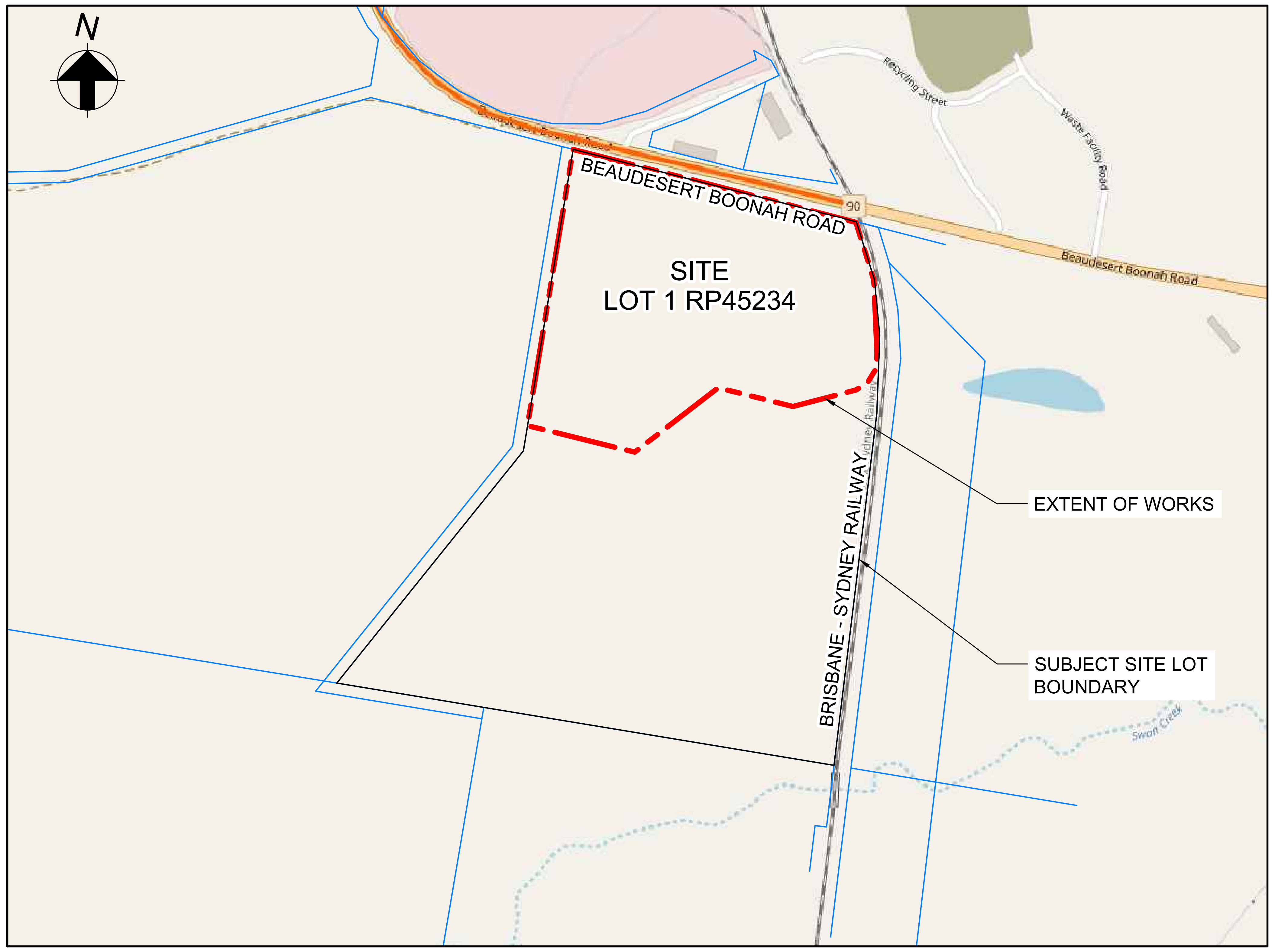
BERC - INFRASTRUCTURE

CIVIL ENGINEERING



AERIAL GPS open street maps @ 2023

LOCALITY PLAN
NTS

DRAWING No.	DESCRIPTION
BERC-ARU-BNE-CICW-DRG-1001	GENERAL - COVER SHEET, LOCALITY PLAN AND DRAWING INDEX
BERC-ARU-BNE-CICW-DRG-1005	GENERAL - NOTES
BERC-ARU-BNE-CICW-DRG-1006	GENERAL - LEGEND
BERC-ARU-BNE-CICW-DRG-1010	EXISTING SITE - PLAN
BERC-ARU-BNE-CICW-DRG-1020	PROPOSED SITE - PLAN
BERC-ARU-BNE-CICW-DRG-1021	PROPOSED SITE PLAN - DEVELOPMENT FOOTPRINT
BERC-ARU-BNE-CICW-DRG-1030	PROPOSED SITE PLAN -CLEARANCES FROM DEVELOPMENT FOOTPRINT
BERC-ARU-BNE-CICW-DRG-1080	DEMOLITION AND SITE CLEARANCE - PLAN
BERC-ARU-BNE-CICW-DRG-1101	SOIL AND WATER MANAGEMENT - PLAN
BERC-ARU-BNE-CICW-DRG-1191	SOIL AND WATER MANAGEMENT - DETAILS
BERC-ARU-BNE-CICW-DRG-1201	BULK EARTHWORKS - PLAN
BERC-ARU-BNE-CICW-DRG-1241	BULK EARTHWORKS - SITE SECTIONS - SHEET 1
BERC-ARU-BNE-CICW-DRG-1242	BULK EARTHWORKS - SITE SECTIONS - SHEET 2
BERC-ARU-BNE-CICW-DRG-1243	BULK EARTHWORKS - SITE SECTIONS - SHEET 3
BERC-ARU-BNE-CICW-DRG-1244	BULK EARTHWORKS - SITE SECTIONS - SHEET 4
BERC-ARU-BNE-CICW-DRG-1245	BULK EARTHWORKS - SITE SECTIONS - SHEET 5
BERC-ARU-BNE-CICW-DRG-1341	CIVIL WORKS - TYPICAL CROSS SECTIONS - SHEET 1
BERC-ARU-BNE-CICW-DRG-1342	CIVIL WORKS - TYPICAL CROSS SECTIONS - SHEET 2
BERC-ARU-BNE-CICW-DRG-1343	CIVIL WORKS - TYPICAL CROSS SECTIONS - SHEET 3
BERC-ARU-BNE-CICW-DRG-1351	CIVIL WORKS - MC01 LONGITUDINAL SECTIONS - SHEET 1
BERC-ARU-BNE-CICW-DRG-1352	CIVIL WORKS - MC01 LONGITUDINAL SECTIONS - SHEET 2
BERC-ARU-BNE-CICW-DRG-1353	CIVIL WORKS - MC02 LONGITUDINAL SECTIONS
BERC-ARU-BNE-CICW-DRG-1354	CIVIL WORKS - MC13 LONGITUDINAL SECTIONS
BERC-ARU-BNE-CICW-DRG-1355	CIVIL WORKS - MC14 LONGITUDINAL SECTIONS
BERC-ARU-BNE-CICW-DRG-1356	CIVIL WORKS - MC15 LONGITUDINAL SECTIONS
BERC-ARU-BNE-CICW-DRG-1466	CIVIL WORKS - VEHICLE SWEPT PATH - PLAN - SHEET 1
BERC-ARU-BNE-CICW-DRG-1467	CIVIL WORKS - VEHICLE SWEPT PATH - PLAN - SHEET 2
BERC-ARU-BNE-CICW-DRG-1468	CIVIL WORKS - VEHICLE SWEPT PATH - PLAN - SHEET 3
BERC-ARU-BNE-CICW-DRG-1469	CIVIL WORKS - VEHICLE SWEPT PATH - PLAN - SHEET 4
BERC-ARU-BNE-CICW-DRG-1470	CIVIL WORKS - VEHICLE SWEPT PATH - PLAN - SHEET 5
BERC-ARU-BNE-CICW-DRG-1601	STORMWATER - PRE-DEVELOPMENT CATCHMENT - PLAN
BERC-ARU-BNE-CICW-DRG-1605	STORMWATER - PROPOSED CATCHMENT - PLAN
BERC-ARU-BNE-CICW-DRG-1611	STORMWATER - PLAN - SHEET 1
BERC-ARU-BNE-CICW-DRG-1612	STORMWATER - PLAN - SHEET 2
BERC-ARU-BNE-CICW-DRG-1613	STORMWATER - PLAN - SHEET 3
BERC-ARU-BNE-CICW-DRG-1614	STORMWATER - PLAN - SHEET 4
BERC-ARU-BNE-CICW-DRG-1615	STORMWATER - PLAN - SHEET 5
BERC-ARU-BNE-CICW-DRG-1641	STORMWATER - LONGITUDINAL SECTIONS - SHEET 1
BERC-ARU-BNE-CICW-DRG-1642	STORMWATER - LONGITUDINAL SECTIONS - SHEET 2
BERC-ARU-BNE-CICW-DRG-1643	STORMWATER - LONGITUDINAL SECTIONS - SHEET 3
BERC-ARU-BNE-CICW-DRG-1644	STORMWATER - LONGITUDINAL SECTIONS - SHEET 4
BERC-ARU-BNE-CICW-DRG-1645	STORMWATER - LONGITUDINAL SECTIONS - SHEET 5
BERC-ARU-BNE-CICW-DRG-1646	STORMWATER - LONGITUDINAL SECTIONS - SHEET 6
BERC-ARU-BNE-CICW-DRG-1647	STORMWATER - LONGITUDINAL SECTIONS - SHEET 7
BERC-ARU-BNE-CICW-DRG-1648	STORMWATER - LONGITUDINAL SECTIONS - SHEET 8
BERC-ARU-BNE-CICW-DRG-1649	STORMWATER - LONGITUDINAL SECTIONS - SHEET 9
BERC-ARU-BNE-CICW-DRG-1650	STORMWATER - LONGITUDINAL SECTIONS - SHEET 10
BERC-ARU-BNE-CICW-DRG-1651	STORMWATER - LONGITUDINAL SECTIONS - SHEET 11
BERC-ARU-BNE-CICW-DRG-1652	STORMWATER - LONGITUDINAL SECTIONS - SHEET 12
BERC-ARU-BNE-CICW-DRG-1653	STORMWATER - LONGITUDINAL SECTIONS - SHEET 13
BERC-ARU-BNE-CICW-DRG-1691	STORMWATER - MISCELLANEOUS DETAILS
BERC-ARU-BNE-CICW-DRG-1700	PAVEMENT - PLAN
BERC-ARU-BNE-CICW-DRG-1791	PAVEMENT - PROFILES
BERC-ARU-BNE-CICW-DRG-1801	UTILITIES - PLAN
BERC-ARU-BNE-CICW-DRG-1802	OFF-SITE WATER AND SEWER PLAN

NOT FOR CONSTRUCTION

Scales

Issue	Date	By	Chkd	Appd
C	16.01.26	PDA	ERA	EGM
	ISSUE FOR APPROVAL			
B	26.09.25	PDA	ERA	EGM
	ISSUED FOR ADEQUACY REVIEW			
A	18.08.25	PDA	ERA	EGM
	DRAFT FEED ISSUE			

Client

Engineering Certification (CEng)
Name: ....
Signature: .... Date: ....

Job Title
BROMELTON ENERGY AND
RESOURCES CENTRE

Scale at A1 NOT TO SCALE

Discipline CIVIL

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Drawing Title
GENERAL
COVER SHEET, LOCALITITY PLAN
AND DRAWING INDEX

Drawing Status
FOR APPROVAL

Job No	Drawing No	Issue
293683-00	**BERC- ARU-BNE-CICW-DRG-1001**	**C**

Do not scale

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GENERAL

1. DRAWINGS TO BE READ IN CONJUNCTION WITH FEED REPORT BERC-ARU-BNE-GLDM-RPT-0002.
2. DRAWINGS PRODUCED SHOW PRELIMINARY DESIGN AND ARE PROVIDED IN SUPPORT OF A DEVELOPMENT LICENSE APPLICATION.THEY DO NOT REPRESENT DETAILED DESIGN OR CONSTRUCTION LEVEL INFORMATION.
3. FEED DESIGNS PRESENTED ARE BASED UPON "MASTERPLAN LAYOUT REV P, JULY 2025", BY RAMBOLL.
4. DIMENSIONS SHALL NOT BE OBTAINED BY SCALING THE DRAWINGS.
5. ALL DIMENSIONS ON DETAILS ARE IN MILLIMETRES UNLESS STATED OTHERWISE. ALL PLANS AND LEVELS ARE EXPRESSED IN METRES.
6. THE APPROVAL OF A SUBSTITUTION SHALL BE SOUGHT FROM THE ENGINEER BUT IS NOT AN AUTHORISATION FOR A VARIATION. ANY VARIATIONS INVOLVED MUST BE TAKEN UP WITH THE ENGINEER / PRINCIPAL'S REPRESENTATIVE BEFORE THE WORK COMMENCES.
7. ANY DISCREPANCIES OR OMISSIONS SHALL BE REFERRED TO THE ENGINEER FOR A DECISION BEFORE PROCEEDING WITH THE WORK.
8. THE CONTRACTOR SHALL GIVE 48 HOURS NOTICE FOR ALL ENGINEERING INSPECTIONS. ALL INSPECTIONS AND CERTIFICATIONS TO BE INCLUDED IN CONTRACTORS COST.
9. BUILDING FROM THESE DRAWINGS IS NOT TO COMMENCE UNTIL APPROVED BY THE PRINCIPAL CERTIFYING AUTHORITY.
10. THE WORD 'ENGINEER' USED IN THESE NOTES REFER TO AN EMPLOYEE OR NOMINATED REPRESENTATIVE OF ARUP AUSTRALIA PTY LTD.
11. ALL CONSTRUCTION ACTIVITIES SHALL COMPLY WITH THE RELEVANT CURRENT WORKPLACE HEALTH AND SAFETY LEGISLATION.

SITEWORKS

1. ORIGIN OF LEVELS:- AUSTRALIAN HEIGHT DATUM (A.H.D)
2. CONTRACTOR MUST VERIFY ALL DIMENSIONS AND EXISTING LEVELS ON SITE PRIOR TO COMMENCEMENT OF WORK.
3. ALL WORK IS TO BE UNDERTAKEN IN ACCORDANCE WITH THE DETAILS SHOWN ON THE DRAWINGS, THE SPECIFICATIONS AND THE DIRECTIONS OF THE PRINCIPAL'S REPRESENTATIVE.
4. EXISTING SERVICES HAVE BEEN PLOTTED FROM SUPPLIED DATA AND AS SUCH THEIR ACCURACY CANNOT BE GUARANTEED. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ESTABLISH THE LOCATION AND LEVEL OF ALL EXISTING SERVICES PRIOR TO THE COMMENCEMENT OF ANY WORK. ANY DISCREPANCIES SHALL BE REPORTED TO THE PRINCIPAL'S REPRESENTATIVE. CLEARANCES SHALL BE OBTAINED FROM THE RELEVANT SERVICE AUTHORITY.
5. WHERE NEW WORKS ABUT EXISTING THE CONTRACTOR SHALL ENSURE THAT A SMOOTH EVEN PROFILE, FREE FROM ABRUPT CHANGES IS OBTAINED.
6. THE CONTRACTOR SHALL ARRANGE ALL SURVEY SETOUT TO BE CARRIED OUT BY A REGISTERED SURVEYOR.
7. CARE IS TO BE TAKEN WHEN EXCAVATING NEAR EXISTING SERVICES. NO MECHANICAL EXCAVATIONS ARE TO BE UNDERTAKEN OVER COMMUNICATIONS OR ELECTRICAL SERVICES. HAND EXCAVATE IN THESE AREAS.
8. ON COMPLETION OF PIPE INSTALLATION ALL DISTURBED AREAS MUST BE RESTORED TO ORIGINAL. INCLUDING KERBS, FOOTPATHS, CONCRETE AREAS, GRAVEL AND GRASSED AREAS AND ROAD PAVEMENTS IN ACCORDANCE WITH ALL LOCAL COUNCIL REQUIREMENTS.
9. PROVIDE 10mm WIDE EXPANDING CORK JOINTS BETWEEN CONCRETE PAVEMENTS AND ALL BUILDINGS, WALLS, FOOTINGS, COLUMNS, KERBS, DISH DRAINS, GRATED DRAINS, BOLLARD FOOTINGS ETC.
10. CONTRACTOR TO OBTAIN ALL AUTHORITY APPROVALS.
11. ALL BATTERS TO BE GRASS LINED WITH MINIMUM 100 TOPSOIL AND APPROVED COUCH LAID AS TURF U.N.O.
12. MAKE SMOOTH TRANSITION TO EXISTING SERVICES AND MAKE GOOD.
13. THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY DIVERSION DRAINS AND MOUNDS TO ENSURE THAT AT ALL TIMES EXPOSED SURFACES ARE FREE DRAINING AND WHERE NECESSARY EXCAVATE SUMPS AND PROVIDE PUMPING EQUIPMENT TO DRAIN EXPOSED AREAS.
14. ON COMPLETION OF WORKS ALL DISTURBED AREAS MUST BE RESTORED TO ORIGINAL INCLUDING, BUT NOT LIMITED TO, KERBS, FOOTPATHS, CONCRETE AREAS, GRASS AND LANDSCAPED AREAS.

SURVEY

1. SURVEYS FOR THIS DESIGN ARE SUPPLIED BY: TJ KELLY SURVEYS PTY LTD DATED 26/05/2023 - REF 4577-02 REV B. SURVEYS ARE MGA2020 ZONE 56
2. ALL BEARINGS AND DISTANCES BY SURVEY.

EROSION AND SEDIMENT CONTROL MEASURES

1. ALL EROSION AND SEDIMENT CONTROL MEASURES TO BE IN ACCORDANCE WITH LANDCOM "SOILS AND CONSTRUCTION MANUAL VOLUME 1, MARCH 2004".
2. THIS PLAN IS TO BE READ IN CONJUNCTION WITH THE ENGINEERING PLANS, AND ANY OTHER PLANS OR WRITTEN INSTRUCTIONS THAT MAY BE ISSUED AND RELATING TO DEVELOPMENT AT THE SUBJECT SITE.
3. THE PRINCIPAL'S REPRESENTATIVE WILL ENSURE THAT ALL SOIL AND WATER MANAGEMENT WORKS ARE LOCATED AS INSTRUCTED IN THIS SPECIFICATION.
4. ALL BUILDERS AND SUB-CONTRACTORS WILL BE INFORMED OF THEIR RESPONSIBILITIES IN MINIMISING THE POTENTIAL FOR SOIL EROSION AND POLLUTION TO DOWNSLOPE LANDS AND WATERWAYS.
5. THE SOIL EROSION POTENTIAL ON THIS SITE SHALL BE MINIMISED. HENCE WORKS SHALL BE UNDERTAKEN IN THE FOLLOWING SEQUENCE:
   A) INSTALL SEDIMENT FENCES, TEMPORARY CONSTRUCTION EXIT AND SANDBAG KERB INLET SEDIMENT TRAP.
   B) UNDERTAKE SITE DEVELOPMENT WORKS IN ACCORDANCE WITH THE ENGINEERING PLANS. PHASE DEVELOPMENTS SO THAT LAND DISTURBANCE IS CONFINED TO AREAS OF WORKABLE SIZE.
6. DURING WINDY CONDITIONS, LARGE, UNPROTECTED AREAS WILL BE KEPT MOIST (NOT WET) BY SPRINKLING WITH WATER TO KEEP DUST UNDER CONTROL.
7. FINAL SITE LANDSCAPING WILL BE UNDERTAKEN AS SOON AS POSSIBLE AND WITHIN 20 WORKING DAYS FROM COMPLETION OF CONSTRUCTION ACTIVITIES.
8. STOCKPILES WILL NOT BE LOCATED WITHIN 2 METRES OF HAZARD AREAS. INCLUDING LIKELY AREAS OF CONCENTRATED OR HIGH VELOCITY FLOWS SUCH AS WATERWAYS. WHERE THEY ARE BETWEEN 2 AND 5 METRES FROM SUCH AREAS, SPECIAL SEDIMENT CONTROL MEASURES SHOULD BE TAKEN TO MINIMISE POSSIBLE POLLUTION TO DOWNSLOPE WATERS, E.G. THROUGH INSTALLATION OF SEDIMENT FENCING.
9. ANY SAND USED IN THE CONCRETE CURING PROCESS (SPREAD OVER THE SURFACE) WILL BE REMOVED AS SOON AS POSSIBLE AND WITHIN 10 WORKING DAYS FROM PLACEMENT.
10. WATER WILL BE PREVENTED FROM ENTERING THE PERMANENT DRAINAGE SYSTEM UNLESS IT IS RELATIVELY SEDIMENT FREE, I.E. THE CATCHMENT AREA HAS BEEN PERMANENTLY LANDSCAPED AND/OR ANY LIKELY SEDIMENT HAS BEEN FILTERED THROUGH AN APPROVED STRUCTURE.
11. TEMPORARY SOIL AND WATER MANAGEMENT STRUCTURES WILL BE REMOVED ONLY AFTER THE LANDS THEY ARE PROTECTING ARE REHABILITATED.
12. ACCEPTABLE RECEPTORS WILL BE PROVIDED FOR CONCRETE AND MORTAR SLURRIES, PAINTS, ACID WASHINGS, LIGHT-WEIGHT WASTE MATERIALS AND LITTER.
13. RECEPTORS FOR CONCRETE AND MORTAR SLURRIES, PAINTS, ACID WASHINGS, LIGHT-WEIGHT WASTE MATERIALS AND LITTER ARE TO BE EMPTIED AS NECESSARY. DISPOSAL OF WASTE SHALL BE IN A MANNER APPROVED BY THE PRINCIPAL'S REPRESENTATIVE.
14. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSPECTED AFTER RAINFALL EVENTS TO ENSURE THAT THEY OPERATE EFFECTIVELY. REPAIR AND OR MAINTENANCE SHALL BE UNDERTAKEN AS REQUIRED.

ROADWORKS GENERAL

1. THE CONTRACTOR SHALL OBTAIN ALL LEVELS FROM ESTABLISHED BENCH MARKS ONLY AS SUPPLIED BY THE APPOINTED SURVEYORS.
2. SERVICES SHOWN ON THESE PLANS ARE LOCATED FROM INFORMATION SUPPLIED BY THE RELEVANT AUTHORITIES AND FIELD INVESTIGATIONS AND ARE NOT GUARANTEED COMPLETE OR CORRECT. ALL SERVICE LOCATIONS ARE TO BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.
3. NO WORK TO BE CARRIED OUT ON ADJOINING PROPERTIES WITHOUT THE WRITTEN PERMISSION FROM THE OWNER.
4. VEHICULAR ACCESS AND ALL SERVICES ARE TO BE MAINTAINED AT ALL TIMES TO AREAS AFFECTED BY CONSTRUCTION.
5. ALL RUBBISH, BUILDINGS, SHEDS, FENCES, AND POWER POLES ARE TO BE REMOVED IN ACCORDANCE WITH THE SPECIFICATION.
6. NO TREES TO BE REMOVED OTHER THAN THOSE AFFECTED BY THE WORKS.
7. CONTRACTOR TO INSTALL ROOT CONTROL BARRIERS ALONG LENGTH OF KERBS AND RETAINING WALLS ADJACENT TO LANDSCAPED AREAS.

STORMWATER DRAINAGE

1. ALL KERB INLET PITS (ON GRADE) TO BE BENCHED AND STREAMLINED, PITS OVER 1.2 m IN DEPTH TO BE PROVIDED WITH STEP IRONS AND REINFORCED IN ACCORDANCE WITH AS 4198.
2. CONCRETE TO HAVE A MINIMUM COMPRESSIVE STRENGTH OF 32 MPa AT 28 DAYS U.N.O.
3. TAIL OUT DRAINS TO BE PROVIDED WITH COUCH LINED INVERT, JUTE STABILISED BATTERS, STRAWBALE AND GEOTEXTILE SEDIMENT FILTERS EVERY 10 m.
4. PRIOR TO THE FINAL INSPECTION A CCTV INSPECTION AND REPORT IS TO BE UNDERTAKEN FOR ALL STORMWATER PIPES AND CULVERTS THAT ARE PART OF THE DRAINAGE SYSTEM.
5. STRUCTURAL CERTIFICATION IS REQUIRED FOR CONSTRUCTION OF MAJOR AND NON STANDARD STORMWATER DRAINAGE STRUCTURES. THE CONTRACTOR TO ARRANGE FOR A HOLD POINT FOR CONSTRUCTION INSPECTIONS WITH A SUITABLY QUALIFIED ENGINEER AS APPOINTED BY THE CONTRACTOR TO PROVIDE IN WRITING A STRUCTURAL CERTIFICATE AT COMPLETION OF WORKS.
6. CONNECT DOWNPIPES TO THE STORMWATER SYSTEM AS EARLY AS POSSIBLE.
7. CONTRACTOR TO PROVIDE ROOT CONTROL BARRIERS FOR DRAINAGE PIPES WITHIN LANDSCAPED AREAS.
8. ALL 225 DIA. DRAINAGE PIPES AND LARGER SHALL BE CLASS "4" APPROVED SPIGOT AND SOCKET FRC OR RCP PIPES WITH RUBBER RING JOINTS. (U.N.O.)
9. ALL PIPE JUNCTIONS UP TO AND INCLUDING 450 DIA. AND TAPERS SHALL BE VIA PURPOSE MADE FITTINGS.
10. CONTRACTOR TO SUPPLY AND INSTALL ALL FITTINGS AND SPECIALS INCLUDING VARIOUS PIPE ADAPTORS TO ENSURE PROPER CONNECTION BETWEEN DISSIMILAR PIPEWORK.
11. ALL CONNECTIONS TO EXISTING DRAINAGE PITS SHALL BE MADE IN A TRADESMAN-LIKE MANNER AND THE INTERNAL WALL OF THE PIT AT THE POINT OF ENTRY SHALL BE CEMENT RENDERED TO ENSURE A SMOOTH FINISH.
12. WHERE TRENCHES ARE IN ROCK, THE PIPE SHALL BE BEDDED ON A MIN. 50 mm CONCRETE BED (OR 75 mm THICK BED OF 12 mm BLUE METAL) UNDER THE BARREL OF THE PIPE. THE PIPE COLLAR AT NO POINT SHALL BEAR ON THE ROCK. IN OTHER THAN ROCK, PIPES SHALL BE LAID ON A 75 mm THICK SAND BED. IN ALL CASES BACKFILL THE TRENCH WITH SAND TO 200 mm ABOVE THE PIPE. WHERE THE PIPE IS UNDER PAVEMENTS BACKFILL REMAINDER OF TRENCH WITH SAND OR APPROVED GRANULAR BACKFILL COMPACTED IN 150 mm LAYERS TO 98% STANDARD MAX. DRY DENSITY.
13. BEDDING SHALL BE (U.N.O.) TYPE HS2, IN ACCORDANCE WITH CURRENT RELEVANT AUSTRALIAN STANDARDS.
14. WHERE STORMWATER LINES PASS UNDER FLOOR SLABS, SEWER GRADE RUBBER RING JOINTS ARE TO BE USED.
15. WHERE SUBSOIL DRAINAGE LINES PASS UNDER FLOOR SLABS AND VEHICULAR PAVEMENTS UNSLOTTED UPVC SEWER GRADE PIPE SHALL BE USED.
16. PROVIDE 3.0 m LENGTH OF 100 DIA. SUBSOIL DRAINAGE PIPE WRAPPED IN FABRIC SOCK, AT UPSTREAM END OF EACH PIT.

NOT FOR CONSTRUCTION

Scales

Issue	Date	By	Chkd	Appd
C	16.01.26	PDA	ERA	EGM
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	DRAFT FEED ISSUE			

Client
CLEANAWAY
Making a sustainable future possible

Engineering Certification (CEng)
Name: ....
Signature: .... Date: ....

Job Title
BROMELTON ENERGY AND RESOURCES CENTRE

Scale at A1 NOT TO SCALE
Discipline CIVIL

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Drawing Title
GENERAL
NOTES

Drawing Status
FOR APPROVAL

Job No 293683-00
Drawing No BERC- ARU-BNE-CICW-DRG-1005
Issue C

Do not scale

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EXISTING FEATURES

	LOT BOUNDARY
	DRIVEWAY, PATHWAY OR CYCLE WAY
	TOP OF BATTER
	BOTTOM OF BATTER
KERB AND GUTTER	KERB AND GUTTER
KERB ONLY	KERB ONLY
	KERB INLET PIT
DISH DRAIN	DISHED CROSSING
	FENCE
	EDGE OF GARDEN
×15.93	SPOT LEVEL
◎ ◦	BOLLARDS
17.0	EXISTING CONTOURS
	EXISTING TREE
▨	STORMWATER EASEMENT

EXISTING UTILITIES

	ELECTRICAL (OVERHEAD)
E E E	ELECTRICAL (UNDERGROUND)
C C C	COMMS (UNDERGROUND)
SW SW SW	STORMWATER
	CROSS DRAINAGE
W(D)	WATER (CLASS D)

PROPOSED UTILITIES

EO	ELECTRICAL (OVERHEAD)
W W	WATER
S S	SEWER

PROPOSED CIVIL WORKS

	EXTENT OF WORKS BOUNDARY
	EDGE OF PAVEMENT
	MINOR CONTOUR
17.0	MAJOR CONTOUR
SA	SA KERB
SM	SM KERB
VC	VEHICULAR CROSSING
	GIVEWAY LINE
	PROPOSED EXTERNAL RETAINING WALL
	LAND DEDICATION TO TMR FOR POTENTIAL FUTURE ROAD UPGRADE.
▭	BUILDING EXTEND

PROPOSED DRAINAGE

→	STORMWATER PIPE AND FLOW DIRECTION
Ø375	PIPE SIZE
▦	STORMWATER GRATED INLET PIT
▢	INSPECTION PIT
	HEADWALL
14\1	PIT LABEL LINE NUMBER 01 / PIT NUMBER 1
<<—<<—<<—<<—	PERIMETER SWALE
	TRENCH DRAIN
	RETAINING WALL SUBSOIL DRAINAGE (PERFORATED PIPE)
	CUT-OFF CHANNEL DRAIN
FP	FLUSHING POINT
	SCOUR PROTECTION
	CATCHMENT BOUNDARY LANDSCAPE
	CATCHMENT BOUNDARY ROAD PATHWAY
	CATHCMENT BOUNDARY BYPASS

QUEENSLAND GLOBE DATA

	HYDROLINES

PAVEMENT

⬜	RP1 JOINTED REINFORCED CONCRETE PAVEMENT (JRCP)
🟨	FP1 GRANULAR PAVEMENT WITH THIN ASPHALT SURFACING (CARPARK)
🟪	FP2 FULL DEPTH ASPHALT PAVEMENT (WORKING AREAS)
🟦	RP2 CONCRETE FOOTPATH

PROPOSED BULK EARTHWORKS

× BEL: 23.021m	BULK EARTHWORKS LEVEL

PROPOSED EROSION AND SEDIMENT CONTROL MEASURES

▥	TEMPORARY CONSTRUCTION EXIT
▦	CONSTRUCTION COMPOUND
●—●—●—●	SEDIMENT FENCE
▨	STOCKPILE
	FILTER SOCK
	RISING MAIN
—>>—>>—>>—	CHANNEL
	TEMPORARY PIPE & HEADWALL
	EARTH BANK
	ROCK CHECK DAM
⬭	SEDIMENT BASIN
🟥	SUMP

NOT FOR CONSTRUCTION

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Drawing Title
GENERAL
LEGEND

Drawing Status
FOR APPROVAL

Job No	Drawing No	Issue
293683-00	BERC- ARU-BNE-CICW-DRG-1006	C

Do not scale

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BEAUDESERT BOONAH ROAD
EXISTING ACCESS
EXISTING CULVERT CROSSING
UNDER BEAUDESERT BOONAH ROAD
EXISTING OVERLAND FLOW CHANNEL
EXISTING RIGHT OF WAY
EXISTING TELECOMS
CONDUITS
INDICATIVE LOCATION OF CATTLE CRUSH
& FORMER SPRAY RACE. REFER TO
DOUGLAS PARTNERS PRELIMINARY SITE
INVESTIGATION FOR CONTAMINATION
REPORT FOR FURTHER DETAILS.
EXISTING CULVERT
CROSSING UNDER
RAILWAY CORRIDOR
SITE
BOUNDARY
EXISTING
FARM DAM
EXISTING
FARM DAM
EXISTING
FARM DAM
SYDNEY TO BRISBANE RAILWAY CORRIDOR

NOTE

1. FOR GENERAL NOTES REFER TO DRAWING No. BERC-ARU-BNE-CICW-DRG-1005.
2. FOR LEGEND REFER TO DRAWING No. BERC-ARU-BNE-CICW-DRG-1006.

NOT FOR CONSTRUCTION

Scales

25 0 50 100m

1:2500(A1)/1:5000(A3)

Issue	Date	By	Chkd	Appd
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Engineering Certification (CEng)
Name: ....
Signature: .... Date: ....

Job Title
BROMELTON ENERGY AND
RESOURCES CENTRE

Scale at A1 1:2500m

Discipline CIVIL

ARUP

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www.arup.com

CONSULT AUSTRALIA
Member Firm
Arup Pty Ltd
ABN 18 000 966 165

Drawing Title
EXISTING SITE
PLAN

Drawing Status
FOR APPROVAL

Job No	Drawing No	Issue
293683-00	BERC- ARU-BNE-CICW-DRG-1010	C

Do not scale

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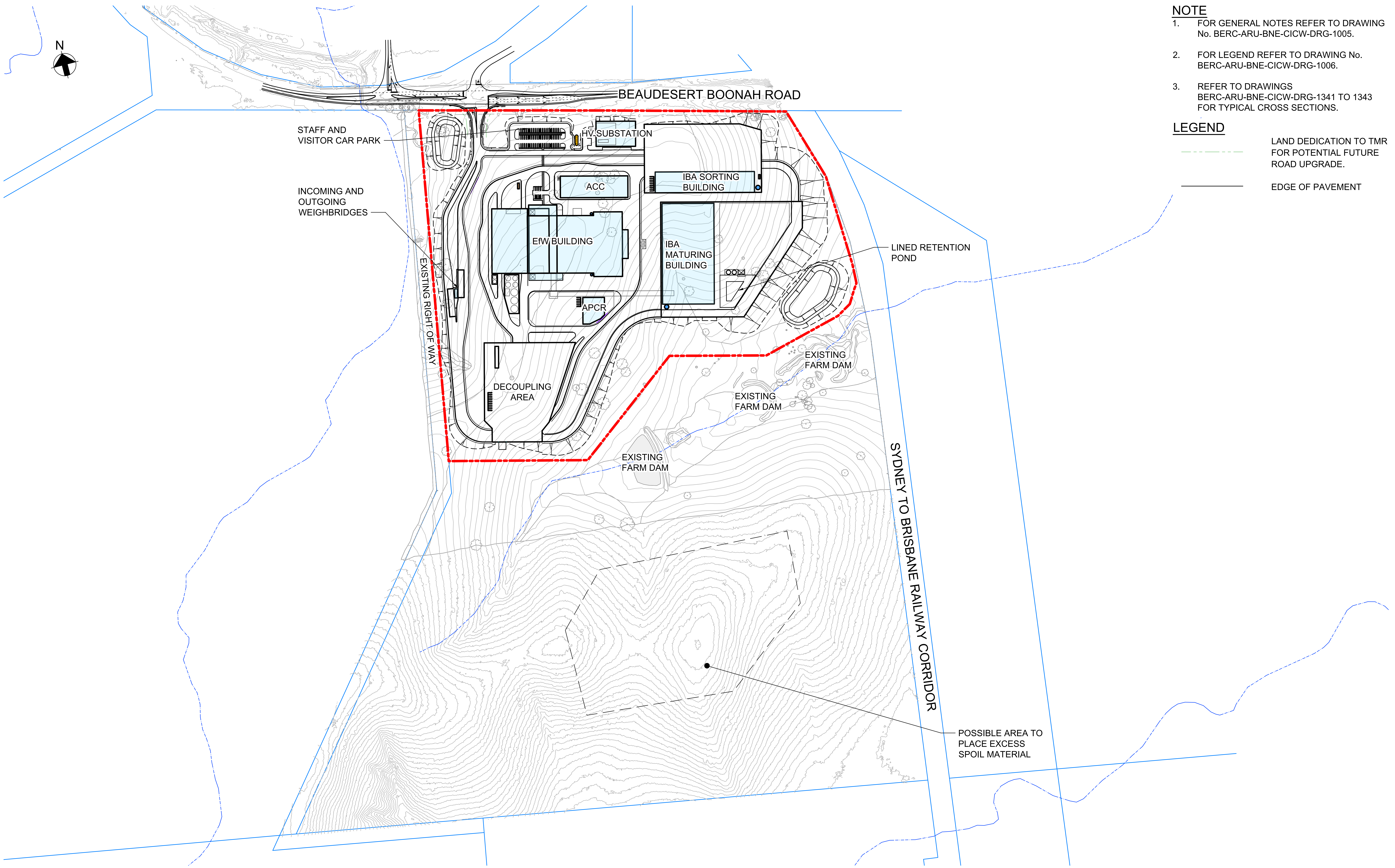

NOTE

1. FOR GENERAL NOTES REFER TO DRAWING No. BERC-ARU-BNE-CICW-DRG-1005.
2. FOR LEGEND REFER TO DRAWING No. BERC-ARU-BNE-CICW-DRG-1006.
3. REFER TO DRAWINGS BERC-ARU-BNE-CICW-DRG-1341 TO 1343 FOR TYPICAL CROSS SECTIONS.

