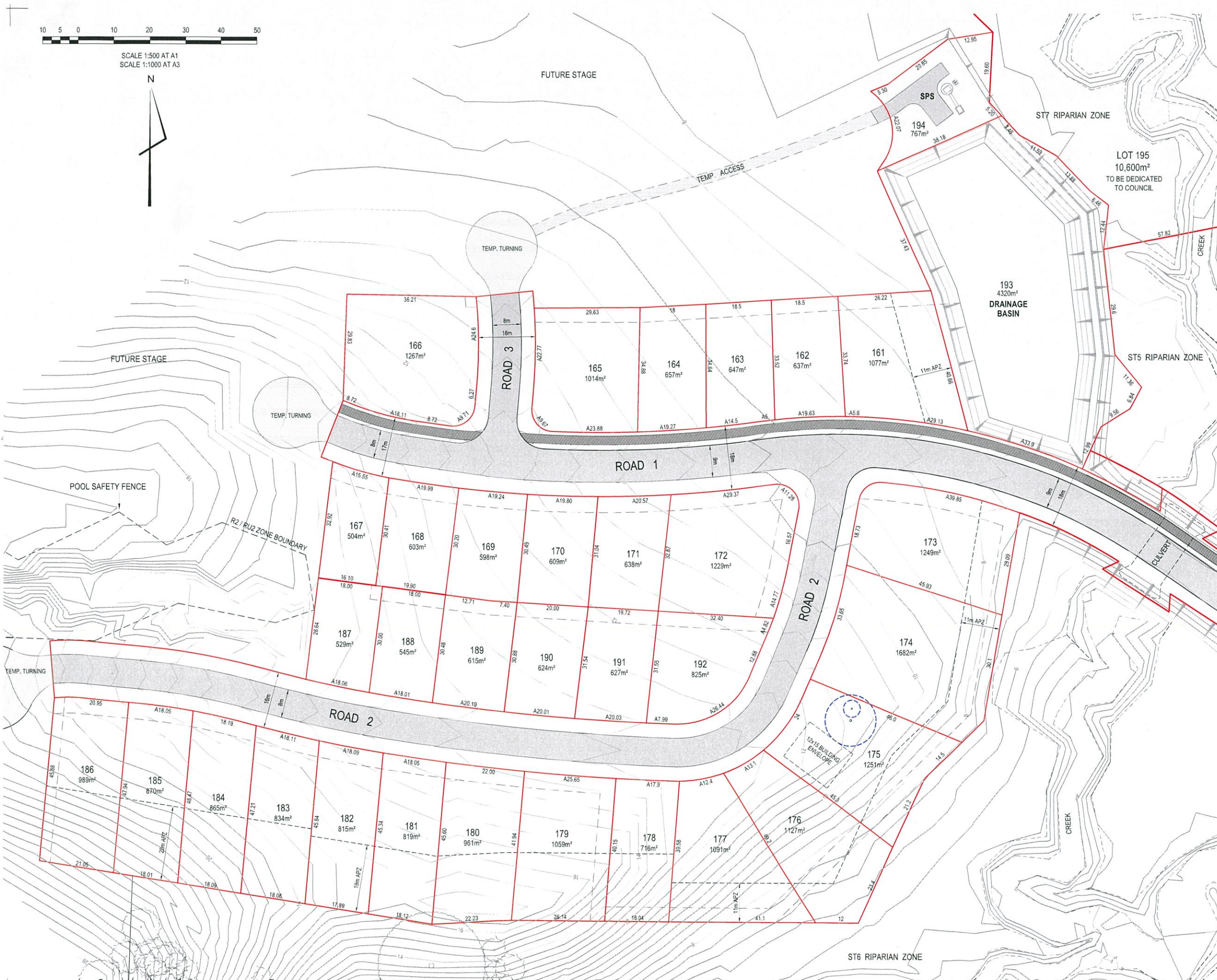
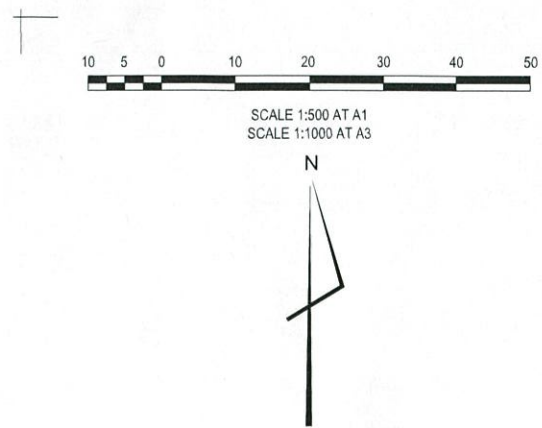




LEGEND

- LOT BOUNDARY PROPOSED
- EASEMENT FOR SERVICES
- APZ PROPOSED
- CONC. FOOTPATH PROPOSED
- TREE PROTECTION ZONE

FINAL LOT AREAS AND DIMENSIONS TO BE CONFIRMED BY CADASTRAL SURVEY AND PLAN REGISTRATION.

