RESPONSE TO EDUCATION SEPP & BETTER SCHOOL DESIGN

The Education SEPP Design Quality Principles and Design Considerations as outlined in the Design Guide for Better Schools [GANSW] have been addressed in the design of the new Darlington Public School and our response is summarised as follows:

Context Built Form and Landscape

The proposal has sought to respond to and enhance both the existing site of the school campus and the wider context of the surrounding Darlington precinct.

As the site has a significant slope, the landscape is closely integrated with the built form, through terraces and pathways. The floor levels of the buildings have been set in close collaboration with the Landscape Architect to align with the natural ground levels.

Major circulation spines including the staircases connecting each level between the built forms sit proud of the building in the landscape and provide a visual connection to the playground.

Sustainable Efficient and durable

Embodied in the brief is the aspiration for a positive environmental, social and economic outcome. The functional layouts are efficient with clear way-finding: access stairs are egress stairs, always with a connection to the landscape; the interstitial spaces enable light to penetrate deep into the interior and the facades are shaded to provide good penetration of daylight yet mitigate thermal gain.

The materiality selection of the proposed built forms is simple and durable and references the solidity of the existing local fabric: masonry, brickwork, metal cladding, and glazing.

The structural grid and the location of support facilities such as services risers, amenities, stores and vertical circulation enables future reconfigurations of the layout plans, as do the regular sizes of the learning spaces.

Passive design principles with a focus on high performing facades will be incorporated into the design. All services will be designed to sustainable benchmarks.

Accessible and inclusive

The main entrance to the school opens onto a large covered undercroft, which provides a central waiting and gathering place for the school community.

There is good visibility across the campus so that the students and staff can understand their movement patterns and also have an appreciation of the activities in different parts of the school.

The landscaping has been designed to provide equitable access from the bottom of the playground to the top, as well as to each building function at ground level, as the form steps up the site.

Health and Safety

Security and safety of pedestrians is fundamental. The proposed traffic management measures include an increase in the number of 'kiss & ride' spaces; a dedicated multi-use school loading/ bus zone for maintenance and delivery vehicles, kerb-side garbage pick up and kerb-side school excursion bus parking on Golden Grove Street, accessed via the existing footpath.

The design provides a hierarchy of access from public to private, enabling the students to be safe and secure within their learning hubs, but to still have a connection to their environs.

Student amenities will be designed as separate facilities (single water closet), rather than combined, shared facilities. The amenities are located in visible areas to provide adequate surveillance and to discourage bullying.

A greater transparency across the learning spaces - both between levels and across the floor plates will enable a more inclusive learning environment.

Amenity

The purpose of the proposal is to not only increase the school's population to align with the forecasted demographics but to redevelop the school's facilities to meet the current and future expectations of the learning methodologies. Important aspects which will be considered in the design are:

- a diversity of learning spaces (availability of spaces of differing scale),
- open or enclosed spaces,
- spaces which are interconnected and
- spaces with a strong connection to the landscape.

The acoustics of the learning spaces is very important and internal acoustics will be mitigated through absorptive wall, floor and ceiling treatments. Open plan areas should be off-set by more intimate enclosed rooms to provide learning diversity.

With regards to the the external space, consideration will be given to creating a diversity of play spaces to cater for different ages; learning opportunities in the landscape and space for the students to run around and play sports.

Whole of life, flexible and adaptable

The proposal has carefully considered site wide strategic and spacial planning to ensure that future development of the site (for example; a future increase in population up to a maximum of 510 students) is not precluded.

Because the pedagogy of the school will change over time, it is important that the proposed buildings are as flexible as possible - clear circulation, good access to daylight, generous floor to floors to provide adequate space for services reticulation and a simple structural grid which is to the perimeter of functional zones.

Aesthetics

The design has considered the local fabric and rather than providing a new contrasting aesthetic, is designed to be complementary to the massing, scale and materiality of the surrounding buildings.

The integration of landscape is the pedagogical model.

The integration of landscape is very important, especially in such an urban site, and aligns with

GANSW CONSULTATION

Two sessions have been held with the GANSW:

- 14 August 2019 First Briefing (Feedback provided on 21/08)
- 06 November 2019 Second Briefing (Feedback provided on 12/11)

The SDRP were supportive of the project direction and no further reviews were requested.

Response by the SDRP - August 2019

The following commentary from the SDRP provides advice and recommendations for the project:

Massing and scale

- The panel supports the location of the hall at the corner of Abercrombie and Golden Grove streets. The hall should have a clear street presence, welcoming aspect and engagement with the urban context. The height of the hall should be considered together with its architectural expression to determine an appropriate 3-dimensional response to its location.
- The concentration of 3-story elements along the southeast and northwest boundaries is supported. Detail should be provided to illustrate how built forms will interact with the student housing and Regiment buildings adjacent.
- The approach illustrated in options C & D, with one or several functions perpendicular to Golden Grove Street has the potential to more successfully accommodate the slope of the site.

Heritage

- Explore ways in which the existing fabric of the school could be repurposed in the built form and/or landscape treatments.
- The panel anticipates further engagement with the Aboriginal community leading to a meaningful manifestation of cultural heritage in the built form, landscape, art, wayfinding and other elements of the project.

Landscape and open space

- · The panel supports the approach presented of the COLA areas to create an interface between the school grounds and the public domain. Further detail is required to illustrate these areas and the amenity provided, ensuring the spaces do not become too low or too deep.
- Clarify and illustrate retention of existing trees along Darlington Lane.
- Clarify any roof areas which will be used as play areas and/or landscaped open space.

Sustainability

Detail ESD initiatives and performance targets

Architect's Response

Massing and scale

- The hall building has been maintained as a taller element at the corner of Abercrombie and Golden Grove streets. Upon further consideration of the hall's function, it was decided that the main entrance to the hall should be off the covered undercroft near the school's main entrance, to allow large groups to spill out of the hall, without overflowing onto the public footpath.
- The three storey element which runs paralell to Golden Grove Street accomodates the learning neighbourhoods and culminates in the school hall at Abercrombie Street. A lower single storey element extends below this and provides a human scale to the streetscape and the main entrance of the school.
- The design has maintained 3 distinct buildings at ground level, perpendicular to Golden Grove Street, which help to stitch together the different levels across the .site.

Heritage

- It is envisaged that the bricks from the existing school will be recycled and used in selected locations. Further development of these ideas will occur during detailed design.
- Refer to Aboriginal and Cultural Heritage section of this report and the separate ACHAR report. Further consultation with the community will occur during detailed design.

Landscape and open space

- · The panel supports the approach presented of the COLA areas to create an interface between the school grounds and the public domain. Further detail is required to illustrate these areas and the amenity provided, ensuring the spaces do not become too low or too deep.
- Refer landscape report for tree management plan.
- It is not intended that any roof spaces will be used as play areas. The covered balcony on levels 1 and 2 provides various outdoor learning spaces for the learning neighbourhoods.

