TAFE NSW Meadowbank

Car Parking Facility in connection with the Multi-Trades and Digital Technology Hub

MSCP DESIGN STATEMENT NOVEMBER 2021

GRAY PUKSAND



ISSUE STATUS

PROJECT

Phase 2.1 Combined Multi-Trades and Digital Technology Hub

CLIENT

TAFE NSW

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Revision History:

ISSUE	DATE	STATUS	
А	27 October 2021	Draft for comment	
В	8 November 2021	SSDA Issue	

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1.0 Executive Summary

EXECTIVE SUMMARY

INTRODUCTION

In June 2018, the Premier and Member for Ryde unveiled plans for the Meadowbank Education and Employment Precinct, comprising new education facilities including a new primary school, high school and revitalised Meadowbank TAFE NSW Campus

The NSW Government's commitment to the Meadowbank Education and Employment Precinct provides a unique opportunity to:

- Create a flagship model for students to experience seamless pathways between school, VET, University, and jobs
- Enable community engagement and access to world class facilities
- Support the local economy through business partnerships and job creation

The most North Western corner of the original campus has now been divested to School Infrastructure New South Wales and the site cleared in preparation for construction works.

As the design for proposals to further enhance the precincts accessibility develop, modification to the development consent is now required to enable these works occurs.

PURPOSE OF THIS REPORT

This report has been prepared by Gray Puksand to propose a modification to the State Significant Development Approval for the Mult Trades and Digital Technology Hub Building and Multi Storey Carpark within the precinct.

Design work on enhancing campus accessibility, cycle links and connections to public transport has been underway in coordination with Transport for New South Wales and The Department of Premier and Cabinet.

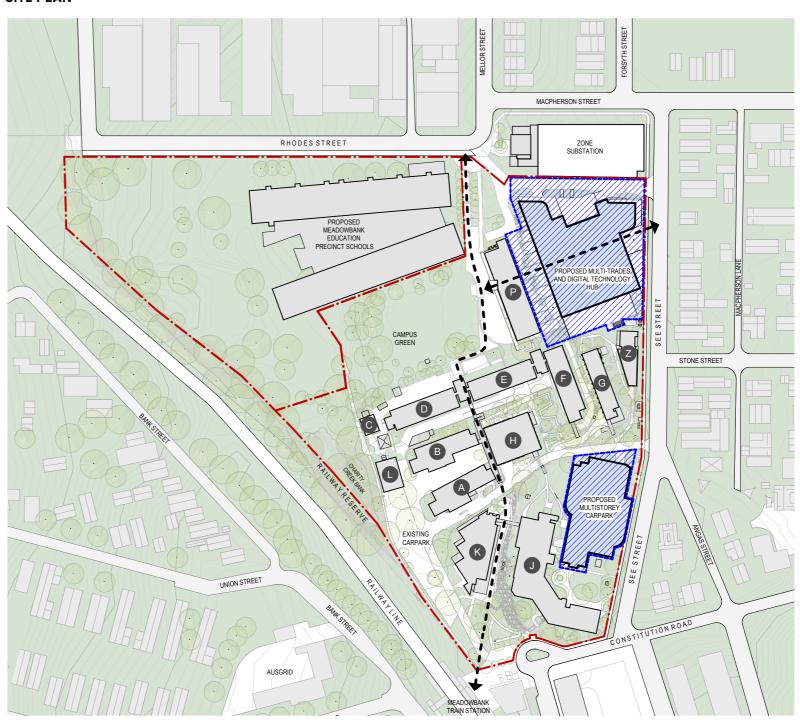
With the increase in population across the precinct with the new Multi Trade and Digital Technology Hub and the Adjoining School site, the desired outcome of this work is to provide safe, amenable paths of travel connecting the pedestrian station plaza on the south of the site, through to the Northern Entrance at Rhodes Street.

Part of this proposed work would see a rail underpass connecting Bank Street on the west of the rail corridor to the TAFE NSW Campus and greater Education Precinct and results in the pedestrianisation and landscaping of the existing western campus car park.

To mitigate the impact of this in terms of available parking on the campus, it is proposed to provide 2 additional storeys to the Multi Storey Car Park that is currently under construction.

This design statement is provided to support the modification to development consent application and demonstrate the proposed alterations to the design of the multi storey carpark.

SITE PLAN



2.0 Site Context

Existing Site Analysis

A full site context analysis has been undertaken as part of the original design statement submitted as part of the EIS.

Some relevant site specific context has been repeated below to reinforce the existing pedestrian and vehicular routes around the TAFE Meadowbank Campus, noting the existing use of the proposed site as a carpark.



AERIAL PHOTO

This recent Ortho Photographic view provides a succinct overview of the current site arrangements. The northern element of the original site that has been divested to School Infrastructure New South Wales has been cleared and is ready for the commencement of the construction of the new schools.



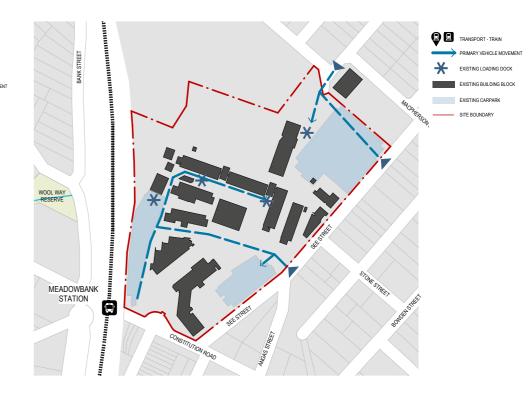
SITE PEDESTRIAN ACCESS

The Meadowbank Campus has five main pedestrian access points around the boundary of the site. The Northern most aspect from Rhodes Street has pedestrian access ways at two levels, directly to the campus green and at First Floor of Building P to the Student Service Centre.

Access points from See Street are spread along the Eastern boundary with three main points, the most northerly to the main carpark area, a central point via the main campus roadway and the third to Building J.

Pedestrian access from the Meadowbank Station is provided at the most southerly point of the site. Currently the access routes throughout the site running north to south are fragmented and wayfinding is an issue.

Future pedestrian access is also indicated on the GSC's Meadowbank Education and Employment Precinct Masterplan which includes a potential east-west underpass to link the TAFE campus and the western side of the railway corridor.



