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9 November 2021

Mr Chris Ritchie
Director, Industry Assessments
NSW Department of Planning, Industry and Environment
GPO Box 39
Sydney, NSW

Dear Mr Ritchie,

**Oakdale West Industrial Estate Stage 3 (SSD 9794683) – Amended Development Application**

## 1 Introduction

This Amended Development Application (DA) Request has been prepared by *Keylan Consulting Pty Ltd* (Keylan) on behalf of *Goodman Property Services (Aust.) Pty Ltd* (the Applicant). The request is submitted for the Oakdale West Industrial Estate (OWE) Stage 3 State Significant Development (SSD) application (SSD 9794683), which was lodged on 10 February 2021

The Applicant has now secured a tenant for Building 2A and consequently requires changes to the warehouse building to reflect the tenant's operational requirements, resulting in refinements to the proposed layout and access.

The request also follows issues raised by the Department of Planning, Industry and Environment (DPIE) and Penrith City Council (Council) during the assessment of SSD 9794683. Specifically, this amended application includes revisions to the layout of Buildings 2C and 2D to address concerns raised about the proposed use of the heavy vehicle access ramp by small vehicles to access Building 2D.

This request is submitted in accordance with Clause 55AA of the *Environmental Planning and Assessment Regulation 2000*.

## 2 Background

The proposed development is located within the OWE which forms part of the 421 hectare (ha) 'Oakdale Estate' in the Western Sydney Employment Area (WSEA). The OWE accounts for 154 ha of the entire Oakdale Industrial Estate and is legally described as Lot 11 in DP 1178389 and Lot 1 in DP 663937. The OWE is located in the Penrith Local Government Area (LGA).

The SSD application (SSD 9794683) and supporting EIS, as originally lodged, sought approval for:

- Construction, use and fitout of Buildings 2A, 2C and 2D within Precinct 2 of the OWE including associated office space
- Provision of onsite parking
- Associated landscaping and signage

The key amendments to the development are described below.

# 3 Summary of proposed amendments

## 3.1 Building 2A

The tenant for Building 2A intends to use the warehouse for parcel processing and distribution. The key proposed amendments to Building 2A include:

- 14% reduction in site coverage (from 58% to 44%)
- 9,738 square metre ($m^2$) (22.1%) reduction in warehouse building footprint (from 44,000 $m^2$ to 34,262 $m^2$) and additional 8,403 $m^2$ mezzanine
- 2,385 $m^2$ (5.1%) reduction in overall Gross Floor Area (GFA) (from 46,400 $m^2$ to 44,015 $m^2$)
- 10,788 $m^2$ (23.3%) reduction in overall Gross Lettable Area (GLA) (from 46,400 $m^2$ to 35,612 $m^2$)
- 1.2 m reduction in ridge height (from 14.9 m to 13.7 m)
- Changed access for car and truck entry/exit points
- Peak traffic generation occurring outside the estate network peak periods of 7 am to 8 am and 5 pm to 6 pm, changing to 5 am to 7 am and 9 pm to 11 pm
- Minor reduction in peak vehicle movements during the morning (7 am to 8 am) and evening (5pm to 6pm) peak periods, from 76 to 72 vehicles per hour
- Total daily vehicle movements of up to 1,530 vehicles per day based on detailed tenant requirements, increased from the theoretical estimate of 878 vehicles derived from warehouse GFA provided in the EIS transport assessment
- 47 additional car parking spaces (from 208 to 255 spaces) and repositioning of the carpark to the eastern side of the site
- Use of temperature control at the southern dock with units placed on the warehouse roof

A comparison of the amended project compared with the project as submitted in the EIS from February 2021 is summarised in Table 1 and shown in Figure 1 and Figure 2.

