

THE KILNS LTD PROPOSED DEVELOPMENT AT 34 & 36 SANDSPIT ROAD WARKWORTH

ISSUE FOR RESOURCE CONSENT - MARCH 2022

Job: 85070-01



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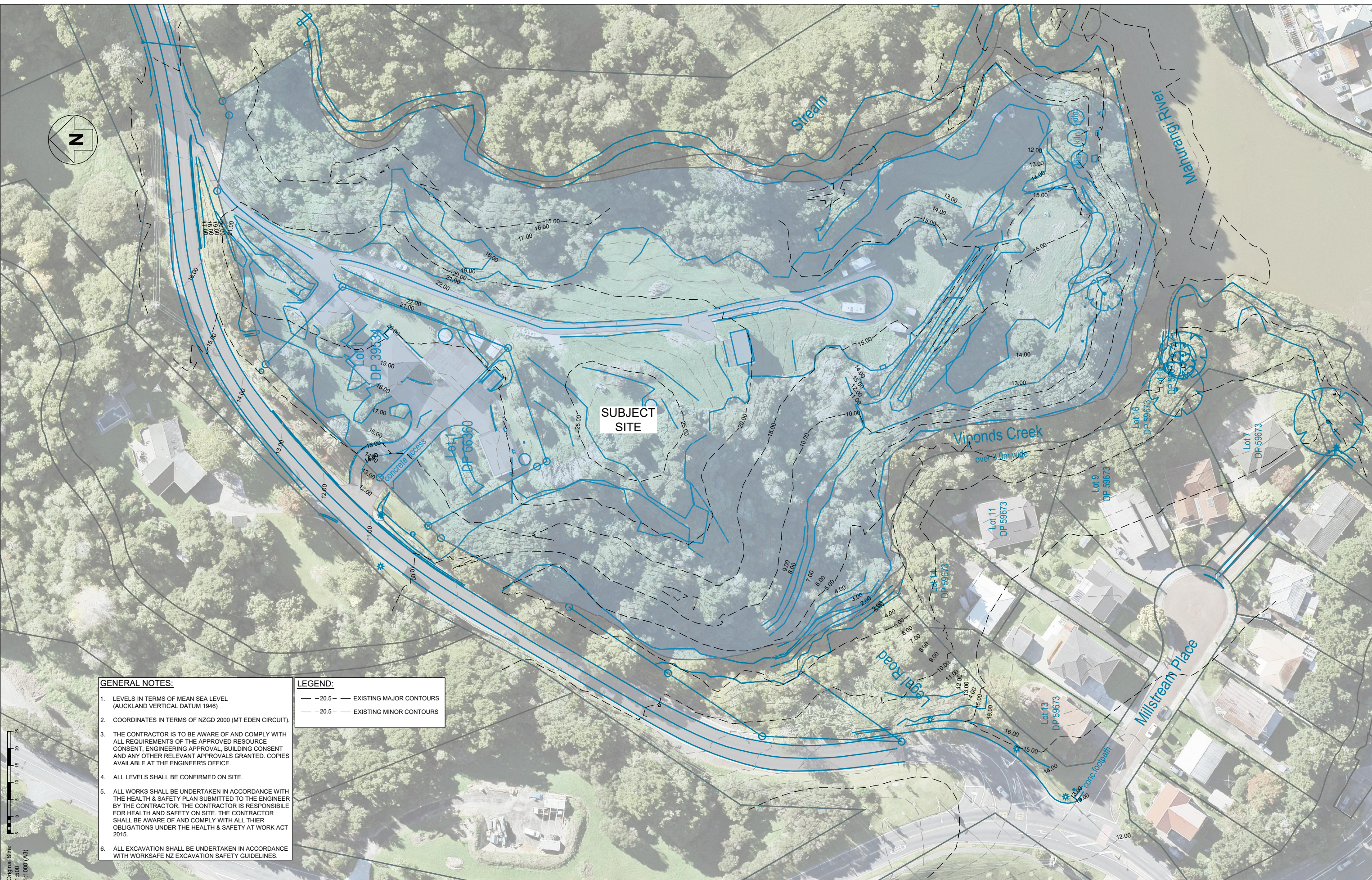
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- GENERAL NOTES:**
- LEVELS IN TERMS OF MEAN SEA LEVEL (AUCKLAND VERTICAL DATUM 1946)
 - COORDINATES IN TERMS OF NZGD 2000 (MT EDEN CIRCUIT).
 - THE CONTRACTOR IS TO BE AWARE OF AND COMPLY WITH ALL REQUIREMENTS OF THE APPROVED RESOURCE CONSENT, ENGINEERING APPROVAL, BUILDING CONSENT AND ANY OTHER RELEVANT APPROVALS GRANTED. COPIES AVAILABLE AT THE ENGINEER'S OFFICE.
 - ALL LEVELS SHALL BE CONFIRMED ON SITE.
 - ALL WORKS SHALL BE UNDERTAKEN IN ACCORDANCE WITH THE HEALTH & SAFETY PLAN SUBMITTED TO THE ENGINEER BY THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR HEALTH AND SAFETY ON SITE. THE CONTRACTOR SHALL BE AWARE OF AND COMPLY WITH ALL THEIR OBLIGATIONS UNDER THE HEALTH & SAFETY AT WORK ACT 2015.
 - ALL EXCAVATION SHALL BE UNDERTAKEN IN ACCORDANCE WITH WORKSAFE NZ EXCAVATION SAFETY GUIDELINES.

- LEGEND:**
- 20.5 --- EXISTING MAJOR CONTOURS
 - 20.5 --- EXISTING MINOR CONTOURS

Original Size:
1:500 (A3)
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PROJECT TITLE:
**PROPOSED DEVELOPMENT AT
34 & 36 SANDSPIT ROAD
WARKWORTH
AUCKLAND**

A-	FOR RESOURCE CONSENT	MAR 2022	---
REV	AMENDMENT	DATE	BY

DRAWING STATUS:
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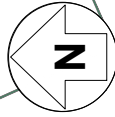
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DRAWING TITLE:
EXISTING SITE PLAN

JOB No: **85070-01** SHEET No: **100** REV: **A**

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SANDSPIT ROAD

ROAD 1

ACCESSWAY 1

ACCESSWAY 2

MILLSTREAM PLACE

MATAKANA ROAD

SANDSPIT ROAD

- GENERAL NOTES:**
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- LEGEND:**
- - - 20.5 - - - EXISTING MAJOR CONTOURS
 - - - 20.5 - - - EXISTING MINOR CONTOURS
 - 20.5 — PROPOSED MAJOR CONTOURS
 - 20.5 — PROPOSED MINOR CONTOURS
 - — — RETAINING WALL
 - — — INGROUND PALISADE WALL
 - ++ SIGNIFICANT ECOLOGICAL AREA
 - ▨ MEDIUM DEVELOPMENT COST AREA AS PER CMW GEOSCIENCES REPORT
 - + HISTORIC HERITAGE

Original Size: 1:500 1:1000 (A3)



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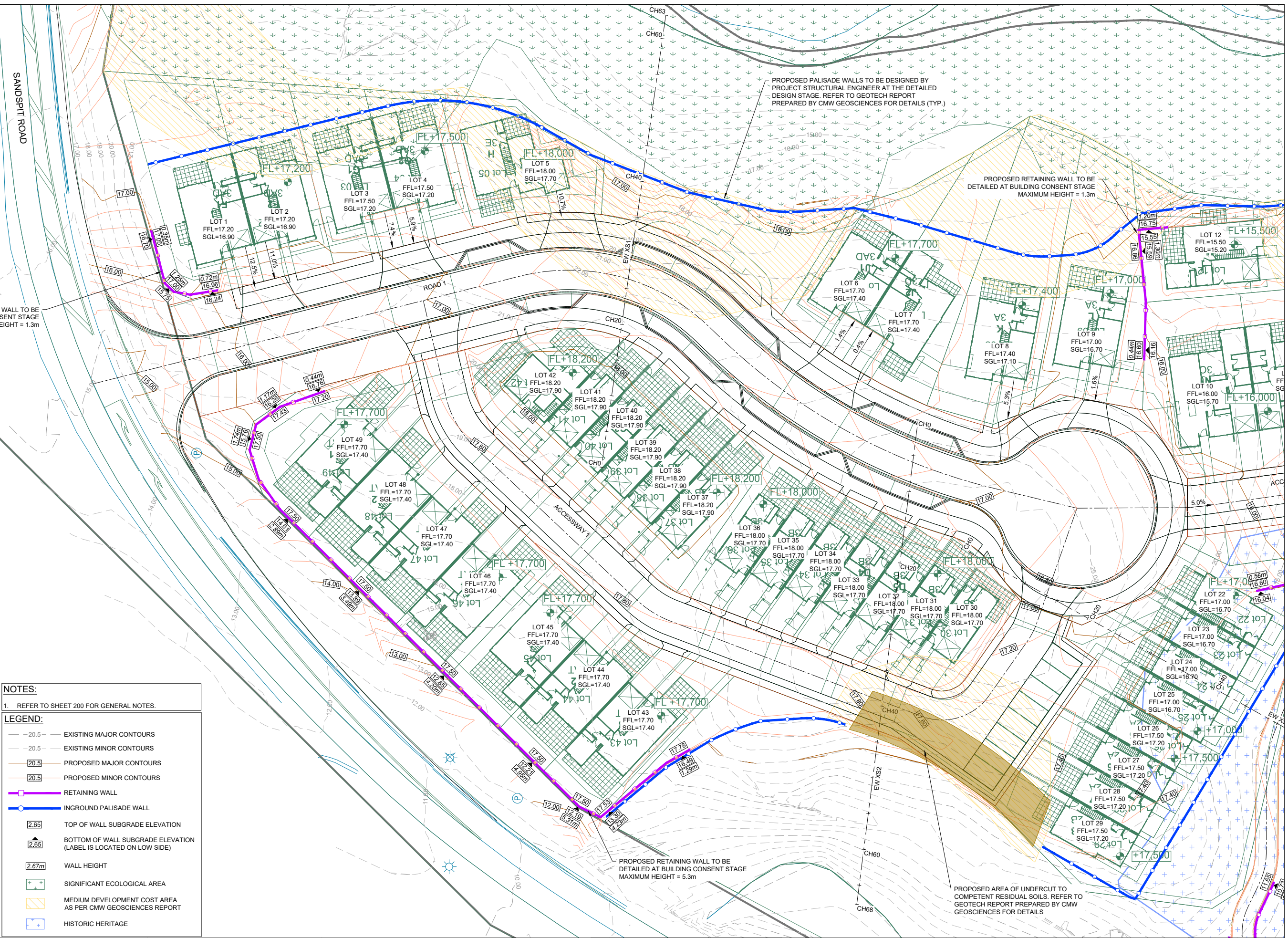
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DRAWING TITLE:
**EXISTING & PROPOSED CONTOURS
OVERALL PLAN**
JOB No: 85070-01
SHEET No: 200
REV: A

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SANDSPIT ROAD



PROPOSED PALISADE WALLS TO BE DESIGNED BY PROJECT STRUCTURAL ENGINEER AT THE DETAILED DESIGN STAGE. REFER TO GEOTECH REPORT PREPARED BY CMW GEOSCIENCES FOR DETAILS (TYP.)

PROPOSED RETAINING WALL TO BE DETAILED AT BUILDING CONSENT STAGE
MAXIMUM HEIGHT = 1.3m

PROPOSED RETAINING WALL TO BE DETAILED AT BUILDING CONSENT STAGE
MAXIMUM HEIGHT = 1.3m

PROPOSED RETAINING WALL TO BE DETAILED AT BUILDING CONSENT STAGE
MAXIMUM HEIGHT = 5.3m

PROPOSED AREA OF UNDERCUT TO COMPETENT RESIDUAL SOILS. REFER TO GEOTECH REPORT PREPARED BY CMW GEOSCIENCES FOR DETAILS

NOTES:

1. REFER TO SHEET 200 FOR GENERAL NOTES.

LEGEND:

- 20.5 - EXISTING MAJOR CONTOURS
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- 20.5 - PROPOSED MAJOR CONTOURS
- 20.5 - PROPOSED MINOR CONTOURS
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- INGROUND PALISADE WALL
- 2.65 TOP OF WALL SUBGRADE ELEVATION
- 2.65 BOTTOM OF WALL SUBGRADE ELEVATION (LABEL IS LOCATED ON LOW SIDE)
- 2.67m WALL HEIGHT
- SIGNIFICANT ECOLOGICAL AREA
- MEDIUM DEVELOPMENT COST AREA AS PER CMW GEOSCIENCES REPORT
- HISTORIC HERITAGE

Original Size: 1:250
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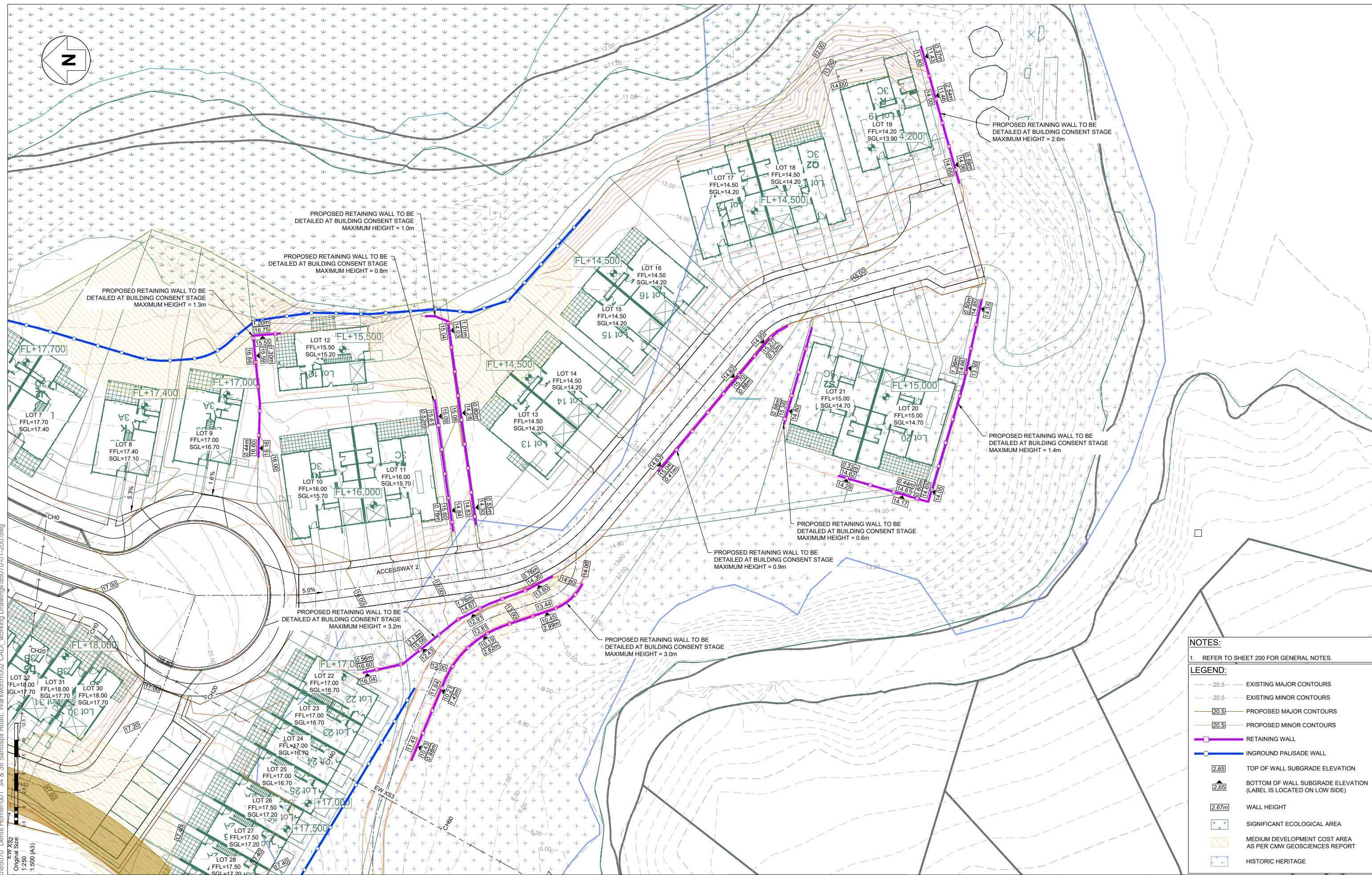
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DRAWING TITLE:
**EXISTING & PROPOSED CONTOURS
- SHEET 1 OF 3**
JOB No: 85070-01
SHEET No: 201
REV: A



NOTES:

1. REFER TO SHEET 200 FOR GENERAL NOTES.

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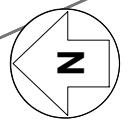
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**EXISTING & PROPOSED CONTOURS
 - SHEET 2 OF 3**

JOB No: 85070-01 SHEET No: 202 REV: A

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SHEET 212

SHEET 211

SHEET 213

SANDSPIT ROAD

ROAD 1

ACCESSWAY 1

ACCESSWAY 2

SANDSPIT ROAD

SANDSPIT ROAD

MATAKANA ROAD

MILLSTREAM PLACE

EARTHWORK WITHIN SEA:
AREA = 500m²
VOLUME = 610m³

EARTHWORK WITHIN 50m FROM STREAM BANK:
AREA = 13 000m²
VOLUME = 30 100m³ (NET)
CUT = 32 300m³
FILL = 2200m³

Elevations Table

Number	Min. Elevation (m)	Max. Elevation (m)	Area (m ²)	Volume (m ³)	Colour
1	-9.98	-8.00	877.11	771.30	Dark Blue
2	-8.00	-6.00	1220.79	2811.54	Red
3	-6.00	-4.00	3233.21	7272.96	Orange
4	-4.00	-2.00	2936.08	13482.31	Yellow
5	-2.00	-0.40	5022.34	16801.13	Light Green
6	-0.40	0.00	1453.27	5644.59	Green
7	0.00	0.40	732.92	1013.55	Light Blue
8	0.40	2.00	1708.47	1994.69	Blue
9	2.00	4.50	486.65	435.39	Purple

EARTHWORKS VOLUMES

EARTHWORKS AREA = 17 700m²
EARTHWORKS VOLUME: 43 400m³ (NET)
CUT = 46 800m³
FILL = 3 400m³

NOTE:
EARTHWORKS VOLUME IS MEASURED FROM EXISTING SURFACE TO SUBGRADE SURFACE (ASSUMED 300mm BELOW FINISHED LEVELS). PAVEMENT AND FOUNDATION THICKNESS SHALL BE CONFIRMED AT EPA/BC STAGE.

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EARTHWORKS NOTES:

- EARTHWORKS SHALL BE UNDERTAKEN IN ACCORDANCE WITH NZS 4431:1989.
- EARTHWORKS VOLUMES ARE SOLID MEASURE ONLY AND EXCLUDE ANY BULKING OR COMPACTION FACTORS.
- EROSION AND SEDIMENT CONTROLS IN ACCORDANCE WITH AUCKLAND COUNCIL GD05 SHALL BE INSTALLED PRIOR TO THE COMMENCEMENT OF WORKS ON SITE AND SHALL BE MAINTAINED FOR THE DURATION OF THE WORKS.
- THE CONTRACTOR SHALL STRIP AND STOCKPILE TOPSOIL PRIOR TO THE COMMENCEMENT OF BULK EARTHWORKS.
- THE CONTRACTOR SHALL STABILISE ALL EARTHWORKED AREAS IMMEDIATELY FOLLOWING THE COMPLETION OF BULK EARTHWORKS.
- ALL EARTHWORKS BATTERS SHALL BE MAX 1:3 (VERTICAL : HORIZONTAL).

LEGEND:

- RETAINING WALL
- INGROUND PALISADE WALL
- STREAM BANK FROM TOPO SURVEY
- SEDIMENT CONTROL PROTECTION AREA BOUNDARY
- EARTHWORK WITHIN SEA AREA BOUNDARY
- SIGNIFICANT ECOLOGICAL AREA
- MEDIUM DEVELOPMENT COST AREA AS PER CMW GEOSCIENCES REPORT
- HISTORIC HERITAGE

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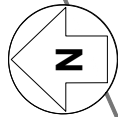
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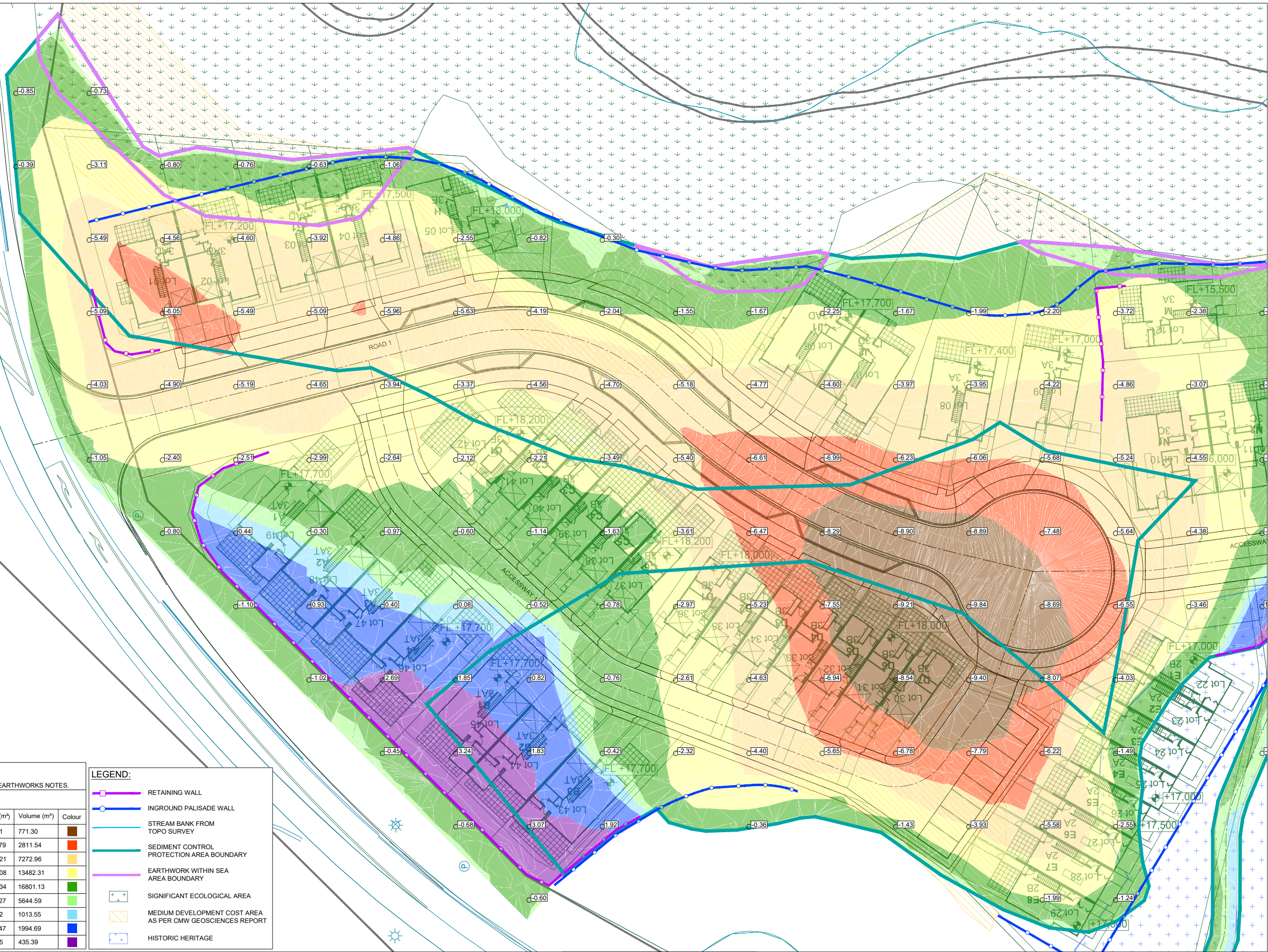
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DRAWING TITLE:
**PROPOSED CUT & FILL OVERALL
PLAN**
JOB No: 85070-01
SHEET No: 210
REV: A



