

NOTES

1. ALL WORKS TO BE IN ACCORDANCE WITH AUCKLAND COUNCIL STANDARDS.
2. PIPE BEDDING: 0 - 10% GRANULAR BEDDING, 10 - 20% WEAK CONCRETE BEDDING, GREATER THAN 20% WEAK CONCRETE BEDDING (7MPa PLUS ANTI SCOUR BLOCKS AT 6m CRS).
3. EACH CONNECTION SHALL BE MARKED BY A 50mm x 50mm TREATED PINE STAKE EXTENDING 600mm ABOVE GROUND LEVEL WITH THE TOP PAINTED. THIS MARKER POST SHALL BE PLACED ALONGSIDE A TIMBER MARKER INSTALLED AT THE TIME OF PIPELAYING AND EXTENDING FROM THE CONNECTION TO 150mm BELOW FINISHED GROUND LEVEL. CONNECTIONS SHALL BE ACCURATELY INDICATED ON "AS BUILT" PLANS.
4. APPROVED HARDFILL IS TO BE USED IN BACKFILLING OF ALL ROAD CROSSINGS AND VEHICLE CROSSINGS TO COUNCIL STANDARDS.
5. HEAVY DUTY MANHOLE LIDS AND FRAMES TO BE USED IN TRAFFICKED AREAS.
6. ALL MANHOLES ARE TO BE 1050mmØ PRECAST CONCRETE UNLESS SHOWN OTHERWISE.
7. ALL CATCHPIT LEADS ARE 225mm DIAMETER AND SHALL HAVE MIN COVER 1.0m
8. ALL LINES TO BE ABANDONED SHALL BE SEALED AT EACH END. TIMING OF ALL SEALING TO BE COORDINATED WITH COUNCIL STAFF.
9. ALL LOT CONNECTION TO BE MIN 100mm uPVC SN16 UNLESS SHOWN OTHERWISE.
10. ALL ROOF WATER RUNOFF PIPE TO BE 150 uPVC SN16 UNLESS SHOWN OTHERWISE.

LEGEND

	EX BDY
	PR BDY
	PR EXTENT WORK
	EX STORMWATER
	PR STORMWATER ROAD
	PR STORMWATER ROOF
	EX/PR SWMH (ROAD/ROOF)
	PR SWCP SINGLE
	PR SWCP DOUBLE
	PR SW RAINGARDEN
	RIPARIAN YARD 20m SETBACK
	WETLAND AREA 100m SETBACK
	WETLAND AREA 10m SETBACK
	EX STREAMS
	CATCHMENTS NUMBER

A	RESOURCE CONSENT	MA	03/2025
Rev	Description	By	Date
		By	Date
Survey	LIDAR		03/2022
Design	AO/AYC		03/2025
Drawn	SP		03/2025
Checked	RW		03/2025

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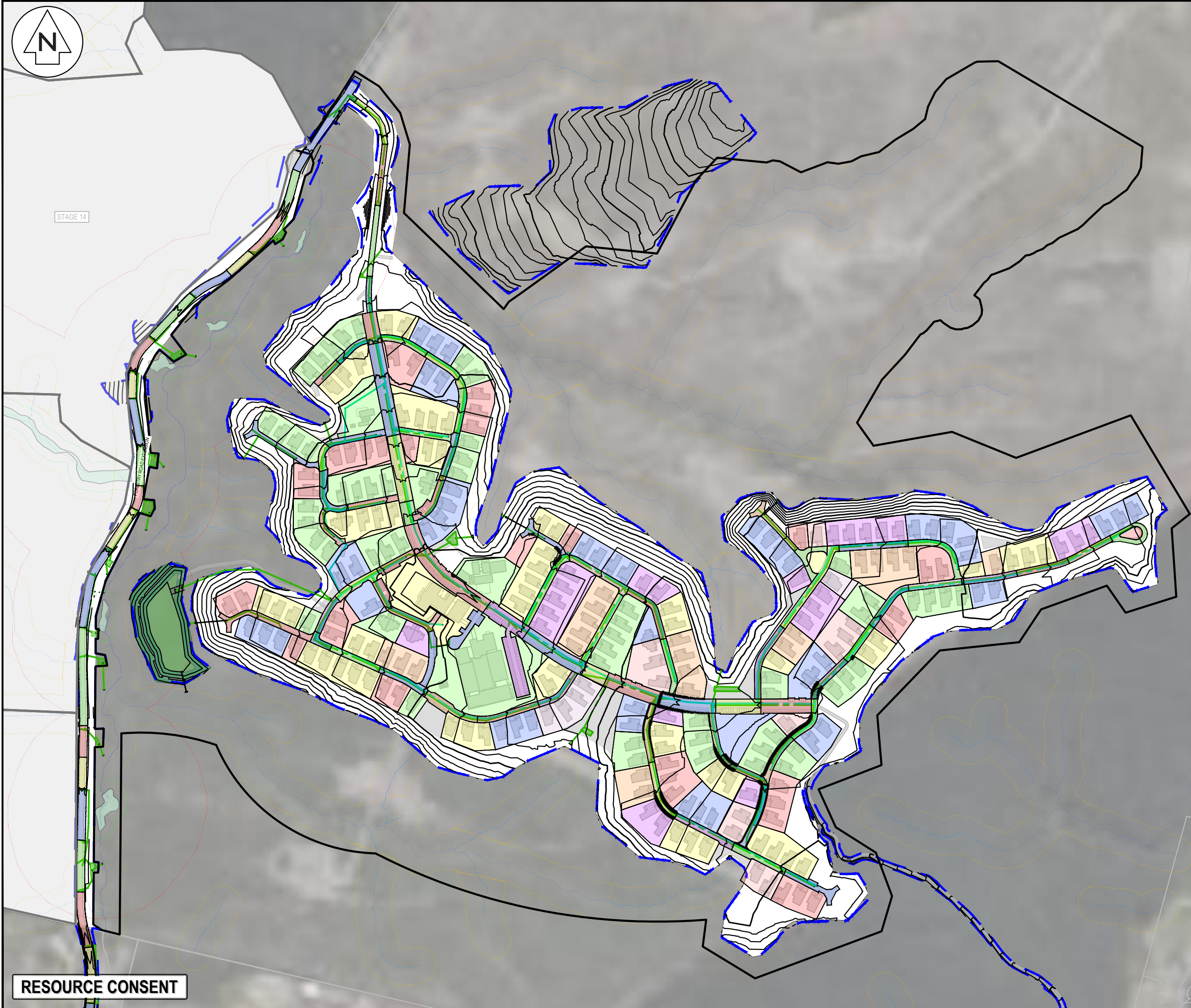
Project

**DEVELOPMENT OF
RIVERHEAD FOREST
FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

Title

**RETIREMENT VILLAGE
PROPOSED STORMWATER
OVERVIEW CATCHMENT**

Project no.	147016		
Scale	1:10,000 @ A3		
Cad file	147016-RV-C450 SW CATCHMENT.DWG		
Drawing no.	C450	Rev	A



- NOTES
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	RIPARIAN YARD 20m SETBACK
	WETLAND AREA 100m SETBACK
	WETLAND AREA 10m SETBACK
	EX STREAMS
	C 17 CATCHMENTS NUMBER

A	RESOURCE CONSENT	SP	03/2025
Rev	Description	By	Date
Survey	LIDAR		03/2022
Design	AO/AYC		03/2025
Drawn	SP		03/2025
Checked	RW		03/2025

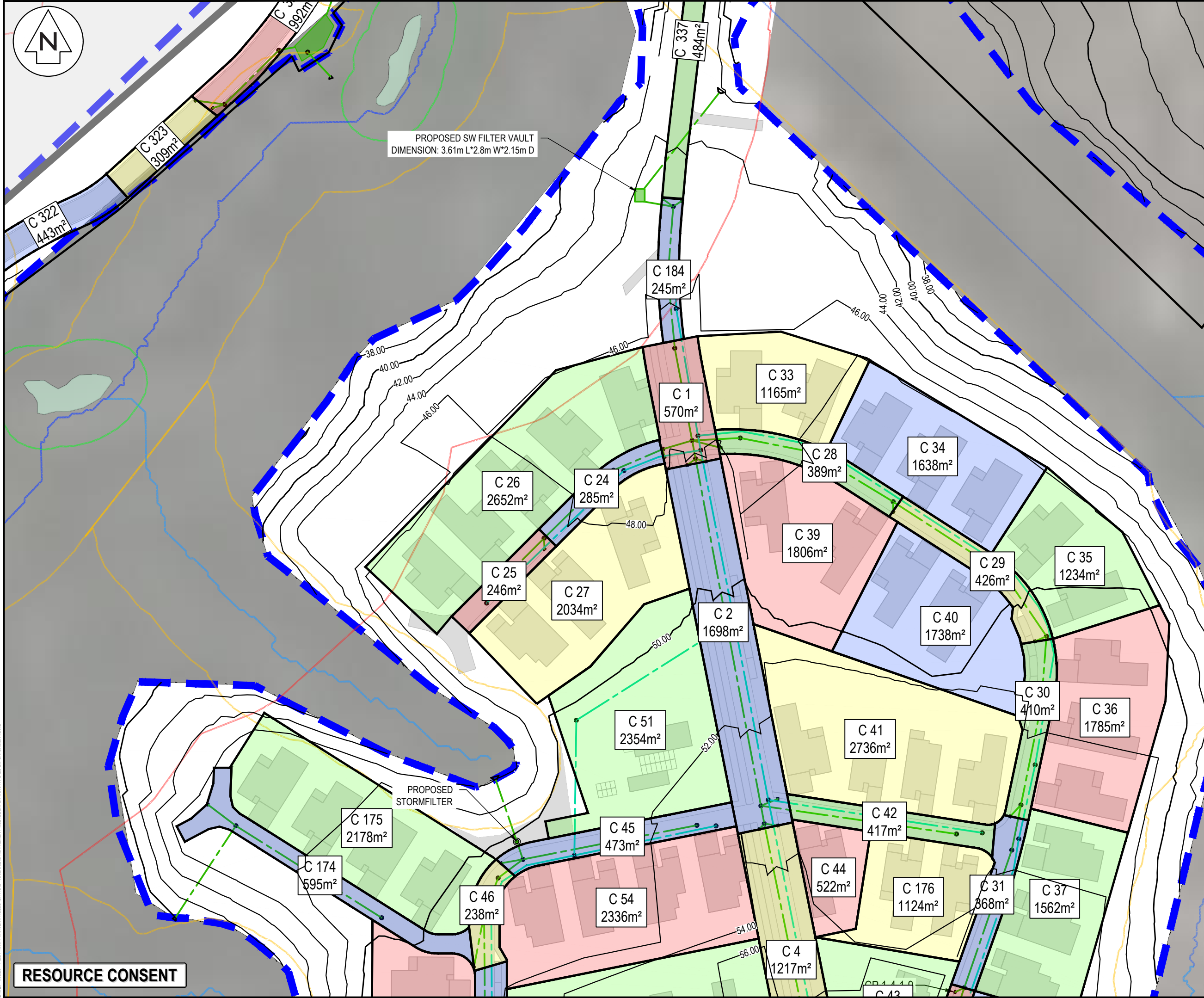


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Project
**DEVELOPMENT OF
RIVERHEAD FOREST
FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

Title
**RETIREMENT VILLAGE
PROPOSED STORMWATER
CATCHMENT PLAN**

Project no.	147016
Scale	1:4000 @ A3
Cad file	147016-RV-C450 SW CATCHMENT.DWG
Drawing no.	C450-0
Rev	A



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A	RESOURCE CONSENT	SP	03/2025
Rev	Description	By	Date
Survey	LIDAR		03/2022
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Drawn	SP		03/2025
Checked	RW		03/2025

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Project

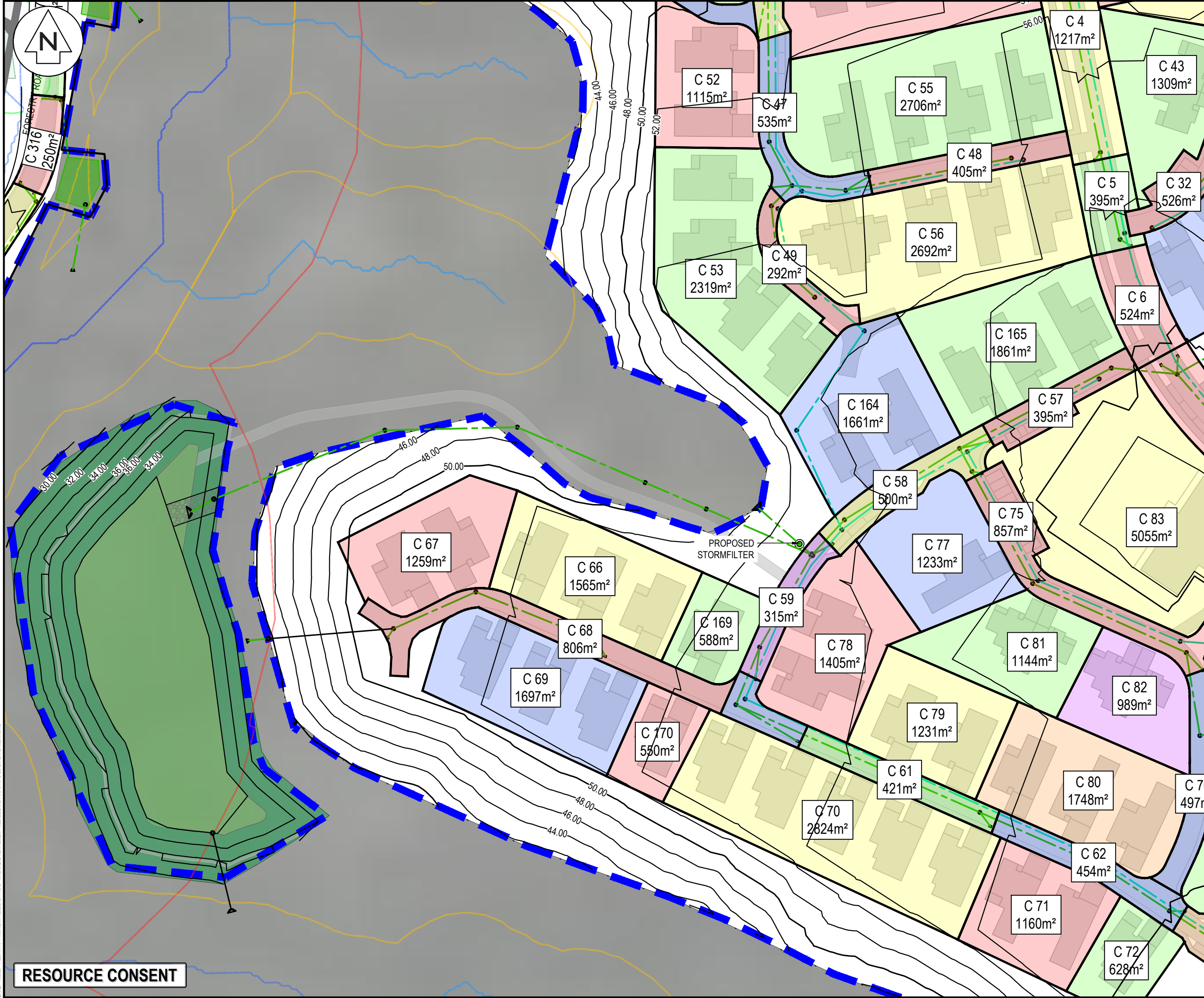
DEVELOPMENT OF RIVERHEAD FOREST FOR RANGITOOPUNI DEVELOPMENTS LIMITED PARTNERSHIP

Title

RETIREMENT VILLAGE PROPOSED STORMWATER CATCHMENT PLAN

Project no.	147016		
Scale	1:1000 @ A3		
Cad file	147016-RV-C450 SW CATCHMENT.DWG		
Drawing no.	C450-1	Rev	A

DATE: 03/2025 FILE PATH: F:\Maven\PROJECTS\147016 - RIVERHEAD RETIREMENT VILLAGE\DWG\147016-RV-C450 SW CATCHMENT.DWG



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PR SWCP DOUBLE	PR SW RAINGARDEN
PR SW RAINGARDEN	RIPARIAN YARD 20m SETBACK
RIPARIAN YARD 20m SETBACK	WETLAND AREA 100m SETBACK
WETLAND AREA 100m SETBACK	WETLAND AREA 10m SETBACK
WETLAND AREA 10m SETBACK	EX STREAMS
EX STREAMS	C 17 CATCHMENTS NUMBER

A	RESOURCE CONSENT	SP	03/2025
Rev	Description	By	Date
Survey	LIDAR		03/2022
Design	AO/AYC		03/2025
Drawn	SP		03/2025
Checked	RW		03/2025

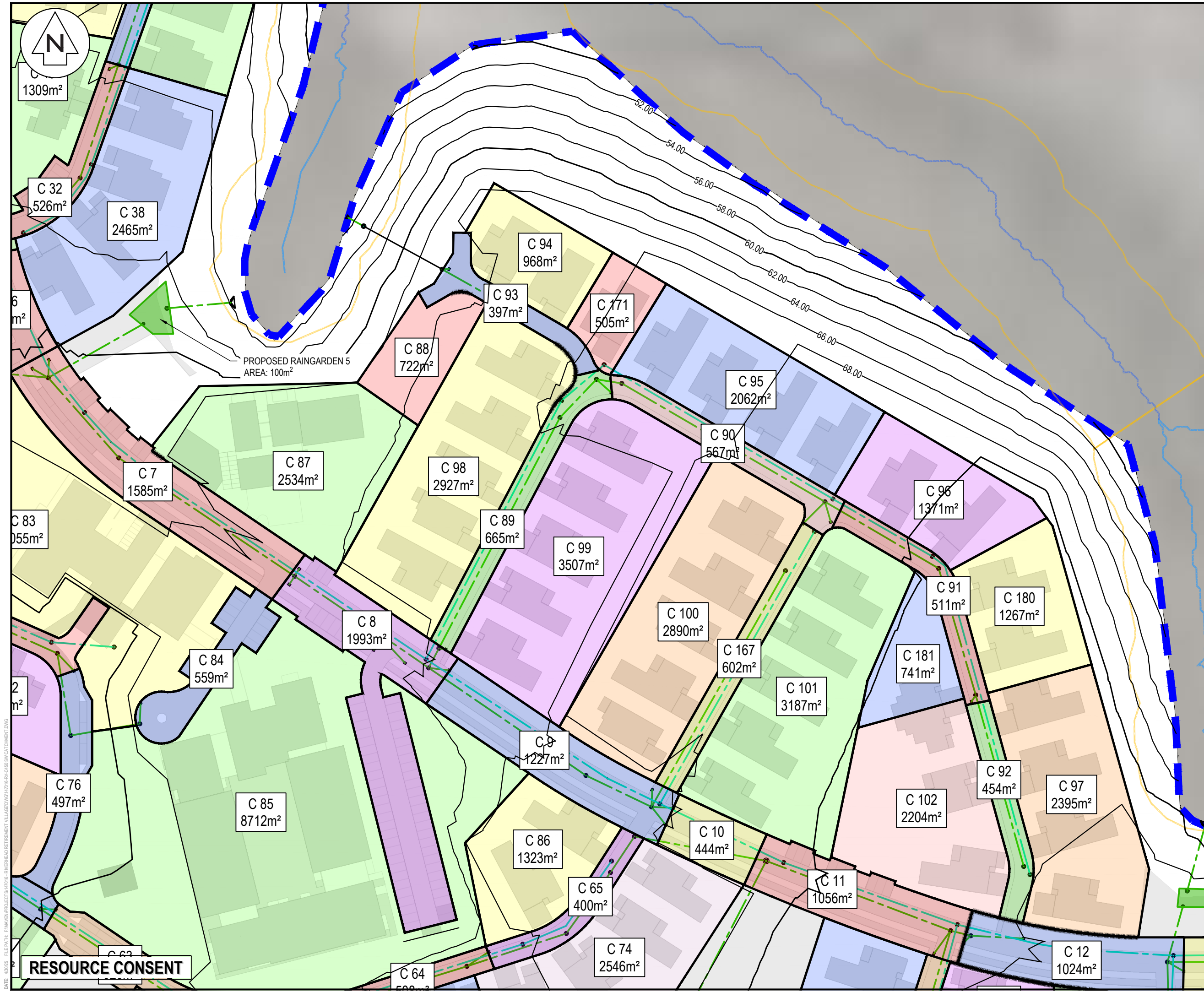
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Project
DEVELOPMENT OF RIVERHEAD FOREST FOR RANGITOOPUNI DEVELOPMENTS LIMITED PARTNERSHIP

Title
RETIREMENT VILLAGE PROPOSED STORMWATER CATCHMENT PLAN

Project no.	147016		
Scale	1:1000 @ A3		
Cad file	147016-RV-C450 SW CATCHMENT.DWG		
Drawing no.	C450-2	Rev	A

DATE: 03/2025 FILE PATH: F:\MVEN\PROJECTS\147016 - RIVERHEAD RETIREMENT VILLAGE\DWG\147016-RV-C450 SW CATCHMENT.DWG



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Survey	LIDAR		03/2022
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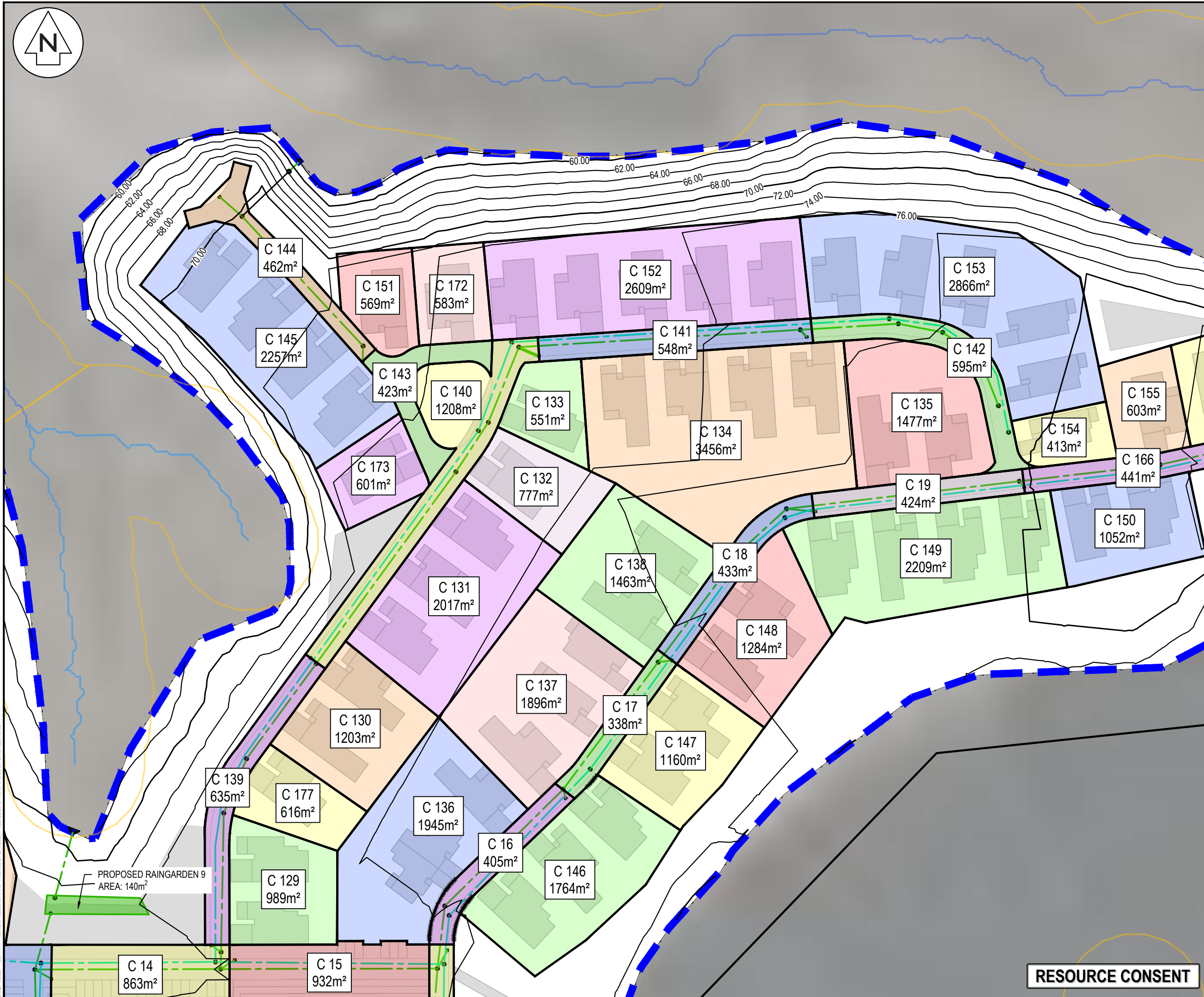
Project
**DEVELOPMENT OF
RIVERHEAD FOREST
FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

Title
**RETIREMENT VILLAGE
PROPOSED STORMWATER
CATCHMENT PLAN**

Project no.	147016
Scale	1:1000 @ A3
Cad file	147016-RV-C450 SW CATCHMENT.DWG
Drawing no.	C450-3
Rev	A



DATE: 03/2025 FILE PATH: F:\Maven\PROJECTS\147016-RV-C450 SW CATCHMENT.DWG RIVERHEAD RETIREMENT VILLAGE.DWG 147016-RV-C450 SW CATCHMENT.DWG



