

Client

University Of Newcastle

Project Team

Lyons, EJE, RAPT, Blackett
Maguire + Goldsmith, ADP
Consulting, Northrop, Lindsay
Perry Access, WSP, Murri:Yul,
SECA, Urbis

Project Name

UoN - Central Coast

Project No.

1006MEL

Address

305 Mann St
Gosford NSW 2250

Key Plan

Issue Log

A	Draft SSDA	RL/RC	18/11/2022
B	SSDA	RL/NG	2/12/2022
C	SSDA	RL/RC	20/12/2022

Rev	Revision Description	By / Checked	Date
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Scale

1: 250 @ A1

All dimensions are in millimetres unless otherwise noted.
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North



Phase

SSDA

Sheet Title

Key Plan

Sheet No.

LD-SSDA-0C



Department of Planning
and Environment

Issued under the Environmental Planning and Assessment Act 1979

Approved Application No: SSD 47749715

Granted on: 28 July 2023

Signed: AW Sheet No: 67 of 81

- LEGEND**
- Program**
- Community Urban Verandah
 - Civic Valley Square
 - The Escarpment
 - The Learning & Innovation Interface
 - The Plateau
- General**
- Site Boundary
- Preparation + Groundworks**
- Existing Contour Line
 - +FL 55.0 Proposed Finished Level
 - +EL 55.0 Existing Finished Level
 - Proposed Fall
 - Services / Utilities
- Walls + Edges**
- Kerb
 - Stone Clad Wall
 - Stone Retaining Wall
 - Concrete Wall
 - Stone Terrace Edge
- Pavements**
- Existing Road
 - Instu Concrete
 - Compacted Aggregate
 - Unit Pavers
 - Council Standard Paving
 - Timbor Deck
 - Stairs
- Architecture and Site Structures**
- Proposed Building
 - Existing Building
 - Architecture Above
 - Architecture Below
- Rails + Fencing**
- Handrail
 - Timbor Batton Fence
 - Steel Blade Fence
 - Gate/Door
- Furniture + Fittings**
- Proposed Seating
 - Fixed Table and Chairs
 - Natural Stone Boulders
 - Electric BBQ
 - Drinking Fountain
 - Bins
 - Bicycle Hoops
- Planting**
- Lawn
 - Native Groundcover Mix
 - Native WSUD Mix
- Trees**
- Proposed Trees



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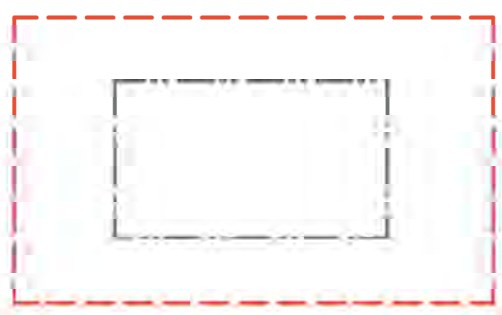
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Phase
SSDA
Sheet Title
GA Site Plan
Sheet No.
LD-SSDA-11

Rev
C



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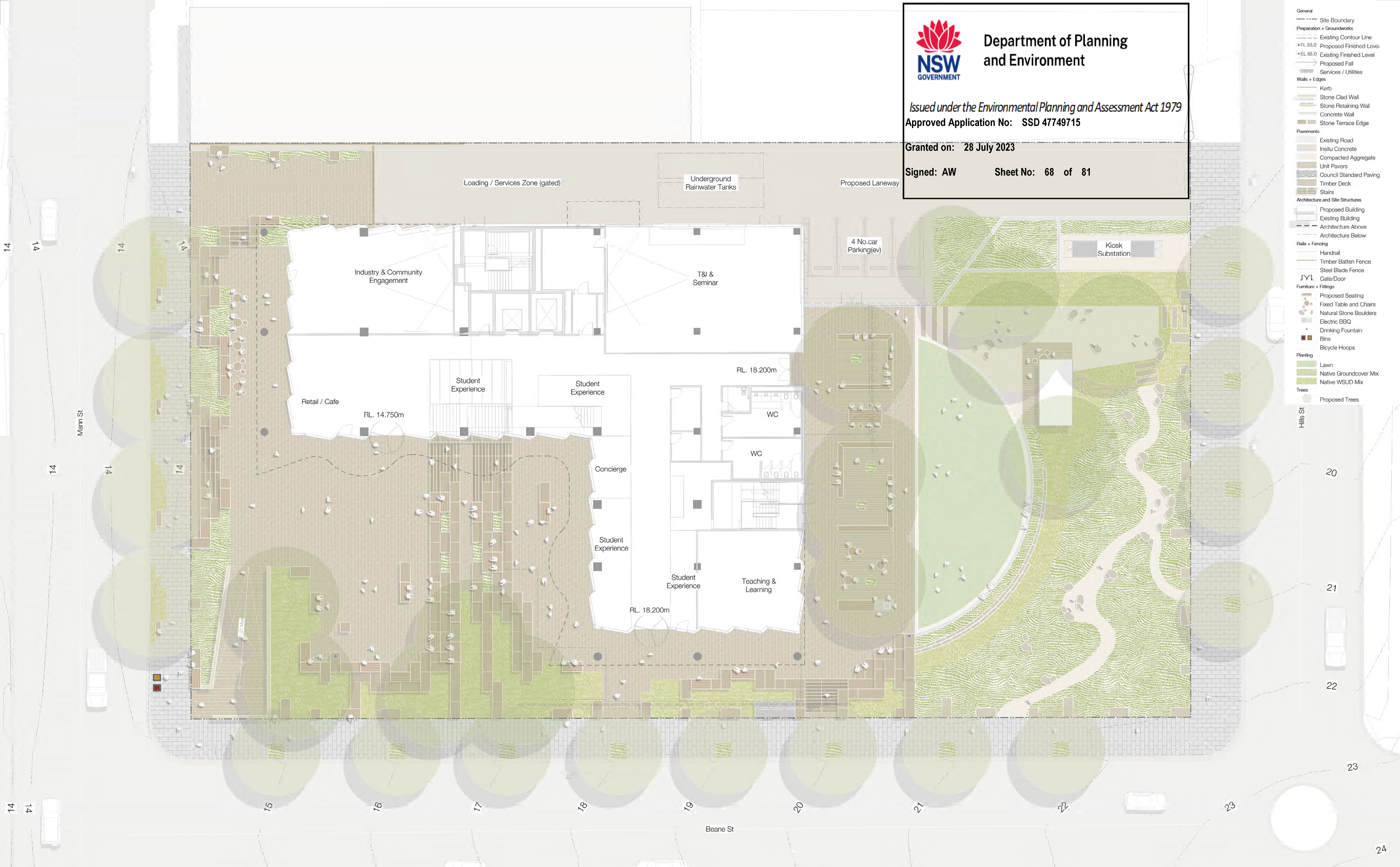
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Sheet No: 68 of 81

- General
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Phase

SSDA

Sheet Title

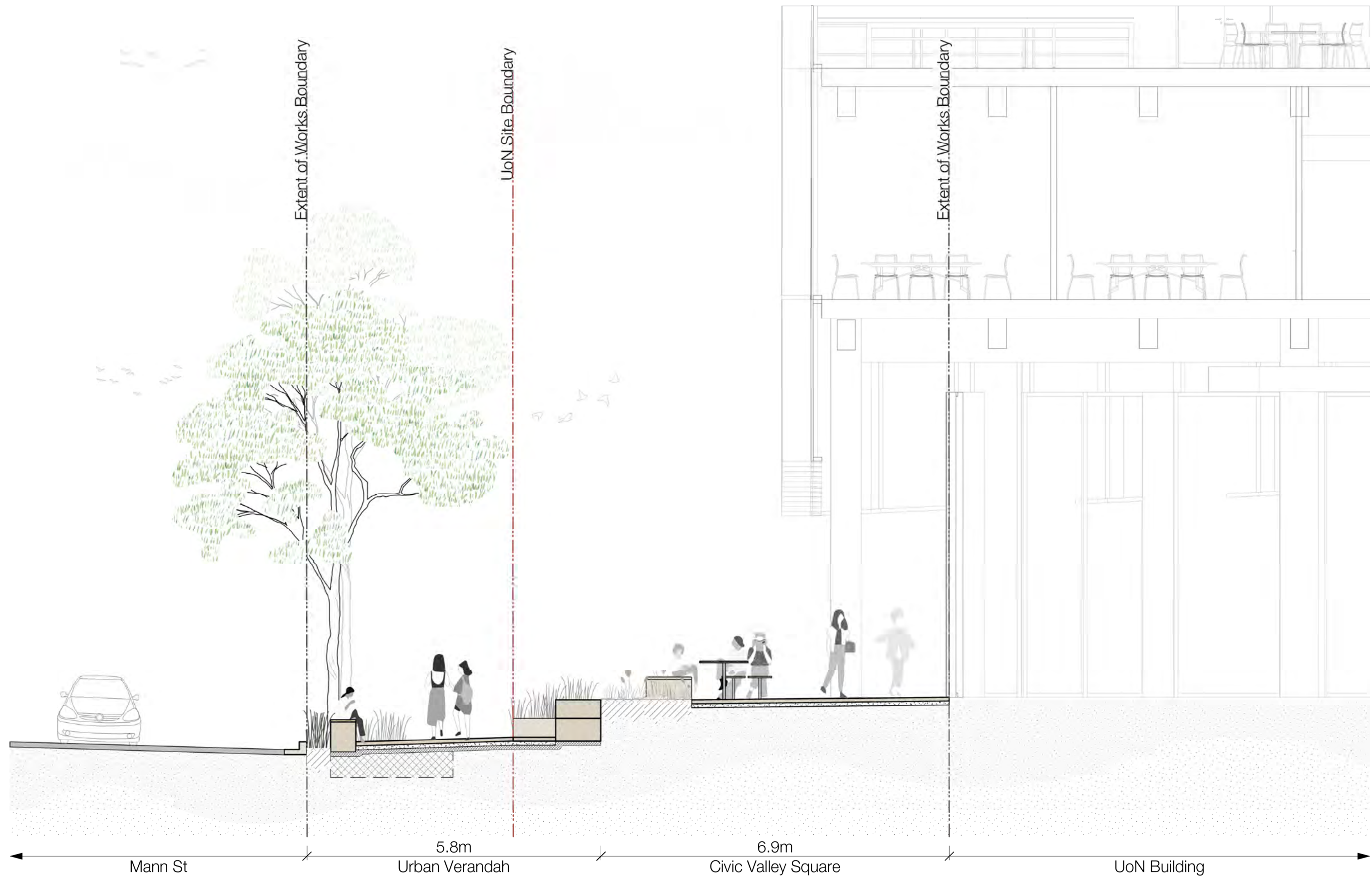
Material & Finishes Plan - GF & L1

Sheet No.

