

Project Environmental Management Plan

prepared for

Young High School Main Works

07 April 2021

This copy is a printout of an electronic document and prior to reference, its current revision status should be checked with Joss Construction.



Project Environmental Management Plan

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Revision

Revision	Date	Prepared By	Reviewed By	Comments
1	30/06/2020	Scott McLeod	Mark Bush	Tender Issue
2	17/11/2020	Bailey Thomson	Mark Bush	Construction Issue
3	16/03/2021	Simon Duffy	Bailey Thomson	Addition of SSD elements & Appendices
4	30/03/2021	Bailey Thomson	Kendal Caynes SINSW	Amendments to be made as per K.C. mark-up.
5	06/04/2021	Bailey Thomson	Scott McLeod	Inclusion of SINSW Review comments.
6	07/04/2021	Bailey Thomson	Roger Lee	Changes required to conditions compliance schedule

Joss Construction's Standardised Environmental Management Plan bases its key criteria off the Department of Planning, Industry and Environment's EMP guideline. All items associated within the checklist are covered within.

The internal and external consultation for preparation of this plan has been extensive to appease the SSD conditions of consent.

Internal Consultation:

- Scott McLeod – HSEQ Manager
- David Van Zanten – HSEQ Coordinator
- Mark Bush – Project Manager
- Simon Duffy – Contract Manager
- Bailey Thomson – Contract Administrator

External Consultation:

- Marty Smith – SINSW Project Director
- Roger Lee – GHD Project Manager
- Kendal Caynes – SINSW Planning Department Compliance Officer
- Gavin Ng - SINSW Planning Department Compliance Officer
- Olivia Hirst - SINSW Planning Department Compliance Officer
- Game Traffic Control – Appendix C
- Marshall Day Acoustics – Appendix D
- Lantern Heritage – Appendix F
- Christine Worner – SINSW Community Engagement Manager – Appendix H

Project Environmental Management Plan

Condition to be satisfied – Construction Environmental Management Plan – Condition B13

Prior to the commencement of construction, the Applicant must submit a Construction Environmental Management Plan (CEMP) to the Certifying Authority and provide a copy to the Planning Secretary. The CEMP must include, but not be limited to, the following:

- *details of:*
 - (i) hours of work;*
 - (ii) 24-hour contact details of site manager;*
 - (iii) management of dust and odour to protect the amenity of the neighbourhood;*
 - (iv) stormwater control and discharge;*
 - (v) measures to ensure that sediment and other materials are not tracked onto the roadway by vehicles leaving the site;*
 - (vi) groundwater management plan including measures to prevent groundwater contamination;*
 - (vii) external lighting in compliance with AS 4282-2019 Control of the obtrusive effects of outdoor lighting;*
 - (viii) community consultation and complaints handling;*
 - (b) Construction Traffic and Pedestrian Management Sub-Plan (see condition B14);*
 - (c) Construction Noise and Vibration Management Sub-Plan (see condition B15);*
 - (d) Construction Waste Management Sub-Plan (see condition B16);*
 - (e) Aboriginal Cultural Heritage Management Sub-Plan (see condition B17);*
 - (f) an unexpected finds protocol for contamination and associated communications procedure;*
 - (g) an unexpected finds protocol for Aboriginal and non-Aboriginal heritage and associated communications procedure; and*
 - (h) waste classification (for materials to be removed) and validation (for materials to remain) be undertaken to confirm the contamination status in these areas of the site.*

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Compliance Schedule

Condition	Condition Description	Page
B13 (i)	Site Working Hours	18
B13 (ii)	24Hr contact Details of Site Manager	18
B13 (iii)	Management of dust and odour to protect the amenity of the neighbourhood	18, 25, 27
B13 (iv)	Stormwater control and discharge	18, 25
B13 (v)	Measures to ensure that sediment and other materials are not tracked onto the roadway by vehicles leaving the site	11, 18, 25, 27
B13 (vi)	Groundwater management plan including measures to prevent groundwater contamination	18
B13 (vii)	External lighting in compliance with AS 4282-2019 Control of the obtrusive effects of outdoor lighting	18
B13 (viii)	Community consultation and complaints handling	11, 17, 19, 20, 21, 25, 26
B13 (b)	Construction Traffic and Pedestrian Management Sub-Plan See Condition B14	35
B13 (c)	Construction Noise and Vibration Management Sub-Plan See Condition B15	54
B13 (d)	Construction Waste Management Sub-Plan See Condition B16	90
B13 (e)	Aboriginal Cultural Heritage Management Sub-Plan See Condition B17	100
B13 (f & g)	An unexpected finds protocol for contamination and associated communications procedure. An unexpected finds protocol for Aboriginal and non-Aboriginal heritage and associated communications procedure.	132
B13 (h)	Waste classification (for materials to be removed) and validation (for materials to remain) be undertaken to confirm the contamination status in these areas of the site.	See CWMSP, Page 90

Project Environmental Management Plan

1.0 Commitment & Scope

1.1 Commitment

Joss Construction recognises that through awareness and planning the environmental impact of the Company's activities can be minimised.

Further, through the example that it sets, the Company plays an important role in educating subcontractors, suppliers and the community on environmental issues.

As such, the Company shall endeavour to facilitate and monitor an environmentally aware culture on the project.

The Managing Director of the Company has prepared a Policy Statement (see page 19) relating to Environmental Management (refer appendices attached).

To demonstrate his commitment to the implementation of the Policy and this plan he shall:

- Display the Policy Statement in our offices.
- Appoint the Systems Manager as the Management Representative responsible for monitoring the implementation of this Project Environmental Management Plan.
- Provide the resources to facilitate the implementation and monitoring of the Project Environmental Management Plan.

Project Environmental Management Plan

1.2 Scope

Hilltops Council and Schools Infrastructure NSW (SINSW) are undertaking a joint project to provide a new Library and Community Facility that will form part of the Hilltops Cultural, Community and Education Precinct (CCEP) in Young, NSW. The development is a State Significant Development and is known as SSD 9671 Young High School Redevelopment and Community Facility.

The proposed new facility is to comprise a local library for the Hilltops Local Government Area, and Young High School, as well as education, cultural and community facilities for the school and community.

The site is located at Young High School. Young High School is located on Campbell Street, Young, within the Hilltops Local Government Area (former Young LGA). The site is located approximately 500m to the south of the Young town centre, in a residential setting across from Burrangong Creek. The site also comprises the southern part of Carrington Park, located to the north of the school.

Access to the work face will be via Caple street on the eastern side of the project. This is Joss's preferred option. Western side of the project is Campbell st (or commonly known as the Olympic Hwy), which typically is a high traffic route and is the main zone for student drop off and pickup.

The following elements have been identified as high to moderate heritage values and will be conserved / protected during the works;

- Building AA—assembly hall and administration (former Courthouse);
- Courthouse forecourt (to north and east) including early and original plantings, original paths and iron palisade fence;
- Trees as identified as significant in the Griffin Associates Environmental report;
- Building CC— domestic science block;

In addition to important heritage zones there are also key Archaeological areas which Joss is aware of. These areas date back to the late 1880's where historic maps indicate the site was originally occupied by a police camp. The two main areas where further controls will be adopted are the landscaping works in front of the new building NN, to the boundary fence at Carrington Park and the landscaping to the school courtyard to the rear of the new building NN.

Under the guidance of a qualified heritage consultant (refer Appendix F), mitigation measures to eliminate archaeological impacts during excavation are to have them monitored archaeologically to ensure appropriate management methodology is implemented.

Unexpected archaeological remains and artefacts may be uncovered in areas assessed as having nil to low potential during the construction phase. Joss will implement a procedure that complies with the historical finds which will be managed in accordance with the ARD and the SSD Conditions for Approval and requirement of the Heritage Act.

Significant artefacts, if recovered, will be considered for inclusion within the heritage interpretation in the new development.

A number of trees also have heritage status, extra over protection requirements are detailed within the Arborist report. Potential impacts from the new development will need to be carefully managed to maintain tree root systems, vitality and provide sufficient root space for ongoing vigour of trees. To assist Joss in the management of these significant trees, a project Arborist will be appointed with direct involvement for both the demolition and main works.

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Broadly, the topography slopes at gentle gradients to a low point on the Northern boundary. To achieve Council's requirements, a stormwater management strategy will be developed which incorporates the use of an on-site detention tank, rainwater harvesting tank and stormwater network.

Project Environmental Management Plan



Project Environmental Management Plan

1.3 The Project Environmental Management Plan

This Project Environmental Management Plan has been developed to identify the project specific environmental aspects of the works and plan procedures to remove or reduce the impacts of the aspects on the environment. Internal and external influences that may affect the way we manage our environmental responsibilities will be assessed during this process and where necessary, the CEMP will be updated. In addition, the plan defines measurable objectives, details the roles and responsibilities of various personnel and parties associated with the project, describes the procedural tools used to implement and monitor the environmental procedures and the records to be retained demonstrating compliance with the plan.

The Environmental Plan is one of a number of Management Plans utilised on the project, and, rather than redefining existing management tools, it refers to other existing procedures defined within the other systems in some instances.

1.4 Objectives

The primary objective of this plan is to construct the works in accordance with the contract documentation but, whilst doing so:

1. Not breach any legislated or local environmental requirements. (evidenced by prosecutions or fines)
2. Not receive any formal complaints from the client or adjoining properties regarding environmental issues during the course of the project.
3. Detailed mitigation measures to offset potential impacts on heritage values.
4. Training of workers in awareness of Heritage, Aboriginal and Archaeological significant importance.
5. Apply and monitor recommendations on the trees that have been identified for retention (heritage status) and those identified for removal.
6. To ensure sediment and erosion control measures can mitigate the risk of sediment runoff during the construction of the development.
7. Implement framework to meet the objectives of the Young SSDA (reduction in potable water consumption).
8. Compliance with Condition B13 of SSD-9671.

Additional smaller objectives are detailed in the Aspects, Impacts and Procedure Table in the appendices of this document

Project Environmental Management Plan

2.0 Planning

2.1 Aspects, Impacts and Procedures

A comprehensive review of the project has been conducted by the tender and project teams to identify the environmental aspects, their impacts and to determine appropriate procedures to control and monitor these both before and during construction taking into account any risks or opportunities identified.

The result of this review is shown in the Aspects, Impacts and Procedures table included as appendices to this document.

The table clearly identifies the Aspect, the possible Impact below the Aspect, the projects Objectives in relation to that Impact and then details the procedure or action to achieve the Objective, who will be responsible and when will the action be required.

The table also has provision to record the action taken and either evidence of this action or where records can be found. Completion of the table shall be by the Site Manager with the assistance of the Systems Manager or HSEQ Coordinator during their monitoring audits of the project.

2.2 Subcontractors

Subcontractors shall play a key role also in achieving the project's environmental objectives and as such require a number of controls to ensure that they are aware of their environmental responsibilities and implement controls accordingly.

2.2.1 Prior to Contract Award

Prior to awarding contracts to key subcontractors, they are interviewed and questioned with regards their works methodology, resources, etc. When the trade has potential for environmental impact, they are questioned on their proposed means to control the impact. Notes are made of these interviews when they occur and they are retained as a record.

During these interviews, subcontractors are reminded of their HS requirements including the provision of a SWMS. They are advised to include environmental controls in their SWMS to ensure that all their workers are made aware of the work activity requirements.

2.2.2 Prior to works starting

Prior to starting works each worker on the project undergoes a Site Induction. Included in this induction is an item on the implementation of environmental controls. The induction format is documented and recorded.

2.2.3 During Construction

During construction the Site Manager shall monitor the implementation of environmental controls by the Subcontractors and when necessary remind them of their requirements. When breaches are identified that are beyond minor forgetfulness then a Nonconformance shall be documented as described in Section 3.5 of this document.

Other team members including the Senior Project / Design Manager and Contract Manager may periodically communicate with the Subcontractors to clarify contract requirements but the primary interface with Subcontractors by Joss will be the Site Manager.

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Communication with subcontractors could be verbal (one on one or over the phone) via email or other written correspondence, or in the form of a toolbox talk, site, or other form of meeting.

Project Environmental Management Plan

3.0 Implementation

3.1 Resources

To ensure the Project Environmental Management Plan is successfully implemented the Joss Construction Senior Project / Design Manager shall ensure that the primary resources as detailed in Section 3.2 are provided.

Should monitoring during the course of the project indicate that targets are not being achieved then the Joss Construction Project Manager shall determine and provide additional resources in an effort to achieve the project objectives.

3.2 Responsibility and Accountability

3.2.1 General Manager

The General Manager shall be responsible for the provision of a contract team of staff capable of delivering the project in accordance with the Client's requirements including implementing this Plan.

The General Manager is also responsible for ensuring resources are available to facilitate the project delivery.

3.2.2 Systems Manager

The Systems Manager's primary role on the project is to oversee the implementation of the Environmental Management Plan that will enable the client's objective of minimum environmental impact by the project to be achieved.

The Systems Manager's specific responsibilities with relation to this plan include, but are not limited to:

- Review of the Environmental Management Plan as required during Risk and Compliance Audits.
- Provide input into the identification of Environmental Aspects, Impacts and subsequent controls.
- Review and report on the Implementation of the Environmental System
- Reviewing and providing input into corrective action.
- Identify additional opportunities for, and improvements to, Environmental Management within the Company.
- Update the CEMP where necessary.

The Systems Manager reports to the General Manager Risk and Compliance and the General Manager Construction on the progress and status of the Joss Environmental Systems on the project.

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3.2.3 HSEQ Manager/ Coordinator

The HSEQ Coordinator's primary role is to monitor the implementation of the documented systems, including the environmental system, on the Company's project sites. The HSEQ Coordinator also plays a key role in assisting the Systems Manager in providing input and feedback to continually improve the systems controls we have.

The HSEQ Coordinator's specific responsibilities with relation to this plan include, but are not limited to:

- Input into the preparation of the Environmental Management Plan
- Approval of the Environmental Management Plan in consultation with the Project Manager
- Review and report on the Implementation of the Plan
- Reviewing and providing input into corrective action
- Identify additional opportunities for, and improvements to, Environmental Management on the project
- Update the CEMP where necessary.

The HSEQ Coordinator reports, and is accountable to, the General Manager Construction and the Senior Project / Design Manager on the progress and status of the project including the application of this plan.

3.2.4 Project Director

The Project Director will be primarily responsible for overseeing all facets of the project including ensuring that the contract team delivers the project in accordance with this Environmental Management Plan.

The Project Director reports, and is accountable to, the Construction General Manager on the progress and status of the contract including the application of this plan.

The Project Director has the authority to make decisions on how the duties described above are carried out including taking the actions required to fulfil the environmental responsibilities. The Project Director shall be held accountable at annual performance reviews for fulfilling their responsibilities.

The Project Director reports to the General Manager Construction.

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3.2.5 Project / Design Manager

The Senior Project / Design Manager shall be primarily responsible for ensuring that the contract team has the necessary skills and training to perform their roles in the project delivery and that appropriate resources made available by the General Manager are allocated to the contract.

The Senior Project / Design Manager's specific responsibilities with relation to this plan include, but are not limited to:

- Ensuring adequate resources are provided.
- Coordination of the development of the plan with the assistance of the Contract Administrator and the HSEQ Coordinator.
- Participate in subcontractor interviews when available.
- Surveillance of the implementation of the plan through communication with Joss staff, subcontractors and the client's representatives.
- Reviewing and providing input into corrective action.
- Input into the review and selection of subcontractors and suppliers.
- Identify additional opportunities for, and improvements to Environmental management on the project.

The Senior Project / Design Manager reports, and is accountable to, the General Manager on the progress and status of the contract including the application of this plan.

3.2.6 Contract Manager

The Contract manager primary role on the project is to facilitate the flow of information on the project including subcontracts, project documentation, invoices, quotations, variations, correspondence, etc.

The Contract manager's specific responsibilities with relation to this plan include, but are not limited to:

- Provide input into the identification of Environmental Aspects, Impacts and subsequent controls.
- Assisting the Site Manager in ensuring subcontractors prepare and submit SWMS's for review.
- Implement controls (when responsible) as described in the Aspects, Impacts and Procedures Table in the Appendix of this document.

The Contract Manager reports, and is accountable to, the Senior Project / design Manager on the progress and status of the project including the application of this plan.

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3.2.7 Site Manager

The Site Manager shall be primarily responsible for supervising the progress of the contract works to ensure high standards of Safety and Quality are maintained, that the impact on the environment is minimised and that the works are carried out in controlled, timely manner.

The Site Manager's specific responsibilities with relation to this plan include, but are not limited to:

- Provide input into the identification of Environmental Aspects, Impacts and subsequent controls.
- Participate in subcontractor interviews when available.
- Carry out Site Inductions including training workers in the common environmental controls applied to the project.
- Review subcontractor SWMS's as required by the HS System & to ensure that environmental controls are in place and adequate.
- Monitor the implementation of environmental controls as described in this Plan and individual SWMS's.
- Communicate with subcontractors on environmental issues.
- Retain records (when available) of compliance or noncompliance with this Plan.
- Assist both internal and external auditors in conducting reviews on the Environmental Management Plans implementation.
- Report any complaints to the Project Manager and liaise with him regarding corrective and preventative action.
- Identify additional opportunities for, and improvements to, Environmental Management on the project.
- Be available 24 hours a day to respond to emergency
- Review regularly the emergency response procedures in an effort to keep them current and appropriate given the changing conditions and materials on site.

The Site Manager reports, and is accountable to, the Project Manager on the progress and status of the project including the application of this plan.

3.2.8 Subcontractors

As the primary workforce on the project, Subcontractors play a key role in achieving the objectives set in this plan. For this reason, the controls as described in Section 2.2 will be applied to plan, train, communicate with and monitor the Subcontractors.

The Subcontractor's specific responsibilities with relation to this plan include, but are not limited to:

- Attend interviews with Joss prior to contract award to explain their tender proposal including resources, personnel and methodology
- Preparing SWMS's that include the environmental risks and associated controls
- Conduct training in the application of the SWMS's (Work Activity Training)
- Make workers available for Site Induction Training prior to starting works and for toolbox talks during the project.
- Provide the resources to implement the controls as described in their SWMS's
- Identify additional opportunities for, and improvements to, Environmental Management on the project

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3.3 Site Hours

The site will operate between the hours of 7am to 6pm, Monday to Friday, and 8am to 1pm on Saturday. No work will be undertaken on Sundays or Public Holidays.

3.4 24 Hour Availability

The Site Manager, Alex Wright-is available on 0419 226 125 both during and after hours for environmental emergency.

A second contact, in the event that Alex cannot be raised is the JossFM 24hour EUR call centre on 02 6051 1999. The call centre has the contact details of other Joss employees and subcontractors familiar with the site.

A sign will be displayed (that is visible from the main entry to the site) that provides the Site Managers name, contact number, and the EUR number.

3.5 Environmental Controls

Sufficient environmental controls will be in place throughout the construction phase. These systems will be monitored and maintained as per the details on the civil documentation. Practicable stormwater controls and discharge procedures will be adopted onsite to ensure turbid waters do not inhibit other water sources, including groundwater. All site security fencing will have shade cloth on it which will serve to reduce dust from leaving the site as well as erosion and sediment control fencing at the base of the security fencing. The haul road that will provide access to the site will be constructed from ballast rock which will provide an all-weather access path free of mud. It will also assist in shaking any loose dirt or mud from the vehicles before they leave site. Should any sediment be tracked off site, it will be swept and returned to site. The construction site will consist of road base hard-stand further protecting the site from environmental breaches. All machinery will be operated within the consent conditions of the SSD for relevant construction hours.

3.6 External Lighting

To minimise the impacts of external lighting impacting on local residents, all external lighting will be designed and certified to be in compliance with AS 4282 – 2019 Control of the obtrusive effects of outdoor lighting. All temporary construction lighting will also be placed in such a way to avoid spilling onto neighbouring properties.

3.7 Statutory Obligations

During the identification of environmental aspects and impacts consideration was given to Statutory obligations with the following outcomes:

3.7.1 Development Consent

A Development Approval has already been achieved for this project.

3.7.2 Noise Legislation

In the absence of a development consent and prescriptive legislation regarding noise limits for this project we have reviewed the EPA details of recommended guidelines for local government and these guidelines are referenced in the Construction Noise and Vibration Management Sub-Plan, Appendix D.

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3.7.3 Other Statutory Obligations

During the review of environmental aspects, other than the aforementioned NSW Heritage legislation, no other statutory obligations, approval, permits or licences were identified. Some explanations for these conclusions have been included in the Table of Aspects, Impacts and Procedures.

During the course of the project if environmental issues are identified that are beyond our expertise, or we are unsure of our legal obligations, we shall engage specialist consultants for assistance and advice.

3.8 Nonconformance Control

Nonconformances, when identified, shall be documented, reported on and actioned in accordance with quality management procedures as detailed in Section 8 of the Project Quality Plan.

Complaints that are serious, or in writing, shall be treated as nonconformances.

3.9 Emergency Response Procedures

Given the nature of the works performed and the limited possible causes of an environmental emergency the existing HS procedures (documented in the Site Safety Plan, issued to each worker and explained during Site Inductions) is suitable.

The site Emergency Contacts page contains emergency phone numbers for the EPA, doctors, poisons information, etc. This information is displayed in the Site Office.

Also contained in the office shall be the Hazardous Chemical Register and associated SDS's. These will be maintained in accordance with HS procedures.

The Site Manager shall, when advised by subcontractors that substances are coming on site, review the SDS and quantity to ensure that the emergency response procedures remain suitable.

3.10 Training

Joss staff involved with the project shall be trained in the application of this Environmental Management Plan by the Systems Manager or HSEQ Coordinator and a record of the training shall be retained by the Contract Manager or as part of an audit report.

Additional awareness training will be provided detailing the importance of Aboriginal, Heritage and Archaeological significance with the project.

Subcontractors, at the time of their Site Induction, shall be advised of their responsibilities within the Environmental Management Plan and records of the Site Induction shall be retained with the Site Records. Ongoing refresher training will be implemented via toolbox talks and environment incident and emergency response training.

3.11 Communication

Communication with Subcontractors shall be as described in Section 2.2.3 of this Plan.

Communication lines with the Client and Contract Administrator shall be discussed at the Project Startup Meeting and these recorded in the minutes.

The site is located at Young High School. Young High School is located on Campbell Street, Young, within the Hilltops Local Government Area (former Young LGA). The site is located approximately 500m to the south of the Young town centre, in a residential setting

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across from Burrangong Creek. The site also comprises the southern part of Carrington Park, located to the north of the school.

Access to the work face will be via Caple street on the eastern side of the project. This is Joss's preferred option. Western side of the project is Campbell St (or commonly known as the Olympic Hwy), which typically is a high traffic route and is the main zone for student drop off and pickup.

The nearest residential premises are across the road on Caple St. Given the location of the work site, well within the school grounds, the size of the public road between these properties and the work site, it is unlikely that communication with local residents will be required. Joss will coordinate with SINSW Communications Division regarding the need for community engagement/ notification. For further detail on disruptive works, please refer to Appendix C – Construction Noise and Vibration Management Sub Plan

Should Joss receive any complaints, as per the project Community Communication Strategy (Condition B8)(See Appendix H), Joss staff shall direct the complainant to contact School Infrastructure New South Wales complaints division via email at schoolinfrastructure@det.nsw.edu.au or phone 1300 482 651.

Complaints shall be recorded and registered as Nonconformances as described in Section 3.8 of this Plan. Complaints related to Joss will be processed through Joss internal procedure "PR33 Complaints Procedure". The formal complaints handling procedure can be found in Appendix F of CNVMSP(Appendix D CEMP)

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4.0 Measurement Evaluation and Review

4.1 Monitoring

During the course of the project the Site Manager shall be responsible for monitoring the daily application of environmental controls on site as described in the Table of Aspects, Impacts and Procedures in the Appendices of this document including the retention of records of compliance or noncompliance when available.

In addition to the monitoring described above, the Site Manager shall formally review the implementation of common environmental issues during his regular use of the Site Safety & Environmental Checklist (FR83). The frequency of these documented reviews is as defined in the Project HS ITP.

4.2 Internal Management Review

The Systems Manager or HSEQ Coordinators shall conduct an Internal Review at approximately 4 weeks into the project to determine if the plan is being implemented as documented.

The review shall also attempt to identify means of improving the Project Environmental Plan or future plans.

The HSEQ Coordinators shall record audit findings and opportunities for improvement. They may also seek additional input from external bodies on corrective action or improvement opportunities. When suggesting action, the responsible party shall be nominated, a timeframe suggested, and that person advised accordingly.

Records of the review shall be retained and made available to the Authorised Person on request.

Should the above review, complaints, or monitoring referred to in section 4.1 indicate problems with the plan or its implementation then additional reviews shall be scheduled to monitor the effectiveness of corrective action.

4.3 Reporting on Performance to Joss Management

The Senior Project / Design Manager with the assistance of the Contract Manager shall prepare a project report for management when requested (generally quarterly) on the progress of the works. In this document the Senior Project / Design Manager shall report on the environmental performance using the indicators described in this plan i.e. waste, nonconformances, complaints, etc.

4.4 Reporting on Performance to the Client

Joss shall report on our Environmental performance to the client verbally at the Project Meetings and/or in a Monthly Report.

Typically, Environmental reporting would include:

- Advice of any fines or prosecutions relating to environmental breaches.
- Any nonconformances generated.
- Any complaints received.
- Waste statistics collated during the month or for the project to date.
- The findings of any internal environmental reviews.
- Any discovery of hazardous or contaminated material.
- Any discovery of archaeological or Aboriginal finds.

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4.5 Environmental Management Records

Records consistent with the requirements of this plan will be maintained. These include but are not limited to:

- The Project Environmental Management Plan itself.
- Correspondence relating to the plans implementation.
- Site Induction Training records.
- Meeting minutes inc. Toolbox Talks.
- Internal review records including follow up action.
- Implementation monitoring records.

Environmental Management Records shall be collated and retained with the other indexed contract records for a period of 5 years from the completion of the contract.

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5.0 Appendices

- [Appendix A - Company Environmental Policy Statement](#)
- [Appendix B - Table of Aspects, Impacts and Procedures](#)
- [Appendix C – Construction Traffic and Pedestrian Management Sub-Plan \(Condition B14\)](#)
- [Appendix D – Construction Noise and Vibration Management Sub-Plan \(Condition B15\)](#)
- [Appendix E – Construction Waste Management Sub-Plan \(Condition B16\)](#)
- [Appendix F – Aboriginal Cultural Heritage Management Sub-Plan \(Condition B17\)](#)
- [Appendix G – Unexpected Finds Protocol for Contamination and Associated Communications Procedure](#)
- [Appendix H– Community Communication Strategy](#)

Project Environmental Management Plan

Appendix A – Environmental Policy Statement

Environmental Policy Statement



Joss Group will actively continue to develop an environmentally aware culture throughout the Company. Joss Group's activities must co-exist with the environment.