SANDSPIT ROAD



NOTES:

1. REFER TO SHEET 210 FOR GENERAL NOTES AND EARTHWORKS NOTES.

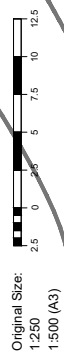
Elevations Table

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1	-9.98	-8.00	877.11	771.30	Dark Blue
2	-8.00	-6.00	1220.79	2811.54	Red
3	-6.00	-4.00	3233.21	7272.96	Orange
4	-4.00	-2.00	2936.08	13482.31	Yellow
5	-2.00	-0.40	5022.34	16801.13	Light Green
6	-0.40	0.00	1453.27	5644.59	Green
7	0.00	0.40	732.92	1013.55	Light Blue
8	0.40	2.00	1708.47	1994.69	Blue
9	2.00	4.50	486.65	435.39	Dark Blue

LEGEND:

- RETAINING WALL
- INGROUND PALISADE WALL
- STREAM BANK FROM TOPO SURVEY
- SEDIMENT CONTROL PROTECTION AREA BOUNDARY
- EARTHWORK WITHIN SEA AREA BOUNDARY
- SIGNIFICANT ECOLOGICAL AREA
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DRAWING TITLE:

PROPOSED CUT & FILL - SHEET 1
OF 3

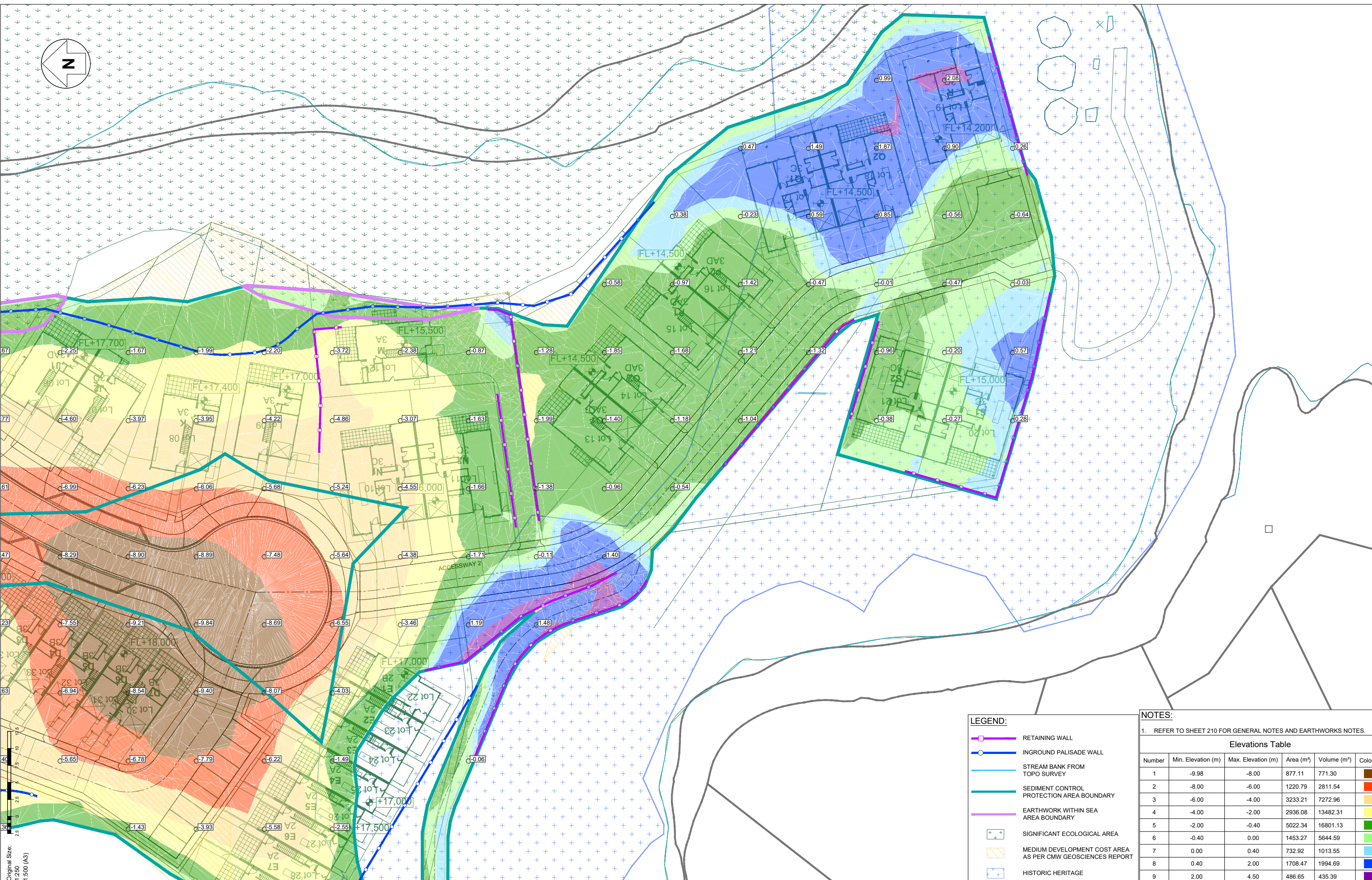
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SHEET No: 211

REV: A

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- PROTECTION AREA BOUNDARY
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NOTES:

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Elevations Table

Number	Min. Elevation (m)	Max. Elevation (m)	Area (m ²)	Volume (m ³)	Colour
1	-9.98	-8.00	877.11	771.30	
2	-8.00	-6.00	1220.79	2811.54	
3	-6.00	-4.00	3233.21	7272.96	
4	-4.00	-2.00	2936.08	13482.31	
5	-2.00	-0.40	5022.34	16801.13	
6	-0.40	0.00	1453.27	5644.59	
7	0.00	0.40	732.92	1013.55	
8	0.40	2.00	1708.47	1994.69	
9	2.00	4.50	486.65	435.39	



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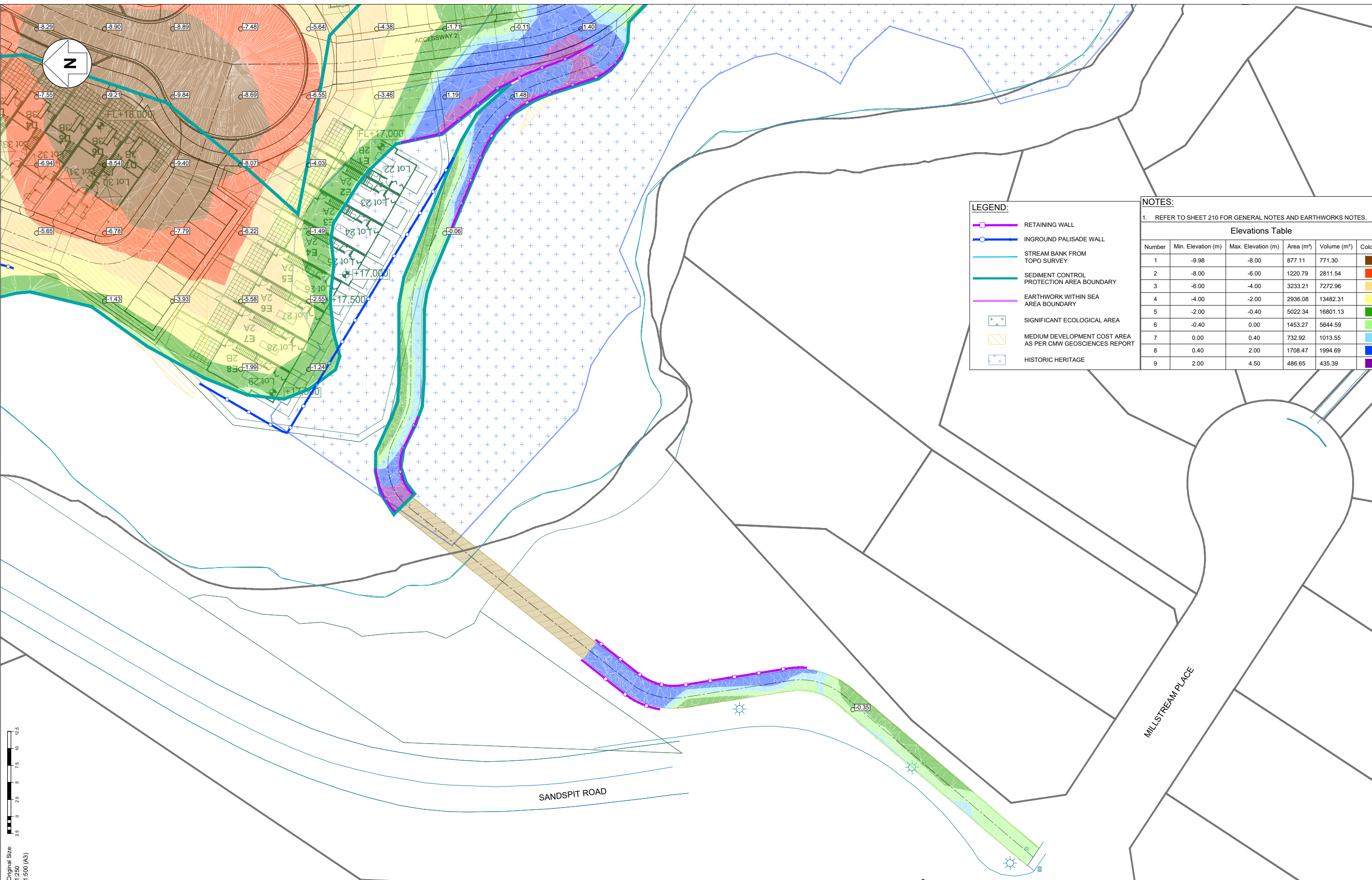
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**PROPOSED CUT & FILL - SHEET 2
OF 3**

JOB No: 85070-01 SHEET No: 212 REV: A

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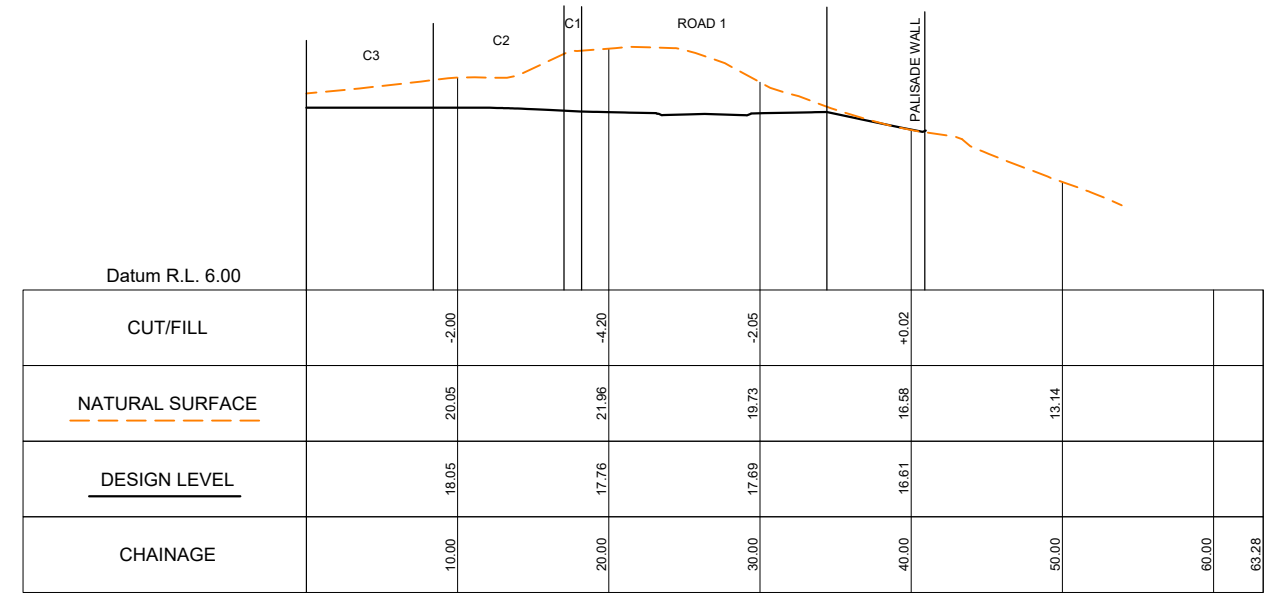
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DRAWING TITLE:
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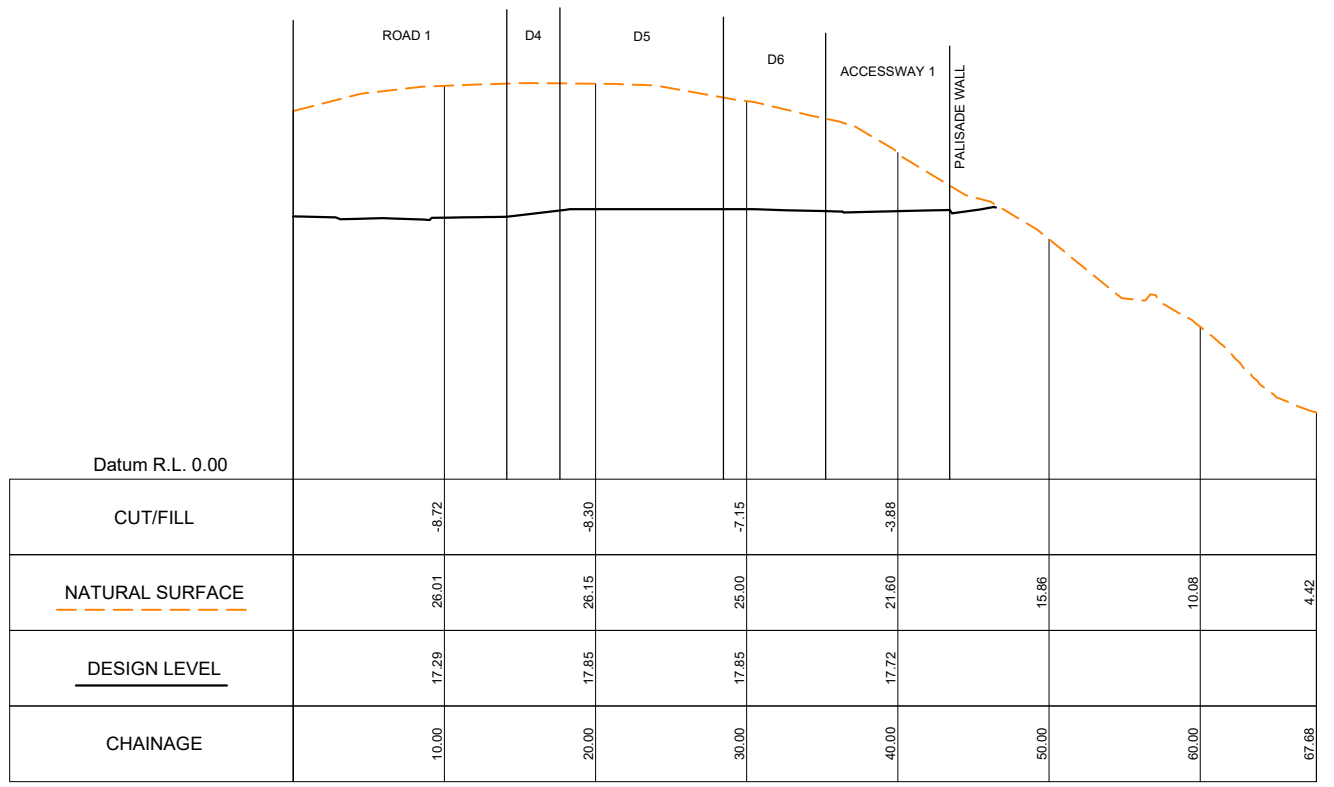
JOB No: 85070-01 SHEET No 213 REV: A

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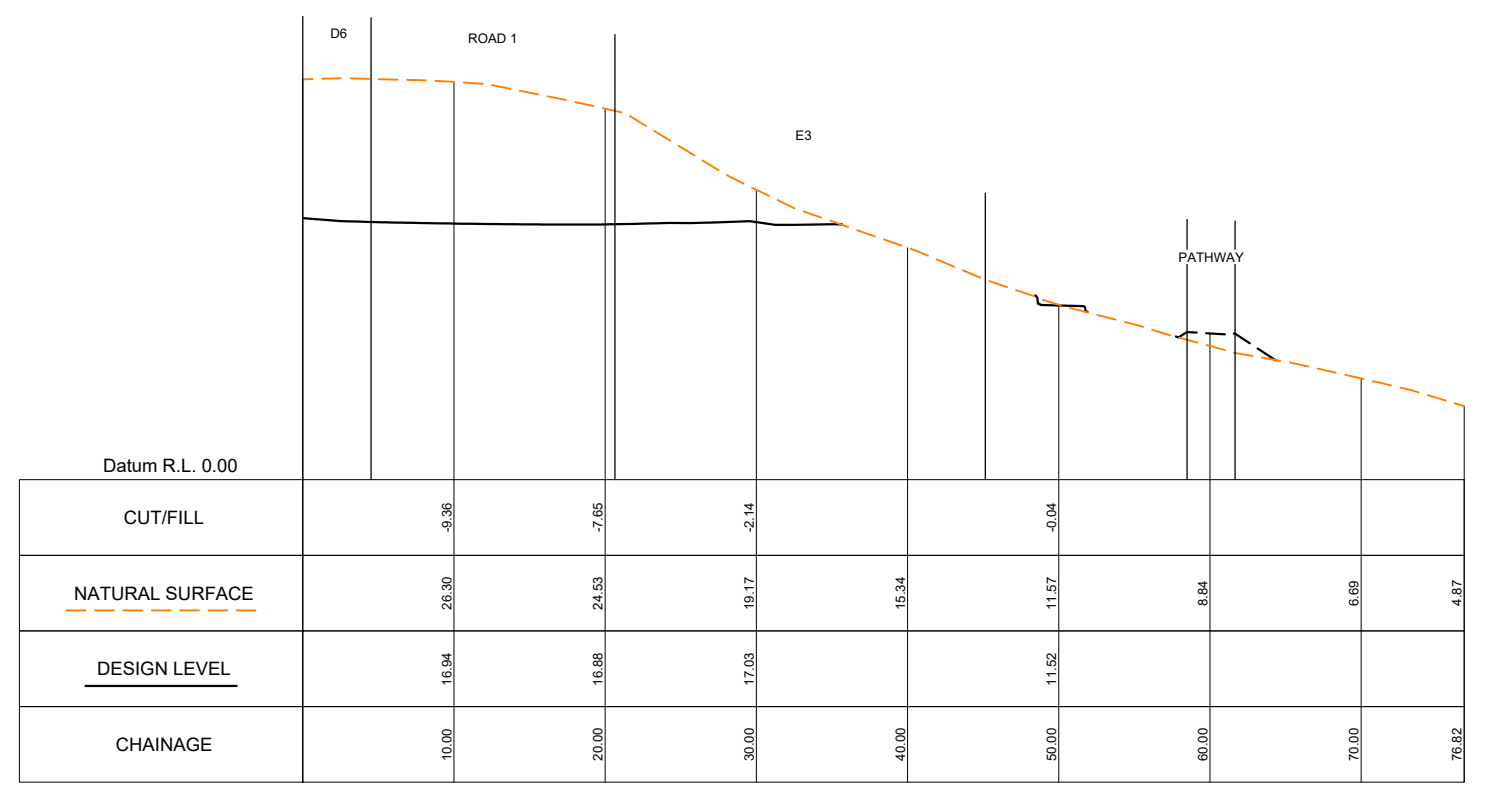
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EW XS1 - CROSS SECTION



EW XS2 - CROSS SECTION



EW XS3 - CROSS SECTION



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PROJECT TITLE:
**PROPOSED DEVELOPMENT AT
34 & 36 SANDSPIT ROAD
WARKWORTH
AUCKLAND**

A	FOR RESOURCE CONSENT	MAR 2022	---
REV	AMENDMENT	DATE	BY

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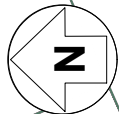
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DRAWING TITLE:
**PROPOSED EARTHWORKS SITE
CROSS SECTIONS**

JOB No: **85070-01** SHEET No: **220** REV: **A**

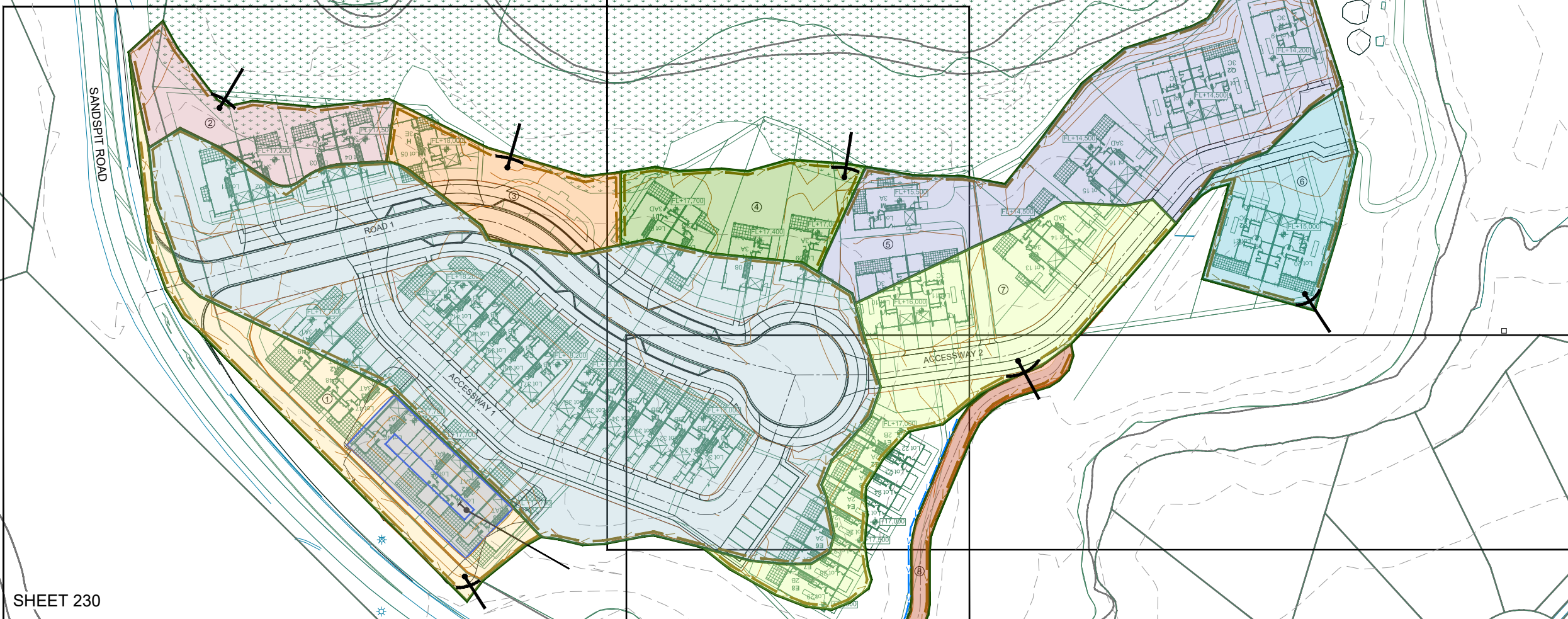
SEDIMENT CONTROL SUMMARY

E&C CONTROL	SPR	DEB1	DEB2	DEB3	DEB4	DEB5	DEB6	DEB7	DEB8	DEB9
CATCHMENT AREA (m ²)	7400	1500	800	800	900	2700	900	2200	300	300
POND VOLUME (m ³)	222	45	24	24	27	81	27	66	9	9



EXISTING METAL DRIVEWAY TO BE REUSED AS A STABILISED ENTRY THROUGH OUT CONSTRUCTION

SHEET 232



SHEET 230

SHEET 233

SEDIMENT RETENTION POND CONSTRUCTION NOTES

1. ALL CONSTRUCTION TO COMPLY WITH AUCKLAND COUNCIL GUIDELINE GD05.
2. MAXIMUM BATTER SLOPE OF BUND 1 (W) : 3 (H).
3. BASE OF POND TO SLOPE OF 1% TOWARDS INLET END.
4. T-BAR AS PER DETAILS IN SHEET 240.
5. CHEMICAL TREATMENT PLAN REQUIRED TO BE PREPARED PRIOR TO EARTHWORK COMMENCING.

