


**LEGEND:**

- PERIMETER BOUNDARY OF PROJECT AREA
- BOUNDARY OF AFFECTED PARCELS
- ADJACENT EXISTING BOUNDARIES
- > WATERWAY
- EASEMENT


**NOTES:**

- THIS PLAN SHOWS THE GENERAL ARRANGEMENT OF THE VESTED ROAD LAYOUT PLUS EASEMENTS AS CURRENTLY IDENTIFIED TO BE REQUIRED.
- REFER TO EASEMENT SCHEDULE FOR FURTHER INFORMATION.

  
**BUN60386272 & SUB60386271**  
 Approved Resource Consent Plan  
 29/06/2022

THE FUTURE STATUS OF THIS ROAD SHAPED LOT, BEING THE SEVERANCE OF SECTION 3 SO 520006 IS YET TO BE DETERMINED. IT MAY BECOME VESTED AS ROAD, AMALGAMATED WITH OTHER LAND OR REMAIN AS A LOT

D	UPDATED	AF	NG		
C	UPDATED DRAWING NUMBER WS-010TO CA-8003	AF	NG	NG	03.06.22
B	UPDATED EASEMENTS	RN	NG	NG	28.04.22
A	PRELIMINARY SCHEME PLAN	RN	NG	NG	01.04.22
No.	Revision	By	Chk.	Appd.	Date

Original Designer:  **Beca**

Original Scale (A1)	Design	N. GUNN	01.04.22	Approved For Construction*
1:2000	Drawn	R. NICHOLLS	01.04.22	Date
Reduced Scale (A3)	Design Check			
1:4000				

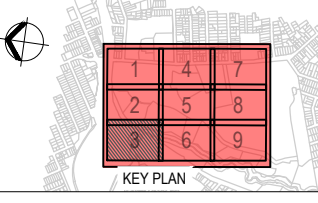
\* Refer to Revision 1 for Original Signature

Client: **MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ**

Project: **CARRINGTON BACKBONE WORKS PROJECT**

Title: **SURVEY SCHEME PLAN SHOWING EVENTUAL ROADS TO VEST AND NEW EASEMENTS**

Discipline	<b>SURVEY</b>	
Drawing No.	<b>3126447-CA-8003</b>	Rev.
		<b>D</b>



**LEGEND:**

- EXISTING CONTOURS (0.5m INTERVALS)
- PROPERTY BOUNDARIES
- SITE BOUNDARY
- FUTURE CARRINGTON ROAD WIDENING
- SITE CLEARANCE AREA
- EXTENT OF EARTHWORKS
- EXISTING BUILDINGS TO BE REMOVED
- PROTECTED TREES TO BE REMOVED
- PROTECTED TREES TO BE RETAINED
- PROTECTED TREES TO BE REMOVED (MAYBE RETAINED SUBJECT TO DETAILED DESIGN)
- TREE NUMBERS
- BUILDING NUMBERS

- NOTES:**
- SURVEY DATA SHOWN ON THIS PLAN WAS PROVIDED BY CALIBRE CONSULTING LIMITED SURVEYED ON 2017.
  - EXISTING SERVICES INFORMATION HAS BEEN COMPILED FROM VARIOUS SOURCES. ACCURACY UNKNOWN. CONTRACTOR TO LOCATE AND MARK OUT SERVICES PRIOR TO CONSTRUCTION WORKS.
  - COORDINATES ARE IN TERMS OF MT EDEN 2000.
  - ELEVATIONS ARE IN TERMS OF NEW ZEALAND VERTICAL DATUM 2016.

SHEET 3  
NOT INCLUDED IN THIS SET

**ORIGINAL DRAWING  
IN COLOUR**

**RESOURCE CONSENT  
NOT FOR CONSTRUCTION**

No.	Revision	By	CHK	Appd	Date
E	MINOR AMENDMENTS	ABL	CJB	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	CJB	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	CJB	DP	23.07.21
B	FOR RESOURCE CONSENT	ABL	CJB	RM	05.07.21

Design Originator:

Original Scale (A1) 1:1500  
Reduced Scale (A3) 1:3000

Design	C.BREYENBACH	31.05.21	Approved For Construction*
Drawn	B.POPLI	31.05.21	Date
Design Checker			
Drawn Checker			

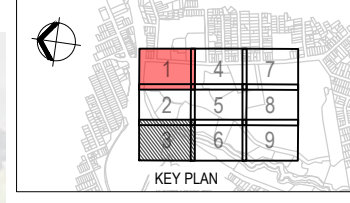
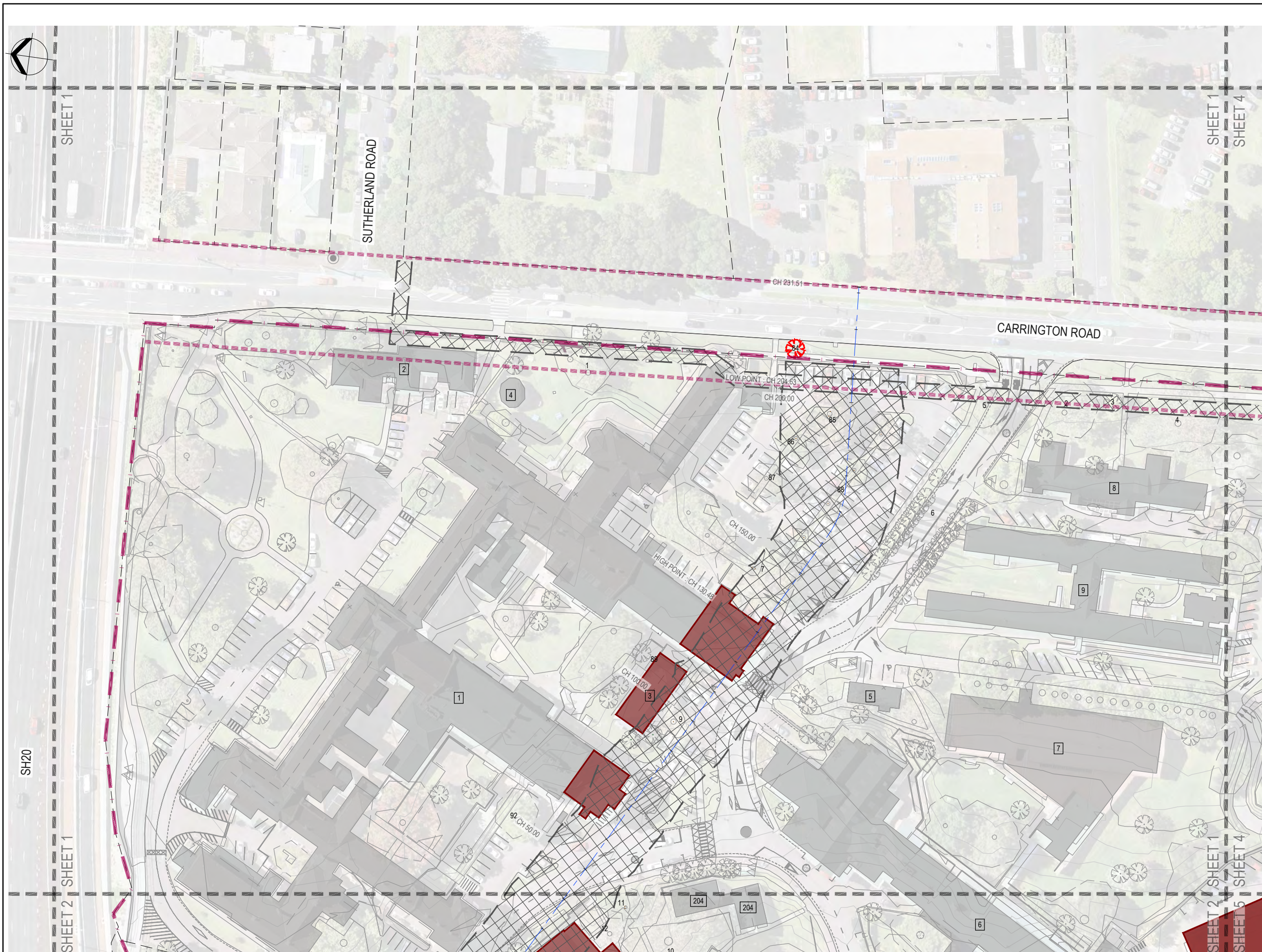
\* Refer to Revision 1 for Original Signature

Client: **MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ**

Project: **CARRINGTON BACKBONE WORKS PROJECT**

Title: **SITE CLEARANCE & DEMOLITION OVERALL LAYOUT**

Discipline	CIVIL ENGINEERING
Drawing No.	3126447-CA-2100
Rev.	E



**LEGEND:**

- EXISTING CONTOURS (0.5m INTERVALS)
- PROPERTY BOUNDARIES
- SITE BOUNDARY
- FUTURE CARRINGTON ROAD WIDENING
- SITE CLEARANCE AREA
- EXTENT OF EARTHWORKS
- EXISTING BUILDINGS TO BE REMOVED
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**ORIGINAL DRAWING  
IN COLOUR**

**RESOURCE CONSENT  
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No.	Revision	By	CHK	Appd	Date
E	MINOR AMENDMENTS	ABL	CJB	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	CJB	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	CJB	DP	23.07.21
B	FOR RESOURCE CONSENT	ABL	CJB	RM	05.07.21

Drawing Originator:

Original Scale (A1) 1:500  
Reduced Scale (A3) 1:1000

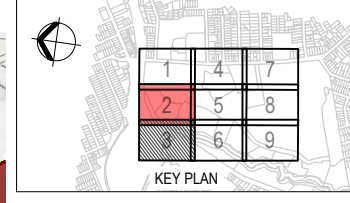
Design: C.BREYTENBACH 31.05.21  
Drawn: B.POPLI 31.05.21  
Design Verifier:   
Design Check:   
Date:   
\* Refer to Revision 1 for Original Signature

Client: **MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ**

Project: **CARRINGTON BACKBONE WORKS PROJECT**

Title: **SITE CLEARANCE & DEMOLITION LAYOUT SHEET 1**

Discipline	CIVIL ENGINEERING
Drawing No.	3126447-CA-2101
Rev.	E



**LEGEND:**

- EXISTING CONTOURS (0.5m INTERVALS)
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**ORIGINAL DRAWING IN COLOUR**

**RESOURCE CONSENT NOT FOR CONSTRUCTION**

No.	Revision	By	CHK	Appd	Date
E	MINOR AMENDMENTS	ABL	CJB	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	CJB	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	CJB	DP	23.07.21
B	FOR RESOURCE CONSENT	ABL	CJB	RM	05.07.21

Original Scale (A1) 1:500  
 Reduced Scale (A3) 1:1000

Design: C.BREYTENBACH 31.05.21  
 Drawn: B.POPLI 31.05.21

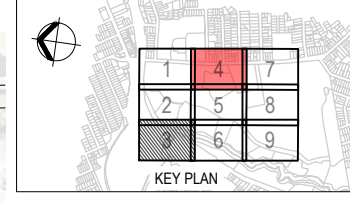
Approved For Construction: [Signature]

Client: **MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ**

Project: **CARRINGTON BACKBONE WORKS PROJECT**

**SITE CLEARANCE & DEMOLITION LAYOUT SHEET 2**

Discipline	CIVIL ENGINEERING
Drawing No.	3126447-CA-2102
Rev.	E



**LEGEND:**

- EXISTING CONTOURS (0.5m INTERVALS)
- PROPERTY BOUNDARIES
- SITE BOUNDARY
- FUTURE CARRINGTON ROAD WIDENING
- SITE CLEARANCE AREA
- EXTENT OF EARTHWORKS
- EXISTING BUILDINGS TO BE REMOVED
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- TREE NUMBERS
- BUILDING NUMBERS

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No.	Revision	By	CHK	Appd	Date
E	MINOR AMENDMENTS	ABL	CJB	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	CJB	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	CJB	DP	23.07.21
B	FOR RESOURCE CONSENT	ABL	CJB	RM	05.07.21



Original Scale (A1)	1:500	Design	C.BREYENBACH	31.05.21	Approved For Construction*
Reduced Scale (A3)	1:1000	Drawn	B.POPLI	31.05.21	Date
		Dag Verifier			
		Dag Check			

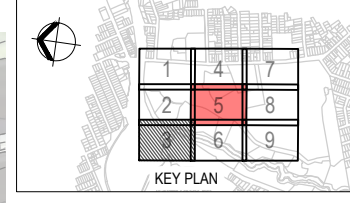
\* Refer to Revision 1 for Original Signature

Client: **MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ**

Project: **CARRINGTON BACKBONE WORKS PROJECT**

Title: **SITE CLEARANCE & DEMOLITION LAYOUT SHEET 4**

Discipline	CIVIL ENGINEERING
Drawing No.	3126447-CA-2104
Rev.	E



**LEGEND:**

- EXISTING CONTOURS (0.5m INTERVALS)
- PROPERTY BOUNDARIES
- SITE BOUNDARY
- FUTURE CARRINGTON ROAD WIDENING
- SITE CLEARANCE AREA
- EXTENT OF EARTHWORKS
- EXISTING BUILDINGS TO BE REMOVED
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E	MINOR AMENDMENTS	ABL	CJB	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	CJB	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	CJB	DP	23.07.21
B	FOR RESOURCE CONSENT	ABL	CJB	RM	05.07.21
No.	Revision	By	Chk.	Appd.	Date

Drawing Originator:

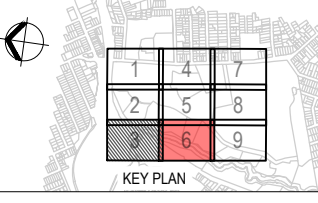
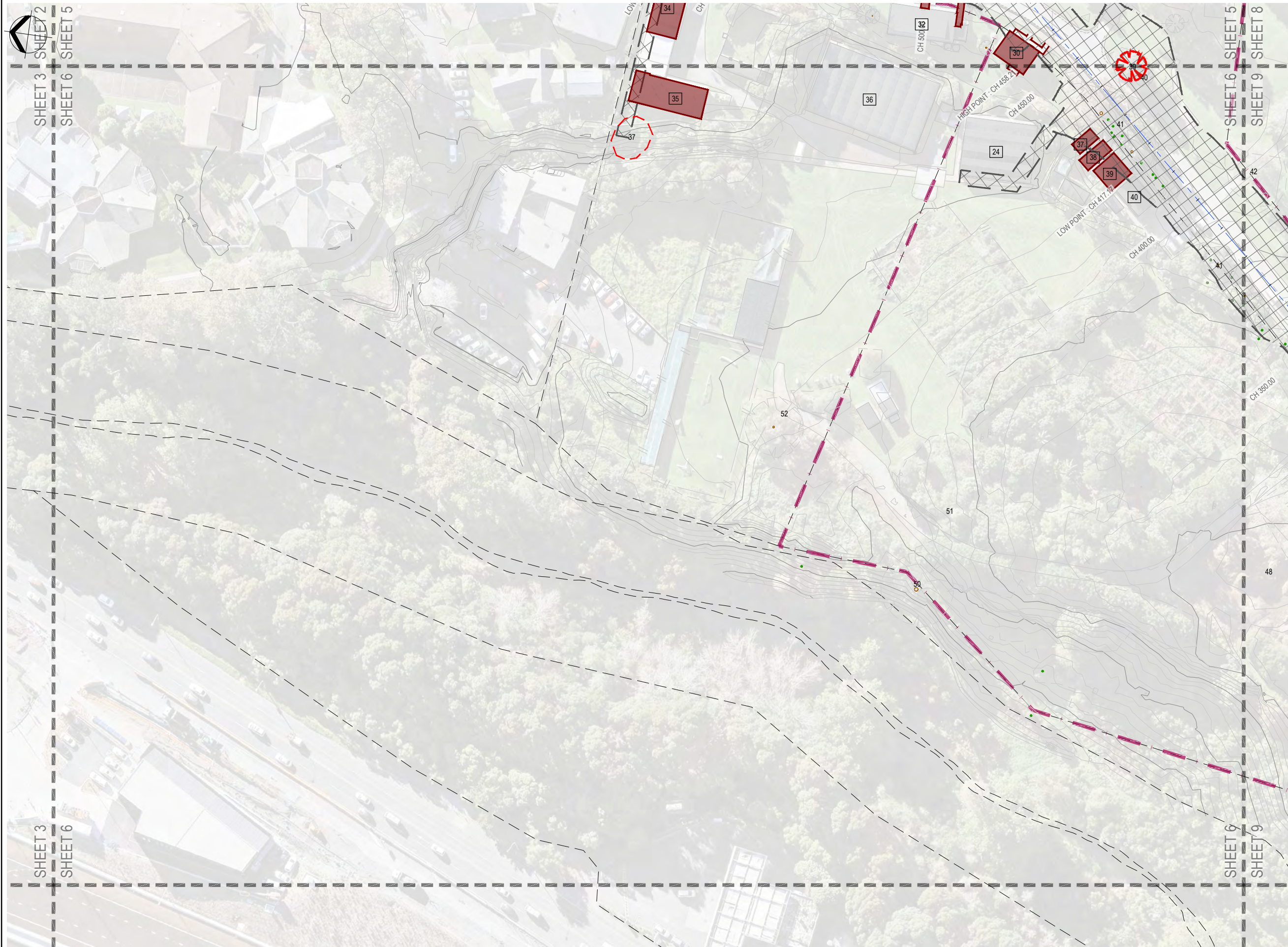
Original Scale (A1) 1:500  
 Design C.BREYTENBACH 31.05.21 Approved For Construction\*  
 Drawn B.POPLI 31.05.21  
 Reduced Scale (A3) 1:1000  
 Design Verifier  
 Design Check  
 \* Refer to Revision 1 for Original Signature

Client: **MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ**

Project: **CARRINGTON BACKBONE WORKS PROJECT**

Title: **SITE CLEARANCE & DEMOLITION LAYOUT SHEET 5**

Discipline	<b>CIVIL ENGINEERING</b>
Drawing No.	<b>3126447-CA-2105</b>
Rev.	<b>E</b>



**LEGEND:**

- EXISTING CONTOURS (0.5m INTERVALS)
- PROPERTY BOUNDARIES
- SITE BOUNDARY
- FUTURE CARRINGTON ROAD WIDENING
- SITE CLEARANCE AREA
- EXTENT OF EARTHWORKS
- EXISTING BUILDINGS TO BE REMOVED
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**ORIGINAL DRAWING  
IN COLOUR**

**RESOURCE CONSENT  
NOT FOR CONSTRUCTION**

No.	Revision	By	CHK	Appd	Date
E	MINOR AMENDMENTS	ABL	CJB	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	CJB	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	CJB	DP	23.07.21
B	FOR RESOURCE CONSENT	ABL	CJB	RM	05.07.21



Original Scale (A1)	1:500	Design	C.BREYENBACH	31.05.21	Approved For Construction*
Reduced Scale (A3)	1:1000	Drawn	B.POPLI	31.05.21	Date
		Dag Verifier			
		Dag Check			

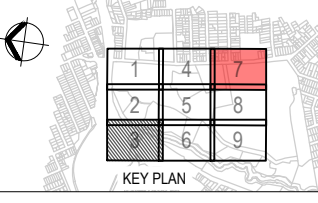
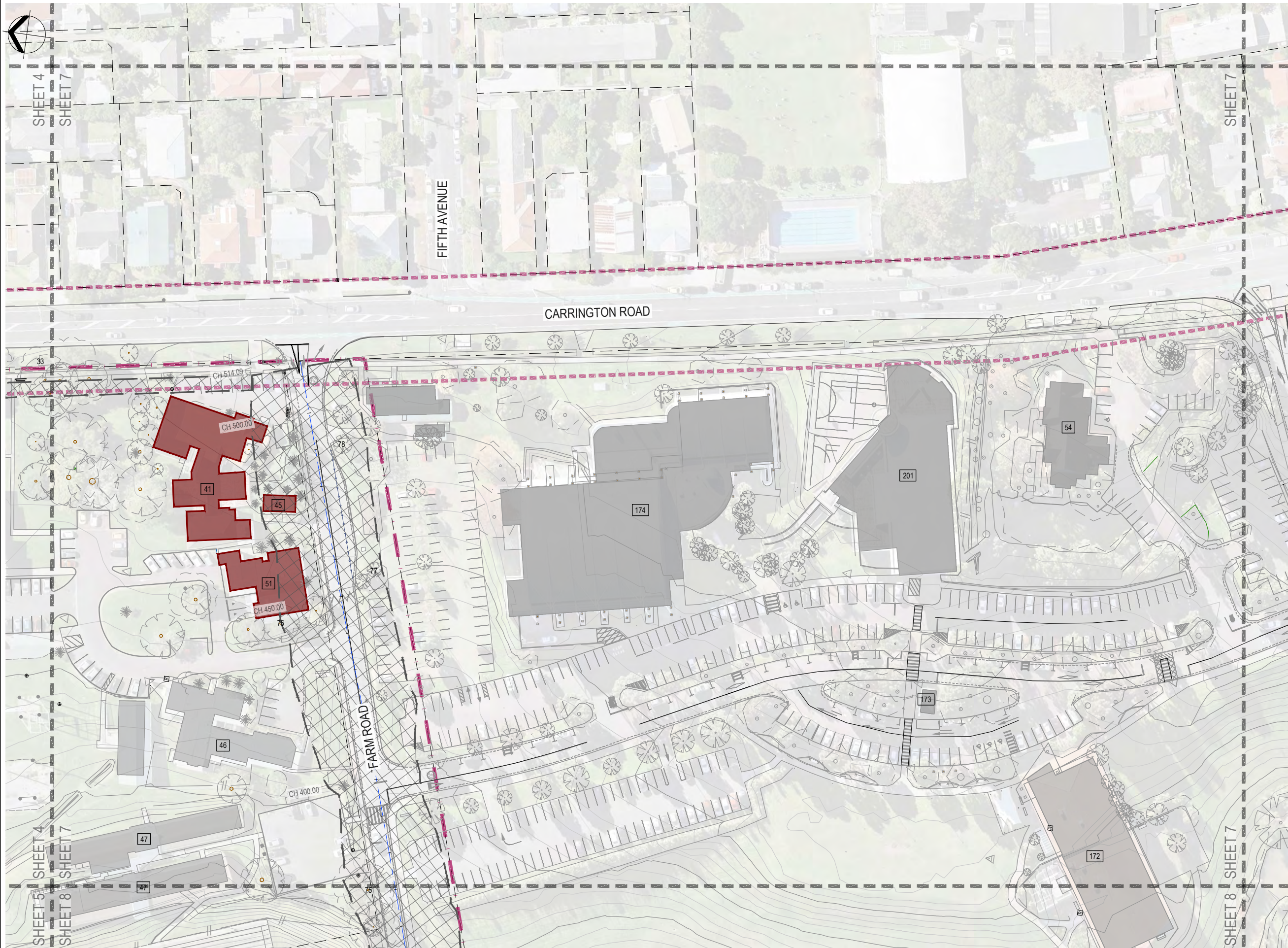
\* Refer to Revision 1 for Original Signature

Client: **MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ**

Project: **CARRINGTON BACKBONE WORKS PROJECT**

Title: **SITE CLEARANCE & DEMOLITION LAYOUT SHEET 6**

Discipline	CIVIL ENGINEERING
Drawing No.	3126447-CA-2106
Rev.	E



**LEGEND:**

- EXISTING CONTOURS (0.5m INTERVALS)
- PROPERTY BOUNDARIES
- SITE BOUNDARY
- FUTURE CARRINGTON ROAD WIDENING
- SITE CLEARANCE AREA
- EXTENT OF EARTHWORKS
- EXISTING BUILDINGS TO BE REMOVED
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**ORIGINAL DRAWING  
IN COLOUR**

**RESOURCE CONSENT  
NOT FOR CONSTRUCTION**

No.	Revision	By	CHK	Appd	Date
E	MINOR AMENDMENTS	ABL	CJB	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	CJB	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	CJB	DP	23.07.21
B	FOR RESOURCE CONSENT	ABL	CJB	RM	05.07.21

Drawing Originator:

Original Scale (A1)	Design	Drawn	Checked	Date
1:500	C.BREYENBACH	B.POPLI		31.05.21
Reduced Scale (A3)	Design Verifier	Day Check		31.05.21
1:1000	* Refer to Revision 1 for Original Signature			

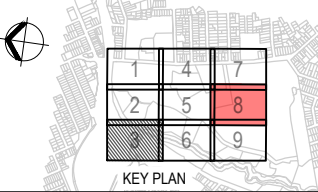
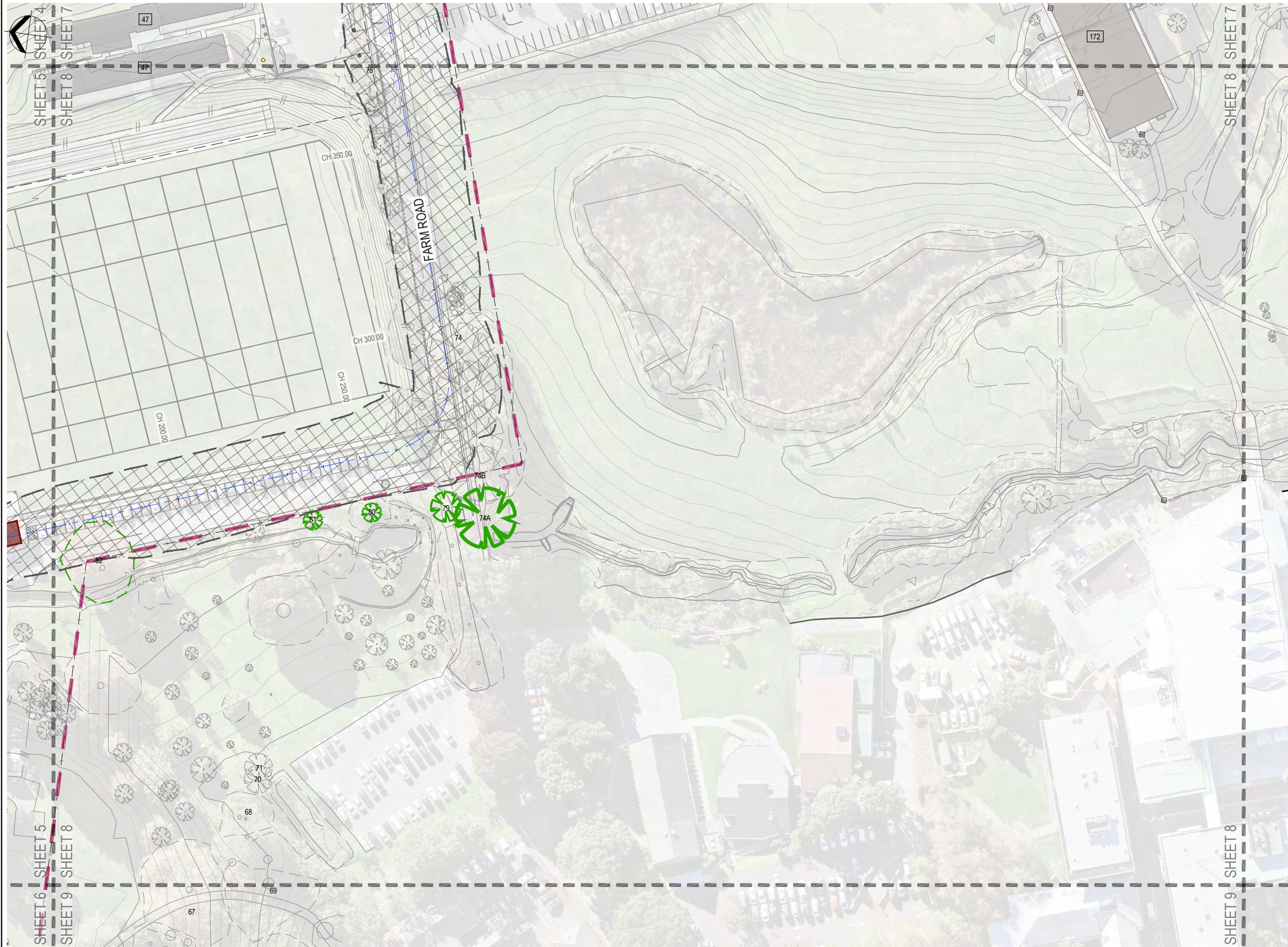
Client: **MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ**

Project: **CARRINGTON BACKBONE WORKS PROJECT**

Title: **SITE CLEARANCE & DEMOLITION LAYOUT SHEET 7**

Discipline	Rev.
CIVIL ENGINEERING	E
Drawing No.	3126447-CA-2107





**LEGEND:**

- EXISTING CONTOURS (0.5m INTERVALS)
- PROPERTY BOUNDARIES
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**ORIGINAL DRAWING  
IN COLOUR**

**RESOURCE CONSENT  
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No.	Revision	By	CHK	Appd	Date
E	MINOR AMENDMENTS	ABL	CJB	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	CJB	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	CJB	DP	23.07.21
B	FOR RESOURCE CONSENT	ABL	CJB	RM	05.07.21

Drawing Originator:

Original Scale (A1) 1:500  
Reduced Scale (A3) 1:1000

Design: C.BREYENBACH 31.05.21  
Drawn: B.POPLI 31.05.21

Dag Verifier: \_\_\_\_\_  
Dag Check: \_\_\_\_\_  
Date: \_\_\_\_\_

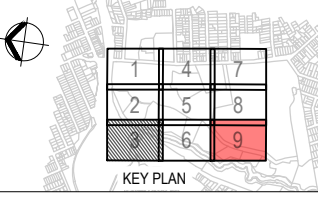
\* Refer to Revision 1 for Original Signature

Client: **MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ**

Project: **CARRINGTON BACKBONE WORKS PROJECT**

Title: **SITE CLEARANCE & DEMOLITION LAYOUT SHEET 8**

Discipline	<b>CIVIL ENGINEERING</b>
Drawing No.	<b>3126447-CA-2108</b>
Rev.	<b>E</b>



**LEGEND:**

- EXISTING CONTOURS (0.5m INTERVALS)
- PROPERTY BOUNDARIES
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- FUTURE CARRINGTON ROAD WIDENING
- SITE CLEARANCE AREA
- EXTENT OF EARTHWORKS
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**ORIGINAL DRAWING  
IN COLOUR**

