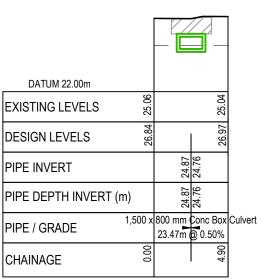


ROAD 9 - CULVERT 1 SCALE: HORI 1:250 VERT 1:250

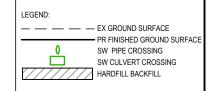


ROAD 9 - CULVERT 1 XS SCALE: HORI 1:250 VERT 1:250

RESOURCE CONSENT

NOTES

- ALL WORKS TO BE IN ACCORDANCE WITH AUCKLAN COUNCIL STANDARDS.
- 2. COORDINATES IN TERMS OF NZ GEODETIC DATUM MT EDEN 2000. LEVELS IN TERMS OF THE AUCKLAND VERTICAL DATUM 1946.
- IT IS THE CONTRACTORS RESPONSIBILITY TO LOCATE ALL SERVICES THAT MAY BE AFFECTED BY THEIR OPERATIONS.
- PIPE BEDDING: 0 10% GRANULAR BEDDING; 10 20% WEAK CONCRETE BEDDING.GREATER THAN 20% WEAK CONCRETE BEDDING (7MPA PLUS ANTI SCOUF BLOCKS AT 6M CRS).
- 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.
- ALL MANHOLES ARE TO BE 1050MMØ PRECAST CONCRETE UNLESS SHOWN OTHERWISE.
- ALL LINES TO BE ABANDONED SHALL BE SEALED AT EACH END. TIMING OF ALL SEALING TO BE COORDINATED WITH COUNCIL STAFF.



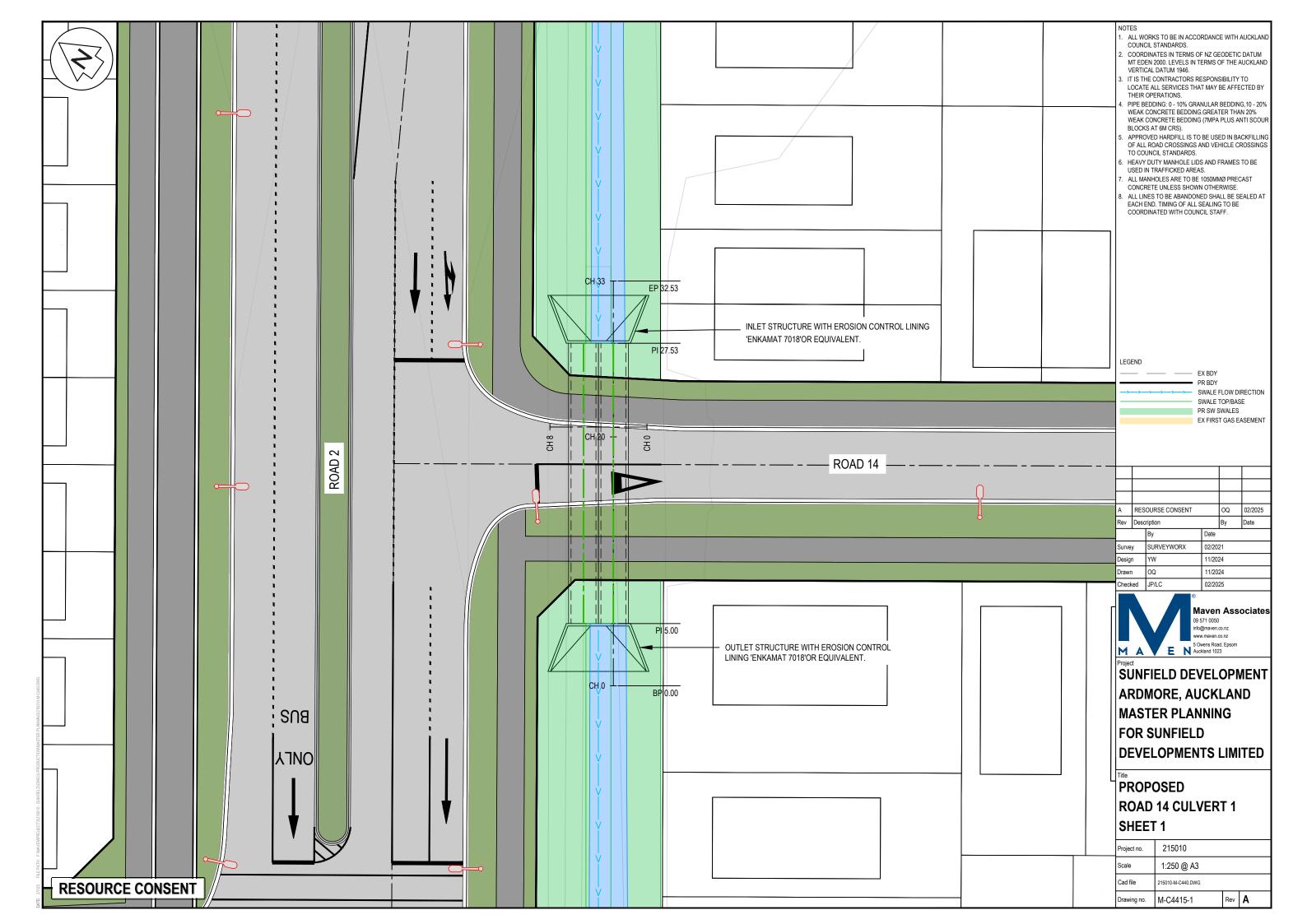
Α	RES	OURSE CONSENT		OQ	02/2025
Rev	Desc	cription		Ву	Date
	Ву		Date		
Surve	у	SURVEYWORX	02/2021		
Desig	n	YW	11/2024		
Drawn		OQ	11/2024		
Checked		JP/LC	02/2025		

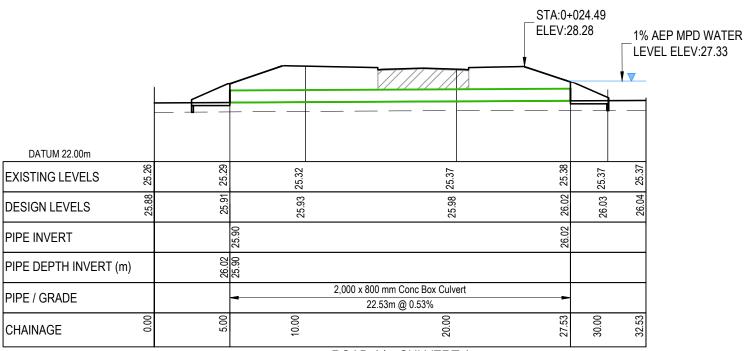


SUNFIELD DEVELOPMENT ARDMORE, AUCKLAND MASTER PLANNING FOR SUNFIELD DEVELOPMENTS LIMITED

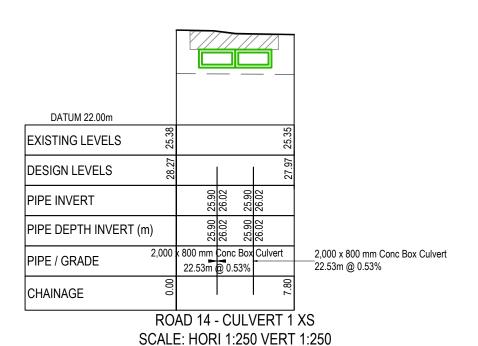
PROPOSED ROAD 9 CULVERT 1

Project no.	215010		
Scale	1:250 @ A3		
Cad file	215010-M-C440.DWG		·
Drawing no.	M-C4414-2	Rev	Α





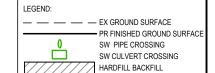
ROAD 14 - CULVERT 1 SCALE: HORI 1:250 VERT 1:250



RESOURCE CONSENT

NOTES

- ALL WORKS TO BE IN ACCORDANCE WITH AUCKLAN COUNCIL STANDARDS.
- COORDINATES IN TERMS OF NZ GEODETIC DATUM
 MT EDEN 2000. LEVELS IN TERMS OF THE AUCKLAND
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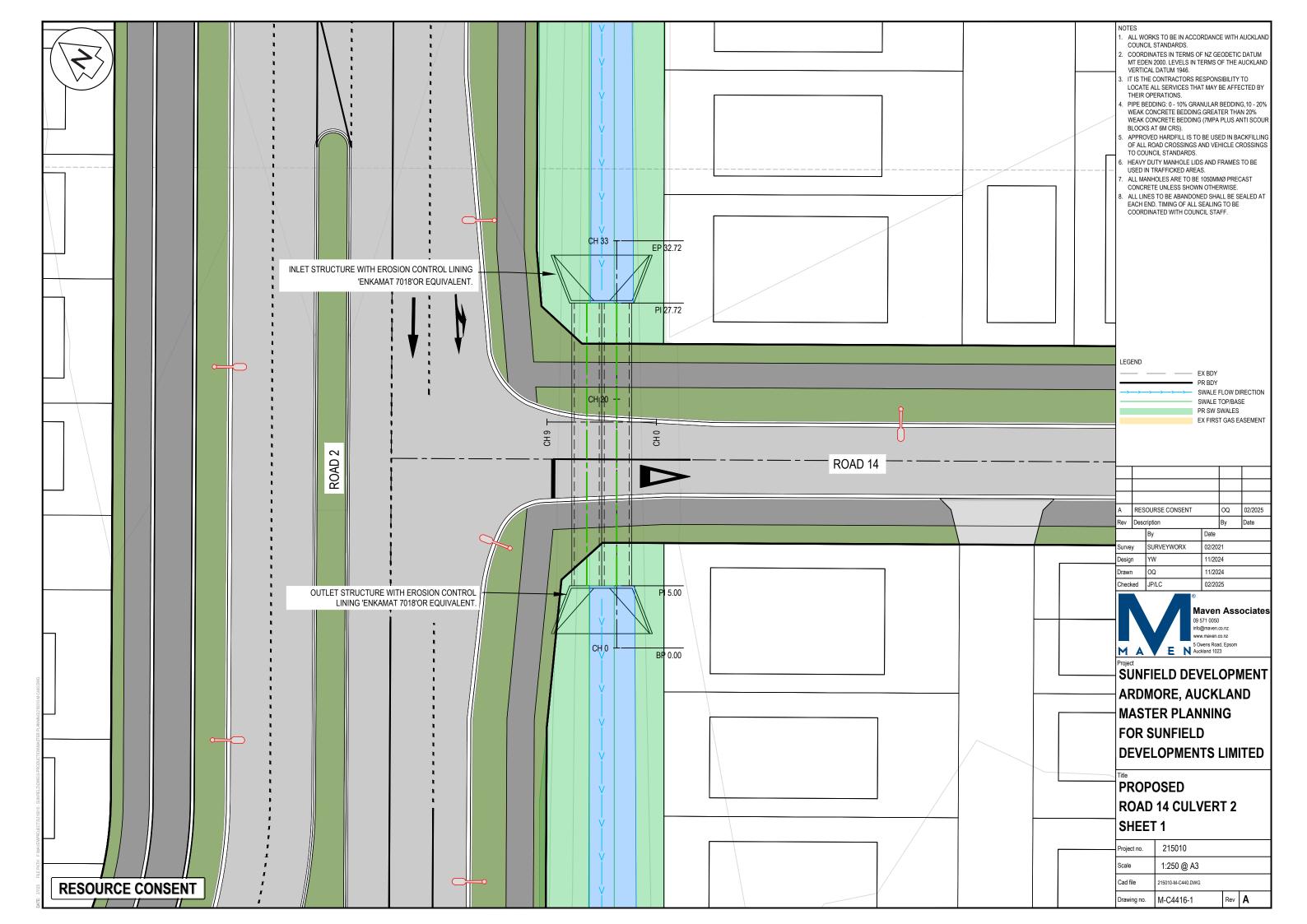
Α	RES	SOURSE CONSENT		OQ	02/2025
Rev	Desc	ription		Ву	Date
Ву		Ву	Date	ite	
Surve	y	SURVEYWORX	02/2021		
Design		YW	11/2024		
Drawn		OQ	11/2024		
Checked		JP/LC	02/2025		

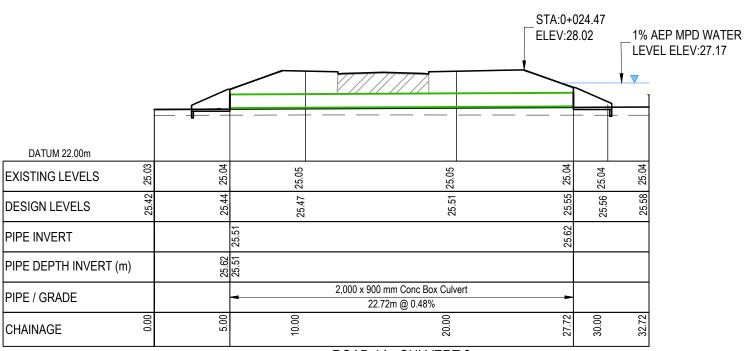


SUNFIELD DEVELOPMENT ARDMORE, AUCKLAND MASTER PLANNING FOR SUNFIELD DEVELOPMENTS LIMITED

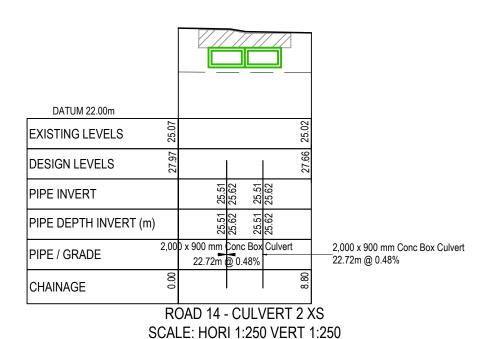
PROPOSED
ROAD 14 CULVERT 1

Project no.	215010		
Scale	1:250 @ A3		
Cad file	215010-M-C440.DWG		
Drawing no.	M-C4415-2	Rev	Α





ROAD 14 - CULVERT 2 SCALE: HORI 1:250 VERT 1:250



RESOURCE CONSENT

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

LEGEND: — EX GROUND SURFACE - PR FINISHED GROUND SURFACE SW PIPE CROSSING SW CULVERT CROSSING HARDFILL BACKFILL

Α	RES	OURSE CONSENT		OQ	02/2025
Rev	Desc	ription		Ву	Date
		Ву	Date		
Surve	у	SURVEYWORX	02/2021		
Desig	n	YW	11/2024		
Drawn		OQ	11/2024		
Check	ced	JP/LC	02/20	02/2025	

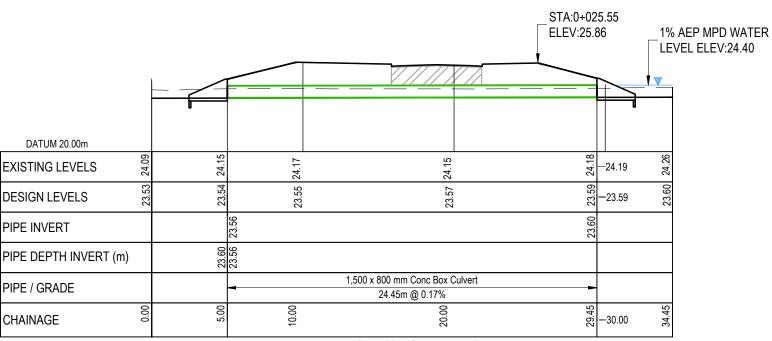


SUNFIELD DEVELOPMENT ARDMORE, AUCKLAND **MASTER PLANNING** FOR SUNFIELD **DEVELOPMENTS LIMITED**

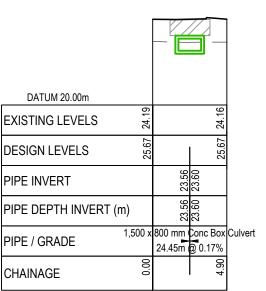
PROPOSED **ROAD 14 CULVERT 2** SHEET 2

Project no.	215010		
Scale	1:250 @ A3		
Cad file	215010-M-C440.DWG		
Drawing no.	M-C4416-2	Rev	Α





ROAD19 - CULVERT 1 SCALE: HORI 1:250 VERT 1:250

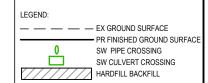


ROAD 19 - CULVERT 1 XS SCALE: HORI 1:250 VERT 1:250

RESOURCE CONSENT

NOTES

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Α	RES	SOURSE CONSENT		OQ	02/2025
Rev	Desc	ription		Ву	Date
		Ву	Date		
Surve	у	SURVEYWORX	02/202	02/2021	
Desig	n	YW	11/2024		
Drawn	1	OQ	11/2024		
Check	ed	JP/LC	02/2025		



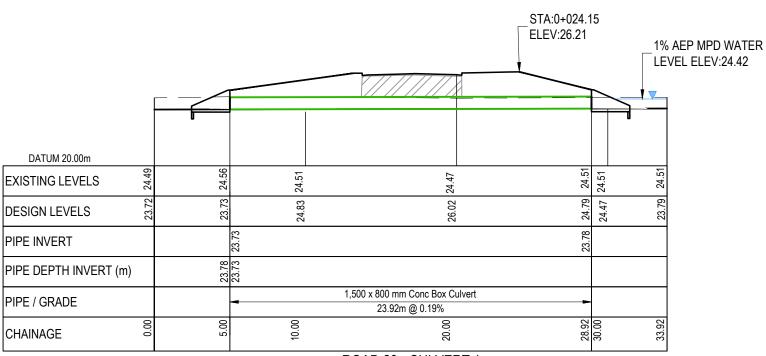
SUNFIELD DEVELOPMENT ARDMORE, AUCKLAND MASTER PLANNING FOR SUNFIELD DEVELOPMENTS LIMITED

Title

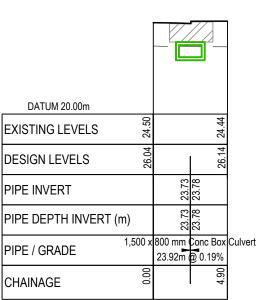
PROPOSED ROAD 19 CULVERT 1 SHEET 2

Project no.	215010		
Scale	1:250 @ A3		
Cad file	215010-M-C440.DWG		
Drawing no.	M-C4417-2	Rev	Α





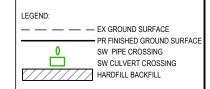
ROAD 20 - CULVERT 1 SCALE: HORI 1:250 VERT 1:250



ROAD 20 - CULVERT 1 XS SCALE: HORI 1:250 VERT 1:250

RESOURCE CONSENT

- ALL WORKS TO BE IN ACCORDANCE WITH AUCKLAN COUNCIL STANDARDS.
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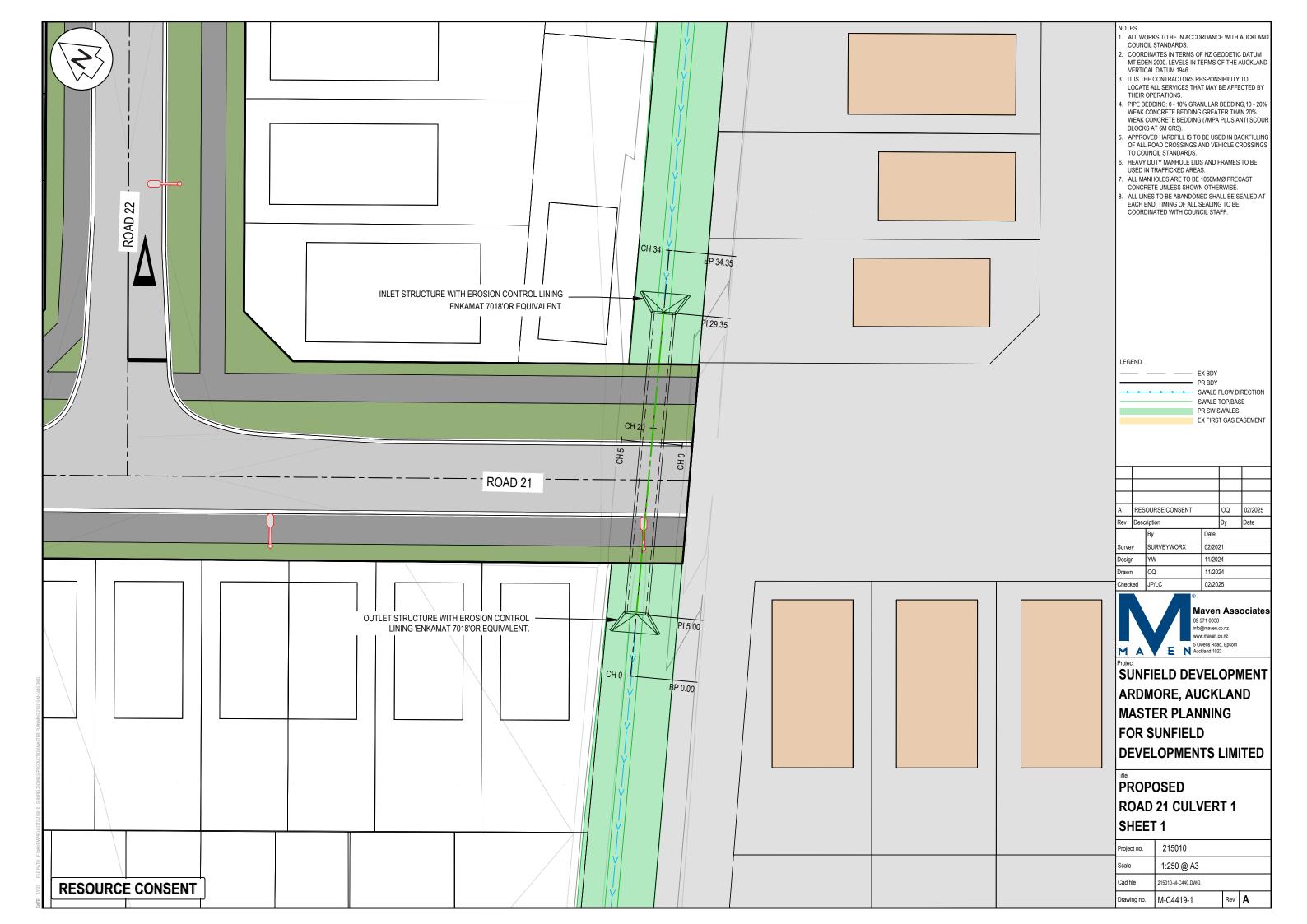
Α	RES	SOURSE CONSENT		OQ	02/2025
Rev	Desc	ription		Ву	Date
		Ву	Date	•	
Surve	у	SURVEYWORX	02/2021		
Desig	n	YW	11/2024		
Drawr	1	OQ	11/2024		
Check	ed	JP/LC	02/2025		

