

SANDSTONES

CONSTRUCTION

MANAGEMENT PLAN

Site Location

The Lands Building, 23-33 Bridge Street, Sydney NSW 2000
Department of Education Building, 35-39 Bridge Street Sydney, NSW 2000





Document Control, Revision, Revision Notes

Prepared for:	Pontiac Land Group		
Prepared by:	Brad Ruston, Built NSW Pty Ltd		
Reviewed by:	Peter Whyte, Built NSW Pty Ltd		
Approved by:			
Date			
REVISION HISTORY			
REVISION	DATE	DETAILS	AUTHOR
Blt-CMP-01	20 Aug 2016	Draft Sandstones CMP issued for comment	Brad Ruston
Blt-CMP-02	26 Sept 2016	Draft Sandstones CMP issued for comment	Brad Ruston
Blt-CMP-03	24 Oct 2016	Adjustments in response to comments on Blt-CMP-02	Brad Ruston

Revision Notes

Changes include adjustments to the CMP to respond a number of new/updated project reports.

Contents

Document Control, Revision, Revision Notes.....	2
Introduction.....	6
Objectives	6
Key Stakeholders Consultation.....	7
Complaints management	7
Project Description	7
Site	7
Project Scope	8
Key Project Constraints	8
Physical Constraints of the Site	8
Heritage Constraints.....	8
Archaeological	9
Noise and Vibration	9
Neighbouring Properties	9
Transport Constraints.....	9
Hazardous Material	9
Project Phasing	10
Major Work Items.....	10
Demolition and Excavation.....	10
Structure, Strengthening & Fire Rating	11
Façade.....	12
Building Services	13
Fit-out Building	13
External & Public Domain Works.....	13
Site Layout, Logistics and Materials Handling	13
Hoardings and Overhead Protection	13
Tree Protection.....	14
Scaffold	14
Works Zones	15
Material Deliveries	16
Material Movement on Site	17
Crane, Hoists and Loading Platforms.....	17
Site Accommodation	17
Parking.....	17

Site Security	17
Heritage and Archaeological Management.....	18
Conservation Management Reports	18
Heritage	18
Archaeology.....	19
Dilapidation survey.....	21
Dilapidation Survey.....	22
Adjoining and Adjacent Neighbours.....	22
Adjoining Owners Management.....	22
Communication	22
Public Amenity, Safety and Pedestrian Management.....	23
Hours of Work	23
Noise & Vibration Management.....	23
Objective.....	23
Noise Management	23
Vibration Management	23
Traffic Management	24
Street & Footpath Closures	25
Pedestrian Management	25
Taxis	25
Workplace Health & Safety	27
Built Policy	27
WHS Management Plan.....	27
WHS Risk Assessment.....	28
Training and Induction.....	28
Safe Work Method Statements (SWMS)	28
Subcontractors	28
Monitoring Compliance	29
Consultation	29
Environmental Management.....	30
BUILT POLICY	30
Environmental Management Plan.....	30
Purpose of the Environmental Management Plan	31
Communication	31
Environmental Rating Tools.....	31

Hazardous & Contaminated Materials	31
Existing Information and Supplement Requirements	31
Anticipated Hazardous Material.....	32
Identified Testing Required for Hazardous Material Finds	32
Unexpected Hazardous Material Finds	32
Site Discharge	33
Stormwater and Sediment Control Plan.....	33
Dewatering	33
Truck Wash Facilities	34
Dust Management.....	34
Objective.....	34
Key Management Issues.....	34
Dust Sources and Risk.....	34
Dust Control.....	35
Dust Monitoring	35
Waste Management & Recycling	35
Appendix.....	37
Attachment 1 Site Layout Diagrams	37
Attachment 2 Demolition management plan.....	37
Attachment 3 Excavation management plan	37
Attachment 4 Crane radius diagram	37
Attachment 5 Construction Traffic management Plan.....	37
Attachment 6 Noise & Vibration Management Plan	37
Attachment 7 Construction Waste Management Plan.....	37
Attachment 8 Contractors Heritage Management Plan.....	37
Attachment 9 Site Images.....	37

Introduction

This Construction Management Plan (CMP) has been prepared by Built Pty Ltd on behalf of Pontiac Land Group in support of the DA Application for the Sandstones Project (Education and Lands Buildings – Bridge Street).

This CMP has been developed to meet the specific requirements of the project. The CMP demonstrates the processes, controls and staging of the works required for the Sandstone project scope. Staging plans have been provided that identify the various stages of the works and the impact on the surrounding users of the site.

In preparing this CMP significant consideration has been made to mitigate the impact of this project to both the surrounding environment and the unique constraints inherent to the buildings themselves. Response outlined within this CMP include:

- Outline of major scope of works
- Public amenity, safety, and pedestrian management
- Materials handling
- Traffic management including public transport interfaces
- Heritage items
- Environmental management
- Impact on adjoining and surrounding properties
- Key Stakeholders

To deliver the Sandstones Project successfully the extended project team recognise the need for, and is committed to, engaging with all stakeholders such as local businesses and residents, building owners, Transport for NSW, City of Sydney, Government Agencies. Consultation will continue to be a key priority throughout both the early planning and the construction process to ensure the community and stakeholders receive regular updates and have the opportunity to provide feedback.

OBJECTIVES

The objectives of this CMP are to:

- 1) Provide a framework to manage all site activities and interfaces for the project from the commencement of site works to project completion and handover;
- 2) Establish and document project systems, controls, responsibilities, protocols, and reporting regimes to ensure effective compliance with the contract, legislation, regulations, planning requirements, and the like.
- 3) Establish a consistent and uniform approach in conformance with the overall project's management system.
- 4) Provide initial outline of the works that will be undertaken under the supervision of a Principal Contractor.

All statements and proposals documented in this plan, including relevant supporting documentation, would be reviewed at the time of contract award for the works to ensure alignment with proposed preferred methodologies and sequencing developments.

KEY STAKEHOLDER CONSULTATION

Written notification would be provided by the Main Contractor to likely and potentially affected receivers prior to commencement of any works on site. These stakeholders would include local residents, local businesses and commuters using the adjacent bus stops.

The ongoing planning and implementation of the construction works will also be completed in consultation with the following statutory authorities where applicable:

- The City of Sydney Council
- Office of Environment & Heritage (NSW)
- NSW Environment Protection Authority (EPA)
- Sydney Water
- Electrical Provider
- Transport for NSW
- Workcover

The manner of notification would be confirmed in a final site specific Communications Management Plan and may include such measures as letter box drops, community briefings.

Additionally, during the project construction phase site meetings can be conducted by the project team with the opportunity to be attended by key project stakeholders to discuss and minute current progress on site, upcoming works /disruptions and any project related issues encountered.

COMPLAINTS MANAGEMENT

The Main Contractor will implement a complaints handling system recording the following information as a minimum:

- Description of the complaint and complainant contact details.
- The requested remedy and/or action.
- The due date for a response.
- The immediate action(s) taken (as applicable).
- Date complaint closed

Project Description

SITE

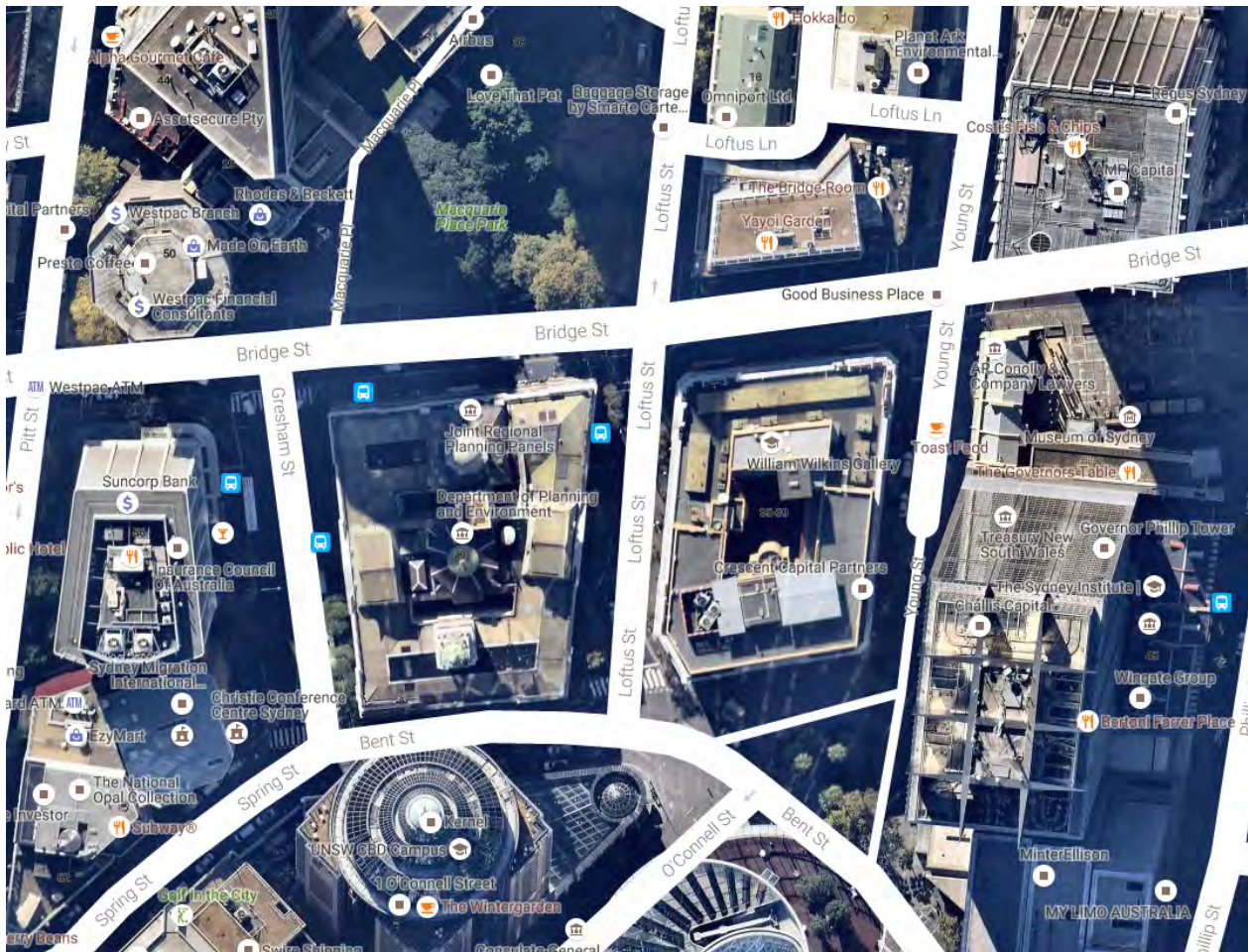
The project site encompasses two existing heritage listed buildings housing, NSW Department of Education and Department of Planning and Environment.

