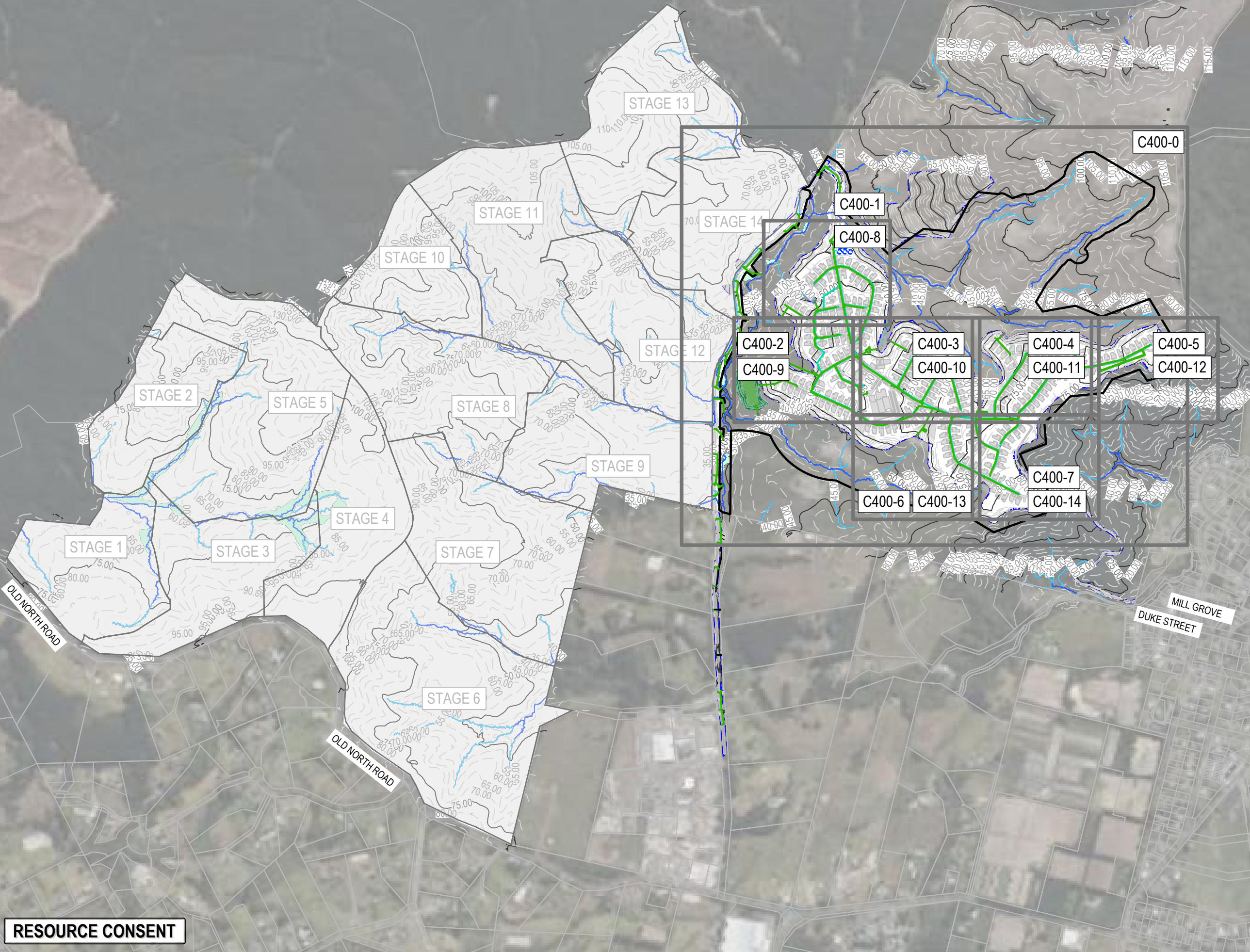




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 6. HEAVY DUTY MANHOLE LIDS AND FRAMES TO BE USED IN TRAFFICKED AREAS.
 7. ALL MANHOLES ARE TO BE 1050mmØ PRECAST CONCRETE UNLESS SHOWN OTHERWISE.
 8. ALL CATCHPIT LEADS ARE 225mm DIAMETER AND SHALL HAVE MIN COVER 1.0m
 9. ALL LINES TO BE ABANDONED 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.
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- LEGEND
- EX BDY
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 - EX STORMWATER
 - PR STORMWATER ROAD
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 - EX/PR SWMH (ROAD/ROOF)
 - PR DOUBLE/ SINGLE SWCP
 - PR SW RAINGARDEN
 - RIPARIAN YARD 20m SETBACK
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 - WETLAND AREA 10m SETBACK
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A	RESOURCE CONSENT	AYC	03/2025
Rev	Description	By	Date
		By	Date
Survey	LIDAR		03/2022
Design	AO/AYC		03/2025
Drawn	AYC		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
OVERVIEW PLAN**

Project no.	147016		
Scale	1:10,000 @ A3		
Cad file	147016-RV-C400 STORMWATER.DWG		
Drawing no.	C400	Rev	A

RESOURCE CONSENT



PROPOSED WATER QUALITY TREATMENT FOR ROADS

Outfall/ RG	Catchment	Proposed Raingarden Footprint area m²	Treatment Type	Number of Cartridges Required	StormFilter Drawing	
					Online	Peak Diversion
1-0	1+50	113.0	Storm Filter	12	Storm Filter Vault	2800W X 3650L X 2150 D
2-0	2	34.0	Storm Filter	4	SF-MH-69-1500-T-20	SF-MH-PD-69-1800-T-20
3-0	3	11.0			no treatment proposed, less than 10 lots.	
4-0	7	7.0			no treatment proposed, less than 10 lots.	
5-0	6	100.0			Communal RG	
6-0	5	89.0			JELLYFISH 3 JF-MH-54-1200-T-OFF-20	
7-0	4	13.0			no treatment proposed, less than 10 lots.	
8-0	8	54.0			Communal RG	
9-0	9	140.0			Communal RG	
10-0	10+51	17.0			no treatment proposed, serving less than 10 carparks, if required stormfilter	

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FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

Title
**RETIREMENT VILLAGE
PROPOSED
STORMWATER PLAN**

Project no.	147016
Scale	1:4000 @ A3
Cad file	147016-RV-C400 STORMWATER.DWG
Drawing no.	C400-0
Rev	A

STAGE 14

FORESTRY ROAD EXTENSION

PR SW POND

RESOURCE CONSENT



FORESTRY ROAD EXTENSION

PROPOSED SW FILTER VAULT
DIMENSION: 3.61m L*2.8m W*2.15m D

WINGWALL AND RIPRAP DETAILS REFER TO DWG-C802-7
TYPICAL ROOF OVERFLOW DETAILS REFER TO DWG-C802-8
RAINGARDEN DETAILS REFER TO DWG-C802-9

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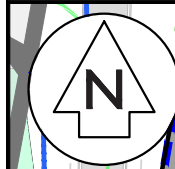
Project
**DEVELOPMENT OF
RIVERHEAD FOREST
FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

Title
**RETIREMENT VILLAGE
PROPOSED ROAD
STORMWATER PLAN**

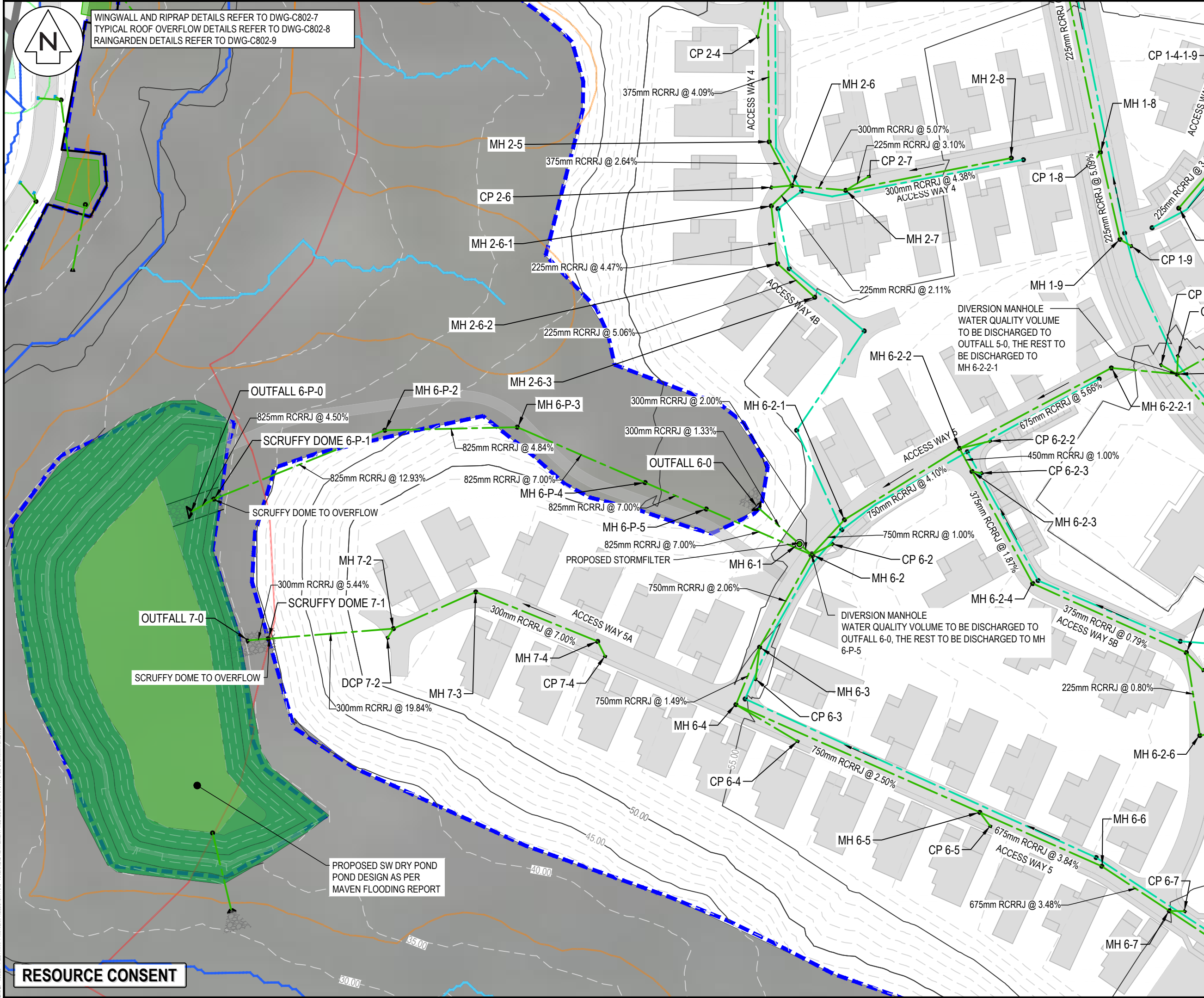
Project no.	147016
Scale	1:1000 @ A3
Cad file	147016-RV-C400 STORMWATER.DWG
Drawing no.	C400-1
Rev	A

RESOURCE CONSENT

DATE: 10/03/25 FILE PATH: F:\Maven\PROJECTS\147016 - RIVERHEAD RETIREMENT VILLAGE\DWG\147016-RV-C400 STORMWATER.DWG



WINGWALL AND RIPRAP DETAILS REFER TO DWG-C802-7
TYPICAL ROOF OVERFLOW DETAILS REFER TO DWG-C802-8
RAINGARDEN DETAILS REFER TO DWG-C802-9



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A		RESOURCE CONSENT	AYC	03/2025
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Survey	LIDAR		03/2022	
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Drawn	AYC		03/2025	
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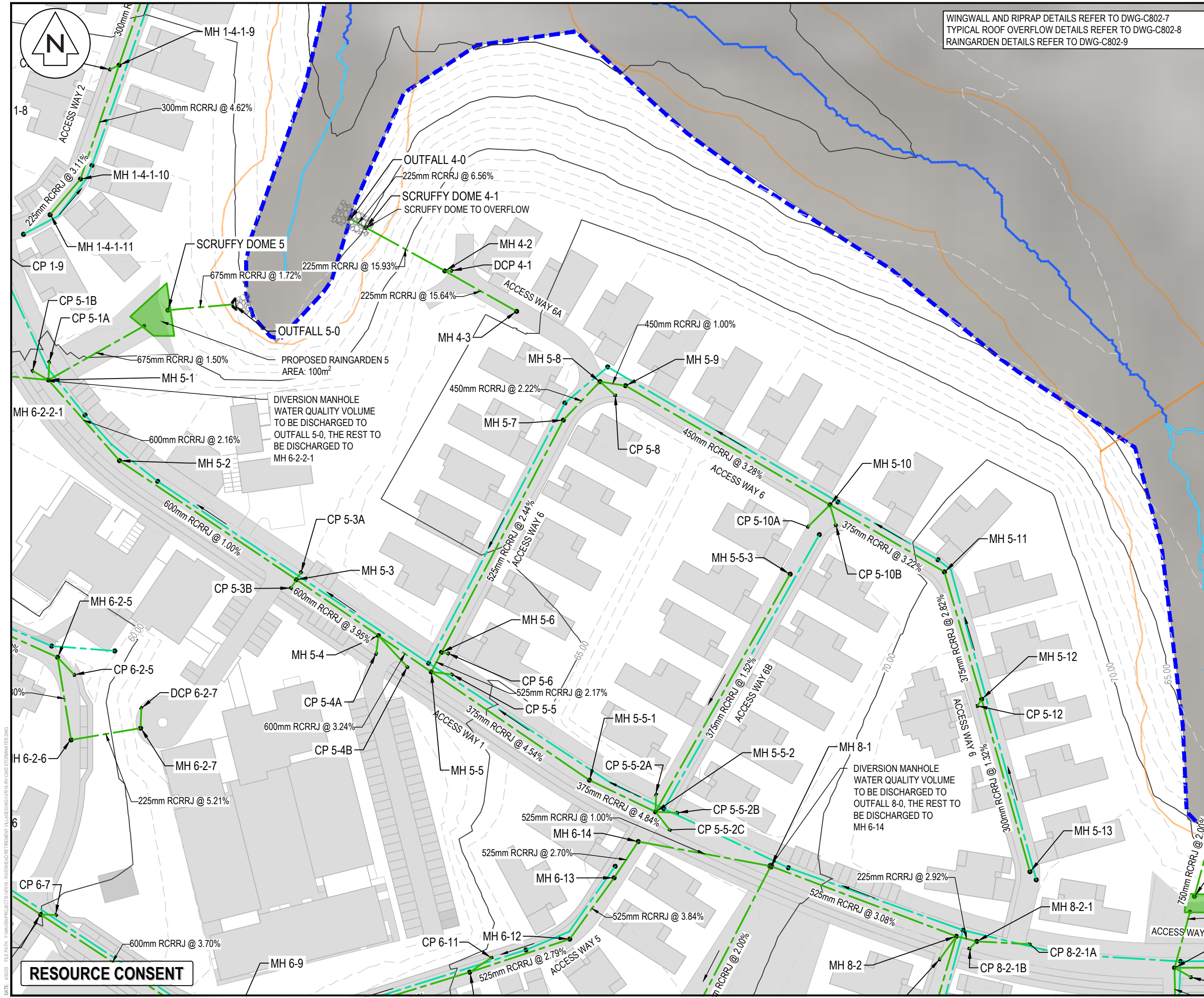
Project
DEVELOPMENT OF RIVERHEAD FOREST FOR RANGITOOPUNI DEVELOPMENTS LIMITED PARTNERSHIP

Title
RETIREMENT VILLAGE PROPOSED ROAD STORMWATER PLAN

Project no.	147016
Scale	1:1000 @ A3
Cad file	147016-RV-C400 STORMWATER.DWG
Drawing no.	C400-2
Rev	A

RESOURCE CONSENT

DATE: 10/03/25 FILE PATH: F:\MVEN\PROJECTS\147016 - RIVERHEAD RETIREMENT VILLAGE\DWG\147016-RV-C400 STORMWATER.DWG



WINGWALL AND RIPRAP DETAILS REFER TO DWG-C802-7
TYPICAL ROOF OVERFLOW DETAILS REFER TO DWG-C802-8
RAINGARDEN DETAILS REFER TO DWG-C802-9

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

Title
**RETIREMENT VILLAGE
PROPOSED ROAD
STORMWATER PLAN**

Project no.	147016
Scale	1:1000 @ A3
Cad file	147016-RV-C400 STORMWATER.DWG
Drawing no.	C400-3
Rev	A



WINGWALL AND RIPRAP DETAILS REFER TO DWG-C802-7
TYPICAL ROOF OVERFLOW DETAILS REFER TO DWG-C802-8
RAINGARDEN DETAILS REFER TO DWG-C802-9

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Rev	Description	By	Date
Survey	LIDAR		03/2022
Design	AO/AYC		03/2025
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Project
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PROPOSED ROAD
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Project no.	147016
Scale	1:1000 @ A3
Cad file	147016-RV-C400 STORMWATER.DWG
Drawing no.	C400-4
Rev	A

RESOURCE CONSENT

DATE: 4/03/25 FILE PATH: F:\Maven\PROJECTS\147016 - RIVERHEAD RETIREMENT VILLAGE\DWG\147016-RV-C400 STORMWATER.DWG



WINGWALL AND RIPRAP DETAILS REFER TO DWG-C802-7
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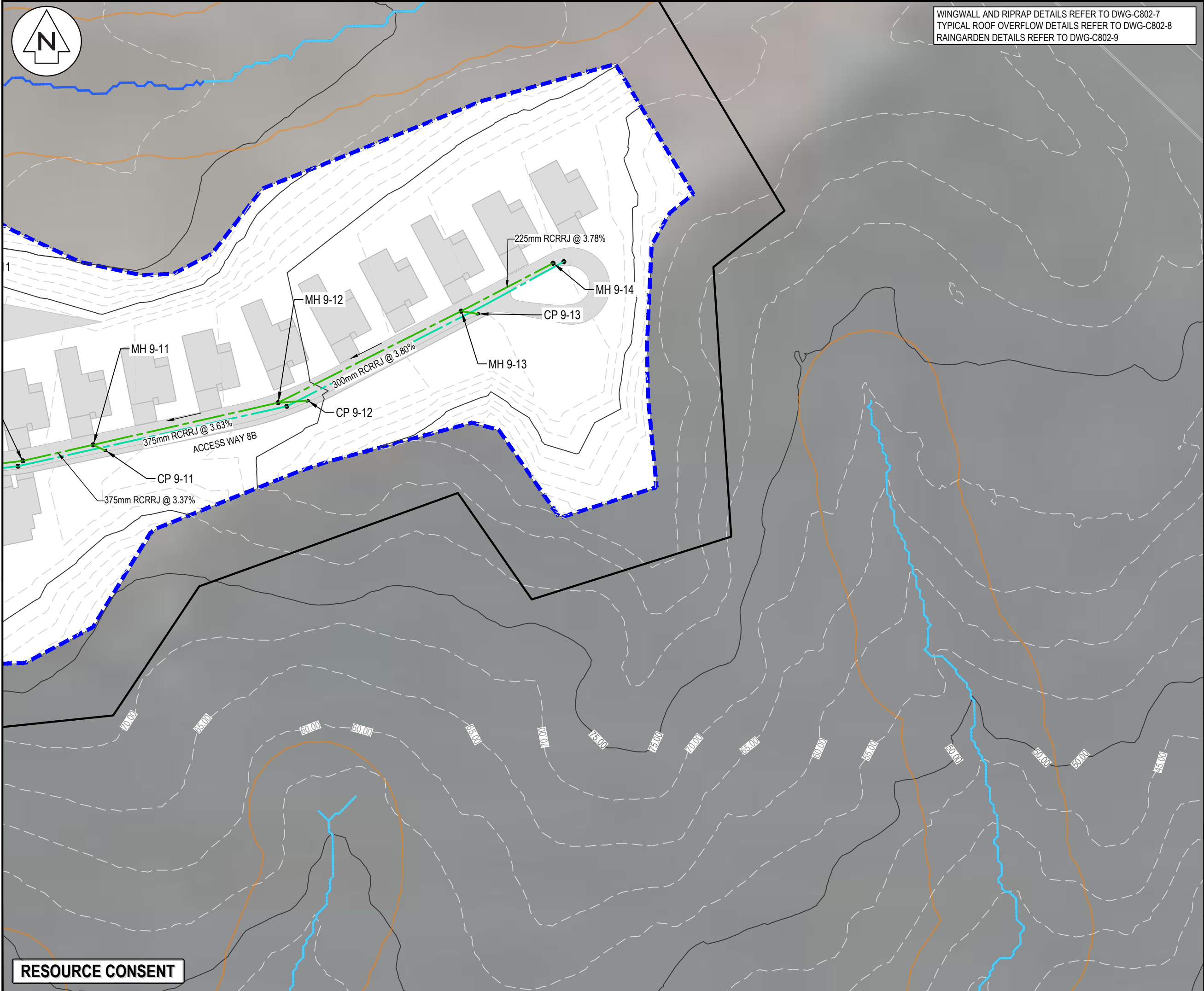
A	RESOURCE CONSENT	AYC	03/2025
Rev	Description	By	Date
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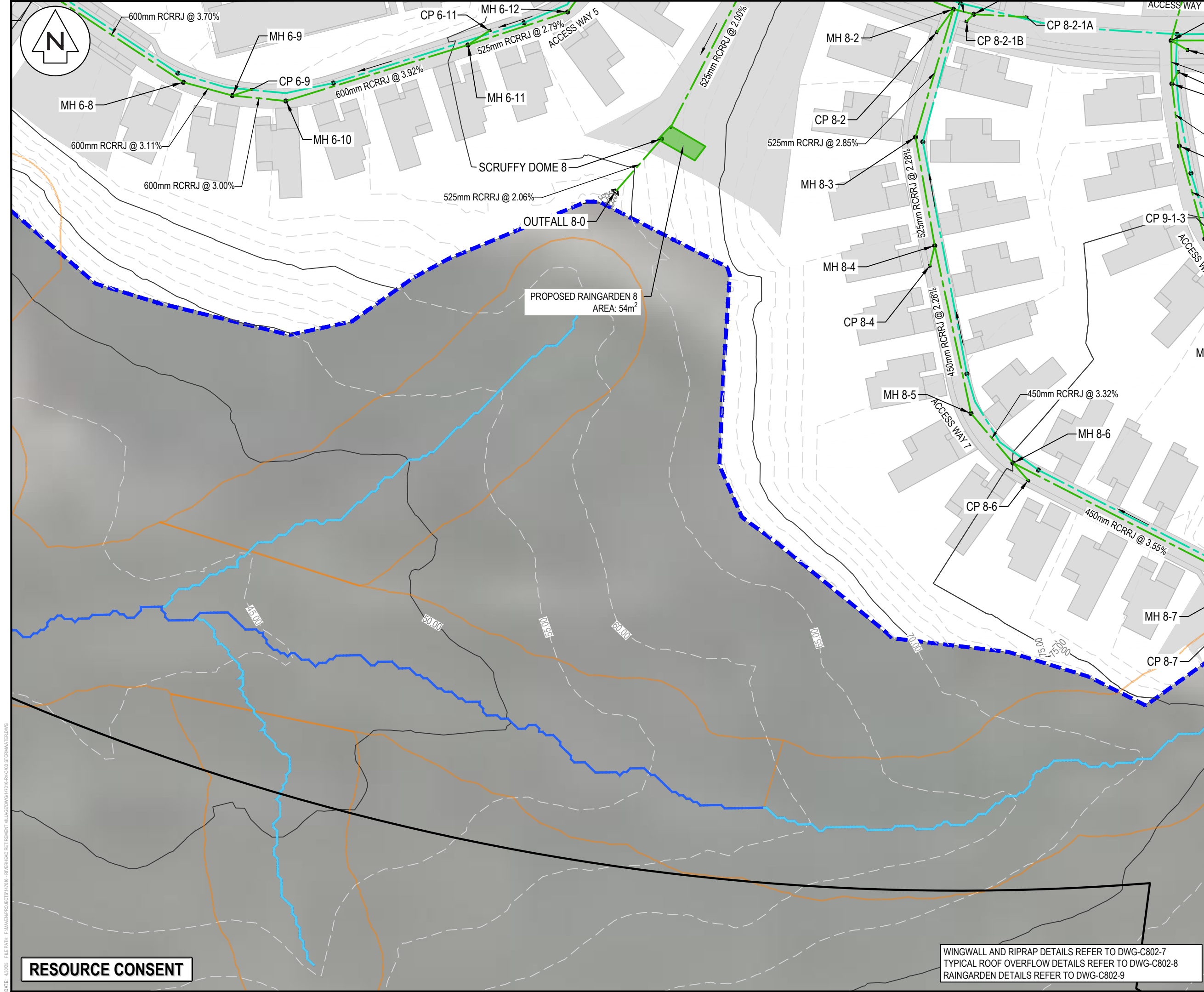


Project
**DEVELOPMENT OF
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FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

Title
**RETIREMENT VILLAGE
PROPOSED ROAD
STORMWATER PLAN**

Project no.	147016
Scale	1:1000 @ A3
Cad file	147016-RV-C400 STORMWATER.DWG
Drawing no.	C400-5
Rev	A





NOTES

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Project

DEVELOPMENT OF RIVERHEAD FOREST FOR RANGITOOPUNI DEVELOPMENTS LIMITED PARTNERSHIP

Title

RETIREMENT VILLAGE PROPOSED ROAD STORMWATER PLAN

Project no.	147016		
Scale	1:1000 @ A3		
Cad file	147016-RV-C400 STORMWATER.DWG		
Drawing no.	C400-6	Rev	A

DATE: 10/03/25 FILE PATH: F:\Maven\PROJECTS\147016 - RIVERHEAD RETIREMENT VILLAGE\DWG\147016-RV-C400 STORMWATER.DWG

RESOURCE CONSENT

WINGWALL AND RIPRAP DETAILS REFER TO DWG-C802-7
TYPICAL ROOF OVERFLOW DETAILS REFER TO DWG-C802-8
RAINGARDEN DETAILS REFER TO DWG-C802-9



FORESTRY ROAD EXTENSION

WINGWALL AND RIPRAP DETAILS REFER TO DWG-C802-7
TYPICAL ROOF OVERFLOW DETAILS REFER TO DWG-C802-8
RAINGARDEN DETAILS REFER TO DWG-C802-9

ROOF RUNOFF WATER DISCHARGE POINT
INTO RAW WATER STORAGE TANK TO
WATER SUPPLY SYSTEM DESIGNED BY GWE
CONSULTING ENGINEERS

OUTFALL 1-0

ACCESS WAY

375mm uPVC SN16 @ 19.04%

MH R1-1

MH R1-2

MH R1-3

375mm uPVC SN16 @ 6.78%

MH R2-1

MH R3-1

375mm uPVC SN16 @ 2.86%

MH R1-4

375mm uPVC SN16 @ 3.22%

MH R2-2

MH R3-2

ACCESS WAY 3

MH R1-5

300mm uPVC SN16 @ 1.00%

MH R4-1

MH R4-2

225mm uPVC SN16 @ 0.98%

MH R4-3

MH R4-2-1

ACCESS WAY 4

MH R1-6

MH R5-1

MH R2-3

ACCESS WAY 2A

ACCESS WAY 2

MH R2-4

ACCESS WAY 4A

CP 1-4-1-9

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

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

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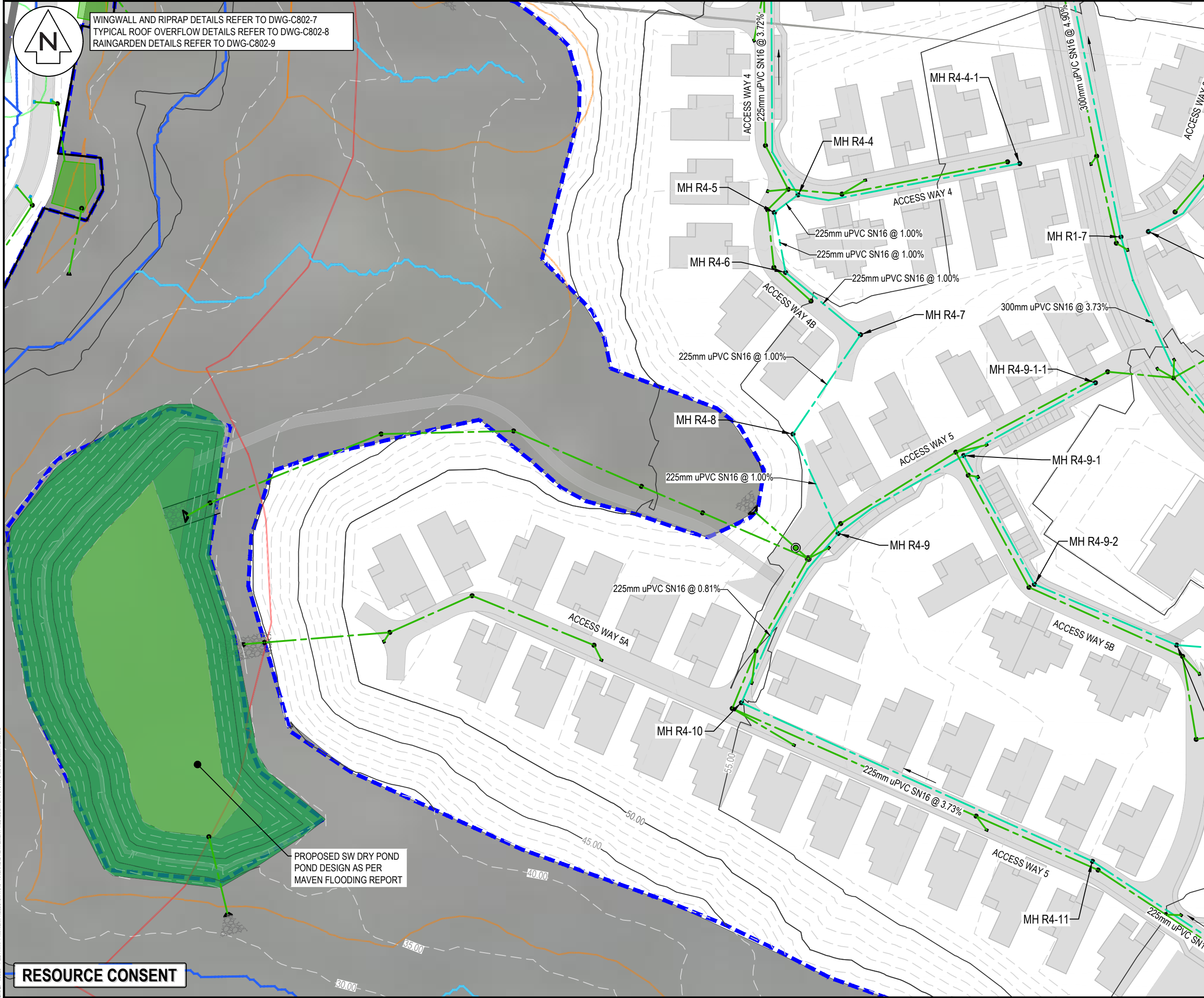
Project
**DEVELOPMENT OF
RIVERHEAD FOREST
FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

Title
**RETIREMENT VILLAGE
PROPOSED ROOF
STORMWATER PLAN**

Project no.	147016
Scale	1:1000 @ A3
Cad file	147016-RV-C400 STORMWATER.DWG
Drawing no.	C400-8
Rev	A

RESOURCE CONSENT

DATE: 10/03/25 FILE PATH: F:\Maven\PROJECTS\147016 - RIVERHEAD RETIREMENT VILLAGE\DWG\147016-RV-C400 STORMWATER.DWG



WINGWALL AND RIPRAP DETAILS REFER TO DWG-C802-7
TYPICAL ROOF OVERFLOW DETAILS REFER TO DWG-C802-8
RAINGARDEN DETAILS REFER TO DWG-C802-9

PROPOSED SW DRY POND
POND DESIGN AS PER
MAVEN FLOODING REPORT

RESOURCE CONSENT

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PR BDY

EX STORMWATER

PR STORMWATER ROAD

PR STORMWATER ROOF

PR EXTENT WORK

EX/PR SWMH (ROAD/ROOF)

PR DOUBLE/ SINGLE SWCP

PR SW RAINGARDEN

RIPIARIAN YARD 20m SETBACK

WETLAND AREA 100m SETBACK

WETLAND AREA 10m SETBACK

EX STREAMS

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

M

MAVEN

Maven Associates

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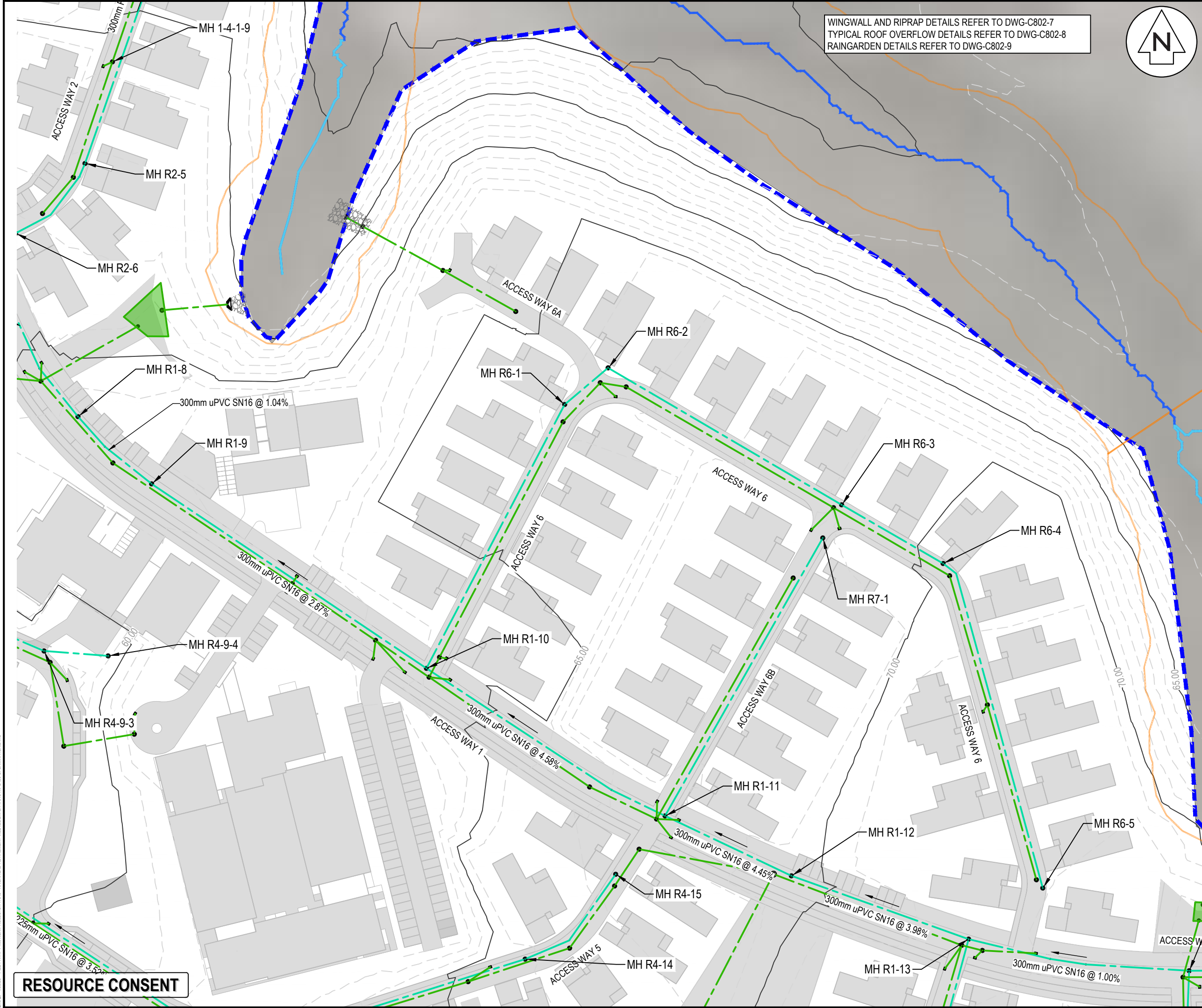
5 Owens Road, Epsom

Auckland 1023

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

Title
**RETIREMENT VILLAGE
PROPOSED ROOF
STORMWATER PLAN**

Project no.	147016
Scale	1:1000 @ A3
Cad file	147016-RV-C400 STORMWATER.DWG
Drawing no.	C400-9
Rev	A



WINGWALL AND RIPRAP DETAILS REFER TO DWG-C802-7
TYPICAL ROOF OVERFLOW DETAILS REFER TO DWG-C802-8
RAINGARDEN DETAILS REFER TO DWG-C802-9



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



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

Title
**RETIREMENT VILLAGE
PROPOSED ROOF
STORMWATER PLAN**

Project no.	147016
Scale	1:1000 @ A3
Cad file	147016-RV-C400 STORMWATER.DWG
Drawing no.	C400-10
Rev	A

RESOURCE CONSENT



WINGWALL AND RIPRAP DETAILS REFER TO DWG-C802-7
TYPICAL ROOF OVERFLOW DETAILS REFER TO DWG-C802-8
RAINGARDEN DETAILS REFER TO DWG-C802-9

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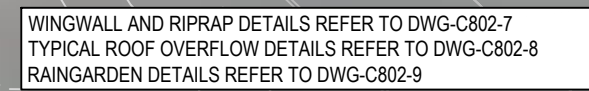
Project
**DEVELOPMENT OF
RIVERHEAD FOREST
FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

Title
**RETIREMENT VILLAGE
PROPOSED ROOF
STORMWATER PLAN**

Project no.	147016
Scale	1:1000 @ A3
Cad file	147016-RV-C400 STORMWATER.DWG
Drawing no.	C400-11
Rev	A

RESOURCE CONSENT

DATE: 10/03/25 FILE PATH: F:\MVEN\PROJECTS\147016 - RIVERHEAD RETIREMENT VILLAGE\DWG\147016-RV-C400 STORMWATER.DWG



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 EX STREAMS

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



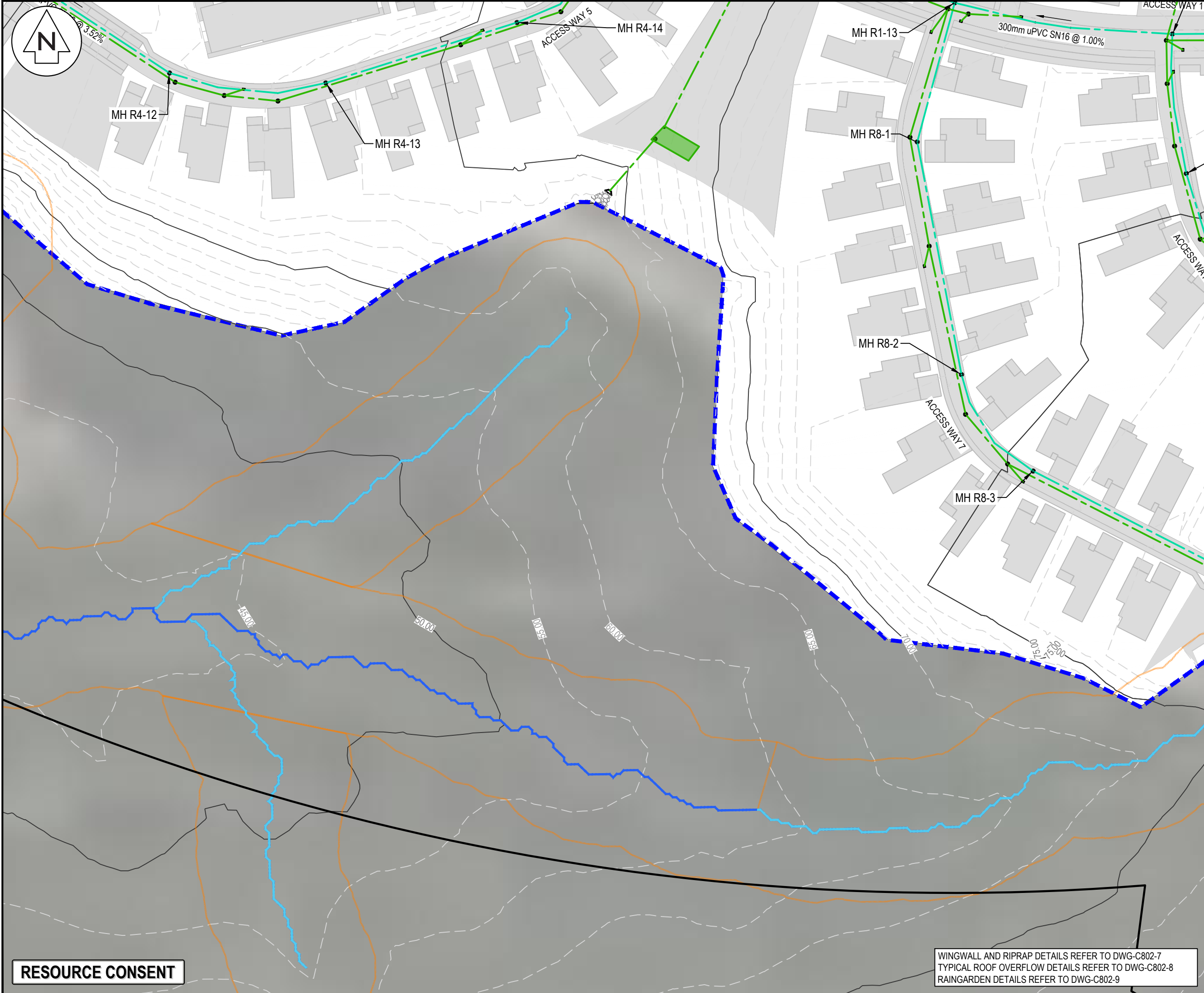
Project
**DEVELOPMENT OF
RIVERHEAD FOREST
FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

Title
**RETIREMENT VILLAGE
PROPOSED ROOF
STORMWATER PLAN**

Project no.	147016		
Scale	1:1000 @ A3		
Cad file	147016-RV-C400 STORMWATER.DWG		
Drawing no.	C400-12	Rev	A

DATE: 4/30/25 FILE PATH: F:\WAVEN\PROJECTS\147016 - RIVERHEAD RETIREMENT VILLAGE\DWG\147016-RV-C400 STORMWATER.DWG

RESOURCE CONSENT



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Rev	Description	By	Date
A	RESOURCE CONSENT	AYC	03/2025
Survey	LIDAR		03/2022
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Project