It is the Company's policy, therefore, to promote awareness of relevant environmental aspects including:

- Social and Economic Environment (Community Interaction)
- Cultural Environment (Heritage and Indigenous)
- Physical Environment (Soil, Water & Air)
- Biological Environment (Flora & Fauna, Revegetation, Noxious Weeds, Bio Diversity & Nature Conservation)

Joss will:

- As a minimum, comply with relevant Statutory and Regulatory requirements
- Prepare, implement and maintain Contract Specific Environmental Plans and make them available to the public on request
- Ensure that environmental consideration and goals as set out in Contract Environmental Plans are relevant and responsible, and when offered, include input from other interested parties such as adjoining property owners and local authorities
- Ensure all personnel associated with individual activities, including subcontractors and consultants, are aware and understand their role in Environmental Management
- Continue to train and nurture our staff to keep up to date with ever changing environmental issues and requirements
- Continue to improve our environmental performance and to prevent pollution resulting from our activities

When our works are complete, Joss shall endeavour to leave the environment surrounding our work site in the same, if not better, condition than when we started.

The Joss Environmental System shall comply with the requirements of AS/NZS ISO 14001.

Environmental Objectives for the Company are established on an annual basis and they are reviewed as described in the Joss Environmental Manual.

9th September, 2019

Paul Joss – Managing Director
Colin Joss and Co Pty Ltd



Project Environmental Management Plan

Appendix B - Table of Aspects, Impacts and Procedures								
ASPECT/ISSUE	IMPACT RATING (Refer matrix)	OBJECTIVE	HOW THE OBJECTIVE WILL BE ACHIEVED. ACTIONS REQUIRED TO ACHIEVE THE OBJECTIVE	WHEN THE ACTIONS WILL BE TAKEN	WHO WILL ENSURE THE OBJECTIVE IS ACHIEVED	RESIDUAL RATING (Refer matrix)	RECORDS RETAINED	REVIEW NOTES
Soil and Water Management - Erosion and Sediment Control	MS6+PM4 =10	To control stormwater on the site so as to prevent erosion and the transfer of sediment into the stormwater system.	Maintain as much existing surface vegetation (grass to the site as possible). Erect a silt fence in accordance with civil plan C12.01 B and anywhere else deemed necessary after possession of site to filter sediment from surface water. Temporary stockpiles should not require protection given they will be stored well away from the above provisions given that any erosion or wash from these will be rectified on completion.	During earthwork activity. During earthwork activity.	Site Manager Site Manager	MM4+NS1 =5	FR83 Site Safety Checklist, Photos	
	SM2+NM2 =4	To manage the correct storage and handling of substances to prevent spills and be adequately prepared to minimise the impact of spills should they occur.	During site inductions the Site Manager is to obtain details and quantities of Substances used on site by Subcontractors. Each substance is to be recorded in a Site Register and retained with the SDS's. All substances are to be stored and handled in accordance with the products SDS. If quantities exceed 200 litres or are classified as hazardous and of significant quantity, then the product is to be stored in a manner that prevents spillage such as a bunded area.	During site inductions and for the full duration of the project.	Site Manager	SM2+NS1 =3	Hazardous Substance's Register, SDS's	
Air Quality - Dust Control	MS6+IS3=9	Control dust during the project to a level where no formal complaints are made.	Earth working contractors to utilise watercarts to minimise dust. Brick saws and concrete saws to be fitted with dust suppression devices. (wet cutting)	During Earthwork and brickwork	Site Manager	MS6+PS2 = 7	FR83 Site Safety Checklist	
- Air Pollution	LS9+IL9=18	Owners of plant and equipment maintain their plant and or invest in low emission equipment to not unnecessarily contribute to air pollution.	The Joss Site Manager shall visually monitor exhaust emissions and if any plant is determined by him to be producing excessive emissions then they shall be requested to leave the site. Records – NCR documented if instances arise where vehicles/plant requested to leave site.	Immediately upon identification	Site Manager	LM6+NL3 =9	FR113 Mobile Plant Pre-Start Checklist	

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Noise Control - Impact on Adjacent properties - Keeping noise levels below acceptable limits - Maintaining Plant to minimise noise	MM4+PS2 =6	Control noise during the project to a level where no formal complaints are made.	The Joss Site Manager shall coordinate and plan activities to the best of his ability so as to avoid noisy construction activities impacting on the occupants of the site and the surrounding residence. When this cannot be achieved then the Site Manager shall ensure that all parties are advised of the time and likely duration of noise so that they can make their own avoidance provisions. Should the Site Manager identify plant or construction activities that are beyond anticipated noise levels then he should liaise with the contractor to reduce the noise through plant maintenance, use of baffling devices, screens, etc. Should noise persist the Site Manager should utilise the company Noise Monitoring devices to monitor noise levels to determine if they are exceeding the <u>EPA recommendations</u> . If they are exceeding recommended limits then an NCR is to be documented and action determined.	During the project	Site Manager	MM4+PS2 =6	FR113 Mobile Plant Pre-Start Checklist, FR83 Site Safety Checklist Noise monitoring results if recorded.	

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Vegetation - Preservation of Vegetation - minimising the spread of weeds	MS6+PL6 =12	To maintain existing vegetation on site except where changed as a result of the project.	Only trees nominated for removal shall be removed. Trees nominated to be retained, including heritage listed trees, shall be clearly identified to remain prior to tree felling works. Existing grass is to be retained where possible to assist in erosion, sediment and dust control.	During Site establishment and Early Works	Site Manager	MS6+NL3 =9	Retain records relating to any changes to existing vegetation retention.	
	LM6+PM4 =10	To prevent seed from weeds being moved onto the site from vehicles or fill.	Joss shall inspect machinery on arrival for material carrying seed to site to minimise the spread of noxious weeds. Given the nature of the site, equipment used and nature of works however it firstly unlikely that seeds of noxious weeds will be carried. Secondly, seed carried on, even if germination occurs, will be easily identified given the size of the works and rectified in consultation with the client.	For the duration of the project	Site Manager	MM4+NM 2=6	FR113 Mobile Plant Pre-Start Checklist,	
	SN1+NS1 =2	To make good existing vegetation that may have suffered as a result of the construction works.	As the project nears completion the Joss shall liaise with the client regarding the most suitable means and extent vegetation restoration required.	As the project nears completion.	Site Manager	SN1+NS1 =2	Retain a copy of any correspondence relating to rectification works.	
Fauna - Fauna habitat conservation measures	Given the nature of the works on an existing urban site no fauna habitat investigations have been conducted by the client that we are aware of nor by Joss Construction. Should however, during the course of the works, fauna be identified on the site then we shall liaise with local wildlife authorities to determine if it / they can be successfully relocated.			If / when identified	Site Manager	MM4+NM 2=6	Retain records of any action taken should circumstances arise.	

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Fire Precautions	LS9+PL6=15	To ensure that Fire does not occur on the site as a result of construction activities.	No waste or fires shall be lit on the site. Upon approach of the summer fire danger period we will consult with the local fire brigade regarding site procedures for hot work	For the duration of the project	Site Manager to monitor compliance by Subcontractors.	MS4+NL3=7	Retain a copy of the permit and or correspondence with the applicable brigade.	

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Heritage - Protection of heritage status trees - Protection of identified Aboriginal Artefacts - Protection of identified heritage items	MS6+PL6 =12	To implement a process and procedure for management of heritage or culturally sensitive areas and items To prevent any damage to trees of heritage or cultural significance To prevent damage to identified Aboriginal or historical artefacts that may be uncovered.	Heritage Management Plan will be prepared and implemented that covers both historical archaeology and Aboriginal cultural heritage. This will be created in consultation with the project heritage team, Heritage Division Department of Premier and Cabinet (Heritage DPC) and Registered Aboriginal parties. Hard landscaping works on the site are to be performed beneath the canopy of heritage status trees. An arborist will be engaged during the design period to determine whether this will be detrimental to the long-term health of the impacted trees, and if so, Joss will redesign the landscaping to be more sympathetic to the tree's survival. Other protection measures to be implemented are to lay the granite path for Currawong Walk above the current soil level to protect the heritage fence and sensitive root system, removal of bitumen by hand beneath the tree between Building NN and AA and provision of "stem protection" where recommended A no-go zone will be established around the Reconciliation Tree in Carrington Park. The extent of the no-go zone will be determined in consultation with the Registered Aboriginal Parties. All direct physical impacts to the Hilltop Aboriginal Artefact Site will be avoided. Construction and landscaping design in and around the identified Hilltop Aboriginal Artefact Site will be limited to a maximum target depth of 300mm to avoid potential subsurface impacts to Aboriginal objects. Archaeological monitoring of all ground disturbance activities in and around the site to ensure that inadvertent impacts are avoided, and any unexpected finds are rapidly dealt with. Following any bulk removal of earth to a maximum target depth of 300mm, geotextile, or similar, will be placed over the site and covered with sand, or other clean imported fill, to protect the known subsurface archaeological deposits. If Aboriginal objects are encountered, they will be managed in accordance with the Aboriginal archaeological research design and the procedures for unexpected finds. All decisions regarding management of Aboriginal objects will be made in consultation with the Registered Aboriginal Parties and SINSW and the PAP. Should unexpected finds be exposed the following procedures will be implemented: - Cease works and establish a minimum 5m buffer around the find as a no-go zone. - Notify the project manager, site foreman and project archaeologist. - Project archaeologist to inspect, document and assess the find; they will review necessity for and extent of the no-go zone. - Project archaeologist will advise whether additional actions are required (e.g. contact the Representative Aboriginal Parties for an Aboriginal find, contact the police/coroner for suspected human remains, contact Heritage DPC, undertake salvage excavation in accordance with the relevant Archaeological Research Design). - Project archaeologist will provide written advice that work can recommence once the find has been adequately assessed and investigated	Prior to commencement on site and for the duration of the project For the duration of the project For the duration of the project	Site Manager, Design Manager and Project Manager Site Manager, and Project Manager	MS6+NL1 =7
						Retain records of any action taken should circumstances arise. Retain records of any action taken should circumstances arise.

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Herbicides & other Contaminants - Spillage prevention and containment			No pesticides or Herbicides shall be used on the project. Refer to Soil and Water Management for Spillage Prevention and Containment.			SN1+NS1 =2	Retain records of any action taken should circumstances arise.	
Contaminated Ground			No contaminated ground has been identified on the project by the client. Given the previous use of the site the existence of contaminated ground is unlikely, and no testing has been deemed necessary by the client or Joss. However, should the supervisor believe that ground material is contaminated due to discolouration, odour or other indicator then that portion of work shall cease, and the Authorised Person contacted immediately.			SN1+NS1 =2	Retain records of any action taken should circumstances arise.	

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Waste Management	MN2+PL6 =8	To minimise waste through a combination of waste avoidance and recycling.	Waste bins shall be provided by Joss in readily accessible locations. The bins shall be emptied and disposed of by a specialist contractor as required. Common recyclable materials such as timber and steel may be stacked adjacent the bins for removal and re-use by site workers. Investigations are to be made for the provision of a paper and cardboard recycling bin during the fitout phase. If this is possible then workers shall be advised during a toolbox talk by the Supervisor. It is a financial practicality that any waste material (off cuts and unused materials) generated by tradesmen that can be re-used is removed from site by themselves and retained for possible later re-use. eg electrical cable, plumbing pipe, bricks, etc. All waste material leaving the site shall be recorded for statistical purposes and reported to the Department of Public Works every second month using the provided <u>Waste Management Report</u>. Asbestos waste will be disposed of at a registered Asbestos disposal site and docket verifying its correct disposal will be retained.	For the Duration of the Project As the Fitout Phase Approaches	Site Manager Contract Administrator	MN1+NS=2	FR41 Waste Register	
Restoration of Site	MM4+NS1 =5	To ensure that any vegetation and existing assets damaged during the course of the project are restored to a condition equal to or better than when works began.	Firstly, during the course of the project every effort shall be made to minimise damage to the site's vegetation and assets. Prior to performing any works on site Joss will undertake extensive dilapidation reporting to capture the existing condition of all buildings and landscaped areas. As the project nears completion however, the Site Manager shall investigate the grounds and assets within the site boundary or adjacent to the works that may have been damaged during the course of the project and liaise with the Authorised Person and client's representatives to ensure that they are restored to an acceptable condition.	For the Duration of the Project As the project nears completion.	Site Manager	MM4+NS1=5	FR41 Waste Register	Retain a copy of any correspondence relating to rectification works.

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Access and Traffic Management	LS9+PS2=11	To ensure existing road users, pedestrians, school staff and students are not impinged during normal activities	Access to and egress from the site will strictly be via the Caple St Car Park so that there is a clear demarcation between construction workers and school students, teachers and staff, and no interference with the school drop off zone in Campbell Street. Joss does however recognise that the TAFE and Early Learning Centre will require access, and this will be created via a pedestrian walkway from Caple Street. Joss will liaise with the relevant stakeholders to establish this access along with delivery block out periods so that interference during arrival and departure times is kept to a minimum. This will be identified in the final Construction Management Plan and Traffic Management Plan. Joss does not intend upon entering or exiting the site via Campbell St for the reasons stated above but also to ensure that the sensitive heritage fence and Aboriginal areas are not unnecessarily disturbed.			LN3+NM2=5	
Vibration Management	LM6+PM4=10	Ensure that existing buildings and neighbouring properties are not impacted by vibrations	Joss will ensure the protection of Building CC during the contiguous piling activities by implementing use of a professional drilling rig contractor which causes less vibration than other boring methods. Every third hole will be drilled and filled with concrete, then sequentially doing the next series of three holes until all holes are filled and the wall is created. By adopting this method, Building CC will incur no damage. Should concerns about vibration be raised by occupants of adjacent sites then the instigating work shall cease until a Vibration Management approach can be agreed and initiated.			LN3=NM2=5	

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Environmentally Sensitive Areas	MS6+PL6 =12	To prevent any damage to trees of heritage or cultural significance To prevent damage to identified Aboriginal or historical artefacts that may be uncovered	Heritage Management Plan will be prepared and implemented that covers both historical archaeology and Aboriginal cultural heritage. This will be created in consultation with the project heritage team, Heritage Division Department of Premier and Cabinet (Heritage DPC) and Registered Aboriginal parties. Hard landscaping works on the site are to be performed beneath the canopy of heritage status trees. An arborist will be engaged during the design period to determine whether this will be detrimental to the long-term health of the impacted trees, and if so, Joss will redesign the landscaping to be more sympathetic to the tree's survival. Other protection measures to be implemented are to lay the granite path for Currawong Walk above the current soil level to protect the heritage fence and sensitive root system, removal of bitumen by hand beneath the tree between Building NN and AA and provision of "stem protection" where recommended A no-go zone will be established around the Reconciliation Tree in Carrington Park. The extent of the no-go zone will be determined in consultation with the Registered Aboriginal Parties. All direct physical impacts to the Hilltop Aboriginal Artefact Site will be avoided. Construction and landscaping design in and around the identified Hilltop Aboriginal Artefact Site will be limited to a maximum target depth of 300mm to avoid potential subsurface impacts to Aboriginal objects. Archaeological monitoring of all ground disturbance activities in and around the site to ensure that inadvertent impacts are avoided, and any unexpected finds are rapidly dealt with. Following any bulk removal of earth to a maximum target depth of 300mm, geotextile, or similar, will be placed over the site and covered with sand, or other clean imported fill, to protect the known subsurface archaeological deposits. If Aboriginal objects are encountered, they will be managed in accordance with the Aboriginal archaeological research design and the procedures for unexpected finds. All decisions regarding management of Aboriginal objects will be made in consultation with the Registered Aboriginal Parties and SINSW and the PAP. Should unexpected finds be exposed the following procedures will be implemented: • Cease works and establish a minimum 5m buffer around the find as a no-go zone. • Notify the project manager, site foreman and project archaeologist. • Project archaeologist to inspect, document and assess the find; they will review necessity for and extent of the no-go zone. • Project archaeologist will advise whether additional actions are required (e.g. contact the Representative Aboriginal Parties for an Aboriginal find, contact the police/coroner for suspected human remains, contact Heritage DPC, undertake salvage excavation in accordance with the relevant Archaeological Research Design). • Project archaeologist will provide written advice that work can recommence once the find has been adequately assessed and investigated			MS6+NL1 =7

Project Environmental Management Plan

Environmental Aspect Rating Matrix

The project team should use the matrix below to rate the environmental impact of aspects by adding the two values obtained in the tables below. **Significant aspects are those that score a value of 8 or greater.**

To assist interpretation, codes should be included in the table above when ratings are made.

	Severe	Medium Severity	Not Severe
Large Scale	9	6	3
Medium Scale	6	4	2
Minimal Scale	3	2	1

+

Large Scale	has potential for broader impact across multiple sites or areas.
Medium Scale	has potential to impact the whole site or may go beyond the boundaries of a site.
Minimal Scale	has potential for impact or affects a portion of a site

Severe	Impacts on highly valued species, habitat, ecosystem or cultural heritage
Medium Severity	Impacts on the ecosystem or cultural heritage but can be corrected.
Not Severe	Limited damage to minimal area of low significance.

Inevitable	Probable	Not Likely	
9	6	3	Long Term
6	4	2	Medium Term
3	2	1	Short Term

Inevitable	It will happen.
Probable	It may happen.
Not Likely	It is not likely that it will happen

Long Term	Will have an impact for decades or longer.
Medium Term	Impact will be evident for longer than a week and may take several years to recover.
Short Term	Impact will not be evident beyond 1 week

Project Environmental Management Plan

Appendix C – Construction Traffic and Pedestrian Management Sub-Plan (Condition B14)



GAME

CONTRACTOR:

JOSS Construction

PROJECT:

Library, Community Facilities & Young High
School Upgarde

LOCATION:

Campbell Street, Young NSW

DURATION:

Nov 2020 to March 2021

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1. PROJECT INFORMATION

PURPOSE

This Traffic Management Plan (TMP) provides the traffic management procedures to be implemented by the contractors and subcontractors during the project.

Location	Campbell Street, Young NSW 2594	
Road Type/s	(A) Class State Hwy Road & Arterial Road	
Posted speed limit/s	60kp/h, 50kp/h & 40kp/h School Zone	
Duration	Approximately 48 weeks	
Operational hours	Approximately 6:00 to 1900	
Expected delay	0 to 5mins	
Traffic Management Measures/Strategies	All works taking place within the confines of the site, with minimal impact on the neighboring road network	
Road Authority/s	Transport NSW	Hilltops Council
Local Government/s	Hilltops Council	
Client	Transport NSW	
Contractor	JOSS Construction	
Traffic management	Registered G10 Traffic Management Contractor	
Site Manager(s)	Bailey Thomson Construction Cadet 0429 939 969	

1.1 DETAILS OF WORKS

This Traffic Management Plan (TMP) addresses the proposed construction of the new integrated Library and Community Facility and school upgrade at Young High School, Young, NSW.

It discusses the management of local traffic and construction vehicles related to the project.

1.2 TRAFFIC MANAGEMENT OBJECTIVES

The objectives of this Traffic Management Plan (TMP) are to:

- Provide a safe environment for the travelling public and construction personnel.
- Cater for the needs of all traffic, including pedestrians.
- Communicate the purpose of the proposed traffic management.
- Communicate the arrangements for and impacts of any event affecting traffic.

To assist in meeting these objectives the TMP provides information on:

- The Scope of Works
- Site Conditions
- Permissible working times
- Procedures and Responsibilities
- The Traffic Control Plans (TCP)

1.3 LEGISLATIVE AND OTHER PROVISIONS

- Occupational Health and safety Act 2004 and Regulations 2007
- Road management Act 2004
- Road safety act 1986
- Australian Standard AS 1742.3 – 2019 - Traffic control devices for works on roads
- Risk Management Standard AS/NZS 4360:2004
- Australian Standard - Mobility and Access Standard for People with Disabilities AS 1428
- Traffic Control at Worksite Technical Manual 2020.
- Local Government Act

JOSS shall ensure that the requirements of these documents and other relevant information will be monitored and the Traffic Management Plan adjusted to meet changing requirements where necessary.

2. RESPONSIBILITIES

2.1 TRAFFIC CONTROL / SITE MANAGER

The Traffic Control Site Manager shall:

- Ensure all traffic control measures for this TMP are placed and maintained in accordance with this plan and the relevant Acts, Codes, Standards and Guidelines
- Ensure suitable communication and consultation with the affected stakeholders is maintained at all times
- Ensure inspections of the Traffic Controls are undertaken in accordance with the TMP, and results recorded. Any variations shall be detailed together with reasons
- Review feedback from field inspections, worksite personnel and members of the public, and take action to amend the traffic control measures as appropriate following approval from the Superintendent's Representative
- Arrange and/or undertake any necessary audits and incident investigations

2.2 SUPERVISOR

The supervisor is responsible for overseeing the day-to-day activities, and is therefore responsible for the practical application of the TMP, and shall:

- Instruct workers on the relevant safety standards, including the correct wearing of high visibility safety vests, safety boots and other equipment as required.
- Ensure traffic control measures are implemented and maintained in accordance with the TMP
- Undertake and submit the required inspection and evaluation reports to management
- Render assistance to road users and stakeholders when incidents arising out of the works affect the network performance or the safety of road users and workers
- Take appropriate action to correct unsafe conditions, including any necessary modifications to the TMP.

2.3 TRAFFIC MANAGEMENT PERSONNEL

At least one person shall be accredited in prepare work zone traffic management plan, and shall have the responsibility of ensuring the traffic management devices are set out in accordance with the TMP. They will also be available at short notice at all times to manage variations, contingencies and emergencies, and to take overall responsibility for traffic management

2.4 TRAFFIC CONTROLLERS

Traffic Controllers shall be used to control road users to avoid conflict with plant, workers, traffic and pedestrians, and to stop and direct traffic in emergency situations.

Traffic Controllers shall:

- Operate in accordance with Section 4.6 and Appendix B of AS1742.3
- Hold current Traffic Controller's Competency.
- Take appropriate breaks as required by AS1742.3 and/or OHS Regulations.

2.5 WORKERS AND SUBCONTRACTORS

Workers and Subcontractors shall:

- Correctly wear high visibility vests, in addition to other protective equipment required (e.g. footwear, eye protection, helmet, sun protection etc.), at all times whilst on the worksite
- Comply with the requirements of the TMP and ensure no activity is undertaken that will endanger the safety of other workers or the general public
- Enter and leave the site by approved routes and in accordance with safe work practice

3. OCCUPATIONAL SAFETY AND HEALTH

Principals, employers and persons in control of workplaces have a statutory duty of care to provide a safe workplace for all personnel working at the site, accessing the site or impacted by the construction activity including employees, contractors, subcontractors, visitors to the site and the general public.

This TMP forms part of the overall project Safety Management Plan, and provides details on how all road users considered likely to travel through, past, or around the worksite and those impacted by the works will be safely and efficiently managed for the full duration of the site occupancy and works.

All traffic management works and control devices shall be in accordance with

- OHS Act (2004)
- OHS Regulations (2007)
- Australian Standard AS1742.3; Traffic Control Devices for Works on Roads (*)
- Worksite Safety Traffic Management- Code of Practice (CoP)
- Australian Standard AS/NZS 4360; Risk management
- Australian Standard AS/NZS 4602; High visibility safety garments

* Except where expressly overridden by the Worksite Safety Traffic Management– Code of Practice.

3.1 PERSONAL PROTECTIVE EQUIPMENT

All personnel entering the work site shall correctly wear high visibility vests to AS/NZS 4602, in addition to other protective equipment required on a site-by-site basis (e.g. protective footwear, eye protection, helmet, sun protection, respiratory devices etc.) at all times whilst on the worksite.

3.2 PLANT AND EQUIPMENT

All plant and equipment at the workplace shall meet statutory requirements and have the required registration, licenses or certification where required. All mobile equipment shall be fitted with suitable reversing alarms. All mobile plant and vehicles shall be fitted with rotating flashing yellow lamps in accordance with AS1742.3 clause 3.12.1. All workers will be made aware of the safe work practice at the time of the site induction.

3.3 EMERGENCY ARRANGEMENTS

Emergency services will have continual access to all properties and the worksite; workers onsite shall assist emergency vehicles requiring to enter and/or travel through the worksite.

3.4 INCIDENT/ACCIDENT PROCEDURES

In the event of an incident or accident, whether or not involving traffic or road users, all work shall cease and traffic shall be stopped as necessary to avoid further deterioration of the situation. First Aid shall be administered as necessary, and medical assistance shall be called for if required. For life threatening injuries an ambulance shall be called on telephone number 000.

4. HAZARD IDENTIFICATION AND ASSESSMENT

Hazard assessment of the proposed works has identified a number of risk events/items that will be managed by effective traffic management planning and the implementation of this TMP. The assessment process has been undertaken in accordance with Worksite safety traffic management code of practice

All identified risks have been treated by development of this TMP. Unforeseen risks arising during the works will be treated in accordance with standard work practices and procedures where appropriate.

4.1 SITE CONSTRAINTS / IMPACTS

The subject site is located within the grounds of the Young High school, this imposes its own site constraints. This site itself occupies multiple lots and is shown below.



4.2 INTERSECTION CAPACITY

In accordance with AS 1742.3 table 4.10

4.3 EXISTING PARKING FACILITIES

Worker parking will take place on the sporting oval accessed via Berthong Street. Young. On street parking shall remain available to general public.

4.4 PUBLIC TRANSPORT

No bus stops will be affected by these works

4.5 SPECIAL EVENTS AND OTHER WORKS

Contact with the Local Government Authority and service providers have indicated that there are no other works expected in the vicinity of the construction site. As such, no impacts are expected.

4.6 NON-MOTORIZED ROAD USERS

The worksite and its immediate surroundings shall be suitably protected and free of hazards, which could result in tripping by non-motorized road users. Hazards, which cannot be removed, shall be suitably protected to prevent injury to road users, including those with sight impairment. Where level differences are significant, suitable barriers, which preclude pedestrian access shall be used.

Where works extend beyond daylight hours and adjacent lighting is insufficient to illuminate hazards to non-motorized road users, appropriate temporary lighting shall be installed.

PEDESTRIANS

There are pedestrian pathways within the work area, if required this path will be closed to pedestrians & pedestrians re-directed to opposite side using existing crossing and walkways to cross the road safely. A traffic controller will be situated at these closure point to assist.

4.7 PEOPLE WITH DISABILITIES

There are pedestrian pathways within the work area, if required this path will be closed to pedestrians & pedestrians re-directed to opposite side using the signalized intersection traffic lights to cross the road safely. A traffic controller will be situated at these closure point to assist.

4.8 SCHOOL CROSSINGS/ ZONES

Schools are in the vicinity of the works but will not be effected by these works.

4.9 ACCESS TO ADJOINING PROPERTIES

No adjoining property access will be impacted by the works.

