

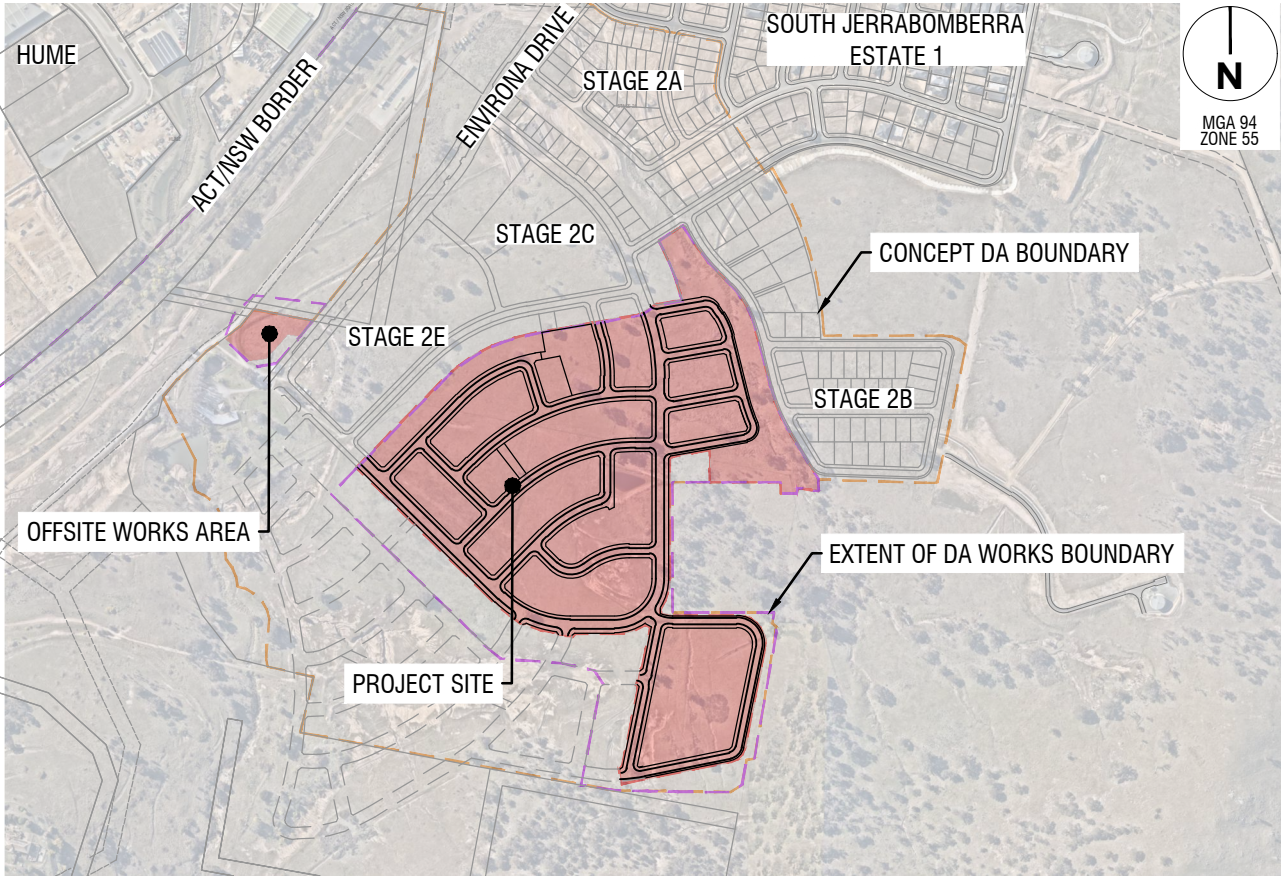
SOUTH JERRABOMBERRA

NORTHERN CATCHMENT

DEVELOPMENT APPLICATION
PROJECT NUMBER: 323444-001
CIVIL ENGINEERING DRAWINGS
FOR VILLAGE BUILDING COMPANY

GENERAL NOTES:

1.
- ALL LEVELS ARE TO AUSTRALIAN HEIGHT DATUM AND ALL COORDINATES ARE TO MAP GRID OF AUSTRALIA (MGA) 94, ZONE 55.
2.
- ALL EXISTING SURFACE LEVELS PROVIDED BY MMB SHOWN ON THE ENGINEERING DRAWINGS HAVE BEEN INTERPOLATED FROM A DIGITAL TERRAIN MODEL. THESE LEVELS HAVE BEEN USED AS THE BASIS FOR ALL ENGINEERING DESIGN AND DETERMINATION OF QUANTITIES.
3.
- EXISTING SERVICES HAVE BEEN PLOTTED FROM SUPPLIED DATA. THE PRINCIPAL DOES NOT GUARANTEE THE ACCURACY OF THIS INFORMATION AND IT IS THE CONTRACTORS RESPONSIBILITY TO ESTABLISH THE LOCATION OF ALL EXISTING SERVICES PRIOR TO COMMENCING WORK. CLEARANCES SHALL BE OBTAINED FROM THE RELEVANT SERVICE AUTHORITIES.



1 LOCALITY PLAN
Scale 1:5000 @ A1

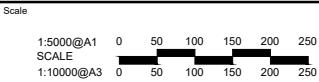


WARNING
BEWARE OF UNDERGROUND/OVERHEAD SERVICES
THE LOCATION OF SERVICES ARE APPROXIMATE ONLY AND THEIR EXACT POSITION SHOULD BE PROVEN ON SITE. NO GUARANTEE IS GIVEN THAT ALL EXISTING SERVICES ARE SHOWN. SPECIAL CONSIDERATION SHOULD BE GIVEN TO CONSTRUCTION PROCEDURES UNDER OVERHEAD ELECTRICITY TRANSMISSION LINES.

DRAWING SCHEDULE		
DRAWING NO	DESCRIPTION	REVISION
CD001	COVER SHEET & DRAWING SCHEDULE	B
CD005	GENERAL ARRANGEMENT PLAN	B
CD010	EXISTING SERVICES PLAN	B
CD015	STAGING PLAN	B
CD040	STREET HIERARCHY, PATH & DRIVEWAY PLAN	B
CD050	BUS ROUTE PLAN	B
CD060	TYPICAL CROSS SECTIONS SHEET 1	B
CD061	TYPICAL CROSS SECTIONS SHEET 2	B
CD062	TYPICAL CROSS SECTIONS SHEET 3	B
CD100	SIGHT DISTANCE SHEET 1	B
CD101	SIGHT DISTANCE SHEET 2	B
CD102	SIGHT DISTANCE SHEET 3	B
CD103	SIGHT DISTANCE SHEET 4	B
CD104	SIGHT DISTANCE SHEET 5	B
CD120	TURNING MOVEMENTS SHEET 1	B
CD121	TURNING MOVEMENTS SHEET 2	B
CD122	TURNING MOVEMENTS SHEET 3	B
CD123	TURNING MOVEMENTS SHEET 4	B
CD200	GRADING PLAN	B
CD240	EXISTING SLOPE ANALYSIS PLAN	B
CD250	PROPOSED SLOPE ANALYSIS PLAN	B
CD410	SEWER CATCHMENT PLAN SHEET 1	B
CD411	SEWER CATCHMENT PLAN SHEET 2	B
CD420	SEWER SERVICING STRATEGY PLAN	B
CD450	PORTABLE WATER MASTER PLAN SHEET 1	B
CD451	PORTABLE WATER MASTER PLAN SHEET 2	B
CD500	STORMWATER CATCHMENT PLAN	B
CD520	DRAINAGE SERVICING STRATEGY PLAN SHEET 1	B
CD521	DRAINAGE SERVICING STRATEGY PLAN SHEET 2	B
CD522	DRAINAGE SERVICING STRATEGY PLAN SHEET 3	B
CD600	WSUD ASSET KEYPLAN AND DETAILS SHEET 1	B
CD601	WSUD ASSET KEYPLAN AND DETAILS SHEET 2	B
CD602	WSUD ASSET KEYPLAN AND DETAILS SHEET 3	B
CD610	UTILITY MASTER PLAN	B
CD611	SHARED TRENCH TYPICAL DETAIL	B
CD620	RIPARIAN CORRIDOR OFFSET PLAN	B
CD700	SOIL, WATER & VEGETATION CONCEPT MANAGEMENT PLAN SHEET 1	B
CD701	SOIL, WATER & VEGETATION CONCEPT MANAGEMENT PLAN SHEET 2	B

file name: 323444-001CD001.dwg, by: jay, name: CD001, plotted by: jay, Zhang, file location: G:\323444\001\Civil\ACAD\plot date: 09/07/2025 11:28 AM

B	ISSUED FOR APPROVAL	C.J.C	09-07-25
A	ISSUED FOR CLIENT REVIEW	C.J.C	30-06-25
Rev	Amendments	Approved	Date



Registered Professional Engineer Name
Registration Number
© Spiire Australia Pty Ltd All Rights Reserved
This document is produced by Spiire Australia Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Spiire Australia Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.



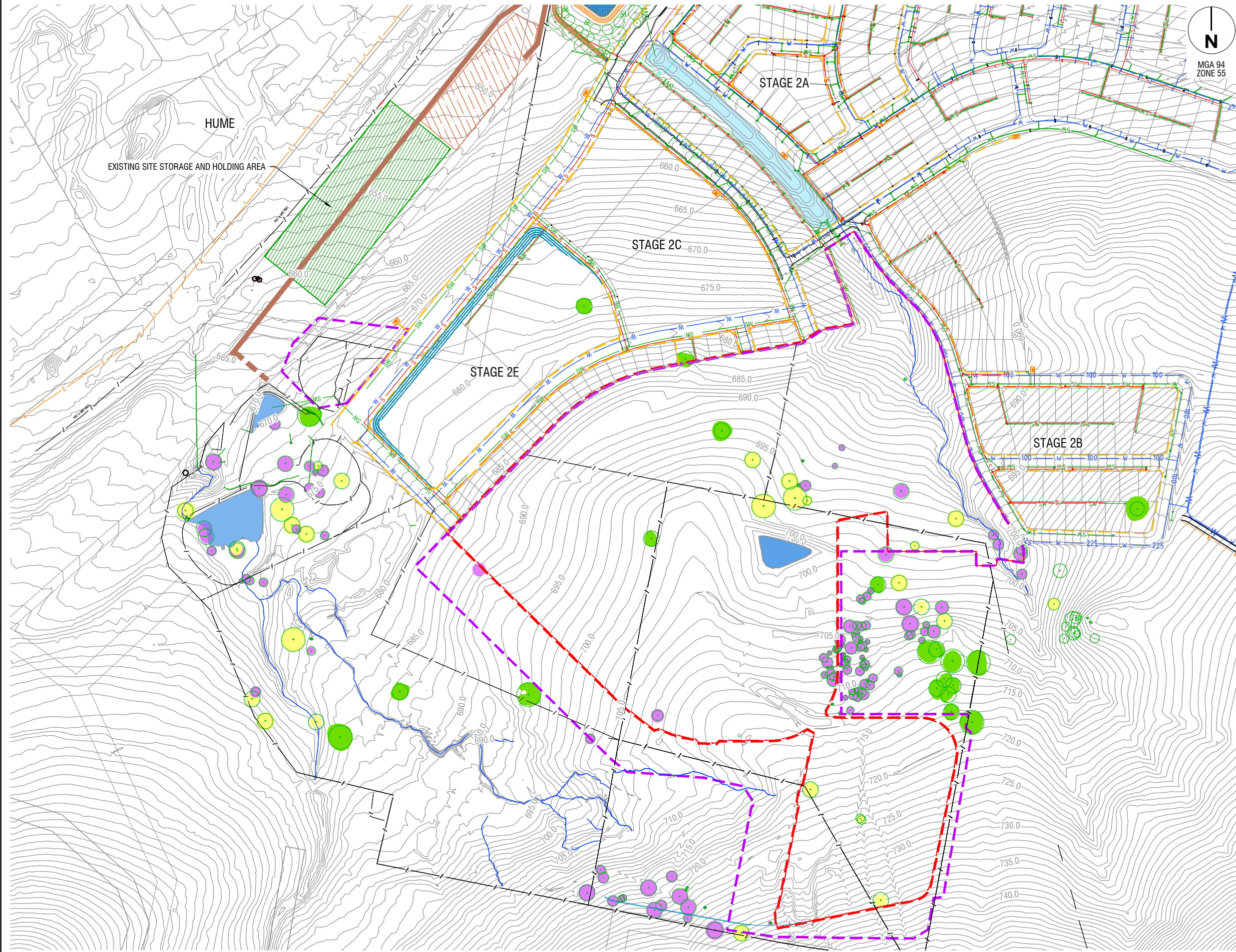
Suite 3, Level 1, 243 Northbourne Avenue
Canberra ACT 2612 Australia
spiire.com.au ABN 55 050 029 635



Designed
J.Zhang
Authorised
C.J.Corcoran
Checked
C.Otto
Date
09 July 25

**SOUTHE JERRABOMBERRA ESTATE 2
NORTHERN CATCHMENT
COVER SHEET & DRAWING SCHEDULE
SHEET 1**
QPRC
DEVELOPMENT APPLICATION

Orig No
323444-001CD001
Rev
B



LEGEND

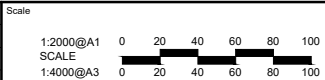
- DA BOUNDARY
- EXTENT OF WORK BOUNDARY
- EXISTING SHARED TRENCH
- EXISTING SEWER
- EXISTING STORMWATER
- EXISTING WATER
- EXISTING ELECTRICITY
- EXISTING OVERHEAD ELECTRICITY
- EXISTING RETAINING WALL
- EXISTING TREE - HIGH VALUE
- EXISTING TREE - MEDIUM VALUE
- EXISTING TREE - LOW VALUE
- EXISTING TREE - UNCLASSIFIED
- EXISTING TRACK
- DRAINAGE LINE
- EXISTING DAM
- EXISTING SUBSTATION
- EXISTING FENCE
- EXISTING SURFACE CONTOUR (1m INTERVAL)
- EXISTING SITE COMPOUND
- EXISTING FLOODWAY

- NOTES:
- EXISTING SERVICES AND FENCES WITHIN THE EXTENTS OF THE DA BOUNDARY TO BE REMOVED DURING CONSTRUCTION



WARNING
BEWARE OF UNDERGROUND/OVERHEAD SERVICES
THE LOCATION OF SERVICES ARE APPROXIMATE ONLY AND THEIR EXACT POSITION SHOULD BE PROVEN ON SITE. NO GUARANTEE IS GIVEN THAT ALL EXISTING SERVICES ARE SHOWN. SPECIAL CONSIDERATION SHOULD BE GIVEN TO CONSTRUCTION PROCEDURES UNDER OVERHEAD ELECTRICITY TRANSMISSION LINES.

B	ISSUED FOR APPROVAL	C.J.C	09-07-25		
A	ISSUED FOR CLIENT REVIEW	C.J.C	30-06-25		
Rev	Amendments	Approved	Date		

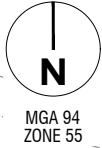
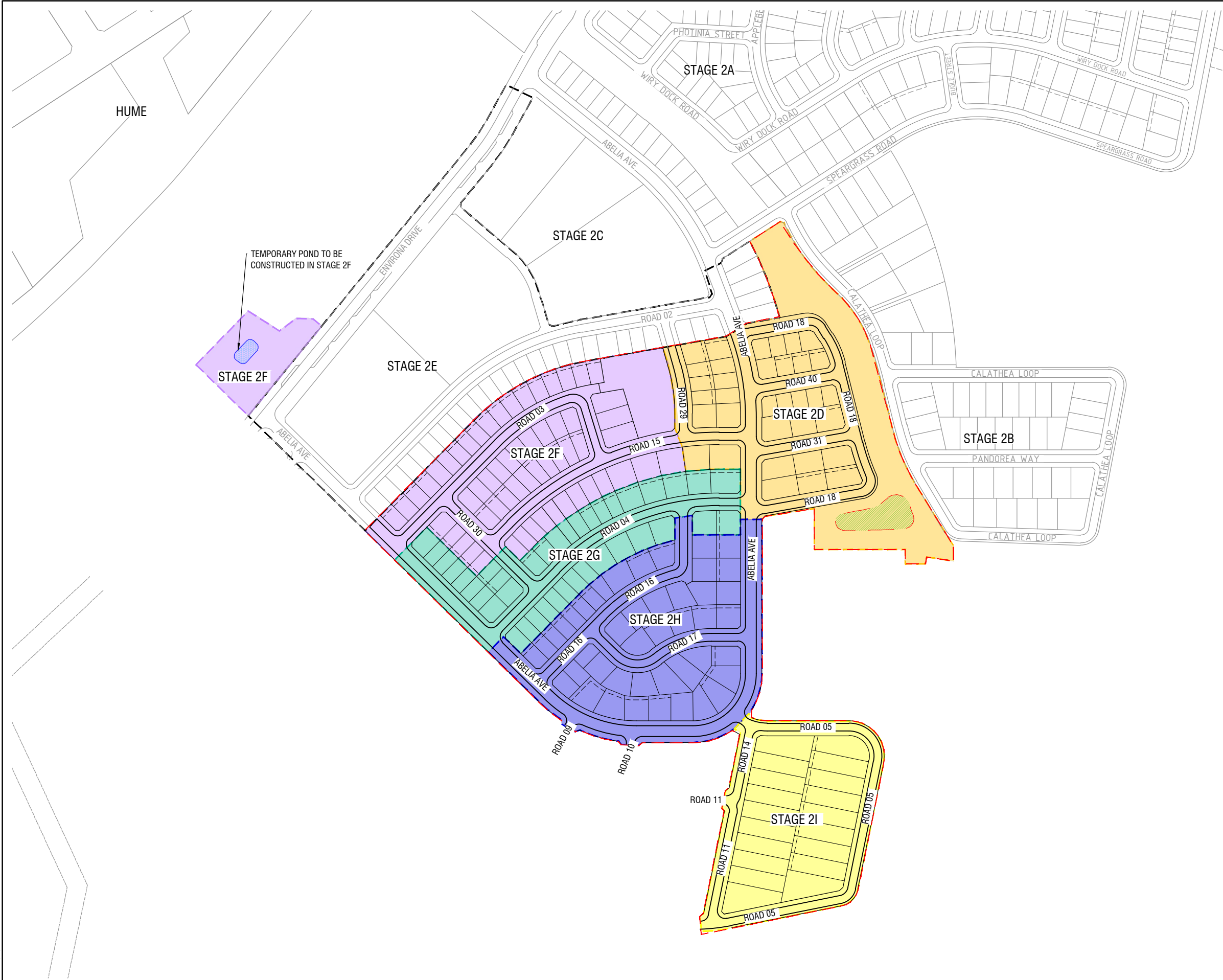


Registered Professional Engineer Name
Registration Number
© Spiire Australia Pty Ltd All Rights Reserved
This document is produced by Spiire Australia Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Spiire Australia Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

spiire
Suite 3, Level 1, 243 Northbourne Avenue
Canberra ACT 2612 Australia
spiire.com.au ABN 55 050 029 635

The Village Building Co Est. 1988
Designed J.Zhang
Authorised C.J.Corcoran
Checked C.Otto
Date 09 July 25

**SOUTHE JERRABOMBERRA ESTATE 2
NORTHERN CATCHMENT
EXISTING SERVICES PLAN
SHEET 1
QPRC
DEVELOPMENT APPLICATION**
Orig No 323444-001CD010 Rev B



LEGEND

- DA BOUNDARY
- STAGE 2D
- STAGE 2E (SUBJECT TO SEPARATE DA)
- STAGE 2F
- STAGE 2G
- STAGE 2H
- STAGE 2I
- DRY DETENTION POND
- SEDIMENT POND

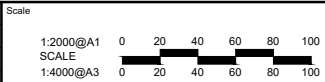
LOT TABLE

	RESIDENTIAL	OPEN SPACE	MULTI UNIT
STAGE 2D	34		
STAGE 2E	31	1	2
STAGE 2F	57	2	
STAGE 2G	37	1	
STAGE 2H	44		
STAGE 2I	19		
TOTAL	222	4	2

NOTES

- STAGING IS INDICATIVE. SUBJECT TO CHANGE AT DETAILED DESIGN

B	ISSUED FOR APPROVAL	C.J.C	09-07-25
A	ISSUED FOR CLIENT REVIEW	C.J.C	30-06-25
Rev	Amendments	Approved	Date



Registered Professional Engineer Name
Registration Number
© Spiire Australia Pty Ltd All Rights Reserved
This document is produced by Spiire Australia Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Spiire Australia Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.



Suite 3, Level 1, 243 Northbourne Avenue
Canberra ACT 2612 Australia
spiire.com.au ABN 55 050 029 635



Designed
J.Zhang
Authorised
C.J.Corcoran
Checked
C.Otto
Date
09 July 25

SOUTHE JERRABOMBERRA ESTATE 2
NORTHERN CATCHMENT
STAGING PLAN
SHEET 1
QPRC
DEVELOPMENT APPLICATION

Orig No
323444-001CD015
Rev
B

file name 323444-001CD015.dwg layout name CD015, plotted by Jimi Zhang
file location G:\323444\001\Civil\ACAD plot date 09/07/2025 11:28 AM

file name: 323444-001CD040.dwg, layout name: CD040, plotted by: Jini Zhang
file location: G:\323444\001CD040\CD040.dwg, plot date: 09/07/2025 12:17 PM



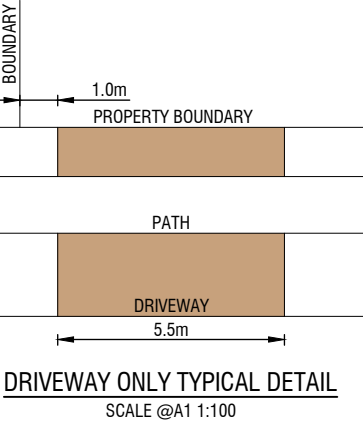
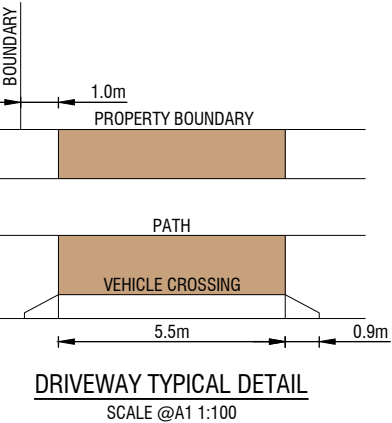
ROAD HIERARCHY TABLE

	VEHICLES PER DAY (vpd)	DESIGN SPEED (km/h)	VERGE WIDTH (m)	CARRIAGEWAY WIDTH (m)
COLLECTOR STREET	<3000	50	5.00 TO 6.00	11.20
LOCAL STREET	<2000	40	5.00	8.00
EDGE STREET	<2000	40	5.00 TO 2.50	8.00

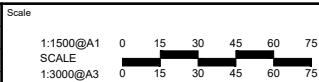
NOTES

1. DRIVEWAY LOCATIONS TO BE CONFIRMED AT DETAILED DESIGN.
2. CONNECT TO EXISTING SOUTH JERRABOMBERRA ROAD NETWORK.

DOUBLE DRIVEWAY TYPICAL
DETAIL
SCALE @A1 1:100



Rev	Amendments	Approved	Date
B	ISSUED FOR APPROVAL	C.J.C	09-07-25
A	ISSUED FOR CLIENT REVIEW	C.J.C	30-06-25



Registered Professional Engineer Name
Registration Number
© Spiire Australia Pty Ltd All Rights Reserved
This document is produced by Spiire Australia Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Spiire Australia Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

spiire
Suite 3, Level 1, 243 Northbourne Avenue
Canberra ACT 2612 Australia
spiire.com.au ABN 55 050 029 635

The Village Building Co Est. 1988
Designed J.Zhang
Authorised C.J. Corcoran
Checked C. Otto
Date 09 July 25

**SOUTHE JERRABOMBERRA ESTATE 2
NORTHERN CATCHMENT
STREET HIERARCHY, PATH & DRIVEWAY PLAN
SHEET 1**
QPRC DEVELOPMENT APPLICATION
Orig No 323444-001CD040 Rev B



SECTION 01

COLLECTOR STREET - 11.2m CARRIAGEWAY WITH MIN. 5m VERGE



SECTION 02

COLLECTOR STREET - 11.2m CARRIAGEWAY WITIH MIN. 5m VERGE

- RETAINING WALL TO BE PROVIDED IF REQUIRED.
WALL HEIGHT AND DETAILS ARE INDICATIVE AND
SUBJECT TO DETAILED DESIGN.

B	ISSUED FOR APPROVAL	C.J.C	09-07-25
A	ISSUED FOR CLIENT REVIEW	C.J.C	30-06-25
Rev	Amendments	Approved	Date

Scale

1:50@A1

SCALE

1:100@A3

0 0.5 1 1.5 2 2.5

0 0.5 1 1.5 2 2.5

Registered Professional Engineer Name

Registration Number

© Spiire Australia Pty Ltd All Rights Reserved
This document is produced by Spiire Australia Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Spiire Australia Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.



Suite 3, Level 1, 243 Northbourne Avenue
Canberra ACT 2612 Australia
spiire.com.au ABN 55 050 029 635

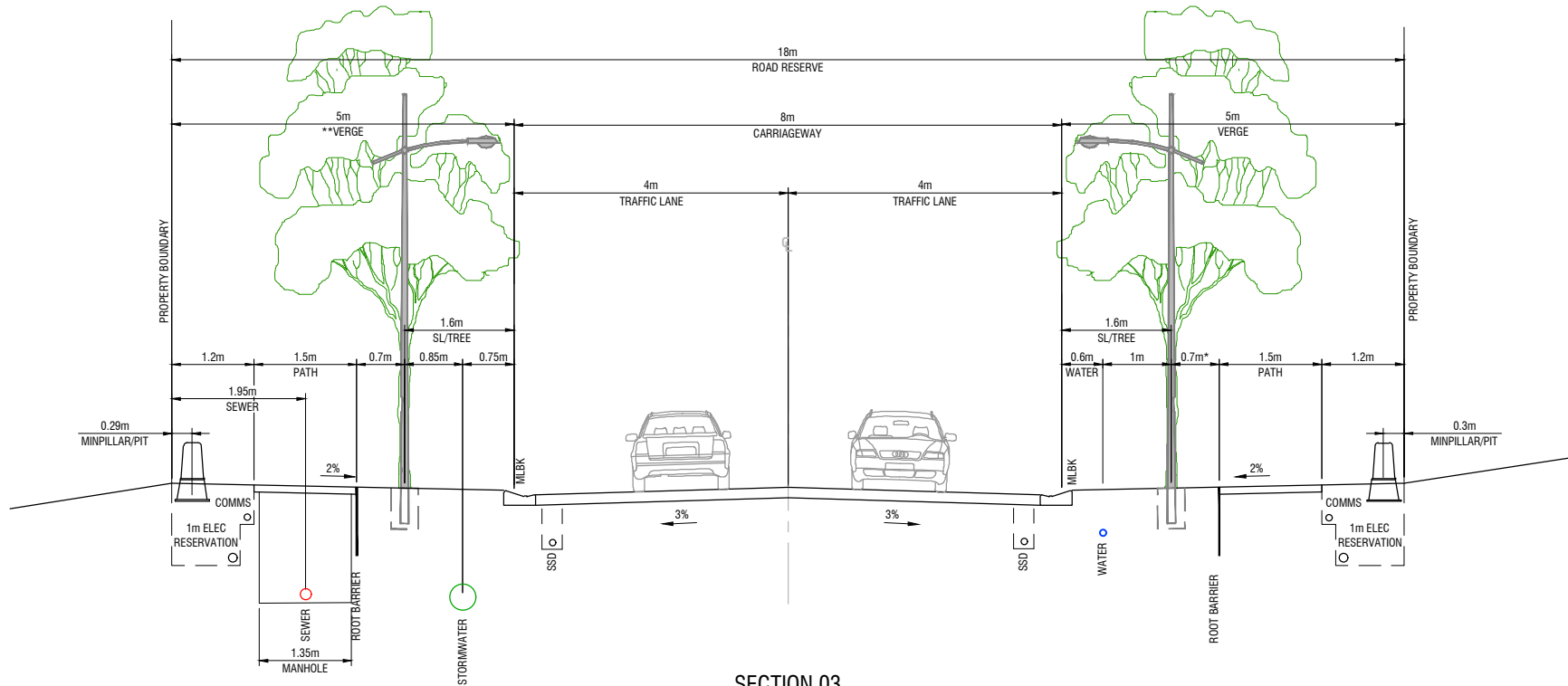
The Village
Building Co Est.1988

Designed	J.Zhang
Authorised	C.J.Corcoran

Checked
C.Otto
Date
09 July 25

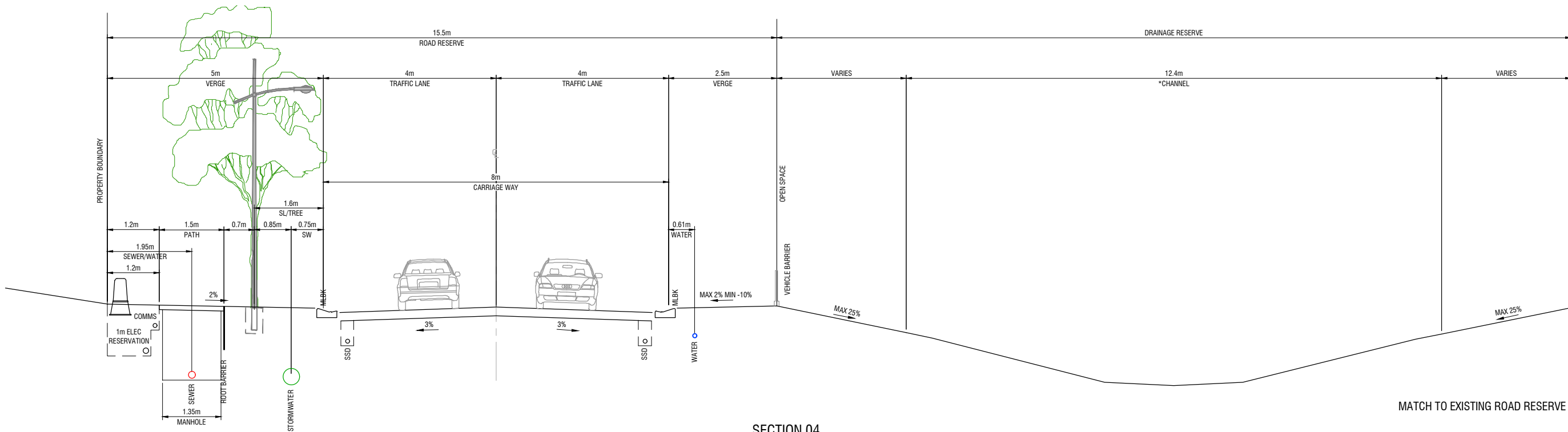
SOUTHE JERRABOMBERRA ESTATE 2
NORTHERN CATCHMENT
TYPICAL CROSS SECTIONS
SHEET 1
QPRC
DEVELOPMENT APPLICATION

Drg No Rev
323444-001CD060 B



SECTION 03
LOCAL STREET - 8m CARRIAGEWAY WITH MIN. 5.0m VERGE

- ABBREVIATIONS
- MLBK MODIFIED LAYBACK KERB
- SL STREET LIGHT
- SSD SUBSOIL DRAINAGE
- * REFER 323444-001CD52 FOR CHANNEL DETAILS
- ** NO PATH AND SEWER UNDER VERGE ON ROAD 29

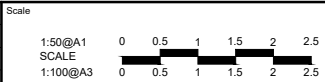


SECTION 04
EDGE STREET - 8m CARRIAGEWAY WITH MIN. 2.5m VERGE

- NOTES
1. REFER CD060 FOR GENERAL NOTE AND LEGEND.

file name 323444-001CD060.dwg layout name CD061 plotted by jimi zhang
file location G:\323444\001\Civil\ACAD plot date 09/07/2025 11:28 AM

Rev	Amendments	Approved	Date
B	ISSUED FOR APPROVAL	C.J.C	09-07-25
A	ISSUED FOR CLIENT REVIEW	C.J.C	30-06-25



Registered Professional Engineer Name

Registration Number

© Spiire Australia Pty Ltd All Rights Reserved
This document is produced by Spiire Australia Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Spiire Australia Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

spiire

Suite 3, Level 1, 243 Northbourne Avenue
Canberra ACT 2612 Australia
spiire.com.au ABN 55 050 029 635