Iss	Description	Des	Drw	Date	Appd
D	AMEND LOT LAYOUT	WF	WF	15.03.19	
C	FOR DISCUSSION	WF	WF	20.11.18	
B	AMEND LOT LAYOUT	WF	WF	20.07.18	
A	COUNCIL SUBMISSION	WF	WF	05.06.18	

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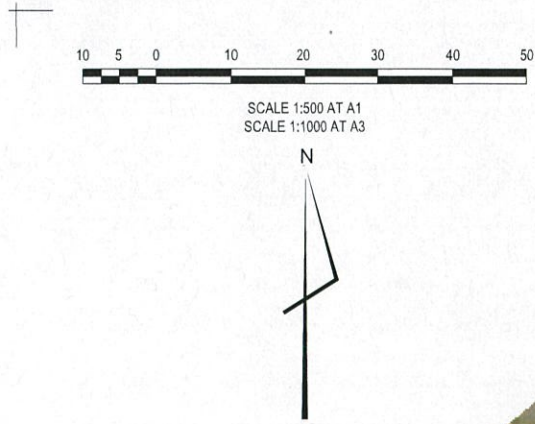
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TALLOWOOD RIDGE
STAGE 7 D.A. PLANS
32 LOT SUBDIVISION, MULLUMBIMBY

SUBDIVISION LAYOUT PLAN
0.5m FINISHED CONTOURS

Scale: 1:500 at A1, 1:1000 at A3 CAD file: 1002-DA82D.dwg
Datum: AHD CivilCAD file: 1002-ENG Stage 7.ccx



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LEGEND

LOT BOUNDARY PROPOSED

D	AMEND LOT LAYOUT	WF	WF	15.03.19
C	LAYOUT AMENDED	WF	WF	30.11.18
A	COUNCIL SUBMISSION	WF	WF	05.06.18

Iss	Description	Des	Drw	Date	Appd
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STAGE 7 D.A. PLANS
32 LOT SUBDIVISION, MULLUMBIMBY

SUBDIVISION LAYOUT PLAN
WITH AERIAL PHOTO
0.5m FINISHED CONTOURS

Scale: 1:500 at A1, 1:1000 at A3 CAD file: 1002-DA83D.dwg
Datum: AHD CivilCAD file: 1002-ENG Stage 7.ccx



