EAS1021b NORTH SIDE FORESTRY COMMISSION 2

LANGDALE END

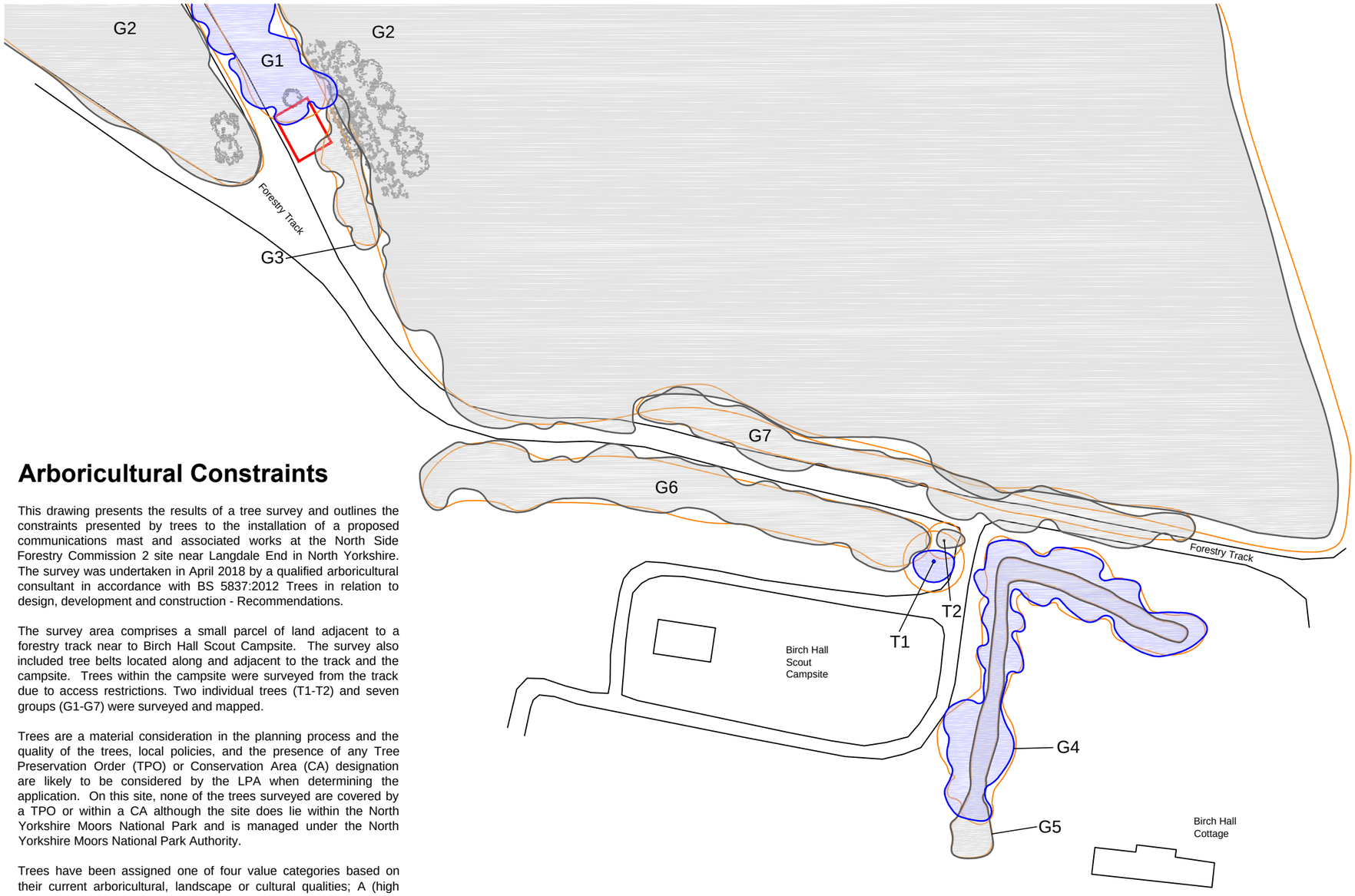
ARBORICULTURAL IMPACT ASSESSMENT

TEP
Genesis Centre
Birchwood Science Park
Warrington
WA3 7BH

www.tep.uk.com

Offices in Warrington, Market Harborough, Gateshead, London and Cornwall

NYMNPA
21/05/2018



Arboricultural Constraints

This drawing presents the results of a tree survey and outlines the constraints presented by trees to the installation of a proposed communications mast and associated works at the North Side Forestry Commission 2 site near Langdale End in North Yorkshire. The survey was undertaken in April 2018 by a qualified arboricultural consultant in accordance with BS 5837:2012 Trees in relation to design, development and construction - Recommendations.

