



Proposed 4.55 (1A) Modification No 4
SSD Application No SSD 8790

Amendment to the State Significant Development
Approval for the Redevelopment of
Parramatta West Public School

November 2021

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Table of Contents

1	Introduction.....	4
2	Site Analysis	4
3	Proposed Modifications.....	5
4	Statutory Matters	9
5	Section 4.15 Assessment	11
6	Conclusion	12

Tables

Table 1: Clause E6 subclause justification for removal	6
Table 2: Clause 115 Requirements	9

Figures

Figure 1: Aerial View of School and Surrounding Locality (Source: NearMap April 2021)	4
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Appendices

Appendix A – Acoustic Report - Proposed 4.55 (1A) Modification No. 4 to SSD 8790

1 Introduction

This Section 4.55(1A) modification has been prepared on behalf of the NSW Department of Education.

State Significant Development (SSD) Application 8790 was approved by the NSW Department of Planning Industry and Environment (DPIE) on 2 December 2019 for redevelopment of Parramatta West Public School. Three subsequent modifications were approved on 3 March 2020, 6 November 2020 and 23 July 2021.

This Section 4.55(1A) seeks to further amend SSD Application 8790 to facilitate changes to the acoustic conditions of the consent and use of the new Hall following more detailed assessment following completion of the new facilities.

A discussion of the proposed changes is provided in section 3 of this report.

2 Site Analysis

Parramatta West Public School is located in Parramatta on a site with access from Railway and Auburn Streets. The real property descriptions are Lot 2 DP 1113697 Lot 407 DP 729082 and Lot 406 DP 729083, as shown in Figure 1. The subject site is zoned R2 Low Density Residential under Holroyd Local Environmental Plan 2013.

The site is located over two sides of Railway Street, including the existing school or "South site" and the existing playground/oval space or "North site" which has since been developed with new buildings under this SSD application. The total site area is approximately 2.4 ha, 14,340m² on the South and 9,739m² on the North.



Figure 1: Aerial View of School and Surrounding Locality (Source: NearMap April 2021)

3 Proposed Modifications

Part E of the State Significant Development (SSD) consent included provisions relating to Post Occupation of the development. This section includes conditions relating to acoustics and ongoing operation of the hall and open space areas on the North Site. These conditions restrict the use of the facilities by the school and the community through out of hours events. The school has indicated that the restrictions are relatively onerous and have requested that additional acoustic assessment be undertaken following the completion of the buildings to ascertain if the conditions imposed are still applicable.

Attached in Appendix A is an Acoustic Report by ARUP Australia Pty Ltd. This report considers the details of the relevant conditions below and provides justification for the proposed changes. It also includes an acoustic management plan as required by Condition E1 (h) (i) which will be incorporated into the Out of Hours Event Management Plan required by Condition E1 generally.

Condition E1 currently states:

Out of Hours Event Management Plan

- E1. *Prior to the commencement of the first out-of-hours event (for school or community use) that involves 100 or more people, following the completion of the new building on the North Site, the Applicant is to prepare an Out-of-Hours Event Management Plan (for school and community use) and submit it to the Planning Secretary and Council for information. The plan must include the following:*
- (a) *the number of attendees, time and duration;*
 - (b) *arrival and departure times and modes of transport;*
 - (c) *where relevant, a schedule of all annual events;*
 - (d) *demonstrate measures to encourage non-vehicular travel to the school and promote and support the use of alternate travel modes (i.e. public transport);*
 - (e) *details of the use of the multi-purpose hall, where applicable, restricting use before 8am and after 10pm;*
 - (f) *additional details for concerts, restricting the use to 6pm;*
 - (g) *measures to minimise localised traffic and parking impacts; and*
 - (h) *include management and mitigation measures to minimise noise impacts on any sensitive residential receivers including (but not limited to):*
 - (i) *the preparation of acoustic management plan;*
 - (ii) *details of timings when openings would be required to be closed and management arrangements to ensure openings are closed as necessary;*
 - (iii) *alternative ventilation measures when openings are closed; and*
 - (iv) *details of any other necessary measures required to comply with relevant noise criteria, (such as limiting the volume of the speaker system or limiting the hours of use).*

Only one change to Condition E1 is proposed, the deletion of subclause (f) which restricts concerts to 6.00pm. Therefore, it is recommended that the condition be replaced with the following:

Out of Hours Event Management Plan

- E1. *Prior to the commencement of the first out-of-hours event (for school or community use) that involves 100 or more people, following the completion of the new building on the North Site, the Applicant is to prepare an Out-of-Hours Event Management Plan (for school and community use) and submit it to the Planning Secretary and Council for information. The plan must include the following:*
- (a) *the number of attendees, time and duration;*
 - (b) *arrival and departure times and modes of transport;*
 - (c) *where relevant, a schedule of all annual events;*
 - (d) *demonstrate measures to encourage non-vehicular travel to the school and promote and support the use of alternate travel modes (i.e. public transport);*

- (e) details of the use of the multi-purpose hall, where applicable, restricting use before 8am and after 10pm;
- (f) ~~deleted~~
- (g) measures to minimise localised traffic and parking impacts; and
- (h) include management and mitigation measures to minimise noise impacts on any sensitive residential receivers including (but not limited to):
 - (i) the preparation of acoustic management plan;
 - (ii) details of timings when openings would be required to be closed and management arrangements to ensure openings are closed as necessary;
 - (iii) alternative ventilation measures when openings are closed; and
 - (iv) details of any other necessary measures required to comply with relevant noise criteria, (such as limiting the volume of the speaker system or limiting the hours of use).

