From: "Craig Caplick - NEON" <Craig@consultneon.com.au>
Sent: Thu, 28 May 2026 11:20:01 +1000
To: "Dee Petersen" <deep@msc.qld.gov.au>
Cc: "Carl Ewin" <CarlE@msc.qld.gov.au>; "Brian Millard" <BrianM@msc.qld.gov.au>
Subject: RE: Request for Operational Works Application Information Confirmation - Amaroo Stage 15
Attachments: 048-2501-15-Amaroo Stage 15_260528_Add Lot 360.pdf

Hi Dee,

Thank you for the call yesterday. Please find attached updated plans with revision clouds to highlight the changes.

Regards

Craig Caplick
M:+61 402 568 698 | Craig@ConsultNeon.com.au

NEON CONSULTING

In 2023 5KF and BasePlans merged into Neon Consulting. I now use Craig@ConsultNeon.com.au as my primary email address. Craig@5KF.com.au is still monitored.

From: Dee Petersen <deep@msc.qld.gov.au>
Sent: Friday, 22 May 2026 12:58 PM
To: Craig Caplick - NEON <Craig@consultneon.com.au>
Cc: Carl Ewin <CarlE@msc.qld.gov.au>; Brian Millard <BrianM@msc.qld.gov.au>
Subject: Request for Operational Works Application Information Confirmation - Amaroo Stage 15

Hi Craig

The Operational Works Application for Stage 15 has been submitted today,

Are you able to advise that attached is the full up to date application with associated plans.

I just would like to make sure all information is correct before I submit to Tech and the Planners for assessment

Kind regards
Dee Petersen
Planning & Building Technical Support Officer

Phone: 1300 308 461 | **Direct:** 07 4086 4649
Email: deep@msc.qld.gov.au | **Website:** www.msc.qld.gov.au
65 Rankin St, Mareeba | PO Box 154, Mareeba, Queensland, Australia, 4880

Document Set ID: 4651371
Version: 1, Version Date: 28/05/2026

From: Craig Caplick - NEON <Craig@consultneon.com.au>
Sent: Monday, 23 March 2026 9:26 AM
To: Dee Petersen <deep@msc.qld.gov.au>
Subject: Amaroo - Updated with Stormwater and Pavement

Dee,

See attached

Regards

Craig Caplick
M:+61 402 568 698 | Craig@ConsultNeon.com.au

NEON
CONSULTING

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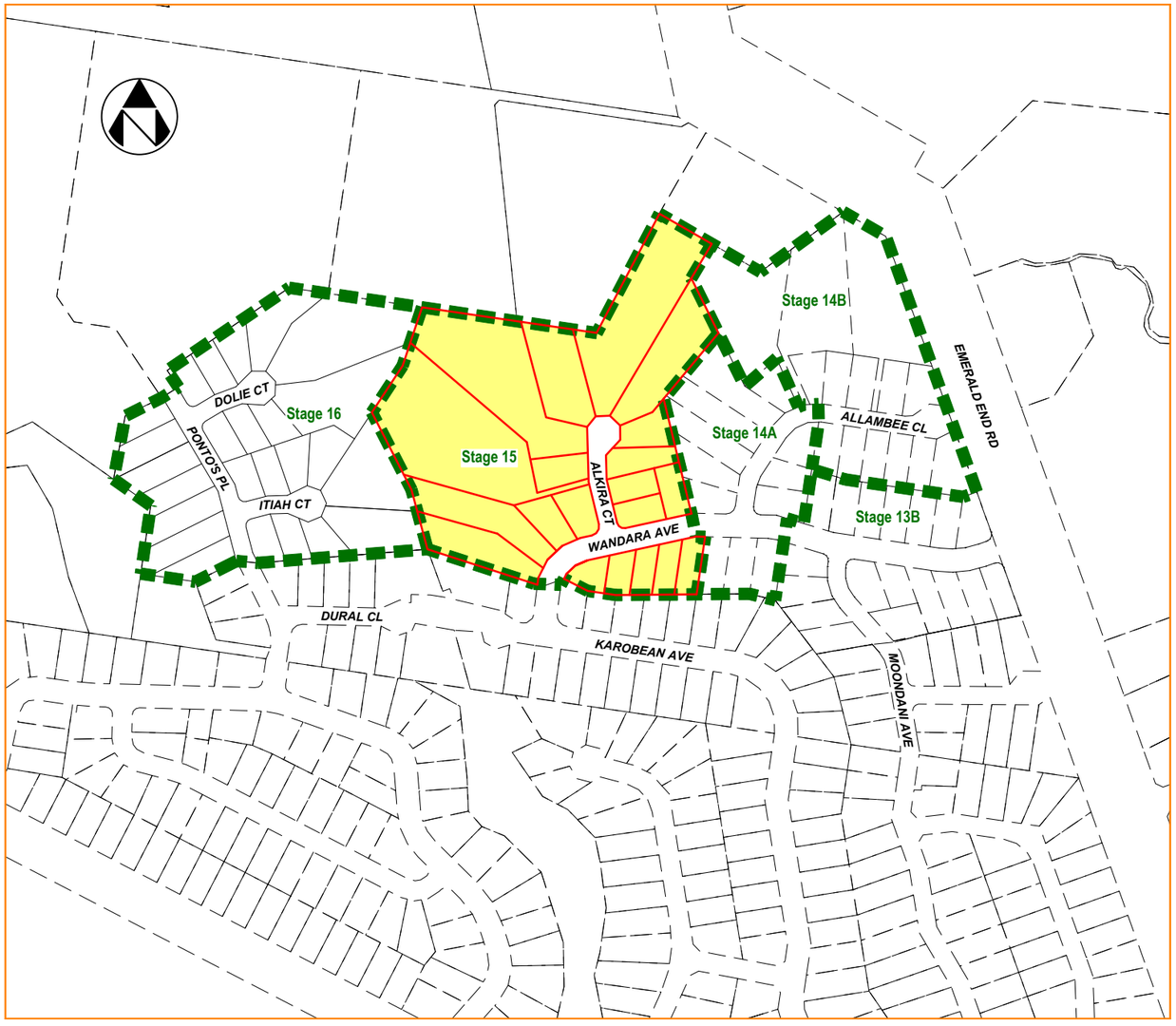
AMAROO ESTATE SUBDIVISION, MAREEBA
STAGE 15



LOCALITY PLAN
N.T.S.

DRAWING INDEX

DRAWING No.	DRAWING TITLE
048-2501-15-DRG-0101	LOCALITY PLAN
048-2501-15-DRG-0102	PROJECT NOTES
048-2501-15-DRG-0103	GENERAL ARRANGEMENT
048-2501-15-DRG-0201	EARTHWORKS PLAN
048-2501-15-DRG-0301	TYPICAL SECTIONS AND DETAILS, SHEET 1 OF 2
048-2501-15-DRG-0302	TYPICAL SECTIONS AND DETAILS, SHEET 2 OF 2
048-2501-15-DRG-0303	INTERSECTION DETAILS
048-2501-15-DRG-0401	STORMWATER DRAINAGE PLAN
048-2501-15-DRG-0402	STORMWATER DRAINAGE LONGITUDINAL SECTIONS
048-2501-15-DRG-0501	SEWERAGE PLAN
048-2501-15-DRG-0502	SEWERAGE LONGITUDINAL SECTIONS
048-2501-15-DRG-0601	WATER RETICULATION
048-2501-15-DRG-0701	SITE BASED STORMWATER MANAGEMENT PLAN, PHASE 1: TOPSOIL STRIPPING
048-2501-15-DRG-0702	SITE BASED STORMWATER MANAGEMENT PLAN, PHASE 2: EARTHWORKS
048-2501-15-DRG-0703	SITE BASED STORMWATER MANAGEMENT PLAN, PHASE 3: ROADWORKS
048-2501-15-DRG-0801	MASTER SERVICES PLAN
048-2501-15-DRG-0901	ROAD LONGITUDINAL SECTIONS, WANDARA AVENUE
048-2501-15-DRG-0902	ROAD LONGITUDINAL SECTIONS, ALKIRA COURT
048-2501-15-DRG-0903	ROAD CROSS SECTIONS, WANDARA AVENUE
048-2501-15-DRG-0904	ROAD CROSS SECTIONS, ALKIRA COURT

FNQROC STANDARD DRAWINGS

DRAWING No.	DRAWING TITLE
S1000 - S1110	ROADWORKS AND DRAINAGE
S2000 - S2025	WATER
S3000 - S3015	SEWERAGE

MAREEBA SHIRE COUNCIL STANDARD DRAWINGS

DRAWING No.	DRAWING TITLE
S2000	VALVE BOX INSTALLATION
S2005	HYDRANT BOX INSTALLATION
S2015	THRUST BLOCK DETAILS
S2020	MAIN CONNECTION DETAILS
S2060	DOMESTIC WATER SERVICE CONNECTION DETAILS

INSTITUTE OF PUBLIC WORKS ENGINEERING AUSTRALIA STANDARD DRAWINGS

DRAWING No.	DRAWING TITLE
D-0040	SEDIMENT CONTROL DEVICES - SEDIMENT FENCE, ENTRY/EXIT SEDIMENT TRAP
D-0041	SEDIMENT CONTROL DEVICES - KERB AND FIELD INLETS, CHECK DAMS & STRAW BALE BANKS

Rev	Date	Revision Notes
B	28.05.26	ADDITIONAL LOT 360 ADDED
A	30.10.25	INITIAL ISSUE

28/05/2026 10:23 AM | File: I:\NEW\048-2501\0 Drawings\15 Drawings\048-2501-15-DRG-0101_Locality.dwg

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AMAROO ESTATE SUBDIVISION
STAGE 15
LOCALITY PLAN

Drawn	Design	Check'd	Apprv'd	RPEQ: 23102	A3 Full Size (Scale as shown)		
PAM	PAM	CJC	CJC	C.J.CAPLICK	30.10.25	048-2501-15-DRG-0101	B

Document Set ID: 4651371
Version: 1, Version Date: 28/05/2026

GENERAL ARRANGEMENT

GENERAL

G1. ALL WORKS ARE TO BE IN ACCORDANCE WITH THE FNQROC DEVELOPMENT MANUAL SPECIFICATIONS S1 TO S8.

G2. CONTRACTOR TO PROVIDE PUBLIC NOTIFICATION/SIGNS (REFER FNQROC DEVELOPMENT MANUAL CP1.11).

G3. CLEARED VEGETATION SHALL BE MULCHED ON SITE BY THE CONTRACTOR.

G4. FOR CONCRETE PATHWAY DETAILS REFER FNQROC STD DRG S1035.

G5. FOR CONCRETE DRIVEWAY DETAILS REFER FNQROC STD DRG S1110.

EXISTING SERVICES

ES1. EXISTING SERVICES ARE PLOTTED FROM THE BEST INFORMATION AVAILABLE. NO RESPONSIBILITY IS TAKEN BY THE PRINCIPAL OR SUPERINTENDENT FOR THE ACCURACY AND COMPLETENESS OF THE INFORMATION SHOWN.

ES2. PRIOR TO THE COMMENCEMENT OF CONSTRUCTION THE CONTRACTOR IS TO ESTABLISH ON SITE THE EXACT POSITION OF ALL UNDERGROUND SERVICES IN THE PROPOSED WORKS AREA. METHODS FOR ACHIEVING THIS WILL INCLUDE BUT NOT BE LIMITED TO:-
- CAREFUL EXAMINATION OF THE CONTRACT DRAWINGS.
- CONSULTATION WITH THE RELEVANT SERVICE AUTHORITIES.
- COMPREHENSIVELY SCANNING THE AFFECTED AREAS WITH A CABLE DETECTOR AND MARKING ON THE GROUND THE POSITION OF ALL SERVICES.
- HAND EXCAVATING TO EXPOSE ALL SUCH SERVICES WHICH MAY BE AFFECTED BY THE PROPOSED WORKS UNDER THE DIRECTION OF THE RELEVANT SERVICE AUTHORITY.

ES3. THE CONTRACTOR IS TO BRING TO THE SUPERINTENDENT'S ATTENTION ANY DISCREPANCIES BETWEEN THE EXISTING SERVICES THUS IDENTIFIED AND DOCUMENTED SERVICES WHICH MIGHT AFFECT THE PROPOSED WORKS. APPROPRIATE MEASURES TO RESOLVE ANY CONFLICTS WILL BE DOCUMENTED BY THE SUPERINTENDENT.

VEGETATION & CLEARING

VC1. PRIOR TO THE REMOVAL OF ANY TREE. AN INSPECTION MUST BE CARRIED OUT OF ANY SIGNS OF PROTECTED WILDLIFE INCLUDING NESTS AND ANIMAL HABITATS. SHOULD ANY RECENT WILDLIFE ACTIVITY BE IDENTIFIED, REMOVAL OF THE TREE MUST NOT OCCUR UNTIL THE ANIMAL HAS VACATED THE AREA OF IMMEDIATE DANGER. IF THE ANIMAL DOES NOT MOVE FROM THE AREA OF DANGER, THE QUEENSLAND PARKS AND WILDLIFE MUST BE CONTACTED FOR ADVICE.

VC2. COUNCIL MUST BE NOTIFIED TWO DAYS PRIOR TO THE PROPOSED DATE OF COMMENCEMENT OF ANY APPROVED VEGETATION CLEARING TO FACILITATE COMMUNITY AWARENESS OF SUCH WORKS.

VC3. VEGETATION TO BE RETAINED MUST BE ADEQUATELY DEFINED BY FENCING, FLAGGING OR BARRIER MESH FOR PROTECTION PURPOSES PRIOR TO CONSTRUCTION COMMENCING ON SITE.