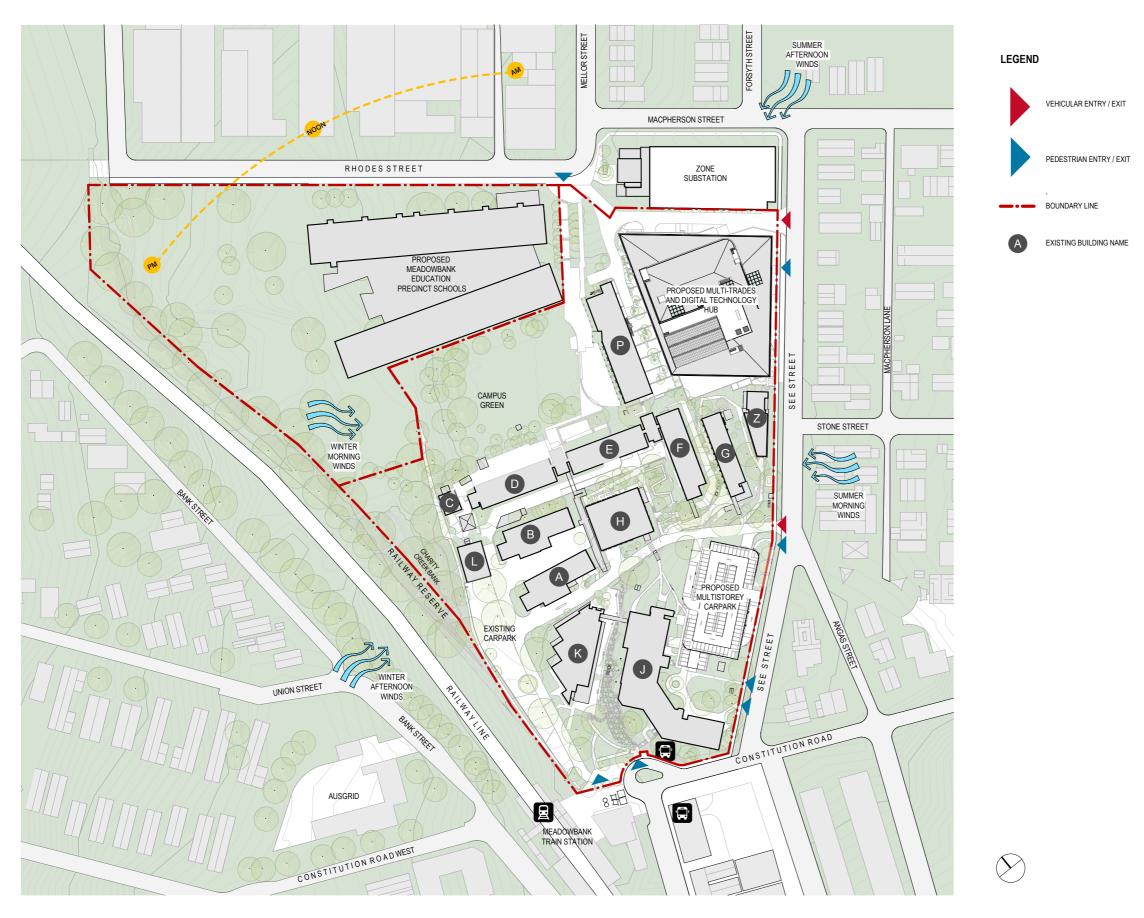
VEHICULAR ACCESS

The Meadowbank Campus currently has five vehicular access points. Rhodes Street provides an exit point from the main car park that has its entry from See Street.

The main East — West campus roadway provides strategic access from See Street through the campus linking several loading points, car parks and site infrastructure and also providing emergency access into the heart of the site.

There are various rights of carriage across the site that are explored in more detail below.

Proposed Site Analysis

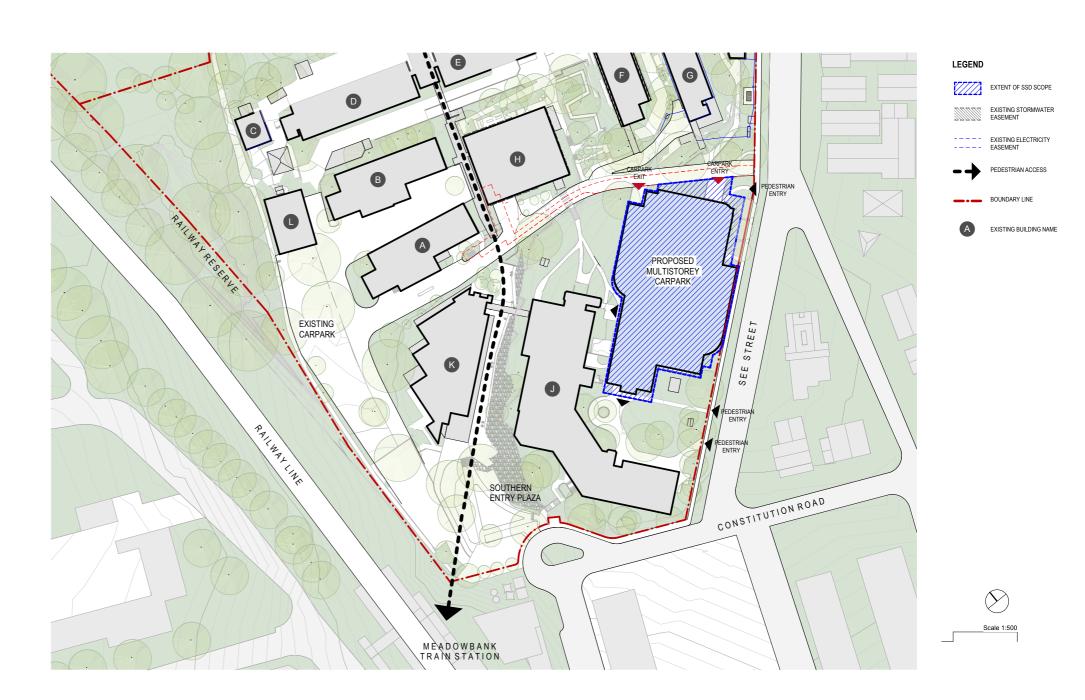


3.0 Project Brief

Project Brief

The primary design amendment that this report seeks to address is the design modification to the Multi Storey Car Parking Building currently under construction to the south of the site, adjacent the existing Building J.

The change to the Multi Storey Car Parking Building is focused on the addition of 2 levels while maintaining current design cue and footprint of the building.



4.0 Design Response

DESIGN RESPONSE

DESIGN PROCESS - AN OVERVIEW

Gray Puksand have treated the design modification of the new carpark structure with the same diligence and critical thinking applied to the development of the current Multi Storey Car Parking building, with the current aesthetic treatment be maintained.