Further, Condition E6 placed operational restrictions on facilities for use by external parties or communal use by the school. A number of the subclauses in Condition E6 are overly restrictive and would be better managed through an operation plan in order to be consistent with the other conditions and provisions similar to the school.

Condition E6 currently states:

Operational restrictions

- E6. The following restrictions apply to the use of the North Site and other facilities by external parties (i.e. for communal use of the school):
- (a) the operation of the multi-purpose hall for communal use must not include any amplified music;
 - (b) the operation of the multi-purpose hall for communal use is restricted to 10pm;
 - (c) the occupants / users are not permitted to use any part of the school site between the new building and Crimea Street (northern side);
 - (d) concerts within the multi-purpose hall with amplified music are permitted during daytime (up to 6pm);
 - (e) during concerts, the multi-purpose hall must be fully closed with no openings on any façade for ventilation purpose (especially the Northern or the Western sides); and
 - (f) community use of the school oval on the north site must not include the use of amplified music.

It is recommended that three subclauses be removed, including (a), (d) and (e), as detailed in Table 1 below.

Table 1: Clause E6 subclause justification for removal

Subclause to be deleted	Comment / Reasoning
(a) the operation of the multi-purpose hall for communal use must not include any amplified music;	This subclause is considered inconsistent and overly restrictive given it provides no opportunity for the use of amplified music where operation may be able to meet the noise criteria for the site. ARUP indicate that: <i>Alternative measures can be implemented to address potential noise impacts. Whether an event is school or communal use should be irrelevant. Further, amplified music could constitute a small stereo, or large sound system. It is proposed that permitted event types be per Acoustic Management Plan...</i>

Subclause to be deleted	Comment / Reasoning
<p>(d) <i>concerts within the multi-purpose hall with amplified music are permitted during daytime (up to 6pm)</i></p>	<p>This subclause is considered inconsistent and overly restrictive, particularly where there may be some discrepancy associated with the definition of a “concert”. Similar to the above, events or concerts that may be able to meet the noise criteria for the site should be permitted.</p> <p>ARUP indicate that:</p> <p><i>The condition is prescriptive and not performance based. Concert events and amplified music should be permitted provided noise impacts can be managed. It is also unclear what constitutes a ‘concert’, as the term is not defined in the consent.</i></p> <p><i>It is proposed that permitted event types be per Acoustic Management Plan...</i></p>
<p>(e) <i>during concerts, the multi-purpose hall must be fully closed with no openings on any façade for ventilation purpose (especially the Northern or the Western sides); and</i></p>	<p>This subclause is considered inconsistent with other conditions of consent relating to openings of the building.</p> <p>ARUP indicate that:</p> <p><i>The condition is prescriptive and not performance based. Use of the hall should be permissible so long as noise impact can be managed. In addition, this condition appears to conflict with E1 (h) ii. which implies open ventilation louvres would be acceptable if compliant with noise criteria.</i></p> <p><i>It is proposed that permitted event types be per Acoustic Management Plan...</i></p> <p>The condition unnecessarily impacts the sustainability and amenity of the building where opportunity exists for the building to be ventilated and meet noise criteria.</p>

Therefore, it is recommended that the condition be replaced with the following:

Operational restrictions

E6. *The following restrictions apply to the use of the North Site and other facilities by external parties (i.e. for communal use of the school):*

- (a) ~~-deleted-~~
- (b) *the operation of the multi-purpose hall for communal use is restricted to 10pm;*
- (c) *the occupants / users are not permitted to use any part of the school site between the new building and Crimea Street (northern side); and*
- (d) ~~-deleted-~~
- (e) ~~-deleted-~~
- (f) *community use of the school oval on the north site must not include the use of amplified music.*

Condition E8, as shown below, specifies operational noise level limits for the development (refer SDA Noise and Vibration Impact Assessment Report issued by Wood and Grieve Engineers on 1 November 2019). The restrictions in Condition E6 impose prescriptive requirements that mean some events would not be permitted, even if they comply with Condition E8 noise criteria. Hence the changes provided above. Condition E8 does not allow for any events that do not comply with noise criteria, even if they are infrequent

and noise management procedures are implemented, such as the once a year school concert or presentation night.

Operational Noise Limits

E8. *The Applicant must ensure that noise generated by operation of the new building on the North Site or the school facilities do not exceed the noise limits in Noise and Vibration Impact Assessment Report prepared by Wood and Grieve Engineers dated 1 November 2019.*

ARUP in their acoustic report (Appendix A) provides management criteria to permit specific events that are not predicted to comply with Condition E8 criteria but occur infrequently. The following change to Condition E8 as shown below is recommended.

