LAND AT MOORTHORPE WAY, MOSBOROUGH

Project	**Land at Moorthorpe Way, Mosborough**		
Title	Ecology and Arboricultural Statement	**BWB Ref**	JM/JS070220
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LAND AT MOORTHORPE WAY, MOSBOROUGH ECOLOGY AND ARBORICULTURAL STATEMENT

Introduction

This Statement has been produced in response to consultee comments made with reference to Ecology and Arboriculture. This is outlined in the email from Howard Baxter (Planning Officer, Sheffield Council) on 31st January 2020 to DLP Planning.

For ease of reference the consultee comments are detailed in blue and our response is in black.

Response to Consultee Comments

"Ecologist accepts that on the development side of the 15m buffer, gardens could be accommodated on the existing slope without regrading the buffer. However, there are ecological concerns regarding regrading within the woodland buffer zone, is it possible to avoid this?"

Any increase in ground level over the existing stems within G9 up to the buffer will require removal of trees. Various engineering options have been considered but in this instance the only possibility is to remove the trees up to the fence. We can not mitigate for trees where ground is raised around the whole stem in this circumstance due to the density of trees.

Mitigation measures to protect the retained trees within the woodland will be enacted on site utilising a mixture of stacked layers of cell web and aeration systems depending on the depth of additional soils.

As the regrading is limited to this section around G9 only, it will limit the amount of tree removal required. Mitigation will be required through a replanting plan in accordance with the landscape master plan and will include planting comprising a mix of tree sizes from heavy standards to whips as this will provide good age diversity to the future canopy as well as providing an instant effect. We have suggested planting a number of varied specimen trees as per the landscape plan. Tree species similar to that currently there will be planted including, birch and alder as pioneer species and faster growing trees to help speed up the development of the outer canopy. Longer lived species such as oak, hawthorn, beech and maple will also be included to maintain long lasting future canopy.

A robust after care programme would be advised to ensure successful establishment with regular monitoring and replacement of lost trees. Re planting is one thing but only appropriate after care will ensure successful establishment.

"Removing the depositing of spoil in the buffer zone will reduce the number of B category trees losses in this area but there are still losses on the western part of the site. The losses will be compensated for in the LWS to the west of the site and the LPA suggest this can be quantified by defining the area of category B trees that will be lost and then calculating the cost of creating an equivalent area of woodland off site. This can then be secured by the S106 agreement"

For the loss of Category B trees along the western boundary, this would involve the loss of trees within groups G11a, G11b and G12. Within these groups it is really the oaks that are the category B trees. The ash stems and hawthorn within these groups were generally small poor formed trees and more likely a Category C, however we could only plot this as a group due to the topographical information available.

To compensate for the tree loss, replacement planting of trees on site will contribute to the biodiversity net gain and will improve the amenity value of the site. Based on previous experience with regard to S106 agreements replacement tree numbers are calculated as 1 replacement tree (standard) for every 10cm(100mm) of stem diameter lost (eg 500mm stem dia tree felled would require 5 replacement trees). Using the survey information, the oak trees within these groups were between 200-300mm diameter, subsequently based on the above this would require between 30-40 replacement trees (minimum standard trees) within the site.

For a monetary value for a financial contribution, we have used the basic survey information to calculate the value of the trees using the Helliwell tree valuation system. This assesses a tree over 6 factors and gives a point score for each factor. The factors are:

1. Size of the tree (SqM of the tree looking at it from one direction – height x crown diameter)
2. Expected duration (life span in this case 40-100 years)
3. Position (importance in the landscape)
4. Other trees (how much of the surrounding area is covered with tress)
5. Relation to setting (how suitable the trees are to their environment)
6. Form (shape etc)

Each factor has a series of point scores depending on where the tree fits within the assessment factor, each score is then multiplied by each other (in this case 4x3x1x0.5x2x1) which gives an overall score. The current monetary value for 1 point is £33.70.

The oak trees within the group were generally very similar to each so we have carried out the assessment for an individual tree on average measurements which has given an individual point score of 12, giving a monetary value of £404.40 (12 x 33.70). To cover the oaks within these groups of which there are 14, gives a value of £5661.60 which will be added to the biodiversity net gain contribution calculation.

"Alongside this and aligned with the comment above regarding the footpath link through the buffer zone, it is requested that the 2 car parking spaces and a portion of the shared drive within the buffer zone are removed."

Due to the constraints this site poses and following a review of the layout it is not achievable to amend the layout to remove the parking bays from the buffer without affecting other parts of the layout and site which may lead to further impact upon the buffer and retained trees to the North East of the site.

The location of the parking bays is situated in an area where there are no trees at present north of the existing unofficial footpath. As the existing unofficial footpath moves from the East of the site to West it is situated between the trees of groups G7 and G8 and the existing boundary fence. Up to the start of G9 there are no trees North of the path, only scrub and bramble. The construction of these bays would therefore not see any additional tree felling to that proposed within the tree protection plan.

Construction of these bays will be via a strict no dig solutions utilising 3 dimensional cellular confinement systems with suitable permeable surfacing materials, to ensure protection of the soils within the rooting volume of tree within the woodland to the North. Gravel or even grasscrete surfacing would be suitable options where required.

"Biodiversity net gain – this will be a financial contribution to be used towards improvements to the adjoining LWS which would be controlled by a S106 agreement."

Avant Homes will make a financial contribution for the Biodiversity Net gain based on the biodiversity calculation prepared and will also implement various on site measures to achieve a biodiversity net gain as shown on the landscape plan including replacement tree planting.

"Ecologist questioned the use of Acer pseudoplatanus (Sycamore) adjacent parking bays and indicated that the use of street/gardens/amenity trees would reduce the need for offsite mitigation. Also the hedge mix to properties and roads adjacent to the buffer zone would be more appropriate as a 'native' hedge rather than 'ornamental' species. We suggest the landscaping detail is conditioned if further discussion is required."

This has been amended and replaced with alternative species as per the revised landscape plan.