EARTHWORK NOTES

1. CONSTRUCT SILT FENCE BELOW AREA OF PROPOSED SRP, ALONG LOWER PERIMETER OF SITE AND PATHWAY TO MILLSTREAM PLACE.
2. CONSTRUCT SRP TO PROPOSED DESIGN AND TO MEET CONDITIONS OF CONSENT.
3. COMPLETE TESTING PREPARATION OF CHEMICAL TREATMENT PLAN.
4. FORM DIRTY WATER DIVERSION CHANNELS ALONG LOWER PERIMETER OF THE SITE, AND DISCHARGE INTO DEB OR FOREBAY OF SRP.
5. PREPARE AS BUILT OF SRP, DEB, DIVERSION CHANNELS, SILT FENCE AND CONTRIBUTING CATCHMENT AND SUBMIT TO COUNCIL.
6. FOLLOWING APPROVAL, COMMENCE TOPSOIL STRIPPING AND CUT TO STOCKPILE LOCATION.
7. INSTALL FLOCCULANT AND COMPLETE CUT TO FILL EARTHWORK TO SPECIFICATIONS. ALL DEBS AND SRPS TO BE PROVIDED WITH CHEMICAL TREATMENT TO GD05 SPECIFICATIONS.
8. CUT EXCESS CUT MATERIAL AND TOPSOIL FROM SITE TO CLEANFILL OR OTHER CONSENTED SITE.
9. STABILISE SITE WITH BASECOURSE ON ACCESSWAYS AND TOPSOIL/GRASS/MULCH IN STAGES AS SOON AS PRACTICAL FOLLOWING EARTHWORK AND/OR INFRASTRUCTURE COMPLETION.

LEGEND:

- 20.5- EXISTING CONTOURS
- 20.5 PROPOSED CONTOURS
- CATCHMENT BOUNDARY
- DIRTY WATER DIVERSION
- CLEAN WATER DIVERSION
- DECANTING EARTH BUND
- SIGNIFICANT ECOLOGICAL AREA

Original Size: 1:500
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DRAWING TITLE:

EROSION & SEDIMENT CONTROL
OVERALL PLAN

JOB No: 85070-01

SHEET No: 230

REV: A

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SANDSPIT ROAD



DECANTING EARTH BUND 2
 CATCHMENT AREA: 800m²
 POND VOLUMES: 24m³
 (3% CATCHMENT)

DECANTING EARTH BUND 3
 CATCHMENT AREA: 800m²
 POND VOLUMES: 24m³
 (3% CATCHMENT)

DECANTING EARTH BUND 4
 CATCHMENT AREA: 900m²
 POND VOLUMES: 27m³
 (3% CATCHMENT)

DECANTING EARTH BUND 1
 CATCHMENT AREA: 1 500m²
 POND VOLUMES: 45m³
 (3% CATCHMENT)

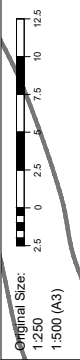
FORM DIRTYWATER DIVERSIONS INTO THE FOREBAY OF THE SEDIMENT RETENTION POND

SEDIMENT RETENTION POND
 CATCHMENT AREA: 7 400m²
 POND VOLUMES: 222m³
 POND EMBANKMENT DIMENSIONS: 34.5m x 14.4m (TYP.)
 POND DEPTH: 1.2m
 POND BASE DIMENSIONS: 23.0m x 2.9m (TYP.)
 POND BASE LEVEL: 13.08m
 TOP EMBANKMENT / BENCH LEVEL: 15.00m
 SPILLWAY LEVEL: 14.28m
 SPILLWAY WIDTH: 6.0m
 LEVEL SPREADER LEVEL: 14.78m
 EMERGENCY SPILLWAY LEVEL: 14.58m
 DECANT LEVEL: 13.65m

NOTES:
 1. REFER TO SHEET 230 FOR NOTES.

LEGEND:

- - - 20.5 - - - EXISTING CONTOURS
- 20.5 — PROPOSED CONTOURS
- CATCHMENT BOUNDARY
- DIRTYWATER DIVERSION
- CLEANWATER DIVERSION
- DECANTING EARTH BUND
- SIGNIFICANT ECOLOGICAL AREA



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	AMENDMENT		

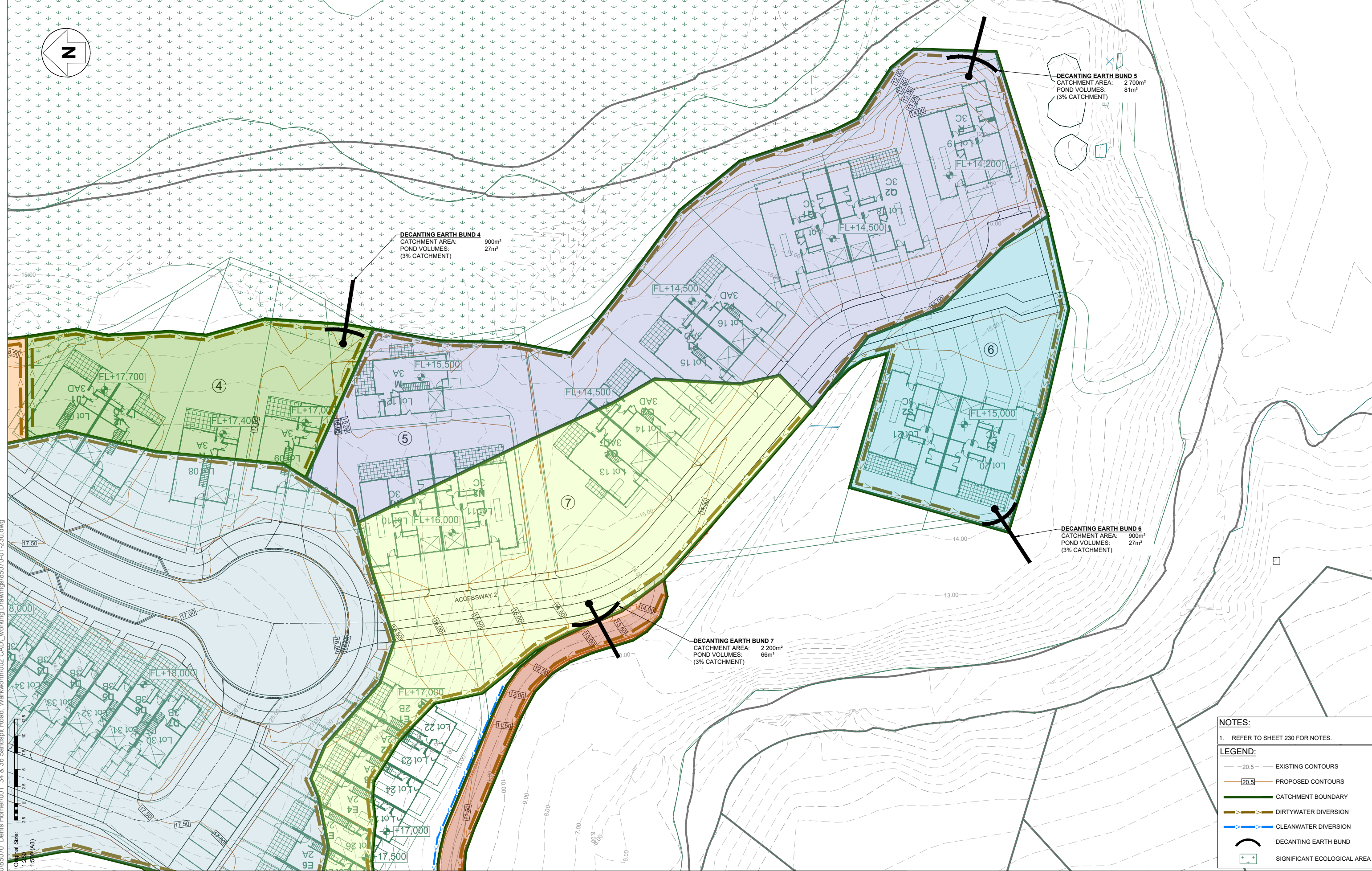
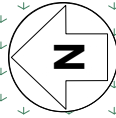
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DRAWING TITLE:
**EROSION & SEDIMENT CONTROL
 PLAN - SHEET 1 OF 3**

JOB No: 85070-01
 SHEET No: 231
 REV: A



DECANTING EARTH BUND 5
 CATCHMENT AREA: 2 700m²
 POND VOLUMES: 81m³
 (3% CATCHMENT)

DECANTING EARTH BUND 4
 CATCHMENT AREA: 900m²
 POND VOLUMES: 27m³
 (3% CATCHMENT)

DECANTING EARTH BUND 6
 CATCHMENT AREA: 900m²
 POND VOLUMES: 27m³
 (3% CATCHMENT)

DECANTING EARTH BUND 7
 CATCHMENT AREA: 2 200m²
 POND VOLUMES: 66m³
 (3% CATCHMENT)

NOTES:
 1. REFER TO SHEET 230 FOR NOTES.

LEGEND:

- 20.5 EXISTING CONTOURS
- 20.5 PROPOSED CONTOURS
- CATCHMENT BOUNDARY
- DIRTYWATER DIVERSION
- CLEANWATER DIVERSION
- DECANTING EARTH BUND
- SIGNIFICANT ECOLOGICAL AREA

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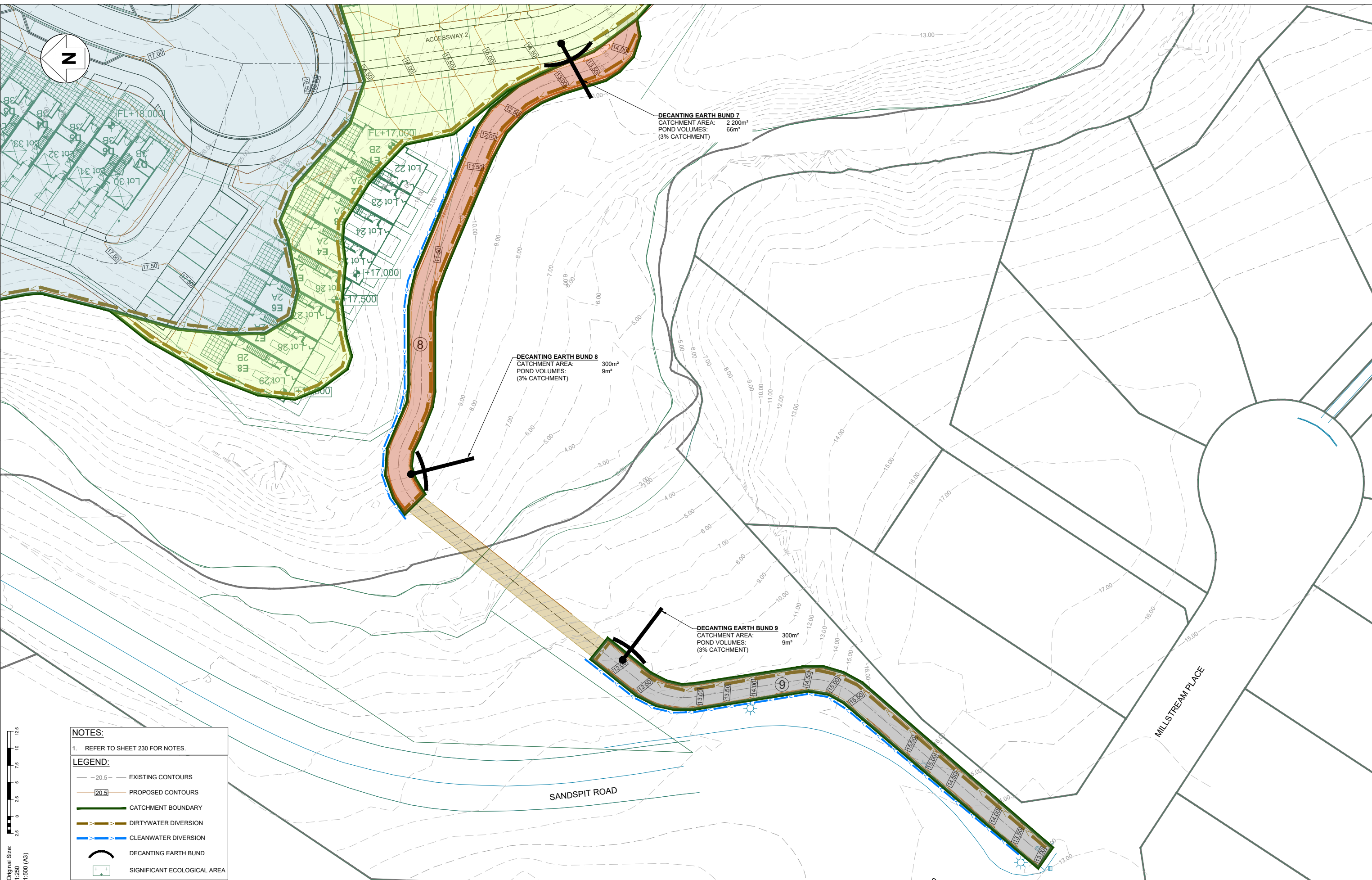
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DRAWING TITLE:
**EROSION & SEDIMENT CONTROL
 PLAN - SHEET 2 OF 3**

JOB No: 85070-01 SHEET No: 232 REV: A

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DECANTING EARTH BUND 7
 CATCHMENT AREA: 2 200m²
 POND VOLUMES: 66m³
 (3% CATCHMENT)

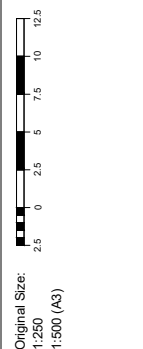
DECANTING EARTH BUND 8
 CATCHMENT AREA: 300m²
 POND VOLUMES: 9m³
 (3% CATCHMENT)

DECANTING EARTH BUND 9
 CATCHMENT AREA: 300m²
 POND VOLUMES: 9m³
 (3% CATCHMENT)

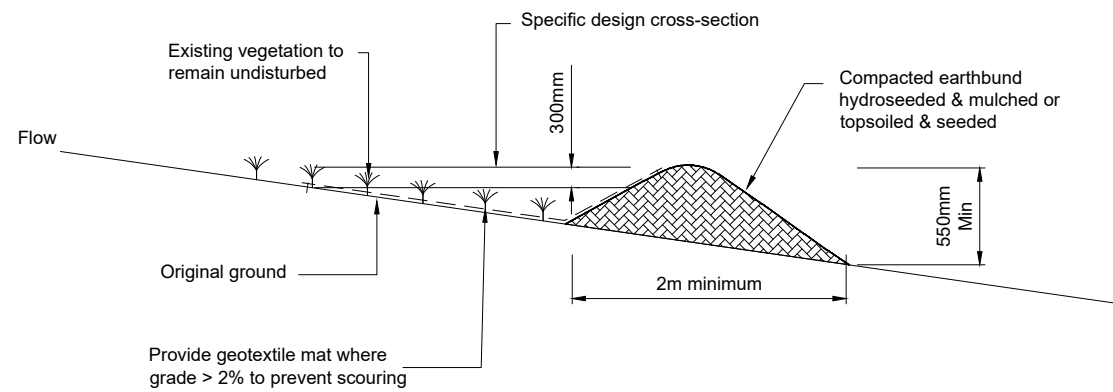
NOTES:
 1. REFER TO SHEET 230 FOR NOTES.

LEGEND:

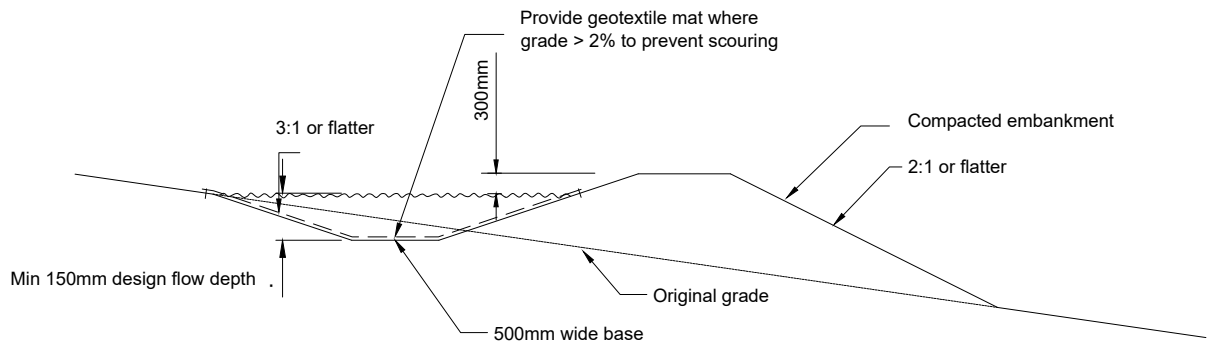
- - - 20.5 - - - EXISTING CONTOURS
- - - 20.5 - - - PROPOSED CONTOURS
- CATCHMENT BOUNDARY
- DIRTYWATER DIVERSION
- CLEANWATER DIVERSION
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- SIGNIFICANT ECOLOGICAL AREA



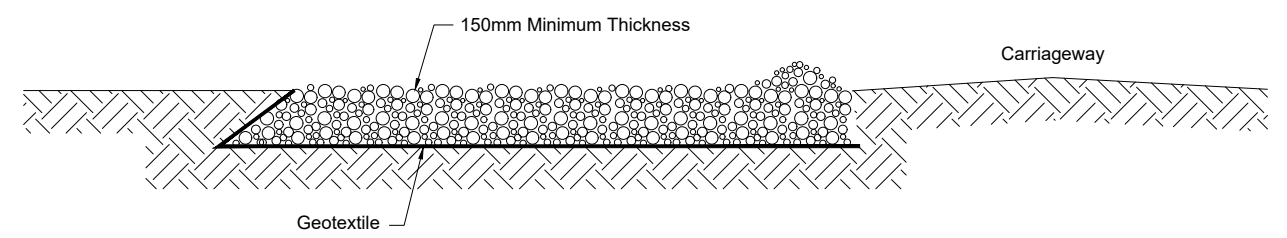
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				ISSUE PURPOSE: FOR RESOURCE CONSENT ONLY	JOB No: 85070-01 SHEET No: 233 REV: A		