DESIGNING FOR PLACE

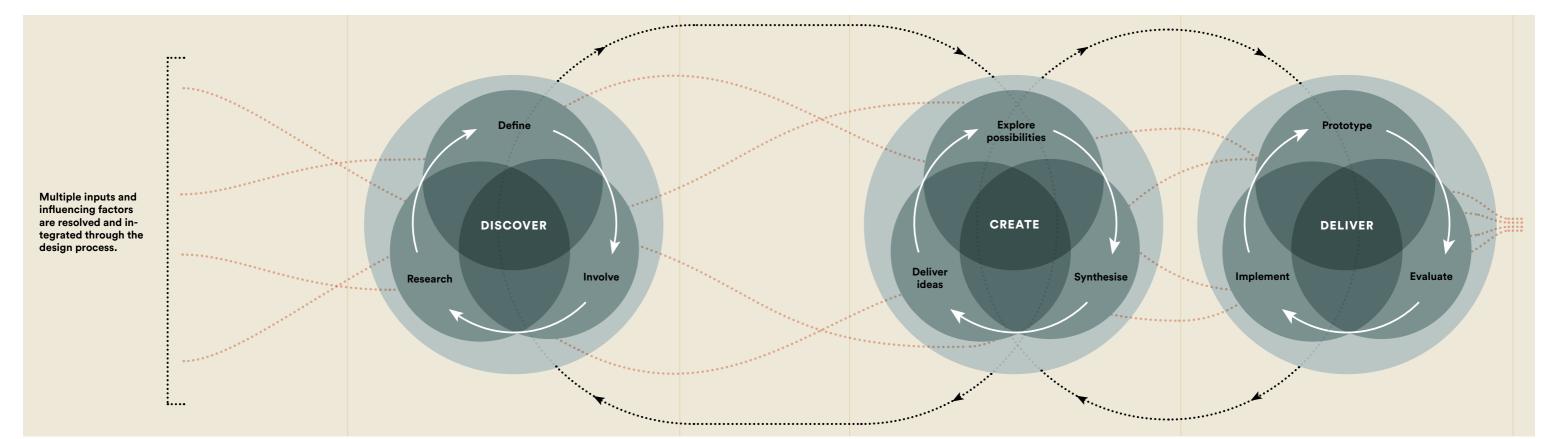
Gray Puksand have, in the same spirit as the design of the Hub Building and current Multi Storey Car Parking Building, utilised the Government Architects Documents "Better Places an integrated design policy of the built environment of New South Wales" and reflected upon its key principles as a framework for the critical analysis of the design development.

THE DESIGN PROCESS

As noted in the previous submission, the over-arching design process has been succinctly described in the "Better Placed" document. The process undertaken in this journey to date has been no different.

The stages of discovery and creativity are ongoing throughout the documentation of the development application and will continue to evolve into the detailed design phase.





Better Placed - Design Objectives

TAFE's decision to pursue additional car parking to the campus has prompted addition of 2 levels to the previously proposed new above ground 2 storey car parking structure adjacent Building J.

The approach adopted is to maintain the simplistic form and footprint of current car parking structure designed as outlined in following to produce a sustaining asset for the campus.

1. BETTER FIT - CONTEXTUAL, LOCAL AND OF ITS PLACE

The siting of the proposed car park building has been carefully considered both within the campus and immediate local context, responding to various existing site and suburb restraints including:

- Limited available space on the site considering potential Greater Sydney
 Commission potential master planning strategies for the east west underpass
 and grounds adjacent the existing railway line to the west of the campus;
- Reluctance to pursue bulk excavation on the higher side of the site due to the cost involved in the removal of extraordinary hard sub soil sandstone geology;
- Review of constructability issues faced in the excavation and removal of extraordinary hard sub soils and stone geology to the Multi-trades and Digital Technology Hub Site.
- Respecting existing easements in place for site infrastructure; The design of the building respects the residential premises to the east of the site, ensuring that overshadowing has minimal effect, maintain the amenity currently enjoyed by the residents. The landscape design has been considered to ensure a softening of the intersection between the building and the ground plane, with materiality and façade composition to be resonant of the new Mult Trade and Digital Technology Hub to the North, without trying to mimic its architecture. The building will have a presence on the street scape, designed as to minimise its aesthetic impact whilst achieving its functional intention, addressing the existing connections to campus whilst avoiding adding additional commercial driveways to See Street in utilising the existing vehicular access way.

2. BETTER PERFORMANCE — SUSTAINABLE, ADAPTABLE AND DURABLE

The new building is intrinsically designed to be a passive structure, avoiding mechanical systems by ensuring the façade provides fabric densities, whilst providing shade to the perimeter of the structure, is conducive to utilising the prevailing Sydney north westerly winds to ventilate and cool the structure adequately.

The regular structural grid enables efficient traditional construction methodologies, whilst combined with a generous floor to floor span of 3400mm, future proofs the structure for the possibility of conversion to educational or other accommodation, should this be pursued by TAFE NSW in the future.

3. BETTER FOR COMMUNITY - INCLUSIVE, CONNECTED AND DIVERSE

Responding to the wider campus masterplan, the building maximises the capital investment for the campus, ensuring essential infrastructure requirements are met in a feasible and sustainable manner.

The facility is readily accessible to all, with strong pedestrian connections to the remainder of the campus retained, further supported by a reduced allocation of parking remaining within the envelope of the proposed Mult Trade and Digital Technology Hub.

4. BETTER FOR PEOPLE — SAFE, COMFORTABLE AND LIVEABLE

The carpark building has been designed to embrace the key principles of Crime Prevention Thorough Environmental Design creating a safe and connected facility for all TAFE Patrons to utilise. Clear site lines, open and well-lit spaces combine to provide an urban response that, supported by a considered landscaping approach, providing the users with a safe and welcoming interface between the public and campus realms.

5. BETTER WORKING — FUNCTIONAL, EFFICIENT AND FIT FOR PURPOSE

A pragmatic architectural approach to planning has produced a structure an efficient, yet aesthetically pleasing solution, working within the site restrictions and existing topography. Adherence to the requirements of the Australian Standard 2890 Series for off street parking ensures operational and functional adequacy is achieved.

The proposal lends itself to various functional uses with the 8.2m grid spacing opening the floor plates to various configurations and generous floor to floor spans, suitable for the integration of future mechanical, electrical and hydraulic servicing as required

6. BETTER VALUE - CREATING AND ADDING VALUE

Built over the existing on grade car parking area to the south of the site, the proposed structure maximises the capacity of this area, providing much needed parking infrastructure for the TAFE Students and Staff in a feasible manner. Enabling the provision of such of street parking facilities provides added value for not only the campus, but the immediate suburb facility, safeguarding a potential for increased demand with respect to on street parking in the area.

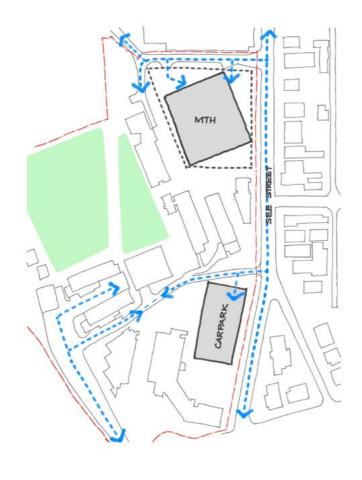
7. BETTER LOOK AND FEEL - ENGAGING, INVITING AND ATTRACTIVE

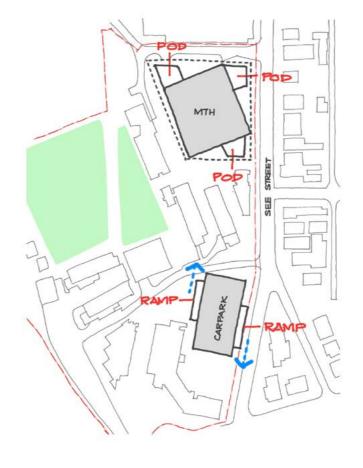
In a similar approach to the Mult Trade and Digital Technology Hub, our design for the car parking structure responds in an informed way within an emerging campus and suburb masterplan and educational precinct context. The building's design is sympathetic to its location and rather than imposing an eye-catching aesthetic the building responds to, and unifies the built environment of its context, creating a visually engaging presence, not shying away from its core functionality, softened with a peripheral landscape design that integrates to the existing green space to the south and the driveway on the northern aspect.