LD-SSDA-101

Rev

C



A Community Urban Veranda, Mann St Interface - Elevation
Scale: 1:75

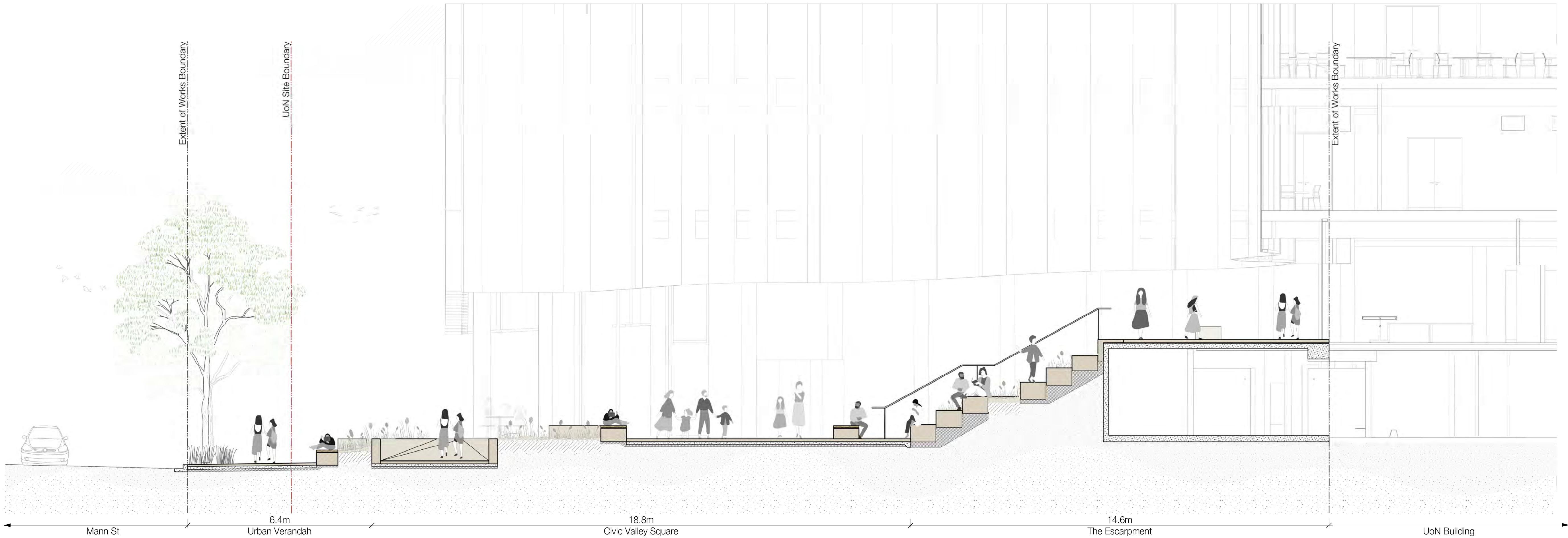


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B Community Urban Veranda / Civic Valley Square / The Escarpment - Elevation
Scale: 1:75



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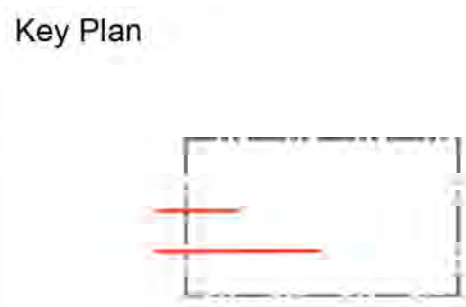
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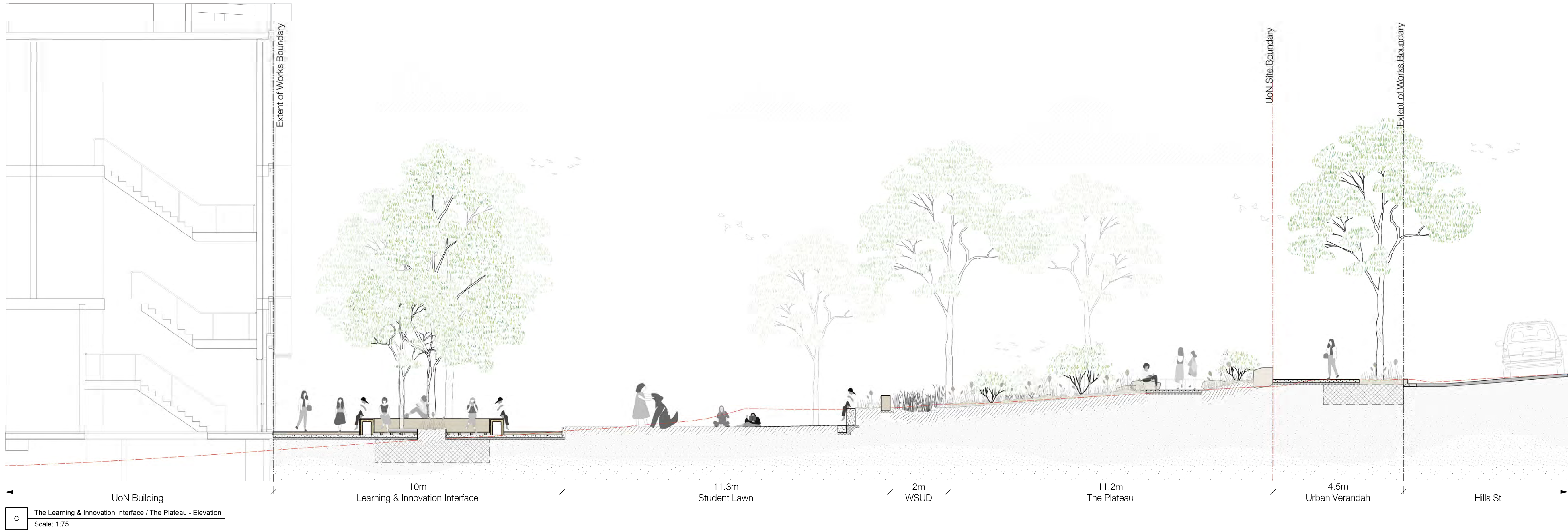
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North

Phase
SSDA
Sheet Title
Sections - Sheet 01
Sheet No.
LD-SSDA-201


Rev
C



C The Learning & Innovation Interface / The Plateau - Elevation
Scale: 1:75



D The Learning & Innovation Interface / Community Urban Veranda, Beane St Interface- Elevation
Scale: 1:75



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North

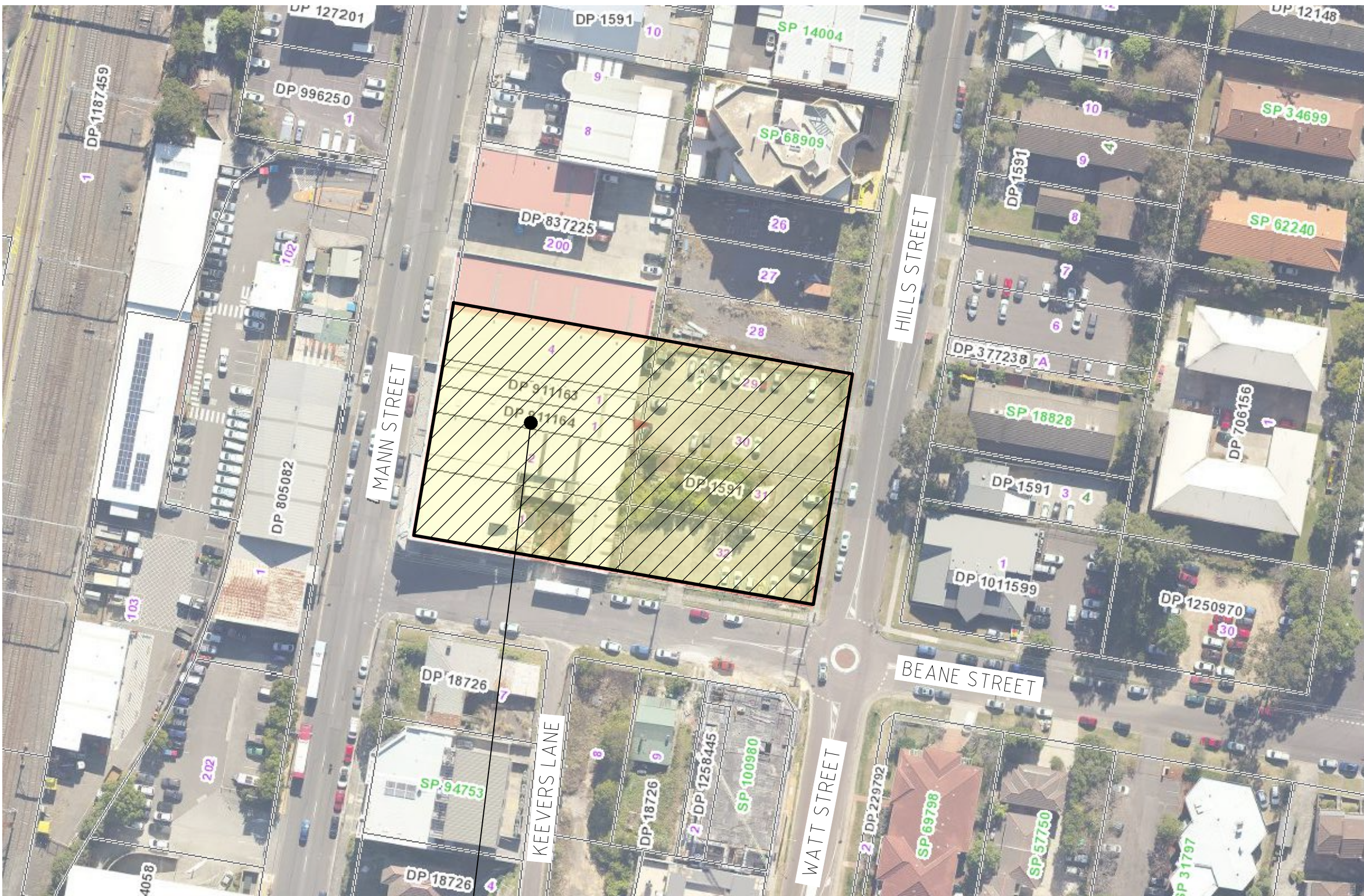
Phase
SSDA
Sheet Title
Sections - Sheet 02
Sheet No.
LD-SSDA-202

Rev

C

UNIVERSITY OF NEWCASTLE CENTRAL COAST CAMPUS

305 MANN STREET GOSFORD
INTERNAL CIVIL WORKS



LOCALITY PLAN

APPROXIMATE LOCATION OF SITE



DRAWING SCHEDULE

DWG No.	DRAWING TITLE
C1.1	COVER SHEET
C2.1	SOIL & WATER MANAGEMENT PLAN
C2.2	SOIL & WATER MANAGEMENT DETAILS
C3.1	BULK EARTHWORKS PLAN
C4.1	CONCEPT CIVIL WORKS AND WATER CYCLE MANAGEMENT & LEVELS PLAN
C4.10	LONG SECTIONS - SHEET 1
C4.11	LONG SECTIONS - SHEET 2
C10.1	CIVIL DETAILS - SHEET 1
C15.1	VEHICLE SWEEP PATH PLAN






Department of Planning
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Approved Application No: SSD 47749715

Granted on: 28 July 2023

Signed: AW Sheet No: 71 of 81

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REVISION	DESCRIPTION	ISSUED	VER'D	APP'D	DATE	CLIENT	ARCHITECT	PROJECT	DRAWING TITLE	JOB NUMBER	
1	DRAFT DEVELOPMENT APPLICATION	KT			21.11.22	 THE UNIVERSITY OF NEWCASTLE AUSTRALIA		 Central Coast Suite 4, 257-259 Central Coast Hwy, Erina NSW 2250 Ph (02) 4365 1668 Fax (02) 4367 6555 Email centralcoast@northrop.com.au ABN 81 094 433 100	UNIVERSITY OF NEWCASTLE PROPOSED CENTRAL COAST CAMPUS 305 MANN ST	INTERNAL CIVIL WORKS COVER SHEET	MB221453
A	DEVELOPMENT APPLICATION	KT		DH	02.12.22						
						DRAWING NOT TO BE USED FOR CONSTRUCTION UNLESS VERIFICATION SIGNATURE HAS BEEN ADDED	THE COPYRIGHT OF THIS DRAWING REMAINS WITH NORTHROP CONSULTING ENGINEERS PTY LTD.			DRAWING NUMBER C1.1	REVISION A
										DRAWING SHEET SIZE = A1	