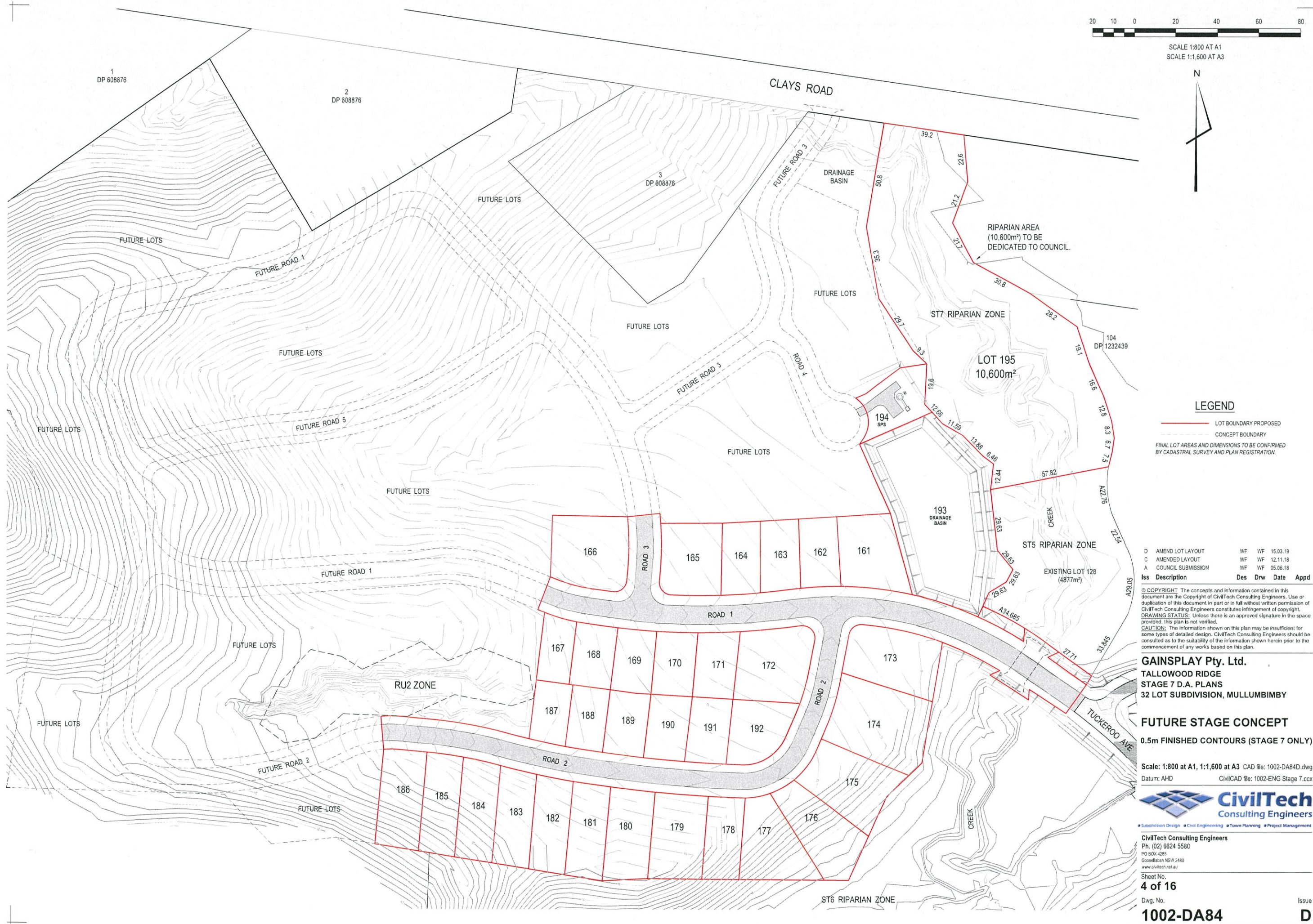
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Dwg. No.
1002-DA83

Issue
D



LEGEND

- LOT BOUNDARY PROPOSED
- CONCEPT BOUNDARY
- FINAL LOT AREAS AND DIMENSIONS TO BE CONFIRMED BY CADASTRAL SURVEY AND PLAN REGISTRATION.

Iss	Description	Des	Drw	Date	Appd
D	AMEND LOT LAYOUT	WF	WF	15.03.19	
C	AMENDED LAYOUT	WF	WF	12.11.18	
A	COUNCIL SUBMISSION	WF	WF	05.06.18	

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STAGE 7 D.A. PLANS
32 LOT SUBDIVISION, MULLUMBIMBY

FUTURE STAGE CONCEPT
0.5m FINISHED CONTOURS (STAGE 7 ONLY)

Scale: 1:800 at A1, 1:1,600 at A3 CAD file: 1002-DA84D.dwg
Datum: AHD CivilCAD file: 1002-ENG Stage 7.ccx

