

NYMNPA

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SF3014-2 Woodland Rooms, Raithwaite

ARBORICULTURAL SURVEY REPORT | BS 5837:2012

Revision B - July 2020

SMEEEDEN FOREMAN

Landscape Architecture • Ecology • Arboriculture

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Document Check Sheet

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1.0 Introduction

Smeeden Foreman Ltd has been appointed to undertake an arboricultural survey of trees at Raithwaite Hotel.

The survey was undertaken on 2nd April 2020 and was based upon topographical survey plan 13975A produced by Greenhatch Group. The trees have been surveyed in accordance with BS5837:2012. The limitations of survey techniques and analysis are included in Appendix A.

1.1 Site Description

The site is located in the woodland adjacent to the Raithwaite Hotel, Raithwaite Estate, Sandsend Road, Sandsend, Whitby, YO21 3SR (see Figure 1). The site comprises a mixed species woodland.

1.2 Legal status of trees

The trees on site are not subject to a Tree Preservation Order (Checking digital mapping provided by Scarborough Council, accessed 03.12.2019). The site is not situated within a Conservation Area (Checking digital mapping provided by Scarborough Council, accessed 03.12.2019).

Trees may be subject to legal protection under a range of legislation, which is aimed at wildlife and habitat protection, particularly nesting birds and bats.

No work should be done to any trees until either suitable permission has been granted or it has been verified that the intended work does not require permission.

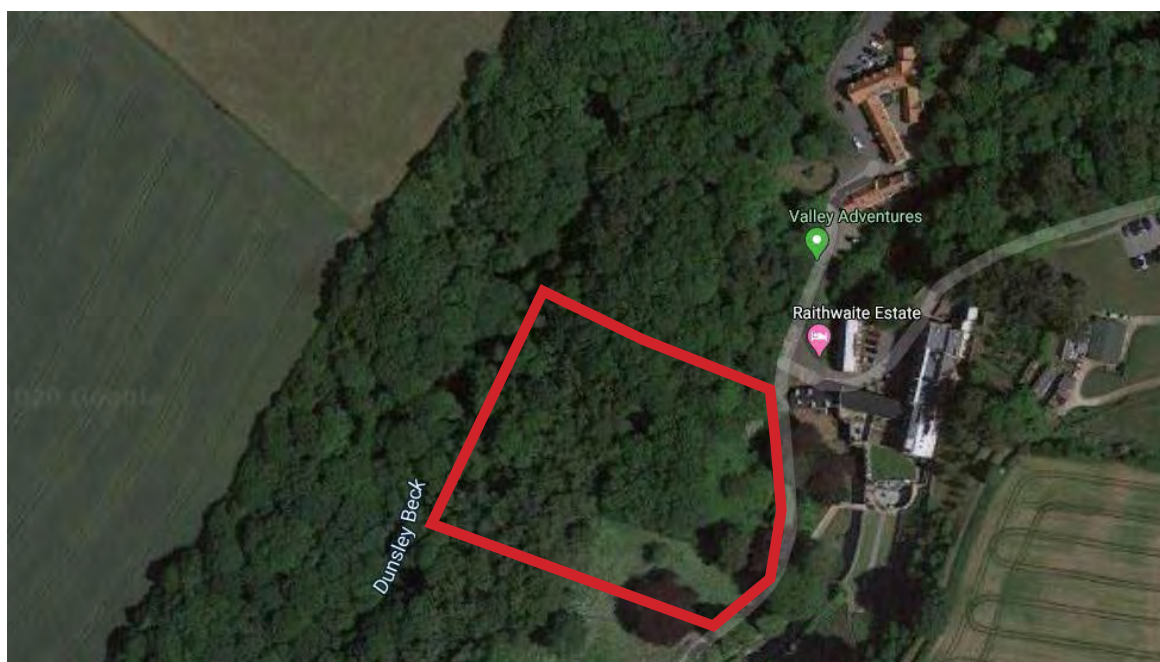


Figure 1 – Location Plan

2.0 Aims and Methodology

2.1 Aims

The aims of the survey are to undertake a non-invasive survey of the identified trees and any trees which have the potential to be affected by future works within the vicinity. The Tree Constraints Plan shows the location and category of the surveyed trees.

2.2 Survey Methodology

The survey was carried out to British Standard 5837:2012 using the categories explained below:

- 2.2.1 The trees were assessed visually from ground level. Where potential problems were identified, further inspection by tree climbing is recommended. No digging or drilling methods were employed during this survey
- 2.2.2 The tree numbers or group numbers within the schedules refer to the order in which the trees were recorded and shown on the tree survey plan
- 2.2.3 The approximate height of each tree is measured from ground level to top of canopy using a clinometer;
- 2.2.4 The diameter of each tree is measured at 1.5m above ground level. Where a tree stem divides below 1.5m each stem is measured at 1.5m above ground level in accordance with Annex C of the British standard. The diameter of trees where the trunk was inaccessible have been estimated and marked as such within the schedules.
- 2.2.5 The age of each tree is based upon our experience and is divided into young, semi-mature, early-mature, mature, over-mature.
- 2.2.6 The water demand of each tree (As listed in table 12, appendix 4.2 – A, NHBC standard chapter 4.2) noted on or adjacent to the site is recorded. Shrinkable soils are subject to changes in volume as their moisture content is altered. Soil moisture content varies seasonally and is influenced by a number of factors including the action of tree roots. The resulting shrinkage or swelling of the soil can cause subsidence or heave damage to foundations, the structures they support or services.
Engineers should consider the soil condition and the potential impact of the species of the trees/hedges on and adjacent to the site when preparing building/structure design.
- 2.2.7 The physiological condition of the trees is based upon our experience and is an assessment of the health and vigour of the tree.
- 2.2.8 The structural condition and description is also based on our experience.
- 2.2.9 Estimated remaining contribution and category/rating of each tree is based on our experience;
- 2.2.10 The retention category of each tree or group of trees is based upon the information detailed above using the following categories:
- A Trees of high quality and estimated remaining life expectancy of at least 40 years (Light green on plan)
 - B Trees of moderate quality and estimated remaining life expectancy of at least 20 years (Mid blue on plan)
 - C Trees of low quality and estimated remaining life expectancy of at least 10 years or young trees with a stem diameter below 150mm Grey on plan)
 - U Trees cannot realistically be retained as living trees in context of current land use for longer than 10 years (Dark red on plan)
- 2.2.10 The following subcategories have been used in rating tree value:
- 1 Mainly arboricultural value
 - 2 Mainly landscape value
 - 3 Mainly cultural values, including conservation

