MARSHALL DAY Acoustics

YOUNG LIBRARY
CNVMSP

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1.0 INTRODUCTION

Marshall Day Acoustics (MDA) has been engaged by Joss Construction (Joss) to assess construction noise and vibration emissions for works related to the Young HS – Hilltops Library project (the Project). This assessment is related to the construction of a new Library building and redevelopment of the existing Library building into a Staff Hub (Block EE).

A previous conceptual assessment has been conducted by Marshall Day Acoustics as part of a Planning Secretary's Environmental Assessment Requirements (SEARs) submission. The assessment was summarised in MDA report *Rp 007 20180592 NSW Southern Clusters Schools – Young Hilltops Library SEARs Assessment* dated 25 September 2019.

Joss has requested that an updated assessment be conducted to satisfy the requirements of Hilltops Council's development application condition B15, related to the provision of a Construction Noise and Vibration Management Sub-Plan.

This assessment provides updated predicted noise levels based on refined construction schedules and equipment proposed by Joss Construction and evaluates noise and vibration implications with respect to nearby noise sensitive receivers, in line with the guidance provided in the NSW EPA's *Interim Construction Noise Guideline* (ICNG). A Construction Noise and Vibration Management Sub-Plan is also provided with recommendations with respect to community consultation, information distribution, complaints management and contingency measures.

The consultant who prepared this report, Alexander Stoker, is a Senior Consultant working in the Sydney office of Marshall Day Acoustics. He has over 10 years' experience in acoustics and has completed numerous, previous acoustic assessments for state significant developments. He is a registered member of both the Australian Acoustical Society (AAS) and the Institute of Acoustic (IOA, UK). A Curriculum Vitae is provided in Appendix A.

Technical terms used throughout this report are described in Appendix B. The assessment is based on measurements conducted on-site by MDA alongside information with respect to construction scheduling and equipment as provided by Joss Construction.

Table 1 provides information denoting where in the report the requirements of Hilltops Council's development application condition B15 are satisfied.

Table 1: Table of condition requirement evidence

Condition requirement	Report Section/Comment
B15 a)	Appendix A
B15 b)	Section 5.0 - Construction Noise And Vibration Criteria Section 5.3 – Noise Control Recommendations Section 7.1 – Construction Noise and Vibration Management Sub-Plan
B15 c)	Section 7.5
B15 d)	Section 7.2
B15 e)	Section 7.5
B15 f)	Section 7.3 Appendix F
B15 g)	Section 7.6

2.0 SITE AND PROJECT DESCRIPTION

2.1 Site Location

The Project site is located within the grounds of Young High School, Campbell Street, Young, NSW, zoned R1 – General Residential in Hilltops Council's Young Local Environmental Plan 2010 (ENP 2010).

The Project site is bounded by Young High School grounds comprising various teaching spaces to the east and south, with residential receivers further afield.

To the west of the Project site are receivers related to the adjacent TAFE NSW – Young campus, including a childcare centre.

To the north is located Carrington Park, a public recreation space (zoned RE1 – Public Recreation), with St Marys Church and Hennessey Catholic College further afield (zoned R1 – General Residential).

Further receivers identified in the ENP as SP2 Infrastructure – Public Administration to the east of the site over Campbell St. These are understood to be an Army Cadet lodge and Lambing Flat Museum. They have been classified as commercial receivers for the purpose of assessment.

Whilst other receivers are located in the local area, the existing Young HS and TAFE NSW buildings provide significant shielding of noise associated with the Project and have not been considered. The selected receivers generally have a direct line of site to the proposed building location or are located sufficiently close enough to be pertinent.

Table 2: Noise sensitive receivers selected for assessment

Receiver	Receiver Type
Carrington Park	Active Recreation
Hennessey Catholic College	Educational Establishment
St Mary's Catholic Church	Place of Worship
15-17 Caple Street	Residential
Army Cadet Lodge and Lambing Flat Museum	Commercial
TAFE NSW	Educational Establishment

A site plan is provided in Appendix A with aerial imagery depicting nearby receivers detailed in Appendix B. Receivers used for assessment are shown in Appendix B1. Receivers not used for assessment are identified in Appendix B2. As previously described these receivers are at a greater distance and shielded more comprehensively than the receivers selected for assessment.

2.2 Project Description

Works included in this assessment include the construction of a new shared school and community use library with multi-function spaces and the refurbishment of the existing library (Block EE) to provide new staff spaces. Minimal external works are expected as part of this conversion.

Demolition of building structures has already been completed. This assessment considers construction activities during the site preparation (including demolition and removal of the remaining ground slab) and construction phases of project works. All works are proposed to be conducted during the recommended standard hours, defined in the ICNG as being Monday to Friday from 7 am to 6 pm, Saturday 8 am to 1 pm with no work on Sundays or public holidays.

External works on-site will be solely related to that required for the new Library building. Works related to Block EE will be internal fitout only primarily using hand power tools, with the existing building façade providing significant additional attenuation.

3.0 HILLTOPS COUNCIL COMPLIANCE REQUIREMENT

Hilltops Council development consent condition B15 has been reviewed and forms the basis of this assessment. The subject condition, as provided by Joss Construction, is reproduced below:

Unique (ID)	Compliance Requirement
B15	The Construction Noise and Vibration Management Sub-Plan (CNVMSP) 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).

3.1 Noise and Vibration Sources

Table 3 shows the expected noise and vibration sources associated with development of the Project and the documents referred for assessment.

It should be noted that detailed prediction of vibration levels is not part of our assessment scope, however, vibration exclusion zones will be included for plant items where relevant.

Table 3: Project noise and vibration sources and assessment references

Noise/Vibration Source	Assessment Reference
Construction	
Site Preparation (including demolition of ground slab)	Interim Construction Noise Guideline Assessing Vibration: A Technical Guideline
Construction	Interim Construction Noise Guideline Assessing Vibration: A Technical Guideline

4.0 BACKGROUND NOISE SURVEY

A survey of background noise levels was conducted at a location close to the boundary between Young HS and Carrington Park between 25 July 2018 and 5 August 2018 using an ARL El-316 noise logger (S/N.16-707-022). The selected location provided a good representation of noise levels in the local environment and nearby noise sensitive receivers. This position is shown in Appendix B. Measurement equipment was calibrated before and after the survey with no significant drift observed.

Average L_{A90} and L_{Aeq} measured during the survey are shown in Table 4 and have been derived in accordance with the data exclusion rules described in the NPfI.

Table 4: Measured average background noise levels

Period	Time of day	RBL $L_{A90, 15min}$ dB	$L_{Aeq, 15min}$ dB
Day	0700-1800 hrs	46	58
Evening	1800-2200 hrs	44	53

5.0 CONSTRUCTION NOISE AND VIBRATION CRITERIA

Noise and vibration criteria applicable to the project site with respect to construction activities have been derived considering the references detailed in Table 3 and are summarised in the following sections. Full derivation of criteria is provided in Appendix C.

