

Report



Arboricultural Method Statement Visual Impact Provision (VIP) Peak District East

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Where field investigations have been carried out, these have been restricted to a level of detail required to achieve the stated objectives of the work.

This work has been undertaken in accordance with the quality management system of RSK ADAS Ltd.

Version History

Revision	Date	Amendment
1	September 2020	Initial Report
2	November 2020	Updated
3	January 2021	Cable Route Updated
4	March 2021	Tree Protection Phasing
5	April 2021	Minor Amendments

1 Executive Summary

Morgan Sindall, on behalf of National Grid, is proposing plans to replace a 2km section of overhead electricity line with an underground connection along the route of the Trans Pennine Trail, at Dunford Bridge in the Peak District, as part of the Peak District Visual Impact Provision (VIP). The proposals include the undergrounding of the cables along the current Trans Pennine Trail route, the construction of an alternative track as a temporary diversion route for users of the trail, the dismantling and removal of the existing towers and the construction of haul roads and compounds required for the works. For the purposes of this report, reference to ‘the site’ means the land shown on the Location and Site Layout Plan contained in **Appendix 1**.

Morgan Sindall has commissioned RSK, ADAS’ parent company, to provide arboricultural advice in relation to the proposed development in line with the requirements of ‘BS5837:2012 Trees in Relation to Design, Demolition and Construction - Recommendations’ (BS5837:2012). This report has been prepared to comply with the requirements set out in Table B.1 of Annex B of BS5837:2012.

This method statement will specify the principles to adopt when working in proximity to any retained trees directly impacted by the proposals, whilst also ensuring nearby trees are offered protection during the proposed construction works.

The site is under the responsibility of two planning authorities, Barnsley Metropolitan Borough Council and the Peak District National Park Authority. A search of Barnsley Council’s interactive online mapping service has confirmed that there are no trees subject to a Tree Preservation Order (TPO) or Conservation Area protections on or close to the site. The National Park Authority has the responsibility to ‘conserve and enhance the natural beauty, wildlife and cultural heritage’ of the area, but has not placed any specific protections on this site.

ADAS believe that adopting the approach specified within this method statement will assist National Grid in ensuring that their public realm works will minimise the impact on the health and stability of the retained trees.

2 Introduction

2.1 The Author

This document has been prepared by Ruth Tohill, an ADAS arboricultural consultant. Ruth is a professional member of the Arboricultural Association, has BSc (Hons) in Arboriculture and 10 years of experience within the arboricultural industry.

2.2 Client Instruction

RSK, ADAS' parent company, was instructed by Morgan Sindall in April 2020 to review the survey data collected by AECOM in August 2018 to ensure its continued validity and update it where necessary, to survey the areas where towers are to be extracted and haul roads constructed and, ultimately, to use all the data collected to produce an Arboricultural Method Statement for the proposed works.

2.3 Purpose of Report

The purpose of this document is to provide reference and clarification on tree protection and any necessary tree management works relating to the impact on trees. To achieve this, the methodology for works that may affect trees will be clearly set out.

This document is also intended as a reference point for all site operatives and a copy will remain with the Site Manager for the duration of the development.

3 Methodology

3.1 Tree Survey Methodology

A tree survey, to verify the previous, AECOM, survey and establish the tree constraints on the site, was carried out by Ruth Tothill from the 21st to 24th April 2020. The new element of the tree survey was carried out in accordance with the recommendations in Table 1 of BS5837:2012 which is contained in **Appendix 2**

All trees have been visually inspected from ground level unless otherwise stated, with no climbing or boring tests being undertaken. The comments made on their condition are based on observable factors present at the time of inspection.

During both the AECOM and ADAS surveys areas where planning permission will be required from Barnsley MBC were surveyed in accordance with BS5837 recommendations. Other areas, where work does not require consent, or is to be undertaken according to permitted development rights, were subject to a less detailed survey of tree stocks.

The tree surveys recorded the information laid out in **Table 1** below.