DEVELOPMENT OF RIVERHEAD FOREST FOR RANGITOOPUNI DEVELOPMENTS LIMITED PARTNERSHIP

Title

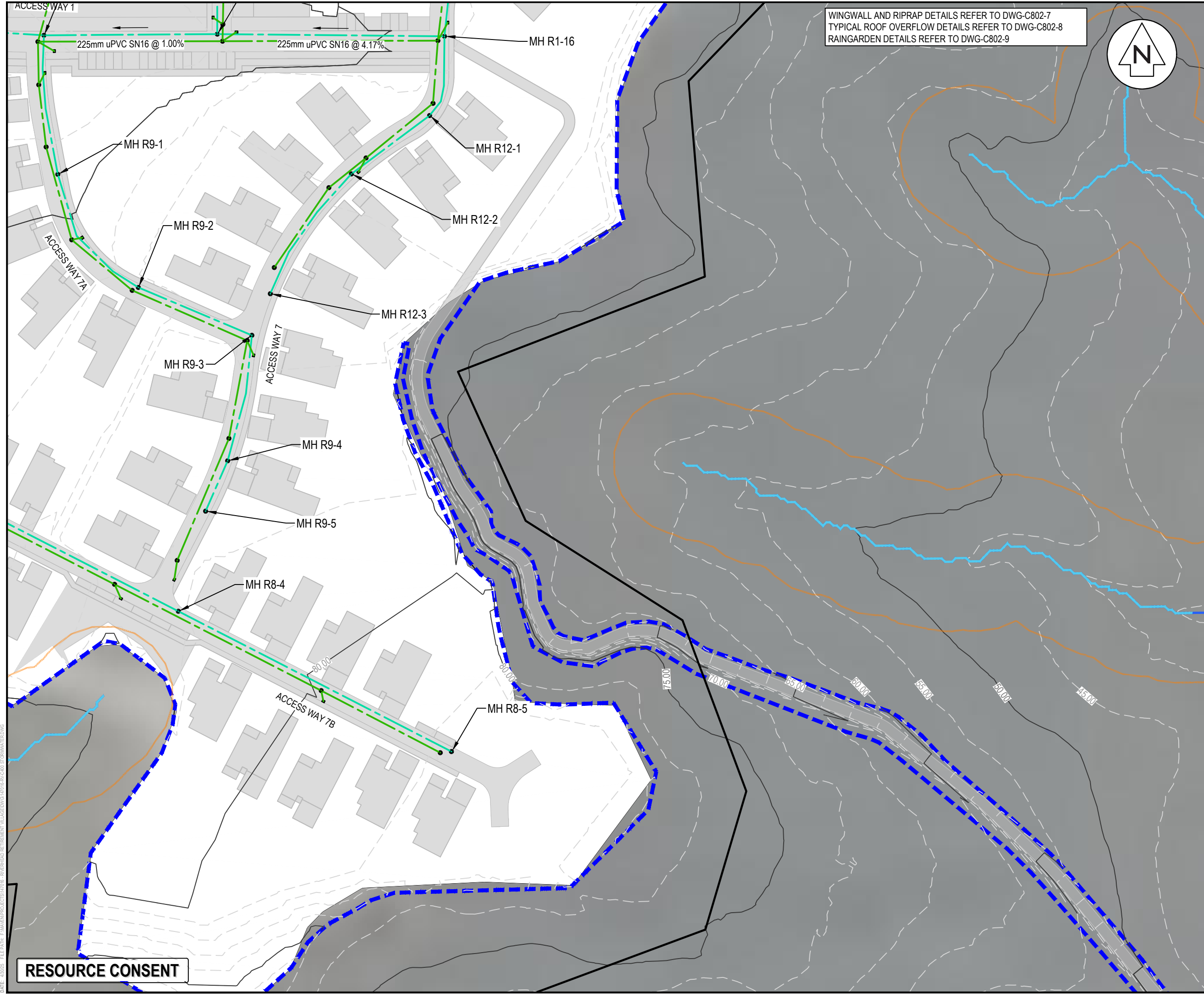
RETIREMENT VILLAGE PROPOSED ROOF STORMWATER PLAN

Project no.	147016		
Scale	1:1000 @ A3		
Cad file	147016-RV-C400 STORMWATER.DWG		
Drawing no.	C400-13	Rev	A

WINGWALL AND RIPRAP DETAILS REFER TO DWG-C802-7
TYPICAL ROOF OVERFLOW DETAILS REFER TO DWG-C802-8
RAINGARDEN DETAILS REFER TO DWG-C802-9

DATE: 4/03/25 FILE PATH: F:\MVEN\PROJECTS\147016 - RIVERHEAD RETIREMENT VILLAGE\DWG\147016-RV-C400 STORMWATER.DWG

RESOURCE CONSENT



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

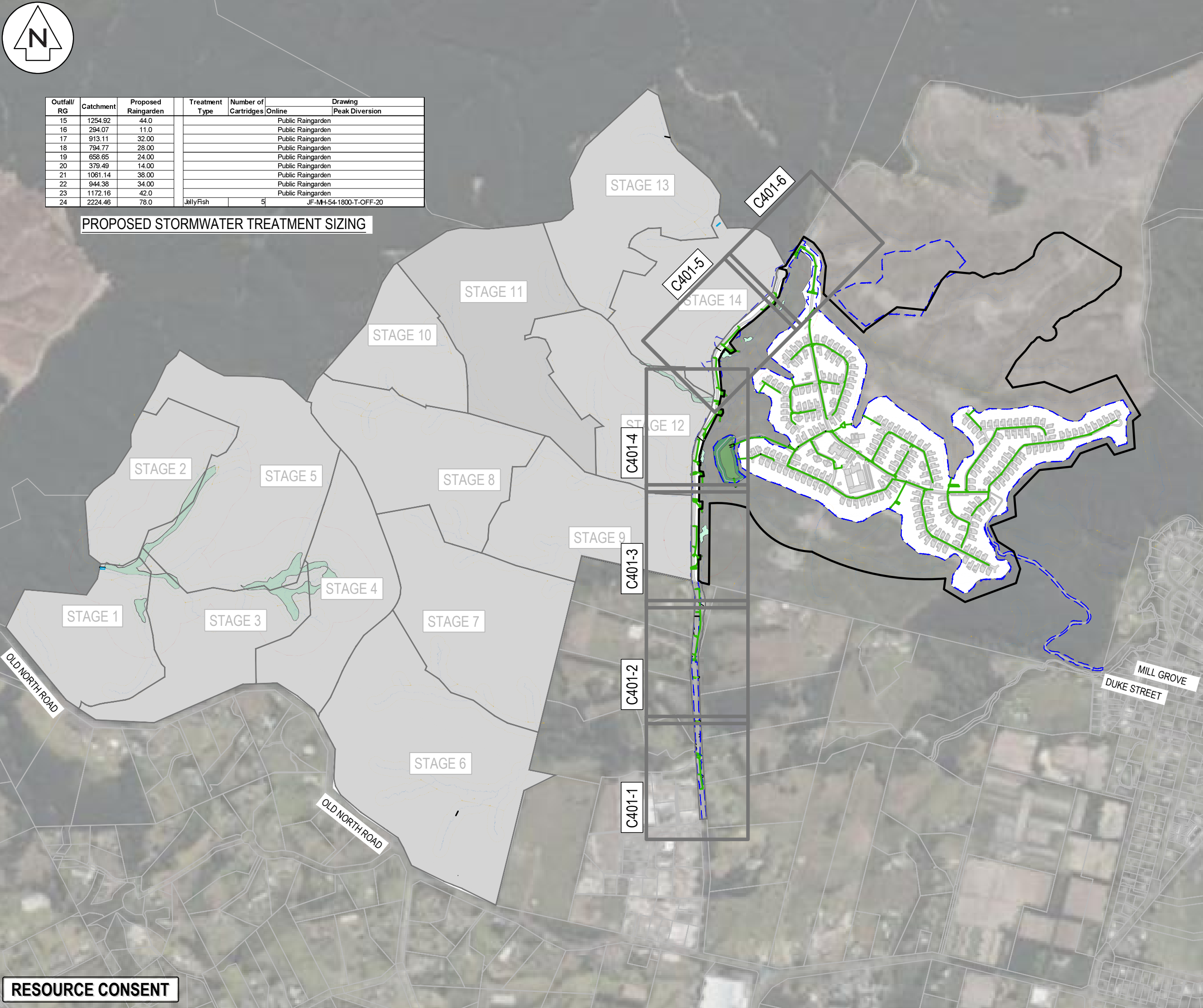
Title
**RETIREMENT VILLAGE
PROPOSED ROOF
STORMWATER PLAN**

Project no.	147016
Scale	1:1000 @ A3
Cad file	147016-RV-C400 STORMWATER.DWG
Drawing no.	C400-14
Rev	A



Outfall/ RG	Catchment	Proposed Raingarden	Treatment Type	Number of Cartridges	Online	Drawing Peak Diversion
15	1254.92	44.0				Public Raingarden
16	294.07	11.0				Public Raingarden
17	913.11	32.00				Public Raingarden
18	794.77	28.00				Public Raingarden
19	658.65	24.00				Public Raingarden
20	379.49	14.00				Public Raingarden
21	1061.14	38.00				Public Raingarden
22	944.38	34.00				Public Raingarden
23	1172.16	42.0				Public Raingarden
24	2224.46	78.0	JellyFish	5		JF-MH-54-1800-T-OFF-20

PROPOSED STORMWATER TREATMENT SIZING



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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.

LEGEND

	EX STORMWATER
	PR STORMWATER ROAD
	PR STORMWATER ROOF
	PR EXTENT WORK
	EX/PR SWMH (ROAD/ROOF)
	PR SINGLE/DOUBLE SWCP
	RIPARIAN YARD 20m SETBACK
	WETLAND AREA 100m SETBACK
	WETLAND AREA 10m SETBACK
	EX STREAMS
	PR RET. WALL > 1.0m
	PR SW RAINGARDEN
	WETLAND

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

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5 Owens Road, Epsom
Auckland 1023

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

Title
**RETIREMENT VILLAGE
PROPOSED STORMWATER
OVERVIEW PLAN**

Project no.	147016
Scale	1:10,000 @ A3
Cad file	147016-RV-C401 SW EXTENSION.DWG
Drawing no.	C401
Rev	A

RESOURCE CONSENT



SAWMILL ROAD

- NOTES:
- REFER TO 147016-C490 DRAWINGS FOR CULVERT DETAILS
 - PROPOSED PUBLIC RAINGARDENS HAVE BEEN LOCATED OUTSIDE STREAM 10 YEAR EXTENTS.
 - WINGWALL AND RIPRAP DETAILS REFER TO DWG-C802-7

- NOTES
- ALL WORKS TO BE IN ACCORDANCE WITH AUCKLAND COUNCIL STANDARDS.
 - IT IS THE CONTRACTORS RESPONSIBILITY TO LOCATE ALL SERVICES THAT MAY BE AFFECTED BY THEIR OPERATIONS.
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 - EX/PR SWMH (ROAD/ROOF)
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 - WETLAND AREA 10m SETBACK
 - EX STREAMS
 - PR RET. WALL > 1.0m
 - PR SW RAINGARDEN
 - WETLAND



PR CULVERT 1
TO REPLACE EXISTING CULVERT
4,000 X 2,000 MM CONC BOX CULVERT @ 1.40%

PR 300mm RCRRJ @ 11.75%
TO CONNECT TO PROP CULVERT 1

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/KH		03/2025



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

Title
**RETIREMENT VILLAGE
PROPOSED STORMWATER
EXTENSION PLAN**

Project no.	147016
Scale	1:1000 @ A3
Cad file	147016-RV-C401 SW EXTENSION.DWG
Drawing no.	C401-1
Rev	A

RESOURCE CONSENT



- NOTES:
- REFER TO 147016-C490 DRAWINGS FOR CULVERT DETAILS
 - PROPOSED PUBLIC RAINGARDENS HAVE BEEN LOCATED OUTSIDE STREAM 10 YEAR EXTENTS.
 - WINGWALL AND RIPRAP DETAILS REFER TO DWG-C802-7

- NOTES
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 - WETLAND AREA 10m SETBACK
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 - PR RET. WALL > 1.0m
 - PR SW RAINGARDEN
 - WETLAND

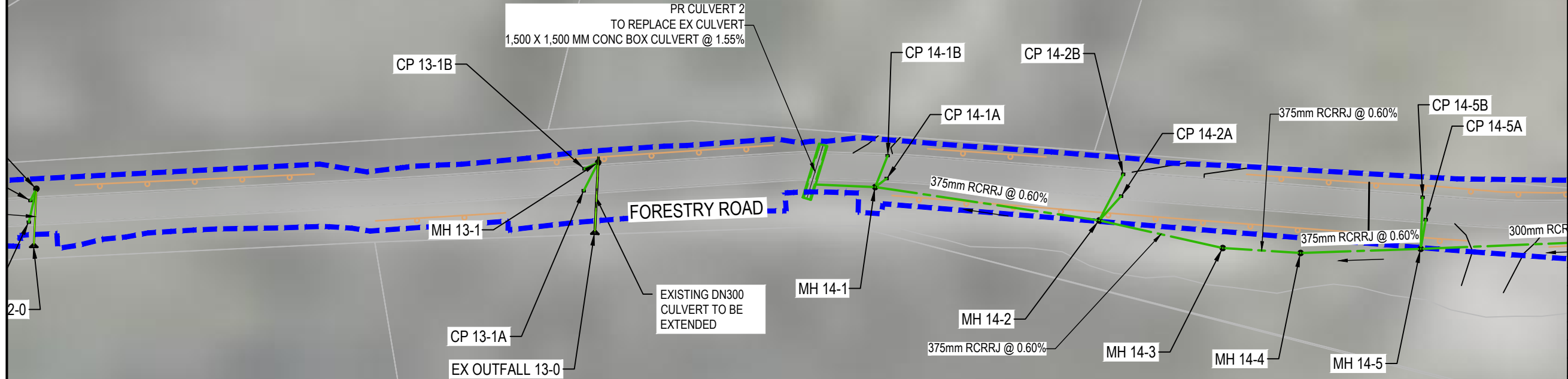
A	RESOURCE CONSENT	SP	03/2025
Rev	Description	By	Date
		By	Date
Survey	LIDAR		03/2022
Design	AO		03/2025
Drawn	SP		03/2025
Checked	RW/KH		03/2025

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

Title
**RETIREMENT VILLAGE
PROPOSED STORMWATER
EXTENSION PLAN**

Project no.	147016
Scale	1:1000 @ A3
Cad file	147016-RV-C401 SW EXTENSION.DWG
Drawing no.	C401-2
Rev	A



RESOURCE CONSENT



- NOTES:
- REFER TO 147016-C490 DRAWINGS FOR CULVERT DETAILS
 - PROPOSED PUBLIC RAINGARDENS HAVE BEEN LOCATED OUTSIDE STREAM 10 YEAR EXTENTS.
 - WINGWALL AND RIPRAP DETAILS REFER TO DWG-C802-7

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 - WETLAND AREA 10m SETBACK
 - EX STREAMS
 - PR RET. WALL > 1.0m
 - PR SW RAINGARDEN
 - WETLAND

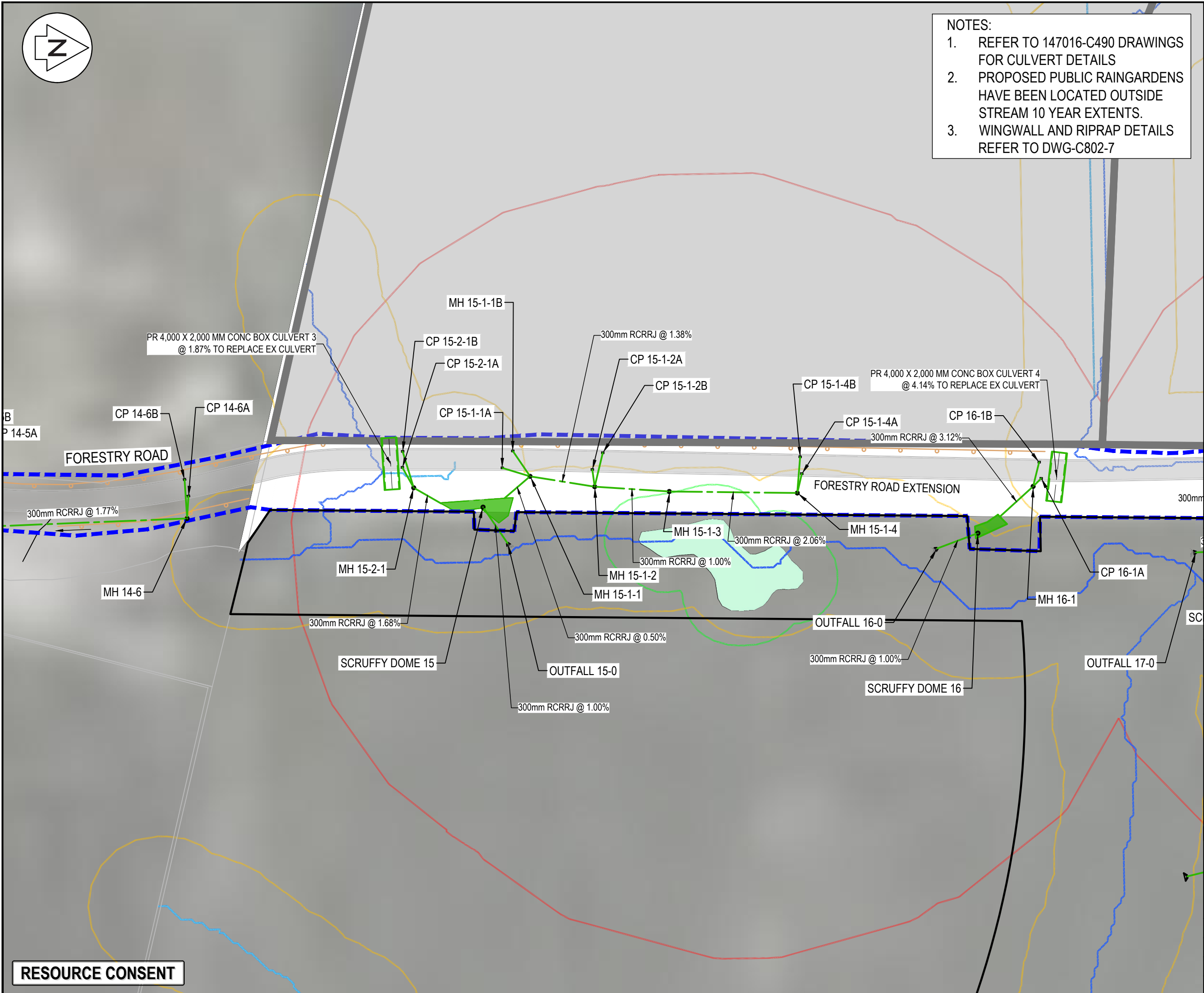
A	RESOURCE CONSENT	SP	03/2025
Rev	Description	By	Date
	Survey	LIDAR	03/2022
	Design	AO	03/2025
	Drawn	SP	03/2025
	Checked	RW/KH	03/2025

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

Title
**RETIREMENT VILLAGE
PROPOSED STORMWATER
EXTENSION PLAN**

Project no.	147016
Scale	1:1000 @ A3
Cad file	147016-RV-C401 SW EXTENSION.DWG
Drawing no.	C401-3
Rev	A



RESOURCE CONSENT

DATE: 10/03/25 FILE PATH: F:\Maven\PROJECTS\147016 - RIVERHEAD RETIREMENT VILLAGE\DWG\147016-RV-C401 SW EXTENSION.DWG



- NOTES:
1. REFER TO 147016-C490 DRAWINGS FOR CULVERT DETAILS
 2. PROPOSED PUBLIC RAINGARDENS HAVE BEEN LOCATED OUTSIDE STREAM 10 YEAR EXTENTS.
 3. WINGWALL AND RIPRAP DETAILS REFER TO DWG-C802-7

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

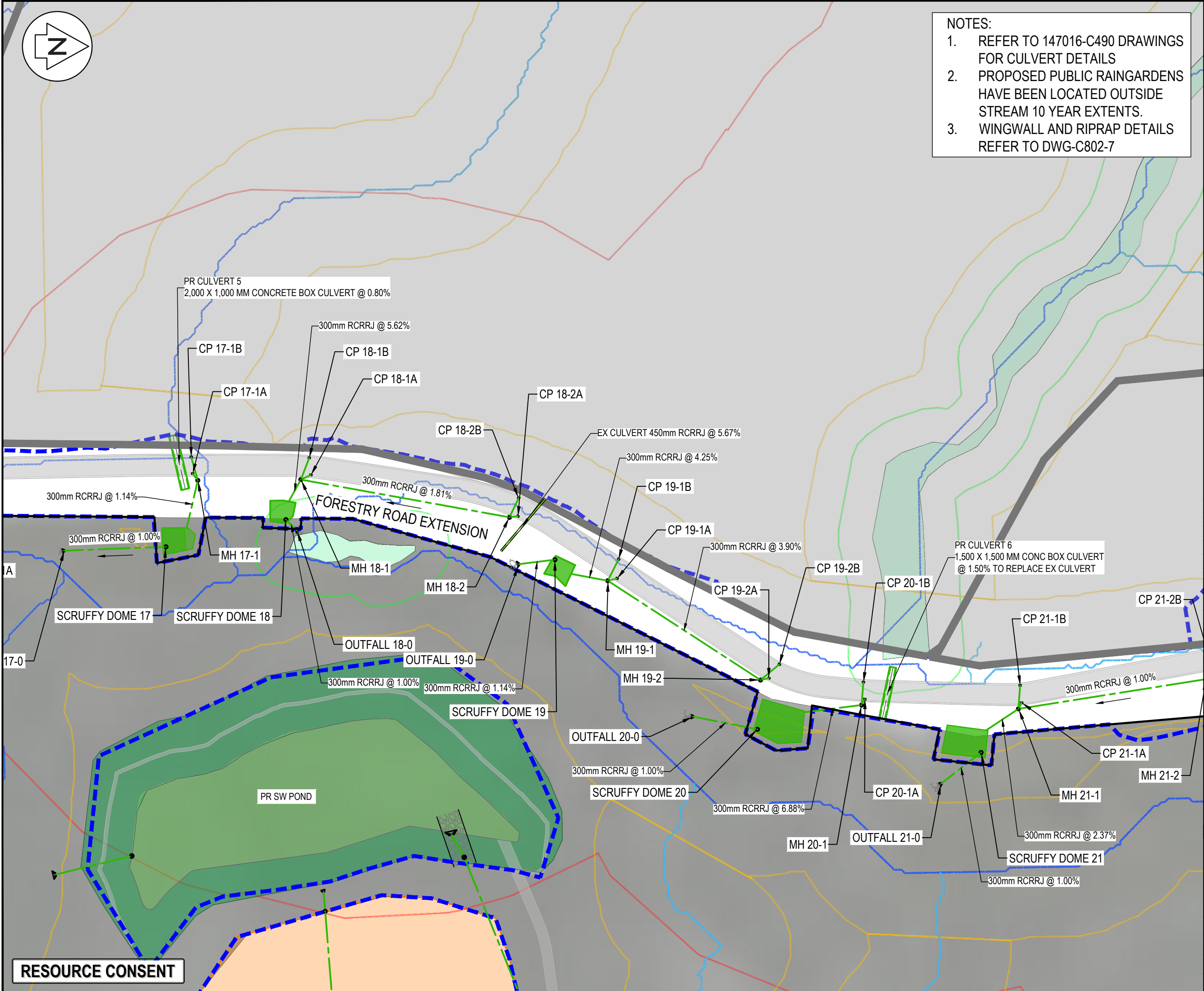


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Project
**DEVELOPMENT OF
RIVERHEAD FOREST
FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

Title
**RETIREMENT VILLAGE
PROPOSED STORMWATER
EXTENSION PLAN**

Project no.	147016
Scale	1:1000 @ A3
Cad file	147016-RV-C401 SW EXTENSION.DWG
Drawing no.	C401-4
Rev	A



DATE: 10/03/25 FILE PATH: F:\Maven\PROJECTS\147016 - RIVERHEAD RETIREMENT VILLAGE\DWG\147016-RV-C401 SW EXTENSION.DWG



- NOTES:
- REFER TO 147016-C490 DRAWINGS FOR CULVERT DETAILS
 - PROPOSED PUBLIC RAINGARDENS HAVE BEEN LOCATED OUTSIDE STREAM 10 YEAR EXTENTS.
 - WINGWALL AND RIPRAP DETAILS REFER TO DWG-C802-7

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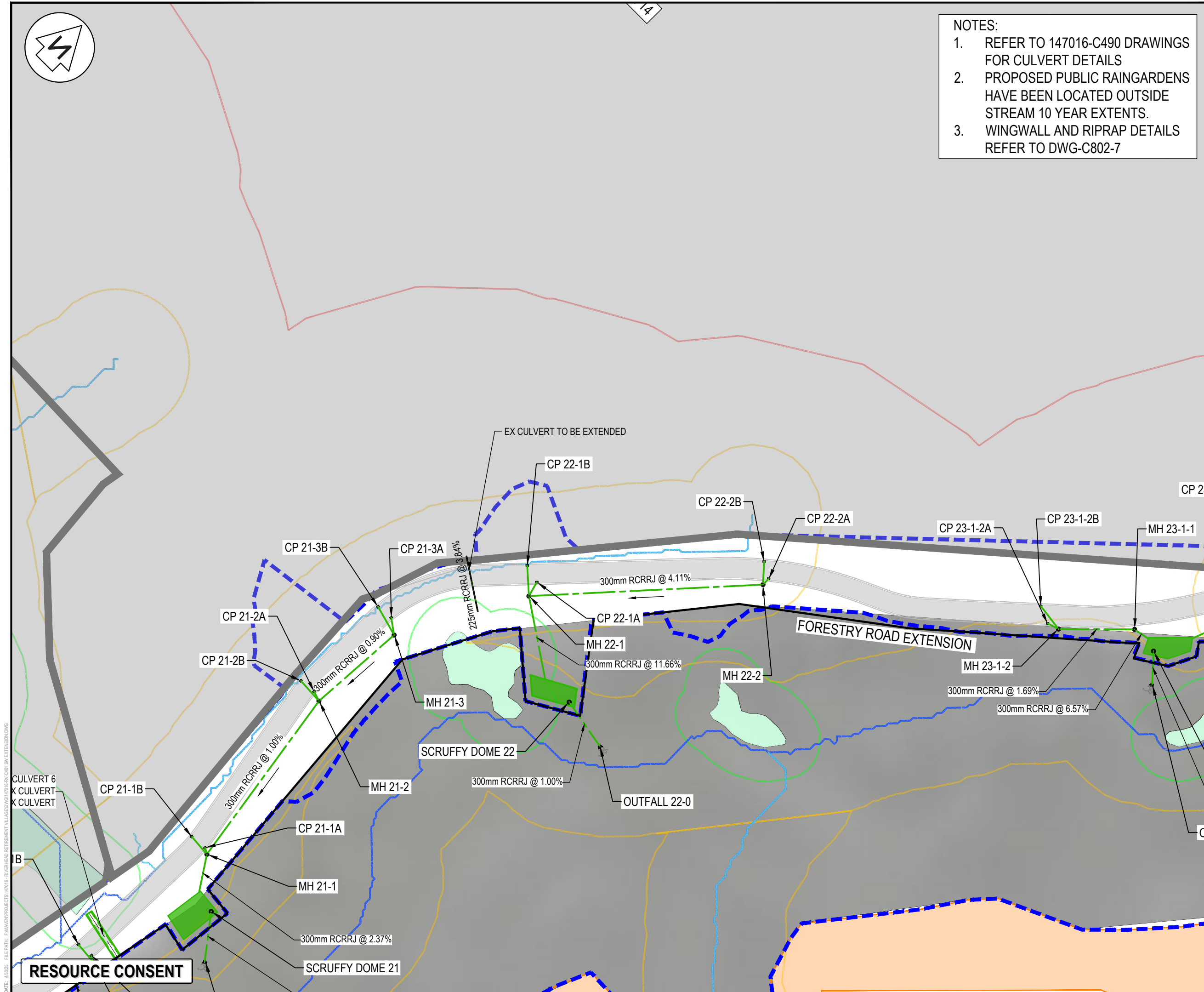
A	RESOURCE CONSENT	SP	03/2025
Rev	Description	By	Date
Survey	LIDAR		03/2022
Design	AO		03/2025
Drawn	SP		03/2025
Checked	RW/KH		03/2025



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

Title
**RETIREMENT VILLAGE
PROPOSED STORMWATER
EXTENSION PLAN**

Project no.	147016
Scale	1:1000 @ A3
Cad file	147016-RV-C401 SW EXTENSION.DWG
Drawing no.	C401-5
Rev	A



DATE: 4/2025 FILE PATH: E:\Maven\Projects\147016 - RIVERHEAD RETIREMENT VILLAGE\DWG\147016-RV-C401 SW EXTENSION.DWG



- NOTES:
- REFER TO 147016-C490 DRAWINGS FOR CULVERT DETAILS
 - PROPOSED PUBLIC RAINGARDENS HAVE BEEN LOCATED OUTSIDE STREAM 10 YEAR EXTENTS.
 - WINGWALL AND RIPRAP DETAILS REFER TO DWG-C802-7

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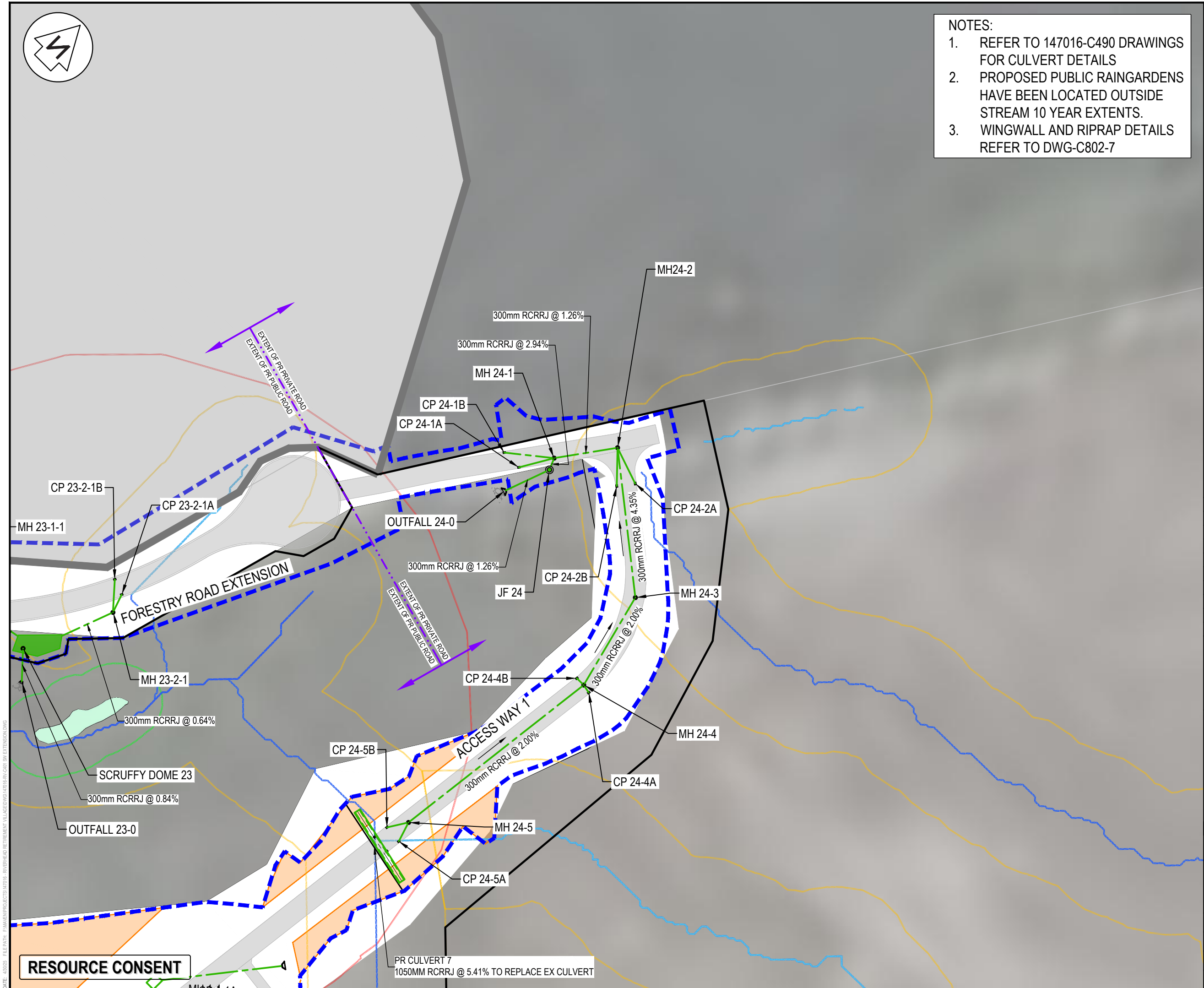
A	RESOURCE CONSENT	SP	03/2025
Rev	Description	By	Date
	Survey	LIDAR	03/2022
	Design	AO	03/2025
	Drawn	SP	03/2025
	Checked	RWKH	03/2025



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

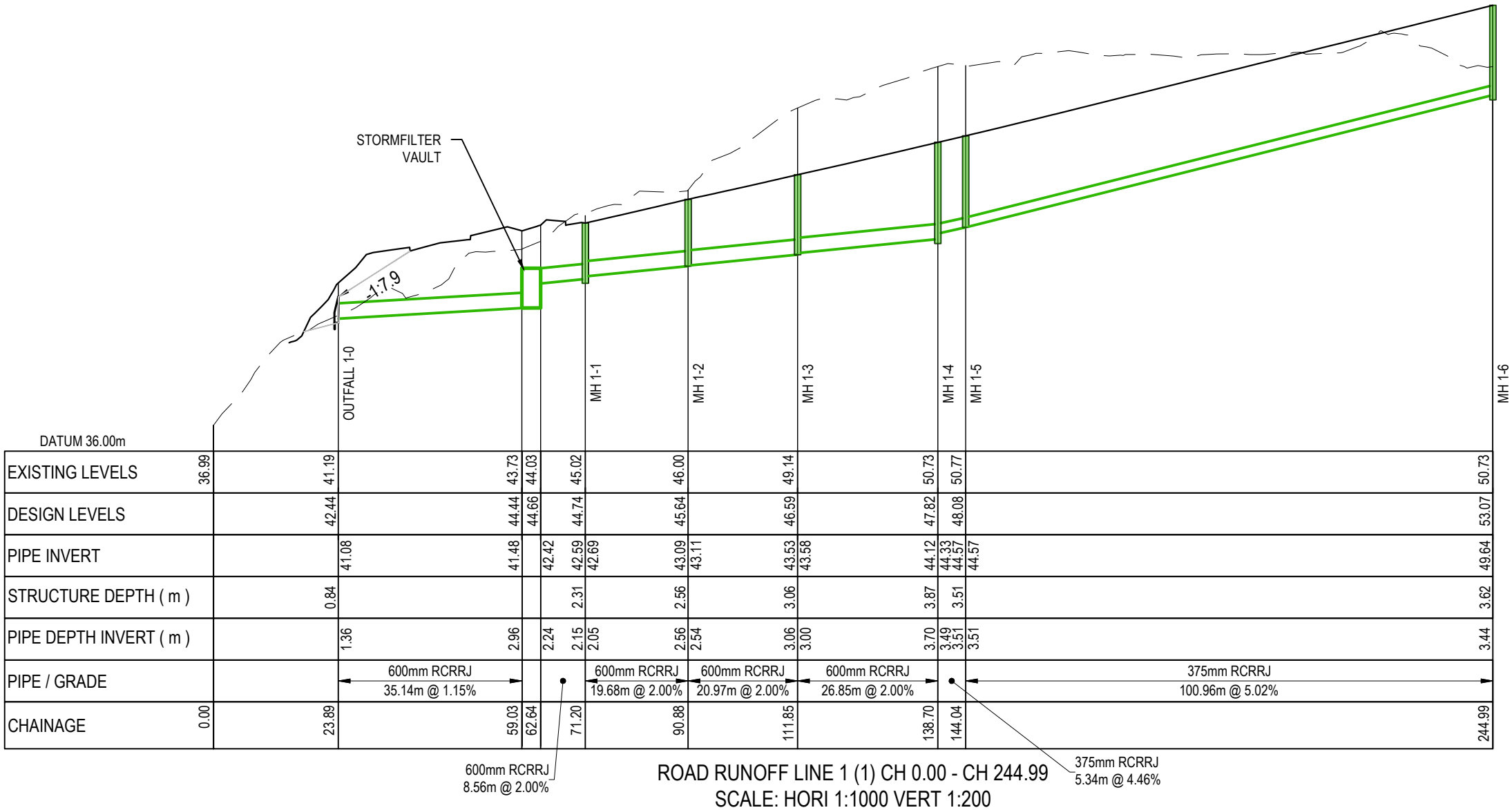
Title
**RETIREMENT VILLAGE
PROPOSED STORMWATER
EXTENSION PLAN**

Project no.	147016
Scale	1:1000 @ A3
Cad file	147016-RV-C401 SW EXTENSION.DWG
Drawing no.	C401-6
Rev	A



DATE: 4/2025 FILE PATH: E:\Maven\PROJECTS\147016 - RIVERHEAD RETIREMENT VILLAGE\DWG\147016-RV-C401 SW EXTENSION.DWG

DATE: 4/20/25 FILE PATH: F:\Maven\PROJECTS\147016 - RIVERHEAD RETIREMENT VILLAGE\DWG\147016-RV-C420 SW LS ROAD.DWG



LEGEND:
--- EX GROUND SURFACE
--- PR DESIGN SURFACE
--- INDICATIVE LOCALISED GROUND LEVELS FOR SW DEVICE AND OUTLET IMPLEMENTATION. TO BE CONFIRMED IN DETAILED DESIGN

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



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

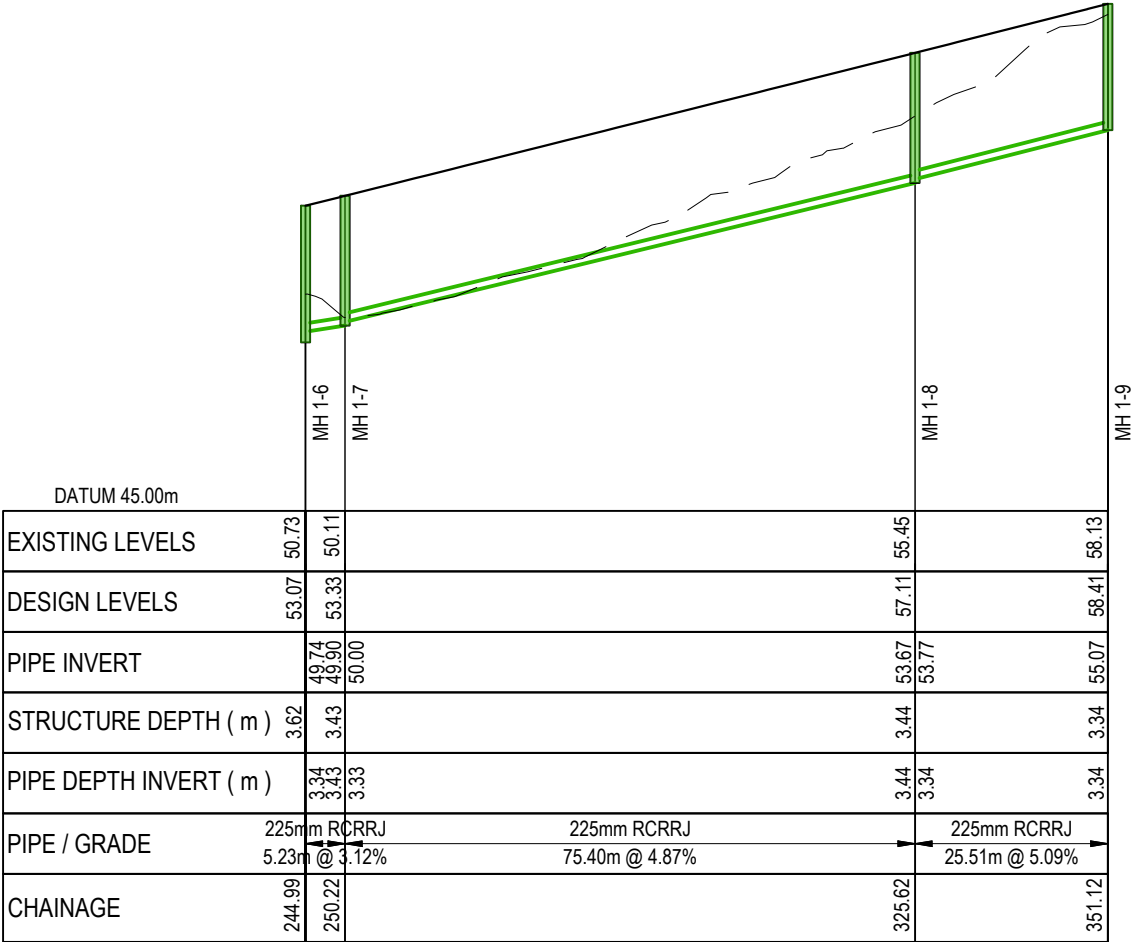
Title
**RETIREMENT VILLAGE
STORMWATER LONG
SECTIONS - ROAD RUN OFF**

Project no.	147016		
Scale	1:1000 @ A3		
Cad file	147016-RV-C420 SW LS_ROAD.DWG		
Drawing no.	C420	Rev	A

RESOURCE CONSENT

DATE: 4/30/25 FILEPATH: F:\Maven\PROJECTS\147016 - RIVERHEAD RETIREMENT VILLAGE\DWG\147016-RV-C420 SW LS ROAD.DWG

RESOURCE CONSENT



ROAD RUNOFF LINE 1 (2) CH 244.99 - CH 351.12
SCALE: HORI 1:1000 VERT 1:200

LEGEND:
--- EX GROUND SURFACE
--- PR DESIGN SURFACE
--- INDICATIVE LOCALISED GROUND LEVELS FOR SW DEVICE AND OUTLET IMPLEMENTATION. TO BE CONFIRMED IN DETAILED DESIGN