5.1.1 Interim Construction Noise Guideline

Noise criteria applicable to the site derived in accordance with the ICNG are summarised in Table 5. These criteria apply to airborne noise emissions related to construction activity during the recommended standard hours only (see Appendix C for further details).

Table 5: Interim Construction Noise Guideline airborne noise criteria

Receiver Type	Management Level, $L_{Aeq\ (15\ min)}$	
Active Recreation	65	
Commercial	70	
Educational Establishment	45 (internal)	
Place of Worship	45 (internal)	
	Noise Affected	**Highly Noise Affected**
Residential	56	75

For residential receivers, the "Noise Affected" level is the point above which there may be some community reaction to noise. The "Highly Noise Affected" level represents the point above which there may be a strong community reaction to noise. Where the "Noise Affected" management level is predicted to be exceeded, the ICNG requires that all feasible and reasonable work practices be employed. Where it is predicted that the "Highly Noise Affected" management level will be exceeded, respite periods may need to be considered.

For other receivers, the applicable single figure Management Level should be considered as the point at which community reaction may arise and feasible controls or restrictions to construction may be considered.

5.1.2 Assessing Vibration: A Technical Guideline

Vibration criteria for activities associated with construction applicable to the site, derived in accordance with the Technical Guideline are summarised in Table 6 and Table 7. Only Day time criteria is provided as out of hours construction activities are not expected.

Table 6: Vibration limits according to DIN 4150: Peak Particle Velocity (PPV) mm/s

Line	Type of structure	Vibration at the foundation of building, at a frequency of			Vibration in horizontal plane of highest floor, at all frequencies
		1 Hz to 10 Hz	10 Hz to 50 Hz	50 Hz to 100 Hz and above	
I	Buildings used for commercial purposes, industrial buildings, and buildings of similar design	20	20 to 40	40 to 50	40
II	Dwellings and buildings of similar design and/or occupancy	5	5 to 15	15 to 20	15
III	Structures that, because of their particular sensitivity to vibration, cannot be classified under lines I and II and are of great intrinsic value (e.g. listed buildings under preservation order)	3	3 to 8	8 to 10	8

Table 7: Assessing Vibration: A Technical Guideline; construction vibration criteria

Daytime (0600-2200 hrs)	
Preferred Value, VDV	**Maximum Value, VDV**
0.20	0.40

5.2 Construction Plant Items

Based on information provided by Joss Construction a general plan of construction staging is understood to be:

- Site Preparation (including demolition of ground slab)
- Construction

Plant equipment used during each stage of construction works have been advised by Joss Construction and are detailed in Table 8.

Table 8: Anticipated construction activities and assumed equipment schedule

Activities	Equipment
Site Preparation	
Demolition and removal of ground slab existing structures	22 t excavator with hydraulic hammer, buckets, demolition grab, rock-saw
	Jack hammer & breaker
	Concrete saw
Concrete removal	22 t excavator
Removal of waste material from site	Bogie truck, no trailer
General	Generator
	Air compressor & lines
Construction	
Piling	Bored piling rig (auger)
Concreting	Concrete pump
	Concrete agitator
	Mobile crane
	Brick saw
	Concrete vibrator
	Concrete floats
	Diamond core drill
	Nail guns
	Hydraulic bar cutter
Delivery of materials	Flatbed truck
	Bogie truck
General	Air compressor & lines
	De-watering plant
	Electric winch & materials hoist
	Angle grinders

Sound power data for these plant items is provided in Appendix D.

5.3 Noise Control Recommendations

MDA recommends that the noise control measures detailed in Table 9 are implemented on-site. Predicted noise levels calculated during the construction noise assessment include the effect of these recommendations. If the recommended noise control measures are not adopted, noise levels on-site will be higher than that predicted in this assessment. Given the proximity of the work site to TAFE NSW and YHS buildings, adoption of all noise control recommendations is strongly recommended.

Table 9: Noise control recommendations for site

Phase	Equipment/Location	Recommendation
Site Preparation	Jack hammer & breaker Concrete saw Generator	- Localised noise barriers should be utilised when this equipment is in use. - Barriers should be mobile and extend to a height 1 m above noise source. - Barrier should envelope the work location to ensure no direct line of site to nearby receivers. - Practical and feasible measures should be taken to allow the noise barrier to be located within 4 m of the noise source.
	Site boundary	Solid hoarding of minimum 2 m height
Construction	Brick saw Core drill Angle Grinder	- Localised noise barriers should be utilised when this equipment is in use. - Barriers should be mobile and extend to a height 1 m above noise source. - Barrier should envelope the work location to ensure no direct line of site to nearby receivers. - Practical and feasible measures should be taken to allow the noise barrier to be located within 4 m of the noise source.
	Site boundary	Solid hoarding of minimum 2 m height

In addition to the above noise control recommendations, an appropriate construction noise and vibration management sub-plan must be implemented. Noise and vibration management items are described in Section 7.0 for inclusion in a construction Management sub-plan to be developed by Joss Construction.

6.0 CONSTRUCTION NOISE ASSESSMENT

Predicted noise levels from construction activities have been calculated. A summary of the noise assessment is provided in the following sections. Assessment details, including predicted noise levels is provided in Appendix E.

Predicted L_{Aeq} levels from construction equipment and processes indicate that associated noise is capable of giving rise to exceedance of management levels for a number of the subject receivers. These are discussed in turn below:

6.1.1 Carrington Park

Noise levels during Worst Case works are predicted to exceed the Active Recreation management level by up to 21 dB. During Average works exceedance up to 12 dB is expected.

As the proposed library site is located very close to the park, with direct line of site to most areas of the park, there are limited opportunities for further noise control measures beyond those detailed in Table 9.

The mitigation of noise impacts to users of the park will be entirely dependent on-site management and stakeholder engagement to be executed by the building contractor. As the park is relatively large there will be areas of the park in which noise is lower and less impacted. This will change as building progresses and plant items move around within the site.

It should be noted that Worst Case activities typically occur for short durations and appropriate scheduling such that multiple noisy activities do not occur concurrently will assist greatly in minimising the overall noise levels emitted.

6.1.2 TAFE NSW

Due to its proximity to the proposed library site, the TAFE NSW Childcare Centre is likely to be adversely impacted by construction noise. For Worst Case activities predicted noise levels at the façade of the Childcare Centre may be as high as 86 dB. As the Childcare Centre has an active outdoor play area this is likely to be problematic and may not allow feasible operation of the play area.

Notwithstanding the façade levels, internal noise during Worst Case works may be as high as 76 dB with windows open or 58 dB with windows closed during slab demolition works. Noise levels in this order are likely to be a significant impact on childcare activities.

Noise levels during Average works are predicted to be more controlled with internal noise levels 9 dB above the management level with windows closed.