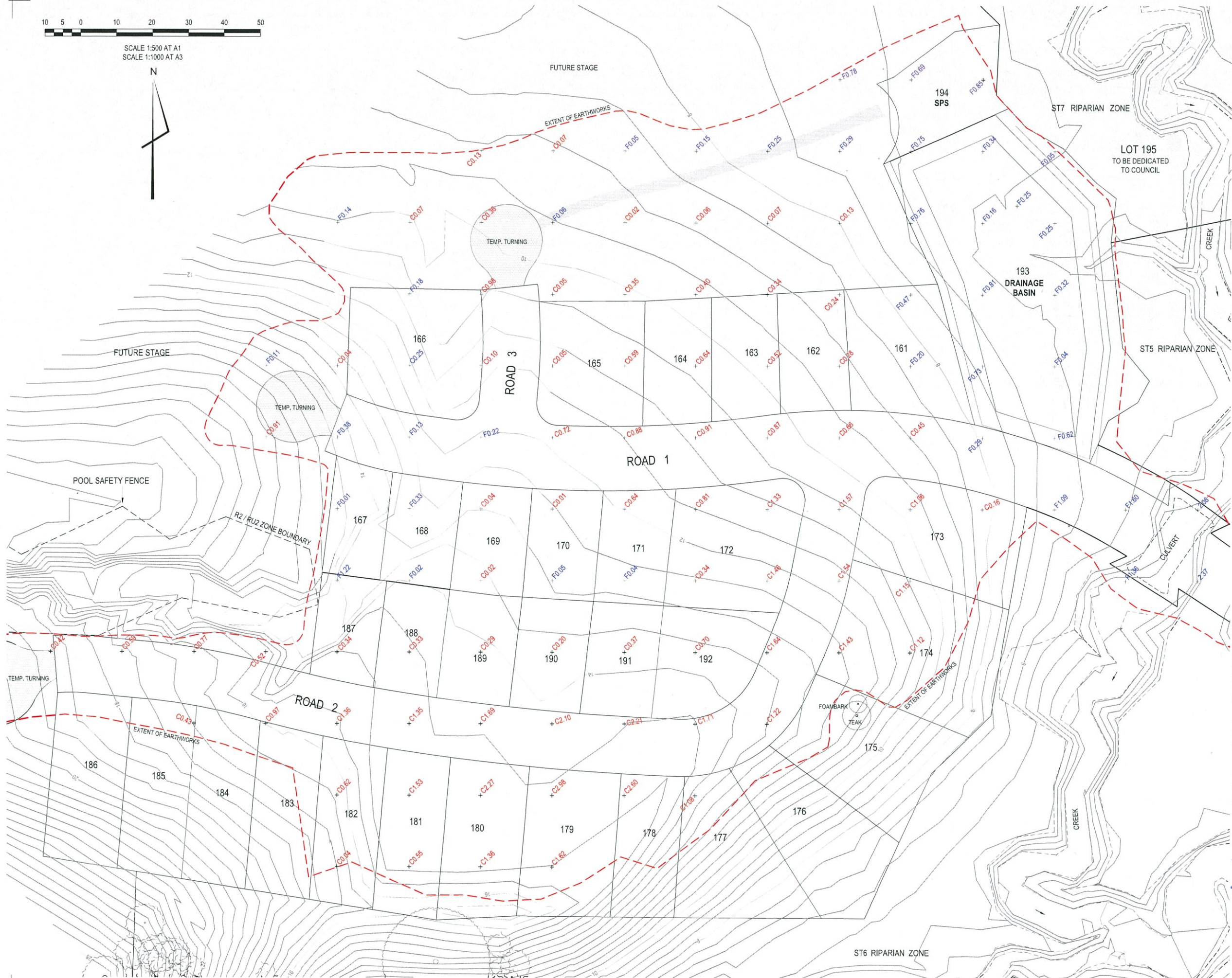
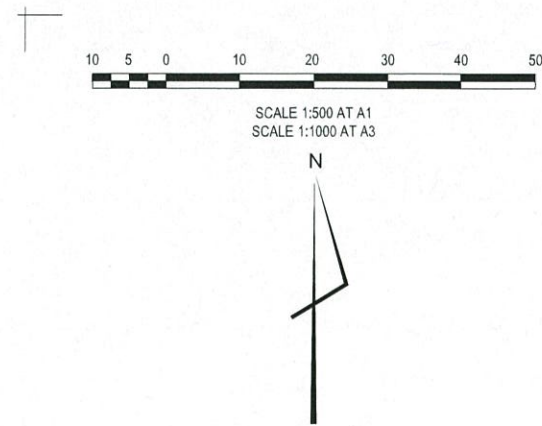


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Dwg. No.
1002-DA84

Issue
D



LEGEND

- +C0.06 CUT DEPTH
- +F0.47 FILL DEPTH
- - - - - EXTENT OF EARTHWORKS

ST7 BULK EARTHWORKS

ST7 CUT	+ 27,600m³
ST7 FILL	- 7,200m³
ST6 FILL	- 13,800m³
ST7 STOCKPILE	- 6,600m³

PRELIMINARY BULK EARTHWORKS VOLUMES ARE CALCULATED AS THE DIFFERENCE BETWEEN THE DESIGN AND EXISTING SURFACES. NO ALLOWANCE HAS BEEN MADE FOR COMPACTION, PAVEMENT, BULKING, CULVERT, STRIPPING, UNSUITABLE OR TRENCHING EFFECTS.

D	AMEND LOT LAYOUT	WF	WF	15.03.19	
C	AMENDED LAYOUT	WF	WF	30.11.18	
A	COUNCIL SUBMISSION	WF	WF	05.06.18	
Iss	Description	Des	Drw	Date	Appd

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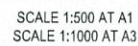
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TALLOWOOD RIDGE
STAGE 7 D.A. PLANS
32 LOT SUBDIVISION, MULLUMBIMBY

**BULK EARTHWORKS AND
CUT / FILL DEPTH PLAN**
0.5m EXISTING CONTOURS

Scale: 1:500 at A1, 1:1000 at A3 CAD file: 1002-DA85D.dwg
Datum: AHD CivilCAD file: 1002-ENG Stage 7.ccx

