North Narrabeen SLSC

Acoustic assessment

Northern Beaches Council

06 November 2023

→ **The Power of Commitment**

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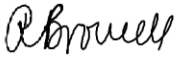
S4	0	C Doyle 	R Browell		E Milton		06/11/23

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[Compliance statement]

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1. Introduction

1.1 Purpose of this report

The Northern Beaches Council (Council) are seeking approval to conduct building alteration and extension works at the North Narrabeen Surf Life Saving Club (SLSC). GHD Pty Ltd (GHD) has prepared this acoustic assessment report to support the lodgement of the DA application for the works.

The objective of this acoustic assessment is to assess potential noise emissions from the SLSC and where required, provide mitigation measures to achieve the relevant acoustic requirements.

1.2 Scope of works

GHD has completed the following scope of works as part of this acoustic assessment:

– Conducted a review of all relevant information and documentation, including the Northern Beaches Council LEP and DCP, architectural drawings, existing consent conditions, noise and environmental guidelines.
– Travelled to site and deployed a noise logger for a period of 13 days to obtain suitable noise monitoring data.
– Based on the noise monitoring conducted, and the relevant acoustic guidelines and policies, appropriate project noise criteria for the assessment of external noise emissions were determined.
– Conducted noise modelling to determine noise levels at adjacent noise sensitive receivers from all relevant sources of noise including:
    - Noise from mechanical plant and other noise generating equipment (if any)
    - Noise from patrons and music within the function spaces of the SLSC, including the upstairs outdoor balcony area, and upstairs enclosed space.
    - Noise from the café, including patrons.
    - Any other relevant sources of noise.
– Based on the results of the noise modelling, and where noise from the proposed operations exceeds the relevant criteria, recommendations for noise mitigation have been provided in order to reduce noise emissions to compliant levels.

1.3 Limitations

This report: has been prepared by GHD for Northern Beaches Council and may only be used and relied on by Northern Beaches Council for the purpose agreed between GHD and Northern Beaches Council as set out in section 1.1 of this report.

GHD otherwise disclaims responsibility to any person other than Northern Beaches Council arising in connection with this report. GHD also excludes implied warranties and conditions, to the extent legally permissible.

The services undertaken by GHD in connection with preparing this report were limited to those specifically detailed in the report and are subject to the scope limitations set out in the report.

The opinions, conclusions and any recommendations in this report are based on conditions encountered and information reviewed at the date of preparation of the report. GHD has no responsibility or obligation to update this report to account for events or changes occurring subsequent to the date that the report was prepared.

The opinions, conclusions and any recommendations in this report are based on assumptions made by GHD described in this report (refer section(s) 1.4 of this report). GHD disclaims liability arising from any of the assumptions being incorrect.

The opinions, conclusions and any recommendations in this report are based on information obtained from, and testing undertaken at or in connection with, specific sample points. Site conditions at other parts of the site may be different from the site conditions found at the specific sample points.

Investigations undertaken in respect of this report are constrained by the particular site conditions, such as the location of buildings, services and vegetation. As a result, not all relevant site features and conditions may have been identified in this report.

GHD has prepared this report on the basis of information provided by Northern Beaches Council and others who provided information to GHD (including Government authorities)], which GHD has not independently verified or checked beyond the

agreed scope of work. GHD does not accept liability in connection with such unverified information, including errors and omissions in the report which were caused by errors or omissions in that information.

1.4 Assumptions

– This report relies on the following information provided by Council to GHD:
  - Architectural Drawing Set Issue D (Nov 2023) provided in Appendix B.
– The results of this assessment are dependent on the operational assumptions defined in Section 2.1 and also the operational noise modelling inputs and parameters defined in Section 4 and Section 5.
– No alterations or additions are proposed for the existing (and already approved) ground floor gym. The gym has not been included in this assessment

2. Existing environment

2.1 Proposal site

The North Narrabeen SLSC features a number of different facilities including a bar (with indoor and outdoor balcony seating), a café (with indoor and outdoor veranda seating), as well as a gym, meeting rooms and facilities for surf lifesaving operations. Also present are various ablutions, amenities, storage spaces, cool rooms and a care-takers flat. Architectural drawings for the site are provided in Appendix B.

Northern Beaches Council are seeking to complete a series of renewal and upgrade works to the club with the primary features of the application including:

– Addition of Boardriders room to the ground floor and renewal of barbeque area and associated landscaping works on the ground floor.
– Internal refurbishments work.
– Renewal of second floor open balcony, including waterproofing works, decking and balustrade works and a new enclosed area.

The new enclosed area on the second-floor balcony will primarily be used as seating for club patrons and will occasionally host functions that have live music within it. Previously, live music functions have been hosted on the eastern balcony with a temporary marquee being erected. After the works are completed, live music is planned to be hosted in the new enclosure.

Operational hours

Table 2.1 outlines the operational hours for the different facilities at the club.

Table 2.1 Operational hours

Facility	Operational hours
Gym / club	– 6:30 am to 8:30 pm (7 days)
Bar	– Friday 4:00 pm to 9:00 pm – Saturday 3:00 pm to 12:00 midnight (typically only during functions) – Sunday 11:00 am to 9:00 pm
Café	– 6:30 am to 2:30 pm (7 days)
Ground floor BBQ courtyard	Between 4:00 pm and 7:00 pm. Periodic/occasional use.

Patronage

The maximum capacity for each of the upper level seating areas is:

– 52 outdoor open balcony seats (eastern balcony)
– 36 enclosed space seats
– 20 outdoor café seats (western veranda)
– 54 internal café / bar seats.

The outdoor balcony and the enclosed space is expected to be primarily used by the bar operations, with the internal seats to be shared between the café and bar operations. The western veranda is expected to be used by café patrons

The club expects to have occasional live music performances on the outdoor balcony or in the main hall.

Mechanical plant

There is to be a mechanical exhaust to the first floor BBQ located on the upper awning.

2.2 Study area

The proposal is located at 2 Malcom Street, Narrabeen on land zoned under the Warringah Local Environmental Plan (LEP) (2011) as RE1: Public Recreation. The nearest residential receivers lie immediately to the west of the SLSC along Ocean Street and are on land zoned as R2: Low Density Residential. A mixed use building with a commercial Food and Beverage premises on the ground floor and residential apartments above is located on Malcolm Street to the south of the site. Due to the citing of the patron areas this receiver is the most impacted receiver to the site. North Narrabeen Beach is located directly to the east, and the Narrabeen lagoon is located to the North.

Identified noise sensitive receivers in the vicinity of the proposal are provided in Table 2.2. Receivers are also shown in Figure 2.1 Achieving compliance at these nearest noise sensitive receivers ensures compliance at all receivers as they are predicted to receiver lower noise levels due to their increased relative distance to the proposal site.

1 Malcolm Street (R06) has been identified as a Commercial receiver. It has conservatively been assumed to be a residential receiver for the purposes of this assessment.

The location of the SLSC, surrounding sensitive receivers, noise monitoring location and land zonings are shown in Figure 2.1.

Table 2.2 Identified noise sensitive receivers

Receiver ID	Address	Land Use	Description
R01	232-234 Ocean Street	Residential	Apartment complex facing the lagoon
R02	226-228 Ocean Street	Residential	Three story residence
R03	224 Ocean Street	Residential	One story residence
R04	220 Ocean Street	Residential	Three story residence – logger deployment address
R05	216 Ocean Street	Residential	Three story apartments
R06	1 Malcolm Street	Commercial	Oceans Narrabeen café/restaurant
R07	211 Ocean Street	Residential/Commercial	Ground floor eateries with second story residential apartments
R08	214 Ocean Street	Residential	Apartment block
R09	3 Malcolm Street	Residential	House
R10	5 Malcolm Street	Residential	House
R11	7 Malcolm Street	Residential	House
R12	9 Malcolm Street	Residential	House
R13	6-8A Malcolm Street	Residential	Adjoined town houses

Paper Size ISO A4

0 25 50 m

Map Projection: Mercator Auxillary Sphere
Horizontal Datum: WGS 1984
Grid: WGS 1984 Web Mercator Auxillary Sphere

Northern Beaches Council
North Narrabeen SLSC
Acoustic Assessment

Proposal site, noise sensitive receivers, noise monitoring location and land zoning

Project No. 12618094
Revision No. 0
Date. 14/08/2023

FIGURE 2.1

Document Path: \\ghdnet\ghd\AU\Sydney\Projects\21\12618094\Tech\Noise\03_GIS\nslsc.qgz

Print Date:

Data Source:

Created By: Christopher Doyle

2.3 Noise monitoring program

The methodology for the noise monitoring program includes the following:

– Noise monitoring was conducted from Friday 13 July to Tuesday 25 July 2023.

– A calibration check was performed on the noise monitoring equipment using a sound level calibrator with a sound pressure level of 94 dBA at 1 kHz. At completion of the measurements, the meter's calibration was re-checked to ensure the sensitivity of the noise monitoring equipment had not varied. The noise loggers were found to be within the acceptable tolerance of ± 1 dBA.

– Noise monitoring was undertaken using a Svan 977 environmental noise logger. The noise logger was programmed to accumulate LA90, LA10, and LAeq noise descriptors continuously over the entire monitoring period. Details of the noise monitoring equipment are provided in Table 2.3.

– The data collected by the logger was downloaded and analysed, and any invalid data removed. Invalid data refers to periods of time where average wind speeds were greater than 5 m/s (adjusted for ground level) or when rainfall occurred. Meteorological data was sourced from the Terrey Hills AWS (ID 66059) which is located 7.5 km from the site.

– Unattended noise monitoring was conducted by a competent Acoustic Engineer Chris Doyle, who:

  - is a member employee of GHD, a member firm of the Association of Australasian Acoustical Consultants (AAAC)
  - possess the qualification Bachelor of Mechanical Engineering, attained at the University of New South Wales (UNSW) in 2021

– All noise monitoring activities were undertaken and processed in accordance with the Noise Policy for Industry (EPA 201) long-term monitoring methodology. All noise logger settings and descriptors used were based on this method.

Table 2.3 provides noise monitoring equipment details. Table 2.4 provides a summary of daily noise monitoring results. The

Table 2.3 Noise monitoring equipment details

Location	Equipment details	Equipment settings	Logger photo
220 Ocean Street, Narrabeen	Svan 977 Type 1 Sound level meter SN: 36873 IEC 61672-3:2013 Compliant Manufactured prior 2019 1.5 m above ground level Free-field conditions	A-Weighted Fast time response 15-minute intervals Pre and post calibration: 0.30 dB	

Table 2.4 Daily noise monitoring results

Day	Rating background level (RBL) $L_{A90(15min)}$, dBA[1]			Ambient $L_{Aeq(15min)}$ noise level, dBA[1]		
	Day	Evening	Night	Day	Evening	Night
Thursday-13-Jul-23	53	50	42	62	58	54
Friday-14-Jul-23	51	45	40	61	58	53
Saturday-15-Jul-23	49	42	36	60	56	51
Sunday-16-Jul-23	48	44	42	62	56	54
Monday-17-Jul-23	51	50	42	61	60	54
Tuesday-18-Jul-23	49	41	37	60	56	53
Wednesday-19-Jul-23	49	50	47	61	58	54
Thursday-20-Jul-23	52	45	42	62	60	53
Friday-21-Jul-23	50	49	48	61	60	53
Saturday-22-Jul-23	51	51	47	62	57	54
Sunday-23-Jul-23	50	49	49	62	57	59
Monday-24-Jul-23	52	51	46	62	58	54
Tuesday-25-Jul-23	49	-	-	62	-	-
Overall	**50**	**49**	**42**	**61**	**58**	**54**

Note 1:

Day – 7:00 am to 6:00 pm

Evening – 6:00 pm to 10:00 pm

Night – 10:00 pm to 7:00 am

Note 2: Red text indicates that the measurement period had a significant portion of the data excluded from the measurement.

2.4 International Standard ISO 226 : 2003

The ISO 226 :2003 – Normal Equal-Loudness-Level contours presents *Tf* values for the threshold of human hearing in third octave bands. The *Tf* corresponding to each octave band centre frequency is presented in Table 2.5 below.

Table 2.5 Threshold of human hearing (ISO 226:2003 Table 1)

Weighting	dB in octave bands [Hz]								
	31.5	63	125	250	500	1000	2000	4000	8000
Z - weighted	59.5	37.5	22.1	11.4	4.4	2.4	-1.3	-5.4	12.6
A - weighted	20.1	11.3	6	2.8	1.2	2.4	-0.1	-4.4	11.5

Where octave band background noise levels are below the threshold of human hearing, the A-weighted threshold of human hearing will be used.

2.5 Octave band background noise levels

The criteria presented in Section 3.3 below requires the assessment of noise emission in octave bands. Octave band background noise levels are presented in Table 2.6.

Table 2.6 Octave band background noise levels

Time period	RBL L_{A90} in octave bands [Hz], dB(A)								
	31.5	63	125	250	500	1000	2000	4000	8000
External – 7 am to 6 pm	20(13)[1]	24	32	38	42	46	42	32	18
External – 6 pm to 10 pm	20(9)[1]	21	28	34	39	40	35	26	15
External – 10 pm to 12 am	20(7)[1]	17	25	30	35	36	30	22	14

Note 1: Octave band background noise level below threshold of human hearing. A-weighted threshold of human hearing used instead.

3. Noise criteria

3.1 Existing Consent Conditions

A review of existing consent conditions for the SLSC was undertaken and no conditions relevant to the emission of noise from the site was identified.

3.2 Warringah DCP (2011)

A review of the relevant Northern Beaches Council DCP (Warringah DCP) was undertaken and the following guidance in regard to noise emission is provided:

D3 Noise

Requirements:

1. *Noise from combined operation of all mechanical plant and equipment must not generate noise levels that exceed the ambient background noise by more than 5dB(A) when measured in accordance with the NSW Industrial Noise Policy at the receiving boundary of residential and other noise sensitive land uses.*
2. *Development near existing noise generating activities, such as industry and roads, is to be designed to mitigate the effect of that noise.*
5. *Where possible, locate noise sources away from the bedroom areas of adjoining dwellings/properties to minimise impact*

It is noted that the NSW Industrial Noise Policy has been superseded by the Noise Policy for Industry, which will be referred to when appropriate. Table 3.1 provides the adopted criteria for the assessment of mechanical plant noise from the proposal. Requirement 1 has been used to determine the noise emission criteria for the operation of mechanical plant from the proposal.

Table 3.1 Mechanical plant noise emission criteria, dBA

Time Period	Rating background noise level, $L_{A90,\ 15\ min}$	Mechanical plant noise emission criteria, $L_{Aeq,\ 15\text{-}minute}$
Day	50	55
Evening	49	54
Night	42	47

3.3 LGNSW noise condition

Noise emissions from the proposed development have the potential to be conditioned by the LGNSW under the Liquor Act 2007 (generally in response to a noise complaint), however it is not a mandatory condition at the commencement of operation. This noise condition is considered most appropriate when assessing noise emissions from patrons and from live music operations. The standard wording of the condition being;

> *The LA10 noise level emitted from the licensed premises shall not exceed the background noise level in any Octave Band Centre Frequency (31.5Hz–8kHz inclusive) by more than 5dB between 7:00 am and 12:00 midnight at the boundary of any affected residence.*
>
> *The LA10* noise level emitted from the licensed premises shall not exceed the background noise level in any Octave Band Centre Frequency (31.5Hz–8kHz inclusive) between 12:00 midnight and 7:00 am at the boundary of any affected residence.*
>
> *Notwithstanding compliance with the above, the noise from the licensed premises shall not be audible within any habitable room in any residential premises between the hours of 12:00 midnight and 7:00 am.*

Noting that no bar operations are proposed between the hours of 12:00 am midnight and 7:00 am and as such no noise impacts are anticipated during this period and have not been considered further in this report. Based on the octave band background noise levels measured during the noise monitoring program (presented in Section 2.5), Table 3.2 provides the adopted criteria for the assessment of music and patron noise.

Table 3.2 Patron and music noise emission criteria in octave bands [Hz], dBA

Time period	Patron and music noise emission criteria in octave bands [Hz] $L_{A10(15min)}$, dB(A)								
	31.5	63	125	250	500	1000	2000	4000	8000
External – 7 am to 6 pm	25	29	37	43	47	51	47	37	23
External – 6 pm to 10 pm	25	26	33	39	44	45	40	31	20
External – 10 pm to 12 am	25	22	30	35	40	41	35	27	18

4. Patron and live music assessment

4.1 Modelling inputs and parameters

Noise emission modelling was undertaken using CadnaA 2021. CadnaA is a computer program for the calculation and assessment of noise exposure. Environmental noise propagation in CadnaA was calculated using the ISO 9613 algorithm.

The following noise modelling assumptions were made to establish site specific conditions:

– Surrounding land was modelled assuming to be 50% hard ground and 50% soft ground with a ground absorption coefficient of 0.50
– Modelled scenarios consider the shielding effect from surrounding buildings and structures on and adjacent to the site.
– Each residential receiver identified in Table 2.2 has a receiver modelled externally at \the worst affected section of façade.
– Receivers were assessed at the most exposed faced to transmission which are windows or balconies areas

The following meteorological conditions were used in the model:

– Atmospheric air absorption was based on an average temperature of 10 °C and an average humidity of 70 %. These assumptions are considered conservative.

4.2 Modelling scenarios

Table 4.1 provides the modelling scenarios for the assessment of patron and live music noise emissions from the SLSC. All patron and live music operations are assessed against the LGNSW octave band criteria. Modelled scenarios have been selected to represent worst-case noise emissions from the site which would mainly be associated with live music events expected to be held occasionally at the club (a few times a year).

Three live music scenarios have been modelled in the new enclosed area of the SLSC. Each scenario conservatively assumes all seating areas are at full capacity. The first scenario assumes live music operations are occurring during the day period (until 6 pm) and that all sliding doors to the balcony are fully open. The second live music scenario assumes that only the balcony sliding door to the north is open, with all the others closed. This is expected to occur during the evening period (between 6 pm and 10 pm). Figure 4.1 shows the section of the façade that is to be closed in the 'half closed' live music scenario. The third live music scenario assumes that all sliding doors on the balcony are fully closed.

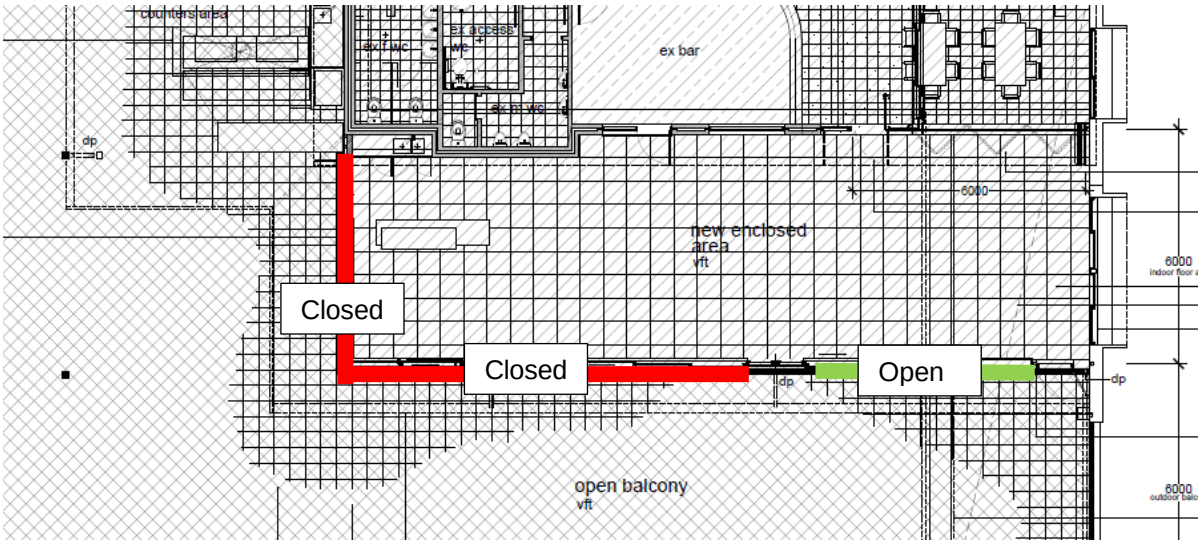


Figure 4.1 Configuration of closed sliding doors for 'half closed' scenario

Table 4.1 Noise modelling scenarios

Scenario and applicable time periods	Scenario description	Source parameters	Attenuation
S01 **Patrons Only** 7:00 am to 12:00 midnight	Conservatively assume 100% capacity of each seating area (as provided in Section 2.1), with light background music underneath patrons talking	Assuming half of the people are talking at any given time with: – 50% of those are speaking at a normal level – 30% at a raised level and – 20% at a loud level. Each patron area has: – 26 people speaking on the Eastern balcony with a cumulative SWL of **91 dBA** – 18 people speaking in the enclosed area with a cumulative internal reverberant Sound Pressure Level (SPLi) of **78 dBA**. – 27 people speaking in the internal café / bar area with a SPLi of **81 dBA**. – 10 people speaking on the café / bar western veranda with a cumulative SWL of **83 dBA.**	Glass doors to enclosed area and internal café / bar area assumed to be open
S02 **Enclosed Space – Open** 7:00 am to 6:00 pm	Conservatively assume 100% capacity of each seating area, with break out noise from the enclosed space. All doors between balcony and enclosed space assumed to be fully open.	All patron areas fully occupied as Patron Scenario above, with the Enclosed Space having live music and an SPLi of **90 dBA** (Based on previous measurements of amplified music operations)	Glass doors to enclosed area assumed open
S03 **Enclosed Space – Half Closed** 7:00 am to 10:00 pm	Conservatively assume 100% capacity of each seating area, with break out noise from the enclosed space though 4 mm pane glass. Assumed that the southern half of sliding glass doors between balcony and enclosed area are closed as shown in Figure 4.1.	As above with glass doors to enclosed area half closed. Glazing is expected to be 6 mm or 8 mm laminated glass	Glass doors to enclosed area assumed **closed** Rw 30
S04 **Enclosed Space - Closed** 7:00 am to 12:00 midnight	Conservatively assume 100% capacity of each seating area, with break out noise from the enclosed space though 4 mm pane glass. All sliding glass doors between balcony and enclosed area are closed.	As above with glass doors to enclosed area entirely closed. 4 mm pane glass assumed	Glass doors to enclosed area assumed **closed** Rw 30

4.3 Modelling results

4.3.1 Patron and live music noise levels

Table 4.2 provides the overall predicted noise levels at the receivers for the bar and café operational scenarios. For all scenarios, predicted noise levels are highest at R07 to the south of the site. This receiver is mixed use with residential apartments on the upper levels. Noise levels are next highest at receivers along Ocean Street, the receiver along Ocean Street with the highest noise level is different for each scenario. Results have been presented for R07 and the most impacted receiver along Ocean Street for that scenario. Compliance at these two

receivers for each scenario ensures compliance at all receivers for that scenario. Each scenario has been presented against the most stringent criteria that is applicable for that scenario.

