

NYM / 2010 / 0890 / FL - 1

***elliottconsultancy*ltd.**
Arboricultural Consultants

Location:
**Land on Beacon Way
Sneaton**

SurveyType:
**Pre-development Arboricultural Survey
Tree Constraints Plan
Arboricultural Implications Assessment
Arboricultural Method Statement
Tree Protection Plan**

Ref:
AE/ARB/545

Completed By:



Authorised By:

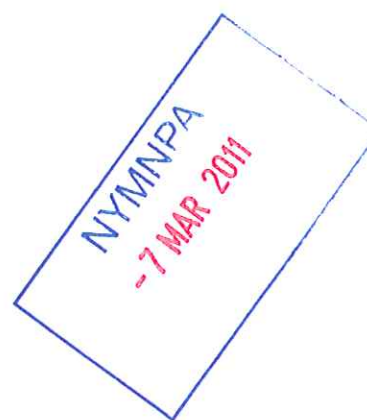
Date: 05/03/2011

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- 1 Tree Survey Data
- 2 Photographs
- 3 Specification for Tree Protective Fencing
- 4 Arboricultural Implications Plan showing tree locations, crown size, retention values, and recommended root protection areas. With proposed design
- 5 Tree Protection Plan showing proposed footprint, retained trees, and protective measures.

1 Introduction

1.1 Acting upon the request of Mr D Wilson, an arboricultural survey was undertaken at a site on Beacon Way in Sneaton. The survey was undertaken by Andrew Elliott of Elliott Consultancy Limited.

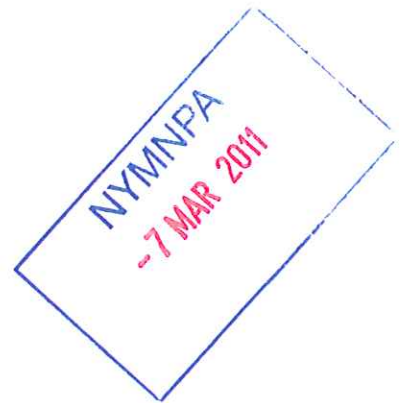
1.2 Scope of the report:

- This report provides arboricultural information and advice in relation to a proposed development of the site.
- All pertinent trees within the site were assessed and categorised with regard to their quality and retention value using criteria outlined in BS 5837:2005 - Trees in Relation to construction.
- An Arboricultural Implications Assessment and Plan (appendix 4) was undertaken referring to a proposed design as shown in Drawing: D9959-02 Rev A.
- An Arboricultural Method Statement and Tree Protection Plan is included to show protection measures to be undertaken to minimise any disruption to retained trees.
- It refers only to the conditions prevailing on the date the site was surveyed.

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1 Introduction (cont)

- 1.3 The trees are protected by Tree Preservation orders. Advice should be sought from the relevant planning department in this regard prior to undertaking any recommended works.
- 1.4 It is possible that trees inspected within this survey may also be habitat for a variety of species. It is not within the remit of this report to investigate matters other than arboricultural issues, and it is recommended that appropriate advice is sought.

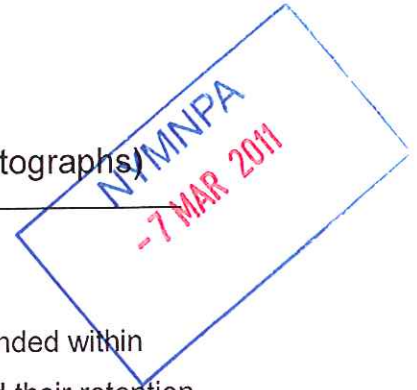


2 Site Information

- 2.1 The site is currently an empty building plot with Beacon Way to the north, residential properties either side (Stainton House to the east, and Rivendale to the west), and agricultural fields to the south.
- 2.2 Tree cover on the site consists of four mature trees. The trees were tagged using latschsbacher tree tags for identification purposes.
- 2.3 The proposed re-development of the site involves the placement of a single, detached residential dwelling in the centre of the site.

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3 Tree Quality Assessment (see appendix 2 for photographs)



3.1 General:

The trees on the site were assessed using criteria recommended within BS5837 'Trees in Relation to Construction' 2005, with regard their retention value given the proposal for development of the site. This tree quality assessment serves to detail how the retention values were determined.