2.3 **Key to Survey Schedules**

Tree no.	Tree number as recorded on the plan: T1, T2 etc and for tree groups: G1, G2 etc. Hedges: H1, H2 etc. Woodland: W1, W2 etc.
Species	Common name / Scientific name
Height	Overall estimated height of the tree in metres (rounded up to the nearest metre for trees over 10m high).
Stem Dia	Stem diameter measured in millimetres at 1.5m above ground (on sloping ground measured on the upslope of the stem) in accordance with Annex C of BS5837:2012.
Branch spread	Measured in metres (rounded up to the nearest half metre) along the four cardinal points: north, east, south and west to derive an accurate representation of the crown.
Ht crown clearance	The existing height, measured in metres, above ground level of: the first significant branch and direction of growth and the canopy.
Age class:	
Young (Y)	Recently planted or establishing tree. Typified by vigorous growth and distinct apical dominance (definite, discernible leader).
Semi-mature (SM)	Tree that has not reached its ultimate potential height. Phase includes considerable girth thickening and the start of crown spreading.
Early mature (EM)	A tree that is reaching its ultimate potential height. The growth rate is slowing down but the tree, will still increase in stem diameter and crown spread.
Mature (M)	The tree has attained its largest proportions and has reached its ultimate height. The tree is typified by thicker bark plates and a large spreading crown.
Over-mature (OM)	The tree has attained its maximum height and growth rate slows considerably. Characterised by the loss of large limbs, large amounts of deadwood and decay. Limited safe life expectancy.
Water Demand	High, Moderate, Low (As listed in table 12, appendix 4.2 – A, NHBC standard chapter 4.2)
Physiological condition	Good (G), moderate (M), poor (P), dead (D).
Structural condition	Overall form of tree, presence of any decay, any physical defects and observations
Preliminary Management Recommendations	Including any further investigations required, wildlife habitat potential, management or pruning works.
ERC	The estimated remaining contribution measured in years: <10, 10+, 20+, 20-30+, 40+
Cat	Category U or A to C grading as defined in Table 1 BS 5837: 2012
RPA	Root protection area measured in square metres, calculated according to BS 5837:2012

Other abbreviations used:

N	North
S	South
E	East
W	West
GL	Ground level
Asym.	Asymmetrical (crown shape)
OSB	Outside site boundary
MS	Multi-stemmed
#	Estimate
NWR	No work required

3.0 Tree Survey Schedules

3.1 Woodland areas

Tree No.	Species	Top Height (m)	Branch Spread (m)				Stem Dia. (mm)	Age Class	Water Demand	Condition	Comments	ERC (years)	Recommendations	Category
			N	E	S	W								
W1	Acer pseudoplatanus (sycamore) Larix decidua (larch) Fraxinus excelsior (ash) Alnus glutinosa (alder) Pinus nigra (corsican pine)	15/20	4	4	4	4	200 to 400 ave.	EM	M	Good	Quality and condition of individual trees is varied. Some leaning/fallen trees.	40+	Remove trees to create required space to facilitate proposed lodges. Remove any trees in poor condition that are within falling distance of lodges or paths.	B2
W2	Acer pseudoplatanus (sycamore) Fraxinus excelsior (ash) Crataegus monogyna (Hawthorn)	15	3	3	3	3	200 ave.	Y/SM	M/H	Good	Relatively young canopy trees, with understory of hawthorn.	<10	Remove any trees in poor condition that are within falling distance of lodges or paths.	B2

3.2 Individual trees and groups

Tree No.	Species	Top Height (crown height) m	Branch Spread (m)				Stem Dia. (mm)	Age Class	Water Demand	Condition	Comments	ERC (years)	Recommendations	Category
			N	E	S	W								
T1	Fagus sylvatica (Beech)	18(2)	12	13	10	13	970	M	M	Good	Broken branches in crown. Major deadwood in crown.	40+	Remove major deadwood. Remove broken/damaged branches.	A2
T2	Crataegus monogyna (Hawthorn)	5(0.5)	4	3	3	2	300,300,300	OM	M	Poor	Decay present on stem. Fungal brackets visible on stem. Cavity on stem. Broken branches in crown. Major deadwood in crown.	<10	Remove	U
T3	Pinus nigra 'maritima' (Corsican Pine)	20(6)	8	4	9	7	950	M	M	Good	Stem divides above 1.5m. Included bark present in fork. Unbalanced crown shape.	40+	NWR	A2
T4	Fagus sylvatica (Beech)	16(2)	12	10	9	5	750	M	M	Good	Leaning East. Cavity on stem. Major deadwood in crown.	40+	Remove major deadwood.	B2
T6	Ilex aquifolium (Holly)	12(2)	3	3	3	3	400	M	L	Fair	Decay present on stem. Major bark wounding on stem. Large basal wound - appears to be adapted by wound wood and buttress roots.	10+	Monitor condition and check for signs of further decay .	C2

