

Planning Application Ref: 21/03380/FP Solar Farm on Land to the North and East of Great Wymondley, Hertfordshire

Response to Highways Consultations dated 16th December 2021 and 8th June 2021

This Technical Note provides a response and further information in the context of two consultation responses from Hertfordshire County Council Highways Authority to the above application. The Technical Note covers the same headings used in the consultee responses.

Vehicles Access and Visibility

The attached drawing 3004-01-ATRO1 (Rev C) provides the swept path information from the transport statement and dimensions for the preliminary geometry of the proposed access points. The access to the northern parcel of land has been designed with a width of 6.43m and associated kerbs of 8m radii. Access to the southern parcel of land has been designed with a width of 6.00m and associated kerbs of 8m radii. The initial 16m of each entrance would be surfaced with a bound metalled surface to a specification agreed with the Highways Authority under a S278 agreement. The widened existing entrances would be capable of accommodating the low loaders and articulated vehicles that are likely to access the site during the 36-week construction period.

The detailed construction design of the access points would be undertaken following the grant of planning permission and this would feed into the S278 agreement works referenced in the Highway Authority response. It is suggested that the final detailed design of the proposed entrances could be secured through a suitably wording planning condition requiring the final design to be submitted and approved, prior to construction.

The consultation response confirms that the visibility splays presented in the transport statement are acceptable and meet highway standards.

Parking Provision and Configuration

The details of construction compounds and temporary parking arrangements would be addressed in the Construction Traffic Management Plan (CTMP) for the project. It is suggested that the CTMP could be secured by a suitably worded planning condition and this approach is supported by the highway's consultation response, as set out below.

Two construction compounds would be used and these would be located near the site entrances for the northern and southern parcels of land respectively. The compounds would have a core area of hardstanding for parking, laydown and welfare facilities. These would be expanded with construction matting or similar during the more intensive periods of construction activity to accommodate any additional parking or laydown requirements. All parking and laydown areas would be located wholly within the overall construction area.

During the construction phase, there would be a total of approximately 120 staff on-site during peak construction activities as set out in the transport statement. It is anticipated that a significant number of construction staff will partake in a car share. For robustness, it is assumed that the average vehicle occupancy rate per vehicle would be a minimum of 2, equating to a maximum of 60 construction staff vehicles accessing the site each day during peak activities. Car parking for a

minimum of 60 vehicles will therefore be provided across the two temporary construction compounds and within the curtilage of the site during the construction phase.

The exact location and scale of the parking provision within the site is likely to vary depending on the construction programme and phasing that will be developed by the main contractor, if planning permission is granted. The CTMP will be developed prior to commencement of construction and would be approved through the discharge of a suitably worded condition. The CTMP would seek to encourage the use of bicycles and walking for local staff and would seek to maximise car sharing and the use of minibuses where possible.

The total area of the development site is approximately 85 hectares (excluding grid connection and off-site planting), and as such there is ample space available to provide staff car parking within the site boundary, without impacting on the local highway network.

It is not considered necessary to provide any parking for the operational phase of the development, since trips to the site would be limited to the occasional LGV accessing the site for maintenance services and these would use the access tracks and turning heads to park.

In conclusion, adequate parking provision would be provided within the development site and this would be set out in the CTMP that would be subject to a suitably worded planning condition. The Transport Statement has been amended accordingly through the addition of section 3.5 and is appended to this Technical Note.

Servicing/Deliveries

The swept paths and turning areas included within Appendix E of the original Transport Statement were included in the original access track layout and these have not been altered by the slightly modified layout. As such the vehicle tracking diagrams/swept path analysis have been incorporated into the submitted layout as requested by the Highway Authority.

