

DEPARTMENT OF EDUCATION NSW

NEW HIGH SCHOOL FOR MELROSE PARK

Review of Environmental Factors

for

Hydraulic Services

Project No : 8335

Revision : 2 – Final Issue

REVISION SCHEDULE

No.	DATE	DESCRIPTION
1	29 th November 2024	Draft Issue
2	24 th January 2025	Final Issue

TABLE OF CONTENTS

1	INTRO	DDUCTION	4
	1.1	SUMMARY OF ACTIVITY	4
	1.2	SITE DESCRIPTION	5
	1.3	SIGNIFICANCE OF ENVIRONMENTAL IMPACTS	6
2	ASSE	SSMENT OF UTILITIES - WATER AND WASTEWATER	7
3	EXIST	ING SERVICES INFRASTRUCTURE	8
	3.1	WATER	8
	3.2	SEWER	10
4	PROP	OSED INFRASTRUCTURE	11
	4.1	WATER	11
	4.2	SEWER	11
5	ENVIF	RONMENTAL CONSIDERATIONS	12
	5.1	ENVIRONMENTAL IMPACT	12
	5.2	MITIGATION MEASURES FOR ENVIRONMENTAL IMPACTS	12
6	HYDR	AULIC INFRASTRUCTURE IMPACTS	13
7	HYDR	AULIC INFRASTRUCTURE MITIGATION MEASURES	13
	7.1	TRAFFIC CONTROL AND ROAD OPENING PROTECTION DURING EXTERNAL CONSTRUCTION WORKS	13
	7.2	EROSION CONTROL MEASURES	13
	7.3	RE-VEGETATION MEASURES	13
8	COMF	PLIANCE WITH STANDARDS AND REGULATIONS	15
9	STAK	EHOLDER CONSULTATION	15
10	CONC	LUSION	15
12	APPENDIX A – HYDRAULIC SERVICES SITE PLAN16		
13	APPENDIX B – ARCHITECTURAL SITE PLANS		

1 INTRODUCTION

This hydraulic services report has been prepared by DSC on behalf of the Department of Education (DoE) to assess the potential environmental impacts that could arise from the construction and use of the new Melrose Park High School project (the Activity) at 37 Hope Street, Melrose Park. This report supports the assessment of the proposed Activity under Part 5 of the Environmental Planning and Assessment Act 1979. The Activity is proposed by the DoE to meet the growth in educational demand in the Melrose Park precinct.

This report has been prepared to outline the hydraulic services.

1.1 SUMMARY OF ACTIVITY

The proposed activity involves the construction and use of a new high school in two stages for approximately 1,000 students.

Stage 1 of the proposed activity includes the following:

- Site preparation works.
- Construction of Block A a six-storey (with additional roof/plant level) school building in the southwestern portion of the site containing staff rooms and General Learning Spaces (GLS).
- Construction of Block B a one storey (double height) hall, gymnasium, canteen and covered outdoor learning area (COLA) building in the southeastern portion of the site.
- Construction of Block C a single-storey plant and storage building at the northeastern portion of the site.
- Associated landscaping.
- Construction of on-site car parking.
- Provision and augmentation of services infrastructure.
- Associated public domain infrastructure works to support the school, including (but not limited to):
 - Provide kiss and drop facilities along Wharf Road and widen the Wharf Road footpath.
 - Raised pedestrian crossings on Wharf Road and Hope Street.

Stage 2 of the proposed activity includes the following:

- Construction of Block D a five-storey (with additional roof/plant level) school building in the northwestern portion of the site containing staff rooms and GLS:
- Additional open play spaces within the terrace areas of Building D.
- Minor layout amendments to Block A.

The Review of Environmental Factors prepared by Ethos Urban provides a full description of the proposed works

1.2 SITE DESCRIPTION

The site is located at 37 Hope Street, Melrose Park within the Parramatta LGA. The school covers an approximate area of 9,500m2 and is generally rectangular in shape. The site is currently cleared and vacant. The site is located approximately 8km east of the Parramatta CBD.