Site address:

The Lands Building, 23-33 Bridge Street, Sydney NSW 2000

Department of Education Building, 35-39 Bridge Street Sydney, NSW 2000

Adjacent Streets	Surrounding Buildings / Property	
Bridge	Macquarie Place Park	50 Pitt Street (Westpac)
Young	1 O'Connell	50 Bridge St (AMP)
Bent	Governor Phillip Tower	AR Conolly & Company Building (Young St)
Gresham	Governor Macquarie Tower	38-42 Bridge (Bridgeport Apartments)
Loftus	3 Spring St (Christie Corporate)	56 Pitt St (including Gresham St frontage)



PROJECT SCOPE

- Conversion of existing heritage listed buildings into approx. 250 room high end hotel.
- Connection of existing buildings via new tunnel under Loftus Street and basement level excavation below Education Building
- Structural (new structure & strengthening works)
- Hazardous Material Removal
- Heritage & Archeological Conservation Works
- Feature atrium
- Refurbishment of services system for the Buildings (including connection of the two buildings)
- Fitout of buildings – lobbies, rooms, kitchens (complete Front & Back of House)
- Removal of existing pitched roof and construction of new roof to Lands Building
- Additional levels extension to the Education Building
- Farrer Place and Public Domain works

KEY PROJECT CONSTRAINTS

Physical Constraints of the Site

As the project is a refurbishment/adaptive reuse, there is significant existing physical constraint from the building structures themselves. The nature of the building (heritage sandstone construction) results in physical constraints such as being restricted to rely predominately on utilising existing openings in the building for material movements.

Heritage Constraints

The buildings are both heritage listed with significant constraints in place relative to undertaking construction works. A project 'Heritage Impact Statement' (HIS) has been developed. The HIS details all

heritage related constraints of the site and all required works to maintain heritage condition. The Heritage Statement will underpin the development of specific site management processes to respond to heritage requirements. This will also include archaeological constraints for basement excavation and tunnelling works.

Archaeological

Construction of the proposed development would include excavation of a tunnel linking the Lands and Education Buildings along with basement level excavations. Refer to Heritage and Archaeological section of this report for details.

Noise and Vibration

Construction of the proposed development would include demolition, excavation, concrete works and other activities typically associated with building refurbishment / adaptive reuse. Construction noise acceptability criteria will vary depending on construction period.

Noise and vibration will be generated on the project site during construction such as generated by plant & vehicle movements / usage, generators, heavy machinery (eg: tunnelling plant / equipment, excavation machinery) and hand-held machinery and tools.

The following will be the primary stakeholders for Noise & Vibration Management and shall require detailed consideration for building damage and human comfort levels.

- Immediate neighbours
- Heritage assets (within the project site and external to the project site)

Management of Noise and Vibration is detailed further in below sections of this report.

Neighbouring Properties

The location and size of the site (encompassing both the Lands and Education Buildings) results in an inherently large number of neighbours. Neighbours are a combination of businesses, residential, government, and education facilities among others.

Transport Constraints

The size of the overall site (two buildings) will result in a number of interfaces with transport – both vehicle and pedestrian. Pedestrian crossings, buses (stops) and taxis (ranks) – along with general traffic – fall within / adjacent the site area and will require coordination response within a Traffic Management Plan.

Hazardous Material

An updated hazardous material report has been completed by CETEC Pty Ltd (Phase 1 Hazmat Report: Sandstone Project 23-33 and 35-39 Bridge Street, Sydney, NSW, 2000; Project Reference CN160710 (Draft) Dated 14.09.2016). The report provides a high level overview of hazardous materials – generally visual – and identifies the presence of hazardous material. The report also utilizes and relies on previously completed reporting / testing.

Demolition and construction works will be required to be coordinated around the safe identification and removal of hazardous materials. Prior to demolition and construction works being undertaken the report will move from draft to final and include further destructive investigations, sampling and testing where required.

Project Phasing

Anticipated construction duration of 2.5 to 3 years from site commencement with the intention that the works will be delivered continuously through the period. Typical construction works phasing transitions from site establishment, soft demolition, structural demolition, excavation (incl. tunnelling), structure, façade, fitout.

Major Work Items

DEMOLITION AND EXCAVATION

Management Plans

A Demolition Management Plan is to be prepared by the demolition contractor for all demolition work involving the demolition of any part of the structure to collate key information relevant to the demolition work into a single document.

The demolition plan will reference SWMS. Content of the Demolition Management Plan will ensure alignment with in the National Code of Practice – Demolition Work and AS 2601 The demolition of structures.

In addition a detailed Excavation Management Plan will be developed that aligns with Excavation Work Code of Practice, Work Health and Safety (Excavation Work) Code of Practice 2015 and Australian Standards.

Ensuring Management Plans align with Code of Practice guidelines contribute to the project achieving the standards of health, safety and welfare required under the *WHS Act and the Work Health and Safety Regulations* (the WHS Regulations).

Material Movement

During the initial demolition, bulk excavation and tunnelling works, materials will be moved via the access points off Gresham and Loftus Street. Vehicles will typically reverse into these loading areas with associated traffic control. This will minimise disruption to the streets and ensure safe loading of the trucks. Final methodologies will be detailed in Demolition / Excavation / Traffic Management Plans.

Hazardous Materials

Refer to hazardous material section of this report.

Basement and Tunnel Works

Foundations and tunnelling works will take place in overlying fills with rock levels expected to be at 4m below existing ground levels. Underpinning and structural strengthening works will be carried out prior to excavation. Tunnelling works will progress from the head ends that will generally be established following the demolition and/or strip out elements.

The construction of the new basement beneath both the Lands and Education Building will pose significant challenges for the project. In view of this, the design has been reviewed in an attempt to utilise above ground space for plant rooms to minimise the extent of excavation.

Prior to any in-ground works, a detailed ground investigation will be carried out. This will include detailed investigations of the existing footings (checking extent and bearing capacity), ground conditions and rock strength and joint massing. A full dilapidation assessment will be carried out on the buildings and any affected adjoining buildings. During the works, a noise and vibration management plan will be implemented.

Design of the new basement will encompass new underpinning works. Based on local information of adjoining buildings, the substrata for the buildings is anticipated to be class III sandstone approximately 2.0m to 4.0m below the existing ground surface.

A full investigation and survey of existing in-ground services will be carried out to confirm location and depth of services, especially the existing storm drain running down Loftus Street and the coordination required with the proposed building tunnel link.

Preliminary desktop studies anticipate that the storm-drain may be 4.0m below existing ground level to the crown and the storm drain itself approximately 1.1m in diameter (oviform). Concept structural engineering advice has provided a clearance of 1.0m from the underside of the storm drain so that the new link tunnel can pass beneath the existing storm drain.

New excavation works will commence and material loaded out progressively from the nominated access points. Once the head work area has been established for the tunnel (in both buildings), then tunnelling can commence.

STRUCTURE, STRENGTHENING & FIRE RATING

Following the demolition and underpinning works, the new structural works and associated strengthening and fire rating upgrade works will be carried out. Refer to TTW Structural Report 151903 (Draft), Sandstone Precinct – Lands Building and Education Building (Sept 2016).

New Structure

Vertical elements will be constructed using conventional formwork and/or steelwork pending final design solutions. Suspended decks will be either in reinforced concrete or steel decks with reinforced concrete topping slabs. Opportunities to prefabricate elements will be investigated.

New lift cores will generally be constructed to brace the buildings and provide lateral support. Demolition sequencing to be staged accordingly and interfaces with existing structure confirmed during detailed investigation phases as part of the design.

New floors are planned to the Education Building. To allow the new floors to be constructed on the education building the structural engineer will determine structural requirements and strengthening of the existing structure. This will involve detailed investigation and testing of the existing structure. Areas that require new heavy loads, such as the new pool, will require detailed coordination of structural requirements with surrounding areas.

It is anticipated that the new floors will be structural steel with bondek/concrete slabs. Alternative flooring such as hollow-core planks will also be investigated. The critical nature of the design will rely on a lightweight solution so that we minimise loading to the existing structure and foundation compared to a traditional reinforced concrete frame solution.

Strengthening & Structural Fire Rating

The existing structure (applicable to both Lands and Education Building) will require strengthening to deal with earthquake loading and new loads from the alterations and additions. Careful analysis will be required together with detailed investigations. The impact of structural strengthening will be assessed with the heritage interface, impact on the building fabric and compliance with relevant codes.

Structural components will be required to be coordinated with fire rating (FR) upgrade requirements – FR upgrade details will be developed during the design process with reliance on site investigations and development of site-specific systems (that would require testing).

The investigations will be a key part of the design process and will have to be done early in the design process. The investigation will involve detailed survey and sample testing (e.g. compressive strength testing and materials testing). Pending the results of investigations, more detailed modelling may be required on specific elements such as stair structures and core re-locations.

The strengthening works will be coordinated with the heritage consultant. Strengthening works will include core strengthening (introduction of new cores) and ensuring the wall/floor connections are robust to ensure transfer of loading especially during the earthquake load case.

Other strengthening works as a result of earthquake upgrades may include the following works:

- Carry out static analysis to confirm extent of upgrades
- Stitch the main steel floor beams to supporting masonry at each level
- Provide new steel members to tie together existing walls supporting masonry arches
- Tie the building together (diaphragm action) at each floor at roof level.
- Removal of any hazardous materials.
- Connect and pin other pediments and architectural components (e.g. stone sculptures) to structure.
- Bracing floor structures
- Investigation and review of dome structures.
- Steel frames and transfer structures to clock towers

FAÇADE

The façade works will be carried out off the scaffold and will generally involve repairs, cleaning and refurbishment of the windows to meet current standards. The scaffold will be fully enclosed with access maintained to ground floor entrances. All areas will be protected during the works.

Existing façade reports have been reviewed and in general, the buildings appear to be in good condition. A key aspect of upgrades (aside from the strengthening required to architectural components such as the stone sculptures) will be window treatments to ensure acoustic and thermal performance requirements are met.

Further investigation of the facades will be undertaken and a scope of work for restoration and cleaning will be agreed. Window treatments will be reviewed to ensure heritage fabric is retained. This may involve repair or replacement of some frames and associated window hardware with new internal glazing. This will have to be further reviewed during the detailed design phase.

New façade to the extension (new levels to Education Building) will comprise high quality glazing and associated shading and roofing.

BUILDING SERVICES

Building services integration

Critical to the success of the design and the proposed scheme is the building services design. A focus for the project team has been on understanding existing services reticulation and coordination of new works requirements so that the services solution has minimised the impact on the heritage fabric of the building.

Aspects of the design considered during design workshops include:

- Review of existing building services documentation and site visits to inspect existing plant spaces and uses.
- Building demand analysis to ensure maximum demand is assessed and spatial requirements for substations are understood together with any back-up generator requirements
- Heating and cooling assessments carried out to determine the plant room spatial requirements
- Ventilation requirements reviewed
- Fire engineering advice
- Lift traffic analysis carried out to determine efficient lift configurations.
- Hot and cold water systems
- Kitchen waste drainage systems.
- Services reticulation

FIT-OUT BUILDING

The building is undergoing the adaptive re-use to establish an approximate 250 room luxury hotel. Fitout will require the establishment of these rooms within the existing envelop along with all required servicing functions such as kitchens, laundry, restaurants, bars, lobby, retail, health facilities, and the like. The details of fitout requirements will be established during design development.

EXTERNAL & PUBLIC DOMAIN WORKS

Scope of works for external / public domain areas will be established during the design development phase and via consultations with Council and other applicable stakeholders. At this stage, due to the heritage positioning of the buildings, no major adjustment to existing external areas / public domain is currently envisaged e.g. no awnings.

