# ACCESS LOGISTICS PARK 884-928 MAMRE ROAD, KEMPS CREEK, NSW, 2178 CIVIL DRAWINGS FOR DETAIL DESIGN

DRAWING LIST

DRAWING NO. DRAWING TITLE

GENERAL

## EARTHWORKS PLANS

CUT/FILL BULK EARTHWORKS PLAN BULK EARTHWORKS PLAN - SHEET 1 BULK EARTHWORKS PLAN - SHEET 2 BULK EARTHWORKS SECTIONS - SHEET 1 BULK EARTHWORKS SECTIONS - SHEET 2

## INFRASTRUCTURE DRAINAGE

STORMWATER DRAINAGE MASTER PLAN STORMWATER DRAINAGE PLAN - SHEET 1 CO14021.05-C402 STORMWATER DRAINAGE PLAN - SHEET 2 STORMWATER DRAINAGE PLAN - SHEET 3

CO14021.05-C410 PIT SCHEDULE

PRE DEVELOPMENT STORMWATER CATCHMENT PLAN POST DEVELOPMENT STORMWATER CATCHMENT PLAN

WATER SENSITIVE URBAN DESIGN MANAGEMENT PLAN INFRASTRUCTURE CATCHMENT PLAN

OSD BASIN 1 PLAN OSD BASIN 2 PLAN CO14021.05-C432

OSD BASIN 3 PLAN SYDNEY WATER DRAINAGE CHANNEL PLAN

STORMWATER DRAINAGE DETAILS - SHEET 1 CO14021.05-C451 STORMWATER DRAINAGE DETAILS - SHEET 2 STORMWATER DRAINAGE DETAILS - SHEET 3 STORMWATER DRAINAGE DETAILS - SHEET 4 STORMWATER DRAINAGE DETAILS - SHEET 5

STORMWATER DRAINAGE DETAILS - SHEET 6 CO14021.05-C456 OFFLINE GPT R1 DETAILS

OFFLINE GPT R2 DETAILS

CO14021.05-C570 ROADWORKS DETAILS

DATE ISSUE AMENDMENTS

OFFLINE GPT R3 DETAILS CO14021.05-C463 STORMWATER DRAINAGE LONG SECTIONS - SHEET 1 STORMWATER DRAINAGE LONG SECTIONS - SHEET 2

CO14021.05-C473 STORMWATER DRAINAGE LONG SECTIONS - SHEET 3

ROADWORKS MASTER PLAN

## ROADWORKS

ROADWORKS PLAN - SHEET 1 ROADWORKS PLAN - SHEET 2 CO14021.05-C502 ROADWORKS PLAN - SHEET 3 ROADWORKS PAVEMENT PLAN C014021.05 - C510ROADWORKS LONG SECTIONS ESTATE ROAD - SHEET 1 ROADWORKS LONG SECTIONS ESTATE ROAD - SHEET 2 CO1402105-C541 KFRB RETURN PLAN - ROAD 2 CO14021.05-C542 KERB RETURN PLAN - ROAD 1 & 3 KERB RETURN SECTIONS - ROAD 1 & 3 KERB RETURN PLAN & SECTION - ROAD 3 CO14021.05-C550 ROADWORKS TYPICAL SECTIONS ROAD CROSS-SECTIONS - SHEET 1 CO14021.05-C561 ROAD CROSS-SECTIONS - SHEET 2 ROAD CROSS-SECTIONS - SHEET 3 ROAD CROSS-SECTIONS - SHEET 4 ROAD CROSS-SECTIONS - SHEET 5 CO14021.05-C565 ROAD CROSS-SECTIONS - SHEET 6

DRAWING LIST (CONTINUED)

## RETAINING WALLS

RETAINING WALL SETOUT PLAN TYPICAL SECTION - SHEET 1 TYPICAL SECTION - SHEET 2 TYPICAL SECTION - SHEET 3 RETAINING WALL ELEVATIONS RETAINING WALL DETAILS - SHEET 1 RETAINING WALL DETAILS - SHEET 2 RETAINING WALL DETAILS - SHEET 3 RETAINING WALL DETAILS - SHEET 4 PILE WALL DETAILS - SHEET 1

## LINEMARKING & SIGNAGE

CO14021.05-C800 LINEMARKING & SIGNAGE MASTER PLAN LINEMARKING & SIGNAGE PLAN - SHEET 1 CO14021.05-C802 LINEMARKING & SIGNAGE PLAN - SHEET 2 CO14021.05-C803 LINEMARKING & SIGNAGE PLAN - SHEET 3

PILE WALL DETAILS - SHEET 2

## **GENERAL NOTES:**

- URRENT STANDARDS AUSTRALIA CODES AND WITH THE BY-LAWS AND ORDINANCES OF THE RELEVANT BUILDING AUTHORITIES EXCEPT WHERE VARIED BY THE PROJECT

- ALL WORKS SHALL BE UNDERTAKEN IN ACCORDANCE WITH ACCEPTABLE SAFETY STANDARDS & APPROPRIATE SAFETY SIGNS SHALL BE INSTALLED AT ALL TIMES DURING THE PROGRESS OF THE JOB.
- ALL WORKS TO BE COMPLETED IN ACCORDANCE WITH THE NSW DPE DEVELOPMENT CONSENT SSD-17647189.
- ALL CONSTRUCTION WORKS TO BE COMPLETED IN ACCORDANCE WITH THE MAMRE ROAD
- 9. 9. ALL PUBLIC DOMAIN WORKS TO BE COMPLETED IN ACCORDANCE WITH THE RELEVANT AUTHORITY REQUIREMENTS. ALL INTERNAL ROADS, AND ASSOCIATED INFRASTRUCTURE TO PENRITH CITY COUNCIL REQUIREMENTS INCLUDING THE LATEST CONSTRUCTION SPECIFICATION.

## **EXISTING SERVICES NOTES:**

- DURING THE EXECUTION OF WORKS, THE CONTRACTOR SHALL MAINTAIN THE INTEGRITY OF EXISTING SERVICES. THE CONTRACTOR SHALL REPAIR ANY DAMAGE CAUSED TO THE EXISTING SERVICES TO THE SATISFACTION OF THE SUPERINTENDENT AND THE RELEVANT SERVICE AUTHORITY, AT NO COST TO THE PRINCIPAL
- WHERE IT IS NECESSARY TO REMOVE, DIVERT OR CUT INTO ANY EXISTING SERVICE, THE CONTRACTOR SHALL GIVE AT LEAST THREE (3) DAYS NOTICE OF ITS REQUIREMENTS TO THE SUPERINTENDENT, WHO WILL ADVISE WHAT ARRANGEMENTS SHOULD BE MADE FOR THE ALTERATION OF SUCH EXISTING WORKS.
- EXISTING SERVICES HAVE BEEN PLOTTED FROM SUPPLIED DATA. THE ACCURACY IS NOT GUARANTEED. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ESTABLISH THE LOCATION AND LEVEL OF ALL EXISTING SERVICES PRIOR TO COMMENCING WORK. ALL CLEARANCES AND APPROVALS SHALL ALSO BE OBTAINED FROM THE RELEVANT SERVICE AUTHORITY PRIOR TO THE COMMENCEMENT OF WORK.
- 4. ALL NEW AND EXHUMED SERVICES THAT CROSS EXISTING AND FUTURE ROADS/PAVEMENTS WITHIN THE SITE SHALL BE BACKFILLED WITH DGB20 MATERIAL TO SUBGRADE LEVEL AND COMPACTED TO 98% STANDARD DENSITY RATIO. SUBJECT TO PRIOR APPROVAL FROM RELEVANT AUTHORITY
- ON COMPLETION OF SERVICES INSTALLATION. ALL DISTURBED AREAS SHALL BE RESTORED TO ORIGINAL, INCLUDING KERBS, FOOTPATHS, CONCRETE AREAS, GRAVEL AREAS, GRASSED AREAS AND ROAD PAVEMENTS
- CARE TO BE TAKEN WHEN EXCAVATING NEAR UTILITY SERVICES. NO MECHANICAL EXCAVATION TO BE UNDERTAKEN OVER SERVICES. LIAISE WITH RELEVANT AUTHORITY. THE CONTRACTOR SHALL ALLOW FOR THE CAPPING OFF, EXCAVATION AND REMOVAL IF REQUIRED OF ALL EXISTING SERVICES IN AREAS AFFECTED BY THE WORKS WITHIN THE CONTRACT AREA AS SHOWN ON THE DRAWINGS UNLESS DIRECTED OTHERWISE BY THE
- SUPERINTENDENT. ALL TO REGULATORY AUTHORITY STANDARDS AND APPROVAL. THE CONTRACTOR IS TO MAINTAIN EXISTING STORMWATER DRAINAGE FLOWS THROUGH THE ROADS AT ALL TIMES. MAKE DUE ALLOWANCE FOR ALL SUCH FLOWS AT ALL TIMES.

PRIOR TO COMMENCEMENT OF ANY WORKS THE CONTRACTOR SHALL OBTAIN THE

SUPERINTENDENT'S APPROVAL OF THE PROGRAM FOR THE RELOCATION/CONSTRUCTION

- OF TEMPORARY SERVICES. 10. CONTRACTOR SHALL CONSTRUCT TEMPORARY SERVICES AS REQUIRED TO MAINTAIN EXISTING SUPPLY TO BUILDINGS REMAINING IN OPERATION DURING WORKS TO THE SATISFACTION AND APPROVAL OF THE SUPERINTENDENT. ONCE DIVERSION IS COMPLETE
- AND COMMISSIONED THE CONTRACTOR SHALL REMOVE ALL SUCH TEMPORARY SERVICES AND MAKE GOOD TO THE SATISFACTION OF THE SUPERINTENDENT. 11. INTERRUPTION TO SUPPLY OF EXISTING SERVICES SHALL BE DONE SO AS NOT TO CAUSE ANY INCONVENIENCE OR DAMAGE TO THE ADJACENT RESIDENCES. CONTRACTOR TO GAIN
- 12. THE CONTRACTOR SHALL UNDERTAKE A DIAL BEFORE YOU DIG (DBYD 1100) SERVICES SEARCH BEFORE THE COMMENCEMENT OF ANY WORKS.

APPROVAL OF THE SUPERINTENDENT FOR TIME OF INTERRUPTION.

## **SURVEY NOTE:**

EXISTING SITE LEVELS AND DETAILS BASED ON A PLAN OF SURVEY 'SY074794.000.2.' BY 'LANDPARTNERS' DATED 25.03.2021





THIS SUBDIVISION WORKS CERTIFICATE RELATES TO WORKS REQUIRED FOR THE CONSTRUCTION OF LOT 2 BUILDING PAD ONLY

ALL WORKS TO BE CARRIED OUT IN ACCORDANCE WITH THE DPHI APPROVED CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN, WHICH INCLUDES THE APPROVED EROSION AND SEDIMENT CONTROL PLANS

## **ELECTRONIC INFORMATION NOTES:**

- THE ISSUED DRAWINGS IN HARD COPY OR PDF FORMAT TAKE PRECEDENCE OVER ANY
- ELECTRONICALLY ISSUED INFORMATION, LAYOUTS OR DESIGN MODELS THE CONTRACTOR'S DIRECT AMENDMENT OR MANIPULATION OF THE DATA OR INFORMATION THAT MIGHT BE CONTAINED WITHIN AN ENGINEER-SUPPLIED DIGITAL TERRAIN MODEL AND ITS SUBSEQUENT USE TO UNDERTAKE THE WORKS WILL BE SOLELY
- AT THE DISCRETION OF AND THE RISK OF THE CONTRACTOR. THE CONTRACTOR IS REQUIRED TO HIGHLIGHT ANY DISCREPANCIES BETWEEN THE DIGITAL FERRAIN MODEL AND INFORMATION PROVIDED IN THE CONTRACT AND/OR DRAWINGS AND IS REQUIRED TO SEEK CLARIFICATION FROM THE SUPERINTENDENT
- THE ENGINEER WILL NOT BE LIABLE OR RESPONSIBLE FOR THE POSSIBLE ON-GOING NEED CHANGES TO THE DRAWINGS OR CONTRACT INITIATED BY THE CONTRACTOR.

CONTRACTOR TO ENSURE COMPLIANCE WITH ABORIGINAL CULTURAL HERITAGE ASSESSMENT AND BIODIVERSITY DEVELOPMENT ASSESSMENT REPORT AS REFERED TO IN CONDITIONS B86 AND B93

> **Subdivision Works Certificate** Certificate Number: 210204SW01

Issuing Officer: Christopher Borg Registration Number: BDC3330

These plans/specifications form part BARKER of the certificate issued: 04/10/2024

FOR SWC-1





DRAWING LIST AND LOCALITY PLAN

CO14021.05-C 100

REVISED AS CLOUDED 02.07.24 REVISED AS CLOUDED 28.05.24 09.05.24 REVISED AS CLOUDED ISSUED FOR CONSTRUCTION 02.05.24 ISSUED FOR SWC-1 ISSUED FOR PRELIMINARY ONL ISSUED FOR SWC-1 13.09.24 15.03.24

