Parramatta East Public School Upgrade

30-32 Brabyn Street,

North Parramatta NSW

Civil Engineering Design Report

22-107 I 27 February 2025 I Revision B

Contents

Document control

Rev No	Date	Revision details	Approved	Verified	Prepared
A	05.02.2025	Draft Issue for REF		JH	JH
B	27.02.2025	Issued for REF		JH	JH

1.0 Executive Summary

This Civil Engineering Design Report outlines the civil engineering and environmental considerations for the proposed upgrade of Parramatta East Public School (PEPS) in North Parramatta. The upgrade is designed to accommodate the growing educational demand in the Collet Park precinct and surrounding areas.

The proposed activity includes the demolition of existing buildings, removal of temporary teaching spaces, and construction of a new 3-storey school building (Block R), which will feature classrooms, a library/administration area, and staff/student amenities. Additional works include the construction of a new car park, formalized waste storage, landscaping improvements, and enhanced pedestrian access. Public domain upgrades will also include a new kiss-and-ride zone and signage along the school's frontage.

The site is approximately 1.782 hectares, with the activity area covering 1.492 hectares. The site is not impacted by significant flooding risks, and stormwater management will be handled through a comprehensive drainage system. This includes a rainwater tank, an On-Site Detention (OSD) tank, and grassed swales to direct stormwater runoff to the Council's drainage system.

The stormwater system will meet the City of Parramatta’s water quality requirements, ensuring reductions in nitrogen, phosphorus, suspended solids, and gross pollutants. The OSD tank will regulate runoff, while the rainwater tank will facilitate water reuse, reducing pressure on local drainage systems.

Erosion and sediment control measures will be in place during construction to protect the environment, in accordance with the Blue Book guidelines. Pavement design will cater to both regular and heavy vehicles, ensuring durability and functionality.

To address varying ground levels, the new building will be constructed on fill, with cut and fill volumes calculated. Overall, the proposed activity is designed to minimize environmental impacts while providing a modern, sustainable educational facility for the local community.

2.0 Introduction

This Civil Engineering Design Report has been prepared by Woolacotts on behalf of the NSW Department of Education to assess the potential environmental impacts that could arise from the Parramatta East Public School (PEPS) upgrade (the Activity) at 30-32 Brabyn Street, North Parramatta (the site). The works are proposed by the NSW Department of Education to meet the growth in educational demand in Collet Park precinct, and the broader North Parramatta area.

This report has been prepared to provide input into the civil engineering aspects of the proposed activity.

3.0 Summary of The Activity

The activity comprises upgrades to PEPS to provide replacement teaching facilities in place of the existing temporary and permanent facilities that are no longer fit for purpose, involving the following works:

- Site preparation and required earthworks;
- Demolition of existing Buildings C, D, E and F, and associated structures including adjacent ramps and walkways;
- Construction of the following:
  - A new 3-storey school building (referred to as Block R) including teaching spaces, library/administration, and staff/student amenities;
  - Upgrade of soft and hard landscape and playground areas;
  - A new at-grade parking area;
  - Formalised waste area, with access being retained from Gaggin Street;
  - Public Domain Works with upgrades to the pedestrian access south of the school, and new kiss and ride zone on Albert Street East;
  - Entrance and School logo signage along the Northern Albert Street East frontage of Block R;
- Refurbishment works to existing buildings;
- Removal of trees as required and retention where possible; and
- Installation and augmentation of services and infrastructure as required.

Refer to the Review of Environmental Factors prepared by Ethos Urban for a full description of works.

4.0 Site Description

The site is located at Brabyn Street within the City of Parramatta Local Government Area. Parramatta East Public School is located in the suburb of North Parramatta, within the City of Parramatta Local Government Area (LGA). The site is approximately 1.5km northeast of the Parramatta CBD, and 24km west of the Sydney CBD.

The site currently comprises a single lot to make up Parramatta East Public School, referred to as Lot 100, DP1312418, and the land is owned by the Minister for Education and Early Learning.

The site has an area of approximately 1.782Ha, is of an irregular shape, and is bounded by Brabyn Street to the West, Albert Street East to the North, and Gaggin Street/Webb Street to the East. The project area is contained within the site and represents where the proposed works will be undertaken, with an area of approximately 1.492Ha.

An aerial image of the site and project area is shown at Figure 1 below.

Figure 1 – Aerial Image of The Site
(SOURCE DOCUMENT: *Nearmap*).

5.0 Significance of Environmental Impacts

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

- The extent and nature of potential impacts are low and will not have significant impact on the locality, community and/or the environment.
- Potential impacts can be appropriately mitigated or managed to ensure that there is minimal impact on the locality, community and/or the environment.

6.0 Existing Conditions

The School contains a number of existing buildings along the northern boundary, eastern boundary, and western boundary, a number of demountable teaching spaces in the southwest corner of the site, and an existing car park at the southwest corner of the School. There is a large existing paved sports court in the northern part of the School and it is surrounded by the existing buildings within the site. Refer to Figure 2 below for the existing site plan.

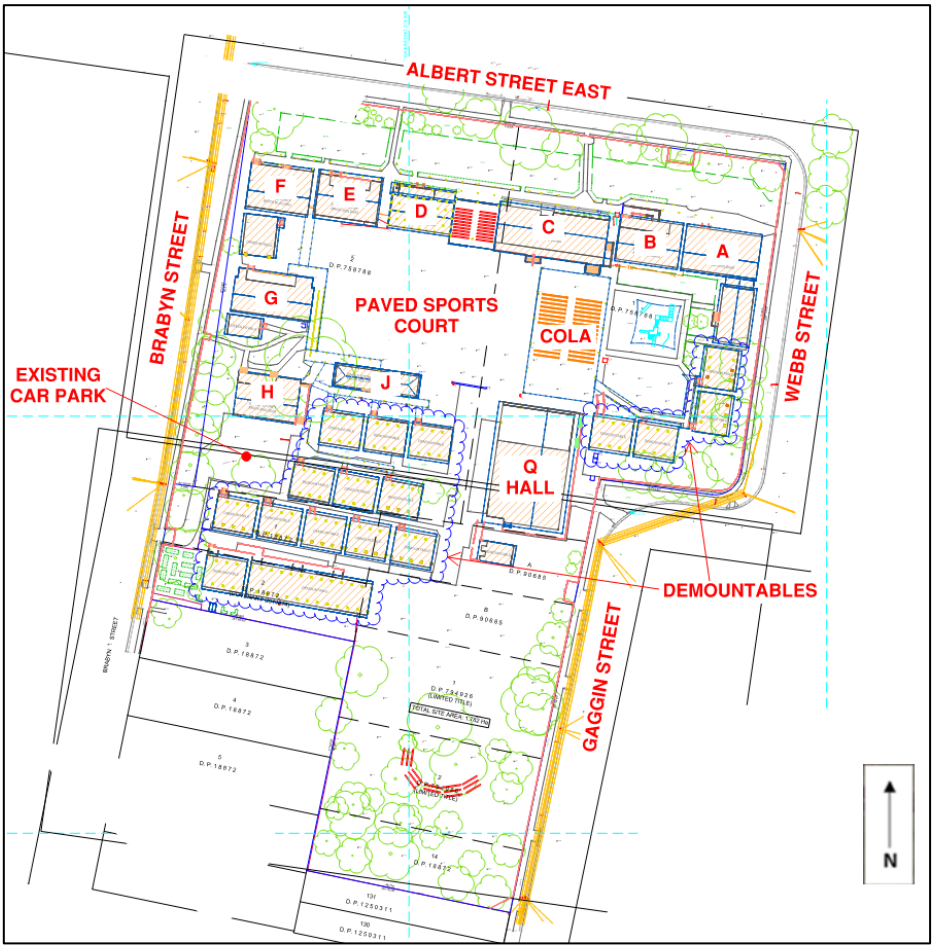


Figure 2 – Existing Site Plan

(Source: Digital Survey Solutions Utility Mapping, Job Reference: A2545, Drawing No. A2545-Detail, Sheet 1 of 3)

The site slopes from the north towards the south at a grade of approximately 5%-6%.

7.0 Proposed Activity

The proposed activity involves the demolition of existing buildings, the removal of existing demountable teaching spaces, the construction of a new building (Block R), a new staff carpark, a new waste storage area, and associated landscape areas. The proposed activity also includes refurbishing existing buildings. Refer to Figure 3 below for the proposed site plan.

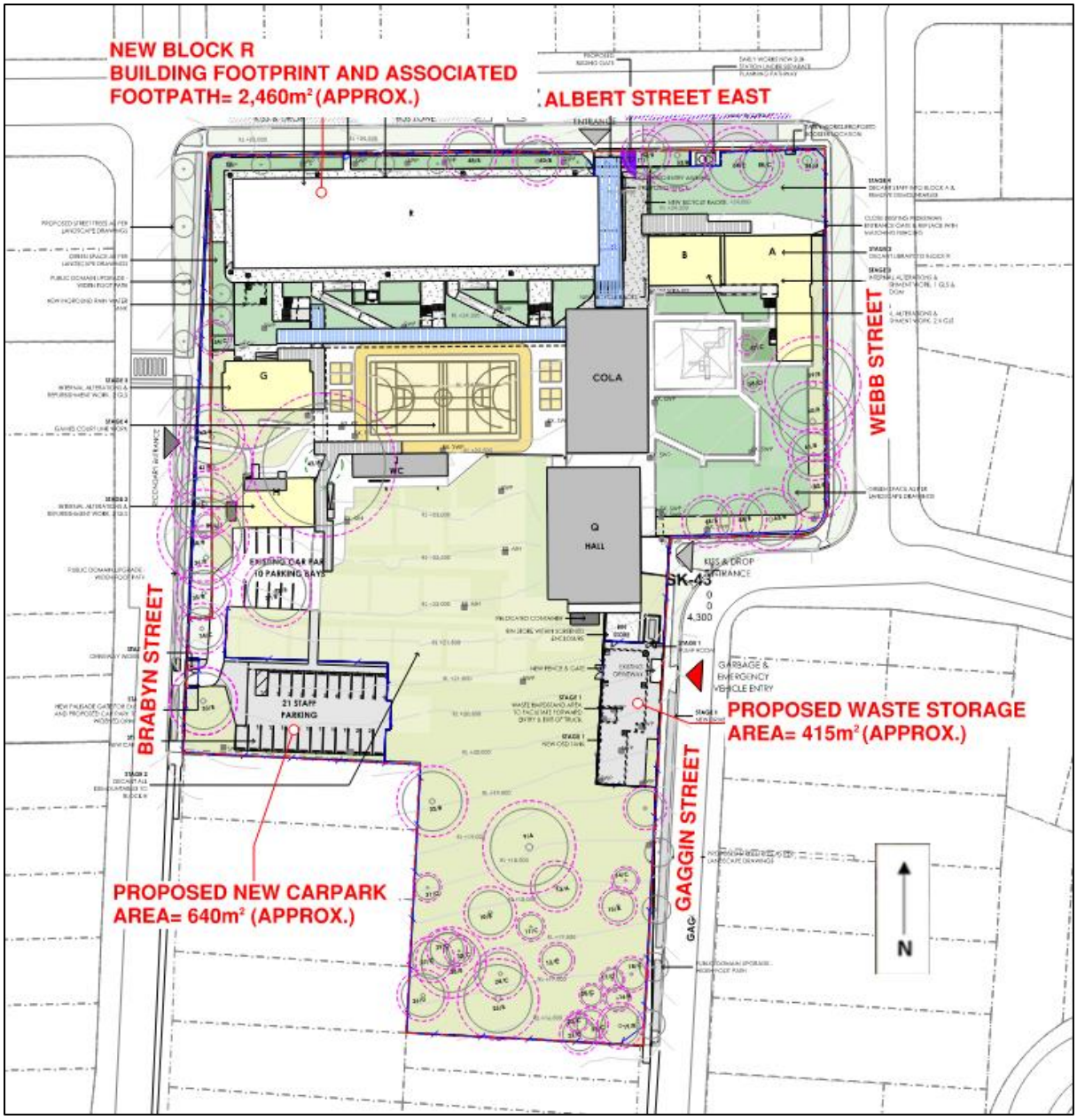


Figure 3 – Proposed Site Plan

(Source: JHD Architects, Job No. 1291, Sheet No. PEPS-JDH-ZZ-XX-DR-A-0012, Revision B)

8.0 Stormwater Management

As the School is located within the City of Parramatta (CoP) Local Government Area (LGA), it will be assessed under the CoP Development Control Plan (DCP) 2023 and other CoP planning documents. The CoP DCP 2023 and other planning documents contain a range of stormwater management conditions for new activities including requirements for flooding, on-site detention, water quality, water efficiency, and sediment and erosion control.

