



Turner & Townsend
Thinc

14 June 2019

Report

Construction Environment Management Plan, Waste Management Plan
and Site Management Plan

All Welcome, Coffs Harbour
Coffs Harbour City Council

making the **difference**



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Rev	Status	Originator	Approved	Date
0	Draft	Ross Tiernan	Orla Conlon	04/06/2019
1	Final	Ross Tiernan	Orla Conlon	14/06/2019

1 Introduction

This Construction Environment Management Plan (CEMP), Waste Management Plan (WMP) and Site Management Plan (SMP) and has been initiated to outline the environmental protection measures to be implemented by the main contractor during the construction of *All Welcome*. This document aims to set out a clear protocol for the works associated with the development in line with Coffs Harbour City Council's commitment to ensuring a safe work site for all personnel, as well as set out measures to minimize the disruption to the surrounding businesses.

Objective of the CEMP:

- Ensure environmental safeguards are considered by the main contractor;
- Ensure all relevant environmental legislation requirements are considered;
- Ensure that works are managed to reduce adverse impacts on the environment; and any other objectives of the CEMP specific to the project.

Objective of the WMP:

- Ensure waste during demolition and construction of *All Welcome* is managed throughout the construction process in line with their corporate standard practices and for site specific requirements.

Objective of the SMP:

- Ensure the Site set-up and maintenance allows for the completion of works in a safe, efficient and accountable manner, whilst allowing Riding Lane, Gordon Street and the wider precinct to continue to operate;
- Ensure the Site set-up and maintenance allows for the effective restriction and management of all personnel access;
- Ensure the contractor maintains a safe working environment for all construction personnel and visitors;
- Ensure the contractor considers all necessary emergency plans and procedures to mitigate hazards, risks and accidents;
- Ensure the contractor minimizes the disruption (in particular noise) caused by works to surrounding activities;
- Ensure the contractor inducts all construction personnel on how to adhere to the protocols outlined within this plan.

2 Project Detail

2.1 The Site

The Site is in the main part of the Coffs Harbour City Central Business District (CBD) which is on the Mid North Coast of NSW. The Site has access from Gordon Street and Riding Lane which will continue to remain operational during construction. Other land uses in proximity to the site include the Coffs Harbour Uniting Church, the main public four storey car park for Coffs Harbour and other commercial development which ranges from one storey dwellings used as office space to three storey office blocks.

The approximately 4000m² site is currently occupied by single storey residential and commercial buildings with associated on grade car parking areas.

Surface grades are typically less than 1 degree. There is a large fig tree situated between Riding Lane and the multi-deck car park, approximately 5m from the western site boundary.

2.2 Proposed Development

The *All Welcome* building accommodates a rich mix of uses and functions. It is a single building containing new cultural (museum, gallery, library) and administration (council offices) in a single building spread over five floors and one basement. The building contains a multi-level, external three-dimensional public space which rises through the centre of the facility to Level 03, providing public accessibility to its various functions. This space makes use of the local climate conditions to provide enclosed, semi-enclosed and open public spaces throughout the building. The building use are split as:

- Basement: car parking, operational parking and loading, storage and plant services
- Level 00: Along the southern portion of the site is the gallery and museum, loading dock, cafe and associated back-of-house spaces. To the north is start of the public library (which is spread over three floors) and the car park entry. Between these is a public through-site link that contains vertical circulation, including lifts and a stair.
- Level 01: Council customer service area and associated office accommodation, the continuation of the public library and other associated spaces. Customer service can be accessed from ground floor via a stair with direct line of site or the lifts
- Level 02: The bulk of the library, filling the entire floor
- Level 03: A large public open space, part covered and part open to the sky. Opening from this space is a large multi-use space (which will function as the Council Chamber), meeting rooms, entry to the council workplace, Council Executive offices and associated amenities.
- Level 04: Council workplace
- Level 05: Council workplace

The proposed development works extend to the site boundary only, with the exception of Gordon Street where there will be two road reserves crossing the pedestrian footpath for access to the *All Welcome* loading dock and basement carpark. The development incurs a small loss of public on-street car parking adjacent to *All Welcome* for bus drop off. The proposed scope of work includes regrading and finish to pedestrian footpath adjacent building on Gordon Street, and also traffic signage and linemarking for bus drop off.

3 Construction Environment Management Plan

3.1 Demolition

3.1.1 Existing buildings

Council will separately prepare a Develop Approval application for the demolition and removal of the existing single storey residential and commercial buildings. The existing building materials generally comprise of brick masonry and fibro cladding with potential asbestos containing materials and lead based paints.

Australian Asbestos Management have prepared an Asbestos Management Plan for both 23 Gordon Street and 27-31 Gordon Street.

The demolition contractor will be required to obtain an asbestos clearance certificate from a specialist contamination removalist to certify that all asbestos has been appropriately removed

from the Site. This work is to occur prior to the award of a main contractor for the construction of the new development.

3.1.2 Slab on-grade, footings and pavement

This State Significant Development Application scope of work includes the demolition and removal of the existing building slabs on ground, footings and bitumen pavement. Following removal, the main contractor will be required to undertake further site assessment to assess possible contamination of these areas.

3.2 Geotechnical

3.2.1 Investigation outcome

Regional Geotechnical Solutions (RGS) have undertaken geotechnical investigations and encountered a subsurface profile comprising minor fill and topsoil overlying alluvial and residual clay soils that grade into highly weathered argillite at depths of about 15m with more competent slightly weathered rock from depths of about 17m. The main contractor is to consider and prepare for the following key geotechnical aspects of this development:

- Excavation conditions, including support of excavations and material disposal;
- Acid Sulfate Soils (ASS) and treatment requirements; and
- Footings and foundation materials.

For more detailed information refer Geotechnical Report for 23-31 Gordon Street Coffs prepared by Regional Geotechnical Solutions (RGS) dated 2 May 2019.

3.2.2 Excavation works

A basement carpark is proposed below the building which will require excavations to about 3m depth across much of the site. The excavations will extend up to the property boundaries at some locations. Excavations along the southern and northern boundary could impact on the zone of influence of the footings of the adjoining buildings, where the buildings adjoin the boundary to the north.

The main contractor is required to undertake a detailed property condition report for the neighbouring buildings to reduce exposure to possible damage claims as a result of the construction work.

Based on the depth of excavation and boundary setbacks temporary batters and/or benching will unlikely be feasible for much of the excavations. Therefore, a contiguous or soldier pile wall is recommended along those boundaries where benching and/or battering is not achievable.

3.2.3 Excavated material

An estimated 13,000m³ of material will be excavated from the site assuming an average excavation depth of 4m over the proposed basement footprint (full site footprint). To comply with the Department of Environment and Climate Change NSW Waste Classification Guidelines any material to be disposed of off-site requires waste classification.

Regional Geotechnical Solutions (RGS) acid sulfate soils assessment indicates the material is acid sulfate soils due to naturally acidic soils compounded by potential sulfidic acidity resulting in the net acidity concentration exceeding the action criteria in all soil samples tested.