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

M

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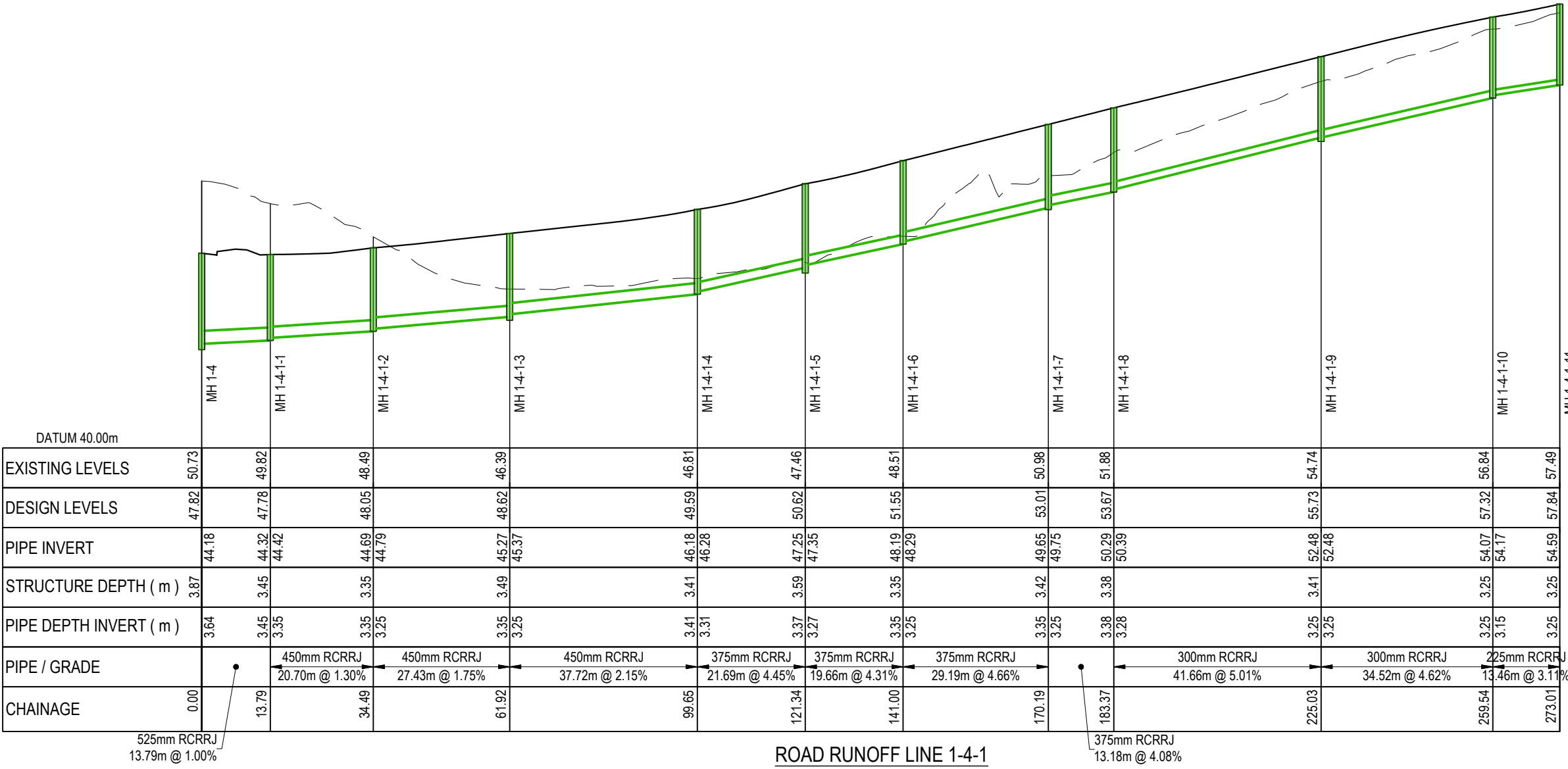
Auckland 1023

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

Title
**RETIREMENT VILLAGE
STORMWATER LONG
SECTIONS - ROAD RUN OFF**

Project no.	147016		
Scale	1:1000 @ A3		
Cad file	147016-RV-C420 SW LS_ROAD.DWG		
Drawing no.	C420-1	Rev	A

DATE: 4/30/25 FILE PATH: F:\Maven\PROJECTS\147016 - RIVERHEAD RETIREMENT VILLAGE\DWG\147016-RV-C420 SW LS ROAD.DWG



ROAD RUNOFF LINE 1-4-1
SCALE: HORI 1:1000 VERT 1:200

RESOURCE CONSENT

LEGEND:
--- EX GROUND SURFACE
--- PR DESIGN SURFACE
--- INDICATIVE LOCALISED
GROUND LEVELS FOR
SW DEVICE AND OUTLET
IMPLEMENTATION. TO
BE CONFIRMED IN
DETAILED DESIGN

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



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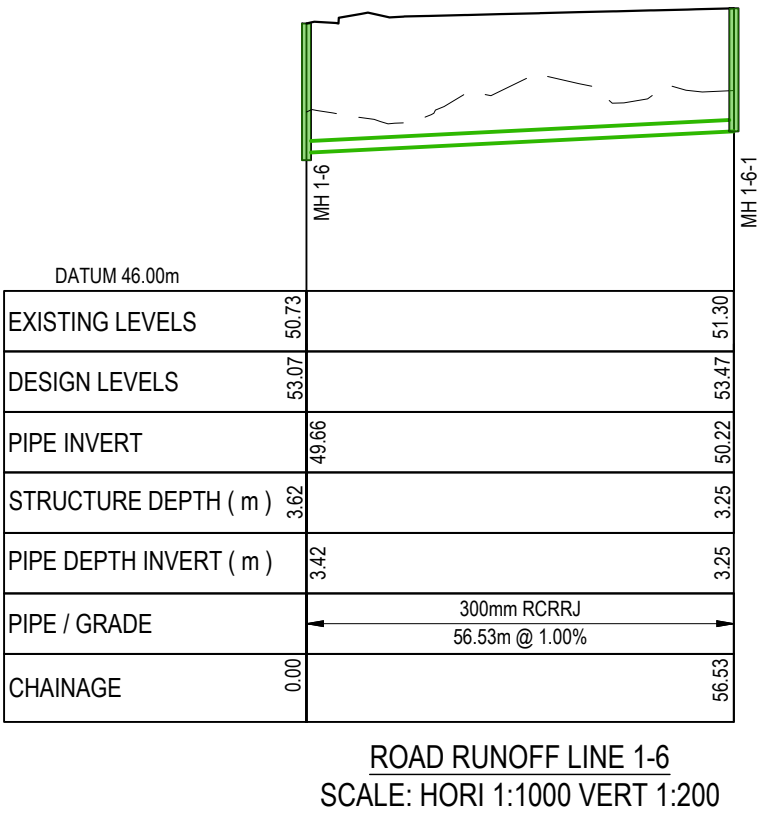
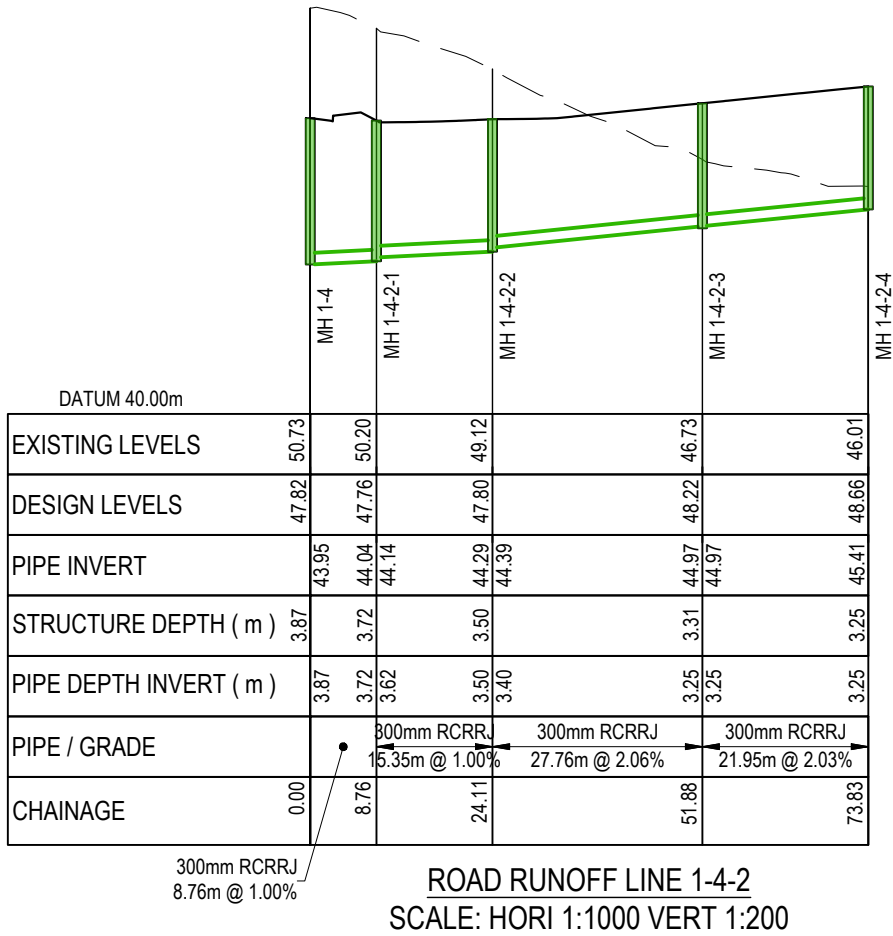
Project
**DEVELOPMENT OF
RIVERHEAD FOREST
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DEVELOPMENTS LIMITED
PARTNERSHIP**

Title
**RETIREMENT VILLAGE
STORMWATER LONG
SECTIONS - ROAD RUN OFF**

Project no.	147016		
Scale	1:1000 @ A3		
Cad file	147016-RV-C420 SW LS ROAD.DWG		
Drawing no.	C420-2	Rev	A

DATE: 4/3/2025 FILE PATH: F:\Maven\PROJECTS\147016 - RIVERHEAD RETIREMENT VILLAGE\DWG\147016-RV-C420 SW LS ROAD.DWG

RESOURCE CONSENT



LEGEND:
--- EX GROUND SURFACE
--- PR DESIGN SURFACE
--- INDICATIVE LOCALISED GROUND LEVELS FOR SW DEVICE AND OUTLET IMPLEMENTATION. TO BE CONFIRMED IN DETAILED DESIGN

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

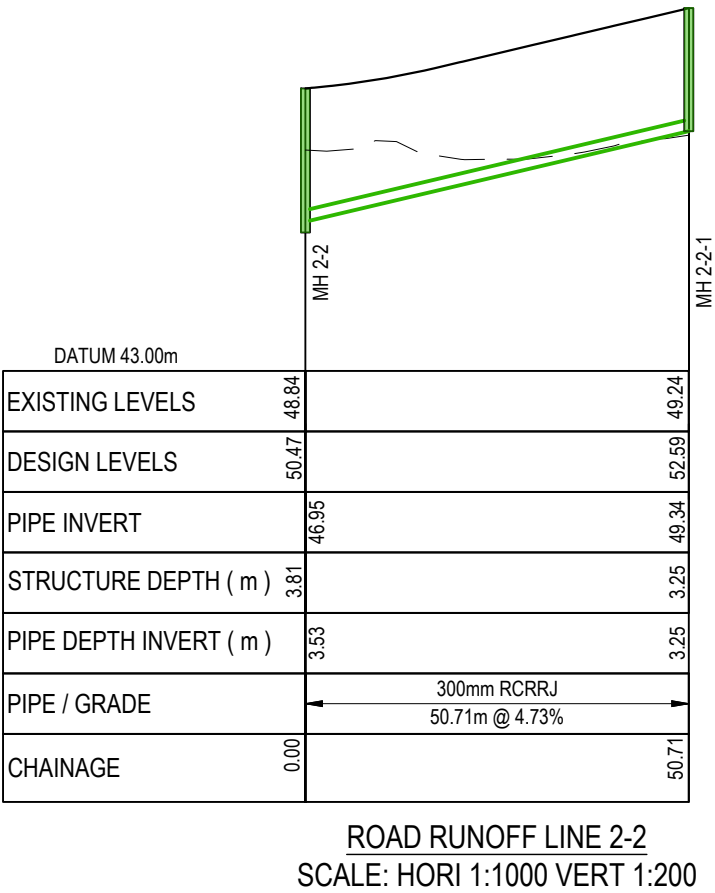
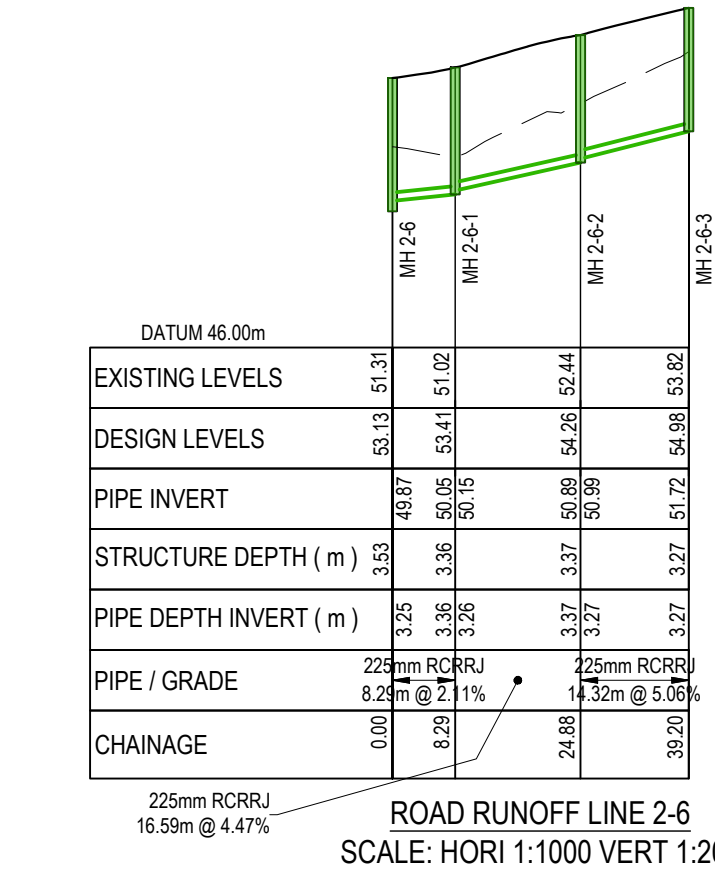
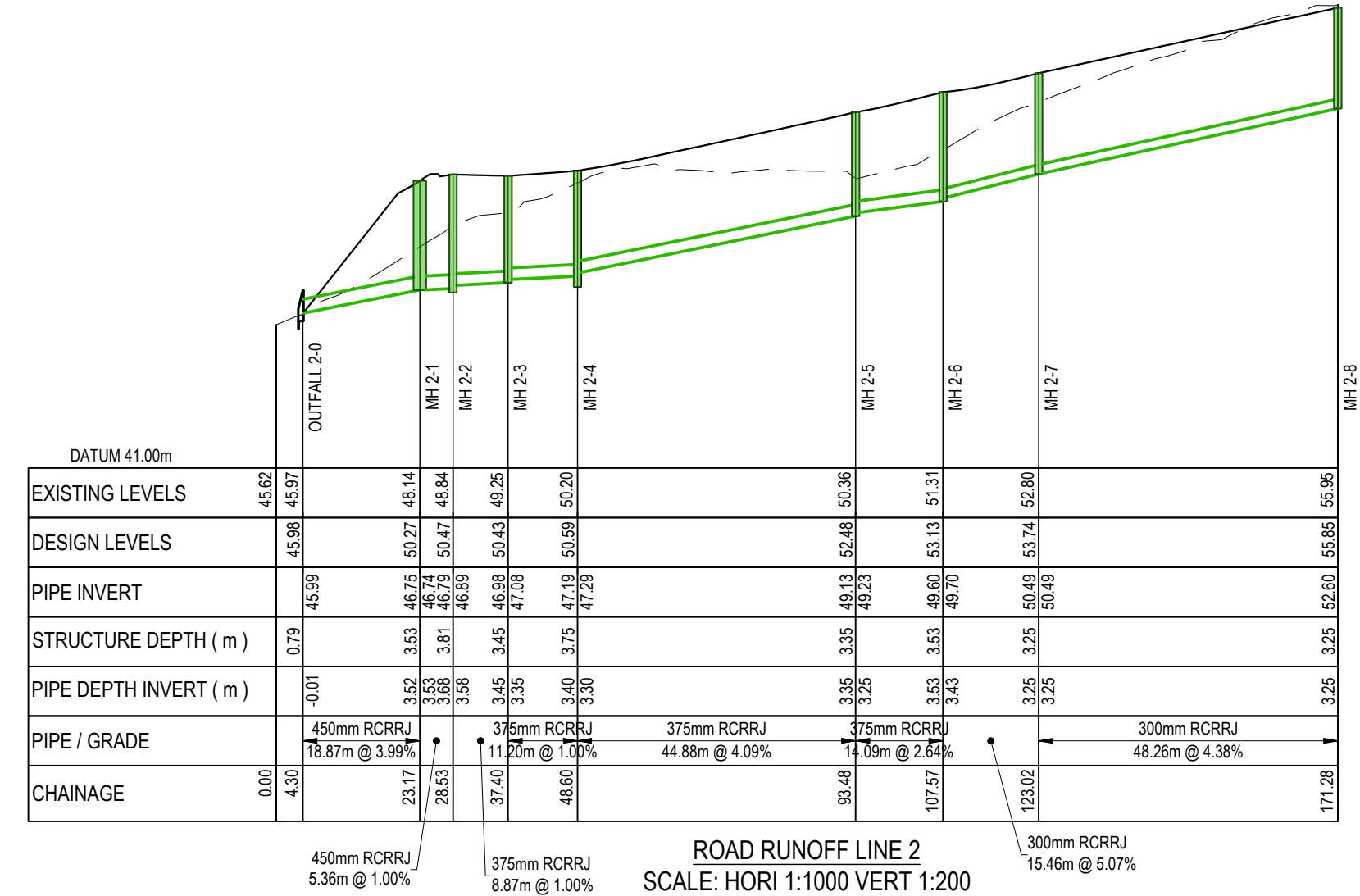


Project
**DEVELOPMENT OF
RIVERHEAD FOREST
FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

Title
**RETIREMENT VILLAGE
STORMWATER LONG
SECTIONS - ROAD RUN OFF**

Project no.	147016		
Scale	1:1000 @ A3		
Cad file	147016-RV-C420 SW LS_ROAD.DWG		
Drawing no.	C420-3	Rev	A

DATE: 4/3/2025 FILE PATH: F:\Maven\PROJECTS\147016 - RIVERHEAD RETIREMENT VILLAGE\DWG 147016-RV-C420 SW LS ROAD.DWG



LEGEND:

- EX GROUND SURFACE
- PR DESIGN SURFACE
- INDICATIVE LOCALISED GROUND LEVELS FOR SW DEVICE AND OUTLET IMPLEMENTATION. TO BE CONFIRMED IN DETAILED DESIGN

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



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

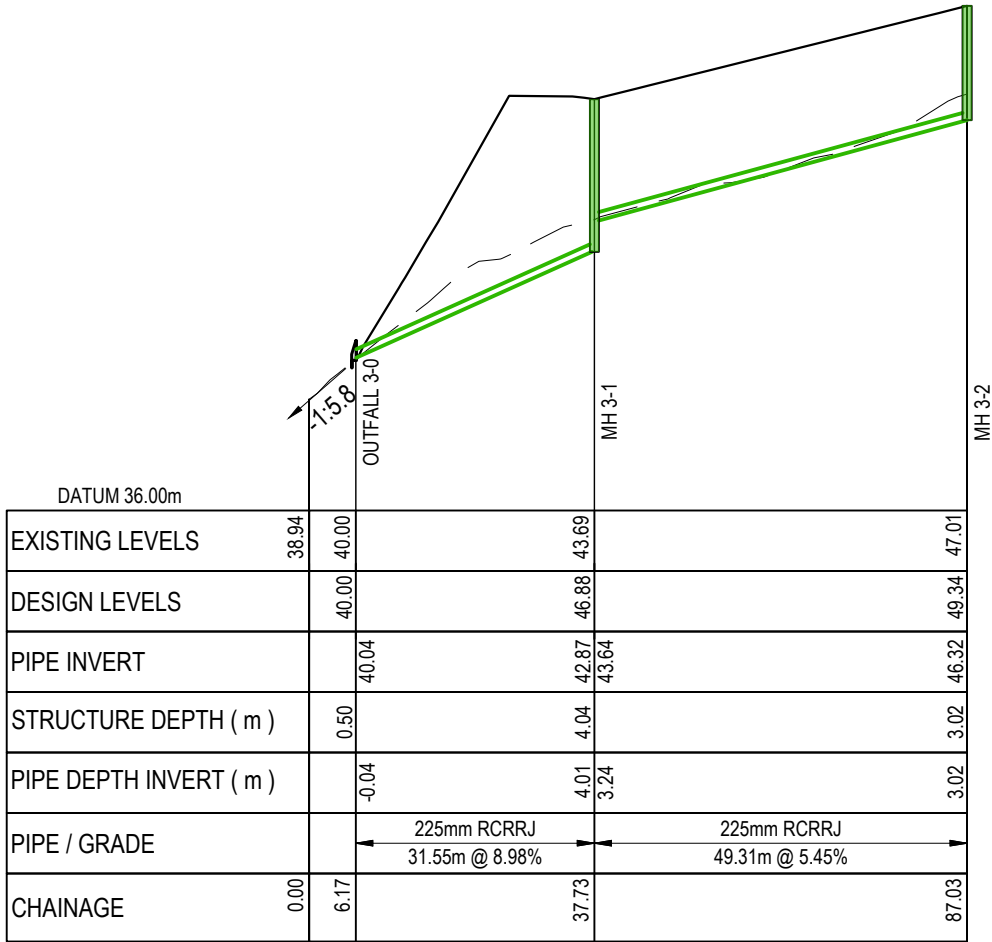
Title
**RETIREMENT VILLAGE
STORMWATER LONG
SECTIONS - ROAD RUN OFF**

Project no.	147016
Scale	1:1000 @ A3
Cad file	147016-RV-C420 SW LS ROAD.DWG
Drawing no.	C420-4
Rev	A

RESOURCE CONSENT

DATE: 4/3/2025 FILE PATH: F:\Maven\PROJECTS\147016 - RIVERHEAD RETIREMENT VILLAGE\DWG\147016-RV-C420 SW LS ROAD.DWG

RESOURCE CONSENT



ROAD RUNOFF LINE 3
SCALE: HORI 1:1000 VERT 1:200

LEGEND:
--- EX GROUND SURFACE
--- PR DESIGN SURFACE
--- INDICATIVE LOCALISED GROUND LEVELS FOR SW DEVICE AND OUTLET IMPLEMENTATION. TO BE CONFIRMED IN DETAILED DESIGN

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

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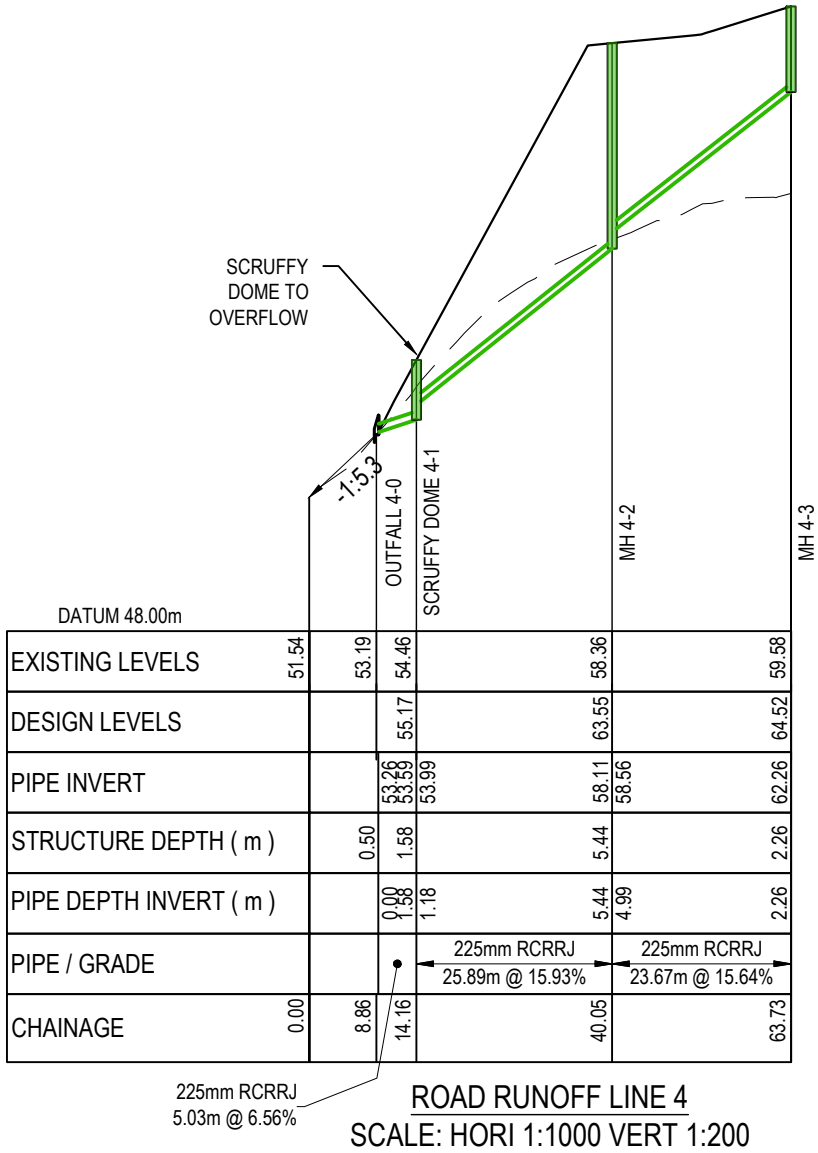
Project
DEVELOPMENT OF RIVERHEAD FOREST FOR RANGITOOPUNI DEVELOPMENTS LIMITED PARTNERSHIP

Title
RETIREMENT VILLAGE STORMWATER LONG SECTIONS - ROAD RUN OFF

Project no.	147016		
Scale	1:1000 @ A3		
Cad file	147016-RV-C420 SW LS_ROAD.DWG		
Drawing no.	C420-5	Rev	A

DATE: 4/3/25 FILE PATH: F:\Maven\PROJECTS\147016 - RIVERHEAD RETIREMENT VILLAGE\DWG\147016-RV-C420 SW LS ROAD.DWG

RESOURCE CONSENT



LEGEND:
--- EX GROUND SURFACE
--- PR DESIGN SURFACE
--- INDICATIVE LOCALISED GROUND LEVELS FOR SW DEVICE AND OUTLET IMPLEMENTATION. TO BE CONFIRMED IN DETAILED DESIGN

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



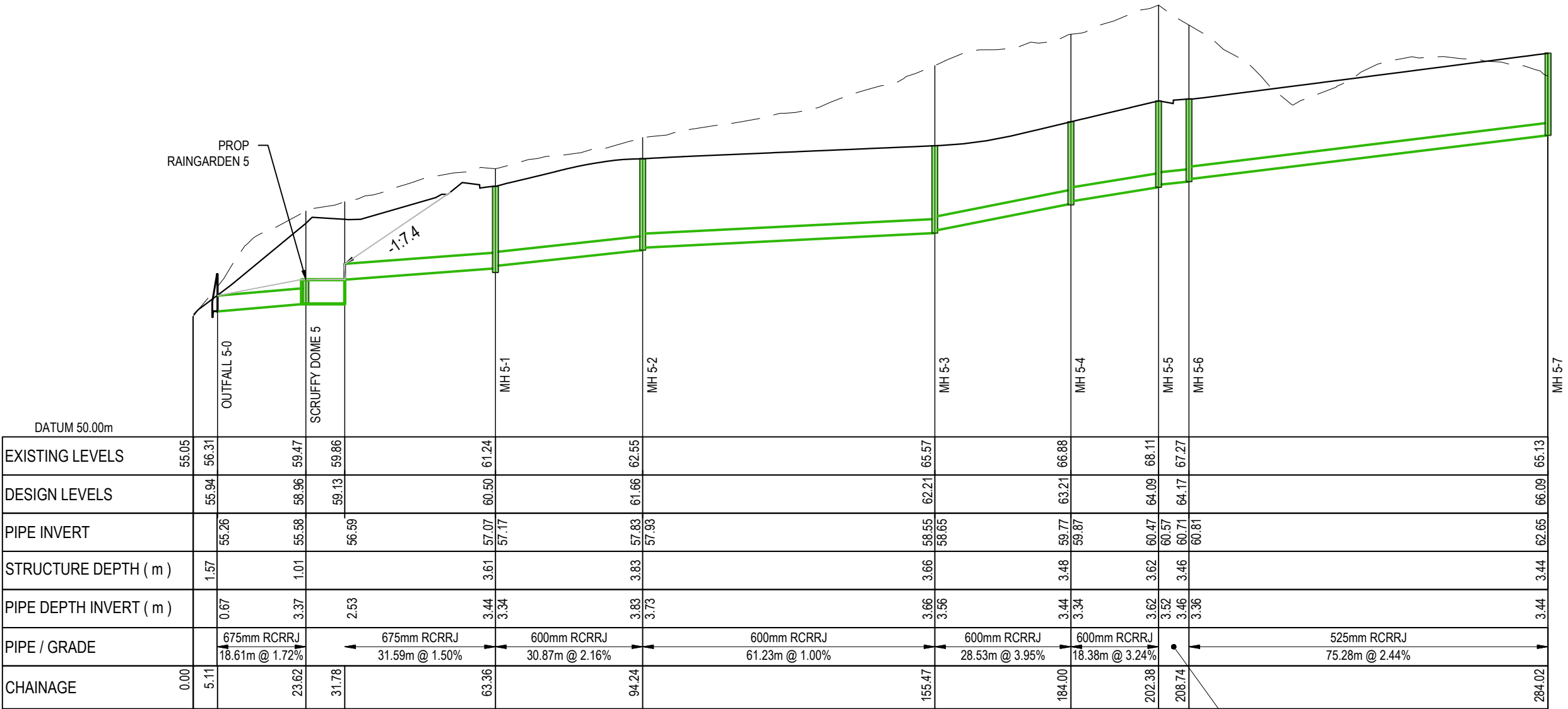
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Auckland 1023

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

Title
**RETIREMENT VILLAGE
STORMWATER LONG
SECTIONS - ROAD RUN OFF**

Project no.	147016		
Scale	1:1000 @ A3		
Cad file	147016-RV-C420 SW LS_ROAD.DWG		
Drawing no.	C420-6	Rev	A

DATE: 4/3/25 FILE PATH: F:\MVEN\PROJECTS\147016 - RIVERHEAD RETIREMENT VILLAGE\DWG\42016-RV-C420 SW LS ROAD.DWG



ROAD RUNOFF LINE 5 (1) CH 0.00 - CH 284.02
SCALE: HORI 1:1000 VERT 1:200

LEGEND:
--- EX GROUND SURFACE
— PR DESIGN SURFACE
--- INDICATIVE LOCALISED
GROUND LEVELS FOR
SW DEVICE AND OUTLET
IMPLEMENTATION. TO
BE CONFIRMED IN
DETAILED DESIGN

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



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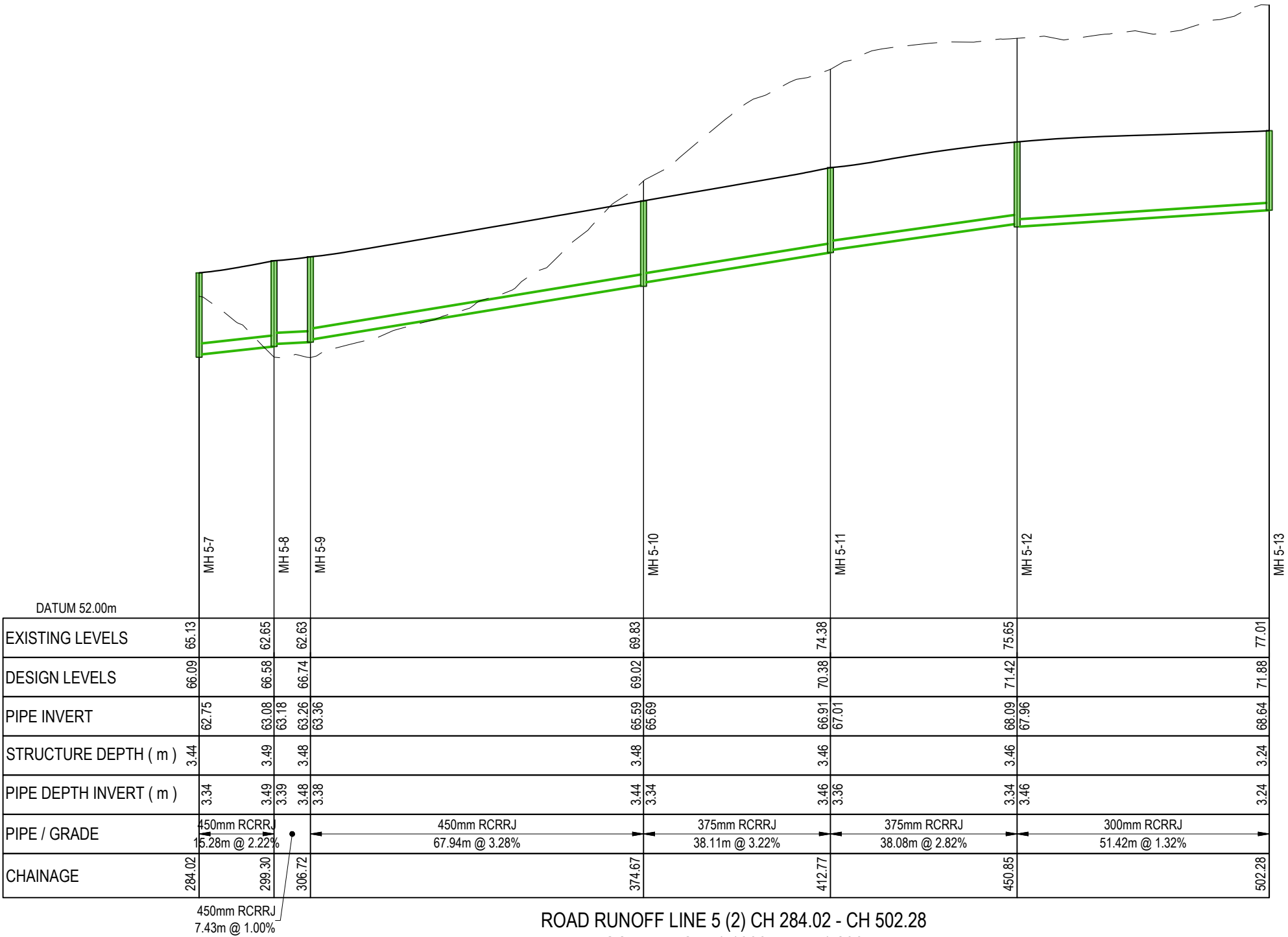
Project
**DEVELOPMENT OF
RIVERHEAD FOREST
FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

Title
**RETIREMENT VILLAGE
STORMWATER LONG
SECTIONS - ROAD RUN OFF**

Project no.	147016		
Scale	1:1000 @ A3		
Cad file	147016-RV-C420 SW LS_ROAD.DWG		
Drawing no.	C420-7	Rev	A

RESOURCE CONSENT

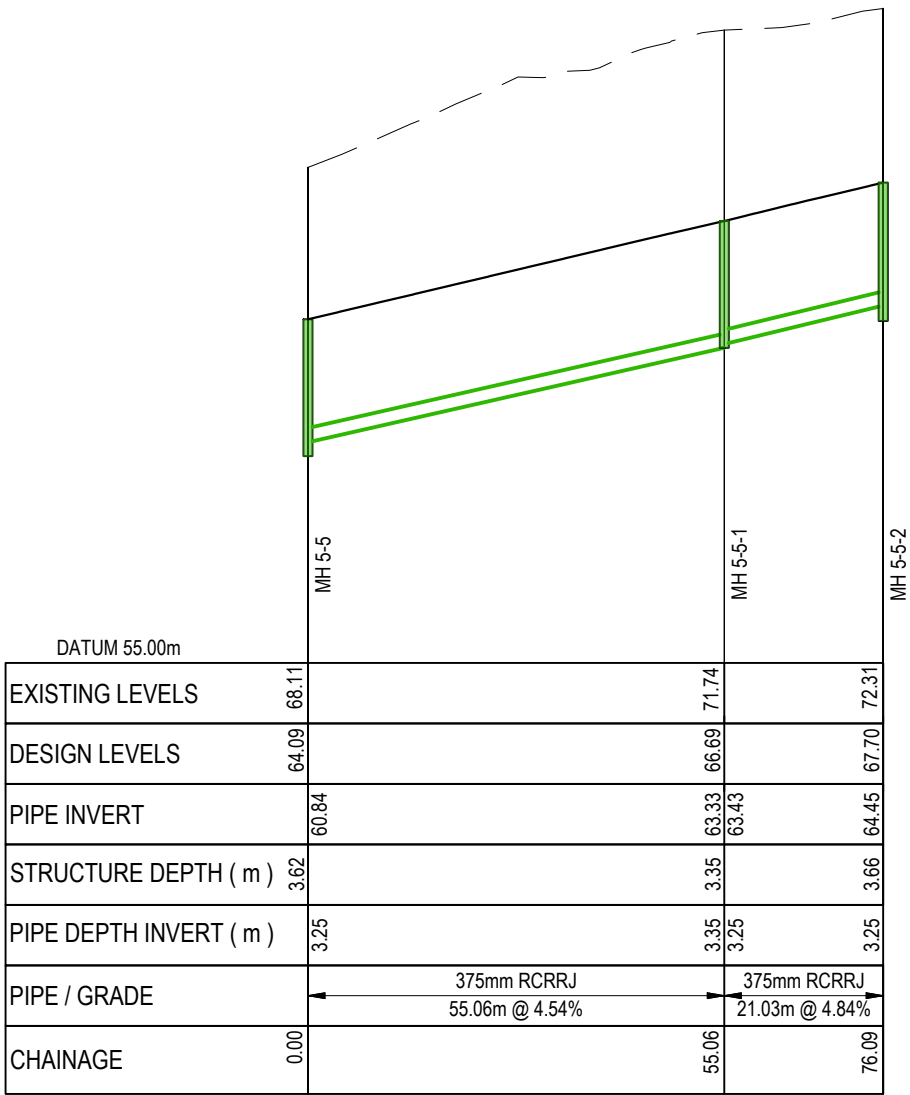
DATE: 4/3/2025 FILE PATH: F:\Maven\PROJECTS\147016 - RIVERHEAD RETIREMENT VILLAGE\DWG\147016-RV-C420 SW LS ROAD.DWG



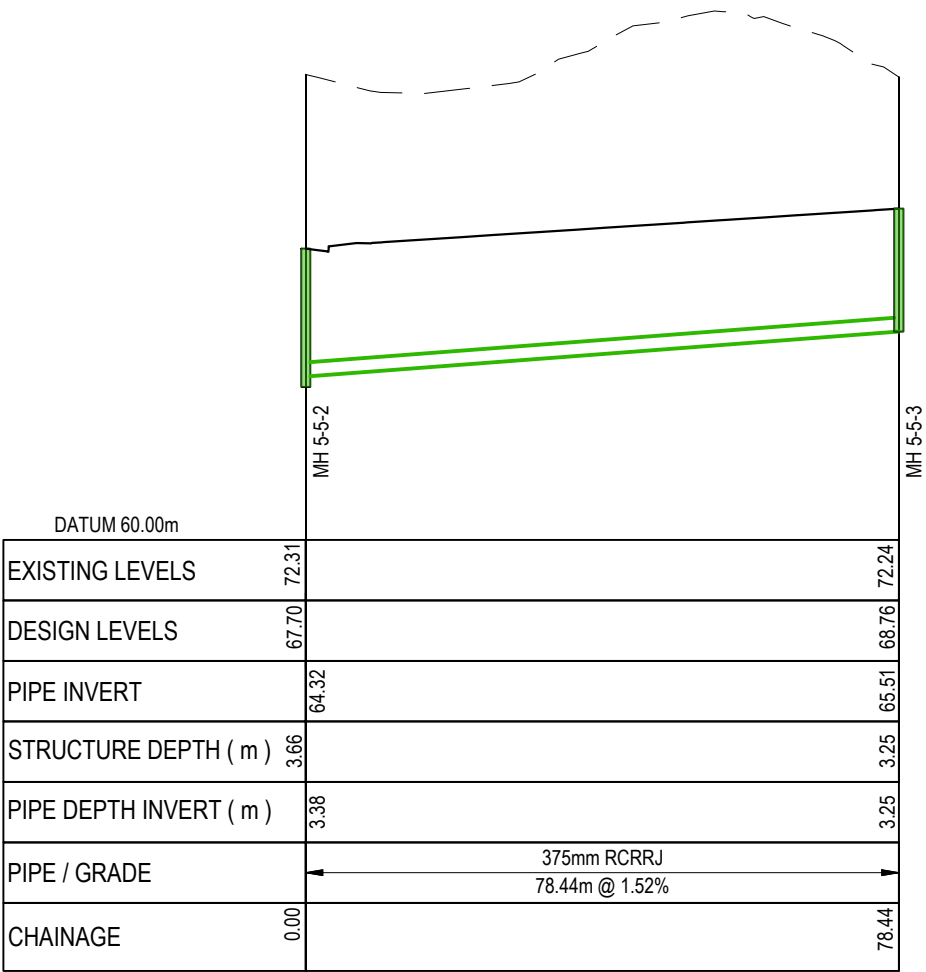
RESOURCE CONSENT

LEGEND:			
---	EX GROUND SURFACE		
—	PR DESIGN SURFACE		
—	INDICATIVE LOCALISED GROUND LEVELS FOR SW DEVICE AND OUTLET IMPLEMENTATION. TO BE CONFIRMED IN DETAILED DESIGN		
A	RESOURCE CONSENT	AYC	03/2025
Rev	Description	By	Date
Survey	LIDAR		03/2022
Design	AYC		03/2025
Drawn	AYC		03/2025
Checked	RW		03/2025
M MAVEN 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 STORMWATER LONG SECTIONS - ROAD RUN OFF			
Project no.	147016		
Scale	1:1000 @ A3		
Cad file	147016-RV-C420 SW LS ROAD.DWG		
Drawing no.	C420-8	Rev	A

DATE: 4/20/25 FILEPATH: F:\Maven\PROJECTS\147016 - RIVERHEAD RETIREMENT VILLAGE\DWG\147016-RV-C420-SW-LS-ROAD.DWG



ROAD RUNOFF LINE 5-5
SCALE: HORI 1:1000 VERT 1:200



ROAD RUNOFF LINE 5-5-2
SCALE: HORI 1:1000 VERT 1:200

LEGEND:
--- EX GROUND SURFACE
--- PR DESIGN SURFACE
--- INDICATIVE LOCALISED
GROUND LEVELS FOR
SW DEVICE AND OUTLET
IMPLEMENTATION. TO
BE CONFIRMED IN
DETAILED DESIGN

