Taylors

Kyeemagh School

Construction Noise and Vibration Management Sub Plan

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1 Introduction

White Noise Acoustics has been engaged to undertake the acoustic assessment of the noise and vibration impacts during the construction stage of the Kyeemagh Public School project.

The assessment has been undertaken in conjunction with the requirements of Item B15 of the projects *Conditions of Consent* and the EPA's Interim Construction Noise Guideline which is detailed in this report.

This report includes the recommended noise and vibration mitigations and management controls for the operation of construction activities on the site to ensure impacts to surrounding receivers are minimised.

2 Development Description

The proposed development includes the construction of a Kyeemagh Public School project which is located in the block bound by Jacobson Avenue, Beehag Street and Tancred Avenue Kyeemagh.

The surrounding receivers to the site include residential receivers within proximity to the site.

The site location, in relation to surrounding buildings, is shown in Figure 1 below.

Figure 1 – Site Location and Surrounding Receivers

2.1 Conditions of Consent

The management of noise and vibration assassinated with the required construction works to be undertaken as part of the project will be undertaken in conjunction with the requirements of the DA Conditions of Consent, including Item B15 that requires the construction of the project to comply with NSW Dept of Env & Climate Change *"Interim Construction Noise Guideline"* 2009 and includes the following:

> ***B15***
>
> ***Construction Environmental Management Plan***
> *The Construction Noise and Vibration Management Sub-Plan (CNSWMSP) must address, but not be limited to, the following:*
>
> *(a) be prepared by a suitably qualified and experienced noise expert;*
> *(b) describe procedures for achieving the noise management levels in EPA's Interim Construction Noise Guideline (DECC, 2009);*
> *(c) describe the measures to be implemented to manage high noise generating works such as piling, in close proximity to sensitive receivers;*
> *(d) include strategies that have been developed with the community for managing high noise generating works;*
> *(e) describe the community consultation undertaken to develop the strategies in condition B15(d);*
> *(f) include a complaints management system that would be implemented for the duration of the construction; and*
> *(g) include a program to monitor and report on the impacts and environmental performance of the development and the effectiveness of the management measures in accordance with condition B12(d).*

This report has been undertaken in compliance with the items above and details the required management controls to comply with the Conditions of Consent.

3 Existing Acoustic Environment

The Kyeemagh Public School project is located within the block bond by Jacobson Avenue, Beehag Street and Tancred Avenue Kyeemagh.

Existing environmental noise levels at the site are dominated by traffic noise generated predominantly from surrounding roadways.

As part of this previously conducted *Kyeemagh Infants School, SSDA Noise Impact Assessment* undertaken by SLR and dated January 2019 an assessment of background noise levels has been undertaken, which will be used as the basis of this report. The site survey included the use of two noise monitoring locations which are detailed in Figure 1 above.

3.1 Noise Survey Results

The results of the noise survey undertaken within the *Kyeemagh Infants School, SSDA Noise Impact Assessment* undertaken by SLR and dated January 2019 report have been used as the basis of this assessment and are summarised in Table 1 below.

Table 1 – Results of Noise Survey at the Site

Measurement Location	Time of Measurement	$L_{Aeq, 15min}$ dB(A)	$L_{A90, 15min}$ dB(A)	Comments
Location 1 – South East of the site	Daytime	44	56	Noise level at the site dominated by vehicle movements on surrounding roadways
	Evening	51	57	
	Nighttime	41	53	
Location 2 – South West of the site	Daytime	43	56	
	Evening	49	56	
	Nighttime	38	51	

4 Construction Noise and Vibration Assessment

This section of the report details the assessment of noise associated with the proposed construction activities associated with the development. The assessment has been undertaken to assess the potential noise impacts from construction and excavation on surrounding receivers to the site.

The proposed construction and excavation activities to be undertaken on the site include the excavation and construction on the site. The development will then be constructed using normal construction processes.

4.1 Construction Noise

The assessment of construction noise impacts generated from the site has been undertaken in accordance with the requirements of the EAP Interim Construction Noise Guideline.

The EPA's Interim Construction Noise Guideline defines normal day time hours as the following:

2.2 Recommended standard hours

The recommended standard hours for construction work are shown in Table 1; however, they are not mandatory. There are some situations, as described below, where construction work may need to be undertaken outside of these hours. The likely noise impacts and the ability to undertake works during the recommended standard hours should be considered when scheduling work.

Table 1: Recommended standard hours for construction work

Work type	Recommended standard hours of work*
Normal construction	Monday to Friday 7 am to 6 pm Saturday 8 am to 1 pm No work on Sundays or public holidays
Blasting	Monday to Friday 9 am to 5 pm Saturday 9 am to 1 pm No blasting on Sundays or public holidays

* The relevant authority (consent, determining or regulatory) may impose more or less stringent construction hours.

4.1.1 Approved Hours of Work

Works on the site will be undertaken in accordance with the requirements of the DA *Conditions of Consent* which will define the normal working hours for the project.

4.2 Proposed Appliances

The proposed appliances which will be used as part of the excavation and construction of the project are detailed in the table below.

Table 2 – Noise Level from Expected Demotion Appliances

Tasks	Equipment	Sound Power Levels per task dB(A) $L_{eq\ (15min)}$	Site Cumulative Sound Power Level dB(A) $L_{eq\ (15min)}$
Site Civil Works	Jack hammer mounted on excavator	114	118
	Saw cutting	115	
	Excavators and bulldozers	111	
	Materials Movements	101	
	Bulldozers	111	
	Trucks	105	
	Vibration Rollers	106	
Construction Works	Piling	111	116
	Welder	97	
	Saw cutter	105	
	Dump truck	105	
	Concrete saw	115	
	Power hand tools	105	
	Cranes	106	
Notes: Noise levels of proposed equipment to be used on the site based on the Australian Standard AS2436-2010 and noise level measurements previously undertaken of similar equipment on construction sites.			

4.3 Construction Noise Criteria

This section of the report details the relevant construction noise criteria which is applicable to the site including the EPA's *Interim Construction Noise Guideline* (ICNG).

4.3.1 Interim Construction Noise Guideline

Noise criteria for construction and excavation activities are discussed in the *Interim Construction Noise Guideline* (ICNG). The ICNG also recommends procedures to address potential impacts of construction noise on residences and other sensitive land uses. The main objectives of the ICNG are summarised as follows:

- Promote a clear understanding of ways to identify and minimise noise from construction works;
- Focus on applying all "feasible" and "reasonable" work practices to minimise construction noise impacts;
- Encourage construction to be undertaken only during the recommended standard hours unless approval is given for works that cannot be undertaken during these hours;
- Streamline the assessment and approval stages and reduce time spent dealing with complaints at the project implementation stage; and
- Provide flexibility in selecting site-specific feasible and reasonable work practices in order to minimise noise impacts.

The ICNG contains a quantitative assessment method which is applicable to this project. Guidance levels are given for airborne noise at residences and other sensitive land uses.

The quantitative assessment method involves predicting noise levels at sensitive receivers and comparing them with the Noise Management Levels (NMLs). The NML affectation categories for receivers have been reproduced from the guideline and are listed in the table below.

Table 3 – Noise Management Levels from Construction – Quantitative Assessment

Receiver Type	Time of Day	Noise Management Level LAeq(15minute)1,2	How to Apply
Residential	Recommended standard hours: Monday to Friday 7 am to 6 pm Saturday 8 am to 1 pm No work on Sundays or public holidays	Noise affected RBL + 10 dB	The noise affected level represents the point above which there may be some community reaction to noise. • Where the predicted or measured LAeq(15minute) is greater than the noise affected level, the proponent should apply all feasible and reasonable work practices to meet the noise affected level. • The proponent should also inform all potentially impacted residents of the nature of works to be carried out, the expected noise levels and duration, as well as contact details.
		Highly noise affected 75 dBA	The highly noise affected level represents the point above which there may be strong community reaction to noise. • Where noise is above this level, the relevant authority (consent, determining or regulatory) may require respite periods by restricting the hours that the very noisy activities can occur, taking into account: 1. Times identified by the community when they are less sensitive to noise (such as before and after school for works near schools, or mid-morning or mid-afternoon for works near residences. 2. If the community is prepared to accept a longer period of construction in exchange for restrictions on construction times.
	Outside recommended standard hours	Noise affected RBL + 5 dB	• A strong justification would typically be required for works outside the recommended standard hours. • The proponent should apply all feasible and reasonable work practices to meet the noise affected level. • Where all feasible and reasonable practices have been applied and noise is more than 5 dB above the noise affected level, the proponent should negotiate with the community.

Table 3 – Continued

Receiver Type	Time of Day	Noise Management Level LAeq(15minute)1,2	How to Apply
Classrooms at schools and other educational institutions	When is use	Internal Noise level 45 dB(A)	During construction, the proponent should regularly update the occupants of the premises regarding noise levels and hours of work.
	Note 1 *Noise levels apply at the property boundary that is most exposed to construction noise, and at a height of 1.5 m above ground level. If the property boundary is more than 30 m from the residence, the location for measuring or predicting noise levels is at the most noise-affected point within 30 m of the residence. Noise levels may be higher at upper floors of the noise affected residence.*		
	Note 2 *The RBL is the overall single-figure background noise level measured in each relevant assessment period (during or outside the recommended standard hours). The term RBL is described in detail in the NSW Industrial Noise Policy (EPA 2000).*		

Based on the table above the suitable construction noise management levels for works undertaken on the site is detailed in Table 6 below.

Table 4 – Site Construction Noise Management Levels

Noise Source	Time Period	Receiver Type	Construction Noise Management Level[1]	'High Noise Affected' Level[1]
Construction Noise	During period of approved hours of works as detailed within Item 92 of the DA *Conditions of Consent*	Residential Receivers	53 dB(A) LAeq (15min)	75 dB(A) LAeq (15min)
		Education Receivers	Internal Noise level 45 dB(A)	70 dB(A) LAeq (15min)
Note 1: Construction noise management levels based on the Interim Construction Noise Guideline				

The acoustic assumptions and operational conditions used in the calculations above include the following:

1. The operation of construction equipment during a typical 15 minute period of assessment will include period when the activity is not is use. Typically the assessment has include a period when activities are used in a 15 minute period, including the following:
    a. Hydraulic hammering – Hydraulic hammering operational for 7min of a typical 15 minute period.
    b. Saw cutting – Saw cutting operational for 5min of a typical 15 minute period.
    c. Excavator and bulldozer– Excavator and bulldozer operational for 10min of a typical 15 minute period.
    d. Materials Movement – Including impact noise levels from dropping of materials.
    e. Trucks – Trucks operating for a 10min period in a typical 15 minute period.
    f. Piling – Piling operational for 10min of a typical 15 minute period
    g. Welding – Welding operational for 15min of a typical 15 minute period. Additionally welding would include screening from surrounding receivers based on the required construction methods used to undertake welding.

    h. Power and hand tools – Hand held tools will be undertaken during short period of use within a 15 minute period, such as cutting of timber, hammering, cutting of studs and the like.
    i. Cranes – The use of cranes will be undertaken during a 7min period of a typical 15 minute period.
2. Screening of construction activities would the buildings external fabric has been installed.
3. Assumptions included in the assessment of the internal noise levels of the existing school includes the following:
    a. The external building fabric of the school includes a 'standard' construction including:
        i. Glass including a 4mm float with mohair seals.
        ii. Window openings, including the locations in the exiting building.
        iii. Solid building elements includes constriction including external cladding, timber framed building with single plasterboard linings internally.
        iv. External roof/ceiling includes metal deck roof with single layer of ceiling lining.
    b. Distance, screening and angle of views to the school based on the site location of the existing buildings.
4. All equipment is maintained in good working order.

4.3.2 Construction Vibration Assessment

This section of the report details the assessment of construction vibration impacts on surrounding receivers.

Effects of ground borne vibration on buildings may be segregated into the following three categories:

- Human comfort – vibration in which the occupants or users of the building are inconvenienced or possibly disturbed. Refer to further discussion in Section 4.4.1.
- Effects on building contents – where vibration can cause damage to fixtures, fittings and other non-building related objects. Refer to further discussion in Section 4.4.2.
- Effects on building structures – where vibration can compromise the integrity of the building or structure itself. Refer to further discussion in Section 4.4.2.

