

Ref: NYM/2012/0636/FF

## DISCHARGE OF CONDITIONS

21 DEC 2012

### Condition 15

#### Reason for this report:

This report is produced in order to comply with condition 15 on Decision Notice NYM/2012/0636/FL: dated 7th November 2012; applied to the approval of six no chalets for holiday use together with associated access and landscaping works ancillary to The Falcon Inn at The Falcon Inn, Whitby Road Cloughton.

The report will detail the methodology used from the inception of the project and detail how this relates to BS 5837: 2005 and 2012.

The report will set out the working methods and protection of existing trees on the site during construction

The report is produced by Mr G Pickering or Lawson Harper, who has been engaged and retained as project landscape and arboriculture consultant since inception in 2005.

Previous reports mentioned in this report have been submitted and form part of the planning application.

The project has followed the highest standards set out in BS 5837: 2005 Trees in relation to construction from inception. The first work completed was a preliminary arboricultural assessment in February 2005 followed by a full arboricultural assessment in January 2010 which was updated in November 2010 following clearance of wind-thrown trees. These reports formed the design and were submitted with the application. Subsequently, the revisions in BS 5837: 2012 Trees in relation to design, demolition and construction have been taken into account.

#### Topographical Survey

The site was subject to full topographical survey which was scoped by the Arboriculture Consultant to include key data; spot levels at the base of trees were recorded and throughout the site and at intervals as appropriate to meet design requirements. All abrupt changes, embankments, ditch inverts and retaining features were recorded

#### Arboriculture Survey

An arboriculture survey was undertaken as a part of the feasibility study for the development. This included location, species height, spread taken at four cardinal points, crown height, age and condition of each tree over 75mm diameter. Each tree was tagged and located on a reference plan. A schedule indicating status if each tree was drawn up. This included tree retention and removal plan.

A soil assessment was undertaken as a part of this survey.

The information gained was used to inform the design process with the layout being drawn up by the landscape architects in order to ensure sensitivity to the woodland location.

Notable trees have been identified along with trees for removal.

There are no veteran trees on the site.

### Arboricultural Constraints

The layout was considered alongside the constraints established from the site survey and arboricultural assessment principal consideration included:

- User safety
- Stability of the woodland
- Retention or notable trees
- Protection from wind incursion
- Visible screening
- Landscape Character
- Ecological value
- Regeneration



These factors were taken into account when drawing up the tree retention and removal plan. This plan was used as the tree constraints plan.

The layout and location of the cabins and access roads is based upon the survey with decisions made on the principal of non removal other than for arboricultural reasons and in order to protect notable trees.

The design parameters are detailed in the design an access statement submitted with the application.

### Design Parameters

- 5.01** *The design is informed by a comprehensive Arboricultural survey of each tree in the woodland.*
- 5.02** *This survey considered the age, condition, height, landscape value and condition. Making recommendations for any remedial work required to make the woodland safe, for arboricultural reasons and to encourage regeneration. The survey identified trees to be removed as well as significant trees which were considered inviolate for their landscape impact.*
- 5.03** *With all woodland of this age and mix the interlocking root plate structure is a significant limiting factor. Damage to the rooting system of one or a group of trees can have a destabilising effect on others. The woodland has already suffered significant wind throw when exposed following the clear felling of the adjacent Forestry Commission plantations.*

### Root Protection Area (RPA)

Although it is the default position is for development to be located outside the RPA, the BS allows for technical solutions to be adopted where there is an overriding justification and subject to appropriate mitigation or offsetting measures.

Tree protection during construction within the woodland can not be achieved using standard exclusion of works within the RPA. The Falcon woodland is a same age plantation and the wind throw shows that the root plate is interlinked.

The design concept requires close integration of cabins within the woodland which requires construction of cabins close to trees and in some cases around trees. Tree protection can not be achieved simply by fencing off the trees.