Therefore, the materials cannot be classified as virgin excavated natural material (VENM) or excavated natural material (ENM). This could have significant implication on the proposed development from a material disposal perspective. Council intend to pursue a site specific exemption for the material from NSW Environment Protection Authority (EPA) to enable the material to be used on another Council owned site where significant fill is required.

The main contractor is to undertake a more detailed assessment in relation to excavated material reuse.

3.2.4 Acid sulfate soils management plan

Regional Geotechnical Solutions (RGS) have prepared a Preliminary Acid Sulfate Soils Management Plan (ASSMP) dated 30 May 2019 for the proposed development. The main contractor is responsible for implementing the ASS management protocols detailed within this ASSMP. Only a suitably experienced ASS consultant may vary the procedures detailed herein.

The main contractor shall:

- Record a daily log showing the volume of material that has been excavated, and treated;
- Ensure that validation testing is undertaken by an independent monitoring consultant on a regular basis.

Fine Agricultural Lime (aglime) must be used for liming of excavated materials. As the full extent of the site will be excavated the treatment area is likely to be at an approved offsite location.

The main contractor is therefore required to obtain approval from Council and EPA prior to removing untreated material.

Following treatment the main contractor is to have validation testing undertaken by an independent ASS consultant.

3.2.5 Groundwater and dewatering

RGS Geotechnical Report advises that groundwater seepage was encountered at depths in excess of 6m with the standing water level measured at about 1.2m about four weeks after the completion of drilling. Approximately 200mm of rainfall has occurred in Coffs Harbour during April 2019 between the drilling of the boreholes and the initial round of groundwater measuring.

Seepage into the basement excavations during excavation is likely to be low with potential flow paths within cemented alluvial bands. Inflow rates are likely to increase during and following rainfall.

Based on the conditions encountered it is anticipated that groundwater seepage into the excavations will be controllable using conventional gravity drainage to a sump from where it can be pumped to the Council stormwater system or other suitable measures employed as required by Council. Permanent basement drainage could also be achieved using this method or the basement designed as fully tanked.

The main contractor is to carry out groundwater testing and provide a de-watering management plan in order to determine an appropriate method of disposal if groundwater pumping and disposal is required during construction and on completion of the structure.

3.2.6 Pavement condition assessment

Given the significant increase of heavy vehicle traffic on local roads particularly during the bulk earthworks, consideration should be given to the condition of the roads. The developer/contractor could be liable for the repair of roads that are perceived to have been damaged during construction.

The main contractor is required to provide a pavement condition assessment prior to the commencement of any work to document the existing condition of the pavements.

3.3 Contamination

3.3.1 Phase 1 Site Contamination Assessment

Regional Geotechnical Solutions (RGS) have prepared a Preliminary Phase 1 Site Contamination Assessment for the proposed development site. For all samples tested analysis found that heavy metals, TPH, BTEX, PAH, OC/OP pesticides, PCBs and the presence of asbestos were either at concentrations below the laboratory detection limits or at concentrations below the adopted health assessment criteria for commercial/ industrial land use.

Concentrations of heavy metals (notably zinc) in some soil samples may present a potential risk to some ecological receptors. No asbestos was detected in any of the samples tested. The following recommendations are provided regarding the future development of the site.

- Undertake further site assessment following the demolition of the buildings, floor slabs and pavements to assess possible contamination in these areas;
- Further evaluate potential risks to ecological receptors in relation to heavy metal concentrations in soils;
- Assess the need for further work based on the conditions encountered following demolition.

3.3.2 Limitations of investigation

Investigations included characterising the Site into Areas of Environmental Concern (AEC), in which the potential for contamination was identified and nominated Chemicals of Concern that might be associated with those activities. Samples were collected from the boreholes and from surface soils in areas with the potential of contamination.

As such, the preliminary Phase 1 investigations are limited by the existing buildings on the site, the main contractor is required to undertake further soil sampling following removal of ground slab and footings.

3.3.3 Contamination management

In addition to the above, further contamination management measures to be employed include:

- Stockpiles of spoil from inside the Site are to be kept separate;
- Following removal of ground slab further contamination testing is required including site validation by an independent contamination specialist;
- If asbestos is identified by an independent contamination specialist following removal of the existing ground slabs, asbestos removal must be completed by a licensed asbestos removal officer, the area is to be barricaded off by the main contractor's personnel and independent validation testing is required following removal.

- Any contaminated material would be classified first and then disposed of in accordance with the NSW Environmental Protection Authority requirements. Safe work method statements and appropriate practices are to be implemented;
- Major spills that can have an impact on the surrounding environment shall be promptly reported to the appropriate Emergency Authorities in accordance with an incident management plan or emergency spill procedure and shall be contained, collected and disposed of in accordance with the Authorities directives and applicable regulatory requirements;
- Subcontractors must be strongly encouraged to purchase non-toxic or less hazardous products that will not (or have less impact) harm the wellbeing of people and the surrounding environment;
- Construction vehicles to be well maintained to avoid fuel and oil leakages;
- Re-fuelling of piling plant to take place a minimum of 50m away from drainage lines. Trucks and general vehicles to be refuelled at service stations;
- Ensure that the Site is secure with security fencing;
- There shall be no unauthorised storage of fuel or oils;
- Undertake works according to Australian Standard AS 1940-1993: The Storage and Handling of Flammable and Combustible Liquids;
- Undertake works according to Australian Standard AS/NZS 4452:1997: The Storage and Handling of Toxic Substances;
- A construction compound shall be appropriately secured and shall be made safe to the public;
- The site compound shall include a site office, meal and wash sheds, toilet facilities, storage for fuel, oil, chemical and other materials, waste/rubbish facilities and shall display emergency procedure signs;
- On-site domestic waste and sullage facilities shall be provided at the construction compound;
- Designated appropriate area for parking that will minimise any impact upon the environment;
- Designate appropriate areas for plant maintenance and repairs, stockpiles, storage, that will minimise any impact upon the environment.

3.4 Air Quality & Dust Control

The two main impacts to air quality are dust emissions from stockpile and earthworks, and vehicle/ machinery use causing air pollution. The following management measures are to be implemented:

- Excavation and construction work performed within the Site is to comply with Work Health and Safety Regulation 2017 and a project specific safe work method statement that includes provisions for possible contamination and asbestos issues;
- Stabilising all disturbed/ exposed surfaces and stockpiles as soon as practicable;
- NSW Environment Protection Authority best management practices are to be implemented for minimising off-site dust impacts from the project;
- Loose materials transported in trucks travelling on public roads are to be covered with an enviro-tarp;

- Tailgates of all vehicles transporting materials on public roads are to be securely fixed;
- Construction work will be regularly monitored and water carts or hand held water sprays are to be used to suppress dust as required;
- Contractor is to stabilise all unsealed construction access routes through use of coarse aggregates;
- Map and develop a work method procedure for all known areas of Hazardous Materials (Hazardous substance report);
- If asbestos is found in soil, removal is to be completed by a licensed asbestos removal officer, this is to be barricaded off by the main contractors personnel and then removed by a licensed operator.