Operational Noise Limits

E8. *The Applicant must ensure that noise generated by operation of the new building on the North Site or the school facilities do not exceed the noise limits in Noise and Vibration Impact Assessment Report prepared by Wood and Grieve Engineers dated 1 November 2019 with the exception of prescribed events in the approved Acoustic Management Plan.*

Further the conditions include the use of the following term “out-of-hours”. The consent does not include any definition of this term in the definitions section of the consent. Therefore, it is further recommended that the following definition be included:

Out-of-hours *All time periods outside of 8.00am to 4.00pm on school days – i.e. outside of normal school hours and allowing for normal before and after school activities.*

4 Statutory Matters

Under the provisions of Section 4.55(1A) of the Environmental Planning and Assessment Act, 1979 the following applies.

- (1A) **Modifications involving minimal environmental impact** A consent authority may, on application being made by the applicant or any other person entitled to act on a consent granted by the consent authority and subject to and in accordance with the regulations, modify the consent if—
- (a) it is satisfied that the proposed modification is of minimal environmental impact, and
 - (b) it is satisfied that the development to which the consent as modified relates is substantially the same development as the development for which the consent was originally granted and before that consent as originally granted was modified (if at all), and
 - (c) it has notified the application in accordance with—
 - (i) the regulations, if the regulations so require, or
 - (ii) a development control plan, if the consent authority is a council that has made a development control plan that requires the notification or advertising of applications for modification of a development consent, and
 - (d) it has considered any submissions made concerning the proposed modification within any period prescribed by the regulations or provided by the development control plan, as the case may be.
- Subsections (1), (2) and (5) do not apply to such a modification.

It is our opinion that the proposed modification falls within Section 4.55(1A) of the Act. The modification is substantially the same as the originally granted consent and it is considered environmental impacts relating to the amendment are manageable. The conditions still generally require all activities to operate within the appropriate noise / acoustic limits imposed by the original assessment.

Table 2 below confirms that the Section 4.55(1A) modification has been prepared in accordance with clause 115 of the EP&A Regulation 2000.

Table 2: Clause 115 Requirements

Clause 115 Requirements	Comment
(a) the name and address of the applicant,	The applicant is NSW Department of Education. Address – Level 8, 259 George Street, Sydney NSW 2000
(b) a description of the development to be carried out under the consent (as previously modified),	Redevelopment of Parramatta West Public School.
(c) the address, and formal particulars of title, of the land on which the development is to be carried out,	Auburn, Young, Railway and Crimea Streets, Parramatta NSW 2150 Lot 2 DP 1113697, Lot 407 DP 729082 and Lot 406 DP 729083
(d) a description of the proposed modification to the development consent,	Refer sections 1, 2 and 3.
(e) a statement that indicates either: (i) that the modification is merely intended to correct a minor error, misdescription or miscalculation, or	The purpose of the modification is to alter conditions relating to acoustic management on the site. Refer section 3.0 for further details.

Clause 115 Requirements	Comment
(ii) that the modification is intended to have some other effect, as specified in the statement,	
(f) a description of the expected impacts of the modification,	The proposed modifications will cause negligible environmental impacts. Refer section 4 for further details.
(g) an undertaking to the effect that the development (as to be modified) will remain substantially the same as the development that was originally approved,	The proposed changes to the consent will not alter the nature of the development and it is considered that the development will remain substantially the same as the approved development.
(g1) in the case of an application that is accompanied by a biodiversity development assessment report, the reasonable steps taken to obtain the like-for-like biodiversity credits required to be retired under the report to offset the residual impacts on biodiversity values if different biodiversity credits are proposed to be used as offsets in accordance with the variation rules under the Biodiversity Conservation Act 2016,	Not applicable
(h) if the applicant is not the owner of the land, a statement that the owner consents to the making of the application (except where the application for the consent the subject of the modification was made, or could have been made, without the consent of the owner).	The owner is The Minister for Education and agrees to the submission of the modification.
(i) a statement as to whether the application is being made to the Court (under Section 4.55) or to the consent authority (under Section 4.56).	Not applicable.

5 Section 4.15 Assessment

Social & Economic Impact

The changes to the acoustic management at Parramatta West Public School will not have any adverse social or economic impacts. The changes to the school will generally facilitate positive impacts such as improved access to teaching spaces and creation of employment opportunities during and after construction.

Stormwater

No changes to the existing stormwater infrastructure will be required as part of the proposed changes.

Context and Setting

The acoustic management changes will not have an adverse impact on the setting of the school.

Sustainability

The acoustic management changes will not have any adverse impacts on the sustainability of the site and new development.

Biodiversity / Trees

No vegetation removal is required with the modification therefore no impacts to existing vegetation or biodiversity.

Access, Traffic and Parking

No changes to access or parking is proposed as part of the modification.

