



APPENDIX 6

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Response to Environmental Statement
in relation to
Berden Hall Solar Farm
(Pelham Solar)

PINS Reference: S62A/22/0006

Section 62A Planning Application:
S62A/22/0006 Berden Hall Farm,
Ginns Road, Berden:

Further Representation on Transport
and Highways Matters on behalf of
Local Residents

Railton TPC Ltd

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Newbury
Berkshire RG14 7NJ



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1 INTRODUCTION

- 1.1 Railton TPC Ltd was previously instructed by local residents to make a representation dealing with transport and highways matters in relation to a planning application for a ground mounted solar farm with a generation capacity of up to 49.99MW, together with associated infrastructure and landscaping at Berden Hall Farm, Ginns Road, Berden. This representation was submitted to the Planning Inspectorate (PINS) in September 2022. Since then, additional information has been submitted by the applicant, specifically a revised Construction Traffic Management Plan (CTMP) (Rev. 2, unattributed and undated) that proposes a change in the route to be taken by construction traffic and an Environmental Statement (RPS, November 2022) although the latter contains no additional assessment of highways and transportation matters. The change in access route raises new issues in relation to impact on the local highway network and the local community. This Further Representation considers the issues raised by the revised construction route but also sets out those concerns that were raised in the previous Railton report but have elicited no additional information from the applicant and therefore remain issues that suggest that the level of transport and highways impact will be greater than currently assessed and that the proposed mitigation is inadequate.
- 1.2 The author of this report is Bruce Bamber, Director of Railton TPC Ltd. who has over 30 years of experience working within the transport planning industry for both private and public sector clients. He has dealt with the transport and access arrangements for development schemes comprising all land use types and at all scales. He has been involved with numerous local and strategic transport studies and modelling exercises. He has given evidence at many informal hearings and public inquiries, participated in Local Plan Inquiries and at a DCO Hearing. He is a Chartered Member of the Institution of Highways and Transportation and has a Masters Degree in Transport from Imperial College.
- 1.3 There have been a number of planning applications made in the local area over recent years for developments that would fall within the Schedule 2 category of '*Industrial installations for the production of electricity, steam and hot water*' as set out in the 2017 Environmental Impact Assessment Regulations. Local residents have not only been concerned about the failure to properly assess the transport and highways impacts of construction traffic associated with each proposed development but also about the potential **cumulative** impact of developments (see **Section 5** below).

- 1.4 Railton TPC Ltd has previously reviewed transport submissions associated with a number of the proposed local developments. The author is therefore familiar with the sensitivities of the local transport networks.
- 1.5 Uttlesford District Council (UDC) Planning Authority is currently in 'Special Measures' and the above planning application is being considered by the Planning Inspectorate under Section 62A of the Town and Country Planning Act (1990).
- 1.6 The information submitted by the Applicant that informs this representation is available on the GOV.UK website. The key transport documents are the Access Technical Note (Miles White Transport (MWT), 17 December 2021), the Environmental Statement (RPS, November 2022) and, as described above, the Construction Traffic Management Plan (CTMP) (Rev. 2, unattributed and undated).
- 1.7 The following sections provide details of the following errors and omissions in the transport supporting information:
 - Section 2: Errors in EIA Screening Process
 - Section 3: Failure to Provide Trip Generation Data
 - Section 4: Other Omissions from CTMP
 - Section 5: Failure to Consider Cumulative Impact
- 1.8 A summary and conclusion is provided in **Section 6**.

2 INADEQUATE ASSESSMENT OF TRANSPORT IMPACT

Failure to Assess Impact on Public Rights of Way

- 2.1 Under the 'Transport and Access' section of the EIA Screening Matrix (Question 9.1) submitted to Uttlesford, the answer 'No' is given to the question, '*Are there any routes on or around the location which are used by the public for access to recreation or other facilities, which could be affected by the project?*'. Despite this answer, the explanation states, '*There is a substantial network of public footpaths in the area and several pass through the site. The proposed development will not result in the closure of any public rights of way, and they will be kept open during construction.*'
- 2.2 The development will clearly affect those using public rights of way and the answer to the screening question should have been 'Yes'. The screening assessment is therefore deficient.
- 2.3 Despite the explanatory text that does acknowledge impact on rights of way, no information has been provided by the Applicant to either assess the current use of the rights of way or to provide details of how the rights of way could be kept open during construction without endangering the public.

