

Concept Stormwater Management Report

Gables New Primary School

Project Reference: 130739

September 2024

Prepared For: School Infrastructure NSW

Cataract Road Gables NSW 2765

Meinhardt

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1. Executive Summary

Meinhardt have prepared this report to provide advice on stormwater quantity and quality objectives and strategy that will be required as part of Lot 301 DP 1287967 on Fontana Drive, Gables.

This report will document stormwater drainage strategy and Water Sensitive Urban Design (WSUD) initiatives and requirements proposed for the site. This report will form part of REF (Review of Environmental Factors) submission to SINSW.

School Infrastructure NSW (SINSW) is the applicant for Lot 301 DP 1287967 on Fontana Drive, Gables within the Hills Shire Council Local Government Area (LGA).

This report accompanies a Review of Environment Factors that seeks approval for the construction and operation of a new primary school at the site. For a detailed project description, refer to the Review of Environmental Factors prepared by Ethos Urban.

The Gables New Primary School seeks to deliver four School buildings, as well as an open playground and two carparks for Primary and Pre School respectively. The proposed School Buildings will be located along Fontana Drive and Pennant Way and the works include entire planting space, grassed area and two carparks from Cataract Road.

2. Standard Introduction

This Stormwater Management Report has been prepared by Meinhardt on behalf of the NSW Department of Education (the Applicant) to assess the potential environmental impacts that could arise from the development of The Gables New Primary School at Lot 301 DP 1287967 on Fontana Drive, Gables (the site).

This report has been prepared to outline the water quality and quantity measures within The Hills Local Government Area (LGA).

This report accompanies a Review of Environment Factors that seeks approval for the construction and operation of a new primary school at the site, which involves the following works:

- Construction of school buildings, including learning hubs, a school hall and an administration and library building.
- Construction and operation of a public preschool.
- Delivery of a sports court and fields.
- Construction of car parking, waste storage and loading area.
- Associated site landscaping and open space improvements.
- Associated off-site infrastructure works to support the school, including services, driveways and pedestrian crossings.

For a detailed project description, refer to the Review of Environmental Factors prepared by Ethos Urban.



2.1 Site Description

The site is located on Cataract Road, Gables, within The Hills Local Government Area (LGA), approximately 50km northwest of the Sydney CBD and 10km north of the Rouse Hill Town Centre. It comprises one lot, legally described as Lot 301 DP 1287967, that measures approximately 2.2ha in area. The site is bound by Pennant Way to the north, Cataract Road to the east, Fontana Drive to the west and a vacant lot to the south.

An aerial image of the site is shown at Figure 1.



Figure 1 Site Aerial Source: Nearmap, edits by Ethos Urban

2.2 Statement of Significance

Based on the identification of potential issues, and an assessment of the nature and extent of the impacts of the proposed development, it is determined that:

- The extent and nature of potential impacts are minor environmental impacts in terms of adequate stormwater management system with WSUD basins along Cataract Creek and will not have significant adverse effects on the locality, community and the environment.
- Potential impacts can be appropriately mitigated or managed to ensure that there is minimal effect on the locality, community.



3. REF Reporting Requirements

This report has been prepared in accordance with environmental mitigation measures and technical stormwater management plan to meet the Hills Shire Council requirements for the proposed development. The REF deliverable requirements are presented in Table 1.

ltem	REF Requirement	Relevant Section of Report		
20	Concept Civil Report	Refer to Section 5 for Flood assessment a mitigation plan. The impact of development addressed and covered for water qual measures in Section 7.		
21	Stormwater Management Plan	Section 6.1 and 7.0 consider design solutions to mitigate water quality by treatment devices.		
42	Integrated Water Management Plan			
	- Stormwater/drainage management	 Section 6.1 and 7.0 for stormwater management plan and strategies. 		
	- Water quality/discharge assessment	- Section 6.1 and 7.0 address raingarden infiltration system for water treatment and connection points for discharge assessment.		
	- WSUD discussion and measures	- Section 7.2 and 7.3 consider water treatment solutions by WSUD improvement devices for the environmental impacts.		
	- Council Consultation	- According to "Overall Bio Retention catchment 200031-LH-DAC01.51(Rev.03)" by Enspire Solutions, refer to Section 6.1 for a master planned development.		