The Village
Building Co Est. 1988

Designed
J.Zhang

Authorised
C.J.Corcoran

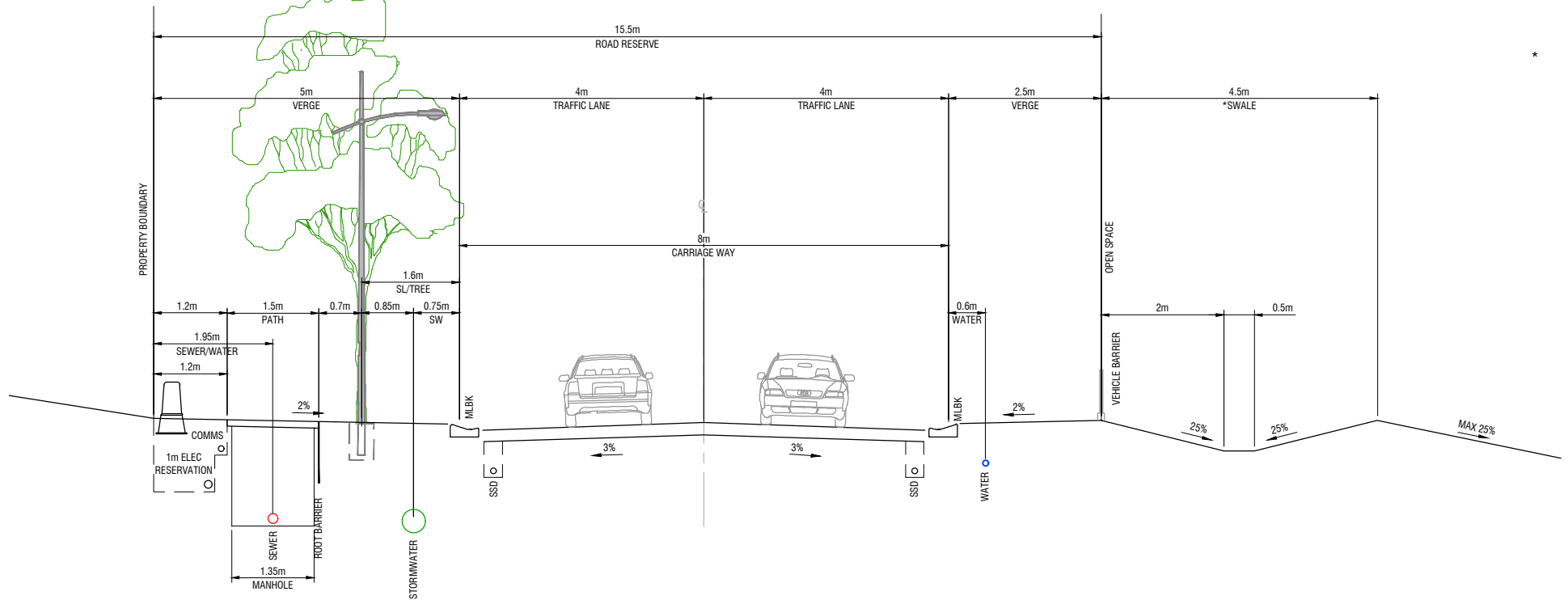
Checked
C.Otto

Date
09 July 25

SOUTHE JERRABOMBERRA ESTATE 2
NORTHERN CATCHMENT
TYPICAL CROSS SECTIONS
SHEET 2
QPRC
DEVELOPMENT APPLICATION

Orig No
323444-001CD061

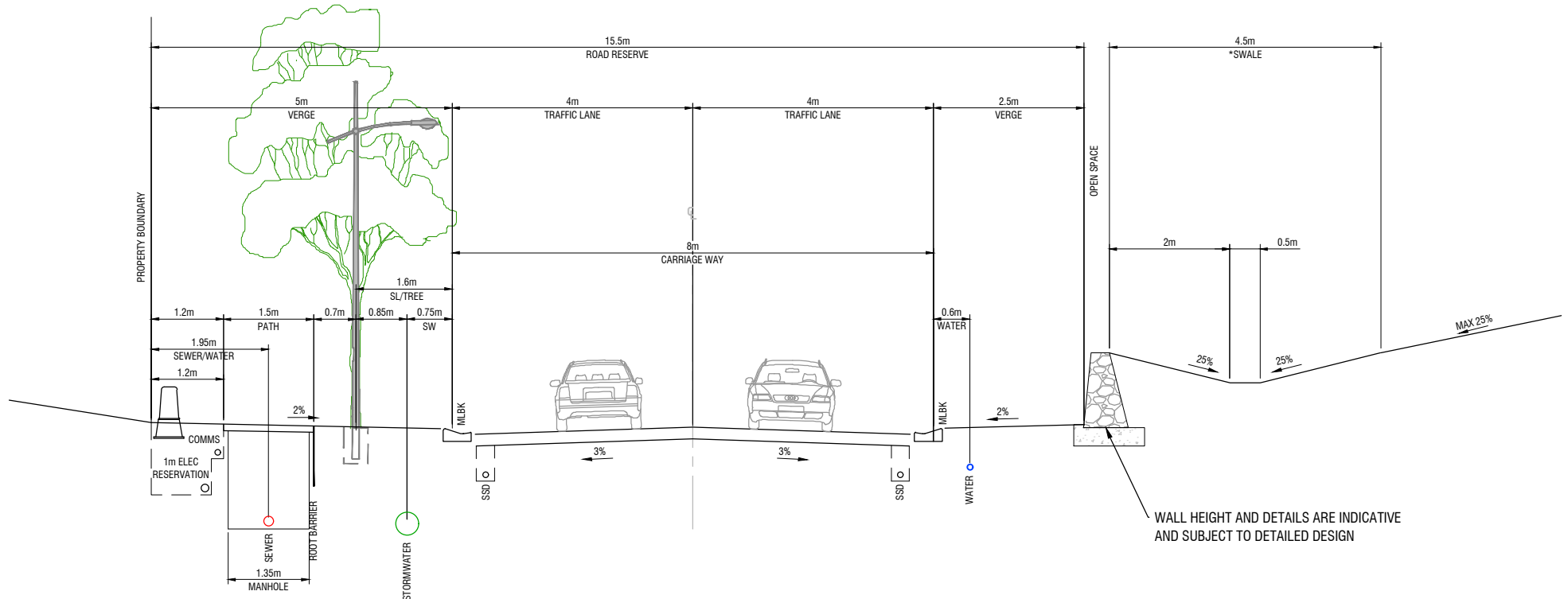
Rev
B



* SWALE DIMENSION TO BE CONFIRMED IN DETAILED DESIGN.

SECTION 05
EDGE STREET - 8m CARRIAGEWAY WITH MIN. 5.0m VERGE

ABBREVIATIONS	
MLBK	MODIFIED LAYBACK KERB
SL	STREET LIGHT
SSD	SUBSOIL DRAINAGE



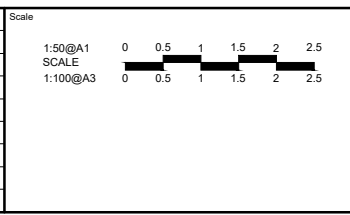
WALL HEIGHT AND DETAILS ARE INDICATIVE AND SUBJECT TO DETAILED DESIGN

SECTION 06
EDGE STREET - 8m CARRIAGEWAY WITH MIN. 5.0m VERGE

- NOTES
- REFER CD060 FOR GENERAL NOTE AND LEGEND.

file name 323444-001CD060.dwg, layout name CD062, plotted by Jimi Zhang, file location G:\32323444\001\Civil\ACAD plot date 09/07/2025 11:28 AM

Rev	Amendments	Approved	Date
B	ISSUED FOR APPROVAL	C.J.C	09-07-25
A	ISSUED FOR CLIENT REVIEW	C.J.C	30-06-25



Registered Professional Engineer Name
Registration Number
© Spiire Australia Pty Ltd All Rights Reserved
This document is produced by Spiire Australia Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Spiire Australia Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

Suite 3, Level 1, 243 Northbourne Avenue
Canberra ACT 2612 Australia
spiire.com.au ABN 55 050 029 635

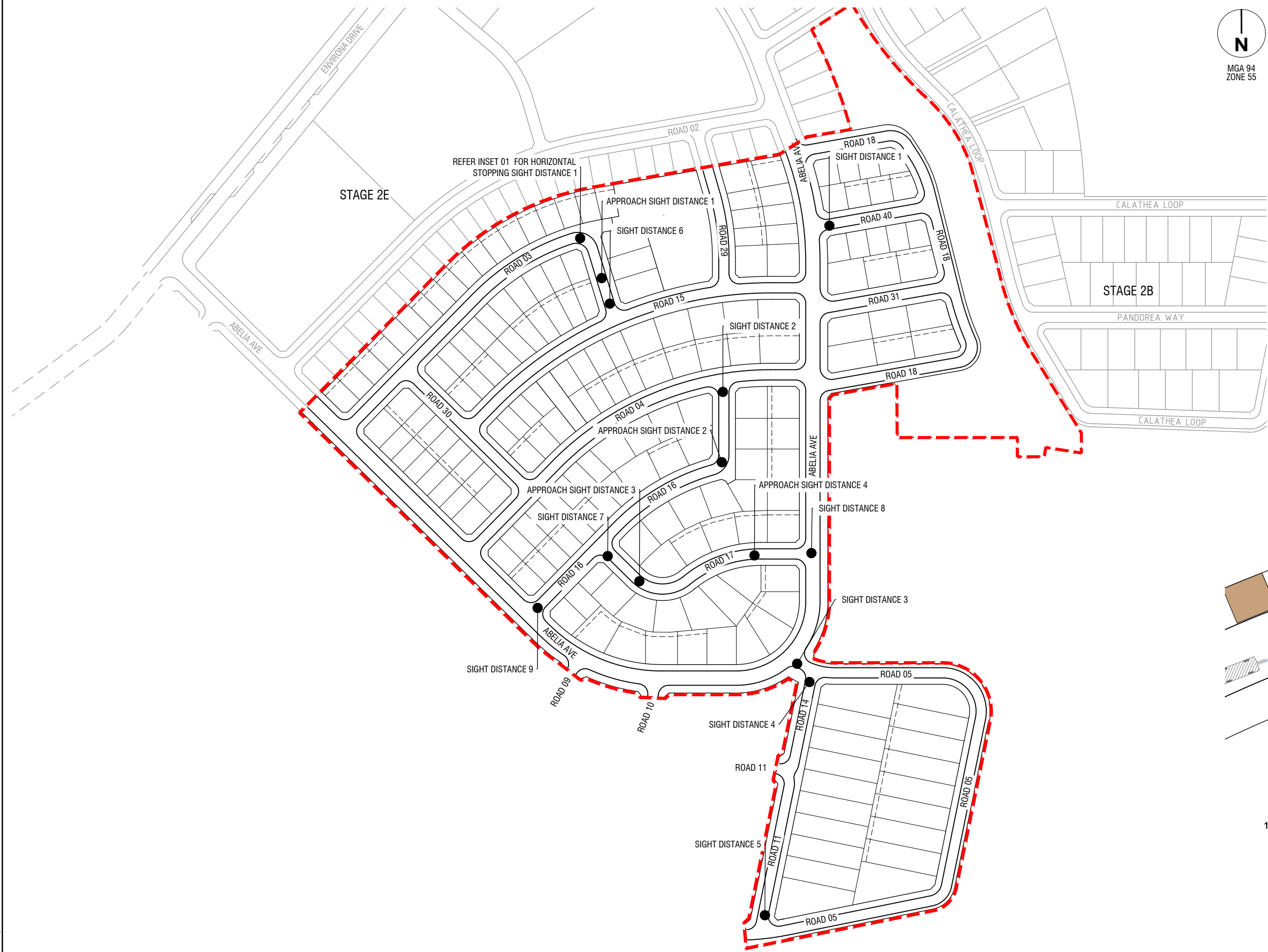
Designed
J.Zhang
Authorised
C.J.Corcoran

Checked
C.Otto
Date
09 July 25

SOUTHE JERRABOMBERRA ESTATE 2
NORTHERN CATCHMENT
TYPICAL CROSS SECTIONS
SHEET 3
QPRC
DEVELOPMENT APPLICATION

Orig No
323444-001CD062
Rev
B

file name: 323444-001CD100.dwg, layout name: CD100, plotted by: Rachel Murdoch
file location: \\spire\carberra\323444\001\CD100.dwg, plot date: 18/09/2025 12:52 PM



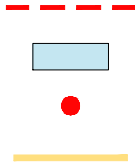
LEGEND

DA BOUNDARY

SIGHT DISTANCE TRIANGLE

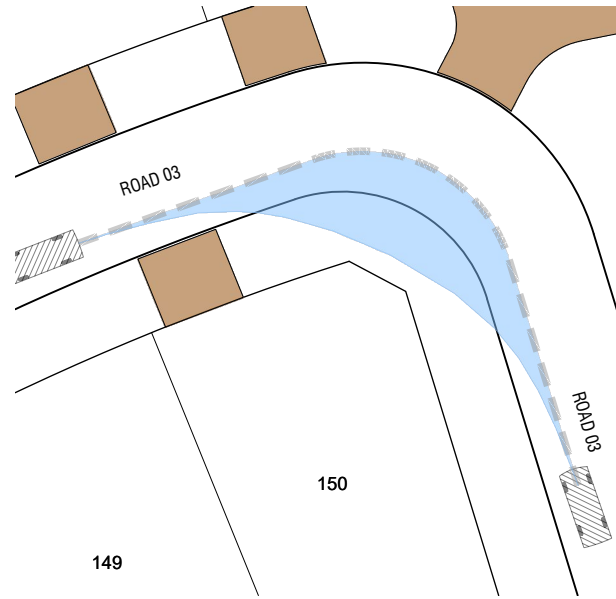
VEHICLE CONFLICT POINT

PROPOSED NO PARKING TO BE
CONFIRMED IN DETAILED DESIGN



NOTES:

- REFER TO 323444-001CD101 FOR SIGHT DISTANCE DETAILS 1, 2 & 3 AND 323444-001CD102 FOR DETAILS 4, 5 & 6 AND 323444-001CD103 FOR DETAILS 7, 8 & 9.
- REFER TO 323444-001CD104 FOR APPROACH SIGHT DISTANCE 1, 2, 3 & 4.
- SAFE INTERSECTION SIGHT DISTANCE (SISD) AND APPROACH SIGHT DISTANCE (ASD) HAVE BEEN PREPARED IN ACCORDANCE WITH AUSTRROADS GUIDE TO ROAD DESIGN (ARGD) PART 4A: UNSIGNALISED AND SIGNALISED INTERSECTIONS
- HORIZONTAL STOPPING SIGHT DISTANCE HAS BEEN PREPARED IN ACCORDANCE WITH AUSTRROADS GUIDE TO ROAD DESIGN (ARGD) PART 3: GEOMETRIC DESIGN



INSET 01
SCALE 1 : 250

SIGHT DISTANCE	INSET 01	
Rt	2.5	s
d	0.36	
V vehicle A	40	km/h
a vehicle A	-10	%
SSD vehicle A	45.78	m

C	QPRC RFI ADDRESSED	RM	17-09-25	
B	ISSUED FOR APPROVAL	C.J.C	09-07-25	
A	ISSUED FOR CLIENT REVIEW	C.J.C	30-06-25	
Rev	Amendments	Approved	Date	

Scale	
1:1500@A1 SCALE	0 15 30 45 60 75
1:3000@A3	0 15 30 45 60 75
1:250@A1 SCALE	0 2.5 5 7.5 10 12.5
1:500@A3	0 2.5 5 7.5 10 12.5

Registered Professional Engineer Name
Registration Number
© Spiire Australia Pty Ltd All Rights Reserved
This document is produced by Spiire Australia Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Spiire Australia Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.



Suite 3, Level 1, 243 Northbourne Avenue
Canberra ACT 2612 Australia
spiire.com.au ABN 55 050 029 635



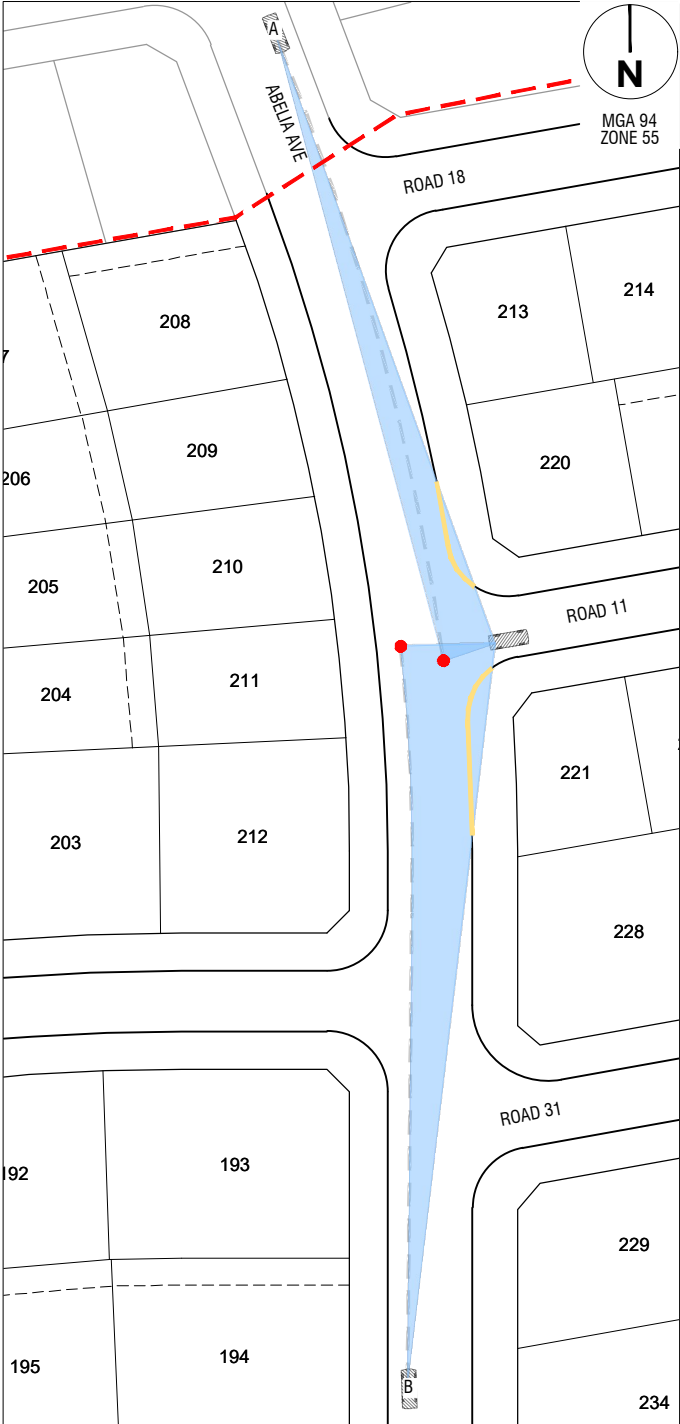
Designed
J.Zhang
Authorised
C.J.Corcoran

Checked
C.Otto
Date
09 July 25

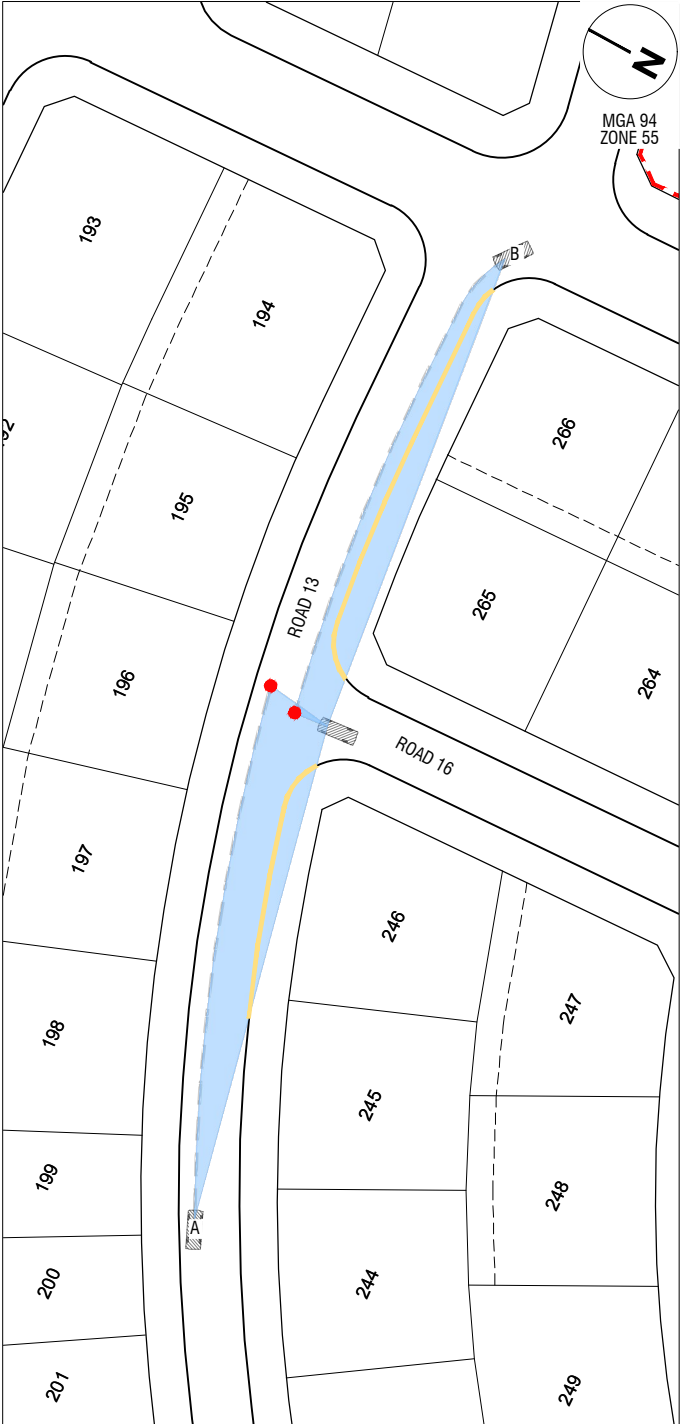
SOUTHE JERRABOMBERRA ESTATE 2
NORTHERN CATCHMENT
SIGHT DISTANCE
SHEET 1
QPRC
DEVELOPMENT APPLICATION

Org No
323444-001CD100
Rev
C

file path: 323444-001CD100.dwg, layout name: CD101, plotted by: Jimi Zhang
file location: G:\32323444\001\Civil\ACAD plot date: 09/07/2025 11:28 AM



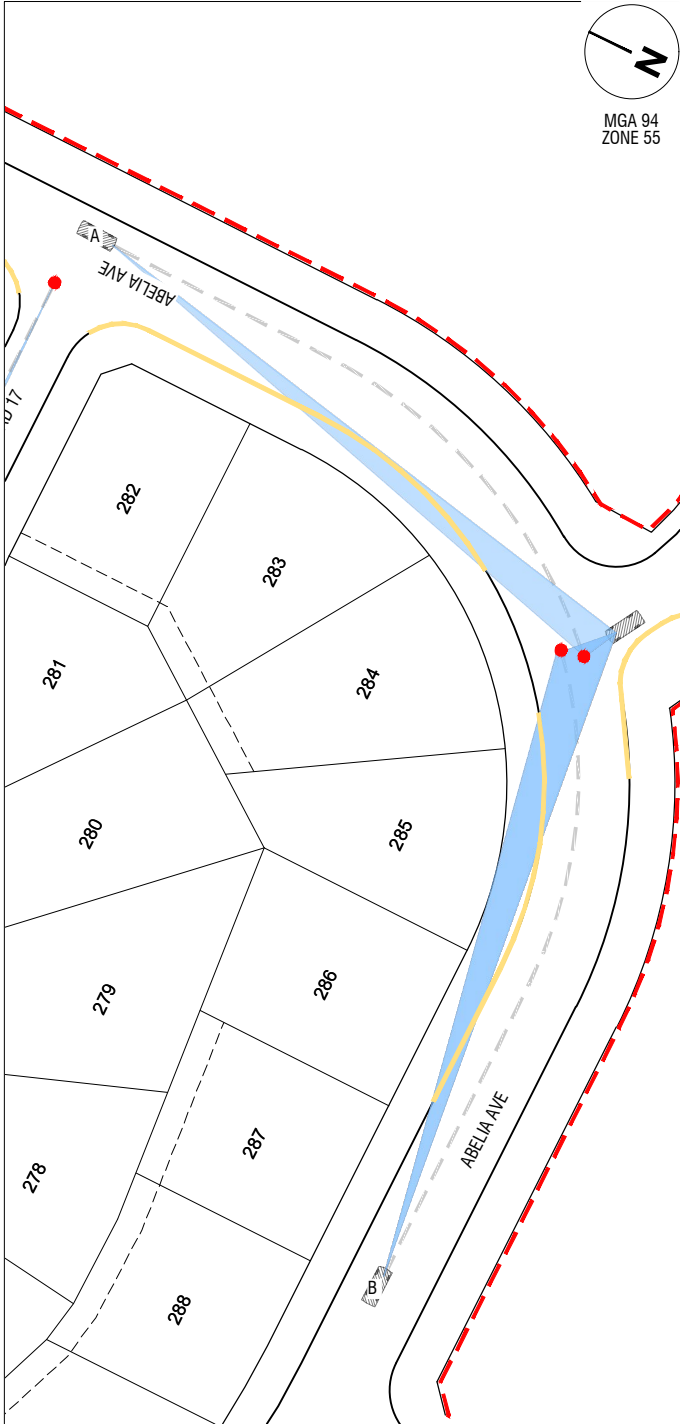
SIGHT DISTANCE	1	
DT	4.5	s
d	0.36	
V vehicle A	50	km/h
a vehicle A	9	%
SISD vehicle A	84.50	m
V vehicle B	50	km/h
a vehicle B	-7.5	%
SISD vehicle B	97.50	m



SIGHT DISTANCE	2	
DT	4.5	s
d	0.36	
V vehicle A	40	km/h
a vehicle A	-5	%
SISD vehicle A	70.50	m
V vehicle B	40	km/h
a vehicle B	4	%
SISD vehicle B	66.00	m

NOTE:

- THE DESIGN SPEED OF 40km/hr HAS BEEN ADOPTED DUE TO THE TURNING MOVEMENT ACROSS THE ABELIA AVE AND ROAD 13 INTERSECTION

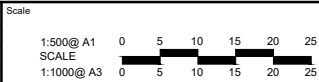


SIGHT DISTANCE	3	
DT	4.5	s
d	0.36	
V vehicle A	50	km/h
a vehicle A	7.3	%
SISD vehicle A	85.50	m
V vehicle B	50	km/h
a vehicle B	2.5	%
SISD vehicle B	88.50	m

ABBREVIATIONS

SISD	SAFE INTERSECTION SIGHT DISTANCE
V	OPERATING SPEED
d	COEFFICIENT OF DECELERATION
a	LONGITUDINAL GRADE
Dt	DECISION TIME
Rt	REACTION TIME

Rev	Amendments	Approved	Date
B	ISSUED FOR APPROVAL	C.J.C	09-07-25
A	ISSUED FOR CLIENT REVIEW	C.J.C	30-06-25



Registered Professional Engineer Name
Registration Number
© Spiire Australia Pty Ltd All Rights Reserved This document is produced by Spiire Australia Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Spiire Australia Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.



Suite 3, Level 1, 243 Northbourne Avenue
Canberra ACT 2612 Australia
spiire.com.au ABN 55 050 029 635

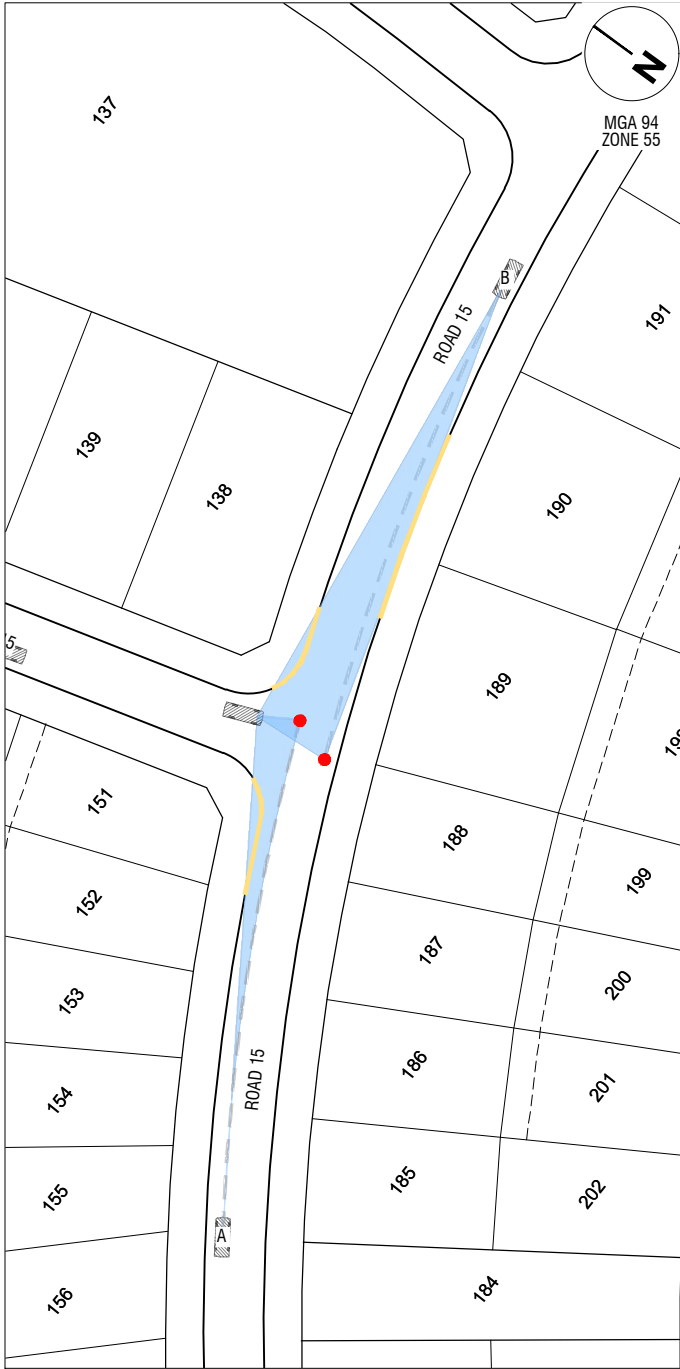
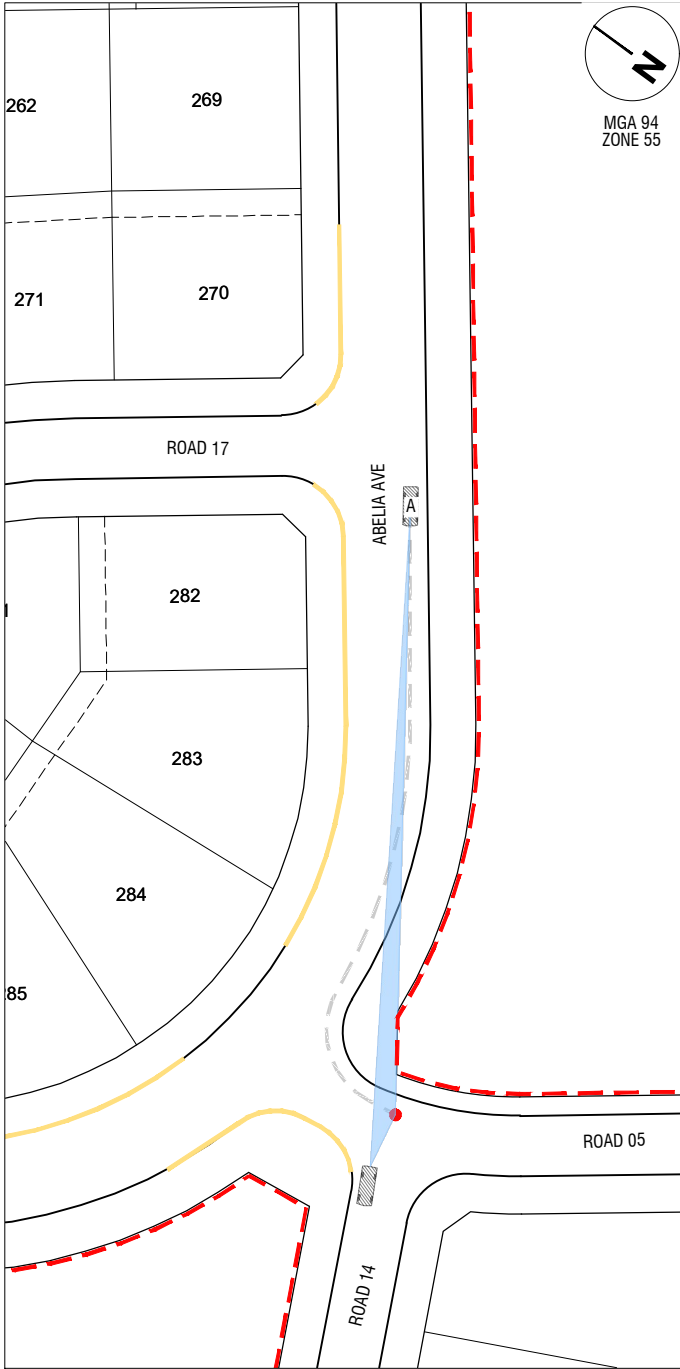
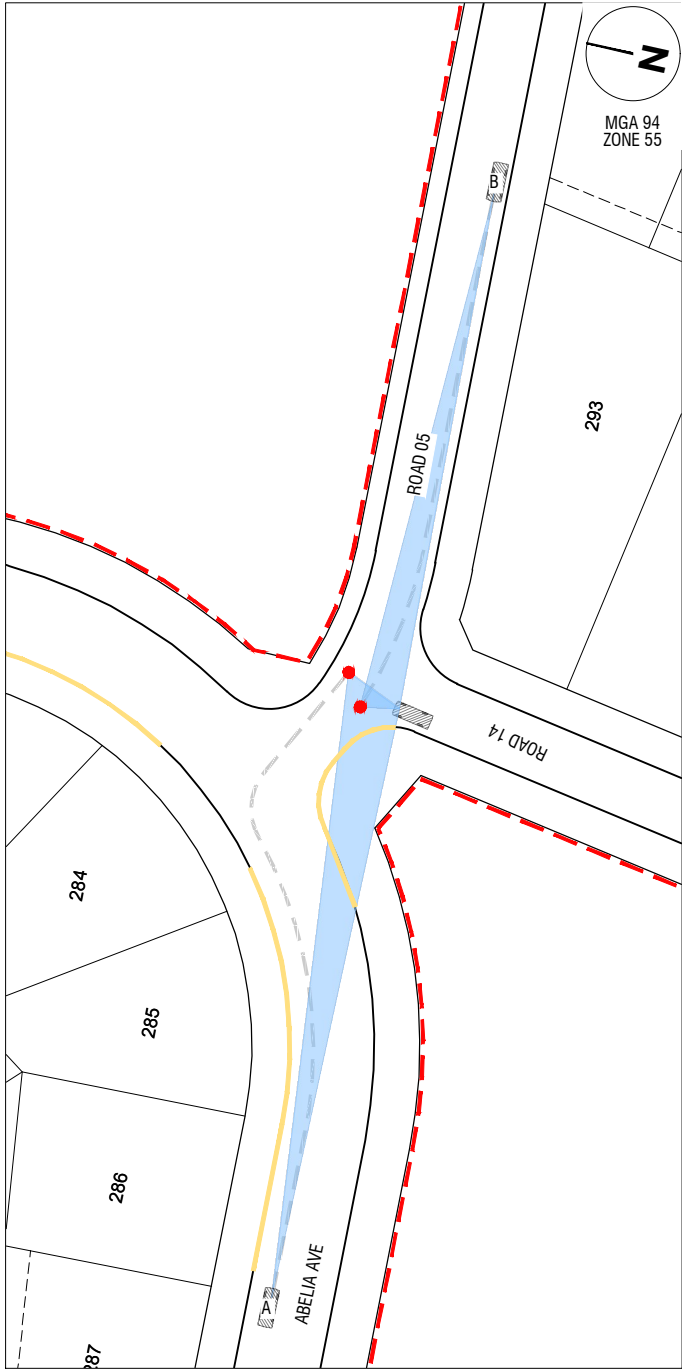