An aerial image of the site is shown in Figure 1 below.



Figure 1 – Site Location Plan Source: Six Maps; edits by DSC

1.3 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 development, it is determined that:

- The extent and nature of potential impacts are low and will not significantly impact the locality, community, and/or the environment.
- Potential impacts can be appropriately mitigated or managed to ensure that there is no significant impact on the environment.

2 ASSESSMENT OF UTILITIES - WATER AND WASTEWATER

Requirement	Y	Ν	N/A	Comments
Utilities				
Does the REF broadly set out how the proposal will be serviced by necessary services and utilities?	\boxtimes			
Does the REF assess any works required to provide necessary services and utilities and conclude that these would not have significant environmental affects?				Sydney Water will undertake an assessment of the water and sewer mains and provide the notice of requirements in the next phase of design.
If on site water treatment is required, does the REF include an on-site wastewater management plan / land capability assessment that concludes that the site would be capable of accommodating wastewater without significant affects on the environment?				Authority sewer mains are proposed for the site. Refer to Section 3.2 of this report.

3 EXISTING SERVICES INFRASTRUCTURE

A desktop Before You Dig Australia (BYDA) study was conducted for the proposed Melrose Park High School site and the surrounding area. The following outlines the existing services and infrastructure around the site, providing context for the proposed development's servicing strategy.

3.1 WATER

The Water Servicing Coordinator (WSC) designing the new water services for the redeveloped precinct has indicated that their proposed design includes a new 200mm water main with connection points that connect to the existing 200mm Cast Iron Cement Lined (CICL) main on the northeastern side of Wharf Road and is available for the site's potable water and fire connections, per Figure 1 below.

Figure 2 indicates the location of the existing 200mm water main from the BYDA Sydney Water Plan.



Figure 1 – WSC Proposed Design - Water



Figure 2 – BYDA – Sydney Water

3.2 SEWER

The Water Servicing Coordinator (WSC) designing the new sewer mains for the redeveloped precinct has indicated that their proposed design includes a new dedicated sewer connection for the site. This connection is located at the southeast corner of the site near the intersection of Industrial Road.



Figure 3 – WSC Proposed Design - Sewer

4 PROPOSED INFRASTRUCTURE

4.1 WATER

The current water mains in Wharf Road are expected to be able to support the water demand for the new High School. To confirm this, a Section 73 application to Sydney Water will be required in the next design phase.

The proposed water infrastructure consists of:

- Domestic cold water connection 100mm diameter pipe with an authority water meter.
- Fire hydrant system water connection 150mm diameter pipe.
- Domestic cold water pumps for boosting the water pressure within the site.
- Connection to future utility recycled water main.

Refer to Appendix A – Hydraulic site plan for the water connections and reticulation strategy.

4.2 SEWER

The current sewer mains in Wharf Road are expected to be able to support the sewer demand for the new High School. To confirm this, a Section 73 application to Sydney Water will be required in the next design phase.

The proposed sewer infrastructure consists of:

- Gravity sewer mains serving all buildings up to 150mm in diameter.
- Sewer access chambers located on main lines and at changes of direction.
- Trade waste grease arrestor serving trade waste drainage from kitchens.
- Dilutions pit serving science lab trade waste drainage.

Refer to Appendix A – Hydraulic site plan for the sewer connection and reticulation strategy.

5 ENVIRONMENTAL CONSIDERATIONS

5.1 ENVIRONMENTAL IMPACT

- Trenching for underground water and drainage services could disturb soil and vegetation.
- Noise from construction activities may temporarily affect surrounding areas.
- Visual impact from above-ground installations such as fire hydrant booster assembly, water meters, fire water storage tanks and services plant rooms.