Noise levels at other TAFE NSW buildings are likely to be lower than that experienced by the childcare centre due to increased distance and shielding from buildings however intrusive effects may still be experienced.

The impacts caused by slab demolition and construction works on-site will need to be carefully evaluated by the building contractor and other parties associated with the development and comprehensive consultation and negotiation will be required. In some cases, at receiver upgrades such as secondary window glazing/screening may assist in ameliorating noise impacts. Due to the suburban nature of the site, extensive out of hours work is unlikely to be feasible however scheduling and equipment selection may assist in reducing impacts.

Ultimately adverse, intrusive impacts on the TAFE NSW, particularly the childcare centre, will be unavoidable.

6.1.3 Army Cadet Lodge and Lambing Flat Museum

Noise levels experienced at the two commercial receivers – Army Cadet Lodge and Lambing Flat Museum – are predicted to comply with the applicable management levels during all phases of site work. On this basis adverse impacts are not expected. It should be noted that the façade of the subject receivers will provide useful noise controls and internal levels are likely to be in the order of 45-50 dB for worst case situations with windows closed.

6.1.4 St Mary's Catholic Church

Internal levels within St Mary's Catholic Church may exceed the applicable management levels by up to 15 dB with windows open. Due to the nature of the building it is unlikely that significant areas of operable glazing will be present, noting that management levels are achieved for all work processes in a windows closed scenario. Additionally, as Catholic places of worship are primarily used during weekend days and weekday evenings, use of the Church is less likely to coincide with the noisier periods of site works.

For Average works internal noise levels are predicted to be more than 10 dB below the management levels during the noisier construction stages.

6.1.5 Hennessey College

As Hennessey college is adjacent St Mary's Catholic Church, and broadly parallel with the work site, predicted noise levels are similar to that predicted for the Church with management levels achievable with windows closed during all work stages.

6.1.6 15-17 Caple Street

Residential receivers at 15-17 Caple Street represent the nearest residential receivers with a direct line of site to areas of the proposed worksite. Due to the distance between the site and these residences the Noise Affected management levels applicable at the property boundary will only be exceeded for the very noisiest work operations.

For Average work processes the predicted noise levels will be broadly similar to the existing background noise level and in the order of 30-35 dB internally with windows open. It is not expected that this will give rise to adverse noise impacts provided careful site management and works scheduling is executed.

6.1.7 General comments

Exceedances of "noise affected" goals are typical of construction sites in suburban areas as background noise levels tend to be relatively low. Further, since all construction work is restricted to take place only during the daytime, noise impacts will not be experienced during the most sensitive time period i.e. evening and night-times.

Notwithstanding the above, the magnitude of the noise impacts predicted to the TAFE NSW receiver, in particular the childcare centre, are significant. Negotiation between SINSW, Hilltops Council and TAFE NSW stakeholders will be necessary to develop the most appropriate course of action. No feasible or reasonable further physical noise control measures are likely to be capable of reducing the noise impacts for this receiver to a manageable level. Alternative steps may involve relocation of children during the noisiest demolition works or carefully scheduling such noisy works to not occur when the centre is in use. This may impact construction schedules and timing and will need to be properly reviewed.

As Young High School has buildings a similar distance from the proposed site as the TAFE NSW childcare centre similar noise impacts should be expected at these buildings. YHS will need to establish appropriate management of the site to minimise the adverse impacts of site work on teaching and other activities. It is not envisaged that adverse impacts can be entirely mitigated. Consultation between the builders and the school will be required to plan for and minimise impacts.

The dominant noise sources for each phase of construction are indicated in Table 10.

Table 10: Dominant noise generating equipment

Phase	Dominant noise generating equipment
Demolition and Site Preparation	Jackhammer, concrete saw, 22 t excavator with hydraulic hammer, buckets, demolition grab, rock-saw
Construction	Concrete truck, pump and agitator, bogie truck, flatbed truck, piling rig

6.2 Summary of Construction Vibration Assessment

Based on the assumed plant and equipment summarised in Table 8, the distances between the proposed work site and a majority of the subject receivers is sufficiently great such that even the most significant vibration generating equipment that may be used on-site is unlikely to give rise to vibration levels exceeding the Assessing Vibration: A Technical Guideline vibration criteria for the Day time period (noting that construction is not expected during the Night-time).

For the TAFE NSW receiver (and consequently nearby existing areas and buildings within YHS) vibration events may give rise to disturbance and in some cases approach the levels associated with cosmetic building impacts.

Vibration impacts for specific plant items and site conditions cannot be readily predicted at this stage. As such it is recommended that once a specific construction methodology is known by Joss, and specific equipment items are selected, a detailed review of proposed plant locations, close working zones, equipment selections and work activities for these receivers is conducted. Baseline vibration measurements for vibration generating works to develop site specific exclusion zones should be considered as well as permanent vibration monitoring throughout the site preparation and construction stages. The vibration criteria detailed in Section 5.1.2 would govern these work types.

7.0 CONSTRUCTION NOISE AND VIBRATION MANAGEMENT SUB-PLAN

Many complaints about construction noise are due to preventable activities during construction periods. Joss Construction must ensure that the following guidance is accommodated into the wider Environmental Management Sub-Plan for the site and implemented proactively.

The information provided below includes details with respect to:

- General noise reducing work practises
- Community consultation
- Complaints management
- The management of high noise generating works including the implementation of respite periods
- Review program for the implemented management measures

7.1 General noise reducing work practises

Joss Construction must:

7.1.1 General

- Ensure that workers and contractors and regularly trained (such as at toolbox talks) to use equipment in ways to minimise noise.
- Implement the equipment specific noise control measures detailed in Table 9
- Include in tenders, employment contracts, subcontractor agreements and work method statements clauses that require minimisation of noise and compliance with directions from management to minimise noise.
- Avoid the use of radios or stereos outdoors where neighbours can be affected.
- Avoid the overuse of public address systems.
- Avoid shouting and minimise talking loudly and slamming vehicle doors.
- Determine vehicle access routes and ensure truck drivers are well informed of routes, parking locations, acceptable delivery hours or other relevant practices (for example, minimising the use of engine brakes, and no extended periods of engine idling).
- Develop a one-page summary of approval or consent conditions that relate to relevant work practices and pin it to a noticeboard so that all site operators can quickly reference noise information.

7.1.2 Plant and Equipment

In terms of both cost and results, controlling noise at the source is one of the most effective methods of minimising the noise impacts from any construction activities.

