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PRELIMINARY CONSTRUCTION MANAGEMENT PLAN
ART GALLERY OF NSW EXPANSION PROJECT
SYDNEY MODERN

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1. Introduction

This Construction Management Plan (CMP) has been prepared by Time Planning and Programming Pty Ltd to accompany the development application for the proposed Art Gallery of NSW Expansion Project - Sydney Modern, located at the site north of the existing Art Gallery of NSW.

This CMP is an indicative live document, intended to be updated by the contractor as this Project develops.

This CMP is intended to describe the Project's following significant construction characteristics;

1. traffic and vehicle management during construction,
2. air, noise, vibration and odour suppression approach during construction,
3. assess and detail the impacts on the Eastern Distributor,
4. Outline site staff access, carparking and loading zones during construction
5. Emergency and service vehicle management during construction,
6. define the Project phases
7. clarify site establishment details,
8. establish the preliminary construction methodology,
9. propose a suitable site management plan,
10. explain communication and consultation strategies,
11. site safety management requirements,
12. waste management objectives,
13. environmental management procedures for minimal site transmission of sediment, dust and particles.

2. Project Description

The Art Gallery of NSW proposes to undertake a major expansion of the existing art gallery adjacent to the Phillip Precinct of the Domain. The expansion, proposed as a separate, stand-alone building, is located north of the existing gallery, partly extending over the Eastern Distributor land bridge and includes a disused Navy fuel bunker located to the north east of this land bridge.

The new building comprises a new entry plaza, new exhibition spaces, shop, food and beverage facilities, visitor amenities, art research and education spaces, new roof terraces and landscaping and associated site works and infrastructure, including loading and service areas, services infrastructure and an ancillary seawater heat exchange system.

Development consent is sought for:

- Site preparation works, including:

- Site clearing, including demolition of former substation, part of road surfaces, kerbs and traffic islands, pedestrian crossings, foot paths, retaining walls, stairs, and part of disused underground former Navy fuel bunkers;
- Tree removal;
- Excavation and site earthworks;
- Remediation works;

- Construction of the new building comprising:
  - Covered public entry plaza;
  - Five building levels, including entry pavilion following the site topography down to Lincoln Crescent;
  - Retention of part of existing former underground Navy fuel bunker for use as gallery space and support spaces;
  - Art exhibition spaces;
  - Outdoor publicly accessible terraces;
  - Shop and cafe;
  - Multipurpose space;
  - Education spaces;
  - Ground level loading dock (accessed via Lincoln Crescent) with associated art handling facilities, workshops, service parking, plant, and storage areas.
- Landscaping and public domain improvements including:
  - Continuation of the east-west pedestrian link over the land bridge between the Domain and Woolloomooloo Bay, including dedicated lift structure for universal access;
  - Improved public access of the north south pedestrian link
  - Enhancement of the public open space on the land bridge to create a landscape and art connection between the two buildings
  - Hard and soft landscaping to roofs and terraces;
  - Plantings and new pathways;

- Increased landscaped area to forecourt of existing Art Gallery building and removal of car parking
- Relocation of selected trees to the south-eastern corner of the site;
- Sound barrier to edge of land bridge;

- Upgrade works to part of Art Gallery Road, Cowper Wharf Road, Mrs Macquaries Road, and Lincoln Crescent, including new pedestrian crossings;
- Provision of vehicle drop off points including a taxi stand, private vehicle drop off and bus/coach drop off, at Art Gallery Road;
- Installation of an ancillary seawater heat exchange system to act as the new building's cooling system, adjacent to and within Woolloomooloo Bay;
- Diversion, extension and augmentation of physical infrastructure and utilities as required.

3. Referencing to SEAR 6

Paragraph 6 of SSD 6471, Secretary's Environmental Assessment Requirements (**SEAR 6**) requires a draft Construction management Plan (**CMP**). This CMP hereby outlines the SEAR 6 said items, which can be referenced at the following paragraphs of this CMP;

