Environmental Risk Assessment and Mitigation Measures

SSD-85024458 | 61A-65 Albert Avenue, Chatswood

The following table provides recommendation for mitigation measures in response to potential impacts identified in **Section 6** of the EIS.

SEARs	Potential Impact(s)	Stage of Project	Mitigation Measure(s)
Trees and Landscaping	▪ Risk of damage to retained street trees during construction without appropriate protection measures. ▪ Removal of one street tree (Tree 15) due to conflict with proposed driveway and crossover location.	Construction	The following measures will be implemented to manage the arboricultural impacts of the proposal: ▪ Trunk Protection by way of Timber planks (50mm x 100mm or similar) will be placed around tree trunks. The timber planks will be spaced at 100mm intervals and must be fixed against the trunk secured together with 2mm galvanised wire. These will be strapped around the trunk (not fixed in anyway) to avoid mechanical injury or damage. Trunk protection will be installed prior to any site works and maintained in good condition for the duration of the construction period. The hessian and timber planks must not be fixed to the tree in any instance or in any fashion. ▪ Mulch protection zones will be applied within Tree Protection Zones (TPZ) with a minimum diameter of 75-100mm using material that complies with Australia Standard *AS 4454-2003 Composts, soil conditioners and mulches*. ▪ Prior to the commencement of any works, tree protection signage is to be attached to the tree protection fencing and must be displayed

			in a prominent position. The name and address of the developer and Project Arborist must be included on the signage.
Transport			
Contamination and Remediation	▪ Presence of bonded and fibrous chrysotile asbestos in fill at multiple locations above site criteria, posing potential health risks if disturbed. ▪ Building debris in fill across most boreholes, increasing likelihood of asbestos being more widespread than confirmed sampling indicates. ▪ Portions of fill requiring regulated handling and disposal as asbestos-contaminated material. ▪ Potential for asbestos exposure during excavation or earthworks if not appropriately managed.	Construction	The RAP confirms the site can be made suitable for the proposed development subject to the implementation of the following mitigation measures: ▪ A Hazardous Material Survey (**HAZMAT**) will be conducted prior to the demolition of the existing building to identify asbestos, synthetic mineral fibres, lead-based pain and PCBs. The removal of these materials will be in accordance with the relevant regulations to prevent soil contamination during demolition. ▪ Following the demolition and removal of hardstand, the Environmental Consultant must complete a formal waste classification report for identified contamination soils to be excavated and disposed off-site. The civil / remediation contractor will nominate a landfill facility capable of accepting the materials under the waste classifications provided. ▪ The civil / remediation contractor must engage a SafeWork NSW Licensed Asbestos Assessor (**LAA**) to over the works. The LAA will be given a copy of the RAP, and the site will be remediated as a friable site. ▪ Excavate asbestos-containing fill in RA1 to the full depth of fill and dispose of it at a licensed waste facility. The removal and management of friable asbestos will be undertaken under WHS regulations with oversight by a LAA.

- Potential mobilisation of contaminants if dewatering occurs.

- The civil / remediation contractor will set up WHS management protocols as required by the LAA prior to any excavations.
- The civil / remediation contractor will survey the existing test locations (corresponding to RA1) from Douglas (2025a and 2025b) to demarcate the extent of the remediation area prior to excavation.
- The LAA will undertake a clearance inspection and produce a clearance report stating that no asbestos is observed in the resultant excavations.
- The Environmental Consultant will validate the successful removal of asbestos impacted soils from RA1 prior to any further excavation of other fill materials.
- If excavated material is placed into a stockpile, the Remediation Contractor will manage it in accordance with the site management plan provided in Appendix I of the RAP.
- The remaining surplus fill will be assessed by the Environmental Consultant prior to excavation and off-site disposal, including sampling and visual inspection for asbestos (AF/FA) and other contaminants of concern in accordance with NSW EPA (2014a). A formal waste classification report will be prepared.
- Excavation and off-site disposal of the surplus fill under the assigned waste classification, inspection during works and the unexpected finds protocol.
- The LAA will undertake a clearance inspection and produce a clearance report stating that no asbestos is observed in the resultant excavations.