4.10 ENVIRONMENTAL CONDITIONS

WEATHER

Check with the bureau of meteorology for weather forecast, adjust TMP accordingly.

4.11 EXISTING SIGNAGE:

All existing speed signage within the site to be covered.

4.12 NIGHT WORK PROVISION

All works are expected to be undertaken during daylight hours to minimize the impact on local residents.

5. CONSULTATION & COMMUNICATION

Hilltops Council will be involved in the planning of the TCP's to ensure no overlap of works..

6. APPROVALS & PERMITS

Hilltops Council approval.

6.1 PUBLIC NOTIFICATION

All works taking place within the confines of school grounds, no public notifications required.

6.2 NOTIFICATION OF OTHER AGENCIES

As stated above the Hilltops Council will be involved in planning,

7. IMPLEMENTATION

7.1 HAZARD IDENTIFICATION, RISK ASSESSMENT AND CONTROL

In establishing adequate controls for the hazards identified in Section 4.1, a structured approach via the use of the hierarchy of control as outlined below:

- Elimination
- Substitution
- Engineering
- Administration
- Personal Protection Equipment

Safe traffic management practices require that the Supervisor evaluate all traffic arrangements before they are open to traffic and immediately following the opening to traffic. Adjustments are to be made as required and recorded in the daily diary, including reasons for the changes. The Supervisor is also required to evaluate the traffic arrangements where site conditions change, new hazards that arise throughout the work will be subject to risk assessment and incorporated onto the Risk Register.

7.2 TRAFFIC CONTROL PLANS

The Traffic control plans have been provided for the following to demonstrate the type of controls that will be implemented throughout the term of the contract.

ACTIVITY / RISK TREATMENT	TRAFFIC CONTROL PLAN DOCUMENT CONTROL
Main Site Entry Caple Street, Young	AW2020-266 – Page 1
Worker Parking Berthong Street, Young	AW2020-266 – Page 2
Main School Entry Campbell Street, Young	AW2020-266 –Page 3

At times one or more TCP will be implemented, no conflict of signage will occur.

7.3 TRAFFIC CONTROL DEVICES

Traffic control devices shall be erected in accordance with the TCP's.

Before work commences, signs and devices at the approaches to the work area shall be erected in the following sequence:

- A. Advance Warning Signs. (Erect approach and departure signs on approaches to the work site)
- B. All intermediate advance and positional signs and devices required in advance of the taper or start of the work area.
- C. All delineating devices required to form the taper including the illuminated flashing arrow sign at the end of the taper where required. (Install delineation devices and lane closures).
- D. Delineation past the work area.
- E. All other required warning and regulatory signs.

A vehicle displaying a vehicle mounted warning device shall be used in advance of the signs and traffic control devices to protect workers setting out the signs or traffic cones associated with the taper.

The signs and traffic control devices are to be removed in the reverse order of installation. A vehicle displaying a vehicle mounted warning device shall be used in advance of the signs and traffic control devices to protect workers removing the signs or traffic control devices.

A detailed listing depicting the type and quantity of devices required to implement this TMP is included in the TCP. Should the use of additional (not shown on the TCP or listing of devices) or reduced number of devices be required due to unforeseen needs, they shall be recorded within the Daily Diary as a variation to the TMP, following prior approval. Work will not commence or continue until all signs, devices and barricades are in place and operational in accordance with the requirements of the TMP. The number, type and location of signs, devices and barricades shall be to a standard not less than the requirements of the Worksite Safety

Traffic Management- Code of Practice (CoP) and AS1742.3 (except where specifically detailed in this TMP with reasons for the variations). Devices no longer required shall be promptly and completely removed from road user's lines of sight.

7.4 SIGNAGE

All signs shall be in accordance with Traffic Control at Work site Technical Manual and shall be Class 1 retro-reflective. The Symbolic Worker sign and the Symbolic Traffic Controller shall also be fluorescent. Prior to the installation all signs shall be checked for damage and cleanliness and repaired, replaced or cleaned as necessary.

Signs and devices shall be erected in accordance with the locations and spacing shown on the drawings such that:

- They are properly displayed and securely mounted;
- They are within the driver's line of sight;
- They cannot be obscured from view;
- They do not obscure other devices from the driver's line of sight
- They do not become a possible hazard to workers or vehicles; and
- They do not deflect traffic into an undesirable path.

All existing speed limit signs on the carriageway within the work site shall be covered for the duration of the works whilst temporary speed limit signs are in place.

DELINEATION

Cones or bollards shall be implemented in accordance with the drawings as temporary lane separators between through traffic lanes as shown in the TCPs". Cones and bollards shall be fitted with suitable white retro-reflective tape placed in accordance with AS 1742.3.

All cones or bollards will be inspected daily and where displaced or missing made good immediately.

The Supervisor will inspect cones at intervals necessary to ensure any miss-alignment or displacement is identified and corrected prior to this causing disruption to traffic

8. SITE ACCESS

8.1 PROVISION FOR DELIVERIES

Works vehicles (traffic control vehicles, trucks, plant & equipment) will access the site from travelling east on Ripon Street Left turn into Caple Street and enter through Site entry before proceeding to the holding bay. All workers including delivery trucks will be notified where the site entrance is according to that TCP.

8.2 PLANT PARKING/ STORAGE

All equipment will be stored securely on site when works not proceeding.

8.3 STAGING AREA

As there is sufficient site access and parking area within the work site no staging area will be required.

8.4 WORKER PARKING

Worker parking or excess vehicle parking shall be on the school oval accessed via Berthong Street

8.5 COMMUNICATING TMP REQUIREMENTS

SITE INDUCTION

The requirements of the TMP will be communicated to all personnel entering the site through the site induction program.

TOOLBOX MEETINGS

Toolbox meeting to be carried out each day outlining the day's activities and any changed to the TMP for schedule.

SAFE WORK METHOD STATEMENTS

SWMS will be completed every shift outlining the hazards and risk factors onsite.

9. MONITORING AND MEASUREMENT

9.1 SITE INSPECTIONS & RECORD KEEPING

The Site manager will ensure that the Traffic Management Plan is implemented and evaluated for effectiveness. The Supervisor shall inspect and monitor traffic movements around the site in conjunction with the personnel who have erected the control measures. The outcomes of the inspection will be noted for the information of the Traffic control site manager.

Inspections shall be undertaken as required and at a minimum on the following occasions:

- Before the start of work activities on site;
- Closing down at the end of the shift period; and
- During the hours of work; after hours.

A daily record of the inspections should be kept indicating:

- When traffic controls were erected;
- When changes to controls occurred and why the changes were undertaken;
- Any significant incidents or observations associated with the traffic controls and their impacts on road users or adjacent properties.

Where significant changes to the work or traffic environment or adverse impacts are observed, the controls should be reviewed as a matter of urgency. Daily Job Sheets shall be completed by the person undertaking the inspections and reviewed by the Supervisor. All variations to the TMP/TCP, non-conformances, incidents and accidents shall be recorded. Copies of the completed report shall be forwarded to the Traffic control site manager and the Superintendent's Representative.

9.2 TMP & TCP AUDITING

One compliance audit (using the 'Traffic Control at Work Site Safety Inspection Checklist' from the Traffic Control at Work Site Technical Manual) shall be conducted following setting-up of the traffic management and prior to commencement of the works. Audit findings, recommendations and actions taken shall be documented and copies forwarded to the Traffic control site manager.

9.3 PUBLIC FEEDBACK

A Record of comments and complaints received from the public are registered.

The Supervisor shall be responsible for the monitoring of the Register on a daily basis.

10. MANAGEMENT REVIEW

10.1 TMP REVIEW AND IMPROVEMENT

JOSS Construction complete an audit and report on the safety and effectiveness of the TMP and TCP

10.2 VARIATIONS TO STANDARDS AND PLANS

There are no departures from the requirements of AS 1742.3-2009 or Traffic Control at Work Site Technical Manual

On-site variations, if required, shall generally only be made following approval by the Superintendent's Representative and recorded in the daily diary. In emergency situations, on-site variations shall be made and recorded in the daily diary, and the Superintendent's Representative notified as soon as practicable.

11. ACTS AND REGULATIONS:

- Interpretation of Legislation Act 1984
- Occupational Health and Safety Act 2004
- Public Record Act 1973
- Road Management Act 2004
- Worksite Safety Traffic Management Code of Practice (March 2004)
- Road Safety Act 1986
- Occupational Health and Safety Regulations 2007
- Road Safety (Traffic Management) Regulations 2009
- Road Safety Road Rules 2009

12. AUSTRALIAN STANDARDS

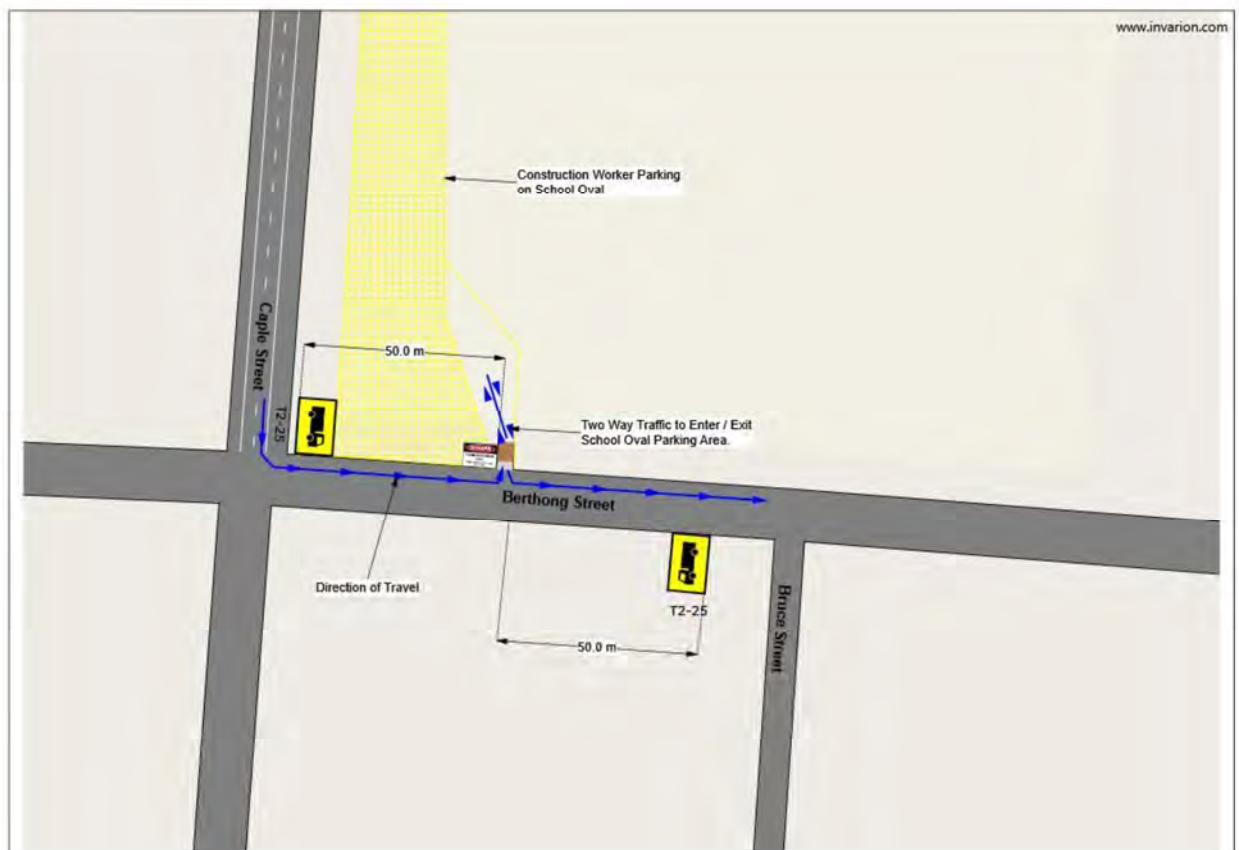
- AS 1742.2-2009: Manual of Uniform Traffic Control Devices, Part 2: Traffic Control Devices for General Use
- AS 1742.3-2009: Manual of Uniform Traffic Control Devices, Part 3: Traffic Control for Works on Roads
- AS 1742.14-2002: Manual of Uniform Traffic Control Devices, Part 14: Traffic Signals
- AS/NZS 1906.1-2007: Retroreflective Materials and Devices for Road Traffic Control Purposes, Part 1: Retroreflective Sheetting
- AS/NZS 1906.4-1997: Retroreflective Materials and Devices for Road Traffic Control Purposes, Part 4: High Visibility Materials for Safety Garments
- AS/NZS 3845-1999: Road Safety Barrier Systems
- AS/NZS 4360-2004: Risk Management
- AS/NZS 4602-1999: High Visibility Safety Garments

13. OTHER RELEVANT DOCUMENTATION

- Austroads Guide to Road Design – Part 6: Roadside Design, Safety and Barriers 2009
- Austroads Guide to Traffic Management – Part 8: Local Area Traffic Management 2008
- Austroads Guide to Road Safety – Part 6: Road Safety Audit 2009
- MASH: Manual for Assessing Highway Safety Features
- NCHRP Report 350: Recommended Procedures for the Safety Performance Evaluation of Highway Features
- WorkSafe Victoria: Framework for Undertaking Work Near Overhead and Underground Assets – Guide to the No Go Zones, July 2004
- WorkSafe Victoria: How WorkSafe applies the law in relation to Reasonably Practicable, November 2007
- Traffic Control at Work Site Technical Manual, November 2020.

TRAFFIC CONTROL PLANS







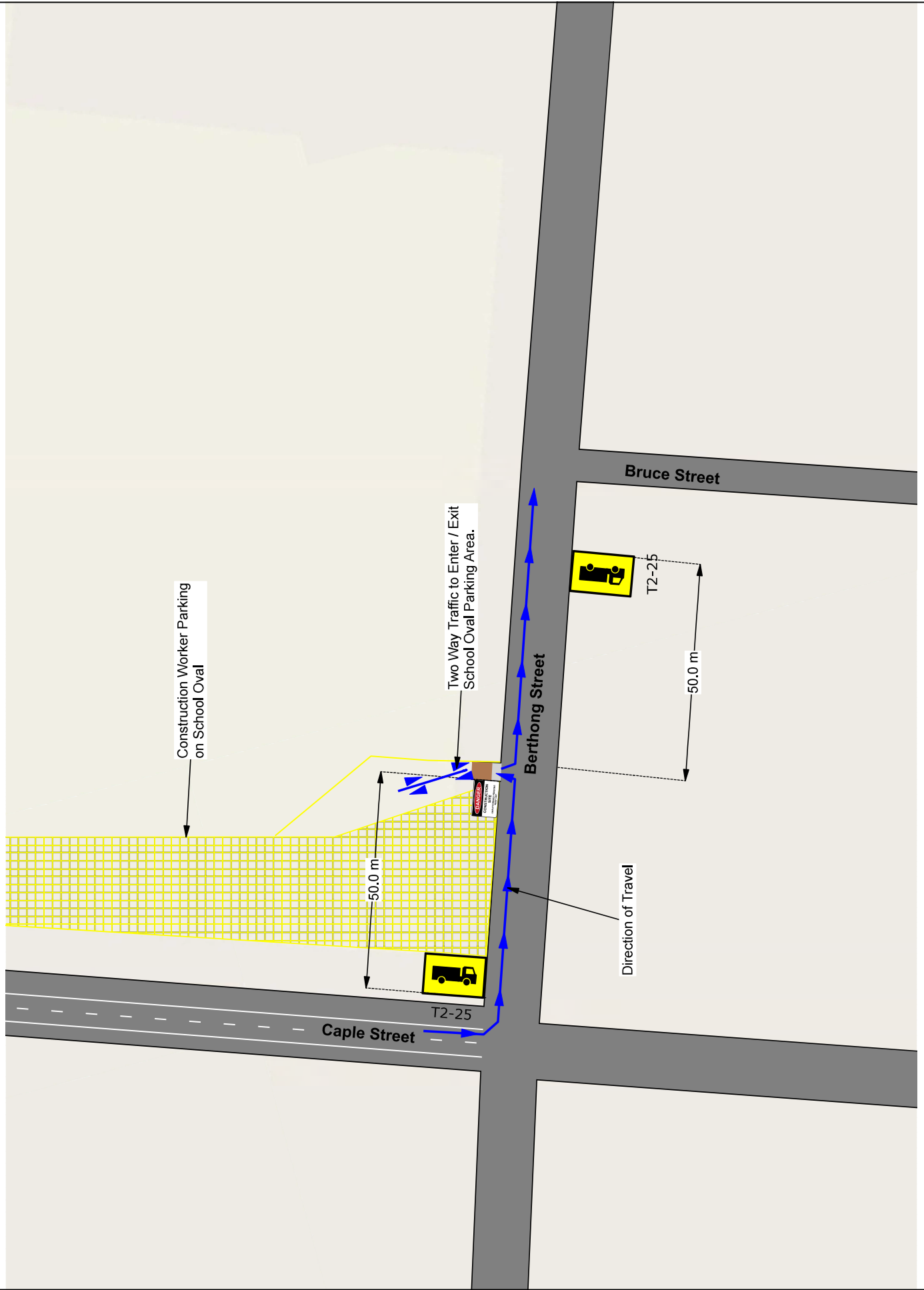
Comments:

- Main Compound Entry via Caple Street
- Secondary Laydown Entry via Berthong Street
- Main School Entry to be used by Construction Vehicles During School Holidays only.
- No Traffic to be impeded by works

NOT TO SCALE - Prior To The Site Being Setup, A Risk Assessment Will Be Conducted - Employees Are Required To Wear High Visibility Clothing At All Times In Accordance With A.S 1742.3 (3.16.4) 2009. - Controllers Are To Never Turn Their Back To Traffic & Give Clear Instructions, Plus Always Have A Clear Escape Route.	NOTES: - All Signs & Devices Shall Be Erected Within Line Of Sight Of Road Or Not Be Obscured By Or Partly Obscured By A Hazard To Vehicles, Cyclists or Pedestrians. Within The Work Zone, Shall Be Covered or Removed (If Necessary) While Work Is In Progress. - Installation A Drive-Thru Inspection Is To Be Conducted & Signs or Devices Adjusted For Maximum Effectiveness.		EXISTING Speed signs must be covered during works 		LEGEND - Bollards/Cones - Works Vehicle - Works Area - VMS Board - TMA		LEGEND - Water Barriers - Concrete Barriers - Guard Rail - Portable Traffic Lights - Trailer Mounted Arrow Board	
	DATE: 13-11-2020 CONTRACTOR: JOSS CONSTRUCTIONS		JOB LOCATION: Caple Street, Young		TYPE OF WORKS: High School Library Construction		DRAWING NUMBER: AW2020-266	

CONTROLLERS RESPONSIBILITY ARE TO:

- Ensure The Safety Of Themselves, Workers, Motorists & Other Road Users
- Conduct Safety Minimising Risk Associated With Traffic Movement, Plus Minimizing Delays To All.
- Incorporated In m/m Board That are Duplicated (Vic Only)
- Not Signage Will Always Be Incorporated In Accordance With A.S 1742.3-2009 & TCAMS Manual.
- GAME Takes No Responsibility of Plan, If Not Implemented By GAME.**





Post Approval – Consultation

Consultation needs to be meaningful, done with courtesy and respect and be well documented. These are people/ organisations that we need to be building meaningful relationships with.

Conditions of all consent can require consultation with a range of stakeholders. Consultation in the post approval world needs to be well documented to satisfy the condition requirements.

Examples include Council, service providers (eg. Electricity gas etc.), consult with local bus provider and TfNSW.

Read each condition carefully, any reference to consult triggers consultation.

Typically on State Significant Development, there will be a specific consultation condition as to how this piece can be appropriately addressed.

Consultation is not:

- A token gesture
- Done at the end of the piece of work,
- An email to the relevant stakeholder with no response;
- A meeting with the stakeholder with no meeting minutes.

Consultation is:

- Meaningful
- Done prior to the requirement,
- Captures an outcome,
- Identifies matters resolved,
- Identifies matters unresolved,
- Any disagreements are disclosed; and
- How we are going to address unresolved matters?

How to capture all the relevant details on consultation requirements? Any consultation requirement in a condition is required to be accompanied with the following table:

Post Approval Consultation Record

Identified Party to Consult:	RMS / Transport NSW
Consultation type:	Email Correspondence & Phone Conversation
When is consultation required?	Prior to commencement
Why	B14 – Construction Traffic and Pedestrian Management Sub-Plan
When was consultation scheduled/held	CTPMSP submitted on 04/03/2021. Approval received 23/03/2021
When was consultation held	23/03/2021 via phone and email.
Identify persons and positions who were involved	Bailey Thomson, Joss Construction Maurice Morgan, Traffic NSW, Team Leader Development Services.
Provide the details of the consultation	As per SSDA Condition B14 – The plan required consultation and approval by the RMS.
What specific matters were discussed?	Site entrance was noted to be via Caple St. Campbell St entrance is not used for SSDA works. Heavy vehicle access through Campbell St will require approved traffic management plans.
What matters were resolved?	NIL resolved, TMP approval granted.
What matters are unresolved?	NIL
Any remaining points of disagreement?	NIL
How will SINSW address matters not resolved?	N/A

Project Environmental Management Plan

Appendix D – Construction Noise and Vibration Management Sub-Plan (Condition B15)



MARSHALL DAY
Acoustics 

YOUNG LIBRARY
CNVMSP

Rp 001 20201194 | 26 February 2021

Project: **YOUNG LIBRARY**

Prepared for: **Joss Construction**
28 Kembla St
PO Box 1289

Fyshwick ACT 2609

Attention: **Simon Duffy**

Report No.: **Rp 001 20201194**

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Document Control

Status:	Rev:	Comments	Date:	Author:	Reviewer:
Complete	-	--	26 February 2021	A Stoker	S Connolly

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APPENDIX B GLOSSARY OF TERMINOLOGY

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APPENDIX D CONSTRUCTION NOISE SOURCES

APPENDIX E CONSTRUCTION NOISE ASSESSMENT

APPENDIX F COMPLAINTS RESPONSE PROCEDURE

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 EI-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	- Localised noise barriers should be utilised when this equipment is in use.
	Concrete saw	- Barriers should be mobile and extend to a height 1 m above noise source.
	Generator	- 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	- Localised noise barriers should be utilised when this equipment is in use.
	Core drill	- Barriers should be mobile and extend to a height 1 m above noise source.
	Angle Grinder	- 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.
 - o 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.
 - o 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:
 - o 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	<u>Sound Pressure Level</u> A logarithmic ratio of a sound pressure measured at distance, relative to the threshold of hearing (20 μ Pa RMS) and expressed in decibels.
SWL or L_w	<u>Sound Power Level</u> 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	<u>Decibel</u> The unit of sound level. Expressed as a logarithmic ratio of sound pressure P relative to a reference pressure of $P_r=20 \mu\text{Pa}$ i.e. $\text{dB} = 20 \times \log(P/P_r)$
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	<u>Peak Particle Velocity</u> For Peak Particle Velocity (PPV) is the measure of the vibration aptitude, zero to maximum. Used for building structural damage assessment.
VDV	<u>Vibration Dose Value</u> 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 hours 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 $L_{Aeq(15\text{ min})}$ 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 $L_{Aeq(15\text{ min})}$	
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 EPA AV: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

Receiver type	Day-time ¹	
	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	dB L _{Aeq} 15min		
		Calculated noise level	Management level	Exceedance
Carrington Park	Worst-case	86		21
	Average	69	65	4
TAFE NSW	Worst-case	76 (internal with windows open) 58 (internal with windows closed)		31 13
	Average	59 (internal with windows open) 41 (internal with windows closed)	45 (internal)	14 ---
	Worst-case	70		---
	Average	45	70	---
St Mary's Catholic Church	Worst-case	60 (internal with windows open) 42 (internal with windows closed)		15 ---
	Average	44 (internal with windows open) 26 (internal with windows closed)	45 (internal)	---
	Worst-case	59 (internal with windows open) 41 (internal with windows closed)		14 --
	Average	44 (internal with windows open) 26 (internal with windows closed)	45 (internal)	---
Hennessey College	Worst-case	59 (internal with windows open) 41 (internal with windows closed)		14 --
	Average	44 (internal with windows open) 26 (internal with windows closed)	45 (internal)	---

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

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.

Project Environmental Management Plan

Appendix E – Construction Waste Management Sub-Plan (Condition B16)



Construction Waste Management Plan (CWMP)

Young High School

1 Introduction

1.1 Context

This Construction Waste Management Sub Plan (CWMP) forms part of the Construction Environmental Management Plan (CEMP) for the Young High School Main Works Project.

This CWMP has been prepared to address the NSW Department of Planning conditions of approval for the project.

Avoiding the generation of waste is of primary importance to Joss when considering waste minimisation and management measures. Waste management and reuse strategies will be considered and implemented where practical and cost-effective. Reuse opportunities will be maximised, with efforts made to implement reuse and recycling initiatives wherever possible.

1.2 Background and Scope

The Young High School Main Works project involves the renovation and construction of a number of new buildings on the Young High School Campus.

This includes a renovation to an existing building, the extension of a public car park, and the construction of a new 3 storey library building.

The new library will be built adjacent to the old court house, and in a historically sensitive location close to where the Lambing Flat riots occurred in the 1800's.

The works will span approximately 12 months, and will involve all types on construction, including earthworks, suspended concrete slabs, precast, blockwork, roofing, glazing, fitout works and landscaping.

2 Purpose and objectives

2.1 Purpose

The purpose of this Plan is to describe how Joss proposes to minimise the amount of waste sent for disposal, manage waste and control any hazardous materials found during construction.

2.2 Objectives

The key objective of the CWMP are to ensure that waste sent for disposal is minimised. To achieve this objective, Joss will undertake the following:

- Ensure measures are identified and implemented to minimise waste, manage waste throughout the construction of the project.
- Ensure the preferred waste management hierarchy of avoidance, minimisation, reuse, recycling and finally disposal is followed.
- Provide staff with an increased level of understanding and awareness of waste and resource use management issues.
- Ensure appropriate measures are implemented to comply with all relevant legislation and other requirements as described in Section 3.1 of this Plan.

2.3 Targets

The following targets have been established for the management of waste during the project:

- Avoid the unnecessary production of waste where practical to do so.
- Dispose of waste materials in accordance with legislative requirements.
- Minimise / reduce the quantities of resources to be used.