Sustainability

Refer separate ESD report.

Response by the SDRP - November 2019

The following commentary from the SDRP provides advice and recommendations for the project: The SDRP are supportive of the project direction and no further reviews are required.

Aboriginal Culture

- The approach to understanding and engaging with local Aboriginal culture is commended as a starting point. Provide details of how the connection to Country will be made evident throughout the school grounds: for example, using landscape, materials, plant selection, art installations/murals, naming, wayfinding devices, play equipment, paving, colour, texture and so on.Heritage
- Explore ways in which the existing fabric of the school could be repurposed in the built form and/or landscape treatments.
- The panel anticipates further engagement with the Aboriginal community leading to a meaningful manifestation of cultural heritage in the built form, landscape, art, wayfinding and other elements of the project.

Landscape

- The landscape strategy incorporating connected spaces at various scales is supported. The landscape design should be further detailed to incorporate robust surfaces, materials and plantings, particularly in areas of high play traffic
- The setbacks along Golden Grove Street should be further detailed to demonstrate the continuity of the urban realm with robust and low-maintenance materials and landscaping. These areas should be illustrated to indicate how sightlines between the street and the pre- school will be resolved.
- Explore and illustrate how natural environmental systems (ie water) can be integrated into play areas.
- Clarify and illustrate access to and visual appearance of the Library roof.
- Provide a plan illustrating the potential use of the upper level circulation/outdoor learning spaces.

Hall & Streetscape

• The possibility of a community foyer at the south west corner of the Hall is supported and should be further developed.

- Illustrate the treatment of street edges at the setback along Golden Grove Street and whether these can incorporate street seating or other public amenity.
- Provide a view illustrating the proposed visual connection from Abercrombie Street through the street-wall into the school at the service entry and assembly area.
- The design of the entry fence as a place-specific screen integrated with the built form is supported and further details should be provided. Explore versions where a staggered fence line addresses spatial generosity to both sides of the fence where needed.

Sustainability

 Detail ESD initiatives and performance targets, including passive and active energy modes, overshadowing, solar access, energy generation, water collection and reuse, etc.

Architect's Response

Aboriginal Culture

 Refer to Aboriginal and Cultural Heritage section of this report and the separate ACHAR report. Further consultation with the community will occur during detailed design.

Landscape

- Refer to the Landscape Report and Landscape drawings for detailed information.
- Further deveopment of the design has resulted in the introduction of a single storey element along Golden Grove Street, with interstitial courtyards. This lower plinth provides privacy to the accomodation fronting Golden Grove Street and the courtyards allow the internal accomodation access to daylight and fresh air.
- Refer to the Landscape Report and Landscape regarding natural environmental systems.
- The library roof is not intended to be accessible. It will be a simple metal deck roof with a generous skylight.
- The upper level outdoor learning spaces are designed to be a flexible extension of the adjacent classrooms and have been designed to accommodate a single class.

Hall & Streetscape

 Upon further development of the design it was decided that the corner entrance for the hall was not practical. With a capacity of 200 or more people, it was proven that there was inadequate spill-out space at the corner of Golden Grove and Abercrombie Streets for the safe operation of the school hall. The proposed hall entrance is now located off the covered undercroft at the main entrance of the school. This allows the community ample space to gather before and after events. A secondary fence is proposed so that the covered undercroft can be secured, preventing access to the rest of the school grounds.

- Refer Architectural Drawing Set Street Views for treatment of street edges.
- Due to a reduction in required floor space and following further design development, the secondary entrance at Abercrombie Street has been opened up to provide a landscaped vista into the school.
- The Abercrombie Street entrance gate and fence takes on an organic form, giving space back to the public domain in the form of landscaping and integrated seating. The playground level at the southern boundary is elevated above the footpath, providing visual privacy.

Sustainability

 Refer Environmental Amenity section of this report and separate ESD report..

CPTED

The objectives of the CPTED are to create a safe, crime free environment that:

- Increases detection and apprehension of offenders.
- Maximises efforts required to commit crime ,
- Minimise environments and conditions which may instigate unacceptable behaviour, and
- Reduce the actual and perceived benefits of crime.

The "Safer by Design" guidelines have been adopted following the following design principles;

- Surveillance
- Access control
- Territorial reinforcement
- Space management

Legislative Requirements and Guidelines

The report has been complied in accordance with the NSW Department of Urban Affairs and Planning Crime Prevention Through Environmental Design (CPTED) guideline. The guidelines assess the appropriateness of proposed developments to provide a safe, crime free environment.

Reference is also made to the Department of Educations. Educational Facilities Standards and Guidelines (EFSG).Key points from this document are identified as follows:

_ Major problems affecting schools, with enormous cost, are arson, theft and vandalism. The impact of these activities is not only measured in financial terms but also in the effect on student learning outcomes, interruptions to operations and emotional trauma experienced by student, teachers and parents.

Security fencing should be provided along road frontages and other site boundaries which face public areas or walkways. The security fence is to be designed to prevent climbing. Generally a 2150mm high palisade type pre finished tubular steel fence is preferred.

The fence will be a feature of the school and so should aesthetically enhance the school image in an unobtrusive manner, whilst not encouraging access to the site.

Where security fencing is provided along non-road boundaries, it may be reduced in height to 1825mm weldmesh or other style to DoE approval.

Where security fencing abuts an adjacent property fence, provide a return panel to prevent access between the security fence end post and adjacent fence.

PRINCIPLES

Darlington Public School is bounded by Golden Grove Street to the west, Abercrombie Street to the South, Darlington Lane to the North and Sydney University to the East. The buildings form an L-shape to block views and access in to the school site from the roads and to help enclose and secure the school without the need for extensive fencing.

Access Control

Circulation around and through educational facilities needs to be clear in the definition of where people can and cannot go and to define boundaries.

The use of physical barriers (e.g. fencing, walls and locked doors) and symbolic barriers (e.g. landscaping and changes in level) are important in access control. This is equally important for primary and ancillary areas (e.g. loading zone, garbage collection area, storage areas etc.)

The following provides an assessment of the proposed facility against the access control principle;

- The building form and location and the fencing provisions restrict access.
- The two main entries to the site off Golden Grove Street and Abercrombie Street will be controlled with 2150 palisade gates.
- Fencing to the eastern side of the site adjacent to Sydney University will be 1825mm palisade and will restrict access to the site. A steeply sloping driveway ramp also exists adjacent to the eastern boundary which further restricts access.
- Fencing to the north of the site will also be via a 2150mm palisade fence.
- The overall site layout presents a clear hierarchy of public to private. The main entrance provides direct access to a central Covered Oudoor Learning Area (COLA) which in turn provides access to all main "public" facilities - the Communal Hall, the Administration, the Library and the OSHC.
- Access to the Preschool is via the main school entrance.
- A covered walkway, which runs in a north south direction provides access to the "private" learning hubs and the interstitial zones on levels 1 and 2. Access to these walkways is via stairs and a lift. These will be secured so that the public facilities (hall and COLA) can be used by the wider community after hours without affecting the security of the Learning Hubs.
- Landscaping design responds to pedestrian movement paths and guides people to entries and public spaces. Landscaping enhances pathway boundaries and shields visual connections to limited access areas.
- On-site vehicle access is limited to the loading zone only.
- One lift is provided and is located in close proximity to the administration/reception area. Lift use will generally be restricted by acces control.
- External and internal signage and after hours lighting will assist in access legibility and wavfinding.