Joss Construction must:

Use Quieter Methods

- Where feasible use alternatives to diesel and petrol engines and pneumatic units, such as hydraulic or electric controlled units where feasible and reasonable. Where there is no electricity supply, use an electrical generator located away from residences (and provided with a localised barrier). Containerised and silenced generator sets are available for this purpose. Additionally, Joss Construction must ensure that:
    - To the extent possible air intake and discharges do not face residential areas
    - Exhaust flues discharge vertically

Use Quieter Equipment

- Examine different types of machines that perform the same function and compare the noise level data to select the least noisy machine. For example, rubber wheeled tractors can be less noisy than steel tracked tractors.
    - Noise labels are required by NSW legislation for pavement breakers, mobile compressors, chainsaws and mobile garbage compactors. These noise labels can be used to assist in selecting less noisy plant.
- Select super silenced compressors, silenced jackhammers and damped bits where possible.
- Select quieter items of plant and equipment where feasible and reasonable.
- Select, where feasible and reasonable, the most effective mufflers, enclosures and low-noise tool bits and blades.

Operate Plant In A Quiet And Efficient Manner

- Reduce throttle setting and turn off equipment when not being used.
- Examine and implement, where feasible and reasonable, the option of reducing noise from metal chutes and bins by placing damping material in the bin.

Maintain Equipment

- Regularly inspect and maintain equipment to ensure it is in good working order. Also check the condition of mufflers.
    - Degradation of maintenance standards can lead to increased noise emissions from heavy plant items. In order to minimise noise creep from heavy plant items such as excavators, dozers, rollers, tippers and graders the manufacturers maintenance intervals must be strictly adhered to. Where a plant item is in use for a period longer than 6 weeks, measurements of noise emissions must be taken at 6-week intervals. Measurements must be conducted by an appropriately qualified acoustic specialist implementing a methodology pertinent to the subject plant item.
- Where noise increase from equipment is attributed to maintenance issues the equipment item must not be operated until it is maintained or repaired, where maintenance or repair would address the annoying character of noise identified.
- Check that doors and door seals to enclosed machinery are in good working order and that the doors close properly against the seals.
- Return any hired equipment that is causing noise that is not typical for the equipment – the increased noise may indicate the need for repair.
- Ensure air lines on pneumatic equipment do not leak.

7.1.3 On Site

The subject construction site has the capacity to be arranged such that additional noise control benefits can be achieved. This includes:

Maximise Shielding

- Sequence construction such that existing structures are reused for screening purposes for the duration of the construction phases. The initial construction of Blocks A, B and C would help shield noise from works occurring on Blocks D, E and F.
- Use temporary site buildings and materials stockpiles as noise barriers. Site office containers/portable building should be located to the Estella Rd boundary to provide shielding benefits.

Alternatives To Reversing Alarms

- Avoid use of reversing alarms by designing site layout to avoid reversing, such as by including drive through for parking and deliveries.
- Install where feasible and reasonable less annoying alternatives to the typical 'beeper' alarms taking into account the requirements of the Occupational Health and Safety legislation; examples are smart alarms that adjust their volume depending on the ambient level of noise and multifrequency alarms that emit noise over a wide range of frequencies.
- In all circumstances, the requirements of the relevant Occupational Health and Safety legislation must be complied with.

7.2 Consultation and Negotiation

The community is more likely to be understanding and accepting of noise if the information provided is frank, does not attempt to understate the likely noise level, and if commitments are firmly adhered to. Joss Construction must implement a program of community consultation. The below is provided for guidance.

Notification Before and During Construction

- Provide, reasonably ahead of time, information such as total building time, what works are expected to be noisy, their duration, what is being done to minimise noise and when respite periods will occur.
- Provide information to neighbours before and during construction through media such as letterbox drops, meetings or individual contact. In some areas, the proponent will need to provide notification in languages other than English. A website could also be established for the project to provide information.
- Use a site information board at the front of the site with the name of the organisation responsible for the site and their contact details, hours of operation and regular information updates. This signage should be clearly visible from the outside and include after-hours emergency contact details.
- Maintain good communication between the community and project staff.
- Appoint a community liaison officer where required.
- Provide a toll-free contact phone number for enquiries during the works.
- Facilitate contact with people to ensure that everyone can see that the site manager understands potential issues, that a planned approach is in place and that there is an ongoing commitment to minimise noise.

SINSW currently undertake works notifications for the project, with notifications sent to the school community, nearby residences and businesses to inform them of upcoming works. Work notifications have previously been issued in September 2019, November 2020 and January 2021.

Joss Construction will be required to provide input to these works notifications to enable communication to the community of periods of noisy works, construction methods or other, relevant considerations likely to generate impacts on the community. Notice should be provided to the community at least 5 days before works occur.

7.3 Complaints Handling

Prior to commencement of works Joss Construction must establish a complaint handling procedure. This will assist in the processing of unpredicted noise impacts and provide contingency measures. The following is provided for guidance with an example procedure and complaints log detailed in **Appendix F**:

- Provide a readily accessible contact point, for example, through a 24-hour toll-free information and complaints line.
- Give complaints a fair hearing.
- Have a documented complaints process, including an escalation procedure so that if a complainant is not satisfied there is a clear path to follow.
- Call back as soon as possible to keep people informed of action to be taken to address noise problems. Call back at night-time only if requested by the complainant to avoid further disturbance.
- Provide a quick response to complaints, with complaint handling staff having both a good knowledge of the project and ready access to information.
- Identify equipment or plant that is this source this is the subject of the complaint
- Carry out noise check in order to compare measured noise levels with the source levels detailed in this report.
- Implement all feasible and reasonable measures to address the source of complaint.
- Keep a register of any complaints, including details of the complaint such as date, time, person receiving complaint, complainant's contact number, person referred to, description of the complaint, work area (for larger projects), time of verbal response and timeframe for written response where appropriate.

Whilst an example procedure and complaints log has been provided, complaints handling for SINSW projects are typically organised through a central system operated by SINSW, not the subject contractor. The number for the complaints system is 1300 482 651. This will be included in all works notifications described in Section 7.2.

7.4 Periodic Monitoring and Review

The impacts and environmental performance of the development must be monitored and reviewed on a regular basis. This will allow the effectiveness of the management measures to be evaluated. To achieve this Joss Construction must:

- Conduct a weekly review of the complaints register, following up on any incidents and undergoing further consultation with the complainant to determine if modifications or improvements to the management sub-plan are required
- As part of the proposed community consultation ensure that community comments are reviewed within 3 days of receipt by a Joss Construction representative or community liaison officer. Wider community consultation and letter drops must inform the community of any

modifications to the management sub-plan and highlight instances where community consultation has led to direct improvement in the management of the site. This will ensure the community remains engaged and the environmental performance of the development continues to integrate with the amenity of the local residents.

7.5 Management of High Noise Activities

High noise or annoying activities relating to the proposed works include

- Piling
- Jack hammering
- Sawing brick
- Grinding

High noise activities have the potential to be intrusive and/or annoying to noise sensitive receivers. In addition to the noise control measures detailed in Table 9 the following management practises must be adopted proactively. In the case of complaint works may need to be delayed to a less noise sensitive time period, broken up over multiple shorter periods or executed with alternative, quieter methodology.

As per information provided in Section 7.2, Joss Construction is required to issue works notifications via SINSW to inform the community of periods of noisy works. Notice should be provided to the community at least 5 days before works occur.