The CoP planning documents and Australian standards relating to stormwater management are as follows:

- CoP DCP 2023, Section 5.1 – Water Management
- CoP Floodplain Risk Management Policy
- CoP Stormwater Disposal Policy
- CoP Development Engineering Design Guidelines 2018 (DEDG 2018)
- CoP DTSU Stormwater & OSD documentation checklist
- UPRCT OSD Handbook 3rd/4th Edition
- AS3500.3-2021 Plumbing and drainage, Part 3: stormwater drainage
- Australian Rainfall and Runoff
- Managing Urban Stormwater – Soils and Construction Volume 1, 4th Edition

8.1 Flooding

The Parramatta River Flood Study (Reference number: 59916074/304600102, dated 13th June 2024) shows that the site is not impacted by riverine flooding from the Probable Maximum Flood (PMF) event *(Note: The PMF is the largest flood that could conceivably occur at a particular location. The PMF defines the extent of the floodplain)*. Riverine flooding occurs when heavy rainfall causes the water levels in a river to rise and escape the main channel. Refer to Figure 4 below for the PMF extent near the site.

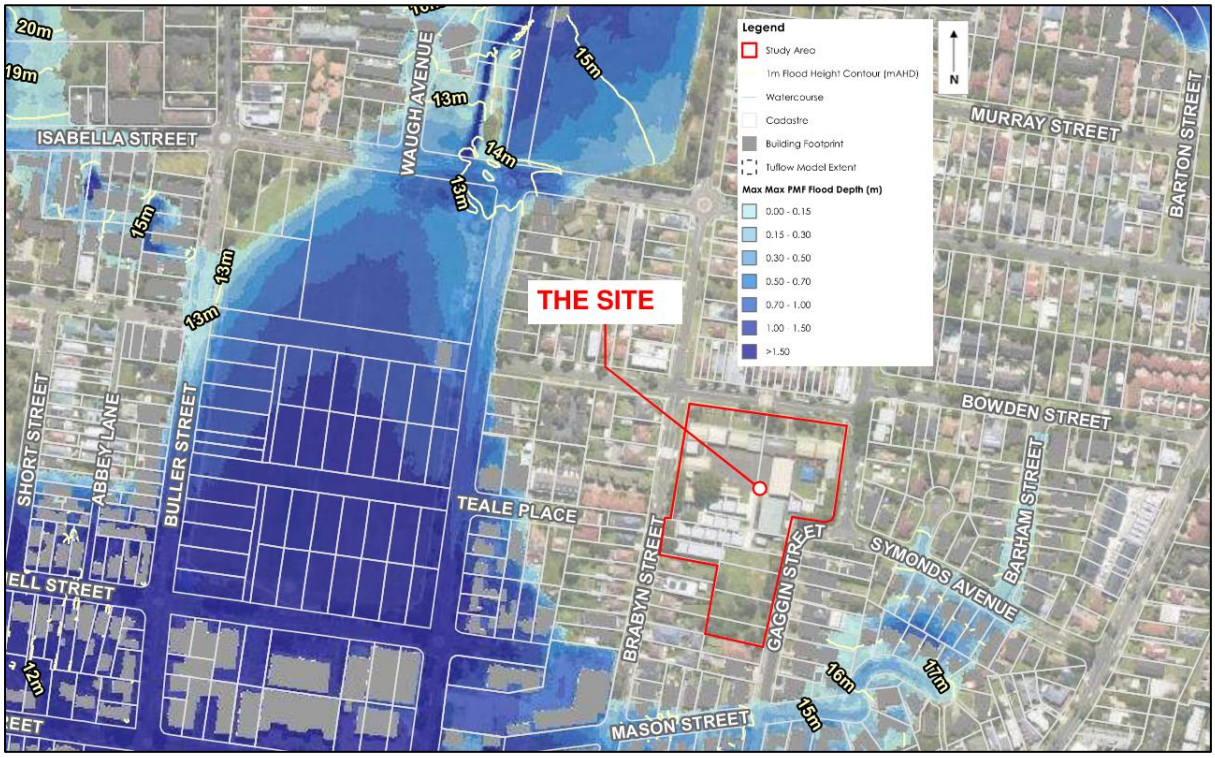


Figure 4 – Probable Maximum Flood Extent
(Source: The Parramatta River Flood Study (Reference number: 59916074/304600102, dated 13th June 2024)

Upon review of the existing topographic information around the proposed site, the site is not impacted by overland flow flooding from the upstream catchments of the site. Refer to Figure 5 below for the overland flow path plan.

The proposed new activity may be affected by minor local overland flow and overland flow paths such as grassed swales will be provided to divert stormwater to the downstream pit/pipe network before discharging into the Council drainage system.

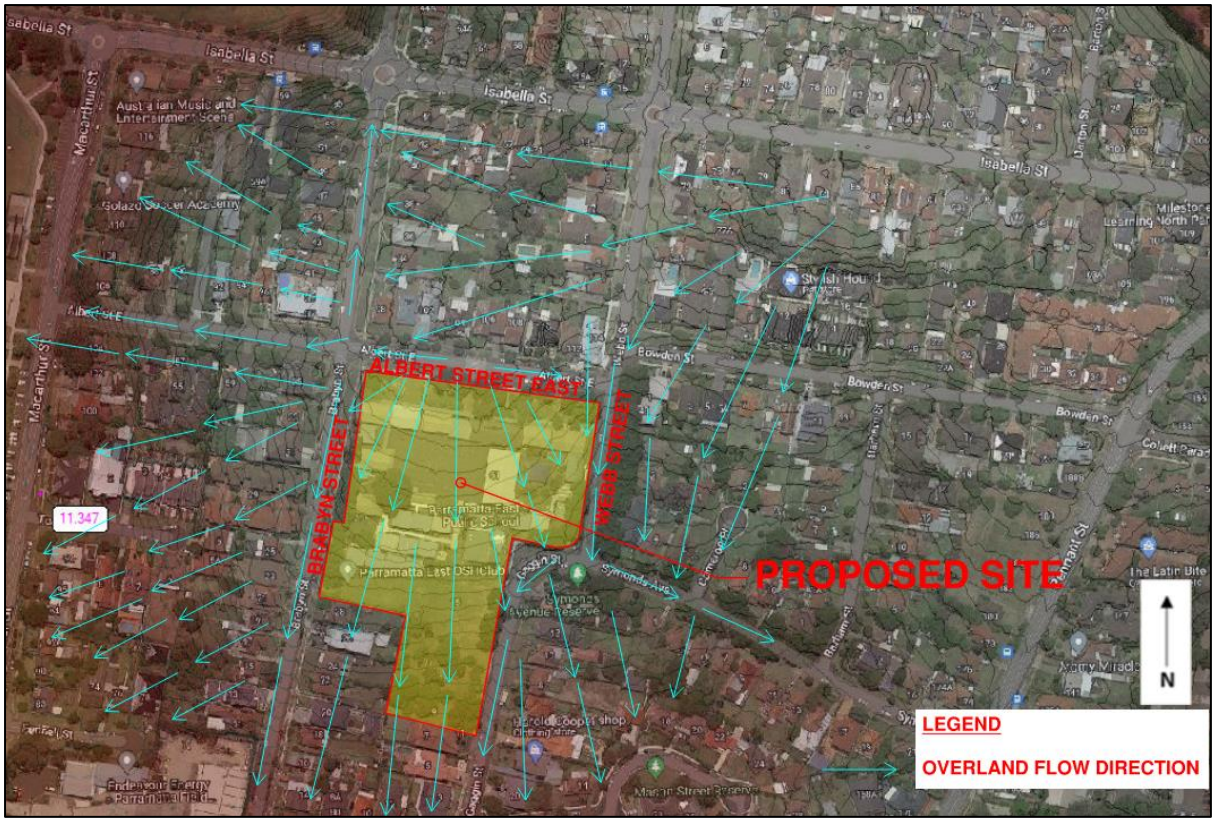


Figure 5 – Overland Flow Path Plan

8.2 Stormwater Drainage Network

The proposed stormwater drainage network for the site consists of a below-ground pit and pipe network collecting runoff from the roof, paved areas and landscape areas. This network has been sized for the 1% AEP storm event.

The roof area is directed to a below ground 20kL rainwater tank located in the garden area at the southwest corner of the new Block R building. Overflow from the rainwater tank discharges via a stormwater pipe to an On-site Detention (OSD) tank located in the new waste storage area at the southeast side of the site.

The OSD tank contains water quality devices that treat the stormwater runoff before it is discharged into the Council's street drainage system at the street kerb on the eastern side of Gaggin Street.

8.3 On-Site Detention (OSD) / Rainwater Tank

As part of the planning process, we engaged with the local Council to ensure compliance with the OSD requirements specific to this project. Our discussions with the Council confirmed that OSD is required for new commercial / industrial developments, and public buildings. Therefore, an on-site stormwater detention system is proposed for the proposed activity.

As a direct connection to the council kerb and gutter is proposed, On-Site Detention (OSD) storage, Permissible Site Discharge (PSD) and water quality targets need to comply with the CoP Development Engineering Design Guidelines 2018 (DEDG 2018).

The site is in the Toongabbie Creek & Brickfield Creek catchment based on DEDG 2018, Figure 4 – OSD Catchment of former Parramatta City area. The total area of the proposed activity within the site is approximately 3,515m². OSD storage and PSD requirements for the proposed activity are based on the Toongabbie Creek & Brickfield Creek catchment for the 1% AEP storm event, shown in Table 1 of (DEDG 2018). These are:

- OSD Storage = 165.2m³
- PSD = 28.12L/s

Refer to Appendix B for the OSD Catchment Plan.

An OSD tank of 170m³ is proposed within the new waste storage area at the southeastern side of the School. The OSD tank has a 114mm diameter orifice to meet the PSD requirements. The outlet of the OSD tank discharges to the kerb at Gaggin Street. The stormwater discharge rate to the kerb at Gaggin Street will be less than PSD and 30L/s. Refer to Appendix A – Civil Works Drawings for further information.

A minimum 20kL below-ground rainwater tank is proposed for reuse. This tank will be located within the garden area at southwest corner of the new Block R building. All the roof areas will be directed to the rainwater tank. Roof guttering, downpipes and associated pipework are to be sized for the 1% AEP storm event.