4.3.3 Vibration Criteria – Human Comfort

Vibration effects relating specifically to the human comfort aspects of the project are taken from the guideline titled *"Assessing Vibration – A Technical Guideline"*. (AVTG) This type of impact can be further categorised and assessed using the appropriate criterion as follows:

- Continuous vibration – from uninterrupted sources (refer to Table 5).
- Impulsive vibration – up to three instances of sudden impact e.g. dropping heavy items, per monitoring period (refer to Table 6).
- Intermittent vibration – such as from drilling, compacting or activities that would result in continuous vibration if operated continuously (refer to Table 7).

Table 5 Continuous vibration acceleration criteria (m/s2) 1 Hz-80 Hz

Location	Assessment period	Preferred Values		Maximum Values	
		z-axis	x- and y-axis	z-axis	x- and y-axis
Residences	Daytime	0.010	0.0071	0.020	0.014
	Night-time	0.007	0.005	0.014	0.010
Offices, schools, educational institutions and places of worship	Day or night-time	0.020	0.014	0.040	0.028
		0.04	0.029	0.080	0.058
Workshops	Day or night-time	0.04	0.029	0.080	0.058

Table 6 Impulsive vibration acceleration criteria (m/s2) 1 Hz-80 Hz

Location	Assessment period	Preferred Values		Maximum Values	
		z-axis	x- and y-axis	z-axis	x- and y-axis
Residences	Daytime	0.30	0.21	0.60	0.42
	Night-time	0.10	0.071	0.20	0.14
Offices, schools, educational institutions and places of worship	Day or night-time	0.64	0.46	1.28	0.92
Workshops	Day or night-time	0.64	0.46	1.28	0.92

Table 7 Intermittent vibration impacts criteria (m/s1.75) 1 Hz-80 Hz

Location	Daytime		Night-time	
	Preferred Values	Maximum Values	Preferred Values	Maximum Values
Residences	0.20	0.40	0.13	0.26
Offices, schools, educational institutions and places of worship	0.40	0.80	0.40	0.80
Workshops	0.80	1.60	0.80	1.60

4.3.4 Vibration Criteria – Building Contents and Structure

The vibration effects on the building itself are assessed against international standards as follows:

- For transient vibration: British Standard BS 7385: Part 2-1993 "Evaluation and measurement for vibration in buildings Part 2: Guide to damage levels from ground borne vibration" (BSI 1993); and
- For continuous or repetitive vibration: German DIN 4150: Part 3 – 1999 "Effects of Vibration on Structure" (DIN 1999).

4.3.4.1 Standard BS 7385 Part 2 - 1993

For transient vibration, as discussed in standard BS 7385 Part 2-1993, the criteria are based on peak particle velocity (mm/s) which is to be measured at the base of the building. These are summarised in Table 8 and illustrated in the Figure below.

Table 8 Transient vibration criteria as per standard BS 7385 Part 2 - 1993

Line in Figure below	Type of Building	Peak Component Particle Velocity in Frequency Range of Predominant Pulse	
		4 Hz to 15 Hz	15 Hz and Above
1	Reinforced or framed structures Industrial and heavy commercial buildings	50 mm/s at 4 Hz and above	
2	Unreinforced or light framed structures Residential or light commercial type buildings	15 mm/s at 4 Hz increasing to 20 mm/s at 15 Hz	20 mm/s at 15 Hz increasing to 50 mm/s at 40 Hz and above

Standard BS 7385 Part 2 – 1993 states that the values in Table 8 relate to transient vibration which does not cause resonant responses in buildings. Where the dynamic loading caused by continuous vibration events is such as that results in dynamic magnification due to resonance (especially at the lower frequencies where lower guide values apply), then the values in Table 8 may need to be reduced by up to 50% (refer to Line 3 in the Figure below).

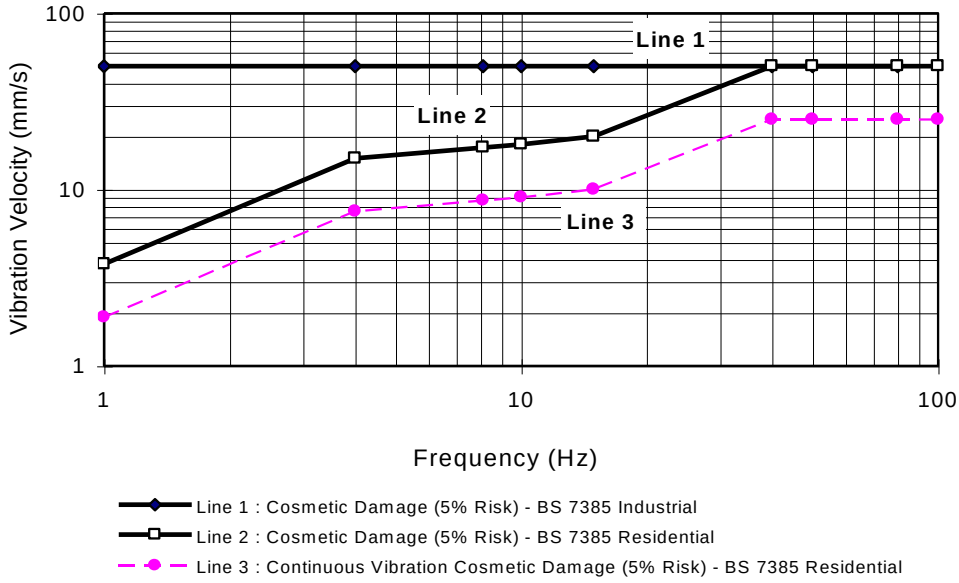

Figure 2 - BS 7385 Part 2 – 1993, graph of transient vibration values for cosmetic damage

In the lower frequency region where strains associated with a given vibration velocity magnitude are higher, the recommended values corresponding to Line 2 are reduced. Below a frequency of 4 Hz where a high displacement is associated with the relatively low peak component particle velocity value, a maximum displacement of 0.6 mm (zero to peak) is recommended. This displacement is equivalent to a vibration velocity of 3.7 mm/s at 1 Hz.

The standard also states that minor damage is possible at vibration magnitudes which are greater than twice those given in Table 8, and major damage to a building structure may occur at values greater than four times the tabulated values.

Fatigue considerations are also addressed in the standard and it is concluded that unless calculation indicates that the magnitude and number of load reversals is significant (in respect of the fatigue life of building materials) then the values in Table 8 should not be reduced for fatigue considerations.

4.3.4.2 Standard DIN 4150 Part 3 - 1999

For continuous or repetitive vibration, standard DIN 4150 Part 3-1999 provides criteria based on values for peak particle velocity (mm/s) measured at the foundation of the building; these are summarised in Table 9. The criteria are frequency dependent and specific to particular categories of structures.

Table 9 Structural damage criteria as per standard DIN 4150 Part 3 - 1999

Type of Structure	Peak Component Particle Velocity, mm/s			
	Vibration at the foundation at a frequency of			Vibration of horizontal plane of highest floor at all frequencies
	1 Hz to 10 Hz	10 Hz to 50 Hz	50 Hz to 100 Hz[1]	
Buildings used for commercial purposes, industrial buildings and buildings of similar design	20	20 to 40	40 to 50	40
Dwellings and buildings of similar design and/or use	5	5 to 15	15 to 20	15
Structures that, because of their sensitivity to vibration, do not correspond to those listed in lines 1 and 2 and are of great intrinsic value (e.g. buildings that are under a preservation order)	3	3 to 8	8 to 10	8
Note 1: For frequencies above 100Hz, at least the values specified in this column shall be applied.				

4.3.5 Project Vibration Criteria

Based on the details included in the sections above the project specific vibration criteria to protect the surrounding residential receivers from structural or architectural damage includes the following:

1. Project construction vibration criteria at:
    a. Residential Receivers – 10mm/s

4.4 Construction Noise Management – Qualitative Assessment

Based on the assessment conducted of the expected construction noise levels generated from the site, levels are generally expected to require the building contractor to engage in management of activities on the site and engagement with the local community.

Notwithstanding, the following management controls are recommended to mitigate construction noise levels on the site:

1. Construction to be undertaken within the approved hours detailed within the projects *Conditions of Consent.*
2. All plant and equipment are to be maintained such that they are in good working order.
3. A register of complaints is to be recorded in the event of complaints being received, including location, time of complaint, nature of the complaint and actions resulting from the complaint.
4. If required a noise level measurement of the offending plant item generating complaints is to be conducted and noise mitigations undertaken to reduce noise levels to within Noise Management levels in the event magnitude of noise levels is found to be above suitable levels.
5. The use of percussive equipment including hydraulic hammering should be limited such that they are not undertaken prior to 7.30am on weekdays and prior to 8.30am on Saturdays.
6. Where possible any excavation to be undertaken on the site is to include ripping of material where possible.

In addition to the recommended mitigations above details of the proposed construction (including excavation) works to be conducted on the site, including type of activities to be conducted as well as the expected duration of activities should be provided to the neighbouring receivers.

In the event noise levels are found to required additional noise reduction then all possible and practical mitigations are required to be included in the construction of the project. Possible acoustic treatments and controls may include the following:

1. Use of alternative appliances to complete the required works which result in reduced noise impacts on surrounding neighbours.
2. Period when noisy appliances are undertaken, such as undertaking noisy works on locations with the greatest distance to residential receivers during morning periods if possible.
3. Construction of acoustic screening to permanently located high noise generating equipment such as pumps and generators.
4. Scheduling of high noise generating works outside of noise sensitive periods if possible.
5. Other site specific treatments and controls which may become possible once works commence.

4.5 Construction Noise Assessment – Quantitative Assessment

A quantitative assessment of the construction noise levels resulting from the proposed works to be undertaken as part of the Kyeemagh School project on surrounding receivers has been undertaken.

The assessment has been based on the expected noise levels to be generated on the site including those detailed in Section 4.3.1 above. Calculations of the resulting construction noise levels of the receivers within proximity to the site is detailed in the table below.

Table 10 Quantitative Assessment of Construction Noise to Neighboring Residence

Source Noise	Equipment	Sound Power Levels dB(A) $L_{eq\ (15min)}$	Site Cumulative Sound Power Level dB(A) $L_{eq\ (15\ min)}$	Calculated Construction Noise Level – Residential Receivers	Calculated Construction Noise Level – School Receivers
Site Civil works	Jack hammer mounted on excavator	114	118	Up to 75 dB(A) when items used externally	Up to 45 dB(A) internally from external activities
	Saw cutting	115			
	Excavators and bulldozers	111			
	Materials Movements	101			
	Bulldozers	111			
	Trucks	105			
	Vibration Rollers	106			
Construction Works	Piling	111	118	Up to 70 dB(A) when items used externally	Up to 42 dB(A) internally from external activities
	Welder	97			
	Saw cutter	105			
	Dump truck	105			
	Concrete saw	115			
	Power hand tools	105			
	Cranes	106			
Notes: Calculated qualitative noise levels are based on the overall Aggregate Sound Power Level for the expected demolition and construction works to be undertaken in the site.					

Based on the qualitative assessment of construction noise suitable management controls and community notifications are required to be conducted.

The required management of construction noise impacts are included in Section 4.4 above and the Community Consultation included in Appendix D.

4.6 Construction Vibration Impacts

An assessment of the potential for vibration generated as part of the required construction activities on the project (including excavation and construction) has been undertaken.

As the proposed building to be demolished on the site are not attached to neighbouring structures and the proximity of neighbouring structures to the development site (which include residential receives) vibration levels generated from the proposed excavation and construction on the site are expected to comply with all vibration criteria detailed in this report.

In the event that vibration rolling or compacting of ground conditions is required within 10m of neighbouring buildings than attended vibration measurements during the use of this equipment should be undertaken to ensure vibration does not result in unreasonable levels of vibration impact on the neighbouring building structures.

Based on the location of the site and the proximity of the surround buildings vibration generated from proposed construction activities on the site are not expected to result in magnitudes approaching the project vibration criteria detailed in Section 4.5.3.

The proposed construction activity which is required to be undertaken on the site with the potential to generate vibration impacts to the neighbouring receivers includes vibration rolling required for ground compaction. Based on the ground conditions at the site vibration rolling is required to be undertaken within proximity to the neighbouring preschool building located to the east of the site and the exiting school building to the west of the site.

