GEOFF METZLER & ASSOCIATES PTY LTD

CONSULTING STRUCTURAL & CIVIL ENGINEERS

ABN 87 002 408 237

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PROJECT: EDMISTON JONES

ADDRESS: 108-114 RAWLINSON STREET, BEGA

DRAWING TITLE: CIVIL DETAILS

JOB NUMBER: M10487

PAGE NUMBER:

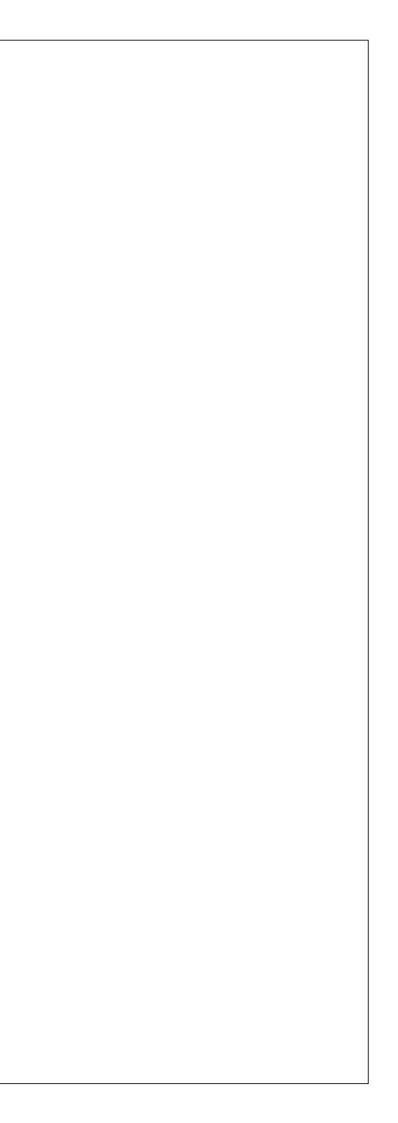
1 of 22

APPROVED BY

JACK METZLER B.E. MIE. AUST. C.P. ENG.

DATE	DESCRIPTION	ISSUE	DRAWN BY
25.10.2023	DA ISSUE	А	BC
22.01.2025	EASEMENT AMENDMENT	В	MW

NER: 4225580 | RPEQ: 13719 | RBPVic: EC 40673



GENERAL NOTES

- G1 Do not obtain dimensions by scaling these drawings. Only principal structural dimensions are shown. All dimensions are in millimetres
- G2 Read these drawings in conjunction with all other contract documents and the requirements of the relevant building authority. Before proceeding with work clarify any discrepancies, verify all setting out dimensions
- G3 Maintain the structure in a stable condition during construction. Do not exceed the design live loads shown or cause any element to be overstressed

-										
G4	64 Design loads in accordance with AS1170 :									
	<u>Live load</u> Domestic Offices, corridor, parking Balconies,stairs Factories, plantrooms, sho Roofs	1.5kPa 3kPa 4kPa ps 5kPa 0.25kPa	<u>Wind load</u> Wind velocity Vu50,Vp41,Vs38 m/s Structural importance multiplier Mi = 1 Terrain category = 2 - Rural 1 - Urban							

G5 Engineering design of Class 1 and Class 10 structures is in accordance with NCC 2022 BCA Volume 2

FOUNDATIONS

- F1 Footings have been designed for an allowable bearing pressure of 150 kPa. Obtain approval for the proposed foundation material before placing concrete.
- The design only applies for ground and foundation levels as shown on the drawings. F3 Site classification as to AS 2870 M foundation material CLAY. Backfill foundation walls so that the level of fill on one side of the wall is never more than 450 above the level on the other side, except where detailed retaining walls are used.

EARTHWORKS

- E1 Strip topsoil and organic material from subgrade.
- E2 Cut and fill site to design level -Where controlled fill is specified- select fill to be placed in max. 200mm layers and compacted to min. 95% Standard Proctor Density to AS 1289
- E3 Provide 450 diameter or square piers at 2000mm centres to natural subgrade under perimeter ribs. Provide similar piers under internal ribs where fill beneath ribs exceeds 200mm uno.
- E4 If shale is exposed at cut area then all piers must be founded on shale.
- E5 Surface drainage shall be provided as required to prevent ponding and divert runoff away from slab and footings.

MASONRY NOTES

- M1 All workmanship and materials in accordance with AS 3700 and AS 2733 .
- Mortar shall be freshly prepared, uniformly mixed in the following ratio: 1:1/10:3 M2 cement, lime, sand in accordance with ASA 123 and AS 3700 clause 2.2.2.
- M3 All perpends, except where required for weepholes, are to be fully filled with mortar. M4 Bottom course of blocks to have inspection openings to all cores to be grouted.
- Thoroughly clean all cores prior to reinforcement placing. Tie vertical steel to starters. M5 Grout all cores with grout strength grade 15. 150mm slump. Max. free drop in any one pour to be 1 metre. Stop pour 50 below top of block
- M6 Provide vertical control joints in walls at 8metre max. centres uno.

RETAINING NOTES

- R1 For timber retaining walls, all steel posts are galvanised 100UC14.8 sections uno. All corner posts are galvanised double 100PFC sections uno.
- R2 Where retaining walls are subject to long term surcharge, consult engineer prior to construction.

CONCRETE

- C1 Conform to AS 3600 and the ACSE Concrete Specification except where varied by the contract documents.
- C2 Provide concrete with a strength of: fc =20 MPa footings fc= 25 MPa Slab fc= 32 MPa Polished Slab fc =20 MPa Retaining Wall Core Fill fc =40MPa External Coastal Slab maximum slump of 80. maximum aggregate size of 20. cement type A.
 - no admixtures or breccia.
- Sizes of concrete elements do not include thickness of applied finishes. C3
- C4 Beam depths are written first and include slab thickness.
- Do not make any construction joints, holes or chases in the concrete elements unless C5 shown or approved by the Engineer.
- C6 Do not place pipes or conduits within the concrete cover to reinforcement.

C7 Reinforcement notation :

- N Grade D500N deformed bar to AS 4671
- F Hard drawn wire reinforcing fabric to AS 4671
- R Grade 230 R hot rolled plain bars to AS 4671
- S Grade 230 S hot rolled deformed bars to AS 4671
- W Hard drawn plain wire to AS 1303

Example: 8-N16@200T denotes 8 deformed bars of 16 diameter at 200 centres placed in the top of the element.

C8 Provide clear concrete cover to reinforcement as follows: uno.

Element	Interior	Exterior	Exterior Against Ground
Footings			50
Columns Pedestals	35	75	
Slabs, Walls	20	40	30 on membrane
Beams	25	65	65
Blockwork 50mm from a	appropriate outside	face	

For slab within 1km from the coast, provide concrete f'c = 32 MPa and 65 cover to exterior exposed surface.

- C9 Use maximum bar chair spacing of 60 diameters for supporting bars and 750 for fabric.
- C10 Provide laps only at locations shown unless otherwise approved by the Engineer.
- C11 For oblong fabrics, place top fabric main wires uppermost and bottom fabric main wires lowermost in direction of arrows.
- C12 Supply and lay fabric in flat sheets. Overlap first and second cross wires of each sheet by 30 at laps.
- C13 Do not weld reinforcement unless shown or approved by the Engineer.
- C15 Do not build brick or block work on suspended work until all shoring has been removed.
- C16 Prop cantilever slabs and beams from a firm support for a minimum of 28 days.
- C17 Provide the Engineer with 24 hours notice of reinforcement being ready for inspection. Do not order concrete until reinforcement has been approved.
- C18 Reinforcement is shown diagrammatically and not necessarily in true position.
- C19 All concrete shall be placed and cured in accordance with Section 19 AS 3600. Where curing compound is used it must be applied:
 - (A) onto slabs within 2 hours of finishing operation.
 - (B) onto walls and columns immediately after removal of framework.
- C20 Horizontal framework shall be stripped when approved by the Engineer.
- C21 Slabs and beams shall bear on only the beam, walls etc. shown on the drawings; all other building elements shall be kept 15mm clear from soffits of structure.
- C22 Where slabs or beams bear on masonry, the top course shall be level, smooth and covered with slip joint as detailed uno.
- C23 Slab reinforcement has been provided for minor degree of crack control. Consult engineer where moderate or strong degree of crack control is required.

STEELWORKS NOTES GENERAL

- S3
- elements before commencing fabrication
- primer at least 48 hours before dispatch S5
- in 20MPa concrete with minimum 50mm cover S6
- **S**7 specifications uno
- S8 All exposed steelwork to be hot dipped galvanised.

STEELWORK

- S9 Unless noted otherwise use: 10mm thick gusset, fin and end plates, fully welded. M20 dia blackbolts 1554
- S10 Chip all welds free of slag

 - tensioned

TIMBER

T1	All	timber	construction	to	С
		unnbei	construction	ιU	C

то	Minimum	odao	dictancoc	f

Bolt size	
M12	
M16	

TIE DOWN

- embedment
- 30 flathead nails per member.

- strapped or screwed.
- crs with 4 nails per end

PROJECT - EDMIST(ЛС
ADDRESS - 108-114 RAW	LINS
DRAWING - NOTES	
JOB NO - M10487	Shee
APPROVED - JACK MET	ZLE

AMENDMENTS	DATE	ISSUE
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T - top of element

uno - unless noted otherwise

ew - each way

c/s - courses

B - bottom

- C14 Tie all unsupported bars to N12@300 all laps 450.

S1 All workmanship and materials shall be in accordance with current editions of SAA codes AS4100, AS1554 and ACSE Steel Specification, except as varied by the contract documents Structural grade (Fy 300MPa) quality steel shall be used throughout unless noted otherwise Submit all shop drawings to the Engineer for approval of general arrangement of structural

Steelwork not to be encased or not otherwise noted shall be given one coat of approved metallic

Steelwork to be encased in concrete shall not be painted but shall be given one coat of cement wash. Members to be wrapped with No. SL62 fabric or 5mm wire at 150mm pitch and encased

The contractor shall provide and employ any additional temporary bracing etc. necessary to adequately and safely hold steelwork in position during construction

Proprietary items (e.g. purlins, bolts etc.) shall be installed in accordance with manufacturers

6mm continuous fillet weld made with general purpose steel electrodes in accordance with AS

S11 Do not grout under base plates until first level steelwork is plumb and fixed by welding or bolting S12 Bolts to be grade 4.6 Metric Hexagon Commercial Bolts to AS 1111 uno. H.S. Bolt denotes grade 8.8 highstrength steel bolts to AS 1252 - bolting category 8.8/S = snug tight. 8.8/T = fully

S13 All cold formed steel shall be in accordance with AS 1538. S14 Allow minimum 150 end bearing for all galintels uno.

conform with AS 1684 in addition to the details shown.