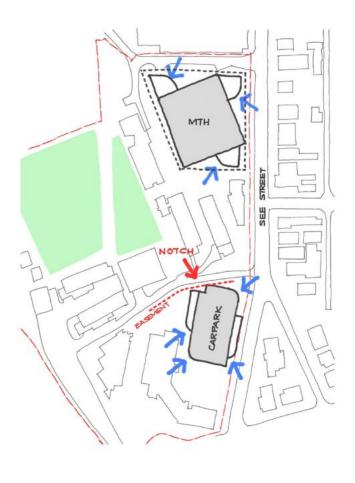
CONTEXTUAL RESPONSE

Contextual response has remained unchanged from current proposal as the nature of the modification involves addition of 2 levels replicates the current building form and follows the proposed circulation strategy.









PEDESTRIAN CIRCULATION

New pedestrian pathways are created to provide access from See Street, as well as both Western and Southern interfaces with existing Building J.

As an existing car parking area on the site, the pedestrian routes an connections to the fabric of the campus are maintained and strengthened.

Access to Building J is unencumbered with a green forecourt maintained to the south of the new structure, respecting the arrival to the main entrance of the existing building.

VEHICULAR CIRCULATION

Vehicular access to the proposed carpark utilizes the existing driveway and crossover to the existing on-grade open carpark.

PLUG-IN FORMS

The proposed carpark features ramps located externally from the main rectangular form, expressed as an appended form, mimicking the MTH's 'plug-in' pods. These 'external' ramps create a variation in setback from the street alignment, and increase carpark yield. The plug-in forms further express architectural contrast through a tectonic shift in its positioning at opposite ends.

EDGE SOFTENING

The design motive of the 'square and rounded corner' in plan form is used to reference the Multi Trades building. This theme is deployed to both unify the design as part of a greater suite of buildings and to soften form and bulk.

The street facade has been designed with a variety of set backs and a modulation in facade heights. This will activate the civic frontage without overpowering the streetscape. It is supported by purpose designed landscaping and the preservation of significant trees.

ARCHITECTURAL RESPONSE

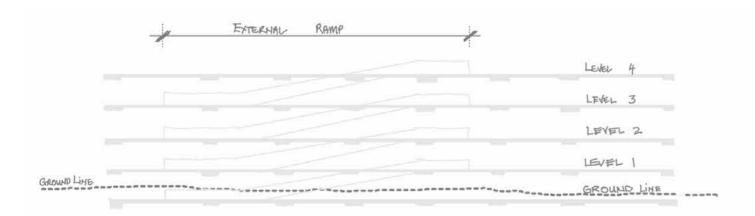


Diagram 1: Two additional floors added to current proposal with consistent 3400mm floor to floor height.

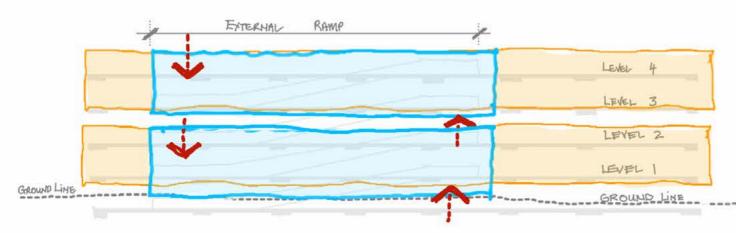


Diagram 3

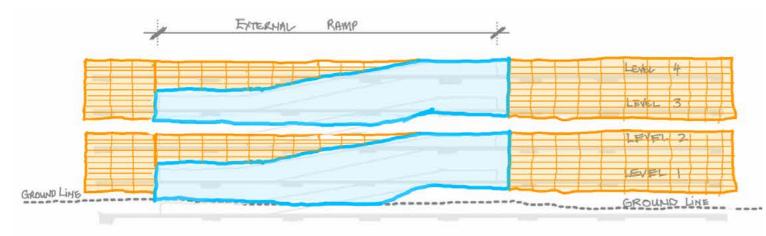


Diagram 5

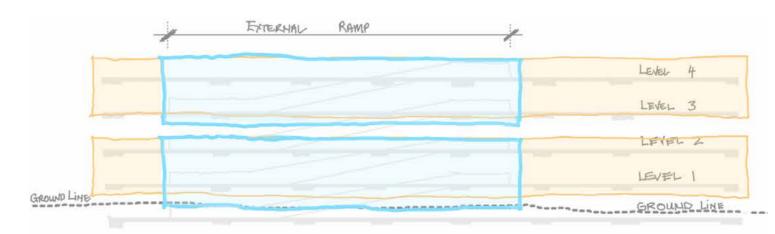


Diagram 2, 3, 4 + 5: Adding horizontal façade breakup from the top of Level 2 Façade screen (1800mm AFFL) to the façade screen reactivated from Level 3 upwards to scale down the overall mass of the structure. Transition of the Bronze Colour of the nominated façade screens above Level 3 into neutral silver towards the top of the screen at Level 4 to further dilute the scale of the overall structure while continuing the fine grain to the façade.

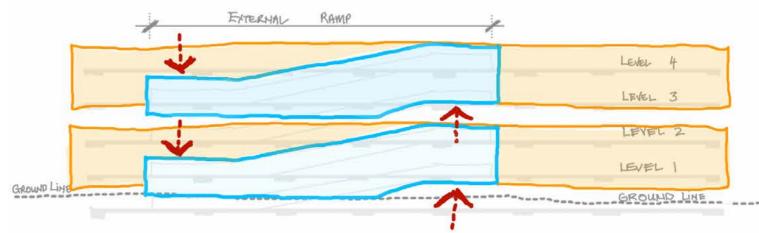


Diagram 4 Additional portion of the structure compliment over the existing retained significant trees. Design of the façade screens further softens the interfacing edge of the streetscape.

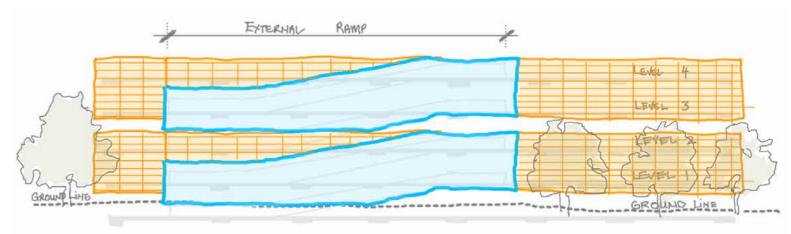


Diagram 6 Additional portion of the structure compliment over the existing retained significant trees. Design of the façade screens further softens the interfacing edge of the streetscape.