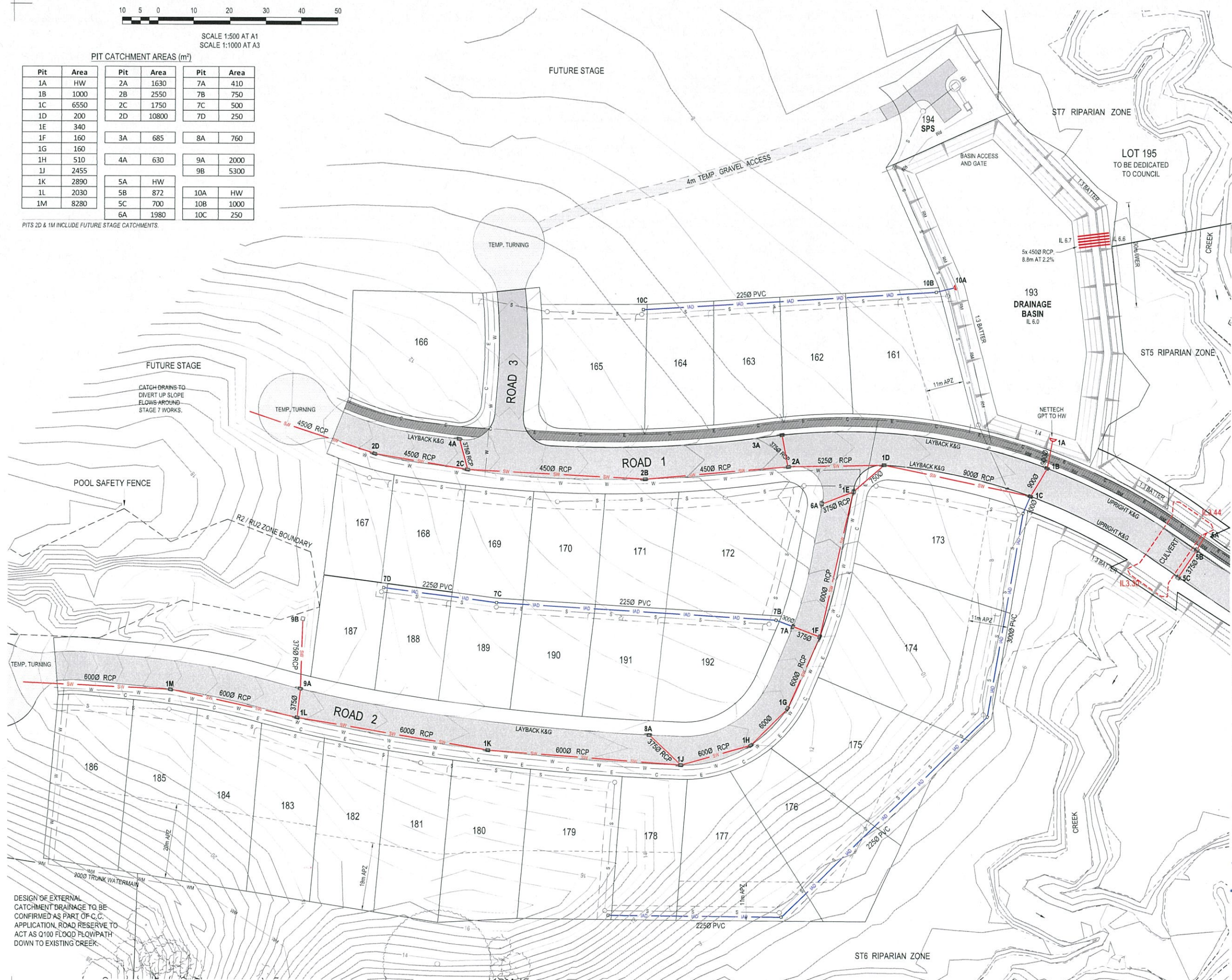


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Pit	Area	Pit	Area	Pit	Area
1A	HW	2A	1630	7A	410
1B	1000	2B	2550	7B	750
1C	6550	2C	1750	7C	500
1D	200	2D	10800	7D	250
1E	340				
1F	160	3A	685	8A	760
1G	160				
1H	510	4A	630	9A	2000
1J	2455			9B	5300
1K	2890				
1L	2030	5A	HW	10A	HW
1M	8280	5B	872	10B	1000
		5C	700	10C	250
		6A	1980		

PITS 2D & 1M INCLUDE FUTURE STAGE CATCHMENTS

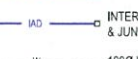


STORMWATER BASIN DETAILS

- BASIN VOLUME = 3,800 cu.m AT SPILLWAY RL 7.3
- BASIN INVERT = RL 6.0
- FILTER AREA = 2,335 sq.m
- SPILLWAY RL = 7.3
- SPILLWAY LENGTH = 30m (SEE DA91)
- TOP OF BANK RL = 7.6
- MID FLOW CULVERTS = 5x 450Ø RCP AT IL 6.7
- BATTER SLOPES = 1:3
- PERIMETER PEDESTRIAN FENCE TO BE INSTALLED.