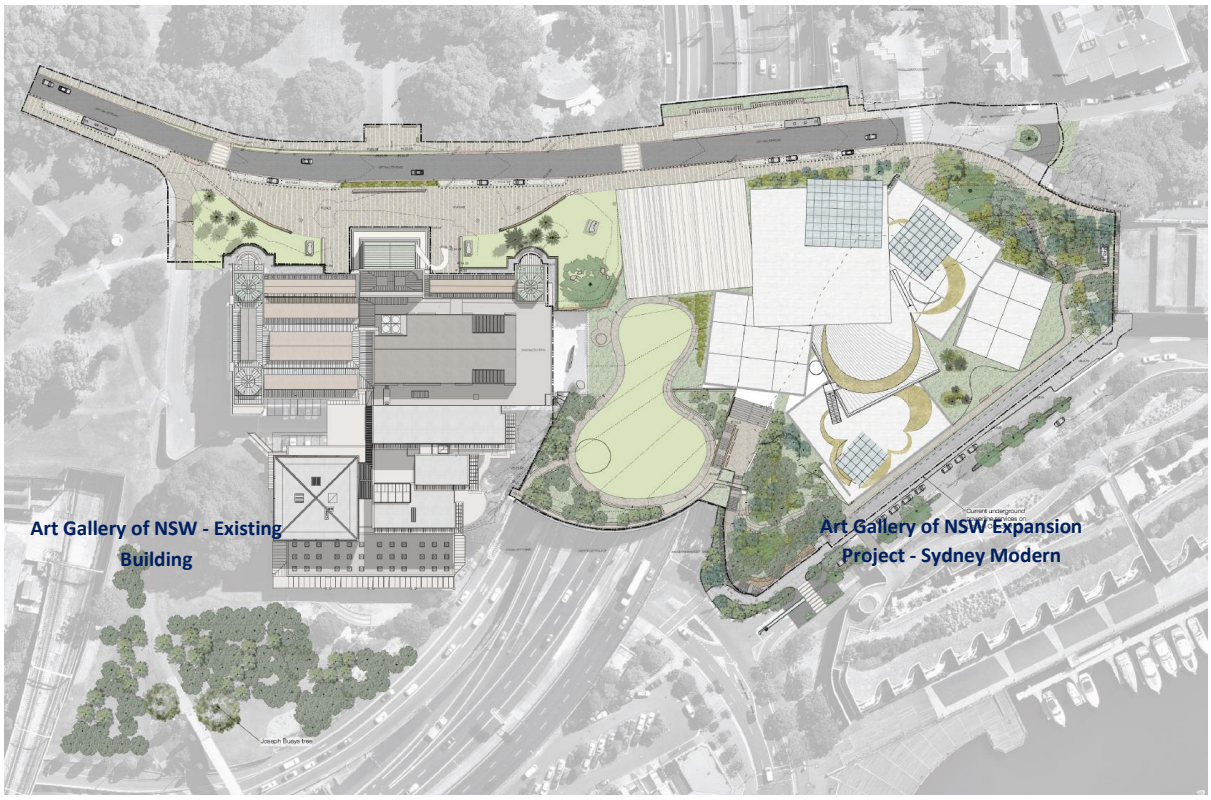
- Anticipated truck movements to and from the site. Refer to Sections 8 and 11Cvii of this CMP.
- Car parking and work zones for construction traffic. Refer to Sections 5 and 8 of this CMP.
- Mitigation measures that will manage potential impacts on vehicle, pedestrian, cyclist, ferries or harbour vessel movements and public transport operations. Refer to Sections 5, 6, 7a, 8, 10, 11Civ and 13A of this CMP.
- Access arrangements for workers to/from the site, emergency vehicles and service vehicle movements. Refer to Sections 7a, 8, 9, 11Cii, 11Civ, 11Cv, 12 and 13B of this CMP.
- A construction and delivery program detailing any required closures or restrictions on any public place, pathway or road. Refer to Sections 5, 8, 10, 11Cvi and 11Cvii of this CMP.

4. The Site Location

The site is located at the north of the existing Art Gallery of NSW, bounded by Art Gallery Road (West), Lincoln Crescent (East), Mrs Macquaries Road (North) the land bridge over the Eastern Distributor.

The subject site is defined in the following Site Plan in figure 1 below.

Figure 1: Site Plan and Proposed Works Overview



5. Traffic and vehicle management during construction

A traffic management plan has been prepared for the Project. The contractor will update the traffic management plan prior to obtaining a construction certificate. Long term road closures are not envisaged. However authorised short term lane closures may be required to Art Gallery Road and Lincoln Crescent, for major plant deliveries which can occur out of peak hours. If required the contractor will liaise and apply to the appropriate authorities to obtain permits as needed.

Site staff will be encouraged to use public transport to minimise staff car parking. The Domain carpark is designated for essential staff vehicle parking.

The contractor will monitor and coordinate all vehicles entering and exiting the Project. Truck shaker grids are intended for the entry and exit gates to remove tyre mud or grime prior to re-entering the public road.

Refer to Appendix 1 for further clarification.

6. Air, noise, vibration and odour suppression approach during construction

Air, noise, vibration and odour from the construction process may impact on surrounding building occupants and public premises. Vibration could also potentially affect the heritage fabric of the existing gallery.

In order to help meet the requirements of the site, baseline testing will be carried out and existing operational levels identified. The identification of baseline levels will enable subcontractor's methodologies to be specifically tailored to ensure benchmarks are not exceeded. Air, noise, vibration and odour monitoring will be installed on site and monitored throughout the project.