3 Environmental requirements

3.1 Relevant legislation and guidelines

3.1.1 Legislation

Legislation and regulations relevant to waste management includes:

- *Protection of the Environment Operations Act 1997.*
- Protection of the Environment Operations (General) Regulation 2009.
- Protection of the Environment Operations (Waste) Regulation 2014.
- *Waste Avoidance and Resource Recovery Act 2001 (WARR Act).*

3.1.2 Policies, Guidelines and standards

The main guidelines, specifications and policy documents relevant to this Plan include:

- NSW Government Resource Efficiency Policy (NSW Government, 2014)
- Waste Avoidance and Resource Recovery Strategy (EPA, 2014)
- Waste Classification Guidelines: Part 1 Classifying Waste 2014 (EPA, 2014)

3.2 Consent Conditions

Before construction can commence, Joss are required to provide appropriate responses to the NSW Department of Planning conditions of approval for the project. Conditions that are relevant to waste are:

Consent Condition	Requirement
B16	The Construction Waste Management Sub Plan (CWMSP) must address, but not be limited to, the following: (a) Detail the quantities of each waste type generated during the construction and the proposed reuse, recycling and disposal locations; and (b) Removal of hazardous materials, particularly the method of containment and control of emission of fibers into the air and disposal at an approved waste disposal facility in accordance with the requirements of the relevant legislation, codes, standards and guidelines, prior to the commencement of construction.

4 Environmental aspects and impacts

4.1 Construction waste streams

The following construction related waste streams have been identified:

- Demolition: waste from existing structures that require demolition – slabs, services, walls, flooring etc.
- Excavation waste resulting from bulk earthworks.
- Waste associated with the construction of the buildings.
- Vegetation from removal of shrubs and trees.
- Packaging materials associated with items delivered to site such as pallets, crates, cartons, plastics and wrapping materials.
- General wastes including office wastes, scrap materials and biodegradable wastes.

4.2 Impacts

The potential environmental impacts associated with construction waste generation include:

- Excessive generation of construction waste directed to landfill, such as excavated soil and rock and vegetation due to inadequate consideration of re-use and recycling opportunities.
- Inappropriate identification and disposal of hazardous waste.
- Excessive generation of waste for disposal to landfill due to mixing of different classes of waste.
- Generation or spread of contaminated waste/soils, e.g. groundwater or construction materials.
- Water pollution due to sediment runoff from soil excavation and excess spoil storage

5 Waste management

5.1 Classification of potential waste streams and volumes

The construction aspects and types of waste potentially generated during construction and outlined below. Estimations on the volumes of each waste type generated have been made. These estimations have the potential to vary dependent on a number of on site factors.

Aspect	Waste Type	Proposed Reuse/ Recycling/ Disposal	Volume Generated
Site Clearing and grubbing: removal of trees and vegetation.	Vegetation	Retain mulched material on site for landscaping and dust/ sediment control.	45m3
Demolition	Concrete Slab	Dispose of at landfill	400m3
Bulk Earthworks	Excavated Soil	Store and reuse top soil on site, surplus soil to be removed for use at landfill.	3500m3
Structural Slab Construction	Surplus Steel Reo	Recycle at scrap steel facility	5T
Structural Slab Construction	Surplus Concrete	Return to batch plant for recycling.	25m3
Structural Slab Construction	Surplus Formwork	Dispose of at landfill	100m3
Building Construction and Fitout	Packaging and wrapping	Dispose of at landfill	100m3
Building Construction and Fitout	Gyprock and Wall Framing	Dispose of at landfill	75m3
Building Construction and Fitout	Metal and Façade Roofing	Dispose of at landfill	45m3
Building Construction and Fitout	Brick, Block and Tiling	Dispose of at landfill	45m3
Building Construction and Fitout	Timber	Dispose of at landfill	30m3
Site Sheds and Offices	General Waste	Dispose of at landfill	45m3

5.2 Reuse and recycling

Waste separation and segregation will be promoted on-site to facilitate reuse and recycling.

Waste segregation onsite – Waste materials, including spoil and demolition waste, will be separated onsite into dedicated bins/areas for either reuse onsite or collection by a waste contractor and transport to offsite facilities for reuse or disposal.

Where materials cannot be reused and recycled, all waste would be handled and disposed in accordance with the POEO Act and the Protection of the Environment Operations (Waste) Regulation 2014.

Due to the regional location of the site, there are limited off site sorting and recycling facilities available, as such wherever possible contractors will be encouraged to remove their own waste from site for recycling or reuse at their own facilities.

5.3 Waste Handling and Storage

Where waste is required to be handled and stored onsite prior to onsite reuse or offsite recycling/disposal, the following measures apply:

Spoil, topsoil and mulch are to be stockpiled onsite in allocated areas, where appropriate, and mitigation measures for minimizing cross contamination of waste streams, dust control and surface water management will be implemented. Stockpiles will be stabilized and erosion control measures such as bunds will be used to prevent any sediment erosion.

Hazardous waste will be managed by appropriately qualified and licensed contractors, in accordance with the requirements of the Environmentally Hazardous Chemicals Act 1985 and the EPA waste disposal guidelines.

All other recyclable or non-recyclable wastes are to be stored in appropriate receptacles (e.g. bins or skips) in appropriate locations onsite and contractors commissioned to regularly remove/empty the bins to approved disposal or recycling facilities. Should bins or skips not be available, hoarded waste areas shall be constructed to hold the waste till it is removed from site.

5.4 Waste Disposal

Waste (and spoil) disposal is to be in accordance with the *Protection of the Environment Operations Act 1997*, *Protection of the Environment Operations (Waste) Regulation 2014* and the *Waste Avoidance and Resource Recovery Act 2001*. Wastes that are unable to be reused or recycled will be disposed of offsite to an EPA approved waste management facility following classification (refer to section 5.1).

Approved waste management facilities located in the vicinity of the Project include:

Facility	Wastes Received at Facility
Victoria Street Waste Management Facility Victoria Street Young NSW 2594 Phone: (02) 6382 2980	General domestic waste Building & Demolition waste Asbestos Bricks and Concrete Garden Organics/Vegetation Waste Oil Steel and Metal E-Waste
Young Metal Recyclers Temora Road Young NSW 2594 Phone: (02) 6382 2091	Scrap metal recycling

6 Hazardous Materials

6.1 Management of Hazardous Materials

Currently there are no hazardous materials identified in the areas of Young High School where works are planned to take place.

However should any hazardous materials be identified during the course of the construction works, Joss will follow the Unexpected Contamination Procedure to safely isolate and manage the hazard. Once the immediate risk has been controlled, specialized contractors will be engaged to manage the hazardous materials.

6.2 Containment of Fibres

Should the hazardous material that is identified be found to be fibrous, Joss will work with the specialized removalist contractor to contain these fibres.

The specific means of containment will vary dependent on the type of contamination that is found. Some forms of containment may include:

- Negative air pressure
- Use of moisture
- Use of industrial vacuums

6.3 Monitoring of Fibres

Before the removal of any fibrous material commences, air monitoring will be established to the perimeter of the removal zone. This air monitoring will be checked and recorded to ensure that there are no hazardous fibres being release to the open atmosphere.

At the completion of the removal process these air monitoring results will included with the clearance certificates and provide to the relevant authorities.

7 Review and improvement

7.1 CWMP update and amendment

As per Joss' quality procedures all documents are reviewed on an annual basis, and this will also be the case for this CWMP, it will be reviewed 12 months from date of creation, and any improvements or adjustment will be made. It will also be amended during the course of the construction works if deemed necessary

Project Environmental Management Plan

Appendix F – Aboriginal Cultural Heritage Management Sub-Plan (Condition B17)

Young High School Library and Joint-use Community Facility (Main Works)

Aboriginal Cultural Heritage Management Sub-Plan

Report to Joss Group

Final Version – March 2021





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Project Name

Young High School Library and Joint-use Community Facility (Main Works)

Aboriginal Cultural Heritage Management Sub-Plan

Project Reference Number

128-089

Local Government Area

Hilltops Shire Council

Report Author

Rebecca (Bec) Parkes

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ABBREVIATIONS AND DEFINITIONS

Acronym/Term	Definition
Aboriginal Object	Has the same meaning as the definition of the term in section 5 of the <i>National Parks and Wildlife Act 1974</i>
Aboriginal Place	Has the same meaning as the definition of the term in section 5 of the <i>National Parks and Wildlife Act 1974</i>
ACHAR	Aboriginal Cultural Heritage Assessment Report
AHIMS	Aboriginal Heritage Information Management System
ACHMSP	Aboriginal Cultural Heritage Management Sub-Plan
EMP	Environmental Management Strategy
CoA	Conditions of Approval
Construction envelope	The maximum extent within which the disturbance area corridor can move to allow the final siting of infrastructure through the detailed design process
CEMP	Construction Environmental Management Plan
DECC	Department of Environment and Climate Change (now part of Heritage NSW)
DPC	NSW Department of Premier and Cabinet
DPIE	NSW Department of Planning, Industry and Environment
EIS	Environmental Impact Statement The Environmental Impact Statement titled Environmental Impact Statement – Young High School Library and Joint-use Community Facility, 9 Campbell Street Young prepared by Ethos Urban dated 1 November 2019, submitted with the application for consent for the development, including any additional information provided by the Applicant in support of the application
EMP	Environmental Management Strategy
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EPBC Act	<i>Commonwealth Environment Protection and Biodiversity Conservation Act 1999</i>
EPL	Environment Protection Licence
Heritage Act	<i>Heritage Act 1977</i>
Heritage NSW	Heritage NSW, Department of Premier and Cabinet
Heritage Item	An item as defined under the <i>Heritage Act 1977</i> and/or an Aboriginal object or Aboriginal Place as defined under the <i>National Parks and Wildlife Act 1974</i> .
Joss	Joss Group Pty Ltd
Lantern Heritage	Lantern Heritage Pty Ltd
NPWS	National Parks and Wildlife Service
NPW Act	National Parks and Wildlife Act 1974
OEH	NSW Office of Environment and Heritage (now part of Heritage NSW)
Project	Young High School Library and Joint-use Community Facility
RAPs	Registered Aboriginal Parties - Aboriginal stakeholders registered for cultural heritage consultation for the project
SSD	State Significant Development
SSDA	State Significant Development approval
YLALC	Young Local Aboriginal Land Council

1 INTRODUCTION

1.1 Project Description

Hilltops Council and Schools Infrastructure NSW are collaborating on a joint project to provide a new Library and Community facility that will form part of the Hilltops Cultural, Community and Education precinct in Young, NSW. The proposed library will be accessible by students from Young High School and the Hilltops local government area.

The project is a State Significant Development project (SSD 9671) known as the Young High School Redevelopment and Community Facility.

The proposed project is located within Young High School and the adjacent Carrington Park. A Heritage Impact Statement and Archaeological Assessment were completed to meet Requirement 9 of the Planning Secretary's Environmental Assessment Requirements (SEARS). While an Aboriginal Cultural Heritage Assessment was completed to meet Requirement 11 of the SEARS.

The project was approved on 21 May 2020.

1.2 Environmental Management Plan

Joss Construction's Project Environmental Management Plan (EMP) has been developed to identify the project specific environmental aspects of the works and plan procedures to remove or reduce the impacts on the environment. Internal and external influences that may affect the way Joss manage our environmental responsibilities will be assessed during this process. In addition, the plan defines measurable objectives, details the roles and responsibilities of various personnel and parties associated with the project, describes the procedural tools used to implement and monitor the environmental procedures and the records to be retained demonstrating compliance with the plan.

The Environmental Plan is one of a number of Joss Management Plans utilised on the project, and, rather than redefining existing management tools, it refers to other procedures defined within the Joss plans. Joss' Aspects and Impacts table thoroughly assesses Heritage and Cultural objectives of the project. Actions required to achieve the objectives are listed and comprehensively collaborate with the ACHMSP produced by Lantern Heritage ensuring clear procedures are defined.

The primary objective of this plan is to construct the works in accordance with the contract documentation but, whilst doing so:

- Not breach any legislated or local environmental requirements.
- Not receive any formal complaints from the client or adjoining properties regarding environmental issues during the course of the project.
- Detailed mitigation measures to offset potential impacts on heritage values.
- Training of workers in awareness of Heritage, Aboriginal and Archaeological significant importance.
- Apply and monitor recommendations on the trees that have been identified for retention (heritage status) and those identified for removal.
- To ensure sediment and erosion control measures can mitigate the risk of sediment runoff during the construction of the development.
- Implement framework to meet the objectives of the Young SSDA

1.3 Purpose and Objective of this Plan

The aim of this plan is to meet the requirements of the State Significant Development approval conditions for this project. This plan outlines the environmental management measures proposed to meet the Aboriginal Cultural Heritages conditions of the approval.=

1.4 Plan Preparation

In accordance with CoA B17(a), this ACHMSP has been prepared by a suitably qualified and experienced expert in consultation with the Registered Aboriginal Parties (RAPs) to determine specific requirements and management measures to be used on site during construction, including protection of any objects or item in perpetuity.

This plan was prepared by Dr Rebecca (Bec) Parkes, Lantern Heritage Pty Ltd. In accordance with CoA B17(b), it has been submitted to the satisfaction of the Planning Secretary prior to construction of any part of the development.



1.5 Consultation

1.5.1 Aboriginal Consultation

Young is located within the traditional lands of the Ngunnawal and Wiradjuri people. Representatives from both groups have expressed their interest in the project area.

Aboriginal community consultation for the Project was commenced in July 2018 and was conducted in accordance with the guidelines as set out in the Heritage NSW's *Aboriginal cultural heritage consultation requirements for proponents 2010* (NSW DECCW 2010b). Full details of the Aboriginal community consultation process is provided in the ACHAR appended to the EIS (GML 2019).

The RAPs for the Young High School Library and Joint-use Community Facility are:

- Young Local Aboriginal Land Council (YLALC);
- Merrigarn Indigenous Corporation;
- Corroboree Aboriginal Corporation;
- Karlari Ngunnawal Pajong Wallabalooa Descendants; and
- Murra Bidgee Mullangari.

In accordance with CoA B17(a) of the SSDA, this ACHMSP was prepared in consultation with the RAPs.

On 8 January 2021 the plan was issued to stakeholders for review and comment. Comments from consultation have been incorporated into this plan where appropriate. Comments are summarised in Table 1

Table 1: Consultation undertaken for the ACHMSP

Date	Consultation	Response/Outcomes
6 Jan 2021	Draft ACHMSP sent to RAPs for review and comments.	TBC
3 Feb 2021	End of consultation period for draft ACHMSP	No feedback received as of 15/03/2021

1.5.2 Ongoing Consultation

Consultation will be ongoing throughout construction. This will include, but not be limited to:

- consultation with RAPs in regard to the assessment and interpretation of the results of Aboriginal cultural heritage investigations;
- consultation with RAPs and Heritage NSW in regard to the development and implementation of the Heritage Interpretation Plan;
- consultation in the event of any unexpected Aboriginal objects found during construction; and
- consultation in regard to the long-term management of any excavated Aboriginal objects.

2 ENVIRONMENTAL REQUIREMENTS

2.1 Legislation

Legislation relevant to heritage includes:

- Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act);
- Environmental Planning and Assessment Act 1979 (NSW) (EP&A Act);
- Native Title Act 1993 (note there are no native title claims relevant to this area);
- National Parks and Wildlife Act 1974 (NSW) (NPW Act);
- National Parks and Wildlife Regulation 2019 (NSW);
- Heritage Act 1977 (NSW) (Heritage Act); and
- Heritage Regulation 2012 (NSW) (Heritage Regulation).

2.2 Conditions of Approval

Table 2 details the conditions from the SSDA which are relevant to Aboriginal cultural heritage and identifies where these conditions are addressed in the ACHMSP.

Table 2: Conditions of approval relevant to Aboriginal cultural heritage (SSD 9671).

Condition	Requirement	Where addressed
B13	Prior to the commencement of construction, the Applicant must submit a Construction Environmental Management Plan (CEMP) to the Certifying Authority and provide a copy to the Planning Secretary. The CEMP must include, but not be limited to, the following:	EMP
	(g) an unexpected finds protocol for Aboriginal and non-Aboriginal heritage and associated communications procedure; and	Section 3.6 and Appendix 2 provide relevant details of the unexpected finds protocol
	(e) Aboriginal Cultural Heritage Management Sub-Plan (see condition B17);	This document is the ACHMSP
B17	The Aboriginal Cultural Heritage Management Sub-Plan (ACHMSP) must address, but not be limited to, the following:	
	(a) be prepared by a suitably qualified and experienced expert in consultation with the Registered Aboriginal Parties to determine specific requirements and management measures to be used on site during construction, including protection of any objects or item in perpetuity;	Section 1.4
	(b) be submitted to the satisfaction of the Planning Secretary prior to construction of any part of the development;	Section 1.4

Condition	Requirement	Where addressed
	(c) provide a methodology for the salvage excavation program for the Hilltops Aboriginal Artefact site;	Appendix 1
	(d) describe how additional areas will be assessed if works are to occur in areas identified as requiring further investigation;	Section 3.5 Appendix 1
	(e) outline the long-term management for Aboriginal objects retrieved as part of archaeological investigations; and	Section 3.9
	(f) describe the measures to protect the Reconciliation Tree in perpetuity;	Section 3.2
B24	Prior to the commencement of landscape works, the Applicant must prepare a revised Landscape Plan to detail and manage the revegetation and landscaping works on-site, and provide a copy to the Planning Secretary. The plan must:	EMP
	(b) ensure that there is an appropriate relationship between the courthouse forecourt and landscape design considering both the Aboriginal and European heritage of the site;	EMP
B32	Prior to the commencement of construction (excluding demolition and earthworks), the Applicant must submit a Heritage Interpretation Strategy to acknowledge the heritage of the site to the satisfaction of the Planning Secretary. The Strategy must:	
	(a) be prepared by a suitably qualified and experienced expert in consultation with the Heritage Council and Council;	Heritage Interpretation Strategy prepared by GML
	(b) incorporate relevant history and significance of the site including the Lambing Flat Anti- Chinese Riots, recognition of key buildings and landscape features; and	
	(c) establish the key elements relevant to guiding the detailed Heritage Interpretation Plan, consistent with the NSW history syllabus.	
C8	The Applicant must carry out the construction of the development in accordance with the most recent version of the submitted CEMP (including Sub-Plans).	This ACHMSP, and any subsequent versions, will be implemented throughout the development
C24	In the event that surface disturbance identifies a new Aboriginal object, all works must halt in the immediate area to prevent any further impacts to the object(s). A suitably qualified archaeologist and the registered Aboriginal representatives must be contacted to determine the significance of the objects. The site is to be registered in the Aboriginal Heritage Information Management System (AHIMS) which is managed by EES Group and the management outcome for the site included in the information provided to AHIMS. The Applicant must consult with the Aboriginal community representatives, the archaeologists and EES Group to	Section 3.7 and Appendix 2 provide relevant details of the unexpected finds protocol

Condition	Requirement	Where addressed
	develop and implement management strategies for all objects/sites. Works shall only recommence with the written approval of EES Group.	
D22	Prior to the commencement of operation, the Applicant must submit a Heritage Interpretation Plan to the satisfaction of the Planning Secretary. The plan must: (a) be prepared by a suitably qualified and experienced expert in consultation with the Heritage Council and Council; (b) be prepared in accordance with the relevant Heritage Council of NSW Guidelines; (c) outline key results from the historical and Aboriginal archaeological investigations; (d) include provision for naming elements within the development that acknowledges the site's heritage; and (e) incorporates interpretive information into the site.	Heritage Interpretation Plan to be prepared by Lantern Heritage.

2.3 Licences and Permits

There are no licences or permits directly relevant to the Young High School project in respect to the management of Aboriginal cultural heritage.

2.4 Guidelines

The guidelines, policies and standards relevant to this ACHMSP include:

- Department of the Environment 2013, Matters of National Environmental Significance Significant impact guidelines 1.1 Environment Protection and Biodiversity Conservation Act 1999, Commonwealth of Australia, Canberra;
- Department of Environment, Climate Change and Water 2010, Code of practice for archaeological investigation of Aboriginal objects in New South Wales, DECCW NSW, Sydney;
- Department of Environment, Climate Change and Water 2010, Aboriginal cultural heritage consultation requirements for proponents, DECCW NSW, Sydney;
- NSW Heritage Council 2012, Stabilising stuff: A guide for conserving archaeological finds in the field, NSW Heritage Council, Sydney;
- NSW Department of Health 2008, Exhumation of Human Remains, NSW Department of Health, Sydney; and
- NSW Heritage Office 1998, Skeletal remains – guidelines for the management of human skeletal remains under the Heritage Act 1977, NSW Heritage Office, Sydney;
- National Parks and Wildlife Service 1997, Aboriginal cultural heritage standards and guidelines kit, NPWS, Sydney; and
- Office of Environment and Heritage 2011, Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW, OEH NSW, Sydney.

3 ENVIRONMENTAL MANAGEMENT MEASURES

This section of the ACHMSP details the measures that will be implemented during the Project to manage and/or mitigate impacts to Aboriginal cultural heritage. It outlines the actions that will be taken in order to comply with the SSDA, and includes guidelines for management of known and predicted Aboriginal objects in or near the disturbance area, including:

- identifying where further archaeological investigation and/or salvage excavation is required;
- identifying where and when unmitigated impacts to heritage can occur;
- the procedures to be followed if any unexpected Aboriginal objects and/or human remains are found during construction;
- design principles to minimise impacts to Aboriginal objects; and
- the process that will be followed for continuing consultation.

The individual management measures are further described below.

3.1 No-Go Zones

Any areas within the Hilltops Aboriginal Artefact site, where impacts are not proposed, should be fenced off as *No-Go Zones* with appropriate signage installed to indicate that the area should not be entered.

All of the areas identified in Figure 2 as requiring further investigation should be designated as *No-Go Zones* until such time as:

- construction activities are complete; or
- clearance certificates have been issued following the completion of further investigations and any necessary salvage excavations.

All *No-Go Zones* should be marked on the relevant construction plans and maps. All staff and contractors working near designated *No-Go Zones* should be reminded at site inductions, toolbox talks and pre-start meetings, of the areas where they can and cannot go.

3.2 Protection of the Reconciliation Tree

No impacts are to occur at the Reconciliation Tree (refer to Figure 2). The Reconciliation Tree must be protected in perpetuity, in accordance with CoA B17(f). A *No-Go Zone* will be established around the tree prior to commencement of construction and landscaping activities. The *No-Go Zone* will be temporarily fenced, and appropriate signage installed to indicate that the area should not be entered for any purpose other than management and care of the tree.

The General Recommendations in the Aborigicultural Impact Assessment Report 2019 should be followed to ensure protection of the tree during construction. Specifically, as detailed in the Arborist Report any construction of proposed pathways adjacent to the Reconciliation Tree (Tree #24) must be raised above the current soil level to prevent the severing of root system (Wade Ryan Contracting 2019: 17).

Advice from a qualified arborist regarding the long term protection of the Reconciliation Tree will be included in the Operational Landscape Management Plan (OLMP). The long term protection and management of the tree will be detailed in the OLMP, to be provided prior to the commencement of the operation.

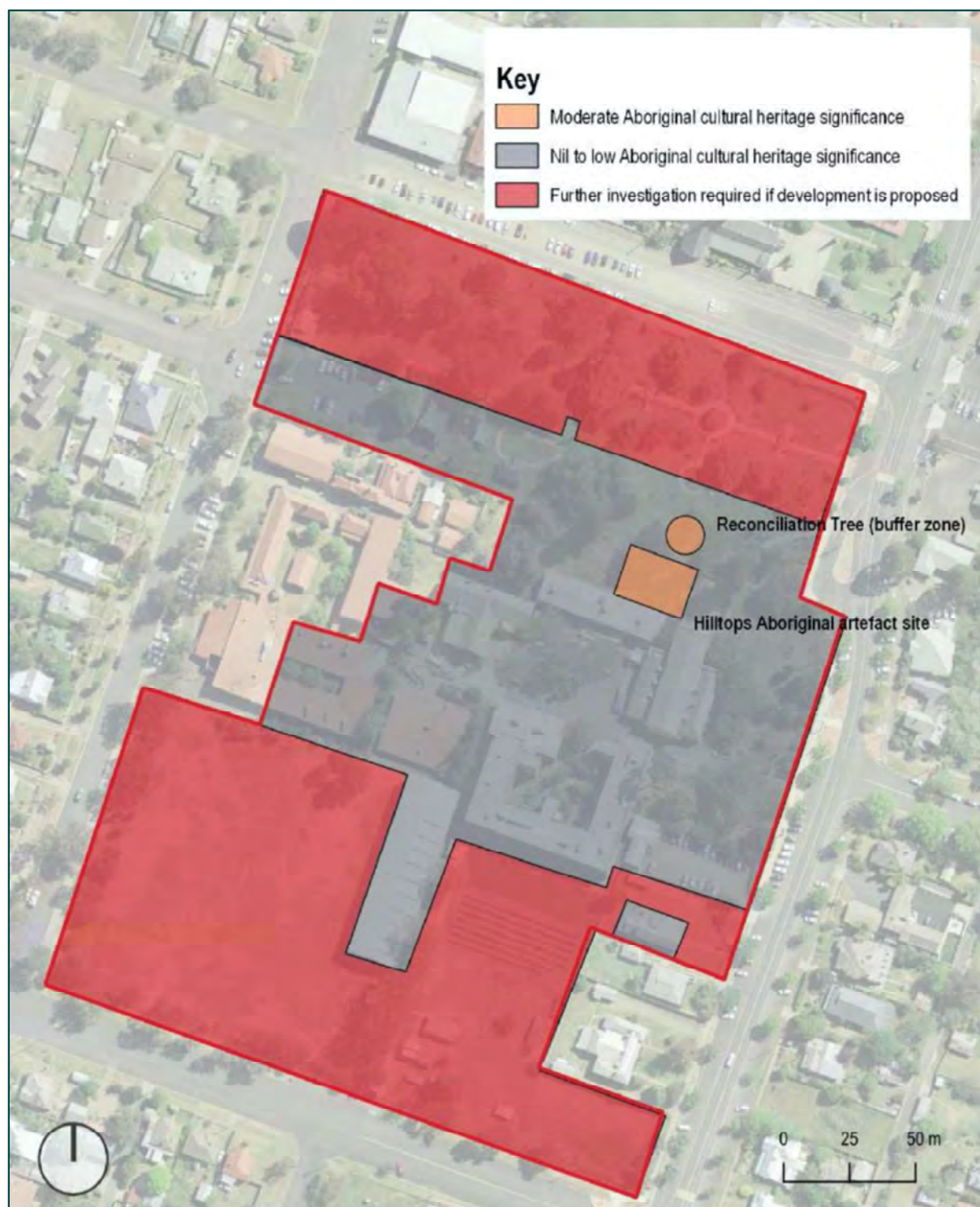


Figure 2: Zones of Aboriginal cultural heritage identified in the EIS [GML 2019: 42].

3.3 Mitigated Impact – Salvage Excavations

During the Aboriginal archaeological test excavation program conducted by GML (2019) a subsurface archaeological site was identified and recorded as Hilltops Aboriginal Artefact site (AHIMS #50-3-0056) (see Figure 2). The test pits comprising the Hilltops Aboriginal Artefact site also included Historic artefact material as well as Aboriginal artefacts. The extent of the site is not known and a program of salvage excavation was recommended for this site.