5.2 MITIGATION MEASURES FOR ENVIRONMENTAL IMPACTS

5.2.1 Trenching for underground water and drainage services

Soil disturbance mitigation:

- Minimise the trenching area by careful planning of service routes.
- Reuse excavated soil for backfilling to reduce waste.
- Stabilise exposed soil immediately after trenching by applying mulch, planting native vegetation, or using erosion control mats.
- Implement silt barriers and sediment control measures to prevent soil erosion and runoff into nearby water bodies.

Vegetation protection:

- Conduct a vegetation survey before trenching to identify and avoid significant or rare plant species.
- Transplant salvaged vegetation where feasible.
- Replant native species post-construction to restore disturbed areas.

5.2.2 Noise from Construction Activities

Mitigation measures:

- Restrict noisy activities to standard working hours to reduce disturbance to nearby residents.
- Use noise barriers or acoustic screens near sensitive areas.
- Ensure all equipment is well-maintained and fitted with noise-dampening devices, such as mufflers or silencers.
- Notify nearby residents and businesses about high-noise activities and expected duration.

5.2.3 Visual impact from above-ground installations

Design and landscaping:

- Use visually neutral or natural-coloured materials for fire hydrant booster assemblies, water meters, storage tanks, and plant rooms to blend with the surroundings.
- Position above-ground structures to minimise visibility from public spaces and sensitive areas.
- Implement landscaping measures, such as planting trees or shrubs, to screen the installations from view.
- Incorporate aesthetic design elements into above-ground installations to align with the local architectural style.

6 HYDRAULIC INFRASTRUCTURE IMPACTS

Potential disturbance during trenching for new water connections to the authority water mains and road opening.

7 HYDRAULIC INFRASTRUCTURE MITIGATION MEASURES

7.1 TRAFFIC CONTROL AND ROAD OPENING PROTECTION DURING EXTERNAL CONSTRUCTION WORKS

Traffic control and road opening protection are measures implemented to manage vehicular and pedestrian movement around construction zones, ensuring safety and minimising disruptions.

Mitigation Measures:

- Traffic Management Plan (TMP): Develop a comprehensive TMP before construction begins. This plan includes alternate routes, detour signs, and detailed layouts of the construction site to reduce congestion.
- Signage and Barriers: Place clear and visible warning signs, cones, and barriers to guide drivers and pedestrians safely through or around the construction area. Reflective materials should be used for nighttime visibility.
- Flaggers and Personnel: Employ trained personnel to direct traffic during active construction hours, especially in high-risk zones.
- Phased Construction: Schedule construction in phases to limit the road sections affected at any given time. This helps maintain partial road functionality.
- Public Communication: Notify local communities and commuters about road closures or delays via public announcements, social media, and signage well in advance.
- Access Points and Safety Zones: Designate safe pedestrian crossings, maintain emergency access routes, and create buffer zones for workers.

7.2 EROSION CONTROL MEASURES

Erosion control measures prevent soil displacement caused by construction activities, protecting nearby ecosystems, water bodies, and infrastructure.

Mitigation Measures:

- Silt Fences and Sediment Traps: Install barriers like silt fences or sediment traps around disturbed soil areas to capture eroded materials before they reach water bodies.
- Erosion Mats and Blankets: Use biodegradable mats to stabilise exposed soil on slopes and embankments. These also support vegetation growth.
- Vegetative Buffers: Maintain or establish vegetated strips between construction areas and water bodies to filter runoff.
- Proper Drainage Systems: Install drainage channels or culverts to manage water flow and direct it away from vulnerable areas.

7.3 **RE-VEGETATION MEASURES**

Re-vegetation involves restoring plant cover on disturbed soil after construction to stabilise the ground and promote ecological recovery.

Mitigation Measures:

- Native Plant Species: Use local, native plant species for re-vegetation to ensure better adaptability, biodiversity restoration, and minimal maintenance needs.
- Topsoil Replacement: Reapply stripped topsoil over disturbed areas to provide nutrients essential for plant growth.

- Tree and Shrub Planting: Plant trees and shrubs to Stabilise soil, provide shade, and enhance the landscape's aesthetic value.
- Timing of Planting: Align re-vegetation efforts with favorable growing seasons to maximise survival rates.
- Irrigation and Maintenance: Water the plants regularly and protect them from pests, diseases, and grazing animals during the establishment phase.

