DESIGN EXCELLENCE AND BUILT FORM REPORT

New South Wales Rugby League Centre of Excellence 18 October 2016



Document Number: RAR.1.001 Project Number: 16-7416-00 Created by: JR Approved by: AB

Rev.	Date	Description
А	19.08.2016	DRAFT FOR COMMENT
В	09.09.2016	DRAFT FOR COMMENT
С	19.09.2016	FOR DA ISSUE
D	18.10.2016	FOR DA ISSUE

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DEVELOPMENT APPLICATION - ARCHITECTURAL DESIGN EXCELLENCE AND BUILT FORM REPORT



DAWN FRASER AVENUE, OLYMPIC PARK SYDNEY

NEW SOUTH WALES RUGBY LEAGUES CENTRE OF EXCELLENCE

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This Project envisages the development of a Centre of Excellence (Project) for the New South Wales Rugby League (NSWRL).

The Centre of Excellence will be the headquarters for Rugby League in NSW supporting senior football, junior football, Indigenous programs, country programs, women's rugby league and referees. In addition to housing the administrative functions of the NSWRL, the centre will support a high performance pathway for players, preparing them for the game's ultimate event of the State of Origin.

The NSWRL administrative departments are currently located in a building local to the proposed site, on Herb Elliott Avenue, Olympic Park. However, they do not presently have a combined training facility, with the various programs training at different locations across Sydney and the state. Combining both the training and administrative functions of the NSWRL within the same facility hopes to overcome the disconnect that the organisation currently experiences. NSWRL have identified a new training and administration facility as a key component to improving their on-field performance and sustaining their off-field success.

NSWRL secured the proposed site on Dawn Fraser Avenue, Olympic Park, Sydney in a joint agreement with the Sydney Olympic Park Authority (SOPA). Part funding for the new facility will also be provided by SOPA. Planning approval for the adjacent training pitch has already been granted and does not form part of this project, however careful coordination has been undertaken between the two developments to ensure that they are effectively integrated.

In June 2016 the Design Team for the new facility was appointed and commenced the Schematic Design (SD) Phase. This document is the Architectural Design Report for the Development Application submission to be lodged with the New South Wales Department of Planning. It is a written and graphical summary of the work undertaken by the Design Team during the Schematic Design Phase that forms the basis of the Development Application.



Introduction

SOPA Master Plan

The New South Wales Rugby League Centre of Excellence has been designed to align with the Master Plan 2030 document:

•The site sits within the Sports and Education Precinct. The intended program not only delivers on sports development but on education due to the inclusion of a sports science area which is to be utilised by a university partner.

•North south access has been maintained between the building and the pitch, with the intention that it could be included as part of a reduced version of the proposed 'campus walk' north-south shared use spine at a later date.

• Dawn Fraser Avenue street frontage is active with programs such as a retail outlet, café, a publically accessible museum space and commercial programs including a physiotherapy and medical room, both of which have the capacity to be made independently available to the local community.

•The building complies with the building expression controls, articulating key elements such as the public facilities and a strong built element to the prominent north east corner, incorporating sun shading across the north, west and east facades and providing on grade access to the primary access points. The proposal provides a double height colonnade with a 3-4m setback. The setbacks vary from 3-4m to divide the significant façade surface area into smaller sections and modulate the street frontage. The colonnade façade is glazed and incorporates commercial outdoor seating to increase activation and provide passive surveillance of the adjacent street. As the colonnade is greater than 1.5 storeys, sunshading elements have been incorporated into the design to provide increased comfort to inhabitants.

•The deck on level 2 provides a usable outdoor communal area and solar access has been optimised throughout the design by maximising north facing glazing. All workstations are within 12m of glazing. All programs comply with minimum ceiling heights of 2.7-3-3m, depending on use. Lift overruns and services have been concealed by virtue of their location on the plan and within parapets. The building complies with the 4:1 floor space ratio.

• Parking facilities are significantly lower than the maximum vehicle parking rates specified. Bike storage and end of trip facilities have been provided to encourage sustainable transport options.

• A landscape architect has been engaged to align with the landscape planning principles.