Surveillance

Natural and technical surveillance are important and focus on ensuring that people can see what other people are doing - in the case of a school: teachers to students and students to students. Typically public areas need to be over-viewed by others with clear sight lines from private to public areas, effective lighting of public places and landscaping which does not provide areas for people to hide or entrap victims. Electronic surveillance is used both as a further deterrent, particularly effective where cameras are visible, for broader surveillance where natural surveillance cannot be achieved, as well as an evidence tool used by police.

The following provides an assessment of the proposed facility against the surveillance principle; Clear sight lines have been provided between public and functional spaces for example. the entrances to all "public" facilities can be seen from the central COLA. . Internal and external pathways and circulation areas are wide and open and constrained

- corridors are minimised.
- centre of the school and on the upper level.
- DoE requirements.
- during recess and lunch.
- entries

Territorial reinforcement

Areas that are well-maintained and well-used generate a feeling of "ownership" and thus reduce opportunities for criminal activity. Public areas need to clearly define their intended use and encourage community activity.

nrinciple

- defines its presence in the local area.
- Darlington Public School.

Space management

Areas need to be attractive and well-maintained with regular removal of waste, mowing, removal of graffiti, repair of vandalism and the repair of broken equipment/furniture. This applies to both public and communal "private" areas.

principle;

- Selection of materials, furniture, fitments and fittings will have an emphasis on reducing vandalism to assist in space management.
- loitering outside of school hours.

. The Learning Hubs are a series of interconnected spaces along a covered walkway these have been designed to be as open as possible so that surveillance, both from the classroom out to the walkway and from the walkway into the classroom is possible. Staff areas - the Staff Room, Library and Administration are distributed across the site which will assist with an adult presence around the campus; at the main entrance, at the

The Entry Administration area will provide a secure entry into the school complying with the

It is determined that approximately 4 - 5 staff will be required for outdoor recreation duty

After hours external lighting is consistent along pathways with increased lighting at facility

Egress paths are open and integrated into the overall design - access is egress.

The following provide an assessment of the proposed facility against the territorial reinforcement

- . The location of the school, on the corner of Golden Grove and Abercrombie Streets clearly
- The location of the main entrance gate and the COLA provides an informal gathering
 - space for the school community. Upon entry into the campus, wayfinding is extremely clear through the hierarchy of external and internal circulation spaces.
- The central COLA brings together all sides of the campus and reinforces the identity of

The following provide an assessment of the proposed facility against the space management

- Management methodologies have an emphasis on damage, graffiti and maintenance management to ensure the facility presents a clean, cared-for environment.
- Gathering spaces will be integrated into the design, minimising vandalism.

The palisade fence at the main entry will align with the overhang to reduce the likelihood of

Fence Line

Entrances



LEGEND

- PERIMETER FENCING AND BARRIERS
- INTERNAL SECURITY FENCE/GATE
- BUILDING FACADE PROVIDING BUFFER
- NEIGHBOURING BOUNDARY WALL
- MAIN SCHOOL ENTRANCE
- SECONDARY SCHOOL ENTRANCE

LEGEND

- MAIN SCHOOL ENTRANCE
- SECONDARY SCHOOL ENTRANCE
- RECEPTION & ADMINISTRATION ENTRANCE
- HALL ENTRANCE
- PRESCHOOL ENTRANCE

PRESCHOOL

Preschool Brief

The proposed preschool will accommodate a total of 60 children (aged 3 to 5 years) in 3 classrooms. The preschool has been designed in accordance with the NSW Childcare Planning Guideline, August 2017.

Proposed Preschool

The Master Plan locates the preschool on the northwestern side of the site, alongside Golden Grove Street. It is oriented to maximise solar access to the classrooms and the outdoor play area.

It has been requested by the school, that entry to the preschool is via the main school entrance. This is primarily to allow the preschool children to become familiar with the primary school, but will also enable reception staff to monitor those entering and exiting the premises. A covered waiting area has been provided outside the preschool entry foyer.

The preschool outdoor play area is located adjacent to the school playground, and will be divided by permeable fencing to provide visual connection between the preschool children and primary school students.

Preschool - Location

Preschool - Play Area



Preschool - Parent Drop off & Pick up



SCHOOL FENCE

••••• MAIN PARENT/CARER ACCESS

FRONT GATES

COVERED WAITING AREA

Preschool Floor Plan



PRESCHOOL GENERAL ARRANGEMENT PLAN AND LANDSCAPING



EXTERNAL VIEW OF PRESCHOOL PLAY AREA AND ACTIVITY ROOMS BEYOND

Response to Part 2, 3 and 4 of the Child Care Planning Guideline

Component	Proposal
Part 2 - Design Quality	
Principle 1 - Context	The proposed preschool is located on ground level of the proposed development at the northern end of the site, adjacent to Golden Grove Street.
Principle 2 – Built form	The preschool is accommodated in the new school proposed for Darlington Public School which is being assessed under SSDA 9914.
Principle 3 – Adaptive learning spaces	The internal fitout and playground have been designed to align with the Child Care Guidelines.
Principle 4 – Sustainability	Sustainability targets for the proposed building are aligned with the SiNSW Sustainability Pathway. Refer to the ESD report accompanying SSDA 9914.
Principle 5 – Landscape	The preschool playground has been design to align with the Child Care Guidelines.
Principle 6 – Amenity	The preschool provides indoor and outdoor space to provide a variety of experiences. Secure access is provided to the preschool.
Principle 7 – Safety	The preschool provides a welcoming, safe and accessible environment for children and their carers.
Part 3 - Matters for Consideration	
3.1 Site selection and location Objective: To ensure that appropriate zone considerations are assessed when selecting a site.	The proposed location within the overall development is secure and adequately
Objective: To ensure that the site selected for a proposed child care facility is suitable for the use.	sized to meet the internal and external space guidelines.
Objective: To ensure that sites for child care facilities are appropriately located.	
Objective: To ensure that sites for child care facilities do not incur risks from environmental, health or safety hazards.	
3.2 Local character, streetscape and the public domain	
interface Objective: To ensure that the child care facility is compatible with the local character and surrounding streetscape.	The building envelope is being assessed under SSDA 9914.

