

DRAWING KGA 1B



LEGEND

- NATURAL INLAND WETLAND AREAS
- PROPOSED BUILDING PLATFORMS
- AH1 2022 - KGA - HAND AUGER BOREHOLE
- SP1 2022 - KGA - SURFACE SCALA PENETROMETER
- AH1 2024 - KGA - ASTEWATER HAND AUGER BOREHOLE
- MAK1 2004 MACHINE BOREHOLE
- SITE BOUNDARY
- NEIGHBOURING BOUNDARIES
- PROPOSED LOT BOUNDARIES
- OVERLAND FLOWPATH
- EXISTING TOPOGRAPHIC CONTOURS, MAJOR INTERVAL = 5.0 M
- A A' CROSS SECTION

NOTES

1. LOCATIONS OF FEATURES AND GROUND INVESTIGATION POINTS ARE APPROXIMATE ONLY.
2. AERIAL IMAGE SOURCED FROM AUCKLAND COUNCIL GEOMAPS WEBSITE.
3. CONTOURS SOURCED FROM AUCKLAND COUNCIL GEOMAPS WEBSITE.
4. PROPOSED LAYOUT SOURCED FROM CONCEPT DEVELOPMENT PLAN BY VAUGHAN CRANG AND KAIPARA COAST, DATED NOVEMBER 2023.

REV	DATE	REVISION DESCRIPTION	BY	CHK	APP
B	FEB-24	RFI AMENDMENTS	TR	TP	YC
A	JUL-23	REPORT ISSUE	TR	TP	YC

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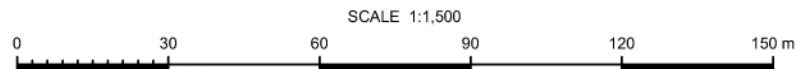
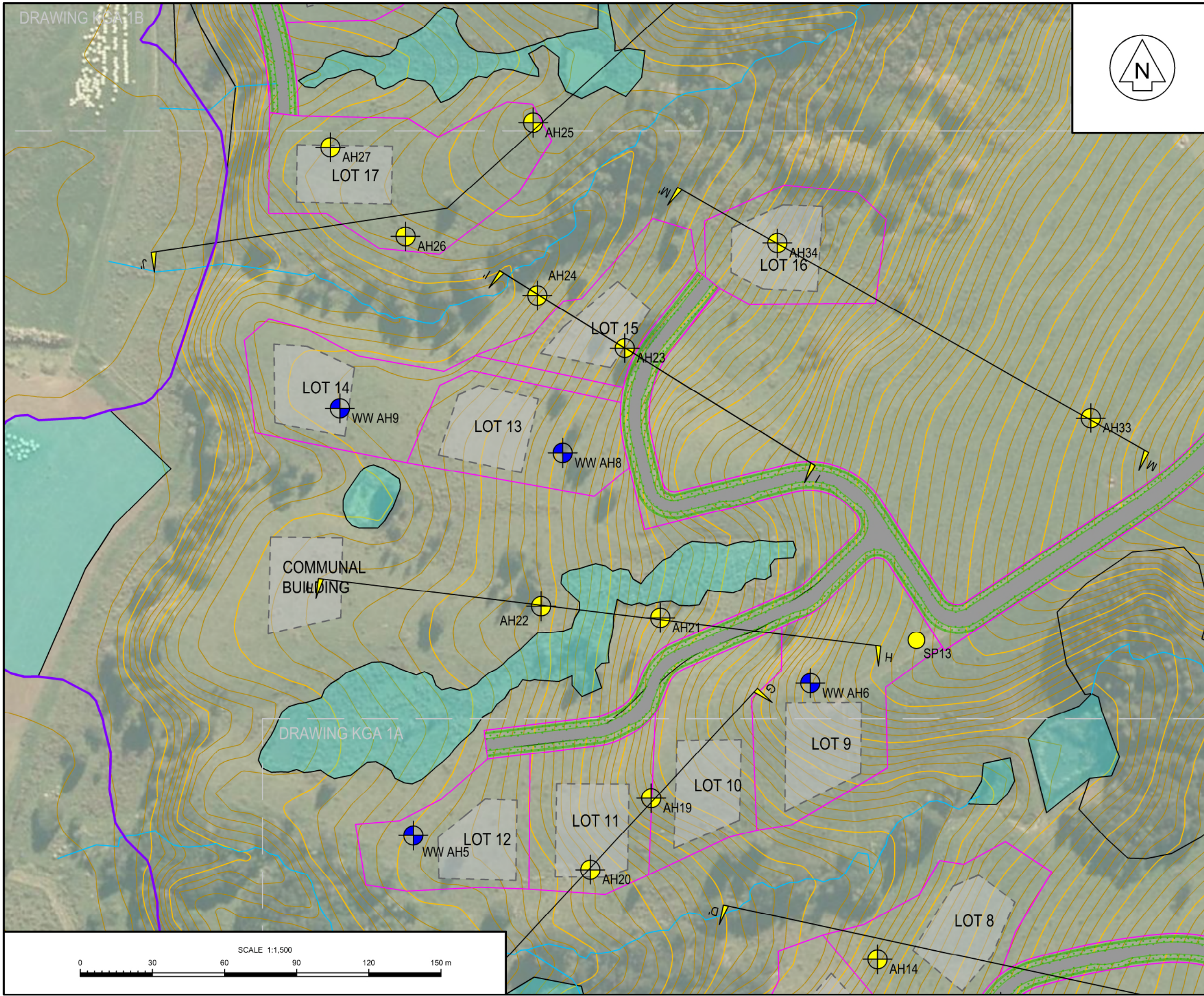
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GOODLAND GROUP LIMITED

PROJECT TITLE
**RURAL RESIDENTIAL SUBDIVISION
2127 KAIPARA COAST HIGHWAY
MAKARAU**

DRAWING TITLE
**SITE PLAN
LOTS 9 TO 17**

DESIGNED	TR	DATE	JUL-23	CHECKED	TP	DATE	JUL-23
DRAWN	TR	DATE	JUL-23	APPROVED	YC	DATE	JUL-23

RESOURCE CONSENT		
SCALE	SIZE	
1:1,500	A3	
COORDINATE SYSTEM	HEIGHT DATUM	
NZTM	AKL 1946	
PROJECT NUMBER	DRAWING NUMBER	REVISION
K200826	KGA 1B	B



SCALE 1:1,500

DRAWING KGA 1C



LEGEND

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- AH1 2022 - KGA - HAND AUGER BOREHOLE
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- AH1 2024 - KGA - WASTEWATER HAND AUGER BOREHOLE
- MAK1 2004 - MACHINE BOREHOLE
- SITE BOUNDARY
- NEIGHBOURING BOUNDARIES
- PROPOSED LOT BOUNDARIES
- OVERLAND FLOWPATH
- EXISTING TOPOGRAPHIC CONTOURS, MAJOR INTERVAL = 5.0 M
- A A' CROSS SECTION

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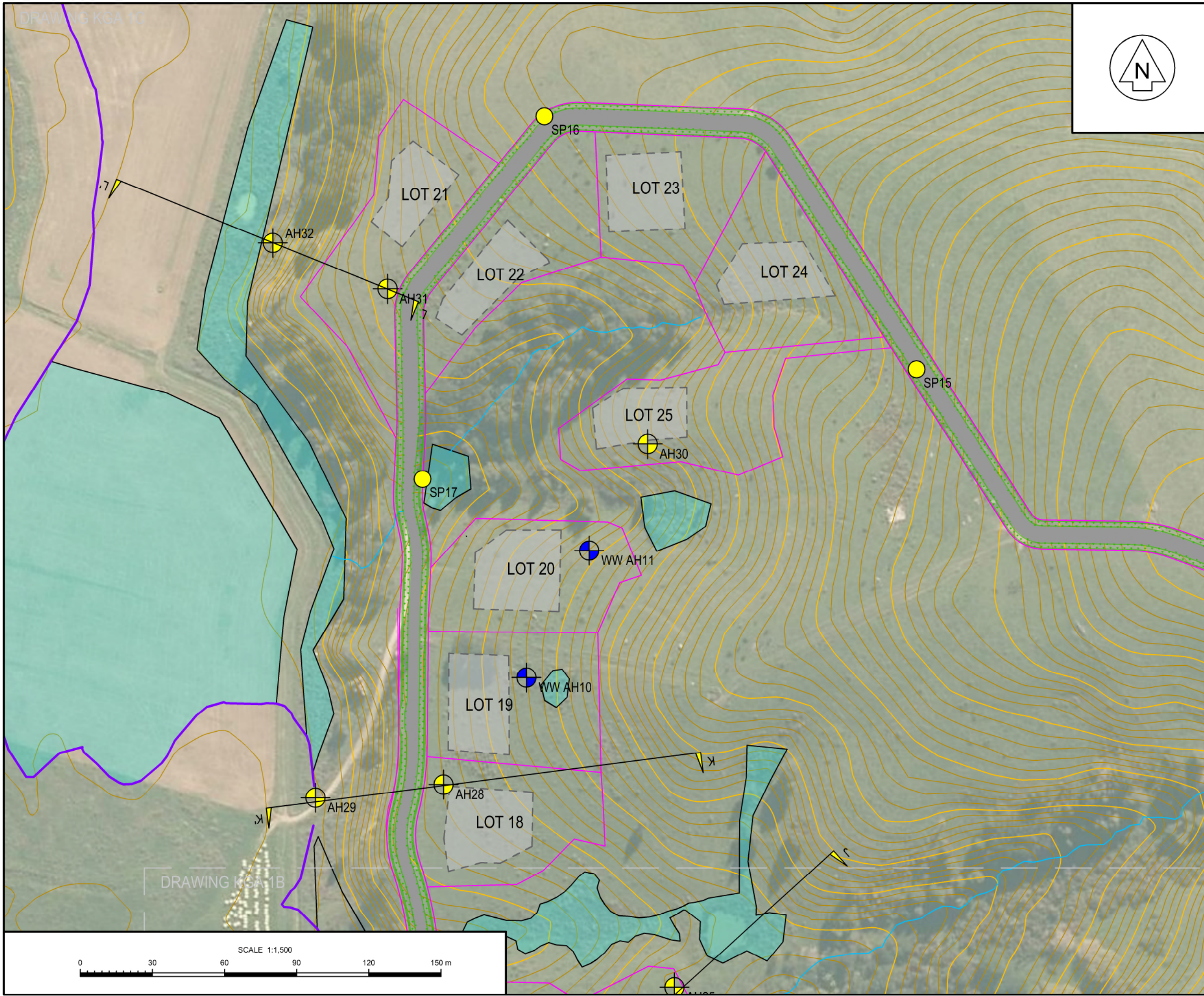
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MAKARAU**

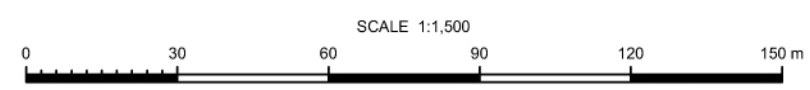
DRAWING TITLE
**SITE PLAN
LOTS 18 TO 25**

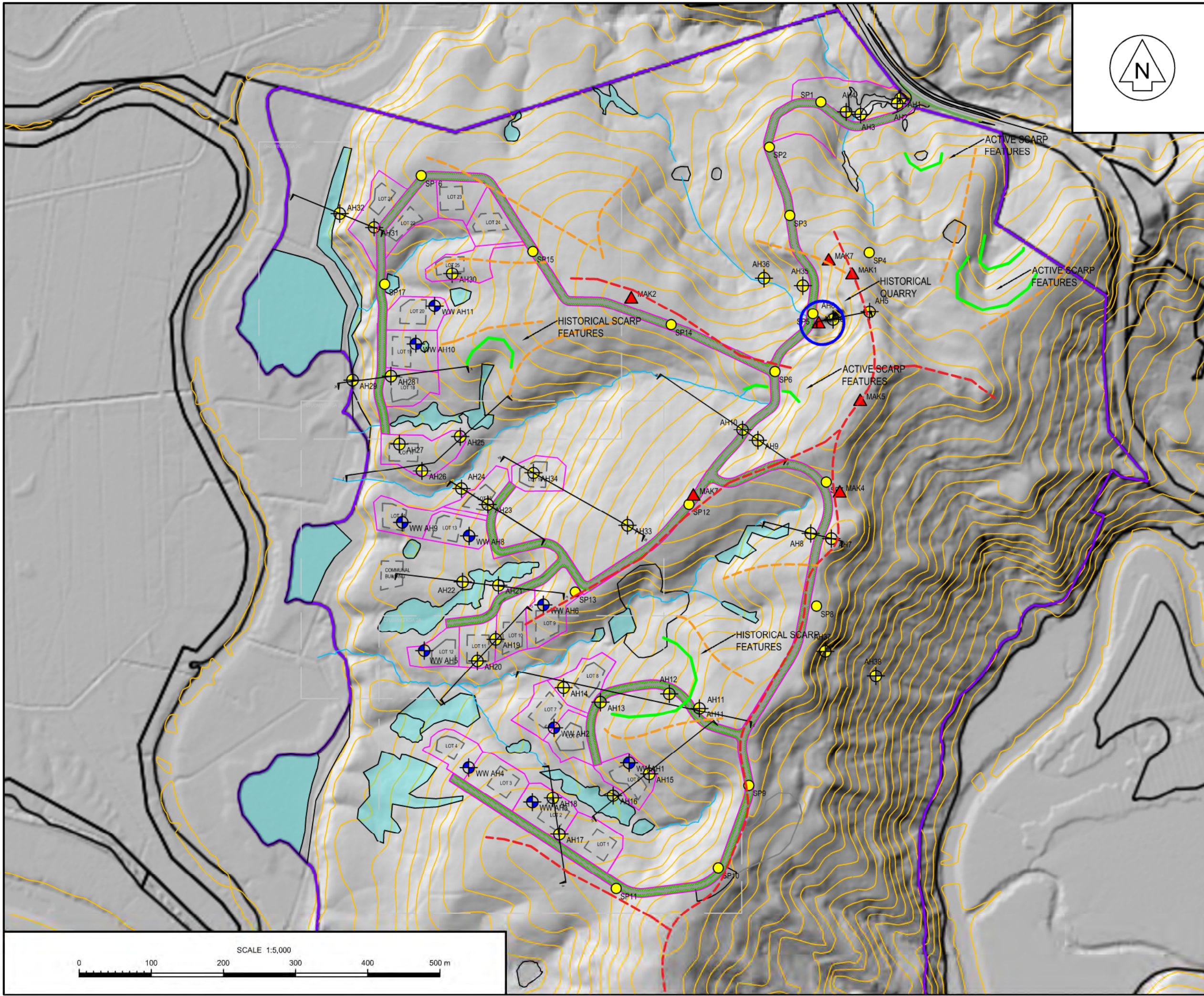
DESIGNED	TR	DATE	JUL-23	CHECKED	TP	DATE	JUL-23
DRAWN	TR	DATE	JUL-23	APPROVED	YC	DATE	JUL-23

RESOURCE CONSENT		
SCALE	1:1,500	SIZE A3
COORDINATE SYSTEM	HEIGHT DATUM	
NZTM	AKL 1946	
PROJECT NUMBER	DRAWING NUMBER	REVISION
K200826	KGA 1C	B



DRAWING KGA 1B





LEGEND

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- AH1 2022 - KGA - HAND AUGER BOREHOLE
- SP1 2022 - KGA - SURFACE SCALA PENETROMETER
- AH1 2024 - KGA - WASTEWATER HAND AUGER BOREHOLE
- MAK1 2004 MACHINE BOREHOLE
- MAIN RIDGE LINES
- MINOR RIDGE LINES
- SCARP FEATURES
- SITE BOUNDARY
- NEIGHBOURING BOUNDARIES
- PROPOSED LOT BOUNDARIES
- OVERLAND FLOWPATH
- EXISTING TOPOGRAPHIC CONTOURS, MAJOR INTERVAL = 5.0 M

CROSS SECTION

- ### NOTES
- LOCATIONS OF FEATURES AND GROUND INVESTIGATION POINTS ARE APPROXIMATE ONLY.
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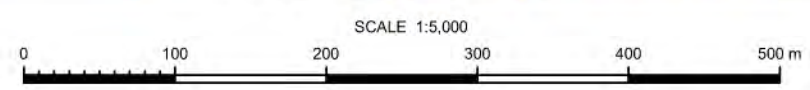
PROJECT TITLE
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2127 KAIPARA COAST HIGHWAY
MAKARAU**

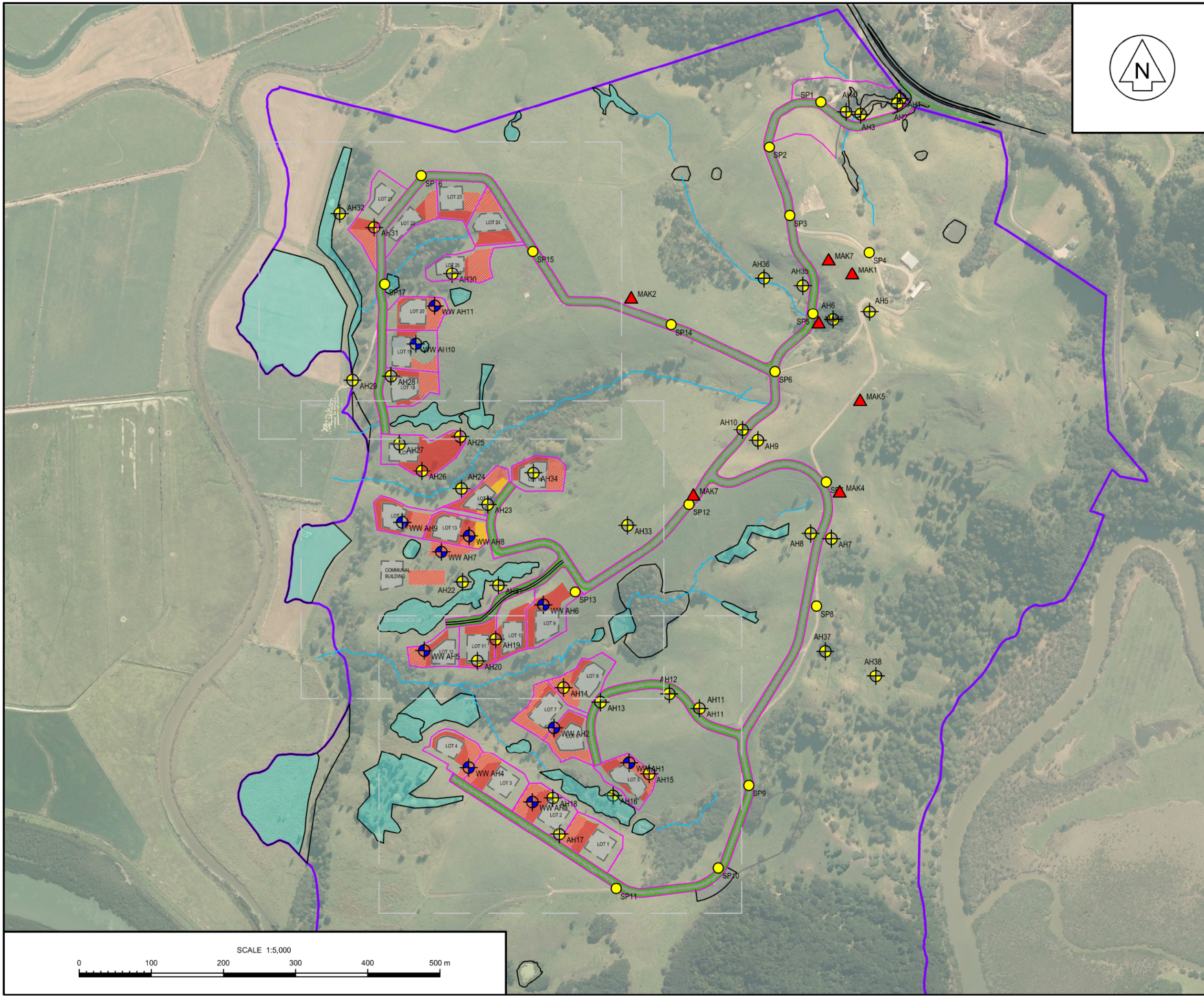
DRAWING TITLE
GEOMORPHOLOGICAL PLAN

DESIGNED	TR	DATE	FEB-2024	CHECKED	TP	DATE	FEB-2024
DRAWN	TR	DATE	FEB-2024	APPROVED	YC	DATE	FEB-2024

STATUS
RESOURCE CONSENT

SCALE	1:5,000	SIZE	A3
COORDINATE SYSTEM	NZTM	HEIGHT DATUM	AKL 1946
PROJECT NUMBER	K200826	DRAWING NUMBER	KGA 1D
		REVISION	A





LEGEND

- NATURAL INLAND WETLAND AREAS
- PROPOSED BUILDING PLATFORMS
- AVAILABLE AREA FOR WASTEWATER DISPERSAL
- + AH1 2022 - KGA - HAND AUGER BOREHOLE
- SP1 2022 - KGA - SURFACE SCALA PENETROMETER
- + AH1 2024 - KGA - WASTEWATER HAND AUGER BOREHOLE
- MAK1 2004 - MACHINE BOREHOLE
- SITE BOUNDARY
- NEIGHBOURING BOUNDARIES
- PROPOSED LOT BOUNDARIES
- OVERLAND FLOWPATH

- NOTES**
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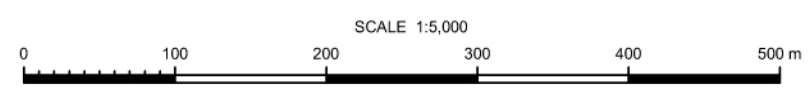
PROJECT TITLE
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MAKARAU**