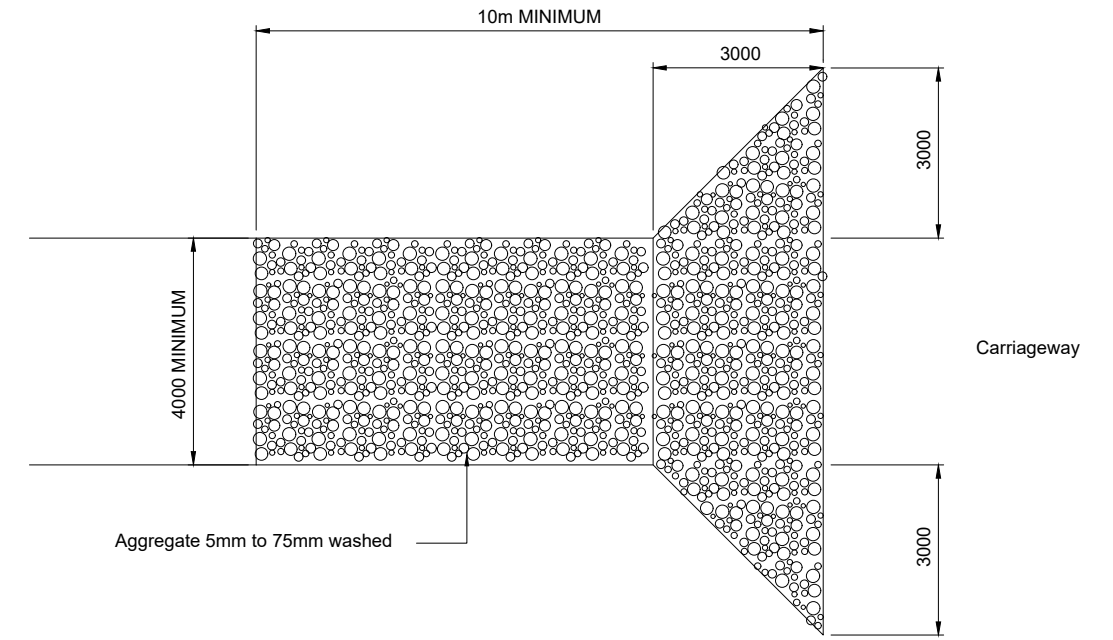
TOPSOIL BUND



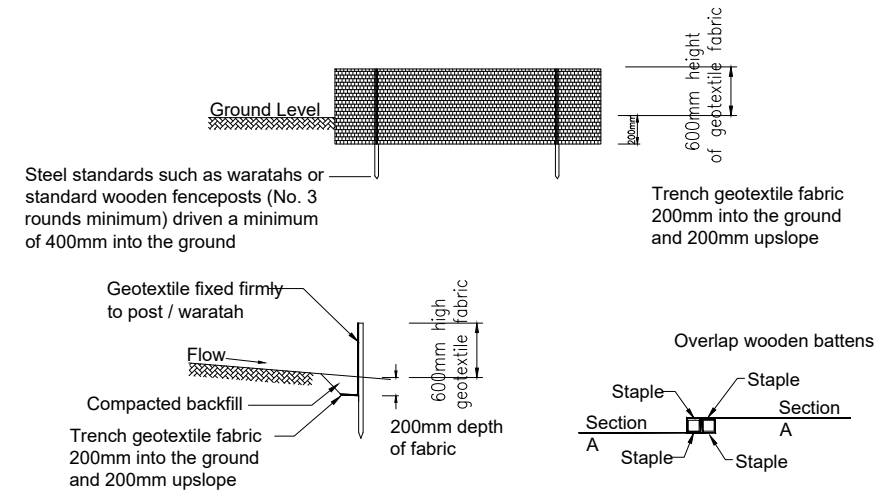
CLEANWATER DIVERSION CHANNEL



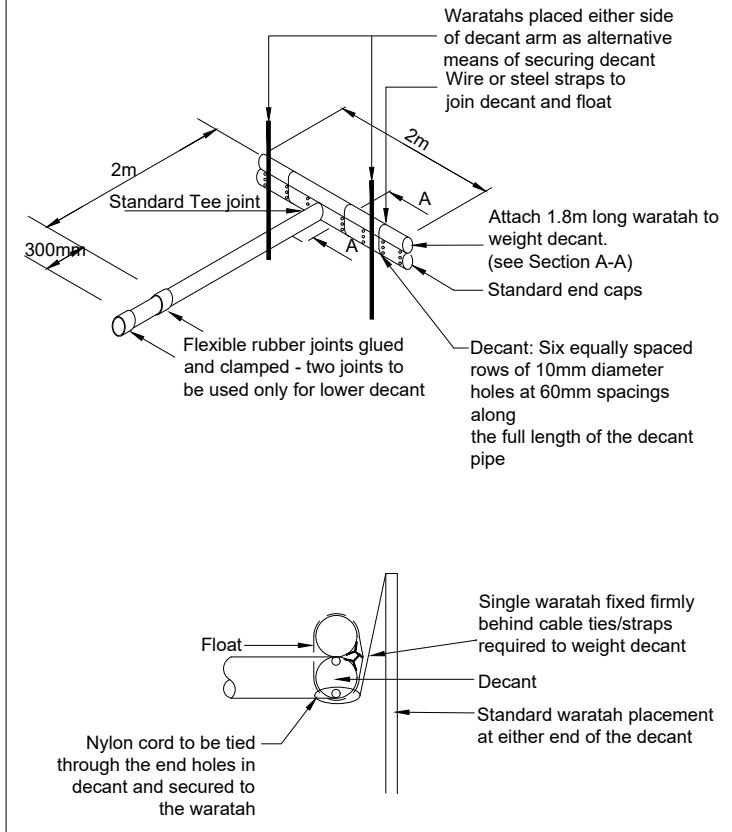
STABILISED ELEVATION



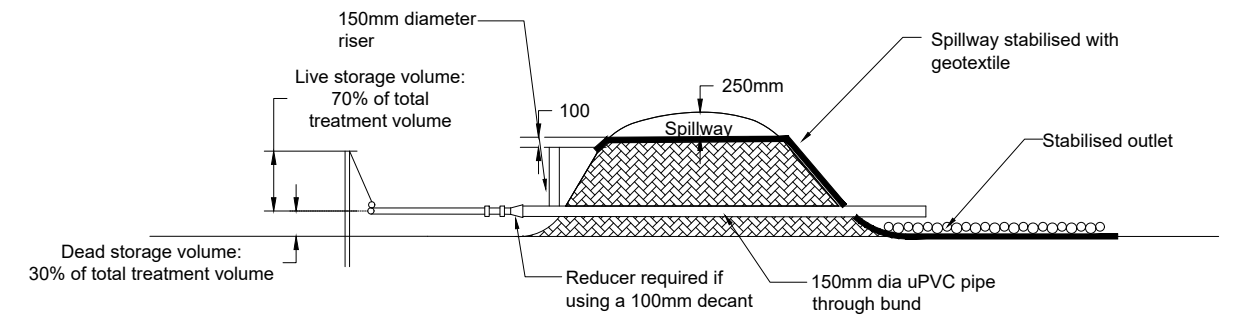
STABILISED ENTRANCE PATHWAY



SILT FENCE



FLOATING T-BAR DECANT



DECANTING EARTH BUND

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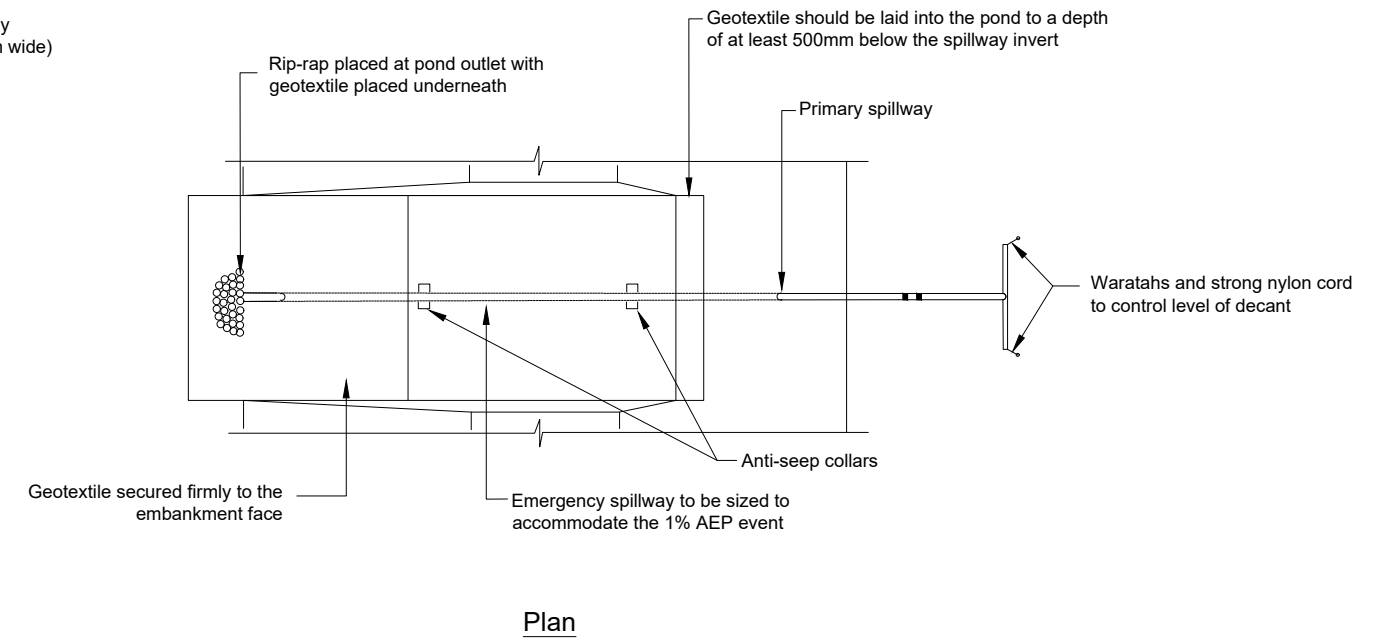
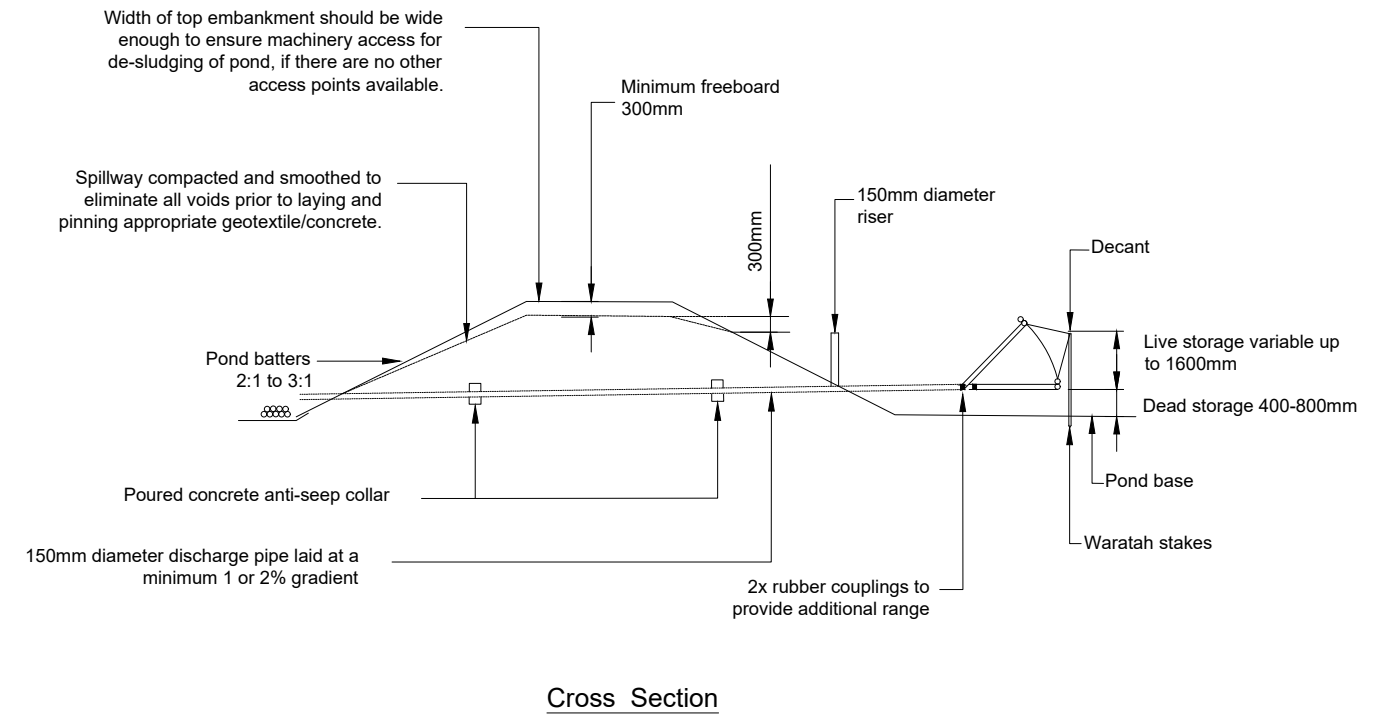
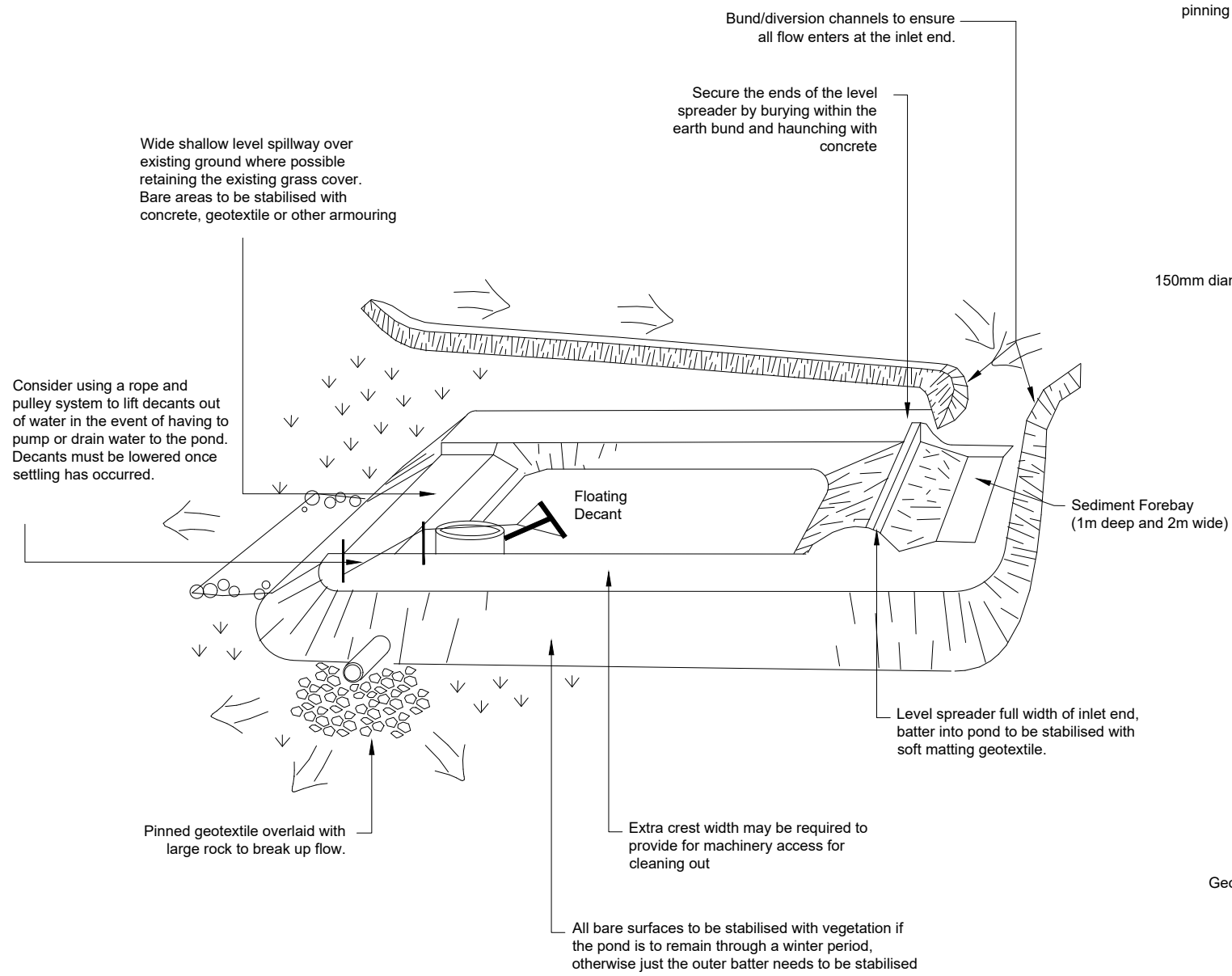
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**EROSION & SEDIMENT CONTROL
STANDARD DETAILS SHEET 1 OF 2**

JOB No: **85070-01** SHEET No: **240** REV: **A**

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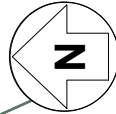
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**EROSION & SEDIMENT CONTROL
STANDARD DETAILS SHEET 2 OF 2**

JOB No: 85070-01 SHEET No: 241 REV: A



SHEET 302

SHEET 301

SHEET 303

ROADING NOTES:

- SUBGRADE TO BE STABILISED WITH LIME (14kg/m²).
- THE ENGINEER IS TO INSPECT THE SUBGRADE AND CONFIRM THE BASECOURSE DEPTH. (DESIGN BASED ON CBR = 7).
- MAXIMUM BENKLEMAN BEAM DEFLECTION ON METALLED SURFACE TO BE NO MORE THAN 1.4mm.
- BASECOURSE TO TNZ M4. SUBBASE MATERIAL TO BE GAP 65 FROM AN APPROVED SOURCE.
- EXPANSION JOINTS TO BE PROVIDED IN CONCRETE VEHICLE CROSSINGS AT 4.0m CRS
- CONCRETE VEHICLE CROSSINGS TO BE REINFORCED WITH 665 MESH.
- RUBBISH COLLECTION PAD SURFACING TO BE TURFLOCK, (SUBJECT TO FINAL DESIGN).
- CONCRETE STRENGTH AT 28 DAYS:-
ACCESSWAY:-25 mPa
FOOTPATH:- 20 mPa
MACHINE-LAID KERB:- 25 mPa
CHANNELS:- 25 mPa
ELSEWHERE:- 17.5 mPa
- CHAMFER EDGES TO CONCRETE FOOTPATHS. BROOM FINISH.
- UNDERCHANNEL DRAINS TO DISCHARGE INTO CATCHPITS. SLEEVED THROUGH SOLID WALL uPVC PIPE (ENGINEER TO CONFIRM ON SITE FOR UC DRAINS).
- ENSURE 75mm MINIMUM DEPTH BASECOURSE IS PLACED UNDER KERB AND CHANNEL TO ALLOW DRAINAGE TO UNDER-CHANNEL DRAINS.
- TOPSOIL BERMS TO 100mm MINIMUM DEPTH AND GRASS.
- SEALING OF CARRIAGEWAYS:
SINGLE COAT GRADE 4 CHIPSEAL, 180/200 PEN. BITUMEN, OVERLAID WITH 40mm DEPTH AC14 ASPHALTIC CONCRETE IN ACCORDANCE WITH TNZ M10.
- COORDINATES FOR SETTING OUT OF WORKS TO BE SUPPLIED TO THE CONTRACTOR BY THE ENGINEER.
- REFER TO LANDSCAPE ARCHITECT'S DRAWINGS FOR PROPOSED PAVEMENT SURFACE FINISHES.

LEGEND:

- RETAINING WALL
- INGROUND PALISADE WALL
- SIGNIFICANT ECOLOGICAL AREA

GENERAL NOTES:

- LEVELS IN TERMS OF MEAN SEA LEVEL (AUCKLAND VERTICAL DATUM 1946)
- COORDINATES IN TERMS OF NZGD 2000 (MT EDEN CIRCUIT).
- THE CONTRACTOR IS TO BE AWARE OF AND COMPLY WITH ALL REQUIREMENTS OF THE APPROVED RESOURCE CONSENT, ENGINEERING APPROVAL, BUILDING CONSENT AND ANY OTHER RELEVANT APPROVALS GRANTED. COPIES AVAILABLE AT THE ENGINEER'S OFFICE.
- ALL LEVELS SHALL BE CONFIRMED ON SITE.
- ALL WORKS SHALL BE UNDERTAKEN IN ACCORDANCE WITH THE HEALTH & SAFETY PLAN SUBMITTED TO THE ENGINEER BY THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR HEALTH AND SAFETY ON SITE. THE CONTRACTOR SHALL BE AWARE OF AND COMPLY WITH ALL THEIR OBLIGATIONS UNDER THE HEALTH & SAFETY AT WORK ACT 2015.
- ALL EXCAVATION SHALL BE UNDERTAKEN IN ACCORDANCE WITH WORKSAFE NZ EXCAVATION SAFETY GUIDELINES.

Original Size: 1:500
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 34 & 36 SANDSPIT ROAD
 WARKWORTH
 AUCKLAND**

REV	DESCRIPTION	DATE	BY
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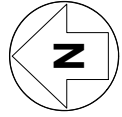
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DRAWING TITLE:
**ROADING & PATHWAY LAYOUT
 OVERALL PLAN**

JOB No: 85070-01
 SHEET No: 300
 REV: A

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SANDSPIT ROAD

MATCH NEW KERB INTO EXISTING KERB AND CHANNEL

MATCH NEW ASPHALT ROAD PAVEMENT INTO EXISTING SANDSPIT ROAD PAVEMENT

REFER TO SHEET 340 FOR INTERSECTION DETAILS

NOTES:

- 1. REFER TO SHEET 300 FOR GENERAL NOTES AND ROADING NOTES.

LEGEND:

- RETAINING WALL
- INGROUND PALISADE WALL
- SIGNIFICANT ECOLOGICAL AREA

Original Size: 1:250
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0 2.5 5 7.5 10 12.5



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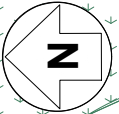
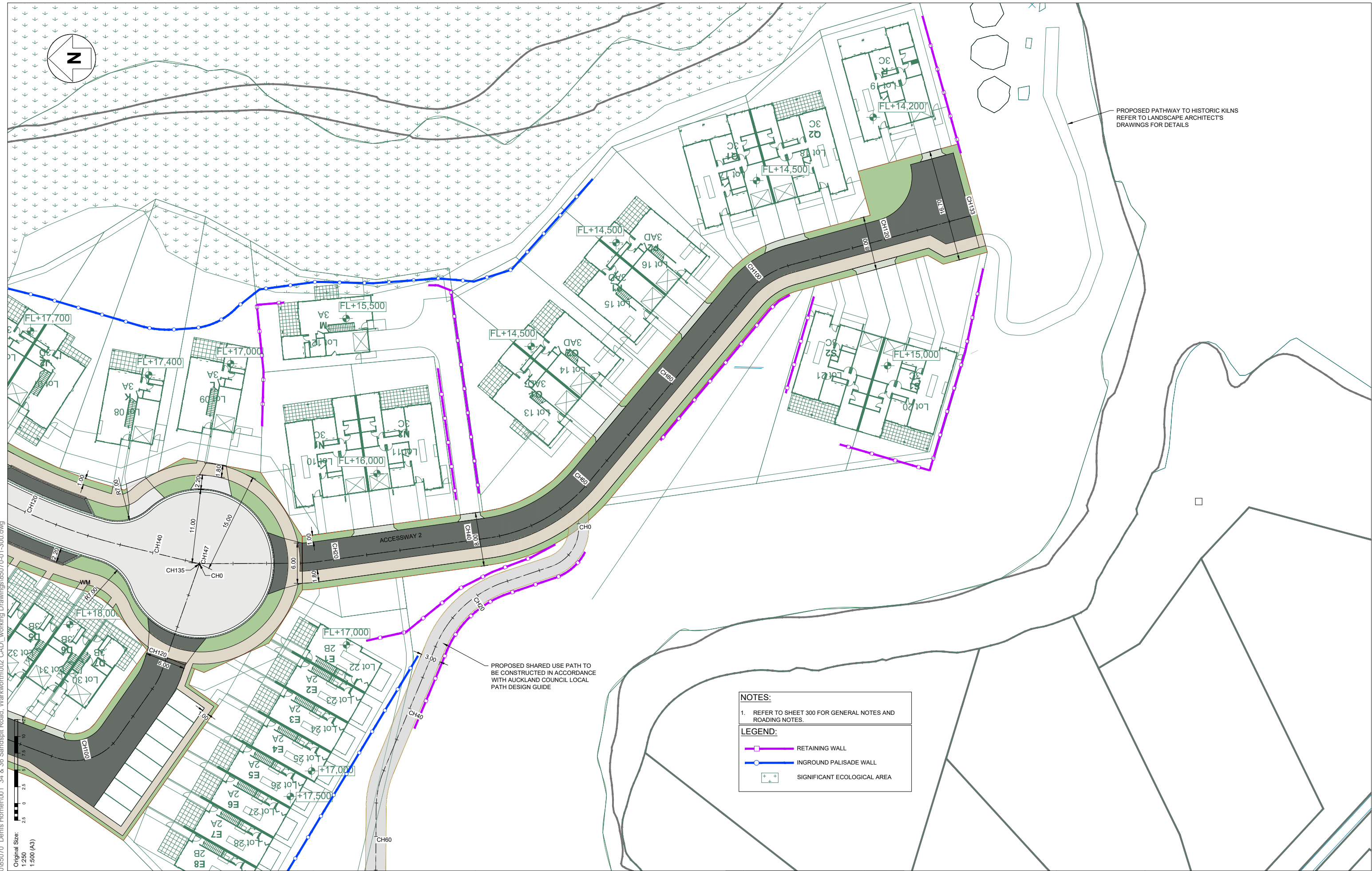
ROADING & PATHWAY LAYOUT
PLAN - SHEET 1 OF 3

JOB No: 85070-01

SHEET No: 301

REV: A

Z:\Jobs 85000-95000\85070_Denis Home\001_34 & 36 Sandspit Road, Warkworth\002_CAD_working Drawings\85070-01-300.dwg



PROPOSED PATHWAY TO HISTORIC KILNS
REFER TO LANDSCAPE ARCHITECT'S
DRAWINGS FOR DETAILS

PROPOSED SHARED USE PATH TO
BE CONSTRUCTED IN ACCORDANCE
WITH AUCKLAND COUNCIL LOCAL
PATH DESIGN GUIDE

NOTES:
1. REFER TO SHEET 300 FOR GENERAL NOTES AND ROADING NOTES.

