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ARCHITECTURAL DESIGN REPORT

CHIEF MECHANICAL ENGINEER'S(CME) BUILDING

December 2022

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Issue	Description	Date	Author	Checked	Authorised
A	Preliminary SSDA Issue	07/11/2022	DC	LH	DC
B	SSDA Issue	11/11/2022	EP	LH	DC
C	Revised SSDA Issue	08/12/2022	EP	LH	DC

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1. INTRODUCTION

1.1 Project Background

The Chief Mechanical Engineer's (CME) Building in Eveleigh has been vacant for about 20 years; having previously been occupied by the then-State Rail Authority (SRA) and its predecessor organisations. Since 1997 it has declined into dilapidation and disrepair. Urban Growth has taken some responsibility for the building and arranged some urgent exterior repairs and repainting to the exterior some 4 years ago.

The building is a place of State significance and is listed on the State Heritage Register (no. 01139).

As part of the Redfern North and Eveleigh redevelopment works, this CME building has been targeted for improvement and for leasing to a third party.

Transport for NSW (TfNSW) have taken charge of the works, and have tendered the project for a design team to be formed to undertake optioneering, design development, and ultimately tender documents for the building's adaptive re-use as a lease office building.

This project commenced in August 2022, and will progress to early 2023, along with a State Significant Development Application (SSDA) to be lodged in late 2022.

1.2 Project Team

TfNSW have developed a consultancy team for this project and are managing this project internally, as part of the broader Redfern North Eveleigh precinct works. The design team includes:

Architect:	CCG Architects
Services	GHD Engineers
Structural	GHD Engineers
BCA/DDA	Design Confidence
Heritage	Curio
Planning	Ethos
Landscaping	Arterra

1.3 Authorship

This report has been written by CCG, and reviewed by the project team and officers of TfNSW.

1.4 Report Purpose

This report is a brief summary of the design process and the options which have been considered, rejected, adapted, and settled upon.

The building and its context present a number of serious design challenges, most pressingly, the exceptional cultural significance of the place and the need to protect its fabric. Design has been driven by the *Burra Charter* requirements for *adaptation* to a *compatible use* (articles 1.9 and 1.11), and a specialized heritage firm (Curio) have guided, and are responsible for, heritage-related design decisions.

Design has focused on bringing the condition of the building to a tolerable state from its current state of neglect, and amending its failure to meet existing legal standards and contemporary expectations for access. In particular, design challenges have included:

- Immediate and urgent conservation work to stem deterioration caused by neglect,
- Providing equitable access from street level into the building, without steps,
- Compliance with fire and other emergency standards,
- Introduction of an elevator into the building, the result of a TfNSW requirement, and
- General adaptive reuse of the office spaces for generic requirements of a future tenant.

The Chief Mechanical Engineer is a State listed heritage building of high significant and as such it requires the professional design team of personnel skilled in heritage type projects.
The core design process included:

- Review of concept design previously established based on 7 objectives for Good Design including heritage conservation management plan and NSW Government planning design guides such as Explanation of Intended Effect Paint Shop Sub Precinct and Draft paint Shop Sub Precinct Design Guide and relevant future proposals of surround.
- Review and confirm local council code controls related to the site.
- Detail site investigation and analysis of the site and its surrounds to determine site condition, constraints and opportunities in the delivery, evaluation and implementation of good design.
- Produce initial spatial planning based on constraints and opportunities established including in-depth analysis of the users requirements, BCA & DDA compliances and functional spatial characteristic of CME building as new modern office.
- Based on 7 objectives for Good Design, prepare Concept design options by identifying the different alternatives and weighing the pros & cons for critical decision making.
- Liaison with SDRP design review panels and their review & feedback, develop and prepare preferred concept design into final schematic suitable for SSDA submission.

2. REDFERN NORTH EVELEIGH PRECINCT RENEWAL

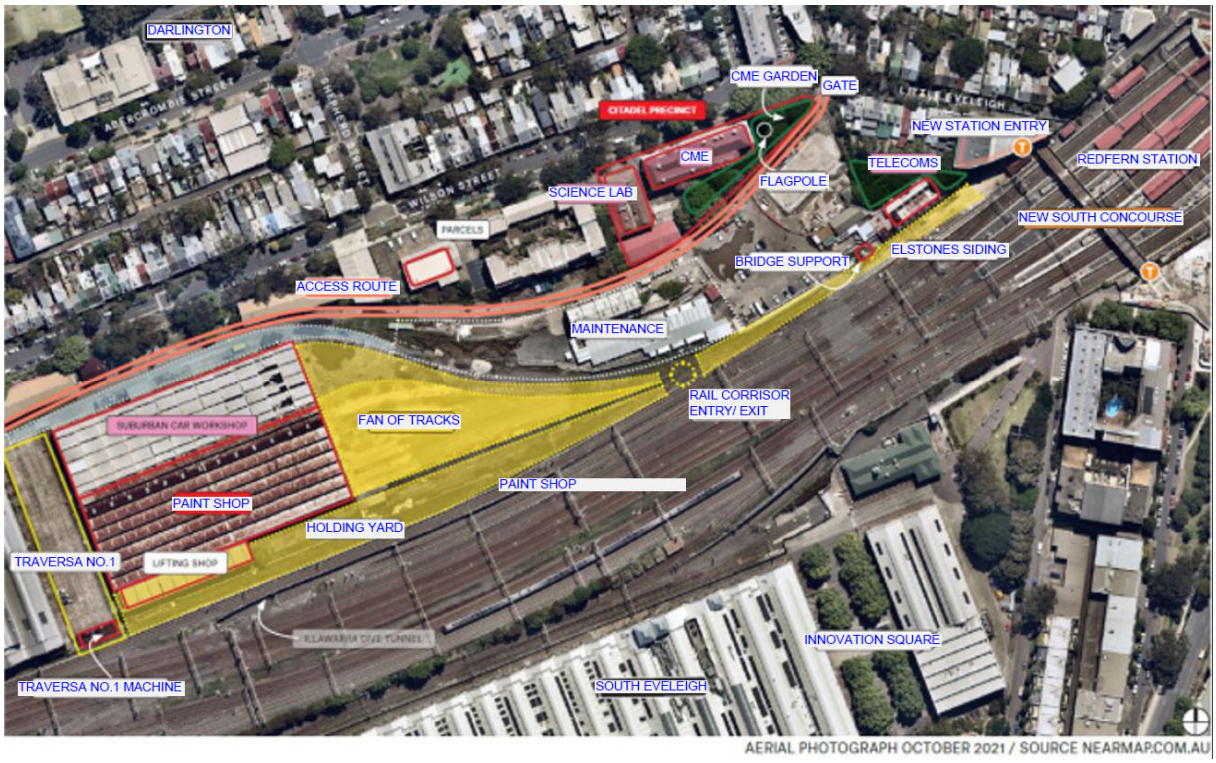


Photo 1: Aerial photo of the precinct and key areas for work.

The Redfern North Eveleigh (RNE) Precinct is a large area to the west of Redfern Railway Station and to the north of the permanent way/rail corridor. The Precinct is an aggregation of various buildings remnant from the area's use throughout the 19th and 20th centuries, as a major site of railway manufacture, maintenance, and design. The Suburban Car and Paint workshops, and Maintenance buildings, are evidence of physical maintenance work, just as the Chief Mechanical Engineers' Building, the Science Lab and Parcels buildings are remaining evidence of the design and administration of NSW Railways from its early history.

These form a culturally significant precinct which is to be heavily developed to accommodate large commercial and residential private development.

A number of strategic planning documents exist to guide the development of this place, including a Strategic Vision and Master Plan.

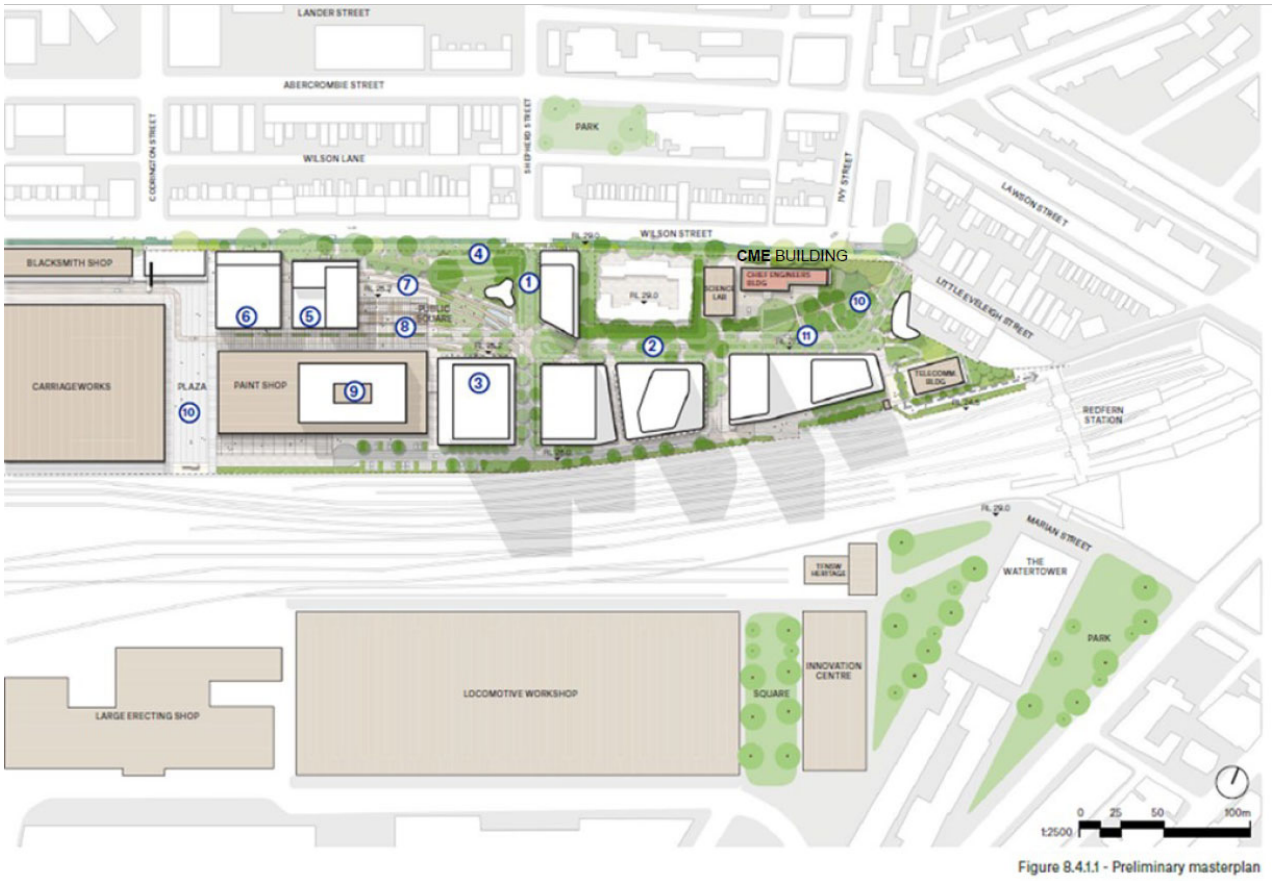


Figure 8.4.1.1 - Preliminary masterplan

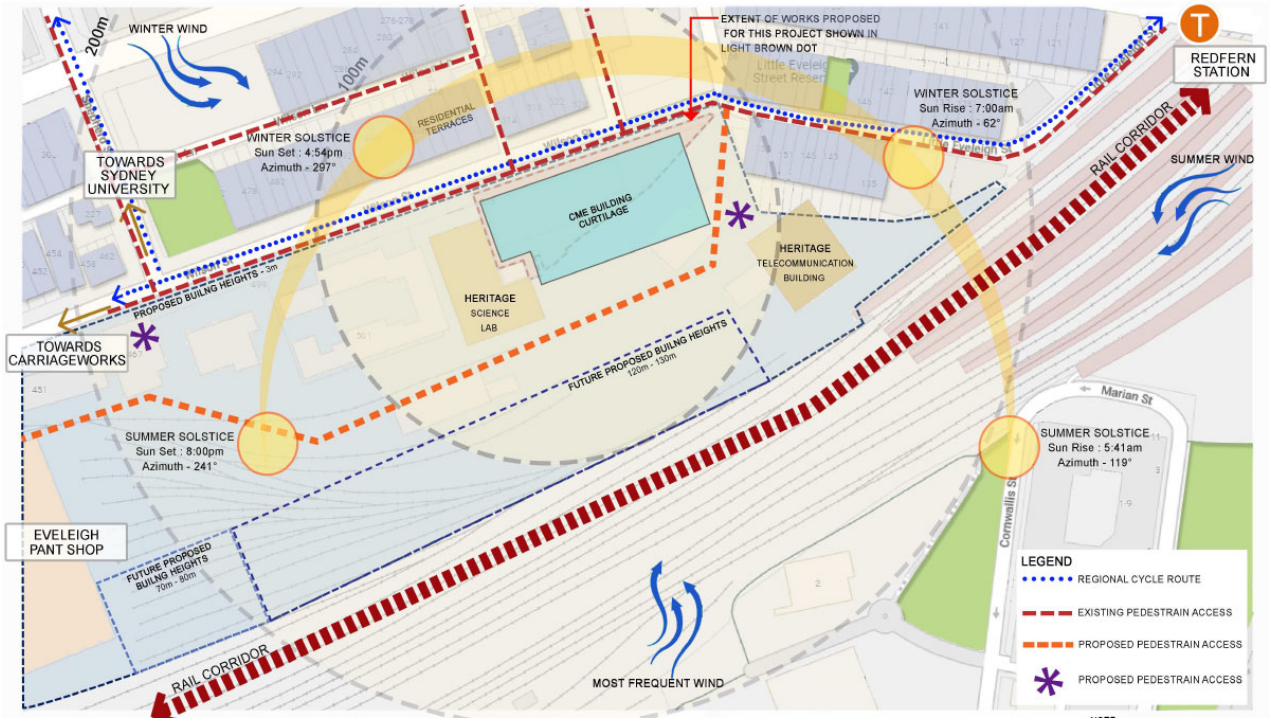
Photo 2: Current Master plan of the precinct.

The CME building will be a key structure within this new precinct, and its street presentation and historical connections to the site make it a unique structure.

The new life of a leased office building in the future will be key to the building's survival and longer term maintenance.

2.1 CME Building

The Site is known as the Chief Mechanical Engineer's (CME) Building. The Chief Mechanical Engineer's Building is located at the eastern end of North Eveleigh on Wilson Street North Eveleigh which is only three kilometers south west of Sydney CBD and just metres from the inner city station of Redfern. It's primary address is 505 Wilson Street, Redfern, NSW 2043. From its deliberate position on the highest ground within the Eveleigh Precinct there is strong visual connection of open view to entire Eveleigh Railway Workshops from rear elevation on South whereas the front elevation of the building faces a leafy suburban residential terraces predominantly single & low density residential. Refer detail to Site analysis plan below;



It is within the Local Government Area of Sydney, within Cumberland County. The legal description of the Site is part of Lot 5 in DP 1175706. The CME is a state significant heritage property asset.

The overall Site of the Eveleigh Railway Workshops engenders high community interest and has a significant profile in the area. The interests of the community and efforts of local volunteers has created a strong sense of ownership and social investment by the community. TAHE intends to lodge a State Significant Development (SSD) application for the work, noting that the Site is located within a State Significant Precinct under SEPP (State Significant Precincts) 2005.

The following table is a summary of the site and building description:

Owner	Transport Asset Holding Entity
State Heritage Listing No:	5014147 (01139)
Legal Reference	Part Lot 5 in DP 11757
Planning Pathway	State Significant Development (under SEPP – State Significant Precinct, 2005)
Proposed Use	Commercial * Subject to Planning confirmation
Gross Floor area	1300 m2 over two floors * Subject to Final Survey

Proposal	Complete building renovation / refurbishment of a significant State Heritage building; • Heritage Refurbishment Works • BCA, DDA and Life Safety upgrades • Hazardous material removal and remediation • Modern kitchenette, breakout areas and amenities • Base building lighting, communications and security upgrades • Air-conditioning

2.2 Design Excellence Pathways

The Heads of consideration of design excellence identified in accordance with Clause 6.21(C) of the Sydney LEP, are generally for a new development building. For this application for an adaptive re-use of an existing and state listed Heritage item, those heads of consideration are not necessarily applicable. By utilising the SEARs as guiding points, the following items are addressed as best suits and supports this application

Our design approach is to create better places and experiences through:

- High standard of architectural design solutions, materials and detailing that are appropriate for CME context, budget and TfNSW's project aspirations through Good design in accordance with the seven objectives for good design in Better Placed;
  Better Fit l Better Performance l Better for Community l Better for People l Better Working l Better value l Better Look & Feel
- Achieving appropriated interfaces at ground level between the building and the Wilson Street public domain placing emphasis on human experience rather than only the pragmatic qualities via excellence and integration of landscape design.

- Generating new forms, methods and interpretations that complement existing heritage fabric improving the everyday interaction with the building.
- Concentration on how office spaces can enhance our well-being instead of reducing architecture to a mere style or an emphasis on technology. Liaison with ESD special consultant seeking to transcend conventional ideas, rules and relationships to achieve safe, comfortable and welcoming feel office environment. Furthermore, without compromising the heritage significance of the CME items, provide improved sustainable design incorporating solar access to allow natural day lights, green space, natural ventilation, visual and acoustic privacy, noise, and necessary work focused amenities and break out spaces at multi locations to improve in an employee's experience at work.

2.3 Project Objectives

Transport for NSW have arranged for a property manager to invite, from the market, options for use which would suit possible tenants. This project will currently allow to improve the building to a 'warm shell' (internal improvements, provision of amenities, and services) ready for a tenant to occupy and undertake their own internal fit-out.

It is not the objective of this project to speculate on possible and specific user requirements, but to provide a shell for future tenant fitout and then occupation.

Design principle	Project application
Retention and improvement of street presentation and location	Reinstated building facades with new front fence & garden works
Safe, easy and egalitarian access to building entry, to and within the building	Wheelchair accessible walkway from Wilson St. to CME main entry incl. new lift running over two levels and accessible amenities provded through out the CME building.
Discreet introduction of new services throughout.	Consolidated service reticulation approach by utilizing existing floor void spaces with existing service's routes salvaged and reused. Designated internal service room to house all indoor service requirements incl. outdoor mechanical plants proposed inside existing WC block shed area retained. In general services proposed where visible are optimized and reduced in size such as fire sprinkler booster assembly along Wilson St.
Design including passive surveillance	Achieved through maximizing visibility through creation of clear sight lines, effective lighting to discourage crime and anti-social behavior.
Sufficient capacity for new tenancy with suitable spaces for lease	BCA persons per m^2 used to calculate occupancy rate & sanitary facilities required.

2.4 Scope of Works

The design team has been engaged to provide warm shell space/ base building works only, for a single tenant, and fit out will be carried out by future tenant with adaptive reuse scope.
The following is a summary of works, which are described in detail in architectural and services drawings:

Ground floor

- Internal
  - Accessible ramps to main CME front entry, 2nd front entry and rear lobby entry with automated doors
  - Internal lift in G4 near main entry
  - Reinstated existing stair in G17 to be updated to meet BCA & DDA compliances.
  - Existing WCs room G18 & G20 are to be retained and refitted
  - Existing WC in room G8 converted into new kitchenette.
  - New changing room & showers in room G16 near rear lobby
  - New service room in G15 including 120/120/120 fire rated electrical room
- External (Refer detail to service engineers, landscape architect's and traffic engineer's drawings and design statements)
  - New garden and fence works.
  - New garden works on East of CME building.
  - New accessible walkway from Wilson St to CME main entrance.
  - Regraded and repaved Verandah on north and external area on west, south and east.
  - Fire sprinkler booster assembly along the Wilson St. frontage on east.

- Mechanical plant, bin storage and bike rack area on south
- In-ground water tank on eastern south.
- Loading area near driveway on Wilson St. as interim measure.

1st floor

- Internal
  - Existing WCs retained and refitted in room F15
  - New kitchenette in room F2
  - New WC in room F3B
  - New accessible WC in room F4B
  - New lift and service shaft in room F4
- External
  - Accessible ramp on 1st floor verandah on East
  - and new glass screening to both 1st floor verandah on west and east to meet BCA. Only make good & repaint works proposed along the 1st floor verandah's
  - new roof sheeting and replacement of roof plumbing and all rain goods

A finishes schedule has been drawn up which details the internal lining finishes room-by-room. Some of these rooms require '100% new' new finishes, where internal lining materials are damaged non-original or unsalvageable.