Table 1. Relevant REF Requirements



4. Project Appreciation

4.1 Existing Site Conditions

The proposed development is located in Gables, NSW and is bounded by Fontana Drive, Pennant Way, and Cataract Road. It lies within the Hills Shire Local Government Area. The Gables New Primary School also located near the Cataract Creek is to be along the Fontana Drive at the rear of the GLS buildings within Lot 301/DP1287967 is located within the Hills Shire Council LGA and the proposed development takes into account the stormwater quality measures required by SINSW and the council. The following Figure 2 shows the proposed site location and surrounding area:



Figure 2. Site Locality (Source: Near Maps)



Figure 3. The total school site of 2.21 hectares includes 0.3781 hectares of building area along the Fontana Drive and Pennant Way frontages. The existing site is composed of 100% pervious area. (Source Architectus architectural set)



The site has been surveyed and a topographical survey conducted by M&P planning is presented in Appendix A. The site topography generally falls from the NW corner to the NE corner. There is a low point of approximately 34.15mAHD at the junction of Cataract Road and Pennant Way

and a high point of approximately 39.69mAHD at its Northwestern corner. Table 2 summarises the site's catchment details.

Catchment Area	The school site of 2.21 hectares includes 0.3781 hectares of buildings along the Fontana Drive and Pennant Way frontages. The existing site is 100% pervious.
Catchment Topography	The site generally slopes from Northwest to Northeast or Southwest to Northeast towards Cataract Road.
External Stormwater Catchments	Examination of contours of the surrounding areas has established that there is not likely to be any significant external catchments that will affect the site.
Stormwater Discharge	The available downstream stormwater pit for connection is the kerb inlet pit at the intersection of Pennant Way and Cataract Road. The legal discharging point is discharging toward WSUD basin by others at the Northeastern direction along Cataract Creek.
Vegetation	There is 100% vegetation on the site.

Table 2. Site Catchment Details.

4.2 Proposed Development

The proposed development intends to provide three three-storey buildings, two single storey buildings including pre-school across the site.

Based on the current plans of the proposed development, there will be approximately 0.3781 hectare of roof catchment falling towards raingarden near Pennant Way. The other composition of the development site will be made up of landscape areas (approximately 1.4052 hectare), rigid pavement areas at the carparks (approximately 0.1985 hectare), and the footpath & basketball playground catchment area for impervious zone (approximately 0.2292 hectare). Post-development stormwater run-off flows towards a WSUD basin were determined and calculated by others so, we do not take into account water quantity.

The design grading of the external areas within the development will ensure that overland flows are directed away from the buildings. Careful consideration of design grades will also be undertaken to prevent overland flows from entering the proposed building doorway area.

A copy of the development site plan proposed by Architectus is presented in Appendix B.



4.3 Constraints

Key statutory requirements for the proposed development in relation to stormwater include the following:

- A pit and pipe network to collect minor storm runoff from areas and overland flow paths to carry major storms through the site.
- Raingarden with 300mm Extended Detention Depth as per "Biofiltration in The Hills Shire"
- All reasonable and practical measures to be taken to minimise and/or prevent environmental harm.
- All proposed stormwater infrastructure design to meet public safety requirements.



5. Flood assessment

5.1 Existing Scenario

The subject site is located within the Hills Shire Council Local Government Area (LGA). The Gables New Primary School also located near the Cataract Creek is to be along the Fontana Drive at the rear of the GLS buildings within Lot 301/DP1287967 is located within the Hills Shire Council LGA.

As specified Flood Risk Assessment report with Rev.03 by TTW, the existing site is affected by shallow overland sheet flow of less than 0.1m depth with the majority of flood depths onsite less than 50mm in PMF event. Therefore, FFLs set at least 150mm above ground level are deemed sufficient to protect the site from the PMF level in the Existing Scenario.

In addition, while depths within the creek system have increased, flows are contained within the riparian corridor and the site is not affected by mainstream flooding in the PMF (Figure 4).



Figure 4. Peak flood levels and depths at the site in the PMF event, pre-development of school.



5.2 Post-Development Scenario

As in the PMF depths within the wider school site are generally less than 0.05m, while the pooling flood waters around the perimeter of the proposed building area of a similar depth, ranging generally between 0.2~0.8m but peaking around 1.5m at the southwest building.