3.5 Water Quality

3.5.1 Stormwater retention and silt control

Assessment is to be made of the site ground water catchments. Temporary dish drains may be established to direct water runoff. The drains will have straw bales and gravel to retain silt at intermittent points. At any discharge point to the site stormwater system the pit lids are to be covered with shade cloth filter fabric.

3.5.2 Sediment and erosion control

Water has the potential to enter the site from two sources; rainfall and water ingress from subterranean or surface sources.

The ingress of subterranean or surface water together with rainfall into the area of the excavation, will be removed by a system of de-watering pumps placed around the perimeter of the excavation site. The main contractors dewatering management plan is to detail how water is removed from the excavation, tested and treated (if necessary) before discharge to the stormwater system.

3.5.3 Chemical, water and soil pollution control

Fuelling, maintenance and cleaning of vehicles and construction plant will not be carried out in areas from which fuel or oil may be discharged to street gutters or storm water drainage systems.

Dry methods of spillage clean-up will be used wherever possible. Oil contaminated storm water and/or soil will be disposed of to a licensed disposal site.

Should the use of pesticides be necessary, they will be contained within areas such that there can be no contamination of run-off water.

3.5.4 Water quality management for the site

Prior to construction:

- Provide a secure, bunded area for the storage of fuel, oil and other chemicals within the site compound;
- Provide a suitable spill kit onsite for emergency spills of fuel, oil or other chemicals;
- The Contractors Site Management Plan is to display an emergency spill procedure in a prominent position adjacent to the fuel/chemical storage area;
- Prepare an incident management plan or emergency spill procedure.

During construction:

- Avoid the discharge of site stormwater into local drainage system where practical or adequately filter and treat prior to leaving the site;
- No “dirty water” to be pumped into stormwater drains at anytime;
- Maintain a register of all hazardous substances stored on the site;
- Regularly inspect and maintain construction vehicles to avoid fuel and oil leakages;
- Inspect and maintain bunded areas regularly and after rain events;
- Service all portaloos facilities regularly;
- Provide a nominated facility for washing concrete plant such as mixers and pumps, to prevent alkalinity from concrete contaminating stormwater run-off exiting the worksite;
- Contain all runoff from saw cutting and concreting activities to ensure it does not enter stormwater or a waterway.

3.6 Noise and Vibration Control

3.6.1 Noise

Construction is a noise generating activity. The contractor will assess the noise and vibration levels in line with its developed construction methodology and specific items of plant and equipment used on site and determine the acceptable monitoring and mitigation measures based on statutory guidelines, as well as consider the mitigation and monitoring recommendations made within the Acoustic Assessment Report by Pulse Acoustics and in consultation with Coffs Harbour City Council.

Prior to commencing on site the contractor, if required will complete a Safe Work Method Statement (SWMS) and advise of potential noise implications. There will be appropriate safety equipment made available for all personnel in the area or anyone who requests it.

As part of above, surrounding neighbours such as Coffs Harbour Uniting Church located southwest of the site may need to be informed of the scope of works, their duration and likely noise levels, based on consultation with Coffs Harbour City Council. All noise complaints from local residents must be recorded and reported to Coffs Harbour City Council.

3.6.2 Vibration

Construction processes that involve heavy equipment, demolition (existing slab on-ground and bitumen pavement) and/or impact drilling will be evident. If the process has the potential to affect client personnel and surrounding neighbours/ businesses, an evaluation and recommendations will be made to minimise this impact.

During construction:

- Construction activities would be undertaken in accordance with Australian Standard AS 2436-2010 Guide to Noise Control on Construction, Maintenance and Demolition Sites;
- Construction hours will be from 7am to 6pm Monday to Friday, and 8am to 1pm on Saturdays;
- Work will not be permitted on Sundays and public holidays;
- The contractor is to use the best available techniques not entailing excessive cost to meet Department of Environment and Climate Change (EPA) construction noise requirements as far as practicable;
- Any unnecessary noise will be avoided when carrying out manual operations and when operating plant;

- Any equipment not in use for extended periods during construction work will be switched off;
- Good relations with people living and working in the vicinity of the construction site will be established at the beginning of the project and be maintained throughout the project. Any complaints will be registered, and then addressed;
- The quietest suitable plant reasonably available will be selected for each work activity;
- Regular maintenance of plant and machinery will be undertaken to minimise noise emissions;
- Suitable notification, including hours of works, anticipated duration and complaints hotline phone number, will be provided to communities and stakeholders who are likely to be directly impacted by construction;
- In the event complaints regarding noise impacts arise, noise monitoring should be considered to be undertaken at selected receivers;
- Where noise monitoring indicates significant impacts the hours of operation of major noise generating plant and equipment may be rescheduled in consultation with affected stakeholders;
- In the event complaints regarding vibration impact arise, vibration monitoring should be considered to be undertaken at selected receivers.

4 Waste Management Plan

The main contractor will be required under the Contract to prepare a Waste Management Plan (WMP) with practices to be adopted to during the demolition of existing slab on ground, and during the construction of the proposed development. The WMP is to describe how the contractor will manage waste produced by themselves and their sub-contractors throughout the construction process in line with their corporate standard practices and for the site specific requirements.

4.1 During Construction

- All waste disposal would occur in accordance with Work Health and Safety Regulation 2017, Protection of Environment Operations Act 1997 and associated regulations and the NSW Environmental Protection Authority;
- Waste Classification Guidelines 2014;
- All wastes generated by the project would be beneficially reused, recycled or directed to a waste facility lawfully permitted to accept the materials; and
- Construction areas for the proposal will be maintained in a clean and tidy state at all times;
- The workforce will use temporary 'portaloo' toilet facilities on site;
- Waste management practices for the proposal will follow the resource management hierarchy principles embodied in the Waste Avoidance and Resource Recovery Act 2001;
- Excess concrete will be transported off-site for recycling;
- No burning or burying of wastes will be permitted on site;
- All non-recyclable waste will be disposed of at legally operating waste disposal sites;
- Cleaning out of batched concrete mixing plant will not be permitted within the construction area;