5.0 Built Form and Urban Response

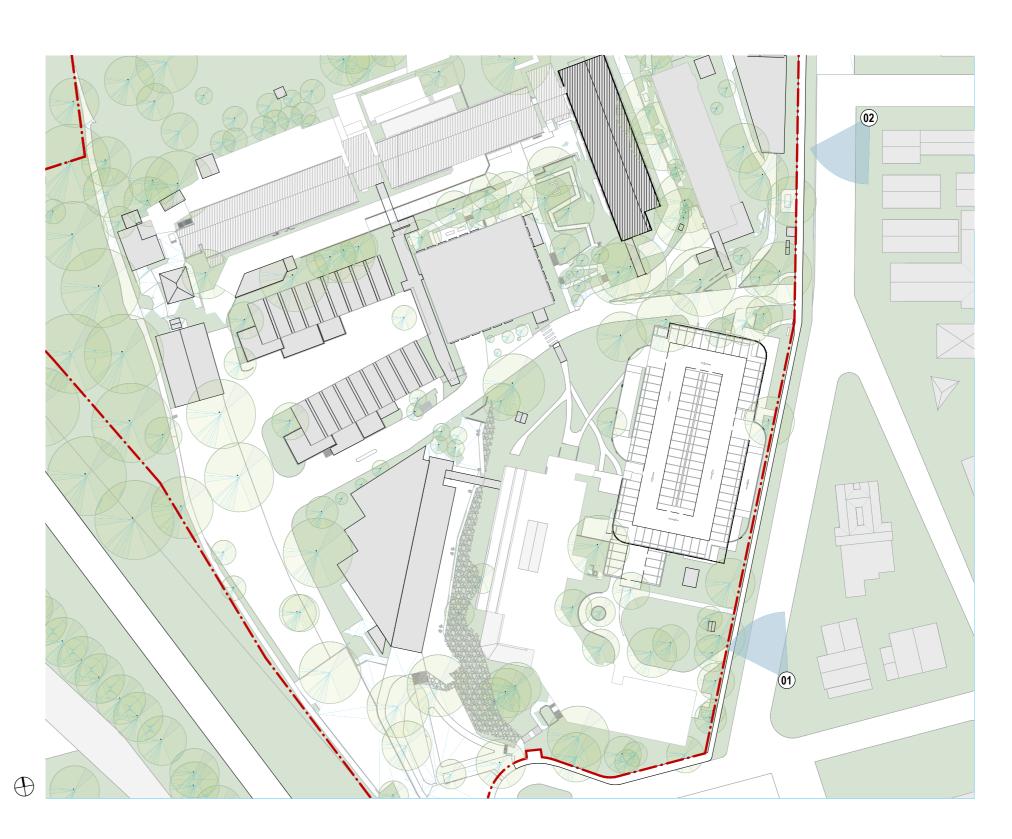
BUILT FORM AND URBAN RESPONSE

The Proposed modification to Car Parking Structure has been carefully designed to maintain the approved rational of the current design to provide maximum efficiency, whilst respecting how it relates to the adjoining residential area to the east of See Street.

Horizontal break up of façade screen at high level Level 2 before Level 3 emphasizes the horizontality of the structure which aesthetically alleviates the scale of the building increased in height together with the selection of screen finish fading out to neutral silver to diminish into skyline.

Omission of roof structure to the 4th level ensured it presents at a similar scale to the proposed Multi Trades and Digital Technology Hub to the North of the Campus, echoing the architecture of the main building, as opposed to refashioning the previously approved conceptual approach.

Proposed modification ensures minimal impact to the amenity enjoyed by the adjoining residences, with overshadowing kept predominantly to See Street, utilising the favourable north to south orientation of the site.



Key View 01_North





BEFORE



(EY PLAN

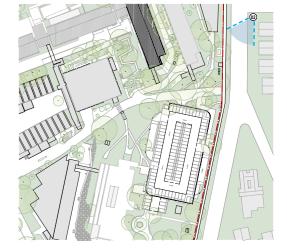
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Key View 02_South





BEFORE



KEY PLAN

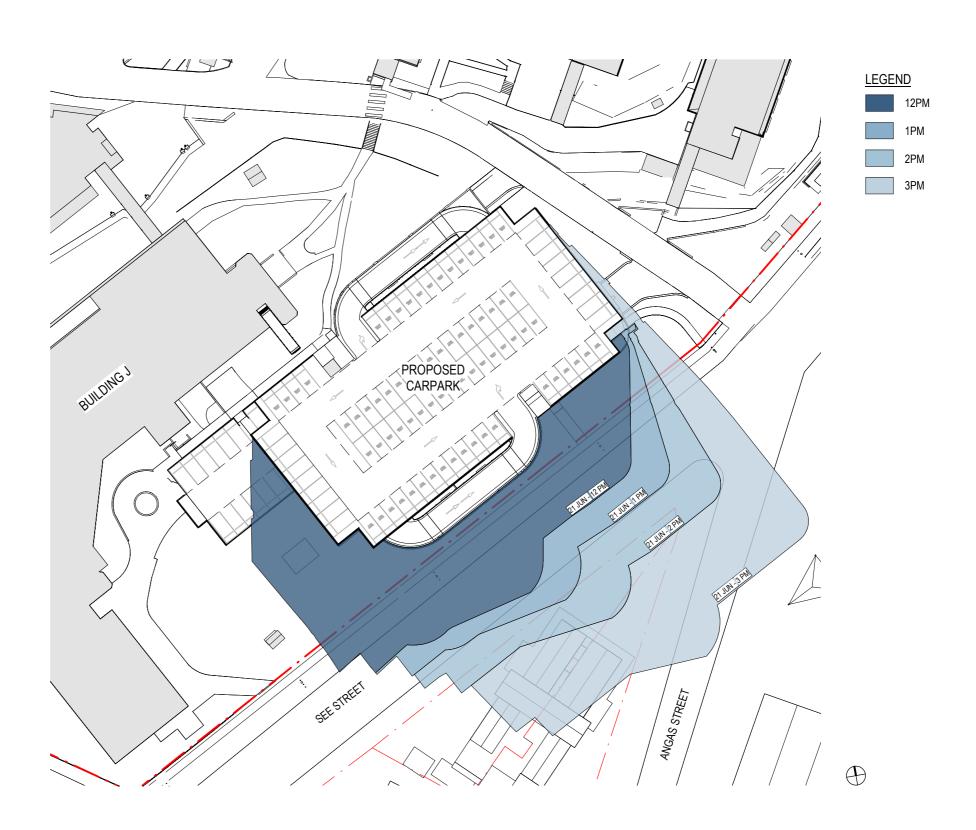
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SHADOW ANALYSIS

A study of the potential overshadowing impact of the development has confirmed minimal impact to the residential properties to the East. Some additional overshadowing will occur from approximately 3.30pm in the afternoon as demonstrated on the diagram opposite on the Winter Solstice.

An hour by hour study shows the elongation of the shadows as the sun sets to the West, casting shadow predominantly onto See Street throughout the afternoon, with shadow only striking the most northerly residential boundary at the intersection with Angas Street, close to dark, with dusk averaging around 4.53pm. The other residential properties are not affected.

A favourable orientation ensures that all the residence maintain the minimum three hours direct solar access to all private open space required by Ryde Councils DCP.