Component
Objective: To ensure clear delineation between the child care facility and public spaces.
Objective: To ensure that front fences and retaining walls respond to and complement the context and character of the area and do not dominate the public domain.
3.3 Building orientation, envelope and design Objective: To respond to the streetscape and site, while optimising solar access and opportunities for shade.
Objective: To ensure that the scale of the child care facility is compatible with adjoining development and the impact on adjoining buildings is minimised.
Objective: To ensure that setbacks from the boundary of a child care facility are consistent with the predominant development within the immediate context.
Objective: To ensure that the built form, articulation and scale of development relates to its context and buildings are well designed to contribute to an area's character.
Objective: To ensure that buildings are designed to create safe environments for all users.
Objective: To ensure that child care facilities are designed to be accessible by all potential users.
3.4 Landscaping Objective: To provide landscape design that contributes to the streetscape and amenity.
C18
Appropriate planting should be provided along the boundary integrated with fencing. Screen planting should not be included in calculations of unencumbered outdoor space.
Use the existing landscape where feasible to provide a high quality landscaped area by: • reflecting and reinforcing the local context

C19

Incorporate car parking into the landscape design of the site by: • planting shade trees in large car parking areas to createa cool outdoor environment and reduce summer heat radiating into buildings taking into account streetscape, local character and context when siting car parking areas within the front setback

• incorporating natural features of the site, such as trees, rocky

outcrops and vegetation communities into landscaping.

• using low level landscaping to soften and screen parking areas.

	Proposal
	The building envelope is being assessed under SSDA 9914.
	The proposed preschool is located within the school grounds. Refer SSDA 9914 Landscape Report for information regarding the streetscape landscaping.
rd f	The preschool playground area includes outdoor spaces that allow children to play with natural elements such as water & sand, including a sand pit for digging, and a variety of materials and surfaces including pebbles and softfall - the softscape design will explore options for small garden shortcuts and tactile/ aromatic plant species. Refer Landscape report.
5 •	N/A

Component	Proposal
3.5 Visual and acoustic privacy Objective: To protect the privacy and security of children attending the facility.	\checkmark
C20 Open balconies in mixed use developments should not overlook facilities nor overhang outdoor play spaces.	N/A
 C21 Minimise direct overlooking of indoor rooms and outdoor play spaces from public areas through: appropriate site and building layout suitably locating pathways, windows and doors permanent screening and landscape design. 	N/A
Objective: To minimise impacts on privacy of adjoining properties.	
 Minimise direct overlooking of main internal living areas and private open spaces in adjoining developments through: appropriate site and building layout suitable location of pathways, windows and doors landscape design and screening. 	The proposed location within the Darlington Public School site does not overlook adjoining properties.
Objective: To minimise the impact of child care facilities on the acoustic privacy of neighbouring residential developments.	\checkmark
A new development, or development that includes alterations to more than 50 per cent of the existing floor area, and is located adjacent to residential accommodation should: • provide an acoustic fence along any boundary where the adjoining property contains a residential use. (An acoustic fence is one that is a solid, gap free fence). • ensure that mechanical plant or equipment is screened by solid, gap free material and constructed to reduce noise levels e.g. acoustic fence, building, or enclosure.	N/A
 C24 A suitably qualified acoustic professional should prepare an acoustic report which will cover the following matters: identify an appropriate noise level for a child care facility located in residential and other zones determine an appropriate background noise level for outdoor play areas during times they are proposed to be in use determine the appropriate height of any acoustic fence to enable the noise criteria to be met. 	Refer separate Acoustic Report (SSDA 9914)

Component

3.6 Noise and air pollution

roads and industrial development.

Objective: To ensure that outside noise levels on the facility are minimised to acceptable levels.

C25

Adopt design solutions to minimise the impacts of noise, such as: creating physical separation between buildings and the noise sou • orienting the facility perpendicular to the noise source and where possible buffered by other uses using landscaping to reduce the perception of noise • limiting the number and size of openings facing noise sources using double or acoustic glazing, acoustic louvres or enclosed balconies (wintergardens) using materials with mass and/or sound insulation or absorption properties, such as solid balcony balustrades, external screens and soffits locating cot rooms, sleeping areas and play areas away from exten noise sources. C26 An acoustic report should identify appropriate noise levels for sleep areas and other non play areas and examine impacts and noise attenuation measures where a child care facility is proposed in any the following locations: on industrial zoned land where the ANEF contour is between 20 and 25, consistent with . 2021 - 2000 along a railway or mass transit corridor, as defined by State Environmental Planning Policy (Infrastructure) 2007 • on a major or busy road • other land that is impacted by substantial external noise. Objective: To ensure air quality is acceptable where child care facili are proposed close to external sources of air pollution such as majo roads and industrial development. C27 Locate child care facilities on sites which avoid or minimise the potential impact of external sources of air pollution such as major

	Proposal
Irce	The preschool activity rooms and outdoor play area face into the playground of the school and are shielded from the residential buildings opposite on Golden Grove Street by the proposed building. The preschool playground is over 30m away from the east boundary adjoining the Sydney University Abercrombie Building, which contains offices and teaching space.
ping ^r of AS	N/A
ities or	\checkmark

Component	Proposal	Component	Proposal
 C28 A suitably qualified air quality professional should prepare an air quality assessment report to demonstrate that proposed child care facilities close to major roads or industrial developments can meet air quality standards in accordance with relevant legislation and guidelines. The air quality assessment report should evaluate design considerations to minimise air pollution such as: creating an appropriate separation distance between the facility and the pollution source. The location of play areas, sleeping areas and outdoor areas should be as far as practicable from the major source of air pollution using landscaping to act as a filter for air pollution generated by traffic and industry. Landscaping has the added benefit of improving 	The preschool is not located adjacent to a major road or in an industrial zone. There will be no changes to the current conditions of the existing preschool at Darlington Public School.	 C32 In commercial or industrial zones and mixed use developments, on street parking may only be considered where there are no conflicts with adjoining uses, that is, no high levels of vehicle movement or potential conflicts with trucks and large vehicles. C33 A Traffic and Parking Study should be prepared to support the proposal to quantify potential impacts on the surrounding land uses and demonstrate how impacts on amenity will be minimised. The study should also address any proposed variations to parking rates and demonstrate that: 	N/A Refer Traffic Re
 aesthetics and minimising visual intrusion from an adjacent roadway incorporating ventilation design into the design of the facility. 		 the amenity of the surrounding area will not be affected there will be no impacts on the safe operation of the surrounding road network. 	
3.7 Hours of operation Objective: To minimise the impact of the child care facility on the amenity of neighbouring residential developments.	\checkmark	Objective: To provide vehicle access from the street in a safe environment that does not disrupt traffic flows.	
C29 Hours of operation within areas where the predominant land use is residiential should be confined to the core hours of 7.00am to 7.00pm weekdays. The hours of operation of the proposed child care facility may be extended if it adjoins or is adjacent to non-residential land uses. Within mixed use areas or predominantly commercial areas, the hours of operation for each child care facility should be assessed with respect to its compatibility with adjoining and co-located land uses.	The preschool will operate Monday to Friday, 8.30am - 3.30pm (staff), 9am - 3pm (children) during school days, excluding public holidays. The proposed hours are unchanged from the approved operational hours of the existing preschool on site.	C34 Alternate vehicular access should be provided where child care facilities are on sites fronting: • a classified road • roads which carry freight traffic or transport dangerous goods or hazardous materials. The alternate access must have regard to: • the prevailing traffic conditions • pedestrian and vehicle safety including bicycle movements • the likely	N/A
3.8 Traffic, parking and pedestrian circulation Objective: To provide parking that satisfies the needs of users and demand generated by the centre.	Entry to the existing preschool is via the main school entrance off Golden Grove Street. It is proposed that the new preschool will also be accessed from the main school gate off Golden Grove Street. DDA compliant access to the proposed preschool can be achieved from this entrance.	 C35 Child care facilities proposed within cul-de-sacs or narrow lanes or roads should ensure that safe access can be provided to and from the site, and to and from the wider locality in times of emergency. Objective: To provide a safe and connected environment for pedestrians both on and around the site. 	N/A
Objective: To provide vehicle access from the street in a safe environment that does not disrupt traffic flows.			
C31 Off-street car parking should be provided at the rates for child care facilities specified in a Development Control Plan that applies to the land.	Refer Traffic Report		