- G1 - 100% new cornice and ceiling
- G3A - 100% new ceiling
- G4 - 100% new ceiling
- G5 - 100% new flooring
- G8 - 100% new ceiling
- G11 - 100% new flooring and skirting
- G18 & G20 - 100% new flooring & skirting (only refitted to match original finishes)
- G25 - 100% new cornice
- G26 - 100% new cornice
- F3A - 100% new flooring, skirting & ceiling (converting existing wet area to lift lobby)
- F3B & F4B - 100% new flooring, wall tiles & moisture resistance ceiling (min. works for new wet area)
- F15 - 100% new flooring, wall tiles. Refitted works only and extent to match existing

As depicted in the montage below, most of the remainder of the existing Victorian finishes and colour palettes will be refreshed, and/or restored as they are internally and externally. Reinstated to match existing fabrics and colours will only be undertaken if an element is in unsalvageable condition (as indicated above, as 100% new, if they are non-original and unsalvageable).

In order to reduce heritage impact to the building fabric to minimum, carefully selected new finishes and materials, based on the existing finishes and extent in the similar rooms are proposed, but only where necessary: for example, in the new male WC, accessible WC on first floor, and the shower area in the changing room on ground, all for water proofing purposes. The extent and details will be formulated similar to the existing WCs extant on ground and mezzanine levels.

Rich Victorian colours such as blue, brown, pink and green refreshed and retained.

2.5 Design Compliance

The building design is the result of an ongoing process with a number of changes in its brief. The design brief has been modified a number of times, for inclusion of new and unanticipated items such as:

- Gender neutral changing, and end-of-trip facilities
- Introduction of a lift (not required for BCA or DDA) included as TfNSW request
- Green star rating and the associated requirements
- BCA and DDA requirements for Class 5 Office building
- Extent of front garden and fence works incl. new garden on east

2.6 Design Issues

The following were identified as a range of design issues that have been challenged during the course of the project.

2.7 Accessibility

TfNSW and the design team were required to provide wheelchair access upgrades throughout the CME building, including new front 1:20 walkways from Wilson Street to the CME building entrance, internal front and rear lobby ramps, and ramp to upper and ground floor verandahs, to overcome existing small steps. Since the first floor verandah is an exceptionally significant element of the CME building, it is proposed to provide equitable access to the verandah area for everyone, beyond the requirements of DDA. Existing verandah entries will be used, with localised ramp to one location to serve the main first floor verandah. Currently there is nominal of 150mm one step difference in level between interior of the first floor and external verandah.

In terms of alternative type of ramps considered to minimise the visual impact/ streetscape from Wilson Street following 2 options have been explored:

Option 1: Smallest/ shortest ramp further away from the 1st floor verandah edge

This smallest ramp option was initially investigated, which allowed the new ramp to be set back, away from the edge of the first floor verandah. However, being the smallest and shortest compliant ramp, it triggered other required elements, such as tactile ground surface indicators (TGSIs) and handrails, which would have become more physically intrusive, and visible from Wilson Street. Also, due to the constraint of the narrowness of the existing verandah, it would have left inadequate space on the outside of the ramp for both abled and disabled people to walk around.

Alternatively, a single side ramp outside room F4 was considered as a design, but it would have been more visible, being over and next to the main entrance, and would potentially have involved access through two rooms. This verandah entrance was not viable.

In relation to the small front verandah to the west, there is only a single entry available to access the verandah, and due to the spatial constraint for new landing on the outside, and its visibility from Wilson Street, a design decision was made not to provide ramp access here.

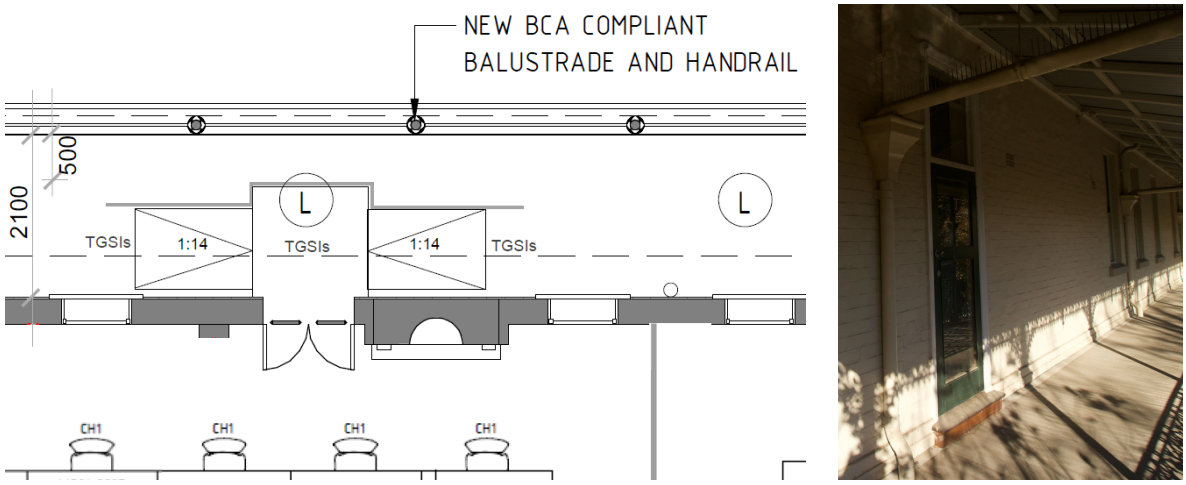


Figure 01. main verandah on East. Smallest ramp option explored in one localised location to overcome existing 1 step.

Option 2 (Preferred): A **more discreet ramp option, without handrails or top-and-bottom TGSIs that would have detracted from the impressive Northern elevation of the building.**

A localised 1:10 sloped ramp, that stops short, away from the existing balustrade, is proposed in the same wooden floorboard material as the existing verandah, to blend in with consistent finishes throughout the first floor verandah.

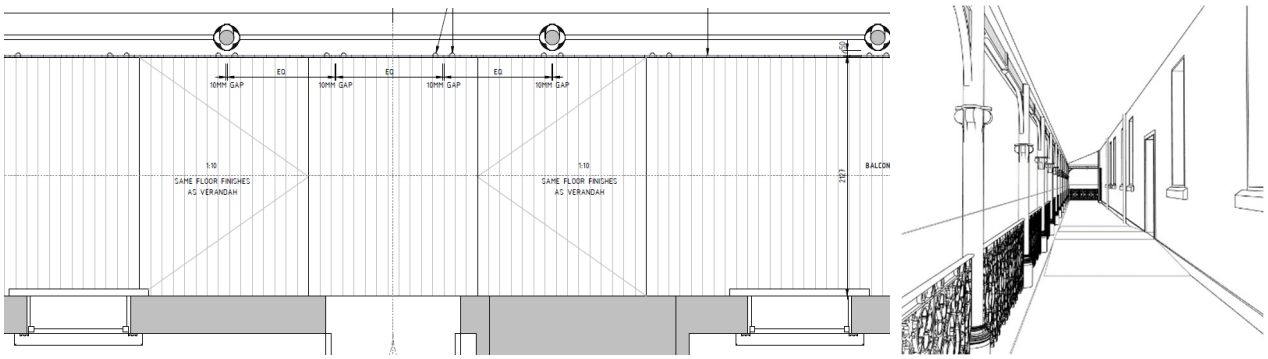


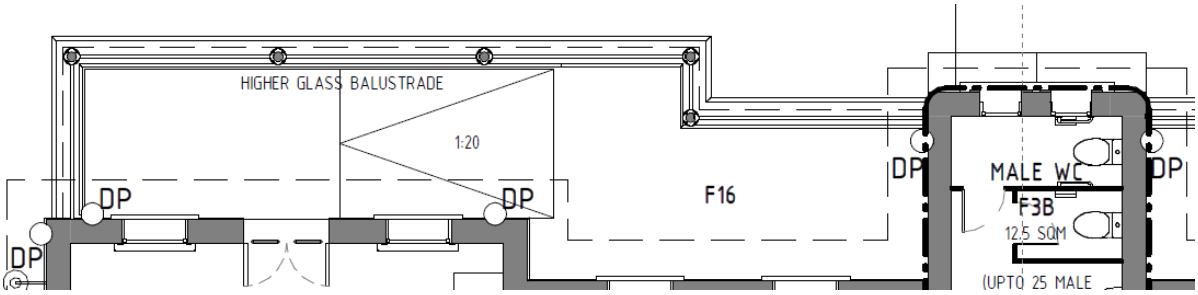
Figure 02. 1:10 walkway without handrails or TGSIs extended to new glass balustrade (Option 2)

From streetscape point of view, the proposed 1:10 gradient ramp gives less visibility from Wilson Street, and not requiring handrails or TGSIs. A design decision was made to extend the single-step high landing to a new glass balustrade screening, sitting behind the existing lattice ironwork balustrade, which is approximately 450mm away from the verandah edge, to mitigate the visibility of this proposed 1:10 ramp and landing. A minimum gap of 150mm (min. to clear the posts as well) between the existing and new balustrades has been provided, for maintenance and cleaning purposes.

For visual discretion the small elevation portion of the single-step high landing (approx. 150mm) will match the heritage green of the existing lattice ironwork.

Figure 03. Localised 1:10 ramp on the main 1st floor verandah on East located well away from the verandah edge - approx. 450mm, discrete and not visible from the street level.

In relation to the small first floor verandah to the west, due to space constraints (with only one access door currently available to the verandah on west), the proposed landing on the outside would have had to be extended to the west. This option was not viable from streetscape point of view and omitted, as the new extended landing would have been visible from the north west corner of the CME.



Discarded ramp option considered on 1st floor verandah on west.

Figure 04. Localised 1:10 ramp on the small first floor verandah on West was eliminated, due to the spatial constraints and excessive visual impact from Wilson Street. This will be only accessible to cleaners and for maintenance.

Lift location & type

It was our design decision to provide a lift to fulfill a modern office environment in addition to the exiting internal stairs. Also, it promotes and encourages equal opportunity for everyone to get access throughout the CME building over 2 levels. A lift was not needed for compliance with BCA/DDA, however for amenity and to enable leasing, TfNSW agreed during the design phase to include a lift.

A range of alternative locations for the positioning of a new lift were explored by the design team. These options are outlined below.

Option 1: External lift arrangement:

As depicted in the sketch below, an external lift on the western side of the rear lobby was explored as the most discrete positioning of the lift. It is tucked in behind the rear lobby on ground and WC on the first floor, to mitigate the visual impact on the South elevation, and to be less intrusive to the views from the future public space to the south, including community pavilion proposed to the east as part of a longer-term Master Plan. This location had minimal physical intrusion on original fabric, and would have involved removing only small extents of walls and windows.

As the location of the CME building is a prominent location at the highest point in the Eveleigh precinct, the entire south elevation can be visible from the public space to the south. A new external lift introduced to the heritage significant South elevation of CME building did not align with the future reorientation of the building towards the public space to the south. It would have had excessive visual impact on this aspect.

Spatial constraints prevent an external lift along the existing driveway to the west.

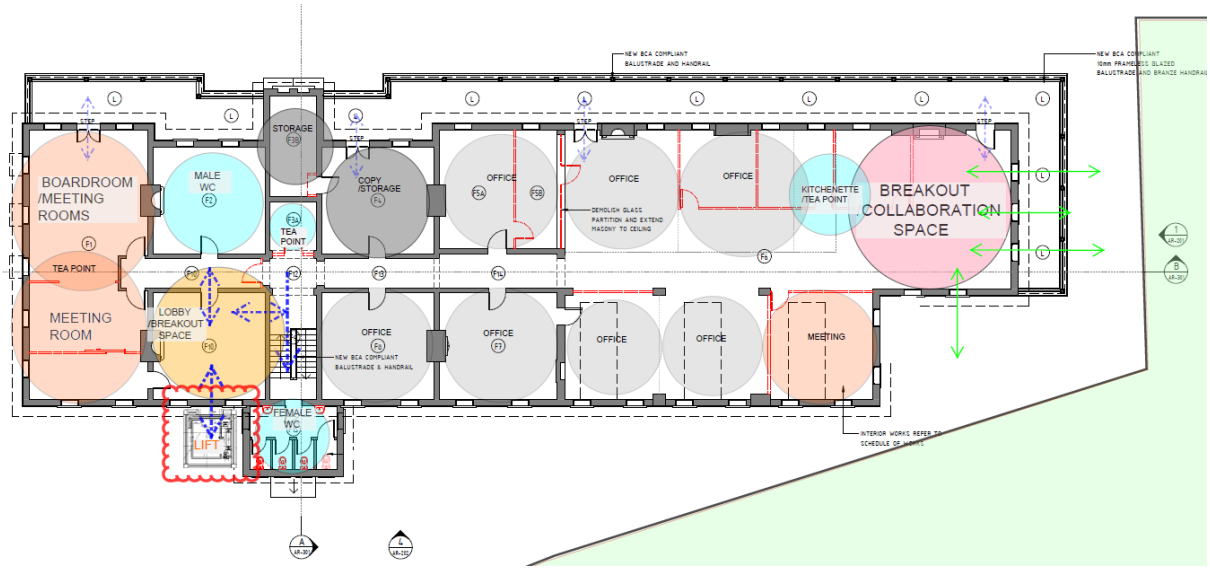


Figure 05. New lift option 1 attached to south elevation externally clouded in red

Option 2: Internal lift arrangement: (PREFERRED)

Since the CME has highly significant façades in prominent and accessible locations, other options were explored to locate the lift internally. Of the rooms adjacent to the main entrance and existing stairs, one space did not have an original fire surround with minimum impact imposed to the internal heritage fabric, and this was agreed by stakeholders and consultants to have the least impact on original fabric moving forward for new lift. Two rooms near rear lobby directly adjacent to the existing stairs been excluded for potential positioning of new lift due to the insufficient circulation space in the existing corridors.

This is a relatively small sized lift car, with a size of 1100mm (width) x 1400mm (depth), which satisfies BCA & DDA compliances. Compared to the alternative considered this lift is less invasive with a small footprint, a shallow pit, and minimised headroom. This option also enables the position of the lift to be closer to the main entrance than a lift with a larger car. This lift option will be readily seen by visitors on entry, providing a strong welcoming element.

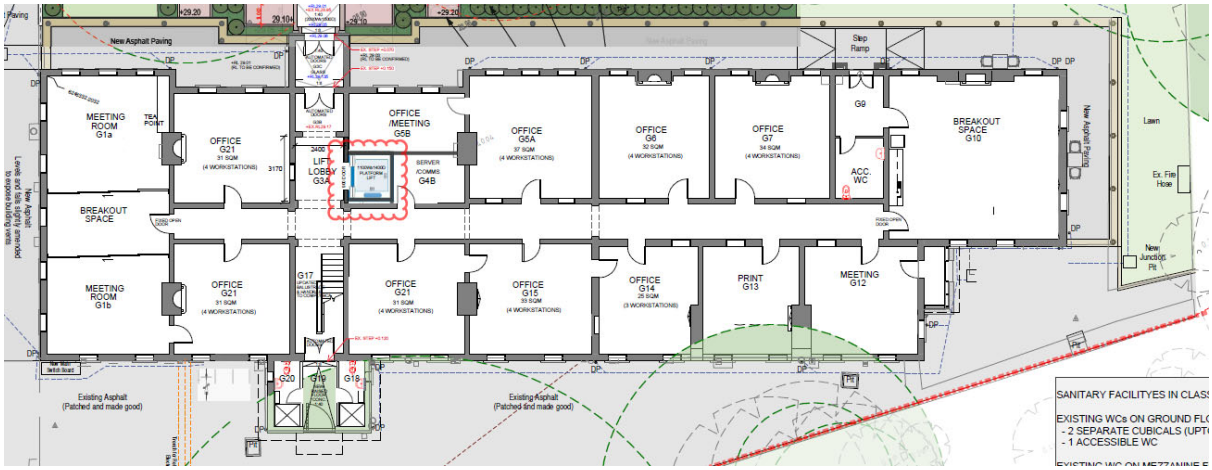


Figure 06. Internal lift near CME main entry clouded in red.

First floor balustrade

To meet BCA compliance requirements, the balustrade must be at least 1m in height and have no gaps greater than 125mm. Climbability of elements is a concern, since the fall to the ground is greater than 4m. A performance solution to BCA was not supported for these safety reasons.

To be able to address BCA issues raised above, and alternative materials other than glass were considered in response to SDRP's feedback, such as a tensile mesh barrier, with apertures no bigger that 125mm, and light weight transparent perspex screen sheeting to prevent someone putting their foot into the gaps of the balustrade lattice. However, from the anti climbability, cleaning maintenance and safety point of views, and especially considering the current poor condition and integrity of existing lattice ironwork balustrade, frameless glass screening, with revised detail designs addressing the issues of cleaning, reflection, and the integration of the original balustrade was far better solution for longevity.

Figure 07. Perspex screening and tensile mesh barriers inferior in cleaning & maintenance and structural point of views and lack of integration with the original balustrade

CCG have proposed a consistent height of 1000mm frameless glass screening behind the existing balustrade with a gap of 150mm for cleaning and maintenance purposes. (1150mm H only where new landings is proposed to comply with BCA). In relation to integration with the original balustrade in foreground, with new frameless glass screen being transparent, the heritage element in foreground and beyond, the glass screening remains intact, and the latticework visible as the dominant significant element. Also from the safety point of view, it can withstand the required load if someone was to lean or fall against it too. In response to SDRP design review panels comment on reflection and cleaning properties of glass, anti reflective and self cleaning glass coatings can be applied to assist the maintenance cleaning regime which uses daylight and rain to break down and wash away organic dirt.

Figure 08. Detail of frameless glass screen behind the existing lattice ironworks balustrade.

In relation to the base fixing of frameless glass, spigots can be fixed to the existing verandah joists to take this load, positioned approximately 450mm away from the edge of the verandah, behind the existing lattice ironworks, to reduce visibility from street level. Darker colour finishes to the bottom fixing spigot are proposed, to blend in behind the existing lattice ironworks balustrade. A top rail has been omitted, to further reduce visibility, since it is structurally not required.

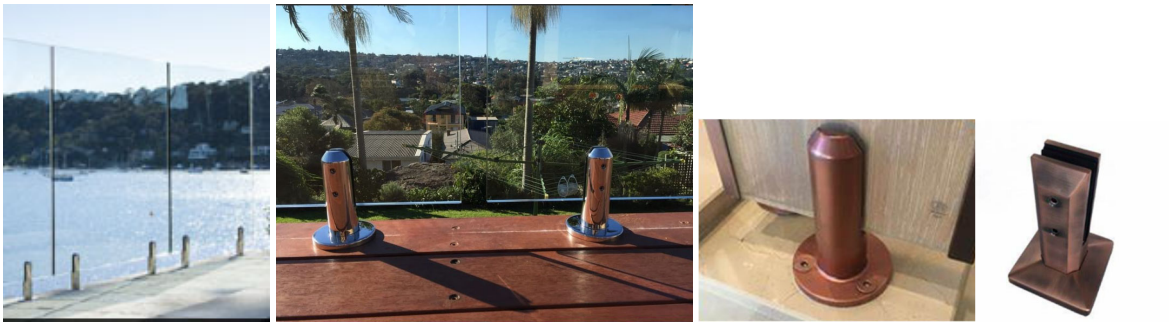


Figure 09. Frameless glass screen behind existing lattice ironworks balustrade

In terms of glass material on façade, as depicted in the photos below, glass is not a foreign material on the northern elevation of the CME building, and these excessively large external glass windows over two levels are one of feature on CME building façade for ample amounts of natural day light, cross ventilation and strong visual connection to outside.


Figure 10. Lots of large glass windows on north façade over two levels.

New wheelchair accessible walkway from Wilson Street.

In response to the SDRP design review panel's comment, alternative options for more discrete entry ramp was developed. A 1:20 wheelchair accessible walkway has been relocated from the prominent proposed location at the front of the building, to the west next to the existing driveway. The scale and bulk of the ramp has been further reduced to a minimum to address and responds to the residential context andstreetscape. Detail is in the landscape architects' drawings.