7.5.1 Work Scheduling

Scheduling noisy work during periods when people are least affected is an important way of reducing noise impact. Joss Construction must:

Provide intraday respite periods and schedule activities to minimise noise impacts

- Construction works to occur during the recommended standard hours only.
- Consult with affected residents to schedule works to less noise sensitive periods of the day
- Consult with the community to establish appropriate work and respite periods for high noise or annoying activities. Based on a typical suburban environment these are likely to be:
    - 0930-1130 hrs and 1330-1530 hrs on weekdays only. This provides respite over midday for nearby residents and restricts high-noise activities to a limited time per day

Organise deliveries and access

- Optimise the number of vehicle trips to and from the site – movements can be organised to amalgamate loads rather than using a number of vehicles with smaller loads.
- Provide on-site parking for staff and on-site truck waiting areas away from residences and other sensitive land uses. Truck waiting areas may require bunding or walls to minimise noise. Positioning the car park and waiting area to north of Blocks D, E and F would provide the greatest effect.

7.5.2 Transmission Path

Physical methods to reduce the transmission of noise between the construction works and residences or other sensitive land uses are generally suited to works where there is longer-term exposure to the noise.

- Temporary barriers to small, noisy equipment items must be used as per Table 9

- Temporary noise barriers can be constructed from hoarding (plywood boards, panels of steel sheeting or compressed fibre cement board) with no gaps between the panels at the site boundary. Stockpiles, shipping containers and site office transportables can be effective barriers.
- Temporary noise barriers must be erected before work commences to ensure their efficacy applies throughout the operation of the item
- Consult with most affected neighbours about how effective the proposed noise mitigation measures will be in addressing their concerns. This must be investigated and determined as part of the monitoring program.

7.6 Noise and Vibration Monitoring Program

Noise levels from construction works are predicted to exceed the Noise Affected management levels derived in accordance with the ICNG. On this basis there may be some community reaction to noise.

Additionally, due to the proximity of TAFE NSW and YHS buildings vibration generating activities may be an issue.

Monitoring of construction noise and vibration is recommended to ascertain impact on the nearest affected receivers once construction activities commence. Additionally, baseline monitoring prior to the commencement of works may be necessary. The measured noise and vibration level data will be used to determine the effectiveness of the recommended noise control measures and management practices.

The following monitoring methodology is proposed:

- Attended noise monitoring to be conducted for a representative period during each phase of construction. (Site Preparation and Construction
- Prior to the use of vibration generating equipment i.e. piling rigs etc, test works should be conducted with vibration levels measured at representative distances to establish exclusion zones/safe work areas.
- Permanent vibration monitoring and alert system to be installed on-site at the nearest receiver buildings
- Joss Construction, in consultation with an acoustic consultant must ascertain the noisiest period during each construction phase which will be chosen for monitoring. The dates of these measurement visits cannot be anticipated at this time.
- The results of the monitoring will be compiled in a report, comparing the measured noise levels at each identified receiver with the predicted construction noise levels identified for each phase.
- Any exceedances over and above those predicted shall be commented on, and if particular works are identified as creating excessive noise, the construction noise management sub-plan would be reviewed with further noise mitigation options explored and employed if possible. This review is intended to provide periodic refinement of the plan, determination of the effectiveness of noise control measures and an assessment of on-site work practises.
- This report should be presented to Council at their request. It is recommended that results are also made readily accessible to the community.
- Records of all monitoring will be maintained and kept readily available.

Additional noise/vibration monitoring is recommended on an as-required basis in response to receipt of any complaints. Typically, investigations and monitoring should occur following receipt of 3 or more complaints in a single day.

APPENDIX A ALEX STOKER – CURRICULUM VITAE

ALEX STOKER

Senior Acoustic Consultant

Alex Stoker is a Senior Consultant with the Sydney office working across a broad range of the acoustics field, including building acoustics, environmental acoustics, underwater acoustics and vibration. Since graduating from the BSc Acoustics discipline at the University of Salford, UK, he has spent more than 10 years working in the wider field of acoustics, including four years in the offshore geophysical industry as a seismic engineer. The remainder of his time has been spent in acoustic consultancies in the UK and Australia, joining Marshall Day in 2013.

Within the field of building acoustics Alex has established a speciality in design for acoustically critical spaces, with a particular focus on projects in which the acoustic quality of a building has direct outcomes on the user experience. Results of effective acoustic design can range from improved speech clarity and vocal health, to inherent benefits in user behaviour, engagement and comfort levels. This design experience extends from early planning noise modelling and assessment, building envelope design, room acoustics evaluation, internal finishes specification, mechanical services noise control and open-plan acoustic zoning

In the environmental acoustics field Alex has extensive experience in environmental noise monitoring, DA applications, local environmental planning assessments, construction noise and vibration assessments and assessment of licensed premises. Recent work includes a comprehensive audit and assessment of the Sydney International Container Terminal to allow for compliance with EPA licence conditions and project work for TfNSW Freight Rail division requiring the evaluation of distance, height and shielding effects throughout residential areas for passenger and freight train movements.

Alex's experience with construction noise and vibration assessments ranges from small scale local residential and commercial development, technical close, proximity urban excavation and large scale state significant projects

He has worked in high risk environments both offshore and on land and is skilled in risk assessment and mitigation.