	Proposal
use developments, on e there are no conflicts vehicle movement or cles.	N/A
red to support the surrounding land uses Il be minimised. The study to parking rates and	Refer Traffic Report
t be affected on of the surrounding	
e street in a safe /s.	\checkmark
d where child care	N/A
t dangerous goods or	
cle movements • the likely	
acs or narrow lanes or e provided to and from the es of emergency.	N/A
environment for	\checkmark

Component	Proposal	Component	Proposal
 C36 The following design solutions may be incorporated into a development to help provide a safe pedestrian environment: separate pedestrian access from the car park to the facility defined pedestrian crossings included within large car parking areas 	Pedestrian paths into the preschool are wide enough to accommodate two prams passing.	It is recommended that a child care facility provide: • a minimum of 0.3m3 per child of external storage space • a minimum of 0.2m3 per child of internal storage space.	60 children @ 0.3m ³ = 18m ³ Proposed outdoor storage = 18m ³ 60 Children @ 0.2m ³ = 12m ³ Proposed indoor storage = 4m ³ per class.
 separate pedestrian erossings included within large car parking areas separate pedestrian and vehicle entries from the street for parents, children and visitors pedestrian paths that enable two prams to pass each other delivery and loading areas located away from the main pedestrian access to the building and in clearly designated, separate facilities in commercial or industrial zones and mixed use developments, the path of travel from the car parking to the centre entrance physically separated from any truck circulation or parking areas vehicles can enter and leave the site in a forward direction. 	 te pedestrian and vehicle entries from the street for parents, and visitors and visitors rian paths that enable two prams to pass each other y and loading areas located away from the main pedestrian o the building and in clearly designated, separate facilities mercial or industrial zones and mixed use developments, the ravel from the car parking to the centre entrance physically ed from any truck circulation or parking areas s can enter and leave the site in a forward direction 	There must be laundry facilities or access to laundry facilities; or other arrangements for dealing with soiled clothing, nappies and linen,	Laundry facilities are provided.
 C37 Mixed use developments should include: driveway access, manoeuvring areas and parking areas for the facility that are separate to parking and manoeuvring areas used by trucks drop off and pick up zones that are exclusively available for use during the facility's operating hours with spaces clearly marked accordingly, close to the main entrance and preferably at the same floor level. Alternatively, direct access should avoid crossing driveways are manoeuvring areas used by use for the fact of the same floor level. 	N/A	 On site laundry facilities should contain: a washer or washers capable of dealing with the heavy requirements of the facility a dryer laundry sinks adequate storage for soiled items prior to cleaning an on site laundry cannot be calculated as usable unencumbered play space 	
or manoeuvring areas used by vehicles accessing other parts of the site parking that is separate from other uses, located and grouped together and conveniently located near the entrance or access point to the facility.		 4.3 Toilet and hygiene facilities - Regulation 109 Education and Care Services National Regulations A service must ensure that adequate, developmentally and age-appropriate toilet, washing and drying facilities are provided for use by 	
C38 Car parking design should: • include a child safe fence to separate car parking areas from the building entrance and play areas	N/A	and design of the toilet, washing and drying facilities enable safe use and convenient access by the children. Child care facilities must comply with the requirements for sanitary facilities that are contained in the National Construction Code.	per the requirements of the NCC. An adult hand basin has been provided in each of the children's toilet areas.
 provide clearly marked accessible parking as close as possible to the primary entrance to the building in accordance with appropriate Australian Standards include wheelchair and pram accessible parking. 		Toilet and hygiene facilities should be designed to maintain the amenity and dignity of the occupants	Partitions between the toilet pans to a maximum of 900mm have been provided. Adequate sightlines have been achieved with the provision of half-height glazing
Part 4 - Applying the National Regulations to development proposals		4.4. Ventilation and natural light Denulation 110 Education	between the toilets and the activity room.
 4.1 Indoor space requirements - Regulation 107 - Education and Care Services National Regulations Every child being educated and cared for within a facility must have a minimum of 3.25m2 of unencumbered indoor space. If this requirement is not met, the concurrence of the regulatory authority is required under the SEPP. 	60 children @ 3.25m ² = 195m ² (65m ² per activity room) Internal fit out provides for a minimum of 65m ² of unencumbered indoor space per activity room. Refer floor plans.	 4.4 Ventilation and natural light - Regulation 110 Education and Care Services National Regulations Services must be well ventilated, have adequate natural light, and be maintained at a temperature that ensures the safety and wellbeing of children. Child care facilities must comply with the light and ventilation and minimum ceiling height requirements of the National Construction Code. Ceiling height requirements may be affected by the capacity of the facility. 	Full height glazing to the activity rooms allows for abundant natural light. The classrooms will also benefit from mechanical ventilation and ceiling fans.