LEGEND:

- RETAINING WALL
- INGROUND PALISADE WALL
- SIGNIFICANT ECOLOGICAL AREA

Z:\Jobs 85000-95000\85070 - Denis Homer\001_34 & 36 Sandspit Road, Warkworth\002_CAD\working Drawings\85070-01-300.dwg

Original Size:
1:250
1500 (A3)



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PROJECT TITLE:
**PROPOSED DEVELOPMENT AT
34 & 36 SANDSPIT ROAD
WARKWORTH
AUCKLAND**

REV	DESCRIPTION	DATE	BY
A	FOR RESOURCE CONSENT	MAR 2022	
	AMENDMENT		

DRAWING STATUS:
FOR APPROVAL

ISSUE PURPOSE:
**FOR RESOURCE
CONSENT ONLY**

DESIGN: SZ
DRAWN: SZ
CHECKED: AW
DATE: 25/03/2022
SCALE: 1:250 (A1) 1:500 (A3)
DO NOT SCALE FROM DRAWINGS
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DRAWING TITLE:
**ROADING & PATHWAY LAYOUT
PLAN - SHEET 2 OF 3**

JOB No: **85070-01** SHEET No: **302** REV: **A**

Z:\Jobs 85000-95000\85070_Denis Homen\001_34 & 36 Sandspit Road, Warkworth\002_CAD_working Drawings\85070-01-300.dwg



NOTES:
 1. REFER TO SHEET 300 FOR GENERAL NOTES AND ROADING NOTES.

LEGEND:
 RETAINING WALL
 INGROUND PALISADE WALL

Original Size: 1250 x 1500 (A3)
 Scale: 1:500 (A3)



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PROJECT TITLE:
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 34 & 36 SANDSPIT ROAD
 WARKWORTH
 AUCKLAND**

REV	FOR RESOURCE CONSENT	AMENDMENT	DATE	BY
A			MAR 2022	

DRAWING STATUS:
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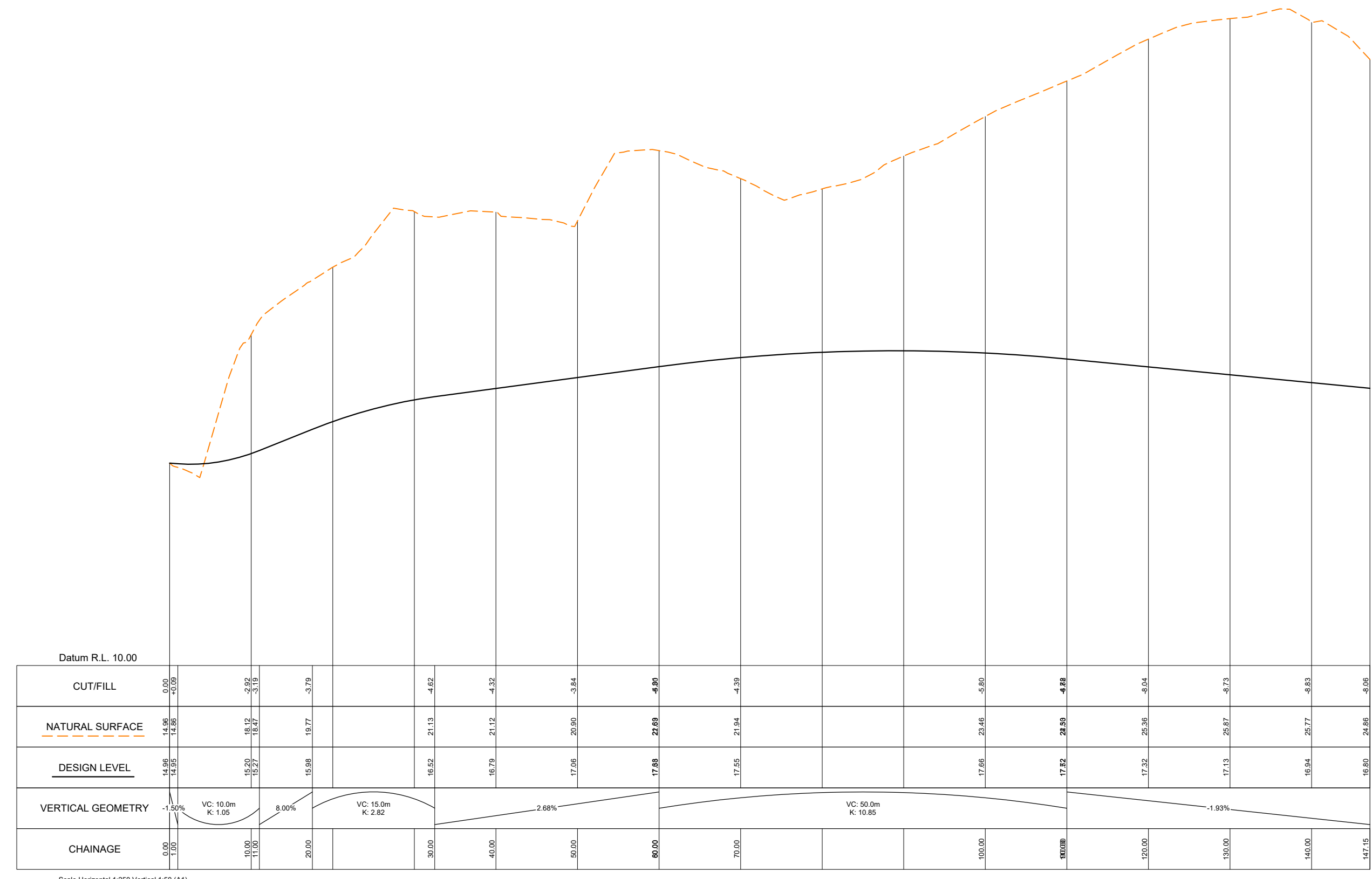
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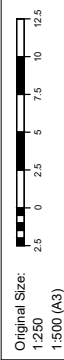
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**ROADING & PATHWAY LAYOUT
 PLAN - SHEET 3 OF 3**

JOB No: 85070-01
 SHEET No: 303
 REV: A

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Scale Horizontal 1:250 Vertical 1:50 (A1)
Horizontal 1:500 Vertical 1:100 (A3)



ROAD 1 LONGITUDINAL SECTION



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A	FOR RESOURCE CONSENT	MAR 2022	---
REV	AMENDMENT	DATE	BY

DRAWING STATUS:
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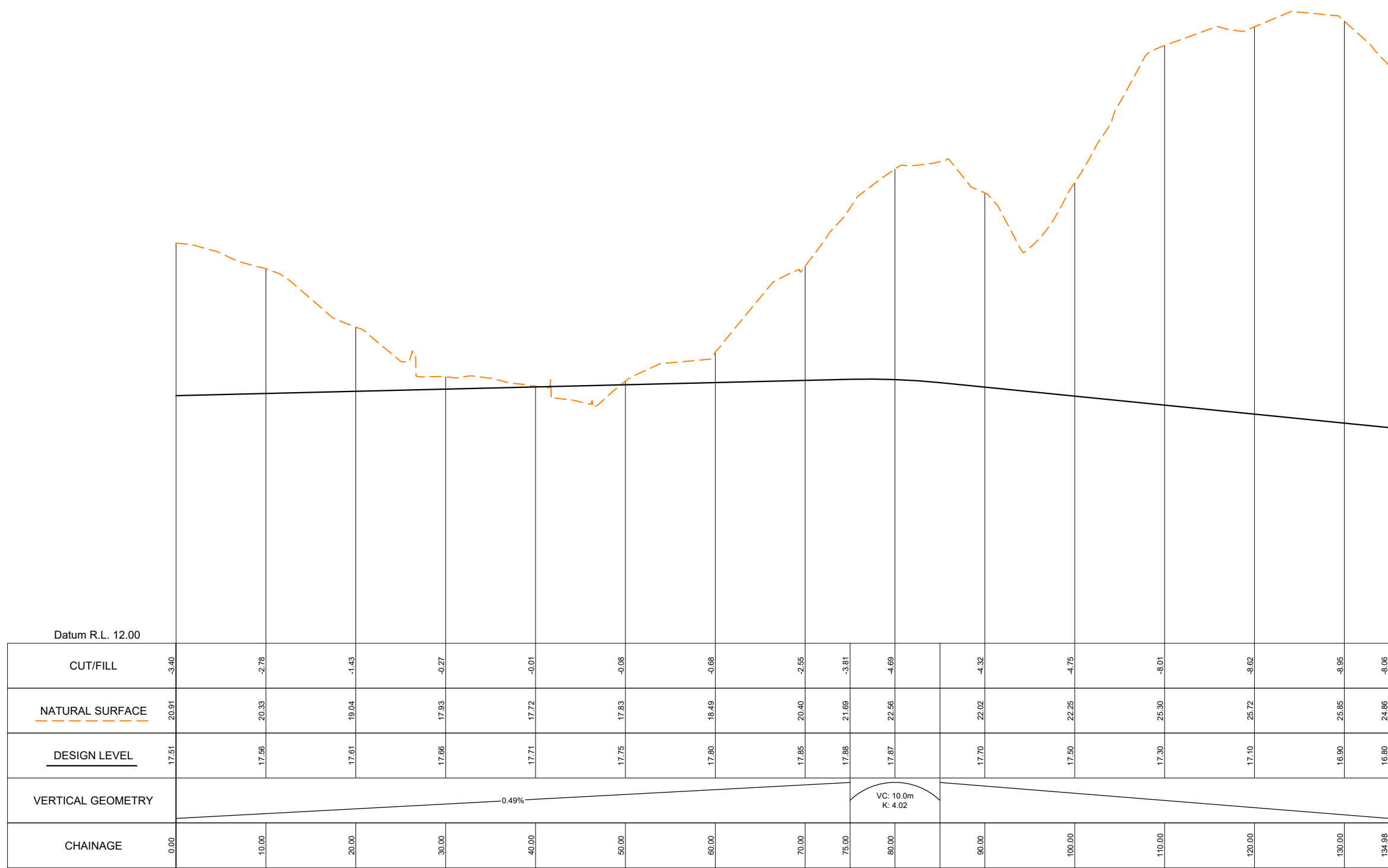
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DRAWING TITLE:
ROAD 1 LONG SECTION

JOB No: **85070-01** SHEET No: **310** REV: **A**

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Original Size:
1:250
1:500 (A3)



Scale Horizontal 1:250 Vertical 1:50 (A1)
Horizontal 1:500 Vertical 1:100 (A3)

ACCESSWAY 1 LONGITUDINAL SECTION



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AUCKLAND**

REV	DESCRIPTION	DATE	BY
A	FOR RESOURCE CONSENT	MAR 2022	---
	AMENDMENT		

DRAWING STATUS:
FOR APPROVAL

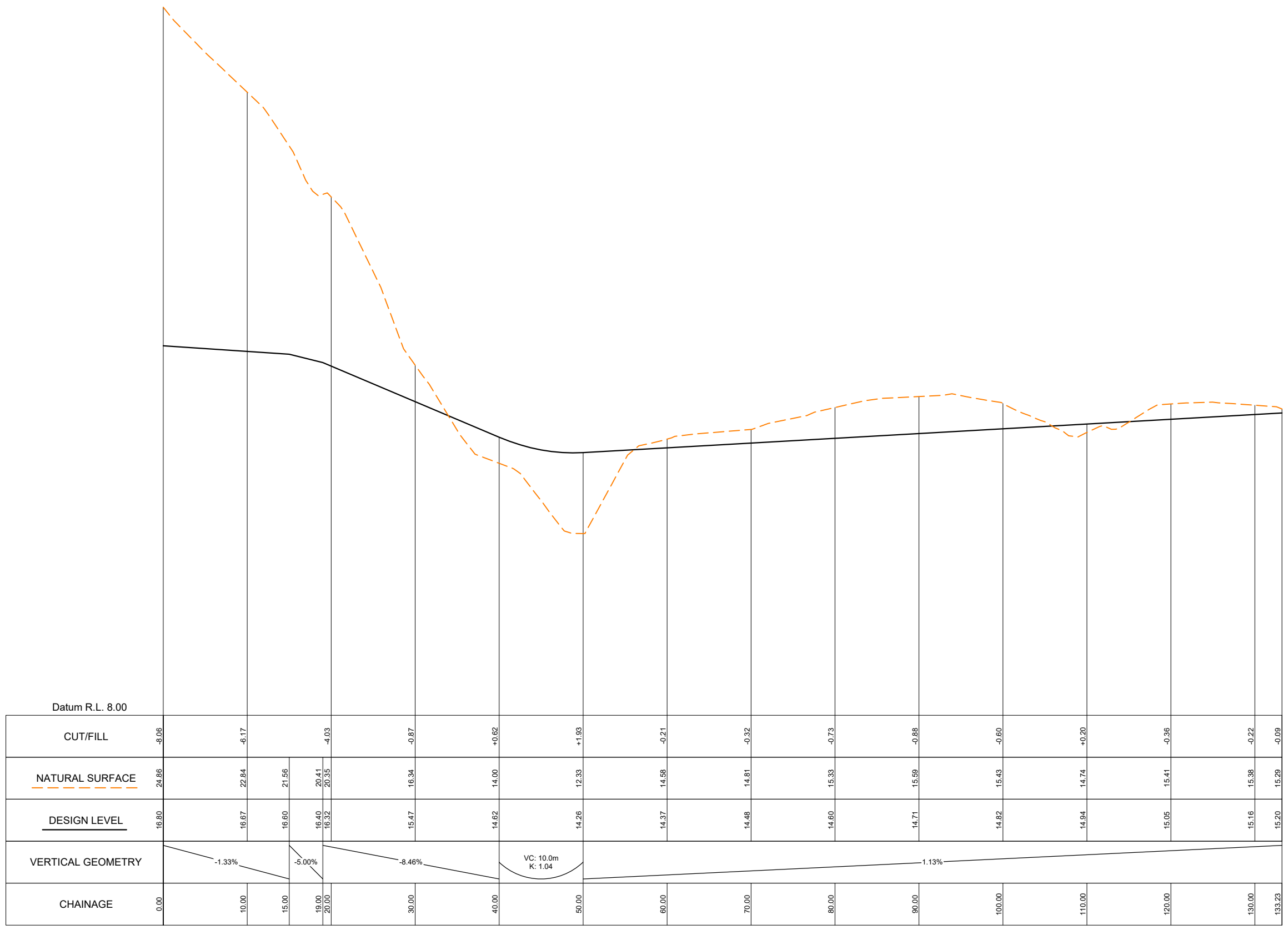
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**FOR RESOURCE
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DRAWING TITLE:
ACCESSWAY 1 LONG SECTION

JOB No: **85070-01** SHEET No: **311** REV: **A**

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Scale Horizontal 1:250 Vertical 1:50 (A1)
Horizontal 1:500 Vertical 1:100 (A3)

ACCESSWAY 2 LONGITUDINAL SECTION



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AUCKLAND**

REV	DESCRIPTION	DATE	BY
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	AMENDMENT		

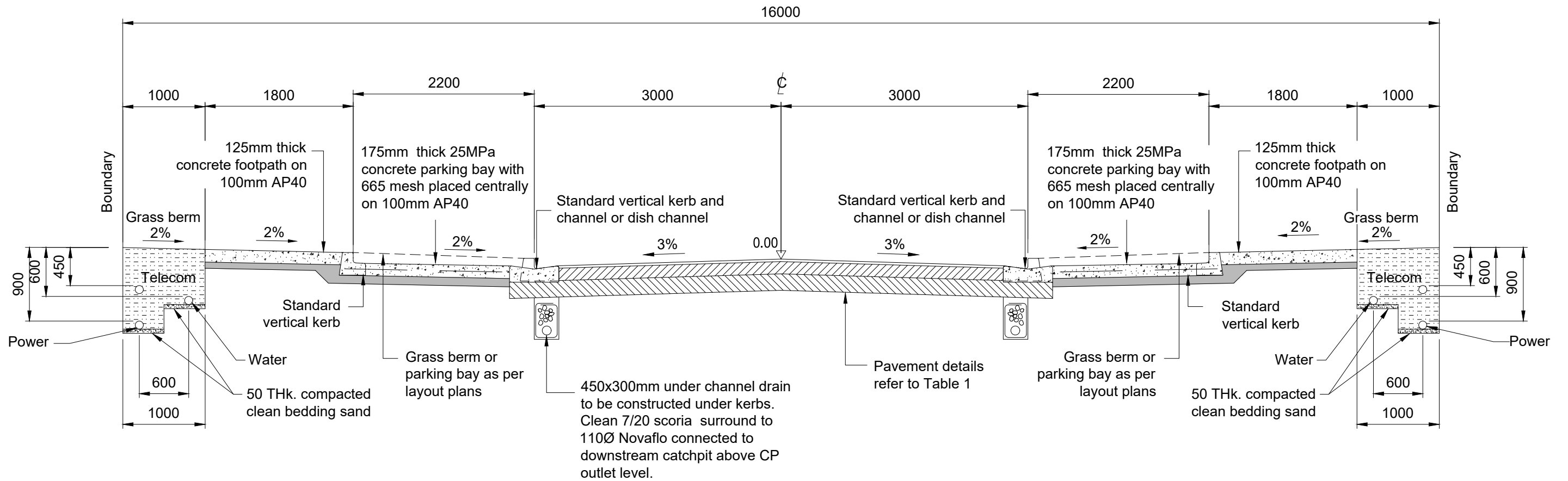
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ISSUE PURPOSE:
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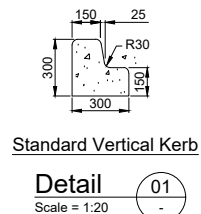
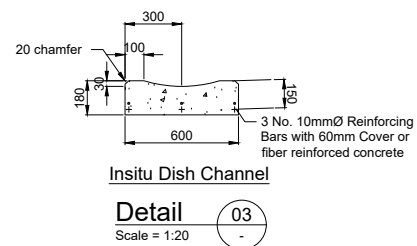
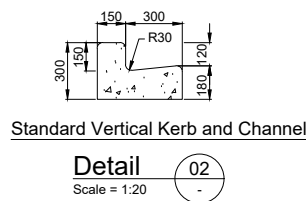
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DRAWING TITLE:
ACCESSWAY 2 LONG SECTION

JOB No: **85070-01** SHEET No: **312** REV: **A**



TYPICAL ROAD CROSS-SECTION
SCALE 1:25 (A1), 1:50 (A3)



Subgrade CBR	7
Asphaltic Concrete AC14	40mm
Tack Coat	Yes
Chip Seal	TWO COAT GRADE 3/5
Basecourse (TNZ M4)	150mm
Subbase (GAP 65)	200mm

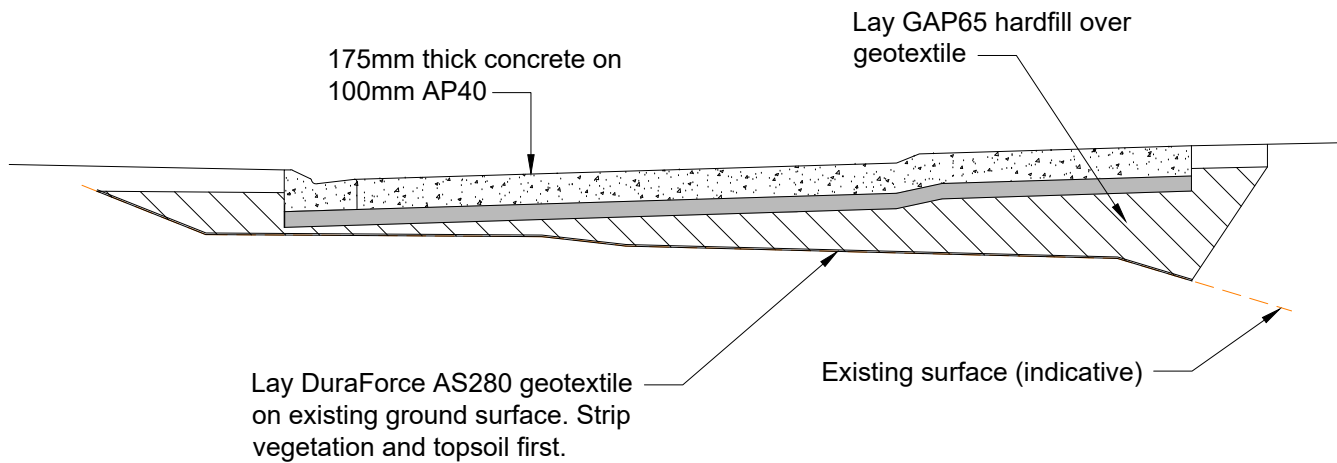
NOTES:

1. SUBGRADE SHALL BE STABILISED TO CBR 7 WITH LIME. LIME APPLICATION RATE TO BE CONFIRMED BY REACTIVITY TESTING OF SUBGRADE PRIOR TO ROAD PAVEMENT CONSTRUCTION.

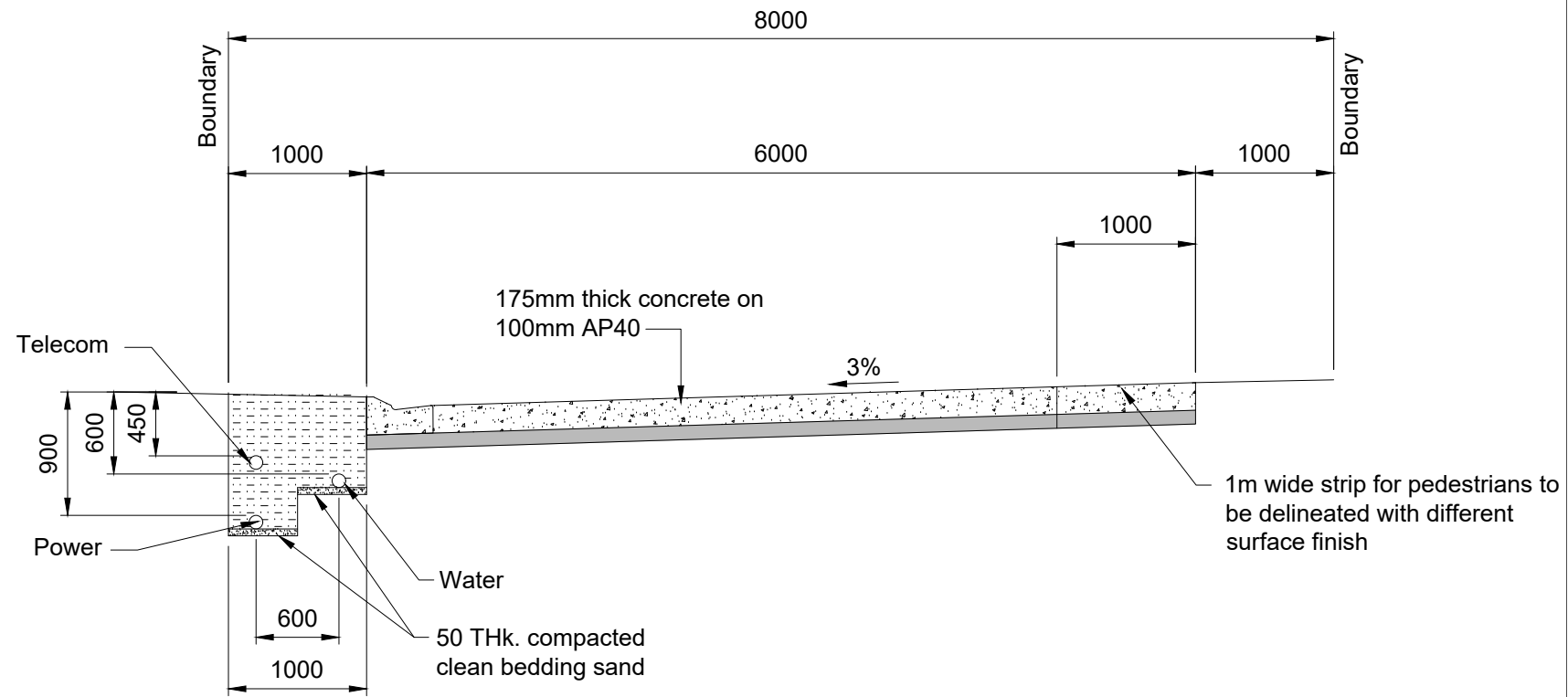
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Original Size: 1:25 (A1), 1:50 (A3)

NOTE:
EXTENT OF TRAMWAY ALIGNMENT TO BE CONFIRMED ON SITE WITH THE PROJECT ARCHAEOLOGIST/HERITAGE CONSULTANT.