T2 Minimum edge distances for bolted connections (unless noted otherwise):

End grain	Cross grain
75	50
100	70

T3 Bolts to be grade 4.6 Metric Hexagon Commercial Bolts to AS 1111 uno

TD1 Roof sheet to battens in accordance with roof sheet manufacturers specification. TD2 Battens to rafters with 2-3.75 dia x 100 deformed nails, or 1 No 14 Type 17 Bugle screw, 50

TD3 Trusses or rafters to top plate or beam with 2 framing anchors per connection. use 4-2.8 dia x

TD4 Roof beam and lintels to stud frame (double stud) with 2-30 x 0.8 galvanised straps each end. Use 6-2.8 x 30 flathead nails each end. OR certified stud screw with 6kN capacity per stud. TD5 Top plates to studs with 30 x 0.8 galvanised strap every stud. Use 4-2.8 x 30 flathead nails each end, or looped strap ties, 4 nails per end. OR certified stud screw with 5kN capacity. TD6 Top plates to lintels with 30 x 0.8 galvanised strap @450 crs OR certified stud screw with 5kN capacity. Use 4-2.8 x 30 flathead nails each end, or looped strap ties, 4 nails per end. TD7 Bottom plate to study with 30 x 0.8 galvanised strap every 2nd stud. Use 4-2.8 x 30 flathead nails each end. OR certified stud screw with 5kN capacity. Studs and lintel support must be

TD8 Bottom plate to floor structure with 2 No 14 Type 17 screws, or 30 x 0.8 galvanised strap @ 900

Note : At bracing panels fix bottom plate to each joist. Fix bottom plate to slab M10-900 bolts, adjacent to strapped studs. 1-M10 bolt to each side of bracing panels.

TD9 Joist to bearers with 2-3.75 dia x 100 skew nails. Fix Joists to Bearers with 1-framing anchor on both sides of stud tie down points. Use 4-2.8 dia x 30 flathead nails per member.

TD10 External Bearers to be bolted down to Footings at each Pier.

TD11 At each end of Bracing Panels in Internal walls, Joists require Looped Strap tie down or 1 M10 bolt to Bearers and Bearers require tie down to footings similar to External Bearers. Joists with bracing panels across them require Looped Strap tie down at each end.

JONES

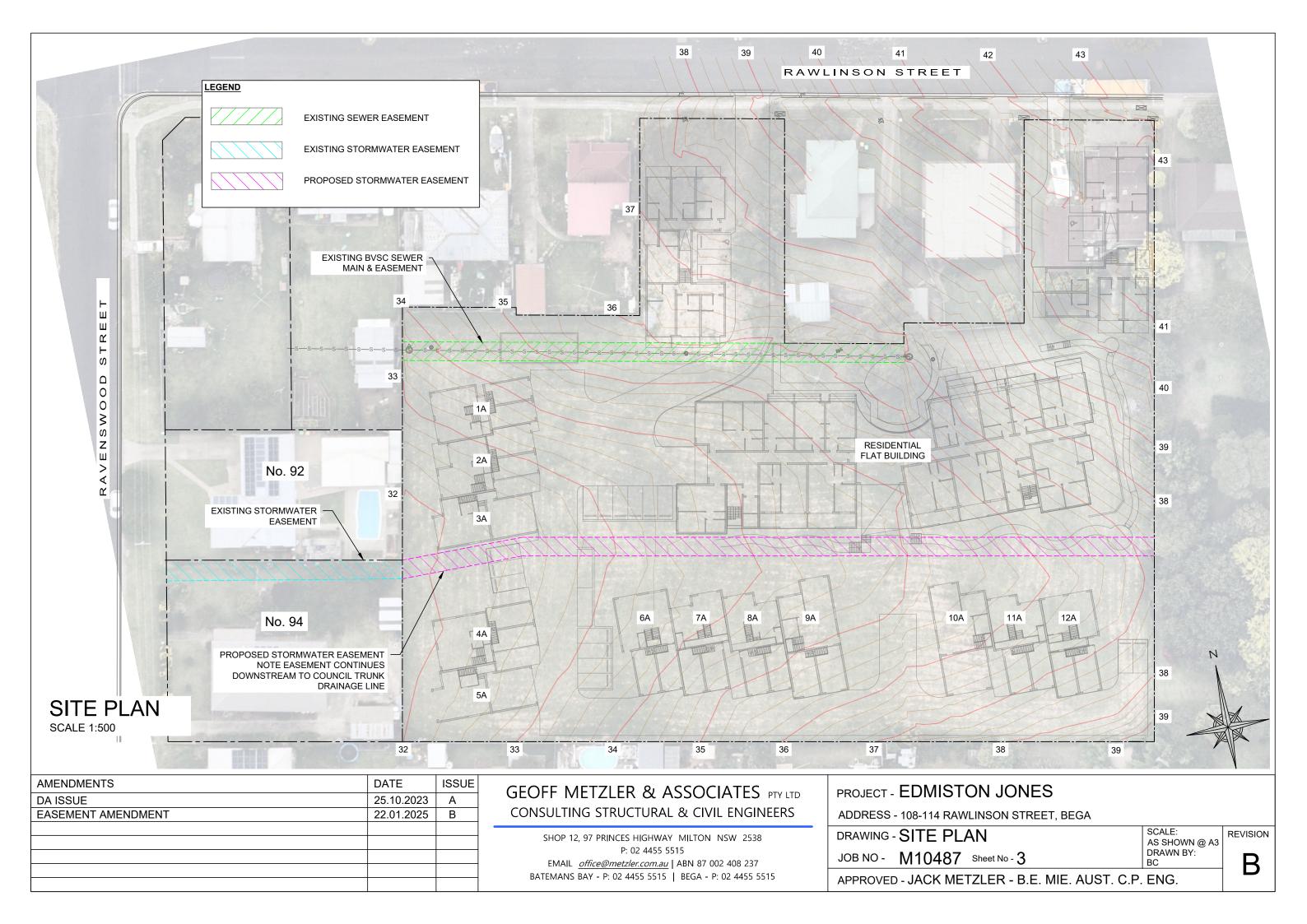
ON STREET, BEGA

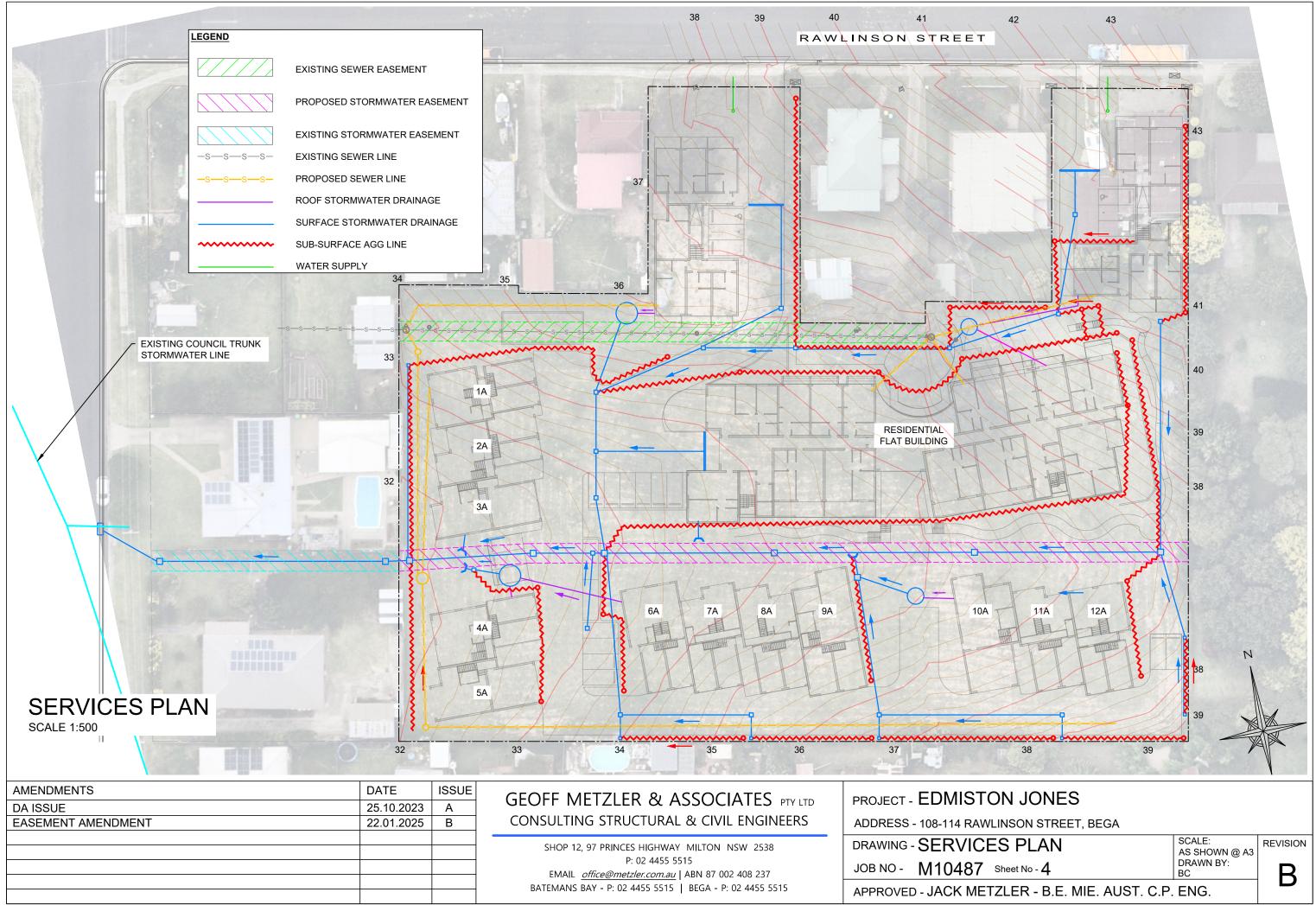
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SCALE: AS SHOWN @ A3 DRAWN BY: BC