Compaction vibration rolling is not required to be undertaken to the northern boundary of the site within proximity of the residential receivers neighbouring the site.

An assessment of the potential for vibration impacts from the proposed vibration rolling to be undertaken on the site has been undertaken at the site. Vibration level measurements of the sample operation of vibration rolling at a representative location to the neighbouring buildings has been conducted and the results are presented in Appendix C. Based on the results of the sample vibration testing at 5m from the required vibration rolling the resulting vibration levels will be within the relevant criteria for the protection of the neighbouring building structures.

In addition to the above, the following mitigations are recommended to mitigate the potential for vibration impacts on surrounding receivers:

- Where possible the use of vibration rolling should be undertaken when teaching is being conducted within the neighbouring school and preschool including holiday periods or before or after school hours.

4.7 Noise and Vibration Monitoring

As part of the management of noise from the proposed excavation and construction activities to be undertaken on the site the following noise and vibration measurements are recommended to be undertaken:

1. Noise – Attended noise level measurements of typical excavation and construction activities should be undertaken at site. A

   Attended construction noise surveys of the site and surrounding impacts on neighbours should be undertaken during the following as a minimum:

   a. Commencement of any rock breaking or sawing on the site.
   b. In response to any ongoing complaints received from neighbours.

2. Vibration – Based on the proximity of the surrounding receivers to the works magnitudes of vibration resulting from construction activities required to be undertaken on the site are not expected to approach vibration limits detailed in Section 4.5.3 of this report, therefore vibration monitoring is not recommended.

   This has been confirmed by sample vibration testing of the proposed vibration rolling to be undertaken on the site and included in Appendix C.

   Attended vibration measurements could be undertaken at a receiver location in the event complaints resulting from construction activities resulting from the perception of vibration are experienced by the occupants of buildings within the vicinity of the site.

5 Community Engagement

During the proposed construction of the project (including excavation and construction) the building contractor is required to engage in community interaction. The community interaction and notification is required to include the following:

1. Notification of the proposed works to be undertaken on the site and the periods when works will be conducted, including information regarding the programme of works such as excavation. This should include the expected period when activities such as hydraulic hammering, rock breaking, concrete or rock sawing is required to be undertaken.
2. Details of the relevant site representative where complaints can be registered.
3. Details of the methodology to respond to complaints raised from the surrounding receivers.
4. A register of complaints, to be kept on site including record of time and nature of the complaint as well as the outcomes and comments regarding investigations resulting from the complaint.

Engagement with the community has been undertaken (as required by Items 15 d) and e) of the consent) to include the mitigation of noise from the high noise works. This includes the strategies detailed in the *Community Communication Strategy* which is included in Appendix D and includes Table 4 for the engagement of the community regarding construction noise generated from the site (including high noise works).

5.1 Community Consultation

Community consultation has been and will continue to be undertaken in accordance with the *Community Communication Strategy* which is included in Appendix D.

5.2 Contingency Plans

In the event noise or vibration complaints are received from surrounding receivers the following methodology to assess impacts from the construction activities will be undertaken:

1. Review processes being conducted on the site and identify the item of plant or activity generating the source of the noise.
2. Assess the works being conducted and implement possible and practical mitigations to the item identified in the point above including work practices (alternatives), location of works, time when works are being conducted. Mitigations will include possible and practical methods when possible.
3. Detail a response to activity including noise monitoring/measurements if required.

6 Conclusion

This report details the construction noise and vibration assessment of the proposed construction of the proposed Kyeemagh Public School project.

An assessment of noise and vibration impacts from the required processes to be undertaken during the construction period of the project (including excavation and construction) has been undertaken and suitable treatments, management controls, perioding measurements and community engagement has been detailed in this report.

Providing the recommendations in this report are included in the construction of the site, compliance with the relevant EPA's Interim Construction Noise Guideline and Item B15 of the propjets *Conditions of Consent* will be achieved.

For any additional information please do not hesitate to contact the person below.

Regards

Ben White
Director
White Noise Acoustics

7 Appendix A – Glossary of Terms

Ambient Sound	The totally encompassing sound in a given situation at a given time, usually composed of sound from all sources near and far.
Audible Range	The limits of frequency which are audible or heard as sound. The normal ear in young adults detects sound having frequencies in the region 20 Hz to 20 kHz, although it is possible for some people to detect frequencies outside these limits.
Character, acoustic	The total of the qualities making up the individuality of the noise. The pitch or shape of a sound's frequency content (spectrum) dictate a sound's character.
Decibel [dB]	The level of noise is measured objectively using a Sound Level Meter. The following are examples of the decibel readings of every day sounds; 0dB the faintest sound we can hear 30dB a quiet library or in a quiet location in the country 45dB typical office space. Ambience in the city at night 60dB Martin Place at lunch time 70dB the sound of a car passing on the street 80dB loud music played at home 90dB the sound of a truck passing on the street 100dB the sound of a rock band 115dB limit of sound permitted in industry 120dB deafening
dB(A)	*A-weighted decibels* The ear is not as effective in hearing low frequency sounds as it is hearing high frequency sounds. That is, low frequency sounds of the same dB level are not heard as loud as high frequency sounds. The sound level meter replicates the human response of the ear by using an electronic filter which is called the "A" filter. A sound level measured with this filter switched on is denoted as dB(A). Practically all noise is measured using the A filter. The sound pressure level in dB(A) gives a close indication of the subjective loudness of the noise.
Frequency	Frequency is synonymous to *pitch*. Sounds have a pitch which is peculiar to the nature of the sound generator. For example, the sound of a tiny bell has a high pitch and the sound of a bass drum has a low pitch. Frequency or pitch can be measured on a scale in units of Hertz or Hz.
Loudness	A rise of 10 dB in sound level corresponds approximately to a doubling of subjective loudness. That is, a sound of 85 dB is twice as loud as a sound of 75 dB which is twice as loud as a sound of 65 dB and so on
L_{Max}	The maximum sound pressure level measured over a given period.
L_{Min}	The minimum sound pressure level measured over a given period.
L_1	The sound pressure level that is exceeded for 1% of the time for which the given sound is measured.
L_{10}	The sound pressure level that is exceeded for 10% of the time for which the given sound is measured.
L_{90}	The level of noise exceeded for 90% of the time. The bottom 10% of the sample is the L_{90} noise level expressed in units of dB(A).
L_{eq}	The "equivalent noise level" is the summation of noise events and integrated over a selected period of time.
Background Sound Low	The average of the lowest levels of the sound levels measured in an affected area in the absence of noise from occupants and from unwanted, external ambient noise sources. Usually taken to mean the L_{A90} value
Ctr	A frequency adaptation term applied in accordance with the procedures described in ISO 717.
dB (A)	'A' Weighted overall sound pressure level

Noise Reduction	The difference in sound pressure level between any two areas. The term “noise reduction” does not specify any grade or performance quality unless accompanied by a specification of the units and conditions under which the units shall apply
NR Noise Rating	Single number evaluation of the background noise level. The NR level is normally around 5 to 6 dB below the “A” weighted noise level. The NR curve describes a spectrum of noise levels and is categorised by the level at 1000 Hz ie the NR 50 curve has a value of 50 dB at 1000 Hz. The NR rating is a tangential system where a noise spectrum is classified by the NR curve that just encompasses the entire noise spectrum consideration.
R_w	Weighted Sound Reduction Index - Laboratory test measurement procedure that provides a single number indication of the acoustic performance of a partition or single element. Calculation procedures for Rw are defined in ISO 140-2:1991 “Measurement of Sound Insulation in Buildings and of Building Elements Part 2: Determination, verification and application of precision data”.
R'_w	Field obtained Weighted Sound Reduction Index - this figure is generally up to 3-5 lower than the laboratory test determined level data due to flanked sound transmission and imperfect site construction.
Sound Isolation	A reference to the degree of acoustical separation between any two areas. Sound isolation may refer to sound transmission loss of a partition or to noise reduction from any unwanted noise source. The term “sound isolation” does not specify any grade or performance quality and requires the units to be specified for any contractual condition
Sound Pressure Level, L_P dB	A measurement obtained directly using a microphone and sound level meter. Sound pressure level varies with distance from a source and with changes to the measuring environment. Sound pressure level equals 20 times the logarithm to the base 10 of the ratio of the rms sound pressure to the reference sound pressure of 20 micro Pascals.
Sound Power Level, L_W dB	Sound power level is a measure of the sound energy emitted by a source, does not change with distance, and cannot be directly measured. Sound power level of a machine may vary depending on the actual operating load and is calculated from sound pressure level measurements with appropriate corrections for distance and/or environmental conditions. Sound power levels is equal to 10 times the logarithm to the base 10 of the ratio of the sound power of the source to the reference sound power of 1 picoWatt
Speech Privacy	A non-technical term but one of common usage. Speech privacy and speech intelligibility are opposites and a high level of speech privacy means a low level of speech intelligibility. It should be recognised that acceptable levels of speech privacy do not require that speech from an adjacent room is inaudible.
Transmission Loss	Equivalent to Sound Transmission Loss and to Sound Reduction Index in terminology used in countries other than Australia. A formal test rating of sound transmission properties of any construction, by usually a wall, floor, roof etc. The transmission loss of all materials varies with frequency and may be determined by either laboratory or field tests. Australian Standards apply to test methods for both situations.

8 Appendix B – CV of Ben White

Curriculum Vitae – Benjamin White

58 Carrington Road, Randwick
NSW 2031

Employment Experience:

Director - White Noise Acoustics: March 2019 – Present

Director/Engineer - Acoustic Logic Consultancy: March 2001 – July 2018

Experience:

Ben White the Director of White Noise has over 17 years of experience in acoustic.

Ben has significant experience in providing acoustic services and expert advice in the following areas:

- Residential acoustic reports including aircraft noise (AS2021) assessments, traffic noise, train noise and vibration assessments.
- Noise emission assessments for various projects including assessments with planning requirements using EPA, Department of Planning, Council DCP's and similar regulatory requirements.
- Planning approvals including Development Applications for multi dwelling residential developments, commercial developments, hotels and boarding houses, places of entertainment, carparks, mixed use developments, shopping centres and the like.
- Expert court witness including Land and Environment Court and other expert witness work.
- Project planning and specifications for types of projects including residential, commercial, retail, hotel accommodation, warehouses and industrial developments and mixed-use projects.
- Project delivery for all types of projects including, design advice and project delivery requirements at all stages of projects during design and construction.
- Certification works including on site testing for the provision of certification of all types of projects including items required to comply with Part F5 of the BCA as well as project specific acoustic requirements.
- Mechanical design and advice for the treatments of mechanical services with project requirements.
- External façade design and specification.
- Specialised acoustic design advice including areas of projects.
- Issues with existing building include site surveys and audits as well as advice regarding rectification if required.

9 Appendix C – Sample Vibration Rolling Testing

Taylor Construction

Kyeemagh School

Compaction Rolling Vibration Testing

Document Control

Project Name	**Kyeemagh School**
Project Number	20096
Document Type	Compaction Rolling Vibration Testing
Reference Number	20096_200924_Compation Rolling Vibration Testing_BW_R0
Attention	Shanil Prasad

Revision	**Date**	**Reference Number**	**Drafted By**	**Approved By**
0	24/9/2020	20096_200924_Compation Rolling Vibration Testing_BW_R0	BW	BW

Table of Contents

1 Introduction

White Noise Acoustics has undertaken sample vibration testing of the required vibration rolling to be undertaken as part of the Kyeemagh School project.

This report details the results of the testing conducted at the site and comparisons with the relevant construction vibration criteria.

As part of this assessment construction noise and vibration testing was undertaken at the site at a representative location to the required vibration rolling on the 24th September, 2020.

2 Development Description

The proposed development includes the construction of a Kyeemagh Public School project which is located in the block bound by Jacobson Avenue, Beehag Street and Tancred Avenue Kyeemagh.

The surrounding receivers to the site include residential receivers within proximity to the site.

The site location, in relation to surrounding buildings, is shown in Figure 1 below.

