

Sydney Trains Environmental Management System Site Environmental Management Plan (SEMP)



Introduction

Sydney Trains is the proponent and determining authority for this activity. This environmental impact assessment is being completed in accordance with Division 5.1 of the Environmental Planning and Assessment Act 1979 (EP&A Act) and Part 8 of the Environment Planning and Assessment Regulation 2021 (EP&A Reg). This SEMP forms the assessment when paired with the associated Environmental Work Method Statements.

The activity covered by this assessment is routine maintenance or ancillary works associated with the ongoing safe operation and management of the Sydney Trains rail network in accordance with NSW and Federal statutory objectives. As such, and in respect to this assessment, the cumulative impacts of the routine maintenance and ancillary works are negligible and alternatives to undertaking the works have not been assessed.

1 Project / Program details

Project / Program Details	
Project/Program Name	Bld Refurb RRR Bldg Mittagong
Project/Program No	P.0078604
Scope of Works	<p>Railway Refreshment Room (RRR) Building at Mittagong Railway Station is a two storey building with brick external wall and a slate hipped roof and is Heritage listed (SHR#01195).</p> <p>The building is old and require repair works.</p> <p>This scope of work is to:</p> <ul style="list-style-type: none"> - Repair/reconstruction works on chimney stacks as per Heritage Architect documentation and TTW Engineering design. - Replacement of windows on the 1st floor as per Heritage Architect documentation and TTW Engineering design. - Repair of crack on external wall on the end of corridor on the 1st floor as per Heritage Architect documentation and TTW Engineering design. - Replacement of roof gutters with larger capacity OG gutters as per Heritage Architect documentation. - Minor repair works on roof structure including replacing cracked or damaged roof slates as per Heritage Architect documentation. - Additional 2 downpipes to the platform side of RRR building and relocation of 1 downpipe as per Heritage Architect documentation. <p>S60 application for proposed scope of works and SOHI was approved by Heritage NSW.</p>

What is the cost of the scope of works?	<input checked="" type="checkbox"/> Routine maintenance - any value <input type="checkbox"/> Capital investment - less than \$5 million <input type="checkbox"/> Capital investment - more than \$5 million	
Location	Moss Vale Station	
Attach applicable Environmental Work Method Statement (EWMS)	EWMS Number	EWMS Title
	EMS-03-EW-0296	Recladding roof and walls.
	EMS-030-EW-0299	Station Refresh
Is any of the proposed work outside of the EWMS' scope?	<input checked="" type="checkbox"/> No: Continue to next question <input type="checkbox"/> Yes:  Contact your environmental officer to determine how the works' environmental assessment can proceed	
Does this work have any steps or equipment that are not covered by the EWMS?	<input checked="" type="checkbox"/> No: Continue to next question <input type="checkbox"/> Yes: Provide details below	
Is the work part of a larger job?	<input checked="" type="checkbox"/> No: Continue to Part 2 Project Timing and Location <input type="checkbox"/> Yes: Provide details of larger job and relationship to these works	
	 Contact your local environmental officer. The larger project may have environmental controls that need to be applied to this job. All relevant conditions and controls need to be added to PART 5. Summary of approvals and control measures	

2 Project timing and location(s)

2.1 Project timing

Activity	Dates & work hours, noting any 'Out of hour' periods (Out of hour = outside of 7am-6pm Monday to Friday or 8am-1pm Saturday)
Works/program commencement: <i>Including pre-works, site establishment (including access, laydown/stockpiles, site amenities, parking), installation of erosion and sediment controls, etc</i>	15/08/2025
Site construction and/or periodic maintenance activities <i>For programs/ recurring maintenance detail recurrence frequency and work hours of activities</i>	Monday to Friday 7 AM to 6 PM Saturday and Sunday – During ARTC possessions
Works/program completion: <i>Including demobilisation and removal of all site offices, equipment and materials.</i>	30/04/2026

2.2 Existing environment



Where multiple sites are to be covered by this form each location is to be identified separately in the following question set (e.g. Site 1, Site 2, etc)

The descriptions are to be derived from desktop studies such as aerial photos, overlays and databases (e.g. WebGIS ME) and are to be confirmed, modified and expanded by a pre-work site inspection and. Descriptions must include aspects such as acute slope/fall, waterways, drains, vegetation and individual trees, heritage items or curtilage, difficult access, traffic, nearest neighbours etc

Site 1: <Site description>



Local environment includes:

- ☒ In, or near, residential area
- ☒ In, or near, customer areas
- ☐ Tunnel/underground location
- ☐ Easement/off corridor areas
- ☐ Open spaces
- ☐ Sparsely vegetated spaces
- ☐ Thickly vegetated spaces
- ☐ In, or near, waterways or drains
- ☐ Other (specify):

Site 2: <Site description>

Site 3: <Site description>

3 Consultation requirements

3.1 Consultation with adjoining land managers

Do the works require consultation with other land managers⁽¹⁾?

Will the works result in substantial impacts on Council related infrastructure and services or locally listed heritage items?
(i.e. local heritage items, stormwater, traffic, sewerage, water or impact on public place or footpaths, or works that impact flood prone areas or coastal areas)

- ☒ No: Continue to next question
- ☐ Yes: Identify requirements and how they were addressed:

.....

Are the works adjacent to land reserved under the National Parks & Wildlife Act 1974?

- ☒ No: Continue to next question
- ☐ Yes: Identify requirements and how they were addressed:

.....

Consultation required with other stakeholders (e.g. Roads, Crown Land, Private landholder etc.)

- ☒ No: Continue to next question
- ☐ Yes: Identify requirements and how they were addressed:

.....


(1) Where consulted, all land managers must have a minimum 21 days to provide comments. Comments received must be considered and appropriate actions identified in Part 5.1

3.2 Community consultation

Could there be community interest in the works?	
<input checked="" type="checkbox"/> No: Community consultation assessment not required	<input type="checkbox"/> Yes: Complete EMS-03-FM-0104 EIA Public Engagement Assessment and identify the assessment outcome; <ul style="list-style-type: none"> <input type="checkbox"/> 'Outrage' risk management <input type="checkbox"/> Targeted public consultation <input type="checkbox"/> Public engagement not required Actions arising from this assessment are to be identified in <i>Part 5 Summary of approvals and control measures</i>

4 Environmental assessment

4.1 Working outside the Active Operational Zone (AoZ)

Are any works to be completed outside the AoZ?	
<input checked="" type="checkbox"/> No: Continue to Section 4.2 Vegetation condition	<input type="checkbox"/> Yes: Contact your environmental officer for support.  EMS-03-FM-0249 EWMS activities outside AoZ must be completed by an environmental officer and must be attached to this SEMP.



Vehicle access across land that is not in the control of Sydney Trains via roads, access ways, easements, or with the consent of the relevant landowner is not considered to form part of the works outside the AOZ

4.2 Vegetation condition

Has all the vegetation within the worksite been maintained ⁽¹⁾ within the last 10 years?	
<input checked="" type="checkbox"/> Yes: Continue to Section 4.3	<input type="checkbox"/> No/Don't know Discuss with your local environmental officer whether the site should be considered as a sensitive site due to some biodiversity aspect. If so, add site to 4.3 Sensitive Sites as directed

Note (1): 'Maintained' means pruned, weeded, mowed or other activity that significantly disturbed the vegetation.

4.3 Sensitive sites



For works undertaken outside of the AOZ the following section is to include all sites identified by the environmental officer in the activities' **EMS-03-FM-0249 EWMS activities outside AOZ**.

Will the works be located in, or within 100m of a Sensitive Site? (Ref: Web GIS ME)	
<ul style="list-style-type: none"> Aboriginal heritage site or Environmentally Sensitive Site? 	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

• Contaminated Site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
• Non-Aboriginal Heritage site?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
A separate line is to be completed in the following table for each site/location identified		
Location and distance (m) from the worksite	Nature of site (Details from database or register)	Potential for the works to impact ²
State Heritage Listed	Heritage Item No 01195	Low Impact
Notes: <ul style="list-style-type: none"> Information about sensitive sites must be sufficient to be able to make an informed decision on potential impacts and appropriate project controls. Additional assessments may be required for works in or adjacent to some sensitive sites. Please see the environmental officer and/or individual subject matter procedures for specific requirements. Where works have the potential to impact sensitive sites the required additional controls, approvals, notifications, etc must be listed in the relevant section of <i>Part 5 Summary of approvals and control measures</i> 		

4.4 Noise and vibration assessment of the works

A. Are there any noise sensitive receivers ⁽¹⁾ within 350m of works?		
<input type="checkbox"/> No Works do not need further noise assessment, go to Section 5.	<input checked="" type="checkbox"/> Yes Describe receivers and continue to Part B. Receivers: Residential Distance: 70m	
B. Track work on a moving face		
Will work be limited to track work on a moving face, be undertaken for less than five (5) consecutive days and consist only of one or more of the following activities:	<input type="checkbox"/> Yes	Works do not need noise and vibration assessment, go to Section 5.
<input type="checkbox"/> Ballasting or ballast clean <input type="checkbox"/> Resurfacing (tamping, stabilising, regulating) <input type="checkbox"/> Rail profiling <input type="checkbox"/> Continuous track welding / rail adjusting	<input checked="" type="checkbox"/> No	Continue to Part C.
C. Answer the following		
Will there be any equipment producing noise levels of:	<input type="checkbox"/> No	Works do not need further noise and vibration assessment, go to Section 5.
<input type="checkbox"/> more than 80 dBA ⁽²⁾ during Standard Hours ⁽³⁾ , and/or <input type="checkbox"/> more than 60 dBA ⁽²⁾ outside of Standard Hours ⁽³⁾ or <input type="checkbox"/> Will the works use pile drivers, hydraulic hammers or vibratory rollers (or similar vibration inducing plant)? or <input type="checkbox"/> Will works at any one location last more than 3 weeks in duration?	<input checked="" type="checkbox"/> Yes	Complete EMS-09-FM-0166 Maintenance Quantified Noise and Vibration Assessment and include any resulting actions in Section 5.
(1) Noise sensitive receivers include residences, hospitals, places of worship, schools, aged, childcare facilities, etc. (2) Noise levels are for the loudest equipment's 'Modified 10m Sound Pressure' as given in EMS-09-FM-0166		

Maintenance Quantified Noise and Vibration Assessment ('SoundPressure' Table, 'References' Tab).

(3) Standard Hours' = 7am-6pm Monday to Friday and 8am-1pm Saturday

5 Summary of approvals and control measures



For works undertaken outside of the AOZ, the following section is also to include all actions and controls arising from the project's **EMS-03-FM-0249 EWMS Activities Outside of AOZ**.

5.1 Permits, approvals and consultation

Describe all relevant permits, approvals and consultation requirements for the works.


Environmental Hazard	Permits/Other Requirements	Timing	Responsibility
Heritage Site	Application under S60 of the The Heritage Act 1977 Mittagong Railway Station and Yard Group SHR No 01195 approved by Heritage NSW	Approval received on 30/01/2025	Project Manger

5.2 Environmental controls

Environmental Hazard	Work controls and responsibility <i>including those from the EWMS, PART 4 of this SEMP, specialist reports and/or licences and all other relevant activities</i>
Works community notification:	Project manager Letterbox notification provided: Local <input type="checkbox"/> Possession <input type="checkbox"/>
Awareness and responsibility: <i>Staff unaware of the works' environmental controls and their responsibilities</i>	Site supervisor <ul style="list-style-type: none"> Undertake site pre-work briefings and local inductions using the SEMP and the SECM to cover the work's environmental risks and controls and the workers environmental responsibilities Delivery tool-box talks relevant to the environmental hazards Maintain a readily accessible copy of the environmental approval (including all associated specialist approvals and plans) at the worksite whenever work is being undertaken. Display prominently on site, where possible, the SECM and make sure it is accurate and used
Dust: <i>Emissions of dust leaving site from earthworks, stockpiles and works traffic</i>	Site supervisor <ul style="list-style-type: none"> Select plant and equipment for the task that is fit for purpose and minimises dust generation Use water cart to dampen exposed surfaces including access roads, work areas and stockpiles Cover long term stockpiles Minimise removal of vegetation from worksite Keep vehicles to existing access road Work carried out by Sydney trains Panel Contractor and waste register will be maintained and provided after completion of the works

Environmental Hazard	Work controls and responsibility <i>including those from the EWMS, PART 4 of this SEMP, specialist reports and/or licences and all other relevant activities</i>
Environmentally sensitive sites: <i>Unintentional or unapproved impact on environmentally sensitive sites</i>	<ul style="list-style-type: none"> No Environmentally sensitive areas within immediate work area.
Erosion and sedimentation: <i>Loss of soil and sediment from worksite to surrounding environment, including tracking onto public roads</i>	<p>Site supervisor</p> <ul style="list-style-type: none"> Use a street sweeper to regularly remove mud and silt from public roads used for site access Include sediment control in stockpile management Complete post-work site rehabilitation and erosion and sediment control maintenance and inspections (transfer ownership to operational area at end of responsibility) Erosion and Sedimentation control will be provided
Heritage: <i>Unintentional or unapproved impact on Aboriginal and non-Aboriginal heritage</i>	<p>Site supervisor</p> <ul style="list-style-type: none"> Works to proceed in accordance with the conditions set out within the heritage approval dated APPLICATION UNDER SECTION 60 OF THE HERITAGE ACT Mittagong Railway Station and Yard Group SHR No 01195 (Dated 30 January 2025) Isolate and demarcate heritage sites to prevent accidental damage If a heritage or archaeological item is uncovered, immediately stop further disturbance, demarcate the site, contact your environmental support and follow EMS-09-PR-0164 Unexpected Archaeological Finds
Incidents and emerging issues <i>An incident or emerging issue is not controlled and causes an environmental impact</i>	<p>Project Manager</p> <ul style="list-style-type: none"> Support management of emerging issues and incident management, notification, investigation and the completion of corrective and preventative actions <p>Site supervisor</p> <ul style="list-style-type: none"> Complete daily inspections of the site, plant and equipment and the surrounding area Implement incident procedures on unapproved impacts, spills and other environmental incidents Notify incidents to the Incident and Injury Hotline 1800 772 779 or enter incident directly into SHEM
Light spill: <i>Impact of work light sources on neighbouring residents and properties - particularly the potential for sleep disturbance</i>	<p>Site supervisor</p> <ul style="list-style-type: none"> Locate portable lighting towers so that they are not directed at residential properties Ensure parked vehicles headlights do not shine into residences,
Noise and vibration: <i>Impact of works noise and vibration on neighbouring residents and properties - particularly the potential for sleep disturbance</i>	<p>Site supervisor</p> <ul style="list-style-type: none"> Schedule more noisy work for 'standard hours' (7am to 9pm Monday to Friday, 8am to 1pm Saturday), where practical Limit operating and idling plant and equipment on site, where practical Locate noisy equipment, parking areas and assembly areas away from sensitive receivers, where practical and instruct workers to minimise noise during shift changes and at crib areas Use non-tonal reversing alarms on vehicles, where practical All plant and equipment to be operated with effective noise attenuation equipment (e.g. mufflers)

Environmental Hazard	Work controls and responsibility <i>including those from the EWMS, PART 4 of this SEMP, specialist reports and/or licences and all other relevant activities</i>
Plants and animals: <i>Unintentional or unapproved impact on native and protected plants, animals and communities and the spread of noxious weeds</i>	Vegetation and wildlife management <ul style="list-style-type: none"> Vegetation maintained. Pest and weed management <ul style="list-style-type: none"> Not application.
Plant and equipment emissions: <i>Smoke, fumes, odours and other emissions from plant and equipment</i>	Site supervisor <ul style="list-style-type: none"> Plant and equipment is operated and maintained in a proper and efficient manner with all of its pollution control equipment in place and functioning Plant and equipment not used when needing repair Plant and equipment is regularly checked for wear, leaks, odours, fumes and smoke All plant to have suitable spill kits and operators trained in their use and the disposal of used spill kit materials
Soil contamination: <i>Contamination of worksite from stockpiling and chemical storage and use</i>	Site supervisor <ul style="list-style-type: none"> Develop a stockpile management plan to segregate potentially contaminated materials from clean materials Undertake daily inspections for spills and contamination (e.g. vehicle tracking, unauthorised material movement, containment failures, etc) Check all imported material for contamination (including weeds, construction wastes, et Waste register will be maintained, and stockpile will be covered with Geofab
Spills: <i>Unintentional loss of hydrocarbons, chemicals and materials from plant, equipment, storage and use</i>	Site supervisor <ul style="list-style-type: none"> Plant and equipment is operated and maintained in a proper and efficient manner with all of its pollution control equipment in place and functioning Plant and equipment not used when needing repair Plant and equipment is regularly checked for wear, leaks, odours, fumes and smoke All plant to have suitable spill kits and operators trained in their use and the disposal of used spill kit materials
Traffic: <i>Traffic disruption to community and other users around worksite</i>	Site supervisor <ul style="list-style-type: none"> Plan all vehicle movements to occur outside of local peak traffic periods Place offsite staging areas in low impact areas Obtain a Road Occupancy Licence, as necessary Utilise qualified traffic control staff Traffic management will be provided by supplier during works around car park
Visual impact: <i>Visual impact on community due to works and worksite facilities and activities</i>	Site supervisor <ul style="list-style-type: none"> Place stockpiles and site amenities away from residents, and remove them as soon as possible Create or maintain existing visual screens such as using vegetation, shade cloth on fences or natural site features Keep the site tidy and free of litter

Environmental Hazard	Work controls and responsibility <i>including those from the EWMS, PART 4 of this SEMP, specialist reports and/or licences and all other relevant activities</i>
Waste: <i>Unnecessary generation of wastes and poor or illegal disposal of wastes</i>	Construction waste (e.g. spoil, concrete, litter, etc) <ul style="list-style-type: none"> Waste register will be maintained.
	Slurry wastes (e.g. concrete, supersucker, etc) N/A
	Vegetation management waste (e.g. clippings, branches, etc) N/A
	The works' SECM must illustrate the relevant work areas and site environmental controls described above

5.3 Biodiversity offset

Is a Biodiversity Offset required for the project?	
<input checked="" type="checkbox"/> No: Continue	<input type="checkbox"/> Yes: Provide the following information: Value ⁽¹⁾ : _____
(1) All calculations are to be in accordance with EMS-06-WI-0177 Biodiversity Offsets Calculator	

5.4 SEMP documents

For environmental planning and assessment purposes the SEMP for this job comprises of:

- ☒ This SEMP
 - ☒ The Environmental Work Method Statement (EWMS) referred to in Section 1
 - ☒ The attached project's Site Environmental Control Map
- Plus (tick as appropriate):
- ☐ **EMS-03-FM-0248 EWMS Scope Exception**
 - ☐ **EMS-09-FM-0249 EWMS Activities outside AOZ** (see Section 4.1)
 - ☒ **EMS-09-FM-0166 Maintenance Quantified Noise and Vibration Assessment** (see Section 4.3)
 - ☐ Additional environmental studies, approvals (including Aboriginal and non-Aboriginal heritage)

5.5 Environmental review requirements

Is review required by an environmental assessor?	
Is this for a program of work?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Is any of the work to be completed outside of the Active Operational Zone (AOZ)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Is any work being undertaken or will impact on land controlled by others?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Is access required across land controlled by others that is not a road, easement or right of way?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Were any sensitive sites identified in Section 4.2?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Is any work being undertaken in embankments, cuttings or on the boundary fence?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Is extensive Council or other Authority consultation required?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are environmental impacts "likely" <u>and</u> "significant"	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Was an EMS-10-FM-0166 Maintenance Quantified Noise Assessment required (Section 4.3) AND was a work phase identified as High Risk?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Is work likely to cause community concern (other than noise)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Were additional environmental studies or approvals (e.g. heritage) required?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Were any biodiversity Offsets required for the project?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No



If "Yes" to any of the above, this form must be submitted to the local environmental officer for assessment at least 4 weeks prior to the planned commencement date of the works.

Report all pollution and environment incidents immediately to SHEM or the Incident and Injury Hotline (1800 772 779) and your local environment officer.

6 Determination

The works covered by this document have been determined to proceed under Division 5.1 of the *Environmental Planning & Assessment Act 1979* and Part 8 of the *Environmental Planning & Assessment Regulation 2021* subject to the implementation of all mitigation measures and actions identified in this document.

Position of Determiner: Project Manager

Date of Determination: 12/08/25

This version of the document has been redacted to remove personal information.



To provide comments on this EIA please complete a [Sydney Trains Feedback Form](#) or call the Sydney Trains Feedback Line on 131 500.

Acknowledgement of Country



Sydney Trains acknowledges the traditional custodians of the land on which we work and live. We pay our respects to Elders past and present and celebrate the diversity of Aboriginal people and their ongoing cultures and connections to the lands and waters of NSW.

Station refresh

Environmental Work Method Statement			Sydney Trains Incident Hotline 1800 772 779
Scope of EWMS: Works covered by this EWMS are limited to the 'refurbishment of the station' including the following elements to meet the requirements Sydney Trains and NSW TrainLink: Station Components Guide (June 2017): <ol style="list-style-type: none"> Maintenance and renewal of the following existing station components: <ol style="list-style-type: none"> Flooring, surfaces (including asphalt, tiles, plaster, sandstone, timber surfaces, etc), tuck pointing and tactiles Gutters, drains and downpipes, doors and doorways, glazing and footings Seats, bubblers, bins, ticketing systems and customer information systems Lighting systems and security systems Toilets including pans, mirrors, basins and seats Stairs including handrails, tactiles, stair nosing and balustrades Removal of redundant services, removal of redundant fixtures, fittings and operational items (including ticket booths, safes, etc), removal of internal non-load bearing walls and false ceilings Cleaning and pressure washing of station assets and infrastructure Pest bird proofing including netting and spikes <p>Renewal includes upgrading existing components to meet the requirements Sydney Trains and NSW TrainLink: Station Components Guide (June 2017).</p>	Not in Scope: Works not in scope include: <ul style="list-style-type: none"> Installation of new components (including toilets, ticketing systems, security systems, customer information systems, etc) Any alteration or removal of original Heritage fabric without approval Any alteration, removal or enlargement of the existing buildings or station infrastructure Any outdoor commercial advertising signage or other advertising infrastructure Garden Landscaping <p>Note: Works not in scope may require a different form of environmental assessment and approval, Contact local environmental officer for guidance</p>	Project manager requirements: <ul style="list-style-type: none"> Has a Sydney Trains employee number Completed <i>Environmental Management for Projects</i> (online) and <i>SEMP Masterclass</i> training External notifications: <i>Parties outside of Sydney Trains that are likely to require works' notification</i> <ul style="list-style-type: none"> Letter box drop to residents (if identified in SEMP) Permits / licences: <i>Licences and permits not issued by Sydney Trains that are likely to be needed for works</i> <ul style="list-style-type: none"> Heritage approval (if identified in SEMP) Road closure permits (if identified in SEMP) 	Plant and equipment <ul style="list-style-type: none"> Hand tools/Power tools Jackhammer Truck Concrete saw High rail equipment EWP Platform ladder Scaffolding Extraction fan Core borer Hoarding Crane truck Skip bin Portable toilets Oxy cutting equipment Lighting Generator Pressure washer Whacker packer

Environmental Hazard Matrix

Job steps	Environmental hazard														
	Awareness and responsibility	Biodiversity	Chemical and fuel storage and decant	Dust	Erosion and sedimentation	Heritage	Incidents and emerging issues	Light Spill	Noise and vibration	Pesticides	Plant and equipment emissions and spills	Soil and water contamination	Traffic	Visual impacts	Waste
Site establishment (including material / plant delivery, establish site amenities, place skip bins, install hoardings, etc)	Y	Y	Y	Y	Y	Y	Y	-	Y	-	Y	Y	Y	Y	Y
Declutter, including <ul style="list-style-type: none"> Removal redundant equipment and services Removal of floor furnishings and tiles Strip paint 	Y	-	Y	Y	-	Y		Y	Y	-	Y	Y	Y	-	Y
Construction, including <ul style="list-style-type: none"> Asphalting Installation of new plumbing Painting and touch ups Fencing Rust repairs Glazing Install bird proofing Toilet refurbishing <ul style="list-style-type: none"> Ceiling / underside of awning / gable repairs Install new gutters Tuck pointing Stair nosing Crimp safe mesh installation over windows Screen door replacement General make good works 	Y	-	Y	Y	-	Y		Y	Y	-	Y	Y	Y	-	Y
Stockpile and disposal of waste	Y	-	-	Y	Y	-	Y	-	Y	-	Y	Y	Y	Y	Y
Site demobilisation (including final waste disposal, site reinstatement, etc)	Y	-	-	Y	-	-	Y	-	Y	-	Y	-	Y	-	-

Hazard Control Table

Environmental Hazard	Control and responsibility	Control reference
Awareness and responsibility: <i>Staff unaware of the works' environmental controls and their responsibilities</i>	<i>Project manager</i> <ul style="list-style-type: none"> SEMP: The SEMP is signed by the site supervisor and they are aware of the environmental controls and conditions, including those within the SEMP's specialist studies and approvals <i>Site supervisor</i> <ul style="list-style-type: none"> Undertake site pre-work briefings and inductions using the SEMP and the SECM to cover the work's environmental risks and controls and the workers environmental responsibilities Delivery tool-box talks relevant to the environmental hazards Maintain a readily accessible copy of the environmental approval (including all associated specialist approvals and plans) at the worksite whenever work is being undertaken. Display prominently on site, where possible, the SECM and make sure it is accurate and used 	<ul style="list-style-type: none"> Site Environmental Management Plan SMS-06-OP-3114 Pre-work Briefings
Biodiversity: <i>Unintentional or unapproved impacts on native and protected plants, animals and ecological communities</i>	<i>Site supervisor</i> <ul style="list-style-type: none"> Remove weeds from plant before leaving weed infested areas Use tape or other suitable fencing around "no go zones" Clear minimal vegetation and do not clear any vegetation outside of approved scope Trim or remove trees under direction of an arborist Keep vehicles and equipment away from areas of vegetation Contact WIRES as required for injured animals Complete post-work site rehabilitation works, maintenance and inspections and transfer ownership to operational area at end of responsibility 	<ul style="list-style-type: none"> Site Environmental Management Plan EMS-06-OR-1006 Biodiversity
Chemical and fuel storage and decant: <i>Unintentional loss of chemicals and fuels during storage and decanting</i>	<i>Project Manager</i> <ul style="list-style-type: none"> SEMP: Check SDS for any chemicals being used (including pesticides) to determine if special storage and preparation controls are needed. Include controls in SEMP Section 5.2. <i>Site supervisor</i> <ul style="list-style-type: none"> Maintain current SDS's onsite for all stored chemicals and follow any special precautions Chemicals and fuels are stored in appropriately labelled and approved containers Bund temporary fuel and chemical storage and decant facilities away from drains and waterways 	<ul style="list-style-type: none"> Site Environmental Management Plan Safety Data Sheets (SDS)

