

TOWN AND COUNTRY PLANNING ACT**HIGHWAY REPORT ON PROPOSALS FOR DEVELOPMENT**

DISTRICT:	Newark	Date received	24/10/2023
OFFICER:	Amy Davies		
PROPOSAL:	Proposed ground mounted photo voltaic solar farm and battery energy storage system with associated equipment, infrastructure, grid connection and ancillary work.	D.C. No.	N/23/01837/FULM
LOCATION:	Land To The West Of Main Street Kelham		
APPLICANT:	Assured Asset Solar 2 Ltd - Mr Innes		

The highway authority's initial observations on this application were submitted on 31/10/23. The applicant has submitted further information to seek to address the 31/10/23 observations in the form of a technical note (TN; reference 153626-005-03) and an updated stage one road safety audit brief. These observations summarise issues which arise and which remain to be addressed.

It is also noted that Nottinghamshire Fire and Rescue Service (NFRS) have responded to consultation and National Highways (NH) have submitted further observations.

Site Access Geometry

The applicant no longer proposes a temporary speed limit on the A617 during the construction period and has now revised the site access proposal to show a scheme which seeks to comply with design standards for the existing 50mph speed limit on the A617. This is an acceptable approach.

The TN states that the site access is assessed using swept paths for an 18.5m long articulated heavy goods vehicle (HGV). However, drawing number 153626-001 Rev C, in the TN, stills refers to a 16.5m HGV. Clarification is required.

The proposed gate on the access has been located 20m from the edge of carriageway on the A617 to allow HGVs to wait on the access clear of the highway. A 30m distance is recommended to accommodate an abnormal load and escort vehicle. The site access road should be hard-surfaced over at least this distance.

The applicant has confirmed that the proposed development will not require access by abnormal loads but that, if the need does arise, this would be notified to the highway authorities. This is a matter for inclusion in the construction traffic management plan (CTMP), which should set out the process for managing access by abnormal loads.

The TN states that the field access further to the north of the proposed site access on to A617 falls outside the planning application red line boundary and cannot be affected by the development proposals. However, that field access currently serves the

application site and becomes redundant if the site is developed. Its retention would be confusing to drivers as it would suggest a low-key access to the site, particularly as the site layout shows an internal perimeter road access junction located just to the west of the existing field access. The highway authority therefore recommends that the northern field access onto the A617 should be stopped up, with hedgerow planted along the highway boundary and the existing dropped kerb replaced with a full height kerb.

The applicant states that unrestricted access to the site will not be available from Broadgate Lane and that measures will be implemented to control access at this location. Prevention of site-related traffic, and pedestrians (to prevent on-street parking in the vicinity of such accesses), from using such accesses would need to be addressed by planning condition. This should also be a matter for the CTMP.

Site Access Visibility

The applicant proposes visibility splays of 2.4m x 160m along the A617 on both sides of the site access. Such splays are acceptable within a 50mph speed limit. They would need to be maintained for the life of the development. Hedgerows within 1m of the splays will need to be removed and replanted or, where outside 1m of the splay line, will need to be trimmed back 1m clear of the splay line to allow for future growth.

Provision and maintenance of the 2.4m x 160m visibility splays would be controlled by planning condition.

With the above splays, the current site access proposal (shown in the TN on drawing number 153626-001 Rev C) would be acceptable in-principle (subject to clarification in relation to the length of the HGV used in the swept path analyses, as referred to above).

Visibility splays shown on the topographical survey base may not be achievable in practice as the survey will not accurately show the width/height of the hedgerow along its length. The visibility splays (shown in the TN on drawing number 153626-002 Rev C and on Sirius drawing number HC1002/05/29 R0) are likely to underestimate the impact on the existing hedgerows. The impact of splays on the A617 hedgerows will need to be more accurately determined.

Note that the splays shown on the Sirius drawing number HC1002/05/29 R0 are not centred on the proposed site access and are not therefore accurate in any event.