Designed
J.Zhang
Authorised
C.J.Corcoran

Checked
C.Otto
Date
09 July 25

SOUTHE JERRABOMBERRA ESTATE 2
NORTHERN CATCHMENT
SIGHT DISTANCE
SHEET 2
QPRC
DEVELOPMENT APPLICATION

Orig No
323444-001CD101
Rev
B



ABBREVIATIONS

SISD	SAFE INTERSECTION SIGHT DISTANCE
V	OPERATING SPEED
d	COEFFICIENT OF DECELERATION
a	LONGITUDINAL GRADE
Dt	DECISION TIME
Rt	REACTION TIME

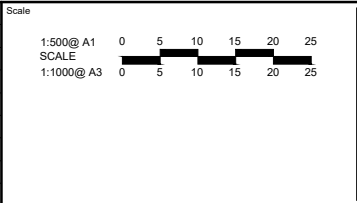
SIGHT DISTANCE	4	
DT	4.5	s
d	0.36	
V vehicle A	50	km/h
a vehicle A	2.5	%
SISD vehicle A	88.50	m
V vehicle B	40	km/h
a vehicle B	-5	%
SISD vehicle B	70.50	m

SIGHT DISTANCE	5	
DT	4.5	s
d	0.36	
V vehicle A	50	km/h
a vehicle A	7.3	%
SISD vehicle A	85.50	m

SIGHT DISTANCE	6	
DT	4.5	s
d	0.36	
V vehicle A	40	km/h
a vehicle A	-0.75	%
SISD vehicle A	68.00	m
V vehicle B	40	km/h
a vehicle B	2.5	%
SISD vehicle B	66.50	m

file name 323444-001CD100.dwg, layout name CD102, plotted by Jimi Zhang
file location G:\32323444\001\Civil\ACAD plot date 09/07/2025 11:28 AM

B	ISSUED FOR APPROVAL	C.J.C	09-07-25
A	ISSUED FOR CLIENT REVIEW	C.J.C	30-06-25
Rev	Amendments	Approved	Date

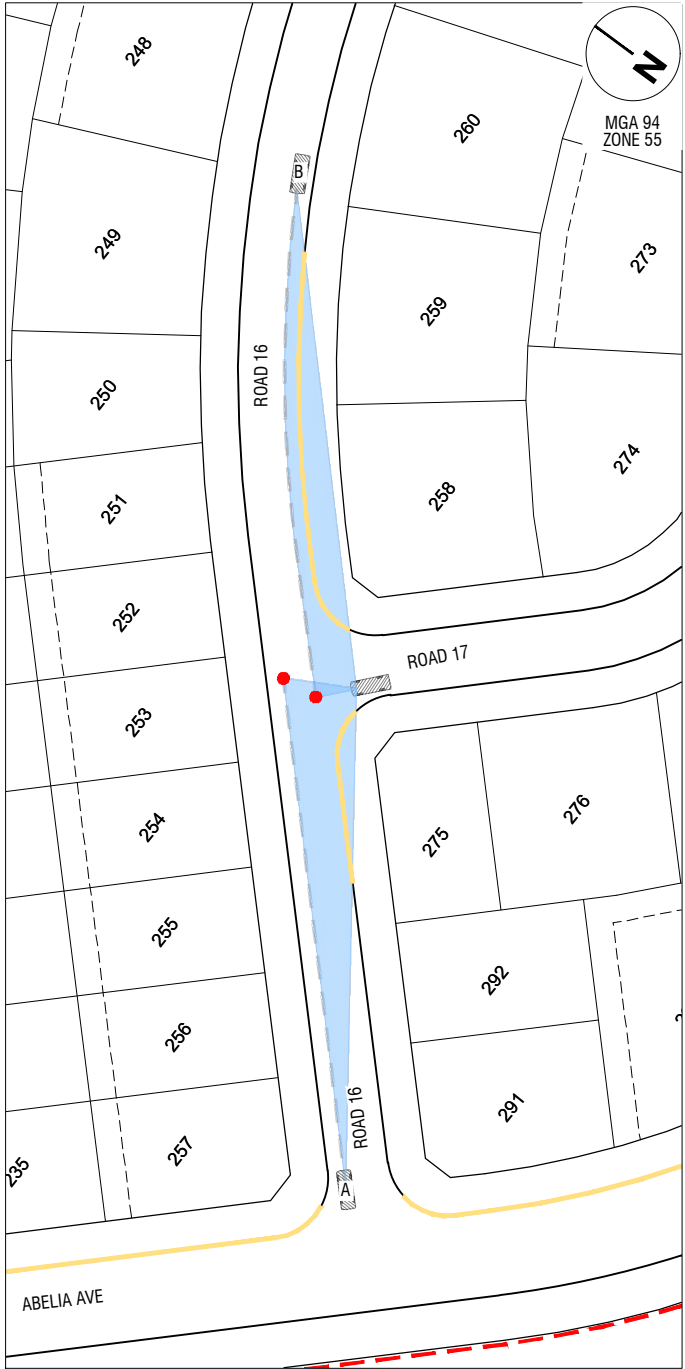


Registered Professional Engineer Name
Registration Number
© Spiire Australia Pty Ltd All Rights Reserved
This document is produced by Spiire Australia Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Spiire Australia Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

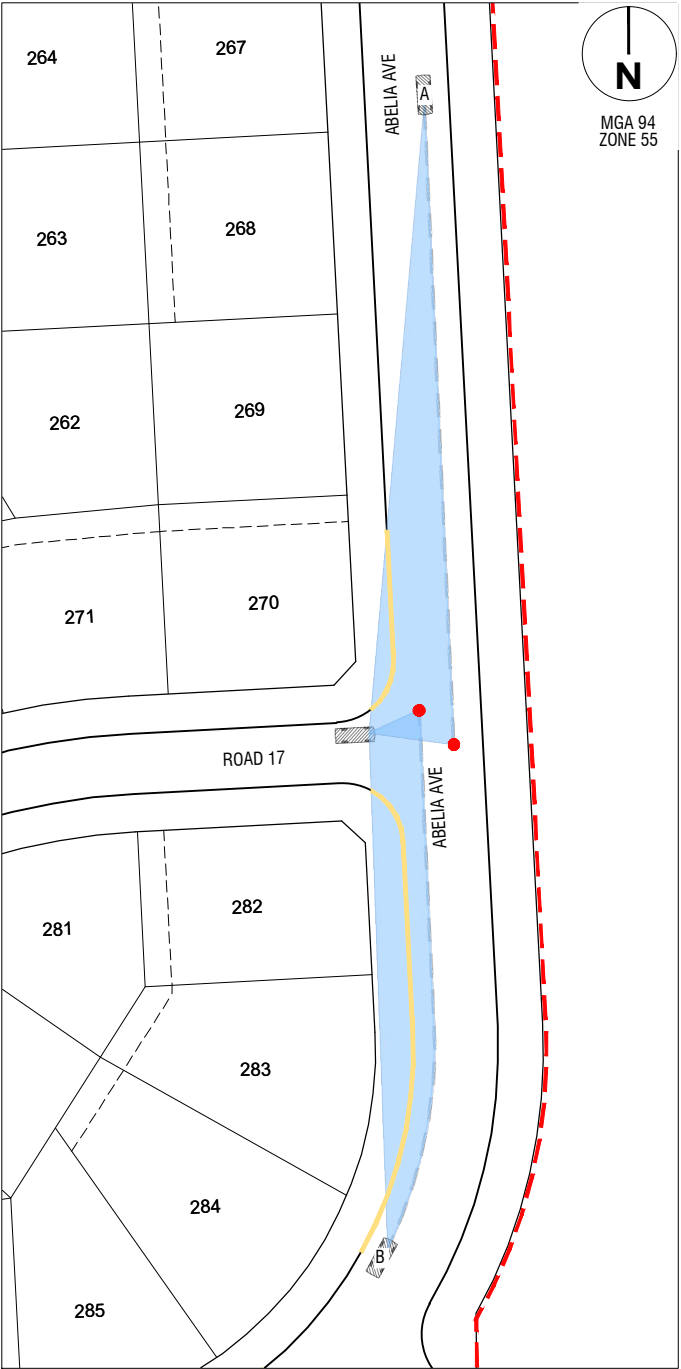
spiire
Suite 3, Level 1, 243 Northbourne Avenue
Canberra ACT 2612 Australia
spiire.com.au ABN 55 050 029 635

The Village Building Co Est. 1988
Designed J.Zhang
Authorised C.J.Corcoran
Checked C.Otto
Date 09 July 25

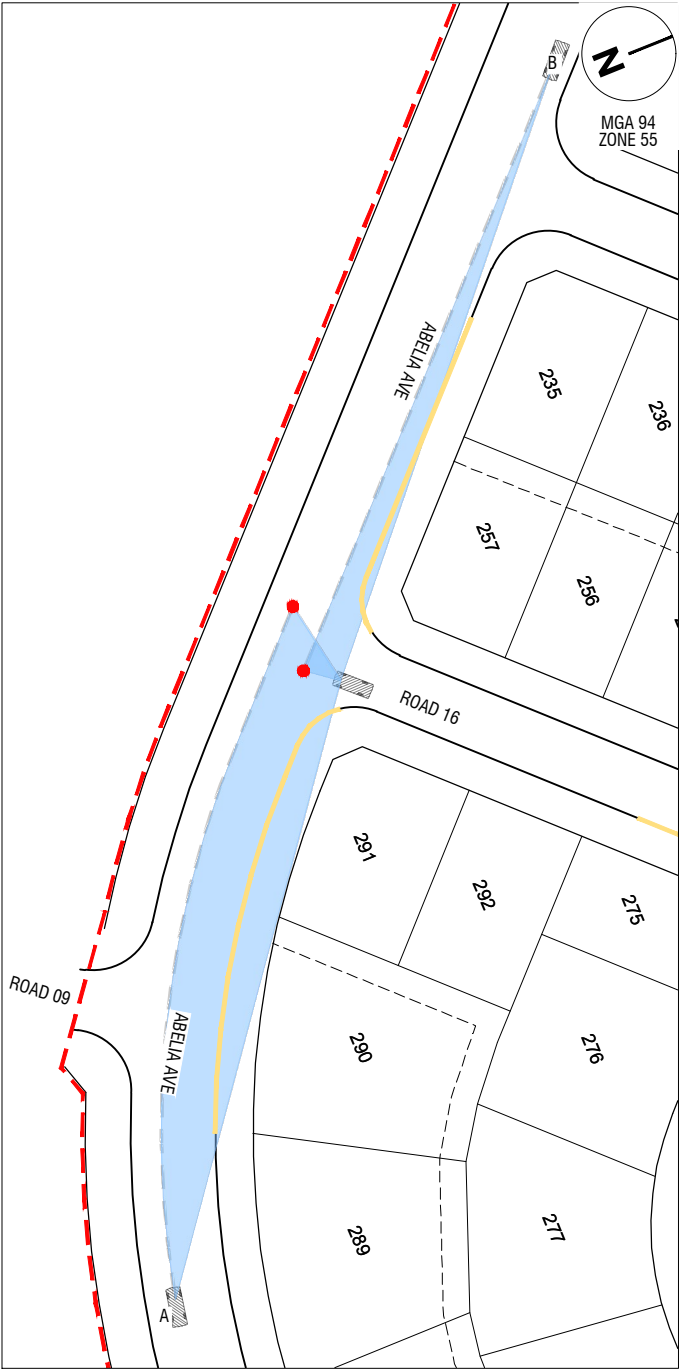
**SOUTHE JERRABOMBERRA ESTATE 2
NORTHERN CATCHMENT
SIGHT DISTANCE
SHEET 3**
QPRC
DEVELOPMENT APPLICATION
Orig No 323444-001CD102 Rev B



SIGHT DISTANCE	7	
DT	4.5	s
d	0.36	
V vehicle A	40	km/h
a vehicle A	1.6	%
SISD vehicle A	67.00	m
V vehicle B	40	km/h
a vehicle B	1	%
SISD vehicle B	67.50	m



SIGHT DISTANCE	8	
DT	4.5	s
d	0.36	
V vehicle A	50	km/h
a vehicle A	8	%
SISD vehicle A	85.00	m
V vehicle B	40	km/h
a vehicle B	-7	%
SISD vehicle B	72.00	m



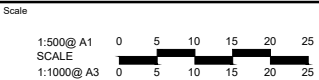
SIGHT DISTANCE	9	
DT	4.5	s
d	0.36	
V vehicle A	50	km/h
a vehicle A	-5	%
SISD vehicle A	94.50	m
V vehicle B	50	km/h
a vehicle B	7.5	%
SISD vehicle B	85.50	m

ABBREVIATIONS

SISD	SAFE INTERSECTION SIGHT DISTANCE
V	OPERATING SPEED
d	COEFFICIENT OF DECELERATION
a	LONGITUDINAL GRADE
Dt	DECISION TIME
Rt	REACTION TIME

file name 323444-001CD100.dwg, layout name CD103, plotted by Jimi Zhang
file location G:\32323444\001\Civil\ACAD plot date 09/07/2025 11:28 AM

B	ISSUED FOR APPROVAL	C.J.C	09-07-25
A	ISSUED FOR CLIENT REVIEW	C.J.C	30-06-25
Rev	Amendments	Approved	Date



Registered Professional Engineer Name
Registration Number
© Spiire Australia Pty Ltd All Rights Reserved This document is produced by Spiire Australia Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Spiire Australia Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.



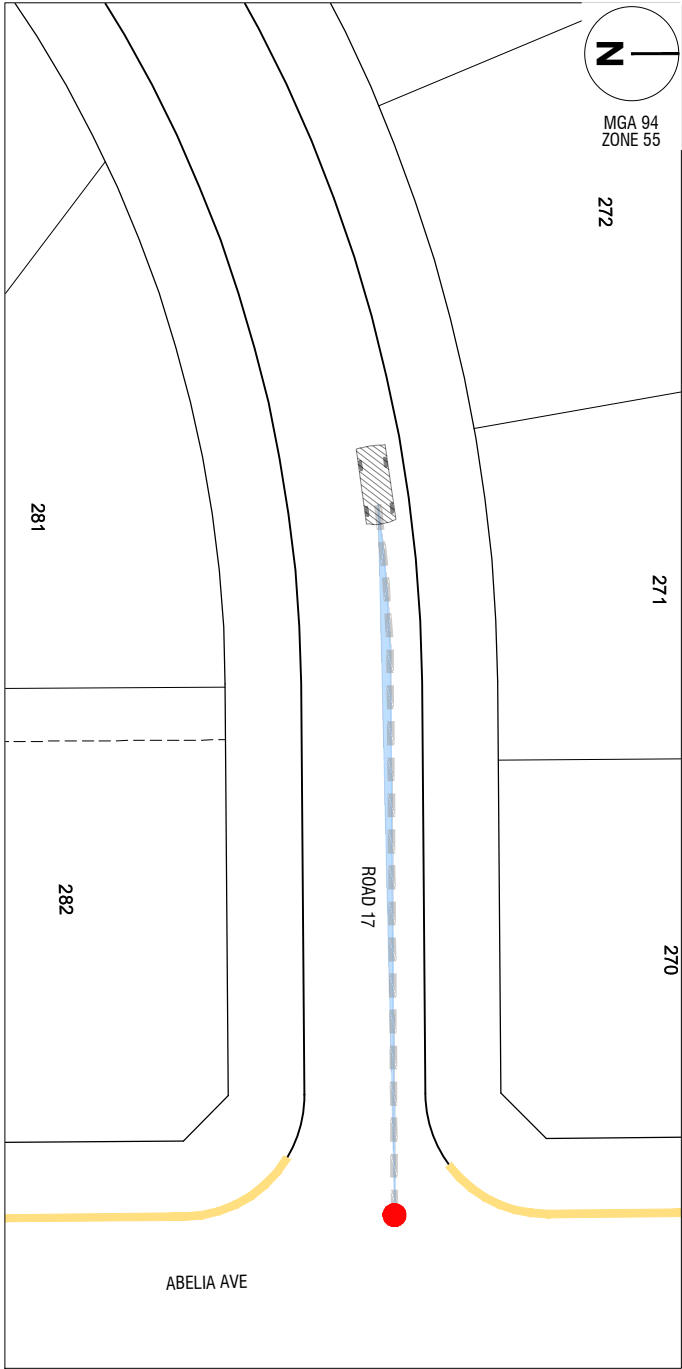
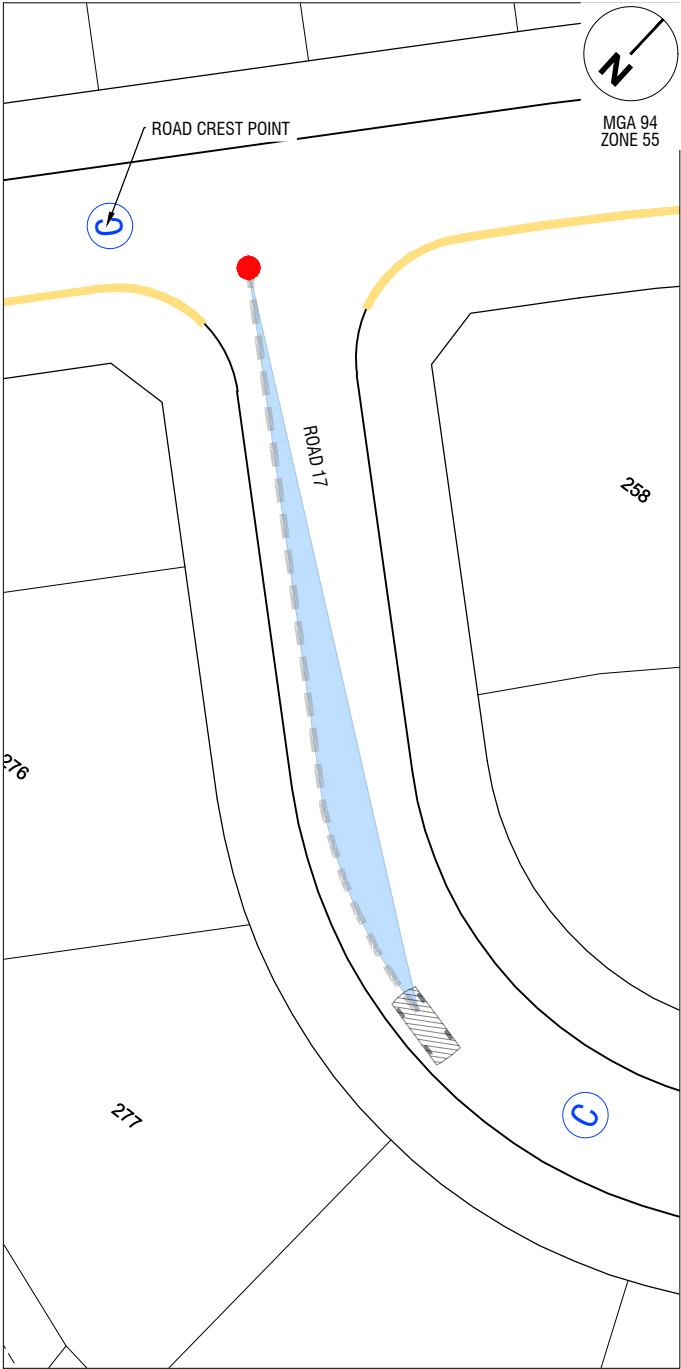
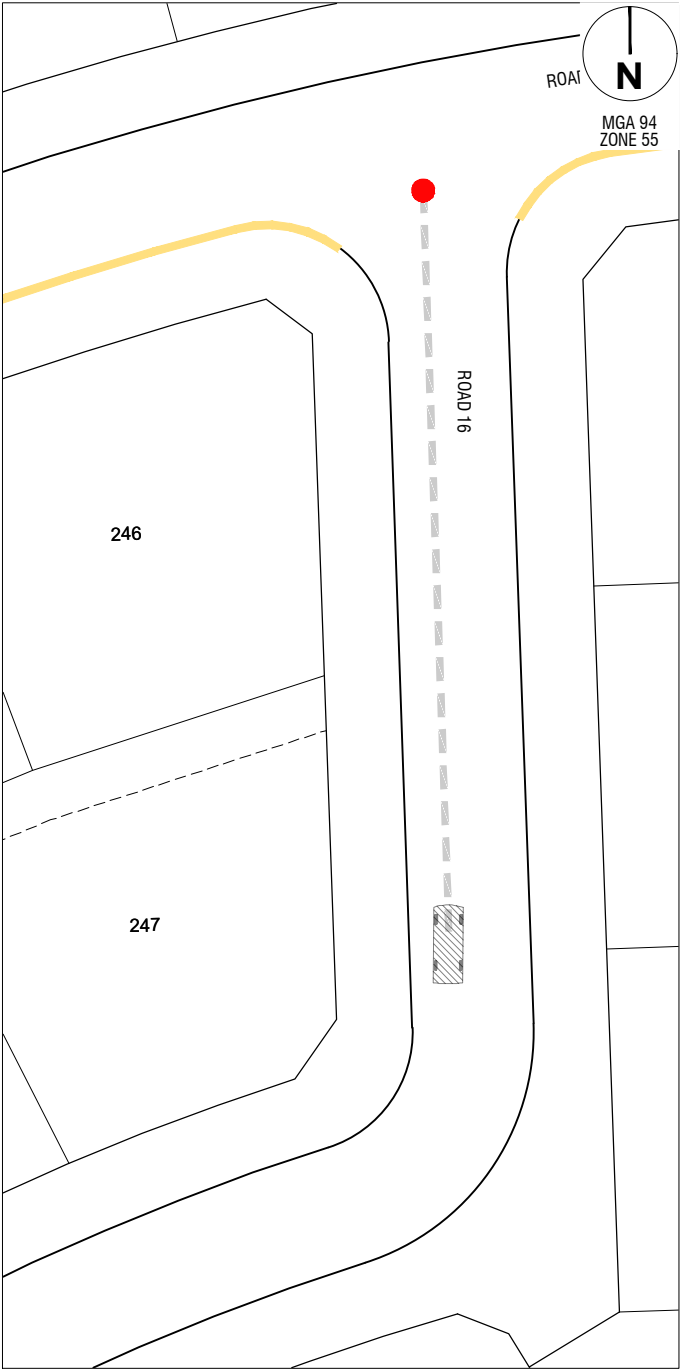
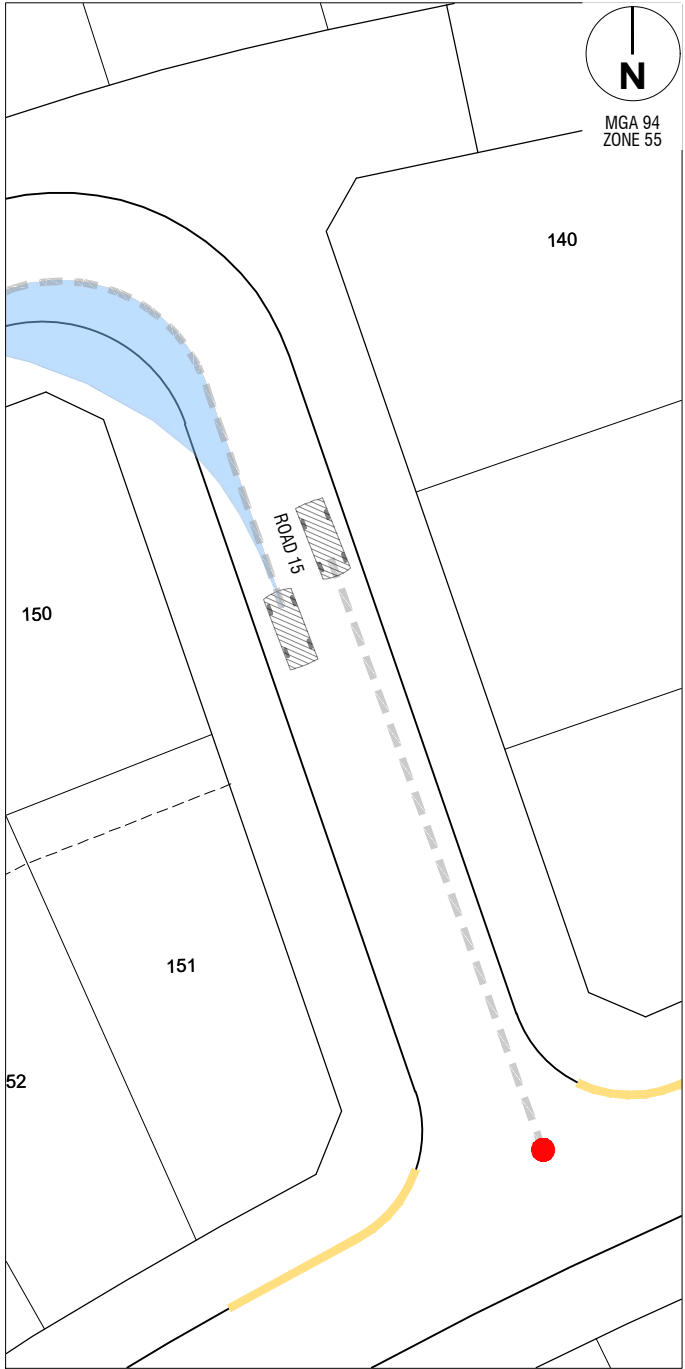
Suite 3, Level 1, 243 Northbourne Avenue
Canberra ACT 2612 Australia
spiire.com.au ABN 55 050 029 635



Designed J.Zhang	Checked C.Otto
Authorised C.J.Corcoran	Date 09 July 25

SOUTHE JERRABOMBERRA ESTATE 2
NORTHERN CATCHMENT
SIGHT DISTANCE
SHEET 4
QPRC
DEVELOPMENT APPLICATION

Orig No
323444-001CD103
Rev
B



ASD	1	
Rt	2.5	s
d	0.36	
V vehicle A	40	km/h
a vehicle A	11	%
ASD vehicle A	41.50	m

ASD	2	
Rt	2.5	s
d	0.36	
V vehicle A	40	km/h
a vehicle A	-5.2	%
ASD vehicle A	48.50	m

ASD	3	
Rt	2.5	s
d	0.36	
V vehicle A	40	km/h
a vehicle A	-8.5	%
ASD vehicle A	51.00	m

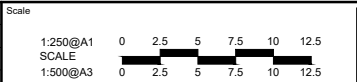
ASD	4	
Rt	2.5	s
d	0.36	
V vehicle A	40	km/h
a vehicle A	-3	%
ASD vehicle A	47.00	m

ABBREVIATIONS

ASD	APPROACH SIGHT DISTANCE
V	OPERATING SPEED
d	COEFFICIENT OF DECELERATION
a	LONGITUDINAL GRADE
Rt	REACTION TIME

file name: 323444-001CD100.dwg, layout name: CD104, plotted by: Jini Zhang, file location: G:\323444\001\CD104.dwg, plot date: 09/07/2025 11:29 AM

B	ISSUED FOR APPROVAL	C.J.C	09-07-25
A	ISSUED FOR CLIENT REVIEW	C.J.C	30-06-25
Rev	Amendments	Approved	Date



Registered Professional Engineer Name
Registration Number
© Spiire Australia Pty Ltd All Rights Reserved This document is produced by Spiire Australia Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Spiire Australia Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.