Failure to Assess Sensitivity of Construction Route

- 2.4 Question 9.2 of the Screening Matrix asks, '*Are there any transport routes on or around the location which are susceptible to congestion or which cause environmental problems, which could be affected by the project?*'. The answer 'No' is given with the explanation, '*The main highways routes surrounding the site are not susceptible to any existing congestion*'. No comment is made with regard to '*or which cause environmental problems...*'. However, it is clear, even from the cursory review of the local highway network set out in the CTMP that the route that is proposed to be used by HGVs passes through a number of villages including Hazel End, Manuden and Berden.
- 2.5 The proposed route to the site from the A120 is of varying standard with some sections around 4.0m in width, insufficient to allow an HGV to pass a car and sufficient only to allow two cars to pass at very low speeds. An HGV passing a cyclist on one of these narrow sections of carriageway would be hazardous. Particularly narrow sections are present at Hazel End, and approximately 2km north of Manuden although there are long

sections of highway with no central white lines suggesting widths insufficient to allow two light vehicles to pass except at low speeds. There is frequent evidence of cars over-running verges and embankments along narrow sections of carriageway:

Photo 1: Section of narrow carriageway looking north (2km north of Manuden) showing clear signs of vehicles over-running embankments



- 2.6 The images of the construction route included within the CTMP, that all appear to have been derived from Google Maps rather than from a site visit, scrupulously avoid the most constrained and sensitive sections of carriageway and therefore give an unreasonably optimistic view of the standard of the route. Notwithstanding the bias inherent in the selection of route images, neither the Environmental Statement nor the CTMP provide any commentary on the standard or suitability of the route or the locations where there is the potential for adverse impact.
- 2.7 The route is used by equestrians as evidenced by warning signs. Any significant increase in vehicle flows, particularly HGVs will have an adverse safety impact on equestrians. Neither the CTMP nor the Environmental Statement provide any assessment of the potential impact of construction traffic on equestrians.
- 2.8 Manuden is particularly sensitive to changes in traffic flows. The road through the village is narrow in places and frequent on-street parking reduces the effective width available for vehicles to pass. Footways are narrow or absent in places and vehicles are observed to be obstructing footways in places in order to maintain sufficient space for passing vehicles:

Photo 2: The Street in Manuden looking North showing vehicles parked on Footways



- 2.9 Forward visibility is constrained by tight corners and buildings close to the highway edge. Many properties' front doors open directly onto narrow footways and are thus very close to the highway edge. Neither the CTMP nor the Environmental Statement undertake any assessment of the potential impact of construction traffic on those living in and moving around Manuden.
- 2.10 A primary school is located adjacent to The Street in Manuden. There are significant numbers of primary school aged pupils walking through the village, crossing the road and using narrow footways at school opening and closing times. Parents' cars line the road for some distance either side of the school during drop-off and pick-up periods. The primary school represents a very sensitive receptor in transport environmental impact terms yet there has been absolutely no assessment made of the potential adverse impact of construction traffic on the school and pupils in either the CTMP or the Environmental Statement. The school's presence is not even acknowledged in any of the transport supporting information.
- 2.11 The CTMP that has been submitted in support of the Pelham Spring Solar Farm development¹ (App. Ref. UTT/21/3356) that lies to the south of the Berden Hall Farm site states:
- 'The routes identified [...] will ensure that construction vehicles associated with the site will not pass through Manuden and Berden villages and are kept on motorway or 'A' and 'B' roads as far as possible. This is preferable because Manuden Primary School is located immediately adjacent to 'The Street', which would form part of the construction route if vehicles were to be routed via Manuden'* (Pelham Spring CTMP, para. 4.3).

1 CTMP, Pelham Spring Solar Farm, Pegasus Group, Sept.2021

2.12 The high sensitivity of Manuden to construction traffic was therefore clear to the promoters of the Pelham Spring development and significant effort has been made to ensure that no construction traffic passes the school. This is further evidence that the Berden Hall Farm proposals are likely to lead to an unacceptable impact on Manuden.

2.13 In Berden, the Village Hall is located adjacent to the construction route. The only pedestrian route to and from the Village Hall for the vast majority of local residents is along a 75m section of carriageway of Ginns Road east of the junction of The Street with Ginns Road.