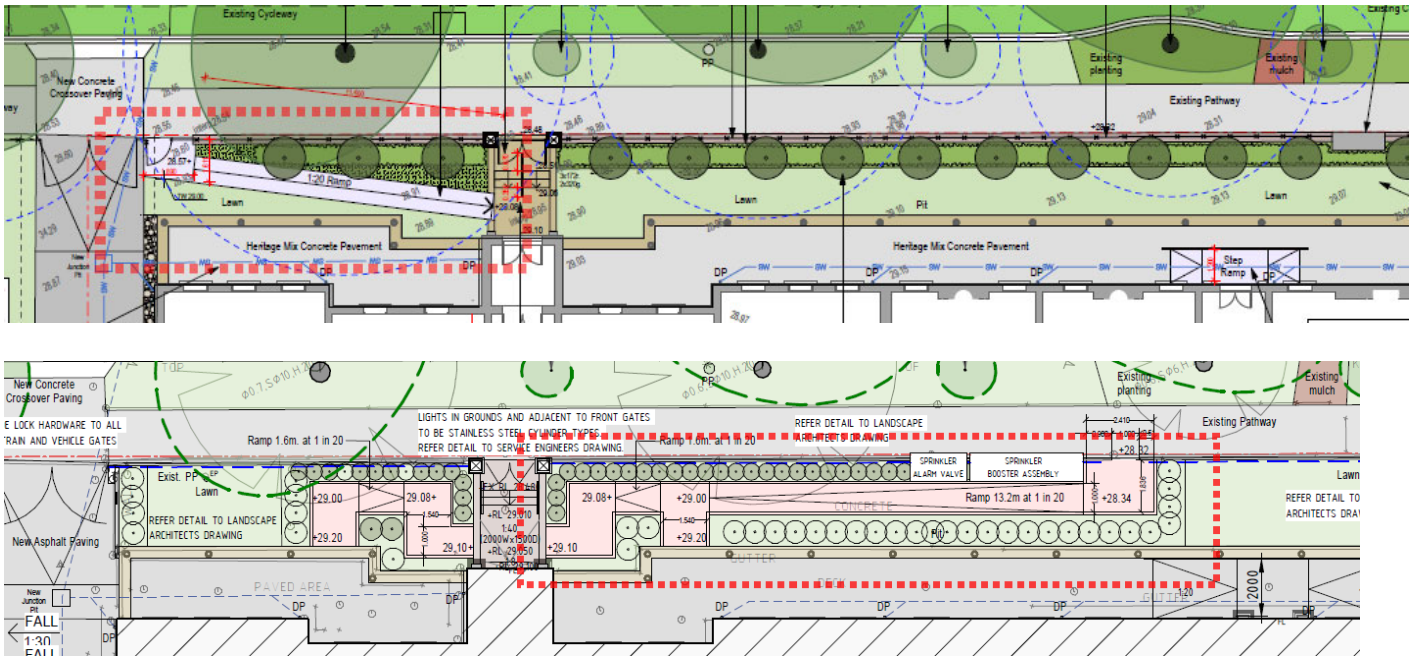


Figure 11. Alternative location options for the entry ramp explored.

2.8 Services

Servicing strategy developed to maintain heritage integrity aesthetic of CME building internally and externally. Overall, our service strategy was to identify and use existing services already available on site consolidating new services into salvaged services route to minimise heritage impact to the building and surrounds.

Bathrooms and amenities

New WCs are introduced to meet BCA & DDA compliances for a Class 5 Office building in addition to existing WCs refurbished;

Occupancy rate using persons per m^2 D1.13 of the BCA.
Ground Floor: 50
First Floor: 56
Total: 106

Currently the existing WCs are located in room G8 on ground to the east, and G18 & G20 on the outside in the rear lobby, whereas room F15 on the mezzanine level is the only WC available for the upper floor. As a result, existing rooms G18 & 20 on ground will refurbished as self-contained WCs, and by utilising existing services available in room G2, new male and accessible toilets will be introduced on the first floor, near the new centralised lift lobby, with consolidated service risers without impact on significant and

original heritage fabric, such as the original chimney breast. The existing WC in room F15, on the mezzanine level, will be refitted into a new female toilet. WC layouts are based on the floor joist layouts. Existing large interior rooms, such as G1 & G10 on ground, and F1 on the first floor, will be refurbished without any new dividing doors, as collaboration spaces, since the existing plan already includes a large number of enclosed rooms which can be used as potential meeting spaces by future tenant.

Kitchenettes will be relocated to enclosed rooms G8 and F2, where existing services are already present, allowing flexibility to future tenant to use the larger rooms such as G10 as multipurpose/collaboration workshop rooms. The design team has been engaged to provide a warm shell space/base building works only for a single tenant, and detailed fit out will be carried out by future tenant, with adaptive reuse scope.

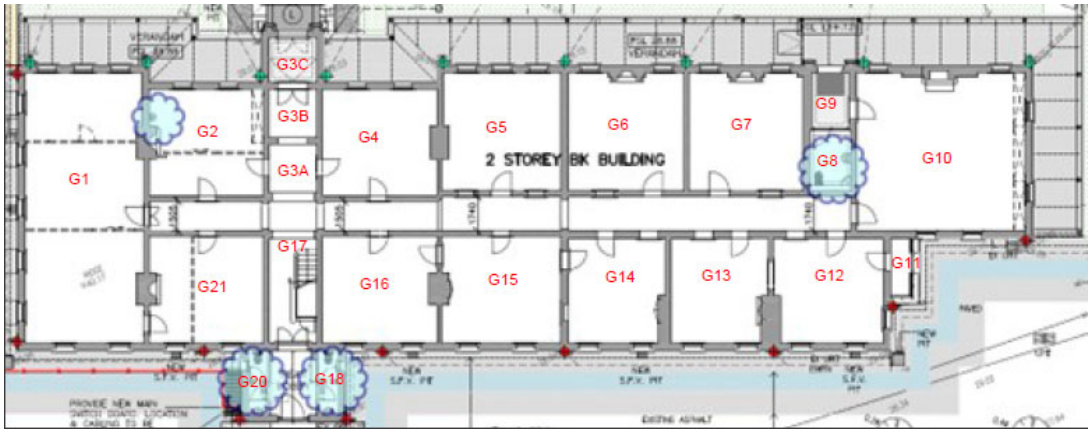


Figure 12. Ground floor existing services identified & clouded in Blue - Room G2, G18&G20 (outside) and G8 to the east.

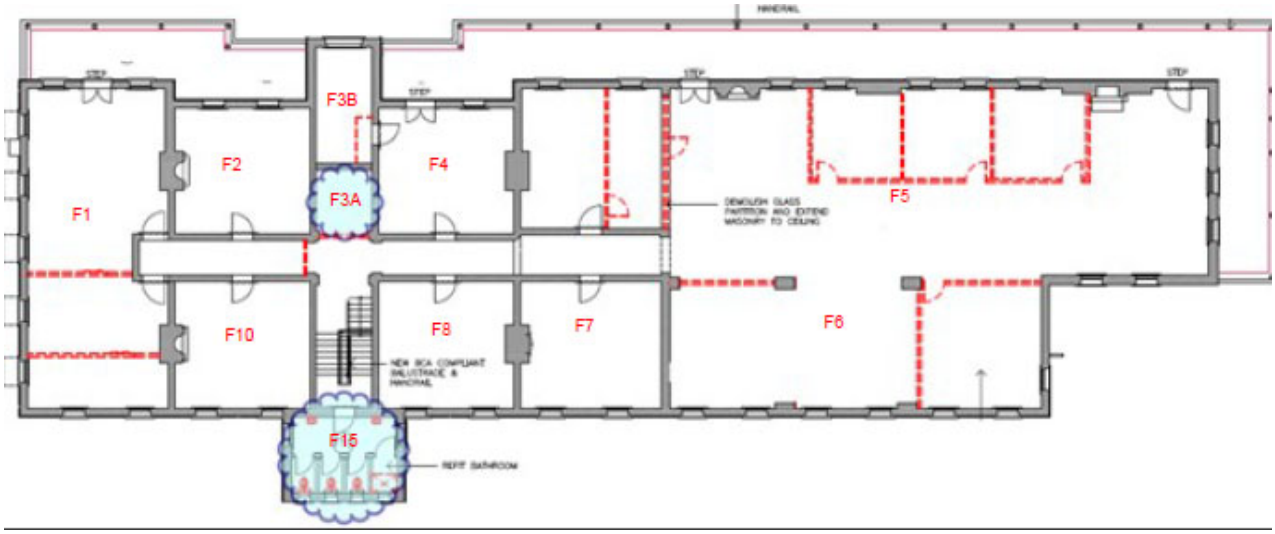


Figure 13. First floor existing amenities identified & clouded in Blue - Room F3A and F15 on mezzanine level.

In addition, as part of Green Star Buildings, 4 showers and 13 lockers introduced in the gender neutral end of trip facility changing room which gives better usability ,inclusive design and spatially efficient in a small building.
4 showers and 13 lockers formulated by using the occupancy rate of 106 in total. (Green Star buildings Movement and Place calculation guide)

Two alternative rooms such as G21 & G16 were explored with their proximity to rear entry and bike rack located near existing WC block on south and G21 discarded due to the heritage significant fire place.

Fire booster assembly location & size

Decisions on the location of external services were made to maintain visual & physical heritage integrity of the CME buildings outside façade, and to align with existing and future character of the locality. The sizes of the required outside services such as main switch board and sprinkler booster assembly were reduced down to minimum and cleared off the CME building façades. Furthermore, in liaison with the heritage consultant, room G15 near the building entrance on ground was chosen for Comms & Elec. room to house all the services required. These are shown in the plan layout.

The fire engineering team advised that it was unlikely that Fire & Rescue NSW would accept a performance solution. The sizes of the fire sprinkler booster assembly were therefore reduced and compressed down to minimum compliant, which is approx. 2000L x 700W x 900H and, as depicted below, location 3 to the far east proposed away from the prominent main entrance front outside the tree protection zones shown dotted in green.

Three alternative locations along Wilson Street frontage were investigated and explored, clouded in Blue below.

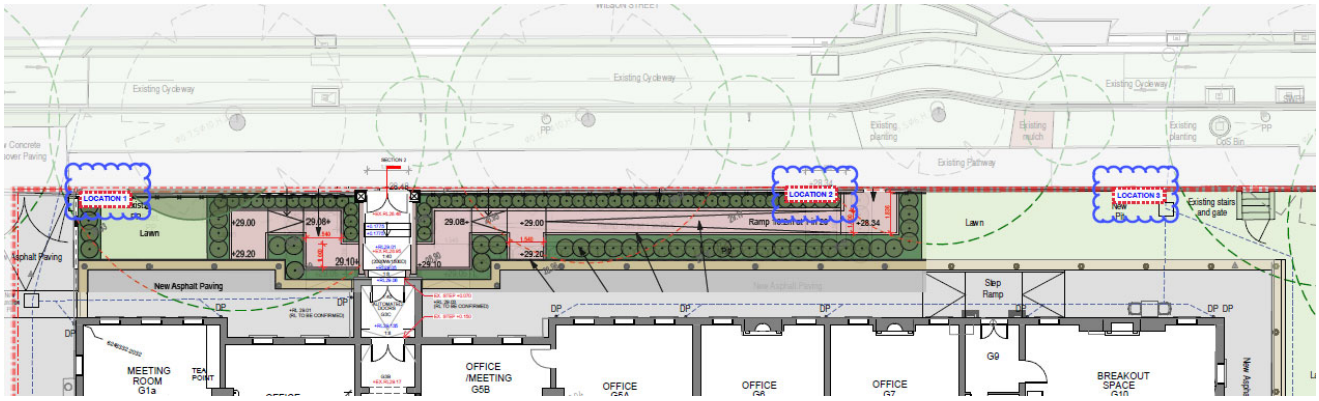


Figure 14. 3 locations investigated for sprinkler booster assembly along the Wilson Street frontage clouded in blue.

Location 3 was the design team's first preference, away from the main CME entrance, and any visual detraction from the impressive northern elevation. Sprinkler assembly along the Wilson Street frontage was the only option viable due to site constraints, such as narrow existing driveway to the west, and the potential archaeological deposits located directly at the east. The rear of the building is intended as a future public space. This provides easy & quick access for Fire & Rescue NSW to tap into a water supply when responding to emergencies and hazards for this high state significant heritage building. A retaining wall will be provided behind the sprinkler assembly with appropriate landscape treatment—refer to greater detail in the landscape drawings.

The under covered existing WC block storage area which has been retained is used as a bin storage and air conditioner plant area. This is temporary use only, until further development of future public space to the south is available. A new 1.8m high screen fence and gate are provided under existing metal deck roof. Details are in the landscape architects' drawing.

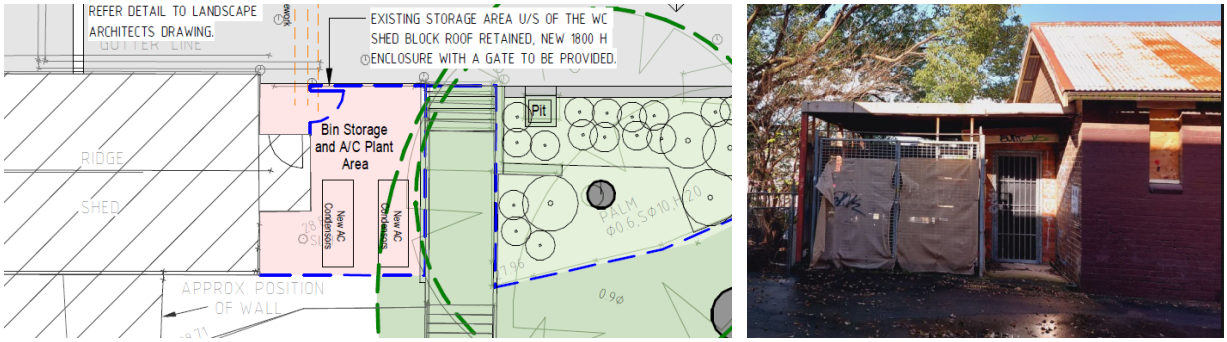


Figure 15. Bin & condenser units area indicated in blue by using the covered existing storage area that is part of the WC shed block retained.

Performance solutions

Main entrance gates with a central handrail:

Due to the spatial constraint we propose that the gates will be opened manually by the tenant in the morning and closed manually in the evening. This will require performance solution with conditioned management in use plan from future tenant and TfNSW. Refer for detail of proposed gate to the landscape architect detail drawings.

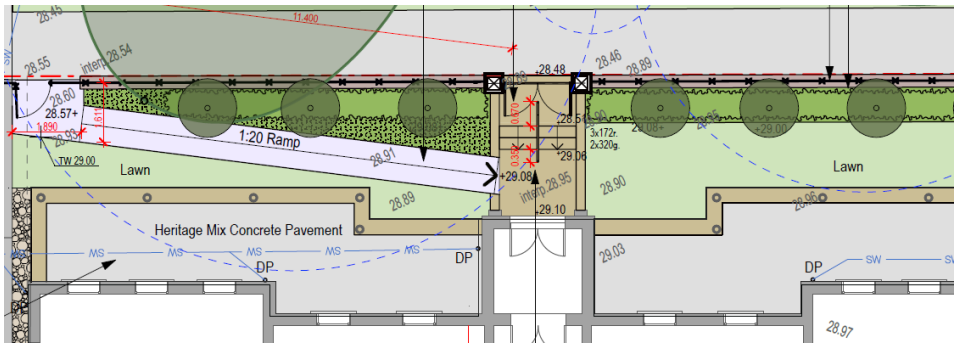


Figure 16. Main entrance gates with a single handrail

There is currently no path connecting to the eastern verandah (ground floor) on the northern side of the building. This is a potential DDA complaint risk where a garden path is not provided. The edge of the verandah, at least 600mm wide, should be of a hard different surface finish at the same level. Where a step is provided and is not protected by a kerb, technically a performance solution would be required as the verandah is along the walkway.

Currently the only pavement connecting directly to the western verandah (ground floor) is the driveway. Based on the existing survey levels, photographs and observation on site we do not believe it will be possible to provide equitable access to the western verandah from the driveway. Note however, that there is no doorway into the building from the western verandah and currently no paved link to the main building entry. Hence the design team's interpretation is that this is not a common area, and proposed works are only for maintenance. It will not be encouraged to be used by any occupants, and an accessway is thus not required. Refer detail to landscape architects detail drawings.

Existing stairs:

The *Disability (Access to Premises—Buildings) Standards 2020*, or Premises Standard, a Commonwealth regulation made under the *Disability Discrimination Act 1992,* requires any existing buildings to be upgraded along the affected part. Where works are being done to the existing stairs, the stairs should comply with current standards.

The existing handrail is far from meeting current standards, and is more used as a balustrade. An additional handrail on top of exiting handrail will be introduced and a continuous compliant handrail on the circulation stair provided, with a Performance Solution on a single handrail.

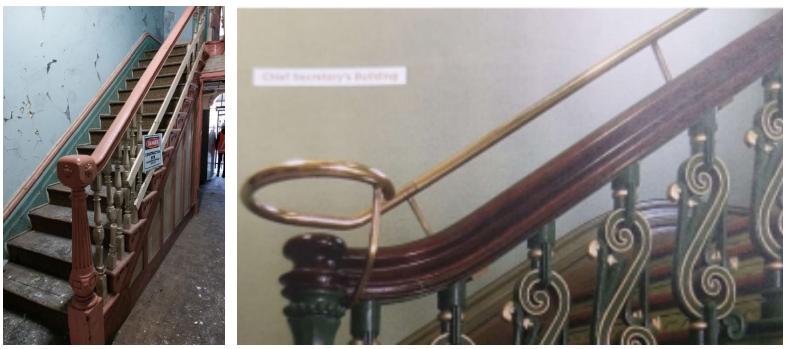


Figure 17. Similar example of additional railing added on top of non-compliant timber handrail.

In addition, below list scenarios where we believe the adaptation of a performance design may add value to development in lieu of complying with the prescriptive deemed to satisfy (DtS) provisions;

- Non complaint existing doors with door opening width, door controls, door circa clearances
- No accessible shower to the GF common shower and changing room
- No accessible WC on ground

Refer detail to appendix 2. BCA & DDA reports

2.9 Applicable Standards

The relevant TfNSW and NSW regulations are as follows but not limited to:

- The Building Code of Australia (National Construction Code) 2016 – Amendment 1
- Commonwealth *Disability Discrimination Act 1992*
- *Environmental Planning and Assessment Act 1979* Crime Prevention Through Environmental Design Guidelines
- *Work Health and Safety Act 2011 No. 10 NSW Legislation*
- Commonwealth *Disability (Access to premises - Buildings) Standards 2010*

The relevant Australian Standards, not limited to:

- AS1428.1 – 2009 Design for access and mobility Part 1: General requiments for access – New building work.
- AS 1428.2 – 1992 Design for access and mobility Part 2: Enhanced and additional requirements – Building and facilities.
- AS 1428.4.1 – 2009 Design for access and mobility Part 4.1: means to assist the orientation of people with vision impairment – Tactile ground surface indicators
- AS 2890.1 – 2004 – Parking Facilities – Part 1: Off Street Parking

3. SSDA DRAWING LIST

ARCHITECTURAL

DRAWING NO.	Title
CCG-CME-AR-DRG-000	COVER SHEET, LOCATION PLAN
CCG-CME-AR-DRG-100	DRAWING INDEX
CCG-CME-AR-DRG-101	SURVEY
CCG-CME-AR-DRG-200	SITE ANALYSIS PLAN
CCG-CME-AR-DRG-201	PROPOSED SITE PLAN
CCG-CME-AR-DRG-202	GLA & NLA CALCULATIONS SHEET
CCG-CME-AR-DRG-203	GROUND FLOOR DEMOLITION PLAN
CCG-CME-AR-DRG-204	PROPOSED GROUND FLOOR PLAN
CCG-CME-AR-DRG-205	FIRST FLOOR DEMOLITION PLAN
CCG-CME-AR-DRG-206	PROPOSED FIRST FLOOR PLAN
CCG-CME-AR-DRG-207	ROOF PLAN
CCG-CME-AR-DRG-208	GROUND FLOOR REFLECTED CEILING PLAN
CCG-CME-AR-DRG-209	FIRST FLOOR REFLECTED CEILING PLAN
CCG-CME-AR-DRG-300	ELEVATIONS
CCG-CME-AR-DRG-301	ELEVATIONS
CCG-CME-AR-DRG-400	SECTIONS
CCG-CME-AR-DRG-401	SECTIONS
CCG-CME-AR-DRG-500	DETAILS - STAIRCASE
CCG-CME-AR-DRG-501	DETAILS - WET AREA PLANS SHEET 1
CCG-CME-AR-DRG-502	DETAILS - WET AREA PLANS SHEET 2
CCG-CME-AR-DRG-503	DETAILS - LIFT PLANS AND SECTION
CCG-CME-AR-DRG-504	DETAILS - BALCONY BALUSTRADE DETAILS
CCG-CME-AR-DRG-505	DETAILS - DORMER WINDOW
CCG-CME-AR-DRG-601	3D EXTRENAL PERSPECTIVES
CCG-CME-AR-DRG-602	3D INTERNAL PERSPECTIVES

4. APPENDICES

4.1 Appendix 1: Landscape plans

4.2 Appendix 2: BCA & DDA SSDA reports

statement of landscape intent

CHIEF MECHANICAL ENGINEERS OFFICE, NORTH EVELEIGH
Redfern North Eveleigh
505 Wilson Street, Redfern

November 2022

Overview
The revitalisation of the Chief Mechanical Engineers Office (CMEO) involves conservation works to the building fabric and modifications required to bring the building up to current standards for use as general office space. The landscape works for this phase are focused on:

- accessibility; and
- general repair or 'making good' of existing landscape surfaces.