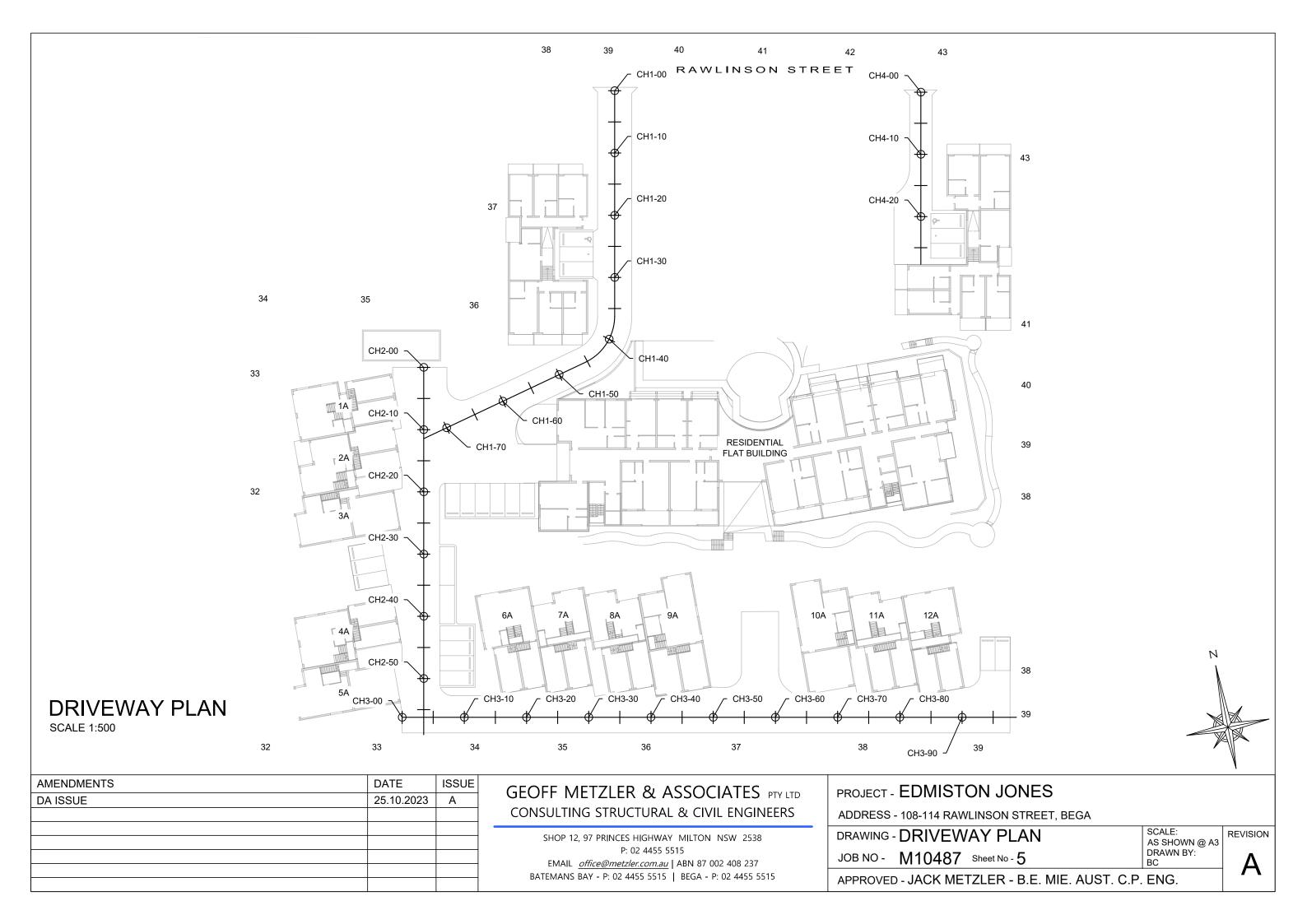
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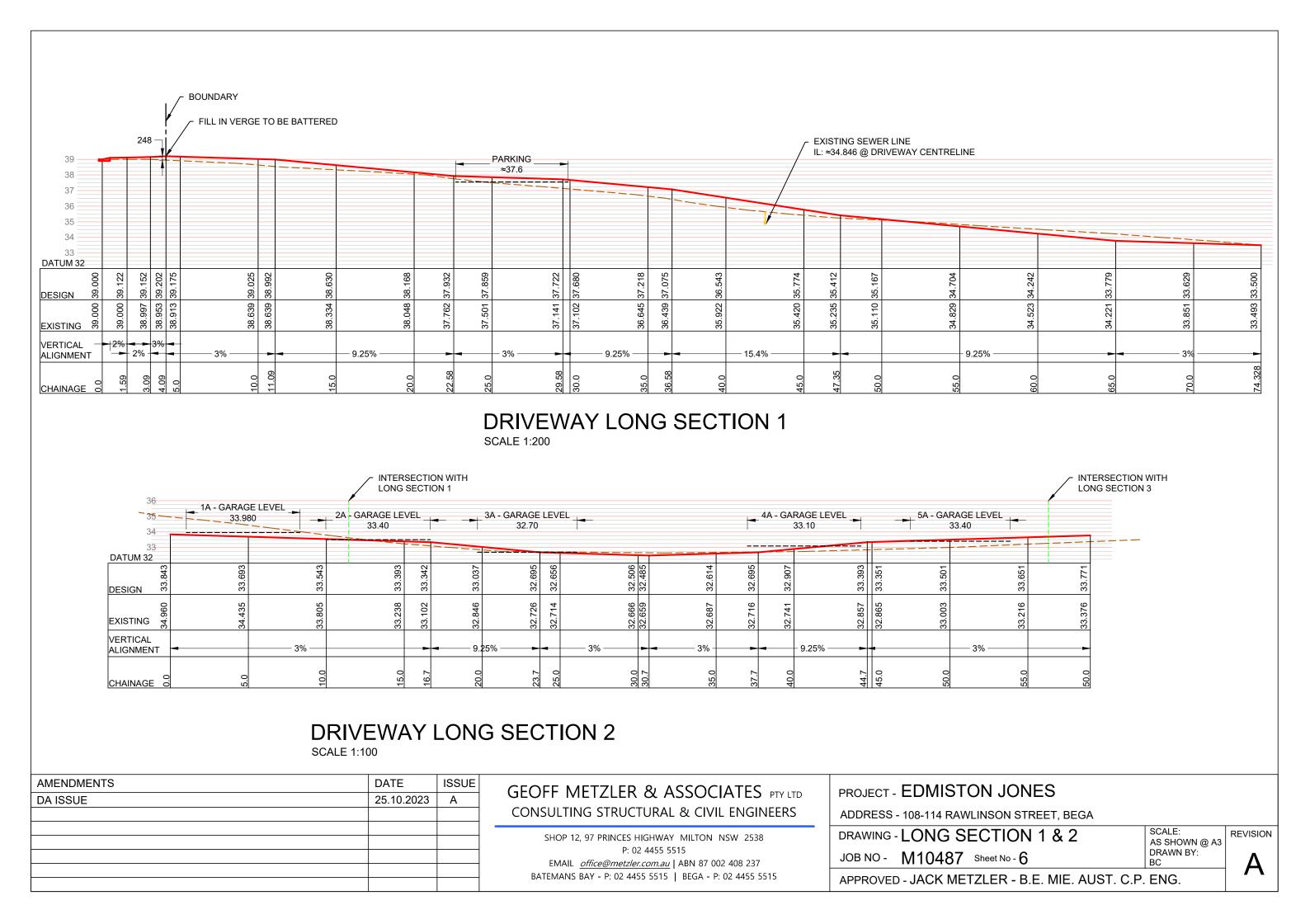
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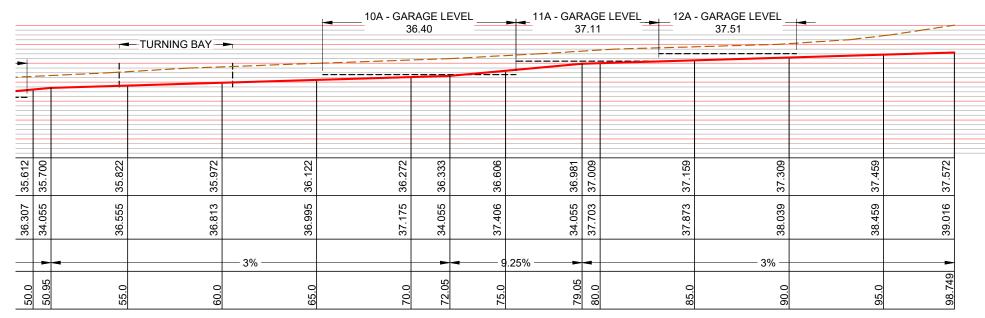


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DATUM 32		33.807	33.957	33.985	34.360	34.633	34.694		34.843	34.843	34.843	34.934	35.053 35.053	35.150	35.612
EXISTING EXISTING	404	33.738	34.055	34.055	34.442	34.055			35.209	35.551	34.055	35.768	34.055		
VERTICAL ALIGNMENT	-	3%		-	9.25%	6 —	-	— 3.0% —	-	- 0%	Å	-	3%		9.25%
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DRIVEWAY LONG SECTION 3

SCALE 1:200

AMENDMENTS DA ISSUE	DATE 25.10.2023	ISSUE A	GEOFF METZLER & ASSOCIATES PTY LTD CONSULTING STRUCTURAL & CIVIL ENGINEERS	PROJECT - EDMISTON JONES ADDRESS - 108-114 RAWLINSON STREET, BEGA		
			SHOP 12, 97 PRINCES HIGHWAY MILTON NSW 2538 P: 02 4455 5515 EMAIL <u>office@metzler.com.au</u> ABN 87 002 408 237 BATEMANS BAY - P: 02 4455 5515 BEGA - P: 02 4455 5515	DRAWING - LONG SECTION 3 JOB NO - M10487 Sheet No - 7 APPROVED - JACK METZLER - B.E. MIE. AUST. C	AS SHOWN @ A3 DRAWN BY: BC	REVISION