In the event of a blockage to the outlet of the OSD system, the grate is designed to surcharge and convey flows towards Gaggin Street.

The total impervious area bypassing the OSD system is less than 10% of the proposed activity area. Refer to the OSD Catchment Plan Sketch in Appendix B.

8.4 Water Quality

Stormwater treatment is required for all new commercial and industrial developments. This will require water quality modelling and a combination of primary, secondary and tertiary treatment devices.

Section 5.1.2 of CoP Development Control Plan (DCP) 2023 outlines water quality requirements for all new commercial, industrial, and other non-residential developments with direct stormwater connection to the council's assets. These requirements are summarised below:

- 45% reduction in Total Nitrogen (TN)
- 65% reduction in Total Phosphorus (TP)
- 85% reduction in Total Suspended Solids (TSS)
- 90% reduction in Gross Pollutants

The proposed stormwater drainage system has been designed to incorporate treatment devices that ensure the quality of discharged water meets the requirements outlined above. These treatment devices include gross pollutant traps, a rainwater tank, an OSD tank, and secondary treatment devices.

The proposed 20m³ rainwater tank allows for water re-use, reducing the volume of stormwater runoff entering Council's drainage system.

The OSD tank manages excess runoff generated by newly constructed impervious areas. The OSD's outlet restricts the outflow of runoff leaving the site.

An Ocean Protect stormfilter system consisting of 12x690mm PSorb cartridges is proposed for the detention tank. The filters are effective in reducing the total suspended solids and reducing the total phosphorus and total nitrogen levels.

Details of the catchment areas input values are outlined in Figure 6.

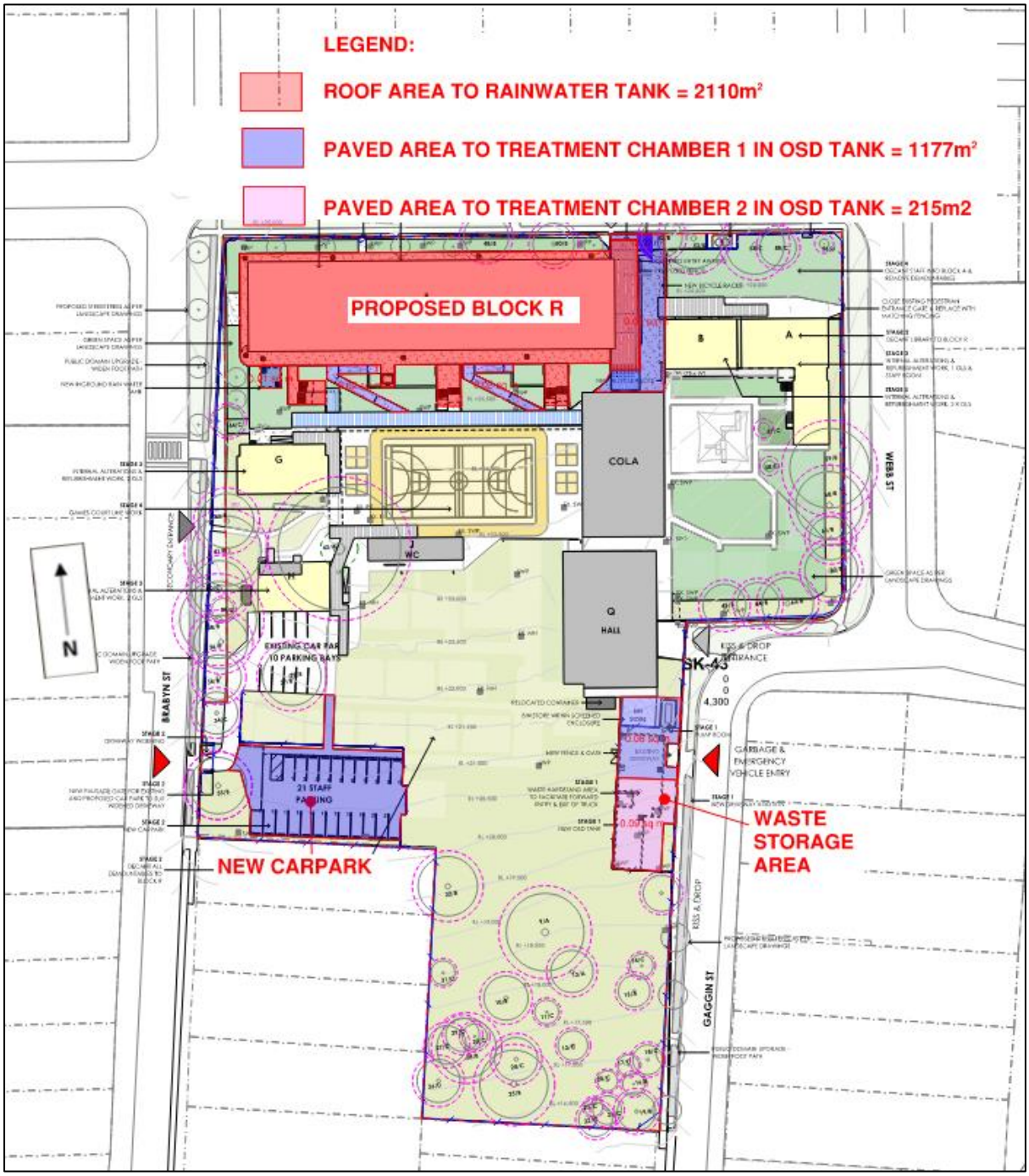


Figure 6. Roof and Non-roof Areas Utilised in MUSIC Model

A Model for Urban Stormwater Improvement Conceptualisation (MUSIC) has been developed as a conceptual design tool for the purpose of estimating generated pollution within the catchment area. The model has been used to demonstrate the performance of implemented stormwater quality improvement systems.

These treatment devices were modelled in MUSIC to determine the overall effectiveness of the proposed treatment train. The treatment rate achieved by the system is:

- Gross pollutants – 100% average annual load reduction
- Total suspended solids – 86.3% average annual load reduction
- Total Phosphorous – 79.4% average annual load reduction
- Total Nitrogen – 51.3% average annual load reduction

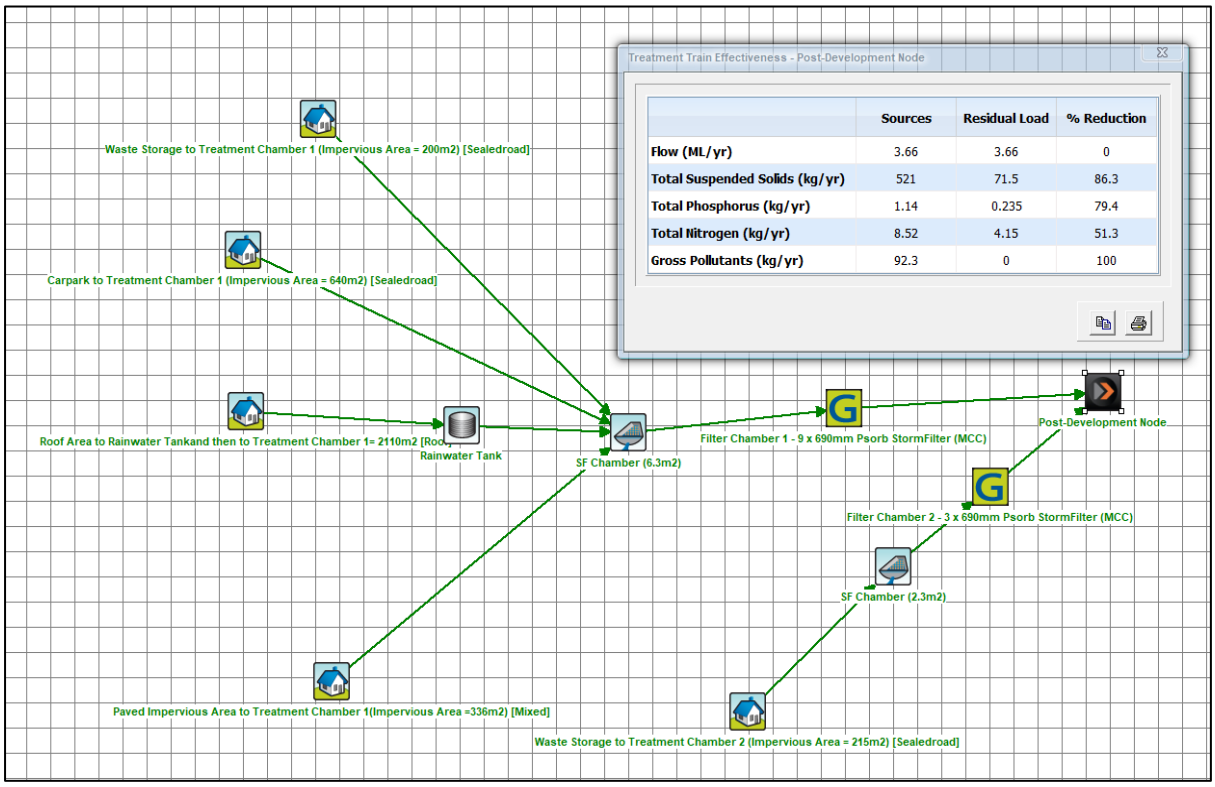


Figure 7: MUSIC Model Treatment Train

8.5 Sediment and Erosion Control

Erosion and sediment control measures will be provided during construction in accordance with the *Blue Book (Managing Urban Stormwater – Soils and Construction 4th Edition)*. Measures to be provided include.

- Silt fences on low side of site
- Construction exit
- Silt traps at new and existing pits.

Refer to Appendix A for erosion and sediment control plans and details.

9.0 Civil Pavement

9.1 Design parameters

9.1.1 Relevant standards and policies

The following standards are relevant to the design of pavements of the proposed activity:

- AS 2890.1-2004 Parking Facilities – Off Street Parking.
- Austroads Guidelines
- Australian Road Research Board Special Report No. 41 “Into a New Age of Pavement Design”.

9.1.2 Design life

Pavements within the activity will be designed for the following number of estimated standard axles (ESA’s) over a 25-year design life.

Street Type:		Design ESA's - 25 year design life
Urban Residential	- Access Street	6×10^4
	- Local Street	3×10^5
	- Collector Street	1×10^6
	- Local Sub-Arterial	2×10^6
Rural Residential	-	3×10^5
Commercial and Industrial		5×10^6

The pavements, roads and car parking will be:

- Trafficable in all weather
- Allow vehicles to change direction and take corners at a speed appropriate for an emergency response
- Sealed external perimeter road
- Sealed internal perimeter road
- Sealed pathways
- Sealed car parking
- Suitable sign posted and line marked, including direction arrows.

Generally, the pavements will be designed as flexible pavements with an asphaltic concrete surface course. In areas where heavy vehicles such as trucks and buses park and/or manoeuvre, rigid concrete pavements will be used to avoid damage to the surface course

10.0 Cut and Fill

It is proposed to construct the new building (Block R) at one consistent level, in lieu of providing a step on the ground floor to match the slope of the existing surface.

The Finished Floor Level (FFL) will need to suit the existing levels at the proposed main entry thoroughfare at approx. RL 25.30mAHD. This results in an FFL of approximately 0.4m to 1.5m above existing surface levels all round.

To accommodate the level difference, the proposed building structure will need to be constructed on fill with deep edge beams around the perimeter. The estimated cut volume is 1164.37m^3 and the fill volume is 348.6m^3 for the proposed Block R. The proposed activity will have an estimated net volume of 815.77m^3 (cut).