Suite 3, Level 1, 243 Northbourne Avenue
Canberra ACT 2612 Australia
spiire.com.au ABN 55 050 029 635



Designed J.Zhang	Checked C.Otto
Authorised C.J.Corcoran	Date 09 July 25

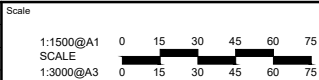
SOUTHE JERRABOMBERRA ESTATE 2
NORTHERN CATCHMENT
SIGHT DISTANCE
SHEET 5
QPRC
DEVELOPMENT APPLICATION

Orig No
323444-001CD104
Rev
B



- LEGEND**
- DA BOUNDARY
 - DRIVEWAY WITH VEHICLE CROSSING
 - DRIVEWAY ONLY
 - KERB RAMP
 - 1.5m PATH
 - 2.5m PATH
 - EXISTING PATH

B	ISSUED FOR APPROVAL	C.J.C.	09-07-25
A	ISSUED FOR CLIENT REVIEW	C.J.C.	30-06-25
Rev	Amendments	Approved	Date



Registered Professional Engineer Name

Registration Number

© Spiire Australia Pty Ltd All Rights Reserved
This document is produced by Spiire Australia Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Spiire Australia Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

spiire

Suite 3, Level 1, 243 Northbourne Avenue
Canberra ACT 2612 Australia
spiire.com.au ABN 55 050 029 635

The Village Building Co Est. 1988

Designed
J.Zhang

Authorised
C.J.Corcoran

Checked
C.Otto

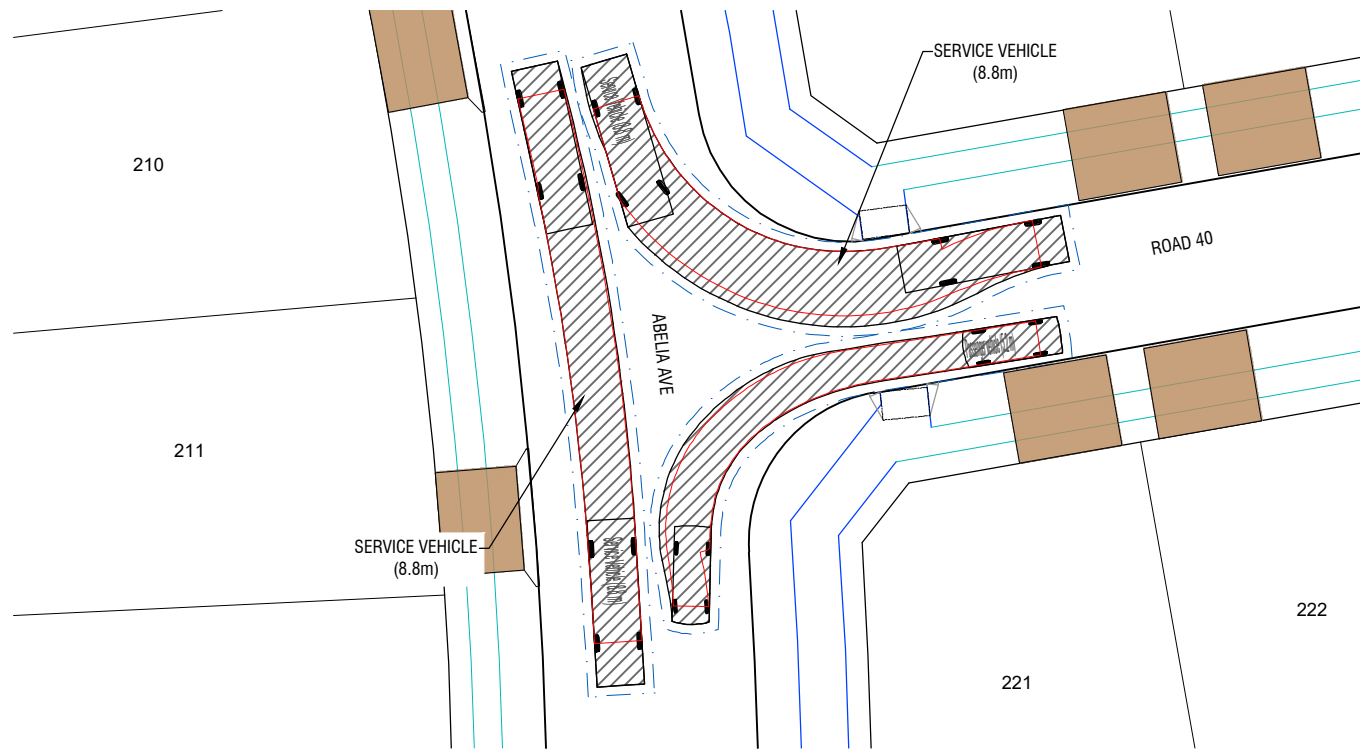
Date
09 July 25

**SOUTHE JERRABOMBERRA ESTATE 2
NORTHERN CATCHMENT
TURNING MOVEMENTS
SHEET 1
QPRC
DEVELOPMENT APPLICATION**

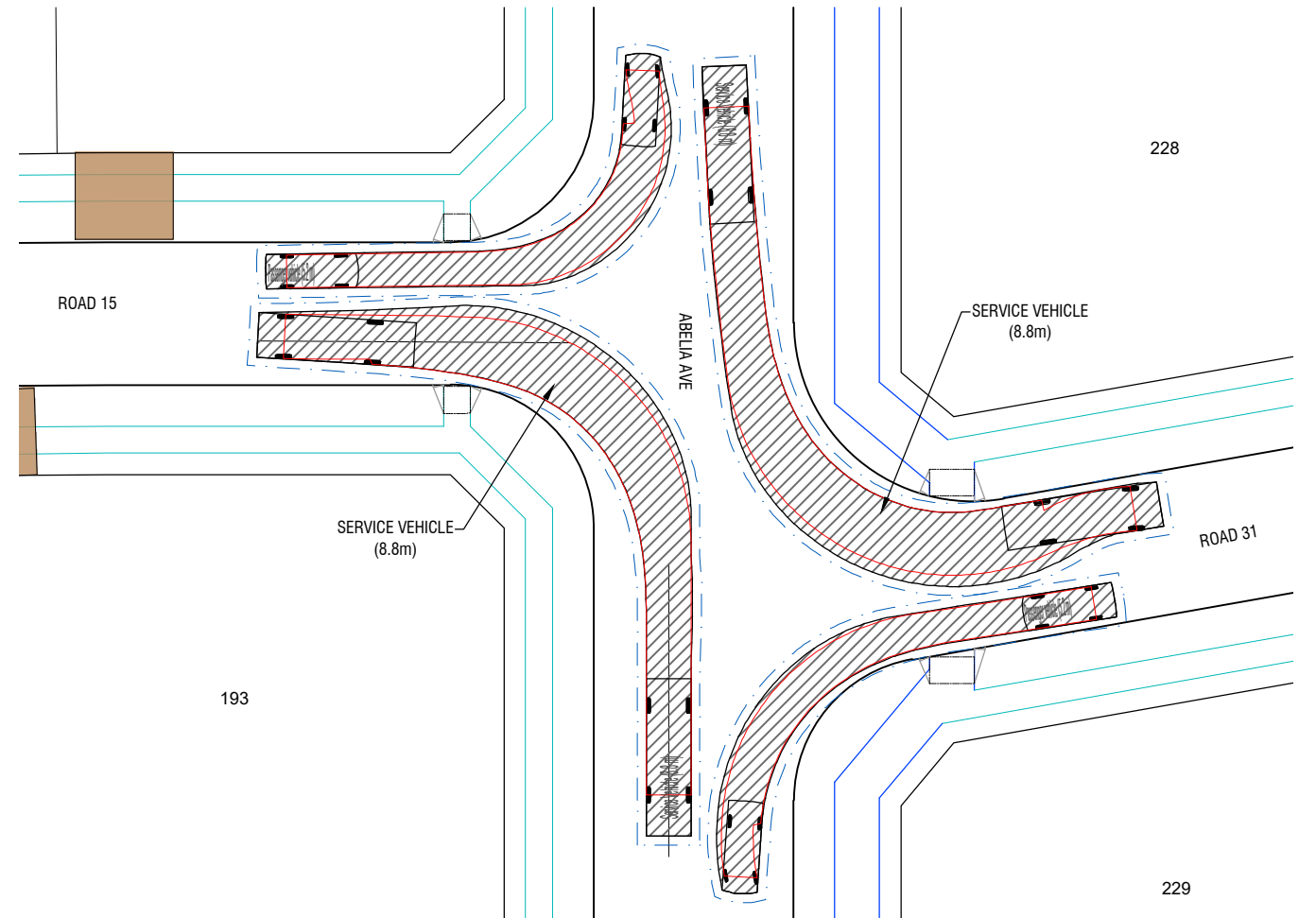
Orig No
323444-001CD120

Rev
B

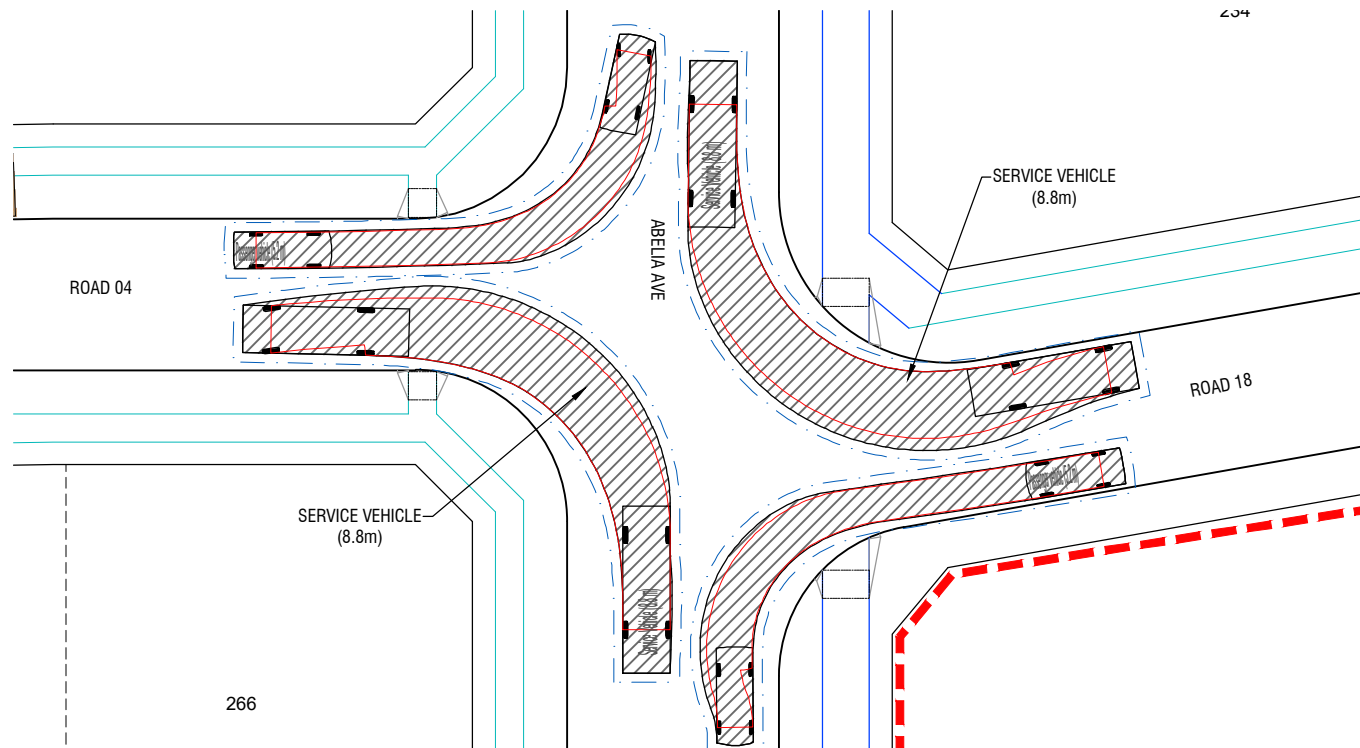
file name: 323444-001CD120.dwg, layout name: CD121, plotted by: Jini Zhang
file location: G:\323444\001\CD120\ACAD\plot date: 09/07/2025 11:29 AM



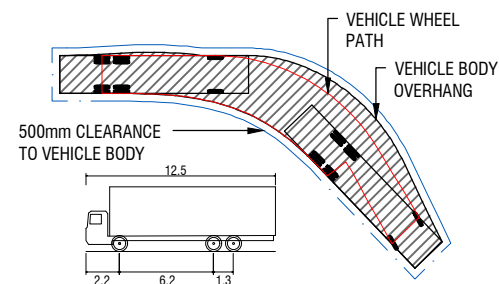
PATH 1
SCALE 1 : 200



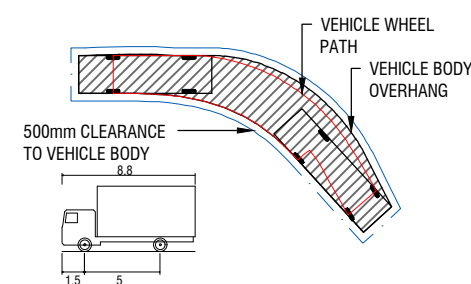
PATH 2
SCALE 1 : 200



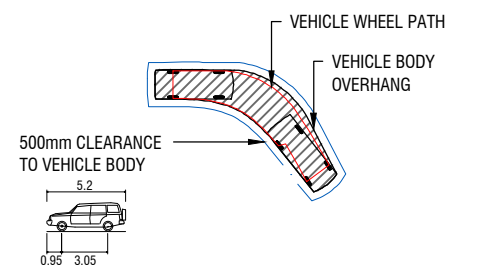
PATH 3
SCALE 1 : 200



SINGLE UNIT TRUCK/BUS (12.5m)
OVERALL LENGTH 12.5m
OVERALL WIDTH 2.5m
OVERALL BODY HEIGHT 4.3m
MIN BODY GROUND CLEARANCE 0.49m
TRACK WIDTH 2.5m
LOCK-TO-LOCK TIME 6.0s
KERB TO KERB TURNING RADIUS 12.5m



SERVICE VEHICLE (8.8m)
OVERALL LENGTH 8.8m
OVERALL WIDTH 2.5m
OVERALL BODY HEIGHT 4.3m
MIN BODY GROUND CLEARANCE 0.43m
TRACK WIDTH 2.5m
LOCK-TO-LOCK TIME 4.0s
KERB TO KERB TURNING RADIUS 12.5m



PASSENGER VEHICLE (B99)
OVERALL LENGTH 5.20m
OVERALL WIDTH 1.94m
OVERALL BODY HEIGHT 1.94m
MIN BODY GROUND CLEARANCE 0.27m
TRACK WIDTH 1.84m
LOCK-TO-LOCK TIME 4.0s
KERB TO KERB TURNING RADIUS 6.25m

NOTES

- VEHICLE TURNS PERFORMED AT 5km/h.
- REFER 323444-001CD120 FOR LEGEND

Rev	Amendments	Approved	Date
B	ISSUED FOR APPROVAL	C.J.C.	09-07-25
A	ISSUED FOR CLIENT REVIEW	C.J.C.	30-06-25

Scale	1:200@A1 SCALE	0 2 4 6 8 10
	1:400@A3	0 2 4 6 8 10

Registered Professional Engineer Name	
Registration Number	
© Spiire Australia Pty Ltd All Rights Reserved This document is produced by Spiire Australia Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Spiire Australia Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.	

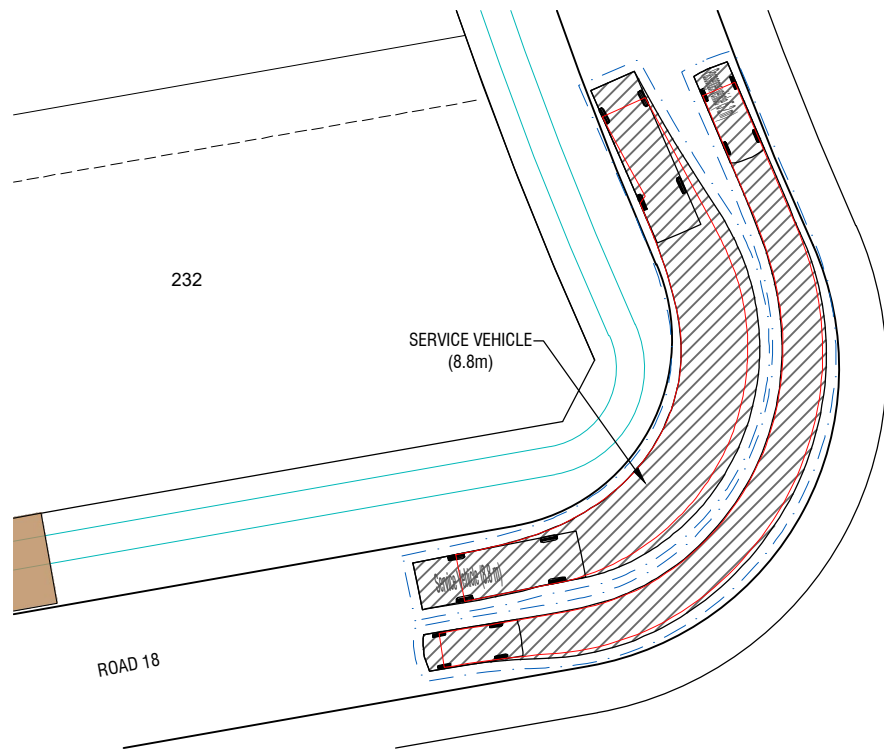
spiire

Suite 3, Level 1, 243 Northbourne Avenue
Canberra ACT 2612 Australia
spiire.com.au ABN 55 050 029 635

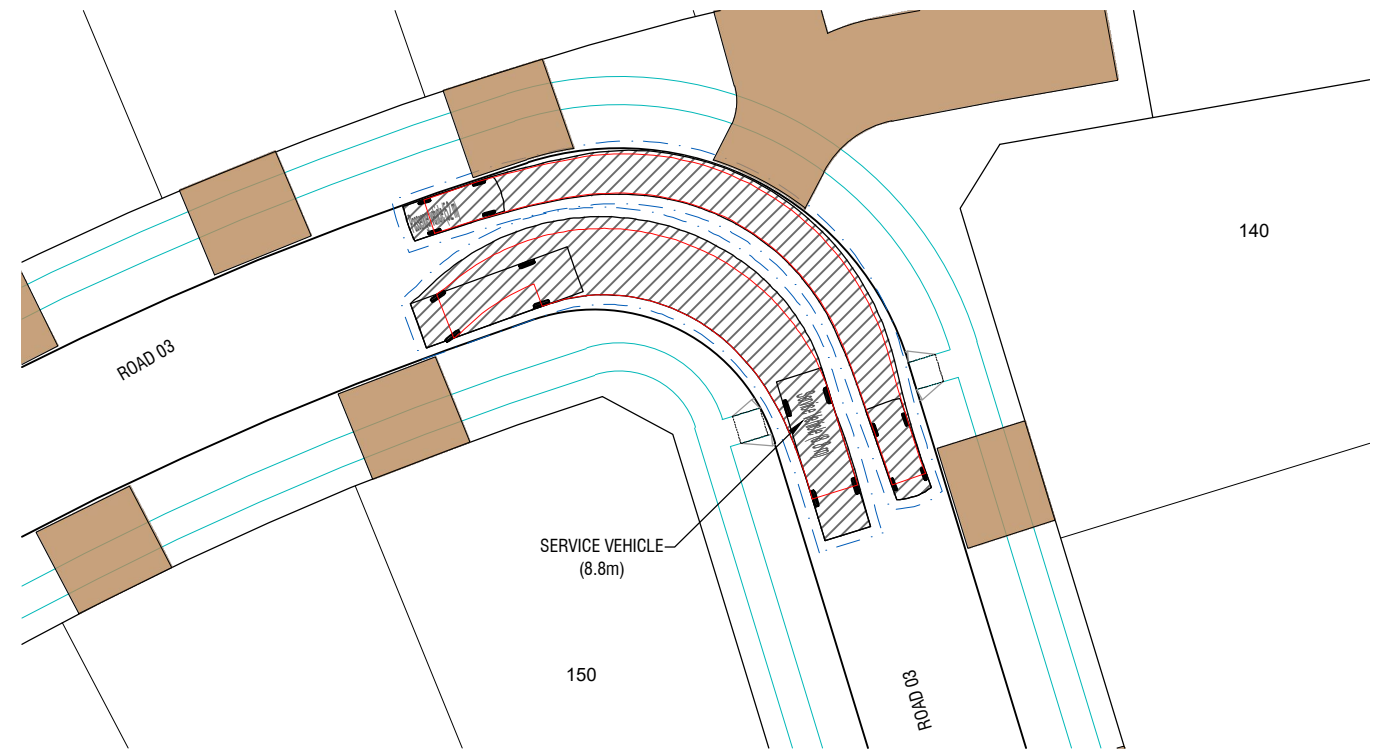
The Village
Building Co Est. 1988

Designed J.Zhang	Checked C.Otto
Authorised C.J.Corcoran	Date 09 July 25

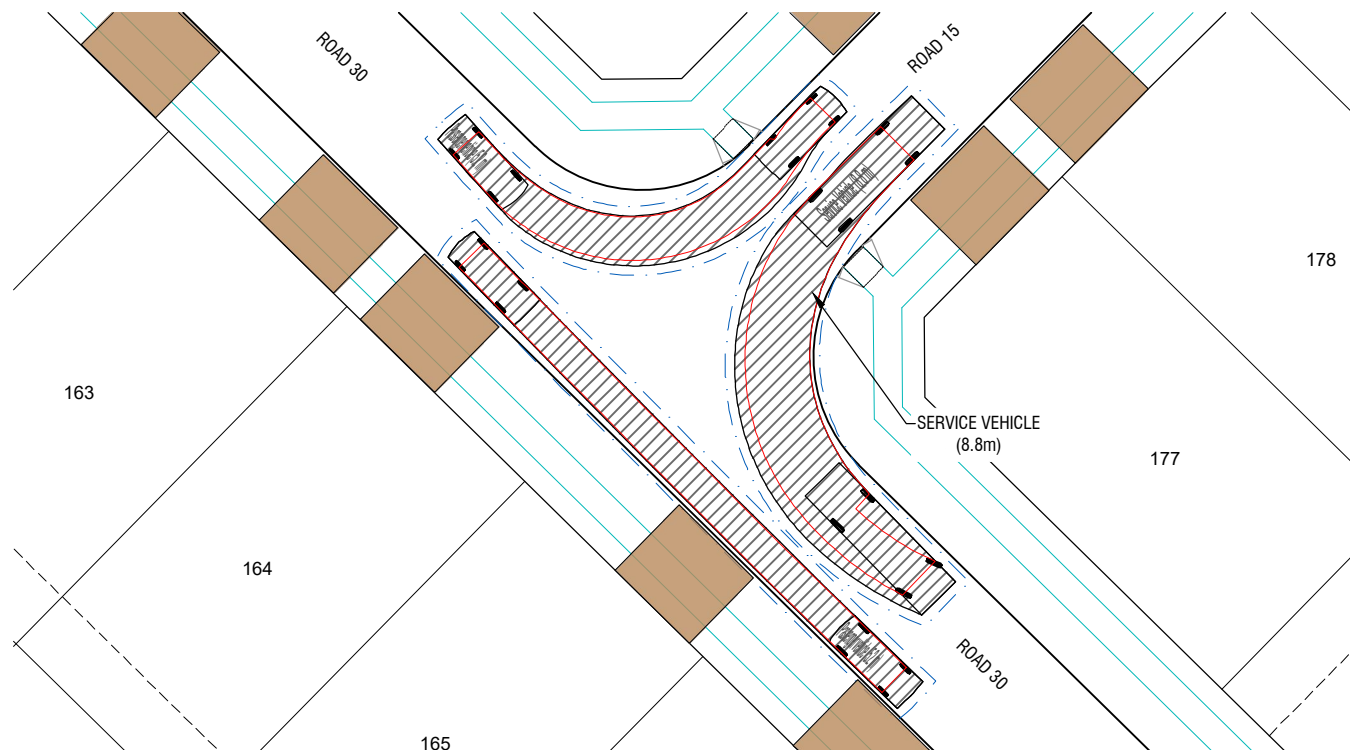
SOUTHE JERRABOMBERRA ESTATE 2 NORTHERN CATCHMENT TURNING MOVEMENTS SHEET 2 QPRC DEVELOPMENT APPLICATION	Orig No 323444-001CD121	Rev B
--	-----------------------------------	-----------------



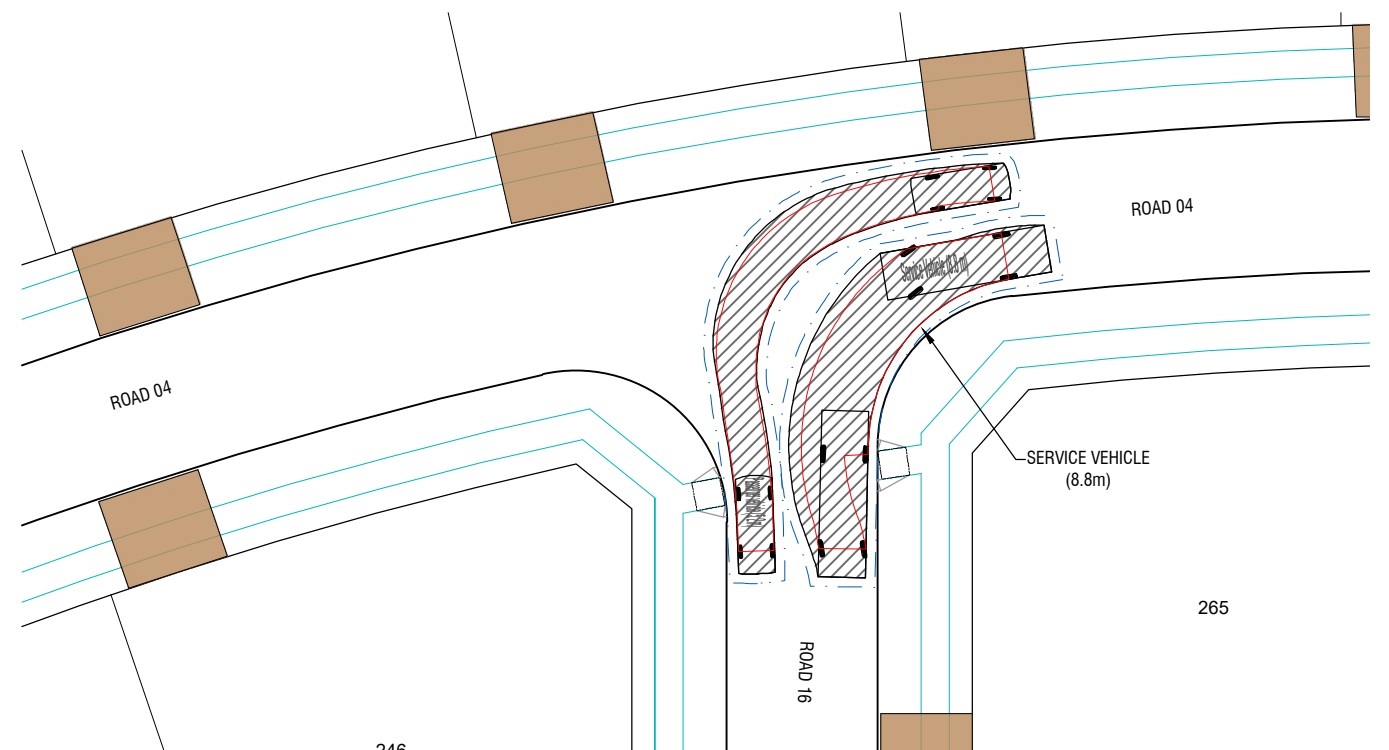
PATH 4
SCALE 1 : 200



PATH 5
SCALE 1 : 200



PATH 6
SCALE 1 : 200



PATH 7
SCALE 1 : 200

NOTES

1. REFER 323444-001CD121 FOR VEHICLE PROFILE
2. REFER 323444-001CD120 FOR LEGEND

file name: 323444-001CD120.dwg, layout name: CD122, plotted by: Jini Zhang
file location: G:\323444\001\CD120\CD120.dwg, plot date: 09/07/2025 11:29 AM

Rev	Amendments	Approved	Date
B	ISSUED FOR APPROVAL	C.J.C	09-07-25
A	ISSUED FOR CLIENT REVIEW	C.J.C	30-06-25

Scale	1:200@A1	1:400@A3
0	2	4
2	4	8
4	6	10
6	8	10
8	10	10
10	10	10

Registered Professional Engineer Name
Registration Number
© Spiire Australia Pty Ltd All Rights Reserved This document is produced by Spiire Australia Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Spiire Australia Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

spiire
Suite 3, Level 1, 243 Northbourne Avenue
Canberra ACT 2612 Australia
spiire.com.au ABN 55 050 029 635

The Village

Building Co

Est. 1988



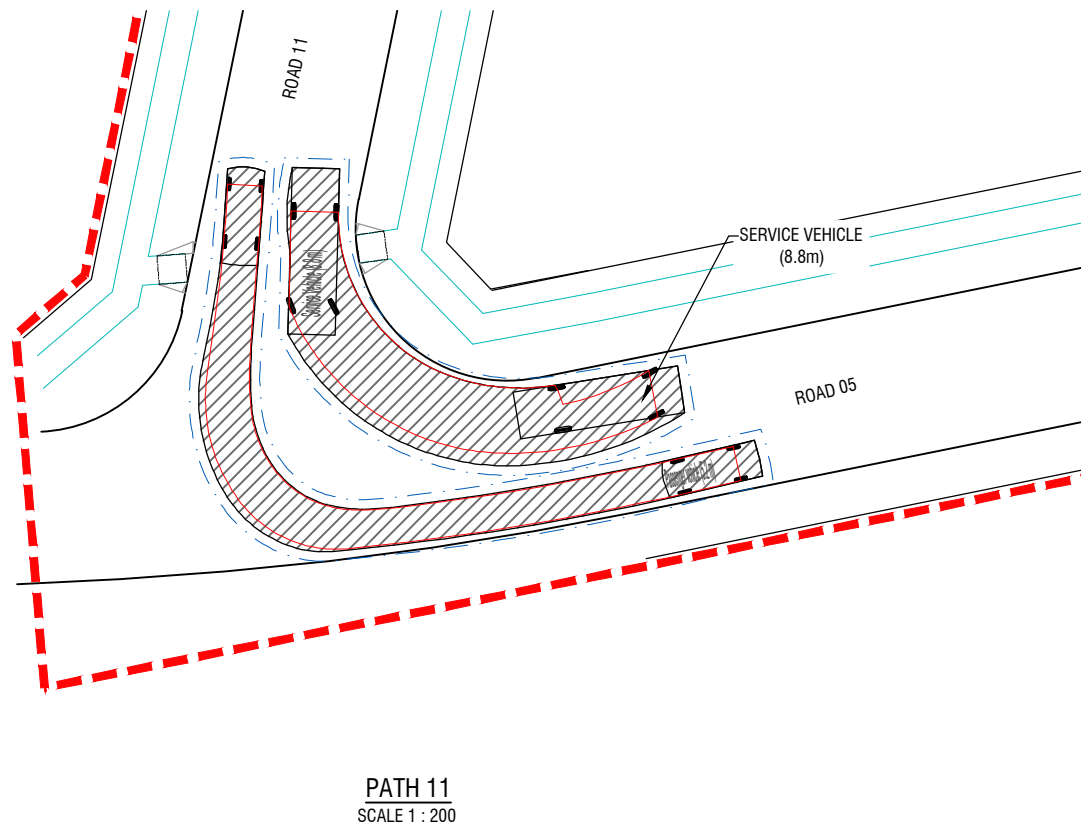
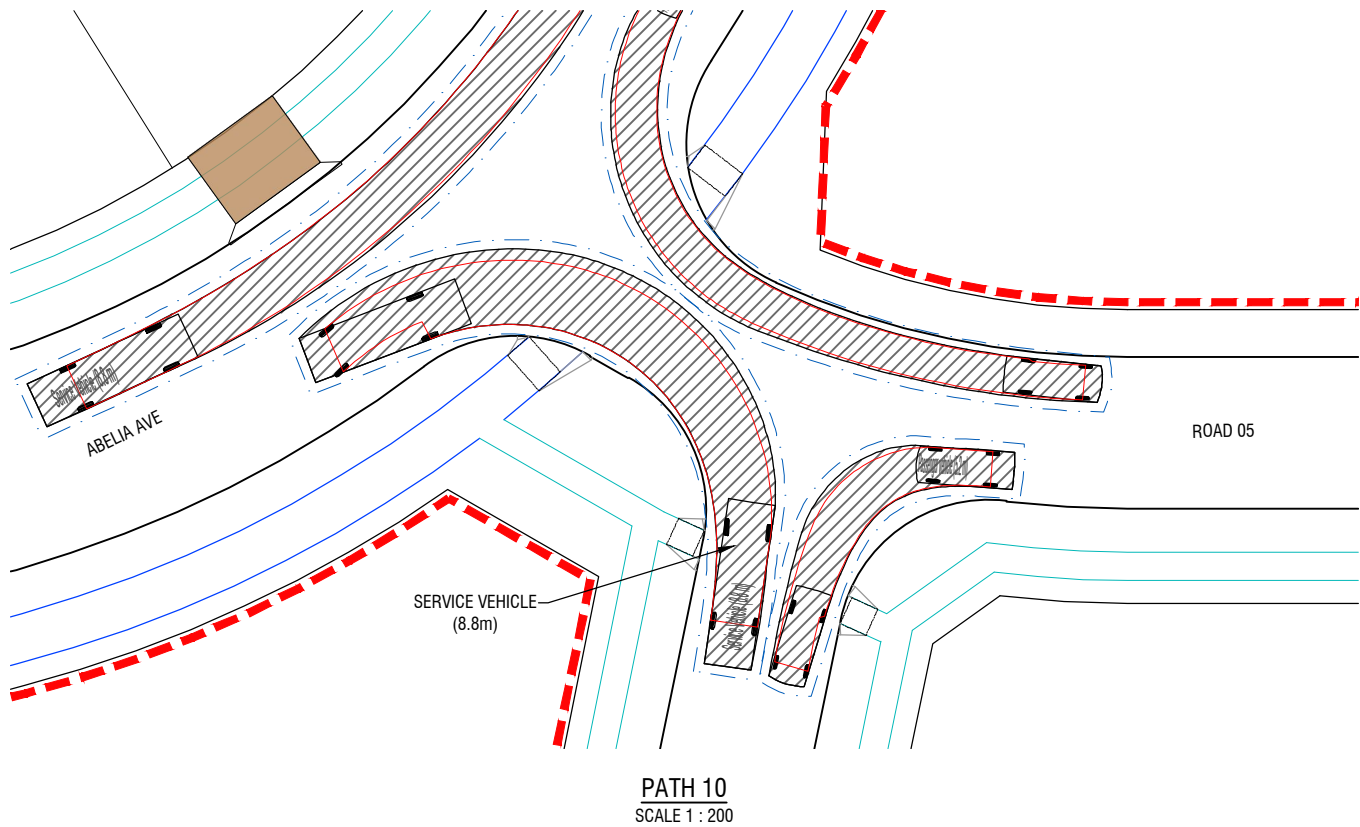
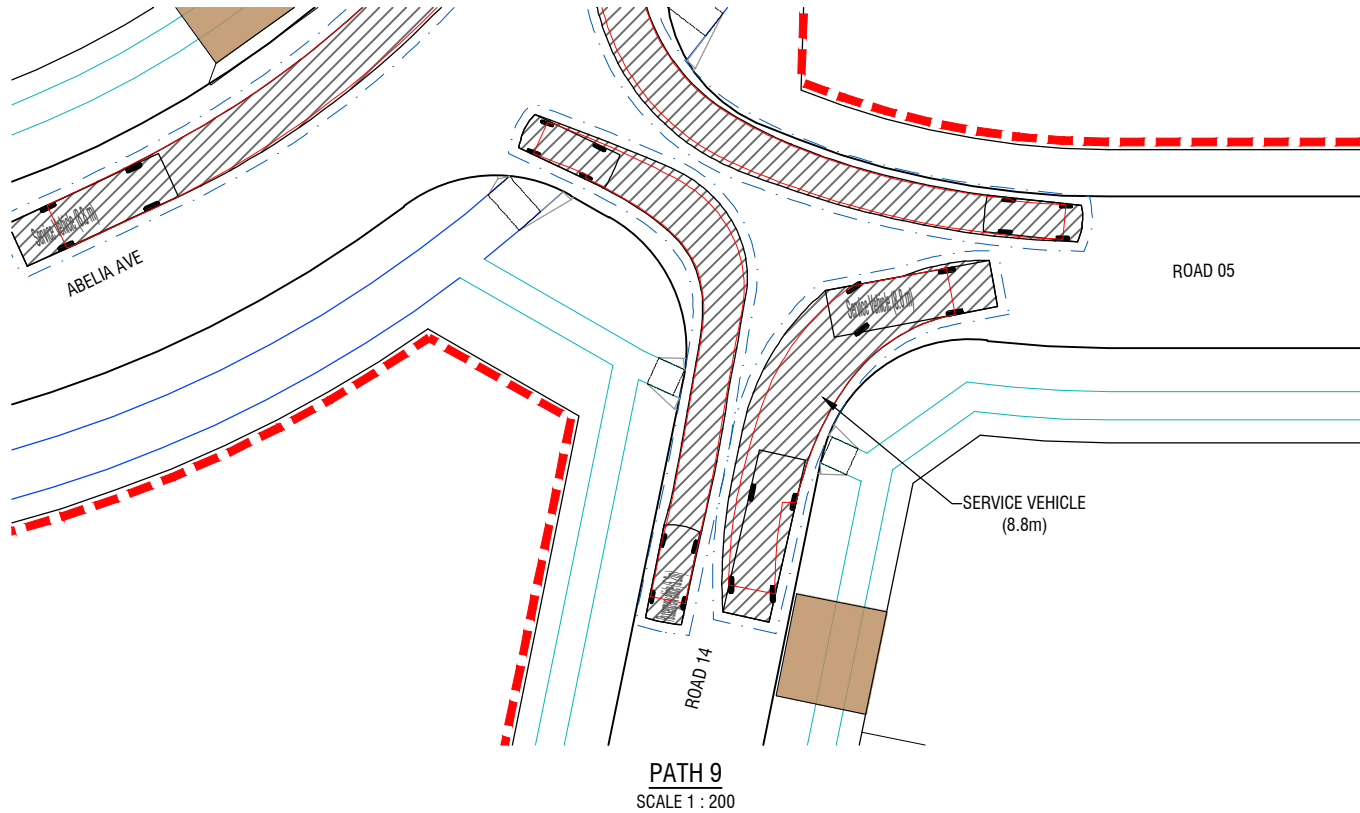
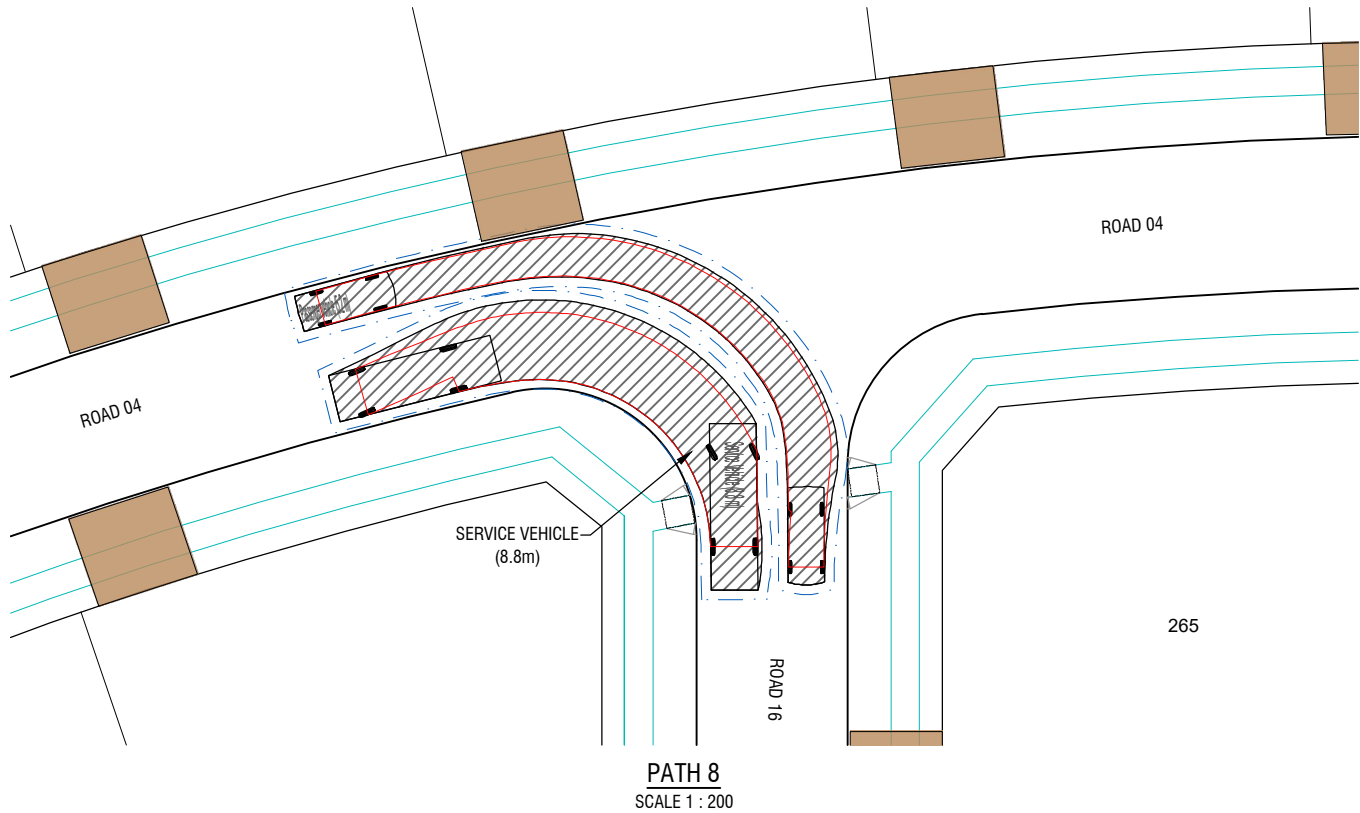
Checked