						- BOUNDARY	TO BE BATTERED)			/	✓ 42.260 at building. 2.5% grade for disabled access
43			501									
42				-	_						/	
41												
40 DATUM 39												
DESIGN	42.377	42.499	42.529	42.577	42.551	42.396	42.242	42.118	42.118	42.118	42.118	
EXISTING	42.377	42.301	42.197	42.076	41.962	41.466	41.062	40.801	40.732	40.400	40.300	
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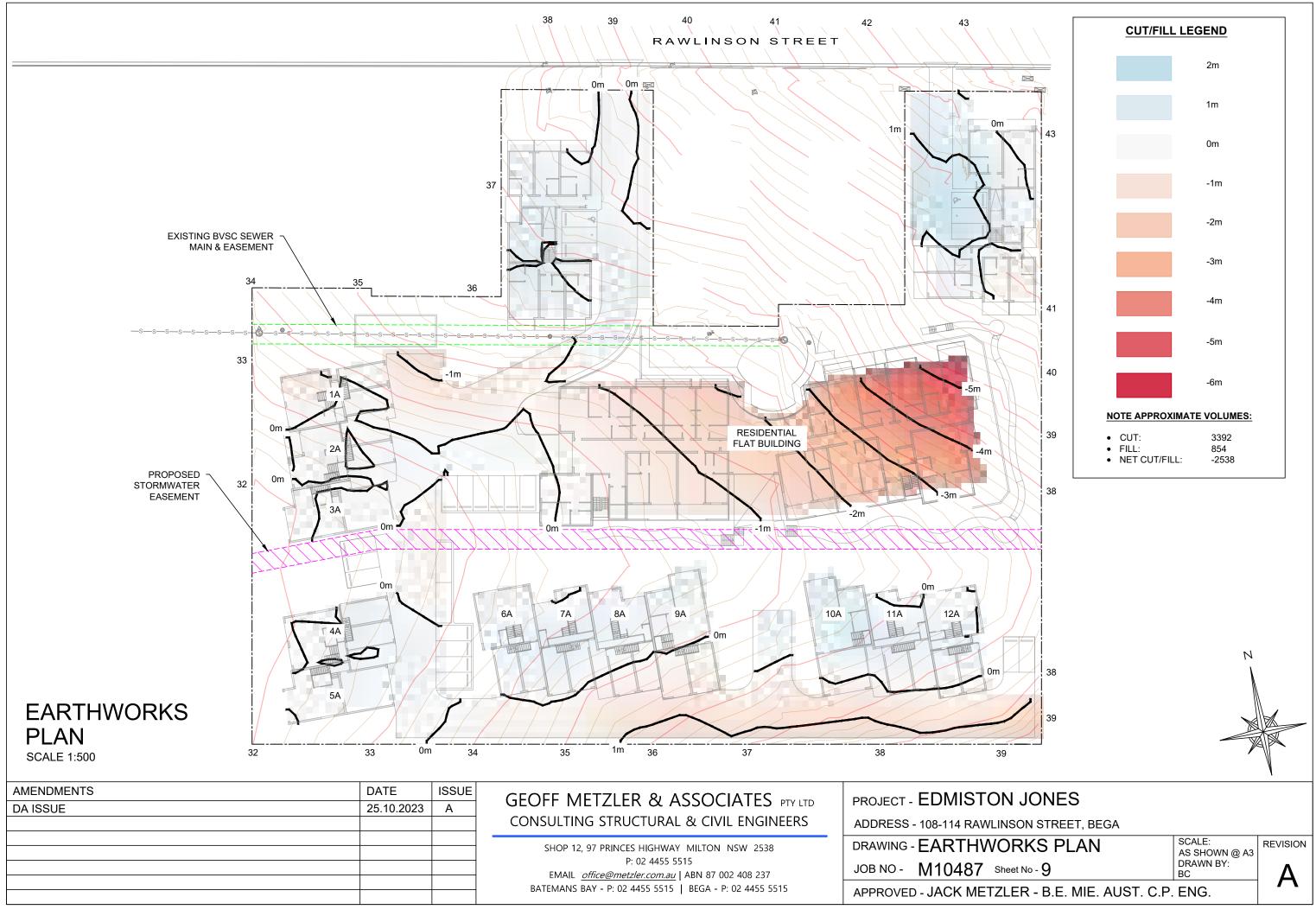
DRIVEWAY LONG SECTION 4 SCALE 1:200

AMENDMENTS DATE ISSUE **PROJECT - EDMISTON JONES** GEOFF METZLER & ASSOCIATES PTY LTD DA ISSUE 25.10.2023 A CONSULTING STRUCTURAL & CIVIL ENGINEERS ADDRESS - 108-114 RAWLINSON STREET, BEGA DRAWING - LONG SECTION 4 SHOP 12, 97 PRINCES HIGHWAY MILTON NSW 2538 P: 02 4455 5515 JOB NO - M10487 Sheet No - 8 EMAIL <u>office@metzler.com.au</u> | ABN 87 002 408 237 BATEMANS BAY - P: 02 4455 5515 | BEGA - P: 02 4455 5515 APPROVED - JACK METZL

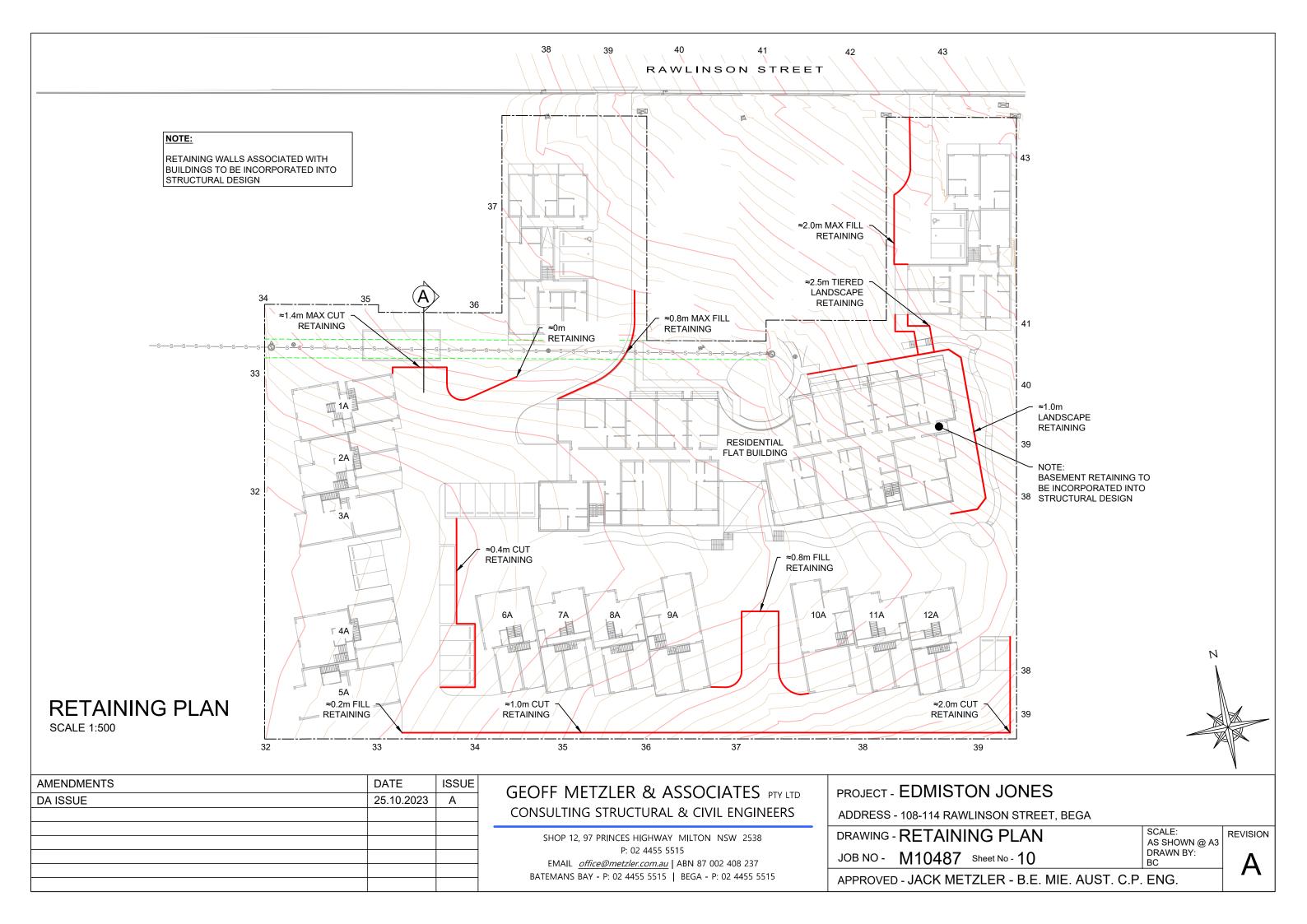
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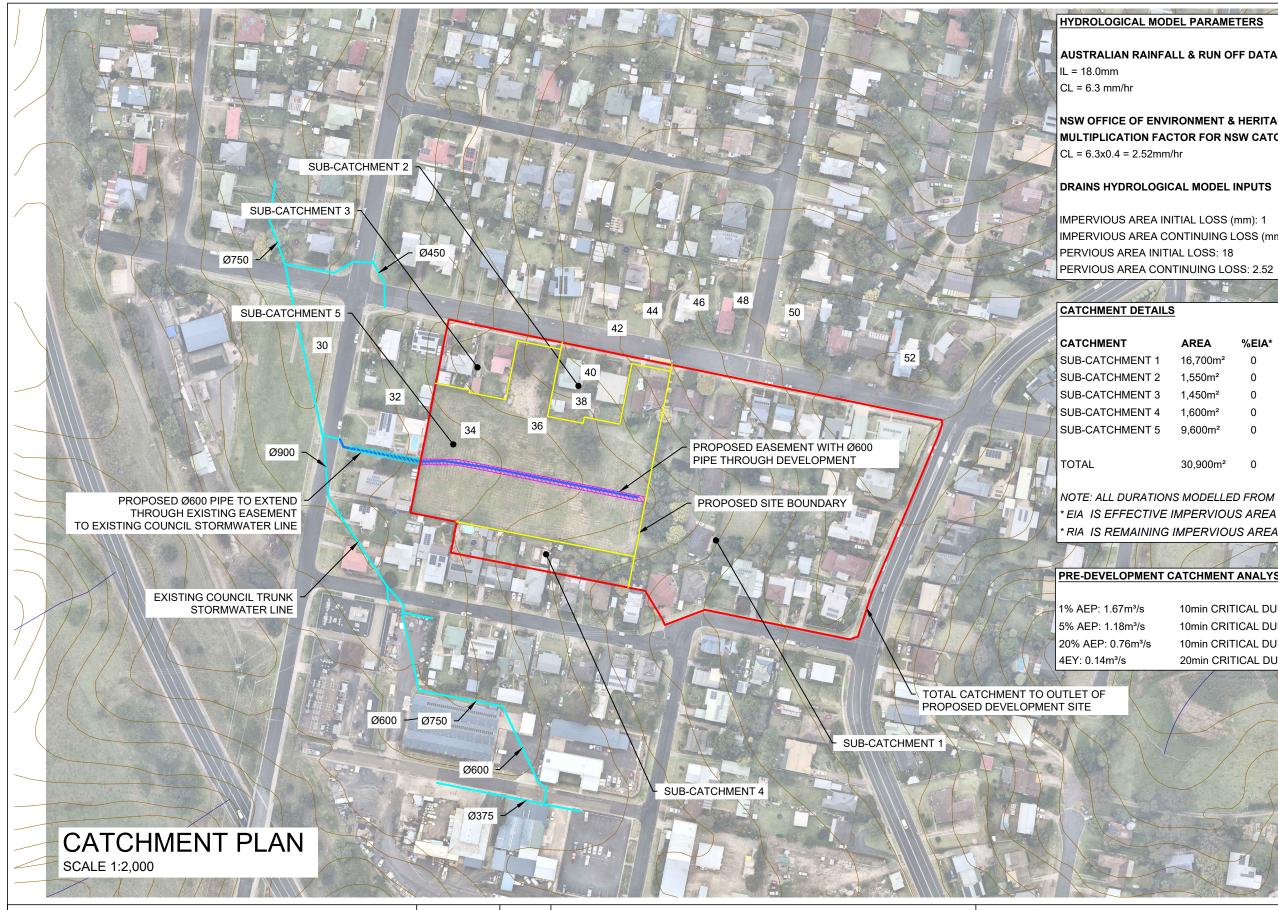
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AUSTRALIAN RAINFALL & RUN OFF DATA HUB