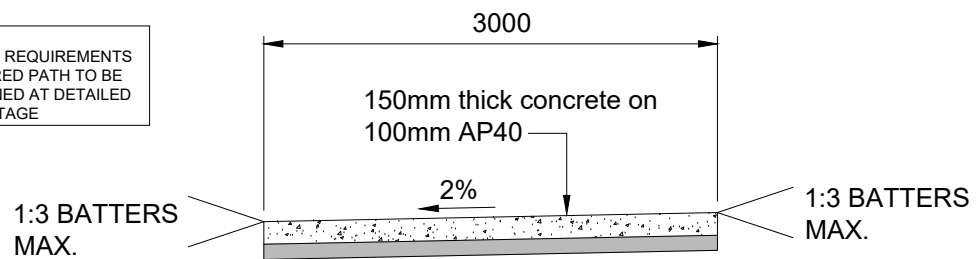


ACCESSWAY PAVEMENT CONSTRUCTED OVER HERITAGE TRAMWAY ALIGNMENT

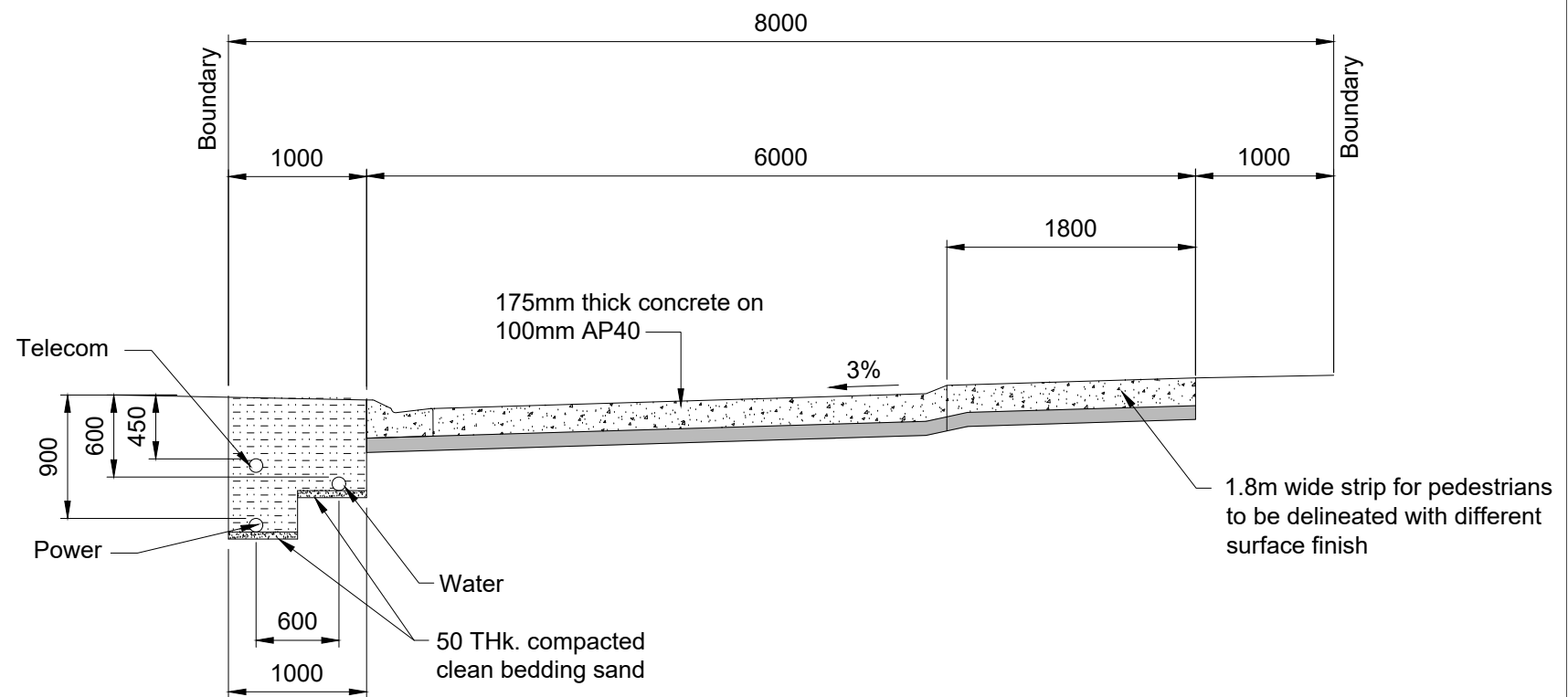


TYPICAL PRIVATE ACCESSWAY1 CROSS-SECTION

NOTE:
HANDRAIL REQUIREMENTS FOR SHARED PATH TO BE DETERMINED AT DETAILED DESIGN STAGE



TYPICAL SHARED PATH CROSS-SECTION



TYPICAL PRIVATE ACCESSWAY2 CROSS-SECTION

Z:\Jobs 85000-95000\85070_Denis Horner\001_34 & 36 Sandspit Road, Warkworth\002_CAD\working Drawings\85070-01-320.dwg

Original Size:
1:25
1:50 (A3)



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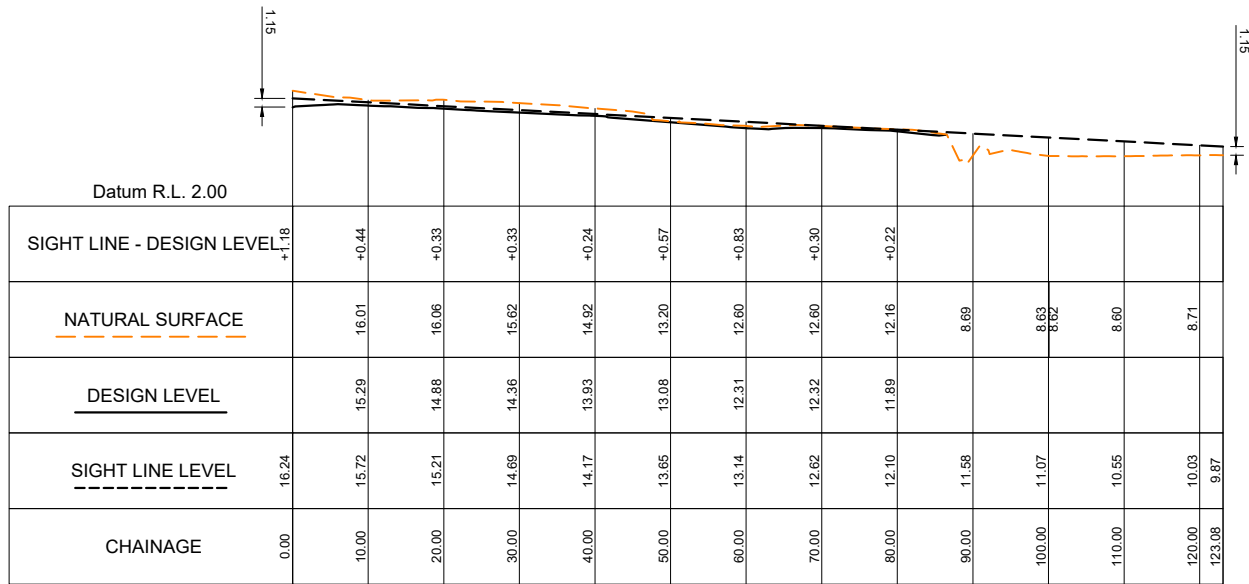
PROJECT TITLE:
**PROPOSED DEVELOPMENT AT
34 & 36 SANDSPIT ROAD
WARKWORTH
AUCKLAND**

REV	DESCRIPTION	DATE	BY
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	AMENDMENT		

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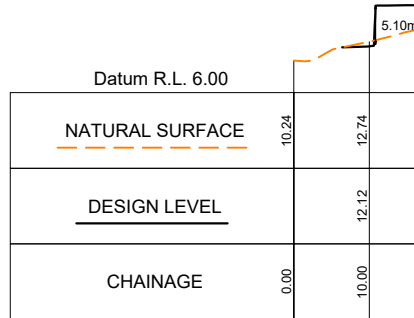
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DATE: 25/03/2022
SCALE: 1:25 (A1) 1:50 (A3)
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DRAWING TITLE:
TYPICAL ACCESSWAY & SHARED PATH CROSS SECTIONS
JOB No: **85070-01** SHEET No: **321** REV: **A**



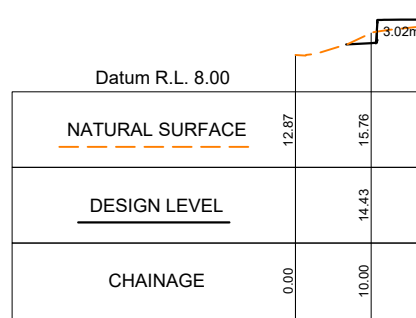
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Horizontal 1:1000 Vertical 1:200 (A3)

SIGHT DISTANCE CHECK L LONGITUDINAL SECTION



Scale Horizontal 1:500 Vertical 1:100 (A1)
Horizontal 1:1000 Vertical 1:200 (A3)

CROSS SECTION L 1 LONGITUDINAL SECTION

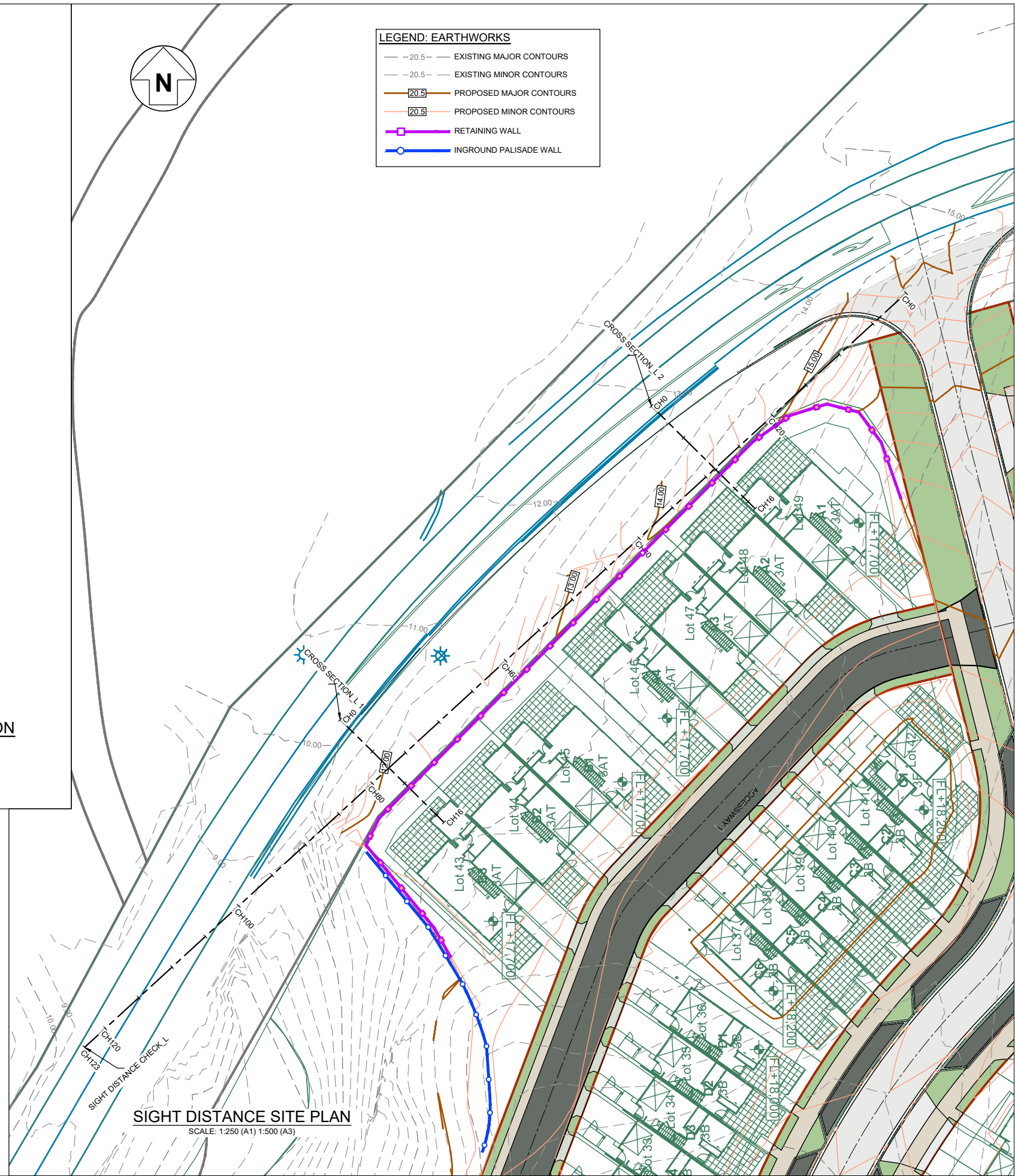


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Horizontal 1:1000 Vertical 1:200 (A3)

CROSS SECTION L 2 LONGITUDINAL SECTION

LEGEND: EARTHWORKS

- 20.5- EXISTING MAJOR CONTOURS
- 20.5- EXISTING MINOR CONTOURS
- 20.5 PROPOSED MAJOR CONTOURS
- 20.5 PROPOSED MINOR CONTOURS
- RETAINING WALL
- INGROUND PALISADE WALL



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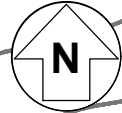
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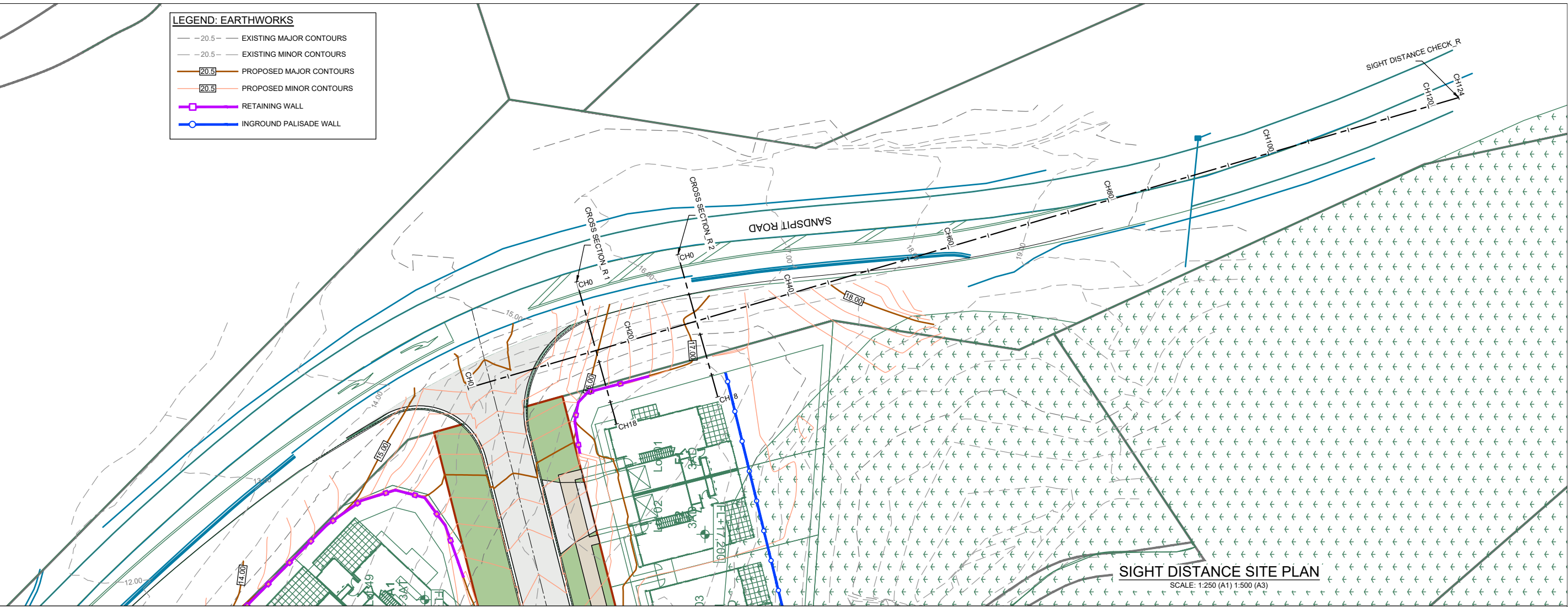
DRAWING TITLE:
**SIGHT DISTANCE CHECK - SHEET 1
OF 2**

JOB No: 85070-01
SHEET No: 330
REV: A

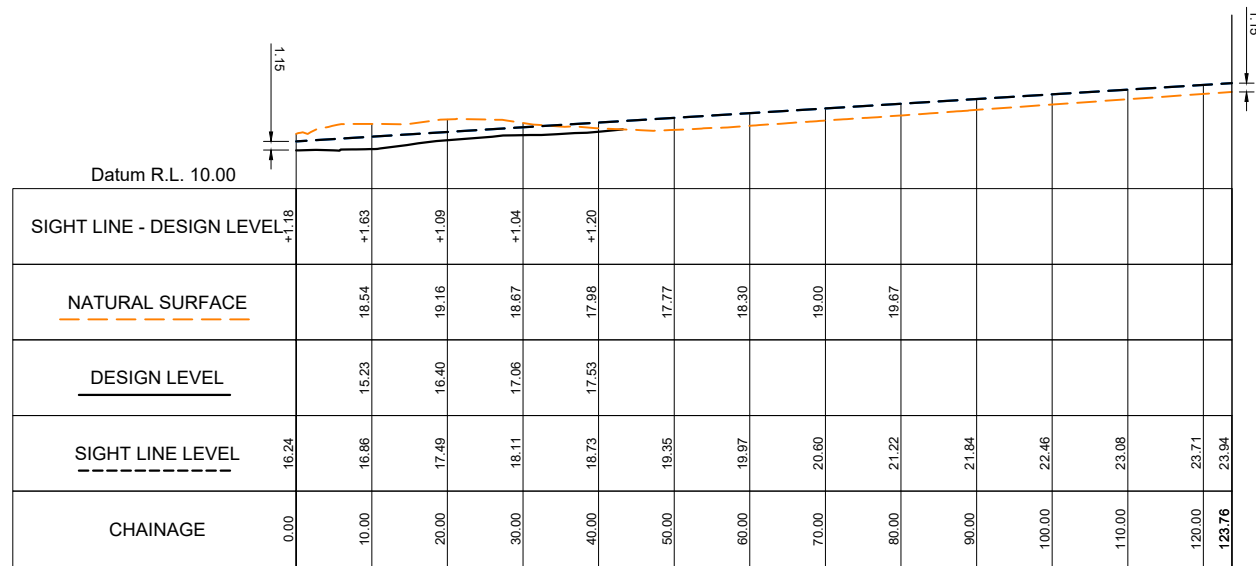


LEGEND: EARTHWORKS

- 20.5 — EXISTING MAJOR CONTOURS
- - - 20.5 - - - EXISTING MINOR CONTOURS
- 20.5 — PROPOSED MAJOR CONTOURS
- - - 20.5 - - - PROPOSED MINOR CONTOURS
- RETAINING WALL
- INGROUND PALISADE WALL

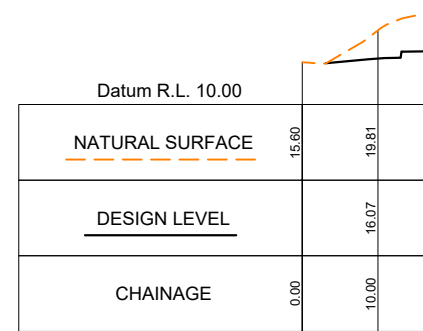


SIGHT DISTANCE SITE PLAN
SCALE: 1:250 (A1) 1:500 (A3)



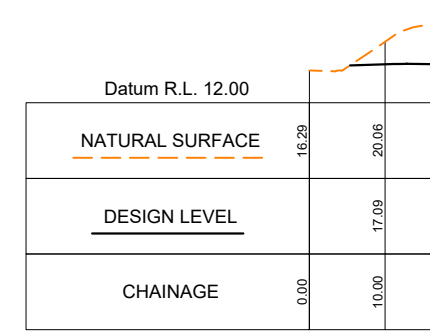
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SIGHT DISTANCE CHECK R LONGITUDINAL SECTION



Scale Horizontal 1:500 Vertical 1:100 (A1)
Horizontal 1:1000 Vertical 1:200 (A3)

CROSS SECTION R 1 LONGITUDINAL SECTION



Scale Horizontal 1:500 Vertical 1:100 (A1)
Horizontal 1:1000 Vertical 1:200 (A3)

CROSS SECTION R 2 LONGITUDINAL SECTION

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PROJECT TITLE:

PROPOSED DEVELOPMENT AT
34 & 36 SANDSPIT ROAD
WARKWORTH
AUCKLAND

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DRAWING TITLE:

SIGHT DISTANCE CHECK - SHEET 2
OF 2

JOB No: 85070-01

SHEET No: 331

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REV	DESCRIPTION	DATE	BY
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	AMENDMENT		



SHEET 402

SHEET 401



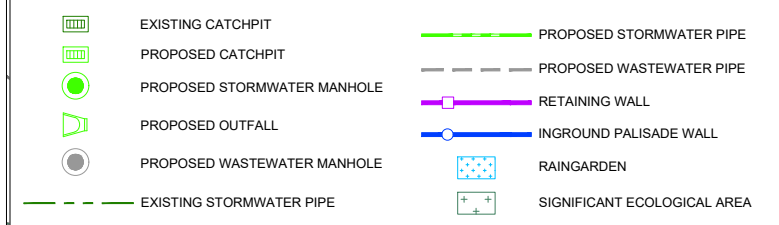
NOTES:

1. ALL PUBLIC STORMWATER WORKS SHALL BE UNDERTAKEN IN ACCORDANCE WITH AUCKLAND COUNCIL'S STORMWATER CODE OF PRACTICE FOR LAND DEVELOPMENT AND SUBDIVISION.
2. ALL PRIVATE STORMWATER WORKS SHALL BE UNDERTAKEN IN ACCORDANCE WITH NZBC CLAUSE E1.
3. ALL PUBLIC STORMWATER PIPES SHALL BE RCRRJ CLASS 2 OR uPVC SN16 U.N.O.
4. HEAVY DUTY MANHOLE LIDS AND FRAMES TO BE USED IN TRAFFICKED AREAS (HN OR AS3996 CLASS D LOADING).
5. ALL CATCHPITS ON PUBLIC ROAD TO BE 675mm x 475mm BACK ENTRY IN ACCORDANCE WITH TRANSPORT DESIGN MANUAL STANDARD DRAWING RD0027 U.N.O. ALL CESSPIT GRATES TO BE BIKE-SAFE TYPE (HYNDS HYDRO DI OR APPROVED SIMILAR). ALL CATCHPITS TO BE PROVIDED WITH ENVIROPOD OR SIMILAR CATCHPITS FILTERS.
6. ALL CATCHPITS ON PRIVATE ACCESS TO BE 675mm x 450mm U.N.O.
7. ALL CATCHPITS LEADS ON PUBLIC ROAD TO BE 225Ø uPVC SN16 U.N.O.
8. ALL CATCHPITS LEADS ON PRIVATE ACCESS TO BE 150Ø uPVC SN16 U.N.O.
9. ALL CATCHPITS LEADS TO HAVE A MINIMUM COVER OF 1.2m TO ALLOW CLEARANCE FOR SERVICES INSTALLATION.
10. FINAL MANHOLE/CATCHPIT LID LEVELS MAY VARY AFTER COMPLETION OF EARTHWORKS
11. ALL PRIVATE CONNECTIONS TO BE 100Ø uPVC SN16 LOCATED MINIMUM 900mm DEPTH AND TO BE LOCATED BY BLUE 25mm DIAMETER uPVC TUBES. CONNECTIONS TO BE INSTALLED MINIMUM 1m WITHIN PROPERTY BOUNDARY.
12. HARDFILL MAY BE SANDS AND/OR GRAVELS FROM TRENCH EXCAVATION APPROVED BY THE ENGINEER AND COMPACTED IN LAYERS NO GREATER THAN 200mm DEPTH.
13. HARDFILL TO BE PLACED IN TRENCH BETWEEN PIPES WHERE DRAINAGE LINES CROSS. EXTEND 0.5M EACH SIDE OF PIPE.
14. APPROVED HARDFILL IS TO BE USED IN BACKFILLING OF ALL ROAD CROSSINGS AND VEHICLE CROSSINGS TO COUNCIL STANDARDS.
15. ALL RAINGARDENS SHALL BE CONSTRUCTED USING HYNDS RAINGARDEN SURROUNDS OR APPROVED SIMILAR.
16. ALL STORMWATER OUTLETS SHALL BE PRE-CAST CONCRETE WINGWALLS OR STILLING WELLS AND SHALL BE PROVIDED WITH SCOUR PROTECTION IN ACCORDANCE WITH AC TR2013-018. OUTLET DETAILS SHALL BE CONFIRMED AT ENGINEERING APPROVAL STAGE.
17. DUAL-USE TANK WITH MIN. 2.3m³ DETENTION VOLUME AND 0.9m³ RETENTION VOLUME TO BE INSTALLED FOR ALL RESIDENTIAL LOTS. TANK LOCATION INDICATIVE ONLY. TANK DETAILS ARE TO BE CONFIRMED AT BUILDING CONSENT STAGE.