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- C 17 CATCHMENTS NUMBER

A	RESOURCE CONSENT	SP	03/2025
Rev	Description	By	Date
Survey	LIDAR		03/2022
Design	AO/AYC		03/2025
Drawn	SP		03/2025
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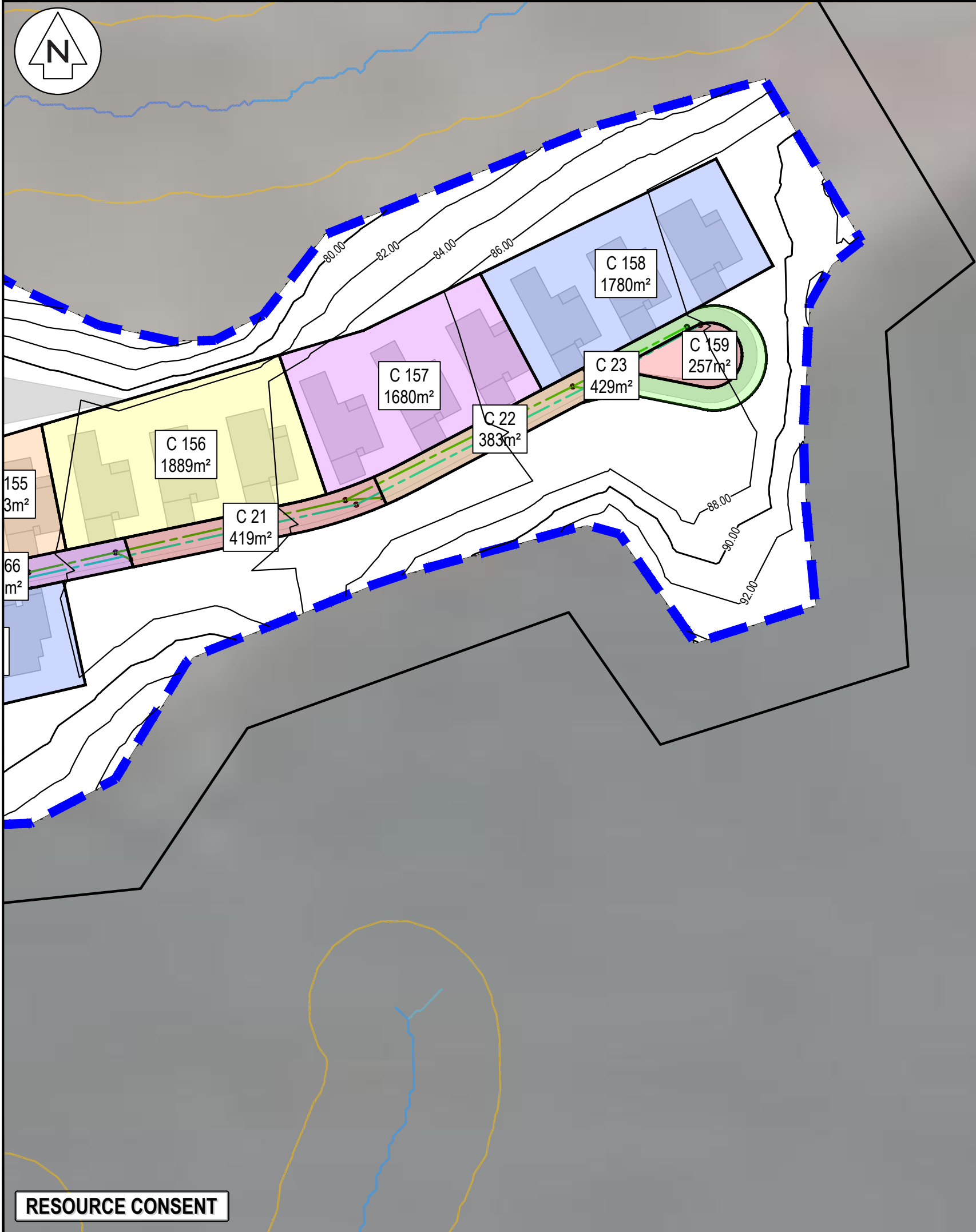
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Project
DEVELOPMENT OF RIVERHEAD FOREST FOR RANGITOOPUNI DEVELOPMENTS LIMITED PARTNERSHIP

Title
RETIREMENT VILLAGE PROPOSED STORMWATER CATCHMENT PLAN

Project no.	147016
Scale	1:1000 @ A3
Cad file	147016-RV-C450 SW CATCHMENT.DWG
Drawing no.	C450-4
Rev	A

RESOURCE CONSENT



- NOTES
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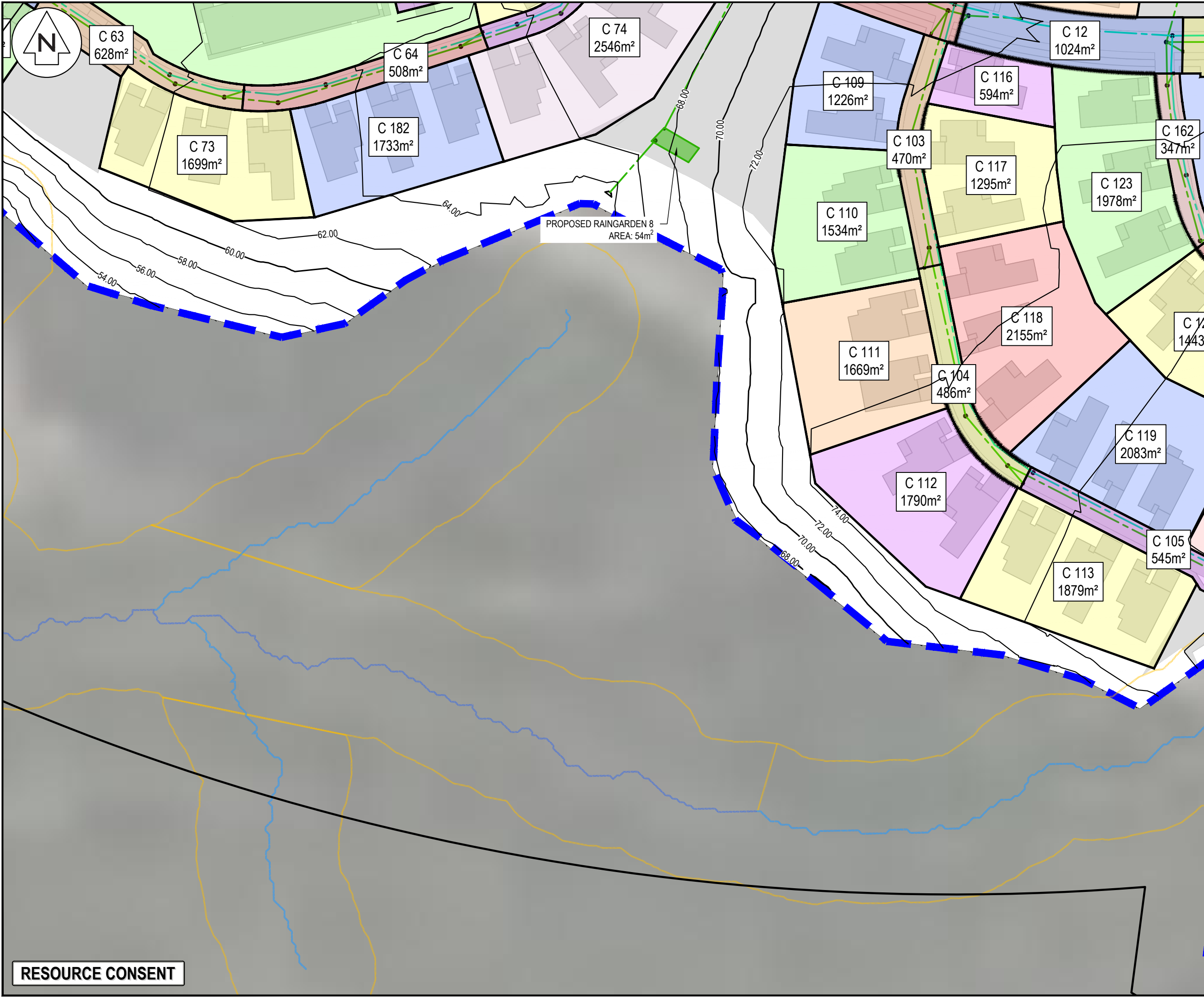


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Title
**RETIREMENT VILLAGE
PROPOSED STORMWATER
CATCHMENT PLAN**

Project no.	147016		
Scale	1:1000 @ A3		
Cad file	147016-RV-C450 SW CATCHMENT.DWG		
Drawing no.	C450-5	Rev	A



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A	RESOURCE CONSENT	SP	03/2025
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M

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Project

DEVELOPMENT OF RIVERHEAD FOREST FOR RANGITOOPUNI DEVELOPMENTS LIMITED PARTNERSHIP

Title

RETIREMENT VILLAGE PROPOSED STORMWATER CATCHMENT PLAN

Project no.

147016

Scale

1:1000 @ A3

Cad file

147016-RV-C450 SW CATCHMENT.DWG

Drawing no.

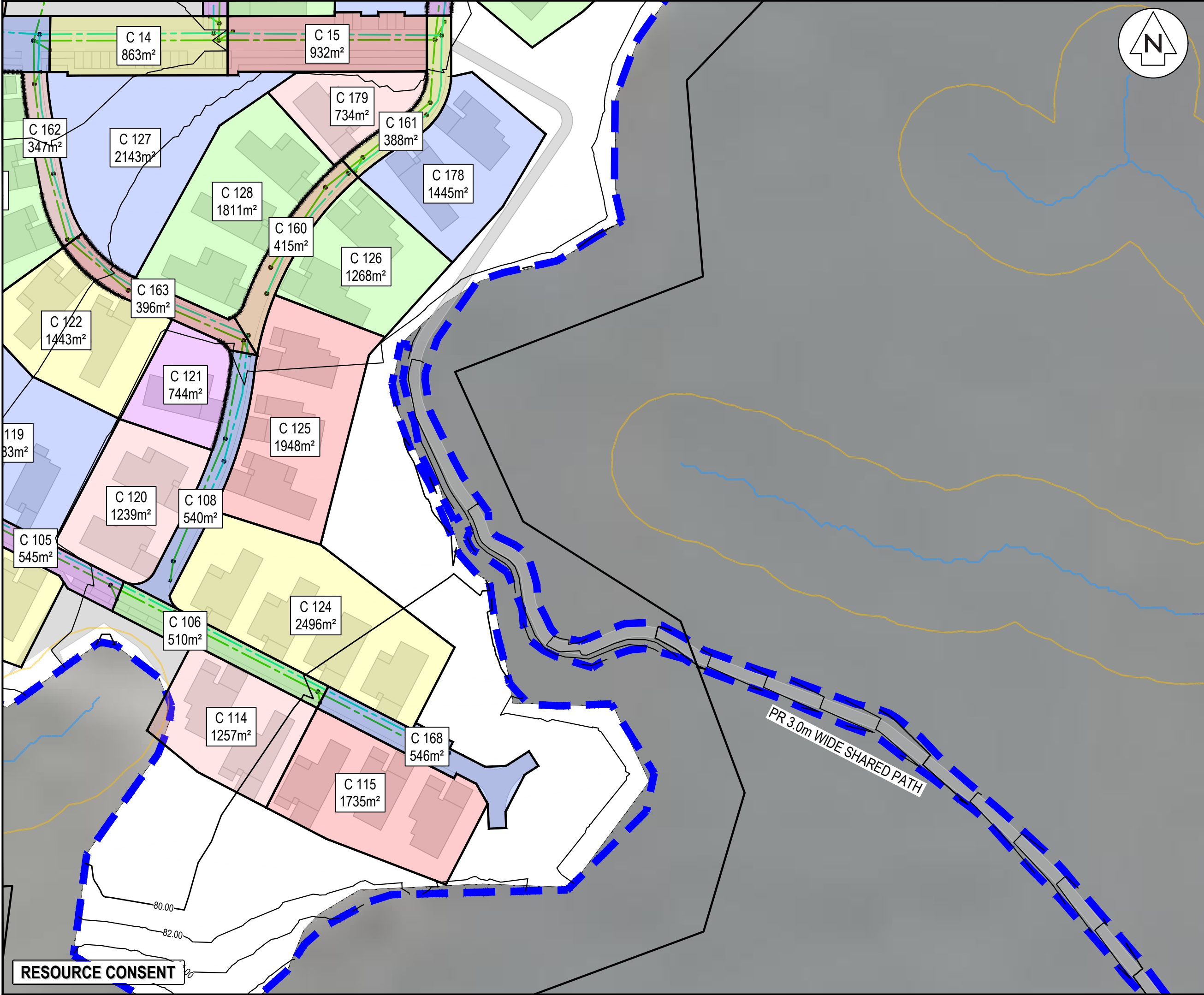
C450-6

Rev

A

RESOURCE CONSENT

DATE: 4/03/25 FILE PATH: F:\Maven\PROJECTS\147016 - RIVERHEAD RETIREMENT VILLAGE\DWG\40716-RV-C450 SW CATCHMENT.DWG



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	PR EXTENT WORK
	EX STORMWATER
	PR STORMWATER ROAD
	PR STORMWATER ROOF
	EX/PR SWMH (ROAD/ROOF)
	PR SWCP SINGLE
	PR SWCP DOUBLE
	PR SW RAINGARDEN
	RIPARIAN YARD 20m SETBACK
	WETLAND AREA 100m SETBACK
	WETLAND AREA 10m SETBACK
	EX STREAMS
C 17	CATCHMENTS NUMBER

A	RESOURCE CONSENT	SP	03/2025
Rev	Description	By	Date
Survey	LIDAR		03/2022
Design	AO/AYC		03/2025
Drawn	SP		03/2025
Checked	RW		03/2025



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Project
**DEVELOPMENT OF
RIVERHEAD FOREST
FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

Title
**RETIREMENT VILLAGE
PROPOSED STORMWATER
CATCHMENT PLAN**

Project no.	147016		
Scale	1:1000 @ A3		
Cad file	147016-RV-C450 SW CATCHMENT.DWG		
Drawing no.	C450-7	Rev	A



FORESTRY ROAD

FORESTRY ROAD

C 300
835m²

C 301
900m²

RESOURCE CONSENT

- NOTES
1. ALL WORKS TO BE IN ACCORDANCE WITH AUCKLAND COUNCIL STANDARDS.
 2. PIPE BEDDING: 0 - 10% GRANULAR BEDDING, 10 - 20% WEAK CONCRETE BEDDING, GREATER THAN 20% WEAK CONCRETE BEDDING (7MPa PLUS ANTI SCOUR BLOCKS AT 6m CRS).
 3. EACH CONNECTION SHALL BE MARKED BY A 50mm x 50mm TREATED PINE STAKE EXTENDING 600mm ABOVE GROUND LEVEL WITH THE TOP PAINTED. THIS MARKER POST SHALL BE PLACED ALONGSIDE A TIMBER MARKER INSTALLED AT THE TIME OF PIPELAYING AND EXTENDING FROM THE CONNECTION TO 150mm BELOW FINISHED GROUND LEVEL. CONNECTIONS SHALL BE ACCURATELY INDICATED ON "AS BUILT" PLANS.
 4. APPROVED HARDFILL IS TO BE USED IN BACKFILLING OF ALL ROAD CROSSINGS AND VEHICLE CROSSINGS TO COUNCIL STANDARDS.
 5. HEAVY DUTY MANHOLE LIDS AND FRAMES TO BE USED IN TRAFFICKED AREAS.
 6. ALL MANHOLES ARE TO BE 1050mmØ PRECAST CONCRETE UNLESS SHOWN OTHERWISE.
 7. ALL CATCHPIT LEADS ARE 225mm DIAMETER AND SHALL HAVE MIN COVER 1.0m
 8. ALL LINES TO BE ABANDONED SHALL BE SEALED AT EACH END. TIMING OF ALL SEALING TO BE COORDINATED WITH COUNCIL STAFF.
 9. ALL LOT CONNECTION TO BE MIN 100mm uPVC SN16 UNLESS SHOWN OTHERWISE.
 10. ALL ROOF WATER RUNOFF PIPE TO BE 150 uPVC SN16 UNLESS SHOWN OTHERWISE.

LEGEND	
	EX BDY
	PR BDY
	PR EXTENT WORK
	EX STORMWATER
	PR STORMWATER ROAD
	PR STORMWATER ROOF
	EX/PR SWMH (ROAD/ROOF)
	PR SWCP SINGLE
	PR SWCP DOUBLE
	PR SW RAINGARDEN
	RIPARIAN YARD 20m SETBACK
	WETLAND AREA 100m SETBACK
	WETLAND AREA 10m SETBACK
	EX STREAMS
C 17	CATCHMENTS NUMBER

A	RESOURCE CONSENT	SP	03/2025
Rev	Description	By	Date
Survey	LIDAR		03/2022
Design	AO/AYC		03/2025
Drawn	SP		03/2025
Checked	RW		03/2025



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PARTNERSHIP**

Title
**RETIREMENT VILLAGE
PROPOSED STORMWATER
CATCHMENT PLAN**

Project no.	147016		
Scale	1:1000 @ A3		
Cad file	147016-RV-C450 SW CATCHMENT.DWG		
Drawing no.	C450-8	Rev	A



NOTES

1. ALL WORKS TO BE IN ACCORDANCE WITH AUCKLAND COUNCIL STANDARDS.
2. PIPE BEDDING: 0 - 10% GRANULAR BEDDING, 10 - 20% WEAK CONCRETE BEDDING, GREATER THAN 20% WEAK CONCRETE BEDDING (7MPa PLUS ANTI SCOUR BLOCKS AT 6m CRS).
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- PR BDY
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- EX/PR SWMH (ROAD/ROOF)
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- RIPARIAN YARD 20m SETBACK
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A	RESOURCE CONSENT	SP	03/2025
Rev	Description	By	Date
		By	Date
Survey	LIDAR		03/2022
Design	AO/AYC		03/2025
Drawn	SP		03/2025
Checked	RW		03/2025

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Project

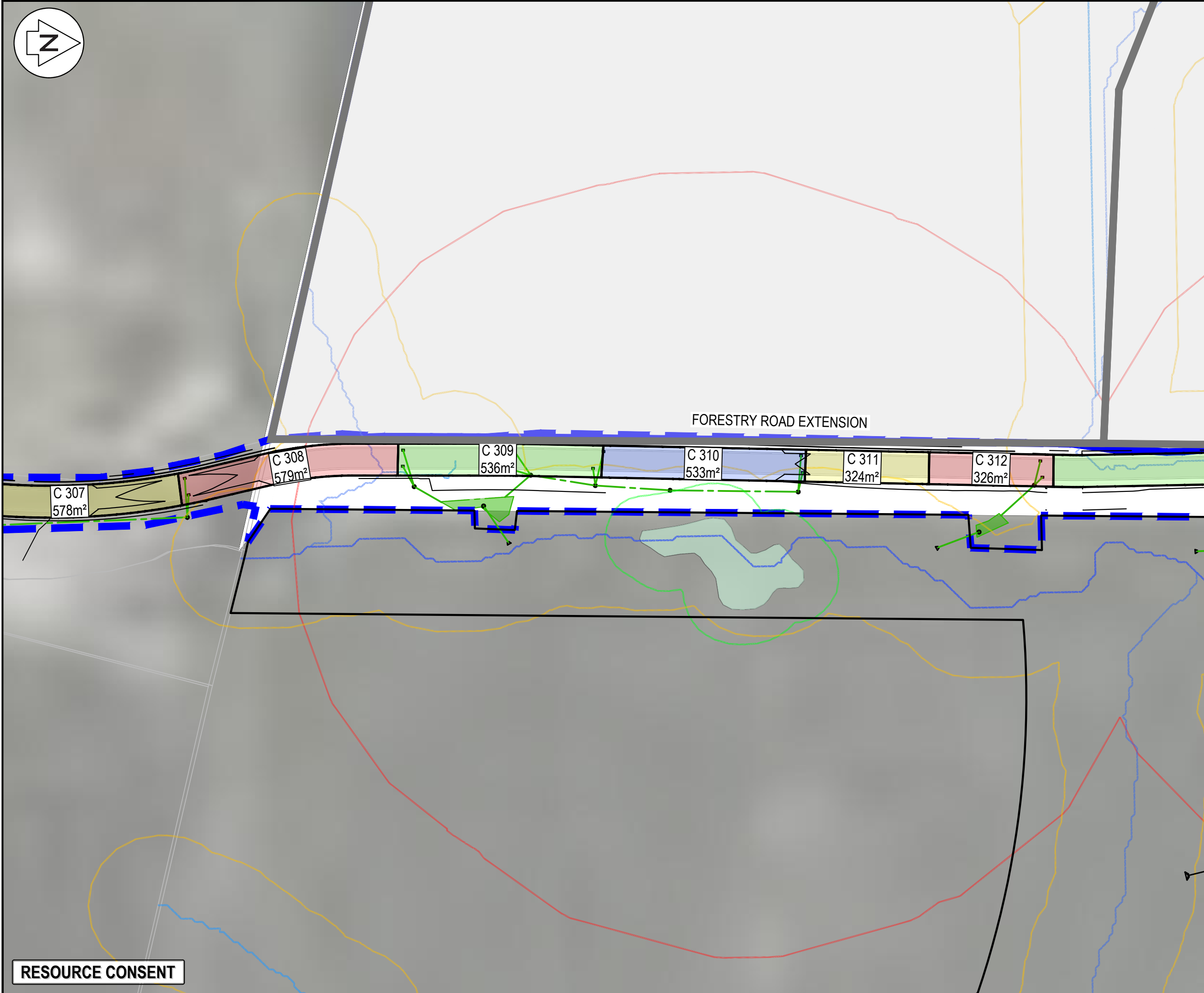
**DEVELOPMENT OF
RIVERHEAD FOREST
FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

Title

**RETIREMENT VILLAGE
PROPOSED STORMWATER
CATCHMENT PLAN**

Project no.	147016		
Scale	1:1000 @ A3		
Cad file	147016-RV-C450 SW CATCHMENT.DWG		
Drawing no.	C450-9	Rev	A

RESOURCE CONSENT



NOTES

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- PR BDY
- PR EXTENT WORK
- EX STORMWATER
- PR STORMWATER ROAD
- PR STORMWATER ROOF
- EX/PR SWMH (ROAD/ROOF)
- PR SWCP SINGLE
- PR SWCP DOUBLE
- PR SW RAINGARDEN
- RIPARIAN YARD 20m SETBACK
- WETLAND AREA 100m SETBACK
- WETLAND AREA 10m SETBACK
- EX STREAMS
- C 17
- CATCHMENTS NUMBER

A	RESOURCE CONSENT	SP	03/2025
Rev	Description	By	Date
		By	Date
Survey	LIDAR		03/2022
Design	AO/AYC		03/2025
Drawn	SP		03/2025
Checked	RW		03/2025

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Project

DEVELOPMENT OF RIVERHEAD FOREST FOR RANGITOOPUNI DEVELOPMENTS LIMITED PARTNERSHIP

Title

RETIREMENT VILLAGE PROPOSED STORMWATER CATCHMENT PLAN

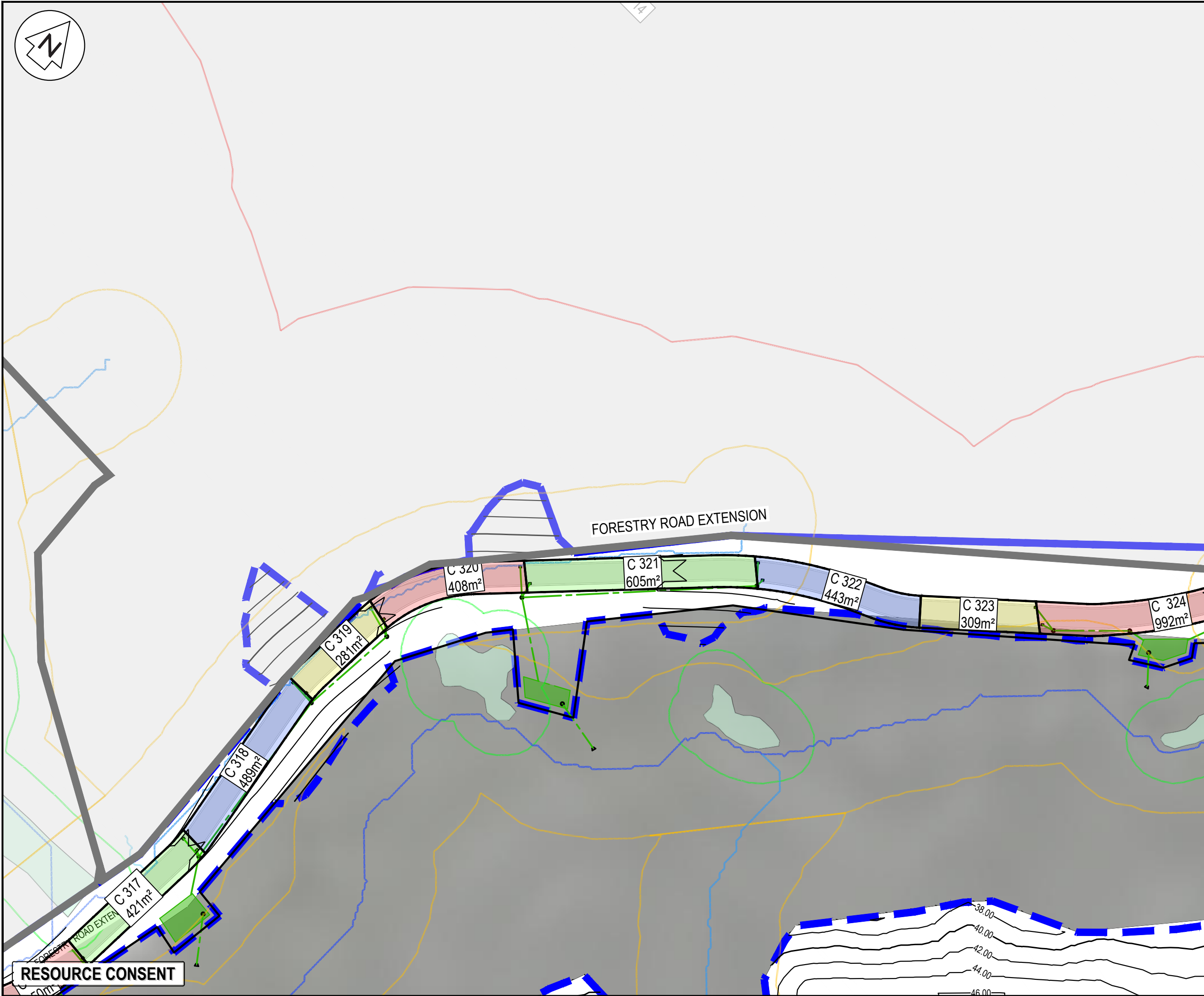
Project no.	147016		
Scale	1:1000 @ A3		
Cad file	147016-RV-C450 SW CATCHMENT.DWG		
Drawing no.	C450-10	Rev	A

