



TREE CONSULTANTS

ARBORICULTURAL METHOD STATEMENT

to BS 5837:2012

at

**Westfield House
Wellthorne Lane
Ingbirchworth
Penistone
South Yorkshire
S36 7GJ**

This document describes how the trees will be protected and managed during the development of this site. It explains how and when the protection measures must be installed and maintained throughout the development.

A copy of this document report must be permanently available on site for the duration of all development activity and should be referenced for practical guidance on how to protect the retained trees at this site.

Prepared for:
Mr David Jones
Westfield House
Ingbirchworth
Penistone

September 2015

 Institute of
Chartered Foresters
Registered Consultant

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1 Introduction

1.1 Instruction

- 1.1.1 I am instructed by Mr. David Jones of Westfield House, Ingbirchworth, to prepare an arboricultural method statement for the proposed development at: **Westfield House, Ingbirchworth, Penistone.**

1.2 Purpose

- 1.2.1 This method statement has been prepared in order to demonstrate that the development operations at this site can be undertaken with minimal risk of adverse impact on the trees to be retained.
- 1.2.2 This method statement conforms to BS 5837: 2012 *Trees in relation to design, demolition and construction - Recommendations*. It is based on arboricultural data detailed within the associated report, Ref AWA1048 dated 15th November 2012.

1.3 Description of Development

- 1.3.1 It is proposed to develop the site for a new residential property. The proposed development layout has been provided by my client and is the basis for the **Tree Protection Plan (TPP)** detailing Tree Protective Fencing at **Appendix 3**.

1.4 Details of Consent

- 1.4.1 Planning consent is subject to this method statement being agreed upon in advance by the Local Planning Authority. The contents of this report must be adhered to, before, during, and after the construction phase.

2. Method Statement Timeline

2.1 Overview of Sequence of Operations

2.1.1 In overview, it is necessary to undertake the following sequence of operations in relation to arboricultural input for development operations.

- 1 Method Statement approved by the LPA
- 2 Recommended tree works
- 3 Install protective fencing
- 4 Pre commencement meeting
- 5 Construction of new structures
- 6 Removal of tree protection

2.2 Specific Sequence of Operations

2.2.1 The following timeline table informs the key principles for development operations proceeding in relation to arboricultural requirements conditioned as part of this method statement.

2.2.2 The actions and timescales within this table must be adhered to in order to discharge the arboricultural method statement planning condition for this site.

2.2.3 The precise timing and order of some of the development operations may need to be changed due to site specific operational requirements, yet any operations that may affect the trees on the site must be done so under arboricultural supervision by a suitably qualified person appointed by the contractor.

Sequence of Operations		
Stages	Action	Arboricultural Input
1 Approval	This arboricultural method statement document is submitted to and approved in writing by the LPA.	If necessary, liaise with contractor and LPA to discuss methodologies detailed within this method statement.
2 Tree Works	Undertake tree removals and tree pruning associated with this development, as detailed on the plan at and works schedule at Appendix 3.	Review the site tree work requirements with the tree contractor.
3 Tree Protection	Installing the tree protective measures will take place prior to any demolition, storage of plant, materials and machinery. Tree Protection Fencing shall be located as shown on the Tree Protection Plan at Appendix 3. The Tree Protection Fencing shall not be removed, breached or altered without prior written authorisation from the local planning authority or under arboricultural supervision as detailed in this AMS. It shall remain in a functional condition throughout the entire development, until all development related machinery and materials have been removed from site. If the fencing is damaged beyond effective functioning then works that may compromise the protection of trees shall cease until the protection can be repaired or replaced.	If necessary, liaise with the contractor installing the protective fencing until completed to the standard specified in this method statement.
4 Site meeting	Following the full installation of the Tree Protection, the LPA shall be invited to inspect the fencing and discuss any other site operations that have implications for trees.	Meeting with a representative of the LPA and the site manager. Alternatively, contractor can confirm the fencing is as specified by taking photographs of the tree protection measures.

5 Construction	Undertake the construction of the new development.	Provide ongoing arboricultural advice and, if required, supervision of construction activities within areas that could affect trees. Liaise with the local authority and the site foreman to ensure any issues are adequately resolved.
6 Site Finishing	Removal of tree protection measures must only be undertaken following the completion of the construction phase and when all site traffic and machinery has left the site.	If necessary, meeting with a representative of the LPA and the site manager. Alternatively, if acceptable to the LPA, the contractor can take photos of the site to give to the LPA to gain approval for the removal of protective fencing.
7 Landscaping	Post construction soft landscaping for this development.	If necessary, provide arboricultural advice in relation to soft landscaping establishment.