Table 4.2 Overall received noise levels

Receiver	Predicted overall received noise level L_{Aeq}, dBA			
	S01	S02	S03	S04
R01	38	39	38	38
R02	**41**	42	**41**	**41**
R03	40	41	40	40
R04	**41**	43	**41**	**41**
R05	40	**44**	40	40
R06	39	42	39	39
R07	**41**	**46**	**41**	**41**
R08	37	41	37	37
R09	39	42	39	39
R10	26	30	27	26
R11	22	28	24	22
R12	19	26	22	19
R13	36	39	36	36

Table 4.3 Predicted octave band noise levels (S01 – Patrons only scenario – 10 pm to 12 midnight criteria)

Receiver	LGNSW night criteria L_{A10} octave-band, Hz								
	31.5	63	125	250	500	1k	2k	4k	8k
	25	22	30	35	40	41	35	27	18
R07	0	0	6	25	36	38	31	21	1
R02	0	0	7	26	37	38	31	22	4

Table 4.4 Predicted octave band noise levels (S02 – Enclosed space live music – doors open – 7 am to 6 pm criteria)

Receiver	LGNSW day criteria L_{A10} octave-band, Hz								
	31.5	63	125	250	500	1k	2k	4k	8k
	25	29	37	43	47	51	47	37	23
R07	3	29	30	37	40	42	39	34	22
R05	1	27	28	34	38	40	36	31	19

Table 4.5 Predicted octave band noise levels (Enclosed space live music – doors half closed – 6 pm to 10 pm criteria)

Receiver	LGNSW evening criteria L_{A10} octave-band, Hz								
	31.5	63	125	250	500	1k	2k	4k	8k
	25	26	33	39	44	45	40	31	20
R07	0	25	24	31	36	37	31	23	6
R02	0	22	21	28	37	38	31	24	9

Table 4.6 Predicted octave band noise levels (Enclosed space live music – doors closed – 10 pm to 12 midnight criteria)

Receiver	LGNSW night criteria L_{A10} octave-band, Hz								
	31.5	63	125	250	500	1k	2k	4k	8k
	25	22	30	35	40	41	35	27	18
R07	0	15	13	26	36	38	31	22	2
R02	0	13	11	26	37	38	31	22	5

4.4 Discussion

4.4.1 Patron noise

The patron noise assessment is conservative and assumes the bar and café areas are at 100% capacity and that all doors between patron areas and the external environment are open. The scenario is assessed in Table 4.3 against the most stringent LGNSW criteria (the night shoulder criteria) and is compliant. Therefore, no noise impacts are expected to occur during standard patron noise scenarios.

4.4.2 Live music – new enclosed area

During live music operations in the enclosed space and before 6 pm, the sliding doors are expected to be completely open. When assessed against the day time criteria, no noise impacts are predicted to occur.

After 6 pm only the northern most sliding door to the balcony is expected to be open, with the sliding doors to the south being closed. When assessed against the evening criteria (between 6 pm and 10 pm). No exceedances of the LGNSW criteria are predicted.

After 10 pm, the doors are to be fully closed. Noise levels decrease a considerable amount once the enclosed area is fully closed and no exceedances of the night time shoulder criteria (between 10 pm and 12 midnight) are predicted.

5. Mechanical plant assessment

A mechanical exhaust to the first-floor barbecue is proposed as part of the alterations and additions to the SLSC. Exact details of the exhaust are not known at this stage and therefore a conservative SWL has been assumed to provide an indication of compliance with the relevant criteria. The Warringah DCP (2011) provides the appropriate guidance for the assessment of noise from the proposed BBQ mechanical exhaust and it is provided in Section 3.2. The mechanical exhaust is to be mounted to the rooftop awning over the new first floor barbecue area and is to be concealed from the west by the new external cladding. Table 5.1 provides the received noise level at each receiver against the night time mechanical plant noise criteria. Compliance during the most stringent (the night time criteria) ensures compliance during all periods of the day.

The mechanical plant assessment assumes a SWL of **95 dBA.**

Table 5.1 Predicted mechanical plant noise levels, dBA

RID	Criteria	Received level, dBA
R01	$L_{Aeq,\ 15\text{-}minute}$ 47	44
R02		45
R03		45
R04		44
R05		44
R06		43
R07		43
R08		40
R09		42
R10		28

Assuming a SWL of 95 dBA, all noise sensitive receivers are expected to comply with the mechanical plant noise criteria provided in the Warringah DCP (2011).

6. Management and mitigation measures

Mitigation measures and management measured to be incorporated into the plan of management are provided to ensure the acoustic amenity of the surrounding area can be preserved and for compliance with the relevant noise criteria provided in Section 3 be maintained.

- During live music operations within the enclosed area, sliding doors to the balcony are to be partially closed as shown in Figure 4.1 after 6pm.
- During live music operations within the enclosed area, sliding doors to the balcony are to be fully closed after 10pm.
- Live music operations within the enclosed area should not exceed an internal reverberant sound pressure level of 90 dBA and 97 dBC. A sound level meter should be used to confirm the internal noise level.
- Patrons should not congregate in numbers outside the venue, particularly after 10:00 pm.
- The club should ensure that either a member of the club staff or event organisers staff is designated onsite to monitor patron behaviour in, and in the vicinity of, the premises. Practical steps should be taken to ensure the quiet and orderly behaviour of patrons in the venue and also particularly in departing the club after the conclusion of night time events.
- If during operations, a complaint has been lodged from any of the nearby sensitive receivers, the following process should be followed to ensure all complaints are dealt with in an appropriate manner:
    - All complaints should be documented and responded to in a timely, consistent, and sensitive manner.
    - A staff member will be nominated to deal with complaints from the community
    - All complaints will be logged within a complaint register that details the nature of the complaint and the actions taken to address the complaint.
    - The complaint register should be reviewed at regular intervals to identify any common and recurring complaints and measures should be actively taken to reduce the number of complaints.
- In the event of a noise complaint, compliance noise monitoring should be undertaken at the reasonably most affected location of the complainant to determine if the maximum noise levels specified are being adhered to or if further controls are appropriate.

7. Conclusion

GHD has prepared this acoustic assessment to support a development application at North Narrabeen SLSC for additions and alterations to the club. Noise emissions from the premises were assessed against the following criteria:

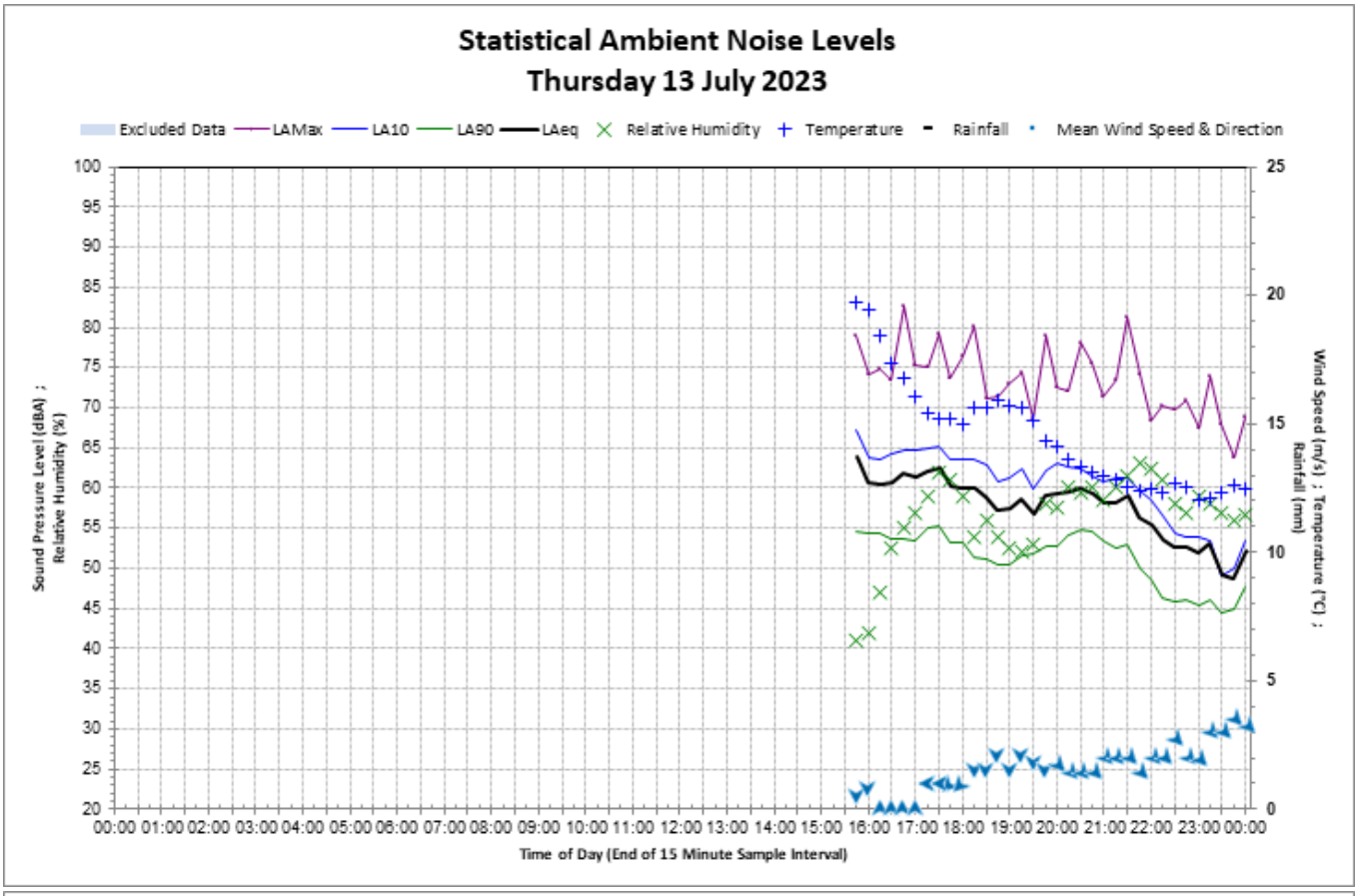
– Liquor and Gaming NSW noise conditions – for the assessment of patron and music noise
– Warringah DCP (2011) – for the assessment of mechanical plant noise

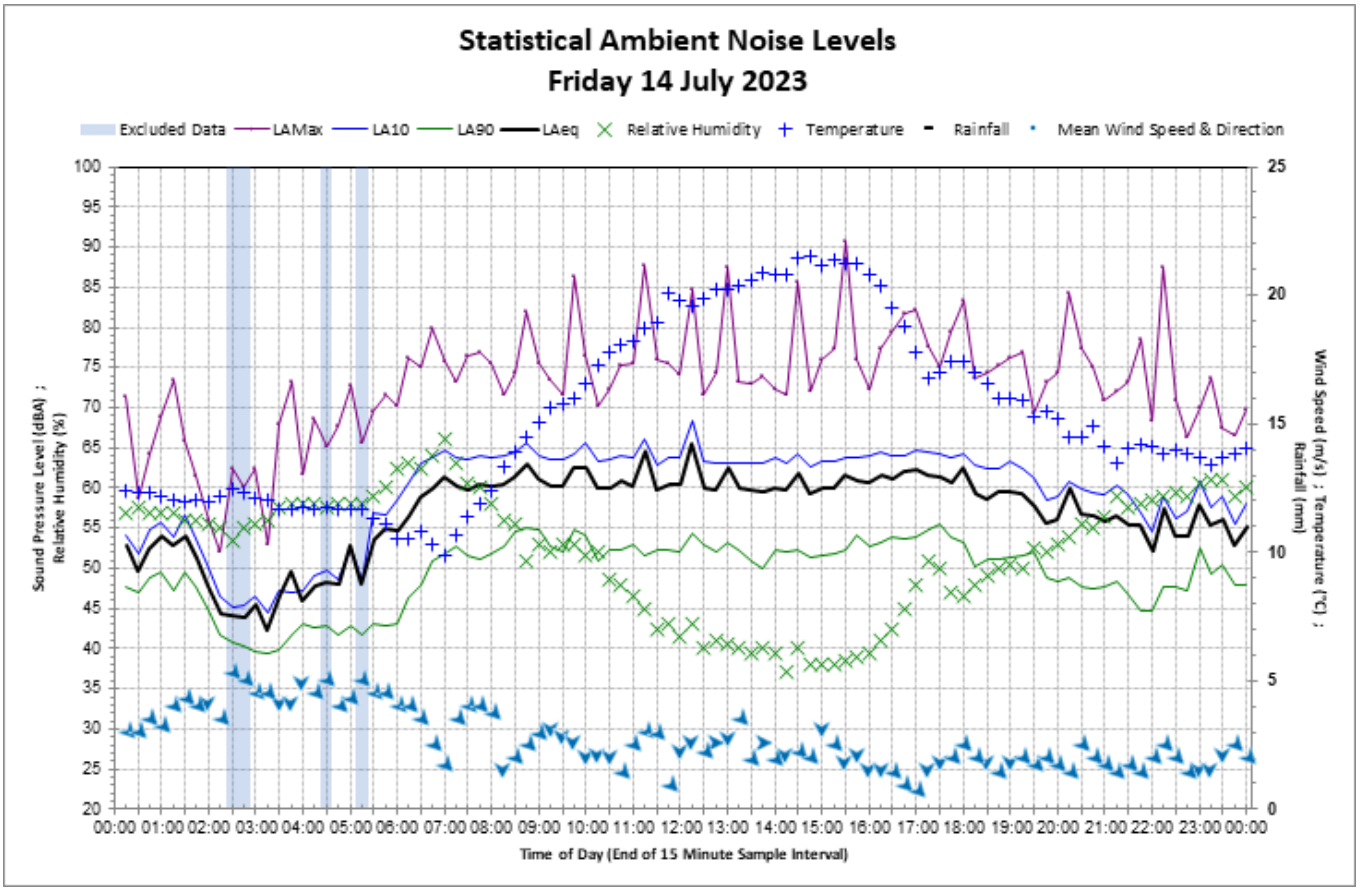
The results of the noise modelling indicates compliance with the assessment criteria for all noise sensitive receivers provided that the mitigation and management measures presented in Section 6 are incorporated into the operational plan of management.