Tree No.	Species	Top Height (crown height) m	Branch Spread (m)				Stem Dia. (mm)	Age Class	Water Demand	Condition	Comments	ERC (years)	Recommendations	Category
			N	E	S	W								
G7	Rhododendron	4(0)	2	2	2	2	100	M	Not listed	Good	Dense thicket of MS shrubs.	20+	Prune back bushes on north edge of group- to facilitate proposed lodge.	B2
T8	Acer pseudoplatanus (Sycamore)	10(4)	5	5	5	5	400	SM	M	Good	Unable to inspect stem due to undergrowth.	40+	NWR	B2
T9	Prunus avium (Wild Cherry)	8(1)	5	4	4	4	150	SM	M	Good	Small tree- overhangs clearing.	40+	Crown lift in relation to proposed lodge.	C2
T11	Salix caprea (Goat Willow)	6(1)	2	2	2	2	100,50	Y	H	Fair	Multiple stems at ground level.	10+	Remove to facilitate lodge	C2
G12	Rhododendron	6(0)	2	2	2	2	150	M	Not listed	Good	Dense thicket of MS shrubs.	40+	Prune back bushes on south edge of group- to facilitate proposed lodge.	B2
T13	Acer pseudoplatanus (Sycamore)	15(2)	1	5	5	1	400	SM	M	Good	Leaning East. Stem divides above 1.5m. Unbalanced crown shape.	40+	NWR	B2
T14	Juglans regia (Walnut)	10(1.5)	5	6	4	1	350	SM	M	Good	Stem divides above 1.5m. Unbalanced crown shape.	40+	Remove to facilitate development	B2
T16	Acer pseudoplatanus (Sycamore)	15(3)	4	4	4	4	400	EM	M	Good	Cavity on stem. Major deadwood in crown.	40+	Remove major deadwood.	B2

Tree No.	Species	Top Height (crown height) m	Branch Spread (m)				Stem Dia. (mm)	Age Class	Water Demand	Condition	Comments	ERC (years)	Recommendations	Category
			N	E	S	W								
T17	Acer pseudoplatanus (Sycamore)	20(5)	1	8	8	5	800	M	M	Fair	Leaning East. Epicormics on stem. Suckers around stem base. Major deadwood in crown. Unbalanced crown shape. branch cavities.	20+	Remove major deadwood.	B2
T18	Fraxinus excelsior (Ash)	8(6)	2	2	2	2	600	OM	M	Poor	Main stem has collapsed east. New stem is weakly attached to decaying trunk.	<10	Remove new leader to make safe.	U
G19	Acer pseudoplatanus (Sycamore) Larix decidua (European Larch)	15(6)	3	3	3	3	250 to 400	SM/ EM	M	Fair	Some trees leaning east.	10+	NWR	C2/ B2
T20	Larix decidua (European Larch)	20(6)	4	4	4	4	450	EM	M	Fair	Leaning South.	10+	NWR	B2
T21	Fraxinus excelsior (Ash)	30(10)	6	10	12	7	800	M	M	Fair	Broken branches in crown. Major deadwood in crown. large branch with decay south.	40+	Remove major deadwood. Remove broken/damaged branches.	B2
T22	Fraxinus excelsior (Ash)	25(10)	5	10	6	8	600	M	M	Fair	Leaning East.	20+	NWR	B2
T23	Acer pseudoplatanus (Sycamore)	25(4)	7	8	7	7	1000	M	M	Good	Stem divides above 1.5m. Included bark present in fork. Broken branches in crown. Major deadwood in crown.	40+	Remove major deadwood.	B2

Tree No.	Species	Top Height (crown height) m	Branch Spread (m)				Stem Dia. (mm)	Age Class	Water Demand	Condition	Comments	ERC (years)	Recommendations	Category
			N	E	S	W								
T24	Fraxinus excelsior (Ash)	25(10)	6	10	12	7	600	M	M	Fair	Leaning West. Die-back in crown. Broken branches in crown. Major deadwood in crown. Overhanging footpath.	40+	Remove stems and retain coppice stool.	U
T25	Fraxinus excelsior (Ash)	30(15)	10	10	1	10	1000	V	M	Fair	Decay present on stem. Cavity on stem. Major bark wounding on stem. Stem divides above 1.5m. Broken branches in crown. Unbalanced crown shape.	10+	Avoid locating new lodges in the potential fall zone.	A3
T26	Acer pseudoplatanus (Sycamore)	25(10)	6	6	10	10	800	M	M	Poor	Decay present on stem. Fungal brackets visible on stem. Cavity on stem. Stem divides above 1.5m.	<10	Remove tree and retain root.	U
T27	Larix decidua (European Larch)	20(10)	4	4	4	4	400	EM	M	Fair	Leaning East.	20+	NWR	B2
T28	Fagus sylvatica (Beech)	30(20)	7	7	7	7	800	OM	M	Poor	Decay present on stem. Cavity on stem. Located on opposite side of stream- falling distance of proposed lodge site.	<10	Remove tree and retain root.	U
T29	Acer pseudoplatanus (Sycamore)	20(4)	10	5	5	10	600	M	M	Good	Stem divides above 1.5m. Unbalanced crown shape. Crown distorted due to group pressure.	40+	NWR	B2

Tree No.	Species	Top Height (crown height) m	Branch Spread (m)				Stem Dia. (mm)	Age Class	Water Demand	Condition	Comments	ERC (years)	Recommendations	Category
			N	E	S	W								
T30	Acer pseudoplatanus (Sycamore)	20(4)	5	6	6	5	500	M	M	Good	Unbalanced crown shape. Crown distorted due to group pressure.	40+	NWR	B2
T31	Acer pseudoplatanus (Sycamore)	15(3)	7	5	4	5	500	M	M	Good	Ivy on tree. Unable to inspect stem due to ivy. Stem divides above 1.5m.	40+	NWR	B2
T32	Fraxinus excelsior (Ash)	20(10)	4	6	6	5	500	M	M	Fair	Ivy on tree. Unable to inspect stem due to ivy.	20+	Sever ivy. Inspect stem/basal area.	B2
T33	Acer pseudoplatanus (Sycamore)	25(15)	6	6	4	6	600	M	M	Poor	Decay present on stem. Cavity on stem. Major bark wounding on stem resulting from failed fork.	<10	Remove tree and retain root. Remove stems and retain coppice stool.	U

3.3 Hedges

Hedge No.	Species	Height (m)	Water Demand	Physiological condition	Structural condition	Recommendations
H5	Fagus sylvatica (Beech)	3	Moderate	Good	Maintained	Remove 2x small section to facilitate site access paths to lodge
H10	Rhododendron, Prunus laurocerasus (Cherry Laurel)	4	Not listed	Good	Overgrown	NWR

4.0 Above Ground Constraints

- 4.1 The potential for retaining trees on a development site includes the extent of the influence of the tree at the time of survey. Consideration is also given to the effects of future growth within the context of the proposed development. In addition, the potential nuisance caused by shading to new buildings both after construction and also once trees reach their ultimate size is also considered.
- 4.2 The extent to which a tree may represent a constraint to development will depend both upon the location of the trunk and size and nature of the canopy and also the extent of the roots below ground. The tree constraints drawing (SF3014 TC01) plots the location and extent of the tree above ground.

