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Subject: Proposed Sewer Management Facility – 221-235 Luddenham Road, Orchard Hills

Date: 11 July 2024

Dear Danny,

Arcadis has been engaged by HB+B Property to review the likely traffic impacts associated with the construction and operation of the proposed Sewer Management Facility, located within the approved Alspec Industrial Business Park at 221 Luddenham Road, Orchard Hills.

This letter should be read in conjunction with the Traffic Impact Assessment prepared in support of the bulk earthworks development application dated 20 June 2024.

Background

The subject site is situated within the Alspec Industrial Business Park (AIBP) site at 221 Luddenham Road, south of Patons Lane, in Orchard Hills. Located approximately 30 kilometres west of Parramatta CBD, the site is irregular in shape, with split frontages across both Luddenham Road and Patons Lane.

A summary of the key roads influenced by the development application is provided below:

- **Luddenham Road** is a regional road under the control and management of Penrith City Council, aligned in a general north-east/south-west direction. The road comprises of a two-lane, seven-metre wide carriageway, set within an approximately 21-metre-wide road reserve. Luddenham Road carries approximately 3,000 vehicles per day and has a posted speed limit of 80 km/h.
- **Patons Lane** is a local road under the control and management of Penrith City Council, aligned in an east/west orientation. The lane comprises of two lanes within a 6.6-metre-wide carriageway with 1.2-metre-wide sealed shoulders on both sides of the road. Patons Lane carries approximately 150 vehicles per day and has a posted speed limit of 50 km/h.

The broader AIBP site was subject to a recent Planning Proposal that has been approved by Penrith Council. This application sought to rezone portions of the site to accommodate a mix of warehouse and office land uses. The updated Local Environmental Plan came into operation on 20 May 2024.

The subject site is approximately 5,242 sqm, and will be accessed via Estate Road 1, an internal access road within the site that connects to the broader road network via Patons Lane and Luddenham Road.

Figure 1 outlines the current AIBP masterplan and the location of the subject site.

Figure 1 Current Alspec Industrial Business Park and the subject site

Proposed development

It is proposed to construct a Sewer Management Facility, comprising of nine tanks of varying sizes, a plant shed, and associated maintenance access paths and landscaping. Primary Access is provided via Estate Road 1 to the east, with a secondary access provided to the rear.

One formal parking space is provided on site adjacent to the plant shed, with a truck turning area provided along the northern boundary.

Traffic Impact assessment

An assessment of the likely traffic impacts are provided below:

- **Construction traffic**
  - Typical construction is expected to involve up to 25 workers during peak construction activity onsite. The forecast number of peak construction movements at each site during construction is summarised in Table 1.

Table 1 Summary of peak construction traffic generation

Vehicle type	Peak Hour	Inbound movements	Outbound movements
Light vehicles	AM peak	25	0
	PM peak	0	25
Heavy vehicles	AM peak	5	2
	PM peak	1	1

- The peak period for construction traffic is expected to occur in the AM peak hour, when up to 30 vehicles will enter and exit the site.
- It is noted these values represent the peak activity for the site, with vehicle movements expected to be lower for most of the construction phase.
- Light vehicle movements are generally associated with the number of workers onsite at any one time.
- All vehicles will enter the site via the site access on Patons Lane, and all light vehicles will exit the site from the same intersection. Heavy vehicles will exit the site from the southern site access located on Luddenham Road and travel northbound.
- An assessment of the projected traffic demand during the construction phase of the proposal suggests minimal impact on traffic and the broader road network with an additional 25 light vehicle movements and 4 heavy vehicle movements during both the AM and PM peak hour.
- Should construction occur during the peak of the broader AIBP bulk earthworks activities, any localised impacts on Patons Lane can be managed through the implementation of a Construction Traffic Management Plan that reflects activities across the AIBP site.

- **Operational traffic**
  - Typical operational traffic is expected to involve a single maintenance vehicle on an adhoc basis, depending on the maintenance needs of the facility. No staff are proposed to be permanently based onsite.
  - Parking associated with maintenance activities can be wholly accommodated for onsite
  - Based on the above, the proposed facility is anticipated to have negligible impact on the surrounding road network

Design review

The layout of the proposed facility generally aligns with the Penrith DCP (2014). Maintenance vehicles will be able to enter and exit the site in a forward direction, with a turnaround facility providing space for larger vehicles up to 8.8m in length to turn around within the site.

The proposed boundary fencing and gate provide visibility to pedestrians and other road users travelling along the site boundary

Final remarks

The above assessment supports the construction and operation of the proposed Sewer Management Facility at 221 Luddenham Road Orchard Hills. Any traffic impacts during construction can be managed in conjunction with activity across the broader AIBP site through the implementation of a Construction Traffic Management Plan.

Please do not hesitate to contact me using details below should you have any questions or require any additional information.

Kind regards,

Bailey Byrnes
Principal Transport Planner

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