QUALIFICATIONS

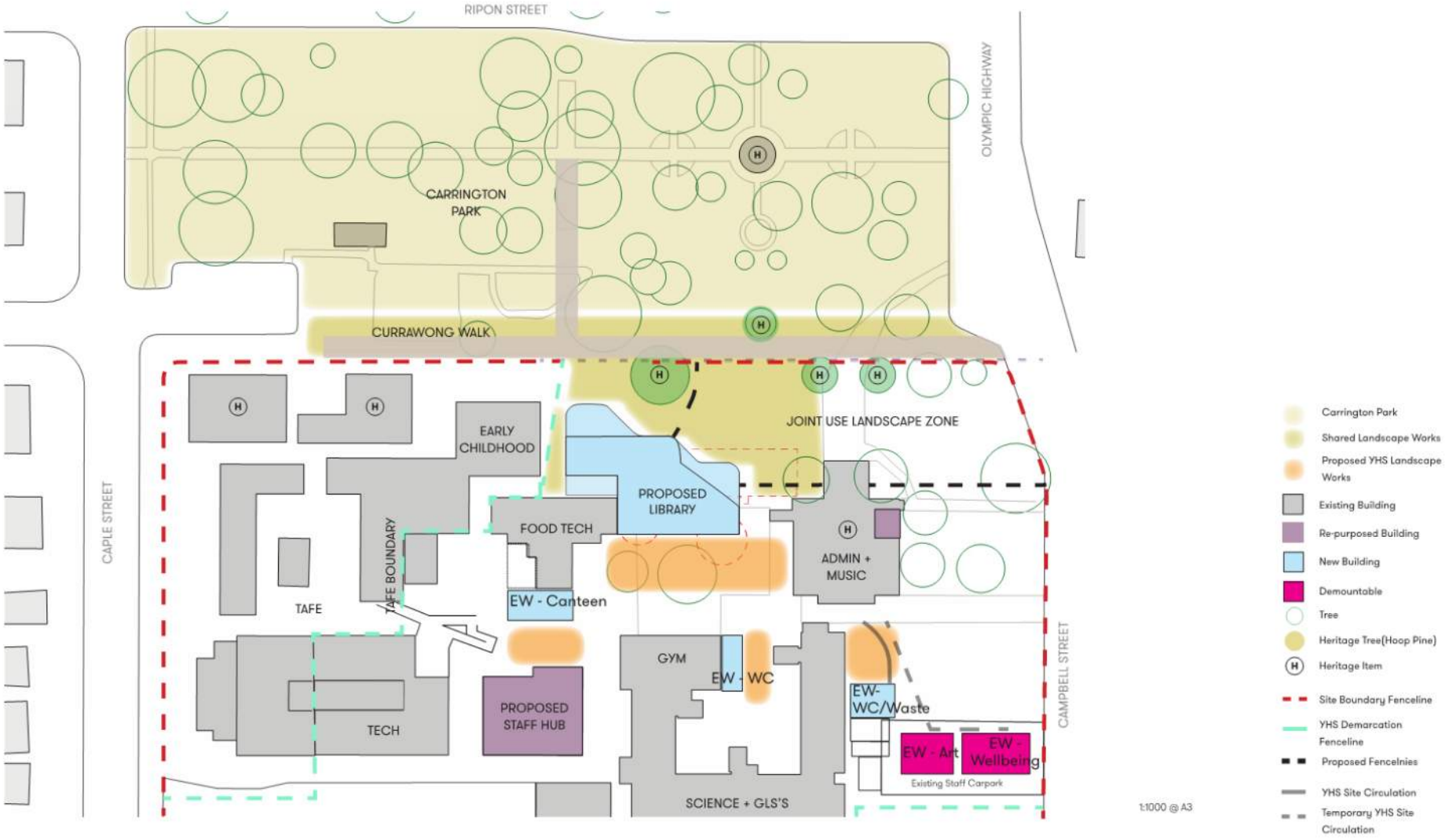
- BSc(Hons) Acoustics, Salford University
- MAAS - Australian Acoustical Society - Member
- MIOA - Institute of Acoustic UK – Member
- NSW Rail Safety Worker

APPENDIX B GLOSSARY OF TERMINOLOGY

Noise	A sound that is unwanted by, or distracting to, the receiver.
Ambient	The ambient noise level is the noise level measured in the absence of the intrusive noise or the noise requiring control. Ambient noise levels are frequently measured to determine the situation prior to the addition of a new noise source.
SPL or L_P	Sound Pressure Level A logarithmic ratio of a sound pressure measured at distance, relative to the threshold of hearing (20 μPa RMS) and expressed in decibels.
SWL or L_W	Sound Power Level A logarithmic ratio of the acoustic power output of a source relative to 10^{-12} watts and expressed in decibels. Sound power level is calculated from measured sound pressure levels and represents the level of total sound power radiated by a sound source.
dB	Decibel The unit of sound level. Expressed as a logarithmic ratio of sound pressure P relative to a reference pressure of Pr=20 μPa i.e. dB = 20 x log(P/Pr)
dBA	The unit of sound level which has its frequency characteristics modified by a filter (A-weighted) so as to more closely approximate the frequency bias of the human ear.
A-weighting	The process by which noise levels are corrected to account for the non-linear frequency response of the human ear.
$L_{Aeq\,(t)}$	The equivalent continuous (time-averaged) A-weighted sound level. This is commonly referred to as the average noise level. The suffix "t" represents the time period to which the noise level relates, e.g. (8 h) would represent a period of 8 hours, (15 min) would represent a period of 15 minutes and (2200-0700) would represent a measurement time between 10 pm and 7 am.
$L_{A90\,(t)}$	The A-weighted noise level equalled or exceeded for 90% of the measurement period. This is commonly referred to as the background noise level. The suffix "t" represents the time period to which the noise level relates, e.g. (8 h) would represent a period of 8 hours, (15 min) would represent a period of 15 minutes and (2200-0700) would represent a measurement time between 10 pm and 7 am.
$L_{A10\,(t)}$	The A-weighted noise level equalled or exceeded for 10% of the measurement period. This is commonly referred to as the average maximum noise level. The suffix "t" represents the time period to which the noise level relates, e.g. (8 h) would represent a period of 8 hours, (15 min) would represent a period of 15 minutes and (2200-0700) would represent a measurement time between 10 pm and 7 am.
Vibration	When an object vibrates, it moves rapidly up and down or from side to side. The magnitude of the sensation when feeling a vibrating object is related to the vibration velocity. Vibration can occur in any direction. When vibration velocities are described, it can be either the total vibration velocity, which includes all directions, or it can be separated into the vertical direction (up and down vibration), the horizontal

	transverse direction (side to side) and the horizontal longitudinal direction (front to back).
Amplitude	The measurement of energy or movement in a vibrating object. Amplitude is measured and expressed in three ways: Displacement (commonly in mm); Velocity (commonly in mm/s); and Acceleration (commonly in m/s^2). Amplitude is also the y-axis of the vibration time waveform and spectrum, it helps define vibration severity.
Frequency	The repetition rate of a periodic vibration, per unit of time, determined by taking the reciprocal of the period (T). Frequency is expressed in three ways: Hz (number of cycles per second) cycles per second (cps) or cycles or revolutions per minute (rpm); Frequency is also the x-axis of the vibration spectrum.
Frequency response	This is a characteristic of a system which has a measured response resulting from a known applied input. In a mechanical structure, the frequency response function, also called the FRF, is the spectrum of the vibration of the structure divided by the spectrum of the input force to the system. To measure the frequency response of a mechanical system, one must measure the spectra of both the system input force and the vibration response.
Hertz (Hz)	Vibration can occur over a range of frequencies extending from the very low, such as the rumble of thunder, up to the very high such as the crash of cymbals. The frequency of vibration and sound is measured in hertz (Hz). Once hertz is one cycle per second. Structural Vibration is generally measured over the frequency range from 1 Hz to 500 Hz (0.5 kHz).
PPV	Peak Particle Velocity For Peak Particle Velocity (PPV) is the measure of the vibration aptitude, zero to maximum. Used for building structural damage assessment.
VDV	Vibration Dose Value Vibration Dose Value is based on British Standard BS 6472:1992 Guide to Evaluation of Human Exposure to Vibration in Buildings (1 Hz to 80 Hz) and provides guidelines for the evaluation of whole body exposure to intermittent vibration. VDV can be used to take into account the weighted measured RMS vibration from many vibration sources including rail vehicles, construction equipment such as jackhammers and industry. VDV takes into account the duration of each event and the number of events per day, either at present or in the foreseeable future and calculates a single value index.