Design and implementation of the landscape setting around the CMEO building will be limited to the Wilson Street (northern) frontage only. The eastern garden and permanent landscape treatments on the southern and western sides of the building will not be undertaken at this time. They are to be included with the development of Stage 3 works on the Eastern Park.

The key drivers for the current phase of works are:

- Retention of significant fabric.
- Providing a landscape treatment that is functional and minimalist and does not draw undue attention to itself or obscure the significant building.
- Accommodating accessible circulation around the exterior of the building.
- Accommodating services upgrade including stormwater connection.
- Retention of existing trees across the site as well as street trees in the adjacent Wilson Street.

There are 4 components to this phase of the project, and they are described in more detail below.

Wilson Street Frontage
The existing primary entrance to the building and the existing pedestrian gateway on the Wilson Street boundary are to be retained. The existing steps are to be lifted and relayed so that the upper landing can be lifted to provide equitable access at the entry to the building. Stainless steel tactile indicators will be installed at the top and bottom of the stair. An inlay of contrasting colour will be cut into and set in the step nosings. A new accessible ramp will connect to the upper landing, ensuring the same experience of arrival for all users. The ramp is designed with a 1:20 grade, requiring no handrails. As a simple, concrete surface, it will provide continuity from the street and be differentiated from the flagstone finish of the original entry landing. A low retaining wall and kerb in galvanised steel plate will edge the ramp ensemble ensuring that users stay on the path and are directed towards the entry. The ramp is designed to be 'unfussy' ensuring that the new insertion does not draw attention from the rhythm of the façade or compete with the original approach to the formal building entry.

The existing concrete slab retaining wall and 1.8m. high, green palisade fence on the Wilson Street boundary are to be removed and replaced with a new fence atop a low brick retaining wall. It is proposed that the wall will be constructed with dry pressed clay bricks, a bull nosed header and a thickness of 350mm. The fence is proposed to match the City of Sydney's standard park fence detail, a customised steel palisade approximately 1m. high finished in dark grey micaceous iron oxide coating. The existing vehicular gates will be replaced with new gates to match the style and the overall height of the new wall and fencing. Similarly, adjacent the vehicular gate, at the base of the access ramp there will be a new pedestrian gate. The existing, retained gates at the main entry will be re-finished to match the colour of the new fence.

Inside the new fence a neatly clipped, box hedge will be used to define the level change, which is consistent with the character of the Victorian period building and Wilson Street streetscape. Amongst the Buxus we have proposed a row of Camelias at approximately 3m. spacings. The intention is that they be pruned and shaped to a small tree with umbrella form so that they contribute to the canopy cover of the area without overly obstructing views of the building. The Buxus will be bordered with Mondo Grass and Lilyturf. East of the main entry there will be a lawn between the border and the verandah. West of the entry the border will extend to fill in the areas between the ramp and the verandah.

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Eastern Garden
The eastern garden area will be opened to the building and tidied up but there is no intention at this stage to reinstate or interpret the original garden. The existing 1.8m high green palisade fence that separates the eastern garden from the building is to be removed. The existing flagpole is to be retained and made safe. The existing stone edge around the flagpole is to be retained. Topsoil is to be placed over the existing surface, inside of this edge and the area is to be planted with small flowering ground covers. Beyond this small display around the flagpole, small tree saplings and weed species are to be removed by cutting to the base and poisoning. The area is then to be mulched over the existing surface.

Screening of utilitarian functions and introduction of a new Garden Bed
The area to the south of the building will be tidied up, especially in the area opposite the 'rear' access door. A screened area will be introduced at the eastern end of the toilet block to accommodate bin storage and air-conditioning plant, ensuring these elements do not visually impact appreciation of the CMEO when viewed from the south. Removal of an area of the hard asphalt surface and installation of a small, new garden bed in this area is intended to improve the conditions for the historic *Phoenix canariensis* (Canary Island Date Palm) and *Cinnamomum camphora* (Camphor Laurel).

Repair of Existing Finishes
In addition to the specific, new elements on the site, all existing surfaces will generally be repaired and 'made good'. Where possible, the raised asphalt surface around the site will be milled to a lower level to allow building sub-floor vents to be revealed. Immediately adjacent the western and southern sides of the building a narrow gravel border and sub-soil drainage will be installed to allow the building and foundations to breathe.

The current decomposed granite finish on the verandah will be replaced with a concrete finish using off white cement, river gravel and locally sourced sand. This is consistent with the appearance of the verandah in old photographs and is in keeping with the story of the building as an industrial facility. It also has a connection to the land and the construction techniques of the time. Conservation work to the sandstone verandah edge will also be undertaken as part of this phase of works and will provide the edge against which the new concrete will be finished.

Conclusion
The landscape design comprises a limited scope aimed at supporting the reuse of the CMEO as contemporary office space. It incorporates upgrade of services, access and general safety of the site.

Regards

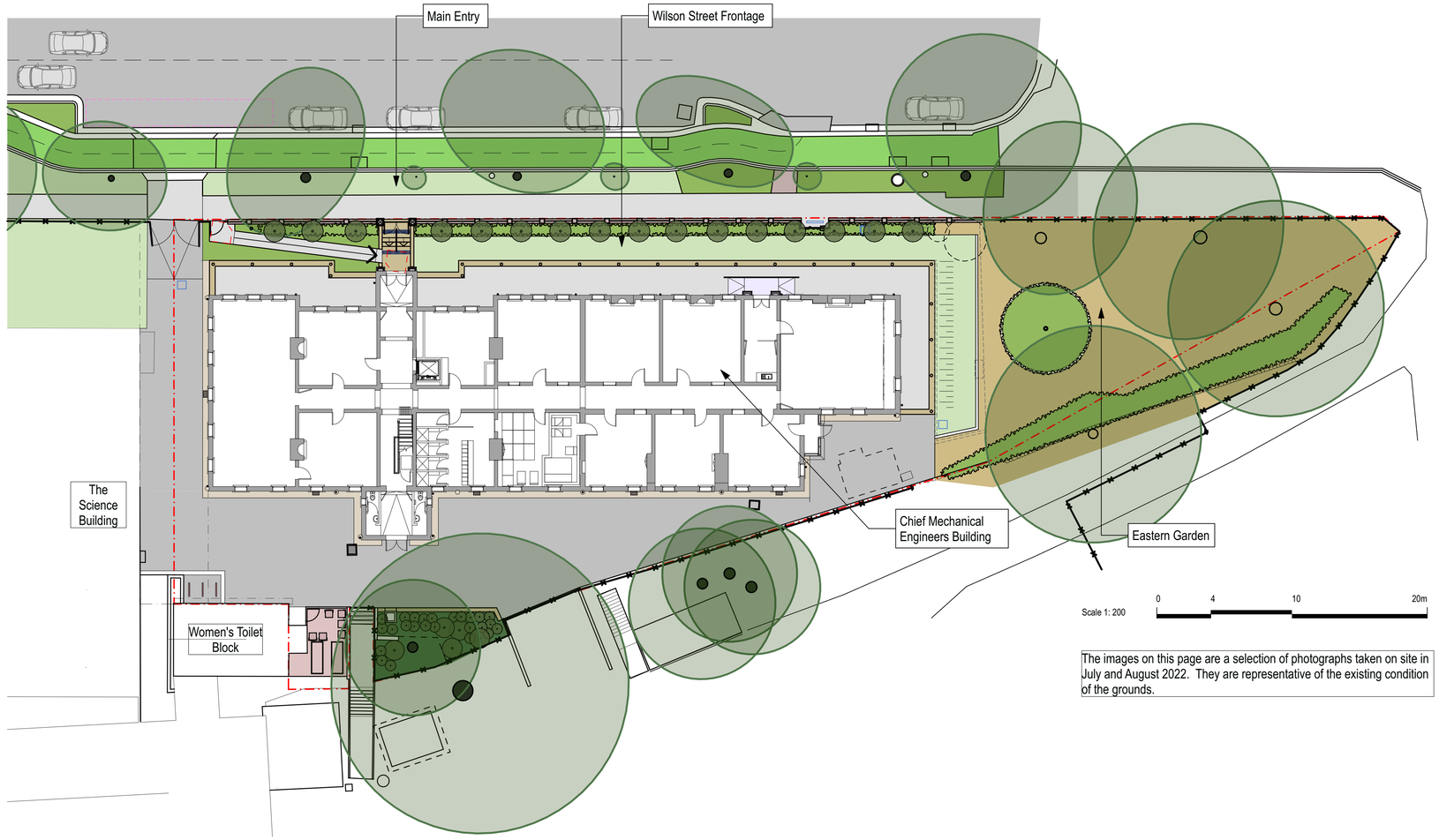
Derek Osborne AAILA
Associate / Registered Landscape Architect (980)

Driveway from Wilson Street at western end of the site,

Wilson Street main entry flanked by sandstone gate posts

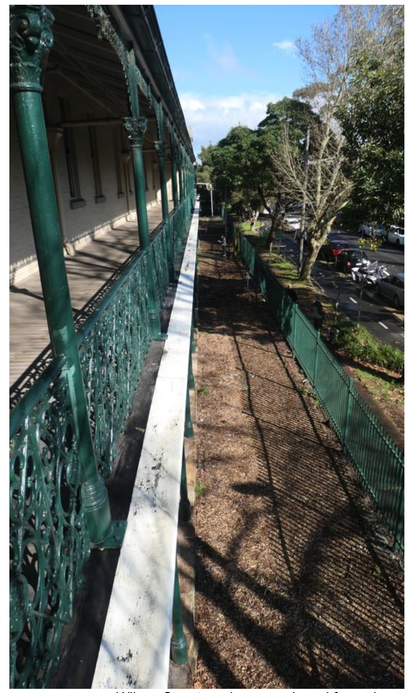
Wilson Street boundary fence & second entry steps and gate

North, western verandah and front garden area, looking east



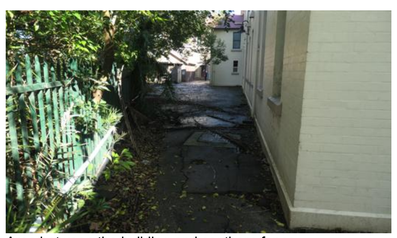
Scale 1: 200 — 0, 4, 10, 20m

The images on this page are a selection of photographs taken on site in July and August 2022. They are representative of the existing condition of the grounds.



Wilson Street garden area viewed from above

Existing toilet block at 'rear' & view of significant trees



Area between the building and southern fence

Eastern verandah looking south

Eastern garden viewed from balcony

Eastern garden and flag pole

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REVISION	DESCRIPTION	CHKD	DATE
A	For SSDA Submission	DSO	03/11/22

PROJECT & CLIENT
RNE - Chief Mechanical Engineers Building
Transport for NSW

Project No : 22.15
Designed : DSO/RWS
Drawn : DSO/RWS
North
Scale : 1:200@A1 / 1:400@A3

DRAWING TITLE
Landscape Site Plan

DRAWING NUMBER
L-SD-01

REVISION
A

Plotted at : 1:34 pm 4/11/2022

For loading zone detail, see Fig 4.22 in SCT Traffic, Transport and Accessibility study

Poured in situ concrete ramp with low raking walls and kerbs in galvanised steel plate, providing equitable access to main entry

Retain and protect existing gateway and flanking pillars and maintain as main entry to facility

Dry pressed clay brick wall. 350mm thick nom. 450 high with double bull nose

Garden and lawn raked down to top of wall

New 1000mm high steel fence to match City of Sydney Park Fence Design, custom manufactured and finished in dark grey micaceous iron oxide coating, mounted atop new brick wall

Booster Assembly, cabinet and galvanised steel plate retaining wall

Camelia sasanqua pruned to a small tree, umbrella form. Underpalnted with a Buxus sempervirens hedge maintained at a height of 600mm and an Ophiopogon japonicus border.

WILSON STREET

T01 T02 T03 T04 T05 T06 T07 T08

Existing Cycleway

Existing Pathway

New Concrete Crossover Paving

Existing planting

Existing mulch

CoS Bin

SWPit

PP

TW 28.80

28.55 28.57 28.48 28.5 29.00 29.01 29.02 28.32

1:20 Ramp

Lawn

Heritage Mix Concrete Pavement

29.04

Booster

New Pit

Existing stair to be demolished

Step Ramp

Mulch

Timber Sleeper Laid Flat

Ex. Fence to be Removed

JOINS L-SD-03

Remove existing weed species and previously removed tree regrowth to be cut off at base

Remove excessive mulch, grind any stumps remaining and renew topsoil and turf grass to frontage

Drain overflow from tank to Wilson street, avoiding Tree Protection Zone.

Retain and refurbish where required the existing sandstone edge around verandah. Remove decomposed granite and resurface with Concrete using off white cement, river gravel and a locally sourced sand. We believe this is in keeping with the story of the building as an industrial facility and also has a connection to the land and the construction techniques of the time.

New Junction Pit

28.98+

Raise and relay existing sandstone flagging and side walls to the level of the door threshold

FL 29.17

Camelia sasanqua pruned to a small tree, umbrella form. Underpalnted with a Buxus sempervirens hedge maintained at a height of 600mm and an Ophiopogon japonicus border.

Provide accessible building entry/ step ramp in concrete. Balustrade in frameless glass

Ex. concrete hob to be removed and lawn graded down to meet sandstone edge

Ex. Fire Hose to be Removed

Coarse gravel apron around building with subsoil drainage lines falling to and connecting with s.w. system. To minimise splash onto the wall of the building and allow foundations to dry through the unsealed surface

New Asphalt Levels amended to expose building vents and fall away from the buildings at 1:50

Renew stormwater drainage from Downpipes and drain out through driveway minimising incursion into street tree 'Tree Protection Zone'

Drain rear downpipes to proposed rainwater tank. Shallow and localised trenching by hand only through tree protection zone.

Nominal location of below ground rainwater tank

Pit

New rainwater tank below ground.Excavation clear of all retained trees

New Asphalt Levels amended to expose building vents and fall away from the building at 1:50

One consolidated trench for all services to rear of building to minimise trenching near or around historic trees

Trench for Refrigerant Pipework Electricals etc.

Preferred location for bicycle hoops. Ideally should be visible from the street/driveway.

Ex. Grated Drain

Bike Racks

T206 T209 T205 T207

Existing trees retained and protected

Demolish existing fence and corrugated iron enclosure and refurbish with a new 1.8m timber screen fence and utilise area for plant and equipment and bin storage.

Bin Storage and A/C Plant Area

New A/C Condensors

New Air Conditioners

Existing building retained and protected. Not part of scope of works.

New raised sandstone edging to garden

Existing asphalt to be carefully removed and area around existing historic palm to be replenished with topsoil and planted with hardy groundcovers.

Existing tree retained and protected

Existing palm tree retained and protected

0 2 4 10m

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REVISION	DESCRIPTION	CHKD	DATE
A	For SSDA Submission	DSO	03/11/22

PROJECT & CLIENT

RNE - Chief Mechanical Engineers Building

Transport for NSW

Project No : 22.15
Designed : DSO/RWS
Drawn : DSO/RWS
Scale : 1:100@A1/1:200@A3

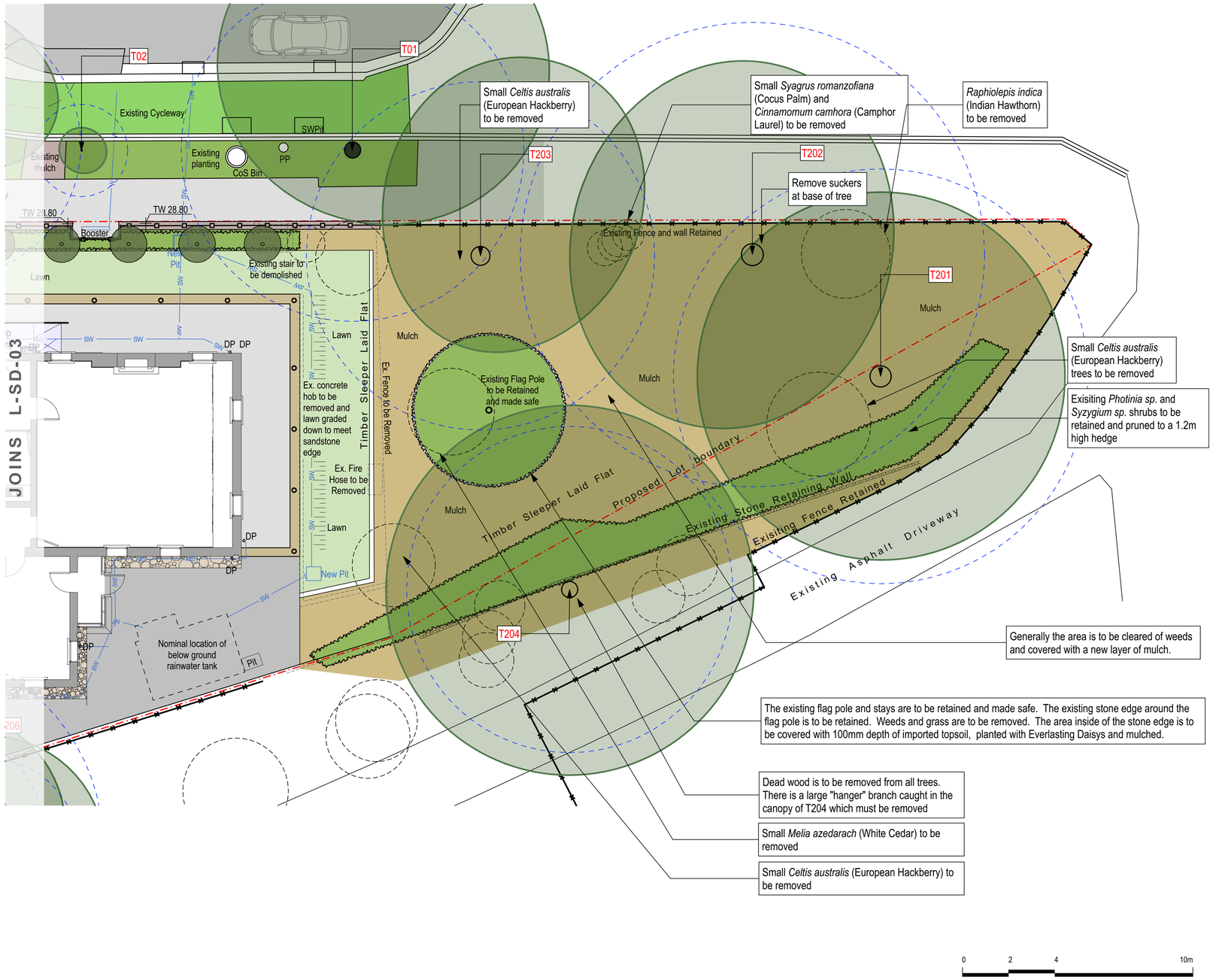
North

DRAWING TITLE: Landscape Concept Plan

DRAWING NUMBER: L-SD-02

REVISION: A

Plotted at : 1:34 pm 4/11/2022

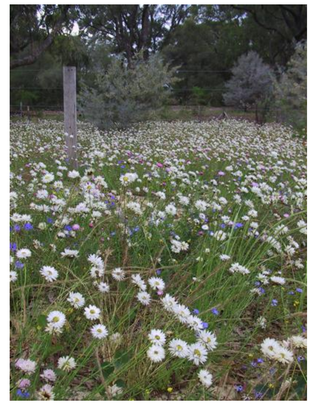


Proposed Plant Palette

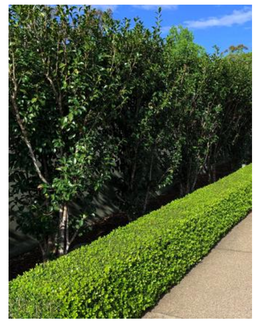
Camellia tree, *Camellia sasanqua*

Gymea Lily, *Doryanthus excelsa*

Lilyturf border, *Liriope muscari*



Everlasting Daisy, *Bracteantha bracteata*



Box hedge, *Buxus sempervirens*

Little Con border, *Lomandra confertifolia 'Little Con'*

Modo Grass border, *Opiopogon japonicus*

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REVISION	DESCRIPTION	CHKD	DATE
A	For SSDA Submission	DSO	03/11/22