8 COMPLIANCE WITH STANDARDS AND REGULATIONS

The design aligns with:

- NCC 2022 and relevant Australian Standards, including AS3500 & AS2419.1
- NSW Department of Education's EFSG 2.0.
- Australian Standards
- Sydney Water Standards
- Local Council Engineering Standards
- Fire and Rescue NSW Access for Fire Brigade Vehicles and Firefighters

9 STAKEHOLDER CONSULTATION

- BYDA enquiry for Sydney Water is complete.
- Liaison with Sydney Water regarding sewer connection and discharge requirements for the site.
- A Section 73 application will be submitted at the next design stage to Sydney Water to confirm the notice of requirements.
- Coordination of water connections and approvals will commence at the next design stage.

10 CONCLUSION

The hydraulic and fire services proposed for the New High School for Melrose Park have been assessed carefully, considering environmental, regulatory, and operational factors. Existing infrastructure has been evaluated, and planned enhancements to water and sewer services will adequately support the proposed development while complying with Sydney Water standards and other regulatory requirements.

Potential environmental impacts, such as soil disturbance, vegetation disruption, noise, and visual effects, have been identified, and mitigation strategies have been outlined to address these issues effectively. The project aligns with relevant standards, including the NCC 2022, Australian Standards, and NSW Department of Education guidelines, ensuring sustainable and safe implementation.

Through diligent planning and stakeholder engagement, this development is well-positioned to meet the community's needs while minimising adverse environmental effects.

12 APPENDIX A – HYDRAULIC SERVICES SITE PLAN

MELROSE PARK HS 84 WHARF ROAD, MELROSE PARK, NSW 2114 HYDRAULIC SERVICES

LEGEND

ABBREVIATIONS

AAV	AIR ADMITTANCE VALVE	NG
AB	ACCESSIBLE BASIN	NPCV
AC	AIR CONDITIONING	NPHV
A/P	ACCESS PANEL	NTS
ASM	AUTHORITY SEWER MAIN	O/F
AWM	AUTHORITY WATER MAIN	OLF
AV	AIR RELEASE VALVE	ORG
AWC	ACCESSIBLE TOILET (WATER CLOSET)	P
В	BASIN	PAA
B/CWU	BOILING/CHILLED WATER UNIT	PAT
BFW	BUNDED FLOOR WASTE	
BG	BOX GUTTER	PCW
		PFS
BO		PFW
BT	BOUNDARY TRAP	PHT
BTFW	BUCKET TRAP FLOOR WASTE	PLRO
BTH	BATH	PLV
BV	BALANCING VALVE	PRO
BWU	BOILING WATER UNIT	PRV
CAC	CIRCULAR ACCESS CHAMBER	RC
CBO	COMBIOVEN	RCP
CC	CIRCULAR COVER	RGB
CD	CONDENSATE DRAIN	RL
CI	CAST IRON	RO
CIC	CAST IN COLUMN	RPZD
CIS	CAST IN SLAB	RS
СО	CLEAR OUT	RST
CS	CLEANERS SINK	RTD
CSO	COMBI STEAMER OVEN	RV
CT	COOK TOP	RW
Cu	COPPER	RWH
CW	COLD WATER	
		S
DCDV DCP	DOUBLE CHECK DETECTOR VALVE	SD
	DISCHARGE CONTROL PIT	SHR
DF		SK
DFH	DUAL FIRE HYDRANT	SL
DCW	DOMESTIC COLD WATER	SMH
DHWF	DOMESTIC HOT WATER FLOW	SMS
DI	DUCTILE IRON	SPR
DP	DOWN PIPE	SRA
DRO	DOMED RAINWATER OUTLET	SRM
DST	DRAINAGE STACK	SRO
DTU	DRAINAGE TURN-UP	SRZ
DW	DISHWASHER	SSD
DWG	DRAWING	SST
е	EXISTING	ST
EJ	EXPANSION JOINT	SV
Ex	EXISTING	STW
FFL	FINISHED FLOOR LEVEL	SWDT
FH	FIRE HYDRANT	SWP
FHR	FIRE HOSE REEL	SWR
FW	FLOOR WASTE	TD
GAS	GAS SERVICE	TG
GBP	GAS BAYONET POINT	TMV
GD	GRATED DRAIN	
GDO	GRATED DRAIN GRATED DRAIN OUTLET	TOK
GEU	GARBAGE FLOOR WASTE	TPZ
		TTD
GMS		TRO
GVP	GREASE WSTER VENT PIPE	TV
GW	GREASE WASTE	TWC\
GWM	GLASS WASHING MACHINE	TWS
GWS	GREASE WASTE STACK	TWVF
HDC	HEAVY DUTY COVER	U.N.O
HDG	HEAVY DUTY GRATE	uPVC
HDPE	HIGH DENSITY POLYETHYLENE	Ur
HL	HIGH LEVEL	UV
HPF	HEAT PUMP FLOW	UW
HPR	HEAT PUMP RETURN	VB
HR	HALF ROUND	VFW
HT	HOSE TAP	VP
HW	HOT WATER	WC
HWF	HOT WATER FLOW	WD
HWR	HOT WATER RETURN	WM
HWU	HOT WATER UNIT	WP
IL	INVERT LEVEL	WST
IM		WU
IPMF	INDUCT PIPE MICA FLAP	WW
KIP	KERB INLET PIT	WWF
KFW	KITCHEN FLOOR WASTE	WWR
KO	KEY OPERATED	VVVVR
KO	KITCHEN SINK	ABBRI
LDC	LIGHT DUTY COVER	LEGE
		DRAV
LDG		
LL		
LO	LOCKED OPEN	
LT	LAUNDRY TUB	
LPG	LIQUIFIED PETROLEUM GAS	
LTG	LONGITUDINAL TRENCH GRATE	