In this case the same principals of protection for the RPA that are provided by exclusion zones i.e. avoiding compaction, crushing, abrasion, chemical spills, fire etc. must be achieved by more subtle working practices

### Building foundations

The construction method, modular sectional buildings set on a Bullivant System First foundation system. This is detailed in the Design and Access Statement

#### Foundations

- 10.08 *The cabins are to be set the Roger Bullivant SystemFirst foundations, to minimise impact on the root plate.*
- 10.09 *The system is specifically chosen to allow the cabins to 'float' above the woodland floor so as not to sever roots or impede ground water flow. this allows cabins to be sited close to existing trees.*
- 10.10 *Excavations will be by hand and adjusted to prevent root damage.*
- 10.11 *The use of new and lightweight materials results in significant reductions in CO2 emissions during the manufacturing process and from reduced lorry movements when transporting to site.  
  
On site, the process generates no spoil and hence eliminates the need to transport material to landfill. The lightweight nature of the components allows them to be installed without crange and in a way that significantly eliminates the impact of construction on site.*
- 10.12 *Buildings are in kit form which allows for a tight and well defined construction area. this prevents damage to the woodland during the construction process. Work areas will be restricted to existing clearings and will be well defined with protective fencing marking the boundary.*
- 10.13 *Construction areas will be clearly marked and fenced on site to prevent access to construction traffic to all areas of retained planting.*

### Access Roads

The construction of roadways within the woodland follows a principal of non excavation using a construction method specifically designed and tested for access roads within woodlands

- 6.05 *Within the woodland the necessary emergency and disabled vehicle access establish a suitable supportive structure avoiding need for excavation or deep overlaying construction. The construction method will retain the free draining surface and avoid severance of roots and compaction.*

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- 6.06 It is anticipated that on suitable ground conditions the woodland track access would be a constructed using the performance specification of Erocell Tree Root Protection. The leaf litter will be gently scraped back. The Erocell will be laid without excavation, backfilled with gravel chippings and edges graded by hand to level. The leaf litter will be redistributed over the surface to maintain the appearance of the woodland floor.
- 6.07 Erocell Tree Root Protection provides ground reinforcement within tree protection areas. It confines fill material within its strong yet flexible cell structure, in order to provide a stable base for traffic. The geotextile is permeable and allows lateral movement of air and water. FLP Erocell is suitable for permanent woodland trails, paths, driveways, roads and parking areas.
- 6.08 The product will also be used as temporary ground reinforcement for construction areas. Once operations on site are completed the temporary surface will be removed and the ground left undamaged.
- 6.09 Where possible woodland access track will follow the existing excavated open drainage channels which will be culverted and covered over. This will reduce the covering over of roots.

## Services

The drainage layout follows the existing excavated channels within the woodland thus minimising or eliminating the need for excavation.

## Tree Protection Plan

There are no veteran trees on the site however there are a number of specimens which are ornamental or of a higher quality than the woodland as a whole. Although these trees are not of outstanding value they do warrant special consideration and protection within the overall scheme. The centres of trees are indicated in red on the arboricultural survey.

As an additional measure of protection the layout seeks to excluded development from the immediate proximity of these trees.

## Construction Exclusion Zone

Areas of the woodland outside those areas where the cabins and access roads will be constructed, will be excluded. These areas will be protected by suitable fencing meeting the BS requirements.

Chemical storage and heavy plant storage will be excluded from within the woodland area and will be confined to The Falcon Inn car park.

Plant used for the construction will be confined to access tracks.

Contractors parking will be limited to The Falcon Inn car park.

The contractors will use the facilities within the public house but any additional site huts, temporary latrines and other temporary structures will be located in The Falcon Inn car park.

The attached drawing, indicating the "Construction Exclusion Zone", illustrates the location of working areas and protection measures.