The survey area comprises a small parcel of land adjacent to a forestry track near to Birch Hall Scout Campsite. The survey also included tree belts located along and adjacent to the track and the campsite. Trees within the campsite were surveyed from the track due to access restrictions. Two individual trees (T1-T2) and seven groups (G1-G7) were surveyed and mapped.

Trees are a material consideration in the planning process and the quality of the trees, local policies, and the presence of any Tree Preservation Order (TPO) or Conservation Area (CA) designation are likely to be considered by the LPA when determining the application. On this site, none of the trees surveyed are covered by a TPO or within a CA although the site does lie within the North Yorkshire Moors National Park and is managed under the North Yorkshire Moors National Park Authority.

Trees have been assigned one of four value categories based on their current arboricultural, landscape or cultural qualities; A (high quality), B (moderate quality), C (low quality) and U (unsuitable for retention). The categorisation of tree quality allows a weighting to be given to each tree within the context of proposed development but is not prescriptive. It is to be used as a tool to inform decisions based on wider objectives. Foremost consideration should be given to the retention of Category A and B trees during development design. The requirement to remove Category A and trees must be justified by sound design rationale. Category C trees and groups are considered to be of low quality by virtue of either their young age, limited visual prominence or compromised condition. Their presence should not unduly constrain development design, but where possible they should be incorporated.

As per BS 5837:2012, the Root Protection Area (RPA) has been calculated using each tree's diameter at 1.5 metres and represents the minimum area around each tree that must be left undisturbed to ensure its survival. This is shown on the plan opposite as an orange circle or group offset and has been adjusted where appropriate to most accurately represent the likely spread of roots for each individual tree. The RPA's of all trees have been adjusted to reflect the prevailing level changes across the site as well as anticipated affects arising from the location of neighbouring trees.

Tree Survey Schedule

Ref	Species	Height	Stem Dia.	No. of stems/ individuals	Crown Spread North	Crown Spread South	Crown Spread East	Crown Spread West	Height of Lowest Branch	Direction of Lowest Branch	Maturity	Condition	Comments on form, condition, health and significant defects	BS5837 Tree Quality Assess.	Radius of RPA guide circle	BS5837 RPA Area	Estimated Remaining Contribution	TPO
		(m)	(mm)	arising below 1.5m	(m)	(m)	(m)	(m)	(m)		Young, Middle Age, Mature	Good, Fair, Poor, Veteran		A,B,C,U (1,2,3)	(m)	(m2)	Long, Medium, Short	Y/N
Trees																		
T1	Crack willow	14.0	675	2.0	3.0	5.5	5.5	5.5	4.0	N	Mature	Good	Bifurcate at 4m; asymmetric crown to north due to T2; forms part of wider tree belt (G6) to west that screens scout hut	B,2	8.1	206.4	Long	N
T2	Wild cherry	9.0	403	2.0	3.0	2.0	5.5	2.0	2.0	N	Middle Age	Fair	Bifurcate at 1m; small crown weighted over track and asymmetric due to T1	C,2	4.8	73.5	Long	N
Groups																		
G1	Common beech; silver birch; hawthorn	to 12	to 380	17.0							Middle Age	Good	Small stand of single and multi-stemmed trees comprising mainly beech with good form and vigour and crowns to ground; square concrete base within middle of group now overgrown with stems adjacent edges	B,2	Refer to Drawing	n/a	Long	N
G2	Sitka Spruce	18 to 21	to 400	n/a							Middle Age to Mature	Good	Forestry plantation; large, tall dense crowns	C,2	Refer to Drawing	n/a	Long	N
G3	Blackthorn; gorse	to 6	to 75	n/a							Young to Middle Age	Good	Dense shrubby group, understorey edge to G2	C,2	Refer to Drawing	n/a	Long	N
G4	Common ash; silver birch	10 to 13	210 to 530	c. 15							Middle Age	Good	Linear group along eastern boundary of scout hut grounds; single and multi-stemmed trees with generally good form and vigour	B,2	Refer to Drawing	n/a	Long	N
G5	Hawthorn; holly	to 6	n/a	n/a							Middle Age	Good	Shrubby understorey group to G4, possibly former hedgerow	C,2	Refer to Drawing	n/a	Long	N
G6	Willow; silver birch; hawthorn; common ash	to 14	to 350	c. 50							Middle Age	Good	Screening group along northern edge of scout hut and adjacent access track; unkempt in places; single and multi-stemmed trees; broken branches and dead wood	C,2	Refer to Drawing	n/a	Long	N
G7	Willow; hawthorn; English oak; silver birch	to 11	to 200	c. 20							Young to Middle Age	Fair	Small selfset trees along southern edge of G2 forestry plantation; located on raised bund adjacent small ditch/stream	C,2	Refer to Drawing	n/a	Long	N

