Verity Allen

From: Bell Snoxell Building Consultants
Sent: 28 January 2021 16:40
To: Jill Bastow
Cc: John Collinson
Subject: Re: NYM/2020/0574/FL Stainsacre Hall
Attachments: 18.01.21 Letter to Mr Collinson RE Wall.pdf; Garden wall appraisal photographs.pdf; ECL Arboricultural Impact Assessment, Method Statement, & Protection Plan - Stainsacre Hall - January 2021.pdf

Afternoon Jill,

as per your least email on this application please find attached the further information requested. This includes a structural appraisal of the wall (with photos) and an arboricultural impact assessment.

Regards

Louis

Bell Snoxell Building Consultants Ltd

18th January 2021
Our Ref: LS/8115

Mr John Collinson
Stainsacre Hall
Stainsacre
Whitby
North Yorkshire
YO22 4NT

NYMNPA
28/01/2021

Dear John

Re:- Proposed Shed in the Grounds of Stainsacre Hall, Stainsacre, Whitby, North Yorkshire, YO22 4NT

Instruction

Instruction received from Mr John Collinson to undertake a structural survey of the stone and brick garden wall following direction from the North York Moors National Park planning officer, Jill Bastow. This is as per the email dated 9th December 2020 in which a request for an Arboricultural Impact Assessment and a Structural Survey of the garden wall was specified. The structural survey was only to ensure that the features that would help to reduce the visual impact of the proposed shed are not lost.

As an RICS Chartered Building Surveyor and a member of the Chartered Association of Building Engineers I am qualified to review and pass comment on this element.

Findings

The wall in question generally runs in a westerly direction but slightly south. This extends from the north section of Stainascre Hall towards a section of valley woodland. It effectively forms the boundary between the principle west garden and a section of land laid to grass to the north over gently sloping ground. To the north is a single storey structure, with in the garden the level of the land changing therefore the height of the wall varies.

The wall construction has a width of 350-400mm. This is caped with stone copings. To the south the face of the wall is primarily in stretcher bond brickwork interspersed with various sections of sandstone stringer courses and sandstone at the base. To the north side this is finished in coursed herringbone stone. The west section is partly overgrown with ivy. At a few positions there are intermediate brick columns visible to the south that provide a degree of extra stability.

The proposed shed to the south of the wall will be excavated into the ground. This will be lower than the foundations of the wall. The wall footings are anticipated to be slightly wider stones or potentially stepped brickwork. As highlighted by the Planning Officer Jill Bastow the boundary wall at this position is a critical factor in terms of the landscape and visible impact of the proposed shed.

The proposals rely on this wall being retained in its current position to shield any view of the shed from the north. To the east of the shed the internal floor level is anticipated to be 2.5-3m lower than the foundations of the wall and to the west, given that the wall slopes with the land, it is anticipated to be around 1.5-1.9 meters. The proposed planning drawings (which are not construction drawings) have a note stipulating the garden wall will be supported with concrete structures to Engineers design to enable excavation down to floor level. The basic outline of the retaining wall is shown going away from the base of the wall by around 1 meter. No works are proposed to the wall to the northside apart from simple works of maintenance.

Although the wall does have some slight undulations and a few of the coping stones have lifted the condition is satisfactory for a structure of this age and type. A few elements of maintenance are necessary and it is critical that the wall is not unduly disturbed during the excavation of the proposed shed site. Any undermining of the footings or disturbance to the adjacent ground could easily make the wall structurally unstable.

Conclusion

The wall is currently in reasonable condition and can be retained however this will involve careful excavations following a full construction design including underpinning and or constructing a retaining wall.

The overall conclusion of this report is that the wall can be retained to provide the necessary visible barrier for the new shed which is the principle concern of the North York Moors National Park at this stage. If planning permission is granted, the applicant will engage a local structural engineer to complete a full design and sequence of safe working.

Attached herewith are a series of photographs showing the existing wall arrangement.

Yours sincerely,

Louis Stainthorpe
Chartered Building Surveyor
BSc (Hons), MRICS, RICS Registered Valuer, MCABE
Bell-Snoxell Building Consultants Ltd
January 2021

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arboricultural consultants

Location:
Stainsacre Hall
Stainsacre

Report Type:
Arboricultural Survey
Arboricultural Impact Assessment
Arboricultural Method Statement
Tree Protection Plan

Ref:
ARB/AE/2471

Date:
January 2021

Contents

Appendices

1 Introduction

1.1 This report has been prepared by Andrew Elliott of Elliott Consultancy Ltd on behalf of the applicant.

1.2 Elliott Consultancy Ltd was commissioned to visit the site to inspect the trees and to produce an arboricultural report in accordance with British Standard 5837:2012 '*Trees in Relation to Design, Demolition & Construction*'. An initial inspection of the trees was undertaken on the 18th January 2021.