Table 1: Tree Survey Schedule heading descriptions

Column Heading	Description
Tree Ref No.	All tree features have been given a unique reference number. Each number is prefixed by a letter to denote its categorisation in the locality. ▪ T = Individual tree ▪ G= Group of trees ▪ W = Woodland
Species	The English common name has been used, with the scientific name in brackets.
Single or Multiple stem (S or M)	▪ 'S' represents a tree which has a single clear stem to at least 1.5m above ground level. ▪ 'M(a)' represents a tree where the main stem divides into two to five stems below 1.5m above ground level, and ▪ 'M(b)' represents a tree where the main stem divides into 6 or more stems below a height of 1.5m.
Height (m)	Where possible tree heights are measured using a laser. In some instances such as in close groups of trees, one height may be measured and other nearby trees estimated from this height. Measurements are provided in metres.
Stem Diameter (mm)	S _n represents the stem number. Measurements are provided in millimetres at 1.5m above ground level for single stemmed trees.
Branch Spread (m)	Measured in metres to the four cardinal compass points (N, E, S, W).
Crown Clearance	(1) Height in metres of the first significant branch, and the direction of growth. (2) Height in metres of lowest part of crown.

Column Heading	Description
Life Stage	The stage at which the tree is within its lifecycle (Y = young, SM = semi-mature, EM = early-mature, M = mature, OM = over mature, V = veteran)
General Observations	Any relevant observations are recorded, with particular reference to structural and/or physiological condition.
Preliminary Management Recommendations	Recommendations are made where management work is required for reasons of health and safety or sound arboricultural management.
Estimated Remaining Contribution (years)	An estimation of how long the feature will contribute to its surroundings. This is recorded in bands of either <10 years, 10+ years, 20+ years and 40+ years.
Tree Quality Grading	The trees are graded to the categories prescribed within BS5837:2012 (U, A, B & C). Details of this grading system can be found in Appendix 2 .
Root Protection Area	Calculated as prescribed in section 4.6 of BS5837:2012, provided as an area (m ²) and a radius from the tree's stem (m).
Note: Those measurements shown in <i>italics</i> have been estimated, usually where access has restricted it being taken.	

3.2 Assumptions and Limitations

The Tree Protection Plan (TPP) contained in **Appendix 3** has been developed from the tree survey information and the topographical survey provided.

This report assumes that the layout demonstrated on the TPP is the final layout. This layout was taken from the cable route layout drawings (reference: 16866-BH-0608-XX-DR-E-040002 to 040007; 16866-BH-0608-XX-DR-E-040080 to 040084; 30002035-ZZ-XX-BHK-SK-HV-0001-P04) as provided by Morgan Sindall

This report is not a full hazard or risk assessment of trees, and should not be used as such.

Trees are living organisms and are constantly adapting to their ever changing environment. No tree is completely safe and there is no guarantee that problems or deficiencies will not arise in the future, which have not been identified in this report.

4 Legislation Constraints

4.1 Tree Preservation Orders and Conservation Areas

Local Planning Authorities (LPAs) have the power to preserve selected trees and woodlands through the making of Tree Preservation Orders (TPOs). Similarly, special provision is provided to trees located within Conservation Areas which are not the subject of a TPO. The LPAs powers to do this are provided by the following Act of Parliament and its associated regulations:

- Town and Country Planning Act 1990
- Town and Country Planning (Determination of Appeals by Appointed Persons) (Prescribed Classes) (Amendment) (England) Regulations 2008
- Town and Country Planning (Trees) (Amendment) (England) Regulations 2012

The principal effect of a TPO is to prohibit the cutting down, uprooting, topping, lopping, wilful damage or wilful destruction of trees without first obtaining the consent of the relevant Local Authority.

Where works to trees within a Conservation Area are proposed, six weeks notification must first be given to the relevant Local Authority.

Unauthorised works to trees either protected by a TPO or those that are located within a Conservation Area, could result in an unlimited fine.

The site is under the responsibility of two planning authorities, Barnsley Metropolitan Borough Council and the Peak District National Park Authority. A search of Barnsley Council's interactive online mapping service has confirmed that there are no trees subject to Tree Preservation Order (TPO) or Conservation Area protections on or close to the site. The National Park Authority has the responsibility to 'conserve and enhance the natural beauty, wildlife and cultural heritage' of the area, but has not placed any specific protections on this site.