KEY

[This drawing must be reproduced in colour]

- T1 — Individual trees
- G1 — Groups of trees
- Root Protection Area (RPA)
- Site boundary

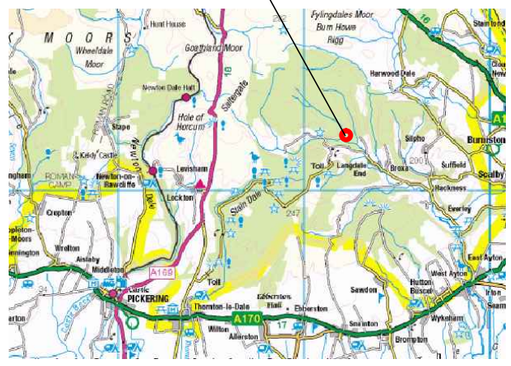
Tree Quality Categorisation

(Based on BS 5837:2012 Trees in relation to design, demolition and construction - Recommendations)

- Category A (High quality)
- Category B (Moderate quality)
- Category C (Low quality)
- Category U (Unsuitable for retention)

NOTE: No topographic survey was provided and all tree locations are plotted approximated using a combination of aerial imagery and on-site observations

Site Location



Rev	Description	Drawn	Approved	Date

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Genesis Centre, Birchwood Science Park, Warrington WA3 7BH
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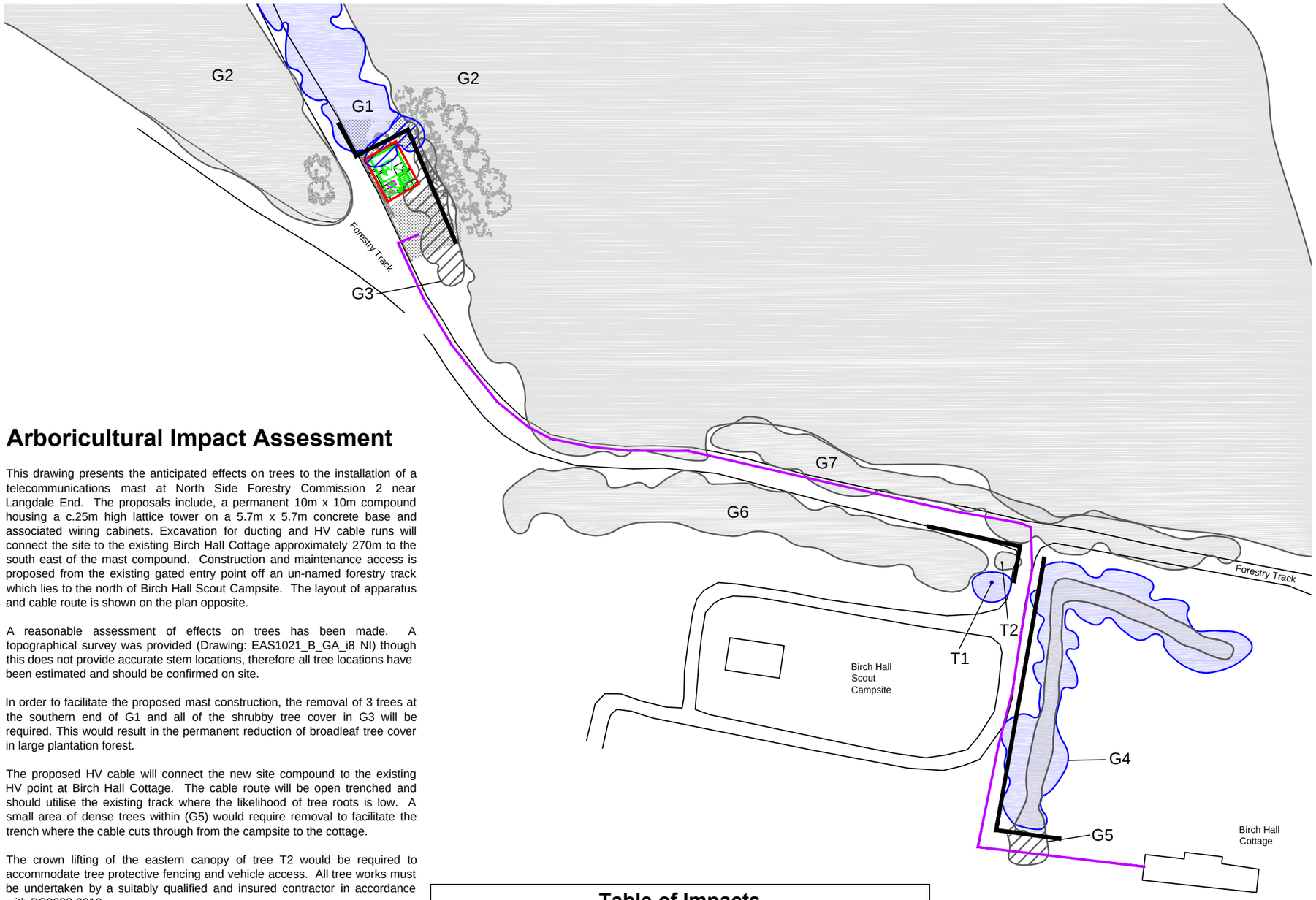
Project
EAS1021b North Side Forestry Commission 2, Langdale End Arboricultural Impact Assessment