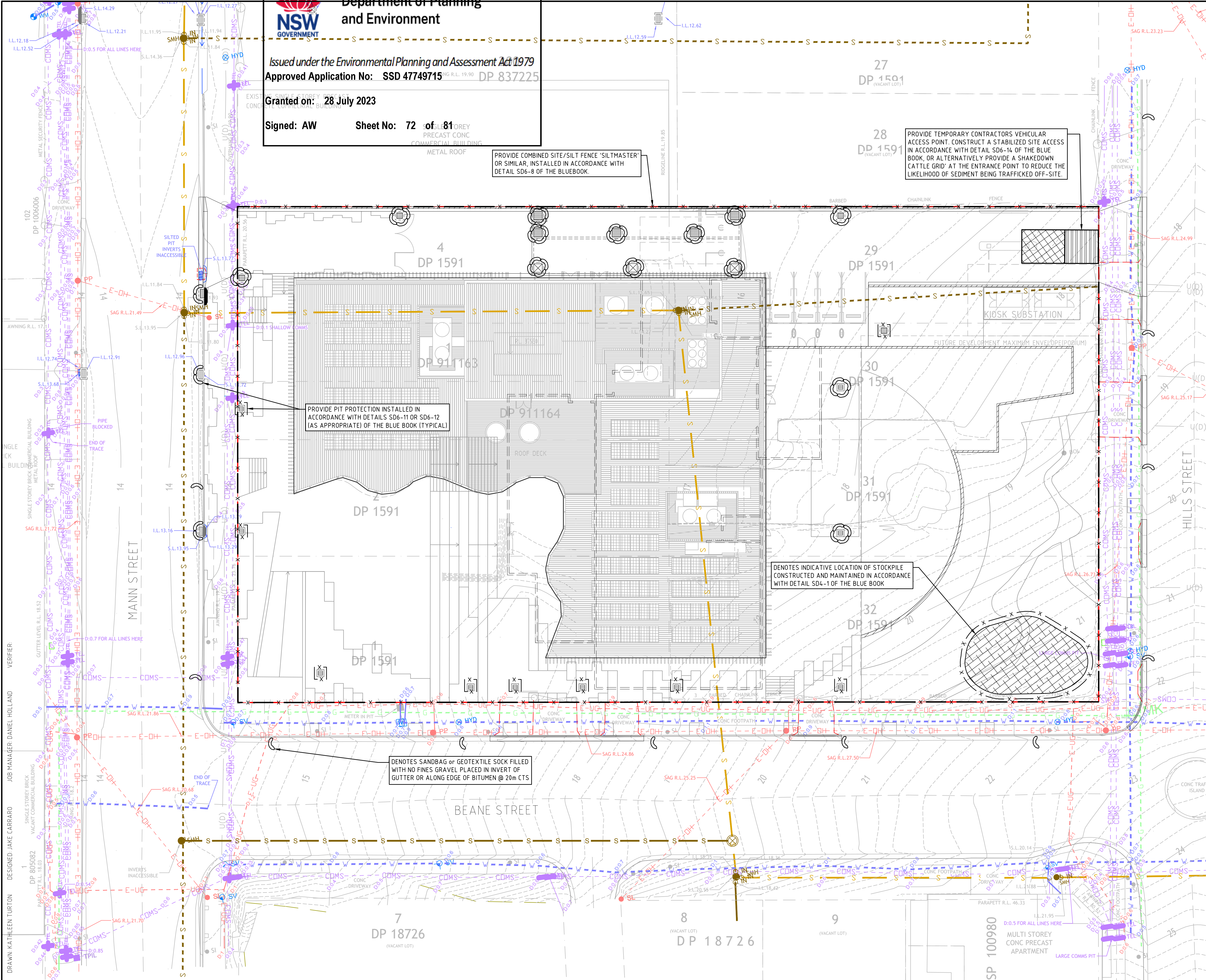
Department of Planning
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Approved Application No: SSD 47749715 DP 837225

Granted on: 28 July 2023

Signed: AW

Sheet No: 72 of 81



LEGEND

- DENOTES SITE BOUNDARY LINE
- DENOTES COMBINED SITE/SILT FENCE 'SILTMASTER' OR SIMILAR, INSTALLED IN ACCORDANCE WITH DETAIL SD6-8 OF THE BLUEBOOK.
- [Hatched Box] DENOTES TEMPORARY CONTRACTORS VEHICULAR ACCESS POINT. CONSTRUCT A STABILISED SITE ACCESS IN ACCORDANCE WITH DETAIL SD6-14 OF THE BLUE BOOK OR PROVIDE A SHAKEDOWN CATTLE GRID AT ENTRANCE POINT TO REDUCE LIKELIHOOD OF SEDIMENT BEING TRAFFICKED OFF-SITE
- [Symbol] DENOTES GEOTEXTILE INLET FILTER INSTALLED IN ACCORDANCE WITH DETAIL SD6-12 OF THE BLUE BOOK
- [Symbol] INDICATES MESH & GRAVEL INLET FILTER INSTALLED IN ACCORDANCE WITH DETAILS SD6-11 OF THE BLUE BOOK
- [Symbol] DENOTES SANDBAG or GEOTEXTILE SOCK FILLED WITH NO FINES GRAVEL PLACED IN INVERT OF GUTTER OR ALONG EDGE OF BITUMEN
- [Symbol] DENOTES INDICATIVE LOCATION OF STOCKPILE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH DETAIL SD4-1 OF THE BLUE BOOK

SEDIMENT & EROSION CONTROL NOTES

- ALL WORK IS TO BE CARRIED OUT IN ACCORDANCE WITH RELEVANT ORDINANCES AND REGULATIONS; NOTE IN PARTICULAR THE REQUIREMENTS OF LANDCOMS MANAGING URBAN STORMWATER, SOILS AND CONSTRUCTION (THE 'BLUE BOOK').
- INSTALL SEDIMENT PROTECTION FILTERS ON ALL NEW AND EXISTING STORMWATER INLET PITS IN ACCORDANCE WITH EITHER THE MESH AND GRAVEL INLET FILTER DETAIL SD6-11 OR THE GEOTEXTILE INLET FILTER DETAIL SD6-12 OF THE 'BLUE BOOK'.
- ESTABLISH ALL REQUIRED SEDIMENT FENCES IN ACCORDANCE WITH DETAIL SD6-8 OF THE 'BLUE BOOK'.
- INSTALL SEDIMENT FENCING AROUND INDIVIDUAL BUILDING ZONES/AREAS AS REQUIRED AND AS DIRECTED BY THE SUPERINTENDENT.
- ALL TRENCHES INCLUDING ALL SERVICE TRENCHES AND SWALE EXCAVATION SHALL BE SIDE-CAST TO THE HIGH SIDE AND CLOSED AT THE END OF EACH DAYS WORK.
- THE CONTRACTOR SHALL ENSURE THAT ALL VEGETATION (TREE, SHRUB & GROUND COVER) WHICH IS TO BE RETAINED SHALL BE PROTECTED DURING THE DURATION OF CONSTRUCTION. REFER ARCHITECTS PLANS FOR TREES TO BE KEPT.
- ALL VEGETATION TO BE REMOVED SHALL BE MULCHED ONSITE AND SPREAD/STOCKPILED AS DIRECTED BY THE SUPERINTENDENT.
- STRIP TOPSOIL IN AREAS DESIGNATED FOR STRIPPING AND STOCKPILE FOR RE-USE AS REQUIRED. ANY SURPLUS MATERIAL SHALL BE REMOVED FROM SITE AND DISPOSED OF IN ACCORDANCE WITH EPA GUIDELINES.
- CONSTRUCT AND MAINTAIN ALL MATERIAL STOCKPILES IN ACCORDANCE WITH DETAIL SD4-1 OF THE 'BLUE BOOK' (INCLUDING CUT-OFF SWALES TO THE HIGH SIDE AND SEDIMENT FENCES TO THE LOW SIDE).
- ENSURE STOCKPILES DO NOT EXCEED 2.0m HIGH. PROVIDE WIND AND RAIN EROSION PROTECTION AS REQUIRED IN ACCORDANCE WITH THE 'BLUE BOOK'.
- PROVIDE WATER TRUCKS OR SPRINKLER DEVICES DURING CONSTRUCTION AS REQUIRED TO SUPPRESS DUST.
- ONCE CUT/FILL OPERATIONS HAVE BEEN FINALIZED ALL DISTURBED AREAS THAT ARE NOT BEING WORKED ON SHALL BE RE-VEGETATED AS SOON AS IS PRACTICAL.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING A DETAILED WRITTEN RECORD OF ALL EROSION & SEDIMENT CONTROLS ON-SITE DURING THE CONSTRUCTION PERIOD. THIS RECORD SHALL BE UPDATED ON A DAILY BASIS & SHALL CONTAIN DETAILS ON THE CONDITION OF CONTROLS AND ANY/ ALL MAINTENANCE, CLEANING & BREACHES. THIS RECORD SHALL BE KEPT ON-SITE AT ALL TIMES AND SHALL BE MADE AVAILABLE FOR INSPECTION BY THE PRINCIPAL CERTIFYING AUTHORITY AND THE SUPERINTENDENT DURING NORMAL WORKING HOURS.

THE CONTRACTOR SHALL ENSURE COUNCIL ASSETS AND THE UTILITIES ARE PROTECTED AT ALL TIMES. ANY AND ALL DAMAGES TO COUNCIL ASSETS AND/OR UTILITIES SHALL BE REPAIRED BY THE CONTRACTOR TO THE SPECIFICATION OF COUNCIL AND THE UTILITIES AUTHORITY AND AT NO COST TO THE PRINCIPAL OR NORTHPROP CONSULTING ENGINEERS.

SEDIMENT BASIN SIZING CALCULATION

THE SITE IS LOCATED WITHIN THE GOSFORD-LAKE MACQUARIE SOIL LANDSCAPE AND PRIMARILY CONSISTS OF CLAYS, WHICH HAS THE FOLLOWING PROPERTIES (IN ACCORDANCE WITH TABLE C17 OF THE 'BLUE BOOK').

SITE PARAMETERS	
CONSTRAINT	VALUE
SEDIMENT TYPE	D
SOIL HYDROLOGY GROUP	D
K = SOIL ERODIBILITY (K-FACTOR)	0.030
R = RAINFALL EROSIVITY (R-FACTOR)	2569
S = 2 YEAR, 6 HOUR STORM INTENSITY	10.87mm/hr (GOSFORD)
LS = SLOPE LENGTH/GRADIENT	2.37 (100m SLOPE @ 8% GRADE)
P = EROSION CONTROL PRACTICE (P-FACTOR)	1.3 (TYPICAL)
C = GROUND COVER (C-FACTOR)	1.0 (0% GRASS COVER)
A = DISTURBED AREA	0.467 Ha
SOIL LOSS (m ³ /Yr)	85.35m ³ /Yr
SOIL LOSS (RUSLE METHOD) (tonnes/ha/Yr)	237 tonnes/ha/Yr
EROSION HAZARD (TABLE 4.2 BLUE BOOK)	LOW-MODERATE
TOTAL SITE RUN-OFF IS LESS THAN 150m ³ /Yr. BASIN/TANKS NOT REQUIRED.	