LEGEND

- · - · -	LAND DEDICATION TO TMR FOR POTENTIAL FUTURE ROAD UPGRADE.
———	EDGE OF PAVEMENT

NOT FOR CONSTRUCTION

Scales

25 0 50 100m

1:2500(A1)/1:5000(A3)

Issue	Date	By	Chkd	Appd
D	16.01.26	PDA	ERA	EGM
	ISSUE FOR APPROVAL			
C	26.09.25	PDA	ERA	EGM
	ISSUED FOR ADEQUACY REVIEW			
B	18.08.25	PDA	ERA	EGM
	DRAFT FEED ISSUE			
A	22.07.25	PDA	ERA	EGM
	ISSUED FOR INFORMATION			

Client

CLEANAWAY
Making a sustainable future possible

Engineering Certification (CEng)
Name: ....
Signature: .... Date: ....

Job Title
BROMELTON ENERGY AND RESOURCES CENTRE

Scale at A1 1:2500m

Discipline CIVIL

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ABN 18 000 966 165

Drawing Title
PROPOSED SITE PLAN

Drawing Status
FOR APPROVAL

Job No	Drawing No	Issue
293683-00	BERC- ARU-BNE-CICW-DRG-1020	D

Do not scale

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A1
A
B
C
D
E
F
G
H
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J
K
L
M
N
O
P
1
2
3
4
5
6
7
8
9
10
N
PROPOSED SITE ACCESS VIA SIGNALISED JUNCTION WITH RECYCLING STREET.
BEAUDESERT BOONAH ROAD
1 1341
2 1341
3 1342
4 1342
5 1343
6 1343
7 1343
HV SUBSTATION
STORMWATER TREATMENT AND DETENTION BASIN
STAFF AND VISITOR CAR PARK
1-1.5 IN HIGH RETAINING WALL RW01
EXISTING RIGHT OF WAY
INCOMING & OUTGOING WEIGHBRIDGES.
TANKYARD
DEDICATED QUARANTINE BAY
LAYBACK FOR ACCESS TO SOUTHERN PORTION OF SITE.
ACC
FFL 93.90
EFW BUILDING
FFL 94.75
FFL 79.50
FFL 94.25
APCR
FFL 94.10
DE-COUPLING AREA
IBA SORTING BUILDING
IBA MATURING BUILDING
STACK
IBAA RUN-OFF STORAGE TANKS
LINED IBA/IBAA RETENTION BASIN
STORMWATER TREATMENT AND DETENTION BASIN
1-1.5 IN HIGH RETAINING WALL RW02
5.0
12.5
8.0
EXISTING FARM DAM
EXISTING FARM DAM
EXISTING FARM DAM
SYDNEY TO BRISBANE RAILWAY CORRIDOR
MC01
MC02
MC03
MC04
MC05
MC06
MC07
MC08
MC09
MC10
MC11
MC12
MC14
MC15
MC16

NOTE

1. FOR GENERAL NOTES REFER TO DRAWING No. BERC-ARU-BNE-CICW-DRG-1005.
2. FOR LEGEND REFER TO DRAWING No. BERC-ARU-BNE-CICW-DRG-1006.
3. REFER TO DRAWINGS BERC-ARU-BNE-CICW-DRG-1341 TO 1343 FOR TYPICAL CROSS SECTIONS.

LEGEND

— — —	LAND DEDICATION TO TMR FOR POTENTIAL FUTURE ROAD UPGRADE.
———	EDGE OF PAVEMENT

NOT FOR CONSTRUCTION

Scales
10 0 10 20 30 40 50m
1:1250(A1)/1:2500(A3)

Issue	Date	By	Chkd	Appd
D	16.01.26	PDA	ERA	EGM
	ISSUE FOR APPROVAL			
C	26.09.25	PDA	ERA	EGM
	ISSUED FOR ADEQUACY REVIEW			
B	18.08.25	PDA	ERA	EGM
	DRAFT FEED ISSUE			
A	22.07.25	PDA	ERA	EGM
	ISSUED FOR INFORMATION			

Client
CLEANAWAY
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Engineering Certification (CEng)
Name: ....
Signature: .... Date: ....

Job Title
BROMELTON ENERGY AND RESOURCES CENTRE

Scale at A1 1:1250m
Discipline CIVIL

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Member Firm
Arup Pty Ltd
ABN 18 000 966 165

Drawing Title
PROPOSED SITE
PLAN - DEVELOPMENT FOOTPRINT

Drawing Status
FOR APPROVAL

Job No	Drawing No	Issue
293683-00	BERC- ARU-BNE-CICW-DRG-1021	D

Do not scale

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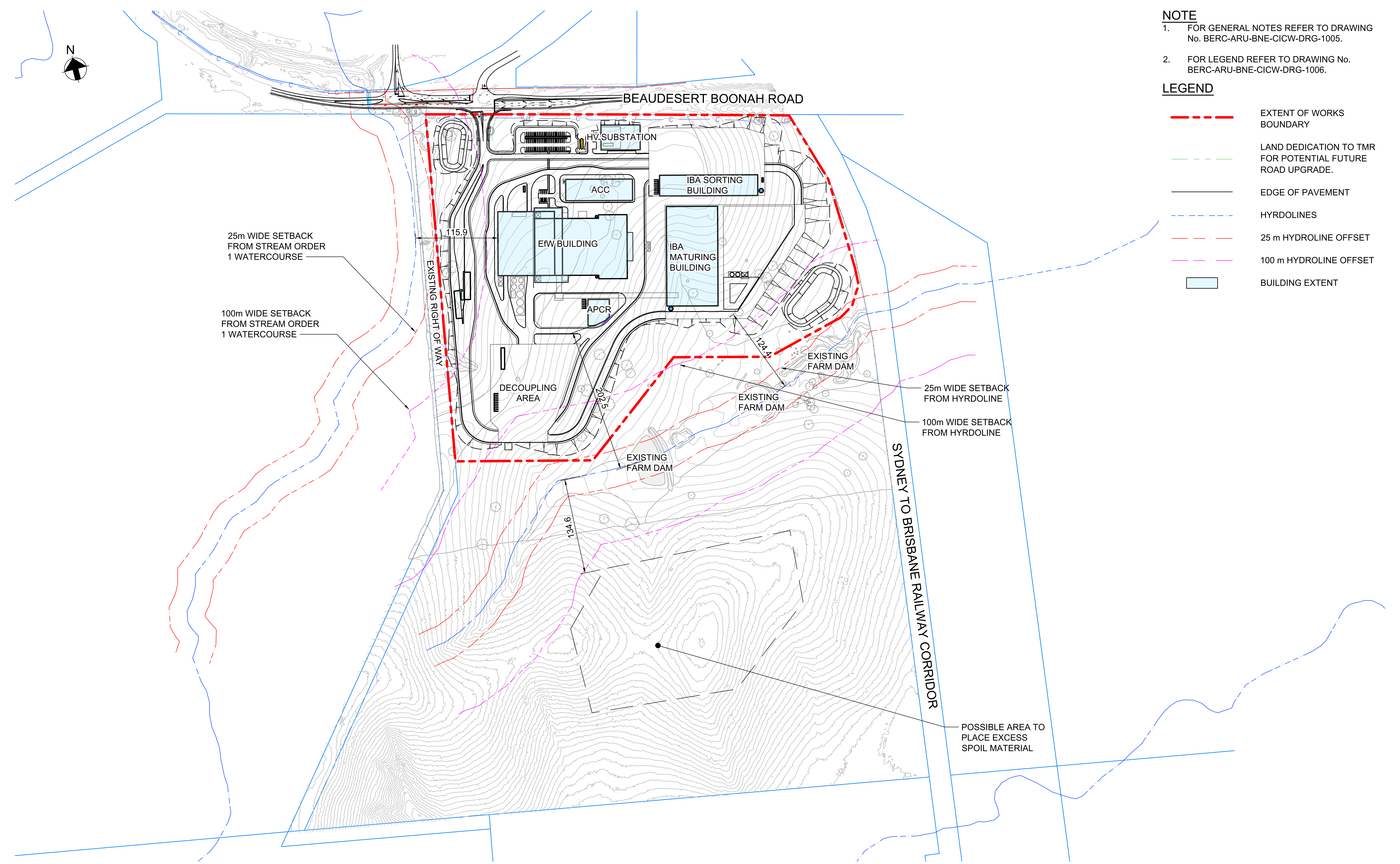
A1
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4
5
6
7
8
9
10
N
BEAUDESERT BOONAH ROAD
HV SUBSTATION
ACC
IBA SORTING BUILDING
EfW BUILDING
IBA MATURING BUILDING
APCR
DECOUPLING AREA
115.9
124.4
202.5
134.6
EXISTING RIGHT OF WAY
25m WIDE SETBACK FROM STREAM ORDER 1 WATERCOURSE
100m WIDE SETBACK FROM STREAM ORDER 1 WATERCOURSE
EXISTING FARM DAM
EXISTING FARM DAM
EXISTING FARM DAM
25m WIDE SETBACK FROM HYRDOLINE
100m WIDE SETBACK FROM HYRDOLINE
SYDNEY TO BRISBANE RAILWAY CORRIDOR
POSSIBLE AREA TO PLACE EXCESS SPOIL MATERIAL

NOTE

1. FOR GENERAL NOTES REFER TO DRAWING No. BERC-ARU-BNE-CICW-DRG-1005.
2. FOR LEGEND REFER TO DRAWING No. BERC-ARU-BNE-CICW-DRG-1006.

LEGEND

━ ━ ━	EXTENT OF WORKS BOUNDARY
— — —	LAND DEDICATION TO TMR FOR POTENTIAL FUTURE ROAD UPGRADE.
———	EDGE OF PAVEMENT
— · —	HYRDOLINES
— · —	25 m HYDROLINE OFFSET
— · —	100 m HYDROLINE OFFSET
☐	BUILDING EXTENT

NOT FOR CONSTRUCTION

Scales

25 0 50 100m

1:2500(A1)/1:5000(A3)

Issue	Date	By	Chkd	Appd
C	16.01.26	PDA	ERA	EGM
	ISSUE FOR APPROVAL			
B	26.09.25	PDA	ERA	EGM
	ISSUED FOR ADEQUACY REVIEW			
A	18.08.25	PDA	ERA	EGM
	DRAFT FEED ISSUE			

Client

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Engineering Certification (CEng)

Name: ....

Signature: .... Date: ....

Job Title

BROMELTON ENERGY AND RESOURCES CENTRE

Scale at A1 1:2500m

Discipline CIVIL

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ABN 18 000 966 165

Drawing Title

PROPOSED SITE PLAN - CLEARANCES FROM DEVELOPMENT FOOTPRINT

Drawing Status

FOR APPROVAL

Job No	Drawing No	Issue
293683-00	BERC- ARU-BNE-CICW-DRG-1030	C

Do not scale

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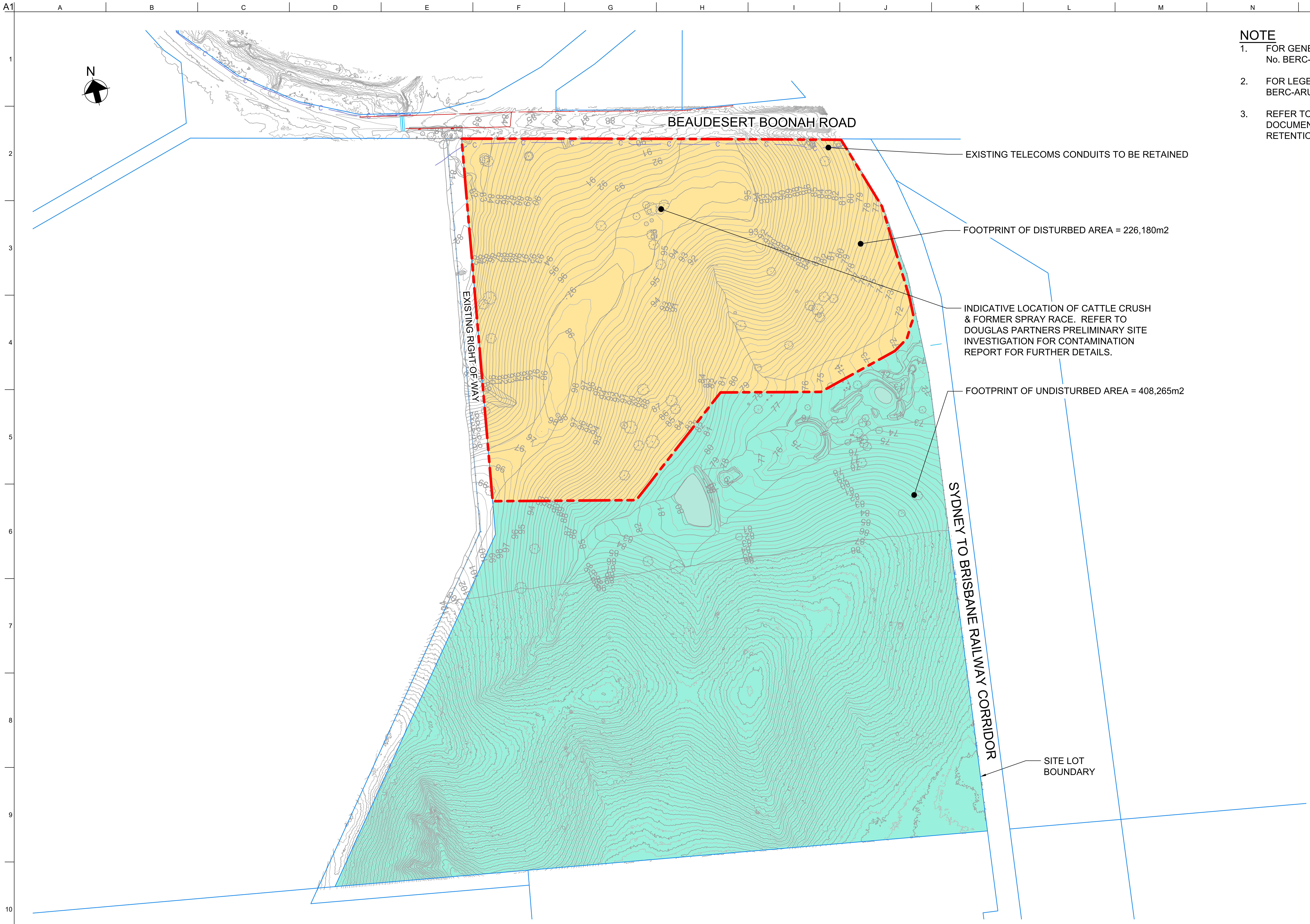
A1
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
1
2
3
4
5
6
7
8
9
10
N
BEAUDESERT BOONAH ROAD
EXISTING TELECOMS CONDUITS TO BE RETAINED
FOOTPRINT OF DISTURBED AREA = 226,180m2
INDICATIVE LOCATION OF CATTLE CRUSH & FORMER SPRAY RACE. REFER TO DOUGLAS PARTNERS PRELIMINARY SITE INVESTIGATION FOR CONTAMINATION REPORT FOR FURTHER DETAILS.
FOOTPRINT OF UNDISTURBED AREA = 408,265m2
EXISTING RIGHT OF WAY
SYDNEY TO BRISBANE RAILWAY CORRIDOR
SITE LOT BOUNDARY

NOTE

1. FOR GENERAL NOTES REFER TO DRAWING No. BERC-ARU-BNE-CICW-DRG-1005.
2. FOR LEGEND REFER TO DRAWING No. BERC-ARU-BNE-CICW-DRG-1006.
3. REFER TO ARCHITECTURAL DOCUMENTATION FOR DETAILS OF TREE RETENTION AND REMOVAL.

NOT FOR CONSTRUCTION

Scales

25 0 50 100m

1:2500(A1)/1:5000(A3)

Issue	Date	By	Chkd	Appd
C	16.01.26	PDA	ERA	EGM
	ISSUE FOR APPROVAL			
B	26.09.25	PDA	ERA	EGM
	ISSUED FOR ADEQUACY REVIEW			
A	18.08.25	PDA	ERA	EGM
	DRAFT FEED ISSUE			

Client

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Engineering Certification (CEng)
Name: ....
Signature: .... Date: ....

Job Title
BROMELTON ENERGY AND RESOURCES CENTRE

Scale at A1 1:2500m

Discipline CIVIL

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Drawing Title
DEMOLITION AND SITE CLEARANCE PLAN

Drawing Status
FOR APPROVAL

Job No	Drawing No	Issue
293683-00	BERC- ARU-BNE-CICW-DRG-1080	C

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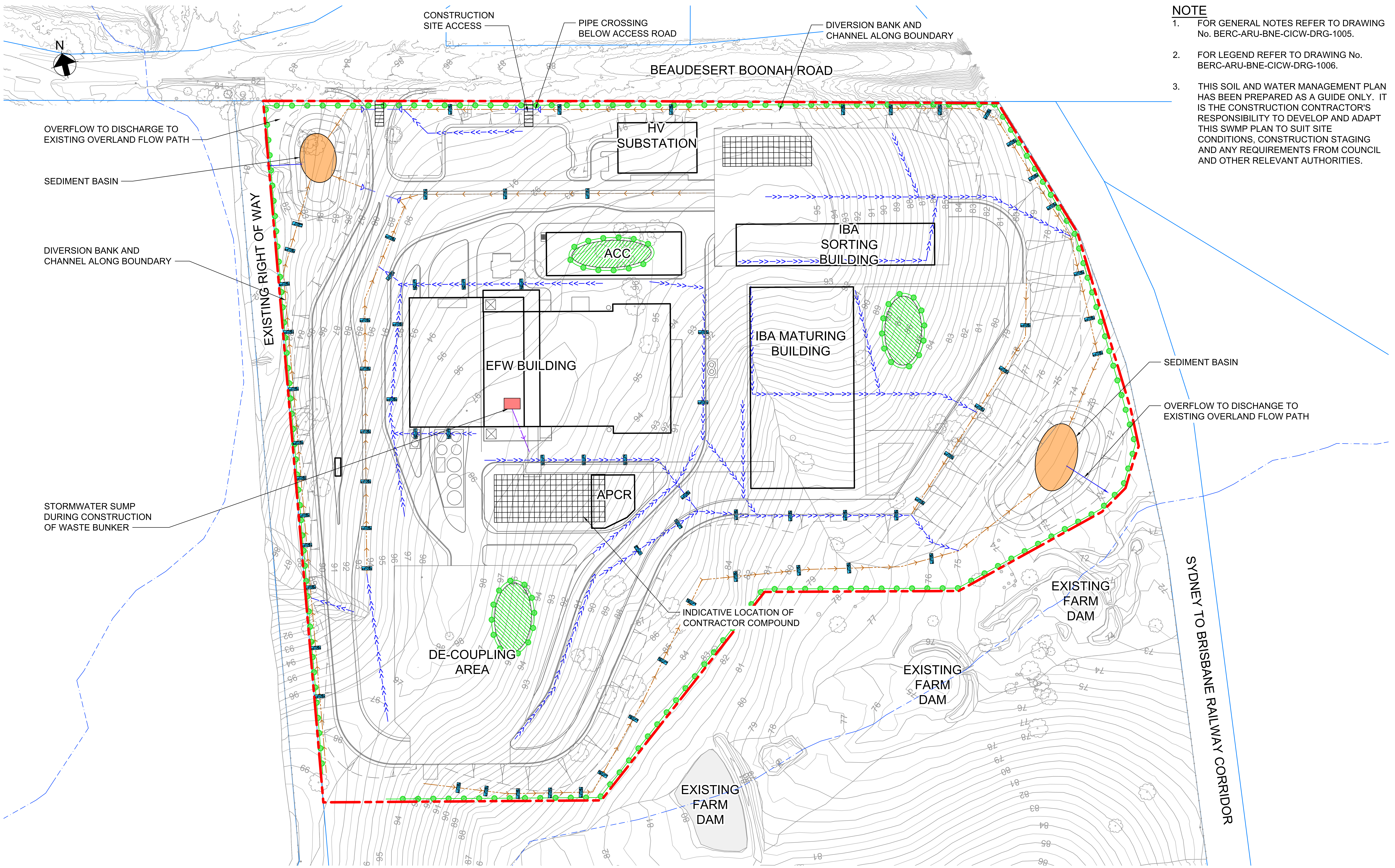
N
CONSTRUCTION SITE ACCESS
PIPE CROSSING BELOW ACCESS ROAD
DIVERSION BANK AND CHANNEL ALONG BOUNDARY
BEAUDESERT BOONAH ROAD
OVERFLOW TO DISCHARGE TO EXISTING OVERLAND FLOW PATH
SEDIMENT BASIN
DIVERSION BANK AND CHANNEL ALONG BOUNDARY
EXISTING RIGHT OF WAY
STORMWATER SUMP DURING CONSTRUCTION OF WASTE BUNKER
HV SUBSTATION
ACC
IBA SORTING BUILDING
EFW BUILDING
IBA MATURING BUILDING
APCR
INDICATIVE LOCATION OF CONTRACTOR COMPOUND
DE-COUPLING AREA
SEDIMENT BASIN
OVERFLOW TO DISCHANGE TO EXISTING OVERLAND FLOW PATH
EXISTING FARM DAM
EXISTING FARM DAM
EXISTING FARM DAM
SYDNEY TO BRISBANE RAILWAY CORRIDOR

NOTE

1. FOR GENERAL NOTES REFER TO DRAWING No. BERC-ARU-BNE-CICW-DRG-1005.
2. FOR LEGEND REFER TO DRAWING No. BERC-ARU-BNE-CICW-DRG-1006.
3. THIS SOIL AND WATER MANAGEMENT PLAN HAS BEEN PREPARED AS A GUIDE ONLY. IT IS THE CONSTRUCTION CONTRACTOR'S RESPONSIBILITY TO DEVELOP AND ADAPT THIS SWMP PLAN TO SUIT SITE CONDITIONS, CONSTRUCTION STAGING AND ANY REQUIREMENTS FROM COUNCIL AND OTHER RELEVANT AUTHORITIES.

NOT FOR CONSTRUCTION

Scales
10 0 10 20 30 40 50m
1:1250(A1)/1:2500(A3)

Issue	Date	By	Chkd	Appd
C	16.01.26	PDA	ERA	EGM
	ISSUE FOR APPROVAL			
B	26.09.25	PDA	ERA	EGM
	ISSUED FOR ADEQUACY REVIEW			
A	18.08.25	PDA	ERA	EGM
	DRAFT FEED ISSUE			

Client
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Name: ....
Signature: .... Date: ....

Job Title
BROMELTON ENERGY AND RESOURCES CENTRE

Scale at A1 1:1250m
Discipline CIVIL

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Member Firm
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ABN 18 000 966 165

Drawing Title
SOIL AND WATER MANAGEMENT PLAN

Drawing Status
FOR APPROVAL

Job No	Drawing No	Issue
293683-00	BERC- ARU-BNE-CICW-DRG-1101	C

Do not scale

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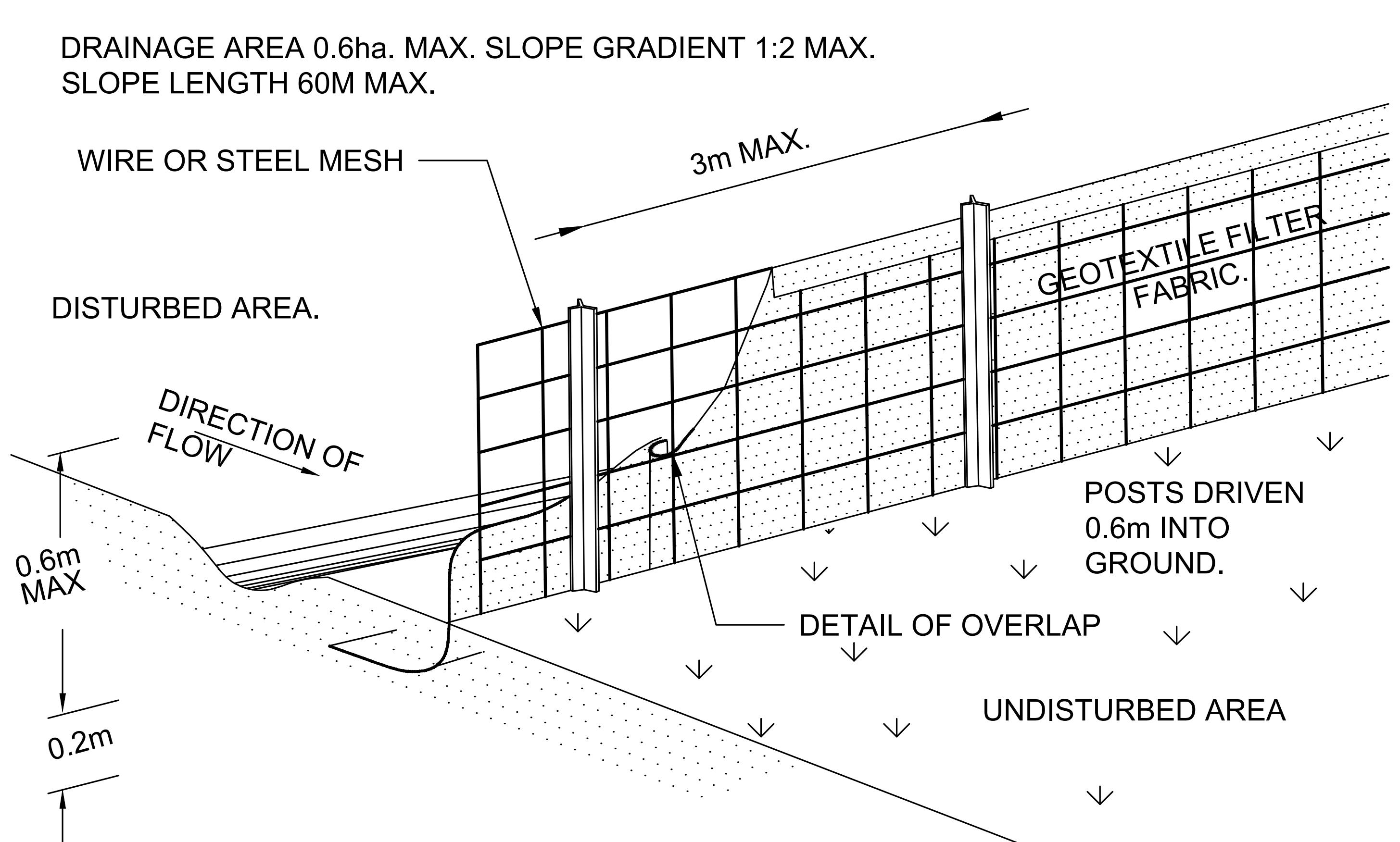
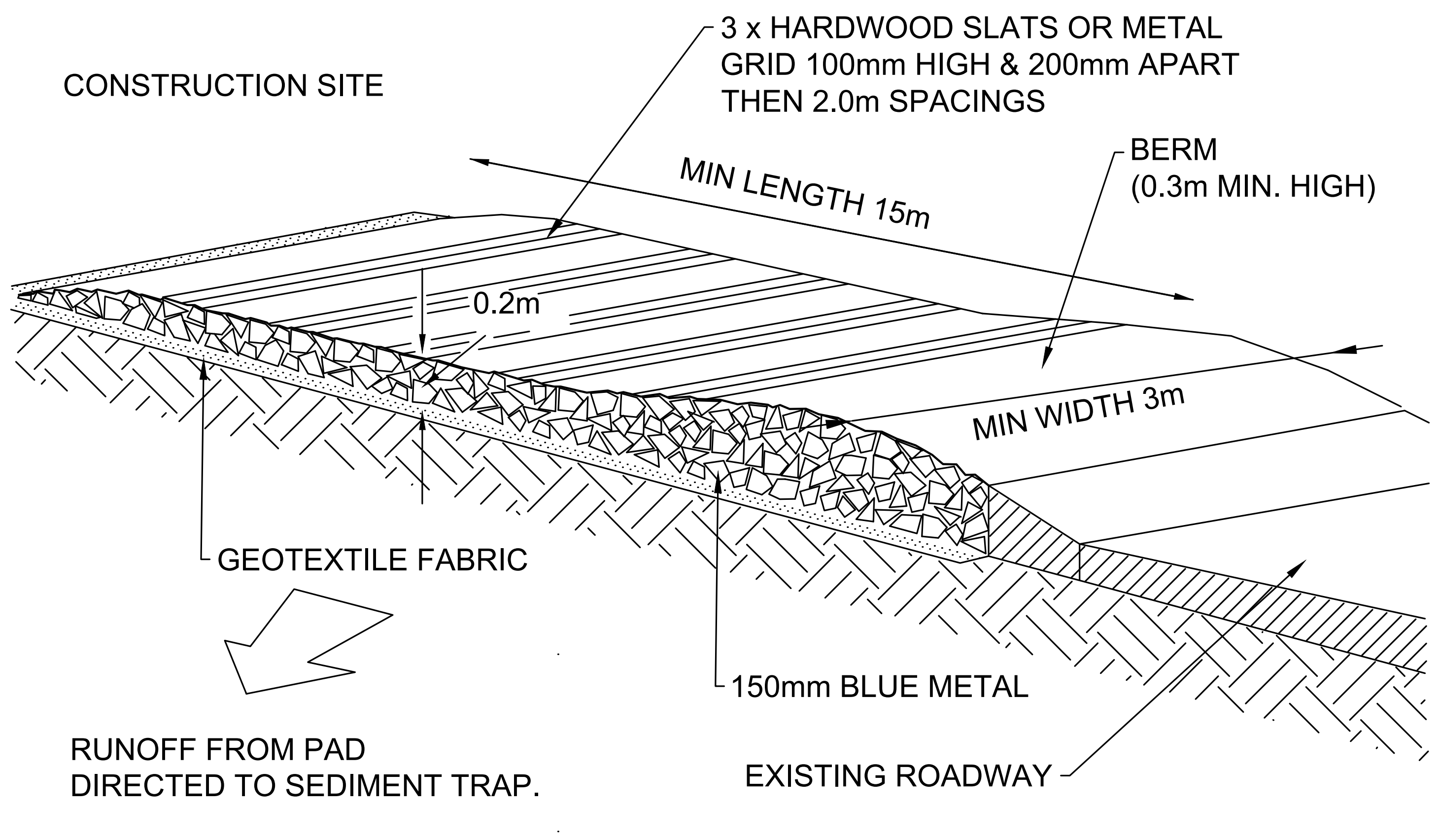
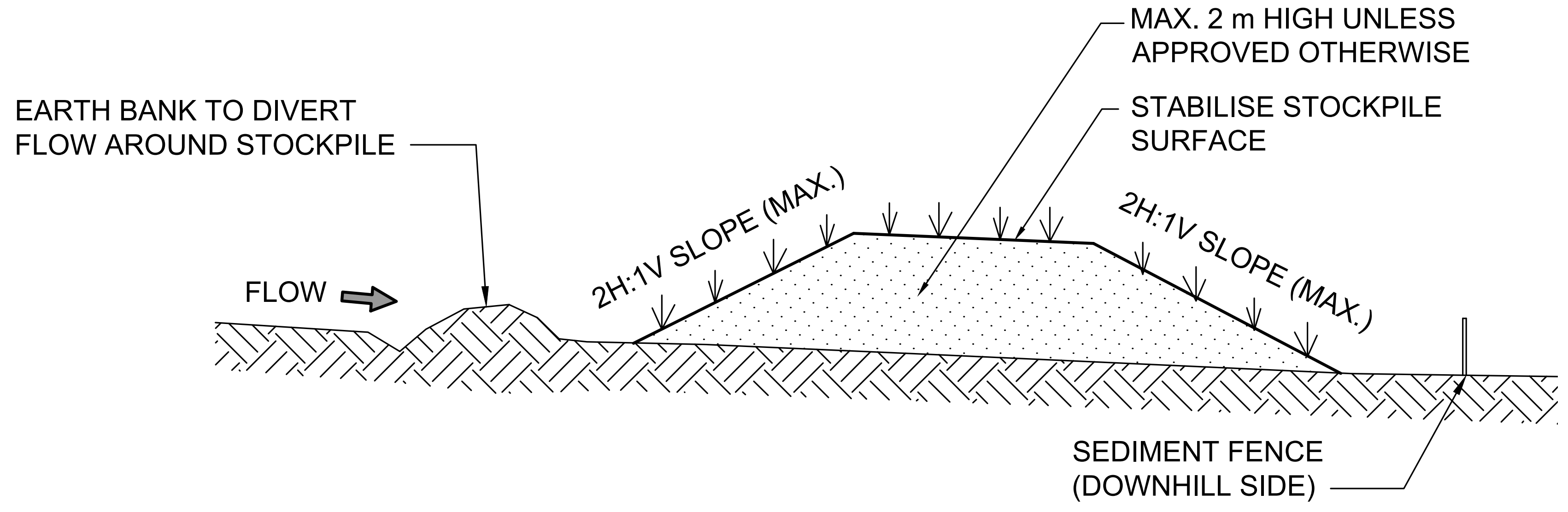


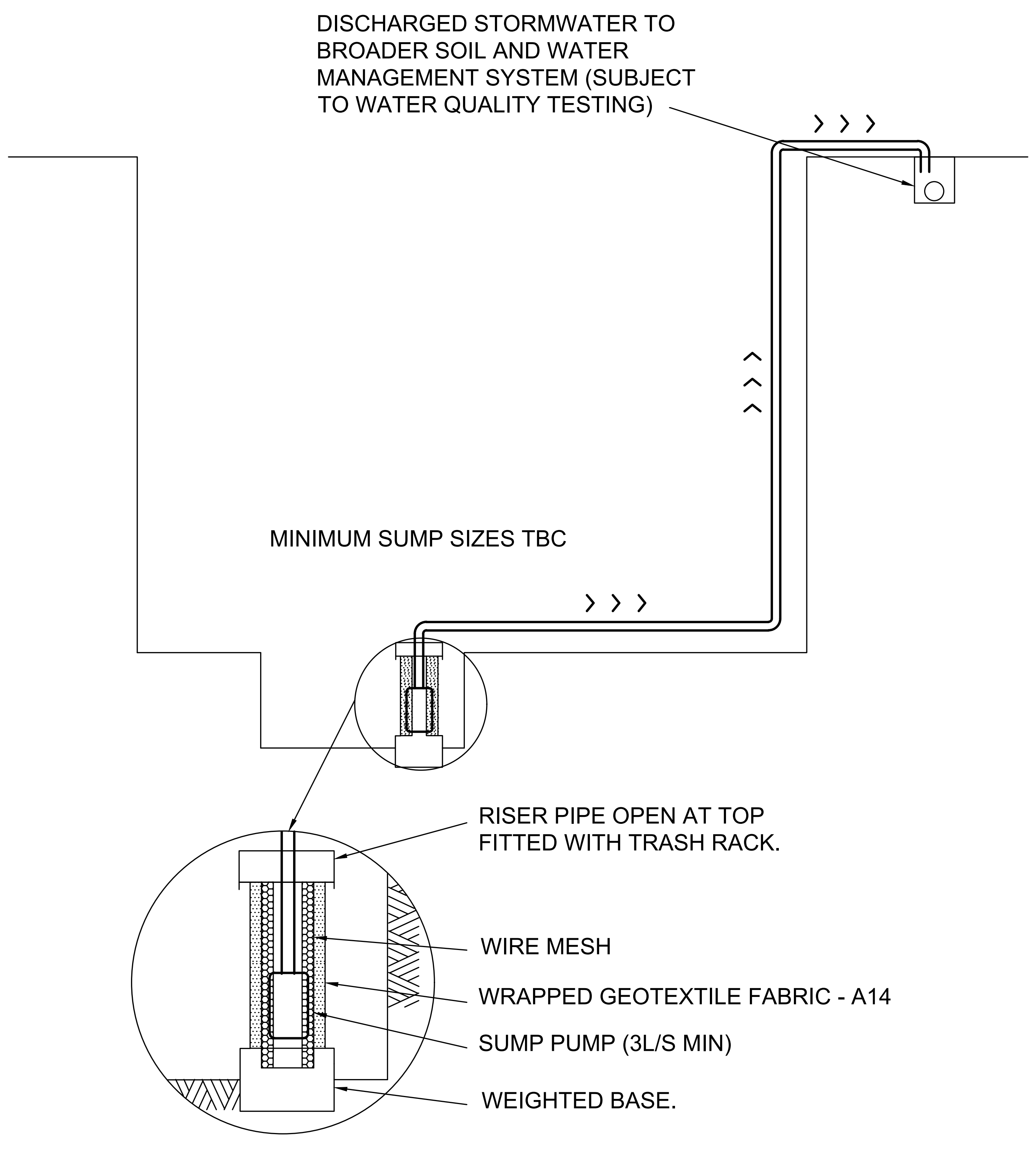
SEDIMENT FENCE


CONSTRUCTION SITE
3 x HARDWOOD SLATS OR METAL GRID 100mm HIGH & 200mm APART THEN 2.0m SPACINGS
MIN LENGTH 15m
BERM (0.3m MIN. HIGH)
0.2m
MIN WIDTH 3m
GEOTEXTILE FABRIC
150mm BLUE METAL
RUNOFF FROM PAD DIRECTED TO SEDIMENT TRAP.
EXISTING ROADWAY

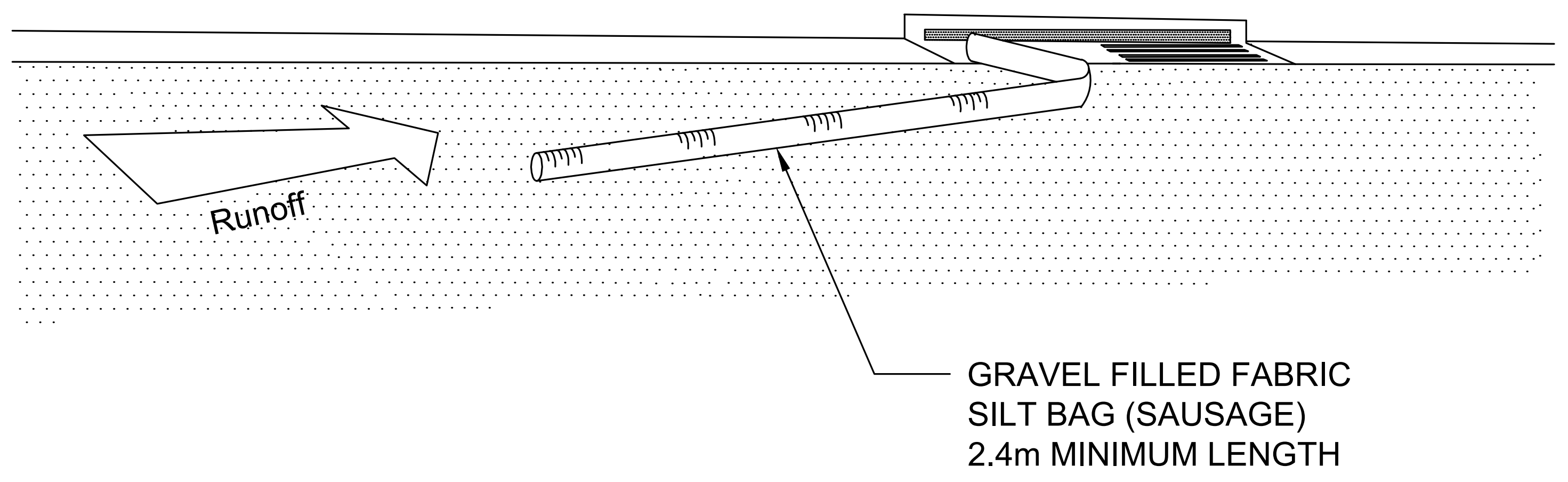
TEMPORARY CONSTRUCTION EXIT


MAX. 2 m HIGH UNLESS APPROVED OTHERWISE
STABILISE STOCKPILE SURFACE
EARTH BANK TO DIVERT FLOW AROUND STOCKPILE
2H:1V SLOPE (MAX.)
2H:1V SLOPE (MAX.)
FLOW
SEDIMENT FENCE (DOWNHILL SIDE)

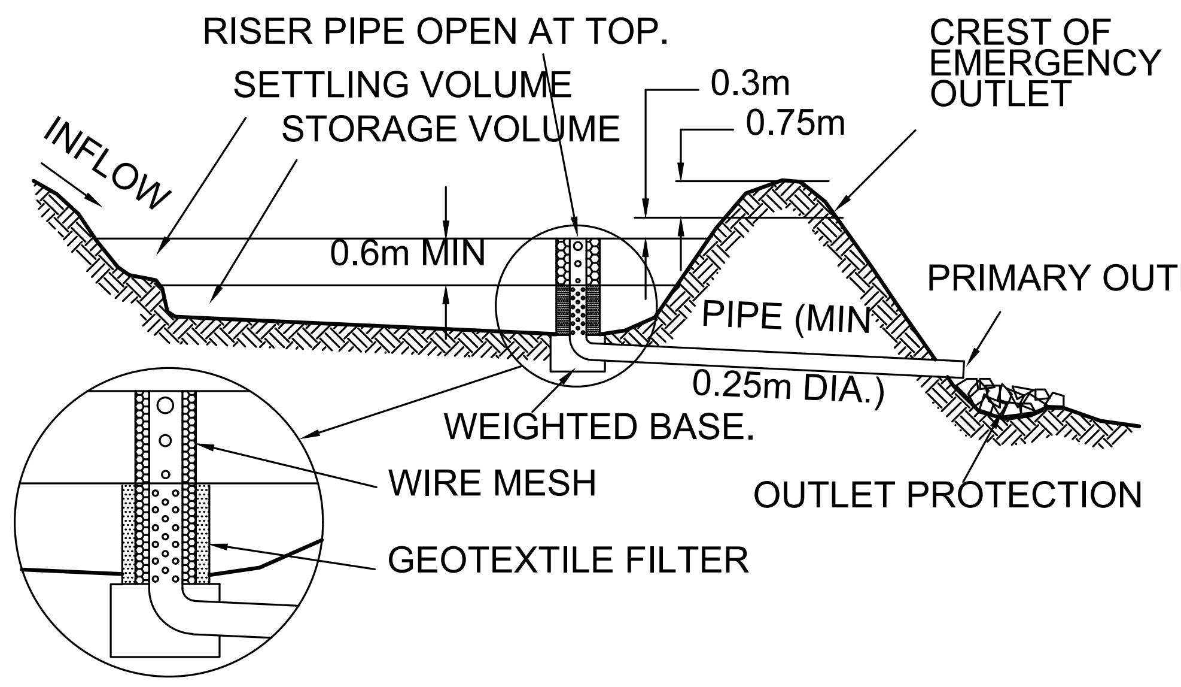
STOCKPILE


DISCHARGED STORMWATER TO BROADER SOIL AND WATER MANAGEMENT SYSTEM (SUBJECT TO WATER QUALITY TESTING)
MINIMUM SUMP SIZES TBC
RISER PIPE OPEN AT TOP FITTED WITH TRASH RACK.
WIRE MESH
WRAPPED GEOTEXTILE FABRIC - A14
SUMP PUMP (3L/S MIN)
WEIGHTED BASE.

