

Wrexham Ambulance and Fire Service Resource Centre

P/2013/0805

Responses to comments received from WCBC Arboricultural Officer

IBI Group

September 2014

(comments received, compiled and in blue italic text; responses in black text)

CONDITION 10 Arboricultural Method Statement

Surface Water Drainage Outfall Pipe

As the proposed footprint of the surface water drainage pipe is indicative only and because the location may change, this needs to be reflected in the AMS.

Perhaps our previous use of the word 'indicative' was misleading in this context; it was only intended to mean that a single thick line on a 1:500 scale drawing is indicative of the proposed location of the drain, in as much as a wavy-lined circle with a dot in the centre is indicative of the location of a tree. The use of the word 'schematic' was intended to convey the meaning that the drainage design, at the time, consisted of a series of lines (representing drainage) connecting to each other, and to manholes and outfalls etc, representing an intended design proposal rather than a fully completed construction design – meaning that although the basic principles and outline of the design are defined and set-out, and are not likely to change, the design is still to be developed in detail.

We confirm the location of the drain is not going to be changed (i.e. it is not going to be somewhere else on the site), though the exact positioning may need to be varied slightly, probably by no more than say 600mm either way, to suit actual topographical features on site – most specifically to suit the shape of the river bank where the outfall is to be formed. The location of the drainage outfall is not within a tree protection area.

Thus, if the location of the pipeline and outfall differs from that shown on the tree protection and tree retention pipeline the AMS describes that the AMS will be revised and resubmitted to the LPA.

We do not believe the AMS does say this anywhere within the document, and are unclear how or why this has been inferred from any other information submitted. The location of the pipeline and outfall is not likely to vary from that shown on the tree protection plan (other than as noted above).

AMS S6 General Precautions

It is common for the results of arboricultural supervision to be forwarded to the LPA after each visit. Unfortunately, this is not proposed. Please amend.

Paragraph S6 General Precautions on Pages 10-11 of the AMS states:

6. General Precautions

The retention of trees requires a number of general precautions to be taken.

Compliance is to be maintained on site by the appointed Clerk of Works and visits by the Arboricultural Consultant. The site visits are detailed at criterion 1 – Timing of Works.

Targets

- Spoil from the foundation pits or other excavations shall not be placed within the Construction Exclusion Zone. No materials, equipment, spoil or washout water may be deposited, stored or parked within the Root Protection Area/ Construction Exclusion Zone.
- On-site inspections to be undertaken by the Arboricultural Clerk of Works with the Arboricultural Consultant visiting during critical operations. The aim of the visits is to maintain on-going liaison with all personnel involved in the site development, Wrexham County Borough Council and its Tree Officer.
- Any defects requiring rectification shall be notified to the Contractor/Site Manager/Arboricultural Consultant and the client.
- A site logbook for tree protection measures is kept to record all stages of the development from the erection of the protective fencing, right through to the completion of the project. This will be made available to the Arboricultural Consultant and WCBC, if required, to show evidence of continuous site monitoring.

However the reference to a proposal for the results of arboricultural supervision to be forwarded to the LPA after each visit was already included under Section 6 'Construction Methods and Sequence' (last paragraph, bottom of Page 6):

Site visits will be undertaken. Initially, these will be intense due to activities occurring close to retained trees, tailing off to monthly visits to ensure the efficacy of the ecological/tree protection fencing. A site log is to be maintained of the visits and the results to be forwarded by email only to the Local Planning Authority.

We confirm the first site visit took place on 29th August 2014, and the results were recorded in a inspection logbook, and forwarded by email to the WCBC Planning Officer on 1st September 2014, in accordance with this proposal. However for the avoidance of doubt, the phrase *"a copy of the site inspection log book, with the results of each site inspection, will be forwarded by email to the Local Planning Authority"* will be repeated at the end of Paragraph S6 General Precautions on Pages 10-11.

Root Protection Areas

The root protection areas of the trees adjacent to the brook have not been altered to take into account that the trees are unlikely to root underneath the watercourse. For example the trees are shown as having circular RPA that extend within the footprint of the watercourse, whereas the RPAs should be shown as polygons that take into account constraints to root growth as per BS 59837:2012 4.6.2 & 4.6.3. It is highly unlikely that these trees RPAs are circular due to the watercourse, thus the RPAs will have to be amended to take into account the constraints to root growth underneath the watercourse.

On the current issue of the tree protection and tree retention site plan, the root protection areas of the trees adjacent to the brook have been amended to take into account that the trees are unlikely to root underneath the watercourse. Those trees shown as having circular RPA that extend within the footprint of the watercourse, have had their RPAs amended to be shown as polygons. This specifically applies to tree references 5531, 5533, 5534, and 5535.