Environmental Hazard	Control and responsibility	Control reference
Dust: <i>Emissions of dust leaving worksite from earthworks, stockpiles and works traffic.</i>	Site supervisor <ul style="list-style-type: none"> Select plant and equipment for the task that is fit for purpose and minimises dust generation Use water cart to dampen exposed surfaces including access roads, work areas and stockpiles Cover long term stockpiles Minimise removal of vegetation from worksite Keep vehicles to existing access roads 	<ul style="list-style-type: none"> Site Environmental Management Plan. EMS-05-GD-0013 Air Quality Guide
Erosion and sedimentation: <i>Loss of soil and sediment from worksite to surrounding environment, including tracking onto public roads</i>	Site supervisor <ul style="list-style-type: none"> Use a street sweeper to regularly remove mud and silt from public roads used for site access Include sediment control in stockpile management Complete post-work site rehabilitation and erosion and sediment control maintenance and inspections (transfer ownership to operational area at end of responsibility) 	<ul style="list-style-type: none"> Site Environmental Management Plan EMS-14-PR-0012 Erosion and Sediment Control
Heritage: <i>Unintentional or unapproved impact on Aboriginal and non-Aboriginal heritage</i>	Project manager <ul style="list-style-type: none"> SEMP: Use SEMP to identify and manage impact to Aboriginal and Non-Aboriginal Heritage sites. Contact a Transport Heritage Specialist for advice regarding approval to impact heritage sites. Add controls from approval to SEMP Section 5.2. Site supervisor <ul style="list-style-type: none"> Isolate and demarcate heritage sites to prevent accidental damage If a heritage or archaeological item is uncovered, immediately stop further disturbance, demarcate the site, contact your environmental support and follow EMS-09-PR-0164 Unexpected Archaeological Finds 	<ul style="list-style-type: none"> EMS-03-FM-0249 EWMS Activities outside the AoZ Site Environmental Management Plan TAHE (former RailCorp) Section 170 Heritage and Conservation Register Sydney Trains environment WebGIS EMS-09-PR-0164 Unexpected Archaeological Finds

Environmental Hazard	Control and responsibility	Control reference
Incidents and emerging issues <i>An incident or emerging issue is not controlled and causes an environmental impact</i>	<p><i>Project Manager</i></p> <ul style="list-style-type: none"> <i>SITE:</i> Support management of emerging issues and incident management, notification, investigation and the completion of corrective and preventative actions <p><i>Site supervisor</i></p> <ul style="list-style-type: none"> Complete daily inspections of the site, plant and equipment and the surrounding area to identify unexpected impacts and future potential impacts Consider how changes in the weather could affect the works and the works controls (e.g. during high winds, heavy rainfall, etc) Contact your environmental officer if the NSW EPA or other external party conducts an environmental site visit Implement incident procedures on unapproved impacts, spills and other environmental incidents If a spill occurs, then immediately notify incidents to the Incident and Injury Hotline 1800 772 779 or enter incident directly into SHEM Refer all complaints to the Sydney Trains & NSW TrainLink Environmental Feedback Line on 1300 500 or https://transportnsw.info/contact-us 	<ul style="list-style-type: none"> Site Environmental Management Plan EMS-03-PR-0224 Incident Environmental Management EMS-02-WI-0214 Notify Pollution Incidents EMS-09-PR-0164 Unexpected Archaeological Finds
Light spill: <i>Impact of work light sources on neighbouring residents and properties - particularly the potential for sleep disturbance</i>	<p><i>Site supervisor</i></p> <ul style="list-style-type: none"> Locate portable lighting towers so that they are not directed at residential properties Ensure parked vehicles headlights do not shine into residences, 	<ul style="list-style-type: none"> Site Environmental Management Plan

Environmental Hazard	Control and responsibility	Control reference
Noise and vibration: <i>Impact of works noise and vibration on neighbouring residents and properties – particularly the potential for sleep disturbance</i>	<p><i>Project manager</i></p> <ul style="list-style-type: none"> SEMP: Identify potentially sensitive noise receivers and identify relevant controls through the noise assessment (as required by SEMP) <p><i>Site supervisor</i></p> <ul style="list-style-type: none"> Schedule more noisy work for 'standard hours' (7am to 9pm Monday to Friday, 8am to 1pm Saturday), where practical Limit operating and idling plant and equipment on site, where practical Locate noisy equipment, parking areas and assembly areas away from sensitive receivers, where practical and instruct workers to minimise noise during shift changes and at crib areas Use non-tonal reversing alarms on vehicles, where practical All plant and equipment to be operated with effective noise attenuation equipment (e.g. mufflers) 	<ul style="list-style-type: none"> Site Environmental Management Plan EMS-10-GD-0083 Guide to Rail Infrastructure Noise and Vibration Management EMS-10-FM-0166 Maintenance Quantified Noise and Vibration Assessment
Plant and equipment emissions and spills: <i>Smoke, fumes, odours and other emissions from plant and equipment. Spills of hydrocarbons from plant and equipment</i>	<p><i>Project Manager</i></p> <ul style="list-style-type: none"> SEMP: Specify plant and equipment for the task that is fit for purpose and minimises offsite impacts (e.g. smoke, exhaust, noise, etc) <p><i>Site supervisor</i></p> <ul style="list-style-type: none"> Plant and equipment is operated and maintained in a proper and efficient manner with all of its pollution control equipment in place and functioning Plant and equipment not used when needing repair Plant and equipment is regularly checked for wear, leaks, odours, fumes and smoke All plant to have suitable spill kits and operators trained in their use and the disposal of used spill kit materials 	<ul style="list-style-type: none"> Site Environmental Management Plan SMS-16-OP-3076 Inspection, Testing and Monitoring

Environmental Hazard	Control and responsibility	Control reference
Soil and water contamination: <i>Contamination of worksite from stockpiling and chemical use</i>	<p><i>Project manager</i></p> <ul style="list-style-type: none"> • <i>DESIGN and SEMP:</i> Identify potential contaminants prior to commencing work on site • <i>DESIGN and SEMP:</i> Check SDS for any chemicals being used (including pesticides) to determine if special use controls are needed. Add any controls to SEMP Section 5.2. <p><i>Site supervisor</i></p> <ul style="list-style-type: none"> • Develop a stockpile management plan to segregate potentially contaminated materials from clean materials • Undertake daily inspections for spills and contamination (e.g. vehicle tracking, unauthorised material movement, containment failures, etc) • Check all imported material for contamination (including weeds, construction wastes, etc) 	<ul style="list-style-type: none"> • Site Environmental Management Plan • EMS-07-PR-0004 Contaminated Land Management
Traffic: <i>Traffic disruption to community and other users around worksite</i>	<p><i>Project manager</i></p> <ul style="list-style-type: none"> • <i>SEMP:</i> Develop a Traffic Management Plan, where appropriate <p><i>Site supervisor</i></p> <ul style="list-style-type: none"> • Plan all vehicle movements to occur outside of local peak traffic periods • Place offsite staging areas in low impact areas • Obtain a Road Occupancy Licence, as necessary • Utilise qualified traffic control staff 	<ul style="list-style-type: none"> • Site Environmental Management Plan
Visual impact: <i>Visual impact on community due to works and worksite facilities and activities</i>	<p><i>Site supervisor</i></p> <ul style="list-style-type: none"> • Place stockpiles and site amenities away from residents, and remove them as soon as possible • Create or maintain existing visual screens such as using vegetation, shade cloth on fences or natural site features • Keep the site tidy and free of litter 	<ul style="list-style-type: none"> • Site Environmental Management Plan • EMS-03-GD-0014 Visual Amenity Guide

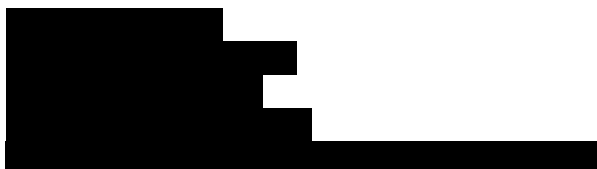
Environmental Hazard	Control and responsibility	Control reference
Waste: <i>Unnecessary generation of wastes and poor or illegal disposal of wastes</i>	Construction waste (e.g. spoil, concrete, litter and rubbish, etc) <i>Project manager</i> <ul style="list-style-type: none"> SEMP: Develop a Waste Management Plan if the works will generate a significant quantity of wastes, difficult wastes or waste of an unknown quantity/contamination <i>Site supervisor</i> <ul style="list-style-type: none"> Do not overestimate quantities of materials required Separate wastes, place all wastes in appropriate containers and dispose of them as they are generated Prevent the mixing of similar new and waste materials Classify all wastes in accordance with the NSW EPA Waste Classification Guidelines Only use approved waste contractors and dispose of all wastes leaving site to facilities licenced to receive the waste Keep records of all waste classification, transport, disposal, reuse and recycling activities 	<ul style="list-style-type: none"> Site Environmental Management Plan EMS-13-OR-1013 Waste Management EPA Waste Classification Guidelines
	Slurry wastes (e.g. concrete, supersucker, etc) <i>Site supervisor</i> <ul style="list-style-type: none"> Ensure proper and immediate disposal of slurry offsite, or construct a correctly sized, impermeable slurry holding facility and properly dispose of all dewatered wastes 	<ul style="list-style-type: none"> Site Environmental Management Plan EMS-13-WI-0183 Hydrovac Slurry Management
	Vegetation management waste (e.g. clippings, branches, etc) <i>Site supervisor</i> <ul style="list-style-type: none"> Ensure wastes are placed in appropriate bags or containers All cut vegetation (clippings (mower/whipper sniping clippings, leaves, branches & other) to be removed from site and recycled (where possible) No spreading of weed infested material within corridor 	<ul style="list-style-type: none"> Site Environmental Management Plan EMS-13-OR-1013 Waste Management

Acknowledgement of Country



Sydney Trains acknowledges the traditional custodians of the land on which we work and live. We pay our respects to Elders past and present and celebrate the diversity of Aboriginal people and their ongoing cultures and connections to the lands and waters of NSW.

HMS Application ID: 8728



APPLICATION UNDER SECTION 60 OF THE HERITAGE ACT 1977

Mittagong Railway Station and yard group
State Heritage Register No. 01195

Address: Main Southern railway, MITTAGONG NSW 2575

Proposal: Proposed work includes: minor repairs on timber roof structure, chimney stacks repairs, wall crack, windows, plumbing, replacement of two beams, replacement of one column and footing, replacement of footing of central north column, investigation work.

Section 60 fast track application no: HMS ID 8728, received 14 January 2025

As delegate of the Heritage Council of NSW (the Heritage Council), I have considered the above fast track application, including those matters identified under section 62 of the *Heritage Act 1977*. Pursuant to section 63 of the Act, approval is granted subject to the following conditions:

Approved development

1. All work shall comply with the information contained within:
 - a. Architectural drawings, prepared by Long Blackledge Architects as listed below:

Dwg No	Dwg Title	Date	Rev
Project Name: Mittagong Station RRR Building			
AR-103	Stage 1 Works - Roof Plan	April 2024	C
AR-104	Stage 1 Works – Floor Plans	November 2023	A

AR-201	Repairs - Elevations	April 2024	A
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b. Engineering drawings, prepared by Taylor Thomson Whitting (NSW) Pty Ltd as listed below:

Dwg No	Dwg Title	Date	Rev
Project Name: Mittagong Station Refreshment Building			
231518-TTW-SK-01-001	Stage 1 – Defect and Repair Locations	02/04/2024	2
231518-TTW-SK-01-002	Stage 1 – Timber Member Schedule	02/04/2024	1
231518-TTW-SK-01-003	Stage 1 – Timber Repair Details	02/04/2024	2
231518-TTW-SK-01-004	Stage 1 – Timber Repair Details	02/04/2024	1
231518-TTW-SK-02-001	Stage 2 – Defect and Repair Locations	02/04/2024	A
231518-TTW-SK-02-002	Stage 2 – Chimney Reconstruction Details	02/04/2024	A
231518-TTW-SK-03-001	Stage 3 – Defect and Repair Locations	02/04/2024	A
231518-TTW-SK-03-002	Stage 3 – Masonry Repair Details	02/04/2024	A

- c. Mittagong Railway Station RRR Building Stage 1 Repairs - Statement of Heritage Impact, prepared by Long Blackledge Architects, dated 05 December 2024 (Issue E)
- Appendix C – Mittagong Station, RRR Building Stage 1 Repairs – Schedule of Works (prepared by Long Blackledge Architects, undated)
 - Appendix C - Mittagong Station, RRR Building Stage 1 Repairs – Trade Specification for the Works (prepared by Long Blackledge Architects, dated October 2024)
 - Appendix D – Mittagong Station RRR Building – Condition Report (prepared by Long Blackledge Architects, dated 16 November 2023)
- d. Mittagong Railway Station Precinct Conservation Management Plan, Volume 1 & Volume 2, prepared by Peter Freeman Pty Ltd, dated October 1998
- e. Response to Additional Information Requested - Mittagong Railway Station, prepared by Rajan Sitoula (Project Manager, Station Improvements - Sydney Trains), undated
- f. Email – Mittagong Station Chimney Pots, dated 23 January 2025

EXCEPT AS AMENDED by the conditions of this approval:

SPECIALIST TRADESPERSONS

1. All work to, or affecting, significant fabric shall be carried out by suitably qualified tradespersons with practical experience in conservation and restoration of similar heritage structures, materials and construction methods.

Reason: So that the construction, conservation and repair of significant fabric follows best heritage practice.

HERITAGE CONSULTANT

2. A suitably qualified and experienced heritage consultant must be nominated for this project. The nominated heritage consultant must provide input into the detailed design, provide heritage information to be imparted to all tradespeople during site inductions, and oversee the works to minimise impacts to heritage values. The nominated heritage consultant must be involved in the selection of appropriate tradespersons and must be satisfied that all work has been carried out in accordance with the conditions of this consent.

Reason: So that appropriate heritage advice is provided to support best practice conservation and ensure works are undertaken in accordance with this approval.

SITE PROTECTION

3. Significant built and landscape elements are to be protected during site preparation and the works from potential damage. Protection systems must ensure significant fabric, including landscape elements, is not damaged or removed.

Reason: To ensure significant fabric including vegetation is protected during construction.

PHOTOGRAPHIC ARCHIVAL RECORDING

4. A photographic archival recording of the affected areas must be prepared prior to the commencement of works/ during works/ at the completion of works. This recording must be in accordance with the Heritage NSW publication 'Photographic Recording of Heritage Items using Film or Digital Capture' (2006). The digital copy of the archival record must be provided to Heritage NSW within 6 months of works completion.

Reason: To capture the condition and appearance of the place prior to, and during, modification of the site which impacts significant fabric.

COMPLETION OF WORKS REPORT

5. A Completion of Works report should be prepared and submitted to the Heritage Council of NSW (or its Delegate), within 6 months of works completion, as a detailed record of change after the completion of the chimney works. The report is to document the chimney reconstruction process to provide a record of the works.

Reason: To provide a detailed record of the changes to the SHR item undertaken in accordance with this approval.

UNEXPECTED FINDS

6. The Applicant must ensure that if substantial intact archaeological deposits and/or State significant relics or any other buried fabric such as works are discovered, work must cease in the affected area(s) and the Heritage Council of NSW must be notified. Additional assessment and approval may be required prior to works continuing in the affected area(s) based on the nature of the discovery.

Reason: All significant fabric within a State Heritage Register curtilage should be managed according to its significance. This is a standard condition to identify to the applicant how to proceed if historical archaeological relics, or other unexpected buried discoveries such as works are identified during the approved project.

ABORIGINAL OBJECTS

7. Should any Aboriginal objects be uncovered by the work which is not covered by a valid Aboriginal Heritage Impact Permit, excavation or disturbance of the area is to stop immediately and Heritage NSW is to be informed in accordance with the *National Parks and Wildlife Act 1974*. Works affecting Aboriginal objects

on the site must not continue until Heritage NSW has been informed and the appropriate approvals are in place. Aboriginal objects must be managed in accordance with the *National Parks and Wildlife Act 1974*.

Reason: This is a standard condition to identify to the applicant how to proceed if Aboriginal objects are unexpectedly identified during works.

COMPLIANCE

8. If requested, the applicant and any nominated heritage consultant may be required to participate in audits of Heritage Council of NSW approvals to confirm compliance with conditions of consent.

Reason: To ensure that the proposed works are completed as approved.

DURATION OF APPROVAL

9. This approval will lapse five years from the date of the consent unless the building works associated with the approval have physically commenced.

Reason: To ensure the timely completion of works.

Advice

Section 148 of the *Heritage Act 1977* (the Act), allows people authorised by the Minister to enter and inspect, for the purposes of the Act, with respect to buildings, works, relics, moveable objects, places or items that is or contains an item of environmental heritage. Reasonable notice must be given for the inspection.

Right of appeal

If you are dissatisfied with this determination appeal may be made to the Minister under section 70 of the Act.

It should be noted that an approval under the Act is additional to that which may be required from other Local Government and State Government Authorities in order to undertake works.

Stamped documents

Any stamped documents (e.g. approved plans) for this application are available for the Applicant to download from the Heritage Management System at <https://hms.heritage.nsw.gov.au> under 'My Completed Applications.'

If you have any questions about this correspondence, please contact Asmita Bhasin, Senior Assessments Officer - TfNSW at Heritage NSW on (02) 9873 8500 or heritagemailbox@environment.nsw.gov.au

Yours sincerely

Ruth Berendt

Ruth Berendt

Practice Lead, Transport for NSW & Sydney Metro MOU

Heritage NSW

Department of Climate Change, Energy, the Environment and Water

As Delegate of the Heritage Council of NSW

30 January 2025

cc: Wingecarribee Shire Council, mail@wsc.nsw.gov.au

Mittagong Railway Station

SHR No 01195 (Mittagong Railway Station and Yard Group)
Regent Street, Mittagong, NSW

Heritage Impact Statement

For repairs to the former RRR Building Stage 1 works



Mittagong Station c. 1900

For Sydney Trains

Prepared by: William Blackledge, BSc. (Hons), B.Arch., Grad Dipl Cons (AA),
ARAIA

Issue: E 5 December 2024

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Preamble

This statement describes the effect of first stage works to address urgent structural repairs and drainage works to the former Railway Refreshment Rooms at Mittagong Station. These works follow on from the preliminary works (investigation works) which was covered by an Exemption Approval at Mittagong Railway Precinct (SHR #01195).

The investigation works confirmed the condition of the first floor timber structure, its support beams and columns. The works also investigated the foundation condition of the posts. The proposed works are based on the results of these investigations.

1. The Heritage Item

1.1 Site description

Heritage item

The railway refreshment room (RRR) annex was constructed in 1873 to the west of the 1870 Type 3 station building. The building is two storey, brick external wall with a slate hipped roof.

Site and its context

The RRR building abuts the 1870 station building and aligns to that building's platform elevation. The group is located at southern part of the commercial centre of Mittagong. The station buildings are set back from the principal approach road Recent Street with a substantial forecourt carparking area.



Figure 1: Location plan Source: Six Maps

Site for the currently proposed works

The following works are proposed to the RRR Building:

- Further investigation of the platform wall configuration (2 trail pits).
- Minor repairs to the timber roof structure,
- Works to chimney stacks and attendant flashing,
- Replacement and new roof plumbing.
- Stitching of cracking in the north wall
- Repair and securing 3 sash windows on the first floor

Current use

General use: Railway Station

The RRR Building is presently disused.

Heritage listings

<i>Listing type</i>	<i>Item name and document details</i>	<i>Listing number</i>
State Heritage Register	'Mittagong Railway Station and Yard Group'	Item 01195
TAHE s170		SHI 4801288
Wingecarribee Shire Council	Mittagong Railway Station, LEP 2010	Item I197

1.2 Site summary history

Documented history

The Main Southern Railway reached Mittagong in 1867. The first station building dates from the initial construction of the railway. The station building was a standard brick built second class station of type 4 design.

A separate telegraph building was built to east separated by a yard in about 1870.

The original station building was adapted to a refreshment room function in 1873 by the removal of the ticket office and forming a single room with the former general waiting room, rooms to the west were converted to catering use.

It is said the refreshment room closed at the behest of the Governor General with the opening of the Moss Vale refreshment rooms in January 1891.

A drawing from 1911 shows adaptation of the ladies' earth closet to 6 cubicles using the space from the men's facilities (who, presumably, by this time had moved to the larger facilities to the west of the group). The drawing shows the two storey arrangement of the enlarged RRR building. The proposed expansion of sanitary facilities and the labelling of the "refreshment room" would suggest it was still operating at this time.

Previous physical changes to the RRR building

The present 2 storey RRR building was constructed c.1880. The north wall of the central room of the original station building was demolished and the room expanded to the west with the demolition of western cross wall. The building was extended north. The layout of the north eastern part of the RRR building is problematic, the west wall of S7 (the eastern entry hall) continues the external wall construction into the space suggesting it was also an external wall to the refreshment room expansion. The 1911 drawing indicates that the ladies' earth closets were ventilated into the kitchen and people using the stair would have had an excellent view into the Ladies this does not seem a long-term probability, it is more likely it remained an open area.

The development of the RRR building is described in the Peter Freeman CMP of the place which has graphicly overlayed by Catalyst Architects (see figure 2 and 3 below).

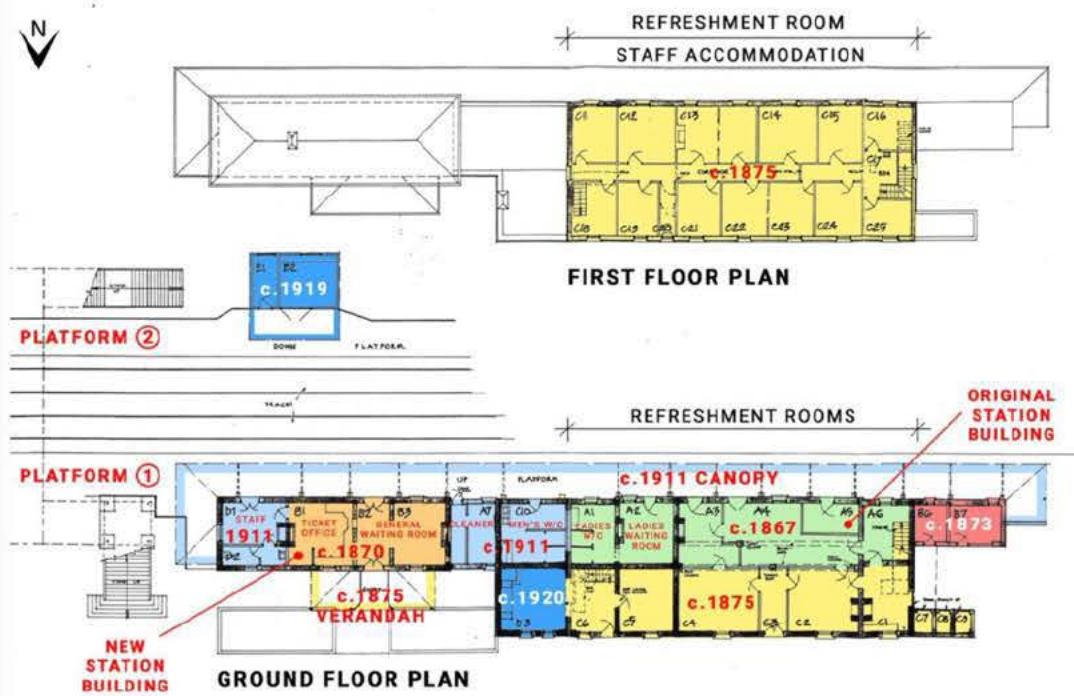


Figure 2: Development plan Source: Peter Freeman Architects/Catalyst Architects

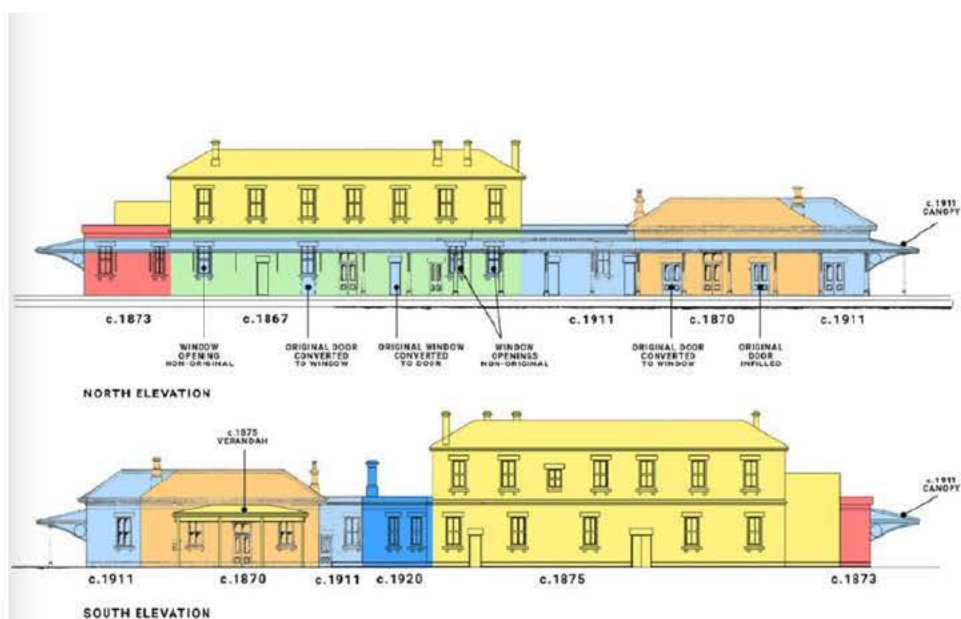


Figure 3: Development elevations Source: Peter Freeman Architects/Catalyst Architects

2 Significance assessment

2.1 Statement of Significance

From the SHR listing:

Mittagong is an important early site with significant railway buildings. The location of the station near the centre of the town gives it a civic importance. Of particular interest is the refreshment room which was used only for a short period until replaced by the refreshment room at Moss Vale because the Governor who alighted at Moss Vale for his country residence did not want to be kept waiting at Mittagong while refreshments were taken. The station complex in particular is of high significance with an early railway building (1867) surviving in the group.