PROJECT & CLIENT
RNE - Chief Mechanical Engineers Building
Transport for NSW

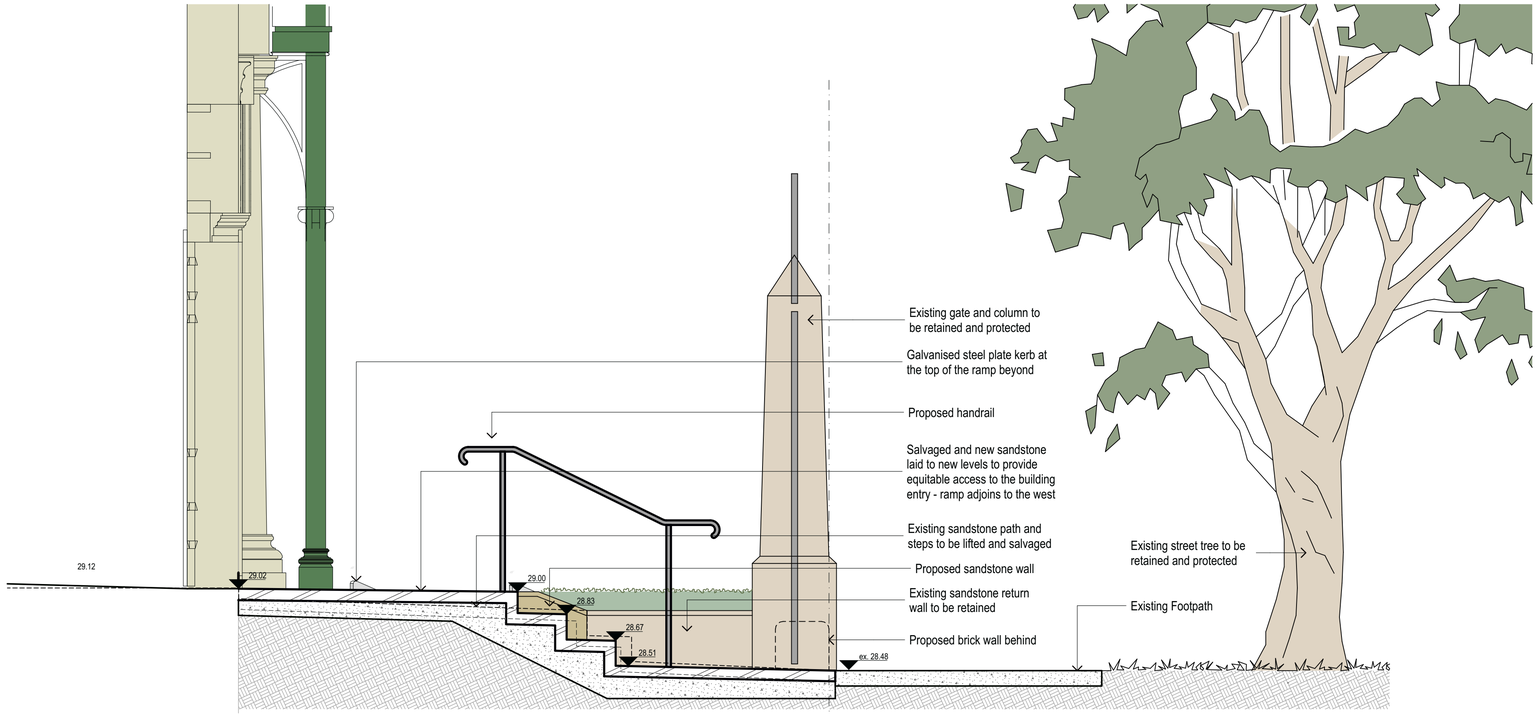
Project No : 22.15
Designed : DSO/RWS
Drawn : DSO/RWS
North Scale : 1:100@A1/1:200@A3

DRAWING TITLE
Eastern Garden Plan

DRAWING NUMBER
L-SD-03

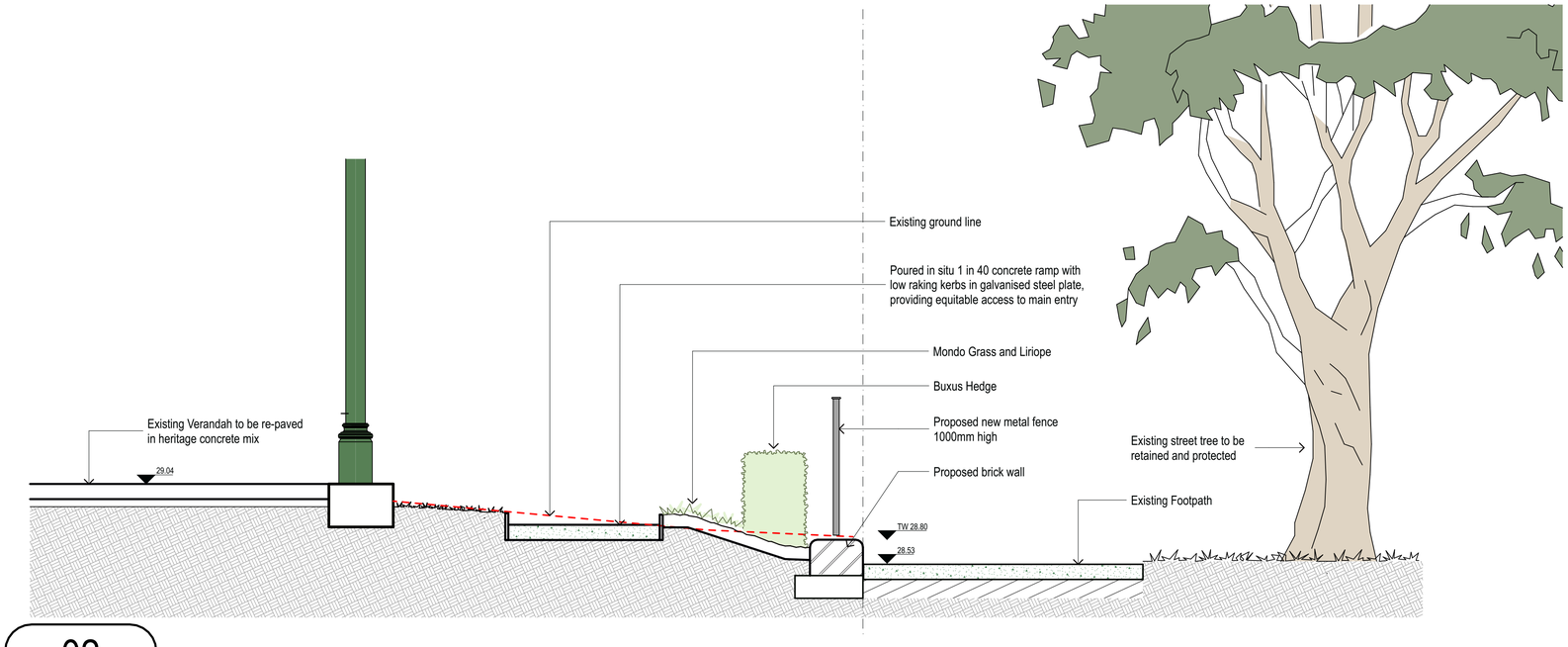
REVISION
A

Plotted at : 1:34 pm 4/11/2022



01 Section through Wilson St entry steps

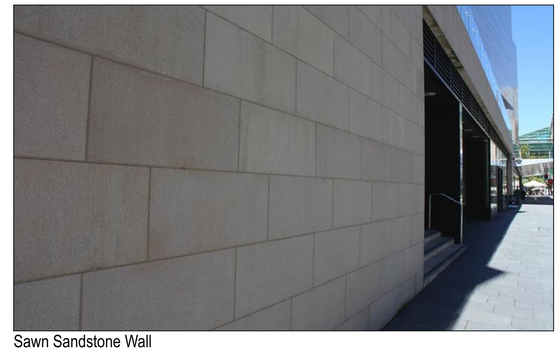
Scale 1:20 @ A1, 1:40 @ A3



02 Section through ramp entry and gate

Scale 1:20 @ A1, 1:40 @ A3

Palisade Fence



Sawn Sandstone Wall

Sawn sandstone Steps

Sawn Sandstone - Buff Colour

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REVISION	DESCRIPTION	CHKD	DATE
A	For SSDA Submission	DSO	03/11/22

PROJECT & CLIENT
RNE - Chief Mechanical Engineers Building
Transport for NSW

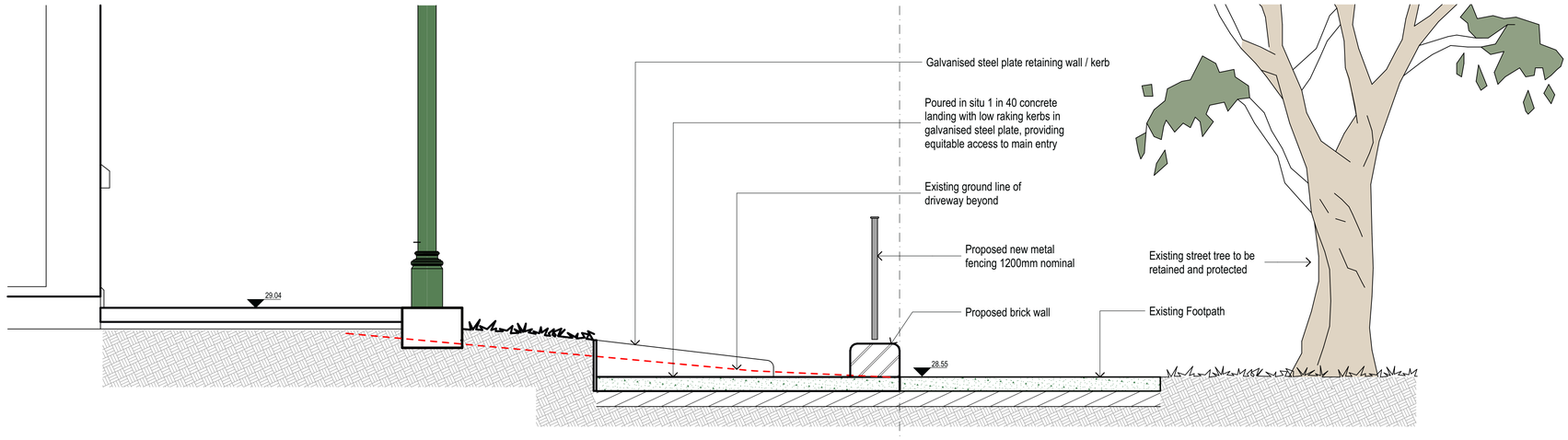
Project No : 22.15
Designed : DSO/RWS
Drawn : DSO/RWS
North Scale : As shown

DRAWING TITLE
Typical Sections

DRAWING NUMBER
L-SD-04

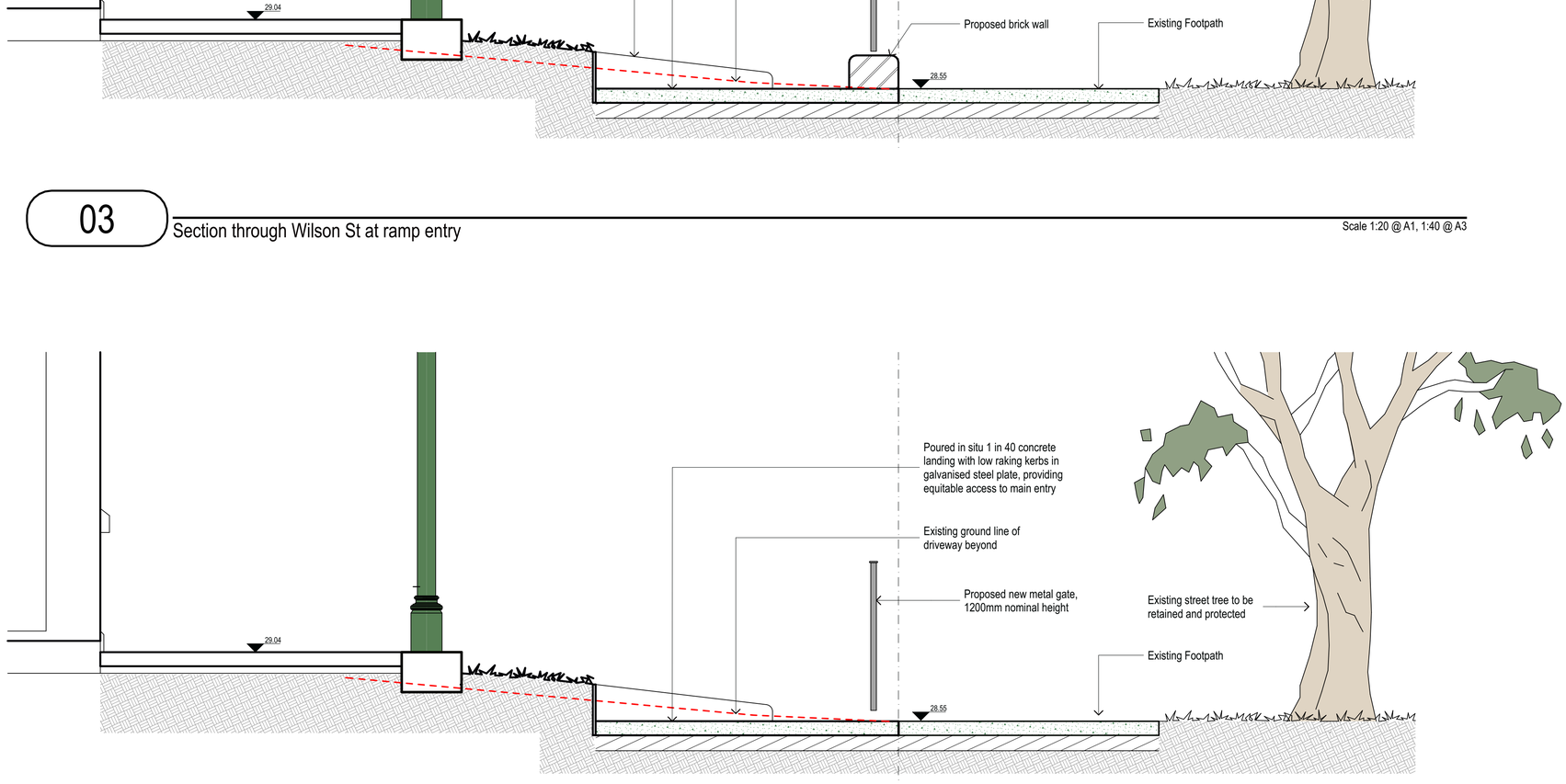
REVISION
A

Plotted at : 1:34 pm 4/11/2022



03 Section through Wilson St at ramp entry

Scale 1:20 @ A1, 1:40 @ A3



04 Typical section through Wilson St ramp

Scale 1:20 @ A1, 1:40 @ A3

Contrasting Nosing Detail

Brick Wall with Bullnose on Front and Back Leading Edge

Tactile Indicators

ARTERRA DESIGN PTY LTD ABN 40 069 552 610
SUITE 602 / 51 RAWSON STREET, EPPING, NSW 2121
P 02 9957 2466 **F** 02 9957 3977 **W** ARTERRA.COM.AU

REVISION	DESCRIPTION	CHKD	DATE
A	For SSDA Submission	DSO	03/11/22

PROJECT & CLIENT
RNE - Chief Mechanical Engineers Building
Transport for NSW

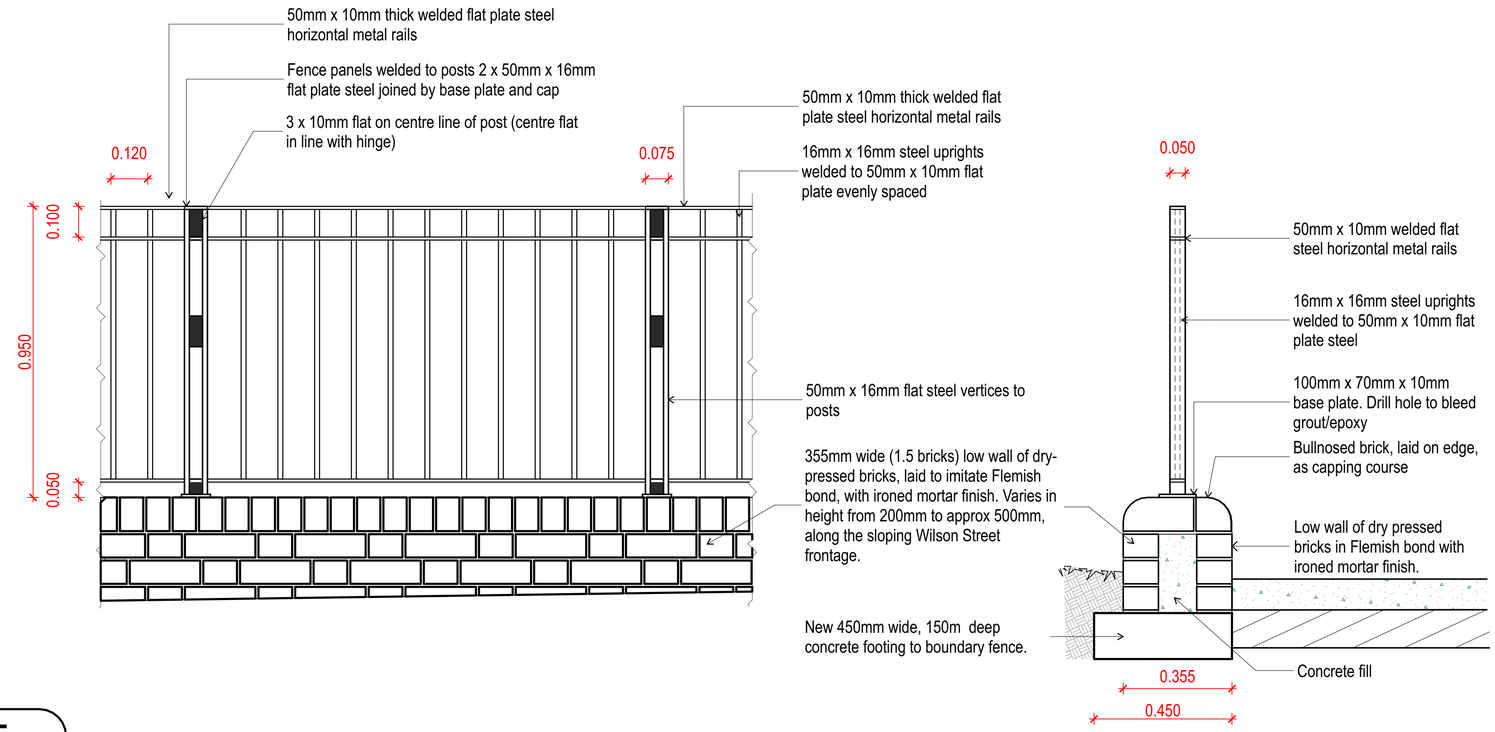
Project No : 22.15
Designed : DSO/RWS
Drawn : DSO/RWS
Scale : As shown
North

DRAWING TITLE
Typical Sections

DRAWING NUMBER
L-SD-05

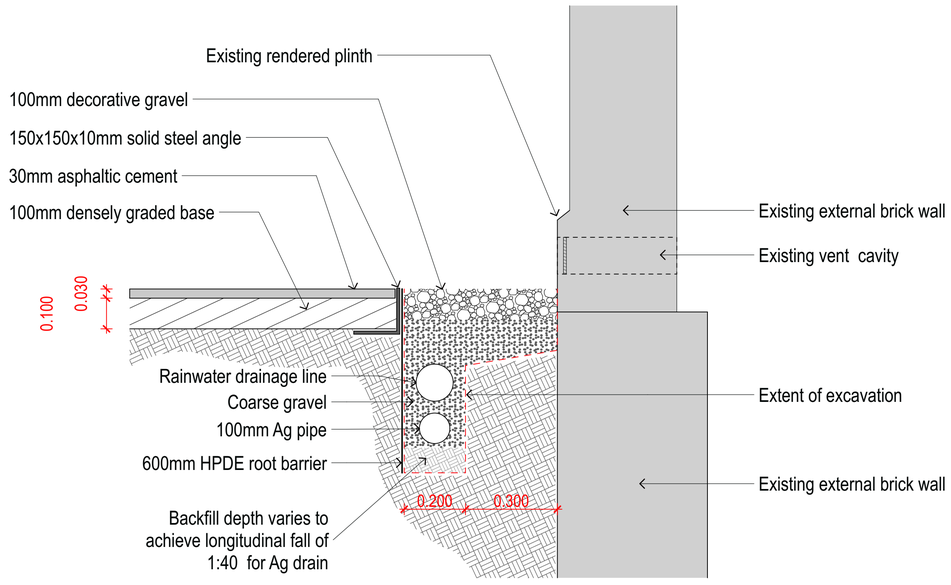
REVISION
A

Plotted at : 1:34 pm 4/11/2022



05 Wilson St boundary wall and fence detail

Scale 1:10 @ A1, 1:20 @ A3



06 Subsoil drainage and gravel apron detail

Scale 1:10 @ A1, 1:20 @ A3

Looking west inside the Wilson Street fence

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P 02 9957 2466 F 02 9957 3977 W ARTERRA.COM.AU

REVISION	DESCRIPTION	CHKD	DATE
A	For SSDA Submission	DSO	03/11/22

PROJECT & CLIENT
RNE - Chief Mechanical Engineers Building
Transport for NSW

Project No : 22.15
Designed : DSO/RWS
Drawn : DSO/RWS
North
Scale :

DRAWING TITLE
Typical Details

DRAWING NUMBER
L-SD-06

REVISION
A

Plotted at : 1:34 pm 4/11/2022

Wilson Street facade, showing proposed boundary wall and fence configuration.