Mitigated impact, in the form of archaeological salvage excavation, will be conducted within areas of proposed works at the Hilltops Aboriginal Artefact site prior to the commencement of construction activities. The salvage excavation will be undertaken by the Project Archaeologist in partnership with representatives of the RAPs. All excavations will be conducted in accordance with the methodology provided in the Archaeological Research Design at Appendix 1.

If the impact area is less than 5% of the extent of the Hilltops Aboriginal Artefact site (#xx-xx-xxxx) then salvage will be conducted across the entire area of proposed impacts. If more than 5% of the site extent is to be impacted, then salvage excavation would target “hot spots” identified from the results of test excavations with an aim to excavate a minimum of 50 metres square.

All Lantern Heritage staff are experienced in identification and excavation of both Aboriginal and Historic materials. The Archaeological Research Design at Appendix 1 includes steps to follow if Historic materials are encountered during the salvage excavation of Hilltops Aboriginal Artefact site.

In the event that further investigations, or unexpected finds, trigger the requirement for additional archaeological test excavations beyond the boundaries of the identified Hilltops Aboriginal Artefact site, those areas will be investigated following the Archaeological Research Design at Appendix 1.

3.4 Unmitigated Impact

Unmitigated impacts can occur within the areas of nil to low Aboriginal cultural heritage significance as highlighted in grey in Figure 2.

The procedures for unexpected finds, as detailed in Appendix 2, must be adhered to in these areas.

3.5 Further Investigation – Test Excavations

In the event that construction activities are proposed in any of the areas highlighted in red in Figure 2 (areas requiring further investigation), additional archaeological investigations will be required prior to the issue of a clearance certificate. The Project Archaeologist, in partnership with the RAPs, will make the decision on whether or not test excavations are required as part of the further investigations.

Where warranted, test excavations will be conducted in accordance with the methodology outlined in the Archaeological Research Design at Appendix 1.

3.6 Clearance Certificates

Before construction works commence in a given location area, a heritage clearance certificate will be issued and signed off by the Project Archaeologist. The heritage clearance certificate will certify that heritage mitigation measures in the area that works are proposed have been completed and impacts may now proceed.

3.7 Unexpected Finds

In the event that any Aboriginal objects, or potential/suspected Aboriginal objects, are identified during the course of construction works, works in the direct vicinity of the find will cease immediately and the Project Archaeologist, RAPs and environmental manager will be notified. The find will be inspected and assessed by the Project Archaeologist in partnership with representatives of the RAPs.

If the item is assessed to be an Aboriginal object, or if additional investigation is required to assess the find, the Project Archaeologist will record the location, nature and extent of the item and liaise with the RAPs, Heritage NSW/DPIE and the environmental manager regarding appropriate management measures (e.g. extent of *no-Go Zone*, requirement for salvage/exploratory excavation etc). Works will not recommence in that area until all necessary management measures are implemented, and a heritage clearance certificate has been issued by the Project Archaeologist.

Further details of the procedure for unexpected finds is provided in Appendix 2.

3.8 Discovery of Human Skeletal Remains

In the event that a burial, or human skeletal remains are encountered during excavations or construction works, the relevant procedures for notification and investigation will be followed, as outlined in the procedure in Appendix 2, which details protocols for unexpected finds, including human remains.

All human remains must be handled in accordance with the Public Health Act 1991 (NSW). Management of the remains is to be determined through liaison with the appropriate stakeholders (NSW Coroner/Police, forensic anthropologist, DPIE, Heritage NSW, RAPs, suitably qualified archaeologist(s), etc.)

3.9 Long-term management of Aboriginal objects

The Local Aboriginal community will be consulted about the long-term management of Aboriginal objects retrieved during excavation. Some of the options include re-burial on site, storage at the Young Local Aboriginal Land Council office or future use as an educational resource in the Hilltops Cultural Precinct.

Consultation regarding the long-term management of Aboriginal objects retrieved during excavation will be undertaken during such excavation works, and through Aboriginal community meetings as part of the post-excavation analysis and interpretation process. (i.e. consultation will be conducted through discussions during fieldwork with site officers, formal meetings where excavation results are presented, and through RAP review of excavation reporting recommendations).

Where relevant, additional details regarding the long-term management of Aboriginal objects will also be addressed in the Heritage Interpretation Plan (e.g. if finds are managed as part of a broader interpretive assemblage).

4 COMPLIANCE MANAGEMENT

4.1 Monitoring and Inspections

Environmental inspections will be undertaken in accordance with Section 4.0 of the EMP. These inspections will be undertaken at 4 weekly intervals, at a minimum. The inspections will include reviews of the condition of fencing around *No-Go Zones* and monitoring for any inadvertent impacts within the *No-Go Zones*. The inspections will also include reviews of where any archaeological investigations are being conducted in order to ensure that appropriate management and mitigation strategies are implemented, in accordance with this ACHMSP.

4.2 Training

All personnel on site will undergo site induction training in relation to Aboriginal cultural heritage. The induction training will at a minimum include:

- existence and requirements of this ACHMSP;
- relevant legislation;
- obligations and responsibilities surrounding *No-Go Zones*;
- the management and mitigation of impacts to heritage;
- the unexpected finds procedures;
- roles and responsibilities for heritage management: and
- procedures in the event of an incident.

Targeted training in the form of toolbox talks and pre-start meeting will also be provided to personnel working near known Aboriginal objects and/or personnel with duties related to excavation and other tasks that may trigger the unexpected finds procedures.

Further details regarding the staff induction and training are outlined in Section 3.7 of the EMP.

4.3 Incidents

Incidents will be reported and managed in accordance with Section 3.6 of the EMP, including notification to the Secretary and other relevant agencies.

4.4 Audits

Audits will be undertaken in accordance with the requirements detailed in Section 4.6 of the EMP. The audits will assess the effectiveness of the management measures and overall compliance with this ACHMSP.

4.5 Reporting

4.5.1 Compliance Reporting

Reporting requirements and responsibilities are documented in Section 4.3 of the EMP.

4.5.2 Archaeological Reporting

Following completion of any further investigations and/or salvage excavations at the Hilltops Aboriginal Artefact site, a detailed archaeological excavation report will be compiled that includes the specific management actions and methodologies implemented, results of any additional research, and documentation of the results of all investigations. It will include detailed mapping that shows locations of all excavation trenches, relevant site plans and sections, together with an accompanying photographic inventory and descriptions of the excavated deposits. Post excavation analysis of all excavated finds will be documented, including full artefact catalogues, statistical analysis of the assemblage, results of any radiometric dating samples, and comparative analysis of the site in a regional context. The analysis will also address the identified research questions from the Archaeological Research Design [Appendix 1].

Copies of the archaeological excavation report will be provided to the Young High School and Joint-use Community Facility, Department of Planning, Industry and Environment (DPIE), the Heritage Council of NSW and to local libraries.

4.5.3 Interpretation Plan

An Interpretation Plan will be prepared in accordance with CoA B33. The Interpretation Plan will encompass Aboriginal and Historical cultural heritage at the Young High School. It will build on the Interpretation Strategy prepared by GML, the Early Works Excavation Report prepared by GML, and the results of any archaeological investigations conducted under the SSDA. The Interpretation Plan will include identification of themes, audience, locations for interpretive information, material and design of interpretive signs, as well as documentation of the complex history of the site.

5 REFERENCES

- Australia ICOMOS, International Council on Monuments and Sites, 2013. The Burra Charter: the Australia ICOMOS charter for places of cultural significance 2013.
- Department of Environment, Climate Change and Water, 2010a. Due diligence code of practice for the protection of Aboriginal objects in New South Wales. NSW DECCW, Sydney, N.S.W.
- Department of Environment, Climate Change and Water, 2010b. Code of Practice for archaeological investigation of Aboriginal objects in New South Wales. DECCW, Sydney, N.S.W.
- Department of Environment, Climate Change and Water, 2010c. Aboriginal cultural heritage: consultation requirements for proponents 2010 : Part 6 National Parks and Wildlife Act 1974. Dept. of Environment, Climate Change and Water NSW, Sydney.
- GML Heritage 2019, *Hilltops Library and Community Facility, Young High School. Aboriginal Cultural Heritage Assessment Report*, Report prepared for Hayball.
- Office of Environment and Heritage, 2011 Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW: Part 6 National Parks and Wildlife Act 1974. Office of Environment and Heritage, Sydney South, N.S.W.
- Wade Ryan Contracting, 2019, *Aboriginal Cultural Impact Assessment, Young High School - Main Works 2019 V1*.

APPENDIX 1 – ARCHAEOLOGICAL RESEARCH DESIGN

Young High School Library and Joint-use community facility test and salvage excavation methodology.

1. Introduction

This methodology details the archaeological salvage and test excavation procedures to follow prior to any construction activities within the Hilltops Aboriginal Artefact site (AHIMS #50-3-0056) and within areas identified as requiring further investigation by GML (2019) (Figure 1).

This methodology includes details of field methods and recording procedures for salvage and test excavations, as well as post-excavation analysis of finds and repatriation protocols.

The primary aims of the proposed mitigation works are to:

- Identify the nature, type and extent of the Hilltops Aboriginal Artefact site; and
- Identify the presence or absence of Aboriginal archaeological deposits within areas requiring further investigation if development is proposed.

The salvage and test excavation (if required) will be undertaken in consultation with, and with the participation of, representatives of the registered Aboriginal parties (RAPs). They will examine the following questions:

The **sub-surface salvage excavation of Hilltops Aboriginal Artefact site** will examine the following questions:

- Can we obtain any further information on the single occupation event recorded by GML (2019)? For example, is there evidence of other knapping events?
- What types of raw materials and artefact types are present?
- Is there evidence of any other possible glass artefacts?
- How do these raw materials and artefact types compare to GML's (2019) test excavation results?
- What are the stone tool technologies that were used by Aboriginal people who lived and visited here?
- What is the relationship with the historic artefacts recorded during test excavation by GML (2019)?
- What can be inferred from the artefact assemblage regarding the activities or functions of artefacts and the life of the people who used them;
- Is there archaeological evidence that can be dated?
- Are other site features such as hearths, heating ovens, knapping floors or plant and animal remains present?
- Can sediments for palynological analysis be sampled? From GML report
- How do the results from this project compare with the results from previous projects in the area?

Whilst the methodology provides a guide it is not limited to the questions above and other questions may arise (or be fine-tuned) during the course of the work being undertaken.

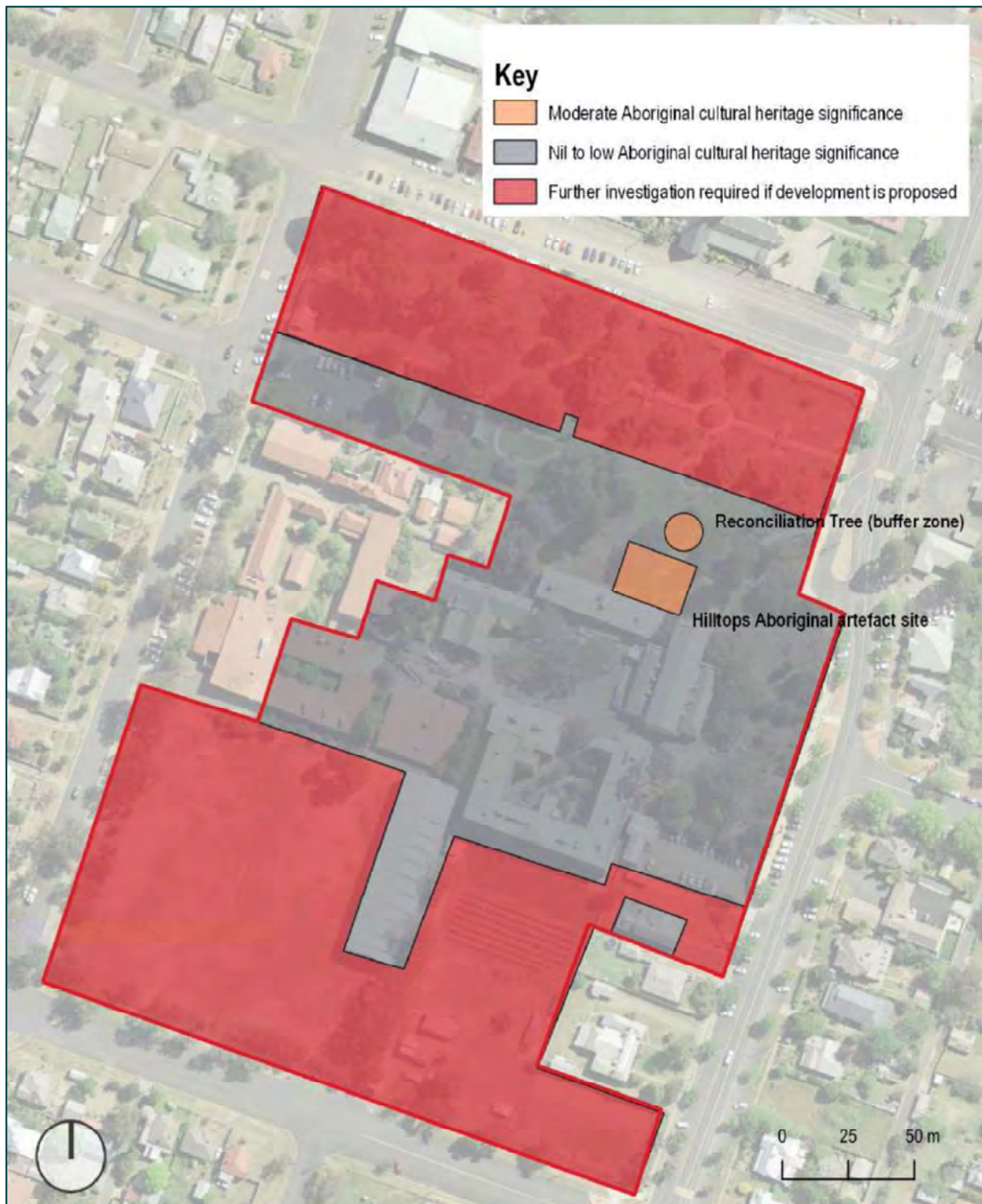


Figure 1: Zones of Aboriginal cultural heritage identified in the EIS (GML 2019: 42).

If required, the **test excavation of areas highlighted in red in Figure 1** will examine the following questions:

- What is the nature, extent and integrity of subsurface cultural deposits within the areas requiring further investigation? How does this compare to results from GML (2019)?
- What are the characteristics of the Young soil landscape within the areas requiring further investigation. How does this compare to results from GML (2019)?
- Are other site features such as hearths, heating ovens, knapping floors or plant and animal remains present?
- Is there archaeological evidence that can be dated?
- Is the archaeological deposit culturally significant?

2. Salvage excavation methodology

Salvage excavation will be undertaken within areas of proposed works at the Hilltops Aboriginal Artefact site (AHIMS #50-3-0056) prior to the commencement of construction activities.

All salvage excavations will be limited to the footprint of the proposed works.

Excavation areas

Salvage excavation at Hilltops Aboriginal Artefact site (AHIMS #50-3-0056) will start at the back filled square A13 and continue around this pit until either:

- a. the limits of the site have been identified through excavation;
- b. the artefact amounts recorded are below the threshold for expansion of 10 per square metre; or
- c. if a representative sample has been excavated.

All decisions regarding when to terminate excavation in a given excavation area will be undertaken in consultation between the RAPs and the archaeologists participating in the fieldwork.

Excavation procedures

The excavation area will be gridded out with string into 1m by 1m squares and mapped in detail, including recording of surface levels across the area. Each 1m by 1m grid square will be allocated a unique ID code, which will be recorded on all associated paperwork, photographs and finds bags. Photographic recording of the excavation area will be undertaken prior to commencement of excavation.

Excavation will be undertaken by hand using trowels and/or spades, with hand picks, mattocks or similar hand tools utilised where deposits are too compacted for excavation by trowel or spade. Brushes, small tools and coal shovels will be used as required to clean up excavations and/or undertake more delicate work. All excavated spoil will be collected in labelled buckets and sieved according to excavation unit (square and spit/context).

Excavation will proceed in the first instance (i.e. the first grid square in a given excavation area) by 5cm spits. However, if an identifiable stratigraphic feature/context is identified during the course of excavation, then excavation will be conducted according to stratigraphic units. Excavation will then proceed by stratigraphic units wherever feasible, with the use of 5cm spits utilised as a means of exploring new stratigraphic units, including for the purposes of sectioning and/or providing greater vertical control where a stratigraphic unit contains cultural material and is more than 5cm in depth.

Excavation within a given square will terminate when bedrock, clay or other sterile unit indicative of the base of cultural deposits is encountered, or if the excavation becomes unsafe to continue (e.g. presence of hazardous materials or unstable deposits). If there is doubt regarding whether or not the base of cultural deposits has been reached, excavation will continue until at least 20cm of sterile deposit is encountered. All decisions regarding when to terminate excavation in a given grid square will be undertaken in consultation between the archaeologists and the Registered Aboriginal Parties (RAPs) participating in the fieldwork.

Excavation would also cease in the event that either of the following occurred:

- Discovery of human skeletal remains or suspected human skeletal remains; or
- Discovery of non-Aboriginal archaeological relics of local or State significance.

With regard to the discovery of human skeletal remains, excavation in the area of the finds would halt and the procedures outlined in Appendix 2 would be followed.

With regard to the discovery non-Aboriginal archaeological relics, excavation in the area of the finds would halt and the Heritage Council of NSW would be notified. Excavation would not recommence until advice had been sought from the Heritage Council of NSW and all relevant approvals/permits had been obtained. All Lantern staff are experienced in the identification and excavation of both Historic and Aboriginal artefacts. Lantern's Director, Bec Parkes is qualified to direct historical excavations. Pending approval from DPIE/Heritage NSW, salvage excavation of Hilltops Aboriginal Artefact site would continue by context rather than spit.

The minimum salvage quota will always be completed within a given excavation area, unless the proposed footprint of impacts has been reduced, in which case the minimum quota will at least be equal to the area of proposed impacts. Decisions regarding when to go beyond the minimum quota will be guided by the results of the excavation. Excavation will continue up until a representative sample of the site is achieved, including characterisation and understanding of stratigraphy, site formation processes and composition of cultural material.

Excavation will be terminated within a given excavation area either upon salvage of the entire area of proposed impacts, retrieval of a representative sample of the excavation area, or completion of the maximum excavation quota, whichever is achieved first. All decisions regarding when to terminate excavation in a given excavation area will be undertaken in consultation between the RAPs and the archaeologists participating in the fieldwork.

All pits/trenches will be backfilled with the excavated spoil upon completion of the salvage excavation.

Sieving

All excavated spoil will be sieved with the use of a 5mm sieve. A 10mm sieve will also be available for use as a nested sieve over the 5mm sieve as required. All suspected artefacts, shell, bone and other cultural material will be bagged according to material type.

Samples of charcoal, gravels or other sieve residue will also be collected where it is deemed that such samples may assist with analysis and interpretation of the excavation.

Bagging

All finds will be bagged by excavation square, excavation unit (spit/stratigraphic context) and material type. Items recorded in situ will be bagged individually with three dimensional coordinates of their location recorded. Fragile/delicate items will be bagged separately with appropriate inert padding/wrapping as required.

All excavation bags will be labelled with the following information as a minimum:

- i. Project name
- ii. Date
- iii. Site
- iv. Salvage excavation
- v. Grid square
- vi. Excavation unit
- vii. Material
- viii. Initials of recorder

Where necessary, advice will be sought from a specialist materials conservator regarding artefact removal, handling, storage, cleaning and stabilisation.

Recording

Excavation recording will at a minimum comprise the following:

- Detailed site plan
- Excavation recording forms for each grid square
- Photographic log
- Section drawings

A detailed site plan will be prepared prior to commencement of excavation. That plan, or copies thereof, will be updated through the excavation with information regarding the progress of excavation including which squares are open, which squares are complete, and patterns observed in site stratigraphy, features, and/or finds.

Excavation recording forms will be completed for each grid square that is opened up. Details recorded on these forms will at a minimum include the following:

- Horizontal and vertical extent of each excavation unit
- Deposit descriptions including grain size, colour, texture, compaction, water content, inclusions, evidence of disturbance, nature of boundaries/relationships between deposits
- Finds summary (e.g. number and type of finds)
- Details of any samples collected (e.g. charcoal, sediment, gravels)
- Locations, including plans, of in situ finds/features
- Notes on interpretation
- Details of photographs taken prior, during or after excavation
- Details of section drawings

In addition to the details recorded on excavation forms of all photographs, a log will be kept of all photographs including photographer, camera ID, details of photograph (e.g. grid square[s]/feature[s]/find[s]), date and direction of photograph. Photographs will at a minimum be taken of each excavation area prior to commencement of excavation, upon completion of salvage,

and following backfilling. Photographic records for each grid square will include commencement of each excavation unit, completion of excavation, and details of *in situ* finds and features.

A minimum of one section drawing will be completed for each excavation area. Additional section drawings will be conducted as necessary to record the complexities of stratigraphy and features within a given excavation area. All section drawings will be done to scale on graph paper and include details of deposit descriptions, the nature of boundaries between deposits, samples taken and other relevant features. Photographs will also be taken of excavation walls to supplement the section drawings.

Samples

Samples will be collected during excavation for the purposes of characterising deposits, obtaining samples for radiometric dating (e.g. charcoal, wood, bone, shell and/or OSL), reference examples of background materials such as gravels. A minimum of a single representative set of sediment samples will be collected from at least one grid square in each excavation area. Additional samples will be collected as required to characterise individual features/deposits.

All samples will be recorded on the relevant excavation recording form. All samples will be labelled in accordance with the standard protocols for bagging finds.

Post-excavation analysis

Storage of finds

All materials collected during excavation, including artefacts, midden material and samples, will be stored during the analysis phase in a locked facility at the premises of the archaeologist undertaking the salvage works (e.g. Lantern Heritage Pty Ltd – 3/15 Bega Street, Tathra NSW 2550). Any changes to the location of the stored materials will not be made without agreement from the RAPs and prior notice to OEH.

Artefact analysis

Artefacts collected during excavation may include stone artefacts, flaked glass, and items of European material culture (e.g. nail, glass, ceramics, other metal items). All artefacts will be analysed in accordance with standard archaeological procedures. This may include light brushing to remove excess dirt and/or cleaning with water, depending upon the nature of the item. Digital callipers will be used to measure dimensions to the nearest mm and digital scales will be used to weigh all items to the nearest 0.1 grams. Representative photographs and/or illustrations of individual finds and/or components of the assemblage will be compiled throughout the analysis program.

Following any necessary artefact cleaning, all items will undergo metric recording in accordance with their material and type. Stone artefacts will at a minimum be recorded in accordance with the procedure outlined in the *Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW* (DECCW 2010b). Additional measurements may also be recorded for some items.

The analysis of the stone artefacts and flaked glass, if present, will be undertaken by a specialist archaeologist with experience in stone artefact analysis. All decisions regarding the necessity for additional measurements and recording (e.g. photography and/or illustration) will be made by the stone artefact specialist and will be led by the research questions specific to that site (e.g. material sourcing/use, technology, chronology and artefact use).

Where possible, RAPs will be invited to participate in the analysis program and training in stone artefact recording and analysis will be made available.

All items of European material culture will be recorded in accordance with standard archaeological procedures including weight, dimensions, form/shape, completeness, material(s), colour(s), modifications, condition and diagnostic features/marks.

Where necessary, advice will be sought from a specialist materials conservator regarding artefact handling, storage, cleaning and stabilisation.

Where necessary, artefact analysis will include the use of a light microscope to inspect material composition and aspects of artefact form/modification.

Where warranted (i.e. where analysis will assist with answering identified research questions), residue and/or usewear analysis will also be conducted.

Analysis of samples

Reference samples will be inspected and recorded in accordance with their material type and rationale behind sample collection. For example, samples of sediment/deposit may have pH, Munsell colour, and grain size composition recorded. Samples of background gravels may be photographed and/or described where relevant to analysis of site formation processes or comparison with the stone artefact assemblage.

Samples collected for the purposes of dating (e.g. charcoal, wood, bone, shell, sediment/deposit) will be evaluated, and where viable samples are identified, a representative selection of samples will be sent to a laboratory for processing. Given that radiometric dating is a destructive process, decisions regarding potential samples will be discussed with RAPs during the fieldwork to ensure that the samples selected are culturally appropriate. All samples of charcoal, wood, bone and shell will be photographed, weighed/measured and described prior to being sent for processing.

The primary aim of dating will be to establish the period(s) of site occupation and/or to ascertain the date of specific features, or phases of site formation.

3. Test excavation methodology

This methodology details the archaeological test excavation procedures to follow if construction activities are proposed in any of the areas requiring further investigation as identified by GML (areas highlighted in red in Figure 1). The Project Archaeologist, in partnership with the RAPs, will make the decision on whether or not test excavations are required as part of the further investigations.

The test excavations will be conducted in accordance with the Code of Practice for Archaeological Investigations of Aboriginal Objects in NSW (DECCW 2010). Summaries of the excavation methods are provided below, together with an overview of the strategies for test pit placement and expansion.

5.1.1 Test Pits

- The test pits will be excavated by hand (e.g. trowels, spades and other hand tools). This will involve the excavation of 50 x 50cm test units.
- The first test pit will be excavated in arbitrary 5cm spits; the subsequent test pits will then be excavated in either 10cm spits or stratigraphic units (whichever is smaller) to a culturally sterile layer. Depending on the depth of sterile deposits it may be necessary to expand the test pit by one or more 50 x 50cm test units.
- The minimum number of test pits to be excavated will depend on the area of proposed impacts. Test pits will be spaced 20 to 25m apart and the location of pits will be determined in partnership with the RAPs.

- Following completion of a single test unit, the results will be reviewed in terms of horizontal and vertical distributions of artefacts and additional test units will be excavated to further explore concentrations of artefacts and/or confirm absence of artefacts. This will be done both as expansion of existing test units (as per Figure 2) and as pits on additional transects perpendicular to the original transects.
- Photographic and scale drawn records will be kept for all test pits, and where necessary (i.e. to document archaeological features and/or changes in stratigraphy) multiple walls may be recorded.
- Surface levels and final levels for all test pits will be surveyed with a level or total station.
- All test pit locations will be surveyed in through a combination of GPS coordinates and tape and compass, and/or total station survey.
- All excavated material will be collected in buckets by pit and spit and sieved through a 5mm mesh. Decisions regarding termination and/or expansion of a test pit will not be made until all spoil has been sieved.
- All artefactual material will be analysed on site. Artefacts will then be reburied, in one or more of the test pit locations, in accordance with Requirement 26 of the Code of Practice.
- The maximum surface area of all test excavation units will be no greater than 0.5% of the area being investigated,
- Test excavation units will be backfilled as soon as practicable.
- In the event that suspected human remains are identified works will immediately cease and the relevant State Government agencies will be notified.
- test excavations will cease when enough information has been recovered to adequately characterise the nature of the deposit.