Title
Drawing 1: Arboricultural Constraints

Drawing Number
D6421.03.036

Drawn	Checked	Approved	Scale	Date
RMG	AAB	JGS	1:1250 @ A3	11/05/2018



Arboricultural Impact Assessment

This drawing presents the anticipated effects on trees to the installation of a telecommunications mast at North Side Forestry Commission 2 near Langdale End. The proposals include, a permanent 10m x 10m compound housing a c.25m high lattice tower on a 5.7m x 5.7m concrete base and associated wiring cabinets. Excavation for ducting and HV cable runs will connect the site to the existing Birch Hall Cottage approximately 270m to the south east of the mast compound. Construction and maintenance access is proposed from the existing gated entry point off an un-named forestry track which lies to the north of Birch Hall Scout Campsite. The layout of apparatus and cable route is shown on the plan opposite.

A reasonable assessment of effects on trees has been made. A topographical survey was provided (Drawing: EAS1021_B_GA_i8 NI) though this does not provide accurate stem locations, therefore all tree locations have been estimated and should be confirmed on site.

In order to facilitate the proposed mast construction, the removal of 3 trees at the southern end of G1 and all of the shrubby tree cover in G3 will be required. This would result in the permanent reduction of broadleaf tree cover in large plantation forest.

The proposed HV cable will connect the new site compound to the existing HV point at Birch Hall Cottage. The cable route will be open trenched and should utilise the existing track where the likelihood of tree roots is low. A small area of dense trees within (G5) would require removal to facilitate the trench where the cable cuts through from the campsite to the cottage.

The crown lifting of the eastern canopy of tree T2 would be required to accommodate tree protective fencing and vehicle access. All tree works must be undertaken by a suitably qualified and insured contractor in accordance with BS3998:2010.

Tree protective fencing will need to be installed around trees T1 and T2, and group G1 to create a Construction Exclusion Zone (CEZ) prior to the commencement of works. This must be put in place prior to the commencement of any development works, including bringing machinery or materials onto site.

The alignment of the fencing is shown opposite and assumes all trees identified for removal have been felled prior to installation. A recommended specification is provided on drawing D6421.03.038. The fencing must be fixed into the ground to withstand accidental impact from machinery and to ensure that a sufficient protective area is maintained.

A weatherproof notice identifying the Construction Exclusion Zone must should be fixed to each fencing panel. An example notice is provided as an appendix to this document.