DATE ISSUE AMENDMENTS







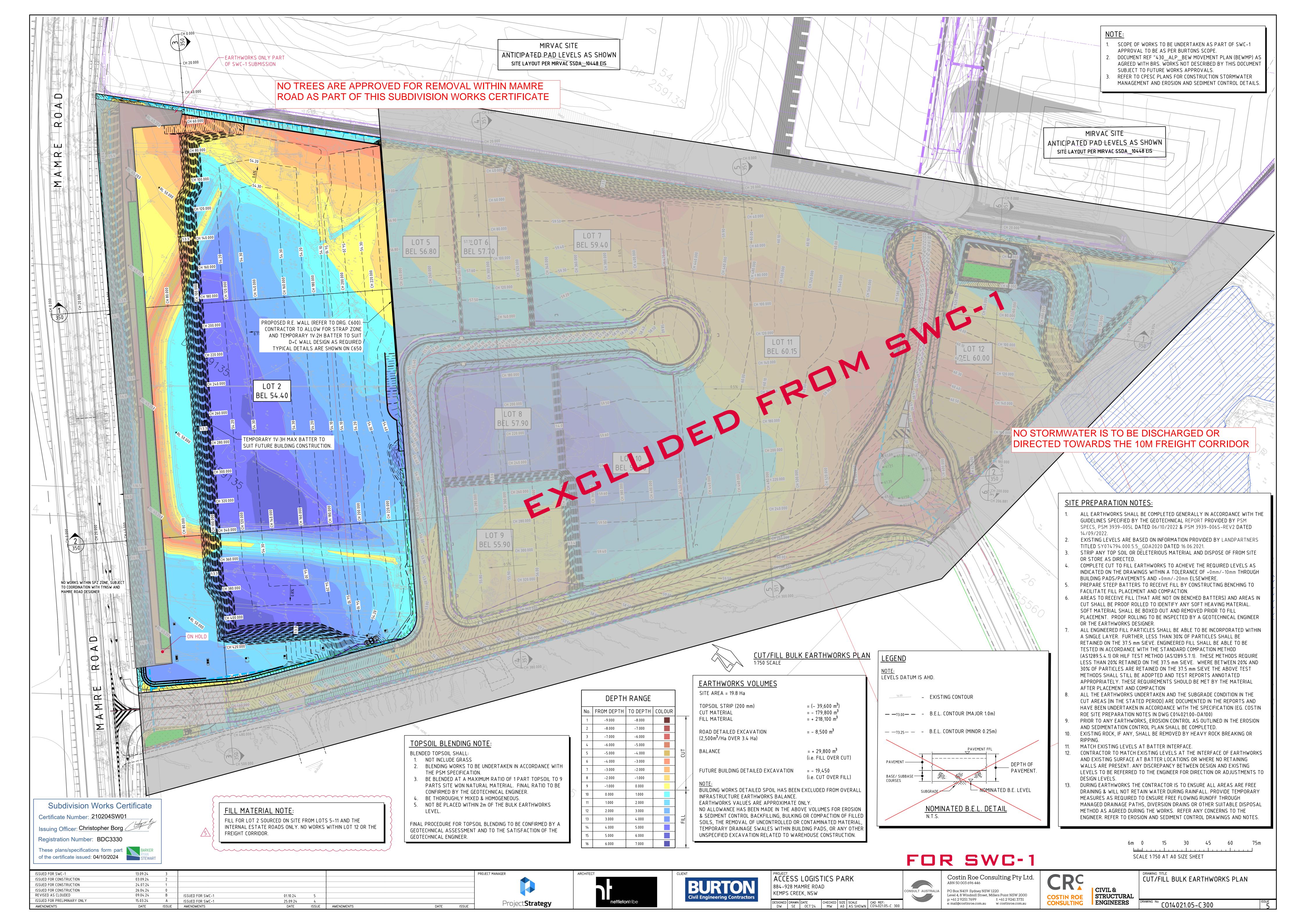
KEMPS CREEK, NSW DESIGNED DRAWN DATE CHECKED SIZE SCALE CAD REF:
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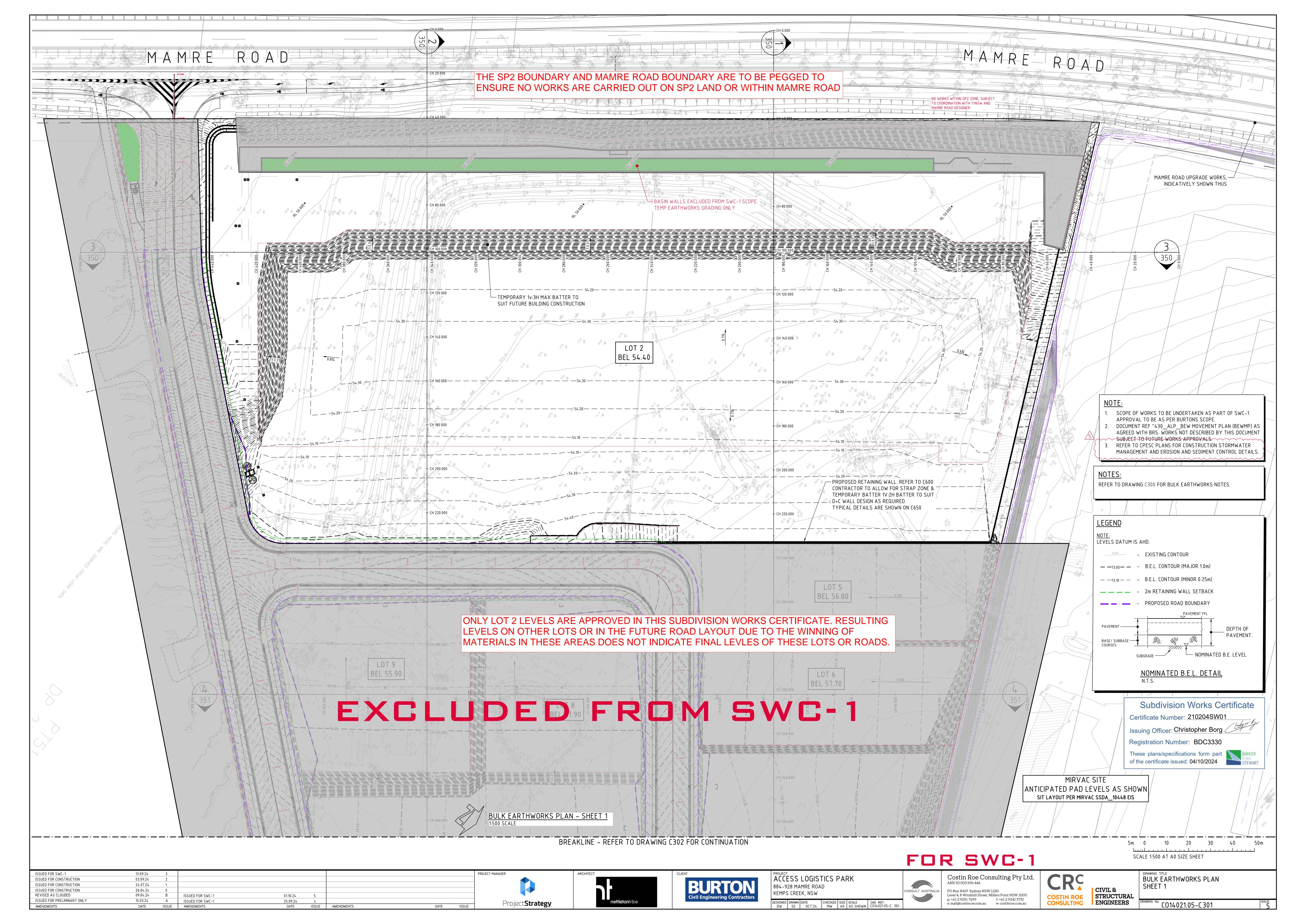
**ACCESS LOGISTICS PARK** 

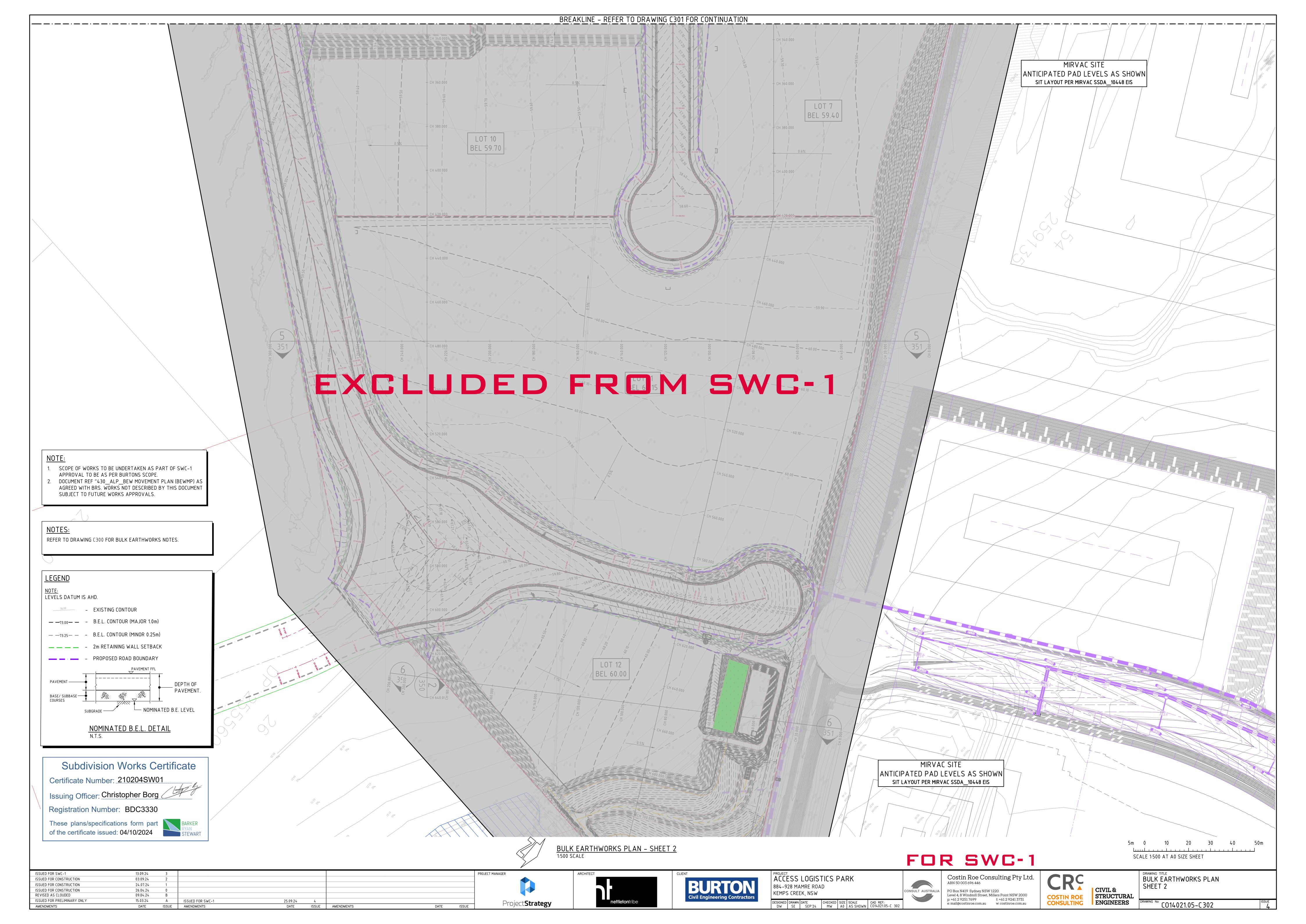
CONSULT AUSTRALIA

PO Box N419 Sydney NSW 1220 evel 4, 8 Windmill Street, Millers Point NSW 2000. p: +61 2 9251 7699 f: +61 2 9241 3731 e: mail@costinroe.com.au w: costinroe.com.au

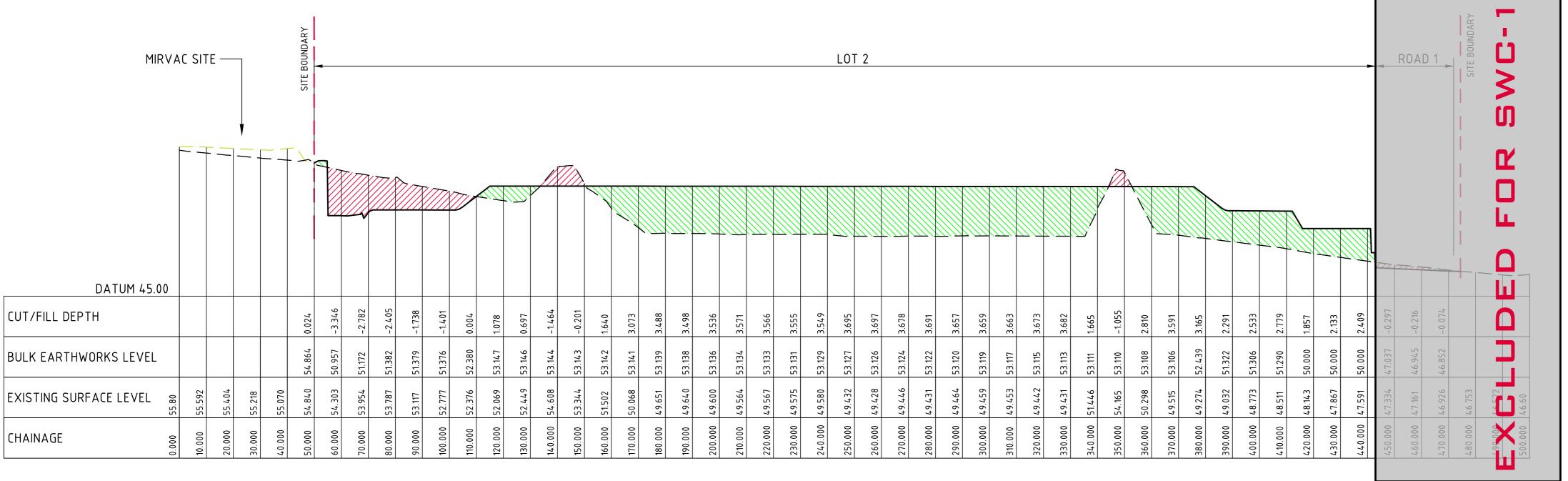
STRUCTURAL **ENGINEERS** 











SECTION 3 HORIZONTAL SCALE 1:1000 VERTICAL SCALE 1:200

Subdivision Works Certificate Certificate Number: 210204SW01 Issuing Officer: Christopher Borg

Registration Number: BDC3330

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SCALE 1:200 AT A0 SIZE SHEET 10m 0 10 20 30 40 50 60 70 80 90 100m SCALE 1:1000 AT A0 SIZE SHEET