4.2 Wildlife Legislation

The following Acts and Regulations are the main pieces of legislation that protect wildlife and habitats in England and Wales:

- Wildlife and Countryside Act 1981 (as amended)
- Conservation of Habitats and Species Regulations 2017 (as amended)
- Protection of Badgers Act 1992
- The Hedgerows Regulations 1997
- Countryside and Rights of Way Act 2000
- Natural Environment and Rural Communities Act 2006 & Environment (Wales) Act 2016

The Wildlife and Countryside Act 1981 provides statutory protection to wild birds, their nests (whether in use or being built), as well as other wild animals such as bats and their roosts. Under the Act it is a criminal offence to intentionally destroy any wild bird, its nest or eggs, or to harm any bat, damage or block access to its roost (even if it is not occupied at the time), or to disturb a bat whilst it is occupying a roost. For some birds listed in Schedule 1 of the Act, such as barn owl, it is also an offence to disturb them while they are nesting, building a nest, in or near a nest that contains their young, or to disturb their dependent young. Other wild animals afforded full legal protection under the Act and which may be affected by tree works include: otters and their places of shelter (often in exposed tree roots along river banks), hazel dormice, their breeding sites and resting places (well-structured woodland and scrub), and red squirrels and their nests (dreys). The Conservation of Habitats and Species Regulations 2017 provide additional legal protection to some species, including bats (all species), otters and hazel dormice. Badgers and their setts are specifically protected under the Protection of Badgers Act 1992, which makes it an offence to damage or block a sett, or to disturb badgers whilst they are using a sett. Where works might result in an offence being committed, advice will be required from a suitably experienced ecologist before they can be undertaken. For example, it may be necessary to programme tree work outside of the bird nesting period, typically March to August inclusive, or for an ecologist to undertake prior visual inspections of trees for nests and / or bat roosts.

Under the Wildlife and Countryside Act 1981 it is also illegal to plant or otherwise cause to grow in the wild certain invasive non-native plant species, including Japanese Knotweed, Himalayan Balsam, Giant Hogweed and Rhododendron. Any works that might cause the spread of these species could therefore result in an offence being committed. This might occur as a result of the incidental transportation of soil containing seeds or live root and stem fragments on the wheels of vehicles, or on the boots of personnel.

Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) are strictly protected sites designated respectively under the EC Habitats Directive and the EC Birds Directive. In England and Wales, SACs and SPAs are given legal protection by The Conservation of Habitats and Species Regulations 2017, which transpose the EC Habitats Directive and EC Birds Directive into national law. The Regulations ensure that any plan or project that may damage an SAC or SPA can only proceed if certain strict conditions are met.

Sites of Special Scientific Interest (SSSIs) are areas notified under the Wildlife and Countryside Act 1981 as being of special interest for nature conservation or their geology with additional protection afforded to them by the Countryside and Rights of Way Act 2000. Under the legislation Natural England (NE) or Natural Resources Wales (NRW) must be notified of any planned works or operations that could potentially damage an SSSI or its features of interest before they are able to proceed.

The Natural Environment and Rural Communities Act 2006 and Environment (Wales) Act 2016 place a statutory duty on public authorities (public bodies and utility companies) to 'seek to maintain and enhance biodiversity' so far as it is consistent with the proper exercise of their functions.

The above provides only a brief summary of the legislation. It is advised that the original text of the relevant legislation is consulted for the exact wording. If necessary, advice should be sought from a suitably qualified ecologist prior to any tree works being undertaken.

5 Results

5.1 Tree Survey Results

The findings of this tree survey are contained in the Tree Survey Schedule in **Appendix 4** and the Tree Protection Plan in **Appendix 3**.

During the AECOM survey it was agreed with the tree officer at Barnsley Metropolitan Borough Council that sections of the survey site which were outside the planning application red line boundary did not require a BS5837 compliant survey. These areas were divided into numbered 'Character Areas' (CA1 etc.) based on the predominant tree species present and their average size.

6 Arboricultural Impact Assessment

6.1 Overview

The impact the proposals are likely to have on the existing trees has been shown on the Tree Protection Plan contained in **Appendix 3**. The tree removal figures for most tree groups and all the character areas (CAs) have been calculated based on the area affected, in square metres (m²), and the tree density recorded for that area.