Accessibility

No change to the accessibility of the site is proposed.

Public Interest

The acoustic management changes will be supported by an Acoustic Management Plan which aims to protect noise amenity and serve the public interest.

The public interest is best served by promoting sustainable development that is rational, orderly and economic. The amended proposal is permissible and will generate positive social, environmental and economic benefits.

6 Conclusion

The proposed modification does not alter the potential environmental effects as considered under Section 4.15 of the Act and is substantially the same development as that approved in the original State Significant Development Application.

It is considered that the proposed amendments will:

- Contribute to the functionality of the educational facilities on the site through the ability for the school and community users of the school to hold events / activities during school hours and after hours;
- Remain consistent with relevant statutory and strategic controls;
- Retain appropriate operational noise limitations on the site; and
- Generate no adverse impact to biodiversity, parking or traffic and implement management practices to protect amenity.

The proposed modifications are not anticipated to cause any unmanageable environmental impacts and should be supported.

**Appendix A – Acoustic Report - Proposed 4.55 (1A) Modification No. 4
to SSD 8790**

Schools Infrastructure NSW
Parramatta West Public School
Acoustic Report - Proposed 4.55
(1A) Modification No. 4 to SSD
8790

278939-AC03

v3 | 22 October 2021

This report takes into account the particular instructions and requirements of our client.

It is not intended for and should not be relied upon by any third party and no responsibility is undertaken to any third party.










Job number 278939

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Document verification

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Contents

	Page
Executive Summary	1
1 Proposed condition amendments	2
1.1 “Out-of-hours” time periods	4
2 Acoustic Management Plan	5
2.1 Scope of Plan	5
2.2 Noise egress criteria	5
2.3 General out-of-hours operational noise management parameters	5
2.4 Detailed events plan	6
2.5 Governance of the plan	9

Appendices

Appendix A

Noise egress modelling assessment

Executive Summary

This report details proposed modifications to SSD 8790 consent conditions E1, E6 and E8 relating to operational noise management requirements at Parramatta West Public School (PWPS), a supporting acoustic assessment, and a proposed operational noise management plan. The impetus for this Modification is to address prescriptive and ambiguous conditions in E1, E6 and E8 that are seen to unduly limit the use the Multipurpose Hall.

This report is to accompany Schools Infrastructure New South Wales' (SINSW) Proposed 4.55 (1A) Modification No. 4 to SSD 8790 submission to the Planning Secretary.

In preparing this report Arup has reviewed the SSD 8790 conditions of consent that relate to PWPS event noise egress criteria at nearby residents (conditions E1, E6 and E8), the SSDA acoustic report¹, and architectural For Construction documentation.

Arup has carried out noise modelling to inform the parameters that Multipurpose Hall events could operate in accordance with condition E8, which outlines performance-based noise criteria. A Schedule of Events that are predicted to comply with E8 has been developed in consultation with Parramatta West Public School.

Based on the assessment, Arup concludes that E1 and E6 conditions unnecessarily restrict operations beyond that required for compliance with E8 criteria, and some conditions are ambiguous. Accordingly, this modification seeks removal of prescriptive conditions in E1 and E6 relating to operational noise and that the school be permitted to hold events in the Multipurpose Hall based on compliance with E8 and the Schedule of Events.

In addition, the Schedule of Events includes a restricted number of events that are predicted to exceed Condition E8 criteria, but are considered of limited impact due to their infrequency (e.g. annual school awards night).

¹ *Noise & Vibration Impact Assessment for State Significant Development Application (SSD – 8790)* report issued by Wood & Grieve Engineers on 1 November 2019

1 Proposed condition amendments

It is proposed that SSD 8790 conditions of consent E1, E6 and E8 be modified as outlined in Table 1.

Table 1: Proposed modifications to conditions of consent.

SSD 8790 condition of consent	Proposed amendment and rationale
E1.	
<i>Prior to the commencement of the first out-of-hours event (for school or community use) that involves 100 or more people, following the completion of the new building on the North Site, the Applicant is to prepare an Out-of-Hours Event Management Plan (for school and community use) and submit it to the Planning Secretary and Council for information. The plan must include the following:</i>	
<i>(a) the number of attendees, time and duration;</i>	
<i>(b) arrival and departure times and modes of transport;</i>	
<i>(c) where relevant, a schedule of all annual events;</i>	
<i>(d) demonstrate measures to encourage non-vehicular travel to the school and promote and support the use of alternate travel modes (i.e. public transport);</i>	
<i>(e) details of the use of the multi-purpose hall, where applicable, restricting use before 8am and after 10pm;</i>	
<i>(f) additional details for concerts, restricting the use to 6pm;</i>	Condition to be deleted. Concert events should be permitted if noise impacts can be managed. It is also unclear what constitutes a 'concert', as the term is not defined in the consent. It is proposed that permitted event types be per Acoustic Management Plan in Section 2.
<i>(g) measures to minimise localised traffic and parking impacts; and</i>	
<i>(h) include management and mitigation measures to minimise noise impacts on any sensitive residential receivers including (but not limited to):</i>	
<i>(i) the preparation of acoustic management plan;</i>	