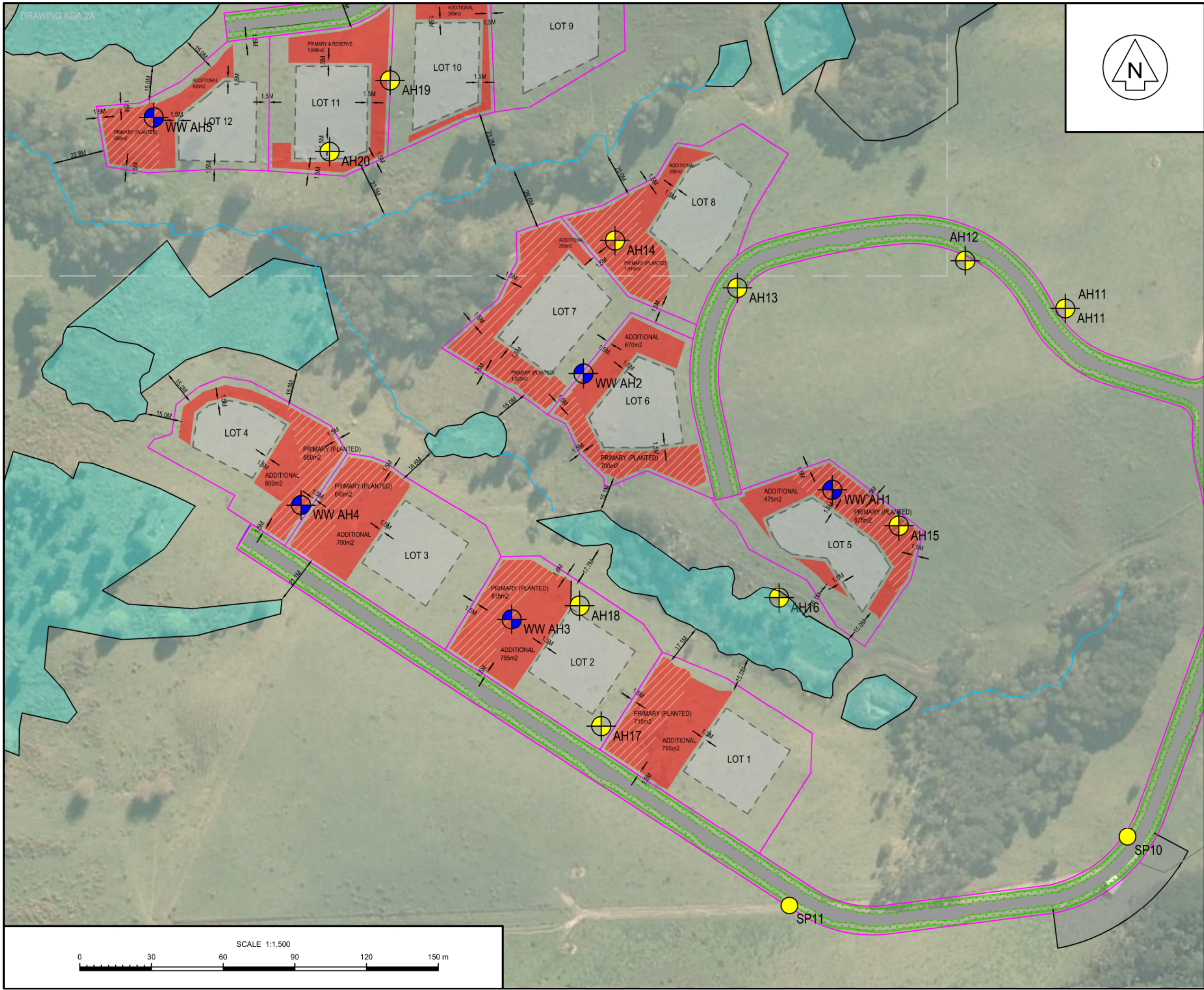
DRAWING TITLE
**SITE PLAN
WASTEWATER DISPERSAL AREA
GLOBAL**

DESIGNED	TR	DATE	JUL-23	CHECKED	TP	DATE	JUL-23
DRAWN	TR	DATE	JUL-23	APPROVED	YC	DATE	JUL-23

RESOURCE CONSENT

SCALE	1:5,000	SIZE	A3
COORDINATE SYSTEM	NZTM	HEIGHT DATUM	AKL 1946
PROJECT NUMBER	K200826	DRAWING NUMBER	KGA 2
		REVISION	B





LEGEND

- NATURAL INLAND WETLAND AREAS
- PROPOSED BUILDING PLATFORMS
- AVAILABLE AREA FOR WASTEWATER DISPERSAL
- AH1 2022 - KGA - HAND AUGER BOREHOLE
- SP1 2022 - KGA - SURFACE SCALA PENETROMETER
- AH1 2024 - KGA - WASTEWATER HAND AUGER BOREHOLE
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PROJECT TITLE
**RURAL RESIDENTIAL SUBDIVISION
2127 KAIPARA COAST HIGHWAY
MAKARAU**

DRAWING TITLE
**SITE PLAN - LOTS 1 TO 8
WASTEWATER DISPERSAL AREA
SET BACKS**

DESIGNED	TR	DATE	JUL-23	CHECKED	TP	DATE	JUL-23
DRAWN	TR	DATE	JUL-23	APPROVED	YC	DATE	JUL-23

RESOURCE CONSENT			
SCALE	1:1,500	SIZE	A3
COORDINATE SYSTEM	NZTM	HEIGHT DATUM	AKL 1946
PROJECT NUMBER	K200826	DRAWING NUMBER	KGA 2A
		REVISION	B



LEGEND

- NATURAL INLAND WETLAND AREAS
- PROPOSED BUILDING PLATFORMS
- AVAILABLE AREA FOR WASTEWATER DISPERSAL
- WASTEWATER DISPERSAL AREA WITHIN PROPOSED FILL EARTHWORKS
- AH1

 2022 - KGA - HAND AUGER BOREHOLE
- SP1

 2022 - KGA - SURFACE SCALA PENETROMETER
- AH1

 2024 - KGA - WASTEWATER HAND AUGER BOREHOLE
- MAK1

 2004 - MACHINE BOREHOLE
- SITE BOUNDARY
- NEIGHBOURING BOUNDARIES
- PROPOSED LOT BOUNDARIES
- OVERLAND FLOWPATH

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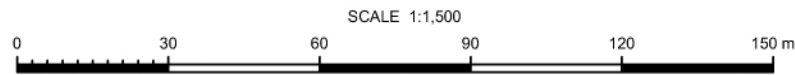
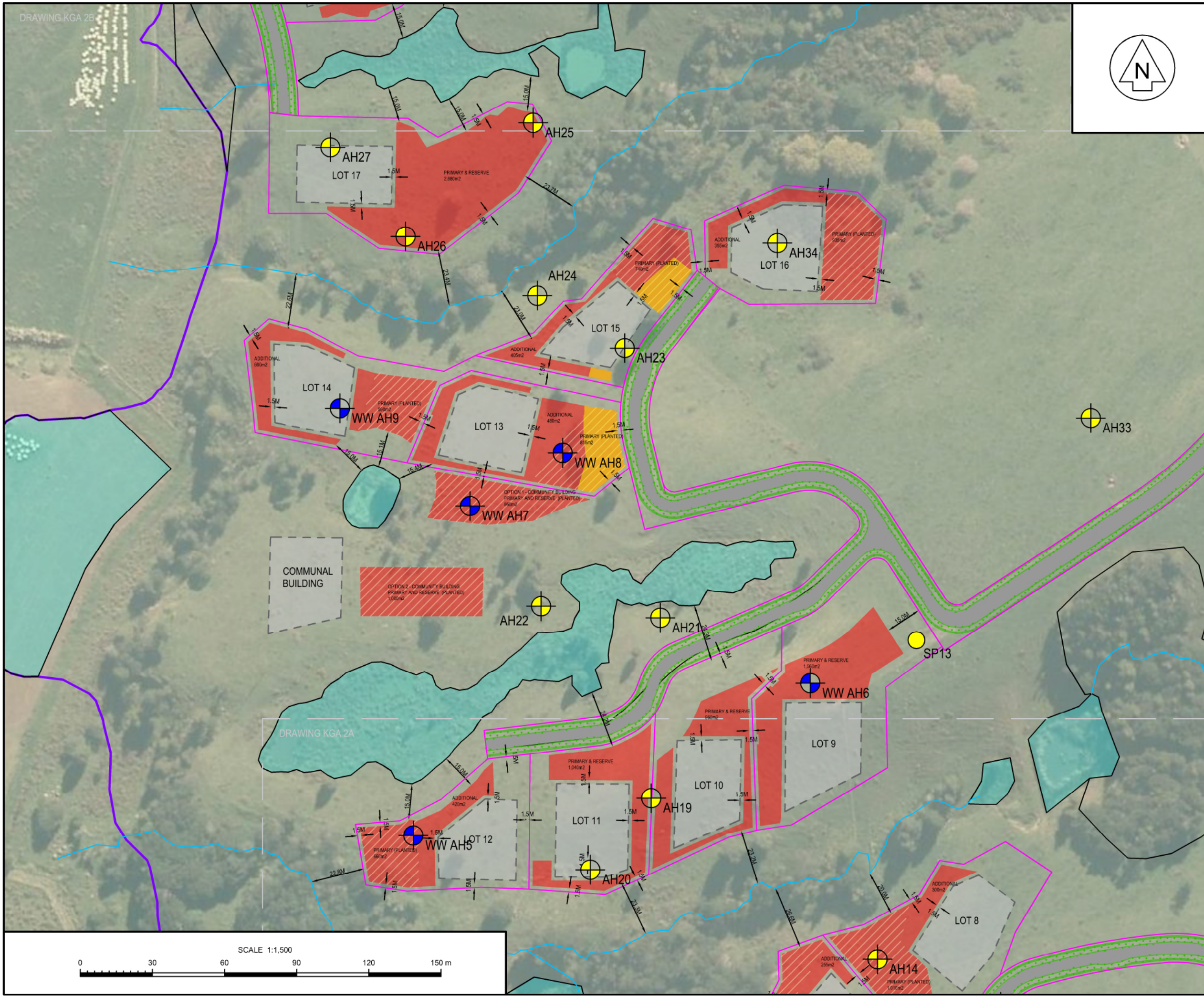
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PROJECT TITLE
**RURAL RESIDENTIAL SUBDIVISION
2127 KAIPARA COAST HIGHWAY
MAKARAU**

DRAWING TITLE
**SITE PLAN - LOTS 9 TO 17
WASTEWATER DISPERSAL AREA
SET BACKS**

DESIGNED	TR	DATE	JUL-23	CHECKED	TP	DATE	JUL-23
DRAWN	TR	DATE	JUL-23	APPROVED	YC	DATE	JUL-23

RESOURCE CONSENT		
SCALE	1:1,500	SIZE
		A3
COORDINATE SYSTEM	NZTM	HEIGHT DATUM
		AKL 1946
PROJECT NUMBER	K200826	DRAWING NUMBER
		KGA 2B
		REVISION
		B





LEGEND

- NATURAL INLAND WETLAND AREAS
- PROPOSED BUILDING PLATFORMS
- AVAILABLE AREA FOR WASTEWATER DISPERSAL
- AH1

 2022 - KGA - HAND AUGER BOREHOLE
- SP1

 2022 - KGA - SURFACE SCALA PENETROMETER
- AH1

 2024 - KGA - WASTEWATER HAND AUGER BOREHOLE
- MAK1

 2004 - MACHINE BOREHOLE
- SITE BOUNDARY
- NEIGHBOURING BOUNDARIES
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- OVERLAND FLOWPATH

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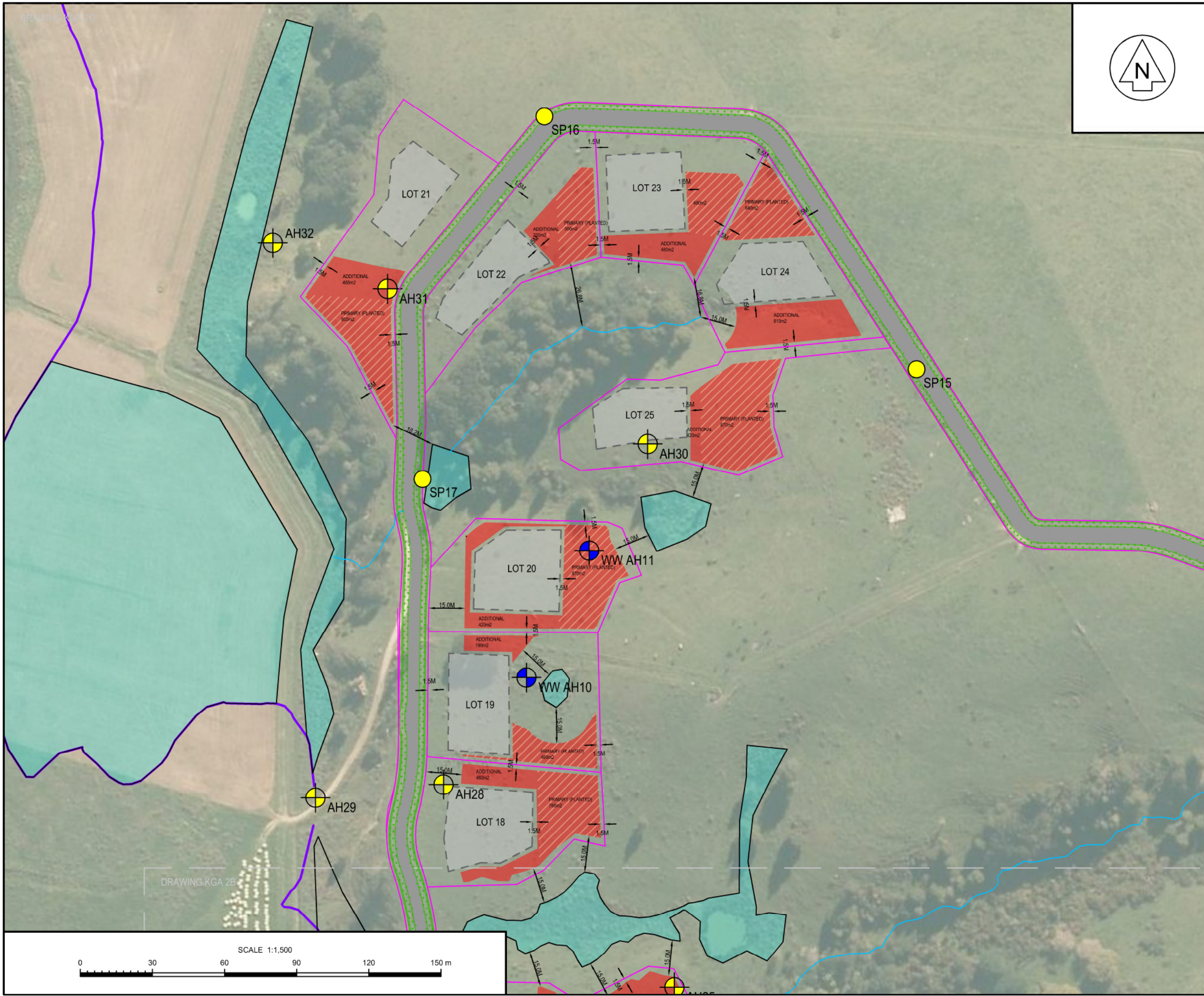
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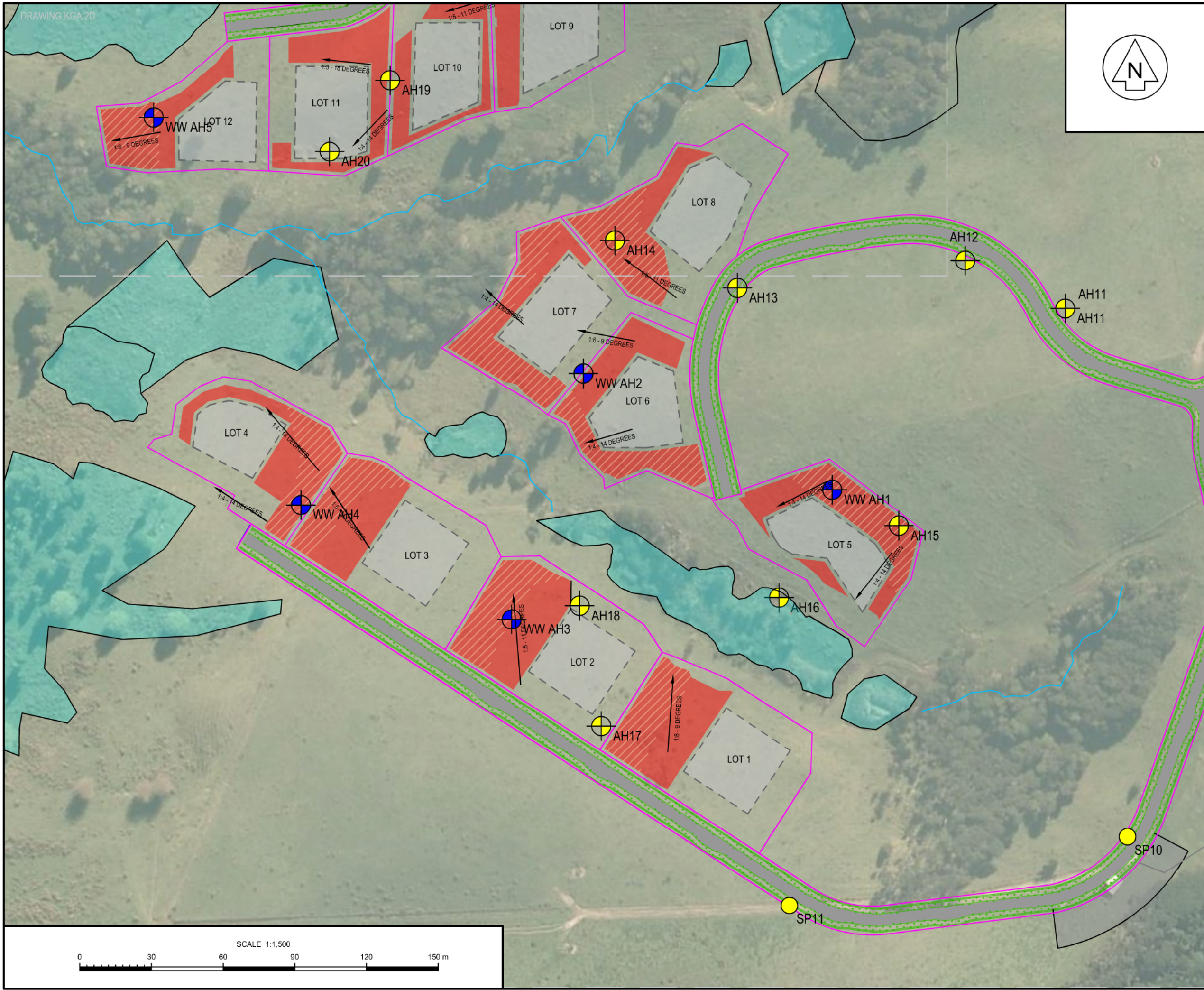
PROJECT TITLE
**RURAL RESIDENTIAL SUBDIVISION
 2127 KAIPARA COAST HIGHWAY
 MAKARAU**

DRAWING TITLE
**SITE PLAN - LOTS 18 TO 25
 WASTEWATER DISPERSAL AREA
 SET BACKS**

DESIGNED	TR	DATE	JUL-23	CHECKED	TP	DATE	JUL-23
DRAWN	TR	DATE	JUL-23	APPROVED	YC	DATE	JUL-23

RESOURCE CONSENT		
SCALE	1:1,500	SIZE A3
COORDINATE SYSTEM NZTM	HEIGHT DATUM AKL 1946	
PROJECT NUMBER K200826	DRAWING NUMBER KGA 2C	REVISION B





LEGEND

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- AVAILABLE AREA FOR WASTEWATER DISPERSAL
- +
 AH1 2022 - KGA - HAND AUGER BOREHOLE
- +
 SP1 2022 - KGA - SURFACE SCALA PENETROMETER
- +
 AH1 2024 - KGA - WASTEWATER HAND AUGER BOREHOLE
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PROJECT TITLE
**RURAL RESIDENTIAL SUBDIVISION
 2127 KAIPARA COAST HIGHWAY
 MAKARAU**

DRAWING TITLE
**SITE PLAN - LOTS 1 TO 8
 WASTEWATER DISPERSAL AREA
 SLOPE ANGLES**

DESIGNED	TR	DATE	JUL-23	CHECKED	TP	DATE	JUL-23
DRAWN	TR	DATE	JUL-23	APPROVED	YC	DATE	JUL-23

RESOURCE CONSENT		
SCALE	1:1,500	SIZE A3
COORDINATE SYSTEM	NZTM	HEIGHT DATUM AKL 1946
PROJECT NUMBER	K200826	DRAWING NUMBER KGA 2D
		REVISION B



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- AVAILABLE AREA FOR WASTEWATER DISPERSAL
- AH1 2022 - KGA - HAND AUGER BOREHOLE
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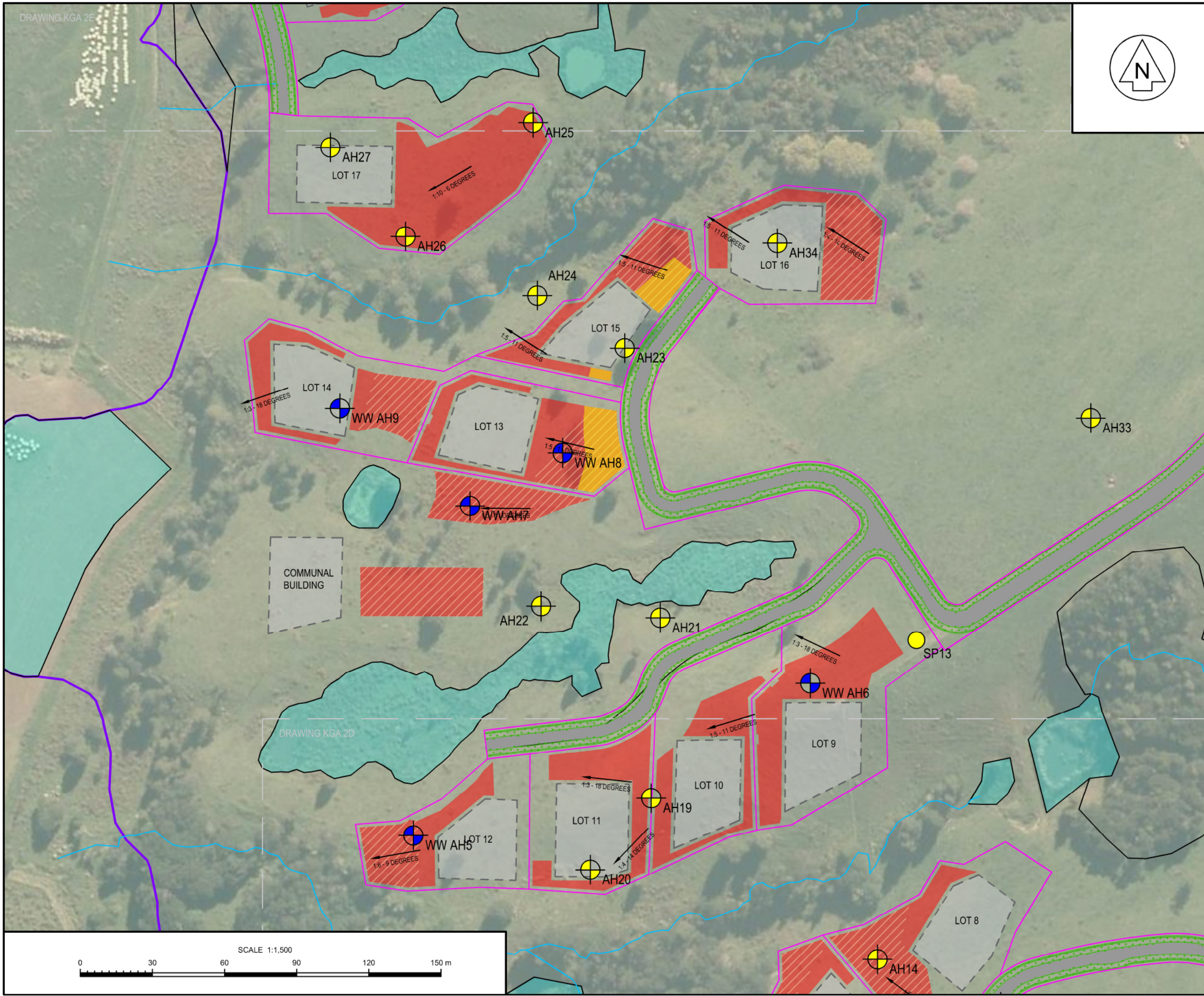
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MAKARAU**