The Contractor will develop these management plans to manage the construction impacts, including mitigation strategies. Likely causation activities occurring during construction include;

1. quick cut saws,
2. excavation equipment, rock hammers,
3. hammer drills,
4. angle grinders,

5. air compressors,
6. generators,
7. concrete pumps,
8. diesel static crane

The noise mitigation strategies that will be employed are:

1. excavation, piling, shoring and retention works will be undertaken using non-percussive methods where achievable given the subsurface conditions,
2. plant used intermittently during construction activities such as, trucks, excavators, cranes, piling machines will be turned off in periods between works activities rather than left idling,
3. adherence to permitted working times;
4. hoarding to the existing Art Gallery building as an acoustic barrier,
5. gantry, site accommodation and hoarding to the Lincoln Crescent boundary acts as an acoustic barrier,
6. avoid concurrent loud activities, by scheduling activities at different times
7. vibration and noise awareness training for all site staff including subcontractors as part of general site induction and tool-box meetings,
8. through regular reviews of the program and construction methodologies during PCG meetings, the duration of noise-intensive works will be minimised.
9. Flexible working hours to avoid noisy work during sensitive hours
10. plant and equipment selection to reduce noise where possible
11. plant and equipment fitted with silencers where possible
12. acoustic testing of proposed methodologies
13. erection of temporary screens to encapsulate dust and noise

Regular and effective plan/equipment maintenance will be completed and documented throughout the Project period and documentation will be maintained on site demonstrating completion of maintenance logs and associated checklists in order to ensure all machinery is in good working order and use does not generate excess noise / vibration.

Plant, equipment and vehicles will not be operated in the event that excessive (more than typical) noise is produced at start up as a result of maintenance being required. All plant, machinery and works vehicles will have an efficient muffler design in accordance with the manufacturer's specifications. The mufflers will be well maintained and regularly tested with the results documented in the maintenance logs.

7. Eastern Distributor, Infrastructure, Seawater Heat Exchange

a. Eastern Distributor

The Traffic Impact Assessment assesses and details the impacts on the Eastern Distributor ensuring the development does not adversely impact on its safe and efficient movement.

The strengthening works required will not affect the operation of the Eastern Distributor. The area above the Eastern Distributor is also known as the land bridge. The land bridge strengthening works will be done during the early works phase of the project.

The Structural report identifies that the intended structural system will distribute loads over the land bridge. Columns loads over sufficient areas will ensure that they are within both the local and global capacity of the existing structure. A combination of pad footings, strip footings, waffle slabs, spreader beams and walls are proposed for this purpose.

Access to the pedestrian bridge that spans over Sir John Young Crescent and the Eastern Distributor will remain unimpeded during construction.

b. Infrastructure, Seawater Heat Exchange

Initial reports suggest the proposed works do not affect existing infrastructure or services relocations. There is a seawater cooling system intended in the proposed development. This seawater cooling system will require trenching, an Inground plant room, with potential road opening allowing in-ground services access to the Harbour.

Once the design for the seawater cooling system is developed all appropriate authorities will be notified and obligations adhered to. A specialist marine traffic management report will be developed. The work will be designed and a management plan developed, mitigating community and environment disruption. Seawater Exchange Vibration, drainage and storm-water reports will also be prepared.

8. Site Staff Access, Parking and Loading Zones

It is expected that 540 construction staff, on average are required to construct the Project. Access to the entrance of the existing Art Gallery is intended to remain the main access point for pedestrian traffic during construction. Similarly some of the public road carpark adjacent to the main entrance will remain for the majority of the construction period.

There are five locations for vehicle access gates as indicated in the site management plan is Appendix 1. Gate 1 (Entry) and gate 2 (egress) are on Art Gallery Rd. These gates 1 and 2 will also provide access for construction staff. Loading areas are available adjacent to the entry and exit path.

A secondary access point (Gate 3) and adjacent loading area is available for smaller deliveries via the southern existing access road.

Gate 4 is located adjacent to Lincoln Crescent Woolloomooloo and the existing substation building. Gate 4 is intended to be used for demolition, excavation removal and site staff. An average of 50 trucks per day are expected to use Lincoln Crescent for 5 months via Gate 4.

Access via Lincoln Crescent (Gate 4) will minimise earthwork machinery using Art Gallery Road or impacting the Royal Botanic Gardens. Impacts to residents around Lincoln Crescent will be screened by hoarding and double height site amenities.

9. Emergency and Service Vehicle management During Construction

Gates 1, 2, 3 and 4 can be used for service and emergency vehicles. In addition to the existing Gallery access points, Gate 5 is proposed predominantly for emergency vehicle and personnel access. Gate 5 has been added to supplement emergency egress by providing personnel access to a large public domain, to reduce paths of travel within the site and provide a dedicated location where construction staff and vehicle movements are separated.

