14 December 2018

WM Project Number: 18385
Our Ref: WH18385LTR 04122018 JW

The Trust Company (Australia) Limited ATF WH Gibbons Trust
c/o Aliza Teo, ALLEN JACK + COTTIER
79 Myrtle Street
CHIPPINGDALE NSW 2008

Dear Aliza

Re: Wee Hur Student Village Redfern
- 13-23 Gibbons Street, Redfern - Odour and Air Quality

Wilkinson Murray Pty Ltd (WMPL) has been engaged by The Trust Company (Australia) Limited ATF WH Gibbons Trust to conduct a qualitative odour and air quality assessment for the Environmental Impact Statement (EIS) for the proposed development at 13-23 Gibbons Street, Redfern for Student accommodation.

The development's Secretary's Environmental Assessment Requirements (SEARs), Key Issue 13, requires an air quality report. The relevant SEARs requirement is reproduced below:

"Air quality, odour and waste

The potential air quality, odour and waste impacts during the construction and operation of the development and appropriate mitigation measures."

SITE DESCRIPTION

The site is located on the northern corner of Gibbons and Margaret Street, Redfern. The site has a frontage of approximately 34 metres to Gibbons Street and a frontage of approximately 38 metres to Margaret Street. The site currently has a 4 to 5 storey residential flat building containing 32 apartments. The existing building has a perimeter courtyard form with minimal setback from both Gibbons Street and Margaret Street. The site is shown in Figure 1.

Figure 1 Site Location

The proposal provides for the erection of an 18 storey building, with a 3 storey podium and 14 storey tower above, as a student accommodation development.

The proposed development will provide facilities for students including communal areas, outdoor opportunities throughout the building, laundry facilities, kitchen facilities, bicycle parking, games rooms, study rooms, staff and reception areas as well as 488 beds for students. The proposed building comprises the following components:

- A single basement level is proposed which will contain common room, bike parking, a laundry, waste area, gym, and plant areas.
- The ground floor will contain a foyer and reception area, office, lounge, retail area, communal space, quiet zone, bike work shop and plant room.
- For the Podium, the rooms are mostly ensuite rooms with a single bed. Level 2 and 3 also contain common kitchen and dining rooms. Level 2 has an outdoor terrace facing north, level 3 has a balcony facing north. Level 4 will provide a study area with terraces to the west.
- The tower floorplate contains mostly study rooms with a single bed.
- The roof-top contains plant and a plant room.

The adjacent site to the north at 11 Gibbons Street, Redfern is the former City of Sydney Council depot which has been sold and is currently being redeveloped into an apartment building. The adjacent site to the east contains a BP service station.

Compared to the existing building the proposed building is setback from the existing service station with the extension of William Lane, with associated increased pedestrian connections in the area, public domain improvements and incorporation of indigenous artwork.

OPERATIONAL AIR QUALITY

The operational air quality assessment primarily provides a qualitative assessment of potential air quality impacts from the BP service station to the proposed development; however it also reviews the potential impacts of air quality and odour to its neighbouring buildings.

When filling underground fuel storage tanks or vehicle fuel tanks, the volume of fuel entering the tank will displace an equal volume of 'air'. Due to the relatively high volatility of petrol, the 'air' which is displaced contains a significant proportion of petrol vapours, containing benzene, xylene, toluene and other volatile organic compounds (VOCs). These compounds are odorous and contribute to local, regional and global air pollution.

To mitigate the potential for air quality impacts (including odour) from service stations the EPA in their *Environment Operations (Clean Air) Regulation* (the Regulation) require petrol stations in the metropolitan area to have stage 1 and 2 vapour recovery systems.

Vapour recovery control equipment aims to capture petrol vapours before they enter the atmosphere. VR1 captures displaced vapours from storage tanks when a tanker delivers petrol to a service station, while VR2 captures displaced vapours at the bowser while a motorist refuels. The VR1 capture efficiency is approximately 97% and VR2 capture efficiency is approximately 85% of petrol vapour.

A site inspection of the BP petrol station neighbouring the proposed development was conducted on 29 November and 4 December 2018. The station is newly developed and appears to have both stage 1 and 2 vapour recovery systems. The station design specifically the locations of fuel bowsers and tank

filling points appear to be located as far away from the development as practicable. During the site visit there were no VOC odours detectable.

With respect to the development design, the development has been designed to minimise impacts by setting back the building from the service station, not having apartments on ground floor and not having balconies overlooking the service station when compared to the old apartment building.

Due to the fact that the service station includes stage 1 and 2 vapour recovery systems Wilkinson Murray considers that there would be negligible impact of air quality and odour from the BP service station on the proposed development.

With respected to minimising air quality and odour to adjoining properties the following have been considered in the design:

- garbage storage room is located towards the rear of the development and enclosed;
- the laundry is located in the basement set to discharge on the eastern façade;
- the kitchens in the common areas above ground have been allocated a riser to discharge at the roof;
- retail on the ground level, if set up with a Café or restaurant has been allocated a riser to discharge at the roof; and
- all kitchens in rooms have a recirculating range hood so no discharge as it just operates in the room with a filter.

CONSTRUCTION AIR QUALITY

The major construction activities proposed on this site are demolition works, excavation works, concrete pours and general building works.

The major construction works would have potential dust impacts. As such, the following mitigation measures would be considered as part of the construction management plan process:

- **Communications**
    - Develop and implement stakeholder communications that includes community engagement before work commences on site.
    - Develop and implement a Dust Management Plan (DMP) that includes, as a minimum, the measures identified herein.
- **Site management**
    - Record all dust and air quality complaints, identify cause(s), take appropriate measures to reduce emissions in a timely manner, and record the measures taken.
    - Record any exceptional incidents that cause dust and/or air emissions, either on or off site, and the action taken to resolve the situation in the log book.
- **Monitoring**
    - Carry out regular site inspections to monitor compliance with the DMP, record inspection results, and make inspection log available to relevant authorities.
- **Preparing and maintaining the site**

  - Avoid site runoff of water or mud.
  - Keep site fencing, barriers and scaffolding clean using wet methods.
  - Remove materials that have a potential to produce dust from site as soon as possible, unless being re-used on site. If being re-used, keep materials covered.
- **Construction vehicles and sustainable travel**
  - Ensure all vehicles switch off engines when stationary - no idling vehicles.
  - Minimise the use of diesel or petrol powered generators and use mains electricity or battery powered equipment where practicable.
- **Measures for general construction activities**
  - Only use cutting, grinding or sawing equipment fitted or in conjunction with suitable dust suppression techniques such as water.
  - Ensure an adequate water supply on the site for effective dust/particulate matter suppression/mitigation, using non-potable water where possible and appropriate.
- **Measures specific to haulage**
  - Use water-assisted dust sweeper(s) on the access and local roads, as necessary.
  - Ensure vehicles entering and leaving sites are covered to prevent escape of materials during transport.

I trust this information is sufficient. Please contact us if you have any further queries.

Yours faithfully
WILKINSON MURRAY

John Wassermann
Director