Appendix A LHA: Pre-Application Response

Local Highway Authority Pre-application consultation response

2024/1959/PRE: For a distribution centre alongside associated parking, outdoor storage and landscaping (Use Class B8).
Location: Penllergaer Business Park, Heol Y Ddraig, Penllergaer, Swansea SA4 9HL.
Date: 22/01/2025

Background

This pre-application enquiry has been submitted in relation to the proposed development of a B8 Storage and Distribution Centre on Land at Penllergaer Business Park, Swansea. The site extends to 11.22 hectares and currently comprises the Mechatronics Systems Wales Ltd building.

The site is located within the established Penllergaer Business Park located immediately south of the M4, circa 600m southeast of the development boundary of Tircoed and circa 6km north west of Swansea City Centre. The site is accessible via the A48 and from Junction 46 and 47 of the M4 Motorway.

The applicant has submitted a Transport Scoping Note (ref: 3525-HYD-XX-XX-RP-TP-3001) dated 16th October 2024, requesting advice from the Local Highway Authority (LHA) regarding the principle of the proposed use, the associated highway works, and the scope of junction analysis reporting required when preparing their Transport Assessment (TA).

Access

The development will feature three access junctions. The existing access along Heol Y Ddraig will be modified to accommodate a mix of operational heavy goods vehicles (HGVs) for a service/delivery yard, as well as providing access and egress for employee parking. Another existing site access at the roundabout will be altered to serve as an egress only, used by both HGVs and other delivery vehicles. Additionally, a new arm will be introduced to the existing Heol Y Ddraig roundabout, allowing two-way traffic for distribution vehicles and other operational traffic.

The LHA recommends that operational and staff access to the development site should always be separated. The requirement for HGV and staff parking to use the same access road poses significant safety risks, further exacerbated by the presence of cycling and pedestrian access along the same route.

Pedestrian and cycle access is proposed from the existing Heol Y Ddraig junctions, linking to internal provisions for pedestrians and cyclists, leading to crossing points, bike storage, parking areas, and building access.

Each of the proposed vehicular access junctions, including the two existing junctions to be adapted, must achieve appropriate levels of junction visibility and demonstrate this on an access arrangement plan or similar. Additionally, each access point should be shown to be appropriate and safe for use through swept path analyses, including all vehicles that will serve the application site.

Parking

It is recommended that the applicant uses the Swansea Council Supplementary Planning Guidance (SPG) Parking Standards as the framework for determining the appropriate amount of parking provision for all use cases related to the proposed development. However, the applicant has initially based the required parking provision on “first principles,” considering the operational logistics of other distribution centres. The proposed parking provision in the applicant's Transport Notes is as follows:

- Operational spaces: 899
- Non-operational spaces: 221, including 12 accessibility spaces
- Motorcycle spaces: 23
- Cycle spaces: 32

While the applicant has referenced CSS Wales Parking Standards for Distribution Centres over 10,000 sqm, it is unclear how the proposed parking provision relates to those standards. It appears that their calculations do not correspond to the gross building floor area of 11,086 sqm.

The Transport Note (TN) lists operational parking as 899 spaces, which appear to be spread across two individual parking areas, including a decked section to the south of the site. Additionally, 144 spaces around the perimeter of the site are listed as “van loading” on the submitted general arrangement drawing. It is unclear whether these perimeter spaces are included in the 899 operational spaces or if they are additional. If they are additional, the total operational parking capacity would be 1,043 spaces on the premises. Similarly, it is not clearly defined whether the listed operational spaces include those within the HGV yard to the east of the development, which shares access with employee parking.

Considering the SPG parking standards guidance, the overall quantum of operational parking suggested for the development indicates non-compliance with existing standards.

Similarly, if the calculations for staff parking are based on the gross building floor area, our calculations suggest that the figure of 221 spaces exceeds the maximum requirement and would not be compliant with standards. The applicant will therefore be required to confirm the basis of the calculations used to determine parking provisions.

The proposed level of cycle parking appears to be in line with SPG Parking Standards, with cycle storage areas located to the east of the site within the employee parking area. These can be accessed via dedicated cycle routes, which include zebra crossing facilities where the cycle lanes intersect with the internal road layout.

The planning application must demonstrate safe and appropriate access to all types of spaces included in the proposed site layout. Swept path analyses will be required to show that the car parking area can be used as intended, including access, circulation, entry and exit of spaces, and exit from the parking area.

The site layout plans should also include parking space dimensions for each type of parking provided. Notably, one of the disabled bays shown does not include a full 1.2m margin on three sides, which is necessary to ensure compliance with appropriate standards. The SPG provides information on designing parking for standard vehicles, enhanced parking spaces, cycle parking, and commercial parking.

Servicing and Waste collection

It is suggested that servicing and refuse collection will be accommodated internally within the site. Further details are to be provided as part of the proposed full Transport Statement, which is welcomed.

As part of a detailed servicing and waste strategy, the applicant should provide comprehensive information on agreed servicing routes, including a full swept path analysis for the largest expected vehicle. Additionally, details of where waste refuse will be stored and managed within the site while awaiting collection should be provided. The storage of waste should be managed away from any pedestrian walkways and access routes. Special consideration should be given to safeguarding pedestrian and cyclist safety when developing a waste management strategy.

Trip Generation & Distribution

The Transport Scoping Note outlines the methodology for assessing the predicted level of vehicular trip generation for the proposed development. The operational trip generation has been calculated by the occupier based on the likely turnover of the proposed van loading spaces. However, this approach does not consider elements such as HGV trips or the trips generated from the extensive number of operational spaces available on the site. Both should be included in the two-way trip generation profiling.