Location of NSWRL COE Site





Site access and activation

NSWRL COE site in context of the Master Plan 2030: Sports and Education Precinct

Master Plan 2030 Sports and Education Precinct Render

Design Review Panel

Throughout the concept and schematic design phases, the proposal was presented to the SOPA DRP on a number of occasions and the subsequent design solutions incorporated a number of key recommendations of the panel:

• Reconfiguration of the western back of house entry, loading facilities and disabled access.

• Reconfiguration of the staff carpark to the west of the facility.

•Concentration of the building mass and height to the prominent north east corner of the site

•Resolution of the land between the ANZ access tunnel, Dawn Fraser Avenue, the training field and proposed NSWRL COE

• Retention and refurbishment of the ANZ access tunnel to celebrate it's use as a player's portal on match day



The residual area between the NSWRL COE, the ANZ access tunnel and the pitch has become an active space

There are strong connections between the NSWRL COE, the ANZ access tunnel via the celebrated players portal and the pitch





High level BOH access from the colonnade



High level BOH access from the carpark

Current scheme with on grade access to both the carpark and BOH entry



Height, Bulk, Scale

The proposed NSWRL COE design complies with the height, bulk and scale guidelines outlined in the Sydney Olympic Park Master Plan 2030.

Design Narrative and Facade Articulation

Façade, massing, setbacks and building articulation are largely focused on the design narrative, which is that the facility will act as a beacon of light for the NSWRL. The beacon is supported by a strong structural base and heavy precast 'book ends.' The focal point of the site is the north east corner. This is clearly visible from both approaches around ANZ Stadium, as well as from the primary pedestrian approach, travelling south along Dawn Fraser Avenue from the Olympic Park station. As such this is the nominated location for the 'beacon of light.' The beacon is considered as a glowing box and the internal planning supports this, arranging active public spaces along its façade line.

Roof Modulation

The roof height is varied across the built form to further increase the façade modulation and articulate the key spaces, being the triple height entry void (highest roof plane) and the 'beacon of light.'

Height Bulk and Scale

Through consultation with the Sydney Olympic Park 2030 document, the following conclusions have been drawn regarding the suitability of the design relating to the surrounding context. As the proposal is the first of its kind in the precinct, our evaluation is largely based on likely future development on surrounding sites:

• Height. Built form will be lower than neighbouring developments by approximately 2 storeys. This is marginal and will increase solar access to the neighbouring NSWRL pitch and SOP Athletic Centre field.

Bulk. The built form has been designed to be focused on the street frontage and the building footprint encompasses most of the site, which aligns with the precinct controls and guidelines.
Scale. The building attempts to address the scale of the pedestrian as well as the scale of the site through its colonnade (pedestrian) and the division of its massing along Dawn Fraser Avenue (site).

DRP Response

A detailed study was undertaken at the recommendation of the DRP investigating an appropriate height, bulk and scale to Dawn Fraser Avenue.

Option 1: Height concentrated along south facade. Efficient floor plate. Maximised expansion options





VIEW FROM NORTH EAST





VIEW FROM SOUTH EAST

VIEW FROM NORTH WEST







VIEW FROM NORTH EAST

VIEW FROM EAST



Option 2: Height concentrated along Dawn Fraser Avenue. Less efficient floor plate. Removes emphasis from entry

VIEW FROM SOUTH EAST

VIEW FROM NORTH WEST





VIEW FROM NORTH



VIEW FROM NORTH EAST

VIEW FROM EAST



Option 3: Height concentrated on north east corner. Maximises views, highlights entry and Dawn Fraser Avenue presence

VIEW FROM SOUTH EAST

VIEW FROM NORTH WEST





Design Excellence

In addition to the DRP recommendations detailed above, the design also addresses the following issues:

·Prominent north east corner, visible from all approaches, is utilised as a glowing beacon of light

·View of and response to ANZ stadium

•Continuation of the colonnade which is activated through the arrangement of public spaces along the facade line

•Resolution of levels by demarkating public and private space

• Simple and efficient internal circulation to maximise net usable space on a difficult shaped site

• Exploting northern aspect and views

 Modulation of the facade and massing to articulate key spaces internally such as the main entry and boardroom

•The use of strong massing elements on the periphery to bookend the building

 Integrating appropriate signage and graphics into the building and existing tunnel to celebrate the Blues team and it's special relationship with the site







the proposal

Opportunities and constraints of the site have been optimised across the design





The north east corner is the focus from all approaches. This has become the 'beacon of light.'