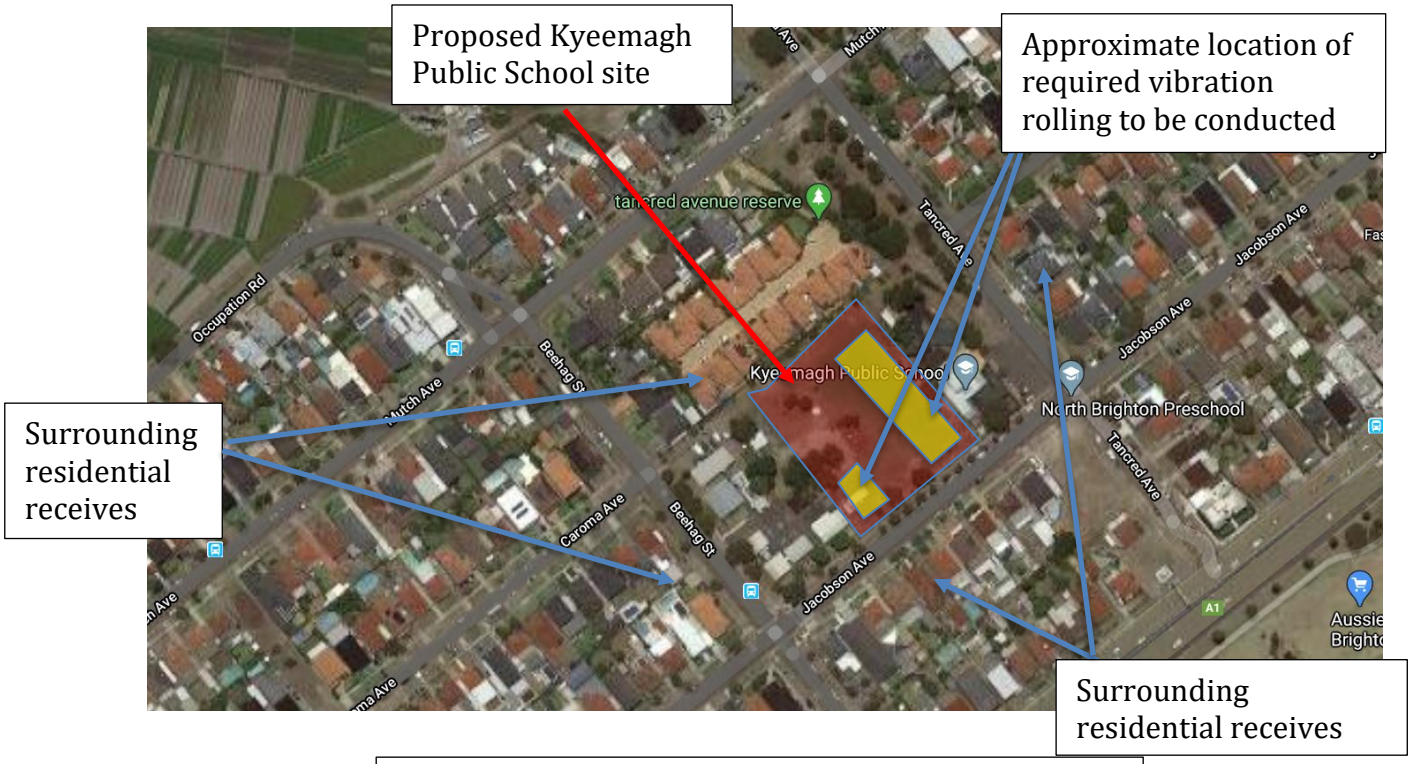

Figure 1 – Site Location and Surrounding Receivers

As part of the required project compaction of the exiting ground is required to be undertaken on the site including locations to the east of the site (within proximity to the neighbouring preschool building) and the south west of the site (within proximity to the neighbouring school buildings).

The approximate locations of the vibration rolling is detailed in the figure above. Based on the required areas to be compacted the proposed vibration rolling is to be conducted up to 5m from the exiting preschool and school buildings neighbouring the site.

3 Vibration Impacts

This section of the report details the vibration impact assessment of the proposed vibration rolling to be conducted at the site.

The relevant vibration criteria which excavation activities are required to be assessed in conjunction with include the German Standard DIN4150-3 for potential building damage.

The details of the required vibration limits based on the standards above are detailed in this section of the report.

3.1.1 Vibration Criteria – Building Contents and Structure

The vibration effects on the building structures is based on the German Standard DIN 4150: Part 3 – 1999 “Effects of Vibration on Structure”.

For continuous or repetitive vibration, standard DIN 4150 Part 3-1999 provides criteria based on values for peak particle velocity (mm/s) measured at the foundation of the building; these are summarised in Table 9. The criteria are frequency dependent and specific to particular categories of structures and is detailed in the table below.

Table 11 Structural damage criteria as per standard DIN 4150 Part 3 - 1999

Type of Structure	Peak Component Particle Velocity, mm/s			
	Vibration at the foundation at a frequency of			Vibration of horizontal plane of highest floor at all frequencies
	1 Hz to 10 Hz	10 Hz to 50 Hz	50 Hz to 100 Hz[1]	
Buildings used for commercial purposes, industrial buildings and buildings of similar design	20	20 to 40	40 to 50	40
Dwellings and buildings of similar design and/or use	5	5 to 15	15 to 20	15
Structures that, because of their sensitivity to vibration, do not correspond to those listed in lines 1 and 2 and are of great intrinsic value (e.g. buildings that are under a preservation order)	3	3 to 8	8 to 10	8
Note 1: For frequencies above 100Hz, at least the values specified in this column shall be applied.				

Based on the table above the structure enamouring the Kyeemagh School site include single story light weigh framed buildings and a suitable vibration criterion of 10 mm/s has been applied in this report.

It is noted that this criterion is likely to be conservative based on the structure of the neighbouring building and a greater vibration impact on the neighbouring structure would not be expected to result in damage.

3.2 Vibration Measurements

This section of the report details the measured vibration levels which were undertaken at the site. Vibration measurements where undertaken at a representative location to the proposed vibration rolling, including a distance of 5m.

Sample vibration testing was undertaken during a period when the vibration rolling was in operation at 5m from the measurement location, as detailed in the figure below.

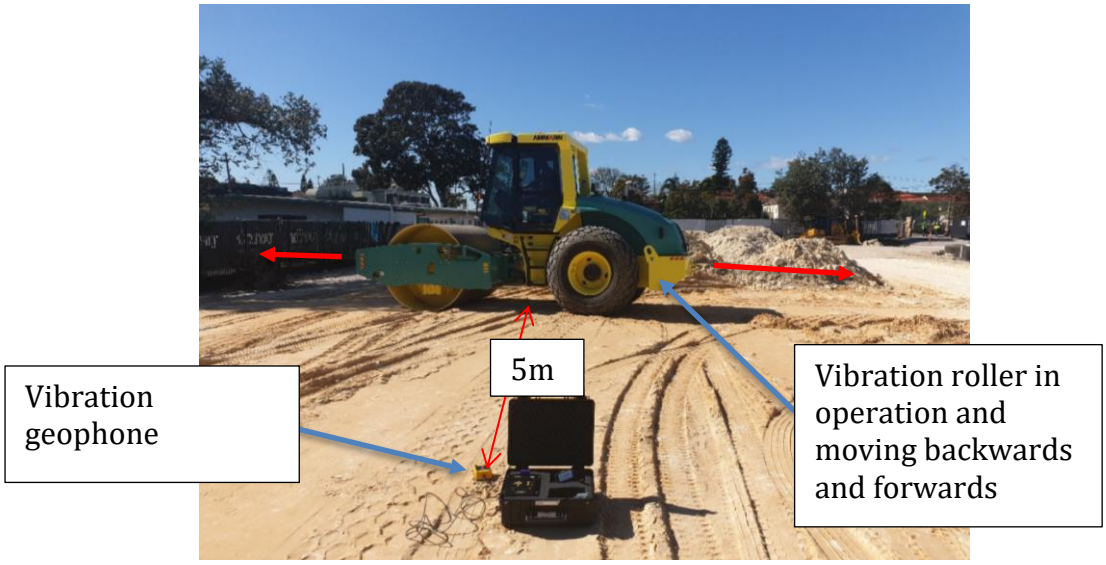

Figure 2 – Vibration Measurement Location to Vibration Roller

Vibration measurements were conducted using a Texel Vibration monitor set to record peak particle vibration (PPV) levels during a period when the vibration rolling was in operation as detailed in the figure above.

3.3 Vibration Measurement Results

The results of the vibration testing undertaken at the sample location which was 5m from the vibration roller is detailed in the table below.

Table 12 Vibration Measurements (Building Damage)

Location	Assessment period	Suitable Vibration Criteria (mm/s)	Measured maximum vibration (mm/s)
Location 1 – Sample location 5m from the vibration rolling	Period with vibration rolling in operation	10 mm/s	Up to 7.8 mm/s

Based on the results of the sample vibration measurements of the vibration rolling the resulting maximum PPV vibration levels are compliant with the relevant criteria for the protection of the neighbouring buildings.

4 Conclusion

This report details the sample vibration assessment and measurements of the proposed vibration rolling to be undertaken as part of the Kyeemagh School project.

Vibration has been assessed at a representative location from the required vibration rolling and the resulting Peak Particle Velocity resulting from the use of the equipment has been found to be in compliance with the relevant limits for the protection of the neighbouring buildings.

For any additional information please do not hesitate to contact the person below.

Regards

Ben White
Director
White Noise Acoustics

5 Appendix A – Glossary of Terms

Ambient Sound	The totally encompassing sound in a given situation at a given time, usually composed of sound from all sources near and far.
Audible Range	The limits of frequency which are audible or heard as sound. The normal ear in young adults detects sound having frequencies in the region 20 Hz to 20 kHz, although it is possible for some people to detect frequencies outside these limits.
Character, acoustic	The total of the qualities making up the individuality of the noise. The pitch or shape of a sound's frequency content (spectrum) dictate a sound's character.
Decibel [dB]	The level of noise is measured objectively using a Sound Level Meter. The following are examples of the decibel readings of every day sounds; 0dB the faintest sound we can hear 30dB a quiet library or in a quiet location in the country 45dB typical office space. Ambience in the city at night 60dB Martin Place at lunch time 70dB the sound of a car passing on the street 80dB loud music played at home 90dB the sound of a truck passing on the street 100dB the sound of a rock band 115dB limit of sound permitted in industry 120dB deafening
dB(A)	*A-weighted decibels* The ear is not as effective in hearing low frequency sounds as it is hearing high frequency sounds. That is, low frequency sounds of the same dB level are not heard as loud as high frequency sounds. The sound level meter replicates the human response of the ear by using an electronic filter which is called the "A" filter. A sound level measured with this filter switched on is denoted as dB(A). Practically all noise is measured using the A filter. The sound pressure level in dB(A) gives a close indication of the subjective loudness of the noise.
Frequency	Frequency is synonymous to *pitch*. Sounds have a pitch which is peculiar to the nature of the sound generator. For example, the sound of a tiny bell has a high pitch and the sound of a bass drum has a low pitch. Frequency or pitch can be measured on a scale in units of Hertz or Hz.
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Background Sound Low	The average of the lowest levels of the sound levels measured in an affected area in the absence of noise from occupants and from unwanted, external ambient noise sources. Usually taken to mean the L_{A90} value
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Transmission Loss	Equivalent to Sound Transmission Loss and to Sound Reduction Index in terminology used in countries other than Australia. A formal test rating of sound transmission properties of any construction, by usually a wall, floor, roof etc. The transmission loss of all materials varies with frequency and may be determined by either laboratory or field tests. Australian Standards apply to test methods for both situations.

10 Appendix D – Community Consultation Strategy

July 2020

School Infrastructure NSW

Community Communication Strategy

Upgrade to Kyeemagh Public School

Contents

Document Purpose

This Community Communication Strategy (CCS) has been developed to:

- Successfully consider and manage stakeholder and community expectations as integral to the successful delivery of the project.
- Outline interfaces with other disciplines, including safety, construction, design and environment, to ensure all activities are co-ordinated and drive best practice project outcomes.
- Inform affected stakeholders, such as the local community or road users about construction activities.
- Provide a delivery strategy which enables the open and proactive management of issues and communications.
- Highlight supporting procedures and tools to enable the team to deliver this plan effectively.
- Provide support for the broader communications objectives of School Infrastructure NSW (SINSW), including the promotion of the project and its benefits.