Eastern garden, looking west towards the building.

Wilson Street frontage, showing ramp entry, and driveway, on the right of the image.

Main entry from Wilson Street.

arterra

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P 02 9957 2466 **F** 02 9957 3977 **W** ARTERRA.COM.AU

REVISION	DESCRIPTION	CHKD	DATE
A	For SSDA Submission	DSO	03/11/22

PROJECT & CLIENT

RNE - Chief Mechanical Engineers Building

Transport for NSW

Project No : 22.15
Designed : DSO/RWS
Drawn : DSO/RWS
North Scale : N/A

DRAWING TITLE

Indicative Landscape Renders

DRAWING NUMBER L-SD-07

REVISION A

Plotted at : 1:34 pm 4/11/2022

View from driveway, looking along the building verandah and new access ramp.

Wilson Street facade, view looking west along the frontage.

View of entry area, looking west, showing the adapted original steps and landing, meeting the new ramp.

General view of the southern area (rear) of the building, looking east. Temporary fence screens plant and bins, on the right of the image.

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SUITE 602 / 51 RAWSON STREET, EPPING, NSW 2121
P 02 9957 2466 **F** 02 9957 3977 **W** ARTERRA.COM.AU

REVISION	DESCRIPTION	CHKD	DATE
A	For SSDA Submission	DSO	03/11/22

PROJECT & CLIENT
RNE - Chief Mechanical Engineers Building
Transport for NSW

North

Project No : 22.15
Designed : DSO/RWS
Drawn : DSO/RWS
Scale : N/A

DRAWING TITLE
Indicative Landscape Renders

DRAWING NUMBER
L-SD-08

REVISION
A

Plotted at : 1:34 pm 4/11/2022

DESIGN CONFIDENCE

11 November 2022

Our Ref: P222_139

NSW Government
Transport for NSW
231 Elizabeth Street
Sydney NSW 2000

Attention: Jennifer Faddy

Redfern North Eveleigh Precinct Renewal Project - Chief Mechanical Engineer's Building
BCA Capability Statement for State Significant Development Application

Please find enclosed our BCA Capability statement for submission as part of the State Significant Development Application proposed at the aforementioned address.

Should you require any further information regarding this proposal, please do not hesitate to contact us.

Kind Regards

Ryan Dillon
Senior Building Regulations Consultant
For Design Confidence (Sydney) Pty Ltd

11 November 2022

Our Ref: P222_139

NSW Government
Transport for NSW
231 Elizabeth Street
Sydney NSW 2000

Attention: Jennifer Faddy

Redfern North Eveleigh Precinct Renewal Project - Chief Mechanical Engineer's Building
BCA Capability Statement for State Significant Development Application

1. Introduction

This statement has been prepared by Design Confidence on behalf of Transport for NSW. It supports State Significant Development (SSD) Development Application (DA) No. SSD-39971796 for the heritage conservation and adaptive reuse of the former Chief Mechanical Engineer's Building (CME Building) in North Eveleigh, which is submitted to the Minister for Planning pursuant to Part 4 of the Environmental Planning and Assessment Act 1979 (EP&A Act). This statement is to address the SEAR's Built Form and Urban Design issue and assessment requirement.

The application seeks consent for the heritage conservation and adaptive reuse of the CME Building, which includes:

(i) Internal and external heritage conservation works to make the building suitable for adaptive reuse, including painting, repairs and refurbishment of the existing building (primarily internally) and installation of services to support future usage for offices or the like;

(ii) Building upgrades to ensure compliance with the Building Code of Australia, including accessibility and fire safety requirements;

(iii) Removal of any hazardous building materials; and

(iv) Minor landscaping works.

No significant additions (except those necessary to facilitate the introduction of new services, amenities and equitable access) or substantive demolition of external heritage fabric is envisaged as part of the project. Internal changes comprise the removal of some internal walls and alterations to building fabric to create suitable spaces and compliant paths of travel.

2. Background

Design Confidence has been engaged to provide building regulatory advice regarding the compliance status of the proposed mixed-use development when assessed against the relevant prescriptive requirements as contained within the Building Code of Australia (BCA) 2022 – Volume 1.

This statement has been provided to accompany the Development Application, which is State Significance. A broad assessment has been undertaken of the proposed design (as detailed within the documentation listed in Table 2.1 below).

Design Confidence has been involved on the project since the development of the architectural concept, the advice being provided to date has been in the context of the Building Code of Australia (BCA) 2022 – Volume 1, inclusive of the performance provisions contained therein.

Table 2.1 – Architectural Drawings

TITLE	DRAWING	REV	DATE
COVER SHEET, LOCATION PLAN	CCG-CME-AR-DRG-000	B	04/11/2022
DRAWING INDEX	CCG-CME-AR-DRG-100	B	04/11/2022
SURVEY	CCG-CME-AR-DRG-101	B	04/11/2022
SITE ANALYSIS PLAN	CCG-CME-AR-DRG-200	B	04/11/2022
PROPOSED SITE PLAN	CCG-CME-AR-DRG-201	B	04/11/2022
GLA & NLA CALCULATIONS SHEET	CCG-CME-AR-DRG-202	B	04/11/2022
GROUND FLOOR DEMOLITION PLAN	CCG-CME-AR-DRG-203	B	04/11/2022
PROPOSED GROUND FLOOR PLAN	CCG-CME-AR-DRG-204	B	04/11/2022
FIRST FLOOR DEMOLITION PLAN	CCG-CME-AR-DRG-205	B	04/11/2022
PROPOSED FIRST FLOOR PLAN	CCG-CME-AR-DRG-206	B	04/11/2022
ROOF PLAN	CCG-CME-AR-DRG-207	B	04/11/2022
GROUND FLOOR REFLECTED CEILING PLAN	CCG-CME-AR-DRG-208	B	04/11/2022
FIRST FLOOR REFLECTED CEILING PLAN	CCG-CME-AR-DRG-209	B	04/11/2022
ELEVATIONS	CCG-CME-AR-DRG-300	B	04/11/2022
ELEVATIONS	CCG-CME-AR-DRG-301	B	04/11/2022
SECTIONS	CCG-CME-AR-DRG-400	B	04/11/2022
SECTIONS	CCG-CME-AR-DRG-401	B	04/11/2022
DETAILS - STAIRCASE	CCG-CME-AR-DRG-500	B	04/11/2022
DETAILS - WET AREA PLANS SHEET 1	CCG-CME-AR-DRG-501	B	04/11/2022
DETAILS - WET AREA PLANS SHEET 2	CCG-CME-AR-DRG-502	B	04/11/2022
DETAILS - LIFT PLANS AND SECTION	CCG-CME-AR-DRG-503	A	04/11/2022
DETAILS - BALCONY BALUSTRADE DETAILS	CCG-CME-AR-DRG-504	B	04/11/2022

3. BCA Compliance Strategy

Table 3.1 below summaries the proposed development in the context of the BCA

Table 3.1 – BCA Summary

DESCRIPTION		
Building Classification	Office	Class 5
Rise in Storeys	Two (2)	
Storeys Contained	Two (2)	
Type of Construction	Type C	
Effective Height	4.38 m	(First Floor FFL 33.55 –Ground Floor FFL 29.17)
Largest Fire Compartment (Whole Building)	Floor area Volume	1513 m^2 6214 m^3
Max Fire Compartment Size	(3,000m^2 /18,000m^3)	Within Limitation
Climate Zone:	Climate Zone 5	

The following outlines the proposed compliance strategy for the development noting that compliance will be achieved via both prescriptive measures and performance-based solutions.

3.1 Fire Resistance & Stability

The development consists of a Class 5 building with a rise in storey of two (2). The building is therefore required to be of Type C construction. This means neither the floor nor the roof is required to be fire rated.

Building elements are required to achieve the nominated FRLs as nominated within BCA Spec 5 as applicable, these FRLs have been summarised within Table within Appendix A3.

3.2 Compartmentation & Separation

The BCA places limitations on the maximum floor area and volume an area within a building can be, this is to limit the maximum allowable fuel load available within a space which is also tied back to the fire-resistance levels building elements are required to achieve.

The whole building is considered to be one fire compartment and is within the maximum DTS floor area and volume for a Class 5 Type C building.

An Electrical Substation and/or Main switch board room that is located within the building is to be separated with fire rated construction of 120/120/120 with self-closing fire doors of -/120/30.

3.3 Fire Spread between Adjoining Buildings

The site is bounded by a public road on the Northern boundary and adjoining allotments on the remaining boundaries. The risk of fire spread is located along the Western and Southern boundary.

There are openings that are within 3m of the Southern boundary (G12 & F6) on the Southeast corner of the building and the Western boundary (Room G1 & F1). It is understood that these openings will be addressed with a mix of deemed to satisfy and performance-based solutions.

3.4 Provision for Escape

3.4.1 Number of Exits and Non-Fire Isolated Exits

The building has an effective height of less than 25m and therefore each storey is required to have one exit. The stair only connects two (2) storeys therefore is not required to be a fire isolated stair.

3.4.2 Exit Travel Distances

Travel distances throughout the development would generally comply with the exception of the travel distance to an exit 53m in lieu of 20m on the First Floor.

It is understood that a BCA Performance Solution / Fire Engineering Report will be pursued which justifies that the current design complies with the relevant Performance Requirements.

Please see Appendix A3 of this report showing travel distance markup

3.4.3 Width of exits and paths of travel to exits

A minimum 1m clear path of travel to an exit is required throughout the building.
Clear width throughout the development would generally comply with the exception of the following:

(i) 910mm opening from Room G1 and G10

(ii) 710mm opening from cubicle G18 and G20

It is understood that a BCA Performance Solution / Fire Engineering Report will be pursued which justifies that the current design complies with the relevant Performance Requirements.

3.5 Construction of exits

3.5.1 Enclosure of space under stairs and ramps

The space below the non-fire-isolated stairway to the first floor must be enclosed with:

(i) the enclosing walls and ceilings have an FRL of not less than 60/60/60; and

(ii) any access doorway to the enclosed space is fitted with a self-closing –/60/30 fire door

3.5.2 Doorways and Door swings

The automated doorway serving as exits on the Ground Floor must be opened manually under a force of not more than 110N and open automatically on power failure, or activation of a fire or smoke alarm.

Two exits on the Ground floor swing in the opposite direction of egress.

It is understood that a BCA Performance Solution / Fire Engineering Report will be pursued which justifies that the exit swinging in the opposite direction with the relevant Performance Requirements.

3.6 Services and Equipment

3.6.1 Hydrants

A fire hydrant system complying with AS2419.1-2021 is required to serve the building.

A hydrant booster remote from a building is required to be adjacent to the principal vehicular access to the site. It is understood that a BCA Performance Solution / Fire Engineering Report will be prepared to justify this departure from the hydrant standard AS2419.

3.6.2 Sprinklers

The building will be sprinkler protected with a AS2118 system installed throughout the building.

A sprinkler alarm valve must be located in a secure room or enclosure which has direct egress to road or open space. The alarm valve room is located under the stairs and does not open directly to road or open space.

It is understood that a BCA Performance Solution / Fire Engineering Report will be pursued which justifies that the current design complies with the relevant Performance Requirements.

3.6.3 Other Fire Safety Measures

Reference should be made to Section 4 below as it outlines the remaining fire safety measures currently proposed.

4 Fire Safety Measures

Table 4.1 below outlines the relevant statutory fire safety measures that will provided as part of the development such that compliance with the BCA is achieved.

Table 4.1 – Fire Safety Measures

STATUTORY FIRE SAFETY MEASURES	PROPOSED STANDARD OF PERFORMANCE
Automatic Fire Suppression System (Sprinklers)	BCA 2022 Clause E1D4, E1Dx & Spec. 17 AS 2118.1-2017
Emergency Lighting	BCA 2022 Clause E4D2, E4D3 & E4D4 AS 2293.1-2018
Exit And Directional Signage	BCA 2022 Clause E4D5, E4D6 & E4D8, Spec 25 AS 2293.1-2018
Fire Doors	BCA 2022 Clause C3D13, C3D14, C4D6, C4D7, C4D8, C4D9, C4D12 & Spec. 12, AS 1905.1-2015
Fire Hydrant Systems	BCA 2022 Clause E1D2 AS 2419.1-2021, AS 2118.6-2012 (Combined System)
Portable Fire Extinguishers	BCA 2022 Clause E1D14 AS 2444-2001
Fire Engineering Report Measure (TBC)	Fire Engineering Report (TBC)

5 Summary

Our strategy for ensuring compliance will be refined and documented over the coming months in conjunction with the continual development of the architectural documentation, if required.

In order to achieve compliance with the BCA, whilst preserving the functional and aesthetic requirements of the project, the use of performance-based designs may be required. It is our belief that performance-based design can deliver a building that meets the Performance Requirements of the BCA.

We are of the opinion that compliance can be achieved, be it via either complying with the DtS provisions or Performance requirements of the BCA.

We trust that the above information is sufficient for the Department of Planning in assessing the merit architectural design from a planning perspective.

This statement should not be construed as relieving any other parties of their legislative obligations.

I possess Indemnity Insurance to the satisfaction of the building owner or my principal.

Yours Faithfully

Ryan Dillon
Senior Building Regulations Consultant
For Design Confidence (Sydney) Pty Ltd

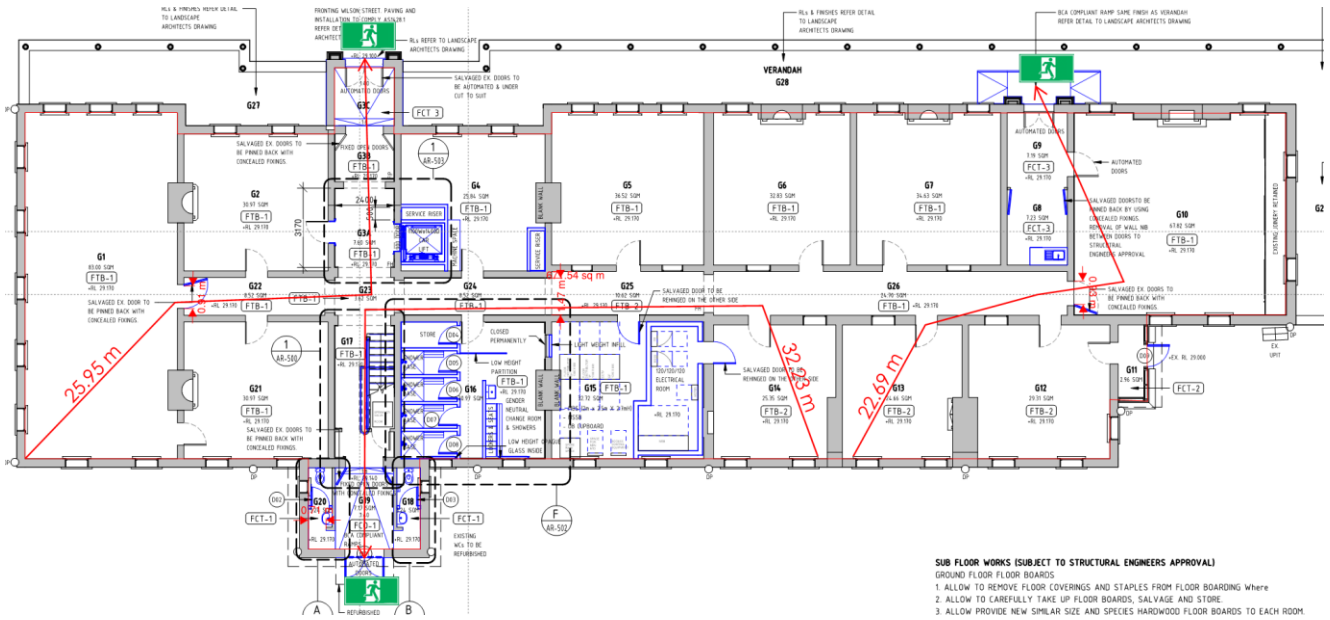
Appendix A1

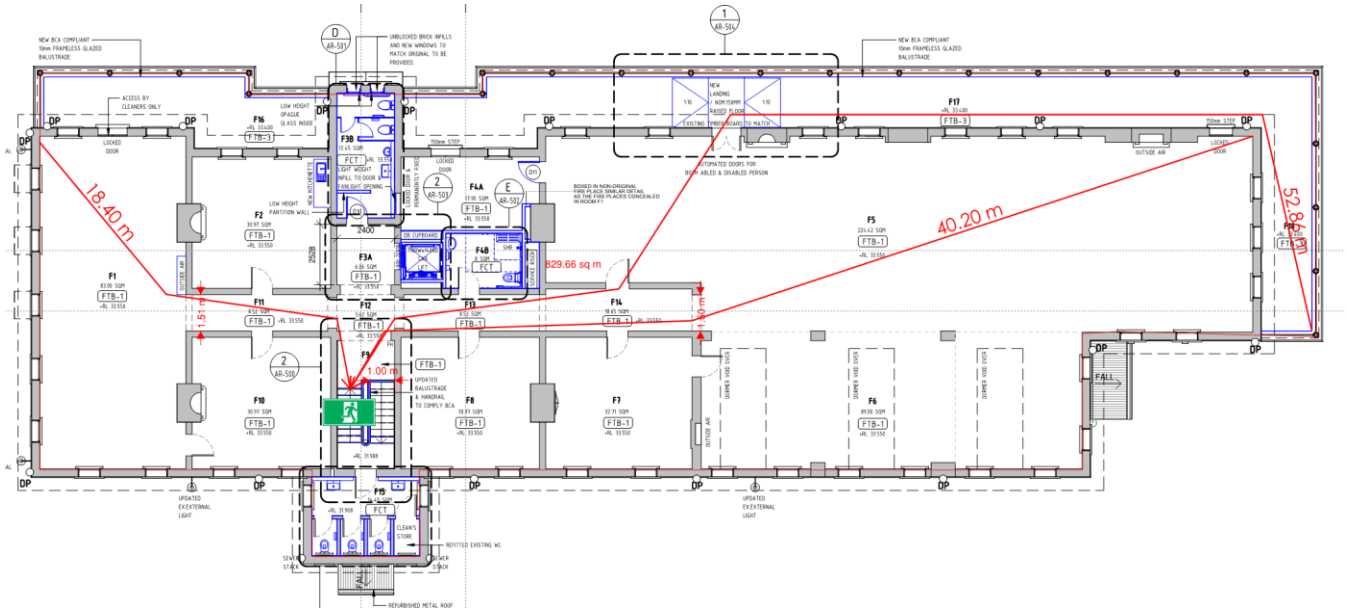
Proposed Performance Solutions

NO.	DESIGN EFFICIENCIES	DTS CLAUSE	PERFORMANCE REQUIREMENTS
1.	**Protection of openings within external walls located less than 3 m from boundary** Justify nil or reduced protection measures to openings within 3m of the Western (Room G1 & F1) and Southern (G12 & F6) boundary.	C4D4	C1P2 and C1P8
2.	**Travel Distances** Justify extended travel distances of 53m to an exit in lieu of 20m on First Floor	D2D5	D1P4 & E2P2
3.	**Width of exits and paths of travel to exits** Justify path of travel to an exit being less than 1m (910mm and 710mm)	D2D8	D1P6
4.	**Swinging doors** Justify exits on the Ground floor swinging in the opposite direction of egress.	D3D25	D1P4
5.	**Booster location** Justify the departure from the hydrant standard AS2419.1 Booster assembly not adjacent to the principal vehicular access to the site..	E1D1	E1P3
6.	**Sprinklers** Justify the sprinkler alarm valve room not having direct egress to a road or open space.	E1D4 & Spec 17	E1P4

Appendix A2

Marked up architectural drawings





Appendix A3

Required Fire Resistance Levels for Type C construction

Spec.5

Fire Resisting Construction (prev. Spec C1.1)

Type C Construction – Fire resistance of building elements (S5C24)

In building required to be constructed as Type C, each required building element must achieve the required Fire Resisting Levels (FRL's) as per the following tables –

1. External Walls (Loadbearing and Non-Loadbearing)

An external wall is considered "the outer wall of the building". External walls include columns and all other elements which is incorporated within.

Distance from a fire source feature	Required FRL's	
	Class 2, 3 or 4 Part	Class 5, 7a or 9
Less than 1.5m	90/90/90	90/90/90
1.5m to less than 3m	--/--/--	60/60/60
3m or more	--/--/--	--/--/--

Table S5C24a – Required FRL's for Loadbearing External Walls

2. External Columns (Loadbearing and Non-Loadbearing)

For the purpose of compliance with this part, an external columns are not incorporated within the external wall of the building which extends beyond the outer wall of a building.