According to the flood report by TTW, there is a possibility that surface runoff and overland flow coming across Fontana Drive can be trapped around building A and D with 1.5m depth and the civil plan shows diversions around the building with slotted pipes and trench drains to prevent overland flow into the buildings and ponding issues throughout the site, especially at Building A and D (Figure 7). Also, all the overland flow runs towards the proposed bioswale and rain garden area gradually without water ponding issues adjacent to the proposed building site (Figure 5). Therefore, there are no major issues to be anticipated at the proposed building site.

In addition, the civil design level for the Build D at the North corner shows RL38.4 and runs towards the playground right after the edge of the footpath (RL38.364) near the proposed staircase without ponding issues as shown in Figure 7. According to TTW's comments, there is a low resolution of TTW's flood models, hence, it is unable to pick-up small drainage systems on the flood models. To mitigate the issues, we suggest installing localized spoon drains along the boundary on Fontana Drive to mitigate overland flow during 1% AEP and PMF events.



Figure 5. Peak flood levels and depths at the site in the PMF event, post-development of school.



6. Stormwater Quantity Management

6.1 Stormwater Drainage Works

Stormwater works proposed consist of:

• A pit and pipe system within the site area to convey minor flows (in accordance with the Major/Minor stormwater strategy approach defined in Australian Rainfall and Runoff). Roof drainage system has been designed, and documented by the Hydraulic Engineer, and is directly discharged to the existing kerb inlet pit along Pennant Way after Raingarden infiltration and the other existing kerb inlet pit on Cataract Road respectively.

• The subject site is located within a master planned development approximately 380 hectares in size and designed to accommodate over 4,100 dwellings, a retail and mixed-use centre, school and public open space areas. At the centre of this development is a constructed lake and detention basin, providing visual amenities, water quality treatment and flood mitigation functions.

These facilities address the required stormwater quality (WSUD) and quantity (detention) control measures for the precinct including a bio retention basin to the northeast of the site, a detention and bio retention basin further north. Figure 6 has been extracted from the Overall Bio Retention Basins Catchment Plan 200031-LH-DA-C01.51 Rev 3 dated 29/10/2021 prepared for Stockland

• Both flowrates for pre-development and post-development are relatively similar after the proposed raingarden infiltration system and post-development flow is only increased by 34l/s from existing condition. Hence, there are no significant impacts and increments during the 10% AEP event at the site. (10% AEP pre-development flows: 487l/s, 10% AEP post-development flows: 521l/s)

· Overland flow paths are provided to cater for upstream catchments to bypass the development site, and to convey major storm flows within the development area along proposed bio swales near the adjacent boundary lines along Cataract Road.



Figure 6. Overall Bio Retention Basins Catchment 200031-LH-DA-C01.51 Rev.3 by Enspire Solutions



The proposed stormwater adjustments are shown in Figure 7.



Figure 7. Stormwater System for Proposed Development

6.2 Catchment Plan

The proposed catchment plan for the site is presented in Figure 8 and further detailed in Appendix C. The site's catchment is comprised of roof, footpath, carparks and vegetated zone. Flows coming from the roof will be conveyed through downpipes which will all discharge into the proposed pits and carried along the swale and drainage pipes.

The Northern catchment area across the entire site is approximately 1.05 hectares 48% of the total site area is proposed to drain into the proposed raingarden. This is comprised of roof, footpath, carparks and bypass areas (orange, cyan, grey, and magenta hatches). The Southern catchment area is approximately 1.1373 hectares 51% of the total site with 0.0237 hectares of bypass zone.

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Figure 8. Site Catchment Plan



7. Stormwater Quality Strategy

To meet Hills Shire Council and Water Sensitive Urban Design Technical Guidelines for Western Sydney's requirements for stormwater management, the water quality strategy will need to include treatment of the stormwater prior to discharge to the nominated point of connection, reducing water borne pollutants as per all relevant guidelines.

Treating and reducing stormwater has multiple environmental benefits including improving urban amenity, reducing pollutant loadings downstream in receiving waters, retarding peak stormwater flow rates.

7.1 Water Quality Treatment Train

Modelling of the pollutant loads for the proposed development has been carried out using MUSIC. Diagrammatic illustrations of the model setup are presented in Figure 9 below.



Figure 9. Music Modelling Treatment Train.