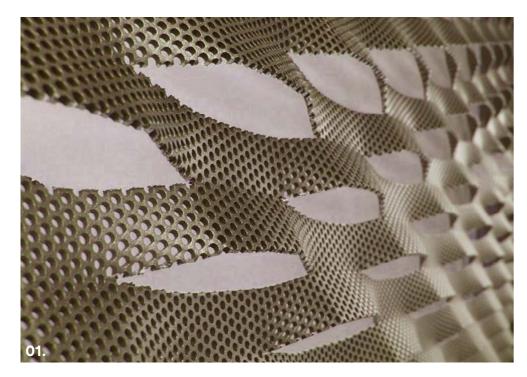


PERSPECTIVE LOOKING SOUTH ON SEE STREET



6.0 Materiality and Facade

DESIGN INTENT FOR EXTERNAL FINISHES





01. Lasercut perforated mesh screen

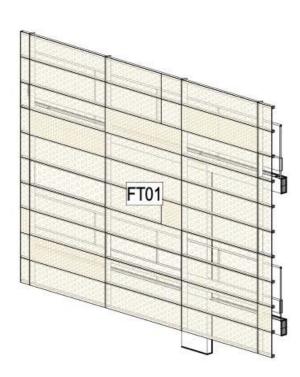
02. Dark powdercoated vertical screen

FACADE TYPE ANALYSIS

CFT01

A simple segmental perforated metal screening system is proposed to the main façade of the building, providing suitable airflow to achieve the natural ventilation requirements to each enclosed floor plate. The fabric, by its nature will echo the modular cladding system and materialistic tones of bronze and silver proposed to the Multi Trade and Digital Technology Hub adjacent.

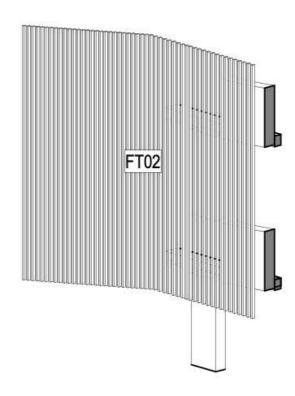
It is not envisaged that the cladding would stem the entire vertical depth of the façade, moderating the interaction with the peripheral landscape and maintaining safe defence to the upper floor, without overburdening the structure in height.



CFT01- 3D VIEW

CFT02

A feature vertical batten system with a dark powder coat finish will clad the main inter-floor ramps to the eastern See Street Elevation, creating a contrast the primary cladding and following the form of the ramps to anchor the structure on the southern most touch point — the only place where the main building cladding will reach ground level.

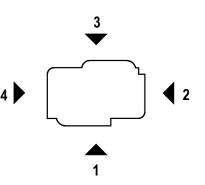


CFT02-3D VIEW

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FACADE ELEVATIONS





FACADE TYPE LEGEND

CFT02 VERTICAL CLADDING BATTENS

CFT03 FOLDED METAL AWNING CFT04 EXPOSED CONCRETE

CFT05 BLOCKWORK

7.0 Parking & Area Summary

TAFE PARKING & AREA ANALYSIS

CAR PARKING SUMMARY

The proposed amendments to the design will see the originally proposed 200 carparking spaces split between the Multi Trades and Digital Technology Hub and the new carparking structure. The site proposed for the new car parking building currently caters for 77 car parking spaces, this number will also be catered for in the new construction, requiring at total of 277 spaces between the two buildings.

MULTI TRADES AND DIGITAL TECHNOLOGY HUB

30 Standard Car Parking Spaces

2 Accessible Spaces

Total - 32 Spaces

NEW CARPARKING STRUCTURE

Ground Level — 81 standard car parking spaces; 6 Accessible Spaces

Level 1 - 75 Standard Car parking Spaces

Level 2-75 Standard Carparking spaces

Level 3-75 Standard Carparking spaces

Leve 4 - 88 Standard Carparking spaces

Total - 394 Spaces

GRAND TOTAL - 426 SPACES

AREA SUMMARY

MULTI TRADES HUB

The removal of the lower level of carparking to the original design submission of the Multi Trades and Digital Technology hub sees a reduction in the region of 3,800m² floor area.

The redesign of the upper level of carparking to accommodate 32 spaces sees a reduction in the region of 1400m² of floor area.

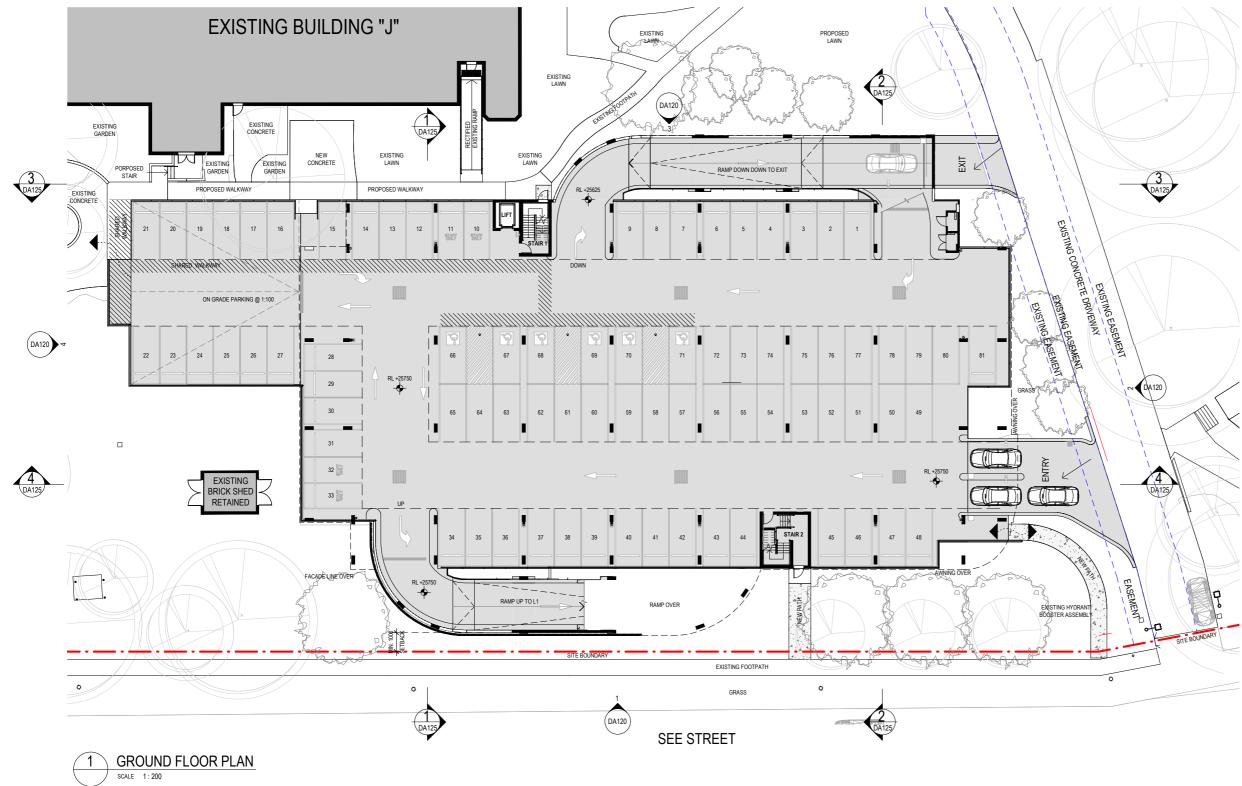
NEW CAR PARKING STRUCTURE

The floor plate areas of the new structure are approximately 2200m² per floor, excluding the connecting ramps, giving a total floor area in the region of 11,000m².