**RESOURCE CONSENT  
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No.	Revision	By	CHK	Appd	Date
E	MINOR AMENDMENTS	ABL	CJB	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	CJB	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	CJB	DP	23.07.21
B	FOR RESOURCE CONSENT	ABL	CJB	RM	05.07.21

Drawing Originator:

Original Scale (A1)	Design	C.BREYENBACH	31.05.21	Approved For Construction*
1:500	Drawn	B.POPLI	31.05.21	
Reduced Scale (A3)	Design Verifier			Date
1:1000	Design Check			

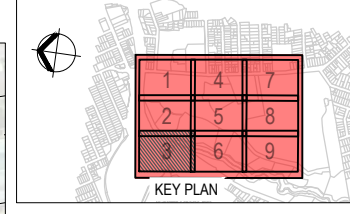
\* Refer to Revision 1 for Original Signature

Client: **MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ**

Project: **CARRINGTON BACKBONE WORKS PROJECT**

Title: **SITE CLEARANCE & DEMOLITION LAYOUT SHEET 9**

Discipline	CIVIL ENGINEERING
Drawing No.	3126447-CA-2109
Rev.	E



**LEGEND:**

- PROPERTY BOUNDARIES
- SITE BOUNDARY
- FUTURE CARRINGTON ROAD WIDENING
- EXTENT OF EARTHWORKS
- 0.5 CUT CONTOUR LINES
- 0.5 FILL CONTOUR LINES
- 0.0 ZERO CONTOUR LINES
- BUSINESS - MIXED USE ZONE
- SPECIAL PURPOSE ZONE
- RESIDENTIAL - TERRACE HOUSING AND APARTMENT BUILDINGS ZONE

- NOTES:**
1. SURVEY DATA SHOWN ON THIS PLAN WAS PROVIDED BY CALIBRE CONSULTING LIMITED SURVEYED ON 2017.
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**ORIGINAL DRAWING  
IN COLOUR**

**RESOURCE CONSENT  
NOT FOR CONSTRUCTION**

No.	Revision	By	CHK	Appd	Date
E	MINOR AMENDMENTS	ABL	CJB	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	CJB	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	CJB	DP	23.07.21
B	FOR RESOURCE CONSENT	ABL	CJB	RM	05.07.21



Original Scale (A1) 1:1500	Design C.BREYTENBACH 31.05.21	Approved For Construction 31.05.21
Reduced Scale (A3) 1:3000	Drawn A.FAZEKAS	Date
	Design Verifier	
	Design Check	

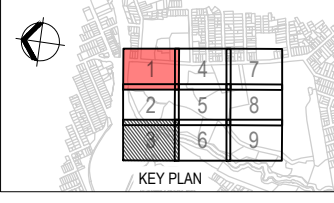
\* Refer to Revision 1 for Original Signature

Client: **MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ**

Project: **CARRINGTON BACKBONE WORKS PROJECT**

Title: **CUT/FILL CONTOUR OVERALL LAYOUT**

Discipline	<b>CIVIL ENGINEERING</b>
Drawing No.	<b>3126447-CA-2200</b>
Rev.	<b>E</b>



**LEGEND:**

- PROPERTY BOUNDARIES
- SITE BOUNDARY
- FUTURE CARRINGTON ROAD WIDENING
- EXTENT OF EARTHWORKS
- 0.5 CUT CONTOUR LINES
- 0.5 FILL CONTOUR LINES
- 0.0 ZERO CONTOUR LINES
- BUSINESS - MIXED USE ZONE
- SPECIAL PURPOSE ZONE
- RESIDENTIAL - TERRACE HOUSING AND APARTMENT BUILDINGS ZONE

- NOTES:**
1. SURVEY DATA SHOWN ON THIS PLAN WAS PROVIDED BY CALIBRE CONSULTING LIMITED SURVEYED ON 2017.
  2. EXISTING SERVICES INFORMATION HAS BEEN COMPILED FROM VARIOUS SOURCES. ACCURACY UNKNOWN. CONTRACTOR TO LOCATE AND MARK OUT SERVICES PRIOR TO CONSTRUCTION WORKS.
  3. COORDINATES ARE IN TERMS OF MT EDEN 2000.
  4. ELEVATIONS ARE IN TERMS OF NEW ZEALAND VERTICAL DATUM 2016.

**ORIGINAL DRAWING  
IN COLOUR**

**RESOURCE CONSENT  
NOT FOR CONSTRUCTION**

No.	Revision	By	Chk.	Appd.	Date
E	MINOR AMENDMENTS	ABL	CJB	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	CJB	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	CJB	DP	23.07.21
B	FOR RESOURCE CONSENT	ABL	CJB	RM	05.07.21

Drawing Originator:

Original Scale (A1) 1:500  
Reduced Scale (A3) 1:1000

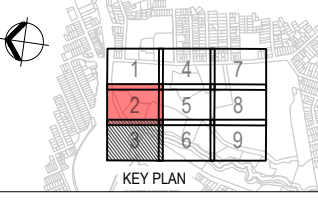
Design: C.BREYTENBACH 31.05.21  
Drawn: A.FAZEKAS 31.05.21  
Dag Verifier:   
Dag Check:   
Date:   
\* Refer to Revision 1 for Original Signature

Client: **MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ**

Project: **CARRINGTON BACKBONE WORKS PROJECT**

Title: **CUT/FILL CONTOUR LAYOUT SHEET 1**

Discipline	CIVIL ENGINEERING
Drawing No.	3126447-CA-2201
Rev.	E



**LEGEND:**

- PROPERTY BOUNDARIES
- SITE BOUNDARY
- FUTURE CARRINGTON ROAD WIDENING
- EXTENT OF EARTHWORKS
- 0.5 CUT CONTOUR LINES
- 0.5 FILL CONTOUR LINES
- 0.0 ZERO CONTOUR LINES
- BUSINESS - MIXED USE ZONE
- SPECIAL PURPOSE ZONE
- RESIDENTIAL - TERRACE HOUSING AND APARTMENT BUILDINGS ZONE

- NOTES:**
1. SURVEY DATA SHOWN ON THIS PLAN WAS PROVIDED BY CALIBRE CONSULTING LIMITED SURVEYED ON 2017.
  2. EXISTING SERVICES INFORMATION HAS BEEN COMPILED FROM VARIOUS SOURCES. ACCURACY UNKNOWN. CONTRACTOR TO LOCATE AND MARK OUT SERVICES PRIOR TO CONSTRUCTION WORKS.
  3. COORDINATES ARE IN TERMS OF MT EDEN 2000.
  4. ELEVATIONS ARE IN TERMS OF NEW ZEALAND VERTICAL DATUM 2016.

**ORIGINAL DRAWING  
IN COLOUR**

**RESOURCE CONSENT  
NOT FOR CONSTRUCTION**

No.	Revision	By	Chk.	Appd.	Date
E	MINOR AMENDMENTS	ABL	CJB	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	CJB	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	CJB	DP	23.07.21
B	FOR RESOURCE CONSENT	ABL	CJB	RM	05.07.21

Drawing Originator:

Original Scale (A1) 1:500  
Reduced Scale (A3) 1:1000

Design	C.BREYTENBACH	31.05.21	Approved For Construction*
Drawn	A.FAZEKAS	31.05.21	Date
Design Checker			
Design Verifier			

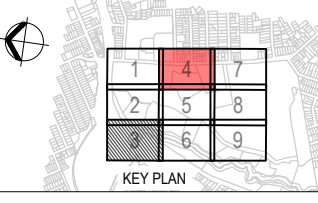
\* Refer to Revision 1 for Original Signature

Client: **MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ**

Project: **CARRINGTON BACKBONE WORKS PROJECT**

Title: **CUT/FILL CONTOUR LAYOUT SHEET 2**

Discipline	CIVIL ENGINEERING
Drawing No.	3126447-CA-2202
Rev.	E



**LEGEND:**

- PROPERTY BOUNDARIES
- SITE BOUNDARY
- FUTURE CARRINGTON ROAD WIDENING
- EXTENT OF EARTHWORKS
- 0.5 CUT CONTOUR LINES
- 0.5 FILL CONTOUR LINES
- 0.0 ZERO CONTOUR LINES
- BUSINESS - MIXED USE ZONE
- SPECIAL PURPOSE ZONE
- RESIDENTIAL - TERRACE HOUSING AND APARTMENT BUILDINGS ZONE

- NOTES:**
1. SURVEY DATA SHOWN ON THIS PLAN WAS PROVIDED BY CALIBRE CONSULTING LIMITED SURVEYED ON 2017.
  2. EXISTING SERVICES INFORMATION HAS BEEN COMPILED FROM VARIOUS SOURCES. ACCURACY UNKNOWN. CONTRACTOR TO LOCATE AND MARK OUT SERVICES PRIOR TO CONSTRUCTION WORKS.
  3. COORDINATES ARE IN TERMS OF MT EDEN 2000.
  4. ELEVATIONS ARE IN TERMS OF NEW ZEALAND VERTICAL DATUM 2016.

ORIGINAL DRAWING  
IN COLOUR

RESOURCE CONSENT  
NOT FOR CONSTRUCTION

No.	Revision	By	CHK	Appd	Date
E	MINOR AMENDMENTS	ABL	CJB	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	CJB	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	CJB	DP	23.07.21
B	FOR RESOURCE CONSENT	ABL	CJB	RM	05.07.21

Drawing Originator:

Original Scale (A1)	1:500	Design	C.BREYTENBACH	31.05.21	Approved For Construction*
Reduced Scale (A3)	1:1000	Drawn	A.FAZEKAS	31.05.21	Date
		Design Verifier			
		Design Check			

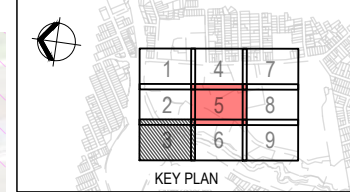
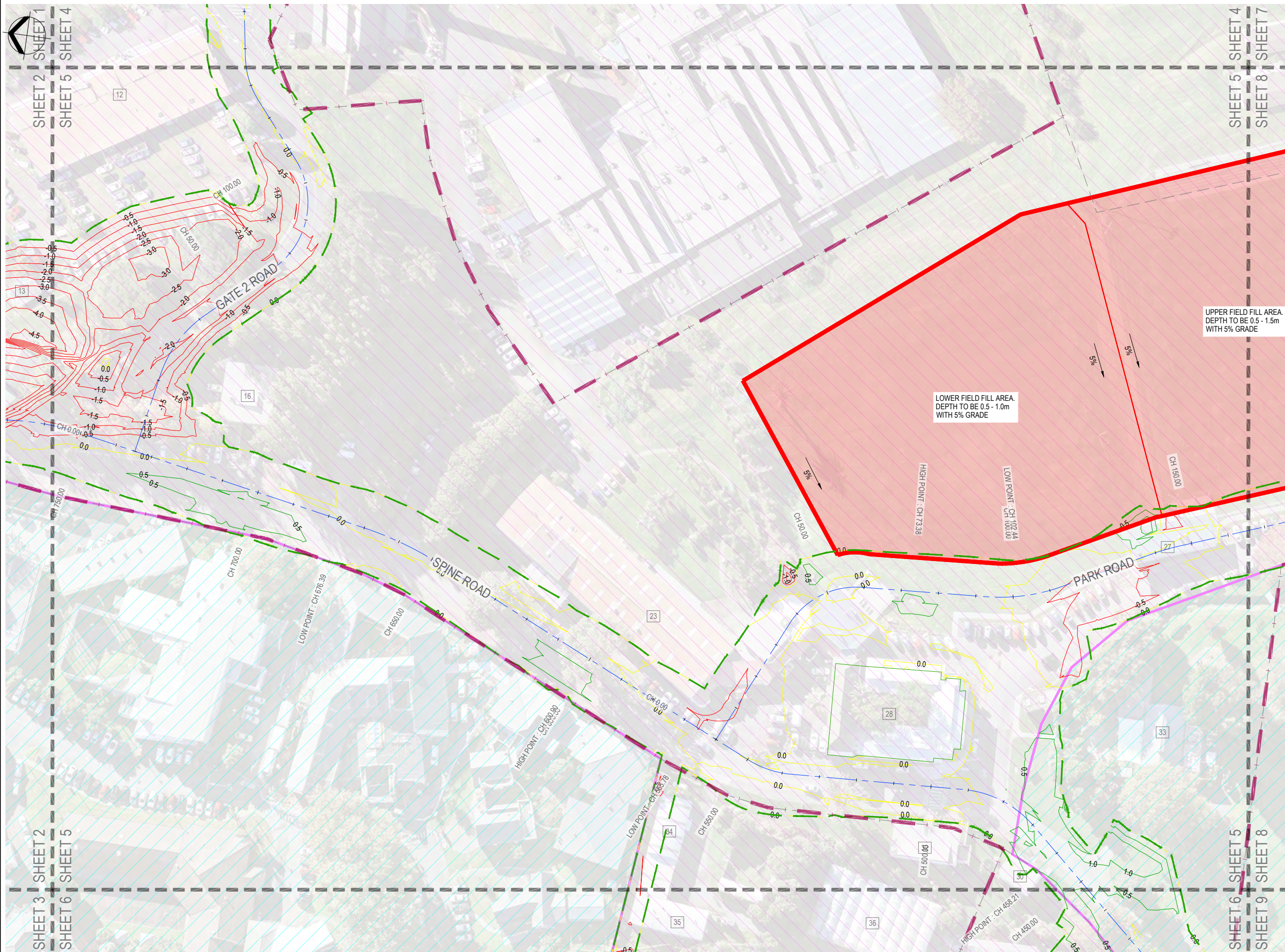
\* Refer to Revision 1 for Original Signature

Client: **MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ**

Project: **CARRINGTON BACKBONE WORKS PROJECT**

Title: **CUT/FILL CONTOUR LAYOUT SHEET 4**

Discipline	CIVIL ENGINEERING
Drawing No.	3126447-CA-2204
Rev.	E



**LEGEND:**

- PROPERTY BOUNDARIES
- SITE BOUNDARY
- FUTURE CARRINGTON ROAD WIDENING
- EXTENT OF EARTHWORKS
- 0.5 CUT CONTOUR LINES
- 0.5 FILL CONTOUR LINES
- 0.0 ZERO CONTOUR LINES
- BUSINESS - MIXED USE ZONE
- SPECIAL PURPOSE ZONE
- RESIDENTIAL - TERRACE HOUSING AND APARTMENT BUILDINGS ZONE
- 1 BUILDING NUMBERS

- NOTES:**
1. SURVEY DATA SHOWN ON THIS PLAN WAS PROVIDED BY CALIBRE CONSULTING LIMITED SURVEYED ON 2017.
  2. EXISTING SERVICES INFORMATION HAS BEEN COMPILED FROM VARIOUS SOURCES. ACCURACY UNKNOWN. CONTRACTOR TO LOCATE AND MARK OUT SERVICES PRIOR TO CONSTRUCTION WORKS COMMENCING.
  3. COORDINATES ARE IN TERMS OF MT EDEN 2000.
  4. ELEVATIONS ARE IN TERMS OF NEW ZEALAND VERTICAL DATUM 2016.