C. Otto

Date

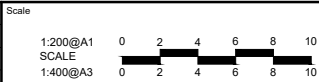
09 July 25

SOUTHE JERRABOMBERRA ESTATE 2	
NORTHERN CATCHMENT	
TURNING MOVEMENTS	
SHEET 3	
QPRC	
DEVELOPMENT APPLICATION	
Orig No	Rev
323444-001CD122	B



- NOTES
- REFER 323444-001CD121 FOR VEHICLE PROFILE
 - REFER 323444-001CD120 FOR LEGEND

B	ISSUED FOR APPROVAL	C.J.C.	09-07-25	
A	ISSUED FOR CLIENT REVIEW	C.J.C.	30-06-25	
Rev	Amendments	Approved	Date	



Registered Professional Engineer Name

Registration Number

© Spiire Australia Pty Ltd All Rights Reserved
This document is produced by Spiire Australia Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Spiire Australia Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

spiire

Suite 3, Level 1, 243 Northbourne Avenue
Canberra ACT 2612 Australia
spiire.com.au ABN 55 050 029 635

The Village Building Co Est. 1988

Designed
J.Zhang

Authorised
C.J. Corcoran

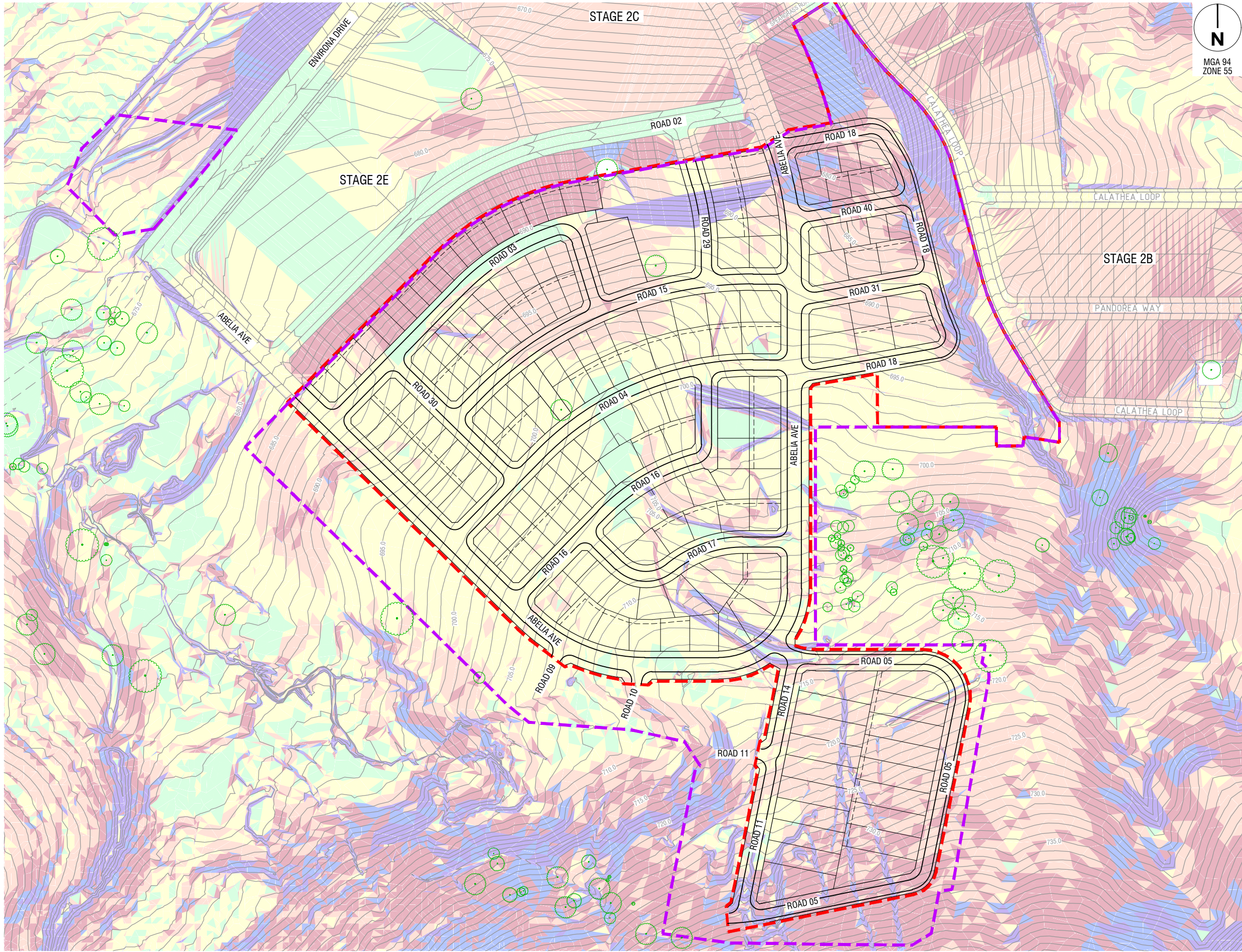
Checked
C. Otto

Date
09 July 25

**SOUTHE JERRABOMBERRA ESTATE 2
NORTHERN CATCHMENT
TURNING MOVEMENTS
SHEET 4
QPRC
DEVELOPMENT APPLICATION**

Orig No
323444-001CD123

Rev
B



LEGEND

- DA BOUNDARY
- EXTENT OF WORKS
- DISTURBED AREA BOUNDARY
- EXISTING SURFACE CONTOURS (1m INTERVAL)
- EXISTING TREE TO BE RETAINED

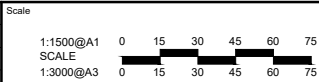
SLOPE LEGEND

0%	TO	5%	
5%	TO	10%	
10%	TO	15%	
15%	TO	20%	
20%	TO	25%	
25%	TO	33%	

NOTES

- AREAS OUTSIDE OF DA BOUNDARY ARE FOR INFORMATION ONLY.

B	ISSUED FOR APPROVAL	C.J.C	09-07-25
A	ISSUED FOR CLIENT REVIEW	C.J.C	30-06-25
Rev	Amendments	Approved	Date



Registered Professional Engineer Name
Registration Number
© Spiire Australia Pty Ltd All Rights Reserved
This document is produced by Spiire Australia Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Spiire Australia Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.



Suite 3, Level 1, 243 Northbourne Avenue
Canberra ACT 2612 Australia
spiire.com.au ABN 55 050 029 635

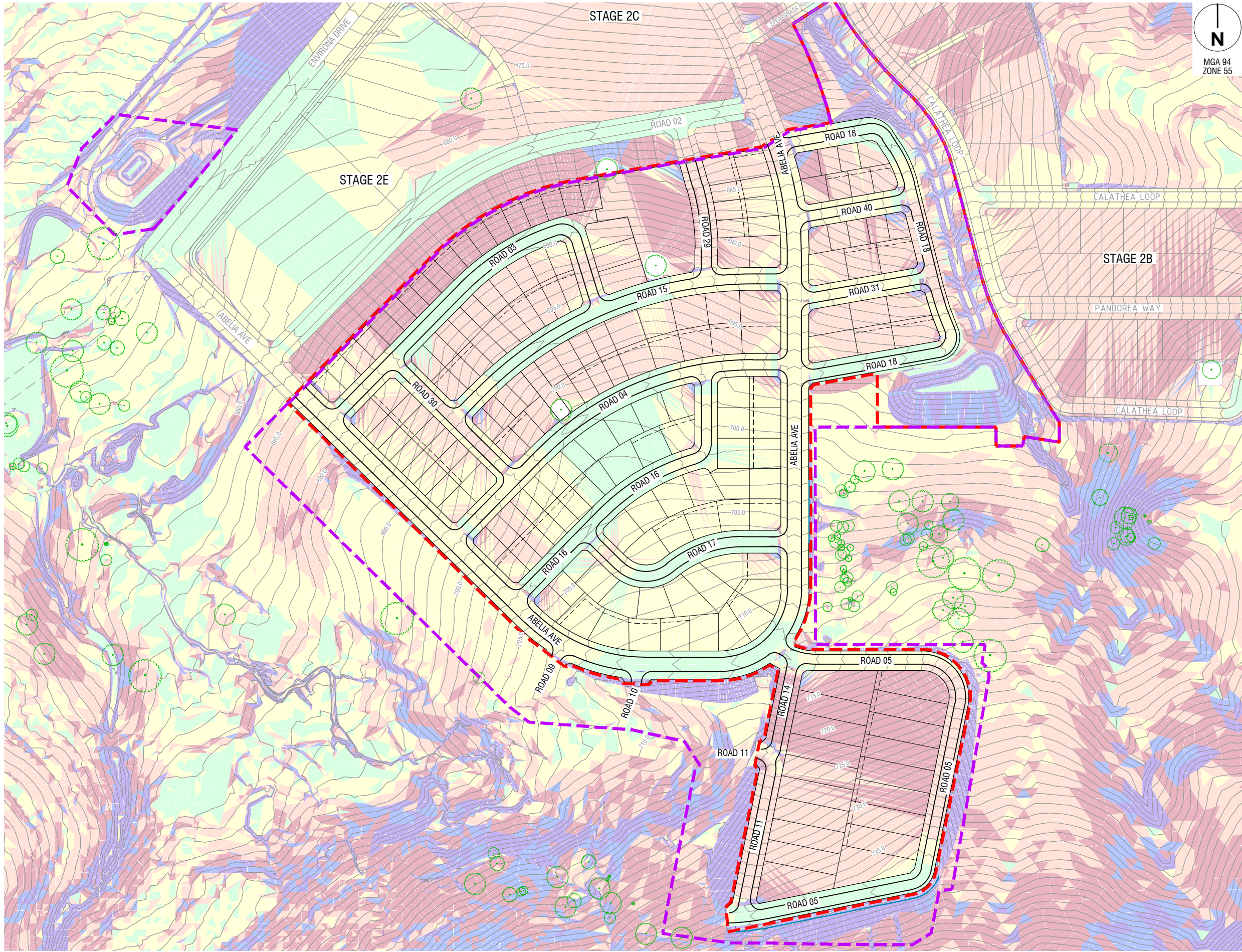


Designed
J.Zhang
Authorised
C.J.Corcoran

Checked
C.Otto
Date
09 July 25

SOUTHE JERRABOMBERRA ESTATE 2
NORTHERN CATCHMENT
EXISTING SLOPE ANALYSIS PLAN
SHEET 1
QPRC
DEVELOPMENT APPLICATION

Orig No
323444-001CD240
Rev
B



LEGEND

- DA BOUNDARY
EXTENT OF WORKS
FINISHED SURFACE CONTOURS (1m INTERVAL)
EXISTING TREE TO BE RETAINED
RETAINING WALL - INDICATIVE

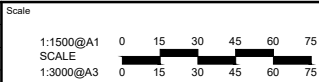
SLOPE LEGEND

0%	TO	5%	
5%	TO	10%	
10%	TO	15%	
15%	TO	20%	
20%	TO	25%	
25%	TO	33%	

NOTES:

- AREAS OUTSIDE OF DA BOUNDARY ARE FOR INFORMATION ONLY.
- GRADING FOR BLOCK SLOPES GREATER THAN 20% TO BE RESOLVED DURING DETAILED DESIGN

B	ISSUED FOR APPROVAL	C.J.C	09-07-25
A	ISSUED FOR CLIENT REVIEW	C.J.C	30-06-25
Rev	Amendments	Approved	Date



Registered Professional Engineer Name
Registration Number

© Spiire Australia Pty Ltd All Rights Reserved
This document is produced by Spiire Australia Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Spiire Australia Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.



Suite 3, Level 1, 243 Northbourne Avenue
Canberra ACT 2612 Australia
spiire.com.au ABN 55 050 029 635



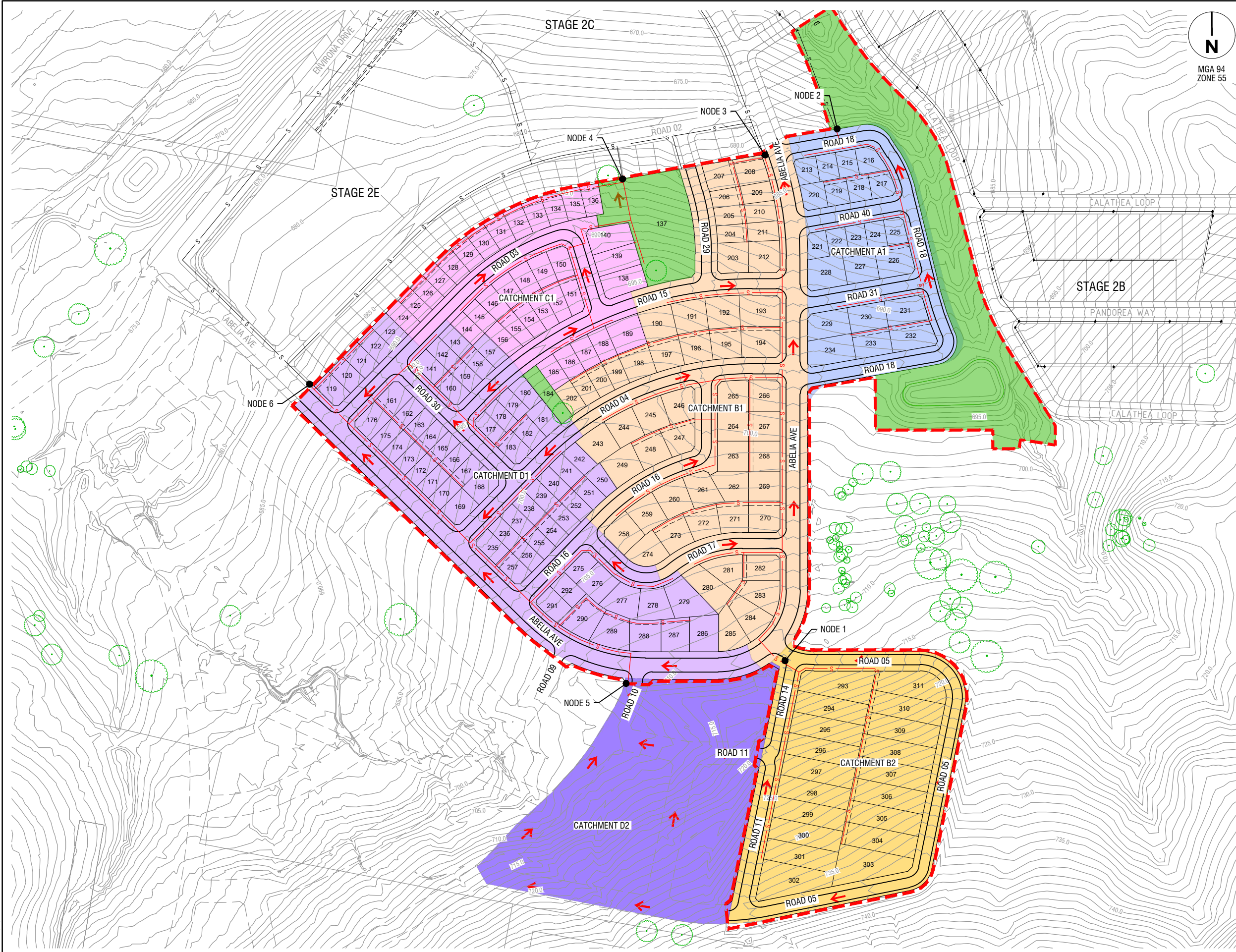
Designed
J.Zhang
Authorised
C.J.Corcoran

Checked
C.Otto
Date
09 July 25

**SOUTHE JERRABOMBERRA ESTATE 2
NORTHERN CATCHMENT
PROPOSED SLOPE ANALYSIS PLAN
SHEET 1
QPRC
DEVELOPMENT APPLICATION**

Orig No
323444-001CD250
Rev
B

file name: 323444-001CD250.dwg, layout name: CD250, plotted by: Jini Zhang
file location: G:\323444\001\CD250\plot.dwg, date: 09/07/2025 11:29 AM



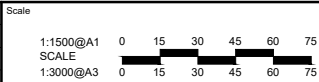
LEGEND

- DA BOUNDARY
- FINISHED SURFACE CONTOURS (1m INTERVAL)
- OVERLAND FLOW DIRECTION
- RETAINED TREE
- EXISTING SEWER
- SEWER (SIZE Ø150 UNLESS NOTED OTHERWISE)
- OPEN SPACE
- CATCHMENT A1
- CATCHMENT B1
- CATCHMENT B2
- CATCHMENT C1
- CATCHMENT D1
- CATCHMENT D2
- EASEMENT

NOTE:

- REFER GENERAL ARRANGEMENT PLAN 323444-001CD005 FOR LOT CLASSIFICATION.
- INDICATIVE FUTURE ESTATE LAYOUT SHOWN FOR INFORMATION TO BE CONFIRMED IN SUBSEQUENT DEVELOPMENT APPLICATION.
- FOR CATCHMENT DETAIL REFER TO DRAWING 323444-001CD411. FOR SEWER MASTERPLAN REFER TO DRAWING 323444-001CD420. PRELIMINARY PIPE SIZING REFER TO DRAWING 323444-001CD420.
- SEWER PIPE SIZE TO BE 150mm UNLESS OTHERWISE SPECIFIED.

B	ISSUED FOR APPROVAL	C.J.C	09-07-25		
A	ISSUED FOR CLIENT REVIEW	C.J.C	30-06-25		
Rev	Amendments	Approved	Date		



Registered Professional Engineer Name
Registration Number
© Spiire Australia Pty Ltd All Rights Reserved
This document is produced by Spiire Australia Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Spiire Australia Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.



Suite 3, Level 1, 243 Northbourne Avenue
Canberra ACT 2612 Australia
spiire.com.au ABN 55 050 029 635



Designed
J.Zhang
Authorised
C.J.Corcoran

Checked
C.Otto
Date
09 July 25

SOUTHE JERRABOMBERRA ESTATE 2
NORTHERN CATCHMENT
SEWER CATCHMENT PLAN
SHEET 1
QPRC
DEVELOPMENT APPLICATION

Orig No
323444-001CD410
Rev
B

SEWER CALCULATION

CATCHMENT	LOTS (EP PER UNIT = 3.5)	GROSS RESIDENTIAL AREA (ha)	PARKS/GARDEN AREA (EP PER ha = 20)	RESIDENTIAL EP	NON RESIDENTIAL EP	PDWF (L/s)	GWI (L/s)	RDI (L/s)	DESIGN FLOW (PWWF) (L/s)
CATCHMENT A1	22	2.064	0.000	77.00	0.00	1.00	0.01	1.42	2.42
CATCHMENT B1	53	5.173	0.000	185.50	0.00	1.89	0.01	3.12	5.03
CATCHMENT B2	19	3.124	0.000	66.50	0.00	0.77	0.01	1.54	2.33
CATCHMENT C1	34	2.000	0.000	119.00	0.00	1.56	0.01	1.74	3.31
CATCHMENT D1	63	4.563	0.000	220.50	0.00	2.32	0.01	3.25	5.58
CATCHMENT D2	31	3.025	0.000	108.50	0.00	1.27	0.01	1.95	3.23

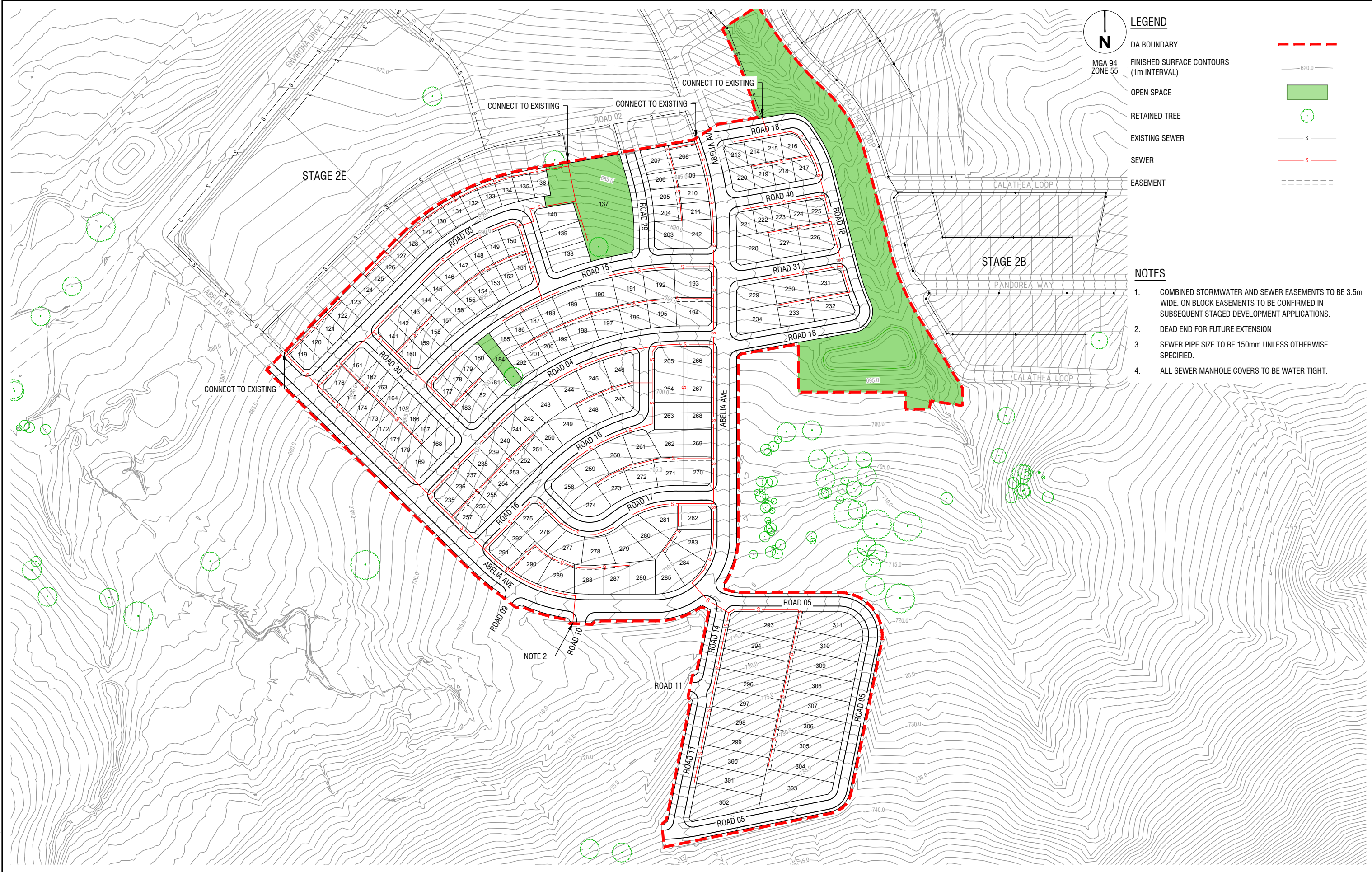
Node	Catchment	Min. Grade	Min. Size	PDWF (L/s)	GWl (L/s)	RDI (L/s)	PWWF (L/s)	Pipe Capacity (L/s)	PWWF Velocity (m/s)	Airspace	Shear Stress
Node 1	B2	1.50%	0.150	0.77	0.01	1.54	2.33	19.07	0.74	83%	1.95
Node 2	A1	1.50%	0.150	1.00	0.01	1.42	2.42	19.07	0.74	83%	2.07
Node 3	B1, Node 1	1.50%	0.150	2.66	0.02	4.67	7.35	19.07	1.06	53%	3.51
Node 4	C1	1.00%	0.150	1.56	0.01	1.74	3.31	15.57	0.70	74%	1.87
Node 5	D2	1.00%	0.150	2.32	0.01	3.25	5.58	15.57	0.70	75%	1.71
Node 6	D1, Node 5	1.00%	0.150	3.59	0.02	5.19	8.81	15.57	0.88	50%	2.49

NOTES

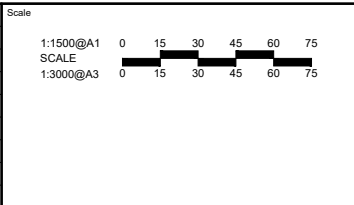
1. ADWF OF 180L/d/EP HAS BEEN ADOPTED
2. CALCULATIONS IN ACCORDANCE WITH WSA02-2014-3.2
APPENDIX B
3. LEAKPROF LIDS ASSUMED IN ACCORDANCE WITH QPRC D12.
NO ROAD CATCHMENT INFILTRATION HAS BEEN INCLUDED
4. FCONTAINMENT IS BEING ADOPTED AS 1.5, IN ACCORDANCE WITH
COUNCIL'S 1 IN 10 YEARS DESIGN STORM REOCCURRENCE
INTERVAL
5. THE LEAKAGE SEVERITY CONSTANT C HAD BEEN ADOPTED AS
1.0
6. IN ACCORDANCE WITH THE SOUTH JERRABOMBERRA
MASTERPLAN THE FOLLOWING COEFFICIENTS HAVE BEEN
ASSUMED:
 - 6.1. $I_{1.10}$ HAS BEEN ASSUMED AS 23mm
 - 6.2. $Portion_{wet}$ HAS BEEN AS ADOPTED AS 0.1
 - 6.3. GWI HAS BEEN CALCULATED IN ACCORDANCE WITH
WSA02-3.2 APPENDIX C
7. FUTURE LOTTING INDICATIVE ONLY

[illegible]

file name: 323444-001CD420.dwg, layout name: CD420, plotted by: Rachel Murdoch
file location: \\spire\canberra\Draws\323444\001 CD420.dwg, date: 17/09/2025, 4:07 PM



C	QPRC RFI ADDRESSED - NOTE ADDED	RM	17-09-25		
B	ISSUED FOR APPROVAL	C.J.C	09-07-25		
A	ISSUED FOR CLIENT REVIEW	C.J.C	30-06-25		
Rev	Amendments	Approved	Date		



Registered Professional Engineer Name

Registration Number

© Spiire Australia Pty Ltd All Rights Reserved
This document is produced by Spiire Australia Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Spiire Australia Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

spiire

Suite 3, Level 1, 243 Northbourne Avenue
Canberra ACT 2612 Australia
spiire.com.au