3.2 Tree 1543:

A mature Horse Chestnut in reasonable condition and with reasonable form. The tree was classified as a **Category B** tree – a tree worthy of retention within the design where possible. If retained consideration must be given to its protection both above and below ground during the design and development process.

3.3 Tree 1544:

A mature Horse Chestnut in reasonable condition and with reasonable form. The tree was classified as a **Category B** tree and would normally be retained and protected if possible within a design. Some concerns have been raised as to its already close proximity to the adjacent building.

3.4 Tree 1545:

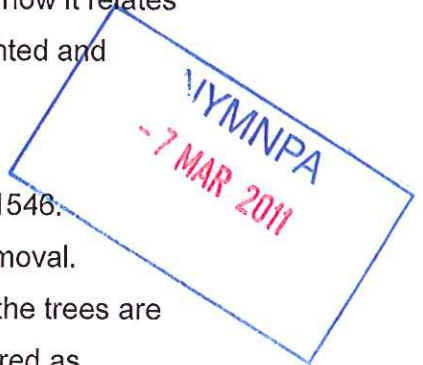
A poor quality Sycamore with minor basal decay and poor form. The tree was classified as a **Category C** tree – trees not of such quality as to constrain design.

3.5 Tree 1546:

A poor quality Sycamore with minor stem decay and particularly poor form. The tree was classified as a **Category C** tree, and should not be considered as a constraint to design.

4 Arboricultural Implications Assessment

- 4.1 This section concentrates on the proposed development and how it relates to the trees on site. Any tree and design conflicts are highlighted and possible remedial action suggested.
- 4.2 **Potential Conflict 1:** Location of building and Trees 1545 & 1546.
The proposed location of the building will necessitate their removal.
Countermeasure: No countermeasure is recommended. As the trees are all Category C trees their removal would normally be considered as acceptable.
- 4.3 **Potential Conflict 2:** Proximity of new building and driveway to Tree 1544.
The proposed location of the building will be in close proximity to the tree, with the access driveway also being around the trees base – it would be necessary to remove the tree.
Countermeasure: No countermeasure can be recommended.
Compensatory planting in and around the village may be considered as an option.
- 4.4 **Potential Conflict 3:** Damage to Tree 1543 during construction.
The tree may be damaged during construction due to a variety of reasons during a development process.
Countermeasure: The tree will be fenced off with immovable fencing (such as Appendix 3A) along the line shown within the Tree Protection Plan prior to any works being undertaken on site. Where scaffolding is required to be within the Root Protection Area, special protection will be required - details are shown within Appendix 3b and the Tree Protection Plan.



4 Arboricultural Implications Assessment (cont)

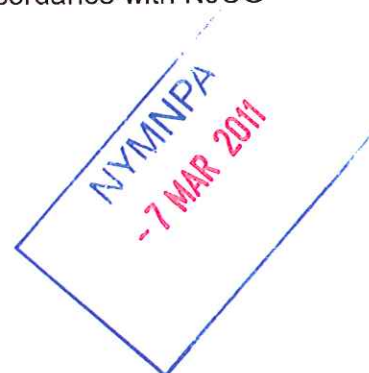
4.5 **Potential Conflict 4:** Location and construction of access driveway and the root protection area of Tree 1543.

Damage would be caused to underlying root tissue by the installation of a conventionally constructed driveway

Countermeasure: The ground in this area is already compacted to a degree due to past vehicle usage. However it would still be recommended that the driveway is constructed using a no-dig construction design. This will require the vegetation to be removed by hand, any undulations in the ground levelled using inert sand, onto which a cellular system is laid and then filled with appropriate aggregate, followed by a final wearing layer – which must be permeable to allow gaseous exchange and water penetration. This access must be constructed prior to any development works being undertaken on site.

4.5 **Potential Conflict 5:** Location of utilities runs within Root Protection Areas. Damage can be caused to root tissue during the installation of utilities runs.

Countermeasure: No new utility runs will be located within the Root Protection Area (RPA) of Tree 1543. Any works to existing utilities will be undertaken with regard for the tree and will be in accordance with NJUG (National Joint Utility Groups) guidelines.



4 Arboricultural Implications Assessment (cont)

4.6 Potential Conflict 5: Material and plant on-site storage.

During the development process storage of materials and plant can cause significant damage due to compaction of root-plates if it occurs with an RPA.

Countermeasure: Maintain protected area free from disturbance. An adequate area will be clearly located and set aside for the storage of all plant and materials – this area will be clear of Tree 1543's RPA. Given the size and limitations of the site this may need to be off-site.