Site Layout, Logistics and Materials Handling

Site logistics plans have been prepared and included as Appendix Attachment 1:

- Site logistics plan – Site establishment, crane locations and soft strip and demolition phases
- Site logistics section 1 – site establishment, crane locations and soft strip and demolition phases
- Site logistics section 2 – Structural demolition and modifications
- Site logistics section 3 – New construction phase including basement works
- Site logistics section 4 – New construction phase

Plans/Sections are to be read in conjunction with the below information:

HOARDINGS AND OVERHEAD PROTECTION

The site will be secured on the adjoining streets with the use of B-Class hoardings where ongoing overhead protection is required (and/or where being utilised for site amenities). Where dimensions of the footpath permit, A-class hoardings will be used. At all times the guidelines and approvals of Sydney City Council will be adhered to. Hoardings will be secure, clean and provide safe containment of the site. At all times the guidelines and approvals of Sydney City Council will be adhered to. Where minor works – such as minor

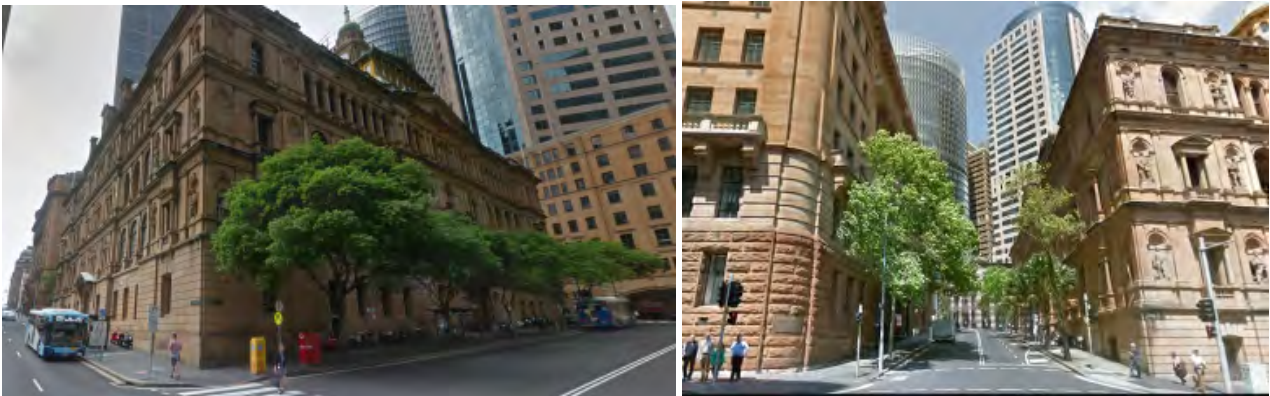
rectification / cleaning to works to façade from rope access – footpath areas will be temporarily cordoned off.

Hoardings will have applicable gates to facilitate truck and worker access and egress. Pedestrian/vehicle traffic management shall be implemented to appropriately control vehicles crossing the footpath (incl. management of hoarding gate operation).

TREE PROTECTION

Several trees are in the vicinity of site which may require protection, pruning and/or removal (with subsequent replacement) to allow works to be completed to the buildings. To the extent reasonably possible the Main Contractor would coordinate shed locations, crane movements, and overhead protection to 1) eliminate impact on trees, 2) mitigate impact.

The development of the site tree strategy will be completed in conjunction with City of Sydney arborists prior to any works occurring on site that would have a likelihood to impact on the trees.



Trees surrounding site

SCAFFOLD

Where required the site will be secured on the adjoining streets with scaffold (above B-Class or from Ground Level where site layout permits). Scaffolding will be required externally to the entire façade area and internally the atrium. External scaffolds will include appropriate encapsulation such as shade cloth.

Scaffolds will be secure, clean and provide safe containment of the site along with access. At all times - erected, dismantled and/or altered - Code of Practice, Australian Standards, Manufacturer Guidelines, Engineer Instructions and approvals of Sydney City Council will be adhered to.

Engineers design details on the proposed scaffold in accordance with the relevant Statutory Authority and Australian Standard requirements must be provided prior to any installation of scaffold to the site. Independent engineer inspections will be conducted during the course of the project.

Handover certificate from the installer will be required prior to a scaffold being opened for use, including following any additions or alterations made to the scaffold. A suitable identification tag (e.g. 'ScaffTag') is to be attached to each access point to the scaffolding to inform users that the scaffold is fit for use and to inform of the next date of inspection.

The scaffold erection subcontractor is to conduct a full inspection of the scaffold, in accordance with the requirements of AS/NZS 4576 – 'Guidelines for Scaffolding' on a monthly basis and provide a written report on the condition of the scaffold to the project's site management. If the scaffold or any section of scaffold is

not suitable for use, appropriate signage (scaffold incomplete do not use or similar), is to be displayed to prevent any further use until necessary rectification has been carried out.

It will be necessary also to coordinate scaffolding with the heritage fabric of the buildings – detailed scaffold drawings will be produced prior to any scaffolding commencing on site to respond to the heritage interface.

WORKS ZONES

Works Zones are envisaged to:

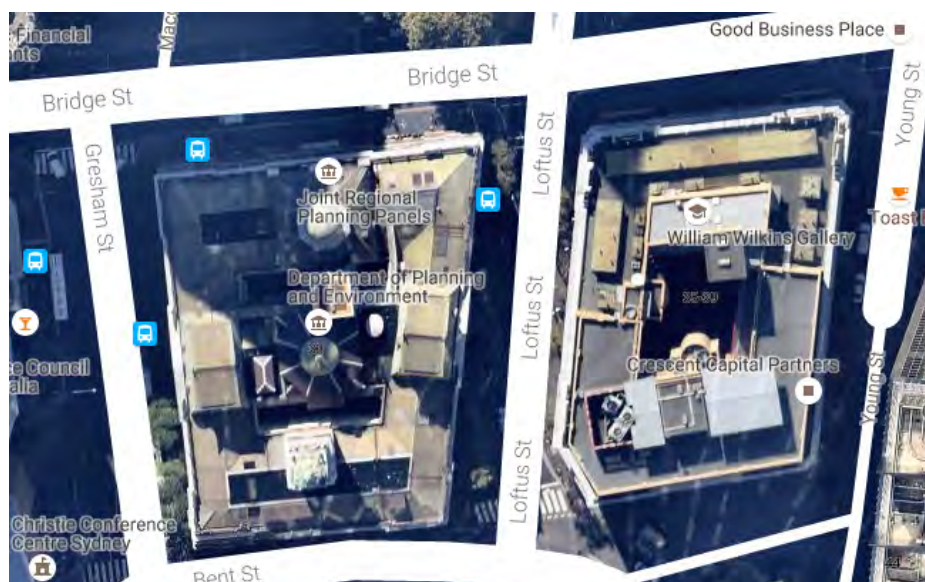
- Gresham Street (east)
- Loftus Street (east & west)
- Young St (west)

Consultation with Council & third party traffic planners regarding the location of the necessary Work Zones will be carried out during pre-construction planning and as part of the Works Zone application process with Sydney City Council / Traffic Committee.

Works Zones to Bridge St have been avoided at this stage of the planning given Bridge St is a main east-west travel path within the city coordinating with the light rail works. Advice from specialist traffic planners will be sought for confirmation on activity constraints associated with Bridge St.

Work Zones will be staffed with full time traffic controllers to regulate the use of the Work Zones and to provide control of traffic and pedestrians during vehicles movements into and out of the Work Zone. The details of these processes shall be established in the detailed Traffic Management Plan which shall include processes to manage the interface with the adjacent bus stops and pedestrian crossings

Approval of the Work Zone will be sought from the Traffic Committee prior to Construction Phase commencing.



Bus stops in the vicinity of site.

MATERIAL DELIVERIES

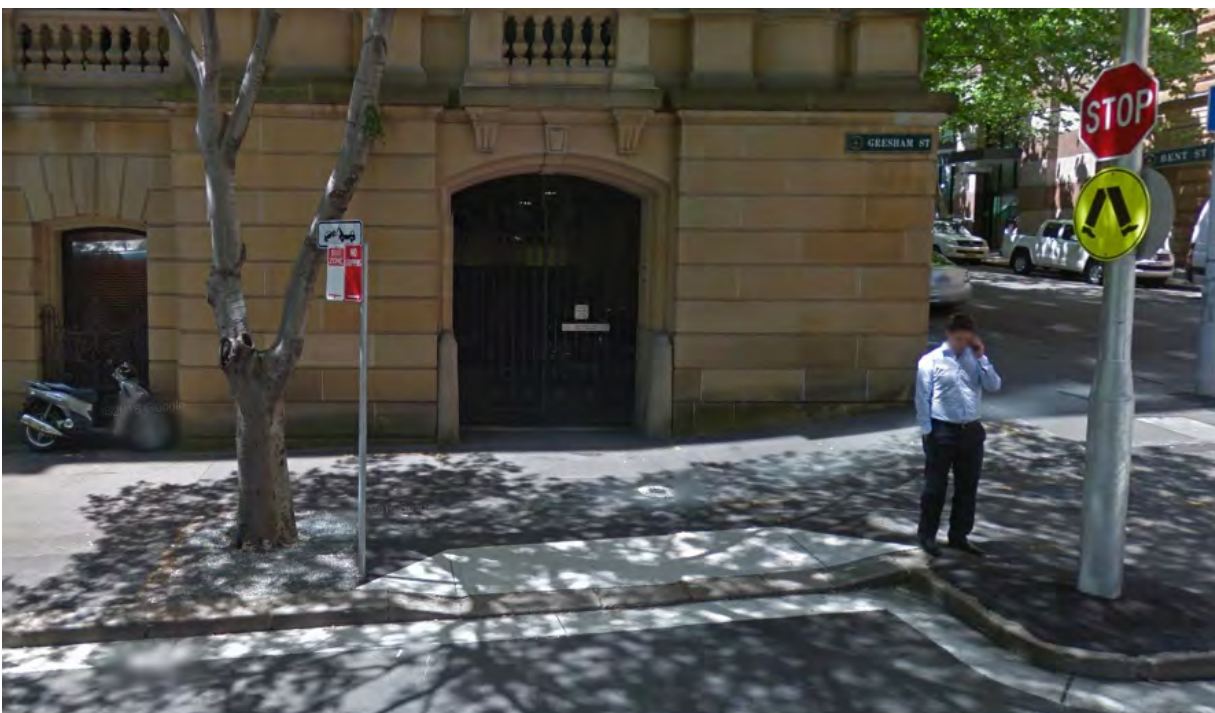
Materials deliveries (and loading out of demolition and excavation materials) will be predominately from Works Zones established to adjacent streets and moved by crane to loading bays. Some requirement will be required for “drive-in drive-out” which will utilise existing and temporary access paths – however – given the sensitive heritage constraint – this will be limited where reasonably possible.

Site Layouts included as Appendix Attachment 1 provide location of preliminary Works Zones and building access/egress points for materials handling.

Development of a final materials deliveries strategy will be completed in conjunction with a Traffic Engineer and included in the site specific Construction Traffic management Plan.



Existing driveway and delivery path to Education Building via Loftus St.



Existing driveway and delivery path to Lands Building via Gresham St.

MATERIAL MOVEMENT ON SITE

Materials handling (& personnel) within the buildings will be managed with the use of man & materials hoists which will be installed within the existing structure. Installation of a permanent building lift will be fast tracked to permit the earliest possible removal of the man & materials hoists and the subsequent infilling of any associated penetrations. Building stairs will also be available as they are completed to provide options for material movements.

Site cranes will work in conjunction with the hoists for material movement.

CRANE, HOISTS AND LOADING PLATFORMS

Cranes, hoists and loading platforms will be used within the building to ensure safe and efficient material and worker reticulation. Locations are subject to final coordination with the proposed works.

Cranes

At the commencement of the works to site, it is proposed that tower cranes be erected to both buildings. The tower cranes will be used for the bulk of materials handling on the project. Road closures (partial) and mobile cranes will be required for the installation and removal of the tower cranes and will be coordinated through the required processes of Council.

The site logistics plans show proposed crane locations and associated work zones/lifting zones. All lifting zones will be adjacent to B-Class hoardings providing protection to pedestrians. Traffic control will be engaged during work zone operating hours (subject to final approval with City of Sydney Council).

