 SEQUENCE OF OPERATIONS

From commencement of the above development, the following methodology shall be implemented in the manner and sequence described:

1. Erect temporary tree protective fencing
2. Main construction phase
3. Removal of temporary fencing
4. Landscaping within RPA of trees

1. Erect Temporary Tree Protective Fencing

1. Prior to commencement of any construction, preparation, excavation or material deliveries the main contractor shall erect the temporary protective fencing as detailed in the 'Tree Protection Specification' and in the location indicated on the Tree Protection Plan.

2. Tree Solutions are to be given 5 days written notice as soon as all protective fencing has been erected in order to inspect the specification and location. An inspection report will be completed and returned to the LPA Tree Officer for approval. Any damage occurring to protective fencing during the demolition or construction phase shall be made good by the main contractor

2. Main/Construction Phase

1. Tree protective fencing to be erected prior to any construction plant or materials entering the site
2. Tree protective barriers in accordance with BS 5837: 2012 will be erected to prevent damage to the tree stems and any movement of plant with the RPA
3. There shall be no storage of construction material, site parking, site accommodation or equipment in any area designated as the Root Protection Area (RPA) and Construction Exclusion Zone (CEZ) and enclosed by Temporary Protective Fencing
4. No materials that are likely to have an adverse effect on tree health such as oil, bitumen or cement will be stored or discharged within 10 metres of the trunk of a tree that is to be retained. No fires will be lit
5. The site agent shall supervise deliveries by self-loading crane, with vehicles positioned in such a manner that retained trees are not at risk of damage

Cement Mixing

- The cement mixer will be laid on top of plywood boards in a position located outside the RPA of any tree or hedgerow. The mixer will be kept in this position throughout the development work.

Avoiding Damage to Stems and Branches

- Care shall be taken when planning site operations in proximity to trees to ensure that wide or tall loads or plant with booms, jibs and counterweights can operate without coming into contact with retained trees. Such contact can result in serious injury resulting in safe retention impossible

On Site Storage of Spoil and Building Materials

- Prior to and during all site construction works no spoil will be stored and no cement mixing will take place within the Root Protection Area of any tree on or adjacent to the site even if proposed site work is to be within the crown spread. Any encroachment within this protected area will only be with the prior agreement of the LPA Arboricultural Officer

3. Remove all Temporary Tree Protective Fencing

1. Tree Protective fencing will only be removed upon completion of all construction work and once all machinery associated with the works has left site.
2. The tree protection fencing shall not be removed until written confirmation has been received from the Local Planning Authority that it is acceptable to do so.

4. Landscaping within RPA of Trees

1. There shall be **no rotovation** of ground within any area designated as a Root Protection Area (RPA) and Construction Exclusion Zone (CEZ) and enclosed by Temporary Protective Fencing.
2. No hard landscaping works or excavation for cables or any other service should be installed within the Root Protection Area (RPA) and Construction Exclusion Zone (CEZ) without the written consent of the LPA.

5. ARBORICULTURAL SITE SUPERVISION

1 The erection of all tree protection measures outlined in this AMS and as indicated on the Tree Protection Plan will be inspected by the contract Arboricultural Consultant immediately after erection. Photographic evidence of the location and specification of all protective fencing will be forwarded to the LPA Tree Officer upon completion.

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Useful Contacts

Arboricultural Consultant

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LPA Arboricultural Officer

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Email: jon.brewin@wrexham.gov.uk

TREE PROTECTIVE FENCING

1 Before the commencement of any site excavations and subsequent construction works (other than those set out in the schedule of tree works contained in this document), protective fencing will be erected as detailed on the Tree Protection Plan and as specified below. The LPA Tree Officer will be given 5 days notice upon completion of the fencing in order to inspect and approve prior to the commencement of any site works.

2 The fencing will consist of a scaffold framework in accordance with Figure 2 of BS 5837 – 2012 (illustration below) comprising a metal framework, both vertical and horizontal, well braced to resist impacts. Vertical tubes will be spaced at a maximum interval of 3m. Onto this, weldmesh panels shall be securely fixed with wire or scaffold clamps. Weldmesh panels on rubber or concrete feet are not considered resistant to impact and for this reason will not be used. The site manager or other suitably qualified appointed person will be responsible for inspecting the protective fencing on a daily basis; any damage to the fencing or breaches of the fenced area will be rectified immediately.