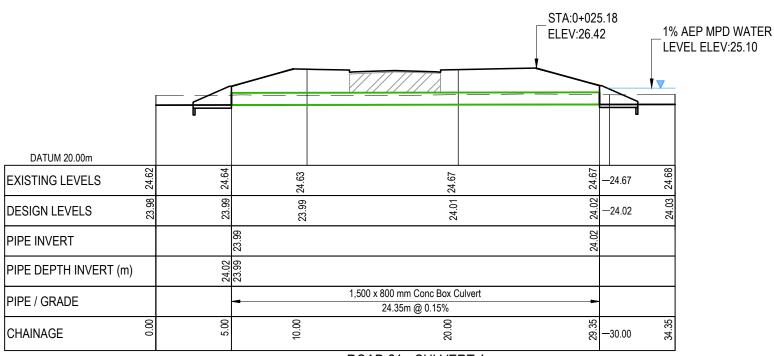


SUNFIELD DEVELOPMENT ARDMORE, AUCKLAND **MASTER PLANNING** FOR SUNFIELD **DEVELOPMENTS LIMITED**

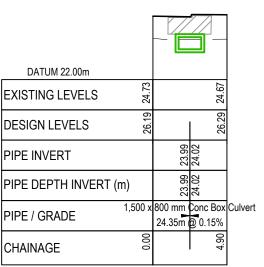
PROPOSED **ROAD 20 CULVERT 1** SHEET 2

Project no.	215010		
Scale	1:250 @ A3		
Cad file	215010-M-C440.DWG		
Drawing no.	M-C4418-2	Rev	Α





ROAD 21 - CULVERT 1 SCALE: HORI 1:250 VERT 1:250

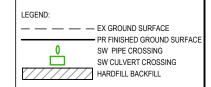


ROAD 21 - CULVERT 1 XS SCALE: HORI 1:250 VERT 1:250

RESOURCE CONSENT

NOTES

- ALL WORKS TO BE IN ACCORDANCE WITH AUCKLAN COUNCIL STANDARDS.
- COORDINATES IN TERMS OF NZ GEODETIC DATUM
 MT EDEN 2000. LEVELS IN TERMS OF THE AUCKLAND
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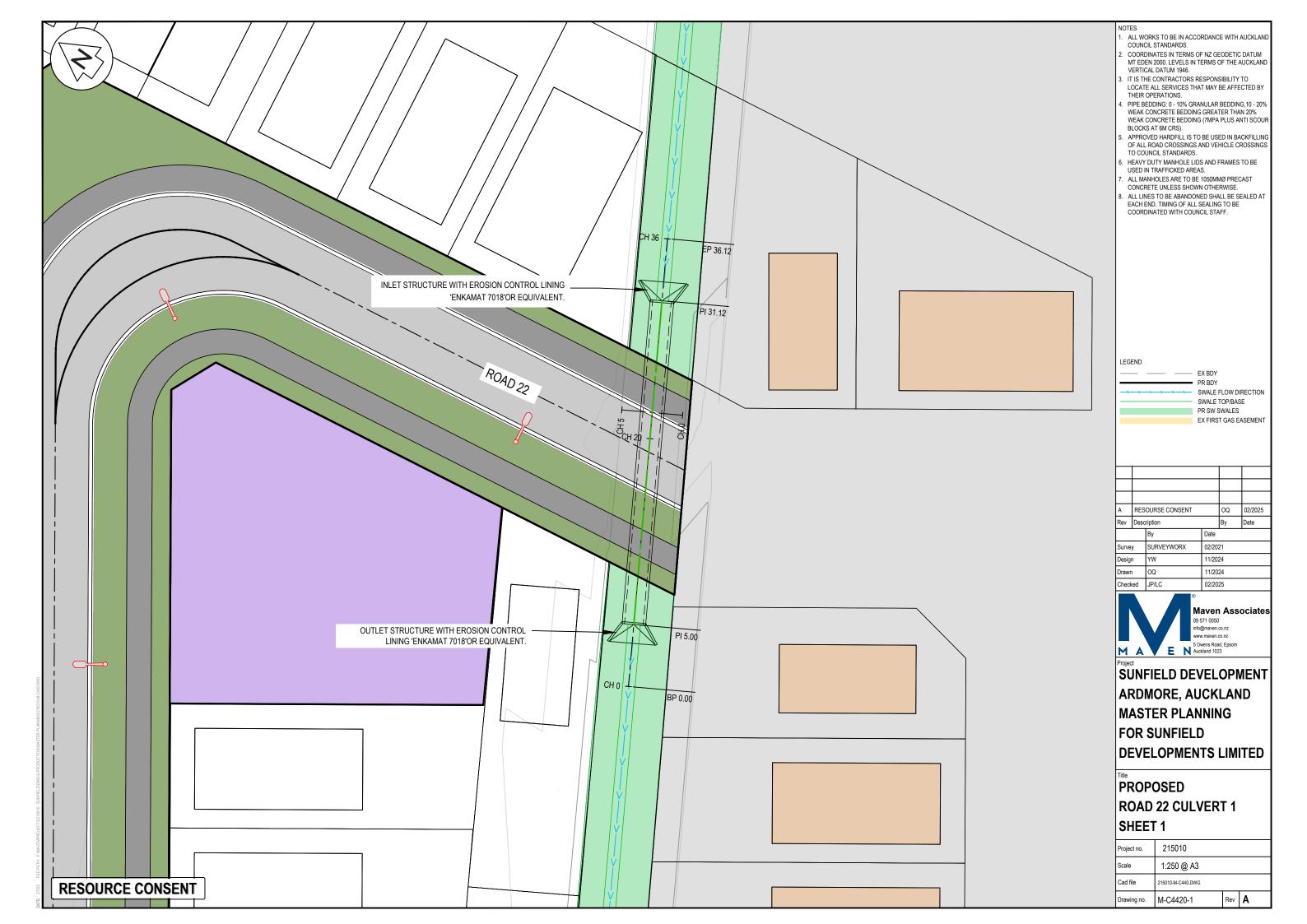
Α	RES	ESOURSE CONSENT		OQ	02/2025
Rev	Desc	cription		Ву	Date
Ву		Ву	Date		
Survey		SURVEYWORX	02/202	02/2021	
Design		YW	11/2024		
Drawn		OQ	11/2024		
Checked		JP/LC	02/2025		

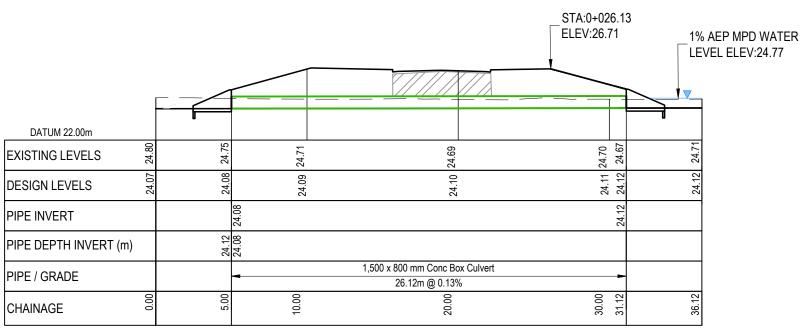


SUNFIELD DEVELOPMENT ARDMORE, AUCKLAND MASTER PLANNING FOR SUNFIELD DEVELOPMENTS LIMITED

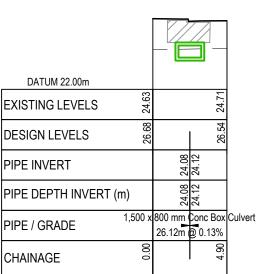
PROPOSED
ROAD 21 CULVERT 1

Project no.	215010		
Scale	1:250 @ A3		
Cad file	215010-M-C440.DWG		
Drawing no.	M-C4419-2	Rev	Α





ROAD 22 - CULVERT 1 SCALE: HORI 1:250 VERT 1:250

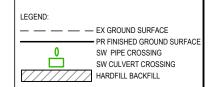


ROAD 22 - CULVERT 1 XS SCALE: HORI 1:250 VERT 1:250

RESOURCE CONSENT

NOTES

- ALL WORKS TO BE IN ACCORDANCE WITH AUCKLAN COUNCIL STANDARDS.
- 2. COORDINATES IN TERMS OF NZ GEODETIC DATUM MT EDEN 2000. LEVELS IN TERMS OF THE AUCKLAND VERTICAL DATUM 1946.
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ΑA	RRECS	OURSE CONSENT			C300X	02/2025
Rev Desc		cription	on			Date
		Ву	[Date		
Surve	y	SURVEYWORX	(02/2021		
Design Drawn Checked		YW	1	11/2024 11/2024		
		OQ	,			
		JP/LC	(02/202	25	
		•	_			

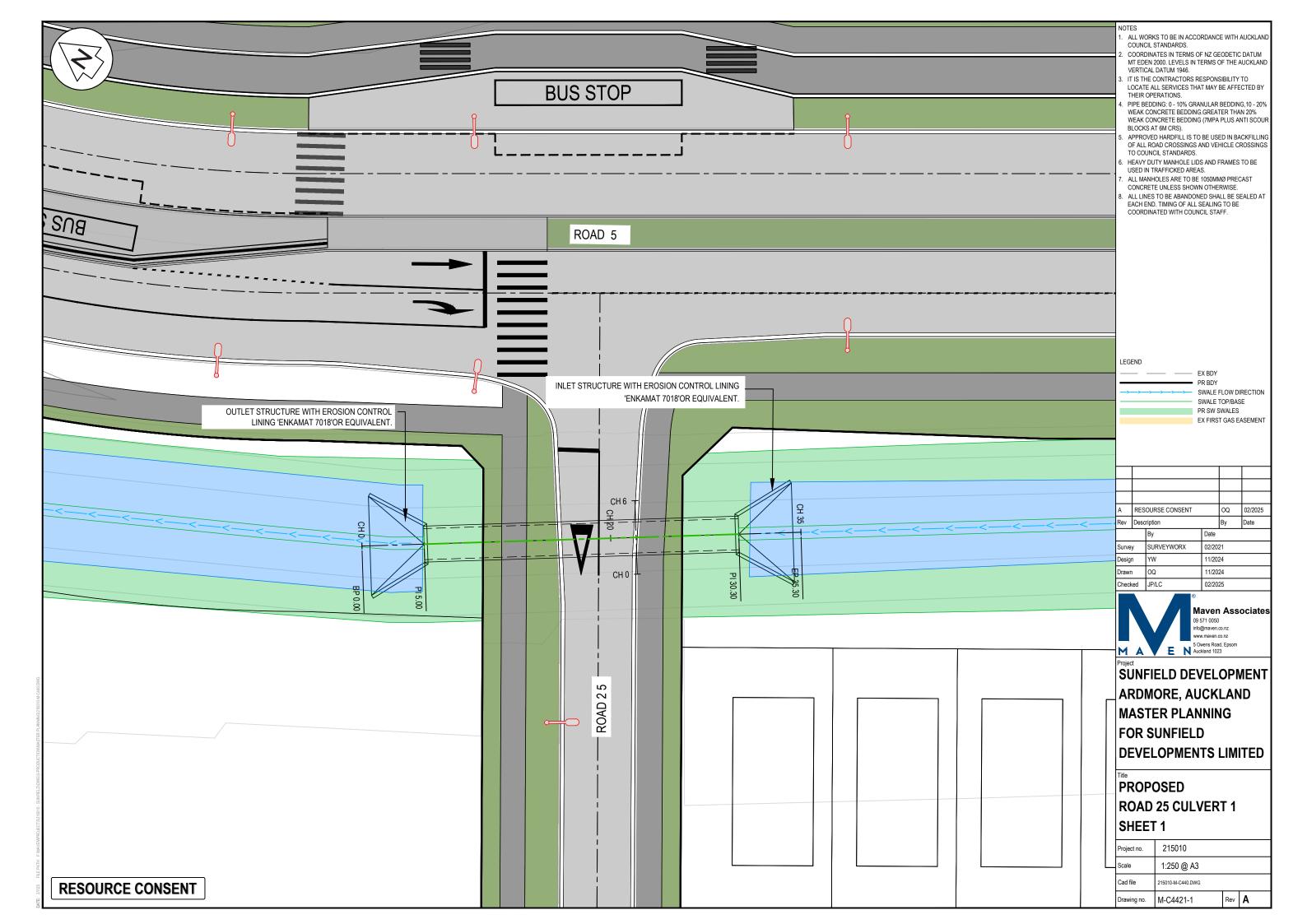


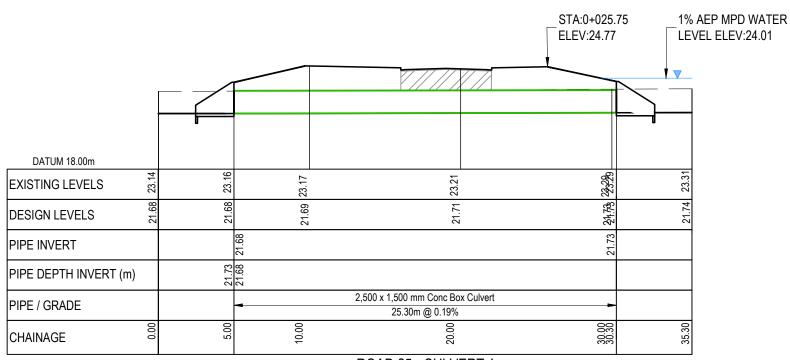
SUNFIELD DEVELOPMENT ARDMORE, AUCKLAND MASTER PLANNING FOR SUNFIELD DEVELOPMENTS LIMITED

Title

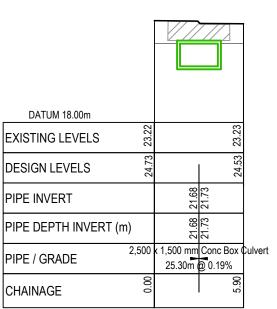
PROPOSED
ROAD 22 CULVERT 1
SHEET 2

Project no.	215010		
Scale	1:250 @ A3		
Cad file	215010-M-C440.DWG		
Drawing no.	M-C4420-2	Rev	Α





ROAD 25 - CULVERT 1 SCALE: HORI 1:250 VERT 1:250



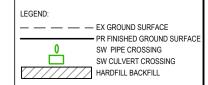
ROAD 25 - CULVERT 1 XS SCALE: HORI 1:250 VERT 1:250

RESOURCE CONSENT

NOTES

- ALL WORKS TO BE IN ACCORDANCE WITH AUCKLAN COUNCIL STANDARDS.
- 2. COORDINATES IN TERMS OF NZ GEODETIC DATUM MT EDEN 2000. LEVELS IN TERMS OF THE AUCKLAND VERTICAL DATUM 1946.
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Α	RES	OURSE CONSENT		OQ	02/2025	
Rev	Desc	ription	ion			
		Ву	Date	Date		
Surve	у	SURVEYWORX	02/20	02/2021		
Design Drawn Checked		YW	11/20	11/2024 11/2024		
		OQ	11/20			
		JP/LC	02/20	25		

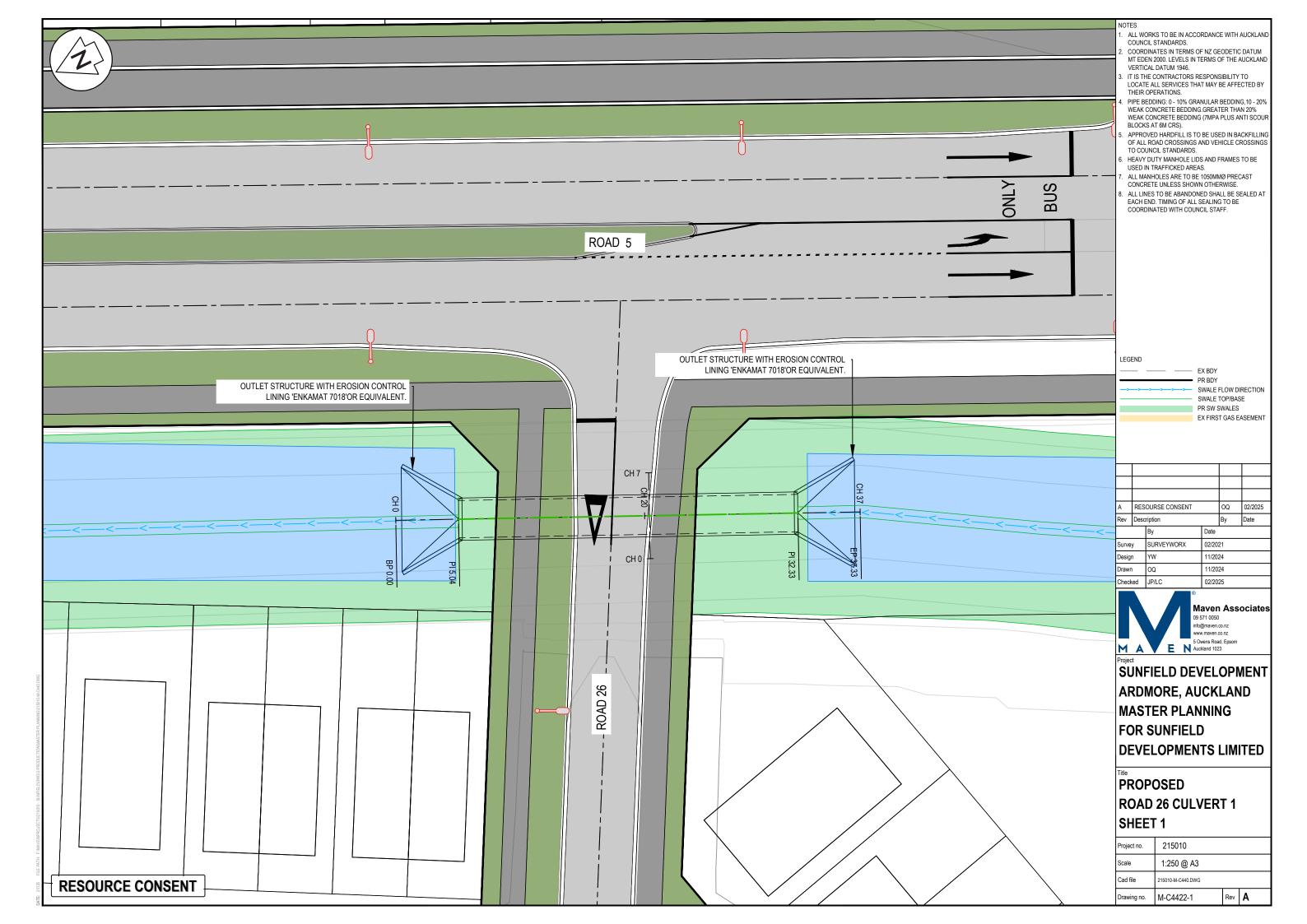


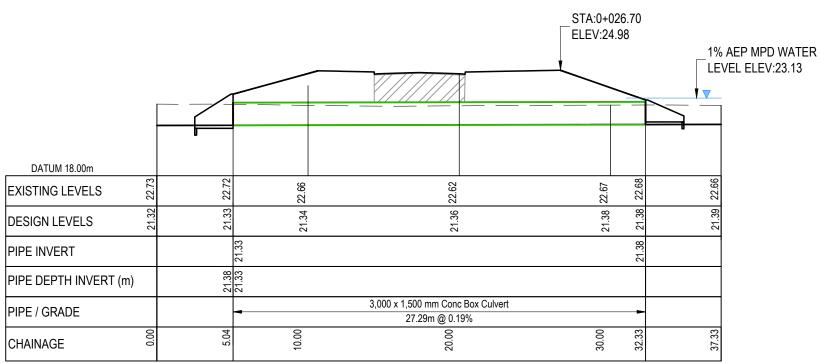
SUNFIELD DEVELOPMENT ARDMORE, AUCKLAND MASTER PLANNING FOR SUNFIELD DEVELOPMENTS LIMITED

Title

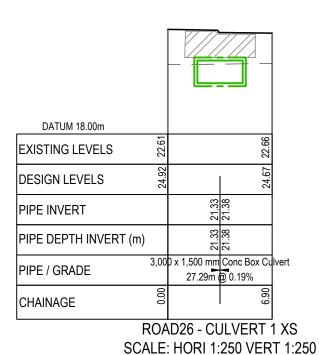
PROPOSED ROAD 25 CULVERT 1 SHEET 2

Project no.	215010		
Scale	1:250 @ A3		
Cad file	215010-M-C440.DWG		
Drawing no.	M-C4421-2	Rev	Α





