Proposed North Access Road and Lorry Park, Kronospan, Holyhead Road, Chirk

Planning Application Ref: P/2022/1080

Air Quality Assessment: Addendum

1. Background

1.1. A planning application[1] has been submitted to Wrexham County Borough Council (WCBC) for the construction and operation of a northern access road, lorry park, roundwood storage areas and associated structures, 132kV electricity substation and ancillary works (hereafter referred to as the 'Proposed Development').

1.2. The planning application was supported by an Air Quality Assessment (referred to hereafter as the '2022 AQA') prepared by Smith Grant LLP (SGP)[2]. The 2022 AQA included a construction dust assessment and a detailed assessment of the potential impacts of development-related traffic on local air quality.

1.3. Following the receipt of consultee responses, a revised scheme is now to be submitted to WCBC. This following Addendum has therefore been provided to review the implications of the proposed revised scheme on the findings and conclusion of the original air quality assessment. In preparing this Addendum, SGP has reviewed the revised proposals and information provided by the project transport consultants, Axis. In addition, SGP has reviewed any changes that may have occurred in the legislative and planning context since the original submission that may affect the 2022 AQA along with the local air quality status. This AQ Addendum should be read in conjunction with the 2022 AQA.

1.4. This following Addendum only refers to matters of specific relevance to the air quality assessment. For further information, reference should be made to the submitted planning application documentation and accompanying Environmental Statement and Addendum.

2. Existing and Revised Proposed Development

2.1. The elements of the original submitted scheme of relevance to the 2022 AQA were:

- general earthworks: cut and fill to achieve required development platform across the Site; requiring import of about 11,200 m^3 of fill over a period of about 6 months;
- creation of eastern earth bund typically 2m to 4m high and up to 7m high near the proposed new roundabout;
- construction of northern access road: to include construction of new roundabout off the B5070 to replace the existing B5070 / Old Black Park Road / Afon Bradley Farm access road junction; realignment of the B5070 and creation of new access road to Afon Bradley Farm;
- construction of lorry park: spaces for 92 HGVs; provision of two entrances and three exits;
- weighbridge car park: spaces for 32 cars, of which 25 would be reserved for staff use and 8 for visitors;

[1] Planning application ref: P/2022/1080 submitted to Wrexham County Borough Council by Axis on behalf of Kronospan Limited

[2] Smith Grant LLP, Proposed North Access Road and Lorry Park, Kronospan, Chirk, LL14 45NT; Air Quality Assessment, R3030-R02-v5, dated December 2022

- construction of roundwood storage areas: two open roundwood storage areas to provide temporary storage for imported logs;
- wider construction: to include construction of facilities block, 132kV substation including underground cable runs and parking for 5 vehicles; and
- site landscape scheme: planting of new native woodland planting, new native hedgerow planting, new specimen tree planting, new species-rich grassland and new wetland vegetation; this would include hedgerows and vegetation planting around the new roundabout and north access road and tree planting along the new bund on the eastern boundary.

2.2. The revisions to the original submitted scheme include the following:

- weighbridges, weighbridge building, and weighbridge car park moved approximately 20m to the south;
- lorry park footprint reduced by approximately 50% (previously 91 HGV spaces, now 45 HGV spaces) and moved further south;
- area at the northern extent of the Proposed Development Site now vacated by the reduced lorry park is proposed as further wildflower grassland;
- roundwood storage areas reduced in size (around 21% collectively) to accommodate the above;
- additional land on the western boundary of the western roundwood storage proposed for new woodland planting;
- the bund along the eastern boundary of the Site amended to a height of approximately 4m adjacent to the proposed lorry park, and to a height of approximately 7m north of the proposed lorry park (when measured from the adjacent internal platform/road level of the Proposed Development) to provide appropriate noise mitigation for the residential receptors at Offa/Wern. This would provide similar noise effects to the original (and now superseded) Proposed Development layout. The 5m high acoustic screen along the eastern boundary of the lorry park extended further south to also run adjacent the weighbridge car park area.

2.3. The original submitted scheme also included for the provision of acoustic screens of 5m and 3m heights on the lorry park and adjacent Bryn Hyfryd for noise mitigation. The principle of this noise mitigation is retained in the revised scheme with the alignment of acoustic screens amended to reflect the revised layout; an additional 3m high acoustic screen is also proposed at the western extent of the proposed weighbridge car park.

3. Update Planning Policy and Legislative Context

3.1. The following section summarises any changes to air quality legislation and / or planning policies that have occurred since the 2022 AQA and which may affect the assessment of the revised proposed development.