The signage strategy exploits the prominent north east corner.

Materials and Finishes

Materials and colours have been approached with restraint throughout the scheme. The concept is to celebrate raw materials such as concrete and fibre cement wherever possible, complimented by timber detailing, black structural steel and splashes of (NSW) blue to key spaces.

- PRE-01 Precast concrete panel Grey precast concrete paneling with a pattern applied. Pattern to be confirmed.
- FLV-01 Fibre cement louvre Two vertical spanning sheets of naturally finished fibre cement, with black steel set in between the two sheets. Concealed fixings.
- TCC-01 Timber soffit and / or cladding Timber composite cladding applied to concrete soffit and / or concrete inner wall faces. Concealed fixings.
- PRE-02 Precast concrete framing Grey precast concrete, chamfered to a thin edge, framing facade openings.
- FLV-02 Glazed or polycarbonate louvre Glazed or polycarbonate vertical louvre to span between precast framing. Colour to be clear or blue. TBC.
- FGL-01 Black framed glazing Glazing with expressed framing, powedercoated black.
- FGL-02 Signage applied to glazing Changeable transparent signage to be applied to glazing.
- STN-01 Reclaimed stone Stone salvaged from current retaining wall on site to be cleaned and reapplied as per current patterning.
- FSC-01 Metal screen with signage applied Transparent metal screen sitting proud of glazing with changeable transparent signage applied.
- FLV-03 Horizontal louvre Black powerdercoated horizontal louvre with frameless integrated doors where required.
- FGL-03 Glazed lift panel door Black framed glazed panel lift door.
- KIN-01 Kinetic facade Kinetic facade made up of a series of small layered metal panels with curated NSWRL memorabilia applied.







FLV-01







FLV-02









PRE-02





FGL-02

STN-01



















INTEGRATED

DIVERSE





Services Integration

Services coordination has been carried out with all trades. The mechanical, loading and waste zones have been optimised in the south west BOH area of the building, away from the public interface, creating a stacked services block.

• A dedicated waste room has been provided, accommodating the required number of bins as outlined in the Waste Management Report. Undercover access without any steps is maintained to this room from all areas of the building. Truck access for waste removal is also achieved, via the carpark.

•The loading zone is accessed through the on grade carpark and has been designed to accommodate a medium rigid vehicle. It has been optimised with direct access to a loading store and the BOH goods lift. The loading area will also be utilised by both waste and grease removal trucks.

• Utilities and mechanical services have been coordinated with the relevant engineers. Risers have been grouped around cores and the primary mechanical plant has been zoned with the loading zone and BOH lift to create easy, efficient access and to enable the bulk of the louvres to be located on the 'back,' south and west faces of the building. Power will come from an existing kiosk to the south of the building.

•The ANZ access and egress tunnel with remain with little or no change to it's existing functionality.



Ecologically Sustainable Development

The NSWRL Centre of Excellence is required to achieve Green Building Council of Australia four star green star equivalency. This will be achieved through utilising the sites north south orientation, adopting logical mechanical systems and through careful fixture and fittings selections.

As the site is orientated with a desirable north south aspect, the arrangement of spaces has been designed to maximise this, with public and recreation spaces located to the north in order to maximise winter solar access and summer breezes. The extensive use of sun shading devices have been applied to the north and north east facades to reduce thermal load in summer and limited glazing is present on the western façade. Sun shading has also been applied to the activated public colonnade fronting Dawn Fraser Avenue, which also aligns with the SOPA master plan 2030 document.

From a services viewpoint, the proposal will be connecting into the exisitng recycled water network. Water efficient fittings and fixtures will be adopted across the site and mixed mode HVAC systems will be in use for large volume spaces such as the gym and entry lobby.

Finally, the car parking scope has been significantly reduced from the briefed count, down to 10 from an original number of 50. Provisions for bike storage and end of trip facilities have also been included to encourage and enable active and public transport options over private car use. This also aligns with the SOPA master plan 2030.





A solar study to investigate and inform the solar protection required on the north facade to minimise solar gain in summer and maximise solar penetration in winter



APPENDICES - ARCHITECTURAL DRAWINGS





SUMMER SOLSTICE – 21st OF DECEMBER



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WINTER SOLSTICE - 21st OF JUNE



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