| Project aspect | EIS | Amended Application | Change |
|---|---|---|---|
| **Site coverage** | 58% | 44% | -14% |
| **Footprint** | | | |
| Warehouse | 44,000 m² | 34,262 m² | -9,738 m² |
| Mezzanine | - | 8,403 m² | +8,403 m² |
| Office | 2,000 m² (2 x two-storey offices) | 1,050 m² (1 x two-storey office) | -950 m² |
| Dock office | 400 m² (2 x two-storey offices) | 195 m² (1 x two-storey office) | -205 m² |
| Amenities | - | 105 m² | +105 m² |
| Total GFA | 46,400 m² | 44,015 m² | -2,385 m² |
| Total GLA | 46,400 m² | 35,612 m² | -10,788 m² |
| **Car Parking** | 208 spaces (incl 6 accessible) | 255 spaces (incl 6 accessible and 13 spaces for electric vehicle with charging) | +47 spaces |
| **Ridge height** | 14.9 m | 13.7 m | -1.2 m |
| **Access** | • Dedicated entrances at the northern frontage of Estate Road 03 for each of the two car parks.<br>• One heavy vehicle entrance at the northern frontage of Estate Road 03 to the north. | • Van and car entry/exit on Emporium Ave (north side of site) but separate driveways<br>• Car entry/exit on Sepia Road (east side of site)<br>• Truck entry on Sepia Road (east side of site) but separate from car driveway<br>• Truck exit on Emporium Ave (west side of site) | • Revised truck and private vehicle access |
| **Hours of work** | • Construction – 7am – 10pm, Monday to Sunday, with internal concrete pours from 3am – 10pm<br>• Operation - 24 hours a day, 7 days a week<br>• internal to the building from 3am – 10pm, Monday to Sunday | • Construction – 6am – 10pm, Monday to Sunday<br>• Operation - 24 hours a day, 7 days a week | No night time concrete pours |
| **Traffic** | • AM peak (7am – 8am) – 76<br>• PM peak (5pm – 6pm) - 76<br>• Daily - 878 | • AM peak (7am-8am) – 72<br>• PM peak (5pm-6pm) – 72<br>• Daily total – 1,530 | • Peak hourly movements outside estate peak hour<br>• Peak hour -4<br>• Daily total +652 |

Table 1: Building 2A Comparison

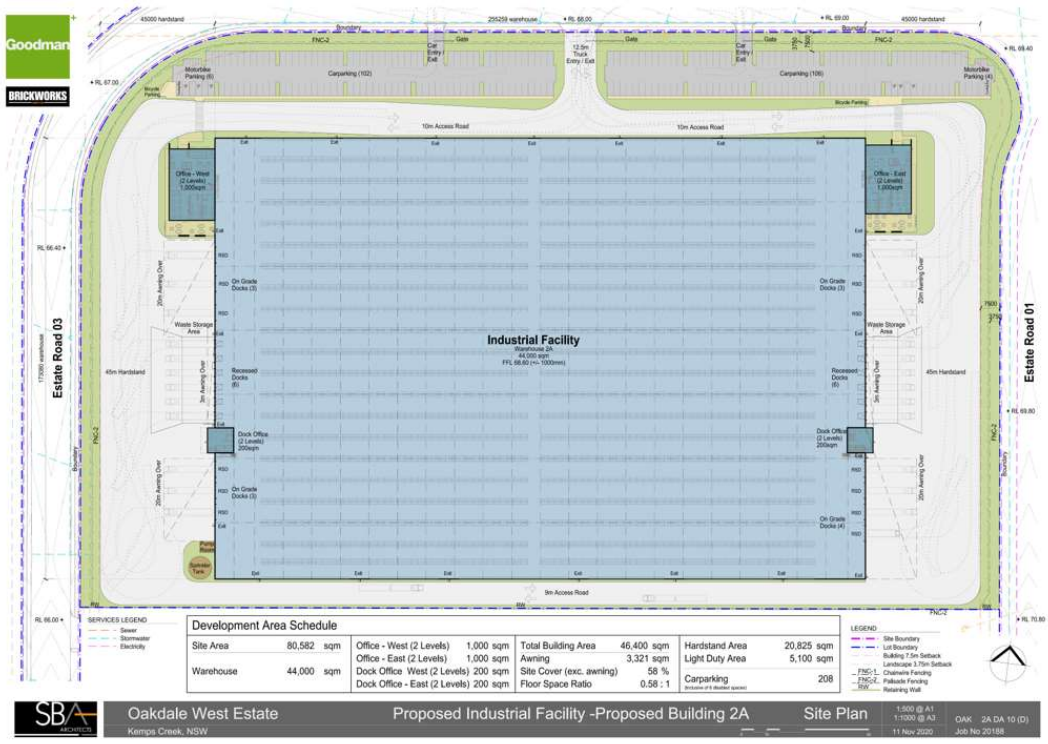



Figure 1: Originally proposed site plan – Building 2A (Source: SBA Architects)