The protective fencing must not be removed until the physical construction phase has been completed and all vehicles have been removed from site

Table of Impacts

	Category A	Category B	Category C	Category U
Trees and Groups to be removed	-	G1 (3 trees)	G3 (c. 20 trees) G5 (3 trees)	-
Trees and Groups to be retained	-	T1 G4 (c. 15 trees)	T2 G2; G5; G6; G7	-

KEY

[This drawing must be reproduced in colour]

- T1 Individual trees
- G1 Groups of trees
- Site Boundary
- Tree Protection Fencing (c. 192m) (Must be installed prior to works commencement)
- Proposed HV cable route

Trees to be retained

- Category A (High quality)
- Category B (Moderate quality)
- Category C (Low quality)
- Category U (Trees with existing or potential conservation value)

Trees to be removed

- Category A (High quality)
- Category B (Moderate quality)
- Category C (Low quality)
- Category U (Unsuitable for retention)

NOTE: Tree quality assessment based on BS 5837:2012 Trees in relation to design, demolition and construction - Recommendations.

NOTE: No topographic survey was provided and all tree locations are plotted approximated using a combination of aerial imagery and on-site observations

Rev	Description	Drawn	Approved	Date

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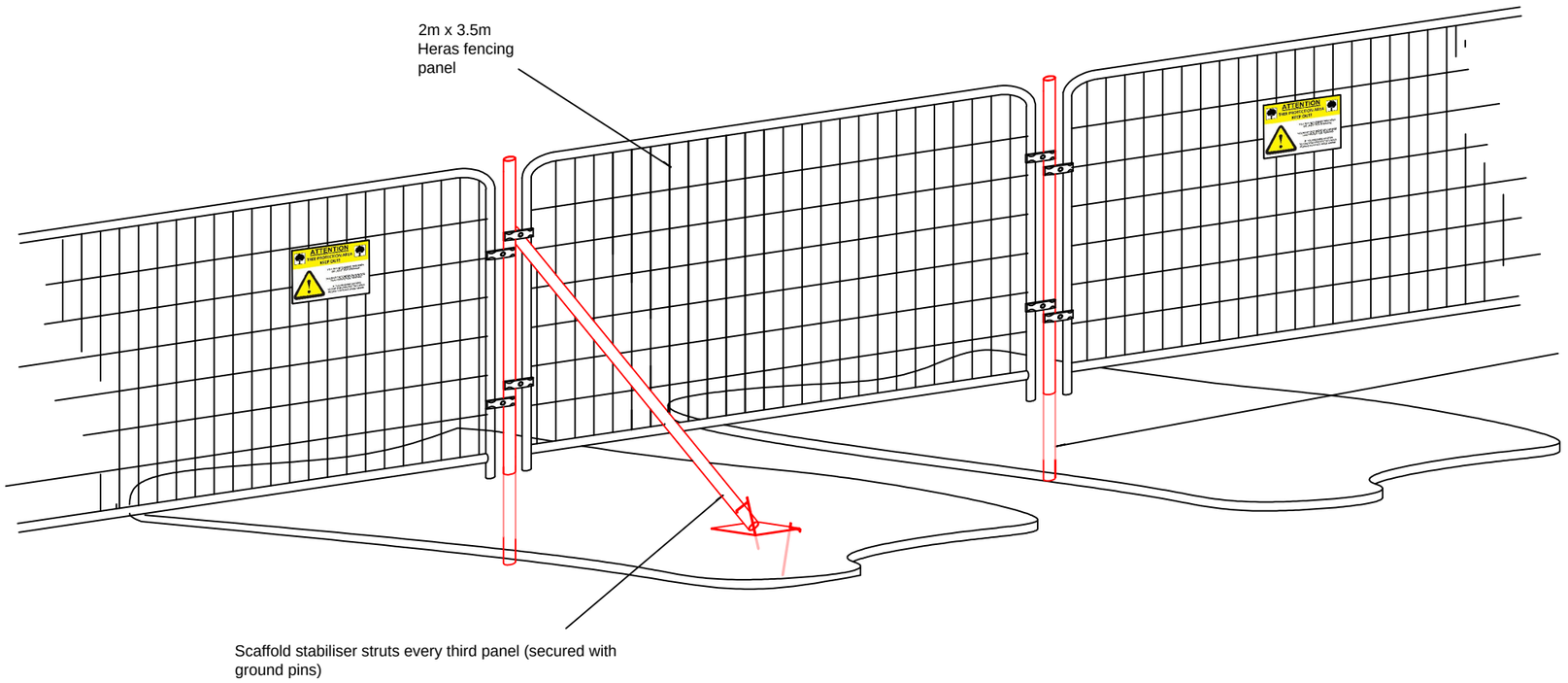
Project
EAS1021b North Side Forestry Commission 2, Langdale End Arboricultural Impact Assessment