Loading Platforms

Loading bays will be required to each level (of both buildings) to permit the safe and efficient movement of materials and waste around and from the site.

Lifts / Hoists

Existing lifts will be utilised during the demolition phase until such time that they are decommissioned and removed. Construction hoists will then be installed to serve the respective levels of the buildings for final demolition and through construction until removed once new building lifts are able to be utilized.

SITE ACCOMMODATION

The site accommodation will generally be located on the B-Class hoardings with temporary facilities located within the existing buildings and staged accordingly to suit the program of works. There will be a secure entrance with single point access to each building and manned sign in/out facilities.

PARKING

There will be no permanent parking on site. Workers will be encouraged to utilise public transport and, if required, make arrangements with private parking stations within the CBD.

Short term parking for deliveries and construction vehicles will use existing loading docks and established Works Zones on Gresham Street, Loftus Street and Young Street. These areas will be strictly limited to vehicle movement for material handling.

SITE SECURITY

Lockable gates will be utilised to keep the site secure from unauthorised access.

Heritage and Archaeological Management

CONSERVATION MANAGEMENT REPORTS

Updated Conservation Management Reports have been developed for each building:

- GBA Heritage, Conservation Management Plan, Education Building, dated October 2016
- GBA Heritage, Conservation Management Plan, Lands Building, dated October 2016

These reports will form the basis for the development of detailed heritage (& archaeological) strategies for the project. This includes the GBA Heritage Statement of Heritage Impact (Sept 2016) document, referenced further below.

HERITAGE

GBA Heritage have compiled the Statement of Heritage Impact, Lands and Education Buildings, 23-33 & 35-39 Bridge Street, Sydney (September 2016) document. Among other things, the document assesses the current design proposal against requirements outlined in the Conservation Report referenced above.

GPNSW maintains responsibility for providing the report/assessment with regard to 'Movable Heritage'. This document had not been provided at the time of this Construction Management Plan. An update to the Construction Management Plan may be required once the detail requirements of 'Movable Heritage' are provide.

In consultation with the heritage consultants, a management plan (responding to the current conservation reports and Heritage Impact Statement) will be developed to ensure agreed measures for the protection and relocation of heritage items where applicable. The Main Contractor will have a dedicated resource to oversee heritage matters due to the nature of the works and value placed on the heritage items.

The management plan will be a referenced document of the Construction Management Plan and will address the following items:

- Process for development of 'Conservation Schedule of Works' (as referenced in GBA Statement of Heritage Impact)
- Process for completing photographic recording (providing consultant access etc)
- Salvage & storage strategy
- Moveable heritage items including detailed collections management plan in consultation with relevant agency(s)
- Building services integration
- Structural upgrades and strengthening coordination with heritage
- Protection of heritage items (potential adverse material impacts risk register)
- Communication and approval flowchart

All new works with the potential to impact and/or requires interface with heritage items and/or fabric will be documented and recorded. Archival recording of heritage premises shall be undertaken to standard requirements of a Development Consent.

Prior to the commencement of works to an area with the likelihood of impact to heritage items, the Main Contractor is to provide a register of site protection strategies to mitigate any adverse material impacts associated with Heritage. Refer to Appendix 8 for Contractor Heritage Management Plan (note this will be included in the updated CMP for Construction Certificate).

ARCHAEOLOGY

The following archaeological assessment report has been prepared in response to archaeological requirements of the development site:

Archaeological Assessment of the 'Sandstone Precinct'-Lands Building, Education Building, Road & Public Reserves at Gresham Street, Loftus Street and Farrer Place, Sydney. Prepared for Pontiac Land Group by Curio Projects DRAFT REPORT October 2016

The above assessment was commissioned to provide an update, and builds upon the recommendations, of a previously completed archaeological report:

Archaeological Assessment 'Sandstone Precinct': 23-33 Bridge Street (Lands Building), 35-39 Bridge Street (Education Building), and road and public reserves at Gresham Street, Loftus Street and Farrer Place, Sydney (November 2014) by URBIS

The Curio Projects Draft Report of October 2016 referenced above now supersedes the URBIS Report. The Curio Project's Archaeological Assessment identifies the likelihood of finds ('Potential') as ranging across low-moderate-high depending on the particular period/item etc and the importance of potential finds ('Significance') as a range across Local-State relative to the NSW Heritage criterion outline. The Curio Archaeological Assessment is to be referred to as part of the construction management process.

As sub-surface works are proposed within the design there will be a requirement for ongoing archaeological assessments and investigations as works proceed – such as planning for potential / unexpected finds. An Archaeological Management Plan (AMP) will be developed to manage this process to ensure the required hold points and risks are identified. It is anticipated regular inspections will take place and progressive clearance obtained before moving to the next level or area of excavation.

The AMP will provide details such as unexpected and/or significant finds protocol and design management process to achieve insitu retention of finds if applicable. The Main Contractor will be required to assign a dedicated member of the team to provide the heritage/archaeological interface with the consultants and authorities involved.

Curio Project's report provides that a Section 60 application is not required to be submitted to the Heritage Council of NSW – however - the overall archaeological requirements and expectations for management of archaeological resources remain the same.

Aboriginal Archaeology

During site works the Main Contractor will follow the methodology for unexpected Aboriginal archaeology developed by Curio Projects to guide the management and possible investigation (where required) of potential Aboriginal heritage within the study area. Refer Aboriginal Cultural Heritage Methodology and Methodology for Unexpected Aboriginal Archaeology (Curio Project Sept 2016).

It is highlighted that should unexpected, potential skeletal remains or Aboriginal objects be discovered during the works program, then works must cease in the immediate area and the project archaeologist contacted for advice.

Historical Archaeology

The below is an outline of Curio Project's assessment recommendations made regarding the management of historical archaeology within the Sandstone Precinct (Reference Curio Project's Assessment for full detail).

- Prior to commencement of excavation on site, an Archaeological Research Design and Excavation Methodology will be required to be prepared and submitted to the DPE for approval. The Main Contractor will be required to contribute to the methodology such as determining site WHS requirements and building works.
- There is a need to archaeologically investigate, record and remove 'relics' of local and State significance in accordance with an approved historical archaeological methodology that complies with NSW State Government heritage policies and guidelines. The Main Contractor will coordinate with a project archaeologist and specialists to complete as required.
- The Bennelong Stormwater Channel no. 29 runs below Loftus Street, and along Gresham and Young Street. It is of State significance and will need to be protected during any works program. The Main Contractor will be required to confirm protection strategy in consultation with project Excavation Director.
- The Lands Building is surrounded by a subterranean moat that is located around the exterior of the building. This moat forms part of the state significant fabric of the building and will need to be protected during the works program. The Main Contractor will be required to confirm protection strategy in consultation with project Excavation Director.
- The development impacts should aim to minimise ground disturbance and excavation impacts to ensure that potential State Significant archaeological resource are preserved, where possible, as part of the redevelopment of the site. The Main Contractor will be required to ensure that nil unnecessary over-excavation occurs during the works.
- Due to the potential significance of the site, the archaeological investigation should be managed by an Excavation Director that meets the State Significant Excavation Director Criteria issued by the NSW Heritage Division. The Main Contractor will be required to coordinate with the Excavation Director.
- It is highlighted that should unexpected, potential historical archaeological 'relics', skeletal remains or Aboriginal objects be discovered during the works program, then works must cease in the immediate area and the project archaeologist contacted for advice.
- Depending on the nature and extent of the find, further consultation with the NSW Heritage Division and/or OEH and archaeological investigation may be required, prior to works recommencing on site.

Layouts of Archaeological Potential

The following layouts map out the areas of anticipated archaeological find potential across the site. The level of 'potential' coupled with the excavation work to that area will provide direction on the requirements for methodology of archaeological works to be undertaken. These methodologies will be agreed with the project's archaeologist prior to works being undertaken.

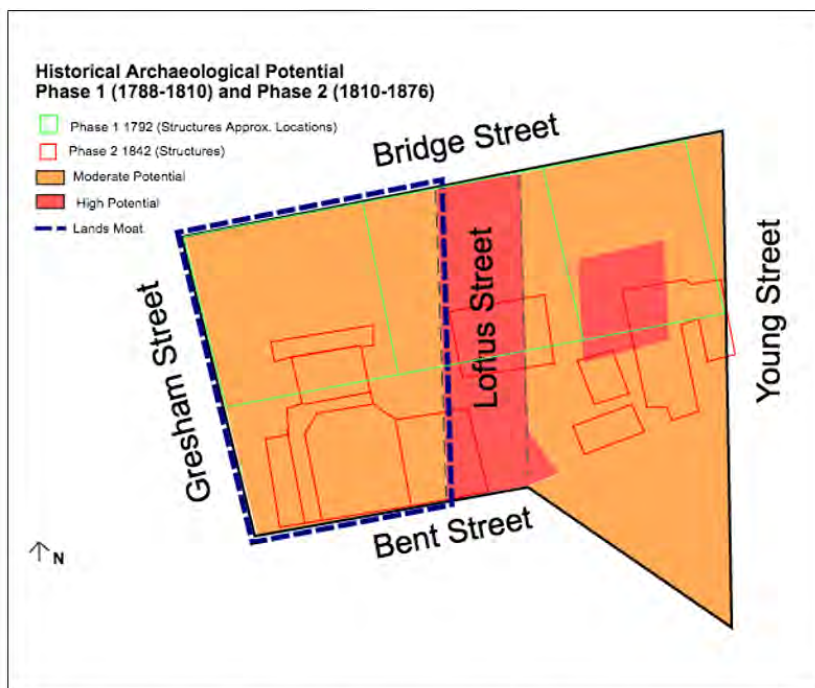


Figure 6.2: Phase 1 (1788-1810) and Phase 2 (1810-1876) Historical Archaeological Potential. Indicative structures of locations based on historical plans and maps. (Source: Curio Projects 2016)¶

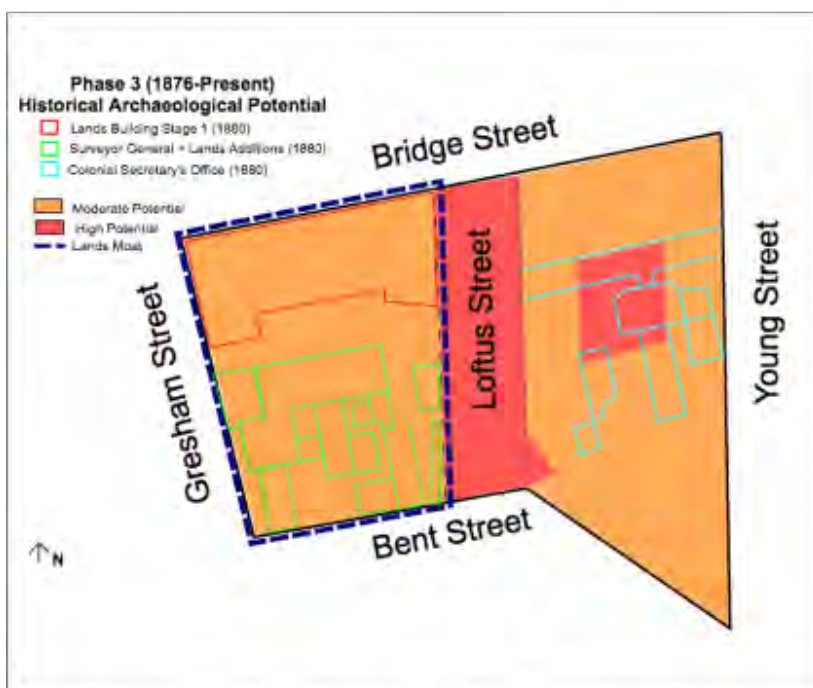


Figure 6.3: Phase 3 (1876-Present) Historical Archaeological Potential. Indicative structures of locations based on historical plans and maps. Structures locations based on Dove's 1880 Plan of Sydney (Source: Curio Projects 2016)¶

DILAPIDATION SURVEY

Dilapidation Survey will be required to include focus on Heritage and Archaeological items. Refer to below 'Dilapidation Survey' section of this CMP.