Moss Vale RRR opens in 12/1/1891 causes closure of refreshment room, the accommodation remains in use

2.2 Significance of the proposed work area

The proposed works areas of varying degrees of significance. These areas are assessed as follows:

High Significance:

- The original fabric of the c.1867 station building
- The c. 1875 Refreshment Room masonry walls, fireplaces and chimney stacks.
- Carpentry associated with the Refreshment Room
- Joinery associated with the Refreshment Room
- Remnant decorative features and elements associated with the Refreshment Room and its use.

Moderate Significance

- Internal stud walls (including remnant lath) to the first floor
- Eastern stairs
- Kitchen additions to east and western ends
- Laundry/bathroom structures to west.
- Infilling of 1867 window openings
- North west chimney stack (stack no

Low Significance

- All openings that are not original.
- Recent joinery in original openings
- WC fit out to first floor

Intrusive

- Acrylic paint to external rendered walls, sill and heads of all openings
- Window blinds
- Platform surfaces
- Carpark finishes
- Electrical fit out
- Lower section of west stair

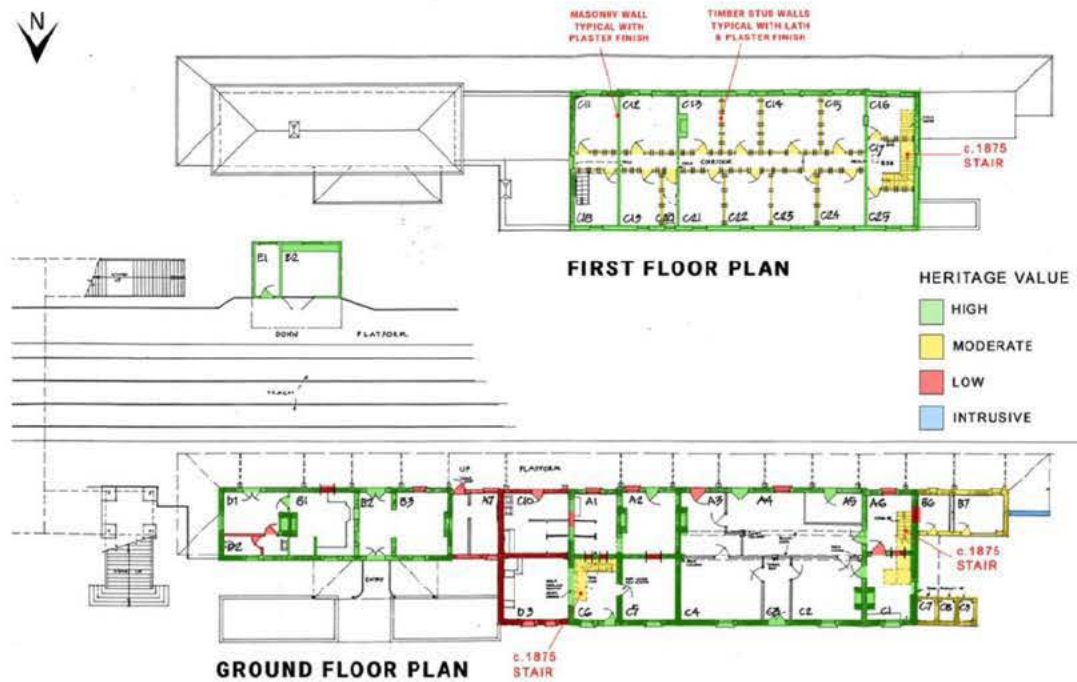


Figure 4: Significance of fabric Source: Peter Freeman Architects/Catalyst Architects

3 Proposed Works

Referenced documents

See Appendices A and B

- Long Blackledge Architects drawings AR103, 104 and 201
- TTW Engineers drawings SK-01-001, 002, 003, 004, SK-02-001, 002, SK-03-001 and 002

3.1 The proposal

Generally:

The following works are proposed:

Space 1:

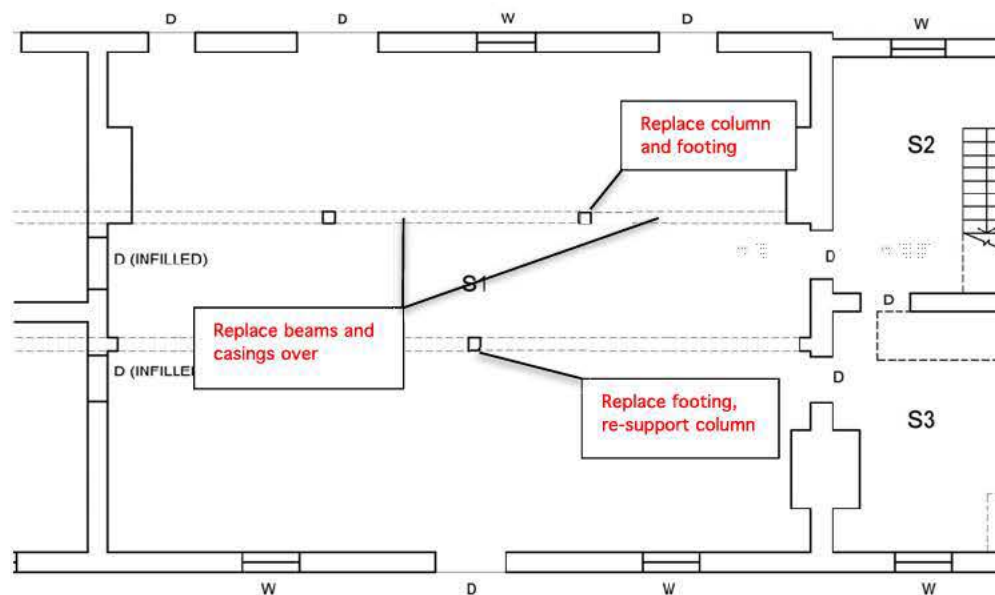


Figure 5: Location of structural works in Space 1

Replacement of 2 termite affected beams (and timber beam casing) on the southern side extending from the west wall to the SE post. Replacement of the south west column. Provision of new footings and concrete pad stone (replacing the damaged sandstone pad stone) as shown on TTW drawing SK01_001&4.

New footing to the north post as shown on TTW drawing SK01_003

Roof Plumbing:

Provision of 2 addition downpipes to the platform side RRR Building, relocation of 1 downpipe on the west elevation of the RRR building in anticipation of the stormwater renewal works. These additional/relocated downpipes anticipate the new stormwater system that will follow these stage 1 works.

Roof Works:

See drawings AR 103

Minor repair of the roof structure

Reconstruction of 3 chimneys stacks on the RRR Building (M2, M5 and M6). Repairs to other RRR stacks.

Joinery Repair works:

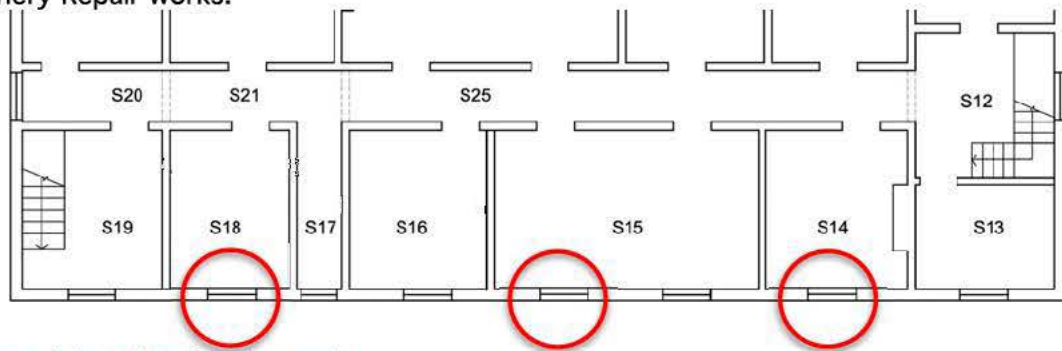


Figure 6: Location of window repairs

Reconstruction of the double hung sash window in Space 14 and resealing double hung windows in spaces S15 and 18.

Crack stitching:

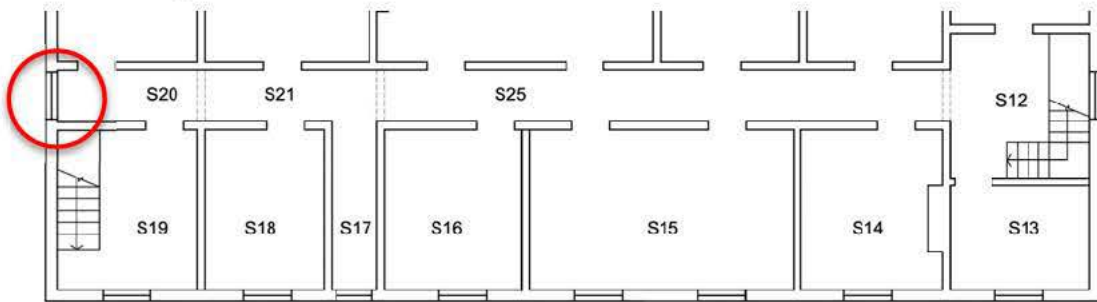


Figure 7: Location of crack stitching

Stitching of the external crack in the brickwork of the north elevation see drawing 104 and TTW drawing 03_002.

Trial Holes:

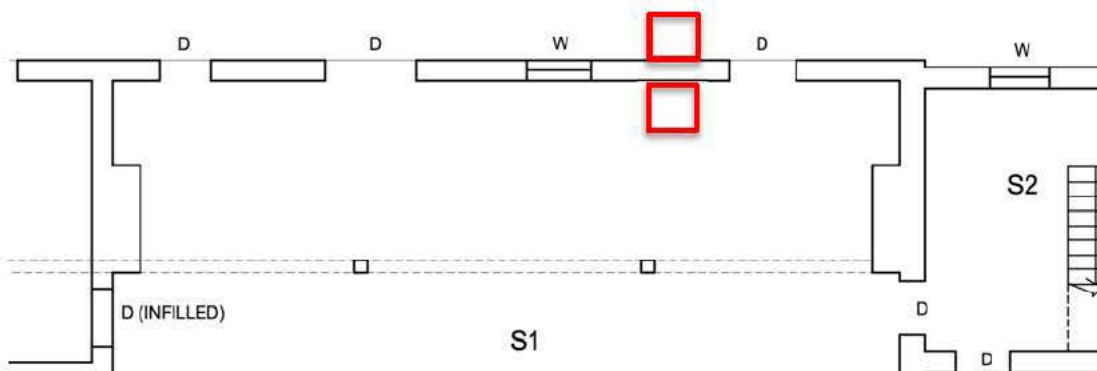


Figure 8: Location of trial holes

Two trial holes to expose the configuration of the platform wall of the RRR Building

Replacement of termite affected columns and beams in Space 1



Figure 9 Space 1 the former Buffet

The Oregon SW post and its supported beams are badly termite affected and require replacement. The proposed replacement is like for like using a more termite resistant timber species. The central north column is supported on a failed blocking timber which will be replaced with concrete, the robust ironbark column will be retained. Both columns will have new concrete footings. The footings have been designed to avoid damage to the stone footings of the 1867 station building.

Additional downpipes to the RRR building



Figure 10 Photomontage showing proposed new downpipes to the platform and west elevations

The present drainage of the 2-storey roof of the RRR has inadequate capacity, it proposed to add 2 downpipes adjacent to the break front of the building and relocate the west downpipe to drain directly to the new in ground system. In addition, guttering will be replaced with larger capacity OG guttering in place of the relatively recent 125mm D guttering. The downpipes will become operation when the new stormwater system is installed.

Trial Pits

The trial pits will uncover the footing configuration to allow the detailed design of wall drainage to mitigate penetrating damp. Following the works the platform surface will be made good to match. The pits will be hand dug to minimise the risk of damage to significant fabric.



Figure 11 View to the Country end of Platform 1



Figure 12 RRR Building from the footbridge

Chimney Stack Repairs to the RRR building



Figure 13 Stack M2



Figure 14 (left to right) Stacks M6, M5 and M4

All stacks are open and letting water in. 3 stacks are degraded to the point of requiring reconstruction. The condition of the stone plinths of stacks M4 and 5 is such that replacement of the stone plinth is necessary. The reconstruction will include the faithful reconstruction of the rendered moulded capping. All flues will be terminated with terracotta pots and cowls.

Repairs to windows



Figure 11 Window in S14



Figures 12 & 13 (top) S15 (bottom) S18

The three windows are at risk of falling in and require urgent fixing. The frame of the S14 window is damaged beyond repair and requires replacement (the sashes can be salvaged). The windows will be secured into their rebates by new matching architraving.

3.2 Background

Pre-lodgement consultation

The investigative works associated with the works to beams and columns was undertaken under an internal exemption.

Consideration of alternatives

The structural work is conservative in nature and proposes a carefully reconstruction of irreparably damaged fabric. During the investigative works the stone footings of the original cross wall of the 1867 station building were uncovered. The footing design of the SW column was subsequently changed to allow these elements to remain undisturbed.

The repair of the chimney stacks addresses immediate concerns over their stability and weather tightness. The dismantling of this early fabric is mitigated by the reuse of original bricks (following desalination) and the reconstruction of the original profile of the stack capping. The replacement of the sandstone plinth is also necessary because of the chronic failure of abutment flashings in the past and well as the continuing water ingress from the open flues. Sandstone is particularly vulnerable to salt damp from flue gases coupled with water. It is essential to ensure the reconstruction is founded on stable material.

4 Heritage Impact Assessment

4.1 Matters for consideration

Fabric and spatial arrangements

The south west Oregon column and beams are not termite resistant and will be replaced with more robust timber of similar section. The footing design for the new foundation have been adjusted to avoid damaging the earlier sandstone footing of the north wall of original station.

The reconstruction of three of the seven stacks serving the RRR building addresses their poor condition. The loss of this early fabric is appropriately mitigated by the salvaging of bricks and the faithful reconstruction of the stacks' detail.

The refixing of three windows will protect fabric of high significance from further damage. The rebuilding of the S14 window is the minimum action needed to safeguard the remnant intact fabric and adjacent fabric from further damage.

Fabric - Exterior Paint Finishes

It is proposed to limewash brickwork and the rendered caps of the stacks rather than use acrylic paint in order to maximise the vapour permeability of the stack. The sandstone will not be painted.

Setting, views and vistas

The impacts of this proposal do not apply to this heritage value.

Landscape

The impacts of this proposal do not apply to this heritage value.

Use

The impacts of this proposal do not apply to this heritage value.

Demolition

The demolition of the post and beams in S1 is unavoidable owing to extensive termite damage. The loss of early fabric is mitigated by the accurate reconstruction of its replacement.

The reconstruction of three stacks is necessary to address their condition. The elements will be faithfully reconstructed.

Curtilage

The impacts of this proposal do not apply to this heritage value.

Moveable Heritage

The impacts of this proposal do not apply to this heritage value.

Aboriginal Cultural Heritage

The impacts of this proposal do not apply to this heritage value.

Historical archaeology

The impacts of this proposal do not apply to this heritage value.

Natural heritage

The impacts of this proposal do not apply to this heritage value.

Conservation Areas

The impacts of this proposal do not apply to this heritage value.

Cumulative impacts

This repair work follows on from incomplete reconstruction work around 2000. The proposed works are limited in scope and address urgent structural issues by reconstruction.

The Conservation Management Plan

The Mittagong Railway Station Precinct Conservation Management Plan was prepared by Peter Freeman Architects in October 1998.

The policies of this CMP generally addressed wider issues than maintenance (deferring to the structural engineer's report). Those wider issues included funding, interpretation and public access. Policies relevant to the present works are tabulated and discussed below.

Policy no.	CMP Policy	Consistency assessment
1	<i>The Mittagong Railway Station precinct should be actively managed such that its cultural heritage significance values are maintained and enhanced, and such that its relationship with the Mittagong township is maintained and enhanced.</i>	The proposed works manage the most immediate requirement to protect, maintain and enhance the heritage significance of the RRR Building.
3	<i>The building fabric of the c.1875 Refreshment Room should be conserved [restored/reconstructed] to its former Victorian Georgian architectural style.</i>	The works repair and reconstruct decayed fabric. The like for like repair does not prevent the eventually reconstruction of the principal ground floor room into its 1875 configuration.
13	<i>The prioritised scope of works for the former Refreshment Room building, set out in the consultant engineer's report should be proceeded with as a matter of urgency.</i>	The recommendations to assess stormwater disposal and structural movement have been addressed in the earlier investigative phase of works. The works to the posts and beams address part of the engineer's concern over the movement of the building.

Other heritage items in the vicinity

The impacts of this proposal do not apply to this heritage value.

Commonwealth/National heritage significance

The impacts of this proposal do not apply to this heritage value.

World Heritage significance

The impacts of this proposal do not apply to this heritage value.

5 Summary and Recommendations

The proposed works address urgent structural issues. The proposed repairs are conservative and accurately reconstruct damaged fabric.

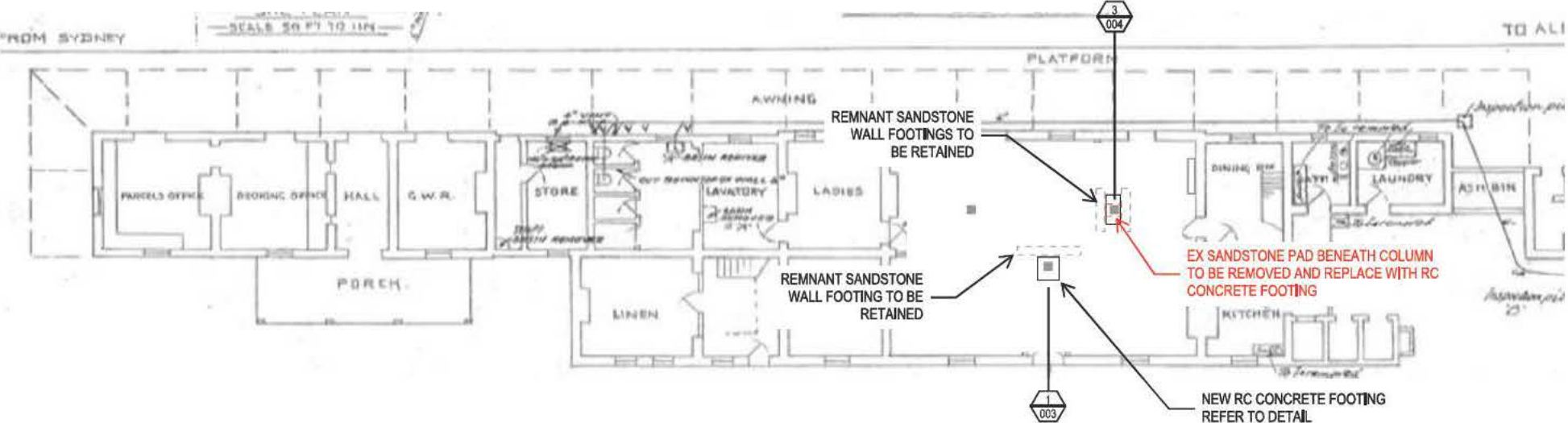
It is recommended that the works as scheduled be approved.

APPENDIX A TTW REPAIR PROPOSALS

TTW Engineers drawings SK-01-001, 002, 003, 004, SK-02-001, 002, SK-03-001 and 002

1. REFER TO DRAWING SK-00-000 FOR GENERAL NOTES.

DRAWING TO BE PRINTED IN COLOUR.

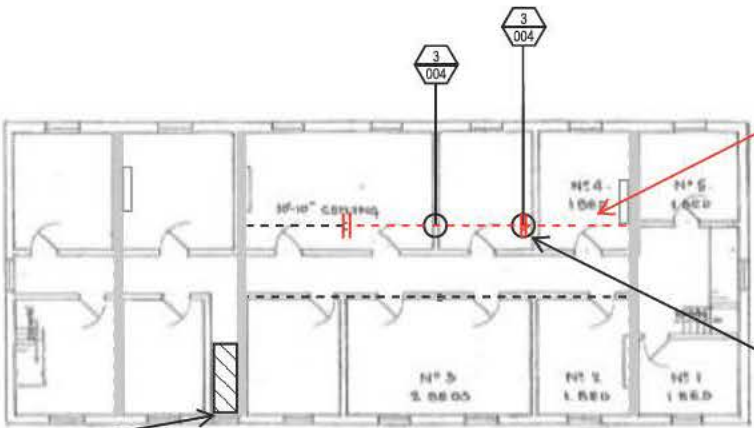


GROUND FLOOR PLAN

KEY:

- TIMBER FLOORING TO BE REPLACED
- TIMBER BEAM (UNDER) TO BE REPLACED

REFER TO DRAWING SK-01-002 FOR TIMBER MEMBER SCHEDULE.



FIRST FLOOR PLAN

FOR CONSTRUCTION

			CLIENT	 <small>Taylor Thomson Whitting (NSW) Pty Ltd, Consulting Engineers ABN 51 113 576 377 Level 6, 73 Miller Street North Sydney NSW 2060 +612 9439 7289 ttw.com.au</small>	PROJECT		DRAWN	AN	DESIGNED	AN	CHECKED	GM	
			LONG BLACKLEDGE ARCHITECTS		MITTAGONG STATION REFRESHMENT BUILDING		DATE	02/04/2024		APPROVED	GM	SCALE	N.T.S.
2	FOR CONSTRUCTION	16/07/24	ARCHITECT		LONG BLACKLEDGE ARCHITECTS		TITLE		DRAWING NUMBER		REVISION		
1	FOR CONSTRUCTION	25/6/24					STAGE 1		231518-TTW-SK-01-001		2		
A	FOR TENDER	02/04/24	THIS DRAWING AND DESIGN REMAINS THE PROPERTY OF TAYLOR THOMSON WHITTING (NSW) AND MAY NOT BE COPIED IN WHOLE OR PARTLY WITHOUT THE PRIOR WRITTEN APPROVAL OF TAYLOR THOMSON WHITTING			DEFECT AND REPAIR LOCATIONS							
REVISION	AMENDMENT	DATE											

1. REFER TO DRAWING SK-00-000 FOR GENERAL NOTES.

TIMBER MEMBER SCHEDULE

LOCATION	ELEMENT	EXISTING SIZE	REPLACEMENT TIMBERS		
GROUND LEVEL & LEVEL 1	FLOORBOARDS	115 x 25	25 thk	HARDWOOD, SEASONED	TONGUE-AND-GROOVE TO MATCH EXISTING
	FLOOR JOISTS	155 x 55 @ 460 CRS	150 x 45	F17 / SD3	
	BEARERS	300 x 300	4/ 290 x 75 <u>or</u> 300 x 300	F17 / SD3	FOR MEMBERS COMPRISED OF MULTIPLE COMPONENTS, PROVIDE M16 THROUGH-BOLT AT MAX 400 CRS ALONG LENGTH, STAGGER BOLTS VERTICALLY,
	COLUMNS	250 x 250	250 x 250	F17 / SD3	
ROOF	STRUTS	100 x 45	90 x 45	F17 / SD3	LENGTH TO SUIT SIZE CONDITIONS. 2/14G DIAGONAL SCREWS EACH END.
	RAFTERS	85 x 55 @ 470 CRS	90 x 45	F17 / SD3	
	UNDER PURLINS	100 x 45	90 x 45	F17 / SD3	
WEST ANNEX ROOF	RAFTER	100 x 50 @ 680 CRS	90 x 45	F17 / SD3	

FOR CONSTRUCTION

			CLIENT		PROJECT	DRAWN	AN	DESIGNED	AN	CHECKED	GM
			LONG BLACKLEDGE ARCHITECTS		MITTAGONG STATION REFRESHMENT BUILDING	DATE	02/04/2024	APPROVED	GM	SCALE	N.T.S.
			ARCHITECT								
1	FOR CONSTRUCTION	25/6/24	LONG BLACKLEDGE ARCHITECTS	THIS DRAWING AND DESIGN REMAINS THE PROPERTY OF TAYLOR THOMSON WHITTING (NSW) AND MAY NOT BE COPIED IN WHOLE OR PARTLY WITHOUT THE PRIOR WRITTEN APPROVAL OF TAYLOR THOMSON WHITTING	TITLE	DRAWING NUMBER		REVISION			
A	FOR TENDER	02/04/24			STAGE 1	231518-TTW-SK-01-002		1			
REVISION	AMENDMENT	DATE			TIMBER MEMBER SCHEDULE						

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Level 6, 73 Miller Street North Sydney NSW 2060 | +612 9439 7288 | info@ttw.com.au

- DRAWING TO BE PRINTED IN COLOUR.**



1. ERECT TEMPORARY PROPPING TO SUPPORT **EXISTING** STRUCTURE AS SHOWN, DO NOT SUPPORT PROPPING ON EXISTING FLOORING.
2. **DISCONNECT** AND REMOVE **EXISTING** TIMBER COLUMN. CHECK COLUMN FOR DEFECTS (SUCH AS TERMITE DAMAGE OR DECAY) ALONG ITS LENGTH, REPORT ANY DEFECTS FOUND TO STRUCTURAL ENGINEER FOR ADVICE.
3. DEMOLISH EXISTING TIMBER BASE AND STONE FOOTING.
4. RECONSTRUCT BASE AS PER **DETAIL 3**.
5. IF ORIGINAL TIMBER COLUMN IS SOUND, RE-INSTATE IN ORIGINAL POSITION.
6. CONTRACTOR TO PROVIDE CONNECTIONS BETWEEN NEW / REPAIRED STRUCTURE AND ADJACENT EXISTING STRUCTURE. CONNECTIONS SHOULD BE SIMILAR OR MORE ROBUST THAN ORIGINAL. ANY METAL COMPONENTS TO BE STAINLESS STEEL.
7. **DISMANTLE** PROPPING ONCE WORKS ARE COMPLETE AND RE-INSTATE GROUND FLOOR AS REQUIRED.