	NATURAL GAS
W	NON-POTABLE COLD WATER
W	NON-POTABLE HOT WATER
	NOT TO SCALE
	OVERFLOW
	OVERLAND FLOW
6	OVERFLOW RELIEF GULLY
	PENETRATION
	PRACTICAL ACTIVITY AREA
	PRACTICAL ACTIVITY TROUGH
,	
I	POTABLE COLD WATER
	PAN FLUSH SANITISER
	PLANTROOM FLOOR WASTE
	PLANTER HOSE TAP
0	PLANTER RAINWATER OUTLET
	PRESSURE LIMITING VALVE
1	PARAPET RAINWATER OUTLET
	PRESSURE REDUCING VALVE
	REFRIGERATION CABINET
	REINFORCED CONCRETE PIPE
	RECESS GAS BAYONET POINT
	REDUCED LEVEL
	RAINWATER OUTLET
D	REDUCED PRESSURE ZONE DEVICE
	RISING SHAFT
	RECESSED STOP TAP
	RECESSED TUNDISH
	RELIEF VENT
	RAIN WATER
4	RAINWATER HEAD
•	SEWER/SANITARY
	SEWER DRAINAGE
	SHOWER
	SINK
	SUCTION LINE
	SEWER MANHOLE
i	SEWER MAINTENANCE SHAFT
	SPRINKLER SERVICE
	SPRAY RINSE ARM
	SEWER RISING MAIN
	SQUARE RAINWATER OUTLET
	STRUCTURAL ROOT ZONE
	SUB-SOIL DRAINAGE
	SOIL STACK
	STOP TAP
	STOP VALVE (ISOLATION VALVE)
	STORWATER
DTU	STORMWATER DRAINAGE TURN-UP
)	STORMWATER PIT
RM	STORMWATER RISING MAIN
	TUNDISH
	TRENCH GRATE
,	THERMOSTATIC MIXING VALVE
	TOP OF KERB
	TREE PROTECTION ZONE
	TRAPPED TUNDISH
1	TERRACE RAINWATER OUTLET
	TEMPERING VALVE
2V	TRADE WASTE CHAMBER VENT
5	TRADE WASTE STACK
/Ρ	TRADE WASTE VENT PIPE
0.	UNLESS NOTED OTHERWISE
с. С	UNPLASTICISED POLYVINYL CHLORIDE
	URINAL
	ULTRAVIOLET
	UTENSIL WASHING MACHINE
	VANITY BASIN
I	VINYL FLOOR WASTE
	VENT PIPE
	TOILET SUITE (WATER CLOSET)
	WASHING MACHINE (CLOTHES)
-	WASTE PIPE
	WASTE STACK
	WASH TROUGH
	WARM WATER
F	WARM WATER FLOW
R	WARM WATER RETURN YG YARD GULLY
	NS, SYMBOLS AND LINETYPES IN THE
	NOT APPEAR ELSEWHERE ON THE
	HIS LEGEND SHOULD BE USED AS A
	GUIDE ONLY