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5 Tree Retention Considerations

- 5.1 Category B trees have been identified as being of reasonable stature, condition, and aesthetic quality as to be worthy of retention and protection within the proposed design. All retained trees will require protection in accordance with *BS5837 'Trees in relation to construction'* 2005. This protection must be undertaken and adhered to, prior to any work beginning on site.
- 5.2 These protected areas should be considered sacrosanct from any disturbance throughout the entire development process - with no ground disturbance, material storage, or physical encroachment allowed (full details of constraints are contained within the following **Arboricultural Method Statement and Tree Protection Plan**).



6 Arboricultural Method Statement

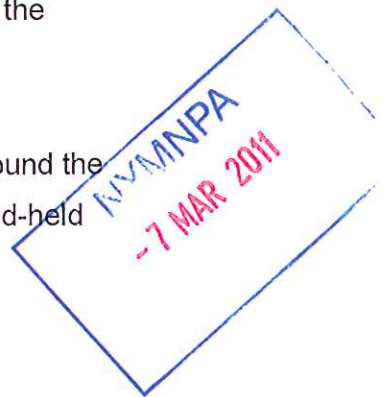
6.1 Pre-Development Tree Protection Measures

- 6.1 Fencing needs to be erected in accordance with the Tree Protection Plan (Appendix 5). The recommended fence should comprise a vertical and horizontal framework supporting chain link fencing. This should be continuous and immovable (see appendix 3). All weather notices should be attached to the fencing marked with the following: '*Construction Exclusion Zone - Protected Trees – Keep Out*'.
- 6.2 All trees to be removed from within the site will be removed prior to any construction works being undertaken on site.
- 6.3 The no-dig driveway will be installed. A temporary wearing layer may be required for the duration of the construction.
- 6.4 **Protection measures during development**
- 6.5 At the beginning of the construction phase, the site manager will appoint a delegated site representative who shall be responsible for continued checking of the protective measures for trees to ensure they are compliant with this report.
- 6.6 The tree protective fencing must be considered sacrosanct and should under no circumstances be removed, altered, or breached without prior agreement with the North Yorkshire Moors National Parks Arboricultural Officer.
- 6.7 Materials that contaminate the soil, e.g. concrete mixings, diesel oil and vehicle washings, will not be discharged within 10m of the tree stem.



6 Arboricultural Method Statement (cont)

- 6.8 Fires should not be lit within 5m of the foliage or drip line of the tree. Care should be taken and the fire should not be allowed to become large and the wind direction noted.
- 6.9 The trees should not be used to attach notices, cables or other services.
- 6.10 All ground levels where trees are located should be maintained as they are at present. Changes to soil levels adjacent to trees can severely affect the trees structural integrity and its ability to gain moisture and nutrients from the surrounding soil. If any level changes should be required that may affect the retained trees on site, these should be assessed by North Yorkshire Moors National Parks Arboricultural Officer before being undertaken to assess their impact and whether any remedial works can be undertaken
- 6.11 No underground services will be placed within the RPA's of retained trees. If there is a necessity for installation of any services near or adjacent to trees on the site they shall conform to the requirements of National Joint Utilities Group publication number 10 (APRIL 1995).
- 6.12 Post-Construction Considerations**
- 6.13 Only once main construction works have been undertaken can the protective fencing be removed.
- 6.14 Post-development landscaping will ensure no level changes around the retained tree, and that no machinery other than lightweight, hand-held machinery will be used within the RPA of the retained tree.



6 Arboricultural Method Statement (cont)

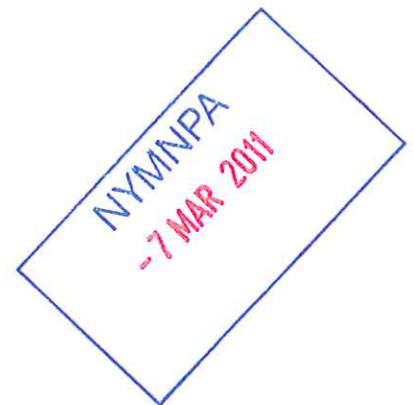
- 6.15 Any post-construction tree planting will allow for future growth and be suitable for the site as recommended by NHBC guidelines on tree planting near buildings.