11.0 Conclusion

The proposed stormwater management measures for the proposed site include a stormwater drainage network, rainwater tank, on-site detention, water quality treatment devices and grassed swales for overland flow.

The stormwater drainage network consists of a subsurface pit and pipe network to a rainwater tank/OSD tank. The OSD tank contains water quality treatment devices and discharges to the Council's kerb and gutter within Gaggin Street.

Overflow from roof areas in the event of a downpipe blockage is directed via surface flows to the OSD tank for all minor and major storm events.

Soil and water management measures will be provided in accordance with the "Blue Book" (*Managing Urban Stormwater – Soils and Construction*).

12.0 Mitigation Measures

Table 2.0 – Mitigation Measures			
Risk and Hazard	Impact	Mitigation Measure	Significance After Mitigation
Failure of on-site stormwater management system.	Flooding within the site and nuisance to the facility users. Polluted stormwater being discharged to natural waterways including rivers and ocean.	A stormwater asset maintenance manual shall be prepared prior to the issue of Occupation Certificate to maintain the on-site stormwater system regularly.	Not significant

Appendix A

Civil Works Plan

PARRAMATTA EAST PUBLIC SCHOOL
30-32 BRABYN STREET, PARRAMATTA

GENERAL NOTES

G1 THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL OTHER CONSULTANTS DRAWINGS, SPECIFICATIONS, AS1100 TECHNICAL DRAWING AND SYDNEY STREETS TECHNICAL SPECIFICATION (VERSION 4).

G2 ANY DISCREPANCIES SHALL BE REFERRED TO THE SUPERINTENDENT FOR DECISION BEFORE PROCEEDING WITH THE WORK.

G3 DIMENSIONS SHALL NOT BE OBTAINED BY SCALING THE DRAWINGS.

G4 ANY SET OUT DIMENSIONS SHOWN ON THE DRAWING SHALL BE VERIFIED BY THE BUILDER.

G5 DURING CONSTRUCTION THE CONTRACTOR SHALL MAINTAIN THE WORKS IN A STABLE CONDITION AND NO PART SHALL BE OVERSTRESSED.

G6 ALL WORK SHALL COMPLY WITH THE BUILDING CODE OF AUSTRALIA AND RELEVANT AUSTRALIAN STANDARD CODES.

EARLY PHYSICAL INVESTIGATIONS

EP1 AT THE START OF THE WORKS, THE CONTRACTOR SHALL PHYSICALLY LOCATE ALL SERVICES AND POSSIBLE OBSTRUCTIONS TO THE PROPOSED STORMWATER DRAINAGE LINES. THE CONTRACTOR SHALL CONFIRM EXISTING PAVEMENT DEPTHS, AS WELL AS COVER DEPTHS OF EXISTING SERVICES TO ENSURE MINIMUM COVER IS MAINTAINED. THE CONTRACTOR SHALL PROVIDE THE SUPERINTENDENT WITH MARKED UP DRAWINGS INDICATING THE LOCATION AND DEPTH OF THE ABOVE OBSTRUCTIONS.

EXISTING SERVICES NOTES

ES1 ALL SERVICES SHOWN ON THE DRAWINGS HAVE BEEN COMPILED FROM INFORMATION SUPPLIED. NO GUARANTEE OF THEIR COMPLETENESS OR ACCURACY OF LOCATION CAN BE GIVEN.

ES2 IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO RESEARCH AND LOCATE EXISTING SERVICES PRIOR TO ANY EXCAVATION WORKS. AT START OF PROJECT, IDENTIFY THE LOCATION, TYPE, SIZE AND LEVEL/COVER OF ALL SERVICES. ADVISE THE SUPERINTENDENT IMMEDIATELY OF ANY POTENTIAL CLASHES WITH PROPOSED WORKS.

ES3 ANY EXISTING SERVICES INTENDED TO BE ALTERED ARE NOTED ON THE DRAWING.

ES4 ALL SERVICE MARKERS AND OR COVERS EFFECTED BY LEVEL CHANGES OR BY PAVING ALIGNMENTS IN THE WORKS SHALL BE ADJUSTED OR RENEWED AS REQUIRED BY THE WORKS.

ES5 THE CONTRACTOR IS TO MAKE CONTACT WITH ALL SERVICE AUTHORITY REPRESENTATIVES AT THE BEGINNING OF THE PROJECT TO ENSURE THAT UTILITY ADJUSTMENTS ARE DONE EARLY AND DO NOT DELAY THE PROJECT.

DRAINAGE NOTES

D1 ALL WORKS SHALL BE IN ACCORDANCE WITH SYDNEY STREETS TECHNICAL SPECIFICATIONS (VERSION 4).

D2 FOR PIPE DIAMETERS NOT EXCEEDING 150mm, USE:
- SEWER GRADE UPVC TO AS 1260

D3 FOR PIPE DIAMETERS EXCEEDING 150mm, USE:
- CLASS 4 REINFORCED CONCRETE PIPE TO AS 4058

D4 PVC PIPES SHALL BE SOLVENT WELDED. ALL OTHER PIPES SHALL BE RUBBER RING JOINTED UNLESS NOTED OTHERWISE.

D5 UNLESS SPECIFIED OTHERWISE, BACKFILL TO BE UNDERTAKEN IN ACCORDANCE WITH THE CITY'S TECHNICAL SPECIFICATION.

D6 LOADS ON PIPES DURING CONSTRUCTION SHALL NOT EXCEED THE REQUIREMENT OF AS 3725, OR THE RECOMMENDATIONS OF THE PIPE MANUFACTURER.

D7 TRENCH WIDTHS SHALL BE IN ACCORDANCE WITH THE CITY'S TECHNICAL SPECIFICATION.

D8 AT START OF PROJECT, PRIOR TO INSTALLATION OF ANY STORMWATER, CONFIRM LEVELS OF EXISTING STORMWATER AND OTHER SERVICES. IMMEDIATELY ADVISE THE SUPERINTENDENT OF ANY DISCREPANCIES OR CLASHES.

D9 PROVIDE STEP IRONS WHERE PIT IS DEEPER THAN 1.0m AT 300mm CENTRES. TO BE INSTALLED IN ACCORDANCE WITH AS 3500.

D10 MAKE GOOD ROAD PAVEMENT FOLLOWING INSTALLATION OF NEW STORMWATER PITS AND PIPES.

D11 PITS TO BE FOUNDED ON NATURAL GROUND WITH A MINIMUM ALLOWABLE BEARING CAPACITY OF 150 kPa.

ASPHALTIC CONCRETE PAVEMENT NOTES

AC1 SUB BASECOURSE MATERIAL SHALL BE DGS 40 MATERIAL COMPLYING WITH R.M.S. FORM QA3051.

AC2 BASECOURSE MATERIAL SHALL BE DGB 20 MATERIAL COMPLYING WITH R.M.S. FORM QA3051.

AC3 ASPHALTIC CONCRETE SURFACING SHALL BE SUPPLIED AND LAID IN ACCORDANCE WITH R.M.S. SPECIFICATION R116 & AS 2150 ASPHALTIC PAVING - GUIDE TO GOOD PRACTICE.

KEY PLAN

DRAWING LIST

PEPS-WCE-00-00-DR-C-0001	KEY PLAN, STANDARD NOTES AND LEGEND
PEPS-WCE-00-00-DR-C-0010	CIVIL WORKS PLAN - SHEET 1
PEPS-WCE-00-00-DR-C-0011	CIVIL WORKS PLAN - SHEET 2
PEPS-WCE-00-00-DR-C-0100	CIVIL WORKS DETAILS - SHEET 1
PEPS-WCE-00-00-DR-C-0101	CIVIL WORKS DETAILS - SHEET 2
PEPS-WCE-00-00-DR-C-0201	EROSION AND SEDIMENT CONTROL PLAN - SHEET 1
PEPS-WCE-00-00-DR-C-0202	EROSION AND SEDIMENT CONTROL PLAN - SHEET 2
PEPS-WCE-00-00-DR-C-0203	EROSION AND SEDIMENT CONTROL DETAILS
PEPS-WCE-00-00-DR-C-0301	RAISED PEDESTRIAN CROSSING PLAN
PEPS-WCE-00-00-DR-C-0401	CUT AND FILL PLAN

STORMWATER DRAINAGE DESIGN SUMMARY

OSD TANK CATCHMENT INFORMATION

TOTAL PROPOSED DEVELOPMENT AREA = 3515m^2
PROPOSED DEVELOPMENT AREA DIRECTING TO OSD TANK = 3515m^2
PROPOSED DEVELOPMENT AREA BYPASSING OSD TANK = 0m^2
PERCENTAGE OF PROPOSED DEVELOPMENT AREA BYPASSING OSD TANK = 0%

OSD REQUIREMENTS

SITE STORAGE = 470m^3 PER HECTARE OF PROPOSED DEVELOPMENT AREA
PERMISSIBLE SITE DISCHARGE = 80l/s PER HECTARE OF PROPOSED DEVELOPMENT AREA
REFER TO THE CITY OF PARRAMATTA COUNCIL DEVELOPMENT ENGINEERING DESIGN GUIDELINES 2018, SECTION 2, TABLE 1.

OSD VOLUME REQUIRED FOR 3515m^2 OF PROPOSED DEVELOPMENT AREA = 165.2m^3
PERMISSIBLE SITE DISCHARGE FOR 3515m^2 OF PROPOSED DEVELOPMENT AREA = 28.12l/s

OSD TANK SUMMARY

OSD VOLUME PROVIDED = 170m^3
ORIFICE DIAMETER = 114mm
CENTRE OF ORIFICE = RL 18.21
MAXIMUM OSD TOP WATER LEVEL = RL 19.30
MAXIMUM SITE DISCHARGE = 28.12l/s

No.	Date	Description	Ver.	Appr.
A	02.10.24	ISSUED FOR DA	JH	JC
B	23.10.24	RE-ISSUED FOR DA	JH	JC
C	03.03.25	ISSUED FOR REF	JH	JC