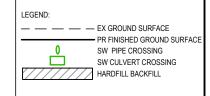
ROAD 26 - CULVERT 1 SCALE: HORI 1:250 VERT 1:250



RESOURCE CONSENT

NOTES

- ALL WORKS TO BE IN ACCORDANCE WITH AUCKLAN COUNCIL STANDARDS.
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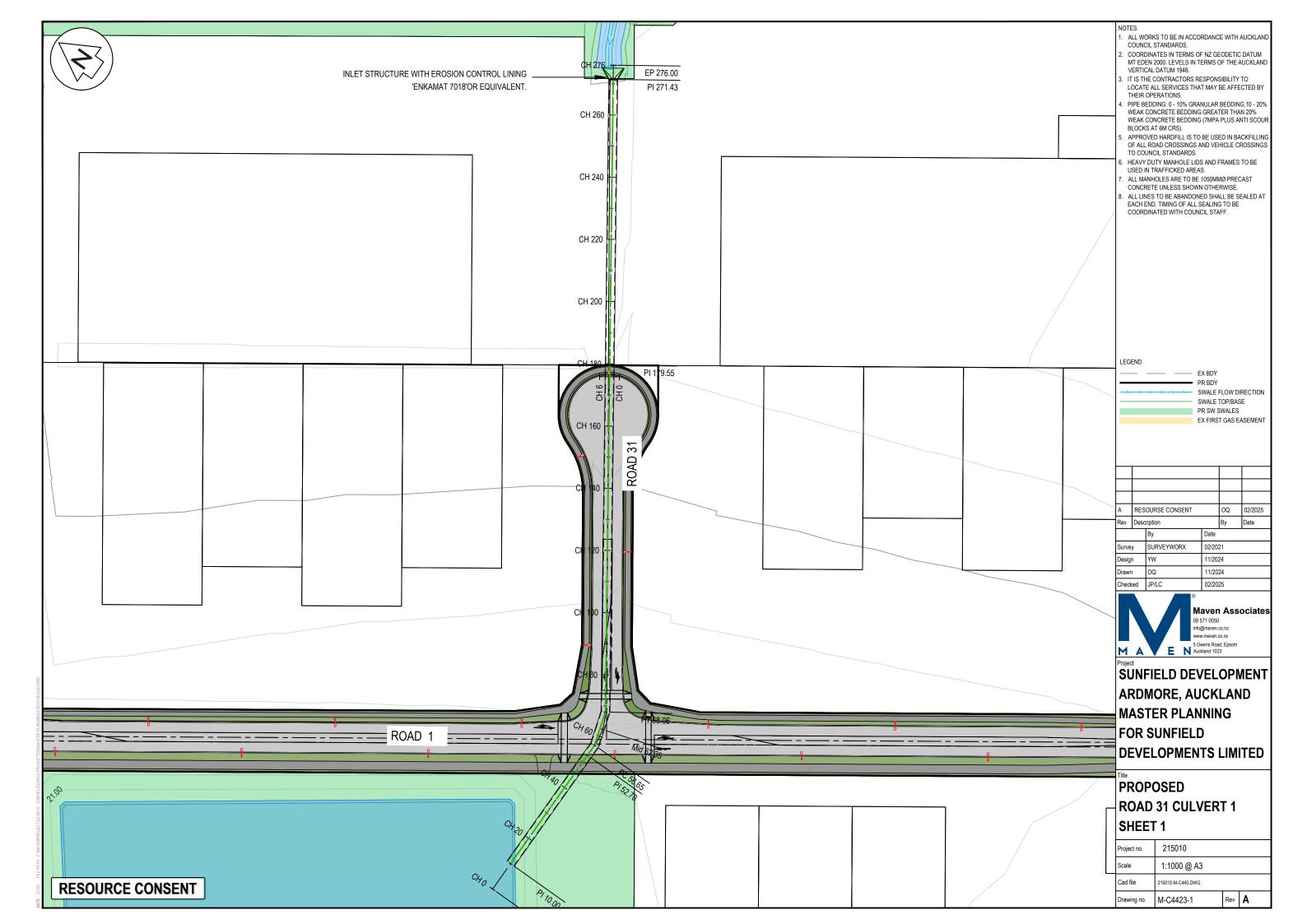
\vdash						
Α	RES	OURSE CONSENT	OQ	02/2025		
Rev	Desc	ription		Ву	Date	
		Ву	Date	Date 02/2021		
Surve	у	SURVEYWORX	02/20			
Design Drawn Checked		YW	11/2024			
		OQ	11/20	11/2024		
		JP/LC	02/20	25		



SUNFIELD DEVELOPMENT ARDMORE, AUCKLAND MASTER PLANNING FOR SUNFIELD DEVELOPMENTS LIMITED

PROPOSED
ROAD 26 CULVERT 1

Project no.	215010		
Scale	1:250 @ A3		
Cad file	215010-M-C440.DWG		
Drawing no.	M-C4422-2	Rev	Α



DATUM 16.00m									
EXISTING LEVELS 2.5	21.29	21.36	21.45	21.62	21.87	21.91	21.94	21.96	22.00
DESIGN LEVELS 65	00	21.37	22.26	22.80	23.06	23.02	23.00	23.03	23.06
PIPE INVERT		19.90				1	20.58 20.58		20.75
PIPE DEPTH INVERT (m)	20.58	19.90					20.75 20.58		
PIPE / GRADE		•	2,500 x	1,000 mm Conc Box Culvert			2,500		Conc Box Culvert
	00	00	9	46.65m @ 1.47%	9	02	55	11.29m @	
CHAINAGE 8		20.0	30.00	40.00	50.00	52.7	56.6	0.09	65.00

ROAD 31 - CULVERT 1 (CH0 - CH65) SCALE: HORI 1:250 VERT 1:250

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		///-	///		<u>/////////////////////////////////////</u>	<u> </u>	<u> </u>		<i>- </i>
DATUM 16.00m									
EXISTING LEVELS	22.00	22.04	22.05	22.06	22.16	22.26	22.45	22.74	22.99
DESIGN LEVELS	23.06	23.12	23.08		23.62	33	7. F.	t 4 -	24.68
PIPE INVERT	20.58	20.75	20.75						23.71
PIPE DEPTH INVERT (m)	20.75	23.71	20.75						
PIPE / GRADE		-	4	2,500 x 1,000 mm Conc Box Culvert 11.29m @ 1.46%		2,500 x 1,000 mm Co 203.33m @			-
CHAINAGE	65.00	68.06	70.00	80.00	00.06	100.00	110.00	120.00	130.00

ROAD 31 - CULVERT 1 (CH65 - CH130) SCALE: HORI 1:250 VERT 1:250

RESOURCE CONSENT

NOTES

- ALL WORKS TO BE IN ACCORDANCE WITH AUCKLAN COUNCIL STANDARDS.
- COORDINATES IN TERMS OF NZ GEODETIC DATUM MT EDEN 2000. LEVELS IN TERMS OF THE AUCKLAND VERTICAL DATUM 1946.
- IT IS THE CONTRACTORS RESPONSIBILITY TO LOCATE ALL SERVICES THAT MAY BE AFFECTED BY THEIR OPERATIONS.
- PIPE BEDDING: 0 10% GRANULAR BEDDING; 10 20%
 WEAK CONCRETE BEDDING GREATER THAN 20%
 WEAK CONCRETE BEDDING (7MPA PLUS ANTI SCOUF
 BLOCKS AT 6M CRS).
- 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 MANHOLES ARE TO BE 1050MMØ PRECAST CONCRETE UNLESS SHOWN OTHERWISE.
- ALL LINES TO BE ABANDONED SHALL BE SEALED AT EACH END. TIMING OF ALL SEALING TO BE COORDINATED WITH COUNCIL STAFF.

LEGEND:

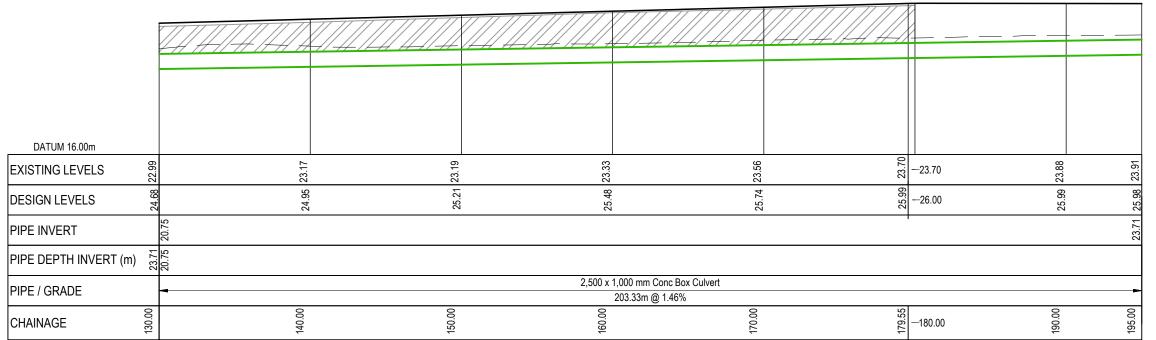
	Α	RES	OURSE CONSENT		OQ	02/2025
	Rev	Desc	ription		Ву	Date
			Ву	Date	Date	
	Surve	y	SURVEYWORX	02/2021		
	Design Drawn		YW	11/2024		
			OQ	11/2024		
	Check	ed	JP/LC	02/2025		



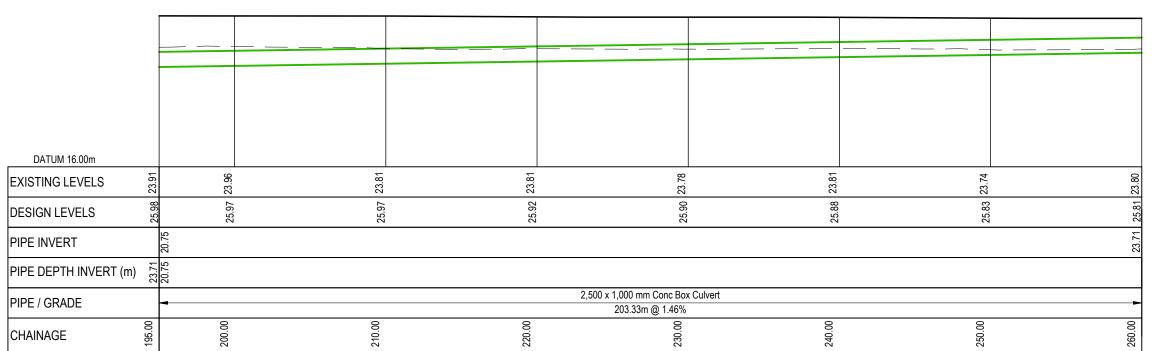
SUNFIELD DEVELOPMENT ARDMORE, AUCKLAND MASTER PLANNING FOR SUNFIELD DEVELOPMENTS LIMITED

PROPOSED
ROAD 31 CULVERT 1
SHEET 2

Project no.	215010		
Scale	1:250 @ A3		
Cad file	215010-M-C440.DWG		
Drawing no.	M-C4423-2	Rev	Α



ROAD 31 - CULVERT 1 (CH130 - CH195) SCALE: HORI 1:250 VERT 1:250



ROAD 31 - CULVERT 1 (CH195 -CH260) SCALE: HORI 1:250 VERT 1:250

RESOURCE CONSENT

NOTE

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- HEAVY DUTY MANHOLE LIDS AND FRAMES TO BE USED IN TRAFFICKED AREAS.
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- ALL LINES TO BE ABANDONED SHALL BE SEALED AT EACH END. TIMING OF ALL SEALING TO BE COORDINATED WITH COUNCIL STAFF.

LEGEND:

PR FINISHED GROUND SURFACE

PR FINISHED GROUND SURFACE

SW PIPE CROSSING
SW CULVERT CROSSING
HARDFILL BACKFILL

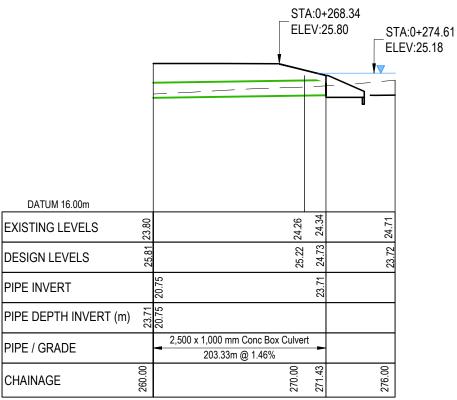
	Α	RES	OURSE CONSENT	OQ	02/2025	
	Rev	Desc	ription		Ву	Date
			Ву	Date		
	Surve	y	SURVEYWORX	02/2021		
	Design Drawn		YW	11/2024		
			OQ	11/2024		
	Check	ed	JP/LC	02/2025		



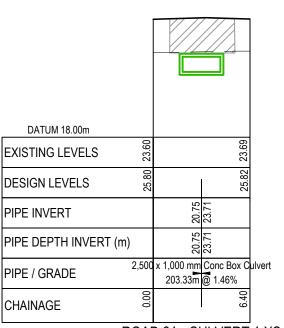
SUNFIELD DEVELOPMENT ARDMORE, AUCKLAND MASTER PLANNING FOR SUNFIELD DEVELOPMENTS LIMITED

PROPOSED
ROAD 31 CULVERT 1
SHEET 3

Project no.	215010		
Scale	1:250 @ A3		
Cad file	215010-M-C440.DWG		
Drawing no.	M-C4423-3	Rev	Α



ROAD 31 - CULVERT 1 (CH260 - CH276) SCALE: HORI 1:250 VERT 1:250

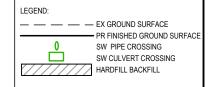


ROAD 31 - CULVERT 1 XS SCALE: HORI 1:250 VERT 1:250

RESOURCE CONSENT

NOTES

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 MT EDEN 2000. LEVELS IN TERMS OF THE AUCKLAND
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Α		RES	OURSE CONSENT		OQ.	02/2025	
Re	٧	Desc	ription			Date	
			Ву	Date	Date		
Su	rve	У	SURVEYWORX	02/20	02/2021		
De	Design Drawn		YW	11/20	11/2024		
Dra			OQ	11/20	11/2024		
Ch	eck	ed	JP/LC	02/20	25		

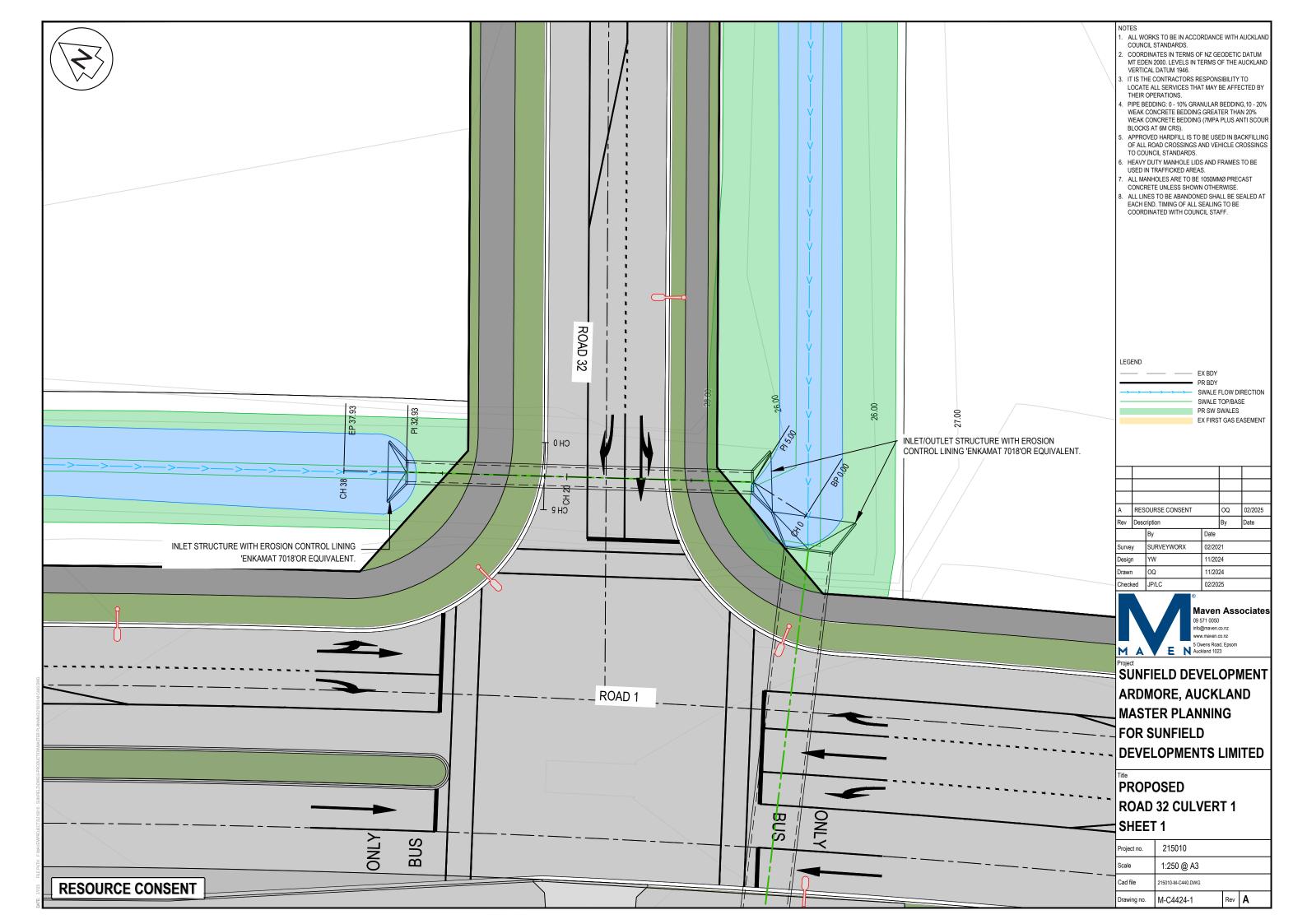


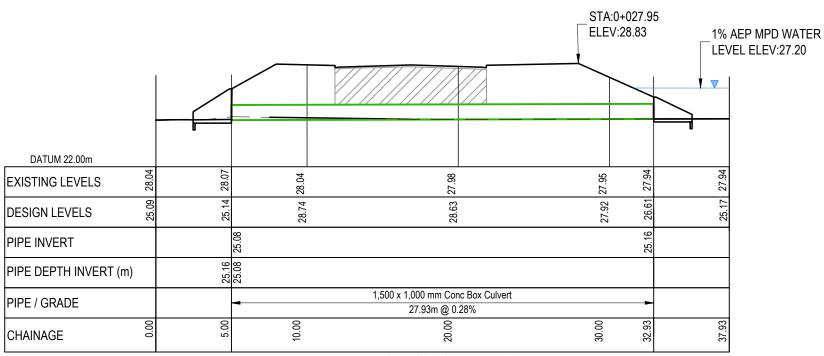
SUNFIELD DEVELOPMENT ARDMORE, AUCKLAND MASTER PLANNING FOR SUNFIELD DEVELOPMENTS LIMITED

Title

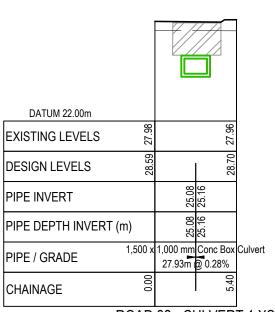
PROPOSED ROAD 31 CULVERT 1 SHEET 4

Project no. 215010 Scale 1:250 @ A3 Cad file 215010-M-C440.DWG	Drawin	g no.	M-C4423-4	Rev	Α
3	Cad file	9	215010-M-C440.DWG		
Project no. 215010	Scale		1:250 @ A3		
	Project	no.	215010		





ROAD 32 - CULVERT 1 SCALE: HORI 1:250 VERT 1:250

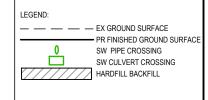


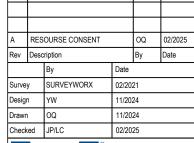
ROAD 32 - CULVERT 1 XS SCALE: HORI 1:250 VERT 1:250

