

Arboricultural Method Statement & Tree Protection Plan

Land at
The Goulbourne
Borras Park Road
Wrexham

Ref:
AMS/GBW/05/18

Date:
23rd May 2018

Commissioned by:
Mr D. Edwards

Blueprint Architectural LTD

Prepared by
S. Shields

Arboricultural Method Statement

&

Tree Protection Plan

Land at
The Goulbourne
Borras Park Road
Borras
Wrexham

This Arboricultural Method Statement & Tree Protection Plan has been prepared in accordance with the protocols, standards and procedures set out in BS 5837: 2012 'Trees in relation to design, demolition and construction'.

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Instruction

- 1.1 Shields Arboricultural Consultancy received instructions from Mr D. Edwards on behalf of Blueprint Architectural LTD to provide a site specific Tree Protection Plan and Arboricultural Method Statement covering all construction operations at the above site in connection with the conditionally approved planning permission ref: P 2016/1048. The client or their agents may copy and distribute this report as required for the purpose of applying for planning permission for or preparing any documents or plans for this or future applications at this site.
- 1.2 Full planning permission has been conditionally granted to construct eight detached dwellings at the site of the former Goulbourne Public House in accordance with the approved plans and particulars of application P 2016/1048, including site layout ref: N027/014. This document is provided to fulfil conditions 6 & 7.

Site description

- 2.1 The site is a former public house and car park situated on the outskirts of Wrexham. The site extends to around 0.3 ha and has boundaries with Borrass Park Road and Ansell Road to the north west and north east, with a residential cul-du-sac to the south east and with Borrass Park Junior school to the south west. The existing pub and car parking areas are present on the site and access is from Ansell Road. The site is at an elevation of 80m AOD and is level and reasonably sheltered.

Arboricultural Operations

Permission to remove any tree must be obtained from the Local Planning Authority and must not be undertaken until all pre-commencement conditions have been discharged.

- 3.1 Tree removal and pruning will be required to implement this development. It is recommended that the work should be undertaken by a suitably qualified person, holding public liability insurance for the sum of £5,000 000. All operators must hold relevant NPTC certificates. A site specific risk assessment must be prepared and operators must work to a health and safety method statement. The use of Arboricultural Association Approved Contractors www.trees.org.uk/find-a-professional/Directory-of-Tree-Surgeons is recommended.
- 3.2 The contractor undertaking the work is responsible for any loss or damage arising as a result of the operations and agrees to indemnify the owner against such occurrences.
- 3.3 All tree protection measure specified in the following section and shown on the accompanying TPP are to be fully installed prior to the commencement of the arboricultural works. Where access is required to the trees, then suitable ground protection must be used in lieu of the tree protection fences.

Construction Performance Specifications

No Dig CCS Driveway Specification

NB Where no dig construction is specified this must be installed prior to any machinery access in the area or an alternative temporary ground protection system must be used.

- 4.1 In order to access plot 5, the approved plans indicate that a new driveway will be formed over an area of land that is within the Root Protection Area of tree T8. The majority of the new driveway will be formed in an area of existing hard standing currently serving as part of the car park, however there is a small strip of soft landscape that will also be affected. Forming the new drive in this area has the potential to cause damage to the root system and soil environment which would be detrimental to the tree. To avoid this, it is recommended that a no dig method of construction, such as the cell web TRP cellular confinement system (Geosynthetics Limited, Fleming Road, Harrowbrook Ind Est, Hinckley, Leicestershire, LE10 3DU. Tel: 01455 617139) be used to construct the driveway.
- 4.2 Essentially no-dig CCS are installed over existing ground levels and without the need for compacting the sub-base. This ensures that the tree's root system is not damaged by excavation and the soil structure is maintained. Using a porous tarmac or other porous top surface such as gravel, ensuring that water can permeate through the driveway to the root system and that the exchange of gases and oxygen between the soil and the air is unaffected, is recommended. The CCS must be installed in accordance with the details provided in the AMS (see section 5).
- 4.3 In order to provide an even gradient access with the design of the no-dig CCS Driveway must take account the difference in levels between the existing car park and the soft landscape strip. In this case the heights between the existing hard standing and the soft landscape strip can be addressed through raising the levels of the existing hard surface with additional stone utilising a deeper cellweb CCS. Once an even level has been achieved across the driveway, a top surface can be installed over the entire surface.