DRAWING TITLE
**SITE PLAN - LOTS 9 TO 17
WASTEWATER DISPERSAL AREA
SLOPE ANGLES**

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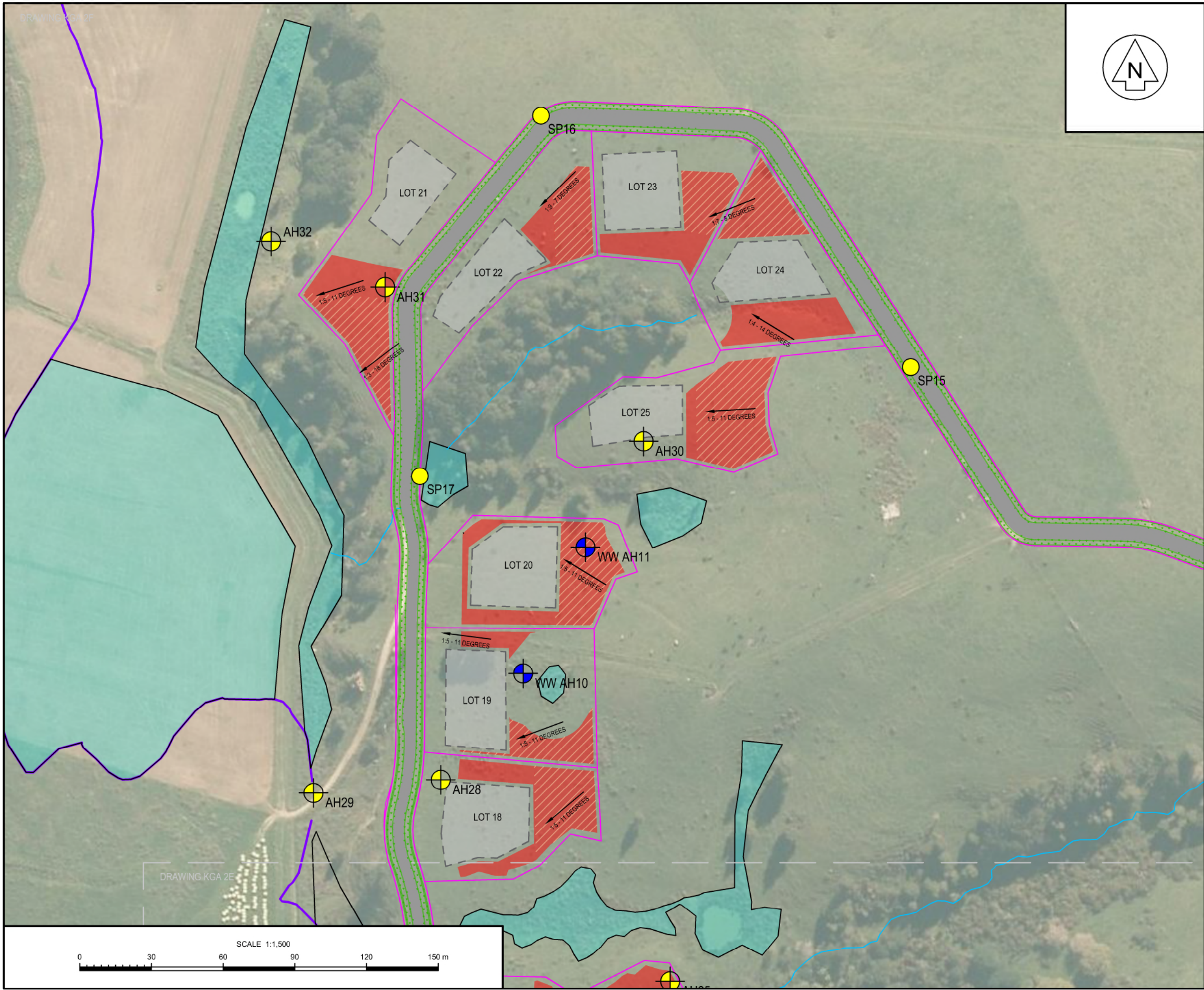
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SCALE	1:1,500	SIZE A3
COORDINATE SYSTEM	NZTM	HEIGHT DATUM AKL 1946
PROJECT NUMBER	K200826	DRAWING NUMBER KGA 2E
		REVISION B



DRAWING KGA 2D

SCALE 1:1,500





LEGEND

- NATURAL INLAND WETLAND AREAS
- PROPOSED BUILDING PLATFORMS
- AVAILABLE AREA FOR WASTEWATER DISPERSAL
- + AH1 2022 - KGA - HAND AUGER BOREHOLE
- + SP1 2022 - KGA - SURFACE SCALA PENETROMETER
- + AH1 2024 - KGA - WASTEWATER HAND AUGER BOREHOLE
- + MAK1 2004 - MACHINE BOREHOLE
- SITE BOUNDARY
- NEIGHBOURING BOUNDARIES
- PROPOSED LOT BOUNDARIES
- OVERLAND FLOWPATH

NOTES

1. LOCATIONS OF FEATURES AND GROUND INVESTIGATION POINTS ARE APPROXIMATE ONLY.
2. AERIAL IMAGE SOURCED FROM AUCKLAND COUNCIL GEOMAPS WEBSITE.
3. CONTOURS SOURCED FROM AUCKLAND COUNCIL GEOMAPS WEBSITE.
4. PROPOSED LAYOUT SOURCED FROM CONCEPT DEVELOPMENT PLAN BY VAUGHAN CRANG AND KAIPARA COAST, DATED NOVEMBER 2023.

REV	DATE	REVISION DESCRIPTION	BY	CHK	APP
B	FEB-24	RFI AMENDMENTS	TR	TP	YC
A	JUL-23	REPORT ISSUE	TR	TP	YC

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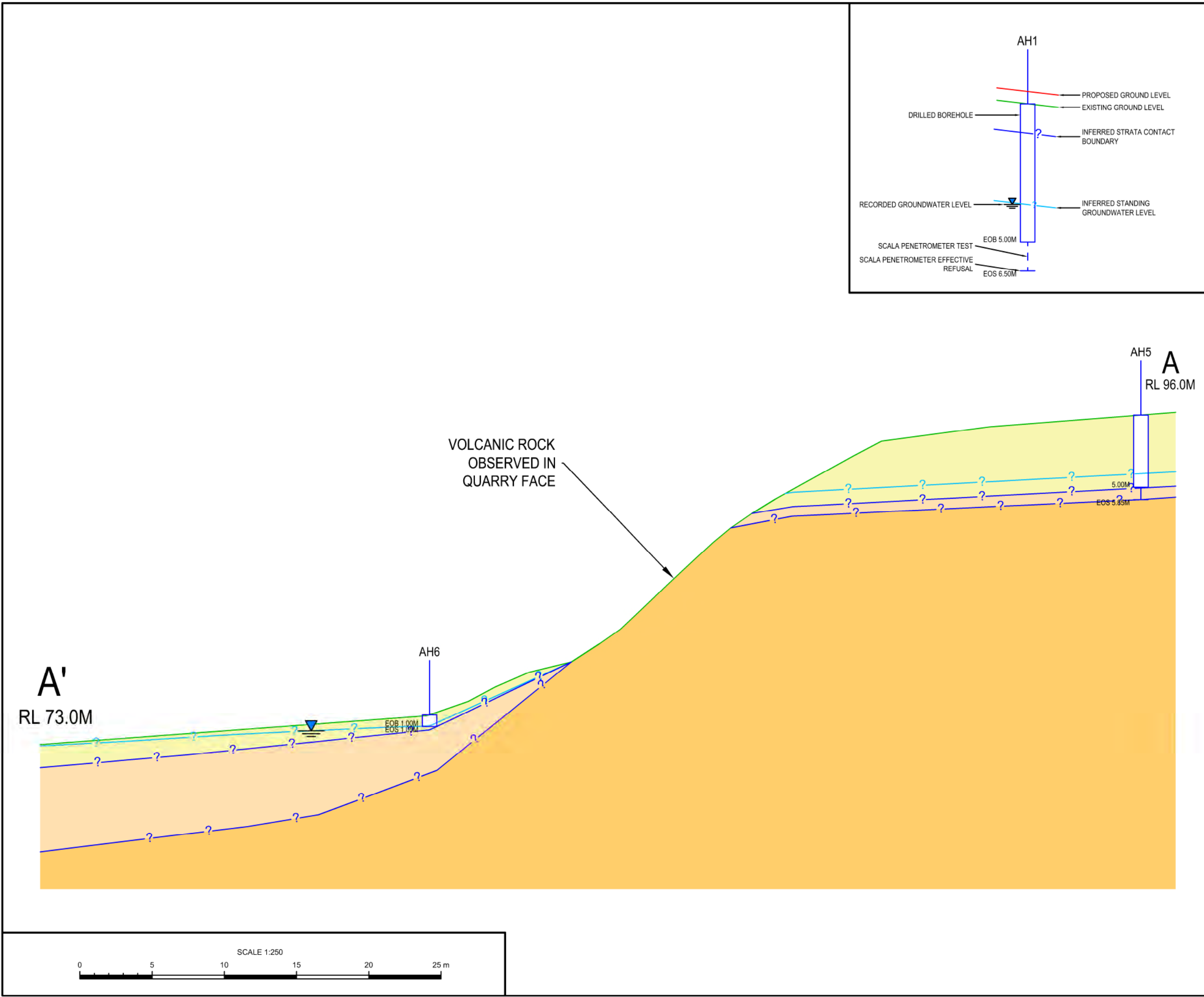
CLIENT
GOODLAND GROUP LIMITED

PROJECT TITLE
**RURAL RESIDENTIAL SUBDIVISION
2127 KAIPARA COAST HIGHWAY
MAKARAU**

DRAWING TITLE
**SITE PLAN - LOTS 18 TO 25
WASTEWATER DISPERSAL AREA
SLOPE ANGLES**

DESIGNED	TR	DATE	JUL-23	CHECKED	TP	DATE	JUL-23
DRAWN	TR	DATE	JUL-23	APPROVED	YC	DATE	JUL-23

RESOURCE CONSENT					
SCALE	1:1,500		SIZE	A3	
COORDINATE SYSTEM	NZTM		HEIGHT DATUM	AKL 1946	
PROJECT NUMBER	K200826	DRAWING NUMBER	KGA 2F	REVISION	B



LEGEND

- WAITEMATA GROUP SOILS
- WAITEMATA GROUP TRANSITIONAL MATERIAL
- WAITEMATA GROUP ROCK

NOTES

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4. ANY GEOLOGICAL INTERPRETATION SHOWN ON THE DRAWING IS BASED SOLELY ON AVAILABLE BOREHOLE RECORDS.
5. THE ACTUAL GROUND CONDITIONS MAY VARY FROM THAT SHOWN ON THE INTERPRETED GEOLOGICAL SECTIONS.
6. REFER TO SITE PLAN FOR LOCATION OF GEOLOGICAL SECTION.

B	FEB-24	RFI AMENDMENTS	TR	TP	YC
A	SEP-21	REPORT ISSUE	TR	PH	AN
REV	DATE	REVISION DESCRIPTION	BY	CHK	APP

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PROJECT TITLE
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MAKARAU**

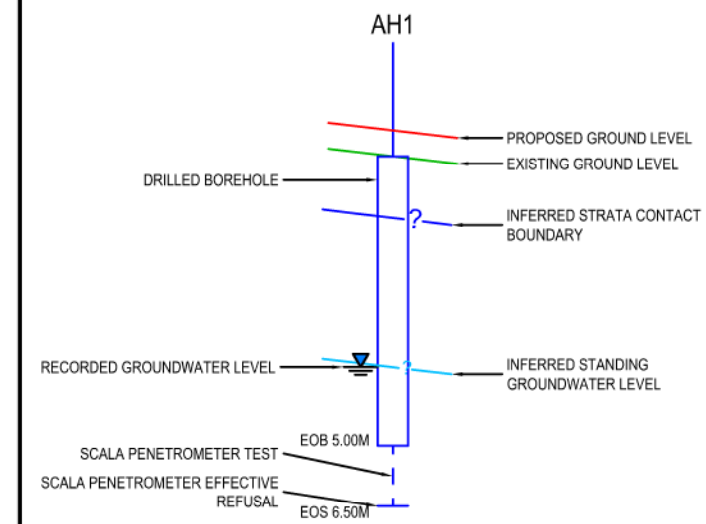
DRAWING TITLE
CROSS-SECTION A-A'

DESIGNED	TR	DATE	SEP-21	CHECKED	PH	DATE	SEP-21
DRAWN	TR	DATE	SEP-21	APPROVED	AN	DATE	SEP-21

RESOURCE CONSENT		
SCALE	1:250	SIZE A3
COORDINATE SYSTEM NZTM	HEIGHT DATUM AKL 1946	
PROJECT NUMBER K200826	DRAWING NUMBER KGA 3	REVISION A

LEGEND

- WAITEMATA GROUP SOILS
- WAITEMATA GROUP TRANSITIONAL MATERIAL



NOTES

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B	FEB-24	RFI AMENDMENTS	TR	TP	YC
A	SEP-21	REPORT ISSUE	TR	PH	AN
REV	DATE	REVISION DESCRIPTION	BY	CHK	APP

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PROJECT TITLE
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MAKARAU**

DRAWING TITLE
CROSS-SECTION B-B'

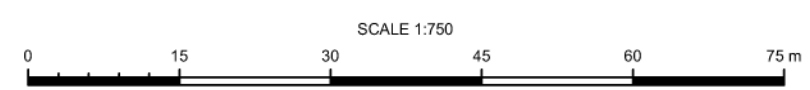
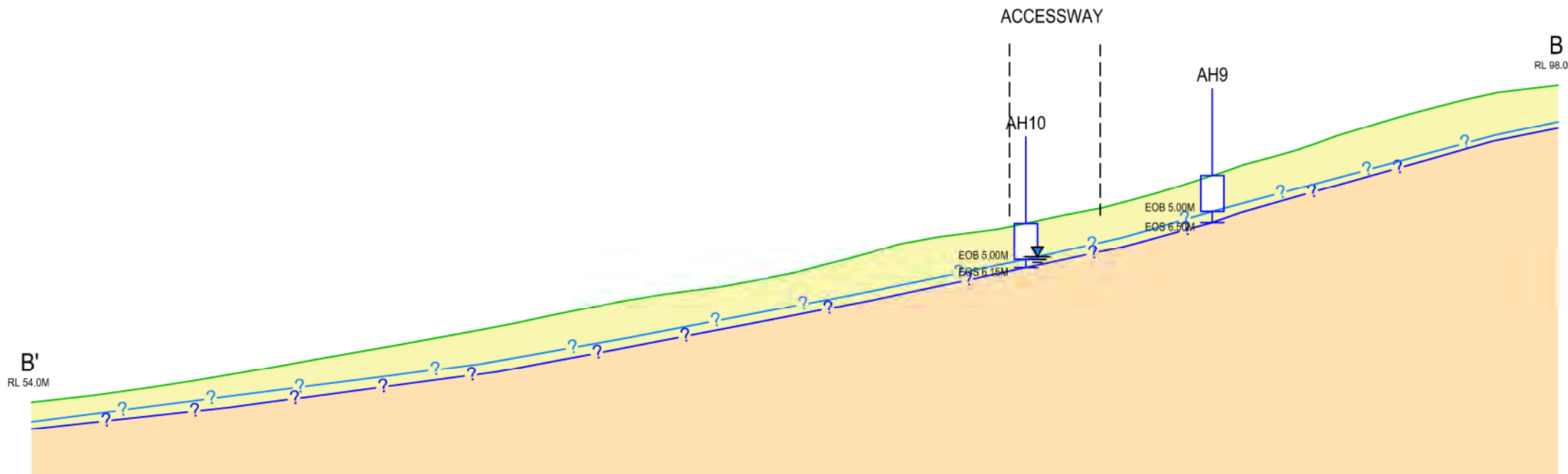
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DRAWN	TR	DATE	SEP-21	APPROVED	AN	DATE	SEP-21

STATUS
RESOURCE CONSENT

SCALE
1:250
SIZE
A3

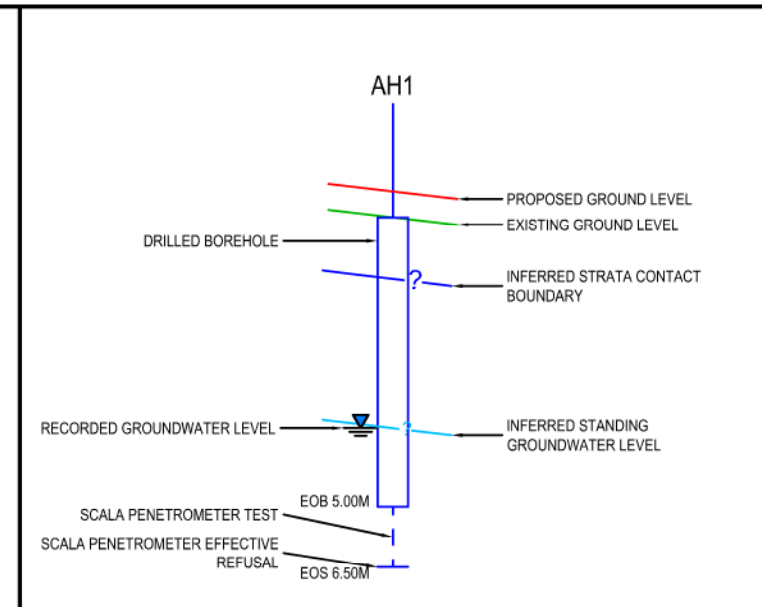
COORDINATE SYSTEM
NZTM
HEIGHT DATUM
AKL 1946

PROJECT NUMBER
K200826
DRAWING NUMBER
KGA 4
REVISION
B



LEGEND

- WAITEMATA GROUP SOILS
- WAITEMATA GROUP TRANSITIONAL MATERIAL



NOTES

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A	SEP-21	REPORT ISSUE	TR	PH	AN
REV	DATE	REVISION DESCRIPTION	BY	CHK	APP

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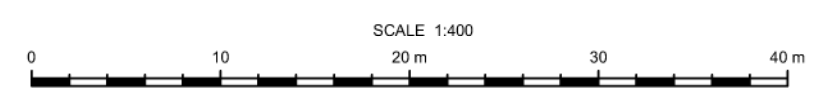
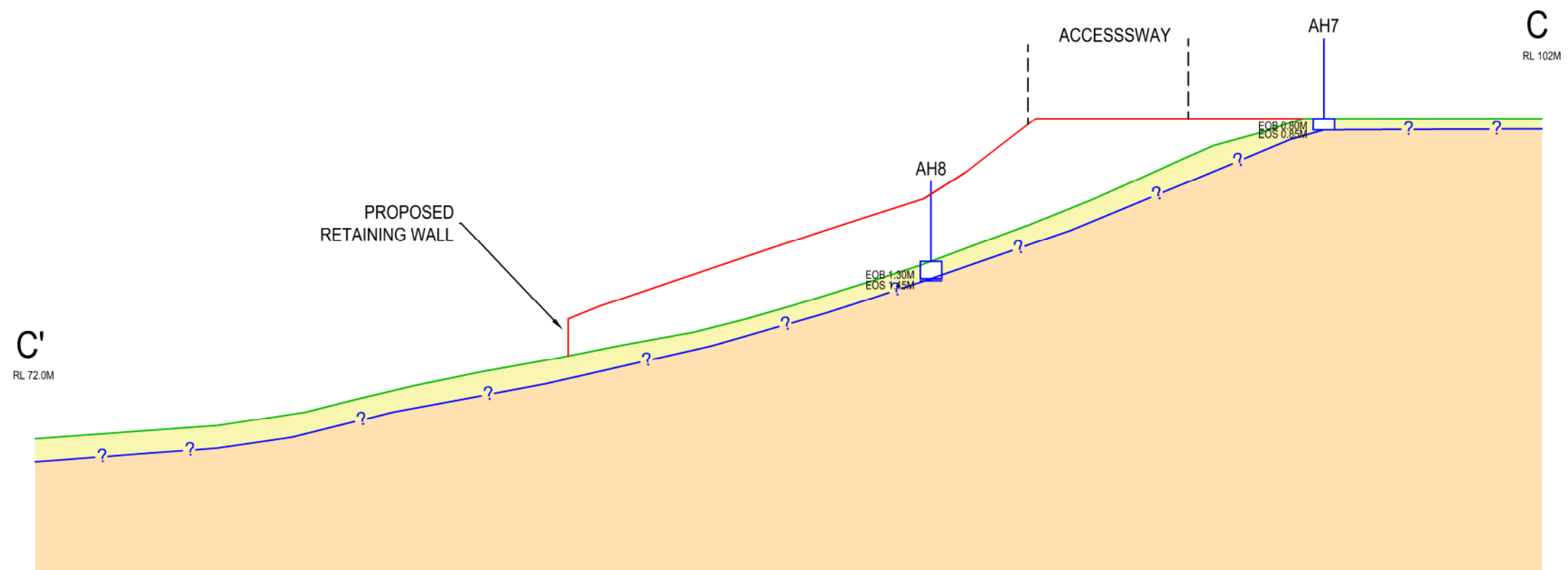
PROJECT TITLE
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2127 KAIPARA COAST HIGHWAY
MAKARAU**