DATE: 4/03/25 FILE PATH: F:\Maven\PROJECTS\147016 - RIVERHEAD RETIREMENT VILLAGE\DWG\147016-RV-C450 SW CATCHMENT.DWG

RESOURCE CONSENT



- | | | | |
|-------------|---------------------------------|-----|----------|
| Project no. | 147016 | | |
| Scale | 1:1000 @ A3 | | |
| Cad file | 147016-RV-C450 SW CATCHMENT.DWG | | |
| Drawing no. | C450-11 | Rev | A |



NOTES

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LEGEND

---	EX BDY
---	PR BDY
---	PR EXTENT WORK
---	EX STORMWATER
---	PR STORMWATER ROAD
---	PR STORMWATER ROOF
---	EX/PR SWMH (ROAD/ROOF)
---	PR SWCP SINGLE
---	PR SWCP DOUBLE
---	PR SW RAINGARDEN
---	RIPARIAN YARD 20m SETBACK
---	WETLAND AREA 100m SETBACK
---	WETLAND AREA 10m SETBACK
---	EX STREAMS
C 17	CATCHMENTS NUMBER

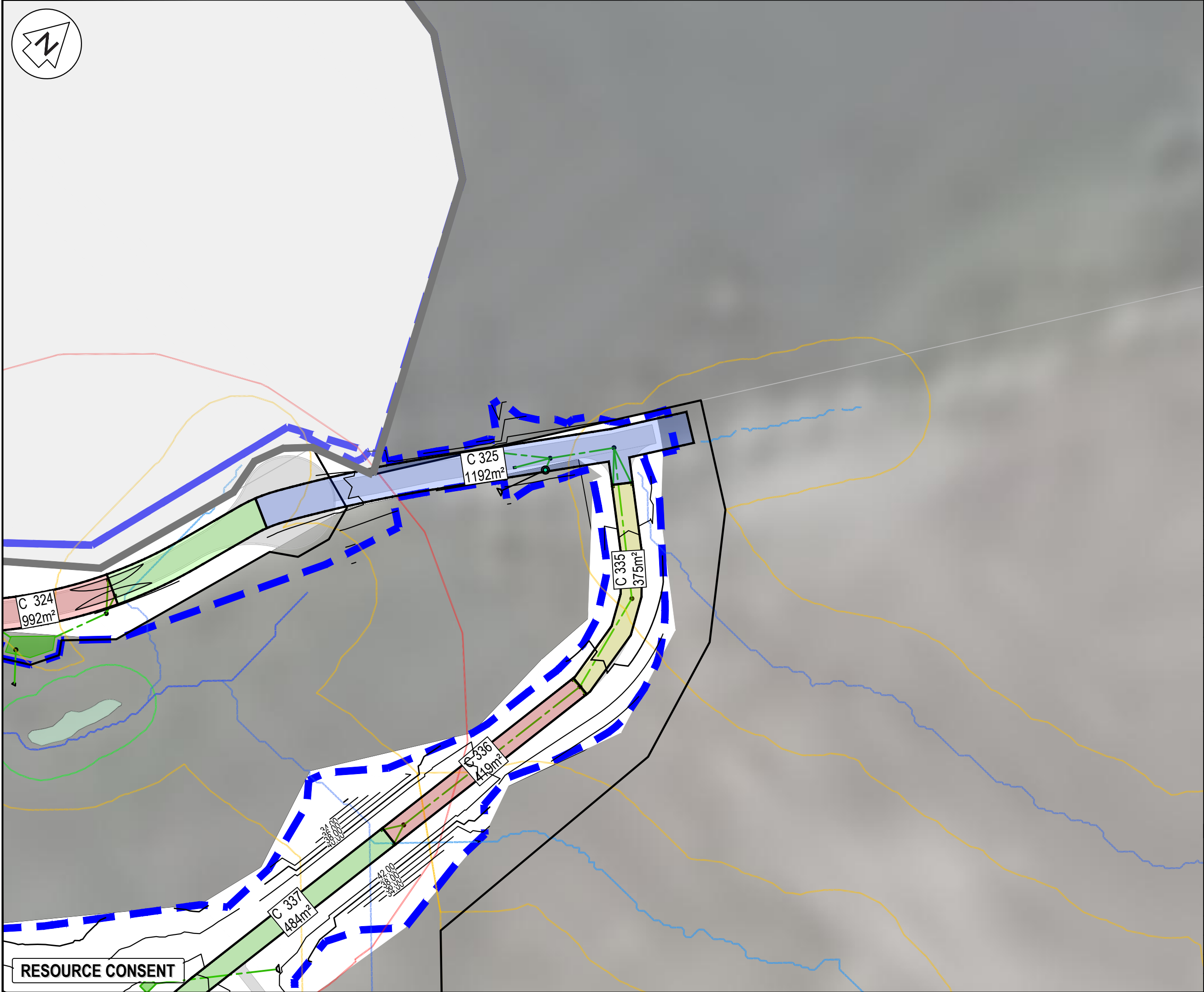
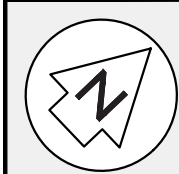
A	RESOURCE CONSENT	SP	03/2025
Rev	Description	By	Date
Survey	LIDAR		03/2022
Design	AOI/AYC		03/2025
Drawn	SP		03/2025
Checked	RW		03/2025

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Project
DEVELOPMENT OF RIVERHEAD FOREST FOR RANGITOOPUNI DEVELOPMENTS LIMITED PARTNERSHIP

Title
RETIREMENT VILLAGE PROPOSED STORMWATER CATCHMENT PLAN

Project no.	147016		
Scale	1:1000 @ A3		
Cad file	147016-RV-C450 SW CATCHMENT.DWG		
Drawing no.	C450-12	Rev	A



NOTES

1. ALL WORKS TO BE IN ACCORDANCE WITH AUCKLAND COUNCIL STANDARDS.
2. PIPE BEDDING: 0 - 10% GRANULAR BEDDING, 10 - 20% WEAK CONCRETE BEDDING GREATER THAN 20% WEAK CONCRETE BEDDING (7MPA PLUS ANTI SCOUR BLOCKS AT 6m CRS).
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9. ALL LOT CONNECTION TO BE MIN 100mm uPVC SN16 UNLESS SHOWN OTHERWISE.
10. ALL ROOF WATER RUNOFF PIPE TO BE 150 uPVC SN16 UNLESS SHOWN OTHERWISE.

LEGEND

---	EX BDY
---	PR BDY
---	PR EXTENT WORK
---	EX STORMWATER
---	PR STORMWATER ROAD
---	PR STORMWATER ROOF
○	EX/PR SWMH (ROAD/ROOF)
○	PR SWCP SINGLE
○	PR SWCP DOUBLE
○	PR SW RAINGARDEN
---	RIPARIAN YARD 20m SETBACK
---	WETLAND AREA 100m SETBACK
---	WETLAND AREA 10m SETBACK
---	EX STREAMS
C 17	CATCHMENTS NUMBER

A	RESOURCE CONSENT	SP	03/2025
Rev	Description	By	Date
	By	Date	
Survey	LIDAR	03/2022	
Design	AOI/AYC	03/2025	
Drawn	SP	03/2025	
Checked	RW	03/2025	

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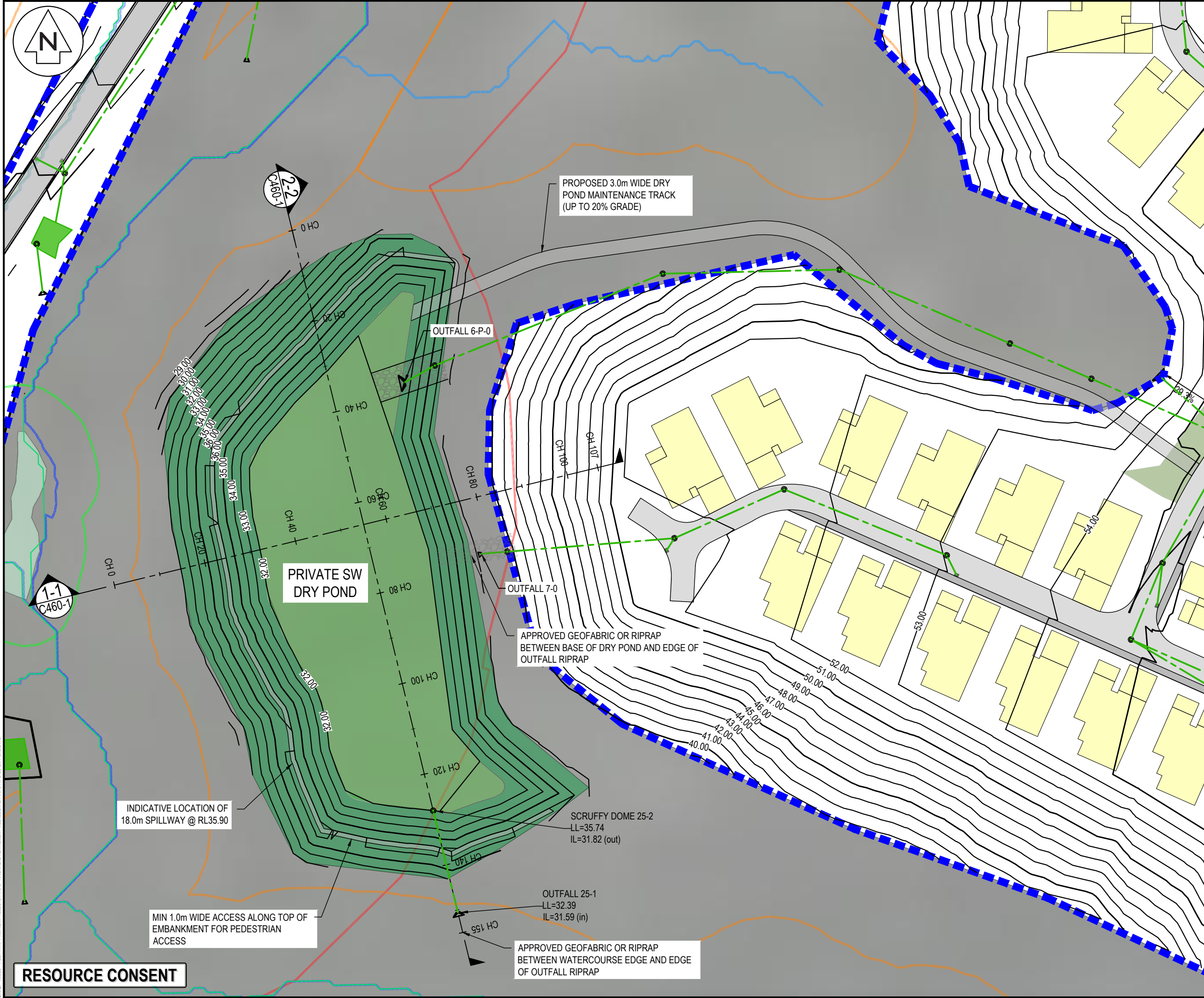
Project

**DEVELOPMENT OF
RIVERHEAD FOREST
FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

Title

**RETIREMENT VILLAGE
PROPOSED STORMWATER
CATCHMENT PLAN**

Project no.	147016		
Scale	1:1000 @ A3		
Cad file	147016-RV-C450 SW CATCHMENT.DWG		
Drawing no.	C450-13	Rev	A



- NOTES
1. ALL WORKS TO BE IN ACCORDANCE WITH AUCKLAND COUNCIL STANDARDS.
 2. IT IS THE CONTRACTORS RESPONSIBILITY TO LOCATE ALL SERVICES THAT MAY BE AFFECTED BY THEIR OPERATIONS.
 3. PIPE BEDDING: 0 - 10% GRANULAR BEDDING, 10 - 20% WEAK CONCRETE BEDDING, GREATER THAN 20% WEAK CONCRETE BEDDING (7MPa PLUS ANTI SCOUR BLOCKS AT 6M CRS).
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 6. HEAVY DUTY MANHOLE LIDS AND FRAMES TO BE USED IN TRAFFICKED AREAS.
 7. ALL MANHOLES ARE TO BE 1050MMØ PRECAST CONCRETE UNLESS SHOWN OTHERWISE.
 8. ALL CATCHPIT LEADS SHALL HAVE MIN COVER 1.0M.
 9. ALL LINES TO BE ABANDONED SHALL BE SEALED AT EACH END. TIMING OF ALL SEALING TO BE COORDINATED WITH COUNCIL STAFF.
 10. ALL LOT CONNECTION TO BE MIN 100mm uPVC SN16 UNLESS SHOWN OTHERWISE.

LEGEND

	EX BDY
	PR BDY
	EX STORMWATER
	PR STORMWATER ROAD
	PR STORMWATER ROOF
	PR EXTENT WORK
	RIPARIAN YARD 20m SETBACK
	WETLAND AREA 100m SETBACK
	WETLAND AREA 10m SETBACK
	EX STREAMS
	EX/PR SWMH (ROAD/ROOF)
	PR SWCP SINGLE
	PR SWCP DOUBLE
	PR LOT CONNECTION
	PR SW RAINGARDEN

A		RESOURCE CONSENT	SP	03/2025
Rev	Description	By	Date	
Survey	LIDAR		03/2022	
Design	AO		03/2025	
Drawn	SP		03/2025	
Checked	RW		03/2025	

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Project
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FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

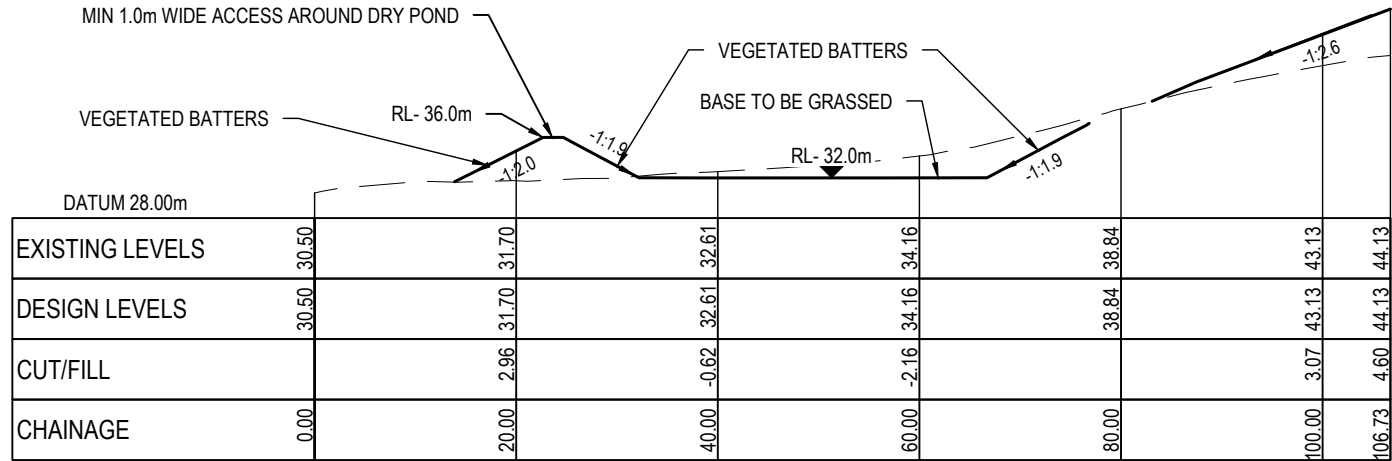
Title
**RETIREMENT VILLAGE
STORMWATER DRY POND
PLAN**

Project no.	147016
Scale	1:750 @ A3
Cad file	147016-RV-C460 SW POND.DWG
Drawing no.	C460
Rev	A

RESOURCE CONSENT

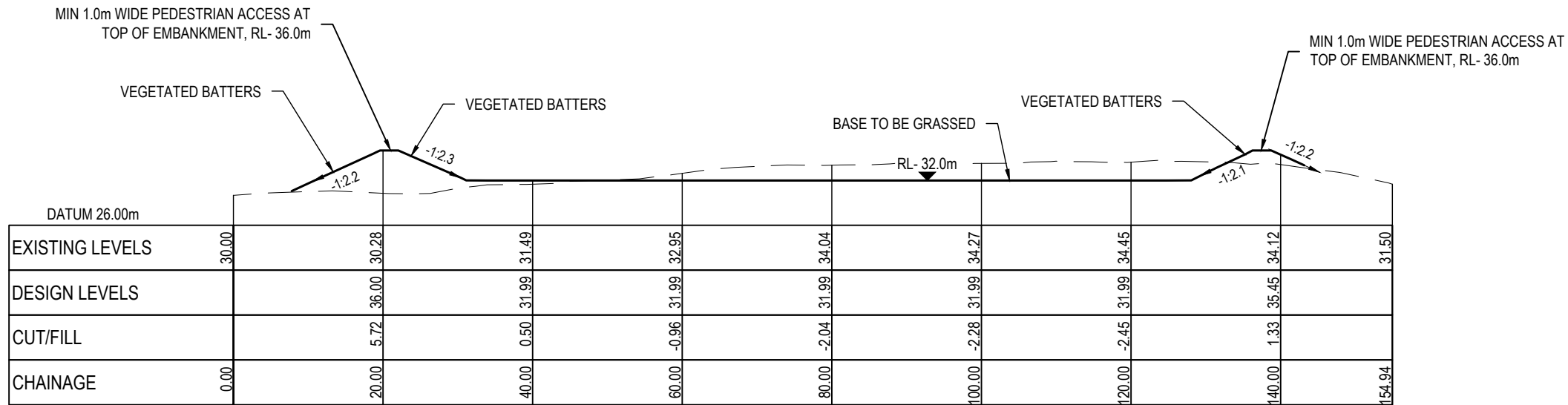
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DATE: 4/20/25 FILE PATH: F:\Maven\PROJECTS\147016 - RIVERHEAD RETIREMENT VILLAGE\DWG\147016-RV-C460 SW POND.DWG



1-1
C460

CROSS SECTION.
SCALE: HORI 1:750 VERT 1:750



2-2
C460

CROSS SECTION
SCALE: HORI 1:750 VERT 1:750

RESOURCE CONSENT

- NOTES
1. ALL BENDS AND CONNECTIONS TO BE NO MORE THAN 45°.
 2. ALL CONNECTIONS TO EXISTING DRAINS SHALL BE CARRIED OUT BY A LICENSED DRAIN LAYER / PLUMBER.
 3. DRAINAGE SHALL COMPLY IN FULL WITH E1/AS1 BUILDING CODE FOR STORM WATER.
 4. ALL CATCHPIPS SHALL HAVE HALF SYPHONS INSTALLED.
 5. ALL WASTE WATER DRAINS SHALL BE UPVC TO AS/NZS 1260.
 6. WASTEWATER SHALL COMPLY IN FULL WITH AS/NZS 3500.2 - 2003 AND/OR G13 BUILDING CODE.
 7. REFER TO HYDRAULIC ENGINEERS DRAWINGS FOR BUILDING PLUMBING BEYOND THAT SHOWN INCLUDING DOWN PIPE SIZES.
 8. ALL PIPES SHALL BE SN16 GRADE UNLESS OTHERWISE STATED.
 9. DRAINLAYER SHALL LOCATE AND CONFIRM CONNECTION INVERT BEFORE STARTING BUILDING WORKS.
 10. PLANS TO BE READ IN CONJUNCTION WITH HYDRAULIC ENGINEERS AND DIFFERENCES SHALL BE CLARIFIED BEFORE CONTRACTOR STARTS.
 11. ALL CHAMBER LIDS SHALL HAVE A MINIMUM 200MM MAXIMUM 300 THROAT TO PROVIDE SUFFICIENT COVER FOR LANDSCAPE AND PAVEMENT OVER THE TOP.

A	RESOURCE CONSENT	SP	03/2025
Rev	Description	By	Date
	By	Date	
Survey	LIDAR	03/2022	
Design	AO	03/2025	
Drawn	SP	03/2025	
Checked	RW	03/2025	

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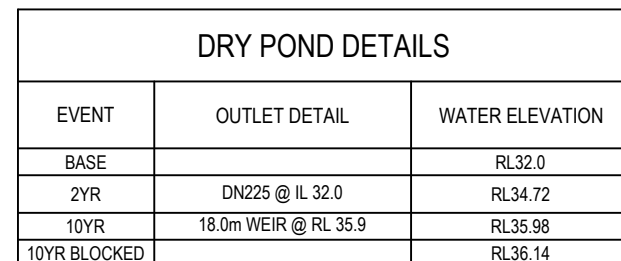
Project

**DEVELOPMENT OF
RIVERHEAD FOREST
FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

Title

**RETIREMENT VILLAGE
STORMWATER DRY POND
SECTIONS**

Project no.	147016		
Scale	1:750 @ A3		
Cad file	147016-RV-C460 SW POND.DWG		
Drawing no.	C460-1	Rev	A



SW LINE 25
SCALE: HORI 1:1000 VERT 1:200

- NOTES**
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LEGEND

-
- LEGEND
- EX BDY
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A	RESOURCE CONSENT	SP	03/2025
Rev	Description	By	Date
	By	Date	
Survey	LIDAR	03/2022	
Design	AO	03/2025	
Drawn	SP	03/2025	
Checked	RW	03/2025	



Project

**DEVELOPMENT OF
RIVERHEAD FOREST
FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

<p>Title</p> <p>RETIREMENT VILLAGE STORMWATER DRY POND OUTFALL DETAILS</p>

Project no.	147016		
Scale	N.T.S		
Cad file	147016-RV-C460 SW POND.DWG		
Drawing no.	C460-2	Rev	A



REFER TO MAVEN FLOODING
REPORT FOR HAZARD MAPPING
DETAILS

- NOTES
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 8. ALL LINES TO BE ABANDONED SHALL BE SEALED AT EACH END. TIMING OF ALL SEALING TO BE COORDINATED WITH COUNCIL STAFF.
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 10. ALL ROOF WATER RUNOFF PIPE TO BE 150 uPVC SN16 UNLESS SHOWN OTHERWISE.

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 - PR STORMWATER ROAD
 - PR STORMWATER ROOF
 - EX/PR SWMH (ROAD/ROOF)
 - PR SWCP SINGLE
 - PR SWCP DOUBLE
 - PR SW RAINGARDEN
 - RIPARIAN YARD 20m SETBACK
 - WETLAND AREA 100m SETBACK
 - WETLAND AREA 10m SETBACK
 - EX STREAMS
 - PR MINOR OLFP < 2m³/s
 - PR MAJOR OLFP > 2m³/s

A	RESOURCE CONSENT	MA	03/2025
Rev	Description	By	Date
		By	Date
Survey	LIDAR		03/2022
Design	AO/AYC		03/2025
Drawn	SP		03/2025
Checked	RW		03/2025

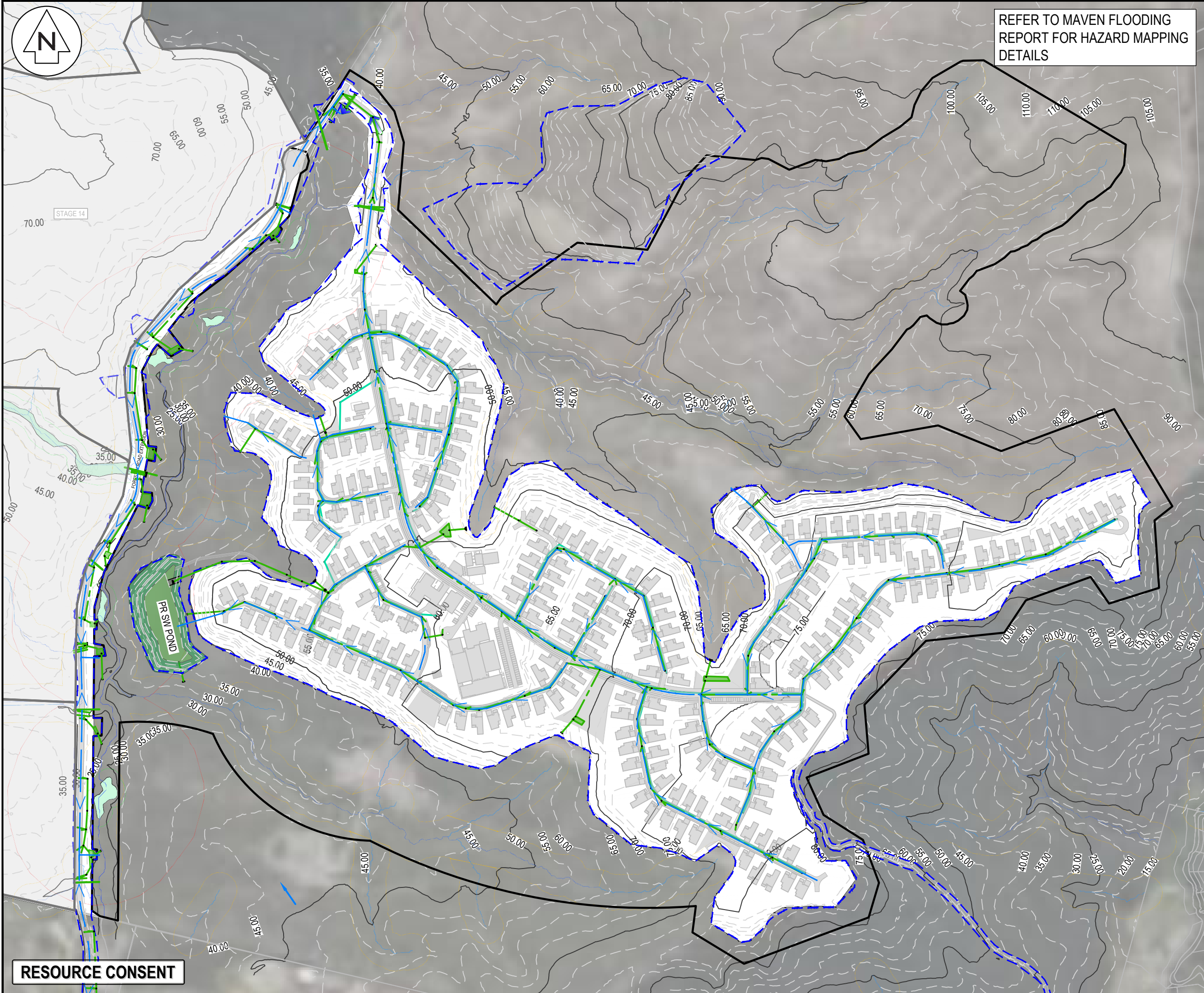


Project
**DEVELOPMENT OF
RIVERHEAD FOREST
FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