This Community Consultation Strategy (CCS) will be implemented through the design and construction phase of the project, and for 12 months following construction completion. Table 1 below lists the communication and engagement requirements outlined in the State Significant Development (SSD) application consent conditions.

Plan review

The CCS will be revised regularly to address any changes in the project management process, comments and feedback by relevant stakeholders, and any changes identified as a result of continuous improvement undertakings. This will be done in close consultation with the SINSW Senior Project Director, appointed Project Management Company and/or Contractor and SINSW Community Engagement Manager.

Approval

The CCS is reviewed and approved by the SINSW Senior Project Director, in close consultation with Schools Operations and Performance, with final endorsement from the SINSW Community Engagement Senior Manager before being submitted to the Planning Secretary for information.

Table 1: List of SSD application consent conditions for communication and engagement and where they are addressed in this strategy

Consent conditions for communication and engagement	The CCS addresses this in section
Identify people to be consulted during the design and construction phase	▪ Section 4 ▪ Section 5
Set out procedures and mechanisms for the regular distribution of accessible information about or relevant to the development	▪ Section 6 ▪ Section 7 ▪ Section 8.4
Provide for the formation of community-based forums, if required, that focus on key environmental management issues for the development	▪ Section 4
Set out procedures and mechanisms: ▪ Through which the community can discuss or provide feedback to the Applicant	▪ Section 4 ▪ Section 6 ▪ Section 8.5
Set out procedures and mechanisms: ▪ Through which the Applicant will respond to enquiries or feedback from the community; and	▪ Section 8.5
Set out procedures and mechanisms: ▪ To resolve any issues and mediate any disputes that may arise in relation to construction and operation of the development, including disputes regarding rectification or compensation	▪ Section 8.5

1. Context

The NSW Government is investing $6.7 billion over four years to deliver more than 190 new and upgraded schools to support communities across NSW. In addition, a record $1.3 billion is being spent on school maintenance over five years, along with a record $500 million for the sustainable Cooler Classrooms program to provide air conditioning to schools. This is the largest investment in public education infrastructure in the history of NSW.

School Infrastructure NSW is redeveloping Kyeemagh Public School to provide additional new permanent learning spaces and upgraded core facilities to meet the school's enrolment growth.

The benefits

- New flexible learning spaces.
- A new staff/administration area.
- A new library.
- A new hall.
- New amenities.
- A new canteen.
- A new covered outdoor learning area (COLA).

The Kyeemagh Public School upgrade is classified as a State Significant Development, and has been assessed by the Department of Planning, Industry and Environment (DPIE). Consent was provided on 16 July 2020.

DPIE's web page on the project is here.

2. Community Engagement Objectives

SINSW's mission is to provide school infrastructure solutions by working collaboratively with all our stakeholders to create learning environments across NSW that serve our future needs and make us all proud.

This CCS has been developed to achieve the following community engagement objectives:

- Promote the benefits of the project
- Build key school community stakeholder relationships and maintain goodwill with impacted communities
- Manage community expectations and build trust by delivering on our commitments
- Provide timely information to impacted stakeholders, schools and broader communities
- Address and correct misinformation in the public domain
- Reduce the risk of project delays caused by negative third party intervention
- Leave a positive legacy in each community.

3. Key Messages

Through each phase of the project, the key messages, community engagement plan, and means of engagement will be regularly reviewed, refined and updated. Information that is currently in the public domain is outlined below.

3.1. High level messaging

The NSW Government is investing $6.7 billion over four years to deliver more than 190 new and upgraded schools to support communities across NSW. In addition, a record $1.3 billion is being spent on school maintenance over five years, along with a record $500 million for the sustainable Cooler Classrooms program to provide air conditioning to schools. This is the largest investment in public education infrastructure in the history of NSW.

3.2. Project messaging

3.2.1. Project status

The State Significant Development Application has been assessed by the Department of Planning, Industry & Environment (DPIE) and consent has been granted.

3.2.2. Project benefits

School Infrastructure NSW is redeveloping Kyeemagh Public School to provide additional new permanent learning spaces and upgraded core facilities to meet the school's enrolment growth.

The benefits:

- New flexible learning spaces.
- A new library.
- A new hall.
- New amenities.
- A new canteen.
- A new covered outdoor learning area (COLA).
- A new staff/administration area.

3.2.3. High-quality learning environment

The project will provide state-of-the-art classrooms and learning spaces that make use of the latest technology to enhance the learning experience for the next generation of students. The contemporary and sustainable facilities provide an outstanding working environment for school staff.

Flexible learning spaces are adaptable to accommodate small or large groups and facilitate students' use of modern technology, while working independently and collaboratively.

3.2.4. Environmental benefits

The school will be upgraded in accordance with current sustainability principles. School Infrastructure NSW is committed to environmentally conscious construction and maintenance practices.

3.3. Construction phase

3.3.1. Safety

School Infrastructure NSW is committed to ensuring that work is completed safely and efficiently and with minimal impact to the local community. Prior to construction starting, any hazardous material is required to be removed from the site. This work will be carried out in accordance with regulatory requirements including the provisions of SafeWork NSW.

3.3.2. Traffic management

The construction contractor has developed a Traffic Management Plan to ensure that vehicle movements are managed with minimal disruption to the local community. All construction vehicles (excluding worker vehicles) are to be contained wholly within the site, except if located in an approved on-street work zone, and vehicles must enter the site before stopping.

3.3.3. Noise, vibration and dust

Any activity that could exceed approved construction noise management levels will be managed in strict accordance with the Protection of the Environment Operations Act 1997.

All works will be conducted in accordance with the Contractor's approved Construction Noise Management Sub-Plan. Vibration from works will be minimal and kept within acceptable levels of the document 'Assessing Vibration: a technical guideline' which outlines vibration criteria for day time periods.

Mitigation measures will be in place to manage noise and dust levels, including hoarding to minimise the effects of noise and dust and hosing down as required to ensure the safety of the school and local community.

Construction, including the delivery of materials to and from the site, may only be carried out between the following hours:

(a) between 7:00am and 6:00pm, Mondays to Fridays inclusive; and

(b) between 8:00am and 1:00pm, Saturdays.

No work may be carried out on Sundays or public holidays.

Soil remediation activities, may only be carried out between the following hours:

(a) between 7:00am and 6:00pm Mondays to Saturdays inclusive.

No soil remediation activities may be carried out on Sundays or public holidays.

Construction activities may be undertaken outside of the above hours if required:

(a) by the Police or a public authority for the delivery of vehicles, plant or materials; or

(b) in an emergency to avoid the loss of life, damage to property or to prevent environmental harm; or

(c) where the works are inaudible at the nearest sensitive receivers; or

(d) where a variation is approved in advance in writing by the Planning Secretary or his nominee if appropriate justification is provided for the works.

Notification of such construction activities as soil remediation or out of hours must be given to affected residents before undertaking the activities or as soon as is practical afterwards.

Rock breaking, rock hammering, sheet piling, pile driving and similar activities may only be carried out between the following hours:

(a) 9:00am to 12:00pm, Monday to Friday;

(b) 2:00pm to 5:00pm Monday to Friday; and

(c) 9:00am to 12:00pm, Saturday.

3.3.4. Fauna and vegetation

School Infrastructure NSW is committed to ensuring construction work has a minimal impact upon fauna and vegetation.

School Infrastructure NSW will comply with all Development Consent Conditions relating to the protection of fauna and vegetation, and will comply with all relevant mitigation measures listed in the Environmental Impact Statement (EIS).

Prior to construction, a Construction Environmental Management Plan (CEMP) will be prepared to govern the completion of all construction works. The CEMP will detail measures to be taken for the protection and management of fauna and vegetation, will be prepared in accordance with relevant guidelines and performance indicators, and will be prepared to the satisfaction of DPIE.

Prior to the commencement of construction and/or vegetation clearing (whichever occurs first), pre clearing surveys and inspections for fauna will be undertaken. The surveys and inspection, and any subsequent relocation of fauna, will be undertaken under the guidance of a suitably qualified ecologist and must be in accordance with the methodology incorporated in a Biodiversity Management Sub-Plan. Evidence of the pre clearing surveys and inspections for fauna and any relocation of fauna must be provided to the satisfaction of the Certifying Authority.

A Vegetation Management Sub Plan will also be prepared to carefully manage the impact to fauna and vegetation during construction. Additionally, a Landscape Plan will be prepared prior to construction, which will include, amongst other important measures, provision for the planting of more than 60 trees, shrubs and groundcover. Importantly, a number of

trees to be removed will be incorporated into the landscape design and used in the remnant vegetation on site to enhance habitat including tree hollows and tree trunks (greater than 25-30cm in diameter and 3m in length).

3.3.5. Soil and water

School Infrastructure NSW is committed to the appropriate management of soil and water on the construction site.

School Infrastructure NSW will comply with all Development Consent Conditions relating to soil and water management, and will comply with all relevant mitigation measures listed in the EIS.

Prior to construction, a CEMP will be prepared to govern the completion of all construction works. The CEMP will detail measures for the management of soil and water, will be prepared in accordance with relevant guidelines and performance indicators, and will be prepared to the satisfaction of the DPIE.

A suitably qualified and experienced consultant will prepare a Construction Soil and Water Management Sub-Plan (CSWMSP), which will form part of the CEMP. The CSWMSP will:

- describe erosion and sediment control measures to be implemented during construction
- provide a plan of how construction works will be managed in wet-weather events
- detail flows from the site to surrounding area
- describe the measures to be taken to manage stormwater and flood flows for small and large sized events
- include an Acid Sulfate Soils Management Plan (if required).

Erosion and sediment controls will be installed and maintained in accordance with the “Blue Book” – *Managing Urban Stormwater: Soils and Construction (4th edition)*. These controls will be implemented prior to the commencement of any other site disturbance works.

A rainwater harvesting system will be installed onsite and used onsite during construction. Approval will be obtained prior to the discharge of onsite stormwater to Council’s stormwater drainage system or street gutter.

Only approved soil and fill types will be used onsite. Accurate records will be kept on the volume and type of fill used onsite.

3.3.6. Contamination

Prior to construction, a CEMP will be prepared to govern the completion of all construction works. The CEMP will detail contamination management measures, will be prepared in accordance with relevant guidelines and performance indicators, and will be prepared to the satisfaction of the DPIE.

The project site has been tested for contamination and some remediation work will be required prior to the commencement of the main works construction for the school upgrade.

The CEMP will include protocols for the management of unexpected contamination discovered during the course of construction works.

3.3.7. Visual amenity

Prior to construction, a CEMP will be prepared to govern the completion of all construction works. The plan will detail measures to maintain visual amenity, will be prepared in accordance with relevant guidelines and performance indicators, and will be prepared to the satisfaction of the DPIE.

The CEMP will include provisions for the management of outdoor lighting. The installation and operation of outdoor lighting will comply with both AS 4282-2019 – Control of the Obtrusive Effects of Outdoor Lighting and AS 1158.3.1-2005 – Lighting for Roads and Public Spaces – Part 3.1: Pedestrian Area (Category P) Lighting.

Visual amenity impacts will be limited during construction via the installation of appropriate site fencing and adherence to site housekeeping procedures.

3.3.8. Heritage

Prior to construction, a CEMP will be prepared to govern the completion of all construction works. The plan will detail measures to protect heritage matters, will be prepared in accordance with relevant guidelines and performance indicators, and will be prepared to the satisfaction of the DPIE.

The CEMP will include unexpected finds protocols for objects of Aboriginal or Historic heritage.

In the event that relics of Aboriginal heritage are discovered, all works in the immediate area will cease immediately, and consultation will occur with a suitably qualified archaeologist, registered Aboriginal representatives and DPIE to determine an appropriate management strategy.

In the event that relics of historic heritage are discovered, all works in the immediate area will cease immediately, and consultation will occur with DPIE to determine an appropriate management strategy.

3.3.9. Disruptive works

Construction work for the Kyeemagh Public School project is underway. The following activities are planned for the upcoming weeks (*works will be outlined*). You can contact us directly using the details below to discuss any aspect of this work.

3.3.10. Get involved

We are committed to working together with our school communities and other stakeholders to deliver the best possible learning facilities for students. Your feedback is important to us. For more information contact us via the details below.

