TECHNICAL NOTE

Date: 22nd June 2021

File Ref: P21-2319

Subject: EL Dowley – Deadline 3 Submission

1.0 DEADLINE 3 SUBMISSION

1.1 Create Consulting Engineers Ltd (Create) have been appointed by our Client (LJ & EL Dowley) located in the close to the village of Theberton to provide a written submission for "Deadline 3" in line with the Planning Inspectorate timescale.

1.2 The Theberton House Estate lies towards the West of the existing Sizewell Power Station and as part of the access arrangements to serve the proposed scheme, a new five-arm roundabout is proposed on the B1122 Abbey Road to the East of Leiston Abbey. The schematic layouts of the junction have been highlighted in the Create DL2 submission.

1.3 As part of DL2, Create submitted a note which highlighted fundamental concerns impacting upon our Client's land interesting and residential property, these comments are not reproduced here but sought to highlight;

- Inconvenience/amenity;
- Traffic capacity/safety;
- Noise;
- Lighting;
- Dust; and
- Visual impact.

1.4 This Technical Note looks to strengthen our Clients position following a review of the Applicants DL2 submission.

2.0 PROPOSED ROUNDABOUT - POINTS OF CONCERN

2.1 Para 2.1 from the Create Technical Note submitted at DL2 highlighted several concerns, these points are not reproduced here, but remain relevant.

Visual Impact / Lighting

2.2 The DL2 points, remain relevant. The large ICD of the proposed roundabout will mean that illumination will be a significant issue at this location with the junction fully lit on our Clients home and land interests.

2.3 A receptor specific assessment is required for our Clients home to determine the mitigation, which is required. This should include a light spill assessment and cordon of influence. It is not possible to determine the mitigation and land take required to provide the protection necessary without this.

Noise

2.4 The ES details a preliminary assessment of construction noise, undertaken in accordance with Method 1 of BS5228-1:2009+A1:2014. The aforementioned standard details two acceptable methodologies for assessment of construction noise. Method 1: the ABC method, and Method 2: the 2-5 dB(A) change method. Selecting an appropriate method is discretionary and whilst both are acceptable in broad terms, a distinction should be made based on the situational context.

2.5 The Assessment provided by the Applicant is considered preliminary only. Assessments of the anticipated works were not based on any contractor method statements, plant schedules or construction phase staging. The construction noise calculations (and in turn, the resultant effects), therefore, have been based on 'professional judgement' and assumptions on behalf of the acoustic consultants. Whereas this would be considered appropriate to assess a site's viability for development, it would not be considered representative of the actual resultant noise levels during phased works and thus on our Client home and land interests.

2.6 To date, there has been no dedicated construction noise assessments conducted for the receptor sites. For example, the 'Enabling Works' Table (Appendix 4A1, Volume 6.5), has assessed the construction noise for this phase against the sound levels produced by a single excavator alone. It is not clear where the information for calculating the resultant impact at the Fordley Road *et al* residences originated; however, this assumptive approach would not be considered robust or exhaustive to assess any resultant impact in practice.

2.7 The Mitigation Route Map (8.12) details various measures of mitigation for specific works phases in broad terms, stipulating adherence to BPM 'Best Practicable Means' and the CoCP 'Code of Construction Practice'. These mitigative strategies have been based on the assumed construction activities (as discussed above) and have not been directly quantified at the receptor locations to judge their effectiveness.

2.8 The reported ambient levels in section 4.4.5 of the ES states the 'Typical Measured Level – Day' at SLR 9 (Representative of Theberton House) was 43-44 dB $L_{Aeq,T}$. Using the ABC method, a negligible impact would be a resultant sound level ≤ 65 dB(A) $L_{Aeq,T}$, which could be up to ≈ 21 dB greater than the measured ambient level. Table 4.15 estimates the work phase noise at the receptor locations to be:

- Preparatory Works: 31-55 dB $L_{Aeq,T}$
- Main Construction Phase: 58-63 dB $L_{Aeq,T}$

2.9 The upper limit of the preparatory works has been calculated to be above the measured residual ambient by 11 dB, which has been deemed to be of a negligible impact. The upper limit of the main construction phase has been predicted to be 19 dB above the residual ambient, for which a moderate adverse significance has been determined (as detailed in the Applicants Table 4.16). Both exceedances would be considered excessive.

2.10 Create consider an appropriate assessment method is to use the 2-5 dB(A) change method. Noise levels generated by site activities are deemed to be potentially significant if the total noise (pre-construction ambient plus site noise) exceeds the pre-construction ambient noise by 5 dB or more, subject to lower cut-off values of 65 dB, 55 dB and 45 dB $L_{Aeq,T}$ from site noise alone, for the daytime, evening and night-time periods, respectively; and a duration of one month or more, unless works of a shorter duration are likely to result in an significant effect.

2.11 Section 4.3.26 states: "*For noise sensitive receptors where the magnitude of change in the short term is minor, moderate or major at noise sensitive buildings, local circumstances must also be considered to determine the final significance, as required by LA111."* As the new road would be used by most/all of the construction traffic for the next 10+yrs, this would be indicative of a significant effect, in addition to the operational phase going forward beyond this point and should be assessed and mitigated.

Air Quality

2.12 The Applicant has failed to consider the extremely good background air quality levels, the outdoors recreation space which are in constant use by the Client and the percentage change to both dust and emissions levels.

2.13 A receptor specific assessment is required for our Clients home and land interests to determine the mitigation which is required. It is not possible to determine the mitigation and confirm if there is sufficient land within the DCO to deliver this as this stage.

Road Safety

2.14 The **Consolidated Transport Assessment**, specifically the Sizewell C Stage 1 Safety Audit at Appendix 10, is considered insufficient.

2.15 Create make the following comments on the Road Safety Audit;

- The use of WSP as the Applicants Transport Consultant and Road Safety Auditor is not considered best practice and we request a third-party independent safety audit is completed;

- The level of detail supplied by the Applicant on the SLR alignment would allow a more comprehensive Road Safety Audit to be completed in line with the GG119 Road Safety Audit Guidance Rev 2. At present, there is no assessment on the planned form of junctions, traffic use, interaction with pedestrians and non-motorised movements, to name few areas.

2.16 Such consideration is fundamental to the discussion and conclusion on the roundabout size and works proposed. Wider consideration is essential to determine the safety implications of Applicants proposal / mitigation requirements. Therefore, a new Road Safety Audit and Designers Response is required.

3.0 CONCLUSIONS

3.1 The purpose of this note is to consider the direct effects of the proposed 5-arm roundabout proposed by the Applicant on our Client's home at Theberton House.

3.2 Our Client and Create have raised significant, legitimate concerns with respect to the SLR and it is requested that the Applicant responds accordingly which in turn could potentially lead to the introduction of several mitigation measures and/or redesigned components of the overall scheme currently being put forward.

Note By: Paul Zanna - Technical Director