SSD 8790 condition of consent	Proposed amendment and rationale
(ii) details of timings when openings would be required to be closed and management arrangements to ensure openings are closed as necessary;	
(iii) alternative ventilation measures when openings are closed; and	
(iv) details of any other necessary measures required to comply with relevant noise criteria, (such as limiting the volume of the speaker system or limiting the hours of use).	
E6.	
The following restrictions apply to the use of the North Site and other facilities by external parties (i.e. for communal use of the school):	
(a) the operation of the multi purpose hall for communal use must not include any amplified music;	Condition to be deleted. Alternative measures can be implemented to address potential noise impacts. Whether an event is school or communal use should be irrelevant. Further, amplified music could constitute a small stereo, or large sound system. It is proposed that permitted event types be per Acoustic Management Plan in Section 2.
(b) the operation of the multi-purpose hall for communal use is restricted to 10pm	
(c) the occupants / users are not permitted to use any part of the school site between the new building and Crimea Street (northern side);	
(d) concerts within the multi purpose hall with amplified music are permitted during daytime (up to 6pm);	Condition to be deleted. The condition is prescriptive and not performance based. Concert events and amplified music should be permitted provided noise impacts can be managed. It is also unclear what constitutes a ‘concert’, as the term is not defined in the consent. It is proposed that permitted event types be per Acoustic Management Plan in Section 2.
(e) during concerts, the multi purpose hall must be fully closed with no openings on any façade for ventilation purpose (especially the Northern or the Western sides); and	Condition to be deleted. The condition is prescriptive and not performance based. Use of the hall should be permissible so long as noise impact can be managed. In addition, this condition appears to conflict with E1 (h) ii. which implies open ventilation louvres would be acceptable if compliant with noise criteria. It is proposed that permitted event types be per Acoustic Management Plan in Section 2.

SSD 8790 condition of consent	Proposed amendment and rationale
<i>(f) community use of the school oval on the north site must not include the use of amplified music.</i>	
E8.	
<i>The Applicant must ensure that noise generated by operation of the new building on the North Site or the school facilities do not exceed the noise limits in Noise and Vibration Impact Assessment Report prepared by Wood and Grieve Engineers dated 1 November 2019, with the exception of prescribed events in the approved Acoustic Management Plan.</i>	Condition to be updated per <i>bold italic</i> test to allow for exception events due to infrequent occurrence (see Section 2.4.2).

1.1 “Out-of-hours” time periods

In addition to the amendments proposed in Table 1, the out-of-hours time periods be need defined in the conditions of consent, as the current consent does not provide definition. Arup proposes that “out-of-hours” time periods be defined in the consent as **all time periods outside of 8am to 4pm on school days** – i.e. outside of normal school hours and allowing for normal before and after school activities.

2 Acoustic Management Plan

This section outlines the proposed Acoustic Management Plan to be implemented by PWPS for out-of-hours events if the proposed amendments in Section 1 are approved by the Planning Secretary.

The Acoustic Management Plan has been informed by Arup's predictive noise egress assessment in Appendix A.

2.1 Scope of Plan

The scope of the Acoustic Management Plan is as follows:

- Addresses event management for out-of-hours events only. While not defined in the consent conditions, this Plan defines 'out-of-hours' as all time periods outside of 8am-4pm on school days (refer to Section 1.1).
- Out-of-hours noise management requirements set out in this Plan are applicable to buildings constructed as part of SSD 8790 only. Any pre-existing buildings or outdoor school areas would not be subject to SSD 8790.
- Planned out of hours events in redeveloped school facilities as coordinated with the school are limited to the Multipurpose Hall.

2.2 Noise egress criteria

Consent condition E8 requires that operational noise levels from the redevelopment at nearby noise-sensitive premises do not exceed criteria in the *SSDA Noise and Vibration Impact Assessment* report issued by Wood & Grieve Engineers on 1 November 2019. These criteria are reproduced below in Table 2.

Table 2: Project-specific external noise emission criteria.

Period	Project-specific noise level criteria (upper limit)
Residential	
Day (7am–6pm)	53 dB $L_{Aeq,15min}$
Evening (6pm–10pm)	47 dB $L_{Aeq,15min}$
Night (10pm–7am)	42 dB $L_{Aeq,15min}$
Commercial	
When in use	65 dB $L_{Aeq,duration}$

2.3 General out-of-hours operational noise management parameters

As a simplified guide for PWPS, the following management measures are recommended for use of the Multipurpose Hall to comply with out-of-hours noise limits in Table 2. Predicted compliance is based on the noise modelling assessment in Appendix A.

Table 3: Multi-purpose Hall noise management measures.

