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TM312-03F01 Ardex Warehouse Kemps Creek RfS Comments (r1)

The Trust Company (Australia) Limited c/- Altis Frasers JV Pty Ltd

Paul Solomon

Paul.Solomon@frasersproperty.com.au

From: Angus Leslie [Angus.Leslie@renzotonin.com.au]

## **Proposed Ardex Warehouse & Manufacturing Facility, 657-769 Mamre Road, Kemps Creek - Response to submissions - Noise and vibration**

### **1 Introduction**

Renzo Tonin & Associates (RT&A) has been engaged by The Trust Company (Australia) Limited on behalf of Altis Frasers JV Pty Ltd to undertake an operational and construction noise and vibration impact assessment (NVIA) to accompany the State Significant Development Application (SSDA) 25725029 for the proposed Ardex Warehouse and Manufacturing Facility at the proposed Lot 12, 657-769 Mamre Road, Kemps Creek (the Proposal).

The following regulatory authorities have provided submissions on the SSDA NVIA report (reference: TM312-01F05 Ardex Kemps Creek NVIA (r6), dated 9 November 2021) (SSDA NVIA) following the exhibition period.

- NSW Department of Planning, Industry and Environment (DPIE)
- Penrith City Council (PCC) (ECM Ref: 9812606, 23/12/2021)
- NSW Environment Protection Authority (EPA) (reference: DOC21/1028187-4, dated 13/12/2021)

This technical memorandum has been prepared to summarise the responses to the three sets of submissions.

### **2 Updates to the SSDA NVIA design**

As part of the further design development (detailed design) process in response to submissions received during the public exhibition period and the release of the Mamre Road Development Control Plan (DCP), a number of design aspects have been updated. These are minor updates to across the site

design, including landscaping, minor adjustments to carparking and minor adjustments to entry and exit widths.

These updates have been incorporated into an updated revision of the SSDA NVIA. All modelling and assessment methodologies and assumptions are as per the SSDA NVIA, except where identified as updated.

The outcome from these changes resulted in negligible changes to the predicted noise levels at the assessment receivers.

### 3 Responses to submissions

#### 3.1 Summary of responses

Table 3-1 provides RT&A's responses to the submission for SSDA EIS, which relate to the SSDA NVIA for the three agencies. The responses refer to the relevant sections in the SSDA NVIA and are additional to supporting information and analysis that is included in this technical memorandum to support the responses.

**Table 3-1: Responses to submissions**

Item	Comments on NVIA	RT&A responses
<b>Department of Planning, Industry and Environment (DPIE)</b>		
2	The Department notes that a wastewater treatment plant is proposed. The Department notes the EIS does not discuss in detail how the wastewater treatment plant would operate including the volumes of wastewater that would be treated and discharged. The Department considers the detail provided on the architectural plans to be concept only. The Department requires that the details of the construction and operation of the proposed wastewater treatment plant is included in the revised EIS and relevant appendices and the plans to be revised. The Department notes the detail of the proposed water treatment plant within the Noise and Vibration Impact Assessment (NVIA) is not sufficient. The NVIA is to be updated also.	<p>Further details of the proposed water treatment plant have been included in the updated SSDA NVIA, following consultation with the manufacturer.</p> <p>The key noise source of the pumps for the system are likely to be either centrifugal or submersible pumps for the filtrate and feed pumps. These are substantially quieter, and do not contain the annoying characteristics exhibited by diaphragm pumps which can be an annoying noise source associated with wastewater treatment plants.</p> <p>The water treatment plant will only operate periodically. Based on the anticipated volumes of water to be used within the facility to be treated, the system may only work up to 3 hours per day. When it does operate it will be for an extended period (ie. not an intermittent noise source).</p> <p>For a conservative assessment, this noise source has been added into the noise modelling assuming that it will operate during the reasonable worst case 15-minute period.</p> <p>The outcome from this determined that the overall predicted noise levels did not change from the previous predictions with the inclusion of the wastewater treatment plant.</p>
17	As discussed above, the MRP DCP was adopted on 19 November 2021. The Department requests that the NVIA is updated to address the final MRP DCP.	<p>The NVIA has been updated to reflect the MRP DCP. This is reflected in particular in the following sections:</p> <p><i>Section 1.4.2 Context – Mamre Road Precinct (MRP)</i></p> <p><i>Section 3.3.1 Cumulative industrial noise</i></p> <p><i>Section 3.5 Mamre Road Precinct Development Control Plan</i></p> <p><i>Section 5.3.3 Considerations of the recommended mitigation and management measures</i></p>

