

15/6/2023

TL912-06F02 4.55 Modification 2 (r0)

IRIS

Att: Warwick Bowyer

Dear Sir,

42 North Steyne, Manly – 4.55 Modification 2 - Acoustic Advice

Introduction

We have been asked to provide acoustic advice with respect to 4.55 Mod 2 to the above development.

We have reviewed the modification drawings by Squillace Architects dated May 2023 which detail the proposed design changes. The primary modifications to the approved design with respect to acoustics consist of:

- Reconfiguration of the ground layout, The ground floor layout incorporates a café, lobby entry to apartments above and back of house/amenities areas. The primary design change consists of the incorporation of a kitchen area that will service the adjacent Steyne Hotel. The kitchen is located below future apartments in the 42 North Steyne building. The point of sale for the kitchen will connect to the ground floor courtyard of the Steyne Hotel, to the south.
- Routing of the ductwork of a new kitchen exhaust fan from the new kitchen to existing risers within the Steyne Hotel development.

An acoustic assessment of the original design for 42 North Steyne was prepared by this office *42 North Steyne Manly – Alterations and Additions, Acoustic Assessment for DA* dated 28/10/2021 Rev 2 – the Original Acoustic Report.

In that report, the key acoustic issues were identified:

- External noise impacts on the future apartments of 42 North Steyne were examined. These noise sources included the Steyne Hotel courtyard, road traffic from North Steyne and from the new café.
- Noise generated by the 42 North Steyne site (in particular the ground floor café).

The proposed design changes will not have a significant impact with respect to these issues and the acoustic treatments detailed in the Original Acoustic Report remain applicable.

This is discussed in detail below.

External noise impacts on the proposed residential apartments.

Music and patron noise from the court yard and roof terrace areas of the adjacent Steyne Hotel was examined in the Original Acoustic Report.

In addition, the impact of road traffic from North Steyne was also examined.

Acoustic treatment of the building shell to 42 North Steyne was incorporated into design to address these noise impacts. These included use:

- Acoustic glazing (particularly for upper levels facing the north Steyne Hotel),
- Noise screens at upper levels to protect 42 North Steyne outdoor areas from Hotel noise and
- Incorporation of a winter garden design for the apartment balconies closest to the Hotel.

The Original Acoustic Report also included a recommendation regarding a double layer acoustic ceiling with insulation to the café areas to address noise transmission through slab into apartments above.

The proposed changes will not change the primary source of noise impacts on the proposed (modified) development. The impact of hotel court yard noise and road traffic from North Steyne will not change as a result. Specifically, the new kitchen opening into the Hotel Courtyard will not cause any significant change in noise emission from the Hotel courtyard (the dominant noise in the courtyard is patrons and music).

Recommendation/comment:

- There is no need to modify the acoustic treatments detailed in the Original Acoustic Report.
- A double layer ceiling that has been recommended in the Original Acoustic Report. This double ceiling design the internal areas of the café should also be applied to the new ground floor kitchen area.
- As part of the detailed design of the Kitchen, acoustic treatment of building services/joinery associated with the café will be determined to ensure there is no excessive noise impact to the apartments above. This will typically consist of vibration isolation of any plant serving the kitchen and resilient flooring elements when installing kitchen joinery to prevent impact noise (dropping objects) travelling from kitchen to apartment above.

Noise generation

As noted above, having a kitchen serving the Steyne Hotel in the ground floor of the 42 North Steyne development will not change noise generated by either the Hotel or by 42 North Steyne:

- With respect to the Steyne Hotel noise generation and its impact on 42 North Steyne:
 - The primary source of noise emission is from use of the Hotel courtyard (patron/music).
 - This noise impact was considered in the Original Acoustic Report. The noise associated with this the kitchen connection in 42 North Steyne in the 4.55 modification will have no impact on operational noise.
- With respect to noise generated by 42 North Steyne:
 - The main source of noise emission will be from the front (eastern) façade of the development being the ground floor café with outdoor dining area.
 - This was assessed in the Original Acoustic Report. Acoustic treatments with respect to the café ceiling, music noise levels in the café and shop front windows were determined. These recommendations remain applicable and do not need to change as a result of the proposed s4.55 modification.
 - Kitchen Exhaust Fan and Ducting:
 - Noise associated with a fan is always capable of being acoustically treated to ensure noise emissions will be compliant with EPA Noise Policy for Industry requirements. This is done through in-duct treatment and is detailed at CC stage, once fan selection is made.
 - Having the 42 North Steyne kitchen exhaust being routed through the Hotel Steyne core will actually have acoustic benefit. This will move the discharge point of the fan further away from the nearest residences (being those to the north and west of the site).

Closure

We have examined the noise impact associated with proposed design modifications to 42 North Steyne.

See recommendation above with respect to the new ceiling in the proposed new kitchen.

With this ceiling treatment , and with the acoustic treatments already detailed in the Original Acoustic Report, there will be no change in the noise impacts (either on 42 North Steyne itself, or on surrounding development).

Regards,

A handwritten signature in black ink, appearing to read 'T. Taylor', with a stylized flourish at the end.

Thomas Taylor

Principal Engineer

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