Dilapidation Survey

Prior to commencing work onsite a Dilapidation Report will be completed by a specialist dilapidation survey consultant. The survey will document the existing condition for:

1. Neighbouring buildings - Extent to be determined during pre-construction planning.
2. Adjoining public areas – footpaths and the like.
3. Adjoining authority assets
4. Heritage & Archaeological Conditions (both onsite and/or to surrounding area). Dilapidation surveys for heritage and archaeological items may also be conducted in combination with the Heritage Consultant.

Dilapidation Surveys will be issued to all adjoining neighbours and other required stakeholders when completed at the commencement of the project. A post completion comparison survey will also be issued at the completion of construction works.

Adjoining and Adjacent Neighbours

ADJOINING OWNERS MANAGEMENT

Communication

The Main Contractor will develop a project specific Communications Management Plan during preliminary phases of the project and prior to any works commencing on-site. This communication plan will structure the process of engagement with adjoining owners through all phases of the project.

As the project will be highly prominent within its area of the Sydney CBD, covering two city blocks, face to face town hall style meetings will form a central part of the communication strategy. Prior to commencement of works, the Main Contractor will undertake one of these town hall style communication briefings with the adjoining owners (incl. tenant representatives').

This initial briefing will involve an outline of the construction sequence, together with an overview of the staging and timing of the works – and be a forum providing an opportunity for input from the owners and tenant representatives before finalising the project methodology, communication protocols, and the like.

Generally, this process would seek to define:

- Introduction of the contractor team and key contacts
- Lines of communication and a single point of contact for each neighbor building
- Information on the buildings to assist in assessing impacts, critical items etc.
- Times for site inspections within the leased premises
- Program for regular communication meetings
- Develop a notifications protocol for unique work
- Access for monitoring etc
- Provision for overhead protection

The Main Contractor's project team members will be available to attend stakeholder internal briefings if required to communicate specific details of the proposed works.

Public Amenity, Safety and Pedestrian Management

HOURS OF WORK

Works will generally be in accordance with the City of Sydney Code of Practice for Construction Hours/noise within the Central Business District (1992).

Whilst the main construction will be conducted during conventional working hours from 7am to 7pm Monday to Friday and 7am to 5pm Saturdays, a number of operations such as services shutdowns and connections and tower crane erection and removal will be conducted out of normal business hours.

NOISE & VIBRATION MANAGEMENT

Objective

To minimise the generation of noise and vibration from construction activities occurring on site and its impact on heritage interfaces, surrounding property, residents, businesses and workers.

The key measures to addressing this issue are as follows:

- Elimination and/or mitigation of noise & vibration.
- Identification and development of management strategy for impacted parties and properties.
- Establish and maintain relations with community and neighbouring properties.
- Establish communication process with key stakeholders.

Note: Vibration is additionally a critical constraint for the heritage interface – including but not limited to sandstone feature façade.

A specialist consultant will be engaged to develop a site specific Noise and Vibration Management Plan.

Noise Management

The immediate neighbours and pedestrians in the vicinity of the Sandstones Project will be the primary external stakeholders for Noise Management.

Typical requirements for noise management of construction sites are expected and will be adhered to. During Site Establishment, assessment of noise transfer throughout the existing buildings will be carried out to determine the extent to which construction noise of various levels is transferred. This assessment will permit more accurate management methodologies to be established.

Communications strategies will be established and documented within a project specific Communications Management Plan (to be completed prior to the commencement of works on site). Appropriate external stakeholders communication will be carried out to ensure they remain informed and are aware of the reporting channels for any enquiries that they may have during the project.

All works will generally be in accordance with the City of Sydney Code of Practice for Construction Hours/noise within the Central Business District (1992).

Ongoing monitoring will be incorporated with measures to control noise established during the design phase such as construction techniques and equipment selection.

Vibration Management

Vibrations Management requirements for the project will be further outlined in a project-specific Noise and Vibration Management Plan to be completed by a specialist consultant. The plan will draw on the project

Acoustic Report, Heritage Reports and the project Geotechnical Report – all of which are scoped to include identification of vibration control areas. The Noise and Vibration Plan will also be required to be referenced in associated plans such as Demolition and Excavation Plans.

Ongoing monitoring will be incorporated with measures to control vibration established during the design phase such as construction techniques and equipment selection. An example of this would include the need to “saw” the rock during the removal process for the basement to mitigate the transfer of noise through the bedrock. The vibration control will also include flashing lights and sirens associated with the vibration monitoring units – especially to sensitive heritage zones such as the sandstone facade.

A Noise & Vibration Management Plan for the projects Demolition, Excavation, Tunnelling and Construction works will be included as Appendix Attachment 6. Refer to Appendix Attachment 6 for specific detail on vibration management for the project (note currently listed in appendix as to be issued as part of the CMP update for CC).

The following will be the primary stakeholders for Vibration Management and shall require detailed consideration for building damage and human comfort levels.

- Immediate neighbours
- Heritage assets (within the project site and external to the project site)

Similar to Noise Management referenced above, communication, complaints & reporting strategies will be critical in ensuring all stakeholders are informed of the progression of the works and are made aware of the reporting channels for any enquiries that they may have during the project. This process will be outlined in a project-specific Communications Management Plan prior to commencing works on site.

TRAFFIC MANAGEMENT

A site-specific Traffic Management Plan (incl. Pedestrian Management) has been completed by SBMG Pty Ltd and included as Appendix 5. The TMP provides an outline of the requirements to ensure the safe operation of the site and minimise any disruption. The plan identifies:

- Works Zone Layouts
- Traffic controller / signage positioning
- Truck movements for the project. This will include entry and exit requirements from the site (basements) and Works Zones.
- Modelled Traffic flows
- Concrete pumping areas
- Mobile crane areas will be shown.
- Pedestrian access/egress points

At all stages, the traffic management plan will be developed and site operated in line with City of Sydney requirements for traffic and pedestrian control and the safe operation of the site.

Traffic management for project will also coordinate requirements of inputting authorities such as Transport for NSW and NSW Police.

Refer Traffic Management Plan in Appendix Attachment 5

STREET & FOOTPATH CLOSURES

Final street and footpath planning will be completed during the pre-construction phase and will form part of the site-specific Traffic Management Plan (to be completed for CC submission). A working space area of Farrer PI adjacent to the Education Building will be sought to facilitate building works. This area will utilise A-Class hoarding to safely separate pedestrians. Adjustment of Loftus St to one-way North bound with Works Zones in place on both the East and West roadsides plus single side pedestrian access is currently proposed.

PEDESTRIAN MANAGEMENT

Pedestrian Management requirements will be included within the site-specific Traffic Management Plan.

To allow for continuous public access, materials handling and management of pedestrian safety, some diversions from existing pedestrian routes will be required for large periods of the work.

- 1) A working section of Farrer Place adjacent to the Education Building is intended to be fenced off. It is not envisaged that this will have a material impact on pedestrian flow.
- 2) B-Class hoardings (with scaffold) will generally be in place on footpaths adjacent to buildings where overhead protection is required. It is not envisaged that this will have a material impact on pedestrian flow.

A busy zebra crossing is in place at the Bent St / Loftus St Intersection. This is a significant vehicle path servicing Works Zones in Loftus St. The Traffic Management Plan will provide a response to the management of this crossing which will include utilising the Traffic Controllers in place in Loftus St to ensure pedestrians and vehicles are safely and efficiently coordinated in this area.



Zebra crossing is in place at the Bent St / Loftus St Intersection

TAXIS

Bent Street - Adjacent Education Building (Farrer PI)

A taxi-rank is in place on Bent Street (Northern kerb – east of Loftus St) with the majority of patrons being general pedestrians / business workers. Impact on the taxi rank by the development will be reviewed in the Traffic Impact Report and any management requirements be outlined in a site-specific Traffic Management Plan. At this stage it is not envisaged that the development will have any impact on the taxi rank.



Bent Street - Adjacent Lands Building

A taxi-rank is in place on Bent Street (Northern kerb – west of Loftus St) with the majority of patrons being general pedestrians / business workers. Impact on the taxi rank by the development will be reviewed in the Traffic Impact Report and any management requirements be outlined in a site-specific Traffic Management Plan. At this stage it is not envisaged that the development will have any impact on the taxi rank.



Workplace Health & Safety

BUILT POLICY



WHS MANAGEMENT PLAN

The project team will develop a site-specific WHS Plan for the project that will be the central management document for all site workplace health and safety. The WHS Plan is the road map for outlining the OHS practices for the project and for providing clear guidelines for the Main Contractor's team and its subcontractors on the systems to be established, implemented and maintained in order to provide a safe workplace for all – including safe interfaces with external stakeholders such as pedestrians.

It will be reviewed by the Safety Manager and Construction Manager prior to being issued as a working document to the team and any necessary external parties. The HSE plan contains the WHS&E risk register that is reviewed and updated on a regular basis during the course of the project.

The Main Contractor's OH&S management system that will underpin the project safety meets the requirements of the Australian Government Building and Construction OHS accreditation scheme and should be audited both internally and externally every six months. The Main Contractor is also required to be compliant with AS/NZS4801 Occupational Health & Safety Management Systems.

Main Contractor site teams are required to be trained into the company's OHS management system and monitor its implementation for the duration of the project.

WHS RISK ASSESSMENT

As part of the development of the WHS plan the project team are required to completed a specific risk assessment and compile a Risk Register for inclusion as a supporting document to the WHS Plan. The risk register provides details of all foreseeable hazards and the associated risks together with details of control measures to be implemented on site. The risk register is a live document and is reviewed at least monthly and amended where required. The risk register is provided to all subcontractors who are advised that the register is to be used in the development of their site-specific safe work method statements which are to be submitted to and reviewed by Main Contractor's site team members prior to the works commencing.

The Risk Register will include, but is not limited to:

- High risk construction work,
- Protection for the public,
- Protection for staff,
- Traffic and pedestrian management,
- Mobile plant and materials handling,
- Use, handling, storage and disposal of hazardous substances
- Ensuring that the correct safety documentation is submitted and reviewed prior to the commencement of work on site.

TRAINING AND INDUCTION

A site-specific induction will be developed for the project and will be attended by any person that is to work and/or visit the site prior to them being allowed access to the site and work areas in general. The induction will include site-specific hazards, health and safety information relevant to their work activities, security arrangements, heritage requirements, Green Star requirements, procedures to be followed in the event of an emergency, no-go zones, identification cards, access to and from the site, and general safety rules and protocols to be adopted; including those requirements in relation to the base building contractor's site safety rules.

In addition, subcontractor's supervisors will be required to provide details of the OHS training they have completed to enable them to oversee the safety of their workers and others under their direct supervision.

SAFE WORK METHOD STATEMENTS (SWMS)

Site-specific SWMS are to be provided by the Main Contractor and its subcontractors for all high-risk construction work in accordance with the Work Health and Safety Regulations, 2011. Each SWMS will be reviewed by the Main Contractor prior to commencing the task to which it relates.