- Email: schoolinfrastructure@det.nsw.edu.au
- Website: schoolinfrastructure.nsw.gov.au
- Phone: 1300 482 651

3.4. Handover phase

3.4.1. Traffic and access

Construction work on the Kyeemagh Public School project has been completed. We are now in a position to confirm access provisions for the new school, including pick-up and drop-off arrangements.

3.5. Official school opening

A redevelopment of Kyeemagh Public School was completed today, and delivered brand new facilities including:

- new flexible learning spaces
- a new staff/administration area
- a new library
- a new hall
- new amenities
- a new canteen
- a new covered outdoor learning area (COLA).

Thank you for your patience during construction and we are thrilled to deliver this project for the school community.

4. Project Governance

4.1. Project Reference Group

The Department's engagement process strives to engage with key stakeholders from the school community. As part of this process, a Project Reference Group (PRG) is established early in the project with nominated representatives from the school community to ensure input from, and consultation with, impacted stakeholders.

The PRG provides key information from an operational, educational, change and logistics perspective into the planning, through the design and construction phases of the project.

The PRG will receive project briefings and key progress updates on project progress to support its responsibilities in assisting to communicate updates to school staff, parents and stakeholders in the wider local community.

The Project Reference Group will be conducted as two separate groups during the development and delivery of all projects:

(a) Project Reference Group – Planning

A nominated group (limited to 10) will participate in workshops to develop the Educational Principles and Education Rationale which will inform the Functional Design Brief. These workshops are chaired by the SINSW Senior Project Director (or delegate) and may be facilitated by an Education Consultant. This activity will inform the development of the building design.

(b) Project Reference Group – Delivery

The purpose of the group is to seek input and inform design processes and provide operational requirements and information to help minimise the impact of the project on school operations. These workshops are chaired by the Senior Project Director (or delegate) and may be facilitated by the appointed architectural consultant, as required. The PRG will provide key information from an operational and logistics perspective to assist project delivery.

Specifically to communications and engagement related matters, the PRG will also:

- Provide a forum for discussion and exchange of information relating to the planning and delivery of the project
- Identify local issues and concerns to assist the project team with the development of mitigation strategies – to manage and minimise construction and environmental impacts to the school community and local residents
- Provide feedback to the communications and community engagement team on key messages and communications and engagement strategies
- Provide advice on school engagement activities
- Assist to disseminate communications to the school community and other stakeholders.

As per all department led delivery projects, the PRG acts as a consultative forum and not a decision-making forum for the planning and delivery of this school infrastructure.

Figure 1: Project Reference Group (PRG)

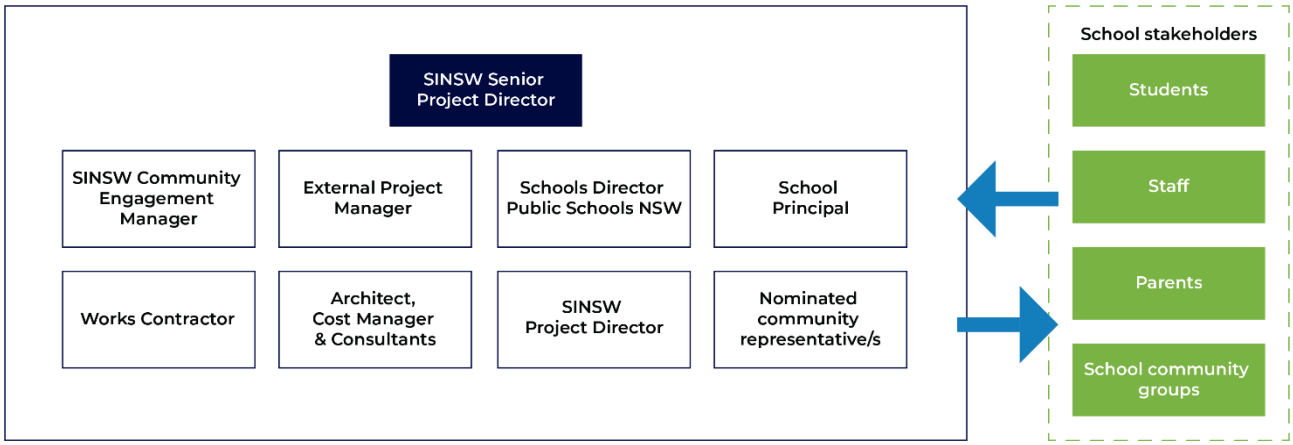
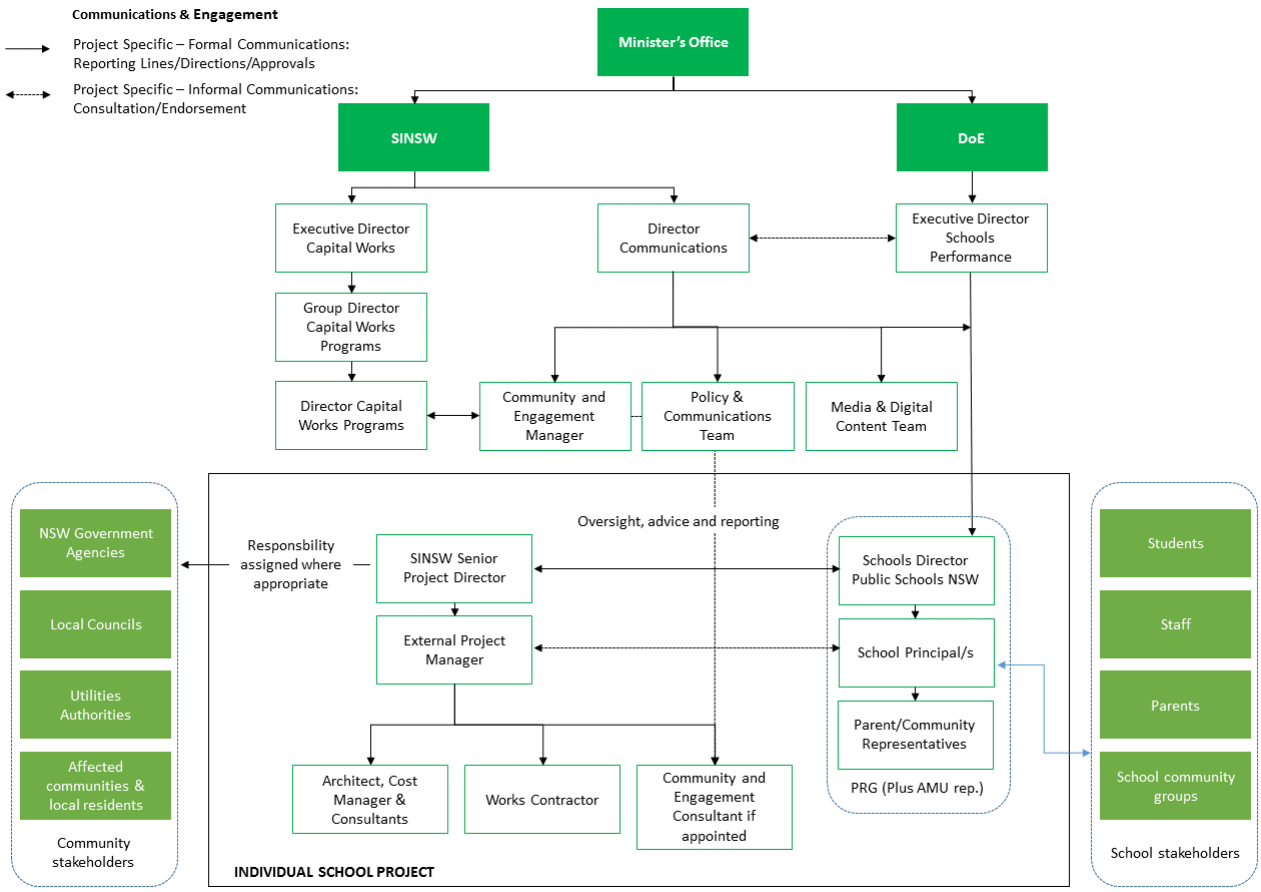


Figure 2 below maps how the department and SINSW will communicate both internally and externally.

Figure 2: SINSW Project Governance



5. Stakeholders

The stakeholder list below summarises who will be consulted during the design and construction phase via ongoing face to face meetings, communications collateral and digital engagement methods.

Table 2: Stakeholders

Stakeholders	Interest and involvement
Local Members of Parliament: ▪ Stephen Kamper, NSW Member for Rockdale ▪ Hon. Linda Burney MP	▪ Meeting the economic, social and environmental objectives of state and federal governments ▪ Delivering increased public education capacity on time ▪ Delivering infrastructure that meets expectations ▪ Addressing local issues such as traffic, congestion and public transport solutions
Government agencies and peak bodies: ▪ Transport for NSW, including Roads and Maritime Services NSW ▪ Fire and Rescue NSW ▪ NSW Department of Education ▪ NSW Department of Planning, Industry and Environment ▪ NSW Environmental Protection Authority ▪ NSW Rural Fire Service ▪ Sydney Water ▪ NSW Heritage Council ▪ NSW Office of Environment, Energy and Science ▪ NSW Department of Premier and Cabinet	▪ Traffic and congestion on the local road system ▪ Adequate public transport options and access ▪ Ensuring new infrastructure meets standard requirements for safety and fire evacuation ▪ Ensuring the development is compliant ▪ Ensuring the development does not impact heritage items ▪ Easing overcrowding in local schools
Cultural and heritage interest: ▪ La Perouse Local Aboriginal Land Council ▪ Local heritage groups	▪ Discovery of cultural and heritage artefacts during construction
Local Council – Bayside City Council ▪ Mayor, Joe Awada ▪ General Manager, Meredith Wallace ▪ Councillors	▪ Schedule for construction and opening of school ▪ Impacts to the local community including noise, congestion and traffic ▪ Shared use of community spaces ▪ Providing amenities to meet increase population density
School community ▪ Principal ▪ Teachers ▪ Staff ▪ Parents and carers ▪ Students	▪ Safe pedestrian and traffic access to the temporary school during construction ▪ Plans for enrolled students as the school expands ▪ Construction impacts and how these will be minimised ▪ Quality of infrastructure and resources upon project completion ▪ How to access the new school once completed

Stakeholders	Interest and involvement
Nearby public schools ▪ Arncliffe West Infants School ▪ Arncliffe Public School ▪ Rockdale Public School ▪ Brighton-Le-Sands Public School ▪ Botany Public School ▪ Bexley Public School ▪ St Francis Xavier's Catholic Primary School ▪ Cairnsfoot Special Education School ▪ St Thomas More's Catholic School ▪ St George Special Education School ▪ North Brighton Preschool	▪ Impact on school resources ▪ Impact on current students ▪ Implications for teaching staff ▪ Possible impacts on enrolments and catchment area ▪ Opportunities to view the new facilities
Adjoining affected landowners and businesses Four residential streets adjacent to the school (Tancred Ave, Jacobson Ave, Beehag St, Owen Ave) There are no registered businesses in the direct vicinity.	▪ Noise and truck movements during construction ▪ Increased traffic and congestion on nearby streets ▪ Local traffic and pedestrian safety ▪ Changed traffic conditions during pick-up and drop-off ▪ Shared use of school facilities and amenities ▪ Environmental impacts during construction ▪ Visual amenity
Community groups ▪ Rockdale Bushcare ▪ Rockdale Wetlands Preservation Society ▪ Botany Bay and Catchment Alliance ▪ St George Family Support Services Inc	▪ Noise and truck movements during construction ▪ Increased traffic and congestion on nearby streets ▪ Local traffic and pedestrian safety ▪ Changed traffic conditions during pick-up and drop-off ▪ Shared use of school facilities and amenities

6. Engagement Approach

From 30 March 2020, the way we communicate has temporarily changed, please refer to Appendix A for a detailed up to date list of changed communication methods and tools. This particularly refers to face to face communication channels such as door knocks, information booths/sessions, face to face meetings and briefings.

The key consideration in delivering successful outcomes for this project is to make it as easy as possible for anyone with an interest to find out what is going on. In practice, the communications approach across all levels of engagement will involve:

- Using uncomplicated language
- Taking an energetic approach to engagement
- Encouraging and educating whenever necessary
- Engaging broadly including with individuals and groups that fall into harder to reach categories
- Providing a range of opportunities and methods for engagement
- Being transparent
- Explaining the objectives and outcomes of planning and engagement processes.