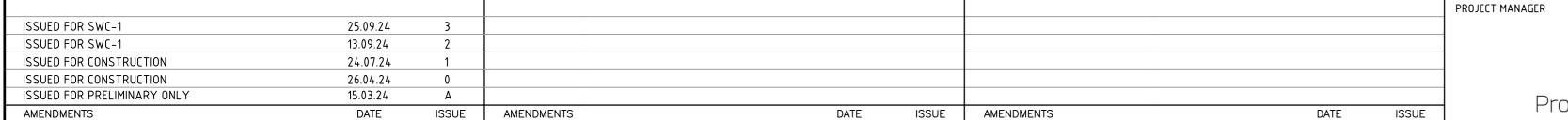
FOR SWC-1

Costin Roe Consulting Pty Ltd.
ABN 50 003 696 446

CRC

BULK EARTHWORKS SECTIONS

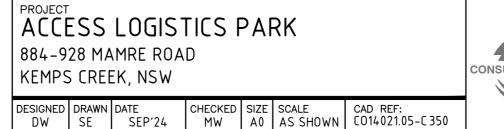
CO14021.05-C350





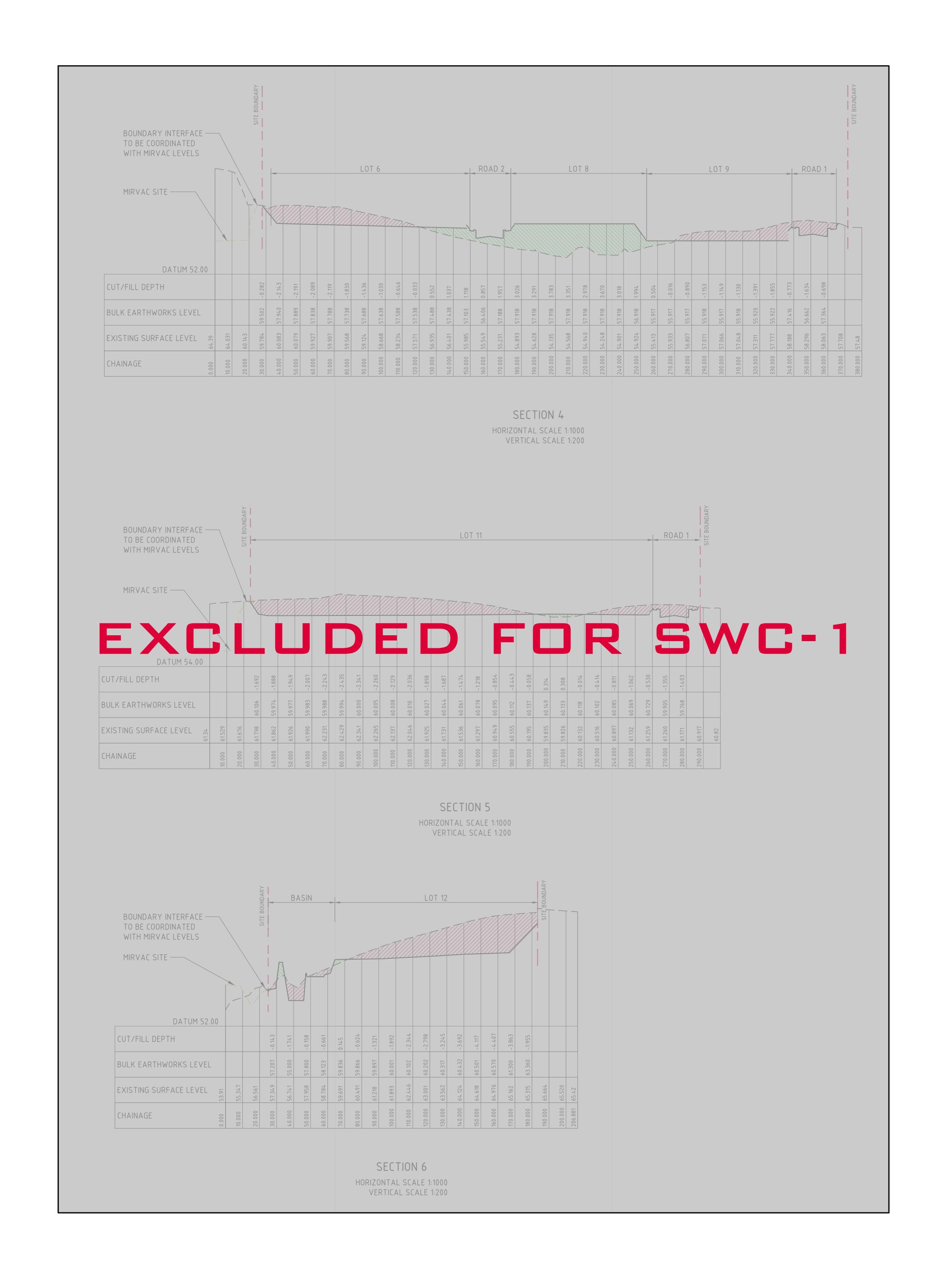


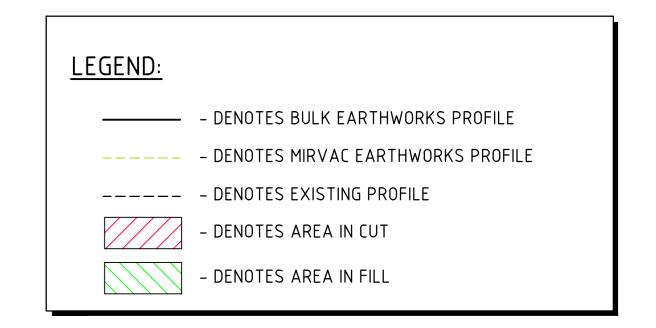






CIVIL & STRUCTURAL **ENGINEERS** 



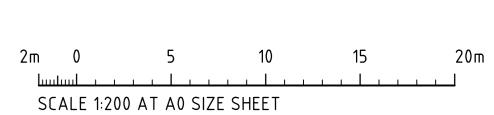


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10m 0 10 20 30 40 50 60 70 80 90 100m SCALE 1:1000 AT A0 SIZE SHEET