RESOURCE CONSENT

NOTES

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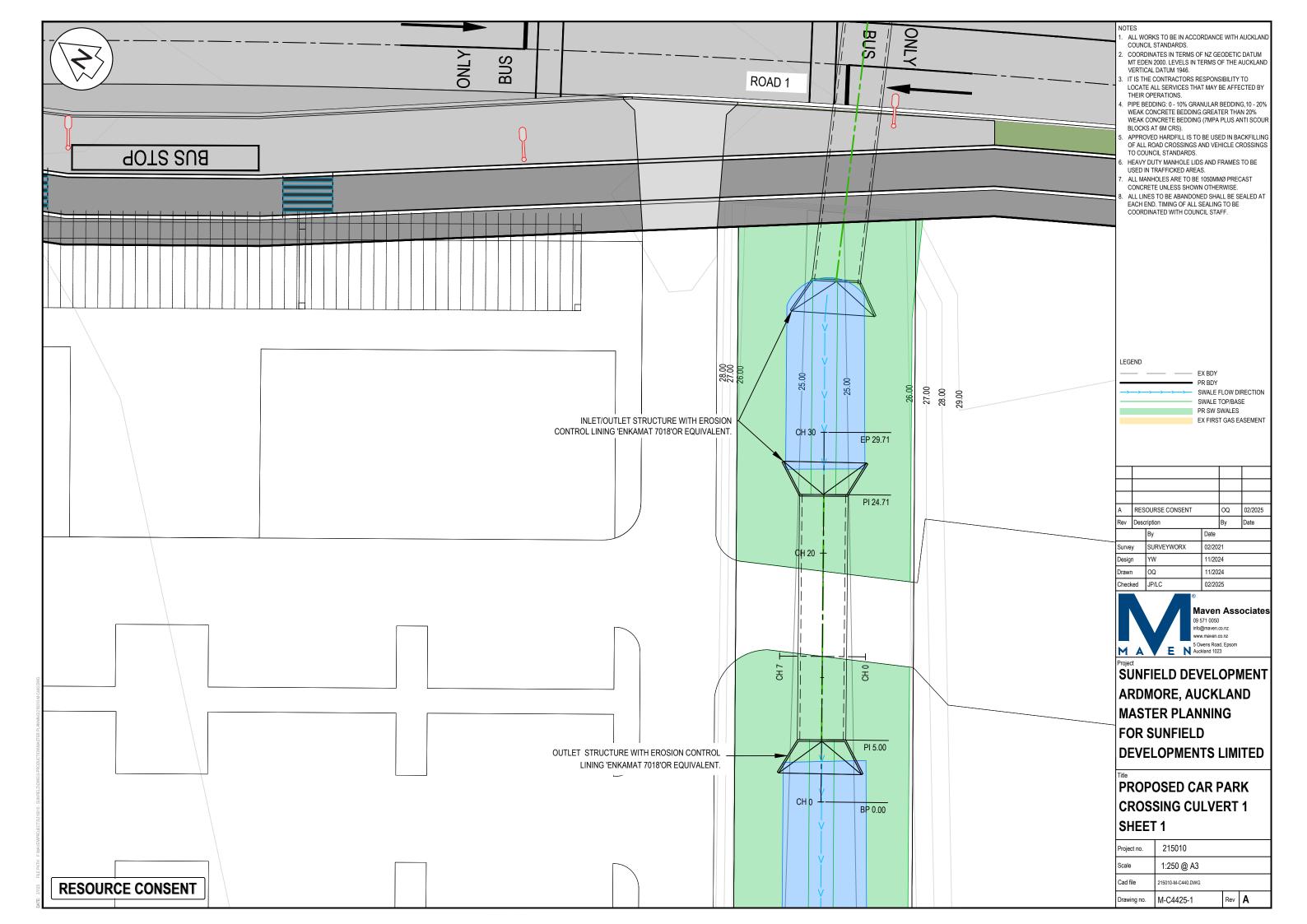


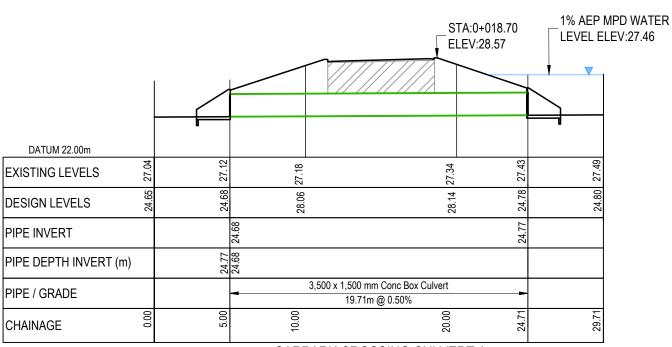


SUNFIELD DEVELOPMENT ARDMORE, AUCKLAND MASTER PLANNING FOR SUNFIELD DEVELOPMENTS LIMITED

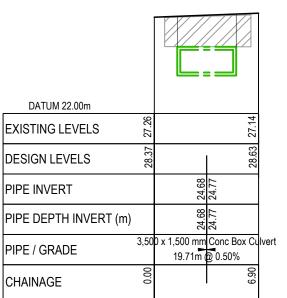
PROPOSED
ROAD 32 CULVERT 1

Project no.	215010		
Scale	1:250 @ A3		
Cad file	215010-M-C440.DWG		
Drawing no.	M-C4424-2	Rev	Δ





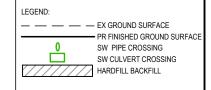
CARPARK CROSSING CULVERT 1 SCALE: HORI 1:250 VERT 1:250



CARPARK CROSSING CULVERT 1 XS SCALE: HORI 1:250 VERT 1:250

RESOURCE CONSENT

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 WEAK CONCRETE BEDDING (7MPA PLUS ANTI SCOUF BLOCKS AT 6M CRS).
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RES	OURSE CONSENT		OQ.	02/2025	
Desc	ription		Ву	Date	
	Ву	Date	Date		
y	SURVEYWORX	02/20	02/2021 11/2024 11/2024		
1	YW	11/20			
1	OQ	11/20			
ed	JP/LC	02/20	25		
	Desc y	y SURVEYWORX 1 YW 1 OQ	Description By	Description By Date y SURVEYWORX 02/2021 1 YW 11/2024 1 OQ 11/2024	



SUNFIELD DEVELOPMENT ARDMORE, AUCKLAND **MASTER PLANNING** FOR SUNFIELD **DEVELOPMENTS LIMITED**

PROPOSED CAR PARK **CROSSING CULVERT 1** SHEET 2

Project no.	215010		
Scale	1:250 @ A3		
Cad file	215010-M-C440.DWG		
Drawing no.	M-C4425-2	Rev	Α

BAFFLE BLOCK (ENERGY DISSIPATORS) *ALL DIMESION ARE IN METERES (m)					
	*ALLDIN	/IESION AR	EIN MEIER	ES(m)	
		WIDTH			
		OF	ROW	BLOCK	TOTAL
STRUCTURE	BLOCK	BLOCK	SPACING	WIDTH	QTYOF
NAME HEIGHT 'W 'SD' 'SW BLOO					BLOCKS
R1-C2	0.75	3.50	2.90	2.45	3.00
R5-C2	0.50	1.50	1.45	1.00	3.00

	RIP RAP APRONS					
	*ALLDIMI	SION ARE	IN METER	S(m)		
					TOTAL	
STRUCTURE	LENGTH	WIDTH	ROCK	APRON	LAYEROF	
NAME	'L''	'W	SIZE	D⊞TH	ROOK	
R1-C2	6.0	8.5	0.125	0.25	2	
R5-C2	4.0	5.8	0.125	0.25	2	

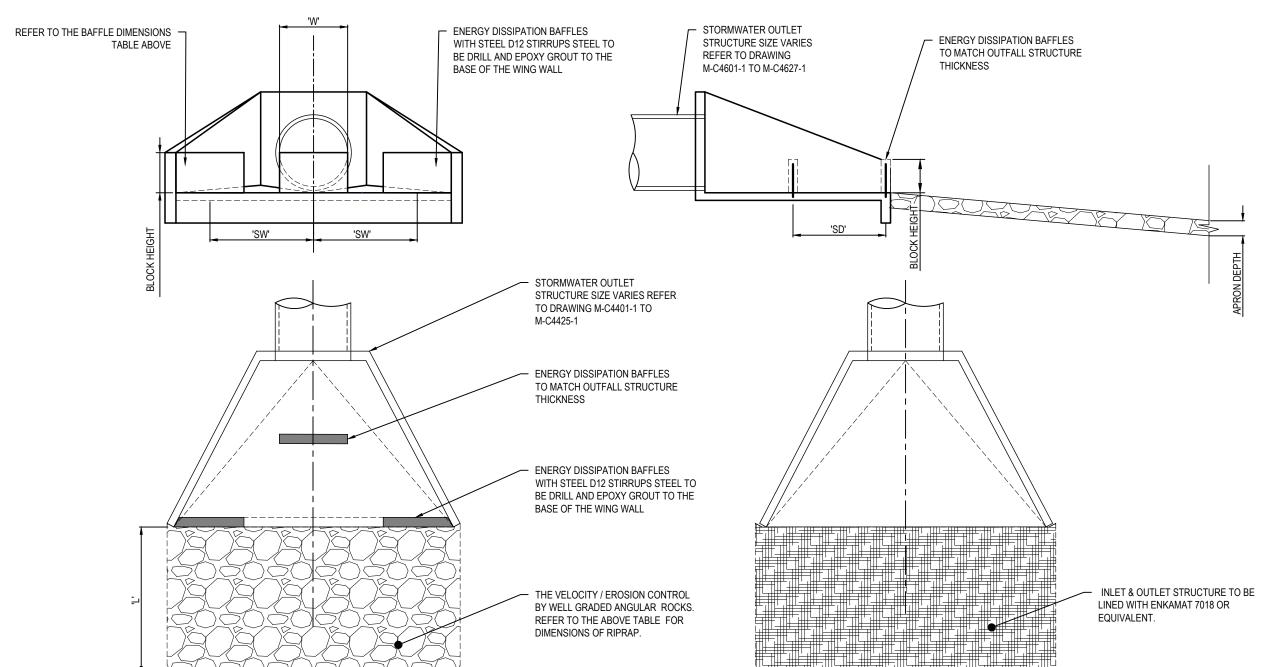
NOTES

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Α	RES	OURSE CONSENT		OQ	02/2025
Rev	Desc	ription		Ву	Date
		Ву	Date)	
Surve	y	SURVEYWORX	02/2021		
Design Drawn		YW	11/2024		
		OQ	11/2024		
Check	ed	JP/LC	02/20	25	·



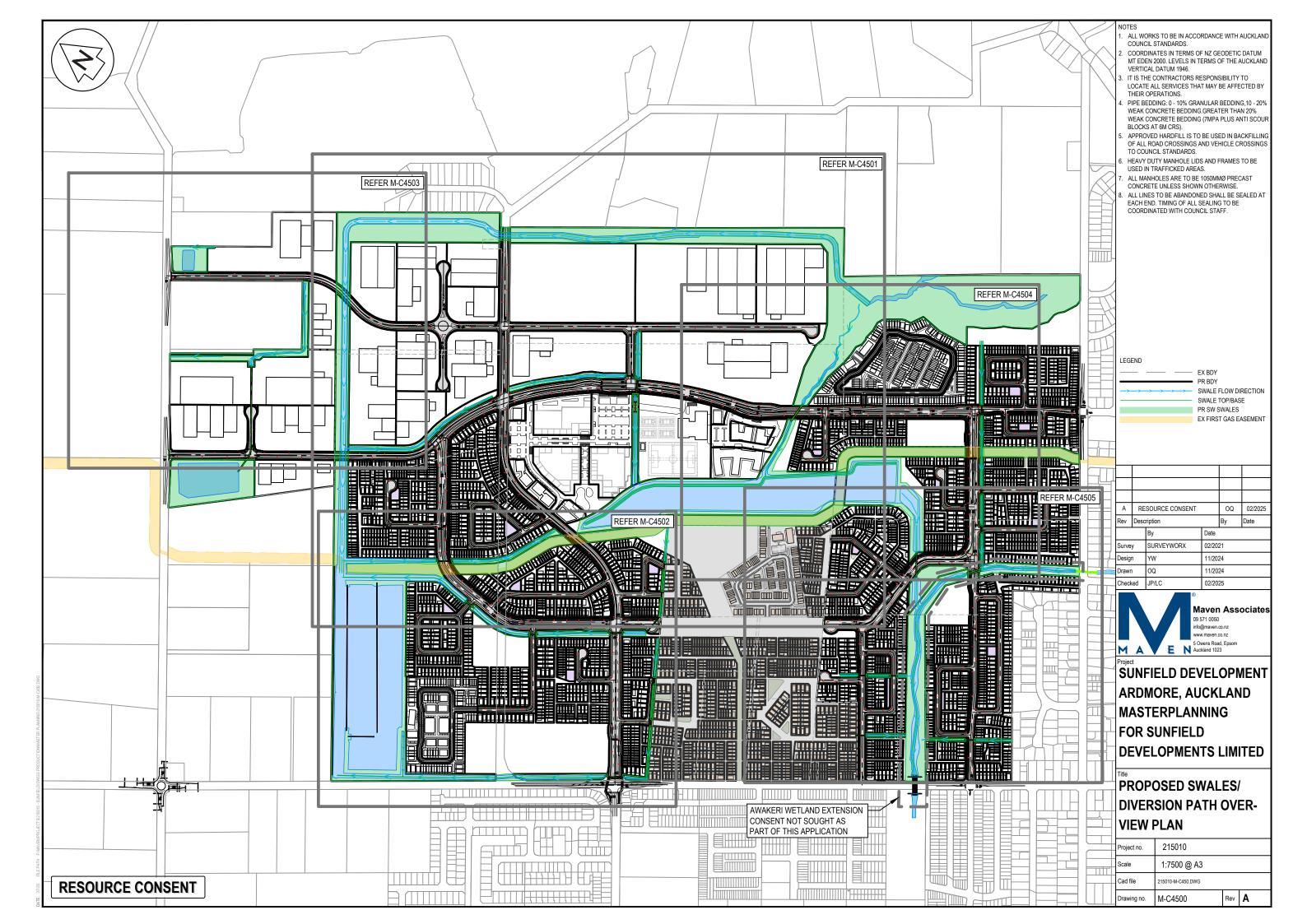
Project

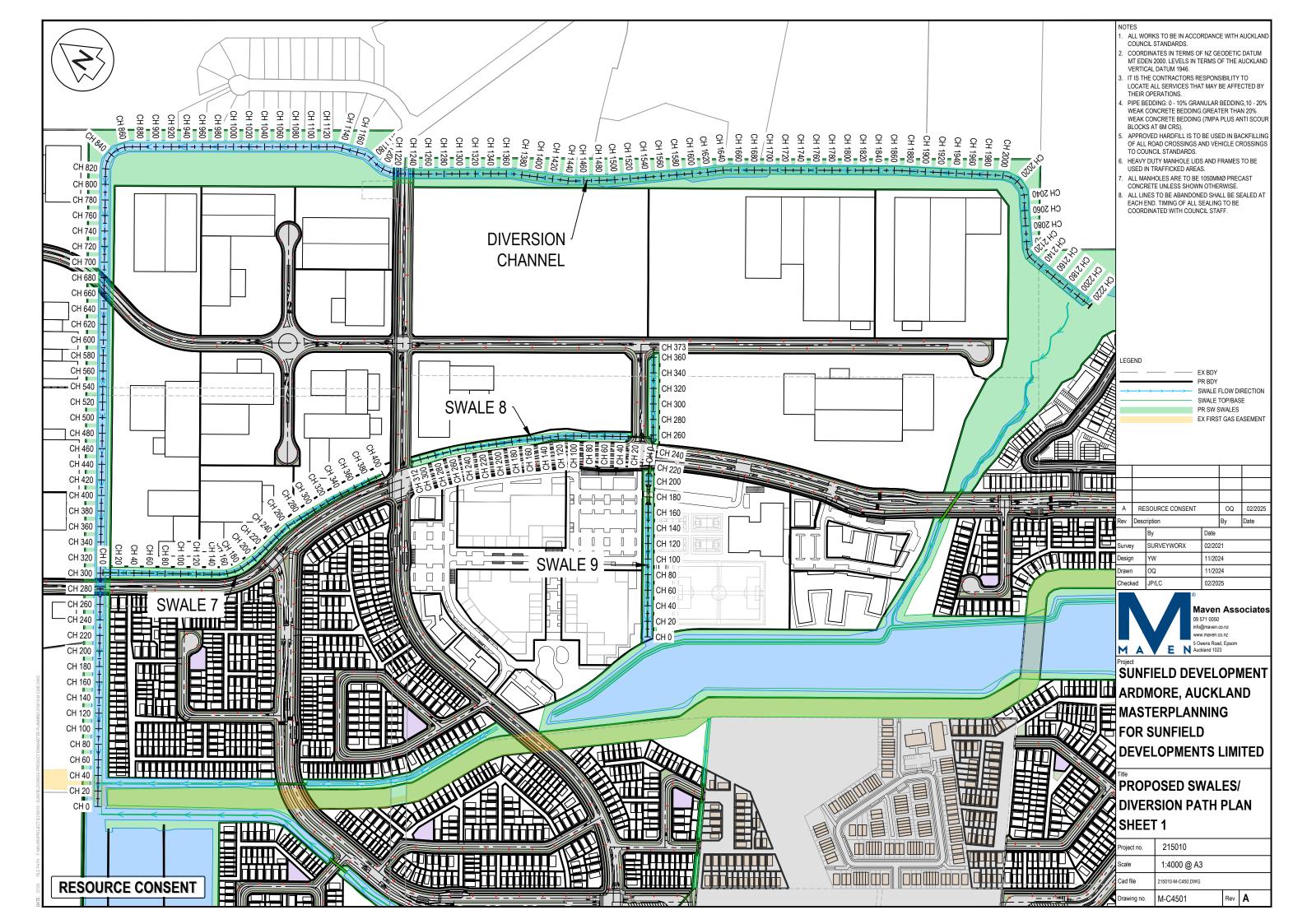
SUNFIELD DEVELOPMENT ARDMORE, AUCKLAND MASTER PLANNING FOR SUNFIELD DEVELOPMENTS LIMITED

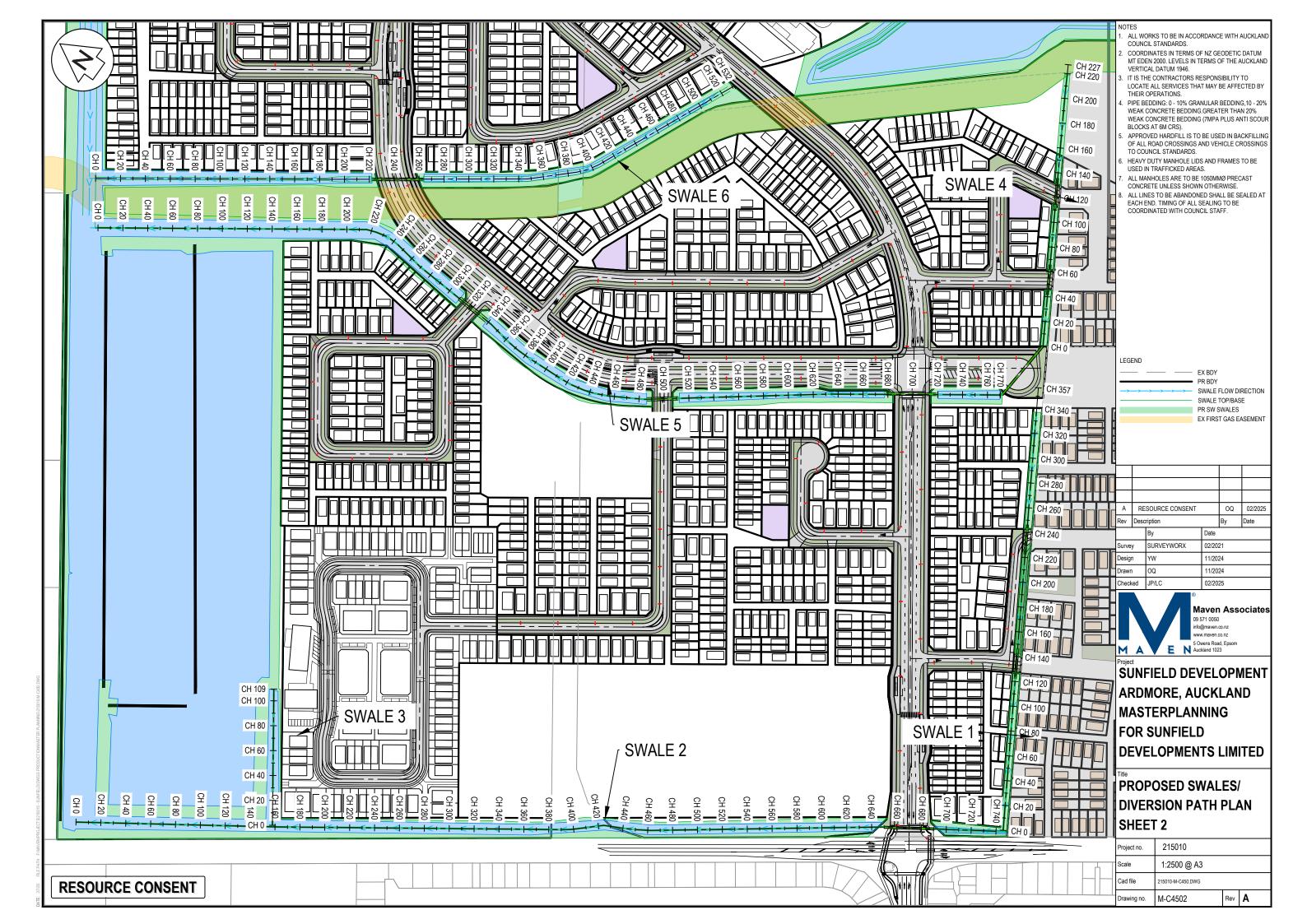
PROPOSED
INLET & OUTFALL
DETAIL

Project no.	215010				
Scale	1:50 @ A3				
Cad file	215010-M-C440.DWG				
Drawing no.	M-C4430	Rev	Α		