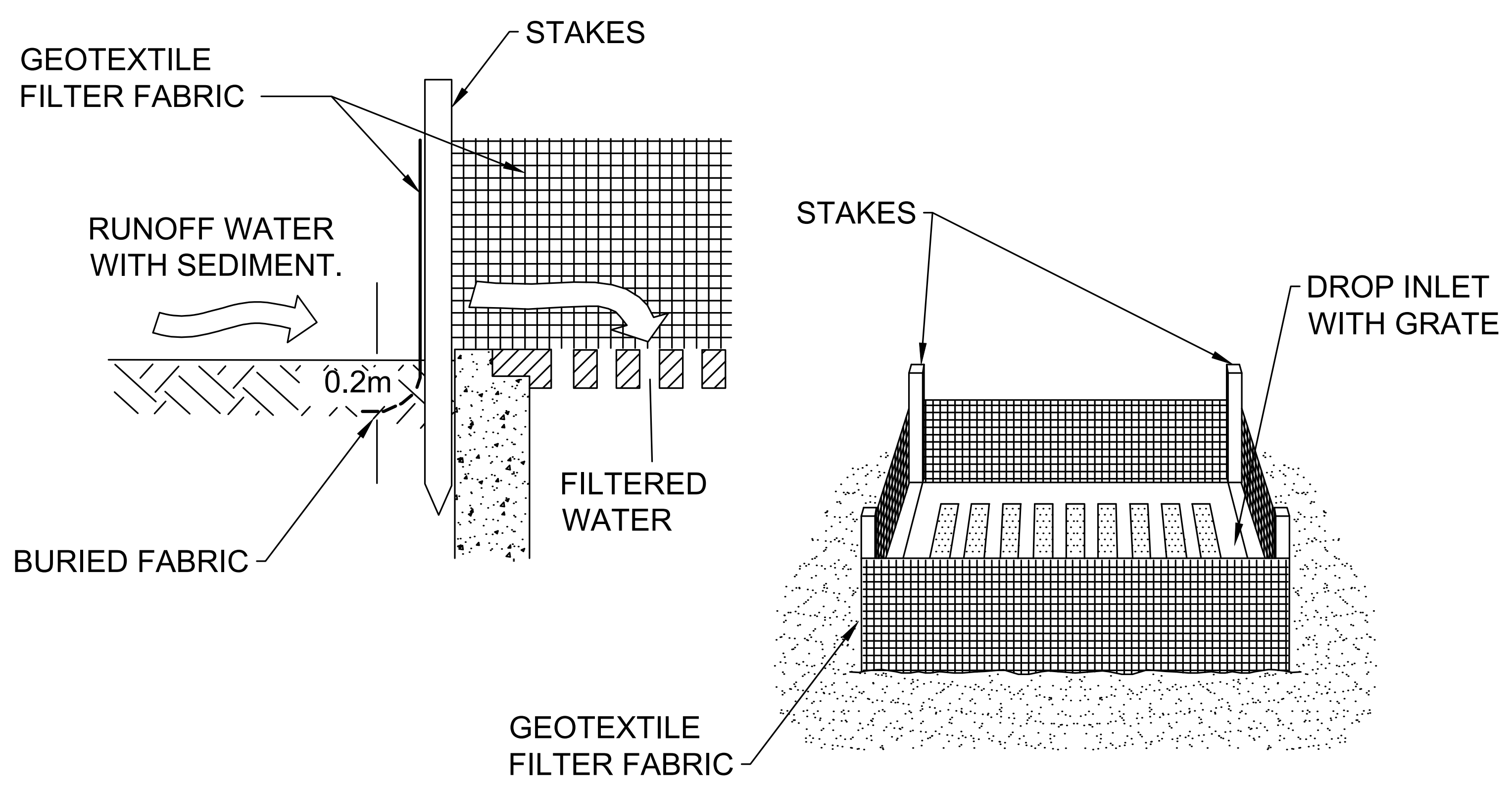
STORMWATER SUMP AND OUTLET



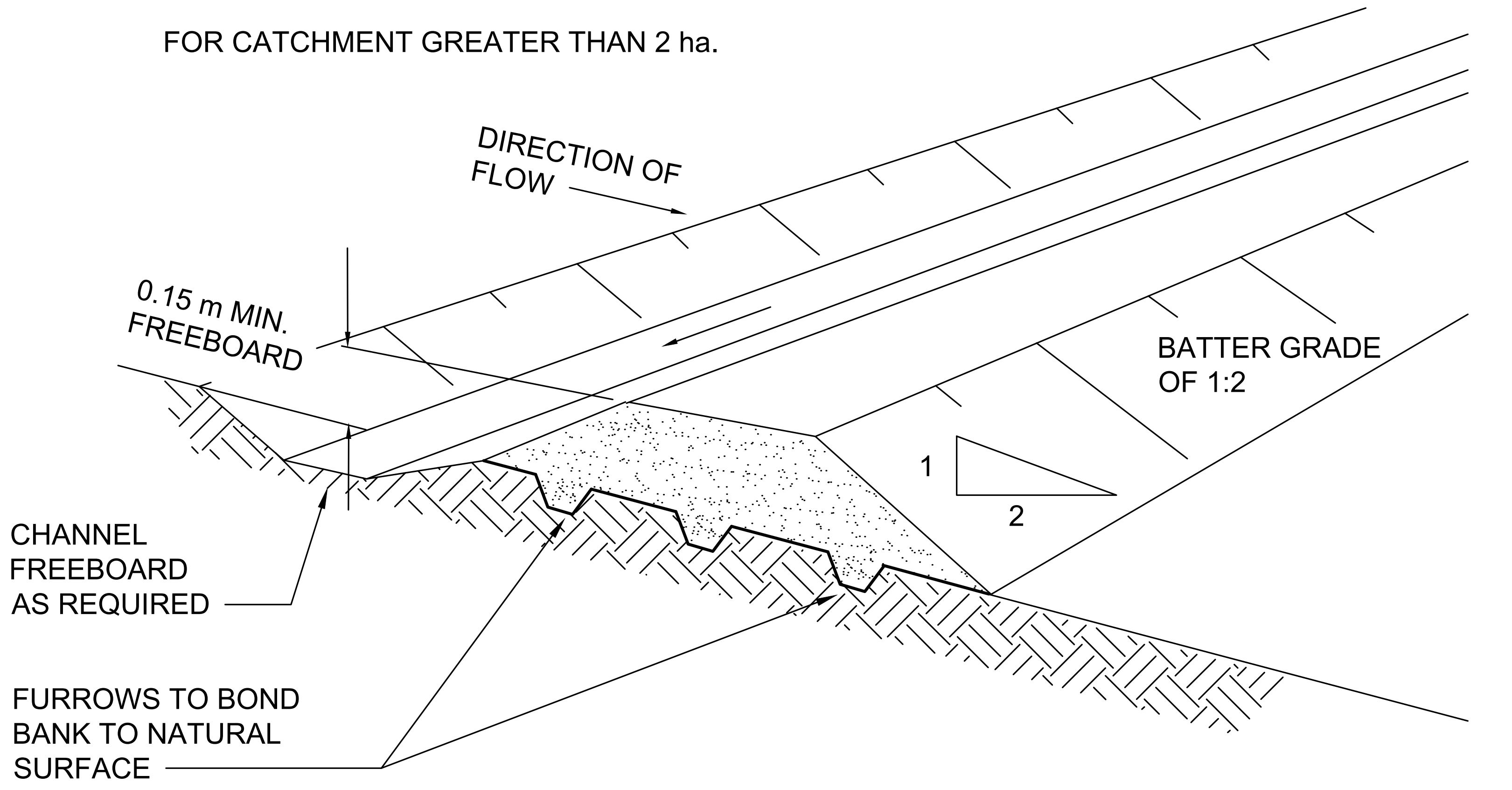
FABRIC STOCKING
KERB INLET SEDIMENT TRAP



CROSS SECTION OF TYPICAL SEDIMENT BASIN



GEOTEXTILE FILTER FABRIC DROP INLET SEDIMENT TRAP


FOR CATCHMENT GREATER THAN 2 ha.
DIRECTION OF FLOW
0.15 m MIN. FREEBOARD
BATTER GRADE OF 1:2
1
2
CHANNEL FREEBOARD AS REQUIRED
FURROWS TO BOND BANK TO NATURAL SURFACE

DIVERSION BANK AND CHANNEL

NOT FOR CONSTRUCTION

Scales

Issue	Date	By	Chkd	Appd
C	16.01.26	PDA	ERA	EGM
	ISSUE FOR APPROVAL			
B	26.09.25	PDA	ERA	EGM
	ISSUED FOR ADEQUACY REVIEW			
A	18.08.25	PDA	ERA	EGM
	DRAFT FEED ISSUE			

Client
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Engineering Certification (CEng)
Name: ....
Signature: .... Date: ....

Job Title
BROMELTON ENERGY AND RESOURCES CENTRE

Scale at A1 NOT TO SCALE
Discipline CIVIL

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www.arup.com

CONSULT AUSTRALIA
Member Firm
Arup Pty Ltd
ABN 18 000 966 165

Drawing Title
EROSION AND SEDIMENT CONTROL DETAILS

Drawing Status
FOR APPROVAL

Job No	Drawing No	Issue
293683-00	BERC- ARU-BNE-CICW-DRG-1191	C

A1

Do not scale

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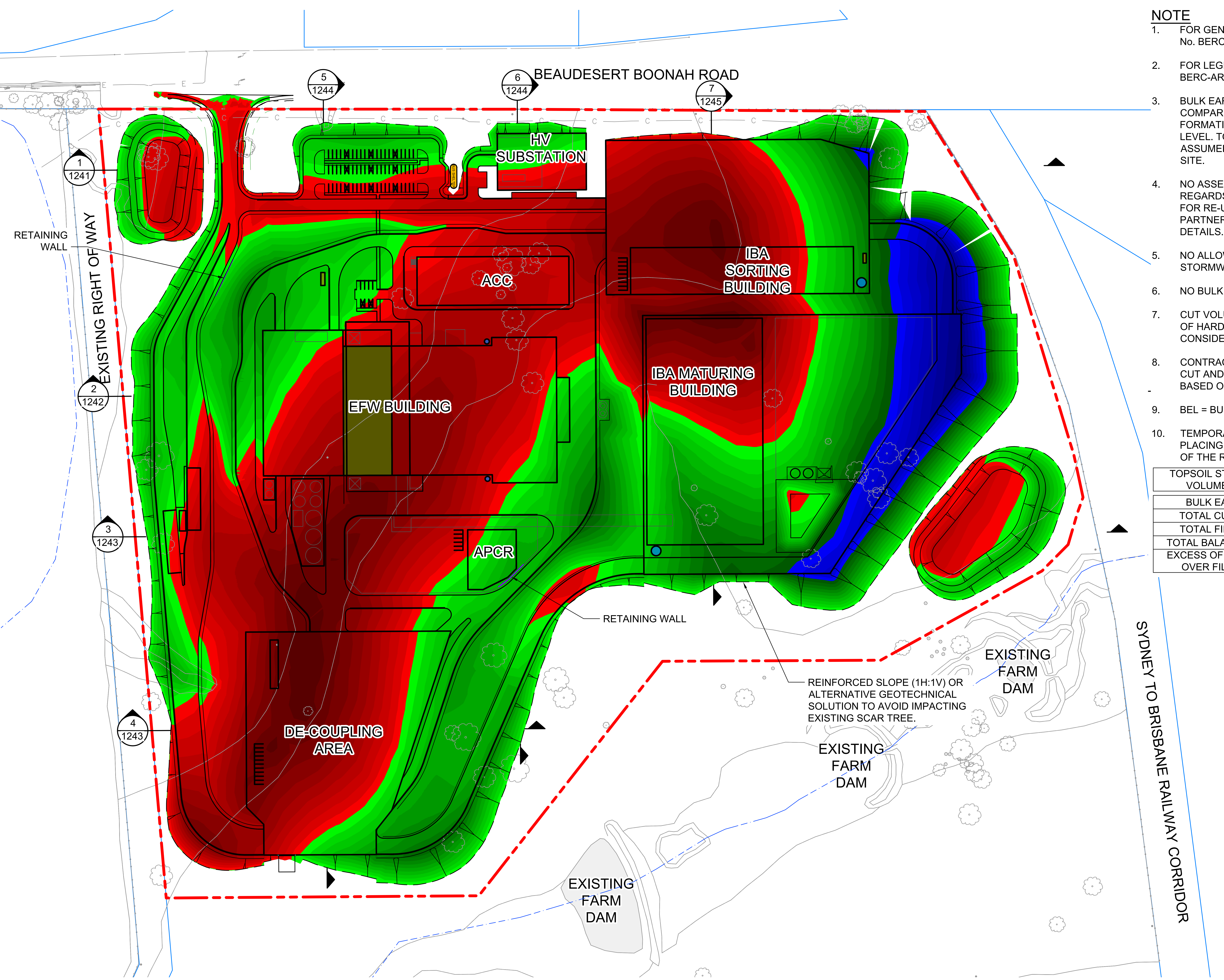
A1



DEPTH TABLE

LOWER VALUE		UPPER VALUE		COLOUR
-5.0	to	-20	0	🟫
-5.0	to	-4.5	0	🟥
-4.5	to	-4.0	0	🟥
-4.0	to	-3.5	0	🟥
-3.5	to	-3.0	0	🟥
-3.0	to	-2.5	0	🟥
-2.5	to	-2.0	0	🟥
-2.0	to	-1.5	0	🟥
-1.5	to	-1.0	0	🟥
-1.0	to	-0.5	0	🟥
-0.5	to	0	0	🟥
0	to	0.5	0	🟩
0.5	to	1.0	0	🟩
1.0	to	1.5	0	🟩
1.5	to	2.0	0	🟩
2.0	to	2.5	0	🟩
2.5	to	3.0	0	🟩
3.0	to	3.5	0	🟩
3.5	to	4.0	0	🟩
4.0	to	4.5	0	🟩
4.5	to	5.0	0	🟩
5.0	to	5.5	0	🟦
5.5	to	6.0	0	🟦
6.0	to	6.5	0	🟦
6.5	to	7.0	0	🟦
7.0	to	7.5	0	🟦
7.5	to	8.0	0	🟦
8.0	to	8.5	0	🟦
8.5	to	9.0	0	🟦
9.0	to	9.5	0	🟦
9.5	to	10.0	0	🟦

NOTE

1. FOR GENERAL NOTES REFER TO DRAWING No. BERC-ARU-BNE-CICW-DRG-1005.
2. FOR LEGEND REFER TO DRAWING No. BERC-ARU-BNE-CICW-DRG-1006.
3. BULK EARTHWORKS ASSESSMENT IS A COMPARISON BETWEEN BETWEEN FORMATION LEVEL AND TOPSOIL STRIP LEVEL. TOPSOIL DEPTH OF 200 mm ASSUMED TO BE STRIPPED ACROSS THE SITE.
4. NO ASSESSMENT HAS BEEN MADE WITH REGARDS TO SUITABILITY OF MATERIAL FOR RE-USE. REFER TO DOUGLAS PARTNERS REPORT FOR FURTHER DETAILS.
5. NO ALLOWANCE FOR UTILITY AND STORMWATER TRENCHES.
6. NO BULKING FACTORS APPLIED.
7. CUT VOLUMES EXCLUDE ANY ASSESSMENT OF HARD OR SOFT MATERIALS OR CONSIDERATION OF ROCK.
8. CONTRACTOR IS TO ASSESS VARIANCE TO CUT AND FILL VOLUMES QUOTED ABOVE BASED ON ABOVE NOTES.
9. BEL = BULK EXCAVATION LEVEL.
10. TEMPORARY WORKS SHALL NOT INVOLVE PLACING FILL MATERIALS WITHIN MIN 3.0 m OF THE RAILWAY CORRIDOR.

TOPSOIL STRIP VOLUME	45330 m³

BULK EARTHWORKS VOLUMES	
TOTAL CUT	- 233730 m³
TOTAL FILL	205990 m³
TOTAL BALANCE	- 27740 m³
EXCESS OF CUT OVER FILL	27740 m³

NOT FOR CONSTRUCTION

Scales
25 0 50 100m
1:2500(A1)/1:5000(A3)

Issue	Date	By	Chkd	Appd
C	16.01.26	PDA	ERA	EGM
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B	26.09.25	PDA	ERA	EGM
	ISSUED FOR ADEQUACY REVIEW			
A	18.08.25	PDA	ERA	EGM
	DRAFT FEED ISSUE			

Client
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Engineering Certification (CEng)
Name: ....
Signature: .... Date: ....

Job Title
BROMELTON ENERGY AND RESOURCES CENTRE

Scale at A1 1:2500m
Discipline CIVIL

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www.arup.com

CONSULT AUSTRALIA
Member Firm
Arup Pty Ltd
ABN 18 000 966 165

Drawing Title
BULK EARTHWORKS PLAN

Drawing Status
FOR APPROVAL

Job No 293683-00
Drawing No BERC- ARU-BNE-CICW-DRG-1201
Issue C

Do not scale

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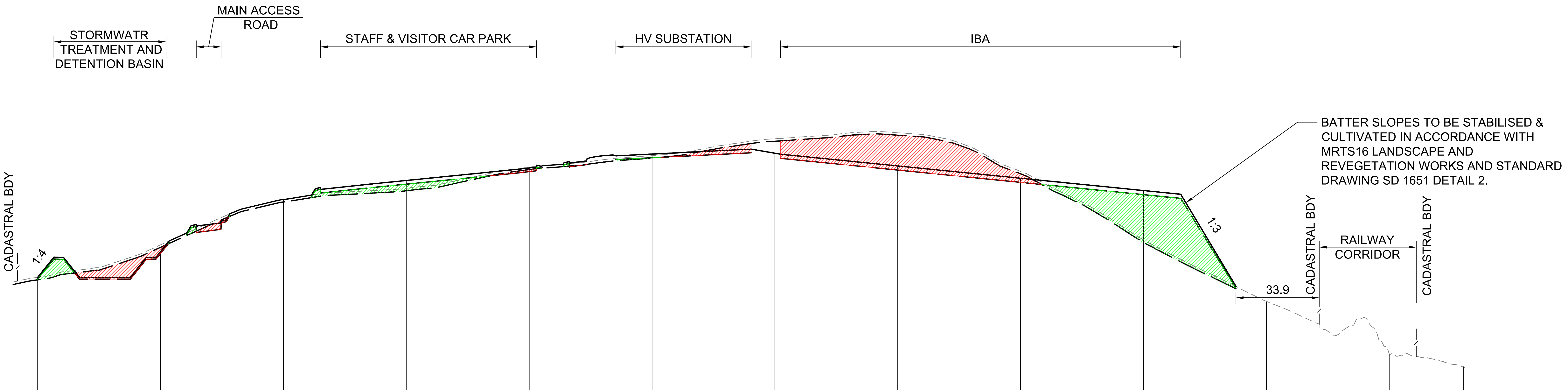
NOTE

1. FOR GENERAL NOTES REFER TO DRAWING No. BERC-ARU-BNE-CICW-DRG-1005.
2. FOR LEGEND REFER TO DRAWING No. BERC-ARU-BNE-CICW-DRG-1006.

LEGEND:

🟥	CUT
🟩	FILL



BATTER SLOPES TO BE STABILISED & CULTIVATED IN ACCORDANCE WITH MRTS16 LANDSCAPE AND REVEGETATION WORKS AND STANDARD DRAWING SD 1651 DETAIL 2.

DATUM RL (m) 66.0

DESIGN LEVELS	82.397	84.494	88.728	90.277	91.294	92.425	92.494	91.459	90.459	89.459	80.444	76.175	75.139
FORMATION LEVELS	82.247	84.344		89.977	90.994	92.125		91.124	90.124	89.123			
STRIPPED LEVELS	82.197	84.840	88.528	89.443	91.165	92.094	93.471	93.957	90.818	85.240	80.244	75.975	74.939
EXISTING LEVELS	82.397	85.040	88.728	89.643	91.365	92.294	93.671	94.157	91.018	85.440	80.444	76.175	75.139
CHAINAGE	0.000	50.000	100.000	150.000	200.000	250.000	300.000	350.000	400.000	450.000	500.000	550.000	580.151

SECTION 1 C-1201

SCALE H 1:1000
V 1:200

NOT FOR CONSTRUCTION

Scales
10 0 10 20 30 40 50m
1:1000(A1)/1:2000(A3)
2 0 2 4 6 8 10m
1:200(A1)/1:400(A3)

Issue	Date	By	Chkd	Appd
C	16.01.26	PDA	ERA	EGM
	ISSUE FOR APPROVAL			
B	26.09.25	PDA	ERA	EGM
	ISSUED FOR ADEQUACY REVIEW			
A	18.08.25	PDA	ERA	EGM
	DRAFT FEED ISSUE			

Client
CLEANAWAY
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Engineering Certification (CEng)
Name: ....
Signature: .... Date: ....

Job Title
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Scale at A1 AS SHOWN
Discipline CIVIL

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www.arup.com

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Member Firm
Arup Pty Ltd
ABN 18 000 966 165

Drawing Title
BULK EARTHWORKS
SITE SECTIONS
SHEET 1

Drawing Status
FOR APPROVAL

Job No	Drawing No	Issue
293683-00	BERC- ARU-BNE-CICW-DRG-1241	C

Do not scale

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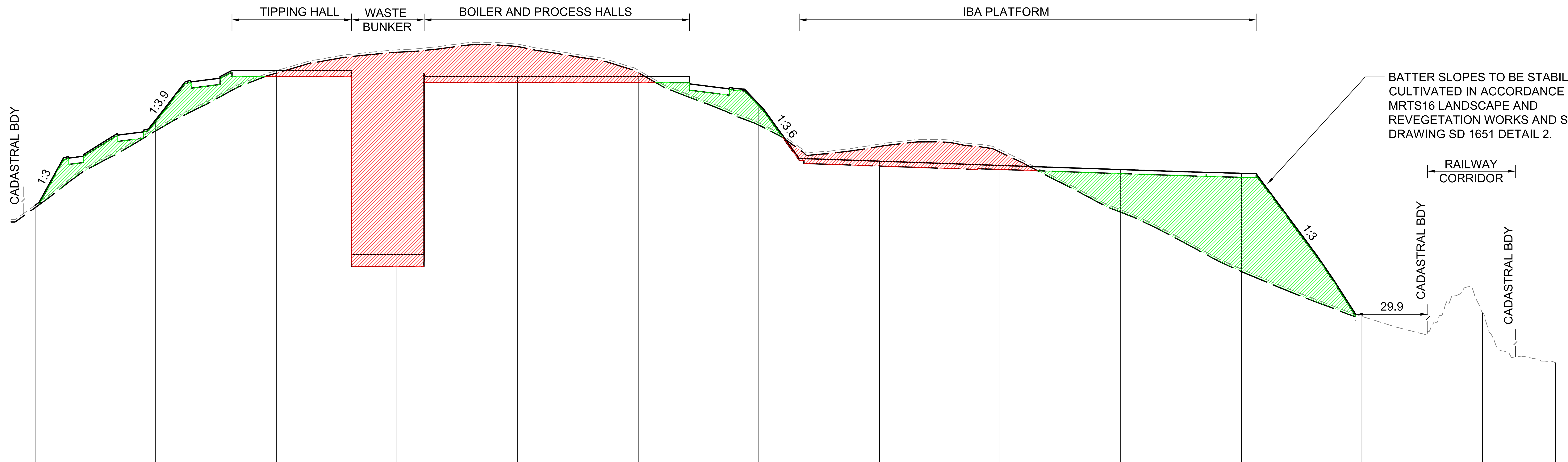
NOTE

1. FOR GENERAL NOTES REFER TO DRAWING No. BERC-ARU-BNE-CICW-DRG-1005.
2. FOR LEGEND REFER TO DRAWING No. BERC-ARU-BNE-CICW-DRG-1006.

LEGEND:

🟥 CUT

🟩 FILL


TIPPING HALL
WASTE BUNKER
BOILER AND PROCESS HALLS
IBA PLATFORM
CADASTRAL BDY
1:3
1:3.9
1:3.6
1:3
BATTER SLOPES TO BE STABILISED & CULTIVATED IN ACCORDANCE WITH MRTS16 LANDSCAPE AND REVEGETATION WORKS AND STANDARD DRAWING SD 1651 DETAIL 2.
RAILWAY CORRIDOR
29.9
CADASTRAL BDY
CADASTRAL BDY

DATUM RL (m) 62.0

DESIGN LEVELS	83.569	90.663	94.750	79.500	94.250	94.250	91.963	87.221	86.870	86.528	86.219	74.350	74.668	70.499
FORMATION LEVELS		90.513	94.250	78.500	93.750	93.750	91.813	86.819	86.537	86.195	85.884			
STRIPPED LEVELS	83.369	89.734	94.529	96.259	96.735	94.574	90.219	88.443	87.969	82.993	78.076	74.150	74.468	
EXISTING LEVELS	83.569	89.934	94.729	96.459	96.935	94.774	90.419	88.643	88.169	83.193	78.276	74.350	74.668	
CHAINAGE	0.000	50.000	100.000	150.000	200.000	250.000	300.000	350.000	400.000	450.000	500.000	550.000	600.000	630.307

SECTION 2 C-1201
SCALE H 1:1000
V 1:200

NOT FOR CONSTRUCTION

Scales
10 0 10 20 30 40 50m
1:1000(A1)/1:2000(A3)
2 0 2 4 6 8 10m
1:200(A1)/1:400(A3)

Issue	Date	By	Chkd	Appd
C	16.01.26	PDA	ERA	EGM
	ISSUE FOR APPROVAL			
B	26.09.25	PDA	ERA	EGM
	ISSUED FOR ADEQUACY REVIEW			
A	18.08.25	PDA	ERA	EGM
	DRAFT FEED ISSUE			

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Name: ....
Signature: .... Date: ....

Job Title
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Discipline CIVIL

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Drawing Title
BULK EARTHWORKS
SITE SECTIONS
SHEET 2

Drawing Status
FOR APPROVAL

Job No 293683-00
Drawing No BERC- ARU-BNE-CICW-DRG-1242
Issue C

Do not scale

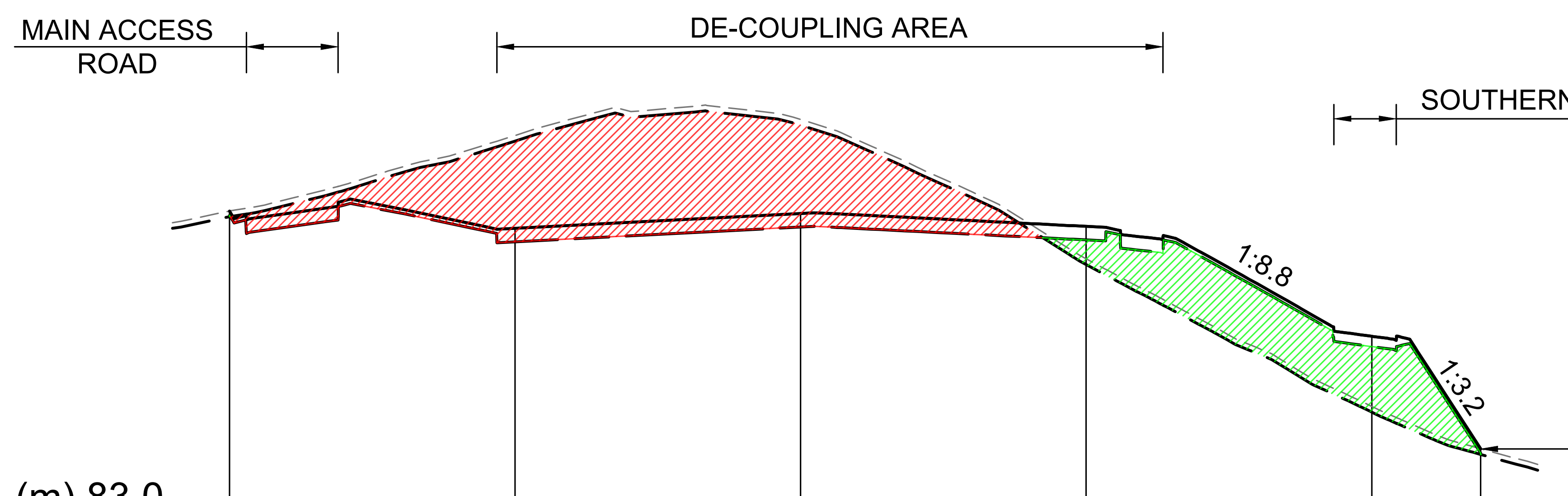
© Arup

NOTE

1. FOR GENERAL NOTES REFER TO DRAWING No. BERC-ARU-BNE-CICW-DRG-1005.
2. FOR LEGEND REFER TO DRAWING No. BERC-ARU-BNE-CICW-DRG-1006.

LEGEND:

🟥	CUT
🟩	FILL



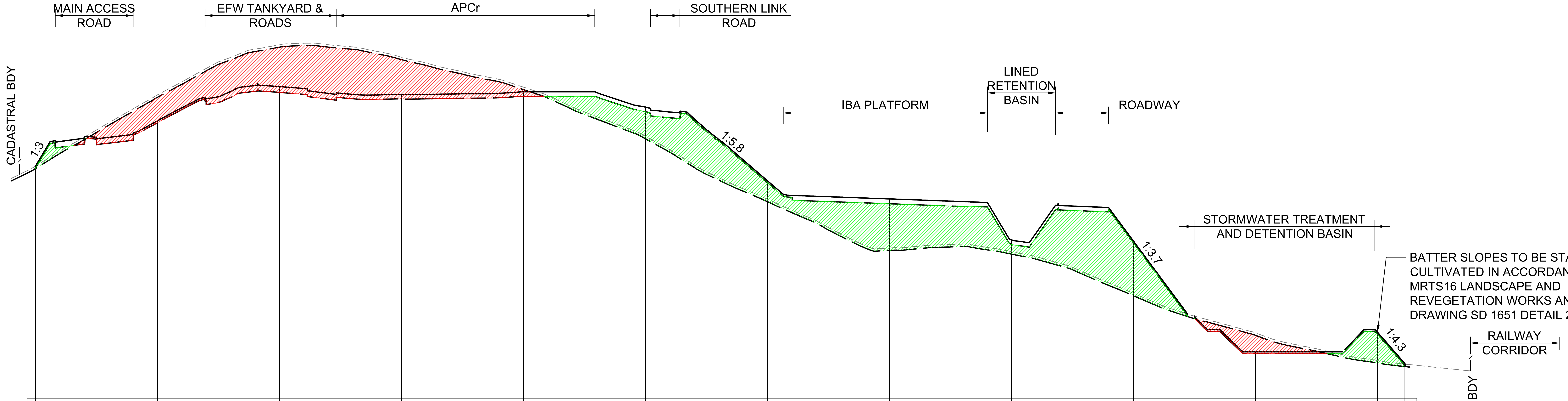
BATTER SLOPES TO BE STABILISED & CULTIVATED IN ACCORDANCE WITH MRTS16 LANDSCAPE AND REVEGETATION WORKS AND STANDARD DRAWING SD 1651 DETAIL 2.

DATUM RL (m) 83.0

DESIGN LEVELS	94.195	93.593	94.113	93.659	89.811	85.865
FORMATION LEVELS	94.045	93.118	93.638	93.184	89.451	
STRIPPED LEVELS	93.997	96.643	97.205	92.325	87.152	85.670
EXISTING LEVELS	94.197	96.843	97.405	92.525	87.352	85.870
CHAINAGE	0.000	50.000	100.000	150.000	200.000	219.074

SECTION 4 C-1201

SCALE H 1:1000
V 1:200



BATTER SLOPES TO BE STABILISED & CULTIVATED IN ACCORDANCE WITH MRTS16 LANDSCAPE AND REVEGETATION WORKS AND STANDARD DRAWING SD 1651 DETAIL 2.

DATUM RL (m) 69.0

DESIGN LEVELS	88.010	91.720	94.526	93.868	94.100	92.847	86.804	85.323	81.956	81.862	72.800	74.393	71.904
FORMATION LEVELS	87.860	91.570	94.051	93.508	93.700	92.470	86.654	84.923	81.596	81.712	72.650	74.243	71.754
STRIPPED LEVELS	87.810	93.650	97.755	96.735	94.277	90.246	85.095	81.105	80.804	77.388	74.148	71.883	71.594
EXISTING LEVELS	88.010	93.850	97.955	96.935	94.477	90.446	85.295	81.305	81.004	77.588	74.348	72.083	71.794
CHAINAGE	0.000	50.000	100.000	150.000	200.000	250.000	300.000	350.000	400.000	450.000	500.000	550.000	560.861

SECTION 3 C-1201

SCALE H 1:1000
V 1:200

NOT FOR CONSTRUCTION

Scales
10 0 10 20 30 40 50m
1:1000(A1)/1:2000(A3)
2 0 2 4 6 8 10m
1:200(A1)/1:400(A3)

Issue	Date	By	Chkd	Appd
C	16.01.26	PDA	ERA	EGM
	ISSUE FOR APPROVAL			
B	26.09.25	PDA	ERA	EGM
	ISSUED FOR ADEQUACY REVIEW			
A	18.08.25	PDA	ERA	EGM
	DRAFT FEED ISSUE			

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CLEANAWAY
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Engineering Certification (CEng)
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Signature: .... Date: ....