7 Summary

- 7.1 Tree cover on the site comprises two reasonable trees and two poor quality trees. The proposed building, as the design shows, will require the removal of the two Sycamores at the rear of the site and also the Horse Chestnut near to the boundary with Rivendale.
- 7.2 The retention of Tree 1543 – the most valuable and visible tree on the site - can be undertaken with a good level of protection and in accordance with BS5837 'Trees in Relation to Construction' 2005, and should not be damaged by the proposed design if the recommendations within this document are adhered to.
- 7.3 If any element of this report requires clarification please do not hesitate to contact Elliott Consultancy Ltd for further details.

Andrew Elliott
Arboricultural Consultant



Appendix 1: Tree Survey Data

Tree Number: 1543

Species: Horse Chestnut (*Aesculus hippocastanum*)

Age-class: Mature

Height: 18m

Diameter at 1.5m: 70cm

Crown-spread: North - 5, South - 5, East - 5, West - 4.

Condition: Ivy at base and on stem restricted full inspection. Crown appears in good condition with no discernable faults.

Arboricultural Recommendations: No work required.

PSULE: 20-40 yrs

Retention Category: B1

Tree Number: 1544

Species: Horse Chestnut (*Aesculus hippocastanum*)

Age-class: Mature

Height: 16m

Diameter at 1.5m: 70cm

Crown-spread: North - 6, South - 4, East - 6, West - 4.

Condition: It is suspected that the ground level around the base of the tree has at some time been raised slightly - evidenced by the lack of buttress swelling at the base – this is believed to be historic and possibly undertaken when the properties were built on either side of the site approximately 20 years ago. The stem appears in good condition, as does the crown, with only a small amount of occasional twig dieback.

Arboricultural Recommendations: No work required.

PSULE: 20-40 yrs

Retention Category: B1



Appendix 1: Tree Survey Data (cont)

Tree Number: 1545

Species: Sycamore (*Acer pseudoplatanus*)

Age-class: Mature

Height: 18m

Diameter at 1.5m: 67cm

Crown-spread: North - 5, South - 4, East - 4, West - 6.

Condition: Around the base of the tree, especially to the west of the main stem, root severance was noted, again it is suspected that this occurred during the construction of the adjacent dwelling approximately 20+ yrs ago. At the base of the tree a cavity was inspected within two buttresses – decay was found immediately around the cavity but there was no evidence of progression off the decayed tissue into the stems base. No fungal fruiting bodies were found, and there was no evidence of root movement, mounding, or shearing present. The trees stem was in good condition, and general crown condition appeared reasonable with no discernable faults other than minor asymmetry.

Arboricultural Recommendations: No work required.

PSULE: 10-20 yrs

Retention Category: C1

Tree Number: 1546

Species: Sycamore (*Acer pseudoplatanus*)

Age-class: Mature

Height: 14m

Diameter at 1.5m: 58cm

Crown-spread: North - 2, South - 4, East - 0, West - 5.



Appendix 1: Tree Survey Data (cont)

Condition: Undergrowth around the base and Ivy on the stem visibly restricted full inspection. The stem of the tree has a small cavity at 2m, on inspection this cavity was found to be small with no significant decay noted. The trees stem and crown form is particularly asymmetrical due to past light suppression by adjacent trees, with the stem having a significant bend and the crown being particularly affected by the past proximity of adjacent trees. At several places on the stem there is evidence of poor past-husbandry with poorly pruned limbs evident – some with stubs and others with bark tears following limb removals.

Arboricultural Recommendations: No work required.

PSULE: 10-20 yrs

Retention Category: C1

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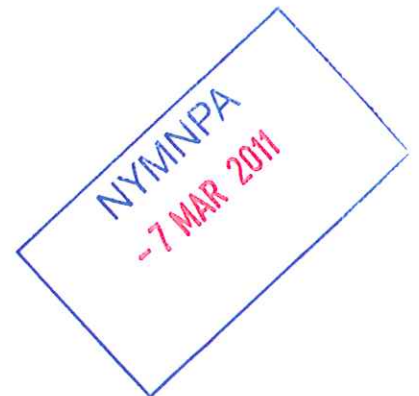
Appendix 2: Photographs