DRAWING TITLE
CROSS-SECTION C-C'

DESIGNED	TR	DATE	SEP-21	CHECKED	PH	DATE	SEP-21
DRAWN	TR	DATE	SEP-21	APPROVED	AN	DATE	SEP-21

STATUS
RESOURCE CONSENT

SCALE	1:400	SIZE	A3
COORDINATE SYSTEM	NZTM	HEIGHT DATUM	AKL 1946
PROJECT NUMBER	K200826	DRAWING NUMBER	KGA 5
		REVISION	B



LEGEND

- COLLUVIUM
- WAITEMATA GROUP SOILS
- WAITEMATA GROUP TRANSITIONAL MATERIAL

NOTES

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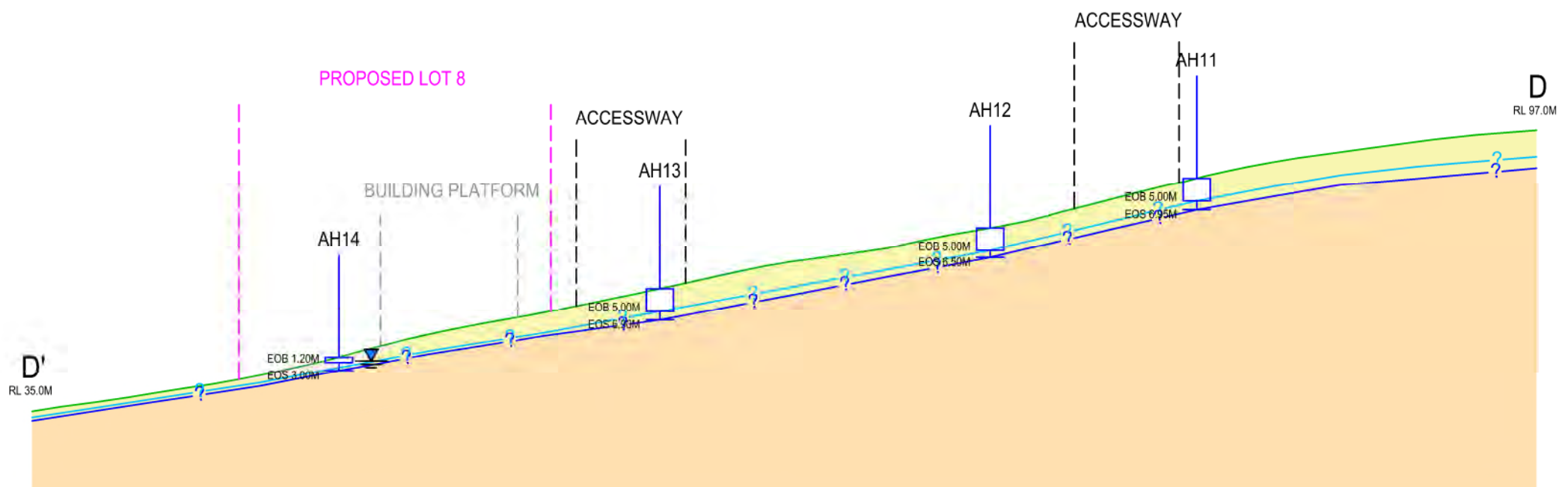
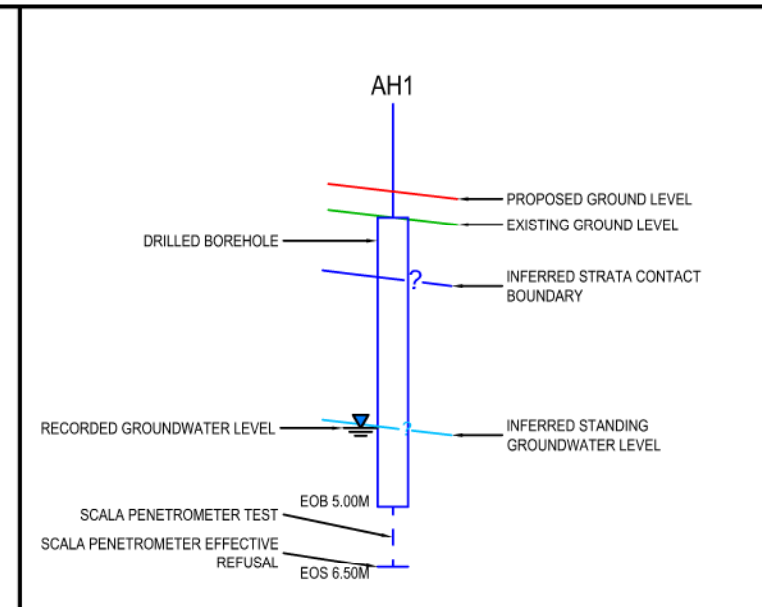
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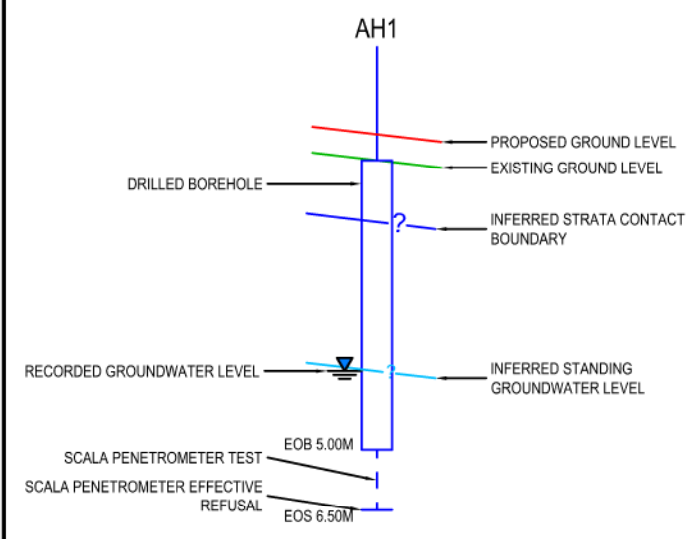
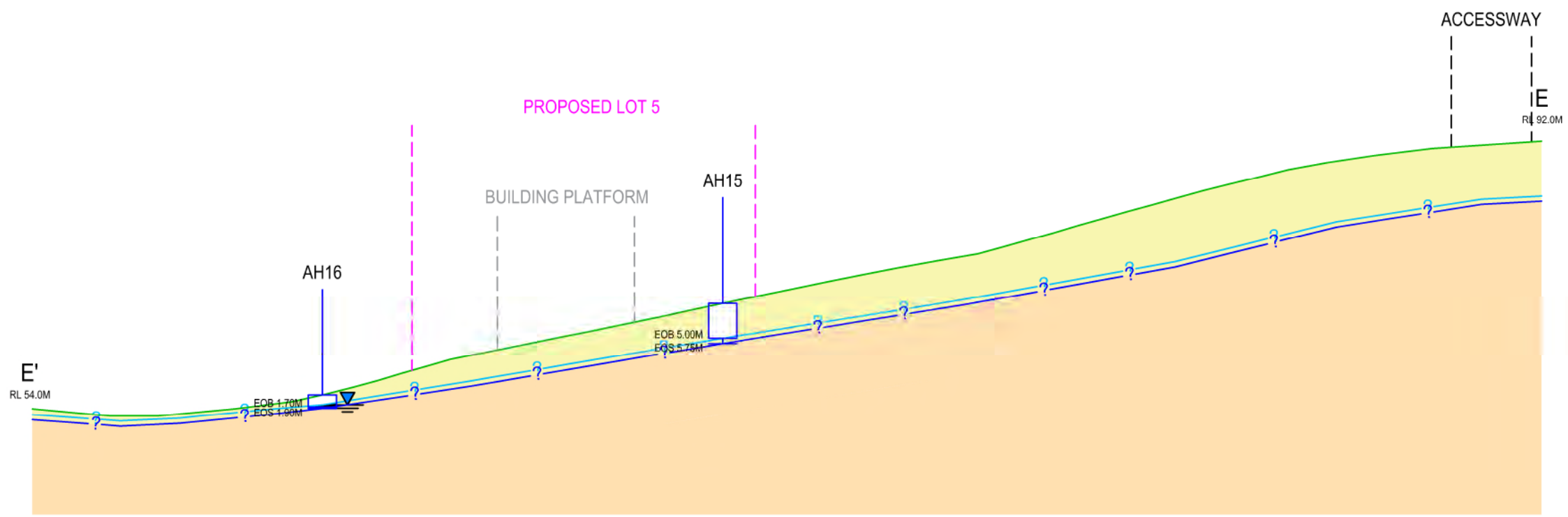
PROJECT TITLE
**RURAL RESIDENTIAL SUBDIVISION
2127 KAIPARA COAST HIGHWAY
MAKARAU**

DRAWING TITLE
CROSS-SECTION D-D'

DESIGNED	TR	DATE	SEP-21	CHECKED	PH	DATE	SEP-21
DRAWN	TR	DATE	SEP-21	APPROVED	AN	DATE	SEP-21

RESOURCE CONSENT		
SCALE	1:1,250	SIZE A3
COORDINATE SYSTEM NZTM	HEIGHT DATUM AKL 1946	
PROJECT NUMBER K200826	DRAWING NUMBER KGA 6	REVISION B





LEGEND

	WAITEMATA GROUP SOILS
	WAITEMATA GROUP TRANSITIONAL MATERIAL

- NOTES**
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B	FEB-24	RFI AMENDMENTS	TR	TP	YC
A	SEP-21	REPORT ISSUE	TR	PH	AN
REV	DATE	REVISION DESCRIPTION	BY	CHK	APP

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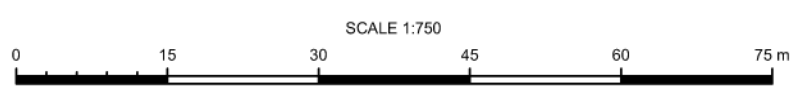
PROJECT TITLE
**RURAL RESIDENTIAL SUBDIVISION
2127 KAIPARA COAST HIGHWAY
MAKARAU**

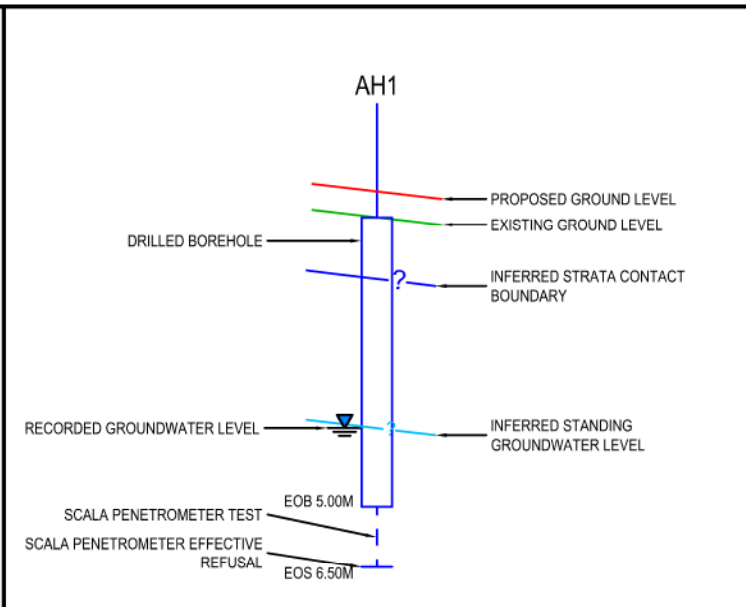
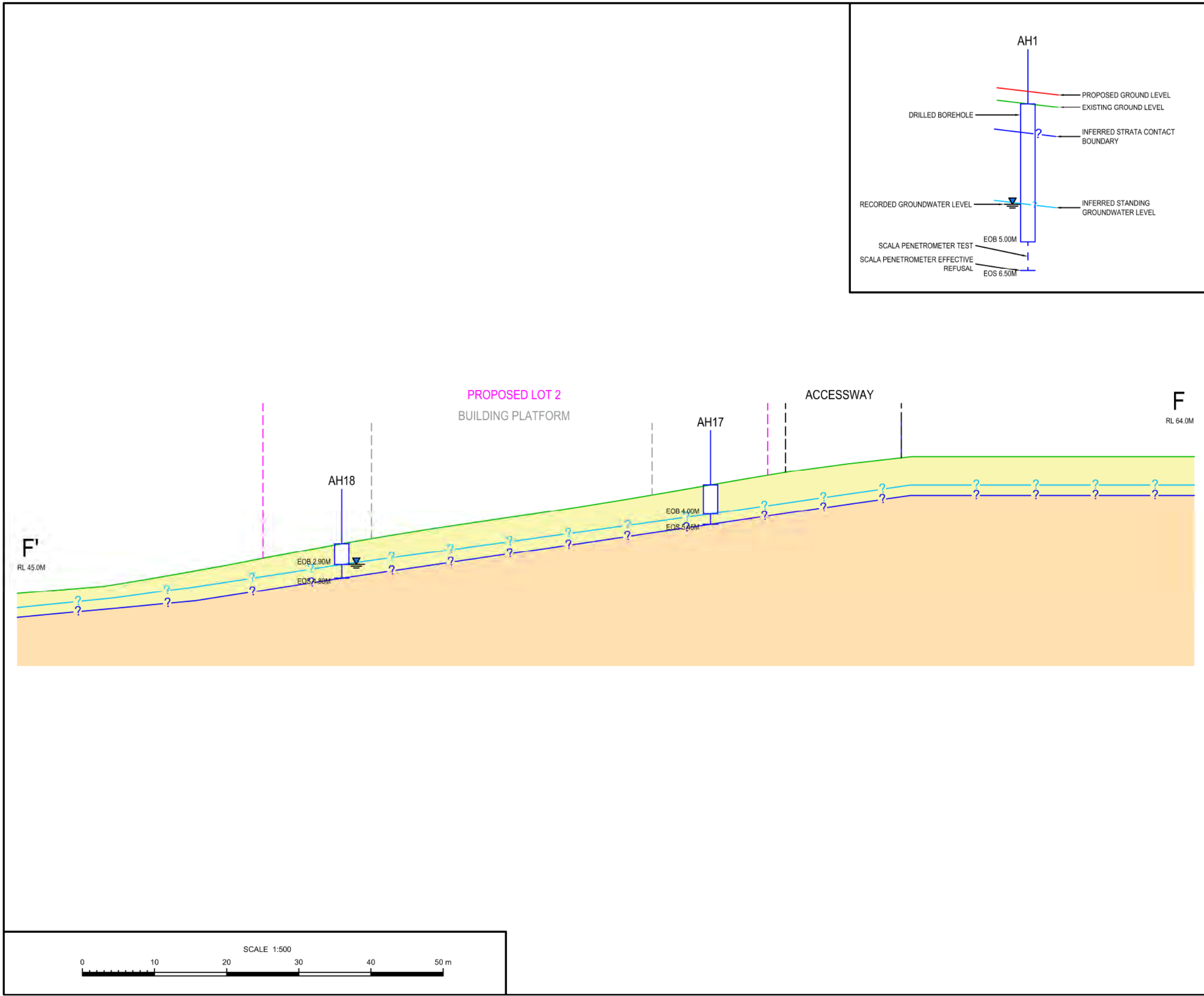
DRAWING TITLE
CROSS-SECTION E-E'

DESIGNED	TR	DATE	SEP-21	CHECKED	PH	DATE	SEP-21
DRAWN	TR	DATE	SEP-21	APPROVED	AN	DATE	SEP-21

STATUS
RESOURCE CONSENT

SCALE	1:400	SIZE	A3
COORDINATE SYSTEM	NZTM	HEIGHT DATUM	AKL 1946
PROJECT NUMBER	K200826	DRAWING NUMBER	KGA 7
		REVISION	B





LEGEND

- WAITEMATA GROUP SOILS
- WAITEMATA GROUP TRANSITIONAL MATERIAL

NOTES

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PROJECT TITLE
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MAKARAU**

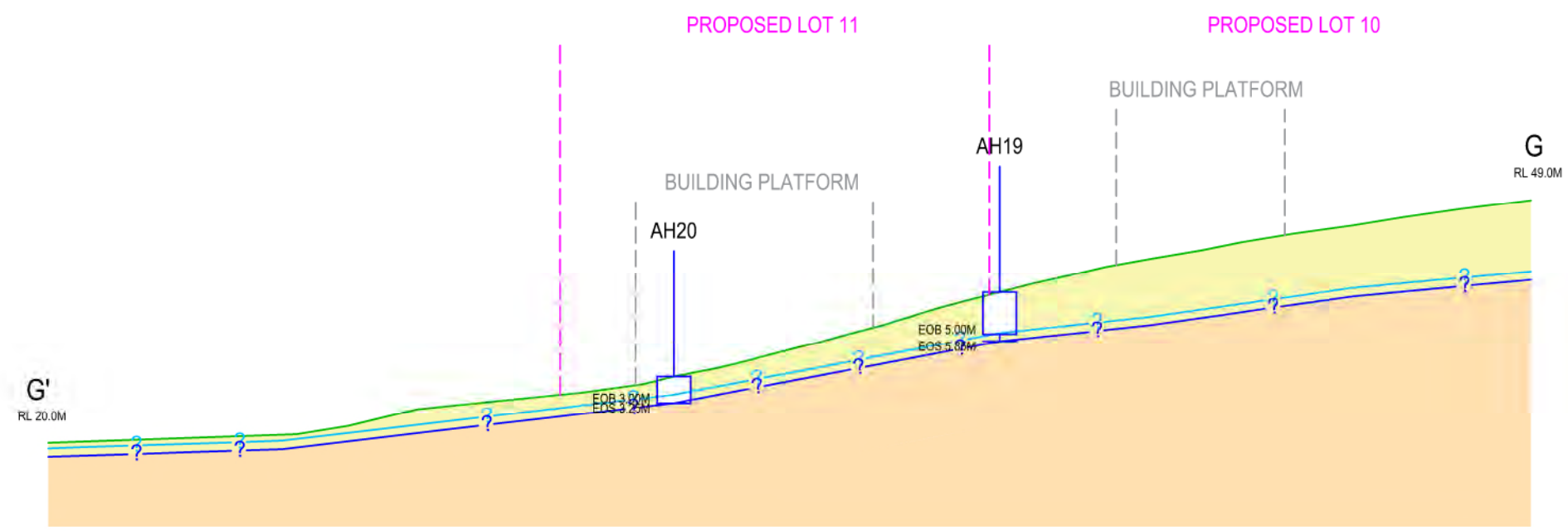
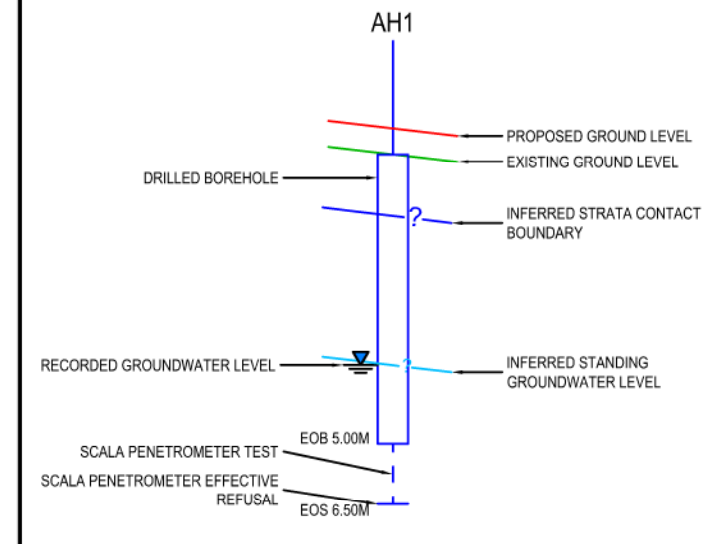
DRAWING TITLE
CROSS-SECTION F-F'

DESIGNED	TR	DATE	SEP-21	CHECKED	PH	DATE	SEP-21
DRAWN	TR	DATE	SEP-21	APPROVED	AN	DATE	SEP-21

RESOURCE CONSENT		
SCALE	1:500	SIZE A3
COORDINATE SYSTEM NZTM	HEIGHT DATUM AKL 1946	
PROJECT NUMBER K200826	DRAWING NUMBER KGA 8	REVISION B

LEGEND

- WAITEMATA GROUP SOILS
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NOTES

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A	SEP-21	REPORT ISSUE	TR	PH	AN
REV	DATE	REVISION DESCRIPTION	BY	CHK	APP

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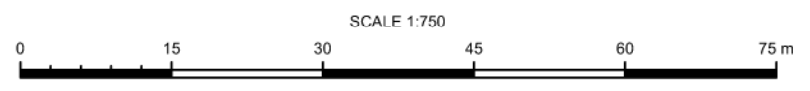
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2127 KAIPARA COAST HIGHWAY
MAKARAU**

