

Shields Arboricultural Consultancy

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Arboricultural Consultancy

Arboricultural Method Statement

Reference:

WPR/02/12/AMS.

Rev:

18th February 2012

At the Site of:

Land at
Wynnstay Park
Ruabon
Wrexham

Commissioned by:

Mr P. Blake

**Inspection commenced:
February 2012**

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- | | |
|-------------------------------|---|
| ▪ Trees, Litigation & the Law | ▪ Tree-related Environmental Impact Assessments |
| ▪ Planning & Appeals | ▪ Subsidence Risk Assessment |
| ▪ Mortgage Surveys | ▪ Trees & Development Sites (BS 5837) |
| ▪ Tree Preservation Orders | ▪ Tree Hazard & Risk Assessment |



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Arboricultural Method Statement & Tree Protection Plan

Land at
Wynnstay Park
Ruabon
Wrexham

Introduction

- 1.1 Shields Arboricultural Consultancy received instructions from Mr P. Blake to provide an Arboricultural Method Statement and Tree Protection Plan in respect of trees at the above property.
- 1.2 Planning permission is being sought to construct an electricity distribution box and run a service cable through part of the park land to a fishing lodge.

Scope & Limitations

- 2.1 The purpose of this Arboricultural Method Statement (AMS) and Tree Protection Plan (TPP) is to assess the potential impact to existing trees, hedges and shrubs that would arise from undertaking the proposed works and to make recommendations to protect these features where appropriate.
- 2.2 The report is prepared in accordance with the recommendations of the British Standard Document BS 5837: 2005 'Trees in Relation to Construction'.
- 2.3 This report is not an ecological assessment and does not identify habitats or constitute a protected species survey.

Statutory Controls & Obligations

- 3.1 Forestry Act; the felling of trees is controlled by the Forestry Act, which requires that a felling licence is obtained prior to cutting down any trees. The Forestry Act does not apply to the felling of trees growing within an orchard, private garden, churchyard or public open space. The Forestry Commission has the responsibility for enforcing the Forestry Act.
- 3.2 Tree Preservation Orders & Conservation Areas; Local Authorities have specific powers under the Town & Country Planning Act 1990 as amended, to protect trees through the use of Tree Preservation Orders. Where trees are protected under such orders it is a criminal offence (subject to any exemptions for which provision may be made by the act or order) to undertake, cause or permit the cutting down, topping,

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lopping, uprooting, wilful damage or wilful destruction of trees except with the consent of the local planning authority. Similar controls apply to all trees growing within a designated Conservation Area.

- 3.3 Bats, wild birds and other protected species; The Wildlife & Countryside Act & the Conservation (Natural Habitats & C.) Regulations make it an offence to disturb or destroy bats and bat roosts and wild birds and their nests. Other species of plant and animal are also protected. These creatures often inhabit trees and sufficient care must be taken to ensure they are not affected during forestry and arboricultural works.

Site Description

- 4.1 The site is situated within the grounds of Wynnstay Hall, Ruabon which is registered historic parkland and comprise an area adjacent to the north east corner of the lake and a section of the carriage drive (to the north west of the main access road), which is a tree lined avenue running north west – south east through the northern section of the parkland. Some of the avenue trees would date back to the original planting and are of a high amenity value. There is also a large veteran oak tree to the close to the start of this section of the avenue.
- 4.2 A heavily compacted track way runs down the centre of the avenue. This has been surfaced with stone and is regularly used by vehicles.
- 4.3 The site is at an elevation of approximately 100 metres above sea level and is exposed to the north and the west. Soils at the site appear to be free draining and rooting depth is not expected to be limited.

General Description of Proposed Works

- 5.1 The proposed works requires that an electricity cable is run to a newly constructed fishing lodge from a junction box situated approximately 300 metres to the south east. To meet electrical safety requirements the cable will need to be installed some 0.6 metres beneath the ground.
- 5.2 To ensure that trees are not adversely affected by the proposed works it is necessary to:
- a. Avoid physical damage to the aerial parts of the existing trees (i.e. impact and other damage to trunk and branches)
 - b. Avoid damage to existing trees as a result of the severance or other physical damage to their roots

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- c. Preserve the characteristics of the soil within the Root Areas of existing trees and any sites proposed for new planting, through the avoidance of any activity that would cause the soil to become compacted or otherwise disturbed or disrupted, and to avoid contamination by potentially harmful substances
- d. To ensure free gaseous exchange is permitted between the upper layers of soil and the atmosphere
- e. To ensure adequate (but not excessive) water supply to the soil and hence to tree roots

This would normally be achieved by establishing an area, known as a Root Protection Area (RPA), around each tree. An RPA is the minimum area that must be maintained undisturbed to ensure that it is not damaged by construction activity. The size of the RPA is calculated for each tree and is based on its stem diameter and the shape should take account of ground conditions and any impediment to rooting and should represent the most probable position of the tree's root system.