STORMWATER PIPE SIZES, LOCATION
AND LEVELS TO BE CONFIRMED AS
PART OF DETAILED CONSTRUCTION
CERTIFICATE DESIGN.

LEGEND

- 
- SW — STORMWATER & KERB INLET PIT
 - IAD — INTER-ALLOTMENT DRAINAGE & JUNCTION PIT
 - W — 100Ø WATERMAIN (PROPOSED)
 - VM — 200Ø WATERMAIN
 - C — E — COMMS & ELEC
 - — S — SEWERMAIN AND MANHOLE (PROPOSED)
 - RM — 630PE & 100Ø PVC SEWER RISING MAINS
 - — EASEMENT FOR SERVICES
 - (930m²) — STORMWATER CATCHMENT BOUNDARY AND AREA

D	AMENDED LAYOUT	WF	WF	15.03.19	
C	AMENDED LAYOUT	WF	WF	30.11.18	
A	COUNCIL SUBMISSION	WF	WF	05.06.18	
Iss	Description	Des	Drw	Date	Appd

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TALLOWOOD RIDGE
STAGE 7 D.A. PLANS
32 LOT SUBDIVISION, MULLUMBIMBY

STORMWATER DRAINAGE & CATCHMENT PLAN

0.5m FINISHED CONTOURS

Scale: 1:500 at A1, 1:1000 at A3 CAD file: 1002-DA87C.dwg
Datum: AHD CivilCAD file: 1002-ENG Stage 7.ccx



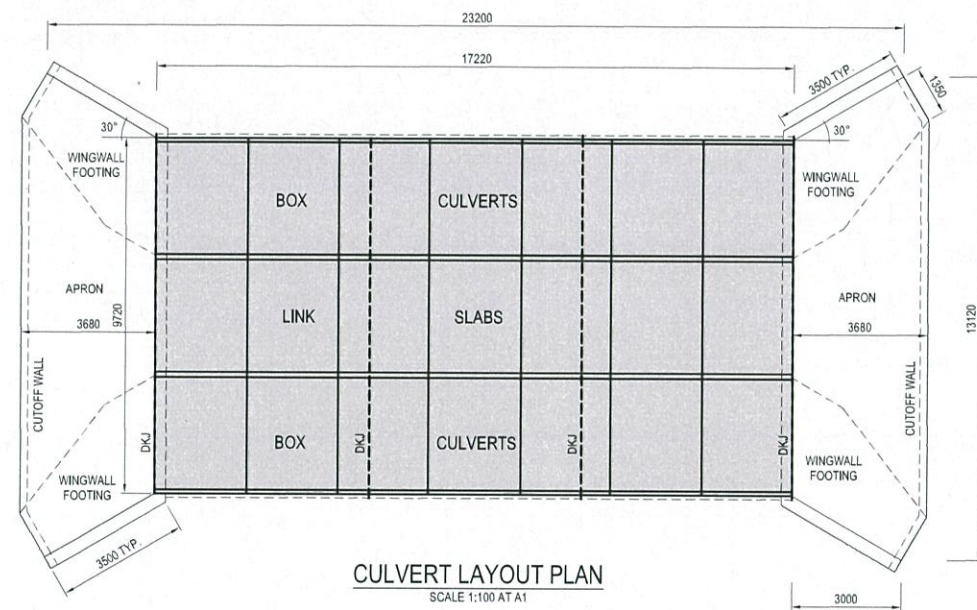
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7 of 16