Traffic Impact – Highway Capacity

The applicant has not provided sufficient information to allow the highway authority to understand the bases for the construction traffic generation estimates or the estimated car parking demand associated with construction workers. Further information is required (as also requested by NH) to justify such estimates.

The proposed car parking arrangements are not therefore accepted at this stage.

The applicant should provide details of the calculation of development traffic so that the estimates can be checked. The applicant should also provide estimates of construction staff numbers, which may vary during the construction programme, their associated traffic movements, and car parking demand. Only once such information is available will it be possible to fully assess the likely impact of the proposed development on highway capacity.

Traffic Impact – Road Safety

The applicant has undertaken swept path analyses of 18.5m articulated HGVs using the A617 at Kelham Bridge. These rely on the use of Ordnance Survey base mapping and are therefore likely to be inaccurate. However, as stated in the TN, it is not possible for two 18.5m HGVs to pass each other on the bends at Kelham Bridge. Although such conflicts may be infrequent, this is of concern to the highway authority for both highway safety and capacity reasons.

The applicant should come forward with proposals, in the draft CTMP (see later), to ensure that two-way conflicts between site-related HGVs can be avoided at Kelham Bridge.

The swept path analysis also shows that cars cannot pass 18.5m long HGVs at the bend to the east of Kelham Bridge. Maintenance of two-way movements would rely on drivers being able to see approaching HGVs above the bridge parapet and then waiting on the A617 to allow the HGV to pass. The applicant states that car drivers can see HGVs above the parapet over a distance of 43m. This is the visibility distance set out in the Nottinghamshire Highway Design Guide (HDG) for a 28mph 85th percentile speed. However, the classified A617 falls outside the scope of the HDG and the 43m distance is well below that specified in the Design Manual for Roads and Bridges (DMRB; Design Standard CD109) for a 30mph speed limit.

Visibility above the bridge parapet cannot be relied on, especially during the dark and in inclement weather conditions. It is also obstructed by vegetation, some of which lies outside the highway boundary.

Notwithstanding the existing signs warning drivers of vehicles using the middle of the road over Kelham Bridge, the proposed development would intensify such manoeuvres and the resulting adverse effect of site-related HGVs on free-flow and safety over Kelham Bridge is of concern to the highway authority, especially if such obstruction were to occur during peak periods.

The applicant should therefore come forward with proposals to ensure that site-related HGVs do not pass over Kelham Bridge during peak periods or during dark conditions and to improve visibility over the bridge parapet by removal/trimming of vegetation. These are, again, matters for the CTMP.

The applicant argues that the existing proportion of HGVs (OGV2 category) of circa 2% gives rise to no road safety issue at Kelham Bridge. However, the OGV2 proportion includes non-articulated HGVs and does not therefore fully represent the articulated HGVs which are anticipated to serve the proposed development.

It is also noted that there are several planning applications for solar projects which will give rise to traffic impacts on this section of the A617. Taken together, they could exacerbate adverse impacts at Kelham Bridge (and elsewhere). The CTMP should consider how the proposed development programme (which may also be linked to proposals for the improvement of the A46 Newark Bypass, as referred to by NH) might avoid such cumulative impacts.

The applicant has provided “Crashmap” accident data for the period 2018 to 2022. Such data spans periods of lockdown and is a year out of date.

The TN (Figure 3) shows an accident study area which is restricted to a length of the A617 between the bend to the west of Kelham village and south to the bend to the north-west of Averham. This area excludes Kelham Bridge and the bend to the south-east of Kelham Bridge.

The TS originally submitted with the planning application included an incident plot which illustrated more incidents than those referred to in the TN. Two incidents occurred at the same location i.e. one of the bends to the east of Kelham. Both involved vehicles travelling in opposite directions.

The applicant should obtain data for the most recent five-year period from the highway authority’s agent, VIA East Midlands, for a wider study area, to include Kelham Bridge and the bend to the south-east of the Bridge, and present an analysis of that.

Parking

As stated earlier, the estimated car parking demand associated with construction operatives is not accepted due to a lack of justification.