The nominated Main Contractor supervisor will oversee the works to which the SWMS relates to ensure work is being carried out in accordance with the SWMS and shall direct a cessation of the works covered by the SWMS where non-compliance to the SWMS is identified.

SUBCONTRACTORS

Subcontractors will be provided with the project risk assessment and Main Contractor HSE system which outlines the safety requirements specific to the project which the subcontractor is required to comply with. Appendix 4 of the WHS Plan is developed in conjunction with the site risk register and site HSE plan and includes requirements covering, for example, risk management; workplace inspections; hazard reporting; permits to work; isolation and termination of services; site safety rules. Subcontractors will be required to meet the Main Contractor's safety criteria before being considered to undertake works on the project.

MONITORING COMPLIANCE

The site WHS Plan will contain details on how the Main Contractor monitors compliance with the safety requirements applicable to the site. The plan will provide details on frequency of inspections and responsibilities for carrying these out. It will also detail requirements for independent inspections to be carried out on the temporary structures (hoardings, scaffold, etc), temporary electrical installations and other critical areas that may be identified in the site risk register.

CONSULTATION

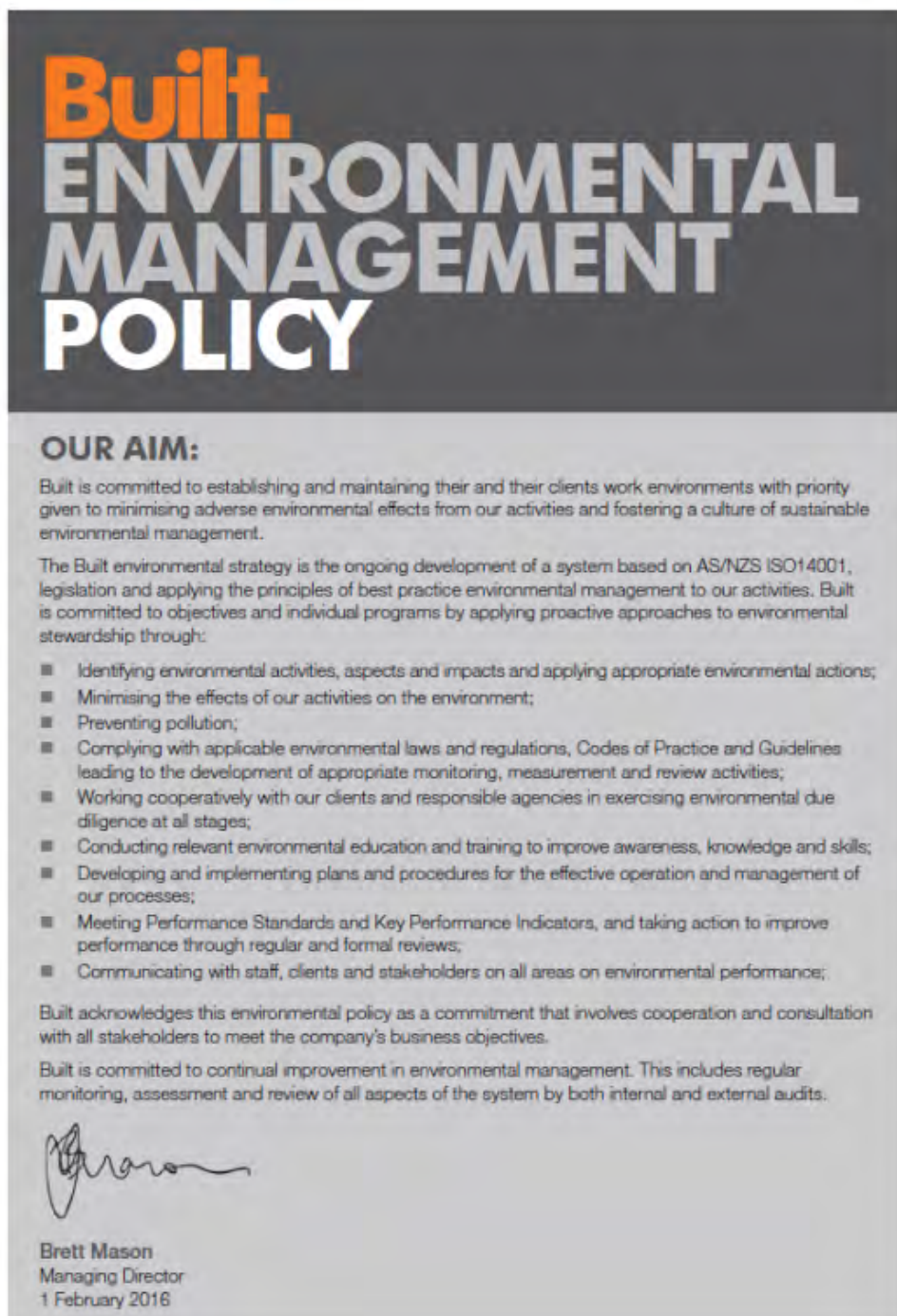
Workplaces have a better health and safety outcome when stakeholders, such as workers, have an input before decisions are made about health and safety matters affecting them. Before work commences, the Main Contractor will establish consultation and representation mechanisms for the project that will allow for meaningful discussions between the applicable stakeholders, employees and the Main Contractor in relation to OHS.

Procedures for dealing with safety issues and concerns, including disputes relating to health and safety matters will be communicated to all personnel during the site specific induction.

The consultative process to be established on the project shall be in accordance with the 'Worker Representation and Participation Guide' established under the Work Health and Safety Act, 2011.

Environmental Management

BUILT POLICY



ENVIRONMENTAL MANAGEMENT PLAN

A site specific Environmental Management Plan will be developed for the project prior to the commencement of site works. The Environmental Management Plan is an attachment to the WHS Management Plan and describes the environmental strategy, methods, controls and other requirements to effectively manage environmental aspects of the project and should be read in conjunction with the Project HSE Plan.

The Environmental Management Plan shall be reviewed at Project Team Meetings and following any significant environmental incident or significant changes to the project scope or methodology at frequencies as required and not exceeding 12 months.

Purpose of the Environmental Management Plan

- Identify the environmental issues (aspects and impacts) relevant to the project;
- Establish the environmental and operational controls to reduce any adverse impacts on the environment from the company's activities, products and services.
- Describe the methods and processes by which the project will maintain compliance with all relevant environmental legislation, any applicable license, approval and permit, regulatory requirements
- Ensure the works are effectively managed so as to eliminate or reduce potential adverse impacts on the environment as a result of construction activities
- Action any outcomes from incidents or accidents, project audits or other identified non-conformances and to continually improve the Environmental Management System.

COMMUNICATION

Community Consultation - Environmental matters on the site that are likely to have an impact on adjoining neighbours and/or property owners/users will be communicated either via a letter box drop or specially arranged consultation meetings. The Project Manager will advise them of the nature and scope of works including any potential impacts. Where required, community consultation will be outlined further in a site-specific Communication Plan.

Performance on environmental matters will be managed by internal site communications such as daily startup meetings and tool box talks (incl. requirement for Subcontractors to also conduct tool box meetings)

Emergency Communication - Built utilise 'Rapid Incident' for its emergency notification system. For any reportable environmental incidents/accidents, a report will be written and a potential investigation will ensue to determine causes and impacts as well as future mitigation techniques.

ENVIRONMENTAL RATING TOOLS

NABERS and Green Star related performance requirements will be agreed and outlined during the project's design development phase prior to site works commencing. Developed ESD initiatives relating to these rating tools will be integrated into the overall Environmental Management Plan when known.

Hazardous & Contaminated Materials

EXISTING INFORMATION AND SUPPLEMENT REQUIREMENTS

An updated hazardous material report has been completed by CETEC Pty Ltd (Phase 1 Hazmat Report: Sandstone Project 23-33 and 35-39 Bridge Street, Sydney, NSW, 2000; Project Reference CN160710 [Draft] Dated 14.09.2016). The report provides a high level overview of hazardous materials – generally visual – and identifies the presence of hazardous material (with reliance also on finding from previously completed reports).

Prior to demolition and construction works being undertaken the report will move from draft to final and include further destructive investigations, sampling and testing where required. Removal of hazardous materials shall be undertaken in accordance with the codes of practice with hygienist providing clearance certificates for the further demolition or excavation.

ANTICIPATED HAZARDOUS MATERIAL

Refer to CETEC Pty Ltd compiled report - Phase 1 Hazmat Report: Sandstone Project 23-33 and 35-39 Bridge Street, Sydney, NSW, 2000; Project Reference CN160710 [Draft] Dated 14.09.2016

In addition, the following previously completed reports are required to be referenced for anticipated hazardous material (noting that the current CETEC Pty Ltd Phase 1 Report relies on testing and reporting completed within these reports:

- Hazardous Materials Survey Report [35-39 Bridge Street Sydney NSW 2000] (Report Number: EMS11 8960 - 14 June 2011) by Environmental Monitoring Services Pty Ltd (ABN 13 050 039 177)
- Hazardous Materials Survey [23-33 Bridge Street, Sydney NSW 2000] (Report number: 001825 – Sydney 23-33 Bridge Street – Report Issue Date: 10/04/2014) by GDH Pty Ltd
- Lands Department Building 23-33 Bridge Street Sydney NSW 2000: Preliminary Environmental and Hazardous Material Assessment July 2014; Napier & Blakelly and Prensa.

IDENTIFIED TESTING REQUIRED FOR HAZARDOUS MATERIAL FINDS

Refer to CETEC Pty Ltd compiled report - Phase 1 Hazmat Report: Sandstone Project 23-33 and 35-39 Bridge Street, Sydney, NSW, 2000; Project Reference CN160710 [Draft] Dated 14.09.2016

UNEXPECTED HAZARDOUS MATERIAL FINDS

If hazardous materials, significantly beyond those identified in the existing surveys (and any subsequent surveys/reports/registers), are uncovered once site works have commenced, the following procedures and principles will be followed:

- Notification to client and associated project stakeholders (both internal and external stakeholders)
- Complete administration requirements – update hazmat register, management plans, WHS Plan.
- Agree strategy with property owner and commence implementation.

If unexpected finds occur during works: Workers would cease work on discovering any Hazmat not identified in the report and then inform their supervisor who would arrange for the appropriate action to be taken.

General procedures for hazardous materials removal (including asbestos) will be carried-out as follows:

- The area to be decontaminated to be bunted off with access only to licensed hazardous material workers with appropriate controls.
- Personal Protective Equipment (PPE) to be worn at all times when in the Hazmat removal zone
- Warning signage (asbestos) to be erected to inform people of the nature of the work being undertaken.
- 'No unauthorized access' signage to be erected
- Removal methodology to be developed and approved by a licensed professional.
- All waste to be removed from site and disposed at a licensed EPA (asbestos) disposal facility with corresponding dockets provided.
- Clearance certificates to be provided on completion of Hazmat Removal.

Note: at times specific details and procedures will vary in response to specific site drivers. Detailed work method statements will be produced identifying final agreed processors at the time of finds.

Site Discharge

Controls will be put in place to ensure that all discharges from the site do not result in:

- 1) Hazardous materials and contaminants entering the Council stormwater system with detrimental environmental outcomes.
- 2) No overloading of council stormwater system infrastructure – eg by blockages caused by site activities.

STORMWATER AND SEDIMENT CONTROL PLAN

Stormwater and Sediment Control Plan will be developed for the project prior to works commencing on site. This plan will provide a detailed response to phases through demolition, excavation / tunneling and construction and provide detail on the management of general site run-off risk.