Distance from a fire source feature	Required FRL's	
	Class 2, 3 or 4 Part	Class 7, 7a or 9
Less than 1.5m	90/--/--	90/--/--
1.5m to less than 3m	--/--/--	60/--/--
3m or more	--/--/--	--/--/--

Table S5C24b – Required FRL's for Non-Loadbearing External Walls

3. Common Walls & Fire Walls (Loadbearing and Non-Loadbearing)

As defined within Schedule 1 of the BCA, a fire wall "appropriate resistance to the spread of fire that divides a storey or building into fire compartments". Whereas a common walls is defined as a wall common to adjoining buildings.

Column Type	Required FRL's	
	Class 2, 3 or 4 Part	Class 5, 7a or 9
Loadbearing and non-loadbearing	90/90/90	90/90/90

Table S5C24c – Required FRL's for External Columns

4. Internal Walls (Loadbearing and Non-Loadbearing)

As defined within Schedule 1 of the BCA, an internal wall is considered within the building's interior and "is neither a common nor a party wall". An element which is considered loadbearing is an element which is "intended to resist vertical forces additional to those due to its own weight".

Spec.5
Cont'd

Location	Required FRL's	
	Class 2, 3 or 4 Part	Class 5, 7a or 9
Bounding public corridor, public lobbies, and the like	60/60/60	--/--/--
Between or bounding sole-occupancy units	60/60/60	--/--/--
Bounding a stair if required to be rated	60/60/60	60/60/60

Table S5C24d – Required FRL's for Internal Walls (Loadbearing)

5. FRL of roof

Location	Required FRL's	
	Class 2, 3 or 4 Part	Class 5, 7a or 9
Roof	--/--/--	--/--/--

Table S5C24e – Required FRL's for roofs

16 November 2022

Our Ref: P222_139

NSW Government
Transport for NSW
Sent Via Email

Attention: Jennifer Faddy

Redfern North Eveleigh Precinct Renewal Project - Chief Mechanical Engineer's Building ACCESS Capability Statement for State Significant Development Application

1. INTRODUCTION

An assessment of the subject development has been undertaken by Design Confidence at the request of Transport for NSW. This statement is to address the SEAR's Built Form and Urban Design issue and assessment requirement. It supports State Significant Development (SSD) Development Application (DA) No. SSD-39971796 for the heritage conservation and adaptive reuse of the former Chief Mechanical Engineer's Building (CME Building) in North Eveleigh, which is submitted to the Minister for Planning pursuant to Part 4 of the Environmental Planning and Assessment Act 1979 (EP&A Act).

The application seeks consent for the heritage conservation and adaptive reuse of the CME Building, which includes:

(i) Internal and external heritage conservation works to make the building suitable for adaptive reuse, including painting, repairs and refurbishment of the existing building (primarily internally) and installation of services to support future usage for offices or the like;

(ii) Building upgrades to ensure compliance with the Building Code of Australia, including accessibility and fire safety requirements;

(iii) Removal of any hazardous building materials; and

(iv) Minor landscaping works.

No significant additions (except those necessary to facilitate suitable access and fire egress) or substantive demolition of external heritage fabric is envisaged as part of the project. Internal changes comprise the removal of some internal walls and alterations to building fabric to create suitable spaces and compliant paths of travel.

2. BACKGROUND

Design Confidence has been engaged to provide building regulatory advice regarding the compliance status of the proposed development works when assessed against the relevant prescriptive requirements as contained within the Building Code of Australia (BCA) 2022 – Volume 1, particularly the accessibility provisions as are principally contained within Parts D4, E3D7, E3D8, F4D5, F4D6, F4D7, F4D12 and G7 as applicable to the subject development.

This correspondence has been provided to assist with development of the design documentation, a broad assessment has been undertaken of the proposed design as detailed within the documentation listed in **Appendix 1**.

The advice being provided to date has been in the context of the following—

- Building Code of Australia (BCA) 2022 – Volume 1
- AS1428.1-2009 Design for access and mobility Part 1: General requirements for access – New building work;
- AS1428.4.1-2009 Means to assist the orientation of people with a vision impairment – Tactile Ground Surface Indicators;
- AS2890.6-2009 Off-street parking for people with disabilities; and
- AS1735.12-1999 Lifts, escalators and moving walks: Part 12 Facilities for persons with disabilities.

3. ASSESSMENT

The subject existing Heritage Chief Mechanical Engineers Building is located within the Redfern North Eveleigh Precinct and is to undergo refurbishment to utilise the current dilapidated building as a commercial office space again.

The proposed use of the building is commercial/office, achieving a BCA function and use classification of Class 5.

Given the building is existing, this report therefore applies to new works and the affected part, as defined by the Disability (Access to Premises – Buildings) Standards 2010, hereinafter referred to as the Premises Standards.

In addition to undertaking a detailed assessment of the design against the prescriptive requirements of the BCA a preliminary performance-based assessment has also been undertaken.

The implementation of a performance-based approach in lieu of compliance with the deemed-to-satisfy (DtS) provisions of the BCA shall be disclosed to the relevant stakeholders and is subject to the approval of the certifying authority.

The **Table 1** below lists scenarios where we believe the adoption of a performance design may add value to development in-lieu of complying with the prescriptive (DtS) provisions—

Table 1 – Performance Solutions

ITEM	PROPOSED PERFORMANCE SOLUTION	BCA DtS CLAUSE	PERFORMANCE REQUIREMENT
1	Existing doors along affected part leading to area of new works shown with green circles In Appendix 2 do not comply with door opening width, door controls, door circ clearances etc	D4D2	D1P1
2	Walkways are to comply with AS1428.1. Along GF covered verandah, the walkways Is not provided with a 600mm wide contrasting surface where a step leads to the lawn.	D4D2	D1P1
3	Access is not provided to the GF common shower and changing room.	D4D2	D1P1
4	Gates provided on the allotment boundary will be operated by security personal. Door circulation clearances, operable force and door hardware to be considered within the proposed solution.	D4D3	D1P1
5	Existing Heritage stair handrail is unable to be provided with a compliant handrail on each side. A single handrail will be provided with an inconsistent height with non-compliant horizontal extensions. TGSI's will not be provided to the stair. A single central handrail to be provided at the external entry stairs in lieu of 2 handrails.	D4D4 D4D9	D1P1 D1P2
6	An accessible WC is not provided within the GF bank of WC's.	F4D5 F4D6	F4P1

In accordance with the requirements of Clause D4D2 of the BCA, access is required to be provided to and within all areas normally used by the occupants within a Class 5 building.

Table 2 below outlines the relevant accessibility measures that will be provided as part of the development such that compliance with the BCA is achieved, specifically with D4, E3D7, E3D8, F4D5, F4D6, F4D7, F4D12 and G7 as applicable to the subject development.

Table 2 – Accessibility Measures

DESCRIPTION	COMMENT	RESOLUTION
Clause D4D2	In accordance with D4D2, access to be provided to and within all areas normally used by the occupants. However, the Premises Standard being Federal Legislation, above the BCA only requires where new building works being undertaken, from the principle pedestrian entrance along the affected part to the new part are required to be upgraded in accordance with AS1428.1.	An accessway 'affected part' into areas of identified as new building based on the comparison of the existing floor plans have been identified within Appendix 2. Door openings that do not comply with current requirements will be addressed by a Performance Solution given the Heritage significance of the building. Step ramps at the external doors leading to the terraces due to the existing floor level restrictions are proposed. Walkways with compliant gradients and floor tolerances around the covered terraces to be provided, connecting to any common areas, including any garden furniture to the rear corner of the building. Where the walkway/accessway within the covered verandah is not provided with a 600mm wide contrast surface before a drop to the lawn is proposed, this will be reviewed further by a Performance Solution. In general, stepramps and walkways to comply with AS1428.1. Access is not available to the GF Shower and Changing area. The L1 accessible shower and WC will form part of the justification of the required Performance Solution.
Clause D4D3	The Premises Standard only requires upgrade from the principle building entrance and within the affected part and new works areas within the building. However, given the extensive upgrade works externally, an accessible path of travel has been provided via a 1:20 walkway from the allotment boundary to the building entrance. Where works are being undertaken, they should comply with AS1428.1.	Automatic double entry doors on GF shown to comply. Two security gates are located in front of the main entry stairs and the 1:20 walkway which are along the upgraded accessway from the allotment boundary. The door controls, operable force, door circulation spaces and clear opening width will be justified by a Performance Solution.

DESCRIPTION	COMMENT	RESOLUTION
	Where a doorway on an accessway has multiple leaves, at least one of those leaves should have a clear opening width of 850mm unless is automatic.	
Clause D4D4	General circulation stairs (Front entry stairs and internal central stairs)	A single central handrail is proposed to the entry stairs that does not comply with AS1428.1 requiring handrails on both sides and therefore will be justified by a Performance Solution. The central internal stairs will also not satisfy Clause 11 of AS1428.1 due to the Heritage restrictions of the existing stair. The performance requirement of the BCA will be justified by a Performance Solution.
Clause D4D5	Rooms / areas and associated accessways afforded the exemption concession under D3.4 need not to be accessible for people with disabilities due to the health and safety risk within these areas.	Refer to Appendix 2 markups for potential areas that would generally fall under D3.4 exemptions. Client acceptance would be requested to accompany construction documentation approval.
Clause D4D6	Number of accessible car parking spaces shown to comply with the BCA.	There are no carparking spaces provided for this building within the allotment and therefore accessible carspaces have not been considered.
Clause D4D7	Signage packages to be provided with detailed construction documentation to show compliance with Spec 15 of the BCA and AS1428.1	Further details required in due course.
Clause D4D8	Hearing augmentation not required as a part of the base building design.	Future tenancy fitouts may require hearing augmentation where inbuilt amplification systems installed within meeting rooms and the alike.
Clause D4D9	Tactile Ground Surface Indicators (TGSI's) are required for general circulation stairs to satisfy DtS provision.	TGSI's will be required for the external entry stairs on GF adjacent to principle building entrance as indicated on the Landscape Site Plan Drawing. TGSI's will be performance justified where not provided to the internal Heritage central stairs.
Clause D4D10	Wheelchair seating spaces in Class 9b assembly buildings are not applicable to this building.	No further action required.
Clause D3.10	There are no proposed swimming pools within this development.	No further action required.

DESCRIPTION	COMMENT	RESOLUTION
Clause D4D11	A landing for a step ramp must not overlap another landing for a step ramp or ramp.	The building shows compliance with D3.11 of the BCA.
Clause D4D12	Glazing on an accessway will be required to be provided with a solid horizontal decal in accordance with AS1428.1	Horizontal decals will be required on all frameless or fully glazed doors and sidelights, or any glazing capable of being mistaken as a doorway. Further details to be provided with construction documentation.
Clause E3D8	One (1) new passenger lift is to be provided to serve the building.	Design of the passenger lift to demonstrate compliance with BCA 2022 Clause E3D8 and AS1735.12. Lift shop drawings required for further review for compliance.
Clause F4D4	Separate facilities are required for male and females unless is an unisex accessible sanitary facility or a staff facility that is for less than 10 users only. A Class 5 building does not require showers and therefore an accessible unisex shower is not required in accordance with F4D7 of the BCA however is provided given Council's End of Trip facility requirements.	Given the End of Trip facilities are not a BCA requirement, we are unable under the BCA to provide guidance on providing non gender facilities in this situation. Designated Male and Female sanitary facilities are provided throughout the building except the unisex combined shower and sanitary facility, compliant with DtS provisions.
Clause F4D5	An accessible WC is provided in combination with an accessible shower on L1. Refer to F4D6 below. The amenities on GF and the Female facilities on L1 are existing and have not been affected by the Premises Standard upgrade requirements. The new Male sanitary facilities on L1 will be provided with an ambulant facility satisfying Clause F4D5 c).	Fixtures and fittings to be designed within detailed documentation to comply with AS1428.1. A performance solution is required where the accessible WC and shower is not provided on the GF accessible part of the building.
Clause F4D6	An accessible WC is required on each level where sanitary facilities are provided.	A performance solution is required where the accessible WC and shower is not provided on the GF location of staff amenities.
Clause F4D12	Accessible Adult Change Facilities are not applicable to the subject development.	No further action required.

4. SUMMARY

Based upon the information contained in the above tables one can determine that the proposed alteration and additions to the existing Heritage building are capable of achieving compliance with the relevant accessibility requirements of the BCA, subject to the comments provided above.

Compliance can be achieved either by meeting the deemed-to-satisfy requirements of the BCA, as are principally contained within Parts D4, E3D7, E3D8, F4D5, F4D6, F4D7, F4D12 and G7 as applicable, or via a performance-based approach.

We trust that the above information is sufficient for the consent authority in assessing the merit of the architectural design from a planning perspective.

This statement should not be construed as relieving any other parties of their legislative obligations.

Design Confidence possess Indemnity Insurance to the satisfaction of the building owner.

Kind Regards,

Report By

Rachael Telling
Accessibility Consultant
For Design Confidence (Sydney) Pty Ltd

Reviewed By

John La Scala
Accessibility Associate
For Design Confidence (Sydney) Pty Ltd

APPENDIX 1 – DOCUMENTATION PROVIDED FOR ASSESSMENT

Table 1 – Architectural Drawings prepared by CCG Architects

DRAWING	REV	TITLE		DATE
COVER SHEET, LOCATION PLAN	CCG-CME-AR-DRG-000	B	04/11/2022
DRAWING INDEX	CCG-CME-AR-DRG-100	B	04/11/2022
SURVEY	CCG-CME-AR-DRG-101	B	04/11/2022
SITE ANALYSIS PLAN	CCG-CME-AR-DRG-200	B	04/11/2022
PROPOSED SITE PLAN	CCG-CME-AR-DRG-201	B	04/11/2022
GLA & NLA CALCULATIONS SHEET	CCG-CME-AR-DRG-202	B	04/11/2022
GROUND FLOOR DEMOLITION PLAN	CCG-CME-AR-DRG-203	B	04/11/2022
PROPOSED GROUND FLOOR PLAN	CCG-CME-AR-DRG-204	B	04/11/2022
FIRST FLOOR DEMOLITION PLAN	CCG-CME-AR-DRG-205	B	04/11/2022
PROPOSED FIRST FLOOR PLAN	CCG-CME-AR-DRG-206	B	04/11/2022
ROOF PLAN	CCG-CME-AR-DRG-207	B	04/11/2022
GROUND FLOOR REFLECTED CEILING PLAN	CCG-CME-AR-DRG-208	B	04/11/2022
FIRST FLOOR REFLECTED CEILING PLAN	CCG-CME-AR-DRG-209	B	04/11/2022
ELEVATIONS	CCG-CME-AR-DRG-300	B	04/11/2022
ELEVATIONS	CCG-CME-AR-DRG-301	B	04/11/2022
SECTIONS	CCG-CME-AR-DRG-400	B	04/11/2022
SECTIONS	CCG-CME-AR-DRG-401	B	04/11/2022
DETAILS - STAIRCASE	CCG-CME-AR-DRG-500	B	04/11/2022
DETAILS - WET AREA PLANS SHEET 1	CCG-CME-AR-DRG-501	B	04/11/2022
DETAILS - WET AREA PLANS SHEET 2	CCG-CME-AR-DRG-502	B	04/11/2022
DETAILS - LIFT PLANS AND SECTION	CCG-CME-AR-DRG-503	B	04/11/2022
DETAILS - BALCONY BALUSTRADE DETAILS	CCG-CME-AR-DRG-504	B	04/11/2022
DETAILS - DORMER WINDOW	CCG-CME-AR-DRG-505	B	04/11/2022

APPENDIX 2 – DRAWING MARK-UPS

DESIGN CONFIDENCE
4. Performance Solution
Gate circulation clearances to both gates to be achieved outside of the allotment boundary and therefore do not technically comply with the BCA.
4. Performance Solution
Gates to be operated by dedicated staff given non compliances with operable force, door controls.
5. Performance Solution
Handrail not provided either side of flight of stairs.
2. Performance Solution
The floor or ground surface abutting the sides of the walkway shall provide a firm and level surface of a different material to that of the walkway at the same level of the walkway, follow the grade of the walkway and extend horizontally for a minimum of 600 mm.
WILSON
STREET
WILSON STREET
Existing Cycleway
Existing Pathway
TWO STOREY
BRICK BUILDING
METAL ROOF
Heritage Mix Concrete Pavement
Lawn
D3.4 Exempt Spaces
Exemption under D3.4 of the BCA is to be sought for the areas hatched in red.
New Asphalt Levels amended to expose building vents and fall away from the building at 1:50
Bike Racks
Nominal location of below ground rainwater tank
EXISTING FENCE TO BE REMOVED
Existing Flag Pole to be Removed
Existing Fence and wall Retained
1.5 0 1.5 3 4.5 6 7.5m
SCALE 1:150

1 SITE PLAN
SCALE 1 : 150

NOTE

NEW IN-GROUND SERVICES

EXISTING SERVICES ARE DILAPIDATED AND OR OUTDATED AND NEW SERVICES ARE REQUIRED. ROVIDE A NEW STORMWATER SYSTEM TO CONNECT THE DOWNPIPES FROM THE FRONT OF THE BUILDING TO AND DRAIN TO WILSON STREET. PROVIDE A STORMWATER REUSE SYSTEM COMPRISING STORMWATER CONNECTION TO THE DOWNPIPES AT THE REAR OF THE BUILDING COMPLETE WITH UNDERGROUND STORAGE TANK AND PUMP TO SERVE FUTURE IRRIGATION SYSTEM. PROVIDE NEW SEWER CONNECTION TO THE NORTH EAST CORNER OF THE SITE SINCE THE EXISTING SEWER PIPES ARE UNSALVAGEABLE AT THE REAR OF THE BUILDING. PROVIDE A NEW POWER CONNECTION TO THE BUILDING.
REFER DETAIL TO SERVICES ENGINEERS DRAWINGS.

SIGNAGE

INSTALL WAYFINDING BRAILLE AND TACTILE SIGNAGES TO ALL GATE ENTRIES AND BUILDING ENTRIES TO COMPLY WITH AS 1428.1-2009

INTERPRETATION SIGN

ALLOW FOR 3 X 2 METRE INTERPRETATION SIGN TO BE PLACED IN FRONT YARD BEHIND FENCE TO ADVISE PUBLIC IN REGARDS TO THE PROPOSED INTERIOR WORKS

DRAWING COLOUR CODED - PRINT ALL COPIES IN COLOUR

REV	DESCRIPTION	DESIGNER SIGN./DATE	VERIFIED SIGN./DATE	APPROVED SIGN./DATE
B	SSDA SUBMISSION	E.P./04/11/22	E.P./04/11/22	D.C./04/11/22
A	ISSUE FOR PRELIMINARY DESIGN	E.P./20/07/22	E.P./20/07/22	D.C./20/07/22

CO-ORDINATE SYSTEM: | HEIGHT DATUM: | SCALE:

CCG ARCHITECTS
NOMINATED ARCHITECTS:
DAVID COOK (5086) / HISHAM NOORI (5678)
CCG ARCHITECTS
ARCHITECTURE

DRAWN	MUNKONG	04/11/22
DESIGNED	ERIC PARK	04/11/22
DRG CHECK	ERIC PARK	04/11/22
DESIGN CHECK	DAVID COOK	04/11/22
APPROVED	DAVID COOK	04/11/22

CHIEF MECHANICAL ENGINEER'S BUILDING

505 WILSON STREET REDFERN

ARCHITECTURAL

PROPOSED SITE PLAN

FILE No. | SHEET: 1 OF 1 | A1

STATUS: SSDA SUBMISSION ©

DRG No. CCG-CME-AR-DRG-201 | REV B | VER | EDMS No. | AMD No.