Trees within the BS5837 survey area have been assessed under the following categories, and the findings are summarised in **Table 2** below:

- Trees or parts of groups proposed for removal. This includes trees:
 - that are under the footprint of the proposed development
 - whose Root Protection Areas (RPA) are heavily affected by the development
- Retained trees that are at risk of damage through disturbance of RPAs

Table 2: Arboricultural Implications Assessment: BS5837 survey area

Impact	Reason	Tree Quality Assessment Category Grading*						
		A	B		C			U
		Tree object	Tree object	No. trees	Tree object	Est. area loss m ²	Est. no. trees	Tree object
Trees proposed for full removal	▪ Trackway / haul road Construction ▪ Proximity to cable route. ▪ Under footprint of Sealing End Compound	None	G33* G54	4 4	T5 G6 T7 G34 G35 T55 T57	42 368 309	1 11 1 59 49 1 1	None
Tree groups / woodlands proposed for partial removal	▪ Trackway / haul road Construction ▪ Proximity to cable route ▪ <i>Under footprint of Sealing End Compound</i>	None			G1 G2 G3 G4 W38 W40	189 150 315 107 1,337 623 217 1,972	47 38 50 27 214 100 35 316	None
Trees whose RPAs may be affected.	▪ Proximity to proposed works ▪ Outside BS5837 area	None	T36 G37 T56 T28		 T24 T22 T9			None
Total Removals				8		5,629	950	

* This area is currently under review to avoid tree loss and retain where possible, however worst case scenario is removal (and therefore included in these figures) but we will try to avoid this.

Trees within the non-BS5837 survey area have been assessed by CAs, and the findings are summarised in **Table 3** below:

Table 3: Arboricultural Implications Assessment: non-BS5837 survey area

Impact	Character Area	Estimated area of loss (m ²)	Estimated number of trees
Removal in full	None	None	None
Removal in Part	CA1	1,297	324
	CA2	2,065	330
	CA3	679	169
	CA4	1,078	120
	CA5	1,053	168
	CA6	1,462	91
	CA7	820	91
	CA8	1,995	222
	CA9	538	59
	CA10	465	52
	CA11 – W38	6,022	964
		773	124
	W40	934	149 + 7 on mound
Total Removals		19,181	2,870

7 Arboricultural Input

7.1 Arboricultural Sequence of Events

A summary of the Arboricultural Sequence of Events has been provided in **Table 4** which should be referenced during the works process. **Table 4: Arboricultural Sequence of Events summary**

Planning Authorities Approve Arboricultural Method Statement
▼
Pre-commencement site meeting (if necessary)
▼
Tree Protection Fencing (TPB) constructed (installation in 3 phases as works progress)
▼
Arboricultural Consultant to inspect TPB, against approved plans
▼
Commencement of: Site Preparation / Construction
▼
Arboricultural Consultant to monitor site at frequency agreed with Planning Authorities
▼
Arboricultural Consultant to monitor approved works within the TPB (site manager to provide notice)
▼
Re-positioning of TPBs in accordance with the Tree Protection Plan
▼
Planning Authorities to approve Remedial Tree Work (if necessary)
▼
Undertake Remedial Tree Work (if necessary)
▼
Tree Protection Fencing removed
▼
Tree Protection Fencing only to be completely removed after all site works have been completed
▼
Site handed back to National Grid

7.2 Site Monitoring

ADAS, as Morgan Sindall's appointed Arboricultural Consultant, will monitor the tree protection measures when they have been set out on site prior to construction works commencing, and on a regular basis during construction. The purpose of this is to ensure the protection measures remain in situ and continue to provide sufficient tree protection until all work has been completed.

This will initially involve ADAS liaising with Morgan Sindall and/or their appointed contractor and Barnsley MBC to ensure the recommended protection measures are followed.

A formal record of these supervisory visits will be made and kept on file with Morgan Sindall who will be responsible for circulating it to all relevant parties, including the planning authority, as required.

7.3 Key Contacts during Development

A list of key contacts relevant to this site that may be required throughout the duration of the development has been included in **Appendix 5**.

8 Method Statement

8.1 Overview

The approach to tree protection for these works is outlined in the following methods; approval of these approaches must be confirmed by Barnsley MBC prior to the commencement of works.

Although these methods set out the precautions to be followed in order to ensure the retained trees are protected, the final responsibility for their implementation lies with the Morgan Sindall site manager who must ensure that all current legislation and best practice is followed and that the tree protection measures are undertaken appropriately.

8.2 Tree Work

8.2.1 Tree Removals

Across the whole site the land area occupied by the trees being removed is estimated to be 24,810m², or 3,828 trees in total, as illustrated on the TPP in **Appendix 3**.