To substantiate these elements, the applicant is expected to provide a detailed account of the similar sites assessed and the methodology used at the planning stage. This should include details of total floor space, nearby facilities, parking, and staff, enabling the Highway Authority to determine the comparability of the sites used for assessment.

The predicted level of trip generation is suggested as a maximum of 432 two-way trips during peak hour periods. These values are based on the assumption that the van loading spaces can turnover three times within an hour. The Highway Authority requires significant further evidence to consider this proposition, including a detailed account of similar sites and the maximum operational capacity of the van loading area to determine the full intensification of the site.

The applicant has proposed using 2011 census data on the 'Method of Travel to Work' for area Swansea 004 to determine the number of employment trips associated with the site. This data needs to be contextualised with robust supporting evidence to accurately reflect the vehicle demand generated by the development’s workforce. The total number of staff, including their roles and shift patterns, must be detailed for consideration. This analysis should also include the scheduled shift patterns of all van drivers and incorporate them into the overall

employment trips. To undertake this assessment, the applicant must outline the expected level of employment anticipated for the opening year of the development.

Given the scale and type of this development, it is likely to have multiple peak operational hours, which may impact the network at different times of the day. This should be considered and assessed.

Junction capacity analysis

The applicant has identified several committed development sites that have been awarded planning consent in the wider area. These sites need to be considered as part of any highway impact analysis, with their associated two-way trips included in the development of origin and destination figures. LHA can provide TA information for each consented site to assist in this process.

A detailed TA was provided as part of the planning application for land at Parc Mawr, which can be shared with the applicant for informative purposes. However, the LHA does not consider the traffic data within this document suitable for current application. This is mainly due to recent highway improvements have been carried out at the Junction 47 M4 interchange. These alterations have changed how drivers use the interchange, and the existing driver behaviours need to be accurately represented. Additionally, the surveys used in the Parc Mawr application are over five years old. Therefore, the applicant would be required to complete new traffic turning count surveys.

Regarding the possible distribution of traffic, it has been proposed to use the 2011 census data on the "Method of Travel to Work" to predict the likely distribution of vehicles associated with the development. The LHA believes this approach falls short of providing an accurate account of such vehicle movements. While census data will form part of the assessment for employment-based trips, additional supporting information is necessary to identify the geographical areas the distribution centre is expected to serve, thereby informing the distribution of operational traffic on the highway network.

Scoping of junction capacity analysis

The LHA agrees that the seven sites listed for junction capacity analysis within the applicant's scoping note are acceptable. Additionally, the LHA requests that two additional junctions along the A48 be included in the analysis.

1. A48 – Bryntywod
2. A48 – Penllergaer Valley woods access – Mansion Gardens

While the volume of existing traffic on these roads is expected to be minimal, the increase in through traffic associated with the development site and its potential impact on the safe operation at these two locations will need to be determined.

To assist in the assessment of junction analysis, the LHA can provide traffic signal data for any junctions within the assessment area. This data will include existing phase and stage data, total green times, intergreen times, and the current mode of operation for each junction.

Sustainable Travel Modes

The application appears to be fairly well connected to footways and cycleways. However, the applicant will be expected to identify and report on any existing deficiencies in these connections and propose mitigation measures to ensure that the site can be accessed safely and directly at all times of the day.

The ability to access the site by modes other than private car will be considered when evaluating the validity of any traffic forecasts and assessments.

Conclusion

In conclusion, the proposed development of the B8 Storage and Distribution Centre at Penllergaer Business Park requires careful consideration of several key factors.

The LHA has highlighted the need for separate access points for operational and staff vehicles to mitigate safety risks, particularly for pedestrians and cyclists. Additionally, the proposed modifications to existing junctions and the introduction of a new arm to the Heol Y Ddraig roundabout must achieve appropriate levels of visibility and safety, as demonstrated through swept path analyses.

The current proposal includes 899 operational spaces and 221 non-operational spaces, but there are discrepancies regarding the inclusion of van loading spaces and the total operational capacity. Additionally, the calculations for staff parking appear to exceed the maximum requirements based on the gross building floor area. The applicant must confirm the basis of these calculations and ensure that all parking provisions, including cycle and motorcycle spaces, meet the Swansea Council Supplementary Planning Guidance (SPG) Parking Standards.

The applicant must provide information on agreed servicing routes, including a full swept path analysis for the largest expected vehicles. Additionally, the storage and management of waste within the site should be clearly outlined, ensuring that pedestrian and cyclist safety is not compromised.

The trip generation and distribution analysis for the proposed development requires further refinement to ensure accuracy and reliability. The current methodology, which is based on the turnover of van loading spaces, does not fully account for HGV trips or the extensive number of operational spaces. The applicant must provide detailed evidence from similar sites to substantiate the proposed trip generation figures.

Additionally, the use of 2011 census data for employment trips needs to be supported with robust contextual information to accurately reflect the vehicle demand generated by the workforce. The analysis should also consider multiple peak operational hours and their potential impact on the network.

Recent highway improvements need to be considered with the need to provide new traffic turning count surveys to reflect current driver behaviours. Additionally, the inclusion of committed development sites in the wider area is to be included in the analysis.

The LHA agrees to the seven sites listed for analysis and has requested the inclusion of two additional junctions along the A48. The applicant must ensure that the impact of increased through traffic on these junctions is accurately assessed.

The Highway Authority is prepared to continue dialogue and discussion on the above, informing the necessary assessments, should the application proposals proceed.