

Built Form & Urban Design Report

North Kellyville New Primary School

New & Upgrade Works Schools in North and North-West Sydney DoEAMD-16-71

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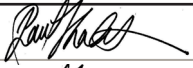
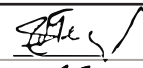


Education



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Revisions & Authorization

REV NO.	AUTHOR	REVIEWER		AUTHORISATION			DATE
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Description of development

The Campus heart is created within the main Courtyard which is modelled on the traditional educational cloister. The Courtyard design assists in the navigation of the site gradient with integrated stairs and ramping to provide accessibility while providing visual connectivity to links the learning areas. The consolidated two level plan also preserves the major part of the site for play areas and expansion. The courtyard space is proportioned to be attractive paved green space with planters and signature trees. Upper level bridges connect the blocks.

While the main drop off zone is from the facing Hezlett Road, the main pedestrian access to the public facing components of Administration, Library and Hall are from a semi-public and secured pedestrian entrance plaza to the south. A one way vehicle drop off lane is proposed for the eastern end of the site to enable drop off within the site. The site will be fenced at the boundary.

The internal courtyard is visually connected with the western playgrounds. Working with the fall of the land towards the west, the design proposes the creation of an undercroft at the west end of the campus that incorporates the Hall breakout. The building embraces a modern innovative teaching philosophy, which is research-driven, active and student centred. Learning spaces - both formal and informal in character, are proposed, promoting creativity and flexibility, and allowing for multiple uses concurrently, so that students may undertake a range of activities as individuals or groups. Break out, informal, flexible learning spaces provide an extension to the formal teaching areas whilst encouraging informal peer-to-peer learning. The use of operable door/walls allow the school to customise spaces to suit the teaching program and class size. The learning levels are organised with both flexible Learning Street and Hub models. The circulation zones that can be arranged into different learning node configuration through use of sliding and folding doors and movable furniture. At the eastern end, the two floor plates are connected with an internal atrium with an activated stair that doubles as amphitheatre. Internal connectivity is enhanced through the internal circulation zone that provides visual links between all parts of the campus. The west façade at the upper levels overlooks the playing fields. The facade takes advantage of these existing views at the upper levels.

The predominant axis of the building is east – west and proportioned to allow cross ventilation of internal spaces. The buildings' largest surface area has a northerly orientation. The facade is designed to reduce heat gain on the west and east faces through shading that limits solar gain and responds to the low angle of the sun late in the day. This is expressed as vertical fins. The northern faces of the building is designed to reduce solar heat gain during the heat of the day in warmer months while allowing the winter sun to enter. The proportion of glazing and openable area is modelled to optimise the internal comfort levels.

Building height and scale

The proposed building has been kept to two levels to reduce its mass while maintaining adequate outdoor areas for school use for play, sports and recreation. The building is stepped with the fall of the land to the west. The courtyard form is compact and consolidated on the site. The roof is kept to a minimal pitch to further reduce the massing. The maximum height of building is 9.5 metres from natural ground level at the eastern (Hezlett Road) end and 13 metres above natural ground level from the western end.

The main building is located to the eastern end of the site to establish a civic presence and drop off from Hezlett Road – the main access road to the site.

Building setbacks

The proposed setbacks from the boundaries exceed the minimum requirements and are appropriate to the scale of the building.

The Hezlett Road boundary setback is approximately 23 metres which far exceeds the typical boundary of 6 – 8 metres. There are three nearby residential areas in the proximity of the development.

1. The residence to the south is 36 metres from the proposed building location and overlooking potential is limited but possible.
2. The residences across Hezlett Road are 42 metres from the proposed building and any potential overlooking is limited to the front of the properties.
3. The residences to the north are approx. 62 metres from the proposed school building. There will be no overshadowing of these properties. There is some potential visual access into the rear yards of these properties but the location of their structures and their fencing will limit this impact.

Landscaping will be provided in the setback area between property boundary and buildings to provide screening and ameliorate the visual impact of the new structure.

Design Quality

Our aesthetic approach has been to provide a façade that can be read at different scales – establishing a civic presence while identifying the main entries and functional elements – Administration, Library and Hall. Against this, patterns of colour and materials are used to provide contrast. The structural frame and integral shading elements provide depth and visual interest. These elements also allow the incorporation and demonstration of the passive design elements in the visual expression of the building. The durable material choices incorporate standard product dimensions and connections and the structural grid allows easy reconfiguration.

Streetscape, facade and building articulation

The façade of the building – particularly the eastern – street elevation, have been carefully designed to integrate with the emerging built context of two level development. The white solid ends of the proposed building refer to the existing white two level townhouses being constructed in the area.

The expressed structure of the façade provides shading and depth to create visual interest and variation in the play of light and shade across the building.

While the main entries are created from the pedestrian plaza to the south, a two level atrium in the centre of the eastern façade is expressed as a large window to provide visual connection from the street through to learning areas and to the green courtyard heart of the school. At night this will be lit to present a warm glowing interior to the street.

Materials and colours

A neutral palette has been proposed for the building, composed of expressed concrete columns and feature white panel walls. Coloured metal louvre shading in a bar coded pattern plays against this regular framework. This colour and pattern plays against the civic massing and column grids.