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# Yorkshire Green Energy Enablement (GREEN) Project

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Scheduled Monument at Lead**

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## Version History

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Document	Version	Status	Description / Changes
10/03/2022	001	Issued	First Issue

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# 1. Background

# Background

## 1.1 Overview

- 1.1.1 As part of the Yorkshire GREEN Development Consent Order (DCO) Project, the existing XC 275kV National Grid Overhead Line is being updated and reconducted to support the network reinforcement requirements in the north-east of England. As part of the reconducting works, existing public highways need to be protected with 'scaffolding'. This will, under a worst-case scenario, catch the conductors should they fall during the reconducting works.

Figure 1.1 – Typical overhead Line scaffold arrangement protecting a public highway.



- 1.1.2 This note considers the relative merits of proposals for access set out in the Section 42 consultation (Option 1) with those of an alternative route that would require access through the scheduled area (NHLE List Entry: 1020326 Medieval manorial complex, garden and water management features, St Mary's chapel, and a linear earthwork forming part of the Aberford Dyke system) around the Chapel of St Mary at Lead (Option 2).

## 1.2 Current Access Arrangements (Option 1)

1.2.1 In order to access the proposed scaffold position on the north side of the B1217, access would be taken through an existing gate off of Wakefield Lane (Figure 1.2). In the field, access to the proposed scaffold position will need to cross Cock Beck, which is an existing Water Framework Directive (WFD) watercourse.

Figure 1.2 – Proposed access from Wakefield Lane to the scaffold location. On the left image, the orange shape represents the public highway access point, and the green swathe represents the access route. The blue line is Cock Beck which requires crossing. The right image shows the existing gate set back from the highway.



1.2.2 In order to facilitate vehicle access into the field, minor groundworks are likely required due to the uneven/sloping nature of the grassed area on the approach to the gate. Access through the fields will require installation of interlocking matting (Figure 1.7) to reduce any impacts on the ground.

1.2.3 To cross the WFD watercourse, Cock Beck, a clear-span bridge will be required, of which is substantial enough to facilitate vehicle access to the proposed scaffold work locations (Figure 1.6). The watercourse is a low-lying ford, therefore due to this, and possible boggy ground conditions, concrete abutments may also be required to sit the bridge on, preventing any movement and subsidence.

1.2.4 The vehicles likely required to access and erect this scaffolding are:

- A small excavator for groundworks and levelling (Figure 1.3)
- A crane lorry for delivery/collection of the bridge and scaffolding (Figure 1.4)
- A telehandler for loading/unloading deliveries at the erection (Figure 1.5).

Figure 1.3 – Typical 6T excavator for ground works and levelling.



Figure 1.4 – Typical crane lorry for delivery of scaffolding & temporary bridge.



Figure 1.5 – Typical telehandler for loading/unloading deliveries at the erection point.



Figure 1.6 – Typical Clear Span Bridge





Figure 1.7 – Typical temporary interlocking matting/panels to protect the ground during access and egress (To be used through the scheduled monument to avoid ground damage)



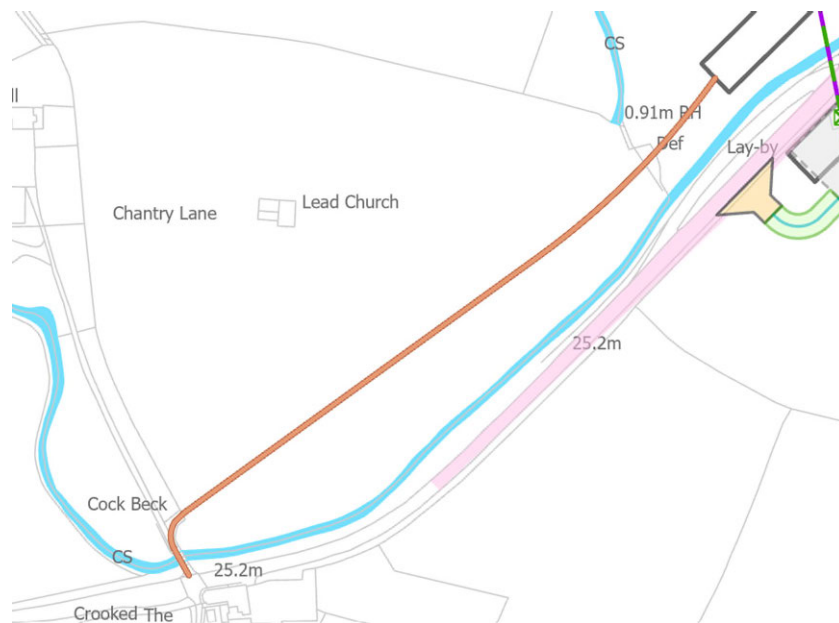
## 1.3 Alternative Access Arrangements (Option 2)

1.3.1 To avoid the need for crossing the WFD watercourse with a clear span bridge and temporary groundworks at the gateway, an alternative access is requested further west along Wakefield Lane (Figure 1.8).