ACCESS LOGISTICS PARK 884-928 MAMRE ROAD KEMPS CREEK, NSW

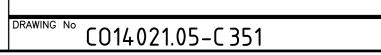


DESIGNED DRAWN DATE CHECKED SIZE SCALE CAD REF:
DW SE SEP'24 MW A0 AS SHOWN C014021.05-C 351





BULK EARTHWORKS SECTIONS





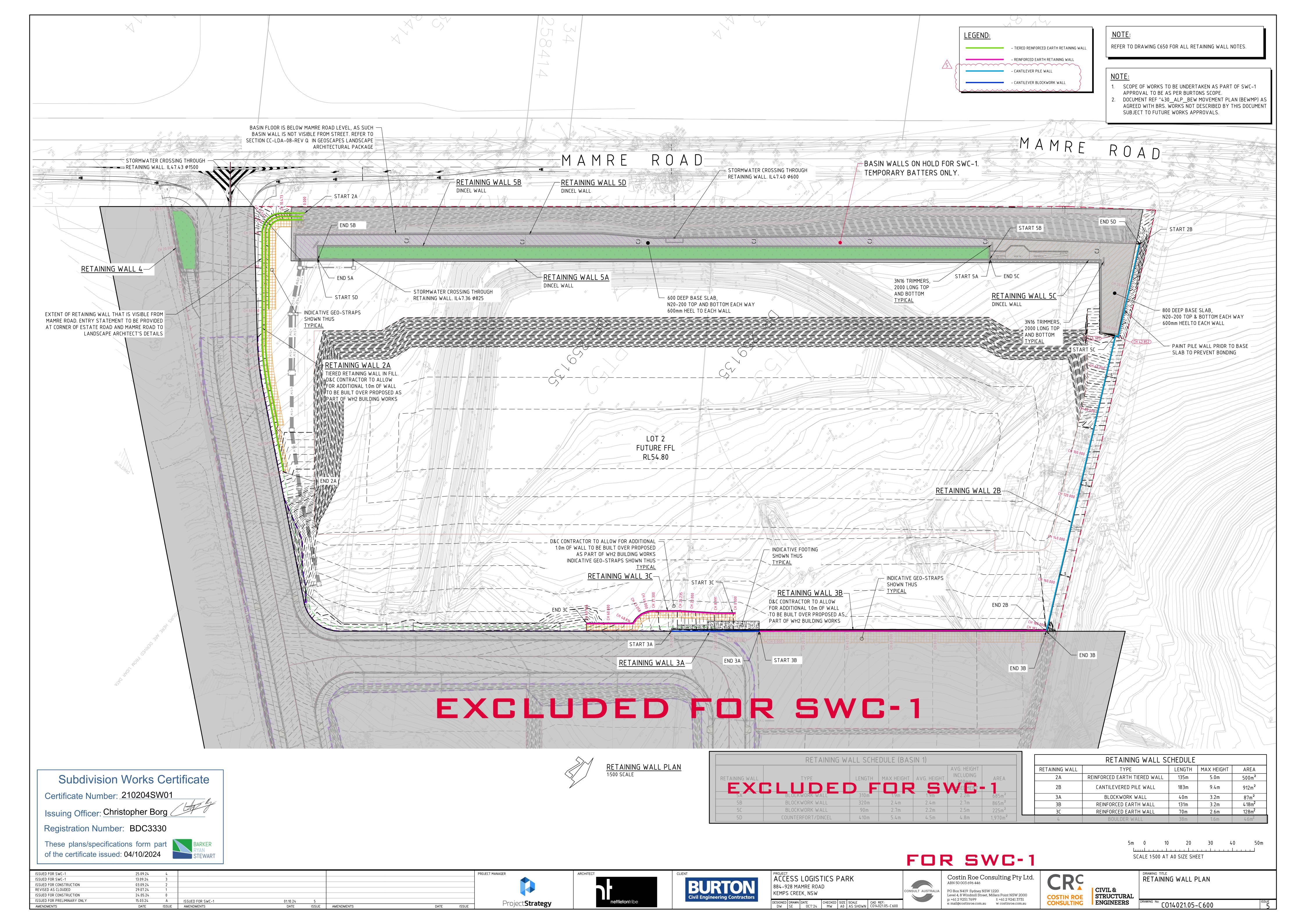


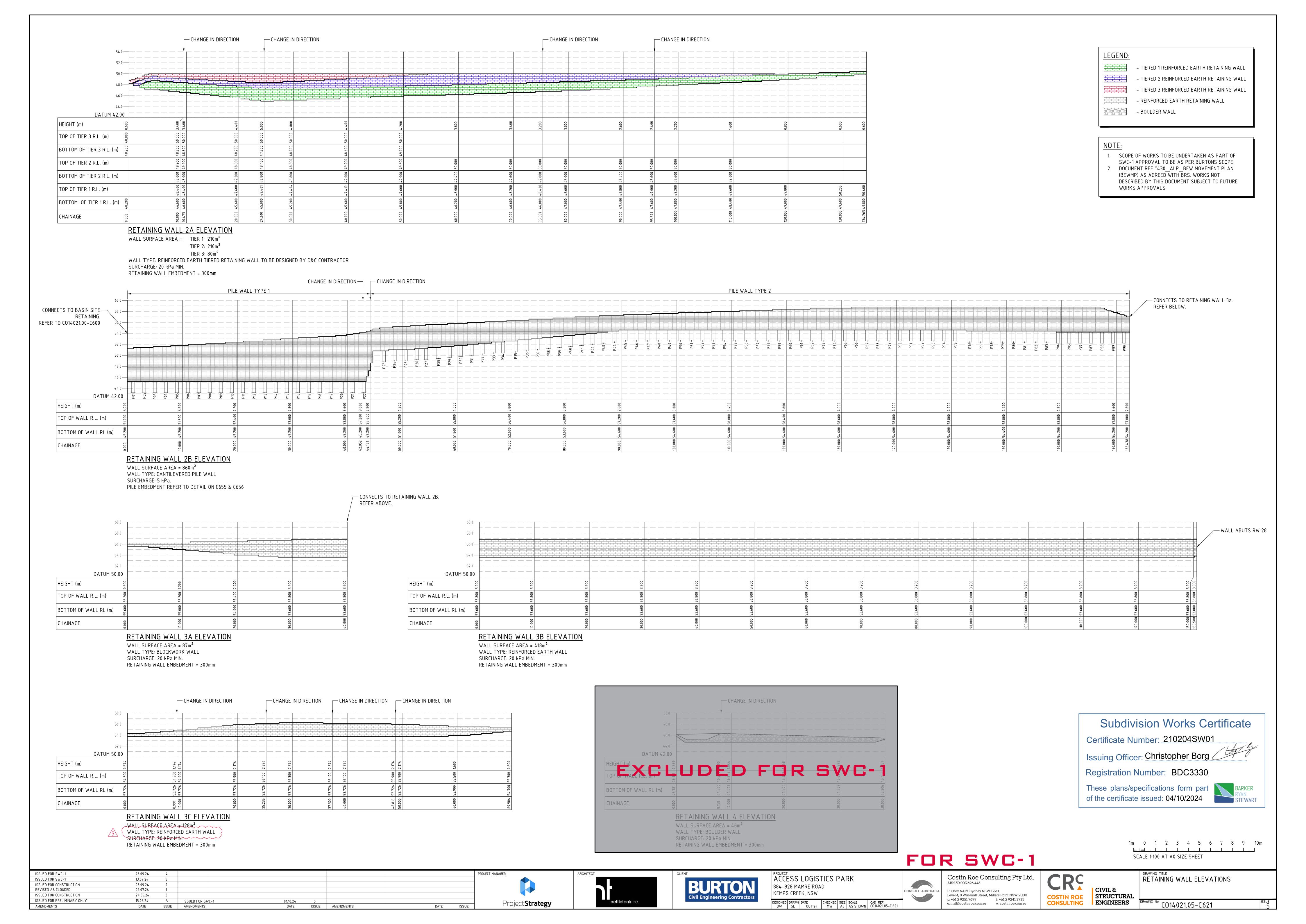


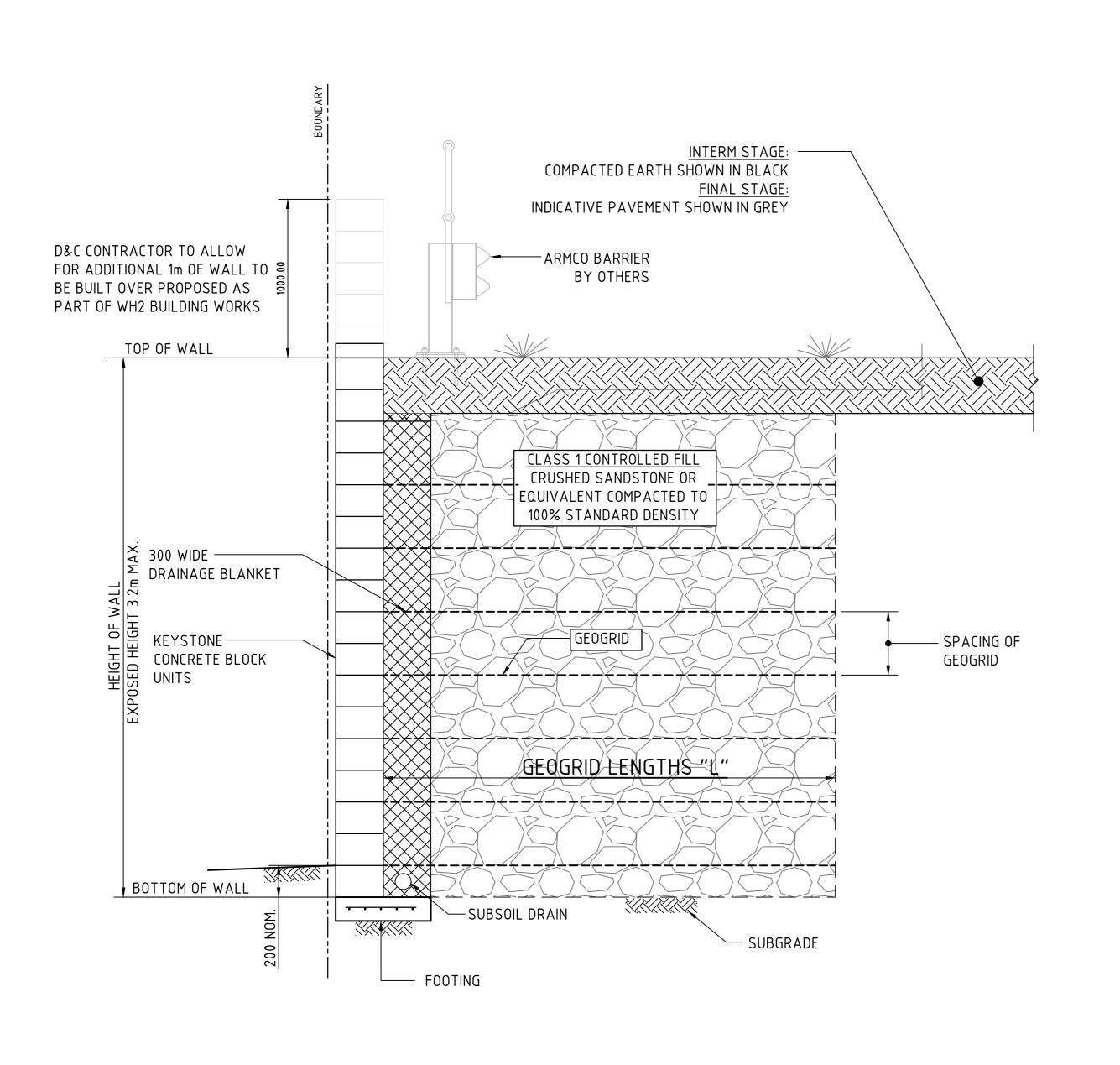




FOR SWC-1





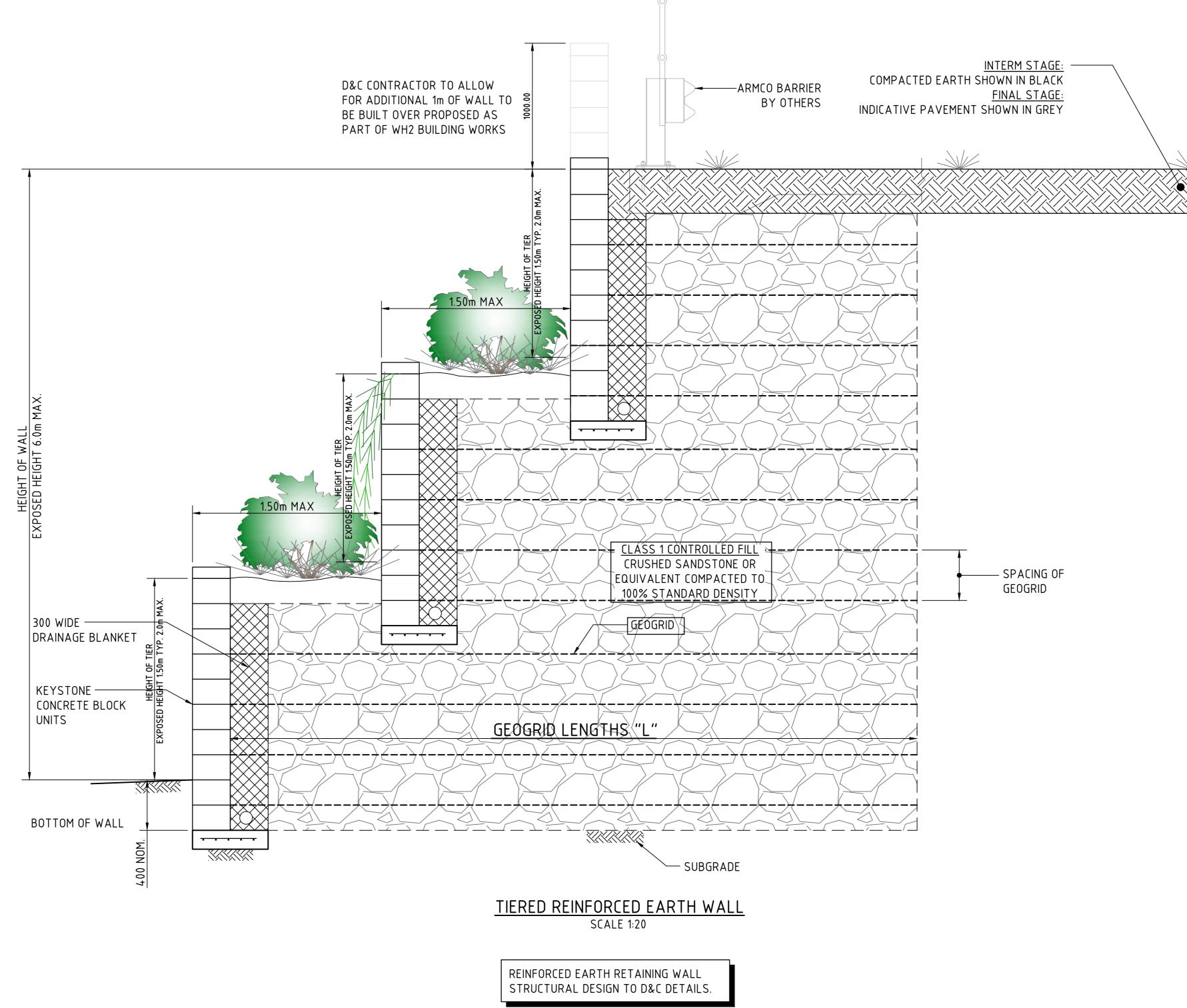


REINFORCED EARTH WALL-RW3B+3C SCALE 1:20

REINFORCED EARTH RETAINING WALL STRUCTURAL DESIGN TO D&C DETAILS.

25.09.24 4

DATE ISSUE AMENDMENTS



## **RETAINING WALL NOTES:**

- ALL COMPONENTS AND INSTALLATION SHALL COMPLY WITH AS4678 AND THE STANDARDS REFERRED TO THEREIN.
- MINIMUM BEARING CAPACITY OF FOUNDATION TO BE AS FOLLOWS: a. H MAX. 2.0m = 100 kPa
- b. H MAX. 3.5m = 150 kPa
- c. H MAX. 5.0m = 200 kPa BEFORE COMMENCEMENT OF CONSTRUCTION THE FOUNDATION SHALL BE INSPECTED AND VERIFIED BY A QUALIFIED GEOTECHNICAL ENGINEER. WHERE MINIMUM BEARING IS NOT ACHIEVABLE OR NOT MEETING DESIGN REQUIREMENT, THE FOUNDATION MATERIAL IS TO BE EXCAVATED AND REPLACED WITH APPROVED MATERIAL PLACED IN ACCORDANCE WITH THE FILLING SPECIFICATION TO A MINIMUM COMPACTION OF
- 100% SMDD AND PLACED WITHIN 2% OF OMC. MINIMUM SURCHARGE LOADS TO BE APPLIED AS FOLLOWS U.N.O. ON PLAN:
- a. LIVE LOAD = 20 kPa b. DEAD LOAD = 5 kPa
- c. CONSTRUCTION TRAFFIC LIVE LOAD = 10 kPa MINIMUM WALL EMBEDMENT AT THE TOE OF THE WALL TO BE 300mm MINIMUM UNLESS
- NOTED OTHERWISE. DESIGN LIFE OF STRUCTURE IS TO BE 100 YEARS. TIED WALLS ARE TO BE TEMPORARILY PROPPED AT TOP UNTIL SUCH TIME THE TOP OF
- WALL IS TIED TO THE SLAB AND 28-DAY CONCRETE STRENGTH HAS BEEN ACHIEVED. CONSTRUCTION EQUIPMENT WEIGHING MORE THAN 500KG STATIC WEIGHT IS TO BE KEPT BACK 1.5m FROM THE REAR FACE OF THE WALL FACING UNITS. COMPACTION OF THE SELECT FILL MATERIAL WITHIN THE 1.5m STRIP ADJACENT TO THE WALL SHALL BE ACHIEVED BY LIGHT MECHANICAL TAMPERS (VIBRATING PLATE, TRENCH COMPACTOR OR SIMILAR) TO
- GIVE THE SAME DENSITY AS IN THE REMAINDER OF THE SELECT FILL. ALL DESIGN AND CONSTRUCT WALL SYSTEMS TO BE COMPLETED IN ACCORDANCE WITH

## REINFORCED EARTH RETAINING WALL NOTES:

- ALL COMPONENTS AND INSTALLATION SHALL COMPLY WITH AS4678 AND THE STANDARDS REFERRED TO THEREIN.
- MINIMUM HEIGHT (H) TO GEOGRID REINFORCEMENT LENGTH (L) TO BE 1.0. MINIMUM BEARING CAPACITY OF FOUNDATION (BASED ON MINIMUM H/L RATIO OF 1.0) TO BE
- a. H MAX. 2.0m = 100 kPa b. H MAX. 3.5m = 150 kPa

AS FOLLOWS:

- c. H MAX. 5.0m = 200 kPa BEFORE COMMENCEMENT OF CONSTRUCTION THE FOUNDATION SHALL BE INSPECTED AND VERIFIED BY A QUALIFIED GEOTECHNICAL ENGINEER. WHERE MINIMUM BEARING IS NOT ACHIEVABLE OR NOT MEETING DESIGN REQUIREMENT, THE FOUNDATION MATERIAL IS TO BE EXCAVATED AND REPLACED WITH APPROVED MATERIAL
- PLACED IN ACCORDANCE WITH THE FILLING SPECIFICATION TO A MINIMUM COMPACTION OF 100% SMDD AND PLACED WITHIN 2% OF OMC. MINIMUM SURCHARGE LOADS TO BE APPLIED AS FOLLOWS U.N.O. ON PLAN: a. LIVE LOAD = 20 kPa
- b. DEAD LOAD = 5 kPa c. CONSTRUCTION TRAFFIC LIVE LOAD = 10 kPa THE GEOGRIDS SHALL BE OF THE TYPE AND INDEX STRENGTH NOMINATED ON THE DRAWINGS. THE MINIMUM GEOGRIDS SHALL BE A SINGLE LENGTH IN THE DIRECTION OF DESIGN TENSION, NOT LAPPED, MAKING PROVISION FOR CONNECTION TO THE FACING ACROSS THE WHOLE WIDTH OF THE FACING AND PROVIDING FOR THE SPECIFIED ANCHORAGE WITHIN THE DESIGNATED ANCHORAGE ZONE. GEOGRIDS SHALL COVER THE WHOLE OF THE PLAN AREA BEHIND THE WALL FOR THE SPECIFIED ANCHORAGE LENGTH

AND SHALL BE LAPPED WITH ADJACENT SECTIONS IN ACCORDANCE WITH THE

- MINIMUM WALL EMBEDMENT AT THE TOE OF THE WALL TO BE 300mm. DESIGN LIFE OF STRUCTURE IS TO BE 100 YEARS. SELECT BACKFILL MATERIAL WITHIN THE REINFORCED SOIL BLOCK SHALL BE SOUND GRANULAR MATERIAL OF NATURAL OR INDUSTRIAL ORIGIN, NON-EXPANSIVE, FREE FROM ORGANIC OR OTHER DELETERIOUS MATERIAL CONFORMING TO THE PHYSICAL, CHEMICAL AND FLECTROCHEMICAL LIMITS AS SPECIFIED AND SHALL NOT BE SUBJECT TO BREAKDOW UNDER COMPACTION. THE SELECT BACKFILL MATERIAL IS TO HAVE THE FOLLOWING
- a. MINIMUM INTERNAL FRICTION,  $\emptyset = 34^{\circ}$ b. EFFECTIVE COHESION, C'= 0 kPa

MANUFACTURER'S INSTRUCTIONS.

- c. UNIT WEIGHT = 21 kN/m³ d. PH BETWEEN 4 AND 9.
- SELECT BACKFILL IS TO BE PLACED AND COMPACTED IN LAYERS NOT MORE THAN 300mm (LOOSE). COMPACTION TO NOT LESS THAN 100% SMDD WILL BE ACHIEVED AND MATERIAL PLACED WITHIN 2% OF OMC. DENSITY TESTING SHALL BE PERFORMED IN EACH COMPACTED
- LIFT IN ACCORDANCE WITH AS3798. PROVIDE A DRAINAGE LAYER DIRECTLY BEHIND THE FACING UNITS IN A MINIMUM 300mm WIDE 12-20mm AGGREGATE LAYER. FACING UNIT VOIDS TO BE FILLED WITH AGGREGATE PROVIDE 100mm MINIMUM AG. DRAIN IN GEOTEXTILE SOCK AT TOE OF WALL FACING AND CONNECT TO DRAINAGE SYSTEM AT 30m MAX. SPACING.
- THE NEED FOR A CHIMNEY DRAIN OR DRAINAGE AT THE REAR OF THE MASS SOIL BLOCK IS TO BE CONFIRMED ON SITE BY THE GEOTECHNICAL ENGINEER AND DESIGNER FOLLOWING PREPARATION OF THE FOUNDATION AND PRIOR TO CONSTRUCTION OF THE MASS SOIL
- CONSTRUCTION EQUIPMENT WEIGHING MORE THAN 500kG STATIC WEIGHT IS TO BE KEPT BACK 1.5m FROM THE REAR FACE OF THE WALL FACING UNITS. COMPACTION OF THE SELECT FILL MATERIAL WITHIN THE 1.5m STRIP ADJACENT TO THE WALL SHALL BE ACHIEVED BY LIGHT MECHANICAL TAMPERS (VIBRATING PLATE, TRENCH COMPACTOR OR SIMILAR) TO GIVE THE SAME DENSITY AS IN THE REMAINDER OF THE SELECT FILL. ALL DESIGN AND CONSTRUCT WALL SYSTEM TO BE COMPLETED IN ACCORDANCE WITH
- TOP OF WALL HEIGHTS ARE NOTED TO ALIGN WITH FINISHED PAVEMENT HEIGHTS. THE CONTRACTOR AND THEIR DESIGN AND CONSTRUCT WALLING CONTRACTORS ARE TO ENSURE THAT ALL WALL STRAPS ARE INSTALLED BELOW THE DESIGN EARTHWORKS SUBGRADE. CONTRACTOR TO ALLOW FOR WALL STRAPS TO BE GRADED AWAY FROM THE FACE OF THE WALL OR OTHERWISE INSTALLED TO SUIT EARTHWORKS DESIGN LEVELS AND
- DIFFERENTIAL SETTLEMENT NOTE: FUTURE BUILDING AND SERVICE DESIGNERS TO CONSIDER DIFFERENTIAL SETTLEMENT OF REINFORCED EARTH WALL BLOCK AND GENERAL FILL AREAS. PARTICULAR ATTENTION TO BE DRAWN TO HEAVILY LOADED AREAS, OR DIFFERING LOADED AREAS (INCLUDING SPRINKLER TANK AND TRUCK PAVEMENT AREAS) AND WHERE SIGNIFICANT CHANGES IN OVERALL WALL HEIGHT OR FILL AMOUNTS ARE EXPERIENCED. IT IS THE RESPONSIBILITY OF THE FUTURE DESIGNERS TO ENSURE APPROPRIATE DESIGN CONSIDERATION TO DIFFERENTIAL SETTLEMENT ARE MADE DEPENDING ON THE DESIGN ELEMENT AND INTERACTION WITH RETAINED ELEMENTS AND GENERAL FILL MATERIAL.

- SCOPE OF WORKS TO BE UNDERTAKEN AS PART OF SWC-1
- APPROVAL TO BE AS PER BURTONS SCOPE. DOCUMENT REF "430 ALP BEW MOVEMENT PLAN (BEWMP) AS AGREED WITH BRS. WORKS NOT DESCRIBED BY THIS DOCUMENT SUBJECT TO FUTURE WORKS APPROVALS.