1.3 **Scope of the report:**

- This report provides arboricultural information and advice in relation to the proposed construction within the site of a large detached storage shed within the properties rear garden – as shown within Appendix 6.
- It should be used to guide the construction process in order to minimise potential damage to retained trees.
- Section 4 provides a summary of the design proposals and their impact on the current tree population.
- Sections 5-7 provide a method statement that details all measures recommended for adequate tree protection including any special construction measures to be utilised.
- Within the Arboricultural Tasks Sequence Table (Appendix 2), is a timescale for implementation of any tree works and protective measures in reference to the development period.

1.4 Trees can be protected by Tree Preservation Order or by merit of location within a Conservation Area; advice should be sought from the relevant planning department if such restrictions have been placed on the site.

1.5 **Prior to site works commencing, the Arboricultural Method Statement needs to be passed to the site manager or contractor and used as reference during the development period, with particular attention paid to Sections 5-7, and Appendices 2-7.**

2 Site Information

2.1 Stainsacre Hall is a large, detached dwelling set within its own grounds, previously having been used as a an outdoor activity centre but now returned to residential use. Figure 1 shows the approximate extent of the area pertinent to the proposals:

Figure 1: Approximate site extent highlighted.

2.2 Tree cover inspected includes four large and mature trees along the boundary to the west of the garden, on the edge of the Stainsacre Beck wooded corridor. Tree survey data is included in Appendix 1.

2.3 Any visibility constraints encountered are noted within the survey data (Appendix 1).

3 Tree Quality Assessment

3.1 BS5837:2012 notes that all trees apart from those with stem diameters <150mm or classified as Category U should be viewed as a site constraint. When inspected, each tree and or group feature is assigned one of four categories that signify how suitable that tree/group would be for retention within any development proposals, and therefore the degree to which it should constrain the site. The four categories are as follows:

3.2.1 **Category A** trees are those of high quality and value, and of a condition whereby they could make a substantial contribution to the site. Such trees should be retained and offered adequate consideration during the design phase and physical protection during the construction phase in accordance with BS 5837:2012. This means keeping proposed features and alterations to ground levels outside of root protection areas and crown spreads to ensure that trees remain in adequate condition post-development.

3.2.2 **Category B** trees are those of moderate quality and value, and of a condition that still make a substantial contribution to the site. Category B trees should be retained wherever possible and offered adequate consideration during the design phase and physical protection during the construction phase in accordance with BS 5837:2012.

3.2.3 **Category C** trees are considered to be of low quality and value, or lacking stature, but of an adequate condition to remain in the short-term. These trees can also be retained if required but where they form a significant constraint to development their removal should be considered. Where they are to be retained they should be afforded adequate consideration during the design phase and physical protection during the construction phase in accordance with BS 5837:2012.

3 Tree Quality Assessment (cont)

3.2.4 **Category U** trees are of such a condition that any existing value would be lost within 10 years. As a result it is recommended that Category U trees are not considered a constraint for development and are removed prior to construction commencing.

3.3 In addition to the four main categories explained above, each tree/group is assigned a sub-category which signifies its overriding value as determined by the surveyor, which is noted by adding a suffix of 1, 2 or 3 alongside the category letter. 1 signifies that the trees/groups main value is arboricultural e.g. it may be a particularly good example or may be rare. A 2 signifies that the overriding factor was due to the landscape value that the tree/group provides e.g. it may be part of a group feature such as a screen. A 3 indicates that a cultural factor was the overriding value e.g. it may have historical or commemorative importance.

4 Design Proposals and Arboricultural Impact

4.1 This section concentrates on the proposals and how they relate to the current trees on and adjacent to the site (as shown within Appendix 6).

4.2 **Potential Conflict 1: Loss of trees to allow construction.**

No significant tree cover will be removed due to the proposals.

Mitigation / Countermeasure: No mitigation or countermeasures are required. It is recommended that Tree 2 and the x3 adjacent small multi-stemmed Beech trees are re-pollarded, cutting back the crowns to where they were previously pruned. This reduced-form will allow good clearance from the shed (this crown form is shown on Appendix 7).

4.3 **Potential Conflict 2: Damage to Trees due to location of the new shed and access.**

The new shed and access is located at some points within the root protection areas (RPA's) of Trees 2-4, which could damage underlying root tissue.