EXISTING TIMBER JOISTS AND FLOORBOARDS

EXISTING GROUND LEVEL

ALLOWABLE BEARING PRESSURE OF 75kPa BASED ON GEOTECHNICAL ADVICE (EXCAVATION REQUIRED)

400 x 400 SQ. x 200 MAX. HIGH CONCRETE PEDESTAL CAST INTEGRALLY WITH FOOTING

2N12 COGGED U-BARS EACH WAY

300

1000

SECTION A

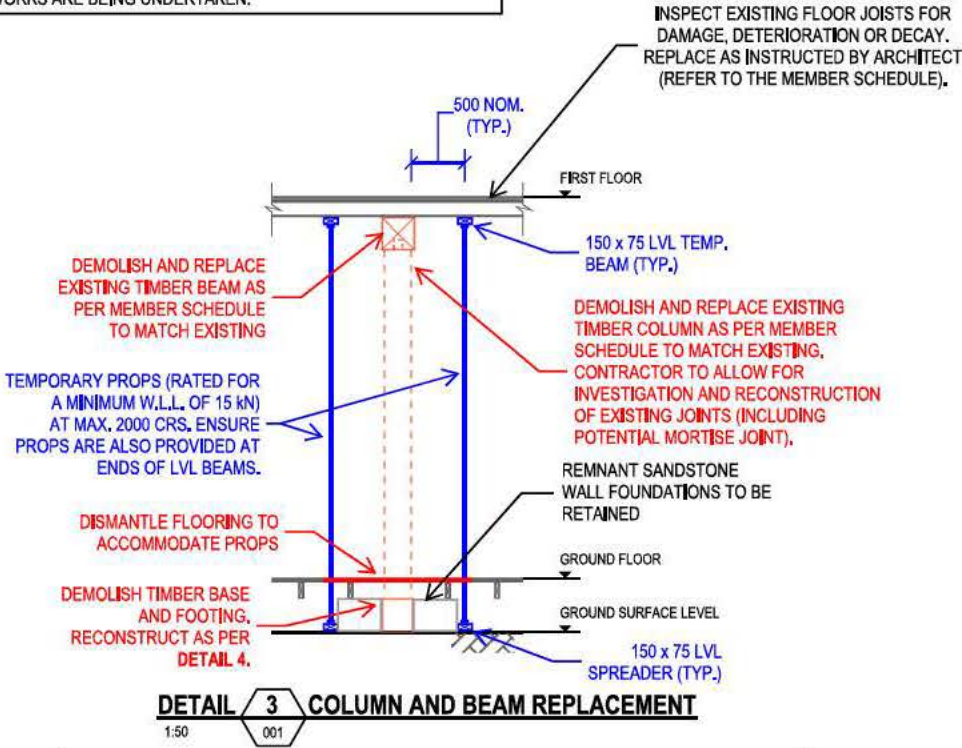
FOR CONSTRUCTION

			CLIENT	 <div>Taylor Thomson Whitting (NSW) Pty Ltd, Consulting Engineers ABN 81 113 575 377 Level 6, 73 Miller Street North Sydney NSW 2060 +612 9439 7286 ttw.com.au</div>	PROJECT	DRAWN	AN	DESIGNED	AN	CHECKED	GM
			LONG BLACKLEDGE ARCHITECTS		MITTAGONG STATION REFRESHMENT BUILDING	DATE		APPROVED		SCALE	
2	FOR CONSTRUCTION	16/7/24	ARCHITECT			02/04/2024		GM		AS MARKED	
1	FOR CONSTRUCTION	25/6/24	LONG BLACKLEDGE ARCHITECTS								
A	FOR TENDER	02/04/24	THIS DRAWING AND DESIGN REMAINS THE PROPERTY OF TAYLOR THOMSON WHITTING (NSW) AND MAY NOT BE COPIED IN WHOLE OR PARTLY WITHOUT THE PRIOR WRITTEN APPROVAL OF TAYLOR THOMSON WHITTING		TITLE	DRAWING NUMBER			REVISION		
REVISION	AMENDMENT	DATE			STAGE 1 TIMBER REPAIR DETAILS	231518-TTW-SK-01-003			2		

1. REFER TO DRAWING SK-00-000 FOR GENERAL NOTES.
2. ALL REMEDIATION WORKS ARE SHOWN IN RED.
3. ALL TEMPORARY WORKS ARE SHOWN IN BLUE.
4. REFER TO DRAWING SK-01-002 FOR TIMBER MEMBER SCHEDULE.

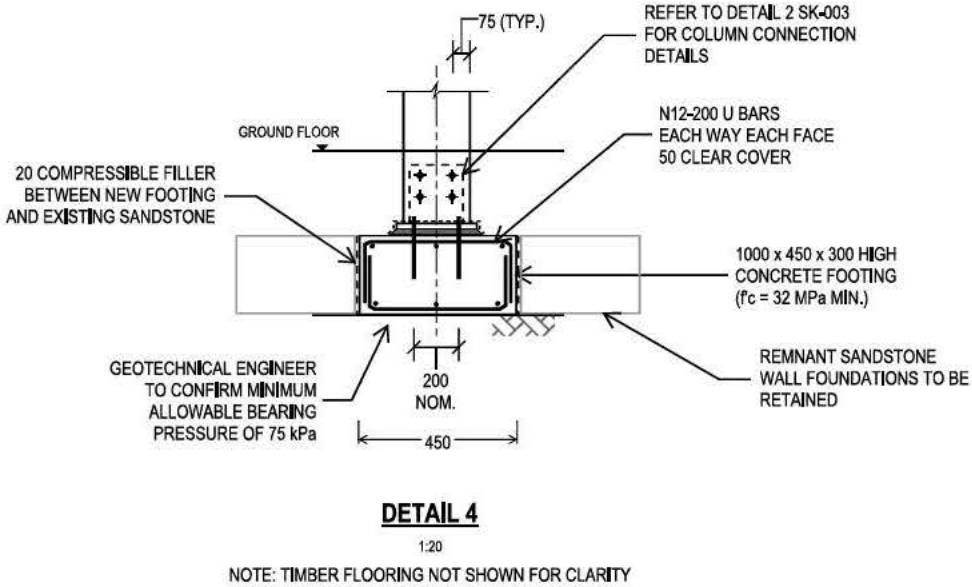
DRAWING TO BE PRINTED IN COLOUR.

NOTE: NO LIVE LOADING PERMISSIBLE TO FIRST FLOOR. DO NOT STORE EQUIPMENT / MATERIALS ON FIRST FLOOR WHILST WORKS ARE BEING UNDERTAKEN.



COLUMN AND BEAM REPLACEMENT TEMPORARY WORKS AND CONSTRUCTION SEQUENCE:

1. ERECT TEMPORARY PROPPING TO SUPPORT EXISTING STRUCTURE AS SHOWN, DO NOT SUPPORT PROPPING ON EXISTING FLOORING.
2. DISCONNECT AND REMOVE EXISTING TIMBER COLUMN.
3. DISCONNECT AND REMOVE EXISTING TIMBER BEAM.
4. DEMOLISH EXISTING TIMBER BASE AND STONE FOOTING.
5. RECONSTRUCT BASE AS PER DETAIL 3.
6. INSTALL NEW COLUMN AND BEAM AS PER TIMBER MEMBER SCHEDULE TO MATCH EXISTING.
7. NEW CONNECTION DETAILS TO BE FINALISED FOLLOWING INVESTIGATION OF EXISTING CONNECTIONS, REFER TO GENERAL NOTES ON DRAWING SK-00-000.
8. DISMANTLE PROPPING ONCE WORKS ARE COMPLETE AND REINSTATE GROUND FLOOR AS REQUIRED.



FOR CONSTRUCTION

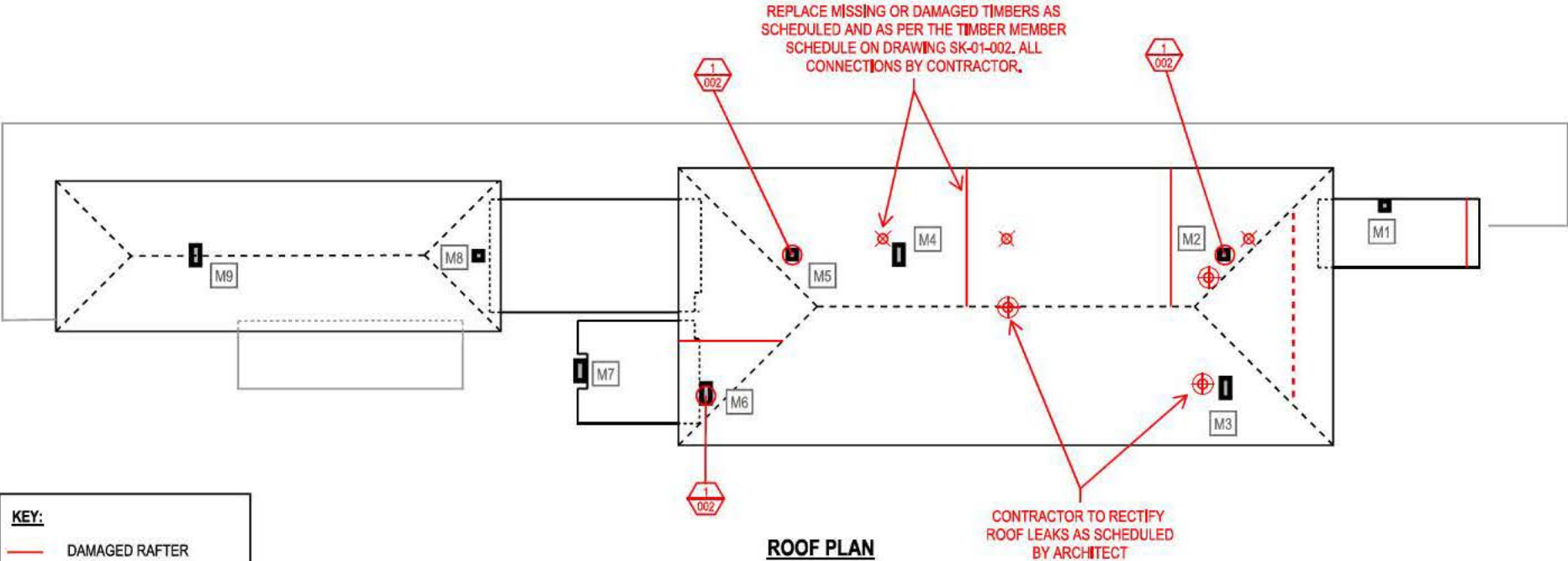
			CLIENT	 <small>Taylor Thomson Whitting (NSW) Pty Ltd, Consulting Engineers ABN 81 113 578 377 Level 6, 73 Miller Street North Sydney NSW 2060 +612 9439 7284 ttw@ttw.com.au</small>	PROJECT	DRAWN	AN	DESIGNED	AN	CHECKED	GM		
			LONG BLACKLEDGE ARCHITECTS		MITTAGONG STATION REFRESHMENT BUILDING	DATE	02/04/2024	APPROVED	GM	SCALE	AS MARKED		
			ARCHITECT			TITLE	DRAWING NUMBER				REVISION		
			LONG BLACKLEDGE ARCHITECTS				STAGE 1 TIMBER REPAIR DETAILS	231518-TTW-SK-01-004				1	
1	FOR CONSTRUCTION	16/7/2024	THIS DRAWING AND DESIGN REMAINS THE PROPERTY OF TAYLOR THOMSON WHITTING (NSW) AND MAY NOT BE COPIED IN WHOLE OR PARTLY WITHOUT THE PRIOR WRITTEN APPROVAL OF TAYLOR THOMSON WHITTING										
REVISION	AMENDMENT	DATE											

TTW Taylor Thomson Whitting

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1. REFER TO DRAWING SK-00-000 FOR GENERAL NOTES.
2. ALL REMEDIATION WORKS ARE SHOWN IN RED.

DRAWING TO BE PRINTED IN COLOUR.



KEY:

- DAMAGED RAFTER
- MISSING UNDERPURLIN
- MISSING ROOFING STRUT
- CHIMNEY NUMBER (PER CONDITION REPORT)
- APPROXIMATE LOCATION OF ROOF LEAKS

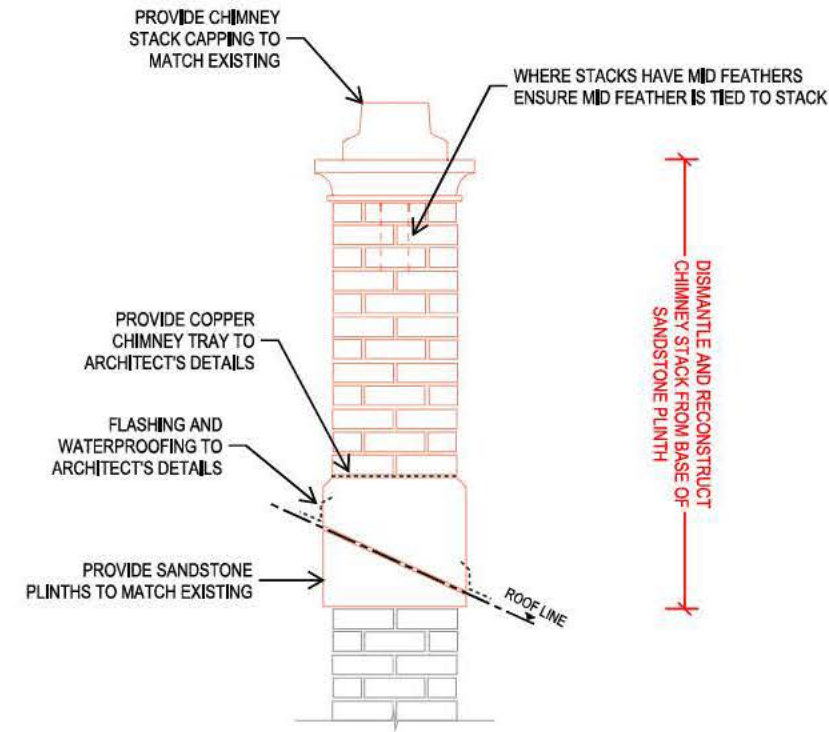
REFER TO DRAWING SK-01-002 FOR TIMBER MEMBER SCHEDULE.

NOT FOR CONSTRUCTION

			CLIENT	LONG BLACKLEDGE ARCHITECTS	<div><div>TTW</div><div>Taylor Thomson Whitting</div></div> <div>Taylor Thomson Whitting (NSW) Pty Ltd, Consulting Engineers ABN 81 113 576 377 Level 6, 73 Miller Street North Sydney NSW 2060 +612 9439 7288 info@ttw.com.au</div>	PROJECT	MITTAGONG STATION REFRESHMENT BUILDING			DRAWN	AN	DESIGNED	AN	CHECKED	GM
			ARCHITECT	LONG BLACKLEDGE ARCHITECTS			DATE	02/04/2024	APPROVED	GM	SCALE	N.T.S.			
			THIS DRAWING AND DESIGN REMAINS THE PROPERTY OF TAYLOR THOMSON WHITTING (NSW) AND MAY NOT BE COPIED IN WHOLE OR PARTLY WITHOUT THE PRIOR WRITTEN APPROVAL OF TAYLOR THOMSON WHITTING			TITLE	STAGE 2 DEFECT AND REPAIR LOCATIONS			DRAWING NUMBER		REVISION			
A	FOR TENDER	02/04/24							231518-TTW-SK-02-001		A				
REVISION	AMENDMENT	DATE													

1. REFER TO DRAWING SK-00-000 FOR GENERAL NOTES.
2. ALL REMEDIATION WORKS ARE SHOWN IN RED.

DRAWING TO BE PRINTED IN COLOUR.



DETAIL 1 CHIMNEY RECONSTRUCTION
1:20 001

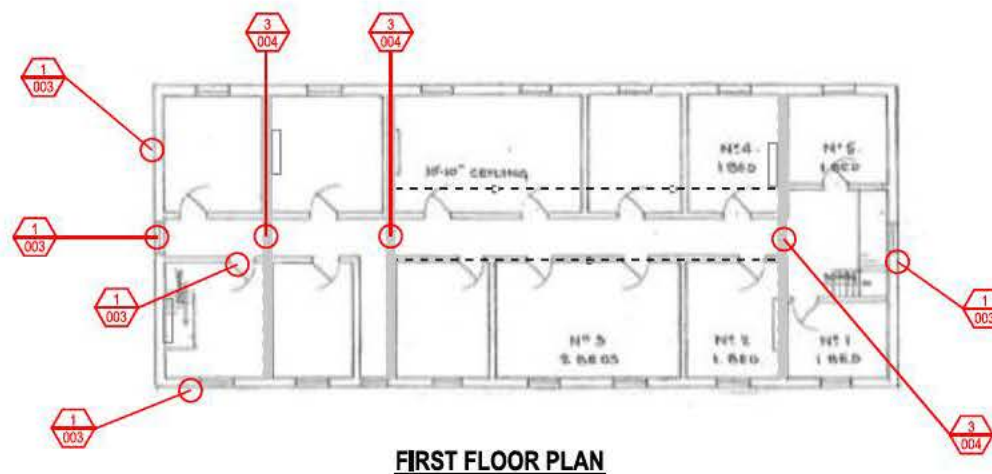
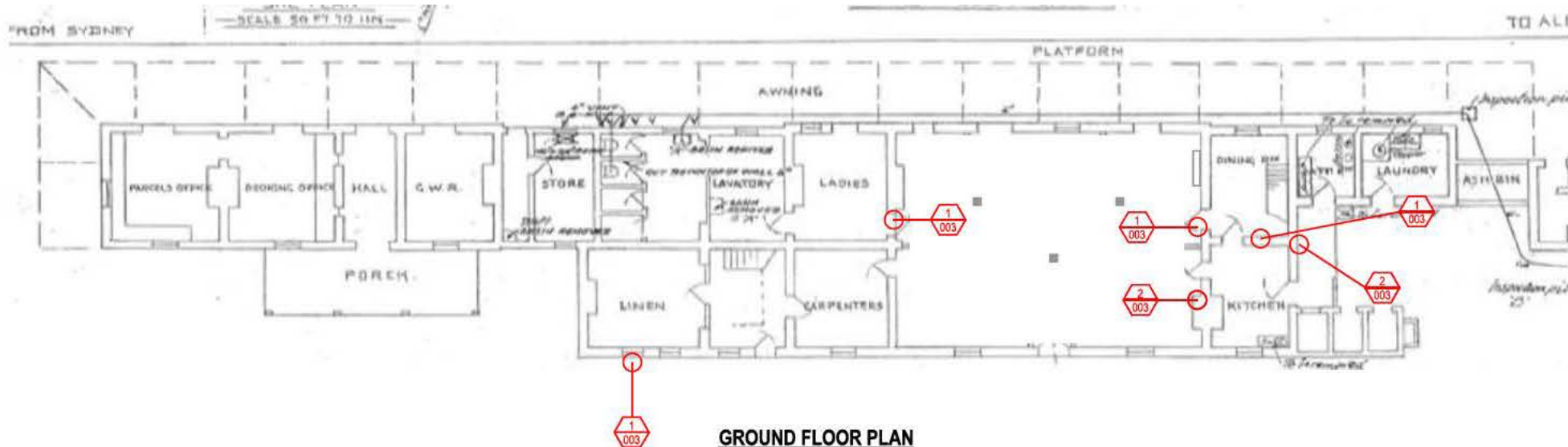
- NOTES:
1. ROOFING AND ROOFING TIMBERS NOT SHOWN FOR CLARITY.
2. DISMANTLE EXISTING CHIMNEY TOP-DOWN. SALVAGE AND DESALINATE BRICK UNITS.
3. CONTRACTOR TO PROVIDE TEMPORARY SUPPORTS TO ADJACENT ROOF FRAMING AS REQUIRED.

NOT FOR
CONSTRUCTION

			CLIENT	LONG BLACKLEDGE ARCHITECTS	 <div>Taylor Thomson Whitting Taylor Thomson Whitting (NSW) Pty Ltd, Consulting Engineers [ABN 81 113 576 377] Level 6, 73 Miller Street North Sydney NSW 2060 +612 9438 7288 ttw.com.au</div>	PROJECT	MITTAGONG STATION REFRESHMENT BUILDING			DRAWN	AN	DESIGNED	AN	CHECKED	GM
			ARCHITECT	LONG BLACKLEDGE ARCHITECTS		TITLE	STAGE 2 CHIMNEY RECONSTRUCTION DETAILS			DATE	02/04/2024	APPROVED	GM	SCALE	AS MARKED
A	FOR TENDER	02/04/24	THIS DRAWING AND DESIGN REMAINS THE PROPERTY OF TAYLOR THOMSON WHITTING (NSW) AND MAY NOT BE COPIED IN WHOLE OR PARTLY WITHOUT THE PRIOR WRITTEN APPROVAL OF TAYLOR THOMSON WHITTING			DRAWING NUMBER			231518-TTW-SK-02-002			REVISION		A	
REVISION	AMENDMENT	DATE													

1. REFER TO DRAWING SK-00-000 FOR GENERAL NOTES.
2. ALL REMEDIATION WORKS ARE SHOWN IN RED.

DRAWING TO BE PRINTED IN COLOUR.

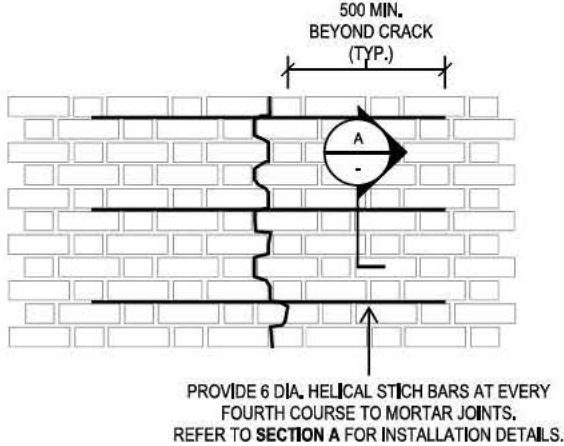


NOT FOR
CONSTRUCTION

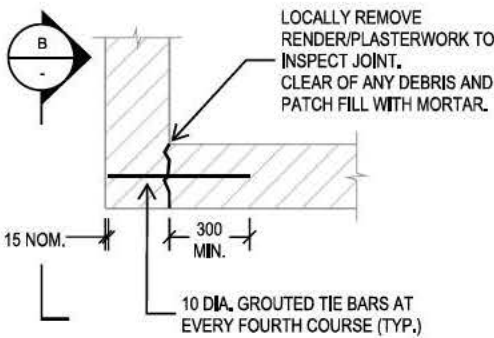
			CLIENT	 <div>Taylor Thomson Whitting (NSW) Pty Ltd, Consulting Engineers ABN 81 113 576 377 Level 6, 73 Miller Street North Sydney NSW 2060 +612 9438 7288 info@ttw.com.au</div>	PROJECT	MITTAGONG STATION REFRESHMENT BUILDING	DRAWN	AN	DESIGNED	AN	CHECKED	GM
			ARCHITECT		TITLE	STAGE 3 DEFECT AND REPAIR LOCATIONS	DATE	02/04/2024	APPROVED	GM	SCALE	N.T.S.
A	FOR TENDER	02/04/24	THIS DRAWING AND DESIGN REMAINS THE PROPERTY OF TAYLOR THOMSON WHITTING (NSW) AND MAY NOT BE COPIED IN WHOLE OR PARTLY WITHOUT THE PRIOR WRITTEN APPROVAL OF TAYLOR THOMSON WHITTING		DRAWING NUMBER	231518-TTW-SK-03-001	REVISION	A				
REVISION	AMENDMENT	DATE										

1. REFER TO DRAWING SK-00-000 FOR GENERAL NOTES.

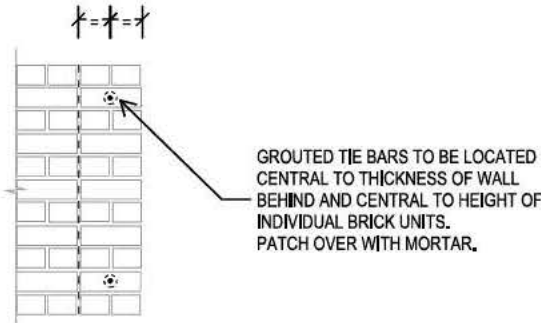
DRAWING TO BE PRINTED IN COLOUR.