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Drawing Title
BULK EARTHWORKS
SITE SECTIONS
SHEET 3

Drawing Status
FOR APPROVAL

Job No	Drawing No	Issue
293683-00	**BERC- ARU-BNE-CICW-DRG-1243**	**C**

Do not scale

© Arup

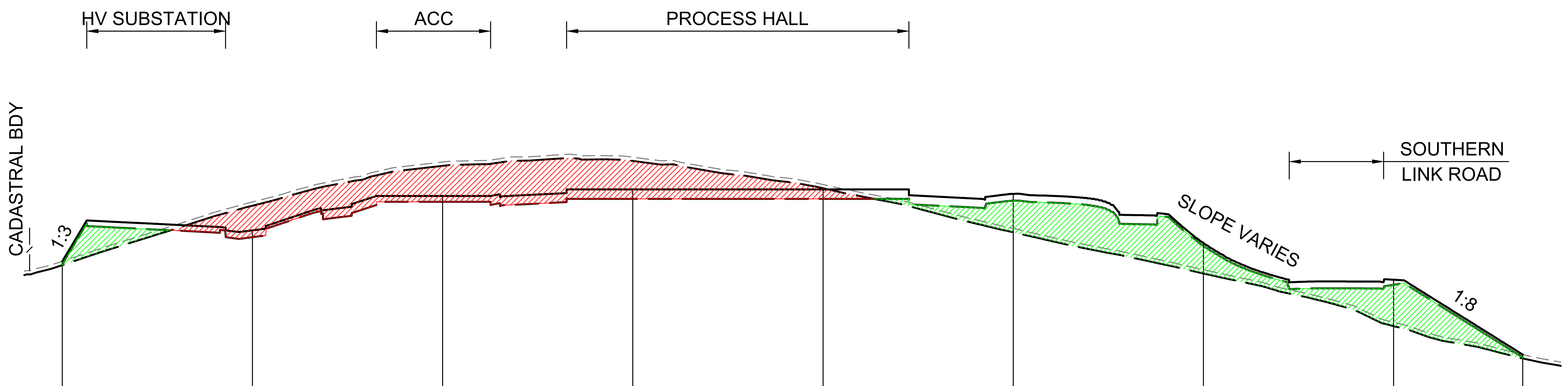
NOTE

1. FOR GENERAL NOTES REFER TO DRAWING No. BERC-ARU-BNE-CICW-DRG-1005.
2. FOR LEGEND REFER TO DRAWING No. BERC-ARU-BNE-CICW-DRG-1006.

LEGEND:

🟥 CUT

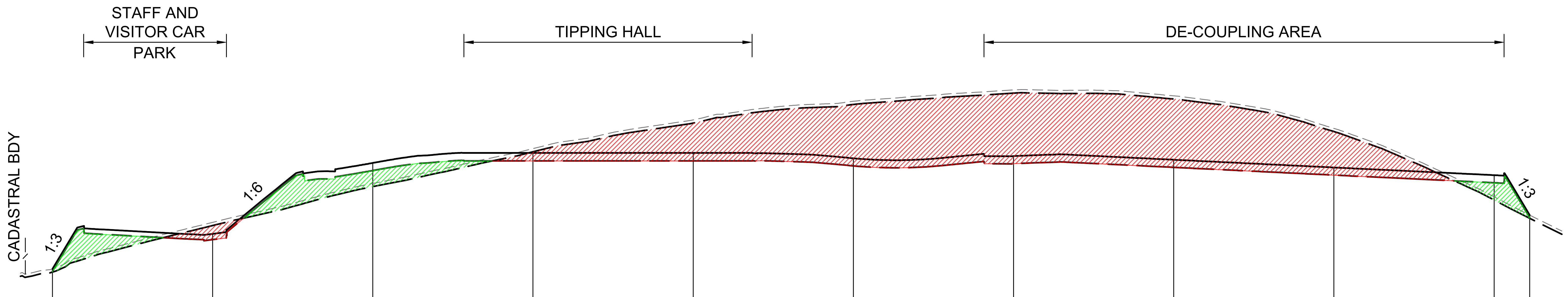
🟩 FILL



DATUM RL (m) 82.0

DESIGN LEVELS	90.467	92.094	93.900	94.250	94.250	94.014	91.433	89.495	85.555
FORMATION LEVELS	90.317	91.734	93.600	93.750	93.750	93.654	91.283	89.230	85.405
STRIPPED LEVELS	90.267	93.391	95.490	95.747	94.311	91.996	89.825	87.055	85.354
EXISTING LEVELS	90.467	93.591	95.690	95.947	94.511	92.196	90.025	87.255	85.554
CHAINAGE	0.000	50.000	100.000	150.000	200.000	250.000	300.000	350.000	383.950

SECTION 6 C-1201
SCALE H 1:1000
V 1:200



DATUM RL (m) 84.0

DESIGN LEVELS	87.508	89.698	94.126	94.750	94.750	94.416	94.549	94.325	93.841	93.363	90.869
FORMATION LEVELS	87.358	89.338	93.651	94.250	94.250	93.941	94.074	93.850	93.366	92.888	90.719
STRIPPED LEVELS	87.308	90.216	92.646	94.823	96.615	97.775	98.485	98.117	96.084	91.811	90.669
EXISTING LEVELS	87.508	90.416	92.846	95.023	96.815	97.975	98.685	98.317	96.284	92.011	90.869
CHAINAGE	0.000	50.000	100.000	150.000	200.000	250.000	300.000	350.000	400.000	450.000	461.120

SECTION 5 C-1201
SCALE H 1:1000
V 1:200

NOT FOR CONSTRUCTION

Scales

10 0 10 20 30 40 50m
1:1000(A1)/1:2000(A3)

2 0 2 4 6 8 10m
1:200(A1)/1:400(A3)

Issue	Date	By	Chkd	Appd
C	16.01.26	PDA	ERA	EGM
	ISSUE FOR APPROVAL			
B	26.09.25	PDA	ERA	EGM
	ISSUED FOR ADEQUACY REVIEW			
A	18.08.25	PDA	ERA	EGM
	DRAFT FEED ISSUE			

Client
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Engineering Certification (CEng)
Name: ....
Signature: .... Date: ....

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Drawing Title
BULK EARTHWORKS
SITE SECTIONS
SHEET 4

Drawing Status
FOR APPROVAL

Job No	Drawing No	Issue
293683-00	BERC- ARU-BNE-CICW-DRG-1244	C

Do not scale

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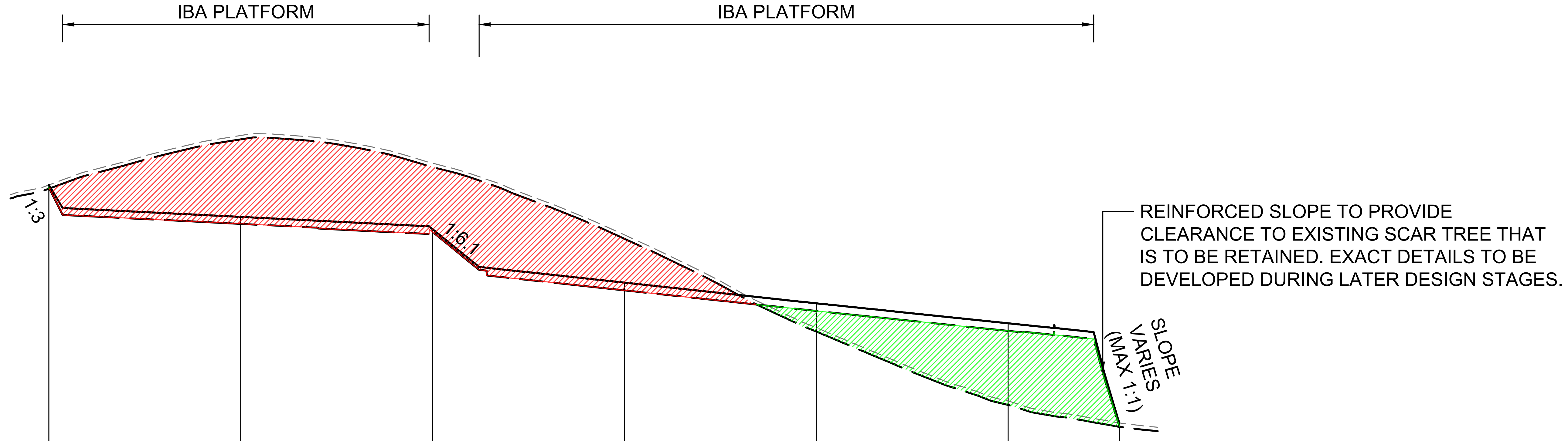
NOTE
1. FOR GENERAL NOTES REFER TO DRAWING No. BERC-ARU-BNE-CICW-DRG-1005.

2. FOR LEGEND REFER TO DRAWING No. BERC-ARU-BNE-CICW-DRG-1006.

LEGEND:

🟥	CUT
🟩	FILL


IBA PLATFORM
IBA PLATFORM
1:3
1:6.1
REINFORCED SLOPE TO PROVIDE CLEARANCE TO EXISTING SCAR TREE THAT IS TO BE RETAINED. EXACT DETAILS TO BE DEVELOPED DURING LATER DESIGN STAGES.
SLOPE VARIES (MAX 1:1)

DATUM RL (m) 77.0

DESIGN LEVELS	92.478	90.808	90.173	87.380	86.303	85.263	80.060
FORMATION LEVELS	92.328	90.448	90.023	86.976	85.905	84.863	79.910
STRIPPED LEVELS	92.278	94.855	93.411	89.673	84.831	80.999	79.860
EXISTING LEVELS	92.478	95.055	93.611	89.873	85.031	81.199	80.060
CHAINAGE	0.000	50.000	100.000	150.000	200.000	250.000	278.998

SECTION 7 C-1201
SCALE H 1:1000
V 1:200

NOT FOR CONSTRUCTION

Scales

Issue	Date	By	Chkd	Appd
B	16.01.26	PDA	ERA	EGM
	ISSUE FOR APPROVAL			
A	26.09.25	PDA	ERA	EGM
	ISSUED FOR ADEQUACY REVIEW			

Client
CLEANAWAY

Engineering Certification (CEng)
Name: ....
Signature: .... Date: ....

Job Title
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Scale at A1 AS SHOWN
Discipline CIVIL

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Drawing Title
BULK EARTHWORKS
SITE SECTIONS
SHEET 5

Drawing Status
FOR APPROVAL

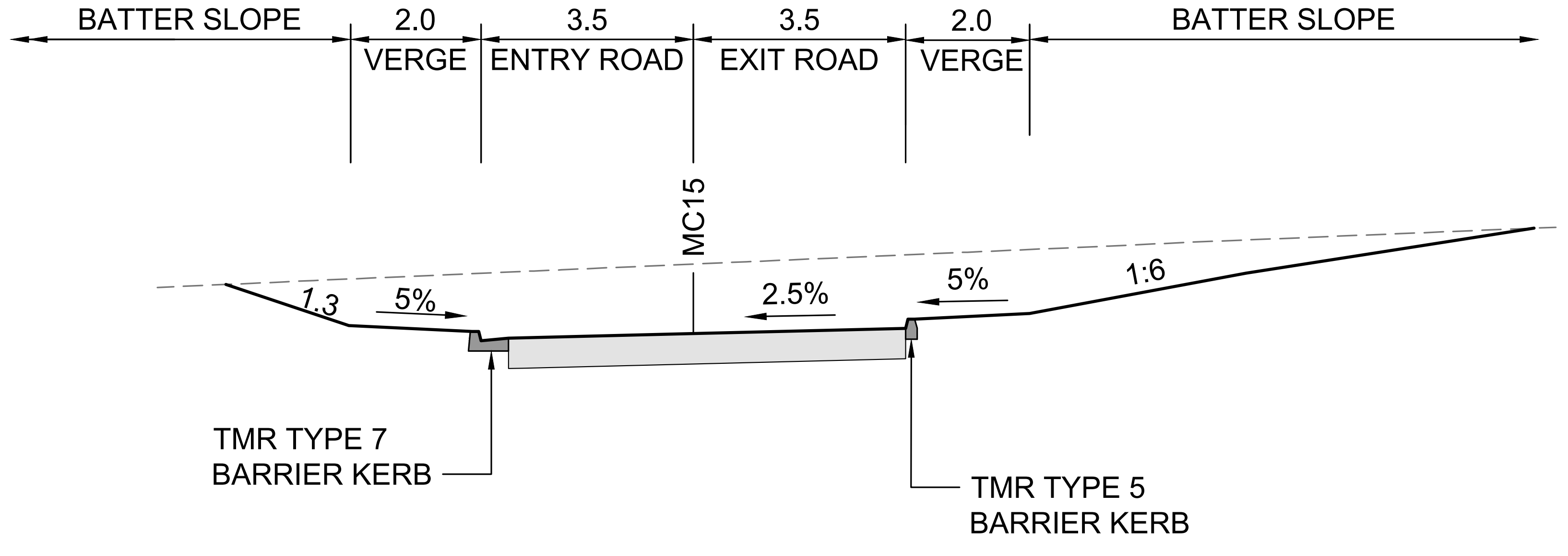
Job No	Drawing No	Issue
293683-00	BERC- ARU-BNE-CICW-DRG-1245	B

Do not scale

© Arup

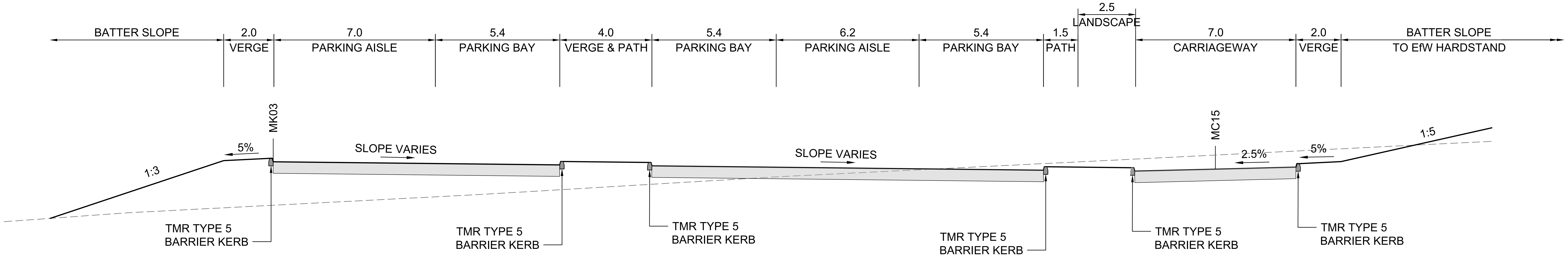
NOTE

1. FOR GENERAL NOTES REFER TO DRAWING No. BERC-ARU-BNE-CICW-DRG-1005.
2. FOR LEGEND REFER TO DRAWING No. BERC-ARU-BNE-CICW-DRG-1006.



SECTION ② 1021
SCALE 1:100

CAR PARK AND IBA ACCESS ROAD



SECTION ① 1021
SCALE 1:100

STAFF AND VISITOR CAR PARK

NOT FOR CONSTRUCTION

Scales
1 0 1 2 3 4 5m
1:100(A1)/1:200(A3)

Issue	Date	By	Chkd	Appd
C	16.01.26	PDA	ERA	EGM
	ISSUE FOR APPROVAL			
B	26.09.25	PDA	ERA	EGM
	ISSUED FOR ADEQUACY REVIEW			
A	18.08.25	PDA	ERA	EGM
	DRAFT FEED ISSUE			

Client
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Engineering Certification (CEng)
Name: ....
Signature: .... Date: ....

Job Title
BROMELTON ENERGY AND RESOURCES CENTRE

Scale at A1 1:100m
Discipline CIVIL

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Drawing Title
CIVIL WORKS
TYPICAL CROSS SECTIONS
SHEET 1

Drawing Status
FOR APPROVAL

Job No	Drawing No	Issue
293683-00	BERC- ARU-BNE-CICW-DRG-1341	C

Do not scale

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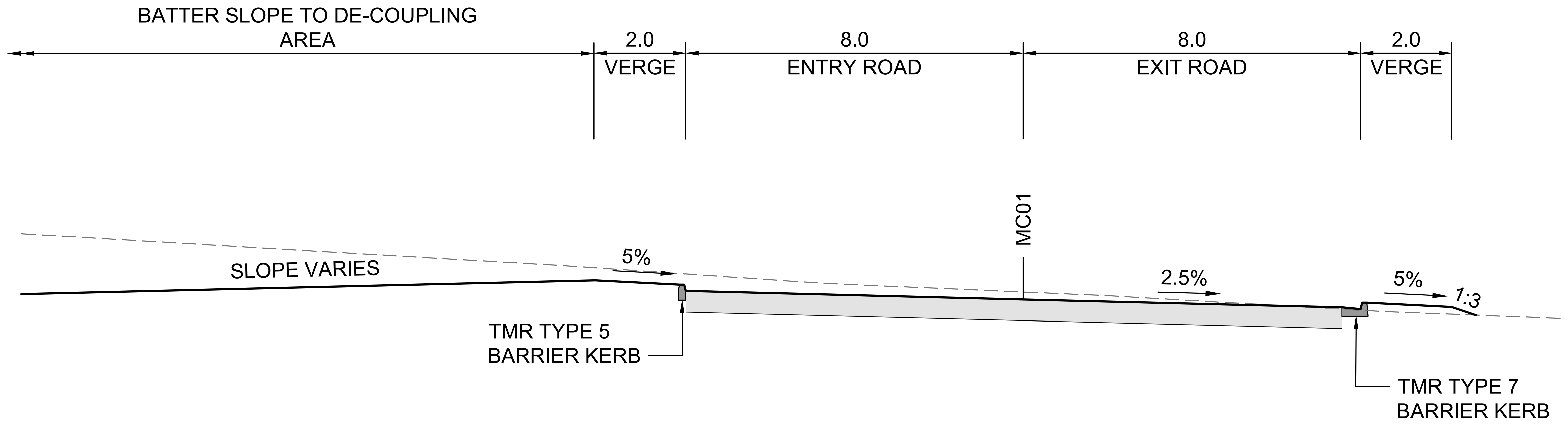
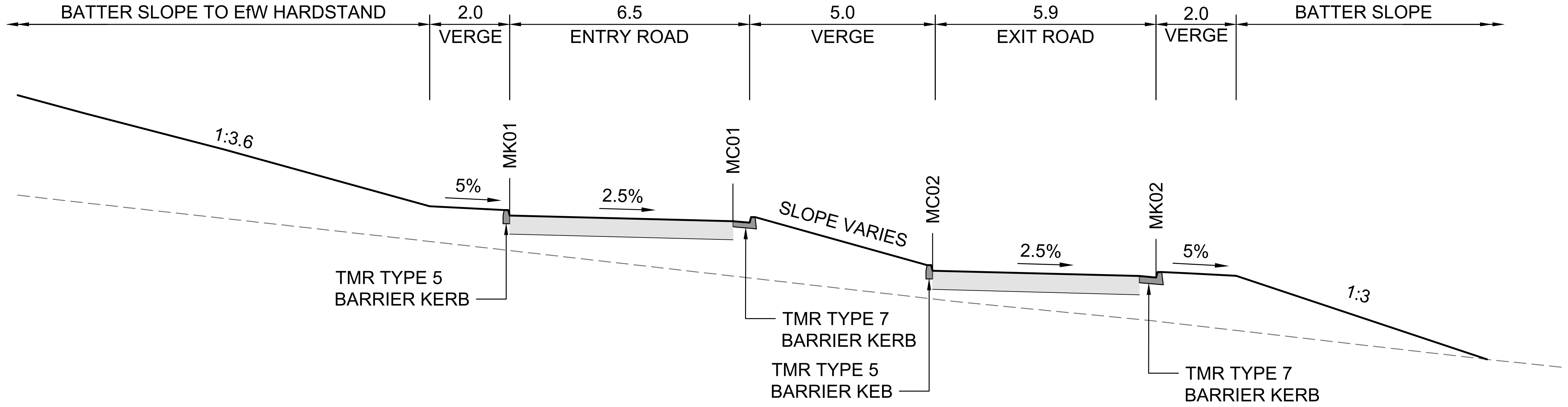
NOTE

1. FOR GENERAL NOTES REFER TO DRAWING No. BERC-ARU-BNE-CICW-DRG-1005.
2. FOR LEGEND REFER TO DRAWING No. BERC-ARU-BNE-CICW-DRG-1006.



SECTION 4/1021
SCALE 1:100

MAIN ENTRANCE ROAD



SECTION 3/1021
SCALE 1:100

MAIN ENTRANCE ROAD

NOT FOR CONSTRUCTION

Scales
1 0 1 2 3 4 5m
1:100(A1)/1:200(A3)

Issue	Date	By	Chkd	Appd
C	16.01.26	PDA	ERA	EGM
	ISSUE FOR APPROVAL			
B	26.09.25	PDA	ERA	EGM
	ISSUED FOR ADEQUACY REVIEW			
A	18.08.25	PDA	ERA	EGM
	DRAFT FEED ISSUE			

Client
CLEANAWAY
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Engineering Certification (CEng)
Name: ....
Signature: .... Date: ....

Job Title
BROMELTON ENERGY AND RESOURCES CENTRE

Scale at A1 1:100m
Discipline CIVIL

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Drawing Title
CIVIL WORKS
TYPICAL CROSS SECTIONS
SHEET 2

Drawing Status
FOR APPROVAL

Job No **293683-00**
Drawing No **BERC- ARU-BNE-CICW-DRG-1342**
Issue **C**

Do not scale

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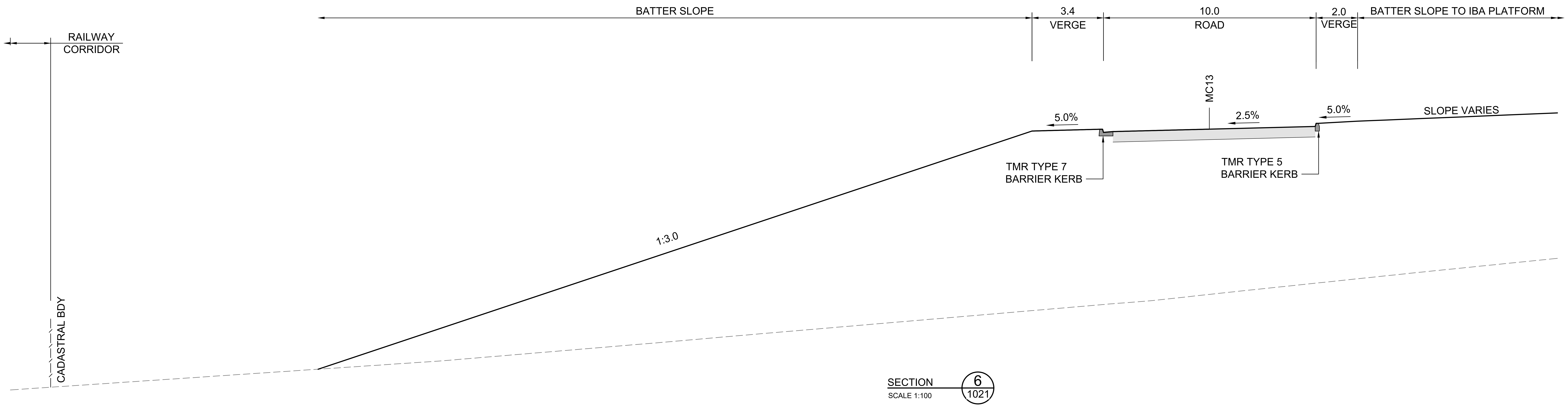
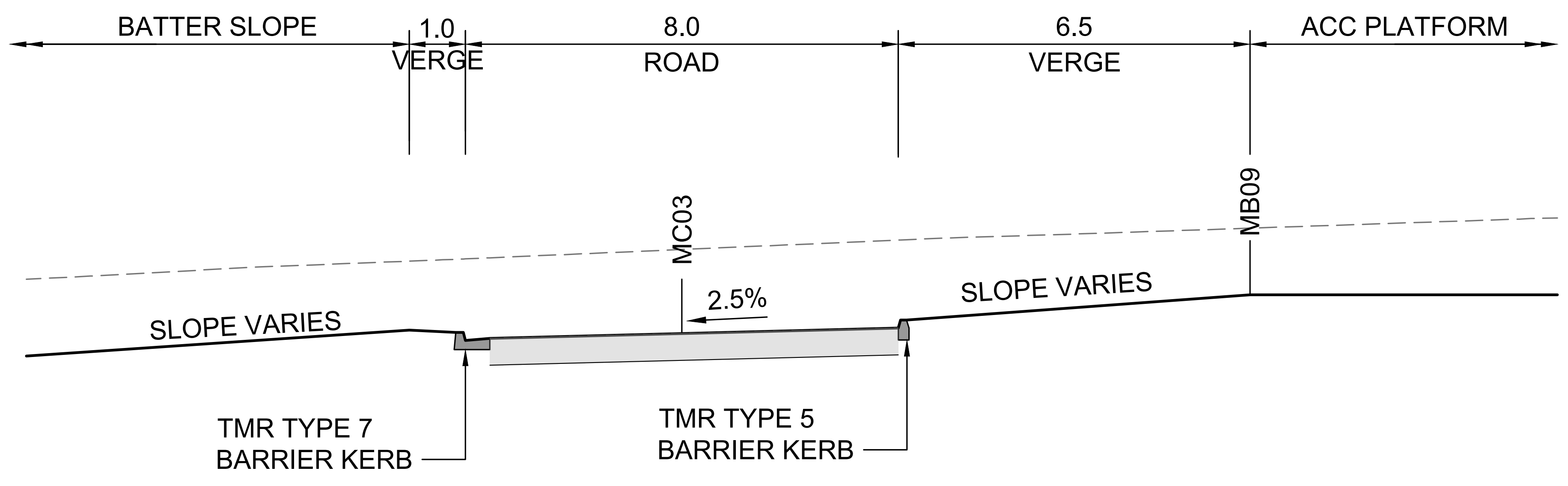
NOTE

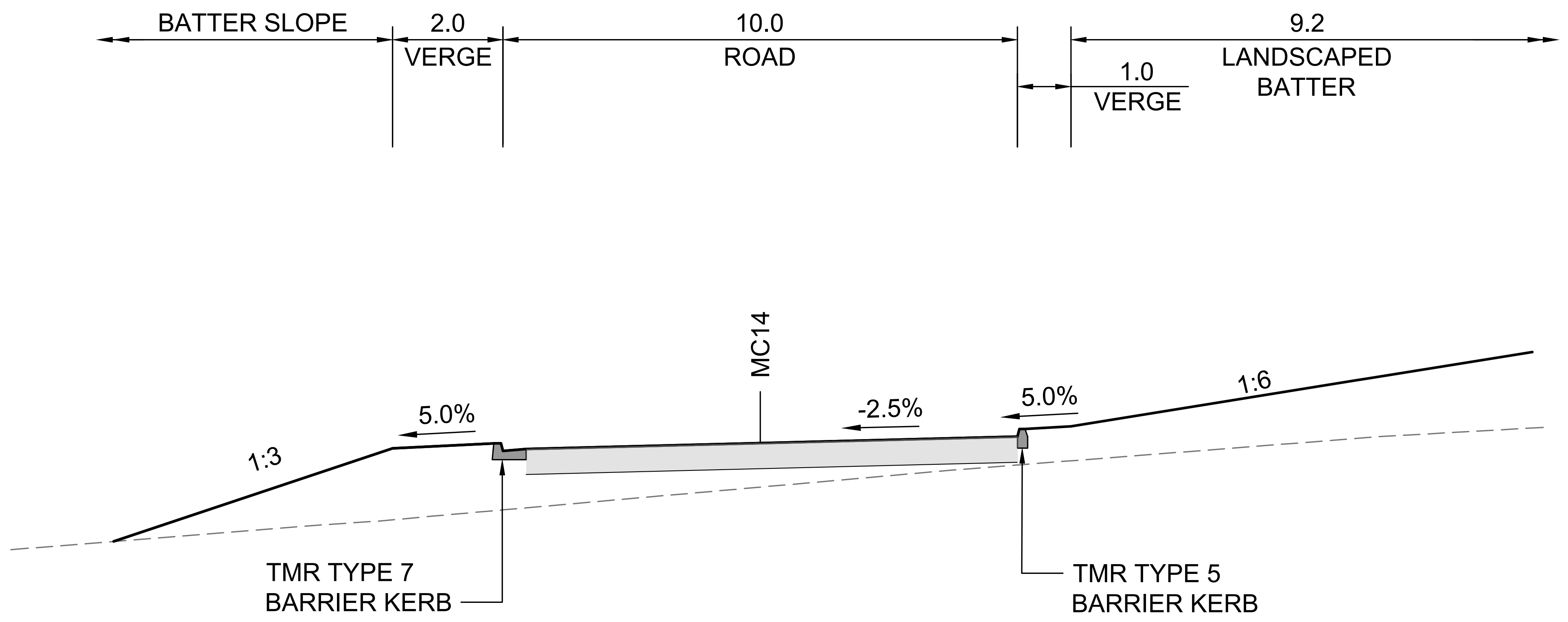
1. FOR GENERAL NOTES REFER TO DRAWING No. BERC-ARU-BNE-CICW-DRG-1005.
2. FOR LEGEND REFER TO DRAWING No. BERC-ARU-BNE-CICW-DRG-1006.



SECTION 6/1021
SCALE 1:100



SECTION 5/1021
SCALE 1:100



SECTION 7/1021
SCALE 1:100

NOT FOR CONSTRUCTION

Scales
1 0 1 2 3 4 5m
1:100(A1)/1:200(A3)

Issue	Date	By	Chkd	Appd
C	16.01.26	PDA	ERA	EGM
	ISSUE FOR APPROVAL			
B	26.09.25	PDA	ERA	EGM
	ISSUED FOR ADEQUACY REVIEW			
A	18.08.25	PDA	ERA	EGM
	DRAFT FEED ISSUE			

Client
CLEANAWAY
Making a sustainable future possible

Engineering Certification (CEng)
Name: ....
Signature: .... Date: ....

Job Title
BROMELTON ENERGY AND
RESOURCES CENTRE

Scale at A1 1:100m
Discipline CIVIL

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Drawing Title
CIVIL WORKS
TYPICAL CROSS SECTIONS
SHEET 3

Drawing Status
FOR APPROVAL

Job No	Drawing No	Issue
293683-00	BERC- ARU-BNE-CICW-DRG-1343	C

Do not scale

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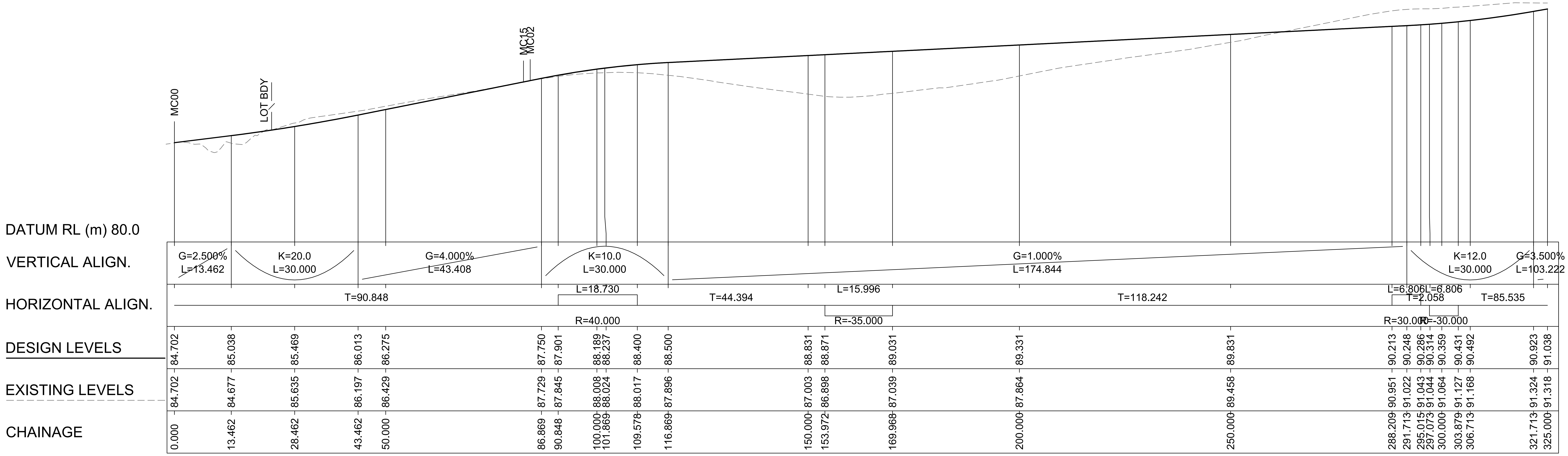
NOTE

1. FOR GENERAL NOTES REFER TO DRAWING No. BERC-ARU-BNE-CICW-DRG-1005.
2. FOR LEGEND REFER TO DRAWING No. BERC-ARU-BNE-CICW-DRG-1006.



DESIGN LEVELS	84.702	85.038	85.469	86.013	86.275	87.750	87.901	88.189	88.237	88.400	88.500	88.831	88.871
EXISTING LEVELS	84.702	84.677	85.635	86.197	86.429	87.729	87.845	88.008	88.024	88.017	87.896	87.003	86.898
CHAINAGE	0.000	13.462	28.462	43.462	50.000	86.869	90.848	100.000	101.869	109.578	116.869	150.000	153.972

DESIGN LEVELS	89.031	89.331	89.831	90.213	90.248	90.286	90.314	90.359	90.431	90.492	90.923	91.038
EXISTING LEVELS	87.039	87.864	89.458	90.951	91.022	91.043	91.044	91.064	91.127	91.168	91.324	91.318
CHAINAGE	169.968	200.000	250.000	288.209	291.713	295.015	297.073	300.000	303.879	306.713	321.713	325.000

LONGITUDINAL SECTION OF MC01 CONTROL LINE

H 1:500

V 1:100

NOT FOR CONSTRUCTION

Scales

5 0 10 20m
1:500(A1)/1:1000(A3)

1 0 1 2 3 4 5m
1:100(A1)/1:200(A3)

Issue	Date	By	Chkd	Appd
C	16.01.26	PDA	ERA	EGM
	ISSUE FOR APPROVAL			
B	26.09.25	PDA	ERA	EGM
	ISSUED FOR ADEQUACY REVIEW			
A	18.08.25	PDA	ERA	EGM
	DRAFT FEED ISSUE			

Client
CLEANAWAY
Making a sustainable future possible

Engineering Certification (CEng)
Name: ....
Signature: .... Date: ....

Job Title
BROMELTON ENERGY AND
RESOURCES CENTRE

Scale at A1 AS SHOWN
Discipline CIVIL

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www.arup.com

CONSULT AUSTRALIA
Member Firm
Arup Pty Ltd
ABN 18 000 966 165

Drawing Title
CIVIL WORKS
MC01 LONGITUDINAL SECTIONS
SHEET 1

Drawing Status
FOR APPROVAL

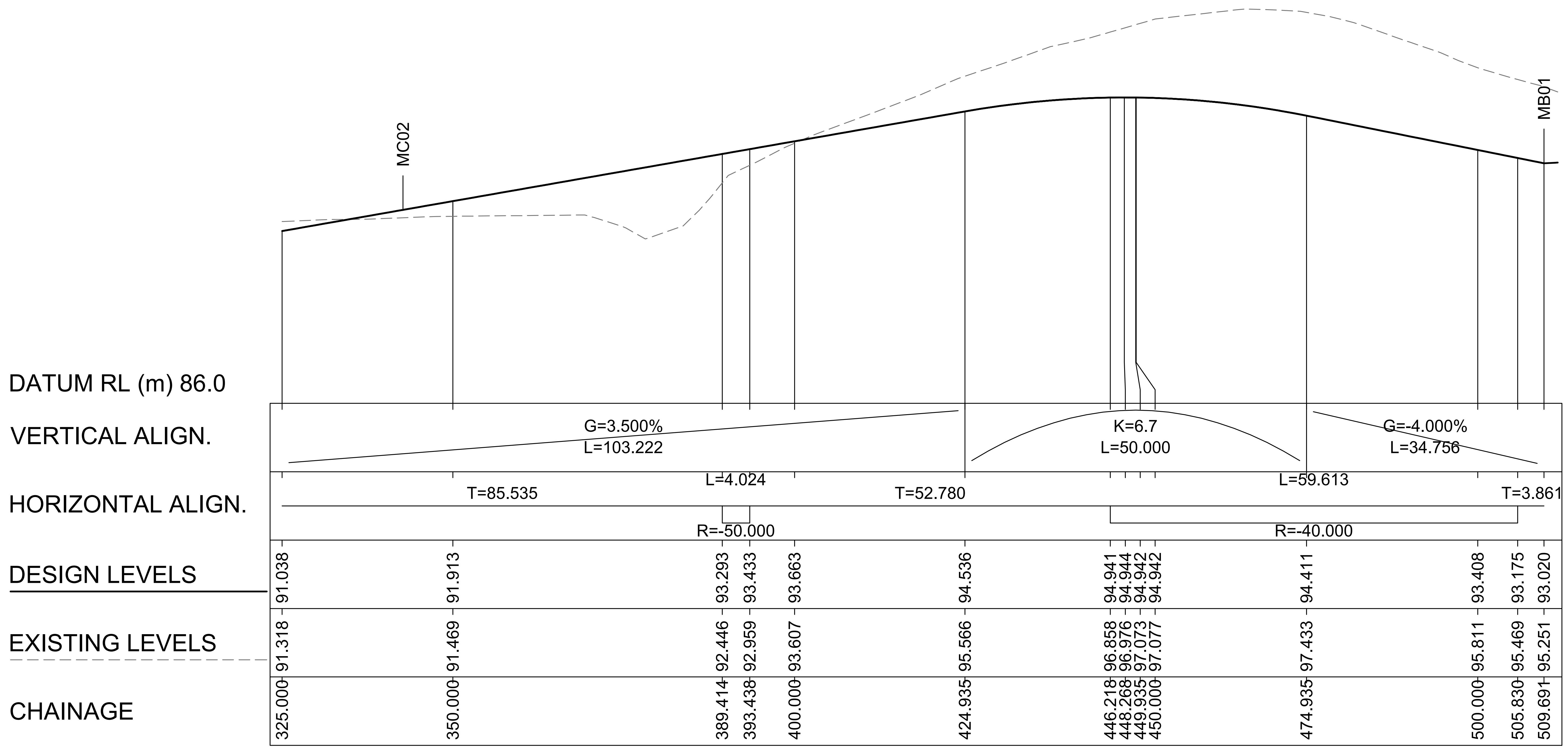
Job No **293683-00**
Drawing No **BERC- ARU-BNE-CICW-DRG-1351**
Issue **C**

Do not scale

© Arup

NOTE

1. FOR GENERAL NOTES REFER TO DRAWING No. BERC-ARU-BNE-CICW-DRG-1005.
2. FOR LEGEND REFER TO DRAWING No. BERC-ARU-BNE-CICW-DRG-1006.