Figure 1: Tree 1543



Figure 2: Tree 1544



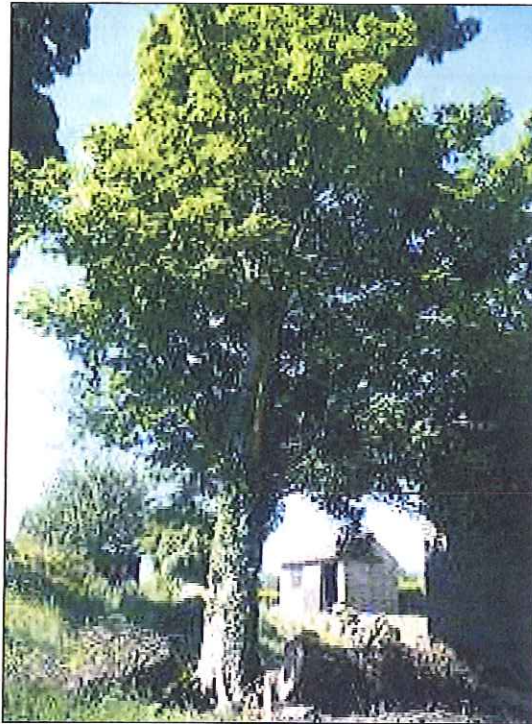


Figure 3: Tree 1545

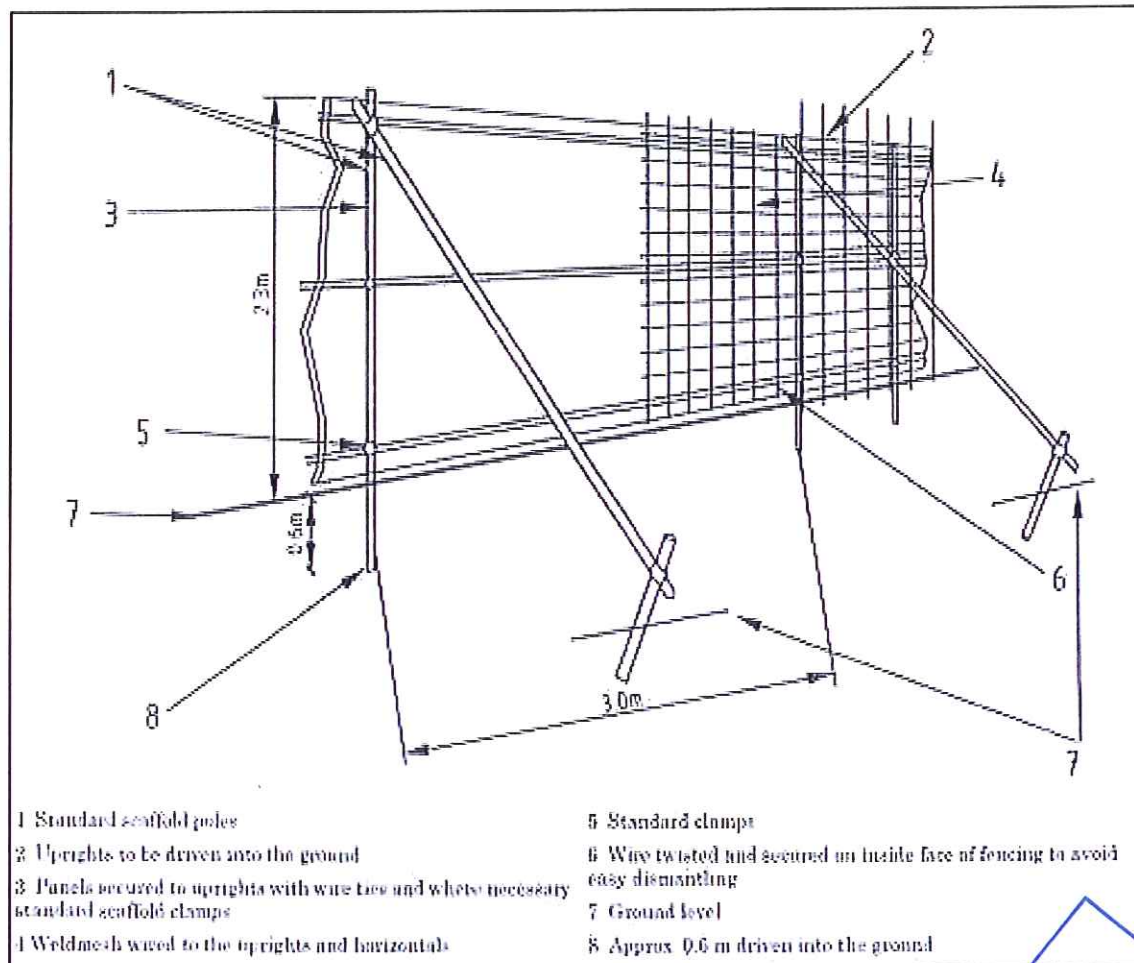


Figure 4: Tree 1546

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Appendix 3: Specification for Tree Protective Fencing

3A – Specification for protective fencing to be installed as per Tree Protection Plan - Appendix 5.