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

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

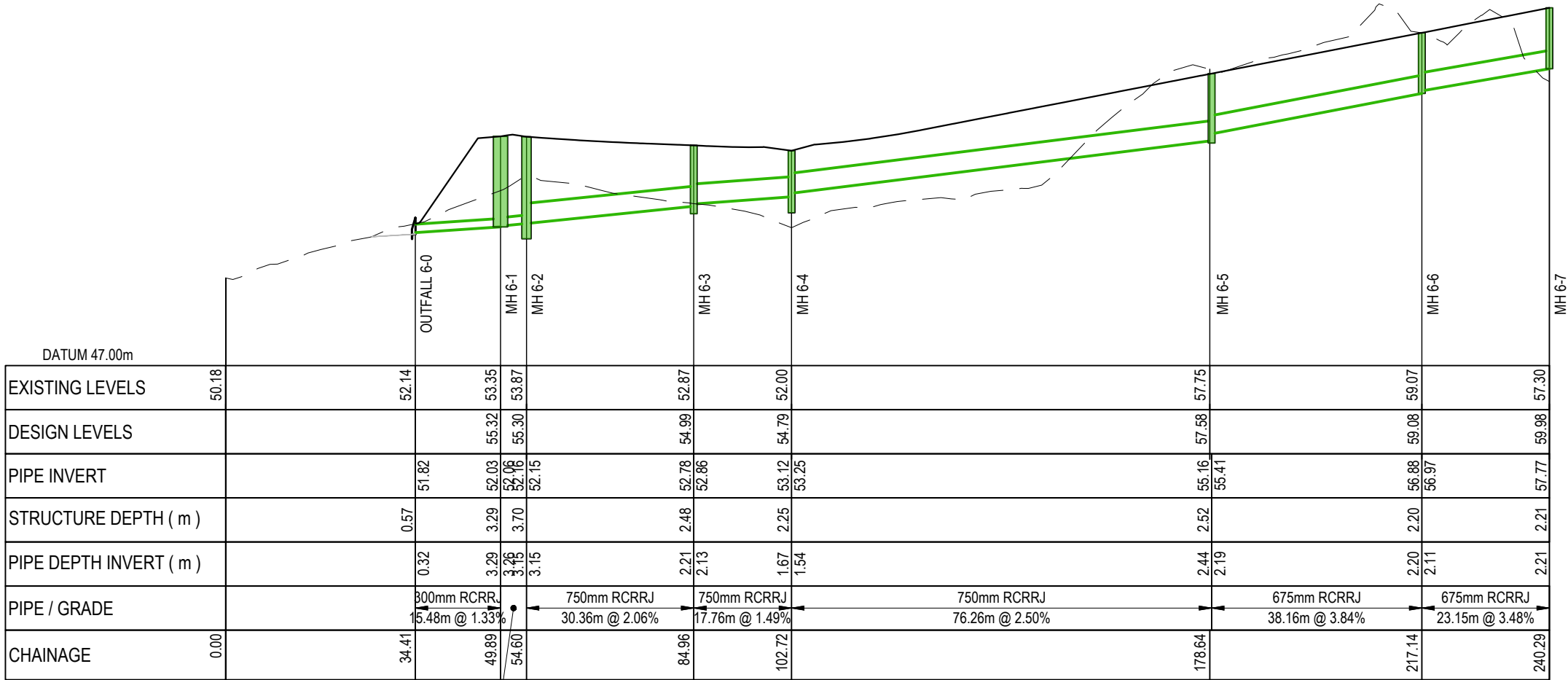
Title
**RETIREMENT VILLAGE
STORMWATER LONG
SECTIONS - ROAD RUN OFF**

Project no.	147016		
Scale	1:1000 @ A3		
Cad file	147016-RV-C420 SW LS_ROAD.DWG		
Drawing no.	C420-9	Rev	A

RESOURCE CONSENT

DATE: 4/3/25 FILE PATH: F:\Maven\PROJECTS\147016 - RIVERHEAD RETIREMENT VILLAGE\DWG\147016-RV-C420 SW LS ROAD.DWG

RESOURCE CONSENT



ROAD RUNOFF LINE 6 (1) CH 0.00 - CH 240.29
SCALE: HORI 1:1000 VERT 1:200

LEGEND:
--- EX GROUND SURFACE
--- PR DESIGN SURFACE
--- INDICATIVE LOCALISED GROUND LEVELS FOR SW DEVICE AND OUTLET IMPLEMENTATION. TO BE CONFIRMED IN DETAILED DESIGN

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



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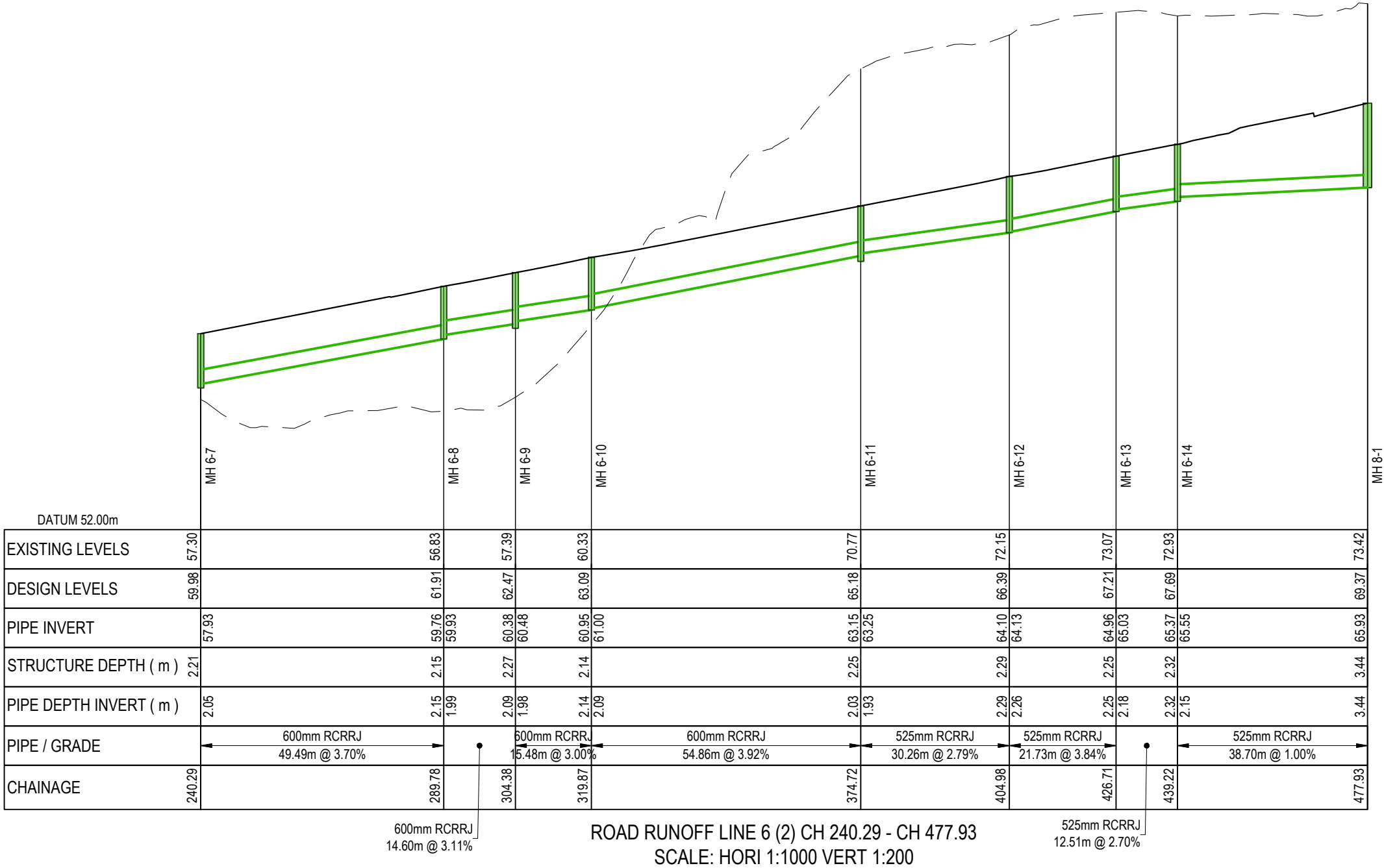
Project
DEVELOPMENT OF RIVERHEAD FOREST FOR RANGITOOPUNI DEVELOPMENTS LIMITED PARTNERSHIP

Title
RETIREMENT VILLAGE STORMWATER LONG SECTIONS - ROAD RUN OFF

Project no.	147016		
Scale	1:1000 @ A3		
Cad file	147016-RV-C420 SW LS_ROAD.DWG		
Drawing no.	C420-10	Rev	A

DATE: 4/30/25 FILEPATH: F:\Maven\PROJECTS\147016 - RIVERHEAD RETIREMENT VILLAGE\DWG\147016-RV-C420-SW-LS-ROAD.DWG

RESOURCE CONSENT



LEGEND:

- EX GROUND SURFACE
- PR DESIGN SURFACE
- INDICATIVE LOCALISED GROUND LEVELS FOR SW DEVICE AND OUTLET IMPLEMENTATION. TO BE CONFIRMED IN DETAILED DESIGN

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



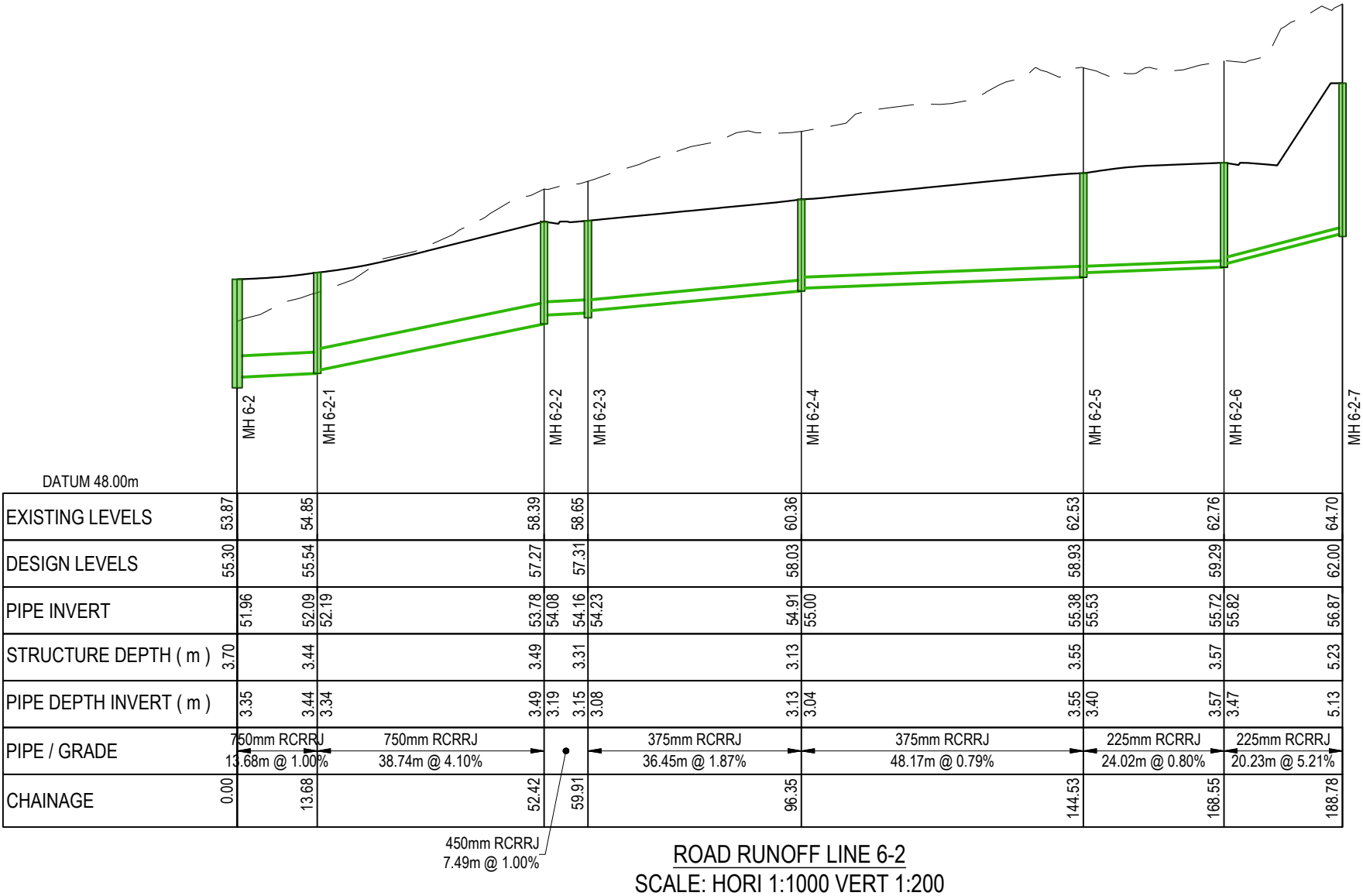
Project
**DEVELOPMENT OF
RIVERHEAD FOREST
FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

Title
**RETIREMENT VILLAGE
STORMWATER LONG
SECTIONS - ROAD RUN OFF**

Project no.	147016
Scale	1:1000 @ A3
Cad file	147016-RV-C420 SW LS ROAD.DWG
Drawing no.	C420-11
Rev	A

DATE: 4/3/2025 FILEPATH: F:\Maven\PROJECTS\147016 - RIVERHEAD RETIREMENT VILLAGE\DWG\147016-RV-C420 SW LS ROAD.DWG

RESOURCE CONSENT



LEGEND:
--- EX GROUND SURFACE
--- PR DESIGN SURFACE
--- INDICATIVE LOCALISED GROUND LEVELS FOR SW DEVICE AND OUTLET IMPLEMENTATION. TO BE CONFIRMED IN DETAILED DESIGN

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

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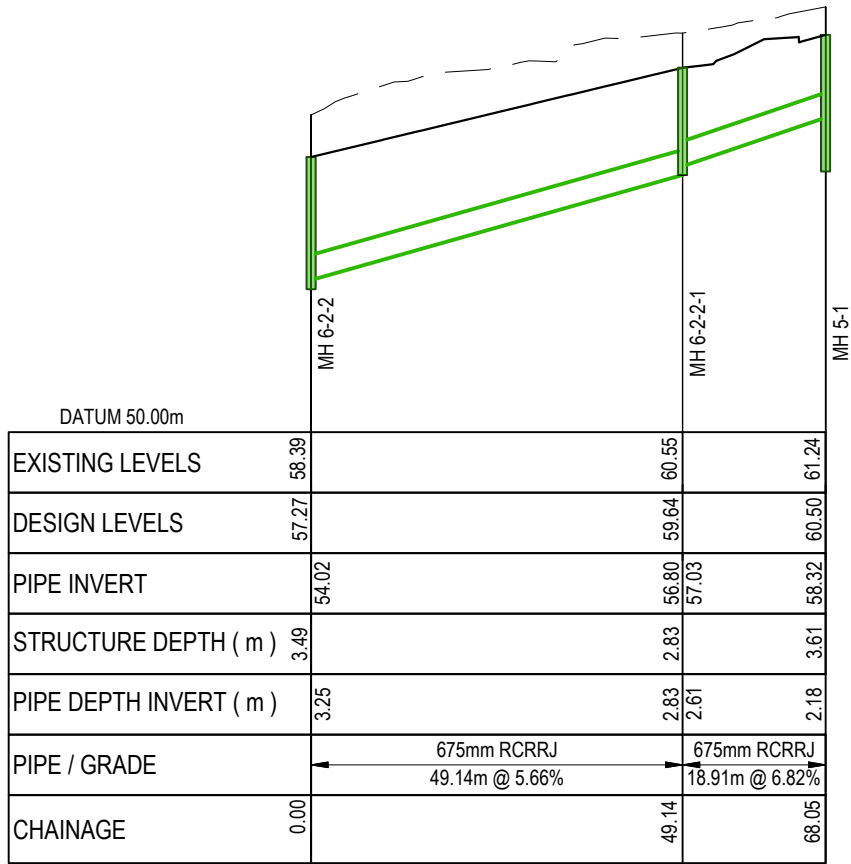
Project
DEVELOPMENT OF RIVERHEAD FOREST FOR RANGITOOPUNI DEVELOPMENTS LIMITED PARTNERSHIP

Title
RETIREMENT VILLAGE STORMWATER LONG SECTIONS - ROAD RUN OFF

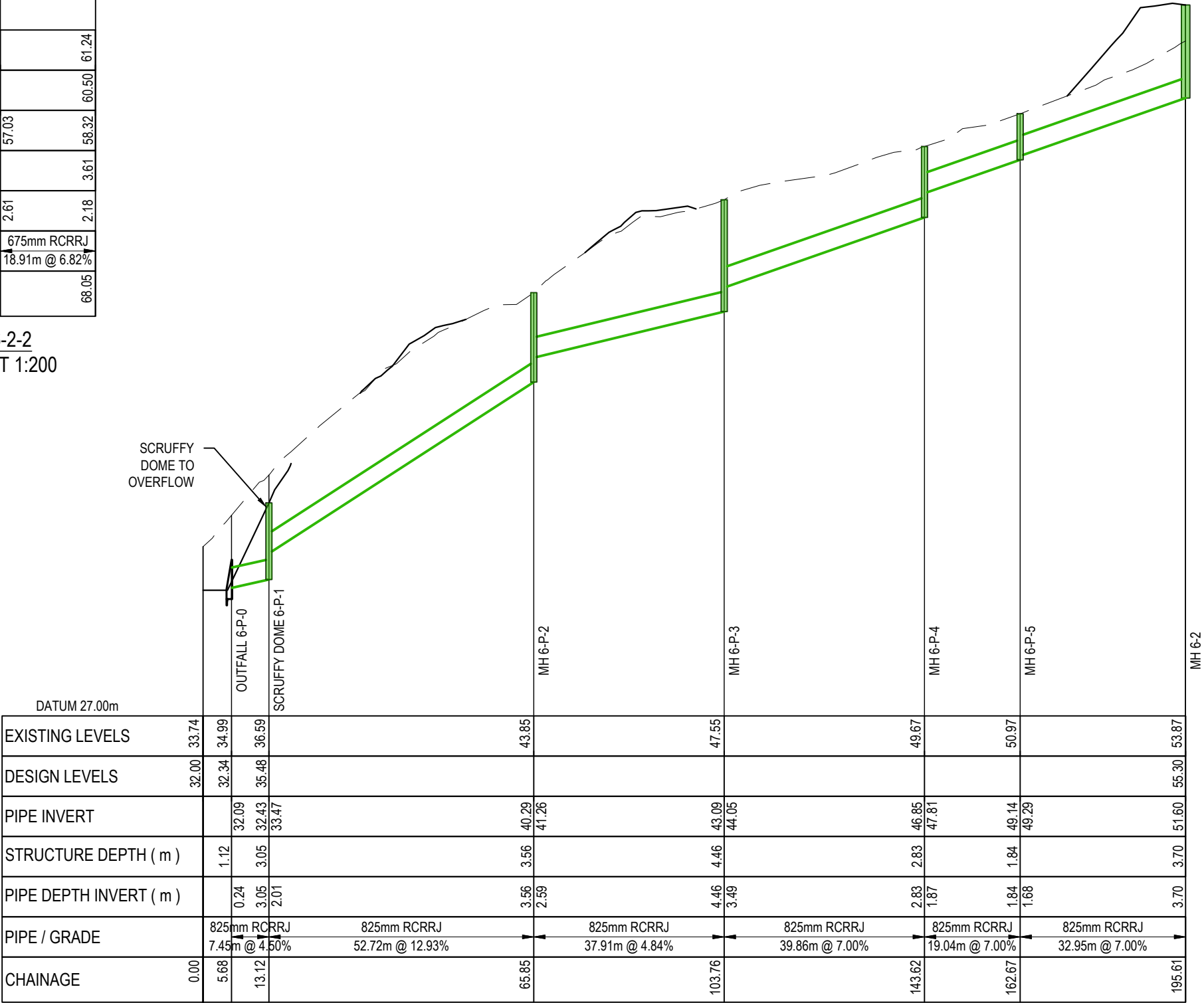
Project no.	147016		
Scale	1:1000 @ A3		
Cad file	147016-RV-C420 SW LS_ROAD.DWG		
Drawing no.	C420-12	Rev	A

DATE: 4/20/25 FILEPATH: F:\Maven\PROJECTS\147016 - RIVERHEAD RETIREMENT VILLAGE\DWG\147016-RV-C420 SW LS ROAD.DWG

RESOURCE CONSENT



ROAD RUNOFF LINE 6-2-2
SCALE: HORI 1:1000 VERT 1:200



ROAD RUNOFF LINE 6-POND
SCALE: HORI 1:1000 VERT 1:200

LEGEND:
--- EX GROUND SURFACE
--- PR DESIGN SURFACE
--- INDICATIVE LOCALISED GROUND LEVELS FOR SW DEVICE AND OUTLET IMPLEMENTATION. TO BE CONFIRMED IN DETAILED DESIGN

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



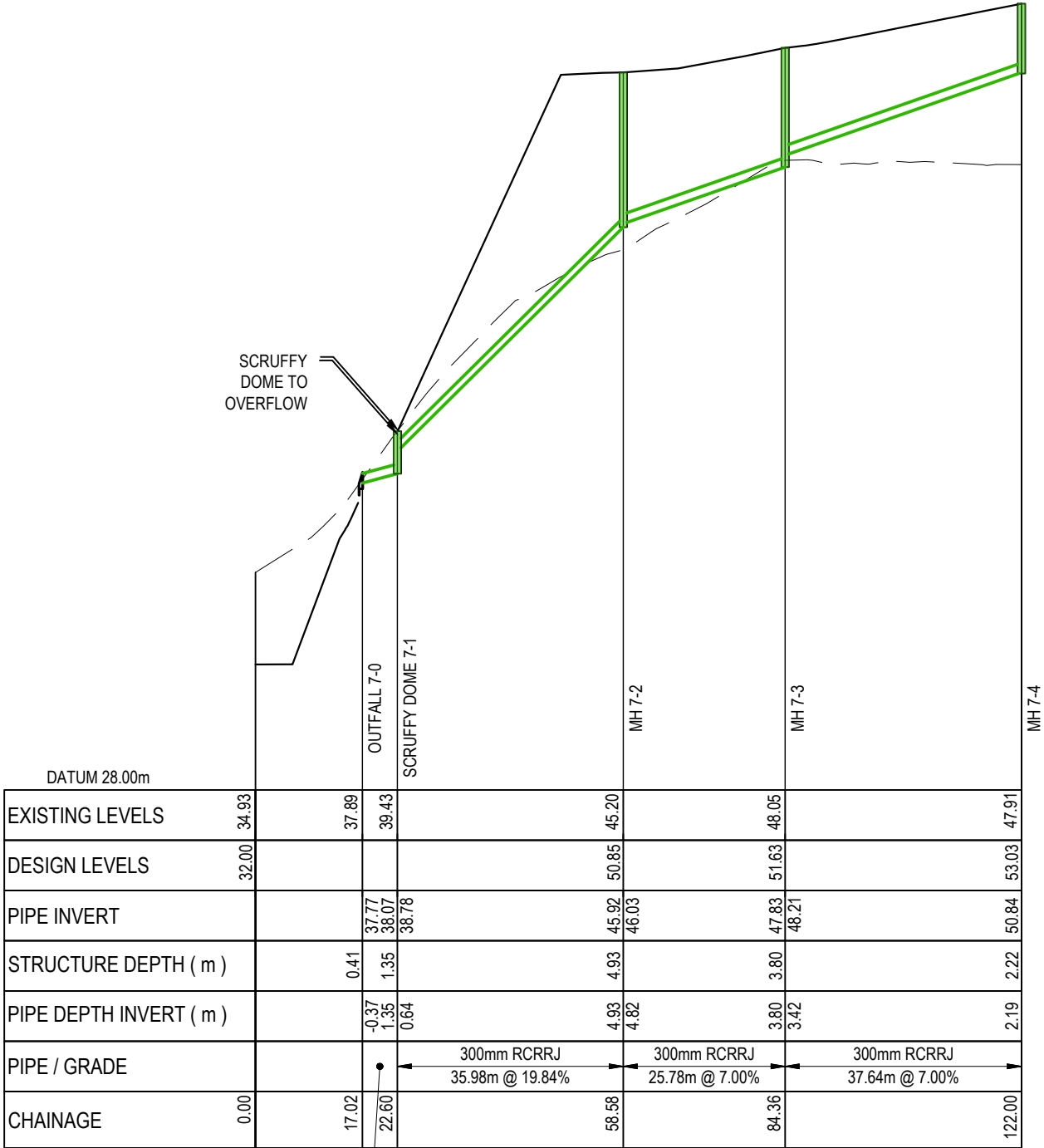
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Project
**DEVELOPMENT OF
RIVERHEAD FOREST
FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

Title
**RETIREMENT VILLAGE
STORMWATER LONG
SECTIONS - ROAD RUN OFF**

Project no.	147016
Scale	1:1000 @ A3
Cad file	147016-RV-C420 SW LS ROAD.DWG
Drawing no.	C420-13
Rev	A

DATE: 4/30/25 FILEPATH: F:\Maven\PROJECTS\147016 - RIVERHEAD RETIREMENT VILLAGE\DWG\147016-RV-C420 SW LS ROAD.DWG



RESOURCE CONSENT

LEGEND:			
---	EX GROUND SURFACE		
---	PR DESIGN SURFACE		
---	INDICATIVE LOCALISED GROUND LEVELS FOR SW DEVICE AND OUTLET IMPLEMENTATION. TO BE CONFIRMED IN DETAILED DESIGN		
A	RESOURCE CONSENT	AYC	03/2025
Rev	Description	By	Date
		By	Date
Survey	LIDAR		03/2022
Design	AYC		03/2025
Drawn	AYC		03/2025
Checked	RW		03/2025
M A E N 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 STORMWATER LONG SECTIONS - ROAD RUN OFF			
Project no.	147016		
Scale	1:1000 @ A3		
Cad file	147016-RV-C420 SW LS ROAD.DWG		
Drawing no.	C420-14	Rev	A

DATE: 4/30/25 FILEPATH: F:\Maven\PROJECTS\147016 - RIVERHEAD RETIREMENT VILLAGE\DWG\147016-RV-C420-SW-LS-ROAD.DWG

PROP
RAINGARDEN 8

-1.78

OUTFALL 8-0

SCRUFFY DOME 8

MH 8-1

MH 8-2

MH 8-3

MH 8-4

MH 8-5

DATUM 58.00m

EXISTING LEVELS	63.23		63.39		69.26	70.21			73.42			76.65		78.24		78.36		76.56
DESIGN LEVELS			63.26		67.46	67.64			69.37			71.39		72.33		73.10		74.28
PIPE INVERT			63.09		63.49	64.71			65.93	66.03		67.79	67.89	68.98	69.08	69.81	69.81	70.93
STRUCTURE DEPTH (m)		0.86		1.22				3.44			3.60			3.35		3.64		3.35
PIPE DEPTH INVERT (m)			0.17		3.97	2.93		3.44	3.34		3.60	3.50		3.35	3.25	3.30	3.30	3.35
PIPE / GRADE			525mm RCRRJ 19.74m @ 2.06%		525mm RCRRJ 60.97m @ 2.00%				525mm RCRRJ 56.98m @ 3.08%				525mm RCRRJ 38.37m @ 2.85%		525mm RCRRJ 31.75m @ 2.28%		450mm RCRRJ 49.37m @ 2.28%	
CHAINAGE	0.00	17.82		37.56	41.82		102.79			159.76			198.13		229.90		279.25	

ROAD RUNOFF LINE 8 (1) CH 0.00 - CH 279.25
SCALE: HORI 1:1000 VERT 1:200

RESOURCE CONSENT

LEGEND:
--- EX GROUND SURFACE
--- PR DESIGN SURFACE
--- INDICATIVE LOCALISED
GROUND LEVELS FOR
SW DEVICE AND OUTLET
IMPLEMENTATION. TO
BE CONFIRMED IN
DETAILED DESIGN

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

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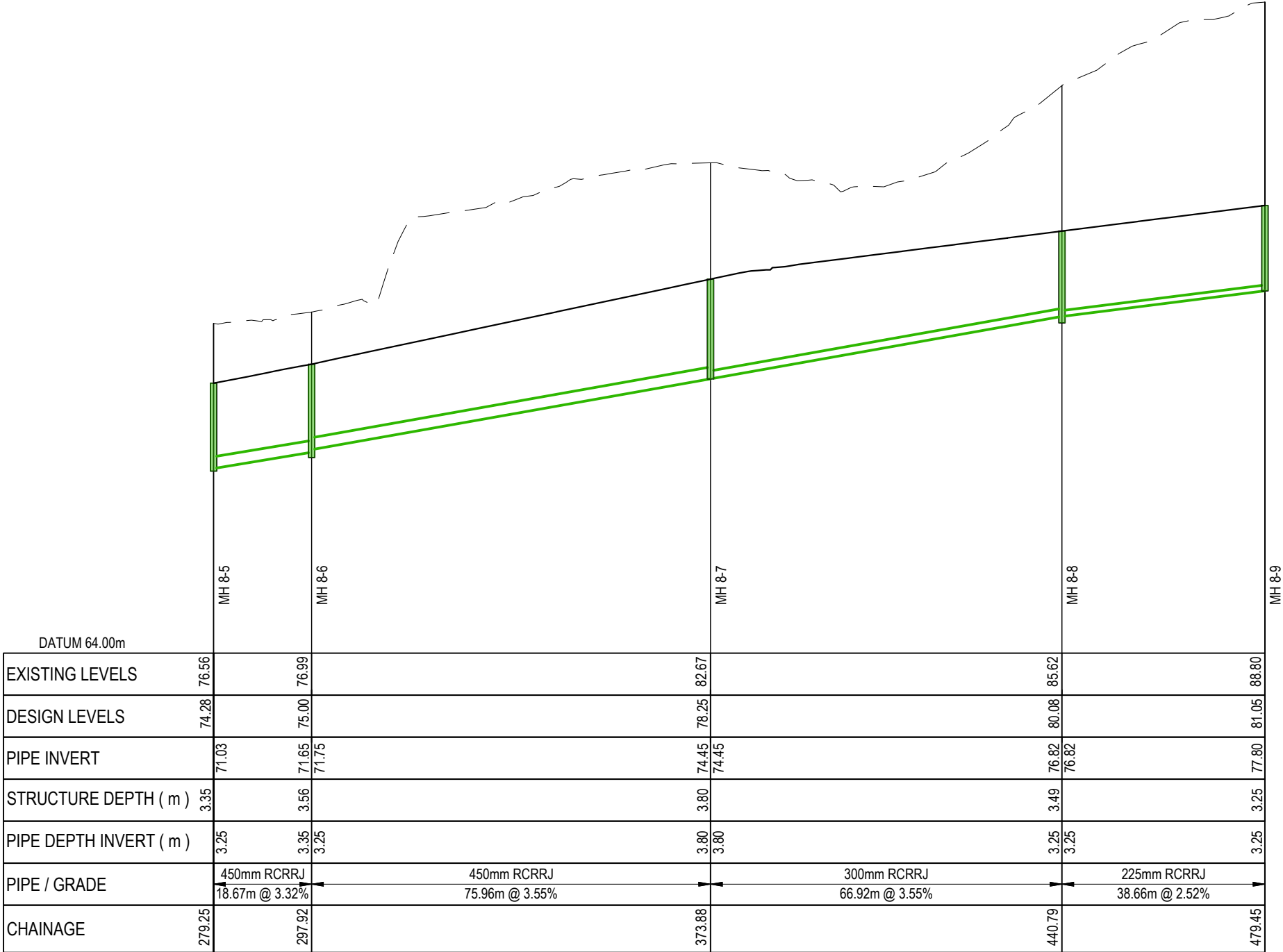
Project
**DEVELOPMENT OF
RIVERHEAD FOREST
FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

Title
**RETIREMENT VILLAGE
STORMWATER LONG
SECTIONS - ROAD RUN OFF**

Project no.	147016		
Scale	1:1000 @ A3		
Cad file	147016-RV-C420 SW LS_ROAD.DWG		
Drawing no.	C420-15	Rev	A

DATE: 4/3/2025 FILE PATH: F:\Maven\PROJECTS\147016 - RIVERHEAD RETIREMENT VILLAGE\DWG\147016-RV-C420 SW LS ROAD.DWG

RESOURCE CONSENT



ROAD RUNOFF LINE 8 (2) CH 279.25 - CH 479.45
SCALE: HORI 1:1000 VERT 1:200

LEGEND:
--- EX GROUND SURFACE
—— PR DESIGN SURFACE
—— INDICATIVE LOCALISED GROUND LEVELS FOR SW DEVICE AND OUTLET IMPLEMENTATION. TO BE CONFIRMED IN DETAILED DESIGN

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

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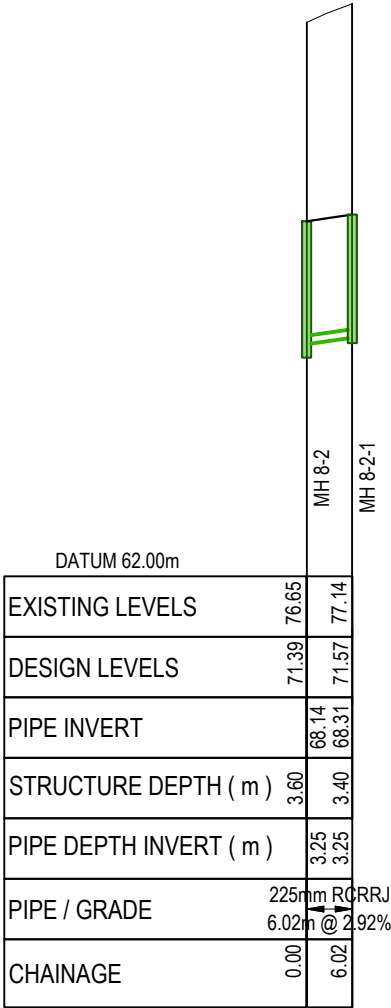
Project
DEVELOPMENT OF RIVERHEAD FOREST FOR RANGITOOPUNI DEVELOPMENTS LIMITED PARTNERSHIP

Title
RETIREMENT VILLAGE STORMWATER LONG SECTIONS - ROAD RUN OFF

Project no.	147016		
Scale	1:1000 @ A3		
Cad file	147016-RV-C420 SW LS_ROAD.DWG		
Drawing no.	C420-16	Rev	A

DATE: 4/30/25 FILE PATH: F:\Maven\PROJECTS\147016 - RIVERHEAD RETIREMENT VILLAGE\DWG\147016-RV-C420 SW LS ROAD.DWG

RESOURCE CONSENT



ROAD RUNOFF LINE 8-2
SCALE: HORI 1:1000 VERT 1:200

LEGEND:
--- EX GROUND SURFACE
--- PR DESIGN SURFACE
--- INDICATIVE LOCALISED GROUND LEVELS FOR SW DEVICE AND OUTLET IMPLEMENTATION. TO BE CONFIRMED IN DETAILED DESIGN

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

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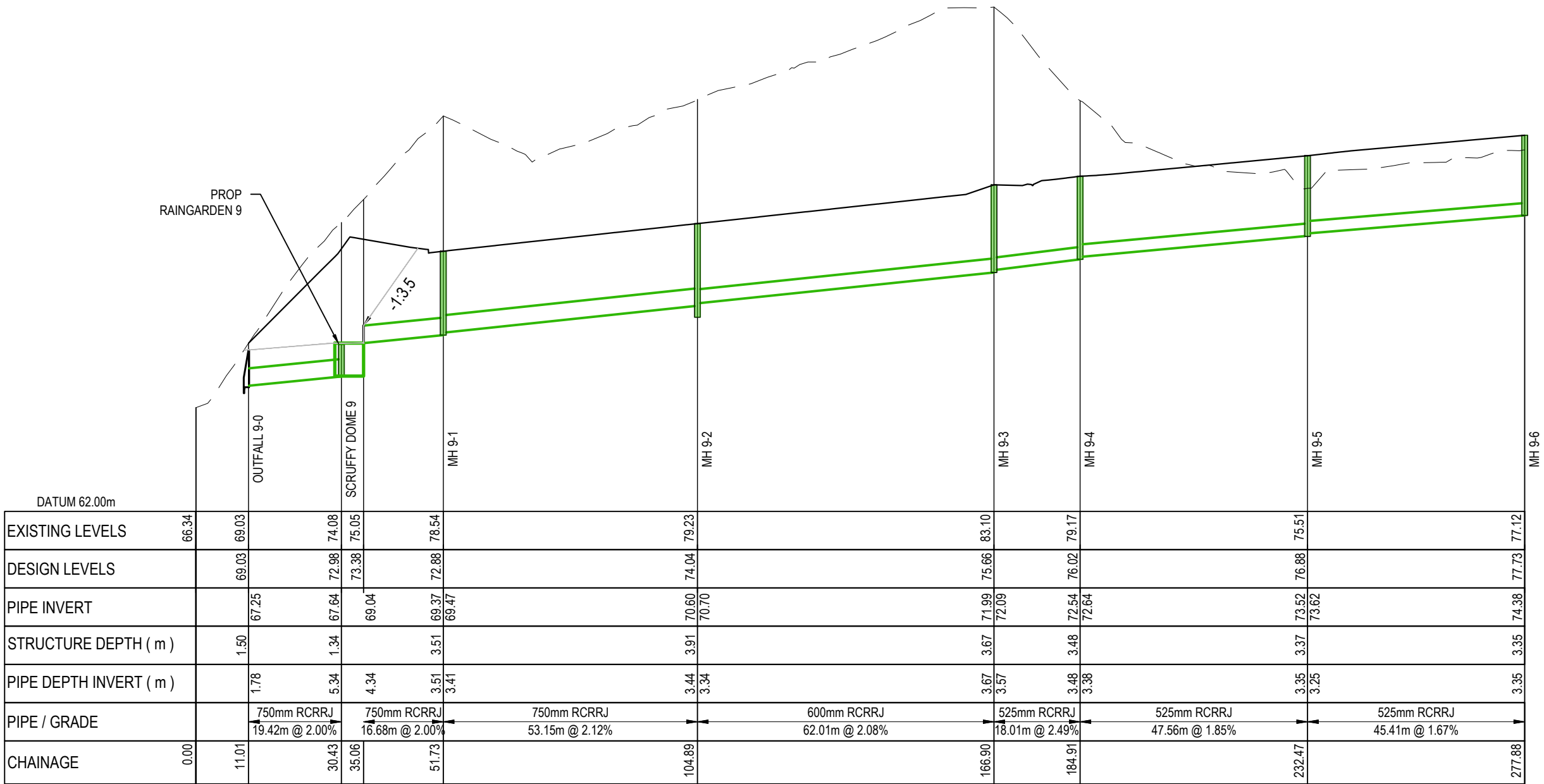
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Project
**DEVELOPMENT OF
RIVERHEAD FOREST
FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

Title
**RETIREMENT VILLAGE
STORMWATER LONG
SECTIONS - ROAD RUN OFF**

Project no.	147016		
Scale	1:1000 @ A3		
Cad file	147016-RV-C420 SW LS_ROAD.DWG		
Drawing no.	C420-17	Rev	A

DATE: 4/20/25 FILEPATH: F:\Maven\PROJECTS\147016 - RIVERHEAD RETIREMENT VILLAGE\DWG\42016-RV-C420 SW LS ROAD.DWG



ROAD RUNOFF LINE 9 (1) CH 0.00 - CH 277.88
SCALE: HORI 1:1000 VERT 1:200

RESOURCE CONSENT

LEGEND:
--- EX GROUND SURFACE
— PR DESIGN SURFACE
--- INDICATIVE LOCALISED GROUND LEVELS FOR SW DEVICE AND OUTLET IMPLEMENTATION. TO BE CONFIRMED IN DETAILED DESIGN

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

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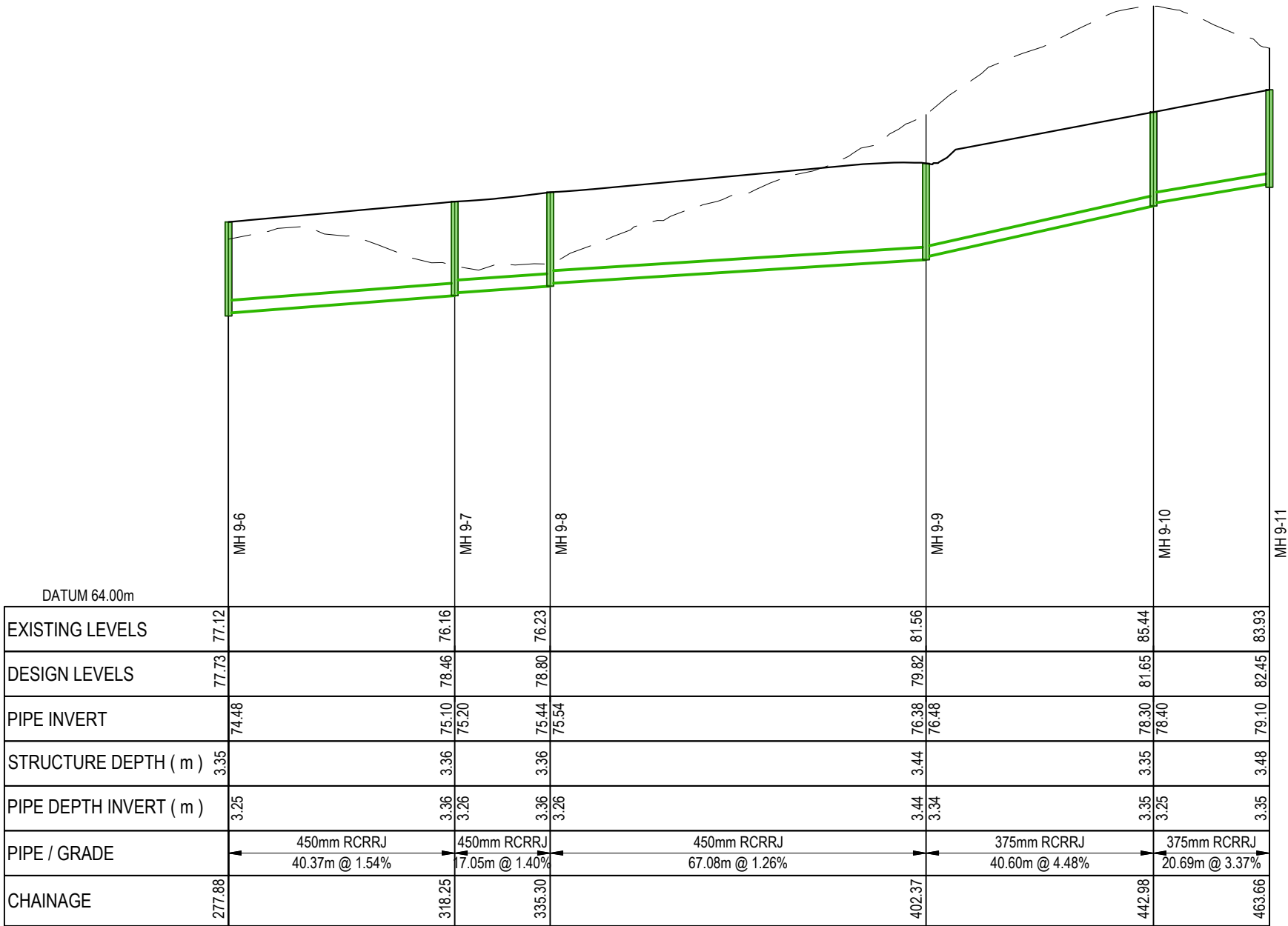
Project
**DEVELOPMENT OF
RIVERHEAD FOREST
FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