CHAINAGE	DESIGN LEVELS	EXISTING LEVELS
325.000	91.038	91.318
350.000	91.913	91.469
389.414	93.293	92.446
393.438	93.433	92.959
400.000	93.663	93.607
424.935	94.536	95.566
446.218	94.941	96.858
448.268	94.944	96.976
449.935	94.942	97.073
450.000	94.942	97.077
474.935	94.411	97.433
500.000	93.408	95.811
505.830	93.175	95.469
509.691	93.020	95.251

LONGITUDINAL SECTION OF MC01 CONTROL LINE

H 1:500
V 1:100

NOT FOR CONSTRUCTION

Scales
5 0 10 20m
1:500(A1)/1:1000(A3)
1 0 1 2 3 4 5m
1:100(A1)/1:200(A3)

Issue	Date	By	Chkd	Appd
C	16.01.26	PDA	ERA	EGM
	ISSUE FOR APPROVAL			
B	26.09.25	PDA	ERA	EGM
	ISSUED FOR ADEQUACY REVIEW			
A	18.08.25	PDA	ERA	EGM
	DRAFT FEED ISSUE			

Client
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Engineering Certification (CEng)
Name: ....
Signature: .... Date: ....

Job Title
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Discipline CIVIL

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Member Firm
Arup Pty Ltd
ABN 18 000 966 165

Drawing Title
CIVIL WORKS
MC01 LONGITUDINAL SECTIONS
SHEET 2

Drawing Status
FOR APPROVAL

Job No	Drawing No	Issue
293683-00	BERC- ARU-BNE-CICW-DRG-1352	C

Do not scale

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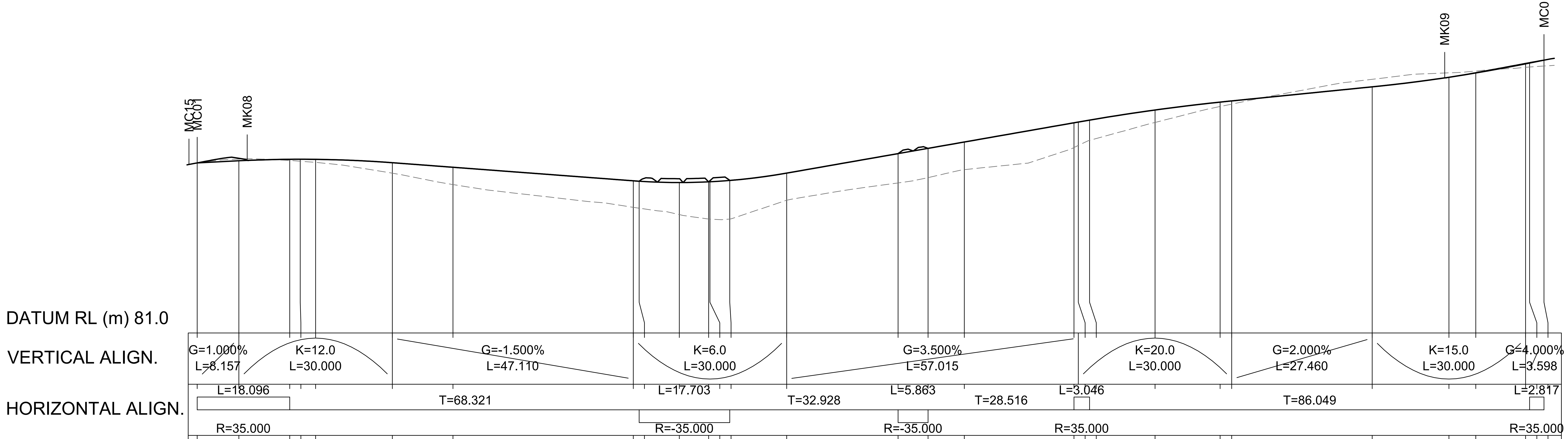
NOTE

1. FOR GENERAL NOTES REFER TO DRAWING No. BERC-ARU-BNE-CICW-DRG-1005.
2. FOR LEGEND REFER TO DRAWING No. BERC-ARU-BNE-CICW-DRG-1006.



CHAINAGE	DESIGN LEVELS	EXISTING LEVELS
0.000	87.644	87.632
8.157	87.725	87.799
18.096	87.783	87.739
20.157	87.785	87.708
23.157	87.781	87.663
38.157	87.650	87.241
50.000	87.473	86.796
85.267	86.944	85.909
86.417	86.927	85.873
94.267	86.876	85.618
100.000	86.903	85.450
100.267	86.906	85.446
104.119	86.957	85.450
115.267	87.244	86.186
137.048	88.006	86.858
142.911	88.211	87.066
150.000	88.459	87.381
171.427	89.209	88.245
172.282	89.239	88.329
174.474	89.315	88.523
187.282	89.708	89.223
200.000	90.017	89.845
202.282	90.064	89.939
229.742	90.613	90.907
244.742	90.988	91.159
250.000	91.155	91.231
259.742	91.513	91.376
260.522	91.545	91.390
263.339	91.657	91.426

LONGITUDINAL SECTION OF MC02 CONTROL LINE

H 1:500

V 1:100

NOT FOR CONSTRUCTION

Scales
5 0 10 20m
1:500(A1)/1:1000(A3)
1 0 1 2 3 4 5m
1:100(A1)/1:200(A3)

Issue	Date	By	Chkd	Appd
C	16.01.26	PDA	ERA	EGM
	ISSUE FOR APPROVAL			
B	26.09.25	PDA	ERA	EGM
	ISSUED FOR ADEQUACY REVIEW			
A	18.08.25	PDA	ERA	EGM
	DRAFT FEED ISSUE			

Client
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Engineering Certification (CEng)
Name: ....
Signature: .... Date: ....

Job Title
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Scale at A1 AS SHOWN
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ABN 18 000 966 165

Drawing Title
CIVIL WORKS
MC02 LONGITUDINAL SECTIONS

Drawing Status
FOR APPROVAL

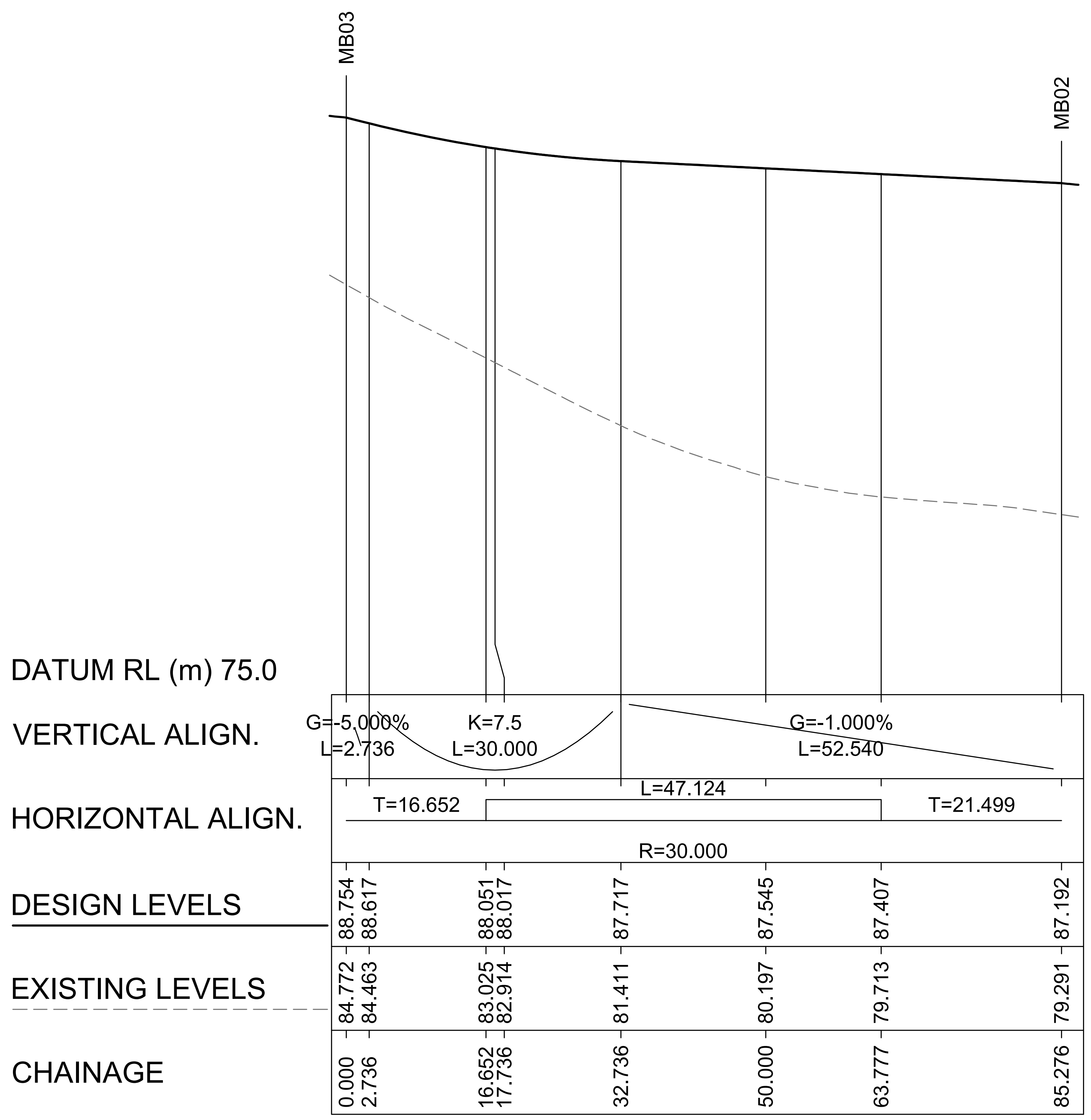
Job No **293683-00**
Drawing No **BERC- ARU-BNE-CICW-DRG-1353**
Issue **C**

Do not scale

© Arup

NOTE

1. FOR GENERAL NOTES REFER TO DRAWING No. BERC-ARU-BNE-CICW-DRG-1005.
2. FOR LEGEND REFER TO DRAWING No. BERC-ARU-BNE-CICW-DRG-1006.



CHAINAGE	DESIGN LEVELS	EXISTING LEVELS
0.000	88.754	84.772
2.736	88.617	84.463
16.652	88.051	83.025
17.736	88.017	82.914
32.736	87.717	81.411
50.000	87.545	80.197
63.777	87.407	79.713
85.276	87.192	79.291

LONGITUDINAL SECTION OF MC13 CONTROL LINE

H 1:500

V 1:100

NOT FOR CONSTRUCTION

Scales
5 0 10 20m
1:500(A1)/1:1000(A3)
1 0 1 2 3 4 5m
1:100(A1)/1:200(A3)

Issue	Date	By	Chkd	Appd
C	16.01.26	PDA	ERA	EGM
	ISSUE FOR APPROVAL			
B	26.09.25	PDA	ERA	EGM
	ISSUED FOR ADEQUACY REVIEW			
A	18.08.25	PDA	ERA	EGM
	DRAFT FEED ISSUE			

Client
CLEANAWAY
Making a sustainable future possible

Engineering Certification (CEng)
Name: ....
Signature: .... Date: ....

Job Title
BROMELTON ENERGY AND
RESOURCES CENTRE

Scale at A1 AS SHOWN

Discipline CIVIL

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Member Firm
Arup Pty Ltd
ABN 18 000 966 165

Drawing Title
CIVIL WORKS
MC13 LONGITUDINAL SECTIONS

Drawing Status
FOR APPROVAL

Job No	Drawing No	Issue
293683-00	BERC- ARU-BNE-CICW-DRG-1354	C

Do not scale

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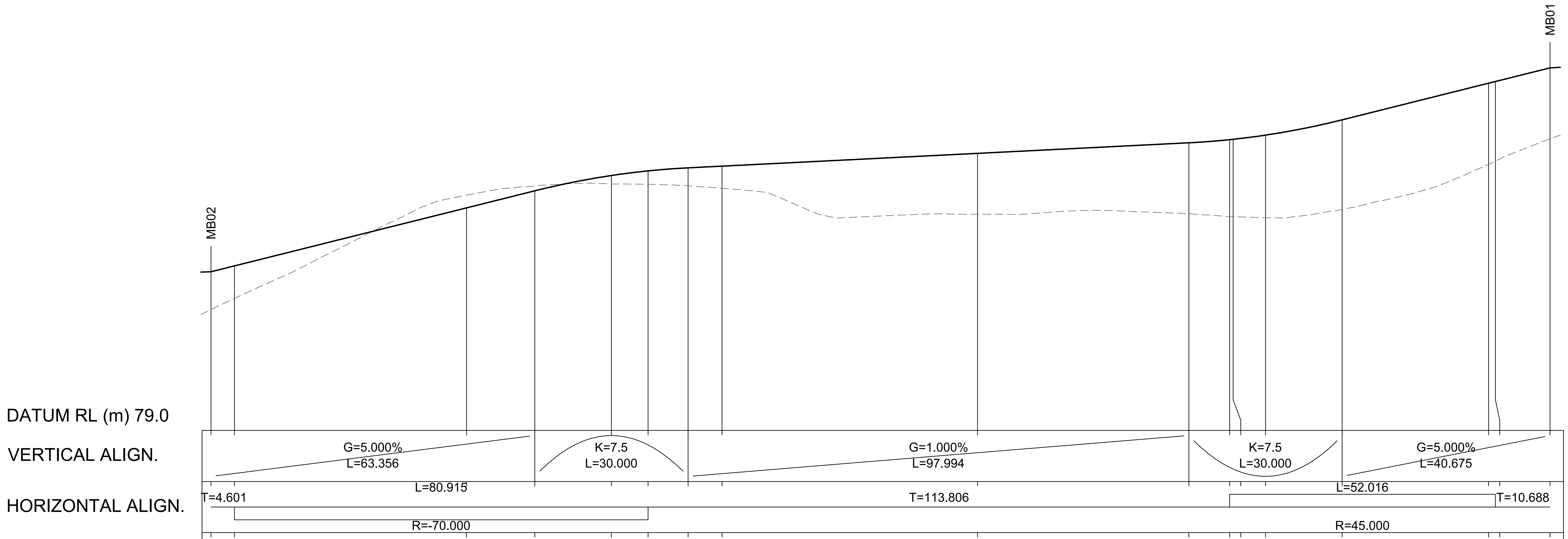
NOTE

1. FOR GENERAL NOTES REFER TO DRAWING No. BERC-ARU-BNE-CICW-DRG-1005.
2. FOR LEGEND REFER TO DRAWING No. BERC-ARU-BNE-CICW-DRG-1006.



CHAINAGE	DESIGN LEVELS	EXISTING LEVELS
0.000	85.212	83.733
4.601	85.442	84.169
50.000	87.712	88.213
63.356	88.380	88.575
78.356	88.980	88.652
85.515	89.160	88.636
93.356	89.280	88.573
100.000	89.346	88.479
150.000	89.846	87.464
191.350	90.260	87.481
199.321	90.382	87.374
200.000	90.396	87.365
206.350	90.560	87.323
221.350	91.160	87.645
250.000	92.592	89.414
251.337	92.659	89.542
262.024	93.193	90.419

LONGITUDINAL SECTION OF MC14 CONTROL LINE

H 1:500

V 1:100

NOT FOR CONSTRUCTION

Scales

5 0 10 20m

1:500(A1)/1:1000(A3)

1 0 1 2 3 4 5m

1:100(A1)/1:200(A3)

Issue	Date	By	Chkd	Appd
C	16.01.26	PDA	ERA	EGM
	ISSUE FOR APPROVAL			
B	26.09.25	PDA	ERA	EGM
	ISSUED FOR ADEQUACY REVIEW			
A	18.08.25	PDA	ERA	EGM
	DRAFT FEED ISSUE			

Client

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Engineering Certification (CEng)
Name: ....
Signature: .... Date: ....

Job Title
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RESOURCES CENTRE

Scale at A1 AS SHOWN

Discipline CIVIL

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www.arup.com

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Member Firm
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ABN 18 000 966 165

Drawing Title
CIVIL WORKS
MC14 LONGITUDINAL SECTIONS

Drawing Status
FOR APPROVAL

Job No	Drawing No	Issue
293683-00	BERC- ARU-BNE-CICW-DRG-1355	C

Do not scale

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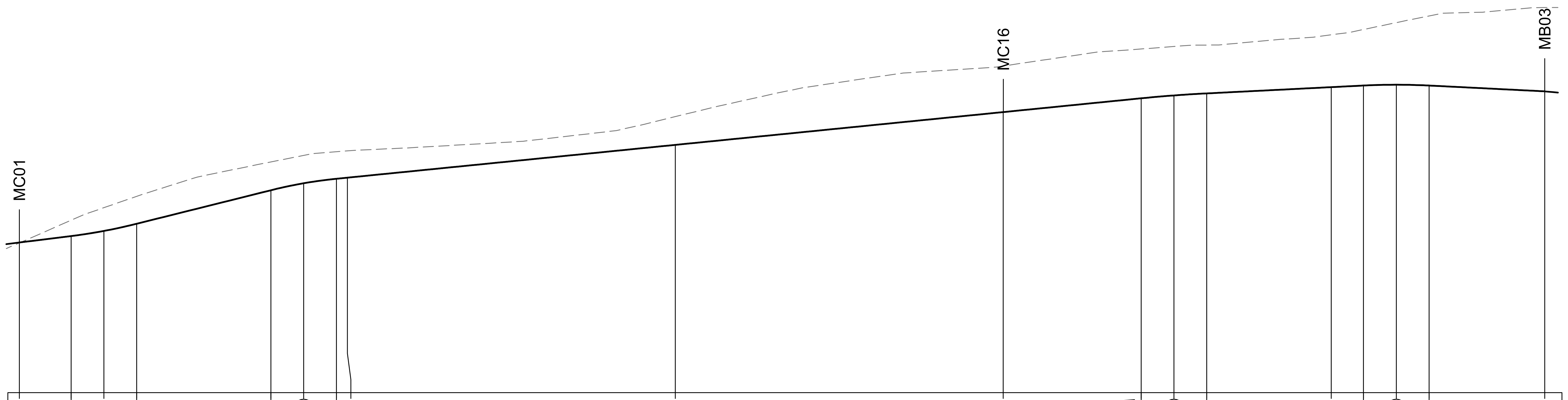
NOTE

1. FOR GENERAL NOTES REFER TO DRAWING No. BERC-ARU-BNE-CICW-DRG-1005.
2. FOR LEGEND REFER TO DRAWING No. BERC-ARU-BNE-CICW-DRG-1006.



DATUM RL (m) 83.0

VERTICAL ALIGN.
- G=2.500% L=7.891
- K=4.0 L=10.000
- G=5.000% L=20.452
- K=3.3 L=10.000
- G=2.000% L=122.682
- K=10.0 L=10.000
- G=1.000% L=23.902
- K=5.0 L=10.000
- G=-1.000% L=17.637

HORIZONTAL ALIGN.
T=232.564

CHAINAGE	DESIGN LEVELS	EXISTING LEVELS
0.000	87.579	87.568
7.891	87.777	88.261
12.891	87.933	88.643
17.891	88.152	88.990
38.343	89.174	90.038
43.343	89.387	90.236
48.343	89.524	90.348
50.000	89.557	90.374
100.000	90.557	91.419
150.000	91.557	92.963
171.025	91.978	93.482
176.025	92.065	93.558
181.025	92.128	93.602
200.000	92.318	93.914
204.927	92.367	94.077
209.927	92.392	94.286
214.927	92.367	94.490
232.564	92.191	94.747

LONGITUDINAL SECTION OF MC15 CONTROL LINE

H 1:500
V 1:100

NOT FOR CONSTRUCTION

Scales
1:500(A1)/1:1000(A3)
1:100(A1)/1:200(A3)

Issue	Date	By	Chkd	Appd
C	16.01.26	PDA	ERA	EGM
	ISSUE FOR APPROVAL			
B	26.09.25	PDA	ERA	EGM
	ISSUED FOR ADEQUACY REVIEW			
A	18.08.25	PDA	ERA	EGM
	DRAFT FEED ISSUE			

Client
CLEANAWAY
Making a sustainable future possible

Engineering Certification (CEng)
Name: ....
Signature: .... Date: ....

Job Title
BROMELTON ENERGY AND RESOURCES CENTRE

Scale at A1 AS SHOWN
Discipline CIVIL

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Drawing Title
CIVIL WORKS
MC15 LONGITUDINAL SECTIONS

Drawing Status
FOR APPROVAL

Job No	Drawing No	Issue
293683-00	BERC- ARU-BNE-CICW-DRG-1356	C

Do not scale

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A1
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
1
2
3
4
5
6
7
8
9
10
N
BEAUDESERT BOONAH ROAD
CATCHMENT 1 (AND OVERLAND FLOWS FROM WEST OF SITE) DISCHARGE TO CULVERT UNDER BEAUDESERT BOONAH ROAD
CATCHMENT 1
81,126 M² - 8.11 HECTARES
EXISTING RIGHT OF WAY
CATCHMENT 2B
174,083 M² - 17.4 HECTARES
AREA BYPASSES THE UPPER FARM DAM
CATCHMENT 2 DISCHARGERS TO CULVERT UNDER RAILWAY CORRIDOR
CATCHMENT 2 TOTAL 319.716 m² (31.97Ha)
CATCHMENT 2A
145,633 M² - 14.5 HECTARES
AREA FLOWS INTO UPPER FARM DAM
SYDNEY TO BRISBANE RAILWAY CORRIDOR
CATCHMENT 4
185,248 M² - 18.5 HECTARES
CATCHMENT 3
33,000 M² - 3.3 HECTARES

NOTE
1. FOR GENERAL NOTES REFER TO DRAWING No. BERC-ARU-BNE-CICW-DRG-1005.
2. FOR LEGEND REFER TO DRAWING No. BERC-ARU-BNE-CICW-DRG-1006.

NOT FOR CONSTRUCTION

Scales
25 0 50 100m
1:2500(A1)/1:5000(A3)

Issue	Date	By	Chkd	Appd
C	16.01.26	PDA	ERA	EGM
	ISSUE FOR APPROVAL			
B	26.09.25	PDA	ERA	EGM
	ISSUED FOR ADEQUACY REVIEW			
A	18.08.25	PDA	ERA	EGM
	DRAFT FEED ISSUE			

Client
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Making a sustainable future possible

Engineering Certification (CEng)
Name: ....
Signature: .... Date: ....

Job Title
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Scale at A1 1:2500m
Discipline CIVIL

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Drawing Title
STORMWATER
PRE - DEVELOPMENT CATCHMENT - PLAN

Drawing Status
FOR APPROVAL

Job No	Drawing No	Issue
293683-00	BERC- ARU-BNE-CICW-DRG-1601	C

Do not scale

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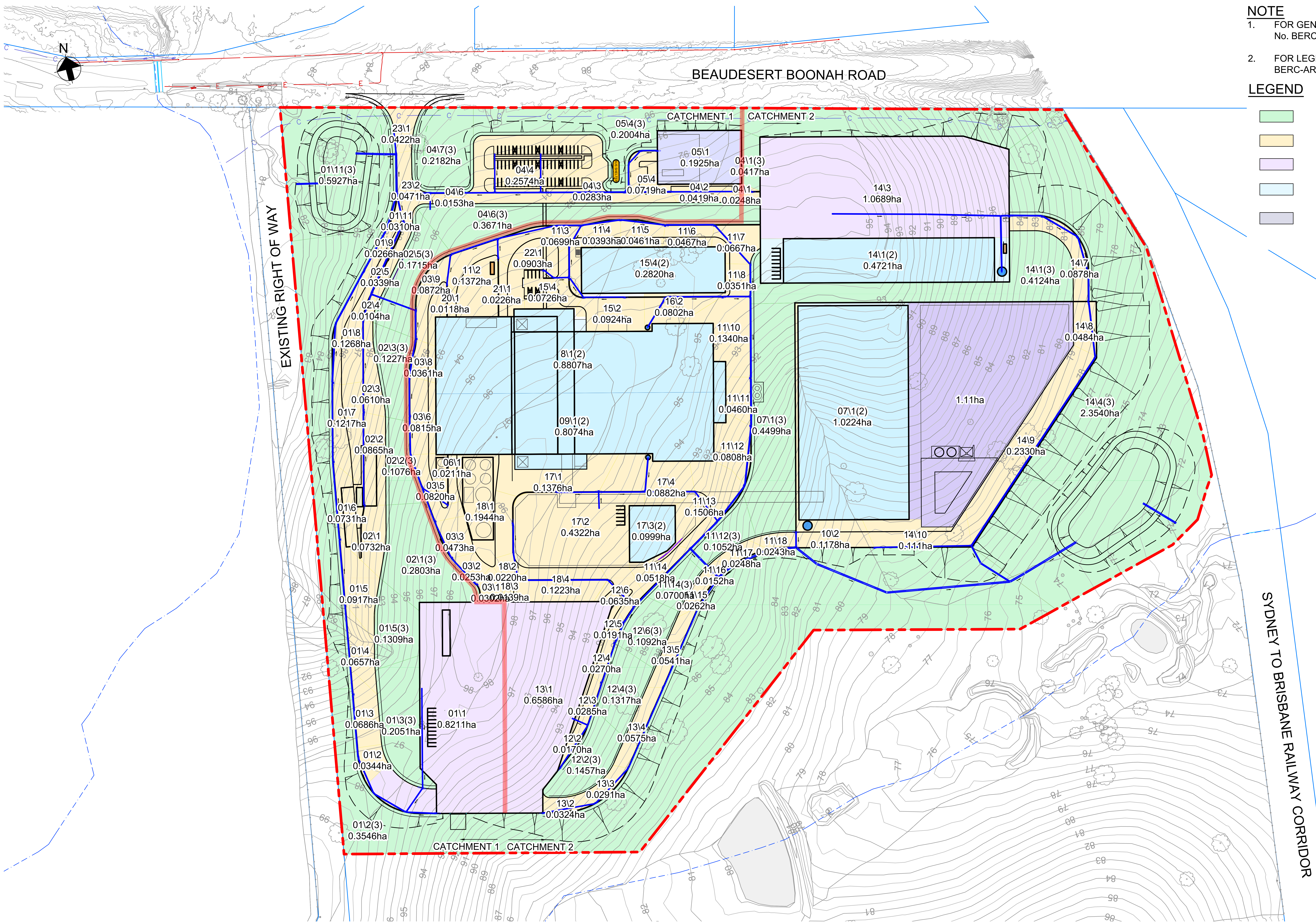
A1



NOTE

1. FOR GENERAL NOTES REFER TO DRAWING No. BERC-ARU-BNE-CICW-DRG-1005.
2. FOR LEGEND REFER TO DRAWING No. BERC-ARU-BNE-CICW-DRG-1006.

LEGEND

🟩	LANDSCAPE
🟨	ROAD
🟪	HARDSTAND
🟦	BUILDING ROOF
▨	HARDSTAND DRAINING TO IBA RETENTION BASIN

NOT FOR CONSTRUCTION

Scales
10 0 10 20 30 40 50m
1:1250(A1)/1:2500(A3)

Issue	Date	By	Chkd	Appd
C	16.01.26	PDA	ERA	EGM
	ISSUE FOR APPROVAL			
B	26.09.25	PDA	ERA	EGM
	ISSUED FOR ADEQUACY REVIEW			
A	18.08.25	PDA	ERA	EGM
	DRAFT FEED ISSUE			

Client
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Engineering Certification (CEng)
Name: ....
Signature: .... Date: ....

Job Title
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Scale at A1 1:1250mm
Discipline CIVIL

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ABN 18 000 966 165

Drawing Title
STORMWATER
PROPOSED CATCHMENT - PLAN

Drawing Status
FOR APPROVAL

Job No 293683-00
Drawing No BERC- ARU-BNE-CICW-DRG-1605
Issue C

Do not scale

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NOTE

1. FOR GENERAL NOTES REFER TO DRAWING No. BERC-ARU-BNE-CICW-DRG-1005.
2. FOR LEGEND REFER TO DRAWING No. BERC-ARU-BNE-CICW-DRG-1006.
3. THE STORMWATER DESIGNS PRESENTED ARE AT CONCEPT LEVEL AND WILL BE DEVELOPED AS PART OF FUTURE DESIGN STAGES.

NOT FOR CONSTRUCTION

Scales
5 0 10 20m
1:500(A1)/1:1000(A3)

Issue	Date	By	Chkd	Appd
C	16.01.26	PDA	ERA	EGM
	ISSUE FOR APPROVAL			
B	26.09.25	PDA	ERA	EGM
	ISSUED FOR ADEQUACY REVIEW			
A	18.08.25	PDA	ERA	EGM
	DRAFT FEED ISSUE			

Client
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Making a sustainable future possible

Engineering Certification (CEng)
Name: ....
Signature: .... Date: ....

Job Title
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RESOURCES CENTRE

Scale at A1 1:500m
Discipline CIVIL

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Member Firm
Arup Pty Ltd
ABN 18 000 966 165

Drawing Title
STORMWATER
PLAN
SHEET 1

Drawing Status
FOR APPROVAL

Job No **293683-00**
Drawing No **BERC- ARU-BNE-CICW-DRG-1611**
Issue **C**

Do not scale

© Arup

A1
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
1
2
3
4
5
6
7
8
9
10
N
EXISTING RIGHT OF WAY
SCOUR PROTECTION DOWNSTREAM OF HEADWALL TO BE COMPLETED AS PART OF DETAILED DESIGN. OUTLET TO CONVEY FLOWS TO EXISTING SWALE
OUTLET CONTROL STRUCTURE CONTAINING ORIFICE PLATE
OSD BASIN
BIO-RETENTION BASIN
COMBINED STORMWATER TREATMENT AND DETENTION BASIN
GROSS POLLUTANT TRAP (CDS 1512 OR SIMILAR APPROVED)
INDICATIVE POSITION OF STORMWATER CROSSING UNDER NEW JUNCTION. DESIGN TO BE DEVELOPED IN CONJUNCTION WITH TMR.
CUT-OFF DRAINS TO DISCHARGE TO INLET PIT AND CONNECT TO TRUNK STORMWATER LINE.
SWALE TO CONVEY FLOWS TO STORMWATER BASIN
BOONAH BEAUDESERT ROAD
RECYCLING STREET
TIPPING HALL
WASTE BUNKER
24\2
24\1
Ø600
01\10
01\11
01\12
01\13
01\14
01\15
01\16
01\17
01\18
02\2
02\3
02\4
02\5
03\5
03\6
03\7
03\8
03\9
04\4
04\5
04\6
04\7
11\1
11\2
11\3
11\4
15\2
15\3
15\4
19\1
20\1
21\1
22\1
22\2
23\1
30\1
31\1
Ø300
Ø375
Ø450
Ø750
BERC-ARU-BRI-CICW- DRG-1611
BERC-ARU-BRI-CICW- DRG-1614
KEY PLAN
N.T.S
3
4
5

NOTE

1. FOR GENERAL NOTES REFER TO DRAWING No. BERC-ARU-BNE-CICW-DRG-1005.
2. FOR LEGEND REFER TO DRAWING No. BERC-ARU-BNE-CICW-DRG-1006.
3. THE STORMWATER DESIGNS PRESENTED ARE AT CONCEPT LEVEL AND WILL BE DEVELOPED AS PART OF FUTURE DESIGN STAGES.

NOT FOR CONSTRUCTION

Scales
5 0 10 20m
1:500(A1)/1:1000(A3)

Issue	Date	By	Chkd	Appd
C	16.01.26	PDA	ERA	EGM
	ISSUE FOR APPROVAL			
B	26.09.25	PDA	ERA	EGM
	ISSUED FOR ADEQUACY REVIEW			
A	18.08.25	PDA	ERA	EGM
	DRAFT FEED ISSUE			

Client
CLEANAWAY
Making a sustainable future possible

Engineering Certification (CEng)
Name: ....
Signature: .... Date: ....

Job Title
BROMELTON ENERGY AND RESOURCES CENTRE

Scale at A1 1:500m
Discipline CIVIL

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CONSULT AUSTRALIA
Member Firm
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ABN 18 000 966 165

Drawing Title
STORMWATER
PLAN
SHEET 2

Drawing Status
FOR APPROVAL

Job No **293683-00**
Drawing No **BERC- ARU-BNE-CICW-DRG-1612**
Issue **C**

Do not scale

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ADJOIN DRG No. BERC-ARU-BRI-CICW-DRG-1611

N
EXISTING FARM DAM
APCR ROOF DRAINAGE TO CONNECT TO PIT 17/3.
APCR
CUT-OFF DRAINS TO DISCHARGE INTO PIT 07/1
MIN 100kL RAINWATER HARVESTING TANK WITH OVERFLOW DISCHARGING TO PIT 07/1
LINED IBA RETENTION BASIN
13\2
13\3
13\4
13\5
12\3
12\4
12\5
12\6
18\4
29\1
17\2
17\3
17\4
11\12
11\13
11\14
11\15
11\16
11\17
11\18
11\19
11\20
11\21
07\1
10\1
Ø375
Ø450
Ø600
Ø750
Ø825
KEY PLAN
N.T.S
3
4
5

ADJOIN DRG No. BERC-ARU-BRI-CICW-DRG-1614

NOTE

1. FOR GENERAL NOTES REFER TO DRAWING No. BERC-ARU-BNE-CICW-DRG-1005.
2. FOR LEGEND REFER TO DRAWING No. BERC-ARU-BNE-CICW-DRG-1006.
3. THE STORMWATER DESIGNS PRESENTED ARE AT CONCEPT LEVEL AND WILL BE DEVELOPED AS PART OF FUTURE DESIGN STAGES.

ADJOIN DRG No. BERC-ARU-BRI-CICW-DRG-1615

NOT FOR CONSTRUCTION

Scales
5 0 10 20m
1:500(A1)/1:1000(A3)

Issue	Date	By	Chkd	Appd
C	16.01.26	PDA	ERA	EGM
	ISSUE FOR APPROVAL			
B	26.09.25	PDA	ERA	EGM
	ISSUED FOR ADEQUACY REVIEW			
A	18.08.25	PDA	ERA	EGM
	DRAFT FEED ISSUE			

Client
CLEANAWAY
Making a sustainable future possible

Engineering Certification (CEng)
Name: ....
Signature: .... Date: ....

Job Title
BROMELTON ENERGY AND RESOURCES CENTRE

Scale at A1 1:500m
Discipline CIVIL

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www.arup.com

CONSULT AUSTRALIA
Member Firm
Arup Pty Ltd
ABN 18 000 966 165

Drawing Title
STORMWATER
PLAN
SHEET 3

Drawing Status
FOR APPROVAL

Job No 293683-00
Drawing No BERC- ARU-BNE-CICW-DRG-1613
Issue C

Do not scale

© Arup

A1
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
1
2
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7
8
9
10
ADJOIN DRG No. BERC-ARU-BRI-CICW-DRG-1612
ADJOIN DRG No. BERC-ARU-BRI-CICW-DRG-1613
ADJOIN DRG No. BERC-ARU-BRI-CICW-DRG-1615
N
BOILER HALL
PROCESS HALL
ACC
HV SUBSTATION
STACK
IBA SORTING BUILDING
IBA SORTING BUILDING
BUS SHELTER
MIN 100 kL RAINWATER HARVESTING TANK WITH OVERFLOW DISCHARGING TO STORMWATER NETWORK
OIL & WATER SEPARATOR TO BE PROVIDED UPSTREAM OF PIT 05/1.
DETAILED DESIGN OF HV SUBSTATION FORMS PART OF LATER DESIGN STAGES.
CUT-OFF DRAIN
09\1
8\1
15\1
16\1
16\2
11\5
04\3
05\4
05\3
05\2
05\1
11\6
04\2
11\7
11\11
11\10
11\9
11\8
04\1
14\1
14\2
Ø300
Ø450
Ø375
Ø600
50
94.0
93.5
93.0
92.5
92.0
91.5
91.0
90.5
90.0
89.5
88.0
87.5
87.0
86.5
86.0
KEY PLAN
N.T.S
3
4
5

NOTE

1. FOR GENERAL NOTES REFER TO DRAWING No. BERC-ARU-BNE-CICW-DRG-1005.
2. FOR LEGEND REFER TO DRAWING No. BERC-ARU-BNE-CICW-DRG-1006.
3. THE STORMWATER DESIGNS PRESENTED ARE AT CONCEPT LEVEL AND WILL BE DEVELOPED AS PART OF FUTURE DESIGN STAGES.