NOT FOR CONSTRUCTION

Architect
JDH ARCHITECTS
SUIT 301/249 PITT STREET
SYDNEY NSW 2000

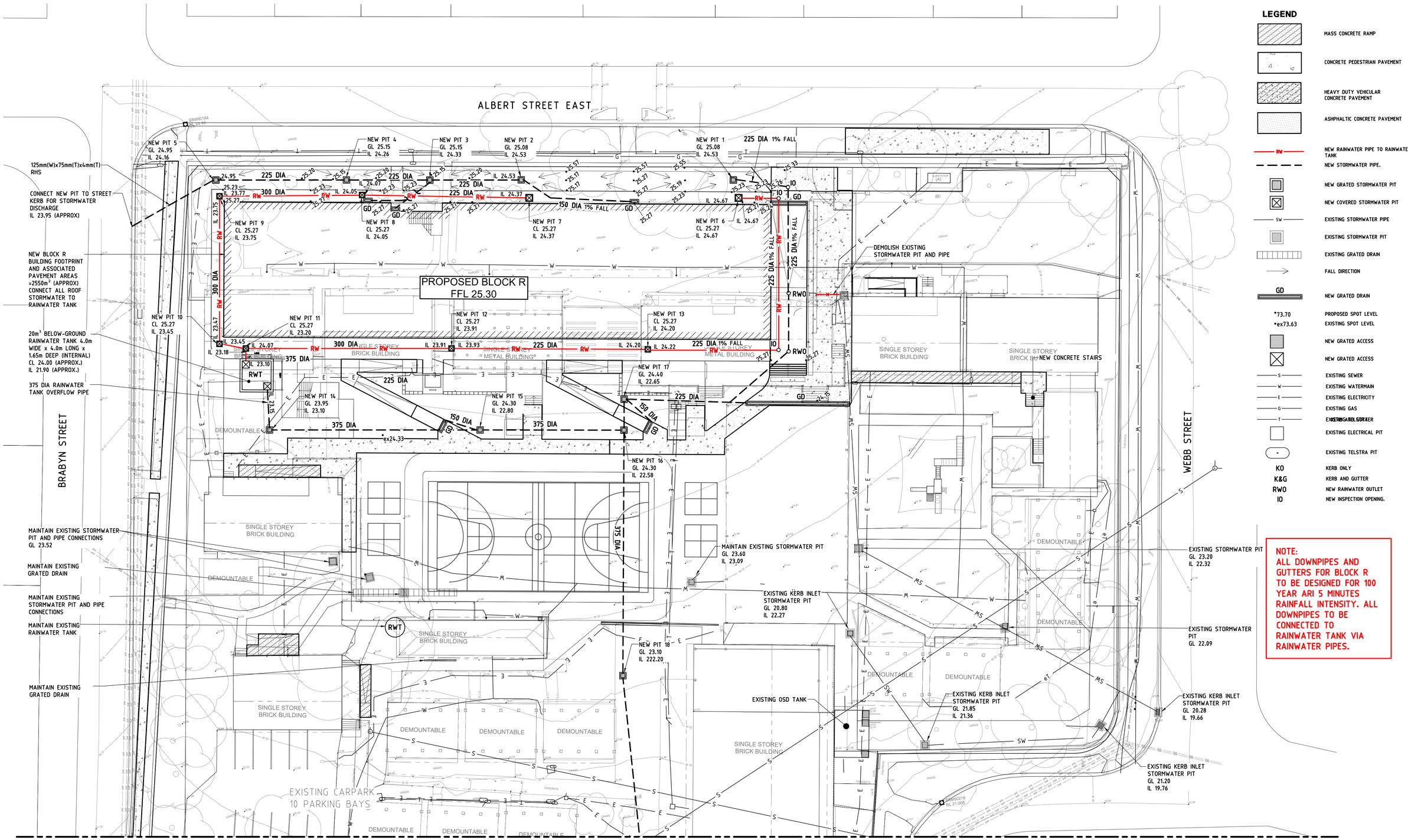
Woolacotts. CONSULTING ENGINEERS
T +61 2 8203 1500 I www.woolacotts.com.au
Suite 6.02 Level 6, 67 Albert Ave, Chatswood NSW 2067

PARRAMATTA EAST PUBLIC SCHOOL
30-32 BRABYN STREET, PARRAMATTA
NSW 2150

KEY PLAN, STANDARD NOTES AND LEGEND

Date	Approved	Verified	Prepared
OCTOBER 2024	JC 02.10.24	JH 02.10.24	CR 02.10.24
Scale @ A1			

Job number	Drawing number	Amendment
22-107	PEPS-WCE-00-00-DR-C-0001	C



LEGEND

- MASS CONCRETE RAMP
- CONCRETE PEDESTRIAN PAVEMENT
- HEAVY DUTY VEHICULAR CONCRETE PAVEMENT
- ASHPHALTIC CONCRETE PAVEMENT
- RW — NEW RAINWATER PIPE TO RAINWATER TANK
- NEW STORMWATER PIPE.
- NEW GRATED STORMWATER PIT
- NEW COVERED STORMWATER PIT
- SW — EXISTING STORMWATER PIPE
- EXISTING STORMWATER PIT
- EXISTING GRATED DRAIN
- FALL DIRECTION
- GD — NEW GRATED DRAIN
- *73.70 — PROPOSED SPOT LEVEL
- *ex73.63 — EXISTING SPOT LEVEL
- NEW GRATED ACCESS
- NEW GRATED ACCESS
- S — EXISTING SEWER
- W — EXISTING WATERMAIN
- E — EXISTING ELECTRICITY
- G — EXISTING GAS
- T — EXISTING TELSTRA
- EXISTING ELECTRICAL PIT
- EXISTING TELSTRA PIT
- KO — KERB ONLY
- K&G — KERB AND GUTTER
- RWO — NEW RAINWATER OUTLET
- IO — NEW INSPECTION OPENING.

NOTE:
ALL DOWNPIPES AND GUTTERS FOR BLOCK R TO BE DESIGNED FOR 100 YEAR ARI 5 MINUTES RAINFALL INTENSITY. ALL DOWNPIPES TO BE CONNECTED TO RAINWATER TANK VIA RAINWATER PIPES.

FOR CONTINUATION REFER TO DRAWING C-0011

No.	Date	Description	Ver.	Appr.
A	02.10.24	ISSUED FOR DA	JH	JC
B	11.10.24	ISSUED FOR DA	JH	JC
C	03.03.25	ISSUED FOR REF	JH	JC

NOT FOR CONSTRUCTION

Architect
JDH ARCHITECTS
SUIT 301/249 PITT STREET
SYDNEY NSW 2000

Woolacotts. CONSULTING ENGINEERS
T +61 2 8203 1500 I www.woolacotts.com.au
Suite 6.02 Level 6, 67 Albert Ave, Chatswood NSW 2067

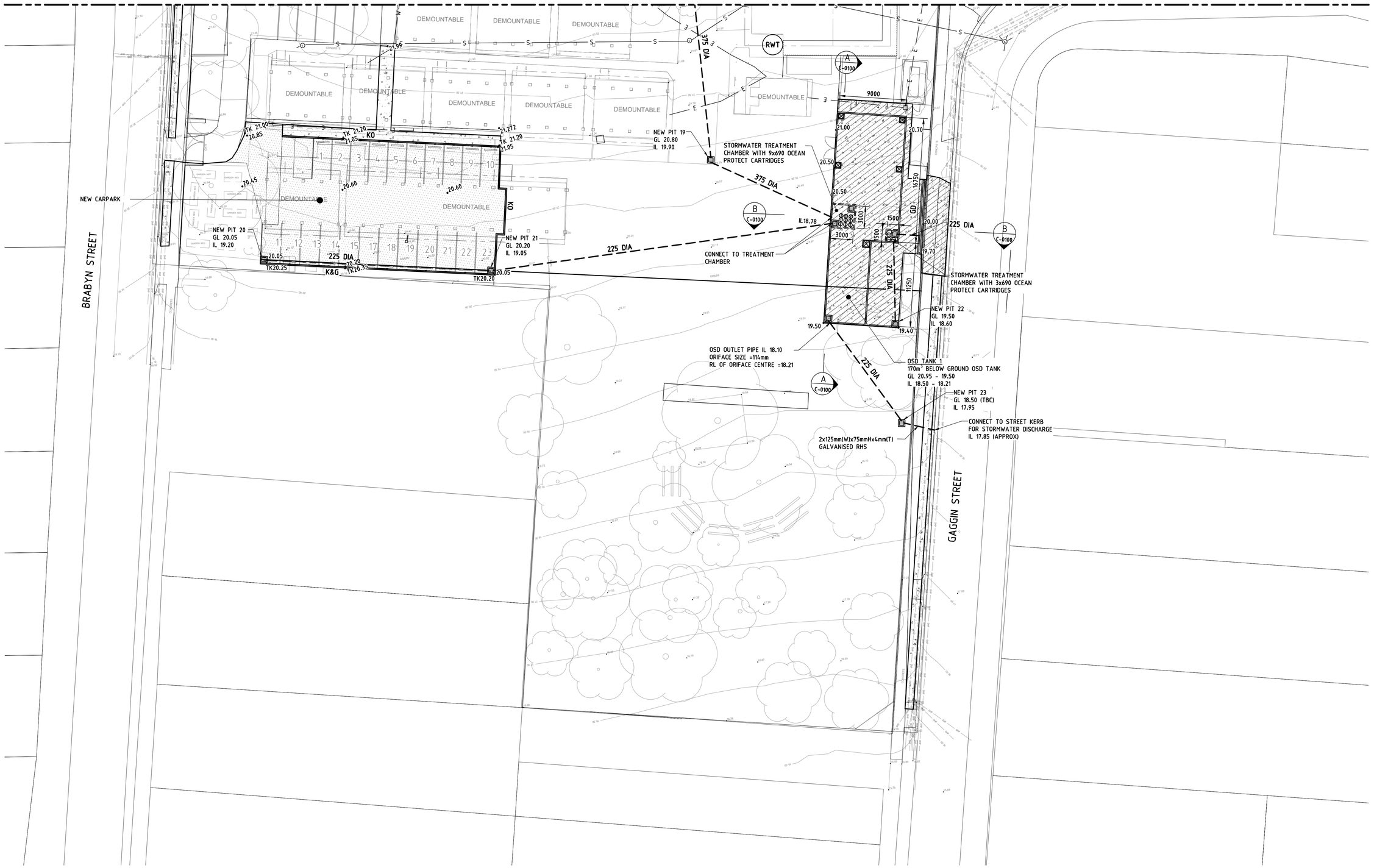
PARRAMATTA EAST PUBLIC SCHOOL
30-32 BRABYN STREET, PARRAMATTA
NSW 2150

CIVIL WORKS PLAN
SHEET 1

Date	Approved	Verified	Prepared
OCTOBER 2024	JC 02.10.24	JH 02.10.24	CR 02.10.24
Scale @ A1: 1:250			

Job number	Drawing number	Amendment
22-107	PEPS-WCE-00-00-DR-C-0010	C

FOR CONTINUATION REFER TO DRAWING C-0010



No.	Date	Description	Ver.	Appr.
A	02.10.24	ISSUED FOR DA	JH	JC
B	11.10.24	ISSUED FOR DA	JH	JC
C	03.03.25	ISSUED FOR REF	JH	JC

NOT FOR CONSTRUCTION

Architect
JDH ARCHITECTS
SUIT 301/249 PITT STREET
SYDNEY NSW 2000

Woolacotts. CONSULTING ENGINEERS
T +61 2 8203 1500 I www.woolacotts.com.au
Suite 6.02 Level 6, 67 Albert Ave, Chatswood NSW 2067

PARRAMATTA EAST PUBLIC SCHOOL
30-32 BRABYN STREET, PARRAMATTA
NSW 2150

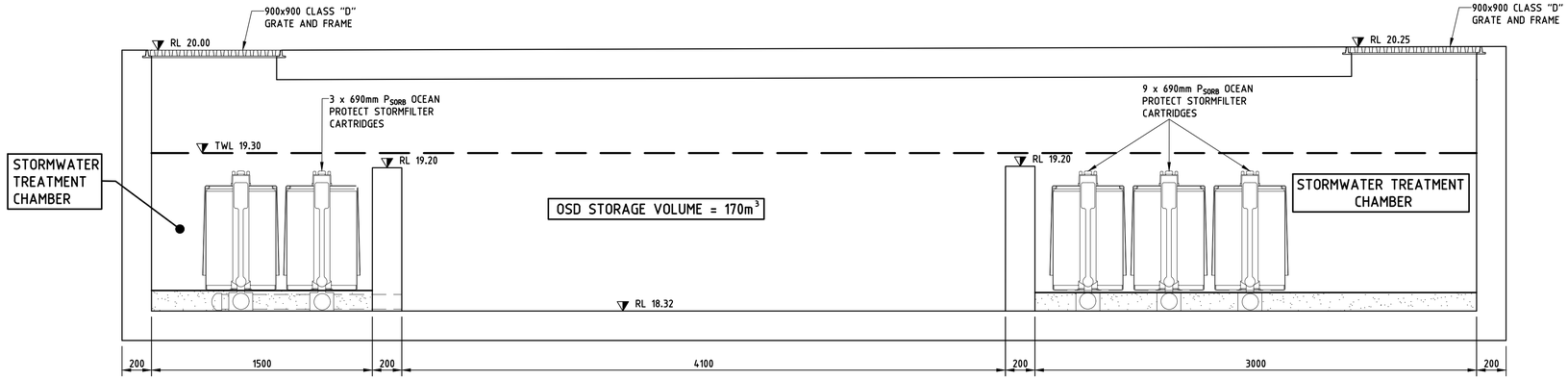
CIVIL WORKS PLAN
SHEET 2

Date	Approved	Verified	Prepared
OCTOBER 2024	JC	JH	CR
Scale @ A1 1:250	02.10.24	02.10.24	02.10.24