Title
**RETIREMENT VILLAGE
STORMWATER LONG
SECTIONS - ROAD RUN OFF**

Project no.	147016		
Scale	1:1000 @ A3		
Cad file	147016-RV-C420 SW LS_ROAD.DWG		
Drawing no.	C420-18	Rev	A

DATE: 4/3/25 FILE PATH: F:\Maven\PROJECTS\147016 - RIVERHEAD RETIREMENT VILLAGE\DWG\147016-RV-C420-SW-LS-ROAD.DWG

RESOURCE CONSENT



ROAD RUNOFF LINE 9 (2) CH 277.88 - CH 463.66
SCALE: HORI 1:1000 VERT 1:200

LEGEND:
--- EX GROUND SURFACE
—— PR DESIGN SURFACE
—— INDICATIVE LOCALISED GROUND LEVELS FOR SW DEVICE AND OUTLET IMPLEMENTATION. TO BE CONFIRMED IN DETAILED DESIGN

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

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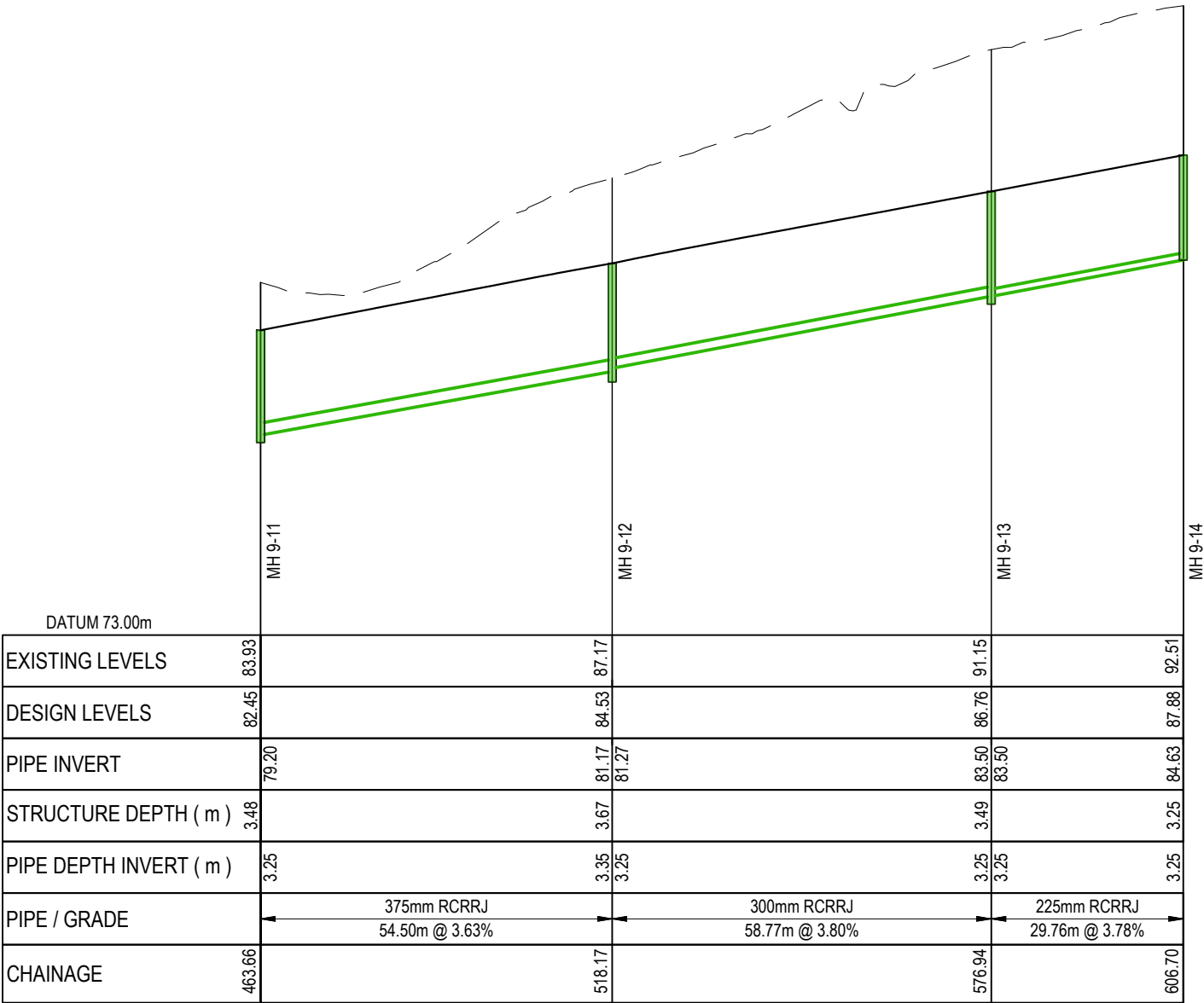
Project
**DEVELOPMENT OF
RIVERHEAD FOREST
FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

Title
**RETIREMENT VILLAGE
STORMWATER LONG
SECTIONS - ROAD RUN OFF**

Project no.	147016		
Scale	1:1000 @ A3		
Cad file	147016-RV-C420 SW LS_ROAD.DWG		
Drawing no.	C420-19	Rev	A

DATE: 4/3/25 FILE PATH: F:\Maven\PROJECTS\147016 - RIVERHEAD RETIREMENT VILLAGE\DWG\147016-RV-C420 SW LS ROAD.DWG

RESOURCE CONSENT



ROAD RUNOFF LINE 9 (3) CH 463.66 - CH 606.70
SCALE: HORI 1:1000 VERT 1:200

LEGEND:
--- EX GROUND SURFACE
—— PR DESIGN SURFACE
—— INDICATIVE LOCALISED GROUND LEVELS FOR SW DEVICE AND OUTLET IMPLEMENTATION. TO BE CONFIRMED IN DETAILED DESIGN

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



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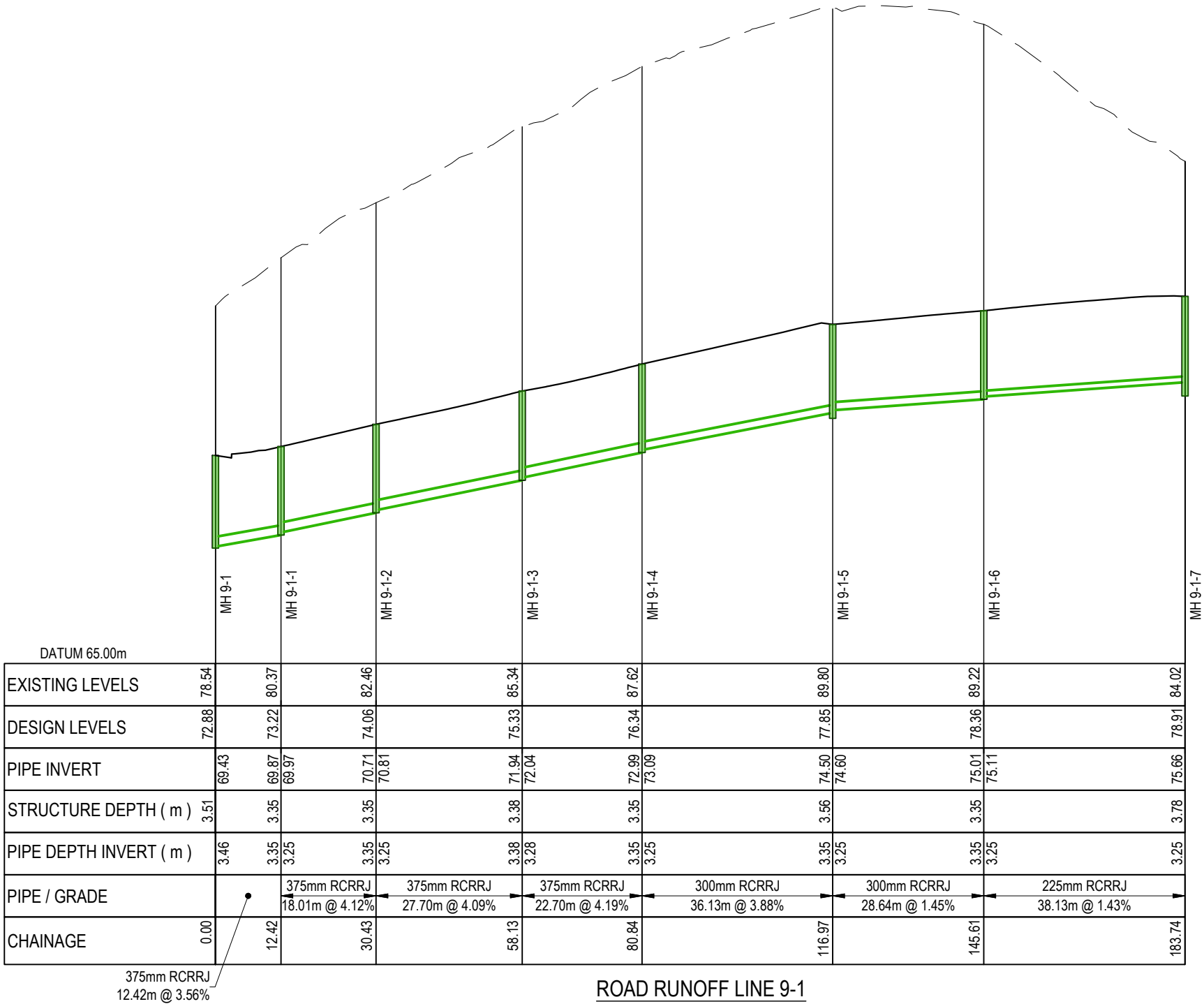
Project
**DEVELOPMENT OF
RIVERHEAD FOREST
FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

Title
**RETIREMENT VILLAGE
STORMWATER LONG
SECTIONS - ROAD RUN OFF**

Project no.	147016		
Scale	1:1000 @ A3		
Cad file	147016-RV-C420 SW LS ROAD.DWG		
Drawing no.	C420-20	Rev	A

DATE: 4/30/25 FILE PATH: F:\Maven\PROJECTS\147016 - RIVERHEAD RETIREMENT VILLAGE\DWG\147016-RV-C420 SW LS ROAD.DWG

RESOURCE CONSENT



ROAD RUNOFF LINE 9-1
SCALE: HORI 1:1000 VERT 1:200

LEGEND:
--- EX GROUND SURFACE
--- PR DESIGN SURFACE
--- INDICATIVE LOCALISED
GROUND LEVELS FOR
SW DEVICE AND OUTLET
IMPLEMENTATION. TO
BE CONFIRMED IN
DETAILED DESIGN

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



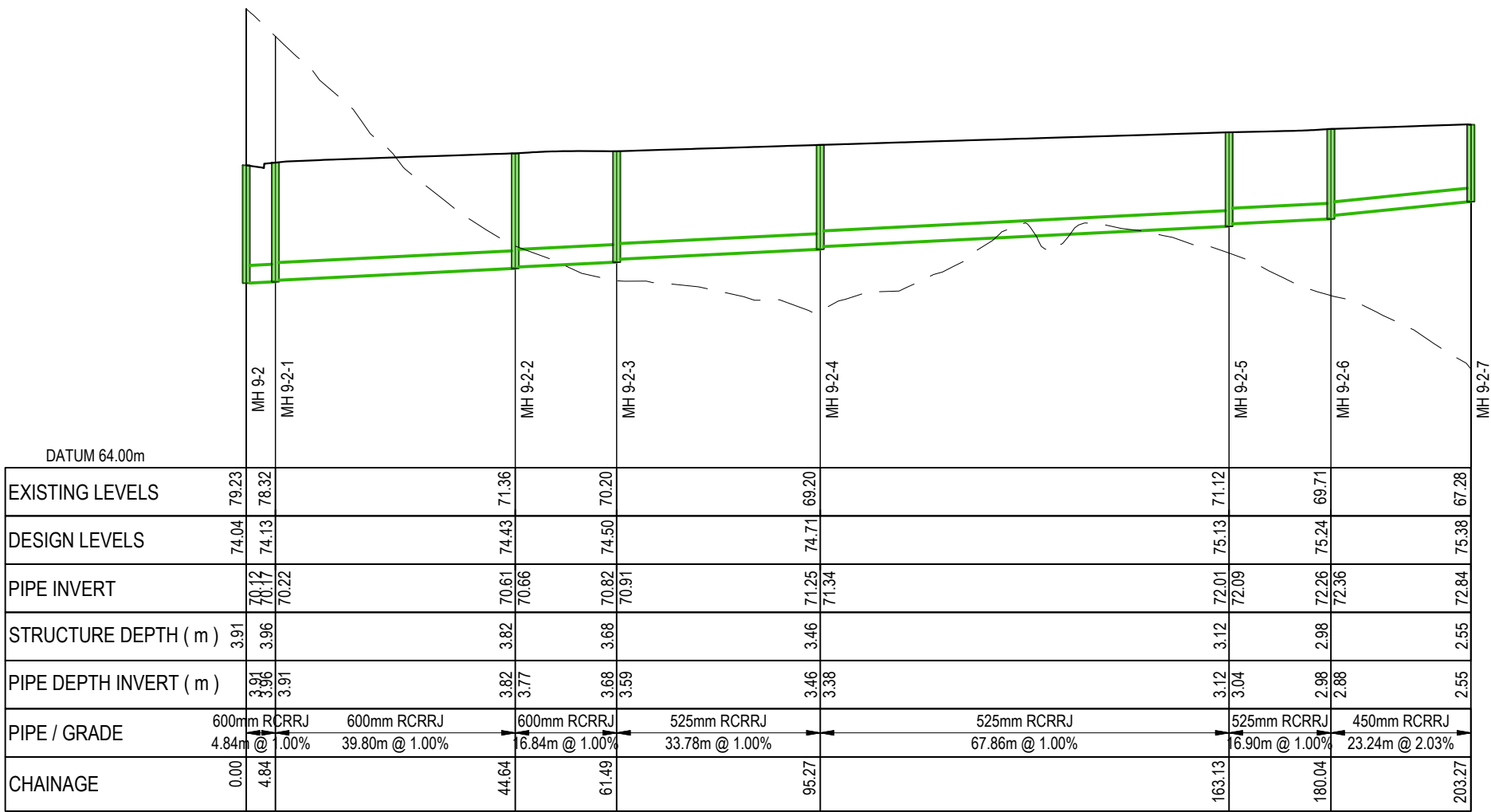
Project
**DEVELOPMENT OF
RIVERHEAD FOREST
FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

Title
**RETIREMENT VILLAGE
STORMWATER LONG
SECTIONS - ROAD RUN OFF**

Project no.	147016		
Scale	1:1000 @ A3		
Cad file	147016-RV-C420 SW LS_ROAD.DWG		
Drawing no.	C420-21	Rev	A

DATE: 4/3/2025 FILE PATH: F:\Maven\PROJECTS\147016 - RIVERHEAD RETIREMENT VILLAGE\DWG\147016-RV-C420 SW LS ROAD.DWG

RESOURCE CONSENT



ROAD RUNOFF LINE 9-2 (1) CH 0.00 - CH 203.27
SCALE: HORI 1:1000 VERT 1:200

LEGEND:
--- EX GROUND SURFACE
--- PR DESIGN SURFACE
--- INDICATIVE LOCALISED GROUND LEVELS FOR SW DEVICE AND OUTLET IMPLEMENTATION. TO BE CONFIRMED IN DETAILED DESIGN

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

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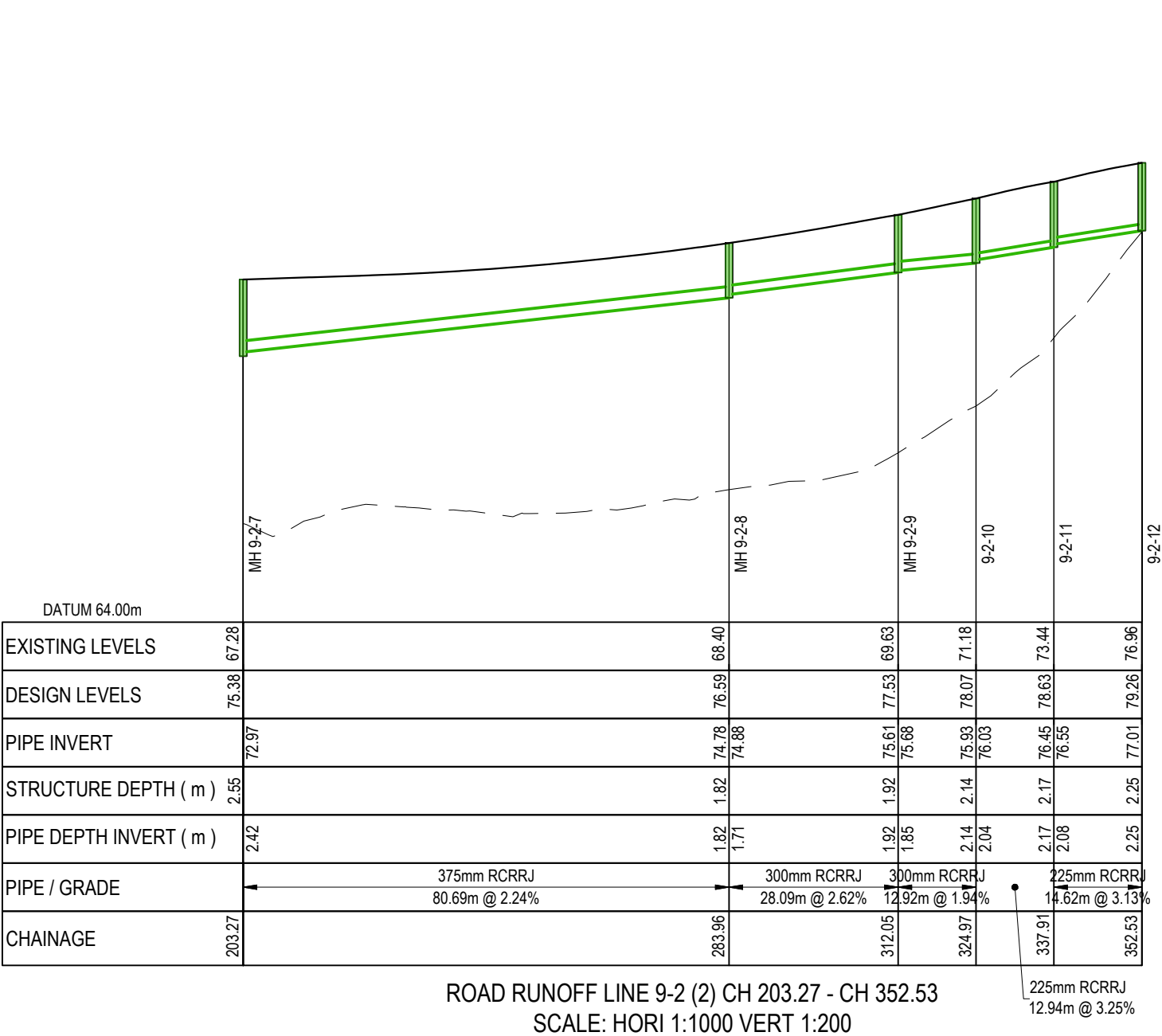
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Project
**DEVELOPMENT OF
RIVERHEAD FOREST
FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

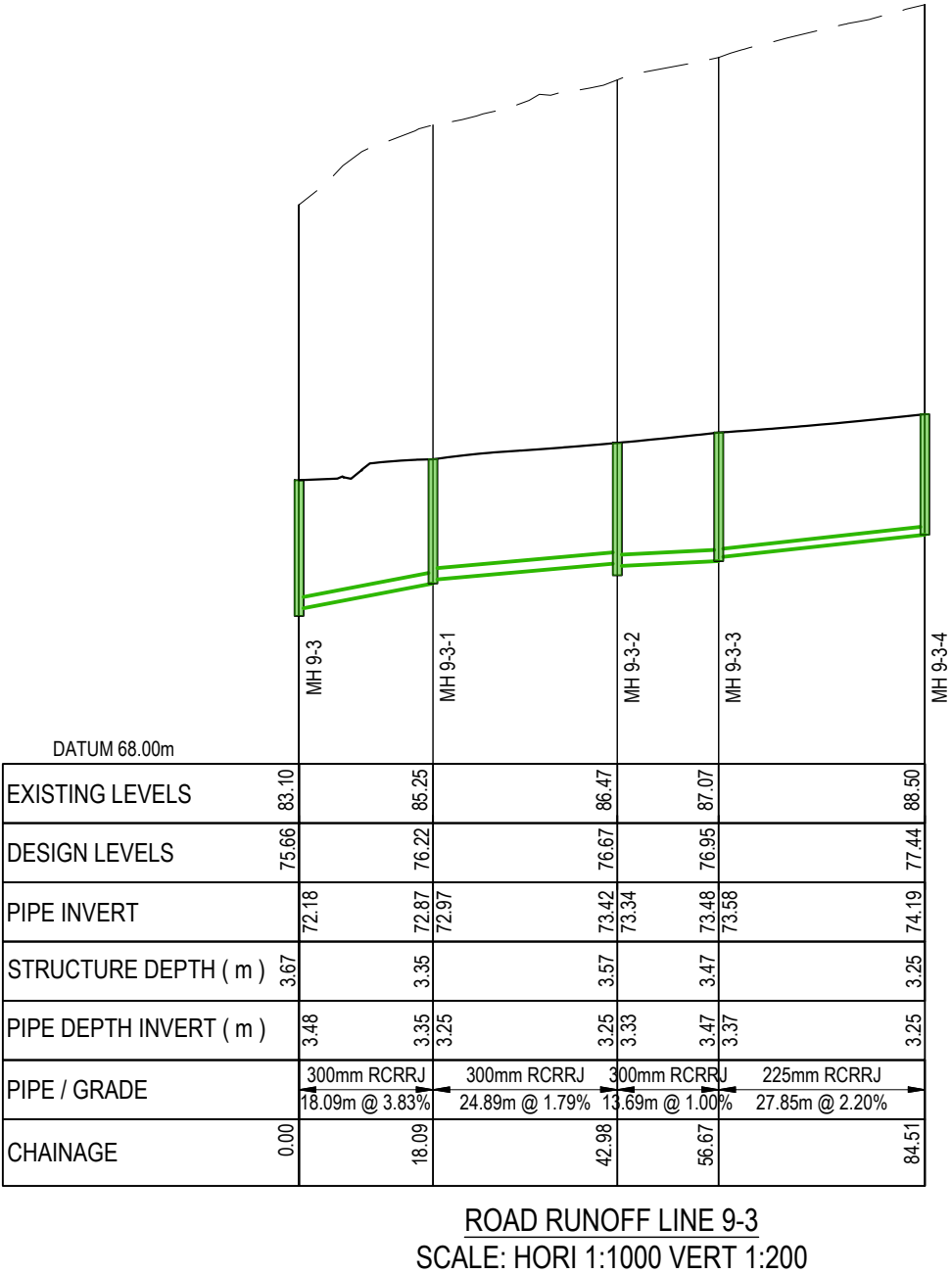
Title
**RETIREMENT VILLAGE
STORMWATER LONG
SECTIONS - ROAD RUN OFF**

Project no.	147016
Scale	1:1000 @ A3
Cad file	147016-RV-C420 SW LS ROAD.DWG
Drawing no.	C420-22
Rev	A

DATE: 4/30/25 FILEPATH: F:\Maven\PROJECTS\147016 - RIVERHEAD RETIREMENT VILLAGE\DWG\147016-RV-C420 SW LS ROAD.DWG



ROAD RUNOFF LINE 9-2 (2) CH 203.27 - CH 352.53
SCALE: HORI 1:1000 VERT 1:200



ROAD RUNOFF LINE 9-3
SCALE: HORI 1:1000 VERT 1:200

LEGEND:
--- EX GROUND SURFACE
--- PR DESIGN SURFACE
--- INDICATIVE LOCALISED GROUND LEVELS FOR SW DEVICE AND OUTLET IMPLEMENTATION. TO BE CONFIRMED IN DETAILED DESIGN

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



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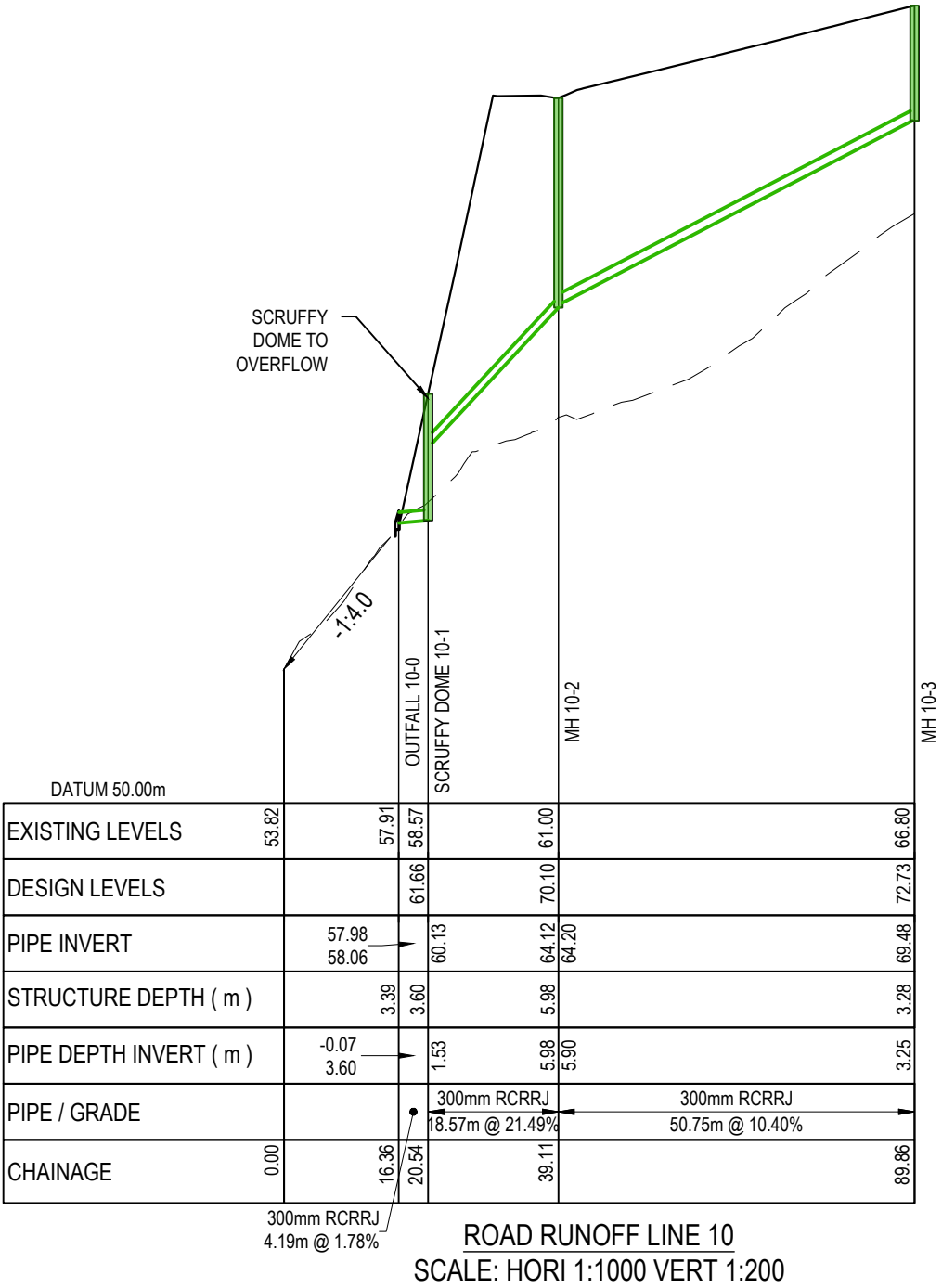
Project
**DEVELOPMENT OF
RIVERHEAD FOREST
FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

Title
**RETIREMENT VILLAGE
STORMWATER LONG
SECTIONS - ROAD RUN OFF**

Project no.	147016
Scale	1:1000 @ A3
Cad file	147016-RV-C420 SW LS ROAD.DWG
Drawing no.	C420-23
Rev	A

RESOURCE CONSENT

DATE: 4/3/2025 FILEPATH: F:\Maven\PROJECTS\147016 - RIVERHEAD RETIREMENT VILLAGE\DWG\147016-RV-C420 SW LS ROAD.DWG



RESOURCE CONSENT

LEGEND:
--- EX GROUND SURFACE
--- PR DESIGN SURFACE
--- INDICATIVE LOCALISED GROUND LEVELS FOR SW DEVICE AND OUTLET IMPLEMENTATION. TO BE CONFIRMED IN DETAILED DESIGN

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

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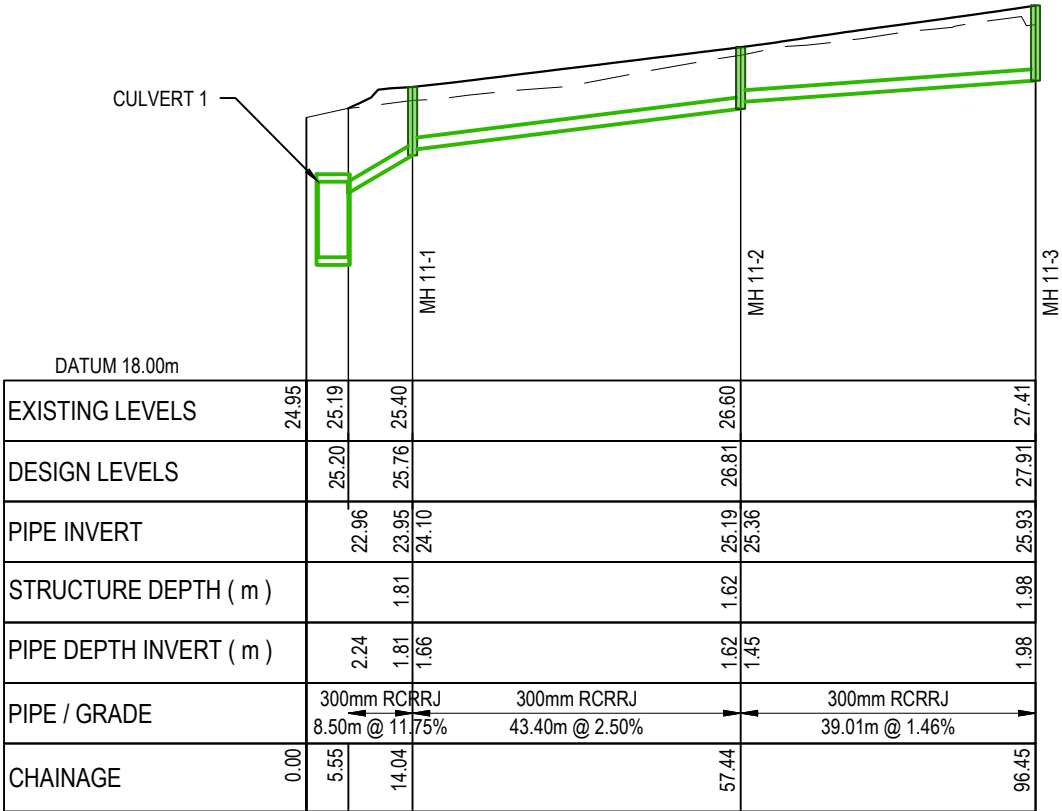
Project
**DEVELOPMENT OF
RIVERHEAD FOREST
FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

Title
**RETIREMENT VILLAGE
STORMWATER LONG
SECTIONS - ROAD RUN OFF**

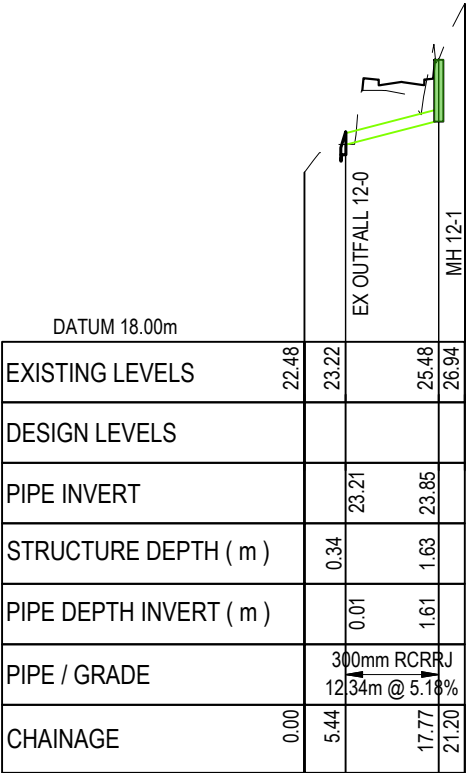
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Scale	1:1000 @ A3		
Cad file	147016-RV-C420 SW LS ROAD.DWG		
Drawing no.	C420-24	Rev	A

DATE: 4/3/2025 FILE PATH: F:\Maven\PROJECTS\147016 - RIVERHEAD RETIREMENT VILLAGE\DWG\147016-RV-C420 SW LS ROAD.DWG

RESOURCE CONSENT



ROAD RUNOFF LINE 11
SCALE: HORI 1:1000 VERT 1:200



ROAD RUNOFF LINE 12
SCALE: HORI 1:1000 VERT 1:200

LEGEND:
--- EX GROUND SURFACE
--- PR DESIGN SURFACE
--- INDICATIVE LOCALISED GROUND LEVELS FOR SW DEVICE AND OUTLET IMPLEMENTATION. TO BE CONFIRMED IN DETAILED DESIGN

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

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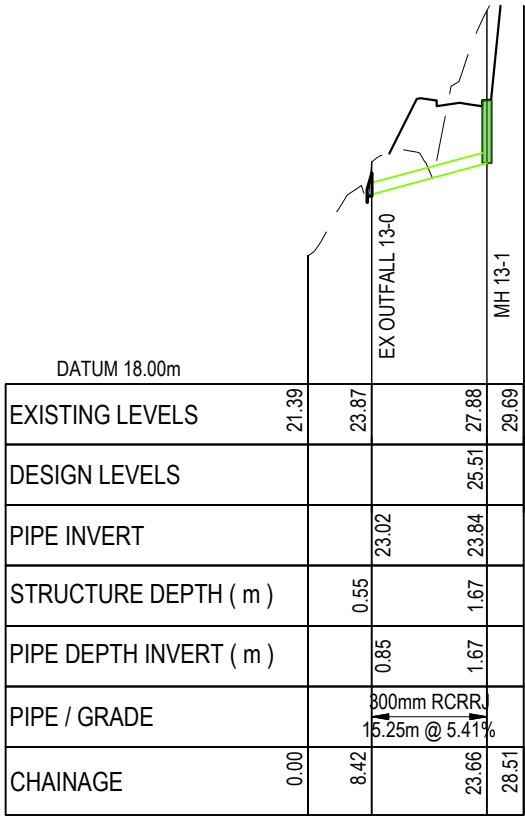
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Project
DEVELOPMENT OF RIVERHEAD FOREST FOR RANGITOOPUNI DEVELOPMENTS LIMITED PARTNERSHIP

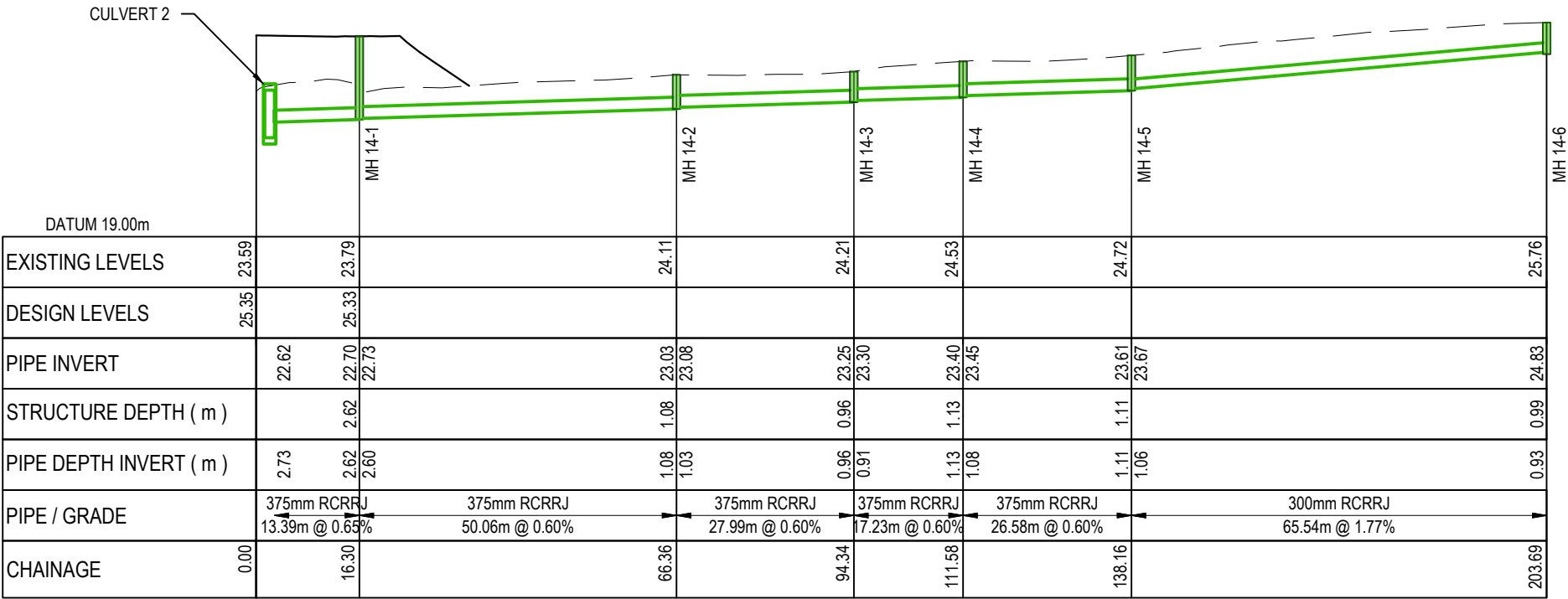
Title
RETIREMENT VILLAGE STORMWATER LONG SECTIONS - ROAD RUN OFF

Project no.	147016
Scale	1:1000 @ A3
Cad file	147016-RV-C420 SW LS ROAD.DWG
Drawing no.	C420-25
Rev	A

DATE: 4/30/25 FILE PATH: F:\Maven\PROJECTS\147016 - RIVERHEAD RETIREMENT VILLAGE\DWG\147016-RV-C420 SW LS ROAD.DWG



ROAD RUNOFF LINE 13
SCALE: HORI 1:1000 VERT 1:200



ROAD RUNOFF LINE 14
SCALE: HORI 1:1000 VERT 1:200

LEGEND:
--- EX GROUND SURFACE
--- PR DESIGN SURFACE
--- INDICATIVE LOCALISED GROUND LEVELS FOR SW DEVICE AND OUTLET IMPLEMENTATION. TO BE CONFIRMED IN DETAILED DESIGN

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



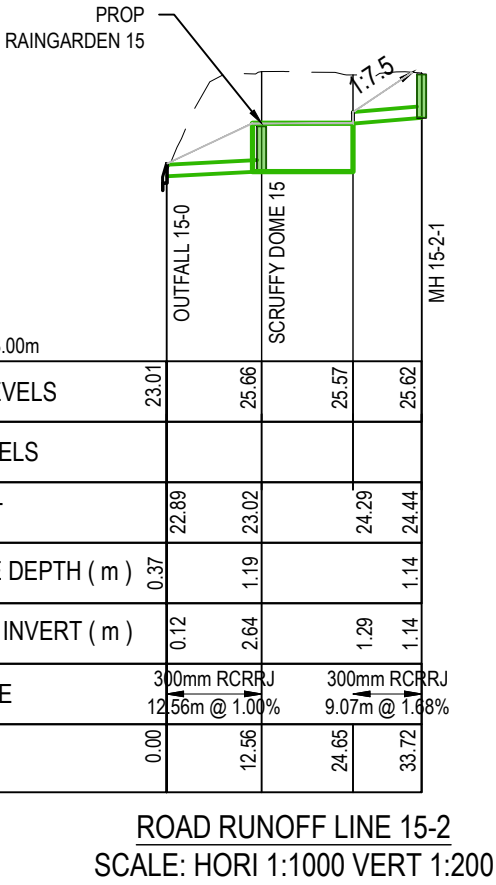
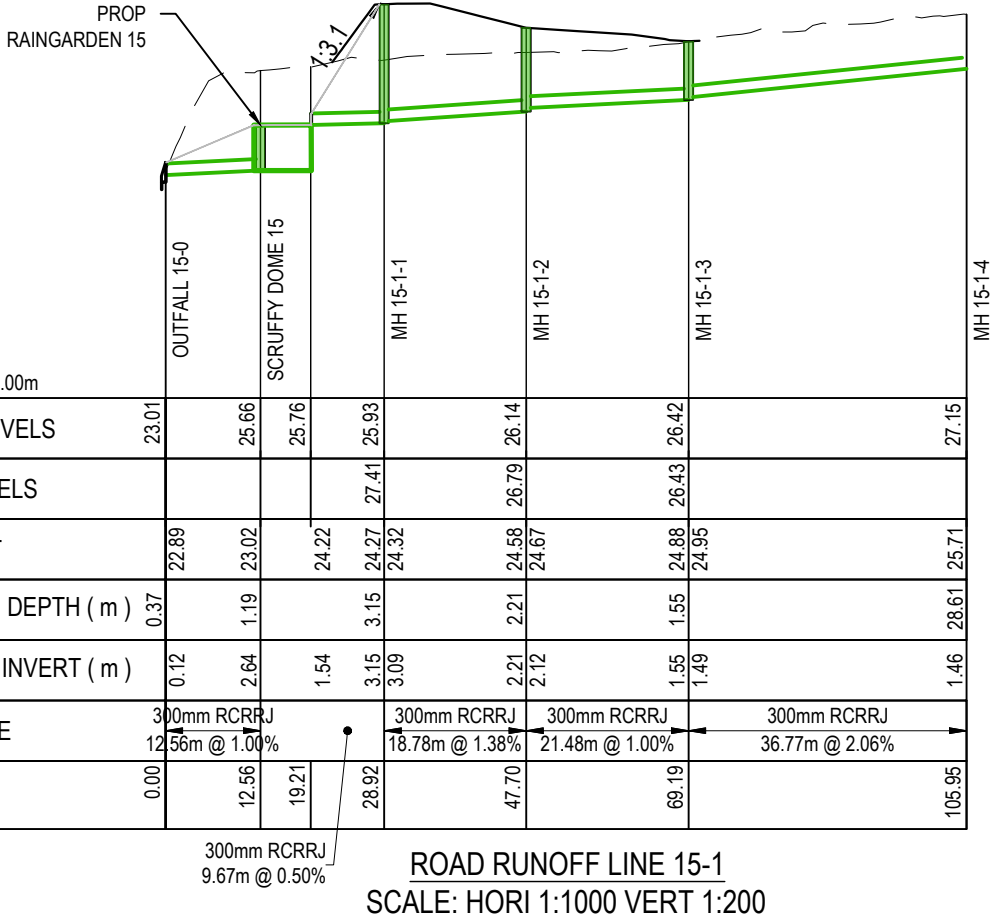
Project
DEVELOPMENT OF RIVERHEAD FOREST FOR RANGITOOPUNI DEVELOPMENTS LIMITED PARTNERSHIP