DF 801*554

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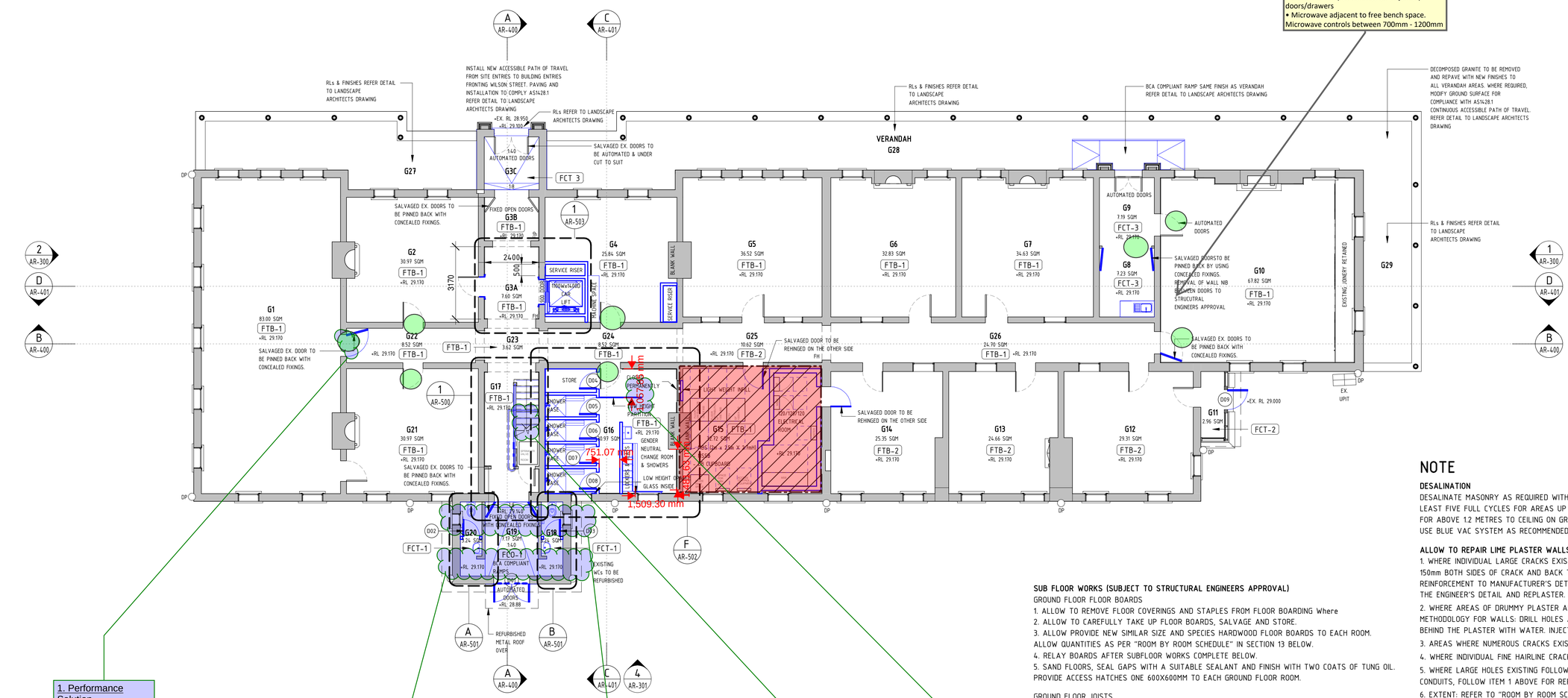

1 GROUND FLOOR PLAN
SCALE 1 : 100

LEGEND

- DEMOLISH
- PROPOSED
- EXISTING WALL
- PROPOSED WALL

LEGEND FLOOR FINISHES

REFER DETAIL TO ROOM BY ROOM SCHEDULE

- FTB-1 FLOOR TIMBER BOARDS (150mm) (REFER DETAIL TO ROOM BY ROOM SCHEDULE)
- FTB-2 FLOOR TIMBER BOARDS (100mm) (REFER DETAIL TO ROOM BY ROOM SCHEDULE)
- FCT FLOOR CERAMIC TILES (REFER DETAIL TO ROOM BY ROOM SCHEDULE)
- FCT-1 MONOCOTTURA TILES (REFER DETAIL TO ROOM BY ROOM SCHEDULE)
- FCT-2 TERRACOTTA TILES (REFER DETAIL TO ROOM BY ROOM SCHEDULE)
- FCT-3 NEW TESSELLATED TILES (REFER DETAIL TO ROOM BY ROOM SCHEDULE)
- FCO-1 RAISED CONCRETE FLOOR WITH NEW TILES (REFER DETAIL TO ROOM BY ROOM SCHEDULE)
- EXISTING DOORS WITH 850 CLEAR WIDTH (REFER DETAIL TO ROOM BY ROOM SCHEDULE)
- NEW DOORS DOOR & DOOR FRAME DETAIL TO MATCH SIMILAR EXISTING LIKE FOR LIKE DOORS ON SITE (REFER DETAIL TO ROOM BY ROOM SCHEDULE)

NOTE

TO BE READ IN CONJUNCTION WITH ROOM BY ROOM SCHEDULE

NOTE

DESALINATION

DESALINATE MASONRY AS REQUIRED WITH A DRY/WET VACUUM PROCESS. ALLOW FOR AT LEAST FIVE FULL CYCLES FOR AREAS UP TO 1.2 METRES ON GROUND FLOOR AND 2 CYCLES FOR ABOVE 1.2 METRES TO CEILING ON GROUND FLOORS AND ALL UPPER FIRST FLOOR WALLS. USE BLUE VAC SYSTEM AS RECOMMENDED BY MANUFACTURER.

ALLOW TO REPAIR LIME PLASTER WALLS WITH ONE OF THE FOLLOWING PROCESSES:

1. WHERE INDIVIDUAL LARGE CRACKS EXIST FROM STRUCTURAL MOVEMENT, CUT BACK PLASTER 150mm BOTH SIDES OF CRACK AND BACK TO SUBSTRATE, INSTALL HELICAL STAINLESS STEEL REINFORCEMENT TO MANUFACTURER'S DETAIL AND SPECIFICATION AND IN ACCORDANCE WITH THE ENGINEER'S DETAIL AND REPLASTER. PLASTER OVER TO MATCH EXISTING FINISH.
2. WHERE AREAS OF DRUMMY PLASTER ARE FOUND, REFIX BY INJECTING ADHESIVE. METHODOLOGY FOR WALLS: DRILL HOLES ABOVE AND BELOW DRUMMY AREA. ALLOW TO CLEAN BEHIND THE PLASTER WITH WATER. INJECT AN ACRYLIC RESIN BASED ADHESIVE.
3. AREAS WHERE NUMEROUS CRACKS EXIST, REMOVE EXISTING PLASTER AND REPLASTER.
4. WHERE INDIVIDUAL FINE HAIRLINE CRACKS EXIST, ALLOW TO PATCH.
5. WHERE LARGE HOLES EXISTING FOLLOW REMOVAL OF SERVICES SUCH LIGHT SWITCHES AND CONDUITS, FOLLOW ITEM 1 ABOVE FOR REPAIR METHODOLOGY.
6. EXTENT: REFER TO "ROOM BY ROOM SCHEDULE"

DOOR HARDWARE

RECTIFY DOOR HARDWARE SO AS THE DOORS ARE READILY OPENABLE FROM THE INSIDE WITHOUT A KEY BY A SINGLE HAND ACTION ON A SINGLE DEVICE (I.E. LEVER).
HE FOLLOWING WORK IS TO BE CARRIED OUT BY A REPUTABLE LOCKSMITH.
ALL ORIGINAL LOCKS SHALL BE REMOVED, EASED AND GREASED. ALLOW 50% ORIGINAL LOCKS. REMOVE ANY PAINT FROM BRASS AREAS, LIGHTLY CLEAN WITH STEEL WOOL.
NEW LOCKS (50% OF LOCKS) ALLOW FOR SUPPLY AND FIXING OF TRADITIONAL MORTISE LOCKS AS JACKSON'S 5 LEVER AND SOLID JACKSON'S BRASS KNOBS.

FIREPLACES

ALLOW TO CLEAN THE INSIDE OF VERTICAL FLUES AND FIREBOXES OF ALL CHIMNEYS. REPLACE MISSING CAST IRON METAL COMPONENTS (ALLOW CHIMNEY RESTORATION CENTRE TO PROVIDE ⅝ OF ELEMENTS FOR EACH FIREPLACE COMPONENTS AS PER "ROOM BY ROOM SCHEDULE") SPECIALIST MARBLE CONTRACTOR TO REVIEW EACH FIREPLACE AND PROVIDE REPORT. ALLOW POLISHING ALL MARBLE FIREPLACES AND RESTORING, WITH ⅝ OF NEW INTRODUCED SECTIONS OF SIMILAR MARBLE AS PER "ROOM BY ROOM SCHEDULE"
PAINT HEARTH AND METAL SECTIONS OF FIREPLACE WITH PROPRIETARY FIREPROOF BLACK-PAINT.
PROTECT FIREPLACE MANTLES AND SURROUNDS DURING CONSTRUCTION. REMOVE PROTECTION ON COMPLETION OF WORK.

SUB FLOOR WORKS (SUBJECT TO STRUCTURAL ENGINEERS APPROVAL)

GROUND FLOOR FLOOR BOARDS
1. ALLOW TO REMOVE FLOOR COVERINGS AND STAPLES FROM FLOOR BOARDING Where
2. ALLOW TO CAREFULLY TAKE UP FLOOR BOARDS, SALVAGE AND STORE.
3. ALLOW PROVIDE NEW SIMILAR SIZE AND SPECIES HARDWOOD FLOOR BOARDS TO EACH ROOM. ALLOW QUANTITIES AS PER "ROOM BY ROOM SCHEDULE" IN SECTION 13 BELOW.
4. RELAY BOARDS AFTER SUBFLOOR WORKS COMPLETE BELOW.
5. SAND FLOORS, SEAL GAPS WITH A SUITABLE SEALANT AND FINISH WITH TWO COATS OF TUNG OIL. PROVIDE ACCESS HATCHES ONE 600X600MM TO EACH GROUND FLOOR ROOM.

GROUND FLOOR JOISTS
1. CHECK OVER WITH HERITAGE ARCHITECT. AS PER TERMITE REPORT FOR TERMITE DAMAGED TIMBERS AND DRY ROT ALLOW. ALLOW QUANTITIES AS PER "ROOM BY ROOM SCHEDULE" USING 100X50MM F 27 HARDWOOD JOISTS.
2. ALLOW TO TAKE UP EXISTING JOISTS SALVAGE AND STORE.
3. RELAY JOISTS AFTER PIER AND BEARER WORK BELOW WORKS COMPLETE BELOW RELAY NEW AND SALVAGED JOISTS, NAIL TO BEARERS

GROUND FLOOR FLOOR BOARDS
1. CHECK OVER WITH HERITAGE ARCHITECT. AS PER TERMITE REPORT FOR TERMITE DAMAGED TIMBERS AND DRY ROT ALLOW. ALLOW QUANTITIES AS PER " ROOM BY ROOM SCHEDULE" USING 100X75MM F 27 HARDWOOD BEARERS
2. ALLOW TO TAKE UP EXISTING BEARERS SALVAGE AND STORE.
3. RELAY BEARERS AFTER PIER WORK BELOW WORKS COMPLETE BELOW RELAY NEW AND SALVAGED BEARERS

GROUND FLOOR PIERS
1. CHECK OVER WITH HERITAGE ARCHITECT.
2. ALLOW TO ARCHIVALLY RECORD, THEN REMOVE EXISTING PIERS.
3. CONSTRUCT NEW 230X230MM BRICK PIERS AT 1500MM CENTRES TO STRUCTURAL ENGINEER'S DETAILS (ALLOW 450X450X 300 REINFORCED CONCRETE PADS)
PROVIDE NEW GAL STEEL ANT CAPS TO ALL PIERS

D3.4 Exempt Spaces

Exemption under D3.4 of the BCA is to be sought for the areas hatched in red.

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REV	DESCRIPTION	DESIGNER SIGN./DATE	VERIFIED SIGN./DATE	APPROVED SIGN./DATE
B	SSDA SUBMISSION	E.P./04/11/22	E.P./04/11/22	D.C./04/11/22
A	ISSUE FOR PRELIMINARY DESIGN	E.P./20/07/22	E.P./20/07/22	D.C./20/07/22

CO-ORDINATE SYSTEM: | HEIGHT DATUM: | SCALE: 1:100

SCALE 1:100

CCG ARCHITECTS
NOMINATED ARCHITECTS: DAVID COOK (5086) / HISHAM NOORI (5678)
CCG ARCHITECTS
ARCHITECTURE

DRAWN	MUNKONG	04/11/22
DESIGNED	ERIC PARK	04/11/22
DRG CHECK	ERIC PARK	04/11/22
DESIGN CHECK	DAVID COOK	04/11/22
APPROVED	DAVID COOK	04/11/22

CHIEF MECHANICAL ENGINEER'S BUILDING
505 WILSON STREET REDFERN

ARCHITECTURAL
PROPOSED GROUND FLOOR PLAN

FILE No.	SHEET: 1 OF 1			A1
STATUS: SSDA SUBMISSION				©
DRG No. CCG-CME-AR-DRG-204	REV B	VER	EDMS No.	AMD No.

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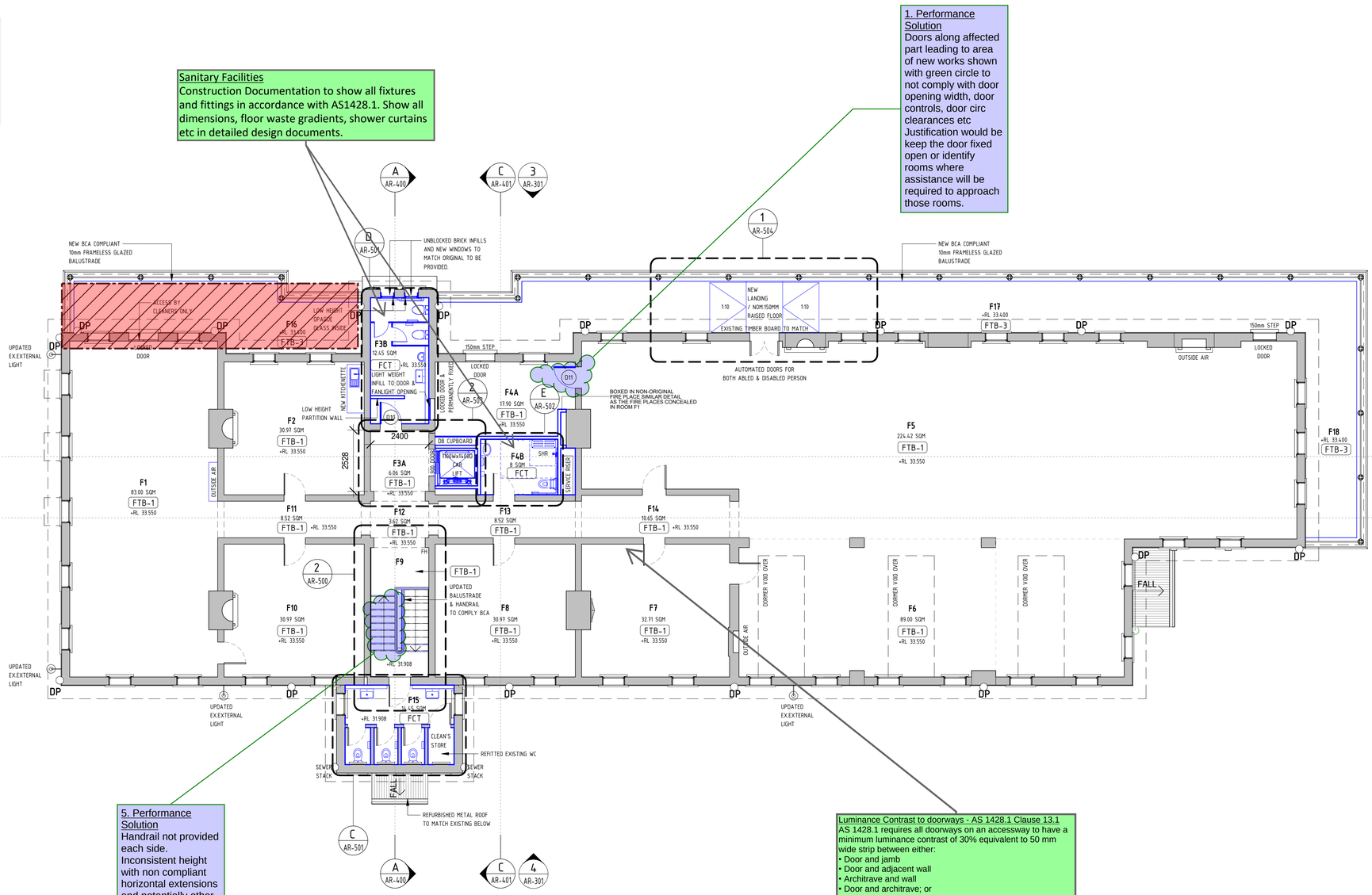
DESIGN CONFIDENCE

Sanitary Facilities
Construction Documentation to show all fixtures and fittings in accordance with AS1428.1. Show all dimensions, floor waste gradients, shower curtains etc in detailed design documents.

1. Performance Solution
Doors along affected part leading to area of new works shown with green circle to not comply with door opening width, door controls, door circ clearances etc Justification would be keep the door fixed open or identify rooms where assistance will be required to approach those rooms.



5. Performance Solution
Handrail not provided each side. Inconsistent height with non compliant horizontal extensions and potentially other items subject to further details to be considered within the PS. TGSI's not provided to stairs.

Luminance Contrast to doorways - AS 1428.1 Clause 13.1
AS 1428.1 requires all doorways on an accessway to have a minimum luminance contrast of 30% equivalent to 50 mm wide strip between either:
• Door and jamb
• Door and adjacent wall
• Architrave and wall
• Door and architrave; or
• Jamb and adjacent wall
.
Note: Where glazed doorways are provided, two solid surfaces are required to meet AS 14281.1. This can be achieved by either:
- applying contrasting opaque frosting to glazed door panels; or
- contrasting framing to door leaf panels; or
- contrasting jamb mullions and head transoms around the door openings.

D3.4 Exempt Spaces

Exemption under D3.4 of the BCA is to be sought for the areas hatched in red.

LEGEND

- DEMOLISH
- PROPOSED
- EXISTING WALL
- PROPOSED WALL

LEGEND FLOOR FINISHES

REFER DETAIL TO ROOM BY ROOM SCHEDULE

- FTB-1 — FLOOR TIMBER BOARDS (150mm) (REFER DETAIL TO ROOM BY ROOM SCHEDULE)
- FTB-3 — FLOOR TIMBER BOARDS- EXISTING REFURBISHED
- FCT — FLOOR CERAMIC TILES (REFER DETAIL TO ROOM BY ROOM SCHEDULE)
- FCT-1 — MONOCOTTURA TILES (REFER DETAIL TO ROOM BY ROOM SCHEDULE)
- EXISTING DOORS WITH 850 CLEARANCE (REFER DETAIL TO ROOM BY ROOM SCHEDULE)
- NEW DOORS DOOR & DOOR FRAME DETAIL TO MATCH SIMILAR EXISTING LIKE FOR LIKE DOORS ON SITE (REFER DETAIL TO ROOM BY ROOM SCHEDULE)

NOTE

TO BE READ IN CONJUNCTION WITH ROOM BY ROOM SCHEDULE

NOTE

SUB FLOOR WORKS (SUBJECT TO STRUCTURAL ENGINEERS APPROVAL)
FIRST FLOOR FLOOR BOARDS
1. ALLOW TO REMOVE FLOOR COVERINGS AND STAPLES FROM FLOOR BOARDING WHERE REQUIRED.
2. WHERE DAMAGED RESTORE BOARDING. ALLOW PROVIDE NEW SIMILAR SIZE AND SPECIES HARDWOOD FLOOR BOARDS TO EACH ROOM. ALLOW AS PER " ROOM BY ROOM SCHEDULE"
SAND FLOORS, SEAL GAPS WITH A SUITABLE SEALANT AND FINISH WITH TWO COATS OF TUNG OIL.

FIRST FLOOR JOISTS
1. CHECK OVER WITH HERITAGE ARCHITECT.
2. WHERE DAMAGED RESTORE JOISTS. ALLOW PROVIDE NEW SIMILAR SIZE AND SPECIES HARDWOOD JOISTS TO EACH ROOM. ALLOWANCE 30% EACH ROOM ALLOW 400MM X 50 F 28 HARDWOOD JOISTS AT 450MM CENTRES.

1 FIRST FLOOR PLAN
SCALE 1 : 100

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1 0 1 2 3 4 5m
SCALE 1:100

REV	DESCRIPTION	DESIGNER SIGN./DATE	VERIFIED SIGN./DATE	APPROVED SIGN./DATE
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CO-ORDINATE SYSTEM: | HEIGHT DATUM: | SCALE: 1:100

NSW GOVERNMENT Transport for NSW
GHD arterra

CCG ARCHITECTS
NOMINATED ARCHITECTS: DAVID COOK (5088) / HISHAM NDORI (5678)
CCG ARCHITECTS
ARCHITECTURE

DRAWN	MUNKONG	04/11/22
DESIGNED	ERIC PARK	04/11/22
DRG CHECK	ERIC PARK	04/11/22
DESIGN CHECK	DAVID COOK	04/11/22
APPROVED	DAVID COOK	04/11/22

CHIEF MECHANICAL ENGINEER'S BUILDING
505 WILSON STREET REDFERN

ARCHITECTURAL
PROPOSED FIRST FLOOR PLAN

FILE No.	SHEET: 1 OF 1		A1
STATUS: SSDA SUBMISSION			©
DRG No. CCG-CME-AR-DRG-206	REV B	VER	EDMS No. / AMD No.

DF 801*554

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