GENERAL NOTES:

1. LEVELS IN TERMS OF MEAN SEA LEVEL (AUCKLAND VERTICAL DATUM 1946)
2. COORDINATES IN TERMS OF NZGD 2000 (MT EDEN CIRCUIT).
3. THE CONTRACTOR IS TO BE AWARE OF AND COMPLY WITH ALL REQUIREMENTS OF THE APPROVED RESOURCE CONSENT, ENGINEERING APPROVAL, BUILDING CONSENT AND ANY OTHER RELEVANT APPROVALS GRANTED. COPIES AVAILABLE AT THE ENGINEER'S OFFICE.
4. ALL LEVELS SHALL BE CONFIRMED ON SITE.
5. ALL WORKS SHALL BE UNDERTAKEN IN ACCORDANCE WITH THE HEALTH & SAFETY PLAN SUBMITTED TO THE ENGINEER BY THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR HEALTH AND SAFETY ON SITE. THE CONTRACTOR SHALL BE AWARE OF AND COMPLY WITH ALL THEIR OBLIGATIONS UNDER THE HEALTH & SAFETY AT WORK ACT 2015.
6. ALL EXCAVATION SHALL BE UNDERTAKEN IN ACCORDANCE WITH WORKSAFE NZ EXCAVATION SAFETY GUIDELINES.

LEGEND:



ABBREVIATIONS

WW	WASTEWATER
SW	STORMWATER
MH	MANHOLE
CP	CATCHPIT
LL	LID LEVEL
IL	INVERT LEVEL
EX	EXISTING
PR	PROPOSED

Original Size: 1:500
1:1000 (A3)



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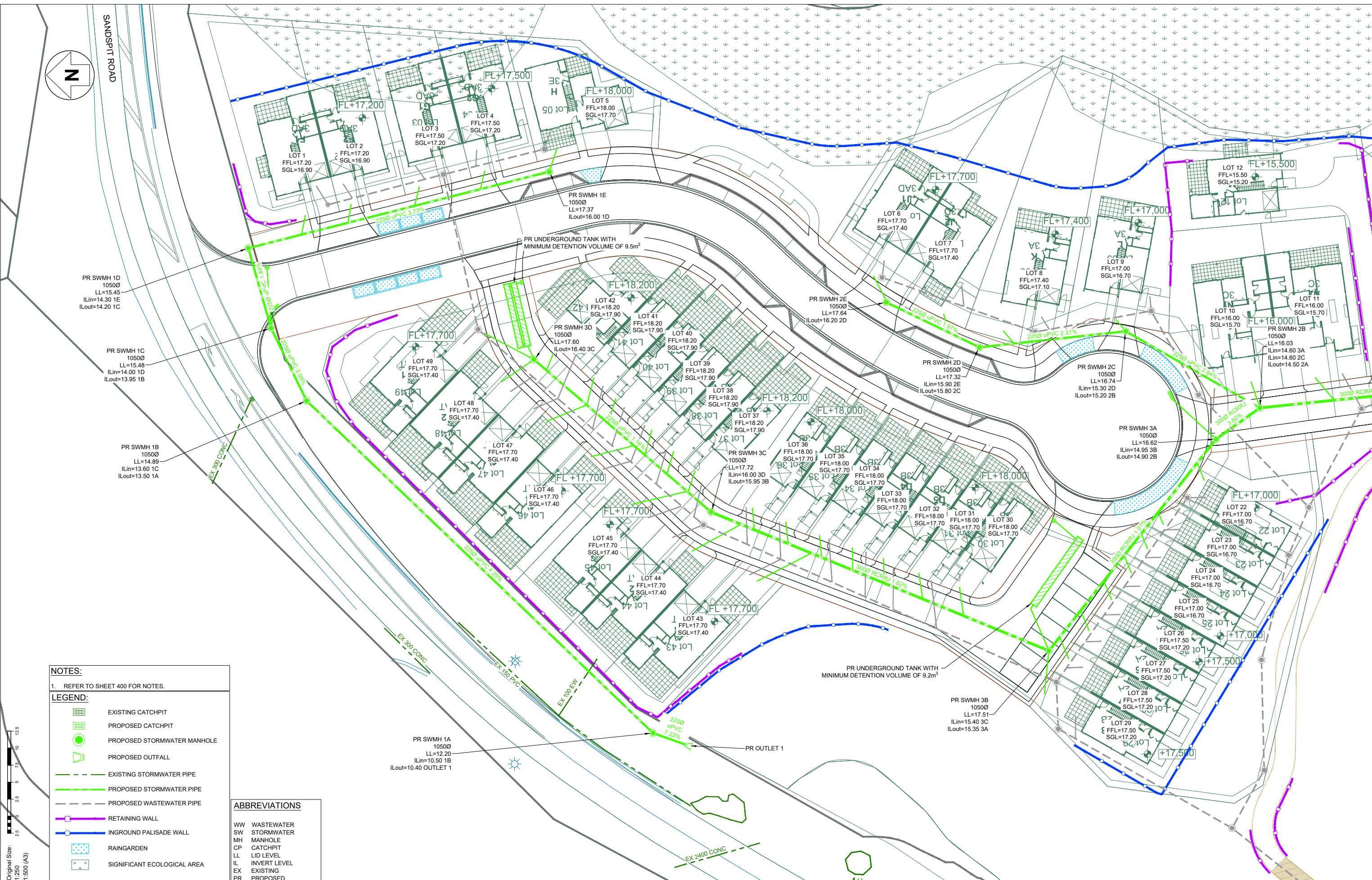
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DO NOT SCALE FROM DRAWINGS

DRAWING TITLE:
**STORMWATER LAYOUT OVERALL
PLAN**

JOB No: **85070-01** SHEET No: **400** REV: **A**

Z:\Jobs 85000-95000\85070 Denis Homen\001_34 & 36 Sandspit Road, Warkworth\002_CAD\working Drawings\85070-01-400.dwg

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NOTES:
1. REFER TO SHEET 400 FOR NOTES.

LEGEND:

- EXISTING CATCHPIT
- PROPOSED CATCHPIT
- PROPOSED STORMWATER MANHOLE
- PROPOSED OUTFALL
- EXISTING STORMWATER PIPE
- PROPOSED STORMWATER PIPE
- PROPOSED WASTEWATER PIPE
- RETAINING WALL
- INGROUND PALISADE WALL
- RAINGARDEN
- SIGNIFICANT ECOLOGICAL AREA

ABBREVIATIONS

- WW WASTEWATER
- SW STORMWATER
- MH MANHOLE
- CP CATCHPIT
- LL LID LEVEL
- IL INVERT LEVEL
- EX EXISTING
- PR PROPOSED

Original Size: 1:250
1:500 (A3)



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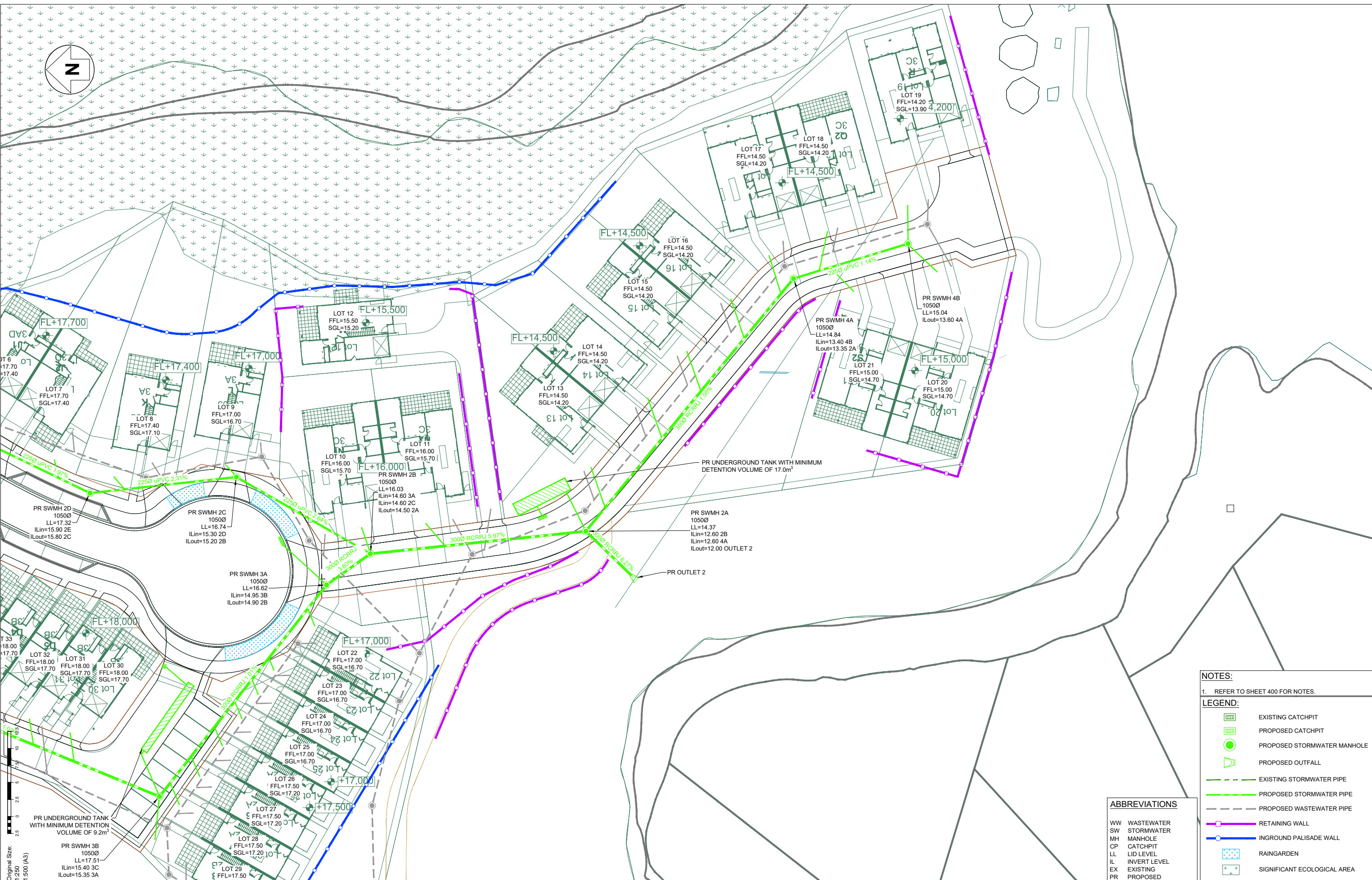
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SCALE: 1:500 (A1) 1:1000 (A3)
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DRAWING TITLE:
**STORMWATER LAYOUT PLAN -
SHEET 1 OF 2**
JOB No: 85070-01
SHEET No: 401
REV: A

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NOTES:
1. REFER TO SHEET 400 FOR NOTES.

LEGEND:

	EXISTING CATCHPIT
	PROPOSED CATCHPIT
	PROPOSED STORMWATER MANHOLE
	PROPOSED OUTFALL
	EXISTING STORMWATER PIPE
	PROPOSED STORMWATER PIPE
	PROPOSED WASTEWATER PIPE
	RETAINING WALL
	INGROUND PALISADE WALL
	RAINGARDEN
	SIGNIFICANT ECOLOGICAL AREA

ABBREVIATIONS

WW	WASTEWATER
SW	STORMWATER
MH	MANHOLE
CP	CATCHPIT
LL	LID LEVEL
IL	INVERT LEVEL
EX	EXISTING
PR	PROPOSED



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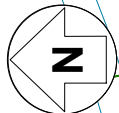
PROJECT TITLE:
**PROPOSED DEVELOPMENT AT
34 & 36 SANDSPIT ROAD
WARKWORTH
AUCKLAND**

DESIGN:	SZ
DRAWN:	SZ
CHECKED:	AW
DATE:	23/03/2022
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DRAWING TITLE:
**STORMWATER LAYOUT PLAN -
SHEET 2 OF 2**
JOB No: 85070-01
SHEET No: 402
REV: A



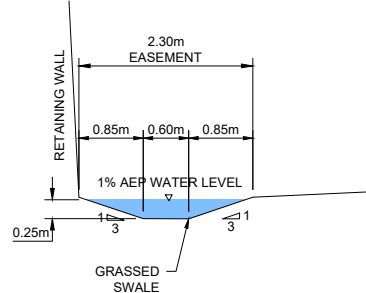
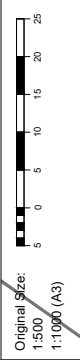
SANDSPIT ROAD

OVERLAND FLOW PATH C
AREA: 1,700m²
1% AEP FLOW: 105L/s
ALONG ROAD CHANNEL

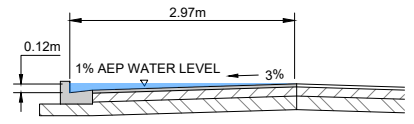
OVERLAND FLOW PATH B
AREA: 3,300m²
1% AEP FLOW: 193L/s
ALONG ACCESSWAY & ROAD CHANNEL

OVERLAND FLOW PATH A
AREA: 5,500m²
1% AEP FLOW: 322L/s
FLOW PATH TO RUN THROUGH LOT 13 IN
FRONT OF RETAINING WALL

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OVERLAND FLOW PATH A
1:50 A1, 1:100 A3



OVERLAND FLOW PATH B
1:50 A1, 1:100 A3



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PROJECT TITLE:
**PROPOSED DEVELOPMENT AT
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WARKWORTH
AUCKLAND**

REV	DESCRIPTION	DATE	BY
A	FOR RESOURCE CONSENT	MAR 2022	---
	AMENDMENT		

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DRAWING TITLE:
OVERLAND FLOW PLAN

JOB No: **85070-01** SHEET No: **430** REV: **A**



SANDSPIT ROAD

SHEET 501

SANDSPIT ROAD

MATAKANA ROAD

MILLSTREAM PLACE

SHEET 503

GENERAL NOTES:

- LEVELS IN TERMS OF MEAN SEA LEVEL (AUCKLAND VERTICAL DATUM 1946)
- COORDINATES IN TERMS OF NZGD 2000 (MT EDEN CIRCUIT).
- THE CONTRACTOR IS TO BE AWARE OF AND COMPLY WITH ALL REQUIREMENTS OF THE APPROVED RESOURCE CONSENT, ENGINEERING APPROVAL, BUILDING CONSENT AND ANY OTHER RELEVANT APPROVALS GRANTED. COPIES AVAILABLE AT THE ENGINEER'S OFFICE.
- ALL LEVELS SHALL BE CONFIRMED ON SITE.
- ALL WORKS SHALL BE UNDERTAKEN IN ACCORDANCE WITH THE HEALTH & SAFETY PLAN SUBMITTED TO THE ENGINEER BY THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR HEALTH AND SAFETY ON SITE. THE CONTRACTOR SHALL BE AWARE OF AND COMPLY WITH ALL THEIR OBLIGATIONS UNDER THE HEALTH & SAFETY AT WORK ACT 2015.
- ALL EXCAVATION SHALL BE UNDERTAKEN IN ACCORDANCE WITH WORKSAFE NZ EXCAVATION SAFETY GUIDELINES.

ABBREVIATIONS

- WW WASTEWATER
- SW STORMWATER
- MH MANHOLE
- CP CATCHPIT
- LL LID LEVEL
- IL INVERT LEVEL
- EX EXISTING
- PR PROPOSED

WASTEWATER NOTES:

- ALL PUBLIC WASTEWATER WORKS SHALL BE UNDERTAKEN IN ACCORDANCE WITH WATERCARE'S CODE OF PRACTICE FOR LAND DEVELOPMENT AND SUBDIVISION.
- ALL PRIVATE WASTEWATER WORKS SHALL BE UNDERTAKEN IN ACCORDANCE WITH NZBC CLAUSE G13.
- ALL PUBLIC WASTEWATER PIPES SHALL BE uPVC SN16 U.N.O.
- ALL PRIVATE WASTEWATER CONNECTIONS SHALL BE 100Ø uPVC SN16 AND TO BE LOCATED BY RED 25mm DIAMETER uPVC TUBES. CONNECTIONS TO BE INSTALLED MINIMUM 1m WITHIN PROPERTY BOUNDARY.
- ALL PUBLIC MANHOLE LIDS TO BE HN-HO-72 LOADING WITH SAFETY GRILLES IN ACCORDANCE WITH WATERCARE STANDARD DRAWINGS.

LEGEND:

- PROPOSED STORMWATER MANHOLE
- PROPOSED CATCHPIT
- PROPOSED WASTEWATER MANHOLE
- PROPOSED STORMWATER PIPE
- EXISTING WASTEWATER PIPE
- PROPOSED WASTEWATER PIPE
- RETAINING WALL
- INGROUND PALISADE WALL
- SIGNIFICANT ECOLOGICAL AREA

Original Size: 1:500
1:500
1:1000 (A3)



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PROPOSED DEVELOPMENT AT
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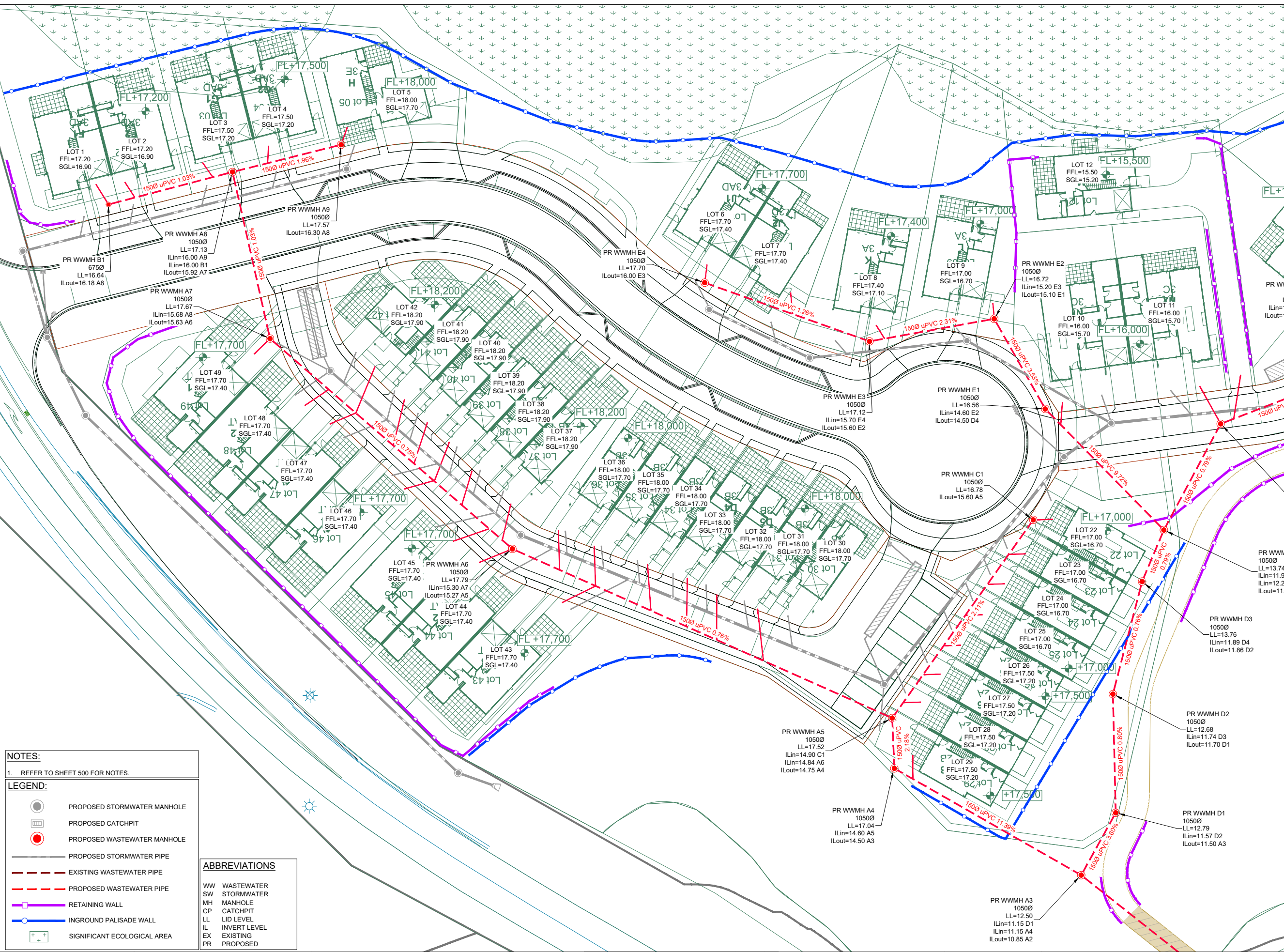
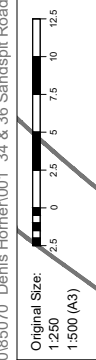
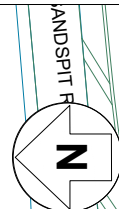
WASTEWATER LAYOUT OVERALL
PLAN

JOB No: 85070-01

SHEET No: 500

REV: A

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NOTES:
1. REFER TO SHEET 500 FOR NOTES.