Title
RETIREMENT VILLAGE STORMWATER LONG SECTIONS - ROAD RUN OFF

Project no.	147016
Scale	1:1000 @ A3
Cad file	147016-RV-C420 SW LS ROAD.DWG
Drawing no.	C420-26
Rev	A

RESOURCE CONSENT

DATE: 4/3/2025 FILE PATH: F:\Maven\PROJECTS\147016 - RIVERHEAD RETIREMENT VILLAGE\DWG\147016-RV-C420 SW LS ROAD.DWG



LEGEND:

- EX GROUND SURFACE
- PR DESIGN SURFACE
- INDICATIVE LOCALISED GROUND LEVELS FOR SW DEVICE AND OUTLET IMPLEMENTATION. TO BE CONFIRMED IN DETAILED DESIGN

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

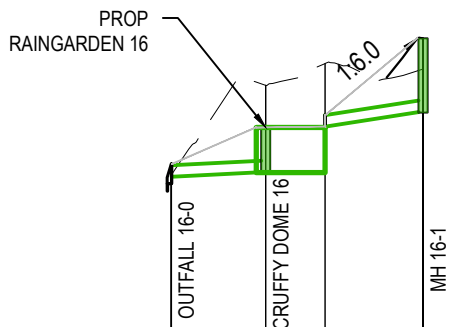


Project
**DEVELOPMENT OF
RIVERHEAD FOREST
FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

Title
**RETIREMENT VILLAGE
STORMWATER LONG
SECTIONS - ROAD RUN OFF**

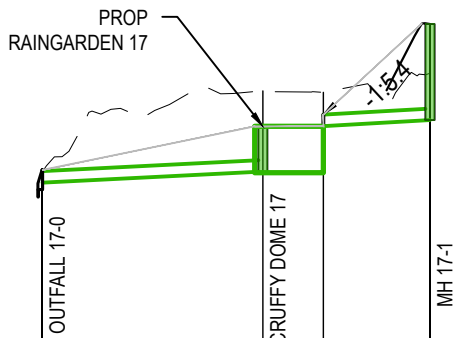
Project no.	147016		
Scale	1:1000 @ A3		
Cad file	147016-RV-C420 SW LS_ROAD.DWG		
Drawing no.	C420-27	Rev	A

RESOURCE CONSENT



DATUM 20.00m				
EXISTING LEVELS	24.85	27.22	27.80	27.65
DESIGN LEVELS				28.47
PIPE INVERT	24.80	24.93	26.13	26.53
STRUCTURE DEPTH (m)	0.34	1.18		1.96
PIPE DEPTH INVERT (m)	0.05	2.29	1.67	1.93
PIPE / GRADE	300mm RCRRJ 12.50m @ 1.00%	300mm RCRRJ 12.95m @ 3.12%		
CHAINAGE	0.00	12.50	20.36	33.31

ROAD RUNOFF LINE 16
SCALE: HORI 1:1000 VERT 1:200



DATUM 19.00m				
EXISTING LEVELS	24.32	26.47	26.43	26.94
DESIGN LEVELS				28.24
PIPE INVERT	24.05	24.34	25.54	25.70
STRUCTURE DEPTH (m)	0.37	1.23		2.54
PIPE DEPTH INVERT (m)	0.27	2.13	0.89	2.54
PIPE / GRADE	300mm RCRRJ 29.21m @ 1.00%	300mm RCRRJ 14.10m @ 1.14%		
CHAINAGE	0.00	29.21	37.20	51.31

ROAD RUNOFF LINE 17
SCALE: HORI 1:1000 VERT 1:200

LEGEND:
--- EX GROUND SURFACE
--- PR DESIGN SURFACE
--- INDICATIVE LOCALISED
GROUND LEVELS FOR
SW DEVICE AND OUTLET
IMPLEMENTATION. TO
BE CONFIRMED IN
DETAILED DESIGN

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



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**DEVELOPMENT OF
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DEVELOPMENTS LIMITED
PARTNERSHIP**

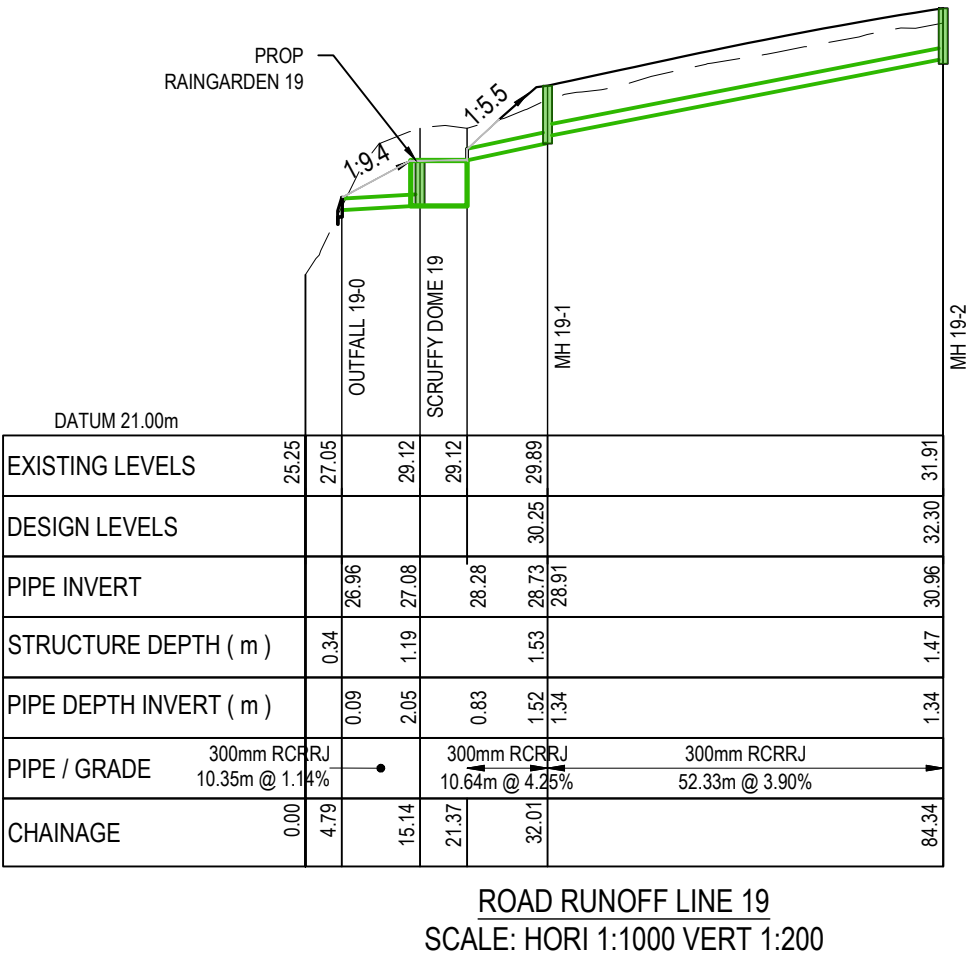
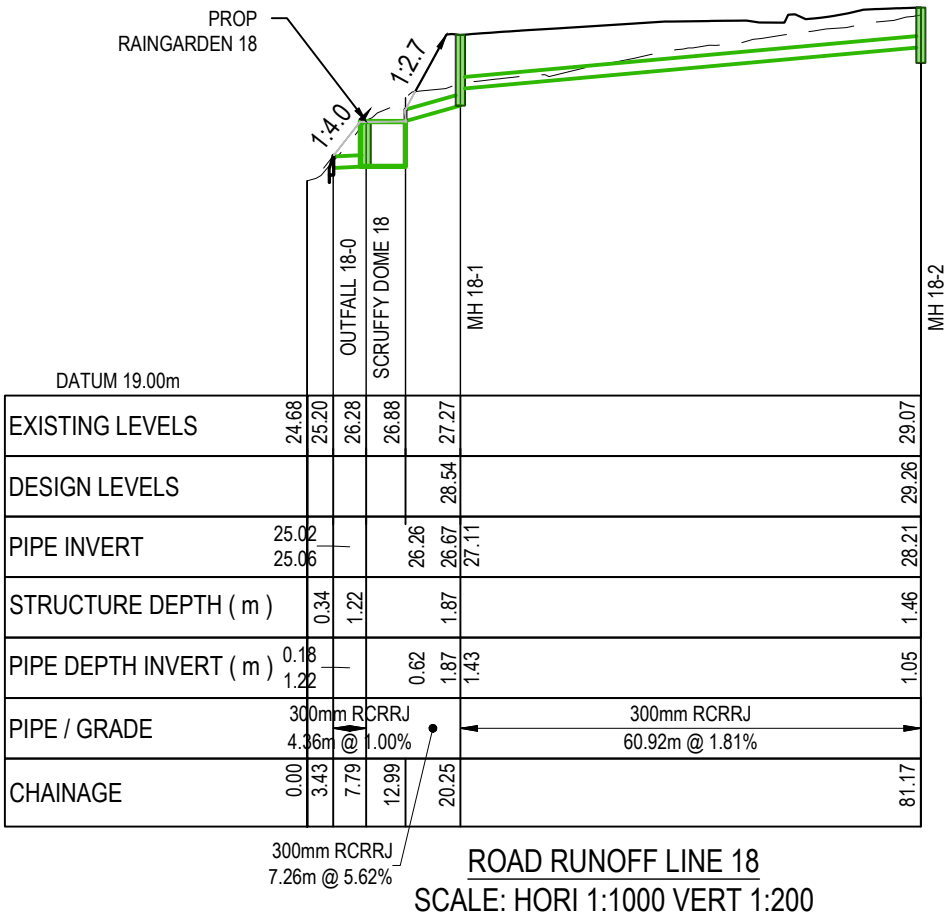
Title
**RETIREMENT VILLAGE
STORMWATER LONG
SECTIONS - ROAD RUN OFF**

Project no.	147016		
Scale	1:1000 @ A3		
Cad file	147016-RV-C420 SW LS_ ROAD.DWG		
Drawing no.	C420-28	Rev	A

RESOURCE CONSENT

DATE: 4/30/25 FILE PATH: F:\Maven\PROJECTS\147016 - RIVERHEAD RETIREMENT VILLAGE\DWG\420\147016-RV-C420 SW LS ROAD.DWG

RESOURCE CONSENT



LEGEND:
--- EX GROUND SURFACE
--- PR DESIGN SURFACE
--- INDICATIVE LOCALISED GROUND LEVELS FOR SW DEVICE AND OUTLET IMPLEMENTATION. TO BE CONFIRMED IN DETAILED DESIGN

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



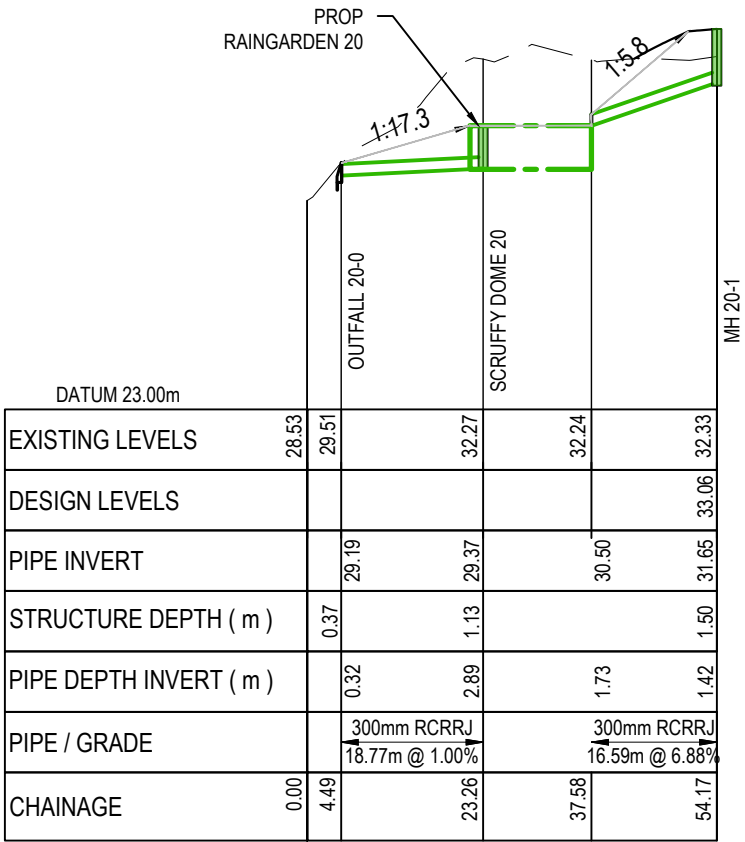
Project
**DEVELOPMENT OF
RIVERHEAD FOREST
FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

Title
**RETIREMENT VILLAGE
STORMWATER LONG
SECTIONS - ROAD RUN OFF**

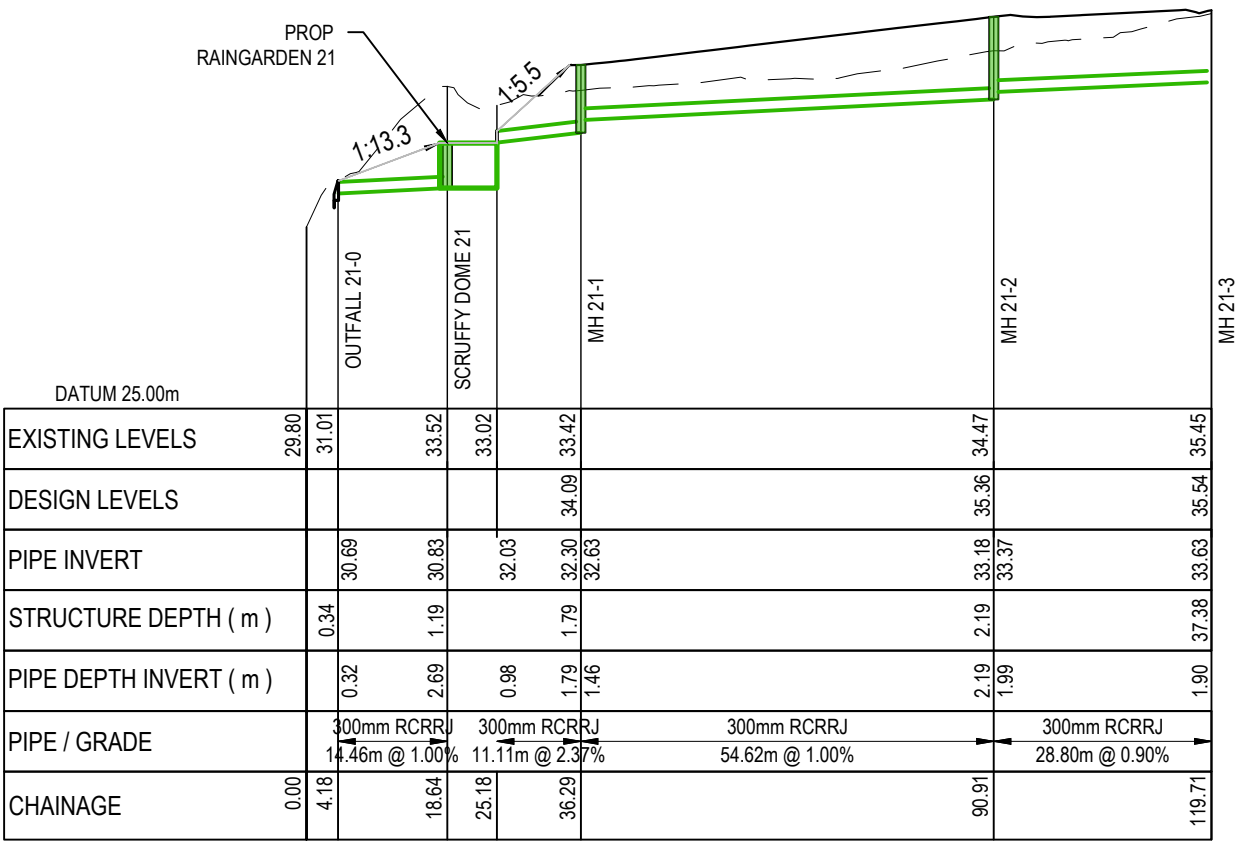
Project no.	147016
Scale	1:1000 @ A3
Cad file	147016-RV-C420 SW LS ROAD.DWG
Drawing no.	C420-29
Rev	A

DATE: 4/3/2025 FILE PATH: F:\Maven\PROJECTS\147016 - RIVERHEAD RETIREMENT VILLAGE\DWG\420\16-RV-C420 SW LS ROAD.DWG

RESOURCE CONSENT



ROAD RUNOFF LINE 20
SCALE: HORI 1:1000 VERT 1:200



ROAD RUNOFF LINE 21
SCALE: HORI 1:1000 VERT 1:200

LEGEND:
--- EX GROUND SURFACE
--- PR DESIGN SURFACE
--- INDICATIVE LOCALISED GROUND LEVELS FOR SW DEVICE AND OUTLET IMPLEMENTATION. TO BE CONFIRMED IN DETAILED DESIGN

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

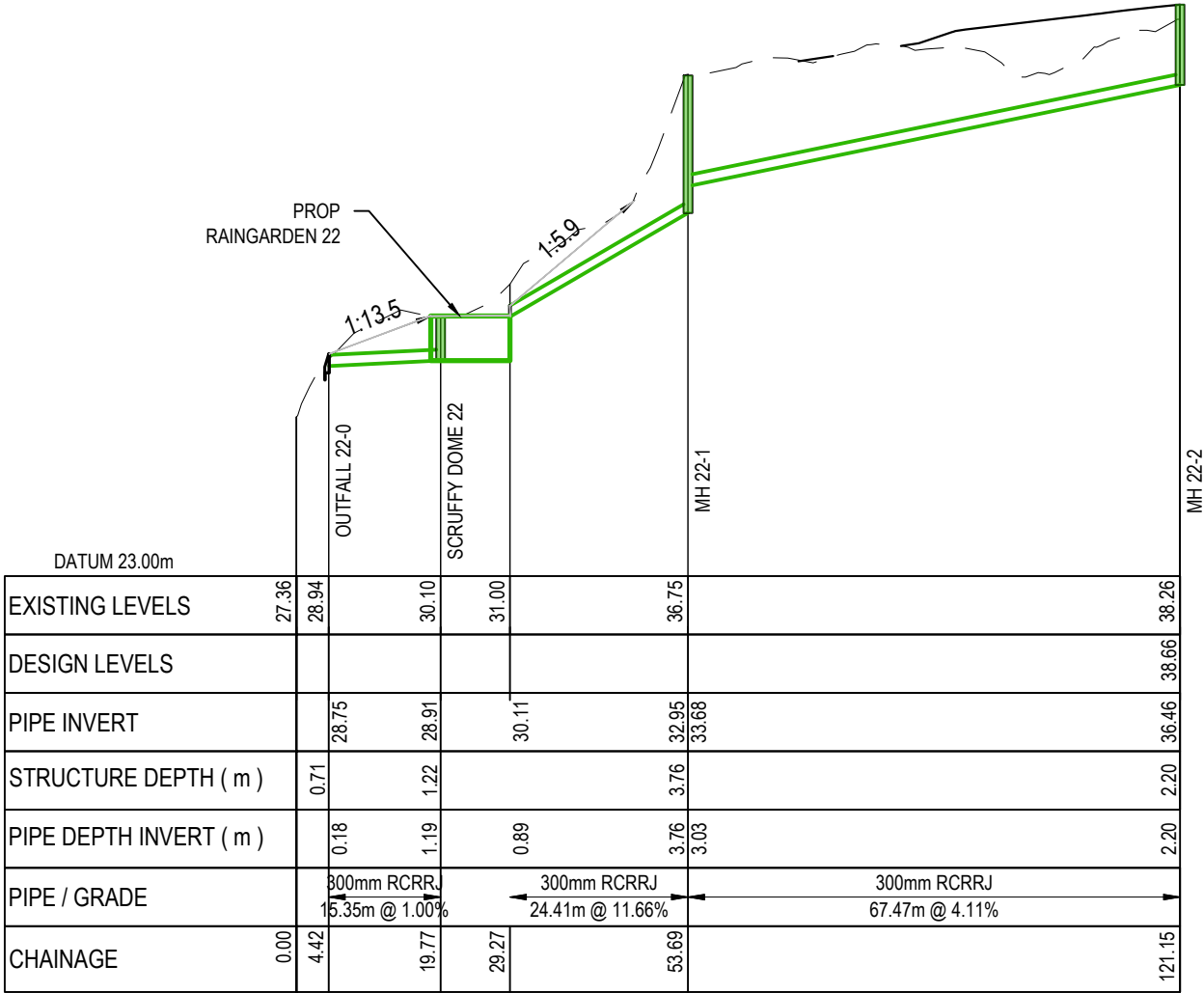


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Project DEVELOPMENT OF RIVERHEAD FOREST FOR RANGITOOPUNI DEVELOPMENTS LIMITED PARTNERSHIP			
Title RETIREMENT VILLAGE STORMWATER LONG SECTIONS - ROAD RUN OFF			
Project no.	147016		
Scale	1:1000 @ A3		
Cad file	147016-RV-C420 SW LS ROAD.DWG		
Drawing no.	C420-30	Rev	A

DATE: 4/3/2025 FILE PATH: F:\Maven\PROJECTS\147016 - RIVERHEAD RETIREMENT VILLAGE\DWG\147016-RV-C420 SW LS ROAD.DWG

RESOURCE CONSENT



ROAD RUNOFF LINE 22
SCALE: HORI 1:1000 VERT 1:200

LEGEND:
--- EX GROUND SURFACE
--- PR DESIGN SURFACE
--- INDICATIVE LOCALISED GROUND LEVELS FOR SW DEVICE AND OUTLET IMPLEMENTATION. TO BE CONFIRMED IN DETAILED DESIGN

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

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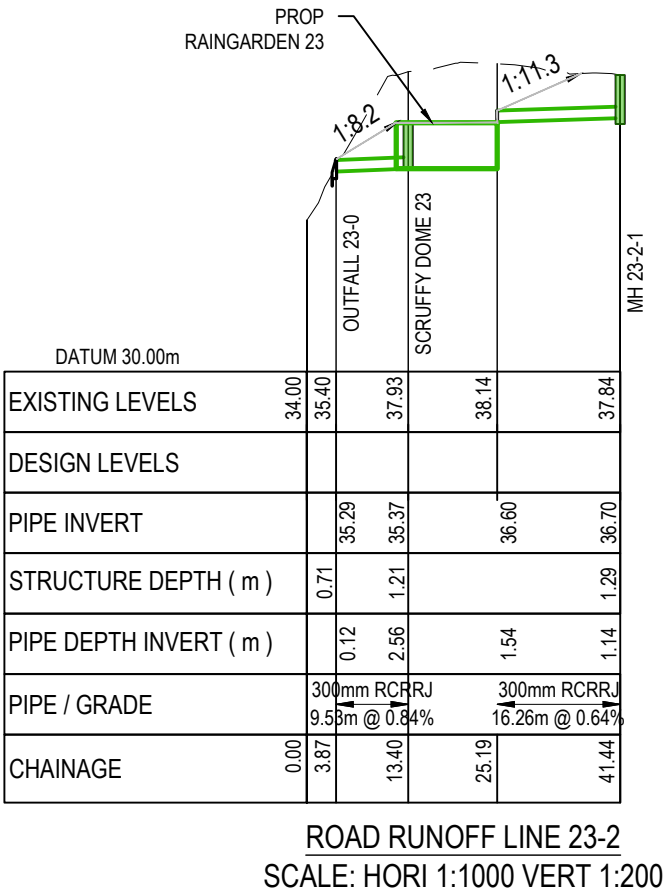
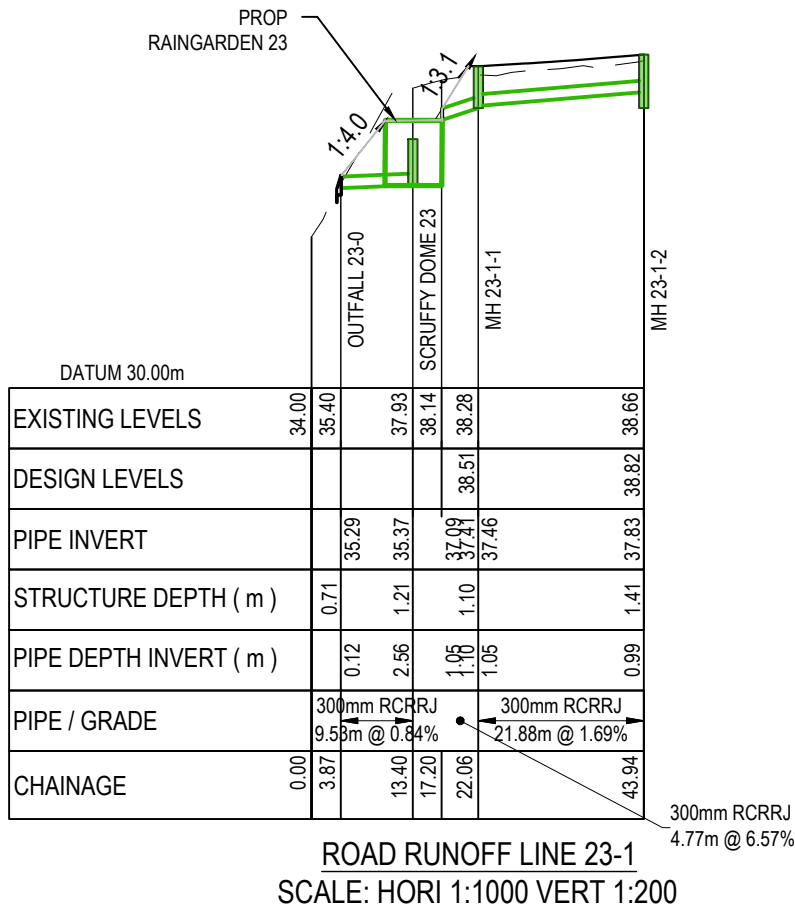
Project
**DEVELOPMENT OF
RIVERHEAD FOREST
FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

Title
**RETIREMENT VILLAGE
STORMWATER LONG
SECTIONS - ROAD RUN OFF**

Project no.	147016		
Scale	1:1000 @ A3		
Cad file	147016-RV-C420 SW LS_ROAD.DWG		
Drawing no.	C420-31	Rev	A

DATE: 4/3/2025 FILE PATH: F:\Maven\PROJECTS\147016 - RIVERHEAD RETIREMENT VILLAGE\DWG\420\16-RV-C420 SW LS ROAD.DWG

RESOURCE CONSENT



LEGEND:

- EX GROUND SURFACE
- PR DESIGN SURFACE
- INDICATIVE LOCALISED GROUND LEVELS FOR SW DEVICE AND OUTLET IMPLEMENTATION. TO BE CONFIRMED IN DETAILED DESIGN

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



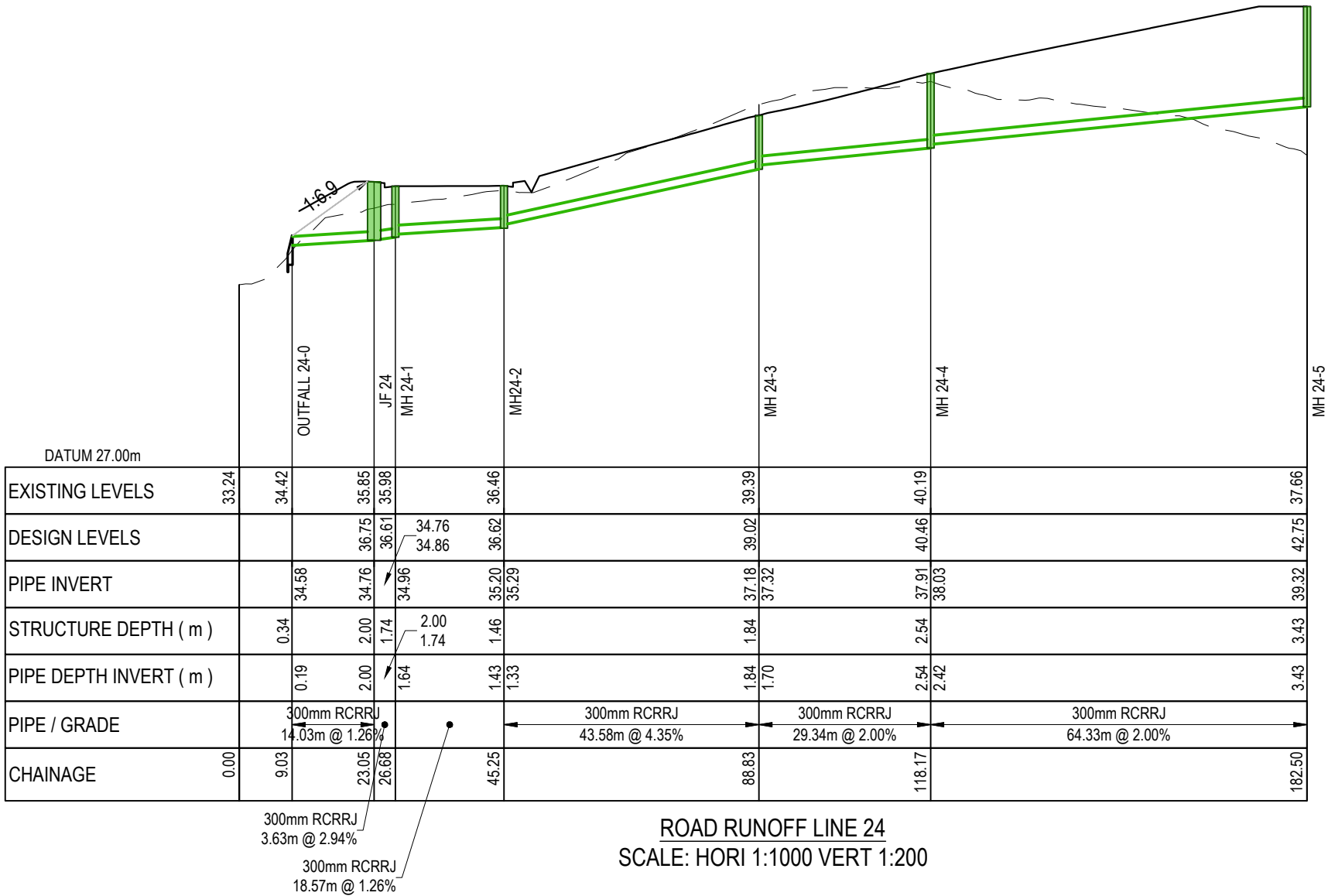
Project
**DEVELOPMENT OF
RIVERHEAD FOREST
FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

Title
**RETIREMENT VILLAGE
STORMWATER LONG
SECTIONS - ROAD RUN OFF**

Project no.	147016		
Scale	1:1000 @ A3		
Cad file	147016-RV-C420 SW LS_ROAD.DWG		
Drawing no.	C420-32	Rev	A

DATE: 4/30/25 FILE PATH: F:\Maven\PROJECTS\147016 - RIVERHEAD RETIREMENT VILLAGE\DWG\420\16-RV-C420 SW LS ROAD.DWG

RESOURCE CONSENT



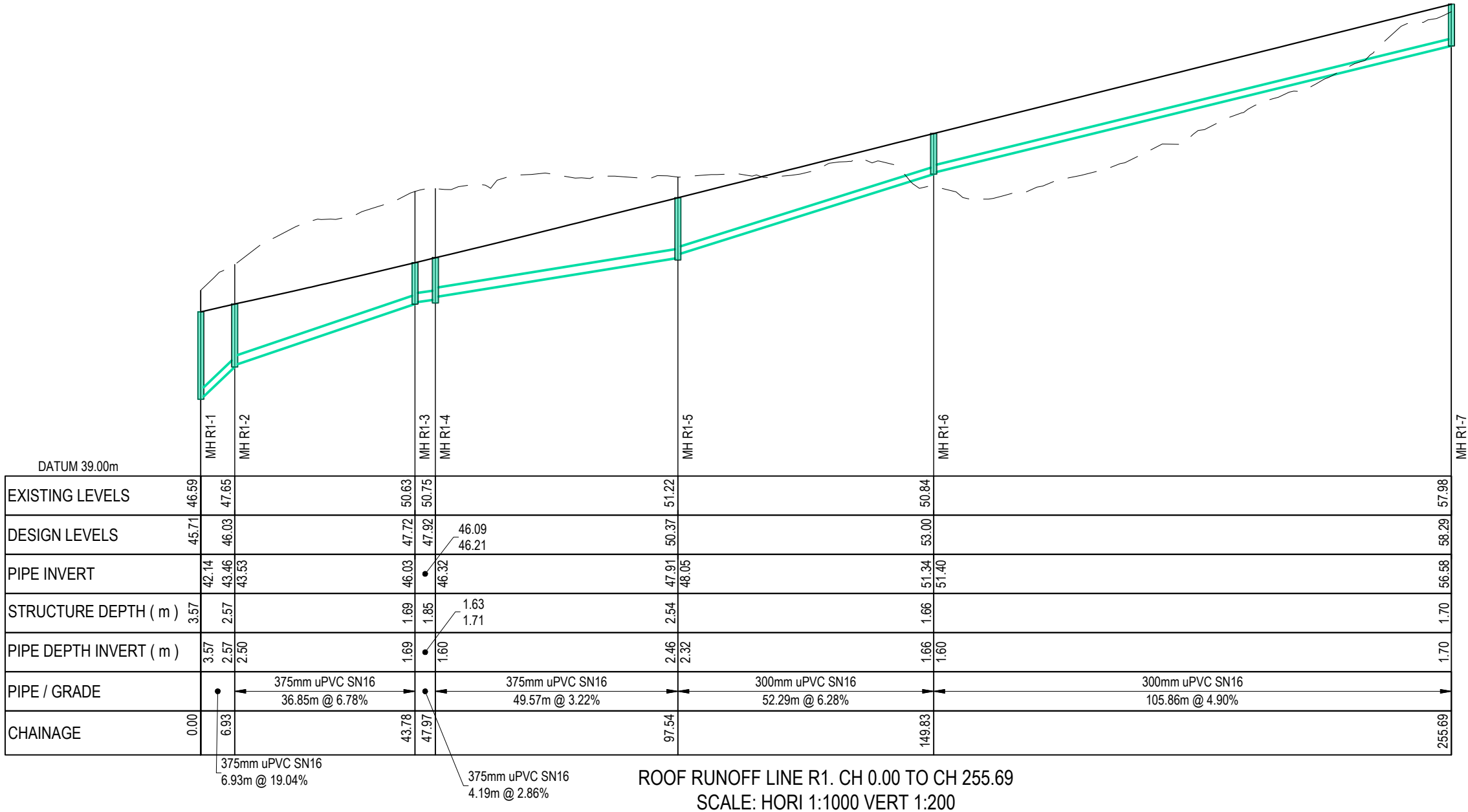
Project
**DEVELOPMENT OF
RIVERHEAD FOREST
FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

Title
**RETIREMENT VILLAGE
STORMWATER LONG
SECTIONS - ROAD RUN OFF**

Project no.	147016
Scale	1:1000 @ A3
Cad file	147016-RV-C420 SW LS ROAD.DWG
Drawing no.	C420-33
Rev	A

DATE: 4/20/25 FILE PATH: F:\Maven\PROJECTS\147016 - RIVERHEAD RETIREMENT VILLAGE\DWG\147016-RV-C421 SW-LS-ROOF.DWG

RESOURCE CONSENT



LEGEND:
--- EX GROUND SURFACE
--- PR DESIGN SURFACE

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

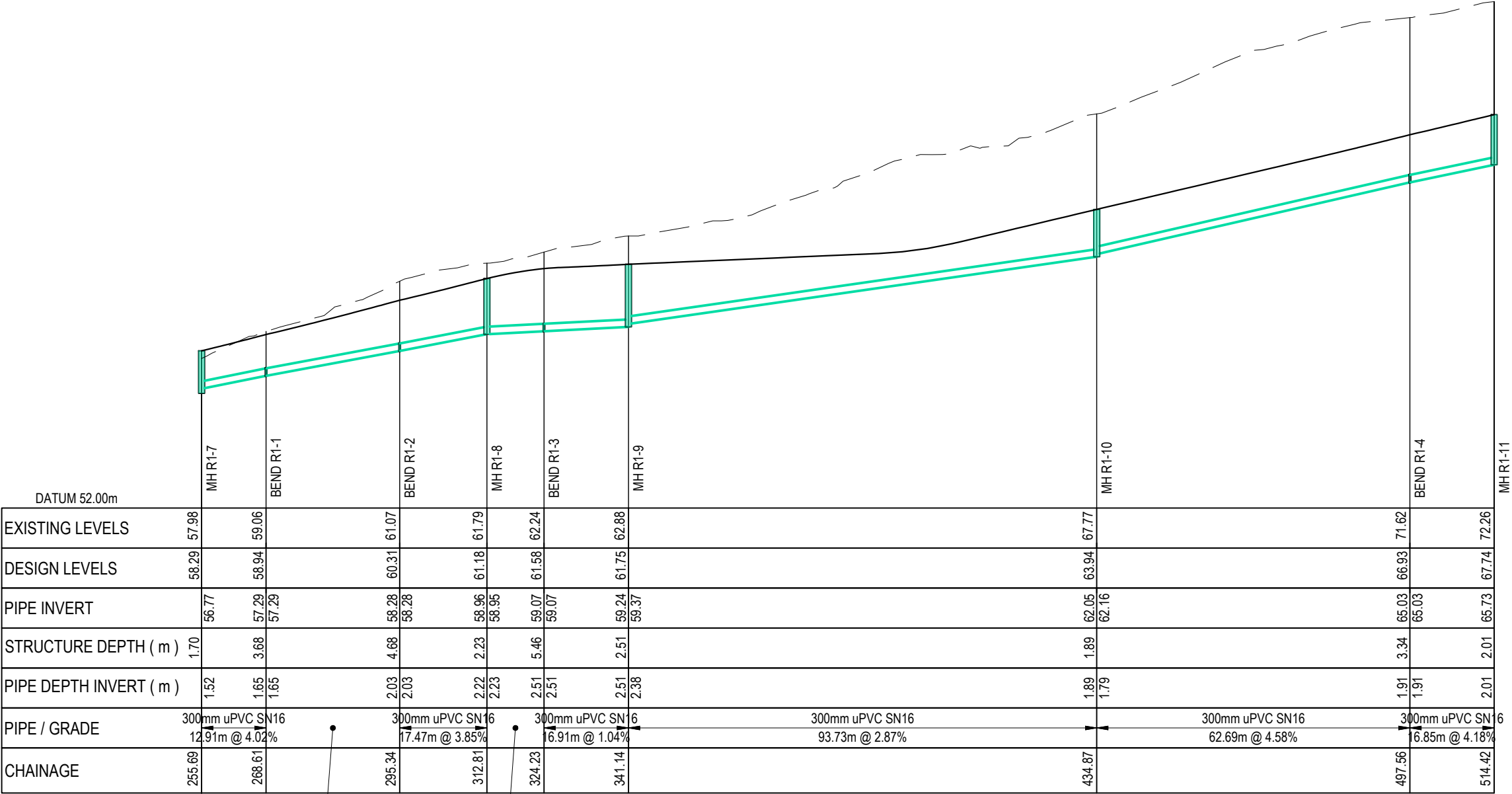


Project
**DEVELOPMENT OF
RIVERHEAD FOREST
FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

Title
**RETIREMENT VILLAGE
STORMWATER LONG
SECTIONS - ROOF RUN OFF**

Project no.	147016		
Scale	1:1000 @ A3		
Cad file	147016-RV-C421 SW-LS-ROOF.DWG		
Drawing no.	C421	Rev	A