Planning will ensure that stormwater from the project does not enter adjoining properties, access roads, etc - and that no water entering the council stormwater system contains silt or other contaminants.

The stormwater and sediment control plan includes but is not limited to providing further detail to the key control measures below:

- Detail and location of silt / sediment protection to be installed
- Detail of any pump out facility
- Monitoring process and timing
- Maintenance and cleaning of adjoining/surrounding access roads.

The plan will outline drainage of surface runoff such as to flow along existing surfaces and systems (as the site is a refurbishment / adaptive reuse - with the existing drainage system on-site of kerbs, gutters, gully pits, pipes and stormwater runoff passing through site-installed filtration systems as required prior to being discharged off-site.

Drainage lines would have appropriate sediment controls such as sedimentation socks. Stormwater grate inlets surrounding works areas would be covered with geotextile fabric to allow water to enter into drains while retaining sediments.

All controls would be required to be consistent with the Managing Urban Stormwater: Soils and Construction (4th Edition) ('The Blue Book') as a benchmark for best practice.

DEWATERING

The main works exposed to a de-watering requirement will be excavation and tunneling relative to its relationship with the water-table. The Main Contractor will work with the geotechnical engineer to determine the water-table and complete a de-watering assessment that will identify water ingress volumes. The Main Contractor and consultants and specialists will then design spear point/discharge methodology for approval by Council and NSW Water prior to the commencement of works to the applicable area.

Given the site is generally encapsulated as a refurbishment / adaptive reuse there will likely be limited requirement for additional dewatering. In the event that some other form of dewatering is required during the project works, the Main Contractor will be required to the safe and environmentally compliant management of water discharge from the site throughout the duration of the project.

Management of this process will be controlled via project specific plans: Environmental Management Plan, WHS Management Plan, and a Soil and Erosion Control Plan.

TRUCK WASH FACILITIES

As the project consists of redevelopment / adaptive reuse of existing buildings, with trucks being predominately confined within the Works Zones – very little requirement for truck washing is foreseen. Works Zones will be kept clean at all times to ensure tyres of trucks and vehicles exit in the same condition that they have entered.

Dust Management

OBJECTIVE

Dust and other air pollutants can arise from a range of natural and man-made sources causing various acute and chronic health effects, as well as nuisance and visibility impacts. The objective of dust control on the project will be to maintain the current levels of local air quality during excavation, demolition and construction activities and to minimise the generation of dust on the project site.

Identification and implementation of appropriate controls to suppress dust and other suspended particles in accordance with the consent conditions and risk management requirements will be central to the project's Dust Management Plan.

KEY MANAGEMENT ISSUES

The generation of dust from the site can be a major nuisance to local activities as well as creating unacceptable working conditions and causing the loss of topsoil. The key area to address are as follows:

- Heavy machinery (mobile and fixed) may contribute to emissions (diesel pollution) to the local atmosphere.
- Exposed soils and unsealed vehicle access may contribute to dust generation and affect local air quality, impacts upon native fauna and flora and reduce resident amenity.
- Emissions of dust due to traffic movement. Limit areas of disturbance to the minimum necessary;
- Emissions of dust due to wind erosion of stockpile material and exposed soil.
- Dust from the cutting / hammering of stone.
- Dust generation from site construction activities affecting adjoining properties or public access

DUST SOURCES AND RISK

The main sources of dust for the works will be associated to the demolition and excavation phases from:

- Wind-borne dust from exposed surfaces as demolition progresses
- Wind-borne dust from stockpiles of materials.
- Vehicle movements on site
- Mechanical extraction from tunneling works.

A Hazard Impact & Risk Assessment Control will be conducted for the Project. The main risks initially identified associated from Dust include:

- Respiratory ailments associated with inhalation of airborne dust particles
- Damage to eyes and/or skin due to contact with airborne dust particles
- Damage to property
- Dust within confined space (incl. respiratory & visibility issues)

DUST CONTROL:

Control of dust during excavation, demolition and construction works may include:

- Continuous cleaning throughout dust generating work activities
- Ensuring demolition debris skips are covered at all times
- The use of water suppression, as and when appropriate, to eliminate windblown dust
- The use of sprays/sprinklers to prevent dust blow from stockpiles
- Covering of stockpiles with plastic sheeting or geotextile membranes
- Restriction of stockpile heights to 2m above surrounding site level
- Ceasing works during periods of high winds or heavy rain
- Mechanical extraction systems where appropriate
- Reduce quantum of demolition “breaker” work by cutting structural demolition elements into larger sections for removal by plant
- Encapsulating work areas with site-specific dust-proof structures / scaffolds / hoardings
- Selection of tools and plant with superior dust minimization performance

To control dust generation where necessary, water will be sprayed at the source of origin, over demolition and excavation materials during loading activities to prevent airborne dust particles migrating into the surrounding environment.

Ground coverings, including existing sealed areas of bitumen and concrete, should remain where possible to be the final item for demolition. The ground covering will act as a manageable hardstand for vehicular traffic and to also provide a seal to the underlying material to assist in dust control and minimising erosion and sediment run off.

Additional precautions that will be implemented during the works include the covering of all haul trucks with tarpaulins and the use of mobile water points during the sawing and hammering processing and loading of material.

DUST MONITORING:

Monitoring may be required to assess the effectiveness of the above control measures and for compliance purposes. Monitoring of the above control measures is intended to protect human health and the environment by ensuring that on-site management practices are adequate.

A designated spotter will be onsite for visual monitoring of dust and debris. If further monitoring of ambient air is deemed necessary it will be conducted in accordance with relevant Australian Standards (this will be carried out at a minimum for tunnelling works). It is currently assessed at this preliminary stage that visual monitoring is sufficient to all other work faces based on the limited excavation and demolition exposed directly to the external environment.

Waste Management & Recycling

Rubbish and waste generated during the construction period will be transported from the ground level of the buildings via access points as identified on the site logistics layouts. Suitable rubbish and waste will be recycled to minimise impact on landfill and also achieve any project-specific environmental aspirations. Sorting of waste will occur on site when space permits. At times where site space is not available, sorting will occur off-site.

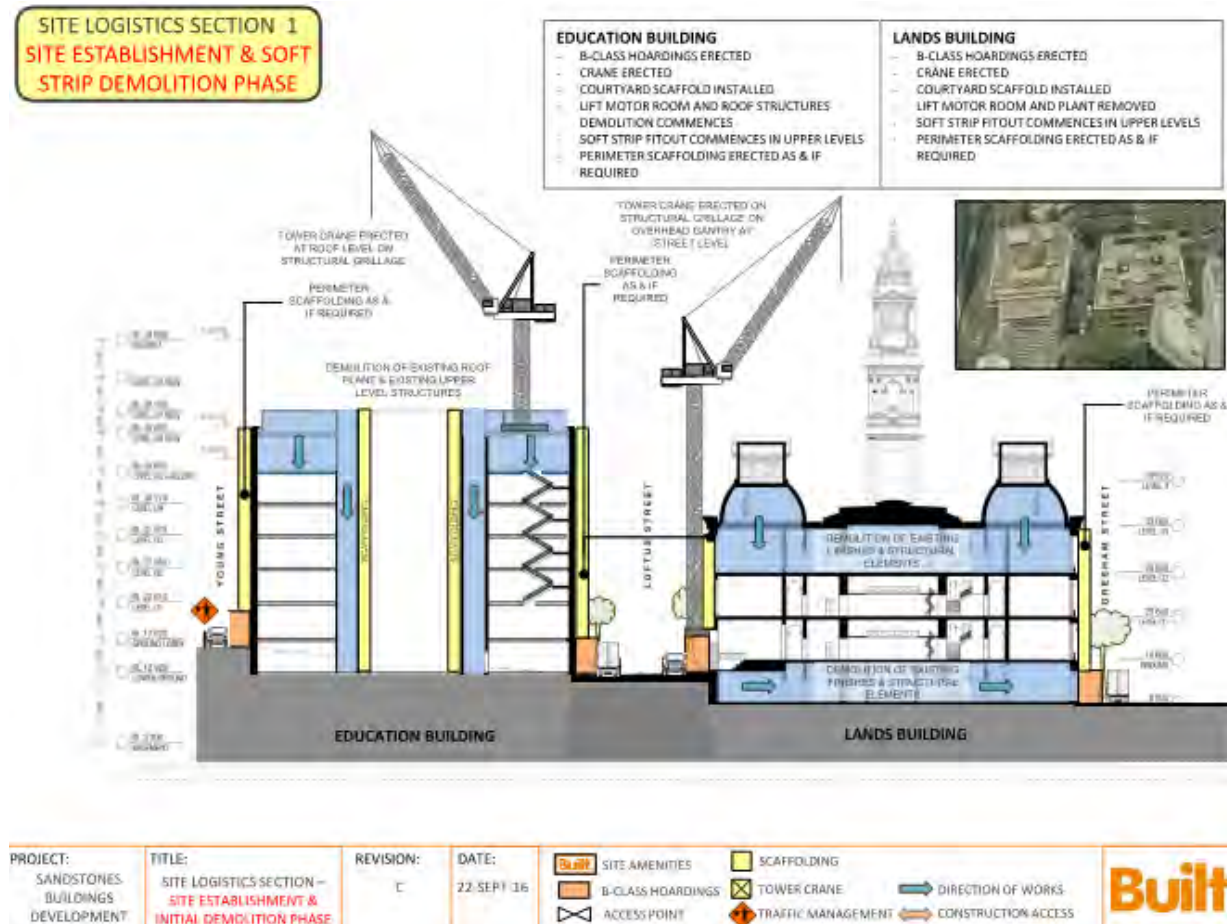
The Main Contractor's first step is to focus on minimising the amount of waste that is generated on the site – e.g. where feasible having bulk packaging decanted off-site prior to delivery. This reduction in waste also minimises associated truck movements handling the waste – a notable beneficial outcome.

Prior to the commencement of works on site the Main Contractor will develop a site-specific Waste Management Plan (WMP). The WMP will be used to control project-generated waste and will respond to all legislative & regulation requirements. It will additionally be a support document for the Main Contractor's Environmental Management Plan and Workplace Health & Safety Plan.