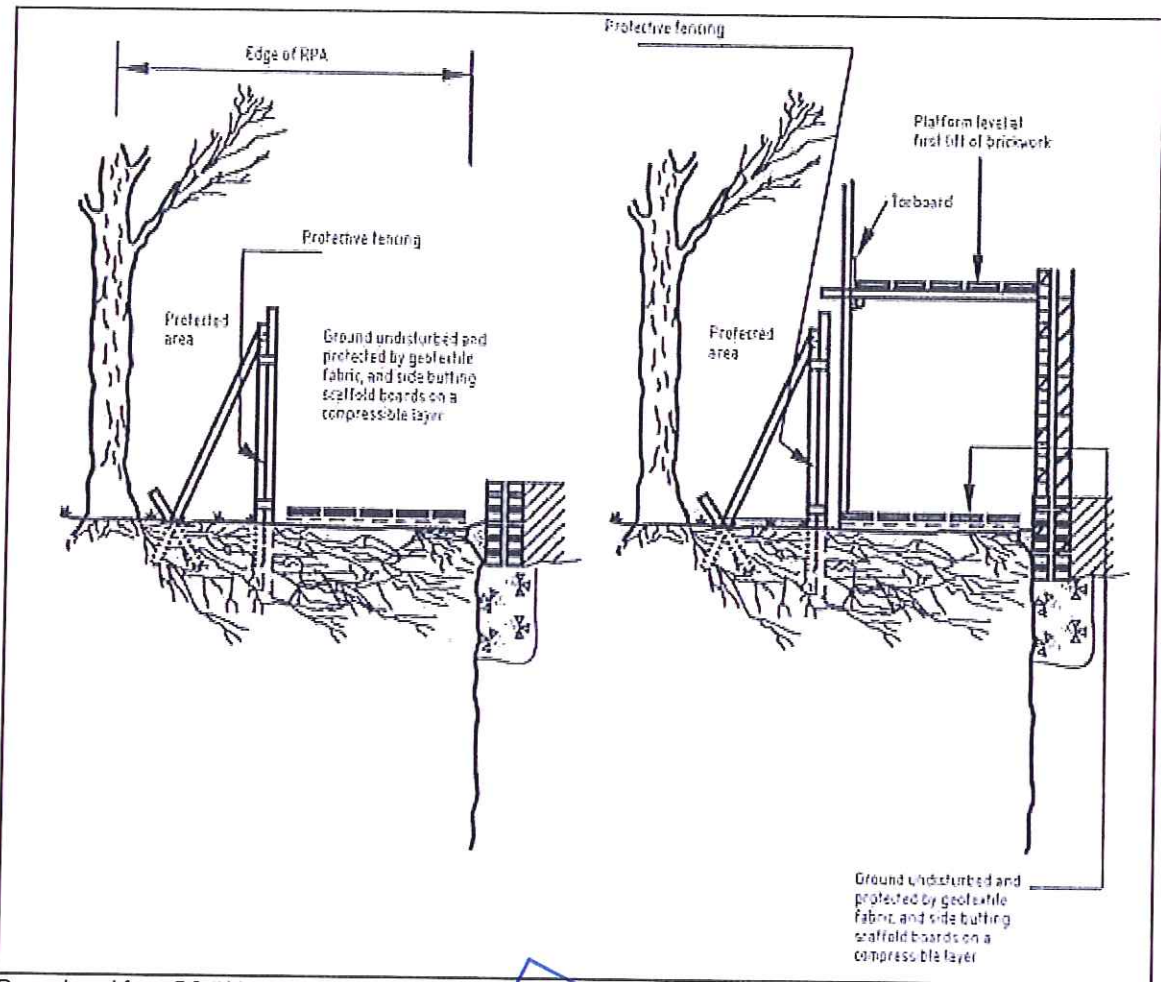


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Appendix 3: Specification for Tree Protective Fencing