NOTE THAT ORIGINAL DRAWING IS IN COLOUR

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REVISION	DESCRIPTION	ISSUED	VER'D	APP'D	DATE
1	DRAFT DEVELOPMENT APPLICATION	KT			21.11.22
A	DEVELOPMENT APPLICATION	KT		DH	02.12.22

CLIENT: THE UNIVERSITY OF NEWCASTLE AUSTRALIA

ARCHITECT: Lyons

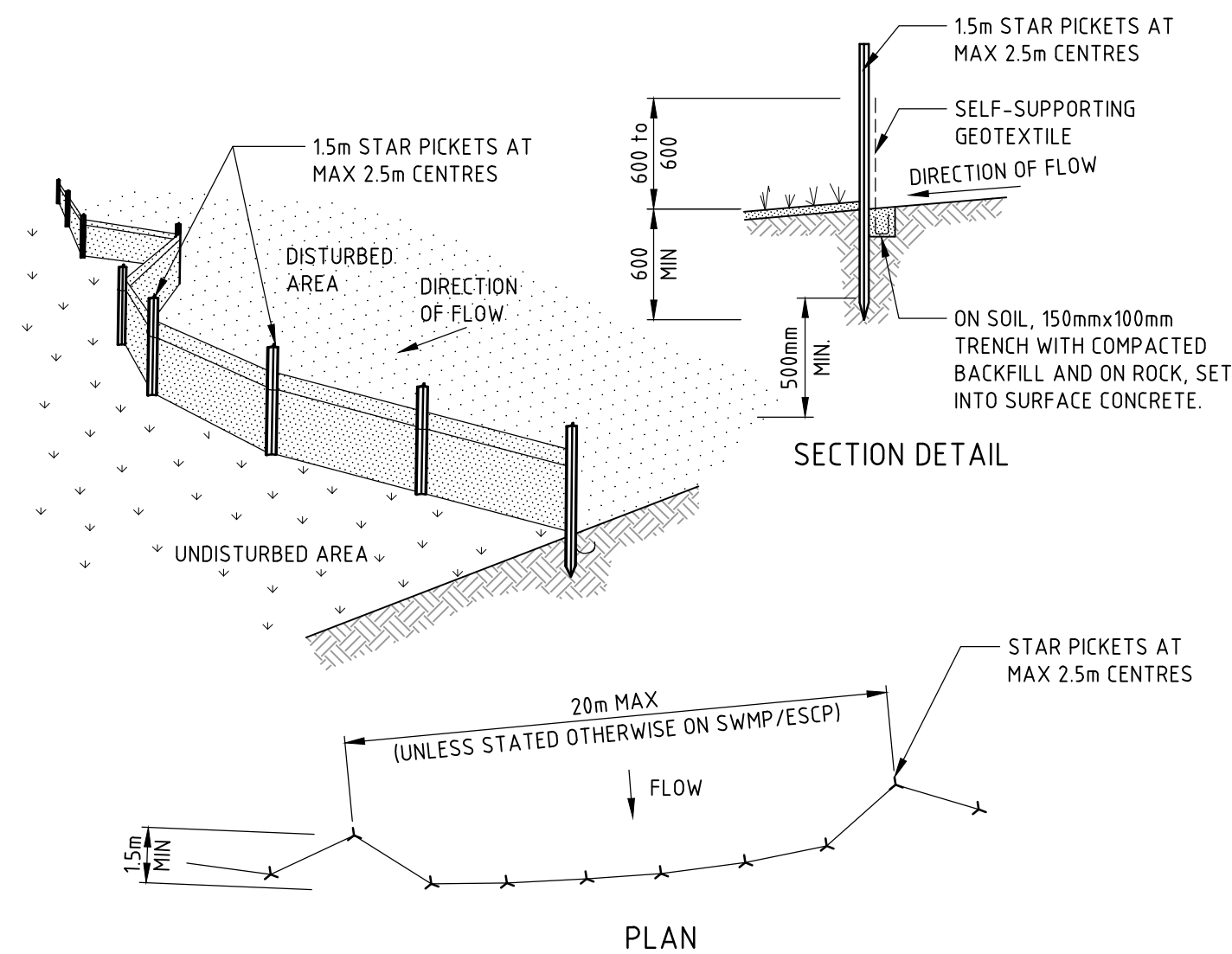
PLANS 1:200@A1

NORTHPROP Central Coast

PROJECT: UNIVERSITY OF NEWCASTLE PROPOSED CENTRAL COAST CAMPUS 305 MANN ST

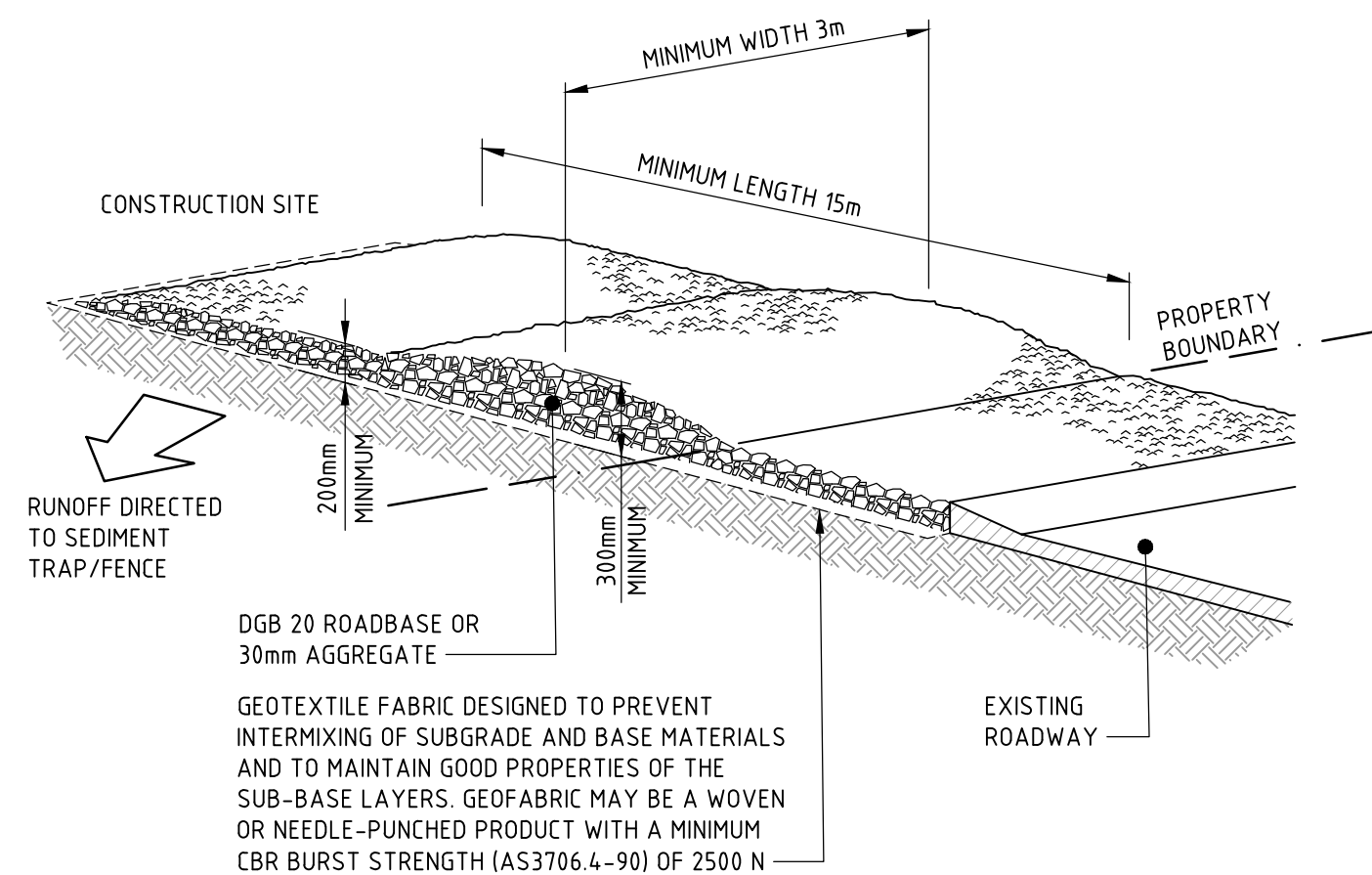
DRAWING TITLE: INTERNAL CIVIL WORKS SOIL & WATER MANAGEMENT PLAN

JOB NUMBER: MB221453



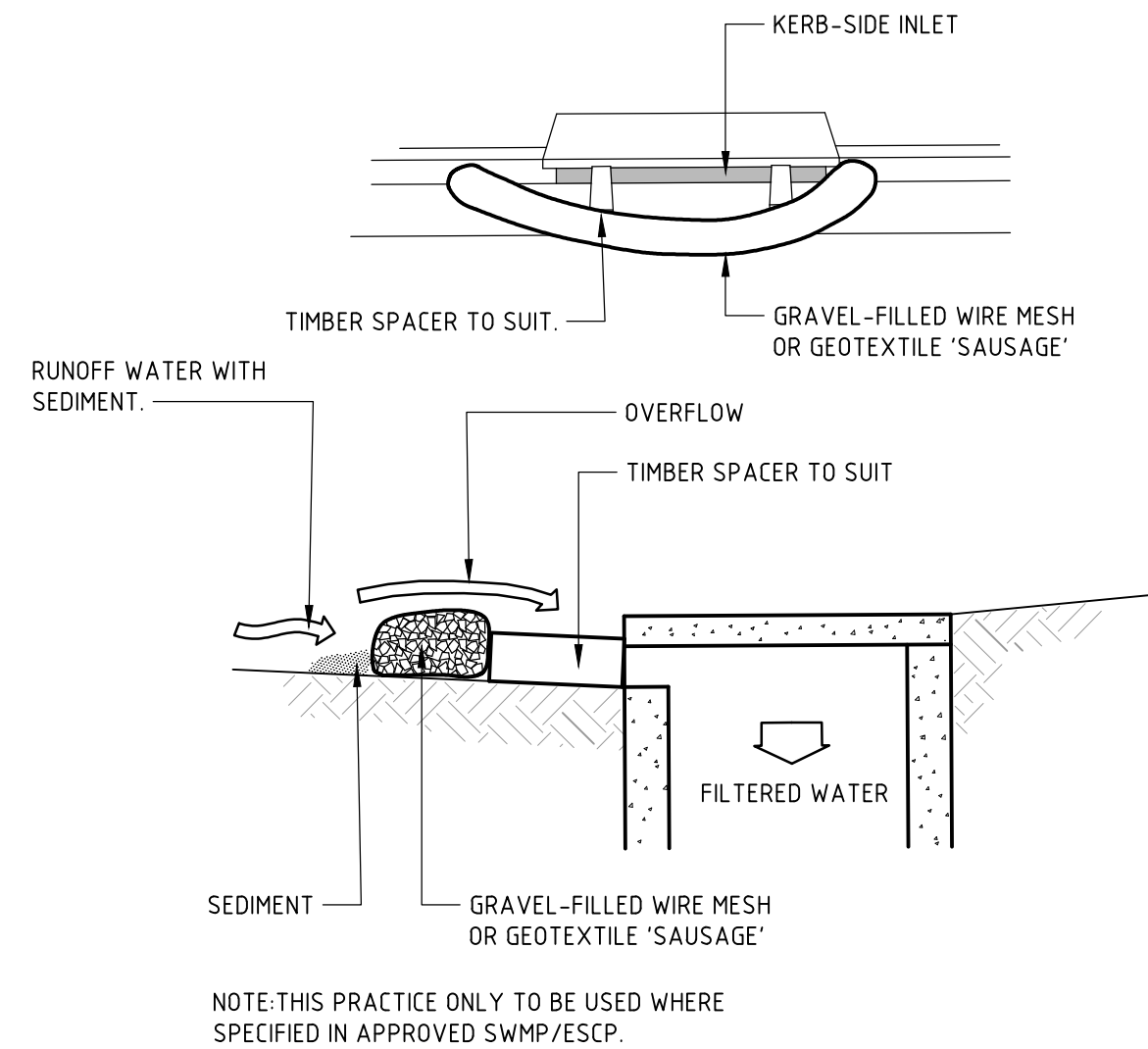
- CONSTRUCTION NOTES**
1. CONSTRUCT SEDIMENT FENCES AS CLOSE AS POSSIBLE TO BEING PARALLEL TO THE CONTOURS OF THE SITE, BUT WITH SMALL RETURNS AS SHOWN IN THE DRAWING TO LIMIT THE CATCHMENT AREA OF ANY ONE SECTION. THE CATCHMENT AREA SHOULD BE SMALL ENOUGH TO LIMIT WATER FLOW IF CONCENTRATED AT ONE POINT TO 50 LITRES PER SECOND IN THE DESIGN STORM EVENT, USUALLY THE 10-YEAR EVENT.
 2. CUT A 150mm DEEP TRENCH ALONG THE UPSLOPE LINE OF THE FENCE FOR THE BOTTOM OF THE FABRIC TO BE ENTRENCHED.
 3. DRIVE 15 METRE LONG STAR PICKETS INTO GROUND AT 2.5 METRE INTERVALS (MAX) AT THE DOWNSLOPE EDGE OF THE TRENCH. ENSURE ANY STAR PICKETS ARE FITTED WITH SAFETY CAPS.
 4. FIX SELF-SUPPORTING GEOTEXTILE TO THE UPSLOPE SIDE OF THE POSTS ENSURING IT GOES TO THE BASE OF THE TRENCH. FIX THE GEOTEXTILE WITH WIRE TIES OR AS RECOMMENDED BY THE MANUFACTURER. ONLY USE GEOTEXTILE SPECIFICALLY PRODUCED FOR SEDIMENT FENCING. THE USE OF SHADE CLOTH FOR THIS PURPOSE IS NOT SATISFACTORY.
 5. JOIN SECTIONS OF FABRIC AT A SUPPORT POST WITH A 150mm OVERLAP.
 6. BACKFILL THE TRENCH OVER THE BASE OF THE FABRIC AND COMPACT IT THOROUGHLY OVER THE GEOTEXTILE.