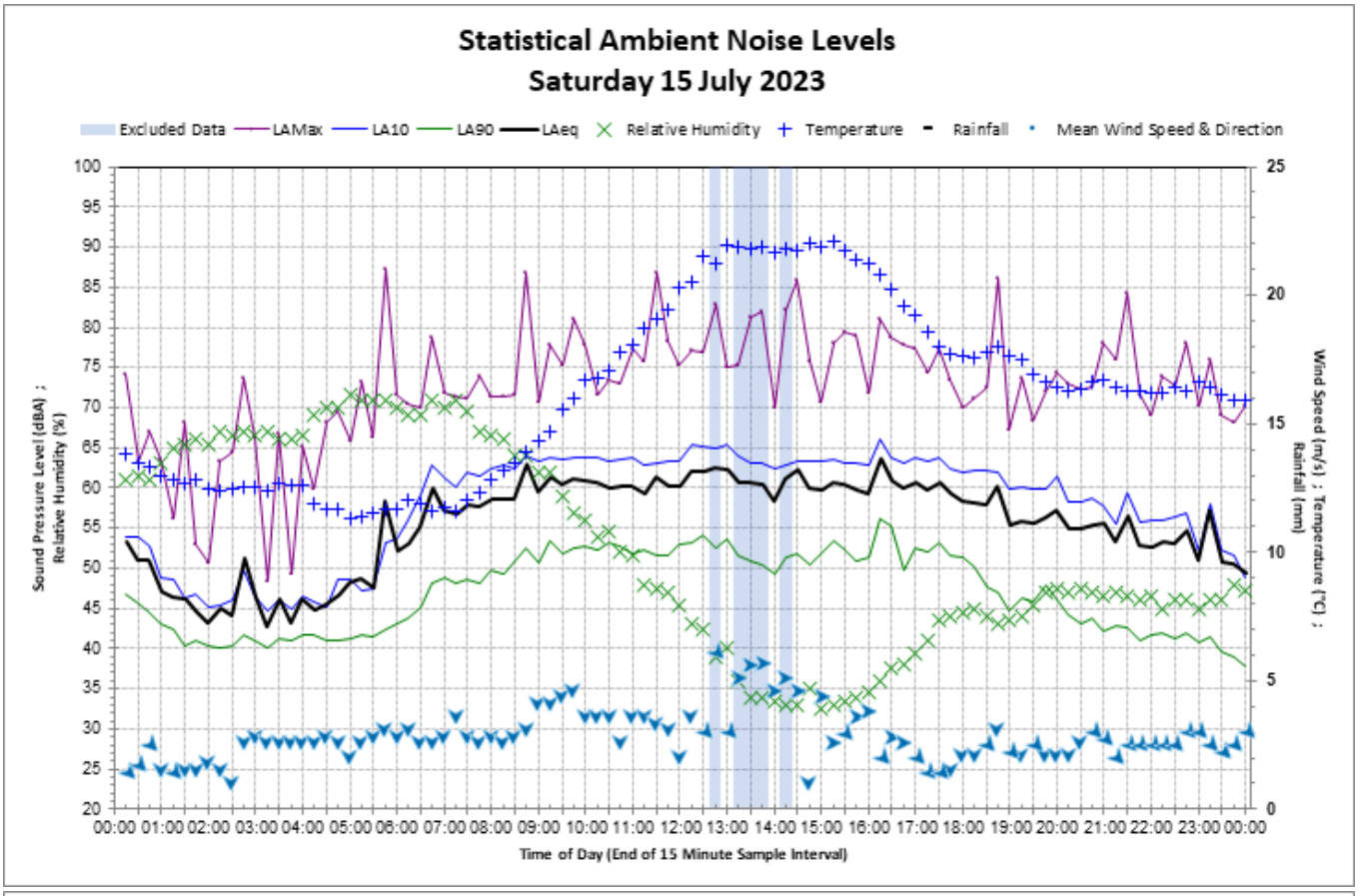
Appendices

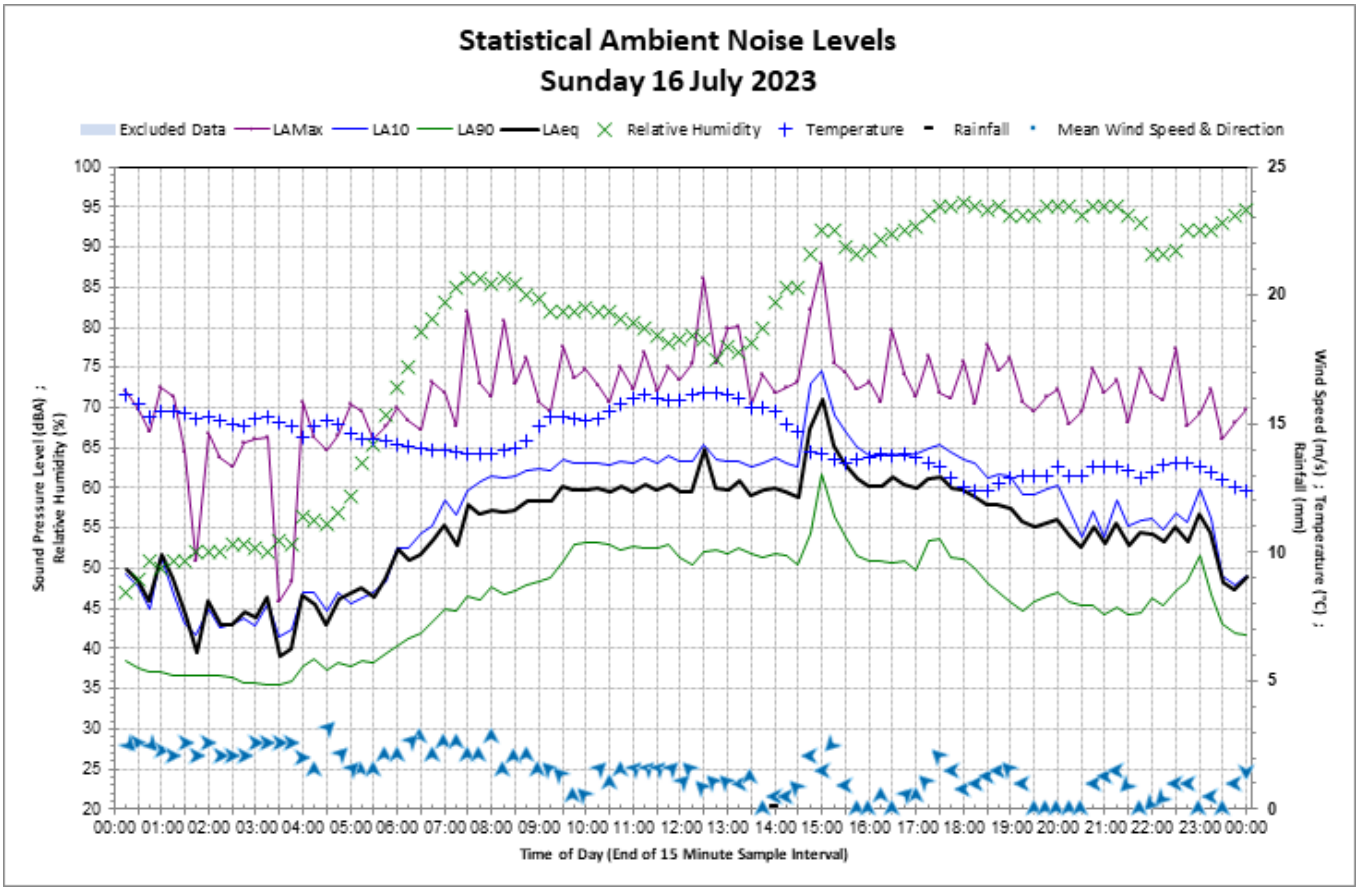
Appendix A

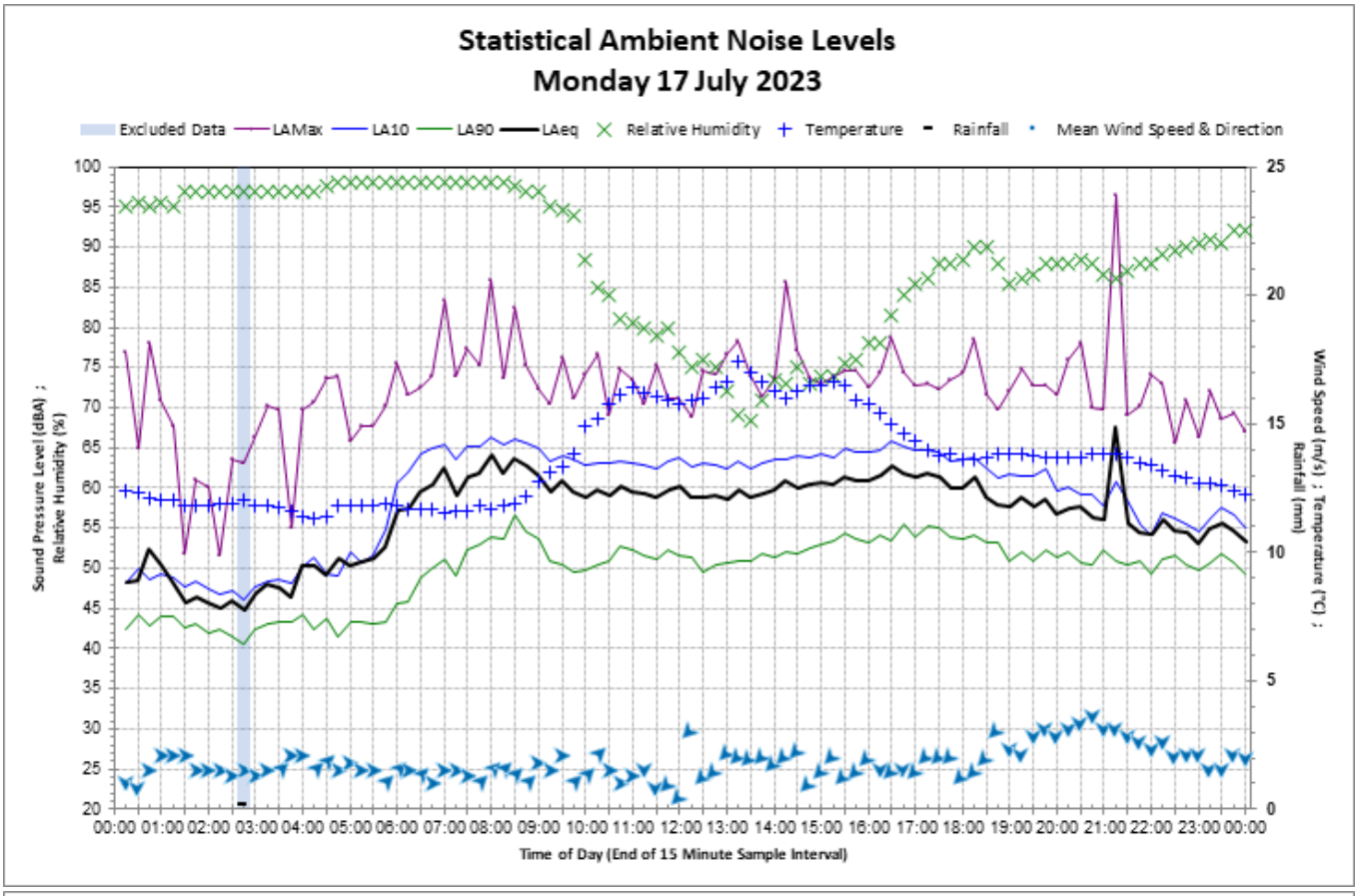
Daily noise monitoring charts

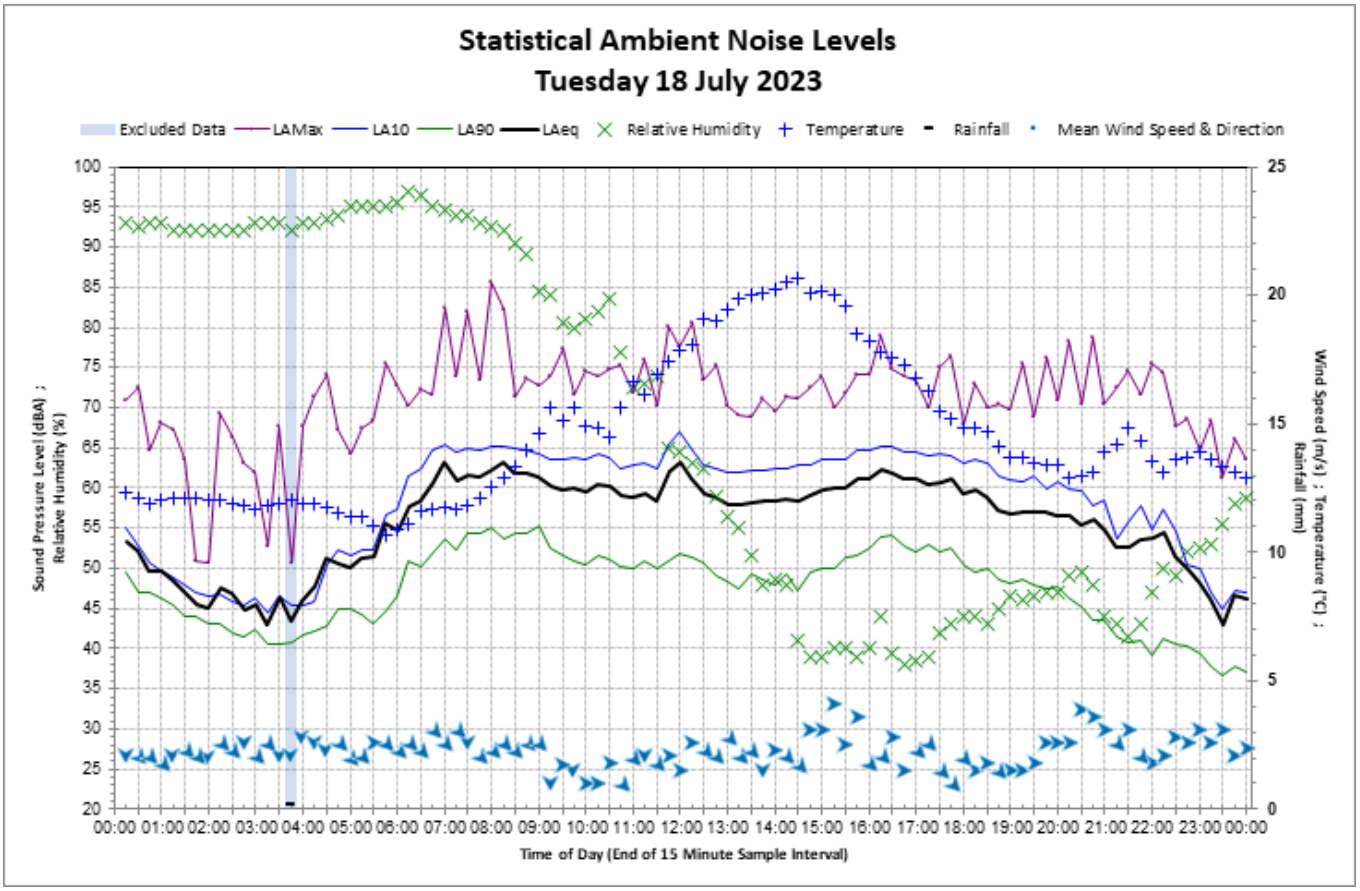


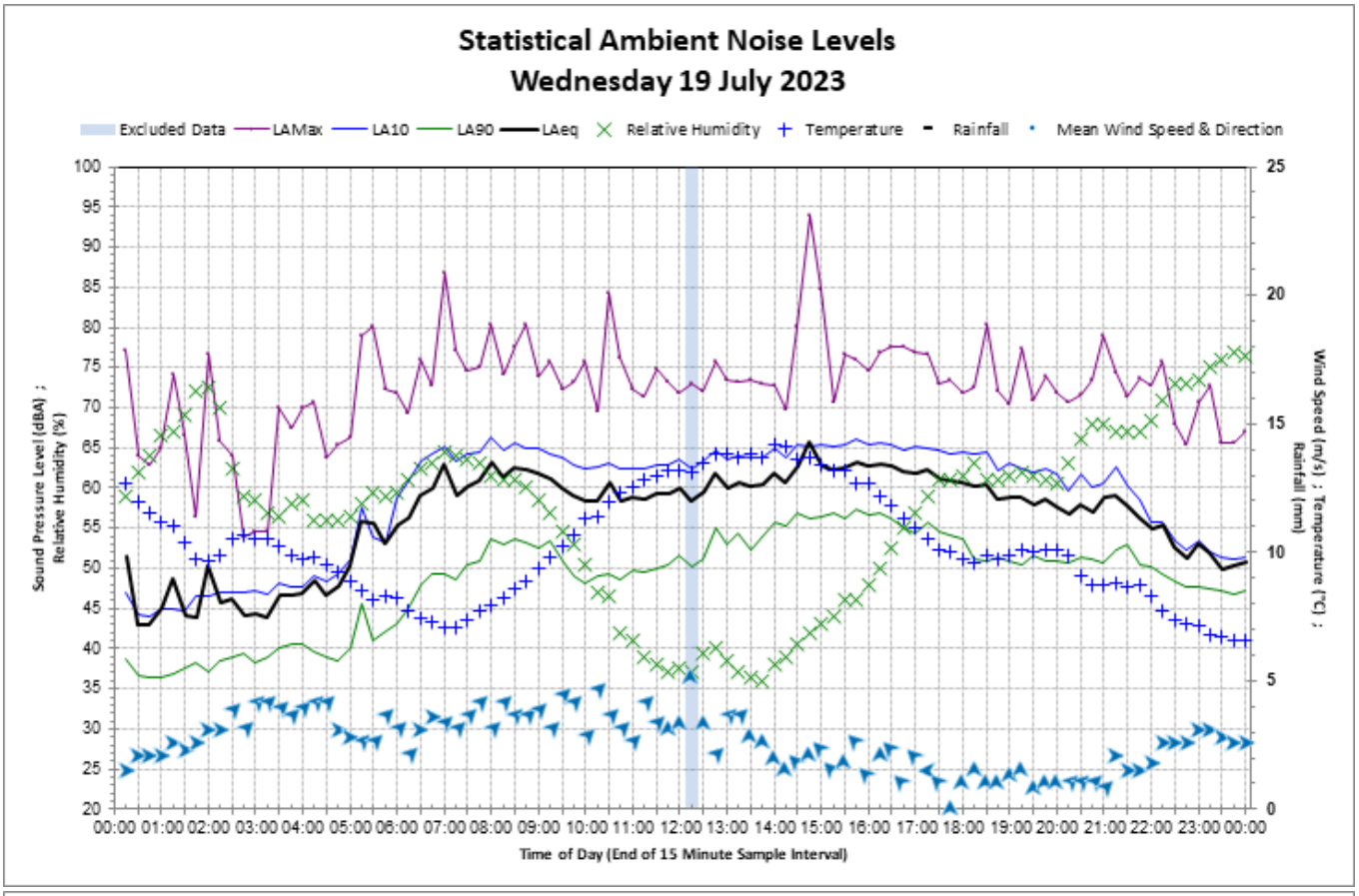


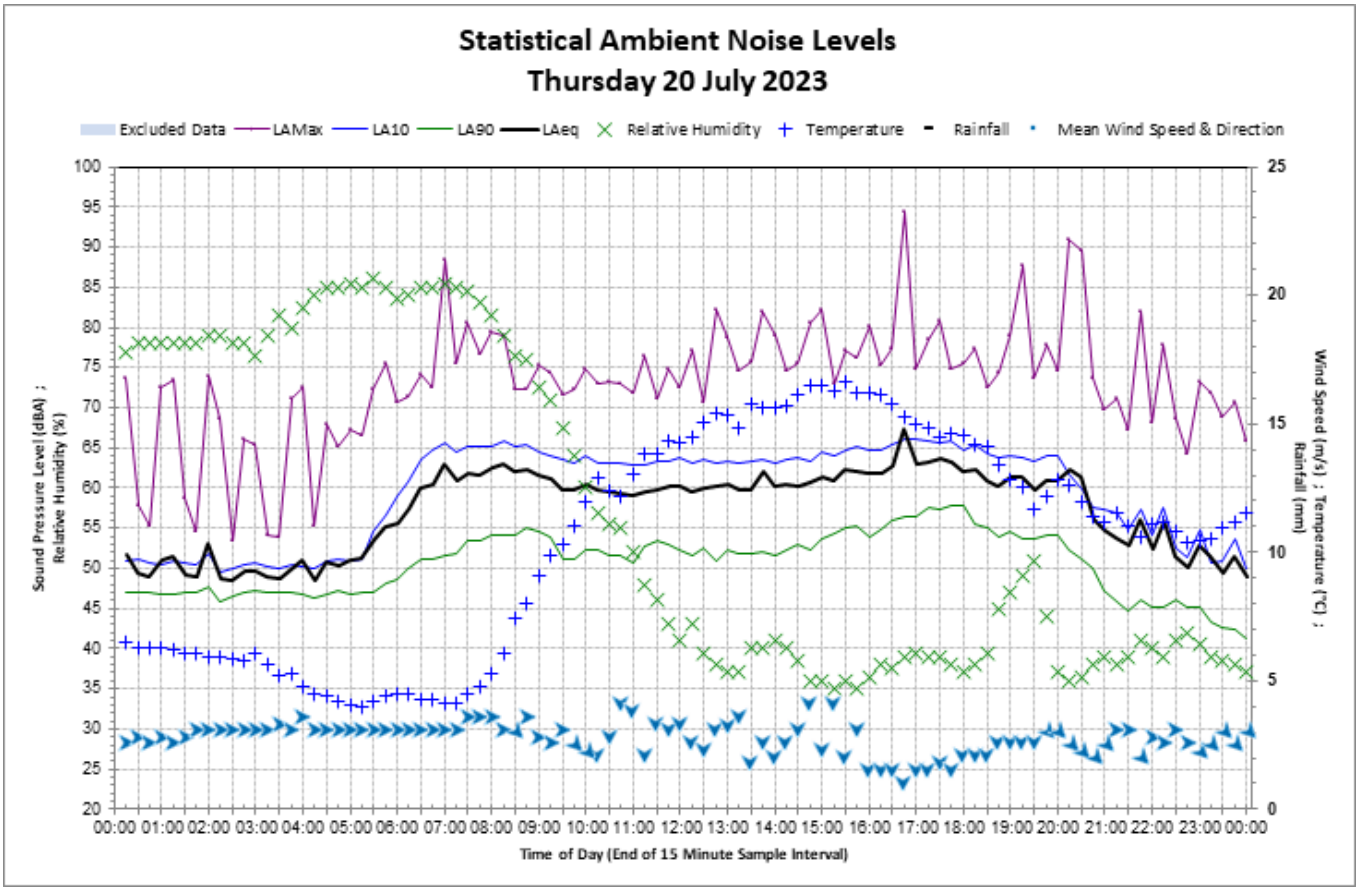


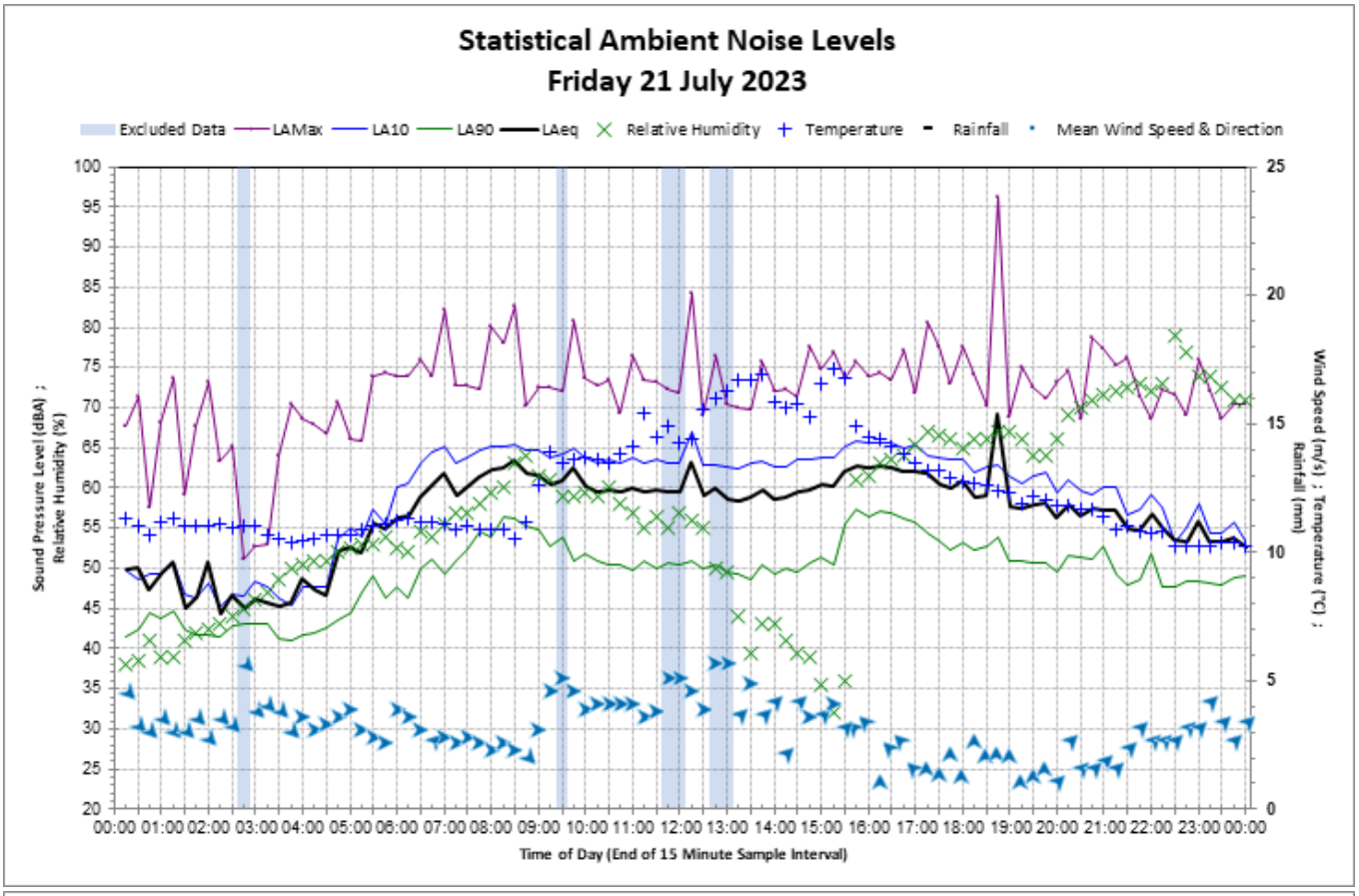


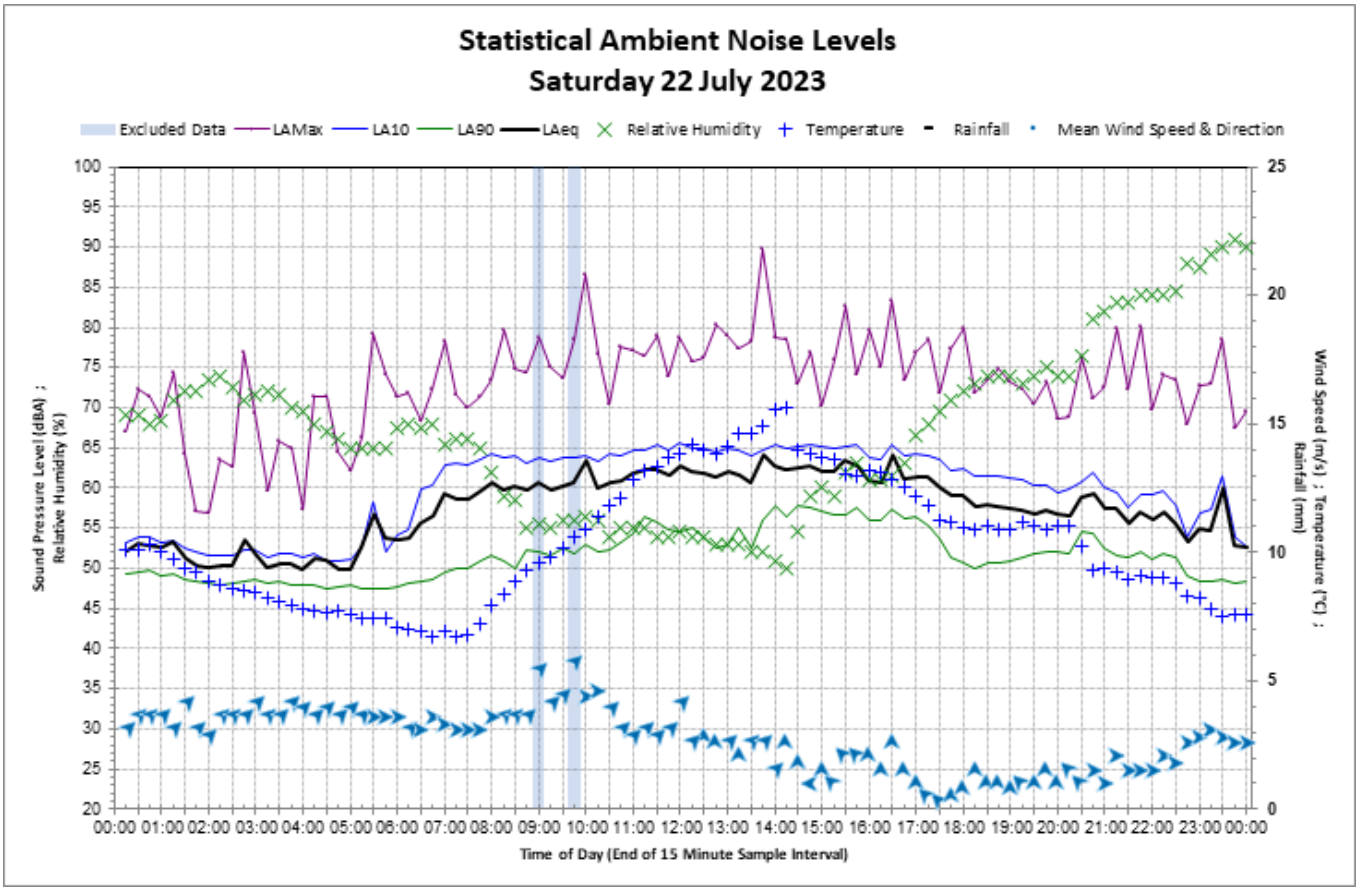


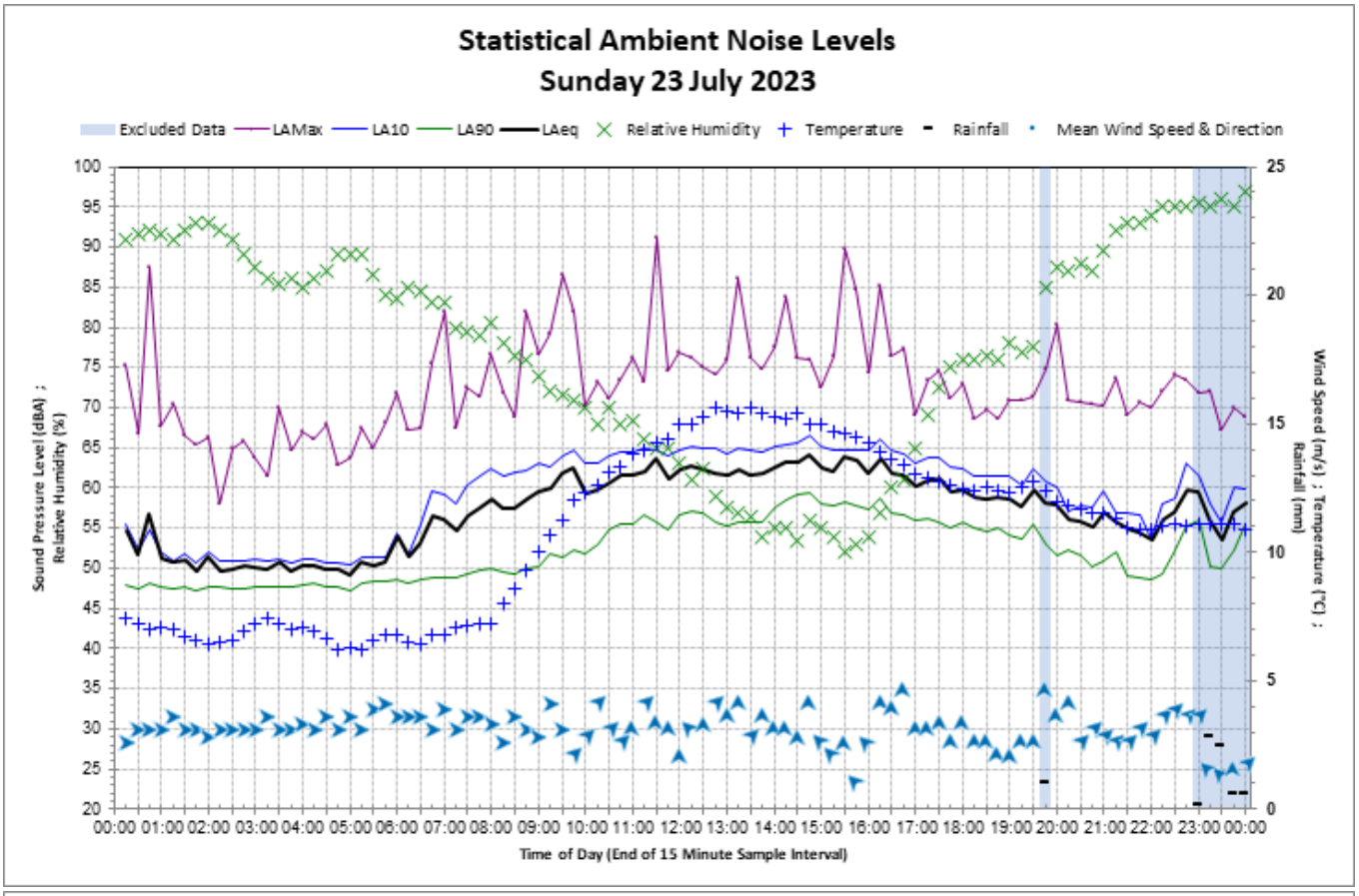


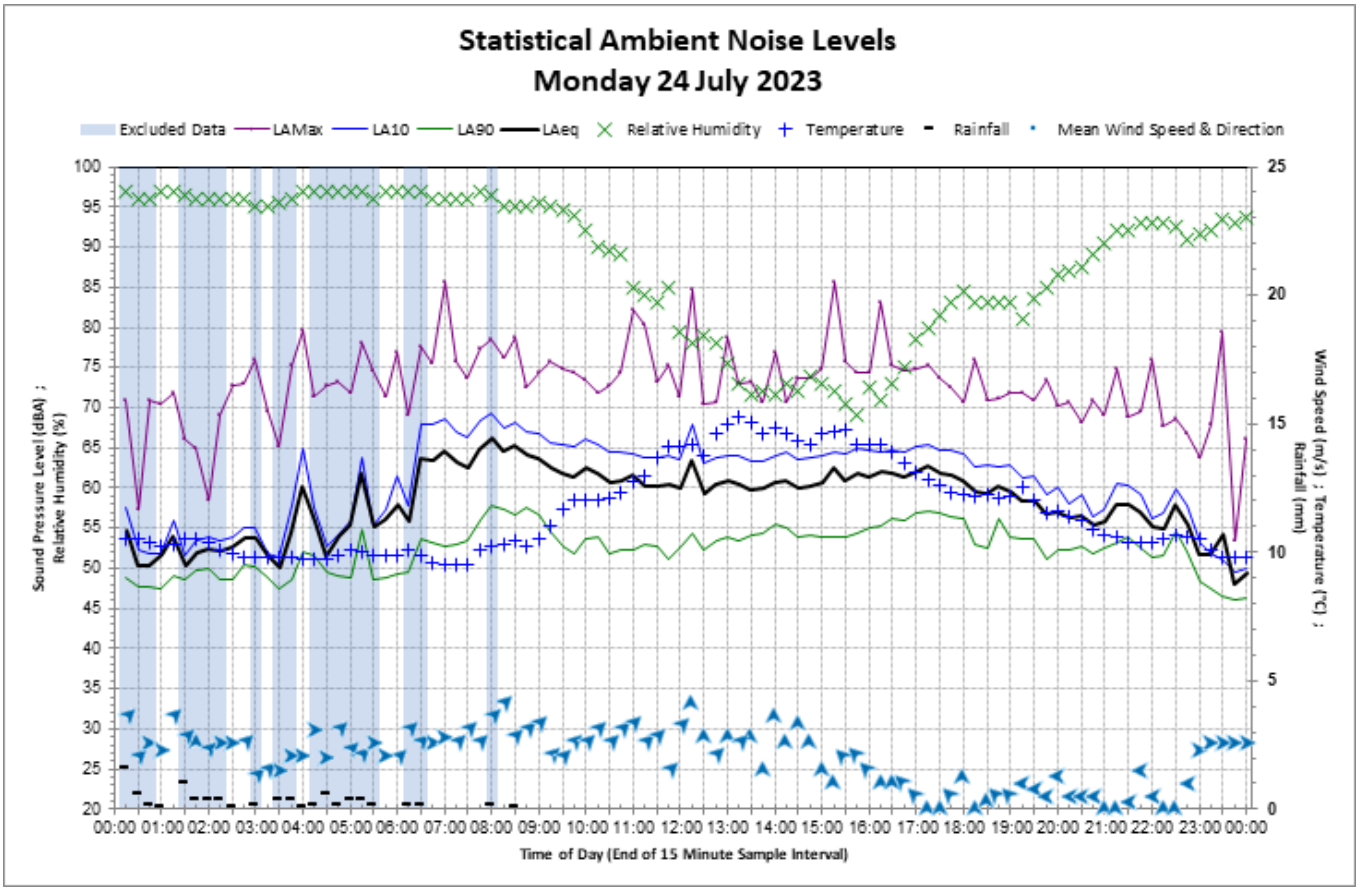


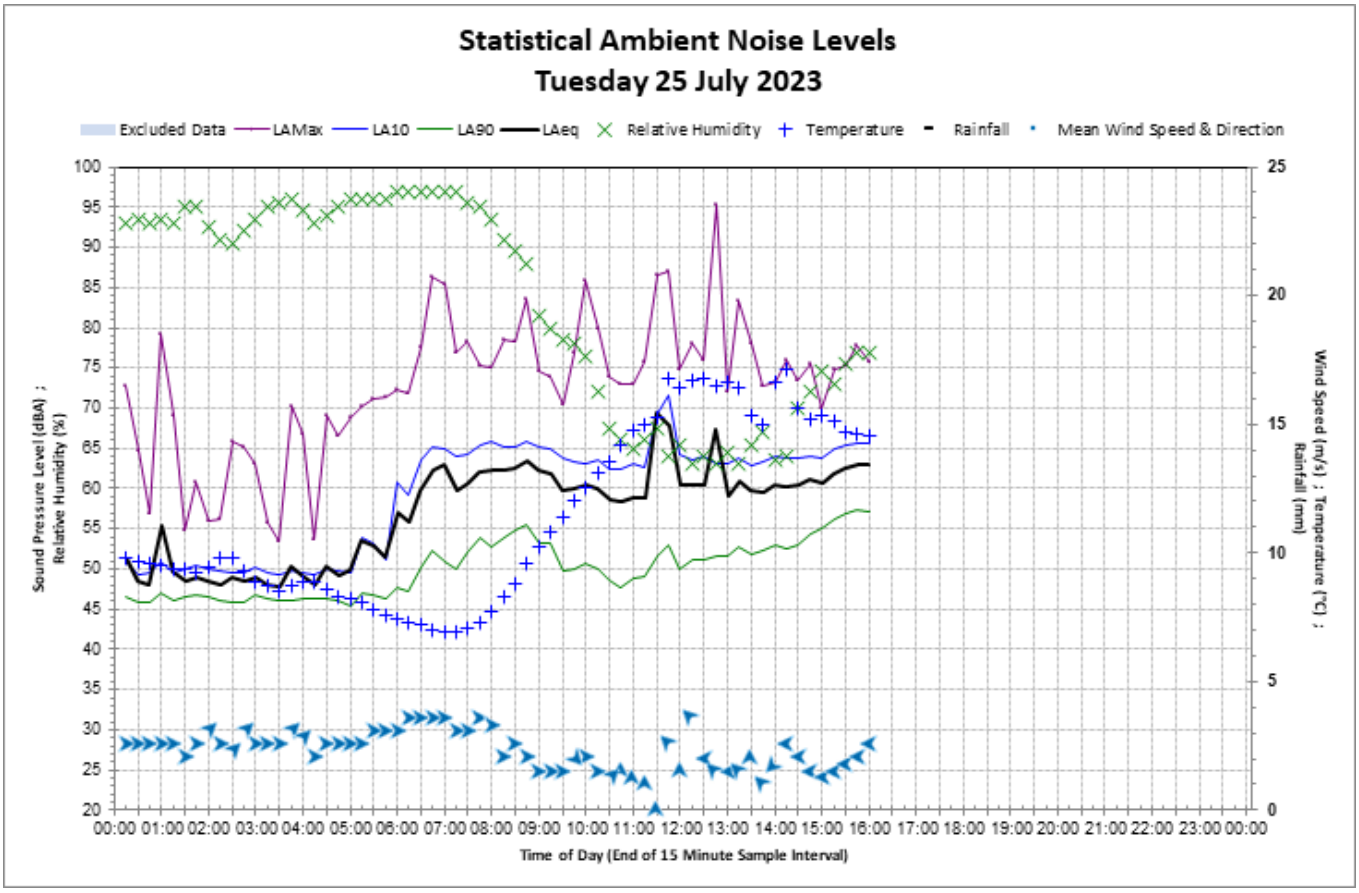












Appendix B

Architectural drawings

North Narrabeen Surf Lifesaving Club alterations and additions project

Development Application - Architectural Drawings register:-

Dwg DAEX01D	- existing ground floor plan (1:100 @ A1)
Dwg DAEX02D	- existing first floor plan (1:100@ A1)
Dwg DAS01D	- survey plan
Dwg DAS02D	- construction sediment control plan (nts use scale bar)
Dwg DA00D	- cover sheet , arch dwgs register , notes and abbreviations
Dwg DA01D	- site plan (1:200 @ A1)
Dwg DEM01D	- demolition works - ground floor plan (1:100 @ A1)
Dwg DEM02D	- demolition works - first floor plan (1:100 @ A1)
Dwg DA02D	- ground floor plan (1:100 @ A1)
Dwg DA03D	- first floor plan (1:100 @ A1)
Dwg DA04D	- roof plan (1:75 @ A1)
Dwg DA05D	- elevations (1:75 @ A1)
Dwg DA06D	- elevations (1:75 @ A1)
Dwg DA07D	- ground floor plan - INC COLOUR SHOWING STAGING (1:100 @ A1)
Dwg DA08D	- first floor plan - (INC COLOUR SHOWING STAGING) (1:100 @ A1)
Dwg DA09D	- roof plan - (INC COLOUR SHOWING STAGING) (1:75 @ A1)
Dwg DA10D	- elevations - (INC COLOUR SHOWING STAGING) (1:75 @ A1)
Dwg DA11D	- elevations - (INC COLOUR SHOWING STAGING) (1:75 @ A1)
Dwg DA12D	- detailed sections (1:50 @ A2)
Dwg DA13D	- detailed sections (1:50 @ A2)
Dwg DA14D	- external materials and finishes board
Dwg DA15D	- aerial view of exist bldg from SW and artist's impression of proposal
Dwg DA16D	- aerial view of exist bldg from NE and artist's impression of proposal

aerial photo location plan


aerial photos of existing building SW and NE views

GENERAL NOTES :-

All works to comply with all relevant Australian Standards , NCC and BCA requirements

- all works as relevant to comply with AS1428-2021
- Demolition works to be carried out in line with NSW Government Code of Pratice Demolition Work August 2019
- All RL's (reduced levels) shown on the drawings are Australian Height Datum.
- works affecting those parts of the existing building identified as asbestos sheet in '*PRM-Destructive Hazardous Building Materials Survey*' for the building are to be carried out in the manner set out in that report.
- As per Safework NSW , all asbestos removal , disposal , air monitoring , provision of clearance inspections and issuing of clearance certificates for removal of friable asbestos must be carried out by a NSW Government licensed asbestos removalist.
- the contractor is to ensure there is no water ponding on tiled floors , and external paved areas providing sufficient falls in this flooring to ensure all water drains to the nearest floor waste, grated drain, stormwater pit and outer edge of concrete walkways and slabs.
- Concrete block wall construction to comply with CMAA Technical Manuals inc CM01 - Concrete Masonry Handbook , CM02 - Concrete Masonry Single Leaf Masonry Design Manual , RW01 - Reinforced Cantilevered Concrete Block Retaining Walls
- For Development Application purposes the architectural drawings take precedence over the specification where there is a conflict in information presented
- The architectural drawings must be read in conjunction with the Project Architectural Specification , the Structural Engineers drawings and specifications, the Landscape Architects drawings and the Hydraulic and Civil Engineers and Electrical Engineers drawings and specifications

legend of symbols

- new brick wall
- existing wall
- proposed Stage 1 works (shown in blue)
- proposed Stage 2 works (shown in green)
- proposed Stage 3 works (shown in yellow)
- new block wall
- new stud wall
- demolished elements

ABBREVIATIONS:-

ag	- agricultural drainage line
ahd	- Australian Height Datum
bif	- bitumen impregnated felt
blkwrk	- blockwork
bsn	- hand basin
b/w	- between
cfcmbrd	- compressed fibre cement board
ch	- clothes hook
chr	- clothes hooks on rail
cm	- corrugated colorbond metal
cmsl	- ceiling mounted spot light
col	- colour
conc	- concrete
cont	- continuous
c.o.s	- confirm on site
cr	- cement render
cwt	- ceramic wall tiles
d	- drain
dl	- down light
dn	- down
dp	- down pipe
eng	- engineer
ec	- epoxy coving
ex	- existing
exist	- existing
exs	- exterior spot light
exwl	- exterior wall light
f	- fridge
fdl	- finished deck level
ffl	- finished floor level
fg	- fixed glass
fpl	- finished paving level
fsl	- finished slab level
fw	- floor waste
gd	- ss grated drain
hd	- heavy duty
hwd	- hardwood
io	- sewer line inspection opening
ksm	- kitchen sink mixer
l	- light
mp	- masonry paver
mr	- mirror
nat	- natural
nts	- not to scale (use scale bar on dwg)
p	- paint
pc	- powder coat paint finish
pl	- pendant light
plstrbrd	- plasterboard
pol	- pole light
prop	- proprietary
rc	- reinforced concrete
rdl	- recessed downlight
req	- required
rev	- reverse
rl	- reduced level
sc	- shower curtain
scd	- solid core door
scr	- shower curtain rail
sd	- slot drain
sel	- selected
shd	- shower head and tap set
shrd	- basin shroud
shwr	- shower
smsl	- surface mounted spotlight
ss	- stainless steel
sss	- stainless steel separation strip
st	- coved skirting tile
struc	- structural
stwtr	- stormwater
tbd	- to be determined
th	- towell hook
tim	- timber
tmv	- thermostatic mixing valve
trh	- toilet roll holder
uno	- unless noted otherwise
vft	- vitrified floor tiles
vlbrd	- 9mm thk set Villaboard
w/p	- water proof
wpm	water proof membrane

Rev	Description	Date
A	draft development application	Jun '23
B	Development Application pre-lodgement meeting purposes	Aug '23
C	final draft development application drawing	Sept '23