NOT FOR CONSTRUCTION

Scales
5 0 10 20m
1:500(A1)/1:1000(A3)

Issue	Date	By	Chkd	Appd
C	16.01.26	PDA	ERA	EGM
	ISSUE FOR APPROVAL			
B	26.09.25	PDA	ERA	EGM
	ISSUED FOR ADEQUACY REVIEW			
A	18.08.25	PDA	ERA	EGM
	DRAFT FEED ISSUE			

Client
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Engineering Certification (CEng)
Name: ....
Signature: .... Date: ....

Job Title
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RESOURCES CENTRE

Scale at A1 1:500m
Discipline CIVIL

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Member Firm
Arup Pty Ltd
ABN 18 000 966 165

Drawing Title
STORMWATER
PLAN
SHEET 4

Drawing Status
FOR APPROVAL

Job No **293683-00**
Drawing No **BERC- ARU-BNE-CICW-DRG-1614**
Issue **C**

Do not scale

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ADJOIN DRG No. BERC-ARU-BRI-CICW-DRG-1613
ADJOIN DRG No. BERC-ARU-BRI-CICW-DRG-1614
N
INLET SUMP AND OVERFLOW AT IBA RETENTION BASIN.
KERB UPSTAND AND CHANNEL TO DIVERT FLOWS TO IBAA RETENTION BASIN.
MIN 100kL RAINWATER HARVESTING TANK.
GROSS POLLUTANT TRAP (CDS 2028 OR SIMILAR APPROVED)
BIO-RETENTION BASIN
STORMWATER BASIN
EXISTING FARM DAM
OUTLET CONTROL STRUCTURE CONTAINING ORIFICE PLATE
DETENTION BASIN
SCOUR PROTECTION DOWNSTREAM OF HEADWALL TO BE COMPLETED AS PART OF DETAILED DESIGN.
SWALE TO CONVEY FLOWS TO EXISTING OVERLAND FLOW PATH
SWALE TO CONVEY FLOWS TO EXISTING OVERLAND FLOW PATH
SYDNEY TO BRISBANE RAILWAY CORRIDOR
BEAUDESERT BOONAH ROAD
EXISTING CULVERT BELOW RAILWAY EMBANKMENT
11\22
11\23
11\24
14\3
14\4
14\5
14\6
14\7
14\8
14\9
14\10
14\11
25\1
25\2
28\1
Ø825
Ø600
Ø525
Ø450
Ø375
KEY PLAN
N.T.S
3
4
5

NOTE

1. FOR GENERAL NOTES REFER TO DRAWING No. BERC-ARU-BNE-CICW-DRG-1005.
2. FOR LEGEND REFER TO DRAWING No. BERC-ARU-BNE-CICW-DRG-1006.
3. THE STORMWATER DESIGNS PRESENTED ARE AT CONCEPT LEVEL AND WILL BE DEVELOPED AS PART OF FUTURE DESIGN STAGES.

NOT FOR CONSTRUCTION

Scales
1:500(A1)/1:1000(A3)

Issue	Date	By	Chkd	Appd
C	16.01.26	PDA	ERA	EGM
	ISSUE FOR APPROVAL			
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Client
CLEANAWAY
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Engineering Certification (CEng)
Name: ....
Signature: .... Date: ....

Job Title
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Scale at A1 1:500m
Discipline CIVIL

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Drawing Title
STORMWATER
PLAN
SHEET 5

Drawing Status
FOR APPROVAL

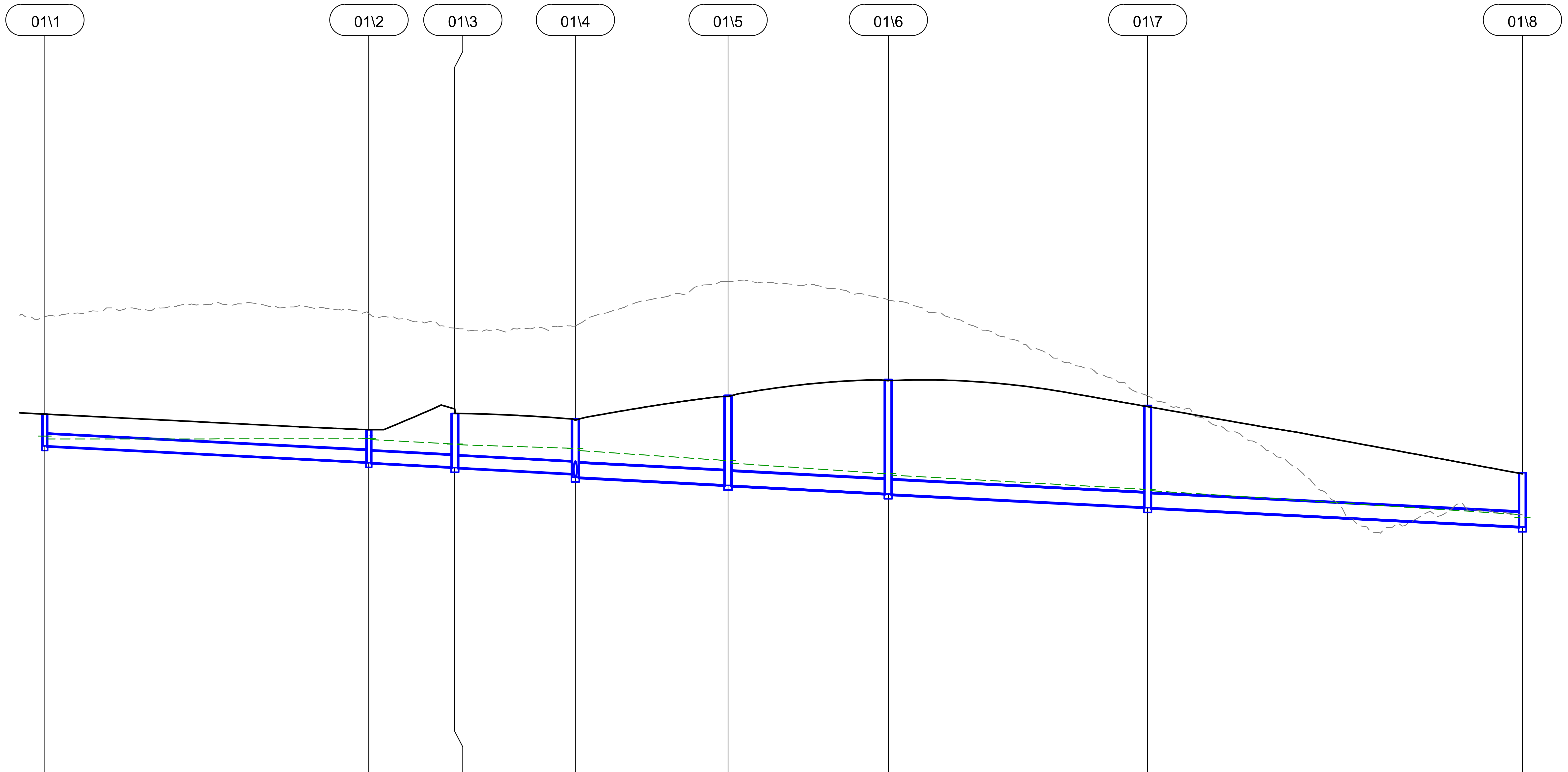
Job No	Drawing No	Issue
293683-00	BERC- ARU-BNE-CICW-DRG-1615	C

Do not scale

© Arup

NOTE

1. FOR GENERAL NOTES REFER TO DRAWING No. BERC-ARU-BNE-CICW-DRG-1791.
2. FOR PAVEMENT LEGEND REFER TO DRAWING No. BERC-ARU-BNE-CICW-DRG-1791.



PIPE GRADE (%)		1.000		1.000		1.000		1.000		1.000		1.000		1.000	
PIPE DIAMETER (mm)		Ø375		Ø375		Ø375		Ø450		Ø450		Ø450		Ø450	
10% AEP PIPE VELOCITY (m/s)		0.780		1.330		1.250		1.640		1.730		1.650		1.970	
5% AEP PIPE FLOW (m³/s)		0.066		0.141		0.115		0.261		0.268		0.259		0.301	
DATUM R.L.	74.000														
HYDRAULIC GRADE LINE (m) (10% AEP)	92.921 92.831		92.832 92.810		92.670 92.647		92.531 92.461		92.144 92.061		91.722 91.676		91.225 91.178		90.419 90.326
PIPE INVERT LEVELS (m)	92.609		92.092 92.072		91.935 91.915		91.722 91.610		91.366 91.346		91.090 91.070		90.656 90.636		90.037
DESIGN LEVELS (m)	93.622		93.124		93.642		93.472		94.223		94.728		93.901		91.754
EXISTING LEVELS (m)	96.728		96.834		96.368		96.436		97.853		97.274		94.205		90.403
CHAINAGE (m)	-51.742	51.742	0.000	13.716	13.716	19.247	32.964	24.384	57.348	25.593	82.941	41.412	124.353	59.844	184.197

LINE 01
H 1:500
V 1:100

NOT FOR CONSTRUCTION

Scales
1:100(A1)/1:200(A3)
1:500(A1)/1:1000(A3)

Issue	Date	By	Chkd	Appd
C	16.01.26	PDA	ERA	EGM
	ISSUE FOR APPROVAL			
B	26.09.25	PDA	ERA	EGM
	ISSUED FOR ADEQUACY REVIEW			
A	18.08.25	PDA	ERA	EGM
	DRAFT FEED ISSUE			

Client
CLEANAWAY
Making a sustainable future possible

Engineering Certification (CEng)
Name: ....
Signature: .... Date: ....

Job Title
BROMELTON ENERGY AND RESOURCES CENTRE

Scale at A1: AS SHOWN
Discipline: CIVIL

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ABN 18 000 966 165

Drawing Title
STORMWATER
LONGITUDINAL SECTIONS
SHEET 1

Drawing Status
FOR APPROVAL

Job No	Drawing No	Issue
293683-00	**BERC- ARU-BNE-CICW-DRG-1641**	**C**

Do not scale

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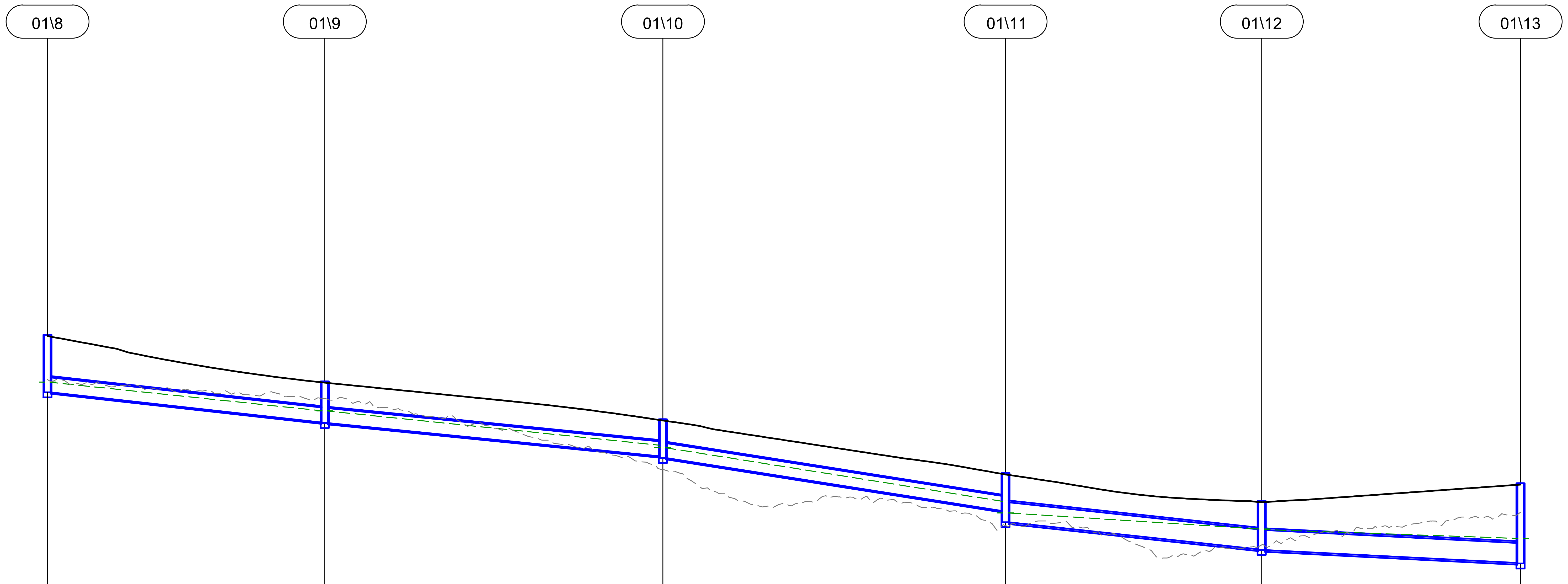
NOTE

1. FOR GENERAL NOTES REFER TO DRAWING No. BERC-ARU-BNE-CICW-DRG-1791.
2. FOR PAVEMENT LEGEND REFER TO DRAWING No. BERC-ARU-BNE-CICW-DRG-1791.



PIPE GRADE (%)		2.171		1.962		3.092		2.115		1.000	
PIPE DIAMETER (mm)		Ø450		Ø450		Ø450		Ø600		Ø600	
10% AEP PIPE VELOCITY (m/s)		2.670		2.710		3.330		2.250		1.970	
5% AEP PIPE FLOW (m³/s)		0.320		0.359		0.374		0.398		0.407	
DATUM R.L.	69.000										
HYDRAULIC GRADE LINE (m) (10% AEP)	90.419 90.326 90.320		89.461 89.453		88.421 88.349 88.344		86.728 86.379		85.896 85.876		85.609
PIPE INVERT LEVELS (m)	90.037 90.017		89.109 89.089		88.088 88.036		86.438 86.099		85.282 85.262		84.872
DESIGN LEVELS (m)	91.754		90.350		89.206		87.579		86.737		87.274
EXISTING LEVELS (m)	90.403		89.828		87.682		85.995		85.414		86.400
CHAINAGE (m)	184.197	41.831	226.028	51.000	277.028	51.695	328.723	38.638	367.361	39.042	406.404

LINE 01
H 1:500
V 1:100

NOT FOR CONSTRUCTION

Scales
1:100(A1)/1:200(A3)
1:500(A1)/1:1000(A3)

Issue	Date	By	Chkd	Appd
C	16.01.26	PDA	ERA	EGM
	ISSUE FOR APPROVAL			
B	26.09.25	PDA	ERA	EGM
	ISSUED FOR ADEQUACY REVIEW			
A	18.08.25	PDA	ERA	EGM
	DRAFT FEED ISSUE			

Client
CLEANAWAY
Making a sustainable future possible

Engineering Certification (CEng)
Name: ....
Signature: .... Date: ....

Job Title
BROMELTON ENERGY AND RESOURCES CENTRE

Scale at A1 AS SHOWN
Discipline CIVIL

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Drawing Title
STORMWATER
LONGITUDINAL SECTIONS
SHEET 2

Drawing Status
FOR APPROVAL

Job No 293683-00
Drawing No BERC- ARU-BNE-CICW-DRG-1642
Issue C

Do not scale

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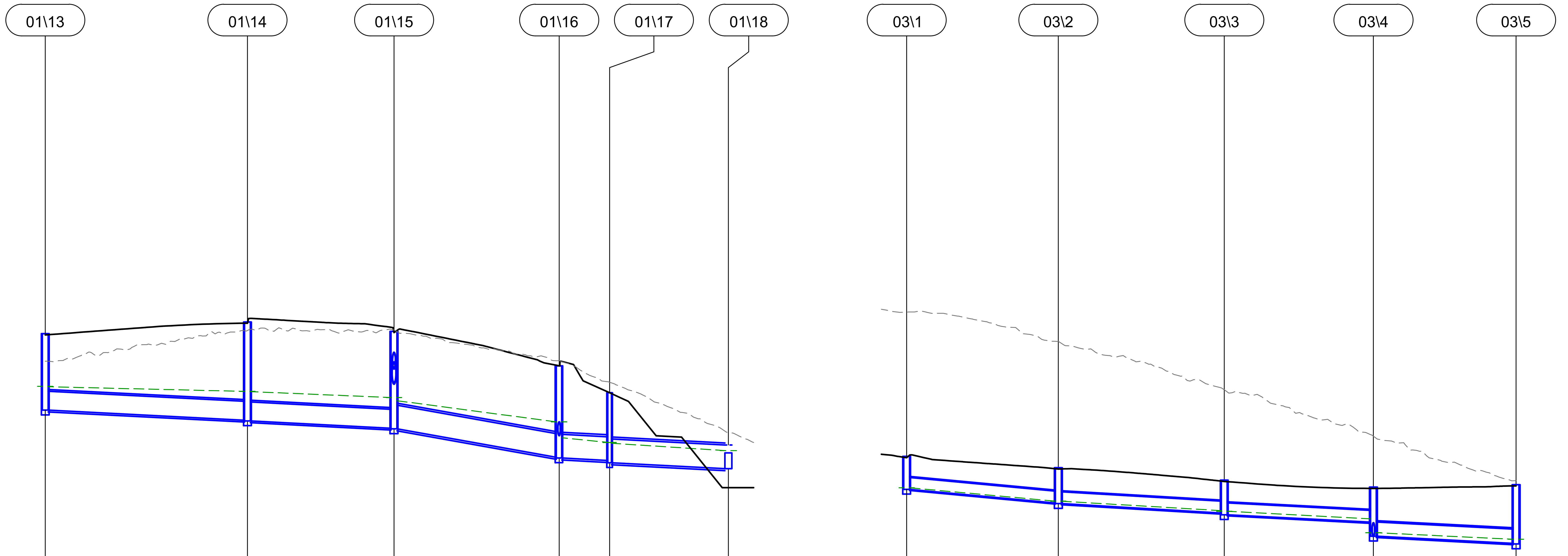
NOTE

1. FOR GENERAL NOTES REFER TO DRAWING No. BERC-ARU-BNE-CICW-DRG-1791.
2. FOR PAVEMENT LEGEND REFER TO DRAWING No. BERC-ARU-BNE-CICW-DRG-1791.



LINE 01
H 1:500
V 1:100

	01\13		01\14		01\15		01\16		01\17		01\18
PIPE GRADE (%)		1.000		1.000		3.447		1.000		1.000	
PIPE DIAMETER (mm)		Ø600		Ø600		Ø750		Ø750		Ø750	
10% AEP PIPE VELOCITY (m/s)		1.950		1.840		2.330		2.510		2.730	
5% AEP PIPE FLOW (m³/s)		0.434		0.439		1.028		1.038		1.032	
DATUM R.L.	65.000										
HYDRAULIC GRADE LINE (m) (10% AEP)	85.609 85.593		85.447 85.440		85.251 85.152		84.481 83.977		83.832 83.831 83.804		83.572
PIPE INVERT LEVELS (m)	84.872 84.852		84.532 84.512		84.280 84.260		83.359 83.339		83.259 83.188		83.000 83.000
DESIGN LEVELS (m)	87.274		87.645		87.349		86.253		85.402		83.750
EXISTING LEVELS (m)	86.400		87.375		87.391		86.418		85.736		84.144
CHAINAGE (m)	406.404	32.000	438.404	23.201	461.605	26.133	487.737	7.986	495.724	18.789	514.512

LINE 03
H 1:500
V 1:100

	03\1		03\2		03\3		03\4		03\5
PIPE GRADE (%)		1.798		1.135		1.000		1.000	
PIPE DIAMETER (mm)		Ø375		Ø375		Ø375		Ø450	
10% AEP PIPE VELOCITY (m/s)		0.950		1.040		1.160		1.090	
5% AEP PIPE FLOW (m³/s)		0.009		0.017		0.031		0.037	
DATUM R.L.	76.000								
HYDRAULIC GRADE LINE (m) (10% AEP)	93.395		92.970		92.671 92.651		92.411 91.974 91.972		91.764
PIPE INVERT LEVELS (m)	93.345		92.913 92.893		92.595 92.541		92.305 91.861		91.635
DESIGN LEVELS (m)	94.389		94.029		93.635		93.414		93.493
EXISTING LEVELS (m)	98.956		98.023		96.496		95.029		93.620
CHAINAGE (m)	0.000	23.998	23.998	26.272	50.269	23.603	73.872	22.572	96.444

NOT FOR CONSTRUCTION

Scales
1 0 1 2 3 4 5m
1:100(A1)/1:200(A3)
5 0 10 20m
1:500(A1)/1:1000(A3)

Issue	Date	By	Chkd	Appd
C	16.01.26	PDA	ERA	EGM
	ISSUE FOR APPROVAL			
B	26.09.25	PDA	ERA	EGM
	ISSUED FOR ADEQUACY REVIEW			
A	18.08.25	PDA	ERA	EGM
	DRAFT FEED ISSUE			

Client
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Engineering Certification (CEng)
Name: ....
Signature: .... Date: ....

Job Title
BROMELTON ENERGY AND RESOURCES CENTRE

Scale at A1: AS SHOWN
Discipline: CIVIL

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www.arup.com

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ABN 18 000 966 165

Drawing Title
STORMWATER
LONGITUDINAL SECTIONS
SHEET 3

Drawing Status
FOR APPROVAL

Job No: 293683-00
Drawing No: BERC- ARU-BNE-CICW-DRG-1643
Issue: C

Do not scale

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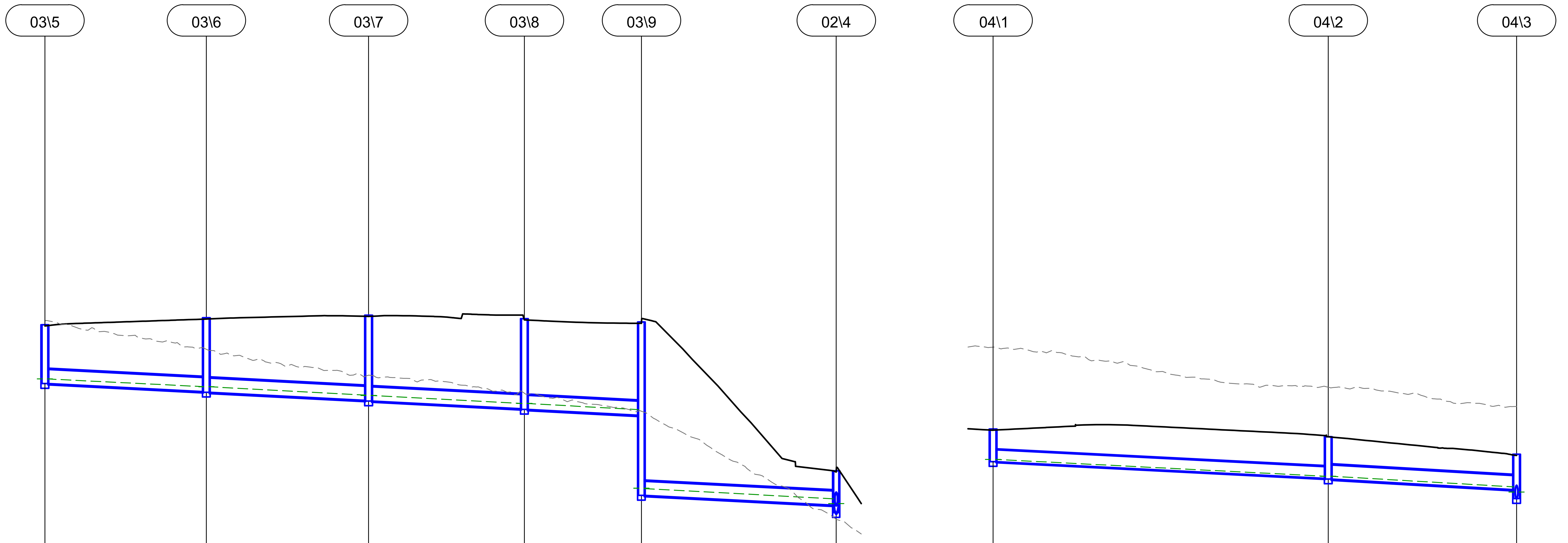
NOTE

1. FOR GENERAL NOTES REFER TO DRAWING No. BERC-ARU-BNE-CICW-DRG-1791.
2. FOR PAVEMENT LEGEND REFER TO DRAWING No. BERC-ARU-BNE-CICW-DRG-1791.



PIPE GRADE (%)		1.000	1.000	1.000	1.000	1.000	
PIPE DIAMETER (mm)		Ø450	Ø450	Ø450	Ø450	Ø450	
10% AEP PIPE VELOCITY (m/s)		1.280	1.500	1.500	1.530	1.570	
5% AEP PIPE FLOW (m^3/s)		0.061	0.085	0.085	0.094	0.118	
DATUM R.L.		71.000					
HYDRAULIC GRADE LINE (m) (10% AEP)	91.764	91.762 91.516	91.514 91.247	91.234 90.982	90.979 90.782 88.275	88.265 87.937 87.786	87.777
PIPE INVERT LEVELS (m)	91.635	91.615 91.358	91.338 91.079	91.059 90.810	90.790 90.604	88.046 87.736	87.496
DESIGN LEVELS (m)		93.493	93.713	93.797	93.687	93.578	88.831
EXISTING LEVELS (m)		93.620	92.710	91.881	91.308	90.732	87.277
CHAINAGE (m)		96.444 25.748	122.192 25.863	148.055 24.849	172.904 18.658	191.563 31.061	222.624

LINE 03
H 1:500
V 1:100

PIPE GRADE (%)	1.000	1.130	
PIPE DIAMETER (mm)	Ø375	Ø450	
10% AEP PIPE VELOCITY (m/s)	0.920	1.150	
5% AEP PIPE FLOW (m^3/s)	0.013	0.026	
DATUM R.L.	73.000		
HYDRAULIC GRADE LINE (m) (10% AEP)	91.194	90.658 90.318 90.155	
PIPE INVERT LEVELS (m)	91.123 90.589	90.569 90.229	
DESIGN LEVELS (m)	92.166	91.917	91.361
EXISTING LEVELS (m)	94.778	93.499	92.882
CHAINAGE (m)	0.000 53.447	53.447 30.032	83.479

LINE 04
H 1:500
V 1:100

NOT FOR CONSTRUCTION

Scales
1 0 1 2 3 4 5m
1:100(A1)/1:200(A3)
5 0 10 20m
1:500(A1)/1:1000(A3)

Issue	Date	By	Chkd	Appd
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B	26.09.25	PDA	ERA	EGM
	ISSUED FOR ADEQUACY REVIEW			
A	18.08.25	PDA	ERA	EGM
	DRAFT FEED ISSUE			

Client
CLEANAWAY
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Engineering Certification (CEng)
Name: ....
Signature: .... Date: ....

Job Title
BROMELTON ENERGY AND
RESOURCES CENTRE

Scale at A1 AS SHOWN
Discipline CIVIL

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CONSULT AUSTRALIA
Member Firm
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ABN 18 000 966 165

Drawing Title
STORMWATER
LONGITUDINAL SECTIONS
SHEET 4

Drawing Status
FOR APPROVAL

Job No 293683-00
Drawing No BERC- ARU-BNE-CICW-DRG-1644
Issue C

Do not scale

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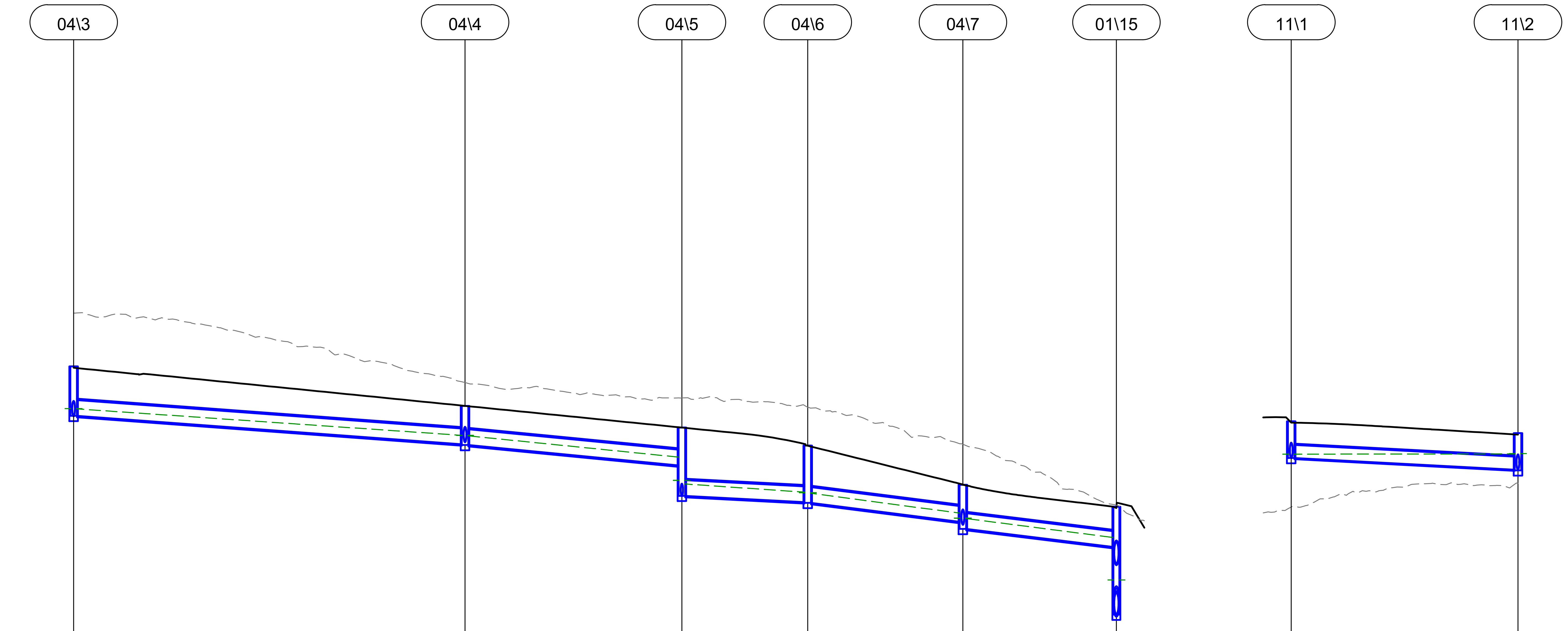
A1 A B C D E F G H I J K L M N O P

1 2 3 4 5 6 7 8 9 10

NOTE
1. FOR GENERAL NOTES REFER TO DRAWING No. BERC-ARU-BNE-CICW-DRG-1791.
2. FOR PAVEMENT LEGEND REFER TO DRAWING No. BERC-ARU-BNE-CICW-DRG-1791.



	04\3		04\4		04\5		04\6		04\7		01\15
PIPE GRADE (%)		1.453		1.884		1.000		2.447		2.352	
PIPE DIAMETER (mm)		Ø450		Ø450		Ø450		Ø450		Ø450	
10% AEP PIPE VELOCITY (m/s)		1.740		2.310		1.610		2.640		2.720	
5% AEP PIPE FLOW (m³/s)		0.139		0.214		0.211		0.265		0.295	
DATUM R.L.	69.000										
HYDRAULIC GRADE LINE (m) (10% AEP)	90.318 90.155 90.145		89.388 89.373		88.765 88.101 87.997		87.764 87.750 87.733		87.163 87.022 87.009		86.466 85.251 85.152
PIPE INVERT LEVELS (m)	90.229 89.944		89.131 89.111		88.527 87.656		87.476 87.456		86.914 86.711		86.195 84.260
DESIGN LEVELS (m)	91.361		90.230		89.610		89.094		87.972		87.349
EXISTING LEVELS (m)	92.882		90.898		90.458		90.196		89.133		87.391
CHAINAGE (m)	83.479	55.968	139.447	31.000	170.447	18.000	188.447	22.173	210.620	21.956	232.576

LINE 04
H 1:500
V 1:100

	11\1		11\2
PIPE GRADE (%)		1.032	
PIPE DIAMETER (mm)		Ø375	
10% AEP PIPE VELOCITY (m/s)		0.270	
5% AEP PIPE FLOW (m³/s)		0.003	
DATUM R.L.	73.000		
HYDRAULIC GRADE LINE (m) (10% AEP)	92.851 92.850		92.858 92.867
PIPE INVERT LEVELS (m)	92.739		92.405
DESIGN LEVELS (m)	93.790		93.449
EXISTING LEVELS (m)	91.340		92.017
CHAINAGE (m)	0.000	32.409	32.409

LINE 11
H 1:500
V 1:100

NOT FOR CONSTRUCTION

Scales
1 0 1 2 3 4 5m
1:100(A1)/1:200(A3)
5 0 10 20m
1:500(A1)/1:1000(A3)

Issue	Date	By	Chkd	Appd
C	16.01.26	PDA	ERA	EGM
	ISSUE FOR APPROVAL			
B	26.09.25	PDA	ERA	EGM
	ISSUED FOR ADEQUACY REVIEW			
A	18.08.25	PDA	ERA	EGM
	DRAFT FEED ISSUE			

Client
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Engineering Certification (CEng)
Name: ....
Signature: .... Date: ....

Job Title
BROMELTON ENERGY AND
RESOURCES CENTRE

Scale at A1 AS SHOWN
Discipline CIVIL

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ABN 18 000 966 165

Drawing Title
STORMWATER
LONGITUDINAL SECTIONS
SHEET 5

Drawing Status
FOR APPROVAL

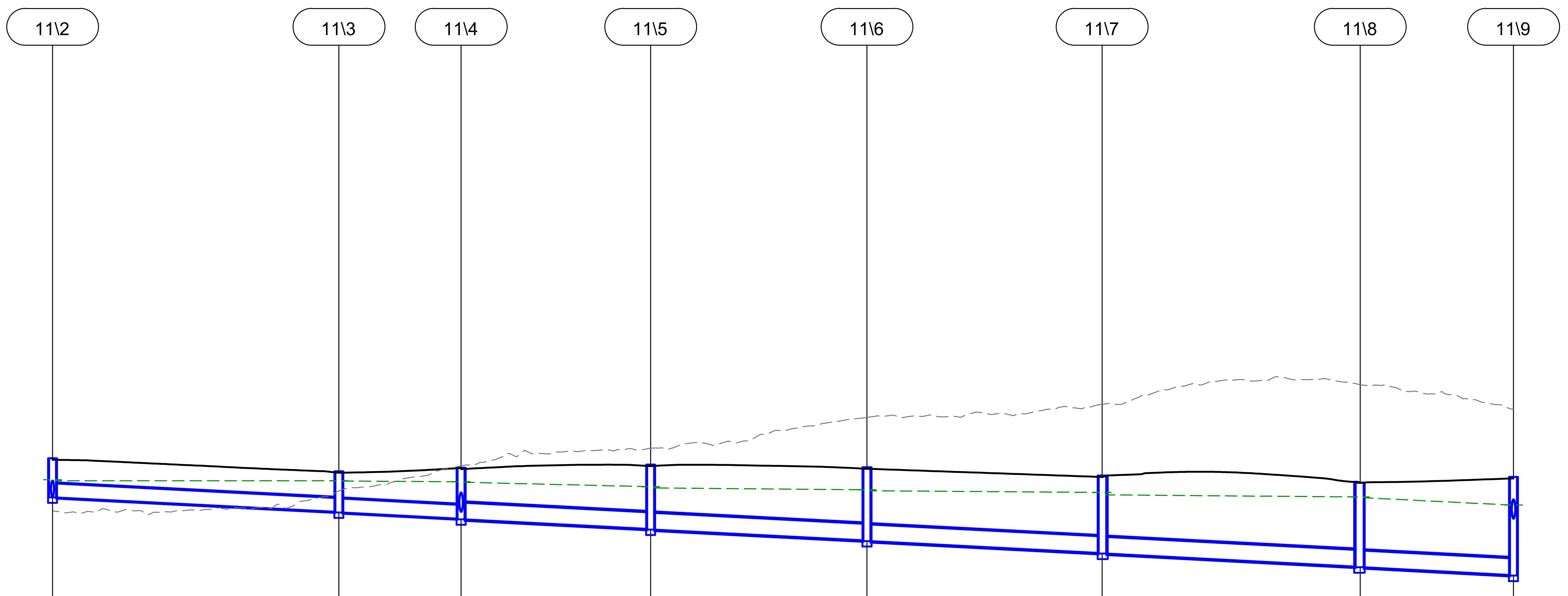
Job No **293683-00**
Drawing No **BERC- ARU-BNE-CICW-DRG-1645**
Issue **C**

Do not scale

© Arup

NOTE

1. FOR GENERAL NOTES REFER TO DRAWING No. BERC-ARU-BNE-CICW-DRG-1791.
2. FOR PAVEMENT LEGEND REFER TO DRAWING No. BERC-ARU-BNE-CICW-DRG-1791.