SEDIMENT FENCE (SD 6-8)



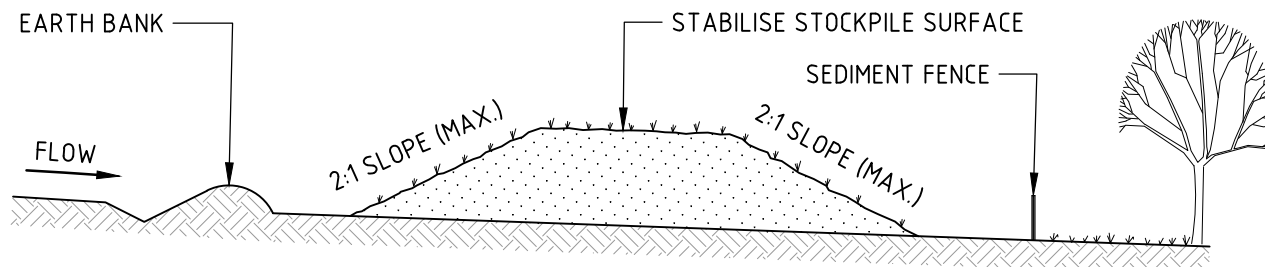
- CONSTRUCTION NOTES**
1. STRIP THE TOPSOIL, LEVEL THE SITE AND COMPACT THE SUBGRADE.
 2. COVER THE AREA WITH NEEDLE-PUNCHED GEOTEXTILE.
 3. CONSTRUCT A 200mm THICK PAD OVER THE GEOTEXTILE USING ROAD BASE OR 30mm AGGREGATE.
 4. ENSURE THE STRUCTURE IS AT LEAST 15 METRES LONG OR TO BUILDING ALIGNMENT AND AT LEAST 3 METRES WIDE.
 5. WHERE A SEDIMENT FENCE JOINS ONTO THE STABILISED ACCESS, CONSTRUCT A HUMP IN THE STABILISED ACCESS TO DIVERT WATER TO THE SEDIMENT FENCE.

STABILISED SITE ACCESS (SD 6-14)



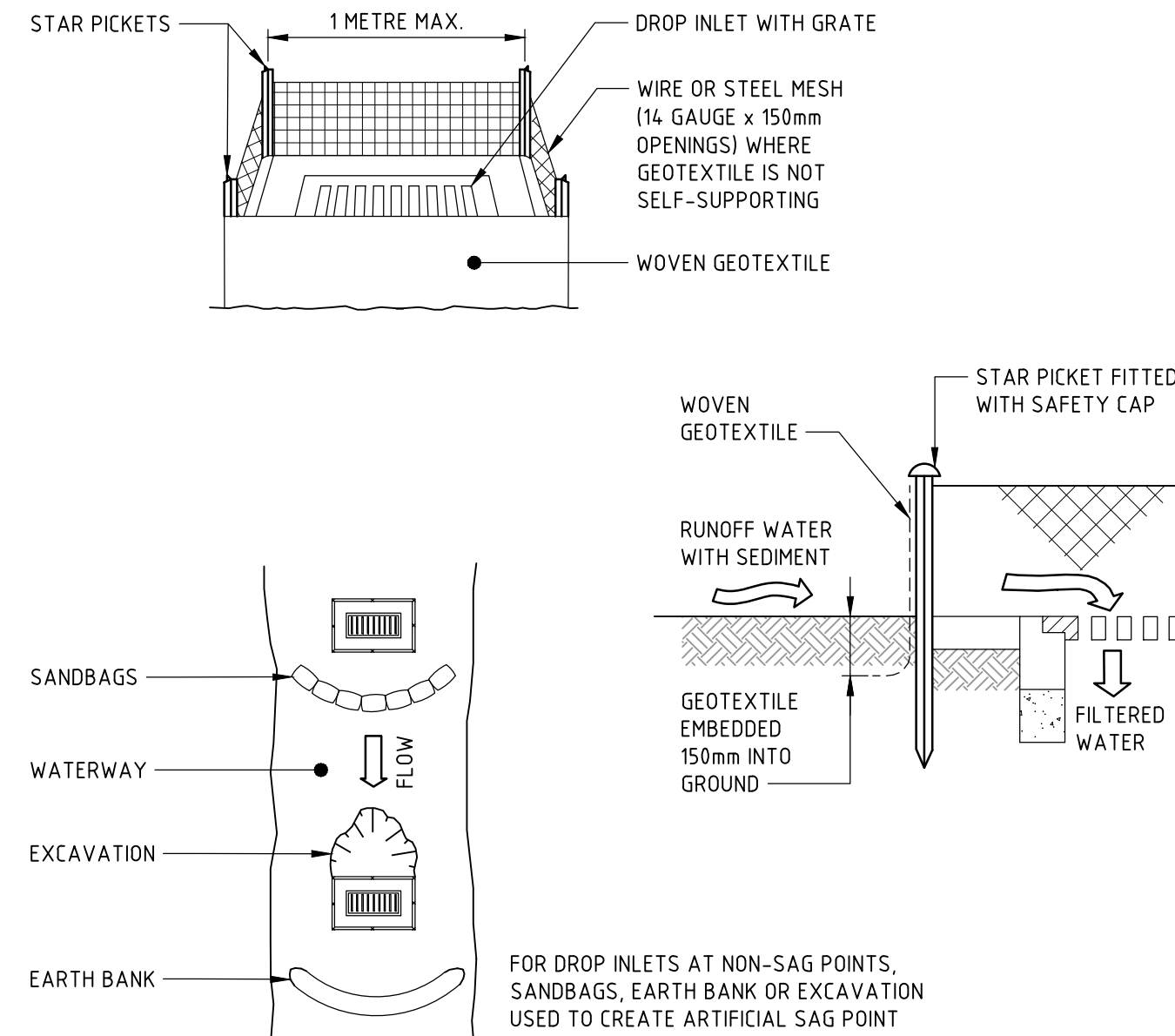
- CONSTRUCTION NOTES**
1. INSTALL FILTERS TO KERB INLETS ONLY AT SAG POINTS.
 2. FABRICATE A SLEEVE MADE FROM GEOTEXTILE OR WIRE MESH LONGER THAN THE LENGTH OF THE INLET PIT AND FILL IT WITH 25mm TO 50mm GRAVEL.
 3. FORM AN ELLIPTICAL CROSS-SECTION ABOUT 150mm HIGH x 400mm WIDE.
 4. PLACE THE FILTER AT THE OPENING LEAVING AT LEAST A 100mm SPACE BETWEEN IT AND THE KERB INLET. MAINTAIN THE OPENING WITH SPACER BLOCKS.
 5. FORM A SEAL WITH THE KERB TO PREVENT SEDIMENT BYPASSING THE FILTER.
 6. SANDBAGS FILLED WITH GRAVEL CAN SUBSTITUTE FOR THE MESH OR GEOTEXTILE PROVIDING THEY ARE PLACED SO THAT THEY FIRMLY ABUT EACH OTHER AND SEDIMENT-LADEN WATERS CANNOT PASS BETWEEN.

MESH AND GRAVEL INLET FILTER (SD 6-11)



- CONSTRUCTION NOTES**
1. PLACE STOCKPILES MORE THAN 2m (PREFERABLY 5m) FROM EXISTING VEGETATION, CONCENTRATED WATER FLOW, ROADS AND HAZARD AREAS.
 2. CONSTRUCT ON THE CONTOUR AS LOW, FLAT, ELONGATED MOUNDS.
 3. WHERE THERE IS SUFFICIENT AREA, TOPSOIL STOCKPILES SHALL BE LESS THAN 2m IN HEIGHT.
 4. WHERE THEY ARE TO BE IN PLACE FOR MORE THAN 10 DAYS, STABILISE FOLLOWING THE APPROVED ESCP OR SWMP TO REDUCE THE C-FACTOR TO LESS THAN 0.10.
 5. CONSTRUCT EARTH BANKS (STANDARD DRAWING 5-5) ON THE UPSLOPE SIDE TO DIVERT WATER AROUND STOCKPILES AND SEDIMENT FENCES (STANDARD DRAWING 6-8) 1 TO 2m DOWNSLOPE.

STOCKPILES (SD 4-1)



- CONSTRUCTION NOTES**
1. FABRICATE A SEDIMENT BARRIER MADE FROM GEOTEXTILE OR STRAW BALES.
 2. FOLLOW STANDARD DRAWING 6-7 AND STANDARD DRAWING 6-8 FOR INSTALLATION PROCEDURES FOR THE STRAW BALES OR GEOFABRIC. REDUCE THE PICKET SPACING TO 1 METRE CENTRES.
 3. IN WATERWAYS, ARTIFICIAL SAG POINTS CAN BE CREATED WITH SANDBAGS OR EARTH BANKS AS SHOWN IN THE DRAWING.
 4. DO NOT COVER THE INLET WITH GEOTEXTILE UNLESS THE DESIGN IS ADEQUATE TO ALLOW FOR ALL WATERS TO BYPASS IT.

GEOTEXTILE INLET FILTER (SD 6-12)