D	final draft development application drawing	Nov '23

Project:
North Narrabeen Surf Lifesaving Club alterations and additions

Prepared by:
Building Assets - Planning Design and Delivery,
Northern Beaches Council

Drawing Title:
Cover sheet ie including Architectural drawings register, general notes and abbreviations

northern beaches council
records@northernbeaches.nsw.gov.au

Scale: AS
Date: Apr 2023
Drawn: MB
checked: BK

Dwg no: DA00
Issue no: D

public telephone
bus stop shelter
footpath
GRASS
KERB
footpath
21*
GARDEN
bins
bitumen car park
services box
fire hydrant backflow device in metal box
CONCRETE
concrete pathway
grass area
grass area
grass area
post and rail fence
vegetation / sand dune
shade structure
METAL
CONCRETE
rock retaining wall
childrens playground
fence
tactile pavers
concrete pathway
concrete driveway
grass area
grass area
SOFTFALL PLAYGROUND
GRASS
METAL ROOF
BBQ
fire hydrant
tactile pavers
grass area
gate
1
A
metal roof over new bin room
extend 'no parking' marking here to create designated ambulance bay
Malcolm Street
PAVED
GARDEN
bins
light pole
gate
post and rail fence
sand track
Note:
hatched area represents a 'Zone of Reduced Foundation Capacity' as identified in Northern Beaches Council 'CZMP Collaroy,Narrabeen Beach and Fishermans Beach 2016' document.
vegetation / sand dune
BINS
PARKING METER
post and rail fence
grass area
grass area
seat
VEGETATION / SAND DUNE
SAND PATHWAY
VEGETATION / SAND DUNE
VEGETATION / SAND DUNE
LIFESAVING BOARD
grass area
post and rail fence
SAND PATHWAY
VEGETATION / SAND DUNE
VEGETATION / SAND DUNE
concrete paved area
foot wash tap and bubbler
shower on timber deck
grass area
post and rail fence
sand track to beach
vegetation / sand dune
N
1 site plan
1:200 @ A1
0
10m

Dwg no: DA01
Issue no: D

northern beaches council
records@northernbeaches.nsw.gov.au

Scale: AS
Date: Sept 2021
Drawn: MB
checked: BK

Project:
North Narrabeen SLSC
Alterations and additions
Drawing Title:
site plan

Prepared by:
Building Assets - Planning, Design and Delivery
Northern Beaches Council

Rev	Description	Date
A	development application	Apr '23
B	Development Application pre-lodgement meeting purposes	Aug '23
C	final draft development application drawing	Sept '23
D	final draft development application drawing	Nov '23

new bin structure .Lightweight walls clad in metal and cfcbrd.Concrete slab floor falls to internal ss floor drain (with removable ss basket) connect to sewer

two new 680mm wide x 3100mm long x 2m high plastic rainwater collection tanks - water used for boat wash down

new linemarking on road indicating designated ambulance parking area

dp to kerb and gutter

bin store

part elev 2 DA06

1 DA06

1 DA05

AMBULANCE PARKING BAY

driveway

grass

roller shutter

west and east facing facades of bin store strucutre to be clad in 40x60 vertical hardwood battens.Double gates clad in battens to match cladding

ex SLSC boat and craft storage

new rianwater collection tank on ex rc slab to civil engineers detail

existing stair

existing post and rail timber fence

new gms grated lid to conc stwtr pit to stmrwtr to civil eng detail

paving falls to new ss stwtr pit to civil eng detail

existing roller shutter

ex bushland

existing post and rail timber fence

new hardwood battened seat on stainless steel angle brackets to detail.
new ss grated drain connected to stwtr pits at base of wall under bench seat

remove existing 1600mm high block wall and assoc rc strip footing and bbq

new 1600mm high core filled 200mm thk honed concrete block wall on rc strip footing to structural engineers detail

new rc slab/piers to eng detail ie new meeting room for North Narrabeen Boardriders

new ss bbq

existing post and rail timber fence

new alum framed glass stackable doors

existing sand path to beach

remove exist timber framed glass doors and replace with new alum framed glass doors and window wall in same location

area of new honed concrete porous Trihex paving (as selected) on compacted sub-base to structural engineers detail

concrete path

4 DA06

surf life saving store room

male public amenities

female public amenities

access wc

male club change

ramp up

up

ex main ground floor entry

main ground floor SLSC entry

ex nippers room

female wc shwr change (layout to be checked)

coolroom

storeroom

ss sink unit

store/ kitchen

meeting room

courtyard area

edb

roller shutter

3 DA06

store

bedroom

bthrm

shwr

ex caretakers flat

kitchen

ex IRB storage

ex beach access

ex irb store

ex first aid room

ex gymnasium

remove existing wall dashed

new masonry column finish to match adjoining piers

beach inspector

existing bins

remove concrete 'trip hazard' rc protrusions at base of column at hide projecting stormwater pipe connections and relocate pipe junction under footpath in front of pier

leading edge of slab over dashed

100mm dia ss downpipe

paving falls to new ss stwtr pit

new masonry column finish to match adjoining piers

NW side of 'Zone of Reduced Foundation Capacity' area
See Fig 23 in NBC CZMP Document (see dwg DA01 site plan)

bushland

grass area

concrete paved area

foot wash tap and bubbler

shower on timber deck

path to beach

sand path to beach

beach bushland

2 DA05

1 DA08

1 DA07

1 GROUND FLOOR PLAN
1:100 @ A1

0 2 6m

legend symbols

- demolished elements
- new block wall
- new stud wall
- new brick wall
- existing wall

NOTE
See Dwg DA00 for symbols and abbreviations and general notes

Rev	Description	Date
A	to consultants for information	Jul '23
B	Development Application pre-lodgement meeting	Aug '23
C	purposes final draft development application drawing	Sept '23
D	final draft development application drawing	Nov '23

northern beaches council

Project:
North Narrabeen SLSC
Alterations and additions

Drawing Title:
ground floor plan

Prepared by:
Building Assets-Planning Design and Delivery
Northern Beaches Council