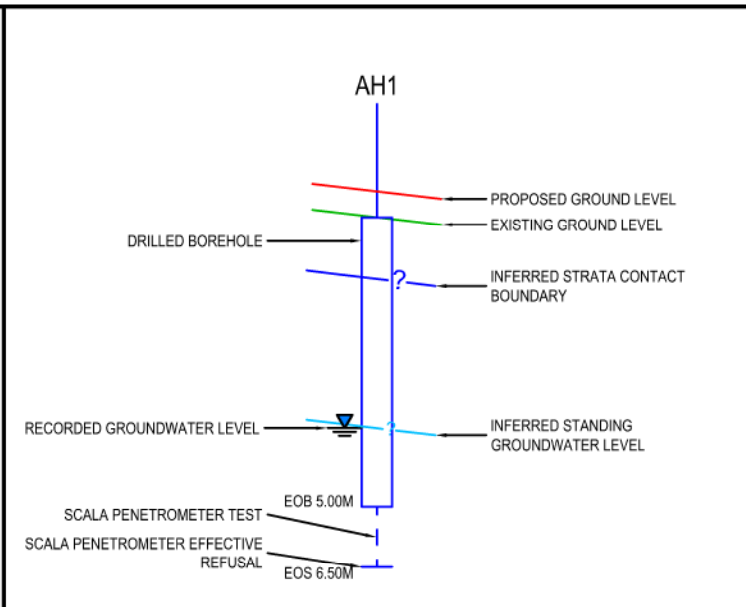
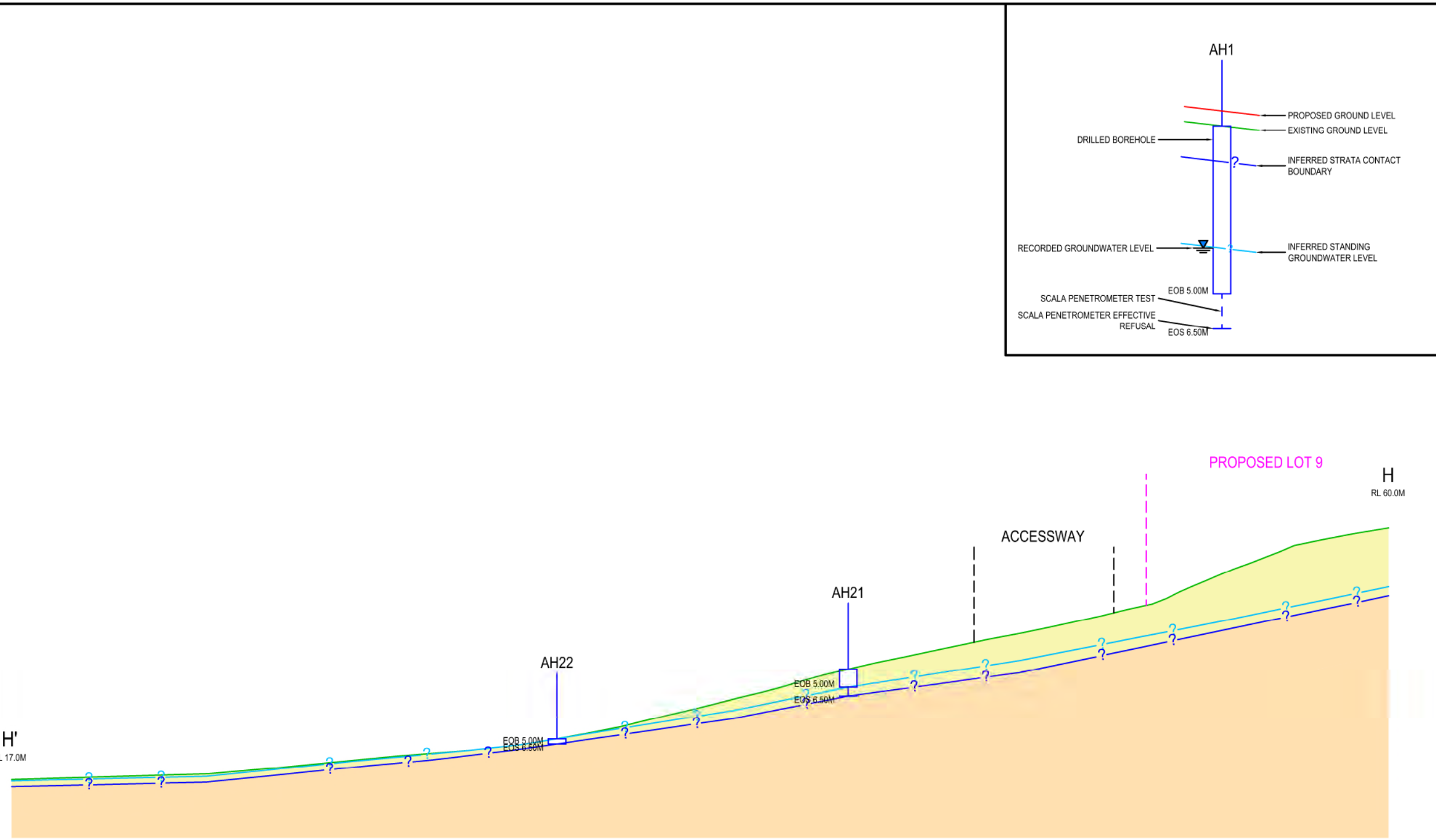
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CROSS-SECTION G-G'

DESIGNED	TR	DATE	SEP-21	CHECKED	PH	DATE	SEP-21
DRAWN	TR	DATE	SEP-21	APPROVED	AN	DATE	SEP-21

STATUS
RESOURCE CONSENT

SCALE	1:750	SIZE	A3
COORDINATE SYSTEM	NZTM	HEIGHT DATUM	AKL 1946
PROJECT NUMBER	K200826	DRAWING NUMBER	KGA 9
		REVISION	B





LEGEND

	WAITEMATA GROUP SOILS
	WAITEMATA GROUP TRANSITIONAL MATERIAL

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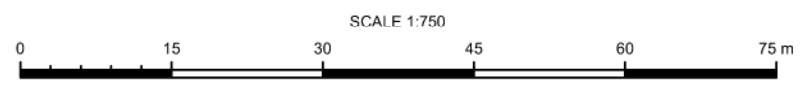
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**RURAL RESIDENTIAL SUBDIVISION
2127 KAIPARA COAST HIGHWAY
MAKARAU**

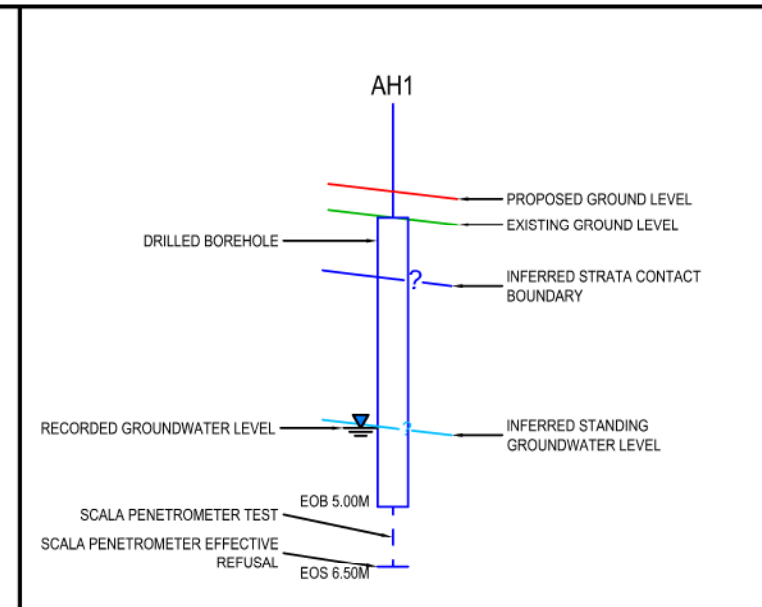
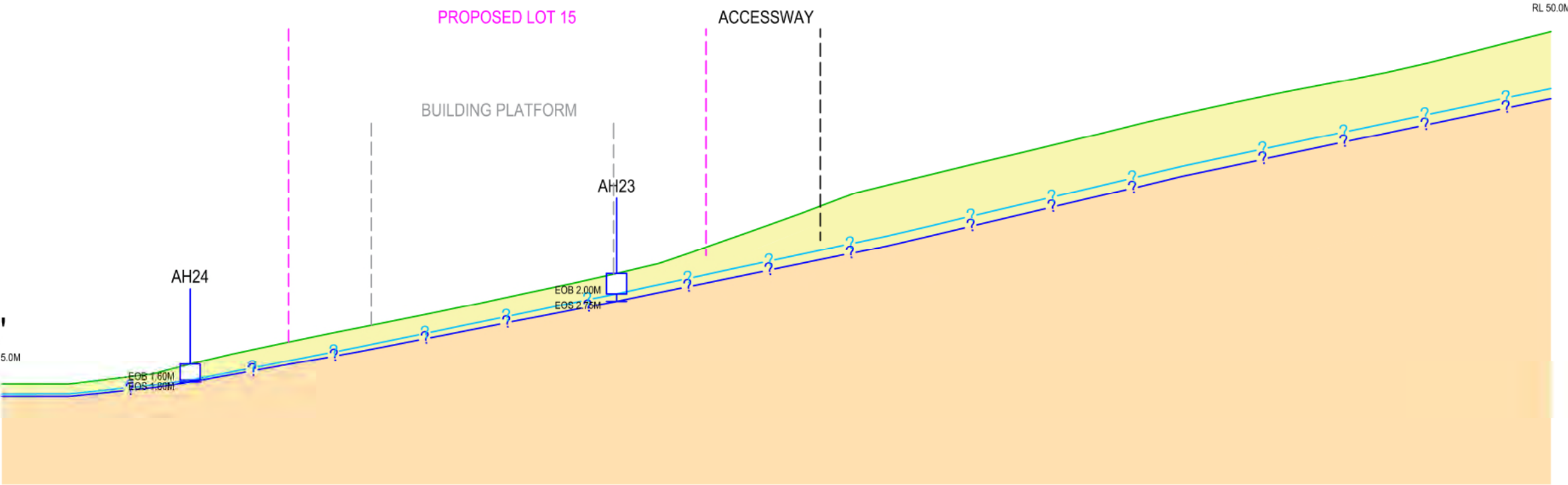
DRAWING TITLE
CROSS-SECTION H-H'

DESIGNED	TR	DATE	SEP-21	CHECKED	PH	DATE	SEP-21
DRAWN	TR	DATE	SEP-21	APPROVED	AN	DATE	SEP-21

STATUS
RESOURCE CONSENT

SCALE	1:750	SIZE	A3
COORDINATE SYSTEM	NZTM	HEIGHT DATUM	AKL 1946
PROJECT NUMBER	K200826	DRAWING NUMBER	KGA 10
		REVISION	B





LEGEND

	WAITEMATA GROUP SOILS
	WAITEMATA GROUP TRANSITIONAL MATERIAL

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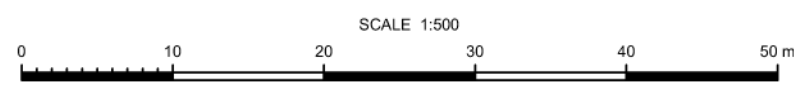
PROJECT TITLE
**RURAL RESIDENTIAL SUBDIVISION
2127 KAIPARA COAST HIGHWAY
MAKARAU**

DRAWING TITLE
CROSS-SECTION I-I'

DESIGNED	TR	DATE	SEP-21	CHECKED	PH	DATE	SEP-21
DRAWN	TR	DATE	SEP-21	APPROVED	AN	DATE	SEP-21

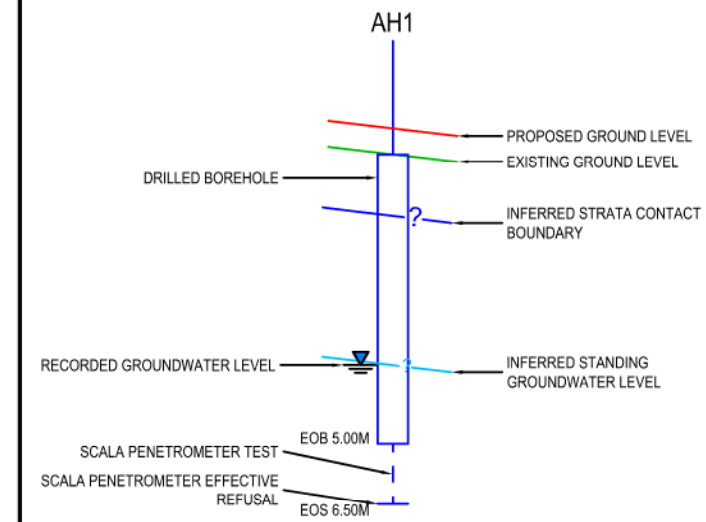
STATUS
RESOURCE CONSENT

SCALE	1:500	SIZE	A3
COORDINATE SYSTEM	NZTM	HEIGHT DATUM	AKL 1946
PROJECT NUMBER	K200826	DRAWING NUMBER	KGA 11
		REVISION	B



LEGEND

- WAITEMATA GROUP SOILS
- WAITEMATA GROUP TRANSITIONAL MATERIAL



NOTES

1. LOCATIONS OF ALL FEATURES AND GROUND INVESTIGATION POINTS ARE APPROXIMATE ONLY.
2. THE GROUND PROFILE SHOWN HAS BEEN DERIVED USING GEOMAPS LIDAR INFORMATION.
3. FOR DETAILS OF INDIVIDUAL BOREHOLES REFERENCE SHOULD BE MADE TO THE SPECIFIC BOREHOLE LOG.
4. ANY GEOLOGICAL INTERPRETATION SHOWN ON THE DRAWING IS BASED SOLELY ON AVAILABLE BOREHOLE RECORDS.
5. THE ACTUAL GROUND CONDITIONS MAY VARY FROM THAT SHOWN ON THE INTERPRETED GEOLOGICAL SECTIONS.
6. REFER TO SITE PLAN FOR LOCATION OF GEOLOGICAL SECTION.

B	FEB-24	RFI AMENDMENTS	TR	TP	YC
A	SEP-21	REPORT ISSUE	TR	PH	AN
REV	DATE	REVISION DESCRIPTION	BY	CHK	APP

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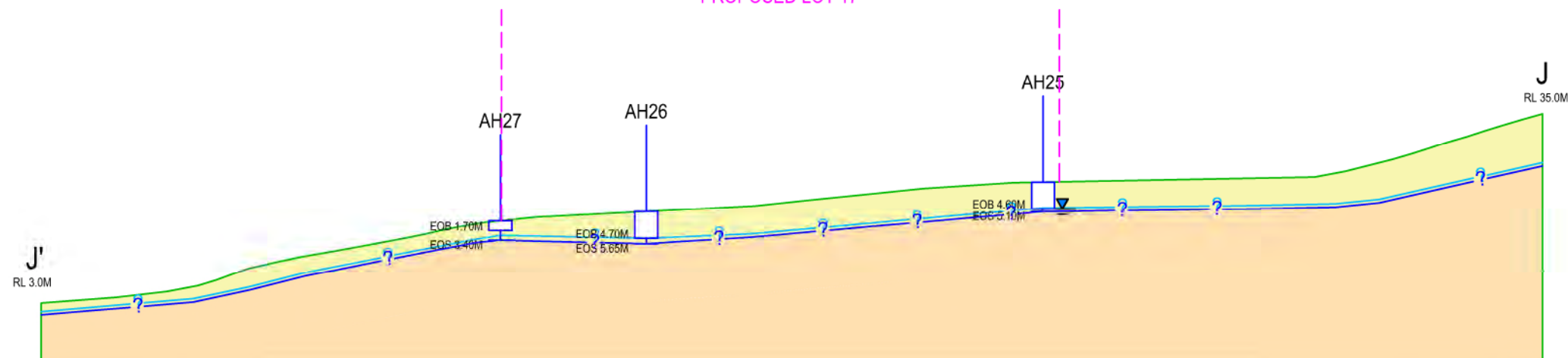
PROJECT TITLE
**RURAL RESIDENTIAL SUBDIVISION
2127 KAIPARA COAST HIGHWAY
MAKARAU**

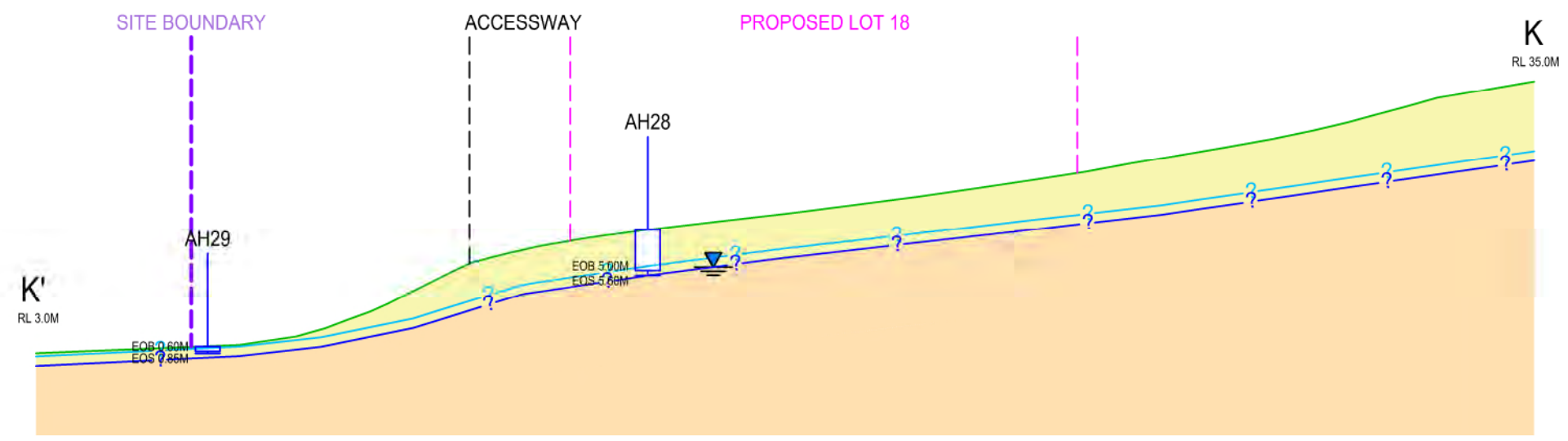
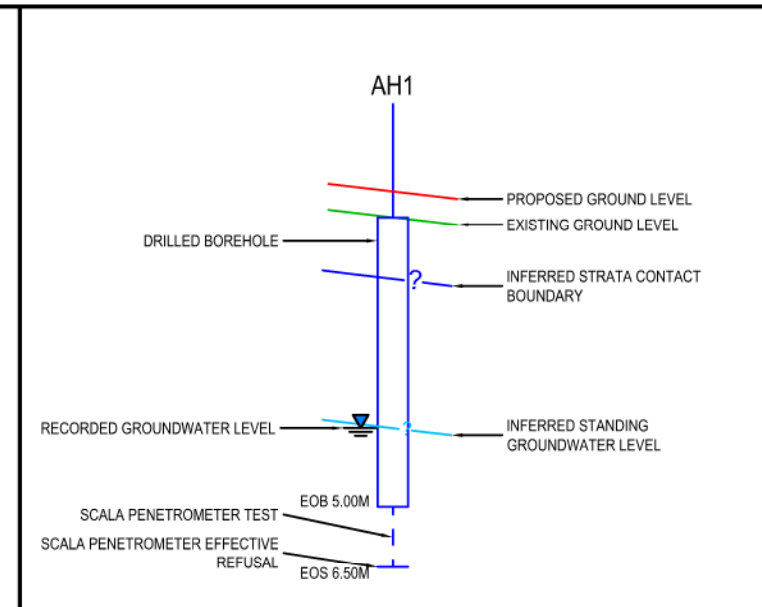
DRAWING TITLE
CROSS-SECTION J-J'

DESIGNED	TR	DATE	SEP-21	CHECKED	PH	DATE	SEP-21
DRAWN	TR	DATE	SEP-21	APPROVED	AN	DATE	SEP-21

RESOURCE CONSENT		
SCALE	1:1,000	SIZE A3
COORDINATE SYSTEM	NZTM	HEIGHT DATUM AKL 1946
PROJECT NUMBER	K200826	DRAWING NUMBER KGA 12
		REVISION B

PROPOSED LOT 17





LEGEND

	WAITEMATA GROUP SOILS
	WAITEMATA GROUP TRANSITIONAL MATERIAL

- NOTES**
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B	FEB-24	RFI AMENDMENTS	TR	TP	YC
A	SEP-21	REPORT ISSUE	TR	PH	AN
REV	DATE	REVISION DESCRIPTION	BY	CHK	APP

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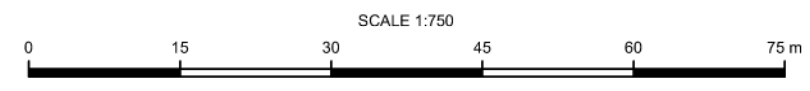
PROJECT TITLE
**RURAL RESIDENTIAL SUBDIVISION
2127 KAIPARA COAST HIGHWAY
MAKARAU**

DRAWING TITLE
CROSS-SECTION K-K'

DESIGNED	TR	DATE	SEP-21	CHECKED	PH	DATE	SEP-21
DRAWN	TR	DATE	SEP-21	APPROVED	AN	DATE	SEP-21

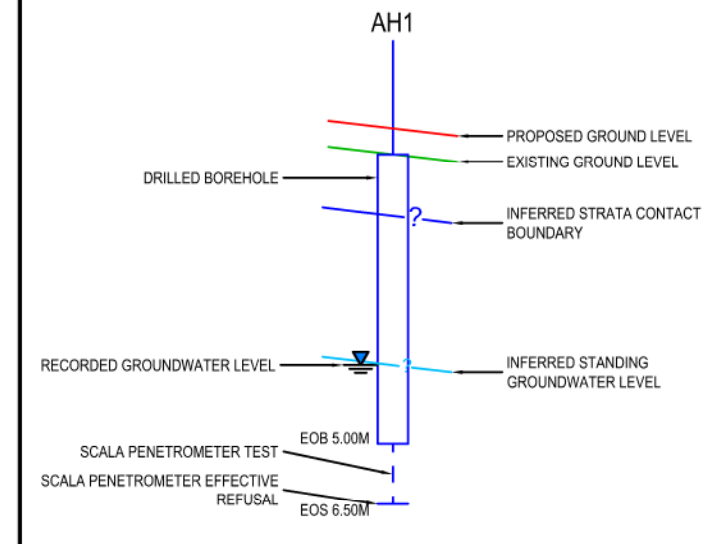
STATUS
RESOURCE CONSENT

SCALE	1:750	SIZE	A3
COORDINATE SYSTEM	NZTM	HEIGHT DATUM	AKL 1946
PROJECT NUMBER	K200826	DRAWING NUMBER	KGA 13
		REVISION	B



LEGEND

- WAITEMATA GROUP SOILS
- WAITEMATA GROUP TRANSITIONAL MATERIAL



NOTES

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B	FEB-24	RFI AMENDMENTS	TR	TP	YC
A	SEP-21	REPORT ISSUE	TR	PH	AN
REV	DATE	REVISION DESCRIPTION	BY	CHK	APP