Period	Management measures
Day period 7am-6pm	<ul style="list-style-type: none"> • Maximum 500 attendees • Announcements/speech over the PA system should not be set louder than required for the speaker to be clearly heard by event attendees within the Hall. • Pre-recorded music played through the PA system should not be set to an excessive volume. Music levels should not be set too loud such that they are uncomfortable to the average listener inside the Hall. Bass-heavy music is be controlled by equalisation settings of the PA system. • Musical performance sound levels should not be excessive. As a guide – if the sound level is uncomfortable to an average listener inside the Hall, such as loud playing on a drum kit or very loud/bass-heavy music through the PA system, it's too loud. • Natural ventilation louvres can be open during events. • Doors should be closed during events.
Evening period 6pm-10pm	<ul style="list-style-type: none"> • Maximum 200 attendees • Announcements/speech over the PA system should not be set louder than required for the speaker to be clearly heard by event attendees within the Hall. • Pre-recorded music played through PA system should be limited to low-medium level background music. As a guide – people in close proximity to each other in the Hall (2 m apart) shouldn't have any difficulty hearing each other over the music. Bass-heavy music is be controlled by equalisation settings of the PA system. • No loud acoustic musical instruments (drums, brass, etc.). No amplified musical instruments. • Natural ventilation louvres can be open during events. • Doors should be closed during events.
Night period 10pm-7am	<ul style="list-style-type: none"> • No events to be held during this period.

Note: The above measures have been developed based on achieving maximum 84 dB $L_{Aeq,15min}$ inside the Hall during the Daytime period, and 76 dB $L_{Aeq,15min}$ during the Evening period, which are the limits established via Arup's noise modelling for compliance at nearby residences.

2.4 Detailed events plan

2.4.1 Compliant events

The out-of-hours events listed in Table 4 are predicted to comply with project noise criteria based on the noise modelling assessment in Appendix A. These have been developed with PWPS. It is proposed that these events are permissible.

For all events, PWPS must follow the general noise mitigation measures in Table 2 and the 'Additional required mitigation measures' column in Table 4 to comply with E8 criteria (based Arup's predictive assessment).

Table 4: List of proposed Multipurpose Hall events.

Event type	Operator	Maximum number of attendees	Event time period ^{Note 1}	Event includes amplified music?	Additional required mitigation measures
Weekly occurrence					
Student group rehearsals, drama, dance, choir	School	500	8am-5pm School days	Yes	Reduced level amplified music/speech (per management measures in Table 2).
OSHC	School	200	8am-7pm School days	Unlikely	
Keyboard lessons	School and external	50	3pm-7pm Mon-Sun	Yes	Limited sound levels from individual keyboards permitted – i.e. in-built keyboard speakers, not large PA.
Karate lessons	School and external	100	4pm-8pm Mon-Sun	No	
Church group	School and external	200	8am-12pm Fri-Sun	Yes	Reduced level amplified music/speech (per management measures in Table 2). No full band performance.
Staff Professional Learning	School and external	100	3pm-6pm School days	Yes	Reduced level amplified music/speech required (per management measures in Table 2).
Community Language Schools	External	100	9am-3pm Sat-Sun	No	
Monthly occurrence					
P&C meeting	School	100	7pm-10pm School days	Unlikely	
Quarterly occurrence					
Community Events	School	500	9am-6pm Mon-Sun	Yes	Reduced level amplified music/speech required (per management measures in Table 2).

Event type	Operator	Maximum number of attendees	Event time period ^{Note 1}	Event includes amplified music?	Additional required mitigation measures
Annual occurrence					
Open Day event	School	500	9am-3pm Sat	Yes	Reduced level amplified music/speech required (per management measures in Table 2).
P&C trivia night	School and external	100	6pm-10pm Mon-Sun	Yes	Limiting of amplified music/speech needed (per management measures in Table 2).
School Readiness Forum	School and external	200	6pm-9pm Mon-Sun	No	
High School Parent Information Evening	School	200	6pm-8pm Mon-Sun	Unlikely	

Note 1: While the entire time period for each event is listed, the noise management requirements in this Plan apply only to the out-of-hours periods (see Section 1.1).

2.4.2 Exception events

The noise modelling in Appendix A indicates that some event types in Table 5 are not likely to comply with E8 noise criteria, particularly with natural ventilation louvres open. However, they are requested to be permitted due to their **infrequent occurrence**.

For all exception events, the following noise mitigation measures must be implemented by the operator:

1. Avoid setting sound system at higher level than required for activity
2. Close some of ventilation louvres if practicable
3. Close Hall doors during event
4. Measure PA/band sound level outside nearest affected residential premises (96 Crimea St) with a calibrated sound level meter during event set up to inform measures necessary for event noise levels to be no more than 10 dB above criteria in Table 2.

Table 5: List non-compliant Multipurpose Hall events proposed for exception due to infrequency.