VC4. A MINIMUM 2m WIDE BUFFER SHALL BE PROVIDED AROUND THE VEGETATION TO BE RETAINED. THIS BUFFER MUST CONSIST OF SUITABLE FENCING, FLAGGING OR BARRIER MESH TO ENSURE THAT MACHINERY, EQUIPMENT OR CONSTRUCTION MATERIALS ARE NOT STORED OR USED WITHIN THIS AREA. THIS BUFFER IS TO BE ESTABLISHED PRIOR TO THE COMMENCEMENT OF ANY WORKS ON SITE AND MUST BE MAINTAINED AT ALL TIMES FOR THE DURATION OF CONSTRUCTION.

VC5. CLEARED VEGETATION TO BE MULCHED AND SPREAD OVER THE CLEARED AREA FOR EROSION AND SEDIMENT CONTROL OR LANDSCAPING PURPOSES.

EARTHWORKS

E1. ALL BATTERS TO ROAD FRONTAGES OF LOTS ARE 1 ON 4 OR FLATTER. ALL OTHER BATTERS ARE 1 0N 1 U.N.O.

E2. UPON COMPLETION ALL BATTERS STEEPER THAN 1 IN 2 AND HIGHER THAN 1.5m SHALL REQUIRE CERTIFICATION BY A GEOTECHNICAL ENGINEER.

E3. BATTERS TO BE ADJUSTED LOCALLY AROUND SEWER MANHOLES. REFER DRG-0302 FOR DETAILS.

INTERSECTION DETAILS

I1. ALL KERB SETOUT DETAILS REFER TO THE LIP OF KERB AND CHANNEL OR FACE OF KERB.

STORMWATER DRAINAGE

D1. FOR STANDARD STORMWATER DRAINAGE DETAILS REFER FNQROC STD. DRGS. S1045-S1100 INCLUSIVE.

D2. SUBSURFACE DRAINS TO BE CONSTRUCTED IN ACCORDANCE WITH STANDARD SPECIFICATION, FLUSHING POINTS IN ACCORDANCE WITH FNQROC STD DRG S1095.

D3. PRIOR TO COMMENCEMENT OF PIPEWORK, THE CONTRACTOR IS TO CONFIRM THE INVERT LEVEL OF DOWNSTREAM DRAINAGE TO ENSURE THE STORMWATER SYSTEM CAN DRAIN SATISFACTORILY. REFER ANY DISCREPANCY TO THE SUPERINTENDENT.

D4. CCTV INSPECTIONS ARE TO BE CONDUCTED FOR ALL NEW STORMWATER PIPES FOR COUNCIL ASSESSMENT.

D5. ALL STORMWATER PIPES SHALL BE EITHER REINFORCED CONCRETE PIPE (RCP) OR POLYPROPOLENE (PP). RCP PIPES SHALL BE CLASS 2 FJ UNLESS NOTED OTHERWISE. PP PIPES SHALL BE BLACKMAX OR STORMPRO. REFER DRG-0302 FOR PP BEDDING DETAILS.

SEWERAGE

S1. ALL SEWER PIPES SHALL BE 150Ø uPVC CLASS 'S.N.8.' (U.N.O.).

S2. FOR STANDARD DETAILS OF SEWER MAINS, ETC. REFER FNQROC STD. DRGS. S3000 TO S3015 INCLUSIVE.

S3. ALL WORKS ARE TO BE IN ACCORDANCE WITH FNQROC DEVELOPMENT MANUAL SPECIFICATION S6.

S4. CONNECTIONS TO EXISTING COUNCIL MAINS TO BE MADE BY COUNCIL.

S5. CCTV INSPECTIONS ARE TO BE CONDUCTED FOR ALL NEW SEWERS FOR COUNCIL ASSESSMENT.

S6. MANHOLES ADJACENT ROAD BOUNDARIES SHALL BE ON A 1.5m ALIGNMENT U.N.O. MANHOLES ADJACENT SIDE AND REAR BOUNDARIES SHALL BE ON A 0.8m ALIGNMENT U.N.O.

S7. SEWER MANHOLES SHALL BE FINISHED 50mm MAX ABOVE FINISHED SURFACE LEVEL IN ALLOTMENTS AND FLUSH IN ROAD RESERVES.

S8. HOUSE DRAINS ARE TO EXTEND 1.5m CLEAR OF ANY EARTHWORKS BATTER THAT IS STEEPER THAN 1 ON 2 AND OVER 1.5m HIGH. AN INSPECTION OPENING IS TO BE PROVIDED AT THE DOWNSTREAM END OF ANY EXTENDED HOUSE DRAIN.

S9. ALL HOUSE CONNECTION BRANCHES ARE REQUIRED TO BE BROUGHT TO WITHIN A MAXIMUM OF 300mm OF THE FINISHED SURFACE LEVEL AND A GLUED CAP INSTALLED. THE RISER MUST BE CONNECTED TO A MARKER PEG WITH PLASTIC COATED WIRE. THE MARKER PEG IS TO BE OF HARDWOOD MATERIAL, PROTRUDING 20mm ABOVE THE GROUND AND SHALL BE INSTALLED IMMEDIATELY ADJACENT TO THE RISER IN ACCORDANCE WITH FNQROC DRAWING S3005.

S13. ALL VERTICAL DROPS SHALL BE CONSTRUCTED USING FIBREGLASS HEAVY DUTY DEEP SEWER DROPS.

WATER

W1. ALL WATER MAINS ARE ON A 2.8m ALIGNMENT FROM BOUNDARY U.N.O.

W2. FOR STANDARD DETAILS REFER FNQROC. STD. DRGS. S2000 TO S2035 INCLUSIVE, AND MSC STD DRGS S2000 TO S2060.

W3. ALL WORKS ARE TO BE IN ACCORDANCE WITH FNQROC DEVELOPMENT MANUAL SPECIFICATION S5.

W4. CONNECTIONS TO EXISTING COUNCIL MAINS TO BE MADE BY COUNCIL AND REQUIRE 30 DAYS NOTICE.

W5. PROVIDE 80mm PVC-U CLASS 6 CONDUIT UNDER CONCRETE FOOTPATH FOR WATER SERVICES AS PER FNQROC STD DRG S2038. FINAL LOCATION OF CONDUITS TO BE CONFIRMED ONCE ERGON PILLAR BOX LOCATIONS ARE AVAILABLE.

W6. TEARDROP MARKERS AND BLUE RETRO REFLECTIVE MARKERS TO BE IN ACCORDANCE WITH FNQROC STD DRG S2010 REVISION B.

W7. PROVIDE A COMPRESSIBLE LAYER BETWEEN ALL EXISTING AND PROPOSED HYDRANT OR VALVE SURROUNDS WITHIN AREAS OF CONCRETE.

EROSION AND SEDIMENT CONTROL STRATEGY

SC1. SEQUENCING OF CONTROL MEASURES
a) INSTALL STABLE POINT OF ENTRY
b) INSTALL SILT FENCES
c) PROTECT TOPSOIL STOCKPILES
d) CONSTRUCT TEMPORARY SEDIMENT BASINS
e) INSTALL STORMWATER PIPES
f) IMPLEMENT PROTECTION MEASURES TO STORMWATER PITS
g) REVEGETATE BARE AREAS UPON COMPLETION OF EARTHWORKS
h) THE SEDIMENT CONTROL STRUCTURES ARE TO BE CLEANED & MAINTAINED AFTER EVERY SIGNIFICANT RAIN EVENT. ERODED SOILS SHALL BE STOCKPILED AS DIRECTED.

SC2. THE AMOUNT OF DISTURBANCE TO EXISTING VEGETATION BE KEPT TO A MINIMUM.

SC3. EXACT LOCATION OF SEDIMENT CONTROL STRUCTURES TO BE DETERMINED ON SITE BY COUNCIL & SUPERINTENDENT.

SC4. STOCKPILE LOCATIONS TO BE AGREED WITH COUNCIL & THE SUPERINTENDENT. STOCKPILES TO BE PROTECTED VIA DIVERSION DRAIN ON THE UPSLOPE & SILT FENCE ON THE DOWNSLOPE.

SC5. RETURNS IN SILT FENCE TO BE AT 20m INTERVALS WHEN INSTALLED ALONG THE CONTOUR. SPACING IS TO DECREASE TO 5-10m DEPENDING ON SLOPE IF THE SILT FENCE IS INSTALLED AT AN ANGLE TO THE CONTOUR. THE RETURN SHALL CONSIST OF EITHER:
- V-SHAPED SECTION EXTENDING AT LEAST 1.5m UP THE SLOPE; OR
- SANDBAG OR ROCK/AGGREGATE CHECK DAM A MINIMUM OF 1/3 AND MAXIMUM OF 1/2 FENCE HEIGHT, AND EXTENDING AT LEAST 1.5m UP THE SLOPE.

SC6. STORMWATER PIPES TO HAVE PIT PROTECTION MEASURES AS DETAILED IN FNQROC DEVELOPMENT MANUAL.

SC7. ALL SEDIMENT CONTROL MEASURES TO BE IN ACCORDANCE WITH THE CONTRACTORS ESC PLAN.

SC8. THE FOLLOWING REVEGETATION MEASURES ARE TO BE UNDERTAKEN IMMEDIATELY UPON COMPLETION OF EARTHWORKS.
a) CUT & FILL BATTERS STEEPER THAN 1 IN 4 TO BE HYDROMULCHED.
b) VERGES & ALLOTMENTS TO BE GRASS SEEDED.
c) PLACE TURF STRIPS BEHIND ALL KERB LINES.

SC9. REVEGETATION IS TO BE WATERED & MAINTAINED UNTIL GROWTH IS ESTABLISHED.

SC10. CONTRACTOR MUST IMPLEMENT A SUITABLE DUST MANAGEMENT STRATEGY TO MINIMISE DUST NUISANCE ON ADJACENT PROPERTIES. DETAILS OF THE DUST MANAGEMENT STRATEGY TO BE INCORPORATED INTO EROSION AND SEDIMENT CONTROL STRATEGY.

SC11. SEDIMENT BASIN
a) INLET PROTECTION TO MINIMISE SCOUR & EVENLY DISTRIBUTE FLOW THROUGH BASIN.
b) A MARKER PEG SHOULD BE INSTALLED TO SHOW THE STORAGE DEPTH. SEDIMENT SHALL BE REMOVED FROM BASIN WHEN 30% STORAGE DEPTH IS ENCROACHED & APPROPRIATELY DISPOSED ON SITE BY RESPREADING IN AREAS OF NON-EROSIVE FLOWS.

SC12. WATER QUALITY MONITORING SHOULD BE UNDERTAKEN DURING SIGNIFICANT RAINFALL EVENTS (I.E. > 10mm).

SC13. DESIGN CRITERIA FOR CONTRACTOR'S EROSION & SEDIMENT CONTROL PLAN TO BE IN ACCORDANCE WITH SECTION CP1.05 OF THE FNQROC DEVELOPMENT MANUAL.

SURVEY AND SETOUT

SS1. SURVEY, DATUM, LEVELS & SERVICES HAVE BEEN DERIVED FROM STAGE 14 CAD AND DATA FILES.

SS2. DIGITAL CAD FILES OF THE CIVIL WORKS WILL BE PROVIDED FOR SETOUT PURPOSES.

Rev	Date	Revision Notes
A	30.10.25	INITIAL ISSUE

28/05/2026 10:42:24 AM - C:\Neon\048-2501\Engineering\15 Drawings\048-2501-15-DRG-0102_Notes.dwg

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AMAROO ESTATE SUBDIVISION
STAGE 15
PROJECT NOTES

Drawn	Design	Check'd	Appn'd	RPEQ 25102	A3 Full Size (Scale as shown)		
PAM	PAM	CJC	CJC	C.J.CAPLICK	30.10.25	048-2501-15-DRG-0102	A

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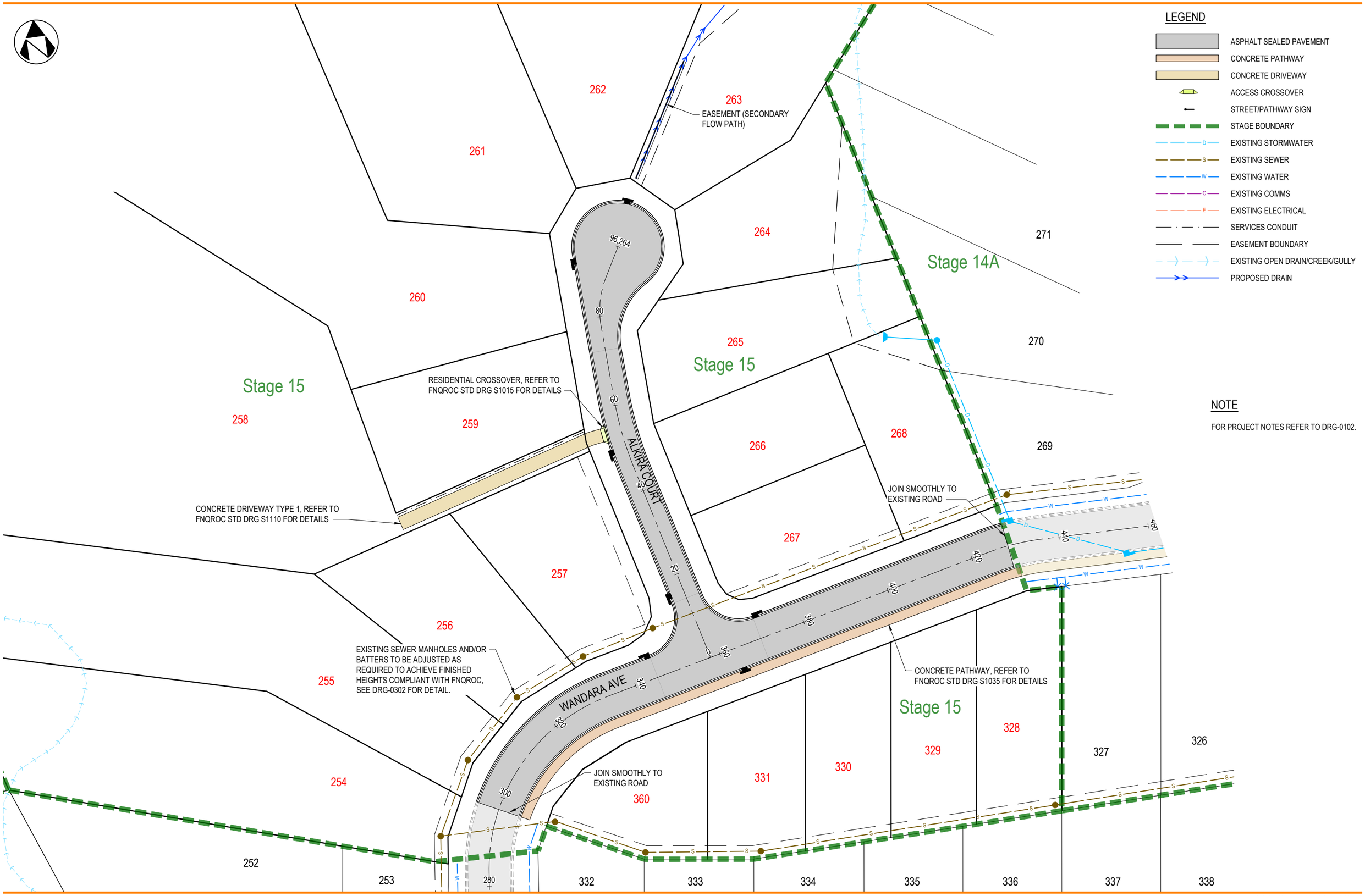
Version: 1, Version Date: 28/05/2026



NOTE

FOR PROJECT NOTES REFER TO DRG-0102.