5.0 Below Ground Constraints

- 5.1 The Root Protection Area (RPA) represents a potential constraint to development which may be modified in pattern, although not overall area, by existing site conditions such as structures and surfaces, soil types and drainage, and an appreciation of the nature of particular tree species and root morphology.
- 5.2 Within the tree root protection area there should be a presumption against excavation, excess vehicular or pedestrian movement, storage of materials, construction, or changes in ground level unless consideration is given to the potential effects on the tree to be retained and the efficacy of any construction techniques designed to reduce adverse effects on the tree.
- 5.3 The tree constraints drawing (SF3014 TC01) plots the location and extent of the tree below ground through application of the calculation provided in section 4.6 of the BS5837:2012 Trees in relation to design demolition and construction – Recommendations.

6.0 Arboricultural Impact Assessment

6.1 The development proposals produced by Holder Mathias Architects have been assessed in relation to the existing trees on drawing SF3014 TC02- Tree Constraints Plan (Appendix B).

6.2 Summary of arboricultural impacts

Proposed development	Arboricultural Impact
Woodland Room 1	<p>Removal of semi-mature larch, sycamore and alder trees to create sufficient space for the proposed lodge site within the woodland W1. Felling to include any leaning trees or trees in poor condition within falling distance of the proposed lodge site.</p> <p>Fell and remove tree T24 (ash- category U). This tree has a significant lean towards the proposed lodge site. This tree is in decline and is unsuitable for long term retention in the vicinity of the proposed lodges.</p>
Woodland Room 2	<p>Removal of semi-mature larch and sycamore trees to create sufficient space for the proposed lodge site within the woodland W1. Felling to include any leaning trees or trees in poor condition within falling distance of the proposed lodge site.</p> <p>Recommend the removal of T28 on opposite side of stream - tree is in dangerous condition and may be within falling distance of proposed lodge.</p>
Woodland Rooms 3 and 4	<p>Removal of semi-mature larch and sycamore trees to create sufficient space for the proposed lodge site within the woodland W1. Felling to include any leaning trees or trees in poor condition within falling distance of the proposed lodge site.</p> <p>Proposed lodges will be sited to retain tree group G19 and tree T20.</p>
Woodland Rooms 5 and 6	<p>Removal of semi-mature larch and sycamore trees to create sufficient space for the proposed lodge site within the woodland W1. Felling to include any leaning trees or trees in poor condition within falling distance of the proposed lodge site.</p>
Woodland Rooms 7 and 8	<p>Removal of semi-mature larch and sycamore trees to create sufficient space for the proposed lodge site within the woodland W1. Felling to include any leaning trees or trees in poor condition within falling distance of the proposed lodge site.</p> <p>Fell and remove tree T26 (sycamore- category U). This tree has a significant defect and is unsuitable for long term retention in the vicinity of the proposed lodges.</p> <p>Lodge No.8 will utilise an existing clearing which will reduce the impact of tree removal to facilitate this development.</p>
Woodland Rooms 9 and 10	<p>Removal of young/semi-mature ash, hawthorn and sycamore trees to create sufficient space for the proposed lodge site within the woodland W2. Felling to include any leaning trees or trees in poor condition within falling distance of the proposed lodge site.</p>
Woodland Rooms 11 and 12	<p>Lodges sited in an existing clearing between groups G7 and G12.</p> <p>The edges of groups G7 and G12 will need to be cut back to provide sufficient space for the lodges.</p> <p>Remove trees T14 (walnut) to facilitate lodges.</p>

6.3 *Tree Works*

- 6.3.1 All tree works recommend within this report shall be carried out to existing trees on site and shall be in accordance with BS 3998:2010 Recommendations for Tree Work, industry best practice and in line with any works already agreed with the Local Authority.
- 6.3.2 The Tree Surgeon shall be chosen from The Arboricultural Association's Approved Contractor list and all work shall be undertaken at the appropriate time and with the consent and approval of the Site Agent who shall approve a programme of work.

6.4 *New tree planting*

- 6.4.1 The removal of trees will be mitigated with replacement tree planting. New planting will diversify the range of tree species on site and provide a sustainable long term population of better quality trees. Appropriate species selection will take account of the mature tree sizes and existing available space and site conditions. This will ensure new tree planting will successfully establish and will have sufficient space (above and below ground) and light requirements to attain a full term healthy life.

APPENDIX A

Tree survey to BS 5837:2012 -Trees in relation to design demolition and construction limitation notes

This survey to BS 5837:2012 is a visual assessment undertaken from ground level without any physical investigation and should be regarded as a preliminary overview of the trees on site. 'This term [visual] describes a general approach to tree surveying using visual observation and recording, combined with experience and knowledge of tree biology and structure to draw conclusions about tree condition'p8[1]

Observations on structural condition, preliminary management recommendations, (e.g. pruning) and the estimated remaining contribution are based on visual indicators present at the time of inspection (i.e. a single point in time).

It should be noted that numerous potential defects may not be detectable dependent upon timing of inspection, in particular wood decay fungi which may only occasionally produce external fructifications or may not provide external symptoms until an advanced state of invasion is achieved.

Trees are long lived organisms with a significant proportion of growth below ground, (in addition to what is evident above ground) that naturally lose branches and may potentially fail in many ways.

Risk Assessments

Whilst hazards may be identified in this document e.g. a defect 'that may cause harm'. The risk, (i.e. 'the chance high or low) that somebody could be harmed by these and other hazards, together with an indication of how serious the harm could be' is not assessed. [2]

Requirements for ongoing inspections (to monitor observed defects) and risk assessments will be suggested as necessary in the body of the report. The level and frequency of assessment required (in line with HSE advice) will depend on a range of factors for example 'the frequency of public access to the tree' p4 [3]. A balanced and proportionate approach to tree safety management is advocated in the National Tree Safety Group publication 'Common sense risk management of trees'. [4]

The health, (condition) and resulting safety of trees for a risk assessment should be checked on a cyclical basis, alternating between early and late seasons to ensure a full picture of the trees current health is established. Therefore the assessment of risk that trees present on a particular site would be additional to the scope of this BS 5837:2012 tree survey.