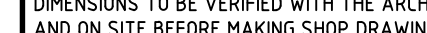


Department of Planning
and Environment

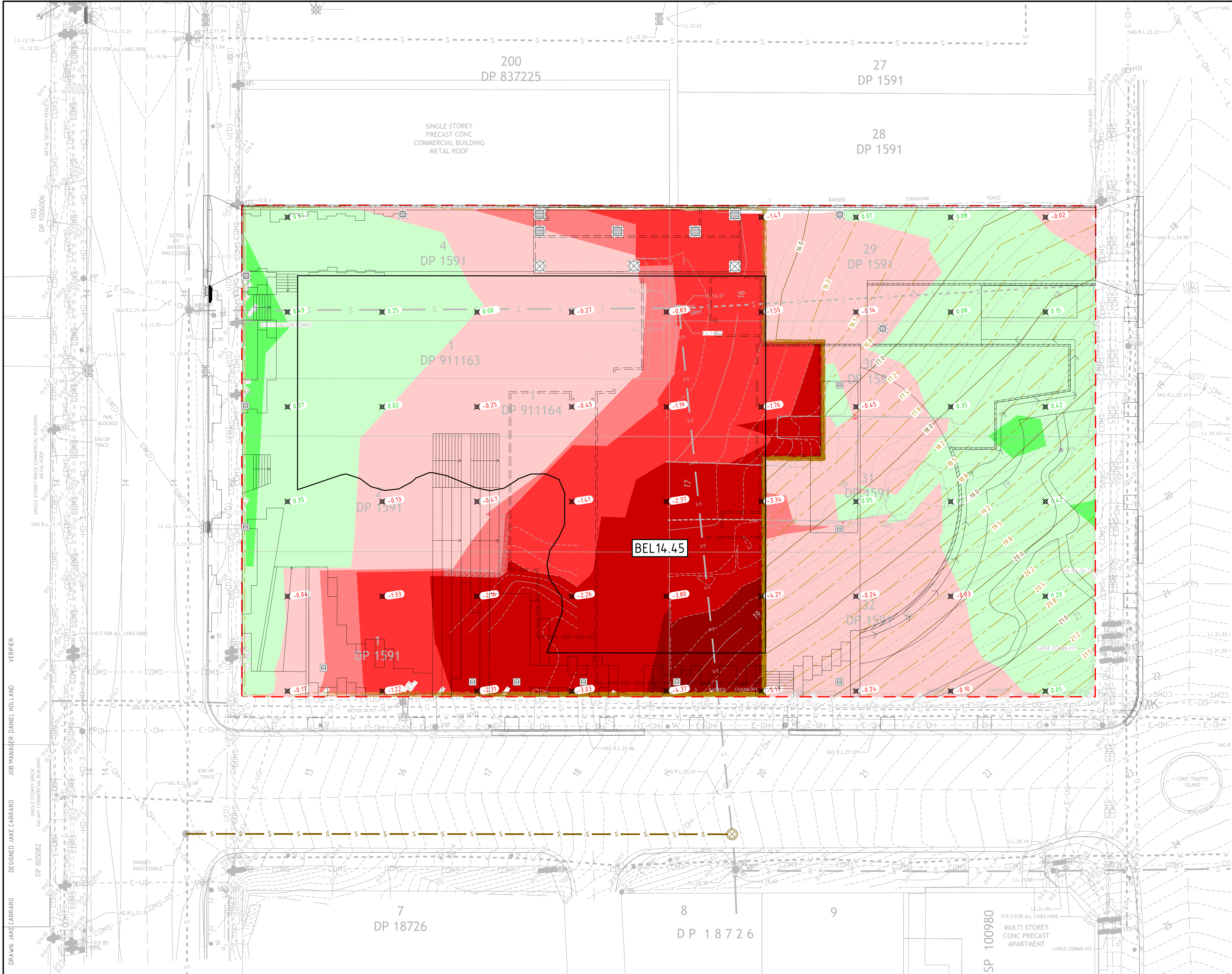
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1		DRAFT DEVELOPMENT APPLICATION	KT			21.11.22					Central Coast Suite 4, 257-259 Central Coast Hwy, Erina NSW 2250 Ph (02) 4365 1668 Fax (02) 4367 6555 Email centralcoast@northrop.com.au ABN 81 094 433 100	UNIVERSITY OF NEWCASTLE PROPOSED CENTRAL COAST CAMPUS 305 MANN ST	INTERNAL CIVIL WORKS SOIL & WATER MANAGEMENT DETAILS	MB221453	
A		DEVELOPMENT APPLICATION	KT		DH	02.12.22								DRAWING NUMBER	REVISION
														C2.2	A
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BULK EARTHWORKS PLAN

- 20--- DENOTES EXISTING CONTOUR LINES
- 16.0--- DENOTES BULK EARTHWORKS SURFACE CONTOUR LINES
- ✕ 0.35 DENOTES DEPTH OF PROPOSED CUT (-VE) OR FILL (+VE)
- BEL14.450 DENOTES BULK EARTHWORKS LEVEL

Surface Analysis: Elevation Ranges				
Number	Color	Minimum Elevation (m)	Maximum Elevation (m)	Volume (m3)
1	Red	-6.000	-4.000	38.8
2	Red	-4.000	-2.000	691.8
3	Red	-2.000	-1.000	925.9
4	Red	-1.000	-0.500	678.4
5	Red	-0.500	0.000	1084.8
6	Green	0.000	0.500	349.4
7	Green	0.500	1.000	3.2
8	Green	1.000	1.500	0.0

BULK EARTHWORKS NOTES

- BULK EARTHWORKS LEVELS SHOWN ARE BASED ON THE FOLLOWING ALLOWANCES:
 - DESIGN SURFACE LOWERED TO ACCOUNT FOR BUILDING SLAB, PAVEMENT LAYERS, LANDSCAPE MATERIAL ETC
 - EXISTING SURFACE LOWERED (SITE STRIP)
- BULKING FACTORS OF 10 WAS USED FOR BOTH CUT AND FILL MATERIAL.
- THE APPROXIMATE SITE EARTHWORKS VOLUMES BASED ON THE NOTED ALLOWANCES ARE OUTLINED BELOW:
 - CUT: 3,420m³
 - FILL: 353m³
 - NET: 3,067m³ (CUT)
- THE APPROXIMATE ALLOWANCE VOLUMES FOR EXISTING SITE STRIPPING ARE OUTLINED BELOW:
 - EXISTING SURFACE LOWERED CUT: 696m³
- THE ABOVE VOLUMES ARE TO BE ASSESSED NOTING THE FOLLOWING:
 - NO ALLOWANCE HAS BEEN MADE FOR DETAILED EXCAVATIONS SUCH AS DRIVEWAY, FOOTINGS, SET DOWNS, SERVICES TRENCHING, OSD ETC
 - NO ALLOWANCE HAS BEEN MADE FOR TEMPORARY CONSTRUCTION PLATFORMS OR RETAINING WALL BACK FILL
- THIS PLAN HAS BEEN PREPARED FOR INFORMATION PURPOSES ONLY AND IS INDICATIVE IN NATURE.



Department of Planning and Environment

Issued under the Environmental Planning and Assessment Act 1979
Approved Application No: SSD 47749715

Granted on: 28 July 2023
Signed: AW Sheet No: 74 of 81

NOTE THAT ORIGINAL DRAWING IS IN COLOUR




NOT FOR CONSTRUCTION

REVISION	DESCRIPTION	ISSUED	VER'D	APP'D	DATE
1	DRAFT DEVELOPMENT APPLICATION	JC			21.11.22
A	DEVELOPMENT APPLICATION	JC		DH	02.12.22




THE UNIVERSITY OF
NEWCASTLE
AUSTRALIA

DRAWING NOT TO BE USED FOR CONSTRUCTION UNLESS VERIFICATION SIGNATURE HAS BEEN ADDED



ARCHITECT

THE COPYRIGHT OF THIS DRAWING REMAINS WITH NORTHROP CONSULTING ENGINEERS PTY LTD.



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PLANS 1:200@A1 0 2 4 6 8 10m



NORTHROP
Central Coast
Suite 4, 257-259 Central Coast Hwy, Erina NSW 2250
Ph (02) 4365 1668 Fax (02) 4367 6555
Email centralcoast@northrop.com.au ABN 81 094 433 100

PROJECT

UNIVERSITY OF NEWCASTLE
PROPOSED CENTRAL COAST CAMPUS
305 MANN ST

DRAWING TITLE

INTERNAL CIVIL WORKS
BULK EARTHWORKS PLAN

JOB NUMBER

MB221453

DRAWING NUMBER

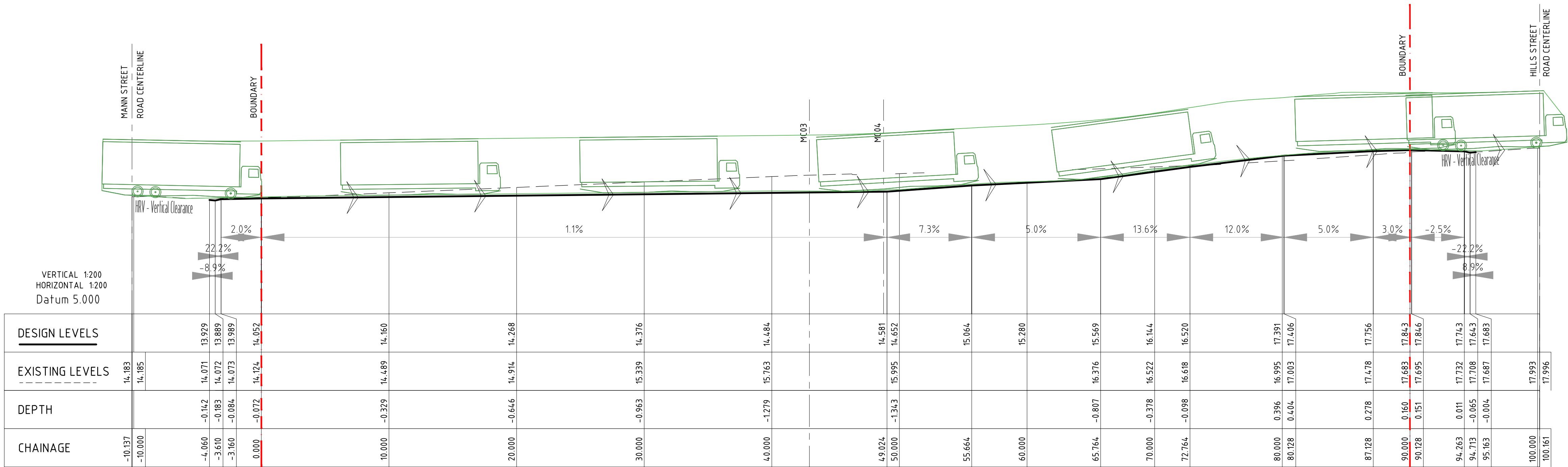
C3.1

REVISION

A

DRAWING SHEET SIZE = A1

DESIGNED: JAKE CARRARO
JOB MANAGER: DANIEL HOLLAND
VERIFIER:
DRAWN: KATHLEEN TURTON

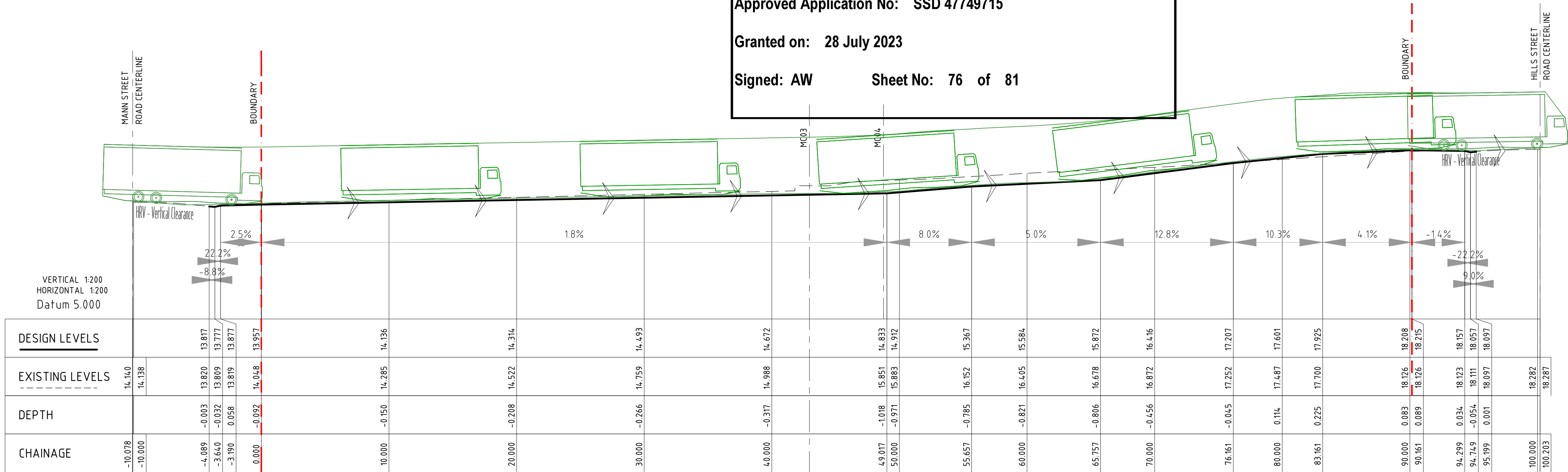


Department of Planning
and Environment

Issued under the Environmental Planning and Assessment Act 1979
Approved Application No: SSD 47749715

Granted on: 28 July 2023

Signed: AW Sheet No: 76 of 81



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REVISION	DESCRIPTION	ISSUED	VER'D	APP'D	DATE
1	DRAFT DEVELOPMENT APPLICATION	KT			21.11.22
A	DEVELOPMENT APPLICATION	KT		DH	02.12.22

CLIENT

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AUSTRALIA

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SIGNATURE HAS BEEN ADDED

ARCHITECT

Lyons

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VERT 1:200@A1 0 2 4 6 8 10m
HORIZ 1:200@A1 0 2 4 6 8 10m

NORTHROP

Central Coast

Suite 4, 257-259 Central Coast Hwy, Erina NSW 2250
Ph (02) 4365 1668 Fax (02) 4367 6555
Email centralcoast@northrop.com.au ABN 81 094 433 100