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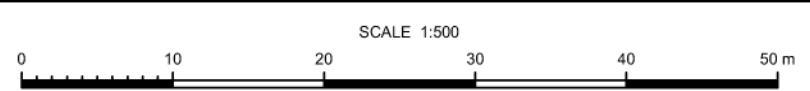
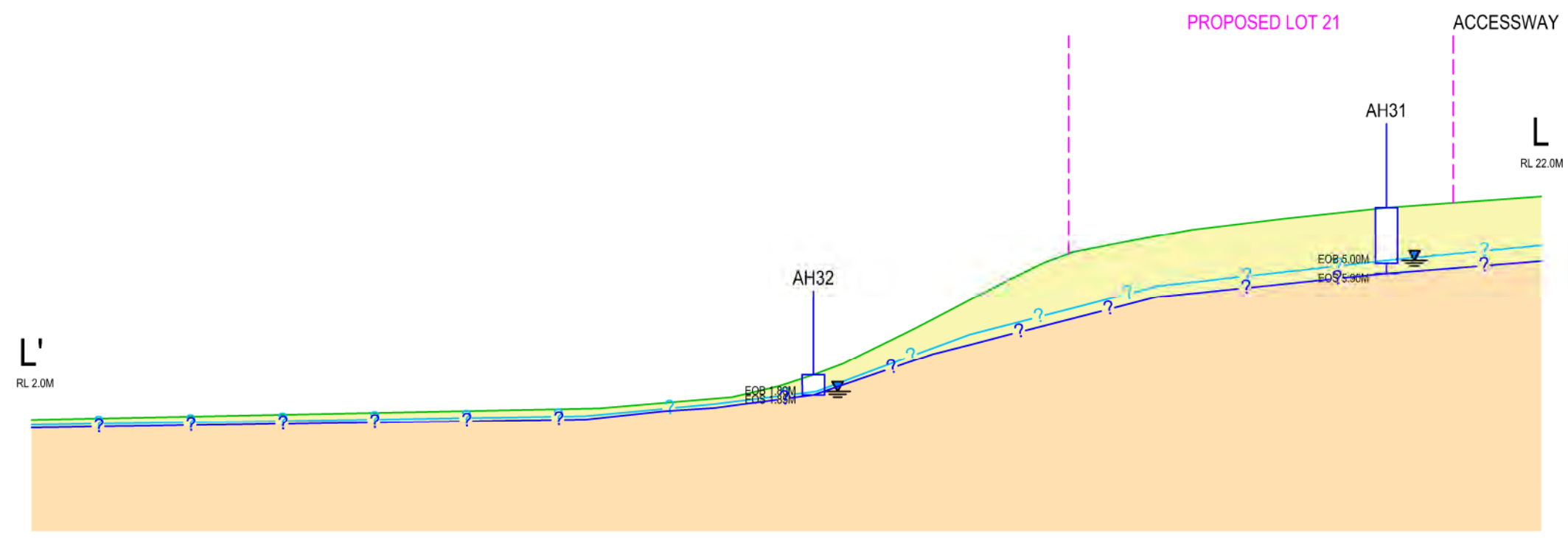
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**RURAL RESIDENTIAL SUBDIVISION
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MAKARAU**

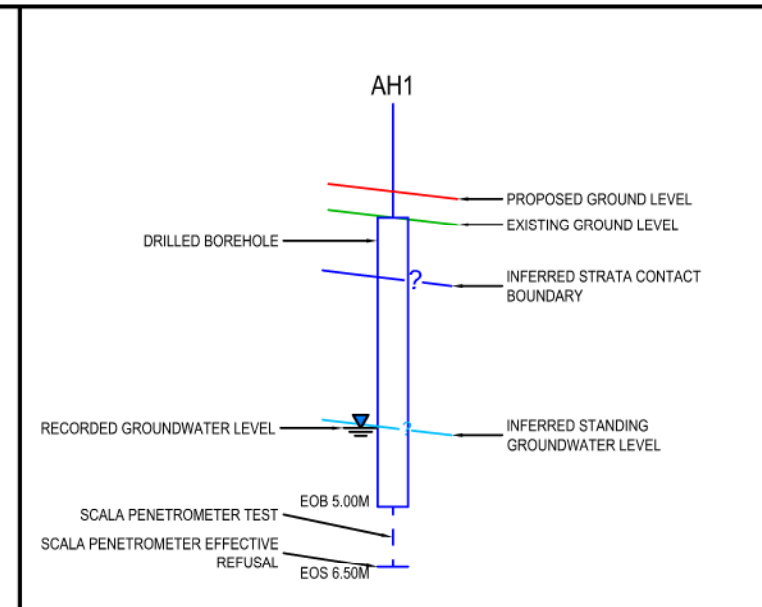
DRAWING TITLE
CROSS-SECTION L-L'

DESIGNED	TR	DATE	SEP-21	CHECKED	PH	DATE	SEP-21
DRAWN	TR	DATE	SEP-21	APPROVED	AN	DATE	SEP-21

STATUS
RESOURCE CONSENT

SCALE	1:500	SIZE	A3
COORDINATE SYSTEM	NZTM	HEIGHT DATUM	AKL 1946
PROJECT NUMBER	K200826	DRAWING NUMBER	KGA 14
		REVISION	B





LEGEND

	WAITEMATA GROUP SOILS
	WAITEMATA GROUP TRANSITIONAL MATERIAL

- NOTES**
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B	FEB-24	RFI AMENDMENTS	TR	TP	YC
A	SEP-21	REPORT ISSUE	TR	PH	AN
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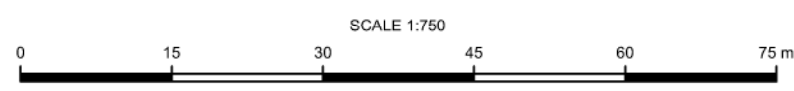
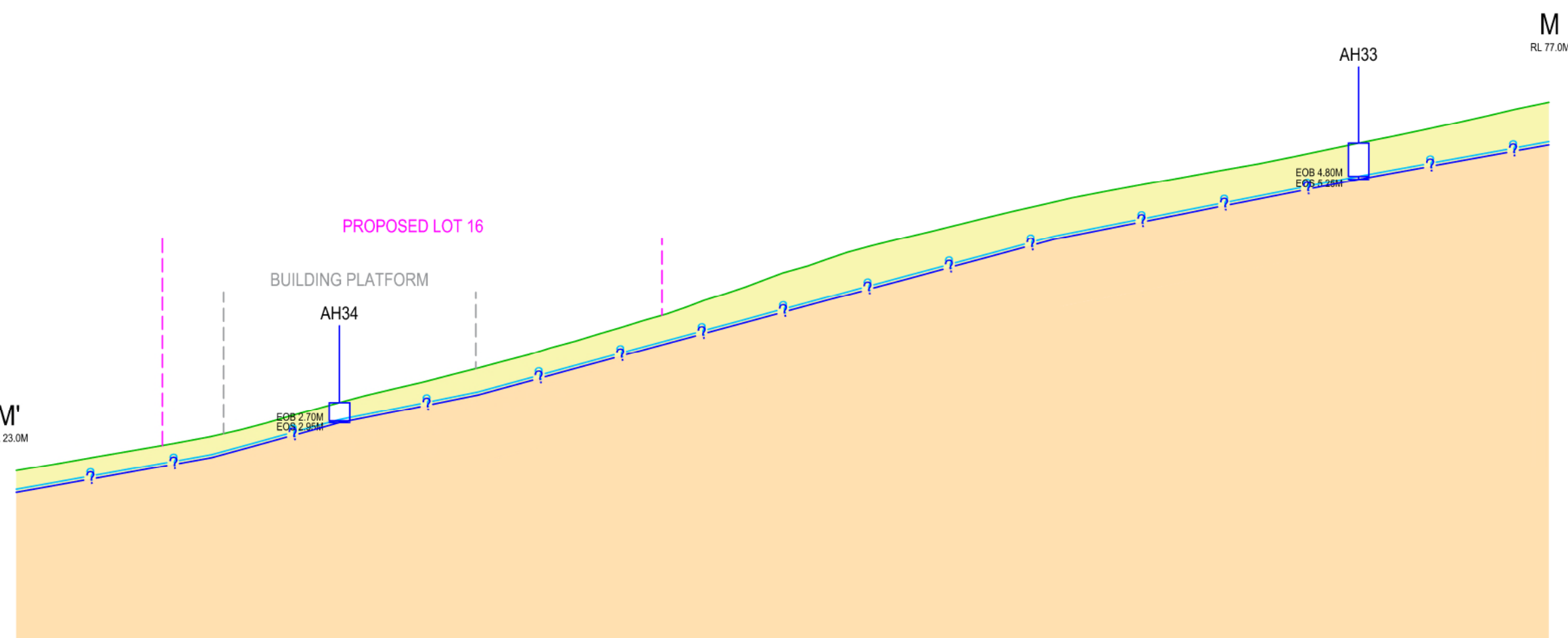
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**RURAL RESIDENTIAL SUBDIVISION
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MAKARAU**

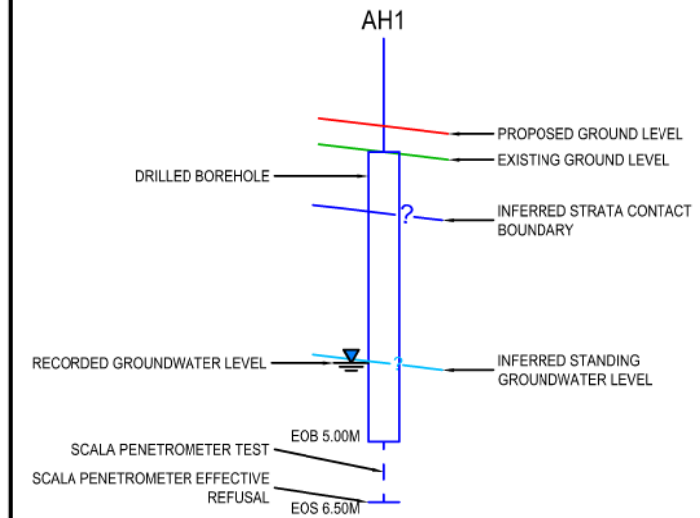
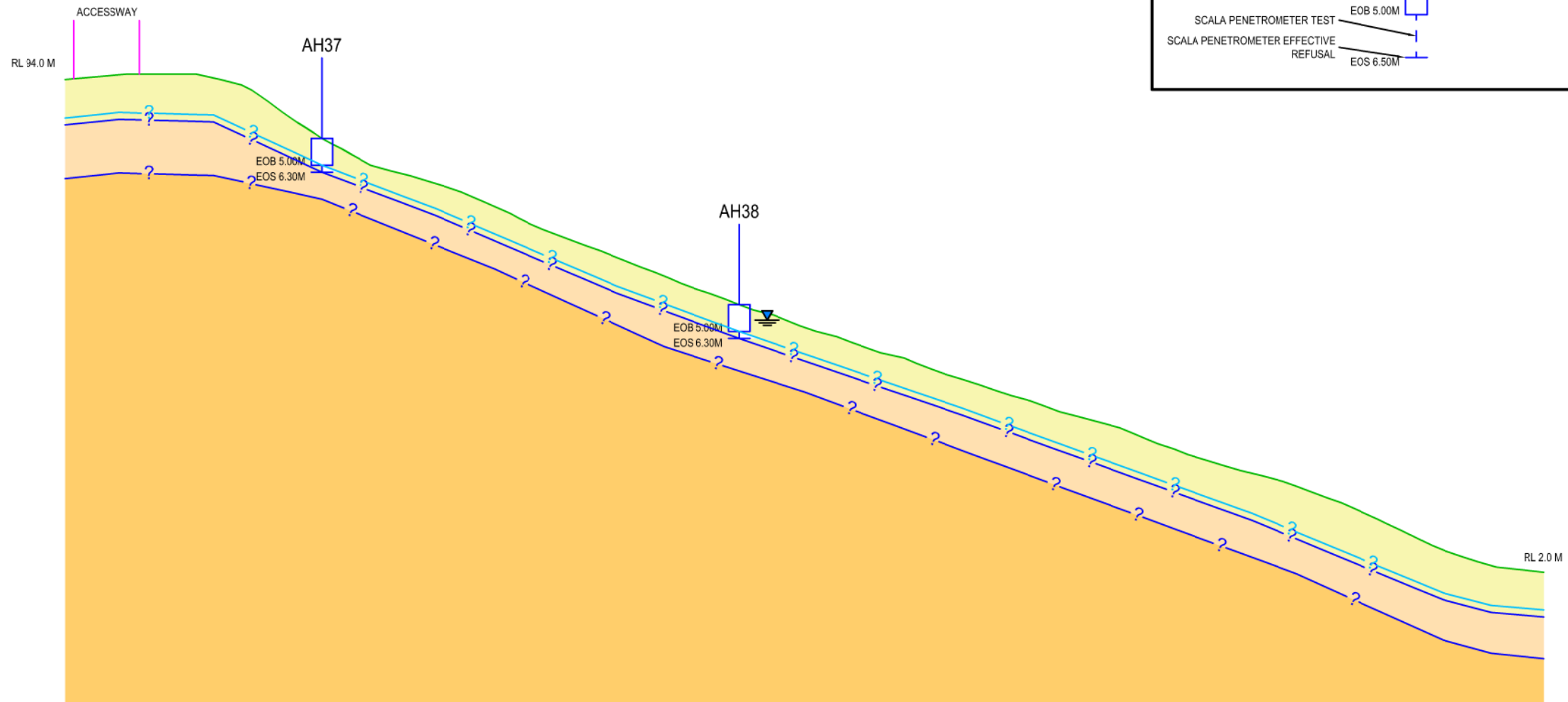
DRAWING TITLE
CROSS-SECTION M-M'

DESIGNED	TR	DATE	SEP-21	CHECKED	PH	DATE	SEP-21
DRAWN	TR	DATE	SEP-21	APPROVED	AN	DATE	SEP-21

STATUS
RESOURCE CONSENT

SCALE	1:750	SIZE	A3
COORDINATE SYSTEM	NZTM	HEIGHT DATUM	AKL 1946
PROJECT NUMBER	K200826	DRAWING NUMBER	KGA 15
		REVISION	B





LEGEND

- WAITEMATA GROUP SOILS
- WAITEMATA GROUP TRANSITIONAL MATERIAL
- WAITEMATA GROUP ROCK

NOTES

1. LOCATIONS OF ALL FEATURES AND GROUND INVESTIGATION POINTS ARE APPROXIMATE ONLY.
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TR	SEP-21	Report Issue	TR	PH	AN
REV	DATE	REVISION DESCRIPTION	BY	CHK	APP

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PROJECT TITLE
**RURAL RESIDENTIAL SUBDIVISION
 2127 KAIPARA COAST HIGHWAY
 MAKARAU**

DRAWING TITLE
SECTION N-N'

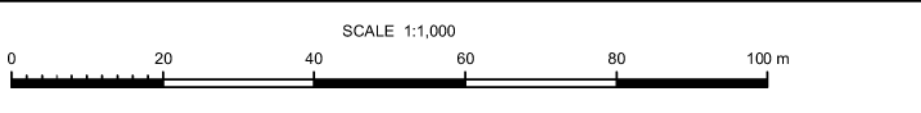
DESIGNED	TR	DATE	DEC-21	CHECKED	PH	DATE	DEC-21
DRAWN	TR	DATE	DEC-21	APPROVED	AN	DATE	DEC-21

STATUS
RESOURCE CONSENT

SCALE
 1:1,000 SIZE
 A3

COORDINATE SYSTEM
 NZTM HEIGHT DATUM
 AKL 1946

PROJECT NUMBER
 K200826 DRAWING NUMBER
 KGA 16 REVISION
 A



HAND AUGER LOG

Job No.: K200826

Client: Goodland Developments Limited

Hole No.: AH01

Project: Geotechnical Investigation

Date: 27/04/2021

Location: 2127 Kaipara Coast Highway, Kakanui

Logged By: KD

Coordinates: E 1730631.0, N 5954857.0

Ground Level: -

Sheet: 1 of 1

Depth (m)	RL	Subsurface Conditions	Groundwater	Geological Unit	Graphic Log	Vane Shear Strength (kPa) (refer notes for details)					Scala Penetrometer (blows / 50mm)	
						50	100	150	200	Values	Depth (m)	Blows
0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5		TOPSOIL; dark brown. Very soft, wet. [TOPSOIL] 0.2m: Hand Auger was easily pushed to 2.4m, very wet.	Groundwater Not Encountered	TS							2.40	1.0
		Clayey SILT; dark brownish orange. Very soft, wet, moderate plasticity. [WAITEMATA GROUP] 0.3m - 1.0m: Unable to take shear vane readings due to very soft material.									2.45	2.0
											2.50	2.0
											2.55	2.0
											2.60	2.0
											2.65	5.0
											2.70	6.0
											2.75	8.0
											2.80	8.0
											2.85	11.0
											2.90	17.0
											2.95	12.0
											3.00	10.0
								3.05	10.0			
								3.10	15.0			
		Sandy (fine to medium) SILT; dark brownish grey, wet, low plasticity. [WAITEMATA GROUP]								47		
										37		
		2.4m: Hit Rock.										
		2.4m: End of Hole (target depth 5.0m).										

Notes & Abbreviations

Soils logged in accordance with 'The guidelines for the classification and description of soil and rock for engineering purposes' December 2005, NZGS

Water

- ▼ Standing Water Level
- ∇ Water Level At Time Of Drilling
- ↔ Out Flow ▷ In Flow

Shear Vane

- Corrected as per NZGS Guidelines
- Vane No.: DR4681
- UTP = Unable To Penetrate
- + = Peak Exceeded
- = No Result

Other Comments

Target Depth 5.0m.

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HAND AUGER LOG

Job No.: K200826

Client: Goodland Developments Limited

Hole No.: AH02

Project: Geotechnical Investigation

Date: 27/04/2021

Location: 2127 Kaipara Coast Highway, Kakanui

Logged By: KD

Coordinates: E 1730626.0, N 5954850.0

Ground Level: -

Sheet: 1 of 1

Depth (m)	RL	Subsurface Conditions	Groundwater	Geological Unit	Graphic Log	Vane Shear Strength (kPa) (refer notes for details)					Scala Penetrometer (blows / 50mm)	
						50	100	150	200	Values	Depth (m)	Blows
0.5		TOPSOIL; dark brown. Firm, some rootlets. [TOPSOIL]	Groundwater Not Encountered	TS WAITEMATA GROUP							1.20	6.0
		Clayey SILT; dark brownish orange mottled dark brownish grey. Firm to stiff, wet, moderate plasticity. [WAITEMATA GROUP]				47					1.25	6.0
						17					1.30	7.0
		0.8m: Becomes dark grey with trace sand(fine)				54					1.35	8.0
	35						1.40	12.0				
	UTP						1.45	12.0				
1.0		Silty SAND(medium); dark grey. Dense, wet. [WAITEMATA GROUP]									1.50	12.0
		1.2m: End of Hole (target depth 5.0m). Hit rock.									1.55	12.0
			UTP					1.60	12.0			
											1.65	15.0
1.5												
2.0												
2.5												
3.0												
3.5												
4.0												
4.5												

Notes & Abbreviations

Soils logged in accordance with 'The guidelines for the classification and description of soil and rock for engineering purposes' December 2005, NZGS

Water

- ▼ Standing Water Level
- ▽ Water Level At Time Of Drilling
- ↔ Out Flow ▷ In Flow

Shear Vane

- Corrected as per NZGS Guidelines
- Vane No.:DR4681
- UTP = Unable To Penetrate
- + = Peak Exceeded
- = No Result

Other Comments

Target Depth 5.0m.

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HAND AUGER LOG

Job No.: K200826

Client: Goodland Developments Limited

Hole No.: AH03

Project: Geotechnical Investigation

Date: 27/04/2021

Location: 2127 Kaipara Coast Highway, Kakanui

Logged By: KD

Coordinates: E 1730576.0, N 5954835.0

Ground Level: -

Sheet: 1 of 1

Depth (m)	RL	Subsurface Conditions	Groundwater	Geological Unit	Graphic Log	Vane Shear Strength (kPa) (refer notes for details)				Scala Penetrometer (blows / 50mm)						
						50	100	150	200	Values	Depth (m)	Blows				
0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5		TOPSOIL intermixed with some clay; dark brown with some orange inclusions. Moist. [TOPSOIL]	Groundwater Not Encountered	TS							2.15	5.0				
													2.20	6.0		
				Silty CLAY; dark orange mottled light grey. Stiff to very stiff, moist to wet, high plasticity. [WAITEMATA GROUP]	WAITEMATA GROUP						105	2.25	10.0			
													39	2.30	10.0	
														2.35	7.0	
														2.40	10.0	
														2.45	10.0	
														2.50	9.0	
														27	2.55	8.0
														2.60	8.0	
														2.65	6.0	
														2.70	6.0	
				Sandy(fine) SILT; dark brownish orange mottled orange. Very stiff, moist, low plasticity, some gravel(fine) inclusions 2-3mm. [WAITEMATA GROUP]	WAITEMATA GROUP						220+	2.75	6.0			
														2.80	6.0	
														2.85	6.0	
														184	2.90	8.0
														57	2.95	8.0
														3.00	6.0	
												UTP	3.05	5.0		
												-	3.10	8.0		
		1.8m: Becomes dark grey. Hard, dry to moist.	WAITEMATA GROUP								3.15	8.0				
													3.20	9.0		
													3.25	11.0		
													3.30	12.0		
													3.35	14.0		
													3.40	13.0		
		2.1m: End of Hole (target depth 5.0m). Hit very dense material.	WAITEMATA GROUP								3.45	12.0				
													3.50	13.0		

Notes & Abbreviations

Soils logged in accordance with 'The guidelines for the classification and description of soil and rock for engineering purposes' December 2005, NZGS

Water

- ▼ Standing Water Level
- ▽ Water Level At Time Of Drilling
- ↔ Out Flow ▷ In Flow

Shear Vane

- Corrected as per NZGS Guidelines
- Vane No.: DR4681
- UTP = Unable To Penetrate
- + = Peak Exceeded
- = No Result

Other Comments

Target Depth 5.0m.