8.0 Architectural Drawings

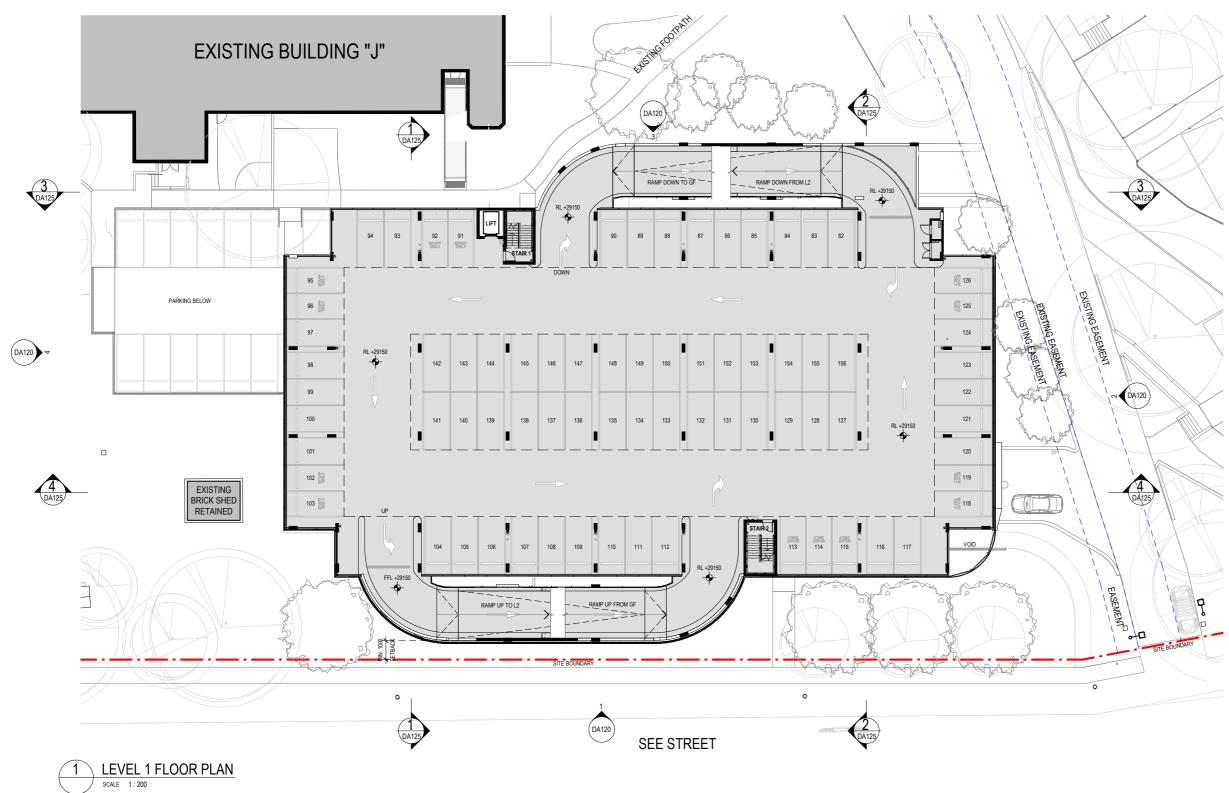
MSCP FLOOR PLANS MSCP SECTIONS

GROUND FLOOR PLAN



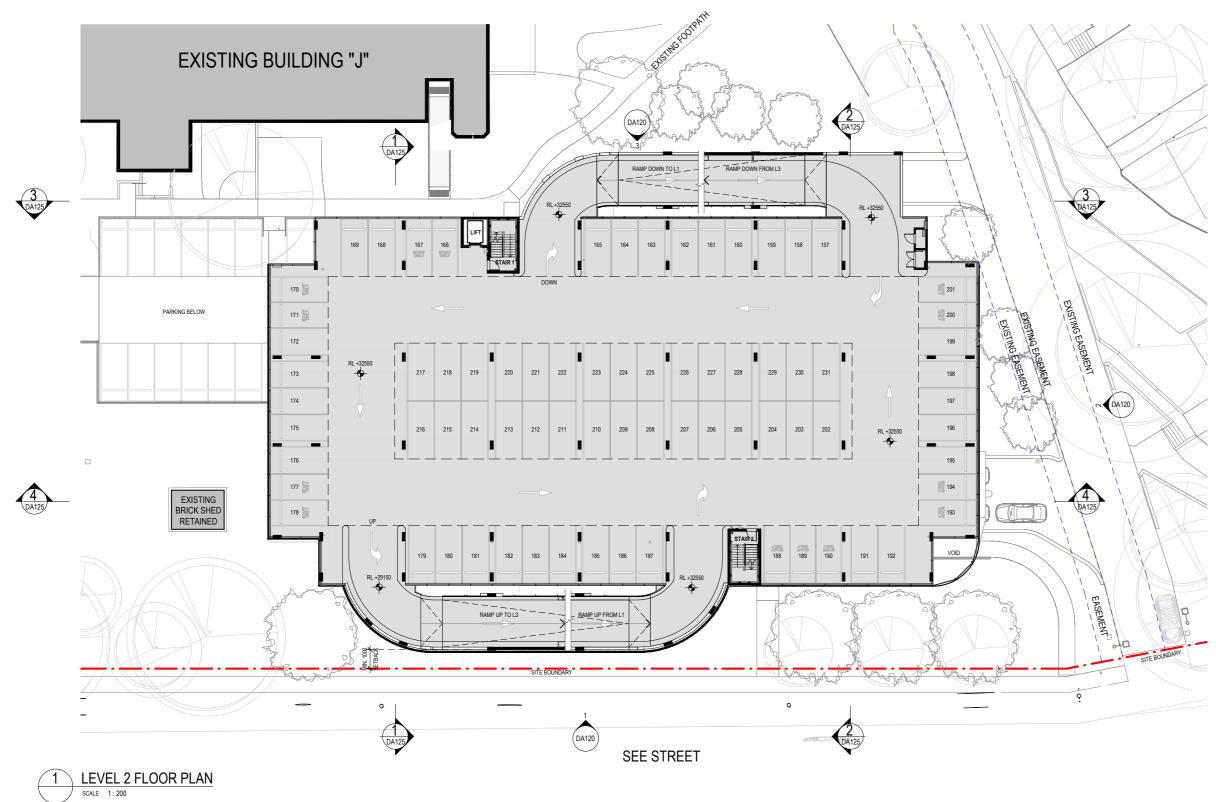