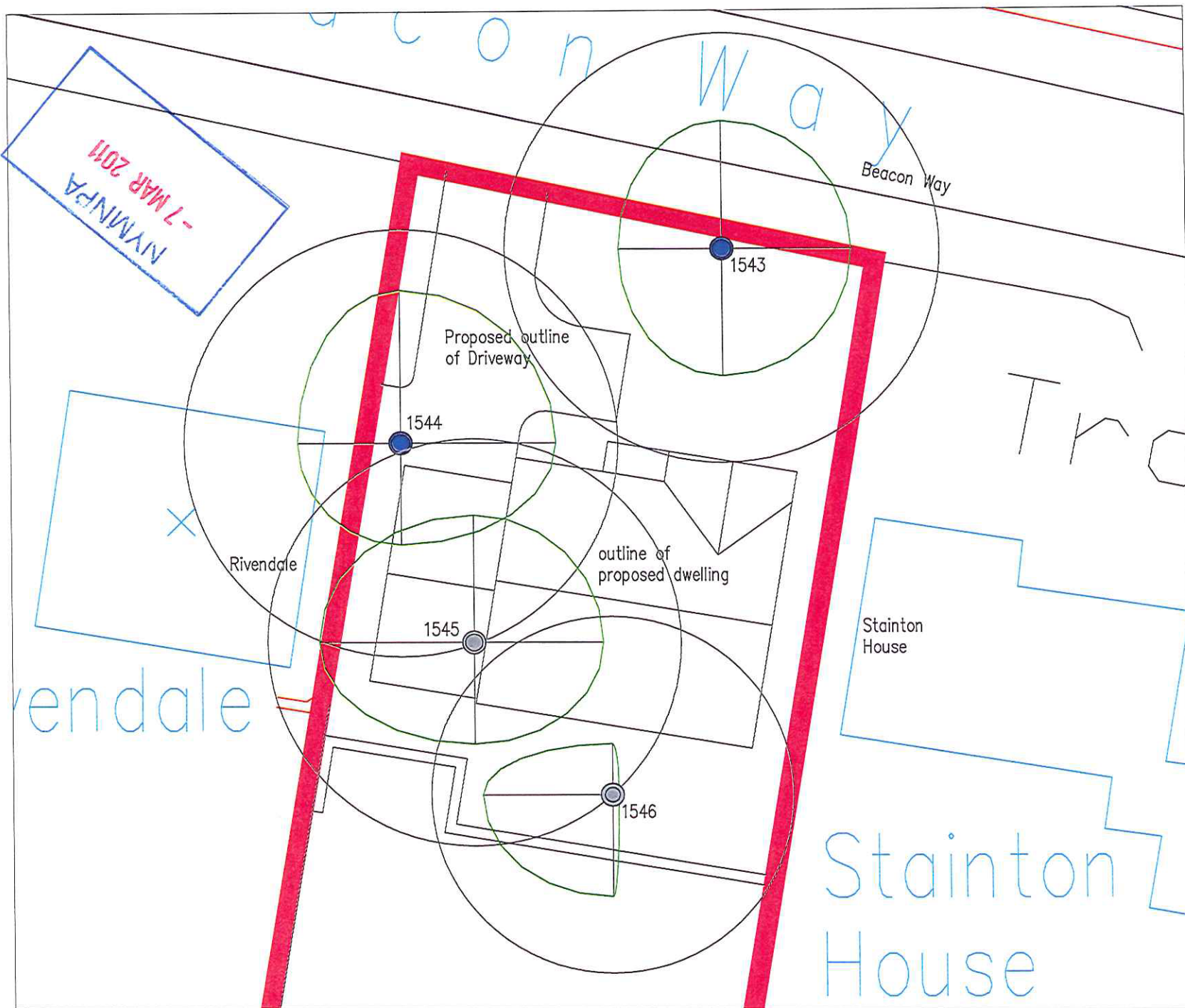
3.B – Construction of scaffolding, protective fencing and ground protection within RPA






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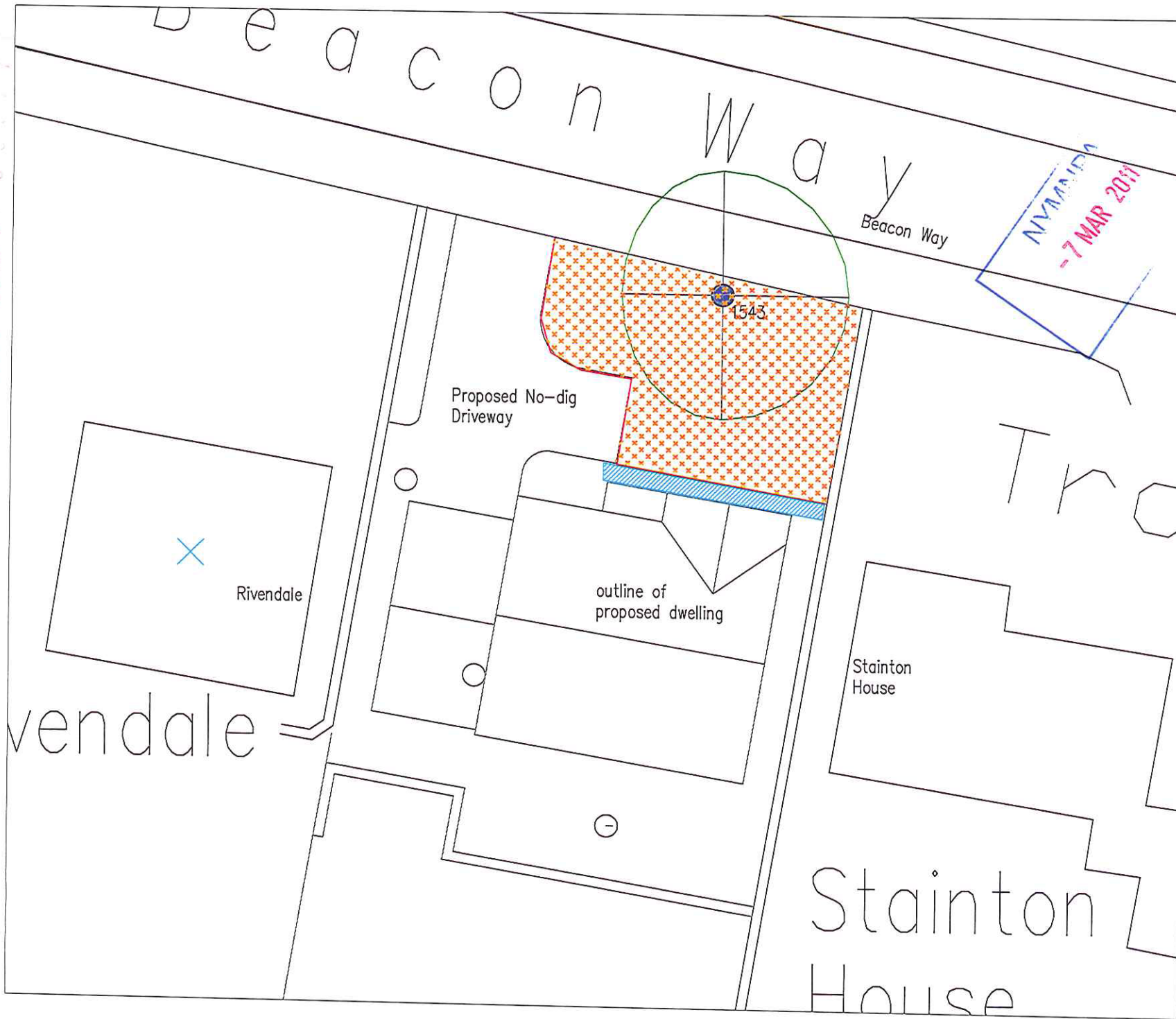
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-  Hypothetical Root Protection Area (RPA)
- 11 Tree Number
-  Tree Position Showing Canopy Extents & BS5837 Category B
-  Tree Position Showing Canopy Extents & BS5837 Category B

Appendix 4

| | |
|--------------------------------------|-------------|
| Drawing Title: Arb Implications Plan | |
| Project: | Sneaton |
| Drawing Number: ARB/AE/545 - AIP | |
| Date: | March 2011 |
| Scale: | 1:200 @ A4 |
| Client: | Mr D Wilson |

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Tree to be Retained

20

Tree Number



Tree Protection Fencing



Area of construction exclusion zone



Area of special ground protection

Appendix 5

Drawing Title: Tree Protection Plan

Project: Beacon Way, Sneaton

Drawing Number: ARB/AE/545/TPP

Date: March 2011

Scale: 1:200 @ A4

Client: Mr D Wilson