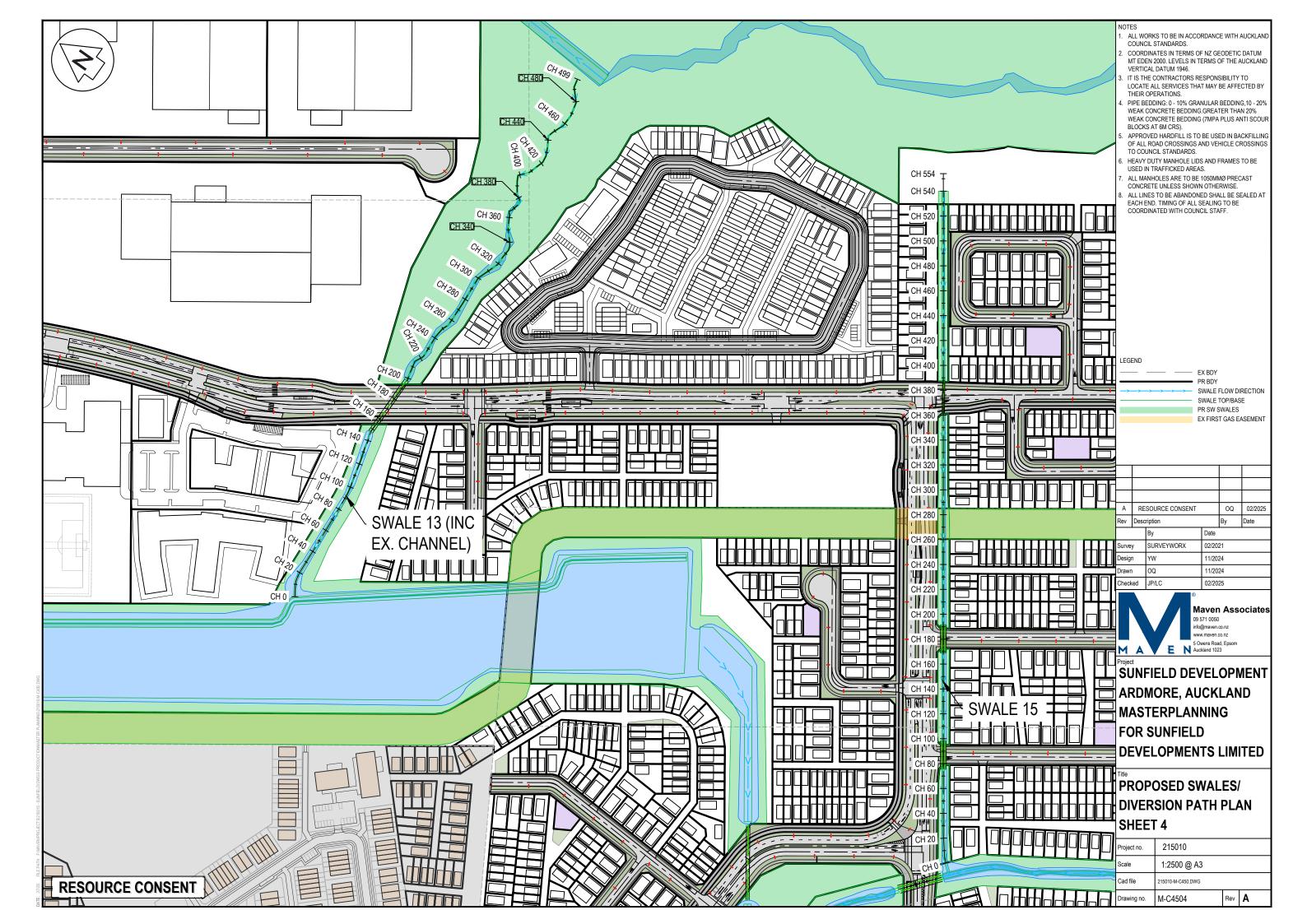
RESOURCE CONSENT

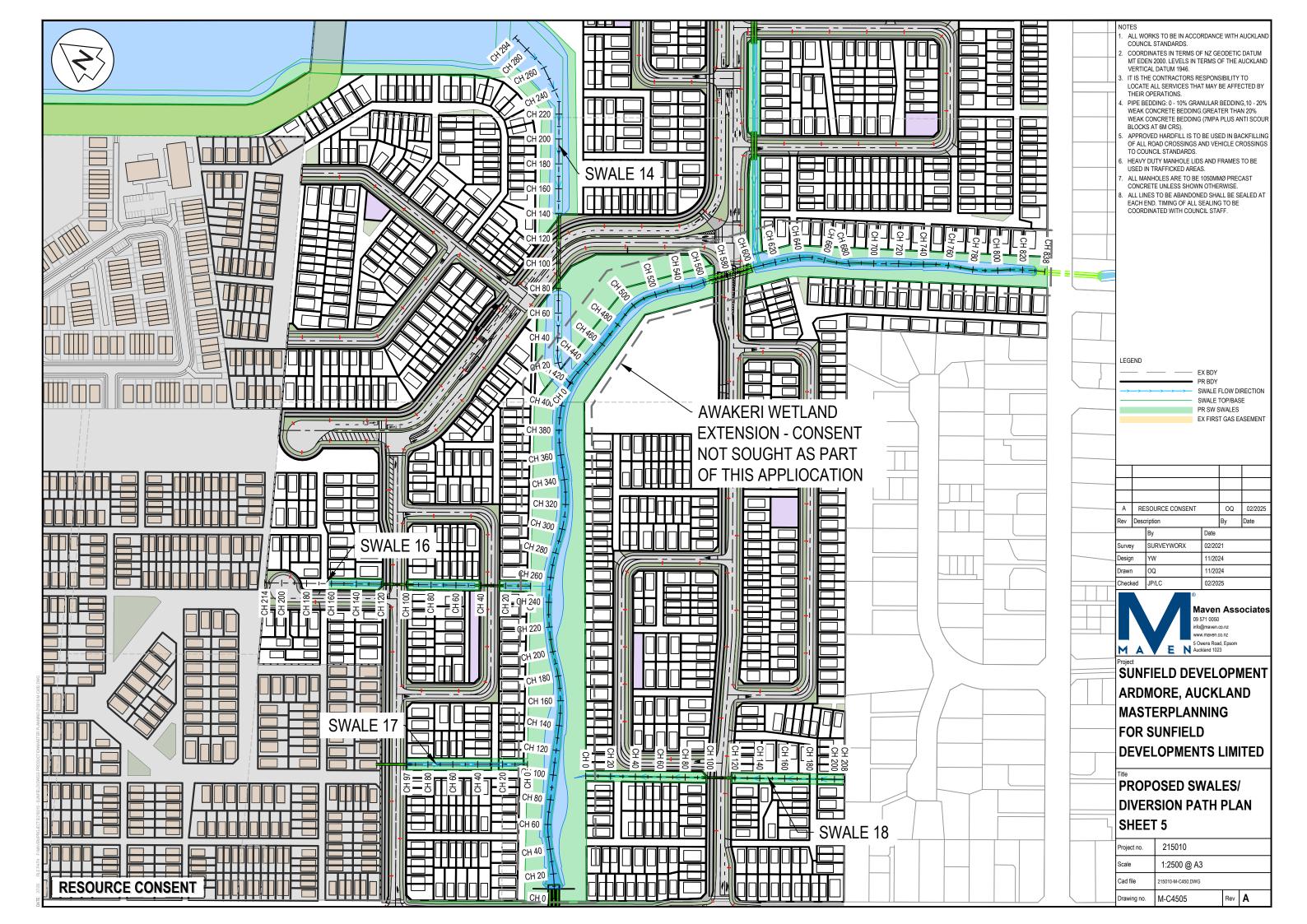


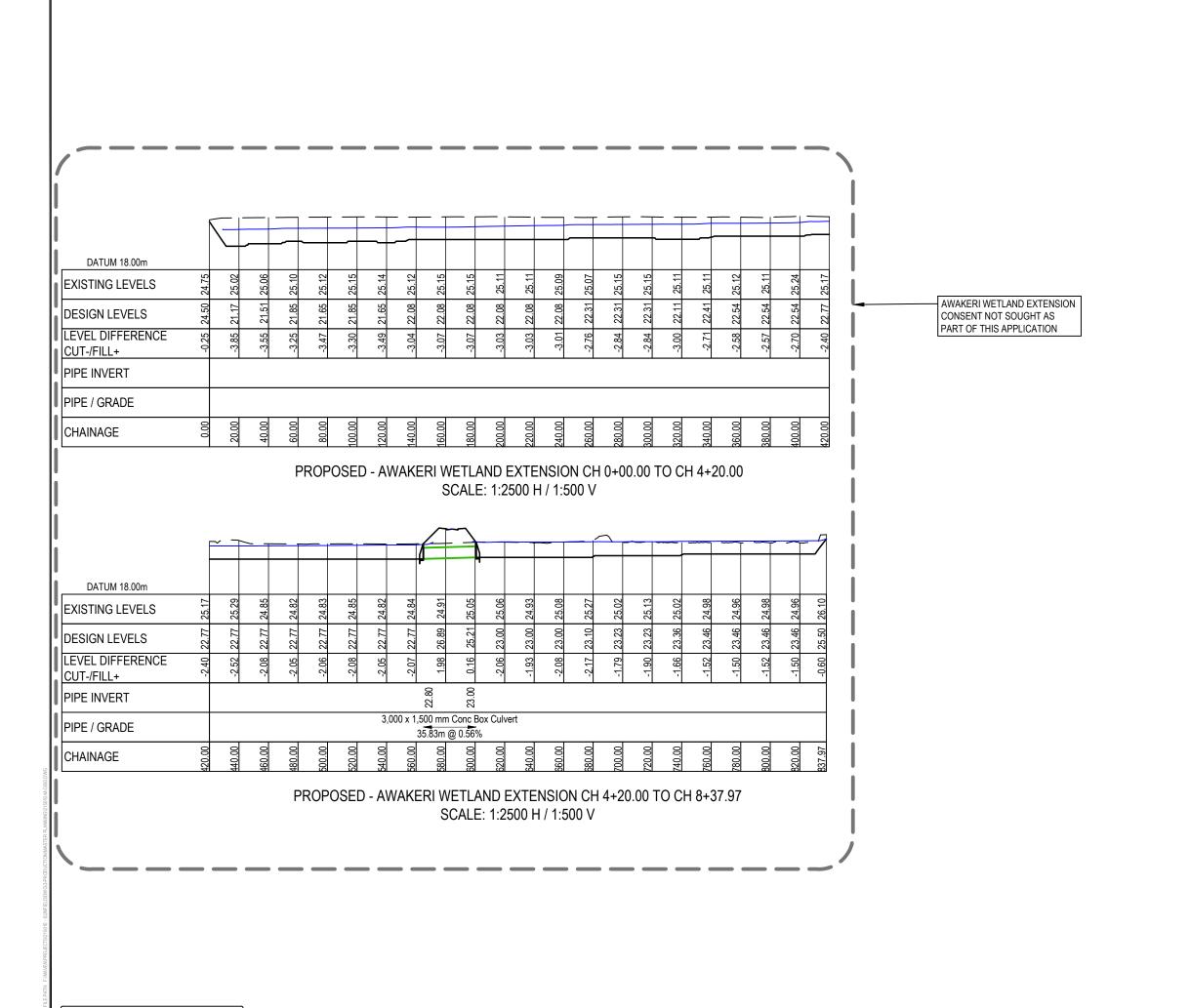












RESOURCE CONSENT

NOTES

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LEGEND:

PR FINISHED GROUND SURFACE
PR FINISHED GROUND SURFACE
1% AEP FLOOD LEVEL (MPD)
SW CULVERT CROSSING



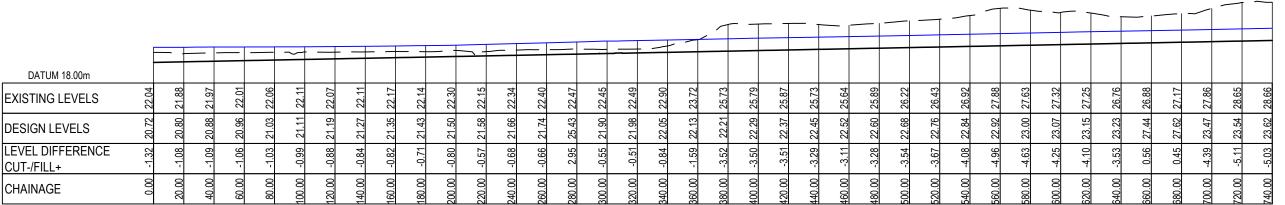
oject

SUNFIELD DEVELOPMENT
ARDMORE, AUCKLAND
MASTERPLANNING
FOR SUNFIELD
DEVELOPMENTS LIMITED

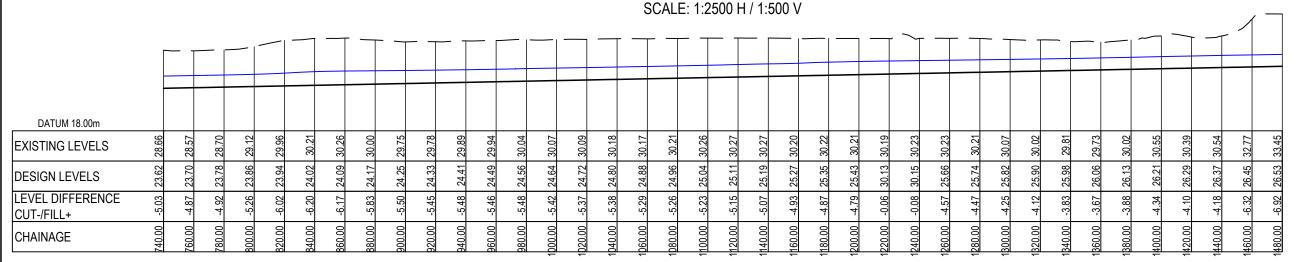
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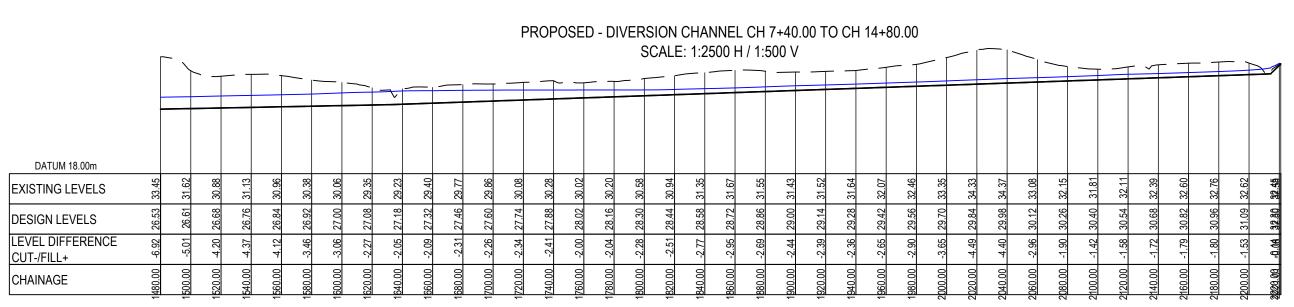
PROPOSED SWALES/
DIVERSION PATH LONGSECTIONS - SHEET 1

Project no.	215010				
Scale	1:2500 @ A3				
Cad file	215010-M-C450.DWG				
Drawing no.	M-C4510	Rev	Α		



PROPOSED - DIVERSION CHANNEL CH 0+00.00 TO CH 7+40.00



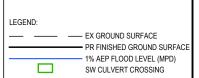


PROPOSED - DIVERSION CHANNEL CH 14+80.00 TO CH 22+21.01 SCALE: 1:2500 H / 1:500 V

RESOURCE CONSENT

NOTES

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	Α	RE	SOURCE CONSENT		OQ	02/2025	
	Rev	Desc	ription		Ву	Date	
			Ву	Date			
	Surve	y	SURVEYWORX	02/202	02/2021		
	Design Drawn		YW	11/2024			
			OQ	11/2024			
	Check	ed	JP/LC	02/2025			



SUNFIELD DEVELOPMENT
ARDMORE, AUCKLAND
MASTERPLANNING
FOR SUNFIELD
DEVELOPMENTS LIMITED

PROPOSED SWALES/
DIVERSION PATH LONGSECTIONS - SHEET 2

Project no.	215010		
Scale	1:2500 @ A3		
Cad file	215010-M-C450.DWG		
Drawing no.	M-C4511	Rev	Α

	E								\					1	F	_	_	-	
DATUM 20.00m									·										
EXISTING LEVELS	24.03	23.98	24.06	24.16	24.12	24.11	24.11	24.15	24.26	24.34	24.39	24.53	24.48	24.55	24 62	24 58	24.62	뒤 4	24.69
DESIGN LEVELS	23.30	23.34	23.38	23.42	23.46	23.50	23.54	23.57	23.61	23.65	23.69	23.73	23.77	23.80	23 84	23.88	23 03		25.50
LEVEL DIFFERENCE CUT-/FILL+	-0.73	-0.64	-0.68	-0.74	-0.66	-0.61	-0.57	-0.58	-0.65	-0.69	-0.70	-0.80	-0.71	-0.74	22 0-	-0.70	0 7 0	-0.75	0.81
PIPE INVERT								23.56	23.60				23.73	23.78					
PIPE / GRADE						1,50	00 x 800 24.	mm Co 45m @		Culvert	1,5		0 mm Co .92m @	onc Box 0.19%	Culver	t			
CHAINAGE	0.00	20.00	40.00	60.00	80.00	100.00	120.00	140.00	160.00	180.00	200.00	220.00	240.00	260.00	280.00	300 00	320.00		356.72

PROPOSED - SWALE 1 CH 0+00.00 TO CH 3+56.72 SCALE: 1:2500 H / 1:500 V

	F	<u> </u>	-			\rightarrow	—	+	- +	- +		-					T				~					_					<u> </u>	-			بے	1	-	7
DATUM 18.00m																																						
EXISTING LEVELS	21.67	21.67	21.77	21.72	21.83	21.92	21.97	21.98	22.09	22.16	22.22	22.26	22.35	22.45	22.54	22.67	22.55	22.53	22.76	22.69	23.16	23.27	23.27	23.39	23.47	23.50	23.62	23.50	23.65	23.80	23.87	23.86	23.89	23.93	23.80	23.92	23.94	23.99
DESIGN LEVELS	20.70	20.73	20.76	20.78	20.81	20.84	20.87	20.89	20.92	20.95	20.98	21.00	21.03	21.06	21.09	21.12	21.15	21.18	21.23	21.23	21.25	21.28	21.31	21.34	21.36	21.39	21.42	21.45	21.48	21.50	21.53	21.56	21.59	24.27	24.26	21.89	22.44	22.98
LEVEL DIFFERENCE CUT-/FILL+	-0.97	-0.94	-1.01	-0.94	-1.02	-1.08	-1.10	-1.09	-1.17	-1.21	-1.24	-1.25	-1.32	-1.39	-1.45	-1.56	-1.40	-1.35	-1.52	-1.46	-1.91	-1.99	-1.96	-2.06	-2.10	-2.10	-2.20	-2.05	-2.17	-2.30	-2.34	-2.31	-2.31	0.34	0.46	-2.03	-1.50	-1.01
PIPE INVERT																																		21.60		21.66		
PIPE / GRADE																																1	1,500 x 1	1,200 m 39.82n	m Conc n @ 0.1	Box Cul	lvert	
CHAINAGE	0.00	20.00	40.00	00.09	80.00	100.00	120.00	140.00	160.00	180.00	200.00	220.00	240.00	260.00	280.00	300.00	320.00	340.00	360.00	380.00	400.00	420.00	440.00	460.00	480.00	200.00	520.00	540.00	260.00	580.00	900.009	620.00	640.00	960.00	680.00	700.00	720.00	740.00

PROPOSED - SWALE 2 CH 0+00.00 TO CH 7+40.00 SCALE: 1:2500 H / 1:500 V

				_	- ~		
DATUM 18.00m							
EXISTING LEVELS	22.06	21.97	21.94	21.88	21.70	21.69	21.72
DESIGN LEVELS	20.91	21.02	21.12	21.23	21.33	21.44	21.49
LEVEL DIFFERENCE CUT-/FILL+	-1.15	-0.95	-0.82	-0.65	-0.37	-0.25	-0.23
PIPE INVERT							
PIPE / GRADE							
CHAINAGE	0.00	20.00	40.00	00.09	80.00	100.00	109.48

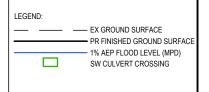
PROPOSED - SWALE 3 CH 0+00.00 TO CH 1+09.48 SCALE: 1:2500 H / 1:500 V

RESOURCE CONSENT

NOTES

- ALL WORKS TO BE IN ACCORDANCE WITH AUCKLAN COUNCIL STANDARDS.
- COORDINATES IN TERMS OF NZ GEODETIC DATUM MT EDEN 2000. LEVELS IN TERMS OF THE AUCKLAND VERTICAL DATUM 1946.
- IT IS THE CONTRACTORS RESPONSIBILITY TO LOCATE ALL SERVICES THAT MAY BE AFFECTED BY THEIR OPERATIONS.
- 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).
- BLOCKS AT 6M CRS).

 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 MANHOLES ARE TO BE 1050MMØ PRECAST CONCRETE UNLESS SHOWN OTHERWISE.
- ALL LINES TO BE ABANDONED SHALL BE SEALED AT EACH END. TIMING OF ALL SEALING TO BE COORDINATED WITH COUNCIL STAFF.