NSW OFFICE OF ENVIRONMENT & HERITAGE MULTIPLICATION FACTOR FOR NSW CATCHMENTS

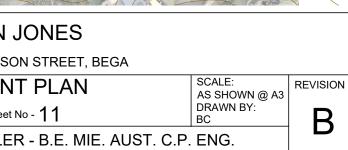
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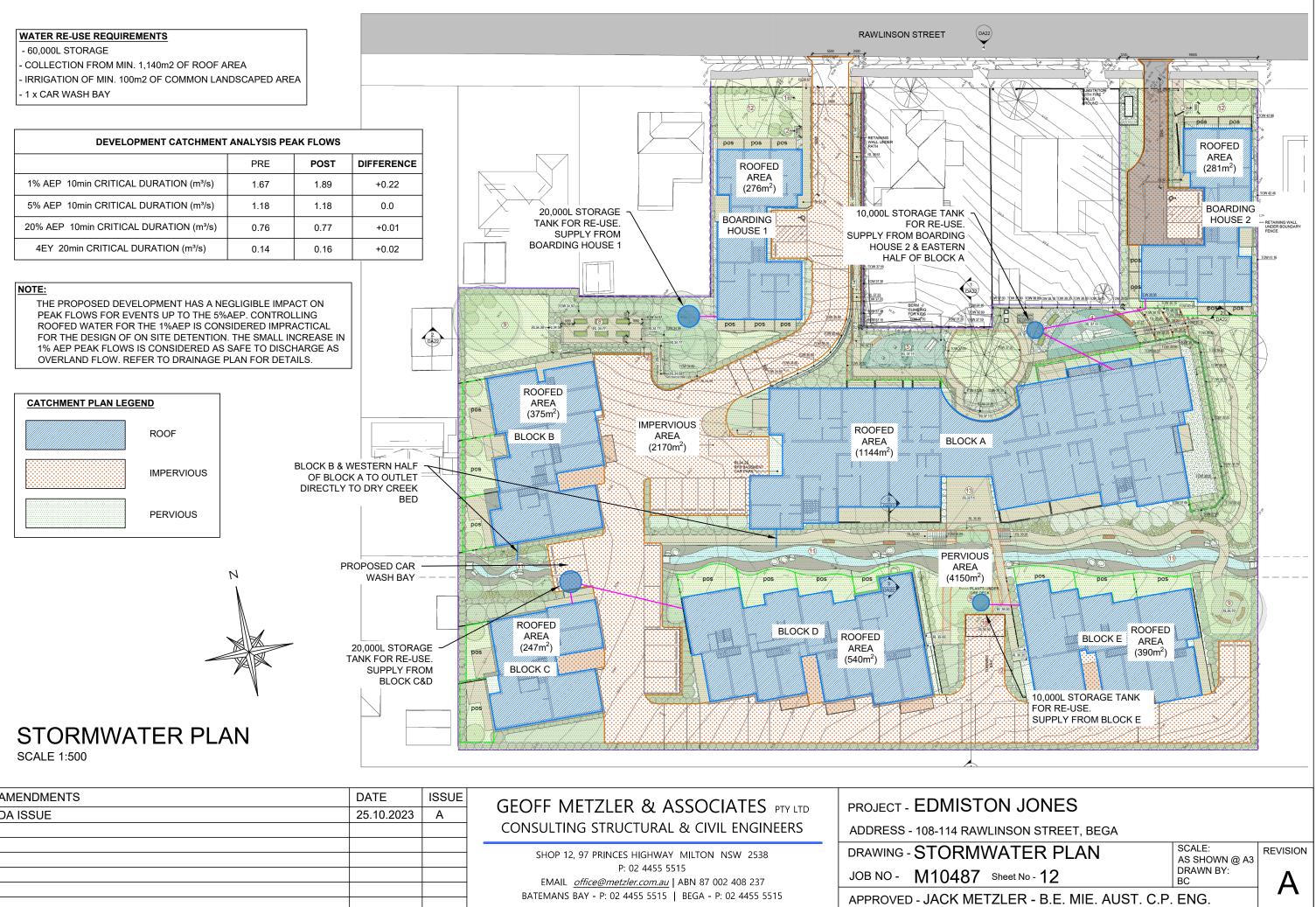
AREA	%EIA*	%RIA*	% PERVIOUS
16,700m²	0	60	40
1,550m²	0	60	40
1,450m²	0	60	40
1,600m²	0	60	40
9,600m²	0	60	100
30 900m ²	0	41	59

NOTE: ALL DURATIONS MODELLED FROM 5MIN TO 2 HOURS.

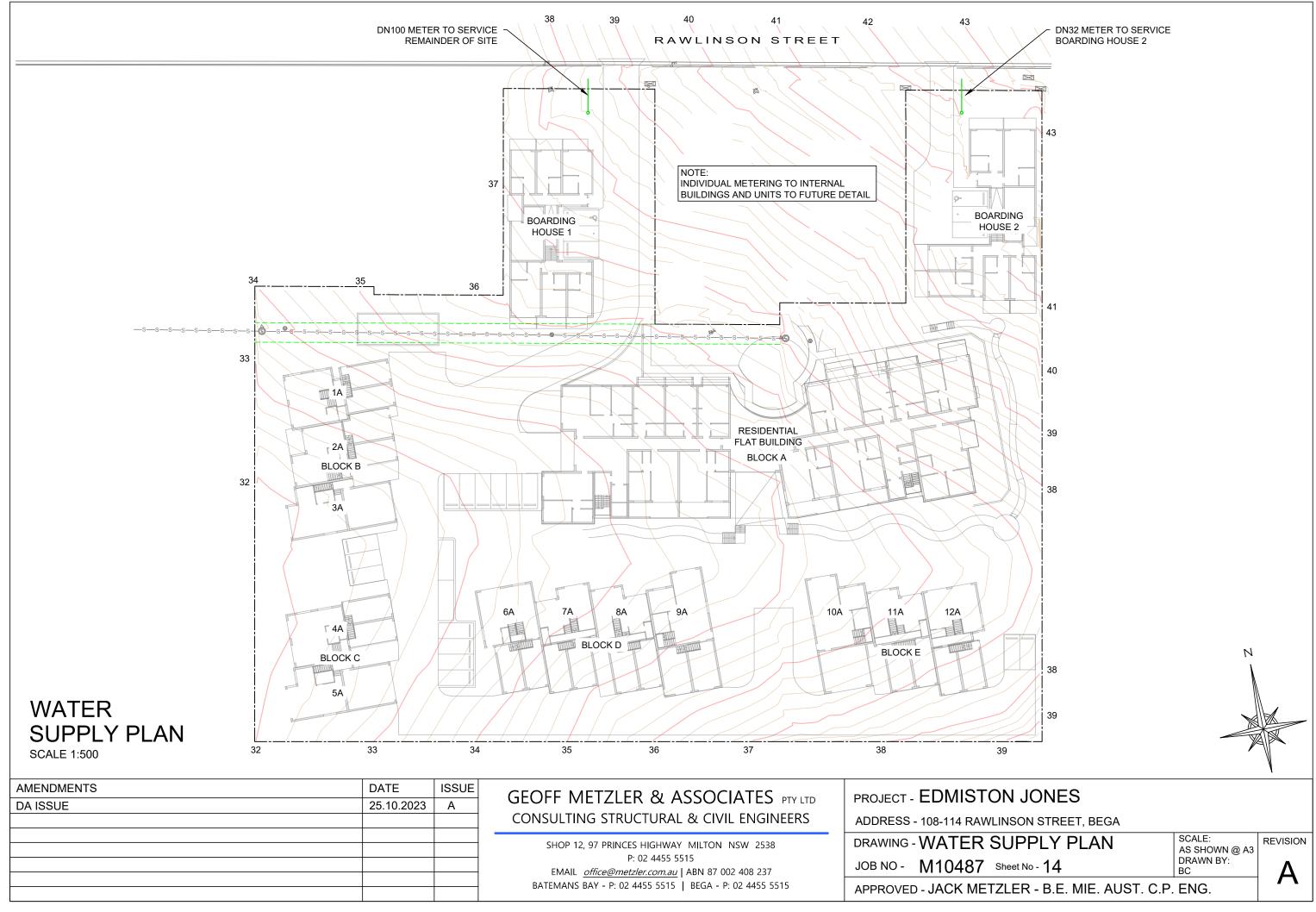
PRE-DEVELOPMENT CATCHMENT ANALYSIS PEAK FLOWS