Arboricultural Impact Assessments, Tree Protection Plans, Method Statements, Tree Management Plans

These items are additional services identified relating to design demolition and construction in BS5837:2012 which may form part of a strategy to manage risks.

NHBC Guidelines

The technical requirements of the National House Building Council Chapter 4.2 Building near trees are not fully met under the requirements of BS BS5837:2012 in relation to shrinkable soils and 'vegetation surveys' (which include hedgerows and shrubs.). p4 [5]

References/ Further reading

[1] The Arboricultural Association Guidance Note 7 Tree Surveys: A Guide to good Practice.

[2] Health and Safety Executive Guidance <http://www.hse.gov.uk/risk/risk-assessment.htm>

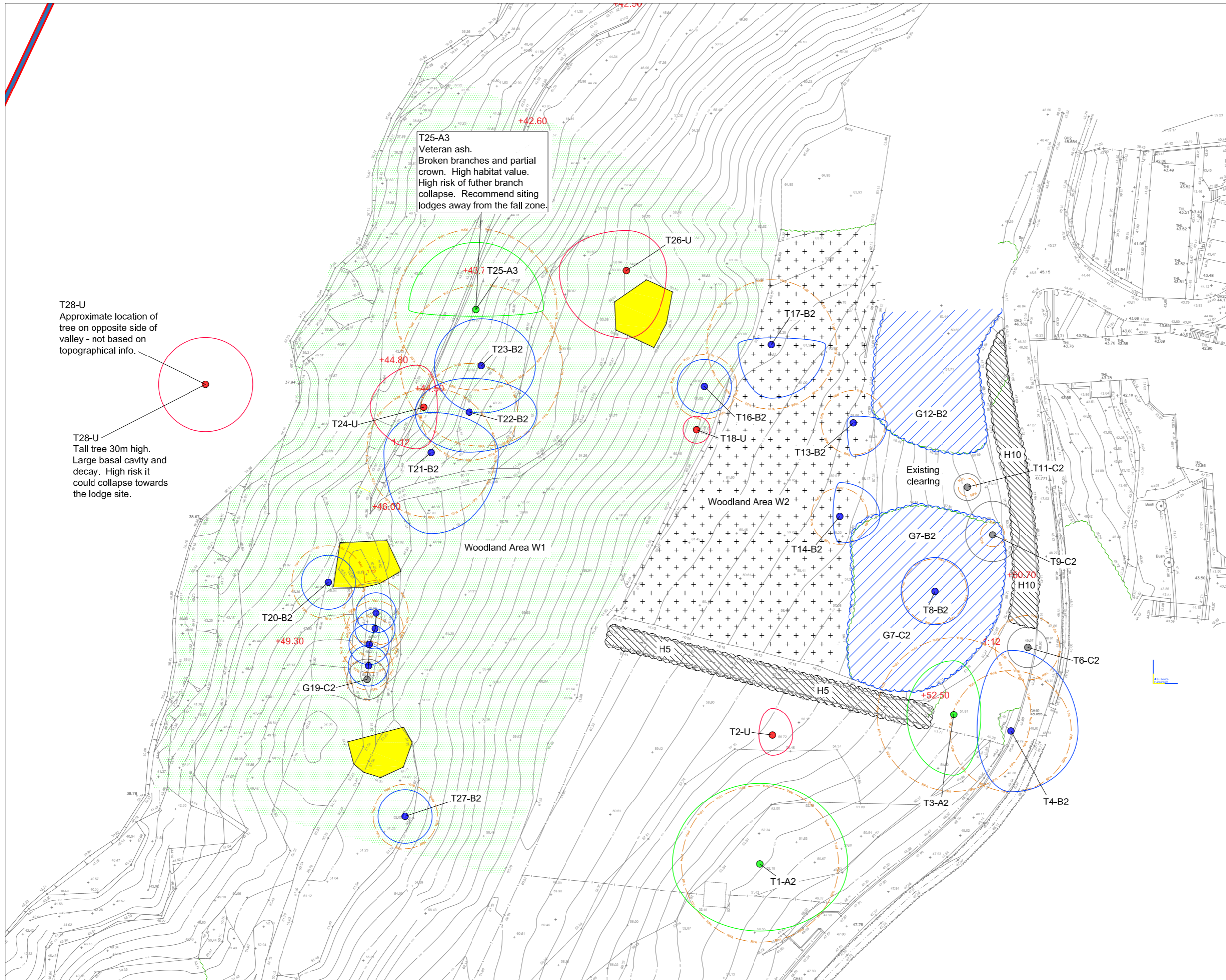
[3] HSE guidance on Tree Management SIM01/2007/05 Management of the risk from falling trees or branches.


[4] National Tree Safety Group Guidance – Common Sense Risk Management of Trees.

[5] National House Building Council Chapter 4.2 Building near trees (Part 4 Foundations).











APPENDIX B

SF3014 TC02 Tree Constraints Plan





Key

-  Existing hedge
-  W1 - Existing woodland
Early-mature trees.
Average stem diameter: 200/400mm.
Average height: 15/20m.
Species composition:
Mixed woodland comprising conifers and deciduous species. Mostly Larch and Sycamore, with a smaller percentage of ash, alder and pine.
Note: Larger significant trees in this area are surveyed individually.
-  W2 - Existing woodland
Young/Semi-mature trees.
Average stem diameter: 200mm.
Average height: 15m.
Species composition:
Deciduous woodland. Mostly Sycamore and ash, with hawthorn understory.
Note: Larger significant trees in this area are surveyed individually.
-  Existing evergreen shrubs
-  **Tree retention category A**
High quality with an estimated life expectancy of at least 40 years
-  **Tree retention category B**
Moderate quality with an estimated life expectancy of at least 20 years
-  **Tree retention category C**
Low quality with an estimated life expectancy of at least 10 years, OR young tree with a stem diameter below 150mm
-  **Tree removal category U**
Poor condition with an estimated life expectancy of less than 10 years
-  **RPA**
minimum Root Protection Area
-  **Existing woodland clearing**
(tarpaulin)

Trees have been surveyed and categorized as per the recommendations and guidance in BS 5837:2012 Trees in relation to design, demolition and construction.