Public Rights of Way (PRoW)

The applicant states that public rights of way through the site will be maintained and protected during construction and operation of the proposed development. The TN states that vehicular access will be prevented “across the footpaths in question”. This cannot be achieved in practice since construction will take place on both sides of the footpaths and access will therefore be required across them. In fact, the TN concedes this by going on to state that a banksman will be provided to control the point at which vehicles will need to cross the PRoW.

Such management measures are again a matter for the CTMP.

No consultation response has yet been submitted to this application from the highway authority’s rights of way officer. The local planning authority should ensure that such consultation takes place to determine the rights of way officer’s requirements.

Stage One Road Safety Audit Brief

The highway authority has not considered the updated road safety audit brief at this stage. It will need to be updated to reflect any further changes to the applicant's highway assessment work in due course. The audit would be required as part of the highway design process once the preliminary design of the applicant's highway works has been approved. This would be after the planning application has been determined, should planning permission be granted.

On-Site Access

The TN demonstrates how HGVs can access the internal site access routes to reach the set down area and the perimeter access road. Details of such facilities, confirming adequate paved space for HGVs to turn to enter and leave the site in forward gear would be required and should be addressed by means of planning condition.

Emergency Access - Nottinghamshire Fire and Rescue Service (NFRS)

NFRS have indicated that they require two genuinely independent accesses to the site and that swept path analyses are required to demonstrate that fire appliances can easily access all the site.

The applicant will need to address the above issues. The highway authority will be particularly interested in proposals for a second means of access and its ability to safely accommodate only emergency vehicles. Such a scheme will have to satisfy the highway authority's requirements as well as NFRS.

The applicant should address NFRS's requirements and submit details for assessment.

Construction Traffic Management Plan (CTMP)

The applicant suggests that a CTMP should be conditioned for future submission. Having regard to the above issues, the highway authority considers that the applicant should provide a draft CTMP at this stage to include proposals which explicitly address, amongst other matters, the concerns relating to HGV impacts on free flow and safety on the A617, clearly setting out how the impact of construction traffic on the surrounding highway network will be managed and the impacts on safety and free flow minimised/mitigated.

Highway Condition Survey (HCS)

The applicant states that a HCS is not commensurate with the level of traffic generation associated with construction of the proposed development. The highway authority disagrees, given the high proportion of HGV traffic and that construction traffic flows will be relatively intense over the construction period, and notes that such an approach has been taken for similar solar projects elsewhere in the County.

Note that the TS submitted with the planning application suggested that approximately 790 deliveries will take place in the first six months of construction, constituting 1,580 individual HGV movements. The highest number of deliveries is expected to take place in the first month (225 deliveries). The TS equated this to approximately five HGV

deliveries per day (10 vehicle movements), based on a six-day working week. HGVs can, of course, have a disproportionate effect on highway condition.

The highway authority will therefore recommend a planning condition requiring a HCS.

Traffic Impact – Construction Phase

The TN provides further information on construction traffic routing. This should be included in the draft CTMP.

As stated earlier, further information is required to confirm the bases for estimation of construction traffic flows. This should also consider their impacts on specific routes.

National Highways (NH)

NH have requested clarification on routing of construction traffic, further explanation how the construction traffic estimates have been determined, and further information on how construction staff will be transported to/from the site. The applicant should address these issues. The local highway authority also has an interest in considering such information.

NH state that a construction traffic management plan (CTMP) should be submitted which clearly sets out how the impact of construction traffic on the surrounding highway network will be managed and minimised. The local highway authority concurs with this view.

Planning Conditions

Planning conditions will be needed to address highway matters. However, having regard to the above issues, the highway authority is not able to recommend conditions at this stage.

Summary

Having regard to the above observations, the highway authority maintains its objection to the proposed development on highway safety grounds. The applicant's analysis of the impact of HGVs at Kelham Bridge also give rise to concerns in relation to adverse impacts on the free flow of traffic on the classified A617.

The highway authority will consider this stance should further information be submitted by the applicant which satisfactorily addresses the above issues.

SD; NCC HDC; 15/2/24.