7.2 Stormwater Quality Treatment Devices

The stormwater management requirements for the development are dependent on the adequate treatment measures to mitigate and exceed stormwater borne pollutant reduction targets as per the relevant guidelines. The treatment systems have been nominated in the table below (or approved equivalents):



Treatment System	Capacity/Area	Quantity
Stormfilter (Psorb 690mm tall)	0.0027cu.m./s high flow by-pass	3
Ocean Guard	0.02cu.m./s high flow by-pass	4
Raingarden	180sq.m	1

 Table 3. WSUD Treatment System

7.3 Treatment Device Specifications

The Ocean guard is a proprietary treatment device that acts as a filter removing pollutants. This system is generally used to filter to storm water from various pollutants prior to entering waterways. 3EA Ocean filter next to carpark from pre-school which is 690mm in height will be installed at the vegetation zone. Figure 10 shows a diagram of how an Oceanfilter works.



Figure 10. Stormfilter by Ocean Protect

The OceanGuard is installed inside inlet pits that acts as a Gross Pollutant Traps. This 200-micron filter system is generally used to remove trash, debris and other pollutants from runoff prior to entering waterways. 4EA OceanGuard for swale and grassed area, and 3EA Stormfilter for the carpark area at the Pre School will be installed within the garden bed, and adjacent to the vegetation areas.



Figure 11. OceanGuard by Ocean Protect



7.4 MUSIC Modelling Results

The results from the MUSIC model validate that the proposed treatment measures reduce Total Suspend Solids by more than 85% and nutrients, Phosphorus by more than 65%, and Nitrogen by more than 45% for the proposed development. The results are summarised in the Table 4 below.

Target Guideline	Water-Borne Pollutant	Reduction Target	Result	Target Met
WSUD Best	Total Suspended Solids	85% Reduction	87.7% Reduction	Yes
Practice	Total Phosphorous	65% Reduction	65.4% Reduction	Yes
Guiding	Total Nitrogen	45% Reduction	49.4% Reduction	Yes
Principles	Gross Pollutants	90% Reduction	100% Reduction	Yes

 Table 4. MUSIC Modelling Results Summary (Raingarden)



8. Earthworks

During bulk earthworks, 150mm topsoil removal, platform for the proposed building slabs and completion of rain garden, stormwater pipes and pits are expected. Much of the site will be levelled in this phase to provide an adequate platform for building slabs. The total volume of bulk is relatively reasonable with approximately 604cu.m cut required which are based on 2,845cu.m cut and 2,241cu.m fill respectively. The slope length to each pit is also less than 80m (therefore, the adopted 80m slope length used to calculate soil loss is conservative).

9. Sediment and erosion management

The site is to be provided with catch drains, sediment fence, straw bales, inlet trap and filters.

Although the construction of a sediment basin may be considered unnecessary during early works stage for sediment runoff in the minor storm event (6 months ARI and 1yr ARI), the provision of a vegetated swale provides an area of sediment storage that will reduce likelihood of sediment runoff. Sediment runoff during minor storm event would be temporarily stored in the vegetated swale with straw bales (See Figure 12 below). The swale would need to be regularly maintained and cleaned after each rainfall event.



Figure 12. Sediment and erosion control



10. Construction Management

During the construction phase, the maintenance and monitoring of erosion and sediment control measures remain the responsibility of the project Contractor. Details of the inspection frequency expected will need to be noted within the Operational Environmental Management Plan (EMP) and Operations & Maintenance Manual by a manufacturer (Ocean Protect). If during the construction phase of the development, it is deemed necessary, monitoring of the erosion and sediment control measures will be undertaken by a qualified consultant to determine the impact of construction activities on the subject site only. In addition, an approved inspector from Ocean Protect will have an inspection for maintenance purposes during approved work hours and respite period.

- The Out of School Hours Care (OSHC) proposed hours operational hours could be determined closer to date but can consider typical timings 6.30AM-9.00AM (Before school) and 3.00-6.30PM (After school)
- The Exact number of students attending the OSHC could not be confirmed at this stage, however, assume 15% students of the school capacity (150 students)
- The OSHC is Typically run by external/private providers

11. Maintenance Program

A suitable maintenance program is the responsibility of the site Owners for the development in conjunction with correspondence and consultation by appropriate parties, such as project engineers or manufacturers. As a guide, the below programs provide a minimum maintenance protocol for the proposed treatment systems to ensure longevity in their stated performance.