This drawing is to be read in conjunction with the Arboricultural Survey report.

This drawing is to be reproduced in colour.

FOR INFORMATION

Rev.	Date	Comments	Drawn	Chkd

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Project	
Rathwaite - Woodland Rooms	
Title	
Tree Constraints Plan	
Project No.	Drawing No.
SF 3014	TC02
Scale	Date
1:250 @ A1	14.04.20
Drawn by	Checked by
DR	MS

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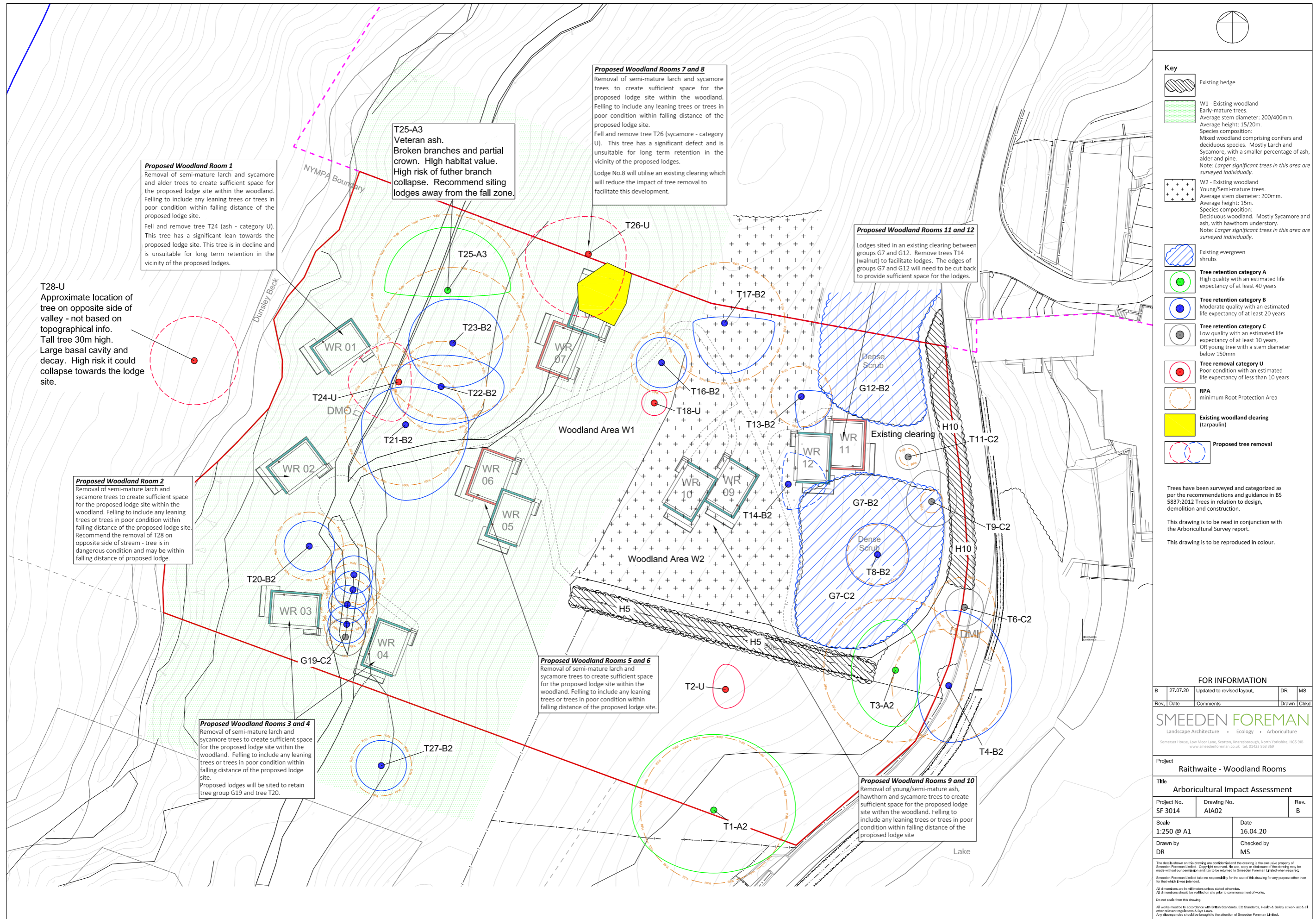
T28-U
Approximate location of tree on opposite side of valley - not based on topographical info.

T28-U
Tall tree 30m high. Large basal cavity and decay. High risk it could collapse towards the lodge site.

T25-A3
Veteran ash. Broken branches and partial crown. High habitat value. High risk of further branch collapse. Recommend siting lodges away from the fall zone.

APPENDIX C

SF3014 AIA02 Arboricultural Impact Assessment Plan



Key

- Existing hedge
- W1 - Existing woodland
Early-mature trees.
Average stem diameter: 200/400mm.
Average height: 15/20m.
Species composition:
Mixed woodland comprising conifers and deciduous species. Mostly Larch and Sycamore, with a smaller percentage of ash, alder and pine.
Note: Larger significant trees in this area are surveyed individually.
- W2 - Existing woodland
Young/Semi-mature trees.
Average stem diameter: 200mm.
Average height: 15m.
Species composition:
Deciduous woodland. Mostly Sycamore and ash, with hawthorn understorey.
Note: Larger significant trees in this area are surveyed individually.
- Existing evergreen shrubs
- Tree retention category A**
High quality with an estimated life expectancy of at least 40 years
- Tree retention category B**
Moderate quality with an estimated life expectancy of at least 20 years
- Tree retention category C**
Low quality with an estimated life expectancy of at least 10 years, OR young tree with a stem diameter below 150mm
- Tree removal category U**
Poor condition with an estimated life expectancy of less than 10 years
- RPA minimum Root Protection Area
- Existing woodland clearing (tarpaulin)
- Proposed tree removal

Trees have been surveyed and categorized as per the recommendations and guidance in BS 5837:2012 Trees in relation to design, demolition and construction.
This drawing is to be read in conjunction with the Arboricultural Survey report.
This drawing is to be reproduced in colour.