PIPE GRADE (%)		1.000		1.000		1.000		1.000		1.000		1.000		1.000	
PIPE DIAMETER (mm)		Ø375		Ø375		Ø450		Ø450		Ø450		Ø450		Ø450	
10% AEP PIPE VELOCITY (m/s)		1.130		1.250		1.550		1.650		1.610		1.420		1.850	
5% AEP PIPE FLOW (m³/s)		0.072		0.094		0.218		0.213		0.215		0.226		0.294	
DATUM R.L.	73.000														
HYDRAULIC GRADE LINE (m) (10% AEP)	92.858 92.867 92.838		92.838 92.830		92.810 92.795		92.678 92.642		92.592 92.565		92.520 92.453		92.397 92.375		92.177
PIPE INVERT LEVELS (m)	92.405 92.385		91.994 91.974		91.808 91.788		91.529 91.509		91.214 91.194		90.874 90.854		90.502 90.482		90.273
DESIGN LEVELS (m)	93.449		93.096		93.194		93.277		93.205		92.980		92.783		92.942
EXISTING LEVELS (m)	92.017		92.559		93.244		93.722		94.559		94.916		95.452		94.775
CHAINAGE (m)	32.409	39.042	71.451	16.659	88.109	25.830	113.940	29.485	143.425	32.058	175.482	35.188	210.671	20.894	231.565

LINE 11
H 1:500
V 1:100

NOT FOR CONSTRUCTION

Scales
1 0 1 2 3 4 5m
1:100(A1)/1:200(A3)
5 0 10 20m
1:500(A1)/1:1000(A3)

Issue	Date	By	Chkd	Appd
C	16.01.26	PDA	ERA	EGM
	ISSUE FOR APPROVAL			
B	26.09.25	PDA	ERA	EGM
	ISSUED FOR ADEQUACY REVIEW			
A	18.08.25	PDA	ERA	EGM
	DRAFT FEED ISSUE			

Client
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Engineering Certification (CEng)
Name: ....
Signature: .... Date: ....

Job Title
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ABN 18 000 966 165

Drawing Title
STORMWATER
LONGITUDINAL SECTIONS
SHEET 6

Drawing Status
FOR APPROVAL

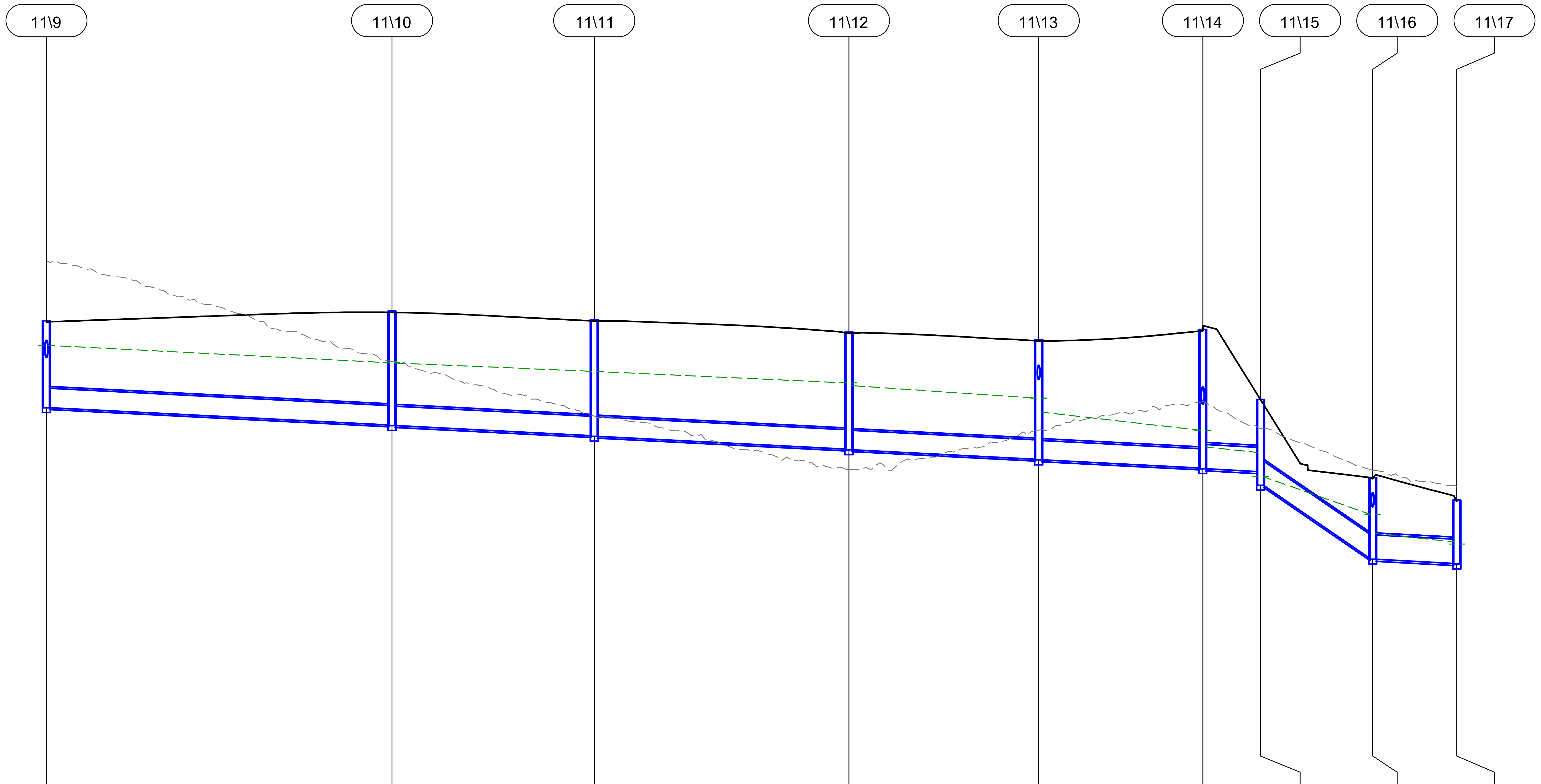
Job No 293683-00
Drawing No BERC- ARU-BNE-CICW-DRG-1646
Issue C

Do not scale

© Arup

NOTE

1. FOR GENERAL NOTES REFER TO DRAWING No. BERC-ARU-BNE-CICW-DRG-1791.
2. FOR PAVEMENT LEGEND REFER TO DRAWING No. BERC-ARU-BNE-CICW-DRG-1791.



PIPE GRADE (%)		1.000	1.000	1.000	1.000	1.000	1.000	13.063	1.000	
PIPE DIAMETER (mm)		Ø600	Ø600	Ø600	Ø600	Ø600	Ø750	Ø750	Ø750	
10% AEP PIPE VELOCITY (m/s)		2.070	2.070	1.840	1.930	2.770	2.580	3.390	2.830	
5% AEP PIPE FLOW (m³/s)		0.500	0.499	0.512	0.544	0.781	1.076	1.077	1.223	
DATUM R.L.		70.000								
HYDRAULIC GRADE LINE (m) (10% AEP)	92.177	92.174 91.642	91.633 91.377	91.369 91.018	90.934 90.549	90.115 89.556	89.039 88.873 88.124	88.120 86.966	86.366 86.112 86.045	
PIPE INVERT LEVELS (m)	90.273	90.253 89.720	89.700 89.387	89.367 88.974	88.954 88.661	88.641 88.388	88.368 88.279	87.856 85.594	85.574 85.445	
DESIGN LEVELS (m)		92.942	93.233	92.969	92.584	92.354	92.667	90.504	88.098	87.398
EXISTING LEVELS (m)		94.775	91.687	89.996	88.339	89.560	90.453	89.612	88.310	87.821
CHAINAGE (m)		231.565 53.342	284.907 31.209	316.116 39.317	355.433 29.278	384.712 25.341	410.053 8.898	418.951 17.313	436.264 12.978	449.243

LINE 11
H 1:500
V 1:100

NOT FOR CONSTRUCTION

Scales
1 0 1 2 3 4 5m
1:100(A1)/1:200(A3)
5 0 10 20m
1:500(A1)/1:1000(A3)

Issue	Date	By	Chkd	Appd
C	16.01.26	PDA	ERA	EGM
	ISSUE FOR APPROVAL			
B	26.09.25	PDA	ERA	EGM
	ISSUED FOR ADEQUACY REVIEW			
A	18.08.25	PDA	ERA	EGM
	DRAFT FEED ISSUE			

Client
CLEANAWAY
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Engineering Certification (CEng)
Name: ....
Signature: .... Date: ....

Job Title
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Discipline CIVIL

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www.arup.com

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ABN 18 000 966 165

Drawing Title
STORMWATER
LONGITUDINAL SECTIONS
SHEET 7

Drawing Status
FOR APPROVAL

Job No **293683-00**
Drawing No **BERC- ARU-BNE-CICW-DRG-1647**
Issue **C**

Do not scale

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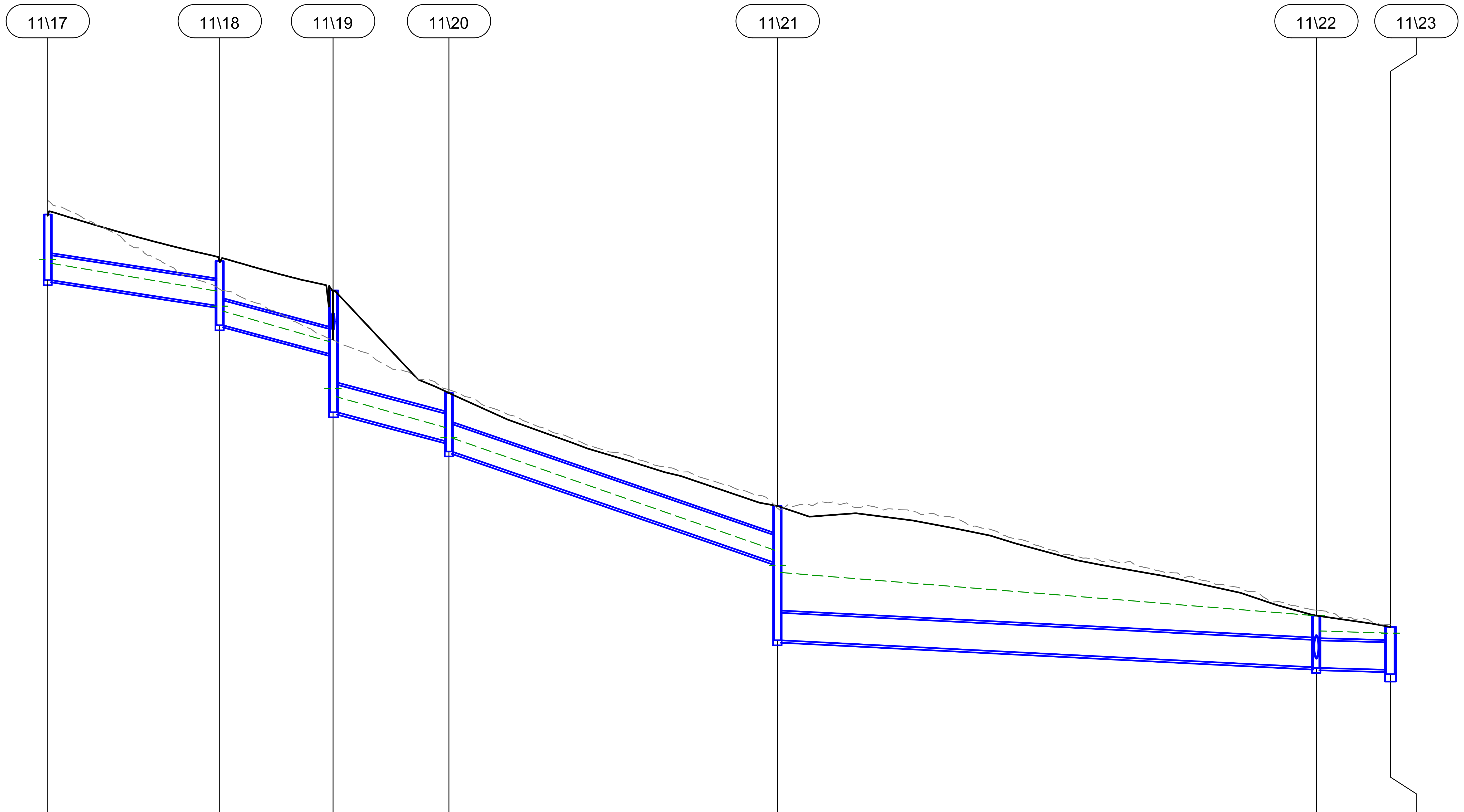
NOTE

1. FOR GENERAL NOTES REFER TO DRAWING No. BERC-ARU-BNE-CICW-DRG-1791.
2. FOR PAVEMENT LEGEND REFER TO DRAWING No. BERC-ARU-BNE-CICW-DRG-1791.



PIPE GRADE (%)	2.957	5.078	5.000	6.761	1.000	0.500
PIPE DIAMETER (mm)	Ø750	Ø750	Ø825	Ø825	Ø825	Ø825
10% AEP PIPE VELOCITY (m/s)	3.720	4.220	4.230	6.160	2.990	2.800
5% AEP PIPE FLOW (m³/s)	1.228	1.234	1.563	1.577	1.597	1.497

DATUM R.L.		61.000												
HYDRAULIC GRADE LINE (m) (10% AEP)	86.112 86.045	85.932	85.098 84.648	84.497	83.577 82.170	81.927	80.995 80.705	80.688	77.316 76.864	76.645	75.355	74.891	74.826	
PIPE INVERT LEVELS (m)	85.445	85.425	84.661	84.069	83.206	81.459	80.588	80.278	76.941	74.609	73.800	73.780	73.724	
DESIGN LEVELS (m)		87.398		85.998		85.116		82.040		78.643		75.353		75.013
EXISTING LEVELS (m)		87.821		85.156		83.630		82.139		78.576		75.514		75.096
CHAINAGE (m)		449.243	25.827	475.070	17.008	492.077	17.401	509.479	49.354	558.833	80.884	639.716	11.126	650.842

LINE 11
H 1:500
V 1:100

NOT FOR CONSTRUCTION

Scales

1:100(A1)/1:200(A3)

1:500(A1)/1:1000(A3)

Issue	Date	By	Chkd	Appd
C	16.01.26	PDA	ERA	EGM
	ISSUE FOR APPROVAL			
B	26.09.25	PDA	ERA	EGM
	ISSUED FOR ADEQUACY REVIEW			
A	18.08.25	PDA	ERA	EGM
	DRAFT FEED ISSUE			

Client
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Engineering Certification (CEng)
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Job Title
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Discipline CIVIL

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ABN 18 000 966 165

Drawing Title
STORMWATER
LONGITUDINAL SECTIONS
SHEET 8

Drawing Status
FOR APPROVAL

Job No **293683-00**
Drawing No **BERC- ARU-BNE-CICW-DRG-1648**
Issue **C**

Do not scale

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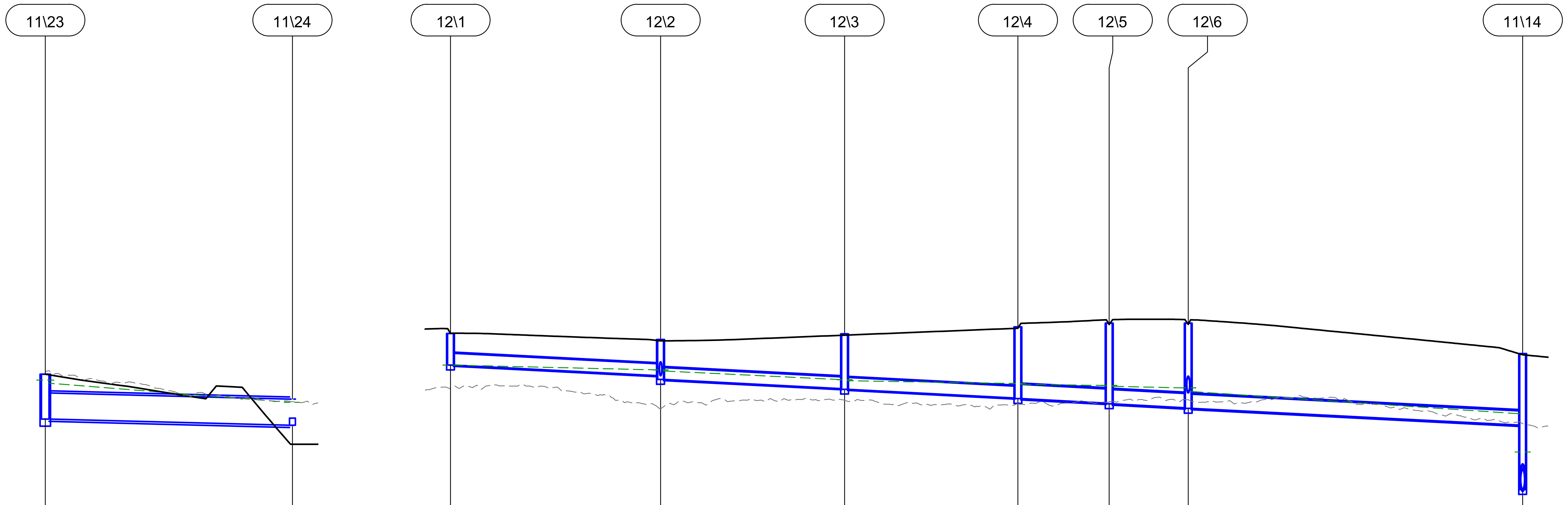
NOTE

1. FOR GENERAL NOTES REFER TO DRAWING No. BERC-ARU-BNE-CICW-DRG-1791.
2. FOR PAVEMENT LEGEND REFER TO DRAWING No. BERC-ARU-BNE-CICW-DRG-1791.



	11\23		11\24
PIPE GRADE (%)		0.500	
PIPE DIAMETER (mm)		Ø825	
10% AEP PIPE VELOCITY (m/s)		2.870	
5% AEP PIPE FLOW (m³/s)		1.496	
DATUM R.L.	54.000		
HYDRAULIC GRADE LINE (m) (10% AEP)	74.826 74.728		74.124
PIPE INVERT LEVELS (m)	73.724 73.595		73.400 73.400
DESIGN LEVELS (m)	75.013		74.225
EXISTING LEVELS (m)	75.096		74.143
CHAINAGE (m)	650.842	39.090	689.932

LINE 11
H 1:500
V 1:100

	12\1		12\2		12\3		12\4		12\5		12\6		11\14
PIPE GRADE (%)		1.000		1.000		1.000		1.000		1.000		1.000	
PIPE DIAMETER (mm)		Ø375		Ø375		Ø375		Ø450		Ø450		Ø450	
10% AEP PIPE VELOCITY (m/s)		0.000		1.470		1.550		1.430		1.160		1.840	
5% AEP PIPE FLOW (m³/s)		0.000		0.124		0.133		0.150		0.160		0.277	
DATUM R.L.	71.000												
HYDRAULIC GRADE LINE (m) (10% AEP)	92.300		92.149 92.115		91.842 91.808		91.720 91.692		91.656 91.631		91.580 91.466		90.763 89.556 89.039
PIPE INVERT LEVELS (m)	92.300		91.968 91.847		91.556 91.536		91.262 91.242		91.098 91.078		90.953 90.933		90.404 88.368
DESIGN LEVELS (m)	93.300		93.109		93.287		93.506		93.624		93.626		92.667
EXISTING LEVELS (m)	91.566		90.920		91.188		91.077		91.137		91.206		90.453
CHAINAGE (m)	0.000	33.239	33.239	29.098	62.337	27.405	89.741	14.447	104.188	12.499	116.687	52.899	169.586

LINE 12
H 1:500
V 1:100

NOT FOR CONSTRUCTION

Scales
1:100(A1)/1:200(A3)
1:500(A1)/1:1000(A3)

Issue	Date	By	Chkd	Appd
C	16.01.26	PDA	ERA	EGM
	ISSUE FOR APPROVAL			
B	26.09.25	PDA	ERA	EGM
	ISSUED FOR ADEQUACY REVIEW			
A	18.08.25	PDA	ERA	EGM
	DRAFT FEED ISSUE			

Client
CLEANAWAY
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Engineering Certification (CEng)
Name: ....
Signature: .... Date: ....

Job Title
BROMELTON ENERGY AND RESOURCES CENTRE

Scale at A1 AS SHOWN
Discipline CIVIL

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www.arup.com

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ABN 18 000 966 165

Drawing Title
STORMWATER
LONGITUDINAL SECTIONS
SHEET 9

Drawing Status
FOR APPROVAL

Job No **293683-00**
Drawing No **BERC- ARU-BNE-CICW-DRG-1649**
Issue **C**

Do not scale

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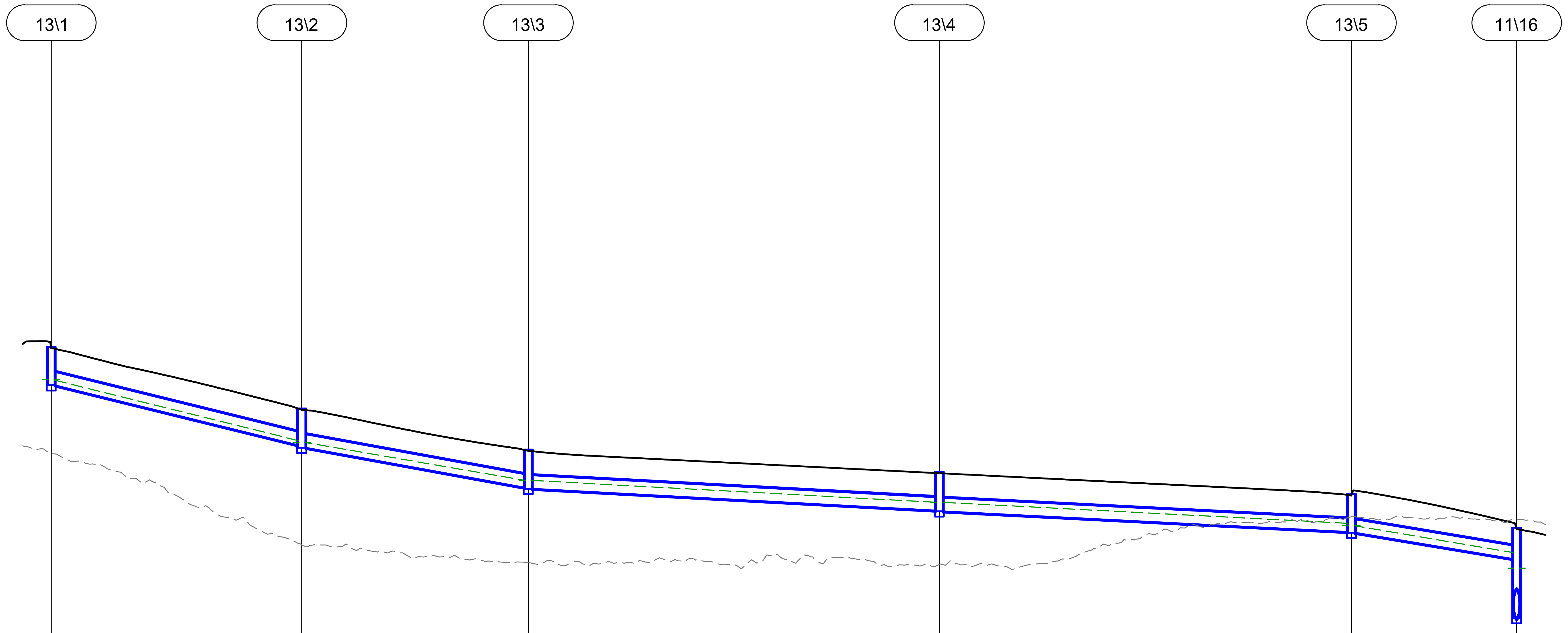
NOTE

1. FOR GENERAL NOTES REFER TO DRAWING No. BERC-ARU-BNE-CICW-DRG-1791.
2. FOR PAVEMENT LEGEND REFER TO DRAWING No. BERC-ARU-BNE-CICW-DRG-1791.



PIPE GRADE (%)			4.791			3.529			1.063			1.000			3.189		
PIPE DIAMETER (mm)			Ø375			Ø375			Ø375			Ø375			Ø375		
10% AEP PIPE VELOCITY (m/s)			2.590			2.120			1.600			1.690			2.610		
5% AEP PIPE FLOW (m³/s)			0.096			0.106			0.114			0.129			0.143		
DATUM R.L.		70.000															
HYDRAULIC GRADE LINE (m) (10% AEP)	92.228	92.219		90.528 90.482	90.478		89.419	89.418		88.807	88.805		88.219 88.155	88.151		87.401 86.966	86.366
PIPE INVERT LEVELS (m)		92.078		90.400	90.332		89.214	89.185		88.575	88.555		87.979	87.959		87.223	85.574
DESIGN LEVELS (m)		93.147			91.428			90.282			89.659			89.036			88.098
EXISTING LEVELS (m)		90.165			87.612			87.119			87.068			88.404			88.310
CHAINAGE (m)		0.000	35.023		35.023	31.668		66.691	57.450		124.141	57.589		181.730	23.091		204.821

LINE 13
H 1:500
V 1:100

NOT FOR CONSTRUCTION

Scales
1 0 1 2 3 4 5m
1:100(A1)/1:200(A3)
5 0 10 20m
1:500(A1)/1:1000(A3)

Issue	Date	By	Chkd	Appd
C	16.01.26	PDA	ERA	EGM
	ISSUE FOR APPROVAL			
B	26.09.25	PDA	ERA	EGM
	ISSUED FOR ADEQUACY REVIEW			
A	18.08.25	PDA	ERA	EGM
	DRAFT FEED ISSUE			

Client
CLEANAWAY
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Engineering Certification (CEng)
Name: ....
Signature: .... Date: ....

Job Title
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Discipline CIVIL

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Drawing Title
STORMWATER
LONGITUDINAL SECTIONS
SHEET 10

Drawing Status
FOR APPROVAL

Job No	Drawing No	Issue
293683-00	**BERC- ARU-BNE-CICW-DRG-1650**	**C**

Do not scale

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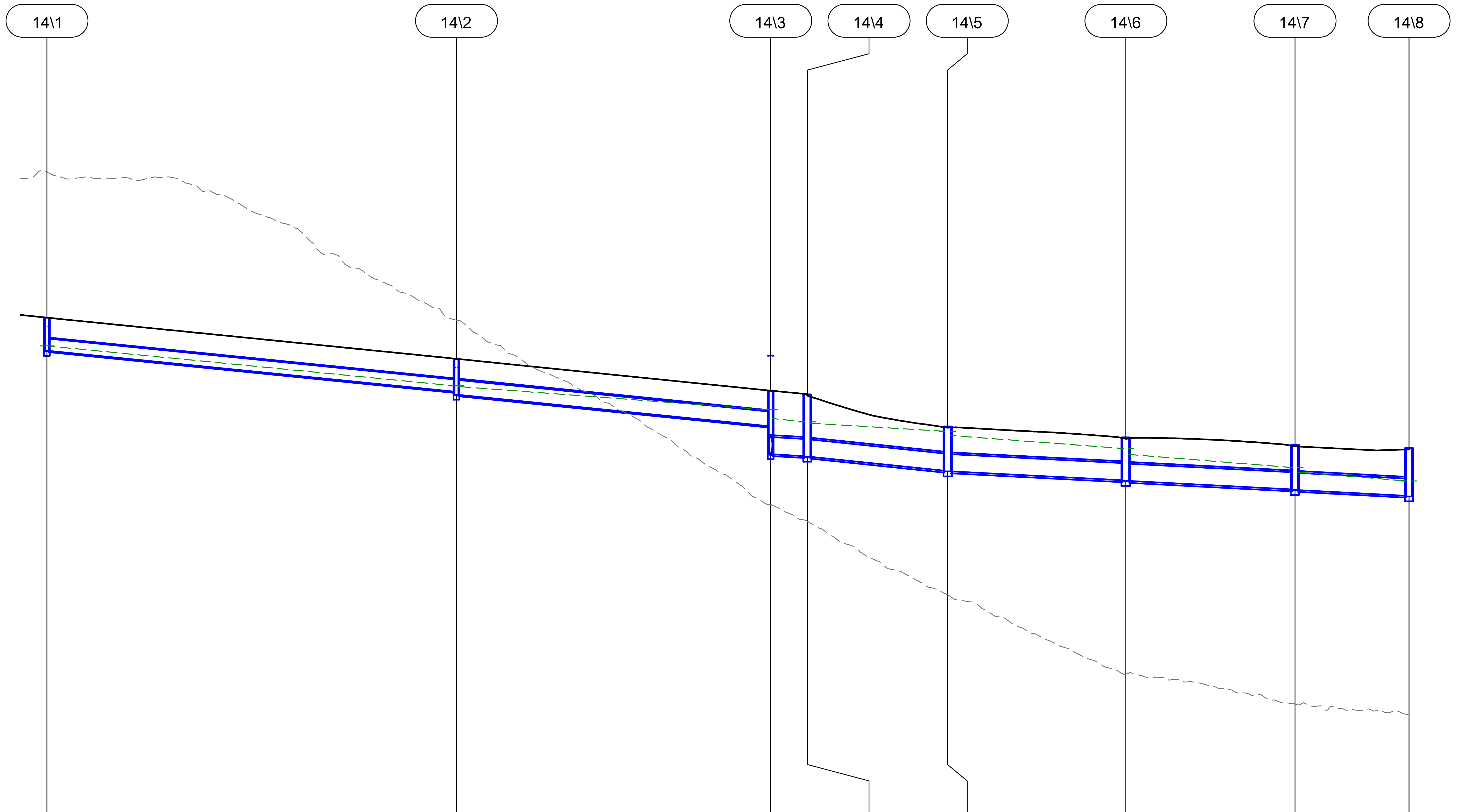
NOTE

1. FOR GENERAL NOTES REFER TO DRAWING No. BERC-ARU-BNE-CICW-DRG-1791.
2. FOR PAVEMENT LEGEND REFER TO DRAWING No. BERC-ARU-BNE-CICW-DRG-1791.



	14\1		14\2		14\3		14\4		14\5		14\6		14\7		14\8
PIPE GRADE (%)		1.990		2.000		1.000		1.996		1.000		1.000		1.000	
PIPE DIAMETER (mm)		Ø375		Ø450		Ø525		Ø525		Ø525		Ø525		Ø525	
10% AEP PIPE VELOCITY (m/s)		1.790		2.240		2.070		2.070		1.980		1.970		2.040	
5% AEP PIPE FLOW (m³/s)		0.075		0.215		0.441		0.432		0.429		0.427		0.428	
DATUM R.L.	68.000														
HYDRAULIC GRADE LINE (m) (10% AEP)	90.281 90.273		89.061 89.039		88.326 88.061		87.959 87.920		87.673 87.544		87.149 86.966		86.566 86.424		86.157
PIPE INVERT LEVELS (m)	90.125		88.881 88.787		87.827 86.971		86.915 86.895		86.468 86.448		86.176 86.156		85.897 85.877		85.703
DESIGN LEVELS (m)	91.141		89.885		88.913		88.800		87.820		87.484		87.252		87.160
EXISTING LEVELS (m)	95.594		91.066		85.441		84.929		82.683		80.257		79.345		79.018
CHAINAGE (m)	0.000	62.504	62.504	47.959	110.463	5.594	116.058	21.399	137.456	27.214	164.671	25.811	190.482	17.404	207.886

LINE 14
H 1:500
V 1:100

NOT FOR CONSTRUCTION

Scales
1 0 1 2 3 4 5m
1:100(A1)/1:200(A3)
5 0 10 20m
1:500(A1)/1:1000(A3)

Issue	Date	By	Chkd	Appd
C	16.01.26	PDA	ERA	EGM
	ISSUE FOR APPROVAL			
B	26.09.25	PDA	ERA	EGM
	ISSUED FOR ADEQUACY REVIEW			
A	18.08.25	PDA	ERA	EGM
	DRAFT FEED ISSUE			

Client
CLEANAWAY
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Engineering Certification (CEng)
Name: ....
Signature: .... Date: ....

Job Title
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Scale at A1 AS SHOWN
Discipline CIVIL

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Member Firm
Arup Pty Ltd
ABN 18 000 966 165

Drawing Title
STORMWATER
LONGITUDINAL SECTIONS
SHEET 11

Drawing Status
FOR APPROVAL

Job No	Drawing No	Issue
293683-00	BERC- ARU-BNE-CICW-DRG-1651	C

Do not scale

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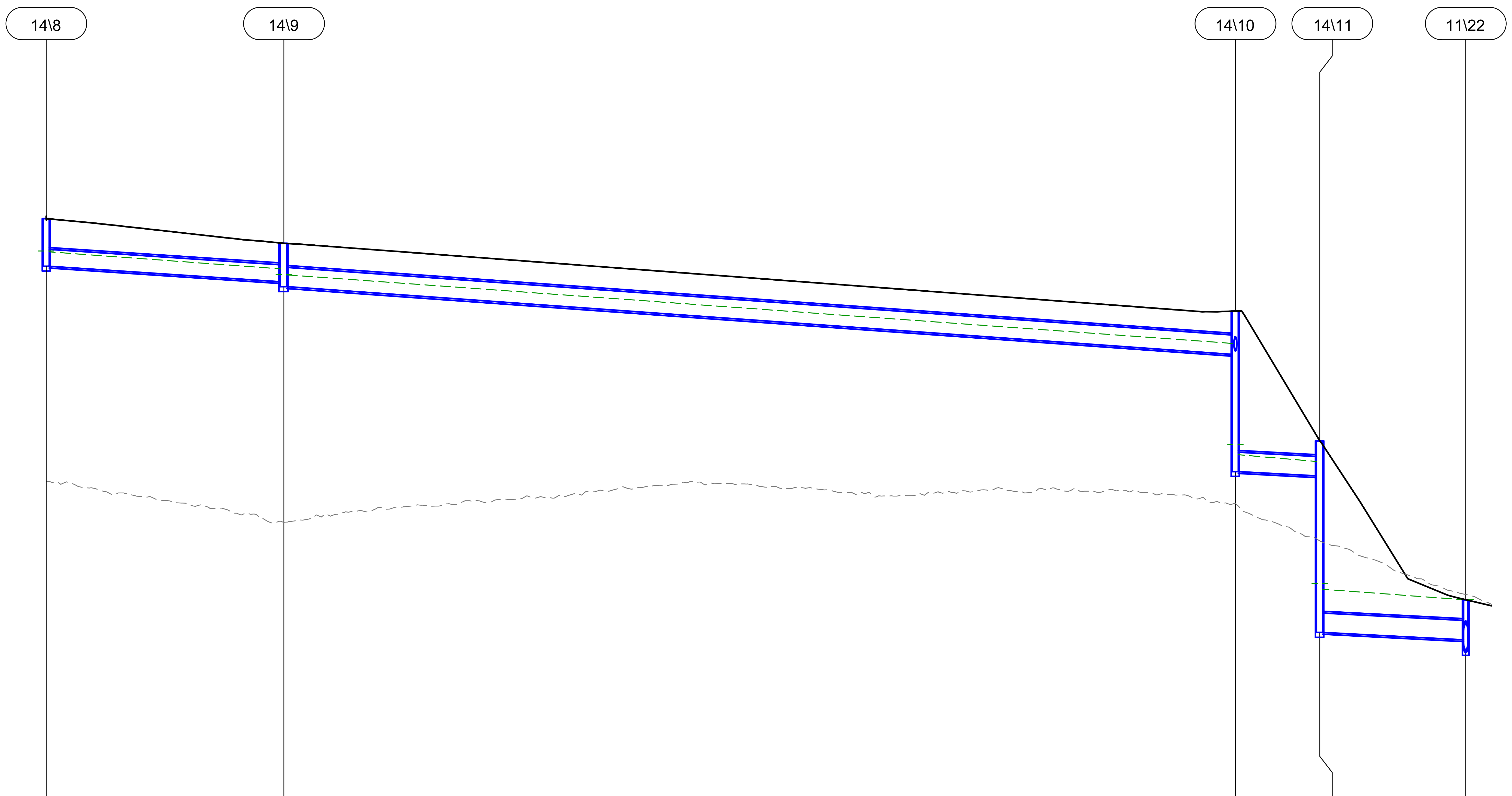
NOTE

1. FOR GENERAL NOTES REFER TO DRAWING No. BERC-ARU-BNE-CICW-DRG-1791.
2. FOR PAVEMENT LEGEND REFER TO DRAWING No. BERC-ARU-BNE-CICW-DRG-1791.



PIPE GRADE (%)		1.294		1.424		1.000		1.000	
PIPE DIAMETER (mm)		Ø525		Ø600		Ø600		Ø600	
10% AEP PIPE VELOCITY (m/s)		2.370		2.590		2.100		1.940	
5% AEP PIPE FLOW (m³/s)		0.448		0.454		0.546		0.546	
DATUM R.L.	61.000								
HYDRAULIC GRADE LINE (m) (10% AEP)	86.157 86.131		85.602 85.424 85.417		83.294 80.150 79.847		79.634 75.854 75.679		75.355 74.891
PIPE INVERT LEVELS (m)	85.703 85.683		85.207 85.051		82.953 79.322		79.192 74.339		74.113 73.780
DESIGN LEVELS (m)	87.160		86.396		84.296		80.275		75.353
EXISTING LEVELS (m)	79.018		77.746		78.337		77.174		75.514
CHAINAGE (m)	207.886	36.822	244.708	147.371	392.079	13.075	405.154	22.600	427.754

LINE 14
H 1:500
V 1:100

NOT FOR CONSTRUCTION

Scales
1 0 1 2 3 4 5m
1:100(A1)/1:200(A3)
5 0 10 20m
1:500(A1)/1:1000(A3)

Issue	Date	By	Chkd	Appd
C	16.01.26	PDA	ERA	EGM
	ISSUE FOR APPROVAL			
B	26.09.25	PDA	ERA	EGM
	ISSUED FOR ADEQUACY REVIEW			
A	18.08.25	PDA	ERA	EGM
	DRAFT FEED ISSUE			

Client
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Engineering Certification (CEng)
Name: ....
Signature: .... Date: ....