Title
**RETIREMENT VILLAGE
PROPOSED STORMWATER
OLFP OVERVIEW PLAN**

Project no.	147016
Scale	1:10,000 @ A3
Cad file	147016-RV-C470 SW OLFP.DWG
Drawing no.	C470
Rev	A

RESOURCE CONSENT



REFER TO MAVEN FLOODING
REPORT FOR HAZARD MAPPING
DETAILS

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A	RESOURCE CONSENT	SP	03/2025
Rev	Description	By	Date
Survey	LIDAR		03/2022
Design	AO/AYC		03/2025
Drawn	SP		03/2025
Checked	RW		03/2025

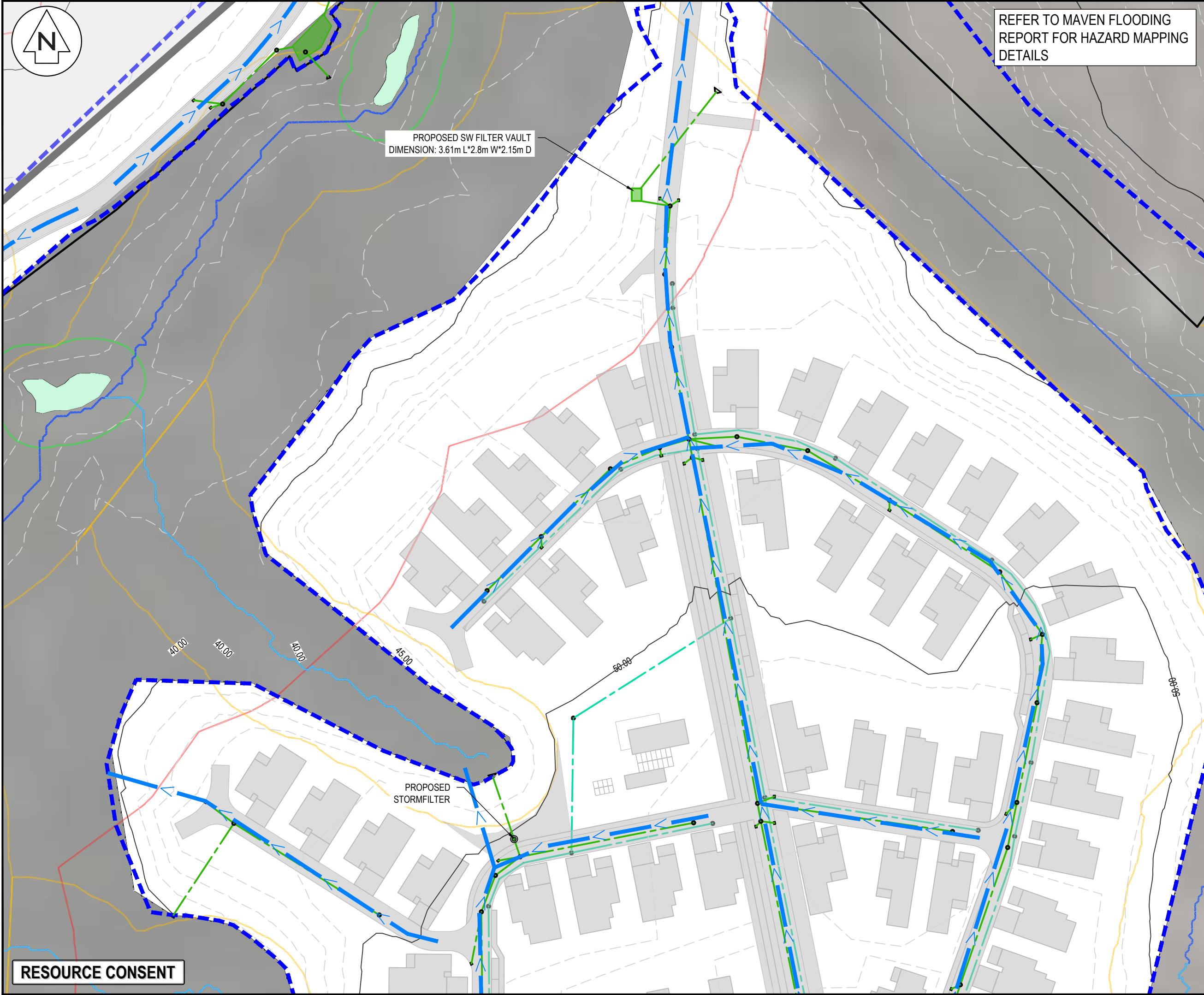


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Project
**DEVELOPMENT OF
RIVERHEAD FOREST
FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

Title
**RETIREMENT VILLAGE
PROPOSED STORMWATER
OLFP PLAN**

Project no.	147016
Scale	1:4000 @ A3
Cad file	147016-RV-C470 SW OLFP.DWG
Drawing no.	C470-0
Rev	A



REFER TO MAVEN FLOODING
REPORT FOR HAZARD MAPPING
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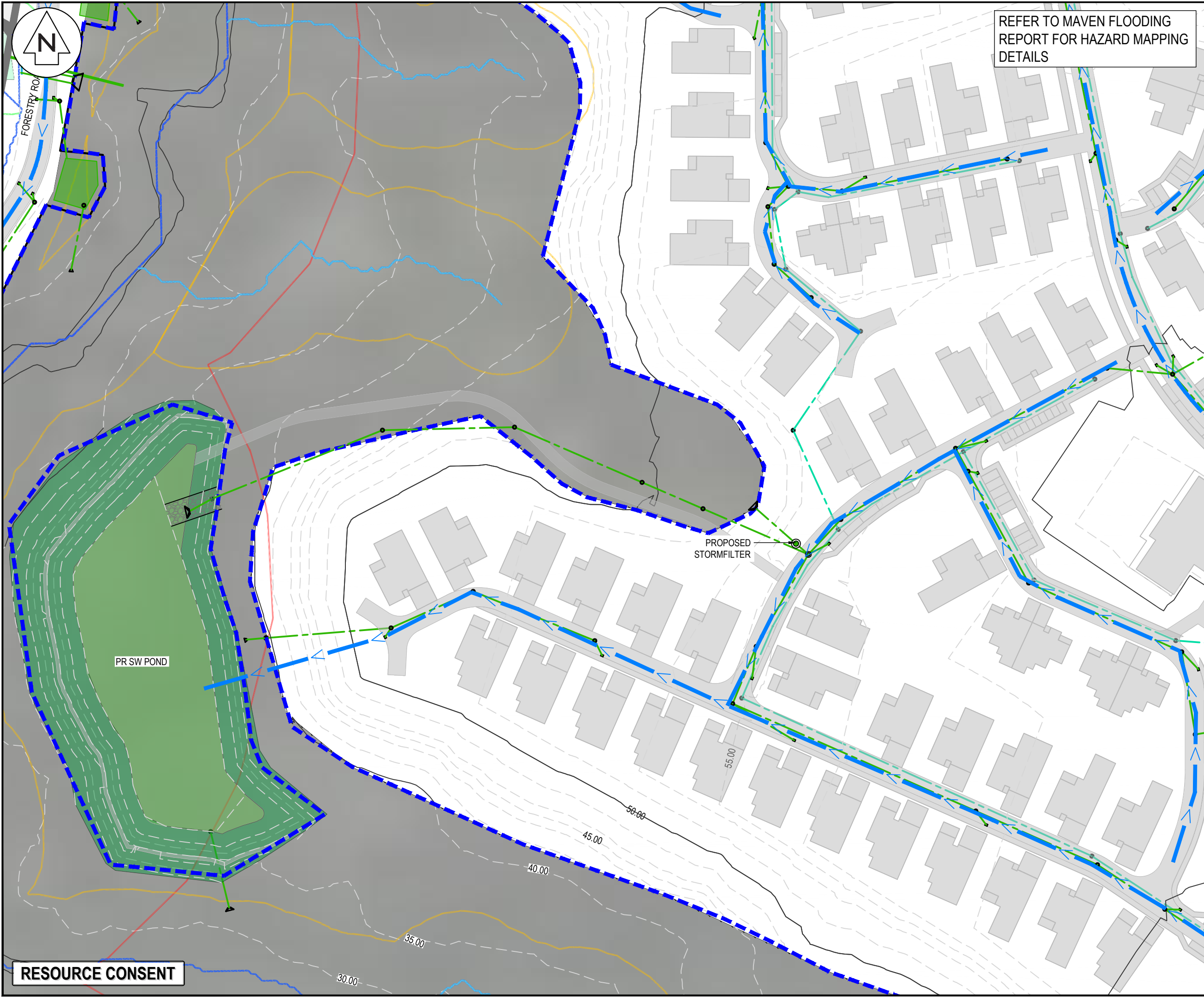
A	RESOURCE CONSENT	SP	03/2025
Rev	Description	By	Date
Survey	LIDAR		03/2022
Design	AO/AYC		03/2025
Drawn	SP		03/2025
Checked	RW		03/2025

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Project
**DEVELOPMENT OF
RIVERHEAD FOREST
FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

Title
**RETIREMENT VILLAGE
PROPOSED STORMWATER
OLFP PLAN**

Project no.	147016
Scale	1:1000 @ A3
Cad file	147016-RV-C470 SW OLFP.DWG
Drawing no.	C470-1
Rev	A



REFER TO MAVEN FLOODING
REPORT FOR HAZARD MAPPING
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A	RESOURCE CONSENT	SP	03/2025
Rev	Description	By	Date
Survey	LIDAR		03/2022
Design	AO/AYC		03/2025
Drawn	SP		03/2025
Checked	RW		03/2025



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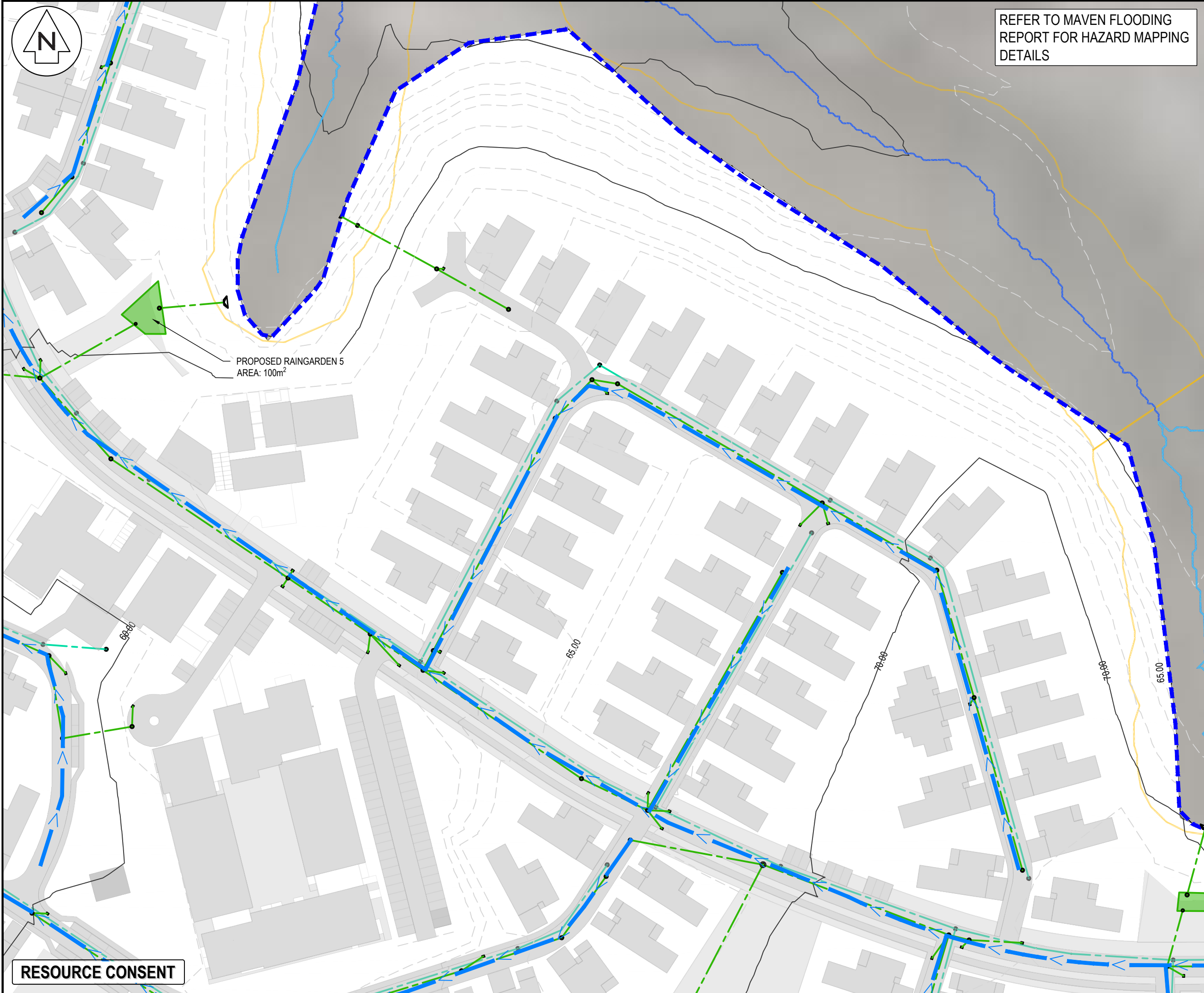
Project
**DEVELOPMENT OF
RIVERHEAD FOREST
FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

Title
**RETIREMENT VILLAGE
PROPOSED STORMWATER
OLFP PLAN**

Project no.	147016
Scale	1:1000 @ A3
Cad file	147016-RV-C470 SW OLFP.DWG
Drawing no.	C470-2
Rev	A

RESOURCE CONSENT

DATE: 03/2025 FILE PATH: F:\Maven\PROJECTS\147016 - RIVERHEAD RETIREMENT VILLAGE\DWG\147016-RV-C470 SW OLFP.DWG



REFER TO MAVEN FLOODING
REPORT FOR HAZARD MAPPING
DETAILS

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A	RESOURCE CONSENT	SP	03/2025
Rev	Description	By	Date
		By	Date
Survey	LIDAR		03/2022
Design	AO/AYC		03/2025
Drawn	SP		03/2025
Checked	RW		03/2025

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Project

**DEVELOPMENT OF
RIVERHEAD FOREST
FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

Title

**RETIREMENT VILLAGE
PROPOSED STORMWATER
OLFP PLAN**

Project no.	147016		
Scale	1:1000 @ A3		
Cad file	147016-RV-C470 SW OLFP.DWG		
Drawing no.	C470-3	Rev	A



REFER TO MAVEN FLOODING
REPORT FOR HAZARD MAPPING
DETAILS

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A	RESOURCE CONSENT	SP	03/2025
Rev	Description	By	Date
Survey	LIDAR		03/2022
Design	AO/AYC		03/2025
Drawn	SP		03/2025
Checked	RW		03/2025

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Project
**DEVELOPMENT OF
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Title
**RETIREMENT VILLAGE
PROPOSED STORMWATER
OLFP PLAN**

Project no.	147016
Scale	1:1000 @ A3
Cad file	147016-RV-C470 SW OLFP.DWG
Drawing no.	C470-4
Rev	A

RESOURCE CONSENT

DATE: 03/03 FILE PATH: F:\Maven\PROJECTS\147016 - RIVERHEAD RETIREMENT VILLAGE\DWG\147016-RV-C470 SW OLFP.DWG

PROPOSED RAINGARDEN 9
AREA: 140m²



REFER TO MAVEN FLOODING
REPORT FOR HAZARD MAPPING
DETAILS

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A	RESOURCE CONSENT	SP	03/2025
Rev	Description	By	Date
Survey	LIDAR		03/2022
Design	AO/AYC		03/2025
Drawn	SP		03/2025
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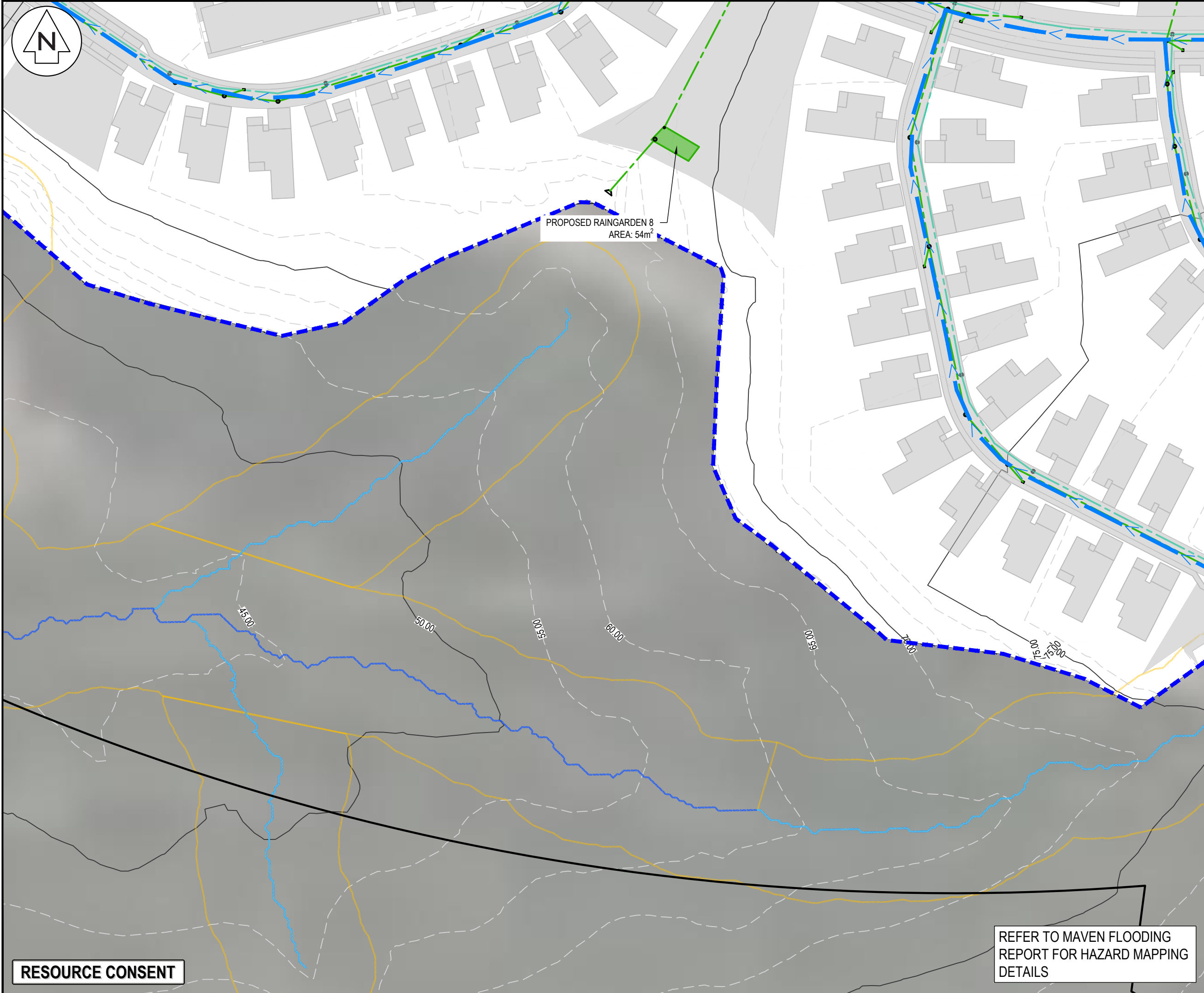
Project
**DEVELOPMENT OF
RIVERHEAD FOREST
FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

Title
**RETIREMENT VILLAGE
PROPOSED STORMWATER
OLFP PLAN**

Project no.	147016
Scale	1:1000 @ A3
Cad file	147016-RV-C470 SW OLFP.DWG
Drawing no.	C470-5
Rev	A

RESOURCE CONSENT

DATE: 4/2025 FILE PATH: F:\MAVEN\PROJECTS\147016 - RIVERHEAD RETIREMENT VILLAGE\DWG\147016-RV-C470 SW OLFP.DWG



NOTES

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A	RESOURCE CONSENT	SP	03/2025
Rev	Description	By	Date
Survey	LIDAR		03/2022
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Drawn	SP		03/2025
Checked	RW		03/2025

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Project

DEVELOPMENT OF RIVERHEAD FOREST FOR RANGITOOPUNI DEVELOPMENTS LIMITED PARTNERSHIP

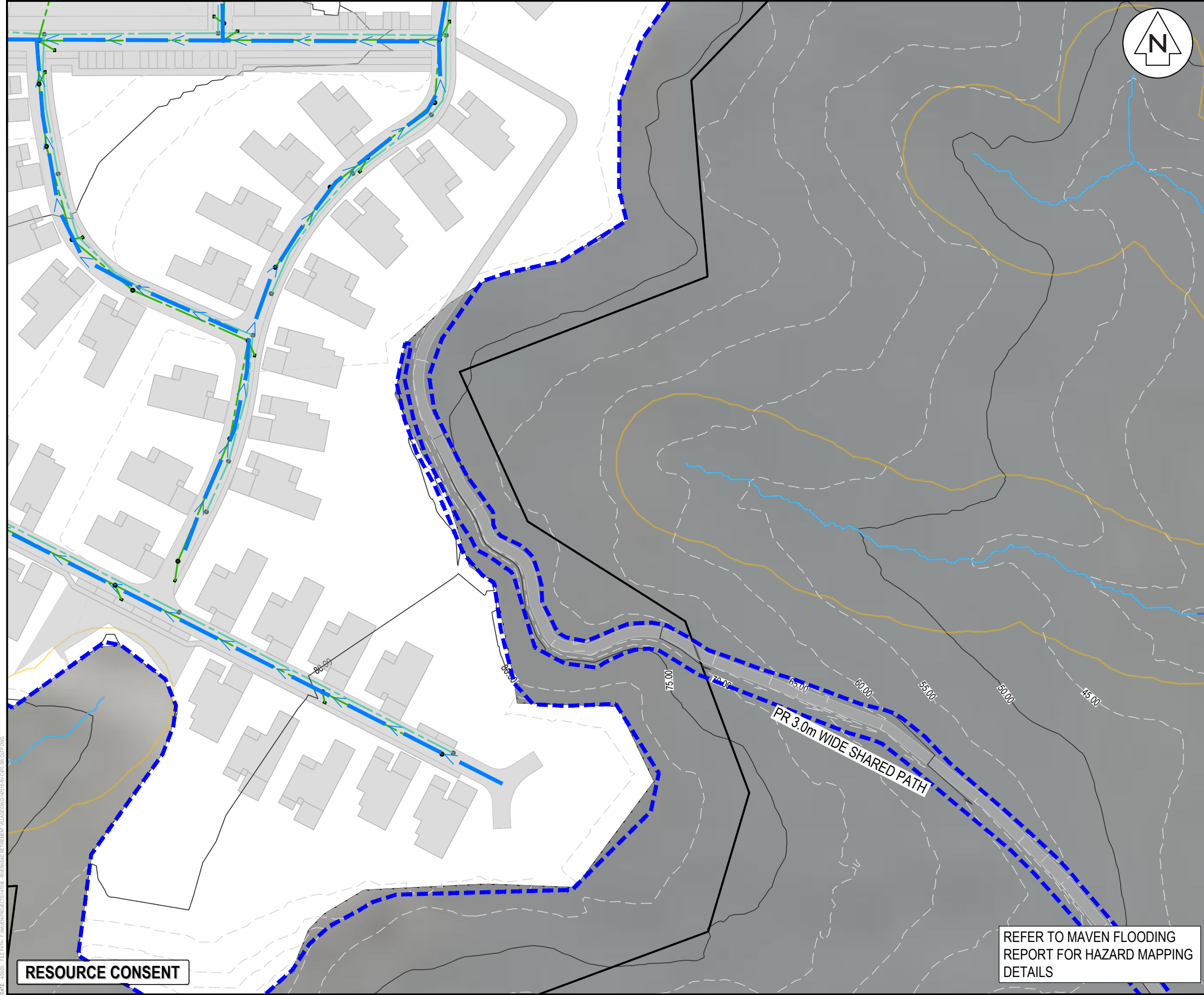
Title

RETIREMENT VILLAGE PROPOSED STORMWATER OLFP PLAN

Project no.	147016		
Scale	1:1000 @ A3		
Cad file	147016-RV-C470 SW OLFP.DWG		
Drawing no.	C470-6	Rev	A

RESOURCE CONSENT

REFER TO MAVEN FLOODING REPORT FOR HAZARD MAPPING DETAILS



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 9. ALL LOT CONNECTION TO BE MIN 100mm uPVC SN16 UNLESS SHOWN OTHERWISE.
 10. ALL ROOF WATER RUNOFF PIPE TO BE 150 uPVC SN16 UNLESS SHOWN OTHERWISE.

