

Environmental Health Referral Response - industrial use

Application Number:	DA2021/2567
Date:	25/01/2022
To:	Daniel Milliken
Land to be developed (Address):	Lot 13 DP 568333 , 60 Federal Parade BROOKVALE NSW 2100

Reasons for referral

This application seeks consent for large/and or industrial development.

And as such, Council's Environmental Investigations officers are required to consider the likely impacts.

Officer comments

General Comments

The proposal generally is to increase student numbers, the school's capacity is proposed to increase from 1,200 to 1,600 students; provide additional carparks within a residential environment. This has a number of potential issues of concern for Environmental Health to consider which include; noise from car parks; construction work noise; Dust from construction work; increase student numbers noise and car park lighting.

The statement of environmental effects(SEE) and the acoustic report (E-LAB Consulting 13.12.21) have tried to address all these issues. Comments below include those extracted from the EES and Acoustic Report demonstrating how potential issues will be addressed..

Any commercial or industrial activity within or adjacent to residential development without a designated buffer zone and or acoustic barriers has the potential to create a nuisance.

Importantly the main use of the car parks will be mainly during school hours and restricted by way of a swipe card for access giving control of use. Teachers will be allocated spaces increasing supervision.

As part of the application, there are 2 new carparks envisaged:

One is to be located at 60 Federal Parade which will yield 24 car parking spaces.

Another is to be located on the corner of Alfred Road and Gulliver Street which will yield 30 car parking spaces. Currently, there is a playground belonging to the school where majority of the proposed car spaces are. The carpark is to have one-way traffic flow with entrance on Alfred Road and exit on Gulliver Street.

The following assumptions have been made by the Acoustic Engineer for the noise modelling and assessment:

Carparks will only be used by school staff and students, on normal occasions (allocated spaces), and

overflow of student / parent vehicles during after-hours events;

Carparks will only be used during the day (7am to 6pm) for normal school days, with evening usage (6m to 10pm) only for after-hours events;

Peak carpark usage is predicted to be between 7am to 8am when staff/students arrive and 3pm to 4pm when staff/students leave;

Carpark capacity (24 cars for Federal Parade and 30 cars for Alfred Road) is linearly filled or emptied in a span of 1 hour; and Installation of mitigation measures are proposed.

SCHOOL STUDENT NOISE

As part of the application, the school's capacity is proposed to increase from 1,200 to 1,600 students. To assess the extent of noise impact to surrounding receivers, noise emissions from within the school for both the currently allowed school capacity (1,200) and proposed new capacity (1,600) will be predicted and compared.

It is acknowledged in the field of acoustics that a noise difference of up to 2dB is generally indiscernible to an average person. This principle is discussed in Section 3.4 of the NSW Road Noise Policy, which states:

"In assessing feasible and reasonable mitigation measures, an increase of up to 2dB represents a minor impact that is considered barely perceptible to the average person"

CARPARK NOISE MITIGATION

To ensure compliance with noise emission criteria the following recommendations are to be implemented and followed:

Standard carpark hours of operation are to only be after 7am and before 6pm, with operation of the carparks from 6pm to 10pm only permitted for special events (infrequently);

Carpark boundaries adjacent to residential receivers to have an acoustic barrier.

Acoustic barrier shall be minimum 1.8m in height and all gaps are to be minimised.

Acoustic barrier shall be made of a material and constructed to have a minimum surface density of 16kg/m².

CONSTRUCTION NOISE EMISSIONS

The use of a standard A-class hoarding of the following materials and construction will suffice to mitigate the impact of the highest predicted noise levels:

The A-class hoarding should be impervious of gaps and cracks which would compromise its performance it should be comprised of acoustically suitable materials such as 17 mm plywood be minimum 2.1m in height

The barrier shall reduce the noise levels experienced at the surrounding residential receivers to the proposed carparks.

Locating site amenities towards the site boundaries further increases the shielding of construction noise.

Proposed Noise & Vibration Monitoring Program:

A monitoring program for the construction works is proposed. The monitoring program is to be carried out during the likely noisiest periods during each construction phase as agreed with the Acoustic engineer and Contractor.

The assessment has considered the following key acoustic elements:

Traffic noise generation from the addition of new carparks and the impact on nearby noise sensitive receivers

Noise impact to nearby noise sensitive receivers from the operation of the new carpark

Noise impact to nearby noise sensitive receivers from the increase in students within the school

Noise and vibration impact to nearby receivers from the construction of proposed carparks

In terms of operation of the carpark surrounded by residential dwellings at 60 Federal Road, the gate will be opened each school day morning at 7am by school maintenance staff and remain open until 9am. It will then be closed. A swipe card or remote control will be issued to staff members parking in this car park and they will be able to open the gate to leave at the end of each school day. The car park will not be used after hours or on weekends.

Dust during works can be considered as a condition of any approval.
Lighting is proposed to be only at bollard height so glare issues mitigated.

The number of and finishing hours of "special events" where the carparks are used needs to be documented before any approval is issued.

Environmental Health support the proposal and it is critical that the recommendations contained within the acoustic report be implemented and conditions are outlined in recommended conditions below.

The proposal is therefore supported.

Note: Should you have any concerns with the referral comments above, please discuss these with the Responsible Officer.

Recommended Environmental Investigations Conditions:

CONDITIONS TO BE COMPLIED WITH DURING DEMOLITION AND BUILDING WORK

Construction noise

All recommendations contained within the acoustic report by E-LAB Consulting -13.12.21 in regard to minimising construction noise shall be implemented during works.

Reason: To minimise noise to adjacent receivers.

Dust during works

Dust dust to neighbouring residents and businesses and ensure any airborne substance is kept within the boundaries of the site

Measures may include but not be limited to:

- Water sprays
- Bunker storage
- Limiting size of stockpiles and covering stock piles
- Vertical barriers e.g. fencing with fine mesh attached

Reason: To minimise dust to neighbouring residents and businesses control measures including best practice, and in accordance with NSW Workplace Health and Safety Regulations and the Protection of the Environment Operations Act 1997, shall be implemented to minimise and avoid air pollution

CONDITIONS WHICH MUST BE COMPLIED WITH PRIOR TO THE ISSUE OF THE OCCUPATION CERTIFICATE

Acoustic compliance

Prior to the issues of an Occupation Certificate the acoustic recommendations contained the acoustic report by E-LAB Consulting 13.12.21 shall be implemented.

Additionally noise generated by automatic (electric motor driven) gates or barriers shall be assessed by the acoustic consultant to ensure a nuisance to neighbours in avoided.

Reason: To achieve acoustic compliance and reduce nuisance to residential receivers.

ON-GOING CONDITIONS THAT MUST BE COMPLIED WITH AT ALL TIMES

Noise

The recommendations contained within the acoustic report by E-LAB Consulting -13.12.21 with regard ongoing use of the carparking areas shall be maintained ongoing.

Reason: To avoid future noise nuisances to residential receivers.