The post development landscaping scheme produced by RSK sets out the plans for reinstatement of the site after completion of the works. It aims to replace the trees which will be removed, in alternative locations where direct replacement is impossible, as well as enhancing the areas around those trees being retained.

8.2.2 Facilitation Pruning

Pruning in order to give sufficient width clearance and / or crown lifting to give 5m height clearance, may be required in up to twelve locations to facilitate access to the areas of the site where works are to take place. Exact areas and amounts to be reduced will be determined at the time of setting out the tree protection measures.

8.2.3 Tree Work Schedule

A schedule of the proposed facilitation tree work has been provided within **Appendix 6**. All tree work will be carried out prior to commencement of construction activities and prior to the erection of the proposed tree protection. During facilitation tree work activities all equipment will be placed within the areas where trees are being removed, avoiding any encroachment into areas where trees are to be retained.

8.2.4 Standard of Tree Work

All tree work will be carried out in accordance with BS3998:2010 'Recommendations for Tree Work'; current arboricultural industry guidelines and best practice; and all relevant Health & Safety standards.

Morgan Sindall will be responsible for appointing a tree contractor who will be appropriately qualified, skilled, and adequately insured.

8.2.5 Wildlife Constraints

As mentioned in **section 4.2** of this report, all tree work operations must comply with The Wildlife and Countryside Act 1981 as amended by the Countryside and Rights of Way Act 2000, which provide statutory protection to birds, bats and other species, all of which could inhabit trees. Where works may constitute an offence, advice will be acquired from a suitably qualified person before works are able to proceed. For example, it may be necessary to programme tree work outside of the bird nesting period, typically March through to August inclusive.

8.2.6 Modification to Tree Work Schedule

Should the recommended work schedule require modification, for whatever reason, this will be agreed with the appointed Arboricultural Consultant (when applicable), and also approved in writing by the planning authorities. Under no circumstances will the appointed tree contractor deviate from the Tree Work Schedule contained in **Appendix 6**, unless approved in writing by the planning authorities.

8.3 Working Methods to Be Adopted

1. **Stump removal** is likely to be required after the tree felling works, to facilitate the construction of the work compound and trackways; due to the desire to keep felling to a minimum across the project, in a number of locations, the tree protection fencing corresponds to the extent of the construction working area and thus works may involve the disturbance of some minor roots of retained trees.
2. **Facilitation pruning** will be required in some areas of the site and has been prescribed in the Tree Work Schedule in **Appendix 6**.

Height reduction of trees in the north east section of W40 will be required to provide clearance for the new overhead line. For clarity this work has been illustrated on a drawing which will be submitted separately.

3. **Tree Protection Fencing** will be installed, upon completion of facilitation tree works, as shown on the Tree Protection Plan in **Appendix 3**, to provide a Construction Exclusion Zone (CEZ) around the trees which are to be retained.

Fencing installation will be phased to fit with the work programme and will be undertaken in stages across different areas. Areas included in each phase are shown on the TPP in **Appendix 3**.

- Phase 1 fencing installation will take place in June 2021.

- Phase 2 fencing installation will take place in mid-July 2021.
- Phase 3 fencing installation will take place in November 2021.

Where possible the CEZ is positioned to protect both the crowns and the RPAs of the retained trees. Guidance on RPAs is contained in **Appendix 7**.

In line with Section 6.2.2 of BS 5837:2012, the tree protection fencing must be fit for the purpose of excluding construction activity whilst providing adequate protection to the retained trees.

Trees within the BS5837 areas will be protected by fencing configured as shown in Figure 3 of the standard. As a minimum they will consist of 2m tall welded mesh panels supported on rubber feet. Each panel will be secured to its neighbour with a minimum of 2 anti-tamper couplers secured so that they can only be undone from inside the RPA. Examples of all these types of fencing are contained in **Appendix 8**.

For the protection of those trees being retained in the non-BS5837 survey areas, where the default style of fencing is not feasible due to the terrain, it is proposed that Heras style fencing supported on rubber feet will be used and further reinforced at the rear by intermittent triangular arrangements of fencing panels.

It is considered unlikely that the root system of the fallen tree (T46) beside the proposed haul road on the northern side of the site, which is to be retained for its habitat value, will extend as far as would be normal for trees which are upright. Therefore it is only necessary that the above ground parts of this tree should be protected with tree protection fencing.