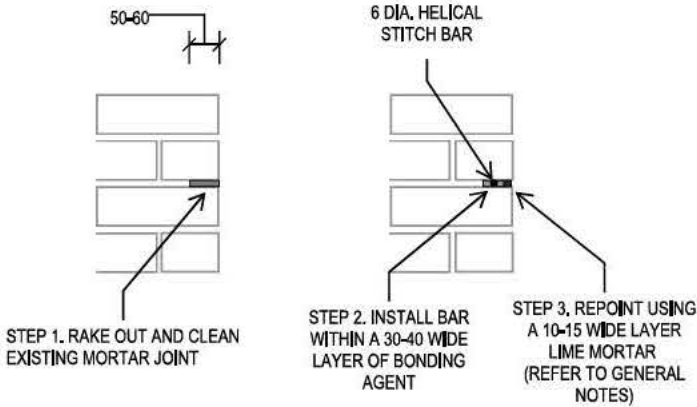
DETAIL 1 VERTICAL CRACKS >3 mm WIDE
1:20



DETAIL 2 CRACKING AT RE-ENTRANT CORNERS, RETURN WALLS AND FREE ENDS (PLAN VIEW)
1:20



SECTION B GROUT TIE BAR INSTALLATION
1:20



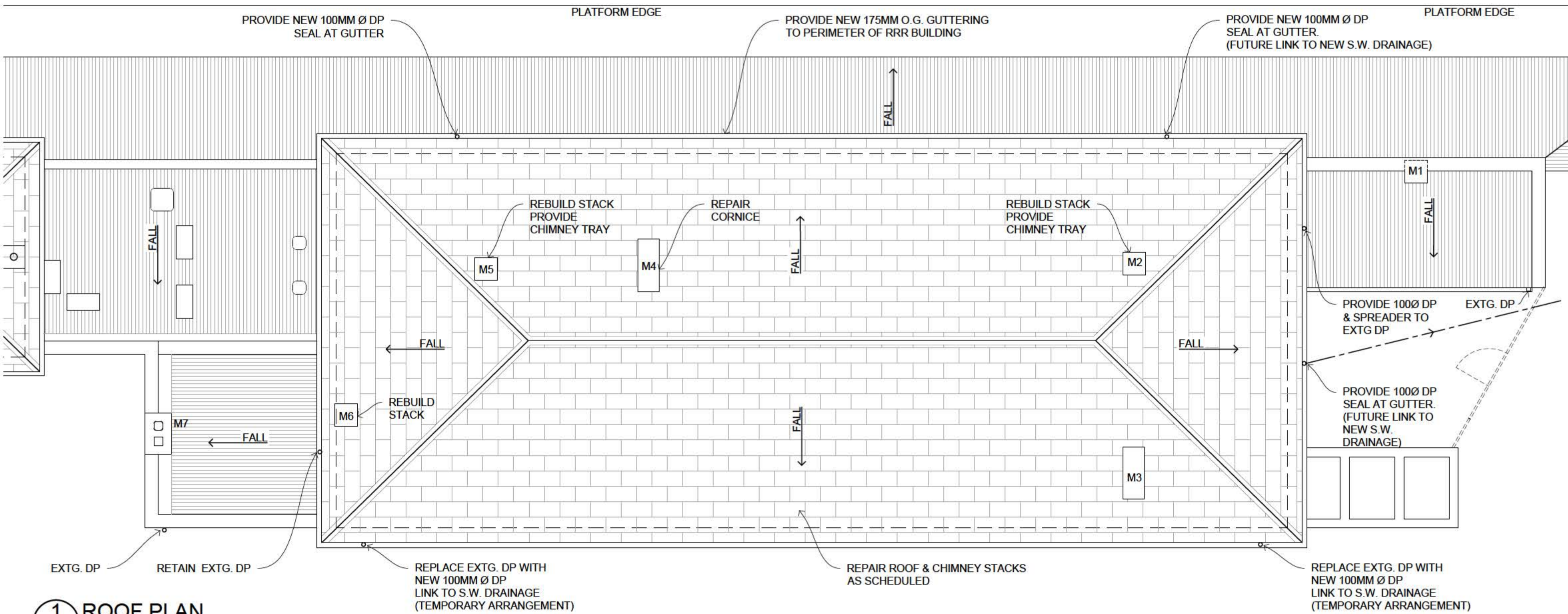
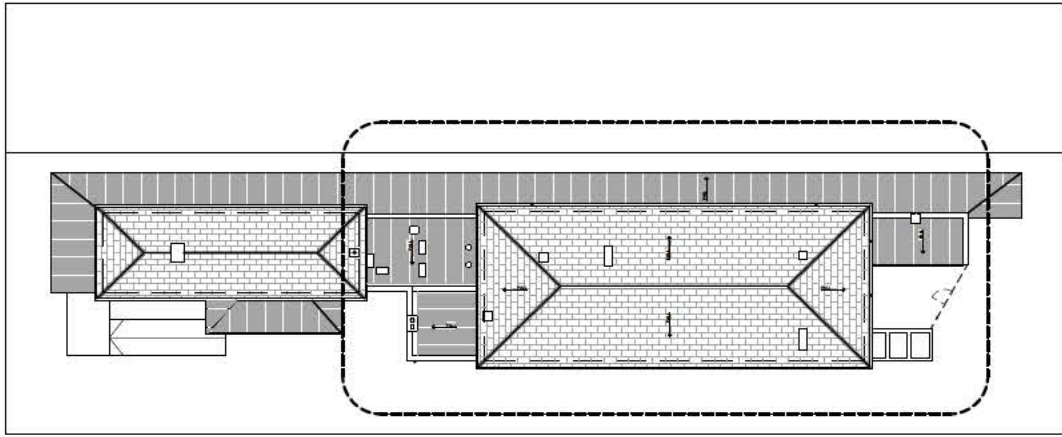
SECTION A HELICAL STITCH BAR INSTALLATION
1:5

NOT FOR CONSTRUCTION

			CLIENT	 <div>Taylor Thomson Whitting (NSW) Pty Ltd, Consulting Engineers ABN 81 113 578 377 Level 6, 73 Miller Street North Sydney NSW 2060 +61 2 9439 7286 ttw@ttw.com.au</div>	PROJECT		DRAWN	AN	DESIGNED	AN	CHECKED	GM
			LONG BLACKLEDGE ARCHITECTS		MITTAGONG STATION REFRESHMENT BUILDING		DATE	02/04/2024	APPROVED	GM	SCALE	AS MARKED
			ARCHITECT		LONG BLACKLEDGE ARCHITECTS		TITLE		DRAWING NUMBER		REVISION	
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REVISION	AMENDMENT	DATE										

APPENDIX B LONG BLACKLEDGE ARCHITECTS DRWGS AR103, 104, 201

NOTE:
REFER TO TTW DRAWING SK02-001-2
FOR STACK REPAIRS

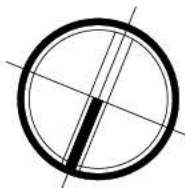


1 ROOF PLAN

1:100@A3

REV	DATE	ISSUE
A	01.04.24	For Information
B	29.10.24	S.60 Notes Added
C	29.10.24	MINOR AMENDMENT TO SOUTH DP ARRANGEMENT

70 60 50 40 30 20 10 0 10m



Long Blackledge Architects
Suite 303, Valhalla Studios, 166 Glebe Point Road
GLEBE, NSW 2037

tel: 0410 401 390
Nominated Architect:
William Blackledge NSW Architects Registration No. 9057

DRAWING TITLE

Stage 1 Works

CLIENT

Sydney Trains

Roof Plan

PROJECT

Mittagong Station RRR Building

DRAWING NO.

AR103

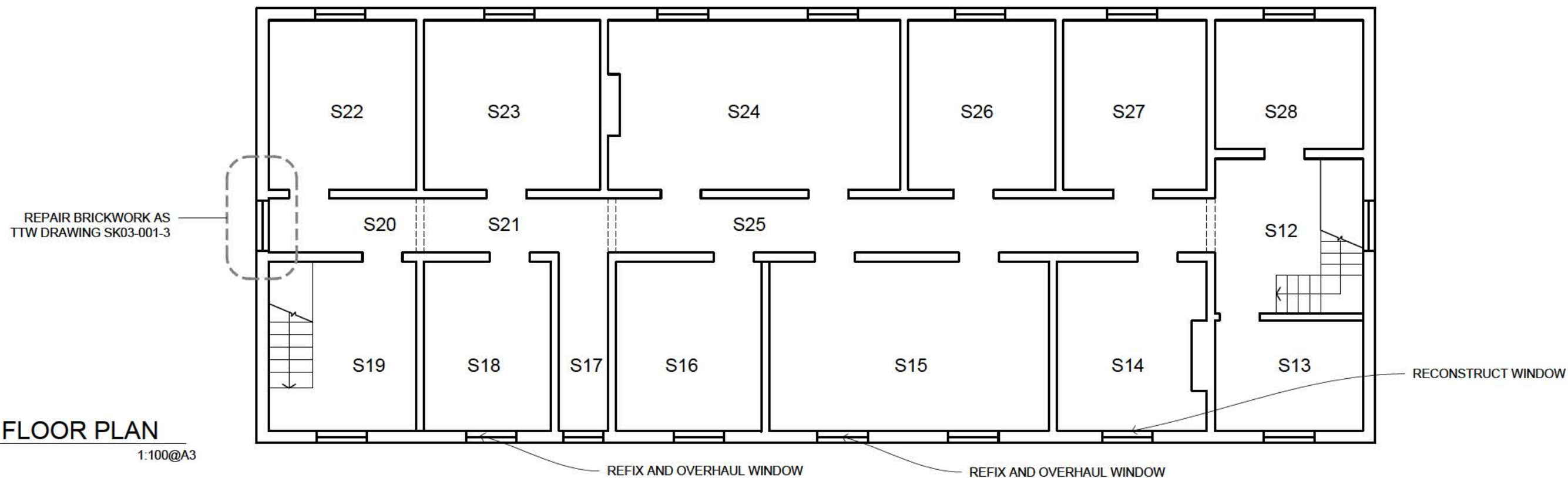
SCALE
1:100@A3

DATE
APR 24

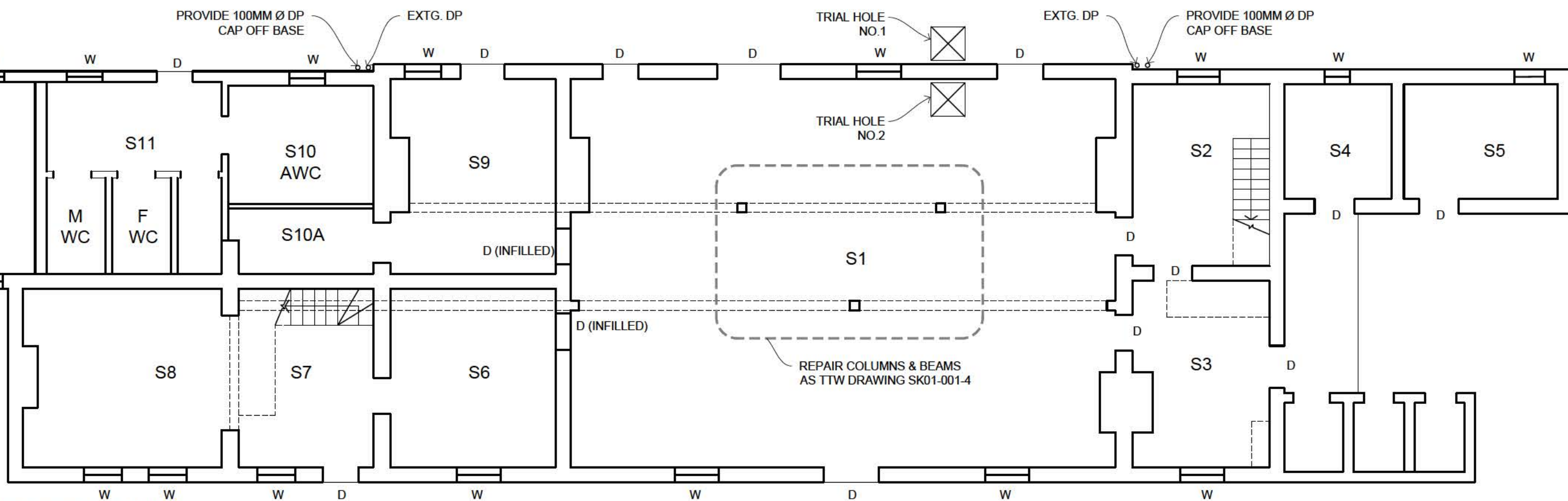
REV

C

2 FIRST FLOOR PLAN
1:100@A3



1 GROUND FLOOR PLAN
1:100@A3



REV	DATE	ISSUE
A	29.10.23	S.60 Notes Added

70

60

50

40

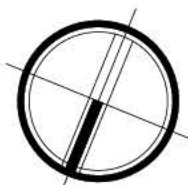
30

20

10

0

10mm



Long Blackledge Architects
Suite 303, Valhalla Studios, 166 Glebe Point Road
GLEBE, NSW 2037

tel: 0410 401 390
Nominated Architect:
William Blackledge NSW Architects Registration No. 9057

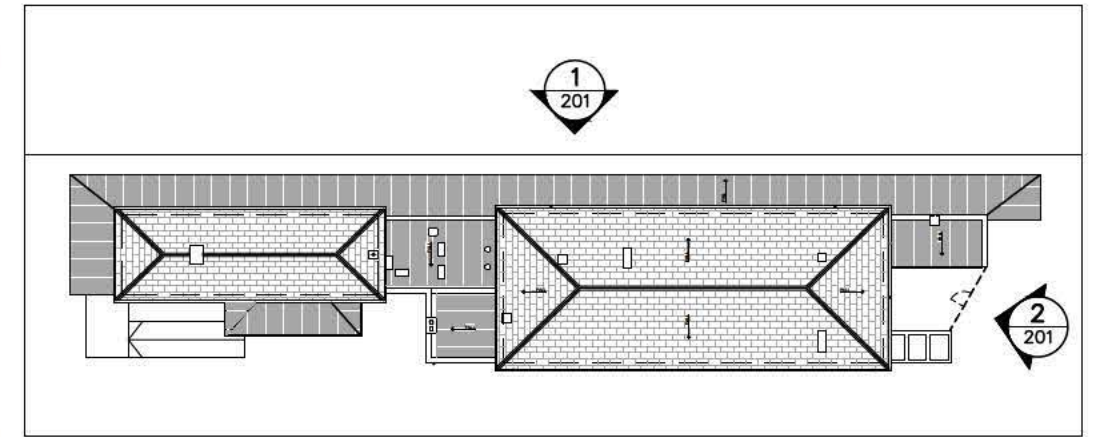
DRAWING TITLE		DRAWING NO.	
Stage 1 Works		AR104	
CLIENT		PROJECT	SCALE
Sydney Trains		Mittagong Station	1:100@A3
		DATE	REV
		NOV 23	A



EXISTING DP REMOVED

PROPOSED RELOCATED AND UPGRADED DP

1873 INFILLED OPENINGS



2 WESTERN ELEVATION

1:100@A3 (Approx.)



PROPOSED 175MM O.G. GUTTER

PROPOSED 100MM Ø DP

PROPOSED 100MM Ø DP

1 PLATFORM ELEVATION

1:100@A3 (Approx.)

REV	DATE	ISSUE
A	01.04.24	For Information

Long Blackledge Architects
Suite 303, Valhalla Studios, 166 Glebe Point Road
GLEBE, NSW 2037

tel: 0410 401 390
Nominated Architect:
William Blackledge NSW Architects Registration No. 9057

DRAWING TITLE

Repairs

Elevations

DRAWING NO.

AR201

CLIENT

Sydney Trains

PROJECT

Mittagong Station RRR Building

SCALE

1:100@A3

DATE

APR 24

REV

A

APPENDIX C LONG BLACKLEDGE ARCHITECTS PHASE 1 SCHEDULE OF WORKS AND SPECIFICATION

Long Blackledge

Architects

MITTAGONG STATION, RRR BUILDING

STAGE 1 REPAIRS

SCHEDULE OF WORK

Prepared for

Sydney Trains

Issue E

Nominated Architect:
William Blackledge ARAIA
NSW Reg 9057

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Suite 303, Valhalla Studios
166 Glebe Point Road, Glebe, NSW
2037
ABN: 54 608 766 945

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M 0410 401390
E william@longblackledge.com.au
W www.longblackledge.com.au



1	Generally	
1.1	Provide a temporary fixing for the aerial fixed to M6 to allow for the stack reconstruction	
1.2	Referenced drawings: <ul style="list-style-type: none"> • S1 beam, column and footing repairs TTW: SK01-001-4 • Chimney Stack repairs TTW SK02-001-2 • External crack repair: TTW SK03-001-2 • Roof and roof plumbing LBA AR103 and 201 • Plan: LBA 104 	
2	Trial Holes	
2.1	Provide hoarding to platform excavation. Saw cut through concrete (anticipate 2 layers). Form 800mm square holes to exterior and interior of the platform wall by hand digging. Excavate to base of wall footing (allow 900mm depth. Cart away spoil. Allow inspection of footing. Backfill and compact in layers. Provide concrete (100mm) to platform side, finish as adjacent finish.	
3	Bricklayer	
3.1	Chimney Stack Repairs (See Roofer for flashings and pots) <ul style="list-style-type: none"> • M1: no work • M2: Rebuild. Dismantle and salvage bricks (Hold point). Desalinate bricks. Provide new sandstone plinth and moulded cap to match existing. Provide copper chimney tray over sandstone plinth. Reconstruct stack in fair face work. • M3: Strip paint from stack. (Hold Point) • M4: Strip paint from stack. (Hold Point) Provide mortar repair to chimney stack capping to reconstruct the cornice moulding. • M5: Rebuild as M2 • M6: Rebuild as M2. Refix aerial • M7: Remove flue. Re-flaunch ledges and capping (in conjunction with new pots) 	
3.2	Stitch crack beneath and above east window of S20 (east end of first floor corridor) as TTW drawings SK03-001-003 and Helifix repair specification.	
4	Carpenter/Joiner	

4.1	Provide beams, columns and footing as TTW drawings SK01-001-004	
4.2	Roof space: In conjunction with the chimney stack repairs undertake the following roof structure repairs: <ul style="list-style-type: none"> • Replace western under purling (20 x 160mm) • Provide strutting to underpurlin in 3 locations where missing. Match existing. 	
4.3	S14, Window: Salvage sashes, reconstruct box frame, refit. Provide new CI weights. Put in working order. Provide matching architraves	
4.4	S15, NE Window: Provide new CI weights. Provide matching architraves. Put in working order	
4.5	S18, Window: Secure window in opening. Put in working order	
5	Roofer and Roof Plumber	
5.1	Remake all flashings to stacks M2, 3 (stepped), 4, 5 and 6	
5.2	Provide new pots and cowls to all flues. Provide anti-possum mesh to cowls	
5.3	Allow to replace and tingle 50 no slates	
5.4	Provide new eaves gutters and 5 no 100mm dia. downpipes as drawing AR 103	
6	Painter	
6.1	Protect stone work. Limewash brickwork of stacks	

Long Blackledge

Architects

MITTAGONG STATION RRR BUILDING

STAGE 1 WORKS

TRADE SPECIFICATION FOR THE WORKS

Prepared for
Sydney Trains
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Issue E

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DEMOLISHER

GENERALLY .01

All demolition works are to be carried out to comply with AS 2601: *Demolition of Structures*.

The contractor is to make the workmen and subcontractors aware that the building is old and fragile. Care is to be exercised throughout the contract to subject the building fabric to as little shock as possible and all demolition is to be carried out within this context.

All damage sustained to the building during the demolition work is to be rectified by the contractor to the architect's approval at no variation to the contract sum.

Much of the glass in this building is nineteenth century and is very fragile, and all possible care must be taken to ensure that none is damaged by the works.

All demolition and preparation of existing work for alterations is to be carried out in a careful and systematic manner.

The builder shall be responsible at all times during the period of the contract for the safety and stability of the works.

WATER ENTRY .02

Ensure that the existing structure is at all times maintained in a waterproof condition during the carrying out of the works.

The contractor shall accept the responsibility for any damage resulting from the failure to prevent water entry, and reinstate damaged building fabric and contents at no variation to contract sum.

DISMANTLING BRICKS .03

Carefully dismantle brickwork using the least damaging method possible. Where bricks are set hard in cement based mortars use an Arbortec saw to remove the joint. Clean mortar from the bricks in preparation for desalination. Stack.

EXCAVATOR AND LABOURER

EXTENT OF WORK .01

Carry out all excavation and backfilling necessary to complete the works shown and scheduled including for new services, footings, alterations of finished ground level, improvement of subfloor ventilation etc.

Limit clearing to area to be occupied by construction, paving or landscaping.

Keep bearing level solid and in the case of masonry walls stepped in masonry courses.

Erect and maintain planking and strutting to all trenches to prevent collapse.

Erect barriers and cover trenches to prevent accidents.

All investigation is to be carried out in accordance with AS 1726: *Geotechnical site investigation* and AS 1289: *Methods of testing soil for engineering*. All excavation is to be carried out in accordance with AS 3798: *Guidelines on Earthworks for Commercial and Residential Developments*.

ARCHAEOLOGY .02

Because of the historic nature of the site all earthworks can be considered potentially productive archaeologically.

All excavation and backfilling shall be by hand, and the contractor shall liaise with and carry out the instructions of the archaeologist.

It is understood that excavation may be done slowly giving the archaeologist time to take photographs and measure any features discovered.

Should the works be unreasonably protracted due to archaeological work or involve unforeseen work by the contractor, this shall be treated as a contract variation.

COORDINATION .03

Discuss necessary excavation with the architect at the earliest opportunity and maintain communication during the works.

Excavation shall be made along the routes and at the places shown and scheduled.

Any significant variation in the length of the service lines shall be treated as a contract variation.

No claim for contract sum adjustment shall be considered for delays resulting from failure of the contractor to discuss all necessary excavation immediately following the letting of the contract for the works.

GENERALLY .04

Tenderers shall include in their tender for removal of all material other than rock, which may be encountered in excavations.

All superfluous excavated material to be carted away, or if so directed by the architect, spread and levelled on site where directed.

ROCK .05

Rock measured shall include only material which is found in ledges, masses, bedded or conglomerate deposits so firmly cemented as to present all the characteristics of solid rock and which, in the opinion of the architect, could not be removed with reasonable economy by hand pick or mechanical excavators and would require the use of pneumatic tools, wedges and sledge hammers, blasting, or special boring rig for its dislodgment. Floaters in excavation shall be classified and measured as rock, only when their least dimension exceeds 600 mm or when their volume exceeds one-quarter cubic metre.

If the contractor elects to move floaters and in so doing increases the widths or depths of excavation as specified, such additional excavation shall be made at the contractor's expense. They shall be filled with materials similar to those specified for the work, or with approved materials, compacted as specified at no extra cost to the principal.

MATERIALS OTHER THAN ROCK .06

Materials other than rock shall be defined as including material not covered by the foregoing definitions and includes all remaining portions of buildings footings, pipes, building materials and the like on the site.

QUANTITIES OF ROCK .07

Quantities of rock shall be measured jointly by representatives of the contractor and the architect in accordance with the current edition of the *Australian Standard Method of Measurement of Building Works (Institute of Quantity Surveyors)*.

The contractor shall draw the attention of the architect to the existence of rock before any backfilling is carried out so that quantities involved may be calculated. Failure to take this action shall result in rejection of any claims for extras in this regard.

EXCAVATION FOR TRENCHES ETC .08

Wherever possible excavation for services etc is to follow the route of existing trenches and site disturbances so as to minimise destruction of archaeological deposits.

BACKFILLING .09

Backfill over new footings to provide minimum of 150mm depth of earth cover above top of footings.

Backfill new trenches for stormwater and sewerage drains to provide minimum of 300mm depth covering of new service lines.

EROSION CONTROL .10

Avoid erosion, contamination and sedimentation of the site, surrounding areas and drainage systems.

Keep the site free of water and prevent water flow over the works.

CONCRETER

GENERALLY .01

Carry out work in accordance with AS 3600: *Concrete Structures* and AS 2870: *Residential Slabs and Footings*

Provide formwork to form concrete elements shown and scheduled and remove on completion.

Construct structural elements strictly to engineering details and specification. All concrete for structural work to be ready mixed to comply with AS 1379: *Ready mixed concrete (metric units)*.

MATERIALS .02

Cement

To AS 3972: *Portland cement*. Type A Portland Cement.

Aggregate

To AS 2758.1: *Concrete Aggregates*.

Use clean, hard, durable crushed stone and/or gravel, free from elongated pieces, dust, clay or other deleterious matter.

Reinforcement

Welded wire fabric (F) and trench wire mesh (TM) to AS 1304: *Welded wire reinforcing fabric for concrete*.

Steel bars to AS 1302: *Steel reinforcing bars for concrete*.

CONCRETE MIX .03

Structural concrete footings, slabs etc.

Unless otherwise specified, mix for 32 MPa strength at 28 days and slump 80 mm. Maximum size of aggregate 20 mm.

PAD FOOTINGS .04

Unless otherwise scheduled, footings shall be 600mm square x 500mm minimum depth to Engineer's specification.

BRICKLAYER

GENERALLY .01

The brickwork of the works shall be carried out by experienced tradesmen.

Unless otherwise specified, AS 3700: *SAA Masonry Structures Code* shall apply in respect to all materials, components and construction. Masonry Units shall be to AS/NZS 4455: *Masonry Units and Segmental Pavers*.

NEW BRICKS .02

All new bricks shall be sound machine-made bricks, well burnt, hard, square and with good arrises. All new brickwork to be in commons.

New bricks are to be used for all concealed work unless size of existing bricks entails use of salvaged bricks.

SALVAGED BRICKS .03

Carefully salvage and clean off and desalinate all reusable old bricks from demolition for re-use in repair work or to rebuild stacks.

DESALINATING BRICKS .04

Carefully open stack brick within a suitably sized bath/skip. Soak in clean water over 4 weeks minimum. Change water at least 5 times during this period. Provide a salt analysis of the water used and for each treatment, the analysis shall include the type and concentration of anions and cations. The analysis shall be provided to the architect prior to the relaying of the bricks.

Carefully stack/pallet bricks for reuse.

SUPPLY OF OLD BRICKS .05

The builder shall keep a record of old bricks obtained from demolition and calculate additional old bricks that are required for face work.

Unless otherwise specified, *do not* allow for supply of old bricks. Should additional old bricks be required this shall be treated as a contract variation.

MATERIALS AND MORTAR .06

Generally

All materials to be new, defect free, the best of their respective kinds, in full compliance with the relevant S.A.A. Codes of B.S.S. specification, except demolished materials approved for re-use.

Protect and cover from weather all perishable materials fixed or unfixed.

All metal dowels and fixings shall be of non-corrodible non-ferrous metal or stainless steel of approved alloy.

Proportioning of materials to be made dry in proper gauge boxes before mixing, or in other approved manner.

In facework mortar colour shall match that of original mortar by the careful selection of sand

Cement, lime, sand

Cement

Cement to be an approved brand of masonry cement to AS 1316.

Lime

Limes for building: To AS 1672.1.

Hydraulic Lime (NHL)

St Astier Natural Hydraulic Lime supplied by Westox Building supplies. Supplied in NHL 2 and NHL 3.5 used as scheduled.

Prepare the mortar in strict accordance with the technical advice of St Astier <http://www.stastier.co.uk/guides.htm>

Prepare the mortar 24 to 48 hours in advance of use. Lorry mix the correct proportion of NHL lime to sand with enough water to form a "fresh ricotta" consistency.

Admixtures

On no account shall admixtures be added to the pointing mix to improve workability i.e. clay or plasticisers like "liquid ball bearings". Workability shall be achieved by correct sand gauging and the correct proportion of lime to the mix

Sand

Clean, well graded, sharp, free from impurities such as silt and organic matter and salts. Sieve to screen up to 98% pass at 2.36mm. Sizing proportions as British Standard 1200-1984.