Photo 3: Village Hall in Berden looking west showing section of narrow carriageway with no footways and tight bend



2.14 This road is proposed to be used by all heavy vehicles accessing the site. The Village Hall is used during the day for meetings of the home schooling group and accompanied children walk between the Village Hall and the recreation ground to the west. The section of carriageway is particularly hazardous for pedestrians since there are no footways and no verges, there is a crest in the road to the east that limits forward visibility for drivers approaching from this direction:

Photo 4: Section of narrow carriageway between Village Hall (just visible on left) and village showing blind crest



2.15 There is also a tight bend at the western end of this section of highway that severely limits visibility:

Photo 4: Tight bend in centre of Berden looking east



2.16 Drivers approaching the narrow section of carriageway with no footways that provides access to the Village Hall from both directions are therefore subject to sub-standard forward visibility that puts vulnerable highway users at risk. This is a highly sensitive location subject to great potential highway risk yet the applicant has failed to even acknowledge its existence.

Absence of Transport Statement

- 2.17 Notwithstanding the failure to properly consider the potential for adverse transport environmental impact during construction, the Applicant has failed to provide the required Transport Statement. This would at least have included an assessment of the ability of the surrounding highway network to safely accommodate construction traffic and an assessment of the potential for conflict between construction vehicles and vulnerable highway users. In relation to the previous proposed construction route, transport impact was glossed over with a single sentence in the Access Technical Note that stated, '*Ginns Road and the surrounding local highway network are of a reasonable standard and provide good quality links to the strategic highway network serving the local area*' (Access Technical Note, para. 3.5). In relation to the evidence that the applicant submitted previously, this statement could not be justified and was indicative of the deficiency of the overall approach adopted by the Applicant in relation to transport and highways matters. Now that a different access route is proposed, even the deficient statement in the previous Technical Note is irrelevant and no further work has been undertaken to assess the acceptability of the new route.

Absence of Highway Safety Assessment

- 2.18 There has been no assessment of highway safety along the proposed construction access route. A review of the Crashmap website reveals twelve personal injury road traffic accidents (PIAs) along the route between the site and the A120 over the past five years. Three of these are recorded within Manuden village and three on the section of road to the north of the village. This information provides further evidence that the route may not be suitable for use by significant numbers of construction vehicles. The Applicant needs to undertake a proper assessment of highway safety along the route and if necessary, identify measures to mitigate potential adverse highway safety impacts, particularly in sensitive locations and areas with high concentrations of vulnerable highway users.

3 FAILURE TO PROVIDE TRIP GENERATION DATA

- 3.1 The CTMP states, *'The total number of HGVs is estimated to be 350, over the 6-month construction period this averages at 2.2 HGVs per day (over a 6-day week), however this is likely to be higher during the enabling and ground works phases and lower during the commissioning period'* (page 3 of CTMP). No information is provided to support the estimate of 350 HGVs. This is a serious omission since it is impossible to assess transport impact without an accurate and reliable estimate of trip generation.
- 3.2 The proposals include a number of works, items of infrastructure and components that will generate HGV movements. These will include, but will not be limited to those associated with:
1. import and export of all construction equipment;
 2. removal of 100mm depth of topsoil from all access roads and hardstanding areas;
 3. Import of geotextile membrane underlaying access roads;
 4. import of 200mm depth of aggregate to form access roads;
 5. import of concrete to form hard standing/base slab for substation and connection compound;
 6. import of components for new substation;
 7. import of components of new connection compound;
 8. import and export of elements of construction compound;
 9. Import of 11 spares containers;
 10. import of solar panels and associated infrastructure;
 11. import of fencing (site and substation);
 12. import of planting and landscaping.
- 3.3 It is normal practice to set out a calculation of HGV movements based on a schedule similar to that set out above. No such calculation is provided.
- 3.4 The CTMP submitted in relation to the Pelham Spring Solar Farm provides a calculation of the number of large HGV movements associated with the import of the solar modules and mounting structures based on information supplied by Low Carbon, the Applicant. This element constitutes item 10 in the above list. Low Carbon's website states that the company, *'has an established track record and a growing pipeline of large-scale projects in development'*² It can therefore be assumed that the calculation is based on the practical experience of constructing solar farms. Low Carbon expects that around 15 large articulated vehicles will be required to install every MW of power. Since the

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Berden Hall Farm site will generate 49.99 MW in total, there would be around 750 deliveries associated with solar modules. This figure alone is over twice the **total** HGV generation predicted for the Berden Hall Farm development.