Rev	Date	Revision Notes
C	28.05.26	ADDITIONAL LOT 360 ADDED
B	23.12.25	STORMWATER REVISED
A	30.10.25	INITIAL ISSUE

28/05/2026 10:16 AM File: I:\2025\048-2501\0 Drawings\15 Drawings\048-2501-15-DRG-0103_GA.dwg

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AMAROO ESTATE SUBDIVISION
STAGE 15
GENERAL ARRANGEMENT

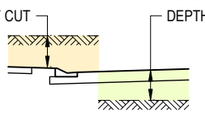
Drawn	Design	Check'd	Appr'd	RPEQ: 25102	A3 Full Size (Scale as shown)		
PAM	PAM	CJC	CJC	C.J.CAPLICK	30.10.25	048-2501-15-DRG-0103	C

Document Set ID: 4651371
Version: 1, Version Date: 28/05/2026

LEGEND - DEPTH OF EARTHWORKS

LESS THAN 0.5m	
0.5m TO 1.0m	
1.0m TO 1.5m	
1.5m TO 2.0m	
2.0m TO 2.5m	
2.5m TO 3.0m	
MORE THAN 3.0m	

DEPTH OF CUT — DEPTH OF FILL



LEGEND

- 18.70 — FINISHED SURFACE LEVEL
- 18.68 — NATURAL SURFACE LEVEL
- FALL OF LOTS
- STAGE BOUNDARY
- 57.0 — DESIGN SURFACE CONTOURS (0.2m INTERVAL)
- 57.0 — EXISTING SURFACE CONTOURS (0.5m INTERVAL)
- D — EXISTING STORMWATER
- S — EXISTING SEWER
- W — EXISTING WATER
- C — EXISTING COMMS
- E — EXISTING ELECTRICAL
- EASEMENT BOUNDARY
- PROPOSED DRAIN
- EXISTING OPEN DRAIN/CREEK/GULLY

NOTE

FOR PROJECT NOTES REFER TO DRG-0102.

1:750 0 7.5 15 22.5 30

Rev	Date	Revision Notes
B	28.05.26	ADDITIONAL LOT 360 ADDED
A	30.10.25	INITIAL ISSUE

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AMAROO ESTATE SUBDIVISION
STAGE 15
EARTHWORKS PLAN

Drawn	Design	Check'd	Appv'd	RPEQ: 25102	A3 Full Size (Scale as shown)		
PAM	PAM	CJC	CJC	C.J.CAPLICK	30.10.25	048-2501-15-DRG-0201	B

Document Set ID: 4651371
Version: 1, Version Date: 28/05/2026

CONTROL LINE WANDARA AVE SETOUT

CHAINAGE	COORDINATES		BEARING	RADIUS OF	TANGENT	ARC
	EASTING	NORTHING	DEG MIN SEC	CURVATURE	LENGTH	LENGTH
283.082	333707.335	8120859.819	7° 14' 32"	41.000		
IP 308.281	333710.984	8120888.526	-	41.000	28.939	50.399
333.481	333739.255	8120894.705	77° 40' 21"	STRAIGHT		
424.047	333827.733	8120914.041	77° 40' 21"	51.000		
IP 430.151	333833.725	8120915.350	-	51.000	6.133	12.207
436.254	333839.855	8120915.202	91° 23' 10"	STRAIGHT		

CONTROL LINE ALKIRA COURT SETOUT

CHAINAGE	COORDINATES		BEARING	RADIUS OF	TANGENT	ARC
	EASTING	NORTHING	DEG MIN SEC	CURVATURE	LENGTH	LENGTH
0.000	333763.039	8120899.902	346° 23' 10"	STRAIGHT		
45.386	333752.356	8120944.013	346° 23' 10"	80.000		
IP 53.763	333750.377	8120952.185	-	80.000	8.408	16.755
62.141	333750.140	8120960.590	358° 23' 10"	STRAIGHT		
77.950	333749.695	8120976.393	358° 23' 10"	20.000		
IP 83.414	333749.537	8120981.995	-	20.000	5.604	10.928
88.878	333752.313	8120986.863	29° 41' 33"	STRAIGHT		
96.264	333755.972	8120993.279	29° 41' 33"	STRAIGHT		

TABLE OF WIDTHS

ROAD	CARRIAGEWAY WIDTH (m)	VERGE WIDTH (m)		RESERVE WIDTH (m)
		LHS	RHS	
WANDARA AVE	10.00	5.00	5.00	20.00
ALKIRA CT	6.50	4.50	4.50	15.50

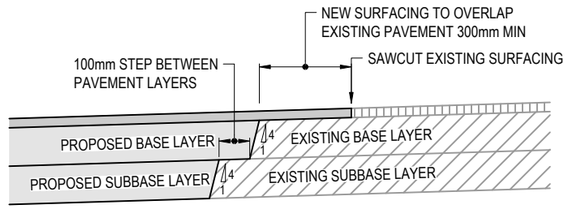
PROVISIONAL PAVEMENT DETAILS

LOCATION	SURFACING	BASE COURSE	SUBBASE COURSE
WANDARA AVE	30mm ASPHALT	150mm THICK CBR 60 MIN	130mm THICK CBR 45 MIN
ALKIRA CT	30mm ASPHALT	110mm THICK CBR 60 MIN	140mm THICK CBR 45 MIN

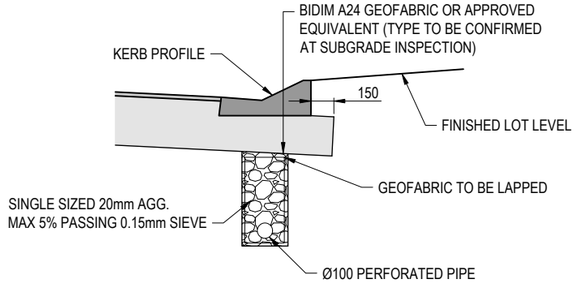
NOTES
PROVISIONAL PAVEMENT DESIGN IS BASED ON AN ASSUMED SUBGRADE SOAKED CBR OF 6. THE CONTRACTOR IS TO CONFIRM SUBGRADE CBR DURING CONSTRUCTION AND THE PAVEMENT DESIGN MAY BE AMENDED ACCORDINGLY BY THE COUNCIL.

B

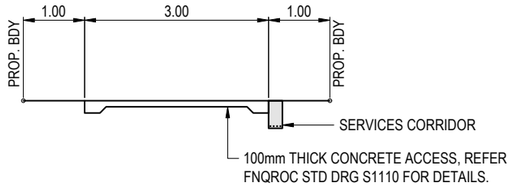
ASPHALT SURFACING TO BE INCREASED TO 50mm AT CUL-DE-SAC.
REFER DRG. DRG-0303 FOR LOCATION.



TYPICAL JOIN TO EXISTING ROAD
N.T.S.

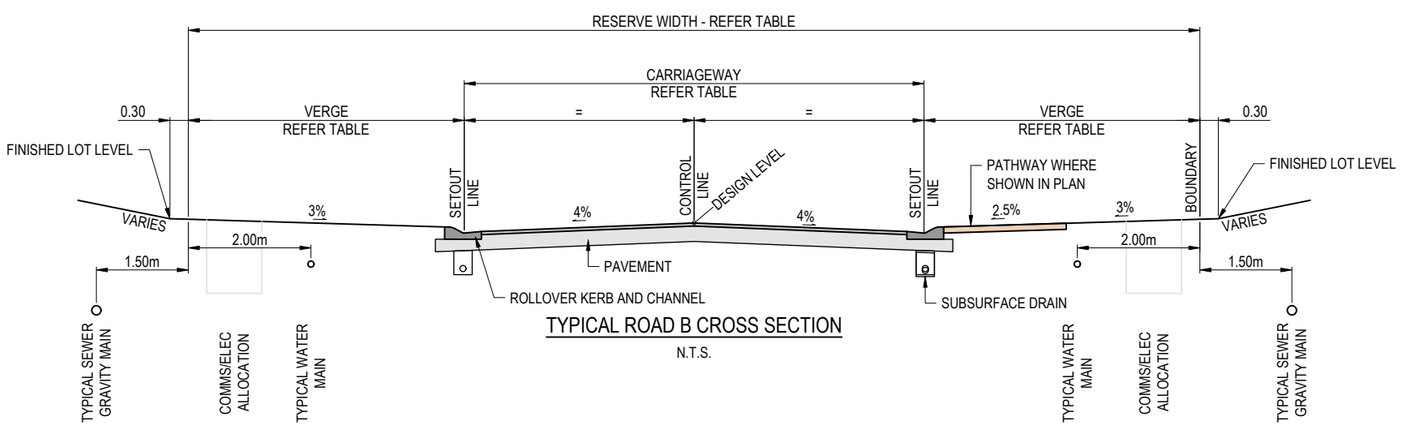


SUB SURFACE DRAINAGE DETAIL
N.T.S.



TYPICAL ACCESS CROSS SECTION
N.T.S.

PROVIDE THE FOLLOWING 4 CONDUITS PER LOT:
- 40mm DIA. uPVC CONDUIT FOR ERGON (ORANGE)
- 50mm DIA.uPVC FOR TELSTRA (WHITE)
- 20mm DIA. HDPE FOR WATER SERVICE



TYPICAL ROAD B CROSS SECTION
N.T.S.

Rev	Date	Revision Notes
B	23.12.25	ASSUMED CBR AND PAVEMENT DETAILS REVISED
A	30.10.25	INITIAL ISSUE

J:\048-2501-15-AMAROO ESTATE\048-2501-15-DRG\10 Design\15 Drawings\048-2501-15-DRG-0301_TXS.dwg

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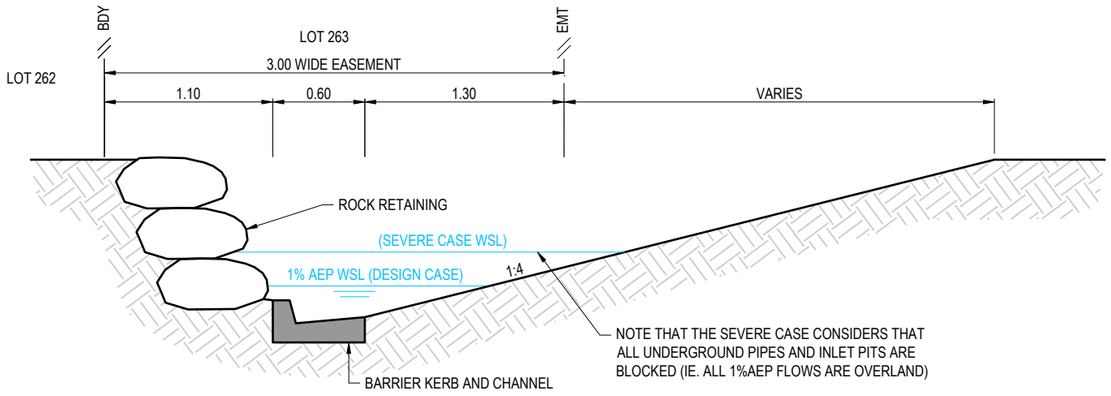
AMAROO ESTATE SUBDIVISION
STAGE 15
TYPICAL SECTIONS AND DETAILS
SHEET 1 OF 2

Drawn	Design	Check'd	Appv'd	RPEQ: 25102	A3 Full Size (Scale as shown)	048-2501-15-DRG-0301	B
PAM	PAM	CJC	CJC	C.J.CAPLICK	30.10.25		

Document Set ID: 4651371
Version: 1, Version Date: 28/05/2026



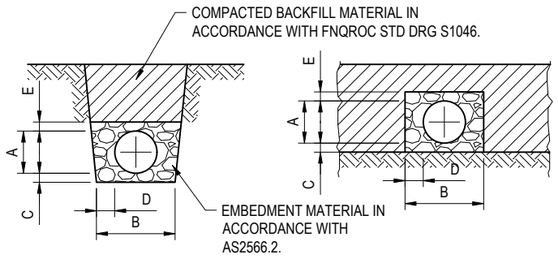
SECONDARY FLOW PATH - TYPICAL SECTION

SECTION A 0201

N.T.S.