In addition to engagement with government departments and agencies and the local council, two distinct streams of engagement will continue for the project as follows:

- School community for existing schools being upgraded, or surrounding schools for new schools, and
- Broader local community.

This allows:

- School-centric involvement from school communities (including students, parents/caregivers, teachers, admin staff) unencumbered by broader community issues, and
- Broad community involvement unencumbered by school community wants and needs. Broad community stakeholders include local residents, neighbours and local action groups.

6.1. General community input

Members of the general public impacted by the construction phase are able to enquire and complain about environmental impacts via the following channels:

- Information booths and information sessions held at the school or local community meeting place, and advertised at least 7 days before in local newspapers, on our website and via letterbox drops
- 1300 number that is published on all communications material, including project site signage
- School Infrastructure NSW email address that is published on all communications material, including project site signage

Refer to Section 8.5 of this document for detail on our enquiries and complaints process.

A number of tools and techniques will be used to keep stakeholders and the local community involved as summarised in table 3 below.

For reference, project high level milestones during the delivery phase include:

- Site establishment/early works
- Commencement of main works construction
- Term prior to project completion
- Project completion
- First day of school following project completion
- Official opening

Table 3: School Infrastructure NSW Communications Tools

Communications Tool	Description of Activity	Frequency
1300 community information line	The free call 1300 482 651 number is published on all communication materials and is manned by SINSW. All enquiries that are received are referred to the appointed C&E Manager and/or Senior Project Director as required and logged in our CRM. Once resolved, a summary of the conversation is updated in the CRM.	Throughout the life of the project and accessible for 12 months post completion
Advertising (print)	Advertising in local newspapers is undertaken with at least 7 days' notice of significant construction activities, major disruptions and opportunities to meet the project team or find out more at a face to face event.	At project milestones or periods of disruption
Call centre scripts	High level, project overview information provided to external organisations who may receive telephone calls enquiring about the project, most namely stakeholder councils.	Throughout the project when specific events occur or issues are raised by stakeholders
Community contact cards	These are business card size with all the SINSW contact information. The project team/ contractors are instructed to hand out contact cards to stakeholders and community members enquiring about the project. Cards are offered to school administration offices as appropriate. Directs all enquiries, comments and complaints through to our 1300 number and School Infrastruture NSW email address.	Throughout the life of the project and available 12 months post completion
CRM database	All projects are created in SINSW's Customer Relationship Management system – Darzin - at project inception. Interactions, decisions and feedback from stakeholders are captured, and monthly reports generated. Any enquiries and complaints are to be raised in the CRM and immediately notified to the Senior Project Director, Project Director and Community Engagement Manager.	Throughout the life of the project and updated for 12 months post completion
Display boards	A0 size full colour information boards to use at info sessions or to be permanently displayed in appropriate places (school admin office for example).	As required
Door knocks	Provide timely notification to nearby residents of upcoming construction works, changes to pedestrian movements, temporary bus stops, expected impacts and proposed mitigation. Provide written information of construction activity and contact details.	As required prior to periods of construction impacts
Face-to-face meetings/briefings	Activities include meeting, briefings and "walking the site" to engage directly with key stakeholders, directly impacted residents and business owners and the wider community.	As required/if necessary

Communications Tool	Description of Activity	Frequency
FAQs	Set of internally approved answers provided in response to frequently asked questions. Used as part of relevant stakeholder and community communication tools. These are updated as required, and included on the website if appropriate.	Throughout the life of the project
Information booths	Information booths are held locally and staffed by a project team member to answer any questions, concerns or complaints on the project. Info booths are scheduled from the early stages of project delivery through to project completion. Information booths are to be held both at the school/ neighbouring school, as well for the broad community: ▪ School information booths are held at school locations at times that suit parents and caregivers, with frequency to be aligned with project milestones and as required. ▪ Community information booths are usually held at local shopping centres, community centres and places that are easily accessed by the community. They are held at convenient times, such as out of work hours on weekdays and Saturday's. Collateral to be provided include community contact cards, latest project notification or update, with internal FAQs prepared. All liaison to be summarised and loaded in the CRM. Notice of at least 7 days to be provided.	At project milestones and as required
Information sessions (drop in)	Information sessions are a bigger event than an info booth, held at a key milestone or contentious period. We have more information on the project available on display boards/ screens and an information pack handout – including project scope, planning approvals, any impacts on the school community or residents, project timeline, FAQs. Members from the project and communications team will be available to answer questions about the project. These events occur after school hours on a week day (from 3pm – 7pm to cover working parents). All liaison summarised and loaded on the CRM.	As required
Information pack	A 4 page A4 colour, fold out flyer that can include: ▪ Project scope ▪ Project update ▪ FAQs ▪ Contact information ▪ Project timeline To be distributed at info sessions or at other bigger events/ milestones in hard copy and also made available electronically.	As required

Communications Tool	Description of Activity	Frequency
Media releases/events	Media releases are distributed upon media milestones. They promote major project milestones and activities and generate broader community awareness.	Media milestones: ▪ Project announcement ▪ Concept design completion ▪ Planning approval lodged ▪ Planning approval granted ▪ Construction contract tendered ▪ Construction contract awarded ▪ SOD turning opportunity ▪ Handover ▪ Official opening
Notifications	A4, single or double sided, printed in colour that can include FAQs if required Notifications are distributed under varying templates with different headings to suit different purposes: ▪ **Works notification** are used to communicate specific information/ impacts about a project to a more targeted section of the community. This template doesn't have an image so it can be more appropriately targeted for matters like hazardous material. ▪ **Project update** is used when communicating milestones and higher level information to the wider community i.e. project announcement, concept design/DA lodgement, construction award, completion. Always includes the project summary, information booths/ sessions if scheduled, progress summary and contact info.	As required according to the construction program. Distibuted via letterbox drop to local residents and via the school community at least 5-7 days prior to construction activities or other milestones throughout the life of the project. Specific timings indicated in table 5 – Section 8.
Photography, time-lapse photography and videography	Captures progress of construction works and chronicles particular construction activities. Images to be used in notifications, newsletters and report, on the website and Social Media channels, at information sessions and in presentations. Once the project is complete, SINSW will organise photography of external and internal spaces to be used for a range of communications purposes.	Project completion (actual photography and video of completed project) Prior to project completion - artist impressions, flythrough, site plans and contruction progress images are used
Presentations	Details project information for presentations to stakeholder and community groups.	As required

Communications Tool	Description of Activity	Frequency
Priority correspondence	Ministerial (and other) correspondence that is subject to strict response timeframes. Includes correspondence to the Premier, Minister, SINSW and other key stakeholders. SINSW is responsible for drafting responses as requested within the required timeframes.	As required
Project Reference Group	SINSW facilitated Project Reference Group sessions providing information on the design solution, construction activities, project timeframes, key issues and communication and engagement strategies.	Meets every month or as required More information on the PRG is detailed in Section 4
Project signage	A0 sized, durable aluminium signage has been installed at Kyeemagh Public School Provides high level information including project scope, project image and SINSW contact information. Fixed to external fencing/ entrances etc. that are visible and is updated if any damage occurs.	Throughout the life of the project and installed for 12 months post completion
Site visits	Demonstrate project works and progress and facilitate a maintained level of interest in the project. Includes media visits to promote the reporting of construction progress.	As required
School Infrastructure NSW email address	Provide stakeholders and the community an email address linking direct to the Community Engagement team. Email address (schoolinfrastructure@det.nsw.edu.au) is published on all communications materials.	Throughout the life of the project
School Infrastructure NSW website	A dedicated project page for Kyeemagh Public School is located on the SINSW website – https://www.schoolinfrastructure.nsw.gov.au/projects/k/kyeemagh-public-school.html	Updated at least monthly and is live for at least 12 months post completion of the project
Welcome pack/ thank you pack	At project completion the following flyers are utilised: ▪ **Welcome pack** – project completion for school community - A 2 to 4 page A4 flyer which is provided to the school community on the first day/week they are returning to school when new facilities are opening, or attending a new school. Includes project overview, map outlining access to the school and key locations, FAQs, contact information. ▪ **Thank you pack** – A 2 to 4 page A4 flyer tailored to the local residents to thank them for their patience and support of the project.	Project completion only

7. Engagement Delivery Timeline

The following engagement delivery timeline maps tailored communications tools and activities by key milestone.

Table 4: Engagement timeline

Project Phase / milestone	Target Audiences	Proposed communication tools / activities / purpose as per Table 3	Timing / implementation
Site establishment and main construction works, including but not limited to: ▪ Works commenced ▪ Demolition ▪ Asbestos removal ▪ Remediation ▪ Works commenced Key impact periods – noise, dust, traffic, vibration	School community Local residents Local Council	▪ Request for feedback on management strategies for high noise works ▪ Notifications – for school community and residents ▪ Door knocks to directly impacted residents ▪ Info booths/ sessions ▪ Website updates ▪ Project updates ▪ Face to face meetings if required ▪ Advertising of any events and any periods of high disruption ▪ SINSW email address and hotline ▪ Media release ▪ Contact cards ▪ FAQs ▪ Project signage **Alternative methods where applicable:** ▪ No doorknock – letterbox drop with 'door knock' letter template ▪ Digital information booth (if required) with information boards and pack online	July 2020 to December 2021 (at key construction events as required, as per our notification process in Table 5)
▪ Term prior to project completion	School community Local residents	▪ Info session ▪ Display boards ▪ Info pack ▪ Notifications as required to indicate remaining construction still to occur ▪ Website updates	2021

Project Phase / milestone	Target Audiences	Proposed communication tools / activities / purpose as per Table 3	Timing / implementation
		Alternative methods where applicable: ▪ Digital information booth (if required) with information boards and pack online	
Handover and welcome to new school	School community Local residents	▪ Site visits ▪ Media release ▪ Welcome pack ▪ Thank you pack ▪ Photography/videography ▪ Website update ▪ SINSW email address and hotline	2022
Opening		▪ Media release ▪ Official opening ceremony	TBC – at school discrection
Post-opening	All	**Planned** • Website remains live • Project signage remains installed ▪ 1300 phone and email still active, and CRM still maintained for complaints and enquiries.	2022-2023 (12 months post construction completion)

8. Protocols

8.1. Media engagement

SINSW manages all media relations activities, and is responsible for:

- Responding to all media enquiries and instigating all proactive media contact.
- Media interviews and delegation to SINSW media spokespeople who are authorised to speak to the media on behalf of the project
- Informing the Minister's Office and SINSW project team members and communications representatives of all media relations activities in advance and providing the opportunity to participate in events where possible.

8.2. Site visits

SINSW in partnership with Schools Operations and Performance organises and hosts guided project site tours and media briefings as required by the Minister's Office. The Project Team will ensure the required visitor site inductions are undertaken and that all required Personal Protective Equipment (PPE) is worn.

For media site visits and events, SINSW creates, or contributes to, the production of an event pack. This will include an event brief, media release, speaking notes and Q&As.

8.3. Social, online and digital media

SINSW initiates and maintains all social and online media channels. These channels can include Facebook, Twitter, LinkedIn and the website. The SINSW Online Content Team upload to the SINSW website.

8.4. Notification process

Notifications (titled works notifications or project updates as per Table 3) are SINSW's prescribed notification requirement and are the primary mechanism to inform the community and key stakeholders about the impact of school construction on the local area. Notifications provide advance warning of activities and planned disruptions, as per the notice periods in Table 5 below, allowing stakeholders and community members to plan for the impacts and make alternative arrangements where required. Notifications are distributed in person via door knocks, via letterbox drop, via the school and electronically via email.

The CE Manager advises the project team of the relevant notification requirements and timeframes to be met. The team obtains the information necessary to meet these timeframes by:

- Having oversight of the project delivery program
- Visiting site as required
- Attending and participating in construction meetings, planning meetings, and Risk and Opportunity workshops.