3 Clearly legible weatherproof signage, stating “Protected Trees – Exclusion Zone” shall be attached to the fencing 1.5m from the ground, facing out of the Tree Protection Zone located at regular intervals along the fence line. A copy of the tree protection sign is at ***Appendix 2***

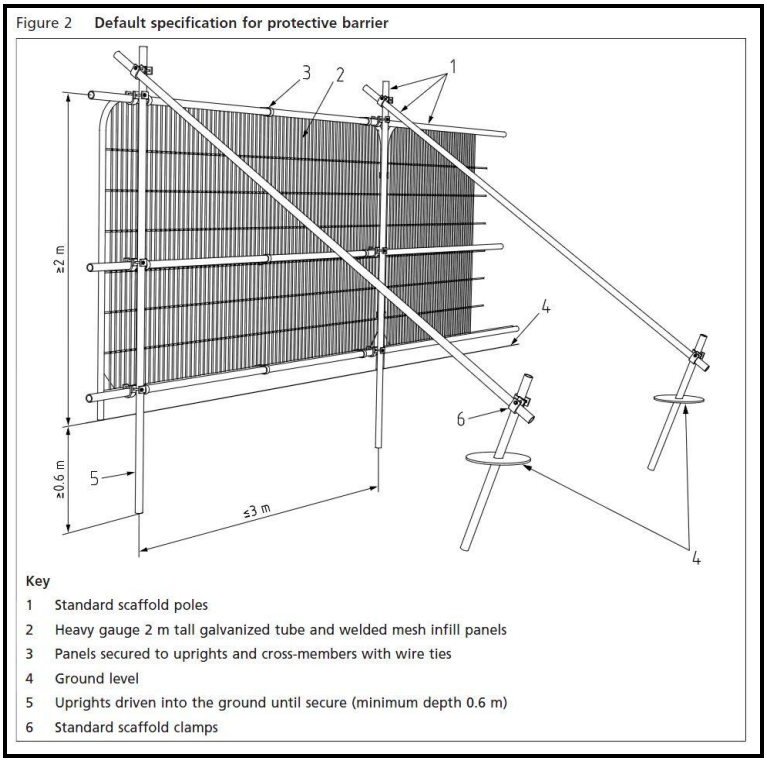
4 The fencing will remain in place until completion of all site works and then only removed when all site traffic is removed from site

5 Other than works detailed within this method statement or approved in writing by the Local Planning Authority (LPA), no works including storage or dumping of materials shall take place within the exclusion zones defined by the protective fencing.

Protective Fencing Detail

1. Magenta - Trees

Figure 2 **Default specification for protective barrier**



Key
1 Standard scaffold poles
2 Heavy gauge 2 m tall galvanized tube and welded mesh infill panels
3 Panels secured to uprights and cross-members with wire ties
4 Ground level
5 Uprights driven into the ground until secure (minimum depth 0.6 m)
6 Standard scaffold clamps

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Appendix One

Tree Survey Schedule

TREE SURVEY SCHEDULE (BS5837: 2012)

Tree Solutions
Arboricultural Consultants

SITE:	BRYN Y GROES, GRESFORD - PHASE 2
CLIENT:	SG ESTATES
BRIEF:	ARBORICULTURAL METHOD STATEMENT

SURVEYOR:	A. HENDERSON
ASSESSMENT DATE:	24 FEBRUARY 2017
VIEWING CONDITIONS:	GOOD
JOB REFERENCE:	17/AMS/WXM/198

TREE NO. T - Tree G - Group H- Hedge	SPECIES (COMMON NAME)	AGE	HEIGHT (m) + CROWN CLEARANCE/ DIRECTION OF GROWTH (N.S.E.W)	RADIAL CROWN SPREAD (m) N	S	E	W	STEM/ MULTI-STEM* DIA.(mm)	VITALITY	COMMENTS	MANAGEMENT	CATEGORY & SUB-CATEGORY GRADING BS 5837	BS 5837 RADIUS (m) RPA (m^2)
T1	Cedar (Lebanon)	FM	20 1.5S	6	7	8.5	6	1005	G	• Ivy clad impeding inspection • Screened by surrounding trees - will become a very prominent standalone feature trees when surrounding vegetation is cleared • Stem leans SE • E.R.C. 40	• Sever Ivy at base of stem	A2	12.06 457m^2
T2	Lime	M	22 2S	6	7	5	6	700	G	• Mass of epicormic growth around base impeding inspection - stem diameter approximate • Large diameter dead wood and dieback in crown • E.R.C. 20+	• Remove all dead wood and clean out crown	A2	8.4 222m^2
T3	Lime	M	24 1.5S	5	5.5	4	6	800	G	• As T2 • Planning consent granted to install access road within RPA. Sloping ground levels do not allow for no-dig design spec. Trial trench excavated in line with edge of road and inspected by WCBC Tree Officer who has stated that the tree can be retained • E.R.C. 20	• Remove all dead wood and clean out crown	A2	9.6 290m^2