- LEGEND
- EX BDY
 - PR BDY
 - PR EXTENT WORK
 - EX STORMWATER
 - PR STORMWATER ROAD
 - PR STORMWATER ROOF
 - EX/PR SWMH (ROAD/ROOF)
 - PR SWCP SINGLE
 - PR SWCP DOUBLE
 - PR SW RAINGARDEN
 - RIPARIAN YARD 20m SETBACK
 - WETLAND AREA 100m SETBACK
 - WETLAND AREA 10m SETBACK
 - EX STREAMS
 - PR MINOR OLFP < 2m³/s
 - PR MAJOR OLFP > 2m³/s

A	RESOURCE CONSENT	SP	03/2025
Rev	Description	By	Date
Survey	LIDAR		03/2022
Design	AO/AYC		03/2025
Drawn	SP		03/2025
Checked	RW		03/2025



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Auckland 1023

Project
**DEVELOPMENT OF
RIVERHEAD FOREST
FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

Title
**RETIREMENT VILLAGE
PROPOSED STORMWATER
OLFP PLAN**

Project no.	147016
Scale	1:1000 @ A3
Cad file	147016-RV-C470 SW OLFP.DWG
Drawing no.	C470-7
Rev	A

REFER TO MAVEN FLOODING
REPORT FOR HAZARD MAPPING
DETAILS

RESOURCE CONSENT

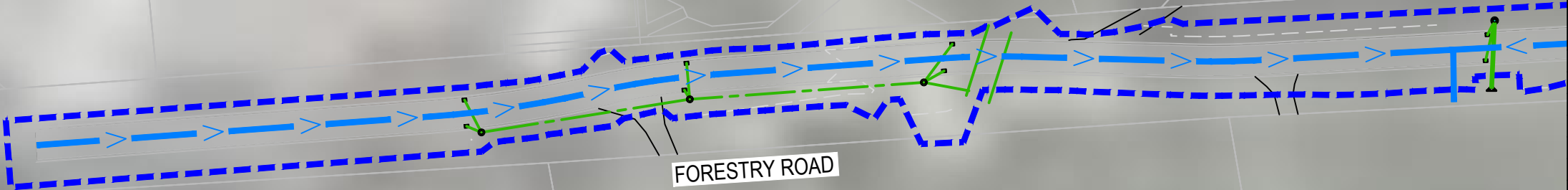
DATE: 03/2025 FILE PATH: F:\MVEN\PROJECTS\147016 - RIVERHEAD RETIREMENT VILLAGE\DWG\147016-RV-C470 SW OLFP.DWG



REFER TO MAVEN FLOODING
REPORT FOR HAZARD MAPPING
DETAILS

- NOTES
1. ALL WORKS TO BE IN ACCORDANCE WITH AUCKLAND COUNCIL STANDARDS.
 2. PIPE BEDDING: 0 - 10% GRANULAR BEDDING, 10 - 20% WEAK CONCRETE BEDDING, GREATER THAN 20% WEAK CONCRETE BEDDING (7MPa PLUS ANTI SCOUR BLOCKS AT 6m CRS).
 3. EACH CONNECTION SHALL BE MARKED BY A 50mm x 50mm TREATED PINE STAKE EXTENDING 600mm ABOVE GROUND LEVEL WITH THE TOP PAINTED. THIS MARKER POST SHALL BE PLACED ALONGSIDE A TIMBER MARKER INSTALLED AT THE TIME OF PIPELAYING AND EXTENDING FROM THE CONNECTION TO 150mm BELOW FINISHED GROUND LEVEL. CONNECTIONS SHALL BE ACCURATELY INDICATED ON "AS BUILT" PLANS.
 4. APPROVED HARDFILL IS TO BE USED IN BACKFILLING OF ALL ROAD CROSSINGS AND VEHICLE CROSSINGS TO COUNCIL STANDARDS.
 5. HEAVY DUTY MANHOLE LIDS AND FRAMES TO BE USED IN TRAFFICKED AREAS.
 6. ALL MANHOLES ARE TO BE 1050mmØ PRECAST CONCRETE UNLESS SHOWN OTHERWISE.
 7. ALL CATCHPIT LEADS ARE 225mm DIAMETER AND SHALL HAVE MIN COVER 1.0m
 8. ALL LINES TO BE ABANDONED SHALL BE SEALED AT EACH END. TIMING OF ALL SEALING TO BE COORDINATED WITH COUNCIL STAFF.
 9. ALL LOT CONNECTION TO BE MIN 100mm uPVC SN16 UNLESS SHOWN OTHERWISE.
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- LEGEND
- EX BDY
 - PR BDY
 - PR EXTENT WORK
 - EX STORMWATER
 - PR STORMWATER ROAD
 - PR STORMWATER ROOF
 - EX/PR SWMH (ROAD/ROOF)
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 - PR SWCP DOUBLE
 - PR SW RAINGARDEN
 - RIPARIAN YARD 20m SETBACK
 - WETLAND AREA 100m SETBACK
 - WETLAND AREA 10m SETBACK
 - EX STREAMS
 - PR MINOR OLFP < 2m³/s
 - PR MAJOR OLFP > 2m³/s



FORESTRY ROAD

A	RESOURCE CONSENT	SP	03/2025
Rev	Description	By	Date
		By	Date
Survey	LIDAR		03/2022
Design	AO/AYC		03/2025
Drawn	SP		03/2025
Checked	RW		03/2025

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Project
**DEVELOPMENT OF
RIVERHEAD FOREST
FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

Title
**RETIREMENT VILLAGE
PROPOSED STORMWATER
OLFP PLAN**

Project no.	147016
Scale	1:1000 @ A3
Cad file	147016-RV-C470 SW OLFP.DWG
Drawing no.	C470-8
Rev	A

RESOURCE CONSENT



REFER TO MAVEN FLOODING
REPORT FOR HAZARD MAPPING
DETAILS

- NOTES
1. ALL WORKS TO BE IN ACCORDANCE WITH AUCKLAND COUNCIL STANDARDS.
 2. PIPE BEDDING: 0 - 10% GRANULAR BEDDING, 10 - 20% WEAK CONCRETE BEDDING, GREATER THAN 20% WEAK CONCRETE BEDDING (7MPa PLUS ANTI SCOUR BLOCKS AT 6m CRS).
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- LEGEND
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 - PR EXTENT WORK
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 - WETLAND AREA 10m SETBACK
 - EX STREAMS
 - PR MINOR OLFPP < 2m³/s
 - PR MAJOR OLFPP > 2m³/s

FORESTRY ROAD

A	RESOURCE CONSENT	SP	03/2025
Rev	Description	By	Date
		By	Date
Survey	LIDAR		03/2022
Design	AO/AYC		03/2025
Drawn	SP		03/2025
Checked	RW		03/2025

M

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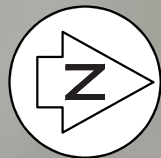
Auckland 1023

Project
**DEVELOPMENT OF
RIVERHEAD FOREST
FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

Title
**RETIREMENT VILLAGE
PROPOSED STORMWATER
OLFPP PLAN**

Project no.	147016		
Scale	1:1000 @ A3		
Cad file	147016-RV-C470 SW OLFP.DWG		
Drawing no.	C470-9	Rev	A

RESOURCE CONSENT



REFER TO MAVEN FLOODING
REPORT FOR HAZARD MAPPING
DETAILS

- NOTES
1. ALL WORKS TO BE IN ACCORDANCE WITH AUCKLAND COUNCIL STANDARDS.
 2. PIPE BEDDING: 0 - 10% GRANULAR BEDDING, 10 - 20% WEAK CONCRETE BEDDING, GREATER THAN 20% WEAK CONCRETE BEDDING (7MPa PLUS ANTI SCOUR BLOCKS AT 6m CRS).
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 - EX/PR SWMH (ROAD/ROOF)
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 - PR SWCP DOUBLE
 - PR SW RAINGARDEN
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 - WETLAND AREA 100m SETBACK
 - WETLAND AREA 10m SETBACK
 - EX STREAMS
 - PR MINOR OLFP < 2m³/s
 - PR MAJOR OLFP > 2m³/s

A	RESOURCE CONSENT	SP	03/2025
Rev	Description	By	Date
Survey	LIDAR		03/2022
Design	AO/AYC		03/2025
Drawn	SP		03/2025
Checked	RW		03/2025

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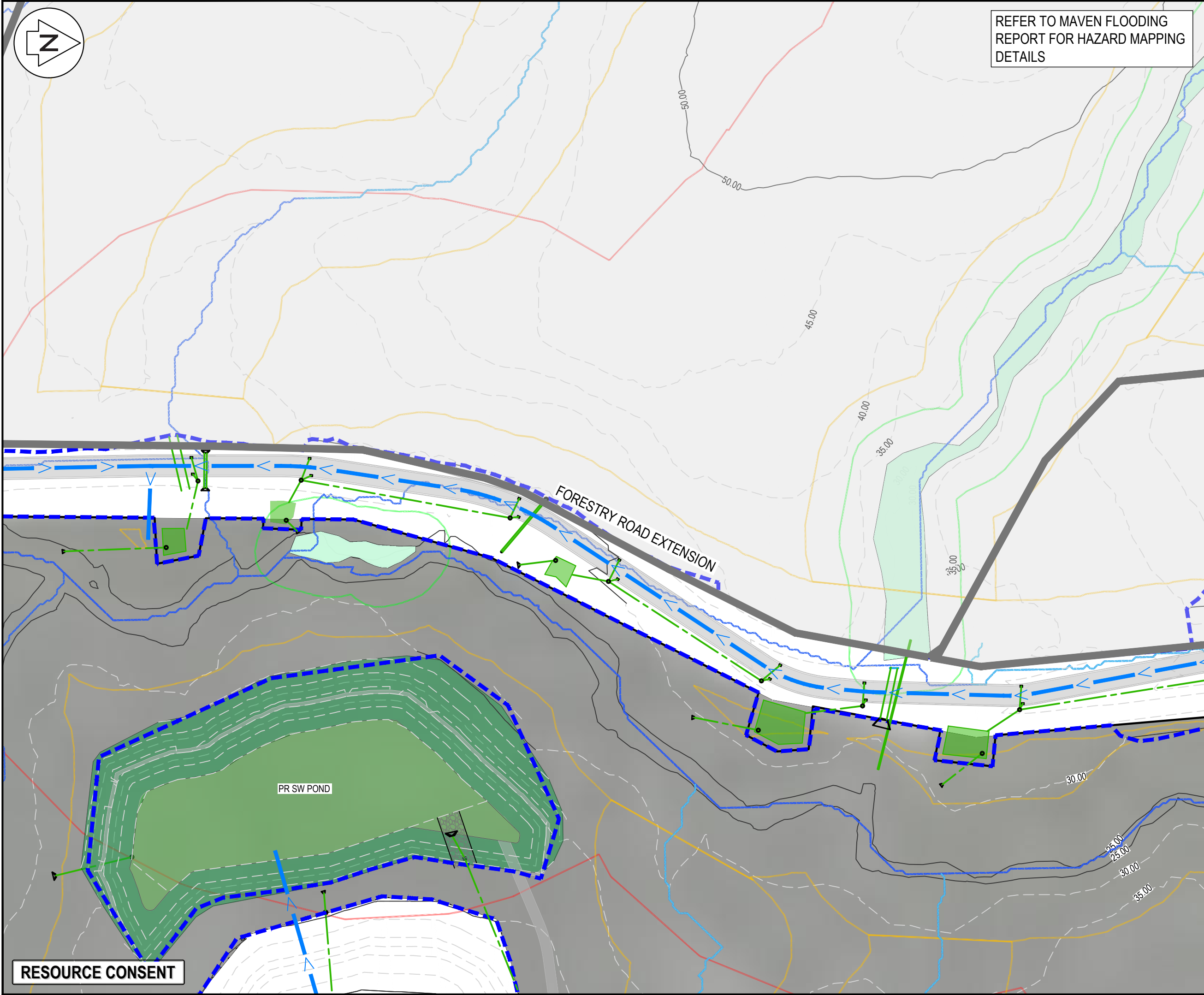
Project
**DEVELOPMENT OF
RIVERHEAD FOREST
FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

Title
**RETIREMENT VILLAGE
PROPOSED STORMWATER
OLFP PLAN**

Project no.	147016
Scale	1:1000 @ A3
Cad file	147016-RV-C470 SW OLFP.DWG
Drawing no.	C470-10
Rev	A

RESOURCE CONSENT

DATE: 03/2025 FILE PATH: F:\Maven\PROJECTS\147016 - RIVERHEAD RETIREMENT VILLAGE\DWG\147016-RV-C470 SW OLFP.DWG



NOTES

1. ALL WORKS TO BE IN ACCORDANCE WITH AUCKLAND COUNCIL STANDARDS.
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LEGEND

	EX BDY
	PR BDY
	PR EXTENT WORK
	EX STORMWATER
	PR STORMWATER ROAD
	PR STORMWATER ROOF
	EX/PR SWMH (ROAD/ROOF)
	PR SWCP SINGLE
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	PR SW RAINGARDEN
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	WETLAND AREA 100m SETBACK
	WETLAND AREA 10m SETBACK
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	PR MINOR OLFP < 2m³/s
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A	RESOURCE CONSENT	SP	03/2025
Rev	Description	By	Date
Survey	LIDAR		03/2022
Design	AO/AYC		03/2025
Drawn	SP		03/2025
Checked	RW		03/2025

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Project

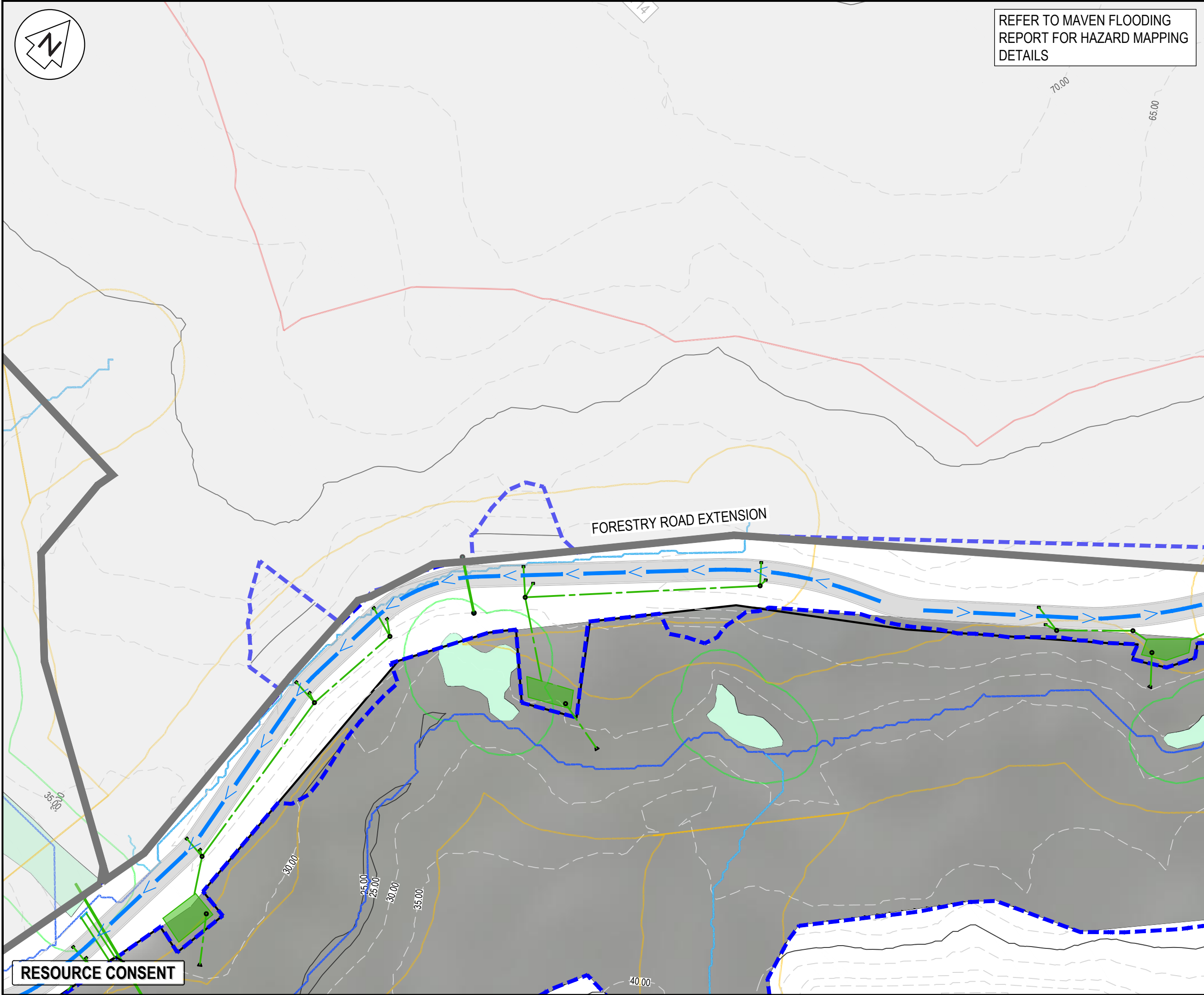
DEVELOPMENT OF RIVERHEAD FOREST FOR RANGITOOPUNI DEVELOPMENTS LIMITED PARTNERSHIP

Title

RETIREMENT VILLAGE PROPOSED STORMWATER OLFP PLAN

Project no.	147016		
Scale	1:1000 @ A3		
Cad file	147016-RV-C470 SW OLFP.DWG		
Drawing no.	C470-11	Rev	A

DATE: 03/2025 FILE PATH: F:\MVEN\PROJECTS\147016 - RIVERHEAD RETIREMENT VILLAGE\DWG\147016-RV-C470 SW OLFP.DWG



REFER TO MAVEN FLOODING
REPORT FOR HAZARD MAPPING
DETAILS

- NOTES
1. ALL WORKS TO BE IN ACCORDANCE WITH AUCKLAND COUNCIL STANDARDS.
 2. PIPE BEDDING: 0 - 10% GRANULAR BEDDING, 10 - 20% WEAK CONCRETE BEDDING GREATER THAN 20% WEAK CONCRETE BEDDING (7MPA PLUS ANTI SCOUR BLOCKS AT 6m CRS).
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- LEGEND
- EX BDY
 - PR BDY
 - PR EXTENT WORK
 - EX STORMWATER
 - PR STORMWATER ROAD
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 - EX/PR SWMH (ROAD/ROOF)
 - PR SWCP SINGLE
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 - WETLAND AREA 100m SETBACK
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 - PR MINOR OLFP < 2m³/s
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A	RESOURCE CONSENT	SP	03/2025
Rev	Description	By	Date
Survey	LIDAR		03/2022
Design	AO/AYC		03/2025
Drawn	SP		03/2025
Checked	RW		03/2025



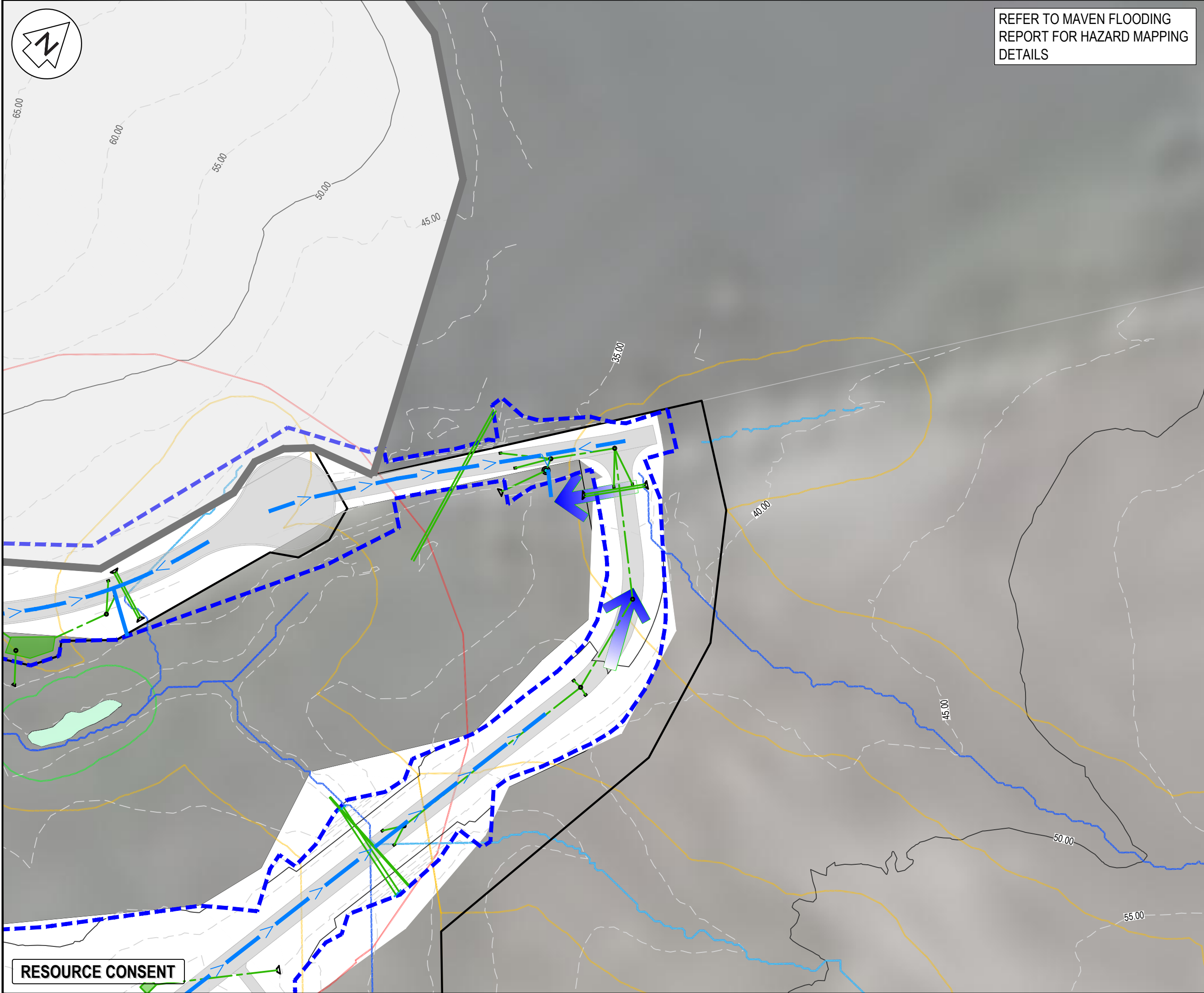
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Auckland 1023

Project
**DEVELOPMENT OF
RIVERHEAD FOREST
FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

Title
**RETIREMENT VILLAGE
PROPOSED STORMWATER
OLFP PLAN**

Project no.	147016
Scale	1:1000 @ A3
Cad file	147016-RV-C470 SW OLFP.DWG
Drawing no.	C470-12
Rev	A

RESOURCE CONSENT



REFER TO MAVEN FLOODING
REPORT FOR HAZARD MAPPING
DETAILS

NOTES

1. ALL WORKS TO BE IN ACCORDANCE WITH AUCKLAND COUNCIL STANDARDS.

2. PIPE BEDDING: 0 - 10% GRANULAR BEDDING, 10 - 20% WEAK CONCRETE BEDDING GREATER THAN 20% WEAK CONCRETE BEDDING (7MPA PLUS ANTI SCOUR BLOCKS AT 6m CRS).

3. EACH CONNECTION SHALL BE MARKED BY A 50mm x 50mm TREATED PINE STAKE EXTENDING 600mm ABOVE GROUND LEVEL WITH THE TOP PAINTED. THIS MARKER POST SHALL BE PLACED ALONGSIDE A TIMBER MARKER INSTALLED AT THE TIME OF PIPELAYING AND EXTENDING FROM THE CONNECTION TO 150mm BELOW FINISHED GROUND LEVEL. CONNECTIONS SHALL BE ACCURATELY INDICATED ON "AS BUILT" PLANS.

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5. HEAVY DUTY MANHOLE LIDS AND FRAMES TO BE USED IN TRAFFICKED AREAS.

6. ALL MANHOLES ARE TO BE 1050mmØ PRECAST CONCRETE UNLESS SHOWN OTHERWISE.

7. ALL CATCHPIT LEADS ARE 225mm DIAMETER AND SHALL HAVE MIN COVER 1.0m

8. ALL LINES TO BE ABANDONED SHALL BE SEALED AT EACH END. TIMING OF ALL SEALING TO BE COORDINATED WITH COUNCIL STAFF.

9. ALL LOT CONNECTION TO BE MIN 100mm uPVC SN16 UNLESS SHOWN OTHERWISE.

10. ALL ROOF WATER RUNOFF PIPE TO BE 150 uPVC SN16 UNLESS SHOWN OTHERWISE.

LEGEND

—

EX BDY

—

PR BDY

PR EXTENT WORK

EX STORMWATER

PR STORMWATER ROAD

PR STORMWATER ROOF

○

EX/PR SWMH (ROAD/ROOF)

■

PR SWCP SINGLE

■

PR SWCP DOUBLE

■

PR SW RAINGARDEN

RIPARIAN YARD 20m SETBACK

WETLAND AREA 100m SETBACK

WETLAND AREA 10m SETBACK

EX STREAMS

PR MINOR OLFP < 2m³/s

PR MAJOR OLFP > 2m³/s

A	RESOURCE CONSENT	SP	03/2025
Rev	Description	By	Date
	By	Date	
Survey	LIDAR	03/2022	
Design	AO/AYC	03/2025	
Drawn	SP	03/2025	
Checked	RW	03/2025	

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Project

DEVELOPMENT OF
RIVERHEAD FOREST
FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP

Title

RETIREMENT VILLAGE
PROPOSED STORMWATER
OLFP PLAN

Project no.	147016
Scale	1:1000 @ A3
Cad file	147016-RV-C470 SW OLFP.DWG
Drawing no.	C470-13
Rev	A



5. APPROVED HARDFILL IS TO BE USED IN BACKFILLING OF ALL ROAD CROSSINGS AND VEHICLE CROSSINGS TO COUNCIL STANDARDS.
6. HEAVY DUTY MANHOLE LIDS AND FRAMES TO BE USED IN TRAFFICKED AREAS.
7. ALL CATCHPIT LEADS SHALL HAVE MIN COVER 1.0M.
8. ALL LINES TO BE ABANDONED SHALL BE SEALED AT EACH END. TIMING OF ALL SEALING TO BE COORDINATED WITH COUNCIL STAFF.