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HAND AUGER LOG

Job No.: K200826

Client: Goodland Developments Limited

Hole No.: AH04

Project: Geotechnical Investigation

Date: 27/04/2021

Location: 2127 Kaipara Coast Highway, Kakanui

Logged By: KD

Coordinates: E 1730555.0, N 5954839.0

Ground Level: -

Sheet: 1 of 2

Depth (m)	RL	Subsurface Conditions	Groundwater	Geological Unit	Graphic Log	Vane Shear Strength (kPa) (refer notes for details)				Scala Penetrometer (blows / 50mm)						
						50	100	150	200	Values	Depth (m)	Blows				
0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5		TOPSOIL with silty clay inclusions and trace organic inclusions; dark brown mottled brownish orange and black. [TOPSOIL]	Groundwater Not Encountered	TS							5.15	1.0				
		Clayey SILT; brownish orange mottled orange. Very stiff, dry to moist, low plasticity. [COLLUVIUM?] 0.7m: Becomes dark grey mottled brownish orange with black organic inclusions. 1.1m: Becomes dark brownish orange.		COLLUVIUM?								5.20	1.0			
														5.25	2.0	
															5.30	2.0
															5.35	5.0
															5.40	3.0
															5.45	4.0
														123	5.50	2.0
														35	5.55	4.0
															5.60	4.0
															5.65	5.0
														220+	5.70	3.0
														-	5.75	2.0
															5.80	2.0
															5.85	2.0
														UTP	5.90	8.0
														-	5.95	10.0
															6.00	13.0
													6.05	10.0		
									220+	6.10	10.0					
									-	6.15	11.0					
										6.20	12.0					
		SILT some clay with trace sand(fine); orange mottled brownish yellow. Very stiff to hard, low to moderate plasticity. [WAITEMATA GROUP]		WAITEMATA GROUP							155					
		SILT with trace sand(fine); light brownish yellow. Hard, moist to wet, low plasticity. [WAITEMATA GROUP] 2.5m: Becomes dark orange, highly oxidized. Sandy(fine) SILT; light brownish yellow. Hard, moist, no to low plasticity. [WAITEMATA GROUP] 3.3m: Becomes moist to wet. 3.5m: Becomes highly oxidized. SILT with some sand(fine); light brownish grey mottled orange. Hard, moist, no to low plasticity. [WAITEMATA GROUP] 4.0m: Becomes wet. 4.5m: Becomes dark grey with limonitic inclusions. 5.1m: End of Hole (target depth 5.0m).										66				
													208			
													91			
													204			
													74			
													220+			
													-			
													220+			
													-			
													183			
													63			
													176			
													52			
													203			
													54			
													220+			
													-			
											220+					
										-						
										220+						
										-						

Notes & Abbreviations

Soils logged in accordance with 'The guidelines for the classification and description of soil and rock for engineering purposes' December 2005, NZGS

Water	Shear Vane	Other Comments
▼ Standing Water Level	Corrected as per NZGS Guidelines	Target Depth 5.0m.
∇ Water Level At Time Of Drilling	Vane No.:DR4681	
↔ Out Flow ▷ In Flow	UTP = Unable To Penetrate	
	+ = Peak Exceeded	
	- = No Result	

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Produced with Core-GS

HAND AUGER LOG

Job No.: K200826

Client: Goodland Developments Limited

Hole No.: AH04

Project: Geotechnical Investigation

Date: 27/04/2021

Location: 2127 Kaipara Coast Highway, Kakanui

Logged By: KD

Coordinates: E 1730555.0, N 5954839.0

Ground Level: -

Sheet: 2 of 2

Depth (m)	RL	Subsurface Conditions	Groundwater	Geological Unit	Graphic Log	Vane Shear Strength (kPa) <small>(refer notes for details)</small>					Scala Penetrometer <small>(blows / 50mm)</small>	
						50	100	150	200	Values	Depth (m)	Blows
5.5			Not									
6.0												
6.5												
7.0												
7.5												
8.0												
8.5												
9.0												
9.5												

Notes & Abbreviations

Soils logged in accordance with 'The guidelines for the classification and description of soil and rock for engineering purposes' December 2005, NZGS

Water

- ▼ Standing Water Level
- ▽ Water Level At Time Of Drilling
- ↔ Out Flow ▷ In Flow

Shear Vane

- Corrected as per NZGS Guidelines
- Vane No.:
- UTP = Unable To Penetrate
- + = Peak Exceeded
- = No Result

Other Comments

Target Depth 5.0m.

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HAND AUGER LOG

Job No.: K200826

Client: Goodland Developments Limited

Hole No.: AH06

Project: Geotechnical Investigation

Date: 28/04/2021

Location: 2127 Kaipara Coast Highway, Kakanui

Logged By: KT

Coordinates: E 1730557.0, N 5954559.0

Ground Level: -

Sheet: 1 of 1

Depth (m)	RL	Subsurface Conditions	Groundwater	Geological Unit	Graphic Log	Vane Shear Strength (kPa) (refer notes for details)				Scala Penetrometer (blows / 50mm)					
						50	100	150	200	Values	Depth (m)	Blows			
0.0		[TOPSOIL]	Groundwater Not Encountered	TS Waitemata Group							1.10	0.0			
0.5		SILT; grey mottled orange. Soft, dry, no plasticity. [WAITEMATA GROUP]													
0.8		SILT with some sand (medium to coarse) and some clay; grey. Stiff, moist, low to moderate plasticity. [WAITEMATA GROUP]										81 34			
1.0		Silty CLAY with some sand (fine to medium) and some gravel (fine to medium); brownish grey with white specs. Moist, low to moderate plasticity. [WAITEMATA GROUP]										98 37			
1.1		1.0m: GRAVEL (fine to medium) with some sand (fine to coarse); grey. Very dense, moist, no plasticity. 1.1m: End of Hole. Refusal on rock, very dense material.													

Notes & Abbreviations

Soils logged in accordance with 'The guidelines for the classification and description of soil and rock for engineering purposes' December 2005, NZGS

Water

- ▼ Standing Water Level
- ▽ Water Level At Time Of Drilling
- ↔ Out Flow ▷ In Flow

Shear Vane

- Corrected as per NZGS Guidelines
- Vane No.: 1428
- UTP = Unable To Penetrate
- + = Peak Exceeded
- = No Result

Other Comments

Target Depth 5.0m.

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HAND AUGER LOG

Job No.: K200826

Client: Goodland Developments Limited

Hole No.: AH07

Project: Geotechnical Investigation

Date: 28/04/2021

Location: 2127 Kaipara Coast Highway, Kakanui

Logged By: KT

Coordinates: E 1730535.0, N 5954248.0

Ground Level: -

Sheet: 1 of 1

Depth (m)	RL	Subsurface Conditions	Groundwater	Geological Unit	Graphic Log	Vane Shear Strength (kPa) <small>(refer notes for details)</small>				Scala Penetrometer (blows / 50mm)		
						50	100	150	200	Values	Depth (m)	Blows
0.0 - 0.1		[TOPSOIL]	Groundwater Not Encountered	TS								
0.1 - 0.8		SILT with some gravel(fine to medium) and some sand (medium to coarse); reddish brown. Very dense, dry to moist. [WAITEMATA GROUP]		WAITEMATA GROUP						237+ 51	0.80	0.0
0.8 - 0.8		0.8m: End of Hole. Hit rock.								UTP -		
0.5												
1.0												
1.5												
2.0												
2.5												
3.0												
3.5												
4.0												
4.5												

Notes & Abbreviations

Soils logged in accordance with 'The guidelines for the classification and description of soil and rock for engineering purposes' December 2005, NZGS

Water

- ▼ Standing Water Level
- ▽ Water Level At Time Of Drilling
- ↔ Out Flow ▷ In Flow

Shear Vane

Corrected as per NZGS Guidelines
Vane No.:1428
UTP = Unable To Penetrate
+ = Peak Exceeded
- = No Result

Other Comments

Target Depth 5.0m.

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HAND AUGER LOG

Job No.: K200826

Client: Goodland Developments Limited

Hole No.: AH08

Project: Geotechnical Investigation

Date: 28/04/2021

Location: 2127 Kaipara Coast Highway, Kakanui

Logged By: KD

Coordinates: E 1730506.0, N 5954255.0

Ground Level: -

Sheet: 1 of 1

Depth (m)	RL	Subsurface Conditions	Groundwater	Geological Unit	Graphic Log	Vane Shear Strength (kPa)					Scala Penetrometer (blows / 50mm)		
						50	100	150	200	Values	Depth (m)	Blows	
0.0		TOPSOIL; dark brown. Moist. [TOPSOIL]	Groundwater Not Encountered	TS							1.40	0.0	
0.5		Sandy(fine) SILT; dark brownish orange. Hard, dry, friable, highly weathered. [WAITEMATA GROUP]		WAITEMATA GROUP						UTP			
1.0		SILT some sand(fine); dark brownish orange. Hard, moist, highly weathered [WAITEMATA GROUP]									UTP		
1.1		1.1m: Sand size becomes medium to coarse.										UTP	
1.4		1.4m: End of Hole (target depth 5.0m).											

Notes & Abbreviations

Soils logged in accordance with 'The guidelines for the classification and description of soil and rock for engineering purposes' December 2005, NZGS

Water	Shear Vane	Other Comments
▼ Standing Water Level	Corrected as per NZGS Guidelines	Target Depth 5.0m.
▽ Water Level At Time Of Drilling	Vane No.:DR4681	
↔ Out Flow ▷ In Flow	UTP = Unable To Penetrate	
	+ = Peak Exceeded	
	- = No Result	

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HAND AUGER LOG

Job No.: K200826

Client: Goodland Developments Limited

Hole No.: AH09

Project: Geotechnical Investigation

Date: 28/04/2021

Location: 2127 Kaipara Coast Highway, Kakanui

Logged By: KT

Coordinates: E 1730433.0, N 5954383.0

Ground Level: -

Sheet: 1 of 1

Depth (m)	RL	Subsurface Conditions	Groundwater	Geological Unit	Graphic Log	Vane Shear Strength (kPa) (refer notes for details)				Scala Penetrometer (blows / 50mm)				
						50	100	150	200	Values	Depth (m)	Blows		
		[TOPSOIL]		TS	TS						5.05	2.0		
		SILT minor clay; brownish orange. Very stiff, dry, no plasticity to low plasticity. [WAITEMATA GROUP]		Waitemata Group	[Graphic Log Symbols]					186	5.10	2.0		
0.5		Clayey SILT; brownish orange. Very stiff, dry, low plasticity. [WAITEMATA GROUP]	Groundwater Not Encountered								34	5.15	1.0	
		0.8m: Becomes dry to moist.										169	5.20	3.0
		Silty CLAY; light grey mottled orange. Stiff, moist, moderate plasticity. [WAITEMATA GROUP]										74	5.25	3.0
1.0		1.4m: Becomes light grey mottled orange, stiff to very stiff.										57	5.30	3.0
		SILT with some clay; light grey mottled orange. Very stiff, moist, low plasticity. [WAITEMATA GROUP]										122	5.35	4.0
1.5		3.0m: Becomes brownish orange.										51	5.40	5.0
		3.4m: Becomes light grey mottled orange.										122	5.45	5.0
2.0		4.7m: Becomes grey mottled orange, stiff to very stiff, moist to wet, low plasticity.										54	5.50	6.0
2.5		5.0m: End of Hole.										118	5.55	5.0
3.0												51	5.60	5.0
3.5												122	5.65	6.0
4.0												54	5.70	7.0
4.5												118	5.75	6.0
												68	5.80	8.0
												118	5.85	7.0
												51	5.90	8.0
												118	5.95	7.0
												54	6.00	9.0
												122	6.05	10.0
										54	6.10	10.0		
									122	6.15	9.0			
									51	6.20	8.0			
									122	6.25	10.0			
									51	6.30	12.0			
									122	6.35	12.0			
									51	6.40	12.0			
									118	6.45	12.0			
									54	6.50	12.0			

Notes & Abbreviations

Soils logged in accordance with 'The guidelines for the classification and description of soil and rock for engineering purposes' December 2005, NZGS

Water	Shear Vane	Other Comments
▼ Standing Water Level	Corrected as per NZGS Guidelines	Target Depth 5.0m.
∇ Water Level At Time Of Drilling	Vane No.:1428	
↔ Out Flow ▷ In Flow	UTP = Unable To Penetrate	
	+ = Peak Exceeded	
	- = No Result	

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HAND AUGER LOG

Job No.: K200826

Client: Goodland Developments Limited

Hole No.: AH12

Project: Geotechnical Investigation

Date: 30/04/2021

Location: 2127 Kaipara Coast Highway, Kakanui

Logged By: KD

Coordinates: E 1730310.0, N 5954032.0

Ground Level: -

Sheet: 1 of 2

Depth (m)	RL	Subsurface Conditions	Groundwater	Geological Unit	Graphic Log	Vane Shear Strength (kPa) (refer notes for details)				Scala Penetrometer (blows / 50mm)					
						50	100	150	200	Values	Depth (m)	Blows			
		[TOPSOIL]		TS	TS						5.10	1.0			
		SILT with some clay; brown mottled dark brown orange. Very stiff, dry, no plasticity to low plasticity. [WAITEMATA GROUP]		Waitemata Group	[Graphic Log]					169	5.15	1.0			
0.5		Silty CLAY; brown mottled orange. Very stiff, dry to moist, low plasticity. [WAITEMATA GROUP]	Groundwater Not Encountered								34	5.20	1.0		
		CLAY some silt; light grey mottled orange. Very stiff, dry to moist, moderate plasticity. [WAITEMATA GROUP]										220	5.25	2.0	
		0.9m - 1.2m: Frequent reddish brown woodchips.										78	5.30	3.0	
		1.2m - 2.3m: Becomes moist with occasional white specs.											5.35	6.0	
		1.3m: Becomes moderate to highly plastic.											5.40	4.0	
1.0													5.45	3.0	
													5.50	4.0	
													5.55	3.0	
													5.60	3.0	
													5.65	3.0	
													81	5.70	4.0
													5.75	5.0	
													5.80	4.0	
													115	5.85	4.0
													81	5.90	5.0
													5.95	5.0	
													122	6.00	5.0
													71	6.05	5.0
													6.10	6.0	
													6.15	5.0	
													6.20	7.0	
													125	6.25	6.0
											85	6.30	7.0		
										6.35	8.0				
										6.40	10.0				
										6.45	10.0				
										6.50	20.0				
2.0										108					
										54					
2.5										108					
										51					
										149					
										74					
										91					
										64					
										101					
										54					
										74					
										54					
										81					
										34					
										85					
										41					
4.5										220					
										34					

Notes & Abbreviations

Soils logged in accordance with 'The guidelines for the classification and description of soil and rock for engineering purposes' December 2005, NZGS

Water

- ▼ Standing Water Level
- ∇ Water Level At Time Of Drilling
- ↔ Out Flow ▷ In Flow

Shear Vane

- Corrected as per NZGS Guidelines
- Vane No.: 1428
- UTP = Unable To Penetrate
- + = Peak Exceeded
- = No Result

Other Comments

Target Depth 5.0m.

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HAND AUGER LOG

Job No.: K200826

Client: Goodland Developments Limited

Hole No.: AH13

Project: Geotechnical Investigation

Date: 30/04/2021

Location: 2127 Kaipara Coast Highway, Kakanui

Logged By: KD

Coordinates: E 1730232.0, N 5954021.0

Ground Level: -

Sheet: 1 of 1

Depth (m)	RL	Subsurface Conditions	Groundwater	Geological Unit	Graphic Log	Vane Shear Strength (kPa) (refer notes for details)				Scala Penetrometer (blows / 50mm)		
						50	100	150	200	Values	Depth (m)	Blows
0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5		TOPSOIL; dark brown, moist. [TOPSOIL]	Groundwater Not Encountered	WAITEMATA GROUP							5.00	1.0
		Silty CLAY; orange mottled brownish orange. Very stiff, moist, moderate to high plasticity. [WAITEMATA GROUP]				199	5.15	1.0				
						37	5.20	1.0				
							5.25	1.0				
						164	5.30	1.0				
						63	5.35	1.0				
							5.40	1.0				
							5.45	1.0				
						96	5.50	3.0				
						51	5.55	2.0				
							5.60	6.0				
							5.65	7.0				
						137	5.70	4.0				
						64	5.75	1.0				
							5.80	2.0				
							5.85	2.0				
						144	5.90	2.0				
						59	5.95	2.0				
							6.00	3.0				
							6.05	2.0				
			6.10	2.0								
		139	6.15	3.0								
		63	6.20	5.0								
			6.25	4.0								
			6.30	5.0								
			6.35	5.0								
			6.40	6.0								
			6.45	6.0								
			6.50	10.0								
			6.55	4.0								
			6.60	2.0								
			6.65	3.0								
			6.70	3.0								
			6.75	5.0								
			6.80	3.0								
			6.85	2.0								
			6.90	1.0								
		Silty SAND(fine); light grey, loose. [WAITEMATA GROUP]			144					6.70	3.0	
		Clayey SILT; light brownish grey. Very stiff, moist, moderate plasticity. [WAITEMATA GROUP]			66					6.85	2.0	
					118					6.80	3.0	
					64					6.85	2.0	
					186					6.90	1.0	
		3.4m: Becomes highly oxidized.			88							
									UTP			
									-			
									UTP			
									-			
		Silty SAND(fine); light brownish grey mottled orange, loose. [WAITEMATA GROUP]								152	68	
		4.2m: Highly weathered volcanic clasts 2-8mm.										
		4.4m: Sand size becomes medium.							UTP			
									-			
		4.6m: Becomes light brownish grey mottled brownish red (limonite?).								169	57	
		5.0m: End of Hole (target depth 5.0m).										

Notes & Abbreviations

Soils logged in accordance with 'The guidelines for the classification and description of soil and rock for engineering purposes' December 2005, NZGS

Water	Shear Vane	Other Comments
▼ Standing Water Level	Corrected as per NZGS Guidelines	Target Depth 5.0m.
∇ Water Level At Time Of Drilling	Vane No.: DR4681	
↔ Out Flow ▷ In Flow	UTP = Unable To Penetrate	
	+ = Peak Exceeded	
	- = No Result	

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Produced with Core-GS

HAND AUGER LOG

Job No.: K200826

Client: Goodland Developments Limited

Hole No.: AH14

Project: Geotechnical Investigation

Date: 30/04/2021

Location: 2127 Kaipara Coast Highway, Kakanui

Logged By: KT

Coordinates: E 1730164.0, N 5954041.0

Ground Level: -

Sheet: 1 of 1

Depth (m)	RL	Subsurface Conditions	Groundwater	Geological Unit	Graphic Log	Vane Shear Strength (kPa) (refer notes for details)				Scala Penetrometer (blows / 50mm)		
						50	100	150	200	Values	Depth (m)	Blows
		[TOPSOIL]		T S							1.20	10.0
		SILT with some clay; brownish grey mottled orange. Very stiff to hard, dry, no to low plasticity. [WAITEMATA GROUP]		Waitemata Group					220	1.25	8.0	
0.5		Silty CLAY; brownish grey mottled orange with some white specs. Hard, dry to moist, low to moderate plasticity. [WAITEMATA GROUP]	Groundwater Not Encountered						37	1.30	8.0	
										233	1.35	4.0
										68	1.40	4.0
										193	1.45	3.0
										74	1.50	2.0
										UTP	1.55	3.0
										-	1.60	3.0
											1.65	3.0
											1.70	4.0
											1.75	3.0
											1.80	4.0
											1.85	4.0
											1.90	5.0
											1.95	6.0
		SILT with some gravel(fine to medium); reddish orange mottled grey with some white specs. Hard, moist, no plasticity. [WAITEMATA GROUP] 1.4m: Possible shear zone, mixture of material within 1.2m - 2.3m								2.00	4.0	
									2.05	4.0		
									2.10	4.0		
									2.15	4.0		
									2.20	2.0		
									2.25	3.0		
									2.30	2.0		
									2.35	3.0		
									2.40	3.0		
									2.45	5.0		
									2.50	3.0		
									2.55	2.0		
									2.60	2.0		
									2.65	2.0		
									2.70	2.0		
									2.75	2.0		
									2.80	2.0		
									2.85	2.0		
									2.90	2.0		
									3.00	0.0		
3.0		3.0m: End of Hole. Refusal.										

Notes & Abbreviations

Soils logged in accordance with 'The guidelines for the classification and description of soil and rock for engineering purposes' December 2005, NZGS

Water

- ▼ Standing Water Level
- ∇ Water Level At Time Of Drilling
- ↔ Out Flow ▷ In Flow

Shear Vane

- Corrected as per NZGS Guidelines
- Vane No.:1428
- UTP = Unable To Penetrate
- + = Peak Exceeded
- = No Result

Other Comments

Target Depth 5.0m.

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HAND AUGER LOG

Job No.: K200826

Client: Goodland Developments Limited

Hole No.: AH15

Project: Geotechnical Investigation

Date: 30/04/2021

Location: 2127 Kaipara Coast Highway, Kakanui

Logged By: KD

Coordinates: E 1730283.0, N 5953922.0

Ground Level: -

Sheet: 1 of 1

Depth (m)	RL	Subsurface Conditions	Groundwater	Geological Unit	Graphic Log	Vane Shear Strength (kPa) (refer notes for details)				Scala Penetrometer (blows / 50mm)	
						50	100	150	200	Values	Depth (m)
0.5		TOPSOIL; dark brown, dry to moist. [TOPSOIL]	Groundwater Not Encountered	S WAITEMATA GROUP						5.00	2.0
		Silty CLAY; orange mottled brownish orange. Hard, dry, moderate to high plasticity. [WAITEMATA GROUP]				237+	5.05	3.0			
1.0		0.6m: Becomes moist.						5.10	3.0		
								5.15	2.0		
								5.20	3.0		
								5.25	4.0		
								5.30	4.0		
								5.35	6.0		
								5.40	5.0		
								5.45	5.0		
								5.50	5.0		
								5.55	6.0		
2.0		2.0m: Becomes light brownish grey.						71	5.60	6.0	
								5.65	10.0		
								5.70	10.0		
								5.75	20.0		
								139			
								71			
								145			
								68			
					152						
					85						
3.0		3.0m: Becomes wet and highly oxidized.			139						
					81						
					132						
					57						
					122						
					51						
					118						
					51						
					81						
					47						
4.0		Silty CLAY; dark brownish grey. Stiff, wet, moderate plasticity. [WAITEMATA GROUP]			68						
					44						
					71						
					47						
					122						
					68						
					149						
					78						
					237+						
					98						
4.5		4.8m: Becomes highly oxidized, orange.									
		5.0m: End of Hole (target depth 5.0m)									

Notes & Abbreviations

Soils logged in accordance with 'The guidelines for the classification and description of soil and rock for engineering purposes' December 2005, NZGS

Water

- ▼ Standing Water Level
- ∇ Water Level At Time Of Drilling
- ↔ Out Flow ▷ In Flow

Shear Vane

- Corrected as per NZGS Guidelines
- Vane No.: 1428
- UTP = Unable To Penetrate
- + = Peak Exceeded
- = No Result

Other Comments

Target Depth 5.0m.