10.Communication and Consultation Strategy

For an optimal consultation and liaison process, a Community and Stakeholder Management Strategy will be developed. The Strategy will be developed from the contractors previous experiences on similar prominent Projects and will deliver a useful communication system for the Project duration.

The strategy will include all relevant local, State or Commonwealth Government authorities, service providers, community groups and affected landowners.

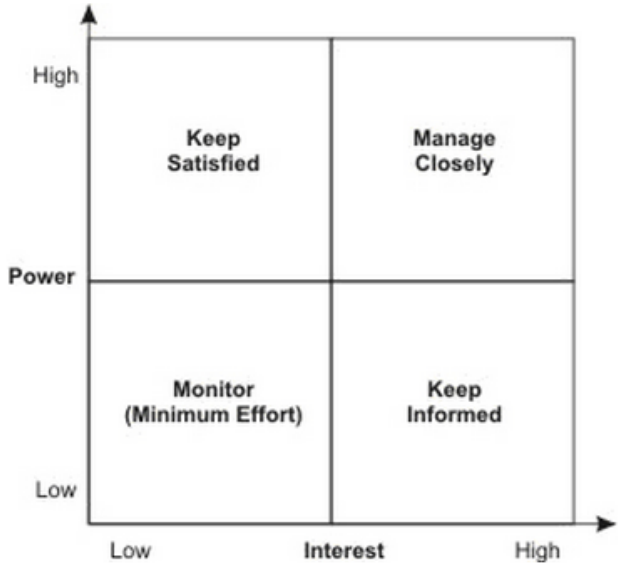
In particular consultation will occur with:

- The Royal Botanic and Domain Trust;
- City of Sydney Council;
- Roads and Maritime Services;
- Transport for NSW;
- Environment Protection Authority;
- Department of Primary Industries- Water;
- Sydney Water;
- Heritage Council;
- Local heritage groups; and
- Local Aboriginal Land Council and relevant stakeholders.

The consultation objectives will include the following:

1. Establish and maintain relationships with key stakeholders,
2. Develop general public awareness and knowledge of the Project
3. Ensure key stakeholders are kept informed and satisfied of, upcoming activities, Project status, impacts arising from unforeseen events and arrangements to mitigate the impact as needed,
4. Mitigate the impact of the construction activities on the surrounding areas, Manage objections by understand the main stakeholders' needs and take necessary actions for their effective management.

After identifying and prioritizing stakeholders as per their concern and influence, a stakeholder management plan can be created in order to notify important stakeholders, and keep them satisfied with the Project and avoid misunderstanding and fulfil everyone's needs in a satisfactory agreement. The general stakeholder engagement strategies are provided in the following map.



Likely issues of concern to stakeholders may include the following:

1. Containments,
2. Noise,
3. Dust,
4. Vibration caused from construction,
5. Environmental remediation,
6. Construction vehicle traffic,
7. Construction staff,
8. Restrictions / alterations to pedestrian traffic flow,
9. Protection of existing Gallery building,
10. Protection of existing trees

The Contractor will allocate liaison personnel particularly for communicating prospectively with the stakeholders on planned works or activities that require explanation and solutions to alleviate issues that may arise during the Project's construction phase.

The stakeholder management process will involve the following;

1. An initial consultation session will be held before the commencement of construction and letters of introduction will be sent to the surrounding properties, advising Project specifics, including commencement date, duration, contact details, site safety and public protection,
2. Contractor developed monthly reports will be issued to key stakeholders advising of imminent activities
3. A register of all stakeholder contact information and concerns will be developed and reviewed at the monthly meetings
4. Regular communication and cooperation with City of Sydney Council in relation to the site management and impact on surrounding areas.

11. Construction

c. Site Establishment

i. Trees, Dilapidation Report, Existing Services Survey

Prior to commencing work on site a full Pre Construction Dilapidation Report will be completed by a Dilapidation Survey Consultant. This detail survey will encompass current structural, architectural, services and heritage conditions of the existing gallery, construction zones and infrastructure. The dilapidation report will cover all areas where the construction certificate applies and adjacent areas.

Services locaters will survey the site and surrounding areas to plot the locations of any existing services. Tree protection will be carried out complying with AS 4970 *Protection of Trees on*

Development Sites and undertaken in accordance with the City of Sydney tree protection specifications including, inductions, hold points, notifications, tree protection zones etc and any project Arborist or City nominated tree management coordinator's requirements.

Additional geotechnical investigations will be carried out progressively to determine the need for any ongoing archaeological monitoring.

ii. Site Fencing, Hoarding and Shedding

Temporary A-Class hoarding, site fencing and gates will be installed to the boundaries of the extent of the Project site area. Site accommodation will be established subject to the amount of personnel working on site. Temporary hoarding and signage will be adopted in all working areas at all times.