Component	Proposal	Component	Proposal
 4.5 Administrative space - Regulation 111 Education and Care Services National Regulations A service must provide adequate area or areas for the purposes of conducting the administrative functions of the service, consulting with parents of children and conducting private conversations. 	Office and foyer space has been provided.	 4.9 Outdoor space requirements - Regulation 108 Education and Care Services National Regulations An education and care service premises must provide for every child being educated and cared for within the facility to have a minimum of 7.0m2 of unencumbered outdoor space. 	60 children @ 7.m ² = 420m ² minimum. The total preschool playground area totals 470m ² with unencumbered outdoor space of 420m ²
4.6 Nappy change facilities - Regulation 112 Education and Care Services National Regulations Child care facilities must provide for children who wear nappies,		If this requirement is not met, the concurrence of the regulatory authority is required under the SEPP.	External play space complies with requirements.
including appropriate hygienic facilities for nappy changing and bathing. All nappy changing facilities should be designed and located in an area that prevents unsupervised access by children.Child care facilities must also comply with the requirements for nappy changing and bathing facilities that are contained in the National Construction Code.	Nappy change facilities are not required as children are aged 3-5 years.	 4.10 Natural environment - Regulation 113 Education and Care Services National Regulations The approved provider of a centre-based service must ensure that the outdoor spaces allow children to explore and experience the natural environment. Creating a natural environment to meet this regulation includes the use of natural features such as trees, sand and natural vegetation within the outdoor space. 	The preschool playground area includes outdoor spaces that allow children to play with natural elements such as water & sand, including a sand pit for digging, and a variety of materials and surfaces including pebbles and softfall - the
4.7 Premises designed to facilitate supervision - Regulation 115 Education and Care Services National Regulations A centre-based service must ensure that the rooms and facilities within			softscape design will explore options for small garden shortcuts and tactile/ aromatic plant species
the premises (including toilets, nappy change facilities, indoor and outdoor activity rooms and play spaces) are designed to facilitate supervision of children at all times, having regard to the need to maintain their rights and dignity.	All rooms and facilities provide full and half height glazing appropriately located to allow for supervision of children.	The approved provider of a centre-based service must ensure that outdoor spaces include adequate shaded areas to protect children from overexposure to ultraviolet radiation from the sun. Outdoor play areas should:	The outdoor play space includes a large covered undercroft as well as a shade structure in the outdoor play area. Existing
Child care facilities must also comply with any requirements regarding the ability to facilitate supervision that are contained in the National Construction Code.	The proposed preschool design complies with requirements.		mature trees provide dappled shade. 50% of the combined total of outdoor
4.8 Emergency and evacuation procedures - Regulations 97 and 168 Education and Care Services National Regulations Regulation 168 sets out the list of procedures that a care service must have, including procedures for emergency and evacuation. Regulation 97 sets out the detail for what those procedures must cover including:	An emergency evacuation plan has been provided outlining the procedures in an	 have year-round solar access to at least 30 per cent of the ground area, with no more than 60 per cent of the outdoor space covered. provide shade in the form of trees or built shade structures giving protection from ultraviolet radiation to at least 30 per cent of the outdoor play area have evenly distributed shade structures over different activity spaces. 	play area receives solar access between 9am and 3pm in midwinter. Refer Landscape Plan for location of shade structures and planting.
 instructions for what must be done in the event of an emergency an emergency and evacuation floor plan, a copy of which is displayed in a prominent position near each exit a risk assessment to identify potential emergencies that are relevant to the service. 	event of an emergency and evacuation of the children from the preschool area.	4.12 Fencing - Regulation 104 Education and Care Services National Regulations Any outdoor space used by children must be enclosed by a fence or barrier that is of a height and design that children preschool age or under cannot go through, over or under it.	1200mm high fence is provided to the outdoor play area, which is enclosed within the school grounds and does not
 Multi-storey buildings with proposed child care facilities above ground level may consider providing additional measures to protect staff and children. For example: independent emergency escape routes from the facility to the ground level that would separate children from other building users to address 	N/A	Child care facilities must also comply with the requirements for fencing and protection of outdoor play spaces that are contained in the National Construction Code.	adjoin a public space. The balustrade complies with the NCC.
 child protection concerns during evacuations a safe haven or separate emergency area where children and staff can muster during the initial stages of a fire alert or other emergency. This would enable staff to account for all children prior to evacuation. 		Design considerations for side and rear boundary fences could include: • being made from solid prefinished metal, timber or masonry • having a minimum height of 1.8 metres • having no rails or elements for climbing higher than 150mm from the	N/A
An emergency and evacuation plan should be submitted with a DA	Refer Appendices.	ground.	

Component	Proposal
 4.13 Soil assessment - Regulation 25 Education and Care Services National Regulations Subclause (d) of regulation 25 requires an assessment of soil at a proposed site, and in some cases, sites already in use for such purposes as part of an application for service approval. With every service application one of the following is required: 	Refer Contamination Assessment for SSDA 9914.
 a soil assessment for the site of the proposed education and care service premises if a soil assessment for the site of the proposed child care facility has previously been undertaken, a statement to that effect specifying when the soil assessment was undertaken a statement made by the applicant that states, to the best of the applicant's knowledge, the site history does not indicate that the site is likely to be contaminated in a way that poses an unacceptable risk to the health of children. 	Refer Contamination Assessment for SSDA 9914.
 An assessment of soil for a children's service approval application may require three levels of investigation: Stage 1 - Preliminary investigation (with or without soil sampling) Stage 2 - Detailed site investigation Stage 3 - Site specific human health risk assessment. 	

National Quality Framework Assessment Checklist

Regulation	Proposed
 104. Fencing or barrier that encloses outdoor spaces. Outdoor space that will be used by children will be enclosed by a fence or barrier that is of a height and design that children preschool age or under cannot go through, over or under it. 	The outdoor play space is enclosed by a 1.2m high palisade fence which physically s school playground, whilst still maintaining a visual connection. The proposed fence outdoor play area does not adjoin an external boundary.
 106. Laundry and hygiene facilities The proposed development includes laundry facilities or access to laundry facilities OR explain the other arrangements for dealing with soiled clothing, nappies and linen, including hygienic facilities for storage of soiled clothing, nappies and linen prior to their disposal or laundering. Laundry/hygienic facilities are located where they do not pose a risk to children 	A laundry is proposed to be located on-site and contains a washer, dryer, sink and a
 107. Unencumbered indoor space The proposed development includes at least 3.25 square metres of unencumbered indoor space for each child. Refer to regulation 107 of the Education and Care Services National Regulation for further information on calculating indoor space. 	Each activity room includes a minimum of $65m^2$ of unecumbered indoor space.
 108. Unencumbered outdoor space The proposed development includes at least 7.0 square metres of unencumbered outdoor space for each child. Refer to regulation 108 of the Education and Care Services National Regulation for further information on calculating outdoor space, and for different requirements for out-of-school-hours care services. 	The total preschool playground area totals 470m ² with unencumbered outdoor space
 109. Toilet and hygiene facilities The proposed development includes adequate, developmentally and age- appropriate toilet, washing and drying facilities for use by children being educated and cared for by the service. The location and design of the toilet, washing and drying facilities enable safe and convenient use by the children. 	The toilets have been located so that they can be accessed by children from both in and low partition walls will separate the pans. Appropriately sized basins will be mou children and an adult basin will be provided in each of the children's toilet areas. A s
 110. Ventilation and natural light The proposed development includes indoor spaces to be used by children that — will be well ventilated; and will have adequate natural light; and can be maintained at a temperature that ensures the safety and well-being of children. 	The preschool block has been designed to be a maximum of 16m in width to allow benefit from full-height glazing which is shaded by a generous overhang from the le provided to the classrooms for use when the external conditions are not conducive. The entry foyer, office and staff room will open on to a landscaped courtyard which these spaces. The courtyards will be screened by perforated brick walls which will pro-
 111. Administrative space The proposed development includes an adequate area or areas for the purposes of conducting the administrative functions of the service; and consulting with parents of children; and conducting private conversations. Note: This space cannot be included in the calculation of unencumbered indoor space – see regulation 107 	to penetrate, whilst filtering the western sun. An entry foyer/waiting vestibule and administration office have been provided. Refe
112. Nappy change facilities(To be completed only if the proposed development is for a service that will care for children who wear nappies)	Not applicable. Children attending the preschool will be aged 3 to 5 years.
 113. Outdoor space—natural environment The proposed development includes outdoor spaces that will allow children to explore and experience the natural environment. 	The preschool playground area includes outdoor spaces that allow children to play including a sand pit for digging, and a variety of materials and surfaces including p explore options for small garden shortcuts and tactile/aromatic plant species
114. Outdoor space—shadeThe proposed development includes adequate shaded areas to protect children from overexposure to ultraviolet radiation from the sun.	The outdoor play space includes a large covered undercroft as well as a shade structure trees provide dappled shade.
 115. Premises designed to facilitate supervision The proposed development (including toilets and nappy change facilities) are designed in a way that facilitates supervision of children at all times, having regard to the need to maintain the rights and dignity of the children. 	The preschool activity rooms have been designed as open-plan rooms with full-heig have been provided with half-height glazing to enable oversight by staff from bo partition walls adjoinging the hallway are proposed to have full-height vision panels a the hallway when entering the rooms.