			▪ The results will be documented in a validation assessment report.
Noise and Vibration	▪ Operational noise from mechanical plant, vehicle movements, and outdoor communal areas may impact residential amenity. ▪ Construction noise from demolition, excavation, and building works predicted to exceed Noise Management Levels (**NMLs**) at some sensitive receivers, particularly residential properties and a nearby place of worship. ▪ Largest predicted exceedance during excavation is 24 dB above NML at the nearby church.	Construction and operation	The following mitigation measures will apply to the proposal to ensure noise and vibration impacts are minimised as much as practical: <u>Construction</u> ▪ Prior to the issue of a Construction Certificate, a detailed Construction Noise and Vibration Management Plan (CNVP) will be prepared and will include, but not be limited to: – Identification of nearby residences and other sensitive land uses – Description of approved hours of work – Description and identification of construction activities, including work areas, equipment and duration – Description of what work practices (generic and specific) will be applied to minimise noise – Consider the selection of plant and processes with reduced noise emissions – A complaints handling process – Noise monitoring procedures – Overview of community consultation required for identified high impact works – Overview of community consultation process and assessment required for identified additional works outside of standard construction hours; and

- Induction and training will be provided to relevant staff and sub-contractors outlining their responsibilities with regard to noise.

- In addition, the following vibration mitigation measures will be considered in the preparation of a CNVMP:
  - **Dilapidation Surveys:** Pre-construction and post-construction dilapidation surveys will be conducted for all adjacent buildings and structures to document existing conditions and identify any damage attributable to construction vibration.
  - **Vibration Monitoring:** Unattended vibration monitors will be installed at sensitive receivers to provide real-time alerts if vibration levels approach or exceed criteria. Attended vibration measurements will be undertaken during high-risk activities such as piling and demolition.
  - **Construction Method Controls:** Construction methods and equipment will be selected to minimise vibration generation, favouring hydraulic over percussive equipment where feasible. Works will be sequenced to avoid simultaneous operation of multiple vibration-intensive plant near sensitive boundaries.
  - **Safe Working Distances:** Minimum separation distances between vibration-intensive equipment and adjacent structures will be maintained, as recommended in relevant guidelines (e.g., TfNSW CNVS, BS 7385). Where works must occur within these distances, additional controls and monitoring will be implemented.

- **Temporary Structural Protection:** Temporary supports or isolation measures will be provided for vulnerable structures, such as retaining walls, adjacent to the site.
- **Communication and Complaints Handling:** Neighbouring property owners and occupants will be notified of planned vibration-intensive activities. A complaints management process will be established, including a dedicated contact for vibration concerns.
- **Contingency Actions:** If vibration levels exceed criteria, works will be halted and construction methods reviewed. Any reported damage will be investigated promptly and remedial actions implemented as required.
- **Scheduling and Work Hours:** High-vibration activities will be scheduled during periods when adjacent buildings are least occupied, where possible.
- **Ongoing Assessment and Review:** Vibration impacts will be reviewed as construction progresses, with mitigation measures updated in response to monitoring data or complaints.

<u>Operational</u>

- The total mechanical plant noise contribution will be controlled to five decibels below the NPI project noise trigger levels presented in Table 4-5 of the NVMP. Acoustic mitigation measures that are applicable to the mechanical plants are:
  - Locating mechanical equipment as far as practicable from noise sensitive receivers

  - Using in-duct treatments such as internally lined ductwork or silencers
  - Building barriers or enclosures around equipment
  - Using acoustic louvers.
- Any expansion joint covering plates within the loading dock must be firmly down such that they do not generate any rattling noises when driven over by vehicles.
- The heavy vehicle turntable will be vibration-isolated to prevent any ground-borne noise transmission.
- Separate retail and commercial tenancies with the potential to create noise disturbances will be subject to separate development applications and will include a venue specific noise emission assessment.
- A Plan of Management will be developed for the Communal Open Space on Level 04 to promote the use of the communal space in a way which maintains the acoustic amenity of surrounding apartments. The following management measures will be considered:
  - Permitted hours of access
  - Restrictions on group size
  - Restrictions on use of amplified music such as portable speakers
  - Signage reminding users to be mindful of nearby residents

			▪ Noise impacts from indoor communal spaces will be managed through operable windows if required.
Ground and Groundwater Conditions	▪ Interception of groundwater table requiring continuous dewatering during construction and operation. ▪ Potential for higher groundwater inflows during initial excavation. ▪ Groundwater drawdown of up to 1 m at 200 m from the site. ▪ Extracted water may contain minor exceedances of metals (e.g. copper) and elevated suspended solids, requiring treatment prior to discharge. ▪ Potential for localised changes in groundwater flow paths and minor impacts to nearby bores without appropriate management.	Construction	▪ A Construction Groundwater Management Plan (**CGMP**) is required prior to excavation. The CGMP must include details regarding the dewatering methodology. Monitoring programs, trigger levels and contingency actions.

Water Management	▪ Stormwater from the site has potential to carry gross pollutants, suspended solids, nutrients, hydrocarbons, and soluble heavy metals into the catchment without treatment. ▪ Potential for erosion and sedimentation during construction activities if controls are not implemented.	Construction	▪ Protection of existing stormwater inlets using sandbags. ▪ Construction exit controls incorporating shaker grids and wheel wash facilities to prevent spoil being tracked onto public roads. ▪ Sediment fencing along downstream boundaries to intercept and retain sediment onsite.
Environmental Heritage	▪ Limited to nil impact on nearby heritage items. ▪ Site itself has been subjected to total ground disturbance impacts; as such, the archaeological potential of the site is nil.	Construction	▪ Implementation of a standard unexpected finds protocol for ground disturbing works.
Operational Waste	▪ Risk of contamination and overflow if recycling and cardboard are not separated correctly.	Operational	▪ Recycling and reuse: – Retail tenants will dispose of their recycling into the bins provided. – Residents will dispose their commingled recycling into the chute and cardboard into the 240L bins on each level.

- Odour, pest attraction, and contamination of organics stream if not disposed of properly.
- Unpleasant smells, vermin issues, and health risks if cleaning and containment are inadequate.
- Potential for staff injury and WHS breaches from lifting or moving heavy bins.
- Overflowing bins, litter, and chute blockages if waste storage capacity is insufficient.
- Incorrect disposal, contamination, and chute misuse if residents and tenants are not well-informed.
- Fines, enforcement action, and reputational damage if waste practices breach regulations.

- Food organics and garden organics:
  - Residents will dispose of their FOGO into the bins provided within the residential FOGO room. This could include food scraps, garden clippings, and other biodegradable materials.
  - Retail tenants will dispose of their FOGO into the 240L FOGO bins provided in the Retail Bin Room.
- Odour, hygiene and pest control:
  - Increase wash-down frequency in FOGO and Chute Discharge Rooms during warm periods.
  - Ensure sealed flooring and drainage in bin rooms to allow proper cleaning.
  - Mandate resident compliance with compostable liners and clean recycling.
- Manual handling:
  - Provide bin lifters to all compactors to eliminate manual lifting.
  - Require all staff using bin lifters/compactors to undergo formal training with competency records.
- Capacity management:
  - Linear track system provides in the chute discharge room for waste and recycling stream to hold 1 day of waste generated.
- Education:
  - Building operator provide information in multiple languages to support correct behaviours, and to minimise the possibility of chute blockages and contamination in communal bins.

			– The building operator will ensure everyone is aware of the importance of waste minimisation and how to dispose of waste correctly. – Signage will be provided in the chute rooms and bin rooms. Also, it will be included in the Building Operations Manual for residents and tenants. ▪ Policy and regulation compliance: – Regularly review the policies to ensure they remain in line with evolving environmental regulations, and best practices.
Construction Waste	▪	Construction	▪ Source separation: – Separate waste streams at the point of generation (e.g., bricks, concrete, timber, metal, plasterboard) to maximise reuse and recycling. The Site Manager or Contractor is responsible for foreseeing the waste separation. ▪ Reuse of materials: – Reuse demolition materials such as crushed concrete and bricks onsite as fill or sub-base material. Demolition Contractor is responsible for foreseeing the waste reuse. ▪ Accurate material ordering: – Order correct quantities and use prefabricated materials to minimise excess. Project Manager to ensure correct material quantities are ordered. ▪ Staff training and induction:

- Provide all workers with site-specific induction and ongoing training on waste separation, hazardous waste handling, and spill response. Site Manager to regularly conduct training in line with evolving environmental regulations and best practices.

- Management of asbestos:
  - Contaminated material stockpiled on site will be minimised as far as possible and should be stored on HDPE liner, in a bunded location which is protected from inclement weather;
  - Sediment fences should be installed around the base of stockpiles and the stockpiles should be covered. Where excavated material requires validations, samples should be taken for NATA laboratory testing as per the requirements of the contamination assessment prior to restoration works, backfilling exercises and disposal;
  - Any trucks carrying contaminated materials should be securely and completely covered immediately after loading the materials (to prevent windblown emissions and spillage) and must be licensed by the NSW Environmental Protection Authority (EPA);
  - Decontamination of all equipment prior to demobilisation from the site is important so that contaminated materials are not spread off-site.
- Management of excavation waste:
  - Wherever practical, excavation material will be reused as part of the development;

- Excavation material that is not natural (virgin) material will be transported to an approved landfill site or off-site recycling depot;
- A waste classification assessment of the fill material should be undertaken prior to it being acceptable for waste disposal purposes;
- Transportation routes for excavation material removed from site will be identified and used.