Date: Jun 2022
Scale: A.S.
Checked: BK
Drawn by: MB

Dwg no: DA02
Issue no: D

1 DA06

1 2 3 4 5 6 7 8 9 10 11

3650 3650 3650 3650 3650 3650 3650 3650 3650 3650 3650

1 DA06

A B C D E F G H I J

3650 3650 3650 3650 3650 3650 3650 3650 3650

3 DA06

bin store room with metal deck roofing to match base building works

ex cafe outdoor seating area

new aluminium framed glazed window wall

new frameless glass baluster panel to 1.2m high with masonry wall behind and clad in vitrified wall tiles as selected

indicates new LED downlight

part elev 2 DA06

driveway

AMBULANCE PARKING BAY

face of existing slab edge below

remove section of ex handrail dashed to allow new link

remove existing window wall dashed down to floor level ready for new rc slab / stairs

new rc stairs and assoc ss h'rails up to new landing as connection to existing rc balcony area bia new foyer

new rc slab with tiled link between exist stair to foyer space and balcony

leading edge of existing rc slab here

ex cafe

ex ground floor SLSC/CAFE entry

ex storeroom

ex office

ex kitchen

existing stair

rdl

ex cafe seating area ex car

ex vft

represents existing opening awning window

remove existing wall dashed

existing window wall

new lighting and new set plasterboard ceiling lining in this area

leading edge of cladding to roof spandrel over dashed

structural beams over dashed to be clad plastrbrd and paint

remove wall elements in dashed line

stwtr/d

foyer to balcony vft

existing egress stair

leading edge of roof over

new exhaust hood over bbqs and through to roof mounted exhaust fan over

ss/sd

existing ss bbq / sink / counters area

fall

stwtr/d

dp

ex f.wc

ex access

wc

bsn

ex bar

ex rm wc

urnl

new ss sink in bench unit to detail

new enclosed area vft

6000

6000 indoor floor space

6000 outdoor balcony space

full height bank of glass louvre windows for natural ventilation in room when sliding doors closed

approx 1600 clr opening on each side when stacked sliding doors open away from corner

location of masonry piers under dashed

open balcony vft

new single bank of louvre glass windows and alum framed swing door for egress and ventilation when concertina bifold door closed

new aluminium framed window wall

glased aluminium framed swing door and new pivot concertina doors stack to north end wall face where shown

remove existing alum framed glass swing doors dashed

location of new masonry column under

new aluminium framed window wall

new rc slab floor area with vft over as selected

850mm clr alum framed glazed door

new cont ss slot drain in front of new aluminium framed glass stacked sliding doors

NW side of 'Zone of Reduced Foundation Capacity' area
See Fig 23 in NBC CZMP Document (see dwg DA01 site plan)

remove existing brick wall,splayed cfcbrd fascia panel and aluminium framed glazed balustrade dashed

remove sloped cfcbrd fascia panel and tubular substandard metal balustrade and replace with new frameless glass baluster panel to 1.2m high with masonry wall and vitirifed wall tile cladding as selected

existing masonry pier under dashed

18900

full height bank of adj glass louvre windows for natural ventilation in room when sliding doors closed

indicates location of masonry piers under dashed

leading edge of roof over

remove existing brick wall,splayed cfcbrd fascia panel and aluminium framed glazed balustrade dashed

remove existing approx 200mmthk failed topping slab and assoc tiling to entire existing outdoor balcony area and install new topping slab to struc eng detail and vft fall to floor drains

1 DA05

2 DA05

1 DA08

1 DA07

N W E S

1 UPPER FLOOR PLAN
1:100 @ A1

0 2 6m

NOTE
See Dwg DA00 for symbols and abbreviations and general notes

Rev	Description	Date
A	to consultants for information	Jul '23
B	Development Application pre-lodgement meeting purposes	Aug '23
C	final draft development application drawing	Sept '23
D	final draft development application drawing	Nov '23

northern beaches council

legend symbols

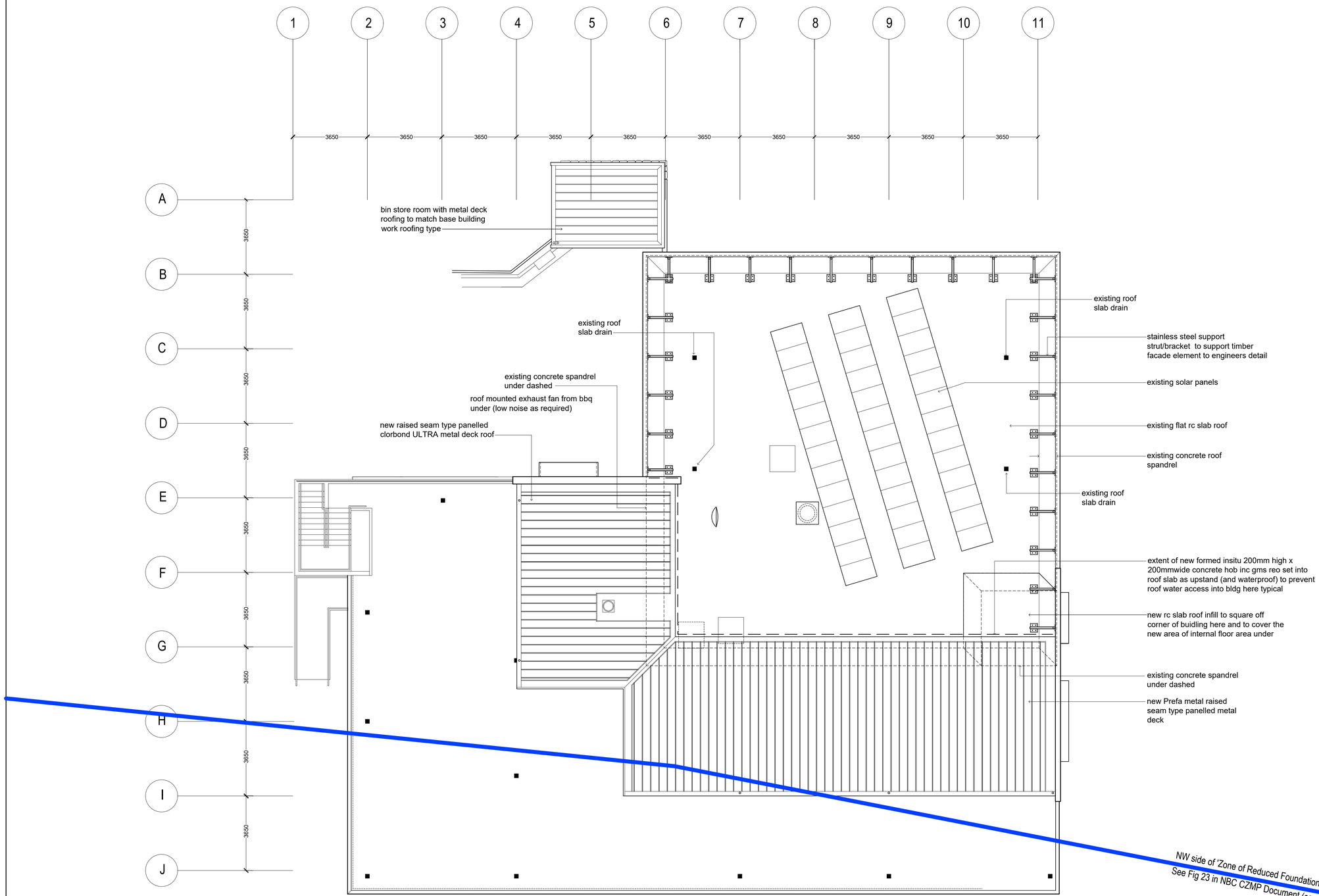
- demolished elements
- new block wall
- new stud wall
- new brick wall
- existing wall

Project:
North Narrabeen SLSC
Alterations and additions

Drawing Title:
upper floor plan

Prepared by:
Building Assets-Planning Design and Delivery
Northern Beaches Council

Date: Jun 2022
Dwg no: DA03
Scale: A.S.
Checked: BK
Issue no: D
Drawn by: MB



1 ROOF PLAN
1:100 @ A1

0 2 6m

N
E
S

Rev	Description	Date
A	to consultants for information	Jul '23
B	Development Application pre-lodgement meeting purposes	Aug '23
C	final draft development application drawing	Sept '23
D	final draft development application drawing	Nov '23

northern beaches council

Drawing Title:
roof plan

Project:
North Narrabeen SLSC
Alterations and additions

Prepared by:
Building Assets-Planning Design and Delivery
Northern Beaches Council

Date:
Jun 2022

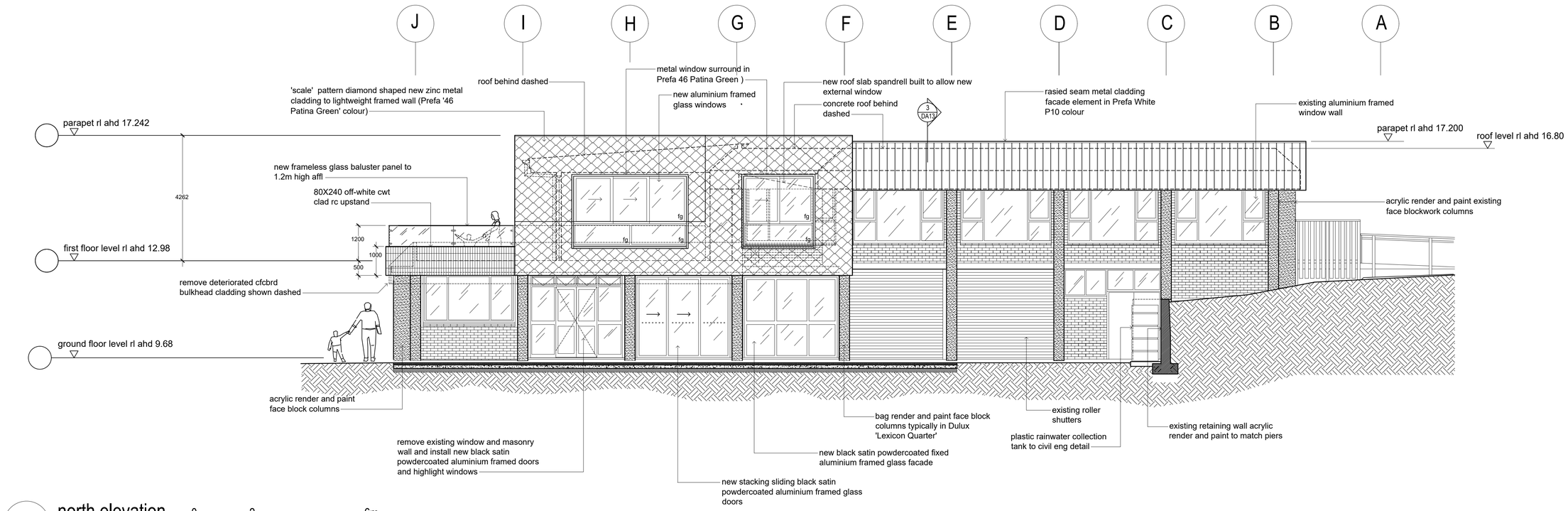
Dwg no:
DA04

Scale:
A.S.

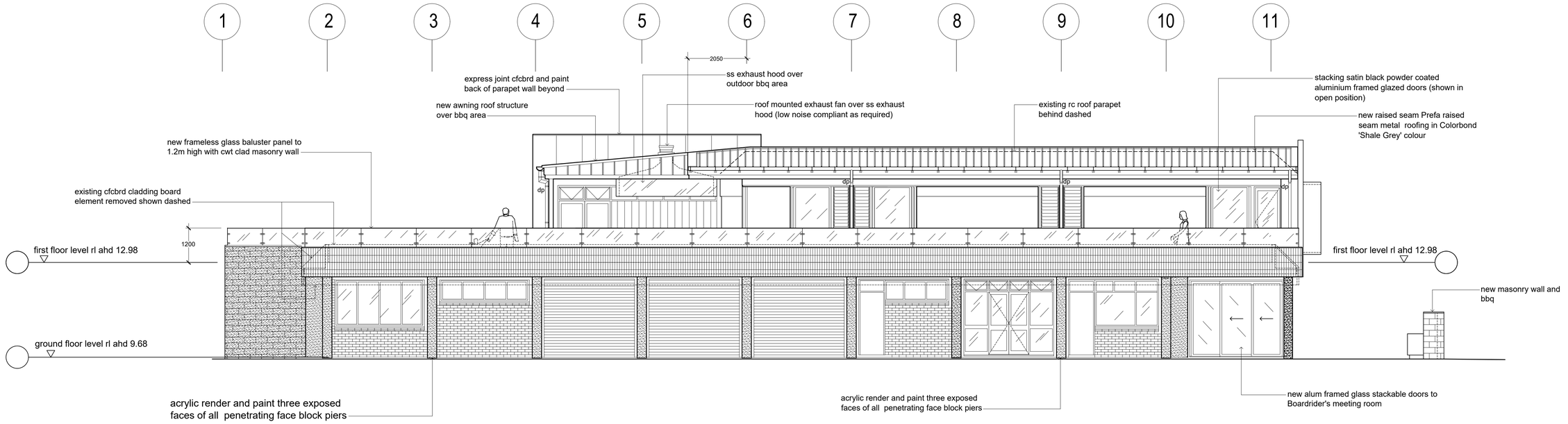
Checked:
BK

Issue no:
D

Drawn by:
MB



1 north elevation 0 2 6m
1:75 @ A1



2 east elevation 0 2 6m
1:75 @ A1

Rev	Description	Date
A	to consultants for information	Jul '23
B	Development Application pre-lodgement meeting purposes	Aug '23
C	final draft development application drawing	Sept '23
D	final draft development application drawing	Nov '23

Project:
North Narrabeen SLSC
Alterations and additions

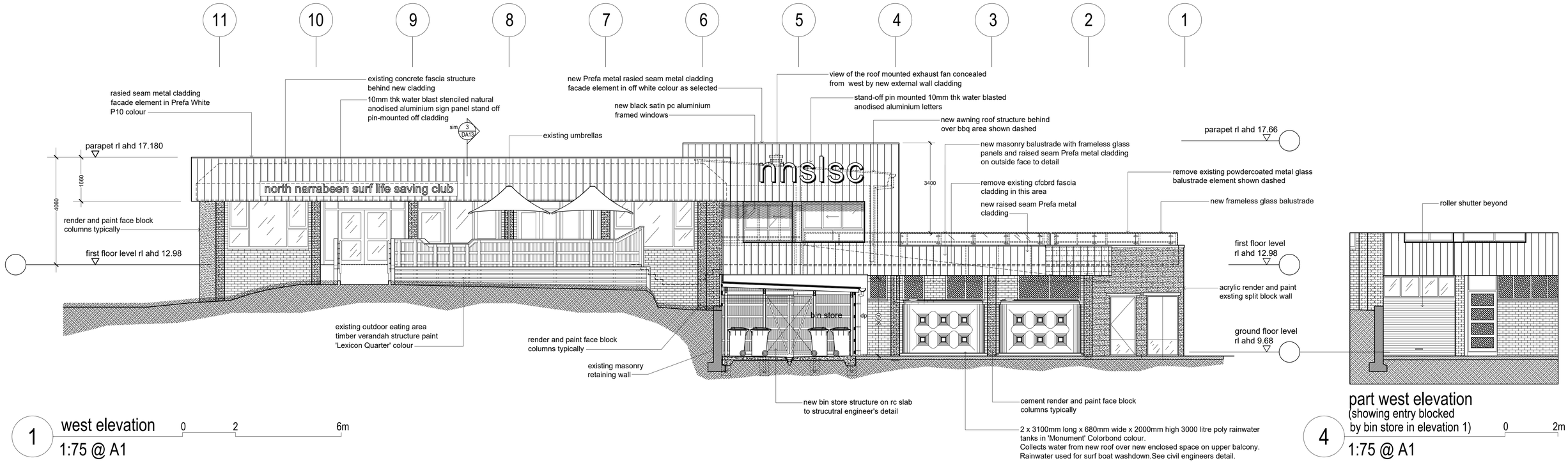
Drawing Title:
elevations
SHOWING STAGING

Prepared by:
Building Assets-Planning Design and Delivery
Northern Beaches Council

northern beaches council

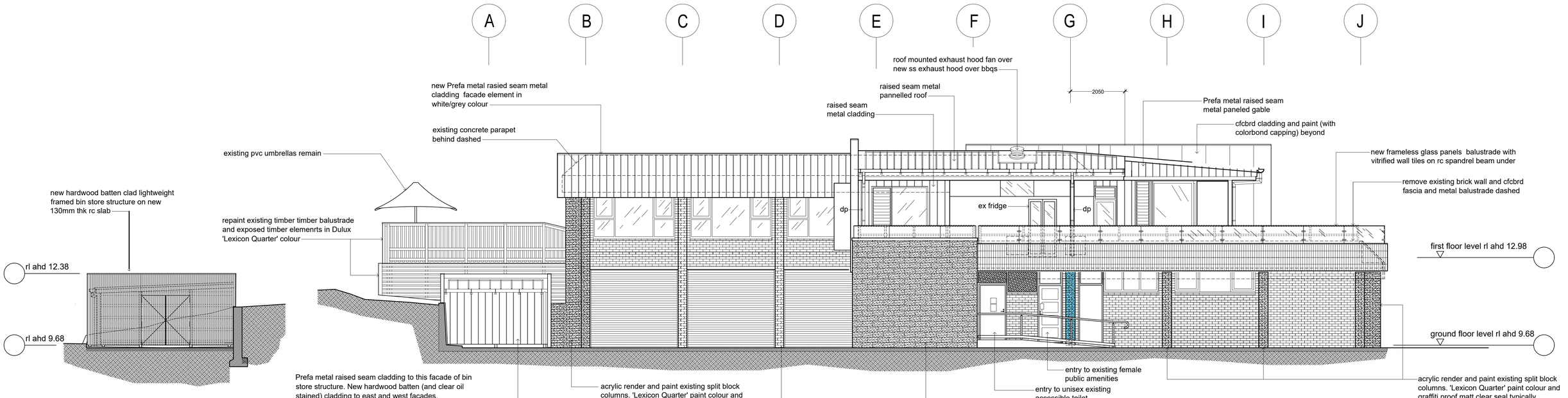
Date: Jun 2022
Scale: A.S.
Checked: BK
Drawn by: MB

Dwg no: DA05
Issue no: D



1 west elevation
1:75 @ A1
0 2 6m

4 part west elevation
(showing entry blocked by bin store in elevation 1)
1:75 @ A1
0 2m



2 part elevation
1:75 @ A1

3 south elevation
1:75 @ A1
0 2 6m

Rev	Description	Date
A	to consultants for information	Jul '23
B	Development Application pre-lodgement meeting purposes	Aug '23
C	final draft development application drawing	Sept '23
D	final draft development application drawing	Nov '23

Project:
North Narrabeen SLSC
Alterations and additions

Drawing Title:
elevations
SHOWING STAGING

Prepared by:
Building Assets-Planning Design and Delivery
Northern Beaches Council

northern beaches council

Date: Jun 2022
Scale: A.S.
Checked: BK
Drawn by: MB

Dwg no: DA06
Issue no: D

new bin structure .Lightweight walls clad in metal and cfcbrd.Concrete slab floor falls to internal ss floor drain (with removable ss basket) connect to sewer

two new 680mm wide x 3100mm long x 2m high plastic rainwater collection tanks - water used for boat wash down

new linemarking on road indicating designated ambulance parking area

dp to kerb and gutter

bin store

part elev 2 DA06

1 DA06

1 DA05

AMBULANCE PARKING BAY

driveway

grass

roller shutter

west and east facing facades of bin store strucutre to be clad in 40x60 vertical hardwood battens.Double gates clad in battens to match cladding

new rianwater collection tank on ex rc slab to civil engineers detail

ex SLSC boat and craft storage

existing stair

existing post and rail timber fence

new gms grated lid to conc stwtr pit to stmrwtr to civil eng detail

paving falls to new ss stwtr pit to civil eng detail

existing roller shutter

ex bushland

existing post and rail timber fence

new hardwood battened seat on stainless steel angle brackets to detail.
new ss grated drain connected to stwtr pits at base of wall under bench seat

remove existing 1600mm high block wall and assoc rc strip footing and bbq

new 1600mm high core filled 200mm thk honed concrete block wall on rc strip footing to structural engineers detail

new rc slab/piers to eng detail ie new meeting room for North Narrabeen Boardriders

new ss bbq

existing post and rail timber fence

new alum framed glass stackable doors

existing sand path to beach

remove exist timber framed glass doors and replace with new alum framed glass doors and window wall in same location

area of new honed concrete porous Trihex paving (as selected) on compacted sub-base to structural engineers detail

NW side of 'Zone of Reduced Foundation Capacity' area
See Fig 23 in NBC CZMP Document (see dwg DA01 site plan)

concrete path

surf life saving store room

male public amenities

female public amenities

access wc

male club change

ex main ground floor entry

main ground floor SLSC entry

ex nippers room

female wc shwr change (layout to be checked)

coolroom

storeroom

ss sink unit

meeting room

store/ kitchen

courtyard area

ex gymnasium

remove existing wall dashed

new masonry column finish to match adjoining piers

store

bedroom

bthrm

shwr

ex caretakers flat

kitchen

ex IRB storage

ex beach access

ex irb store

ex first aid room

beach inspector

existing bins

remove concrete 'trip hazard' rc protrusions at base of column at hide projecting stormwater pipe connections and relocate pipe junction under footpath in front of pier

leading edge of slab over dashed

100mm dia ss downpipe

paving falls to new ss stwtr pit

new masonry column finish to match adjoining piers

bushland

grass area

concrete paved area

foot wash tap and bubbler

shower on timber deck

sand path to beach

path to beach

beach bushland

1 GROUND FLOOR PLAN
1:100 @ A1
0 2 6m

NOTE
See Dwg DA00 for symbols and abbreviations and general notes

Rev	Description	Date
A	to consultants for information	Jul '23
B	Development Application pre-lodgement meeting purposes	Aug '23
C	final draft development application drawing	Sept '23
D	final draft development application drawing	Nov '23

legend symbols

- demolished elements
- new block wall
- new stud wall
- new brick wall
- existing wall
- proposed Stage 1 works (shown in blue)
- proposed Stage 2 works (shown in green)
- proposed Stage 3 works (shown in yellow)

northern beaches council

Project:
North Narrabeen SLSC
Alterations and additions

Drawing Title:
ground floor plan
SHOWING STAGING

Prepared by:
Building Assets-Planning Design and Delivery
Northern Beaches Council