## Subdivision Works Certificate

Certificate Number: 210204SW01

Issuing Officer: Christopher Borg

Registration Number: BDC3330

These plans/specifications form part of the certificate issued: 04/10/2024





SCALE 1:20 AT A0 SIZE SHEET

ISSUED FOR CONSTRUCTION 23.07.24 ISSUED FOR CONSTRUCTION 23.07.24 ISSUED FOR CONSTRUCTION 21.05.24 ISSUED FOR PRELIMINARY ONLY 15.03.24 AMENDMENTS

03.09.24

DATE ISSUE

ISSUED FOR SWC-1

AMENDMENTS

ISSUED FOR SWC-1

ISSUED FOR CONSTRUCTION











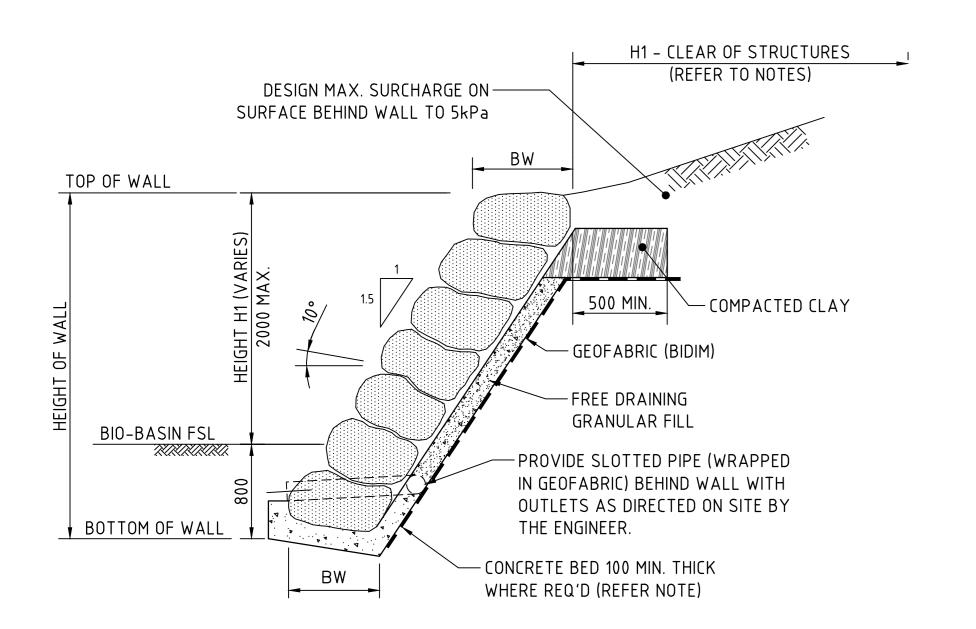
Costin Roe Consulting Pty Ltd. ABN 50 003 696 446 PO Box N419 Sydney NSW 1220 Level 4, 8 Windmill Street, Millers Point NSW 2000 p: +61 2 9251 7699 f: +61 2 9241 3731



RETAINING WALL DETAILS CIVIL & STRUCTURAL

**ENGINEERS** 

CO14021.05-C650



BOULDER WALL DOES NOT FORM PART OF SUBDIVISION WORKS CERTIFICATE

## RETAINING WALL (BIO-RETENTION BASIN BOULDER RETAINING WALL) SCALE 1:20

### **BOULDER RETAINING WALL NOTES**

MINIMUM BEARING CAPACITY OF FOUNDATION TO BE 100kPa ASSUMING THE CLAY FOUNDATION Cu=50kPa, φ=0

SLIDING STABILITY IS BASED ON THE FOLLOWING - FRICTION ANGLE OF BOULDER WALL: NOT LESS THAN 40° - EFFECTIVE FRICTION ANGLE OF SOIL SUBGRADE: NOT LESS THAN 30° FOR SOIL OR 35° FOR ROCK

### SOIL AND ROCK DESIGN PARAMETERS SHALL BE CONFIRMED BY GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT OF BOULDERS OR CONCRETE BED.

BOULDERS TO BE A NOMINAL 750mm DIA. (400mm DIA. UP TO 800mm DIA.) PLACED ON THEIR BROADEST BASE. BOULDERS TO BE PLACED IN AN INTERLOCKING ARRANGEMENT ON THE CONTACT SURFACES DIPPING TOWARDS BACK OF THE WALL AT 10° AND SHALL BE INSPECTED BY THE ENGINEER DURING CONSTRUCTION

DENSITY OF INDIVIDUAL BOULDERS SHALL BE MINIMUM 2.5 TONNES/m FOR WALLS ABOVE 1000mm IN HEIGHT, THE FIRST LAYER OF BOULDERS ARE TO

SET IN A BED OF N15 CONCRETE AND THE JOINTS BETWEEN SHALL BE FILLED WITH CONCRETE TO A LEVEL EQUAL TO THE SURFACE LEVEL OF THE TOE OF THE

NO STRUCTURE TO BE BUILT WITHIN H1 FROM THE BACK OF THE TOP OF THE WALL (WHERE H1=HEIGHT OF WALL), UNLESS THE STRUCTURE IS FOUNDED ON ROCK WITH SBV>150kPA

CONSTRUCTION METHODS AND SEQUENCE TO ENSURE THAT DESIGN MAX. SURCHARGE OF 5kPa IS NOT EXCEEDED.

CONSTRUCTION TO BE IN ACCORDANCE WITH AS 4678:2002

WALL DIN	1ENSIONS
HEIGHT H1	BW
500	500
1000	700
15.0.0	800

Subdivision Works Certificate

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RETAINING WALL NOTES:

REFERRED TO THEREIN.

ON PLAN:

a. H MAX. 2.0m = 100 kPa b. H MAX. 3.5m = 150 kPa

c. H MAX. 5.0m = 200 kPa

a. LIVE LOAD = 20 kPa

NOTED OTHERWISE.

b. DEAD LOAD = 5 kPa

ALL COMPONENTS AND INSTALLATION SHALL COMPLY WITH AS4678 AND THE STANDARDS

BEFORE COMMENCEMENT OF CONSTRUCTION THE FOUNDATION SHALL BE INSPECTED AND

WHERE MINIMUM BEARING IS NOT ACHIEVABLE OR NOT MEETING DESIGN REQUIREMENT, THE FOUNDATION MATERIAL IS TO BE EXCAVATED AND REPLACED WITH APPROVED MATERIAL PLACED IN ACCORDANCE WITH THE FILLING SPECIFICATION TO A MINIMUM COMPACTION OF

MINIMUM WALL EMBEDMENT AT THE TOE OF THE WALL TO BE 300mm MINIMUM UNLESS

TIED WALLS ARE TO BE TEMPORARILY PROPPED AT TOP UNTIL SUCH TIME THE TOP OF WALL IS TIED TO THE SLAB AND 28-DAY CONCRETE STRENGTH HAS BEEN ACHIEVED.

CONSTRUCTION EQUIPMENT WEIGHING MORE THAN 500KG STATIC WEIGHT IS TO BE KEPT BACK 1.5m FROM THE REAR FACE OF THE WALL FACING UNITS. COMPACTION OF THE SELECT FILL MATERIAL WITHIN THE 1.5m STRIP ADJACENT TO THE WALL SHALL BE ACHIEVED BY

LIGHT MECHANICAL TAMPERS (VIBRATING PLATE, TRENCH COMPACTOR OR SIMILAR) TO

ALL DESIGN AND CONSTRUCT WALL SYSTEMS TO BE COMPLETED IN ACCORDANCE WITH

SCOPE OF WORKS TO BE UNDERTAKEN AS PART OF SWC-1

DOCUMENT REF "430\_\_ALP\_\_BEW MOVEMENT PLAN (BEWMP) AS AGREED WITH BRS. WORKS NOT DESCRIBED BY THIS DOCUMENT

GIVE THE SAME DENSITY AS IN THE REMAINDER OF THE SELECT FILL.

APPROVAL TO BE AS PER BURTONS SCOPE.

SUBJECT TO FUTURE WORKS APPROVALS.

MINIMUM BEARING CAPACITY OF FOUNDATION TO BE AS FOLLOWS:

MINIMUM SURCHARGE LOADS TO BE APPLIED AS FOLLOWS U.N.O.

VERIFIED BY A QUALIFIED GEOTECHNICAL ENGINEER.

c. CONSTRUCTION TRAFFIC LIVE LOAD = 10 kPa

DESIGN LIFE OF STRUCTURE IS TO BE 100 YEARS.

100% SMDD AND PLACED WITHIN 2% OF OMC.

These plans/specifications form part BARKER of the certificate issued: 04/10/2024



FOR SWC-1

SCALE 1:20 AT A0 SIZE SHEET

ISSUED FOR SWC-1 ISSUED FOR CONSTRUCTION ISSUED FOR CONSTRUCTION ISSUED FOR PRELIMINARY ONLY AMENDMENTS

13.09.24 03.09.24

28.05.24

20.05.24

DATE ISSUE AMENDMENTS

DATE ISSUE AMENDMENTS

Project**Strategy** 







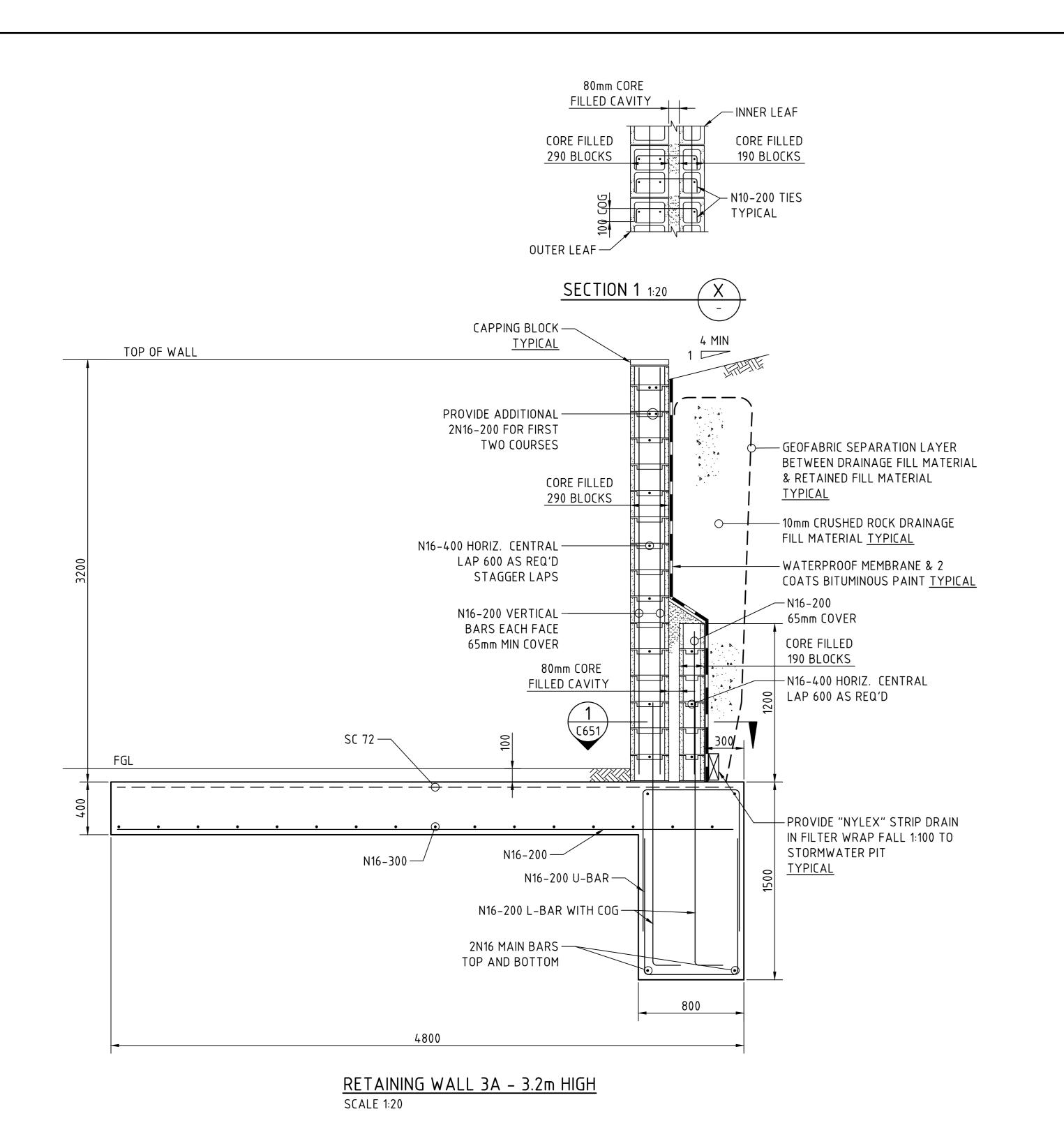
DESIGNED DRAWN DATE CHECKED SIZE SCALE CAD REF:
DW JB MAR' 24 MW A0 AS SHOWN C014021.05-C 651





RETAINING WALL DETAILS

CO14021.05-C651



CAPPING BLOCK —

N16-200 BARS -

N16-400 HORIZ. CENTRAL-

LAP 600 AS REQ'D

PROVIDE WEEPHOLES

|----<del>|---</del>

N16-200 L BARS WITH COG-

RETAINING WALL 3A - 2.4m HIGH

2N16 MAIN BARS -

TOP AND BOTTOM

N16-300 —

SCALE 1:20

ABOVE FGL

N16-200 —

N16-200 U-BAR-

600

STAGGER LAPS

TOP OF WALL

<u>TYPICAL</u>

190 STEM

4 MIN

& RETAINED FILL MATERIAL

FILL MATERIAL <u>TYPICAL</u>

— WATERPROOF MEMBRANE & 2

STORMWATER PIT

<u>TYPICAL</u>

NOTE :

SIDE OFF WALL.

1

## **Subdivision Works Certificate** Certificate Number: 210204SW01 Issuing Officer: Christopher Borg Registration Number: BDC3330

These plans/specifications form part of the certificate issued: 04/10/2024

**CONCRETE NOTES:** 

CONCRETE QUALITY

SHOWN OTHERWISE.

**EXPOSURE** 

TO AS 3600:

A1&A2

CLASSIFICATION

CLASSIFICATION

TO AS 3600:

A1&A2

SHALL BE AS INDICATED ON THE DRAWING.

DURABILITY REQUIREMENTS FOR CONCRETE

REINFORCEMENT AT THESE DETAILS.

ALL WORKMANSHIP AND MATERIAL SHALL BE IN ACCORDANCE WITH AS 3600 CURRENT EDITION WITH

(EDITION 6) SHALL APPLY TO THE FORMWORK, REINFORCEMENT AND CONCRETE UNLESS NOTED

CLEAR CONCRETE COVER TO ALL REINFORCEMENT FOR DURABILITY SHALL BE AS FOLLOWS UNLESS

AGAINST

65mm

MAXIMUM

W/C

RATIO:

0.46

0.40

ALL REINFORCEMENT SHALL BE FIRMLY SUPPORTED ON MILD STEEL PLASTIC TIPPED CHAIRS, PLASTIC

). REFER TO ARCHITECT'S DETAILS, FOR CHAMFERS, DRIP GROOVES, REGLETS, ETC., MAINTAIN COVER TO

DRAWINGS SHALL BE MADE IN CONCRETE MEMBERS WITHOUT THE PRIOR WRITTEN APPROVAL OF THE

CONSTRUCTION JOINTS WHERE NOT SHOWN SHALL BE LOCATED TO THE APPROVAL OF THE ENGINEER.