- Littering or dumping of unwanted waste or disposal of surplus construction materials including bitumen, asphalt or concrete, or permitting such activities on any land on or around the site, is not permitted;
- Appropriate receptacles must be provided for the depositing of litter and other waste materials, and their contents disposed off site at a suitable waste disposal station on a regular basis;
- The disposal of chemical, fuel and lubricant containers, solid and liquid wastes must be in accordance with the requirements of NSW Environmental Protection Authority;
- Hazardous and Industrial waste must be transported in accordance with the waste tracking requirements outlined in the Protection of the Environment Operations Act 1997;
- Waste will be handled and stored in an environmentally safe manner;
- Waste will be stored in containers which are well maintained and suitably labelled;
- The work site would be left clean and free of debris and other rubbish at the end of the works;
- All wastes would be securely stored to minimise the risk of pollutants escaping;
- Waste management practices for the proposal would follow the resource management hierarchy principles embodied in the Waste Avoidance and Resource Recovery Act 2001;
- If any contaminated material (for example ASS and asbestos) were encountered during excavation for the footings or trenches, work would cease, the site secured and a safe work method statement(s) and appropriate practices would be implemented;
- Any excess non-contaminated spoil following construction can be respread on site in a manner so it is unlikely to wash away during rain events or removed off site for disposal in accordance with NSW Environmental Protection Authority;
- Environmental induction to address resource and waste management and recycling issues;
- Separate bins to be provided on site and staff instructed to place materials for recycling in appropriate bins including paper and cardboard, glass, plastics and metals;
- Remove refuse potentially containing food scraps. All rubbish that is brought into the area must be removed;
- Dirty water (as a result of erosion and sedimentation) to be reused on site if possible for dust suppression, re-vegetation etc;
- Regular maintenance of all machinery to be undertaken to ensure energy efficiency;
- The contractor is required to provide details on suitable waste management procedures and to assume the responsibility for the appropriate disposal of any waste generated;
- A daily inspection shall be carried out to ensure the work site is left in a rubbish free state.

4.2 Post Construction

The contractor is to ensure that the site is cleared of any construction waste / debris, equipment, bins/skips and other building materials on completion of the works. Handover of the site will not be accepted until the site is considered safe and free of hazards (including waste).

5 Site Management Plan

5.1 Site Layout

Site accommodation will be established prior to construction works commencing. A draft layout of the proposed accommodation is attached in appendix A. The layouts at this stage are preliminary and subject to the change by the awarded contractor and to be agreed with Council prior to installing any site accommodation and amenities facilities.

Appendix A documents include:

- Site layout – includes fencing / hoarding which sets out the site boundary, construction access/zone on Gordon Street;
- Site establishment elevation – site accommodation on raised platform over Gordon Street;
- Scaffolding layout;
- Demolition and excavation of site - jersey kerbs during excavation and construction of basement, vehicular access and egress;
- Basement layout after formwork strip out – Site offices, lunch rooms/ amenities and change rooms move to basement level.

In addition, the main contractor will ensure that the site is set up with the following prior to the commencement of any works:

- Signage which clearly sets out access, health & safety, contact details and public information;
- Temporary utilities for the works are in place and functional (such as electricity, water);
- Temporary facilities and equipment for the works are in place and functional (such as Portaloo's, air conditioning, drinking water, security systems, external and internal lighting);
- Maintenance, cleaning and medical equipment is in place and functional.

5.2 Traffic Management

Ason Group have prepared a Construction Traffic Management Plan for the proposed development. The following includes a summary of requirements for the main contractor.

5.2.1 Access

5.2.1.1 Construction Personnel

Construction vehicles will enter and exit the Site via a temporary entrance to the south of the Site on Gordon Street. During this time, Pedestrians attempting to cross the Site's access are to be managed through signage, and traffic controllers (or worker). Site personnel will also be able to access the Site by foot via a secure access gate along Gordon Street.

The main contractor, subcontractors, and visitors shall be required to sign in for access. All construction personnel will be advised of the requirements of access as part of the induction process prior to commencing work on site. General circulation from the contractor's site establishment area and the site will be in accordance with the contractors Council approved Site Establishment Plan.

5.2.1.2 *Emergency Vehicles and Personnel*

Construction works will not affect access for emergency vehicles and personnel during the course of the project. However if in the event that a particular construction activity affects the access path, the contractor will ensure suitable alternative access is maintained at all times for emergency vehicles.

5.2.1.3 *Deliveries*

All deliveries of material to site will be carried out in between approved hours of work and all material movements will be carried out in accordance with the contractor's material handling procedures and the main contractors Construction Traffic Management Plan (CTMP).

5.2.1.4 *Site Visitation*

Visitations by non-construction personnel (such as Coffs Harbour City Council staff) will not be permitted unless prior arrangements have been made with and approved by the contractor's site supervisor or appropriate representative. If access is granted, visitors must be accompanied by a representative of the contractor, have undertaken any relevant site inductions and be wearing appropriate PPE.

Visitors wishing to gain access to the construction site on a regular basis during the course of the project will undertake the site induction and obtain an Industry White card.

5.3 Communications

5.3.1 Information

The contractor is to provide a communications plan which outlines their methodology of informing and responding to the community during construction. Councils *Have your Say* webpage will host details of the project as construction progresses. The webpage hosts a Council email address should any visitors choose to leave a message.

Prior to Construction the main contractor is to:

- Prepare an induction procedure for all personnel (including subcontractors) attending the site. The induction is to address all environmental issues relevant to the activities that could be undertaken by the personnel. Personnel are not to be allowed to enter the site until the induction has been completed. A record is to be kept of all inductions;
- Display appropriate signage providing the contractors name and contact number / email address for the community to lodge any concerns;
- Erect signs and barriers around work sites to eliminate the possibility of personnel injuries or placing the public at risk;
- Inform the local residents via letter box drop a minimum of 48 hour prior to any construction activities outside standard operating hours;
- Establish a community complaints and emergency information hotline.

5.4 Stakeholder Consultation

5.4.1 Stakeholder identification

Key stakeholders involved within the scheme include:

- Coffs Harbour City Council
- Council Staff Members

- Local community businesses, residents (adjoining property owners in particular)
- Transport NSW
- Statutory and utility authorities
- RMS

5.4.2 Communication Strategy

The contractor shall take all reasonable measures to liaise, inform and involve each of the above stakeholders, in relation to their level of interest and investment in the scheme.

An open, accountable and recordable communication and consultation strategy should be employed and managed by the contractor throughout the project lifecycle.

The aim of such a strategy is to create public awareness of the proposed development and garner favourable public opinion, develop effective working relationships to ensure the smooth progress of the developments deliverables, manage any complaints in a professional manner and efficiently keep all stakeholders informed of progress.

5.5 Safety Protocol

5.5.1 General site safety conditions

The contractor will develop and maintain a Safety Management Plan, which clearly outlines procedures for construction personnel. Details of this plan will be posted at the staff / office notice board and available at all times for reference by site personnel. This will be developed in line with recommendations made within the Construction Traffic Management Plan.

The contractor will ensure that all construction personnel have valid White Cards (including any other applicable ID cards) and are inducted prior to commencement of any works on site.

PPE will be worn by all personnel at all times whilst on site, and will not be permitted to enter otherwise. The extent of PPE to be worn will be in line with the contractor's standards of practice and take into account the nature of the works.

A medical kit will be kept on site in an easily accessible location, with at least one member of the contractor team trained in CPR on site at all times.

5.5.2 Key site risks

- Refer attached Safety In Design register prepared by Lead Design Consultant BVN
- Detection and handling of hazardous materials – refer sections 2.3 Geotechnical and 3.4 Contamination;
- Excavation and removal of materials for basement carpark.