**ORIGINAL DRAWING  
IN COLOUR**

**RESOURCE CONSENT  
NOT FOR CONSTRUCTION**

No.	Revision	By	CHK	Appd	Date
G	FOR RESOURCE CONSENT	ABL	CJB	DP	25.02.22
E	MINOR AMENDMENTS	ABL	CJB	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	CJB	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	CJB	DP	23.07.21

Drawing Originator:

Original Scale (A1) 1:500  
Reduced Scale (A3) 1:1000

Design	C.BREYENBACH	31.05.21	Approved For Construction*
Drawn	A.FAZEKAS	31.05.21	Date
Dwg Verifier			
Dwg Check			

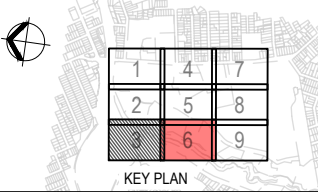
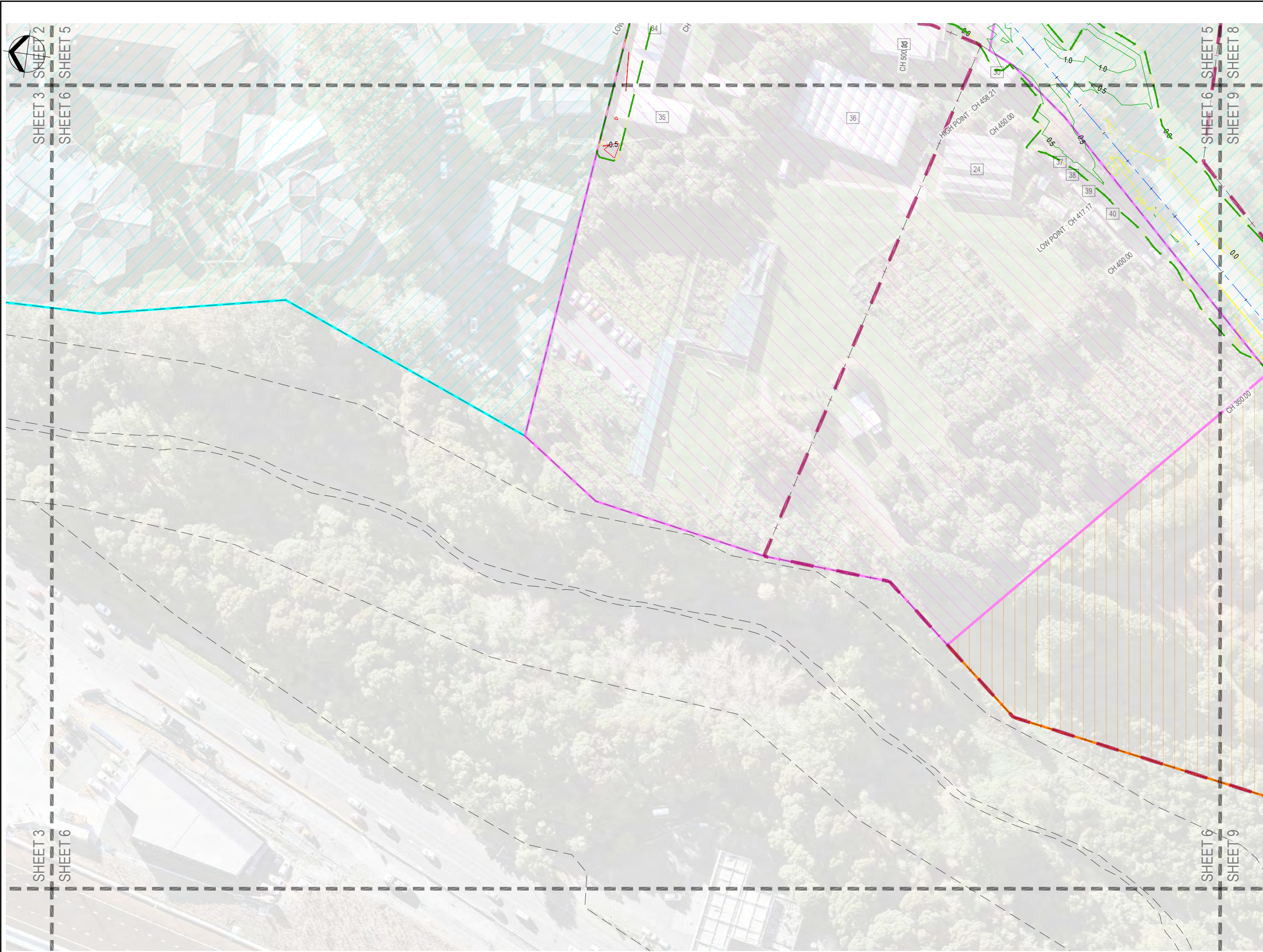
\* Refer to Revision 1 for Original Signature

Client: **MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ**

Project: **CARRINGTON BACKBONE WORKS PROJECT**

Title: **CUT/FILL CONTOUR LAYOUT SHEET 5**

Discipline	CIVIL ENGINEERING
Drawing No.	3126447-CA-2205
Rev.	G



**LEGEND:**

- PROPERTY BOUNDARIES
- SITE BOUNDARY
- FUTURE CARRINGTON ROAD WIDENING
- EXTENT OF EARTHWORKS
- 0.5 CUT CONTOUR LINES
- 0.5 FILL CONTOUR LINES
- 0.0 ZERO CONTOUR LINES
- Business - MIXED USE ZONE
- Special Purpose ZONE
- Residential - TERRACE HOUSING AND APARTMENT BUILDINGS ZONE
- 1 BUILDING NUMBERS

- NOTES:**
- SURVEY DATA SHOWN ON THIS PLAN WAS PROVIDED BY CALIBRE CONSULTING LIMITED SURVEYED ON 2017.
  - EXISTING SERVICES INFORMATION HAS BEEN COMPILED FROM VARIOUS SOURCES. ACCURACY UNKNOWN. CONTRACTOR TO LOCATE AND MARK OUT SERVICES PRIOR TO CONSTRUCTION WORKS COMMENCING.
  - COORDINATES ARE IN TERMS OF MT EDEN 2000.
  - ELEVATIONS ARE IN TERMS OF NEW ZEALAND VERTICAL DATUM 2016.

ORIGINAL DRAWING  
IN COLOUR  
**RESOURCE CONSENT  
NOT FOR CONSTRUCTION**

G	FOR RESOURCE CONSENT	ABL	CJB	DP	25.02.22
E	MINOR AMENDMENTS	ABL	CJB	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	CJB	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	CJB	DP	23.07.21
No.	Revision	By	Chk	Appd	Date

Drawing Originator: **Beca**

Original Scale (A1)	1:500	Design	C.BREYTENBACH	31.05.21	Approved For Construction*
Reduced Scale (A3)	1:1000	Drawn	A.FAZEKAS	31.05.21	Date
		Dag Verifier			
		Dag Check			

\* Refer to Revision 1 for Original Signature

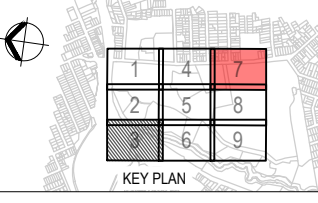
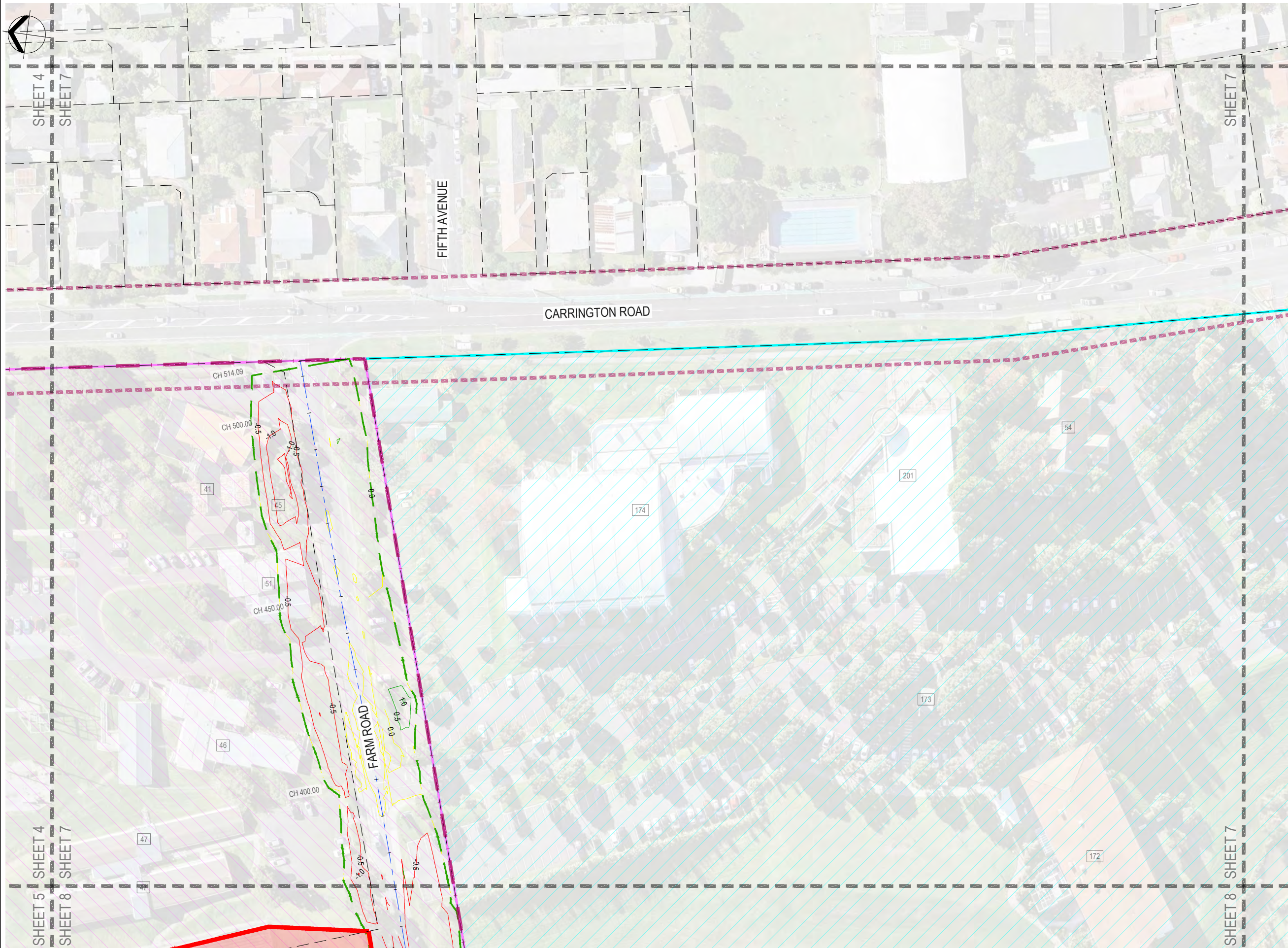
Client: **MARUTŪĀHU AND WAIOHUA-TĀMAKI RŌPŪ**

Project: **CARRINGTON BACKBONE WORKS PROJECT**

Title: **CUT/FILL CONTOUR LAYOUT SHEET 6**

Discipline	CIVIL ENGINEERING
Drawing No.	3126447-CA-2206
Rev.	G





**LEGEND:**

- PROPERTY BOUNDARIES
- SITE BOUNDARY
- FUTURE CARRINGTON ROAD WIDENING
- EXTENT OF EARTHWORKS
- 0.5 CUT CONTOUR LINES
- 0.5 FILL CONTOUR LINES
- 0.0 ZERO CONTOUR LINES
- Business - Mixed Use Zone
- Special Purpose Zone
- Residential - Terrace Housing and Apartment Buildings Zone

- NOTES:**
1. SURVEY DATA SHOWN ON THIS PLAN WAS PROVIDED BY CALIBRE CONSULTING LIMITED SURVEYED ON 2017.
  2. EXISTING SERVICES INFORMATION HAS BEEN COMPILED FROM VARIOUS SOURCES. ACCURACY UNKNOWN. CONTRACTOR TO LOCATE AND MARK OUT SERVICES PRIOR TO CONSTRUCTION WORKS.
  3. COORDINATES ARE IN TERMS OF MT EDEN 2000.
  4. ELEVATIONS ARE IN TERMS OF NEW ZEALAND VERTICAL DATUM 2016.

**ORIGINAL DRAWING IN COLOUR**

**RESOURCE CONSENT NOT FOR CONSTRUCTION**

No.	Revision	By	CHK	Appd	Date
E	MINOR AMENDMENTS	ABL	CJB	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	CJB	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	CJB	DP	23.07.21
B	FOR RESOURCE CONSENT	ABL	CJB	RM	05.07.21

Drawing Originator:

Original Scale (A1)	Design	Drawn	31.05.21	Approved For Construction*
1:500	C.BREYENBACH	A.FAZEKAS	31.05.21	
Reduced Scale (A3)	Dwg Verifier	Dwg Check	Date	
1:1000				

\* Refer to Revision 1 for Original Signature

Client: **MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ**

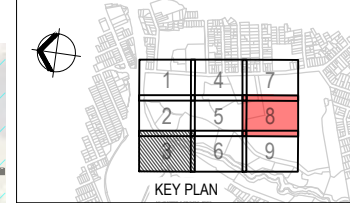
Project: **CARRINGTON BACKBONE WORKS PROJECT**

Title: **CUT/FILL CONTOUR LAYOUT SHEET 7**

Discipline	Rev.
CIVIL ENGINEERING	E
Drawing No.	3126447-CA-2207



UPPER FIELD FILL AREA.  
DEPTH TO BE 0.5 - 1.5m  
WITH 5% GRADE



**LEGEND:**

- PROPERTY BOUNDARIES
- SITE BOUNDARY
- FUTURE CARRINGTON ROAD WIDENING
- EXTENT OF EARTHWORKS
- 0.5 CUT CONTOUR LINES
- 0.5 FILL CONTOUR LINES
- 0.0 ZERO CONTOUR LINES
- BUSINESS - MIXED USE ZONE
- SPECIAL PURPOSE ZONE
- RESIDENTIAL - TERRACE HOUSING AND APARTMENT BUILDINGS ZONE

- NOTES:**
1. SURVEY DATA SHOWN ON THIS PLAN WAS PROVIDED BY CALIBRE CONSULTING LIMITED SURVEYED ON 2017.
  2. EXISTING SERVICES INFORMATION HAS BEEN COMPILED FROM VARIOUS SOURCES. ACCURACY UNKNOWN. CONTRACTOR TO LOCATE AND MARK OUT SERVICES PRIOR TO CONSTRUCTION WORKS.
  3. COORDINATES ARE IN TERMS OF MT EDEN 2000.
  4. ELEVATIONS ARE IN TERMS OF NEW ZEALAND VERTICAL DATUM 2016.