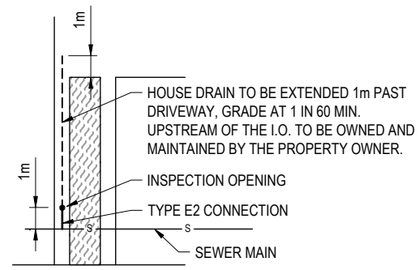
POLYPROPYLENE PIPE BEDDING DIMENSIONS

DN	DIMENSIONS (mm)				
	A	B	C	D	E
225	259	560	100	150	150
300	344	645	100	150	150
375	428	830	100	200	150
450	514	915	100	200	150
525	600	1200	150	300	150
600	682	1285	150	300	150
750	835	1435	150	300	150
900	999	1700	150	300	200



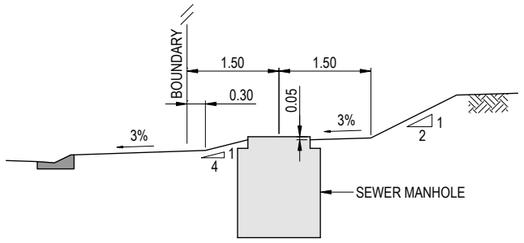
BLACKMAX PIPE BEDDING DETAILS

N.T.S.



HATCHET BLOCK PCB DETAIL

N.T.S.



TYPICAL SEWER MANHOLE IN BATTER ARRANGEMENT

N.T.S.

Rev	Date	Revision Notes
A	30.10.25	INITIAL ISSUE

J:\JOBS\048_Stg 15\Civil\3D Revit\10 Revised\15 Drawings\048-2501-15-DRG-0301_TXS.dwg

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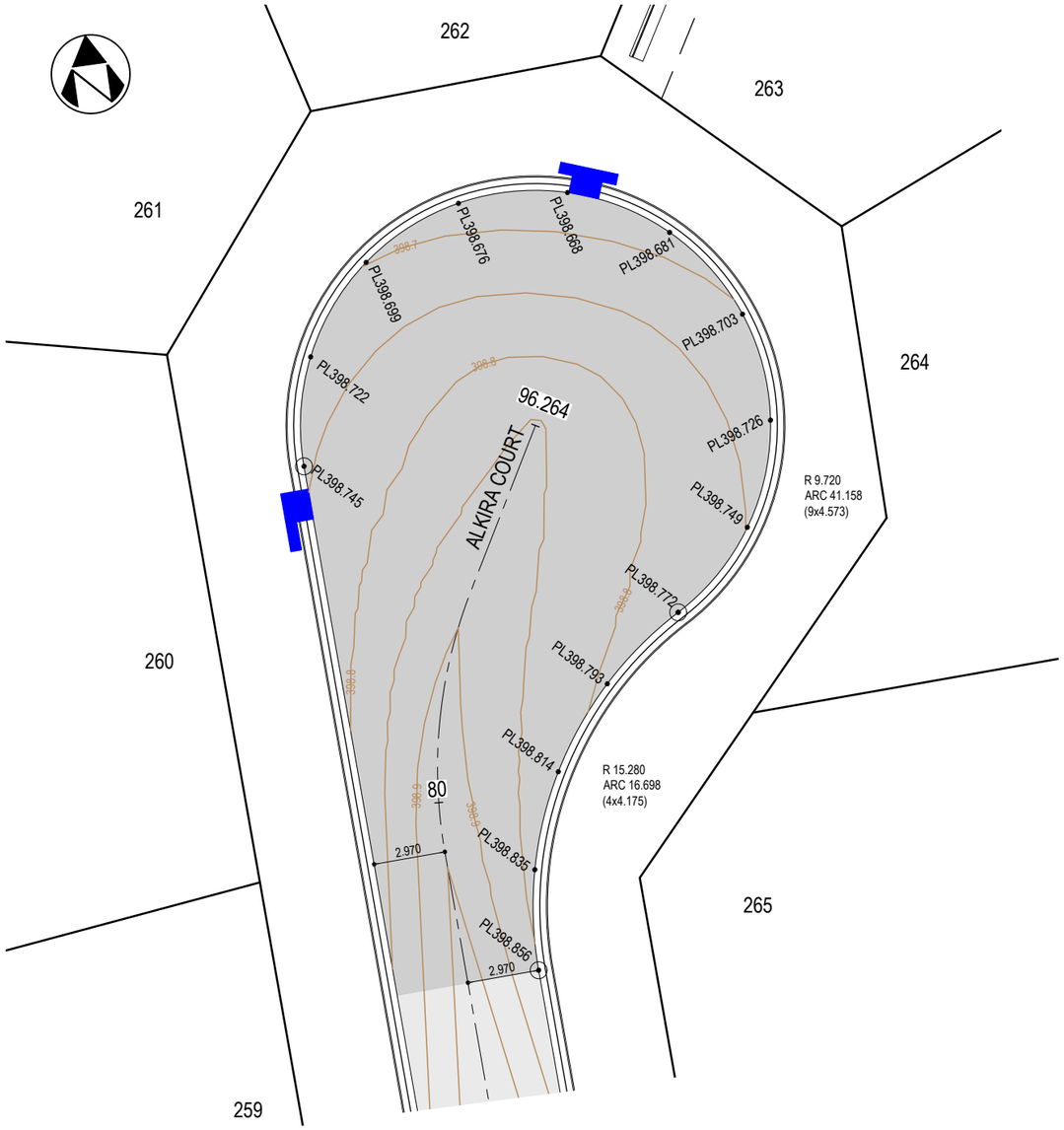
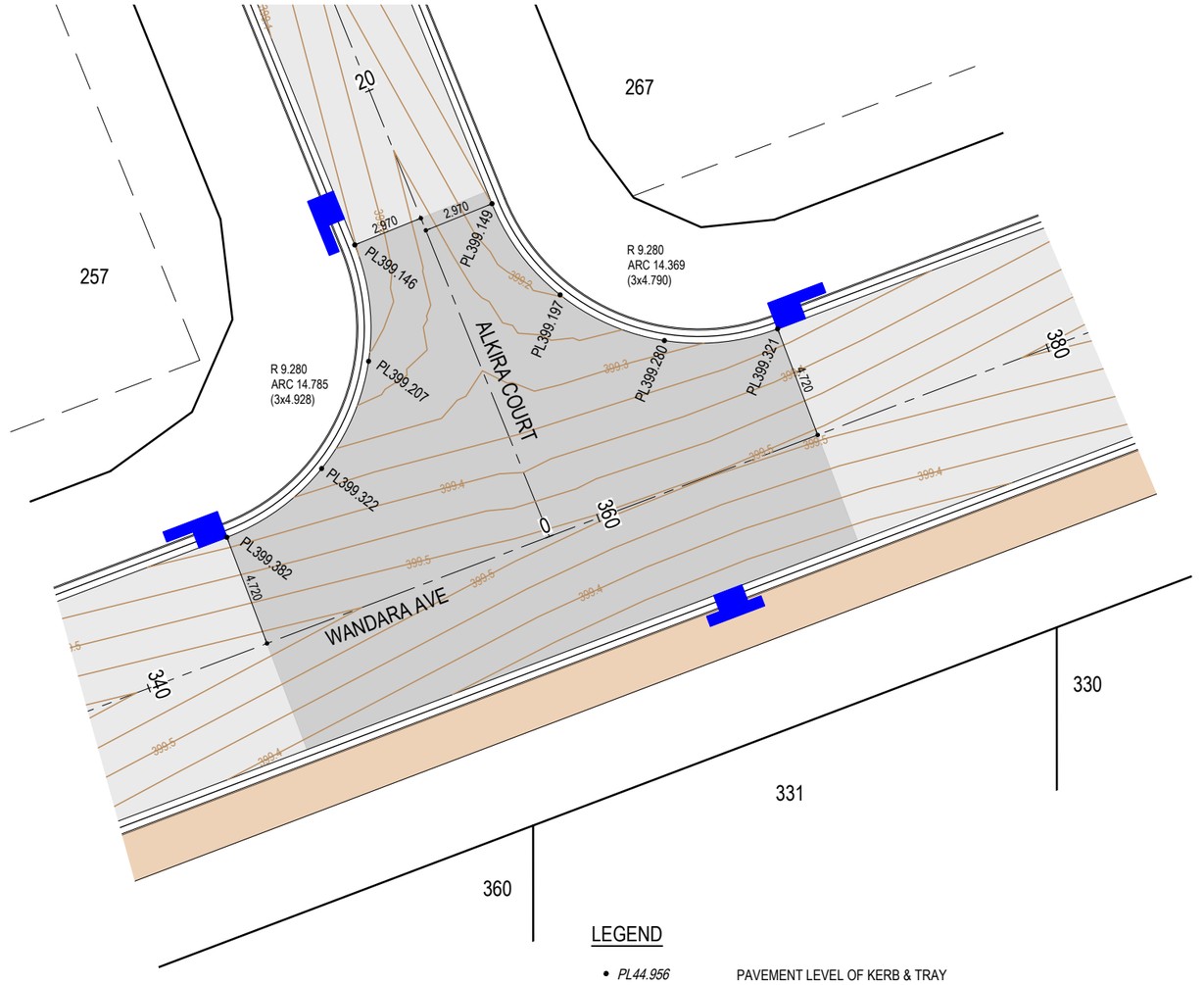
AMAROO ESTATE SUBDIVISION
STAGE 15
TYPICAL SECTIONS AND DETAILS
SHEET 2 OF 2

Drawn	Design	Check'd	Appv'd	RPEQ: 25102	A3 Full Size (Scale as shown)	
PAM	PAM	CJC	CJC	C.J.CAPLICK	30.10.25	048-2501-15-DRG-0302 A

Document Set ID: 4651371
Version: 1, Version Date: 28/05/2026





LEGEND

• *PL44.956*	PAVEMENT LEVEL OF KERB & TRAY
•	SETOUT POINT
⊙	TANGENT POINT
LKC	LAYBACK KERB AND CHANNEL
57.0	DESIGN SURFACE CONTOURS (0.1m INTERVAL)
	CONCRETE PATHWAY (2m WIDE U.N.O.)
	EXTENT OF 50mm ASPHALT THICKNESS

SETOUT TABLE		
PT NO	X	Y
1	334037.569	8120993.368
2	334031.101	8121008.667
3	334016.475	8121002.482

NOTE

FOR PROJECT NOTES REFER TO DRG-0102.

Rev	Date	Revision Notes
C	28.05.26	ADDITIONAL LOT 360 ADDED
B	23.12.25	STORMWATER REVISED
A	30.10.25	INITIAL ISSUE

1:250 0 2.5 5 7.5 10

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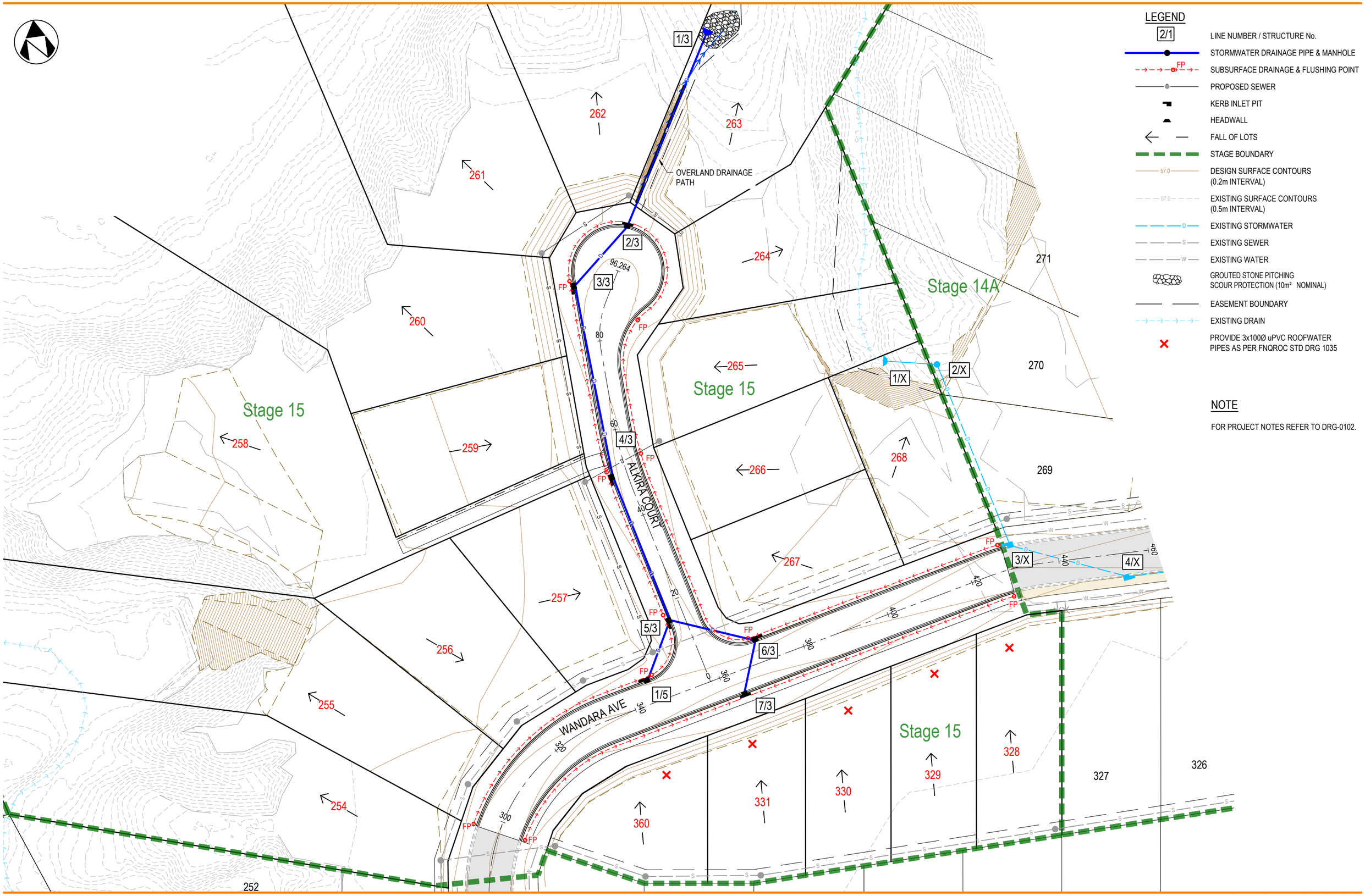
AMAROO ESTATE SUBDIVISION
STAGE 15
INTERSECTION DETAILS

Drawn	Design	Check'd	Appov'd	RPEQ: 25102	A3 Full Size (Scale as shown)	
PAM	PAM	CJC	CJC	C.J.CAPLICK	30.10.25	048-2501-15-DRG-0303 C

28/05/2026 10:07:16 AM C:\Neon_Jobs\048-2501-15\Engineering\Drawings\048-2501-15-DRG-0303_Intersection.dwg

Document Set ID: 4651371
Version: 1, Version Date: 28/05/2026



LEGEND

2/1	LINE NUMBER / STRUCTURE No.
	STORMWATER DRAINAGE PIPE & MANHOLE
FP	SUBSURFACE DRAINAGE & FLUSHING POINT
	PROPOSED SEWER
	KERB INLET PIT
	HEADWALL
	FALL OF LOTS
	STAGE BOUNDARY
57.0	DESIGN SURFACE CONTOURS (0.2m INTERVAL)
57.0	EXISTING SURFACE CONTOURS (0.5m INTERVAL)
D	EXISTING STORMWATER
S	EXISTING SEWER
W	EXISTING WATER
	GROUTED STONE PITCHING SCOUR PROTECTION (10m² NOMINAL)
	EASEMENT BOUNDARY
	EXISTING DRAIN
×	PROVIDE 3x100Ø uPVC ROOFWATER PIPES AS PER FNQROC STD DRG 1035

NOTE

FOR PROJECT NOTES REFER TO DRG-0102.