Fine aggregate with low clay content and free from efflorescing salts, selected for colour and grading. The clay shall have a sieve grading curve as shown in AS 3700 commentary clause 2.2.2.2 and the fine material smaller than 75 microns size shall not be greater than 4%.

Hydraulic Lime mortar

Use for remainder of work:

- 2.5 parts sand
- 1 part NHL.2

Brick Reinforcement

Galvanised welded wire mesh equal to M.E.T galvanised masonry reinforcement or Ancon SMR stainless steel masonry reinforcement.

Width: Equal to the width of the masonry leaf, less 15 mm cover from each exposed surface of the mortar joint.

Installation

General: Lap 450 mm at splices. Fold and bend at corners so that the longitudinal wires are continuous. Stop 200 mm short of control joints.

Location:

- In third bed joint above the bottom of the wall.
- In second bed joint below the top of the wall.

- In the first 2 bed joints above and below openings.
- In the first 2 bed joints above and below head and sill flashings to openings.

Maximum vertical intervals: 500 mm.

Wall Ties

Wall ties are to be 316 stainless steel medium strength cavity ties and shall comply with AS/NZS 2699.1: Location of ties to be in every second course but not in reinforced courses.

Helifix crack reinforcement

All built-in components shall achieve a minimum durability class of R3, in accordance with AS3700.

The following materials shall be used for stitching vertical cracks in bricks and adjoining mortar beds where cracks are greater than 3 mm wide:

- Stainless steel helical bars, nominally 6 mm in diameter of varying length (to project a minimum of 500 mm beyond cracking either side), such as Helifix 'HeliBar' or Thor Helical Bars.
- Stainless steel ties, nominally 10 mm in diameter of varying length (to project a minimum of 300 mm into wall behind, such as Helifix 'CemTie'.
- Helical bars to be embedded in a 30-40 mm thick layer of binding agent, such as Helifix 'HeliBond' or Thor Grout.

Note: use the same branded bar/tie and bonding agent per application.

Refer to manufacturer's specifications and detail. In solid brickwork set the bar back sufficient to allow 25mm depth of lime point over the grouted bar.

JOINTS .07

Work to existing walls

Where rebuilding, repointing or making good to existing face work, match sound original joints as determined by examination of adjacent areas and approved by the architect. Reconstruct to the original configuration.

A sample of the proposed jointing profile for each area of brickwork is to be approved by the architect before the work is carried out.

BRICK REPAIRS .08

Work to chimney stacks

Rebuild and make good to match standard of best existing adjacent work.

Replace

Where scheduled 'replace', carefully dismantle stack nominated down to sound work and build new work matching exactly the original work.

Make good or repair

Where scheduled 'make good' or 'repair' existing brickwork, remove all decayed or faulty brickwork from area or element nominated and build in salvaged bricks of same size and jointing pattern as original. Rake out or remove remainder of loose or faulty mortar from joints and repoint ABS POINTING.

Shaped corbelled brickwork

Where scheduled 'reconstruct profile', reconstruct shaped brickwork to form the substrate for reconstructed rendered profile. Leave perpend joints slightly open for render key and control suction of the work immediately prior to the first render coat.

Flaunching

Provide flaunching in 3 layers of increasing strength mortar, weather to feathered edge at stack edge.

POINTING .09

Generally

On no account is any joint to be widened to admit pointing.

Stronger mortar may be used only as directed in very exposed positions.

Do not allow mortar to spread over face of bricks.

Following pointing joints are to be kept damp for a minimum 14 days to prevent premature drying out and consequent cracking and loosening of mortar.

Point up

Where scheduled 'point up', thoroughly wet open joints and flush up with mortar. Finish joint ABS JOINTS.

Repoint

Where scheduled 'repoint', cement on other jointing shall be removed/raked out to a minimum depth of 20 mm, the joint thoroughly wetted and flushed up and finished as above.

COMPLETION .10

On completion clean walls of all mortar droppings, smears, efflorescence etc and brush down.

Cleaning work shall be carried out by trained and experienced tradesmen. Cleaning procedure shall be under strict surveillance to ensure no damage is caused to the stone faces by bleaching or overcleaning. No cleaning shall commence prior to the architect approving proposed cleaning method.

Before application of approved cleaning agent, wall shall be well dampened and the surrounding area protected. Wash the whole wall with clean water on completion of cleaning procedure.

All brushing shall be carried out using an approved nylon bristle brush. Metal brushes, scrapers or tools shall be avoided. Prior to removal of any scaffolding, obtain architect's detailed approval of repairs.

STONEMASON

GENERALLY .01

The stonemasonry of the works shall be carried out by a mason approved by the architect. Approval of the use of a particular tradesman shall not relieve the contractor of any of his responsibilities regarding the performance of the works.

Failure to approve a particular tradesman shall not constitute grounds for an adjustment to the contract sum.

Approval of a tradesman will be based on his experience in this type of work.

The contractor shall provide all lifts and scaffolding as needed for the works and for the use of sub-contractors.

Provide all accessories necessary for workmanlike installation of new stone including cramps, dowels, joggles and the like.

NEW STONE .02

New stone is to be first quality. "Appin" Sydney sandstone, free of pronounced figure or veins or 'tea leaf', free of shale or clay bed inclusions, as similar as possible in bearing strength, porosity, permeability and appearance to the original and from a quarry and bed to be agreed with the architect.

Prior to any stonework being commenced one (1) 300 x 300 x 40mm size sample of each type of stone, with one face finished as specified herein, shall be submitted to the architect for approval. Provide Wet compression and NaSO₄ soundness testing results

Matching of colour shall be done with a section of existing stone which has been successfully cleaned.

This sample shall show the quality, colour and texture that will occur in any material that will be used.

All stonework shall be to the standard of the approved sample.

MATERIALS AND MORTARS .03

All materials to be new, defect free, the best of their respective kinds, in full compliance with the relevant S.A.A. Codes of B.S.S. and this Specification, except demolished materials approved for re-use.

Protect and cover from weather all perishable materials fixed or unfixed.

All metal dowels and fixings shall be of non-corrodible non-ferrous metal or stainless steel of approved alloy.

Proportioning of materials to be made dry in proper gauge boxes before mixing, or in other approved manner.

In facework mortar colour shall match that of original mortar by the careful selection of sand.

Cement

NB: Cement must not be used except where scheduled. Cement to be an approved brand of Portland cement to AS 1315.

Lime Putty

Prepared in accordance with AS CA27-2959 -Code of recommended practice for internal plastering on solid backgrounds. from quicklime as described in Section 2 Part 5 (a) or from hydrated lime as described in Part 5 (b).

Sand

Clean, well graded, sharp, free from impurities and salts from an approved source.

Lime Mortar

Unless otherwise specified, only lime mortar to be used for bedding stones and all grouting and pointing works.

3 parts sand
1 part lime putty

The mixture should be allowed to stand min. 14 days before using.

NHL

2.5 parts sharp well graded sand
1 part NHL 2

TOOLING OF STONE .04

Rub sawn stone to remove all traces of saw cutting.

The tooling of the various types of new work is to match the original tooling as determined by examination of adjacent areas and approved by the architect.

The contractor shall not attempt to match weathered tooling, that is, new stonework should look as the original did when new.

JOINTING PATTERN .05

Unless specifically instructed otherwise, the jointing pattern of the works is to remain as existing, i.e. stones are to be replaced or refaced in elevation in full to exact face dimensions and identical location of existing stones. In this regard record joint pattern prior to demolition work.

WORKMANSHIP .06

Storing

Store stone so that it is protected from the weather and atmospheric pollution, clear of the ground on its natural bed, on supports which do not locally overstress it, and in conditions suitable to promote good seasoning without staining, contamination, marking or damage.

Protection

Stonework shall be liable to rejection if damaged or disfigured during the course of the work under the Contract.

Cutting

Perform the necessary cutting and shaping of stone to profiles generally as shown on the Drawings, and including weathering, jointing, chasing, forming mortices, grooves and drilling for handling, fixing, and the like. Work the bed, face and back joints of the stone square and true.

Carving and Moulding

Use a fire-sharpened chisel to achieve a clean sharp finish.

Make the new forms and profiles to match those on the replaced stone, with clean sharp arrises and internal angles.

Take templates from the existing work.

Use reverse moulds for accuracy of handworking.

Produce true continuous mouldings.

Remove flattened planes and machine or other tool marks by wet carborundum rubbing.
Make new mouldings to the full original profile.
Do not feather the ends to meet the weathered or otherwise eroded profiles of adjoining existing mouldings.

Building in

Make provision as the work proceeds for the incorporation of items to be built in or keyed to the stonework, including partitions, straps, beams, trusses, plates and the like.

Tolerances

Construct stonework within the tolerances shown on the Drawings.

Cleanliness

Keep the Works clean and free of debris.
Immediately remove debris and droppings, including pointing material, packaging, etc., from the Works and from constructional plant such as scaffolding and hoardings, and from pavement areas.

Cleaning

Keep the stone faces clean as the work proceeds.
Prevent mortar or jointing material from coming into contact with the external face of the stone. Clean down as necessary, and leave the stonework clean on completion.
Perform the cleaning, including the removal of stains, without damage to the work.

Bedding

Where possible bed and joint stone in one operation.
Lay stonework on a full bed of mortar.
Solidly fill and grout vertical joints, joggles, cramps and the like as the work proceeds.
Point up joints around flashings as necessary.
All new stones are to be fully bedded ABS Stone Repairs and New Work.

Support

Provide support to the stone while the mortar is curing, by bracing or by joint spacers, as necessary.

Joint Spacers

Non-damaging and non-staining wedges or laths soaked in water.
Do not allow metal pinch to bear directly on stone.

STONE REPAIRS AND NEW WORK .07

All new stones are to be fully bedded with their natural bed at right-angles to loads or thrusts, except where otherwise instructed.

The lines of all mouldings, curves, angles etc., are to be worked out of the solid.

No angle mitre-joints will be permitted; and, except where specifically otherwise instructed, no new stone shall be of less depth than 100mm from the face of the wall.

Where mouldings such as string courses, cornices and the like are repaired by replacement, insert the replacement stone into the existing stonework for at least the equal of the overhang. Carry out in situ work to existing stonework by methods which do not disturb the bed of the original stone.

Replace

Where scheduled 'replace', remove entire element and replace with new work to profiles matching exactly original profiles.

Carefully shore insecure sections of stonework and remove loose or dangerous stones and fragments,

all as directed by the architect on site.

Provide all necessary shores and supports and cut out severely damaged stones where directed. Immediate attention shall be given to structural defects.

RENDER REPAIR STONWORK .08

Render repair

Where scheduled 'render repair' stonework, remove all loose and decaying stone back to sound substrate.

Mix render using NHL 3 natural hydraulic lime and crushed stone to give a colour to simulate stonework.

Where mouldings are specified to be repaired, reinforce larger repairs with 316 stainless steel armaturing. Prepare a zinc sheet horse to accurately match the profile and line of the original moulding, where necessary, hand model moulding (for example at re-entrant angles), Build up moulding in 15mm layers. Dust with crushed sandstone.

Thoroughly wet down and tend repair ABS

POINTING .09

On no account is any joint to be widened to admit pointing.

No electric grinders shall be permitted to be used unless otherwise instructed by the architect. The repointing is intended purely as filling to prevent the permeation of water between units into the walling behind.

Stronger mortar may be used only as directed in very exposed positions.

Thoroughly wet down existing stone prior to pointing.

Do not allow mortar to spread over stone arrises even where these are weathered.

Following pointing joints are to be kept damp for min. 14 days to prevent premature drying out and consequent cracking and loosening of mortar.

Work to Existing Walls

Where rebuilding, repointing or repairing existing face work, match sound original joints as determined by examination of adjacent areas and approved by architect.

Pointing Up

Where scheduled 'point up', thoroughly wet open joints and flush up with mortar. Finish joint ABS JOINTS.

Repoint

Where scheduled 'repoint', cement or other jointing shall be removed / raked out to a minimum depth of 20mm, the joint thoroughly wetted and flushed up and finished as above.

STONE CLEANING .10

Clean the existing stonework to the extent scheduled and in the locations shown On the Drawings. Remove harmful deposits of foreign material and salts from the building fabric, without damage to the stonework, and leave the stonework surface in a neutral state

Note: Cleaning work shall be carried out by trained and experienced tradesmen. No cleaning shall commence prior to the architect approving proposed cleaning method.

Provide an even final appearance, without overlaps between bays which may cause streaks of over-cleaning. Do not attempt to produce a 'new stone' appearance. Before cleaning commences, remove, without damage to the stone work, foreign matter including old finishes, bird droppings, soot, facade vegetation and the like, and the existing fixtures shown on the drawings or Schedule.

Old finishes

Bird Droppings and Soot

Remove thick encrustations by scraping and lifting away with a wooden scrapper, unless otherwise permitted by the architect.

Facade Vegetation

Unless otherwise scheduled remove all vegetation on the stone work. Where roots penetrate the stone treat with a poison approved by the architect and remove the vegetation after it has been killed.

Existing Fixtures

Remove the following by the methods approved by the architect.

Salvaged Fixtures

The following fixtures are to be preserved and refixed on completion of the cleaning.

Clean

Where scheduled scrub down with clean water and bristle brush. Each part of the stone is to receive a minimum of 5 seconds continuous scrubbing by hand.

Use only approved nylon or natural bristle brushes.

Bronze bristle brushes may be used on particularly obstinate areas of heavy soiling only if prior approval has been given, and provided arrises, joints and the like details are not damaged by abrasion.

Do not use severely worn brushes. Scrapers or other tools shall be avoided.

At the completion of the scrubbing process wash the stonework down with water.

Repeat the process until all cleaning wastes have been removed.

Allow to dry.

Wash

Where scheduled scrub all stonework with water and bristle brush.

Spray with water for 24 hours, leave for 1 week and repeat.

Immediately before the removal of the scaffold, wash down again with water to remove any debris or staining arising from the work under the contract.

Where required reinstate penetrations through external walls and fit cast vent grille scheduled. Where external ground level is near floor level vent penetrations are to be cranked down in the thickness of the wall.

SUBFLOOR VENTS .11

Where required reinstate penetrations through external walls and fit cast vent grille scheduled.

Where external ground level is near floor level vent penetrations are to be cranked down in the thickness of the wall.

RENDERER

GENERALLY .01

The plasterer is to be experienced in the preparation, repair and application and finishing of lime based moulded work.

Protect adjacent surfaces from defacement and damage due to droppings and traffic.

PREPARATION .02

Remove all loose, drummy and defective work to areas scheduled for render replacement. Rake out joints of brickwork to a depth of 10 mm.

No coats shall be applied on any work until the authority to proceed with rendering has been given by the superintendent.

Thoroughly wet all brickwork, etc and prepare the surface to ensure a good key before applying render.

Scratch or cross broom all first coats to provide key for subsequent coats.

MATERIALS .03

Accessories

Lath: Provide a proprietary product manufactured from raised expanded metal for use with plaster.

The use of admixtures should not be permitted unless there is confidence that there will be an improved outcome (e.g. waterproofing admixtures). Their use in lieu of suitable sands should be resisted unless no reasonable alternative is available.

Aggregates

Sand:

Course Stuff: Sharp, well-graded sand with a clay content between 1% and 5% and free from efflorescing salts.

Finishing Coat: Soft, well graded sand

Bonding products

General: Provide proprietary products manufactured for bonding cement-based plaster to solid substrates.

Lime

Limes for building: To AS 1672.1.

Natural Hydraulic Lime

St Ashier Natural Hydraulic Lime NHL2 and 3 supplied by Westox

Hair

Horse or cow hair. Artificial fibre can be used subject to approval

Mixes

The actual proportions of mixes should be selected by the plasterer who must have regard to a range of conditions including the materials available, the substrates to be coated, the finish coat or treatment to be applied and the weather conditions.

There is no right mix and various sources have been used to arrive at the ranges given. The table reflects the principle that a strong base coat should not be used on a weaker substrate and a strong finish should not be put on a weaker base coat.

For most plaster base coats, the general rule the world over (with some unexplained variations) is that the ratio of binders to sand should be about 1:2.5. Around about this value the proportion of individual binders can be adjusted to best suit the substrate and the type of finish required.

General: Select a mix proportion to suit the conditions of application conforming to the **Mix proportion table**.

Measurement: Measure binders and sand by volume using buckets or boxes. Do not allow sand to bulk by absorption of water.

Plaster mixing: Hand work with hoe or rotatory mixer.

Mix proportion table – NHL render, by volume

Mix type	Substrate	NHL 2	Sand	Hair kg /m3 course stuff
Render and undercoat	Regular clay brick	1	2.5 (sharp)	3kg
Finish coat - External	Render base coats	1	2 (soft)	-

Water

General: Clean and free from any deleterious matter.

PREPARATION OF SUBSTRATE .04

Substrates

General: Provide substrates as follows:

Clean and free from any deposit or finish which may impair adhesion of plaster.

If framed or discontinuous, support members in full lengths without splicing.

If solid or continuous, remove excessive projections and fill voids and hollows with plaster stronger than the first coat and not weaker than the substrate.

Absorbent substrates: If suction is excessive, control it by dampening but avoid over-wetting and do not render substrates showing surface moisture.

Painted surfaces: Remove paint and hack the surface at close intervals.

Untrue substrates: If the substrate is not sufficiently true to ensure conformity with the thickness limits for the plaster system, or has excessively uneven suction resulting from variations in the

composition of the substrate, apply additional coats without exceeding the thickness limits for the substrate or system.

There may be particular locations, or particular types of substrates (e.g. dense concrete, existing brickwork) required to achieve particular types of plaster finish. Such variations are best minimised. Particular substrate preparation may be required e.g. Scabbling, Bonding treatment, or a combination of methods. If so, specify them but only if it is certain what is required.

Proprietary bonding products may be used.

Embedded items

General: If there are water pipes and other embedded items, sheath them to permit thermal movement.

Lath

Location: Provide lath as follows:

Chases: If chases or recesses are 50 mm wide or greater, fix metal lath extending 75 mm or more beyond each side of the chase or recess.

Metal and other non-porous backgrounds: Fix metal lath to provide a key.

Material and workmanship except where superseded by this specification shall be carried out in accordance with AS CA27-1959: *Code of recommended practice for internal plastering on solid backgrounds*.

WORKMANSHIP .05

Pricking up/render coat

Base coats: Scratch-comb each base coat in two directions when it has stiffened.

Finishing treatments

Moulding

Prepare an accurate profile of the existing work in a zinc edged running mould

Muffle running mould in base coats 10/12mm thickness

Run final mould with un muffled profile accurately reconstructing the original mould, 3mm thick.

Use plasterers' small tools to construct mitres and the like.

Joining up

General: If joining up is required, make sure joints are imperceptible in the finished work after decoration.

The plaster thicknesses are from SAA HB 161 Table 4.

Temperature

General: If the ambient temperature is 10°C or less or 30°C or more make sure that the temperature of mixes, substrates and reinforcement at the time of application are between 5°C and 35°C.

Tolerances

General: Finish plane surfaces within a tolerance of 6 mm in 2400 mm, determined using a 2400 mm straightedge placed anywhere in any direction. Finish corners

Ashlar lining

Incise "ashlar" lines whilst the finishing coat is "leatherhard" to match the original work.

FINISHING .06

Limewash

Apply 4 coats limewash coloured to match the wall finishes of the building.

COMPLETION .07

Curing

General: Prevent premature or uneven drying out and protect from the sun and wind.

Keeping moist: keep the render moist as follows:

Base coats: Keep continuously moist for 2 days and allow to set to a leather hard consistency before applying further coats.

Finish coats: Keep continuously moist for 14 days.

CARPENTRY AND JOINERY

GENERALLY .01

The joinery of the works shall be carried out by a joiner approved by the architect. Approval of a tradesman shall be based on his experience in traditional joinery work.

Approval of the use of a particular tradesman shall not relieve the contractor of any of his responsibilities regarding the performance of the works. Failure to approve a particular tradesman shall not constitute grounds for an adjustment to the contract sum.

MATERIALS AND WORKMANSHIP .02

Materials and shrinkage

All timbers are to be the best quality of their respective kind, sound and well seasoned, free from sap, shakes, large or loose knots and other defects.

Any joiner's work which may split, fracture, shrink, part in the joints, or show flaws or other defects or unsoundness due to want of seasoning or bad workmanship is to be removed and replaced with new materials, together with all other work thereby affected.

Timber sizes

In accordance with AS 1684: *National Timber Framing Code*.

Scantlings to be sawn square to the size specified, allowance shall only be made for saw cuts and dressing.

Except where 'finished size' is specified, joinery shall be accepted with a fair trade allowance for working.

All joists, studs, plates etc are to be thickened to a uniform size to eliminate checking and packing.

Levelling

All level of joists, plates, beams etc brickwork shall be done with compressed fibre cement sheet, cement mortar, or other such enduring material.

The use of wooden packing or wedges shall not be allowed.

Priming

Prime all external timbers before fixing. Prime on all faces before leaving the joinery shop.

Re-prime built in surfaces of door and window frames before installing.

Workmanship

The whole of the carpenter's and joiner's work throughout is to be framed, trimmed and finished in the best and most workmanlike manner; all necessary templates, linings, blocks, stops, ironwork, ironmongery, rebating, housing, beading, mitring, throating etc incidental to carpenter's and joiner's work is to be done although not specially mentioned herein.

All parts usually framed or scheduled as shown to be framed are to be morticed and tenoned; dowel joints shall not be permitted unless specifically scheduled.

Framing up to be performed as soon as possible and framing stacked horizontally to season with fillers between until required to be fixed in position, when they are to be wedged, glued up and finally cleaned off.

Fixing of woodwork

All timber work is to be fixed to masonry surfaces employing traditional timber grounds, wedges, plugs etc and all hardware fixed to masonry or plastered surfaces is to be fixed employing a timber mounting block, plate, batten, cleat etc.

Excepting where patent plastic plugs are specifically approved, all plugging and wedging is to be done with dry pine or cedar.

Unless otherwise approved by the architect, all fixing of woodwork shall be by nails driven by hand.

SCHEDULE OF TIMBER SPECIES .03

Except for where a particular item of work is specified elsewhere, the following timbers are to be used. Other species may be used with the architect’s approval.

Meranti shall NOT be accepted.

Beams, columns bearers, joists	Seasoned select grade south-eastern Australian hardwood F17
Roof framing	Seasoned select engineering Oregon, stress grade F11
Internal flooring (specific area)	Seasoned select to match original flooring adjacent (Oregon fin 150 x 26mm T&G)
Linings	Seasoned select Oregon
Roofing battens	ABS ROOFER & ROOF PLUMBER
Fascias, barge boards etc	Clear Western Red Cedar to AS 1787

SEASONING .04

All joinery timbers to be seasoned so that moisture content is between 10% and 15%. The contractor shall submit satisfactory proof of moisture content if called upon by the architect.

FRAMING GENERALLY .05

Except where otherwise specified, cut, fix and erect all timber framing in accordance with AS 1684: *National Timber Framing Code*

Timber sizes and joints to match existing configuration.

NEW FIRST FLOOR FRAMING .06

Unless otherwise indicated new floor framing shall be:

- 140 x 55mm joists at 470 mm centres
- 140 X 55mm blocking

No packing of joists shall be permitted. Trim around fireplace hearths and access holes.

Set down new framing in areas to have graded floors so that floors are flush at door openings.

TIMBER REPAIRS .07

Dismantle to expose condition

Where an element is scheduled 'dismantle to expose condition', mark and carefully disassemble the element scheduled to minimise any damage to surface and elements etc. to expose the condition of the structure behind. Following the "hold point" inspection either follow the instruction for further work or reassemble to reinstate the surface.

Patch

Where an element is scheduled 'patch', check out defective areas to square section and glue, pin and clamp new patch into cavity. The new section is to fit tightly showing minimum evidence of patching. Timber colour, species and grain is to match existing.

Plane off and stop up.

Where doors have been cored for lock cylinders patching may not be done with dowel.

Splice on (or piece in)

Where an element is scheduled 'splice on' or 'piece in', check out defective areas to form a scarf joint. Scarf on new piece of same cross-section to original and securely glue, clamp and otherwise fix to ensure adequate bearing. Recess fixings and conceal. For example, bolt heads and nuts to be concealed with timber patches.

Repairs to columns and beams

Where scheduled 'trim and re-support column base', expose the base of the column and its pad footing. Support the floor framing over, following reconstruction of the footing ABS trim the base of the column to sound timber (if concealed by the flooring), set over a galvanised steel termite shield packed with non-shrink grout.

Where scheduled 'replace column and beams', support the floor and provide the new footing ABS. Remove the timber casing to the beams to expose the connection method linking beams and columns. Hold point for engineer's inspection. Allow to reproduce joint (assumed to be a stub tenon connection to the beam and an offset lapped scarf linking beam members). Match replaced column exactly including finished size, bevelled edge design, trims etc. Provide new matching lining boards to beam flanks and soffit.

Where scheduled 'provide scissor joint', (in the event of damage to a column extending above the finished floor level) detail to be provided by instruction.

COVING .08

UOS replacement coving is to match sizes and profiles of existing or that nominated exactly.

Sound sections of trim are to be salvaged and re-used. UOS mitre coving around elements.

EXISTING WINDOW FRAMES .09

In accordance with AS 2047.2: *Window Installation*

Replace sill

Where scheduled 'replace sill', remove frame from masonry opening, brace frame and detach decayed sill from tenons of pulley linings.

Check over frame and verify further defective elements, if any with architect.

Fit new sill to match details of original.

Re-seat frame ABS in masonry opening plumb and square, and UOS refix existing linings, architraves, mouldings and trims.

Replace, re-seat frame

Where scheduled 'replace', remove existing or otherwise nominated window to shop and match details exactly sized to suit existing frame opening. Fit and hang ABS. Unless otherwise scheduled, salvage hardware and sashes and glass for re-use.

Where replacing frames salvage and re-use all pullies and weights.

EXISTING WINDOW SASHES .10

Reglue sash

Where scheduled 'reglue sash', remove sash to workshop and dismantle carefully salvaging existing glass panes.

Note: most of the glass is early nineteenth century and very fragile.

Replace members nominated in schedule to match details of original. Re-assemble, glue and clamp. Prime and reglaze re-using original glass.

Replace sash

Where scheduled 'replace sash', make up new sash to match details of existing sash or sash nominated exactly.