ORIGINAL DRAWING  
IN COLOUR

RESOURCE CONSENT  
NOT FOR CONSTRUCTION

No.	Revision	By	CHK	Appd	Date
E	MINOR AMENDMENTS	ABL	CJB	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	CJB	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	CJB	DP	23.07.21
B	FOR RESOURCE CONSENT	ABL	CJB	RM	05.07.21

Drawing Originator:

Original Scale (A1)	Design	C.BREYTENBACH	31.05.21	Approved For Construction*
1:500	Drawn	A.FAZEKAS	31.05.21	Date
Reduced Scale (A3)	Dwg Verifier			
1:1000	Dwg Check			

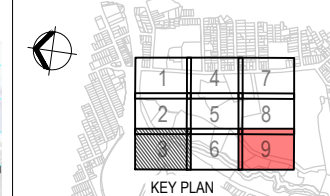
\* Refer to Revision 1 for Original Signature

Client: **MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ**

Project: **CARRINGTON BACKBONE WORKS PROJECT**

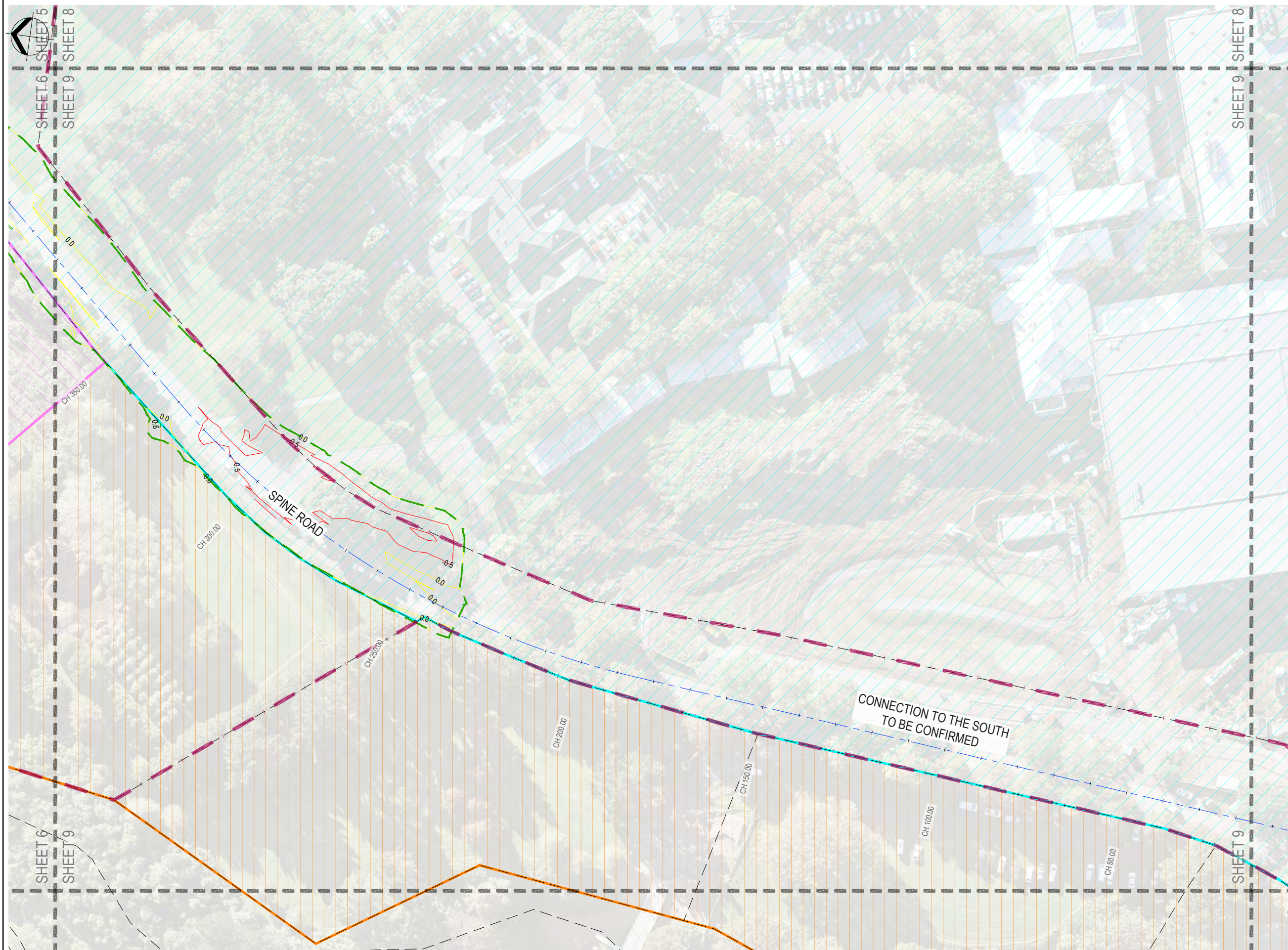
Title: **CUT/FILL CONTOUR LAYOUT SHEET 8**

Discipline	<b>CIVIL ENGINEERING</b>
Drawing No.	<b>3126447-CA-2208</b>
Rev.	<b>E</b>



**LEGEND:**

- PROPERTY BOUNDARIES
- SITE BOUNDARY
- FUTURE CARRINGTON ROAD WIDENING
- EXTENT OF EARTHWORKS
- 0.5 CUT CONTOUR LINES
- 0.5 FILL CONTOUR LINES
- 0.0 ZERO CONTOUR LINES
- BUSINESS - MIXED USE ZONE
- SPECIAL PURPOSE ZONE
- RESIDENTIAL - TERRACE HOUSING AND APARTMENT BUILDINGS ZONE



**NOTES:**

1. SURVEY DATA SHOWN ON THIS PLAN WAS PROVIDED BY CALIBRE CONSULTING LIMITED SURVEYED ON 2017.
2. EXISTING SERVICES INFORMATION HAS BEEN COMPILED FROM VARIOUS SOURCES. ACCURACY UNKNOWN. CONTRACTOR TO LOCATE AND MARK OUT SERVICES PRIOR TO CONSTRUCTION WORKS.
3. COORDINATES ARE IN TERMS OF MT EDEN 2000.
4. ELEVATIONS ARE IN TERMS OF NEW ZEALAND VERTICAL DATUM 2016.

**ORIGINAL DRAWING  
IN COLOUR**

**RESOURCE CONSENT  
NOT FOR CONSTRUCTION**

No.	Revision	By	CHK	Appd	Date
E	MINOR AMENDMENTS	ABL	CJB	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	CJB	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	CJB	DP	23.07.21
B	FOR RESOURCE CONSENT	ABL	CJB	RM	05.07.21

Drawing Originator:

Original Scale (A1)	1:500	Design	C.BREYENBACH	31.05.21	Approved For Construction*
Reduced Scale (A3)	1:1000	Drawn	A.FAZEKAS	31.05.21	Date
		Design Verifier			
		Design Check			

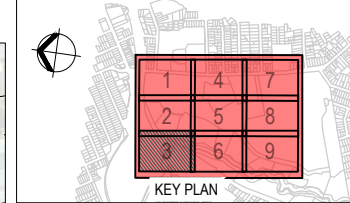
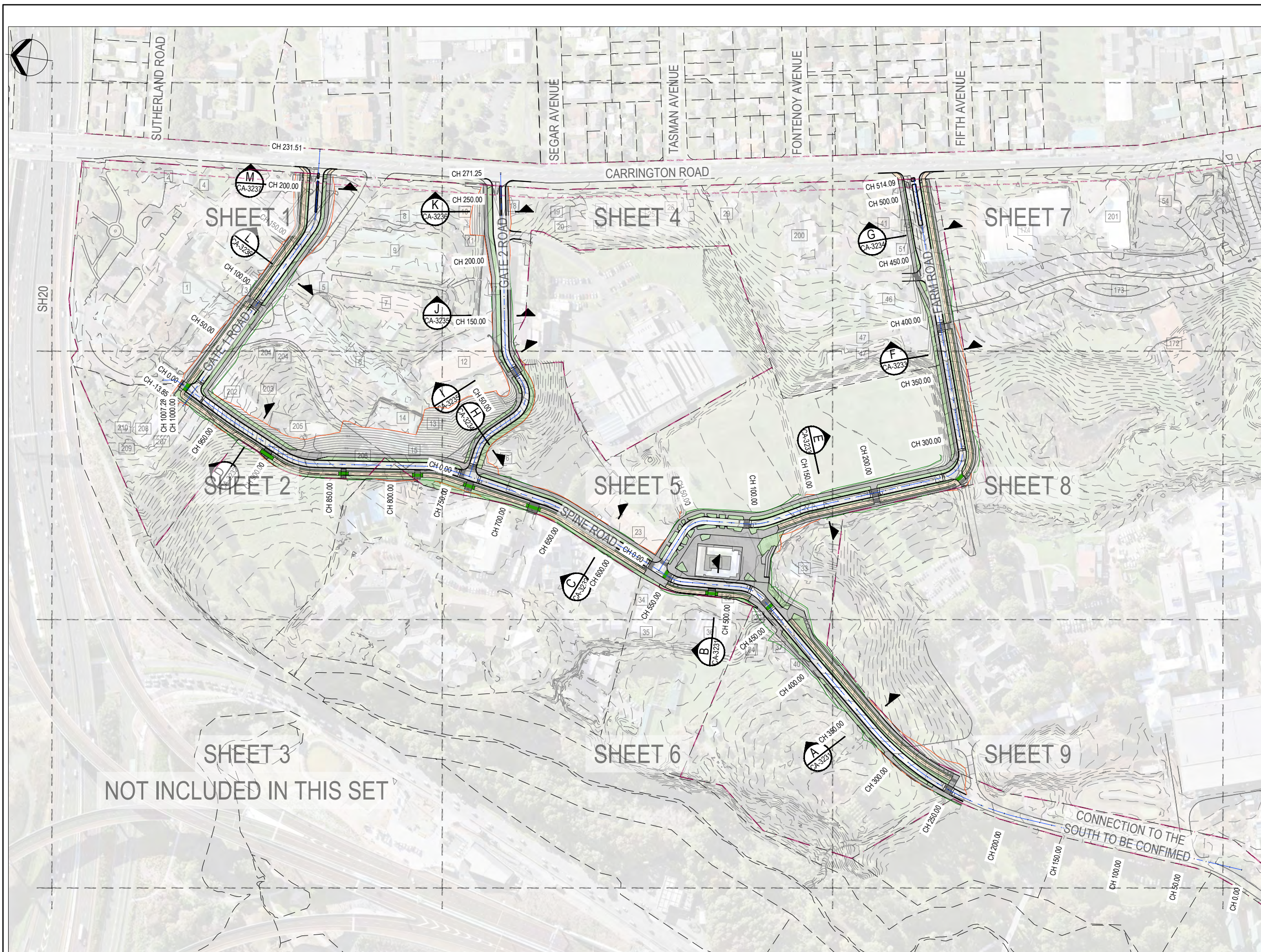
\* Refer to Revision 1 for Original Signature

Client: **MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ**

Project: **CARRINGTON BACKBONE WORKS PROJECT**

Title: **CUT/FILL CONTOUR LAYOUT SHEET 9**

Discipline	<b>CIVIL ENGINEERING</b>	
Drawing No.	<b>3126447-CA-2209</b>	Rev.
		<b>E</b>



**LEGEND:**

- EXISTING CONTOURS (0.5m INTERVALS)
- DESIGN CONTOURS (0.5m INTERVALS)
- PROPERTY BOUNDARIES
- SITE BOUNDARY
- FUTURE CARRINGTON ROAD WIDENING
- CORRIDOR DAYLIGHT CUT
- CORRIDOR DAYLIGHT FILL
- FOOT PATH/ SHARED PATH
- CYCLE PATH
- BICYCLE CROSSING
- PLANTED AREAS

- NOTES:**
- SURVEY DATA SHOWN ON THIS PLAN WAS PROVIDED BY CALIBRE CONSULTING LIMITED SURVEYED IN 2017. EXISTING SERVICES INFORMATION HAS BEEN COMPILED FROM VARIOUS SOURCES. ACCURACY UNKNOWN. CONTRACTOR TO LOCATE AND MARK OUT SERVICES PRIOR TO CONSTRUCTION WORKS.
  - COORDINATES ARE IN TERMS OF MT EDEN 2000.
  - ELEVATIONS ARE IN TERMS OF NEW ZEALAND VERTICAL DATUM 2016.

**ORIGINAL DRAWING  
IN COLOUR**

**RESOURCE CONSENT  
NOT FOR CONSTRUCTION**

No.	Revision	By	CHK	Appd	Date
E	MINOR AMENDMENTS	ABL	CJB	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	CJB	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	CJB	DP	23.07.21
B	FOR RESOURCE CONSENT	ABL	CJB	RM	05.07.21

Original Scale (A1) 1:1500  
Reduced Scale (A3) 1:3000

**Beca**

Design	N.KUSEL	31.05.21	Approved For Construction*
Drawn	A.FAZEKAS	31.05.21	Date
Dwg Verifier			
Dwg Check			

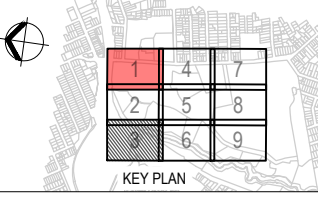
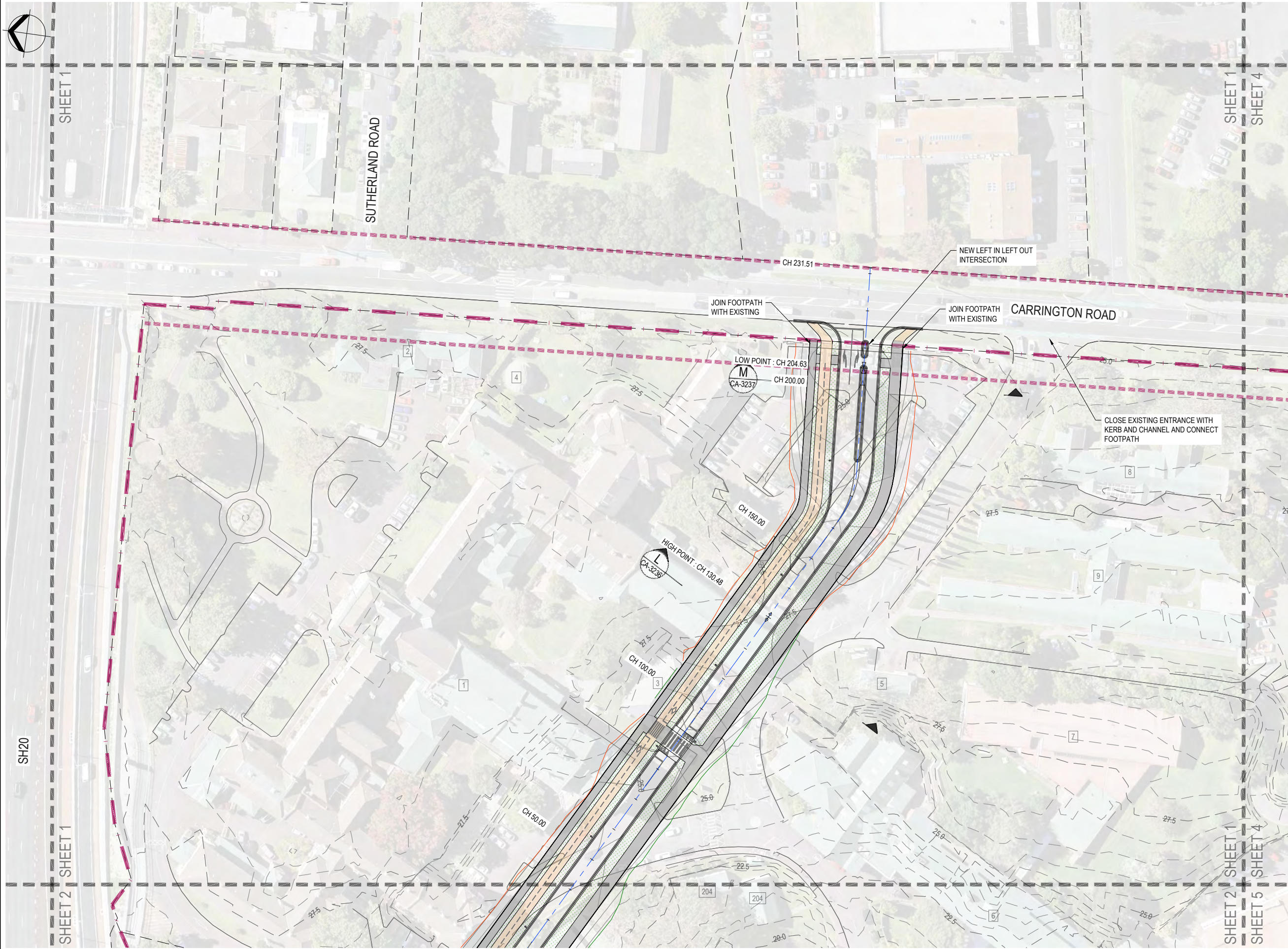
\* Refer to Revision 1 for Original Signature