The following two site accommodation positions are expected;

1. South of The Art Gallery loading and access road,
2. Multi-level stacked over a gantry adjacent to Lincoln Crescent including acoustic hoarding. This acts as a barrier to minimise noise and dust impacting the residents near Lincoln Crescent.

iii. Temporary Power and Services

In order to provide the site with appropriate services requirements, temporary services and power will be required. Reticulated power and lighting installations will comply according to the requirements of the WH&S Regulations, Electricity Supply Authority and the Code of Practice for Temporary Electrical Installations on Building and Construction Sites. All General Purpose Outlets (GPO's) shall be provided with earth leakage protection.

Air and vibration monitoring units will be established to manage air quality and vibration movement during the construction of the Project.

iv. Vehicle Access

As detailed above and the site management plan in Appendix A, entry is intended via gate 1 and egress via gate 2. A secondary access point (Gate 3) is planned via the southern existing access road. Gate 4 is located adjacent to Lincoln Crescent Woolloomooloo.

The current southern pedestrian access to Woolloomooloo is planned to be maintained during construction. The access path that delivers pedestrians to the area adjacent to gates 1 and 2 would be decommissioned during the construction period. This pedestrian traffic will be diverted to either the northern or southern pathway as indicated in site management plan in Appendix A.

Vehicles delivering concrete, concrete pumping, reinforcement, steel can occur in a contractor laydown area within the temporary established site boundaries as indicated on the site management plant at Appendix A.

The Project is adjacent to the central CBD location, a traffic management report has been prepared and mitigation measures are implemented to prevent the parking of waiting vehicles in the adjacent areas. Several access options for vehicle loads and marshalling areas are intended. Vehicle shaker grids and wash facilities will be used to wash egressing vehicle tyres.

v. Construction Staff Access

The locations for vehicle access gates will also provide access for construction staff. Gate 5 has been added to supplement emergency egress by providing access to a large public domain, to reduce paths of travel within the site and provide a dedicated location where construction staff and vehicle movements are separated.

vi. Craneage

With substantial lifting and material handling required from the designated loading areas a minimum of one tower crane and one mobile crane is envisaged. Refer to site management plan in Appendix A indicating the likely locations as TC1 and TC2.

It is intended that the cranes would be in use following the bulk excavation and the construction and ground retention completion throughout the structural phase, of the Project. A tower crane with radius of 50m or larger with adequate lifting capacity is envisaged.

Although lifting will mostly be from construction delivery vehicles and contractor laydown areas within the site, in some instances, the crane(s) will need to be capable of lifting from construction vehicles, from a pre-organised authorized lifting area on Art Gallery Road.

vii. Material Handling

Excavation material disposal and deliveries will be undertaken via gates 1, 2, 4 and 5. Due to the physical restrictions and reversing difficulties on site and positioning of a dog when loading the truck, it is envisaged that truck movements will be restricted to single truck only, without a dog.

If found, Soil Contaminants will be isolated and disposed of appropriately as detailed in section 13 of this CMP.

There is a small soil area (12 m x 25 m) that is potentially odorous. This area would be excavated to a depth of approximately 2.2 m and removed off site. This area would be programmed to be carried out within the first week prior to carrying out the balance of the bulk excavation.

Concrete delivery will be undertaken via trucks parked on site, with others nearby in a marshalling area and it is proposed that a mobile concrete boom pump is established on site as it is required.

Delivery of main structural elements will most likely occur using a table top semi-trailer or prime mover. This is intended to occur from the loading zone area nominated in the site management plan in Appendix 1.

viii. Construction Schedule

Based on the Concept Design, a general construction schedule has been prepared which is shown in Appendix A. The construction duration is expected at 28 months.

We note that a full DD&C construction program is intended to be developed to calculate a more accurate Project duration.

ix. Key Procurement – Long lead time Items

The key items that will require long lead-times are required for structure, envelope, services and finishes phases of the Project. There is substantial time to include for the design, procure, fabricate and deliver long lead-time items concurrently with the earthworks on site works phase of the project.

12.Construction Methodology

Following the dilapidation and services surveys, site establishment will commence with erecting A-Class hoarding, signage, site security, lighting and gates to the Project site boundaries. The site establishment will allow for AGNSW's ongoing operation during construction. The site establishment will allow AGNSW including its staff, to carryout typical functions, major exhibitions and the like.

It is then proposed, that (including):

1. Site accommodation will be delivered and temporarily connected to existing services.

2. Existing fuel bunker will be set-out separating the remaining and demolished portions. The remaining portion will be propped and protected. Existing kerb and gutter to the proposed gates 1, 2, 3 and 4 will be dismantled. This allows for the installation of vehicle shaker grids and the vehicle access gates and site perimeter hoarding.