10min CRITICAL DURATION 10min CRITICAL DURATION 10min CRITICAL DURATION 20min CRITICAL DURATION

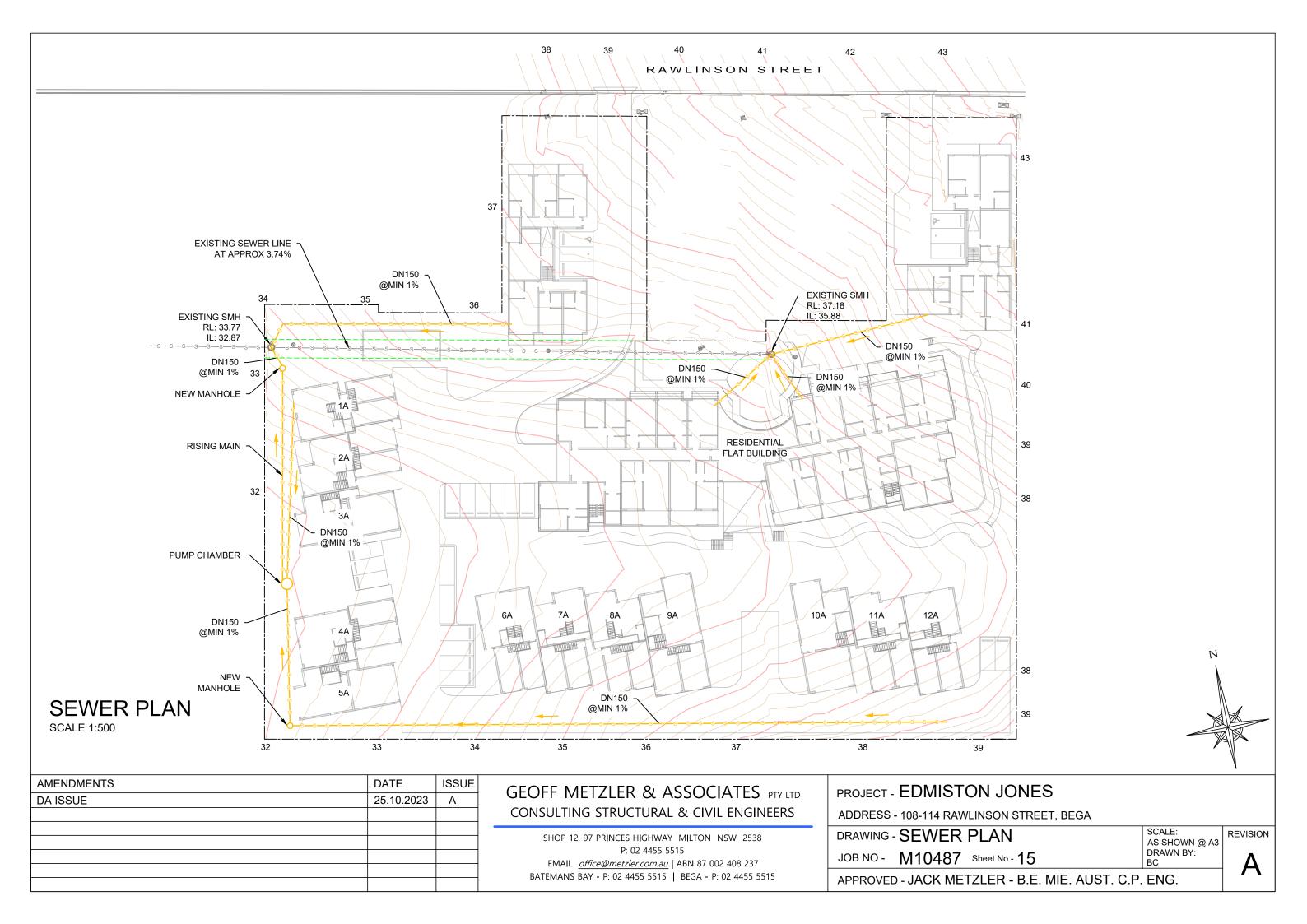


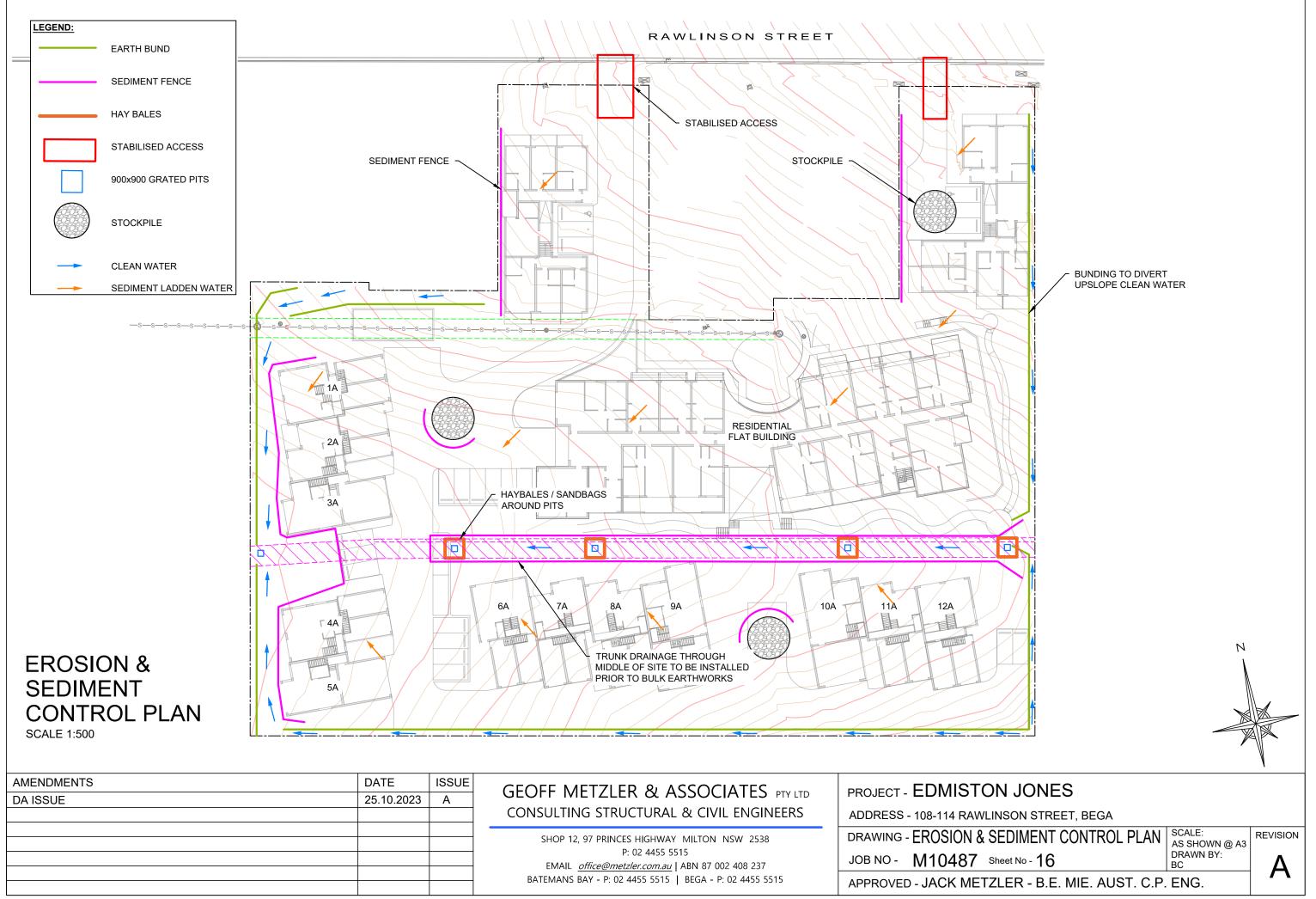


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DA ISSUE	25.10.2023	A	CONSULTING STRUCTURAL & CIVIL ENGINEERS	ADDRESS - 108-114 RAWLINS
			SHOP 12, 97 PRINCES HIGHWAY MILTON NSW 2538 P: 02 4455 5515 EMAIL <u>office@metzler.com.au</u> ABN 87 002 408 237 BATEMANS BAY - P: 02 4455 5515 BEGA - P: 02 4455 5515	DRAWING - STORMWA JOB NO - M10487 Shee APPROVED - JACK METZLE

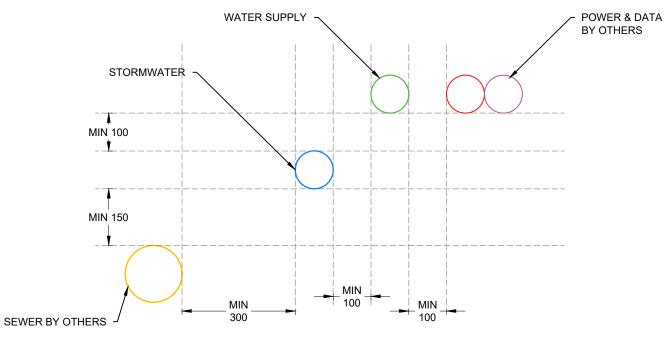


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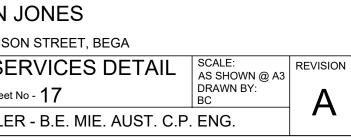