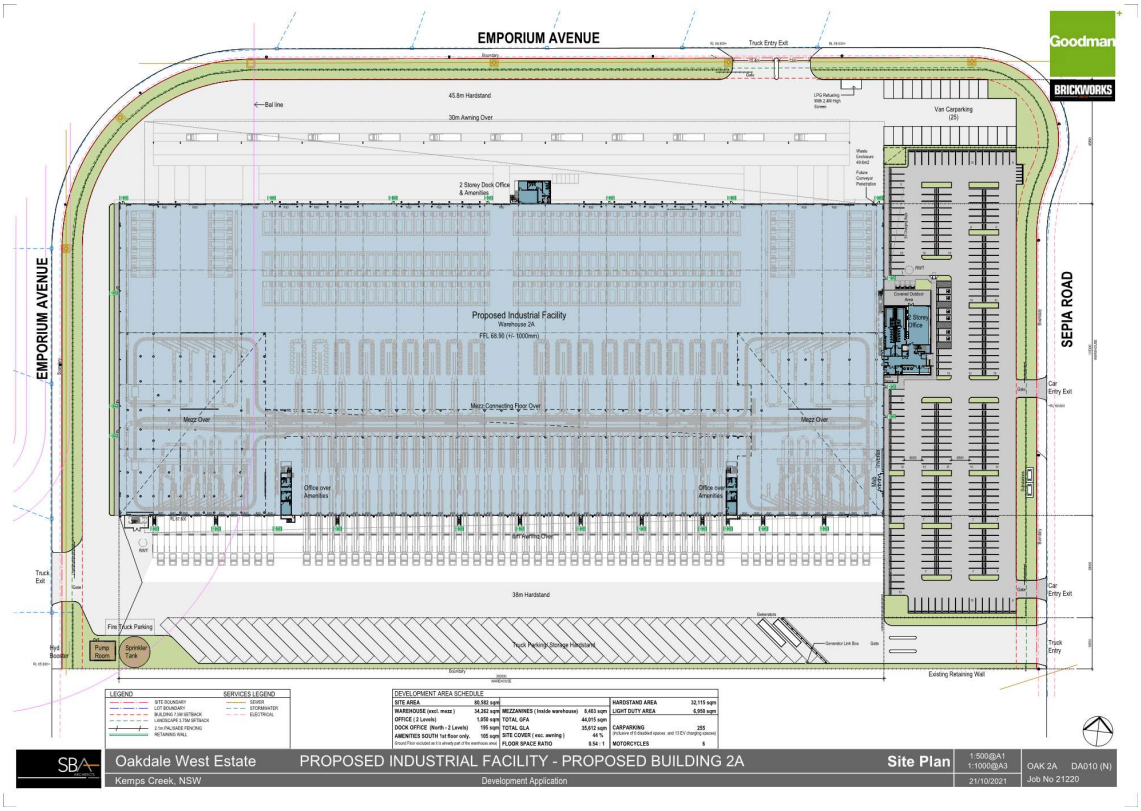



Figure 2: Revised site plan – Building 2A (Source: SBA Architects)

## 3.2 Buildings 2C and 2D

As stated in the Department's Request for Additional Information on SSD 2724683, dated 6th August 2021:

> *The Department notes that a shared light and heavy vehicle driveway is proposed for access to the Building 2D car park. The Department agrees with Council that this has potential traffic safety impacts along the driveway and within the loading dock area. It is requested that an alternative access arrangement be provided for light vehicles to the car park, noting that landscape setbacks along each boundary must be maintained.*

The Applicant has considered the Department's comments and has amended the proposed access and parking arrangements for Building 2D.

Figure 3 shows the originally proposed site and warehouse plan, with shared access for heavy vehicles and light vehicles accessing the carpark for Building 2D. Figure 4 shows the revised scheme whereby access to Building 2D car parking is provided via the same driveway which accesses parking for Building 2C.

The amended access to car parking for Building 2D reduces any potential for conflicts between truck and car movements. The revised access requires the provision of an access driveway and parking along the southern boundary of the lot. The access driveway does not encroach into any required setbacks, including landscaped.

The proposed amendments include a 2% increased overall site coverage (from 43% to 45%) with 3 additional car parking spaces (from 50 to 61 spaces) at Buildings 2C1 and 2C2. The proposed amendments to Building 2D include:

- an 855 $m^2$ (17%) increase in building footprint (from 5,005 $m^2$ to 5,860 $m^2$) and corresponding 855 $m^2$ (16%) increase in overall GFA/GLA (from 5,380 $m^2$ to 6,235 $m^2$)
- one additional car parking space (from 55 to 56 spaces)

A comparison of the amended project compared with the project as submitted in the EIS from February 2021 is provided in Table 2 for Building 2C and Table 3 for Building 2D.

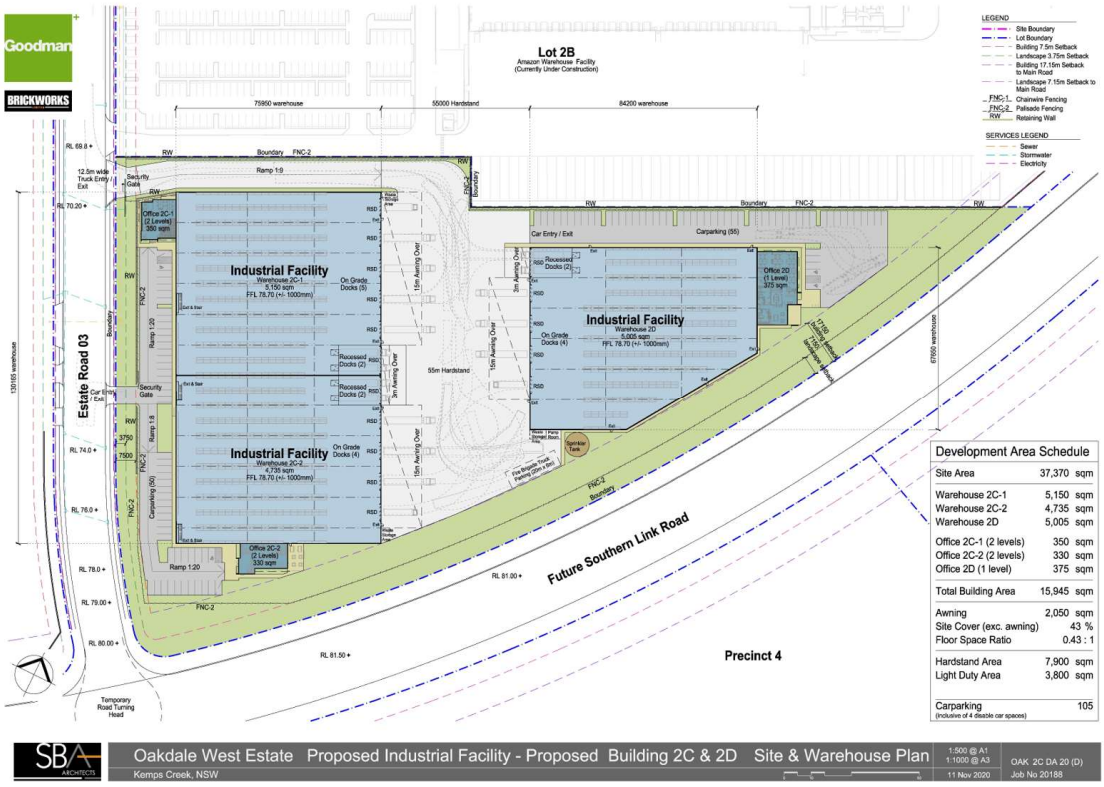



Figure 3: Originally proposed site plan (Source: SBA Architects)

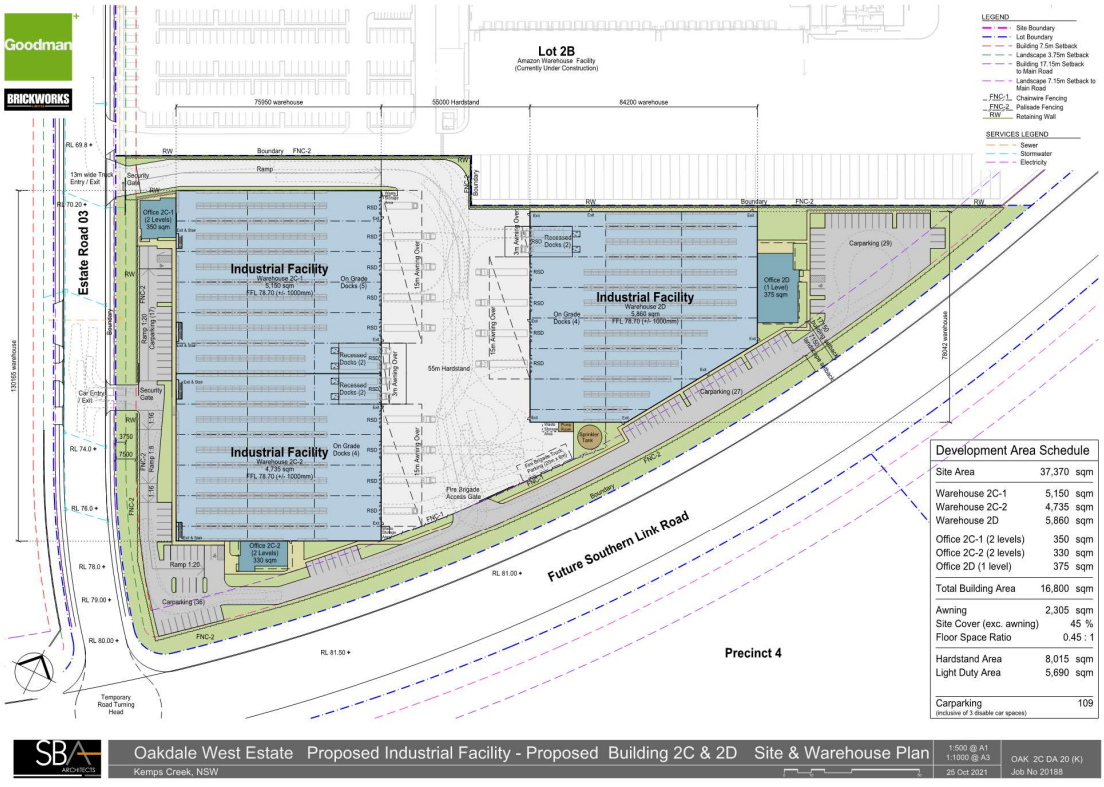



Figure 4: Amended site plan providing revised access to Building 2D carpark (Source: SBA Architects)

| Project aspect | EIS | Amended Application | Change |
|---|---|---|---|
| **Site coverage** | 43% | 45% | +2% |
| **Footprint** | | | |
| Warehouse | 9,885 m² | 9,885 m² | - |
| Office | 680 m² | 680 m² | - |
| Dock office | N/A | N/A | - |
| Total GFA | 10,565 m² | 10,565 m² | - |
| Total GLA | 10,565m² | 10,565m² | - |
| **Car Parking** | 50 spaces (incl 2 accessible) | 53 spaces (incl 2 accessible) | +3 spaces |
| **Ridge height** | 13.7 m | 13.7 m | - |
| **Access (2C & 2D)** | • Entrance at the western frontage of Estate Road 03 for car parking to service Building 2C<br>• Entrance at the western frontage of Estate Road 03 for heavy vehicle access servicing loading docks of Buildings 2C and 2D and car parking to service Building 2D. | • Entrance/exit at Estate Road 03 for private cars to service Building 2C & 2D<br>• Entrance/exit at northern end of Estate Rd 03 for dedicated truck entry to service buildings 2C & 2D | Separated car and truck entry/exit |
| **Hours of work** | • Construction – 7am – 10pm, Monday to Sunday, with internal concrete pours from 3am – 10pm<br>• Operation - 24 hours a day, 7 days a week | • Construction – 7am – 10pm, Mon - Sun<br>• Operation - 24 hours a day, 7 days a week | No night time concrete pours |
| **Traffic** | • AM peak – 17<br>• PM peak - 17<br>• Daily - 104 | • AM peak – 17<br>• PM peak – 17<br>• Daily - 104 | - |

Table 2: Building 2C Comparison

| Project aspect | EIS | Amended Application | Change |
|---|---|---|---|
| **Site coverage** | 43% | 45% | +2% |
| **Footprint** | | | |
| Warehouse | 5,005 m² | 5,860 m² | +855 m² |
| Office | 375 m² | 375 m² | - |
| Dock office | N/A | N/A | - |
| Total GFA | 5,380 m² | 6,235 m² | +855 m² |
| Total GLA | 5,380 m² | 6,235 m² | +855 m² |
| **Car Parking** | 55 spaces (incl 2 accessible) | 56 spaces (incl 1 accessible) | +1 space |
| **Ridge height** | 13.7 m | 13.7 m | - |
| **Access (2C & 2D)** | • Entrance at the western frontage of Estate Road 03 for car parking to service Building 2C<br>• Entrance at the western frontage of Estate Road 03 for car parking to service Building 2D and heavy vehicle access servicing loading docks of Buildings 2C and 2D. | • Private car entrance/exit at Estate Road 03 to service Building 2C & 2D<br>• Truck entry/exit northern end of Estate Rd 03 to service buildings 2C & 2D | Separated car and truck entry/exit |
| **Hours of work** | • Construction – 7am – 10pm, Monday to Sunday, with internal concrete pours from 3am – 10pm<br>• Operation - 24 hours a day, 7 days a week | • Construction – 7am – 10pm, Monday to Sunday<br>• Operation - 24 hours a day, 7 days a week | No internal concrete pours |
| **Traffic** | • AM peak – 9<br>• PM peak - 9<br>• Daily - 102 | • AM peak – 9<br>• PM peak - 9<br>• Daily - 102 | - |

Table 3: Building 2D Comparison

## 4 Assessment

To address the proposed changes in the application, the Applicant has revised the technical reports and assessments prepared in support of the EIS in February 2021.

A summary of the key reports and comment on the changes relevant to the assessment is provided in Table 4.

| Report/Assessment | Attachment | Comment |
|---|---|---|
| **Architectural Plans** | A | • Revised layouts and designs provided in Attachment A<br>• Key architectural elements of the amended designs are summarised in Table 1, Table 2 and Table 3 |
| **Civil Engineering Plans** | B | • Civil designs updated to reflect revised layout of the warehouses provided in Attachment B |
| **Civil Engineering Report** | C | • Civil report updated to reflect revised layout of the warehouses provided in Attachment C<br>• Report confirms that the amended development remains consistent with the latest approved civil engineering design report for the OWE masterplan |
| **Landscape Plans** | D | • Landscape designs updated to reflect building and lot layouts, consistent with estate landscaping controls |
| **Transport Assessment** | E | • Updated Transport Assessment to incorporate revised traffic generation at Building 2A<br>• Discussed further in section 4.1 |
| **Noise and Vibration Impact Assessment** | F | • Updated Noise and Vibration Impact Assessment to address proposed amendments to Building 2A<br>• Discussed further in Section 4.2 |
| **Bushfire Hazard Assessment** | G | • The amended designs result in comparable bushfire design controls and Bushfire Attack Levels with those presented in the EIS<br>• Recommendations are consistent with the report prepared for the EIS |
| **Fire Safety Strategy** | H | • Minor changes to reflect the revised layouts of the buildings and lots<br>• The amended Fire Safety Study includes performance solutions and design recommendations to ensure occupants are safeguarded to acceptable levels under the BCA |
| **Waste Management Plan** | I | • Minor changes to reflect the revised operation and layout of the buildings<br>• Recommendations are consistent with the report prepared for the EIS |
| **Sustainability Management Plan** | J | • Minor changes to reflect the revised operation and layout of the buildings<br>• use of a 750kW photovoltaic system at Building 2A and 300 kW system in Buildings 2C and 2D (compared with 500kW proposed in the EIS),<br>• the SMP predicts a GHG emissions reduction of 130.8% when compared with the NCC Reference Building for Building 2A, compared with 83.79% predicted in the EIS<br>• For Buildings 2C and 2D the SMP predicts a GHG emissions reduction of 125% when compared with |

| Report/Assessment | Attachment | Comment |
|---|---|---|
| | | the NCC Reference Building, compared with 72% predicted in the EIS<br>• The revised proposal includes the addition of an embodied carbon offset strategy |
| **BCA Assessment Report** | K | • Updated BCA reports to address revised building layout and proposed fitout design of Building 2A |
| **Air Quality Impact Assessment (AQIA) Review** | L | • The AQIA Review notes the proposal for the use of vans idling within the warehouse of Building 2A may generate emissions that subsequently increase air quality impacts at surrounding receivers.<br>• The AQIA Review includes recommended mitigation measures to ensure the risk of air quality impacts achieves the lowest 'neutral significance' rating, which are summarised in Attachment M<br>• There are no changes to air quality impacts at Building 2C and Building 2D given the nature and scope of the amendments would not influence air quality predictions in the original assessment |
| **Biodiversity Statement** | - | • A BDAR Waiver was submitted in July for SSD 9794683<br>• No changes to biodiversity impacts arise due to the amended application |
| **Visual Impact Assessment** | - | • The revised designs include a reduction in the maximum ridge height of Building 2A and are generally consistent with the built form envelope approved under the Concept Approval SSD 7348 as modified.<br>• No further assessment of visual impacts is required. |
| **Cost Estimate Summary** | - | • No changes to cost estimate for the purposes of the SSD application – the proposal remains SSD |

Table 4 Changes to reports and assessments

The proposed amendments involve no changes to the general location of the warehouses, setbacks, excavation and construction. In addition, no changes are proposed to the intended use of the site as a warehouse and logistics estate and its operating hours.

The proposed revisions to the layout and operation of the warehouses include changes to the transport operations which have been considered in the Transport Assessment and Acoustic Assessment. A summary of the findings of the revised key transport and acoustic assessments is provided in the following sections.

In all other respects, the proposed amendments are generally consistent with the proposed development considered in the EIS. The proposed amendments do not introduce changes that would require further assessment of other key issues including built form, landscaping and visual impacts, biodiversity, heritage, water management, geotechnical and contamination.

A revised summary of mitigation measures is provided in Attachment M.

## 4.1 Transport Assessment

The project's traffic consultants, Ason, considered the following in the updated Transport Assessment (Attachment E):

- revised layout of Buildings 2A, 2C and 2D
- associated changes to parking and access
- detailed operational scenarios for Building 2A

The projected traffic generation remain unchanged for Buildings 2C and 2D against that assessed in the EIS.

The total daily vehicle movements under the amended scheme are projected to increase by 554 vehicles with respect to the broader OWE Estate, to 11,946 vehicles per day. These volumes are based on the Building 2A tenant's requirements, and represent an increase of 4.8% compared with the approved generation of 11,394 vehicles per day. The existing infrastructure (estate roads and intersections to/from Precinct 2) can readily absorb the traffic generated by operations at Building 2A.

The proposed amendments to Building 2A include a revised schedule for delivery and dispatch vehicles, resulting in a change to the timing of peak hourly vehicle movements. The maximum peak vehicle movements occur during the 5 am to 7 am period in the morning and 9 pm to 11 pm during the evening period, ultimately sitting outside of the identified network peak for OWE.

Traffic generation during the identified peak periods is predicted to decrease compared with the levels assessed in the EIS. The revised Transport Assessment indicates that the estate roads and intersections will continue to perform within capacity during the 7am-8am and 5pm-6pm peak periods across the estate, with the amended operational scenario reducing maximum peak hourly traffic movements within OWE Estate by 104 vehicles per hour (am) and 44 vehicles per hour (pm).

The Transport Assessment notes that a bus route will commence operations from 24 October 2021 and the assessment includes a Green Travel Plan which aims to reduce traffic generation

The key findings and recommendations of the Transport Assessment prepared for the amended application are consistent with those for the proposal described in the EIS. The Transport Assessment concludes that amended proposal will not require additional upgrades of the surrounding road network from what has already been approved.

## 4.2 Updated Noise and Vibration Impact Assessment

The project acoustic consultant, RWDI, has revised the Noise and Vibration Impact Assessment (NVIA) for the proposed amendment to Stage 3.

The updated NVIA includes revised modelling which incorporates the revised layout and plant and vehicle operations at Building 2A. The updated assessment compares the noise modelling results against the current operational noise limits under condition B18 of SSD 7348, as modified.

Construction activities and operations at Building 2C and Building 2D are consistent with those considered in the NVIA which accompanies the EIS.

Operational noise sources at Building 2A included in the noise assessment comprise fixed rooftop plant and mechanical services, loading activities, light and heavy vehicles movements and on-site forklifts. Key design elements to minimise noise at nearby receivers include the constructed 5 m noise barrier to the west of Building 2A, the use of rear loading at docks on the southern side of the warehouse building and internal loading and unloading of vans within the warehouse building.

A summary of the operational noise predictions for the key surrounding sensitive receivers (with no noise agreement) is provided in Table 5.

| Location | Period | $L_{Aeq,15min}$ Noise Level | | |
|---|---|---|---|---|
| | | Noise Criteria | Buildings 2A, 2C, 2D | All precincts |
| N1 – Emmaus Village Residential | Day | 44 | 33 | 37 |
| | Evening | 43 | 34 | 37 |
| | Night | 41 | 31 | 37 |
| | Night (adverse) | 41 | 35 | 41 |
| N2 – Emmaus College | Day | 45 | 27 | 43 |
| | Evening | n/a | 30 | 32 |
| | Night | n/a | 28 | 34 |
| | Night (adverse) | n/a | 33 | 38 |
| N6 – Mamre Anglican College | Day | 45 | 26 | 30 |
| | Evening | n/a | 27 | 30 |
| | Night | n/a | 25 | 31 |
| | Night (adverse) | n/a | 32 | 36 |
| N7 – 21-42 Bakers Ln, Kemps Creek | Day | 47 | 24 | 29 |
| | Evening | 42 | 25 | 28 |
| | Night | 42 | 23 | 29 |
| | Night (adverse) | 42 | 30 | 34 |
| N8 – 706-752 Mamre Rd, Kemps Creek | Day | 47 | 24 | 29 |
| | Evening | 42 | 25 | 29 |
| | Night | 42 | 23 | 29 |
| | Night (adverse) | 42 | 30 | 35 |

Table 5 Updated assessment against noise limits in SSD 7348

Sleep disturbance has also been considered in the NVA which noted that noise impacts generated by Building 2A and overall estate operations will comply with the relevant limits in SSD 7348.

The conclusions of the Updated NVIA are consistent with those in the original assessment, specifically that the amended Stage 3 development will comply with the relevant conditions under SSD 7348.

## 5 Conclusion

The proposed amendments to SSD 9794683 result from specific operation requirements of a tenant secured for Building 2A, which intends to use the warehouse for parcel handling and distribution. Amendments have also been made to Buildings 2C and 2D to respond to concerns raised during exhibition of the EIS relating to combined vehicle access to Building 2D.

The amendments mainly relate to the internal layouts, parking, access, site coverage, footprint and GFA/GLA.

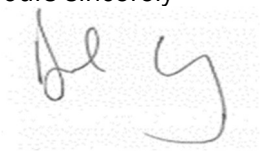
The revised assessment of transport impacts and acoustic impacts demonstrate that the proposed amendments result in negligible changes to the predicted impacts of the development.

Therefore, the development remains consistent with the site's zoning and intended future use and will not have a significant or detrimental impact on the amenity of the surrounding locality or on the existing environment.

The amended development is justified on the basis that it will result in the efficient and effective use of industrial land to provide much needed warehousing, storage and distribution space within the Western Sydney Employment Area.

Please do not hesitate to contact Kane Winwood on 02 8459 7507 or kane@keylan.com.au if you wish to discuss any aspect of this correspondence.

Yours sincerely



Dan Keary BSc MURP MPIA
Director

| | |
|---|---|
| Attachment A | Updated Architectural Plans |
| Attachment B | Updated Civil Engineering Plans |
| Attachment C | Updated Civil Engineering Report |
| Attachment D | Updated Landscape Plans |
| Attachment E | Updated Transport Assessment |
| Attachment F | Updated Noise and Vibration Impact Assessment |
| Attachment G | Updated Bushfire Hazard Assessment |
| Attachment H | Updated Fire Safety Strategy |
| Attachment I | Updated Waste Management Plan |
| Attachment J | Updated Sustainability Management Plan |
| Attachment K | Updated BCA Assessment Reports |
| Attachment L | Updated Air Quality Impact Assessment Review |
| Attachment M | Summary of Mitigation Measures |

## Attachment A: Updated Architectural Plans

## Attachment B: Updated Civil Engineering Plans

## Attachment C: Updated Civil Engineering Report

## Attachment D: Updated Landscape Plans

## Attachment E: Updated Transport Assessment

## Attachment F: Updated Noise and Vibration Impact Assessment

## Attachment G: Updated Bushfire Hazard Assessment

## Attachment H: Updated Fire Safety Strategy

## Attachment I: Updated Waste Management Plan

## Attachment J: Updated Sustainability Management Plan

## Attachment K: Updated BCA Assessment Reports

## Attachment L: Updated Air Quality Impact Assessment Review

## Attachment M: Summary of mitigation measures

In accordance with the SEARs, the following table provides a consolidated summary of the Applicant's commitments in relation to management, monitoring and reporting activities for the proposed development.

| Issue | Mitigation measures |
|---|---|
| General | • preparation of updated CEMP for OWE Stage 3 Developments<br>• preparation of updated OEMP for OWE Concept Proposal for Stage 3 |
| Visual amenity | • the existing vegetation on the eastern, southern and western boundary will be retained where possible to assist filtering views to the proposed buildings<br>• warehouses have been articulated to reduce the overall visual impact of the development from surrounding viewpoints<br>• the proposed material palette assists in articulating the built form and providing consistent materials within the OWE<br>• the proposed landscape design is consistent with the OWE landscape masterplan and provides vegetated setbacks to estate roads and within parking areas to provide shade |
| Traffic and transport | • construction traffic management measures to be described in the CEMP<br>• use of WNSLR for construction traffic<br>• detailed STP to be implemented |
| Noise and vibration | • minimising coinciding use of noisy plant items<br>• shutting down intermittently used equipment when not in use<br>• regular compliance checks on the noise emissions of all plant and machinery<br>• non-tonal reversing alarms used on all items of plant and heavy vehicles<br>• equipment oriented away from sensitive receivers<br>• pre-construction and ongoing consultation with adjoining sensitive receivers |
| Soil and water | • CEMP to include erosion and sediment controls consistent with the requirements of Landcom (2004) |
| Waste management | • implementation of the Stage 3 Waste Management Plan<br>• recycling of packaging and pallets where possible |
| Air quality | • CEMP to include standard air quality control measures, contingency plans and response procedures and suitable reporting and performance monitoring procedures<br>• CEMP to include standard odour mitigation measures for construction including keeping excavation surfaces moist, covering excavation faces and/or stockpiles, use of soil vapour extraction systems and regular monitoring of discharges as appropriate<br>• Operational air quality management in Building 2A to include:<br>  • Vehicles will not be left to 'idle' while loading/unloading (appropriate signage is required).<br>  • No refuelling is to occur inside the building.<br>  • Selective Catalytic Reduction (SCR) technology will be fitted to all delivery vans (to be confirmed).<br>  • Discharges of pollutants to the air from the building will be captured by a Building Code of Australia (BCA) and Australian Standard (AS1668.2-2012) "*The use of ventilation and air conditioning in* |

| Issue | Mitigation measures |
|---|---|
| | *building, Part 2: Ventilation design for indoor air contaminant control*" compliant extractions system and directed to rooftop vents. |
| Energy efficiency | • use of a 750 kW photovoltaic solar system in Building 2A<br>• use of a 300 kW photovoltaic solar system in Buildings 2C and 2D<br>• embodied carbon offset strategy<br>• use of low energy LED lighting with zone controls via motion sensors<br>• maximise the access to natural lighting, particularly in offices<br>• use of efficient air conditioning systems<br>• design of facades and roofing to comply with NCC performance requirements<br>• installing 4-star rated toilets, urinals and taps and rainwater harvesting facility<br>• a Building Users' Guide to provide details regarding the everyday operation of a building, include energy minimisation initiatives<br>• quarterly reviews to verify the performance of energy and water efficiency measures |
| BCA | • preparation of the Performance Solutions and corresponding fire safety measures during detailed design to ensure compliance with BCA and International Fire Engineering Guidelines |
| Fire safety | • preparation of Performance Solutions and fire safety measures in the detailed design phase |
| Bushfire | • establish and maintain asset protection zones as indicated in the BHA<br>• provide fire hydrants in accordance with the BCA<br>• buildings to be constructed in accordance with *AS 3959 Construction of buildings in bushfire-prone areas* and measures outlined in the BHA |