3. Tree Protection Issues

3.1 Tree Works

- 3.1.1 The new development will require the removal of several lower value trees and shrubs situated in the centre of the garden, including T8, G9, T10 and G12, as they are situated within or next to the footprint of the new development.
- 3.1.2 All of the trees and shrubs requiring removal are highlighted in red on the attached plan and works schedule in appendix 3.

3.2 Protective Fencing

- 3.2.1 The protective fencing for this site should be located as shown on the Tree Protection Plan (TPP) at Appendix 3 (as illustrated with a thick pink line) and in accordance with the specifications given below and within Appendix 1.
- 3.2.2 The precise fencing location may need to be slightly adjusted on site due to local site conditions, but is not expected to differ from that shown on the TPP. The final fencing position must be inspected and agreed on by the LPA before the commencement of any site works.
- 3.2.3 The default specification of BS 5837: 2012 recommends a vertical and horizontal, scaffold framework, well braced to resist impacts, with vertical tubes at no more than 3m intervals. These should be driven into the ground. Weld mesh panels should be affixed to this framework with scaffold clamps (see Appendix 1, figures 1 and 2).
- 3.2.4 The protective fencing will be appropriate to the degree and proximity of likely construction works. In this instance, the default BS5837 (2012) tree protection fencing is deemed disproportionate. It is suggested (if acceptable by the LPA) an adequate level of protection for the trees could be provided by 'Heras' type fencing, of welded mesh panels on rubber or concrete feet.
- 3.2.5 The area enclosed by the fencing is referred to as the Construction Exclusion Zone (CEZ); this area should be considered a restricted area. No pedestrians, vehicles, storage of materials, equipment or machinery should be allowed within the CEZ unless specified within this method statement.

- 3.2.6 The site manager must ensure that all personnel are aware of the restrictions that apply to the fenced-off area.
- 3.2.7 Once the fencing is erected, waterproof warning signs labelled 'Tree Protection Area' should be placed at 3m intervals to ensure that all personnel are aware of the restrictions that apply to the fenced-off area (see Appendix 1 for an example sign).
- 3.2.8 The protective fencing should be inspected for faults or damage by the site manager or other responsible named person on a regular basis and a written record kept. Any faults or defects should be repaired or replaced as soon as is reasonably practicable.
- 3.2.9 The Tree Protection Fencing shall not be removed, breached or altered without prior written authorisation from the local planning authority and under arboricultural supervision by a suitable named responsible individual appointed by the site manager.

3.3 Drainage and Utilities

- 3.3.1 Drainage and utilities are to be directed away from the retained trees. Over-ground services should ideally be routed away from areas where they are likely to interfere with the crowns of mature trees. Similarly any landscaping should take account of over-ground services and mature tree size. New underground services should be grouped together and routed away from Root Protection Areas.
- 3.3.2 *NJUG 10: Guidelines for the Planning, Installation and Maintenance of Utility Services in Proximity to Trees* is a principle set of guidelines on working near trees for the utilities sector and should be considered when installing services.

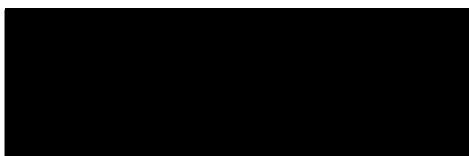
3.4 Site Compound

- 3.4.1 The site compound, that typically includes the site office, mess facilities, toilets, storage of materials and parking, must be located away from trees.
- 3.4.2 Care should also be taken to prevent contamination with chemical spillages, including petrol, diesel and oils. Cement mixers and toxic materials should not be permitted close to trees.

4. Signature

I trust this report provides all the required information.

Signed



.....
Adam Winson,
Chartered Arboriculturist, MSc, BSc (Hons), MICFor, AIEEM.