From the RPA a construction exclusion zone CEZ should be derived, this must be considered sacrosanct and must be suitably protected during the construction phase, using robust fencing or alternative ground protection methods, to prevent disturbance and damage occurring.

Arboricultural Implication Assessment

- 6.1 The only practical route for the cable is either down the line of the avenue or through an adjacent field. In practice the RPAs of the avenue trees extend through both of these zones and therefore it is not possible to avoid working within their RPAs. To ensure that the trees are not damaged, it will be necessary to adhere to a precautionary method of working within the RPAs. To assist with this, precautionary areas (PA) will be established around all the trees. Within this PA all construction must be undertaken in a manner that will minimise any disturbance to the trees and their root systems. One tree in particular, a large veteran oak situated at the south west end of the avenue is particularly vulnerable to construction damage. To minimise risk to this specimen an extended RPA (15 x stem diameter) has been established around this tree and it is proposed to mole or thrust bore the cable route through this zone. There is a working requirement to dig small pits at the end of each mole run (12.5 metres) to allow access for the moleing equipment. These are approximately 1m x 1m in size and can

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be hand dug. As the pits are relatively small in size their impact on the root system of the tree will be negligible. Full details of construction methods and tree protection measures are given in section 8.

- 6.2 It is reasoned that the compacted soils beneath the track way would have limited root development into this area. It is therefore proposed that the route of the cable follows the centre of the track way, down to a point where it can cut through the avenue avoiding any significant trees. The route is divided into four sections each with its own specific working method.
- 6.3 By following the prescribed working methods it should be possible to install the cable without causing any significant damage to any of the important trees in the avenue.

Arboricultural Operations

- 7.1 None required.

Arboricultural Method Statement

- 8.1 This arboricultural method statement (AMS) sets out the details of tree protection measures and the methodology for all proposed works that have the potential to affect the existing trees present on the site.
- 8.2 This document should be read in conjunction with the Tree Protection Plan (TPP). The TPP indicates the Precautionary Areas (PA) that must be maintained around the existing trees.
- 8.3 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.
- 8.4 All tree protection measures must be installed and inspected prior to bringing onto the site any plant, materials or equipment or undertaking any works with the exception of those works outlined in the arboricultural works specification. The Local Planning Authority (Wrexham Council) must be informed in writing once the tree protection measures are installed.
- 8.5 The site is to be supervised by the consulting arboriculturalist and details of the daily activities reported to the LPA Tree Officer by email.
- 8.6 All measurements are given in metric using standard abbreviations.

Construction Methods

- 8.7 All materials and equipment are to be stored outside of the PA.

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- 8.8 All work is to be undertaken using only the specified tools and equipment and under the direct supervision of the Consulting Arboriculturalist.
- 8.9 The proposed route has been divided into four sections A – D each with its own specific working method.

Section A & D

- 8.10 These sections are through soft landscape areas outside the RPAs of any important tree. The line of the cable route is to be clearly marked on the ground and the working area defined using temporary fencing to ensure that the adjacent trees are protected. In this case Herras type site fencing on rubber feet is suitable as the site is under constant supervision. Equipment to be used in these zones is restricted to a tracked mini digger max weight 1.5 tonnes and hand tools as required.

Section B

- 8.11 This section passes through the extended tree protection zone around the veteran oak tree. This section is to be 'moled'. This entails that a working pit of approximately 1m x 1m is dug and a moleing machine is used to bore beneath the soil. Due to technical restrictions it is necessary to excavate these pits at intervals of 12.5 metres through out the run. The pits will be dug by hand under full supervision of the Consulting Arboriculturalist. No roots over 25mm in diameters will be severed and, if encountered will be wrapped in damp Hessian sacking and the pit modified to allow for the necessary access. Pits will be back filled as soon as is practical and the sacking will be removed at this time. Where the pits are within the existing track it will be necessary to compact the backfill material to provide a suitable surface. Equipment within this area will be limited to the moleing machine, wacker plate for re-compacting backfill and hand tools as required. The working area will be fenced using temporary fencing as describe above.

Section C

- 8.12 This section runs down the centre of the track between the avenues of trees. This is to be open trench dug using a mini digger under the supervision of the Consulting Arboriculturalist. No roots over 25mm or bunches of roots will be severed or damaged. Where encountered these will be protected using damp Hessian sacking and hand dug around to ensure that they can be retained. The working area will be defined by temporary fencing.

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Tree & Ground Protection

- 8.13 As the site is under full supervision and the nature of the activities is relatively low impact it is proposed to use Herras type site fencing on rubber feet only in the current work area.
- 8.14 No ground protection is required.
- 8.15 Other than works approved in writing by the LPA, no works including storage or dumping of materials shall take place within the PA.