	Complies
ly separates the preschool area from the primary ence will be designed to prevent climbing. The	Y
d adequate storage space. Refer plan.	Y
	Y
pace of 420m².	Y
n inside and outside. Junior pans will be provided nounted at the correct height for preschool-aged A shower will also be provided.	Y
low for adequate daylighting. The activity rooms e level above. Mechanical ventilation will also be ve to natural ventilation. ich will provide adequate light and ventilation to provide privacy from the street and allow breezes	Y
efer plan.	Y
	N/A
ay with natural elements such as water & sand, pebbles and softfall - the softscape design will	Y
ructure in the outdoor play area. Existing mature	Y
eight glazing to the external play area. The toilets both inside and outside the activity rooms. The Is adjacent to the doors to enable oversight from	Y

APPENDIX

Appendix A - State Design Review Panel Feedback

November 12, 2019

12.11.2019

Karissa Kendall Project Director, SINSW

karissa.ken

au

Via email -

det.nsw.edu.

PROJECT: Darlington Public School SDRP SESSION 43 - 06.11.19 (fourth review)

Dear Karissa.

RE:

Thank you for the opportunity to review the above project at the SDRP session held on 06.11.19.

The selected masterplan and general design development of the project is supported. In particular the following aspects of the design proposal are supported:

- Clarity and logic of the selected masterplan option;
- Engagement with the urban context and streetscape pattern;
 Scale and massing of the building forms which respond and contribute to the
- surrounding neighbourhood;
- Proposed materiality and incorporation of salvaged items such as the red gates and murals;
- Location of the hall to facilitate shared community access;
- Retention of existing trees;
- Response to topography and hydrology of the site;
- Masterplanning to facilitate incorporation of passive design strategies;
- Minimisation of fencing by using the building as secure line where possible.

The following commentary provides advice and recommendations for the project:

Aboriginal Culture

The approach to understanding and engaging with local Aboriginal culture is commended as a starting point. Provide details of how the connection to Country will be made evident throughout the school grounds: for example, using landscape, materials, plant selection, art installations/murals, naming, wayfinding devices, play equipment, paving, colour, texture and so on.

Landscape

- The landscape strategy incorporating connected spaces at various scales is supported. The landscape design should be further detailed to incorporate robust surfaces, materials and plantings, particularly in areas of high play traffic.
- The setbacks along Golden Grove Street should be further detailed to demonstrate the continuity of the urban realm with robust and low-

AND: Page 1 of 3 NSW

maintenance materials and landscaping. These areas should be illustrated to indicate how sightlines between the street and the preschool will be resolved.

- Explore and illustrate how natural environmental systems (ie water) can be integrated into play areas.
- Clarify and illustrate access to and visual appearance of the Library roof. Provide a plan illustrating the potential use of the upper level
- Hall & Streetscape

circulation/outdoor learning spaces.

- The possibility of a community foyer at the south west corner of the Hall is supported and should be further developed.
- Illustrate the treatment of street edges at the setback along Golden Grove Street and whether these can incorporate street seating or other nublic amenity
- Provide a view illustrating the proposed visual connection from Abercrombie Street through the street-wall into the school at the service entry and assembly area.
- -The design of the entry fence as a place-specific screen integrated with the built form is supported and further details should be provided. Explore versions where a staggered fence line addresses spatial generosity to both sides of the fence where needed.

Sustainability

Detail ESD initiatives and performance targets, including passive and active energy modes, overshadowing, solar access, energy generation, water collection and reuse, etc.

The items noted above should be addressed in the EIS submission.

Please contact GANSW Design Advisor, Carol Marra (Carol.Marra@planning.nsw.gov.au), if you have any queries regarding this advice.

Sincerely,



Rory Toomey Principal Design Excellence Chair, SDRP

СС NSW SDRP Panel members

GANSW Design Advisor DPIE City of Sydney

Ashley Dunn, Isabelle Toland, Peter Mould, Rory Toomey (Chair - GANSW) Carol Marra Jason Maslen Peter John Cantrill



Glen Irwin, Justin Barrett, Carmen Debsieh Elizabeth Carpenter, Cassandra Cutler Daniel Iuliano Josh Malin



21.08.2019

Karissa Kendall

Project Director, SINSW

Via email all@det.nsw.edu. karissa.kenda au

PROJECT: Darlington Public School SDRP SESSION 37 – 14.08.19 (third review)

RE: Dear Karissa.

Thank you for the opportunity to review the above project a third time at the SDRP session held on 14.08.19.

The panel acknowledges and commends SINSW for their commitment to delivering design excellence demonstrated by undertaking a project review and change of direction, with a new design team. The panel generally supports the design development of the project. In particular the following aspects of the design proposal are supported:

- 1. Rigorous process of analysis to unpack the complexity and diversity of issues affecting the site;
- 2. Clarity of the masterplanning options presented;
- Engagement with the urban context and streetscape pattern;
- 4. Location of the hall to facilitate shared community access;
- 5. Retention of trees:
- 6. Response to topography and hydrology of the site; 7. Masterplanning to facilitate incorporation of passive design strategies as design develops;
- 8. Minimisation of fencing by using the building as secure line where possible.