ABN 55 050 029 635

The Village Building Co Est. 1988

Designed
J.Zhang

Authorised
C.J. Corcoran

Checked
C. Otto

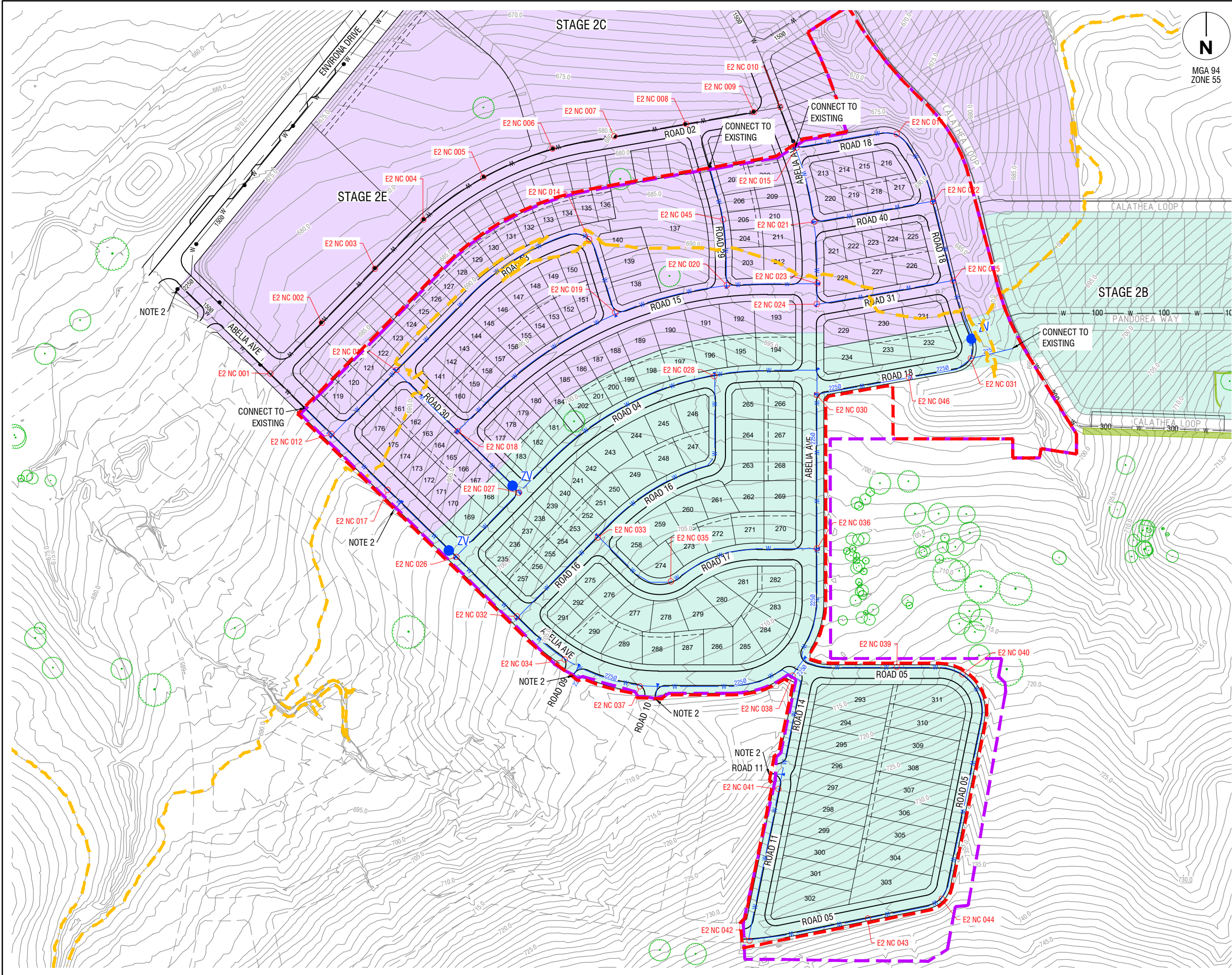
Date
09 July 25

**SOUTHE JERRABOMBERRA ESTATE 2
NORTHERN CATCHMENT
SEWER SERVICING STRATEGY PLAN
SHEET 1**

QPRC
DEVELOPMENT APPLICATION

Orig No
323444-001CD420

Rev
C



LEGEND

- DA BOUNDARY
- FINISHED SURFACE CONTOURS (1m INTERVAL)
- RETAINED TREE
- EXISTING WATER
- WATER
- NODES
- EASEMENT
- WATER ZONE CONTOUR (RL 690.0)
- HIGH WATER ZONE (> RL 690.0)
- INTERMEDIATE WATER ZONE (≤ RL 690.0)
- ZONE VALVE

NOTES

- COMBINED STORMWATER AND SEWER EASEMENTS TO BE 3.5m WIDE. ON BLOCK EASEMENTS TO BE CONFIRMED IN SUBSEQUENT STAGED DEVELOPMENT APPLICATIONS.
- DEAD END FOR FUTURE EXTENSION.
- PIPE MATERIAL TO BE SERIES 2 PVC-M, PN16
- PIPE SIZE DN100 MINIMUM UNLESS NOTED OTHERWISE
- HYDRANT AND VALVE LOCATIONS TO BE CONFIRMED AT DETAILED DESIGN
- HYDRANT SPACING TO BE MINIMUM 60m
- COLEBROOK WHITE COEFFICIENT OF 0.3mm (HPVC) ADOPTED
- BASIS OF DESIGN : WSA 03-2011 WATER SUPPLY CODE V3.2
- INDICATIVE FUTURE ESTATE LAYOUT SHOWN FOR INFORMATION TO BE CONFIRMED IN SUBSEQUENT DEVELOPMENT APPLICATION.
- REFER TO DWG 323444-001CD451 FOR WATER NODE RESULTS

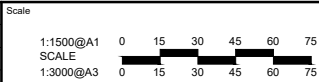
DESIGN CRITERIA

PEAK HOUR DEMAND (L/s/tenement)	0.021
AVERAGE DAY DEMAND (KL/annum/ET)	230
MAXIMUM SERVICE PRESSURE (kPa m)	800 80
MINIMUM SERVICE PRESSURE (kPa m)	200 20
MINIMUM STATIC PRESSURE (m)	35
MAXIMUM VELOCITY - GENERAL (m/s)	2
MAXIMUM HEADLOSS FOR ≤1500 (m/km)	5
MAXIMUM HEADLOSS FOR >2000 (m/km)	3

FIRE FLOW

MINIMUM FIRE FIGHTING FLOW RATE (L/s)	10
MINIMUM RESIDUAL PRESSURE AT HYDRANT (m)	15
MAXIMUM STATIC PRESSURE AT HYDRANT (kPa m)	1300 130
MAXIMUM VELOCITY - FIRE FLOW CONDITIONS (m/s)	4

B	ISSUED FOR APPROVAL	C.J.C	09-07-25
A	ISSUED FOR CLIENT REVIEW	C.J.C	30-06-25
Rev	Amendments	Approved	Date



Registered Professional Engineer Name
Registration Number
© Spiire Australia Pty Ltd All Rights Reserved
This document is produced by Spiire Australia Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Spiire Australia Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.



Suite 3, Level 1, 243 Northbourne Avenue
Canberra ACT 2612 Australia
spiire.com.au ABN 55 050 029 635



Designed
J.Zhang
Authorised
C.J.Corcoran
Checked
C.Otto
Date
09 July 25

SOUTHE JERRABOMBERRA ESTATE 2
NORTHERN CATCHMENT
PORTABLE WATER MASTER PLAN
SHEET 1
QPRC
DEVELOPMENT APPLICATION
Orig No
323444-001CD450
Rev
B

file name 323444-001CD450.dwg, layout name CD451, plotted by Jimi Zhang
file location G:\323444\001\Civil\ACAD plot date 09/07/2025 11:29 AM

WATER NODE RESULT								
NODE ID	DEMAND (L/s)	PRESSURE (m)	AVAILABLE FIRE FLOW (L/s)	MINIMUM FIRE FLOW (L/s)	RESIDUAL PRESSURE AT MINIMUM FIRE FLOW (m)	ELEVATION (m)	DIA (mm)	ZONE
E2 NC 001	0.000	48.830	83.730	10	52.520	681.200	100	HIGH
E2 NC 002	0.084	47.800	61.420	10	50.550	682.140	100	HIGH
E2 NC 003	0.084	47.880	50.860	10	43.140	681.940	100	HIGH
E2 NC 004	0.084	52.740	50.380	10	47.690	677.000	100	HIGH
E2 NC 005	0.084	50.050	46.500	10	44.640	679.600	100	HIGH
E2 NC 006	0.063	53.560	48.980	10	48.040	676.000	100	HIGH
E2 NC 007	0.063	53.080	50.590	10	47.790	676.400	100	HIGH
E2 NC 008	0.063	52.610	56.620	10	47.300	676.800	100	HIGH
E2 NC 009	0.042	52.710	58.370	10	47.240	676.600	100	HIGH
E2 NC 010	0.105	61.140	67.460	10	55.730	668.140	100	HIGH
E2 NC 011	0.000	47.390	72.590	10	43.890	682.620	100	HIGH
E2 NC 012	0.084	35.760	60.150	10	31.520	694.230	100	HIGH
E2 NC 013	0.273	41.720	48.320	10	36.800	688.000	100	HIGH
E2 NC 014	0.315	41.310	38.300	10	35.960	688.290	100	HIGH
E2 NC 015	0.084	58.030	57.510	10	52.390	671.280	100	HIGH
E2 NC 016	0.042	54.800	45.270	10	48.680	674.520	100	HIGH
E2 NC 017	0.063	36.950	57.970	10	33.040	693.130	100	HIGH
E2 NC 018	0.336	41.070	39.350	10	35.840	688.590	100	HIGH
E2 NC 019	0.294	40.780	43.220	10	35.750	688.790	100	HIGH
E2 NC 020	0.063	43.590	47.160	10	38.260	685.820	100	HIGH
E2 NC 021	0.147	44.310	41.720	10	38.730	685.010	100	HIGH
E2 NC 022	0.105	52.110	45.370	10	46.150	677.220	100	HIGH
E2 NC 023	0.021	44.890	43.400	10	39.370	684.450	100	HIGH
E2 NC 024	0.021	37.970	34.650	10	32.190	691.370	100	HIGH
E2 NC 025	0.084	40.060	33.290	10	33.960	689.270	100	HIGH
E2 NC 026	0.000	78.180	67.890	10	75.760	695.820	100	INTERMEDIATE
E2 NC 027	0.399	74.030	61.750	10	71.350	700.000	100	INTERMEDIATE
E2 NC 028	0.231	78.560	81.270	10	76.640	695.590	100	INTERMEDIATE
E2 NC 030	0.063	79.160	105.680	10	77.940	695.170	225	INTERMEDIATE
E2 NC 031	0.000	83.570	113.600	10	82.570	691.000	225	INTERMEDIATE
E2 NC 032	0.105	69.760	78.800	10	67.890	704.200	100	INTERMEDIATE
E2 NC 033	0.273	70.600	75.300	10	68.630	703.460	100	INTERMEDIATE
E2 NC 034	0.042	67.530	88.670	10	65.830	706.310	225	INTERMEDIATE
E2 NC 035	0.147	70.690	69.580	10	68.530	703.400	100	INTERMEDIATE
E2 NC 036	0.126	70.270	95.370	10	68.840	703.860	225	INTERMEDIATE
E2 NC 037	0.063	65.180	87.840	10	63.540	708.720	225	INTERMEDIATE
E2 NC 038	0.063	61.410	86.520	10	59.870	712.600	225	INTERMEDIATE
E2 NC 039	0.000	59.800	57.160	10	57.240	714.190	100	INTERMEDIATE
E2 NC 040	0.084	53.570	47.040	10	50.650	720.400	100	INTERMEDIATE
E2 NC 041	0.210	52.630	64.020	10	50.500	721.300	100	INTERMEDIATE
E2 NC 042	0.105	42.590	50.490	10	40.260	731.320	100	INTERMEDIATE
E2 NC 043	0.000	37.530	36.270	10	34.320	736.400	100	INTERMEDIATE
E2 NC 044	0.105	38.030	34.120	10	34.570	735.910	100	INTERMEDIATE
E2 NC 046	0.063	81.440	109.930	10	80.350	693.020	225	INTERMEDIATE

NOTES

1. REFER TO DWG 323444-001CD450 FOR POTABLE WATER MASTERPLAN

B	ISSUED FOR APPROVAL	C.J.C	09-07-25
A	ISSUED FOR CLIENT REVIEW	C.J.C	30-06-25
Rev	Amendments	Approved	Date

Scale
NOT TO SCALE

Registered Professional Engineer Name
Registration Number
© Spiire Australia Pty Ltd All Rights Reserved This document is produced by Spiire Australia Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Spiire Australia Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.



Suite 3, Level 1, 243 Northbourne Avenue
Canberra ACT 2612 Australia
spiire.com.au ABN 55 050 029 635

	
Designed J.Zhang	Checked C.Otto
Authorised C.J.Corcoran	Date 09 July 25

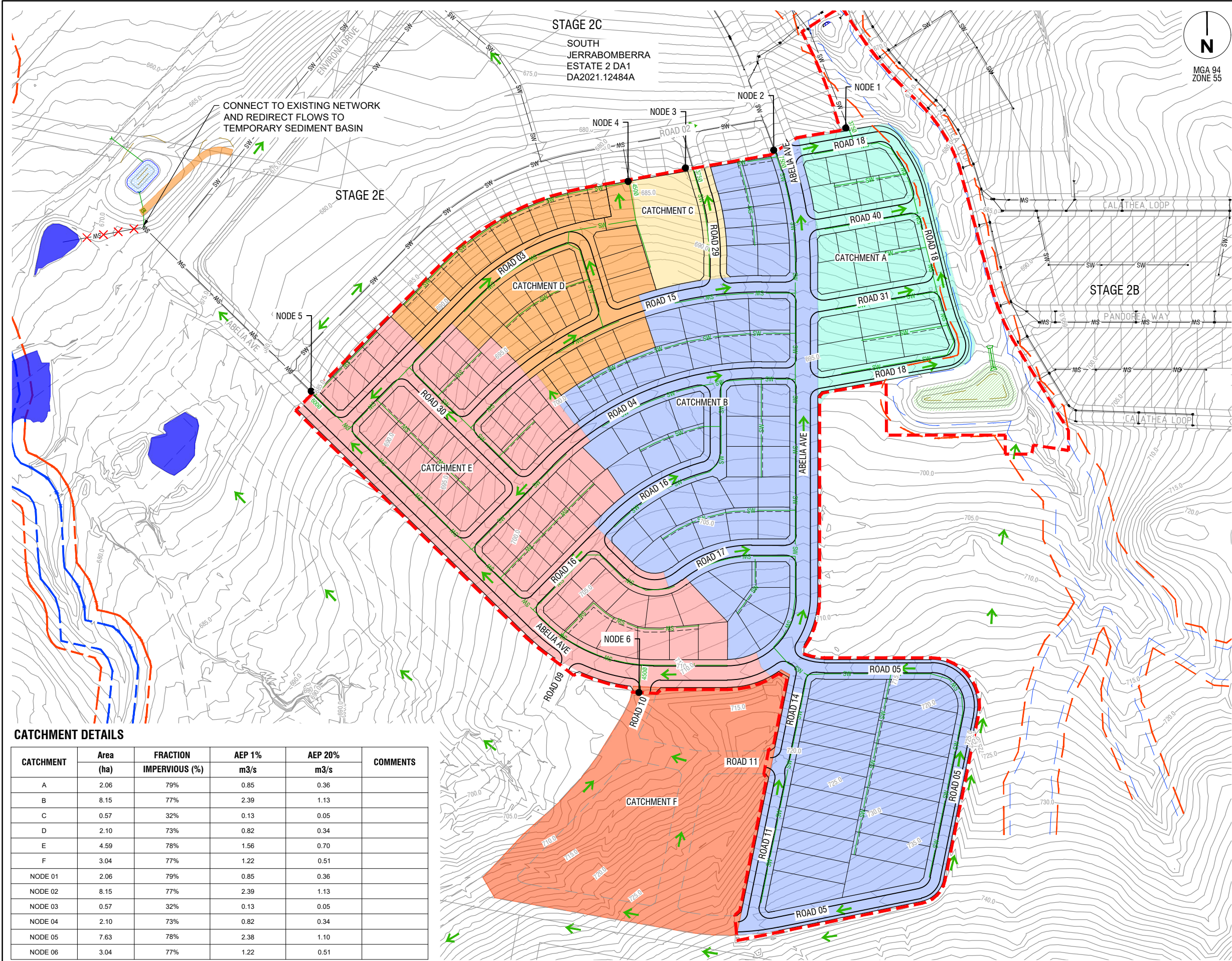
SOUTHE JERRABOMBERRA ESTATE 2
NORTHERN CATCHMENT
POTABLE WATER MASTER PLAN
SHEET 2
QPRC
DEVELOPMENT APPLICATION

Orig No

323444-001CD451

Rev

B



LEGEND

DA BOUNDARY

FINISHED SURFACE CONTOURS (1m INTERVAL)

RIPARIAN CORRIDOR

OVERLAND FLOW DIRECTION

EXISTING DAM

CATCHMENT A

CATCHMENT B

CATCHMENT C

CATCHMENT D

CATCHMENT E

CATCHMENT F

DRY DETENTION POND (BASIN 3)

SEDIMENT POND (BASIN 4)

- NOTES
1.

PERCENT IMPERVIOUS ASSUMPTIONS AS FOLLOWS
ROAD 90%
RESIDENTIAL BLOCKS 70%
OPEN SPACE AND UNDEVELOPED 10%
2.

STORMWATER FLOWS CALCULATED FROM BOM IFD 2016 DESIGN RAINFALLS. STORMWATER FLOWS HAVE BEEN CALCULATED USING RATIONAL METHOD FOR PROOF OF CONCEPT DESIGN. FINAL STORMWATER DESIGN TO BE CALCULATED IN ACCORDANCE WITH ARR2019 AND PROVIDED AT DETAILED DESIGN.
3.

PIPES ARE DESIGNED TO CONVEY THE 20% AEP STORM EVENT. FINAL SIZE TO BE CONFIRMED DURING DETAILED DESIGN
4.

PIPE SIZES SHALL BE SUBJECT TO DETAILED HYDRAULIC GRADE LINE ANALYSIS, MAKING APPROPRIATE ALLOWANCE FOR BLOCKAGE, OVERLAND FLOW CARRYING CAPACITY AND OTHER DESIGN CONSTRAINTS
5.

REFER DRAWING 323444-001CD510 FOR PIPE NETWORK AND OVERLAND FLOW PATHS
6.

REFER CIVIL ENGINEERING REPORT SECTION 8 - STORMWATER FOR MODELLING AND TREATMENTS PARAMETERS
7.

REFER CIVIL ENGINEERING REPORT "ESTATE 2 NORTHERN CATCHMENT DA REPORT" SECTION 8 - STORMWATER FOR EXTERNAL CATCHMENT DETAILS
8.

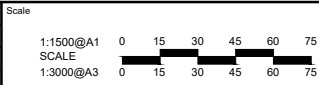
INDICATIVE FUTURE ESTATE LAYOUT SHOWN FOR INFORMATION TO BE CONFIRMED IN SUBSEQUENT DEVELOPMENT APPLICATION. CATCHMENTS INDICATIVELY DEPICT FUTURE DEVELOPED SCENARIO.
10.

FOR CATCHMENT DETAIL REFER TO DRAWING 323444-001 CD500. FOR STORMWATER MASTERPLAN REFER TO DRAWING 323444-001 CD510. PRELIMINARY PIPE SIZING REFER TO DRAWING 323444-001 CD510.

CATCHMENT DETAILS

CATCHMENT	Area (ha)	FRACTION IMPERVIOUS (%)	AEP 1% m3/s	AEP 20% m3/s	COMMENTS
A	2.06	79%	0.85	0.36	
B	8.15	77%	2.39	1.13	
C	0.57	32%	0.13	0.05	
D	2.10	73%	0.82	0.34	
E	4.59	78%	1.56	0.70	
F	3.04	77%	1.22	0.51	
NODE 01	2.06	79%	0.85	0.36	
NODE 02	8.15	77%	2.39	1.13	
NODE 03	0.57	32%	0.13	0.05	
NODE 04	2.10	73%	0.82	0.34	
NODE 05	7.63	78%	2.38	1.10	
NODE 06	3.04	77%	1.22	0.51	

B	ISSUED FOR APPROVAL		C.J.C	09-07-25	
A	ISSUED FOR CLIENT REVIEW		C.J.C	30-06-25	
Rev	Amendments		Approved	Date	



Registered Professional Engineer Name

Registration Number

© Spiire Australia Pty Ltd All Rights Reserved
This document is produced by Spiire Australia Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Spiire Australia Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

spiire

Suite 3, Level 1, 243 Northbourne Avenue
Canberra ACT 2612 Australia
spiire.com.au

ABN 55 050 029 635

The Village
Building Co Est. 1988

Designed
J.Zhang

Authorised
C.J.Corcoran

Checked
C.Otto

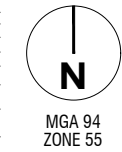
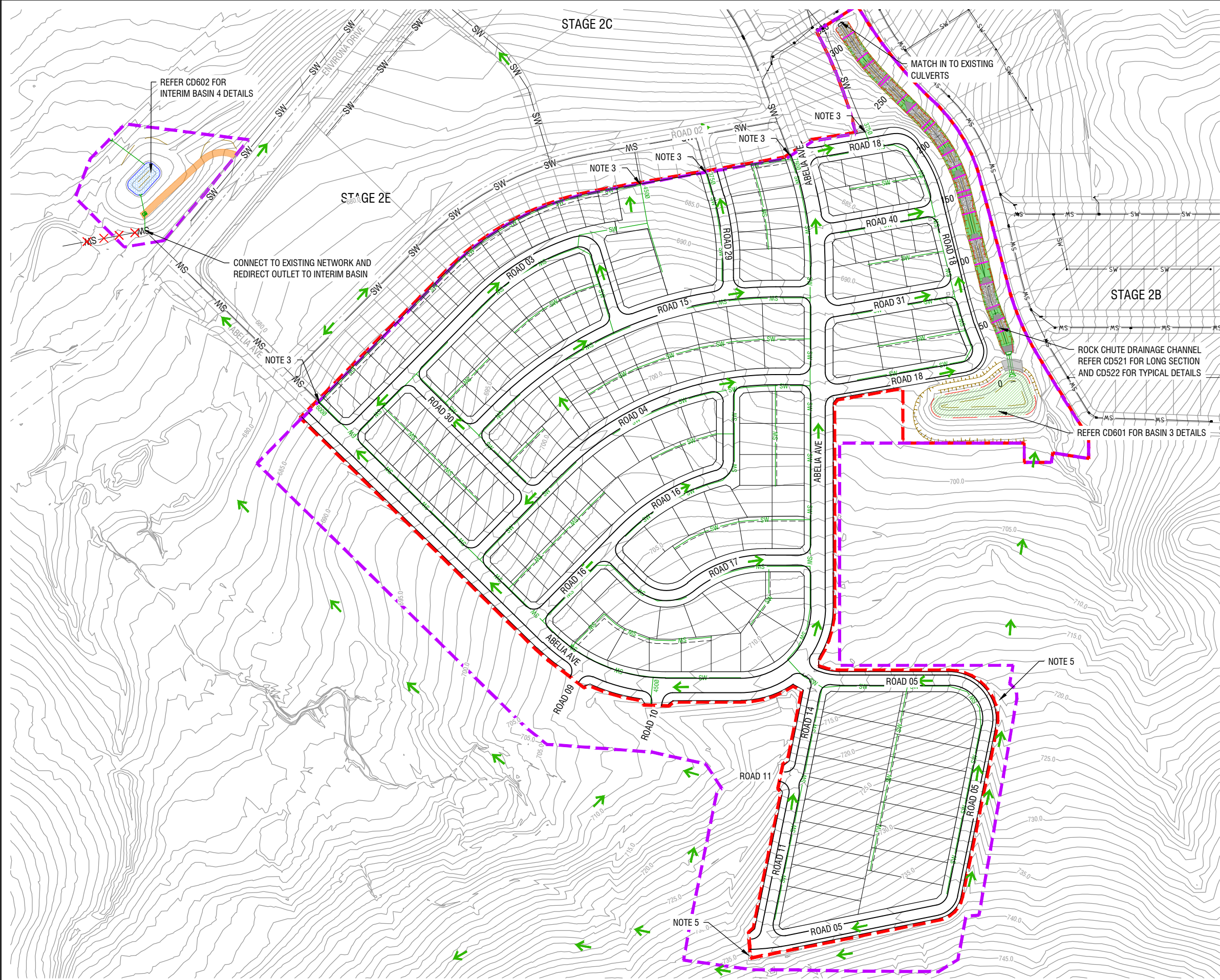
Date
09 July 25

SOUTHE JERRABOMBERRA ESTATE 2
NORTHERN CATCHMENT
STORMWATER CATCHMENT PLAN
SHEET 1
QPRC
DEVELOPMENT APPLICATION

Orig No
323444-001CD500

Rev
B

file name: 323444-001CD520.dwg, layout name: CD520, plotted by: Jini Zhang
file location: G:\323444\001\CD520\plot.dwg, date: 09/07/2025 11:29 AM



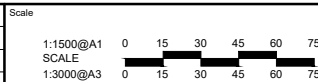
LEGEND

- DA BOUNDARY
- EXTENT OF WORKS BOUNDARY
- 3.5m EASEMENT (SEWER AND STORMWATER)
- FINISHED SURFACE CONTOURS (1m INTERVAL)
- STORMWATER
- EXISTING STORMWATER
- HEADWALL
- OVERLAND FLOW DIRECTION
- ROCK STABILISATION
- VEGETATED DRAINAGE CHANNEL
- PROPOSED DRY DETENTION BASIN (BASIN 3)
- PROPOSED SEDIMENT POND (BASIN 4)

NOTES

- INDICATIVE PIPE SIZES ARE DESIGNED TO CONVEY THE MINOR STORM EVENT (20% AEP), MAINTAIN ADEQUATE GAP FLOW AND PROVIDE A SAFE VELOCITY DEPTH THROUGHOUT THE ROAD RESERVE.
- PIPE SIZES TO BE CONFIRMED AT DETAILED DESIGN.
- CONNECT TO EXISTING STORMWATER NETWORK.
- REAR EASEMENTS WITHIN RESIDENTIAL BLOCKS FOR DUAL SERVICES (SEWER AND STORMWATER) ARE TO BE 3.5m WIDE AND MAINTAIN 1.0m SEPARATION BETWEEN SERVICES.
- SWALE DIRECTS STORMWATER FROM THE EXTERNAL CATCHMENT TO THE PROPOSED DRAINAGE CHANNEL, TAPERING OFF TO MATCH THE EXISTING SURFACE.

Rev	Amendments	Approved	Date
B	ISSUED FOR APPROVAL	C.J.C	09-07-25
A	ISSUED FOR CLIENT REVIEW	C.J.C	30-06-25



Registered Professional Engineer Name
Registration Number

© Spiire Australia Pty Ltd All Rights Reserved
This document is produced by Spiire Australia Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Spiire Australia Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.



Suite 3, Level 1, 243 Northbourne Avenue
Canberra ACT 2612 Australia
spiire.com.au ABN 55 050 029 635

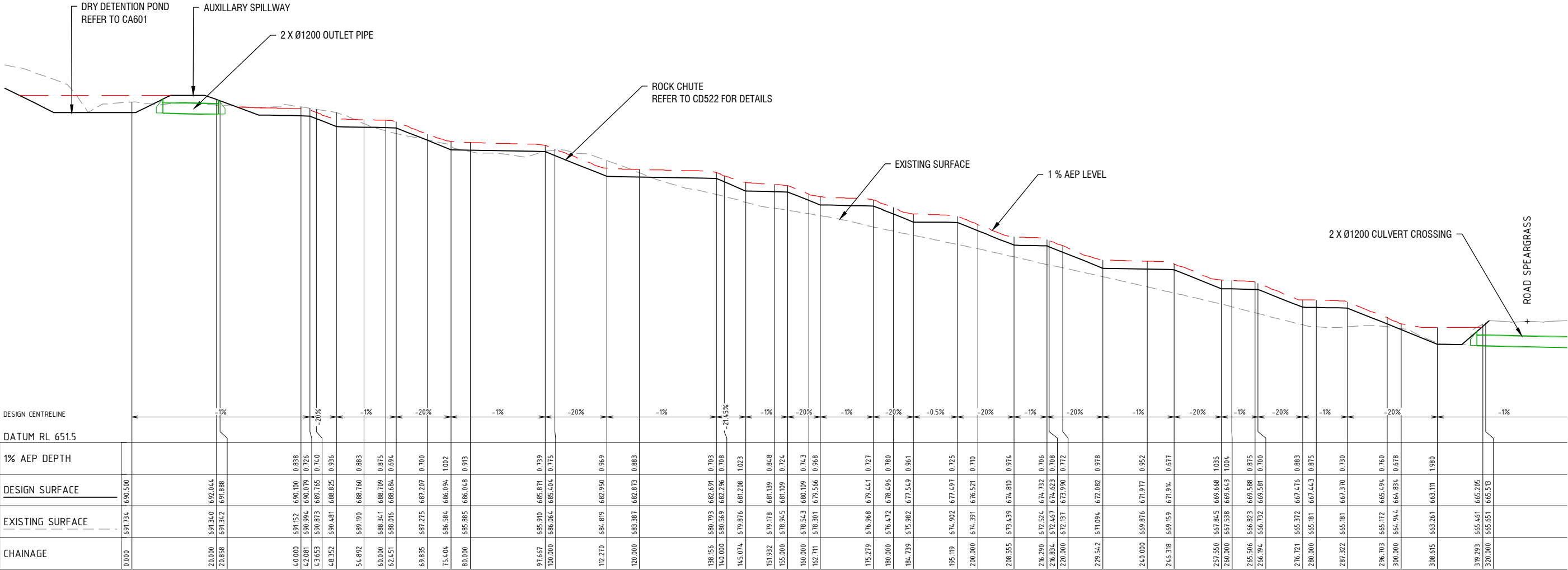


Designed
J.Zhang
Authorised
C.J.Corcoran

Checked
C.Otto
Date
09 July 25

**SOUTHE JERRABOMBERRA ESTATE 2
NORTHERN CATCHMENT
DRAINAGE SERVICING STRATEGY PLAN
SHEET 1
QPRC
DEVELOPMENT APPLICATION**

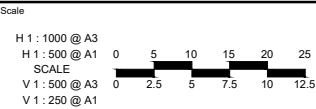
Orig No
323444-001CD520
Rev
B



SWALE - LONGITUDINAL SECTION

file name 323444-001CD520.dwg layout name CD521 plotted by jimi zhang
file location G:\323444\001\Civil\CADD part date 09/07/2025 11:29 AM

B	ISSUED FOR APPROVAL	C.J.C	09-07-25	
A	ISSUED FOR CLIENT REVIEW	C.J.C	30-06-25	
Rev	Amendments	Approved	Date	



Registered Professional Engineer Name

Registration Number

© Spiire Australia Pty Ltd All Rights Reserved
This document is produced by Spiire Australia Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Spiire Australia Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.