Date: Jun 2022
Scale: A.S.
Checked: BK
Drawn by: MB

Dwg no: DA07
Issue no: D

1 DA06

1 2 3 4 5 6 7 8 9 10 11 — 3650 typ

1 DA06

A B C D E F G H I J — 3650 typ

3 DA06

bin store room with metal deck roofing to match base building works

ex cafe outdoor seating area

new aluminium framed glazed window wall

new frameless glass baluster panel to 1.2m high with masonry wall behind and clad in vitrified wall tiles as selected

indicates new LED downlight

part elev 2 DA06

driveway

AMBULANCE PARKING BAY

remove section of ex handrail dashed to allow new link

face of existing slab edge below

remove existing window wall dashed down to floor level ready for new rc slab / stairs

new rc stairs and assoc ss h'rails up to new landing as connection to existing rc balcony area bia new foyer

new rc slab with tiled link between exist stair to foyer space and balcony

leading edge of existing rc slab here

existing egress stair

leading edge of roof over

new exhaust hood over bbqs and through to roof mounted exhaust fan over

full height bank of glass louvre windows for natural ventilation in room when sliding doors closed

approx 1600 clr opening on each side when stacked sliding doors open away from corner

location of masonry piers under dashed

ex cafe

ex storeroom

ex office

existing stair

ex kitchen

ex ground floor SLSC/CAFE entry

rdl

ex cafe seating area ex car

ex vft

ex bar

ex access wc

ex f.wc

ex m wc

urnl

wc

bsn

stwtr/d

fall

foyer to balcony vft

ss/sd

existing ss bbq / sink / counters area

dp

new ss sink in bench unit to detail

new enclosed area vft

open balcony vft

open balcony vft

6000

6000 indoor floor space

6000 outdoor balcony space

18900

represents existing opening awning window

remove existing wall dashed

existing window wall

new lighting and new set plasterboard ceiling lining in this area

leading edge of cladding to roof spandrel over dashed

structural beams over dashed to be clad plastrbrd and paint

remove wall elements in dashed line

1 DA05

new single bank of louvre glass windows and alum framed swing door for egress and ventilation when concertina bifold door closed

new aluminium framed window wall

glased aluminium framed swing door and new pivot concertina doors stack to north end wall face where shown

remove existing alum framed glass swing doors dashed

location of new masonry column under

new aluminium framed window wall

new rc slab floor area with vft over as selected

850mm clr alum framed glazed door

new cont ss slot drain in front of new aluminium framed glass stacked sliding doors

NW side of 'Zone of Reduced Foundation Capacity' area
See Fig 23 in NBC CZMP Document (see dwg DA01 site plan)

remove existing brick wall,splayed cfcbrd fascia panel and aluminium framed glazed balustrade dashed

remove sloped cfcbrd fascia panel and tubular substandard metal balustrade and replace with new frameless glass baluster panel to 1.2m high with masonry wall and vitirifed wall tile cladding as selected

existing masonry pier under dashed

remove existing approx 200mmthk failed topping slab and assoc tiling to entire existing outdoor balcony area and install new topping slab to struc eng detail and vft fall to floor drains

full height bank of adj glass louvre windows for natural ventilation in room when sliding doors closed

indicates location of masonry piers under dashed

leading edge of roof over

remove existing brick wall,splayed cfcbrd fascia panel and aluminium framed glazed balustrade dashed

2 DA05

1 DA08

1 DA07

N W E S

NOTE
See Dwg DA00 for symbols and abbreviations and general notes

Rev	Description	Date
A	to consultants for information	Jul '23
B	Development Application pre-lodgement meeting purposes	Aug '23
C	final draft development application drawing	Sept '23
D	final draft development application drawing	Nov '23

legend symbols

- demolished elements
- new block wall
- new stud wall
- new brick wall
- existing wall
- proposed Stage 1 works (shown in blue)
- proposed Stage 2 works (shown in green)
- proposed Stage 3 works (shown in yellow)

northern beaches council

Project:
North Narrabeen SLSC
Alterations and additions

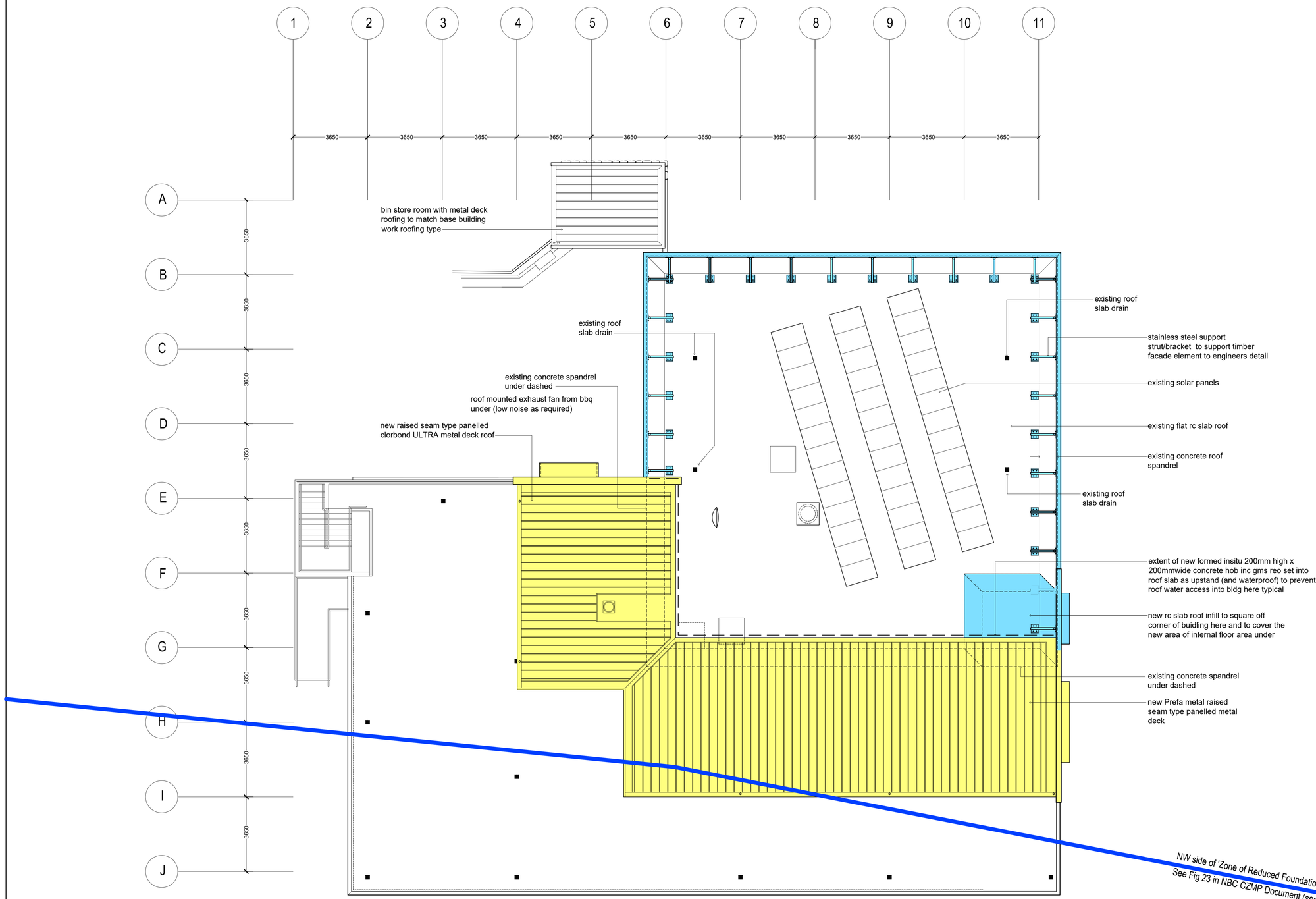
Drawing Title:
upper floor plan
SHOWING STAGING

Prepared by:
Building Assets-Planning Design and Delivery
Northern Beaches Council

Date: Jun 2022
Dwg no: DA08
Scale: A.S.
Checked: BK
Issue no: D
Drawn by: MB

1 UPPER FLOOR PLAN
1:100 @ A1

0 2 6m



1 ROOF PLAN
1:100 @ A1

0 2 6m

N
E
S

legend

- proposed Stage 1 works (shown in blue)
- proposed Stage 2 works (shown in green)
- proposed Stage 3 works (shown in yellow)

Rev	Description	Date
A	to consultants for information	Jul '23
B	Development Application pre-lodgement meeting purposes	Aug '23
C	final draft development application drawing	Sept '23
D	final draft development application drawing	Nov '23

northern beaches council

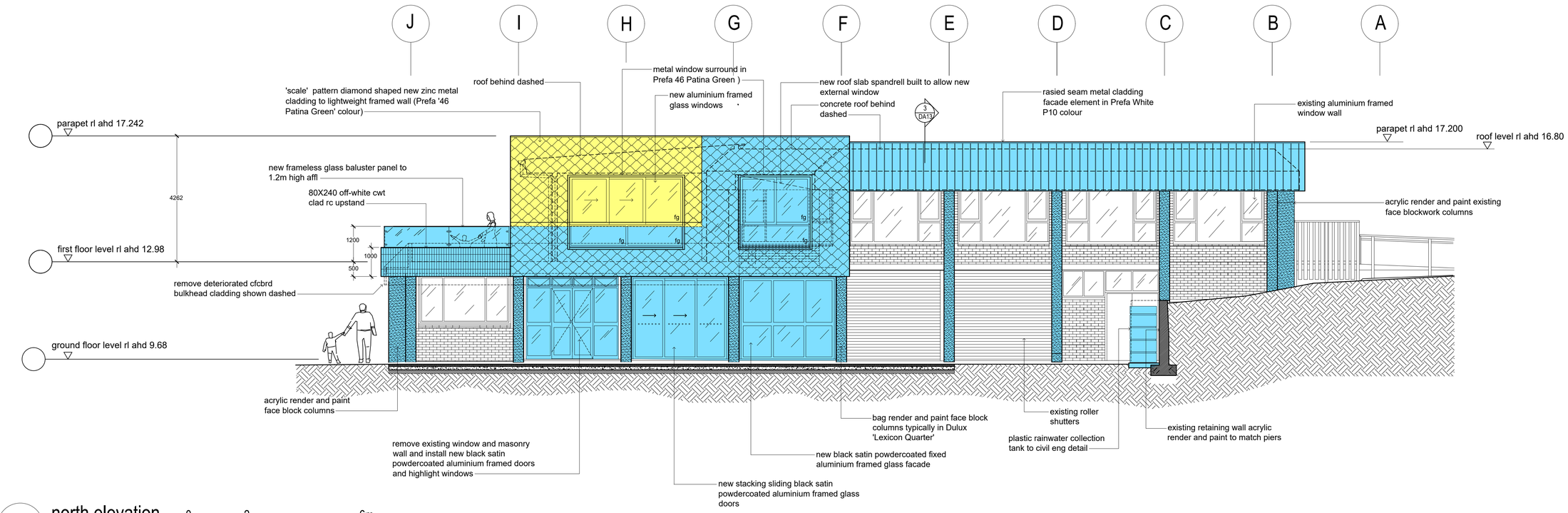
Drawing Title:
roof plan
SHOWING STAGING

Project:
North Narrabeen SLSC
Alterations and additions

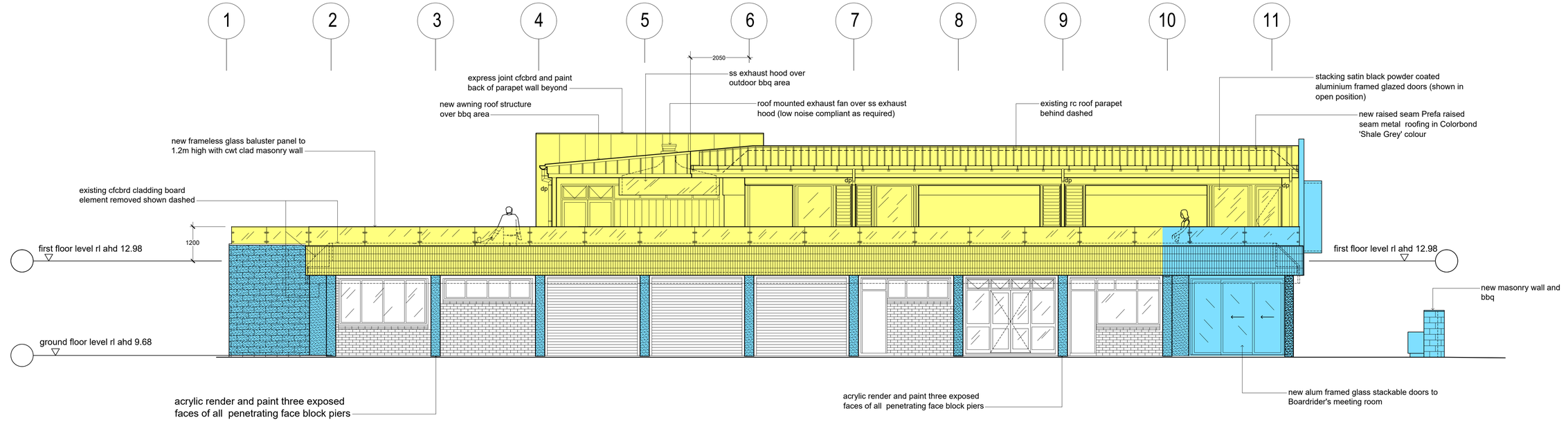
Prepared by:
Building Assets-Planning
Design and Delivery
Northern Beaches Council

Date: Jun '2022
Scale: A.S.
Checked: BK
Drawn by: MB

Dwg no: DA09
Issue no: D



1 north elevation 0 2 6m
1:75 @ A1



2 east elevation 0 2 6m
1:75 @ A1

legend

- proposed Stage 1 works (shown in blue)
- proposed Stage 2 works (shown in green)
- proposed Stage 3 works (shown in yellow)

Rev	Description	Date
A	to consultants for information	Jul '23
B	Development Application pre-lodgement meeting purposes	Aug '23
C	final draft development application drawing	Sept '23
D	final draft development application drawing	Nov '23

Project:
North Narrabeen SLSC
Alterations and additions

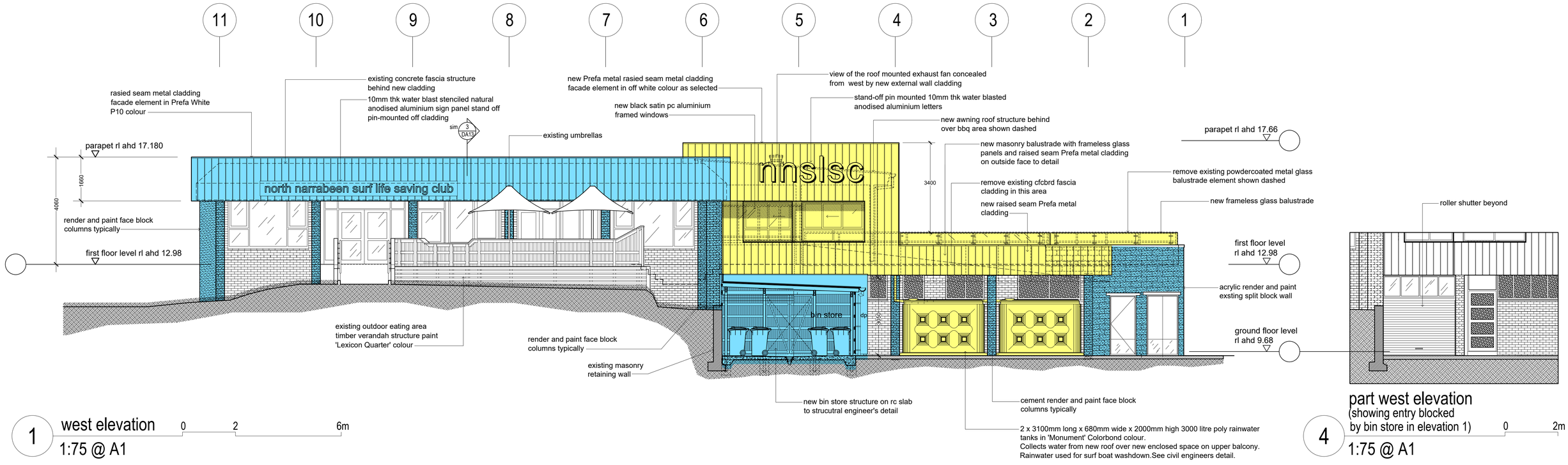
Drawing Title:
elevations
SHOWING STAGING

Prepared by:
Building Assets-Planning Design and Delivery
Northern Beaches Council

northern beaches council

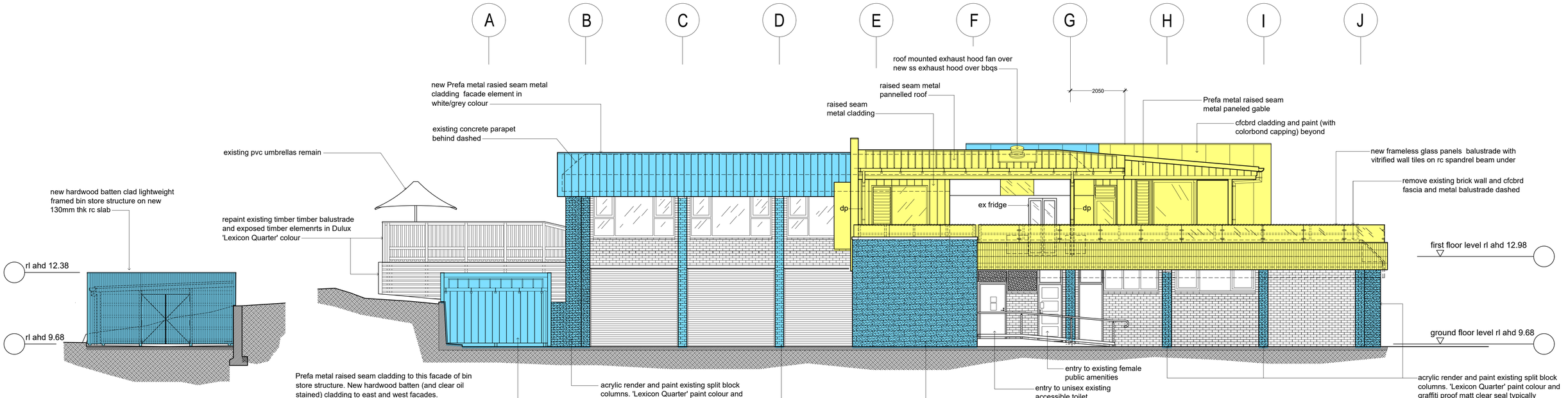
Date: Jun 2022
Scale: A.S.
Checked: BK
Drawn by: MB

Dwg no: DA10
Issue no: D



1 west elevation 0 2 6m
1:75 @ A1

4 part west elevation (showing entry blocked by bin store in elevation 1) 0 2m
1:75 @ A1



2 part elevation
1:75 @ A1

3 south elevation 0 2 6m
1:75 @ A1

legend

- proposed Stage 1 works (shown in blue)
- proposed Stage 2 works (shown in green)
- proposed Stage 3 works (shown in yellow)

Rev	Description	Date
A	to consultants for information	Jul '23
B	Development Application pre-lodgement meeting purposes	Aug '23
C	final draft development application drawing	Sept '23
D	final draft development application drawing	Nov '23