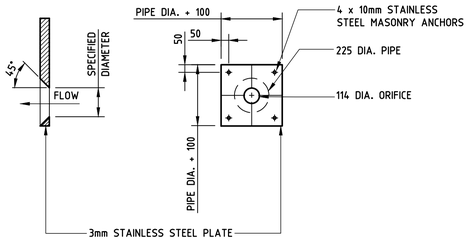
Job number	Drawing number	Amendment
22-107	PEP-WCE-00-00-DR-C-0011	C

NOTE:
PROVIDE GAVANISED STEP IRONS AT ALL ACCESS OPPENINGS TO AS3500

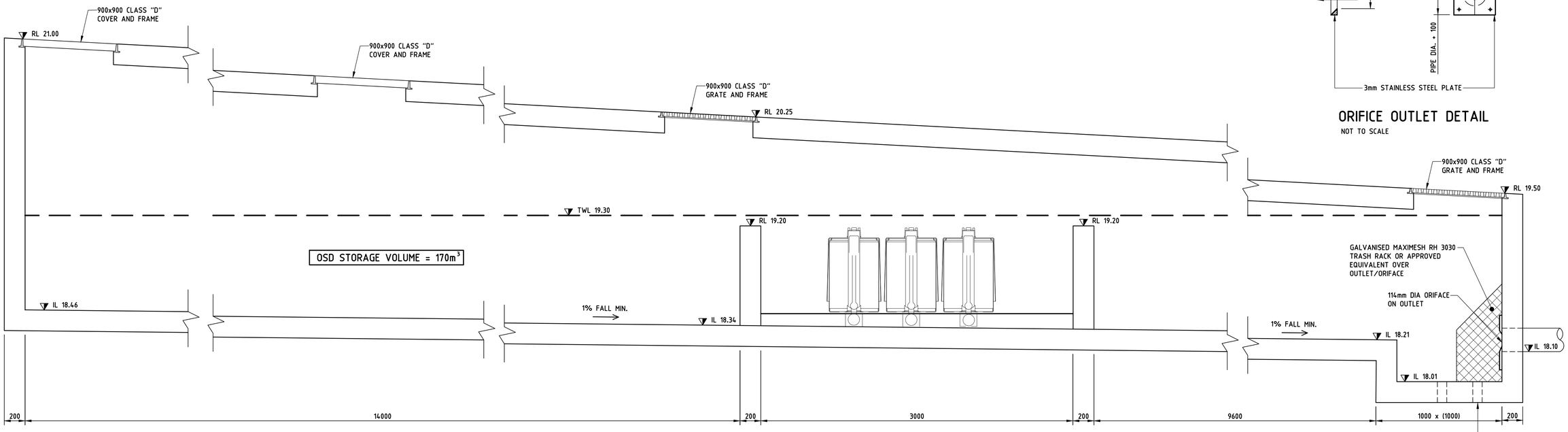
OSD TANK TO BE STRUCTURALLY DESIGNED DURING THE DETAILED DESIGN STAGE



OSD TANK SECTION B C-0011



ORIFICE OUTLET DETAIL
NOT TO SCALE



OSD TANK SECTION A C-0011

No.	Date	Description	Ver.	Appr.
A	02.10.24	ISSUED FOR DA	JH	JC
B	03.03.25	ISSUED FOR REF	JH	JC

NOT FOR CONSTRUCTION

Architect
JDH ARCHITECTS
SUIT 301/249 PITT STREET
SYDNEY NSW 2000

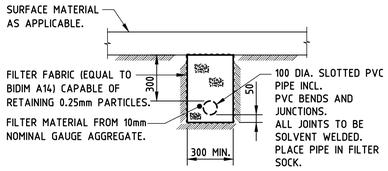
Woolacotts. CONSULTING ENGINEERS
T +61 2 8203 1500 I www.woolacotts.com.au
Suite 6.02 Level 6, 67 Albert Ave, Chatswood NSW 2067

PARRAMATTA EAST PUBLIC SCHOOL
30-32 BRABYN STREET, PARRAMATTA NSW 2150

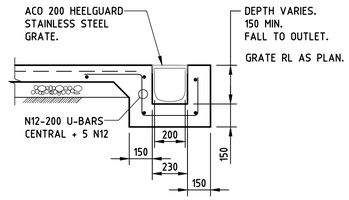
CIVIL WORKS DETAILS SHEET 1

Date	Approved	Verified	Prepared
OCTOBER 2024	JC 02.10.24	JH 02.10.24	CR 02.10.24
Scale @ A1: 1:20			

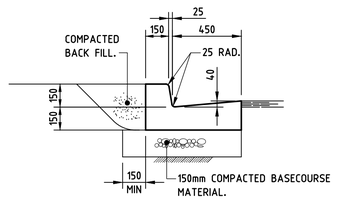
Job number	Drawing number	Amendment
22-107	PEPS-WCE-00-00-DR-C-0100	B



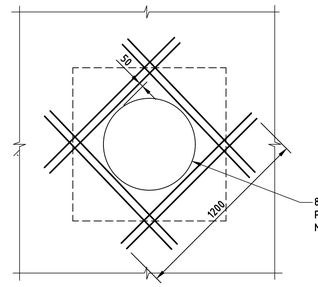
SUBSOIL DRAIN



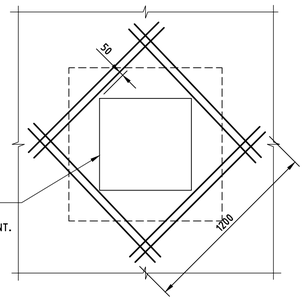
GRATED DRAIN DETAIL



KERB & GUTTER (K&G)



BASE SLAB - REINFORCING DETAIL
DETAIL FOR CIRCULAR PENETRATIONS



BASE SLAB - REINFORCING DETAIL
DETAIL FOR SQUARE PENETRATIONS

TYPICAL CONCRETE PAVEMENT PENETRATION DETAILS

PIT TYPICAL DETAIL

NOTE: ALL COVERS TO BE INFILL TYPE TO MATCH SURROUNDING PAVEMENT IN TYPE AND COLOUR. ALL GRATES IN PEDESTRIAN AREAS TO BE HEELGAURD STYLE, COMPLIANT WITH AS1428

TYPICAL STAIR DETAIL

No.	Date	Description	Ver.	Appr.
A	02.10.24	ISSUED FOR DA	JH	JC
B	23.10.24	RE-ISSUED FOR DA	JH	JC
C	03.03.25	ISSUED FOR REF	JH	JC

NOT FOR CONSTRUCTION

Architect
JDH ARCHITECTS
SUIT 301/249 PITT STREET
SYDNEY NSW 2000

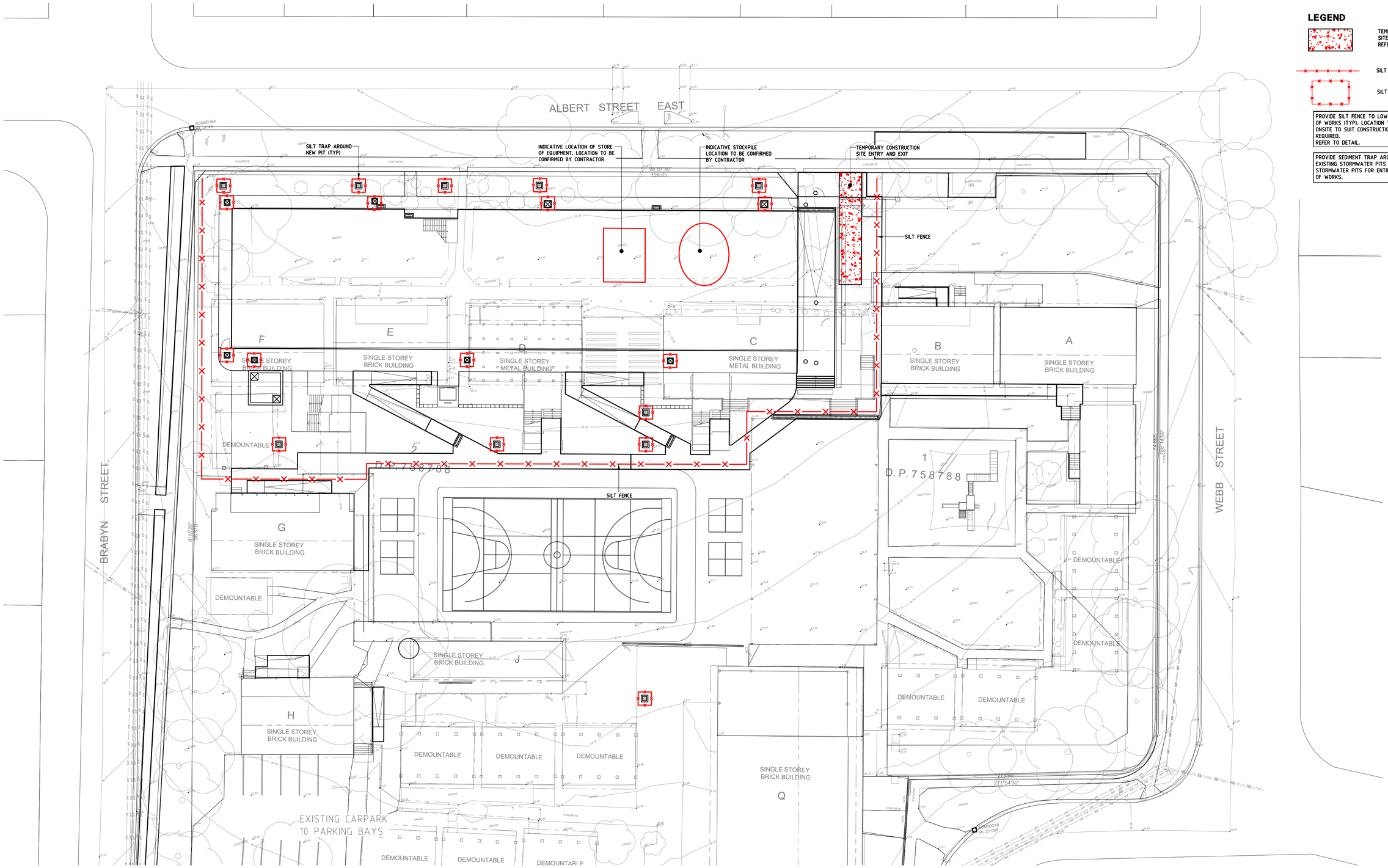
Woolacotts. CONSULTING ENGINEERS
T +61 2 8203 1500 I www.woolacotts.com.au
Suite 6.02 Level 6, 67 Albert Ave, Chatswood NSW 2067

PARRAMATTA EAST PUBLIC SCHOOL
30-32 BRABYN STREET, PARRAMATTA
NSW 2150

CIVIL WORKS DETAILS
SHEET 2

Date	Approved	Verified	Prepared
OCTOBER 2024	JC 02.10.24	JH 02.10.24	CR 02.10.24
Scale @ A1: 1:20			

Job number	Drawing number	Amendment
22-107	PEPS-WCE-00-00-DR-C-0101	C



LEGEND

TEMPORARY CONSTRUCTION SITE ENTRY/EXIT. REFER DETAIL.