Table 5: Notifications periods

Works activity	Minimum community notification period
Notification to communities following major incident	Same day
Emergency works/unforeseen events	Same day
Contamination management and notification	Within 48 hours
Upcoming works notification (minimum disruption)	5- 7 days
Invitation/notification of community event (e.g. info booth)	5 – 7 days
Notifications regarding traffic changes, parking impacts, road closures, major detours	10 – 14 days
Pedestrian route changes and other impacts	10 – 14 days

Works activity	Minimum community notification period
Notifications regarding operational changes for the school community (school drop-off points, entry and exit points)	10 - 14 days
Major construction impacts (out of hours/ significant noise/ demolition)	10 – 14 days
Major impacts to school community e.g. relocation to temporary school	6 months

8.5. Enquiries and complaints management

SINSW manages enquiries (*called interactions in our CRM, Darzin*), and complaints in a timely and responsive manner.

Prior to project delivery, a complaint could be related to lack of community consultation, design of the project, lack of project progress, etc.

During project delivery, a complaint is defined as in regards to construction impacts – *such as* – safety, dust, noise, traffic, congestion, loss of parking, contamination, loss of amenity, hours of work, property damage, property access, service disruption, conduct or behaviour of construction workers, other environmental impacts, unplanned or uncommunicated disruption to the school.

If a phone call, email or face- to- face complaint is received during construction, they must be logged in our CRM, actively managed, closed out and resolved by SINSW within 24-48 hours.

As per our planning approval conditions, a complaints register is updated monthly and is publicly available on the project's website page on the SINSW website.

If the complainant is not satisfied with SINSW response, and they approach SINSW for rectification, the process will involve a secondary review of their complaint as per the outlined process.

Complaints will be escalated when:

- An activity generates three complaints within a 24-hour period (separate complainants).
- Any construction site receives three different complaints within a 24-hour period.
- A single complainant reports three or more complaints within a three day period.
- A complainant threatens to escalate their issue to the media or government representative.
- The complaint was avoidable
- The complaint relates to a compliance matter.

Complaints will be first escalated to the Senior Manager, Community and Engagement or Director of Communications for SINSW as the designated complaints handling management representatives for our projects. Further escalation will be made to the Executive Director, Office of the Chief Executive to mediate if required.

If a complaint still cannot be resolved by SINSW to the satisfaction of the complainant, we will advise them to contact the NSW Ombudsman - https://www.ombo.nsw.gov.au/complaints.

The below table summarises timeframes for responding to enquiries and complaints, through each correspondence method:

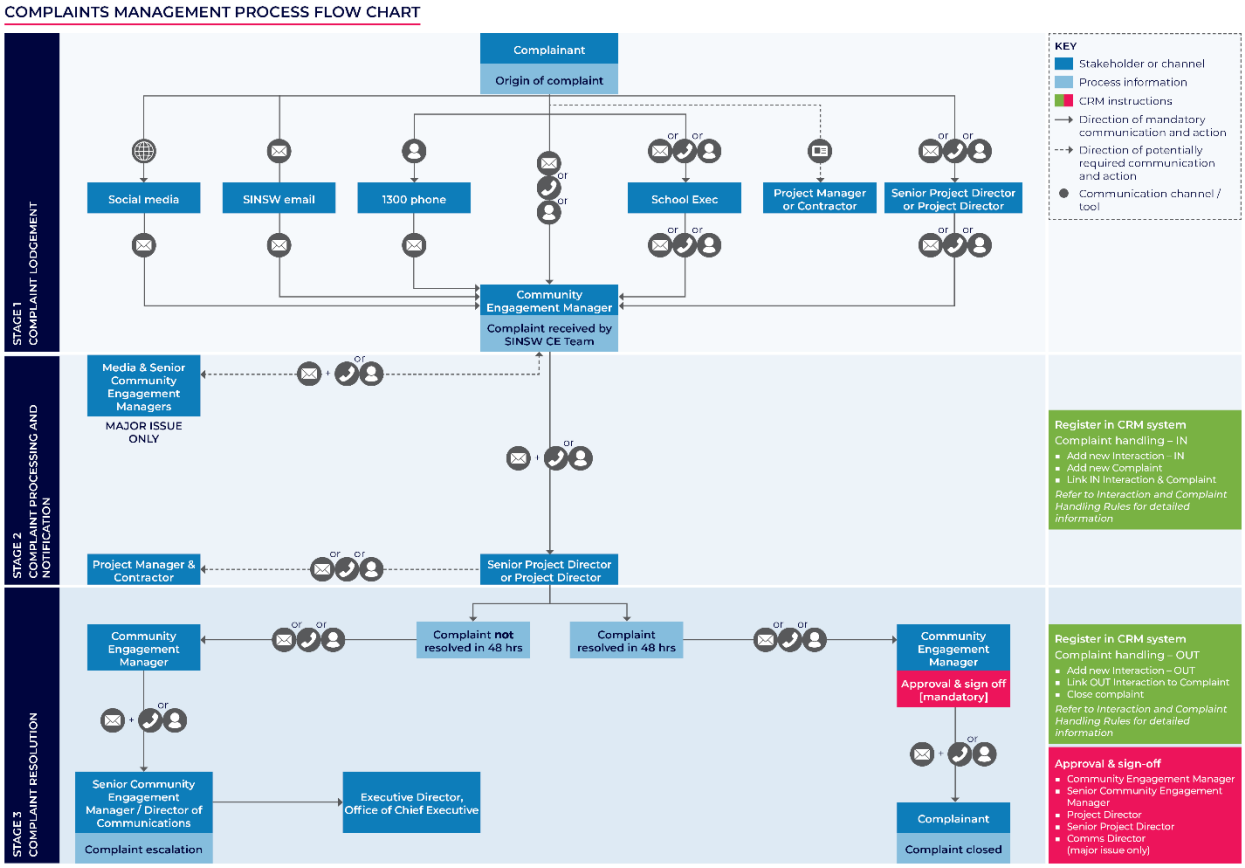
Table 6: Complaint and enquiry response time

Complaint	Acknowledgement times	Response times
Phone call during business hours	At time of call – and agree with caller estimated timeframe for resolution.	Complaint to be closed out within 48 hours. If not possible, continue contact, escalate as required and resolve within 7 business days.
Phone call after hours*	Within two (2) hours of receiving message upon returning to office.	Following acknowledgement, complaint to be closed out within 48 hours. If not possible, continue contact,

Complaint	Acknowledgement times	Response times
		escalate as required and resolve within 7 business days.
Email during business hours	At time of email (automatic response)	Complaint to be closed out within 48 hours. If not possible, continue contact, escalate internally as required and resolve within 7 business days.
Email outside of business hours	At time of email (automatic response)	Complaint to be closed out within 48 hours (once return to business hours). If not possible, continue contact, escalate internally as required and resolve within 7 business days.
Interaction/ Enquiry		
Phone call during business hours	At time of call – and agree with caller estimated timeframe for response.	Interaction to be logged and closed out within 7 business days.
Phone call after hours	Within two (2) hours of receiving message upon returning to office.	Interaction to be logged and closed out within 7 business days.
Email during business hours	At time of email (automatic response)	Interaction to be logged and closed out within 7 business days.
Email outside of business hours	At time of email (automatic response)	Interaction to be logged and closed out within 7 business days.
Letter	N/A	Interaction to be logged and closed out within 10 business days following receipt.

The below diagram outlines our internal process for managing complaints.

Figure 3 - Internal Complaints Process



8.5.1. Disputes involving compensation and rectification

School Infrastructure NSW is committed to working with the school and broader community to address concerns as they arise. Where disputes arise that involve compensation or rectification, the process for resolving community enquiries and complaints will be followed to investigate the dispute. Depending upon the results of the investigation, School Infrastructure NSW may seek legal advice before proceeding.

8.6. Incident management

An incident is an occurrence or set of circumstances that causes or threatens to cause material harm and which may or may not be or cause a non-compliance. Material harm is harm that:

(c) involves actual or potential harm to the health or safety of human beings or to the environment that is not trivial; *or*

(d) results in actual or potential loss or property damage of an amount, or amounts in aggregate, exceeding $10,000, (such loss includes the reasonable costs and expenses that would be incurred in taking all reasonable and practicable measures to prevent, mitigate or make good harm to the environment).

8.6.1. Roles and responsibilities following an incident

In the event of an incident, once emergency services are contacted, the incident must be immediately reported to the SINSW Senior Project Director who will inform:

- SINSW Executive Director
- SINSW C&E Manager
- SINSW Senior Manager, C&E
- SINSW Communications Director

SINSW Communications Director will:

- Lead and manage all communications with the Minister's office in the event of an incident, with assistance as required

- Direct all communications with media to the SINSW Media Manager in the first instance for management
- Notify all other key project stakeholders of an incident.

The school and local community will be notified within 24 hours in the event of an incident, as per our notification timelines in Table 5.

The SINSW Senior Project Director will issue a written incident notification to Department of Planning, Industry & Environment (DPIE) (compliance@planning.nsw.gov.au) and Local Council immediately following the incident to set out the location and nature of the incident.

This must be followed within seven days following the incident of a written notification to the Department of Planning, Industry and Environment (compliance@planning.nsw.gov.au) that:

(e) identifies the development and application number;

(f) provides details of the incident (date, time, location, a brief description of what occurred and why it is classified as an incident);

(g) identifies how the incident was detected;

(h) identifies when SINSW became aware of the incident;

(i) identify any actual or potential non-compliance with conditions of consent;

(j) describes what immediate steps were taken in relation to the incident;

(k) identifies further action(s) that will be taken in relation to the incident; and

(l) provides the contact information for further communication regarding the incident (the Senior Project Director).

Within 30 days of the date on which the incident occurred or as otherwise agreed to by the Planning Secretary, SINSW will provide the Planning Secretary and any relevant public authorities (as determined by the Planning Secretary) with a detailed report on the incident addressing all requirements below:

(m) a summary of the incident;

(n) outcomes of an incident investigation, including identification of the cause of the incident;

(o) details of the corrective and preventative actions that have been, or will be, implemented to address the incident and prevent recurrence; and

(p) details of any communication with other stakeholders regarding the incident.

8.7. Reporting process

Throughout the project, data will be recorded on participation levels both face to face and online, a record of engagement tools and activities carried out in addition to queries received and feedback against emerging themes.

Stakeholder and community sentiment will be evaluated throughout to ensure effectiveness of the engagement strategy and to inform future activities.

Reporting will include but not be limited to:

- Stakeholder engagement reporting – numbers of forums, participation levels and a summary of the outcomes Community sentiment reporting – outputs of all community engagement activities, including numbers in attendance at events, participation levels and feedback received against broad themes
- Online activity – through the project website and via social media
- Media monitoring – as part of the proactive media campaign
- Engagement risk register - to be updated regularly.

Appendix A – Changing the way we communicate – community engagement alternative methods

Below are proposed alternatives to our standard mandatory requirements for community engagement effective as of 30 March 2020. These alternatives are proposed to ensure we continue to comply with SSD and DA conditions and that our communities can remain informed about our projects while adhering to social distancing requirements and NSW Health advice.

Our engagement principles for this period should continue to ensure our communications are:

- Simple
- Streamlined
- Accessible.

Summary of mandatory requirements and alternatives:

Items in **bold** have alternate delivery options.

SSD CONDITION	ALTERNATIVE
1300 community information line	No change
Advertising (print)	Promote online info session / generic single advert
Call centre scripts	No change
Community contact cards	Contractors to hand out as required
CRM database	No change
Display boards	Digital version
Door knocks	No door knocks, use letterbox drop*
Face-to-face meetings/briefings	Phone call or teleconferencing
FAQs	No change
Information booths	No info booths: issue project update instead Digital version
Information sessions (drop in)	Digital version
Information pack	Digital version
Media releases/events	No change to media releases, no events to be held
Notifications	Distributed to school community via email from Principal Distributed to near neighbours via letterbox drop*

SSD CONDITION	ALTERNATIVE
Photography, time-lapse photography and videography	Source photography if health advice permits Use images and time-lapse from similar projects if unable to photograph site
Presentations	Digital version for PRGs/stakeholder meetings
Priority correspondence (RML)	No change
Project Reference Group	Skype meetings / teleconferencing
Project signage	No change if production and installation still possible; A4 print out delivered
Site visits	Site visits via phone/video/photography
School Infrastructure NSW email	No change
School Infrastructure NSW website	No change (may publish updates more frequently)
Welcome pack/ thank you pack	Welcome pack: Do not issue until school resumes Thank you pack: Issued when project is entirely complete

*alternative may change depending on distributor operations