3rd September 2015

**AWA Tree Consultants Limited
Union Forge
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Appendix 1: Images and Figures

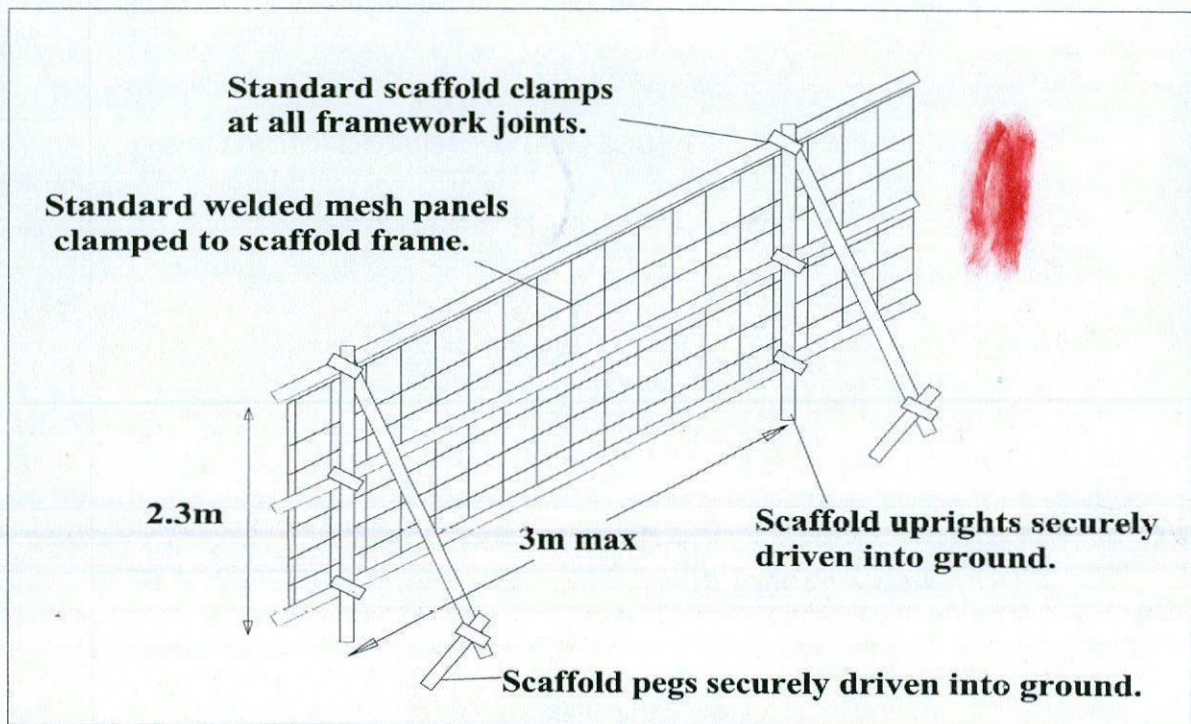


Figure 1: 'Fencing to BS 5837: 2012'.