SYMBOLS

_

SYMBOLS	
 o	COLD WATER POINT
•	HOT WATER POINT CONTINUATION SYMBOL (CONTINUATION OF SERVICE NOT SHOWN)
	CAPPED OFF SERVICE
`	DROPPER
o	RISER
	DIRECTION OF FLOW IN PIPE
	FLANGE CONNECTION
凶	BALANCING VALVE (STAD)
Δ	TUNDISH
\bowtie	ISOLATION VALVE
М	FLEXIBLE CONNECTION
\mathbf{D}	PUMP
	METER
	EMS METER
()	TEMPERATURE GAUGE
P	PRESSURE GAUGE
TMV	THERMOSTATIC MIXING VALVE
TV	TEMPERING VALVE
22	DOUBLE CHECK VALVE
\rightarrow	BACKFLOW PREVENTION DEVICE
Ø	TWO WAY VALVE
函	THREE WAY VALVE
×	FLOAT VALVE
	AIR RELEASE VALVE
Ν	CHECK VALVE (WATER SERVICE) REFLUX VALVE (DRAINAGE) (RV)
${igodot}$	REFLUX VALVE RISES TO SURFACE LEVEL
XX	FILTER
₩	VENTED GAS REGULATOR
\square	ELECTRICAL CONTROL PANEL
	OVERFLOW RELIEF GULLY/YARD GULLY
\boxtimes	SV IN PATH BOX
X	GAS REGULATOR
	PRESSURE REDUCING VALVE
	PRESSURE LIMITING VALVE
S X	SOLENOID VALVE
ŀ	STRAINER
$\square \land$	DIRECTIONAL ARROW
DF OF	OVERLAND FLOW PATH
) (PENETRATION
	- SERVICE - SIZE
НХ	CONTINUED ON DWG HX

LTG LONGITUDINAL TRENCH GRATE

SYMBOLS

LINETYPES

— — — GWVP — — — GWVP —

— — — TWCV — — — TWCV —

_____ _ _ _ ____ SSRM _____

_____ _ . . . _ _ _ _ . . . _ _ ____

_____ _ _ _ _ _ _ ____

------ NPHW-------

_____ · · · · _ ____ · · · · _ ____

— E — E — E — E — E

—<u>X</u> e <u>X</u> e <u>X</u> e <u>—</u>

_____ e _____

____ TW _____ TW _____

TIVIDULS	
Ø	FLOOR WASTE/RAINWATER OUTLET
Ø	GARBAGE FLOOR WASTE
	STORMWATER PIT (WITH COVER)
	STORMWATER PIT (WITH GRATE)
	SQUARE RAINWATER OUTLET
\bigcirc	SEWER MANHOLE (CAC)
	KERB INLET PIT (SINGLE GRATE)
	KERB INLET PIT (DOUBLE GRATE)
—(STORMWATER HEADWALL
шпо	SPREADER
¤	BOUNDARY TRAP
	AIR ADMITTANCE VALVE
	FIRE HOSEREEL
Ø	FIRE HYDRANT
ø c ø	STANDPIPE FIRE HYDRANT (DFH)
₢ऀॼऀऀऀऀॴऀ॑॑॑ऀ॑॑	FIRE HYDRANT BOOSTER ASSEMBLY
	SHADED AREA INDICATES PIPEWORK CAST INTO SLAB