3. Demolition equipment will be floated to site and demolition will commence.

4. Excavation and piling machinery will be floated to site for excavating adjacent to the existing fuel bunker and building. Some excavation work close to the existing structure will be carried out by hand. This minimises construction risk by exposing and inspecting the unknown existing areas, to design and construct what is required around the existing structure to cater for the new works.

5. An historical archaeologist will be present for initial excavation of the area to record the sub-surface profiles and determine the extent of any ongoing archaeological monitoring.

6. Prior to excavation and if required, existing services will be diverted and connections made for temporary amenities.

7. Excavators will level for piling equipment. Piling will commence for the ground retention and capping beams to be constructed. Bulk excavation will progress in a structural sequence, with installation of ground anchors, drainage and shotcrete will progress as the bulk excavation continues to the required reduced level.

8. It is expected that on average, fifty 12t trucks would be required per day to remove the excavated material over 5 months in earthworks phase of the project.

   Strengthening works to the land bridge will progress during early works, prior to the construction of the new building. Dowels, whaler beams and Rock anchors will be used for strengthening.

9. Following the bulk earthworks, the crane base will be detail excavated, formed, reinforced, poured and cured. Detail excavation of footings and in ground services, blinding, formwork, reinforcement, pour strip and pad footings, install in-ground services, compact backfill.

10. Insitu Columns and vertical walls would be formed and poured. Ground preparation, edge-boards formed, sand blinding, vapour barrier, termite barrier, reinforcement, in-slab services, then pour the ground slabs, including movement joints.

11. Subsequent formwork, reinforcement and pouring of the insitu suspended concrete slabs will progress. Other structural elements such as structural steel will follow. Structural engineered concrete strength curing with propping will be kept in place prior to stripping formwork.

12. It is expected that on average, ten trucks would be required per day over the structure phase of the project.

13. Following the structural items, the envelope and internal services and finishes to the new construction area can occur.

14. Once the movement of heavy materials are minimised the external hardscaping and soft landscaping can commence.

15. Upon completion of landscaping, the contractor can dismantle the hoarding and site establishment and mobilise off site.

13.Site Management Plans

a. Vibration and Noise

Noise and vibration from the construction process may impact on surrounding building tenants and public premises. Vibration could also potentially affect the heritage fabric of the existing Gallery.

In order to help meet the noise and vibration requirements of the site, baseline testing will be carried out and existing operational levels identified. The identification of baseline levels will enable subcontractor's methodologies to be specifically tailored to ensure benchmarks are not exceeded. Noise and vibration monitoring will be installed on site and monitored throughout the project.

The Contractor will develop these management plans to manage the construction caused vibration and noise that will occur during the Project, including mitigation strategies. Vibration and noise activities that will occur during construction include the following:

1. quick cut saws,
2. excavation equipment, rock hammers
3. hammer drills
4. angle grinders
5. air compressors,
6. generators
7. concrete pumps
8. diesel static crane

The noise mitigation strategies that will be employed are as follows:

1. excavation, piling, shoring, strengthening and retention works will be undertaken using non-percussive methods where achievable given the subsurface conditions,
2. plant used intermittently during construction activities such as, trucks, excavators, cranes, piling machines will be turned off in periods between works activities rather than left idling,
3. adherence to permitted working times;
4. hoarding to the existing building as an acoustic barrier,
5. avoid concurrent loud activities, by scheduling activities at different times
6. vibration and noise awareness training for all site staff including subcontractors as part of general site induction and tool-box meetings,
7. Through regular reviews of the program and construction methodologies during PCG meetings, the duration of noise-intensive works will be minimised.
8. Flexible working hours to avoid noisy work during sensitive hours
9. plant and equipment selection to reduce noise where possible
10. plant and equipment fitted with silencers where possible
11. acoustic testing of proposed methodologies
12. erection of temporary screens to encapsulate dust and noise

Regular and effective plan / equipment maintenance will be completed and documented throughout the Project period and documentation will be maintained on site demonstrating completion of maintenance logs and associated checklists in order to ensure all machinery is in good working order and use does not generate excess noise / vibration.

Plant, equipment and vehicles will not be operated in the event that excessive noise is produced at start up as a result of maintenance being required. All plant, machinery and works vehicles will have an efficient muffler design in accordance with the manufacturer's specifications. The mufflers will be well maintained and regularly tested with the results documented in the maintenance logs.

b. Site Safety Management

A site-specific safety management plan will be developed by the Contractor to demonstrate the commitment of the Project to Work Health & Safety (WH&S). The plan is required to identify the scope of work to be undertaken, the hazards associated with the work and the risk assessment processes and risk control measures to be used in the execution of the plan.