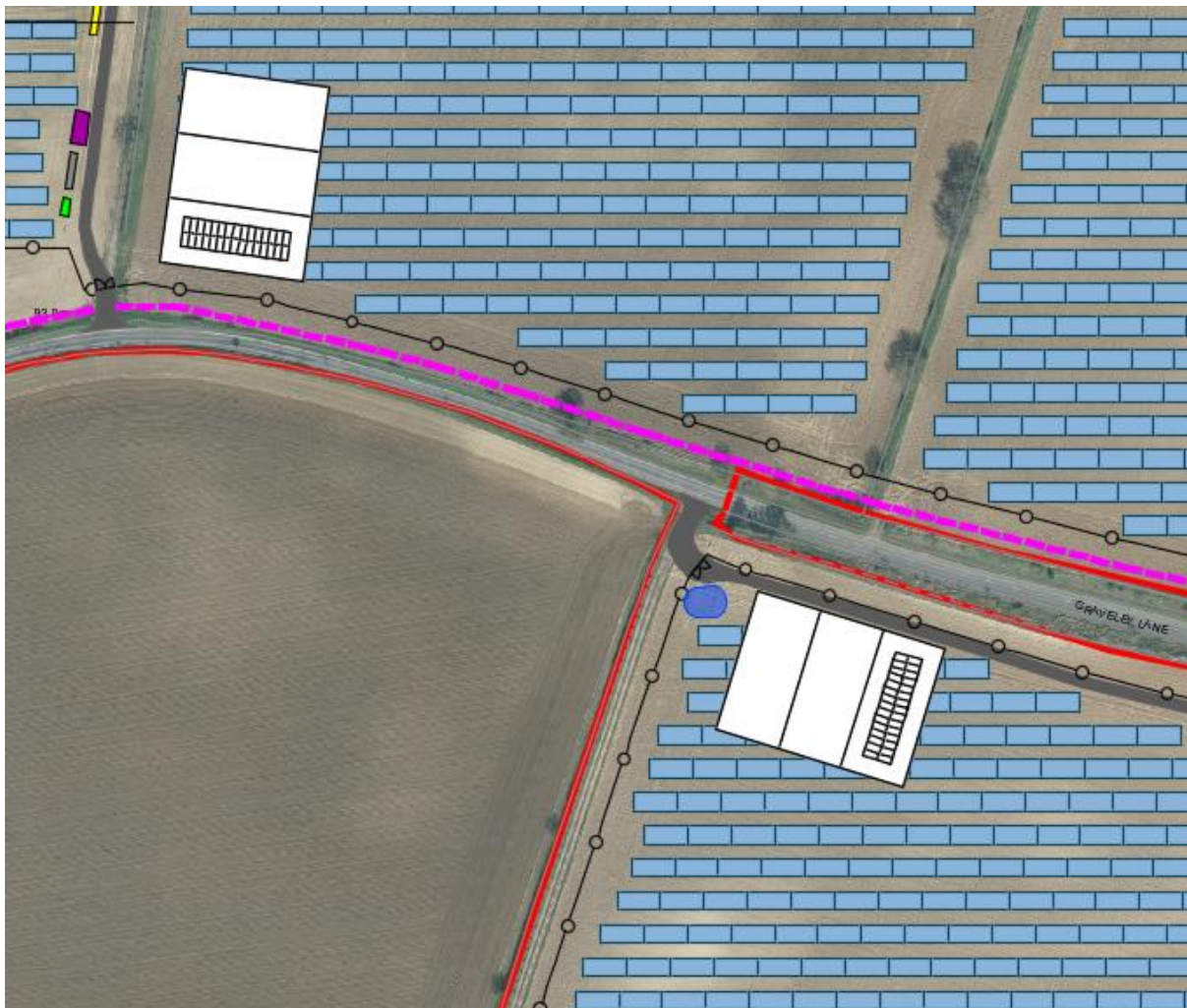
Construction Traffic

As set out above the Highway's consultation response confirms that a CTMP should be secured through a suitably worded planning condition. The applicant agrees that the CTMP should be secured through a condition as this will enable the main contractor (when appointed) to input into the location, size and phasing of construction compounds and proposals for sustainable transport and car sharing etc, as set out above.

The CTMP would be developed in accordance with the HCC CTMP template referenced within the consultee response.

The indicative scale (approximately 50mx6m) and provisional location of the temporary construction compounds is illustrated on Figure 1 below. Each compound would include 30 parking spaces (to provide the maximum 60 spaces needed for the most intense period of construction), laydown areas and welfare facilities. The compounds would be reduced in scale as construction works need to progress within their footprint toward the end of the project.