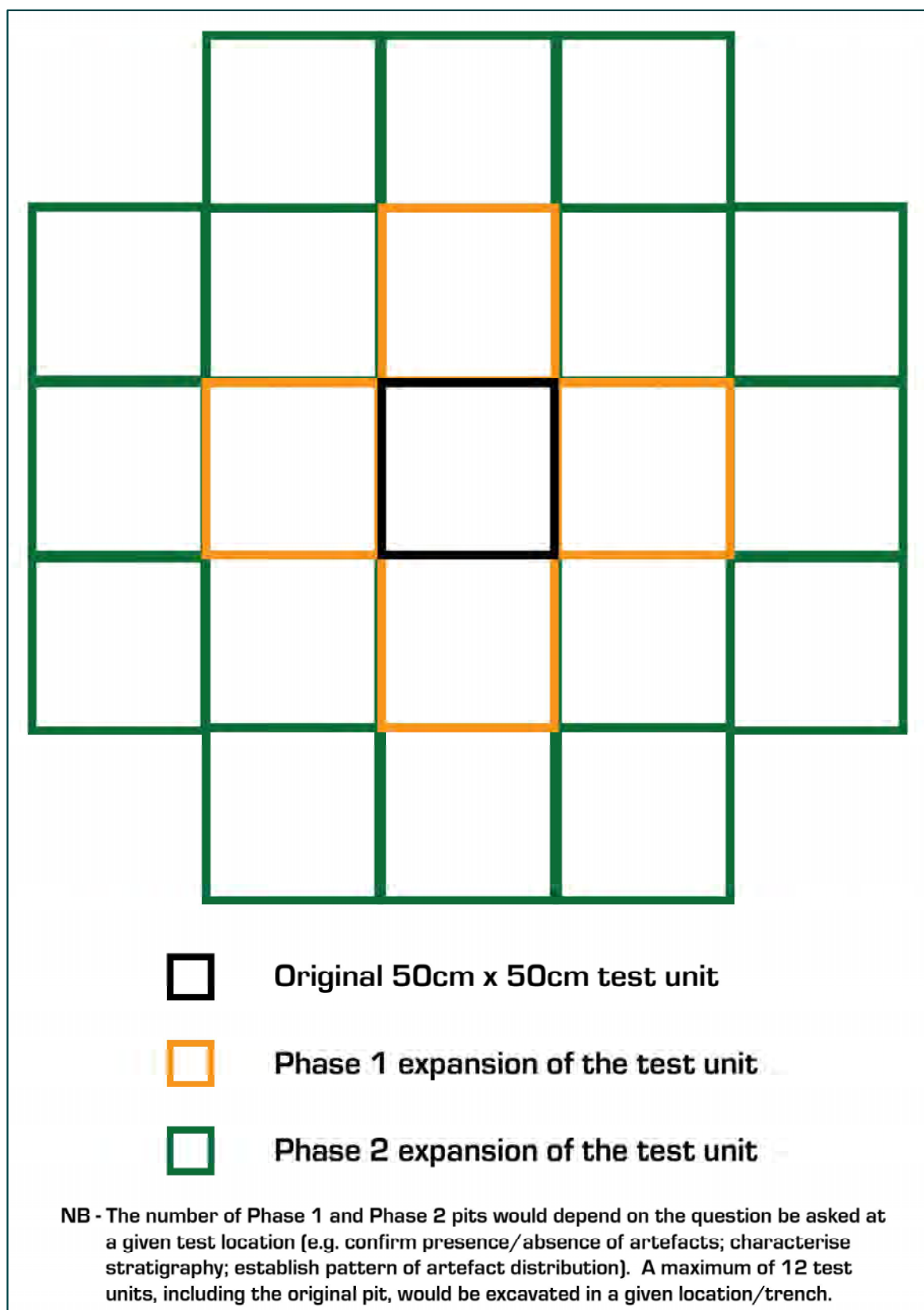


Figure 2: Conceptual plan of potential test unit expansion up to a maximum of 3m².

4. Reporting

A detailed excavation report will be prepared and submitted to Heritage NSW following completion of all post-excavation analysis. The report will include all details of the fieldwork, descriptions of the results of the excavation (including relevant plans, drawings, photographs, tables and graphs), analysis and discussion of the results (including comparative analysis with relevant sites at local, regional and/or national levels), and details of any ensuing recommendations relating to future decisions regarding management or investigation of the sites.

A plain English version of the report will also be prepared. Both versions of the report will be provided to the RAPs for review and comment prior to being finalised and submitted to Heritage NSW.

5. Protocols for discovery of Human Remains

In the event that human skeletal remains, or suspected human remains are found during archaeological excavations, construction activities or any of the ongoing management procedures for Young High School and joint-use community facility, the protocols and procedures outlined in Appendix 2 must be followed.

APPENDIX 2 – UNEXPECTED FINDS PROCEDURE

Unexpected finds procedure - Aboriginal objects or values

In the unlikely event that unexpected Aboriginal objects or values are encountered during construction (such as very high artefact distributions in areas previously assessed to contain low densities), the following steps should be followed:

1. All construction that could potentially harm the Aboriginal objects or values must cease (within 20 metres of the find). Only construction that is required to comply with occupational and environmental health and safety standards and/or to protect the cultural heritage should occur.
2. The person who identified the Aboriginal objects or values must immediately notify the person in charge of the activity. The Project Manager and the HSEQ Manager is to be notified.
3. The item is to be protected by the establishment of a no-go zone.
4. The HSEQ Manager is to notify GHD.
5. If the item is likely to be a human bone, follow the ancestral human remains process and notify the Police.
6. Works may continue outside of the minimum 20 metre barrier.
7. The project archaeologist is to be notified within 24 hours of the discovery.
8. The project archaeologist is to attend site where required and conduct a preliminary assessment and recording of the item. The location and context of the Aboriginal object or value is to be recorded.
9. Within five (5) days of the Aboriginal objects or values being discovered, the archaeologist or the HSEQ Manager is to facilitate the involvement of any relevant RAPs and, in consultation, recommend the most appropriate course of action.
10. Where the item is an Aboriginal object, the discovery must be reported to Heritage NSW (previously DPIE) as soon as practicable.
11. The project archaeologist must assess the scientific significance of the Aboriginal objects or values. If the Aboriginal objects or values are assessed as being of:
 - a) **Low scientific significance** (e.g. isolated artefacts or disperse/small artefact scatters less than three artefacts, eroding earth features) and where avoidance is impossible, no further work is required once the steps outlined above have been completed.
 - b) **Moderate or higher scientific significance**, it is preferable to avoid impact if possible. If avoidance is not possible, a salvage excavation should be undertaken, if relevant. The aims of the salvage excavation will be to obtain as much information as possible from the material and/or deposit.
 - Salvage must occur within 30 working days unless constraints (eg weather) occur. The archaeologist must facilitate the involvement of any relevant RAPs and develop a suitable methodology for salvage excavation in consultation with the

RAPs. The location and context of the cultural heritage material must be recorded in detail and an Aboriginal Site Impact Recording Form completed and submitted to Heritage NSW within four (4) months from the end of salvage excavations. A report detailing the excavation, analysis and results must be provided to Heritage NSW within twelve (12) months of completion of the salvage.

- In the event that Aboriginal objects are salvaged, regardless of significance, they must be curated in accordance with conventional archaeological practice, that is, the material must be identified, packaged, labelled with reference to provenance, appropriately catalogued and packed securely. The proponent must arrange for the secure storage of Aboriginal cultural material in a specified location until it can be transferred to the relevant RAPs or buried in country. A report must be produced to accompany the curated material.
 - Curated Aboriginal objects together with the aforementioned report must be provided to the relevant RAPs within three (3) months of the salvage being completed.
 - If reburial of any cultural material is to take place, it must be in accordance with the relevant RAPs requirements or to the satisfaction of the project archaeologist. The archaeologist must complete and submit any related Aboriginal Site forms to Heritage NSW within 30 days of the reburial taking place.
12. Within 60 days of being notified, complete and submit relevant recording forms to Heritage NSW.
13. Work may commence within the area of exclusion when:
- a) the appropriate protective measures have been undertaken;
 - b) where the relevant Aboriginal cultural heritage records have been updated and/or completed; and
 - c) there is no other prudent or feasible course of action.

Discovery of Human Skeletal Remains

If a burial site or human skeletal material is exposed during works, all relevant procedures for excavation and removal will be undertaken in accordance with the Policy Directive – Exhumation of Human Remains (NSW Department of Health 2008); Skeletal Remains – Guidelines for the Management of Human Skeletal Remains under the *Heritage Act* 1977 (NSW Heritage Office 1998) and the Aboriginal Cultural Heritage Standards and Guidelines Kit (NPWS 1997).

Human skeletal remains must be handled in accordance with the *Public Health Act* 1991 (NSW). Management of the remains is to be determined through liaison with the appropriate stakeholders (NSW Police Force, forensic anthropologist, Heritage NSW, Heritage Division, DPC, DP&E, registered Aboriginal parties, a suitably qualified archaeologist, etc.)

The process below is to secure the skeletal remains until the remains are managed by the relevant authorities and stakeholders

The following process is to be followed:

- as soon as remains are exposed, work is to halt immediately, and the remains are not to be touched or interfered with in any way;
- establish an appropriate (minimum 10m) no go zone around the find;

- contact the HSEQ Manager, who will notify GHD and contact local police or the Coroner;
- Notify the project archaeologist and the NSW Environment Line on 131 555 as soon as practicable and provide available details of the remains and their location;
- a physical or forensic anthropologist should inspect the remains *in situ*, and make a determination of ancestry (Aboriginal or non-Aboriginal) and antiquity (pre-contact, historic or forensic);
- if the remains are identified as forensic the area is deemed as crime scene and will be handed over to police control; or
- if the remains are considered to be Aboriginal, an Archaeological Management Plan will be prepared. An assessment will also occur to determine whether the impact is consistent with the Infrastructure Approval, or if modification is required; or
- if the remains are non-Aboriginal (historical) remains (i.e. a 'relic' under the *Heritage Act* 1977), the site is to be secured and Heritage NSW is to be contacted and an Archaeological Management Plan will be prepared.

Where human skeletal remains uncovered during project activities are to be removed, this will be undertaken in a sensitive and dignified manner. Approval from NSW Health, under the *Public Health Act 1991* (NSW), will be required prior to removing/exhuming any skeletal remains. Controlled excavation and removal by the site archaeologists and other appropriate specialists (forensic anthropologist, registered Aboriginal parties, NSW Police Force, as appropriate) will be undertaken in accordance with relevant guidelines and any requirements of Heritage NSW and NSW Health.

Rebecca (Bec) Parkes BA (Hons), PhD ***Director/Principal Archaeologist***

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PERSONAL SUMMARY

I have over 20 years' experience in archaeology, and professional heritage management. Over the past two decades, I have worked on sites across New South Wales, South Australia, the Australian Capital Territory, and the Northern Territory as well as in South America and Europe. My expertise in archaeology and heritage management comes not only through professional employment as a consultant, but also from an ongoing involvement in lecturing and practical training at the Australian National University (ANU) and Macquarie University. I have expertise and experience in both Aboriginal and historical archaeology, including experience as a primary Excavation Director on a range of different projects that have included testing, monitoring and broad area salvage works.

PROFESSIONAL MEMBERSHIPS

Australian Association of Consulting Archaeologists Inc (Chair of NSW/ACT Chapter)

Australia ICOMOS - International Council on Monuments and Sites

Environmental Institute of Australia and New Zealand

World Archaeological Congress

Australian Archaeological Association

Australasian Society for Historical Archaeology

Computer Applications and Quantitative Methods in Archaeology, Australasia

PROFESSIONAL QUALIFICATIONS

PhD, The Australian National University 2007

Thesis: The World is a Mosque: Landscape Archaeology and Islam in al-Andalus and el Valle de Lecrín.

BA Honours, The Australian National University ANU 1997

First Class Honours in Archaeology, major in Arabic.

EMPLOYMENT HISTORY

Director/Principal Archaeologist, Lantern Heritage (2017-Present)

Lantern Heritage was established in July 2017. Transition to the director of an independent heritage consultancy firm has enabled me to focus on delivery of high-quality personalised service, tailored to client needs. The services I offer include: heritage legislation advice, methodology development, government agency liaison, community liaison, research, heritage assessments, impact assessments, desktop reviews, site surveys, test and salvage excavation, conservation management plans, site interpretation, archival recording, and GIS mapping.

Recent/Current contracts include:

- Snowy 2.0 Main Works Historical and Natural Heritage Management for Future Generation Joint Venture on behalf of Snowy Hydro.
- Bundilla Bullock's Flat archaeological assessment and S140 application.
- Wild Dog Fence Extension Project along the NSW-SA border: Aboriginal and historical assessments for NSW Government.
- Aboriginal and historical excavations and salvage measures at Kalaru and Murunna Point for Bega Valley Shire Council.
- Survey and assessment of mining settlement at Ruined Castle – Blue Mountains World Heritage Institute/Macquarie University.
- Tura Headland Aboriginal Cultural Heritage Assessment and AHIP Application for Bega Valley Shire Council.
- Heritage assessment and preliminary management plan for the Runnyford Fish Trap – Department of Primary Industries.
- Excavation Director for Snowy 2.0 historical mitigation works – on behalf of NSW Archaeology.
- Concord Oval: Excavation director for test pitting and monitoring at the site of the Longbottom Convict Stockade – on behalf of NGH.
- Interpretation Plan for Well Station Road, ACT – Elton Consulting Pty Ltd.
- Statements of Heritage Impact for Section 60 applications at various railway stations for Australian Rail Track Corporation and Stantec.
- European cultural heritage assessment and significance review of "The Valley" homestead complex, ACT – Elton Consulting Pty Ltd.
- European cultural heritage assessment of Sunset Ruins, Googong, NSW – on behalf of Past Traces.
- Directing salvage excavations and surface collection of Aboriginal sites for the Murray to Broken Hill Pipeline - on behalf of Niche Environment and Heritage Pty Ltd.
- Scoping and Development of ANU Master of Archaeology Internship Program.

Principal Archaeologist, Navin Officer Heritage Consultants (2009-2017)

My role at Navin Officer Heritage Consultants (NOHC) entailed managing multiple project teams, directing survey and excavation teams, supervising and training staff, client liaison and marketing, quoting and budgeting, Aboriginal consultation, preparation of excavation permits, report editing, research and methodology design, review of report templates in response to legislation changes, review and updating of field equipment and GIS development. Examples of projects include:

Pacific Highway Upgrade, Iluka Road to Ballina salvage program 2014-2017 – Excavation director for a multidisciplinary team undertaking salvage excavations across a series of complex and high significance Aboriginal sites spanning late Pleistocene through to Holocene and proto-historic/contact periods.

Googong Subdivision, 2010-2017 – Lead archaeologist and excavation director for the historical investigations. Designed, organised and directed various test and salvage excavations across a series of late nineteenth century and early twentieth century sites. Collaborated with conservators, museum specialists, artists and heritage builders to deliver CMP, site reconstruction, interpretation and artefact curation.

Moorebank Intermodal Terminal, Environmental Impact Statement (EIS) assessments including Aboriginal and historical test excavations 2011-2014 – Directed test excavations at early twentieth century military sites and across a series of Aboriginal sites. Co-authored both the Aboriginal and European heritage assessment reports, including statements of significance for all historical heritage items.

Sessional Lecturer, The Australian National University (2019)

Assisted with the design and delivery of a two-week workshop for undergraduate and masters level students on professional archaeology skills. The course included both classroom and field based learning with an emphasis on bridging the gap between traditional academic course-work and the skills and knowledge required for employment as a consultant archaeologist.

Sessional Lecturer, The Australian National University (2008)

Designed and ran a course for undergraduate and postgraduate students on landscape archaeology research, survey, assessment and interpretation. This course included an introduction to various survey methods, identification and recording of Aboriginal and non-Aboriginal sites and site complexes, digital and hand drawn mapping, and use of topographic maps and GPS based tools for navigation.

Senior Archaeologist, NSW Archaeology (2007-2009)

As a senior archaeologist for NSW Archaeology I was responsible for assisting with report writing, directing/supervising excavations, managing smaller surveys and leading survey teams on larger projects. I also provided specialist expertise in historical archaeology including research, site identification, site recording, significance and impact assessments.

Assistant/Guest Lecturer, The Australian National University (2005-Present)

Ongoing role to provide various lectures and training on theoretical and practical aspects of archaeology for undergraduate and postgraduate classes within the School of Archaeology and Anthropology.

Graduate Demonstrator, The Australian National University (2001-2006)

Supervised excavations and instructed students in all aspects of excavation and field recording.

Sub-Consultant Archaeologist, Sole Trader (2001-2009)

Contracted by various consultancy firms across the ACT and NSW to undertake or assist with surveys, excavation, stone artefact analysis, report writing, mapping and artefact illustration.

Assistant Archaeologist, Various Projects (1995-1999)

Worked as an assistant archaeologist or a volunteer on various Aboriginal and non-Aboriginal projects across NSW and South Australia.

FIELD EXPERIENCE OVERVIEW

Historical Archaeology

I have 25 years' experience working on the survey, excavation, assessment and interpretation of nineteenth and early twentieth century historical sites in southeast Australia. Between 1995 and 2006 I participated in seven field schools run by the ANU at the Kiandra goldfields in Kosciuszko National Park. That included four seasons as an excavation supervisor, training undergraduate and postgraduate students in broad area excavation techniques and total station survey.

Between 2002 and 2008 I was involved in various roles (Graduate Demonstrator, Assistant Lecturer, Sessional Lecturer) with the Landscape Archaeology course at the ANU. This course comprised a focus on survey and interpretation of nineteenth century towns, mining settlements, pastoral landscapes and transport infrastructure.

As a consultant archaeologist, I have worked on a wide variety of historical sites across NSW and the ACT. This work has encompassed extensive surveys, archival recording, monitoring, test and salvage excavations, and conservation management plans. Typically, the sites I have worked on have related to the more ephemeral rural aspects of non-Aboriginal settlement in Australia. As such, I have developed a broad

knowledge base of Australian historical site types and associated material culture, and particular expertise in identifying, investigating and assessing rural archaeological features. Examples of projects I have been involved with and my roles include:

- 2019-present Concord Oval (Primary Excavation Director): monitoring, test and salvage excavations at the Concord Oval, Canada Bay, Sydney – Site of the Longbottom Convict Stockade.
- 2019 Lobs Hole/Ravine (Primary Excavation Director): developed the field methodology and ran a six month program of salvage excavations and archival recording across a range of sites and features at the former Ravine Township and broader Lobs Hole mining landscape as part of the management and mitigation of heritage impacts for Snowy 2.0 Early Works.
- 2018 Moonbah/Jindabyne (Project Manager/Lead Archaeologist): detailed total station survey, archival photography and associated reporting for an early twentieth century sawmill complex and nineteenth century farm homestead.
- 2018 Ruined Castle/Jamison Valley, Blue Mountains (Survey Supervisor): provided specialist support to Macquarie University and the Blue Mountains World Heritage Institute to assist with the identification and recording of a late nineteenth to early twentieth century mining settlement.
- 2017 Googong (Primary Excavation Director): broad area salvage excavation at three rural nineteenth/twentieth century sites including the original Googong schoolhouse.
- 2016 Googong (Primary Excavation Director): test excavation at four rural nineteenth/twentieth century sites.
- 2012 Steele Barracks, Moorebank (Primary Excavation Director): test excavation of early twentieth century military infrastructure including accommodation facilities and military earthworks.
- 2012 Googong (Project Manager/Secondary Excavation Director): broad area salvage together with detailed archival recording and dismantling of the ruins of a late nineteenth century slab hut. Project also included site reconstruction, conservation and interpretation.
- 2011 Berry (Primary Excavation Director): test excavation at late nineteenth to early twentieth century Butter Factory.
- 2011 Goulburn (Secondary Excavation Director): Monitoring of machine excavation at an early nineteenth century Veterans' Allotment and at the State Heritage listed Kenmore Psychiatric Hospital.
- 2010 Clear Hills, Shellharbour (Primary/Secondary Excavation Director): Monitoring, salvage and archival recording of a late nineteenth century farm homestead and associated outbuildings.
- 2009-2017 Various Projects (Lead Archaeologist/Project Manager): archival recording of the Frederickton Butter Factory, Ferry Lane WWI Memorial Avenue, Bathurst Migrant Camp, Chaffey Dam mining landscape and township, Cotter Dam Trout Hatchery and various other rural sites.
- 2007 Marulan (Field Assistant): broad area salvage at the Old Marulan Hotel.
- 2006 Kiandra (Graduate Demonstrator/Site Supervisor): survey and broad area excavation of the Mounted Police Barracks and nearby latrines.
- 2004 Kiandra (Graduate Demonstrator/Site Supervisor): survey and broad area excavation of a mid-nineteenth century sly-grog house on Township Hill.
- 2003 Kiandra (Graduate Demonstrator/Site Supervisor): detailed post-fire survey of the extended settlement and mining landscape at Township Hill. Broad area excavation of two nineteenth century miners' huts on Township Hill.
- 2001 Kiandra (Graduate Demonstrator/Site Supervisor): supervised excavation of a Chinese miner's hut and a nearby butchery refuse pit.
- 1995- 2001 Various Projects (Field Archaeologist): assisted with broad area excavation at various nineteenth century mining settlements including the Kiandra Hotel, Yan's Store at Kiandra, Kiandra Dance Hall, Chinese camps at Flanagan's Flat and Adjungbilly, European miners' residences at Reno, Snowball, Gobarralong, and Adjungbilly.

Aboriginal Archaeology

While my academic research had a strong historical focus, Indigenous archaeology has always formed a major component of my professional employment. Since 1996 I have worked on survey, test excavation and salvage excavation at various Pleistocene, Holocene and contact period sites. This has included survey of artefact scatters, middens, stone arrangements, rock art, rock shelters, scarred trees and stone quarries in a diverse range of landscapes from the coast, to the tablelands and highlands, to the arid interior. As such, I am experienced in the identification of sites and potential archaeological deposits in various environmental settings. I have over ten years' experience in directing Aboriginal excavations, including mechanical testing, hand excavation, and broad area salvage. I am also recognised and respected for my expertise in designing excavation methodologies and managing large scale excavation programs.

PUBLICATIONS, REPORTS, THESES AND PAPERS

Refereed papers:

2018 Parkes, R., S. A. Ross, A. Sobotkova, T. Evans, P. Crook, S. Lupack, G. Karskens, F. Leslie, and J. Merson. Accepted 26 September 2018. 'Ruined Castle Shale Mining Settlement, Katoomba NSW: Report on a Pilot Survey'. *Australasian Historical Archaeology: Journal of the Australasian Society for Historical Archaeology*, Vol. 36, 2018: 86-92.

2009 Parkes, R. Traces of the Cameleers: landscape archaeology and landscape perception, *Australasian Historical Archaeology: Journal of the Australasian Society for Historical Archaeology*, Vol. 27, 2009: 87-97.

Theses:

2007 *The World is a Mosque: Landscape Archaeology and Islam in al-Andalus and el Valle de Lecrín*, unpublished PhD thesis, School of Archaeology and Anthropology, Australian National University, Canberra.

1997 *Of Camels and Cameleers: The Archaeology of Afghan Settlements in Australia*, unpublished Honours thesis, Department of Archaeology and Anthropology, Australian National University, Canberra.

Other publications:

2020 - Dunbar L. A., R. Parkes, C. Gant-Thompson, and D. Tybussek eds. *Yachay Wasi: The House of Knowledge of I. S. Farrington*, BAR International Series 2962.

2020 - Parkes, R. 'Mountains as Mihrab, Directionality in Islamic Landscapes' in *Yachay Wasi: The House of Knowledge of I. S. Farrington* edited by L. A. Dunbar, R. Parkes, C. Gant-Thompson, and D. Tybussek., BAR International Series 2962, pp. 149-168.

2001 Camel camps and mining towns: archaeology and the role of Afghan cameleers in Australian mining, *Proceedings of the Australian Mining History Association Conferences 1997-2000*, Crawley, WA. pp. 16-22.

Technical Field Reports:

2006 *Excavations at the Kiandra Gold Commissioner's Camp: KGQ-II - Mounted Police Barracks*. Report to the School of Archaeology and Anthropology, Australian National University, Canberra.

2004 *Excavations at Township Hill, Kiandra: KTH-V-2004*. Report to the School of Archaeology and Anthropology, Australian National University, Canberra.

2003 *Kiandra Field School Excavations: Preliminary report on the excavation of KTH-I-2003 - Mining Huts*. Report to the School of Archaeology and Anthropology, Australian National University, Canberra.

Examples of Consultancy Reports:

NSW Wild Dog Fence Extension Project (SA Alignment), Preliminary Assessment, Report to the Department of Regional NSW, co-authored with Alistair Grinbergs and Cass Venn.

Runnyford Fish Trap – Management Plan. Report to NSW Department of Primary Industries prepared by Lantern Heritage 2020, co-authored with Tom Knight.

Replacement of Signal Huts – Bundanoon Railway Station & Yard Group: Archival Recording. Report to Australian Rail Track Corporation prepared by Lantern Heritage 2020, co-authored with Alistair Grinbergs.

Proposed Upgrades at Murunna Point, Wallaga Lake and Blackfellows Lake, Kalaru - Aboriginal Cultural Heritage Assessment Report. Report to Bega Valley Shire Council, prepared by Lantern Heritage 2019.

Lake Street Shared Pathway, Merimbula- Aboriginal Due Diligence Assessment. Report to Bega Valley Shire Council, prepared by Lantern Heritage 2019

Googong: Neighbourhood 2 NSW - Salvage Excavations at Historic Sites GH5A, GH5B, & GH7A. Report to PEET prepared by Navin Officer Heritage Consultants 2019 – co-authored with Adrian Cressey.

Somersby Organics Recycling Centre: Preliminary Aboriginal Archaeological Assessment. Report to Davis Earthmoving and Quarrying, prepared by Lantern Heritage 2019.

Wallaga Lake Ecotourism Development: Aboriginal Due Diligence Assessment. Report to KEEPLAN prepared by Lantern Heritage 2018.

Casino Railway Station and yard group: Statement of Heritage Impact. Report to ARTC prepared by Lantern Heritage 2018.

Burgmann Anglican School, The Valley Campus – Historical Cultural Heritage Assessment. Report to Elton Consulting, prepared by Lantern Heritage 2018.

Burgmann Anglican School, The Valley Campus – Aboriginal Cultural Heritage Assessment. Report to Elton Consulting, prepared by Lantern Heritage 2018.

Gammon Place Site – Heritage Impact Statement. Report to Dabyne Planning Pty Ltd, prepared by Lantern Heritage 2018 – co-authored with Gary Estcourt.