APPENDIX A SITE PLAN



APPENDIX B AERIAL IMAGE OF SITE AND SURROUNDS

B1 Receivers Used For Assessment

B2 Receivers Not Used For Assessment

APPENDIX C PROJECT SPECIFIC CRITERIA

C1 Interim Construction Noise Guideline

The Interim Construction Noise Guideline (ICNG) aims to provide a clear understanding of ways to identify and minimise noise from construction works through applying all 'feasible' and 'reasonable' work practises to control noise impacts. The guideline identifies sensitive land uses and recommends construction hours, provides quantitative and qualitative assessment methods and subsequently advises on appropriate work practises.

For the Project site, nearby receivers have been identified as sensitive land uses for consideration. It is understood that construction activities on-site are unlikely to extend outside of the recommended standard hours detailed in Table C 1.

Table C 1: Interim Construction Noise Guideline recommended standard ours of work

Work Type	Recommended standard hours of work
Normal Construction	Monday to Friday 0700 to 1800 hrs Saturdays 0800 to 1300 hrs No work on Sundays or public holidays

Based on the recommended standard hours, the guideline provides airborne noise criteria for a variety of receiver types. These have been cross referenced with the receivers identified in Table 2 of the report and are detailed in Table C 2.

For residential receivers the Noise Affected management level is derived on a Rating Background Level (RBL) + 10 dB basis, with RBL values taken from the measured average background noise levels detailed in Section 4.0. The Highly Noise Affected management level is prescriptively set at $L_{Aeq\ (15\ min)}$ 75 dB. The management level for Active Recreation, Places of Worship, Educational Establishment and Commercial receivers is not distinguished as either Noise Affected or Highly Noise Affected but is set as a single criterion.

Table C 2: Interim Construction Noise Guideline airborne noise criteria

Receiver Type	Management Level, dB $L_{Aeq\ (15\ min)}$	
Active Recreation	65	
Commercial	70	
Educational Establishment	45 (internal)	
Place of Worship	45 (internal)	
	Noise Affected	**Highly Noise Affected**
Residential	56	75

Where noise from construction works is above the residential Noise Affected level, all feasible and reasonable work practises should be applied. Where the noise from construction works is above Highly Affected management level for residential receivers, restrictions to the hours of construction may be required.

For other receivers the single figure Management Level criterion indicates the point at which all feasible and reasonable work practises should be applied. For large exceedances of the Management Level restrictions to the hours of construction may be required.

The ICNG also provides additional criteria for ground borne noise from construction vibration, applicable during the Evening and Night periods only. As construction is not expected to occur during these periods, ground borne noise has not been assessed.

C2 Assessing Vibration: A Technical Guideline

The ICNG refers assessment of vibration effects on people to the EPA document *Assessing Vibration: A Technical Guideline* (AV:TG). For assessment of vibration effects on structures the German standard *DIN4150-3 Structural vibration – Effects of vibration on structures -1999* is used.

Vibration Limits – Effects On Structures

DIN 4150-3 provides guidelines to use when evaluating the effects of short-term vibration on structures. The guideline vibration limits, as reproduced from the standard, are detailed in Table C 3.

Table C 3: Vibration limits according to DIN 4150: Peak Particle Velocity, mm/s PPV

Line	Type of structure	Vibration at the foundation of building, at a frequency of			Vibration in horizontal plane of highest floor, at all frequencies
		1 Hz to 10 Hz	10 Hz to 50 Hz	50 Hz to 100 Hz and above	
I	Buildings used for commercial purposes, industrial buildings, and buildings of similar design	20	20 to 40	40 to 50	40
II	Dwellings and buildings of similar design and/or occupancy	5	5 to 15	15 to 20	15
III	Structures that, because of their particular sensitivity to vibration, cannot be classified under lines I and II and are of great intrinsic value (e.g. listed buildings under preservation order)	3	3 to 8	8 to 10	8

Experience has shown that if the guideline values of Table C 3 are complied with, damage which reduces the serviceability of the building will not occur.

As the DIN standard is commonly accepted by industry, the criterion of 5 mm/s PPV for dwellings is considered appropriate for this assessment.

Vibration Limits – Effects On People

The EPAAV:TG document provides a vibration dose value (VDV) criteria to assess the severity of intermittent vibration, such as that experienced from construction activities. The VDV criteria for residential receivers as detailed in the guideline are provided in Table C 4 below.

Table C 4: Acceptable vibration dose values for intermittent vibration

	Day-time[1]	
Receiver type	**Preferred value**	**Maximum value**
Residences	0.20	0.40
Offices	0.40	0.80

[1] 16 hour day period 0600-2200 hrs.

The preferred values indicate a low probability of adverse comment, and the maximum values indicate that adverse comments may be expected.

APPENDIX D CONSTRUCTION NOISE SOURCES

A variety of excavation and construction equipment will be used for this project. At this early stage a comprehensive plan of staging and equipment selection is not known. provides a schedule of construction equipment that is anticipated to be used on this site and their noise levels as taken from:

- AS 2436-2010: *Guide to noise and vibration control on construction, demolition and maintenance sites*
- BS 5228-1-2009: *Code of practice for noise and vibration control on construction and open sites – Part 1: Noise*

Table D 1: Construction noise source sound power levels , dB L_{Aeq}

Noise source	A-weighted sound power level, L_{Aeq} dB SWL	Source
Bored piling rig (auger)	111	AS 2436-2010
22 tonne excavator	99	AS 2436-2010
Jack hammer & breaker	121	AS 2436-2010
Concrete saw	117	BS 5228-1-2009
Concrete truck & pump	108	AS 2436-2010
Concrete agitator	109	AS 2436-2010
Mobile crane	105	AS 2436-2010
Brick saw	107	BS 5228-1-2009
Concrete vibrator	103	AS 2436-2010
Concrete floats	100	BS 5228-1-2009
Nail gun	101	BS 5228-1-2009
Hydraulic bar cutter	107	BS 5228-1-2009
Core drill	118	BS 5228-1-2009
Angle grinder	104	BS 5228-1-2009
Bogie truck	107	AS 2436-2010
Flatbed truck	107	AS 2436-2010
Generator	99	AS 2436-2010
Air compressor	101	AS 2436-2010
Electric winch & materials hoist	96	BS 5228-1-2009
De-watering plant (water pumps)	99	BS 5228-1-2009

APPENDIX E CONSTRUCTION NOISE ASSESSMENT

Noise levels during the Demolition and Site Preparation, and Construction phases have been calculated at the nominated receivers. These noise levels have been predicted under guidance from *AS 2436-2010 Guide to noise control on construction, maintenance and demolition sites* and utilising the information provided in *BS 5228-1-2009 Code of practise for noise and vibration control on construction and open sites*.