- NOTES
1. ALL WORKS TO BE IN ACCORDANCE WITH AUCKLAND COUNCIL STANDARDS.
2. IT IS THE CONTRACTORS RESPONSIBILITY TO LOCATE ALL SERVICES THAT MAY BE AFFECTED BY THEIR OPERATIONS.
3. PIPE BEDDING: 0 - 10% GRANULAR BEDDING, 10 - 20% WEAK CONCRETE BEDDING GREATER THAN 20% WEAK CONCRETE BEDDING (7MPA PLUS ANTI SCOUR BLOCKS AT 6M CRS).
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- LEGEND
- EX BDY
PROP BDY
STAGE BOUNDARY
EX OLFP
REMOVED EX OLFP
EXISTING STREAMS
PR SW FLOW PTH
PR SW PIPE
RIPARIAN YARD
20m SETBACK
WETLAND AREA
100m SETBACK
WETLAND AREA
10m SETBACK
EX/PROP SWMH
PROP SWCP SINGLE
PR INDICATIVE LEVEL
SPREADER - SUBJECT TO
DETAIL DEISGN
PR RIPRAP
PR CIRCULAR CULVERT
EX CULVERT
PR CULVERT
PR SCRUFFY DOME

A	RESOURCE CONSENT	EZ	03/2025
Rev	Description	By	Date
		By	Date
Survey	LANDPRO		03/22
Design	EZ		03/2025
Drawn	EZ		03/2025
Checked	RW/KH		03/2025

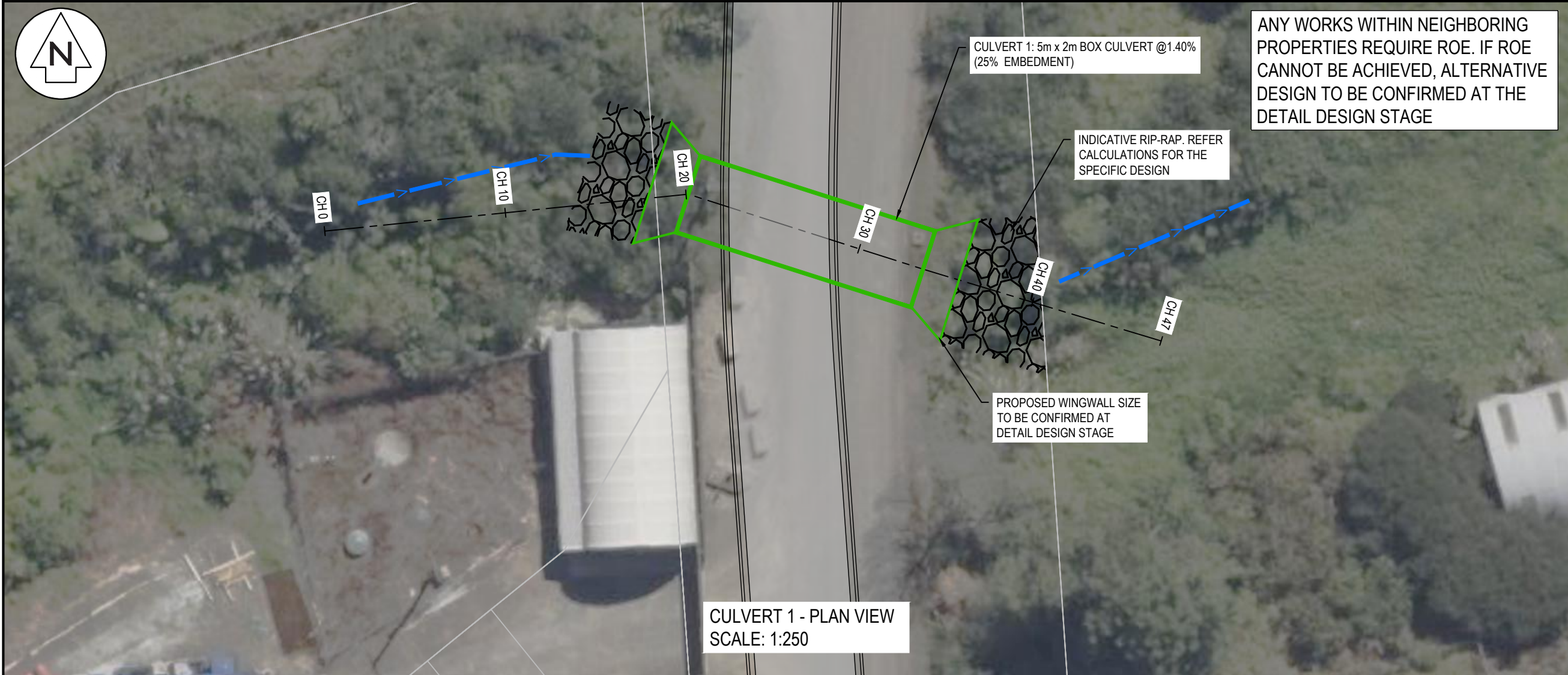


Project
**DEVELOPMENT OF
RIVERHEAD FOREST
FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

Title
**RETIREMENT VILLAGE
PROPOSED CULVERT
OVERVIEW PLAN**

Project no.	147016
Scale	1:10,000 @ A3
Cad file	147016-RV-C480 CULVERT OVERVIEW.DWG
Drawing no.	C480
Rev	A

RESOURCE CONSENT



ANY WORKS WITHIN NEIGHBORING PROPERTIES REQUIRE ROE. IF ROE CANNOT BE ACHIEVED, ALTERNATIVE DESIGN TO BE CONFIRMED AT THE DETAIL DESIGN STAGE

INDICATIVE RIP-RAP. REFER CALCULATIONS FOR THE SPECIFIC DESIGN

PROPOSED WINGWALL SIZE TO BE CONFIRMED AT DETAIL DESIGN STAGE

CULVERT 1 - PLAN VIEW
SCALE: 1:250

LEGEND			
	EX BDY		PR BDY
	PR OLFP		EX STREAMS

A	RESOURCE CONSENT	EZ	03/2025
Rev	Description	By	Date
Survey			
Design	EZ		03/2025
Drawn	EZ		03/2025
Checked	RW/KH		03/2025

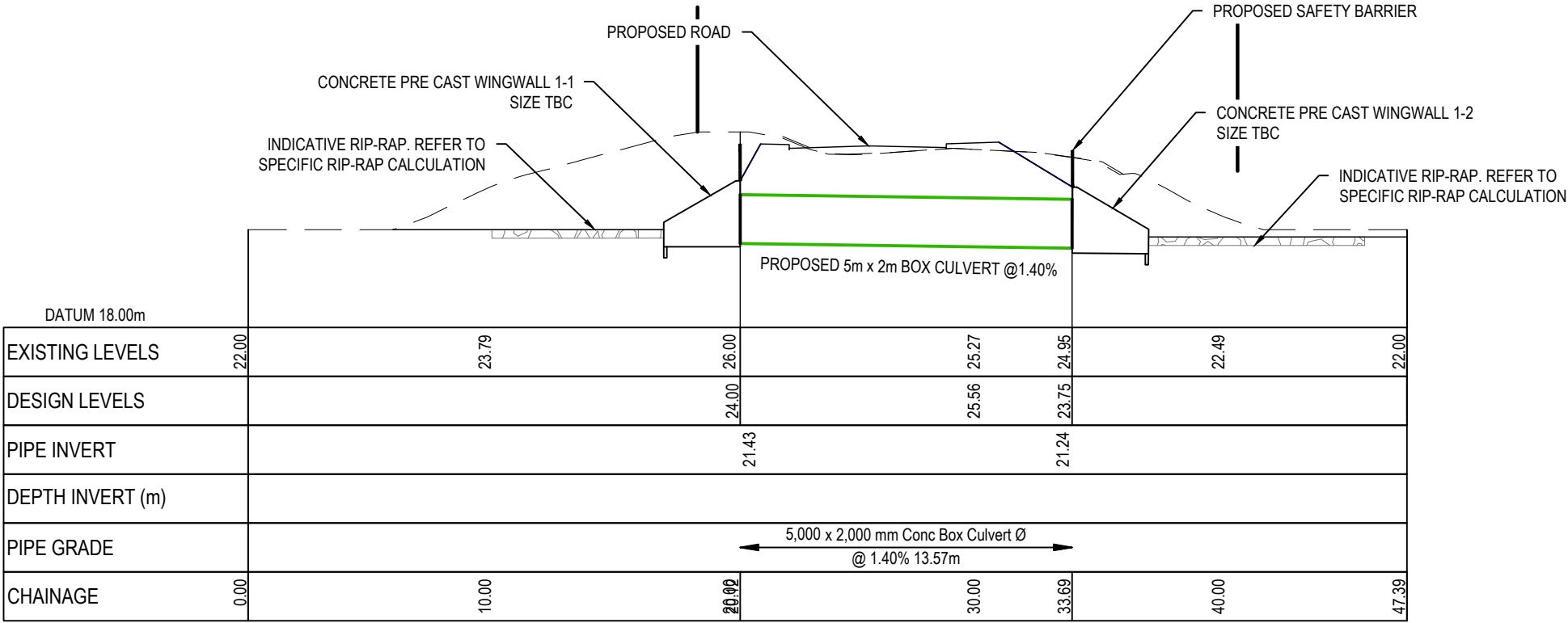


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Auckland 1023

Project
DEVELOPMENT OF RIVERHEAD FOREST FOR RANGITOOPUNI DEVELOPMENTS LIMITED PARTNERSHIP

Title
RETIREMENT VILLAGE PROPOSED CULVERT PLAN AND LONGSECTION

Project no.	147016
Scale	AS SHOWN @ A3
Cad file	147016-RV-C481 CULVERT DETAILS.DWG
Drawing no.	C481
Rev	A

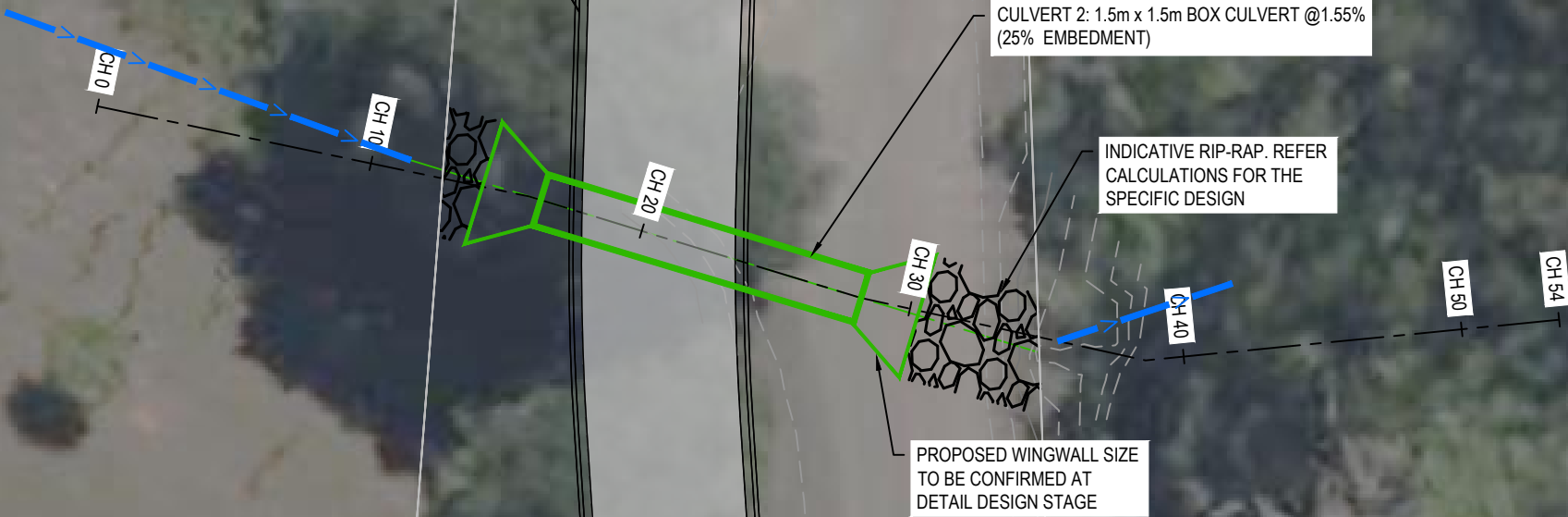


CULVERT 1 LONG SECTION
SCALE: HORI 1:150 VERT 1:150

RESOURCE CONSENT

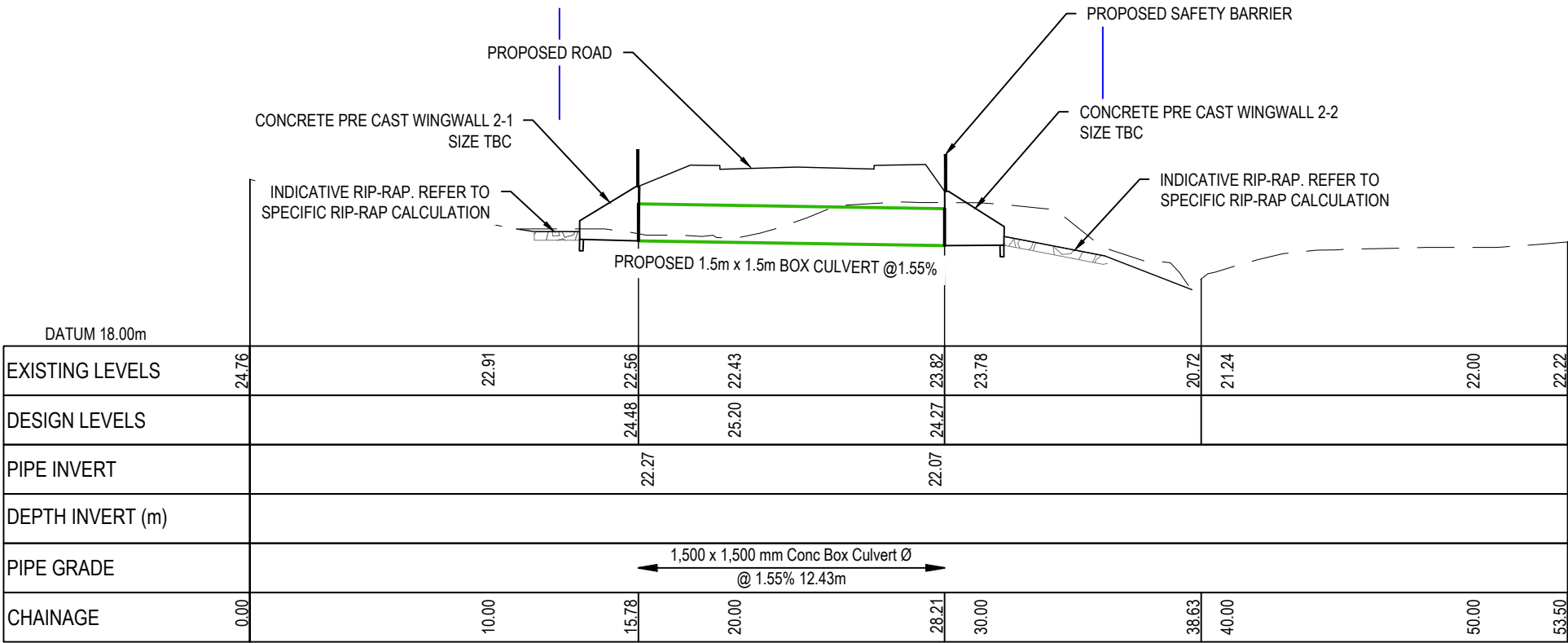


ANY WORKS WITHIN NEIGHBORING PROPERTIES REQUIRE ROE. IF ROE CANNOT BE ACHIEVED, ALTERNATIVE DESIGN TO BE CONFIRMED AT THE DETAIL DESIGN STAGE



CULVERT 2 - PLAN VIEW
SCALE: 1:250

LEGEND	
	EX BDY
	PR BDY
	PR OLFP
	EX STREAMS



CULVERT 2 LONG SECTION-
SCALE: HORI 1:150 VERT 1:150

A	RESOURCE CONSENT	EZ	03/2025
Rev	Description	By	Date
Survey			
Design	EZ		03/2025
Drawn	EZ		03/2025
Checked	RW/KH		03/2025

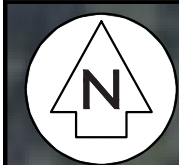
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Project
**DEVELOPMENT OF
RIVERHEAD FOREST
FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

Title
**RETIREMENT VILLAGE
PROPOSED CULVERT
PLAN AND LONGSECTION**

Project no.	147016
Scale	AS SHOWN @ A3
Cad file	147016-RV-C481 CULVERT DETAILS.DWG
Drawing no.	C481-1
Rev	A

RESOURCE CONSENT



CULVERT 3: 2.0m x 4.0m BOX CULVERT
(25% EMBEDMENT)

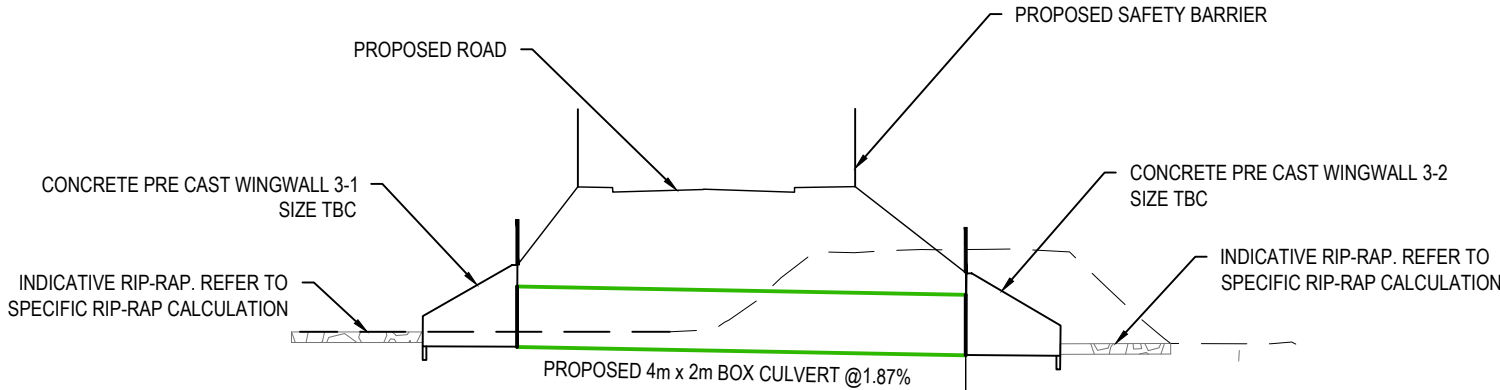
INDICATIVE RIP-RAP. REFER
CALCULATIONS FOR THE
SPECIFIC DESIGN

PROPOSED WINGWALL SIZE
TO BE CONFIRMED AT
DETAIL DESIGN STAGE

CULVERT 3 - PLAN VIEW
SCALE: 1:250

LEGEND

- EX BDY
- PR BDY
- PR OLFP
- EX STREAMS



EXISTING LEVELS			25.50	25.52	22.41
DESIGN LEVELS		27.57	26.32	24.75	
PIPE INVERT	22.30			22.02	
DEPTH INVERT (m)					
PIPE GRADE			4,000 x 2,000 mm Conc Box Culvert Ø @ 1.87% 14.84m		
CHAINAGE	0.00	7.18	10.00	20.00	22.02
					30.00
					40.00
					43.07

CULVERT 3 LONG SECTION-
SCALE: HORI 1:150 VERT 1:150

RESOURCE CONSENT

A	RESOURCE CONSENT	EZ	03/2025
Rev	Description	By	Date
		By	Date
Survey			
Design	EZ		03/2025
Drawn	EZ		03/2025
Checked	RW/KH		03/2025

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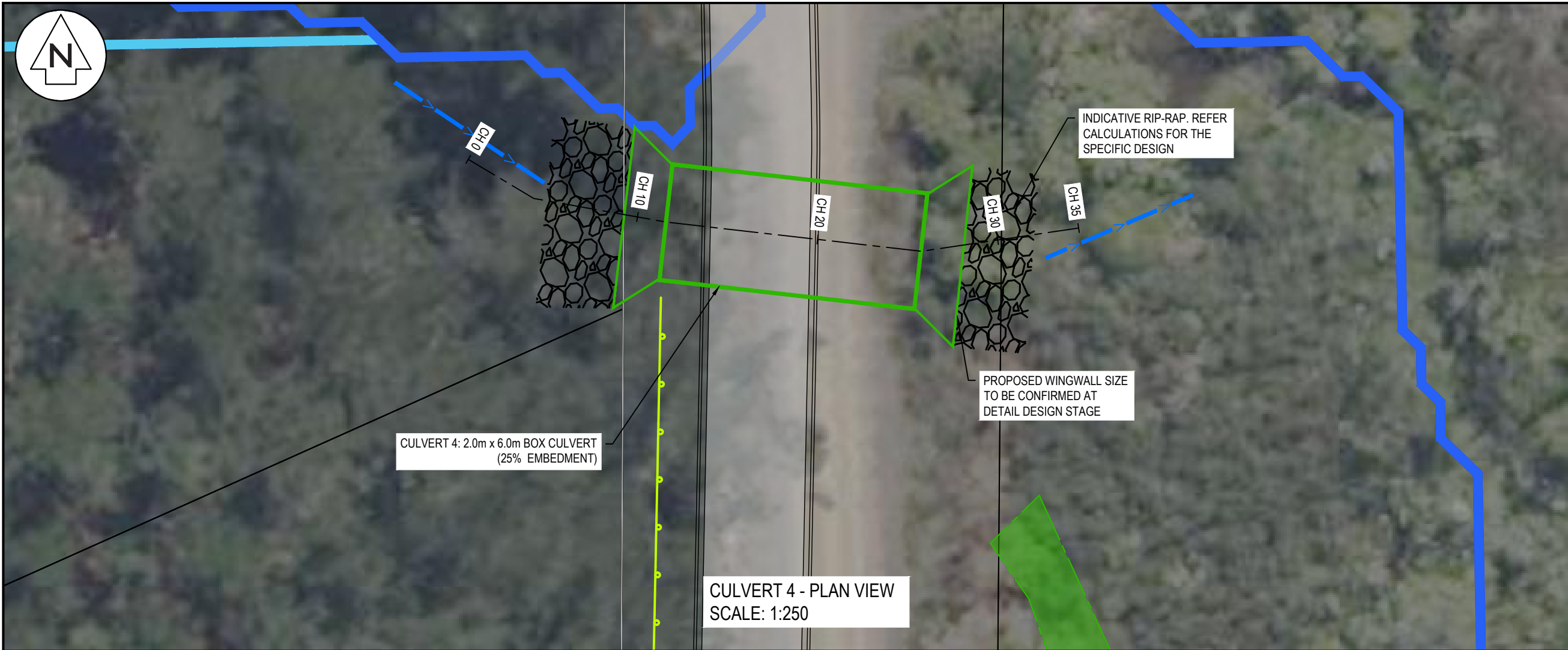
Project

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DEVELOPMENTS LIMITED
PARTNERSHIP

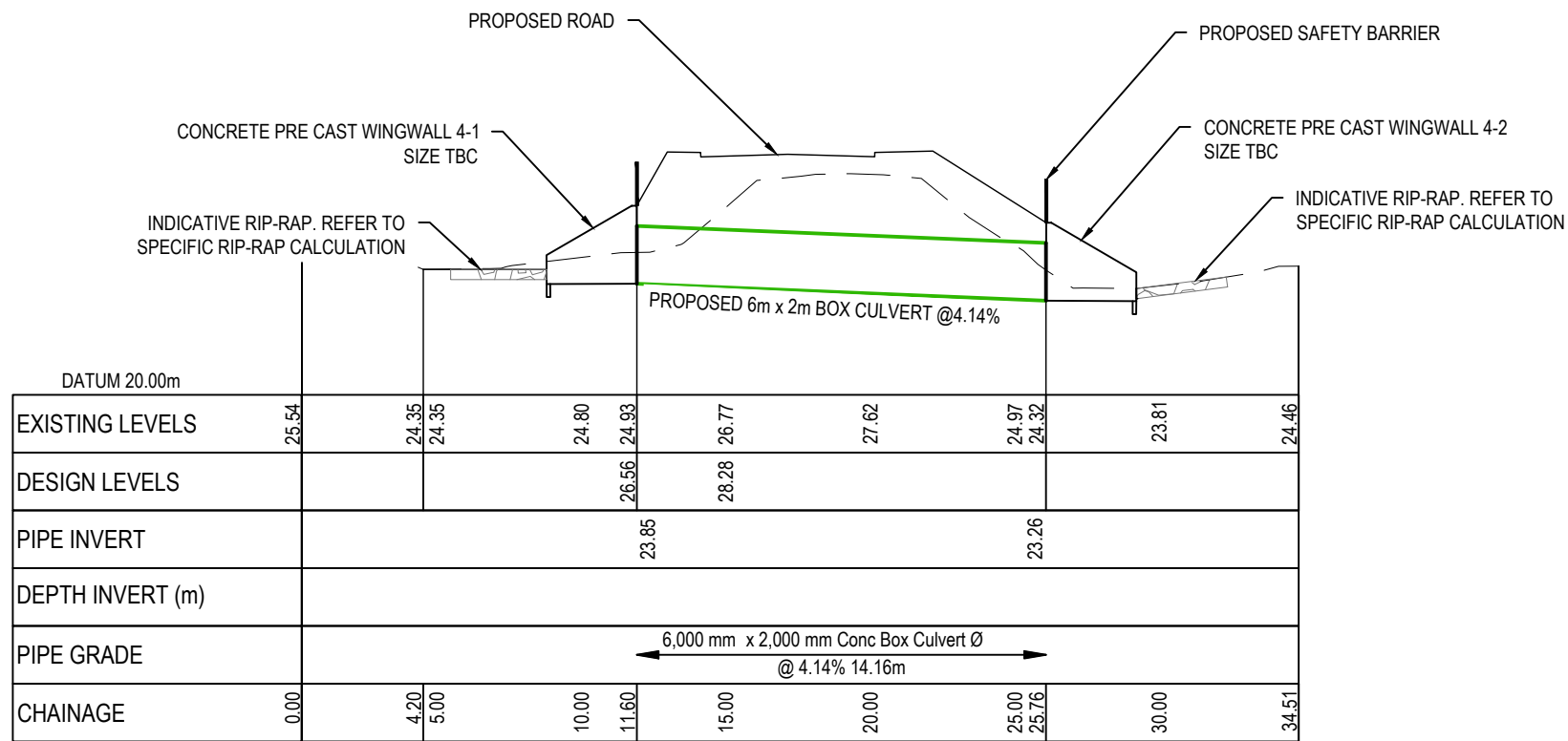
Title

RETIREMENT VILLAGE
PROPOSED CULVERT
PLAN AND LONGSECTION

Project no.	147016
Scale	AS SHOWN @ A3
Cad file	147016-RV-C481 CULVERT DETAILS.DWG
Drawing no.	C481-2
Rev	A