Event type	Operator	Maximum number of attendees	Event time period ^{Note 1}	Event includes amplified music?	Comments
Quarterly occurrence					
School Disco	School	350	4pm-9pm	Yes	
School Band drive	School	150	6pm-9pm	Yes	PWPS currently do not have a school band, but likely will in the future.
Annual occurrence					
Presentation Assembly	School	1200	7pm-9pm	Yes	
Fete (inside Multipurpose Hall)	School and External	Unknown	9am-9pm	Yes	
Performance Evening	School	600	6pm-10pm	Yes	
School Band evening	School	300	6pm-10pm	Yes	PWPS currently do not have a school band, but likely will in the future.
Art Show	School	100 - 1000	6pm -10pm	Yes	
Community Language cultural event	School and External	500	4pm-10pm	Yes	

Note 1: While the entire time period for each event is listed, the noise management requirements in this Plan apply only to the out-of-hours periods (see Section 1.1).

2.5 Governance of the plan

Staff briefings

For school-related events, the event management strategies for noise shall be the responsibility of organising staff members. Any staff organising or supervising the event must be briefed on the various mitigation strategies and requirements. This briefing can be achieved through staff meetings or email correspondence.

Third party vendors

For events that are organised externally and require third party vendors, noise management strategies and requirements must be communicated to ensure they are adhered to.

Community consultation

Consultation with the neighbouring community on upcoming large events will ensure the success of the Plan. Ensuring the community is notified of any potential disturbances to the noise will provide ample warning of the expected impacts. This consultation can be performed through flyers in letter boxes or

notices on the school website. It is the responsibility of the organising party to ensure that community consultation occurs, and concerns are addressed.

Appendix A

Noise egress modelling assessment

A1 Noise egress modelling

Predictive assessment of noise egress from inside the Multipurpose Hall to nearby residential receivers has been undertaken using SoundPLAN noise modelling software.

Base modelling aimed to first replicate the SSDA assessment for comparative purposes. The SSDA assessment was a non-compliant scenario of a live music performance inside the Hall with natural ventilation openings and doors open.

Using these modelling outputs, predicted compliant noise limits inside the Hall have been established, allowing for efficient predictive assessment of the intended Hall usages that have been provided by the school.

A1.1 Base modelling scenarios

The base modelling assumes a live music performance with a 90 dB(A) internal source sound level, being consistent with that used in the SSDA noise impact assessment. This is likely an appropriate assumption for school discos or live performance events. As the frequency spectrum adopted for the SSDA was not outlined, we have utilised a reference spectrum from our site measurement database.

Table 6: Source sound level in Multipurpose Hall for SoundPLAN model.

Source description	Overall dB(A)	1/1 Octave band centre frequency, Hz, dB								
		31.5	63	125	250	500	1k	2k	4k	8k
Music performance sound pressure levels	90	79	95	92	92	87	84	82	76	68

Two scenarios of the façade conditions with the above internal source sound levels were modelled:

- **Scenario 1:** Natural ventilation louvres and doors open
- **Scenario 2:** Natural ventilation louvres open and doors closed.

Noise transmission through all façade and roof elements that adjoin the Hall was modelled. Façade types used in the model are per the For Construction architectural documentation.

Note that sound insulation performance data for the closed louvres has been obtained (Safetyline Jalousie 6.38 mm laminated glass louvres, rated R_w 33), but the data was not used in the modelling, as we understand the Hall has not been provided with an alternative form of ventilation, and therefore louvres may need to remain open during events. The louvred areas are therefore treated as fully open for in the model. If it is possible to operate the Hall with louvres closed, and they achieve the specified acoustic performance, the internal noise levels will be able to increase.

A1.2 Modelling results

Predicted noise levels at nearby receivers along are shown in Table 7. In comparison to the SSDA report, predicted levels at the most-affected receiver (96 Crimea St, Scenario 2) are 2 dB higher.

Modelling results indicate that noise emission through the louvres and doors is dominant. Noise emission via other façade and roof elements was found to have negligible influence on resulting noise levels in the open scenario.

Figure 1 is included for Scenario 1, which illustrates the propagation of sound to Crimea Street residences.

Table 7: Predicted noise levels at 96 Crimea St (90 dB(A) source level inside the Hall).

Location	Predicted Noise level at receiver, dB $L_{eq,15min}$		SSDA criteria	
	Scenario 1: Louvres and doors open	Scenario 2: Louvres open, doors closed	Day (7am-6pm)	Evening (6pm-10pm)
84 Crimea St	50	43	53 dB(A)	47 dB(A)
86 Crimea St	55	45		
88 Crimea St	57	48		
90 Crimea St	55	48		
92 Crimea St	56	50		
94 Crimea St	57	55		
96 Crimea St	61	59		
98 Crimea St	58	56		
100 Crimea St	57	55		
102 Crimea St	57	55		