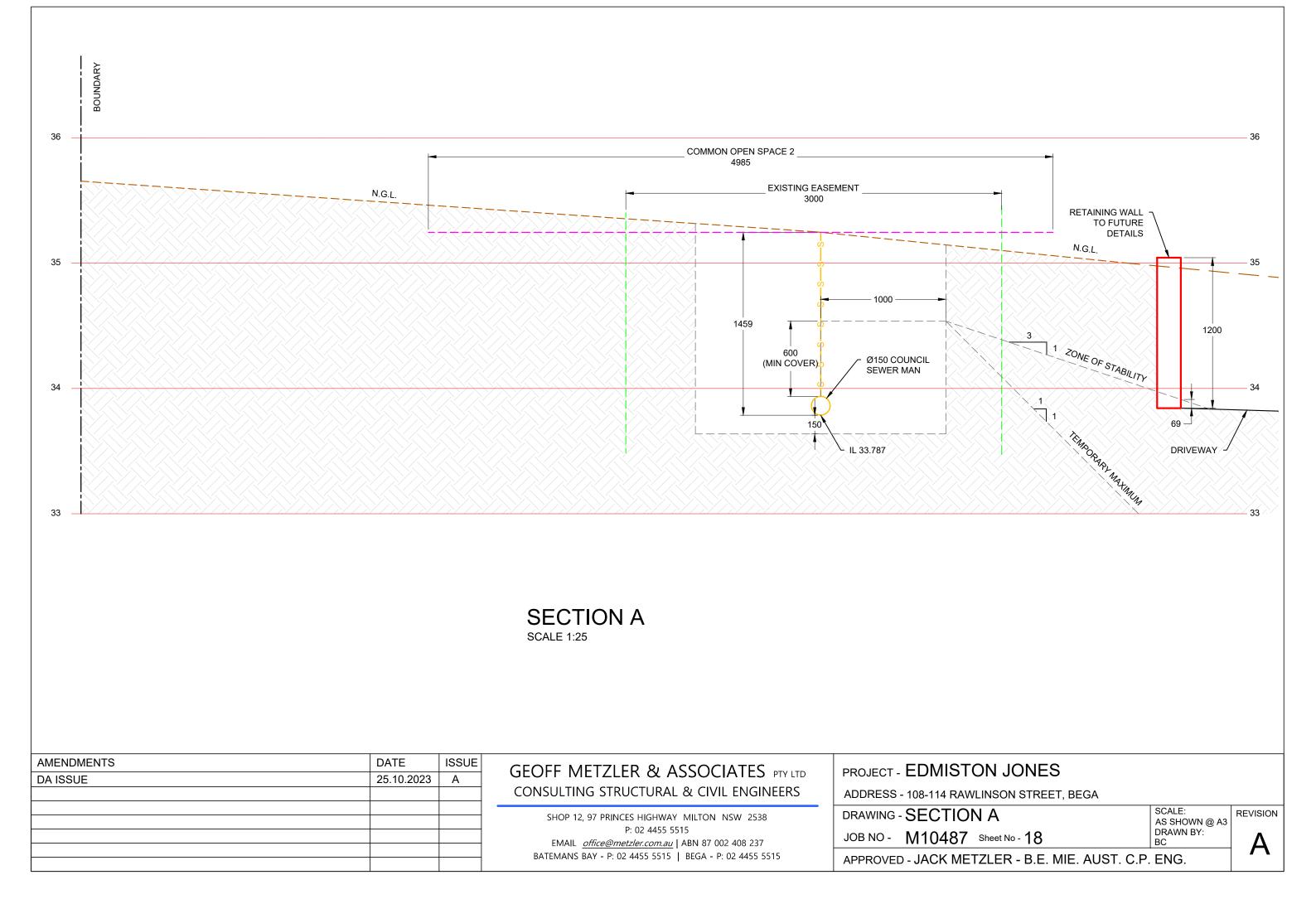
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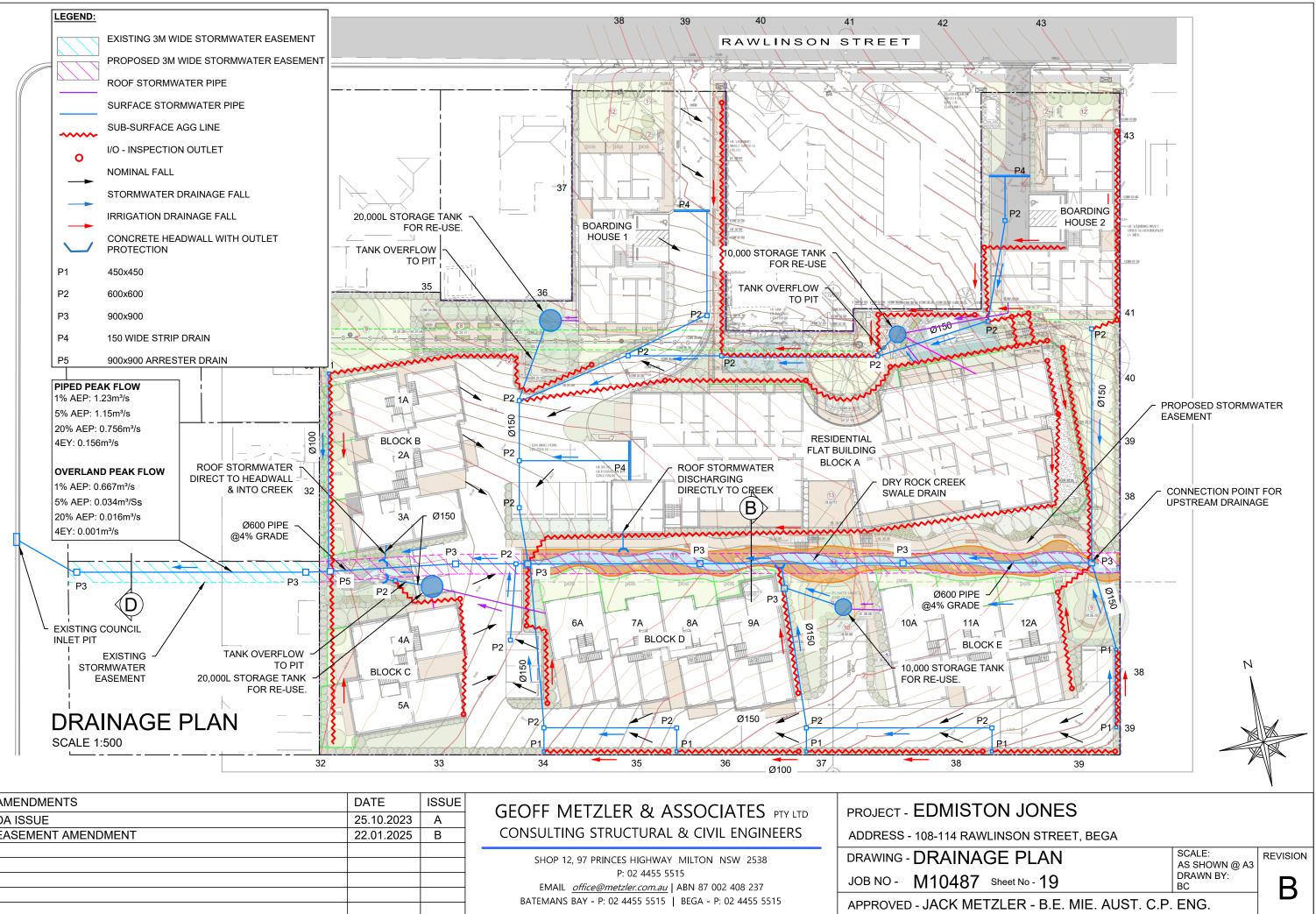


TYPICAL SHARED SERVICES TRENCH (SERVICE SPACING) SCALE 1:10

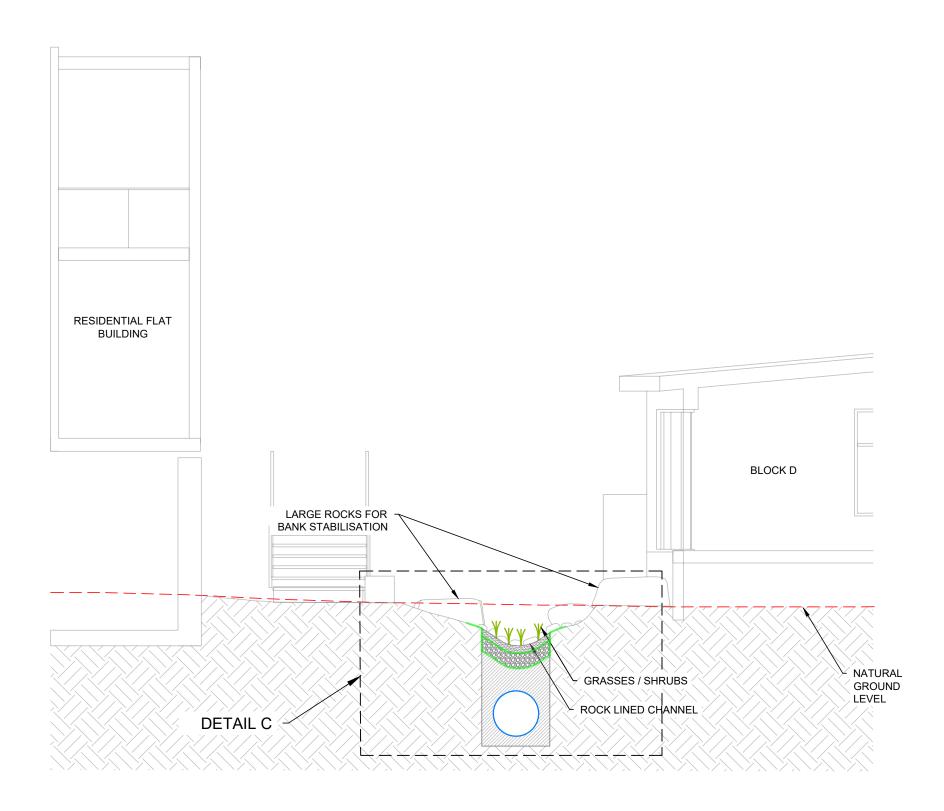
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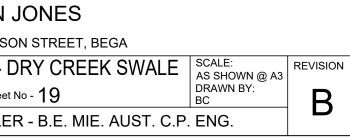