Client: **MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ**

Project: **CARRINGTON BACKBONE WORKS PROJECT**

Title: **ROADING OVERALL LAYOUT**

Discipline	CIVIL ENGINEERING
Drawing No.	3126447-CA-3100
Rev.	E



**LEGEND:**

- EXISTING CONTOURS (0.5m INTERVALS)
- DESIGN CONTOURS (0.5m INTERVALS)
- PROPERTY BOUNDARIES
- SITE BOUNDARY
- FUTURE CARRINGTON ROAD WIDENING
- CORRIDOR DAYLIGHT CUT
- CORRIDOR DAYLIGHT FILL
- FOOT PATH/ SHARED PATH
- CYCLE PATH
- BICYCLE CROSSING
- PLANTED AREAS

- NOTES:**
1. SURVEY DATA SHOWN ON THIS PLAN WAS PROVIDED BY CALIBRE CONSULTING LIMITED SURVEYED ON 2017.
  2. EXISTING SERVICES INFORMATION HAS BEEN COMPILED FROM VARIOUS SOURCES. ACCURACY UNKNOWN. CONTRACTOR TO LOCATE AND MARK OUT SERVICES PRIOR TO CONSTRUCTION WORKS.
  3. COORDINATES ARE IN TERMS OF MT EDEN 2000.
  4. ELEVATIONS ARE IN TERMS OF NEW ZEALAND VERTICAL DATUM 2016.

**ORIGINAL DRAWING  
IN COLOUR**

**RESOURCE CONSENT  
NOT FOR CONSTRUCTION**

No.	Revision	By	CHK	Appd	Date
E	MINOR AMENDMENTS	ABL	CJB	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	CJB	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	CJB	DP	23.07.21
B	FOR RESOURCE CONSENT	ABL	CJB	RM	05.07.21

Drawing Originator:

Original Scale (A1) 1:500  
Reduced Scale (A3) 1:1000

Design: N.KUSEL 31.05.21  
Drawn: A.FAZEKAS 31.05.21  
Dwg Verifier: [blank]  
Dwg Check: [blank]

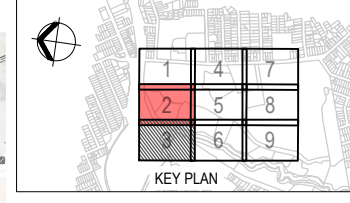
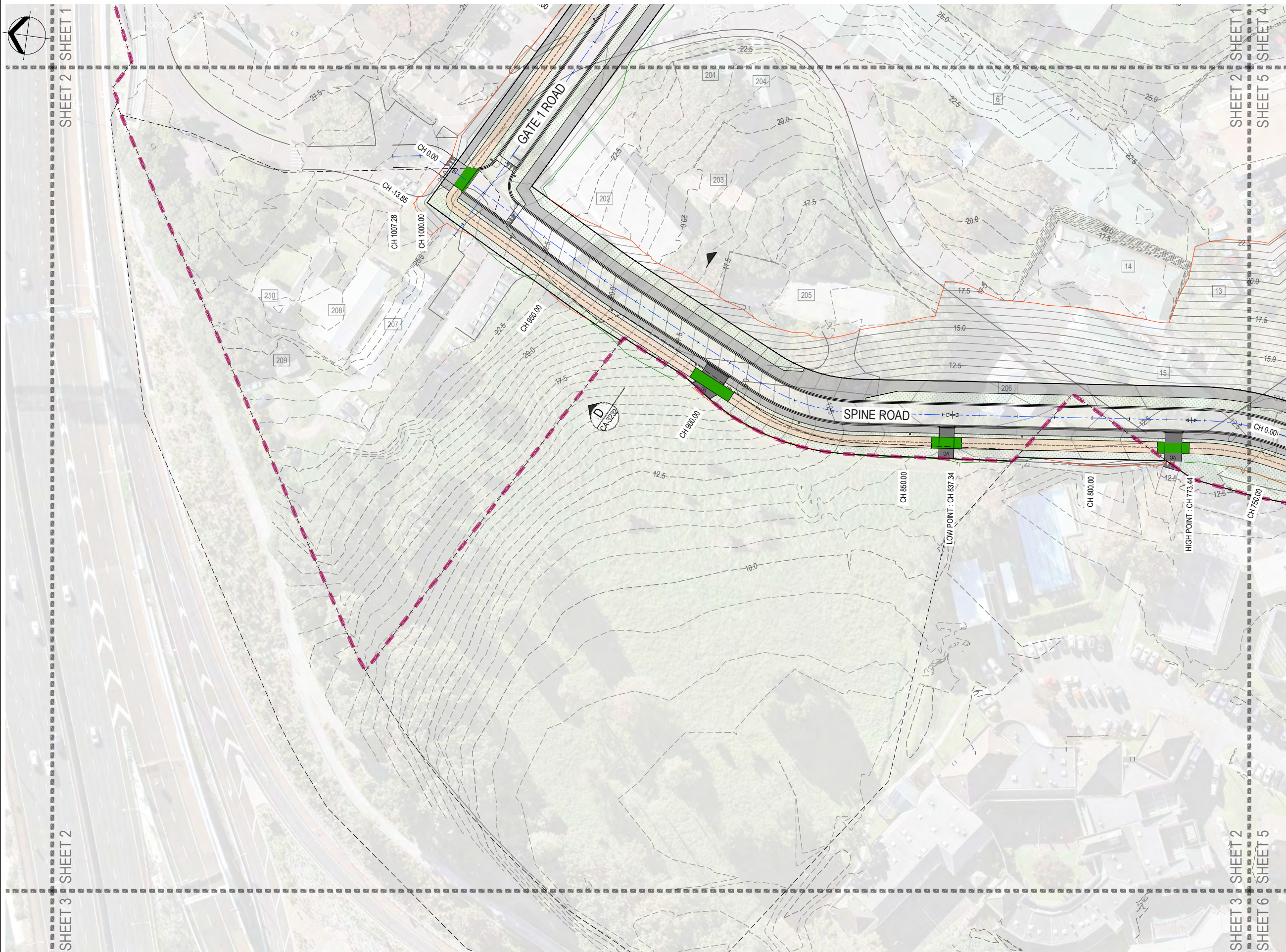
Approved For Construction\*  
Date

Client: **MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ**

Project: **CARRINGTON BACKBONE WORKS PROJECT**

Title: **ROADING LAYOUT SHEET 1**

Discipline	CIVIL ENGINEERING
Drawing No.	3126447-CA-3101
Rev.	E



**LEGEND:**

- EXISTING CONTOURS (0.5m INTERVALS)
- DESIGN CONTOURS (0.5m INTERVALS)
- PROPERTY BOUNDARIES
- SITE BOUNDARY
- FUTURE CARRINGTON ROAD WIDENING
- CORRIDOR DAYLIGHT CUT
- CORRIDOR DAYLIGHT FILL
- FOOT PATH/ SHARED PATH
- CYCLE PATH
- BICYCLE CROSSING
- PLANTED AREAS

- NOTES:**
- SURVEY DATA SHOWN ON THIS PLAN WAS PROVIDED BY CALIBRE CONSULTING LIMITED SURVEYED ON 2017.
  - EXISTING SERVICES INFORMATION HAS BEEN COMPILED FROM VARIOUS SOURCES. ACCURACY UNKNOWN. CONTRACTOR TO LOCATE AND MARK OUT SERVICES PRIOR TO CONSTRUCTION WORKS.
  - COORDINATES ARE IN TERMS OF MT EDEN 2000.
  - ELEVATIONS ARE IN TERMS OF NEW ZEALAND VERTICAL DATUM 2016.

ORIGINAL DRAWING  
IN COLOUR

**RESOURCE CONSENT  
NOT FOR CONSTRUCTION**

No.	Revision	By	CHK	Appd	Date
E	MINOR AMENDMENTS	ABL	CJB	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	CJB	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	CJB	DP	23.07.21
B	FOR RESOURCE CONSENT	ABL	CJB	RM	05.07.21

Drawing Originator:

Original Scale (A1) 1:500  
Reduced Scale (A3) 1:1000

Design: N.KUSEL 31.05.21  
Drawn: A.FAZEKAS 31.05.21  
Dag Verifier: [ ]  
Dag Check: [ ]  
Date: [ ]

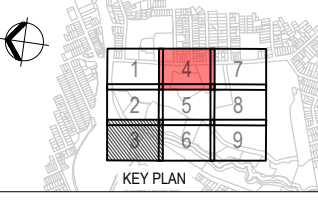
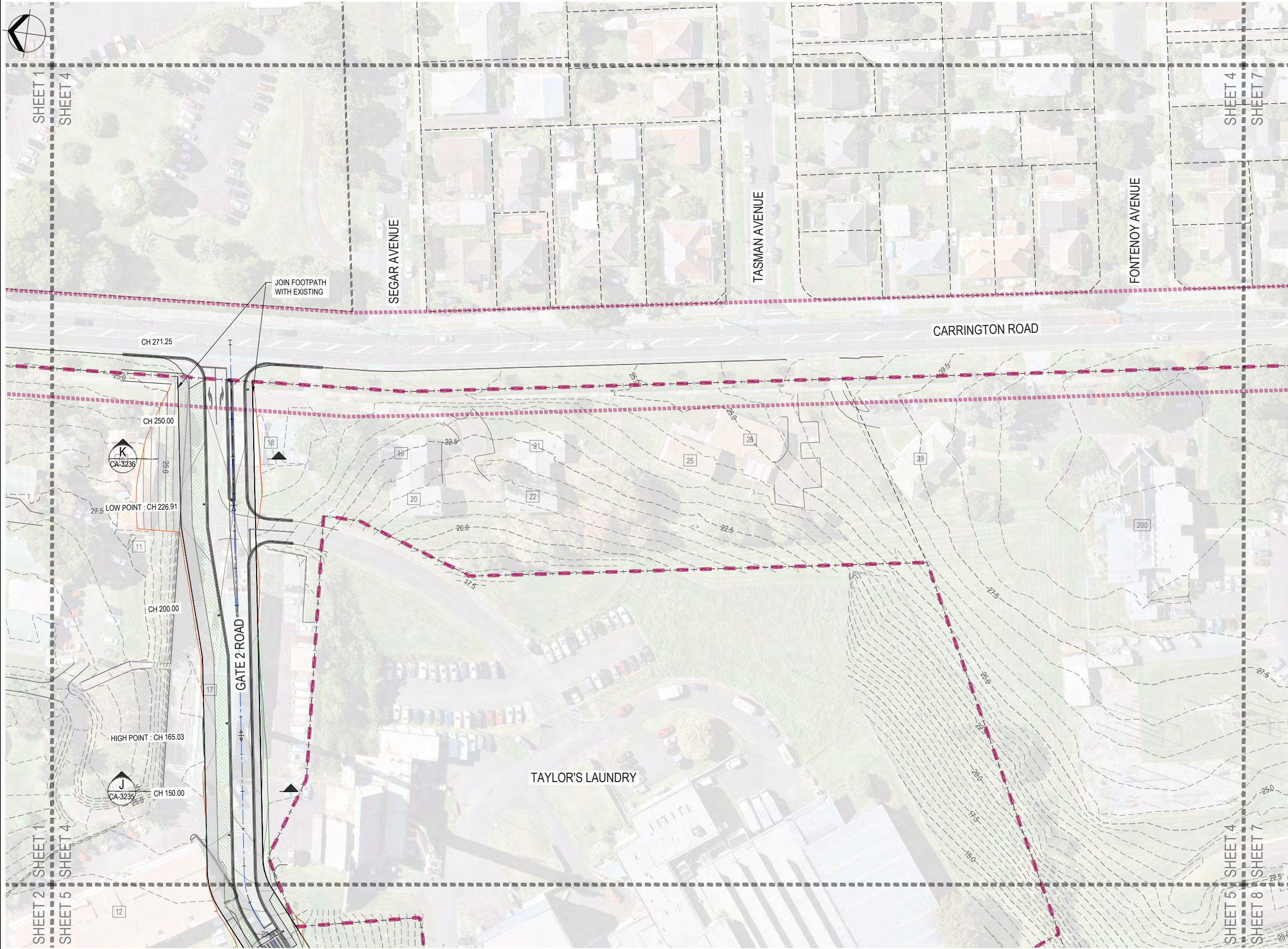
Approved For Construction\* [ ]

Client: **MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ**

Project: **CARRINGTON BACKBONE WORKS PROJECT**

Title: **ROADING LAYOUT SHEET 2**

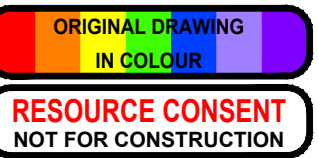
Discipline	CIVIL ENGINEERING
Drawing No.	3126447-CA-3102
Rev.	E



**LEGEND:**

- EXISTING CONTOURS (0.5m INTERVALS)
- DESIGN CONTOURS (0.5m INTERVALS)
- PROPERTY BOUNDARIES
- SITE BOUNDARY
- FUTURE CARRINGTON ROAD WIDENING
- CORRIDOR DAYLIGHT CUT
- CORRIDOR DAYLIGHT FILL
- FOOT PATH/ SHARED PATH
- CYCLE PATH
- BICYCLE CROSSING
- PLANTED AREAS

- NOTES:**
1. SURVEY DATA SHOWN ON THIS PLAN WAS PROVIDED BY CALIBRE CONSULTING LIMITED SURVEYED ON 2017.
  2. EXISTING SERVICES INFORMATION HAS BEEN COMPILED FROM VARIOUS SOURCES. ACCURACY UNKNOWN. CONTRACTOR TO LOCATE AND MARK OUT SERVICES PRIOR TO CONSTRUCTION WORKS.
  3. COORDINATES ARE IN TERMS OF MT EDEN 2000.
  4. ELEVATIONS ARE IN TERMS OF NEW ZEALAND VERTICAL DATUM 2016.