ALL CONCRETE INCLUDING SLABS ON GROUND AND FOOTINGS SHALL BE COMPACTED WITH MECHANICAL

USE ALIPHATIC ALCOHOLS SPRAYED OVER THE SURFACE PRIOR TO AND AFTER FINISHING TO REDUCE RATE OF EVAPORATION FROM THE SURFACE AND HELP CONTROL PLASTIC SHRINKAGE CRACKING. NOTE

COMMENCE CURING OPERATIONS PROMPTLY AFTER SURFACE FINISHING IS COMPLETE. CURING COMPOUNDS

ARE TO BE INSTALLED IN STRICT ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS AND ARE TO

BE CHECKED FOR COMPATIBILITY WITH PROPOSED FLOOR FINISHES. SOME COMPOUNDS MAY REQUIRE

CONCRETE IS TO BE CURED BY KEEPING THE SURFACES CONTINUOUSLY WET FOR A PERIOD OF 3 DAYS. AND PREVENTING THE LOSS OF MOISTURE FOR A FURTHER 7 DAYS FOLLOWED BY A GRADUAL DRYING

16. PROPPING WHICH SUPPORTS CONSTRUCTION OVER IS TO BE LEFT IN PLACE AS REQUIRED TO AVOID OVER

THE ENGINEER SHALL BE GIVEN 24 HOURS NOTICE FOR REINFORCEMENT INSPECTIONS AND CONCRETE

18. CONDUITS, PIPES ETC. SHALL ONLY BE LOCATED IN THE MIDDLE ONE THIRD OF SLAB DEPTH AND SPACED

AT NOT LESS THAN 3 DIAMETERS OF THE CONDUIT, PIPES ETC. PIPES OR CONDUITS SHALL NOT BE

THE MEMBER IMMEDIATELY FOLLOWING THE BAR GRADE SYMBOL REPRESENTS THE NOMINAL BAR

REINFORCEMENT IS REPRESENTED DIAGRAMMATICALLY AND NOT NECESSARILY IN TRUE PROJECTION.

DIAMETER IN MILLIMETERS. THE FIGURES FOLLOWING THE FABRIC SYMBOL SL & RL IS THE REFERENCE

ALTERNATE INTERSECTIONS. USE PLASTIC CHAIRS IN EXPOSURE CONDITION GREATER THAN B1.

NO HOLES, CHASES OR EMBEDMENT OF PIPES OTHER THAN THOSE SHOWN ON THE STRUCTURAL

CHAIRS OR CONCRETE CHAIRS AT 1 METRE CENTRES MAXIMUM BOTH WAYS. BARS SHALL BE TIED AT

COVER REQUIREMENTS MAY NEED TO BE INCREASED TO SUIT FIRE RATING. EXPOSURE CLASSIFICATION

SIZE

TYPE

CAST IN

40mm

45mm

FORMS AND

CAST IN

FORMS NOT

ELEMENT STRENGTH SLUMP MAX AGG CEMENT

REFER TO CONCRETE QUALITY TABLE

PROJECT CONTROL TESTING SHALL BE CARRIED OUT IN ACCORDANCE AS 1379.

NO ADMIXTURES SHALL BE USED IN CONCRETE UNLESS APPROVED IN WRITING.

CONCRETE

MINIMUM

CONTENT:

CEMENT

390

CONCRETE SIZES DO NOT INCLUDE THICKNESSES OF APPLIED FINISHES.

DEPTHS OF BEAMS ARE GIVEN FIRST AND INCLUDE SLAB THICKNESS.

THAT THE USE OF ALIPHATIC ALCOHOLS IS NOT A SUBSTITUTE FOR CURING.

STRESSING THE STRUCTURE DUE TO CONSTRUCTION LOADING

PLACED WITHIN THE COVER TO REINFORCEMENT.

REINFORCEMENT SYMBOLS:

NUMBER FOR ABRIC TO AS 4671.

SHALL NOT BE DELIVERED UNTIL ENGINEERS APPROVAL IS OBTAINED.

N DENOTES DEFORMED GRADE 500 NORMAL DUCTILITY CLASS BARS TO AS 4671

R DENOTES PLAIN ROUND GRADE 250 NORMAL DUCTILITY CLASS BARS TO AS 4671

RL DENOTES RECTANGULAR MESH GRADE 500 LOW DUCTILITY CLASS TO AS 4671

SL DENOTES SQUARE MESH GRADE 500 LOW DUCTILITY CLASS TO AS 4671

TM DENOTES TRENCH MESH GRADE 500 LOW DUCTILITY CLASS TO AS 4671

REMOVAL FOR GLUED DOWN FLOOR COVERINGS OR WET CURING AS DESCRIBED BELOW.

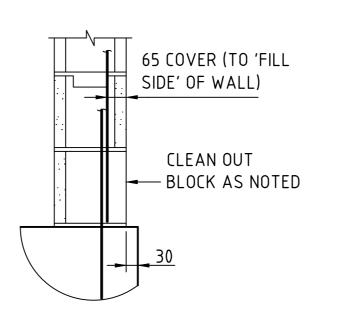
AMENDMENTS, EXCEPT WHERE VARIED BY THE CONTRACT DOCUMENTS.

READYMIX CONCRETE SUPPLY SHALL COMPLY WITH AS 1379.

GRADE

(MPa)

ALL THE REQUIREMENTS OF THE ACSE SPECIFICATION DOCUMENT 1

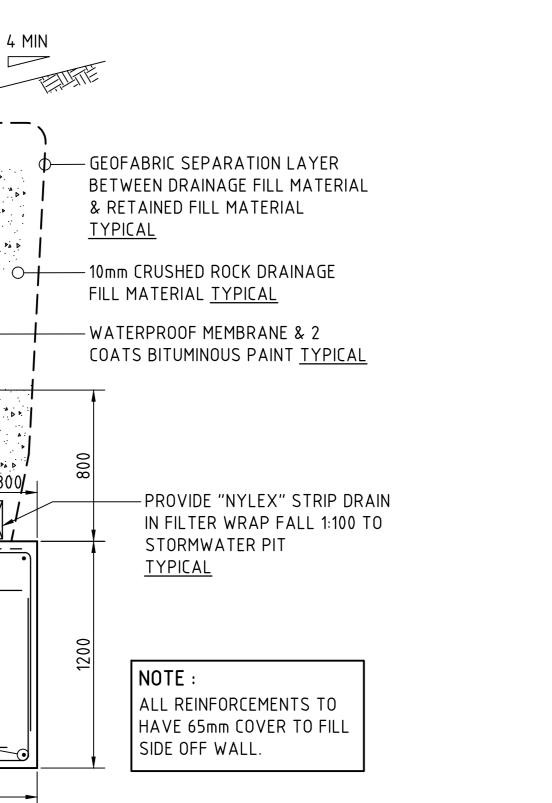


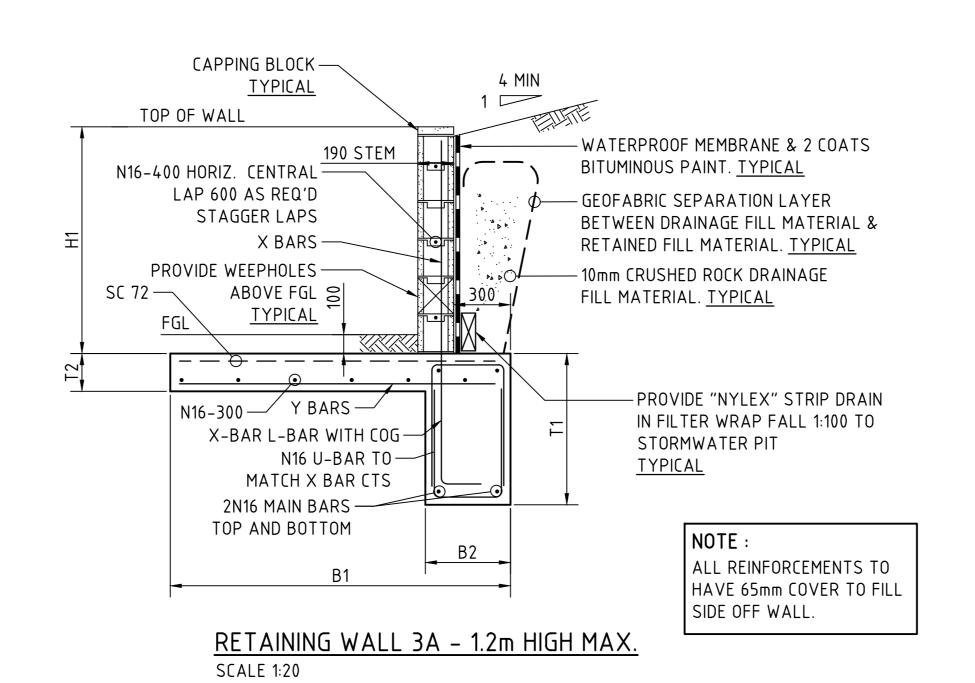
WALL VERTICAL REINF'T DETAIL TYPICAL NOT TO SCALE

ALL BLOCK CORES TO BE FULLY GROUTED NOTES SHOWN ARE TYPICAL FOR ALL WALLS ALL BASE KEYS TO BE POURED AGAINST UNDISTURBED NATURAL GROUND.

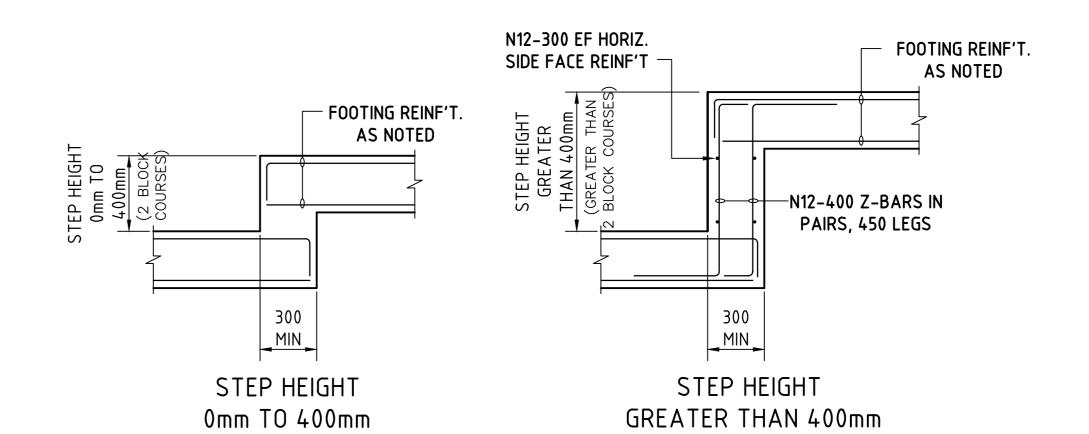
COVER TO ALL BASE REINFORCEMENT TO BE MINIMUM 50mm

CONCRETE QUALITY							
ELEMENT	SLUMP	AGGREGATE (MAX. SIZE)	CEMENT TYPE	ADMIXTURE	F'c (MPa)		
CORE FILL	230	10	GP	NIL	20		
FOOTING	80	20	GP	NIL	32		

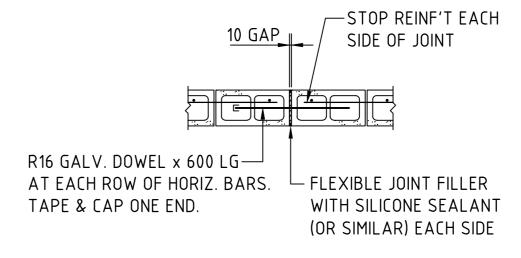




RETA	RETAINING WALL TYPE 1 SPECIFICATIONS 20kPa							
RETAINED HEIGHT H1	BASE WIDTH B1	BASE BEAM HEIGHT T1	BASE KEY DEPTH T2	REINF'T. X BARS	REINF'T. Y BARS			
1200	1800	800	200	N16-200	N16-200			
600	900	500	200	N16-400	N16-400			



## TYPICAL WALL FOOTING STEPS 1:20 SCALE



LEG FLEXIBLE JOINT FILLER WITH SILICONE SEALANT (OR SIMILAR) EACH SIDE R16 GALV. 'L-BARS' AT— EACH ROW OF HORIZ. BARS.

VERTICAL JOINT DETAIL PROVIDE VERTICAL JOINTS IN BLOCKWORK 8.0M MAX. CENTRES

CORNER DETAIL

RETAINING WALL BLOCKWORK JOINTING DETAILS SCALE 1:20

## CONCRETE NOTES (CONTINUED):

- 21. SLAB REINFORCEMENT SHALL EXTEND AT LEAST 65mm ONTO MASONRY SUPPORT WALLS AND 50 PERCENT OF THE BOTTOM REINFORCEMENT SHALL BE COGGED TO ACHIEVE ANCHORAGE AT SIMPLY
- 22. SPLICES IN REINFORCEMENT SHALL BE MADE ONLY IN POSITIONS SHOWN OR OTHERWISE APPROVED
- IN WRITING BY THE ENGINEER. LAPS SHALL BE IN ACCORDANCE WITH AS 3600 AND NOT LESS THAN THE DEVELOPMENT LENGTH FOR EACH BAR. 23. WHERE TRANSVERSE TIE BARS ARE NOT SHOWN PROVIDE N12-400 SPLICED WHERE NECESSARY
- AND LAPPED 500mm WITH MAIN BARS.
- 24. UPWARD CAMBER TO FORMWORK OF REINFORCED CONCRETE CANTILEVERS SHALL BE L/120, WHERE L IS THE PROJECTION BEYOND FACE OF COLUMN OR WALL. CAMBER TO SUSPENDED SLABS AND BEAMS SHALL BE 5 FOR EVERY 2500 OF SPAN. MAINTAIN THE SLAB AND BEAM DEPTHS SHOWN.
- 25. SLABS AND BEAMS SHALL BE CONSTRUCTED TO BEAR ONLY ON THE BEAMS, WALLS, COLUMNS, ET SHOWN ON THE DRAWINGS. TOPS OF LOAD BEARING MASONRY WALLS ARE TO BE TROWELLED SMOOTH AND 2 LAYERS OF ALCOR PROVIDED BETWEEN WALL AND SLAB. ALL OTHER BUILDING

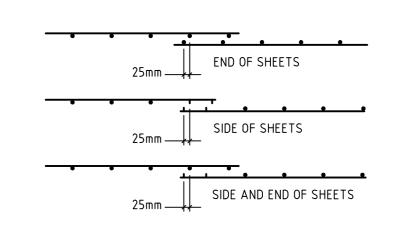
FOF	RMWORK STRIP		MENDED MINIMU	OM SOFFITS OF THE STRUCTURE. M STRIPPING TIMES IN THE ABSENCE OF
	MEMBER TYPE	MEMBER	× EFFECTIVE SPAN (m)	MINIMUM STRIPPING TIME (DAYS) FOR AVERAGE AIR TEMPERATURE
				DURING PERIOD PRIOR TO STRIPPING.