The objectives of the Site Safety Plan include the following:

1. maintain lost time injury reporting and review positive performance indicators,
2. report all incidents and near misses and develop corrective action plans,
3. conduct Senior Management and WH&S Group reviews,
4. develop required WH&S resources,
5. formalise regular senior management reviews of WH&S systems and implement relevant improvements,
6. continually develop WH&S systems, policies, procedures and WH&S Plans to comply with statutory requirements and industry best practice,
7. maintain an Audit Programme to comply with system's requirements,
8. ensure all corrective actions and Non-Conformances are closed out,
9. meet or exceed the requirements of AS 4801 certification and Federal Safety commission accreditation,
10. adopt a zero tolerance safety philosophy,
11. provide Safety Awareness and other appropriate WH&S training,
12. continue to implement ongoing induction procedures on all Projects,
13. hold regular Consultative Committee meetings, maintain minutes and record actions,
14. issue Safety Alerts to all staff and other stakeholders according to requirements,
15. conduct weekly toolbox talks on site,
16. Maintain a data base of all toolbox talks.

The plan requires that the Project ensure that the key responsibilities are addressed by the Contractor to attain the above objectives.

A statement of responsibilities by the Contractor will identify who will be responsible for the following:

1. undertake audits to ensure appropriate implementation of the WH&S Plan occurs,
2. coordinate WH&S training,
3. establish, implement and maintain procedures for controlling all relevant documents and data required,
4. implement WH&S matters in construction design and planning,
5. make all reasonable endeavours to ensure that the WH&S management system is established, implemented and maintained on the Project,
6. monitor and constantly review risk management to the site,
7. ensure all Work Method Statements have been received on site prior to the commencement of work.

The plan will also address the following:

1. WH&S training – identification of WH&S training needs of all personnel, induction training, refresher training, attendance of WH&S committee personnel at consultation training etc;
2. incident management – identifies who will be available during and outside normal working hours to prevent, prepare for, respond to and recover from illness/ injury and incidents;
3. site safety rules – As a minimum will include induction and safety training, PPE, Site access and security, emergency procedures, illness and injury, protection of personnel and the public, work at elevated areas, safe working, hazardous materials and dangerous goods etc;
4. safe Work Method Statements – All activities assessed as having WH&S risks require a SWMS to be prepared and implemented

c. Environmental Management and Waste Management

An environmental management plan (EMP) will be developed and executed by the contractor in accordance with relevant authorities conditions, standards or specifications prior to the Project's site commencement.

The EMP will include the following items;

1. erosion and sediment control
2. water discharge from the site
3. recycling
4. noise control,
5. dust reduction,
6. waste reduction,
7. organising material removal.

The Waste Management Plan is required to:

1. minimise waste from site activities;
2. establish the site specific waste management requirements and improve efficiencies via waste separation, recycling and re-use measures,
3. hazardous materials - identification, separation, collection and disposal of environmental waste,

Where possible, Virgin excavated natural material (VENM) will be reused by the contractor on site. Prior to disposal, a waste classification of the soils to be excavated will be provided.

Waste will be sorted on site and care will be taken to avoid cross contamination with recyclables.

If there are unexpected finds or unidentified contaminants encountered during the project, the contractor will adopt the protocol specified in the EMP, WHS / OH&S Acts, Regulations and Codes of Practice.

If Asbestos is found then the contractor will ensure the following;

1. In accordance with the National Occupational Health and Safety Commission's Guide to the Control of Asbestos Hazards in Building and Structures [NOHSC:2002(1988)], appropriate warning signs will be placed on the asbestos materials identified.

2. All asbestos-containing materials will be removed prior to any renovation, demolition or work taking place in an area.

3. All removal procedures should be undertaken by an experienced appropriately licensed removal contractor in accordance with the National Occupational Health and Safety Commission's Code of Practice for the Safe Removal of Asbestos [NOHSC: 2002 (2005)].

4. Monitoring for airborne asbestos in accordance with the Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres [NOHSC:3003(2005)] will be carried out during any removal operations in accordance with Clause 50 and 51 of the WorkCover 2001 OH&S Regulation requirements.

5. At the end of removal operations all surfaces in the subject area, such as frames, floor / ground, etc., will be vacuumed then wet wiped. An industrial High Efficiency Particulate Air (HEPA) vacuum cleaner will be used. Spreading of dust into clean areas or outside the subject areas will be prevented.

6. A clearance inspection should be carried out after the removal operations are completed in accordance with WorkCover and NOHSC requirements.

The contractor will provide skips for waste to be sorted and classified, primarily for metal cardboard, packaging, concrete and masonry. Recyclables to be recovered are likely to consist of off cuts of materials such as stone, pipes, timber, steel, plasterboard, tiles and miscellaneous packaging.

The main goal in construction will be to reduce the total volume of waste produced, which will be achieved by effective materials procurement, management and supply. Project managers, engineers, builders and subcontractors will play a key role in achieving on-site waste reduction targets on a day-to-day basis.