11.1 Proprietary Treatment Devices

Proprietary Treatment devices should be maintained in accordance with the manufacturers' specifications, but in general will include 1~6 times inspections with annual maintenance of OceanGuard for full cleaning recommended and every 12 months minor services for Stormfilter. Treatment Devices are generally (depending on model) cleaned as outlined below:

- A vacuum truck lowers its suction hose to the surface of the water in the holding chamber and skims across the surface to capture the floating litter.
- Once this has been achieved then the hose should be lowered to the bottom of the holding chamber to remove sediments, organic matter and litter, which have sunk.
- It is sometimes appropriate to de-water the system before attempting to suck the pollutants out of the holding chamber. This can be done onto adjacent ground or into council's sewer systems, with the authority's consent.
- It is recommended that additional monitoring for "OceanGuard" is conducted following moderate to extreme rainfall events, especially previous months have had litter or no rainfall.



Generally, the need for maintenance can be determined easily by opening the unit from the surface and inspecting it.

Refer to the manufacturer's maintenance agreement and specifications for additional information.

12. Conclusion

This report has been prepared to assess the potential environmental impacts that could arise from the development of The Gables New Primary School at Lot 301 DP1287967 on Fontana Drive, Gables. Water quality and sediment & erosion control are adequately adopted throughout the site during early works and construction phase by water quality devices, sediment fences, sediment basins and proper mitigation measures and inspection and maintenance work will be scheduled during off peak hours and approved work hours.

Therefore, there are no significant impacts on the approval of a Review of Environmental Factors.

13. Mitigation Measures

Project Stage Design(D) Construction(C) Operation (O)	Mitigation Measures	Relevant Section of Report
D/O	Stormwater Quality Treatment – Treatment measures are not expected to significantly impact the surrounding receivers and are predicted to comply with design criteria.	Section 7.2
C/O	Sediment and erosion control – Sediment and erosion measures are not anticipated to significantly impact the site by mitigation of sediment basin straw bales, inlet traps & filters.	Section 9 ,
С	 All works will be scheduled in accordance with the following: Works to be scheduled talking into account approved works hours, any restrictions relevant to specific tolls / activities and respite periods etc. 	Section 10
D / O	Maintenance Program – Treatment device replacement by the manufacturer is not expected to impact the surrounding receivers.	Section 11

14. References

- AS/NZ 3500.3:2003 Stormwater Drainage
- Architectural plans by Architectus;
- Hills Shire Council Design Guidelines Subdivision/Development
- Water Sensitive Urban Design Technical Guidelines for Western Sydney
- Biofiltration in The Hills Shire
- eWater MUSIC Version 6.2
- Watercom DRAINS Version 2023.07
- OceanFilter Operation & Maintenance Manual (Oceanprotect)
- OceanGuard Operation & Maintenance Manual (Oceanprotect)
- Flood Impact and Risk Assessment_ Rev.03 (dated November 2024)

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Appendix A – Survey



Appendix B – Architectural Plans



Appendix C – Catchment Plan



IMPORTANT NOTES

- 2.
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– p <u> </u>	DENOTES	STORMWATER PIPE
—— E ———	DENOTES	UNDERGROUND ELECTRICITY CABL
OHE	DENOTES	OVERHEAD ELECTRICITY CABLE
— т ——	DENOTES	TELECOMMUNICATIONS CABLE
F0	DENOTES	FIBRE OPTIC CABLE
w	DENOTES	WATER MAIN
-////	DENOTES	FENCING
	DENOTES	RETAINING WALL
	DENOTES	EDGE OF CONCRETE
	DENOTES	TOP OF BANK
	DENOTES	TOE OF BANK

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Revision 1	LOT 201 DP 1256554 FONTANA DRIVE, GABLES			
I	B_01 Ref No: 22/0216 Date: 01/07/2022			















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ROOM DEPARTMENT LEGEND:

- ADMINISTRATION + STAFF AREAS
- LIBRARY AREAS
- GENERAL LEARNING SPACES (GLS)
- SUPPORT LEARNING UNIT SPACES (SLU)
- PRESCHOOL SPACES
- SERVICES
- STAFF AMENITIES STUDENT AMENITIES

NOTES:

- REFER TO GENERAL NOTES
- REFER TO INTERIOR FINISHES T-SCHEDULE AND SCHEMATIC DESIGN REPORT
 LANDSCAPING AS PER PROPOSED LANDSCAPE PLANS
 REFER TO CIVIL ENGINEERS DOCUMENTATION