One other thing, which isn't important really but makes things clearer, is that the revised tree protection & retention plan and arboricultural method statement did not have revision references. It would make it a lot easier for all concerned if these are included on the revisions to be submitted.

The arboricultural method statement and tree protection & retention plan were originally issued to WCBC on 1st July 2014. Following comments received from WCBC both were revised and issued to WCBC on 20th August 2014, as revision A (the revision letter was on the pdf file name but not on the documents). Following the comments subsequently received on this issue (and noted here), the documents have been amended as revision B. The revision letter and revision history has also been noted on both documents.

CONDITION 11 Proposed Landscaping Scheme

Tree Pit Detail – Ecological Corridor Drawing AR ARC 00 DT 721 011 Rev. A

The depth of the proposed tree pit is not in accordance with best practise and will likely lead to soil settlement which will result in the planted trees at a depth which is detrimental to their long term health. Please amend taking into account the recommendations in BS 8545:2014.

Review of BS 8545:2014 has been undertaken and further guidance sought from an external tree specialist consultant who has recommended tree pit sizes and depths in accordance with the revised drawings. It has been advised that a tree pit size of 600 x 600 x 400mm for the feathered trees being proposed to the ecological corridor should be sufficient. Larger tree pits of 1000 x 1000 x 600mm deep have been advised for the larger *Alnus glutinosa* trees being proposed to this area. Single and double staking has been advised to these details respectively.

The LPA requests that hessian tree ties are used so that the risk of the stem being girdled if left too long is negated. Please amend by substituting hessian tree ties for “Toms Tree Tie”.

Hessian tree ties have been substituted for ‘Toms Tree Tie’ as requested.

No irrigation tubes or soil berms are shown to aid irrigation reaching the rootball. Please amend to include either, or both, irrigation tubes and soil berm.

Soil berms have now been included as part of the tree pit details within the ecological corridor. An irrigation system has been proposed to the *Alnus glutinosa* specimens following comment from a tree specialist as they will be larger trees at the time of planting. It has been advised that the other feathered trees specified as part of the planting plan would not require irrigation systems as they being planted into an existing soft area.

Tree Pit Detail – Car Park Area - Drawing AR ARC 00 DT 721 010 Rev. B

The size of the tree pit is just over 3 metres³. If this was charged with good quality loam soil, it would be too small to allow the trees to grow to maturity. Charged with Amsterdam tree soil which is nearly 90% sand, the tree pit is definitely too small. The species chosen will require the following rooting volume of good quality loam soil, which has not been provided:

****Pyrus calleryana* “Chanticleer” – 10 metres³.***

****Carpinus betulus* “Frans Fontaine” – 15 metres³.***

These minimum rooting volume requirements can be reduced by a third if the trees share the same rooting volume i.e. trench rather than individual pits. Amsterdam tree soil is not acceptable as it is made up predominantly of sand and will not support the trees growth in the long term.

The required minimum rooting volumes have not been met due to site restrictions in terms of space available. The planting areas for the trees along the access road have been increased as much as possible to fill the whole of the “island” area. It has been advised from an external consultant that it would not be good practice to take the tree pit soil volumes under the car park / access road due to the structural strength and construction build-up of the tarmac. The Amsterdam tree soil was initially proposed as it would provide a structural backfill material.

A trench has been shown to the trees that run between two rows of parking spaces as suggested. The soil volume to this trench has not been taken underneath the parking spaces due to the above reasons.

Following advice sought from an external tree specialist, it has been suggested that tree pits to the car park should maintain a surface area of 1.8m x 1.8m with a depth of 900mm and that this would be adequate for the trees to establish successfully with the use of a good quality topsoil.

Drainage is insufficient. If a tree pit becomes waterlogged there is no outlet for excess water to drain away from the pits.

Covering over the tree pit with asphalt and resin bound gravel, with even the collar around the tree's stem shown as being in-filled with resin and aggregate, is not acceptable. Gas diffusion could not take place and sufficient moisture would not reach the underlying soil.

The asphalt and resin bound gravel has been omitted from the new tree planting to the car park. This has been replaced with low groundcover or a tree grille dependant on the location of the new tree. The clean graded stone drainage layer shown to the bottom of the tree pits for drainage as been increased to 200mm depth. As ground conditions are unknown at present, a note has been added to the tree pit detail drawings stating that "if on inspection the ground appears waterlogged, species choice should be reviewed".

Planting Plan Sheet 2 of 2 – Drawing AR ARC 00 PL 100 025 Rev. L

The vast majority of the trees proposed for planting along the brook are small species. It would be expedient to include a few large growing native riparian tree species including Quercus petraea and Salix fragilis. Please substitute the Craetagus species with the aforementioned larger growing species.

Both Quercus petraea and Salix fragilis species have been added along the brook as requested. These have replaced the Craetagus species initially proposed.