Rev	Date	Revision Notes
C	28.05.26	ADDITIONAL LOT 360 ADDED
B	23.12.25	STORMWATER REVISED
A	30.10.25	INITIAL ISSUE

1:750 0 7.5 15 22.5 30

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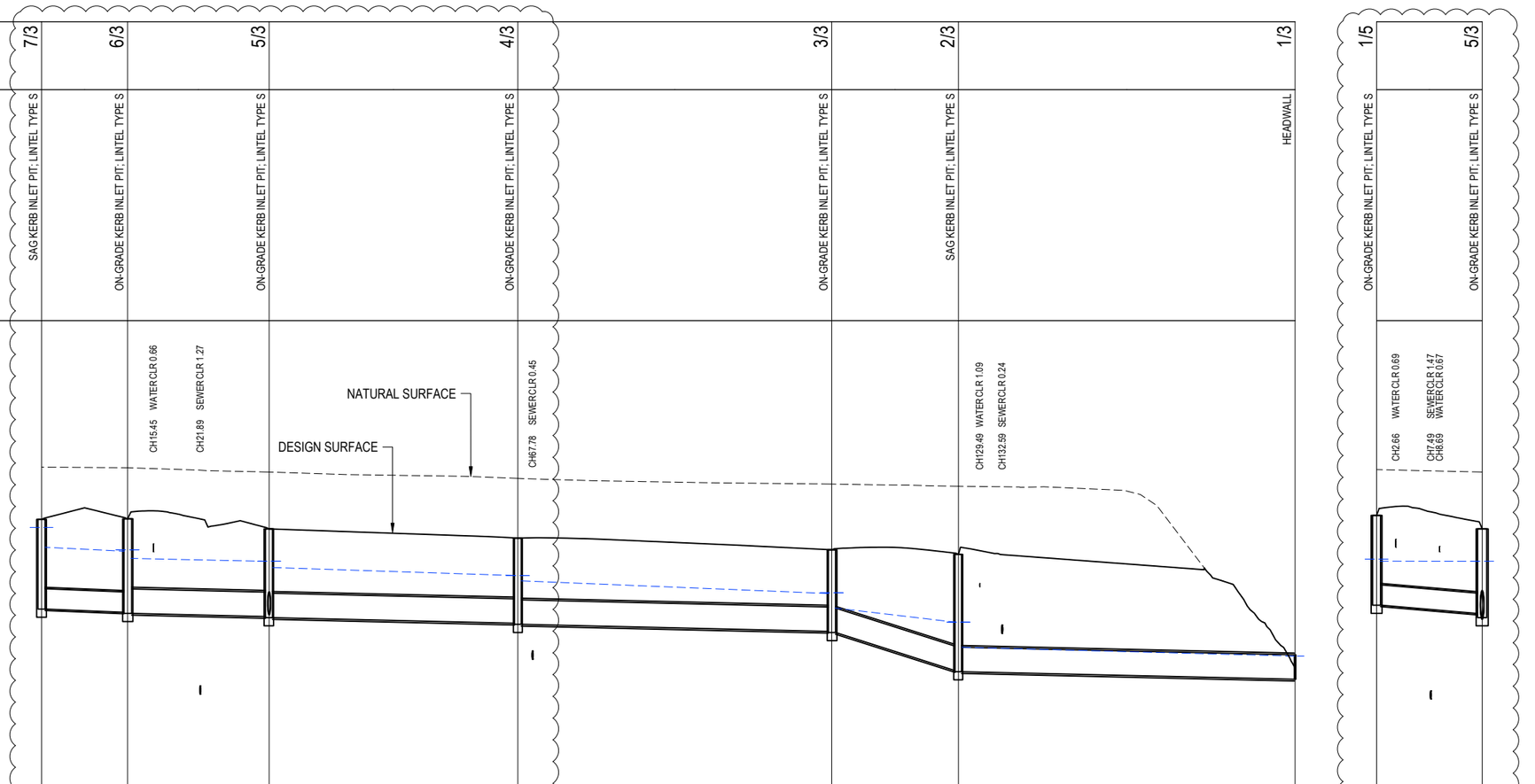
AMAROO ESTATE SUBDIVISION
STAGE 15
STORMWATER DRAINAGE PLAN

Drawn	Design	Check'd	Apprv'd	RPEQ: 25102	A3 Full Size (Scale as shown)		
PAM	PAM	CJC	CJC	C.J.CAPLICK	30.10.25	048-2501-15-DRG-0401	C

Document Set ID: 4651371
Version: 1, Version Date: 28/05/2026



STRUCTURE NAME	7/3	6/3	5/3	4/3	3/3	2/3	1/3	1/5	5/3
STRUCTURE DESCRIPTION	SAG KERB INLET PIT; LINTEL TYPE S	ON-GRADE KERB INLET PIT; LINTEL TYPE S	ON-GRADE KERB INLET PIT; LINTEL TYPE S	ON-GRADE KERB INLET PIT; LINTEL TYPE S	ON-GRADE KERB INLET PIT; LINTEL TYPE S	SAG KERB INLET PIT; LINTEL TYPE S	HEADWALL	ON-GRADE KERB INLET PIT; LINTEL TYPE S	ON-GRADE KERB INLET PIT; LINTEL TYPE S
		CH15.45 WATER CLR 0.66 CH21.89 SEWER CLR 1.27		CH67.78 SEWER CLR 0.45		CH129.49 WATER CLR 1.09 CH132.59 SEWER CLR 0.24		CH2.66 WATER CLR 0.69	CH7.49 SEWER CLR 1.47 CH8.69 WATER CLR 0.67
PIPE SIZE (mm)		375	450	450	450	450	450		375
PIPE CLASS		BlackMAX	BlackMAX	BlackMAX	BlackMAX	BlackMAX	BlackMAX		BlackMAX
PIPE GRADE (%)		0.50%	0.30%	0.30%	0.30%	4.01%	0.30%		1.05%
PIPE SLOPE (1 in X)		1 in 200.0	1 in 333.3	1 in 333.3	1 in 333.3	1 in 25.0	1 in 333.3		1 in 95.0
DATUM RL		391.0							391.0
FINISHED SURFACE LEVEL	399.293	399.303	399.117	398.947	398.732	398.649	396.554	399.365	399.117
DEPTH TO INVERT	1.651	1.721	1.741	1.614	1.634	1.567	1.587	1.502	1.522	2.140	2.160	0.204	0.204	1.652	1.558	1.634
INVERT LEVEL OF DRAIN	397.642	397.582	397.562	397.504	397.484	397.381	397.361	397.231	397.211	396.509	396.489	396.350	396.350	397.713	397.560	397.484
CHAINAGE	0.000	11.872	19.54m	31.416	34.33m	65.742	43.32m	109.063	17.50m	126.566	46.46m	173.025		0.000	14.57m	31.416	
SETOUT COORDINATES	E 333770.120 N 8120896.332	E 333774.235 N 8120907.467	E 333756.099 N 8120914.750	E 333748.166 N 8120948.147	E 333746.020 N 8120991.415	E 333759.431 N 8121002.662	E 333783.142 N 8121042.614	E 333749.093 N 8120901.973	E 333756.099 N 8120914.750
HGL IN PIPE / WSE IN STRUCTURE	399.144 398.779	398.706 398.732	398.574	398.520 398.523	398.256 398.259	398.161	397.929 397.942	397.661	397.401 397.401	396.939	396.776 396.776	396.776	398.562 398.524	398.520 398.523	398.407
FULL PIPE VELOCITY (m/s)		1.62	1.23	1.53	1.71	1.97	2.69		0.35		
PART FULL VELOCITY (m/s)		1.62	1.45	1.53	1.71	4.47	2.69		1.57		
PIPE FLOW (m³/s)		0.179	0.195	0.243	0.271	0.313	0.428		0.039		
CAPACITY AT GRADE (m³/s)		0.161	0.203	0.203	0.203	0.742	0.203		0.234		
LINE				B	3				5	B	

1:100 0 1 2 3 4

1:750 0 7.5 15 22.5 30

Rev	Date	Revision Notes
B	23.12.25	STORMWATER REVISED
A	30.10.25	INITIAL ISSUE

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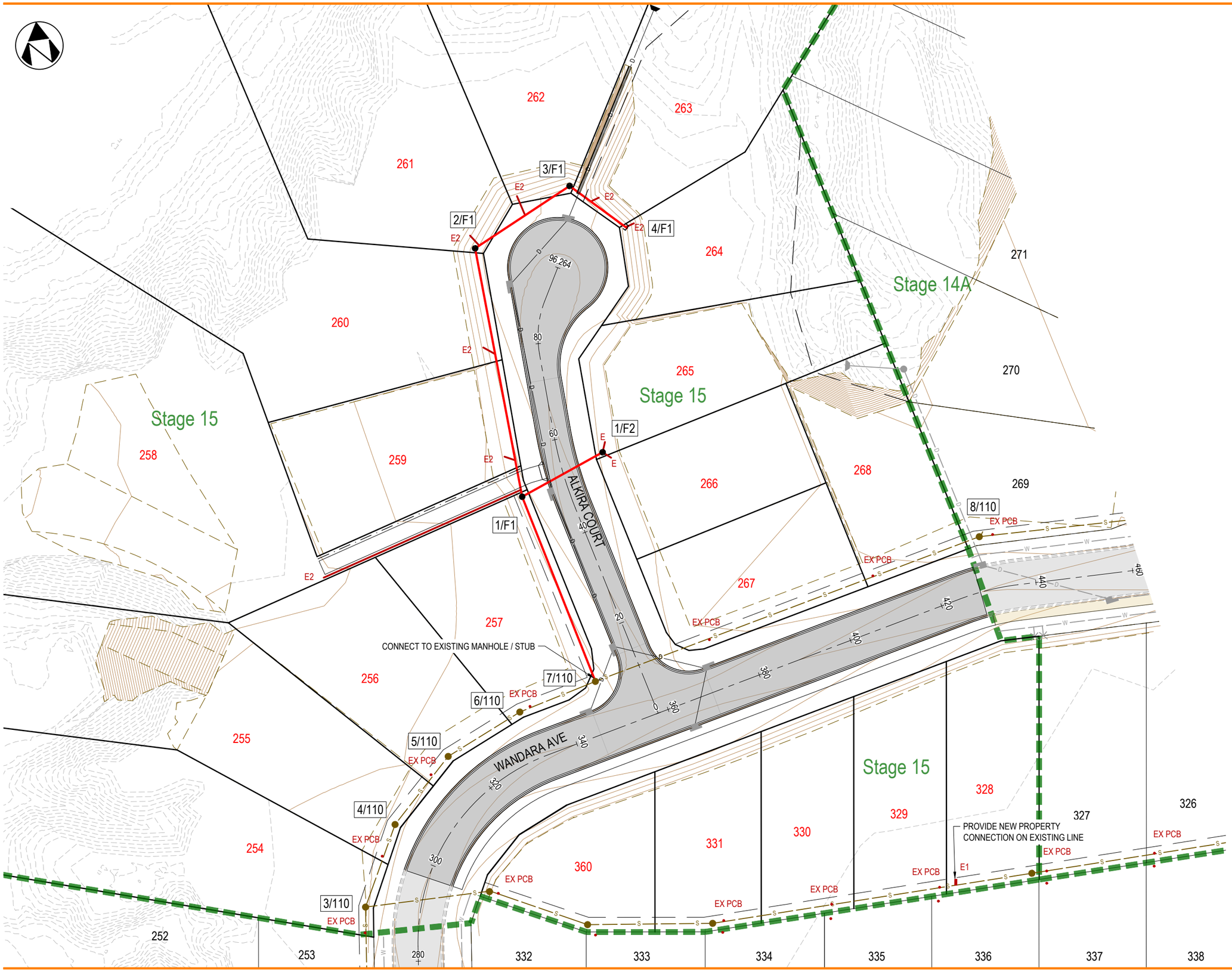
AMAROO ESTATE SUBDIVISION
STAGE 15
STORMWATER DRAINAGE LONGITUDINAL SECTIONS