No.	Revision	By	CHK	Appd	Date
E	MINOR AMENDMENTS	ABL	CJB	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	CJB	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	CJB	DP	23.07.21
B	FOR RESOURCE CONSENT	ABL	CJB	RM	05.07.21



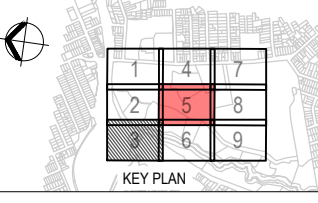
Original Scale (A1)	1:500	Design	N.KUSEL	31.05.21	Approved For Construction*
Reduced Scale (A3)	1:1000	Drawn	A.FAZEKAS	31.05.21	Date
		Design Checker			
		Design Verifier			
		Design Check			

Client: **MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ**

Project: **CARRINGTON BACKBONE WORKS PROJECT**

Title: **ROADING LAYOUT SHEET 4**

Discipline	<b>CIVIL ENGINEERING</b>	
Drawing No.	<b>3126447-CA-3104</b>	Rev.
		<b>E</b>



**LEGEND:**

- EXISTING CONTOURS (0.5m INTERVALS)
- DESIGN CONTOURS (0.5m INTERVALS)
- PROPERTY BOUNDARIES
- SITE BOUNDARY
- FUTURE CARRINGTON ROAD WIDENING
- CORRIDOR DAYLIGHT CUT
- CORRIDOR DAYLIGHT FILL
- FOOT PATH/ SHARED PATH
- CYCLE PATH
- BICYCLE CROSSING
- PLANTED AREAS

- NOTES:**
- SURVEY DATA SHOWN ON THIS PLAN WAS PROVIDED BY CALIBRE CONSULTING LIMITED SURVEYED ON 2017.
  - EXISTING SERVICES INFORMATION HAS BEEN COMPILED FROM VARIOUS SOURCES. ACCURACY UNKNOWN. CONTRACTOR TO LOCATE AND MARK OUT SERVICES PRIOR TO CONSTRUCTION WORKS.
  - COORDINATES ARE IN TERMS OF MT EDEN 2000.
  - ELEVATIONS ARE IN TERMS OF NEW ZEALAND VERTICAL DATUM 2016.

**ORIGINAL DRAWING  
IN COLOUR**

**RESOURCE CONSENT  
NOT FOR CONSTRUCTION**

No.	Revision	By	CHK	Appd	Date
E	MINOR AMENDMENTS	ABL	CJB	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	CJB	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	CJB	DP	23.07.21
B	FOR RESOURCE CONSENT	ABL	CJB	RM	05.07.21

Drawing Originator:

Original Scale (A1)	Design	N.KUSEL	31.05.21	Approved For Construction*
1:500	Drawn	A.FAZEKAS	31.05.21	Date
Reduced Scale (A3)	Design Verifier			
1:1000	Design Check			

\* Refer to Revision 1 for Original Signature

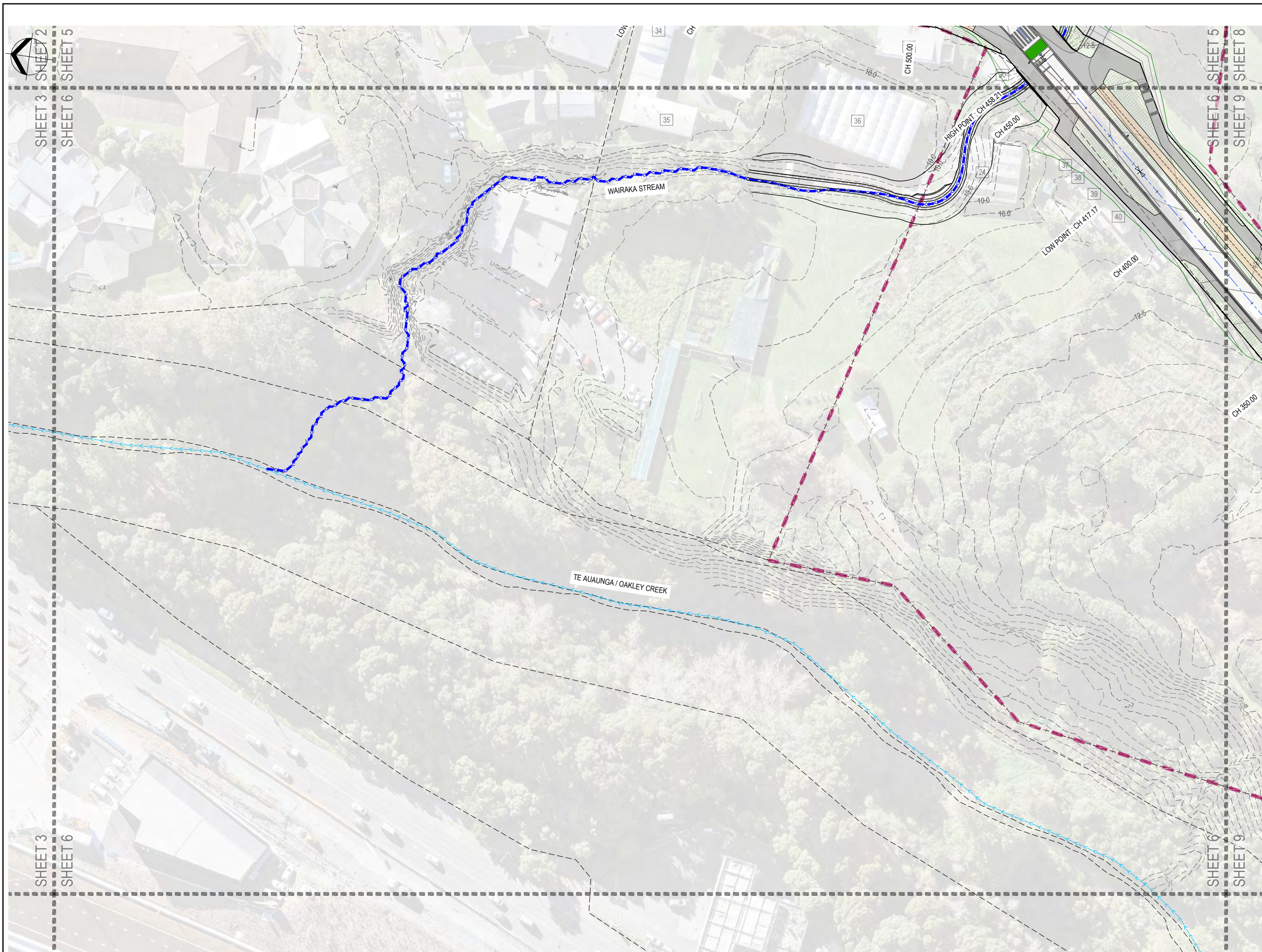
Client: **MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ**

Project: **CARRINGTON BACKBONE WORKS PROJECT**

Title: **ROADING LAYOUT SHEET 5**

Discipline	<b>CIVIL ENGINEERING</b>
Drawing No.	<b>3126447-CA-3105</b>
Rev.	<b>E</b>





**LEGEND:**

- EXISTING CONTOURS (0.5m INTERVALS)
- DESIGN CONTOURS (0.5m INTERVALS)
- PROPERTY BOUNDARIES
- SITE BOUNDARY
- FUTURE CARRINGTON ROAD WIDENING
- CORRIDOR DAYLIGHT CUT
- CORRIDOR DAYLIGHT FILL
- FOOT PATH/ SHARED PATH
- CYCLE PATH
- BICYCLE CROSSING
- PLANTED AREAS

- NOTES:**
- SURVEY DATA SHOWN ON THIS PLAN WAS PROVIDED BY CALIBRE CONSULTING LIMITED SURVEYED ON 2017.
  - EXISTING SERVICES INFORMATION HAS BEEN COMPILED FROM VARIOUS SOURCES. ACCURACY UNKNOWN. CONTRACTOR TO LOCATE AND MARK OUT SERVICES PRIOR TO CONSTRUCTION WORKS.
  - COORDINATES ARE IN TERMS OF MT EDEN 2000.
  - ELEVATIONS ARE IN TERMS OF NEW ZEALAND VERTICAL DATUM 2016.

ORIGINAL DRAWING  
IN COLOUR

**RESOURCE CONSENT**  
NOT FOR CONSTRUCTION

No.	Revision	By	CHK	Appd	Date
E	MINOR AMENDMENTS	ABL	CJB	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	CJB	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	CJB	DP	23.07.21
B	FOR RESOURCE CONSENT	ABL	CJB	RM	05.07.21

Drawing Originator:

Original Scale (A1) 1:500  
Reduced Scale (A3) 1:1000

Design: N.KUSEL 31.05.21  
Drawn: A.FAZEKAS 31.05.21  
Dag Verifier: [ ]  
Dag Check: [ ]  
Date: [ ]

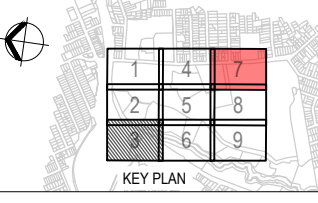
Approved For Construction\* [ ]

Client: **MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ**

Project: **CARRINGTON BACKBONE WORKS PROJECT**

Title: **ROADING LAYOUT SHEET 6**

Discipline	CIVIL ENGINEERING
Drawing No.	3126447-CA-3106
Rev.	E



**LEGEND:**

- EXISTING CONTOURS (0.5m INTERVALS)
- DESIGN CONTOURS (0.5m INTERVALS)
- PROPERTY BOUNDARIES
- SITE BOUNDARY
- FUTURE CARRINGTON ROAD WIDENING
- CORRIDOR DAYLIGHT CUT
- CORRIDOR DAYLIGHT FILL
- FOOT PATH/ SHARED PATH
- CYCLE PATH
- BICYCLE CROSSING
- PLANTED AREAS

- NOTES:**
- SURVEY DATA SHOWN ON THIS PLAN WAS PROVIDED BY CALIBRE CONSULTING LIMITED SURVEYED ON 2017.
  - EXISTING SERVICES INFORMATION HAS BEEN COMPILED FROM VARIOUS SOURCES. ACCURACY UNKNOWN. CONTRACTOR TO LOCATE AND MARK OUT SERVICES PRIOR TO CONSTRUCTION WORKS.
  - COORDINATES ARE IN TERMS OF MT EDEN 2000.
  - ELEVATIONS ARE IN TERMS OF NEW ZEALAND VERTICAL DATUM 2016.

**ORIGINAL DRAWING  
IN COLOUR**

**RESOURCE CONSENT  
NOT FOR CONSTRUCTION**

No.	Revision	By	CHK	Appd	Date
E	MINOR AMENDMENTS	ABL	CJB	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	CJB	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	CJB	DP	23.07.21
B	FOR RESOURCE CONSENT	ABL	CJB	RM	05.07.21

Drawing Originator: **Beca**

Original Scale (A1)	Design	N.KUSEL	31.05.21	Approved For Construction*
1:500	Drawn	A.FAZEKAS	31.05.21	Date
Reduced Scale (A3)	Design Verifier			
1:1000	Design Check			

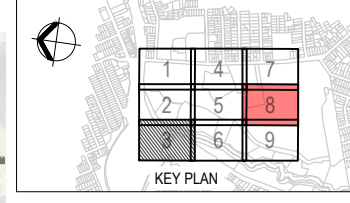
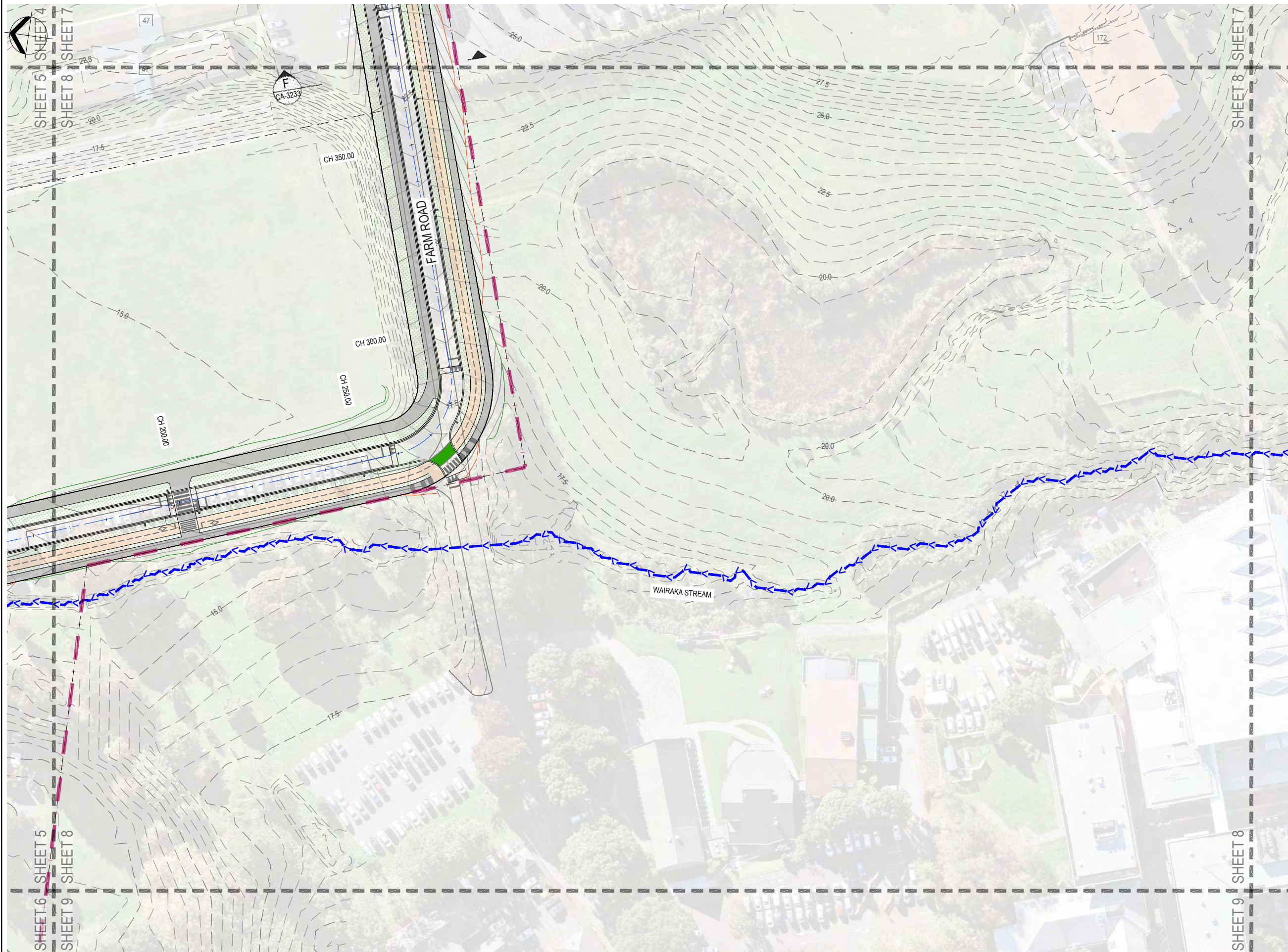
\* Refer to Revision 1 for Original Signature

Client: **MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ**

Project: **CARRINGTON BACKBONE WORKS PROJECT**

Title: **ROADING LAYOUT SHEET 7**

Discipline	<b>CIVIL ENGINEERING</b>	
Drawing No.	<b>3126447-CA-3107</b>	Rev.
		<b>E</b>



**LEGEND:**

- EXISTING CONTOURS (0.5m INTERVALS)
- DESIGN CONTOURS (0.5m INTERVALS)
- PROPERTY BOUNDARIES
- SITE BOUNDARY
- FUTURE CARRINGTON ROAD WIDENING
- CORRIDOR DAYLIGHT CUT
- CORRIDOR DAYLIGHT FILL
- FOOT PATH/ SHARED PATH
- CYCLE PATH
- BICYCLE CROSSING
- PLANTED AREAS

- NOTES:**
1. SURVEY DATA SHOWN ON THIS PLAN WAS PROVIDED BY CALIBRE CONSULTING LIMITED SURVEYED IN 2017.
  2. EXISTING SERVICES INFORMATION HAS BEEN COMPILED FROM VARIOUS SOURCES. ACCURACY UNKNOWN. CONTRACTOR TO LOCATE AND MARK OUT SERVICES PRIOR TO CONSTRUCTION WORKS.
  3. COORDINATES ARE IN TERMS OF MT EDEN 2000.
  4. ELEVATIONS ARE IN TERMS OF NEW ZEALAND VERTICAL DATUM 2016.