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## Tree protection

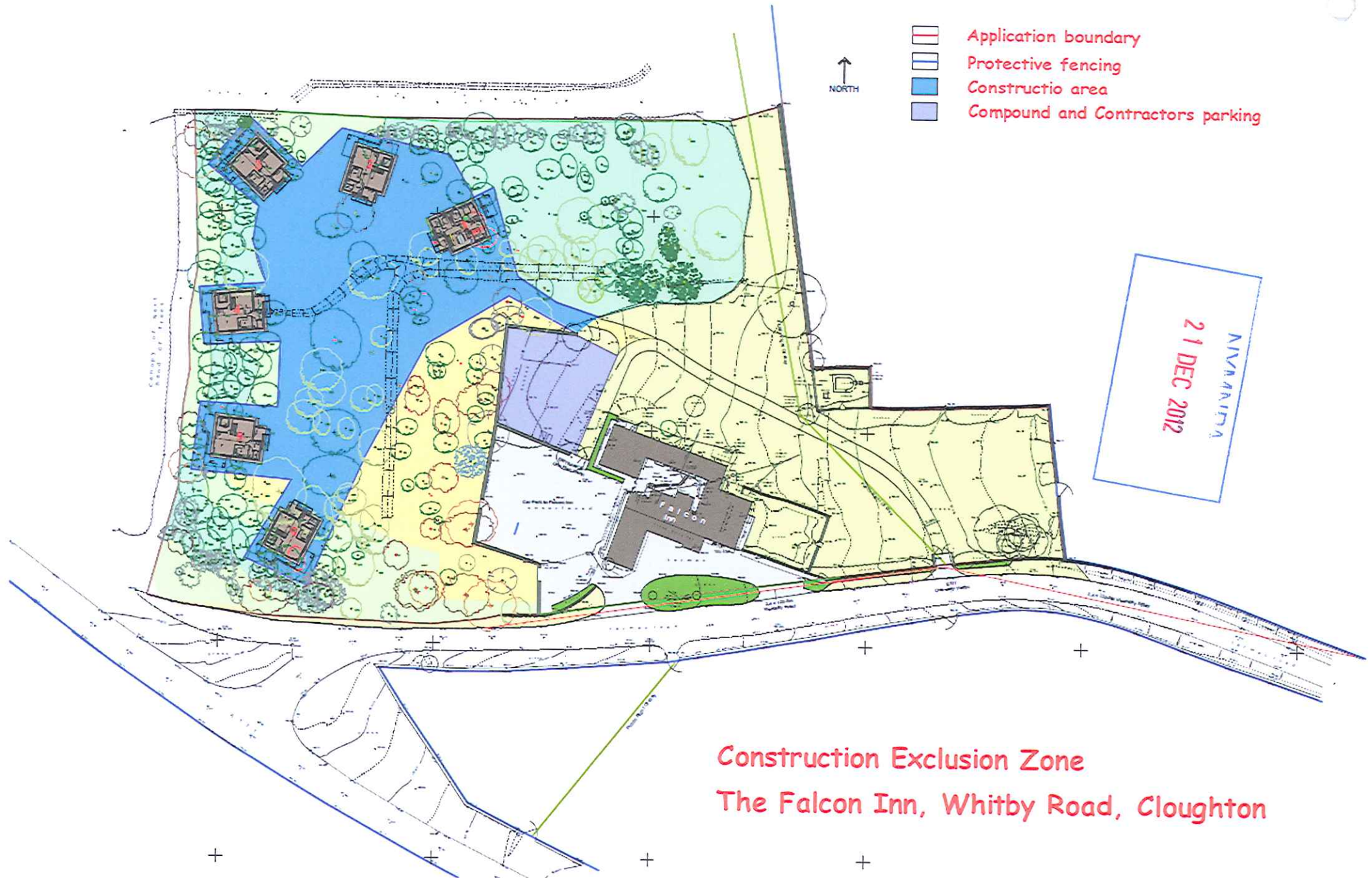
Trees which are immediately adjacent to construction such as those retained within areas of decking will be protected during construction with padded hessian wraps to a thickness not less than 100mm

## Supervision

Lawson Harper have been retained to supervise the tree protection during the construction phase.