Job Title
BROMELTON ENERGY AND RESOURCES CENTRE

Scale at A1: AS SHOWN
Discipline: CIVIL

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ABN 18 000 966 165

Drawing Title
STORMWATER
LONGITUDINAL SECTIONS
SHEET 12

Drawing Status
FOR APPROVAL

Job No	Drawing No	Issue
293683-00	BERC- ARU-BNE-CICW-DRG-1652	C

Do not scale

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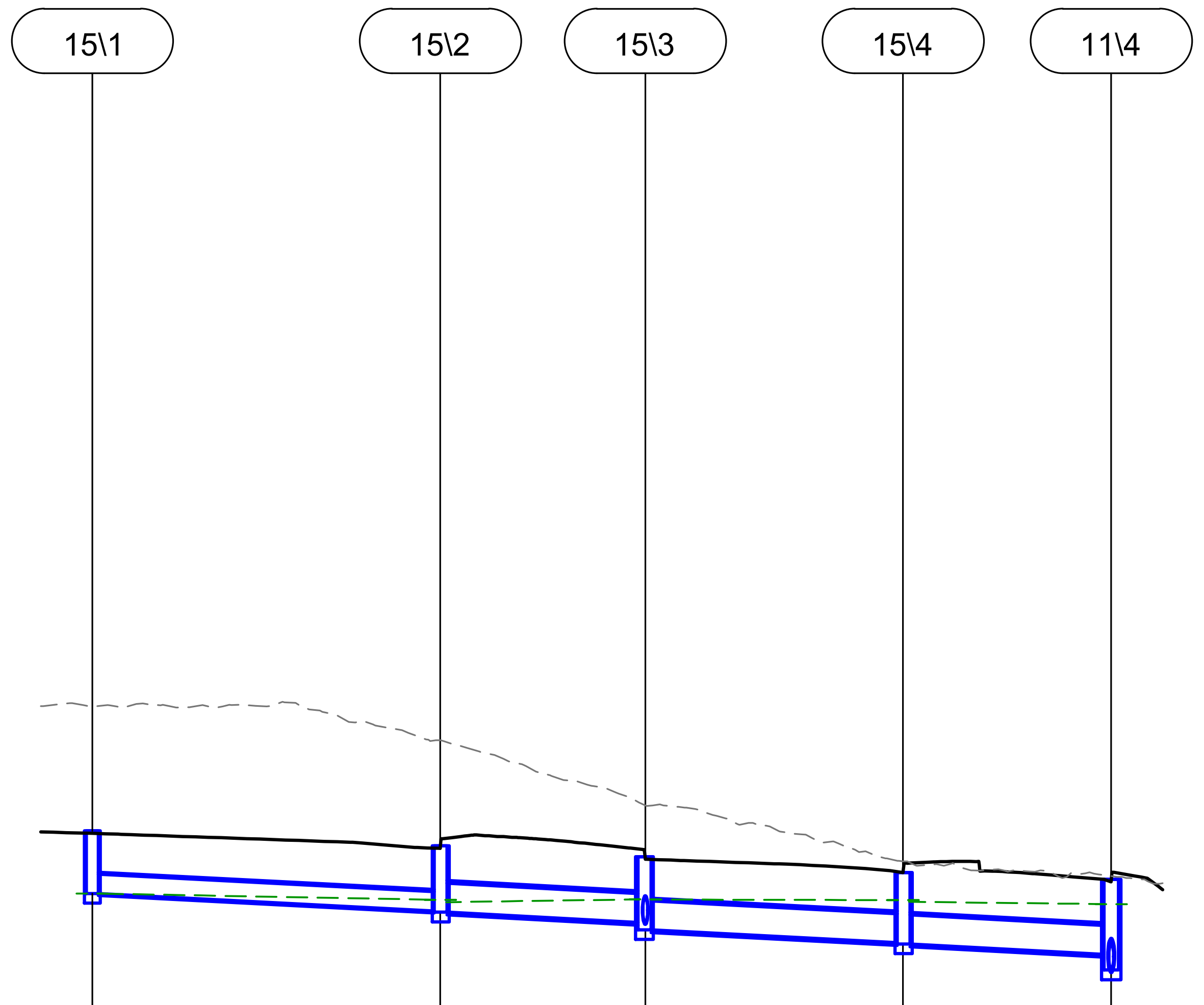
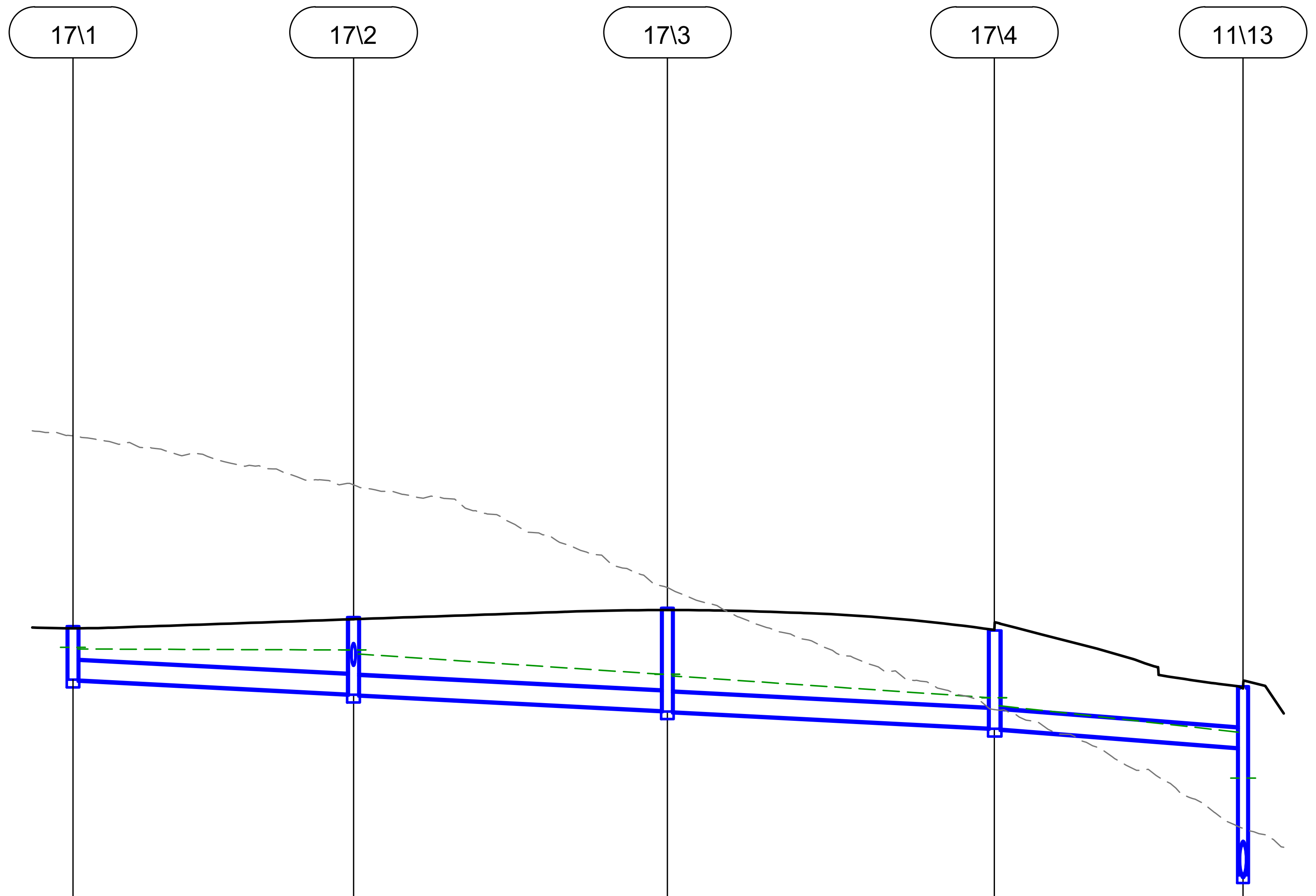
NOTE

1. FOR GENERAL NOTES REFER TO DRAWING No. BERC-ARU-BNE-CICW-DRG-1791.
2. FOR PAVEMENT LEGEND REFER TO DRAWING No. BERC-ARU-BNE-CICW-DRG-1791.



	15\1		15\2		15\3		15\4		11\4
PIPE GRADE (%)		1.000		1.000		1.000		1.000	
PIPE DIAMETER (mm)		Ø300		Ø450		Ø450		Ø450	
10% AEP PIPE VELOCITY (m/s)		0.000		0.990		0.720		1.350	
5% AEP PIPE FLOW (m³/s)		0.000		0.035		0.079		0.186	
DATUM R.L.	74.000								
HYDRAULIC GRADE LINE (m) (10% AEP)	92.974		92.877 92.840		92.883 92.880		92.872 92.845		92.810 92.795
PIPE INVERT LEVELS (m)	92.974		92.704 92.684		92.525 92.411		92.211 92.191		92.030 91.788
DESIGN LEVELS (m)	93.948		93.714		93.546		93.300		93.194
EXISTING LEVELS (m)	95.877		95.353		94.340		93.475		93.244
CHAINAGE (m)	0.000	27.000	27.000	15.897	42.897	20.000	62.897	16.147	79.045

LINE 15
H 1:500
V 1:100

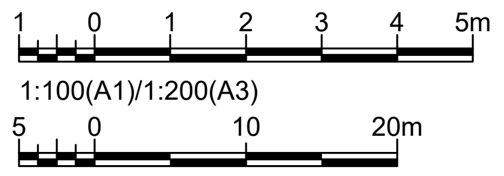


	17\1		17\2		17\3		17\4		11\13
PIPE GRADE (%)		1.000		1.000		1.000		1.493	
PIPE DIAMETER (mm)		Ø375		Ø375		Ø375		Ø375	
10% AEP PIPE VELOCITY (m/s)		0.730		1.420		1.670		1.990	
5% AEP PIPE FLOW (m³/s)		0.061		0.156		0.185		0.208	
DATUM R.L.	73.000								
HYDRAULIC GRADE LINE (m) (10% AEP)	93.120 93.087		93.068 92.988		92.590 92.559		92.131 91.975		91.454 90.549 90.115
PIPE INVERT LEVELS (m)	92.484		92.208 92.188		91.880 91.860		91.539 91.519		91.154 88.641
DESIGN LEVELS (m)	93.534		93.712		93.893		93.452		92.354
EXISTING LEVELS (m)	97.278		96.312		94.293		91.899		89.560
CHAINAGE (m)	-67.775	27.555	-40.220	30.821	-9.398	32.106	22.708	24.435	47.143

LINE 17
H 1:500
V 1:100

NOT FOR CONSTRUCTION

Scales



1:100(A1)/1:200(A3)
1:500(A1)/1:1000(A3)

Issue	Date	By	Chkd	Appd
C	16.01.26	PDA	ERA	EGM
	ISSUE FOR APPROVAL			
B	26.09.25	PDA	ERA	EGM
	ISSUED FOR ADEQUACY REVIEW			
A	18.08.25	PDA	ERA	EGM
	DRAFT FEED ISSUE			

Client
CLEANAWAY
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Name: ....
Signature: .... Date: ....

Job Title
BROMELTON ENERGY AND RESOURCES CENTRE

Scale at A1 AS SHOWN
Discipline CIVIL

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Drawing Title
STORMWATER
LONGITUDINAL SECTIONS
SHEET 13

Drawing Status
FOR APPROVAL

Job No	Drawing No	Issue
293683-00	**BERC- ARU-BNE-CICW-DRG-1653**	**C**

Do not scale

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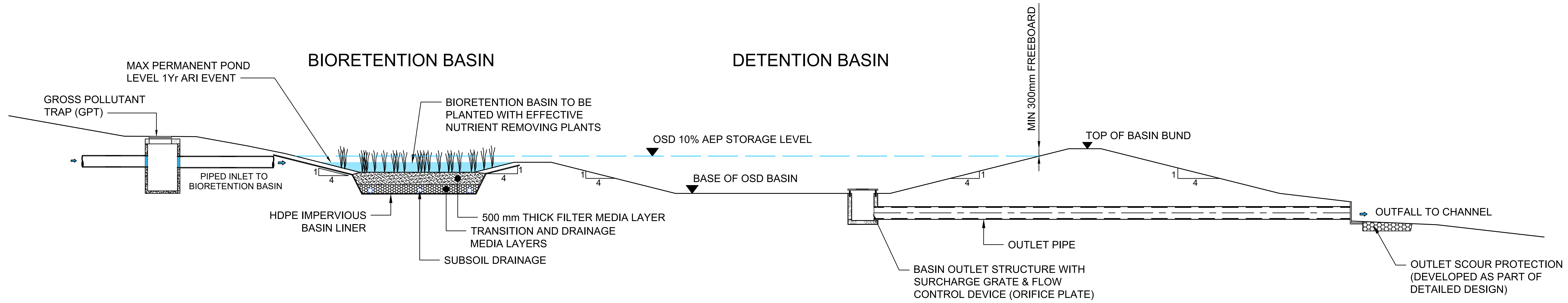
BIORETENTION BASIN
DETENTION BASIN
MAX PERMANENT POND LEVEL 1Yr ARI EVENT
GROSS POLLUTANT TRAP (GPT)
BIORETENTION BASIN TO BE PLANTED WITH EFFECTIVE NUTRIENT REMOVING PLANTS
OSD 10% AEP STORAGE LEVEL
MIN 300mm FREEBOARD
TOP OF BASIN BUND
PIPED INLET TO BIORETENTION BASIN
1
4
1
4
1
4
BASE OF OSD BASIN
1
4
1
4
HDPE IMPERVIOUS BASIN LINER
500 mm THICK FILTER MEDIA LAYER
TRANSITION AND DRAINAGE MEDIA LAYERS
SUBSOIL DRAINAGE
OUTFALL TO CHANNEL
OUTLET PIPE
BASIN OUTLET STRUCTURE WITH SURCHARGE GRATE & FLOW CONTROL DEVICE (ORIFICE PLATE)
OUTLET SCOUR PROTECTION (DEVELOPED AS PART OF DETAILED DESIGN)

TYPICAL SECTION THROUGH
STORMWATER TREATMENT AND DETENTION BASIN

NOT FOR CONSTRUCTION

Scales

10 0 10 20 30 40 50m

1:1250(A1)/1:2500(A3)

Issue	Date	By	Chkd	Appd
C	16.01.26	PDA	ERA	EGM
	ISSUE FOR APPROVAL			
B	26.09.25	PDA	ERA	EGM
	ISSUED FOR ADEQUACY REVIEW			
A	18.08.25	PDA	ERA	EGM
	DRAFT FEED ISSUE			

Client

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Engineering Certification (CEng)
Name: ....
Signature: .... Date: ....

Job Title
BROMELTON ENERGY AND
RESOURCES CENTRE

Scale at A1 1:1000mm

Discipline CIVIL

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Drawing Title
STORMWATER
MISCELLANEOUS DETAILS

Drawing Status
FOR APPROVAL

Job No **293683-00**

Drawing No **BERC- ARU-BNE-CICW-DRG-1691**

Issue **C**

Do not scale

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PAVEMENT DESIGN ON MAIN ENTRANCE JUNCTION TO BE DEVELOPED FOLLOWING FURTHER CONSULTATION WITH TMR.

NOTE

1. FOR GENERAL NOTES REFER TO DRAWING No. BERC-ARU-BNE-CICW-DRG-1005.
2. FOR LEGEND REFER TO DRAWING No. BERC-ARU-BNE-CICW-DRG-1006.
3. REFER TO ARCHITECTURAL DRAWINGS FOR DETAILS OF SOFT LANDSCAPING FINISHES.

NOT FOR CONSTRUCTION

Scales

10 0 10 20 30 40 50m

1:1250(A1)/1:2500(A3)

Issue	Date	By	Chkd	Appd
C	16.01.26	PDA	ERA	EGM
	ISSUE FOR APPROVAL			
B	26.09.25	PDA	ERA	EGM
	ISSUED FOR ADEQUACY REVIEW			
A	18.08.25	PDA	ERA	EGM
	DRAFT FEED ISSUE			

Client

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Engineering Certification (CEng)
Name: ....
Signature: .... Date: ....

Job Title
BROMELTON ENERGY AND RESOURCES CENTRE

Scale at A1 1:1250m

Discipline CIVIL

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Drawing Title
PAVEMENT PLAN

Drawing Status
FOR APPROVAL

Job No 293683-00

Drawing No BERC- ARU-BNE-CICW-DRG-1700

Issue C

Do not scale

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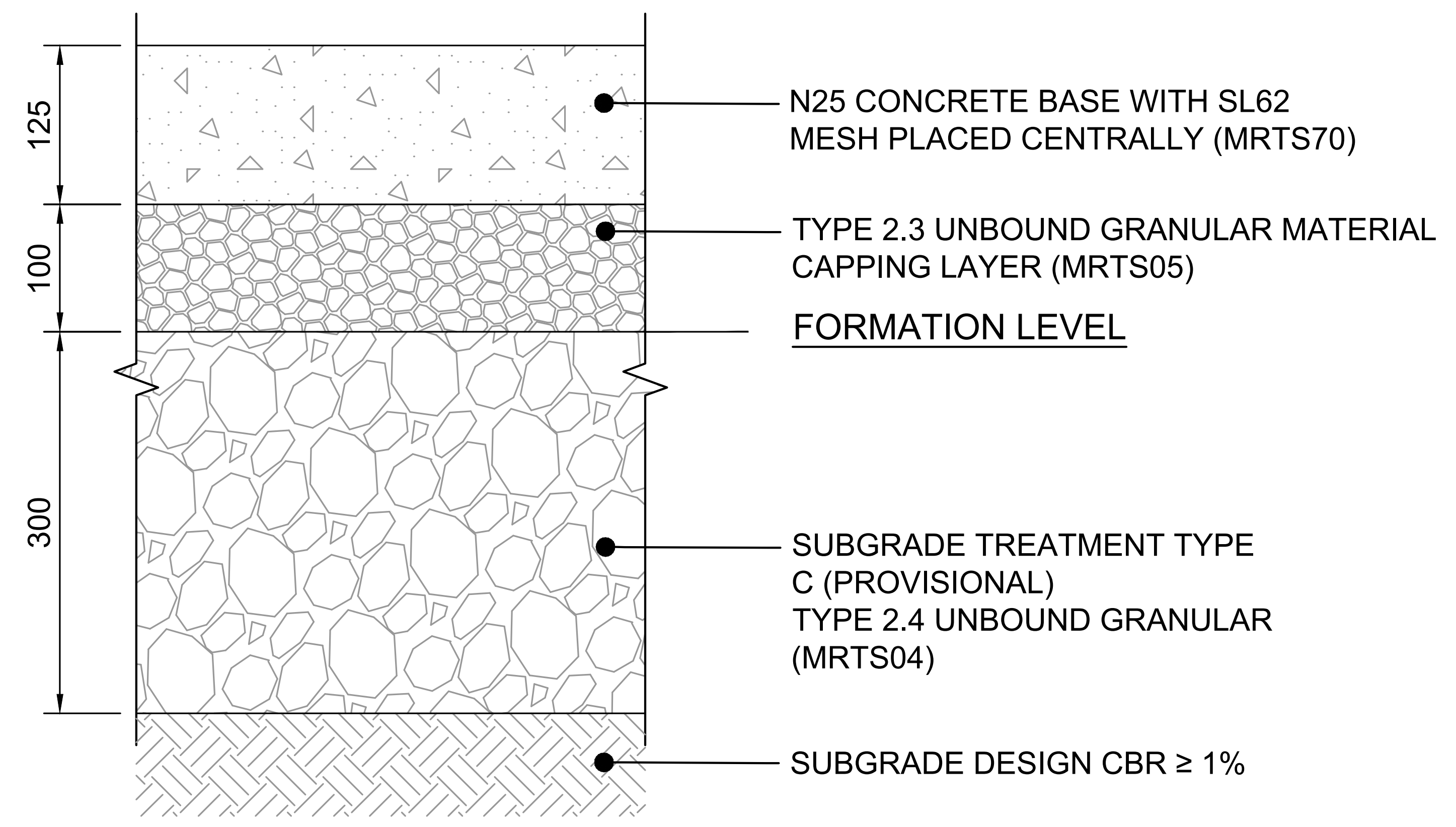

125
100
300
N25 CONCRETE BASE WITH SL62 MESH PLACED CENTRALLY (MRTS70)
TYPE 2.3 UNBOUND GRANULAR MATERIAL CAPPING LAYER (MRTS05)
FORMATION LEVEL
SUBGRADE TREATMENT TYPE C (PROVISIONAL) TYPE 2.4 UNBOUND GRANULAR (MRTS04)
SUBGRADE DESIGN CBR ≥ 1%

🟦

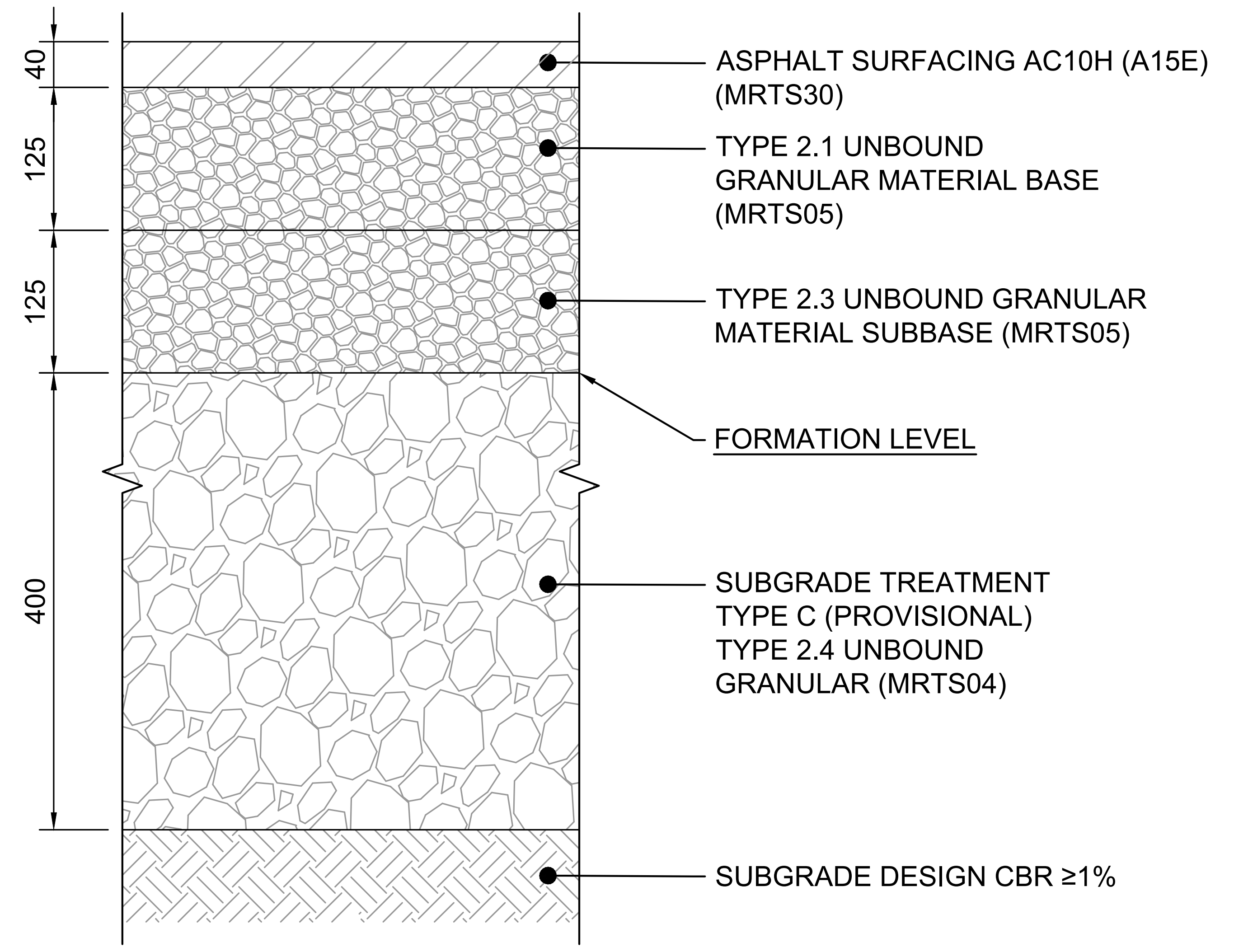
RP2 - JOINTED REINFORCED CONCRETE PAVEMENT (JRCP) FOOTPATH

NOTES:

1. EARTHWORKS AND SUBGRADE PREPARATION TO BE IN ACCORDANCE WITH MRTS04.
2. THE SUBGRADE WILL BE VERIFIED IN ACCORDANCE WITH MRTS04.
3. SUB-SURFACE DRAINAGE BELOW LOW AND HIGH SIDE OF KERBS & CHANNELS TO BE PROVIDED. EXACT DETAILS TO BE INCLUDED WITHIN DETAILED DESIGN.
4. DESIGNS ARE BASED ON THE SUBGRADE ACHIEVING A CBR OF 3% AS PER SECTION 6.9 OF DOUGLAS PARTNERS REPORT ON GEOTECHNICAL INVESTIGATION, BROMELTON ENERGY & RESOURCES CENTRE (BERC), AUGUST 2023.
5. SUBGRADE TREATMENT IS RECOMMENDED FOR USE WHERE 97% COMPACTION OR THE PROOF ROLLING REQUIREMENTS STIPULATED WITHIN MRTS04 ARE NOT MET. APPROPRIATE SUBGRADE TREATMENT TYPE MAY BE VARIED AS DIRECTED BY THE ADMINISTRATOR.
   SUBGRADE TREATMENTS ALLOWED FOR IN THIS CONTRACT INCLUDE:
   - SUBGRADE TREATMENT TYPE C - 150-400 mm TYPE 2.4 UNBOUND.
   - SUBGRADE TREATMENT TYPE E - 150-250 mm LIGHTLY BOUND BASE.
   - SUBGRADE TREATMENT TYPE J - 300 mm GEOTEXTILE WRAPPED ROCK FILL LAYER.
6. SUBGRADE CBR %TO BE CONFIRMED VIA 4-DAY SOAKED CBRs AND DCPs TO 1.5 m DEPTH BELOW SUBGRADE SURFACE LEVEL PRIOR TO CONSTRUCTION (REFER TO MRTS04 APPENDIX A).
7. JOINTED REINFORCED CONCRETE PAVEMENT JOINTS SHALL BE IN ACCORDANCE WITH THE TRANSPORT FOR NEW SOUTH WALES JRCP STANDARD DRAWINGS.
8. PAVEMENT SUBSOIL DRAINAGE DESIGNS TO BE DEVELOPED AS PART OF FUTURE DESIGN STAGES IN ACCORDANCE WITH REQUIREMENTS OF PART 10: SUBSURFACE DRAINAGE OF THE AUSTROADS GUIDE TO PAVEMENT TECHNOLOGY.

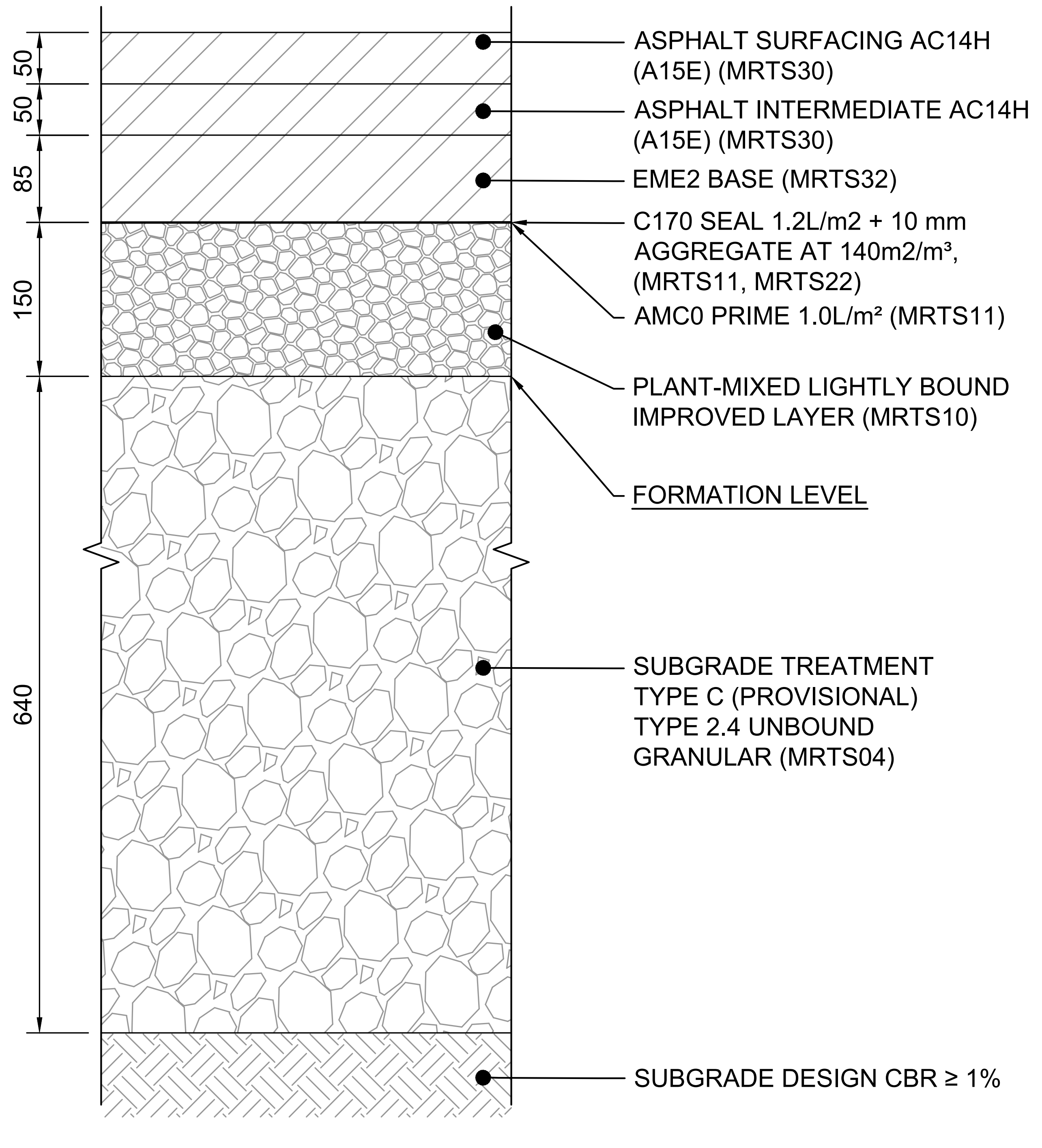
FOOTPATH NOTES

1. CONCRETE FOOTPATH SURFACE TO BE NON-SLIP TO AS 4586 (SLIP RESISTANCE CLASSIFICATION OF NEW PEDESTRIAN SURFACE MATERIALS).
2. CONCRETE PAVEMENT JOINTING SHALL BE IN ACCORDANCE WITH NOTE 5 OF SCENIC RIM COUNCIL STANDARD DRAWING R-13 WHICH HAS MAXIMUM SPACING OF 2.5 m.


40
125
125
400
ASPHALT SURFACING AC10H (A15E) (MRTS30)
TYPE 2.1 UNBOUND GRANULAR MATERIAL BASE (MRTS05)
TYPE 2.3 UNBOUND GRANULAR MATERIAL SUBBASE (MRTS05)
FORMATION LEVEL
SUBGRADE TREATMENT TYPE C (PROVISIONAL) TYPE 2.4 UNBOUND GRANULAR (MRTS04)
SUBGRADE DESIGN CBR ≥1%

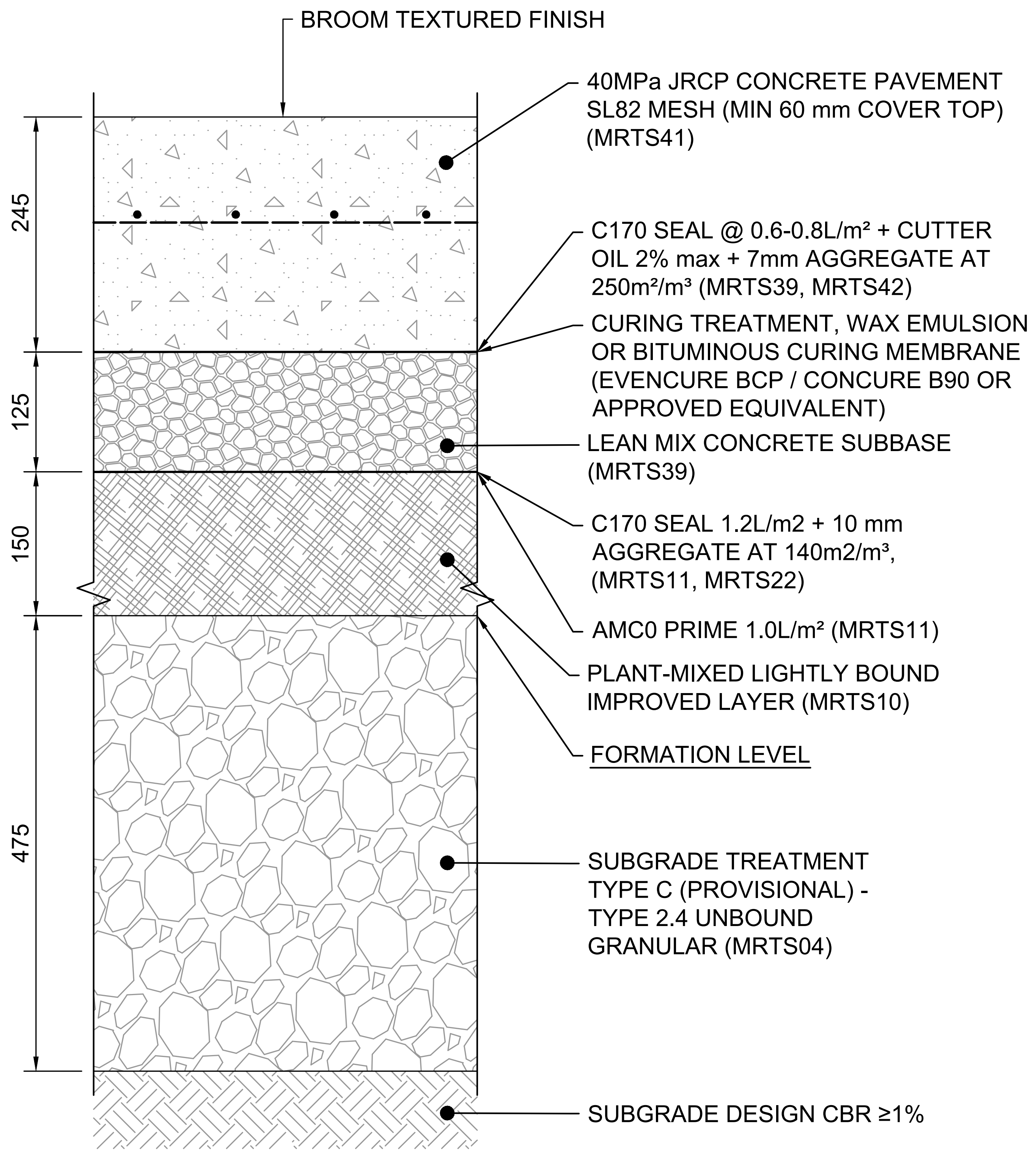
🟨

FP1 - GRANULAR PAVEMENT WITH THIN ASPHALT SURFACING (CARPARK)


50
50
85
150
640
ASPHALT SURFACING AC14H (A15E) (MRTS30)
ASPHALT INTERMEDIATE AC14H (A15E) (MRTS30)
EME2 BASE (MRTS32)
C170 SEAL 1.2L/m2 + 10 mm AGGREGATE AT 140m2/m³, (MRTS11, MRTS22)
AMC0 PRIME 1.0L/m² (MRTS11)
PLANT-MIXED LIGHTLY BOUND IMPROVED LAYER (MRTS10)
FORMATION LEVEL
SUBGRADE TREATMENT TYPE C (PROVISIONAL) TYPE 2.4 UNBOUND GRANULAR (MRTS04)
SUBGRADE DESIGN CBR ≥ 1%

🟪

FP2 - FULL DEPTH ASPHALT PAVEMENT (WORKING AREAS)


BROOM TEXTURED FINISH
245
125
150
475
40MPa JRCP CONCRETE PAVEMENT SL82 MESH (MIN 60 mm COVER TOP) (MRTS41)
C170 SEAL @ 0.6-0.8L/m² + CUTTER OIL 2% max + 7mm AGGREGATE AT 250m²/m³ (MRTS39, MRTS42)
CURING TREATMENT, WAX EMULSION OR BITUMINOUS CURING MEMBRANE (EVENCURE BCP / CONCURE B90 OR APPROVED EQUIVALENT)
LEAN MIX CONCRETE SUBBASE (MRTS39)
C170 SEAL 1.2L/m2 + 10 mm AGGREGATE AT 140m2/m³, (MRTS11, MRTS22)
AMC0 PRIME 1.0L/m² (MRTS11)
PLANT-MIXED LIGHTLY BOUND IMPROVED LAYER (MRTS10)
FORMATION LEVEL
SUBGRADE TREATMENT TYPE C (PROVISIONAL) - TYPE 2.4 UNBOUND GRANULAR (MRTS04)
SUBGRADE DESIGN CBR ≥1%

⬜

RP1 - JOINTED REINFORCED CONCRETE PAVEMENT (JRCP)

NOT FOR CONSTRUCTION

Scales
0.05 0 0.1 0.2m
1:5(A1)/1:10(A3)

Issue	Date	By	Chkd	Appd
C	16.01.26	PDA	ERA	EGM
ISSUE FOR APPROVAL				
B	26.09.25	PDA	ERA	EGM
ISSUED FOR ADEQUACY REVIEW				
A	18.08.25	PDA	ERA	EGM
DRAFT FEED ISSUE				

Client
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Signature: .... Date: ....

Job Title
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Scale at A1 1:5m
Discipline CIVIL

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Drawing Title
PAVEMENT PROFILES
SHEET 1 OF 2

Drawing Status
FOR APPROVAL

Job No	Drawing No	Issue
293683-00	BERC- ARU-BNE-CICW-DRG-1791	C

Do not scale

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