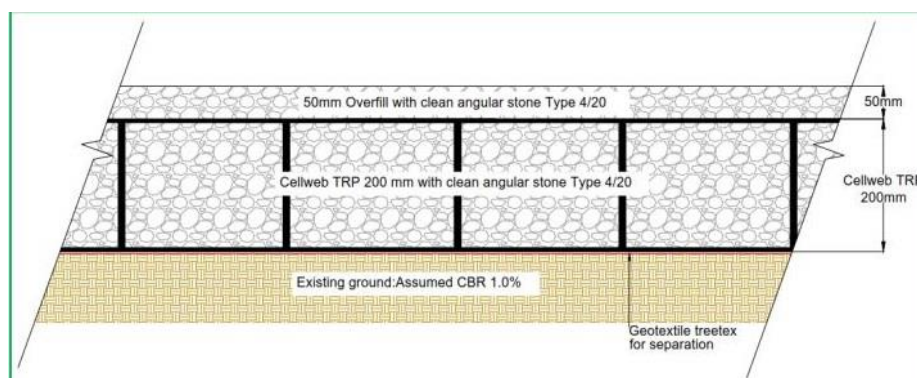
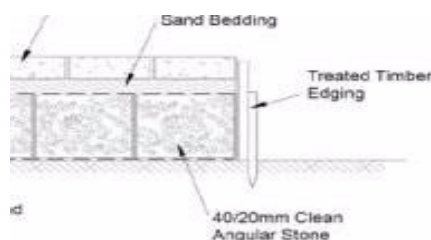


Figure 1 Illustration of Cellweb TRP 200mm Cellular Confinement System

- 4.4 The CCS system is edged using treat timber boards held in place with short stakes. There a gap of 1m between the CCS and the base of any retained tree must be maintained. The edges of the CCS can be incorporated into the landscape using granular fill soil to create a graded edge.



N.B It is recommended that the suitability for the use of a 3-dimensional grid system in this location is confirmed by an appropriately qualified person.

Arboricultural Method Statement

- 5.1 This arboricultural method statement (AMS) sets out the details of tree protection measures afforded to the retained trees on and adjacent to the site.
- 5.2 This AMS should be read in conjunction with the Tree Protection Plan (GBW/TPP/05/18/01). The TPP indicates the construction exclusion zone (CEZ) that must be maintained around each retained tree. These areas must remain undisturbed during the construction process and must be protected using suitable fencing or ground protection as specified. Precautionary Areas are also indicated. PA1 represents the area where the new driveway will be formed and PA2 the area where the hard surface will be removed to form the new garden. Specific precautions are detailed in 5.17 – 5.1
- 5.3 Copies of the TPP & the AMS must be available on site and all tree protection requirements explained to all persons undertaking activities on the site during the site induction process.
- 5.4 All general tree protection measures must be installed and inspected prior to bringing onto the site any plant, materials or equipment or undertaking any construction works or demolition or any arboricultural works. The LPA must be informed in writing once the tree protection measures are installed.
- 5.5 The site is to be inspected by the consulting arboriculturalist in accordance with the schedule of inspections (see section 5.27).
- 5.6 All measurements are given in metric using standard abbreviations.

Fencing and Ground Protection

- 5.7 The TPP indicates the position all protective fences.

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- 5.8 Protective fencing will comprise herras fencing, securely fixed into place and braced to resist impact, or as otherwise agreed with the Local Planning Authority.
- 5.9 Ground protection is to be used within the Precautionary Area 2, identified on the TPP, during the construction phase of the development and will consist of a proprietary system such as Ground Guard protective plates which must extend over the entire PA indicated on the TPP and be securely fastened in place. The type of guard used must be suitable for loads up to 20 tonnes or more.
- 5.10 The protective fencing and ground protection must be inspected on installation and will remain in place until completion of the construction phase and then only removed with the consent of the LPA.
- 5.11 Other than works approved in writing by the LPA, no works including storage or dumping of materials shall take place within the exclusion zones defined by the protective fencing.

General Precautions

- 5.12 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 10m of the trunk of a tree that is to be retained or within any part of the CEZ. Spills kits, suitable for the type fluids, fuels and chemicals stored on site must be available on site and site operatives must have training in their use.
- 5.13 No fires will be lit within 20m of the trunk of any tree that is to be retained.
- 5.14 Storage and mixing areas, contactor parking and all site huts must be outside the CEZ.
- 5.15 Access to the work area is via the main site entrance and must not traverse the CEZ.
- 5.16 All service and drainage routes, below or above ground must avoid the CEZ. All services are to be installed in accordance with NJUG volume 4 Guidelines.