FOR INFORMATION

Rev.	Date	Comments	Drawn	Chkd
B	27.07.20	Updated to revised layout.	DR	MS

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Project Raithwaite - Woodland Rooms			
Title Arboricultural Impact Assessment			
Project No. SF 3014	Drawing No. AIA02	Date 16.04.20	Rev. B
Scale 1:250 @ A1	Checked by MS		
Drawn by DR	Checked by MS		

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**PROPOSED WOODLAND ROOMS EXTENSION
TO THE EXISTING HOTEL
RAITHWAITE ESTATE, SANDSEND ROAD, WHITBY**

NYMNPA

14/09/2020

TRANSPORT NOTE

CONTENTS:

- 1.0 INTRODUCTION AND BACKGROUND INFORMATION
- 2.0 PROPOSED DEVELOPMENT
- 3.0 CONSIDERATION OF TRAFFIC IMPACT
- 4.0 SUSTAINABLE TRANSPORT INFORMATION
- 5.0 CONCLUSIONS

APPENDICES:

APPENDIX A - LOCATION PLAN

1.0 INTRODUCTION AND BACKGROUND INFORMATION

- 1.01 This Transport Note has been prepared on behalf of Raithwaite Trading Company Limited for a proposed Woodland Rooms extension to the hotel located within the Raithwaite Estate Sandsend Road, Whitby.
- 1.02 In July 2018 planning permission was granted (Ref: 18/00241/FL) for the erection of 71 cottages, 82 apartments and 37 lodges for holiday use, new restaurant, café and shop, additional car parking, roads and an extension to the footpath network including landscaping and ancillary works.
- 1.03 There are 74 bedrooms in the existing hotel. A planning application approved in July 2020 involves the addition of 30 bedrooms to the main hotel building creating a hotel with 104 bedrooms. There are presently 93 parking spaces in the main car park and a further 27 spaces in The Keep car park, a total of 120 spaces, more than sufficient to accommodate guest parking. Guests, staff and visitors can also be brought to and from the hotel by minibus, taxi, bus and drop-off. Additional car parking will be provided under planning Ref:18/00241/FL and the recently approved hotel extension. Sufficient car parking is provided on site therefore no new parking is provided for the additional 12 rooms.
- 1.04 This statement will assess the traffic impact of the development on the local highway network, the safety of the proposed access arrangements and will examine the sustainability of the site in relation to access by non-car modes of transport.
- 1.05 The statement concludes that the development would have no significant impact on road safety or traffic flow on the local highway network. The statement also concludes that the proposed access arrangements are satisfactory and that the site is in a sustainable location.

2.0 PROPOSED DEVELOPMENT

- 2.01 The proposed development involves the siting/erection of 12 Woodland Rooms within the Raithwaite Estate as shown on the location plan attached at Appendix A. Woodland Rooms are essentially hotel rooms located within a woodland setting. Each will contain a kitchenette to provide an element of self-catering while enabling visitors to take advantage of hotel facilities.
- 2.02 Access to the development is proposed using the existing forest track from the north of Newholm Farm where it splits off from the main vehicular route through the estate. Personal motor vehicles will not be permitted regular access to the woodland.
- 2.03 Guests staying in a Woodland Room will arrive at the hotel main reception to check in and then will be usually transported by staff using an electric buggy. A series of new foot tracks will be provided. Where required, steps will be provided to ensure safe routes
- 2.04 Once in their room guests will be free to explore the estate on foot, using rental bikes or using electric buggies which will also be used for room service access.

- 2.05 It is envisaged that many guests will stay on site or cross Sandsend Road to the nearest beach rather than travel to destinations outside the site by car.
- 2.06 Further details of access provision within the site, including fire access, are set out in the Design and Access Statement included in the planning application documents.

3.0 CONSIDERATION OF TRAFFIC IMPACT

Traffic Generation

- 3.01 The TRICS database provides trip rates for hotels. On the basis of the trip data included in this database, the hotel use is likely to exhibit the following vehicular trip rate characteristics during the peak traffic hours.

Typical Hotel Trips Rates (Source: TRICS)

Hotel use (Trips per room)	AM Peak (8.00 – 9.00)		PM Peak (17.00 – 18.00)	
	Inbound	Outbound	Inbound	Outbound
	0.202	0.270	0.194	0.171

- 3.02 12 additional hotel rooms are therefore expected to generate the following trips during the peak traffic hours.

Typical Hotel Trips (12 Bedrooms)

12 Bedrooms	AM Peak (8.00 – 9.00)		PM Peak (17.00 – 18.00)	
	Inbound	Outbound	Inbound	Outbound
	2	3	2	2

- 3.03 It can be seen from the above table that there would be a modest generation of up to 5 vehicles (two-way) in the morning and evening peak hours. This level of traffic generation is well below the 30vph threshold of traffic impact set out in 'Guidance on Transport Assessment' published by DfT.
- 3.04 The proposals would not result in a material increase in traffic flow on A174 and it is concluded that the proposed Woodland Rooms would have no significant impact on either road safety or traffic flow on the local highway network.

4.0 SUSTAINABLE TRANSPORT INFORMATION

- 4.01 The centre of Sandsend is located 850m to the west of the estate entrance, and the centre of Whitby is located 3.4km east.
- 4.02 A bus stop is located on Sandsend Road near the estate entrance served by frequent bus service to Whitby and Middlesbrough. A new pedestrian crossing will be constructed to the bus stop and beach on the opposite side of A174.

- 4.03 A mini-bus will be provided by the hotel to transport staff to and from work and provide a shuttle service for hotel guests between the site, Sandsend village and Whitby bus and train stations.
- 4.04 Access for cyclists will be available from Sandsend Road via the site entrance. The estate roads make an ideal circuit for recreational cycling.
- 4.05 There is a railway station in Whitby with a regular train service to Middlesborough (all year round) and Pickering (summer season).

