This submission is in relation to the Northern Beaches Link Project (**Project**) and in particular the Surface Works proposed on or near Reserve Rd, the selection of the Barton Road Support Site (**BL5**) and the negative impacts it will have upon residents living in 108 Reserve Rd Artarmon (**108 Reserve Rd**).

Summary of Barton Road Support Site (BL5)

Chapter 6 of the EIS describes BL5 as:

Name	Description
Use	Car park for workers, project site office for Gore Hill Freeway
	Connection Works and laydown Area
Site Access	Via Barton Rd and Butchers Lane off Reserve Rd (encircling 108
	Reserve Rd Artarmon)
Contraction program for BL5	4 years from Q3 2023 to Q2 2027 (inclusive)
Construction Hours for Site	7am to 6pm Monday to Friday
	8am to 1pm Saturday
	Note: CSSI Projects may work until 6pm on Saturdays. It is highly
	likely this project will be a CSSI Project
	Night works and Out of Hours Works required
Vehicle Movements	Estimated 155 light and heavy vehicles a day

Summary of Surface Works

Surface Works includes:

- a) Substantial modifications to the bridge at Reserve Rd;
- b) Demolition of an existing building and construction of a new control centre on Reserve Rd;
- c) The Construction Site for the Tunnel breakthrough; and
- d) Upgrade of the on and off ramps at the Lane Cove Tunnel,

all within 500 m of the residential apartment block at 108 Reserve Rd (Surface Works).

The Surface Works and BL5 will have a significant negative impact upon the individual residents of 108 Reserve Rd in:

- a) Construction Noise of Night Works and works outside of normal construction hours;
- b) Construction noise and air quality degradation during the day;
- c) Noise and Vibrational Issues created by construction traffic around 108 Reserve Rd; and
- d) Impact upon increased traffic and parking issues in Reserve Rd Artarmon,

each of these issues are further detailed below.

It is noted that the Project is planning on seeking a CSSI Declaration allowing them to work outside normal construction hours and completing night works to minimise disruptions to the Lane Cove Tunnel.

During 2020, people's lifestyles changed so that people are now studying and working from home. The construction of the Surface Works and use of BL5 for 4 years will expose the residents of 108 Reserve Rd, to a prolonged, unreasonable and unacceptable period of excessive noise and poorer air quality 7 days a week for 4 years. Such prolonged exposure can negatively impact resident's mental and physical health as it may impact:

- a) their ability to sleep;
- b) their ability to concentrate on work or study impacting their work or learning performance;
- c) their ability to perform their work or study if they cannot attend class or meetings on line due to the noise; and
- d) their health especially those with respiratory issues.

While the EIS had identified 108 Reserve Rd as being a sensitive receiver building for noise impacts it does not provide any details as to what, if any, noise mitigation measures will be applied.

Further, the EIS does not identify any other impacts to the residents of 108 Reserve Rd from the Project nor what further mitigation measures will be applied to minimise the impacts of the Project, including the Surface Works and BL5, on the residents of 108 Reserve Rd.

Usually, this type of construction would warrant temporary noise, vibration and air quality mitigation measures. However, the construction period of the Surface Works and the use of BL5 for 4 years must result in any Approval being given for the Project including conditions that ensure that:

- a) Permanent noise mitigation measures such as double glazing, supervisors managing the noise levels at BL5 and minimising construction traffic noise;
- b) Permanent air quality mitigation measures such as mechanical ventilation; and
- c) Dilapidation surveys of each unit at the commencement of works on site and at regular intervals during the construction period with an enforceable obligation to rectify any damages caused or contributed to by the works,

are implemented and enforced for each individual unit at 108 Reserve Rd Artarmon.

Noise of Works

EIS Sections	Chapter 6

The Project contains significant Surface Works within 500m of the residential Apartment Building at 108 Reserve Rd, Artarmon including:

- a) Modifications of the Bridge at Reserve Rd;
- b) Upgrading the on and off ramps for the Lane Cove Tunnel;
- c) The Construction Site for the Tunnel breakthrough; and
- d) Demolishing an existing building and building a new control centre on Reserve Rd.

In addition to this, The EIS states that BL5 is proposed to be used as:

- e) Parking for Workers;
- f) Picking up and dropping of deliveries, plant and equipment, including heavy vehicles with diesel engines and compression braking; and
- g) Use as a Site Office,

resulting in approximately 155 heavy and light Vehicle Movements a day entering and exiting BL5 from Barton Rd and Butchers Lane which are on either side of the residential apartment block at 108 Reserve Rd.

The noise from the Project will include:

- a) Construction noise including demolition, power tools and equipment;
- b) Noise from the construction traffic surrounding 108 Reserve Rd and using BL5;
- c) Human noise from BL5 especially during shift changes when workers are slamming doors and talking amongst themselves; and
- d) Noise from unloading and loading plant and equipment on BL5.

The Surface Works and the use of BL5 will expose the residents of 108 Reserve Rd to unbearable and unacceptable noise levels for a prolonged period of 4 years.