Unless otherwise scheduled, salvage and re-use sash lifts, fasteners and glass.

Rehang sash

Where scheduled 'rehang sash', rehang sashes on first-quality cotton sash cord and existing weights.

Ease sash

Where scheduled 'ease', remove sash and sand or plane off stiles and rails to provide proper clearance from existing frame. Remove excess paint. Unless otherwise scheduled, rehang sash on existing sash cord.

Refix

Where scheduled 'refix', element is to be removed, cleaned off and repaired if necessary and refixed firmly in correct location.

Put in working order

Where scheduled 'put in working order', check over, ease, re-balance and refit sashes replacing defective parting beads, stop beads and pocket covers to match existing. Replace sash cords ABS.

scheduled.

SCHEDULE OF WINDOW HARDWARE .11

- Brass sash fastener
(for double-hung window) Tradco 2306 (antique brass finish)
- Casement sash fastener Tradco 2283 (antique brass finish)

SKIRTINGS AND ARCHITRAVES .12

UOS replacement or patched skirtings and architraves are to match sizes and profiles of existing or that nominated exactly.

Sound sections of existing skirtings and architraves are to be salvaged and re-used. UOS mitre architraves around openings. Architraves wider than 65 mm are to be fixed at outer edges to timber grounds. Mitre skirtings at external angles and scribe at internal angles. Longitudinal joints, if any, are to be made with 45° splay. Skirtings higher than 125 mm are to be fixed to two rows of grounds.

ROOFER AND ROOF PLUMBER

GENERALLY .01

Roofing work is to be carried out by a roofer approved by the architect in accordance with AS 3500.3.2: *Stormwater drainage acceptable solutions* and AS/NZS 2904: *Damp proof courses and flashings*.

Approval of the use of a particular tradesman shall not relieve the contractor of any of his responsibilities regarding the performance of the works. Failure to approve a particular tradesman shall not constitute grounds for an adjustment to the contract sum. Approval of a tradesman shall be based on his experience in traditional roofing and roof plumbing work.

Provide all accessories to render the roof watertight and properly finished. Accessories shall be of a traditional pattern.

Provide all ladders and other equipment as directed by the architect so that he may fully inspect the works.

METAL RAINWATER GOODS MATERIALS .02

All materials for metal rainwater goods and accessories shall be in accordance with AS/NZS 2179.1: *Metal shape or sheet rainwater goods and metal accessories and fasteners*.

INCOMPATIBLE MATERIALS .03

Avoid bringing copper into contact with galvanised steel, steel, iron or other ferrous material.

No roofing or roof plumbing is to be arranged so that water runs from a copper surface onto galvanised steel.

Should contact between incompatible materials be unavoidable, separate with purpose-made pressure-sensitive tape similar to 'Densochrome' to the approval of the architect.

ROOF BATTENS .04

For slates

63 x 25 mm oregon or approved other species double nailed at every support.

SARKING (MEMBRANE) .05

Material

In accordance with AS 4200.1: *Pliable building membranes and underlay*. Double-sided reinforced aluminium foil insulation with a flammability index not greater than two in accordance with AS 1530-2: *Test for flammability of materials*.

Installation

In accordance with AS/NZS 4200.2: *Installation of pliable building membranes and underlays*

UOS lay sarking with 150 mm lap and turned down 40 mm into gutter so that water penetrating roofing shall flow to gutter.

Keep sarking 100 mm clear of ridge to permit natural ventilation.

Provide anti-ponding sheeting at eaves made up of cement fibreboard or the like.

LEAD FOR FLASHINGS .06

Lead shall be either milled lead with a minimum copper content of 0.05% or direct cast method lead with a minimum copper content of 0.01%.

The type and manufacture of the lead is to be approved by the architect before the commencement of the works on the basis of a sample and details supplied by the contractor.

LEAD WEIGHTS .07

Unless otherwise specified or scheduled, lead shall be used in the following weights:

	lb/sq ft	kg/m ²	Thickness (mm)
Stepped, raking and horizontal over-flashings, roof penetrations and apron flashings	5	25	2.2
Soaker flashing	3	15	1.3

POINT UP .08

Where specified ‘point up’, thoroughly wet open joints and flush up with mortar. Strike joint to match best of adjacent work.

Compo mortar

Use for pointing up where flashings are let into walls, parapets, chimneys or the like:

- 10 parts sand
- 2 parts lime putty
- 1 part white Portland cement.

For materials see STONEMASON AND BRICKLAYER.

SLATES .09

New

Where ‘new’ slates are scheduled, supply new Welsh Penrhyn slates or approved other of uniform thickness and colour. Slate size to match existing. Provide sample to the architect for approval before proceeding.

WORK TO SLATE ROOFS .10

Replace

Where roofing is scheduled to be 'replaced' carefully remove existing slates, salvaging all re-usable materials ABS.

Unless otherwise scheduled, strip existing battens and supply and fix new timber slating battens or timber sarking (boarding) as scheduled to set out (overhangs and coursing) approved by the architect.

Fix replacement slates to supplier's printed recommendations and in discussion with the architect. Each slate to be fixed with two copper nails extending a minimum of 20 mm into battens.

Supply and fix new soaker and apron flashings, chimney and valley gutters and penetration flashings, as specified.

Unless otherwise scheduled, preserve and re-use existing stepped and raking overflashings, refixing where loose and pointing up in compo mortar where let into walls, parapets, chimneys and the like.

Re-nail

Where scheduled 're-nail' completely strip each slope of roof in turn, sort and discard broken and extensively decayed slates.

Unless otherwise scheduled, retain existing slating battens or timber sarking and replace same in quantities only as scheduled.

Supply secondhand slates as before specified in quantity scheduled or use slates salvaged from other areas of the roof.

Unless otherwise scheduled, fix slates to existing configuration (overhangs and coursing). Each slate to be fixed with two copper nails ABS.

The number of slates to be supplied by the contractor shall be as scheduled and shown. Should further slates be needed, these shall be supplied by the contractor as a contract variation.

Unless otherwise scheduled, areas of timber battens or sarking (boarding) as agreed with the architect to be in need of repair, shall be removed and new sarking or battens to match existing in size and profile shall be supplied and fixed by the contractor as a contract variation.

Repair and replace soaker and apron flashings, chimney and valley gutters only as scheduled.

Unless otherwise scheduled, preserve and re-use existing stepped and raking and over flashings, refixing where loose and pointing up in compo mortar where let into walls, parapets, chimneys and the like. Replace all soaker and penetration flashings as specified.

Repair

Where used in this specification, the terms 'repair' or 'refix' shall refer to either the replacement of missing or damaged material and the fixing of new materials to match existing adjacent finish, or refixing of sound but dislodged material.

Where a missing, damaged or slipped slate is identified to be 'repaired' or 'refixed', remove remaining slate (if any), check fixing of adjacent two slates and fix these with copper nails ABS if loose or likely to become loose, then fix replacement slate or original slate (if any) with a rigid copper or s.s. wire hook so as to be virtually invisible from the ground.

When large areas are identified to be repaired, re-nail ABS as many slates as possible and hook last few slates ABS.

Where slates are scheduled to be 'repaired' or 'refixed', the contractor shall determine in consultation with the architect those damaged or missing slates which are to be replaced and those slipped slates which are to be refixed.

Where additional repair work is considered necessary by the contractor, this is to be verified with the architect before the contractor proceeds.

The number of slates to be supplied by the contractor and the number to be refixed by the contractor shall be as scheduled or shown. Should further slates be needed, these shall be supplied by the contractor as a contract variation.

Work to timber battens or sarking (boarding) as for 'Re-nail'.

Work to gutters and flashings as for 'Re-nail'.

Re-use

Items scheduled to be 're-used' shall remain *in situ* protected from undue disturbance and reincorporated into the works.

COVER AND OVER FLASHING .11

Lead

Install in maximum 1200 mm lengths with 150 mm clipped dry laps. Let into wall a min of 25 mm and fix at max 300 mm centres with lead wedges.

Dress down neatly min 50 mm over upstands of box gutter linings, apron flashings etc to finish minimum 20 mm clear of horizontal surface of same to prevent leakage by capillary action.

Point up in compo mortar ABS.

APRON FLASHING .12

Lead

25 kg/m² installed in max 1200 mm lengths with 150 mm clipped dry laps.

Extend up wall in 75 mm and out over roofing in 150 mm and dress down.

STEPPED OVER FLASHINGS (FOR BRICK WORK) .13

25 kg/m² lead set out to allow min 25 mm upstand on apron and soaker flashings and to minimise overall length of flashing.

Let into joint min 25 mm and fix with two lead wedges and point up ABS. Lap min 25 mm and clip at lower leading edge. Trim neatly to rake of roof.

RAKING COVER FLASHINGS (FOR STONEMASONRY) .14

25 kg/m² lead set out to allow min 25 mm upstand on apron and soaker flashings and to minimise overall length of flashing. Secured in raglet formed by Stonemason

Let into joint min 25 mm and fix with lead wedges and point up ABS. Lap round apron flashing and clip at lower leading edge. Trim neatly to rake of roof.

PENETRATION FLASHINGS .15

25 kg/m² lead shaped apron flashing with min 50 mm upstand.

Cover with purpose-made sleeve in penetrating pipe vent etc sealed with either purpose-made gasket or by soldered joint.

SOAKER FLASHINGS .16

15 kg/m² lead hooked over each course of slate or shingles with 25 mm clear upstand behind raking or stepped overflashings, extending min 150 mm out over roofing and concealed by subsequent courses of roofing.

CHIMNEY TRAY .17

Provide 0.55mm copper chimney trays above new stone plinth of all rebuilt chimney stacks. Where the stack has mid feathers form internal upstand of tray to the perimeter of both flues.

EAVES GUTTERS .18

Galvanised Steel

0.69 mm galvanised steel, rivet and sweat at joints. Provide stop ends

Size and profile

175 High back O.G. Gutter supplied by Mack Bros

Installation

Provide external corner pieces (supplied by Mack Bros) Set to even falls (min 1:500) and provide thimbles for connection of downpipes.

Lap 30 mm at joints and paint with two coats bituminous paint to internal surfaces before final fixing.

Gutter brackets

Unless otherwise scheduled, support gutters on gutter brackets at max. 900 mm centres. Unless otherwise scheduled, brackets shall be of the same material and profile as the gutter.

Set out brackets to coincide with joints in guttering.

- Galvanised steel brackets: 40 mm x 0.8 mm

DOWNPIPES .19

Galvanised steel

Form from 0.55 mm sheet by lock seaming. Downpipes and accessories supplied by KFC Roofing

Size

100 mm diameter unless otherwise noted.

Installation

Provide swannecks formed from elbows. Angles in downpipes shall not be less than 120 degrees to minimise the chances of blockage.

Provide galvanised steel astragals equal to KFC Roofing standoff downpipe clamps. Offset downpipe from plinth face by 25mm.

Fit downpipes to discharge into upturns of drains and connect to thimble outlets of eaves gutters. Fit shoes so that downpipes discharge easily into drains.

CHIMNEY POTS & COWLS .20

Where scheduled "provide chimney pots" provide CP30 "Halifax" Buff colour pots from Gargoyles and Dragons (contact Scott, telephone 03 9462 0721). Bed in NHL 2 mortar (ABS) and flaunch in NHL 3 in accordance with the St Astier's recommendations (ABS Bricklayer).

Provide purpose made matching cowls (provided by Gargoyles and Dragons) with possum proof mesh insert by Builder.. Allow to copper wire cowls to pots (G&D to provide 4 no wiring down holes (to special order)).

Note delivery of the pots is 4 to 5 months

CLEANING DOWN .21

At all times the roofing and gutters shall be kept free of metal particles, soldering spatter and all other debris.

Thoroughly clean and wash down all roofing and guttering where cutting or soldering has been carried out.

On completion, clean out roof gutters and leave the whole of the roof area clean and in good working condition.

APPENDIX D LONG BLACKLEDGE ARCHITECTS RRR BUILDING CONDITION REPORT

Long Blackledge

Architects

MITTAGONG STATION RRR BUILDING CONDITION REPORT



Draft
2023_11_16 Version A

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1 Introduction

1.1 Background

Long Blackledge Architects have been commissioned by Sydney Trains to assess the condition of the building and make recommendations for its repair. This assessment includes a structural assessment by TTW Structural Engineers, and a drainage inspection by Franklins Plumbing. The hydraulic assessment by Warren Smith needs to react to the drainage inspection and will be added to the final report when complete.

1.2 Form of this report

The detailed section of this report sets out the condition and any recommendations for repair on a room by room basis. The floor plan with its room referencing form Appendix A of this report. The referencing does not relate to the 1998 CMP which was received after the structure of the report was set by our inspection. That referencing was based on the assumed development of the building which is not fully supported by site evidence.

The recommendations for work are graded by urgency with A being the most urgent and D being desirable. Much of the recommended work relates the repair of internal finishes and joinery that can be undertaken in the context of a refurbishment for a new use, these items are noted as C+ indicating that work ordinarily to be undertaken within 10 years but can be postponed further if necessary.

The summary report is tabulated by urgency, for example A# is an item requiring immediate work whilst D# is an item that might be undertaken in the context of reuse and improvement.

1.3 Standards

It is assumed the proposed repair work will be carried out by skilled tradesmen.

1.4 Location



Figure 1 Location Source: Six Maps 2023

1.5 Listed Status

The Mittagong Railway Station and Yard Group is State Heritage Registered (Listing: 011905). S170 reference 4801288 and is listed as an item of Heritage in the Wingecarribee Shire Council 2010 LEP item 197.

1.6 Statement of Significance

Mittagong is an important early site with significant railway buildings. The location of the station near the centre of the town gives it a civic importance. Of particular interest is the refreshment room which was used only for a short period until replaced by the refreshment room at Moss Vale because the Governor who alighted at Moss Vale for his country residence did not want to be kept waiting at Mittagong while refreshments were taken. The station complex in particular is of high significance with an early railway building (1867) surviving in the group. (SHR Listing)

1.7 Limitations

This condition survey is purely visual, no breaking out was undertaken nor were concealed or inaccessible areas like floor voids or ceiling spaces accessed.

2 Summary of Recommendations

Reference		Item/Space	Works
Urgent Works			
A	1.	Drainage, investigate cistern	Locate cistern and services flowing into (and out). Ensure cistern is drained formally. Ensure formal drainage of downpipes 11 and 12
A	2.	Drainage, north stormwater	Relay back falling drains.
A	3.	Drainage, soil	Repair sewer damaged by tree roots
A	4.	Slate roofs	Overhaul, refix and replace slates where loose or missing
A	5.	S3 suspended stair structure	Support stair
A	6.	WC area damp investigation	Probably related to A1
A	7.	S17 Floor	Infill/repair
Undertake within 2 years			
B	1.	Maintenance Planning	Prepare maintenance plan
B	2.	Cracks through masonry	Stablise
B	3.	Roof drainage	Design RRR roof drainage. Replace guttering, augment
B	4.	Chimney stacks (see Structural Report)	Reconstruct (if seismic stability required). Design seismic bracing as part of the bracing of the whole building. Provide new flashings and provide stainless steel ventilating cowls (or provide pots with cowls)
B	5.	Suspended timber floors	Reconstruct all timber suspended floors, consider excavation to improve clearance. Improve sub-floor ventilation
B	6.	S1 posts and south beam	Replace south west post, re-support north post, replace south beam
B	7.	First floor joists	Investigate the condition of joists
B	8.	S3, services boxing in NW corner of ceiling	Secure

Reference		Item/Space	Works
B	9.	S7 east stair hall. Stair	Repair stair base (3 winders), investigate condition of stair. Review compliance requirements
B	10.	S14 window	Remake window
Undertake within 5 -10 years			
C	1.	External joinery	Repair
C	2.	First floor floors	Repair
C	3.	Ground floor masonry/plaster (after damp source determined and managed)	Desalinate, repair brickwork, reinstate plaster. Repaint
C	4.	S6 redundant soil pipe	Remove and cap
C	5.	S7 stone plinth	Repair
C	6.	S7 slab	Replace, consider suspended floor replacement
Undertake in as part of an adaptive reuse of the building			
C	1.	Internal wall and ceiling finishes (including reinstating vents)	Reconstruct wall linings and celings
C	2.	Internal joinery	Repair
Desirable to undertake			
D	1.	Security	Consider augmented, electronic security
D	2.	S1, SE door	Reconstruct to more authentic design
D	3.	S8, slab	Consider replacement in context of reuse
D	4.	S12 & S16, vent	Provide matching replacement wall vent
D	5.	S12, WHB frame	Remove
D	6.	Fireplaces, backs and surround	Reconstruct
D	7.	Surface mounted services	Remove and make good
D	8.	First floor skirtings (where missing)	Reinstate

Reference		Item/Space	Works
Observation Items			
O	1.	Cracks	Observe by measurement
O	2.	S4 Decayed brickwork	Observe
O	3.	WC area, damp	Observe the effect of damp mitigation measures on the moisture levels in the fabric
Maintenance			
M	1.	Roof, reactive maintenance	Repair roof damage quickly.
M	2.	Exterior finishes	Paint exterior

3 Condition

3.1 Generally



The RRR Building is in fair condition. The external envelope is generally weathertight but internally most of the fabric is worn, decayed or removed. The structural movement within the building is of a long-standing nature (refer to the engineers' report on their assess of its cause and their recommended actions). The base of the building is highly saturated and showing extensive evidence of rising and lateral damp, some of the damp issues may be attributable to poor stormwater drainage exacerbated by high and impermeable external platform/floors. These failures have contributed to the building continuing decay.





3.2 Exterior

Space/Element	Description	Condition	Recommendations	Urgency
Maintenance Planning			Prepare a comprehensive maintenance plan to guide the continuing care of the place	B
Drainage: main RRR roof drainage	The roof drainage on building is under-capacity and requires augmentation. Additional downpipes and larger gutter required	Corroded.	Hydraulic engineer to design installation for 1 in 20 year event, moderated for heritage impact	B
Drainage: Platform canopy drainage	Downpipes 11 and 12 seem to feed to the 1867 cistern location. There does not seem to be an outlet if the cistern is still operable and therefore there may be a substantial risk of flooding		Investigate location of cistern and options for the formal drainage of DP 11 and 12	A
Drainage: North elevation	All stormwater drains serving the north side of the building were		Relay back falling drains.	A


Space/Element	Description	Condition	Recommendations	Urgency
	blocked. Drains serving DP 6 and 8 were laid to a back fall			
Drainage: soil	Terracotta	Excellent except where blocked by tree roots at Regent Street	Repair and reline drainage at tree	A
Roof Coverings	Welsh slate hipped roof	See report (Appendix D)	Overhaul roofs	A
			Re-slate and reflash stacks	C
Roof flashing, hip and ridge	Conventional lead flashing		As report	A
Chimney stacks	Rendered brick with stone bases and caps.	See TTW structural report on stacks (Appendix B)	See structural report If seismic resistance is required for all the stacks, the stacks will require reconstruction and bracing (as part of the wider bracing of the building). The reconstruction will require the replacement of at least 2 stone plinths and all stone caps. Remake flashings Provide ventilating cowls	B
Guttering	Ogee gutter, high front	Partially corroded, high fronted and under-capacity	Replace	A
Walls	Painted rendered brickwork on a stone plinth.	Good. Movement cracking principally at central east west axis	Stabilise cracks as engineers' recommendation. Make good	B
Joinery	See Interior for detailed description.	See detailed assessments	Paint	M
Security	The security to the building is minimal. Doors are padlocked and windows screwed shut. No electronic security		Consider augmented security for example intruder detection	D
Electrical Services		To be assessed		Not known

3.3 Interior

Space/Element	Description	Condition	Recommendations	Urgency
Structural Stability Generally				
The stiffness of the RRR Building has been reduced by internal wall removal and by the removal of lath and plaster ceiling and wall linings. We have generally recommended the reinstate of this tradition finish to the first floor as part of the adaptive reuse of the building. In the shorter-term consideration should be given to temporary bracing at ceiling joist level (including connections back to the internal stud and masonry walls) this might be achieved by "speed bracing" or similar cross bracing.				B
Roof framing: Replace missing struts and repair defective rafters				B
Masonry walls: Repair and strengthening of cracks in façade walls and reconstruction of masonry arches. We note there will be a minor risk of cracking reoccurring without underpinning works however these would be highly disruptive.				B
Consideration should also be given to strengthening the overall lateral stability system of the building				
S1 Former Refreshment Room				
Wall, North	Plaster on brick, rising damp to base		Following damp remediation works/actions repair damaged plaster	C+ Timing based on reuse
Wall, East			As N	As N

Space/Element	Description	Condition		Recommendations	Urgency
Wall, South	As N			As N	As N
Wall, West				As N	As N
Posts and beam	3 no posts supporting central beams	SW poor, N post poorly supported		Replace SW post, re-support N post. Replace section of S beam	B
Skirting	Where the skirting survive, they are of 2 types: single section 230mm high lambs tongue mould and 320mm two section with lambs tongue mould. Former is south wall latter is west wall.	Where extant: fair		When the reuse of the space is determined, repair and reconstruct skirting. Note the differing sections are likely to be significant to the understanding of the building's development	C+

Space/Element	Description	Condition	Recommendations	Urgency
Floor	Softwood boarding on timber framing	Note: Indication on the heritage note pinned to the south wall that Arsenic trioxide has been used to treat termites on 15th November 1997 Poor, collapsing at southern end. Much repaired, mostly following the line of earlier partitioning.	Reconstruct floor	B
Ceiling	Timber boarded. Remnant stencilled decoration at central west end. Evidence of earlier colour schemes. Timber moulded coving	Fair but badly damaged by termites in places	Assess condition of joists over	C
			Protect evidence of early colour schemes and decoration. Repair damaged boards	C+
Door North	Double timber framed and panelled doors, Bolection mould to external face, sunk moulds to interior. Matches D5 Fixed fanlight over, single clear	Intrusive recent hardware Damage to lower panels, misaligned bolection mouldings Damage to lower part of hinge stile esp. east leaf	Overhaul door	C
Door Southeast	Original window opening adapted to a doorway before the 1930's. The panelled door leaf is non		Scope to replace with more authentic joinery if appropriate	D

Space/Element	Description	Condition	Recommendations	Urgency
	original and hung on a recent frame set to the new platform level. Missing upper panelling, missing jamb architraves, missing rim lock. Fix glass overhead fixed with timber beading over.			
Door South	Original 1867 double door leaves in recent timber frame with fixed overhead. Reset to higher platform level. Masonite ? upper panels	Worn. Damage to west hinge stile, stile to rail joints opening up, damage to sunk moulds	<div>Piece in repair upper section of west hinge stile 500 x 50mm</div> <div>Overhaul door leaves. Replace straps hinges with butt hinges</div> <div>Replace upper panels</div> <div>Repair sunk moulding</div>	C
Door South west	Non-original 4 panelled door in recent timber frame. Doorway raised about 400mm with new galvanised steel lintel. Glazed upper panels. Missing architraves	Fair and incomplete.	Complete framing and trim and associated plaster repair.	C
Door east wall north	Infilled opening to S6		N/A	

Space/Element	Description	Condition	Recommendations	Urgency
Door east wall south	Brick infilled opening with timber lintel over	Movement cracks associated with general movement between north and south blocks.	Observe	O
Door west wall south	Original 4 panelled door in its original frame/lining from the 1873 conversion works to a refreshment room	Some distortion caused by rotation to the south. Missing or distorted architraves	Reset frame and rehang door, provide architraves	C+
Door west wall north	Original 4 panelled door in its original frame/lining.	Fair Diagonal cut to top of hinge stile. Original rim lock missing, damage to door leaf from missing hardware.	Repair during	
Window north wall west	Double hung sash window. 2 pane per sash.	Broken cords	Putting in working order	C
Window north wall east	Double hung sash window. 2 pane per sash.	Damaged sash cords, damaged parting beads. Loose staff beading	Putting in working order Provide new parting beads	C
Window south wall	Double hung sash window. 2 pane per sash.	Damaged sash cords, damaged staff beading	Putting in working order Provide new staff beads	C
Fireplaces	3 fireplaces all missing firebacks and surrounds	Poor, damaged plaster incomplete	Desalinate brickwork, repair plaster.	C
			Provide fire back and grate. Provide fire surrounds	D
Miscellaneous	Moveable heritage: Sash windows, signs, lower section of S2 staircase		Find provenance of the joinery and store	Before works commence

Space/Element	Description	Condition	Recommendations	Urgency
S2 Stairwell				
Wall, North	Plaster on brick	Some disruption by damp in the NE corner above skirting	Following damp remediation works/actions repair damaged plaster	C+ Timing based on reuse
Wall, East	Plaster on brick	Decay of mortar is site of 1867 removed fireplace, contemporary brickwork to the south is sound. Excessive salt load likely. Disruption of paint exacerbated by painting over distemper	Desalinate brickwork, repoint and replaster (all lime work)	C
Wall, South	As N		As N	C
Wall, West	As N		As N	C
Skirting		Fair/Poor. Partly missing, unfixed to west, termite affected, missing to north, missing to east. Good /fair to south	Repair/reconstruct	C
Floor	Suspended timber floors	Crudely repaired in two areas. Likely poor condition framing	Allow to reconstruct floor framing and repair floor with matching boards	B
Ceiling	Missing lath and plaster	Poor	Reconstruct ceiling with lath and plaster	C+
Door North	4 panelled door	Damage to lock stile, N side architrave, missing rim lock, movement over lintel	Repair	C
Window	Double hung sash	Recently re-corded.	Put into working order	C
Miscellaneous	Stair, temporary	New first flight: OK	Repair and reconstruct stair flight. Assess BCA compliance of stair geometry and handrailing	C+
S3 Kitchen				
Wall, North	Plaster on brick	Rough but generally sound. Damaged in places	Desalinate. Repair damaged missing plaster	C
Wall, East	As N,	As N but major damp damage to SE corner	As above	C