Shrubs

The wildlife corridor should consist of only species native to the area. Therefore I suggest removing the following species from the planting schedule:

***Festuca arundinacea
Buddleia davidii
Illex aquifolium 'Alaska'
Crataegus laevigata***

The species listed above have been omitted from the planting schedule and replaced by increasing the numbers of some of the existing planting species.

It would also be wise to avoid planting Hedera helix due to potential future management issues.

The Hedera helix has been omitted from the planting plan.

Only five trees are shown in the car park area. This is a huge expanse of tarmac, with only five small to medium trees shown at one end. From an amenity and usability perspective this is unacceptable. In addition the planting pit (rooting volumes) provided for these trees will result in the trees not lasting 10 years, thus this will have to be amended as well.

An additional 5No. trees have been included within the car park area. Due to there being limited space to plant these trees, an additional tree pit detail incorporating a tree grille with timber posts is now part of the planning package. The volume of soil to this tree pit detail is made as large as possible without encroaching under the car park tarmac build-up.

The tree pit detail to the trees that run adjacent to the access road has been amended to increase the soil volume as much as possible without encroaching under the road build-up also. Following guidance from an external tree specialist consultant, it was advised that maintaining a surface area of 1.8m x 1.8m x 900mm depth would be adequate. Additional planting has been included to these “island” areas to omit any hard standing that may have previously been proposed and improve the amount of water the trees receive.

Landscape Softworks Specification Report.

Q28: It should be noted that no raising of soil levels within retained trees RPAs. Refer to approved arboricultural drawings.

Note within clause Q28 680 expanded to suit information requested. Clause now Q28 680A.

Q28; 695: It should state that no cultivation within retained trees RPAs. Refer to approved arboricultural drawings.

Note within NBS clause expanded to suit information requested.

Q31; 505: Tree pits details not acceptable. See separate comments.

Tree pit detail clauses amended to suit revised drawings. Clauses Q31 505 and 505B now exist.

Q31; 525: Refers to clause 585, however this clause has not been included. Please amend.

This should have read “refer to clause 586A”. NBS amended to suit.

Q31, 535: Hardwood and treated stakes not acceptable. Please amend.

Peeled but un-treated softwood stakes specified.

Q31; 545: Staking should not be more than a third the height of the tree being staked. Amend. Butyl ties not acceptable. Please amend to biodegradable ties, such as hessian. Only one tie required. Please amend.

NBS clause amended to state staking should be no more than a third the height of the tree being staked. Butyl ties omitted and replaced with hessian tree ties and only one tie shown to suit comment received.

Q31: 586A: Note for undisturbed soils no compost should be added to the backfill mixture. Please amend.

Clause refers to trees within car park area. Clause amended to show good quality topsoil to be used as backfill following guidance received from external specialist tree consultant.

Q31; 586B: Amsterdam tree soil is not acceptable to the LPA for trees planted in hard surfaced areas. See separate comments. Please amend.

Clause refers to trees within ecological corridor. Backfill material detailed to be re-use of existing on-site material.

Q35; 510: Inspection/ Maintenance times is stated “as scheduled”. What is the schedule?

This has been amended to “As instructed in Landscape Maintenance Plan, IBI Taylor Young, September 2014 and immediately after strong winds .”

Q35; 540A, 545A, 550A, 555A: States “as management plan”. The management plan does not include specific details, thus list here. Note that pruning “of excessive height” and over grassed areas is not acceptable to the LPA thus please delete. Re 555A, the standard for tree pruning is BS 3008:2010. Please amend.

Note stating “as management plan” omitted from clauses. Reference made to Landscape Maintenance Plan (IBI Taylor Young) and Habitat Management Plan (Amec).

Clauses with reference to excessive height or over grassed areas omitted as requested.

British standard for tree pruning amended to BS 3008:2010 as raised.

Missing details – irrigation of planted trees for three years post planting. Please add irrigation schedule.

Irrigation schedule added to planting plans.

CONDITION 36 Habitat Management Plan

I will require the following minor amendments to the management plan.

Table 2.1: Re checking planted trees, etc. This will need to be done annually for the first five years. Re the selective thinning of tree canopies, I would like added that the LPAs arboriculturist be consulted and no tree works to take place without the written consent of the LPA.

The Habitat Management Plan has been amended (to Revision A) as follows (additions in red):

Amendment 1

Table 2.1. Note added to the Task: Arboriculture inspection of condition of riparian woodland and tree planting within the site “**Annually for the first five years**”, and ticks added to each of the year boxes.

Amendment 2

Table 2.1. Text added to the note as follows: “Selectively thin the tree canopy to allow sunlight to reach the river bed in localised areas throughout 25% of the reach of the Gwenfro that borders the site. **The Local Authority’s Arboricultural Officer must be consulted prior to any tree works being undertaken, and no tree works should take place without the prior written consent of the Local Authority.**”