LEGEND:

- PROPOSED STORMWATER MANHOLE
- PROPOSED CATCHPIT
- PROPOSED WASTEWATER MANHOLE
- PROPOSED STORMWATER PIPE
- EXISTING WASTEWATER PIPE
- PROPOSED WASTEWATER PIPE
- RETAINING WALL
- INGROUND PALISADE WALL
- SIGNIFICANT ECOLOGICAL AREA

ABBREVIATIONS

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**PROPOSED DEVELOPMENT AT
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	AMENDMENT		

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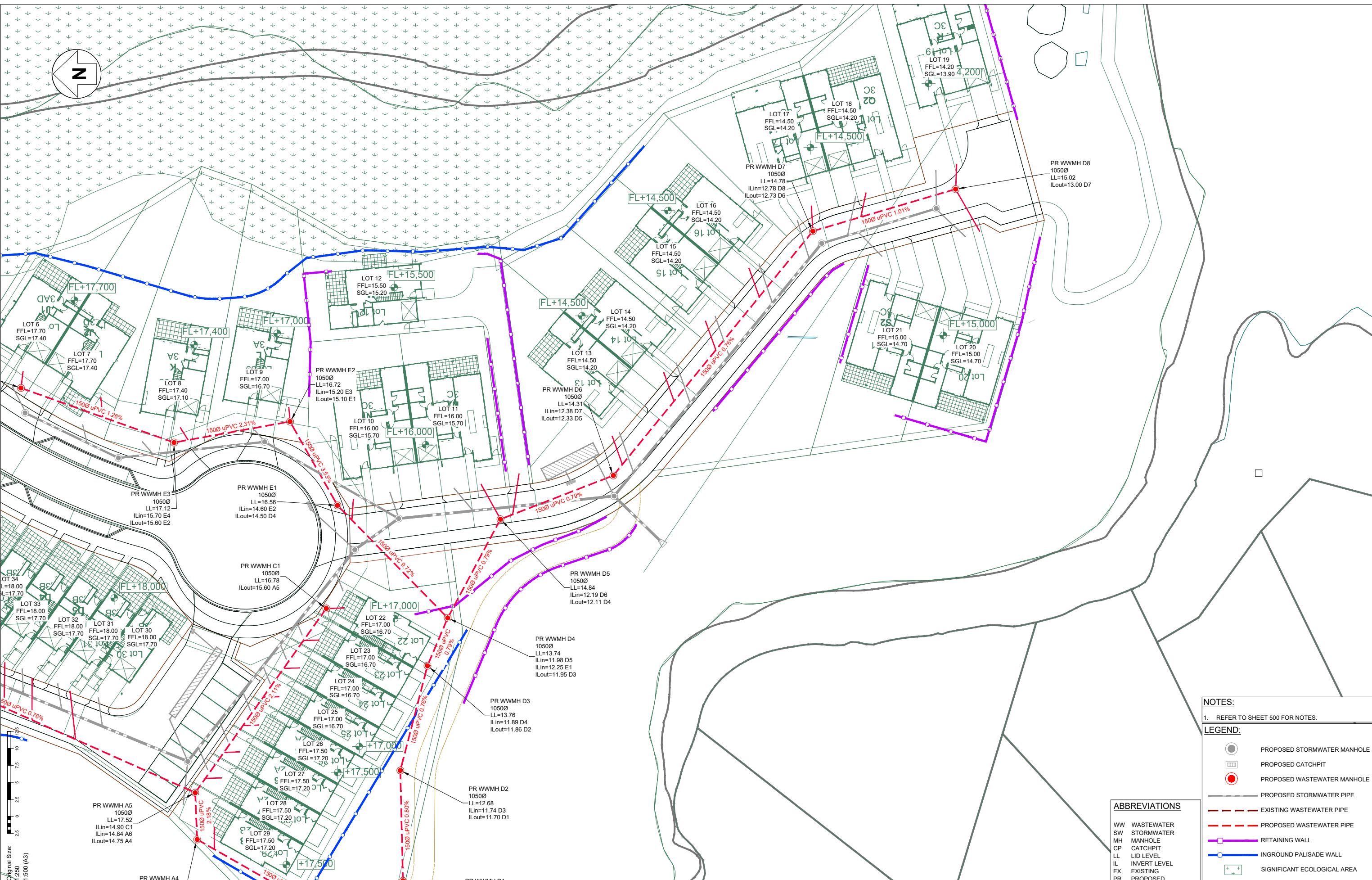
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DATE: 23/03/2022
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DRAWING TITLE:
**WASTEWATER LAYOUT PLAN -
SHEET 1 OF 3**

JOB No: **85070-01** SHEET No: **501** REV: **A**

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NOTES:
1. REFER TO SHEET 500 FOR NOTES.

LEGEND:

	PROPOSED STORMWATER MANHOLE
	PROPOSED CATCHPIT
	PROPOSED WASTEWATER MANHOLE
	PROPOSED STORMWATER PIPE
	EXISTING WASTEWATER PIPE
	PROPOSED WASTEWATER PIPE
	RETAINING WALL
	INGROUND PALISADE WALL
	SIGNIFICANT ECOLOGICAL AREA

ABBREVIATIONS

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SW	STORMWATER
MH	MANHOLE
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LL	LID LEVEL
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PR	PROPOSED

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REV	AMENDMENT	DATE	BY

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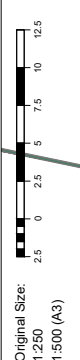
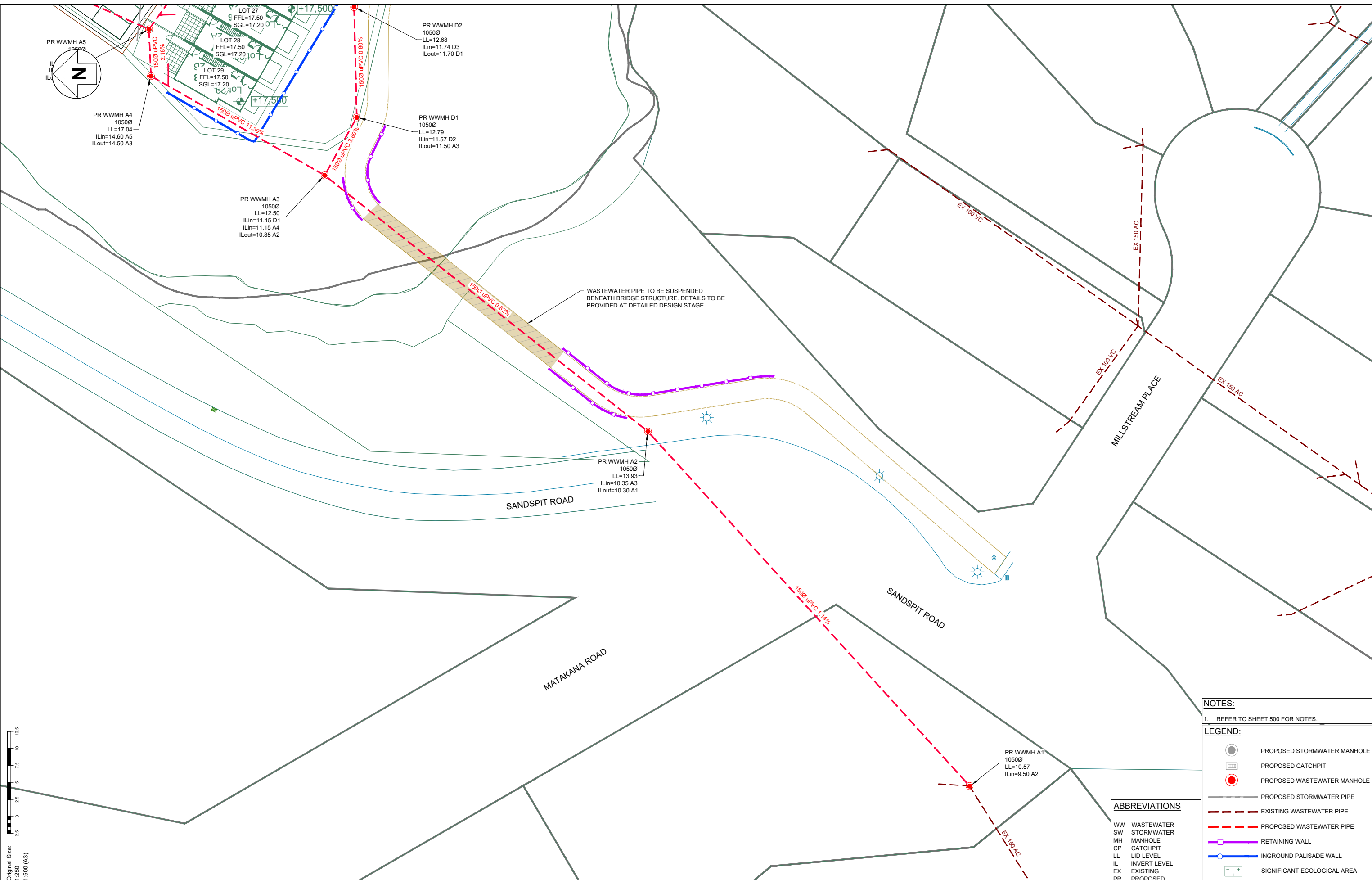
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DRAWING TITLE:
**WASTEWATER LAYOUT PLAN -
SHEET 2 OF 3**

JOB No: 85070-01
SHEET No: 502
REV: A

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NOTES:
1. REFER TO SHEET 500 FOR NOTES.

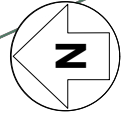
LEGEND:

- PROPOSED STORMWATER MANHOLE
- PROPOSED CATCHPIT
- PROPOSED WASTEWATER MANHOLE
- PROPOSED STORMWATER PIPE
- EXISTING WASTEWATER PIPE
- PROPOSED WASTEWATER PIPE
- RETAINING WALL
- INGROUND PALISADE WALL
- SIGNIFICANT ECOLOGICAL AREA

ABBREVIATIONS

- WW WASTEWATER
- SW STORMWATER
- MH MANHOLE
- CP CATCHPIT
- LL LID LEVEL
- IL INVERT LEVEL
- EX EXISTING
- PR PROPOSED

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SHEET 602

SHEET 601

SHEET 603

- GENERAL NOTES:**
- LEVELS IN TERMS OF MEAN SEA LEVEL (AUCKLAND VERTICAL DATUM 1946)
 - COORDINATES IN TERMS OF NZGD 2000 (MT EDEN CIRCUIT).
 - THE CONTRACTOR IS TO BE AWARE OF AND COMPLY WITH ALL REQUIREMENTS OF THE APPROVED RESOURCE CONSENT, ENGINEERING APPROVAL, BUILDING CONSENT AND ANY OTHER RELEVANT APPROVALS GRANTED. COPIES AVAILABLE AT THE ENGINEER'S OFFICE.
 - ALL WORKS SHALL BE UNDERTAKEN IN ACCORDANCE WITH THE HEALTH & SAFETY PLAN SUBMITTED TO THE ENGINEER BY THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR HEALTH AND SAFETY ON SITE. THE CONTRACTOR SHALL BE AWARE OF AND COMPLY WITH ALL THEIR OBLIGATIONS UNDER THE HEALTH & SAFETY AT WORK ACT 2015.
 - ALL EXCAVATION SHALL BE UNDERTAKEN IN ACCORDANCE WITH WORKSAFE NZ EXCAVATION SAFETY GUIDELINES.

- WATER NOTES:**
- ALL PUBLIC WATER SUPPLY WORKS TO BE COMPLETED IN ACCORDANCE WITH WATERCARE'S CODE OF PRACTICE FOR LAND DEVELOPMENT AND SUBDIVISION. ALL PRIVATE WATER SUPPLY WORKS SHALL BE UNDERTAKEN IN ACCORDANCE WITH NZ BUILDING CODE CLAUSE G12.
 - PIPES TO BE COMPLIANT WITH AS/NZS 4130.
 - COVER TO WATER MAINS TO BE 600-1000mm (TYPICAL) WITH MINIMUM 900mm COVER BELOW ROADS.
 - PROVIDE FLANGED BENDS WHERE NECESSARY TO MEET ROAD CROSSING DEPTH (IF REQUIRED). SEE WATERCARE STANDARDS DRAWING SHEET WS4 FOR DETAILS.
 - PIPE MAIN BENDS SHALL BE LONG RADIUS BENDS OR FABRICATED BENDS TO BE SUPPLIED.
 - ALL ROAD CROSSINGS TO BE MINIMUM 100mm (NOMINAL) OR LARGER DI, STEEL OR PE.
 - ALL JOINTS UNDER ROADS SHALL BE FIELD WIELDED OR FLANGED JOINTS (WRAPPED IN APPROVED WRAPPING SYSTEM)
 - PROVIDE PAINTED TRIANGLE MARKINGS IN ROAD CARRIAGEWAYS INDICATING THE LOCATION OF FIRE HYDRANTS AND VALVES. SEE WATERCARE STANDARDS DRAWING SHEET WS7 FOR DETAILS.
 - CONSTRUCT ANCHOR BLOCKS AT ALL TEES, BENDS AND REDUCERS AS PER WATERCARE STANDARDS DRAWING SHEET WS10.
 - ALL PIPES, VALVES, FITTINGS AND OTHER MATERIALS TO BE WATERCARE APPROVED PRODUCTS.

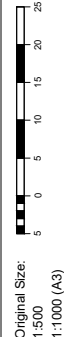
LEGEND:

- RETAINING WALL
- INGROUND PALISADE WALL
- EX WATER MAIN
- PR WATER MAIN
- PR WATER RIDER
- PR SLUICE VALVE
- PR PEET VALVE
- PR REDUCER
- PR END CAP
- PR FIRE HYDRANT
- PR WATER METER BANK
- PR ANCHOR BLOCK
- SIGNIFICANT ECOLOGICAL AREA

ABBREVIATIONS

EX	EXISTING
PR	PROPOSED
SV	SLUICE VALVE
PV	PEET VALVE
EC	END CAP
FH	FIRE HYDRANT
R	REDUCER

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PROJECT TITLE:
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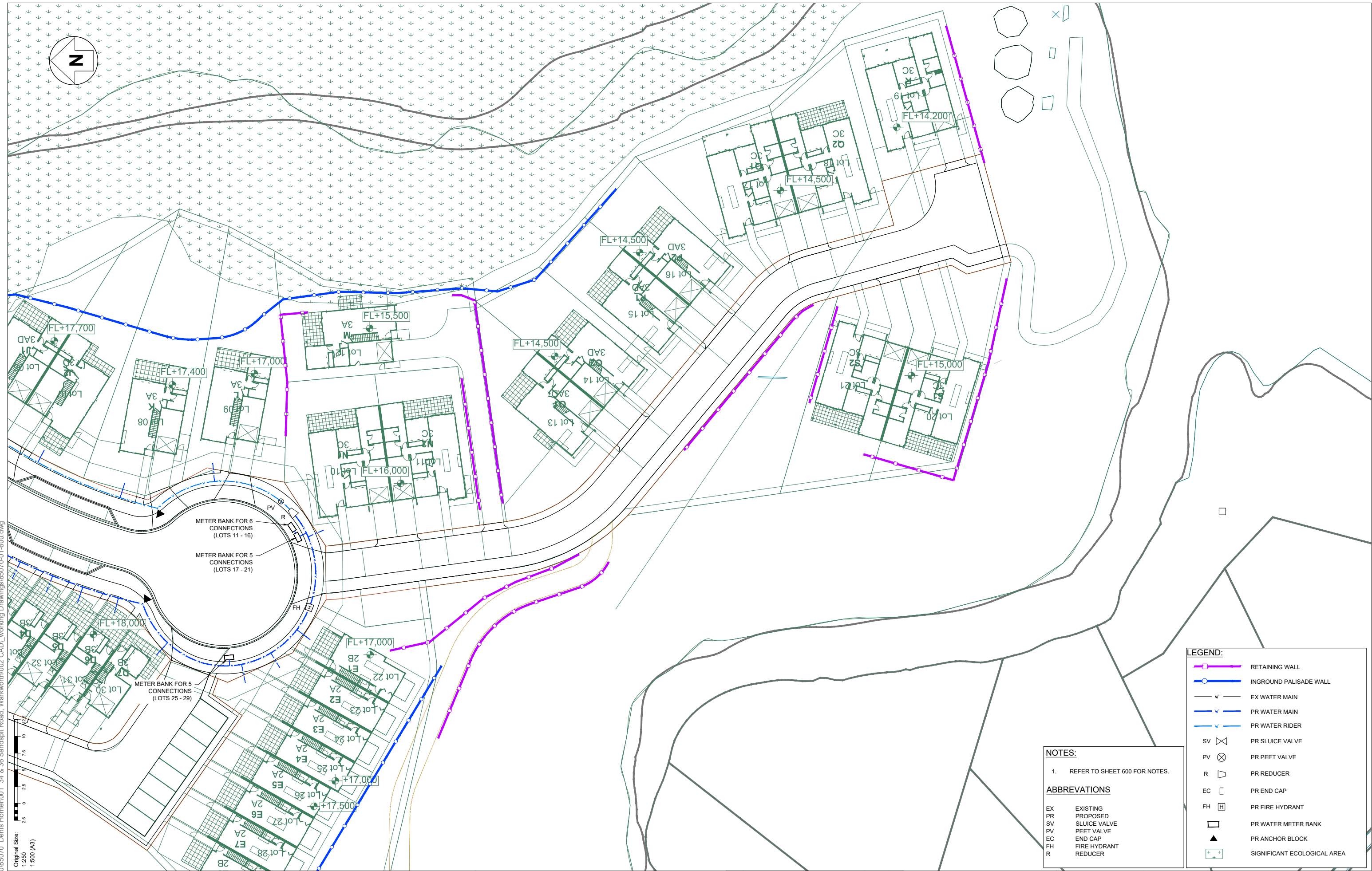
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DRAWING TITLE:
**WATER SUPPLY LAYOUT OVERALL
 PLAN**

JOB No: 85070-01
 SHEET No: 600
 REV: A



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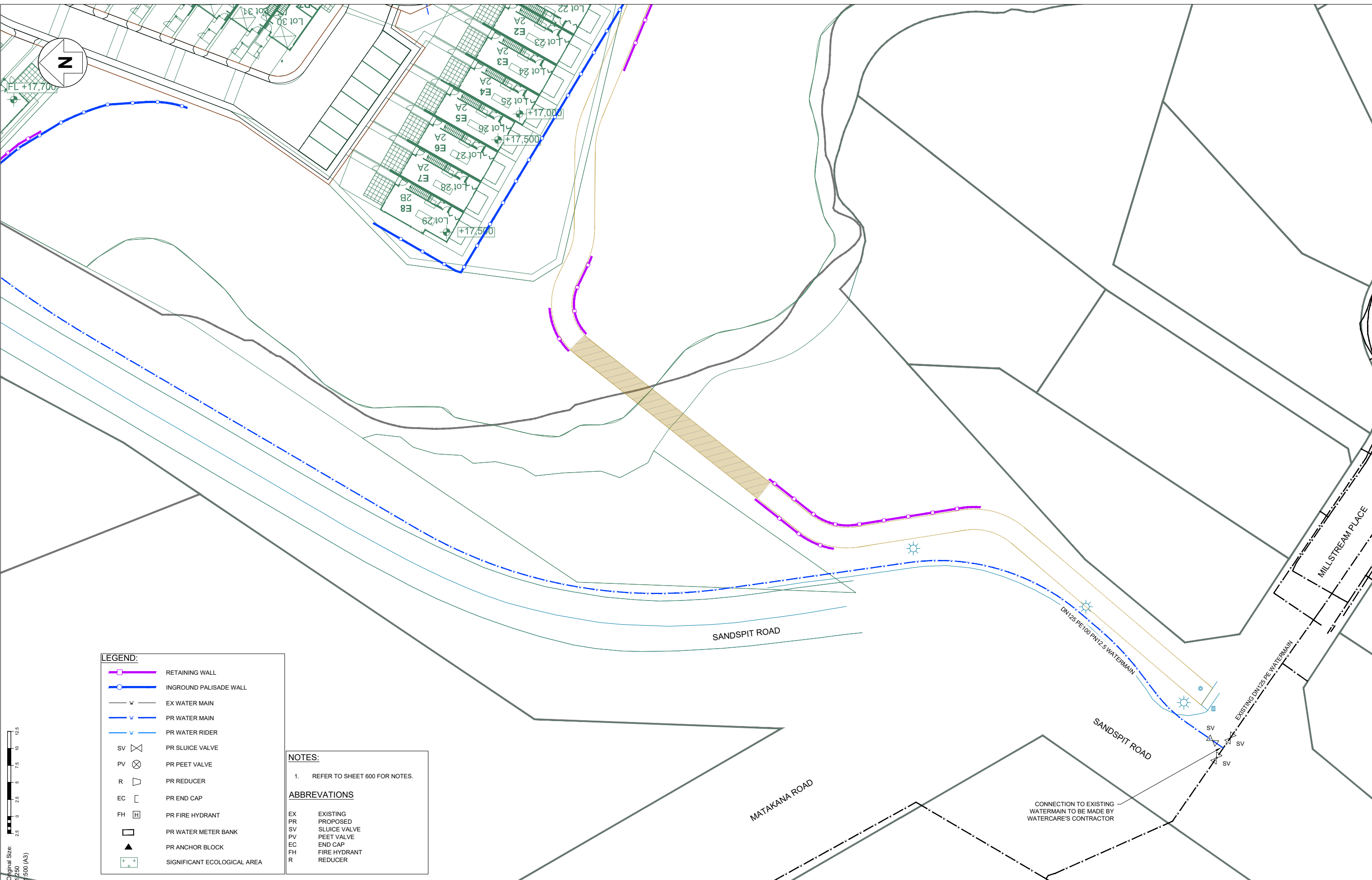
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DRAWING TITLE:
**WATER SUPPLY LAYOUT PLAN -
SHEET 2 OF 3**
JOB No: **85070-01** SHEET No: **602** REV: **A**

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LEGEND:

- RETAINING WALL
- INGROUND PALISADE WALL
- EX WATER MAIN
- PR WATER MAIN
- PR WATER RIDER
- PR SLUICE VALVE
- PR PEET VALVE
- PR REDUCER
- PR END CAP
- PR FIRE HYDRANT
- PR WATER METER BANK
- PR ANCHOR BLOCK
- SIGNIFICANT ECOLOGICAL AREA

NOTES:

- REFER TO SHEET 600 FOR NOTES.

ABBREVIATIONS

- EX EXISTING
- PR PROPOSED
- SV SLUICE VALVE
- PV PEET VALVE
- EC END CAP
- FH FIRE HYDRANT
- R REDUCER



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DRAWING TITLE:
**WATER SUPPLY LAYOUT PLAN -
 SHEET 3 OF 3**

JOB No: **85070-01** SHEET No: **603** REV: **A**