Suite 3, Level 1, 243 Northbourne Avenue
Canberra ACT 2612 Australia
spiire.com.au ABN 55 050 029 635



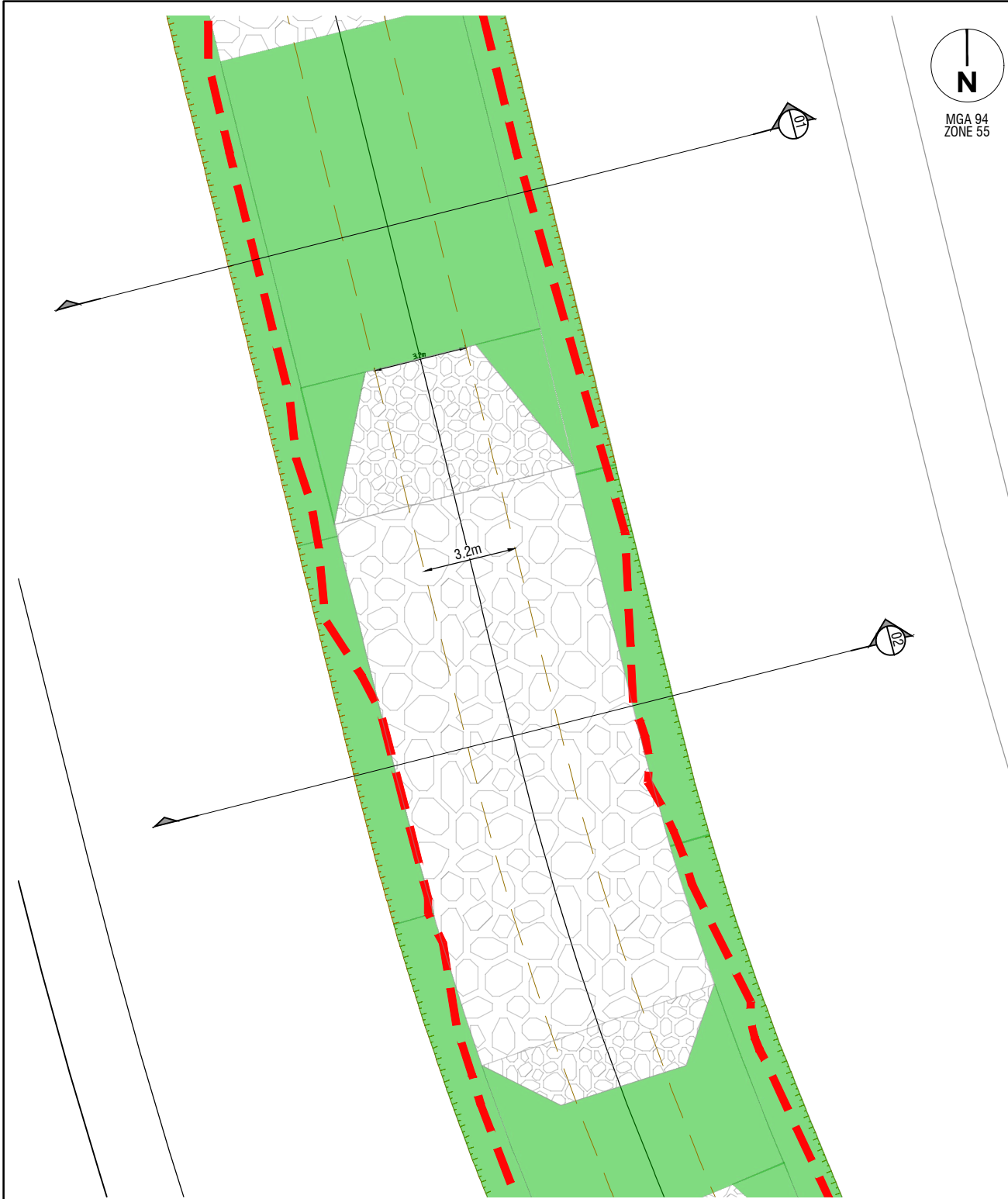
Designed
J.Zhang
Authorised
C.J.Corcoran

Checked
C.Otto
Date
09 July 25

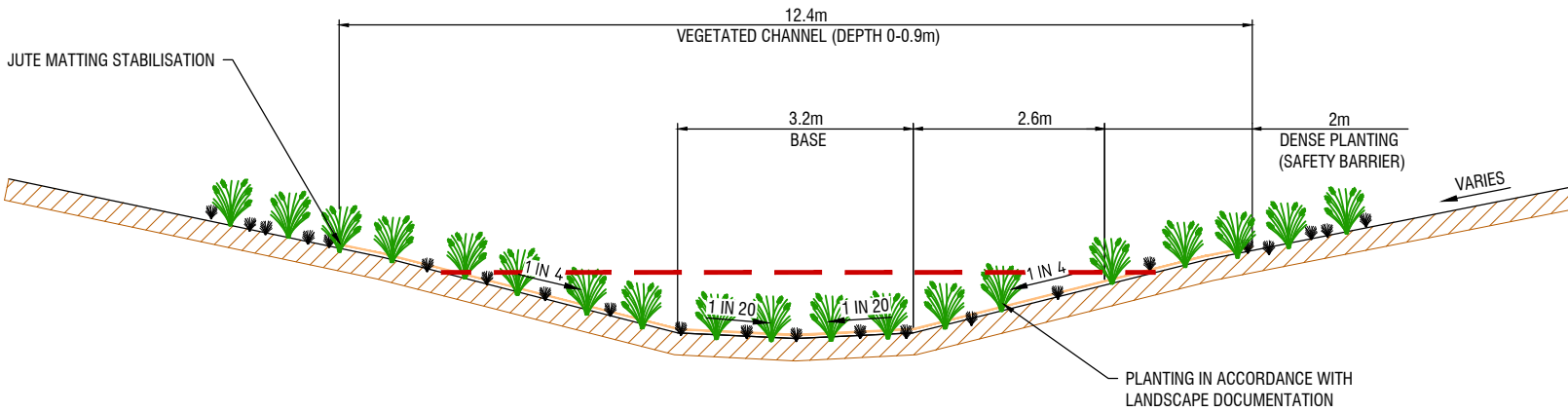
SOUTH JERRABOMBERRA ESTATE 2
NORTHERN CATCHMENT
DRAINAGE SERVICING STRATEGY PLAN
SHEET 2
QPRC
DEVELOPMENT APPLICATION

Orig No
323444-001CD521
Rev
B

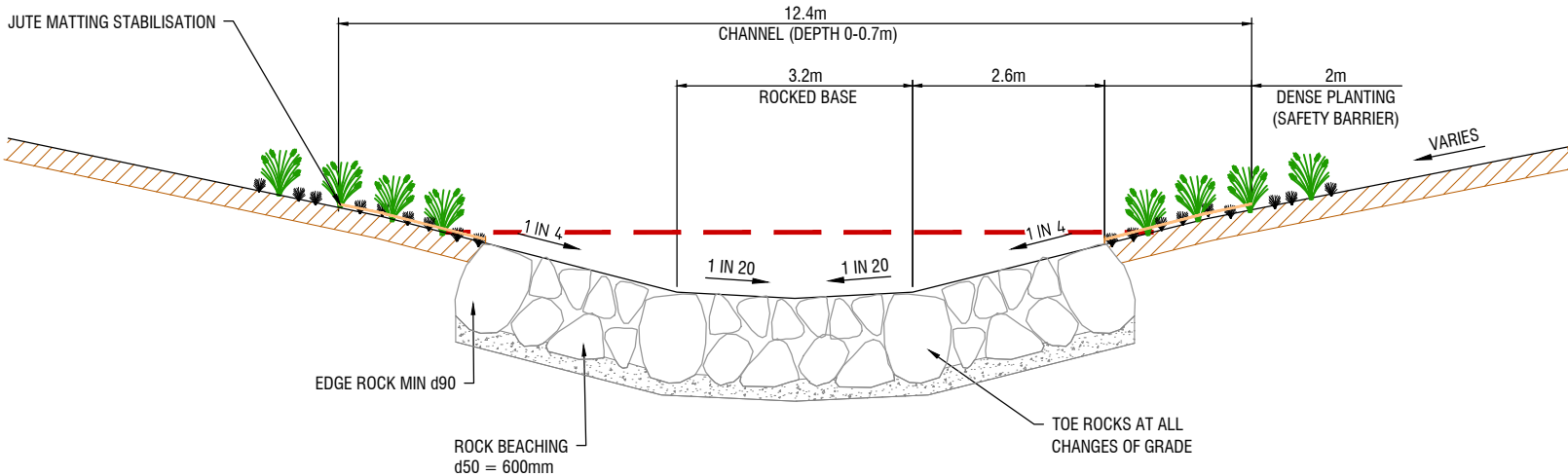
file path: 323444-001CD520.dwg, layout name: CD522, plotted by: Jini Zhang
file location: G:\323444\001\Civil\ACAD plot date: 09/07/2025 11:29 AM



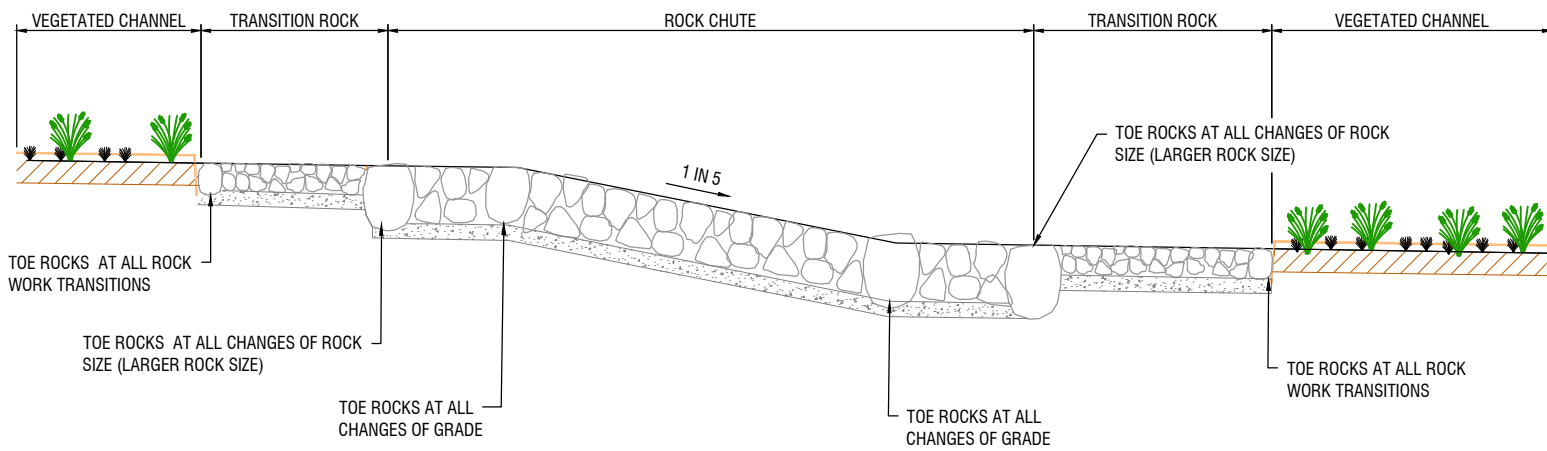
TYPICAL CHUTE TREATMENT
SCALE 1:100



TYPICAL SECTION 01- VEGETATED CHANNEL
SCALE 1:50



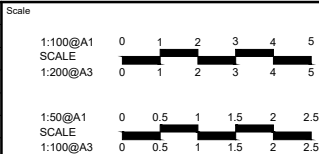
TYPICAL CROSS-SECTION 02 - ROCKED CHANNEL CHUTE
SCALE 1:50



TYPICAL ROCK CHUTE LONGITUDINAL SECTION
SCALE 1:50

NOTE:
ROCKWORK EXTENT AND SIZE TO BE CONFIRMED
IN DETAILED DESIGN VIA HYDRAULIC MODEL

B	ISSUED FOR APPROVAL	C.J.C.	09-07-25	
A	ISSUED FOR CLIENT REVIEW	C.J.C.	30-06-25	
Rev	Amendments	Approved	Date	



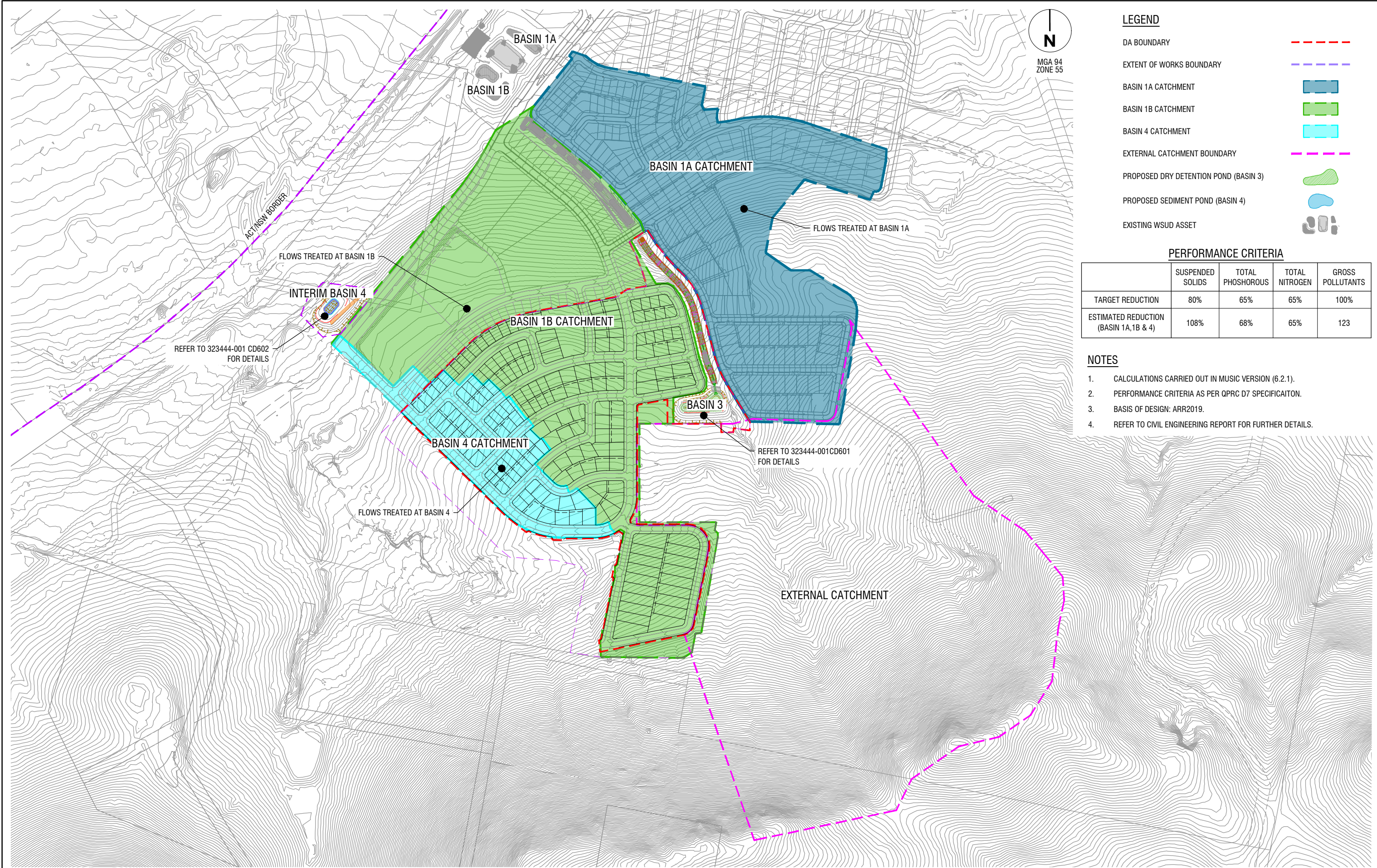
Registered Professional Engineer Name
Registration Number
© Spiire Australia Pty Ltd All Rights Reserved
This document is produced by Spiire Australia Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Spiire Australia Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

spiire
Suite 3, Level 1, 243 Northbourne Avenue
Canberra ACT 2612 Australia
spiire.com.au ABN 55 050 029 635

The Village Building Co Est. 1988
Designed J.Zhang
Authorised C.J. Corcoran
Checked C. Otto
Date 09 July 25

**SOUTHEAST JERRABOMBERRA ESTATE 2
NORTHERN CATCHMENT
DRAINAGE SERVICING STRATEGY PLAN
SHEET 3
QPRC
DEVELOPMENT APPLICATION**

Orig No 323444-001CD522 Rev B



LEGEND

- DA BOUNDARY
- EXTENT OF WORKS BOUNDARY
- BASIN 1A CATCHMENT
- BASIN 1B CATCHMENT
- BASIN 4 CATCHMENT
- EXTERNAL CATCHMENT BOUNDARY
- PROPOSED DRY DETENTION POND (BASIN 3)
- PROPOSED SEDIMENT POND (BASIN 4)
- EXISTING WSUD ASSET

PERFORMANCE CRITERIA

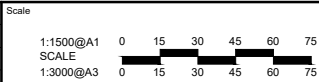
	SUSPENDED SOLIDS	TOTAL PHOSHOROUS	TOTAL NITROGEN	GROSS POLLUTANTS
TARGET REDUCTION	80%	65%	65%	100%
ESTIMATED REDUCTION (BASIN 1A,1B & 4)	108%	68%	65%	123

NOTES

- CALCULATIONS CARRIED OUT IN MUSIC VERSION (6.2.1).
- PERFORMANCE CRITERIA AS PER QPRC D7 SPECIFICAITON.
- BASIS OF DESIGN: ARR2019.
- REFER TO CIVIL ENGINEERING REPORT FOR FURTHER DETAILS.

file name: 323444-001CD600.dwg, layout name: CD600, plotted by: Jini Zhang, file location: G:\323444\001\Civil\ACAD\plot, date: 09/07/2025 11:29 AM

B	ISSUED FOR APPROVAL	C.J.C	09-07-25	
A	ISSUED FOR CLIENT REVIEW	C.J.C	30-06-25	
Rev	Amendments	Approved	Date	



Registered Professional Engineer Name
Registration Number

© Spiire Australia Pty Ltd All Rights Reserved
This document is produced by Spiire Australia Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Spiire Australia Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

Suite 3, Level 1, 243 Northbourne Avenue
Canberra ACT 2612 Australia
spiire.com.au

ABN 55 050 029 635

The Village
Building Co Est. 1988

Designed
J.Zhang

Authorised
C.J.Corcoran

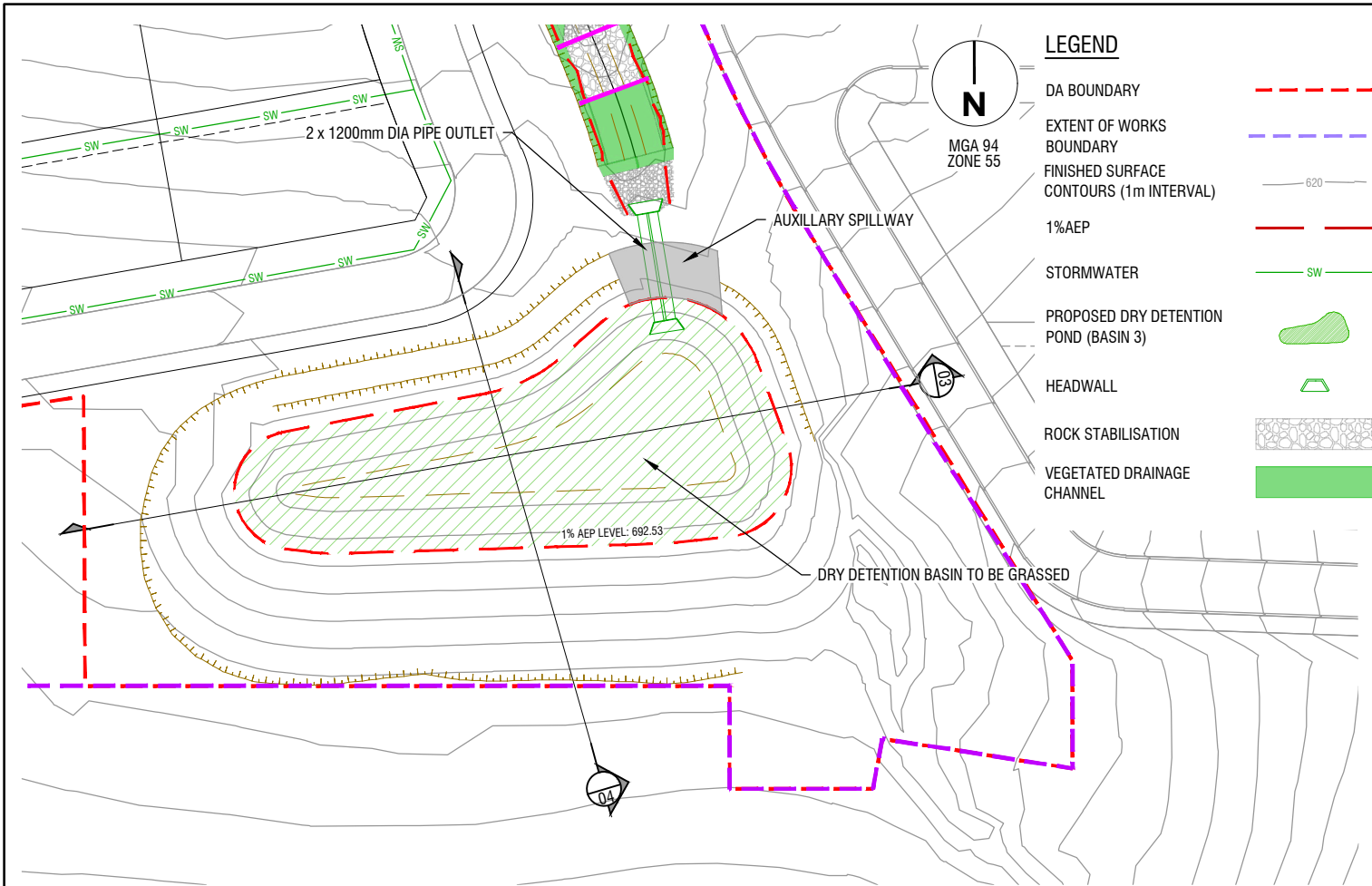
Checked
C.Otto

Date
09 July 25

SOUTHE JERRABOMBERRA ESTATE 2
NORTHERN CATCHMENT
WSUD ASSET KEYPLAN AND DETAILS
SHEET 1
QPRC
DEVELOPMENT APPLICATION

Orig No
323444-001CD600

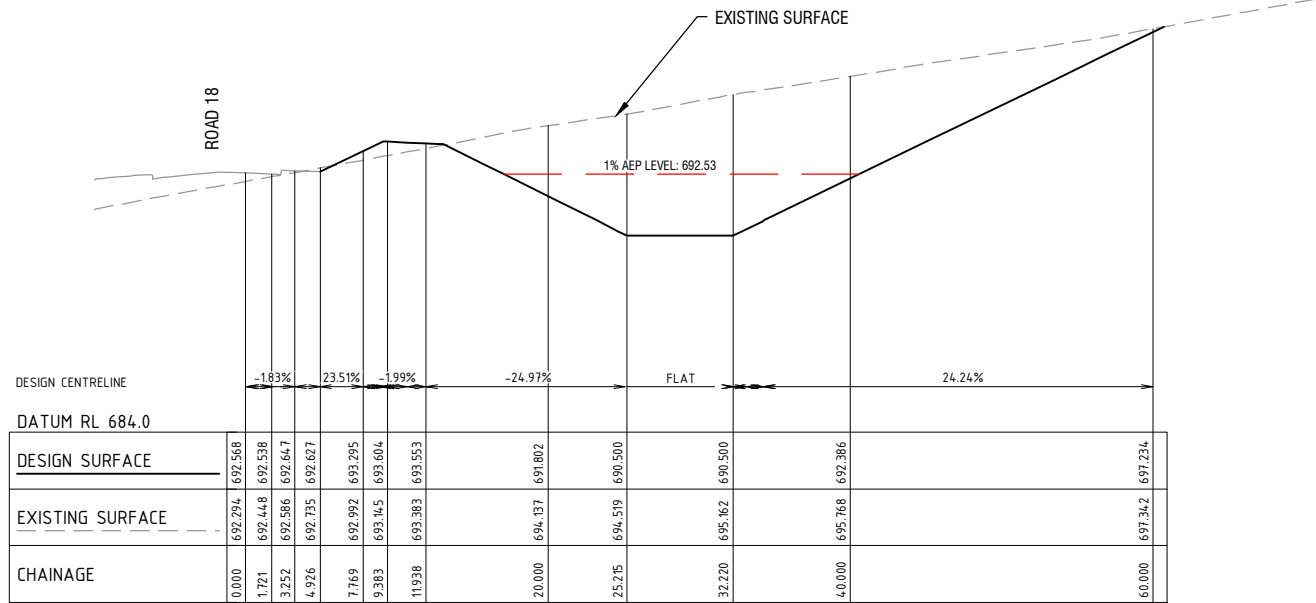
Rev
B



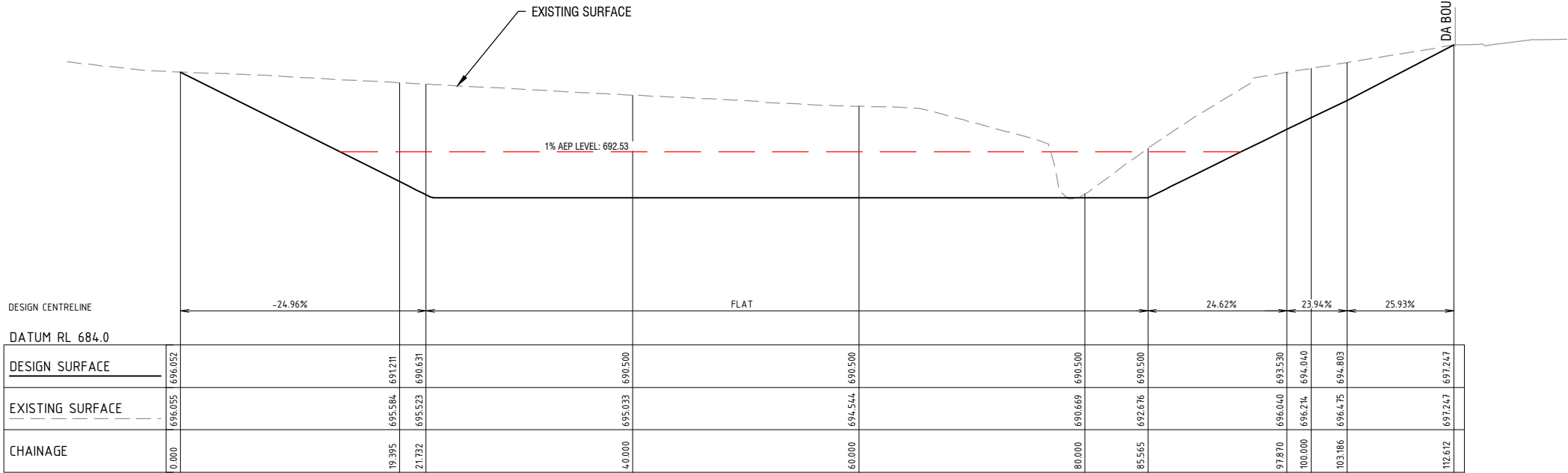
BASIN 3 - PROPOSED DRY DETENTION POND
SCALE 1:1000 @ A3

LEGEND

- DA BOUNDARY
- EXTENT OF WORKS BOUNDARY
- FINISHED SURFACE CONTOURS (1m INTERVAL)
- 1%AEP
- STORMWATER
- PROPOSED DRY DETENTION POND (BASIN 3)
- HEADWALL
- ROCK STABILISATION
- VEGETATED DRAINAGE CHANNEL

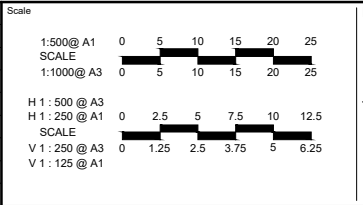


DRY DETENTION BASIN - LONGITUDINAL SECTION 04



DRY DETENTION BASIN - LONGITUDINAL SECTION 03

B	ISSUED FOR APPROVAL	C.J.C.	09-07-25	
A	ISSUED FOR CLIENT REVIEW	C.J.C.	30-06-25	
Rev	Amendments	Approved	Date	

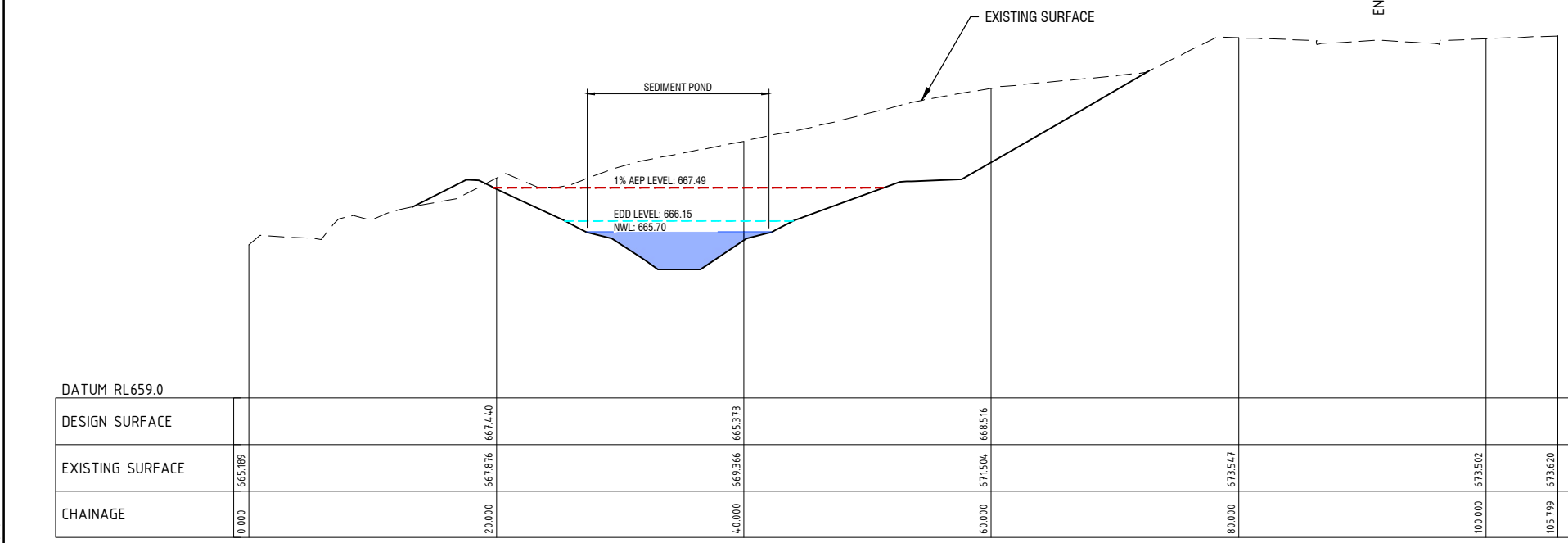
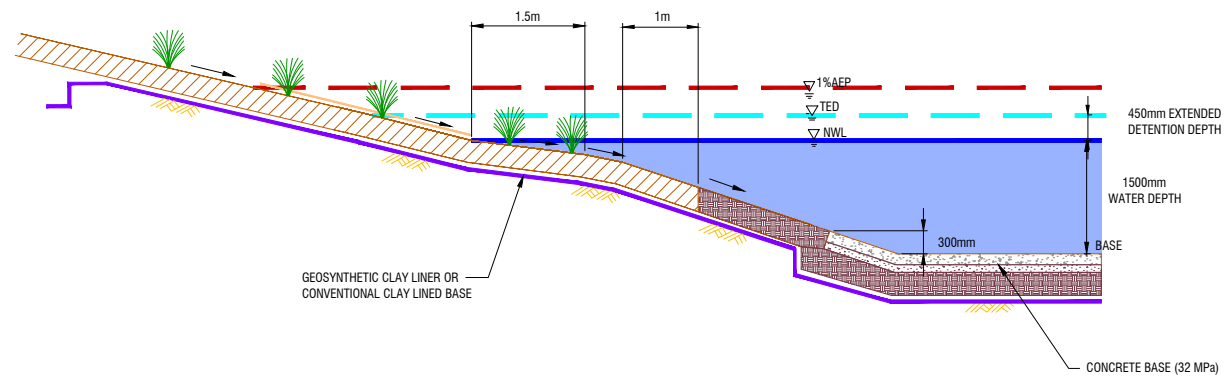
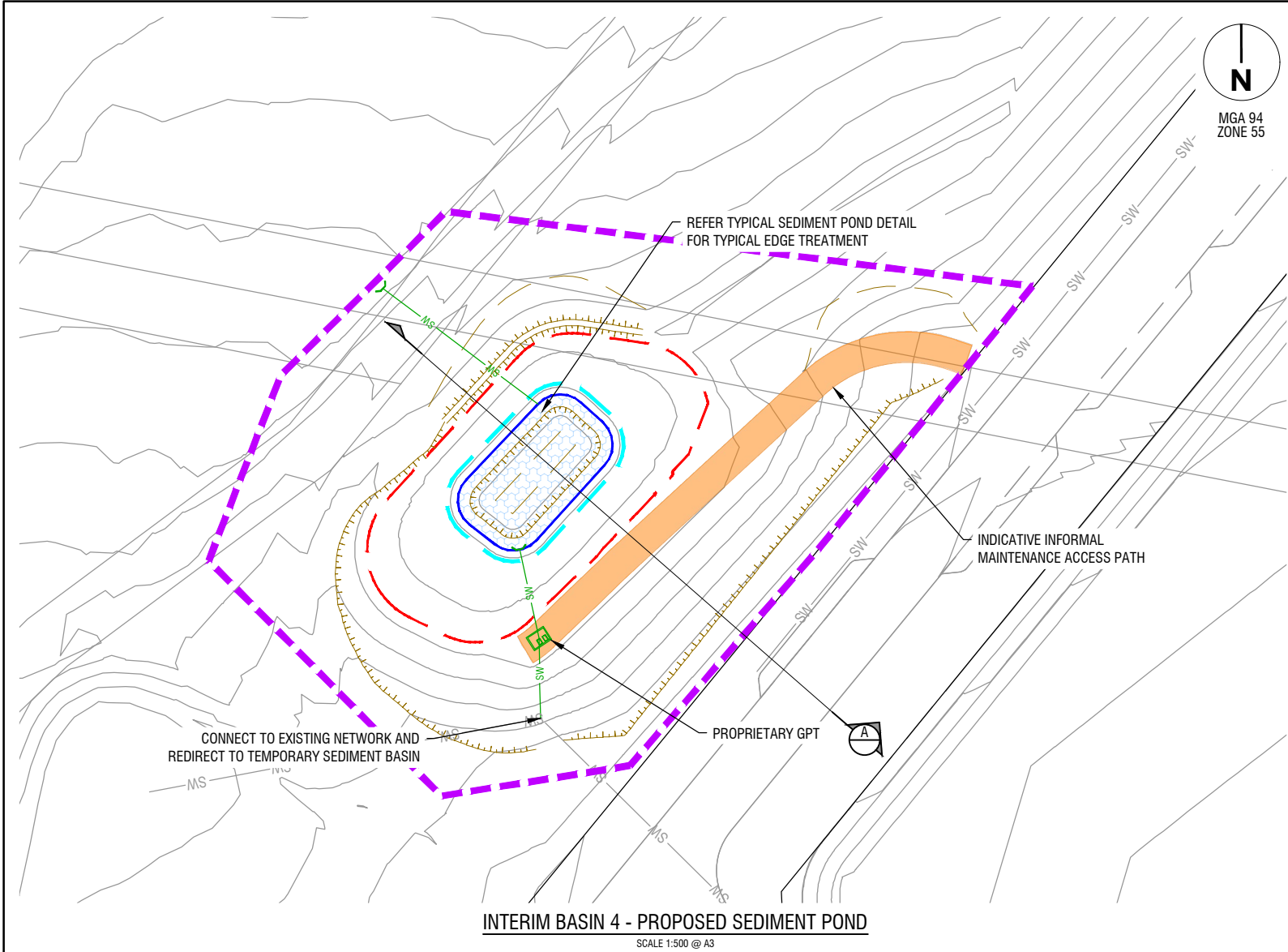


Registered Professional Engineer Name
Registration Number
© Spiire Australia Pty Ltd All Rights Reserved
This document is produced by Spiire Australia Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Spiire Australia Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

spiire
Suite 3, Level 1, 243 Northbourne Avenue
Canberra ACT 2612 Australia
spiire.com.au ABN 55 050 029 635

The Village
Building Co Est. 1988
Designed
J.Zhang
Authorised
C.J.Corcoran
Checked
C.Otto
Date
09 July 25

SOUTHE JERRABOMBERRA ESTATE 2
NORTHERN CATCHMENT
WSUD ASSET KEYPLAN AND DETAILS
SHEET 2
QPRC
DEVELOPMENT APPLICATION
Orig No
323444-001CD601
Rev
B



- NOTES
- INTERIM BASIN TO BE CONVERTED FROM CONSTRUCTION POND ONLY AFTER 80% OF CATCHMENT IS FULLY DEVELOPED.