5.5.3 Emergency procedures

In the event of an emergency situation, which includes (but is not limited to) the following:

- Emergency evacuation
- Fire
- Flooding
- Gas leak

- Mains power failure
- Explosions - Bomb threat
- Chemical spill
- Construction accident
- Medical emergency
- Theft
- Criminal or accidental damage

The contractor will be responsible to ensure that all construction personnel associated with the works are evacuated from the work site in accordance with the contractor's Safety Management Plan. On evacuation of the work site, the contractor's representative will notify Coffs Harbour City Council, advise of the status of the site and any further emergency procedures required.

The contractor will ensure that an Evacuation Plan, emergency exit routes and rallying points are displayed appropriately within the work site to assist construction personnel evacuating in the event of an emergency. This will also form part of all site inductions.

5.6 Insurance

The contractor will ensure all necessary insurances to undertake all works associated with the proposed development. This will be made available to Coffs Harbour City Council on award of contract.

5.7 Work Permits

The contractor will ensure that no works proceed until the relevant works permits and safety procedures have been obtained, in accordance with the associated statutory guidelines. The contractor will make these permits available on request to relevant authorities and keep copies on site and accessible at all times.

5.8 Smoking, Drugs & Alcohol Policy

A no smoking on site policy will be in effect on site which the contractor will enforce at all times amongst all construction personnel. This includes site offices and subcontractor's facilities. The use or being under the influence of drugs and alcohol while on site is strictly forbidden.

5.9 Adjoining Property

The surrounding land uses close in proximity to the site include the Coffs Harbour Uniting Church, the main public four storey (8 level) car park for Coffs Harbour and other commercial developments which range from one storey dwellings used as office space to two story office blocks. The contractor will induct, and regularly promote, all construction personnel to behave in a manner that does not disrupt the daily operations of the surrounding businesses and be encouraged to project a professional work place as a representation of Coffs Harbour City Council.

5.10 Site Security

The contractor will secure the boundaries of the site for the duration of works using temporary hoardings to be designed and installed in accordance with AS 4687-2007 Temporary Fencing and Hoardings. Shade cloth will be placed on the temporary fencing to help minimize dust and present a clean and well-managed site.

Appropriate signage will be displayed at all access points to the site warning staff, visitors and the general public that an area which is fenced and/or hoarded off is a construction site.

All access points allowing entry to the construction site will be locked at all times with the exception of the main entry gate to the site which will remain open (ajar) during normal working hours. All entries to site will be notified to the site supervisor, with records kept of delivery times.

The contractor will implement an Emergency Site Access Procedure, with emergency site access maintained at all times.

5.11 Site Parking and Signage

A proposal covering the extent and design of pedestrian / visitor directional signage will be developed by the contractor in accordance with the contractor's management plans and systems and submitted to Coffs Harbour City Council for approval. This should be developed in line with the Traffic Impact Assessment recommendations prepared by Ason Group.

The contractor will install statutory / Council required signage to the entry of the site with relevant 24 hours site contractor details, insurances etc. for public notification.

The contractor will ensure that all construction vehicles remain within the site, on allocated parking areas, and that all personnel are inducted on the 'site parking' policy. Refer to Construction Traffic Management Plan prepared by Ason Group for the proposed parking arrangements for construction workers, which is to be developed in consultation with the Local Authority to establish relevant permits for road parking, signalling and traffic management.

5.12 Site Maintenance

5.12.1 Waste removal

The contractor will remove from the site all rubbish resulting from the works. Rubbish will be handled in a manner so as to confine the materials, minimize dust emissions and allow easy disposal.

Refer to Section 4 of this report *Waste Management Plan*.

5.12.2 Road and site cleaning

The contractor will ensure that the surrounding public roads are cleared of any materials resulting from the works in particular sand, rocks and other cleared material / debris resulting from demolition activities from the site that may fall off trucks as they leave site.

On completion of the works, the contractor will also ensure that the site is cleared of any building materials and is left in a tidy and safe condition.

5.12.3 Daily maintenance tasks

Prior to work commencement:

The contractor's supervisor is to carry out the following operations before work starts to ensure acceptable safety at all times:

- Daily pre-start toolbox talk with subcontractors;
- Inspect all signs and devices, rectifying any defects, as well as inspecting the safety and effectiveness of the site set up in general;

- Inspect all emergency and pedestrian paths and ensure they are clear of any obstructions;
- Make any programmed adjustments to the site management provisions for the day;
- Clean and maintain the site in accordance with the stipulations of details of the contractors standard of practice.

During Construction Work Hours, the contractor's supervisor shall:

- Immediately attend to any hazards to construction personnel or members of the public;
- Maintain signs, barriers, access paths throughout working hours;
- Carry out regular checks to ensure safety equipment and measures are functioning as required;
- Ensure all site vehicles (deliveries in particular) are adhering to the Construction Traffic Management Plan.

5.13 Record Keeping

5.13.1 Site quality assurance and daily records

The contractor will keep adequate records of daily activities and any significant departures or additions in a Project Diary. An Inspection and Test Plan (ITP) shall also be developed and administered to ensure compliance with the management plans.

5.13.2 Incident / accident management and reporting

Incident Management: The contractor will develop and maintain an incident plan in order to minimize disruptions and provide a clear and simple guideline for disruptive events. The Contractor's Incident Management Plans are to be implemented on the project upon award of the Contractor.

Accident Management: The Contractors will promptly notify Coffs Harbour City Council (through written report) of the occurrence of the following incidents and accidents:

- Accidents involving death or personal injury;
- Accidents involving lost time;
- Incidents with accident potential (for example equipment failure, slides, cave-ins and near misses).

In the case of accidents, either witnessed or reported, involving Council staff or members of the public or from which legal proceedings might arise:

- Record the actual type, size and location of signs and devices in use at the time of the accident;
- Notify Coffs Harbour City Council as soon as possible;
- Take photographs of the arrangement for subsequent reporting. A file will be kept including any relevant information.