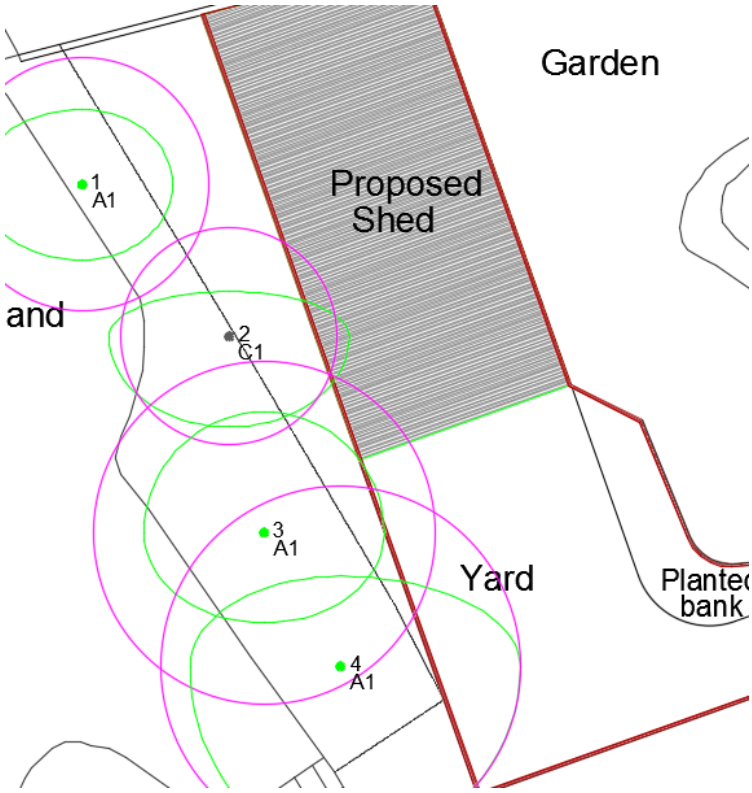


Figure 2: RPA's (agenta) and new shed.

Mitigation / Countermeasure: The shed and access road locations encroach into Tree 2, 3, & 4's RPA's by 4.5%, 7.5%, & 10% respectively. Such small amounts of encroachment, when also noting the retained unaltered woodland banking to the west and the potential of previous root changes within the garden space (see below), is not expected to have a significant impact on the trees' physiological or structural conditions. It is also proposed that where recent ground increases have occured (to the rear of the proposed shed where a high ropes and abseiling course until recently occupied this space), the ground levels will be re-graded back to their previous levels (prior to circa 2008). If this work can be undertaken with plant being located outside of the recommended root protection areas but reaching in to re-grade etc. and without any significant further excavation beyond the historic ground levels occurring, this also can be undertaken without significant detriment to the retained trees.

4.4 **Potential Conflict 3: Damage to retained trees around the site during construction.**

Retained trees may be damaged due to a variety of reasons during the development process.

Mitigation / Countermeasure: All retained trees can be protected during the construction process by the installation of appropriate protective fencing and maintaining the agreed construction exclusion zones as shown within Appendix 7. This is in full accordance with BS5837. Installation of the protective fencing can only be undertaken once the proposed re-grading of the ground level to the rear of the new shed has be completed.

4.5 **Potential Conflict 4: Location of utility runs within Root Protection Areas.**

Damage can be caused to roots during the installation or replacement of utilities runs.

4 Design Proposals and Arboricultural Impact (cont)

Mitigation / Countermeasure: No new utility runs must be located within any of the retained trees root protection areas. Any works to existing utilities will be undertaken with regard for the retained tree cover and will be in accordance with NJUG (National Joint Utility Group) recommendations.

5 Pre-construction and Site Preparation Works

5.1 Refer to Appendix 2 for stage specific tasks.

5.2 Tree works as outlined in Appendix 2 should be undertaken.

5.3 Re-grade raised ground levels to the rear of the shed location back to their initial level. All plant used must be located outside of tree root protection areas with apparatus 'reaching' into the protected zone to regrade as required. No regrading will exceed the historic ground levels within these zones.

5.4 Prior to any further site works commencing, the fencing needs to be erected according to the locations found on the Tree Protection Plan (Appendix 7). The fence should conform to the specification shown within Appendix 3. All weather notices should be attached to the fencing marked with the following: '*Construction Exclusion Zone - Keep Out'* (a notice is provided within Appendix 4).

5.5 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 fencing to ensure it remains compliant with the exclusion zone.

6 Tree protection measures during construction

6.1 Refer to Appendix 2 for stage specific tasks.

6.2 All ground levels where trees are located should be maintained. 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. Unavoidable level changes that may affect retained trees, and not already accounted for within this method statement, should be assessed by a qualified arboriculturalist so that any mitigation or special construction techniques can be considered.

6.3 Building material storage and operations that can contaminate soil, such as cement mixing, must be confined to areas outside the RPA's.

6.4 Fires should not be lit.

6.5 The trees should not be used to attach notices, cables or other services.

6.6 The installation of any underground services near or adjacent to trees on the site shall conform to the requirements of National Joint Utilities Group publication Volume 4 (November 2007).