B		ISSUED FOR APPROVAL	C.J.C.	09-07-25
A		ISSUED FOR CLIENT REVIEW	C.J.C.	30-06-25
Rev	Amendments		Approved	Date

Scale

1:250@A1
SCALE
1:500@A3

H 1: 500 @ A3
H 1: 250 @ A1
SCALE
V 1: 250 @ A3
V 1: 125 @ A1

Registered Professional Engineer Name

Registration Number

© Spiire Australia Pty Ltd All Rights Reserved
This document is produced by Spiire Australia Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Spiire Australia Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

spiire

Suite 3, Level 1, 243 Northbourne Avenue
Canberra ACT 2612 Australia
spiire.com.au ABN 55 050 029 635

The Village Building Co Est. 1988

Designed
J.Zhang

Authorised
C.J. Corcoran

Checked
C. Otto

Date
09 July 25

**SOUTHEAST JERRABOMBERRA ESTATE 2
NORTHERN CATCHMENT
WSUD ASSET KEYPLAN AND DETAILS
SHEET 3
QPRC
DEVELOPMENT APPLICATION**

Orig No
323444-001CD602

Rev
B

file name: 323444-001CD602.dwg, layout name: CD602, plotted by: Jini Zhang
file location: G:\323444\001\CD602.dwg, plot date: 09/07/2025 11:30 AM



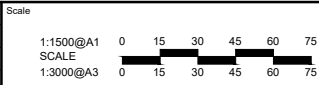
LEGEND

- DA BOUNDARY
- SHARED TRENCH
- CONNECT TO EXISTING
- EXISTING SUBSTATION
- SUBSTATION
- EXISTING SHARED TRENCH
- EXISTING TREE - HIGH VALUE

NOTES

- LAYOUT IS INDICATIVE ONLY, TO BE CONFIRMED AT DETAILED DESIGN
- SUBSTATION LOCATIONS TO BE CONFIRMED AT DETAILED DESIGN
- ALL ROADS AND INTERSECTIONS SHALL BE PROVIDED WITH STREET LIGHTING TO THE APPROPRIATE LIGHTING CATERGORY IN ACCORDANCE WITH AS/NZS 1158
- ALL PATHS, CYCLEWAYS AND SHARED PATHS IN PARKS AND RESERVES SHALL BE PROVIDED WITH LIGHTING TO CATEGORY P2 IN AS/NZS 1150.31

B	ISSUED FOR APPROVAL	C.J.C	09-07-25
A	ISSUED FOR CLIENT REVIEW	C.J.C	30-06-25
Rev	Amendments	Approved	Date



Registered Professional Engineer Name

Registration Number

© Spiire Australia Pty Ltd All Rights Reserved
This document is produced by Spiire Australia Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Spiire Australia Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.



Suite 3, Level 1, 243 Northbourne Avenue
Canberra ACT 2612 Australia
spiire.com.au ABN 55 050 029 635



Designed
J.Zhang

Authorised
C.J.Corcoran

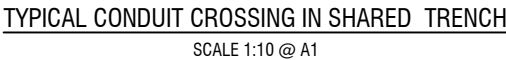
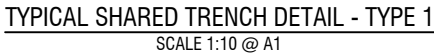
Checked
C.Otto

Date
09 July 25

SOUTHE JERRABOMBERRA ESTATE 2
NORTHERN CATCHMENT
UTILITY MASTER PLAN
SHEET 1
QPRC
DEVELOPMENT APPLICATION

Orig No
323444-001CD610

Rev
B



MANDATORY SEPARATIONS

1. MANDATORY MINIMUM SEPARATIONS BETWEEN
TELECOMMUNICATIONS AND PROTECTED ELECTRICAL CABLES,
CONDUITS ARE AS FOLLOWS;
100mm BETWEEN LV CABLE / CONDUITS
300mm BETWEEN HV CABLE / CONDUITS

Registered Professional Engineer Name

Registration Number

© Spiire Australia Pty Ltd All Rights Reserved

This document is produced by Spiire Australia Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Spiire Australia Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

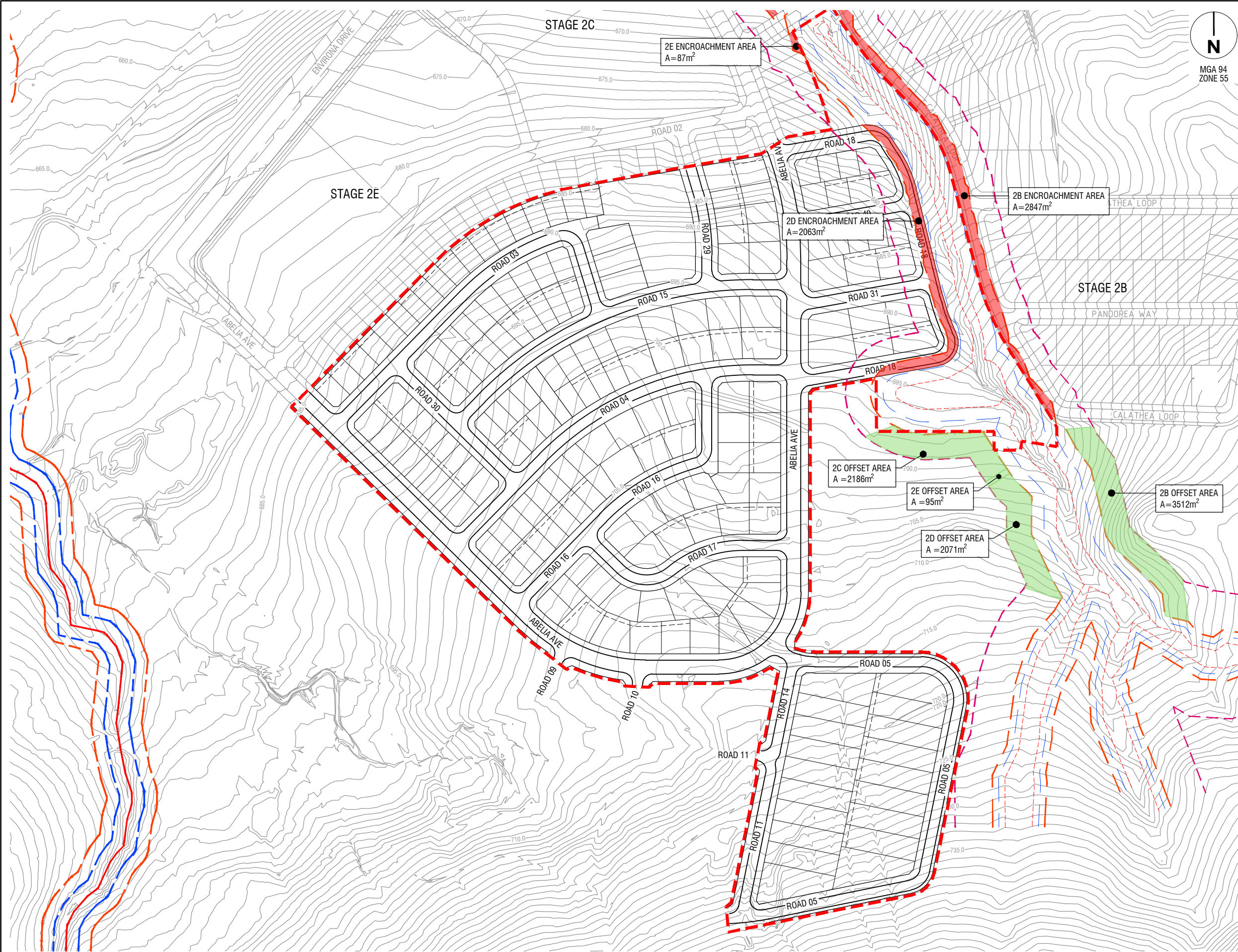
Suite 3, Level 1, 243 Northbourne Avenue
Canberra ACT 2612 Australia
spiire.com.au ABN 55 050 029 635

Designed
J.Zhang
Authorised
C.J.Corcoran

Checked
C.Otto
Date
09 July 25

Drg No Rev
323444-001CD611 B

file name: 323444-001CD620.dwg, layout name: CD620, plotted by: Jini Zhang
file location: G:\323444\001\Civil\ACAD plot date: 09/07/2025 11:30 AM



LEGEND

DA BOUNDARY

EXISTING SURFACE CONTOURS (1m INTERVAL)

WATER LEVEL AEP1%

2nd ORDER OUTER 50% VRZ
(20m FROM T.O.B)

2nd ORDER INNER 50% VRZ
(10m FROM T.O.B)

WATERFRONT LAND
(40m FROM T.O.B)

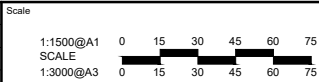
ENCROACHMENT WITHIN OUTER 50% VRZ

ENCROACHMENT OFFSET AREA

NOTES

- TOP OF BANK HAS BEEN TAKEN AS THE MODELLED AEP1% WATER LEVEL IN THE PROPOSED CHANNEL
- REFER TO PREVIOUS CONTROLLED ACTIVITY APPROVAL (CAA 2023-10035) FOR PROPOSED STORMWATER OUTLET DETAILS.

B	ISSUED FOR APPROVAL	C.J.C	09-07-25	
A	ISSUED FOR CLIENT REVIEW	C.J.C	30-06-25	
Rev	Amendments	Approved	Date	



Registered Professional Engineer Name

Registration Number

© Spiire Australia Pty Ltd All Rights Reserved
This document is produced by Spiire Australia Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Spiire Australia Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

spiire

Suite 3, Level 1, 243 Northbourne Avenue
Canberra ACT 2612 Australia
spiire.com.au ABN 55 050 029 635

The Village
Building Co Est. 1988

Designed
J.Zhang
Authorised
C.J.Corcoran

Checked
C.Otto
Date
09 July 25

SOUTHE JERRABOMBERRA ESTATE 2
NORTHERN CATCHMENT
RIPARIAN CORRIDOR OFFSET PLAN
SHEET 1
QPRC
DEVELOPMENT APPLICATION

Orig No
323444-001CD620
Rev
B

file name 32344-001CD700.dwg, layout name CD700, plotted by Jini Zhang
file location G:\32323444\001\Civil\ACAD plot date 09/07/2025 11:30 AM

GENERAL NOTES

1.

THIS DRAWING TYPIFIES THE EROSION CONTROL PRINCIPLES REQUIRED FOR WORKS WITHIN THE QUEANBEYAN PALARANG REGIONAL COUNCIL. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DESIGN, CONSTRUCT AND MAINTAIN TEMPORARY EROSION CONTROL MEASURES TO COMPLY WITH THE REQUIREMENTS OF THE QPRC SPECIFICATION C211 - CONTROL OF EROSION AND SEDIMENTATION, VERSION 1 JANUARY 2019.
2.

VARIATIONS TO APPROVED CONCEPTS AND PROPOSALS ARE TO BE ENDORSED BY QPRC PRIOR TO IMPLEMENTATION.
3.

SEDIMENT AND EROSION CONTROL MEASURES ARE TO BE CONSTRUCTED AND MAINTAINED AS PER THE MANAGING URBAN STORMWATER, SOILS AND CONSTRUCTION, 4TH EDITION. 2004.
4.

THIS IS A CONCEPTUAL SWMP ONLY. IT PROVIDES SUFFICIENT DETAIL TO SHOW CLEARLY THAT THE WORKS CAN PROCEED WITHOUT UNDUE POLLUTION TO RECEIVING WATERS. A DETAILED PLAN WILL BE PREPARED BY THE SUCCESSFUL CONSTRUCTION CONTRACTOR BEFORE WORKS START.
5.

THE SWMP WILL BE READ WITH THE ENGINEERING PLANS AND ANY OTHER PLANS OR WRITTEN INSTRUCTIONS ISSUED IN RELATION TO DEVELOPMENT AT THE SUBJECT SITE.
6.

CONTRACTORS WILL ENSURE THAT ALL SOIL AND WATER MANAGEMENT WORKS ARE UNDERTAKEN AS INSTRUCTED IN THIS SPECIFICATION AND FOLLOWING THE GUIDELINES OUTLINED IN MANAGING URBAN STORMWATER: SOILS & CONSTRUCTION (LANDCOM, 2004).
7.

ALL SUBCONTRACTORS WILL BE INFORMED OF THEIR RESPONSIBILITIES IN MINIMISING THE POTENTIAL FOR SOIL EROSION AND POLLUTION TO DOWNSLOPE AREAS.

PRE CONSTRUCTION PHASE

1.

CONSTRUCT STABILISED DRIVEWAY ENTRANCES.
2.

CONSTRUCT SEDIMENT BASINS, DIVERSION CATCH DRAINS, DIVERSION BANKS OR OTHER DIVERSION WORKS AS REQUIRED. GRASS EMBANKMENTS AND INVERTS. PLACE BITUMEN STABILISED STRAW MULCH AND JUTE MESH TO WHITE WATER DRAINS.
3.

CONSTRUCT SILT FENCES AND COMBINED HAY BALE/SILT FENCES AS SHOWN.

CONSTRUCTION PHASE

1.

NO STOCKPILES, HAUL ROADS OR TRACKS ARE TO BE ESTABLISHED IN AREAS OTHER THAN THOSE SPECIFIED IN THE DOCUMENTS AND AS SHOWN ON THE PLAN. THE WORKS SHALL BE PLANNED TO ENSURE THAT A MINIMUM AREA OF THE SITE IS DISTURBED AT ANY ONE TIME.
2.

ALL OVERLAND FLOW CHANNELS SHALL BE TOPSOILED, GRASSED AND MULCHED IMMEDIATELY AFTER THEIR COMPLETION.
3.

ALL EARTHWORKS SHALL BE CARRIED OUT EXPEDITIOUSLY, TOPSOILED, GRASSED AND MULCHED IMMEDIATELY ON COMPLETION. SITE RESTORATION SHALL BE CARRIED OUT PROGRESSIVELY AS THE WORKS PROCEED.
4.

ALL AREAS OF THE SITE BEYOND EARTHWORKS AND DRAINAGE WORKS LIMITS DISTURBED BY CONSTRUCTION ACTIVITIES SHALL BE REVEGETATED IMMEDIATELY AND AT THE CONTRACTOR'S EXPENSE.
5.

SILT FENCES ARE TO BE CONSTRUCTED ON THE DOWNSTREAM SIDE OF ANY STOCKPILES THAT DO NOT HAVE A GRASSED BUFFER OF 20m OF UNDISTURBED NATURAL VEGETATION.
6.

PLACE SILT FENCES ACROSS FLOW PATHS DURING CONSTRUCTION STAGING WHERE INTERMEDIATE SILT FENCES CAN BE DOWNSTREAM OF CONSTRUCTION ZONE.
7.

ALL TRUCKS EXPORTING MATERIALS OFF SITE SHALL HAVE THE LOAD COVERED.

POST CONSTRUCTION PHASE

1.

FILL DIVERSIONS AND STABILISE DISTURBED AREAS.
2.

SILT FENCES FOR BLOCKS AND STABILISED DRIVEWAY ENTRANCES ARE TO REMAIN AFTER CONSTRUCTION.

SEDIMENT CONTROL NOTES

1.

SEDIMENT AND EROSION CONTROL DEVICES TO BE INSTALLED AND FULLY OPERATIONAL PRIOR TO STRIPPING OF SITE TOPSOIL.
2.

STOCK PILE/S TO BE LOCATED AWAY FROM DRAINAGE LINES AND SURFACE FLOW PATHS. CONTOURED STRIATIONS OR FURROWS TO BE PROVIDED TO STOCK PILES TO MINIMISE EROSION.
3.

STABILISED CONSTRUCTION ENTRANCE TO BE CONSTRUCTED PRIOR TO ACCESS TO SITE BY CONSTRUCTION VEHICLES. AGGREGATE TO BE TURNED WHEN SEDIMENT BUILDS UP.
4.

TOTAL SITE AREA IS 20ha.
5.

TOTAL DISTURBED AREA IS 20ha.
6.

CONTRACTOR IS TO ESTABLISH A MAINTENANCE PROGRAM FOR SEDIMENT AND EROSION CONTROL DEVICES TO ENSURE INSPECTION AFTER SIGNIFICANT RAINFALL AND THAT ANY REPAIRS NECESSARY ARE QUICKLY ATTENDED TO.
7.

LIMIT ACCESS TO SITE DURING AND IMMEDIATELY AFTER WET WEATHER.
8.

REGULARLY REMOVE ANY SOIL FROM ROADS ADJACENT TO THE SITE.
9.

NO STORAGE OF CONSTRUCTION MATERIALS, PARKING OF VEHICLES NOR EQUIPMENT PERMITTED IN VERGES OR OPEN SPACE WITHOUT QRPC APPROVAL.
10.

NO SITE SHEDS, STORAGE SHEDS, SITE AMENITIES TO BE ERECTED ON VERGES OR OPEN SPACE WITHOUT QRPC APPROVAL.
11.

PROVIDE KERBSIDE FILTER ROLL TO EXISTING DOWNSTREAM SUMPS.
12.

KERBSIDE FILTER ROLLS TO BE REMOVED, CLEANED AND REINSTATED ON WEEKLY BASIS AT A MINIMUM. TRAPPED SEDIMENT AROUND SUMPS ALSO TO BE REMOVED. CLEANING IS ALSO TO TAKE PLACE IMMEDIATELY AFTER PERIODS OF RAINFALL DURING CONSTRUCTION.

13.

EXCESS SOIL IS TO BE DISPOSED AT A LOCATION APPROVED BY SUPERINTENDENT. ALL BUILDING MATERIAL AND WASTE STOCKPILES SHALL BE LOCATED WITHIN A WASTE ENCLOSURE OR WASTE CONTAINMENT AREA ON THE SITE.

SEDIMENT BASINS

1.

SEDIMENT BASINS SHALL BE FULLY MAINTAINED BY THE CONTRACTOR UNTIL THE DISTURBED CATCHMENT AREA IS PROTECTED AGAINST EROSION BY PERMANENT STABILISATION. PROTECTION SHALL BE PROVIDED FOR THE FINAL LANDSCAPE WORKS UTILISING SILT CONTROL FENCING.
2.

THE SEDIMENT BASIN SHALL BE CLEANED OUT WHEN THE VOLUME REMAINING IS REDUCED BY SEDIMENTATION TO 90%.
3.

THE EMBANKMENT SHALL BE STABILISED WITH HESSIAN TEMPORARILY.
4.

QRPC TO BE ADVISED OF PROPOSED POND DISCHARGE PRIOR TO DISCHARGE.
5.

BASINS TO BE GRASSED.

MAINTENANCE SCHEDULE

- MONTHLY:

1.

TURN OVER STABILISED CONSTRUCTION ENTRY MATERIAL AND TOP UP AS REQUIRED.
- WEEKLY:

2.

CHECK AND REINSTATE SILT CONTROL DEVICES.
3.

MONITOR CONDITION AND STORAGE VOLUMES OF ALL SEDIMENT AND TEMPORARY SEDIMENT BASINS
4.

SWEEP AND REMOVE ANY DIRT TRACKED ONTO PUBLIC ROADS BY VEHICLES. ALL NECESSARY STEPS SHOULD BE TAKEN THAT ARE PRACTICAL AND REASONABLE TO MINIMISE DUST POLLUTION FROM THE SITE.
5.

CHECK WEATHER REPORT AT www.bom.gov.au FOR ANTICIPATED PRECIPITATION.
6.

EMPTY TEMPORARY SEDIMENT BASINS IF STORM EVENT IS FORECAST OR IMMINENT.

DUST MANAGEMENT

1.

A WATER CART/S OR SUFFICIENT WATER SPRAYS SHALL BE MADE AVAILABLE IN DRY AND WINDY CONDITIONS TO MAINTAIN DUST SUPPRESSION.
2.

WATER SHALL BE APPLIED TO SUPPRESS DUST FROM OPEN EARTHWORKS AS WELL AS UNPROTECTED STOCKPILES.
3.

STOCKPILES SHALL BE EITHER COVERED OR SEEDED TO PREVENT DUST.
4.

AREAS OF COMPLETED EARTHWORKS SHALL BE PROGRESSIVELY REHABILITATED WITH DRYLAND GRASS AND FENCED OFF AS SOON AS PRACTICABLE TO PREVENT FURTHER EROSION.
5.

THE CONTRACTOR SHALL CONTACT QRPC TO OBTAIN AN EXEMPTION TO USE WATER ON THE SITE.
6.

IN THE EVENT OF HIGH WINDS, WHERE DUST CANNOT BE CONTROLLED, WORK SHALL CEASE IMMEDIATELY.

CONTROL OF WASTE

1.

ALL BUILDING MATERIAL AND WASTE STOCKPILES MUST BE LOCATED ON SITE. THE WASTE ENCLOSURE IS TO BE USED AND IS TO BE CAPABLE OF HOLDING ALL WASTES ON SITE UNTIL THEY CAN BE DISPOSED OF IN AN APPROPRIATE MANNER.

EXPORT OF SOIL

1.

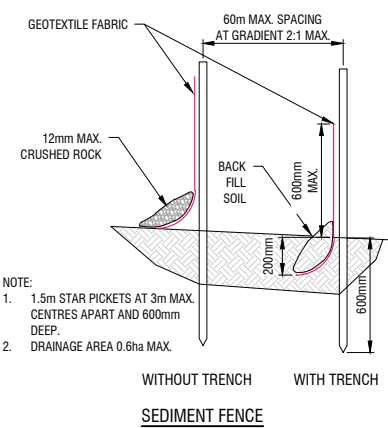
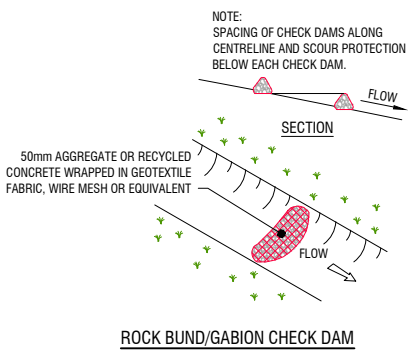
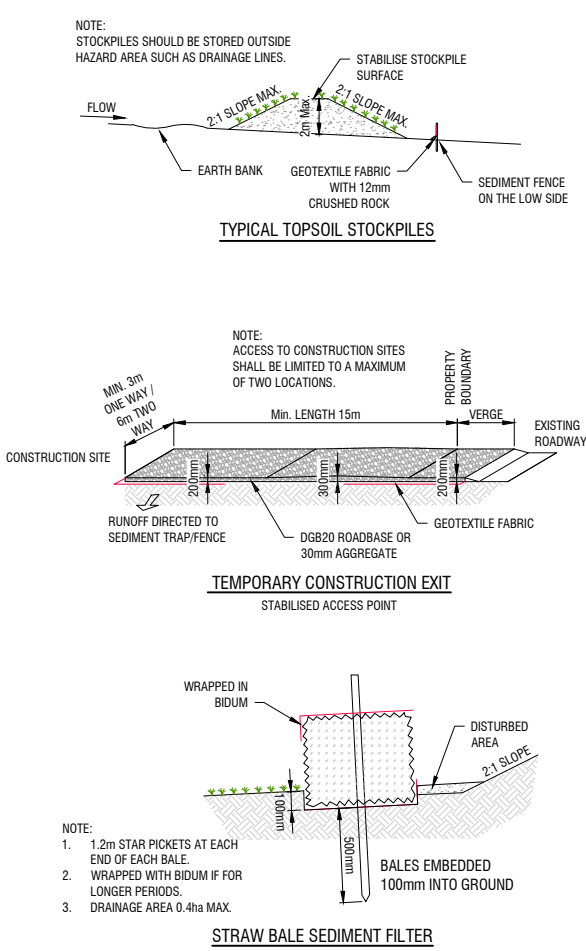
IF SOIL IS TO BE REMOVED FROM OR IMPORTED TO SITE, THE DETAILS OF THE ORIGIN OF THE SOIL IMPORTED OR THE LOCATION WHERE THE SOIL IS TO BE EXPORTED ARE TO BE PROVIDED TO QRPC A MINIMUM OF 2 WEEKS IN ADVANCE OF THE WORK.

DESIGN BASIS

1.

THE PRINCIPLES OF THESE PLANS ARE BASED ON THE MANAGING URBAN STORMWATER, SOILS AND CONSTRUCTION, 4TH EDITION. 2004 GUIDELINES.

BUFFER ZONE WIDTHS	
SLOPE (%)	BUFFER WIDTH (m)
2	15
4	20
6	30
8	40
10	50
12	60
14	70



LEGEND

DA BOUNDARY	
EXTENT OF WORKS BOUNDARY	
EXISTING SURFACE CONTOURS (1m INTERVAL)	
DISTURBED AREA	
CATCHMENT BOUNDARY	
EXISTING TREE TO BE RETAINED	
EXISTING TREE TO BE REMOVED	
CONSTRUCTION HAUL ROAD	
STABILISED ACCESS	
SITE COMPOUND	
STOCKPILE	
TEMPORARY FENCE	
SILT FENCE	
CLEAN WATER DIVERSION	
CONSTRUCTION SWALE	
PROPOSED STORMWATER	
OVERLAND FLOW DIRECTION - DIRTY	
OVERLAND FLOW DIRECTION - CLEAN	
FILTER ROLL (Ø200 NETTING AND GEOTEXTILE FABRIC FILLED WITH 25mm GRAVEL)	
EASEMENT	

SEDIMENT BASIN A:	
1.	TOTAL CATCHMENT AREA* = 4.3 HECTARES.
2.	SETTING ZONE VOLUME = 795m³ V=10 x C _w x A x R WHERE C _w = 0.56 A = 4.3 HECTARES R = 33 (90TH PERCENTILE RAINFALL EVENT)
3.	SEDIMENT STORAGE ZONE VOLUME = 190m³
*DISTURBED AREA = 4.3 HECTARES.	

SEDIMENT BASIN B:	
1.	TOTAL CATCHMENT AREA* = 5.5 HECTARES.
2.	SETTING ZONE VOLUME = 1016m³ V=10 x C _w x A x R WHERE C _w = 0.56 A = 5.5 HECTARES R = 33 (90TH PERCENTILE RAINFALL EVENT)
3.	SEDIMENT STORAGE ZONE VOLUME = 243m³
*DISTURBED AREA = 5.5 HECTARES.	

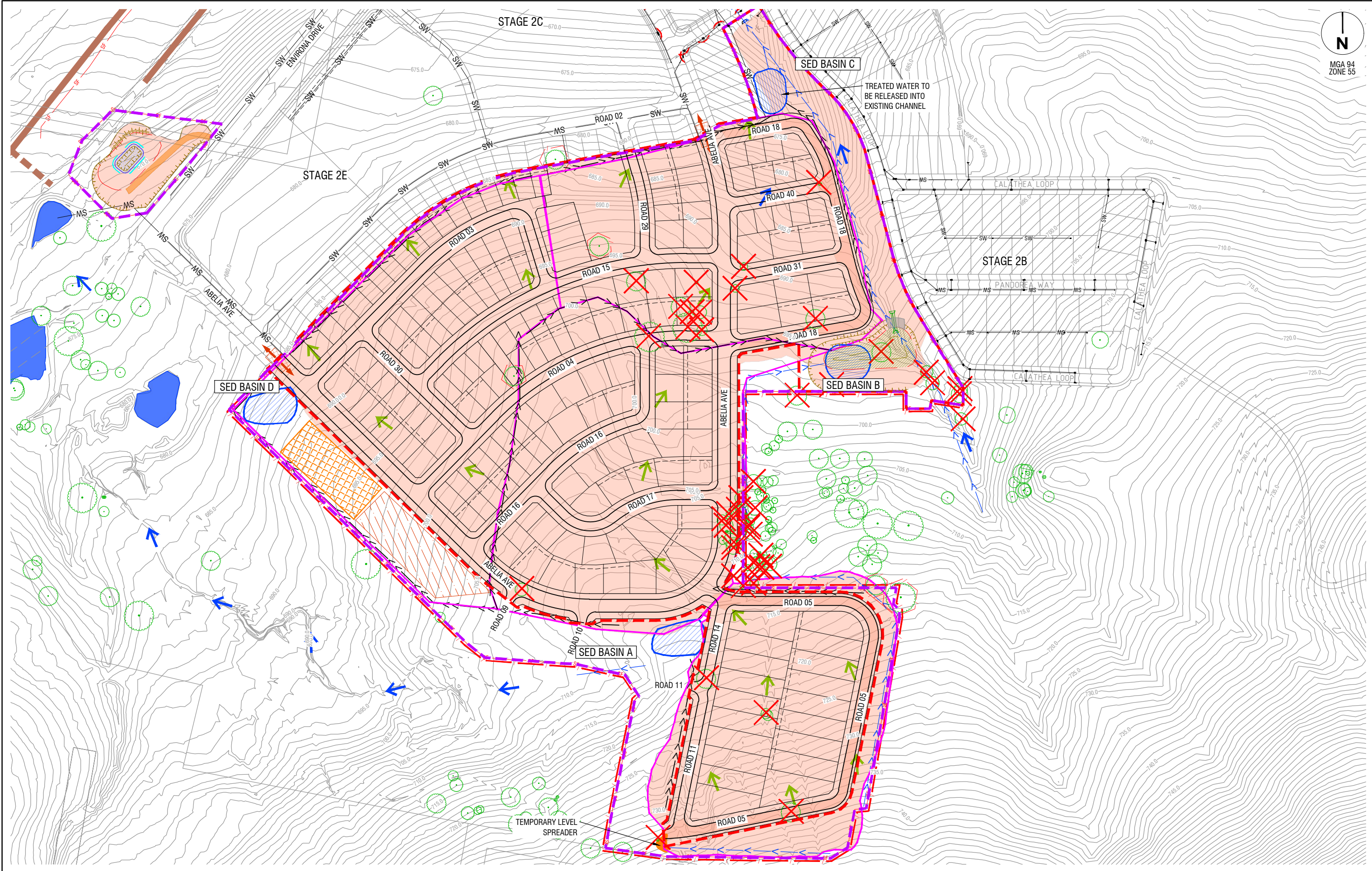
SEDIMENT BASIN C:	
1.	TOTAL CATCHMENT AREA* = 4.5 HECTARES.
2.	SETTING ZONE VOLUME = 832m³ V=10 x C _w x A x R WHERE C _w = 0.56 A = 4.5 HECTARES R = 33 (90TH PERCENTILE RAINFALL EVENT)
3.	SEDIMENT STORAGE ZONE VOLUME = 199m³
*DISTURBED AREA = 4.5 HECTARES.	

SEDIMENT BASIN D:	
1.	TOTAL CATCHMENT AREA* = 5.6 HECTARES.
2.	SETTING ZONE VOLUME = 1035m³ V=10 x C _w x A x R WHERE C _w = 0.56 A = 5.6 HECTARES R = 33 (90TH PERCENTILE RAINFALL EVENT)
3.	SEDIMENT STORAGE ZONE VOLUME = 247m³
*DISTURBED AREA = 5.6 HECTARES.	

B	ISSUED FOR APPROVAL	C.J.C	09-07-25
A	ISSUED FOR CLIENT REVIEW	C.J.C	30-06-25
Rev	Amendments	Approved	Date

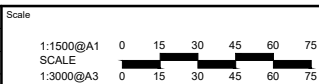
Scale	Registered Professional Engineer Name
NOT TO SCALE	Registration Number
	© Spiire Australia Pty Ltd All Rights Reserved This document is produced by Spiire Australia Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Spiire Australia Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

 Suite 3, Level 1, 243 Northbourne Avenue Canberra ACT 2612 Australia spiire.com.au ABN 55 050 029 635	 Designed J.Zhang Authorised C.J.Corcoran Checked C.Otto Date 09 July 25	SOUTHE JERRABOMBERRA ESTATE 2 NORTHERN CATCHMENT SOIL, WATER & VEGETATION CONCEPT MANAGEMENT PLAN SHEET 1 QPRC DEVELOPMENT APPLICATION Orig No 323444-001CD700 Rev B
--	--	---



file name: 323444-001CD701.dwg, layout name: CD701, plotted by: Jini Zhang
file location: G:\323444\001\CD701.dwg, plot date: 09/07/2025 11:30 AM

Rev	Amendments	Approved	Date
B	ISSUED FOR APPROVAL	C.J.C.	09-07-25
A	ISSUED FOR CLIENT REVIEW	C.J.C.	30-06-25



Registered Professional Engineer Name

Registration Number

© Spiire Australia Pty Ltd All Rights Reserved
This document is produced by Spiire Australia Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Spiire Australia Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.



Suite 3, Level 1, 243 Northbourne Avenue
Canberra ACT 2612 Australia
spiire.com.au ABN 55 050 029 635



Designed
J.Zhang
Authorised
C.J.Corcoran

Checked
C.Otto
Date
09 July 25

**SOUTHE JERRABOMBERRA ESTATE 2
NORTHERN CATCHMENT**
**SOIL, WATER & VEGETATION CONCEPT MANAGEMENT PLAN
SHEET 2**
QPRC
DEVELOPMENT APPLICATION

Orig No
323444-001CD701 B