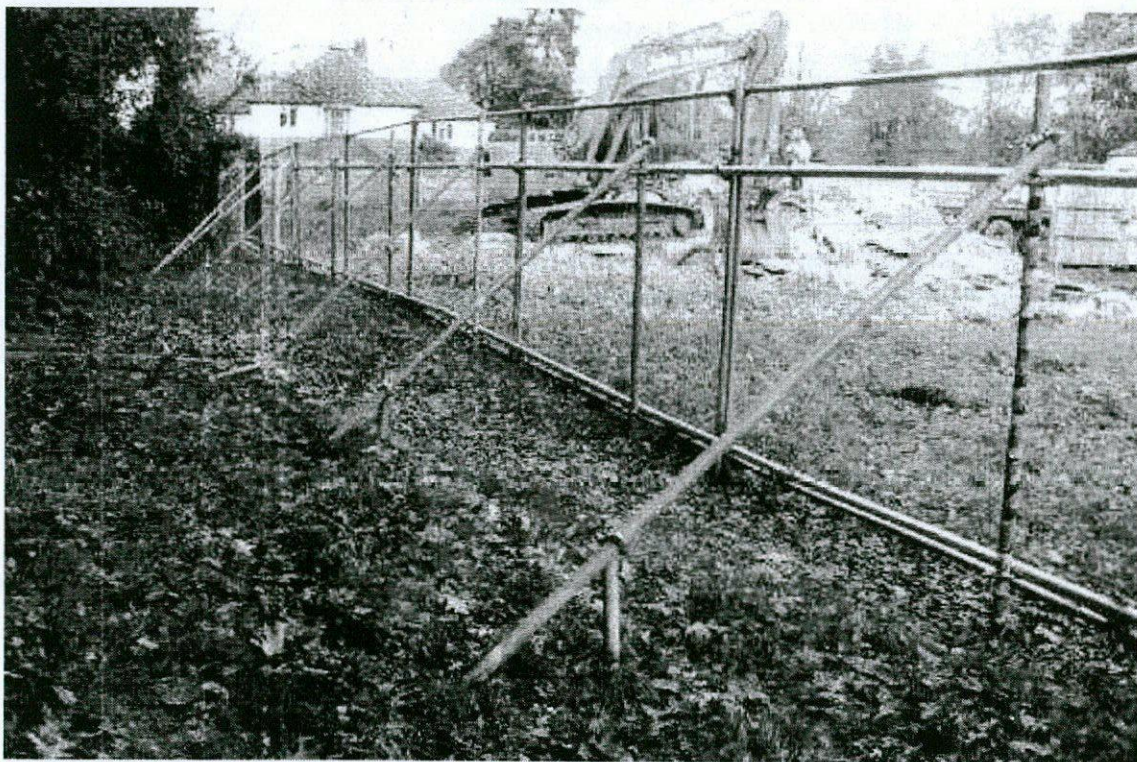


Figure 2: 'Photo of Fencing to BS 5837: 2012'.