Legislative Context

3.2. In 2020 the Welsh Government published a **Clean Air Plan for Wales**. This set out the Welsh Government's plans for improving air quality over a 10-year pathway and included proposals for a new Clean Air Act for Wales to enhance existing legislation and introduce new powers to further tackle air pollution. In March 2023 the **Environment (Air Quality and Soundscapes)(Wales) Bill** was introduced to the Senedd for consideration. This includes a number of potential legislative proposals such as setting air pollution targets including for $PM_{2.5}$.

No specific targets are included and the draft Bill does not affect the assessment methodology and conclusions of the 2022 AQA and this Addendum.

National Planning Policy

3.3. At the time of preparation of the 2022 AQA there was no specific guidance provided in the Planning Policy Wales (PPW, 2021) or supporting Technical Advice Notes (TANs) on air quality. The existing Technical Advice Note on noise (TAN 11, 1997) was undergoing review with a view to including air quality but at the time a draft revised TAN was not available.

3.4. A consultation draft revised TAN 11 has now been issued which includes planning advice relating to air quality[3]. The draft TAN 11 sets out processes for integrating air quality considerations into the planning development framework and sets out steps for air quality assessment. The provision of the 2022 AQA and Addendum meet the recommended steps and the release of the draft TAN does not affect the assessment methodology and conclusions of the 2022 AQA and this Addendum.

4. Update Site Setting and Baseline Conditions

General Site Setting

4.1. SGP is unaware of any changes to the local site setting status that would affect the 2022 AQA and assessment of the revised scheme.

Local Air Quality Status

4.2. The 2022 AQA included reference to the 2021 Air Quality Annual Status Report (2021 ASR) issued by the North Wales Authorities (covering the six local authorities that cover the North Wales region including WCBC). This included air quality monitoring data and information available for the region up until the end of 2020. The 2022 Air Quality ASR has since been issued, detailing available data up until the end of 2021[4].

4.3. There have not been any changes to the status of declared Air Quality Management Areas (AQMAs) in the region, with none being declared by WCBC.

4.4. It is noted that a new continuous analyser was established in November 2021 in Chirk. This supplements another analyser that had been established in Chirk in July 2020. For completeness, details for both analysers are provided below in Table 1.

Table 1: Automatic Monitoring Location[1]

Ref.	Location	Grid ref.	Pollutants Monitored	Type	Distance & Orientation from Site
Wrexham Chirk	Chirk	329318 338300	NO_2, NO_x, VOCs, PM_{10}, $PM_{2.5}$	Urban Industrial	735m SE
Wrexham Chirk Community Hospital	Victoria Road Chirk	329329 338992	NO_2, NO_x, VOCs, PM_{10}, $PM_{2.5}$	Urban Background	430m E

1: Data as presented in North Wales Authorities ASR 2022

4.5. As the new analyser was established towards the end of 2021, data for the monitor is not available in the 2022 ASR.

[3] Welsh Government, Consultation on Technical Advice Note 11: Air quality, Noise and Soundscape, 21st October 2022
[4] North Wales Authorities Collaborative Project, 2022 Air Quality Progress Report, Final, September 2022

4.6. The 2022 ASR does not report any new diffusion tubes in Chirk or the vicinity of the site.

4.7. SGP has reviewed the available data presented in the 2022 ASR (and on the airquality.gov.wales website for the continuous analysers) and there are no identified changes in local air quality data that would affect the 2022 AQA.

5. Air Quality Considerations

5.1. Construction Dust Assessment

2022 AQA

5.1.1. The 2022 AQA included an assessment on potential impacts on nearby human and ecological receptors that may occur due to fugitive dust during the construction phase.

5.1.2. Potential sources of fugitive dust would primarily be materials handling, loading and tipping; earthworks / site preparation; internal haulage; wind blow across stockpiles and bare surfaces and on-road haulage. Given the size of the area to be subject to the works, it was concluded there would be resulting *large* dust emission magnitude during each of the earthworks and construction phases and due to trackout.

5.1.3. The sensitivity of the area was determined through the consideration of the proximity of receptors to the application site boundary. The assessment concluded to be up to *medium* with regards to dust soiling during the earthworks and construction phases and *low* due to track-out. The area sensitivity was *low* with regards to PM_{10} human health impacts during both the earthworks and construction phases and due to track-out. There were no ecological receptors within the relevant screening assessment distance, which was taken as the application site boundary.

5.1.4. The assessment concluded that there was a *medium* risk of dust soiling impacts arising from fugitive dust during the earthworks and construction phases due to the proximity of residential properties to the Site boundary. There is a *low* risk of PM_{10} human health impacts during the earthworks and construction phases. There is a *low* risk of dust soiling and PM_{10} health impacts due to trackout during construction on the basis the egress is to be via the Afon Bradley Farm access.