SEWER DRAINAGE/SANITARY PLUMBING VENT PIPE SEWER RISING MAIN STORMWATER DRAINAGE RAIN WATER PIPE (RW) STORMWATER RISING MAIN STORMWATER OVERFLOW GREASE WASTE DRAINAGE GREASE WASTE VENT PIPE TRADE WASTE DRAINAGE TRADE WASTE VENT PIPE TRADE WASTE CHAMBER VENT PIPE SUBSOIL DRAINAGE SUBSOIL RISING MAIN COLD WATER SERVICE HOT WATER FLOW HOT WATER RETURN HEAT PUMP FLOW HEAT PUMP RETURN WARM WATER FLOW WARM WATER RETURN NON-POTABLE COLD WATER NON-POTABLE HOT WATER GAS SERVICE FIRE HOSE REEL SERVICE FIRE HYDRANT SERVICE FIRE SPRINKLER SERVICE IRRIGATION SERVICE RECYCLED WATER REVERSE OSMOSIS WATER EXHAUST ELECTRICAL CONDUIT EXISTING SERVICE EXISTING SERVICE TO BE REDUNDANT

NOTES

- 1. DRAWINGS ARE DIAGRAMMATIC ONLY. FOR DIMENSIONS AND CONSTRUCTION DETAILS OF BUILDING REFER ARCHITECTURAL DRAWINGS AND SITE.
- 2. PIPEWORK SIZES ARE NOMINAL BORE FOR COPPER AND CAST IRON AND INTERNAL BORE FOR POLYMER BASED PIPEWORK. REFER SPECIFICATION FOR MATERIAL TYPE.
- 3. DRAWINGS ARE TO BE READ IN CONJUNCTIONS WITH HYDRAULIC SERVICES SPECIFICATION, ARCHITECTURAL, STRUCTURAL AND OTHER CONSULTANTS DOCUMENTATION.
- 4. ANY PENETRATIONS TO FIRE RATED ELEMENTS TO BE PROTECTED IN ACCORDANCE WITH AS1530.4-2014 AND AS4072.1-2005.





CAD\DRAWINGS\8335\HYDRAULICS\8335 MPHS-DSC-ZZ-ZZ-DR-H-00010 - SITE PLAN.DWG 18.11.24 5.35:PM Moody '

13 APPENDIX B – ARCHITECTURAL SITE PLANS



B BUS BAY **BIKE PARKING** PROPOSED KISS AND DROP KISS AND DROP SUBJECT TO SEPARATE DEVELOPMENT APPLICATION LOADING ZONE PROPOSED BUS ZONE — - — SITE BOUNDARY - - - SITE SETBACK REF ISSUE

PEDESTRIAN ACCESS

VEHICLE ACCESS

CAR PARKING

LEGEND:

 $\langle \exists$

16/01/2025 5:27:03 PM Date 1:250 @ A1 Scale NBRS Project # 24133



Revision

5

Drawing Reference

_ _ _

© 2024 0 |2.5m |5m |7.5m |10m |12.5m |15m |17.5m |20m |1:250 |





CAR PARKING BUS BAY В **BIKE PARKING** CONNECTION **(00000)** EXISTING KISS AND DROP EXISTING LOADING ZONE EXISTING BUS ZONE ---- SITE BOUNDARY SITE SETBACK _ _ _

PEDESTRIAN ACCESS

VEHICLE ACCESS

LEGEND:

()

REF ISSUE

16/01/2025 5:27:13 PM Date 1:250 @ A1 Scale NBRS Project # 24133

- - - FENCE