Levels have been calculated for "Worst-Case" situations where noise sources will either be closest to the noise sensitive receiver and/or not screened by existing site structures. Noise levels have also been calculated for the "Average" situation, with noise sources located towards the centre of the site. The latter is likely to be representative of the long-term noise emissions.

For the purpose of our calculation, we have assumed that the plant items shown in Table E 1 and Table E 2 will be working together simultaneously for between 25 to 100 % of the time over a 15-minute period for the Site Preparation and Construction phases.

Table E 1: Equipment assumed to be operating in a 15-minute period – Site Preparation

Construction Equipment	Site Preparation			
	"Worst Case"		"Average"	
	Simultaneous?	On Time, %	Simultaneous?	On Time, %
22 t excavator with hydraulic hammer, buckets, demolition grab, rock-saw	✓	75	✓	50
22 t excavator	✓	50	✓	25
Jack hammer & breaker	✓	50		
Concrete saw	✓	50		
Bogie truck	✓	75		
Generator	✓	100	✓	100
Air compressor	✓	75	✓	50

Table E 2: Equipment assumed to be operating in a 15-minute period – Construction

Construction Equipment	Construction			
	"Worst Case"		"Average"	
	Simultaneous?	On Time, %	Simultaneous?	On Time, %
Concrete agitator	✓	100	✓	50
Bored piling rig	✓	50	✓	25
Angle grinder	✓	50	✓	25
Concrete truck & pump	✓	100	✓	50
Mobile crane	✓	75	✓	25
Brick saw	✓	25		
Concrete vibrator	✓	50	✓	25
Concrete floats	✓	50	✓	25
Nail gun	✓	25		

Construction Equipment	Construction			
Core drill	✓	25		
Hydraulic bar cutter	✓	25		
Bogie truck	✓	75	✓	25
Flatbed truck	✓	75		
Air compressor	✓	75	✓	50
Electric winch & materials hoist	✓	50	✓	25
De-watering plant (water pumps)	✓	75	✓	25

Noise levels have been calculated at the nearest part of the subject receiver that is most exposed to noise from site activities. Calculated noise levels are based on works occurring during standard construction hours only (Monday – Friday: 0700-1700 hrs, Saturday 0800-1300 hrs) and include any shielding from existing building structures.

Calculations include the effects of the noise control recommendations detailed in Section 5.0.

Unless noted otherwise, noise levels are calculated at 1.5 m above ground level at the property boundary most exposed to construction noise in accordance with the requirements of the ICNG. Noise levels at upper floors without shielding are likely to be higher. For some receivers the construction noise contribution is derived internally. This is based on a typical 10 dB loss for open windows. In such cases, an equivalent internal level for closed windows is also presented based typical glazing without acoustic seals.

Predicted noise levels are detailed in Table E 3, Table E 4, Table E 5 and Table E 6.

Table E 3: Predicted noise levels during Site Preparation – Residential receiver

Receiver	Assessment	Calculated noise level	dB $L_{Aeq\ 15min}$			
			"Noise affected"		"Highly noise affected"	
			Management level	Exceedance	Management level	Exceedance
15-17 Caple Street	Worst-case	67	56	11	75	---
	Average	40		---		---

Table E 4: Predicted noise levels during Site Preparation – Other receivers

Receiver	Assessment	Calculated noise level	dB $L_{Aeq\ 15min}$ Management level	Exceedance
Carrington Park	Worst-case	86	65	21
	Average	69		4
TAFE NSW	Worst-case	76 (internal with windows open)	45 (internal)	31
		58 (internal with windows closed)		13
	Average	59 (internal with windows open)		14
		41 (internal with windows closed)		---
Army Cadet Lodge and Lambing Flat Museum	Worst-case	70	70	---
	Average	45		---
St Mary's Catholic Church	Worst-case	60 (internal with windows open)	45 (internal)	15
		42 (internal with windows closed)		---
	Average	44 (internal with windows open)		---
		26 (internal with windows closed)		---
Hennessey College	Worst-case	59 (internal with windows open)	45 (internal)	14
		41 (internal with windows closed)		--
	Average	44 (internal with windows open)		---
		26 (internal with windows closed)		---

Table E 5: Predicted noise levels during Construction – Residential receiver

Receiver	Assessment	Calculated noise level	dB $L_{Aeq\ 15min}$			
			"Noise affected"		"Highly noise affected"	
			Management level	Exceedance	Management level	Exceedance
15-17 Caple Street	Worst-case	66	56	10	75	---
	Average	56		---		---

Table E 6: Predicted noise levels during Construction – Other receivers

Receiver	Assessment	Calculated noise level	dB $L_{Aeq\ 15min}$ Management level	Exceedance
Carrington Park	Worst-case	85	65	20
	Average	77		12
TAFE NSW	Worst-case	75 (internal windows open) 57 (internal windows closed)	45 (internal)	30 12
	Average	67 (internal windows open) 49 (internal windows closed)		22 9
Army Cadet Lodge and Lambing Flat Museum	Worst-case	69	70	---
	Average	58		---
St Mary's Catholic Church	Worst-case	59 (internal windows open) 41 (internal windows closed)	45 (internal)	14 ---
	Average	53 (internal windows open) 35 (internal windows closed)		8 ---
Hennessey College	Worst-case	58 (internal windows open) 40 (internal windows closed)	45 (internal)	13 ---
	Average	52 (internal windows open) 34 (internal windows closed)		7 ---

APPENDIX F COMPLAINTS RESPONSE PROCEDURE

In the interest of maintaining good relationships and in being compliant with Council requirements, Joss Construction adopts the following complaint response procedure:

1. Joss Construction will have two main points of contact, (XXXXXX) and (XXXXXX). They will be the responsible people and will be contactable by a dedicated customer service mobile number once the site is live.
2. The Joss Construction representative who receives the call via the service line, will record the details and the nature of the complaint on the site-specific Customer Service Line Log.
3. The Joss Construction representative will assess if the problem can be simply resolved by reducing noise levels through implementation of the various work practises detailed in the Construction Noise Management Sub-Plan
4. The Joss Construction representative who receives the call will advise the complainant of the action taken and record all details of the conversation, including the complainants' name, number and nature of complaint.
5. A copy of the Customer Service Line Log will be filed internally with the site's daily reports and will be issued to Hilltops Council or relevant authority

F1 Customer Service Line Log

ITEM	Comments
Date and Time of Call:	
Name and location of caller:	
Phone number:	
Nature of Call: (If noise complaint, note on-site activities at the time)	
Action taken:	
Hilltops Council notified: (Y/N)	

Whilst an example procedure and complaints log has been provided, complaints handling for SINSW projects are typically organised through a central system operated by SINSW, not the subject contractor. The number for the complaints system is 1300 482 651. This will be included in all works notifications described in Section 7.2.