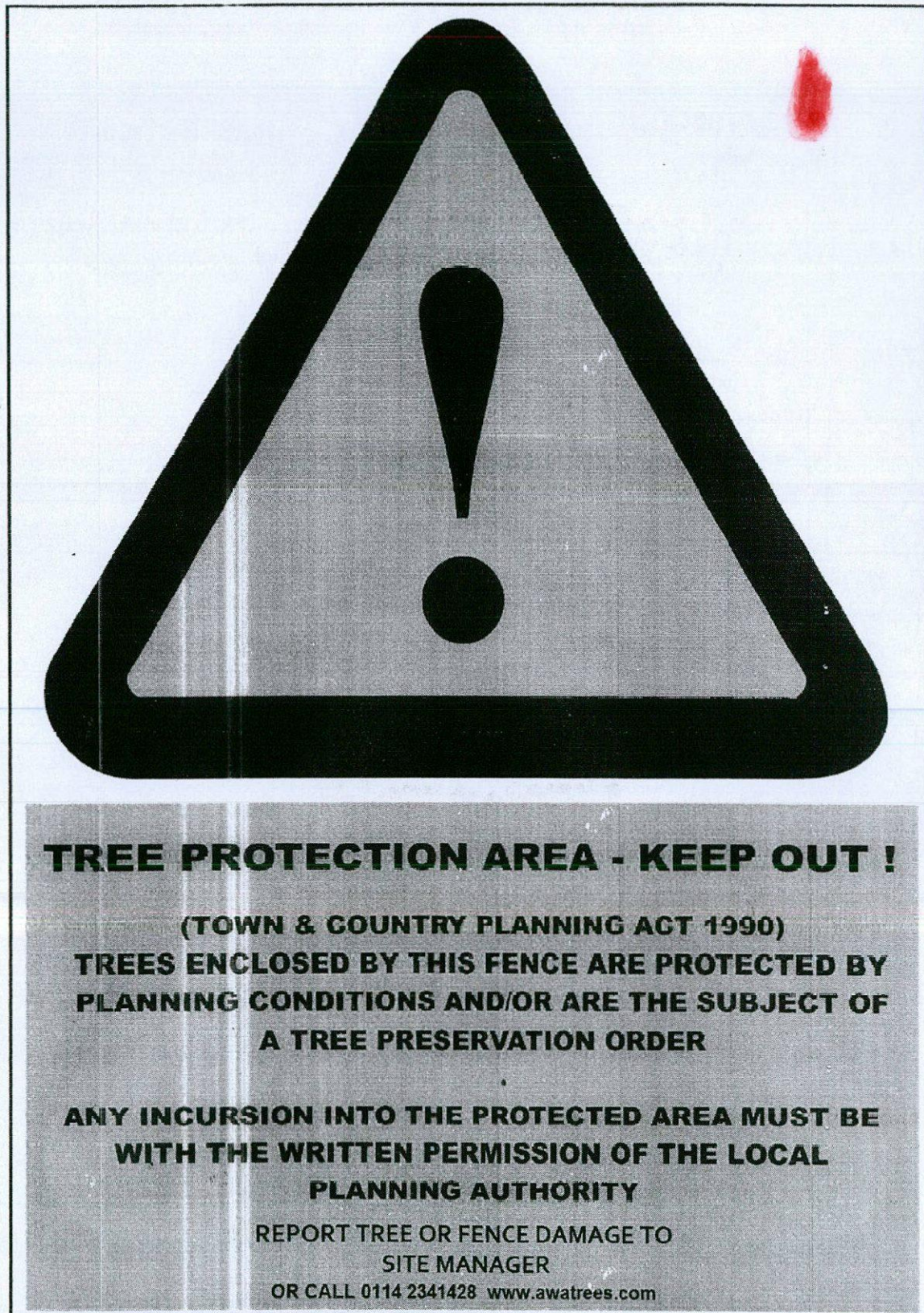


Figure 3: 'Example of warning sign for fencing '.

Appendix 2: Relevant Contact Details

Contact Name	Organisation Details	Contact Number	Contact E-mail
Edward Jowett	Tree Officer Barnsley Council	01226 772557	edwardjowett@barnsley.gov.uk
Adam Winson	AWA Tree Consultants Ltd. Arboricultural Consultant	0114 272 1124	adam@awatrees.com

Appendix 3: Tree Protection Plan and Data

7 Low energy lights

Percentage of fixed lights with low-energy fittings: 100%

Minimum 75%

OK

8 Mechanical ventilation

Not applicable

9 Summertime temperature

Overheating risk (East Pennines): Not significant OK

Based On:

Overshading: Average

Windows facing North East: 5.40 m², No overhang

Windows facing South East: 9.72 m², No overhang

Windows facing South West: 4.08 m², No overhang

Windows facing North West: 0.84 m², No overhang

Air change rate: 5.00 ach

Blinds/curtains: None

10 Key features

Roof U-value 0.12 W/m²K

Roof U-value 0.12 W/m²K

Secondary heating (wood logs)

Secondary heating fuel: wood logs



Building Regulation Compliance

Page 1 of 2

Property Reference: J1038

Issued on Date: 24.Jul.2015

Survey Reference: J1038 Design Stage Rev

Prop Type Ref:

Property: Wellthorne Lane, Ingbrichworth, Huddersfield

SAP Rating: 84 B CO2 Emissions (t/year): 2.54 DER: 15.66 Pass TER: 15.72 Percentage DER<TER: 0.41 %
Environmental: 84 B General Requirements Compliance: Pass DFEE: 56.22 Pass TFEE: 56.71 Percentage DFEE<TFEE: 0.87 %

CfSH Results Version: ENE1 Credits: N/A ENE2 Credits: N/A ENE7 Credits: N/A CfSH Level: N/A

Surveyor: Rosalind Woods, Tel: 07946538118
Address: 41 Wakefield Road, Hipperholme, Halifax, HX3 8AQ
Client:

Surveyor ID: 4585-0001

Software Version: Elmhurst Energy Systems SAP2012 Calculator (Design System) version 3.01r13
SAP version: SAP 2012, Regs Region: England (Part L1A 2013), Calculation Type: New Dwelling As Designed

SUMMARY FOR INPUT DATA FOR New Build (As Designed)

1a TER and DER

Fuel for main heating:	Mains gas	
Fuel factor:	1.00 (mains gas)	
Target Carbon Dioxide Emission Rate (TER)	15.72 kg/m ²	
Dwelling Carbon Dioxide Emission Rate (DER)	15.66 kg/m ²	OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)	56.71 kWh/m ²	
Dwelling Fabric Energy Efficiency (DFEE)	56.22 kWh/m ²	OK

2 Fabric U-values

Element	Average	Highest	
External wall	0.25 (max. 0.30)	0.26 (max. 0.70)	OK
Floor	0.16 (max. 0.25)	0.20 (max. 0.70)	OK
Roof	0.16 (max. 0.20)	0.19 (max. 0.35)	OK
Openings	1.44 (max. 2.00)	1.60 (max. 3.30)	OK