SILT FENCE. REFER DETAIL.

SILT TRAP

PROVIDE SILT FENCE TO LOW SIDE OF AREA OF WORKS (TYP). LOCATION TO BE ADAPTED ONSITE TO SUIT CONSTRUCTION STAGING AS REQUIRED.
REFER TO DETAIL.

PROVIDE SEDIMENT TRAP AROUND ALL EXISTING STORMWATER PITS AND NEW STORMWATER PITS FOR ENTIRE DURATION OF WORKS.

No.	Date	Description	Ver.	Appr.
A	02.10.24	ISSUED FOR DA	JH	JC
B	11.10.24	ISSUED FOR DA	JH	JC
C	03.03.25	ISSUED FOR REF	JH	JC

NOT FOR CONSTRUCTION

Architect
JDH ARCHITECTS
SUIT 301/249 PITT STREET
SYDNEY NSW 2000

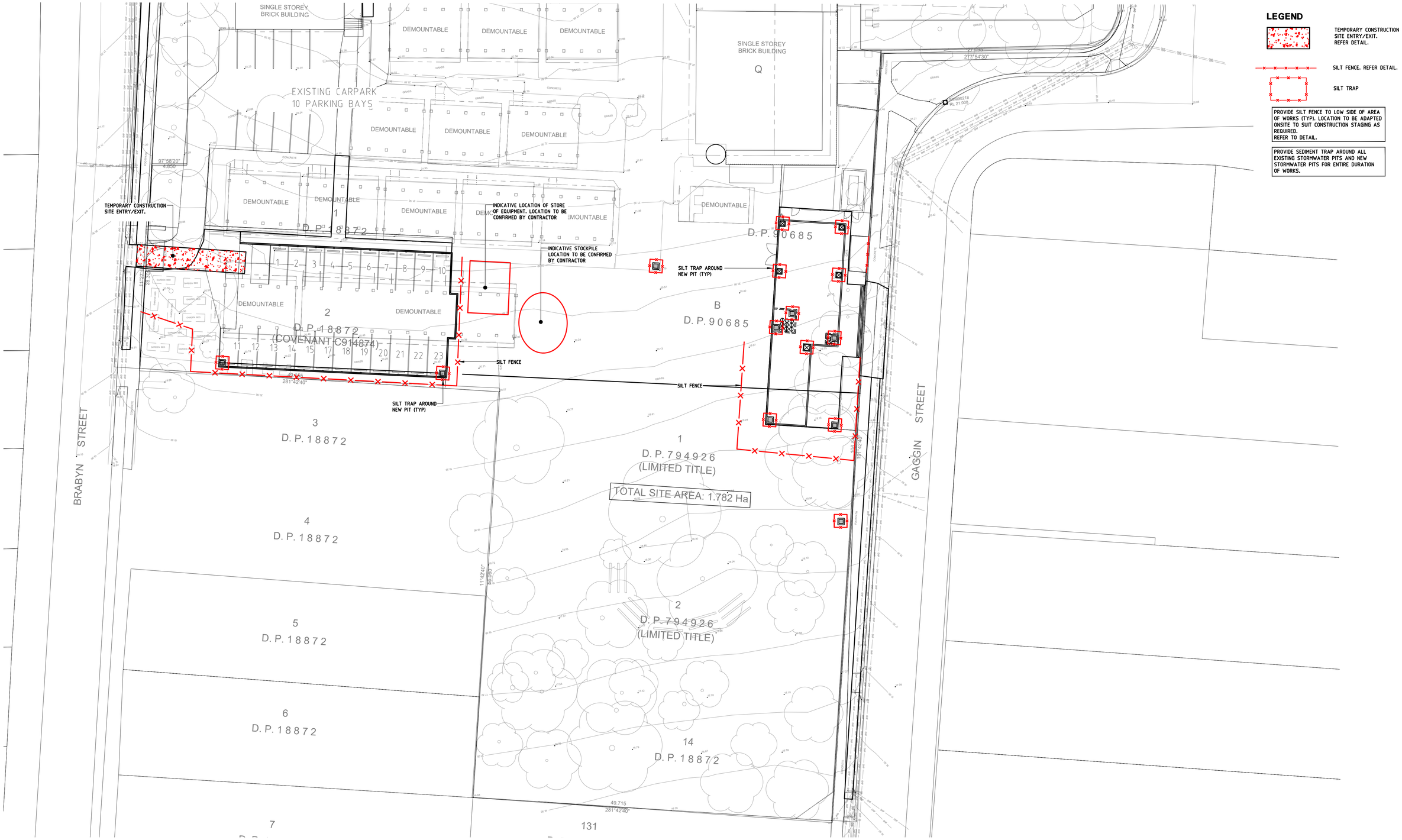
Woolacotts. CONSULTING ENGINEERS
T +61 2 8203 1500 I www.woolacotts.com.au
Suite 6.02 Level 6, 67 Albert Ave, Chatswood NSW 2067

PARRAMATTA EAST PUBLIC SCHOOL
30-32 BRABYN STREET, PARRAMATTA NSW 2150

EROSION AND SEDIMENT CONTROL PLAN - SHEET 1

Date	Approved	Verified	Prepared
OCTOBER 2024	JC 02.10.24	JH 02.10.24	CR 02.10.24
Scale @ A1: 1:250			

Job number	Drawing number	Amendment
22-107	PEPS-WCE-00-00-DR-C-0201	C



LEGEND

- TEMPORARY CONSTRUCTION SITE ENTRY/EXIT. REFER DETAIL.
- SILT FENCE. REFER DETAIL.
- SILT TRAP

PROVIDE SILT FENCE TO LOW SIDE OF AREA OF WORKS (TYP). LOCATION TO BE ADAPTED ONSITE TO SUIT CONSTRUCTION STAGING AS REQUIRED.
REFER TO DETAIL.

PROVIDE SEDIMENT TRAP AROUND ALL EXISTING STORMWATER PITS AND NEW STORMWATER PITS FOR ENTIRE DURATION OF WORKS.

No.	Date	Description	Ver.	Appr.
A	02.10.24	ISSUED FOR DA	JH	JC
B	11.10.24	ISSUED FOR DA	JH	JC
C	03.03.25	ISSUED FOR REF	JH	JC

NOT FOR CONSTRUCTION

Architect
JDH ARCHITECTS
SUIT 301/249 PITT STREET
SYDNEY NSW 2000

Woolacotts. CONSULTING ENGINEERS
T +61 2 8203 1500 I www.woolacotts.com.au
Suite 6.02 Level 6, 67 Albert Ave, Chatswood NSW 2067

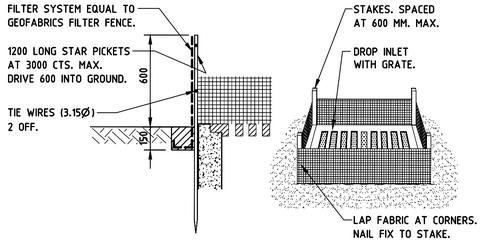
PARRAMATTA EAST PUBLIC SCHOOL
30-32 BRABYN STREET, PARRAMATTA
NSW 2150

EROSION AND SEDIMENT CONTROL PLAN - SHEET 2

Date	Approved	Verified	Prepared
OCTOBER 2024	JC 02.10.24	JH 02.10.24	CR 02.10.24

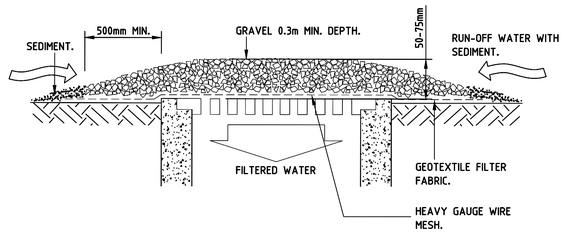
Scale @ A1: 1:250

Job number	Drawing number	Amendment
22-107	PEPS-WCE-00-00-DR-C-0202	C



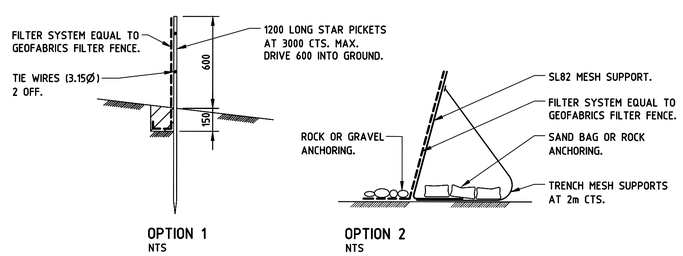
GEOTEXTILE FILTER FABRIC DROP INLET SEDIMENT TRAP.

TO BE PROVIDED AT GRATED PITS WITHIN PERVIOUS AREAS.



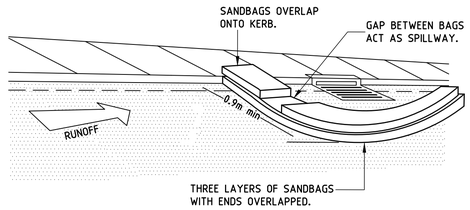
WIRE MESH AND GRAVEL DROP INLET SEDIMENT TRAP.

TO BE PROVIDED AT GRATED PITS WITHIN IMPERVIOUS AREAS.



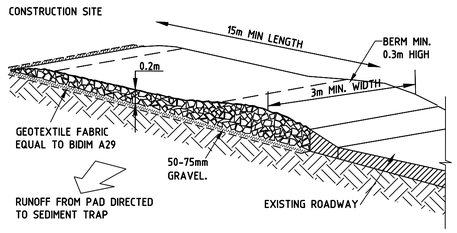
SILT FENCE DETAILS

TO BE PLACED AROUND LOW SIDE OF PROPERTY BOUNDARY AND AROUND STORMWATER INLET STRUCTURES TO PREVENT SOIL WASHING OFF SITE.