CULVERT 4 - PLAN VIEW
SCALE: 1:250

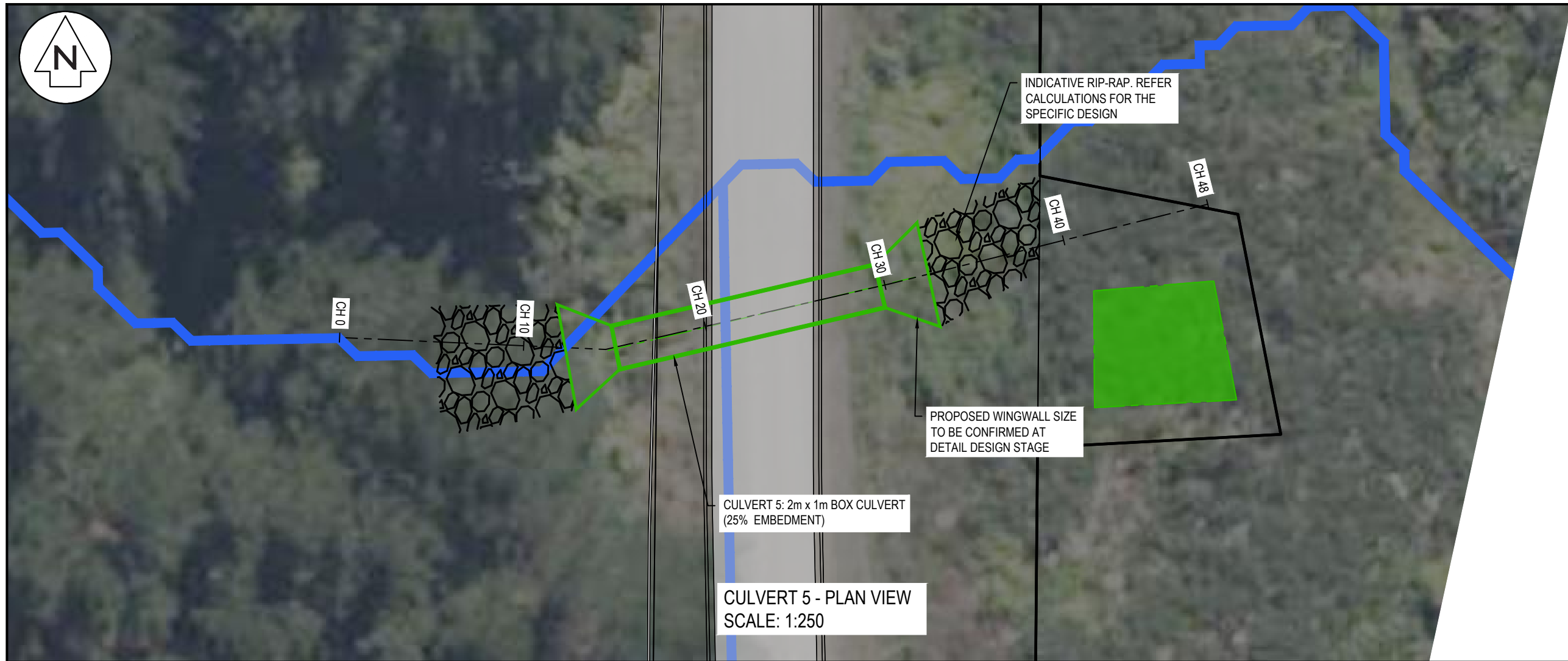


CULVERT 4 LONG SECTION-
SCALE: HORI 1:150 VERT 1:150

LEGEND			
	EX BDY		PR BDY
	PR OLFP		EX STREAMS

A			
RESOURCE CONSENT			
Rev	Description	By	Date
Survey			
Design	EZ		03/2025
Drawn	EZ		03/2025
Checked	RW/KH		03/2025
Project			
DEVELOPMENT OF RIVERHEAD FOREST FOR RANGITOOPUNI DEVELOPMENTS LIMITED PARTNERSHIP			
Title			
RETIREMENT VILLAGE PROPOSED CULVERT PLAN AND LONGSECTION			
Project no.	147016		
Scale	AS SHOWN @ A3		
Cad file	147016-RV-C481 CULVERT DETAILS.DWG		
Drawing no.	C481-3	Rev	A

RESOURCE CONSENT



LEGEND

EX BDY
PR BDY
PR OLFP
EX STREAMS

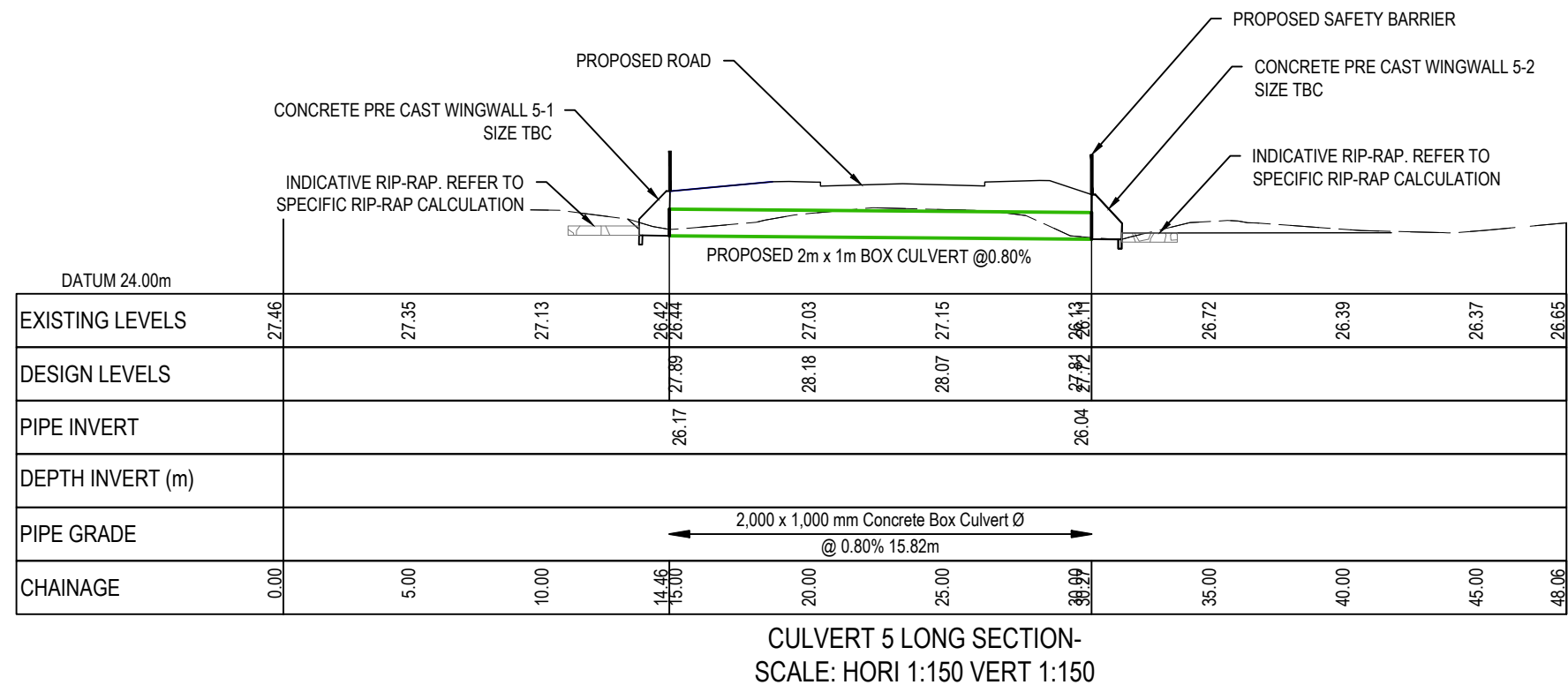
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Rev	Description	By	Date
	By	Date	
Survey			
Design	EZ	03/2025	
Drawn	EZ	03/2025	
Checked	RW/KH	03/2025	



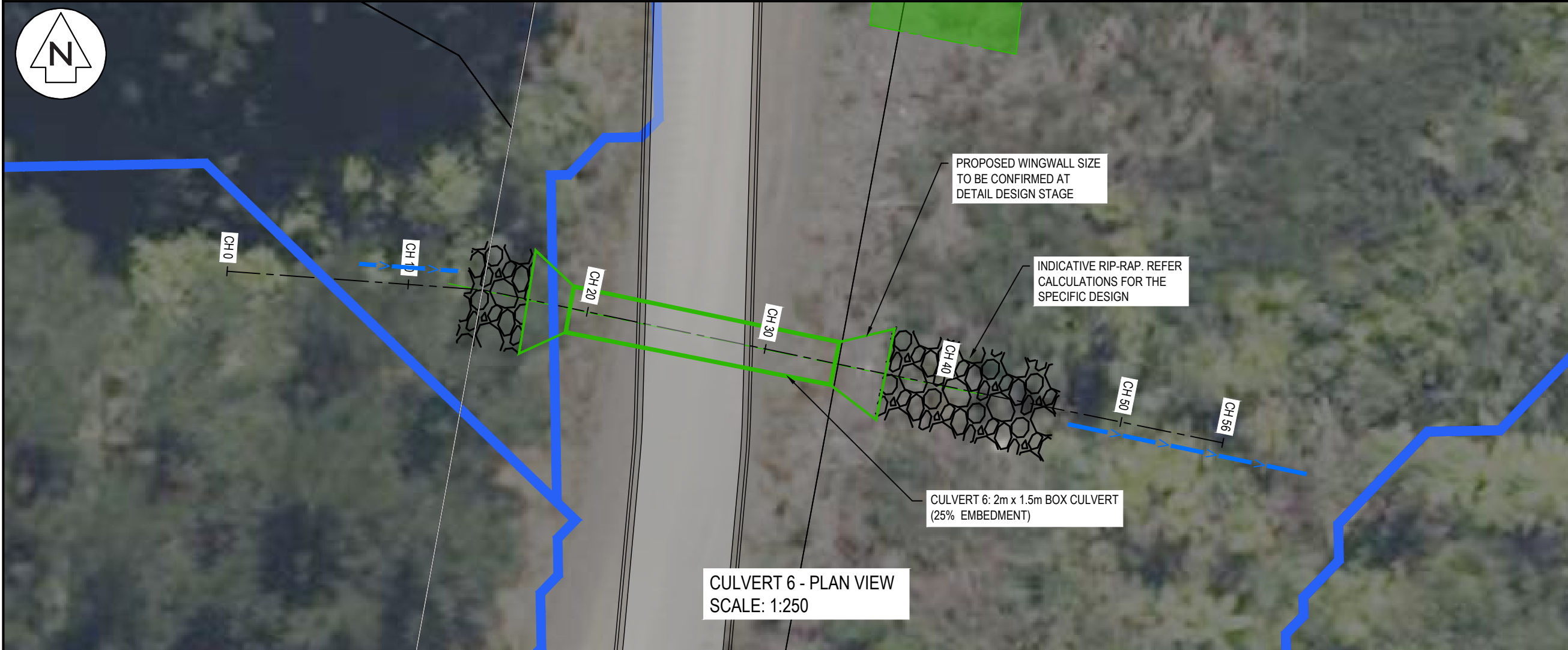
Project
**DEVELOPMENT OF
RIVERHEAD FOREST
FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

RETIREMENT VILLAGE PROPOSED CULVERT PLAN AND LONGSECTION

Project no.	147016		
Scale	AS SHOWN @ A3		
Plot file	147016-RV-C481 CULVERT DETAILS.DWG		
Drawing no.	C481-4	Rev	A

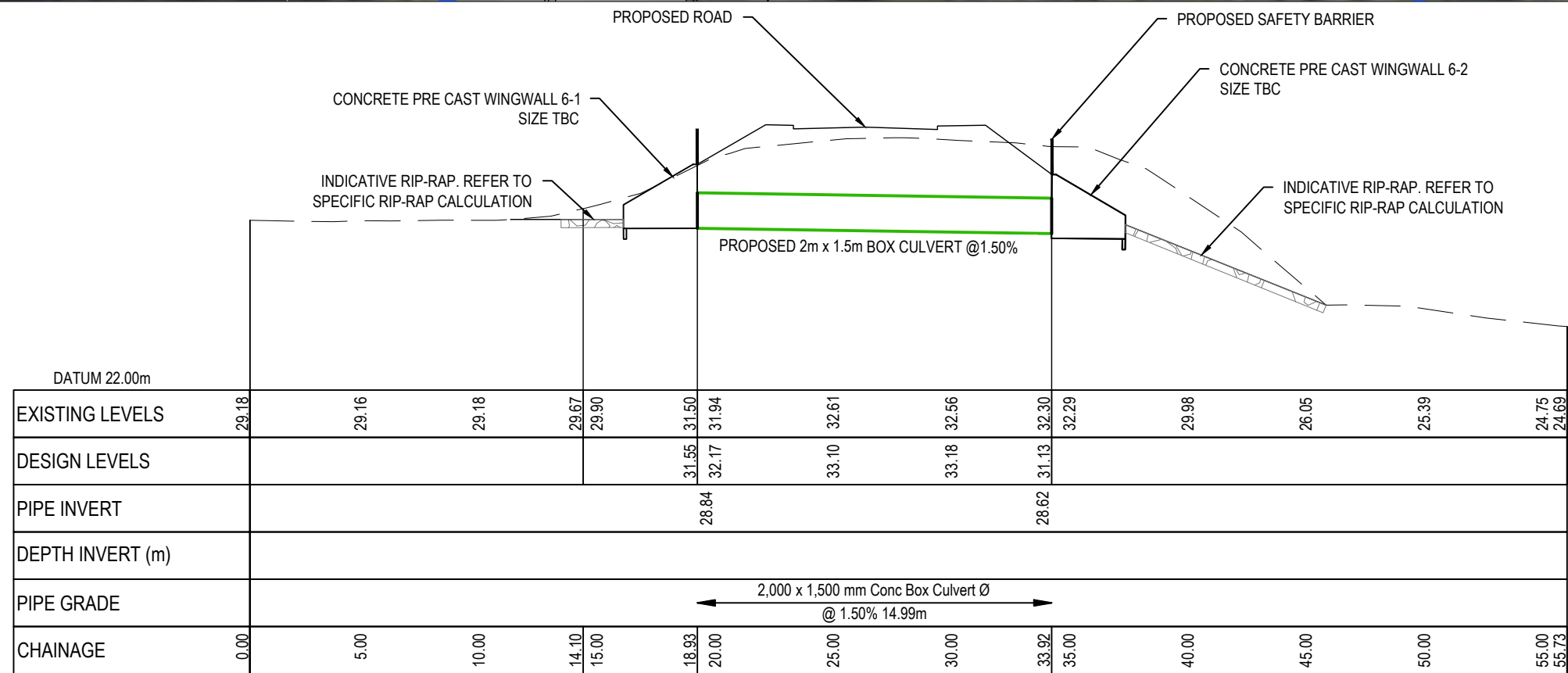


RESOURCE CONSENT



CULVERT 6 - PLAN VIEW
SCALE: 1:250

LEGEND	
	EX BDY
	PR BDY
	PR OLFP
	EX STREAMS



CULVERT 6 LONG SECTION-
SCALE: HORI 1:150 VERT 1:150

A	RESOURCE CONSENT	EZ	03/2025
Rev	Description	By	Date
Survey			
Design	EZ		03/2025
Drawn	EZ		03/2025
Checked	RW/KH		03/2025



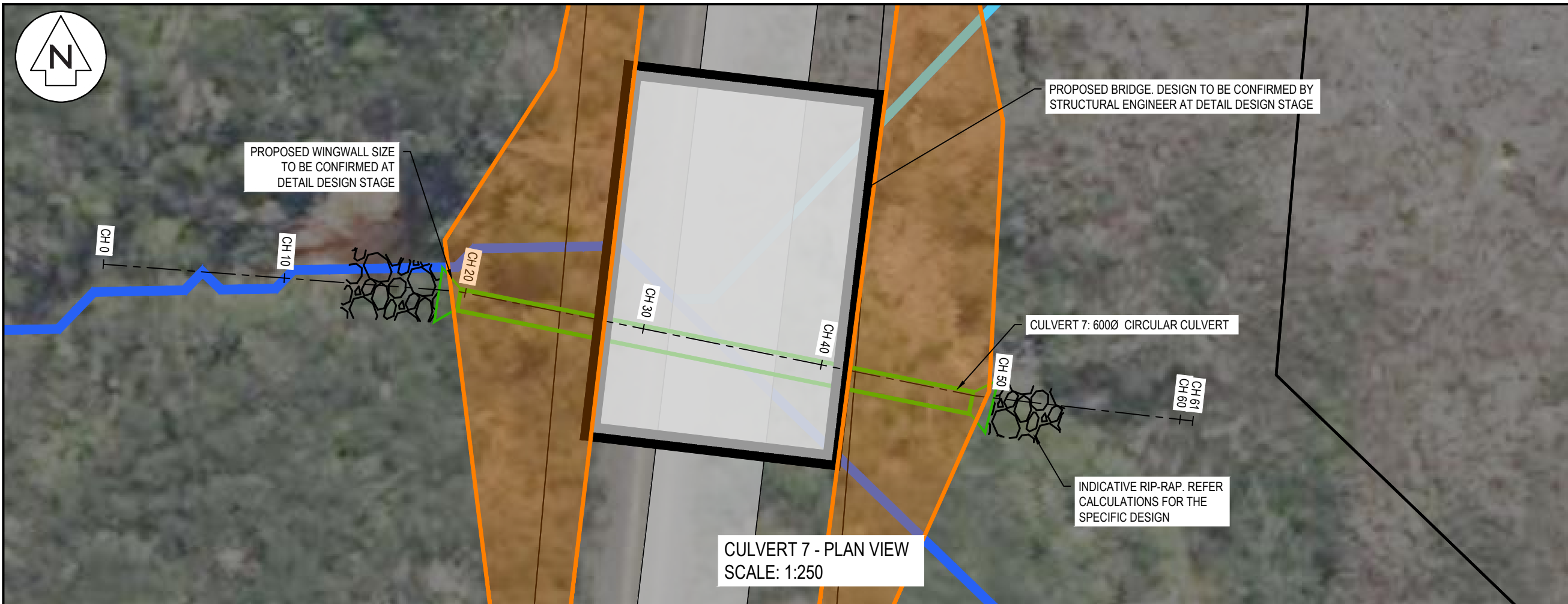
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**DEVELOPMENT OF
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PARTNERSHIP**

Title
**RETIREMENT VILLAGE
PROPOSED CULVERT
PLAN AND LONGSECTION**

Project no.	147016
Scale	AS SHOWN @ A3
Cad file	147016-RV-C481 CULVERT DETAILS.DWG
Drawing no.	C481-5
Rev	A

RESOURCE CONSENT



CULVERT 7 - PLAN VIEW
SCALE: 1:250

LEGEND	
	EX BDY
	PR BDY
	PR OLFP
	EX STREAMS

A	RESOURCE CONSENT	EZ	03/2025
Rev	Description	By	Date
Survey			
Design	EZ		03/2025
Drawn	EZ		03/2025
Checked	RW/KH		03/2025

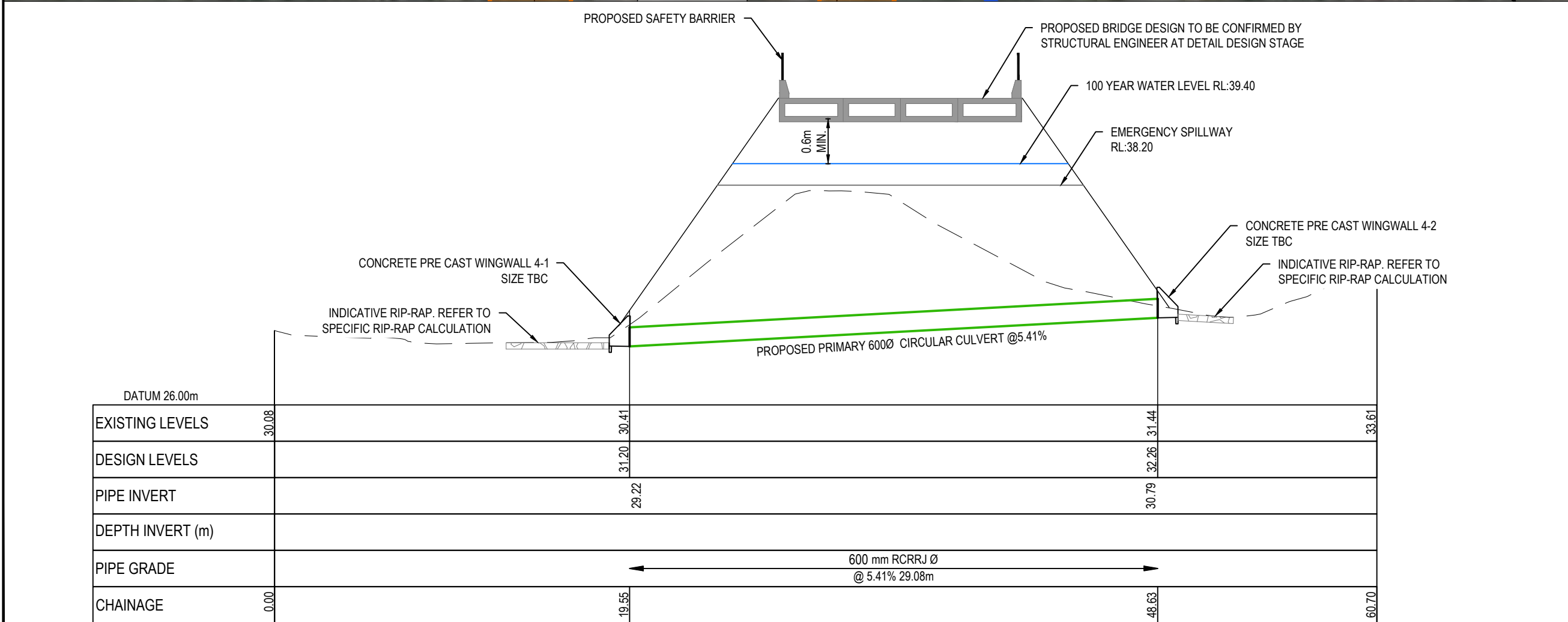


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Project
**DEVELOPMENT OF
RIVERHEAD FOREST
FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

Title
**RETIREMENT VILLAGE
PROPOSED CULVERT
PLAN AND LONGSECTION**

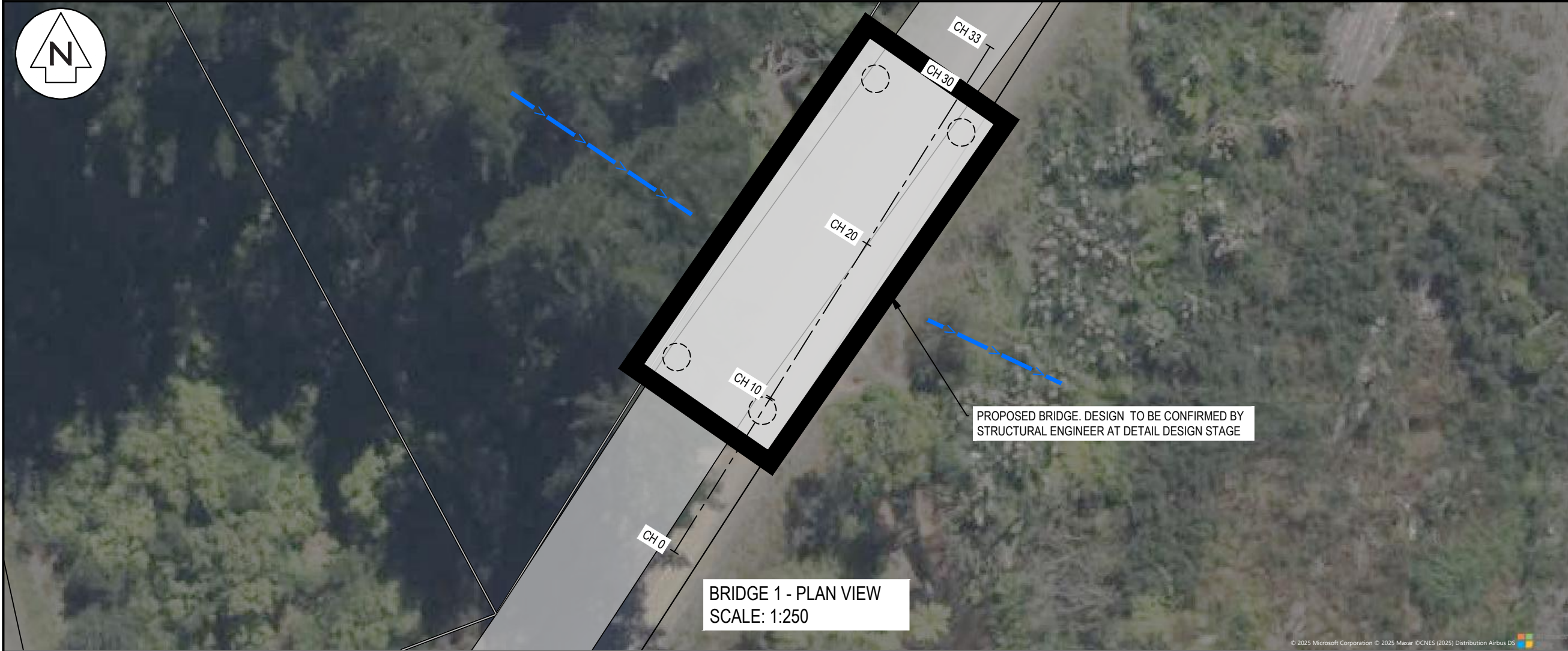
Project no.	147016
Scale	AS SHOWN @ A3
Cad file	147016-RV-C481 CULVERT DETAILS.DWG
Drawing no.	C481-6
Rev	A