- 3.5 Scrutiny of the proposed site layout reveals the need for at least 2.3km of access roads within the site. It is proposed that 0.1m of topsoil is removed and 0.2m of aggregate imported to form a compacted base. The site plan indicates that the internal tracks have a width of 4.0m. A simple calculation reveals that these works will be associated with the export of 920m³ of topsoil and the import of 1,840m³ of aggregate. Assuming topsoil has a density of 1.4 tonnes/m³, a total of 1,288 tonnes of topsoil would be removed. Assuming aggregate has a density of 2.4tonnes/m³, a total of 4,416 tonnes of aggregate would need to be imported. The overall total weight of material leaving and entering the site would therefore be 5,704 tonnes. The typical capacity of a large tipper truck (8 wheel) is 20 tonnes. The total number of HGVs needed to transport this material would be 285 (5,704 divided by 20). The internal access roads alone (items 2 and 4 in the list above) would therefore account for over 80% of the total number of HGVs currently predicted by the Applicant. There would remain, at very least, the vehicle movements associated with the further 9 items listed above.
- 3.6 On the basis of the above, items 2, 4 and 10 of the 12 items listed above will generate 1,035 HGV movements, almost three times the figure proposed by the Applicant.
- 3.7 Not only does the Applicant fail to provide any calculation of HGV numbers but it appears that the total figure of 350 HGVs represents only a small proportion of the number of HGV movements that would be generated on the local highway network.

4 OTHER OMISSIONS FROM CTMP

- 4.1 It has already been noted that no calculation of HGV trip generation is included in the CTMP. Scrutiny of the information that has been submitted reveals a number of further errors and significant omissions, some of which are described below.
- 4.2 No information is provided to show where the construction compound will be located.
- 4.3 The CTMP does not include the plan of the construction compound. A plan is submitted separately but this does not include any minibus spaces despite the CTMP stating, '*A temporary car parking area (including spaces for minibuses) will be provided on the site within a contractor's compound*' (CTMP, p.3).
- 4.4 The plan showing the construction compound indicates an 'unloading area' although no information is provided to show which areas would be used for the storage of materials and how large vehicles would be able to safely manoeuvre in and out of the compound. The unloading area is shown between staff parking and staff facilities. There appears to have been no attempt to separate operational activities such as loading and unloading from pedestrians movement. Despite this, the CTMP states, '*Site personnel vehicles will be parked in a designated area connected to the Site Welfare Area via a Safe Pedestrian Access/Egress Route*' (CTMP, p.5).
- 4.5 The section entitled, 'Arrangements for Pedestrians' (CTMP, p.19) fails to provide any assessment of the potential impact of the proposals on the public rights of way that cross and border the site or describe how the routes will be kept open during construction without putting members of the public at risk. As described above, there has been no assessment of the existing level of use of these rights of way despite their clear utility for residents in Berden village.
- 4.6 The Introduction of the CTMP states that, '*the [CTMP] covers some of the detail that would be expected within a Transport Statement*' (CTMP, p.2). Given that the document is unattributed, it is not possible to judge whether the author is qualified or sufficiently experienced to prepare a Transport Statement. The Applicant has not submitted a Transport Statement despite this being identified as a requirement by UDC in the Screening Response. The Access Technical Note is limited to details of the access junction and the highway safety record. Like the CTMP, the Access Technical Note fails to provide any details of vehicle trip generation.

5 FAILURE TO CONSIDER CUMULATIVE IMPACT

- 5.1 The UDC Screening Response requires the development *'to be considered in relation to similar applications that are currently being assessed for solar farms by the Local Planning Authority. These include application UTT/21/0688/FUL- Land At, Cole End Farm Lane, Wimbish and application UTT/21/2846/FUL- Chesterford Park, Little Chesterford, Essex'* (Screening Response, p.2). These developments are not referred to by the Applicant in any of the transport supporting information that has been submitted.
- 5.2 There are further planning applications that have been submitted but yet to be determined in the local area that have the potential to generate significant numbers of HGV movements. These include:
- 3/21/0969/FUL(E Herts.): Proposed Battery Energy Storage Site: Land At Greens Farm East End Stocking Pelham Buntingford Hertfordshire SG9 0JU (immediately south-west of the Berden Hall Farm site);
 - 3/22/0806/FUL (E Herts.): Proposed Battery Energy Storage System and associated infrastructure: Land off Crabbs Lane and Pelham Substation Stocking Pelham Herts (immediately west of the Berden Hall Farm site);
 - UTT/21/3356 (Uttlesford): Proposed 49.9MW Solar Photovoltaic Farm with battery storage at Pelham Spring (immediately south of the Berden Hal Farm site).
- 5.3 Submissions made in relation to the first two planning applications on behalf of local residents in July 2022 (Railton TPC Ltd, 15/05/2022) set out calculations that indicated that, in cumulative terms, the transport impact could be around 32 additional HGV movements if the developments came forward simultaneously or 16 additional daily HGV movements if the developments came forward sequentially but with the construction period correspondingly doubled. The Pelham Spring development predicts a similar level of daily HGV trip generation (16 HGV movements per day) and it is likely that the Berden Hall Farm development would add in the region of a further 16 daily HGV movements. If all development came forward simultaneously they would generate around 64 HGV movements per day on the local highway network or if they were to come forward sequentially the total period over which HGVs would be using the network would be quadrupled.