To enable site operatives to appreciate the purpose of the protective fencing, and reduce the risk of operatives attempting to move them, all-weather notices will be erected on the fencing similar to the example in **Appendix 9**. These fencing types are illustrated in blue and brown on the TPP in **Appendix 3**.

In order to ensure that the RPAs remain protected, the tree protection fencing will not be moved, unless agreed with the Arboricultural Consultant and the planning authorities.

4. **Ground protection**, works may be necessary within the RPAs of T36 and T56. Before these works begin temporary ground protection will be installed capable of supporting construction activity without distorting or causing compaction to the underlying soil. This will comprise of: a minimum of single thickness scaffold boards placed on top of a compression-resistant layer (such as 100mm depth of woodchip) laid onto a geotextile membrane, or similar, where only pedestrian traffic is anticipated; and a minimum of proprietary aluminium road surfacing, laid on a compression resistant layer of woodchip, or a cellular confinement system of a minimum 200mm depth as shown in **Appendix 10** where vehicular traffic is anticipated.

5. **Excavations** for the cable trenching will be carried out from the trench line itself or from the side of the trench furthest from the retained trees.
6. **Spoil** will not be stored on bare earth within the RPAs of retained trees.
7. **Root Pruning** may be necessary in relation to the construction of the underground cable route, although preparatory tree clearance and stump removal in proposed work areas should reduce the likelihood of this. Where necessary pruning should be undertaken using a suitable tool e.g. bypass secateurs.

There are two sections of water-filled ditch on the southern side of the Trans Pennine Trail which are considered deep enough to prevent root spread across them, so it is not anticipated that root pruning will be necessary along these sections as long as excavations do not extend beyond the ditches.

As mentioned in point 1 above, due to the desire to keep felling to a minimum across the project, in a number of locations, the tree protection fencing corresponds to the extent of the construction working area and thus works may involve the disturbance of some minor roots of retained trees.

8. **Vehicle movements** within the RPAs and tree protection fencing are not permitted, apart from those discussed in point 4 above, and access will be restricted to supervised pedestrian movements only.
9. **Temporary Bridge Construction** is proposed close to T36. If it is not possible to undertake this work without encroaching on the RPA of this tree it is particularly important that the integrity of the tree protection fencing and ground protection shown on the TPP are monitored regularly and any breaches of protection are remedied immediately.
10. **Trans Pennine Trail Diversion and Haul Road Construction** are not expected to take place in proximity to retained trees for the majority of their routes. The sections of the routes which pass through wooded areas will be cleared as part of the preparatory felling and stump grinding and, wherever possible, tree protection fencing will be erected in locations that protect the RPAs of trees which are being retained. However, as mentioned in point 1 above, due to the desire to keep felling to a minimum across the project, in a number of locations, the tree protection fencing corresponds to the extent of the construction working area and thus works may involve the disturbance of some minor roots of retained trees.
11. **Fuels & Chemicals.** As the roots of the trees are likely to extend well beyond the limits of the RPAs and tree protection fencing, no fuels or chemicals will be poured or stored within an area with a radius equal to the height of the trees. Any storage or fuelling areas will be positioned on the downside of the tree(s), to prevent any leaching into the RPA.

12. **Materials and equipment** will not be stored within the RPAs of any trees; any site offices and welfare facilities will be positioned outside the RPA of the trees on site.
13. **Site Notices** will not be attached to the trees, and nothing will be stored against the stems of the trees.
14. **Landscaping** is planned to reinstate the Trans Pennine Trail. These works will be undertaken once all other construction work has been completed, thereby minimising the risk of unauthorised activities occurring within the RPAs of trees which have been retained. While the landscaping works are taking place it may be necessary to partially remove the tree protection fencing in order to allow access to some areas. This fencing must be re-instated on completion of the activity that required its removal, or at the end of each day, whichever is sooner. Access for these works is limited to pedestrian access only. Only hand tools are permitted within the RPA. Plants should be delivered and stored outside the tree protection fencing, and brought into the tree protection area as and when they are being planted.

9 Conclusion

ADAS has identified, and itemised in **Section 6** of this report, all trees which have the potential to be impacted by the proposed removal of the existing pylons and undergrounding of the overhead electricity cables at Dunford Bridge.