Project:
North Narrabeen SLSC
Alterations and additions

Drawing Title:
elevations
SHOWING STAGING

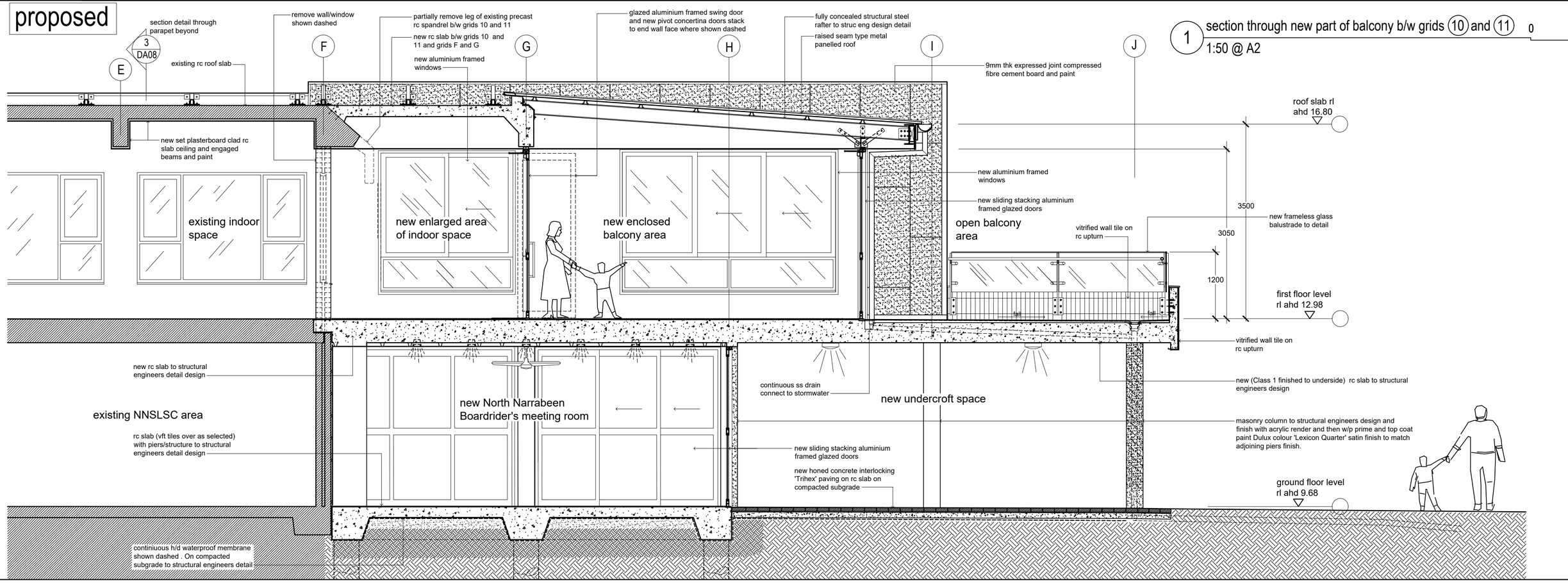
Prepared by:
Building Assets-Planning
Design and Delivery
Northern Beaches Council

northern beaches council

Date: Jun 2022
Scale: A.S.
Checked: BK
Drawn by: MB

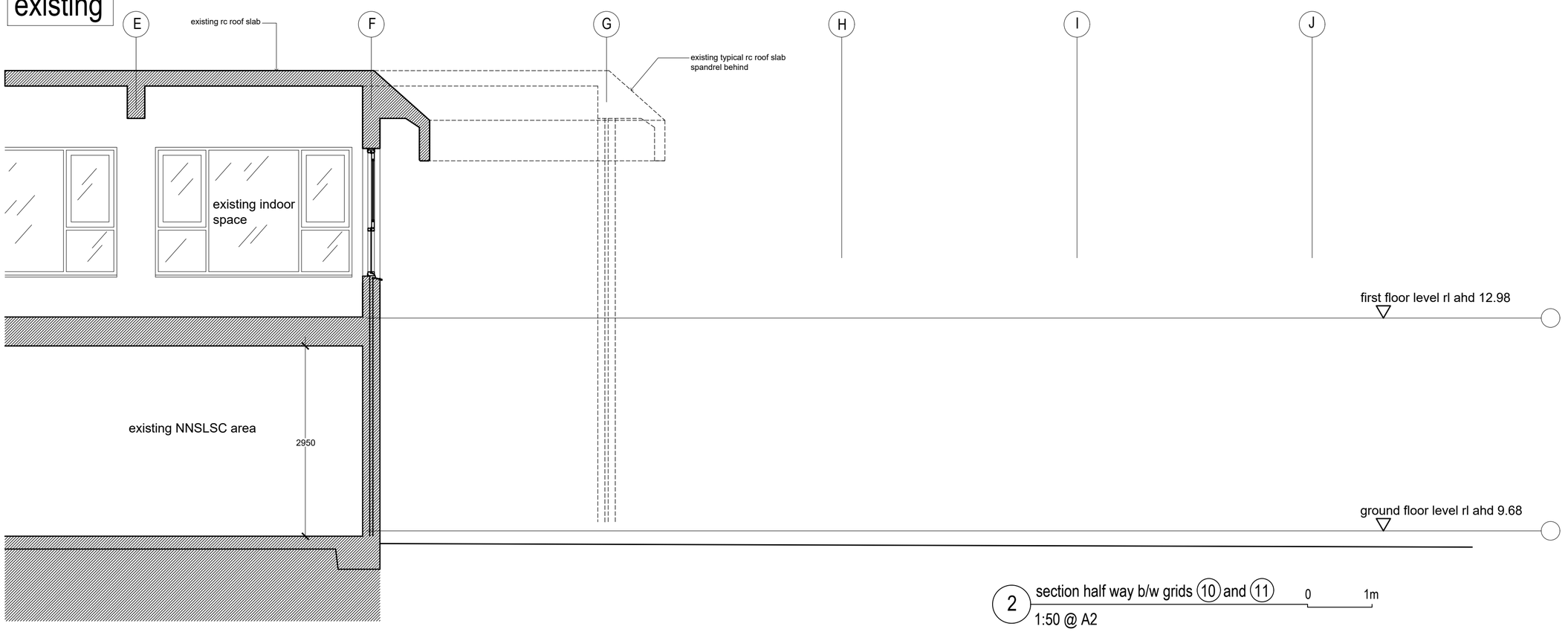
Dwg no: DA11
Issue no: D

proposed



1 section through new part of balcony b/w grids 10 and 11
1:50 @ A2
0 1m

existing



2 section half way b/w grids 10 and 11
1:50 @ A2
0 1m

Rev	Description	Date
A	to consultants for information	Jul '23
B	Development Application pre-lodgement meeting purposes	Aug '23
C	final draft development drawing	Sept'23
D	final draft development drawing	Nov '23

northern beaches council

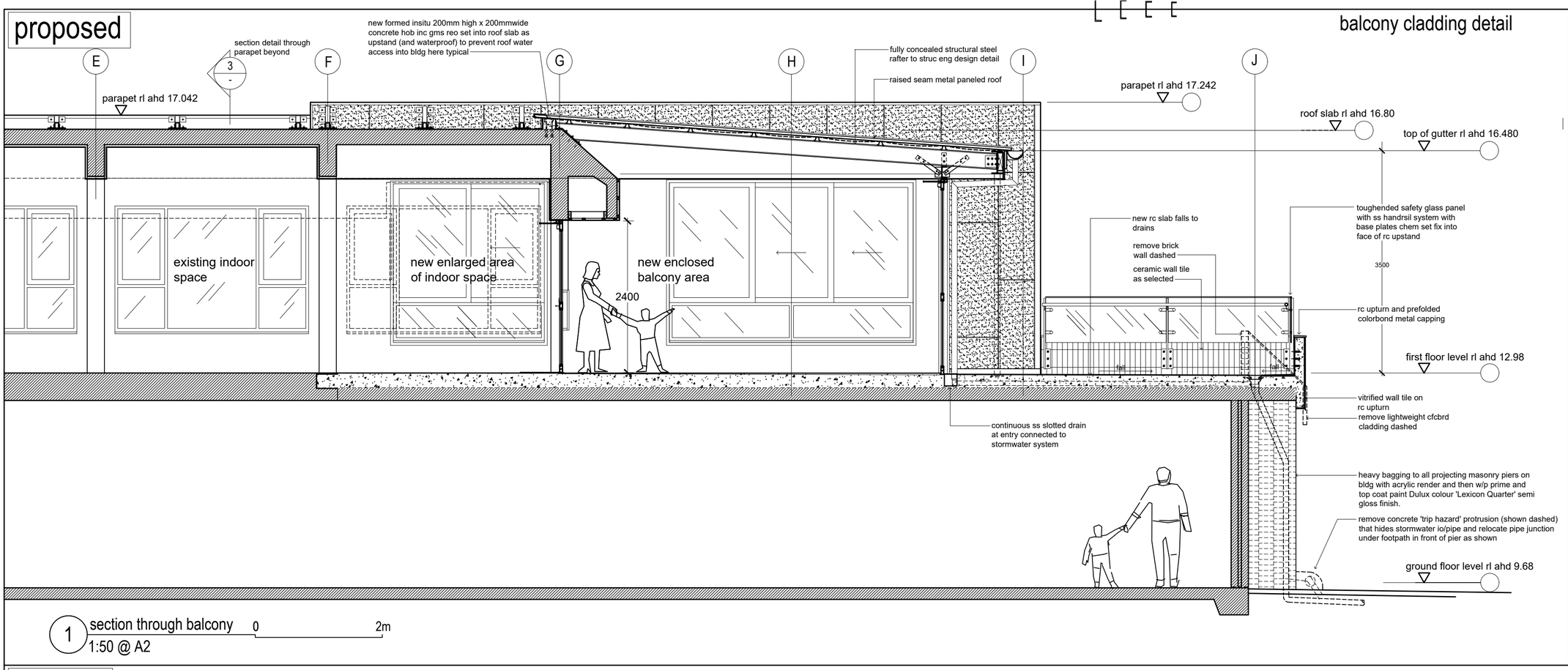
Project:
North Narrabeen SLSC Alterations and additions

Drawing Title:
detailed sections (existing and proposed)

Prepared by:
Building Assets-Planning Design and Delivery Northern Beaches Council

Date: Oct 2020
Dwg no: DA12
Checked: BK
Issue no: D
Drawn by: MB
Scale: A.S.

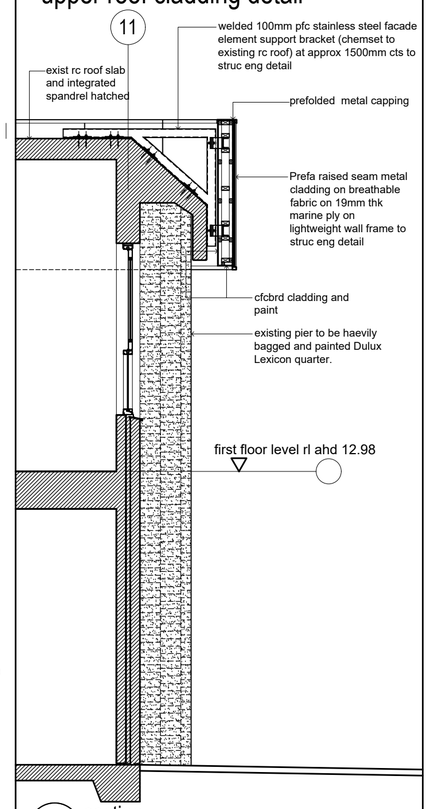
proposed



1 section through balcony 0 2m
1:50 @ A2

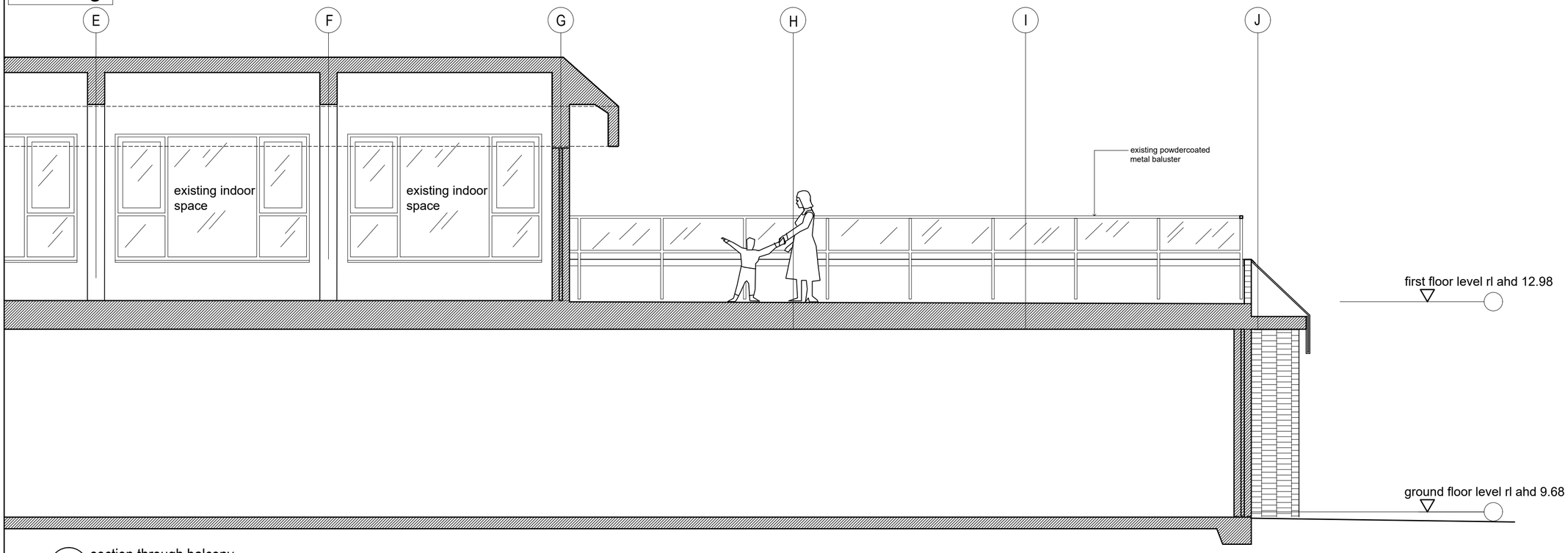
balcony cladding detail

upper roof cladding detail



3 section
1:50 @ A2

existing



2 section through balcony 0 2m
1:50 @ A2 use scale bar

Rev	Description	Date
A	to consultants for information	Jul '23
B	Development Application pre-lodgement meeting purposes	Aug '23
C	final draft development drawing	Sept'23
D	final draft development drawing	Nov '23

northern beaches council

Project:
North Narrabeen SLSC
Alterations and additions

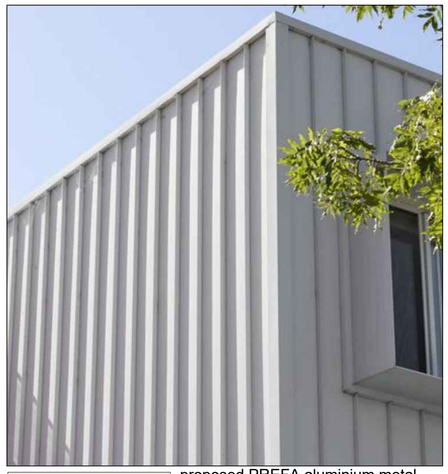
Drawing Title:
detailed sections
(existing and proposed)

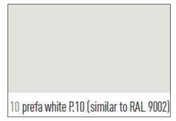
Prepared by:
Building Assets-Planning Design and Delivery
Northern Beaches Council

Date: Oct 2020
Dwg no: DA13
Checked: MC
Issue no: D
Drawn by: MB
Scale: A.S.

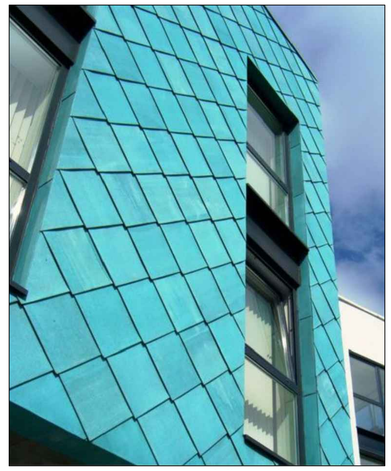
materials and finishes schedule - North Narrabeen SLSC building alterations and additions

proposed raised seam PREFA aluminium metal cladding in Prefa White P.10 colour





proposed PREFA aluminium metal raised seam cladding in off-white Prefa White P.10 colour



proposed diamond shaped shinlge 'scales' patterned cladding.Colour proposed is Prefa '46 patina green' (natural colour) sample chip here

examples of single pinned-on natural anodised aluminium letter sign and natural anodised aluminium plate building sign

proposed raised seam metal deck roofing in light grey colour sim 'Shale Grey' Colorbond

example of proposed frameless glass balustrade with integrated ss tubular handrail and fixing arrangement (balcony upstand however to be tiled)

example of rough bagged and painted exist split block piers in 'Lexicon Quarter' paint colour

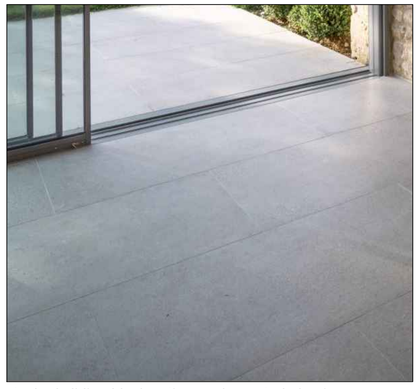
the proposed vitrified white wall tile (ie 80x240)

vitrified white wall tile (ie 80x240) to inside and outside face of rc up-stand element of balustrade on upper deck - and the proposed stack bond look in context

honed conrete 'Trihex' type pavers to new paved area on north side of building

example of stainless steel slot drain to front of stacking sliders b/w new enlcosed room and open balcony

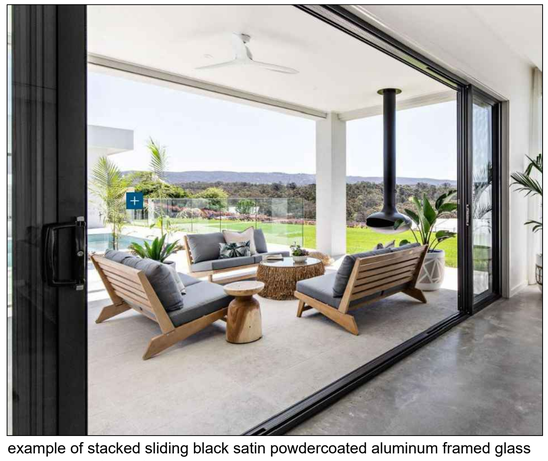
example of 600x300 vitrifed floor tile for balcony and proposed new enclosed room on existing balcony (non slip finish for external area tile)



stacked sliding black satin powdercoated aluminum framed glass doors concept ie between new enclosed space on balcony and open balcony space

concertina type black satin powdercoated aluminium doors ie between existing cafe and new enclosed room on balcony

example of stacked sliding black satin powder-coated aluminum framed glass doors concept ie between new enclosed space on balcony and open balcony space. Showing full open corner scenario proposed.



example of stacked sliding black satin powdercoated aluminum framed glass doors concept ie between new enclosed space on balcony and open balcony space. Showing full open corner scenario proposed

example of black satin powder-coated adjustable glass louvre window

Rev	Description	Date
A	Devalopment Application	Aug '23
B	Development Application pre-lodgement meeting purposes	Aug '23
C	final draft development application drawing	Sept '23
D	final draft development application drawing	Nov '23

Project:
North Narrabeen SLSC - Alterations and Additions

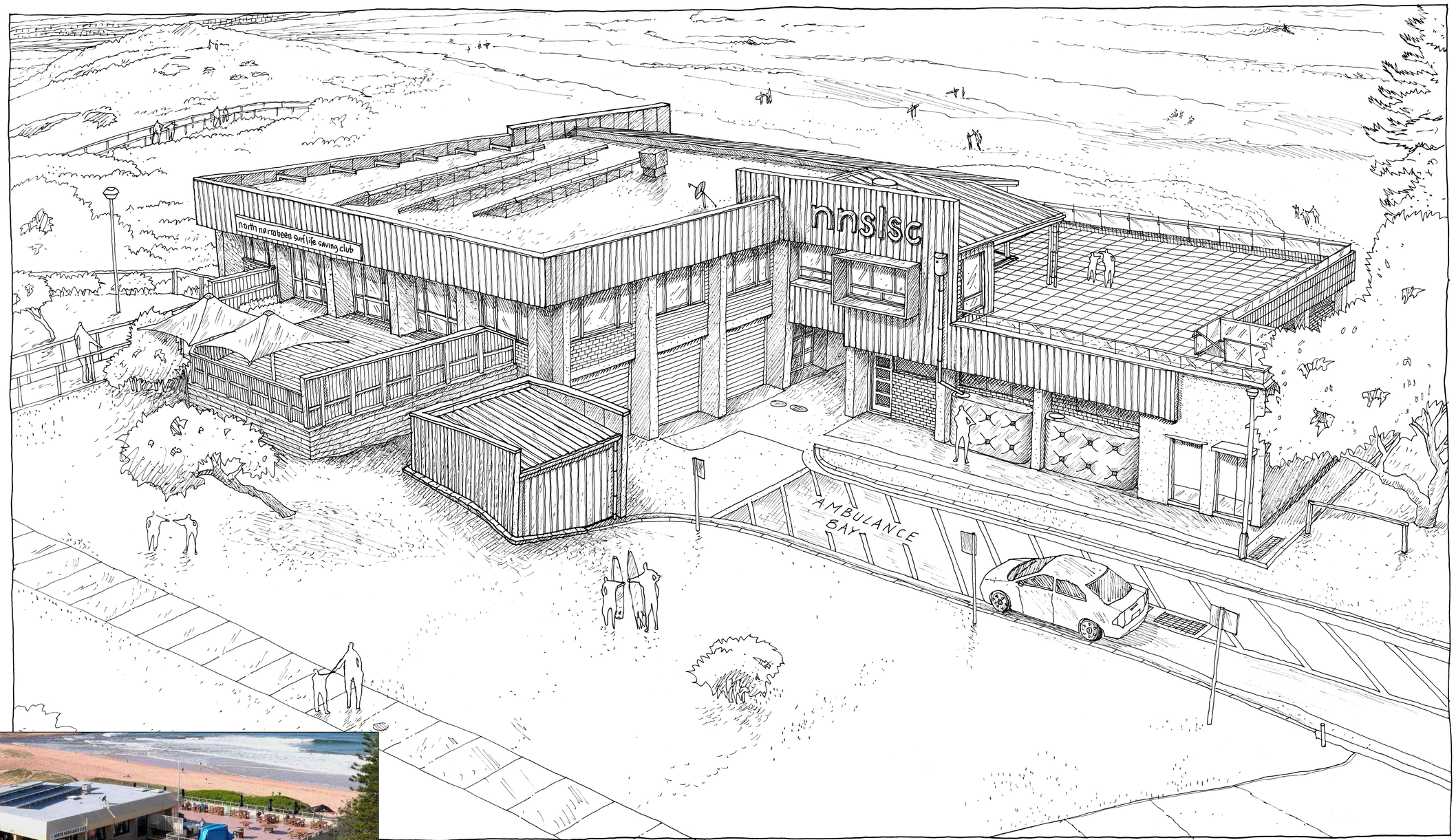
Drawing Title:
external finishes and materials board

Prepared by:
Building Assets - Plannig Design and Delivery
Northern Beaches Council

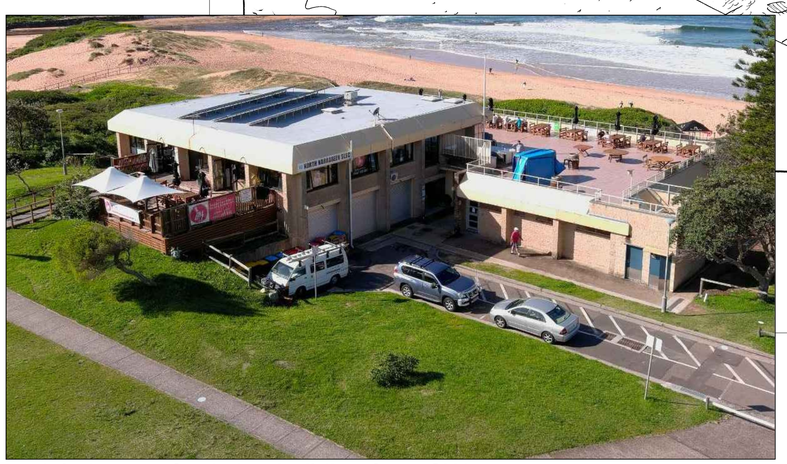
northern beaches council

Date: Oct 2022
Checked: BK
Drawn by: MB
Scale: A.S.

Dwg no: DA14
Issue no: D



sketch of refurbished building



aerial photos of existing building from SW

Rev	Description	Date
A	draft Development Application	Aug '23
B	Development Application pre-lodgement meeting purposes	Aug '23
C	final draft development application drawing	Sept '23
D	final draft development application drawing	Oct '23

northern beaches council

Project:
North Narrabeen SLSC
Alterations and additions

Drawing Title:
aerial view of exist bldg from SW and artist's impression of proposal

Prepared by:
Building Assets-Planning
Design and Delivery
Northern Beaches Council

Date:
Oct 2020

Dwg no:
DA15

Checked:
BK

Drawn by:
MB

Issue no:
D

Scale:
A.S.

sketch of refurbished building

aerial photo of existing building from NE

Rev	Description	Date
A	draft Development Application	Aug '23
B	Development Application pre-lodgement meeting purposes	Aug '23
C	final draft development application drawing	Sept '23
D	final draft development application drawing	Oct '23

northern beaches council

Project:
North Narrabeen SLSC
Alterations and additions

Drawing Title:
aerial view of exist bldg from NE and artist's impression of proposal

Prepared by:
Building Assets-Planning Design and Delivery
Northern Beaches Council

Date: Oct 2020
Checked: BK
Drawn by: MB
Scale: A.S.