DATE: 4/30/25 FILE PATH: F:\Maven\PROJECTS\147016 - RIVERHEAD RETIREMENT VILLAGE\DWG\147016-RV-C421 SW-LS ROOF.DWG



300mm uPVC SN16
26.74m @ 3.73%

300mm uPVC SN16
11.42m @ 1.04%

ROOF RUNOFF LINE R1- CH 255.69 TO CH 514.42
SCALE: HORI 1:1000 VERT 1:200

LEGEND:
--- EX GROUND SURFACE
--- PR DESIGN SURFACE

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

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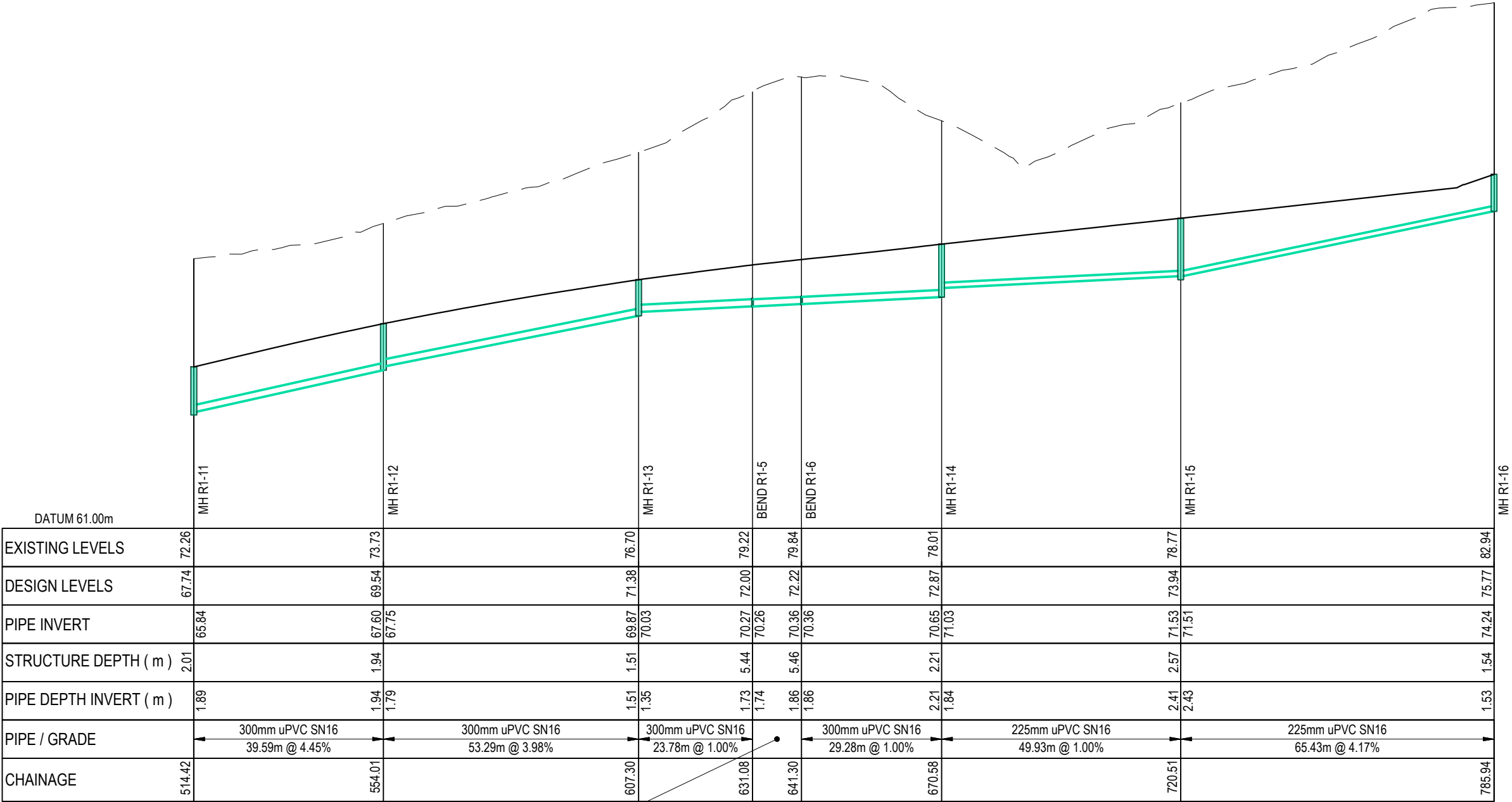
Project
**DEVELOPMENT OF
RIVERHEAD FOREST
FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

Title
**RETIREMENT VILLAGE
STORMWATER LONG
SECTIONS - ROOF RUN OFF**

Project no.	147016		
Scale	1:1000 @ A3		
Cad file	147016-RV-C421 SW-LS_ROOF.DWG		
Drawing no.	C421-1	Rev	A

RESOURCE CONSENT

DATE: 4/30/25 FILE PATH: F:\Maven\PROJECTS\147016 - RIVERHEAD RETIREMENT VILLAGE\DWG\147016-RV-C421 SW-LS ROOF.DWG



300mm uPVC SN16
10.22m @ 1.00%

ROOF RUNOFF LINE R1.- CH 514.42 TO CH 785.94
SCALE: HORI 1:1000 VERT 1:200

LEGEND:
--- EX GROUND SURFACE
— PR DESIGN SURFACE

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

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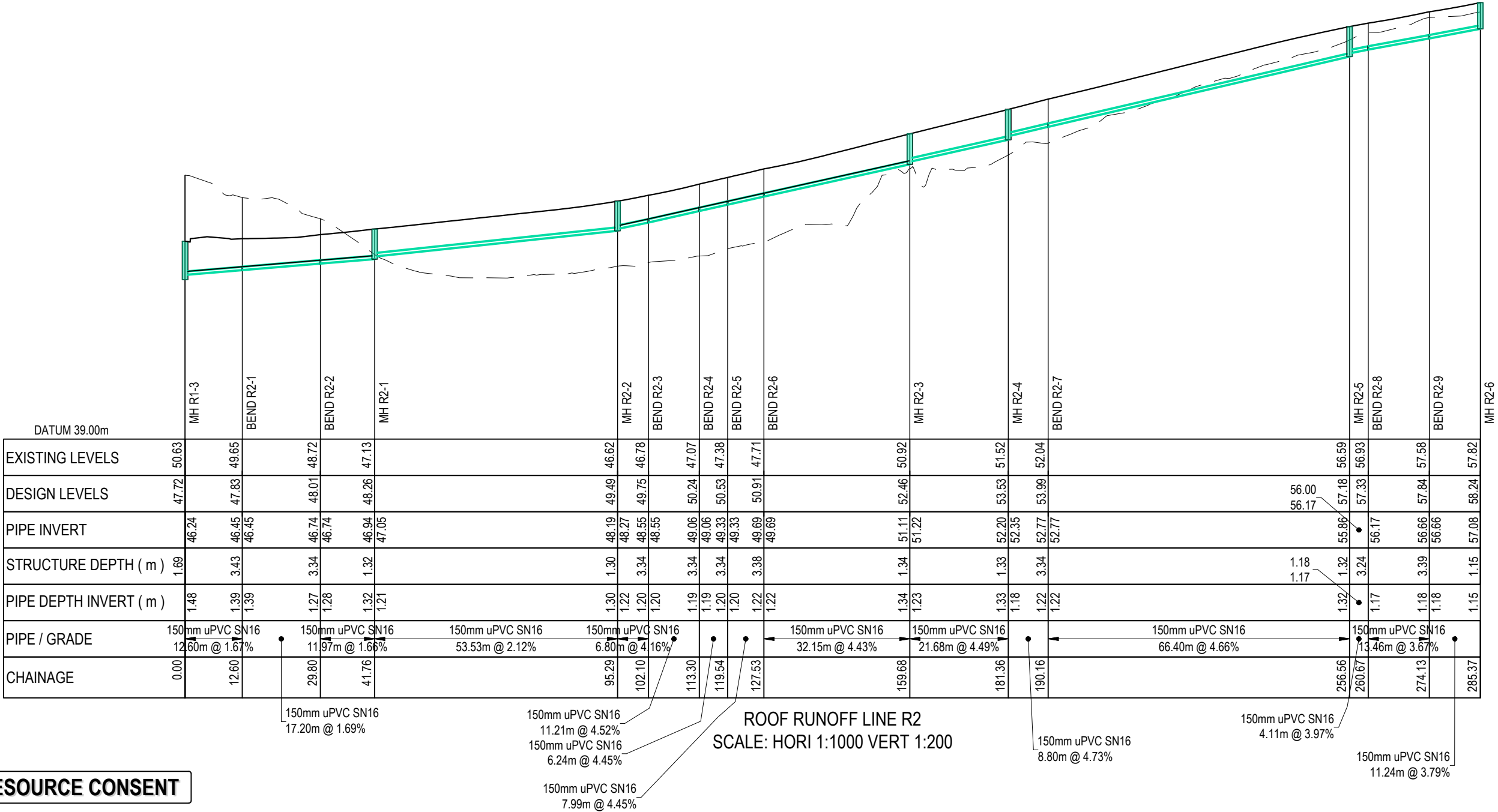
Project
**DEVELOPMENT OF
RIVERHEAD FOREST
FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

Title
**RETIREMENT VILLAGE
STORMWATER LONG
SECTIONS - ROOF RUN OFF**

Project no.	147016		
Scale	1:1000 @ A3		
Cad file	147016-RV-C421 SW-LS_ROOF.DWG		
Drawing no.	C421-2	Rev	A

RESOURCE CONSENT

DATE: 4/3/2025 FILEPATH: F:\Maven\PROJECTS\147016 - RIVERHEAD RETIREMENT VILLAGE\DWG\147016-RV-C421-SW-LS-ROOF.DWG



RESOURCE CONSENT

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



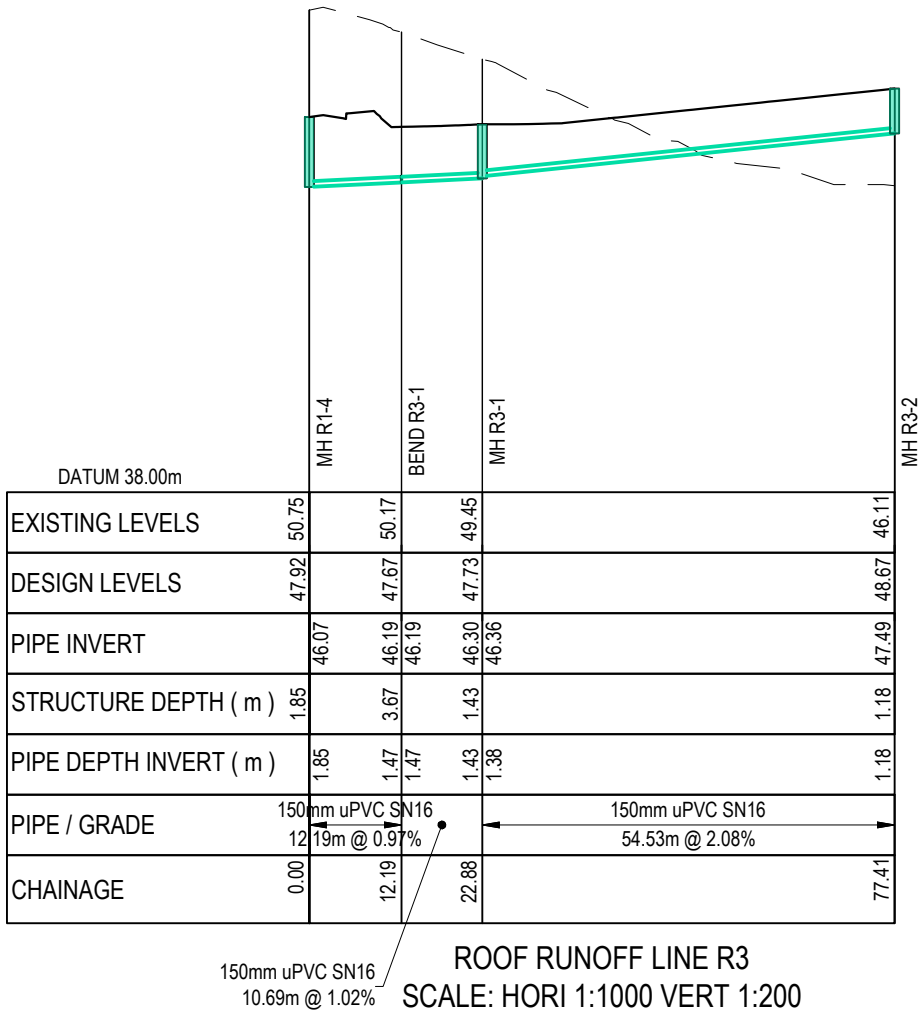
Project
**DEVELOPMENT OF
RIVERHEAD FOREST
FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

Title
**RETIREMENT VILLAGE
STORMWATER LONG
SECTIONS - ROOF RUN OFF**

Project no.	147016
Scale	1:1000 @ A3
Cad file	147016-RV-C421-SW-LS-ROOF.DWG
Drawing no.	C421-3
Rev	A

DATE: 4/3/25 FILE PATH: F:\Maven\PROJECTS\147016 - RIVERHEAD RETIREMENT VILLAGE\DWG\147016-RV-C421 SW-LS-ROOF.DWG

RESOURCE CONSENT



LEGEND:
--- EX GROUND SURFACE
--- PR DESIGN SURFACE

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

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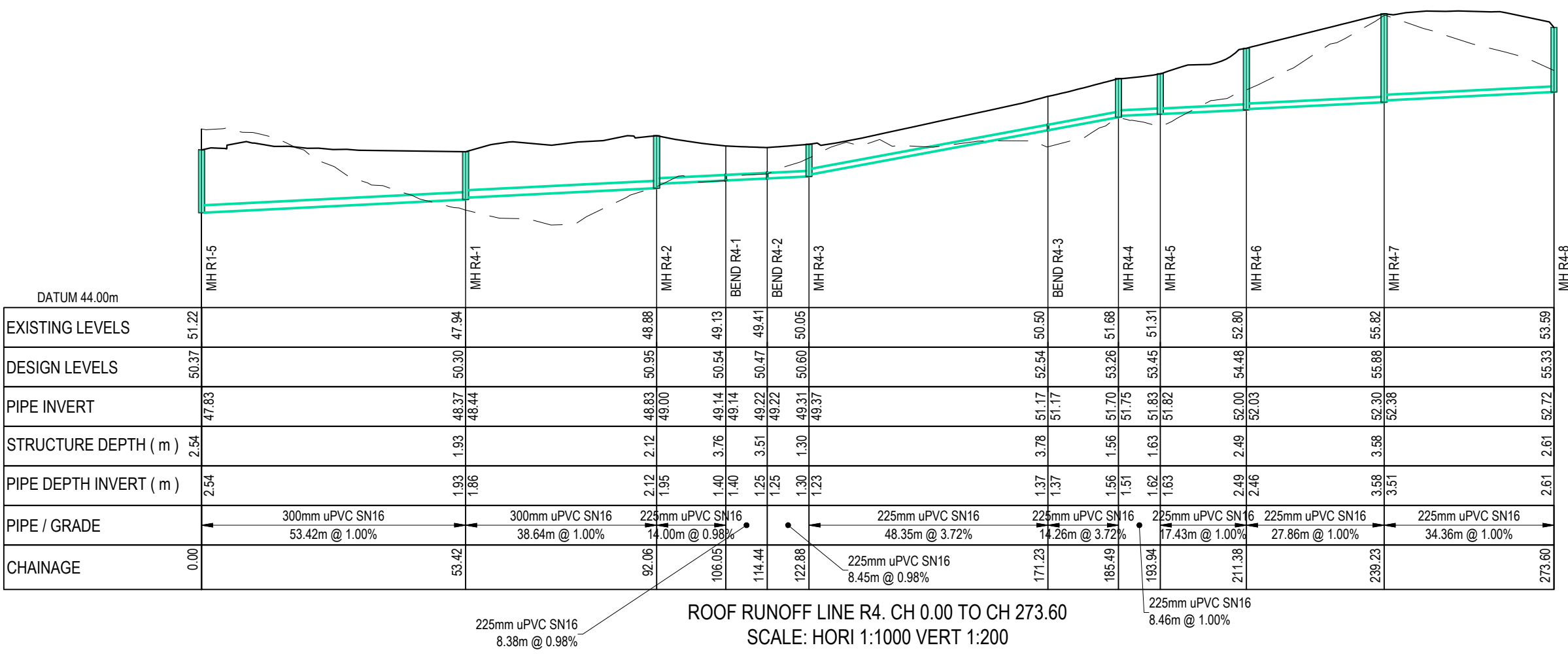
Project
**DEVELOPMENT OF
RIVERHEAD FOREST
FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

Title
**RETIREMENT VILLAGE
STORMWATER LONG
SECTIONS - ROOF RUN OFF**

Project no.	147016		
Scale	1:1000 @ A3		
Cad file	147016-RV-C421 SW-LS-ROOF.DWG		
Drawing no.	C421-4	Rev	A

DATE: 4/2025 FILEPATH: F:\Maven\PROJECTS\147016 - RIVERHEAD RETIREMENT VILLAGE\DWG\147016-RV-C421-SW-LS-ROOF.DWG

RESOURCE CONSENT



LEGEND:
--- EX GROUND SURFACE
--- PR DESIGN SURFACE

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

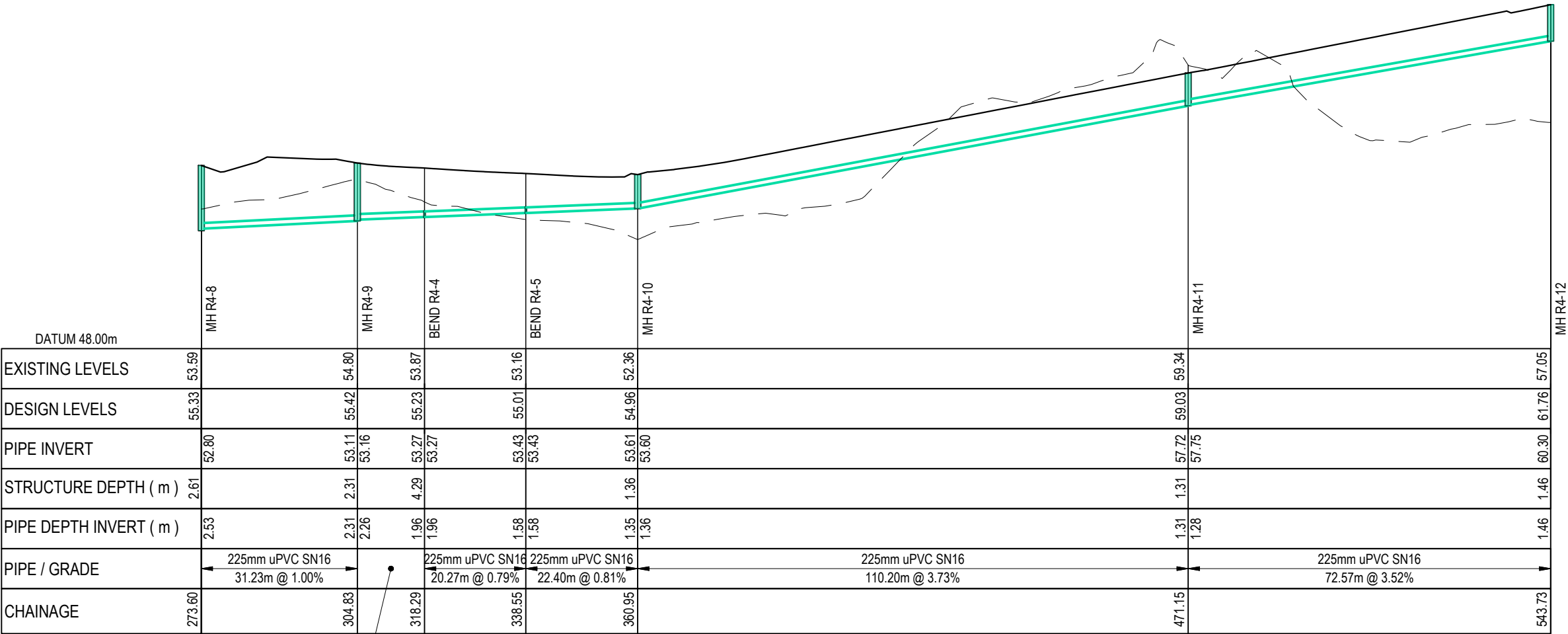


Project
**DEVELOPMENT OF
RIVERHEAD FOREST
FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

Title
**RETIREMENT VILLAGE
STORMWATER LONG
SECTIONS - ROOF RUN OFF**

Project no.	147016		
Scale	1:1000 @ A3		
Cad file	147016-RV-C421 SW-LS-ROOF.DWG		
Drawing no.	C421-5	Rev	A

DATE: 4/3/25 FILE PATH: F:\Maven\PROJECTS\147016 - RIVERHEAD RETIREMENT VILLAGE\DWG\147016-RV-C421 SW-LS ROOF.DWG



225mm uPVC SN16
13.46m @ 0.79%

ROOF RUNOFF LINE R4.. CH 273.60 TO CH 543.73
SCALE: HORI 1:1000 VERT 1:200

LEGEND:
--- EX GROUND SURFACE
--- PR DESIGN SURFACE

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

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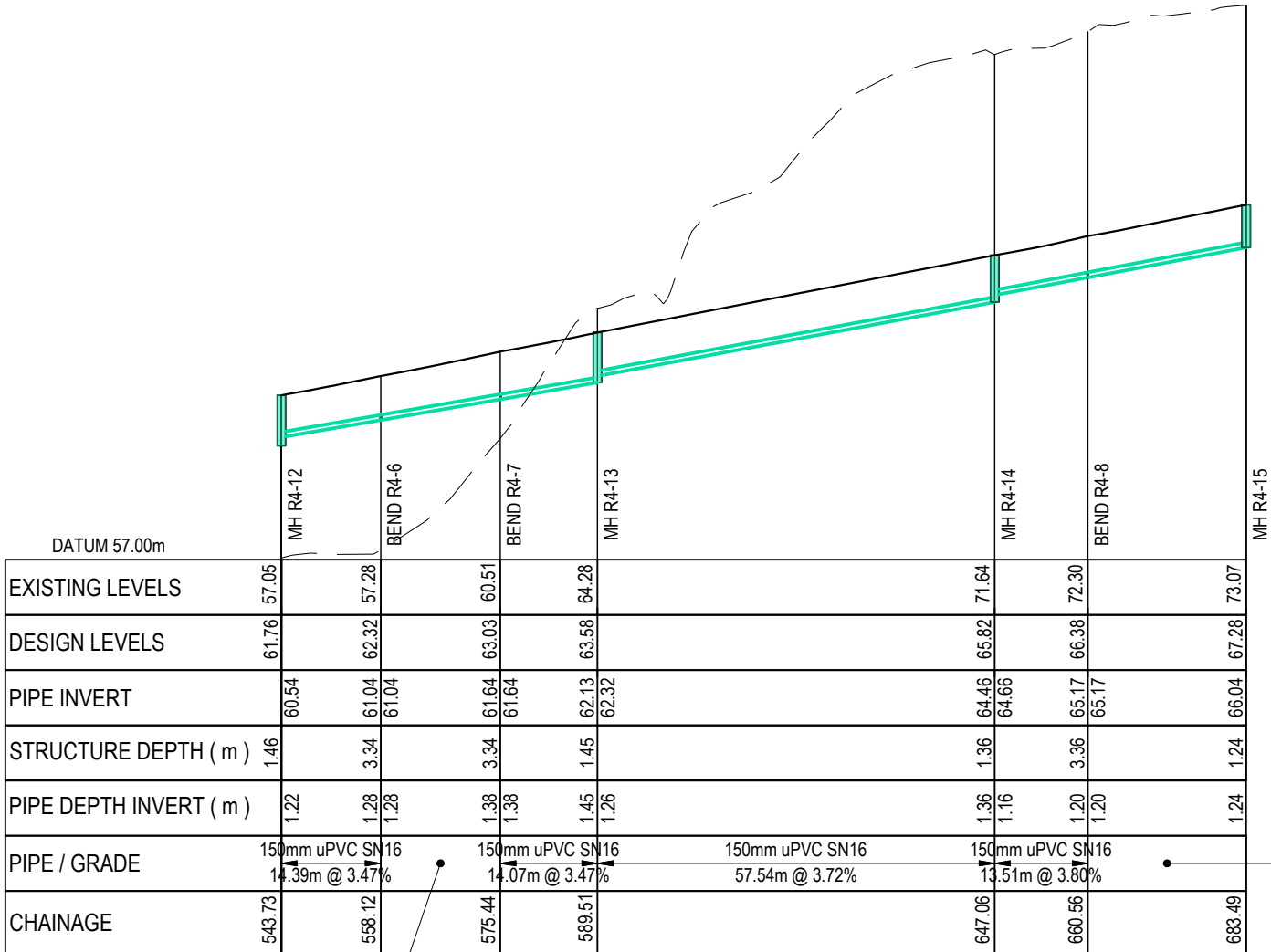
Project
**DEVELOPMENT OF
RIVERHEAD FOREST
FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

Title
**RETIREMENT VILLAGE
STORMWATER LONG
SECTIONS - ROOF RUN OFF**

Project no.	147016		
Scale	1:1000 @ A3		
Cad file	147016-RV-C421 SW-LS_ROOF.DWG		
Drawing no.	C421-6	Rev	A

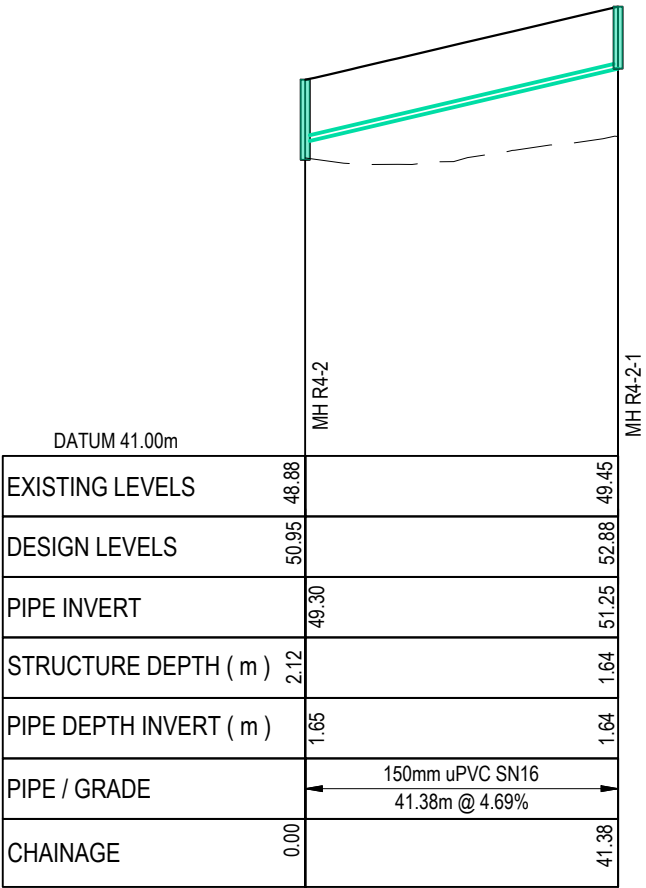
RESOURCE CONSENT

DATE: 4/30/25 FILE PATH: F:\Maven\PROJECTS\147016 - RIVERHEAD RETIREMENT VILLAGE\DWG\147016-RV-C421-SW-LS-ROOF.DWG



150mm uPVC SN16
17.32m @ 3.47%

ROOF RUNOFF LINE R4- CH 543.73 TO CH 683.49
SCALE: HORI 1:1000 VERT 1:200



ROOF RUNOFF LINE R4-2
SCALE: HORI 1:1000 VERT 1:200

LEGEND:
--- EX GROUND SURFACE
--- PR DESIGN SURFACE

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



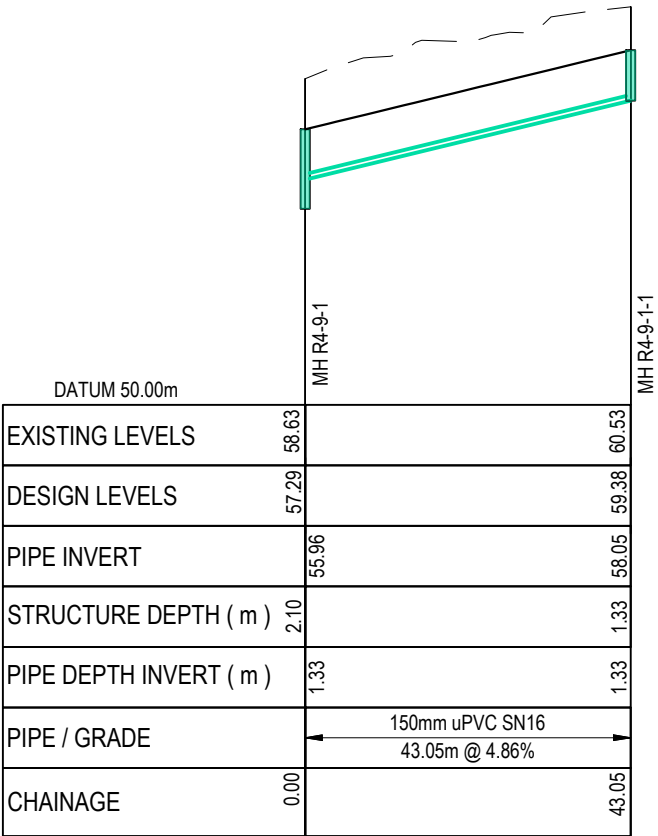
Project
**DEVELOPMENT OF
RIVERHEAD FOREST
FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

Title
**RETIREMENT VILLAGE
STORMWATER LONG
SECTIONS - ROOF RUN OFF**

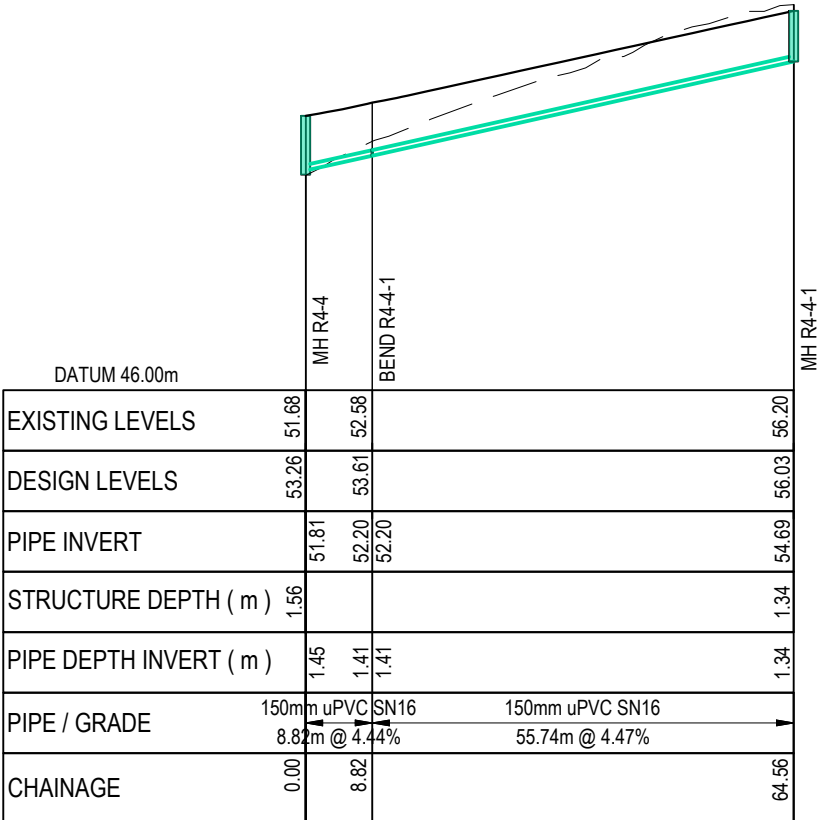
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Drawing no.	C421-7	Rev	A

RESOURCE CONSENT

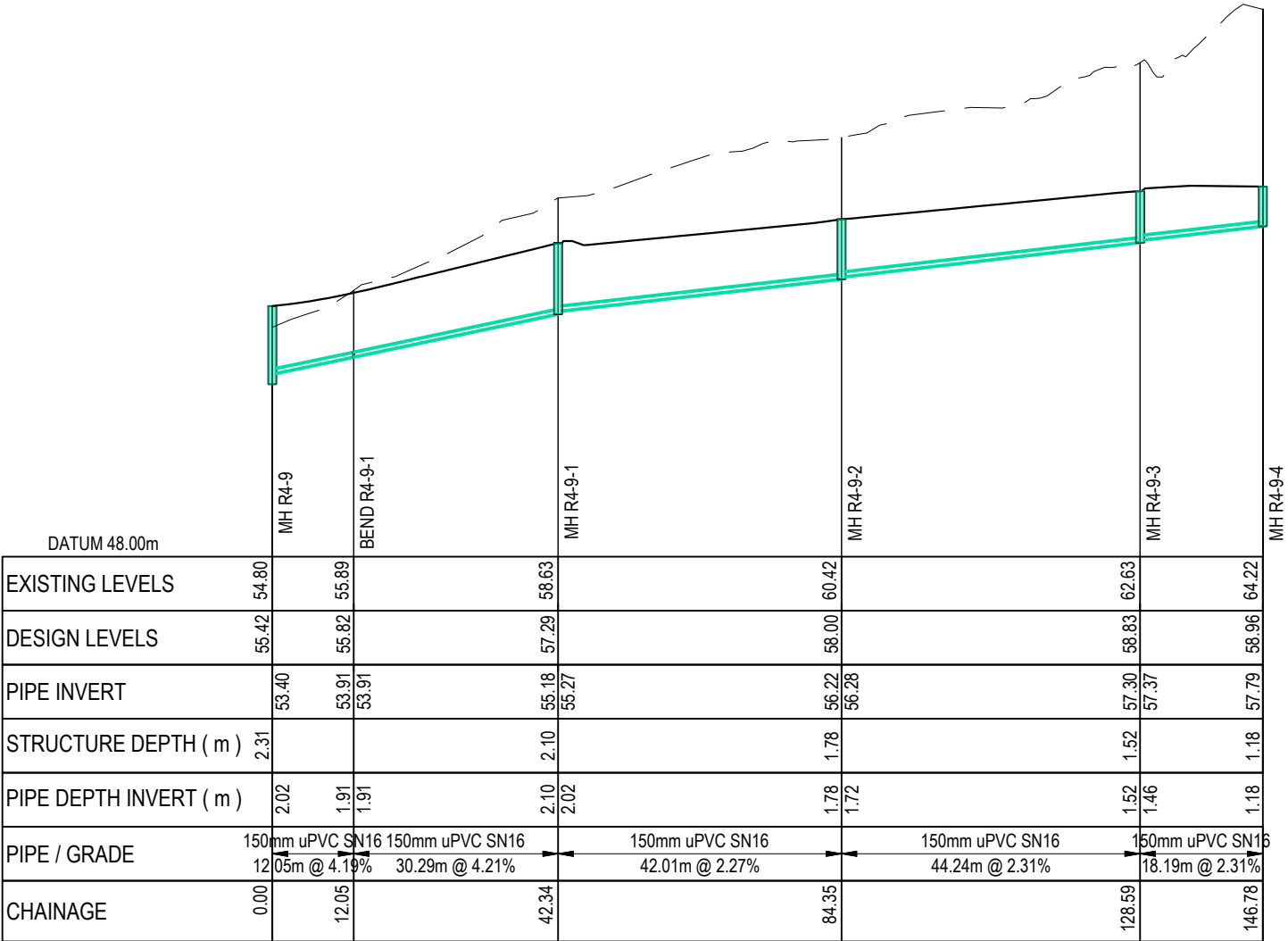
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ROOF RUNOFF LINE R4-9-1
SCALE: HORI 1:1000 VERT 1:200



ROOF RUNOFF LINE R4-4
SCALE: HORI 1:1000 VERT 1:200



ROOF RUNOFF LINE R4-9
SCALE: HORI 1:1000 VERT 1:200

RESOURCE CONSENT

LEGEND:
--- EX GROUND SURFACE
--- PR DESIGN SURFACE

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

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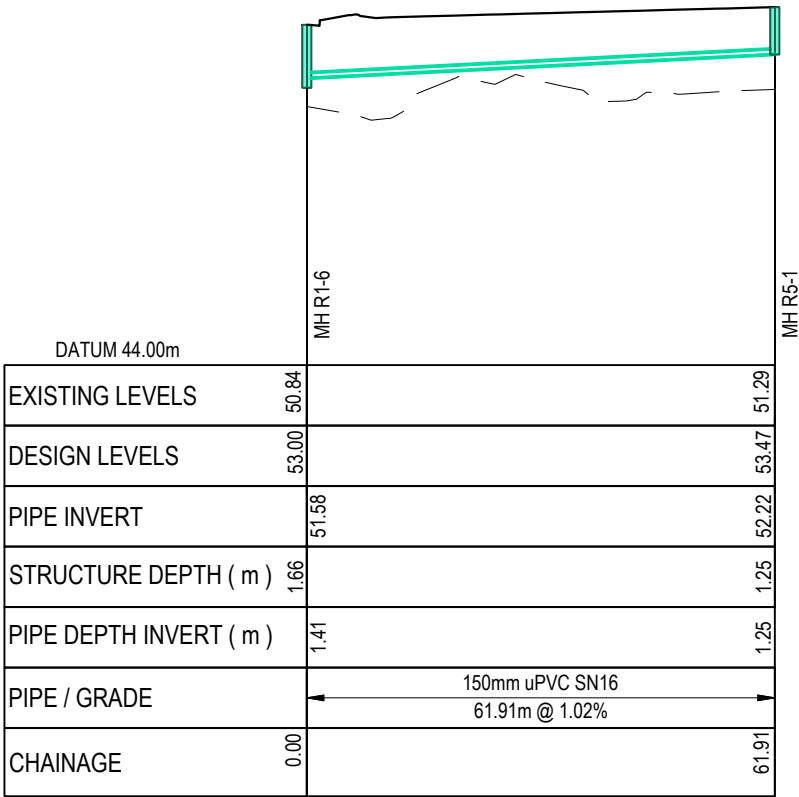
Project
**DEVELOPMENT OF
RIVERHEAD FOREST
FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

Title
**RETIREMENT VILLAGE
STORMWATER LONG
SECTIONS - ROOF RUN OFF**

Project no.	147016
Scale	1:1000 @ A3
Cad file	147016-RV-C421 SW-LS-ROOF.DWG
Drawing no.	C421-8
Rev	A

DATE: 4/30/25 FILE PATH: F:\Maven\PROJECTS\147016 - RIVERHEAD RETIREMENT VILLAGE\DWG\147016-RV-C421 SW-LS ROOF.DWG

RESOURCE CONSENT



ROOF RUNOFF LINE R5
SCALE: HORI 1:1000 VERT 1:200

LEGEND:

- EX GROUND SURFACE
- PR DESIGN SURFACE

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

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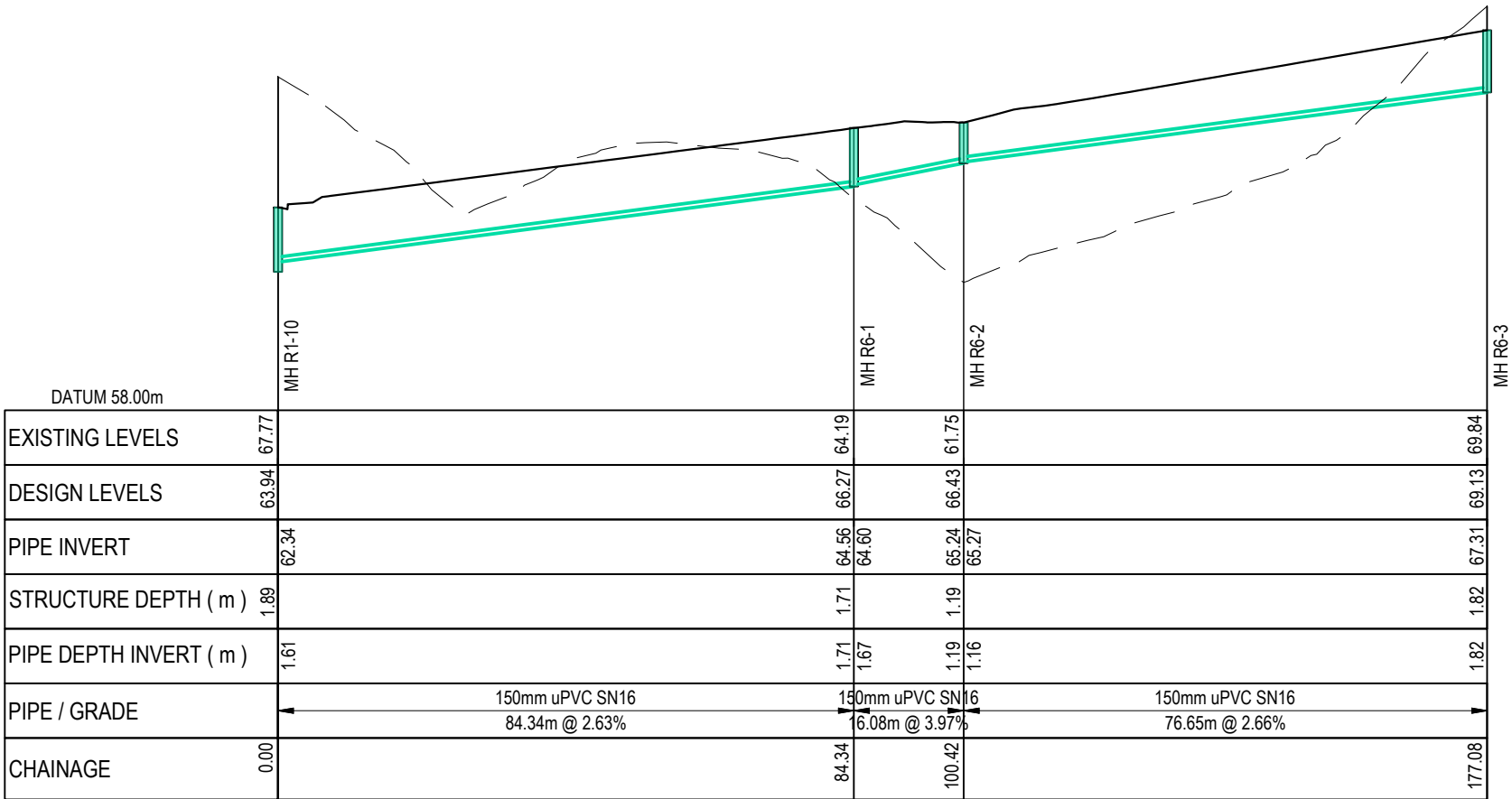
Project
**DEVELOPMENT OF
RIVERHEAD FOREST
FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

Title
**RETIREMENT VILLAGE
STORMWATER LONG
SECTIONS - ROOF RUN OFF**

Project no.	147016		
Scale	1:1000 @ A3		
Cad file	147016-RV-C421 SW-LS_ROOF.DWG		
Drawing no.	C421-9	Rev	A