TYPICAL SANDBAG KERB INLET SEDIMENT TRAP

TO BE LOCATED AROUND EXISTING KERB INLET PIT



TEMPORARY CONSTRUCTION ENTRY/EXIT

TO BE LOCATED AT VEHICLE EXIT FROM SITE

No.	Date	Description	Ver.	Appr.
A	02.10.24	ISSUED FOR DA	JH	JC
B	03.03.25	ISSUED FOR REF	JH	JC

NOT FOR CONSTRUCTION

Architect
JDH ARCHITECTS
SUIT 301/249 PITT STREET
SYDNEY NSW 2000

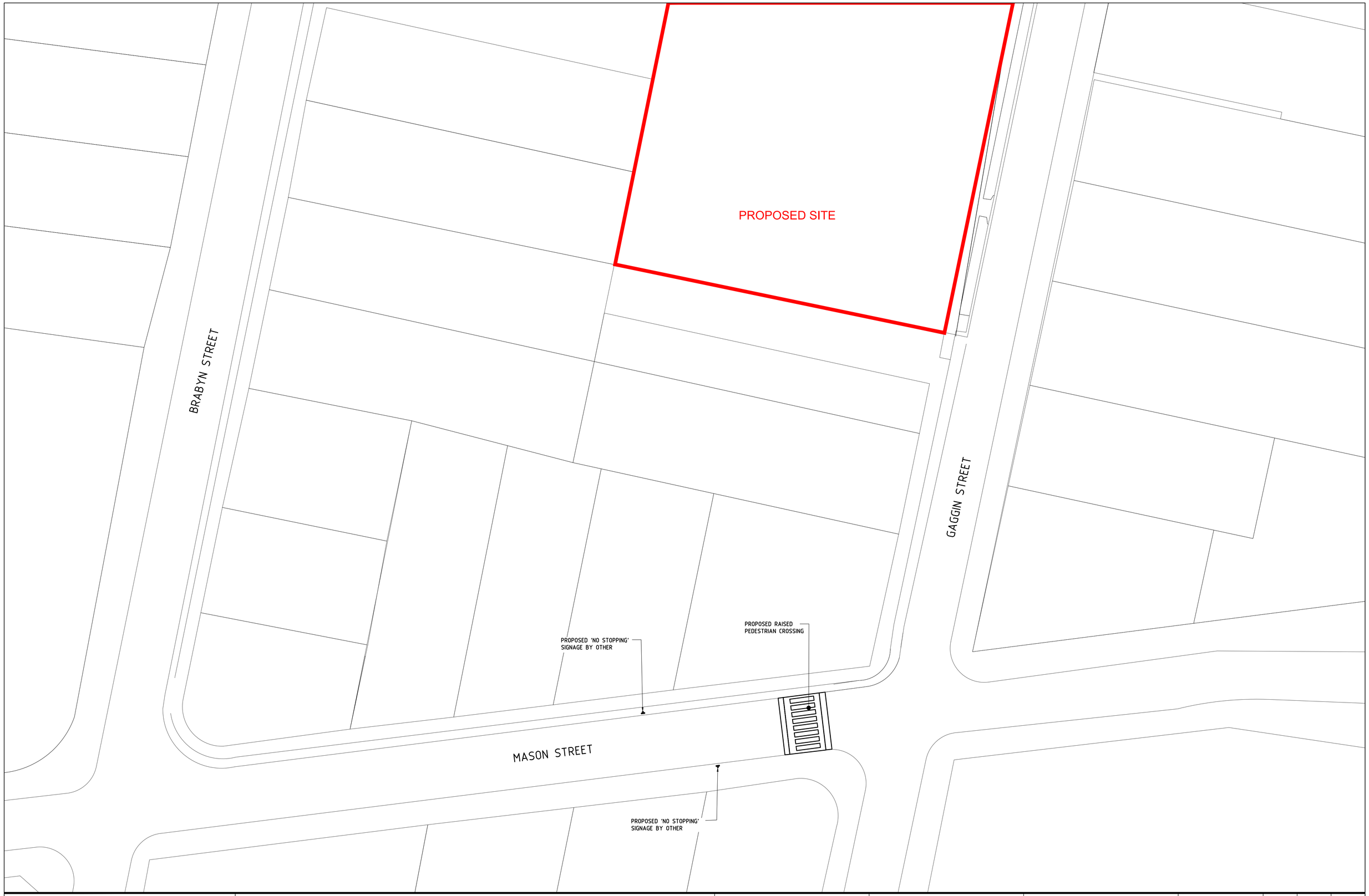
Woolacotts. CONSULTING ENGINEERS
T +61 2 8203 1500 I www.woolacotts.com.au
Suite 6.02 Level 6, 67 Albert Ave, Chatswood NSW 2067

PARRAMATTA EAST PUBLIC SCHOOL
30-32 BRABYN STREET, PARRAMATTA
NSW 2150

EROSION AND SEDIMENT CONTROL DETAILS

Date	Approved	Verified	Prepared
OCTOBER 2024	JC 02.10.24	JH 02.10.24	CR 02.10.24
Scale @ A1: 1:20			

Job number	Drawing number	Amendment
22-107	PEPS-WCE-00-00-DR-C-0203	B



No.	Date	Description	Ver.	Appr.
A	02.10.24	ISSUED FOR DA	JH	JC
B	23.10.24	RE-ISSUED FOR DA	JH	JC
C	03.03.25	ISSUED FOR REF	JH	JC

NOT FOR CONSTRUCTION

Architect
JDH ARCHITECTS
SUIT 301/249 PITT STREET
SYDNEY NSW 2000

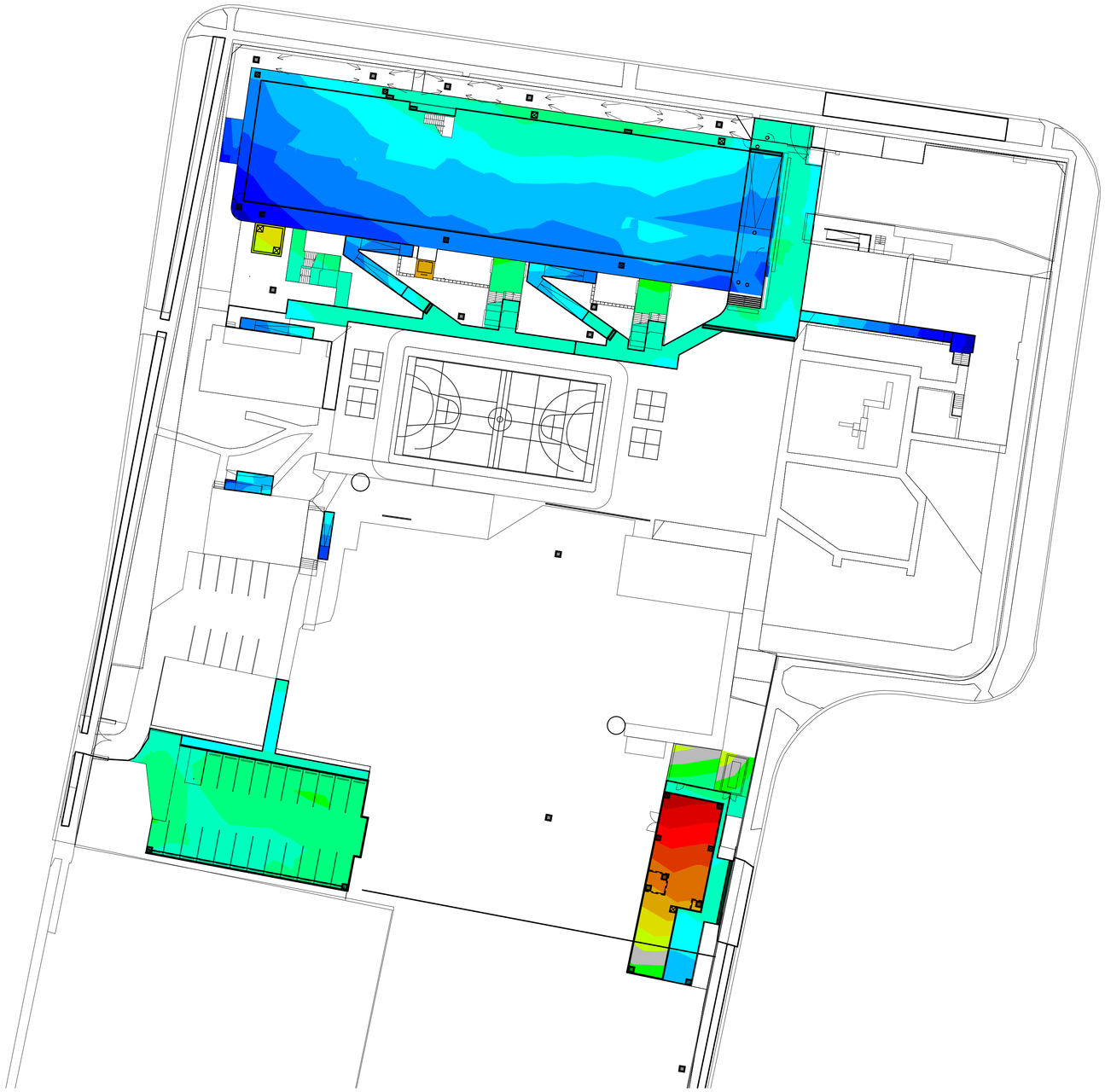
Woolacotts. CONSULTING ENGINEERS
T +61 2 8203 1500 I www.woolacotts.com.au
Suite 6.02 Level 6, 67 Albert Ave, Chatswood NSW 2067

PARRAMATTA EAST PUBLIC SCHOOL
30-32 BRABYN STREET, PARRAMATTA NSW 2150

RAISED PEDESTRIAN CROSSING PLAN

Date	Approved	Verified	Prepared
OCTOBER 2024	JC 02.10.24	JH 02.10.24	CR 02.10.24
Scale @ A1: 1:250			

Job number	Drawing number	Amendment
22-107	PEPS-WCE00-00-DR-C-0301	C



Levels Table			
No.	Min. Level	Max. Level	Colour
1	-3.000	-2.800	
2	-2.800	-2.600	
3	-2.600	-2.400	
4	-2.400	-2.200	
5	-2.200	-2.000	
6	-2.000	-1.800	
7	-1.800	-1.600	
8	-1.600	-1.400	
9	-1.400	-1.200	
10	-1.200	-1.000	
11	-1.000	-0.800	
12	-0.800	-0.600	
13	-0.600	-0.400	
14	-0.400	-0.200	
15	-0.200	0.000	
16	0.000	0.200	
17	0.200	0.400	
18	0.400	0.600	
19	0.600	0.800	
20	0.800	1.000	

CUT AND FILL SUMMARY

CUT FACTOR	FILL FACTOR	CUT VOLUME	FILL VOLUME	NET VOLUME
1.1	1.0	1164.37m^3	348.60m^3	815.77m^3 (CUT)

No.	Date	Description	Ver.	Appr.
A	02.10.24	ISSUED FOR DA	JH	JC
B	18.10.24	ISSUED FOR DA	JH	JC
C	03.03.25	ISSUED FOR REF	JH	JC

NOT FOR CONSTRUCTION

Architect
JDH ARCHITECTS
SUIT 301/249 PITT STREET
SYDNEY NSW 2000

Woolacotts. CONSULTING ENGINEERS
T +61 2 8203 1500 I www.woolacotts.com.au
Suite 6.02 Level 6, 67 Albert Ave, Chatswood NSW 2067

PARRAMATTA EAST PUBLIC SCHOOL
30-32 BRABYN STREET, PARRAMATTA
NSW 2150

CUT AND FILL PLAN

Date	Approved	Verified	Prepared
OCTOBER 2024	JC 02.10.24	JH 02.10.24	CR 02.10.24
Scale @ A1: 1:400			

Job number	Drawing number	Amendment
22-107	PEPS-WCE-00-00-DR-C-0401	C

Appendix B

OSD Catchment Plan

LEGEND:

AREA DRAINING TO OSD TANK = 3,515m²

WOOLACOTTS CONSULTING ENGINEERS
PARRAMATTA EAST PUBLIC SCHOOL
22-107_OSD CATCHMENT PLAN SKETCH_REVISION [B]
DATE : 27.02.2025