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T4	Pine	FM	18 3N	7	6	5	4	1290	G	• Feature tree to site • Recent storm damage with torn out & hanging limbs to east • Past loss of secondary leader to west leaving large tear out wound on stem • E.R.C. 40	• Remove damaged and hanging limbs to east	A2	15 707m²

HEADINGS & ABBREVIATIONS

TREE NO.	REFERENCE NUMBER. REFER TO PLAN OR NUMBERED TAGS WHERE APPLICABLE (T = TREE, G = GROUP, H = HEDGE)
SPECIES:	COMMON NAME (LATIN NAMES AVAILABLE ON REQUEST)
AGE RANGE/LIFE STAGE:	Y = YOUNG, SM = SEMI MATURE, EM = EARLY MATURE, M = MATURE, PM = POST MATURE
HEIGHT:	ESTIMATED AND RECORDED IN METRES. APPROXIMATELY 1 IN 10 TREES ARE MEASURED USING A CLINOMETER AND THE REMAINDER ESTIMATED AGAINST THE MEASURED TREES
CROWN SPREAD:	MAXIMUM CROWN RADIUS MEASURED TO THE FOUR CARDINAL COMPASS POINTS FOR SINGLE SPECIMENS ONLY (MEASUREMENT FOR TREE GROUPS - MAXIMUM RADIUS OF THE GROUP)
CROWN CLEARANCE & DIRECTION OF GROWTH:	HEIGHT IN METERS OF CROWN CLEARANCE ABOVE ADJACENT GROUND LEVEL (TO INFORM ON GROUND CLEARANCE, CROWN/STEM RATIO AND SHADING)
STEM DIA/MULTI-STEM DIA:	STEM DIAMETER - MEASURED AT APPROXIMATELY 1.5 METRES ABOVE GROUND LEVEL OR A COMBINATION OF STEMS FOR MULTI-STEMMED TREES
VITALITY:	A MEASURE OF PHYSIOLOGICAL CONDITION. D = DEAD, MD = MORIBUND, P = POOR, M = MODERATE, G = GOOD
E.R.C. = ESTIMATED REMAINING CONTRIBUTION:	RELATIVE USEFUL LIFE EXPECTANCY (YEARS)
BS 5837CATEGORY & SUB-CATEGORY GRADING:	A = HIGH QUALITY AND VALUE, B = MODERATE QUALITY AND VALUE, C = LOW QUALITY AND VALUE, U = UNSUITABLE FOR RETENTION (SUB-CATEGORY REFERS TO ARBORICULTURAL., LANDSCAPE AND CULTURAL/CONSERVATION VALUES)
BS 5837 RADIUS & BS 5837 RPA:	PROTECTIVE DISTANCE - RADIUS FROM THE CENTRE OF THE STEM TO THE LINE OF TREE PROTECTION (CONSTRUCTION EXCLUSION ZONE - CEZ) AND PROTECTIVE BARRIER ROOT PROTECTION AREA - BS 5837 (2012) ANNEX D (THE RECOMMENDATIONS STATE THAT THE RPA SHOULD BE CAPPED AT 707 M^2) NOTE – ALL CALCULATIONS ROUNDED TO NEAREST DECIMAL

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)				
Category 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	• 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) • Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline • 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 *NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve; see **4.5.7**.*			See Table 2
	1 Mainly arboricultural qualities	**2 Mainly landscape qualities**	**3 Mainly cultural values, including conservation**	
Trees to be considered for retention				
Category A **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
Category 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
Category C **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

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Appendix Two

Arboricultural Impact Assessment Plan



Legend

Root Protection Area Modified to Account for Site Features

Category
Crown Spread
Tree Number
13
Root Protection Area

Tree Proposed for Removal

- Category A (High Quality)
- Category B (Moderate Quality)
- Category C (Low Quality)
- Category U (Dead/Dying/In Decline)

Client: SG Estates	
Project: Bryn Y Groes, Gresford - Phase 2	
Title: Arboricultural Impact Assessment Plan	
Scale: 1:500 @ A3	Date: May 2017
Drawn By: LI	Revision: A
Job Ref: 17/AMS/WXM/198	Drawing No: 01

Do not scale from this drawing all dimensions to be checked on site.