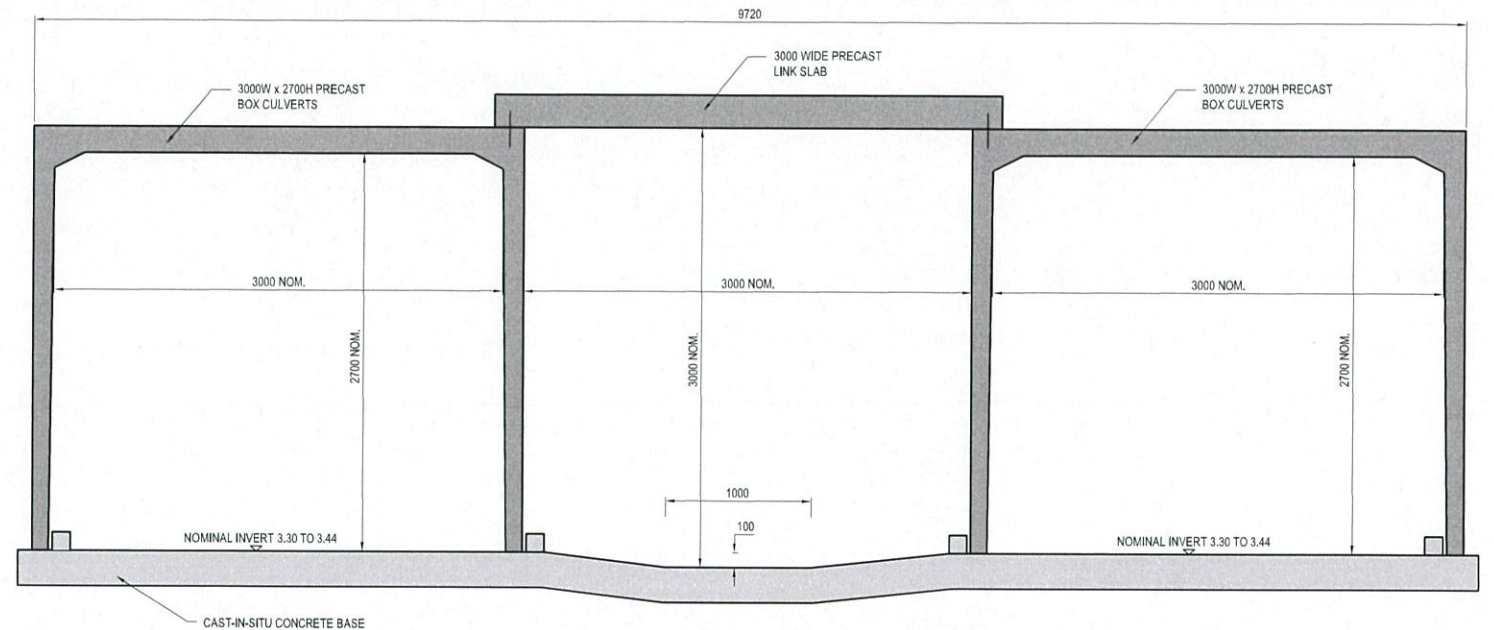
Dwg. No.
1002-DA87

sue

D



CULVERT LAYOUT PLAN
SCALE 1:100 AT A1



CULVERT TYPICAL CROSS SECTION
SCALE 1:25 AT A1

CULVERT CATCHMENT

CATCHMENT AREA = 43.1 ha
Tc = 33 MINUTES (MULLUMBIMBY RAINFALL)
100 YEAR INTENSITY = 149 mm/hr C100 = 0.84 Q = 15.0 m³/s
10 YEAR INTENSITY = 102 mm/hr C10 = 0.7 Q = 8.6 m³/s
1 YEAR INTENSITY = 57 mm/hr C1 = 0.56 Q = 3.8 m³/s

CULVERT FLOW DETAILS

	1 YEAR	10 YEAR	100 YEAR
MAX. FLOW	3.8 m³/s	8.6 m³/s	15.0 m³/s
OUTLET VELOCITY	0.39 m/s	0.87 m/s	1.53 m/s
DEPTH	0.92 m	0.99 m	1.12 m

HYDROLOGY NOTES:

- HYDROGRAPH FLOWS BASED ON ALSTONVILLE ARI DATA
- EXTENDED RATIONAL MODELING METHOD USED WITH DRAINS SOFTWARE
- CULVERT DESIGNED WITH CULVERTV SOFTWARE
- FLOOD LEVELS BASED ON ARI FLOWS NOT FLOOD BACKWATER.

Iss	Description	Des	Drw	Date	Appd
C	COUNCIL SUBMISSION	WF	WF	30.11.18	
A	COUNCIL SUBMISSION	WF	WF	05.06.18	