Wollondibby Mill Site – Heritage Impact Statement. Report to Dabyne Planning Pty Ltd, prepared by Lantern Heritage 2018 – co-authored with Gary Estcourt.

North Tura Beach Coastal Reserve Upgrade - Aboriginal Due Diligence Assessment. Report to Bega Valley Shire Council, prepared by Lantern Heritage 2018 – co-authored with Elle Lillis and James Carr.

Employment Pathways: Masters' Level students within the School of Archaeology and Anthropology and the Centre for Heritage and Museum Studies. Report to The Australian National University, prepared by Lantern Heritage 2018.

River Murray to Broken Hill Pipeline, Aboriginal Cultural Heritage Management Plan 3 of 4, Chainage 11 1500 to Chainage 157000, Coombah, prepared by Niche Environment and Heritage for WaterNSW 2018 – co-authored with Clare Anderson.

River Murray to Broken Hill Pipeline, Aboriginal Cultural Heritage Assessment 3 of 4, Chainage 11 1500 to Chainage 157000, Coombah, prepared by Niche Environment and Heritage for WaterNSW 2018 – co-authored with Isabel Tickle, Phil Roberts and Rebecca Vartto.

"Sunset" Residential Development Googong European Heritage Assessment. Report to Genium Civil Engineering on behalf of Past Traces Pty Ltd, prepared by Lantern Heritage 2018.

Tathra to Kalaru Bike Path Aboriginal Due Diligence Assessment. Report to Bega Valley Shire Council, prepared by Lantern Heritage 2017

Woolgoolga to Ballina Upgrade Project: Woodburn-Broadwater Additional Works, Broadwater Landfill Asbestos Capping Layer, Due Diligence Assessment of Heritage Impacts. Report to See Civil on behalf of Pacific Complete prepared by Lantern Heritage 2017.

Woolgoolga to Ballina Upgrade Project: Woodburn-Broadwater Additional Works, Due Diligence Assessment of Heritage Impacts. Report to See Civil on behalf of Pacific Complete prepared by Lantern Heritage 2017.

Woolgoolga to Ballina Upgrade Project: Woodburn-Broadwater Service Road Utilities Adjustment Works, Consistency Assessment of Heritage Impacts. Report to See Civil on behalf of Pacific Complete prepared by Lantern Heritage 2017.

Thackaringa Cobalt Project Additional Resource Definition Drilling: Due Diligence Heritage Assessment and Survey. Report to Broken Hill Prospecting Ltd prepared by Lantern Heritage 2017

Archaeological Test Excavation, Googong Township: Neighbourhood 2 (NH2), NSW Historic Sites GH5A-B and GH7A-B. Report to Googong Township Pty Ltd prepared by Navin Officer Heritage Consultants 2017 – co-authored with Travis Gottschutze.

Moorebank Intermodal Terminal; Aboriginal Heritage Assessment. Report to Parsons Brinckerhoff prepared by Navin Officer Heritage Consultants 2014.

Moorebank Intermodal Terminal; European Heritage Assessment. Report to Parsons Brinckerhoff prepared by Navin Officer Heritage Consultants 2014.

Reconstructed GH14 Settlers Hut and Interpretation Area, Googong New Town, NSW - Conservation Management Plan, Report to CIC Australia prepared by Navin Officer Heritage Consultants, 2014.

Moorebank Intermodal Terminal – Liverpool City Council Northern Powerhouse Land - Aboriginal Subsurface Testing, Report to Parson Brinckerhoff on Behalf of the Department of Finance and Deregulation prepared by Navin Officer Heritage Consultants 2014.

Wallerawang to Orange 132kV transmission line reconstruction project, cultural heritage assessment. Report to GHD for TransGrid prepared by Navin Officer Heritage Consultants, 2014.

Wallerawang to Orange 132kV transmission line reconstruction project - Statement of Heritage Impact for the Bathurst Migrant Camp, Report to GHD for TransGrid prepared by Navin Officer Heritage Consultants, 2014.

GH14 Salvage Excavation, Googong New Town. Report to Canberra Investment Corporation prepared by Navin Officer Heritage Consultants, 2013.

Foxground and Berry Bypass, Princes Highway Upgrade: Non-Aboriginal (historic) heritage assessment. Report to NSW Roads and Maritime Services, prepared by Navin Officer Heritage Consultants, 2012.

Monitoring and Salvage at Clear Hills Farm, Dunmore, Report to Australand prepared by Navin Officer Heritage Consultants, 2012.

Highlands Source Project Monitoring of Construction Impacts at: Kenmore Psychiatric Hospital and Veterans' Allotments, Goulburn. Report to GHD prepared by Navin Officer Heritage Consultants, 2012.

Highlands Source Project: Subsurface Testing and Salvage at Aboriginal Sites between Goulburn and Wingecarribee Reservoir, NSW, report to GHD prepared by Navin Officer Heritage Consultants, 2012.

Kempsey Bypass, Pacific Highway Upgrade: Archaeological Subsurface Testing and Collection Program. Report to Kempsey Bypass Alliance prepared by Navin Officer Heritage Consultants, 2011.

Highlands Source Project, Water Transfer from Wingecarribee Water Supply Reservoir to Goulburn Water Treatment Plant: Cultural Heritage Assessment. Report to GHD prepared by Navin Officer Heritage Consultants, 2010.

Pacific Highway Upgrade, Kempsey Bypass Project: Ferry Lane Management Plan, report to Kempsey Bypass Alliance prepared by Navin Officer Heritage Consultants, 2010.

ACT Water Security Program Enlarged Cotter Dam, Cotter Trout Hatchery (ECRH7) Archival Recording: European Heritage – CMP Program. Report to Bulk Water Alliance prepared by Navin Officer Heritage Consultants, 2010.

Peelwood Copper – Zinc Mine Peelwood, NSW: Cultural; Heritage Assessment. Report to Sultan Corporation prepared by Navin Officer Heritage Consultants, 2010.

Statement of Significance: Towong, Murray Bridge Crossing. Report to the Roads and Traffic Authority prepared by ngenvironmental, 2007.

ACT Rural Villages Sustainability Report: Cultural Heritage Study. Report to McCann Property and Planning prepared by Navin Officer Heritage Consultants, 2004.

Googong Local Environmental Study: Cultural Heritage Component. Report to Willana Associates prepared by Navin Officer Heritage Consultants, 2003.

Dibden, J. and R. Parkes

Snowy 2.0 Main Works Heritage Assessment and Statement of Heritage Impact. A report to Snowy Hydro Limited prepared by NSW Archaeology 2019.

Comber, J. and R. Parkes

Highland Source Project: Statement of Heritage Impact: Veterans' Allotments, Goulburn. A report to GHD and Goulburn Mulwaree Council, prepared by Navin Officer Heritage Consultants, 2011.

Highland Source Project: Statement of Heritage Impact: Kenmore Psychiatric Hospital, Goulburn. A report to GHD and Goulburn Mulwaree Council, prepared by Navin Officer Heritage Consultants, 2011.

Examples of Conference Papers and Sessions:

A Field School in Professional Practice: the ANU Oaks Estate Project, paper co-authored with Catherine Frieman and presented at the *Disrupting the Learning Dystopia: Resolving the Discord between Education and Industry* session of the AAA Conference at the Gold Coast, 10th-13th December 2019.

The Archaeology of Beer and Fluidity of Meaning, paper presented in the *World of Experimental and Experiential Archaeology in Australia* session co-chaired with Fiona Hook, Alice Mora and Darren Griffiths at the AAA Conference in Melbourne, 6th-8th December 2017.

The Clarence and Richmond River Valleys: interweaving archaeology and cultural connections. Session co-chaired with Joshua Madden at the AAA Conference in Gosford, 6th-8th December 2016.

Consistency of approach in archaeological consulting: the assessment of the Aboriginal cultural landscape between Woolgoolga and Ballina. Paper presented with Georgia Wright, Joshua Madden and Erin Williams at the AAA Conference in Freemantle, 2nd – 4th December 2015.

Mechanically Digging by Hand vs Bespoke Mechanical Pits. Invitational Paper presented to the Australian Association of Consulting Archaeologists Inc., 27th March 2015.

Landscapes of Change: Rethinking the Role of Documents in Landscape Interpretation. Session co-chaired with Travis Gottschutze, at the AAA/ASHA Joint Conference in Cairns, 1st-3rd December 2014.

A Nineteenth Century Hut in A Twenty-first Century Neighbourhood, paper presented at the AAA Conference in Coffs Harbour, 1st – 4th December 2013.

The Auger Bites Back: A review of the auger and other mechanical excavation techniques, paper presented at the AAA Conference in Wollongong, 9th – 13th December 2012.

The Archaeology of Religion, Ritual and Ceremony, Session co-chaired with Julie Dibden and Tom Knight, at the AAA Conference in Toowoomba, 1st- 3rd December 2011.

Augering Well: Introducing the Bucket Auger, paper presented with Tim Maloney at the AAA Conference in Batemans Bay, 10th – 13th December 2010.

Traces of the Cameleers, paper presented at the combined AIMA/ASHA/AAMH Conference in Adelaide, 24th-27th September 2008.

Afghans in the Australian Landscape, paper presented at the British Australian Studies Association conference at the University of Wales, Lampeter, 3rd-6th September 1997.

CERTIFICATES, LICENCES AND OTHER TRAINING

4WD training: Drive and recover a 4WD vehicle (Getabout Training Services SRODRV001B)

Emergency First Aid:

HTLAID003 Provide first aid

HTLAID002 Provide basic emergency life support

HTLAID001 Provide cardiopulmonary resuscitation

HLTAID005 Provide first aid in remote situations

Construction Induction: CGIO1307425SEQ1 (NSW)

Issued: 14/08/09

LANGUAGES SKILLS

Spanish – professional working proficiency

Arabic – elementary proficiency

AWARDS/PRIZES/SCHOLARSHIPS

University Medal in Archaeology, The Australian National University

Peter May Prize for Archaeology, The Australian National University

Australian Postgraduate Award for PhD research at the ANU

ANU Supplementary Scholarship for PhD research the ANU

Post Approval Consultation Record

Identified Party to Consult:	Young Local Aboriginal Land Council (YLALC)
Consultation type:	Email and in person conversation.
When is consultation required?	Prior to construction as part of the development of the ACHMSP
Why	B17 The Aboriginal Cultural Heritage Management Sub-Plan (ACHMSP) must address, but not be limited to, the following: (a) be prepared by a suitably qualified and experienced expert in consultation with the Registered Aboriginal Parties to determine specific requirements and management measures to be used on site during construction, including protection of any objects or item in perpetuity;
When was consultation scheduled/held	Email sent on 6 January 2021 with comments invited up until 3 February 2021
When was consultation held	As above and on 19 February 2021.
Identify persons and positions who were involved	Christine Gant-Thompson, Senior Archaeologist at Lantern Heritage sent the ACHMSP via email to Norma Freeman. Bec Parkes Director at Lantern Heritage via in person conversation with Marni Freeman on 19 February 2021.
Provide the details of the consultation	Attached is a draft of the Aboriginal cultural heritage management plan for the Young High School Library and joint-use community facility. Can you please review the document and provide any comments to me by Wednesday 3 February 2021? Your comments will then be incorporated into the final plan. Please contact me on the number below if you wish to speak to me in person. Regards, Christine Christine Gant-Thompson MA(Hons) Senior Archaeologist Lantern Heritage Pty Ltd PO Box 7039, TATHRA NSW 2550 Shop 3/15 Bega St, TATHRA NSW 2550 m: 0411 296 777 e: christine@lanternheritage.com.au w: www.lanternheritage.com.au
What specific matters were discussed?	Feedback was specifically sought on the proposed methodology for salvage of the Hilltops Aboriginal Artefact Site and the proposed management measures to be implemented during construction. Conversation with Marni Freeman to double check that the YLALC do not have any feedback on the ACHMSP.

What matters were resolved?	No feedback received to date.
What matters were resolved?	No feedback received.
What matters are unresolved?	Long-term management of Aboriginal objects and interpretation of Aboriginal heritage.
Any remaining points of disagreement?	NA
How will SINSW address matters not resolved?	Consultation regarding the long-term management of Aboriginal objects retrieved during excavation will be undertaken during fieldwork, and through Aboriginal community meetings as part of the post-excavation analysis and interpretation process. (i.e. consultation will be conducted through discussions during fieldwork with site officers, formal meetings where excavation results are presented, and through RAP review of excavation reporting recommendations). Additional follow up to be done during initial DPIE review of ACHMSP.

Identified Party to Consult:	Merrigarn Indigenous Corporation
Consultation type:	Email
When is consultation required?	Prior to construction as part of the development of the ACHMSP
Why	B17 The Aboriginal Cultural Heritage Management Sub-Plan (ACHMSP) must address, but not be limited to, the following: (a) be prepared by a suitably qualified and experienced expert in consultation with the Registered Aboriginal Parties to determine specific requirements and management measures to be used on site during construction, including protection of any objects or item in perpetuity;
When was consultation scheduled/held	Email sent on 6 January 2021 with comments invited up until 3 February 2021
When was consultation held	As above
Identify persons and positions who were involved	Christine Gant-Thompson, Senior Archaeologist at Lantern Heritage sent the ACHMSP via email to Shaun Carroll
Provide the details of the consultation	Attached is a draft of the Aboriginal cultural heritage management plan for the Young High School Library and joint-use community facility. Can you please review the document and provide any comments to me by Wednesday 3 February 2021 ? Your comments will then be incorporated into the final plan.

	Please contact me on the number below if you wish to speak to me in person. Regards, Christine Christine Gant-Thompson MA(Hons) Senior Archaeologist Lantern Heritage Pty Ltd PO Box 7039, TATHRA NSW 2550 Shop 3/15 Bega St, TATHRA NSW 2550 m: 0411 296 777 e: christine@lanternheritage.com.au w: www.lanternheritage.com.au
What specific matters were discussed?	Feedback was specifically sought on the proposed methodology for salvage of the Hilltops Aboriginal Artefact Site and the proposed management measures to be implemented during construction.
What matters were resolved?	No feedback received to date.
What matters are unresolved?	Long-term management of Aboriginal objects and interpretation of Aboriginal heritage.
Any remaining points of disagreement?	NA
How will SINSW address matters not resolved?	Consultation regarding the long-term management of Aboriginal objects retrieved during excavation will be undertaken during fieldwork, and through Aboriginal community meetings as part of the post-excavation analysis and interpretation process. (i.e. consultation will be conducted through discussions during fieldwork with site officers, formal meetings where excavation results are presented, and through RAP review of excavation reporting recommendations). Additional follow up to be done during initial DPIE review of ACHMSP.

Identified Party to Consult:	Corroboree Aboriginal Corporation (CAC)
Consultation type:	Email
When is consultation required?	Prior to construction as part of the development of the ACHMSP
Why	B17 The Aboriginal Cultural Heritage Management Sub-Plan (ACHMSP) must address, but not be limited to, the following: (a) be prepared by a suitably qualified and experienced expert in consultation with the Registered Aboriginal Parties to determine specific requirements and management measures to be used on site during construction, including protection of any objects or item in perpetuity;
When was consultation scheduled/held	Email sent on 6 January 2021 with comments invited up until 3 February 2021

When was consultation held	As above
Identify persons and positions who were involved	Christine Gant-Thompson, Senior Archaeologist at Lantern Heritage sent the ACHMSP via email to Marilyn Carroll Johnson
Provide the details of the consultation	Attached is a draft of the Aboriginal cultural heritage management plan for the Young High School Library and joint-use community facility. Can you please review the document and provide any comments to me by Wednesday 3 February 2021? Your comments will then be incorporated into the final plan. Please contact me on the number below if you wish to speak to me in person. Regards, Christine Christine Gant-Thompson MA(Hons) Senior Archaeologist Lantern Heritage Pty Ltd PO Box 7039, TATHRA NSW 2550 Shop 3/15 Bega St, TATHRA NSW 2550 m: 0411 296 777 e: christine@lanternheritage.com.au w: www.lanternheritage.com.au
What specific matters were discussed?	Feedback was specifically sought on the proposed methodology for salvage of the Hilltops Aboriginal Artefact Site and the proposed management measures to be implemented during construction.
What matters were resolved?	No feedback received to date.
What matters are unresolved?	Long-term management of Aboriginal objects and interpretation of Aboriginal heritage.
Any remaining points of disagreement?	NA
How will SINSW address matters not resolved?	Consultation regarding the long-term management of Aboriginal objects retrieved during excavation will be undertaken during fieldwork, and through Aboriginal community meetings as part of the post-excavation analysis and interpretation process. (i.e. consultation will be conducted through discussions during fieldwork with site officers, formal meetings where excavation results are presented, and through RAP review of excavation reporting recommendations). Additional follow up to be done during initial DPIE review of ACHMSP.

Identified Party to Consult:	Karlari Ngunnawal Pajong Wallabalooa Descendants
Consultation type:	Email
When is consultation required?	Prior to construction as part of the development of the ACHMSP
Why	B17 The Aboriginal Cultural Heritage Management Sub-Plan (ACHMSP) must address, but not be limited to, the following: (a) be prepared by a suitably qualified and experienced expert in consultation with the Registered Aboriginal Parties to determine specific requirements and management measures to be used on site during construction, including protection of any objects or item in perpetuity;
When was consultation scheduled/held	Email sent on 6 January 2021 with comments invited up until 3 February 2021
When was consultation held	As above
Identify persons and positions who were involved	Christine Gant-Thompson, Senior Archaeologist at Lantern Heritage sent the ACHMSP via email to Rebecca Ingram
Provide the details of the consultation	Attached is a draft of the Aboriginal cultural heritage management plan for the Young High School Library and joint-use community facility. Can you please review the document and provide any comments to me by Wednesday 3 February 2021? Your comments will then be incorporated into the final plan. Please contact me on the number below if you wish to speak to me in person. Regards, Christine Christine Gant-Thompson MA(Hons) Senior Archaeologist Lantern Heritage Pty Ltd PO Box 7039, TATHRA NSW 2550 Shop 3/15 Bega St, TATHRA NSW 2550 m: 0411 296 777 e: christine@lanternheritage.com.au w: www.lanternheritage.com.au
What specific matters were discussed?	Feedback was specifically sought on the proposed methodology for salvage of the Hilltops Aboriginal Artefact Site and the proposed management measures to be implemented during construction.
What matters were resolved?	No feedback received to date.
What matters are unresolved?	Long-term management of Aboriginal objects and interpretation of Aboriginal heritage.

Any remaining points of disagreement?	NA
How will SINSW address matters not resolved?	Consultation regarding the long-term management of Aboriginal objects retrieved during excavation will be undertaken during fieldwork, and through Aboriginal community meetings as part of the post-excavation analysis and interpretation process. (i.e. consultation will be conducted through discussions during fieldwork with site officers, formal meetings where excavation results are presented, and through RAP review of excavation reporting recommendations). Additional follow up to be done during initial DPIE review of ACHMSP.

Identified Party to Consult:	Murra Bidgee Mullangari
Consultation type:	Email
When is consultation required?	Prior to construction as part of the development of the ACHMSP
Why	B17 The Aboriginal Cultural Heritage Management Sub-Plan (ACHMSP) must address, but not be limited to, the following: (a) be prepared by a suitably qualified and experienced expert in consultation with the Registered Aboriginal Parties to determine specific requirements and management measures to be used on site during construction, including protection of any objects or item in perpetuity;
When was consultation scheduled/held	Email sent on 6 January 2021 with comments invited up until 3 February 2021
When was consultation held	As above
Identify persons and positions who were involved	Christine Gant-Thompson, Senior Archaeologist at Lantern Heritage sent the ACHMSP via email to Ryan Johnson
Provide the details of the consultation	Attached is a draft of the Aboriginal cultural heritage management plan for the Young High School Library and joint-use community facility. Can you please review the document and provide any comments to me by Wednesday 3 February 2021 ? Your comments will then be incorporated into the final plan. Please contact me on the number below if you wish to speak to me in person. Regards, Christine

	Christine Gant-Thompson MA(Hons) Senior Archaeologist Lantern Heritage Pty Ltd PO Box 7039, TATHRA NSW 2550 Shop 3/15 Bega St, TATHRA NSW 2550 m: 0411 296 777 e: christine@lanternheritage.com.au w: www.lanternheritage.com.au
What specific matters were discussed?	Feedback was specifically sought on the proposed methodology for salvage of the Hilltops Aboriginal Artefact Site and the proposed management measures to be implemented during construction.
What matters were resolved?	No feedback received to date.
What matters are unresolved?	Long-term management of Aboriginal objects and interpretation of Aboriginal heritage.
Any remaining points of disagreement?	NA
How will SINSW address matters not resolved?	Consultation regarding the long-term management of Aboriginal objects retrieved during excavation will be undertaken during fieldwork, and through Aboriginal community meetings as part of the post-excavation analysis and interpretation process. (i.e. consultation will be conducted through discussions during fieldwork with site officers, formal meetings where excavation results are presented, and through RAP review of excavation reporting recommendations). Additional follow up to be done during initial DPIE review of ACHMSP.

Project Environmental Management Plan

Appendix G – Unexpected Finds Protocol for Contamination and Associated Communications Procedure



Unexpected Contamination Procedure

Young High School

Unexpected Contamination Procedure

1.0 Purpose & Scope

This procedure describes the process to be followed on a Joss construction project where there is the possibility that contaminated material may be present.

Should site workers identify any material that could potentially be contaminated, this process should be followed to reduce risk to themselves and others, and to minimise any further contamination from occurring.

2.0 Definition of Unexpected Contamination

Many different types of contamination could be present on a construction site. Contamination may be present from existing buildings (existing or removed), from existing land usages (such as petrol stations) or from materials that have been brought to site (such as fill soil). Some forms of contamination may include:

- Asbestos
- Lead Paint
- Heavy Metals
- Fuels or Oils
- Chemicals
- Sewage
- Pesticides

3.0 Identification Procedure

Should any unexpected contamination be identified on site the following process should be immediately followed:

- Stop all works within the vicinity of the actual or suspected contamination
- Notify the immediate supervisor or site manager and describe the suspected contamination.
- Site Manager to notify all parties relevant to the activity (HSEQ Manager, Project Manager, Project Director)
- HSEQ Manager to then notify relevant Authorities (EPA, Worksafe, Emergency Services)
- HSEQ Manager / Site Manager to then notify a Hygienist or Competent Person for contamination identification / testing
- Barricade and isolate the area.
- Move at least 10m away from the actual or suspected contamination, but continue to supervise the area.
- Continue supervision of the actual or suspected contamination area until directed to leave by management.
- As soon as practical after the actual or suspected contamination area has been secured and relevant parties have been notified, a site toolbox talk shall be held to explain to all site workers what is happening, why its happening and explain that if any one has any questions relating to the removal of the contaminated material, that they raise it with either their direct supervisor or the Joss site manager.

4.0 Remediation

All contamination investigation/ management and remediation must only be undertaken by an suitably competent person, this means a person who has acquired, through training, qualification or experience, the knowledge and skills of relevant industry practice and holds a certification in relation to the specified work or a tertiary qualification in occupational health and safety, occupational hygiene, science, building, construction or environmental

health. For all other purposes, competent person means a person who has acquired through training, qualification or experience, the knowledge and skills to carry out the task.

All required documentation, including Control Plans, Council/ Government Approvals, SWMS, MSDS, licences etc must be current, approved and in place before any remediation works commence.

Once the contaminated material has been identified and removed from site, it shall be transported via approved and controlled means, to a certified and licensed disposal facility for remediation or disposal. Receipts for all disposal shall be collected and form part of the final sign off.

Monitoring and Clearance certificates shall be collected during the remediation process and shall be provided to local Council or Governments as required.

5.0 Documentation on Completion.

Following completion of the remediation works all documentation including sign offs and clearances shall also be forwarded to the Joss HSEQ Manager / Coordinator for final sign off.

6.0 References and Guidelines

- WHS Act 2011
- WHS Regulation 2017
- Code of Practice – How to Safely Remove Asbestos 2019
- Code of Practice – How to Manage and Control Asbestos in the Workplace 2019
- WHS Act and Regulations 2011
- How to Safely Remove Asbestos - Code of Practice
- Guidelines for Consultants Reporting on Contaminated Sites (OEH 2011)
- Waste Classification Guidelines (EPA 2014)
- Contaminated Land Management Act 1997 (NSW)
- Environmental Planning and Assessment Act 1979 (EP&A Act)
- Environmental Planning and Assessment regulation 200
- Protection of the Environment Operations Act 1997 (POEO Act)
- Water Management Act 2000
- Water Act 1912
- Protection of the Environment Operations (Waste) Regulation (2014)
- Protection of the Environment Operations (Waste) Regulation (2016)
- National Environment Protection (Assessment of Site Contamination) Measure (1999) (NEPM)
- http://www.safework.nsw.gov.au/data/assets/pdf_file/0005/329171/Managing-asbestos-in-soil-guide.pdf

Project Environmental Management Plan

Appendix H– Community Communication Strategy

School Infrastructure NSW

Community Communication Strategy

Young High School upgrade and new joint-use library and community facility

Version	Date of Approval / Review	Summary of Changes
1.0	25 September 2020	Project specific draft for SINSW Internal Review – Prepared by Christine Worner, Community Engagement Manager
2.0	14 October 2020	Project specific draft for GHD Review – Reviewed and comments from Crystal Huynh Communications, and Roger Lee – Assistant Project Manager
3.0	5 November 2020	Project specific draft for SINSW Internal Review - Reviewed by Senior Communications Manager Danny Cvetkovski
3.0	6 November 2020	Project specific draft for SINSW Internal Review - Reviewed by Project Director Marty Smith
4.0	9 December 2020	Updated by Christine Worner, Community Engagement Manager

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Document Purpose

This Community Communication Strategy (CCS) has been developed to meet the State Significant Development application conditions of consent for communication and engagement. This document is an extension of the existing Community Engagement Plan that guided community engagement prepared at project inception.

This CCS will:

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

This Community Consultation Strategy (CCS) will be implemented through the design and construction phase of the project, and for 12 months following construction completion.

Plan review

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

Approval

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

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

State Significant Developments B8	The community communications strategy addresses this in section
Identify people to be consulted during the design and construction phase	Section 5
Set out procedures and mechanisms for the regular distribution of accessible information about or relevant to the development	Section 6
Provide for the formation of community-based forums, if required, that focus on key environmental management issues for the development	Section 4, 6
Set out procedures and mechanisms:	
• Through which the community can discuss or provide feedback to the Applicant	Section 6
• Through which the Applicant will respond to enquiries or feedback from the community; and	Section 6
• To resolve any issues and mediate any disputes that may arise in relation to construction and operation of the development, including disputes regarding rectification or compensation	Section 8.5

State Significant Developments B8	The community communications strategy addresses this in section
• Include any specific requirements around traffic, noise and vibration, amenity, flora and fauna, soil and water, contamination, and heritage.	Section 3, 8.4

1. Context

The NSW Government is investing \$6.7 billion over four years to deliver more than 190 new and upgraded schools to support communities across NSW. This is the largest investment in public education infrastructure in the history of NSW.