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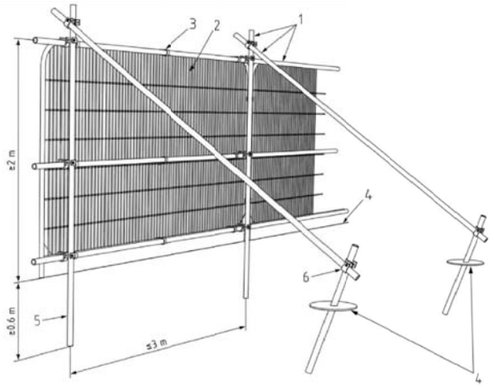
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Appendix Three

Tree Protection Plan

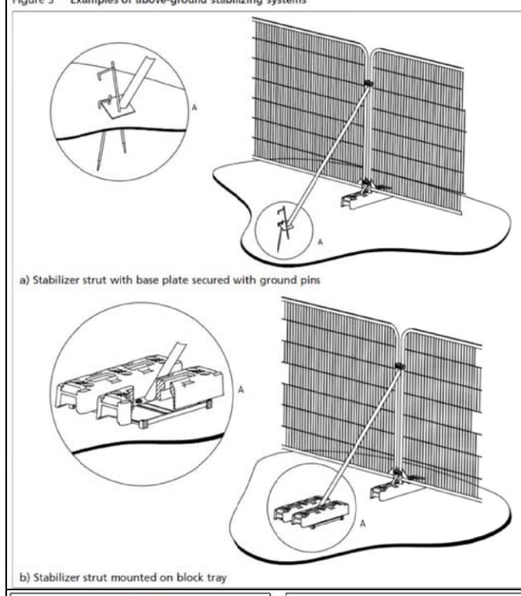
Figure 2 **Default specification for protective barrier**



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4 Ground level
5 Uprights driven into the ground until secure (minimum depth 0.6 m)
6 Standard scaffold clamps