Title
Drawing 2: Arboricultural Impacts

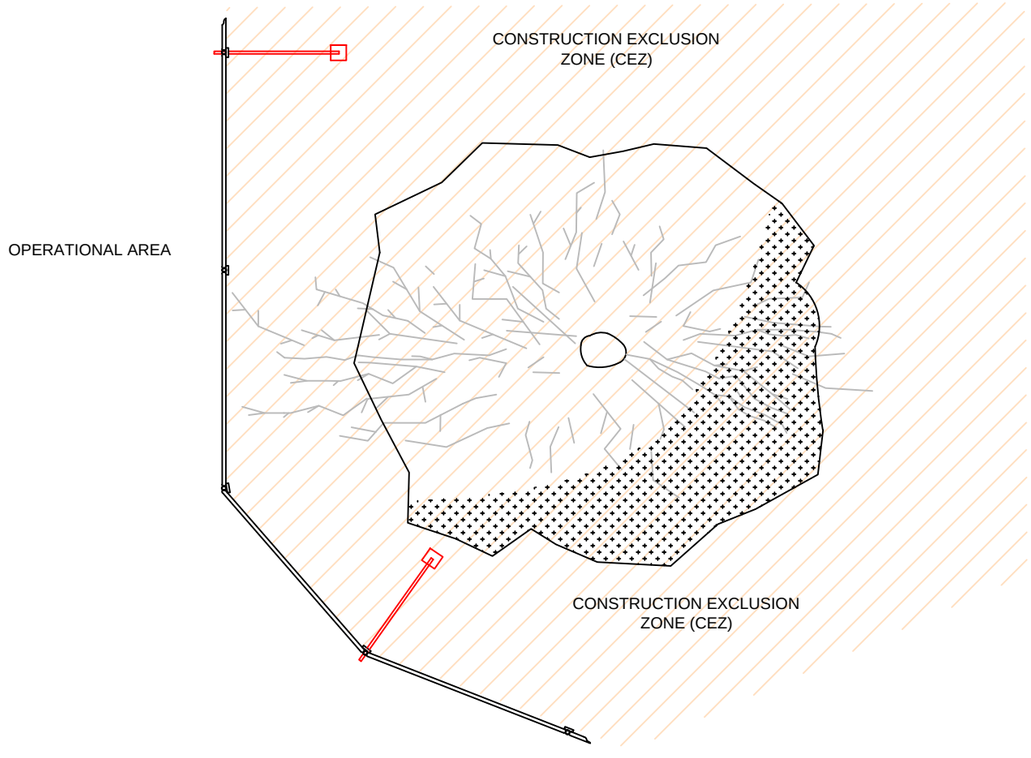
Drawing Number
D6421.03.037

Drawn	Checked	Approved	Scale	Date
RMG	AAB	JGS	1:1250 @ A3	11/05/2018



Per 3No. Heras panels (10.5m)	
Component	Quantity
2m x 3.5m Standard Heras panels	3
3m Galvenised steel scaffold pole	3
Heras fecurity fence clip	12
Heras stabilising support bar	1
Stabilising pin	2
Tree protection notice	2

Notes:



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Project
EAS1021b North Side Forestry Commission 2, Langdale End Arboricultural Impact Assessment

Title
Tree Protection Fencing Specification

Drawing Number
D6421.03.038

Drawn	Checked	Approved	Scale	Date
RMG	AAB	JGS	Not to scale @ A3	11/05/2018

ATTENTION

TREE PROTECTION AREA
KEEP OUT!

YOU MAY <u>NOT ENTER</u> THIS AREA OR USE IT FOR STORAGE

YOU MUST <u>NOT MOVE OR DAMAGE</u> THIS PROTECTION FENCING

IF YOU REQUIRE ACCESS TO THE TREE PROTECTION AREA PLEASE CONTACT 01925 844004