Working within Precautionary Area

- 5.17 This section sets out the specific requirements when working within the Precautionary Area and should be read in conjunction with Tree Protection Plan Detail ref: GBW/TPP/05/18/01. A pre-commencement meeting is to take place between site operatives and an arboriculturist from Shields Arboricultural Consultancy. This meeting will discuss the tree protection requirements.
- 5.18 Ground protection must be installed across the precautionary areas during all operations to construct the dwellings and garages. This ground protection must be retained in position unless it is removed to facilitate the installation of the access driveway or services as detailed below,

- 5.19 All services and drains for the new dwelling and garages are to be installed in accordance with NJUG volume 4 Guidelines. It is recommended that the service ducts and drains are situated outside the PA, where this is not possible they must be installed using a broken trench technique excavated by an airspade and following a route as far as possible from the RPA of any tree. Line of the service route to be excavated is to be marked on the ground and ground protection moved to provide access.
- 5.20 The service trench is to be excavated to the required depth using an airspade or similar. Prior to undertaking the trenching operation, a trial pit is to be dug to the required depth to allow the assessment of the prevalent soil profile to establish the depth of the topsoil. Once this is completed excavation should commence in layers allowing the topsoil to be removed and stored separately to the sub soil.
- 5.21 No roots over 25mm in diameter are to be severed and, if encountered, will be wrapped in damp Hessian sacking and preserved. Minor roots are to be cut back to the nearest appropriate branching point using sharp secateurs.
- 5.22 Service pipe or duct is to be installed, taking care to thread through any retained roots. Once in place Hessian wrapping is to be removed from exposed roots and the trench backfilled using excavated material, taking care not to bury topsoil beneath its previous depth. The backfill can be lightly tamped down by hand or allowed to settle naturally.

Construction of Access Driveway

- 5.23 In order to service the new house and garage on plot 5, a new driveway is to be formed using a no dig CCS system as specified in section 4. The area where the no-dig system is to be used is identified on the TPP as PA1 and should be marked out on the ground.
- 5.24 It is recommended that ground protection be used during the construction phase and the CCS be installed as part of the landscaping operations on the site. This will prevent any damage to the CCS by construction machinery. The ground protection should only be removed immediately prior to the installation of the CCS.
- 5.25 Initial preparations require any ground vegetation on the soft landscape strip and the top surface on the existing hard standing to be carefully removed and the basic levelling carried out. This must be undertaken using hand tools, preferably an airspade, under the supervision of the arboriculturalist. Where small high points exist these can be levelled off and small low points filled with sharp sand to provide reasonably even ground on to which the cell web system is laid. Changes in levels should not exceed +/-50mm or exceed an area of 0.5m² and no significant roots (25mm+) are to be severed or damaged.
- 5.26 Once an even surface has been achieved the 3-dimensional CCS is to be installed in accordance with the manufacturer's instructions. This will require a layer porous of geo-textile (Geosynthetics Treetex) is placed over the ground beneath the CCS. On to this is laid the 3-

dimensional CCS grid, which is pegged into place using proprietary pegs. The cells are then filled using 4/20 mm clean angular stone, of neutral pH, with no fines. This should occur from the outside edge working in and the charged cells used as a working platform. A second layer of geo-textile is then laid and the topped with the finished surface material. The geo grid structure and surface layer are retained and edged using treated timber edging held in place by short wooden stakes. The edges can then be incorporated into the existing landscaped as required.

- 5.27 Where hard standing is to be removed and returned to amenity grass areas, this must be undertaken using hand tools, preferably an airspade, under the supervision of the arboriculturalist. Once all hard standing is removed, a layer of good quality topsoil should be loosely spread over the area prior to re-seeding. If this is undertaken prior to the completion of site works all areas must be protected using either fencing or ground protection.
- 5.28 To ensure that all tree protection measures are properly installed and maintained the site shall be monitored by Shields Arboricultural Consultancy to the following schedule. Details of the findings and photographic evidence of the site inspection visits will be reported to the LPA by email within 24 hrs of the visit. All tree protection measures must remain in place until development work is completed and only removed after receiving written confirmation from the LPA.

Schedule of Inspection

1. On completion of erection of fencing and installation of ground protection prior to commencement of development works
 2. During installation of CCS driveway
 3. Monthly throughout the project
- 5.29 Prior to the commencement on site of any work, a competent person is to be appointed to monitor the day to day activities on site. In the case of a tree being damaged or where an unexpected event arises it will be for this person to contact Shields Arboricultural Consultancy to seek advice on contingency measures.

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