These trees have been recorded in the Tree Survey Schedule and plotted on the Tree Protection Plan which form part of this report.

Preparatory clearance works will ensure that the main work areas are free of trees and their roots, as far as possible. Although, due to the desire to keep felling to a minimum across the project, in a number of locations within wooded areas, the tree protection fencing corresponds to the extent of the construction working area and thus works may involve the disturbance of some minor roots of retained trees. In a few sections of the site, activities are proposed in proximity to and also within the RPAs of individual trees which are to be retained. Precautions will be taken as set out in **Section 8.3** of this report to ensure that they can be successfully protected.

ADAS is satisfied that if the recommendations contained within this Arboricultural Method Statement are followed, then the project can be successfully undertaken whilst minimising the impact to those trees identified to be retained.

The proposed landscaping will replace the trees being removed whilst improving and enhancing the appearance and biodiversity of the local area.

Any deviation from this Method Statement will first need to be agreed with the appointed Arboricultural Consultant and Barnsley Metropolitan District Council.

Appendix 1: Site Layout Plan

See following page.

Appendix 2: Cascade Chart for Tree Quality Assessment

See following page.

Appendix 3: Tree Protection Plan

See following page.

Appendix 4: Tree Survey Schedule

See following page.

Appendix 5: Key Contacts

	Name	Main Contact and Details
Site Details	Peak East Visual Impact Provision	National Grid
Developer	Morgan Sindall Construction and Infrastructure Ltd.	Zoe Lonsdale Morgan Sindall Don Road, Sheffield, S. Yorkshire. S9 2UB 07718 516874 Zoe.lonsdale@morgansindall.com
Site Manager	Dave Swan	Morgan Sindall
Arboricultural Consultant	ADAS	Ruth Tothill ADAS 14 Beecham Court Pemberton Business Park Wigan WN3 6PR 07808 642801 Ruth.tothill@hotmail.co.uk
Local Authority:	Barnsley Metropolitan District Council	Planning Development Management PO Box 634 Barnsley S70 9GG (01226) 773555
(Tree Officer) (Case Officer) (Enforcement Officer)	Peak District National Park Authority	Aldern House Baslow Rd Bakewell DE45 1AE 01629 816200

Appendix 6: Tree Work Schedule

Tree No:	Species	Recommended Management Work
T5, G6, T7, G33*, G54, T55, T57, G67	Various	Fell to ground level or as low as reasonably practical and stump grind.
CA1, G1, G2, G3, G4, G34, G35, W38, W40, CA2, CA3, CA4, CA5, CA6, CA7, CA8, CA9, CA10, CA11	Various	Fell sections specified on TPP to ground level or as low as reasonably practical and stump grind
W50, G51, G52, G53, G60, G64, G65, G66	Various	Cut back and / or crown lift to provide clearance for access to site for vehicles
T36, T56	Alder	Install ground protection over areas of RPA which will be affected by works

Accompanying Notes:

- All tree work to be carried out in accordance with BS 3998 (2010) 'Recommendations for Tree Work', current industry guidelines and best practice, and all relevant Health & Safety standards;
- All operatives to be appropriately qualified, skilled, and adequately insured, for the task they are undertaking;
- All tree work must comply with The Wildlife and Countryside Act 1981 as amended by the Countryside and Rights of Way Act 2000;
- Modification to, or deviation from, the above schedule must first gain approval from the relevant planning authorities.

Appendix 7: RPA Guidance

The Root Protection Area (RPA) is calculated from the stem diameter of the tree, in accordance with the guidance contained in section 4.6 of BS 5837:2012.

These areas are normally sacrosanct, and should not be entered, by traffic or foot, during construction, or used to store materials, fuel or chemicals.

Protective fencing should be erected along the edge of the works, before construction begins, and should not be moved until after all construction has finished and vacated the site. The type of fencing used should be fit for purpose, and ordinarily conform to the recommendations given in section 6.2.2 of BS 5837:2012 and be erected similar to the example shown in Figure 2 of the same standard.

When determining the workable space around the RPA of a tree or trees, it is also important, wherever practicable, to maintain a working zone of one metre (which is usually sufficient) between the edge of construction and the protective fencing.

Appendix 8: Example Tree Protection Fencing

See following page.

Appendix 9: Example Tree Protection Fencing Sign



Appendix 10: Cellular Confinement System Examples

See following page.