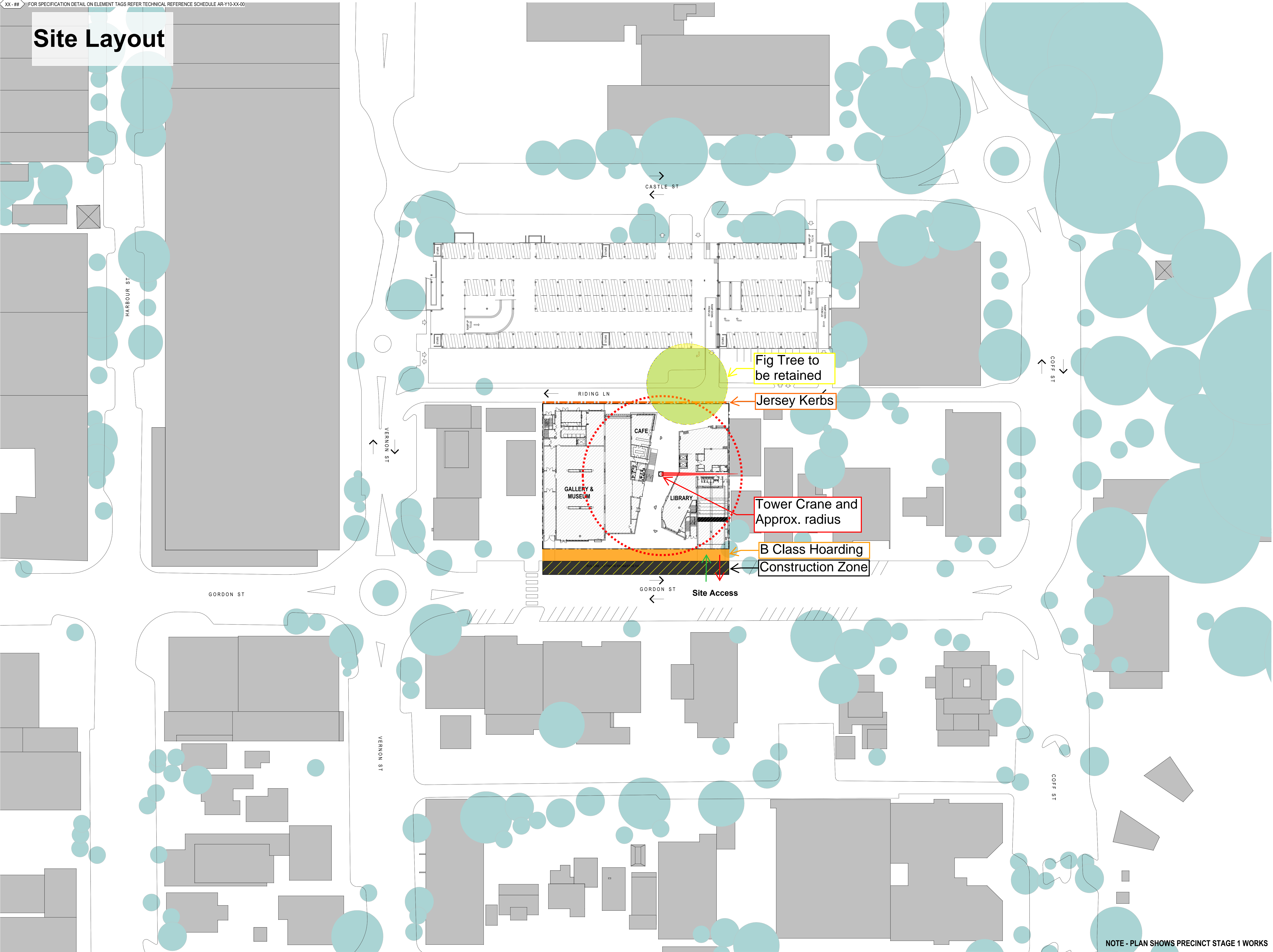
Appendix A

Site Compound

Appendix documents include:

- Site layout;
- Site establishment elevation;
- Scaffolding layout;
- Demolition and excavation of site;
- Basement layout after formwork strip out.

Site Layout



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2	13/05/19	PRELIMINARY SCHEMATIC
3	04/06/19	SCHEMATIC

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COFFS HARBOUR CITY COUNCIL
PROJECT

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COFFS HARBOUR, NSW

BVN PROJECT NUMBER

1812003.000

DRAWING KEY

TRUE NORTH PROJECT NORTH

GRAPHIC SCALE

0 10000 25000

SCALE

1:500@B1

DO NOT SCALE

STATUS

PRELIMINARY SCHEMATIC DESIGN

DRAWING

LOCATION PLAN - PRECINCT
STAGE 1

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3

Site Establishment Elevation



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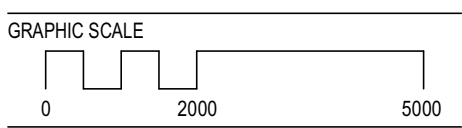
ISSUE	DATE	FOR
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3	17/05/19	SCHEMATIC