CULVERT 7 LONG SECTION-
SCALE: HORI 1:150 VERT 1:150

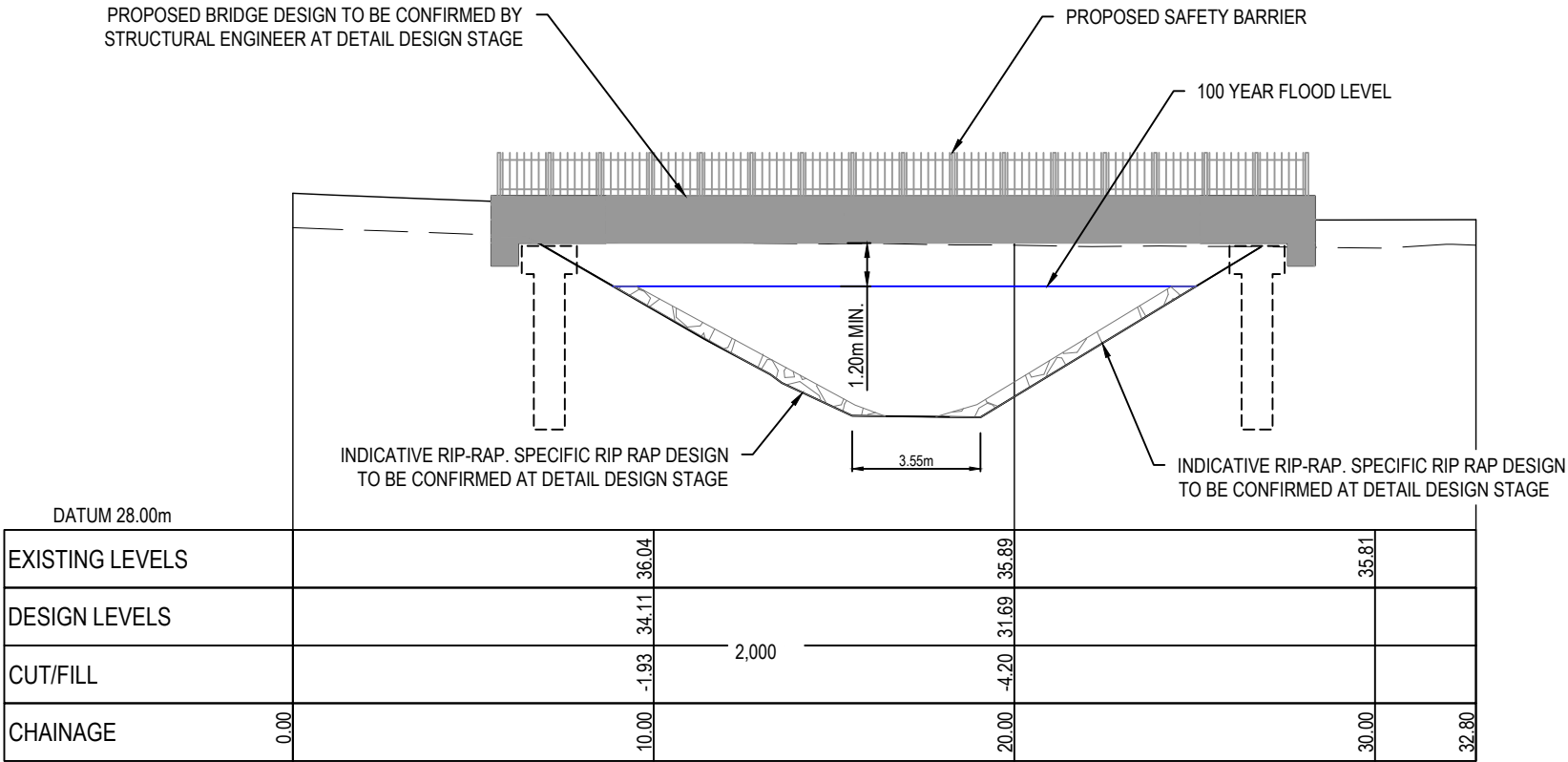
RESOURCE CONSENT

DATE: 5/9/25 FILE PATH: F:\Maven\PROJECTS\147016 - RIVERHEAD RETIREMENT VILLAGE\DWG\147016-RV-C481 CULVERT DETAILS.DWG



BRIDGE 1 - PLAN VIEW
SCALE: 1:250

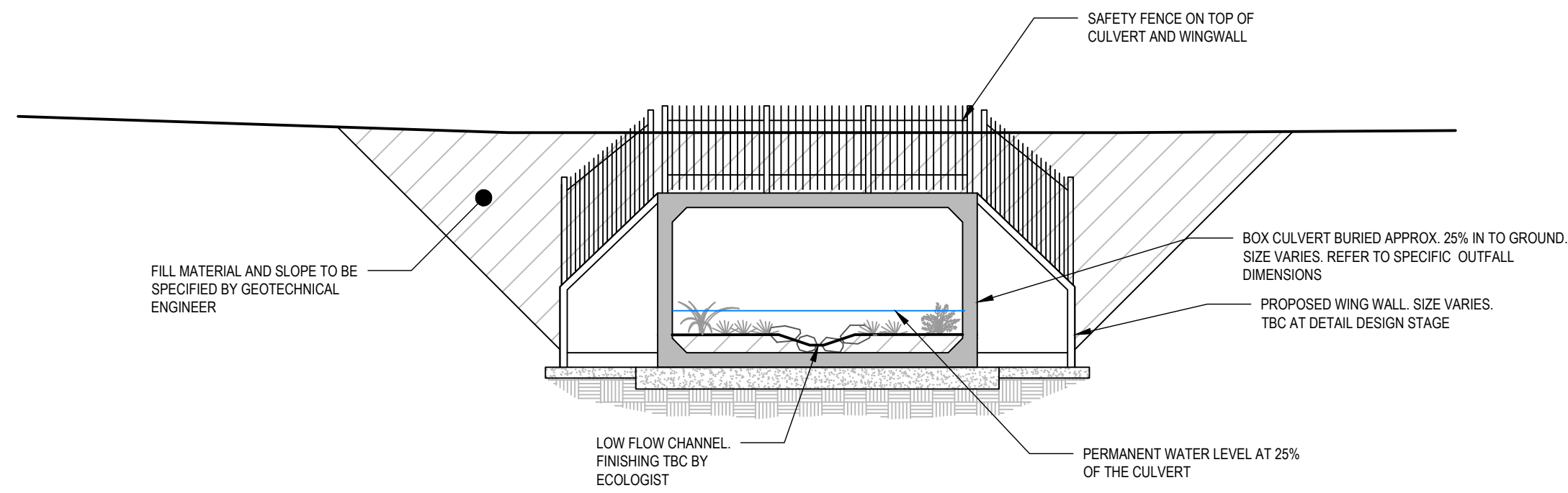
LEGEND	
	EX BDY
	PR BDY
	PR OLFP
	EX STREAMS



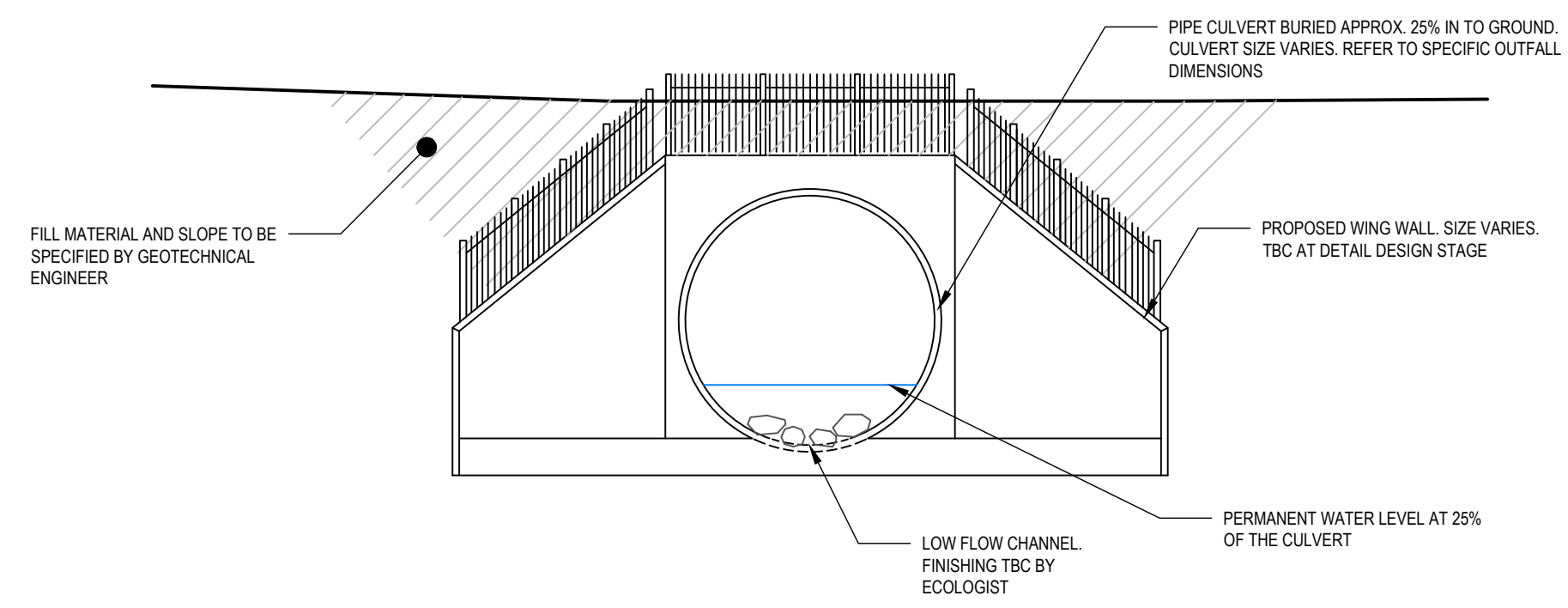
BRIDGE 1 LONG SECTION
SCALE: HORI 1:150 VERT 1:150

A			
RESOURCE CONSENT			
Rev	Description	By	Date
Survey			
Design	EZ		03/2025
Drawn	EZ		03/2025
Checked	RW/KH		03/2025
Maven Associates 09 571 0050 info@maven.co.nz www.maven.co.nz 5 Owens Road, Epsom Auckland 1023			
Project DEVELOPMENT OF RIVERHEAD FOREST FOR RANGITOOPUNI DEVELOPMENTS LIMITED PARTNERSHIP			
Title RETIREMENT VILLAGE PROPOSED BRIDGE PLAN AND LONGSECTION			
Project no.	147016		
Scale	AS SHOWN @ A3		
Cad file	147016-RV-C481 CULVERT DETAILS.DWG		
Drawing no.	C481-7	Rev	A

RESOURCE CONSENT



TYPICAL BOX CULVERT CROSS SECTION
SCALE: NTS



TYPICAL CIRCULAR CULVERT CROSS SECTION
SCALE: NTS

A	RESOURCE CONSENT	AC	03/2025
Rev	Description	By	Date
		By	Date
Survey			
Design	AC		03/2025
Drawn	AC		03/2025
Checked	RW/KH		03/2025

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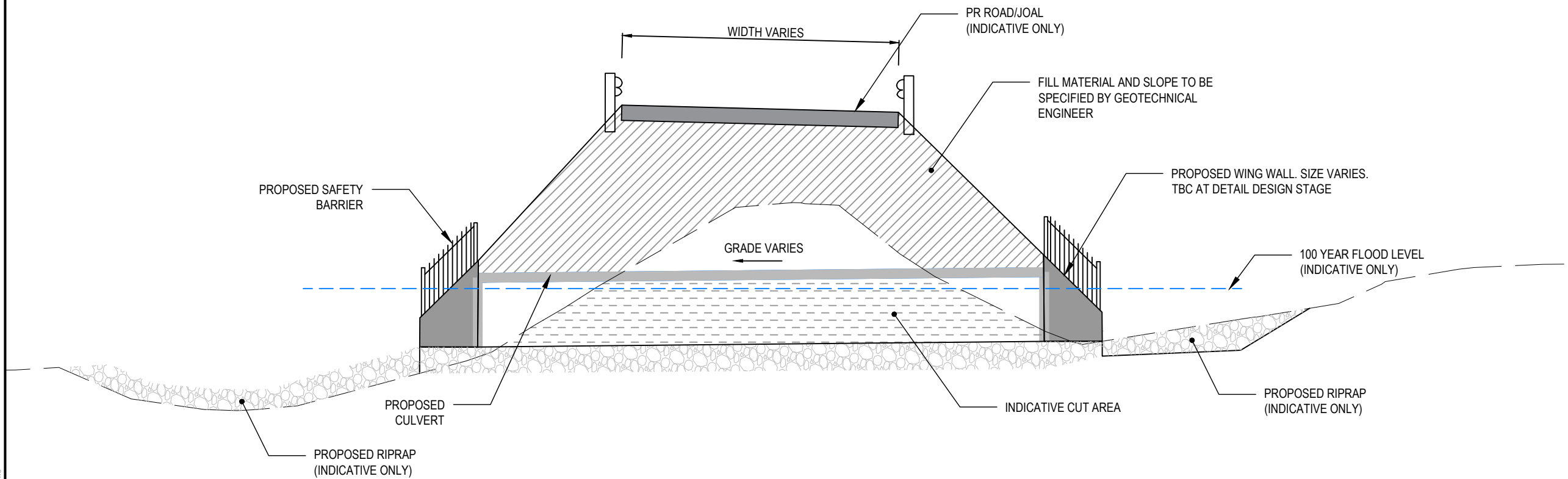
Project
**DEVELOPMENT OF
RIVERHEAD FOREST
FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

Title
**RETIREMENT VILLAGE
TYPICAL CULVERT
CROSS SECTIONS**

Project no.	147016		
Scale	N.T.S		
Cad file	147016-RV-C490 CULVERT SECTIONS.DWG		
Drawing no.	C490	Rev	A

RESOURCE CONSENT

DATE: 5/9/25 FILEPATH: F:\Maven\PROJECTS\147016 - RIVERHEAD RETIREMENT VILLAGE\DWG\147016-RV-C490_CULVERT SECTIONS.DWG



TYPICAL CULVERT LONG SECTION
SCALE: NTS

LEGEND
- - - - - EX GROUND
————— PR GROUND

A	RESOURCE CONSENT	AC	03/2025
Rev	Description	By	Date
		By	Date
Survey			
Design	AYC		03/2025
Drawn	AYC		03/2025
Checked	RW/KH		03/2025

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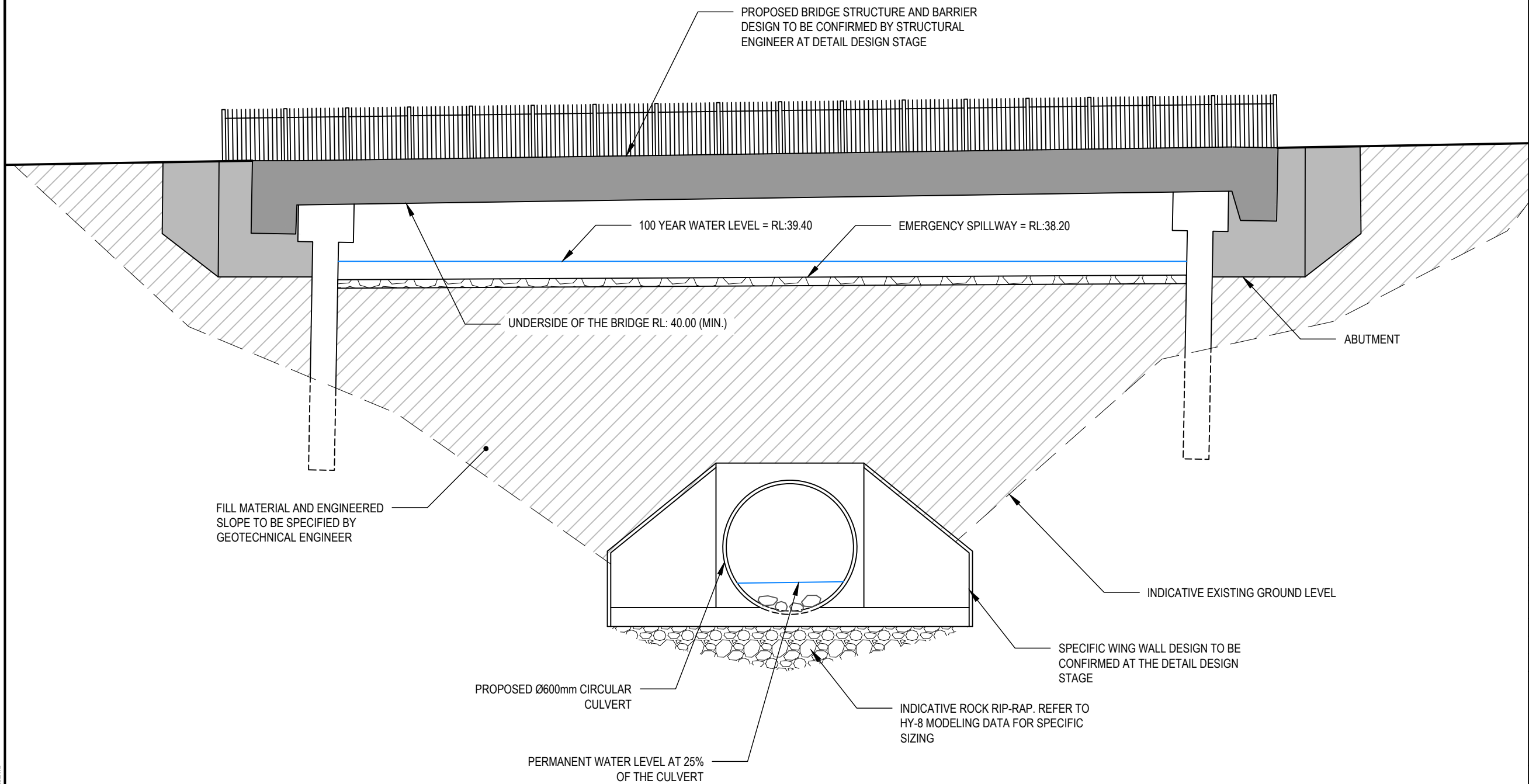
Project
**DEVELOPMENT OF
RIVERHEAD FOREST
FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

Title
**RETIREMENT VILLAGE
TYPICAL CULVERT
LONGSECTION**

Project no.	147016
Scale	N.T.S
Cad file	147016-RV-C490_CULVERT SECTIONS.DWG
Drawing no.	C491
Rev	A

RESOURCE CONSENT

SPECIFIC CULVERT RIP-RAP DETAILS
REFER TO HY-8 MODELING DATA



CULVERT 7 - CROSS SECTION
SCALE: NTS

A	RESOURCE CONSENT	AC	03/2025
Rev	Description	By	Date
		By	Date
Survey			
Design	AYC		03/2025
Drawn	AYC		03/2025
Checked	RW/KH		03/2025

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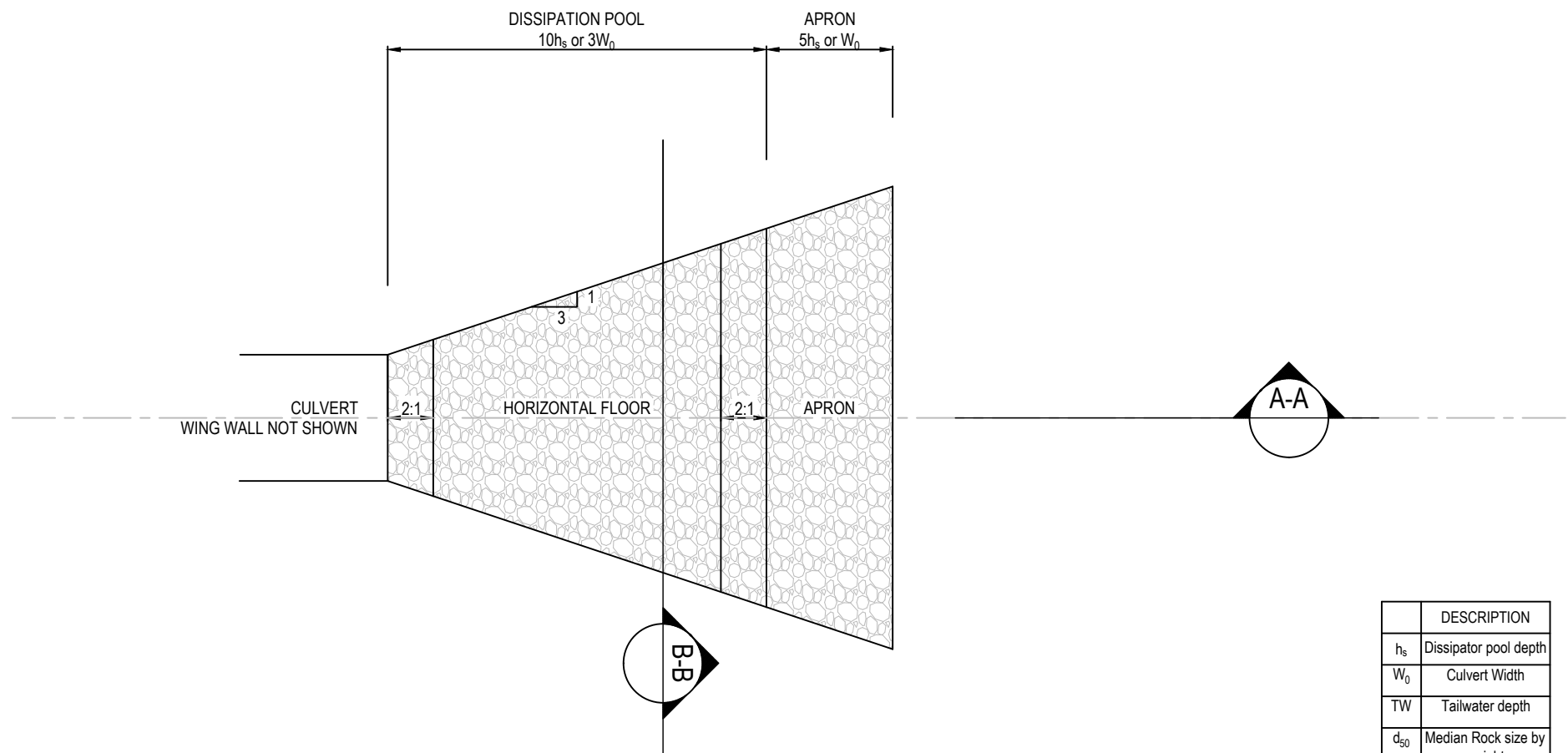
Project
**DEVELOPMENT OF
RIVERHEAD FOREST
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DEVELOPMENTS LIMITED
PARTNERSHIP**

Title
**RETIREMENT VILLAGE
CULVERT 7
DETAILS**

Project no.	147016
Scale	N.T.S
Cad file	147016-RV-C490 CULVERT SECTIONS.DWG
Drawing no.	C492
Rev	A

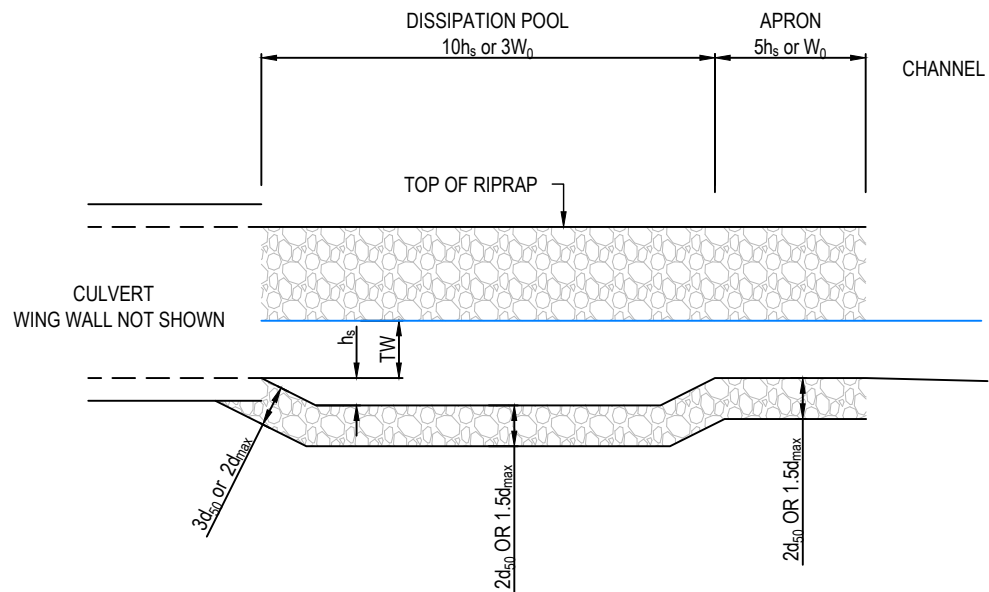
RESOURCE CONSENT

SPECIFIC CULVERT RIP-RAP DETAILS
REFER TO HY-8 MODELING DATA

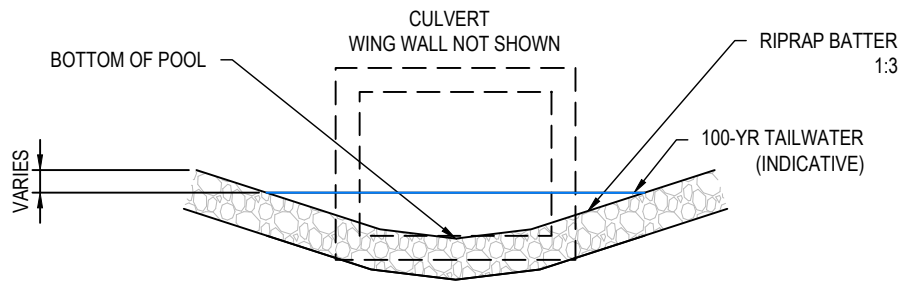


TYPICAL RIP-RAP PLAN VIEW
NTS

	DESCRIPTION
h_s	Dissipator pool depth
W_0	Culvert Width
TW	Tailwater depth
d_{50}	Median Rock size by weight
d_{max}	Max rock size by weight



TYPICAL RIP-RAP LONG SECTION A-A
NTS



TYPICAL RIP-RAP CROSS SECTION B-B
NTS

A	RESOURCE CONSENT	AC	03/2025
Rev	Description	By	Date
Survey			
Design	AYC		03/2025
Drawn	AYC		03/2025
Checked	RW/KH		03/2025

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Title
**RETIREMENT VILLAGE
TYPICAL RIP-RAP
DETAILS**

Project no.	147016
Scale	N.T.S
Cad file	147016-RV-C490 CULVERT SECTIONS.DWG
Drawing no.	C493
Rev	A

RESOURCE CONSENT