The following commentary provides advice and recommendations for the project:

Massing and scale

- The panel supports the location of the hall at the corner of Abercrombie and Golden Grove streets. The hall should have a clear street presence, welcoming aspect and engagement with the urban context. The height of the hall should be considered together with its architectural expression to determine an appropriate 3-dimensional response to its location. -
- The concentration of 3-story elements along the southeast and northwest boundaries is supported. Detail should be provided to illustrate how built forms will interact with the student housing and Regiment buildings adjacent.
- The approach illustrated in options C & D, with one or several functions perpendicular to Golden Grove Street has the potential to more



successfully accommodate the slope of the site. Further detail should be provided to illustrate this potential including multiple sectional views.

Heritage

- Explore ways in which the existing fabric of the school could be repurposed in the built form and/or landscape treatments.
- The panel anticipates further engagement with the Aboriginal community leading to a meaningful manifestation of cultural heritage in the built form, landscape, art, wayfinding and other elements of the project. Applicants may contact GANSW for assistance or advice on integration of Indigenous Culture and Heritage.

Landscape and open space

- The panel supports the approach presented of the COLA areas to create an interface between the school grounds and the public domain. Further detail is required to illustrate these areas and the amenity provided, ensuring the spaces do not become too low or too deep.
- Clarify and illustrate retention of existing trees along Darlington Lane. Clarify any roof areas which will be used as play areas and/or landscaped open space.

Sustainability

- Detail ESD initiatives and performance targets, including passive and active energy modes, overshadowing, solar access, energy generation, water collection and reuse, etc.

The panel saw merit in options A, C and D and look forward to seeing the development and consolidation of these schemes manifested in the next presentation.

Please refer to the design package requirements form for information on materials to be provided at the next SDRP.

Please contact GANSW Design Advisor, Carol Marra (Carol.Marra@planning.nsw.gov.au), if you have any queries regarding this advice.

Sincerely,



Rory Toomey Principal Design Excellence Chair, SDRP

СС NSW SDRP Panel members

GANSW Design Advisor DPIE

Ashley Dunn, Isabelle Toland, Richard Johnson, Rory Toomey (Chair - GANSW) Carol Marra Andrew Beattie



SINSW

FJMT

City of Sydney

Mace Group

Peter Hill Lyndall Smith, Glen Irwin, Aaron Smith, Carmen Debsieh Elizabeth Carpenter, Cassandra Cutler Daniel Iuliano, Josh Malin





Appendix B - Lighting Strategy

Stantec

Enquiries: Project No:	Peter Mizza 44065
To:	Daniel Iuliano, Mace
From:	Peter Mizza

Darlington Public School - External Lighting Concept Subject:

Darlington Public School is located on the corner of Golden Grove Street and Abercrombie Street, Darlington, within the City of Sydney Local Government Area. The school is adjacent to the University of Sydney Darlington Campus and within walking distance to Redfern and Macdonaldtown train stations. The site is legally described as Lot 100 in DP 623500 and Lot 592 in DP 7523049.

The SSD application seeks consent for demolition of existing school buildings and construction of a new part 2, part 3storey building, increasing the school capacity from 230 to 437 students. The works also include replacement of the xisting child-care facility (to the same capacity of 60 students), earthworks and landscaping. For a detailed project description refer to the EIS prepared by Ethos Urban.

In response to the SEARs requirement Design Analysis report to be provided by FJMT, Stantec have provided an external lighting strategy and measures to reduce spill into the surrounding sensitive receivers. The following documentation for the concept design of the external lighting for the project outlines this strategy:

- Lighting markup EL-SK-Lighting-001 A ٠
- External Lighting Calculation ٠

Stantec confirm the above documentation has been checked and complies with the following conditions:

- School Infrastructure NSW Education Facility Guidelines
- External lighting is design in accordance with AS4284:1997.

This advice shall not be considered as relieving any other party of their responsibilities, liabilities or contractual obligations.

We trust that the above is sufficient for your present requirements. Should you require any further information, please do not hesitate to contact the undersigned.

Signature:

Project Designer: Peter Mizza, BEng(Elec), MDesSci(Illum), NER, AssocIES

Design with community in mind

External Lighting Concept

Date: 10 April 2020

Date: 10/04/2020







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Luminaire S	Schedule										7
Symbol	Qty	Label	Arrangement	rrangement Total Lamp Lumens		LLF	Description				7
Θ	94	D3	SINGLE	SINGLE 713		1.000	VERSALUX YAMMA 531030			7	
-20	4	W1	SINGLE	SINGLE 422		1.000	VERSALUX EMMA 1165621_A			7	
	2	W2	SINGLE	SINGLE 236		1.000	VERSALUX PI 509023			7	
÷	4	Н1	SINGLE	INGLE 3375		1.000	VERSALUX ANDREA 121265114			7	
Ð	4	H2	SINGLE	3375		0.500	VERSALUX ANDREA 121265114			7	
Calculatior	Summary		•								
Label	CalcType			Units		Avg	Max	Min	Avg/Min	Max/Min	
Abercrombie St_Cd_Seg1		Obtrusive Light	Obtrusive Light - Cd			187.57	287	83	2.26	3.46	
Abercrombie St_Ill_Seg1		Obtrusive Light	Obtrusive Light - Ill Lux			0.26	0.8	0.0	N.A.	N.A.	
Golden Grove St_Cd_Seg1		Obtrusive Light	Obtrusive Light - Cd			136.57	310	63	2.17	4.92	
Golden Grove St_Ill_Seg1		Obtrusive Light	Obtrusive Light - Ill			0.38	0.7	0.2	1.90	3.50	
Ground Floor Circulation		Illuminance	Illuminance			19.45	93.6	0.7	N.A.	N.A.	
Student Accomodation_Cd_Seg1		Obtrusive Light	Obtrusive Light - Cd 1			174.38	304	1	174.38	304.00	
Student Accomodation_Ill_Seg1		Obtrusive Light	- Ill	Lux		0.60	0.8	0.1	6.00	8.00	



Stantec PRELIMINARY DARLINGTON PUBLIC SCHOOL EXTERNAL LIGHTING DESIGN CALCULATION

Obtrusive Light - Compliance Report AS 4282-1997, Post-Curfew, Residential - Dark Surrounds

Filename: External Lighting Calculation - Basic 3D Model 14/04/2020 3:18:04 PM

Illuminance

Maximum Allowable Value: 1 Lux

	Test	Ма
Calculation Label	Results	Illu
Golden Grove St_III_Seg1		PA
Abercrombie St_III_Seg1	PASS	0.8
Student Accomodation_III_Seg1	PASS	0.8

Luminous Intensity (Cd) At Vertical Planes Maximum Allowable Value: 500 Cd

Calculations Tested (3):

	Test
Calculation Label	Results
Golden Grove St_Cd_Seg1	PASS
Abercrombie St Cd Seg1	PASS
Student Accomodation_Cd_Seg1	PASS



Max. lum. PASS .8 8

0.7



DARLINGTON PUBLIC SCHOOL EXTERNAL LIGHTING DESIGN CALCULATION

ARCHITECTURAL DRAWING SET



architecture interiors urban landscape