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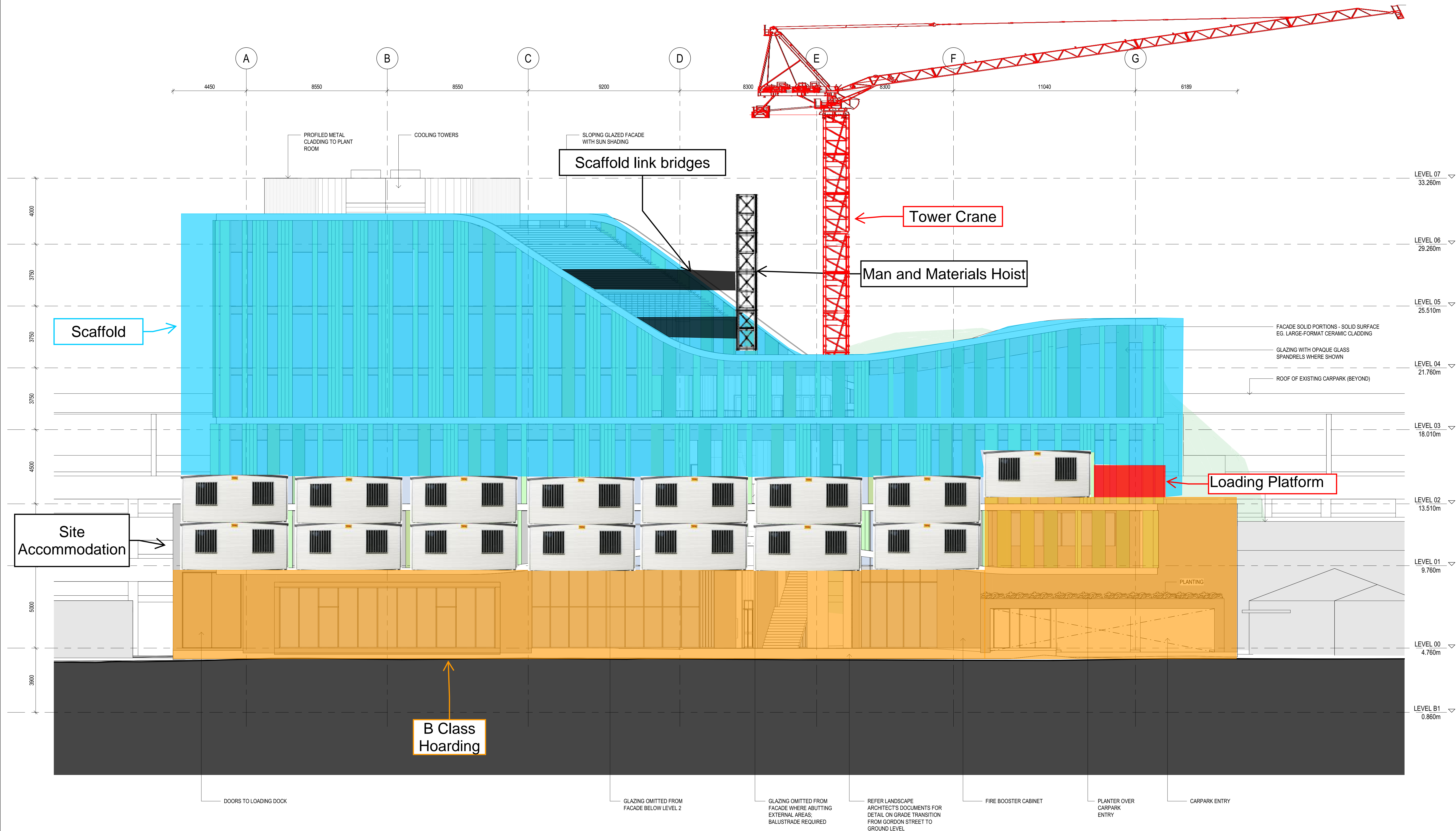
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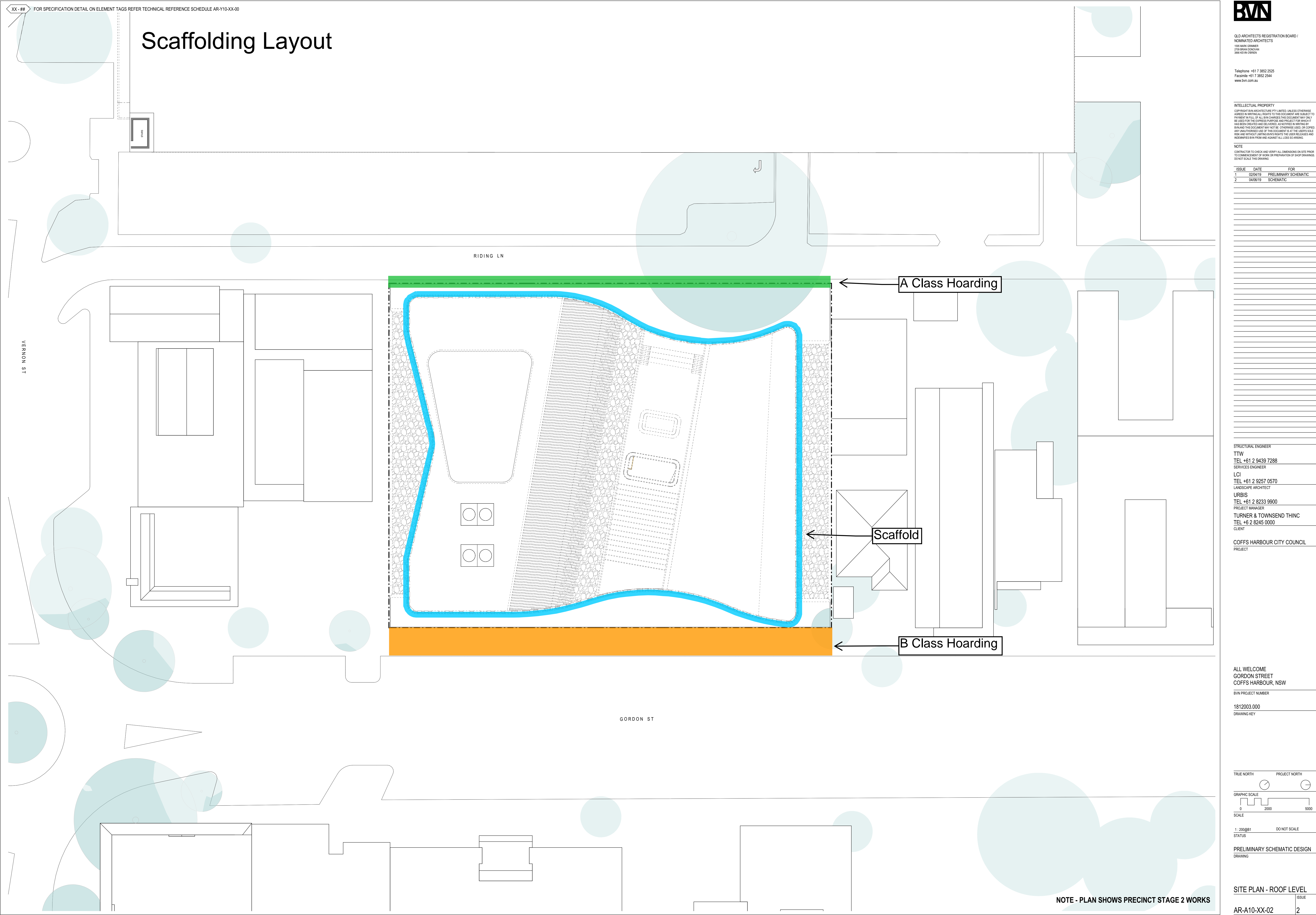


PRELIMINARY SCHEMATIC DESIGN
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GORDON ST ELEVATION
ISSUE

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COFFS HARBOUR CITY COUNCIL
PROJECT