- 5.4 There is clearly strong evidence to show that there is significant potential for adverse cumulative transport impacts arising from the four large developments being proposed for a relatively small area south of Berden.
- 5.5 Not one of the Applicants associated with the above proposed developments have undertaken an assessment of the potential for adverse transport environmental impacts either individually or cumulatively. This is a significant failure and one that needs to be rectified before any serious consideration is given to any of these proposed developments.

6 SUMMARY AND CONCLUSION

- 6.1 Railton TPC Ltd has been instructed by local residents to make a representation dealing with transport and highways matters in relation to a planning application for a ground mounted solar farm with a generation capacity of up to 49.99MW, together with associated infrastructure and landscaping at Berden Hall Farm, Ginns Road, Berden.
- 6.2 Local residents are concerned that the construction of the proposed development may lead to significant adverse transport impacts.
- 6.3 The EIA Screening process failed to acknowledge that the proposed construction route through Hazel End, Manuden and Berden is highly sensitive to increases in HGV movements. The EIA screening process itself is therefore flawed, and as a consequence, there has been no assessment of the sensitivity of the proposed access route or the magnitude of transport environmental impact. In the absence of assessment, it is impossible to assess whether mitigation is necessary, or indeed, whether the proposals are acceptable in transport and highways terms.
- 6.4 The proposed construction access route passes through Manuden, a sensitive village with on-street parking, narrow and absent footways, tight bends with restricted forward visibility and a primary school associated with significant movement of vulnerable highway users during school opening and closing times. The route through Manuden has been deliberately avoided by the promoters of the Pelham Spring development because of the high sensitivity of the primary school. The transport work undertaken in relation to the Berden Hall Farm development does not even acknowledge the existence of the school.
- 6.5 In Berden, the construction route passes the Village Hall that is accessible from the village only by walking along a narrow section of carriageway with no footways or verges with a blind bend at one end and a blind crest at the other. On other parts of the route there are sections so narrow that two light vehicles are able to pass only at very low speeds, tight bends and areas used by equestrians. There have been 12 personal injury accidents along the route between the A120 and the site over the past 5 years. These and other concerns make the route highly sensitive yet the Applicant has entirely failed to present any assessment of impact or even acknowledge the existence of potential impacts.
- 6.6 The EIA screening process has failed to acknowledge the fact that the proposals directly impact on a number of public rights of way. There has therefore been no work

undertaken to demonstrate how the construction works can progress without putting members of the public at risk.

- 6.7 Despite UDC's requirement for a Transport Statement, no such document has been prepared. This, and the errors and omissions in the Access Technical Note and CTMP have contributed towards a failure to undertake proper transport and transport environmental impact assessment.
- 6.8 There has been no clear justification of the assumed level of HGV trip generation during construction. It appears that the assumption that has been adopted is likely to significantly underestimate HGV trip generation. Work undertaken in relation to the Pelham Spring proposals indicate that the HGV numbers predicted for the Berden Hall Farm development constitute a small proportion (likely to be significantly less than one third) of the number required in reality.
- 6.9 The CTMP is lacking in a number of areas apart from the absence of trip generation calculations. Details of the construction compound are either missing or contradictory, details of provision for pedestrians, both on site and using public rights of way is missing and there is no assessment made of the capability of the access route to accommodate construction traffic without unacceptable transport impacts. The CTMP itself is unattributed and undated, calling into question the professional qualifications of the author(s).
- 6.10 Including this proposal, there are four major developments in the relatively small area south of Berden, all of which are likely to generate a similar level of HGVs during construction. There has been no attempt to consider the potential cumulative impact of development despite UDC drawing attention to similar developments in the area and the free availability of information about other planning applications for energy related development in close proximity to the proposed site.
- 6.11 Overall, it is impossible to judge whether the proposed development is acceptable in transport and highways terms owing to the failure to provide critical information and an absence of necessary assessments of highways impact. However, the high sensitivity of both Manuden and Berden to changes in traffic flows, particularly HGV movements, and the narrowness and sensitivity of sections of the construction route, suggest that the proposals may well lead to a significant adverse highway safety impact during construction and that this impact is likely to be further exacerbated by cumulative development.