DATE: 4/30/25 FILE PATH: F:\Maven\PROJECTS\147016 - RIVERHEAD RETIREMENT VILLAGE\DWG\147016-RV-C421 SW-LS ROOF.DWG

RESOURCE CONSENT



ROOF RUNOFF LINE R6. CH 0.00 TO CH 177.08
SCALE: HORI 1:1000 VERT 1:200

LEGEND:
--- EX GROUND SURFACE
--- PR DESIGN SURFACE

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

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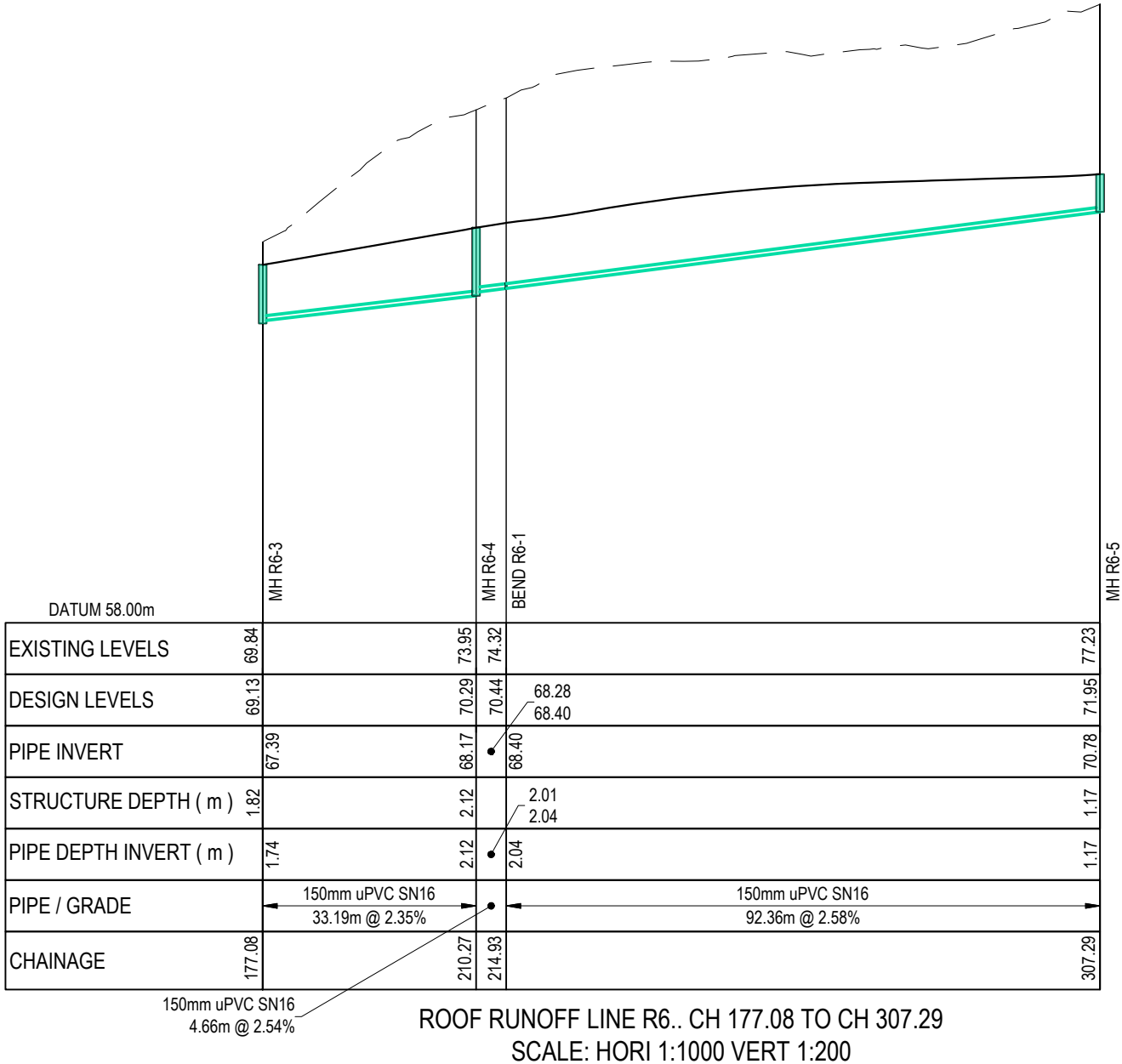
Project
**DEVELOPMENT OF
RIVERHEAD FOREST
FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

Title
**RETIREMENT VILLAGE
STORMWATER LONG
SECTIONS - ROOF RUN OFF**

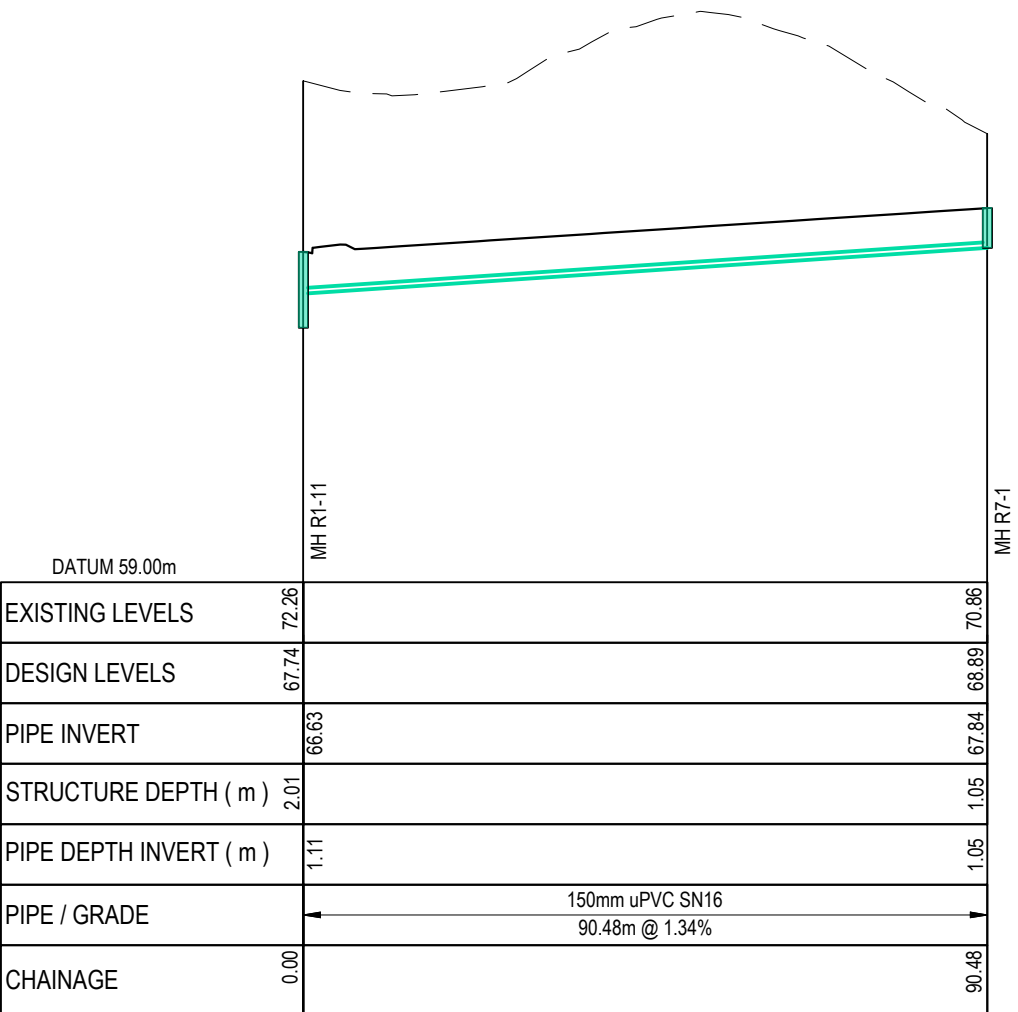
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Drawing no.	C421-10	Rev	A

DATE: 4/30/25 FILE PATH: F:\Maven\PROJECTS\147016 - RIVERHEAD RETIREMENT VILLAGE\DWG\147016-RV-C421 SW-LS ROOF.DWG

RESOURCE CONSENT



A	RESOURCE CONSENT	AYC	03/2025
Rev	Description	By	Date
	By	Date	
Survey	LIDAR	03/2022	
Design	AYC	03/2025	
Drawn	AYC	03/2025	
Checked	RW	03/2025	
M 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 STORMWATER LONG SECTIONS - ROOF RUN OFF			
Project no.	147016		
Scale	1:1000 @ A3		
Cad file	147016-RV-C421 SW-LS_ROOF.DWG		
Drawing no.	C421-11	Rev	A



ROOF RUNOFF LINE R7
SCALE: HORI 1:1000 VERT 1:200

LEGEND:
--- EX GROUND SURFACE
—— PR DESIGN SURFACE

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

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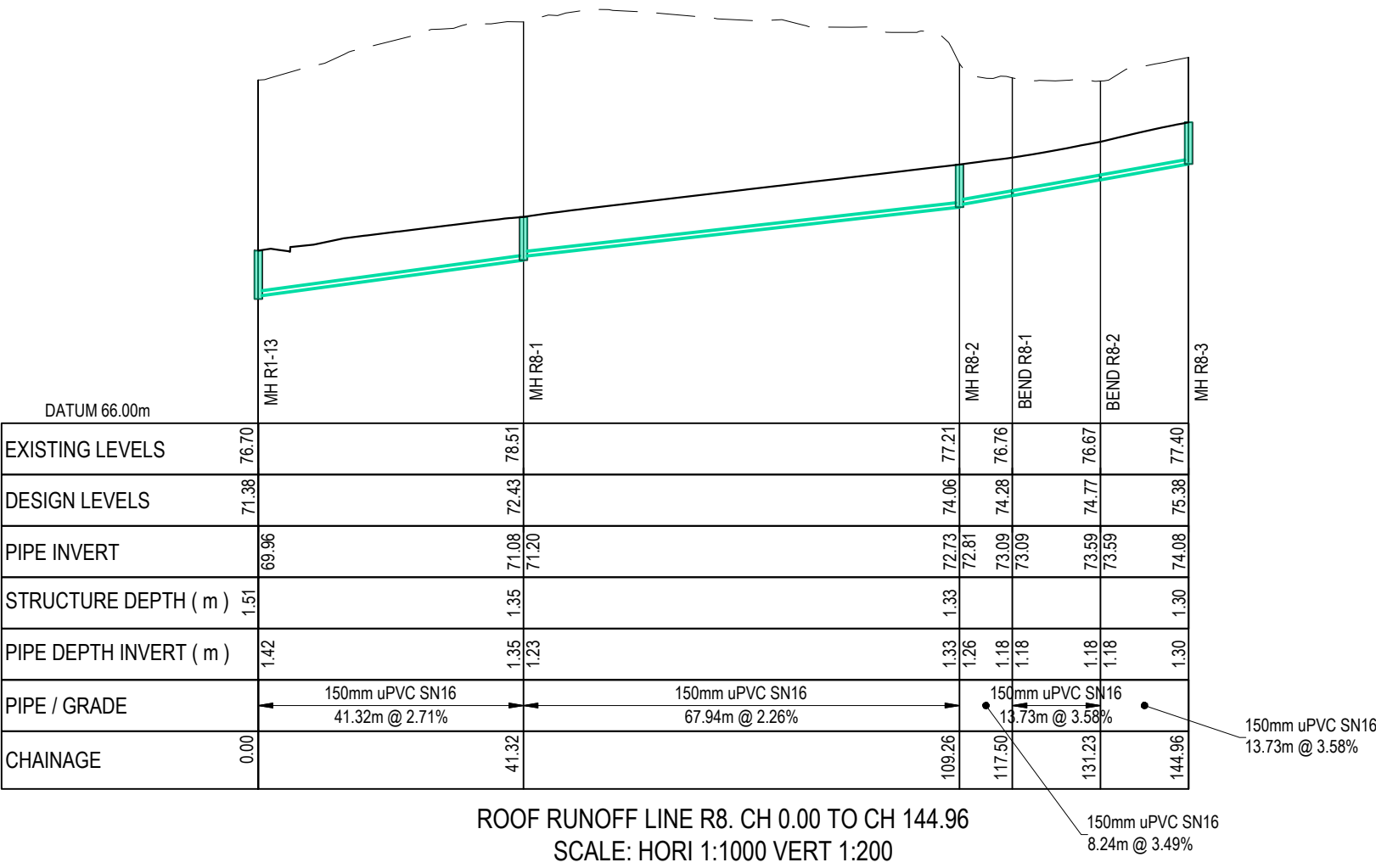
Auckland 1023

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

Title
**RETIREMENT VILLAGE
STORMWATER LONG
SECTIONS - ROOF RUN OFF**

Project no.	147016		
Scale	1:1000 @ A3		
Cad file	147016-RV-C421 SW-LS_ROOF.DWG		
Drawing no.	C421-12	Rev	A

RESOURCE CONSENT



RESOURCE CONSENT

LEGEND:
--- EX GROUND SURFACE
— PR DESIGN SURFACE

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

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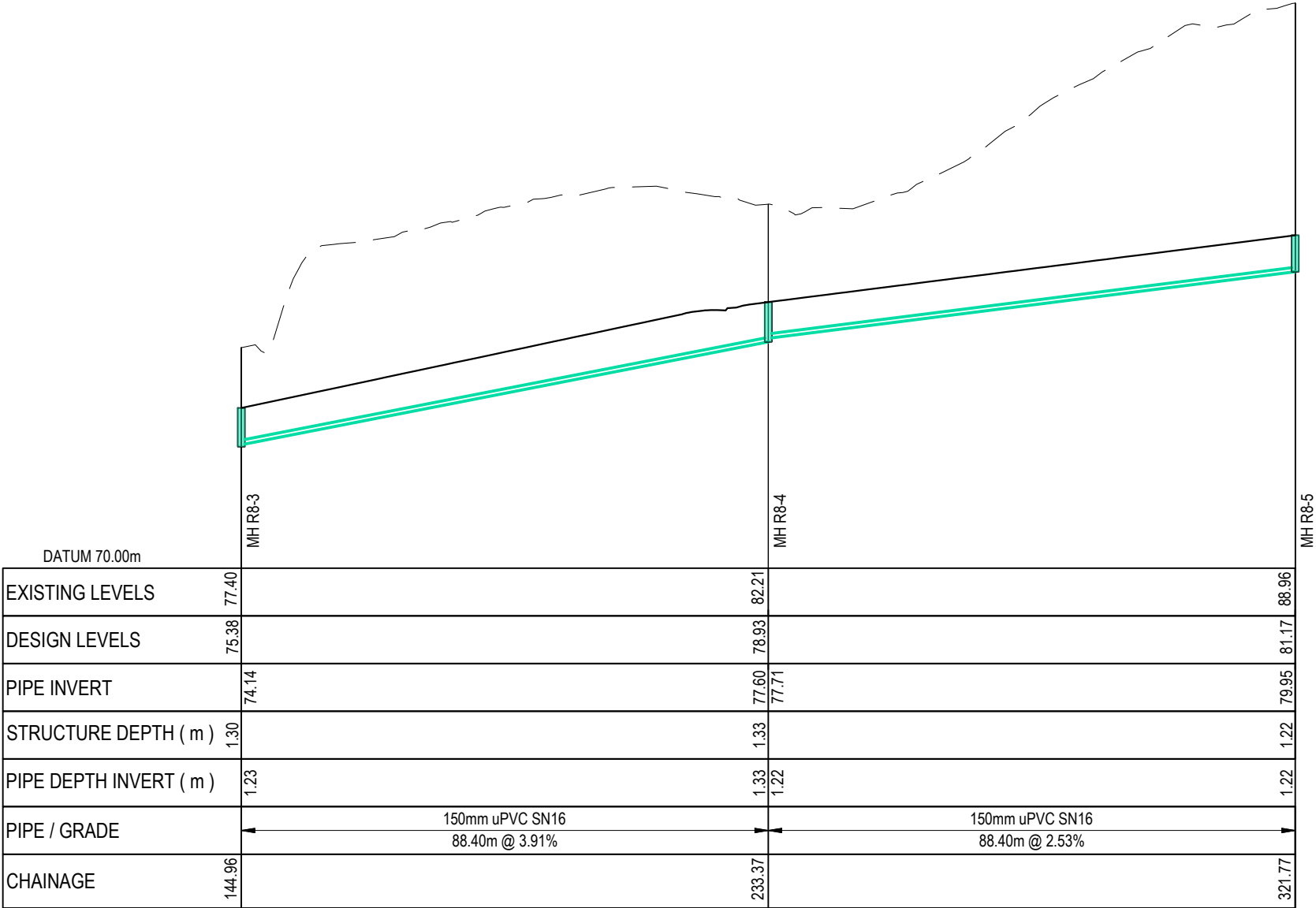
Project
**DEVELOPMENT OF
RIVERHEAD FOREST
FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

Title
**RETIREMENT VILLAGE
STORMWATER LONG
SECTIONS - ROOF RUN OFF**

Project no.	147016		
Scale	1:1000 @ A3		
Cad file	147016-RV-C421 SW-LS_ROOF.DWG		
Drawing no.	C421-13	Rev	A

DATE: 4/30/25 FILE PATH: F:\Maven\PROJECTS\147016 - RIVERHEAD RETIREMENT VILLAGE\DWG\147016-RV-C421 SW-LS-ROOF.DWG

RESOURCE CONSENT



ROOF RUNOFF LINE R8.. CH 144.96 TO CH 321.77
SCALE: HORI 1:1000 VERT 1:200

LEGEND:
--- EX GROUND SURFACE
— PR DESIGN SURFACE

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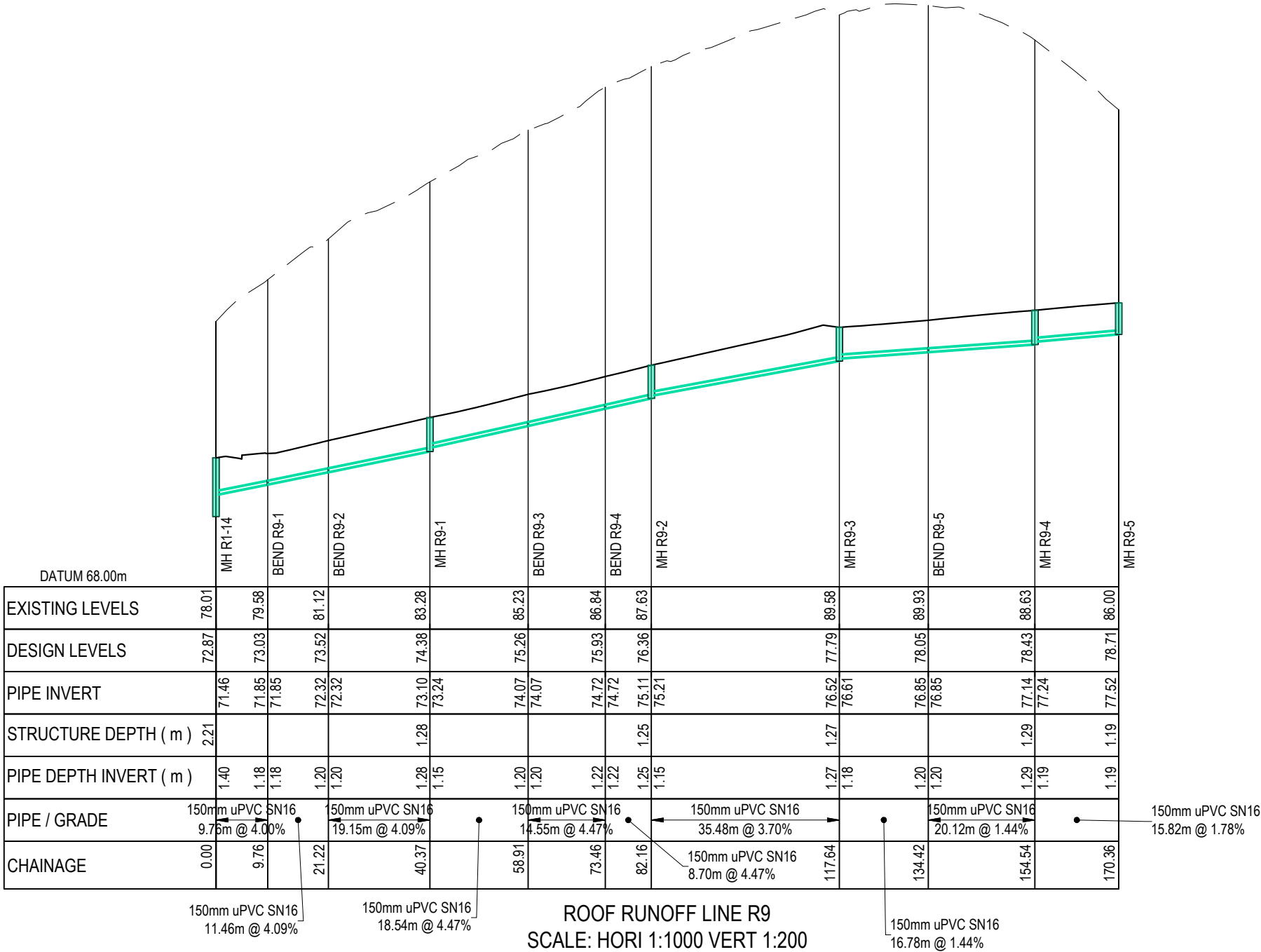
Project
**DEVELOPMENT OF
RIVERHEAD FOREST
FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

Title
**RETIREMENT VILLAGE
STORMWATER LONG
SECTIONS - ROOF RUN OFF**

Project no.	147016		
Scale	1:1000 @ A3		
Cad file	147016-RV-C421 SW-LS-ROOF.DWG		
Drawing no.	C421-14	Rev	A

DATE: 4/30/25 FILE PATH: F:\Maven\PROJECTS\147016 - RIVERHEAD RETIREMENT VILLAGE\DWG\147016-RV-C421 SW-LS-ROOF.DWG

RESOURCE CONSENT



LEGEND:
--- EX GROUND SURFACE
--- PR DESIGN SURFACE

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

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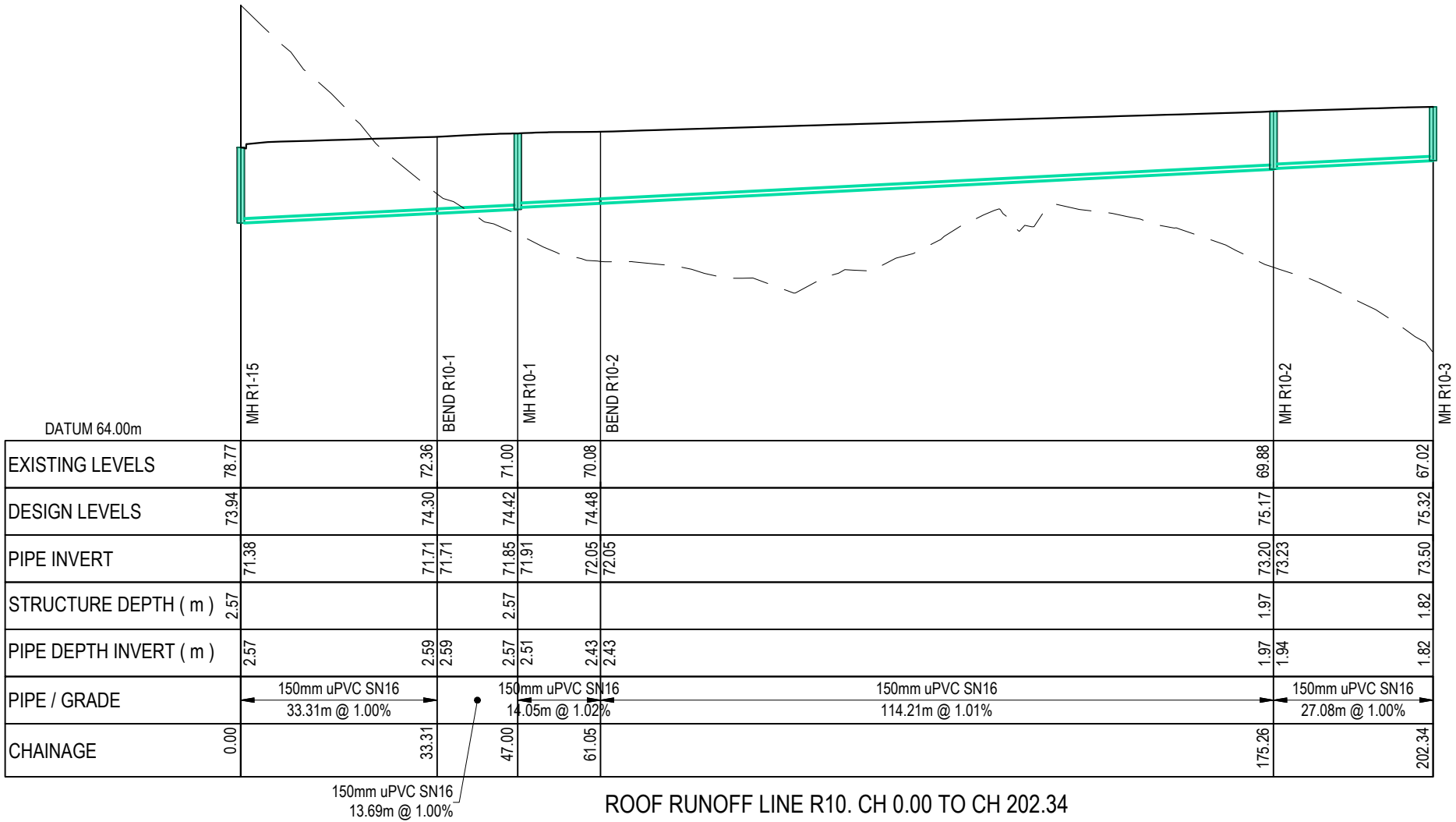
Project
**DEVELOPMENT OF
RIVERHEAD FOREST
FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

Title
**RETIREMENT VILLAGE
STORMWATER LONG
SECTIONS - ROOF RUN OFF**

Project no.	147016		
Scale	1:1000 @ A3		
Cad file	147016-RV-C421 SW-LS_ROOF.DWG		
Drawing no.	C421-15	Rev	A

DATE: 4/3/25 FILE PATH: F:\Maven\PROJECTS\147016 - RIVERHEAD RETIREMENT VILLAGE\DWG\147016-RV-C421 SW-LS ROOF.DWG

RESOURCE CONSENT



LEGEND:
--- EX GROUND SURFACE
— PR DESIGN SURFACE

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

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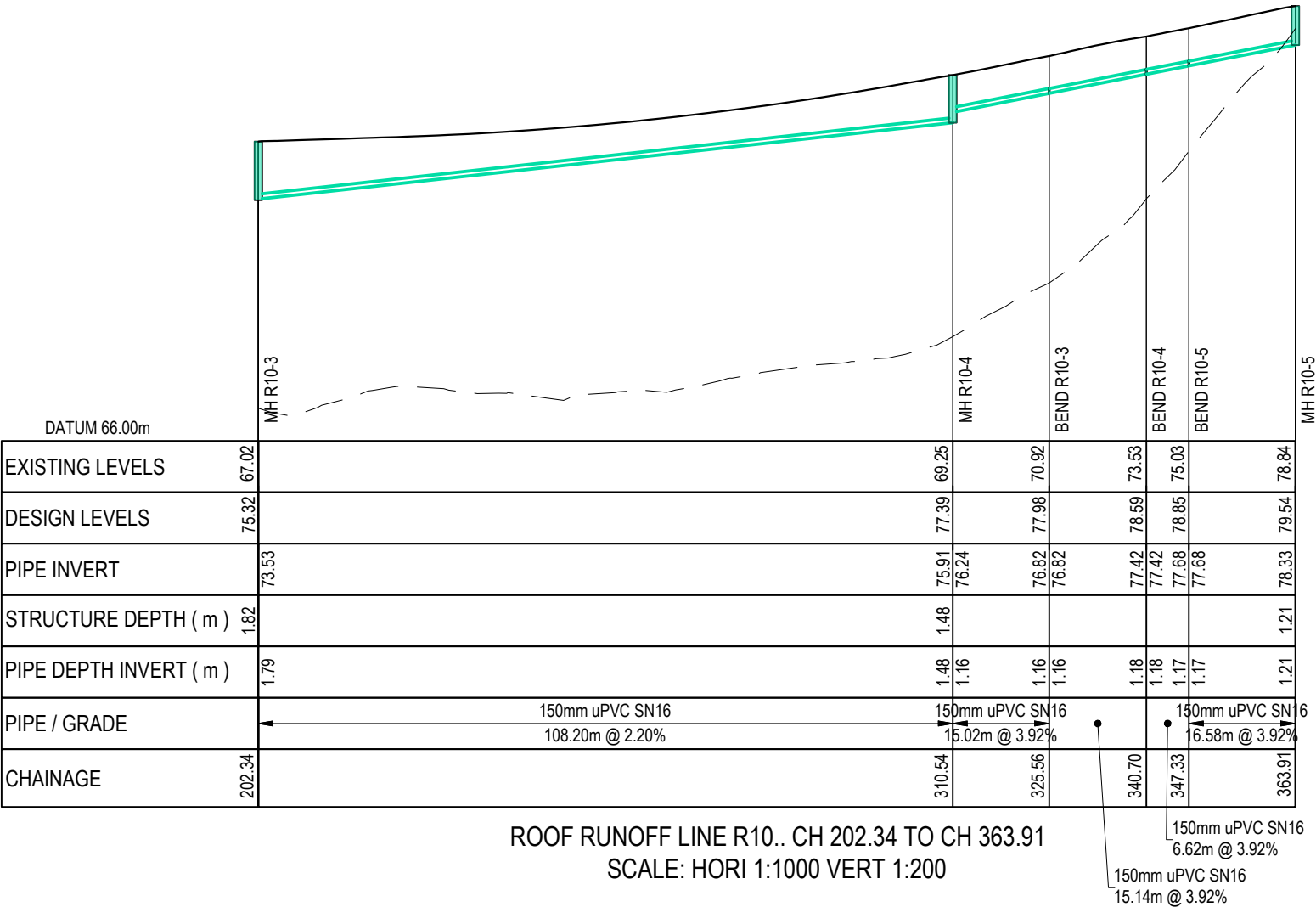
Project
**DEVELOPMENT OF
RIVERHEAD FOREST
FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

Title
**RETIREMENT VILLAGE
STORMWATER LONG
SECTIONS - ROOF RUN OFF**

Project no.	147016		
Scale	1:1000 @ A3		
Cad file	147016-RV-C421 SW-LS_ROOF.DWG		
Drawing no.	C421-16	Rev	A

DATE: 4/30/25 FILE PATH: F:\Maven\PROJECTS\147016 - RIVERHEAD RETIREMENT VILLAGE\DWG\147016-RV-C421 SW-LS-ROOF.DWG

RESOURCE CONSENT



LEGEND:
--- EX GROUND SURFACE
--- PR DESIGN SURFACE

A	RESOURCE CONSENT	AYC	03/2025
Rev	Description	By	Date
	By	Date	
Survey	LIDAR	03/2022	
Design	AYC	03/2025	
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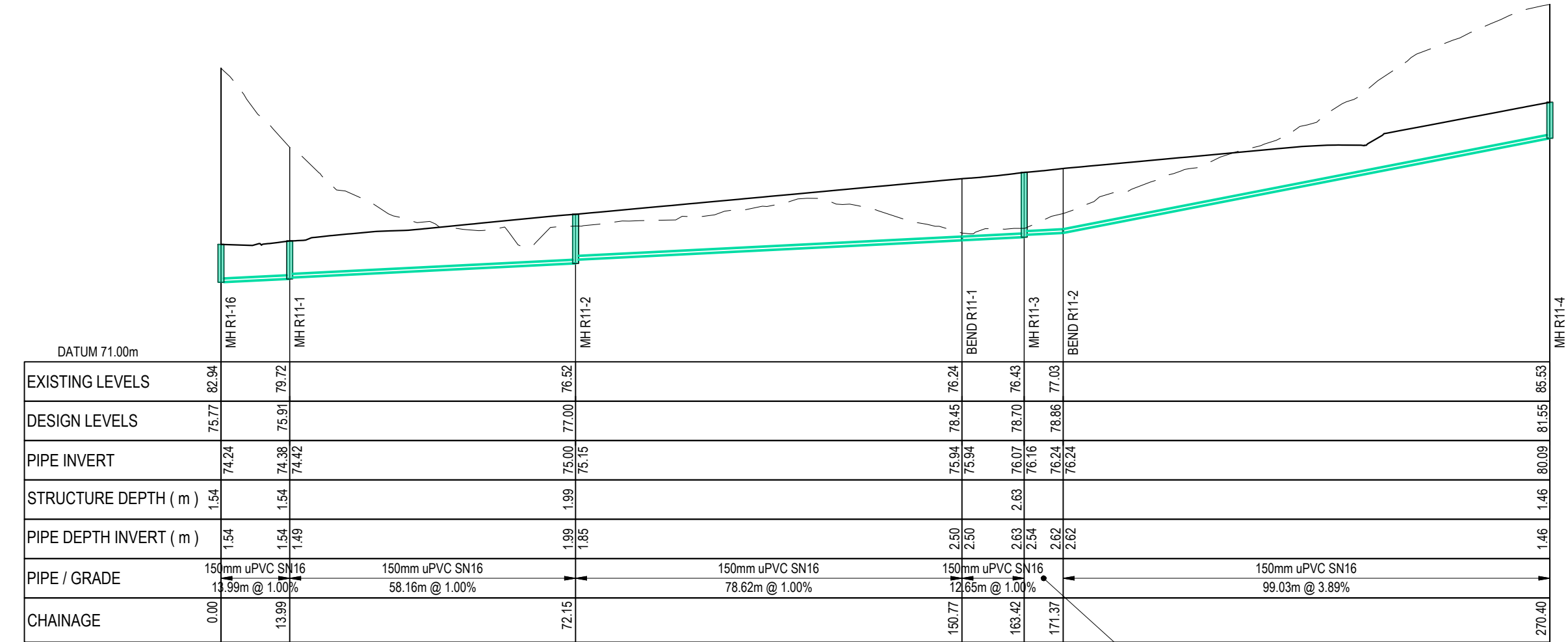


Project
**DEVELOPMENT OF
RIVERHEAD FOREST
FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

Title
**RETIREMENT VILLAGE
STORMWATER LONG
SECTIONS - ROOF RUN OFF**

Project no.	147016		
Scale	1:1000 @ A3		
Cad file	147016-RV-C421 SW-LS_ROOF.DWG		
Drawing no.	C421-17	Rev	A

DATE: 4/30/25 FILEPATH: F:\Maven\PROJECTS\147016 - RIVERHEAD RETIREMENT VILLAGE\DWG\147016-RV-C421 SW-LS ROOF.DWG



ROOF RUNOFF LINE 11 CH 0.00 TO CH 270.40
SCALE: HORI 1:1000 VERT 1:200

LEGEND:
--- EX GROUND SURFACE
— PR DESIGN SURFACE

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



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

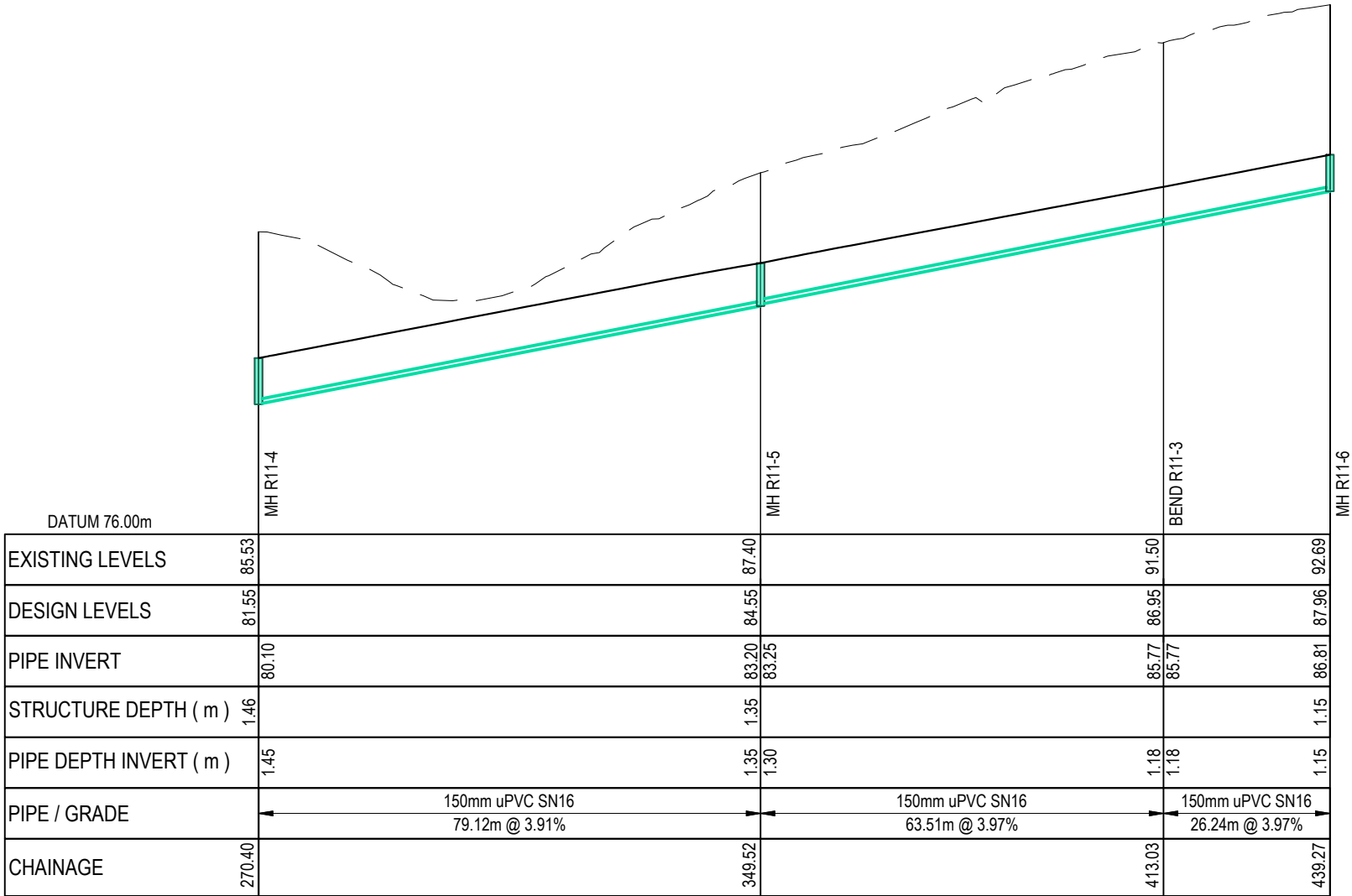
Title
**RETIREMENT VILLAGE
STORMWATER LONG
SECTIONS - ROOF RUN OFF**

Project no.	147016		
Scale	1:1000 @ A3		
Cad file	147016-RV-C421 SW-LS_ROOF.DWG		
Drawing no.	C421-18	Rev	A

RESOURCE CONSENT

DATE: 4/30/25 FILE PATH: F:\Maven\PROJECTS\147016 - RIVERHEAD RETIREMENT VILLAGE\DWG\147016-RV-C421 SW-LS ROOF.DWG

RESOURCE CONSENT



ROOF RUNOFF LINE R11.. CH 270.40 TO CH 439.27
SCALE: HORI 1:1000 VERT 1:200

LEGEND:
--- EX GROUND SURFACE
--- PR DESIGN SURFACE

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

M

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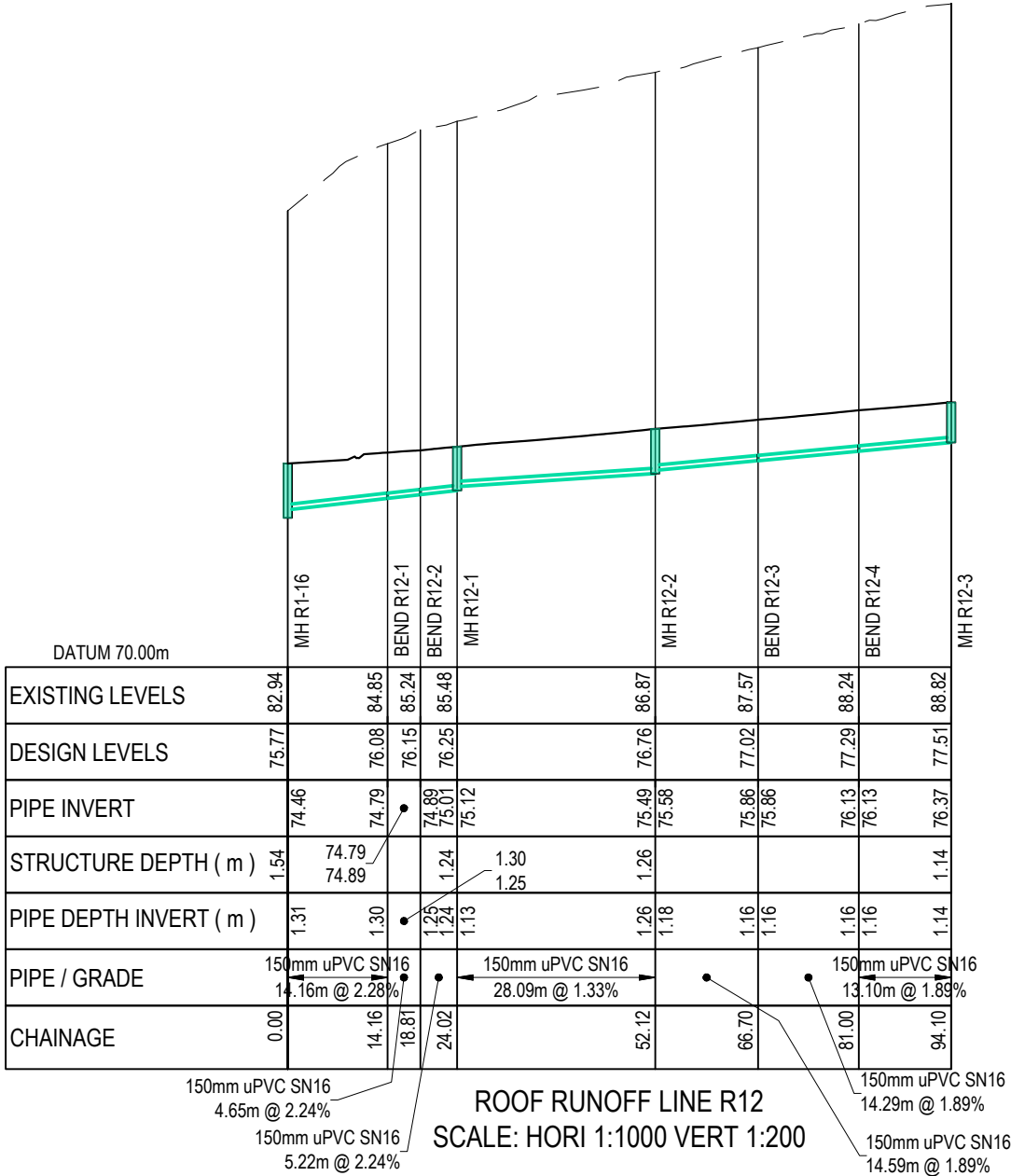
Project
**DEVELOPMENT OF
RIVERHEAD FOREST
FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

Title
**RETIREMENT VILLAGE
STORMWATER LONG
SECTIONS - ROOF RUN OFF**

Project no.	147016		
Scale	1:1000 @ A3		
Cad file	147016-RV-C421 SW-LS_ROOF.DWG		
Drawing no.	C421-19	Rev	A

DATE: 4/30/25 FILE PATH: F:\Maven\PROJECTS\147016 - RIVERHEAD RETIREMENT VILLAGE\DWG\147016-RV-C421 SW-LS-ROOF.DWG

RESOURCE CONSENT



LEGEND:			
---		EX GROUND SURFACE	
---		PR DESIGN SURFACE	
A	RESOURCE CONSENT		AYC 03/2025
Rev	Description		By Date
	By		Date
Survey	LIDAR		03/2022
Design	AYC		03/2025
Drawn	AYC		03/2025
Checked	RW		03/2025
M M A M E N 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 STORMWATER LONG SECTIONS - ROOF RUN OFF			
Project no.	147016		
Scale	1:1000 @ A3		
Cad file	147016-RV-C421 SW-LS-ROOF.DWG		
Drawing no.	C421-20	Rev	A