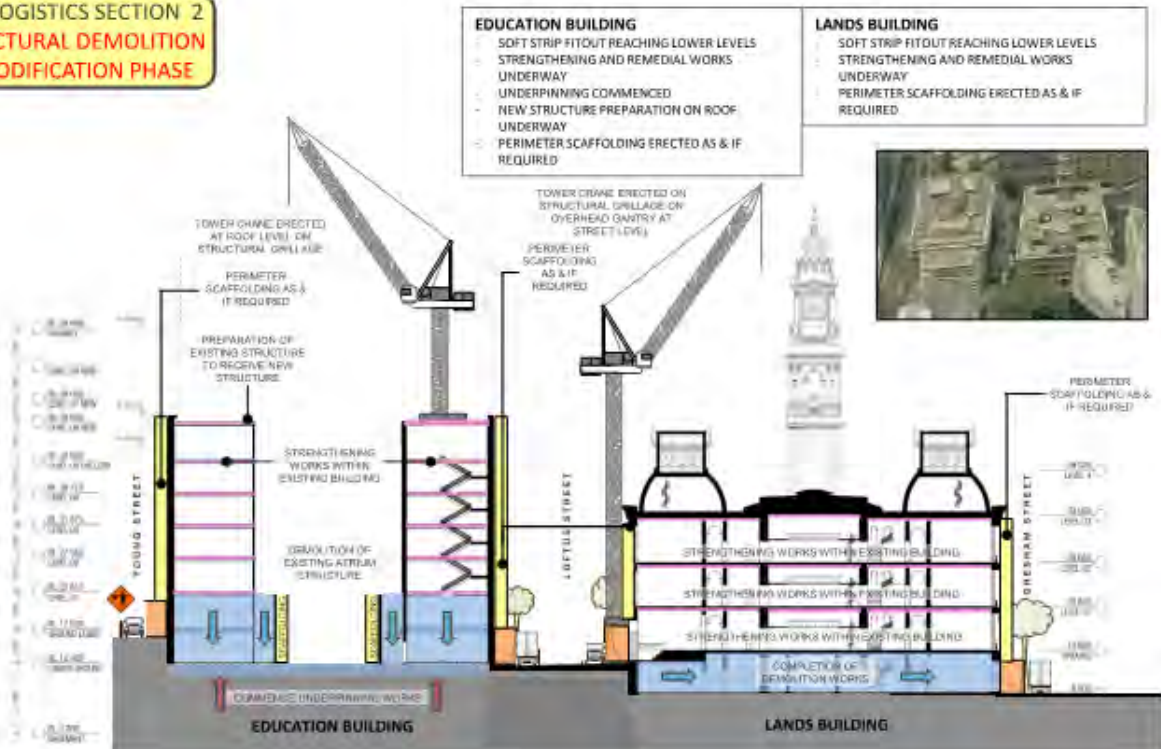
Appendix

ATTACHMENT 1	SITE LAYOUT DIAGRAMS Site logistics plan Site establishment & soft strip demolition phase Structural demolition & modification phase Construction phase stage 1 Construction phase stage 2
ATTACHMENT 2	DEMOLITION MANAGEMENT PLAN [To be included for Construction Certificate submission]
ATTACHMENT 3	EXCAVATION MANAGEMENT PLAN [To be included for Construction Certificate submission]
ATTACHMENT 4	CRANE RADIUS DIAGRAM [To be included for Construction Certificate submission]
ATTACHMENT 5	CONSTRUCTION TRAFFIC MANAGEMENT PLAN [To be included for Construction Certificate submission]
ATTACHMENT 6	NOISE & VIBRATION MANAGEMENT PLAN [To be included for Construction Certificate submission]
ATTACHMENT 7	CONSTRUCTION WASTE MANAGEMENT PLAN [To be included for Construction Certificate submission]
ATTACHMENT 8	CONTRACTORS HERITAGE MANAGEMENT PLAN [To be included for Construction Certificate submission]
ATTACHMENT 9	SITE IMAGES

ATTACHMENT 1 – SITE LAYOUT DIAGRAMS

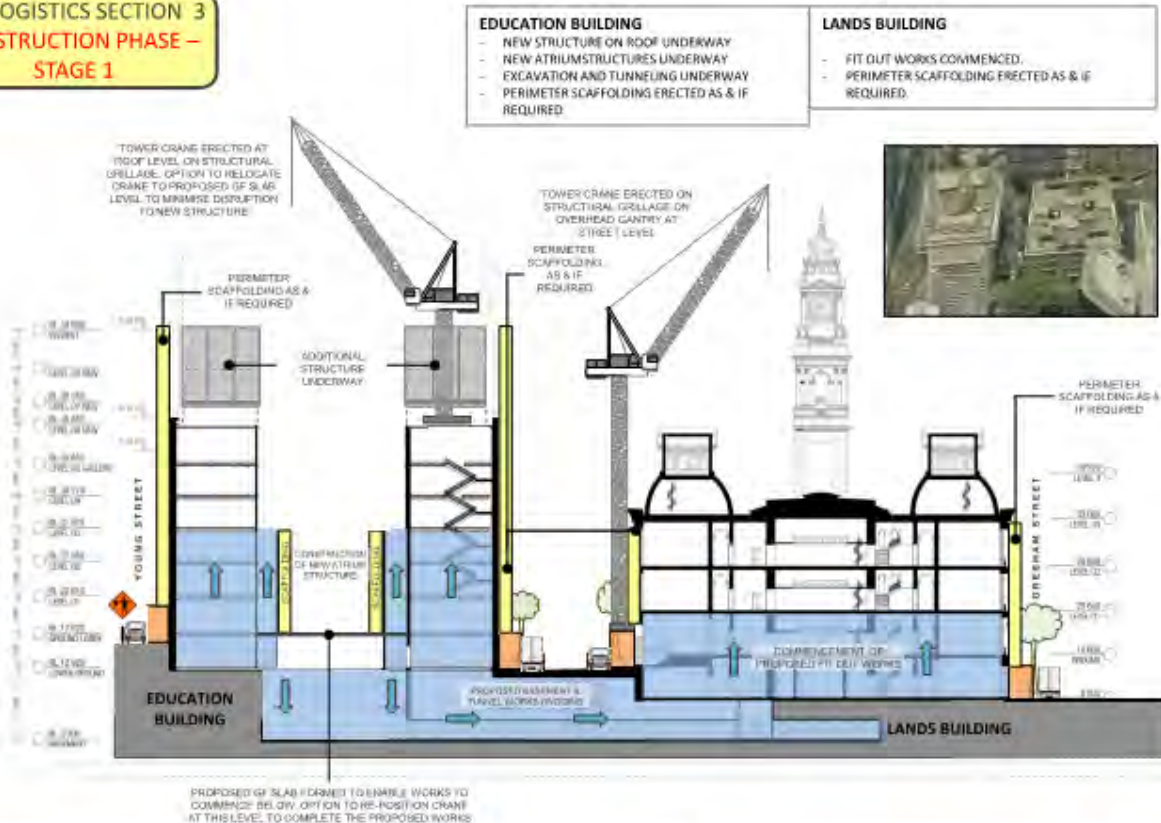


SITE LOGISTICS SECTION 2 STRUCTURAL DEMOLITION & MODIFICATION PHASE



PROJECT: SANDSTONES BUILDINGS DEVELOPMENT	TITLE: SITE LOGISTICS SECTION – SITE ESTABLISHMENT & INITIAL DEMOLITION PHASE	REVISION: C	DATE: 22-SEPT-16	<div> <div>Site Amenities</div> <div>B-Class Hoardings</div> <div>Access Point</div> </div>	<div> <div>Scaffolding</div> <div>Tower Crane</div> <div>Traffic Management</div> </div>	<div> <div>Direction of Works</div> <div>Construction Access</div> </div>	Built.
--	--	----------------	---------------------	---	--	---	---------------

SITE LOGISTICS SECTION 3 CONSTRUCTION PHASE – STAGE 1



PROJECT: SANDSTONES BUILDINGS DEVELOPMENT	TITLE: SITE LOGISTICS SECTION – CONSTRUCTION PHASE – STAGE 1	REVISION: C	DATE: 22-SEPT-16	<div> <div>Site Amenities</div> <div>B-Class Hoardings</div> <div>Access Point</div> </div>	<div> <div>Scaffolding</div> <div>Tower Crane</div> <div>Traffic Management</div> </div>	<div> <div>Direction of Works</div> <div>Construction Access</div> </div>	Built.
--	---	----------------	---------------------	---	--	---	---------------

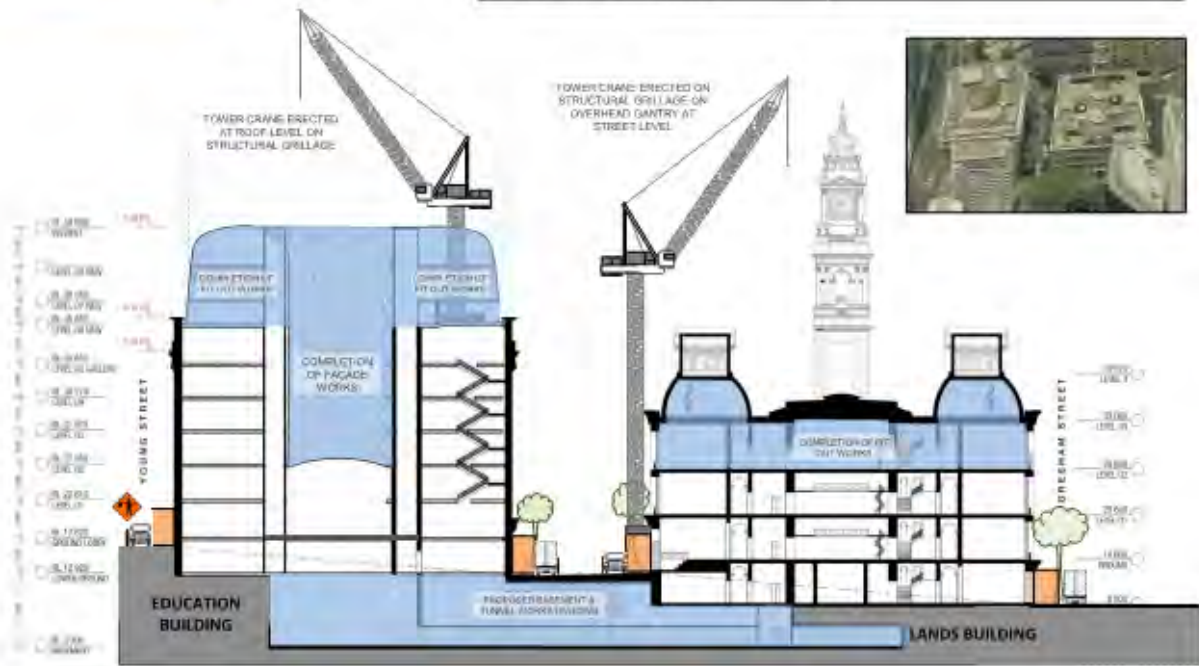
SITE LOGISTICS SECTION 4
CONSTRUCTION PHASE –
STAGE 2

EDUCATION BUILDING

- NEW STRUCTURE ELEMENTS COMPLETE
- TUNNEL / BASEMENT FIT OUT WORKS UNDERWAY
- NEW FAÇADE WORKS BEING COMPLETED
- NEW FITOUT WORKS UNDERWAY

LANDS BUILDING

- NEW FITOUT WORKS UNDERWAY



PROJECT:
 SANDSTONES
 BUILDINGS
 DEVELOPMENT

TITLE:
 SITE LOGISTICS SECTION –
 CONSTRUCTION PHASE –
 STAGE 2

REVISION:
 C

DATE:
 22-SEPT-16

SITE AMENITIES
 B-CLASS HOARDINGS
 ACCESS POINT

SCAFFOLDING
 TOWER CRANE
 TRAFFIC MANAGEMENT

DIRECTION OF WORKS
 CONSTRUCTION ACCESS

Built.

ATTACHMENT 2 – DEMOLITION MANAGEMENT PLAN

[To be included for Construction Certificate submission]

ATTACHMENT 3 – EXCAVATION MANAGEMENT PLAN

[To be included for Construction Certificate submission]

ATTACHMENT 4 – CRANE RADIUS DIAGRAM

[To be included for Construction Certificate submission]

ATTACHMENT 5 – CONSTRUCTION TRAFFIC MANAGEMENT PLAN

[To be included for Construction Certificate submission]

ATTACHMENT 6 – NOISE & VIBRATION MANAGEMENT PLAN

[To be included in future revision for Construction Certificate, Consultant to be engaged to complete]

ATTACHMENT 7 – CONSTRUCTION WASTE MANAGEMENT PLAN

[To be included for Construction Certificate submission]

ATTACHMENT 8 – CONTRACTORS HERITAGE MANAGEMENT PLAN [INCL. PROTECTION STRATEGY]

[To be included for Construction Certificate submission]

ATTACHMENT 9 – SITE IMAGES