Α	RE	SOURCE CONSENT		0Q	02/2025				
Rev	Desc	ription		Ву	Date				
		Ву	Date						
Surve	y	SURVEYWORX	02/20	02/2021					
Desig	1	YW	11/20	11/2024					
Drawn	1	OQ	11/20	11/2024					
Check	ed	JP/LC	02/20	02/2025					



SUNFIELD DEVELOPMENT
ARDMORE, AUCKLAND
MASTERPLANNING
FOR SUNFIELD
DEVELOPMENTS LIMITED

Title

PROPOSED SWALES/
DIVERSION PATH LONGSECTIONS - SHEET 3

Scale Cad file	1:2500 @ A3						
Drawing no.	215010-M-C450.DWG M-C4512	Rev	Α				

		-			\			\supset					7
DATUM 20.00m					•		-	-					
EXISTING LEVELS	24.11	24.66	24.61	24.71	24.76	24.80	24.72	24.71	24.77	24.76		24.64	74.04
DESIGN LEVELS	25.05	23.96	23.99	24.01	24.04	24.07	24.09	24.12	24.15	24.18			CC.C2
LEVEL DIFFERENCE CUT-/FILL+	0.94	-0.70	-0.63	-0.70	-0.72	-0.74	-0.63	-0.59	-0.62	-0.58	-0.63	0.12	0.7
PIPE INVERT		·		23.99	24.02		24.08	24.12					
PIPE / GRADE		1,500		mm Co 35m @	nc Box (0.15%	Culvert		-			00 x 800 12m @		Box Culvert
CHAINAGE	0.00	20.00	40.00	60.00	80.00	100.00	120.00	140.00	160.00	180.00	200.00	220.00	17.177

PROPOSED - SWALE 4 CH 0+00.00 TO CH 2+27.21 SCALE: 1:2500 H / 1:500 V

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	E		_																	=	
DATUM 18.00m																					
EXISTING LEVELS	21.96	22.11	22.17	22.23	22.28	22.34	22.39	22.48	22.54	22.63	22.78	22.76	22.74	22.76	22.78	22.74	22.60	22.67	22.59	22.54	22.50
DESIGN LEVELS	20.71	20.75	20.79	20.83	20.87	20.91	20.95	20.99	21.03	21.07	21.11	21.15	21.18	21.23	21.26	21.30		21.38	21.42	21.46	21.50
LEVEL DIFFERENCE CUT-/FILL+	-1.25	-1.36	-1.38	-1.40	-1.41	-1.43	-1.44	-1.49	-1.51	-1.56	-1.67	-1.61	-1.55	-1.54	-1.52	-1.44	-1.26	-1.29	-1.17	-1.08	-0.99
PIPE INVERT																	21.33	21.38			
PIPE / GRADE															3	,000 x 1	1,500 mr 27.29m			rert	
CHAINAGE	0.00	20.00	40.00	60.00	80.00	100.00	120.00	140.00	160.00	180.00	200.00	220.00	240.00	260.00	280.00	300.00	320.00	340.00	360.00	380.00	400.00

PROPOSED - SWALE 5 CH 0+00.00 TO CH 4+00.00 SCALE: 1:2500 H / 1:500 V

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DATUM 18.00m								•												
EXISTING LEVELS	22.50	23.57	23.06	23.03	23.14	23.20	23.33	23.42	23.50	23.59	23.67	23.99	23.89	24.03	24.09	24.21	24.29	24.36	24.46	
DESIGN LEVELS	21.50	21.54	21.58	21.62	21.66	21.70	21.74	21.78	21.82	21.86	<u> </u>		21.98	22.02	22.06	25.00	23.84	22.18	22.22	22.24
LEVEL DIFFERENCE CUT-/FILL+	-0.99	-2.03	-1.47	-1.40	-1.47	-1.50	-1.59	-1.64	-1.68	-1.73	-1.77	-2.05	-1.91	-2.01	-2.03	0.79	-0.44	-2.18	-2.24	
PIPE INVERT						21.68	21.73									22.06	22.14			
PIPE / GRADE				2,50			Conc Bo 0.19%		rt					2,0			Conc Bo 0 0.19%		t	
CHAINAGE	400.00	420.00	440.00	460.00	480.00	500.00	520.00	540.00	560.00	580.00	900.009	620.00	640.00	660.00	680.00	700.00	720.00	740.00	760.00	772.78

PROPOSED - SWALE 5 CH 4+00.00 TO CH 7+72.78 SCALE: 1:2500 H / 1:500 V

RESOURCE CONSENT

LEGEND:

- ALL WORKS TO BE IN ACCORDANCE WITH AUCKLAN COUNCIL STANDARDS.
- . COORDINATES IN TERMS OF NZ GEODETIC DATUM MT EDEN 2000. LEVELS IN TERMS OF THE AUCKLAND VERTICAL DATUM 1946.
- . IT IS THE CONTRACTORS RESPONSIBILITY TO LOCATE ALL SERVICES THAT MAY BE AFFECTED BY THEIR OPERATIONS.
- 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).

 APPROVED HARDFILL IS TO BE USED IN BACKFILLING
 OF ALL ROAD CROSSINGS AND VEHICLE CROSSINGS TO COUNCIL STANDARDS.
- . HEAVY DUTY MANHOLE LIDS AND FRAMES TO BE USED IN TRAFFICKED AREAS.
- ALL MANHOLES ARE TO BE 1050MMØ PRECAST CONCRETE UNLESS SHOWN OTHERWISE.
- 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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Α	RE	SOURCE CONSENT		OQ	02/2025
Rev	Desc	ription		Ву	Date
		Ву	Date		
Surve	y	SURVEYWORX	02/202	21	
Desig	ı	YW	11/202	24	
Drawn	1	OQ	11/20	24	

02/2025

— EX GROUND SURFACE



Checked JP/LC

SUNFIELD DEVELOPMENT ARDMORE, AUCKLAND **MASTERPLANNING FOR SUNFIELD**

DEVELOPMENTS LIMITED

Project no.	215010		
Scale	1:2500 @ A3		
Cad file	215010-M-C450.DWG		
Drawing no.	M-C4513	Rev	Α

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DATUM 18.00m																											
EXISTING LEVELS	21.91	21.96	22.12	22.11	22.23	22.26	22.37	22.43	22.48	22.66	23.04	22.83	22.82	22.91	22.97	23.09	23.05	23.10	23.05	23.94	23.35	23.32	23.51	23.70	23.35	23.73	23.84
DESIGN LEVELS	20.73	20.84	20.95	21.07	21.18	21.29	21.41	21.52	21.64	21.75	21.86	21.98	24.67	24.50	22.32	22.43	22.54	22.66	22.77	22.88	23.00	23.11	23.22	23.34	23.45	23.57	23.68
LEVEL DIFFERENCE CUT-/FILL+	0.00	00.0	0.00	0.00	0.00	00:00	00.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	00.00	0.00	0.00	0.00	0.00	0.00	00:00	00:0	0.00	0.00	0.00	0.00
PIPE INVERT													22.23	21.98													
PIPE / GRADE											2,0			onc Box 0.60%													
CHAINAGE	0.00	20.00	40.00	90.09	80.00	100.00	120.00	140.00	160.00	180.00	200.00	220.00	240.00	260.00	280.00	300.00	320.00	340.00	360.00	380.00	400.00	420.00	440.00	460.00	480.00	200.00	520.00 531.53

PROPOSED - SWALE 6 CH 0+00.00 TO CH 5+31.53 SCALE: 1:2500 H / 1:500 V

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DATUM 18.00m	Ē																				
EXISTING LEVELS	22.46	22.53	22.61	22.73	22.79	22.80	23.11	23.18	23.30	23.44	23.60	23.68	23.92	24.17	24.50	24.95	25.37	25.43	25.57	25.65	25.68
DESIGN LEVELS	21.89	21.99	22.09	22.19	22.29	22.39	22.49	22.59	22.69	22.79	22.89	22.99	23.09	23.19	23.29	23.39	23.49	23.59	23.69	23.79	24.68
LEVEL DIFFERENCE CUT-/FILL+	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PIPE INVERT				-		·								-							
PIPE / GRADE																					
CHAINAGE	0.00	20.00	40.00	00.09	80.00	100.00	120.00	140.00	160.00	180.00	200.00	220.00	240.00	260.00	280.00	300.00	320.00	340.00	360.00	380.00	400.00

PROPOSED - SWALE 7 CH 0+00.00 TO CH 4+00.01 SCALE: 1:2500 H / 1:500 V

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DATUM 22.00m			_''														
EXISTING LEVELS	28.06	27.97	27.91	27.80	27.53	27.59	27.56	26.85	27.17	27.01	26.79	26.55	26.41	26.23	25.92	25.76	25.42
DESIGN LEVELS	26.32	26.34	26.36	26.38	26.40	26.42	26.44	26.46	26.49	26.50	26.52	26.54	26.56		26.60	26.62	27.50
LEVEL DIFFERENCE CUT-/FILL+	-1.74	-1.63	-1.55	-1.42	-1.13	-1.16	-1.11	-0.39	-0.69	-0.51	-0.26	-0.01	0.15	0.36	0.69	0.87	2.08
PIPE INVERT		25.08	25.16														
PIPE / GRADE		-						x 1,000 m @ 0.		onc Box	Culvert						
CHAINAGE	0.00	20.00	40.00	00.09	80.00	100.00	120.00	140.00	160.00	180.00	200.00	220.00	240.00	260.00	280.00	300.00	311.60

PROPOSED - SWALE 8 CH 0+00.00 TO CH 3+11.60 SCALE: 1:2500 H / 1:500 V

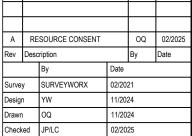
RESOURCE CONSENT

OTES

- ALL WORKS TO BE IN ACCORDANCE WITH AUCKLAN COUNCIL STANDARDS.
- COUNCIL STANDARDS.
 COORDINATES IN TERMS OF NZ GEODETIC DATUM MT EDEN 2000. LEVELS IN TERMS OF THE AUCKLAND
- VERTICAL DATUM 1946.
 3. IT IS THE CONTRACTORS RESPONSIBILITY TO LOCATE ALL SERVICES THAT MAY BE AFFECTED BY THEIR OPERATIONS.
- PIPE BEDDING: 0 10% GRANULAR BEDDING; 10 20% WEAK CONCRETE BEDDING GREATER THAN 20% WEAK CONCRETE BEDDING (TMPA PLUS ANTI SCOUR BLOCKS AT 6M CRS).
- BLOCKS AT 6M CRS).

 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 MANHOLES ARE TO BE 1050MMØ PRECAST CONCRETE UNLESS SHOWN OTHERWISE.
- ALL LINES TO BE ABANDONED SHALL BE SEALED AT EACH END. TIMING OF ALL SEALING TO BE COORDINATED WITH COUNCIL STAFF.

LEGEND:	
	EX GROUND SURFACE PR FINISHED GROUND SURFACE AN AFRICAND FINE (MAR)
	1% AEP FLOOD LEVEL (MPD) SW CULVERT CROSSING





Project

SUNFIELD DEVELOPMENT
ARDMORE, AUCKLAND
MASTERPLANNING
FOR SUNFIELD
DEVELOPMENTS LIMITED

Title

Cad file	215010-M-C450.DWG		_
		-	
Drawing no.	M-C4514	Rev	Δ

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DATUM 20.00m																				
EXISTING LEVELS	24.84	24.95	25.29	25.58	25.80	26.18	26.48	26.70	26.89	27.21	27.49	27.67	27.89	28.07	28.20	28.39	28.54	28.27	28.25	28.32
DESIGN LEVELS	23.89	24.09	24.28	24.48	24.67	24.87	25.06	25.25	25.45	25.64	25.92	29.71	29.53	26.66	26.95	27.35	27.76	28.17	28.59	
LEVEL DIFFERENCE CUT-/FILL+	-0.94	-0.86	-1.00	-1.10	-1.13	-1.31	-1.42	-1.44	-1.44	-1.56	-1.57	2.04	1.65	-1.41	-1.25	-1.04	-0.77	-0.10	0.34	
PIPE INVERT												24.88		25.07						
PIPE / GRADE			·					·			3,500		mm Co 6m @ 0	nc Box (.46%	Culvert				·	
CHAINAGE	0.00	20.00	40.00	00.09	80.00	100.00	120.00	140.00	160.00	180.00	200.00	220.00	240.00	260.00	280.00	300.00	320.00	340.00	360.00	372.92

PROPOSED - SWALE 9 CH 0+00.00 TO CH 3+72.92 SCALE: 1:2500 H / 1:500 V

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DATUM 20.00m																	
EXISTING LEVELS	24.35	25.19	25.64	26.25	26.51	26.68	25.73	25.60	25.64	25.75	25.95	26.07	26.06	26.16	26.46	26.57	26.57
DESIGN LEVELS	25.05	23.63	23.76	23.88	24.00	24.12	24.25	24.37	24.49	24.62	24.74	24.86	24.98	25.11	25.23	25.35	28.99
LEVEL DIFFERENCE CUT-/FILL+	0.70	-1.56	-1.88	-2.37	-2.51	-2.56	-1.49	-1.23	-1.14	-1.13	-1.21	-1.20	-1.07	-1.06	-1.23	-1.21	2.41
PIPE INVERT																	
PIPE / GRADE																	
CHAINAGE	0.00	20.00	40.00	90.09	80.00	100.00	120.00	140.00	160.00	180.00	200.00	220.00	240.00	260.00	280.00	300.00	315.00

PROPOSED - SWALE 10 CH 0+00.00 TO CH 3+15.00 SCALE: 1:2500 H / 1:500 V

							4
DATUM 20.00m							
EXISTING LEVELS	24.38	24.37	24.20	24.09	23.93	24.07	24.19
DESIGN LEVELS &		23.74	23.76	23.78	23.80	23.82	24.53
LEVEL DIFFERENCE CUT-/FILL+	-0.66	-0.63	-0.44	-0.31	-0.13	-0.25	0.35
PIPE INVERT							
PIPE / GRADE							
CHAINAGE S	20.00	40.00	00:09	80.00	100.00	120.00	129.50

PROPOSED - SWALE 11 CH 0+00.00 TO CH 1+29.50 SCALE: 1:2500 H / 1:500 V

RESOURCE CONSENT

OTES	
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- ALL WORKS TO BE IN ACCORDANCE WITH AUCKLAN COUNCIL STANDARDS.
- COUNCIL STANDARDS.

 2. COORDINATES IN TERMS OF NZ GEODETIC DATUM MT EDEN 2000. LEVELS IN TERMS OF THE AUCKLAND
- VERTICAL DATUM 1946.
 3. IT IS THE CONTRACTORS RESPONSIBILITY TO LOCATE ALL SERVICES THAT MAY BE AFFECTED BY THEIR OPERATIONS.
- 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).
- BLOCKS AT 6M CRS).

 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 MANHOLES ARE TO BE 1050MMØ PRECAST CONCRETE UNLESS SHOWN OTHERWISE.
- ALL LINES TO BE ABANDONED SHALL BE SEALED AT EACH END. TIMING OF ALL SEALING TO BE COORDINATED WITH COUNCIL STAFF.

	ľ			D LEVEL CROSSII	` '			
Α	RE	SOURCE CONSENT		OQ	02/2025			
lev	Desc	ription		Ву	Date			
		Ву	Date					
urvey SURVEYWORX			02/2021					
lesign YW			11/2024					
Irawn OO			11/2024					

02/2025

---- EX GROUND SURFACE

- PR FINISHED GROUND SURFACE



rniect

Checked JP/LC

LEGEND:

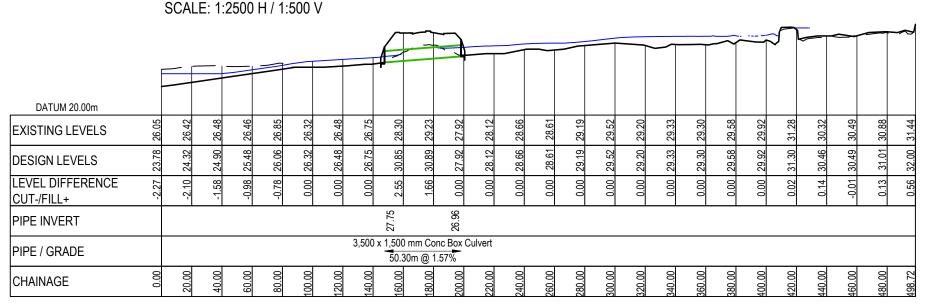
SUNFIELD DEVELOPMENT ARDMORE, AUCKLAND MASTERPLANNING FOR SUNFIELD DEVELOPMENTS LIMITED

Title

Drawing no.	M-C4515	Rev	Α
Cad file	215010-M-C450.DWG		
Scale	1:2500 @ A3		
Project no.	215010		

		. —	. —			=
26.26	26.45	26.54	26.73	26.80	26.98	26.99
						-
-1.14				_		-
0.00	20.00	40.00	00.09	80.00	100.00	108.93
	-1.	-1.14 25.12	-0.49 25.96	-0.49 25.96 -0.49 25.96 -0.44 26.10	-0.49 25.96 -0.44 26.10 -0.47 26.26 -0.38 26.42	-0.49 25.96 -0.44 26.10 -0.47 26.26 -0.38 26.42

PROPOSED - SWALE 12 CH 0+00.00 TO CH 1+08.93



PROPOSED - SWALE 13 (INC EX. CHANNEL) CH 0+00.00 TO CH 4+98.72 SCALE: 1:2500 H / 1:500 V

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								Ŋ								
DATUM 20.00m									'							
EXISTING LEVELS	25.18	25.00	24.88	24.89	24.78	24.73	24.76	24.75	24.84	24.89	25.17	25.22	25.14	25.21	25.32	25.39
DESIGN LEVELS	22.77	22.79	22.85	22.91	25.13	25.75	25.86	23.15	23.21	23.27	23.33	23.40	23.44	23.44	23.44	23.44
LEVEL DIFFERENCE CUT-/FILL+	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	00:00	0.00	0.00	00:00	00.00	0.00
PIPE INVERT						23.04		22.81								
PIPE / GRADE					2,500 <u>x</u>	1,500 m	nm Cond n @ 0.3		ulvert							
CHAINAGE	0.00	20.00	40.00	60.00	80.00	100.00	120.00	140.00	160.00	180.00	200.00	220.00	240.00	260.00	280.00	293.67

PROPOSED - SWALE 14 CH 0+00.00 TO CH 2+93.67 SCALE: 1:2500 H / 1:500 V

RESOURCE CONSENT

OTES

LEGEND:

- ALL WORKS TO BE IN ACCORDANCE WITH AUCKLAN COUNCIL STANDARDS.
- COORDINATES IN TERMS OF NZ GEODETIC DATUM
 MT EDEN 2000. LEVELS IN TERMS OF THE AUCKLAND
- VERTICAL DATUM 1946.
 3. IT IS THE CONTRACTORS RESPONSIBILITY TO LOCATE ALL SERVICES THAT MAY BE AFFECTED BY THEIR OPERATIONS.
- 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).
 APPROVED HARDFILL IS TO BE USED IN BACKFILLING
- 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 MANHOLES ARE TO BE 1050MMØ PRECAST CONCRETE UNLESS SHOWN OTHERWISE.
- ALL LINES TO BE ABANDONED SHALL BE SEALED AT EACH END. TIMING OF ALL SEALING TO BE COORDINATED WITH COUNCIL STAFF.

	ľ	1%	AEF	FLOO	GROUND D LEVEL CROSSII	` '		
Α	RE	SOURCE CONSEN	ΙT		OQ	02/2025		
Rev	Desc	ription			Ву	Date		
		Ву		Date				
Surve	SURVEYWORX		02/2021					
Design YW				11/2024				
Orawn OO				11/2024				

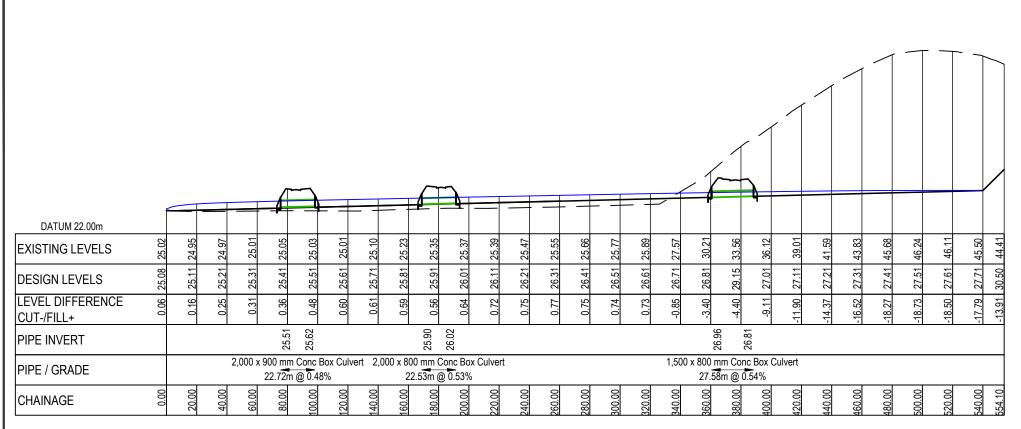
— — EX GROUND SURFACE



SUNFIELD DEVELOPMENT
MASTERPLANNING
ARDMORE, AUCKLAND
FOR SUNFIELD
DEVELOPMENTS LIMITED

Title

Project no.	215010		
Scale	1:2500 @ A3		
Cad file	215010-M-C450.DWG		
Drawing no.	M-C4516	Rev	Α



PROPOSED - SWALE 15 CH 0+00.00 TO CH 5+54.10 SCALE: 1:2500 H / 1:500 V

	_							<u> </u>				
DATUM 22.00m				4		L						
EXISTING LEVELS	25.08	25.05	25.06	25.06	25.02	25.11	25.14	25.09	25.07	25.08	25.17	
DESIGN LEVELS	24.65	24.75	24.85	24.95	25.05	27.47	25.25	25.35	25.45	25.55	25.65	
LEVEL DIFFERENCE CUT-/FILL+	0.00	0.00	0.00	0.00	0.00	0.00	00:00	0.00	0.00	0.00	0.00	
PIPE INVERT			24.87	24.70		25.25	25.12					
PIPE / GRADE	1,50		mm Coi 7m @ 0	_	Cd1,5590		m Conc m @ 0.5	Box Cul 50%	vert			
CHAINAGE	0.00	20.00	40.00	60.00	80.00	100.00	120.00	140.00	160.00	180.00	200.00	213.64

PROPOSED - SWALE 16 CH 0+00.00 TO CH 2+13.64 SCALE: 1:2500 H / 1:500 V

RESOURCE CONSENT

NOTES

- ALL WORKS TO BE IN ACCORDANCE WITH AUCKLAN COUNCIL STANDARDS.
- COORDINATES IN TERMS OF NZ GEODETIC DATUM MT EDEN 2000. LEVELS IN TERMS OF THE AUCKLAND VERTICAL DATUM 1946.
- . IT IS THE CONTRACTORS RESPONSIBILITY TO LOCATE ALL SERVICES THAT MAY BE AFFECTED BY THEIR OPERATIONS.
- 4. PIPE BEDDING: 0 10% GRANULAR BEDDING; 10 20% WEAK CONCRETE BEDDING.GREATER THAN 20% WEAK CONCRETE BEDDING (7MPA PLUS ANTI SCOUF BLOCKS AT 6M CRS).