A project is underway to deliver a major upgrade to Young High School which includes a new joint-use library and community facility for the school and local community. It will be located on school land and integrated with Carrington Park through landscaping which recognises and celebrates the Indigenous culture and heritage of the region. The library facility is jointly funded by the NSW Government and Hilltops Council.

The school facilities will also be upgraded and works include the delivery of a new amenities block, a refurbished music room, landscaping and a canteen. When completed the project will provide students and the community with contemporary learning spaces with access to video conferencing and multimedia facilities, a multipurpose workshop, youth wellbeing hub and Wiradjuri learning and cultural centre.

As part of the NSW Government's Planning System Acceleration Program, the assessment of the SSD application for this project was fast tracked by the Department of Planning, Industry and Environment (DPIE). The SSDA was approved on 21 May 2020.

DPIE's web page on the project is [here](#).

2. Community Engagement Objectives

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

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

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

3. Key Messages

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

3.1. High level messaging

The NSW Government is investing \$6.7 billion over four years to deliver more than 190 new and upgraded schools to support communities across NSW. This is the largest investment in public education infrastructure in the history of NSW.

3.2. Project messaging

3.2.1. Project status

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

3.2.2. Project summary

A project is underway to deliver a major upgrade to Young High School which includes a new joint-use library and community facility for the school and local community. It will be located on school land and integrated with Carrington Park through landscaping which recognises and celebrates the Indigenous culture and heritage of the region.

The joint-use library and community facility is being delivered as a partnership between the NSW Department of Education - School Infrastructure and Hilltops Council.

This means the new facilities are to be shared between Young High School and Hilltops Council. The joint use approach has been endorsed by the NSW Cabinet and forms a key aspect of planning for future school and community facility provision.

3.2.3. High-quality learning environment

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

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

3.2.4. Environmental benefits

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

3.3. Construction phase

3.3.1. Traffic management

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

3.3.2. Safety

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

3.3.3. Noise, vibration and dust

Any activity that could exceed approved construction noise management levels will be managed in strict accordance with the Protection of the Environment Operations Act 1997. All works will be conducted in accordance with the Contractor's approved Construction Noise Management Plan as detailed in the Interim Construction Noise Guidelines (DECC, 2009). Vibration from works will be minimal and kept within acceptable levels as stated in the document 'Assessing Vibration: a technical guideline' which outlines vibration criteria for day time periods.

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

Construction consent works, including the delivery of materials to and from the site, will take place between 7:00am and 6:00pm Monday to Friday and between 8:00am and 1:00pm on Saturdays. No night work is scheduled for this project.

However, in line with the NSW Environmental Planning and Assessment (COVID-19 Development – Construction Work Days) Order 2020, School Infrastructure NSW construction sites will now operate on weekend and public holidays during the COVID-19 pandemic.

High noise generating activities such as sheet piling, concrete and rock breaking and similar activities may only be carried out between the following hours:

- (a) 9:00am to 12:00pm, Monday to Friday;
- (b) 2:00pm to 5:00pm Monday to Friday; and
- (c) 9:00am to 12:00pm, Saturday.

Activities may be undertaken outside of these hours if required:

- (a) by the Police or a public authority for the delivery of vehicles, plant or materials; or
- (b) in an emergency to avoid the loss of life, damage to property or to prevent environmental harm; or
- (c) where the works are inaudible at the nearest sensitive receivers; or
- (d) where a variation is approved in advance in writing by the Planning Secretary or his nominee if appropriate justification is provided for the works.

Notification of such construction activities must be given to affected residents before undertaking the activities or as soon as possible afterwards.

3.3.4. Disruptive works

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

3.3.5. Get involved

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

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

3.3.6. Fauna and vegetation

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

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

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

3.3.7. Soil and water

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

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

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

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

- describe erosion and sediment control measures to be implemented during construction
- provide a plan of how construction works will be managed in wet-weather events
- detail flows from the site to surrounding area
- describe the measures to be taken to manage stormwater and flood flows for small and large sized events

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

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

3.3.8. Visual amenity

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

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

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

3.3.9. Contamination

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

The project site has been tested for contamination and is considered to be safe and suitable for the school upgrade.

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

3.3.10. Heritage

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

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

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

In the event that unexpected archaeological relics (including but not limited to prisoner transfer tunnels or similar / associated features) are uncovered during the works, then all works must cease immediately in that area and the Heritage Council contacted. Works may only recommence with the written consent approval of the Heritage Council.

A Heritage Interpretation Strategy and a Heritage Interpretation Plan must be submitted to the Planning Secretary prior to commencement of constructions (excluding demolition and earthworks).

3.4. Handover phase

3.4.1. Traffic and access

Construction work on the Young High School upgrade and joint-use library and community facility has been completed. We are now in a position to confirm access provisions for the facility for school operations and community use.

3.5. Official school opening

An upgrade to the High School and a new joint-use library and community facility for Young was completed today, and delivered brand new facilities including:

- a major upgrade to Young High School
- a new joint-use library and community facility for the school and local community.

The library facility is jointly funded by the NSW Government and Hilltops Council.

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

4. Project Governance

4.1. Project Reference Group

The Department's engagement process strives to engage with key stakeholders from the school community. As part of this process, a non-technical Project Reference Group (PRG) has been established comprising of the SINSW School Director, School Principal, Asset Management Unit (AMU) representatives, Architect, Project Manager, Hilltops Council representatives, librarians, as well as teacher and parent representatives from the school. Members of the PRG understand the local context and/or key drivers of the project.

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

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

(a) Project Reference Group – Delivery

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

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

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

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

Figure 1: Project Reference Group (PRG)

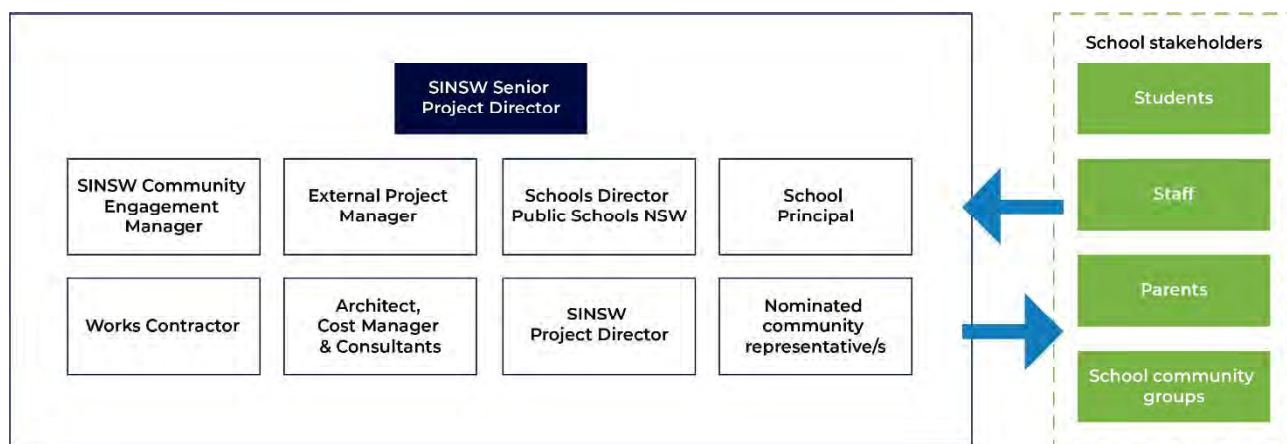
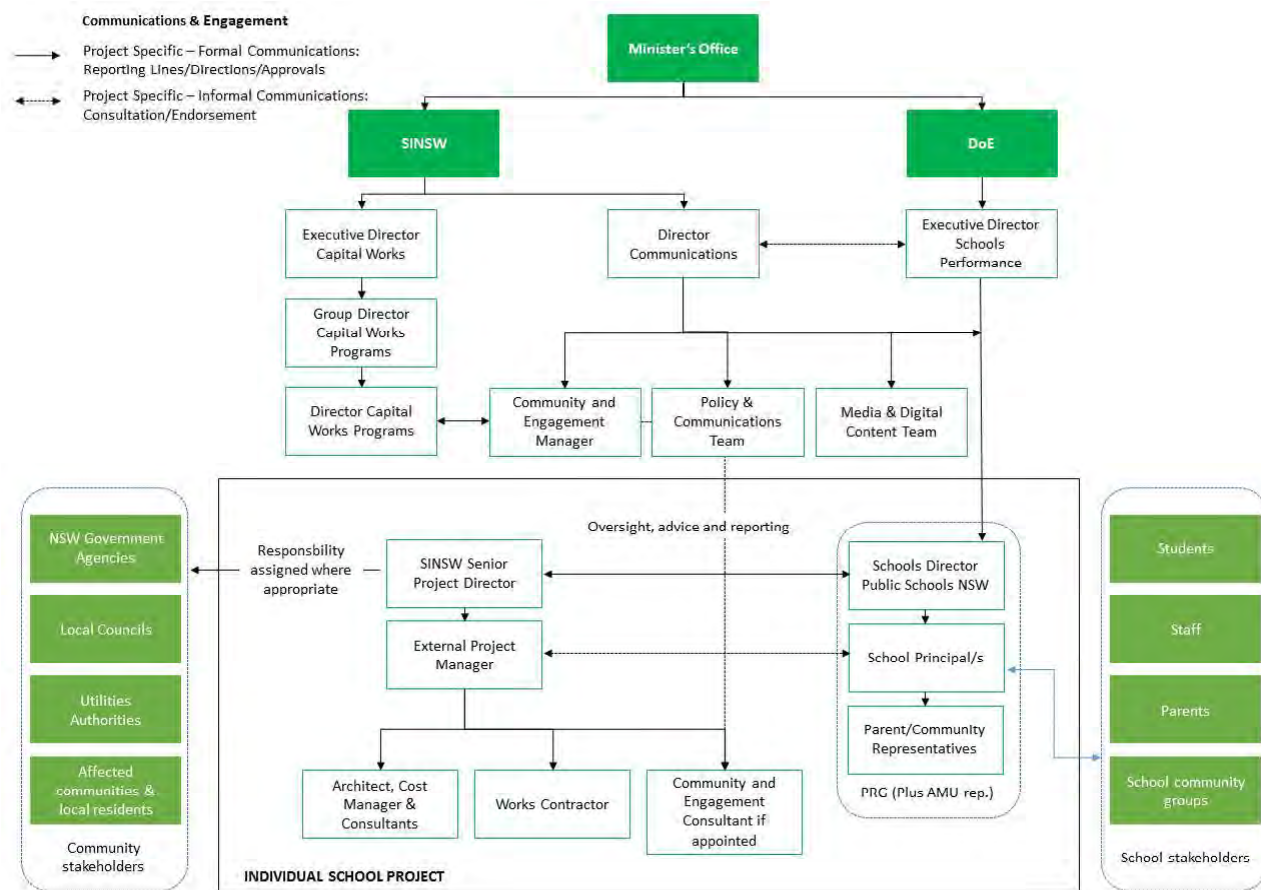


Figure 2 below maps how the department and SINSW will communicate both internally and externally.

Figure 2: SINSW Project Governance



4.2 Hilltops Cultural, Community and Education Precinct Community Project Steering Committee

A Community Project Steering Committee (CPSC) was established in March 2018 and is responsible for gathering and representing the voice of the Hilltops community including Harden, Boorowa and Young in relation to the Hilltops Cultural, Community and Education Precinct project. The Committee will act as a conduit between Council and the community in an advisory capacity to ensure the project achieves the outcome that meets the needs of Hilltops residents.

5. Stakeholders

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

Table 2: Stakeholders

Stakeholders	Interest and involvement
Local Members of Parliament: Member for Cootamundra – Ms Stephanie Cooke MP	- Meeting the economic, social and environmental objectives of state and federal governments - Delivering increased public education capacity on time - Delivering infrastructure which meets expectations - Addressing local issues such as traffic, congestion and public transport solutions
Government agencies and peak bodies: - Transport for NSW - Roads and Maritime Services NSW - Fire and Rescue NSW - NSW Department of Education - NSW Department of Planning, Industry and Environment - NSW Environmental Protection Authority - NSW Rural Fire Service - NSW Heritage Council - NSW Office of Environment and Heritage - NSW Department of Premier and Cabinet - Governments Architect Office - Regional Cultural Fund Office - State Library - Young High School - Hilltops Council Libraries	- Traffic and congestion on the local road system - Adequate public transport options and access - Ensuring new infrastructure meets standard requirements for safety and fire evacuation - Ensuring the development is compliant - Ensuring the development does not impact heritage items
Local Council – Hilltops Council - Mayor - Deputy Mayor - General Manager - Councillors - Project Officer - Communications Manager - Young Local Aboriginal Land Council - Wiradjuri	- Schedule for construction and opening of the new facilities - Impacts to the local community including noise, congestion and traffic - Shared use of community spaces - Providing amenities to meet increase population density
School community Principal	Construction impacts and how these will be minimised

Stakeholders	Interest and involvement
- Teachers - Staff - Parents and carers - Students - Aboriginal Education Unit and Wiradjuri Elders Young High School	- Quality of infrastructure and resources upon project completion - How to access the new facility once completed
Local community - All local residents and - Young Community and Residents Association - Western NSW - NSW Business Chamber - Young NSW Community Group - Hilltops Community Hub - Aboriginal Education Consultative Group - AECG	- Noise and truck movements during construction - Increased traffic and congestion on nearby streets - Local traffic and pedestrian safety - Changed traffic conditions during pick-up and drop-off - Shared use of school facilities and amenities
Nearby public schools - Young Primary School - Maimuru Public School - Bribbaree Public School - Wombat Public School - Young North Public School - Monteagle Public School - TAFE Young Campus Early Education - St Mary's Infants School - Young Stepping Stones Early Learning Centre - Young Preschool	- Impact on school resources - Impact on current students - Implications for teaching staff - Opportunities to view the new facilities
Adjoining affected landowners and businesses - Wombat Street: numbers 2-66 - Berthong: numbers 44, 48, 50, 66, 68, 70, 87 - Allanan Street: numbers 46-87 - Ripon Street: numbers 23, 30 - Dundad Street: numbers 1-25 - Currawong Street: numbers 2-15 - Thornhill Street: numbers 23-89 - Smyth Lane: numbers 2, 4	- Noise and truck movements during construction - Increased traffic and congestion on nearby streets - Local traffic and pedestrian safety - Changed traffic conditions during pick-up and drop-off - Shared use of school facilities and amenities - Environmental impacts during construction

6. Engagement Approach

From 30 March 2020, the way we communicate has temporarily changed due to social distancing requirements. Appendix A provides a detailed list of changed communication methods and tools. This particularly refers to face to face communication channels such as door knocks, information booths/sessions, face to face meetings and briefings.

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

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

In addition to engagement with Government Departments and Agencies and Council, two distinct streams of engagement will continue for the project as follows:

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

This allows:

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

6.1. General community input

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

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

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

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

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

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

Table 3: School Infrastructure NSW Communications Tools

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

Communications Tool	Description of Activity	Frequency
Information booths	Information booths are held locally and staffed by a project team member to answer any questions, concerns or complaints on the project. Info booths are scheduled from the early stages of project delivery through to project completion. Information booths are to be held both at the school/ neighbouring school, as well for the broad community: - School information booths are held at school locations at times that suit parents and caregivers, with frequency to be aligned with project milestones and as required. - Community information booths are usually held at local shopping centres, community centres and places that are easily accessed by the community. They are held at convenient times, such as out of work hours on weekdays and Saturday's. Collateral to be provided include community contact cards, latest project notification or update, with internal FAQs prepared. All liaison to be summarised and loaded in the CRM. Notice of at least 7 days to be provided.	At project milestones and as required
Information sessions (community forums)	Information sessions, or community forums, are a bigger event than an info booth, held at a key milestone or contentious periods as required. The purpose of these events is to inform and consult with the community. Topics of discussion could include key environmental management issues. We will have more information on the project available on display boards/ screens and an information pack handout – including project scope, planning approvals, any impacts on the school community or residents, project timeline, FAQs. Members from the project and communications team will be available to answer questions about the project. These events occur after school hours on a week day (from 3pm – 7pm to cover working parents). All liaison summarised and loaded on the CRM.	As required
Information pack	A 4 page A4 colour, fold out flyer that can include: - Project scope - Project update - FAQs - Contact information - Project timeline To be distributed at info sessions or at other bigger events/ milestones in hard copy and also made available electronically.	As required
Media releases/events	Media releases are distributed upon media milestones. They promote major project milestones and activities and generate broader community awareness.	Media milestones: Project

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

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

7. Engagement Delivery Timeline

* From 30 March 2020, the way we communicate has temporarily changed due to social distancing requirements. Please refer to Appendix A for more details on changed methods and tools. The table below outlines both traditional and alternative methods to be used in line with the changes.

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

Table 4: Engagement timeline

Project Phase / milestone	Target Audiences	Proposed communication tools / activities / purpose as per Table 3	Timing / implementation
Prior to first delivery of components. Main works contractor announced	Near neighbours Local community Local Council	Completed - Project update distributed online and distributed to surrounding community - Media release - Media announcement - Website update - SINSW email address and hotline - FAQs	November 2020
Early works and main construction works commencement, including but not limited to: - Remediation - Works commenced - Key impact periods – noise, dust, traffic, vibration - Construction milestones	Local community Adjacent landowners Local Council State agencies Local teachers Prospective parents and students	Planned - Project update: letterbox drop and online - Works notifications - Summer works notification - Information packs - Website update - SINSW email address and hotline - Contact cards - FAQs - Project signage Alternative methods where applicable: - No doorknock –letterbox drop with door knock' letter template - Digital information booth (if required) with information boards and pack online	December 2020 (at key construction events as required, as per our notification process in Table 5)
Term prior to project completion	School community Local community Adjacent landowners	Planned - Project update: letterbox drop and online - Information booth and	Term 2, 2021

Project Phase / milestone	Target Audiences	Proposed communication tools / activities / purpose as per Table 3	Timing / implementation
	Local Council Prospective parents and students	presentation - Information packs - Information boards - Website update - SINSW email address and hotline - Site visits Alternative methods where applicable: - Digital information booth (if required) with information boards and pack online	
Handover and welcome to the new school facilities	School community Local community	Planned - Media release - Website update - SINSW email address and hotline - Site visits - Thank you pack - Welcome pack	Term 3, 2021
Opening	All	Planned - Media release - Official opening ceremony	Term 3, 2021
Post-opening	All	Planned - Website remains live - Project signage remains installed 1300 phone and email still active, and CRM still maintained for complaints and enquiries.	2021-2022 (at least 12 months post construction completion)

8. Protocols

8.1. Media engagement

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

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

8.2. Site visits

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

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

8.3. Social, online and digital media

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

8.4. Notification process

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

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

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

Table 5: Notifications periods

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

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

8.5. Enquiries and complaints management

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

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

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

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

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

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

Complaints will be escalated when:

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

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

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

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

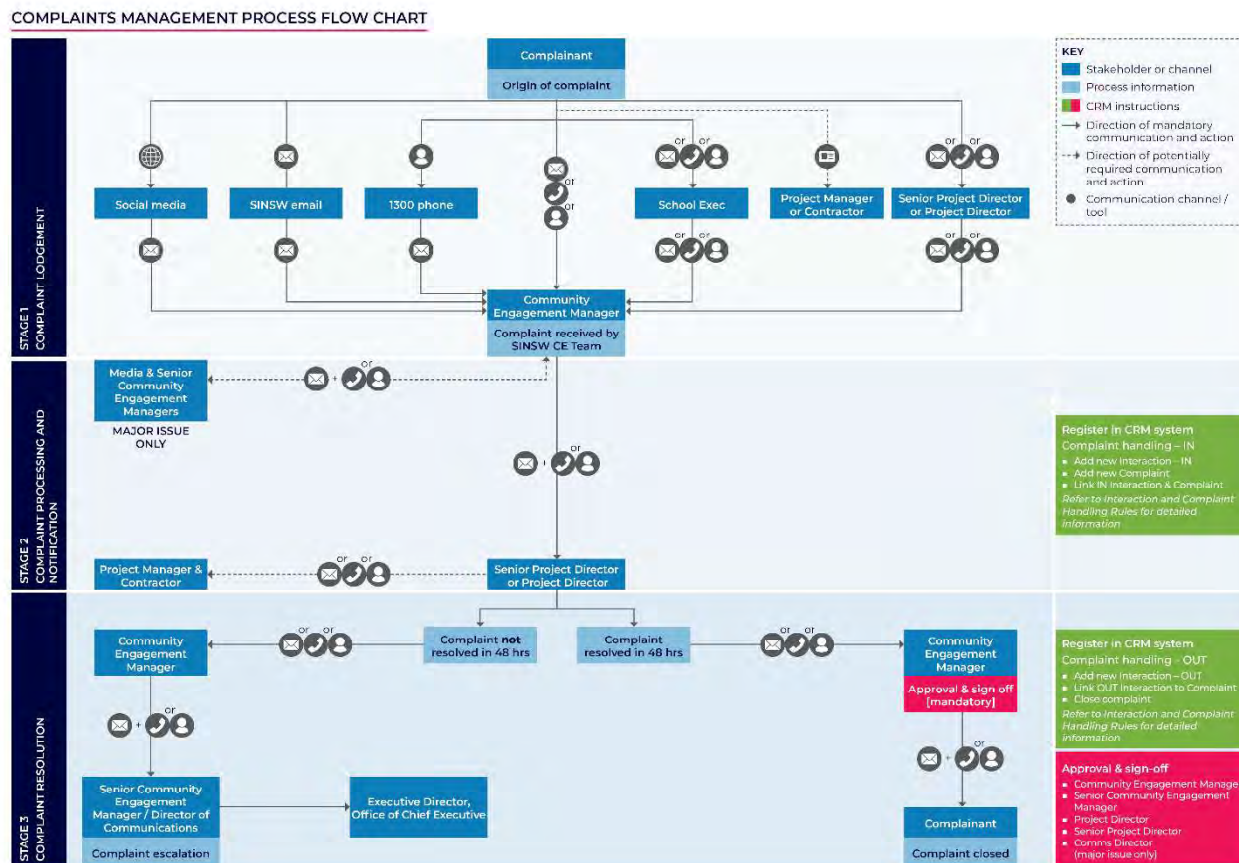
Table 6: Complaint and enquiry response time

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

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

The below diagram outlines our internal process for managing complaints.

Figure 3 - Internal Complaints Process



8.5.1. Disputes involving compensation and rectification

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

8.6. Incident management

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

- (a) involves actual or potential harm to the health or safety of human beings or to the environment that is not trivial; or
- (b) results in actual or potential loss or property damage of an amount, or amounts in aggregate, exceeding \$10,000, (such loss includes the reasonable costs and expenses that would be incurred in taking all reasonable and practicable measures to prevent, mitigate or make good harm to the environment).

8.6.1. Roles and responsibilities following an incident

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

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

SINSW Communications Director will:

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

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

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

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

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

- identifies the development and application number;
- provides details of the incident (date, time, location, a brief description of what occurred and why it is classified as an incident);
- identifies how the incident was detected;
- identifies when SINSW became aware of the incident;
- identify any actual or potential non-compliance with conditions of consent;
- describes what immediate steps were taken in relation to the incident;
- identifies further action(s) that will be taken in relation to the incident; and
- provides the contact information for further communication regarding the incident (the Senior Project Director).

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

- a summary of the incident;
- outcomes of an incident investigation, including identification of the cause of the incident;
- details of the corrective and preventative actions that have been, or will be, implemented to address the incident and prevent recurrence; and
- details of any communication with other stakeholders regarding the incident.

8.7. Reporting process

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

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

Reporting will include but not be limited to:

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

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

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

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

- Simple
- Streamlined
- Accessible.

Summary of mandatory requirements and alternatives:

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

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

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

*alternative may change depending on distributor operations

SSD 9671

Jim Betts
Planning Secretary
Department of Planning, Industry and Environment
12 Darcy Street
Parramatta NSW 2150

Thursday, November 12, 2020

Attn: Shiraz Ahmed

Dear Mr Betts

**Young High School Library and Joint-Use Community Facility and SSD 9671:
Submission of a Community Communication Strategy (CCS) in accordance
with Condition B8.**

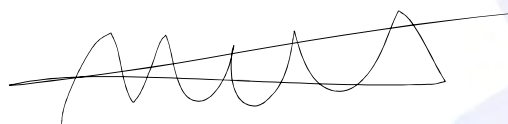
I refer to Young High School Library and Joint-Use Community Facility approved on 21 May 2020.

As per the requirements of conditions B8, the Department of Education submits the following document for information.

- a) Young High School Library and Joint-Use Community Communication Strategy, 6 November 2020, Rev 3
- b) Appendix 1 of this correspondence – Condition Satisfaction Table for B8.

Should you wish to discuss the above further please do not hesitate to contact the undersigned.

Yours sincerely



Marty Smith
Project Director
Schools Infrastructure NSW



Appendix 1 - Condition Satisfaction Table B08

Condition Requirement	Section in Report Provided
Staging Report	
B08. The Community Communication Strategy must:	
(a) identify people to be consulted during the design and construction phases;	Section 5
(b) set out procedures and mechanisms for the regular distribution of accessible information about or relevant to the development;	Section 6
(c) provide for the formation of community-based forums, if required, that focus on key environmental management issues for the development;	Section 4, 6
(d) set out procedures and mechanisms:	
(i) through which the community can discuss or provide feedback to the Applicant;	Section 6
(ii) through which the Applicant will respond to enquiries or feedback from the community; and	Section 6
(iii) to resolve any issues and mediate any disputes that may arise in relation to construction and operation of the	Section 8.5
(e) include any specific requirements around traffic, noise and vibration, visual impacts, amenity, flora and fauna, soil and water, contamination, heritage.	Section 3, 8.4

Roger Lee

From: Roger Lee
Sent: Friday, 9 April 2021 5:17 PM
To: 'Shane Dealy'; David Cartwright
Cc: Marty Smith (InTouch); Lin Xu (InTouch); Caroline Downes; Bailey Thomson; 'Mark Bush'
Subject: Young High School Library and Joint-Use Community Facility - SSD 9671: Construction Environmental Management Plan in accordance with Condition B13
Attachments: 210407_JOSS-Young HS EMP_V6.pdf

CompleteRepository: 2127265
Description: 7 SW NSW Schools
JobNo: 2127265
OperatingCentre: 21
RepoEmail: 2127265@ghd.com
RepoType: Project

Afternoon David and Shane,

In accordance with Condition B13, the Department of Education submits a Construction Environmental Management Plan (CEMP) to the Certifying Authority.

For 'ease' of finding information, please refer to the table below for more information.

Kind regards,

Roger Lee

B.CivEng w/ Arch (Hons), Dip.ProjMgt
Project Manager

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