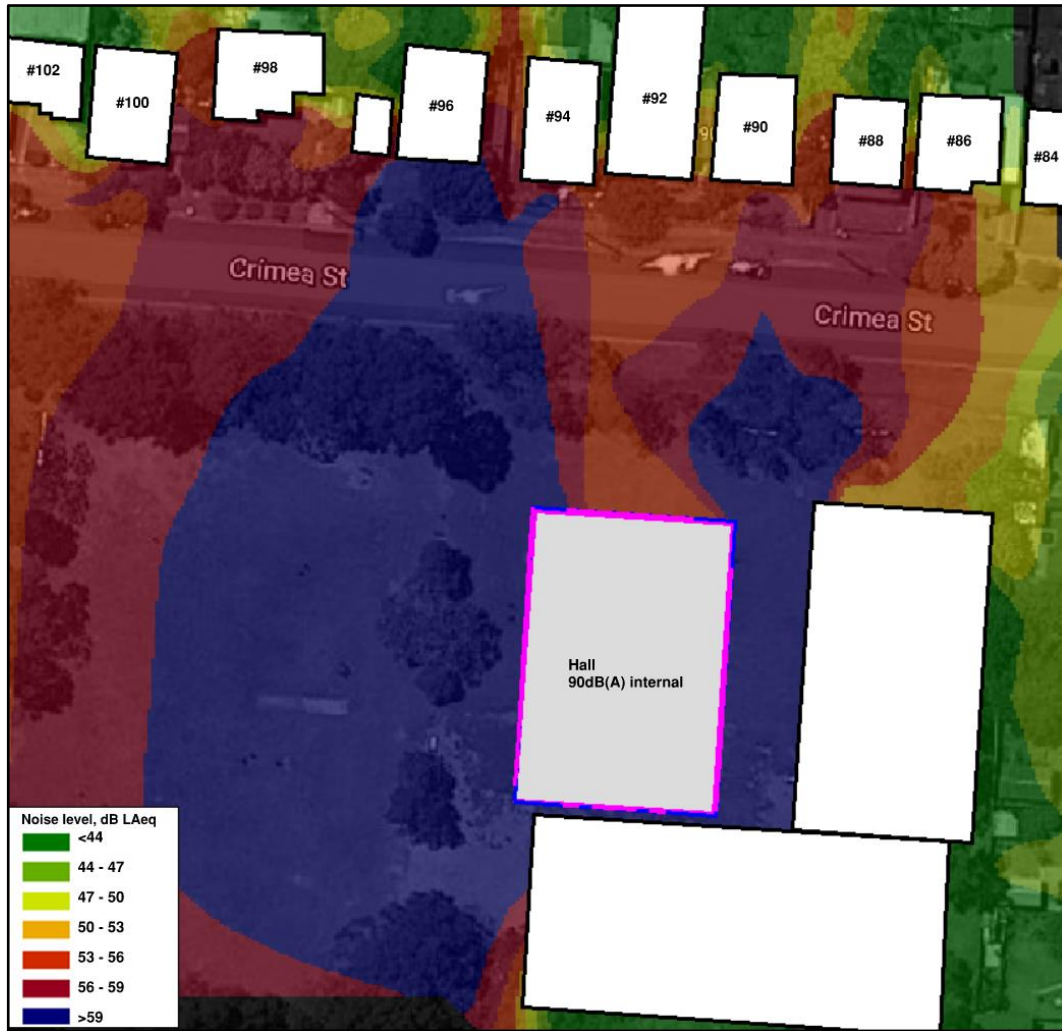


Figure 1: Scenario 1 modelling results.

A1.3 Internal noise level limits

Using the modelling outputs for the most affected receiver at 96 Crimea St, the maximum sound levels inside the Multifunction Hall have been derived and are presented in Table 8.

Table 8: Maximum allowable sound levels in Multipurpose Hall to comply with project-specific criteria.

Scenario	Upper limit noise level criteria at nearest residential receiver, $L_{eq,15min}$	Maximum allowable source sound level inside Multipurpose Hall, $L_{eq,15min}$
Scenario 1: Louvres and doors open	Day (7am-6pm): 53 dB(A)	82 dB(A)
	Evening (6pm-10pm): 47 dB(A)	76 dB(A)
Scenario 2: Louvres open only	Day (7am-6pm): 53 dB(A)	84 dB(A)
	Evening (6pm-10pm): 47 dB(A)	78 dB(A)

Arup completed internal activity noise calculations for each proposed activity type in the Multipurpose Hall (based on number of attendees and any amplified speech or music) to develop the compliance assessment in Table 4. Predicted internal activity noise levels are as follows:

Table 9: Predicted internal sound levels in Multipurpose Hall used for Arup noise egress assessment.

Scenario	Predicted internal noise level, $L_{eq}(\text{period})$
50p patron noise	62 dB(A)
50p patron noise + amplified live music	86 dB(A)
100p patron noise	68 dB(A)
100p patron noise + amplified live music	87 dB(A)
200p patron noise	73 dB(A)
200p patron noise + amplified live music	87 dB(A)
500p patron noise	80 dB(A)
500p patron noise + amplified live music	87 dB(A)
1000p patron noise	85 dB(A)
1000p patron noise + amplified live music	89 dB(A)
1500p patron noise	87 dB(A)
1500p patron noise + amplified live music	90 dB(A)

Note:

1. In all scenarios, patron noise assumes 25% of attendees talking at one time.
2. Amplified live music noise levels are based on measured data from loud live music performances, considered worse case is a school hall context.