1.3.2 This alternative access proposal would be preferable from an engineering and environmental standpoint for the following reasons:

- Significantly less engineering works, including avoiding the need to install a clear span bridge over Cock Beck. Access could be achieved using the existing bridge, and crossing the ground using track matting;
- Potential for less traffic management as not accessing from a main road;
- Less overall traffic movements;
- Avoid ecological impacts associated with the construction of a clear span bridge and potential impacts on a WFD river.

Figure 1.8 – Proposed alternative access from the west, using an existing bridge over Cock Beck, and through the field associated with Lead Church.



1.3.3 This western access would make use of an existing bridge crossing the WFD watercourse (Figure 1.9). Beyond this, a gate is present which facilitates access into the field associated with Lead Church (Figure 1.10). Within the field, a small fence would need a temporary opening installing to allow vehicle access through to the scaffold position to the east (Figure 1.11), which would be replaced following construction work.

1.3.4 This access would pass through an area designated as a scheduled monument (NHLE List Entry: 1020326 Medieval manorial complex, garden and water management features, St Mary's chapel, and a linear earthwork forming part of the Aberford Dyke system). It is of significance primarily for the potential of the archaeological remains contained within the designated area to inform understanding of the past use of the site particularly for the considerable time-depth of these remains which allow for an understanding of the changing nature of the occupation of this area.

- 1.3.5 Scheduling is a statutory designation under the Ancient Monuments and Archaeological Areas Act 1979. As a protected site, any unauthorised works within the designated area could constitute a criminal offence. The 1979 Act sets out a process for Scheduled Monument Consent (SMC) for such works. Where works requiring consent are carried out as part of a Development Consent Order, SMC would be deemed to have been granted by the DCO, and any harm to the scheduled monument would be considered in line with the provisions of NPS in determining the DCO application.
- 1.3.6 Works required within the scheduled monument would be confined to access through the scheduled area, including dismantling and reinstating a section of the fence to the north-eastern boundary of the field. All works to overhead line infrastructure would be located outside the scheduled area
- 1.3.7 In this instance, protective measures can be put in place to avoid disturbance of the scheduled monument. These measures are set out in more detail; at Section 3 below.

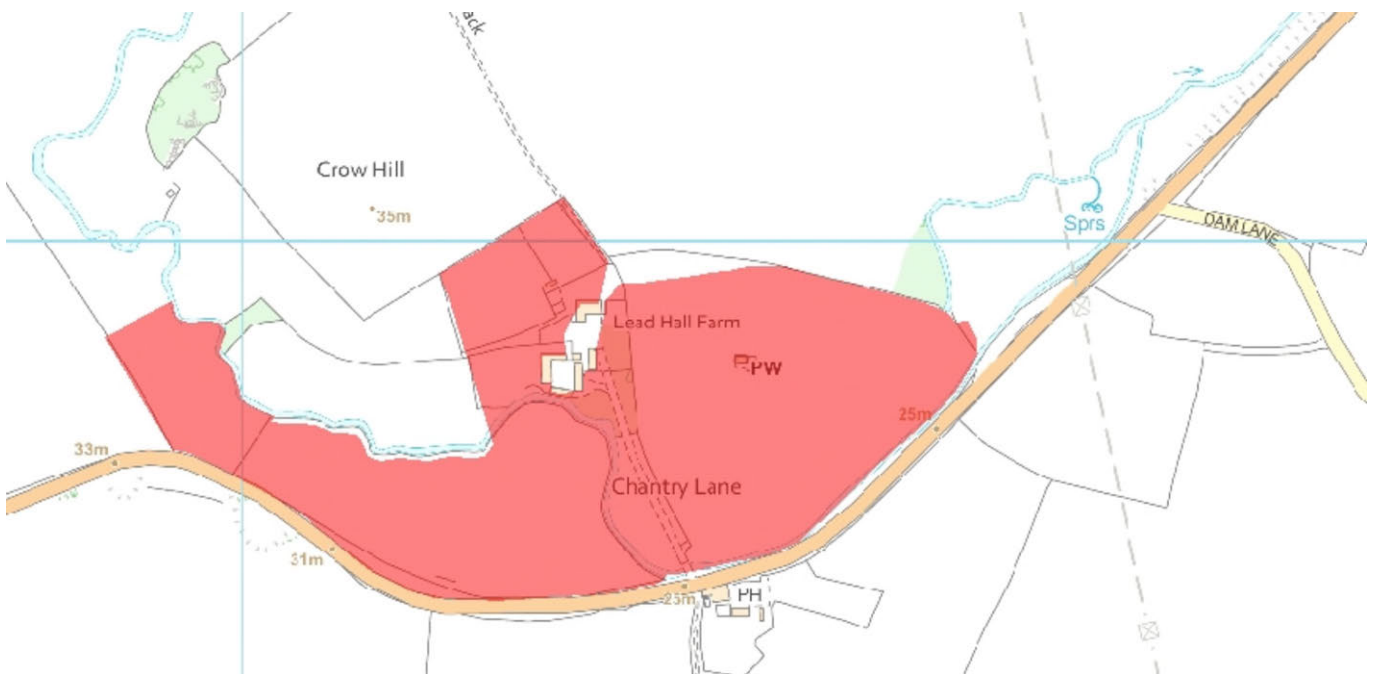


Figure 1.9 – Existing bridge from Wakefield Lane over Cock Beck.