 5. APPROVED HARDFILL IS TO BE USED IN BACKFILLING.
- 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 MANHOLES ARE TO BE 1050MMØ PRECAST CONCRETE UNLESS SHOWN OTHERWISE.
- ALL LINES TO BE ABANDONED SHALL BE SEALED AT EACH END. TIMING OF ALL SEALING TO BE COORDINATED WITH COUNCIL STAFF.

LEGEND:	
	EX GROUND SURFACE
	PR FINISHED GROUND SURFACE
	1% AEP FLOOD LEVEL (MPD) SW CULVERT CROSSING

Α	RE	SOURCE CONSENT		OQ	02/2025			
Rev	Desc	ription		Ву	Date			
		Ву	Date					
Surve	y	SURVEYWORX	02/2021					
Design	1	YW	11/2024					
Drawn	ı	OQ	11/2024					
Check	ed	JP/LC	02/2025					



SUNFIELD DEVELOPMENT ARDMORE, AUCKLAND

ARDMORE, AUCKLAND
MASTERPLANNING
FOR SUNFIELD
DEVELOPMENTS LIMITED

Title

Drawing no.	M-C4517	Rev	Α
Cad file	215010-M-C450.DWG		
Scale	1:2500 @ A3		
Project no.	215010		

	_						
DATUM 22.00m							
EXISTING LEVELS	25.10	25.07	25.04	25.01	25.09	24.95	
DESIGN LEVELS	24.70	24.80	24.90	25.00	25.10	27.00	
LEVEL DIFFERENCE CUT-/FILL+	-0.40	-0.27	-0.14	-0.01	0.01	2.05	
PIPE INVERT						5.31_ 5.16	
PIPE / GRADE				1,5			onc Box Culvert 0.52%
CHAINAGE	0.00	20.00	40.00	60.00	80.00	97.03	

PROPOSED - SWALE 17 CH 0+00.00 TO CH 0+97.03 SCALE: 1:2500 H / 1:500 V

						\mathcal{L}	~	\			
DATUM 22.00m	Ī					,					
EXISTING LEVELS	25.06	25.08	25.13	25.10	25.12	25.15	25.15	25.15	25.18	25.21	25.30
DESIGN LEVELS	24.71	24.81	24.91	25.01	25.11	27.57	26.81	25.41	25.51	25.61	25.71
LEVEL DIFFERENCE CUT-/FILL+	-0.36	-0.27	-0.22	-0.10	-0.01	2.42	1.66	0.26	0.32	0.39	0.41
PIPE INVERT						25.31	25.17				
PIPE / GRADE		1,500 x 800 mm Conc Box Culvert 27.61m @ 0.51%									
CHAINAGE	0.00	20.00	40.00	00.09	80.00		120.00	140.00	160.00	180.00	200.000

PROPOSED - SWALE 18 CH 0+00.00 TO CH 2+08.08 SCALE: 1:2500 H / 1:500 V NOTES

- ALL WORKS TO BE IN ACCORDANCE WITH AUCKLAN COUNCIL STANDARDS.
- COORDINATES IN TERMS OF NZ GEODETIC DATUM
 MT EDEN 2000. LEVELS IN TERMS OF THE AUCKLAND
 VERTICAL DATUM 1946.
- 3. IT IS THE CONTRACTORS RESPONSIBILITY TO LOCATE ALL SERVICES THAT MAY BE AFFECTED BY THEIR OPERATIONS.
- 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).
- BLOCKS AT 6M CRS).

 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 MANHOLES ARE TO BE 1050MMØ PRECAST CONCRETE UNLESS SHOWN OTHERWISE.
- ALL LINES TO BE ABANDONED SHALL BE SEALED AT EACH END. TIMING OF ALL SEALING TO BE COORDINATED WITH COUNCIL STAFF.

LEGEND:	
	EX GROUND SURFACE PR FINISHED GROUND SURFACE
	1% AEP FLOOD LEVEL (MPD) SW CULVERT CROSSING

Α	RE	SOURCE CONSENT		OQ	02/2025
Rev	Desc	ription		Ву	Date
Ву		Ву	Date		
Surve	y	SURVEYWORX	02/202	21	
Desigr	gn YW		11/2024		
Orawn	rawn OQ 11/		11/202	24	
Check	ed	JP/LC	02/202	25	



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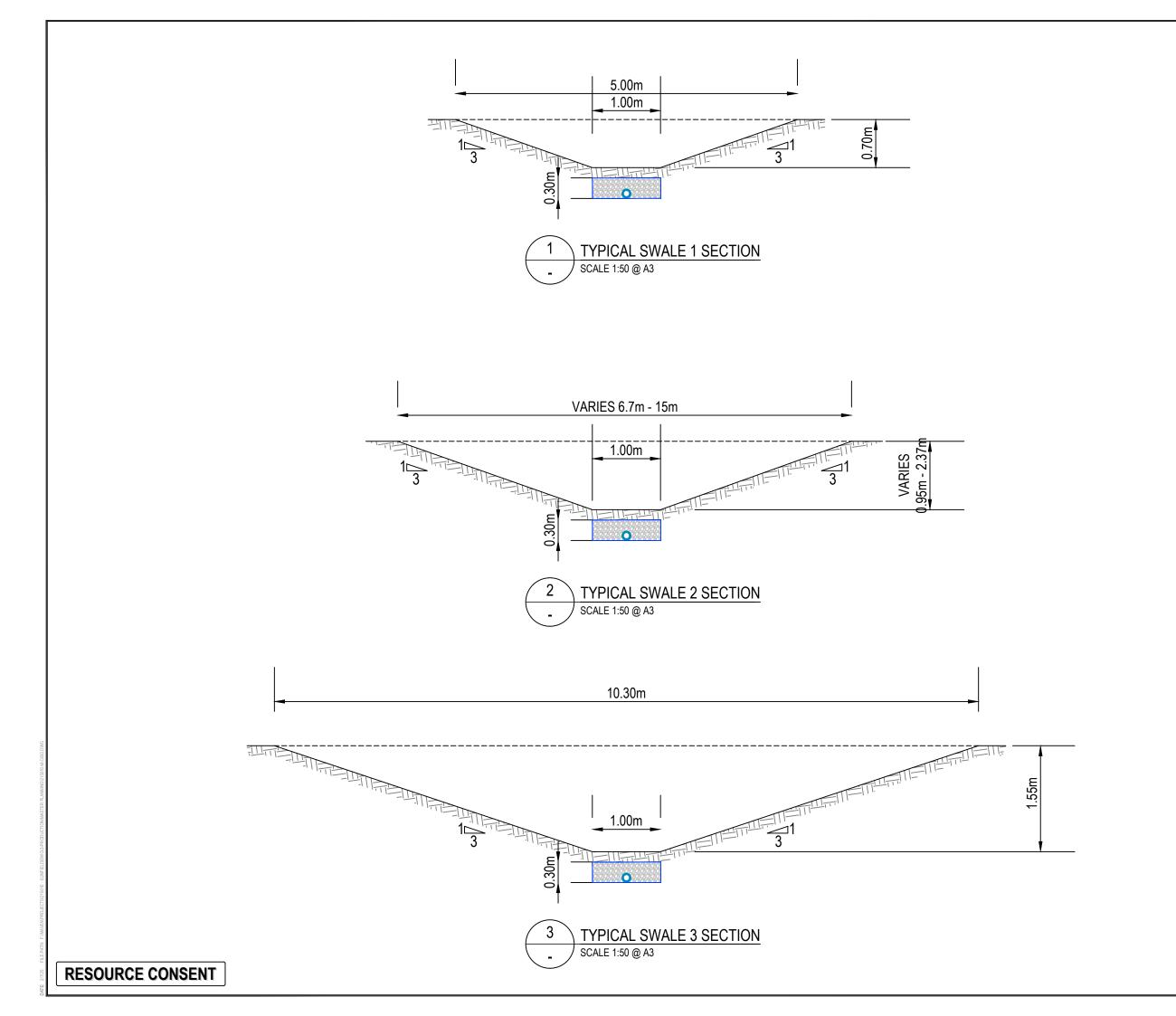
SUNFIELD DEVELOPMENT
MASTERPLANNING
MASTERPLANNING
FOR SUNFIELD
DEVELOPMENTS LIMITED

Title

PROPOSED SWALES/ DIVERSION PATH LONG-SECTIONS - SHEET 1

Drawing no.	M-C4518	Rev	Α
Cad file	215010-M-C450.DWG		
Scale	1:2500 @ A3		
Project no.	215010		

RESOURCE CONSENT



NOTES

- ALL WORKS TO BE IN ACCORDANCE WITH AUCKLAN COUNCIL STANDARDS.
- COORDINATES IN TERMS OF NZ GEODETIC DATUM MT EDEN 2000. LEVELS IN TERMS OF THE AUCKLAND VERTICAL DATUM 1946.
- IT IS THE CONTRACTORS RESPONSIBILITY TO LOCATE ALL SERVICES THAT MAY BE AFFECTED BY THEIR OPERATIONS.
- PIPE BEDDING: 0 10% GRANULAR BEDDING; 10 20% WEAK CONCRETE BEDDING; GREATER THAN 20% WEAK CONCRETE BEDDING (7MPA PLUS ANTI SCOUF BLOCKS AT 6M CRS).

 APPROVED HARDFILL IS TO BE USED IN BACKFILLING
- 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 MANHOLES ARE TO BE 1050MMØ PRECAST CONCRETE UNLESS SHOWN OTHERWISE.
- ALL LINES TO BE ABANDONED SHALL BE SEALED AT EACH END. TIMING OF ALL SEALING TO BE COORDINATED WITH COUNCIL STAFF.

LEGEND:

0

GEOTEXTILE PERMEABLE LINER 110mm Ø PERFORATED PIPE

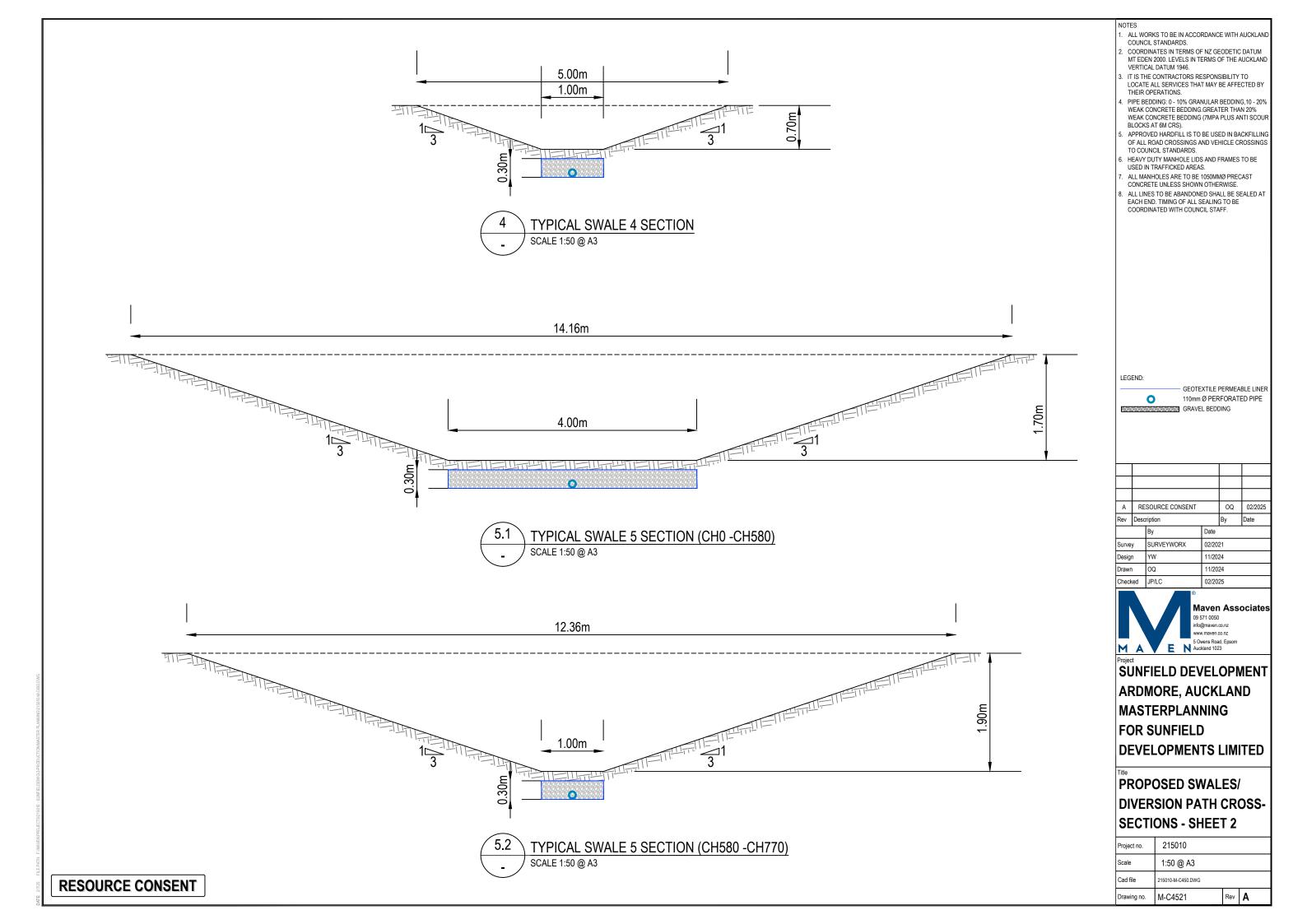


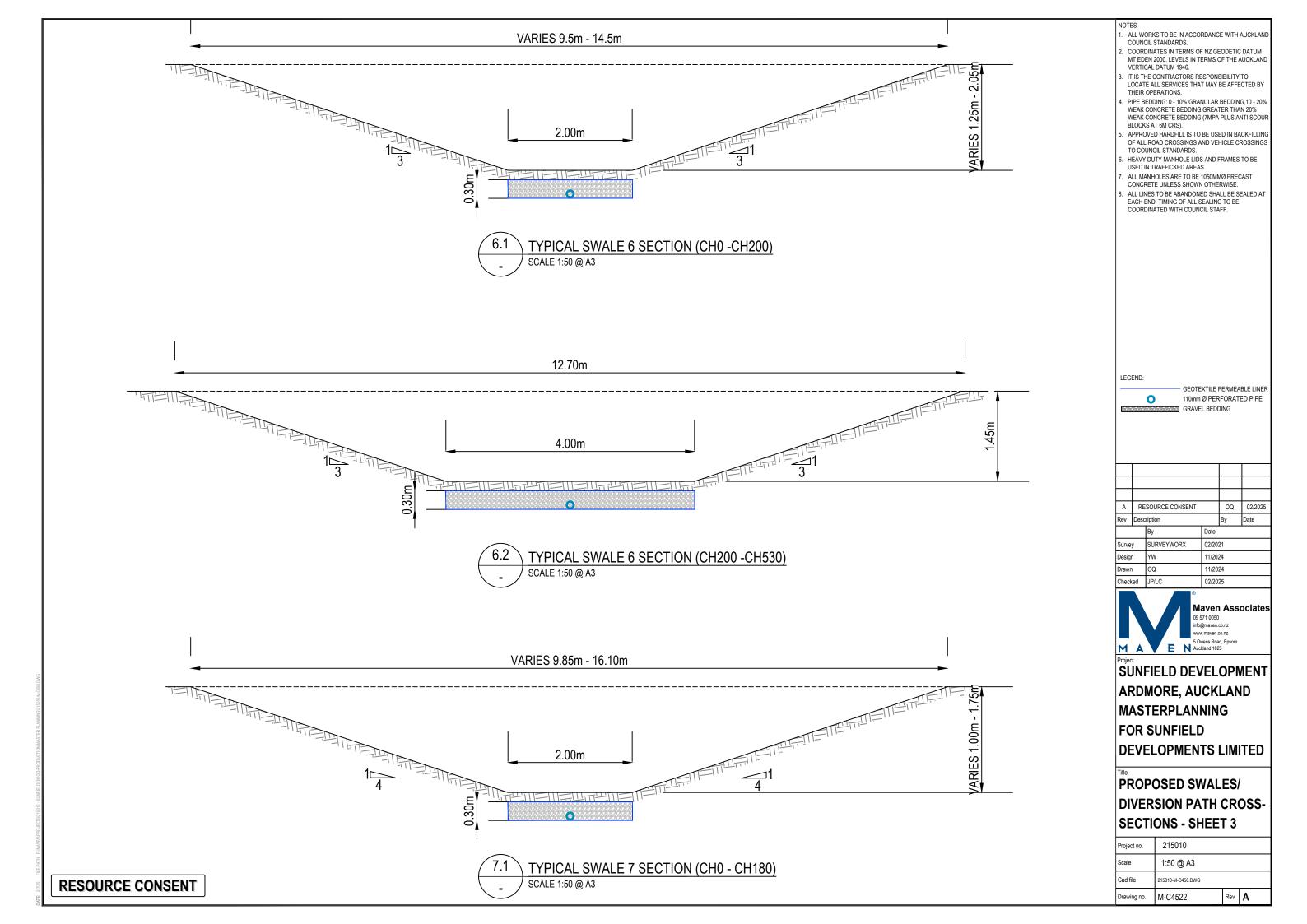
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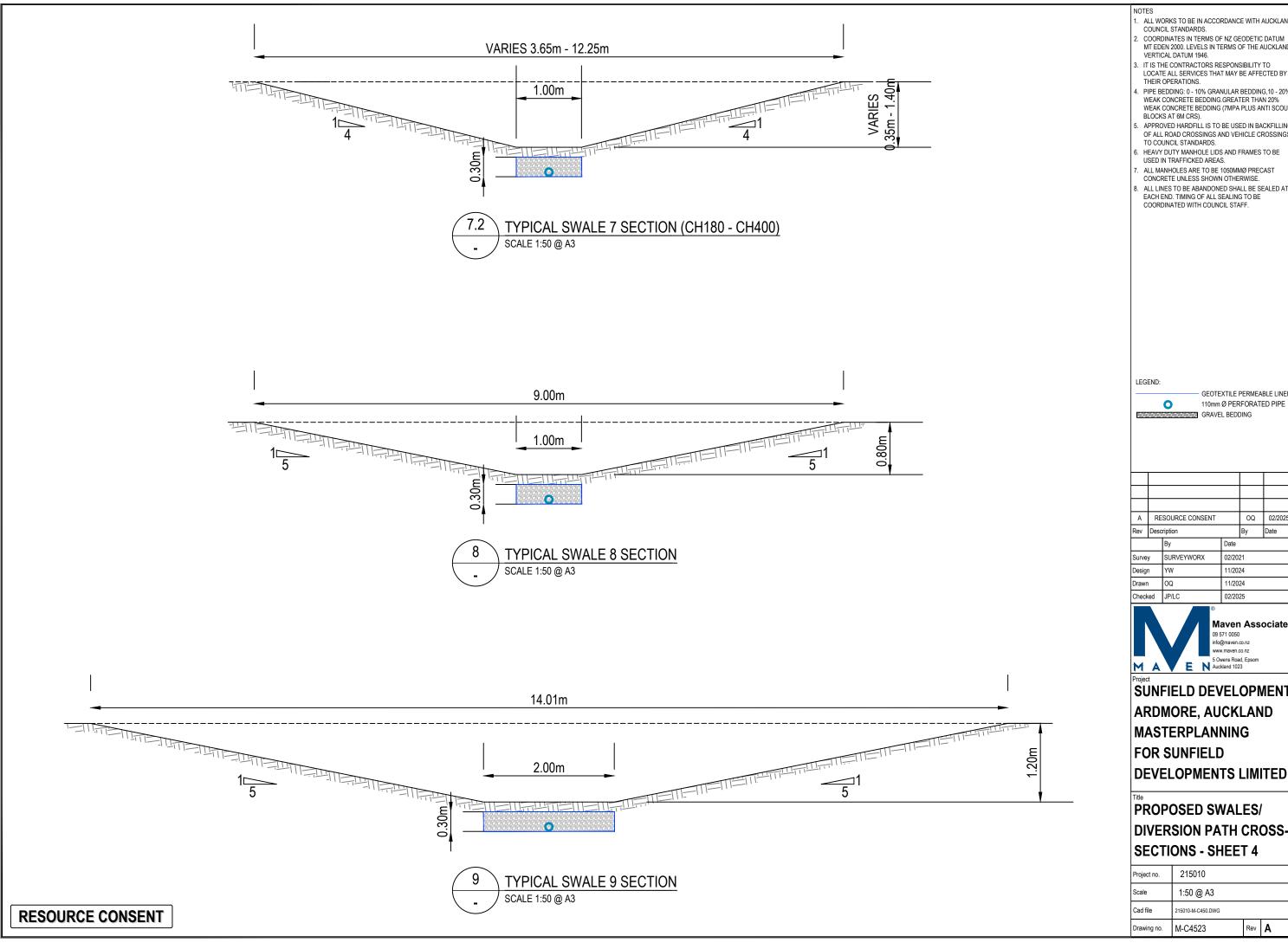
SUNFIELD DEVELOPMENT ARDMORE, AUCKLAND MASTERPLANNING FOR SUNFIELD DEVELOPMENTS LIMITED

Title

Project no.	215010		
Scale	1:50 @ A3		
Cad file	215010-M-C450.DWG		
Drawing no.	M-C4520	Rev	Α







- ALL WORKS TO BE IN ACCORDANCE WITH AUCKLAN
- . COORDINATES IN TERMS OF NZ GEODETIC DATUM MT EDEN 2000. LEVELS IN TERMS OF THE AUCKLAND
- . IT IS THE CONTRACTORS RESPONSIBILITY TO LOCATE ALL SERVICES THAT MAY BE AFFECTED BY
- PIPE BEDDING: 0 10% GRANULAR BEDDING, 10 20% WEAK CONCRETE BEDDING GREATER THAN 20% WEAK CONCRETE BEDDING (7MPA PLUS ANTI SCOUF
- OF ALL ROAD CROSSINGS AND VEHICLE CROSSINGS
- HEAVY DUTY MANHOLE LIDS AND FRAMES TO BE USED IN TRAFFICKED AREAS.
- ALL MANHOLES ARE TO BE 1050MMØ PRECAST CONCRETE UNLESS SHOWN OTHERWISE.
- ALL LINES TO BE ABANDONED SHALL BE SEALED AT EACH END. TIMING OF ALL SEALING TO BE COORDINATED WITH COUNCIL STAFF.