**Lawson Harper**  
**December 2012**

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- Application boundary
- Protective fencing
- Constructio area
- Compound and Contractors parking

NORTH  
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NVM/AN/17A  
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**Construction Exclusion Zone**  
**The Falcon Inn, Whitby Road, Cloughton**

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## DISCHARGE OF CONDITIONS

### Condition 16

#### Reason for this report:



This report is produced in order to comply with condition 16 on Decision Notice NYM/2012/0636/FL: dated 7th November 2012; applied to the approval of six no chalets for holiday use together with associated access and landscaping works ancillary to The Falcon Inn at The Falcon Inn, Whitby Road Cloughton.

- 16** *No work shall commence to clear the site in preparation for the development hereby permitted until full details of the access surfacing have been submitted to an approved in writing by the Local Planning Authority. The access surfacing shall then be implemented in accordance with the approved details and shall be maintained in that condition in perpetuity.*

The report details the access surfacing in accordance with this condition.

The report is produced by Mr G Pickering or Lawson Harper, who has been engaged and retained as project landscape and arboriculture consultant since inception in 2005.

The Design and Access Statement submitted with the application sets out the construction of the access within the woodland.

#### Vehicular Access

- 6.05** *Within the woodland the necessary emergency and disabled vehicle access establish a suitable supportive structure avoiding need for excavation or deep overlaying construction. The construction method will retain the free draining surface and avoid severance of roots and compaction.*
- 6.06** *It is anticipated that on suitable ground conditions the woodland track access would be a constructed using the performance specification of Erocell Tree Root Protection. The leaf litter will be gently scraped back. The Erocell will be laid without excavation, backfilled with gravel chippings and edges graded by hand to level. The leaf litter will be redistributed over the surface to maintain the appearance of the woodland floor.*
- 6.07** *Erocell Tree Root Protection provides ground reinforcement within tree protection areas. It confines fill material within its strong yet flexible cell structure, in order to provide a stable base for traffic. The geotextile is permeable and allows lateral movement of air and water. FLP Erocell is suitable for permanent woodland trails, paths, driveways, roads and parking areas.*
- 6.08** *The product will also be used as temporary ground reinforcement for construction areas. Once operations on site are completed the temporary surface will be removed and the ground left undamaged.*
- 6.09** *Where possible woodland access track will follow the existing excavated open drainage channels which will be culverted and covered over. This will reduce the covering over of roots.*

The method of construction employed is dependent upon the exact ground conditions and sensitivity of Root Protection Areas. The alignment will be surveyed in detail to determine the most suitable construction method and where there is the need to avoid excavation due to tree roots, construction will consist of ;

Terram Gravelsure Eroccl 22/20 Panel Size 3.0m x 6.0m. The proprietary product is used for the protection of tree roots as outlined in BS5837. It has a cell diameter of 220mm and a depth of 200mm, the expanded panel size is 3m x 6m. As stated in the Design and Access Statement submitted in the application, where geotextile reinforcement is required the leaf litter will be gently scraped back. Eroccl will be laid without excavation, backfilled with gravel chippings and edges graded by hand to level. The leaf litter will be redistributed over the surface to maintain the appearance of the woodland floor.

In areas which are not sensitive to excavation, the surface material will be excavated to a depth of 300 to 500mm (depending upon traffic load). The sub-grade will be rolled compacted with any voids or soft spots excavated and backfilled with compacted sub base material. A sub-base of suitable approved material, (e.g. recycled crushed bricks) 250-450mm depth will be laid and compacted in layers not exceeding 100mm. The surface material will be gravel which will be laid and compacted in layers not exceeding 50mm.

Any areas of conventional construction within the woodland area will receive the same finish treatment as that constructed of Eroccl; the leaf litter will be redistributed over the surface to maintain the appearance of the woodland floor.

The eastern access road from the highway to the woodlands will be of standard construction detailed above laid at a width of 5m in provision for plant but will be covered over with topsoil at the edges to leave the finished design width of 3.0M.

The additional width of porous road construction material will be retained to provide extra rain water storage capacity within the construction and increase the 'soak-away' capacity of the structure. This reduce surface water runoff and prevent discharge into adjacent watercourses.

### Supervision

Lawson Harper have been retained to supervise the construction during the construction phase.

**Lawson Harper**  
**December 2012**