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

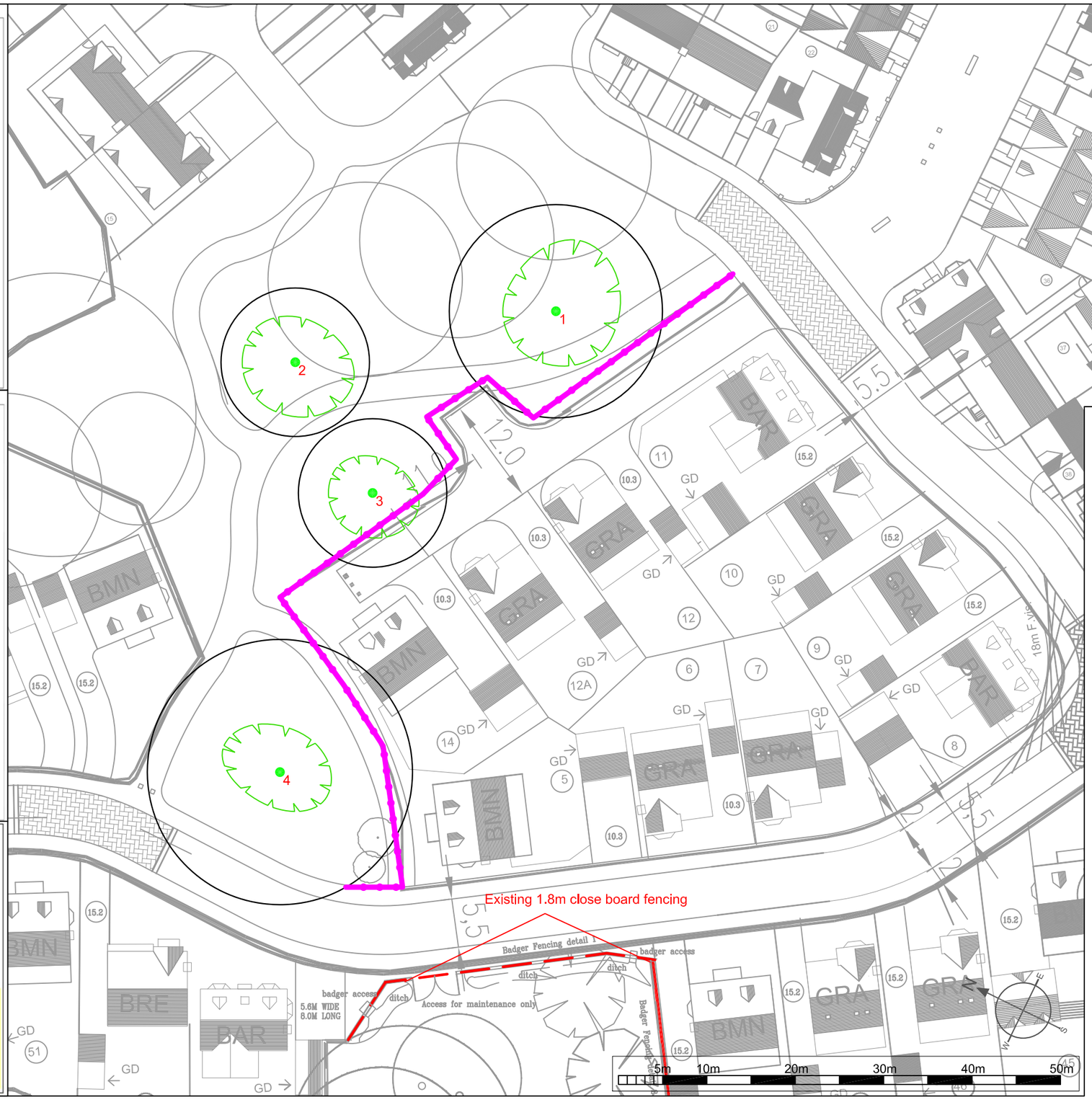


PROTECTIVE FENCING. THIS FENCING MUST BE MAINTAINED IN ACCORDANCE WITH THE APPROVED PLANS AND DRAWINGS FOR THIS DEVELOPMENT.



TREE PROTECTION AREA
KEEP OUT !
(TOWN & COUNTRY PLANNING ACT 1990)
TREES ENCLOSED BY THIS FENCE ARE PROTECTED BY PLANNING CONDITIONS AND/OR ARE THE SUBJECTS OF A TREE PRESERVATION ORDER.
CONTRAVENTION OF A TREE PRESERVATION ORDER MAY LEAD TO CRIMINAL PROSECUTION

ANY INCURSION INTO THE PROTECTED AREA MUST BE WITH THE WRITTEN PERMISSION OF THE LOCAL PLANNING AUTHORITY



Legend

Root Protection Area Modified to Account for Site Features

Category
Crown Spread
Tree Number
Root Protection Area
13

Tree Protection Fencing

Category A (High Quality)
Category B (Moderate Quality)
Category C (Low Quality)
Category U (Dead/Dying/In Decline)

Client: SG Estates	
Project: Bryn Y Groes, Gresford - Phase 2	
Title: Tree Protection Plan	
Scale: 1:500 @ A3	Date: May 2017
Drawn By: LI	Revision: A
Job Ref: 17/AMS/WXM/198	Drawing No: 02

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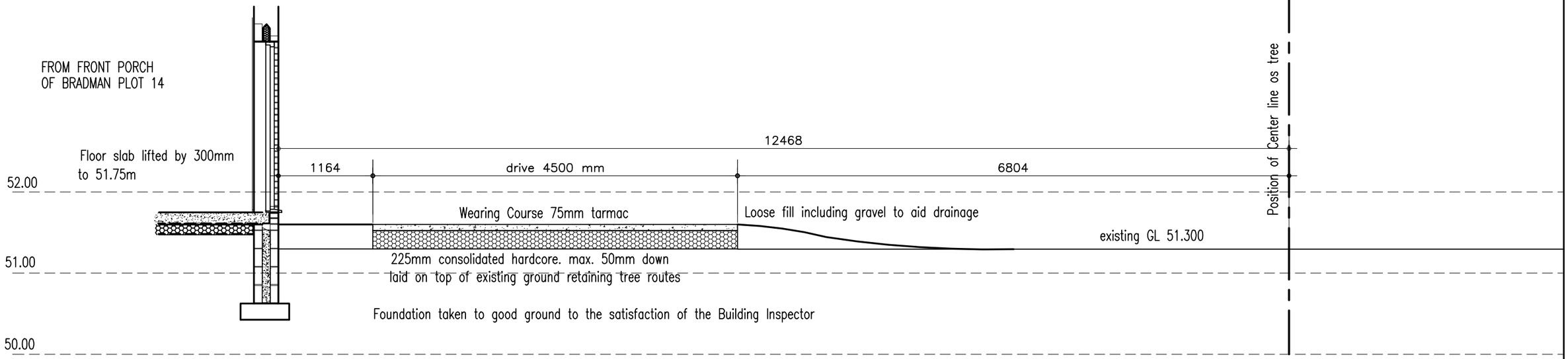
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Appendix Four

Cross Section Drawing of Road Design within RPA of Tree Number 3



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CLIENT
SG ESTATES
AWARD WINNING HOUSING DEVELOPER

CONTRACT
Land at Chester Road,
Gresford, Wrexham. LL12 8UA

HOUSE TYPE:
House Type THE BRADMAN
plot 14

DRG TITLE
Working Drawing
Section FRONT DRIVE

SCALE: 1:50

DATE: MAY 2017

DWG No.
WD BMN 12