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PRELIMINARY

project

SINSW Gables New Primary School

Lot 301 - Fontana Drive, The Gables (Box Hill North)

drawing

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OVERALL GROUND LEVEL PLAN

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- PRESCHOOL SPACES
- SERVICES
- STAFF AMENITIES STUDENT AMENITIES

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checked date





ROOM DEPARTMENT LEGEND:

- SCHOOL HALL + CANTEEN AREAS ADMINISTRATION + STAFF AREAS
- LIBRARY AREAS
- GENERAL LEARNING SPACES (GLS)
- SUPPORT LEARNING UNIT SPACES (SLU)
- PRESCHOOL SPACES
- SERVICES
- STAFF AMENITIES STUDENT AMENITIES

NOTES:

• REFER TO GENERAL NOTES • REFER TO INTERIOR FINISHES T-SCHEDULE AND SCHEMATIC DESIGN REPORT • LANDSCAPING AS PER PROPOSED LANDSCAPE PLANS • REFER TO CIVIL ENGINEERS DOCUMENTATION

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OAD

approved

prepared



project SINSW Gables New Primary School

Lot 301 - Fontana Drive, The Gables (Box Hill North)

drawing

OVERALL LEVEL 2 PLAN

revision

CREEK

CATARACT

drawing no.

AR-SD2002

architectus

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sydno	ey@architectus.com.au ABN 90 131 245 684
scale	
	1:400 @A1

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210463.01	

project no EL

AC



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revision purpose of issue

checked date



BLOCK 2

HALL

- NOTES:
- REFER TO GENERAL NOTES
- REFER TO INTERIOR FINISHES T-SCHEDULE AND SCHEMATIC DESIGN REPORT • LANDSCAPING AS PER PROPOSED LANDSCAPE PLANS
- REFER TO CIVIL ENGINEERS DOCUMENTATION

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OAD

PRELIMINARY

project SINSW Gables New Primary School

Lot 301 - Fontana Drive, The Gables (Box Hill North)

drawing

drawing no.

AR-SD2003

OVERALL ROOF PLAN

revision

CATARACT CREEK

0

Architectus Sydney Level 18 25 Martin Place Sydney NSW 2000 T (61 2) 8252 8400 F (61 2) 8252 8600 Sydney@architectus.com.au

AC

EL

sydne	y@architectus.com.au ABN 90 131 245 684
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project no	

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revision purpose of issue

P.01	FOR INFORMATION	23/08/24

checked date





REFLECTED CEILING PLAN LEGEND:

PLASTERBOARD CEILING

MOISTURE RESISTANT PLASTERBOARD CEILING

FIRE RATED PLASTERBOARD CEILING

PERFORATED PLASTERBOARD CEILING

CEILING TILE GRID CEILING - 600 x 1200mm

CONCRETE SLAB CEILING - 200mm



approved

Key Value	Description
CL01	PLASTERBOARD CEILING
CL02	MOISTURE RESISTANT PLASTERBOARD CEILING
CL04	PERFORATED PLASTERBOARD CEILING

CONCRETE SLAB CEILING - 200mm

CL30

PRELIMINARY

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SINSW Gables New Primary School

Lot 301 - Fontana Drive, The Gables (Box Hill North)

REFLECTED CEILING PLAN -SCHOOL HALL - GROUND LEVEL revision

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drawing no.

project

drawing

sydney@architectus.com.au ABN 90 131 245 684

scale RF/AC 1 : 100 @A1 project no SA/VL 210463.01

P.01 6/09/2024 6:42:57 PM

AR-SD2301











Key Value Description

CL01	PLASTERBOARD CEILING
CL02	MOISTURE RESISTANT PLASTERBOARD CEILING
CL04	PERFORATED PLASTERBOARD CEILING
CL10	CEILING TILE GRID CEILING - 600 x 1200mm
CL30	CONCRETE SLAB CEILING - 200mm

PRELIMINARY

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SINSW Gables New Primary School

Lot 301 - Fontana Drive, The Gables (Box Hill North)

REFLECTED CEILING PLAN -

TEACHING BLOCK 1 - SHEET 1

drawing

drawing no.

project

210463.01

AR-SD2302

P.01

revision

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BLOCK

REFLECTED CEILING PLAN LEGEND:

- PLASTERBOARD CEILING
- MOISTURE RESISTANT PLASTERBOARD CEILING
- FIRE RATED PLASTERBOARD CEILING
- PERFORATED PLASTERBOARD CEILING
- CEILING TILE GRID CEILING 600 x 1200mm
- CONCRETE SLAB CEILING 200mm

Adelaide Brisbane Melbourne Perth Sydney

approved

Key Value	Description
CL01	PLASTERBOARD CEILING
CL02	MOISTURE RESISTANT PLASTERBOARD CEILING
CL04	PERFORATED PLASTERBOARD CEILING
CL10	CEILING TILE GRID CEILING - 600 x 1200mm
CL30	CONCRETE SLAB CEILING - 200mm

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Lot 301 - Fontana Drive, The Gables (Box Hill North)

drawing

project

REFLECTED CEILING PLAN -TEACHING BLOCK 2 - SHEET 1 revision

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drawing no.

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revision purpose of issue

P.01	FOR INFORMATION	23/08/24

checked date



REFLECTED CEILING PLAN LEGEND:

PLASTERBOARD CEILING

MOISTURE RESISTANT PLASTERBOARD CEILING

FIRE RATED PLASTERBOARD CEILING

PERFORATED PLASTERBOARD CEILING

CEILING TILE GRID CEILING - 600 x 1200mm

CONCRETE SLAB CEILING - 200mm



approved

Key Value	Description
CL02	MOISTURE RESISTANT PLASTERBOARD CEILING
CL04	PERFORATED PLASTERBOARD CEILING
CL10	CEILING TILE GRID CEILING - 600 x 1200mm

PRELIMINARY

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REFLECTED CEILING PLAN -TEACHING BLOCK 2 - SHEET 2 revision

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drawing no.

P.01

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project

drawing

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SA/VL

sydney@architectus.com.au ABN 90 131 245 684 scale RF/AC

1 : 100 @A1 project no 210463.01



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Key Value	

-(A)

-----B

-C)

-(A)

Description PLASTERBOARD CEILING CL01 CL02 MOISTURE RESISTANT PLASTERBOARD CEILING CL04 PERFORATED PLASTERBOARD CEILING CL10 CEILING TILE GRID CEILING - 600 x 1200mm CL30 CONCRETE SLAB CEILING - 200mm

PRELIMINARY

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SINSW Gables New Primary School

Lot 301 - Fontana Drive, The Gables (Box Hill North)

drawing

project

REFLECTED CEILING PLAN -TEACHING BLOCK 3 - SHEET 1 drawing no. revision

AR-SD2305

architectus

-C)

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sydney@architectus.com.au ABN 90 131 245 684

scale RF/AC 1 : 100 @A1 210463.01

//	
SA/VL	project no

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TYPICAL BCR + LIFT SHAFT REFLECTED CEILING PLAN.

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revision purpose of issue

P.01	FOR INFORMATION	23/08/24



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REFLECTED CEILING PLAN LEGEND:

- PLASTERBOARD CEILING
- MOISTURE RESISTANT PLASTERBOARD CEILING
- FIRE RATED PLASTERBOARD CEILING
- PERFORATED PLASTERBOARD CEILING
- CEILING TILE GRID CEILING 600 x 1200mm
- CONCRETE SLAB CEILING 200mm



approved prepared

Key Value	Description
CL02	MOISTURE RESISTANT PLASTERBOARD CEILING
CL04	PERFORATED PLASTERBOARD CEILING
CL10	CEILING TILE GRID CEILING - 600 x 1200mm
CL30	CONCRETE SLAB CEILING - 200mm



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REFLECTED CEILING PLAN -TEACHING BLOCK 3 - SHEET 2 revision

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REFLECTED CEILING PLAN LEGEND:

- PLASTERBOARD CEILING
- MOISTURE RESISTANT PLASTERBOARD CEILING
- FIRE RATED PLASTERBOARD CEILING
- PERFORATED PLASTERBOARD CEILING
- CEILING TILE GRID CEILING 600 x 1200mm
- CONCRETE SLAB CEILING 200mm



approved prepared

Key Value	Description
CL01	PLASTERBOARD CEILING
CL02	MOISTURE RESISTANT PLASTERBOARD CEILING
CL04	PERFORATED PLASTERBOARD CEILING
CL30	CONCRETE SLAB CEILING - 200mm



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SINSW Gables New Primary School

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REFLECTED CEILING PLAN -PRESCHOOL - GROUND LEVEL drawing no. revision

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project

drawing

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