TYPE		SPAN (m)	FOR AVERAGE AIR TEMPERATURE DURING PERIOD PRIOR TO STRIPPING.			
			20° AND OVER	10° TO 20°	5° T0 10°	UNDER 5°
VERTICAL UNLOADED	WALL, COLUMN, BEAM SIDE.	0	2	3	5	7
VERTICAL LOADBEARING	WALL, COLUMN OR LOADBEARING STRUCTURE	0	5	6	7	9
		UNDER 3	7	10	14	21
HORIZONTAL	SLAB	3 - 6	10	14	21	28
		OVER 6	14	21	28	28
		UNDER 3	10	14	21	28
HORIZONTAL	BEAM	3 - 6	14	21	28	28
		OVER 6	21	28	28	28

### 27. STANDARD LAP AND COG LENGTHS UNLESS NOTED OTHERWISE ON DRAWINGS.

BAR DIAMETER	MIN LAP LENGTH (mm)	MIN COG LENGTH (mm)
N12	500	180
N16	750	210
N20	1000	260
N24	1375	310
N28	1560	360
N32	1810	400

### 28. MINIMUM MESH LAPS



MASONRY BLOCKWORK

RETAINING WALL NOTES:

a. H MAX. 2.0m = 100 kPa

b. H MAX. 3.5m = 150 kPa

c. H MAX. 5.0m = 200 kPa

GEOTECHNICAL ENGINEER.

a. LIVE LOAD = 20 kPa

b. DEAD LOAD = 5 kPa

ON PLAN:

ALL COMPONENTS AND INSTALLATION SHALL COMPLY WITH

MINIMUM BEARING CAPACITY OF FOUNDATION TO BE AS FOLLOWS

BEFORE COMMENCEMENT OF CONSTRUCTION THE FOUNDATION

WHERE MINIMUM BEARING IS NOT ACHIEVABLE OR NOT MEETING

EXCAVATED AND REPLACED WITH APPROVED MATERIAL PLACED

IN ACCORDANCE WITH THE FILLING SPECIFICATION TO A MINIMUM

COMPACTION OF 100% SMDD AND PLACED WITHIN 2% OF OMC.

c. CONSTRUCTION TRAFFIC LIVE LOAD = 10 kPa

300mm MINIMUM UNLESS NOTED OTHERWISE.

CONCRETE STRENGTH HAS BEEN ACHIEVED.

IN THE REMAINDER OF THE SELECT FILL.

IN ACCORDANCE WITH THESE NOTES.

DESIGN LIFE OF STRUCTURE IS TO BE 100 YEARS

MINIMUM WALL EMBEDMENT AT THE TOE OF THE WALL TO BE

TIED WALLS ARE TO BE TEMPORARILY PROPPED AT TOP UNTIL

SUCH TIME THE TOP OF WALL IS TIED TO THE SLAB AND 28-DAY

CONSTRUCTION EQUIPMENT WEIGHING MORE THAN 500KG STATIC

WEIGHT IS TO BE KEPT BACK 1.5m FROM THE REAR FACE OF THE

WITHIN THE 1.5m STRIP ADJACENT TO THE WALL SHALL BE ACHIEVED BY LIGHT MECHANICAL TAMPERS (VIBRATING PLATE,

WALL FACING UNITS. COMPACTION OF THE SELECT FILL MATERIAL

TRENCH COMPACTOR OR SIMILAR) TO GIVE THE SAME DENSITY AS

ALL DESIGN AND CONSTRUCT WALL SYSTEMS TO BE COMPLETED

MINIMUM SURCHARGE LOADS TO BE APPLIED AS FOLLOWS U.N.O.

DESIGN REQUIREMENT. THE FOUNDATION MATERIAL IS TO BE

AS4678 AND THE STANDARDS REFERRED TO THEREIN.

SHALL BE INSPECTED AND VERIFIED BY A QUALIFIED

M1 ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS 3700.

M2 STRENGTH OF BRICKS, CLASS OF BLOCKS AND TYPE OF MORTAR SHALL BE AS LISTED BELOW: CHARACTERISTIC MORTAR UNCONFINED CLASSIFICATION:

COMPRESSIVE

STRENGTH, F'uc:

CONCRETE BLOCKS **15** MPa

M3 MORTAR ADMIXTURES SHALL NOT BE USED WITHOUT THE WRITTEN APPROVAL OF THE SUPERINTENDENT

M4 ALL MASONRY WALLS AND PIERS SUPPORTING SLABS AND BEAMS SHALL HAVE A PRE-GREASED GALVANISED STEEL SLIP JOINT BETWEEN CONCRETE SOFFIT AND THE TOP OF OF THE MASONRY ELEMENT U.N.O.

FLOORS SHALL BE PROVIDED WITH VERTICAL JOINTS TO MATCH ALL CONTROL JOINTS IN THE CONCRETE.

M6 NON LOAD BEARING WALLS SHALL BE SEPARATED FROM CONCRETE ABOVE BY A 12mm THICK CLOSED CELL POLYETHYLENE STRIP.

M5 ALL MASONRY SUPPORTING OR SUPPORTED BY CONCRETE

M7 NO CHASES OR RECESSES ARE PERMITTED IN LOAD BEARING MASONRY WITHOUT THE APPROVAL OF THE ENGINEER.

M8 PROVIDE CLEANOUT HOLES AT BASE OF ALL WALLS. ROD CORE HOLES TO REMOVE PROTRUDING MORTAR

FOLLOWING APPROVAL FROM THE ENGINEER. M9 CORE FILLING GROUT TO HAVE A CHARACTERISTIC STRENGTH

OF 20 MPa, 10mm AGGREGATE, 230mm SLUMP. GROUT FILL ALL BLOCK CORES. 110 PROVIDE 65mm COVER TO REINFORCING BARS FROM THE OUTSIDE

FACE OF THE BLOCKWORK IF REINFORCEMENT IS NOT TO BE PLACED CENTRALLY.

M11 PROVIDE VERTICAL CONTROL JOINTS AT 10 METRE MAX CENTRES AND AT 5 METRE MAXIMUM FROM CORNERS IN ALL BRICKWORK

M12 PROVIDE VERTICAL CONTROL JOINTS AT 8 METRE MAX CENTRES

AND AT 4 METRE MAXIMUM FROM CORNERS IN ALL CONCRETE BLOCK WALLS.

113 BACKFILL TO RETAINING WALLS TO BE FREE DRAINING GRANULAR MATERIAL U.N.O. PROVIDE SUBSOIL DRAIN BEHIND WEEP HOLES.

M14 DO NOT CONSTRUCT MASONRY WALLS ON SUSPENDED CONCRETE

UNTIL SLAB HAS BEEN STRIPPED AND DE-PROPPED.

M15 ALL CAVITY CONSTRUCTION TO HAVE GALVANISED OR STAINLESS STEEL WALL TIES INSTALLED AS PER AS 3700

## REINFORCEMENT

R1 ALL REINFORCEMENT BARS ARE TO BE D500N U.N.O.

R2 ALL REINFORCEMENT WELDED MESHES TO BE GRADE 500L U.N.O.

R3 WELDING OF REINFORCEMENT SHALL NOT BE PERMITTED UNLESS SHOWN ON THE STRUCTURAL DRAWINGS OR APPROVED BY THE ENGINEER. • (•) • • • • • •

REINFORCEMENT PLACEMENT DETAIL

LAYER B —

ATTENTION IS DRAWN TO THE FACT THAT DUE T THE NATURE OF CONCRETE, CRACKING OF A NON-STRUCTURAL NATURE MAY OCCUR. REINFORCEMENT HAS BEEN ADDED TO THE SLABS TO MITIGATE THE EXTENT OF CRACKING, HOWEVER IT I NOT POSSIBLE TO GUARANTEE COMPLETE ELIMINATION OF SLAB CRACKING.

SCOPE OF WORKS TO BE UNDERTAKEN AS PART OF SWC-1 APPROVAL TO BE AS PER

BURTONS SCOPE. DOCUMENT REF "430 ALP BEW MOVEMENT PLAN (BEWMP) AS AGREED WITH BRS.

WORKS NOT DESCRIBED BY THIS DOCUMENT SUBJECT TO FUTURE WORKS APPROVALS.

FOR SWC-1

SCALE 1:20 AT A0 SIZE SHEET

ISSUED FOR SWC-1 13.09.24 03.09.24 REVISED AS CLOUDED 28.05.24 REVISED AS CLOUDED ISSUED FOR CONSTRUCTION 21.05.24 DATE ISSUE AMENDMENTS AMENDMENTS DATE ISSUE AMENDMENTS









DESIGNED DRAWN DATE CHECKED SIZE SCALE CAD REF:
DW JB MAR' 24 MW A0 AS SHOWN C014021.05-C 650



Costin Roe Consulting Pty Ltd. ABN 50 003 696 446 PO Box N419 Sydney NSW 1220 Level 4, 8 Windmill Street, Millers Point NSW 2000





ENGINEERS

RETAINING WALL DETAILS SHEET 3

C014021.05-C652



- 1. SCOPE OF WORKS TO BE UNDERTAKEN AS PART OF SWC-1 APPROVAL TO BE AS PER BURTONS SCOPE.

  DOCUMENT REF "430\_ALP\_BEW MOVEMENT PLAN (BEWMP) AS
- AGREED WITH BRS. WORKS NOT DESCRIBED BY THIS DOCUMENT SUBJECT TO FUTURE WORKS APPROVALS.

## Subdivision Works Certificate

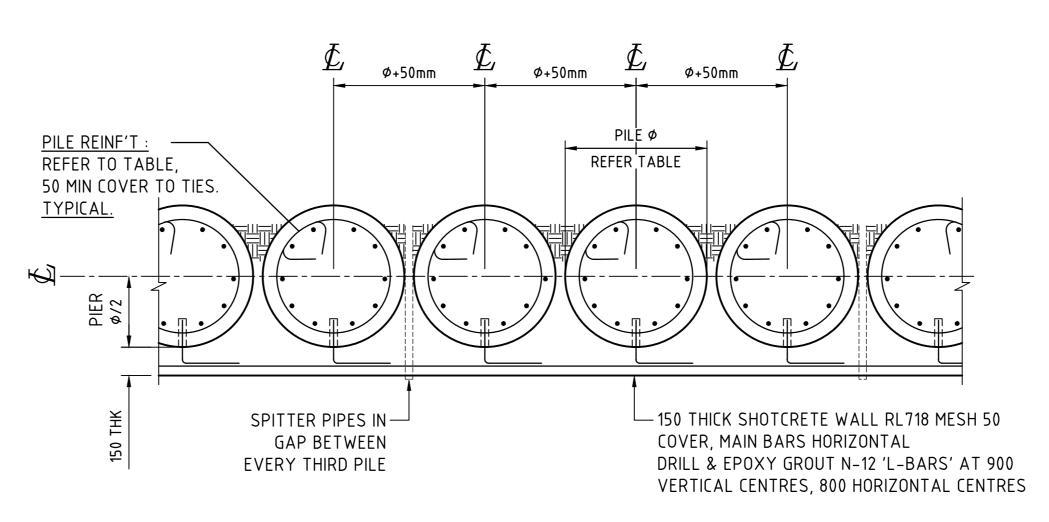
Certificate Number: 210204SW01

Issuing Officer: Christopher Borg

Registration Number: BDC3330

These plans/specifications form part BARKER of the certificate issued: 04/10/2024



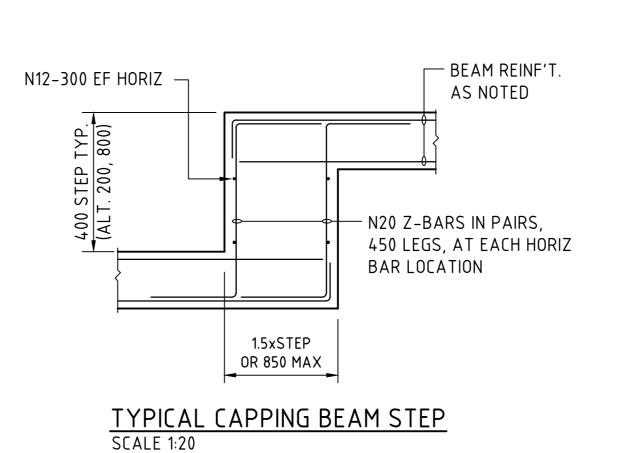


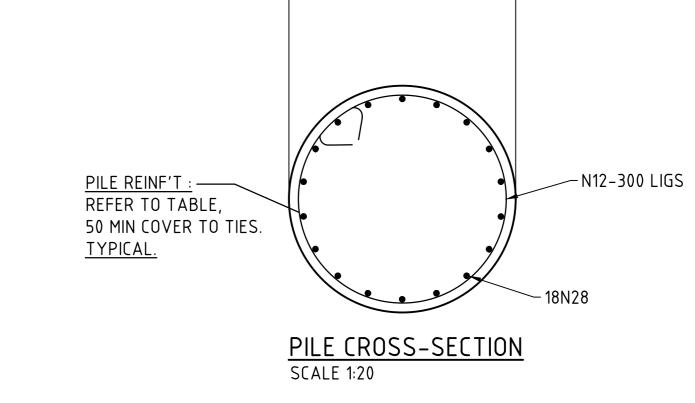
PILE WALL TYPE 1 - DETAIL SCALE 1:20

## <u>PILE WALL - SCHEDULE</u>

PILE WALL	MAX.	PILE	PILE	MIN SOCKET #	PILE	SUPERIMPOSED
TYPE	HEIGHT"H"(m)	DIA. (mm)	SPACING (mm)	DEPTH "S" (m)	REINFORCEMENT.	LIVE LOAD
1	9.4	1200	1250	7.4*	18N28 + N12-300 LIGS	5 kPa

\* FINAL SOCKET DEPTH INTO SHALE BEDROCK, MATERIAL PROPERTIES AND DEPTH TO MATERIAL TO BE CONFIRMED BY GEOTECHNICAL ENIGNEER ON SITE.





1200

NOTE: FURTHER GEOTECHNICAL
INFORMATION REQUIRED PRIOR
TO CONSTRUCTION TO VERIFY
ASSUMPTIONS ON DESIGN.

1300

PILE CAPPING BEAM DETAIL
SCALE 1:20

\_\_\_N10-300 TIES.

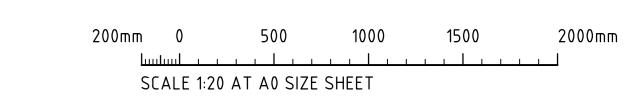
● 2N24 CENTRAL BARS.

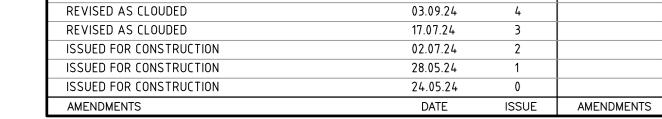
HORIZONTAL.
1300 LAPS STAGGERED

CONCRETE QUALITY							
ELEMENT	SLUMP	AGGREGATE (MAX. SIZE)	CEMENT TYPE	ADMIXTURE	F'c (MPa)		
PILES	80	20	SL	NIL	32		
SHOT CRETE	230	10	SL	NIL	32		

## PILE WALL DETAILS







MONOWILLS HANDRAIL

TO EACH TIER.