LEVEL 01 PLAN



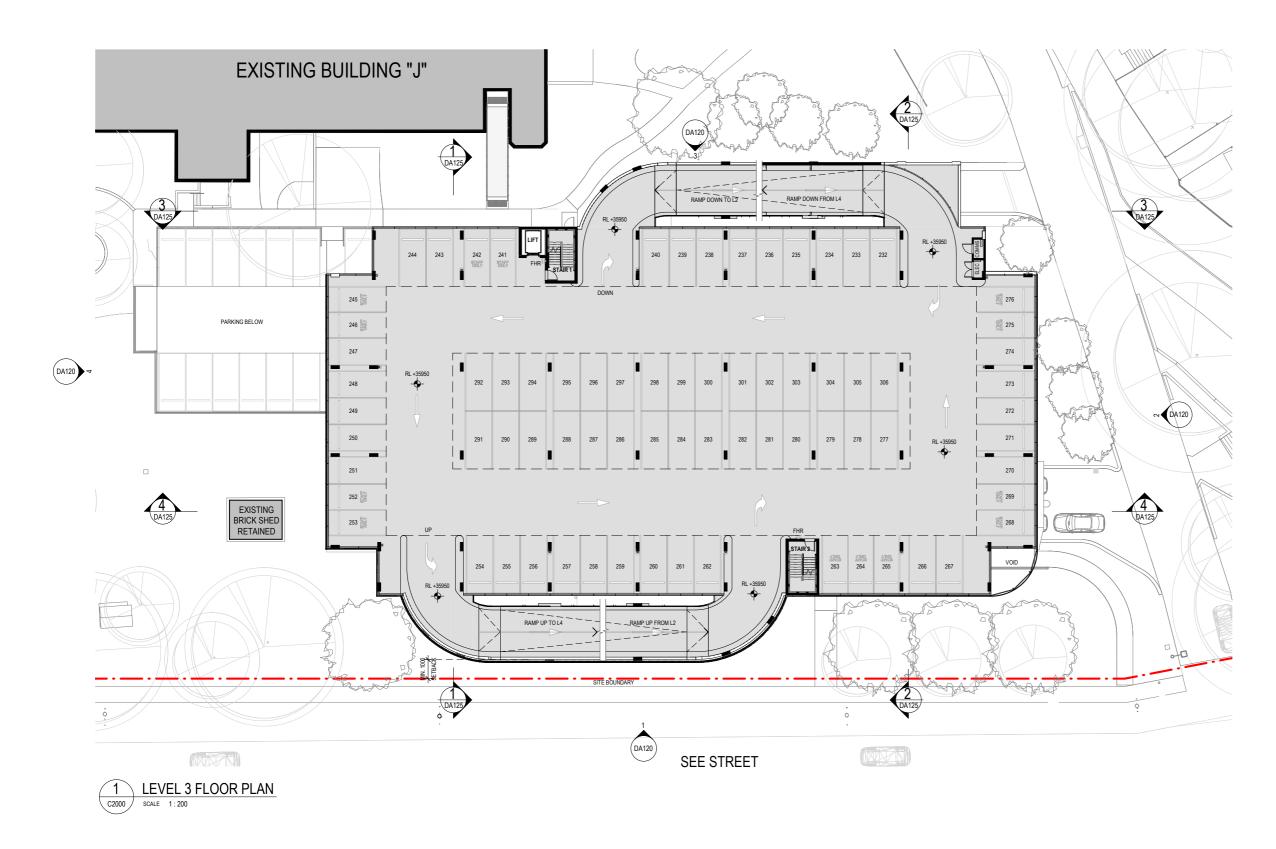


LEVEL 02 PLAN



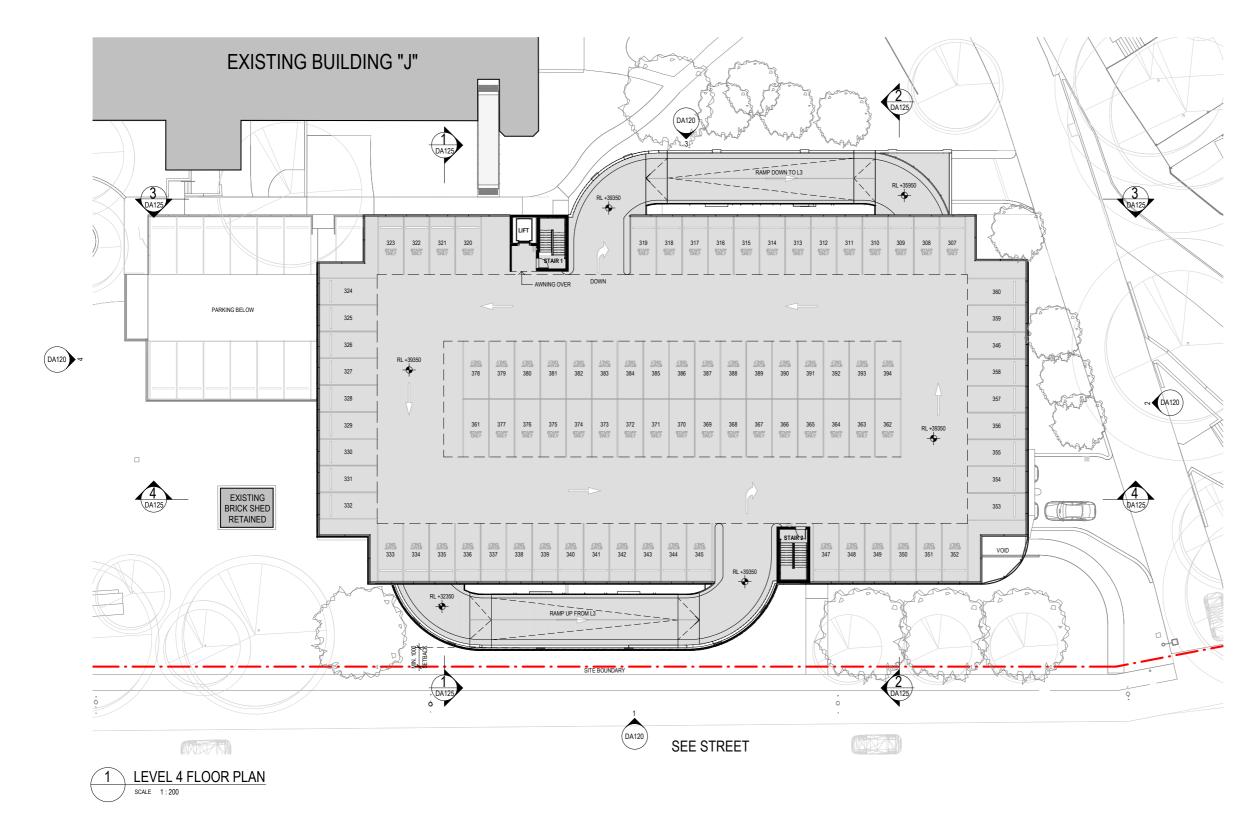


LEVEL 03 PLAN





LEVEL 04 PLAN





SECTIONS