During 2020, the lifestyles in Sydney changed with most people now working and studying from home. The combined noise from the Surface Works and the operation of BL5 will make it impossible for people to work and study, as they will be exposed to noise continuously 7 days a week for 4 years.

This will undoubtedly negatively impact upon the resident's mental and physical health as their sleep and concentration levels will be inhibited resulting in their inability to perform their work or learn creating a more stressful environment for them. In addition, they may physically be unable to perform their work or study as they may not be able to attend class or a meeting on line due to the noise in their apartment.

Usually situations like this would require temporary noise mitigation measure, but the change in lifestyles ensuring that people are at home more and the construction program of 4 years should require permanent noise mitigation measure be implemented.

Any approval given for the Project must set conditions as to the exact noise mitigation measures being implemented for residents of 108 Reserve Rd, which should be permanent in nature considering the use of the period of construction will be 4 years in duration such as:

- a) Alternative construction methods to minimise noise created by the Project;
- b) Requiring double glazing being installed in individual apartments;
- c) Ensuring that a supervisor is stationed at the entrances to BL5 to ensure that workers minimise noise (e.g. slamming doors and conversations) especially at shift change times; and
- d) Minimise noise impacts from reversing alarms (e.g. mandate the use of a broadband style alarm).

Noise of Night Works

EIS Sections	Chapter 6 – pages 59 and 86
	Chapter 10 – page 37

The EIS proposes that night works be carried out to minimise disruption to traffic on the Freeway and coming out the Lane Cove Tunnel. Noting how congested the Lane Cove Tunnel, the Freeway and the surrounding local roads are currently, it is highly likely that there will be a frequent need to resort to construction works out of ordinary construction times (including night works) on multiple consecutive nights and a need to compete the Surface Works and access and use the Barton Road Support Site (BL5).

The night works will undoubtedly create significant noise after construction hours at night and in particular:

- a) Construction Noise of the Surface Works (e.g. demolition, construction traffic, power tools and equipment)
- b) Parking for Workers especially during shift changes;
- c) Picking up and dropping of deliveries, plant and equipment; and
- d) Human noise with workers conversations and movements at BL5 and the Surface Works.

This will create unbearable and unacceptable noise levels for residents over an extended period of 4 years severely impacting upon their health, resulting from their inability to a peaceful sleep which will consequently result in their reduced ability to concentrate on their work or study. This may impact their learning or work performance which will create a much more stressful environment for the residents of 108 Reserve Rd.

It is essential that any approval given for the Project prohibits night works or at least BL5 from being used outside construction hours and/or set conditions as to the exact noise mitigation measures being implemented for residents of 108 Reserve Rd which should be permanent in nature considering the use of the Site will be 4 years in duration, with people now working and studying from home such as:

- a) Requiring double glazing being installed in individual apartments;
- *b)* Ensuring that a supervisor is stationed at the entrances to BL5 to ensure that workers minimise noise (e.g. slamming doors and conversations) especially at shift change times; and
- c) Minimise noise impacts from reversing alarms (e.g. mandate the use of a broadband style alarm); and
- d) Employing alternative construction methods and programming (e.g. carrying out night works on non-consecutive nights and alternate weekends).

Noise of operations

EIS Sections	Chapter 6 – pages 59 and 86
	Chapter 10 – page 37

The development of the Project will see an increase in traffic using the Lane Cove Tunnel. The current noise barrier along the Freeway is not high enough to protect the residents from the traffic noise generated from the Lane Cove Tunnel.

Currently, there is considerable noise generated from traffic using the Lane Cover Tunnel especially from trucks using compression braking as they enter the tunnel.

Increasing the amount of traffic using the Lane Cove Tunnel will also increase the traffic noise currently experienced by residents of 108 Reserve Rd Artarmon.

As this would be a long term effect upon the residents permanent noise mitigation measure must be implemented.

Any approval for the Project must contain conditions that permanent noise mitigation measure such as double glazing must be implement in each unit at 108 Reserve Rd.

Vehicle Movements

EIS Sections	Chapter 6 – Table 39 and page 91

The EIS States that up to 155 heavy and light vehicles a day will access Barton Road Support Site (**BL5**) from both Butchers Lane and Barton Rd from Reserve Rd. These vehicle routes are to be used both within construction hours 6 days a week and outside construction hours 7 days a week.

This will mean that the residential apartment block at 108 Reserve Rd will be subjected to construction traffic 7 days a week for 4 years.

The EIS estimates approximately 35 heavy and 120 light vehicles movements a day¹ on these vehicle routes (this equates to approximately 18 heavy vehicles and 60 light vehicles). However, the EIS also proposes that Barton Rd Support Site (BL5) is used as a carpark for workers on the Project. The EIS in unclear whether the estimated 155 Vehicle Movements also includes vehicles owned by workers on the Project using BL5 as a car park. If it is proposed to use BL5 as a support office, car park for workers and a laydown area then 60 light vehicles a day would, appear to be an underestimation of the number of vehicles expected to use BL5 particularly as there will be limited to no parking available in the local streets.