PROJECT

UNIVERSITY OF NEWCASTLE
PROPOSED CENTRAL COAST CAMPUS
305 MANN ST

DRAWING TITLE

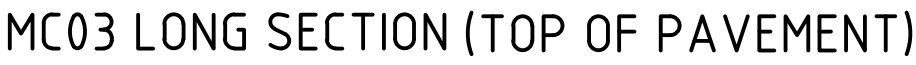
INTERNAL CIVIL WORKS
LONG SECTIONS
SHEET 1

JOB NUMBER
MB221453

DRAWING NUMBER
C4.10

REVISION
A

DRAWING SHEET SIZE = A1





NSW
GOVERNMENT




Department of Planning
and Environment



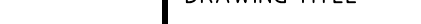


Issued under the Environmental Planning and Assessment Act 1979

Approved Application No: SSD 47749715

Granted on: 28 July 2023

Signed: AW Sheet No: 77 of 81



REVISION	DESCRIPTION	ISSUED	VER'D	APP'D	DATE	CLIENT	ARCHITECT		PROJECT	DRAWING TITLE	JOB NUMBER
A	DEVELOPMENT APPLICATION	KT		DH	02.12.22	 THE UNIVERSITY OF NEWCASTLE AUSTRALIA	 LYONS	 Central Coast Suite 4, 257-259 Central Coast Hwy, Erina NSW 2250 Ph (02) 4365 1668 Fax (02) 4367 6555 Email centralcoast@northrop.com.au ABN 81 094 433 100	UNIVERSITY OF NEWCASTLE PROPOSED CENTRAL COAST CAMPUS 305 MANN ST	INTERNAL CIVIL WORKS LONG SECTIONS SHEET 2	MB221453
						DRAWING NOT TO BE USED FOR CONSTRUCTION UNLESS VERIFICATION SIGNATURE HAS BEEN ADDED	THE COPYRIGHT OF THIS DRAWING REMAINS WITH NORTHROP CONSULTING ENGINEERS PTY LTD.	<div>VERT 1:200@A1 0 2 4 6 8 10m</div> <div>HORIZ 1:200@A1 0 2 4 6 8 10m</div>			<div>DRAWING NUMBER C4.11</div> <div>REVISION A</div> <div>DRAWING SHEET SIZE = A1</div>

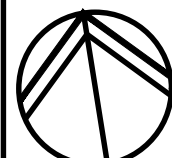

REVISION	DESCRIPTION	ISSUED	VER'D	APP'D	DATE	CLIENT	ARCHITECT	SCALE	PROJECT	DRAWING TITLE	JOB NUMBER				
1	DRAFT DEVELOPMENT APPLICATION	KT			21.11.22			 <div>Central Coast Suite 4, 257-259 Central Coast Hwy, Erina NSW 2250 Ph (02) 4365 1668 Fax (02) 4367 6555 Email centralcoast@northrop.com.au ABN 81 094 433 100</div>	UNIVERSITY OF NEWCASTLE PROPOSED CENTRAL COAST CAMPUS 305 MANN ST	INTERNAL CIVIL WORKS CIVIL DETAILS SHEET 1	MB221453				
A	DEVELOPMENT APPLICATION	KT		02.12.22											DRAWING NUMBER C10.1
						DRAWING NOT TO BE USED FOR CONSTRUCTION UNLESS VERIFICATION SIGNATURE HAS BEEN ADDED	THE COPYRIGHT OF THIS DRAWING REMAINS WITH NORTHROP	DETAILS: 1:20@A1  DETAILS: 1:10@A1 			DRAWING SHEET SIZE = A1				

VERIFIER
JOB MANAGER DANIEL HOLLAND
DESIGNED JAKE CARRARO
DRAWN TIMOTHY SMALL

REVISION	DESCRIPTION	ISSUED	VER'D	APP'D	DATE
1	FOR INFORMATION DESIGN DEVELOPMENT	KT			31.03.23
2	50% DESIGN DEVELOPMENT	TS			14.04.23
3	90% DESIGN DEVELOPMENT	TS			02.05.23
4	FOR TENDER	TS		DH	12.05.23
5	REVISED FOR TENDER	TS			24.05.23

CLIENT	ARCHITECT
 THE UNIVERSITY OF NEWCASTLE AUSTRALIA	 Lyons

ARCHITECT	CLIENT
 NORTHROP Central Coast Suite 4, 257-259 Central Coast Hwy, Erina NSW 2250 Ph (02) 4365 1668 Fax (02) 4367 6555 Email centralcoast@northrop.com.au ABN 81 094 433 100	 THE UNIVERSITY OF NEWCASTLE AUSTRALIA

ARCHITECT	CLIENT
 NORTHROP Central Coast Suite 4, 257-259 Central Coast Hwy, Erina NSW 2250 Ph (02) 4365 1668 Fax (02) 4367 6555 Email centralcoast@northrop.com.au ABN 81 094 433 100	 THE UNIVERSITY OF NEWCASTLE AUSTRALIA

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 NORTHROP Central Coast Suite 4, 257-259 Central Coast Hwy, Erina NSW 2250 Ph (02) 4365 1668 Fax (02) 4367 6555 Email centralcoast@northrop.com.au ABN 81 094 433 100	 THE UNIVERSITY OF NEWCASTLE AUSTRALIA

PROJECT	DRAWING TITLE
UNIVERSITY OF NEWCASTLE PROPOSED CENTRAL COAST CAMPUS 305 MANN ST	INTERNAL CIVIL WORKS WATER CYCLE MANAGEMENT & LEVELS PLAN - SHEET 2

JOB NUMBER	DRAWING NUMBER	REVISION
MB221453	C_GOA_DWG_	5
DRAWING SHEET SIZE = A1		



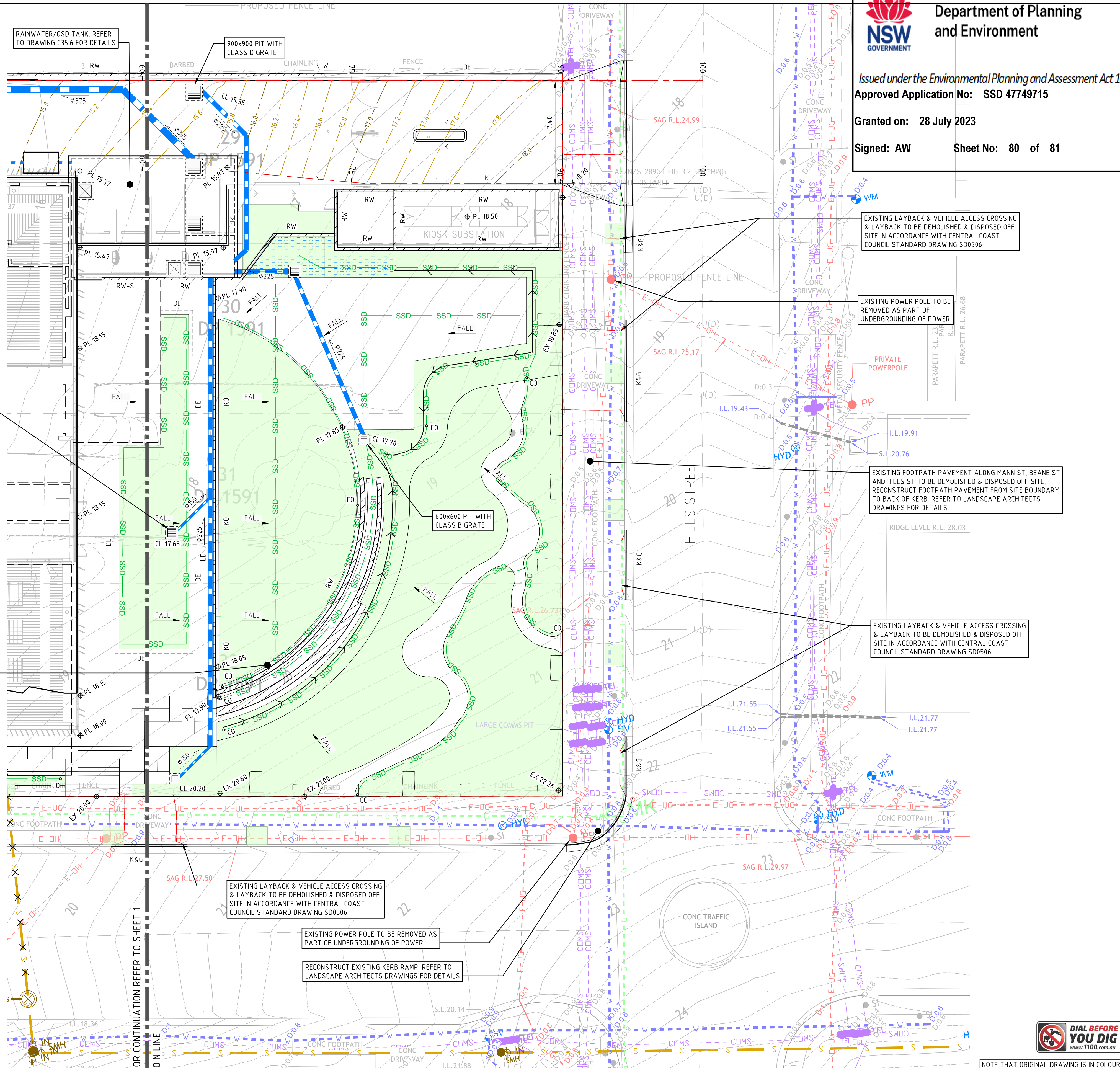
Department of Planning
and Environment

Issued under the Environmental Planning and Assessment Act 1979
Approved Application No: SSD 47749715




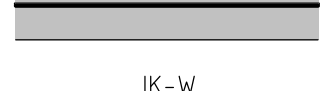
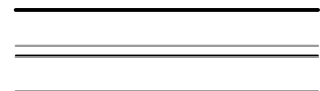
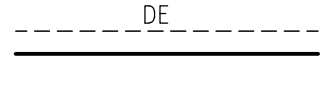
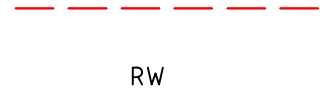

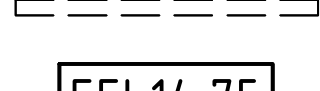
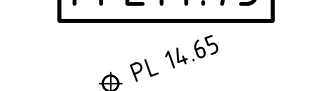
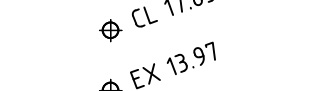


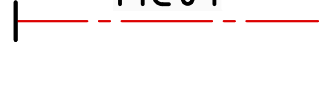
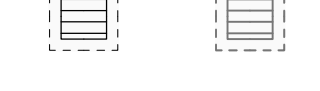

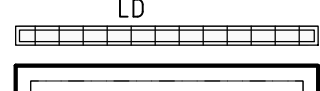
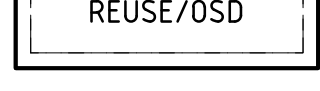
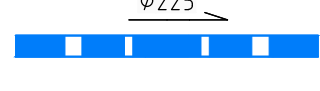
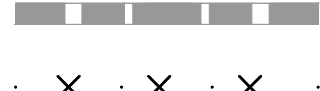


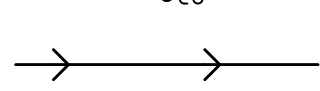
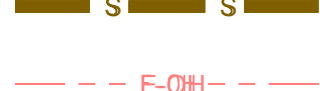

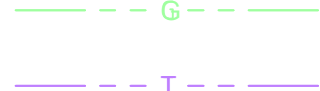
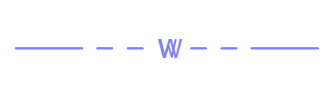
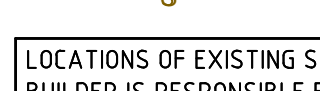
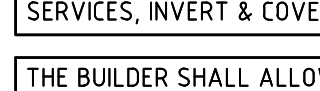
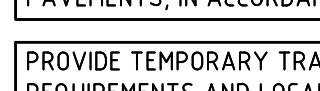