7 Tree protection measures post-construction

7.1 Refer to Appendix 2 for stage specific tasks.

7.2 Only once all construction works have been completed can the protective fencing be removed.

Appendix 1: Tree Data

Key to tree survey headings:

- **Tag –** Tree number corresponding to plans & tags
- **Species –**Common name of each tree
- **DBH –** 'Diameter at breast height' in mm taken on stem at 1.5m.
- **Hgt –** Height in metres of each tree
- **Crown spread: North, South, East, West –** Crown spread in metres to x4 cardinal points from centre of stem
- **CH –** Crown clearance from ground to lowest branches
- **EstD** – Estimated dimensions
- **Age –** Age-class of tree: Y = Young, SM = Semi-mature, M = Mature, OM = Over-mature.
- **General observations –** details both Physiological and structural Condition
- **Est Con –** Estimated life expectancy / contribution to the landscape (in years): 0-10, 10-20, 20-40, 40+
- **Recommendations –** Any recommendations that, regardless of land use, require attention.
- **BS. Cat –** Retention category. **A**, **B**, **C**, or **U**. For retained trees **A** being of the highest quality, **C** being the lowest. Category **U** trees for removal regardless of design. Category A, B, & C are given sub-catagories1, 2, & 3 – details of which are shown in appendices.

Tree Survey Data

No.	Species	Age	DBH	Stems	Height	Crown Spread				CH	EstD	General Observations	EstCont	BS Cat	Recommendation
						N	S	E	W						
1	Beech	M	70	1	22	5	5	6	7	3	N	Ivy restricted visibility.	40+	A1	No work required
2	Beech	M	60	1	15	3	6	8	8	3	N	Part of short line/group of x4 - but considerably larger than adjacent trees. Was historically cut at 2.5m with poor regrown form - multistemmed. Poor quality.	20+	C1	Consider removal or re-pollarding regardless of proposals
3	Beech	M	96	1	18	8	6	8	8	3	N		40+	A1	No work required
4	Hornbeam	M	100	1	18	6	12	12	10	4	N		40+	A1	No work required

Note: Recommendations are arboriculturally based and do not relate to any development proposals at this stage. Such information would be detailed within an Arboricultural Method Statement

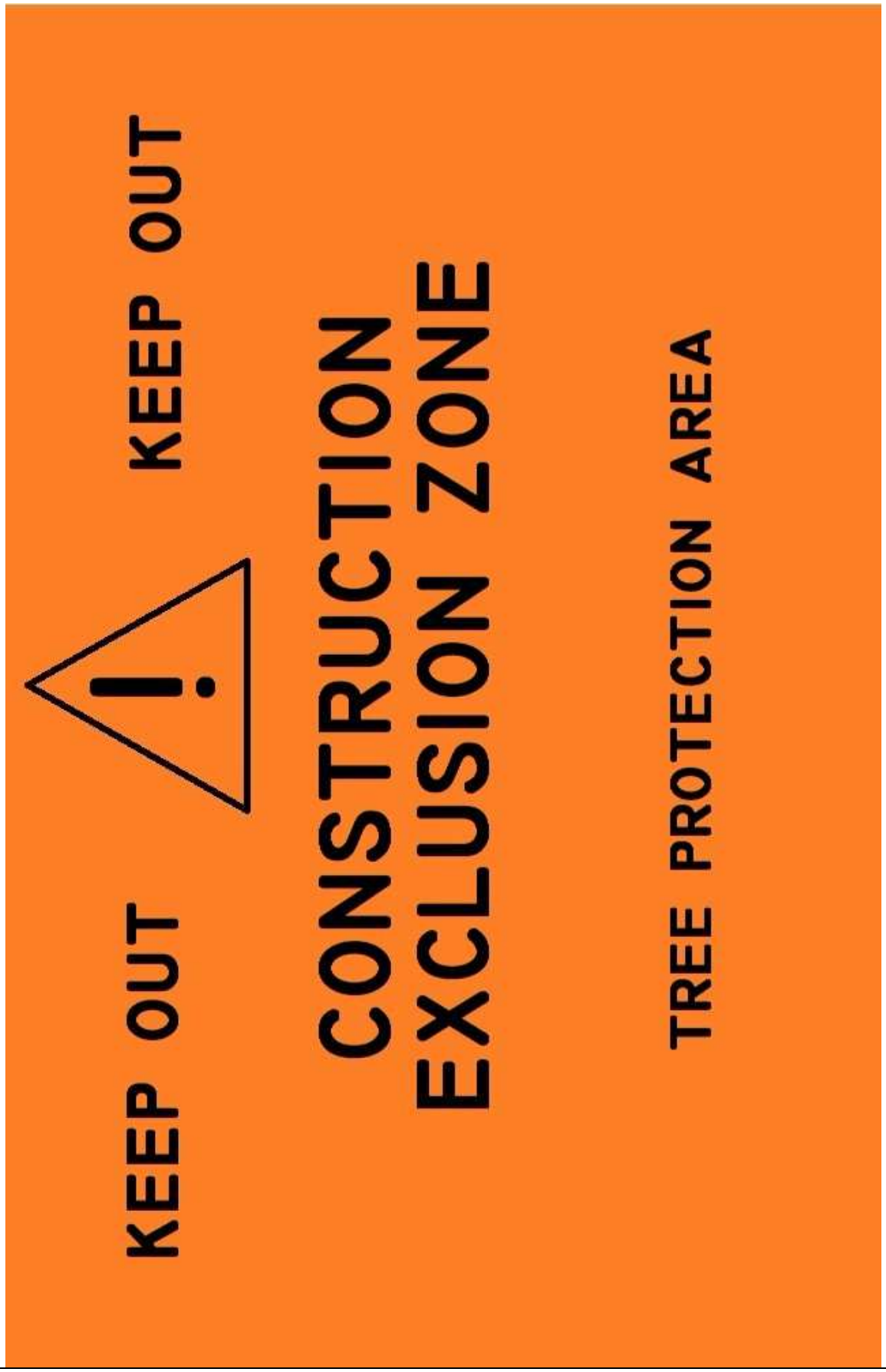
Appendix 2: Arboricultural Tasks Sequence Tables

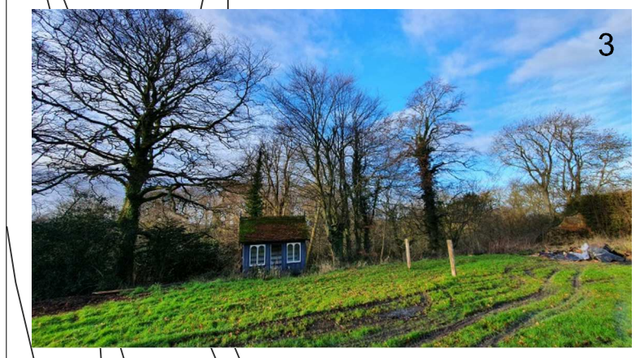
Tree or Group Number	Pre-Construction Stage	Construction Stage	Post Construction Stage
Tree 2	Re-pollard.		
All adjacent trees.	Adhere to Section 5. Install protective fencing as per Appendices 3, & 7. Attach tree protection notice as per Appendix 4.	Adhere to specification within Section 6.	Adhere to specification within Section 7.

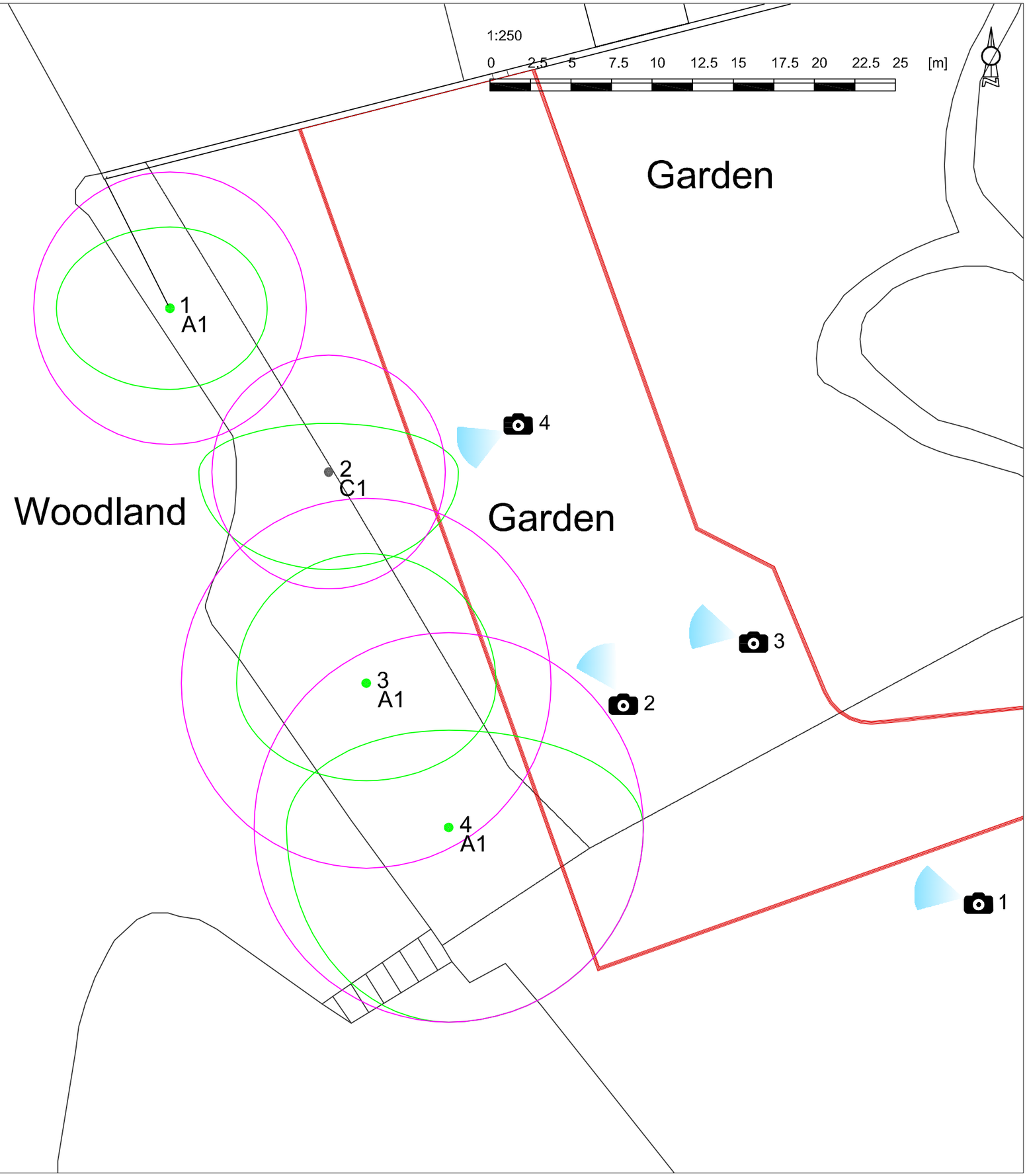
Appendix 3 : Protective Fencing Specification

2m high Heras type weldmesh panels to be securely bolted to treated wooden timber uprights 2.4m in length and 0.1x0.1m square; with 50cms in the ground. In many situations posts can be driven into place without excavation, although in sections of compacted ground, post-holes may be required to be prepared using a hand auger slightly smaller in diameter than the posts – no cement or binding aggregate is required for this form of fencing which becomes robust once panels are attached, and cannot be easily moved.

Appendix 4: Construction Exclusion Zone Notice







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North Yorkshire YO21 2PF

Tree Position - BS5837 Category A

Tree Position - BS5837 Category B

Tree Position - BS5837 Category C

Tree Position - BS5837 Category U

Root Protection Area

Photo Number, Position and Aspect

1/G1 Tree/Group

A1/B1/ C1/U BS5837 Retention Category

APPENDIX 5

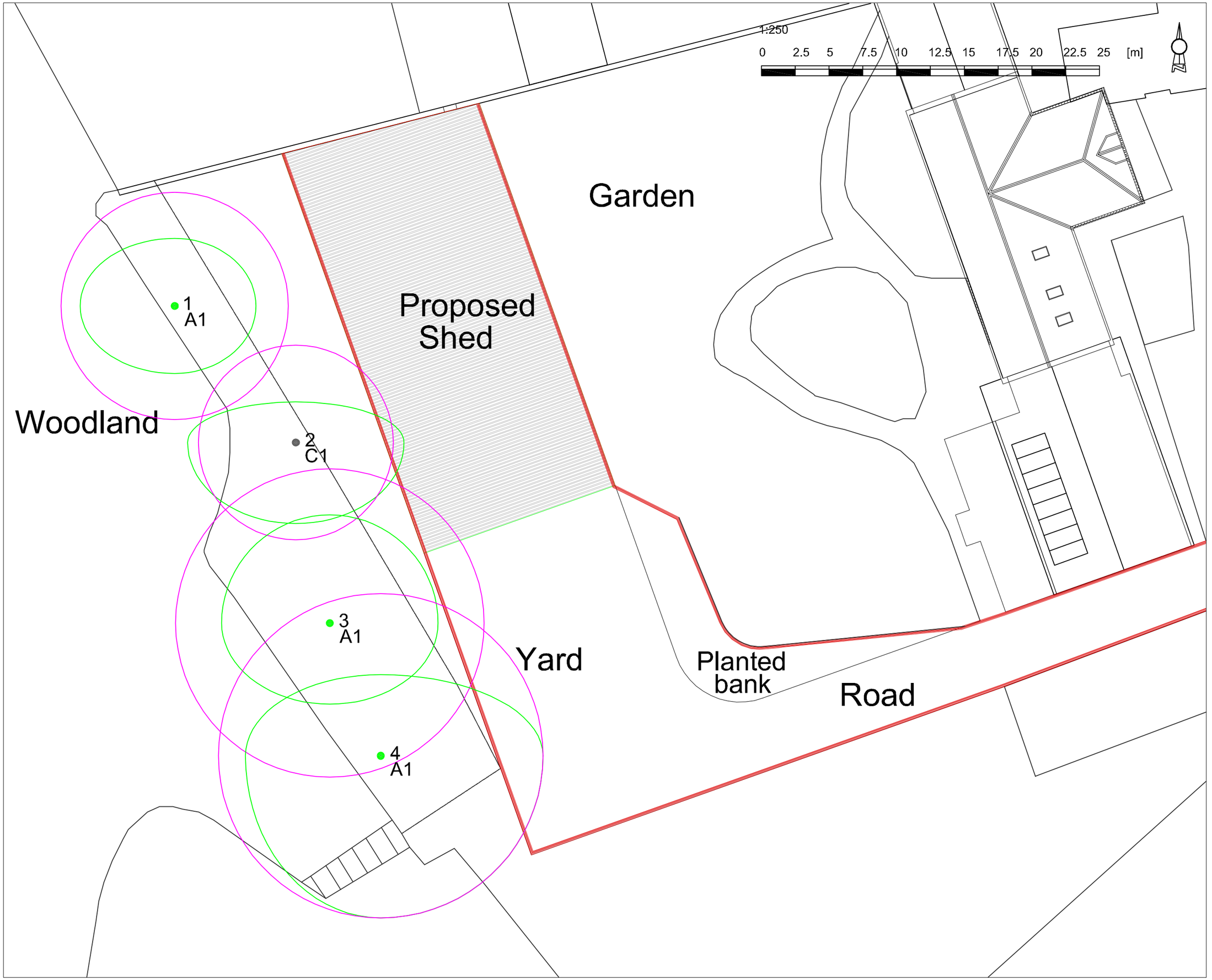
Drawing Title: Tree Constraints Plan

Project: Stainsacre Hall

Drawing Number: ARB/AE/2471/TCP

Date: January 2021

Scale: 1:250 @ A3



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Tree Position - BS5837 Category A

Tree Position - BS5837 Category B

Tree Position - BS5837 Category C

Tree Position - BS5837 Category U

Root Protection Area

1/G1 Tree/Group

A1/B1/ C1/U BS5837 Retention Category

APPENDIX 6

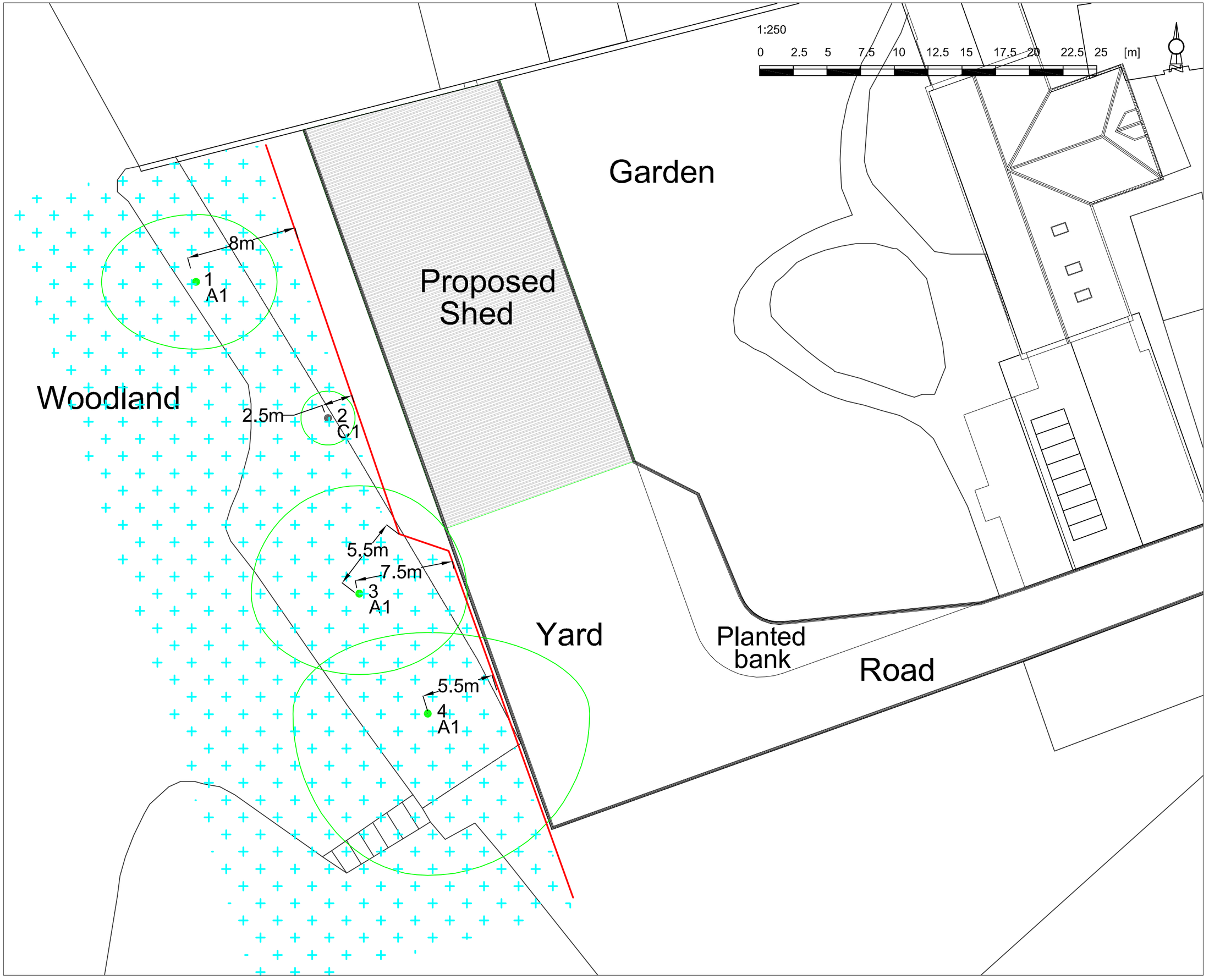
Drawing Title: Design & Impact Plan

Project: Stainsacre Hall

Drawing Number: ARB/AE/2471/TiP

Date: January 2021

Scale: 1:250 @ A3



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Tree Position - BS5837 Category A

Tree Position - BS5837 Category B

Tree Position - BS5837 Category C

1/G1 Tree/Group

A1/B1/ C1/U BS5837 Retention Category

Tree Protection Fence

Construction Exclusion Zone

APPENDIX 7

Drawing Title: Tree Protection Plan

Project: Stainsacre Hall

Drawing Number: ARB/AE/2471/TpP

Date: January 2021

Scale: 1:250 @ A3

Photo 1 North side of garden wall in coursed stone.

Photo 2 South side of wall in brick with stone coping partially overgrown.

Photo 3 South side of wall. Note sections of sandstone.

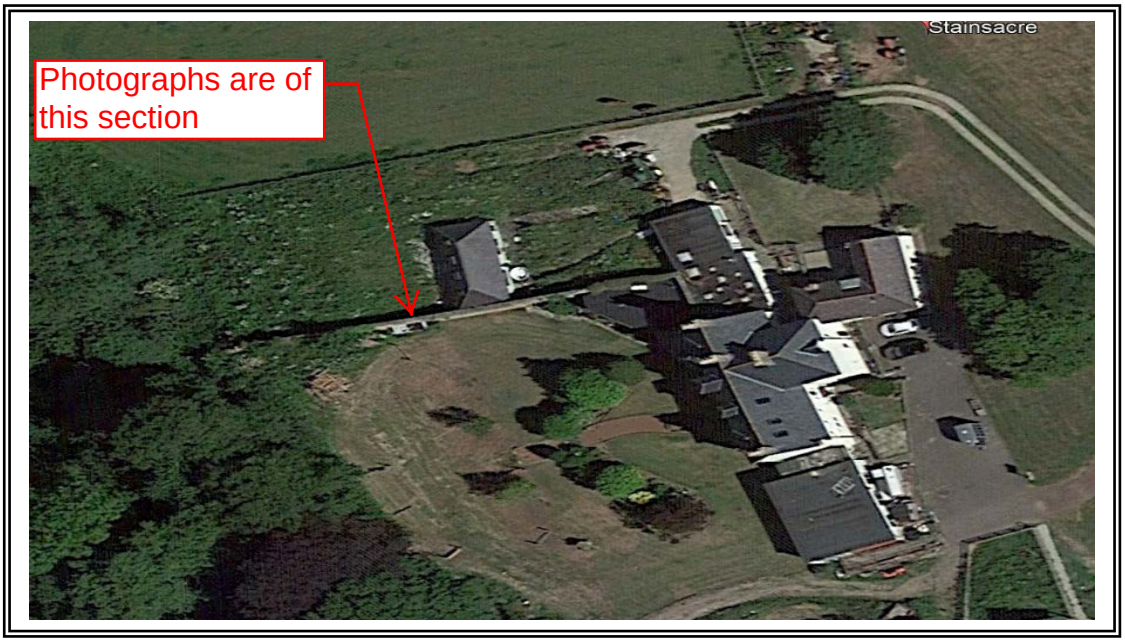

Photo 4 View of the wall from above showing its position.