Drawn	Design	Check'd	Agen'd	RPEQ 25122	A3 Full Size (Scale as shown)		
PAM	PAM	CJC	CJC	C.J.CAPLICK	30.10.25	048-2501-15-DRG-0402	B

28/05/2026 10:02:24 AM - File: \\048\048-2501\Revised Drawings\048-2501-15-DRG-0402_Stormwater LS.dwg

Document Set ID: 4651371
Version: 1, Version Date: 28/05/2026



Rev	Date	Revision Notes
C	28.05.26	ADDITIONAL LOT 360 ADDED
B	23.12.25	STORMWATER REVISED
A	30.10.25	INITIAL ISSUE

28/05/2026 10:15 AM File: I:\2025\048-2501\10 Drawings\15 Drawings\048-2501-15-DRG-0501_Sewer.dwg

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BTM & S STANKOVICH PTY LTD

AMAROO ESTATE SUBDIVISION
STAGE 15
SEWERAGE PLAN

Drawn	Design	Check'd	Appr'd	RPEQ: 25102	A3 Full Size (Scale as shown)		
PAM	PAM	CJC	CJC	C.J.CAPLICK	30.10.25	048-2501-15-DRG-0501	C

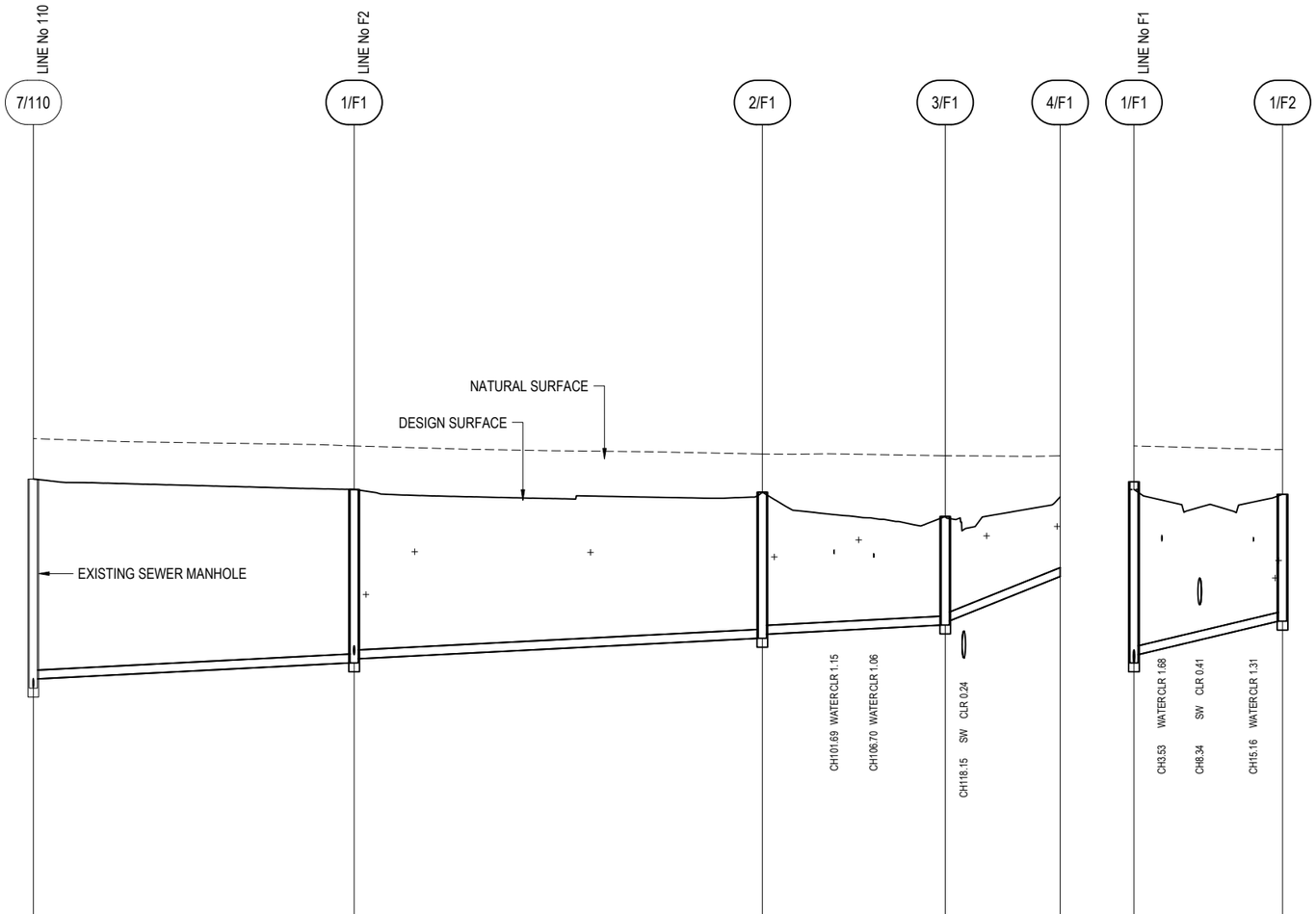
Document Set ID: 4651371
Version: 1, Version Date: 28/05/2026

LEGEND

\+ HOUSE CONNECTION BRANCH

NOTES

1. ALL MANHOLE DIAMETERS, DROP TYPES AND COVERS TO BE IN ACCORDANCE WITH FNQROC STD DRG S3000.
2. FINISHED SURFACE AT ENDCAPS IS TO BE NO GREATER THAN 1.5m ABOVE INVERT.



| | | |

WATER SUPPLY PIPE AND FITTINGS LIST

REF.	CODE	DESCRIPTION
1		SLUICE VALVE CLASS `14' COMPLETE WITH C.I. COVER BOX, CONCRETE MARGIN AND MARKER
2		50 BRONZE GATE VALVE COMPLETE WITH C.I. COVER BOX, CONCRETE MARGIN AND MARKER
3		80 SPRING HYDRANT COMPLETE WITH RISER, TEE, C.I. COVER BOX, CONCRETE MARGIN AND MARKER
4		TEE WITH CONCRETE THRUST BLOCK
6		BEND TO SUIT WITH CONCRETE THRUST BLOCK
7		SERVICE MAIN CONNECTION
8		DEAD END CAP WITH CONCRETE THRUST BLOCK
10		SINGLE ALLOTMENT SERVICE, SEE FNQROC STD DRG S2060 (MSC SPECIFIC)
	W	150Ø uPVC WATER MAIN CLASS '16' RUBBER RING JOINTED
	W	100Ø uPVC WATER MAIN CLASS '16' RUBBER RING JOINTED
	W	63 OD PE 100 PN 16

LEGEND

- STAGE BOUNDARY
- EXISTING WATER
- EASEMENT BOUNDARY

NOTE

FOR PROJECT NOTES REFER TO DRG-0102.

PROVIDE WATER SERVICE AND METER FOR EACH ALLOTMENT

CONNECT TO EXISTING MAIN

3m ALIGNMENT TO PROVIDE CLEARANCE TO SEWER MANHOLE

CONNECT TO EXISTING MAIN

CONNECT TO EXISTING MAIN

EX WATERMAIN

EX 1500

EX 630Ø

EX 630

EX 500

ALKIRA COURT

WANDARA AVE

Stage 14A

Stage 15

Stage 15

Stage 15

261 262 263 264 265 266 267 268 269 270 271 260 259 258 257 256 255 254 252 253 360 332 333 334 335 336 337 338 331 330 329 328 327 326

1:750 0 7.5 15 22.5 30

Rev	Date	Revision Notes
C	28.05.26	ADDITIONAL LOT 360 ADDED
B	23.12.25	STORMWATER REVISED
A	30.10.25	INITIAL ISSUE

28/05/2026 10:17 AM File: U:\2025\048-2501\0 Drawings\15 Drawings\048-2501-15-DRG-0601_Water.dwg

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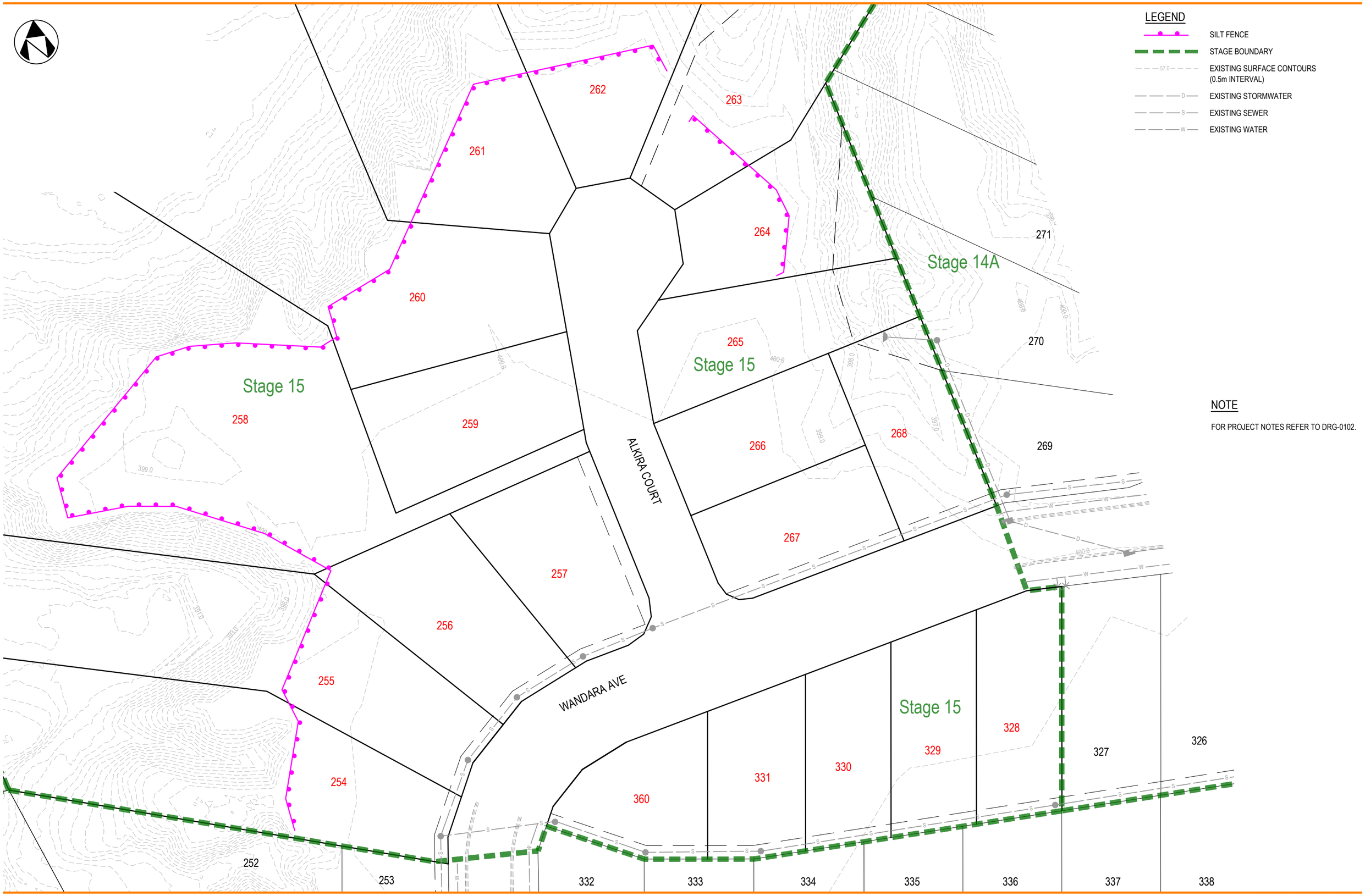
AMAROO ESTATE SUBDIVISION
STAGE 15
WATER RETICULATION

Drawn	Design	Check'd	Appr'd	RPEQ: 25102	A3 Full Size (Scale as shown)		
PAM	PAM	CJC	CJC	C.J.CAPLICK	30.10.25	048-2501-15-DRG-0601	C

Document Set ID: 4651371
Version: 1, Version Date: 28/05/2026



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Rev	Date	Revision Notes
B	28.05.26	ADDITIONAL LOT 360 ADDED
A	30.10.25	INITIAL ISSUE

28/05/2026 10:29 AM File: I:\2025\048-2501\10 Drawings\15 Drawings\048-2501-15-DRG-0701_Erosion.dwg