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STAGE 7 D.A. PLANS
32 LOT SUBDIVISION, MULLUMBIMBY

STORMWATER BASIN AND CULVERT TYPICAL SECTIONS

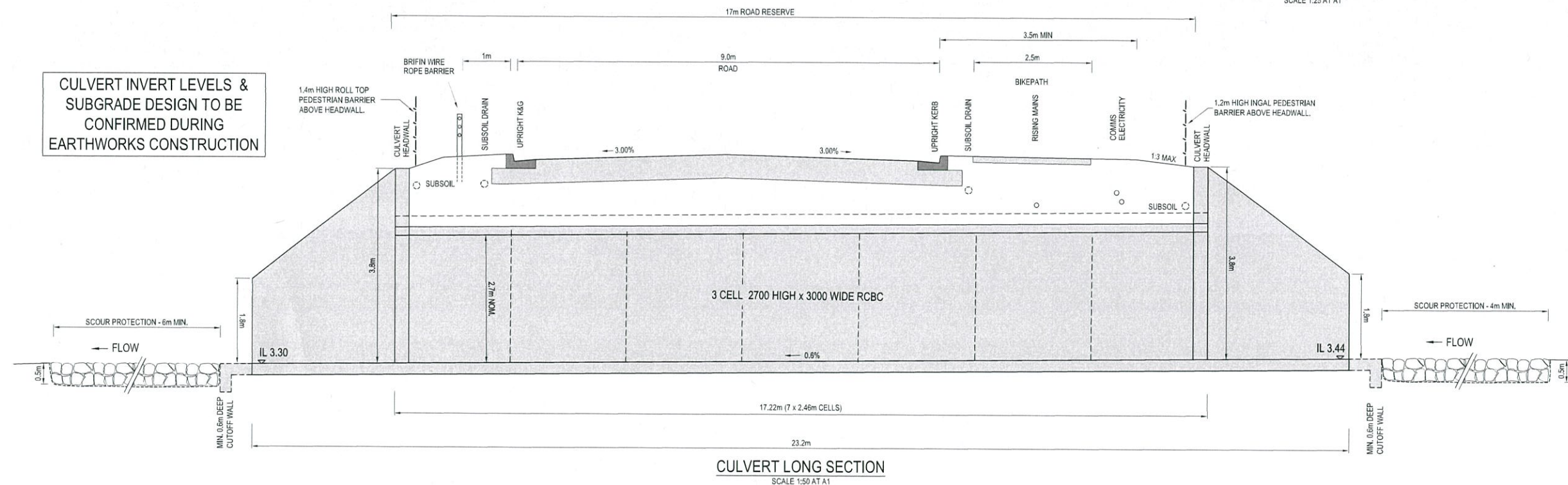
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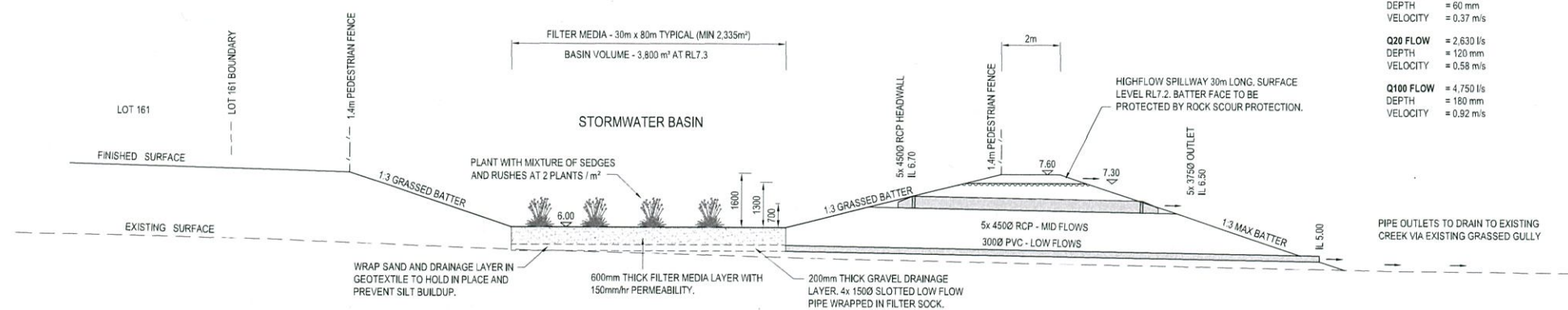
Dwg. No.
1002-DA93
Issue
C



CULVERT LONG SECTION
SCALE 1:50 AT A1

SPILLWAY FLOW CALCULATIONS

Q5 FLOW	= 810 l/s
DEPTH	= 60 mm
VELOCITY	= 0.37 m/s
Q20 FLOW	= 2,630 l/s
DEPTH	= 120 mm
VELOCITY	= 0.58 m/s
Q100 FLOW	= 4,750 l/s
DEPTH	= 160 mm
VELOCITY	= 0.92 m/s



STORMWATER BIORETENTION BASIN - TYPICAL SECTION
Not to Scale

CULVERT INVERT LEVELS &
SUBGRADE DESIGN TO BE
CONFIRMED DURING
EARTHWORKS CONSTRUCTION