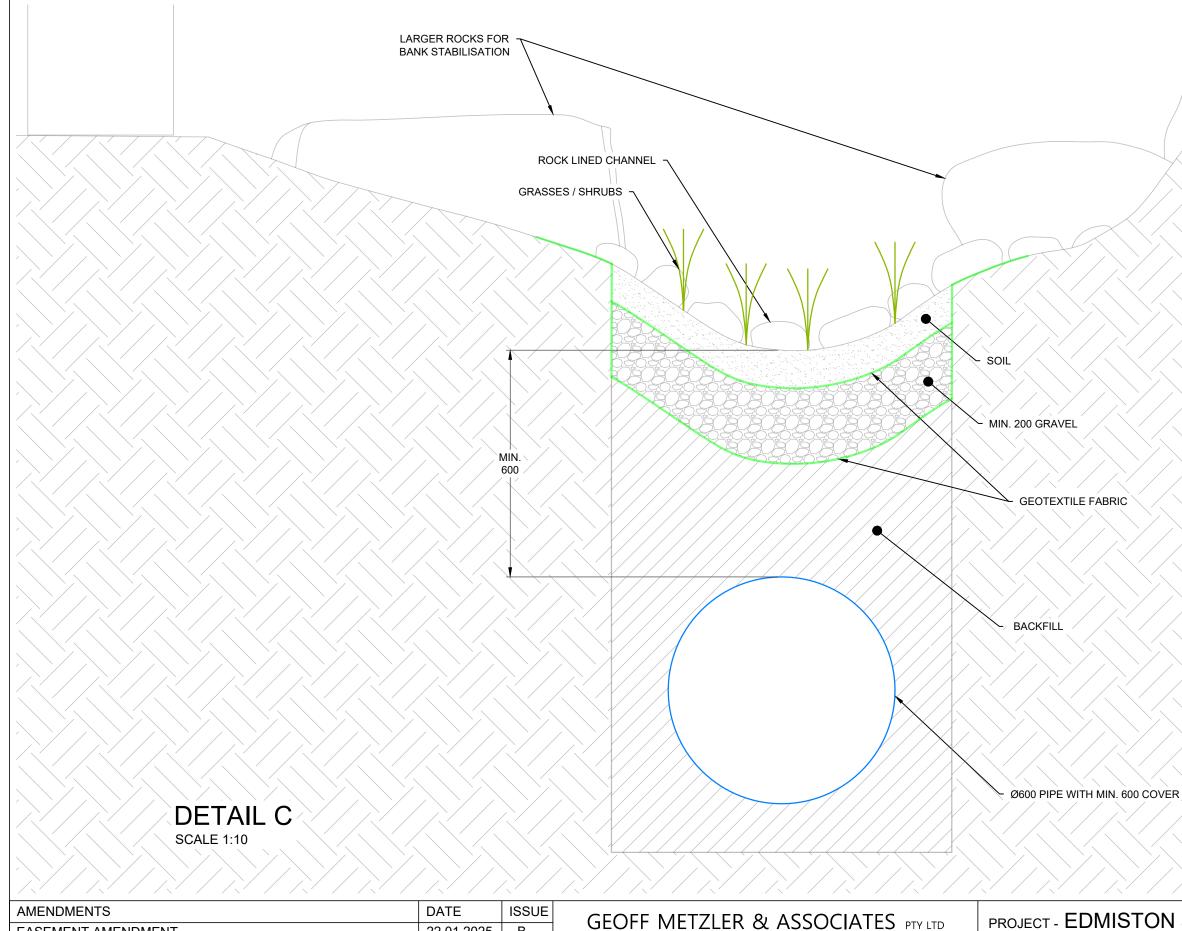
AMENDMENTS DA ISSUE EASEMENT AMENDMENT	DATE 25.10.2023 22.01.2025	ISSUE A B	GEOFF METZLER & ASSOCIATES PTY LTD CONSULTING STRUCTURAL & CIVIL ENGINEERS	PROJECT - EDMISTON
			SHOP 12, 97 PRINCES HIGHWAY MILTON NSW 2538 P: 02 4455 5515 EMAIL <u>office@metzler.com.au</u> ABN 87 002 408 237 BATEMANS BAY - P: 02 4455 5515 BEGA - P: 02 4455 5515	DRAWING - DRAINAGE JOB NO - M10487 Sheet APPROVED - JACK METZLE



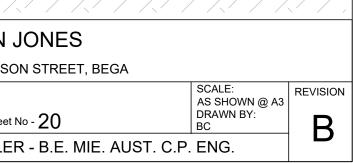
SECTION B: DRY ROCK CREEK SWALE SCALE 1:50

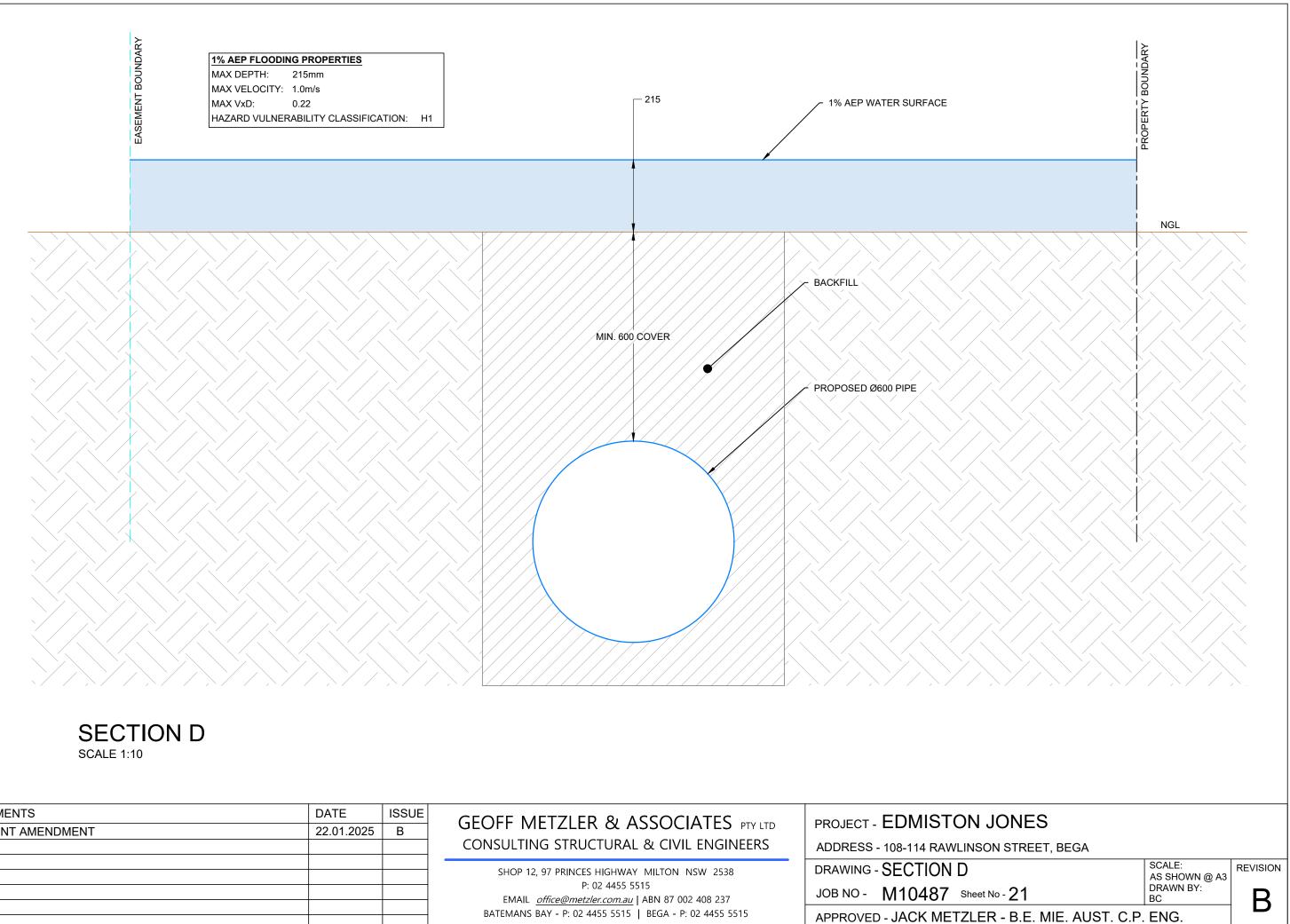
EASEMENT AMENDMENT	22.01.2025	В	GEOFF METZLER & ASSOCIATES PTY LTD CONSULTING STRUCTURAL & CIVIL ENGINEERS	PROJECT - EDMISTON ADDRESS - 108-114 RAWLINS
			SHOP 12, 97 PRINCES HIGHWAY MILTON NSW 2538 P: 02 4455 5515 EMAIL <u>office@metzler.com.au</u> ABN 87 002 408 237 BATEMANS BAY - P: 02 4455 5515 BEGA - P: 02 4455 5515	DRAWING - SECTION B - JOB NO - M10487 Shee APPROVED - JACK METZLE





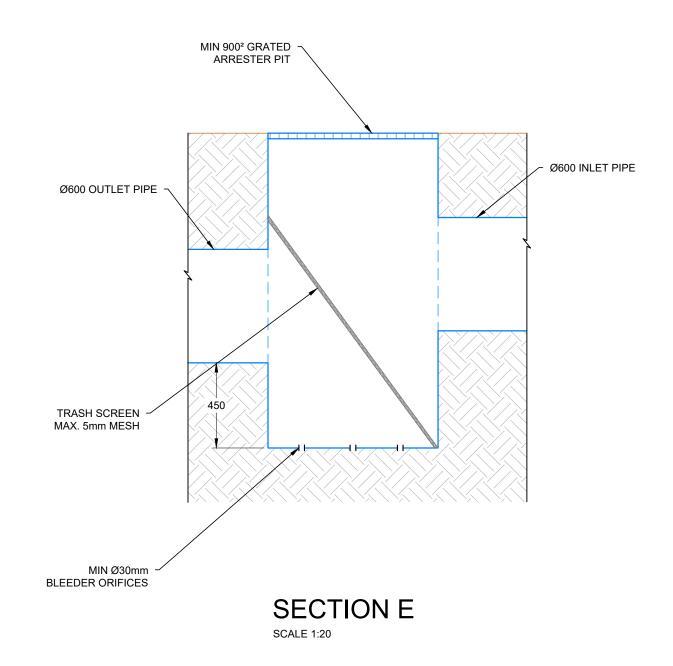
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			SHOP 12, 97 PRINCES HIGHWAY MILTON NSW 2538 P: 02 4455 5515 EMAIL <u>office@metzler.com.au</u> ABN 87 002 408 237 BATEMANS BAY - P: 02 4455 5515 BEGA - P: 02 4455 5515	DRAWING - SECTION D JOB NO - M10487 Sheet N APPROVED - JACK METZLEF



AMENDMENTS	DATE	ISSUE	GEOFF METZLER & ASSOCIATES PTY LTD	PROJECT - EDMISTON
EASEMENT AMENDMENT	22.01.2025	ZZ.01.2025 B		PROJECT - LDIVIISTON
			CONSULTING STRUCTURAL & CIVIL ENGINEERS SHOP 12, 97 PRINCES HIGHWAY MILTON NSW 2538 P: 02 4455 5515 EMAIL <u>office@metzler.com.au</u> ABN 87 002 408 237 BATEMANS BAY - P: 02 4455 5515 BEGA - P: 02 4455 5515	ADDRESS - 108-114 RAWLINS
				DRAWING - SECTION E
				JOB NO - M10487 Sheet
				APPROVED - JACK METZLE

N JONES ISON STREET, BEGA Beet No - 22 LER - B.E. MIE. AUST. C.P. ENG.