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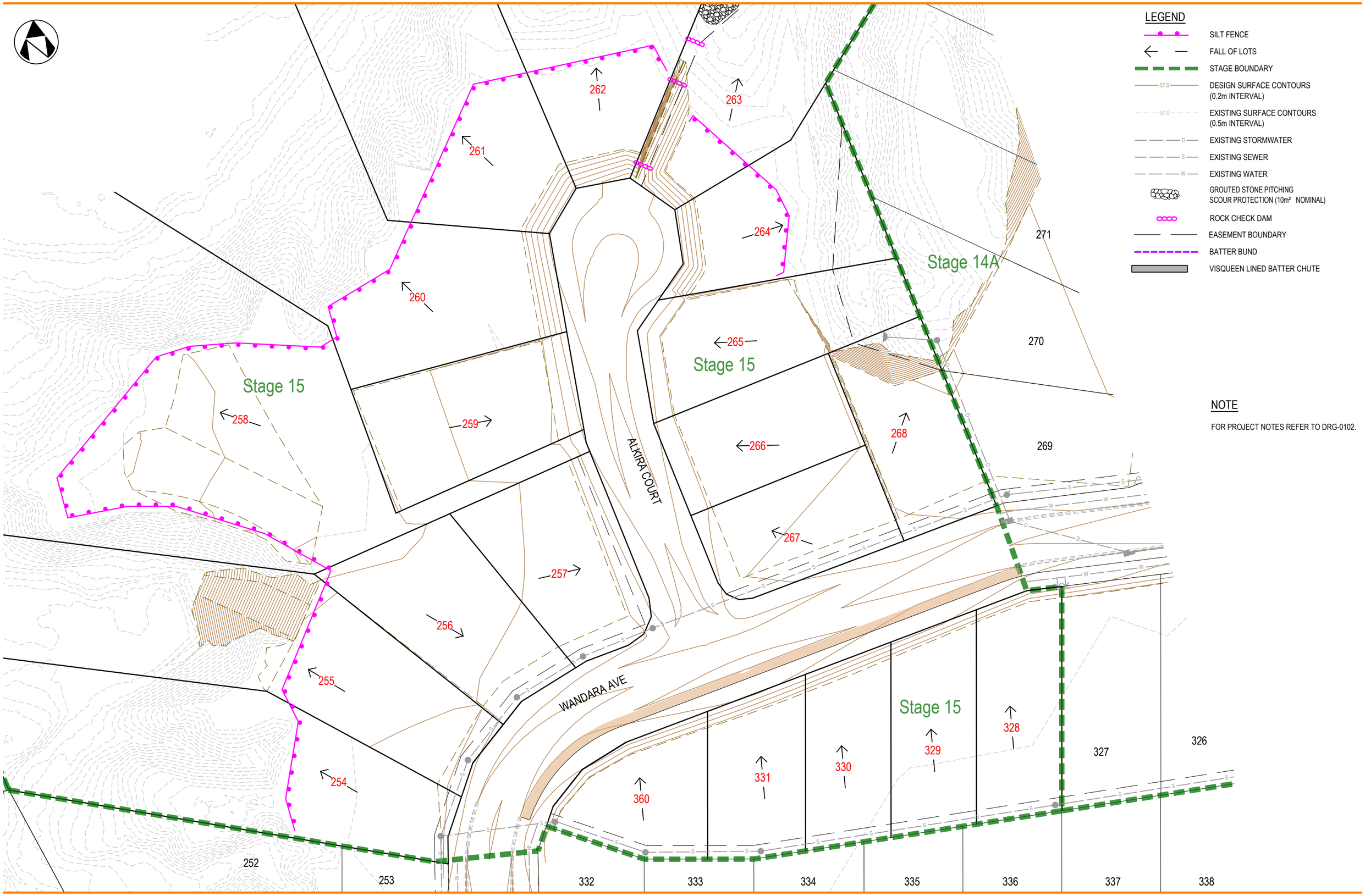
AMAROO ESTATE SUBDIVISION
STAGE 15
SITE BASED STORMWATER MANAGEMENT PLAN
PHASE 1: TOPSOIL STRIPPING

Drawn	Design	Check'd	Appr'd	RPEQ: 25102	A3 Full Size (Scale as shown)		
PAM	PAM	CJC	CJC	C.J.CAPLICK	30.10.25	048-2501-15-DRG-0701	B

Document Set ID: 4651371
Version: 1, Version Date: 28/05/2026



NOTE

FOR PROJECT NOTES REFER TO DRG-0102.

1:750 0 7.5 15 22.5 30

Rev	Date	Revision Notes
B	28.05.26	ADDITIONAL LOT 360 ADDED
A	30.10.25	INITIAL ISSUE

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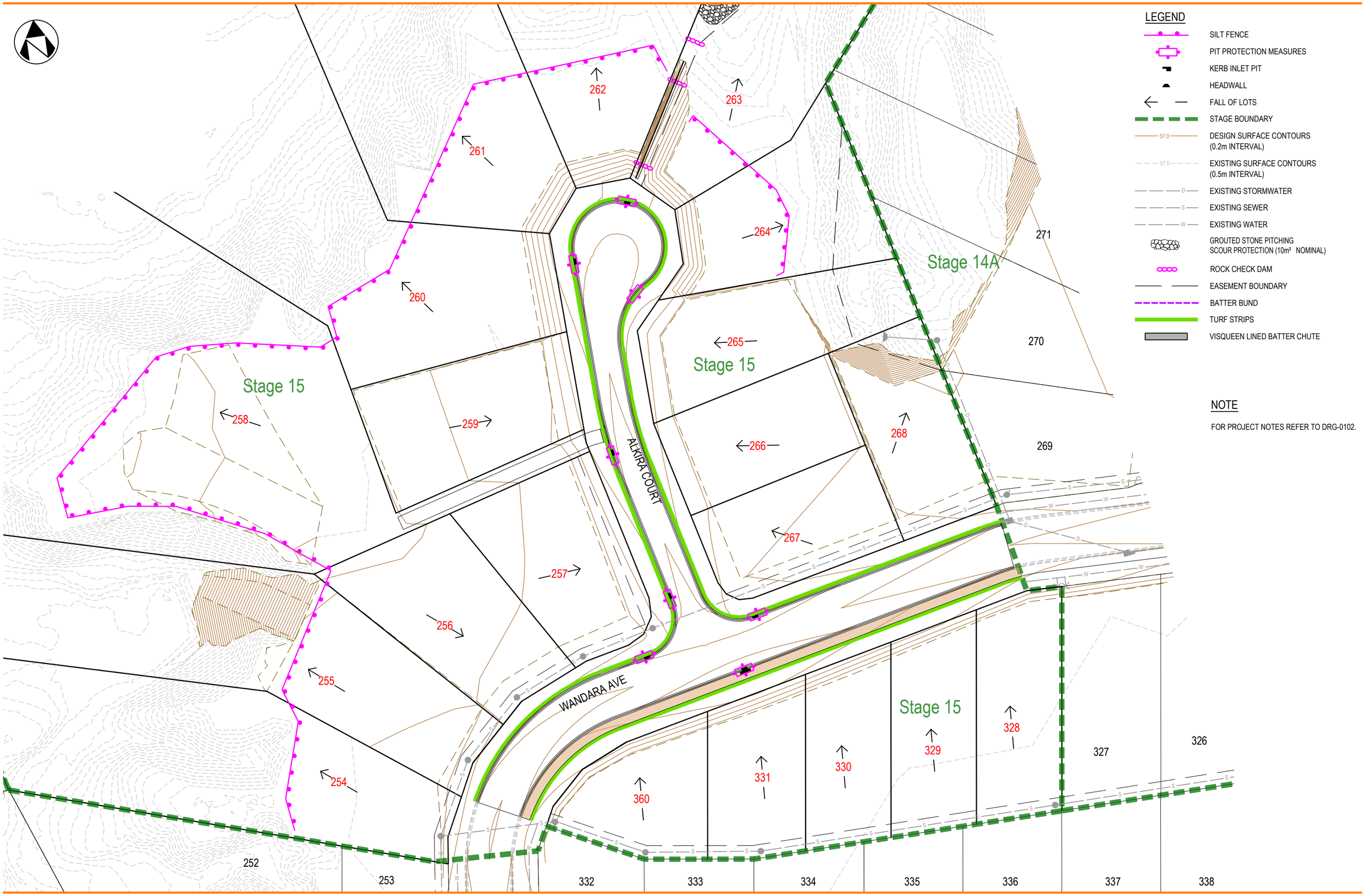
AMAROO ESTATE SUBDIVISION
STAGE 15
SITE BASED STORMWATER MANAGEMENT PLAN
PHASE 2: EARTHWORKS

Drawn	Design	Check'd	Apprv'd	RPEQ: 25102	A3 Full Size (Scale as shown)		
PAM	PAM	CJC	CJC	C.J.CAPLICK	30.10.25	048-2501-15-DRG-0702	B

Document Set ID: 4651371
Version: 1, Version Date: 28/05/2026



NOTE

FOR PROJECT NOTES REFER TO DRG-0102.

Rev	Date	Revision Notes
C	28.05.26	ADDITIONAL LOT 360 ADDED
B	23.12.25	STORMWATER REVISED
A	30.10.25	INITIAL ISSUE

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28/05/2026 10:15 AM - File: J:\2025\048-2501\10 Drawings\15 Drawings\048-2501-15-DRG-0701_Erosion.dwg

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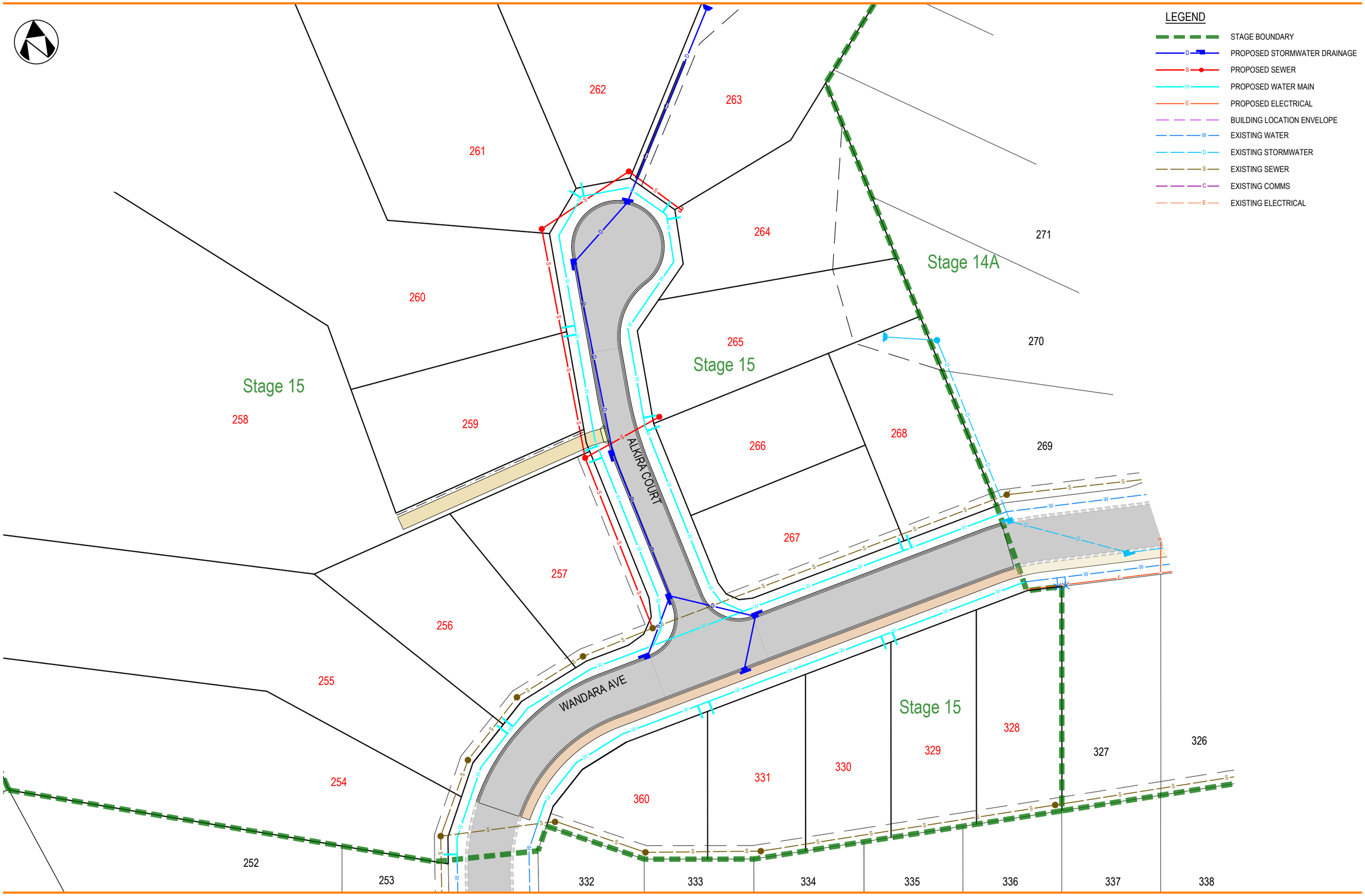
BTM & S STANKOVICH PTY LTD

AMAROO ESTATE SUBDIVISION
STAGE 15
SITE BASED STORMWATER MANAGEMENT PLAN
PHASE 3: ROADWORKS

Drawn	Design	Check'd	Apprv'd	RPEQ: 25102	A3 Full Size (Scale as shown)		
PAM	PAM	CJC	CJC	C.J.CAPLICK	30.10.25	048-2501-15-DRG-0703	C

Document Set ID: 4651371
Version: 1, Version Date: 28/05/2026



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Rev	Date	Revision Notes
C	28.05.26	ADDITIONAL LOT 360 ADDED
B	23.12.25	STORMWATER REVISED
A	30.10.25	INITIAL ISSUE

28/05/2026 10:13 AM File: I:\2024\048-2501\10 Drawings\15 Drawings\048-2501-15-DRG-0801_Master Services.dwg