Figure 1.10 – Access through the field serving Lead Church.



Figure 1.11 – Small fence line to be temporarily removed.



# 2. Construction & Vehicle Logistics

# Construction & Vehicle Logistics

## 2.1 Indicative Construction Programme

- 2.1.1 The current dates and durations assumed for the reconductoring of this section of the existing XC 275kV Overhead Line are between May and October 2025, although works are no constant though these months and will happen in stages.
- 2.1.2 It is anticipated that the scaffolding, covering both circuits will be erected in April/ May 2025. As the programme is currently indicative, it is assumed that the scaffolding could remain erected throughout the entire Outages periods (May to October 2025) and then dismantled during October/ November 2025.

## 2.2 Estimated Vehicle Movements – Original Access (Option 1)

- 2.2.1 The following estimations have been made for the anticipated vehicle movements required to prepare, erect and remove the scaffolding.
- In the months prior to construction, initial surveys will be required in the region for the proposed scaffold works. This will include site surveys to assess the temporary bridge installation works, access upgrades, scaffold installation, interlocking panel requirements, fencing and ecological assessments/surveys. These site surveys and assessments will be carried out on foot with vehicles parked in safe designated areas.
  - The current access is at a lower level than the road and will require levelling/grading. Construction and reinstatement of the works will likely require approximately 6 movements.
  - Vegetation management for trimming the trees that will be in proximity to the scaffold structure & netting. Approx. 10 movements.
  - Installation of interlocking track matting/panels. Assuming that panels will be installed / removed and re-installed prior to scaffold dismantling. Approx. 16 movements.
  - Installation of the temporary bridge over Cock Beck, brought to site by a crane lorry. Approx. 6 movements.
  - Scaffold erection. Approx. 18 movements.
  - Installation of netting between scaffold structures (likely overnight). Approx. 4 movements.
  - Regular foot inspections of the scaffolding. Approx. 40 movements.
  - Scaffold dismantling. Approx. 22 movements.
  - Removal of the temporary bridge. Approx. 6 movements.

## 2.3 Estimated Vehicle Movements – Alternative Option (Option 2)

2.3.1 The following estimations have been made for the anticipated vehicle movements required to prepare, erect and remove the scaffolding. The movements include trips in and out of site. All movements are assumed to be through the scheduled monument, and type of vehicles estimated. Track matting is proposed to be laid to avoid damaging / rutting of the ground.

- In the months prior to construction, initial surveys will be required in the region, initiating with a bridge capacity inspection to determine the vehicle types able to access site. Offloading can be done in the layby and smaller vehicles used to site if the bridge has a restrictive weight limit. This is followed by site surveys for scaffolding, trackway, fencing and ecological assessments/surveys. These site surveys and assessments will be carried out on foot with vehicles parked in safe designated areas.
- Fencing & gateway management to temporarily remove the barbed wire fence and potentially install a gate. Approx. 4 movements of 4 x 4
- Vegetation management for trimming the trees that will be in proximity to the scaffold structures and netting. Approx. 10 movements of 4 x 4
- Potential installation of interlocking track matting/panels. Assuming that panels will be installed / removed and re-installed prior to scaffold dismantling. Approx. 40 movements of low loader, telehandler and 4 x 4
- Scaffold erection. Approx. 18 movements of telehandler
- Installation of netting between scaffold structures (likely overnight). Approx. 4 movements on foot and potentially telehandler
- Regular foot inspections of the scaffolding. Approx. 40 movements on foot
- Scaffold dismantling. Approx. 22 movements of low loader, telehandler and 4 x 4.

## 2.4 Mitigation

2.4.1 In order to reduce and minimise the impact on the scheduled monument, the number of vehicle movements has sought to be kept to a minimum. This includes reducing the amount of vehicle movements, and undertaking inspections, and as much of the work on foot as possible.

2.4.2 It is not feasible to undertake all of the works on foot, so to avoid rutting and damaging the ground it is proposed that track matting will be installed from the gateway from the public highway, through to the scaffold position. This will protect the ground as vehicles traverse to the scaffold location. The duration of these works will also be kept to a minimum.

2.4.3 Briefings will be given to the contractors undertaking the works highlighting the importance of the scheduled monument, and that vehicle movements through the scheduled monument will be kept to an absolute minimum to avoid damage.



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