General Precautions

- 8.16 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.
- 8.17 No fires will be lit within 20m of the trunk of any tree that is to be retained.
- 8.18 Positions of site huts, toilets, storage and mixing areas are identified on the TPP. Contractor parking should be off site or in areas identified on the TPP.
- 8.19 To ensure that all tree protection measures are properly installed and owing to the nature of the work being undertaken the site is to be supervised by Shields Arboricultural Consultancy. Details of the commencement of activities and schedule of works on site will be reported to the LPA by email 5 day prior to the start.

Conclusion

- 9.1 If the recommendations in this report are followed the proposed development will not have a significant detrimental impact on the arboreal environment of the site and surrounding area in the long-term.

S.J.A. Shields

**Dip. Arb. (RFS), M.Arbor.A, MICFor.
Chartered Forester**

18th February 2012

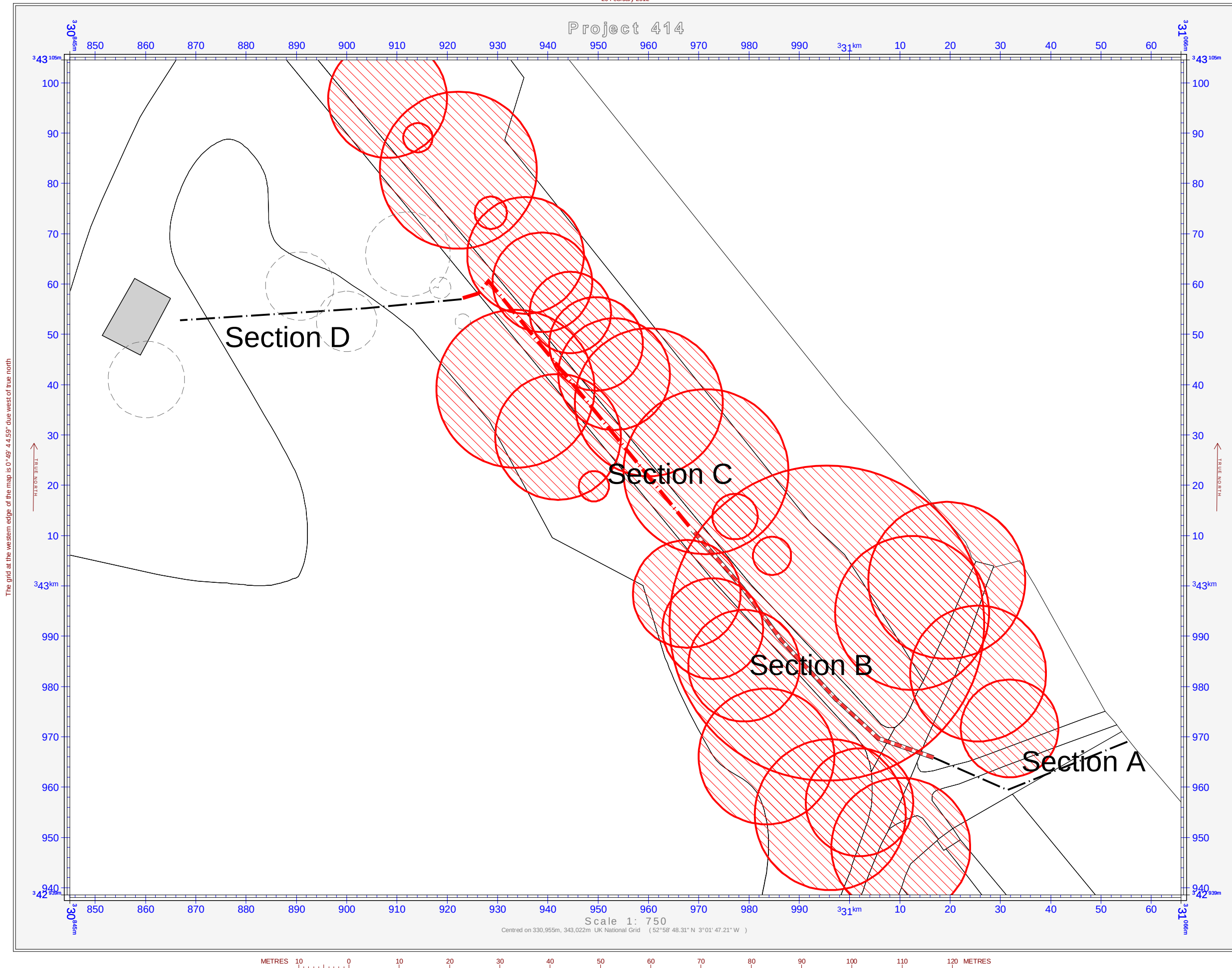
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Project 414