Dwg no: DA16
Issue no: D

1 2 3 4 5 6 7 8 9 10 11

A B C D E F G H I J

bushland

roller shutter

driveway

roller shutter

grass

concrete path

roller shutter

SLSC boat and craft storage

ch 3040

roller shutter

stair

existing post and rail timber fence

post and rail timber fence

roller shutter

nippers room

ex main ground floor entry

main ground floor SLSC entry

female club change

male wc shwr change

edb

roller shutter

female wc shwr change (layout to be checked)

coolroom

storeroom

access wc

male club change

storeroom

gymnasium

ch 2970

ch 2800

store

bedroom

bthrm

shwr

ex caretakers flat

kitchen

IRB storage

beach access

irb store

first aid room

beach inspector

paving

gas bbq

bushland

concrete block wall on rc strip footing

grass/sand area

NW side of 'Zone of Reduced Foundation Capacity' area
See Fig 23 in NBC CZMP Document (see dwg DA01 site plan)

concrete slab

ex bushland

grass area

concrete slab

path to beach

beach bushland

N

1 EXISTING GROUND FLOOR PLAN 0 2 6m
1:100 @ A1

Rev	Description	Date
A	to consultants for information	Jul '23
B	Development Application pre-lodgement meeting purposes	Aug '23
C	draft development application drawing	Sept'23
D	final draft development application drawing	Nov'23

northern beaches council

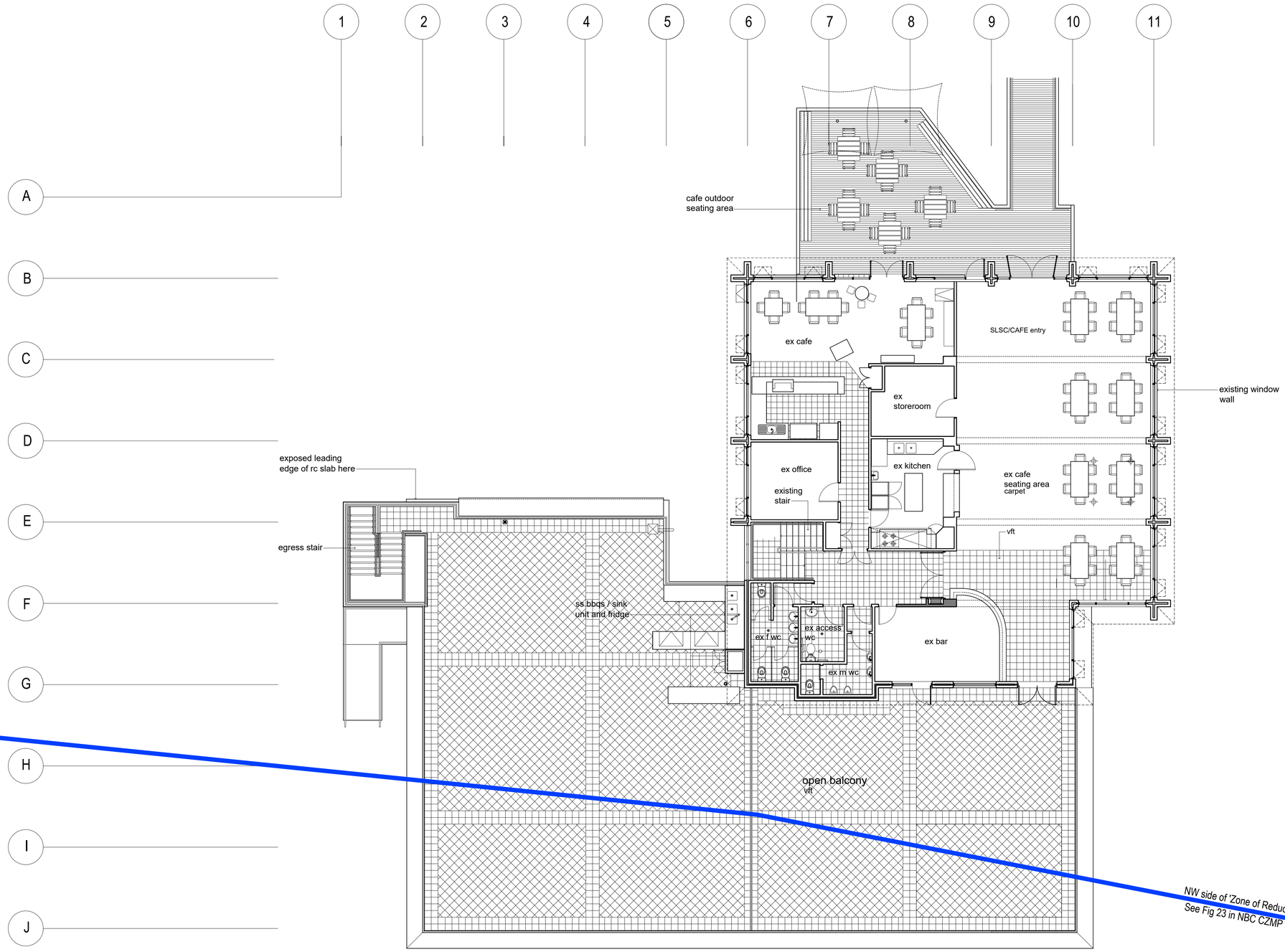
Drawing Title:
existing ground floor plan

Project:
North Narrabeen SLSC
Alterations and additions

Prepared by:
Building Assets-Planning Design and Delivery
Northern Beaches Council

Date: Jun 2022
Scale: A.S.
Checked: BK
Drawn by: MB

Dwg no: DAEX01
Issue no: D



1 EXISTING UPPER FLOOR PLAN
1:100 @ A1

0 2 6m

N

legend of use areas

- existing area of outdoor balcony area for the public (ie 416m2)

Rev	Description	Date
A	to consultants for information	Jul '23
B	Development Application pre-lodgement meeting purposes	Aug '23
C	draft development application drawing	Sept'23
D	final draft development application drawing	Nov'23

northern beaches council

Drawing Title:
existing upper floor plan

Project:
North Narrabeen SLSC
Alterations and additions

Prepared by:
Building Assets-Planning Design and Delivery
Northern Beaches Council

Date: Jun 2022
Dwg no: DAEX02
Scale: A.S.
Checked: BK
Drawn by: MB
Issue no: D

OCEAN STREET

MALCOLM STREET

STREET

1 Survey plan 1:200 @ A1

0 10m

Legend

(A) RIGHT OF FOOTWAY 0.915 WIDE VIDE F595822

Rev	Description	Date
A	development application	Apr '23
B	Development Application pre-lodgement meeting purposes	Aug '23
C	final draft development application drawing	Sept '23
D	final draft development application drawing	Nov '23

Project:
North Narrabeen SLSC
Alterations and additions

Prepared by:
Building Assets - Planning Design and Delivery, Northern Beaches Council

Drawing Title:
survey plan

northern beaches council

records@northernbeaches.nsw.gov.au

Scale: AS
Date: Sept 2021
Drawn: MB
checked: BK

Dwg no: DAS01
Issue no: D

1

A

AMBULANCE PARKING BAY

SCS

roller shutter

dp

roller shutter

grass

concrete path

roller shutter

ex SLSC boat and craft storage

existing stair

existing roller shutter

SCS

existing roller shutter

dp

dp

ex main ground floor entry

main ground floor SLSC entry

up

up

hwu

ex nippers room

roller shutter

female wc shwr change (layout to be checked)

coolroom

storeroom

meeting room

store/ kitchen

male public amenities

female public amenities

bench

basins

access wc

bench

wc

shwr

urnl

male club change

up

wiw

store

bedroom

bthrm

shwr

ex caretakers flat

kitchen

ex IRB storage

ex beach access

ex irb store

ex gymnasium

ex first aid room

beach inspector

sand path to beach

existing paving

SCS

SCS

SCS

grass area

sand path to beach

N

W

E

S

1 sediment control plan

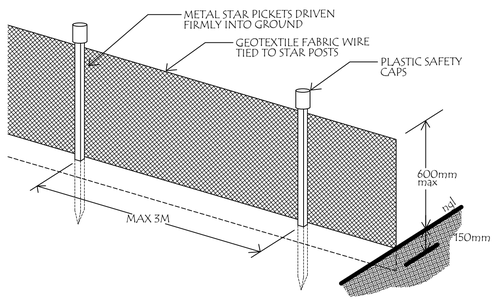
not to scale .Use scale bar

0

6m

draft

Sediment control sock to stwtr drains



SEDIMENT CONTROL FENCING DETAIL

legend

- SEDIMENT CONTROL FENCING (LOCATION ON SITE SHOWN)

SCS – SEDIMENT CONTROL SOCK AT STORMWATER DRAINS (LOCATION ON SITE SHOWN)

GENERAL NOTES:

SEDIMENT AND EROSION CONTROL

1. The contractor shall be solely responsible for the establishment and maintenance of erosion and sedimentation throughout the construction period in accordance with:-
   - Local Authority requirements
   - EPA requirements
   - Protection of the Environment Operations Act 1997
2. The erosion and sediment controls shown on the drawings represent concept only to demonstrate the minimum requirements.
3. The contractor shall maintain the control devices at all times to the satisfaction of the Superintendent , the Private Certifier and the Northern Beaches Council.
4. For all existing stormwater drains and pits and for all stormwater pits and drains constructed and replaced , prevent site run off entering them unless sediment controls are erected around and or over pits and drains.
5. Water shall be prevented from entering the permanent drainage system unless it is relatively sediment free.
6. Dust suppression using water will be used and runoff of that water will be kept localized and be legally and appropriately disposed of.
7. Final site landscaping and ground stabilization will be undertaken as soon as possible following construction activities.
8. The Contractor is to inform the subcontractors and all staff of their responsibilities in minimizing the potential for soil erosion and pollution to downstream lands and waterways.
9. Soil and excavated materials will be stored and taken away from site using skip bins.No stockpiling of such material on site is allowed.
10. Temporary soil and water management structures will be removed only after there is no possibility that future pollution or soil erosion will take place.
11. All demolition materials and soil will be put straight into skips within the sediment and erosion controlled areas and disposed of appropriately.
12. Acceptable containers/receptors will be provided for concrete pump/truck and painter washdown , rubbish and construction waste.
13. Site access will be restricted for vehicles. Roads and footpaths must be kept clean and debris free.

NOTE:
Measures for erosion and sediment control installed will comply with those methods , recommendations and requirements as set out in Northern Beaches Council's - North Area *"Guidelines for Erosion and Sediment Control on Building Sites"* document.

Rev	Description	Date
A	for consultatns purposes	Jun '23
B	Development Application pre-lodgement meeting purposes	Aug '23
C	final draft development application drawing	Sept '23
D	final draft development application drawing	Nov '23

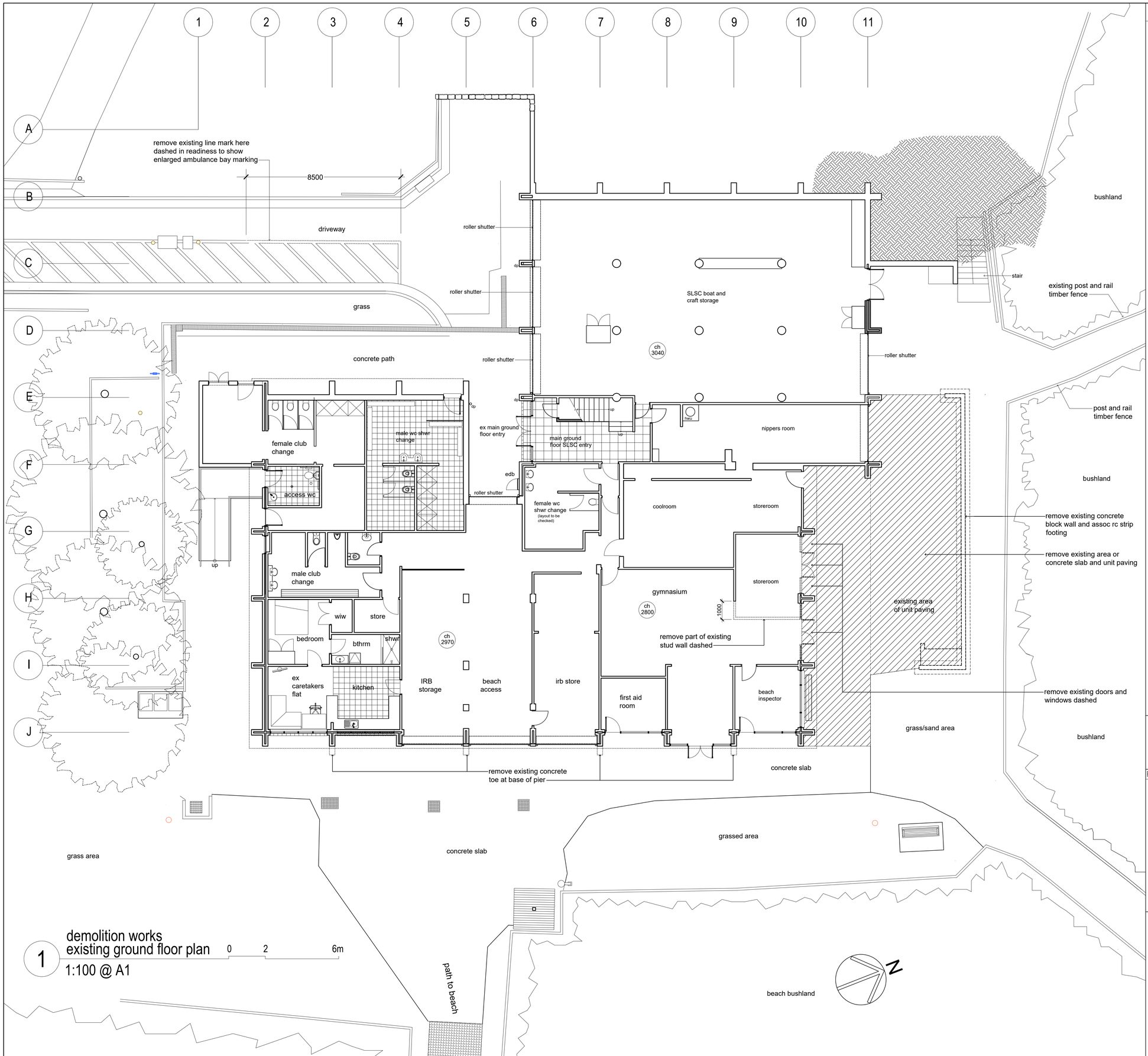
northern beaches council

Project:
North Narrabeen SLSC
Alterations and additions

Drawing title:
construction sediment control plan

Prepared by:
Building Assets-Planning
Design and Delivery
Northern Beaches Council

Date: Apr 2023
Drawn by: MB
Dwg no: DAS02
Checked: BK
Scale: A.S.
Issue no: D



1 demolition works
existing ground floor plan
1:100 @ A1

0 2 6m

general notes:

Demolition works to be carried out in line with NSW Government Code of Pratice Demolition Work August 2019

All works related to this project must be carried out in line with all items as set out in the DA when and if approved , and include but not be limited to the following items items set out here;

- Where there is conflict between notes set out here and in the DA Notice of Determination , contact the project superintendant from NBC for clarification
- Where Aboriginal objects or remains or other arceological deposits and relics are uncovered during the works, the works must cease and the superintendnt from NBC and the Heritage Council must be immediately contacted
- Tree protection measures are to be installed prior to any demolition works and must be maintained for the duration of the works .
- A delapidattion report of the existing building must be prepared prior to commencement of demolition works on site.
- All natural landscape features including rock outcrops , native vegetation and watercourses are to be protected and will remain undisturbed and unaffected by the demolition works.
- An Erosion and Sediment Control Plan shall be prepared by and appropriately qualified person and implemented on site prior to commencement.This plan shall include items set out here below and all other items as setout in the DA Notice of Determination.

1. The contractor shall be solely responsible for the establishment and maintenance of erosion and sedimentation throughout the construction period in accordance with:-
   - Local Authority requirements
   - EPA requirements
   - Protection of the Environment Operations Act 1997, and with the requirements outlined in the Landcom publication "Managing Urban Stormwater : Soils and Construction" - Volume 1 4th Edition (2004)
2. The contractor shall maintain the control devices at all times to the satisfaction of the Superintendent , the Private Certifier and the Northern Beaches Council.
3. prevent site run off from entering all adjoning and on site existing watercourses, stormwater drains and pits and protect below ground storm water assets to NBC superintendent approval.
4. Water shall be prevented from entering the permanent drainage system unless it is relatively sediment free.
5. Dust suppression using water will be used and runoff of that water will be kept localized and be legally and appropriately disposed of.
6. Final site landscaping and ground stabilization will be undertaken as soon as possible following demolition activities.
7. The Contractor is to inform the subcontractors and all staff of their responsibilities in minimizing the potential for soil erosion and pollution to downstream lands and waterways.
8. Temporary soil and water management structures will be removed only after there is no possibility that future pollution or soil erosion will take place.
9. All demolition materials and soil will be put straight into skips within the sediment and erosion controlled areas and disposed of appropriately.No stockpiling of such material on site is allowed.
10. Acceptable containers/recepticals will be provided for rubbish and demolition waste.

note:

Location of all in-ground services within and adjoining the affected site to be verified and marked on site prior to works commencing on site.
Including a DIAL BEFORE YOU DIG investigation

Rev	Description	Date
A	to consultants for information	Oct '23
B	draft DA dwg for information	Oct '23
C	draft DA dwg for information	Oct '23
D	final draft DA dwg for information	Nov '23

northern beaches council

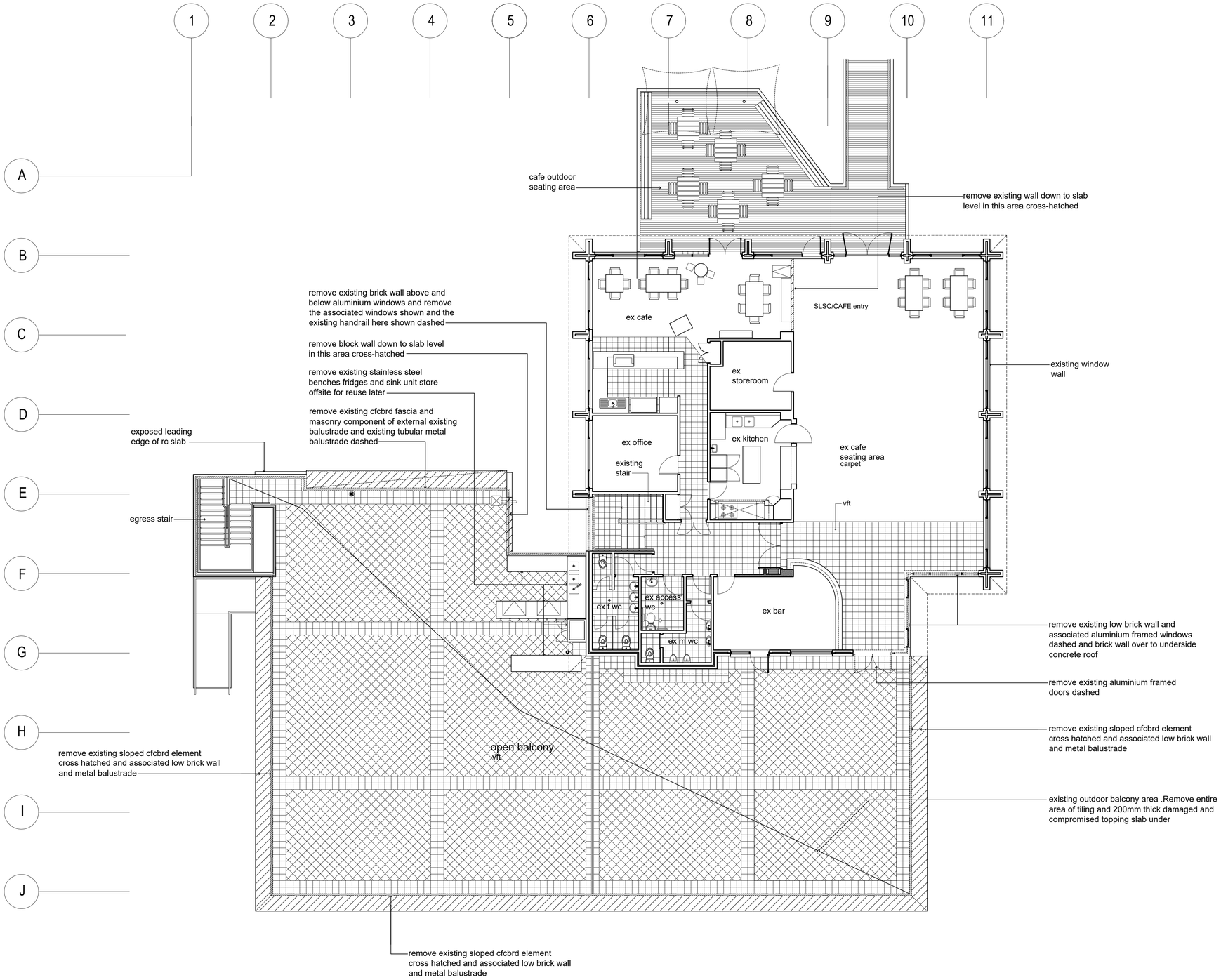
Prepared by:
Building Assets-Planning Design and Delivery
Northern Beaches Council

Project:
North Narrabeen SLSC
Alterations and additions

Drawing Title:
demolition works
existing ground floor plan

Date: Jun 2022
Scale: A.S.
Checked: BK
Drawn by: MB

Dwg no: DEM01
Issue no: D



1 demolition works existing upper floor plan
1:100 @ A1

0 2 6m

N

note:
See Dwg DEM01 for notes regarding demolition requirements

Rev	Description	Date
A	to consultants for information	Oct '23
B	draft DA dwg for information	Oct '23
C	draft DA dwg for information	Oct '23
D	final draft DA dwg for information	Nov '23

northern beaches council

Drawing Title:
demolition works
existing upper floor plan

Project:
North Narrabeen SLSC
Alterations and additions

Prepared by:
Building Assets-Planning
Design and Delivery
Northern Beaches Council

Date: Jun 2022
Scale: A.S.
Checked: BK
Drawn by: MB

Dwg no: DEM02
Issue no: D

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