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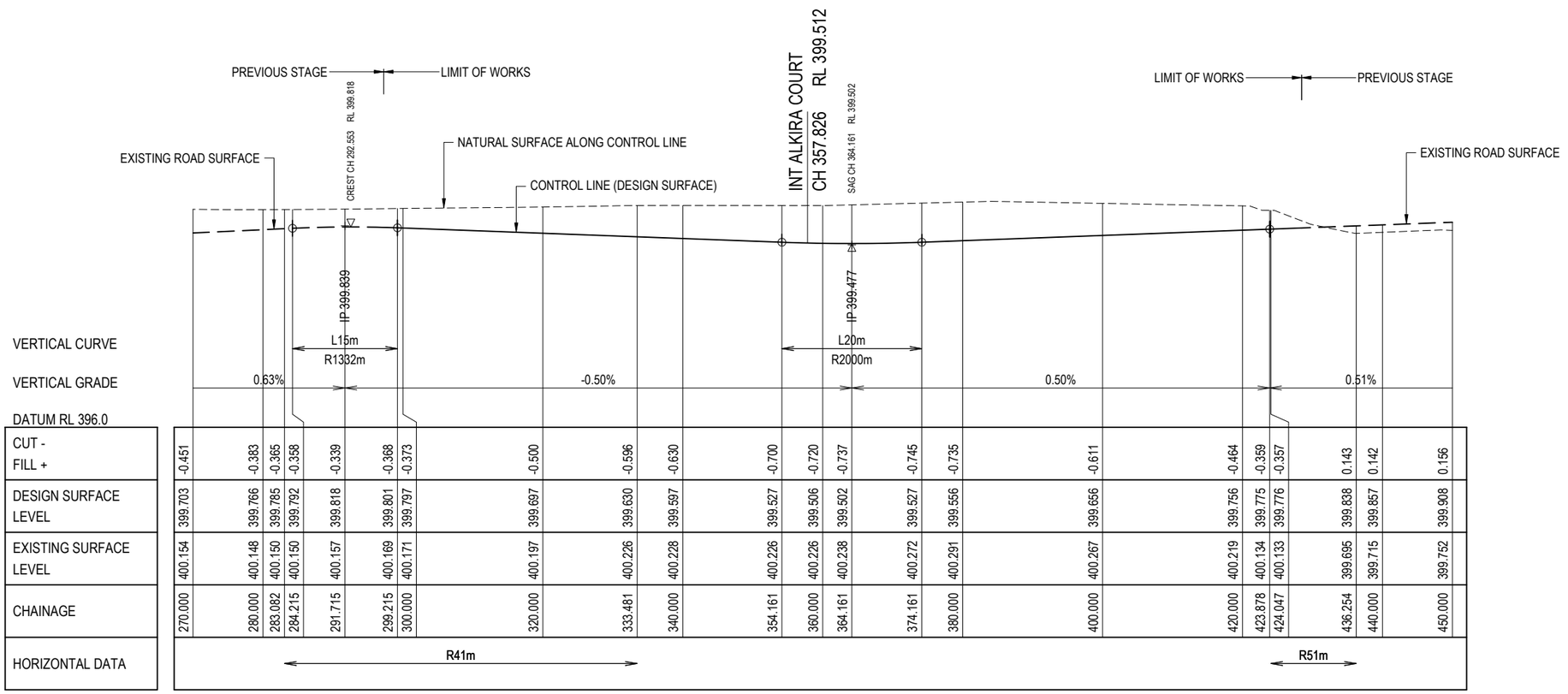
BTM & S STANKOVICH PTY LTD

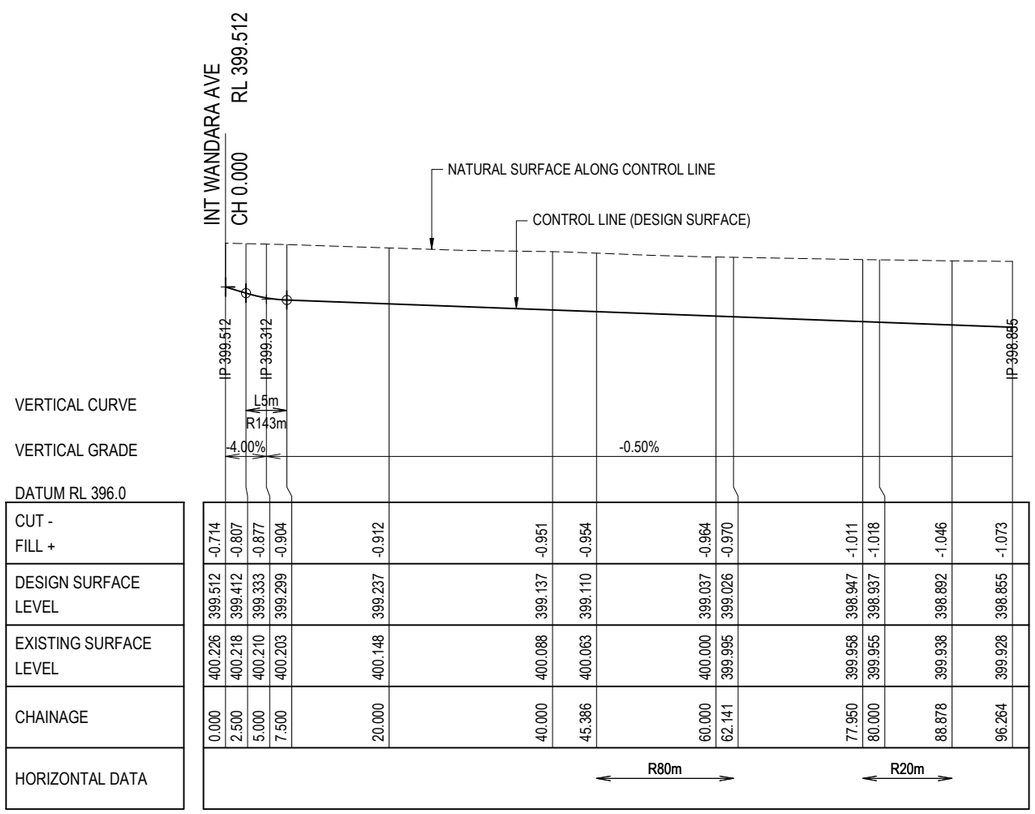
AMAROO ESTATE SUBDIVISION
STAGE 15
MASTER SERVICES PLAN

Drawn	Design	Check'd	Apprv'd	RPEQ: 25102	A3 Full Size (Scale as shown)		
PAM	PAM	CJC	CJC	C.J.CAPLICK	30.10.25	048-2501-15-DRG-0801	C

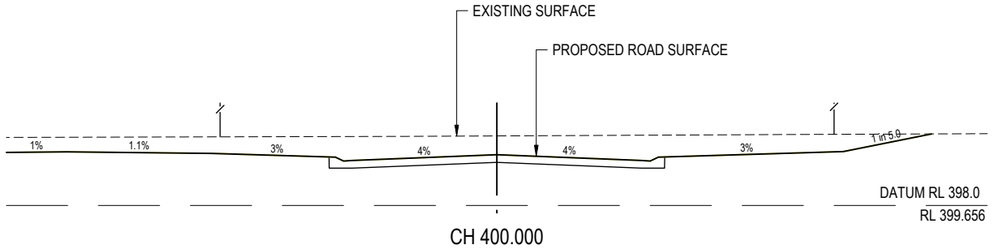
Document Set ID: 4651371
Version: 1, Version Date: 28/05/2026


PREVIOUS STAGE
LIMIT OF WORKS
EXISTING ROAD SURFACE
NATURAL SURFACE ALONG CONTROL LINE
CONTROL LINE (DESIGN SURFACE)
CREST CH 292.553 RL 399.818
INT ALKIRA COURT
CH 357.826 RL 399.512
SAG CH 364.161 RL 399.502
EXISTING ROAD SURFACE
IP 399.839
IP 399.477
VERTICAL CURVE
L15m
R1332m
L20m
R2000m
VERTICAL GRADE
0.63%
-0.50%
0.50%
0.51%
DATUM RL 396.0

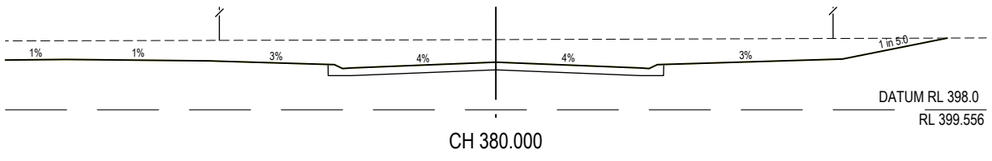
| | | |


INT WANDARA AVE
CH 0.000
RL 399.512
NATURAL SURFACE ALONG CONTROL LINE
CONTROL LINE (DESIGN SURFACE)
IP 399.512
IP 399.312
IP 398.885
L5m
R143m
4.00%
-0.50%

| | | |



CH 400.000



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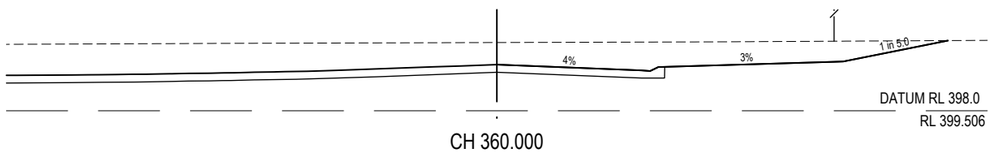

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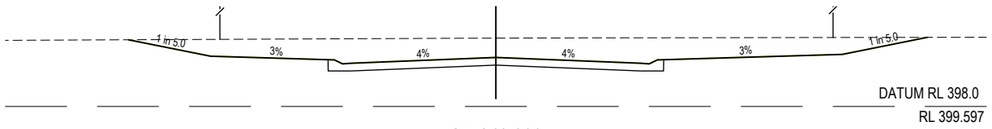

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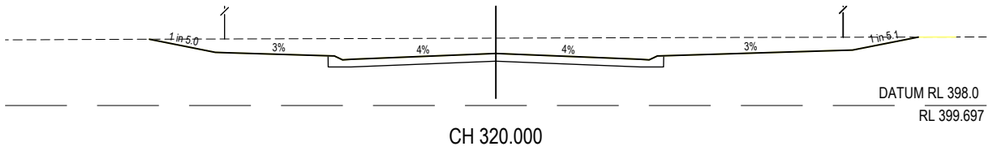

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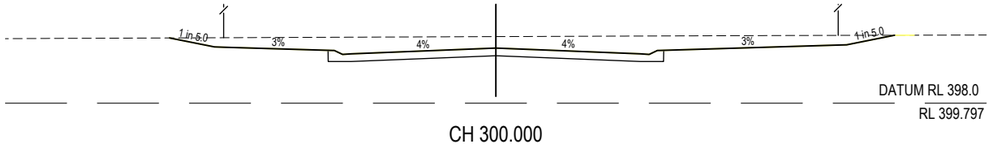
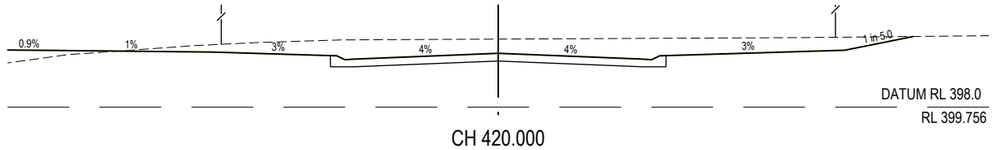


CH 300.000
WANDARA AVE



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Rev	Date	Revision Notes
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NEON CONSULTING

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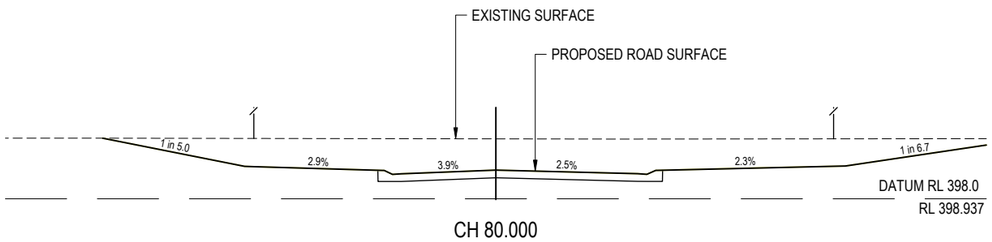
AMAROO ESTATE SUBDIVISION
STAGE 15
ROAD CROSS SECTIONS
WANDARA AVENUE

Drawn	Design	Check'd	Appv'd	RPEQ: 25102	A3 Full Size (Scale as shown)		
PAM	PAM	CJC	CJC	C.J.CAPLICK	30.10.25	048-2501-15-DRG-0903	A

Document Set ID: 4651371
Version: 1, Version Date: 28/05/2026



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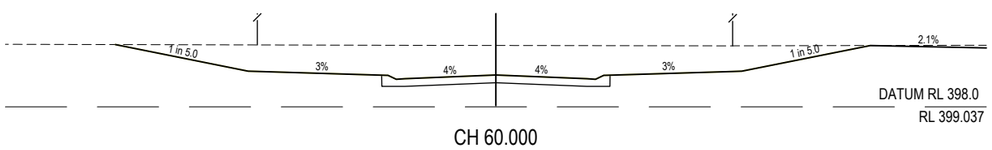

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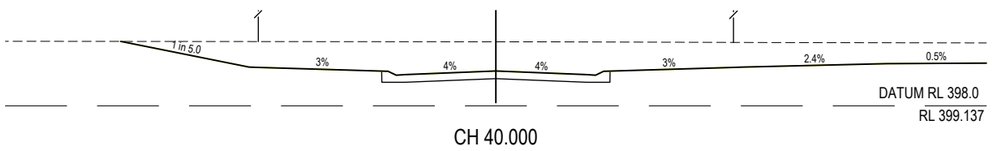

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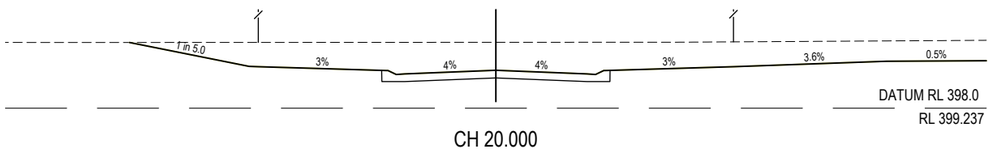

CH 20.000
ALKIRA COURT

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Rev	Date	Revision Notes
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STAGE 15
ROAD CROSS SECTIONS
ALKIRA COURT

Drawn	Design	Check'd	Appv'd	RPEQ: 25102	A3 Full Size (Scale as shown)		
PAM	PAM	CJC	CJC	C.J.CAPLICK	30.10.25	048-2501-15-DRG-0904	A

Document Set ID: 4651371
Version: 1, Version Date: 28/05/2026