2a Thermal bridging

Thermal bridging calculated from linear thermal transmittances for each junction

3 Air permeability

Air permeability at 50 pascals:	5.00 (design value)	
Maximum	10.0	OK

4 Heating efficiency

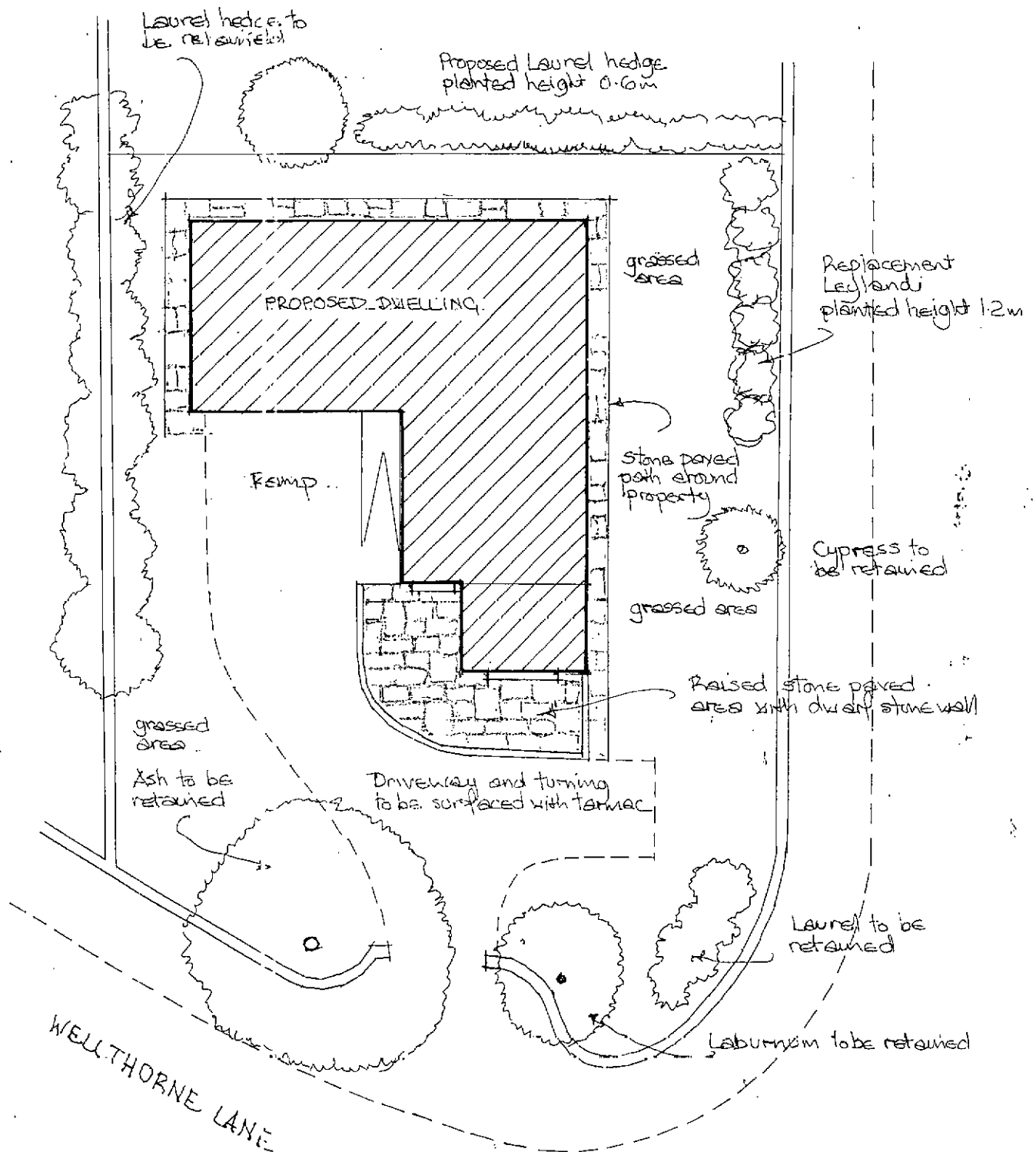
Main heating system:	Boiler system with radiators or underfloor - Mains gas Data from manufacturer To be confirmed by client To be confirmed by client Combi boiler Efficiency: 89.8% SEDBUK2009 Minimum: 88.0%	OK
Secondary heating system:	Room heaters - Wood Logs Data from manufacturer, tested to BS EN 1266, HETAS approved. To be confirmed by client Efficiency: 65% Minimum: 65%	OK

5 Cylinder insulation

Hot water storage	No cylinder
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6 Controls

Space heating controls:	Time and temperature zone control	OK
Hot water controls:	No cylinder	
Boiler interlock	Yes	OK



Mr. David Jones, Proposed dwelling
Wellthorne Lane, Ingburghworth
Penistone S36 7GJ.