5.1.5. The 2022 AQA also set out that a Construction Environmental Management Plan (CEMP) was to be developed and implemented for the construction phase. This would include management and control measures in respect of dust and emissions and is expected to include an Air Quality Plan (AQO). In addition, the CEMP would include a Construction Traffic Management Plan (CTMP) which is expected to encompass elements such as HGV routing and storage of materials. Outline standard dust mitigation measures were provided in the 2022 AQA, the implementation of which would serve to reduce the risk of adverse dust impacts.

Revised Scheme

5.1.6. The application site boundary of the revised scheme remains as for the original scheme, and as such the site sensitivity remains as originally assessed. The changes in the scheme would not result in any substantial changes to the potential sources of dust.

5.1.7. Overall, there are no resulting changes in the potential risk of dust impacts with the revised scheme compared to the original scheme. It remains the case that a CEMP would be developed and agreed in advance with WCBC and other regulators / consultees as required prior to the commencement of the construction activities.

5.2. Vehicle Emissions Assessment – Operational Phase

2022 AQA

5.2.1. The original submitted scheme would not result in any additional movements to / from the facility but would result in a redistribution of existing movements. It was expected there would be 1,527 AAWT HGVs (annual average 24-hour weekday traffic) and 20 AAWT LDVs travelling to / from the new north access rather than the existing access. This would result in a reduction in vehicle movements on the stretch of the B5070 between the existing and proposed new access point but the introduction of a new roundabout and associated movements at the new access point and movements within the lorry park and wider new infrastructure. There would therefore be resulting beneficial and adverse impacts due to vehicle exhaust emissions at different receptors.

5.2.2. The changes in movements were above the screening criteria provided in guidance as indicating the need for an air quality assessment[5]. The 2022 AQA therefore also included detailed assessment of these vehicle movements and associated emissions using atmospheric dispersion modelling. The model set-up included the B5070, the A5 / A483 junction and the A54 / A483 junction, and the adjoining A1, along with movements within the Proposed Development itself.

5.2.3. As expected, the Proposed Development was predicted to result in an increase in annual mean NO_2 and PM_{10} concentrations at Afon Bradley Farm, located close to the new north access. However, the resulting total concentrations are predicted to remain well below the relevant Air Quality Assessment Levels (AQALs) and the resulting severity of impacts are described as *negligible*.

5.2.4. Annual mean NO_2 and PM_{10} concentrations were predicted to reduce at all other modelled receptors due to the realignment of the B5070 and reduction of HGV movements on the stretch of road between the proposed new access and existing access. The severity of beneficial impacts at these receptors would be described as *negligible*.

5.2.5. Overall, the proposals were not predicted to have significant beneficial or adverse impacts due to vehicle exhaust emissions.

Revised Scheme

5.2.6. The principal change in the Proposed Development of relevance to the vehicle emissions assessment is the reduction in the size of the lorry park, with a reduction from 91 spaces to 45 spaces. However, although there would be a reduction in spaces, all HGVs would route to /

[5] Institute of Air Quality Management (IAQM), Land-Use Planning & Development Control: Planning for Air Quality, v1.2, 2017

from the facility via the new north access. Although the existing southern lorry park is to be retained, there would not be any on-going HGV access to this via the existing access.

5.2.7. It remains the case the proposals would not result in the generation of any additional traffic movements to / from the facility.

5.2.8. The changes would not therefore affect the original model set-up with regards to with / without development vehicle movements to / from the facility. There would be some changes to the movements within the facility itself, with these being distributed across the new and existing lorry parks with the revised scheme rather than being fully redistributed to the north lorry park.

5.2.9. It remains the case therefore that the Proposed Development would result in adverse impacts at Afon Bradley Farm with resulting beneficial impacts elsewhere. These would not be significant.

5.2.10. The revised scheme would not result in a material change that would affect the original assessment with regards to vehicle emissions.

5.3. Additional Considerations

5.3.1. The 2022 AQA also briefly considered potential impacts associated with construction phase vehicle exhaust emissions and fugitive dust emissions from the proposed roundwood store. The revised Proposed Development does not result in any changes to the original conclusions that there would not be significant adverse impacts associated with these activities.

6. Conclusions

6.1. Overall, the revised Proposed Development design is not considered to result in any material change that would have affected the technical analysis or methodology provided in the 2022 AQA.

6.2. It remains concluded that no unacceptable impacts on existing or future human health, amenity or ecological receptors have been identified through the redistributed HGV traffic associated with the Proposed Development. The revised proposals would continue to result in a reduction in vehicle movements, primarily HGVs, travelling along the stretch of the B5070 between the current access and proposed northern access, resulting in a predicted reduction in pollutant concentrations due to vehicle emissions at properties along this stretch and hence beneficial impacts.

6.3. No air quality grounds have been identified that would preclude the granting of planning permission for the Proposed Development.

Prepared on behalf of Smith Grant LLP by:

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