<u>TYPICAL</u>

CAPPING BEAM——

NATURAL SOIL:  $\gamma = 18$ kN/m<sup>3</sup>  $K_a = 0.333$   $K_p = 3$ 

WEATHERED

SHALE:  $\gamma = 22 \text{kN/m}^3$   $K_a = 0.333$ 

 $K_p = 3$ 

BEDROCK:  $\gamma = 22 \text{kN/m}^3$ ASSUMED  $K_a = 0.2$ ASSUMED  $K_p = 5$ TBC BY GEOTECHNICAL ENGINEER ON SITE

7N24 TOP & BTM BARS.——

1300 LAPS STAGGERED.

HORIZONTAL.

TOP OF SHALE

\*////////

DATE ISSUE AMENDMENTS

OR APPROVED EQUIVALENT

TOP OF WALL

REFER TO ELEVATIONS

B.E.L. RL VARIES

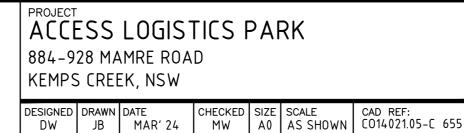
SCALE 1:20

PILE WALL TYPE 1 - TYPICAL SECTION







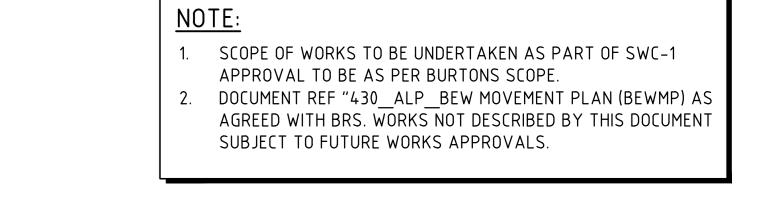






PILE WALL DETAILS

CO14021.05-C655





Certificate Number: 210204SW01

Issuing Officer: Christopher Borg \_

Registration Number: BDC3330

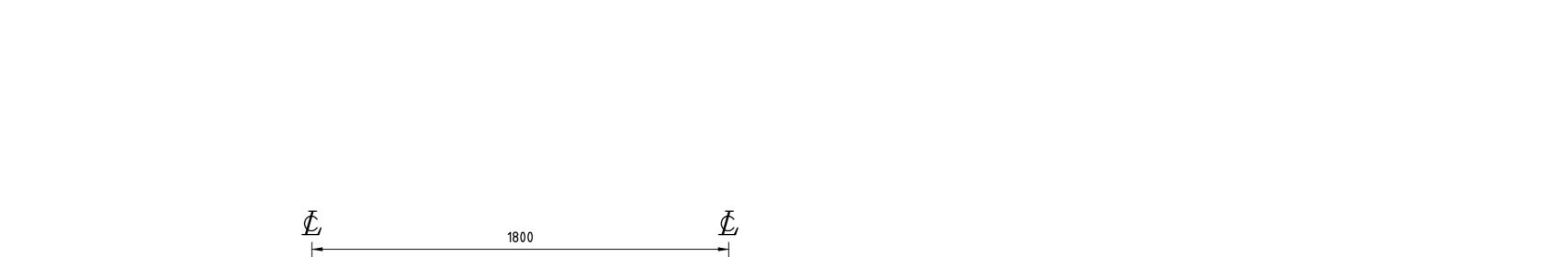


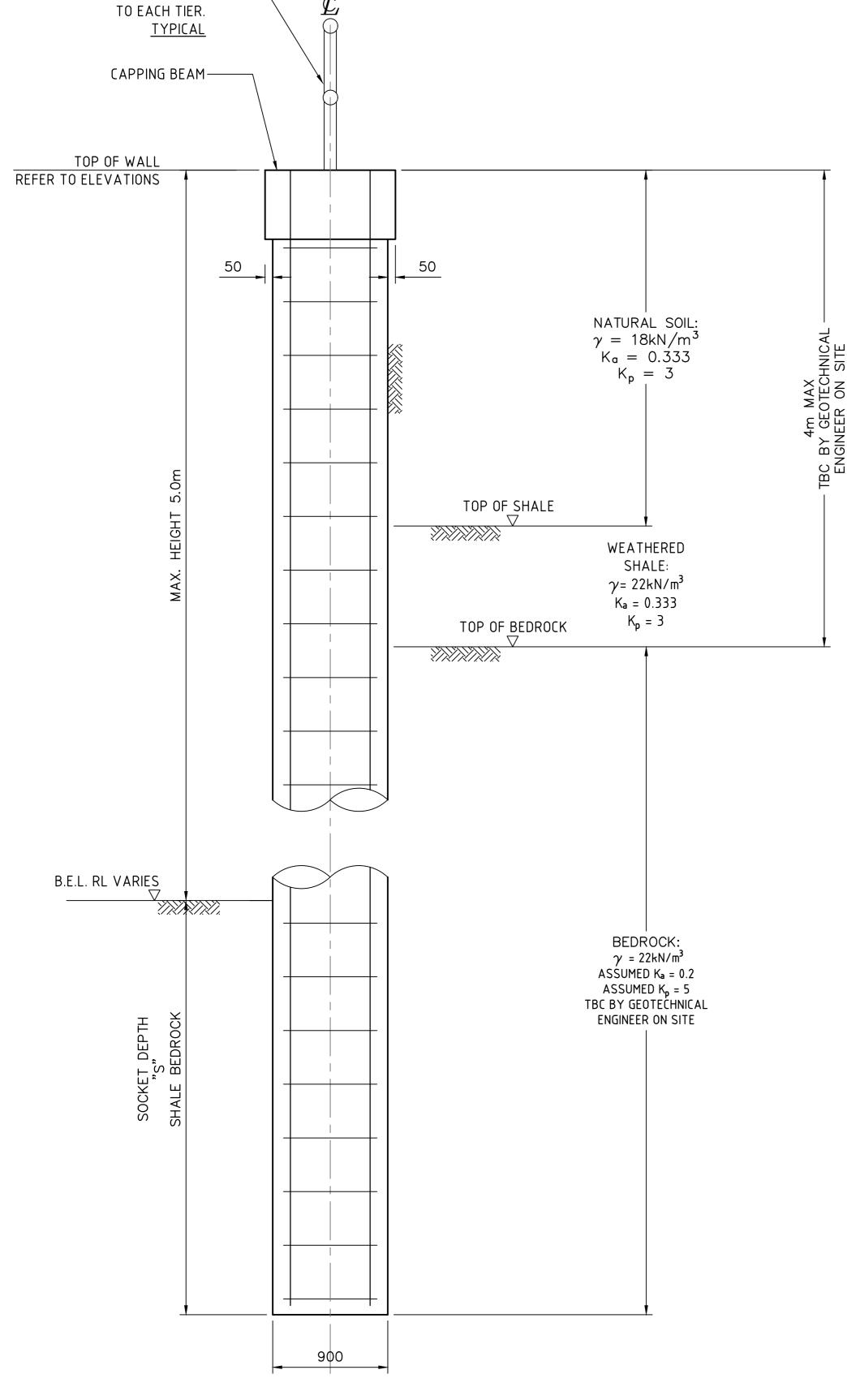
These plans/specifications form part BARKER of the certificate issued: 04/10/2024

∕N12-300 LIGS

PILE CROSS-SECTION
SCALE 1:20



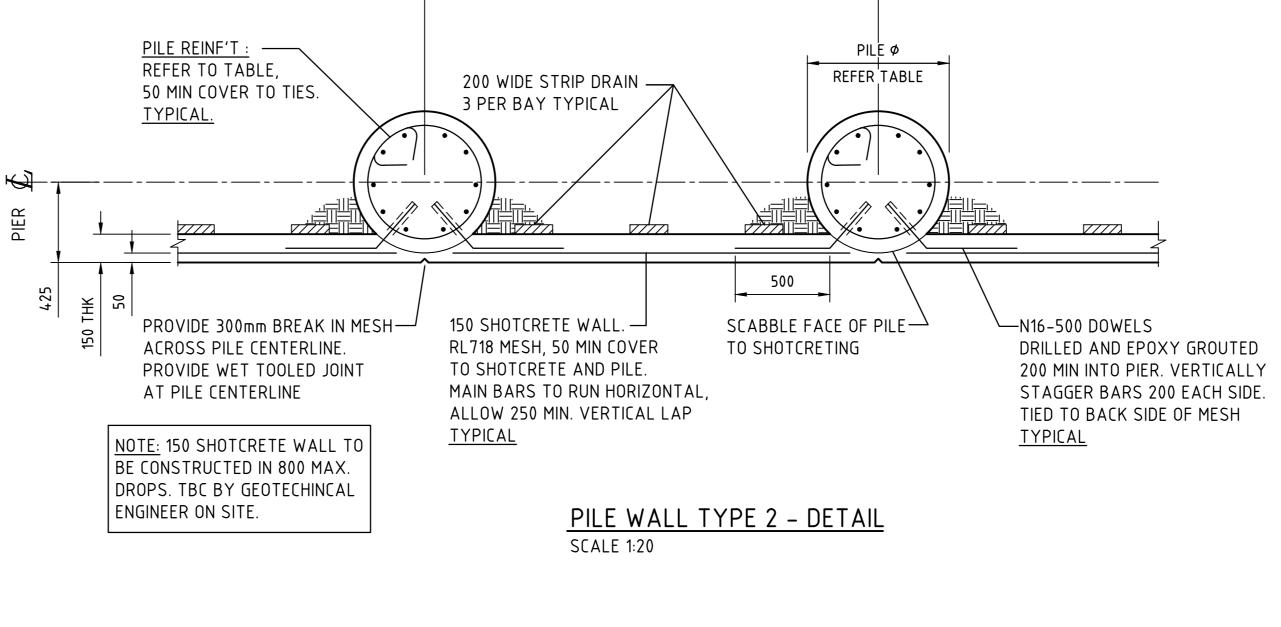




PILE WALL TYPE 2 - TYPICAL SECTION SCALE 1:20

MONOWILLS HANDRAIL

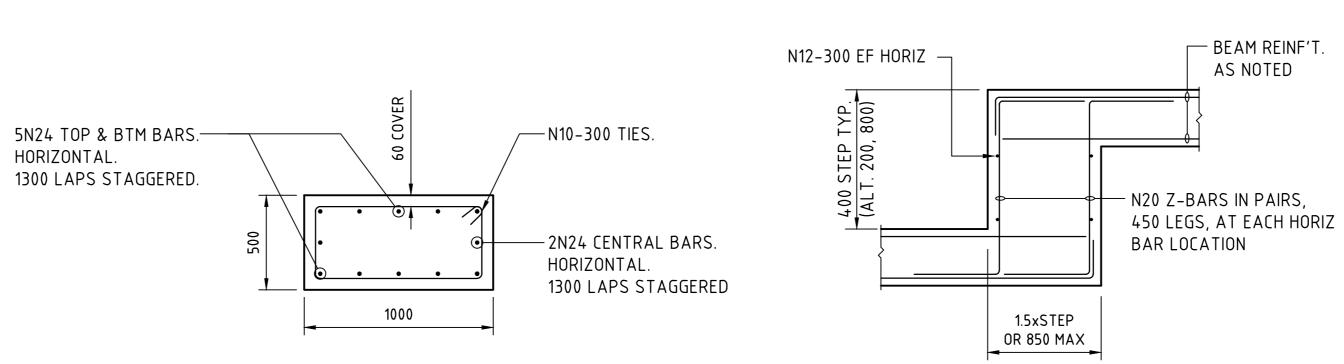
OR APPROVED EQUIVALENT

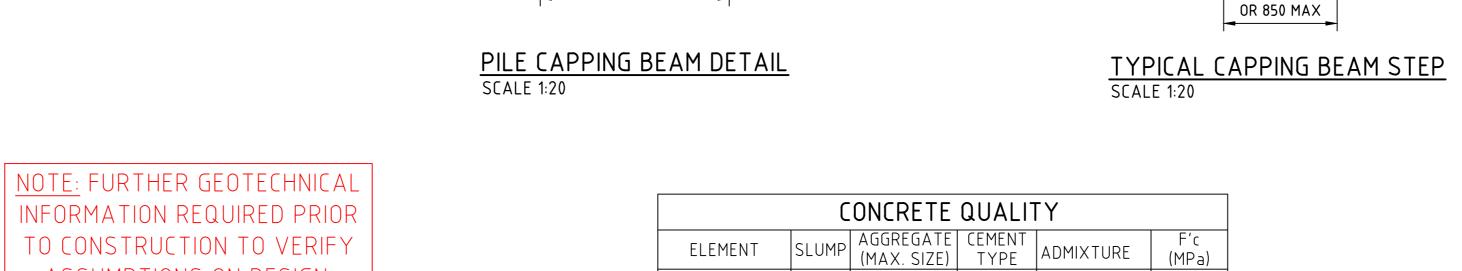


## PILE WALL TYPE 2 - SCHEDULE

	1					
PILE	MAX.	PILE	PILE	MIN SOCKET #	PILE	SUPERIMPOSED
TYPE	HEIGHT"H"(m)	DIA. (mm)	SPACING (mm)	DEPTH "S" (m)	REINFORCEMENT.	LIVE LOAD
2	5	900	1800	6.3*	12N28 + N12 - 300 LIGS	5 kPa

\* FINAL SOCKET DEPTH INTO SHALE, BEDROCK, MATERIAL PROPERTIES AND DEPTH TO MATERIAL TO BE CONFIRMED BY GEOTECHNICAL ENGINEER ON SITE.





## PILE WALL DETAILS

NIL

SHOT CRETE 230 10 SL

FOR	SWC-1

PILE REINF'T:

REFER TO TABLE,

50 MIN COVER TO TIES.

200mm	0	500	1000	1500	20001
		20 AT A0 SIZE			

		<u> </u>						
			PROJECT MANAGER	ARCHITECT	CLIENT	PROJECT DA DA	Coatin Doe Congulting Dty Ltd	DRAWING TITLE
ISSUED FOR SWC-1	13.09.24 4					ALLESS LOGISTICS PARK	Costin Roe Consulting Pty Ltd.	PILE WALL DETAILS
REVISED AS CLOUDED	03.09.24 3					887928 MAMRE DOAD	ABN 50 003 696 446	SHEET 2
REVISED AS CLOUDED	19.07.24 2				DUNIUN	VENDS CDEEK NOW	CONSULT AUSTRALIA  PO Box N419 Sydney NSW 1220  Level 4, 8 Windmill Street, Millers Point NSW 2000  COSTINIDATE  CIVIL &  STEPIICTI ID A1	STILL 1 Z
REVISED AS CLOUDED	17.07.24 1				Civil Engineering Contractors	REMPS CREEN, NSW		L
ISSUED FOR CONSTRUCTION	02.07.24 0		Drojoct <b>Stratogy</b>	<b>nettleton</b> tribe	Civil Zinginicering Contractors	DESIGNED DRAWN DATE CHECKED SIZE SCALE CAD REF:	p: +61 2 9251 7699 f: +61 2 9241 3731 CONSULTING FNGINEERS	DRAWING No COAL OCA OF COF
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ASSUMPTIONS ON DESIGN.