These figures do not include the Vehicle Movements from construction traffic for the Surface Works which would be considerably more.

Vibrations from Vehicle Movements

It is proposed that 155 Daily Vehicle Movements (including heavy Vehicles) pass in close proximity on all sides of the residential Apartment Block at 108 Reserve Rd 7 days a week for 4 years. The continuous passing of 155 Vehicles close to the residential apartment block may expose the building and the residents to continuous levels of vibrations for which the building was not expected nor designed to withstand.

Any Approval granted for the Project must contain a condition that a dilapidation report be completed on each residence of 108 Reserve Rd before construction commences, at regular periodic intervals during the construction period and a final dilapidation report completed after the Date for Completion of the Project

Noise from Vehicle Movements

The Project will generate a significant amount of construction traffic including 155 light and heavy vehicles and additional vehicles for the Surface Works passing close to all sides of the residential building at 108 Reserve Rd.

The EIS does not detail any mitigation measures for noise offered to residents affected by the construction traffic nor traffic entering or existing the Barton Rd Support Site (BL5) nor does it require any mitigation measures to be implemented.

¹ Table 6-39

Any Approval granted for the Project must contain conditions as to what noise mitigation measures being implemented for individual residents of 108 Reserve Rd including:

- a) Minimising Construction Traffic by restricting the type of heavy vehicles that can use BL5;
- b) Planning the traffic routes so that they are within normal construction hours; and
- c) Mandating the use of alternative to beeper style reversing alarms.

Safety for Residents from Vehicle Movements

Reserve Road is a popular pedestrian zone with many people using it for access to the sports field, Artarmon Public School, the industrial area, the bike and walking path on the southern side of the Freeway and to park their cars to use the Artarmon Train Station. The only way to cross the Freeway by foot is at Reserve Rd. The bridge at Hampden Road is too far to be of any real use for pedestrians to use.

108 Reserve Rd has 30 Apartments and so has residents, tradesmen, visitors, deliveries and pick ups exiting and entering the building all day.

Running 155 Daily Vehicle Movements, including heavy vehicles, up and down Reserve Rd and around the residential building at 108 Reserve Rd, is dangerous for the pedestrians using Reserve Rd and the residents, workers and visitors at 108 Reserve Rd.

Any Approval granted for the Project must contain conditions ensuring the safety of pedestrians along Reserve Rd and of people entering and exiting the residential building at 108 Reserve Rd such as certified Traffic Controllers posted at the junctions of Reserve Rd and Barton Rd, and Reserve Rd and Butchers Lane to monitor and manage the Daily Vehicle Movements.

Parking	
EIS Sections	Chapter 8 – page 44

Many commuters park in the surrounding streets to catch the train from Artarmon Train Station, access the sports field used daily by local sporting groups, pick up or drop off children from Artarmon Public School or work in the Artarmon Industrial Area.

There is already a shortage of parking in the streets of Artarmon which the local council has been struggling to address without success for a number of years.

The removal of any parking spots from the local streets will place further stress on the congested parking situation in Artarmon.

Any Approval for the Project should:

- a) expressly prohibit any parking in the streets of the residential district of Artarmon by workers from the Project; and
- b) contain conditions that workers are encouraged to use public transport to the Ste or that Workers are transported to the works site from outside the local area.

Air Quality from Dust Generated by Construction Activities

EIS Sections	Chapter 12 – pages 18 and 22

The works proposed consist of:

- a) Tunnelling from the construction site on the southern side of the Free way;
- b) Surface works with the Reserve Rd Bridge modifications and upgrades of the on and off ramps from the lane Cove Tunnel; and
- c) Surface works to demolish existing buildings and build the Control Centre on the site of the existing Freeway Hotel.

The only mitigation measures set out in the EIS for dust mitigation seem to focus on the construction site on the southern side of the Freeway, which appears to primarily focus on the use of acoustic sheds to capture the dust soiling and air bourne particles from the tunnelling.

There are no mitigation measures detailed for the surface works proposed around Reserve Rd Bridge or the site of the proposed new control centre.

Any approval should contain conditions that protect the residents in residential apartment blocks, like 108 Reserve Rd, in close proximity to the tunnelling and the surface works by the permanent installation of mechanical filtration systems in each individual unit.

Air Quality from the use of BL5

EIS Sections	Chapter 6 – Page 60 Site Map

The car park is located next to the boundary fence between BL5 and 108 Reserve Rd Artarmonⁱ and thus is directly next to the residential units of 108 Reserve Rd on the boundary fence.

The use of Barton Road Support Site (**BL5**) as a carpark and laydown area with heavy vehicles accessing and using BL5 directly next to the residential buildings, would invariably increase the exhaust emissions being breathed in by the residents 7 days a week for 4 years.

Any approval should contain conditions that ensures the health of the residents of 108 Reserve Rd by protecting them from the exhaust emissions being issued from the construction traffic by the permanent installation of mechanical filtration systems in each individual unit.

ⁱ Chapter 6 – Page 60 Site Map