Figure 1: Indicative locations for Temporary Construction Compounds and Parking



A S278 agreement with HCC will be applied for, if planning permission is granted, and once the detailed construction design is completed. This would be accompanied by a Stage One Safety Order, as required by the Highways Authority.

Glint and Glare

The consultation response dated 8th June 2022 notes that *'the Glint and Glare Assessment that local roads have not been included in the assessment (p27), and that "a height of 1.5 metres above ground level has been modelled as this is a typical eye level for a road user" (section 4.3). All roads in the vicinity should be assessed, and a typical driver's eye height above ground level is 1.05 metres (refer to Manual for Street figure 7.17).'*

The methodology used by Pager Power has been developed over a number of years in response to technical studies and emerging policy. The methodology only excludes local roads from modelling where traffic volume and speeds are likely to be relatively low or geometrically glint and glare would not be possible. In the first situation any solar reflections from the proposed development that are experienced by a road user would be considered 'low' impact in accordance with the guidance presented in Appendix D of the glint and glare report. The final paragraph on page 27 of the glint and glare assessment confirms that the only local roads that have been excluded are Priory Lane and

Wymondley Road. This was because they are a low speed/low volume road or are located largely to the north of the panels respectively. On low speed/low traffic volume roads the potential glint and glare effects on road users would result in a low impact and further mitigation is not required. For roads largely to the north of the panels glint and glare does not occur.

Furthermore, these two roads are generally enclosed by roadside vegetation or have views of the solar panels limited by foreground vegetation or topography as illustrated in the photographs below. This in combination with proposed planting will ensure that these roads would not experience a significant glint and glare impact at any time.

Figure 2: Typical views along Priory Lane towards the site.





Figure 3: Typical views along Wymondley Road towards the site.





As illustrated by the above photographs the effects on the local roads not considered in the glint and glare assessment would not be significant due to their geographic location in relation to the solar panels, low speeds/traffic volumes and existing intervening vegetation.

The reference to an eye height of 1.05m relates to car drivers only. The Manual for Street states at paragraph 7.6.3 that: *'eye height is assumed to range from 1.05 m (for car drivers) to 2 m (for lorry drivers)'*. The glint and glare assessment uses a height of 1.5m to be representative of a range of road users, not just cars. Pager Power, the UK's leading glint and glare specialists have confirmed

that a small change to the height of a receptor will have no significant change to the duration of glare; it may slightly alter the times that such reflections occur. However, any changes will be relatively minimal, especially as the change to height is only 0.45m.

Table 6.3 of the glint and glare assessment concludes that the majority of roads with 1km of the Site would experience no glint and glare or would only theoretically experience glint and glare for 10-30 minutes at certain times of the year significantly outside of the driver's primary field of view. As such, the proposed development would result in a low impact that would not require any further mitigation.

Three roads are predicted to have a theoretical possibility of seeing glint and glare from the proposed development and within the drivers the driver primary field of view. These are:

- Gravelly Lane;
- Arch Road, and
- Stevenage Road.

Page 36 of the glint and glare assessment indicates that for road receptors 91-95 (a short section of Arch Road) and road receptors 96-101 (a short section of Stevenage Road) glint and glare within the driver's primary field of view is theoretically possible for 25 to 30 minutes from 0530 between March-September or April to August (depending on receptor). At other times of the year there would be no theoretical potential for glint and glare to occur. However, as set out the report there is existing screening between Arch Road, Stevenage Road and the site that would limit visibility of the proposed solar panels and remove solar reflection. As such no adverse impact on drivers is predicted for these roads.

Graveley Lane is covered by road receptors 73-86 in Table 6.3 of the glint and glare assessment. These receptors would potentially experience glint and glare in the driver's primary field of view for only 25 to 30 minutes from 0530, and 15 to 30 minutes around 1800 for parts of April-September. Outside of these times there would be no theoretical risk of glint and glare for drivers along Graveley Lane. Graveley Lane is located to the north of the southern parcel of land and as such it primarily the northern area of solar panels that contribute to the theoretical potential for glint and glare to occur. The risk of glint and glare occurring within these limited periods would be mitigated by managing existing hedgerows along Graveley Lane and within the site to a minimum height of 3m and planting new hedgerows along the boundary with Graveley Lane. Once established the risk of glint and glare would be mitigated.