5.0 CONCLUSIONS

- 5.01 This statement has assessed the traffic impact of the development of 12 Woodland Hotel Rooms on the local highway network and has considered the sustainability of the site in relation to access by non-car modes of transport.
- 5.02 The statement concludes that the development would have no significant impact on road safety or traffic flow on the local highway network. The statement also concludes that the proposed access arrangements are satisfactory and that the site is in a sustainable location.

Signed:

M W Jennings MSc CEng MICE MCIHT

CoDa Transportation

Consulting Transportation Engineers
14 Springfield Court
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**PROPOSED WOODLANDS ROOM EXTENSION
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TRANSPORT NOTE**

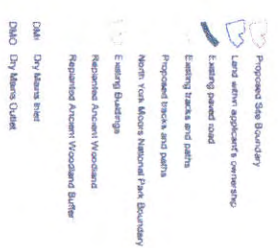
APPENDIX A

LOCATION PLAN

Proposed Woodland Room Layout

The proposed site layout takes into account the site constraints and the woodland room unit designs to achieve the following:

- Woodland Rooms have been nestled into the valley amongst the trees to create an intimate relationship with the woodland environment and in the process reduce their visual impact
- Rooms have been positioned to avoid the main specimen trees identified in the arboricultural survey
- Staggering Rooms in plan to respond to the site's topography. This in turn enables a variety in height between each unit and so contributes to a decrease visual impact
- The Replanted Ancient Woodland buffer zone has been avoided
- The existing tracks have been used where possible, with additional footpaths laid out to follow existing features and avoid trees and dense scrubland. Construction methodology for tracks and paths is included later in this document
- Buggy turning, Disabled access parking bay and emergency vehicle turning have been accommodated in the layout.



Raintwaite Bay Viaduct

**PROPOSED WOODLAND ROOMS EXTENSION
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NYMNP/PA

14/09/2020

DRAINAGE NOTE

CONTENTS:

- 1.0 INTRODUCTION
- 2.0 THE SITE
- 3.0 DRAINAGE ASSESSMENT

1.0 INTRODUCTION

- 1.01 This Drainage Note has been prepared on behalf of Raithwaite Trading Company Ltd for a proposed 12 Woodland Rooms extension to the hotel located within the Raithwaite Estate Sandsend Road, Whitby.
- 1.02 In July 2018 planning permission was granted (Ref: 18/00241/FL) for the erection of 71 cottages, 82 apartments and 37 lodges for holiday use, new restaurant, café and shop, additional car parking, roads and an extension to the footpath network including landscaping and ancillary works.
- 1.03 There are 74 bedrooms in the existing hotel. A planning permission (Ref: 20/00437/FL) was granted in July 2020 for the addition of 30 bedrooms to the main hotel building creating a hotel with 104 bedrooms.
- 1.04 The report examines any potential drainage matters in relation to the proposed development and outlines solutions where necessary, to deal with any identified issues.
- 1.05 The local authority is North York Moors National Park.
- 1.06 The Local Lead Flood Authority is North Yorkshire County Council.

2.0 THE SITE

- 2.01 The Raithwaite Estate is located to the south of the A174 Coastal Road and is approximately 1 mile to the north west of Whitby town centre.
- 2.02 The Ordnance Survey co-ordinates for the centre of the estate are 486590mE, 511430mN.
- 2.03 The Raithwaite Estate is approximately 24.6 hectares in area. The application area is in the southern sector of the estate and is approximately 0.83 hectares.
- 2.04 The general fall of the application area is to the east towards the adjacent lake.
- 2.05 Two watercourses, Dunsley Beck and Newholm Beck, run through the Raithwaite Hall Estate. Both watercourses on the estate are located in relatively deep steep-sided valleys. The two becks converge in the northern sector of the estate prior to flowing under Sandsend Road (A174) through a culvert, and discharging onto the beach to the north.
- 2.06 Newholm Beck runs through the centre of the estate in near proximity to Raithwaite Hall Hotel. A dam/weir has been constructed across the beck in the southern sector of the estate to form a large lake. The lake has a steeply sloping weir outlet and an overflow outlet which runs back into the beck immediately downstream of the dam.

3.0 DRAINAGE ASSESSMENT

3.01 Public Sewers:

A foul water rising main lies in Sandsend Road adjacent the northern boundary of the estate.

3.02 Existing Drainage:

There are separate foul and surface water systems on the developed areas of the estate.

Foul water on the estate is treated by Package Sewage Treatment Plants (PSTP's) prior to discharge to Newholme Beck.

The following Environmental Permits are held on the estate by the applicant in relation to PSTP's:-

Permit Reference: NE/QC27/29/003

Permit Reference: NE/EPRRP 3823KK

Surface water from the developed areas of the estate are discharged to Newholm Beck. Attenuated discharges with associated stormwater storage have been adopted where hardcover areas were extended on the estate as part of the conversion and extension of Raithwaite Hall and the original holiday cottages. The main hotel car park drainage also passes through a petrol interceptor.

3.03 Foul Water:

A separate foul water system will be provided for the proposed development on the application area.

Discussions have been had with Yorkshire Water with regard to connecting the estate to the public foul sewer system. This will involve the construction of an adopted foul pumping station in the northern sector of the estate adjacent the entrance with a new rising main discharging to the public sewer system approximately 1200m to the east of the estate.

Foul water from the development will be discharged to the proposed Package Pumping Station (PPS) adjacent the hotel which will pump foul water to the aforementioned adopted pumping station adjacent the estate entrance.

It is the intention that the estate will be served by mains drainage prior to the construction of the Woodland Rooms. However, if the Woodland Rooms development proceeds prior to the adopted pumping station and the pumping station adjacent the hotel being complete and commissioned it would be proposed, as a temporary solution, to discharge foul water to a PSTP with discharge of treated effluent to The Lake on Newholm Beck. An Environmental Permit would be obtained from the EA for the treated effluent discharge.

3.04 Surface Water Drainage:

As the near surface ground conditions on the estate are almost certainly to be relatively impermeable clays over mudstone, it is considered that the use of conventional shallow soakaways on the development will not be feasible for the disposal of surface water.

However, the proposed Woodland Rooms will have green roofs and gravel access paths. Therefore the run off from the development will closely mimic the existing greenfield situation so no formal surface water drainage is proposed on the development.

Signed:
J Lawrence B Eng C Eng M I Struct E