Item	Comments on NVIA	RT&A responses
18	The Department notes that Appendix B1 of the NVIA detailing the locality map, sensitive receiver type identification and operational assessment representative receiver locations is not provided. The Department also notes that Appendix E (Sections E.1 and E.2) detailing the predicted operational noise contours is not provided. The Applicant is required to update the NVIA to include Appendices B1 and E.	The updated SSDA NVIA includes these figures in: <b>Appendix B.1</b> - Locality map, sensitive receiver type identification and operational assessment representative receiver locations <b>Appendix E (Sections E.1 and E.2)</b> - Operational noise contours
19	The Department notes the NVIA considers impacts associated with the construction and operational phases of the development and the cumulative impacts. As discussed under the general comments above, the NVIA does not consider the proposed wastewater treatment plant in sufficient detail. The Department requires the Applicant to update the NVIA to include the proposed operational details of the wastewater treatment plan.	Wastewater treatment plant has been added into the updated modelling and predictions. Refer to response Item 2.
20	The Department notes Section 2.2 of the NVIA which states that the noise measurements and observations of the typical proposed operational activities were undertaken by Renzo Tonin and Associates at the existing Ardex manufacturing facility at Seven Hills, NSW. The NVIA uses measurements derived from the Seven Hills facility provide representative noise levels of a range of activities that will take place within the proposed development.  The Department notes at Section 5.2.1.4 Manufacturing Operations, the NVIA refers to noise levels occupational noise surveys undertaken by Ardex at a similar facility in Queensland. The Department requires the NVIA to be revised to refer to the Seven Hills project.	As the Ardex Seven Hills facility does not have the same configuration of liquids and powder towers to those proposed in the new facility, confirmation of the typical noise levels that would occur within parts of these towers were based upon the reference occupational noise surveys undertaken by Ardex at a facility in Queensland with similar tower to help validate the assumed and modelled internal noise levels. This reference assisted in confirming the adoption of suitable representative levels measured at the Ardex Seven Hills facility. Details for the modelling assumptions (ie. spectrums) were then taken from the attended noise survey at the Ardex at Seven Hills, NSW facility, based upon measurements undertaken near similar operating equipment. This reference to the occupational noise survey has been maintained in the report, and the reference survey added to the reference list.
27	The Department notes Section 5.2.1.6 Key Building Services and Mechanical Plant of the NVIA details the known building services and mechanical plant for the proposed development. The Department notes that the wastewater treatment plant is not included within the assumed mechanical plant noise sources within Table 5-7. The Department requires the NVIA to be revised to include the wastewater treatment plant.	Wastewater treatment plant has been added into the updated modelling and predictions. Refer to response Item 2.
<b>Penrith City Council (PCC)</b>		
(b)	<b>Noise Impact</b>  A Noise & Vibration Impact Assessment prepared by Renzo Tonin & Associates (dated 8 November 2021, ref TM312-01F05) has been provided which satisfactorily addresses the potential for construction noise and vibration, and noise associated with the proposed operational activities of the development. The proposed mitigation measures and recommendations in the assessment are to be undertaken and adhered to during all relevant stages of development.	Noted

Item	Comments on NVIA	RT&A responses
<b>NSW Environment Protection Authority</b>		
<b>b</b>	<p><b>Noise</b></p> <p>The Noise and Vibration Impact Assessment (NVIA) included under Appendix 22 of the EIS adequately addresses the relevant SEARs for the project. The EPA has reviewed the NVIA and notes that the noise assessment criteria for existing operational and construction noise has been derived from noise reports from other recently approved State Significant Development's within the industrial estate and by estimating the potential noise impact from operations using the various noise sources from the other Ardex facilities as a baseline.</p> <p>While several sources of noise impact during the construction and the operational phase have been identified, the EPA acknowledges that noise management level exceedances, whether they originate from individual or cumulative sources, can be reasonably and feasibly mitigated.</p> <p>The EPA generally agrees that a noise compliance assessment should be conducted once operations commence to verify that noise emissions are consistent with the NVIA and that the mitigation measures are effective. The EPA recommends the following conditions:</p>	Noted
	<p>The applicant must comply with the hours of operations specified under point 1.3.4 of the NVIA and ensure that only the activities described in Table 5-3 of the NVIA occur within the prescribed time-frames.</p>	<p>As noted in SSDA NVIA Section 1.3.4, the Proposal hours of operation is to be 24 hours, 7 days per week.</p> <p>The description of external noise generating activities in SSDA NVIA Table 5-3 describes the "typical activities" and "typical timeframes". This table is not meant to be an exhaustive list of all activities that would occur onsite or detail the only times that various activities would operate.</p> <p>The assessment aimed to demonstrate that the proposal could achieve the project noise trigger levels during the reasonable worst case noise emissions during each of the NPfI assessment periods.</p> <p>The site would be required to operate within the project noise trigger levels at all times, as per the other points noted by EPA, which are time dependant.</p> <p>This condition would place unnecessary restrictions and limitations on the site for it to operate in accordance with the established project noise trigger levels.</p>
	<p>The applicant must ensure that operational noise does not exceed the project noise trigger levels at each receiver location provided in Table 3-14 of the NVIA.</p>	Noted
	<p>The applicant must implement the noise mitigation and management measures under point 4.5.3.2 of the NVIA during construction activities.</p>	<p>Noted. As per SSDA NVIA Section 4.5.3.2, these should be considered and implemented where feasible and reasonable, where there is potential for the noise management levels presented in SSDA NVIA Section 3.2 to be exceeded by the construction works either individually or cumulatively.</p>

Item	Comments on NVIA	RT&A responses
	The applicant must develop an Operational Noise Management Plan incorporating the noise mitigation and management measures under points 5.3.2 and 5.5.4 of the NVIA during operation.	Noted
	The applicant must undertake post-commissioning noise compliance monitoring within 12-months of commencing operations.	Noted.

## Document control

Date	Revision history	Non-issued revision	Issued revision	Prepared	Instructed	Authorised
03.02.2022	Initial issue	0	1	A. Leslie	A. Leslie	P. Karantonis

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