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Site Location Plan Land at Wynnstay Park

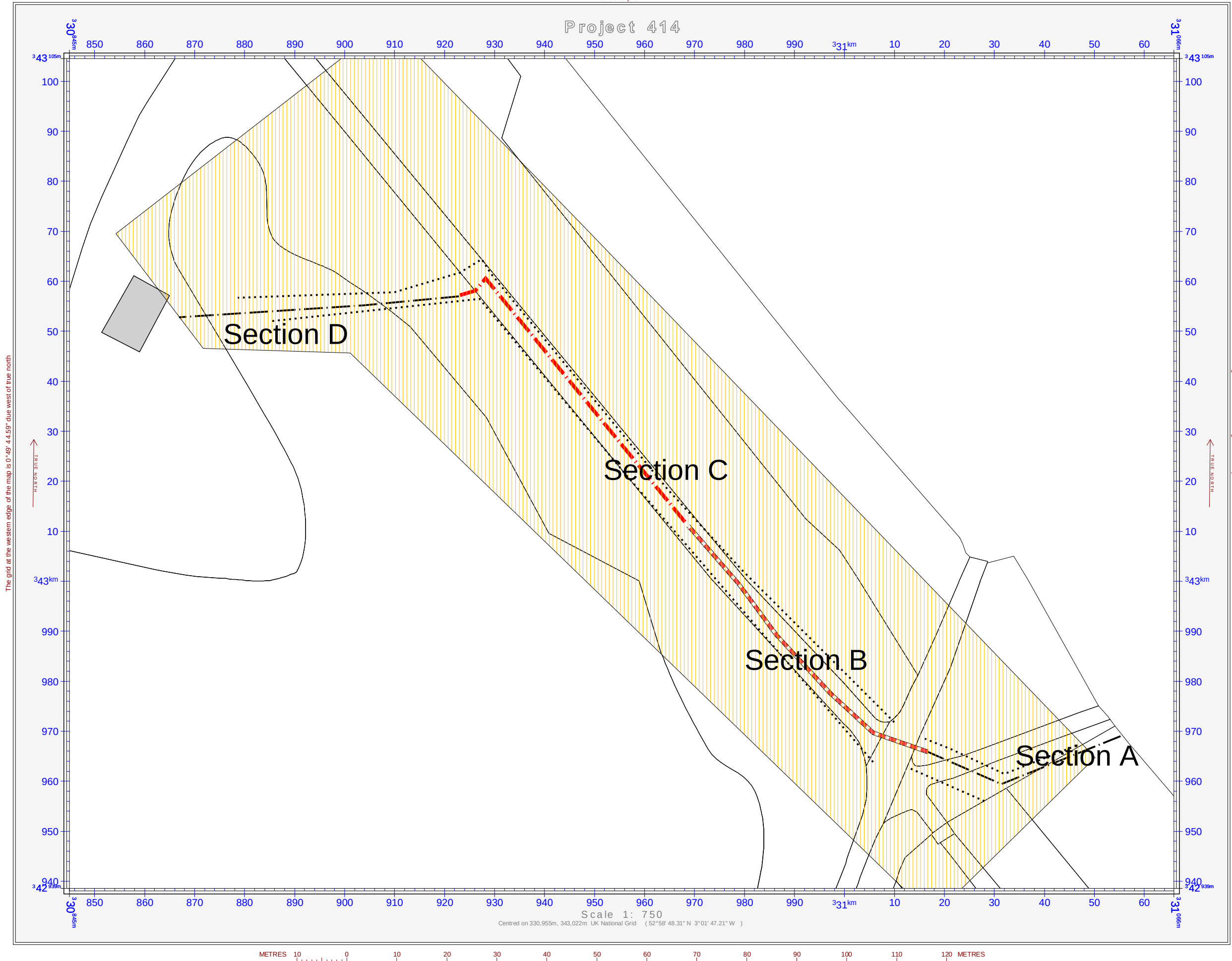
- RPA
- RPA Cat C
- Cable Route
Section A & D
- Cable Route
Section B
- Cable Route
Section C
- Fishing Lodge

Drawing No: WPR/SLP/02/12/01
Drawn By: S. Shields
Scale: 1: 750 @ A3
Date: 18th Feb 2012
Revision:

Do not scale from this drawing

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Project 414



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Tree Protection Plan
Land at
Wynnstay Park

- Precautionary Area
- Tree Protection Fencing
- Cable Route Section A & D
- Cable Route Section B
- Cable Route Section C
- Fishing Lodge

Drawing No: WPR/TPP/02/12/01
Drawn By: S. Shields
Scale: 1: 750 @ A3
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