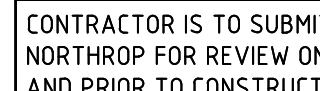
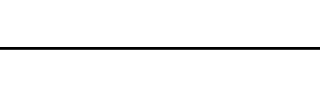


Granted on: 28 July 2023

Signed: AW

Sheet No: 80 of 81



LEGEND

	DENOTES SITE BOUNDARY LINE
	DENOTES LANDSCAPING EXTENTS, REFER TO LANDSCAPE ARCHITECTS DRAWINGS FOR DETAILS
	DENOTES RAIN GARDEN EXTENTS, REFER TO DETAIL
	DENOTES BARRIER KERB & CHANNEL IN ACCORDANCE WITH CENTRAL COAST COUNCIL STANDARD DRAWING SD0501
	DENOTES WIDE INTEGRAL KERB
	DENOTES EXISTING BARRIER KERB & CHANNEL TO BE RETAINED
	DENOTES DROP EDGE, REFER TO DETAIL
	DENOTES EXISTING KERB/PAVEMENT/STRUCTURE TO BE DEMOLISHED & DISPOSED OFF SITE, REFER TO ARCHITECTURAL DRAWINGS FOR DETAILS
	DENOTES RETAINING WALL, REFER TO DETAIL
	DENOTES STRUCTURAL RETAINING WALL OVER, REFER TO STRUCTURAL ENGINEERS DRAWINGS FOR DETAILS
	DENOTES STRUCTURAL RETAINING WALL UNDER, REFER TO STRUCTURAL ENGINEERS DRAWINGS FOR DETAILS
	DENOTES PROPOSED FINISHED FLOOR LEVEL
	DENOTES PROPOSED FINISHED SURFACE LEVEL
	DENOTES PROPOSED COVER LEVEL
	DENOTES EXISTING SURFACE LEVEL
	DENOTES EXISTING CONTOURS
	DENOTES DESIGN CONTOURS
	DENOTES ALIGNMENT CONTROL LINE & CHAINAGE, REFER TO LONG SECTION
	DENOTES STORMWATER PIT (NEW / EXISTING). NOTE: ALL SURFACE INLET PITS IN TRAFFICABLE AREAS TO BE FITTED WITH ENVIROPOD FILTER INSERTS OR APPROVED EQUIVALENT. INSERTS TO BE INSTALLED & MAINTAINED IN ACCORDANCE WITH MANUFACTURERS SPECIFICATION. NOTE: ON-GRADE PITS ARE TO HAVE GRATES SET ON-GRADE TO MATCH SURFACE GRADING.
	DENOTES KERB INLET PIT (NEW / EXISTING)
	DENOTES LINEAR DRAIN, REFER TO DETAIL
	DENOTES BELOW GROUND 48KL REUSE / 22KL ON-SITE DETENTION TANK, REFER TO DETAIL
	DENOTES STORMWATER LINE & SIZE, LAID AT 1% MIN LONGITUDINAL GRADE WITH 300mm MIN COVER
	DENOTES EXISTING STORMWATER PIPE TO BE RETAINED
	DENOTES EXISTING SERVICE TO BE REMOVED/ABANDONED/DEMOLISHED & DISPOSED OFF SITE
	DENOTES #100 SUBSOIL DRAINAGE LINE WITH NON-WOVEN GEOTEXTILE FILTER SOCK SURROUND LAID AT MIN 1% LONGITUDINAL GRADE & CONNECTED TO NEAREST STORMWATER PIT. PROVIDE uPVC S88 FOR SUBSOIL DRAINAGE LINES UNDER PAVEMENT
	DENOTES SUBSOIL DRAINAGE CLEAROUT, REFER TO DETAIL
	DENOTES DRAINAGE SWALE AND DIRECTION OF FALL
	PROPOSED SEWER DIVERSION
	DENOTES APPROXIMATE LOCATION OF EXISTING (OVERHEAD) ELECTRICITY LINE
	DENOTES APPROXIMATE LOCATION OF EXISTING (UNDERGROUND) ELECTRICITY LINE
	DENOTES APPROXIMATE LOCATION OF EXISTING GAS MAIN
	DENOTES APPROXIMATE LOCATION OF EXISTING TELECOMMUNICATION LINE
	DENOTES APPROXIMATE LOCATION OF EXISTING WATER MAIN
	DENOTES APPROXIMATE LOCATION OF EXISTING SEWER MAIN

LOCATIONS OF EXISTING SERVICES ARE APPROXIMATE ONLY & MAY NOT BE COMPLETE. THE BUILDER IS RESPONSIBLE FOR LOCATING EXISTING INFRASTRUCTURE (CULVERTS, PITS, PIPES, SERVICES, INVERT & COVER LEVELS ETC) PRIOR TO COMMENCING CONSTRUCTION.

THE BUILDER SHALL ALLOW TO MODIFY ALL EXISTING SERVICE COVERS TO MATCH THE NEW PAVEMENTS, IN ACCORDANCE WITH THE RELEVANT AUTHORITIES REQUIREMENTS.

PROVIDE TEMPORARY TRAFFIC CONTROL IN ACCORDANCE WITH STATE & FEDERAL STATUTORY REQUIREMENTS AND LOCAL COUNCIL SPECIFICATIONS/REQUIREMENTS

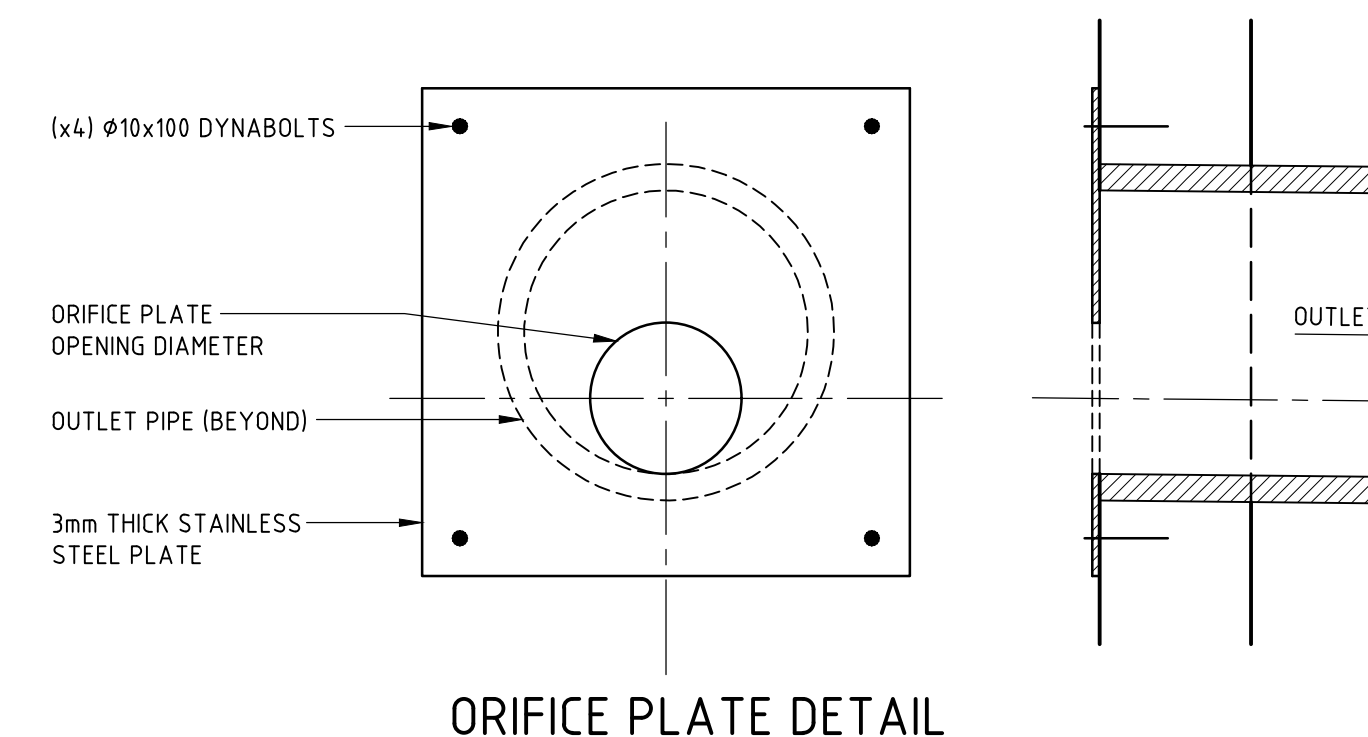
NOTE: ALL LEVELS TO AUSTRALIAN HEIGHT DATUM (AHD). ORIGIN OF LEVELS PM 33788, RL 19.345

CONTRACTOR IS TO SUBMIT STORMWATER WORK-AS EXECUTED DRAWINGS TO NORTHROP FOR REVIEW ON COMPLETION OF CONSTRUCTION OF STORMWATER SYSTEM AND PRIOR TO CONSTRUCTION OF BUILDING FOUNDATIONS AND PAVEMENTS

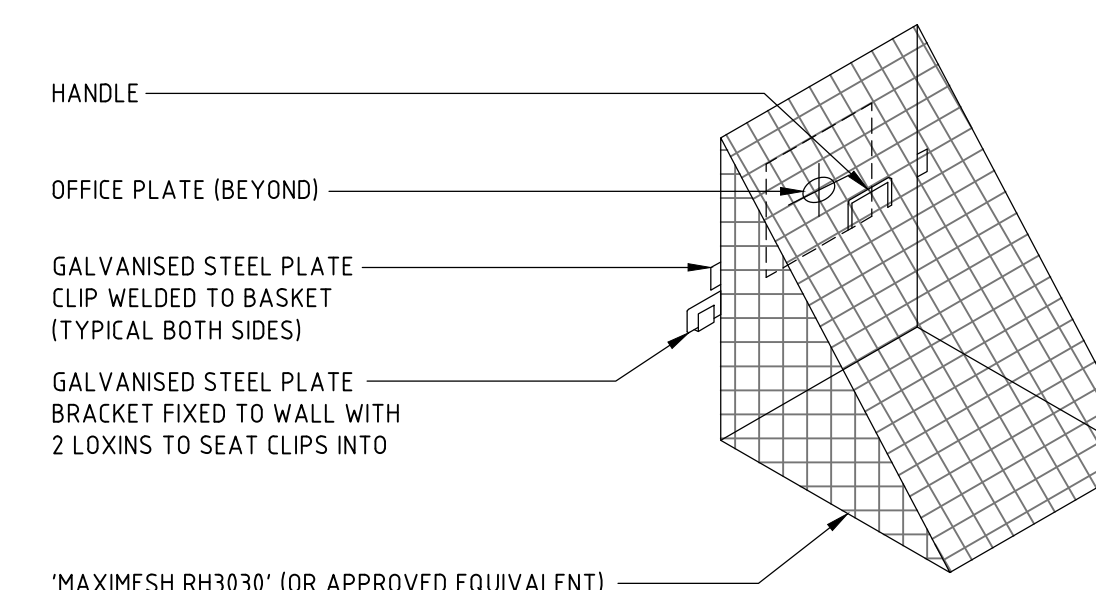


NOTE THAT ORIGINAL DRAWING IS IN COLOUR

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ORIFICE PLATE DETAIL



TRASH SCREEN DETAIL



Approved Application No: SSD 47749715

Granted on: 28 July 2023

Signed: AW **Sheet No: 81 of 81**



NOTE: REFER TO STRUCTURAL ENGINEERS
DRAWINGS FOR TANK STRUCTURE DETAILS

JOB NUMBER	
MB221453	
DRAWING NUMBER	REVISION
C_GOA_DWG_	
C35.6	1
DRAWING SHEET SIZE - A1	

NOT FOR CONSTRUCTION

DRAWN: KATHLEEN TURTON
DESIGNED: JAKE CARRARO
JOB MANAGER: DANIEL HOLLAND
VERIFIER: