FECKENHAM GREENER GRID PARK

TRANSPORT NOTE

JULY 2021

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1 INTRODUCTION

This Transport Note ('TN') has been prepared to accompany the planning application (reference 21/00195/FUL) submitted to Redditch Borough Council ('the Council/RBC') by Statkraft UK LTD ('the Applicant') for the installation of a Greener Grid Park to support the National Grid ('the Development'), on land south of Astwood Lane, ('the Site') immediately to the east of Feckenham National Grid Substation ('the Substation').

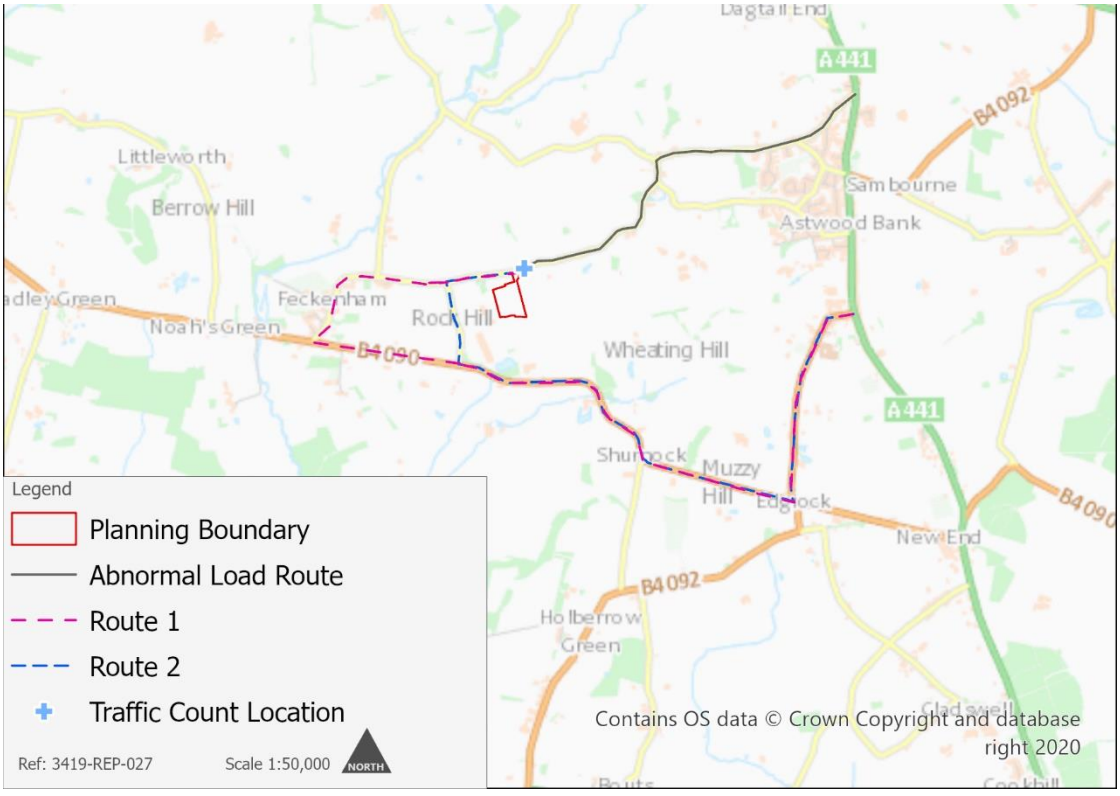
This TN has been prepared in order to provide further information to the public on the anticipated transport characteristics of the Development, in particular the anticipated effects of increased traffic during construction of the Development.

2 ROUTE TO SITE FOR CONSTRUCTION TRAFFIC

Following consultation with the Highway Authority, it has been recommended that HGV deliveries approach the site through Feckenham via the A414 and Salt Way (Route 1). This route has been selected by the Highway Authority as it is the most suitable for HGV traffic in terms of its geometry. The developer's preferred route to site for general construction traffic is via the A414 / Salt Way and Rockhill Lane (Route 2), avoiding the village of Feckenham. However this route will require upgrades and post development remedial works on Rockhill Lane in order to make it suitable for HGVs. The developer would be willing to enter into an agreement with the Council to agree on the scope of works required.

Abnormal Load Vehicles (ALVs) will be required to travel through Astwood Bank via Church Road and Astwood Lane. Car and light goods vehicle (LGV) access for staff and construction personnel will not be limited to a particular route. Figure 1 below indicates the routes to and from site for general construction traffic and the route to and from site for Abnormal Load Vehicles (ALVs).

Figure 1 – Route to Site Plan



The final agreed delivery route to Site, including any required mitigation, will be agreed with the Highways Authority prior to construction. The requirement of this would be secured through an appropriately worded pre-commencement Construction Traffic Management Plan condition attached to any consent for the Development.

3 MITIGATION MEASURES DURING CONSTRUCTION

The following mitigation measures will be adopted throughout construction in order to minimise impact on residential communities:

- All delivery drivers will be informed of the route to site for HGVs. Compliance with this route will be monitored by the Principal Contractor throughout construction;
- The Principal Contractor will install appropriate temporary directional signage on the route to site to reinforce use of the correct route; and
- A Construction Environmental Management Plan (CEMP) will be secured via planning condition, as requested by the Highways Authority.

4 ANTICIPATED HIGHWAYS IMPACT

4.1 Construction Programme

Construction is expected to take up to 18 months with peak periods expected in months 1-3 and 8- 9. During the peak period of construction, approximately 58 two-way HGV vehicle movements per day are expected to occur, with additional car or van movements expected from staff. Up to 20 staff are expected on site during the peak phase of construction, which would result in an additional 40 two-way car or LGV movements per day, although staff will be encouraged to car share so this figure is likely to be considerably reduced. Therefore, a maximum of 98 two-way vehicle movements per day can be expected during the peak phase of construction.

During the other phases of construction, the intensity of vehicle deliveries and the number of staff present on site will be much less than stated above. The above vehicle estimate therefore represents a worst case scenario.

In addition to the above vehicle movements a small number of ALV deliveries will be required during the construction phase. All ALVs will be transported by escort vehicles and temporary road closures would be in place during ALV movements. An Abnormal Load Route Assessment will be undertaken for the anticipated ALV prior to delivery. ALVs are required to approach the site from the east via the ALV route due to constraints on the General Traffic Route.

4.2 Traffic Increase Estimate

Baseline traffic flow levels on Astwood Lane were established via an Automatic Traffic Count (ATC) undertaken in June 2020, this indicated that the Average Daily Traffic (ADT) was 1,537 vehicles per day which included an average of 161 HGVs. Figure 1 above indicates the approximate location of this traffic count.

Table 1 below compares the existing traffic level at the traffic count location and the predicted peak month traffic.

Table 1 - Estimated Peak Period Traffic Increase

	Baseline		**Peak Month**		**Percentage Increase**	
Reference	**ADT**	**HGV AADT**	**ADT**	**HGV ADT**	**Total**	**HGV**
Astwood Lane (Feckenham)	1,537	161	1,635	219	6%	36%

As shown in Table 1, the estimated increase in overall traffic during the peak period of construction is 6% with a corresponding 36% increase in HGV traffic. It should be noted that the high percentage increase in HGV traffic is as a result of the low baseline HGV traffic flow of only 161 vehicles per day and the magnitude of the predicted increase is low in absolute terms (58 vehicle movements per day). Additionally, the predicted increase is temporary and would cease following completion of the short-term construction of the Development. Therefore, the increase in traffic generation due to construction traffic is negligible and not significant.

5 ACCESS JUNCTION DESIGN

An automatic traffic count was undertaken in June 2020 on Astwood Lane at the location indicated on Figure 1. This established that the 85th percentile speeds were 47.7 mph (approximately 77 kph) and 45.9 mph (approximately 74 kph) in the eastbound and westbound directions respectively. Referring to Table 2.10 of the Design Manual for Roads and Bridges (DMRB) CD109[1] a 77 kph design speed was selected, interpolating between 70 kph and 85 kph values it was determined that a stopping sight distance of 140 m would be sufficient for the junction.

Due to the presence of ecologically significant trees within 4.5 m setback visibility envelope, and referring to DMRB CD123[2], it was determined that a 2.4 m setback distance could be used. Therefore, a splay of 2.4 m x 140 m will be provided on either side of the proposed site entrance junction and this would result in only minor cutting back of tree branches and low vegetation. The entrance junction is therefore in compliance with CD123 and CD109.

Appendix **A** contains the associated visibility splay drawing indicating the layout of the junction and splay.

[1] Department for Transport - Design Manual for Roads and Bridges - CD109 Highway Link Design: https://standardsforhighways.co.uk/dmrb/search/c27c55b7-2dfc-4597-923a-4d1b4bd6c9fa [Accessed 15/04/2021]

[2] Department for Transport - Design Manual for Roads and Bridges - CD123 Geometric Design of at Grade Priority and Signal-Controlled Junctions: https://standardsforhighways.co.uk/dmrb/search/5770900b-eadc-4adf-b4e0-a80ceb08b839 [accessed 15/04/21]

APPENDIX A – VISIBILITY SPLAY ASSESSMENT

Plot Date : 03 February 2021 15:53:12
File Name P:\PROJECTS\3419 FECKENHAM, REDDITCH\CAD\01-WORKING\01_01-DRAWINGS\3419-DR-P-0004-P1

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Client: Statkraft		Designed:	Drawn: GR
		Checked: KL	Approved: TAT
		Arcus Internal Project No.: 3419	Date: 08/01/2021
		Scale @ A3: 1:1000	

Drawing Number	Rev
3419-DR-P-0004	1

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