ALL WELCOME
GORDON STREET
COFFS HARBOUR, NSW

BVN PROJECT NUMBER

1812003.000

DRAWING KEY

TRUE NORTH PROJECT NORTH

GRAPHIC SCALE

0 2000 5000

SCALE

1:200@B1 DO NOT SCALE

STATUS

PRELIMINARY SCHEMATIC DESIGN

DRAWING

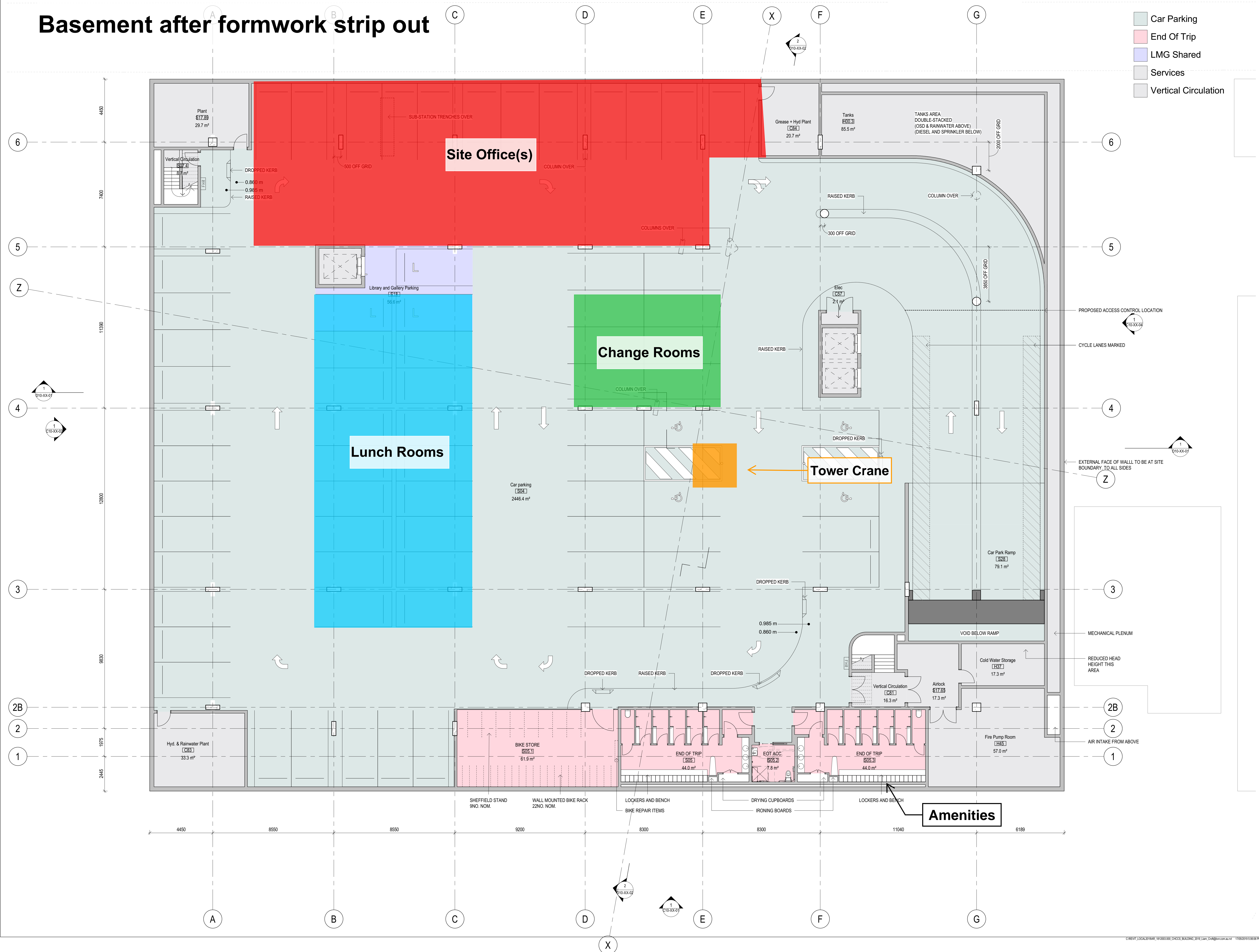
SITE PLAN - ROOF LEVEL

ISSUE

AR-A10-XX-02 2

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Basement after formwork strip out



Safety In Design Register

Prepared by Lead Design Consultant BVN

RI SK Ref No	HAZARD / RI SK EVENT	LOCATI ON	CAUSE	CONSEQUENCE	RI SK RATI NG (Refer to Probability Impact Grid)	RI SK OWNER	ACTI ON	COMMENTS	RESI DUAL RI SK RATI NG (Refer to Probability Impact Grid)	RESOLVE
					<div><div>High</div><div>Medium</div><div>Low</div></div>				<div><div>High</div><div>Medium</div><div>Low</div></div>	Yes
1.0 CONSTRUCTION										
1.01	Vehi cle / pedestrian conflict	Gordon St, Entry to precinct	Gordon street is the main vehicle thoroughfare from Pacific Highway. High volume and frequency of traffic passing site will prohibit safe crossing of pedestrians attempting to reach building.	Serious injury or death	H	Client, Builder, BVN, Traffic engineer	High vehicle collision, traffic management to address issues. Solutions likely to include crossings, median strips	Also relevant to Section 3.0 Operations	M	
1.02	Vehi cle / pedestrian conflict	Gordon St Loading dock entrance	Loading bay for gallery entrance off Gordon St. across public footpath. Large goods vehicles will need to reverse into loading dock. Visibility will be restricted and pedestrian flows hard to manage.	Serious injury or death	H	Client, Builder, BVN, Traffic engineer, Facilities management (FM)	Mitigation strategy including pedestrian control measures to be developed. Consider hazard warning measures such as bollards and demarking truck routes.	Alternative location for loading dock was considered on Riding Lane. Disregarded due to city design masterplan with new enhanced social functionality assigned to Rider Lane.	L	
1.03	Vehi cle / vehi cle conflict	Gordon St Car park entrance	2-way traffic entry to main carpark off Gordon St. High frequency of vehicle movements conflicts with high frequency pedestrian flows.	Serious injury or death	H	Client, Builder, BVN, Traffic engineer	Mitigation strategy including pedestrian control measures to be developed. Consider hazard warning measures such as bollards and demarking car routes.		M	
1.04	Flooding	Level 3 External Court	Court is external and open to rain and weather. Inadequate falls and drainage could lead to flooding at door thresholds and service penetrations.	Injury, collateral damage	H	Client, Builder, BVN, civil / hydraulic	Consider providing free draining trafficable surface with internal falls and symphonic drainage handled in set-down below.		L	
1.05	Falling objects	Ground level, Riding Lane	Large fig tree located on other side of Riding Lane. Canopy encroaches on site. Conflict with building line. Hazard during construction.	Serious injury or death	H	Client, Builder, BVN, Arborist	Façade has been offset to avoid contact with tree. Arborist report has provided advice on how to safely work around the tree. Construction management plan will need to address.		L	Y
1.06	Confined space	Level 3, Terraced seating, Void under	Void under terraced seating, tappers with soffit to a point behind the façade line. Difficult to access and work at high-level..	Panic, injury	L	Client, Builder, BVN, FM	Façade can be accessed and installed externally. Specify low maintenance finishes to soffit which do not require (any) inspection. Avoid locating soffit mounted fixtures in this area which require maintenance.	Also Relevant to Section 2.0 Maintenance	L	
1.07	Slip / Fall	Level 3, External Events space	Proposed open-air void will let rain and weather onto the circulation spaces below. Cost of upgrade of details and materials for weathering / water tight.	Injury, collateral damage	H	Client, Builder, BVN	Provide floor finishes with adequate slip resistance. Review with client and seek agreement that the nominated slip resistance satisfies their requirements.		L	
1.08	Deep excavations	Basement	Excavation of basement across the whole of the site. Associated hazards include collapse, Fall from height, crushing.	Serious injury or death	H	Client, Builder, BVN, Structural	Ensure design of temporary support including propping and shoring is adequate. Protect the edges with boarding. Contractor to		M	
1.09	Collapse	Site boundary / Party wall, North and south	Adjoining buildings built on site boundary. Excavation, underpinning and piling activities likely to cause damage and disruption.	Serious injury or death	H	Client, Builder, BVN, Structural	Prior to start of any construction works conduct a dilapidation report. Ensure design of temporary support including propping and shoring is adequate. Contractor to follow safe work methods.		M	
1.10	Confined space	Site boundary / Party wall, North and south	Constructing along site boundary between neighbour and new very hard.	Panic, serious injury	H	Client, Builder, BVN,	Team is considering utilising prefabricated elements. Contractor to follow safe		M	