1. Appendix 1, Preliminary Site Management Plan

ART GALLERY OF NEW SOUTH WALES - SITE MANAGEMENT PLAN

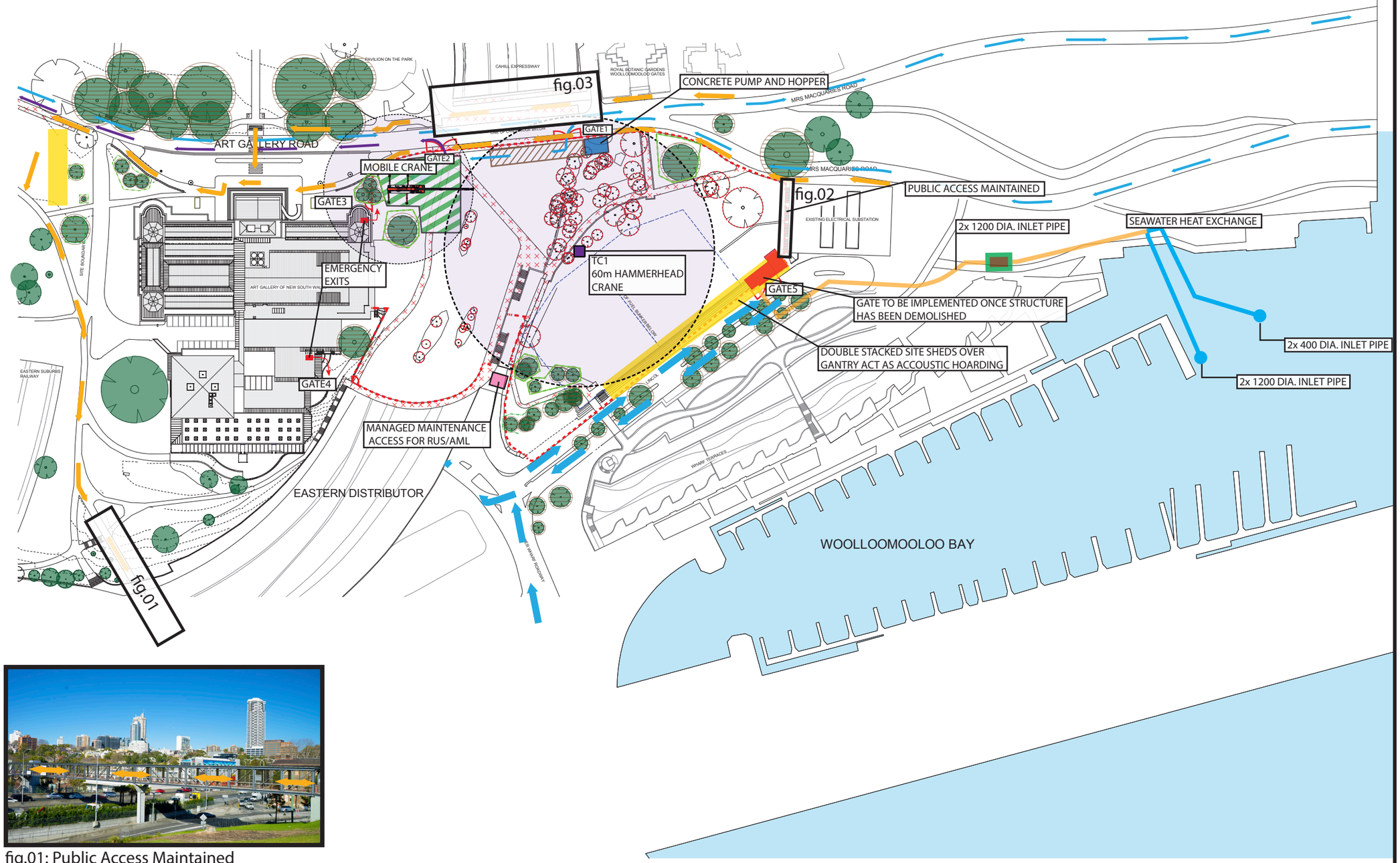


fig.01: Public Access Maintained

fig.02: Public Access Maintained

fig.03: Public Access Maintained

LEGEND

- SITE ACCOMODATION
- TOWER CRANE
- LOADING ZONE
- LOADING/WASTE STORAGE & SORTING AREA
- INBOUND TRAFFIC
- OUTBOUND TRAFFIC
- PEDESTRIAN TRAVEL PATHS
- GATES
- HOARDING
- TREE PROTECTION FENCING
- TREES TO RETAINED
- TREES TO BE PRUNED
- TREE PROTECTION ZONES
- TREES TO BE REMOVED
- PEDESTRIAN PATHS TO BE REDIRECTED