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HAND AUGER LOG

Job No.: K200826

Client: Goodland Developments Limited

Hole No.: AH16

Project: Geotechnical Investigation

Date: 30/04/2021

Location: 2127 Kaipara Coast Highway, Kakanui

Logged By: KD

Coordinates: E 1730232.0, N 5953891.0

Ground Level: -

Sheet: 1 of 1

Depth (m)	RL	Subsurface Conditions	Groundwater	Geological Unit	Graphic Log	Vane Shear Strength (kPa) (refer notes for details)				Scala Penetrometer (blows / 50mm)		
						50	100	150	200	Values	Depth (m)	Blows
0.5		TOPSOIL; dark brown, moist. [TOPSOIL]		TS							1.75	1.0
		Silty CLAY; orange mottled light brownish grey. Very stiff, moist to wet, moderate to high plasticity. [WAITEMATA GROUP]		WAITEMATA GROUP						150	1.80	2.0
									64	1.85	1.0	
									105	1.90	0.0	
									63			
1.0		1.2m: Becomes wet.										
1.5		Sandy(fine) SILT; dark grey. Loose, wet. [WAITEMATA GROUP]	30/04/2021							86	42	
										95	27	
										UTP	-	
1.7		1.7m: End of Hole (target depth 5.0m). Hit rock.										

Notes & Abbreviations

Soils logged in accordance with 'The guidelines for the classification and description of soil and rock for engineering purposes' December 2005, NZGS

Water

- ▼ Standing Water Level
- ▽ Water Level At Time Of Drilling
- ↔ Out Flow ▷ In Flow

Shear Vane

- Corrected as per NZGS Guidelines
- Vane No.: DR4681
- UTP = Unable To Penetrate
- + = Peak Exceeded
- = No Result

Other Comments

Target Depth 5.0m.

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HAND AUGER LOG

Job No.: K200826

Client: Goodland Developments Limited

Hole No.: AH17

Project: Geotechnical Investigation

Date: 29/04/2021

Location: 2127 Kaipara Coast Highway, Kakanui

Logged By: KD

Coordinates: E 1730158.0, N 5953838.0

Ground Level: -

Sheet: 1 of 1

Depth (m)	RL	Subsurface Conditions	Groundwater	Geological Unit	Graphic Log	Vane Shear Strength (kPa)				Scala Penetrometer (blows / 50mm)						
						50	100	150	200	Values	Depth (m)	Blows				
		TOPSOIL; dark brown. Moist. [TOPSOIL]		TS							4.10	2.0				
		Silty CLAY; orange mottled light grey. Moist, moderate to high plasticity. [WAITEMATA GROUP]	Groundwater Not Encountered	WAITEMATA GROUP						179	4.15	2.0				
0.5						24			4.20	2.0						
									4.25	2.0						
									4.30	2.0						
									4.35	3.0						
									4.40	4.0						
									174	4.45	4.0					
									51	4.50	4.0					
										4.55	5.0					
										4.60	5.0					
1.0									139	4.65	5.0					
									81	4.70	6.0					
										4.75	7.0					
										4.80	7.0					
						SILT some clay; light brownish yellow. Hard, dry to moist, low plasticity. [WAITEMATA GROUP]	Groundwater Not Encountered	WAITEMATA GROUP						220+	4.85	7.0
													-	4.90	8.0	
														4.95	7.0	
		1.4m: Becomes highly oxidized.												5.00	8.0	
1.5													UTP	5.05	8.0	
		1.6m: Becomes moist.												5.10	9.0	
														5.15	8.0	
														5.20	10.0	
														204	5.25	10.0
														56	5.30	10.0
											5.35	11.0				
											5.40	12.0				
											5.45	12.0				
		CLayey SILT; dark grey. Very stiff, wet, moderate plasticity. [WAITEMATA GROUP]	Groundwater Not Encountered	WAITEMATA GROUP							155	69				
3.0														154	76	
						3.0m: 30% recovery, the hole keeps collapsing, also the material is sticking to the auger extension poles making it very difficult to pull out.									159	91
															155	79
															150	68
4.0		4.0m: End of Hole (target depth 5.0m). Too difficult to drill.														

Notes & Abbreviations

Soils logged in accordance with 'The guidelines for the classification and description of soil and rock for engineering purposes' December 2005, NZGS

Water

- ▼ Standing Water Level
- ∇ Water Level At Time Of Drilling
- ↔ Out Flow ▷ In Flow

Shear Vane

- Corrected as per NZGS Guidelines
- Vane No.: DR4681
- UTP = Unable To Penetrate
- + = Peak Exceeded
- = No Result

Other Comments

Target Depth 5.0m.

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HAND AUGER LOG

Job No.: K200826

Client: Goodland Developments Limited

Hole No.: AH18

Project: Geotechnical Investigation

Date: 29/04/2021

Location: 2127 Kaipara Coast Highway, Kakanui

Logged By: KT

Coordinates: E 1730149.0, N 5953888.0

Ground Level: -

Sheet: 1 of 1

Depth (m)	RL	Subsurface Conditions	Groundwater	Geological Unit	Graphic Log	Vane Shear Strength (kPa) (refer notes for details)				Scala Penetrometer (blows / 50mm)				
						50	100	150	200	Values	Depth (m)	Blows		
		[TOPSOIL]		TS	TS						2.90	8.0		
		Clayey SILT; brownish orange. Very stiff, dry, low plasticity. [WAITEMATA GROUP]		Waitemata Group	[Graphic Log Symbols]					183	3.00	10.0		
0.5											41	3.05	3.0	
												183	3.10	6.0
												85	3.15	4.0
												85	3.20	3.0
		CLAY with some silt; orange mottled grey. Very stiff, dry to moist, moderate to high plasticity. [WAITEMATA GROUP]										166	3.25	3.0
												68	3.30	3.0
												166	3.35	2.0
												68	3.40	1.0
		Silty CLAY; orange mottled grey. Very stiff, dry to moist, moderate plasticity. [WAITEMATA GROUP]										135	3.45	3.0
												74	3.50	2.0
												74	3.55	1.0
												135	3.60	2.0
		1.5m: Becomes light grey mottled orange.										115	3.65	2.0
												57	3.70	2.0
										115	3.75	3.0		
										122	3.80	3.0		
		Clayey SILT; orange mottled grey. Very stiff, dry to moist, moderate plasticity. [WAITEMATA GROUP]								47	3.85	2.0		
										47	3.90	2.0		
										115	4.00	3.0		
										51	4.05	2.0		
										101	4.10	2.0		
		SILT with minor clay; light grey mottled orange. Very stiff, moist, low plasticity. [WAITEMATA GROUP]								51	4.15	2.0		
										101	4.20	1.0		
										51	4.25	2.0		
										51	4.30	2.0		
										51	4.35	2.0		
										51	4.40	2.0		
										51	4.45	3.0		
										UTP	4.50	3.0		
		2.7m - 2.8m: Limonitic bands.								UTP	4.55	3.0		
										-	4.60	3.0		
		SAND(fine to coarse) with some gravel(fine); grey. Very dense, moist, no plasticity. [WAITEMATA GROUP]								-	4.65	3.0		
										-	4.70	2.0		
										-	4.75	5.0		
										-	4.80	4.0		
		2.9m: End of Hole (target depth 5.0m). Tried re drilling after scala and hit refusal on dense material.												

Notes & Abbreviations

Soils logged in accordance with 'The guidelines for the classification and description of soil and rock for engineering purposes' December 2005, NZGS

Water	Shear Vane	Other Comments
▼ Standing Water Level	Corrected as per NZGS Guidelines	Target Depth 5.0m.
∇ Water Level At Time Of Drilling	Vane No.:1428	
↔ Out Flow ▷ In Flow	UTP = Unable To Penetrate	
	+ = Peak Exceeded	
	- = No Result	

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HAND AUGER LOG

Job No.: K200826

Client: Goodland Developments Limited

Hole No.: AH19

Project: Geotechnical Investigation

Date: 30/04/2021

Location: 2127 Kaipara Coast Highway, Kakanui

Logged By: KD

Coordinates: E 1730070.0, N 5954108.0

Ground Level: -

Sheet: 1 of 1

Depth (m)	RL	Subsurface Conditions	Groundwater	Geological Unit	Graphic Log	Vane Shear Strength (kPa) (refer notes for details)		Scala Penetrometer (blows / 50mm)			
						50	100	150	200	Values	Depth (m)
0.5		TOPSOIL; dark brown, moist. [TOPSOIL]	Groundwater Not Encountered	WAITEMATA GROUP						5.00	2.0
		Silty CLAY; orange mottled brownish orange. Very stiff, moist, moderate to high plasticity. [WAITEMATA GROUP]				203	42	5.05	2.0		
1.0		Sandy (fine to medium) CLAY; orange mottled red. Hard, moist, low plasticity. [WAITEMATA GROUP] 1.5m: Becomes red mottled dark bluish red with some light grey inclusions. 1.8m: Sand size becomes medium to coarse. 2.0m: Becomes dark brownish red and wet. 2.5m: Becomes red with white specs. 3.1m: Becomes brownish orange. 3.2m: Sand size becomes coarse.								5.10	2.0
			144	73	5.15	3.0					
			152	88	5.20	4.0					
			152	88	5.25	4.0					
			152	88	5.30	4.0					
			152	88	5.35	5.0					
			152	88	5.40	6.0					
			152	88	5.45	6.0					
			152	88	5.50	7.0					
			152	88	5.55	8.0					
2.0		3.5								5.60	10.0
			220+	-	5.65	10.0					
			215	37	5.70	10.0					
			215	37	5.75	11.0					
			UTP	-	5.80	14.0					
			UTP	-	5.85	10.0					
			UTP	-							
			UTP	-							
			UTP	-							
			UTP	-							
3.0		4.0									
			101	42							
			UTP	-							
			UTP	-							
			UTP	-							
			UTP	-							
			UTP	-							
			UTP	-							
			UTP	-							
			UTP	-							
4.0		4.5									
			220+	-							
			193	30							
			220+	-							
			UTP	-							
			UTP	-							
			UTP	-							
			UTP	-							
			UTP	-							
			UTP	-							
4.5		4.9m: Becomes highly oxidized.									
			213	85							
		Clayey SILT with trace sand (medium); light brownish grey mottled orange. Very stiff, moist, moderate plasticity. [WAITEMATA GROUP] 5.0m: End of Hole (target depth 5.0).									

Notes & Abbreviations

Soils logged in accordance with 'The guidelines for the classification and description of soil and rock for engineering purposes' December 2005, NZGS

Water	Shear Vane	Other Comments
▼ Standing Water Level	Corrected as per NZGS Guidelines	Target Depth 5.0m.
∇ Water Level At Time Of Drilling	Vane No.:	
↔ Out Flow ▷ In Flow	UTP = Unable To Penetrate	
	+ = Peak Exceeded	
	- = No Result	

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HAND AUGER LOG

Job No.: K200826

Client: Goodland Developments Limited

Hole No.: AH20

Project: Geotechnical Investigation

Date: 30/04/2021

Location: 2127 Kaipara Coast Highway, Kakanui

Logged By: KT

Coordinates: E 1730044.0, N 5954078.0

Ground Level: -

Sheet: 1 of 1

Depth (m)	RL	Subsurface Conditions	Groundwater	Geological Unit	Graphic Log	Vane Shear Strength (kPa)				Scala Penetrometer (blows / 50mm)				
						50	100	150	200	Values	Depth (m)	Blows		
		[TOPSOIL]									3.20	8.0		
		Clayey SILT; brownish orange mottled orange. Very stiff, dry, low plasticity. [WAITEMATA GROUP]		T S							3.25	20.0		
0.5			Groundwater Not Encountered	WAITEMATA GROUP						203				
											74			
												125		
												74		
1.0		Clayey SILT; brownish orange (intermixed with, SILT with gravel(fine); red with white specs and dark brown streaks), moist, stiff to very stiff, low plasticity. [WAITEMATA GROUP]										230		
												78		
		SILT; reddish orange with some white specs. Very stiff, moist, no plasticity. [WAITEMATA GROUP]										122		
												68		
1.5		CLAY; brownish orange mottled orange. Very stiff, moist, moderate to high plasticity. [WAITEMATA GROUP]										169		
												34		
		SILT; white mottled reddish orange. Very stiff, moist, no plasticity. [WAITEMATA GROUP]								135				
		SILT; reddish orange mottled white with some brownish orange and dark brown streaks. Very stiff, moist, no plasticity. [WAITEMATA GROUP]								34				
2.0		SILT with some gravel(fine); dark brownish grey. Very stiff, moist to wet, no plasticity. [WAITEMATA GROUP]								152				
										54				
		2.2m: Becomes dark brown.								UTP				
2.5		2.5m: some mottled white.								-				
										UTP				
										-				
3.0										UTP				
										-				
		3.2m: End of Hole. Refusal.												

Notes & Abbreviations

Soils logged in accordance with 'The guidelines for the classification and description of soil and rock for engineering purposes' December 2005, NZGS

Water	Shear Vane	Other Comments
▼ Standing Water Level	Corrected as per NZGS Guidelines	Target Depth 5.0m.
∇ Water Level At Time Of Drilling	Vane No.:1428	
↔ Out Flow ▷ In Flow	UTP = Unable To Penetrate	
	+ = Peak Exceeded	
	- = No Result	

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HAND AUGER LOG

Job No.: K200826

Client: Goodland Developments Limited

Hole No.: AH21

Project: Geotechnical Investigation

Date: 3/05/2021

Location: 2127 Kaipara Coast Highway, Kakanui

Logged By: RS

Coordinates: E 1730073.0, N 5954783.0

Ground Level: -

Sheet: 1 of 1

Depth (m)	RL	Subsurface Conditions	Groundwater	Geological Unit	Graphic Log	Vane Shear Strength (kPa) (refer notes for details)					Scala Penetrometer (blows / 50mm)				
						50	100	150	200	Values	Depth (m)	Blows			
		[TOPSOIL]		TS	TS					UTP	3.10	2.0			
		Clayey SILT; orange mottled grey. Very stiff, dry, moderate plasticity. [WAITEMATA GROUP]	Groundwater Not Encountered	WAITEMATA GROUP						-	3.15	2.0			
0.5														3.20	3.0
														3.25	3.0
														3.30	3.0
													UTP	3.35	2.0
														3.40	2.0
														3.45	3.0
														3.50	2.0
														3.55	2.0
														3.60	3.0
1.0		Silty CLAY; light grey orange mottles. Very stiff, moist, highly plastic. [WAITEMATA GROUP]	Groundwater Not Encountered	WAITEMATA GROUP							3.65	1.0			
														3.70	3.0
														3.75	2.0
														3.80	3.0
														3.85	3.0
														3.90	4.0
														3.95	3.0
														4.00	3.0
													237+	4.05	2.0
														4.10	3.0
1.5		SILT minor clay with some fine gravels and weakly cemented clasts; reddish brown with some orange and black mottles. white clay chunks. Very stiff, moist, no plasticity. Tephra/ash. [WAITEMATA GROUP]	Groundwater Not Encountered	WAITEMATA GROUP							4.15	3.0			
														4.20	3.0
														4.25	5.0
														4.30	5.0
														4.35	4.0
													237+	4.40	3.0
														4.45	3.0
														4.50	3.0
														4.55	5.0
														4.60	7.0
2.5		Intermixed SILT, clay chunks, ash and gravel(fine). Gravelly(fine) SILT with pockets of clay; white to light grey intermixed with reddish grey, dark grey and orange. Very stiff, moist, no plasticity. [WAITEMATA GROUP]	Groundwater Not Encountered	WAITEMATA GROUP							4.65	20.0			
3.0		3.1m: End of Hole. Too dense to auger.	Groundwater Not Encountered	WAITEMATA GROUP											
3.5															
4.0															
4.5															

Notes & Abbreviations

Soils logged in accordance with 'The guidelines for the classification and description of soil and rock for engineering purposes' December 2005, NZGS

Water	Shear Vane	Other Comments
▼ Standing Water Level	Corrected as per NZGS Guidelines	Target Depth 5.0m.
▽ Water Level At Time Of Drilling	Vane No.:1428	
↔ Out Flow ▷ In Flow	UTP = Unable To Penetrate	
	+ = Peak Exceeded	
	- = No Result	

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HAND AUGER LOG

Job No.: K200826

Client: Goodland Developments Limited

Hole No.: AH22

Project: Geotechnical Investigation

Date: 3/05/2021

Location: 2127 Kaipara Coast Highway, Kakanui

Logged By: RS

Coordinates: E 1730024.0, N 5954188.0

Ground Level: -

Sheet: 1 of 1

Depth (m)	RL	Subsurface Conditions	Groundwater	Geological Unit	Graphic Log	Vane Shear Strength (kPa) (refer notes for details)				Scala Penetrometer (blows / 50mm)				
						50	100	150	200	Values	Depth (m)	Blows		
0.0		[TOPSOIL]	Groundwater Not Encountered	TS WAITEMATA GROUP							0.90	20.0		
0.5		Clayey SILT; grey and orange. Very stiff, dry to moist, moderate plasticity, occasional rootlets [WAITEMATA GROUP]									220	-		
1.0		SILT with some tephra; light grey to white. Hard, dry. [WAITEMATA GROUP] 0.9m: End of Hole. Too dense (target depth 5.0m).									237+	-		
1.0										UTP				

Notes & Abbreviations

Soils logged in accordance with 'The guidelines for the classification and description of soil and rock for engineering purposes' December 2005, NZGS

Water

- ▼ Standing Water Level
- ▽ Water Level At Time Of Drilling
- ↔ Out Flow ▷ In Flow

Shear Vane

- Corrected as per NZGS Guidelines Vane No.:1428
- UTP = Unable To Penetrate
- + = Peak Exceeded
- = No Result

Other Comments

Target Depth 5.0m.

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HAND AUGER LOG

Job No.: K200826

Client: Goodland Developments Limited

Hole No.: AH23

Project: Geotechnical Investigation

Date: 3/05/2021

Location: 2127 Kaipara Coast Highway, Kakanui

Logged By: RS

Coordinates: E 1730059.0, N 5954295.0

Ground Level: -

Sheet: 1 of 1

Depth (m)	RL	Subsurface Conditions	Groundwater	Geological Unit	Graphic Log	Vane Shear Strength (kPa)				Scala Penetrometer (blows / 50mm)					
						50	100	150	200	Values	Depth (m)	Blows			
		[TOPSOIL]		T S							2.05	7.0			
		Clayey SILT to silty CLAY; grey and orange. Very stiff, moist, moderate to high plasticity, occasional rootlets. [WAITEMATA GROUP]	Groundwater Not Encountered	WAITEMATA GROUP						152	2.10	3.0			
0.5												91	2.15	2.0	
														2.20	2.0
														2.25	2.0
														2.30	3.0
														2.35	4.0
														2.40	5.0
														2.45	9.0
														2.50	9.0
		0.9m - 1.0m: Some oxidation.											152	2.55	12.0
1.0										69	2.60	14.0			
											2.65	11.0			
											2.70	16.0			
											2.75	20.0			
		SILT some clay; light grey and orange. Very stiff, dry, no plasticity to slightly plastic. Tephra? [WAITEMATA GROUP]								220					
1.5										57					
											237+				
											-				
											UTP				
											-				
2.0		2.0m: End of Hole. Too dense to auger.													

Notes & Abbreviations

Soils logged in accordance with 'The guidelines for the classification and description of soil and rock for engineering purposes' December 2005, NZGS

Water

- ▼ Standing Water Level
- ∇ Water Level At Time Of Drilling
- ↔ Out Flow ▷ In Flow

Shear Vane

- Corrected as per NZGS Guidelines
- Vane No.:1428
- UTP = Unable To Penetrate
- + = Peak Exceeded
- = No Result

Other Comments

Target Depth 5.0m.

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HAND AUGER LOG

Job No.: K200826

Client: Goodland Developments Limited

Hole No.: AH24

Project: Geotechnical Investigation

Date: 3/05/2021

Location: 2127 Kaipara Coast Highway, Kakanui

Logged By: RS

Coordinates: E 1730022.0, N 5954317.0

Ground Level: -

Sheet: 1 of 1

Depth (m)	RL	Subsurface Conditions	Groundwater	Geological Unit	Graphic Log	Vane Shear Strength (kPa)					Scala Penetrometer (blows / 50mm)				
						(refer notes for details)				Values	Depth (m)	Blows			
						50	100	150	200						
		[TOPSOIL]													
		Clayey SILT; orange mottled light grey. Very stiff, dry to moist, moderate plasticity. Rootlets up to 5.0m. [WAITEMATA GROUP]	Groundwater Not Encountered	T S WAITEMATA GROUP						UTP	1.60	4.0			
0.5												-	1.65	7.0	
		SILT some clay; dark orange. Very stiff, dry to moist, low to moderate plasticity. [WAITEMATA GROUP]											-	1.70	8.0
		Clayey SILT; grey mottled orange. Very stiff, dry to moist, low to moderate plasticity. [WAITEMATA GROUP]											UTP	1.75	12.0
		SILT some clay; grey mottled orange, dark orange pink and purple with white specs. Very stiff, dry, low plasticity. [WAITEMATA GROUP]											-	1.80	20.0
1.0		SILT some clay; grey mottled orange, dark orange pink and purple with white specs. Very stiff, dry, low plasticity. [WAITEMATA GROUP]								UTP					
		SILT some clay to minor clay; light whitish grey mottled grey and dark orange. Clasts of cemented SILT, coarse sand to fine gravel. [WAITEMATA GROUP]								-					
1.5										UTP					
		1.6m: End of Hole. Too dense.													
2.0															
2.5															
3.0															
3.5															
4.0															
4.5															

Notes & Abbreviations

Soils logged in accordance with 'The guidelines for the classification and description of soil and rock for engineering purposes' December 2005, NZGS

Water

- ▼ Standing Water Level
- ▽ Water Level At Time Of Drilling
- ↔ Out Flow ▷ In Flow

Shear Vane

- Corrected as per NZGS Guidelines
- Vane No.: 1428
- UTP = Unable To Penetrate
- + = Peak Exceeded
- = No Result

Other Comments

Target Depth 5.0m.

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