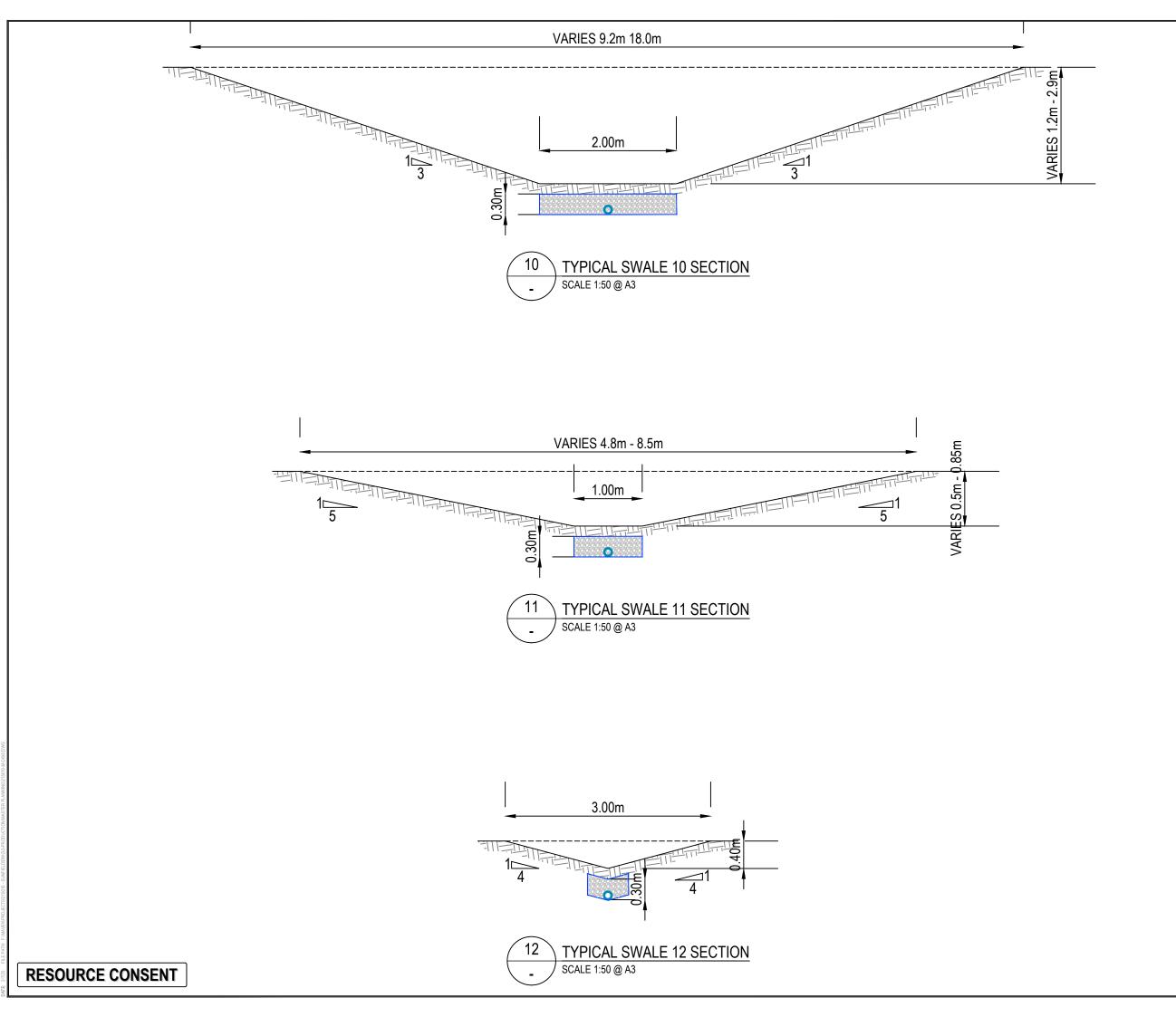
GEOTEXTILE PERMEABLE LINER 110mm Ø PERFORATED PIPE

Α	RE	SOURCE CONSENT		OQ	02/2025
Rev	Desc	ription		Ву	Date
		Ву	Date		
Surve	у	SURVEYWORX	02/202	21	
Desig	n	YW	11/202	24	
Drawn	1	OQ	11/2024		
Check	ced	JP/LC	02/20	25	



SUNFIELD DEVELOPMENT ARDMORE, AUCKLAND **MASTERPLANNING FOR SUNFIELD DEVELOPMENTS LIMITED**

Р	Project no.	215010					
s	Scale	1:50 @ A3					
C	Cad file	215010-M-C450.DWG					
С	rawing no.	M-C4523	Rev	Α			



NOT

- ALL WORKS TO BE IN ACCORDANCE WITH AUCKLAI
 COUNCIL STANDARDS.
- 2. COORDINATES IN TERMS OF NZ GEODETIC DATUM MT EDEN 2000. LEVELS IN TERMS OF THE AUCKLAND VERTICAL DATUM 1946.
 - 3. IT IS THE CONTRACTORS RESPONSIBILITY TO LOCATE ALL SERVICES THAT MAY BE AFFECTED BY THEIR OPERATIONS.
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 - BLOCKS AT 6M CRS).

 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.
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LEGEND:

0

GEOTEXTILE PERMEABLE LINER
110mm Ø PERFORATED PIPE
GRAVEL BEDDING

Α	RE	SOURCE CONSENT		0Q	02/2025
Rev	Desc	ription		Ву	Date
		Ву	Date		
Surve	у	SURVEYWORX	02/2021		
Design		YW	11/2024		
Drawn		OQ	11/20	24	
Check	ed	JP/LC	02/20	25	

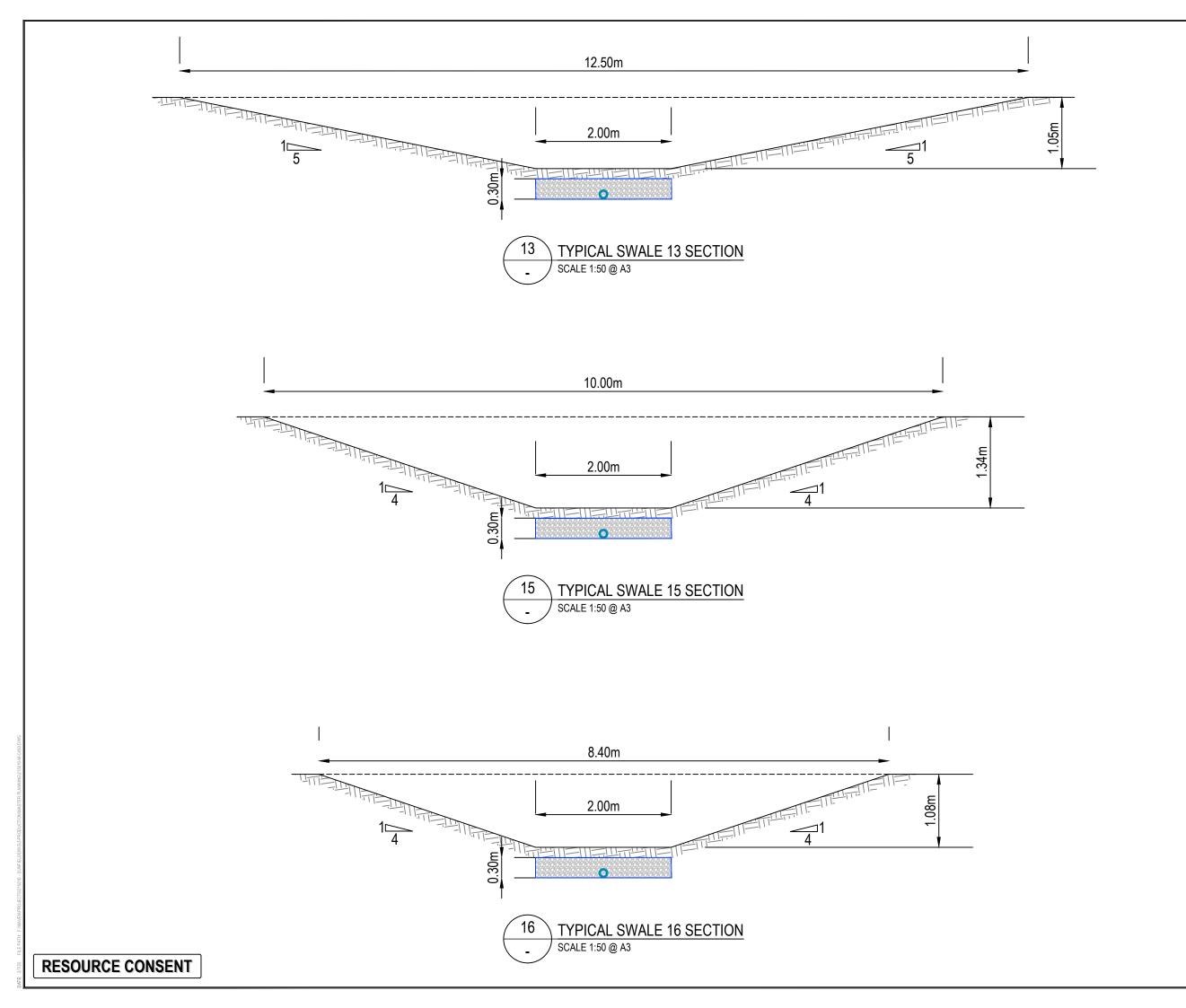


Project

SUNFIELD DEVELOPMENT
ARDMORE, AUCKLAND
MASTERPLANNING
FOR SUNFIELD
DEVELOPMENTS LIMITED

Title

Project no.	215010		
Scale	1:50 @ A3		
Cad file	215010-M-C450.DWG		
Drawing no.	M-C4524	Rev	Α



NOTES

- ALL WORKS TO BE IN ACCORDANCE WITH AUCKLAN COUNCIL STANDARDS.
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 MT EDEN 2000. LEVELS IN TERMS OF THE AUCKLAND
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LEGEND:

0

GEOTEXTILE PERMEABLE LINER
110mm Ø PERFORATED PIPE
GRAVEL BEDDING

Α	RE	SOURCE CONSE	NT		0Q	02/2025
Rev	Desc	escription		Ву	Date	
		Ву		Date		
Surve	у	SURVEYWORX		02/2021		
Design		YW		11/2024		
Drawn		OQ.		11/20	24	
Chock	rod	ID/I C		02/2025		

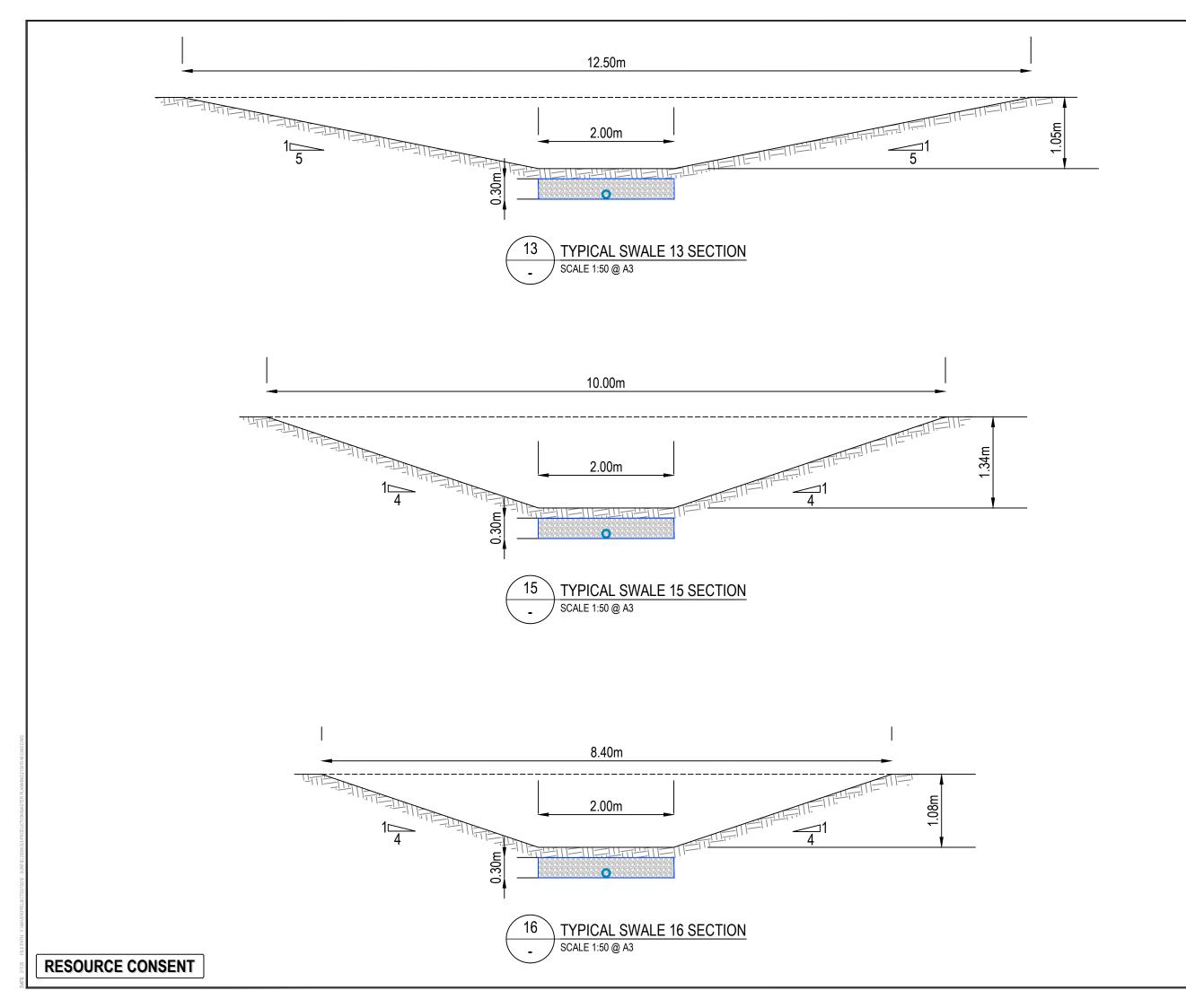


Project

SUNFIELD DEVELOPMENT
ARDMORE, AUCKLAND
MASTERPLANNING
FOR SUNFIELD
DEVELOPMENTS LIMITED

Title

Drawing no.	M-C4525	Rev	Α
Cad file	215010-M-C450.DWG		
Scale	1:50 @ A3		
Project no.	215010		



NOTES

- ALL WORKS TO BE IN ACCORDANCE WITH AUCKLAN COUNCIL STANDARDS.
- COORDINATES IN TERMS OF NZ GEODETIC DATUM
 MT EDEN 2000. LEVELS IN TERMS OF THE AUCKLAND
 VERTICAL DATUM 1946.
- 3. IT IS THE CONTRACTORS RESPONSIBILITY TO LOCATE ALL SERVICES THAT MAY BE AFFECTED BY THEIR OPERATIONS.
- 4. PIPE BEDDING: 0 10% GRANULAR BEDDING; 10 20% WEAK CONCRETE BEDDING. GREATER THAN 20% WEAK CONCRETE BEDDING (TMPA PLUS ANTI SCOUF BLOCKS AT 6M CRS).

 5. APPROVED HARDFILL IS TO BE USED IN BACKFILLING.
- APPROVED HARDFILL IS TO BE USED IN BACKFILLING OF ALL ROAD CROSSINGS AND VEHICLE CROSSINGS TO COUNCIL STANDARDS.
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LEGEND:

0

GEOTEXTILE PERMEABLE LINER
110mm Ø PERFORATED PIPE
GRAVEL BEDDING

Α	RE	RESOURCE CONSENT		0Q	02/2025	
Rev	Desc	cription		Ву	Date	
		Ву	Date	Date		
Survey		SURVEYWORX	02/2	02/2021		
Design		YW	11/2	11/2024		
Drawn		OQ	11/2	11/2024		
		ID/I C	00/0	02/2025		

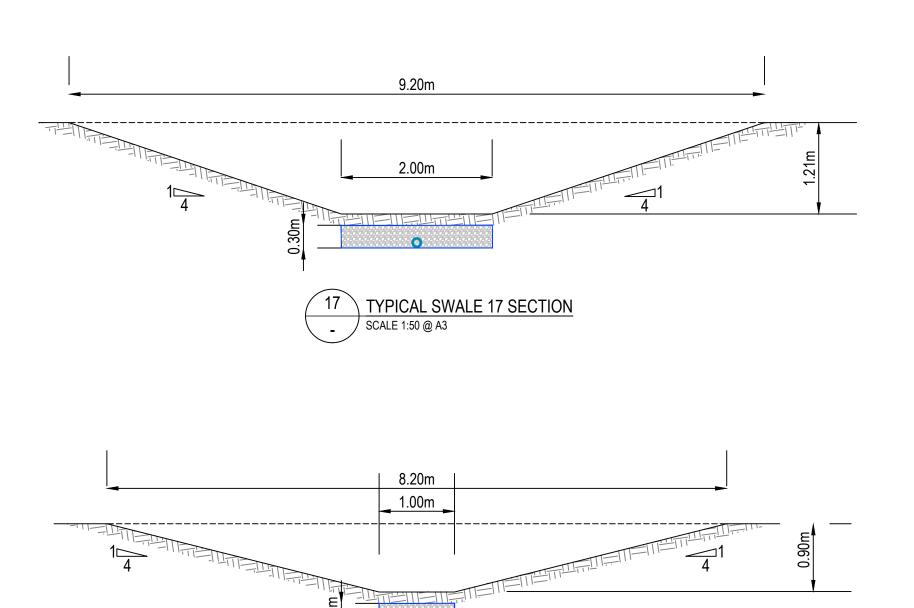


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SUNFIELD DEVELOPMENT ARDMORE, AUCKLAND MASTERPLANNING FOR SUNFIELD DEVELOPMENTS LIMITED

Title

	Drawing no.	M-C4526	Rev	Α		
Cad file 215010-N		215010-M-C450.DWG				
	Scale	1:50 @ A3				
	Project no.	215010				



TYPICAL SWALE 18 SECTION

SCALE 1:50 @ A3

- ALL WORKS TO BE IN ACCORDANCE WITH AUCKLAN COUNCIL STANDARDS.
- . COORDINATES IN TERMS OF NZ GEODETIC DATUM MT EDEN 2000. LEVELS IN TERMS OF THE AUCKLAND VERTICAL DATUM 1946.
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 APPROVED HARDFILL IS TO BE USED IN BACKFILLIN
- OF ALL ROAD CROSSINGS AND VEHICLE CROSSINGS TO COUNCIL STANDARDS.
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LEGEND:

GRAVEL BEDDING

GEOTEXTILE PERMEABLE LINER 110mm Ø PERFORATED PIPE

RESOURCE CONSENT OQ 02/2025 SURVEYWORX 02/2021 11/2024 11/2024



Drawn OQ

SUNFIELD DEVELOPMENT ARDMORE, AUCKLAND **MASTERPLANNING FOR SUNFIELD DEVELOPMENTS LIMITED**

PROPOSED SWALES/ **DIVERSION PATH CROSS-SECTIONS - SHEET 8**

Drawing no.	M-C4527	Rev	Α
Cad file	215010-M-C450.DWG		
Scale	1:50 @ A3		
Project no.	215010		

RESOURCE CONSENT