Space/Element	Description	Condition	Recommendations	Urgency
Wall, South	As N	Damaged plaster around doorway, movement crack through plaster over door lintel. Rising damage at base	As above	C
			Observe cracking	O
Wall, West	As N	Damaged plaster around doorway, movement crack through plaster over door lintel. Rising damage at base	As above	C
Skirting	Stone plinth to S rendered skirting to all other walls	Fair	Desalinate as part of damp remediation	C
Floor	Timber boarding. On timber framing	Poor, collapsing	Remove floor, excavate to better clearance and ventilation. Reconstruct floor.	A
Ceiling	Timber boarded with coved trim. Casing to staircase and services ? boxing.	Stair casing is poor, remaining ceiling appears good. Coving missing to west.	Maintain support to staircase (see below)	A
			Repair boarding	C
Door E see S1				
Door S see S2				
Door W	4 Panelled door in timber frame, conventional external rebated masonry detail. Propped closed, alsonite facing to exterior		Remove propping to allow full assessment of door. Provide N architrave and all hardware. Allow to re-make all joints-rebuild door.	C
Window N	DHSW	Broken cords, damaged inner sill	Put in working order. Scarf new edge (60mm) to inner sill full width.	C

Space/Element	Description	Condition	Recommendations	Urgency
Miscellaneous	Boxing to stair	Insecure and heavily damaged, propped.	Replace lath and plaster, provide engineer designed diagonal hanger to support stair structure	A
	Boxing to services (NW corner)	Loose	Refix	B
	Range enclosure with concrete hearth	Good, minor movement cracking through structure and hearth	No work	
Services	Pipework associated with former kitchen use	Poor	Remove	D
S4 Former Bathroom				
Wall, North	Painted brick, Ev early Rickett's Blue limewash?	Good		
Wall, East	Flank of 1867 station wall. Painted brick	Good		
Wall, South	Painted brick	Poor access but looks OK		
Wall, West	Painted brick	Damage to patch of brickwork 0.25m2	Observe damage	O
Skirting	Stone plinth to N, E and S	Good		
Floor	Cementous screed	Serviceable		
Ceiling	Timber boarded	Good		
Door N	Recent door leaf and frame, no support to west side. No	Incomplete	Complete fitting of framing and trim.	C+

Space/Element	Description	Condition	Recommendations	Urgency
	architraving. Crudely temporary strapped.			
Window S	DHSW	No close access, looks OK		
S5 Former Laundry				
Wall, North	Recent timber studding FC clad between painted original brick walls. Original wall plate and large section timber bearing on brick, cut flush to opening.	Good		
Wall, East	Painted brick, open jointed in the area of the removed copper	Good		
Wall, South	Painted brick, Ev of bench supports. Rebuilt chimney flue.	Good		
Wall, West	Painted brick	Good		
Skirting	Stone plinth to S and W and none to N & E	Good		
Floor	Screed	Serviceable		
Ceiling	None			
Door N	Recent SCFD in simple frame	OK	See above	
Window	DHSW	Missing inner sill, poorly repaired but serviceable.	Remake upper east joint of bottom sash	C+
S6 (Former Carpenters Room)				
Wall, North	Plastered masonry	Point damage and missing plaster wall vents	Desalinate, repair wall and plaster	C

Space/Element	Description	Condition	Recommendations	Urgency
Wall, East	Plastered masonry	Movement around beam, limited toothing in of wall into south wall.	Observe	O
Wall, South	Plastered over O station building fair faced brickwork	Fair, areas of missing plaster and rising damp at bottom western end	As N	C
Wall, West	Plastered masonry, soil pipe to ex WC above	Movement crack adjacent to North wall and beam. Damaged salt affected plaster	Observe movement	O
			Desalinate replace 3m2 plaster	C
Skirting	Stone plinth to walls behind timber skirting.	Skirting loose, missing to south of door.	Refix and provide matching new where missing	C+
Floor	Timber suspended. Concrete base (for machine ?	Poor, collapsing	Reconstruct floor	A
Ceiling	Missing L&P Joists for verandah Ev	Missing	Reconstruct	C+
Door E	4 panelled door,	Leaf not in O opening.	Provide fitting door	C+
Window	DHSW	Cords broken	Put in working order	C
Miscellaneous				
Services	Disused soil pipe		Cap and remove	C
S7 (Stair hall)				
Wall, North	Plaster on brick. Stone plinth abuts west wall plinth (possible later construction)	Some damage, plaster missing at old sink point	Desalinate, replaster where missing and damaged	C
Wall, East	Old range adapted to an entry to S8. Range opening closed in 1/2 brick to N and 2 bricks	Much plaster hacked off with resulting damage to brickwork	Replaster	C

Space/Element	Description	Condition	Recommendations	Urgency
	to south. Eastern lintel is bent rail.			
Wall, South	Plaster over O station building tuck pointed fair faced brickwork, Ev of 2 infilled windows to WC's. O stone plinth	Plaster removed over stair revealing tuck pointed O wall.	Remove plaster	D
Wall, West	Plaster over possible face brickwork, stone plinth matching north external elevation. Vent through plinth. Toothed into south wall	Plaster missing to 1.5m. Movement crack over door	Observe movement	O
			Repair plaster	C
Skirting	Stone to N, S and W Render at abutment with stair wall stringer and E wall	Good, damage around vent position	Repair stonework around vent	C
Floor	Screed	Uneven Fair/poor condition	Replace slab possibly with suspended floor	C/D
Ceiling	L&P	Severely damaged	Reconstruct	C+
Door	4 panelled door with sunk moulds to external and internal faces. Standard detailing of frame set in rebated masonry	Cracking of lock side panels and damage to base of the lock stile	Fill cracks, scarf edge of base of lock stile 300 x 50mm	C
Window N	DHSW	Re-corded	Put in working order.	C

Space/Element	Description	Condition	Recommendations	Urgency
Stair	Newel is match to S2 stair. Winders to base of stair, dogleg closed stringer construction, soffit and base of second leg timber boarded.	Fair/Poor. Failure of base of steps owing to rot/termites. Structure of stair not inspected. Not BCA compliant	Repair base of stair Review compliance against use.	B
Services				
S8 (Former Linen Store)				
Walls	Brick (plaster removed)	Good		
Skirting	None, O plinth to S			
Floor	Screed	Uneven	Consider suitability for its new use. Repair or replace	D
Ceiling	Timber boarded	Good		
Window N	DHSW	Good		
Miscellaneous				
Services				
S9 Former Ladies' Waiting Room				
Wall, North	Recent plaster on masonry	Some damp but not as severe as other walls	Remediate finishes if affected by damp mitigation works	
Wall, East	Recent plaster on masonry	Severe damp especially in SE corner	Determine sources of damp and mitigate. Desalinate and repair plaster	A
Wall, South	Recent plaster on masonry	Severe damp especially in SE corner	As E	A
Wall, West	Recent plaster on masonry	Damp	As E	A
Skirting	Recent timber	20% moisture content- risk of rot and termites	As above	A
Floor			As above	A

Space/Element	Description	Condition	Recommendations	Urgency
	Tiled on earlier concrete slab	Ponding water to west and south. This does not appear to be falling damp	In the event of a major refurbishment of the room and adjacent WC's consider replacing the slab with a suspended floor with ventilation	Note
Ceiling	Recent plasterboard with access panel	Good, no sign of falling damp		
Door E	Recent door in O opening (adapted)			
Door S	4 panel O door in O frame. Recent hardware	OK		
Windows S	DHSW	Good		
Miscellaneous	Benches	Storage of benches and other railway equipment		
Services				
S10 Accessible WC				
Wall, North	Recent tiling on recent partition wall	Severe damp detected, no apparent effect on finishes yet	Observe	O
Wall, East	As N	As N	As N	O
Wall, South	Recent tiling on O wall	As N	As N	O
Wall, West	As S	As N	As N	O
Skirting	None			

Space/Element	Description	Condition	Recommendations	Urgency
Floor	Tiles on concrete slab	Appears OK	As S9	
Ceiling	Recent plasterboard	Good		
Door E	Recent	OK		
Windows S	Original DHSW adapted for permanent ventilation	OK		
Miscellaneous	AWC fitout			
S10A Store				
Wall, North	O wall full height tiled.	Damp detected in walls	Investigate source of damp and mitigate	A
Wall, East	As N	As N	As N	
Wall, South	Tiles on recent partition	As N	As N	
Wall, West	As N.	As N	As N	
Skirting	Coved tile	Good		
Floor	Tiles on concrete. Access manhole to sewer?	Good	As S9	
Ceiling	Plasterboard	Good		
Miscellaneous	Racking for cleaning supplies			
Services				
S11 WC's				
Wall, North	Tiled false wall over early (c 1911) external wall	High damp readings in all walls	As S10	
Wall, East	As N			

Space/Element	Description	Condition	Recommendations	Urgency
Wall, South	As N			
Wall, West	As N (and remnant of O west wall			
Skirting	Coved tile			
Floor	Tiled concrete	Good	As S9	
Ceiling	Plasterboard	Good		
Door S	Recent door and frame in adapted opening.	Good		
Windows S	Recent high level	OK		
Miscellaneous				
Services	WC fit out	Good		
S12 (West stair First Floor landing)				
Wall, North	L&P on studding. Ev historic painting scheme	Damaged plaster, cracking at junction with masonry walls. Missing vent to E	Repair plaster and lath (0.25m ²)	C+
			Provide matching vent	D
Wall, East	Plaster on masonry	Damaged, loss of float coat to north. Movement cracking through arch. Point damage.	Repair plaster 2.5m ² . Repair cracks in association with any structural remediation of the footings.	C+
Wall, South	L&P on studding	Extensive loss of plaster from lath and lath from studding. Missing vents. Movement at junctions with masonry.	Reinstate L&P	C+
			Provide matching vents	D
Wall, West	Plaster on masonry	Generally relatively sound		
Skirting	Timber O	OK		
Floor	O T T&G	Worn but OK		
Ceiling	L&P missing	Missing	Reinstate L&P ceiling	C+
Window W	DHSW	No safe access, looks serviceable	Put in working order	C
Miscellaneous	Frame for sink to south		Remove	D

Space/Element	Description	Condition	Recommendations	Urgency
Services	Intrusive 60mm waste pipe to sink	Not used	Remove	D
S13 (Bedroom)				
Wall, North	Masonry stripped of plaster	Poor	Replaster	C+
Wall, East	Masonry, plaster stripped	Poor	Replaster	C+
Wall, South	L&P studding	Poor, all plaster removed, much lath loss	Re lath and plaster, provide vents	C+
Wall, West	Masonry, plaster stripped	Rising damp to exposed section of wall to N	As above	C+
Skirting	O T	Missing on most wall except E, wrapped section possibly in room	Replace	C+
Floor	O T T&G	Serviceable		
Ceiling	Missing L&P	Missing	Reinstate L&P ceiling	C+
Door S	4 panelled door leaf in O frame with overlight	Fair, damaged lock side architraving. Broken glass to overlight and damage to its stops	Scarf repair rim lock keeper damage in two locations	C+
			Overhaul fanlight, provide new jamb stops and reglaze	C+
Window N	DHSW	Secured by propping	Put in working order	C
Miscellaneous				
Services				
S14				
Wall, North	Masonry stripped of plaster	Poor	Replaster	C+
Wall, East	L&P studding	Poor, all plaster removed, much lath loss	Re lath and plaster	C+
Wall, South	L&P studding	Poor, all plaster removed, much lath loss	Re lath and plaster, provide vents	C+
Wall, West	Masonry, plaster stripped	Rising damp to exposed section of wall to N	Replaster	C+
Skirting	O T	Missing,	Replace	
Floor	O T T&G	Serviceable Ev fall damp associated with stack/flue		
Ceiling	Missing L&P	Missing	Reinstate L&P ceiling	C+

Space/Element	Description	Condition	Recommendations	Urgency
Door S	Frame and overlight. Door leaf and overlight casement missing	Incomplete, damage to western architrave	Provide door leaf and overlight sash, repair sash stops. Scarf new length of architrave to west (1.2m)	C+
Window N	DHSW	Secured by propping. Major damage to box frame Missing architraves	Reconstruct box frame, salvage sashes. Provide CI weights, put in working order. Provide matching architraves	B
Miscellaneous	Fireplace	Insert and surround missing. See Chimney stack	Reinstate fireplace	D
Services				
S15				
Wall, North	Masonry stripped of plaster	Poor	Replaster	C+
Wall, East	L&P studding	Poor, all plaster removed, much lath loss	Re lath and plaster	C+
Wall, South	L&P studding	Poor, all plaster removed, much lath loss	Re lath and plaster, provide vents	C+
Wall, West	Masonry, plaster stripped	Rising damp to exposed section of wall to N	Replaster	C+
Skirting	O T	Missing,	Replace	C+
Floor	O T T&G	4 areas of damage	Piece in repair 4 patches in matching timber : 800 x 25mm, 300 x 25mm, 2 x 150 x 25mm	C
Ceiling	Missing L&P	Missing	Reinstate L&P ceiling	C+
Door S W	Crudely adapted O door frame with non-O door leaf (to the opening). Missing overlight sash.	Poor Door ill-fitting to crudely closed down frame. Missing overlight sash. Damaged/missing architraves	Plant 15mm edge to lock stile. Repair sunk moulding to outer top left panel. Remove temporary stop. Provide matching overlight sash. Remove inner architrave. Provide new architraving to internal faces and to head and	C+

Space/Element	Description	Condition	Recommendations	Urgency
			east jamb externally, Provide new hardware.	
Door SE	4 Panelled door leaf in frame with overlight	Fair Damaged lock stile, missing architraves, overlight sash glass missing	Piece in repair lockstile edge, full height. Replace inside W architrave, glue and pin split in E architrave. Reglaze and overhaul opening sash. Provide new hardware	C+
Window NW	DHSW	Requires re-cording. Staff beading missing	Replace staff beading, put in working order	C
Window NE	DHSW	Propped. Un-weighted missing architraves	Provide new CI weights. Provide matching architraves. Put in working order	C
Miscellaneous				
Services				
S16				
Wall, North	Plaster on masonry	Good		
Wall, East	Plaster on masonry	Good		
Wall, South	L&P on studding	Fair, movement damage around door opening, non O vent to W	Repair cracks,	C+
			Replace west vent to match O	D
Wall, West	L&P	Fair, damage to base. Vertical movement cracks	Replace bottom 300mm L&P. Repair cracks	C+
Skirting	missing		Provide if required for use	C+
Floor	T T&G	OK		
Ceiling	L&P missing	Missing	Reconstruct L&P ceiling	C+
Door S	4 panelled door leaf in frame with overlight. Poorly adapted	Intrusive stop, door leaf ill fitting, missing overlight sash, missing architraving,	Plant on to hinge and lock stile. Re-hang door leaf	C+
			Provide matching architraves to west inner.	C+
			Provide overlight sash	C+

Space/Element	Description	Condition	Recommendations	Urgency
			Provide hardware	C+
Window N	DHSW	Distorted inner sill. Damaged architraving	Replace inner sill. Put in working order	C
			Replace E and W architraves	C+
Miscellaneous				
Services	Surface mounted cabling and power point fitting and electrical services	intrusive	Remove	D
S17 (WC)				
Wall, North	Plastered masonry	Good		
Wall, East	L&P	Good		
Wall, South	Recent partition/doorway		Remove, reinstate passageway	C+
Wall, West	Plastered masonry	Good		
Skirting	T	Extant on E wall, missing elsewhere	Provide skirting	C+
Floor	T T&G. Verandah? Joists Ev	Poor, boards missing. Fall risk	Reconstruct floorboarding	A
Ceiling	L&P missing	Missing	Reconstruct L&P ceiling	C+
Door S	Missing		Provide/locate doorleaf	C+
Window N		Not inspected	Allow to put in working order	C
Miscellaneous				
Services	WC fit out, partly removed	Poor	Remove	C+
S18				
Wall, North	Plastered masonry			
Wall, East	Plastered masonry			
Wall, South	L&P	Extensively cracked	Provide vent. Repair plaster	C+
Wall, West	Plastered masonry			
Skirting	Missing			

Space/Element	Description	Condition	Recommendations	Urgency
Floor	T T&G			
Ceiling	L&P missing			
Door S	4 panelled door leaf in frame with overlight	Damaged lock stile, damaged architraving, damaged lock stile. Missing overlight sash. Damaged at keeper points.	Piece in repair to damaged lock stile and frame	C+
			Replace E and W internal architraves	C+
			Provide new overlight sash	C+
Window N	DHSW	Propped	Secure window in opening. Put in working order	C
Miscellaneous				
S19 East stair landing				
Wall, North	Plaster on masonry	Sound but movement around window	Repair cracking plaster	C+
Wall, East	Plaster on masonry			
Wall, South	O L&P on studding	L&P missing	Reconstruct	C+
Wall, West	Plaster on masonry			
Skirting	T missing on part of W wall	OK where extant	Provide skirting where missing	C+
Floor	T T&G	OK		
Ceiling	O L&P	L&P missing	Reconstruct	C+
Door S	Door leaf upside down and rehung. Non O architraves. Over light sash missing	Intrusive and incomplete	Provide O matching door leaf and architraves. Provide overlight sash	C+
Window N	DHSW	Appears OK	Put in working order	C
Miscellaneous	Stair , non O and non-compliant balustrade height (875mm)	Missing balusters	Provide 5 no matching balusters. Consider upgrade subject to use.	C+
S20 (East end hall)				
Wall, North	L&P	Cracked over doorways and adjacent masonry wall	Repair cracks	C+

Space/Element	Description	Condition	Recommendations	Urgency
Wall, East	Plaster on masonry	Major movement crack	Stablise crack as engineer's recommendation. Make good.	C
Wall, South	L&P	As N	Repair cracks. Patch L&P 0.25m2	C+
Wall, West	Plaster on masonry	Major movement crack over arch. Damage to console brackets	Stablise crack as engineer's recommendation. Make good 0.5m2 replacement plaster. Provide matching north console bracket, Repair south console (model repair damaged moulding and refix lower acanthus moulding)	C
Skirting	O T	OK		
Floor	O T&G	Fair, tongue and groove damage	Refix central 3 boards, provide make piece full length.	C
Ceiling	L&P Missing	Missing	Reconstruct L&P ceiling	C+
Doors	See adjacent spaces			
Window E	DHSW	Missing inner sill, damaged staff beading	Provide new inner sill and staff beading. Put into working order.	C
Miscellaneous				
S21 East hallway, west end				
Wall, North	L&P	Cracked over doorways and adjacent masonry wall	Repair cracks	C+
Wall, East	Plaster on masonry	See S20	See S20	C
Wall, South	L&P	As N	Repair cracks. Patch L&P 0.25m2	C+
Wall, West	Plaster on masonry	Major movement crack over arch. Damage to console brackets	Stablise crack as engineer's recommendation. Repair damage to console brackets	C
Skirting	O T	OK		
Floor	O T&G	Fair, tongue and groove damage	Refix central 3 boards, provide make piece full length.	C
Ceiling	L&P Missing	Missing	Reconstruct L&P ceiling	C+

Space/Element	Description	Condition	Recommendations	Urgency
Doors	See adjacent spaces			
Miscellaneous				
S22				
Wall, North	L&P	Cracked over doorways and adjacent masonry wall	Repair cracks	C+
Wall, East	Plaster on masonry	Extensively cracked,	Repair cracks and replace damaged plaster. 4 lin m crack and 2m2 plaster replacement	C
Wall, South	Plaster on masonry	Fair	Repair cracks around window 0.5m2 replacement	C
Wall, West	Plaster on masonry	Fair		
Skirting	Missing	Missing	Provide matching skirting	C+
Floor	O T&G	OK	OK	
Ceiling	L&P Missing	Missing	Reconstruct L&P ceiling	C+
Door N	Doorway with overlight	Missing door leaf and overlight sash. Non O architraves	Provide matching door leaf, overlight sash and architraves. Provide hardware	C+
Window S	DHSW		Put in working order	C
Miscellaneous				
S23				
Wall, North	L&P	Cracked adjacent masonry walls	Repair cracks. Provide matching wall vent	C+
Wall, East	Plaster on masonry	OK		
Wall, South	Plaster on masonry	OK		
Wall, West	Plaster on masonry	OK		
Skirting	Missing	Missing	Provide matching skirting	C+
Floor	O T&G	Damaged at access points	Replace 2m2 in matching boards	C
Ceiling	L&P Missing	Missing	Reconstruct L&P ceiling	C+
Door S	Door with overlight. Recent doorleaf (reasonable match)	Damages E architrave and transom.	Replace east architrave inner jamb, provide sunk moulds to	C+

Space/Element	Description	Condition	Recommendations	Urgency
			one face, provide transom moulding	
Window N	DHSW		Put in working order	C
Miscellaneous				
S24				
Wall, North	L&P	Cracked over doorways and adjacent masonry wall	Repair cracks	C+
Wall, East	Plaster on masonry	OK		
Wall, South	Plaster on masonry	OK		
Wall, West	L&P	Good, minor damage	Remove blocks make good, repair minor cracking	C+
Skirting	Missing	Missing	Provide matching skirting	C+
Floor	O T&G	Some damage at centre and NE	Provide 6 lin m of matching board repair	C
Ceiling	L&P Missing Ev cornice (metal?)	Missing	Reconstruct L&P ceiling	C+
Door NE	Doorway with overlight	Some damage to overlight sash, architraves and door leaf	Overhaul fanlight sash, replace west jamb architrave, Piece in repair lock stile (300 x 15 x 22) Piece in repair West outside jamb 200 x 60mm	C+
Door NW	Door with overlight	Missing door leaf and damaged architraves	Repair base of east jamb of frame. Provide matching door leaf and jamb architraves. Provide hardware	C+
Windows S	DHSW x 2		Put in working order	C
Miscellaneous	Fireplace	Severely damaged fire back, grate missing. Damage to mantle top	Replace CI fireback and register grate. Provide new mantelpiece top.	D
S25 (Hallway central section)				

Space/Element	Description	Condition	Recommendations	Urgency
Wall, North	L&P	Cracked over doorways and adjacent masonry wall. Plaster missing from lath at west end, some lath missing. Vents missing	Repair cracks. Allow 9m2 new plaster over prepared existing lath, allow to replace 2m2 of lath.	C+
Wall, East	Plaster on masonry, archway	See S21	See S21	C
Wall, South	L&P	As N	As north wall	C+
Wall, West	Plaster on masonry, archway	Major movement crack over arch. Damage to console brackets	Stabilise crack as engineer's recommendation. Repair damage to console brackets	C
Skirting	O T	OK		
Floor	O T&G	Fair, tongue and groove damage	Refix central 3 boards, provide 3m2 new boarding to match.	C
Ceiling	L&P Missing	Missing	Reconstruct L&P ceiling	C+
Doors	See adjacent spaces			
Miscellaneous				
S26				
Wall, North	L&P	Cracked around doorway and adjacent masonry wall	Repair cracks. Provide replacement vents	C+
Wall, East	L&P	Damaged	Provide 0.25m2 plaster	C+
Wall, South	Plaster on masonry	OK, missing vent	Repair point damage caused by the removal of fixings. Provide matching vent.	C+
Wall, West	L&P	Vertical crack, minor damage around base	Repair cracking	C+
Skirting	Missing	Missing	Provide matching skirting	D
Floor	O T&G	Some damage	Provide 6 lin m of matching board repair	C
Ceiling	L&P Missing Ev cornice (metal?)	Missing	Reconstruct L&P ceiling	C+
Door N	Door with overlight	Some damage to overlight sash beading, architraves and door leaf	Overhaul fanlight sash, provide inner beading, piece in repair E	C+

Space/Element	Description	Condition	Recommendations	Urgency
			inner architrave. Provide outer west architrave	
Window S	DHSW		Put in working order	C
Miscellaneous	Newspaper to W wall		Retain	Note
S27				
Wall, North	L&P	Plaster missing from lath, lath missing in places	Replaster on new lath. Provide 2no vents	C+
Wall, East	L&P	Plaster missing from lath, lath missing in places	Replaster on new lath	C+
Wall, South	Hacked plaster on masonry	Severely damaged	Replaster provide 2 no vents	C+
Wall, West	Hacked plaster on masonry	Severely damaged. Hole into flue	Repair brickwork.	C
			Replaster with new staff beading to flue	C+
Skirting	Missing	Missing	Provide matching skirting	D/ C+
Floor	O T&G	Some damage	Provide 1 lin m of matching board repair	C
Ceiling	L&P Missing	Missing	Reconstruct L&P ceiling	C+
Door N	Door with overlight	Non O internal architrave, external architrave OK. Missing overlight sash. Dange to door leaf.	Provide matching overlight sash and beading, make operable. Provide new internal architraves and transom moulding. Provide new hardware	C+
			Replace poorly repaired lockstile	C+
Window S	DHSW		Put in working order	C
Miscellaneous				
S28				
Wall, North	L&P	Plaster missing from lath, lath missing in places	Replaster on new lath. Provide 2no vents	C+

Space/Element	Description	Condition	Recommendations	Urgency
Wall, East	Hacked plaster on masonry	Severely damaged	Replaster	C+
Wall, South	Hacked plaster on masonry	Severely damaged	Replaster provide 2 no vents	C+
Wall, West	Hacked plaster on masonry	Severely damaged	Replaster	C+
Skirting	Missing	Missing	Provide matching skirting	D/ C+
Floor	O T&G	OK		
Ceiling	L&P Missing	Missing	Reconstruct L&P ceiling	C+
Door N	Door with overlight	O door with recent lock stile (poorly fitted). Damage to west architrave	Piece in repair damage to west architrave 500 x 60mm	C+
Window S	DHSW	Carefully repaired bottom sash, broken sash cord	Put in working order	C+
Miscellaneous				

4 Maintenance Obligations

4.1 Obligations under the Heritage Act

Part 3 of the of the Heritage Regulation 2012 requires buildings on the State Heritage Register to have minimum standards of maintenance and repair. These standards include:

- Weather protection of the envelope and the integrity of the drainage systems etc.
- Fire protection and security from accidents
- Security, these include fences, locks and alarms etc.

4.2 How the Station Building presently meets these obligations

Mittagong Station RRR Building does not appear to meet TAHE's obligations under the Act.

The building is generally weather proof (except in the minor locations noted in this report). The integrity of the drainage system will be assessed during the building works investigation stage.

The building is secure. Most doors have adequate security.

The building does not have a smoke detection system.

APPENDIX A. FLOOR PLANS

APPENDIX B. STRUCTURAL REPORT (INCLUDING TIMBER REPORT)

APPENDIX C. DRAINAGE INVESTIGATION REPORT

APPENDIX D. DAMP REPORT

APPENDIX E. ROOF REPORT