**ORIGINAL DRAWING  
IN COLOUR**

**RESOURCE CONSENT  
NOT FOR CONSTRUCTION**

No.	Revision	By	Chk.	Appd.	Date
E	MINOR AMENDMENTS	ABL	CJB	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	CJB	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	CJB	DP	23.07.21
B	FOR RESOURCE CONSENT	ABL	CJB	RM	05.07.21

Drawing Originator:

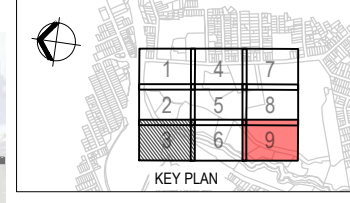
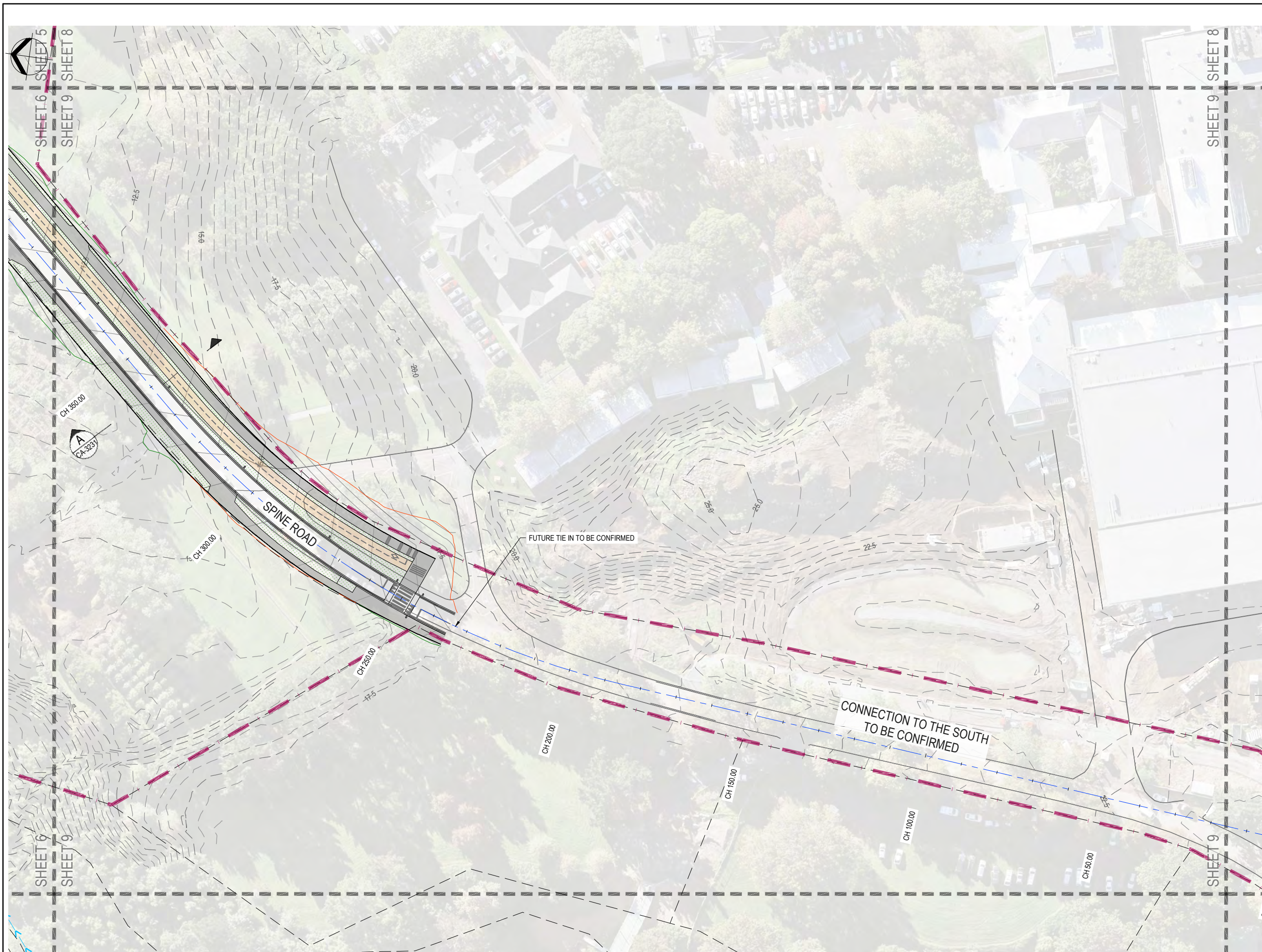
Original Scale (A1) 1:500  
 Design: N.KUSEL 31.05.21  
 Drawn: A.FAZEKAS 31.05.21  
 Reduced Scale (A3) 1:1000  
 Design Check: [ ]  
 Date: [ ]  
 \* Refer to Revision 1 for Original Signature

Client: **MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ**

Project: **CARRINGTON BACKBONE WORKS PROJECT**

Title: **ROADING LAYOUT SHEET 8**

Discipline	<b>CIVIL ENGINEERING</b>	
Drawing No.	<b>3126447-CA-3108</b>	Rev.
		<b>E</b>



**LEGEND:**

- EXISTING CONTOURS (0.5m INTERVALS)
- DESIGN CONTOURS (0.5m INTERVALS)
- PROPERTY BOUNDARIES
- SITE BOUNDARY
- FUTURE CARRINGTON ROAD WIDENING
- CORRIDOR DAYLIGHT CUT
- CORRIDOR DAYLIGHT FILL
- FOOT PATH/ SHARED PATH
- CYCLE PATH
- BICYCLE CROSSING
- PLANTED AREAS

- NOTES:**
- SURVEY DATA SHOWN ON THIS PLAN WAS PROVIDED BY CALIBRE CONSULTING LIMITED SURVEYED ON 2017.
  - EXISTING SERVICES INFORMATION HAS BEEN COMPILED FROM VARIOUS SOURCES. ACCURACY UNKNOWN. CONTRACTOR TO LOCATE AND MARK OUT SERVICES PRIOR TO CONSTRUCTION WORKS.
  - COORDINATES ARE IN TERMS OF MT EDEN 2000.
  - ELEVATIONS ARE IN TERMS OF NEW ZEALAND VERTICAL DATUM 2016.

**ORIGINAL DRAWING  
IN COLOUR**

**RESOURCE CONSENT  
NOT FOR CONSTRUCTION**

No.	Revision	By	CHK	Appd	Date
E	MINOR AMENDMENTS	ABL	CJB	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	CJB	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	CJB	DP	23.07.21
B	FOR RESOURCE CONSENT	ABL	CJB	RM	05.07.21

Drawing Originator: **Beca**

Original Scale (A1)	Design	N.KUSEL	31.05.21	Approved For Construction*
1:500	Drawn	A.FAZEKAS	31.05.21	Date
Reduced Scale (A3)	Design Verifier			
1:1000	Design Check			

\* Refer to Revision 1 for Original Signature

Client: **MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ**

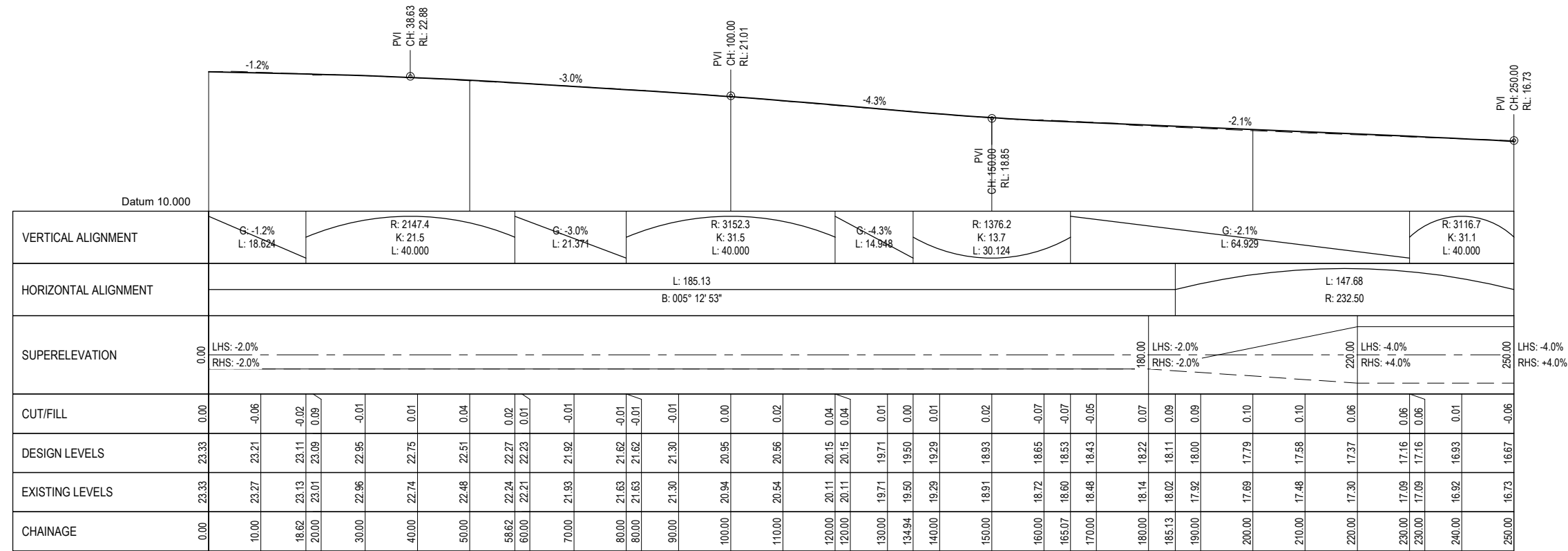
Project: **CARRINGTON BACKBONE WORKS PROJECT**

Title: **ROADING LAYOUT SHEET 9**

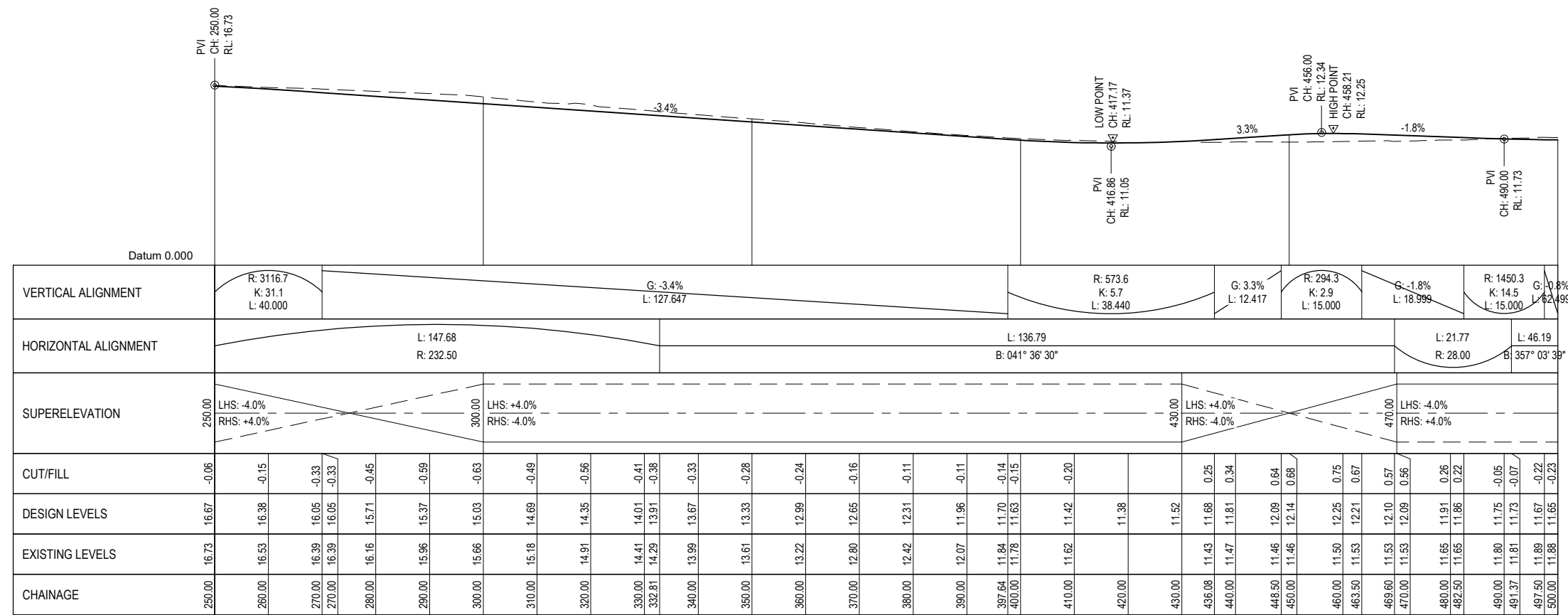
Discipline	<b>CIVIL ENGINEERING</b>
Drawing No.	<b>3126447-CA-3109</b>
Rev.	<b>E</b>

**LEGEND:**

- EXISTING SURFACE
- DESIGN SURFACE



LONGITUDINAL SECTION SPINE ROAD - CHAINAGE 0 TO 250



LONGITUDINAL SECTION SPINE ROAD - CHAINAGE 250 TO 500

No.	Revision	By	CHK	Appd	Date
E	MINOR AMENDMENTS	ABL	CJB	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	CJB	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	CJB	DP	23.07.21
B	FOR RESOURCE CONSENT	ABL	CJB	RM	05.07.21



Original Scale (A1) 1:500 (H) 1:250 (V)	Design C.BREYTENBACH 31.05.21	Approved For Construction*
Reduced Scale (A3) 1:1000 (H) 1:500 (V)	Drawn A.FAZEKAS 31.05.21	Date
	Design Verifier	
	Design Check	
	* Refer to Revision 1 for Original Signature	

Client: **MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ**

Project: **CARRINGTON BACKBONE WORKS PROJECT**

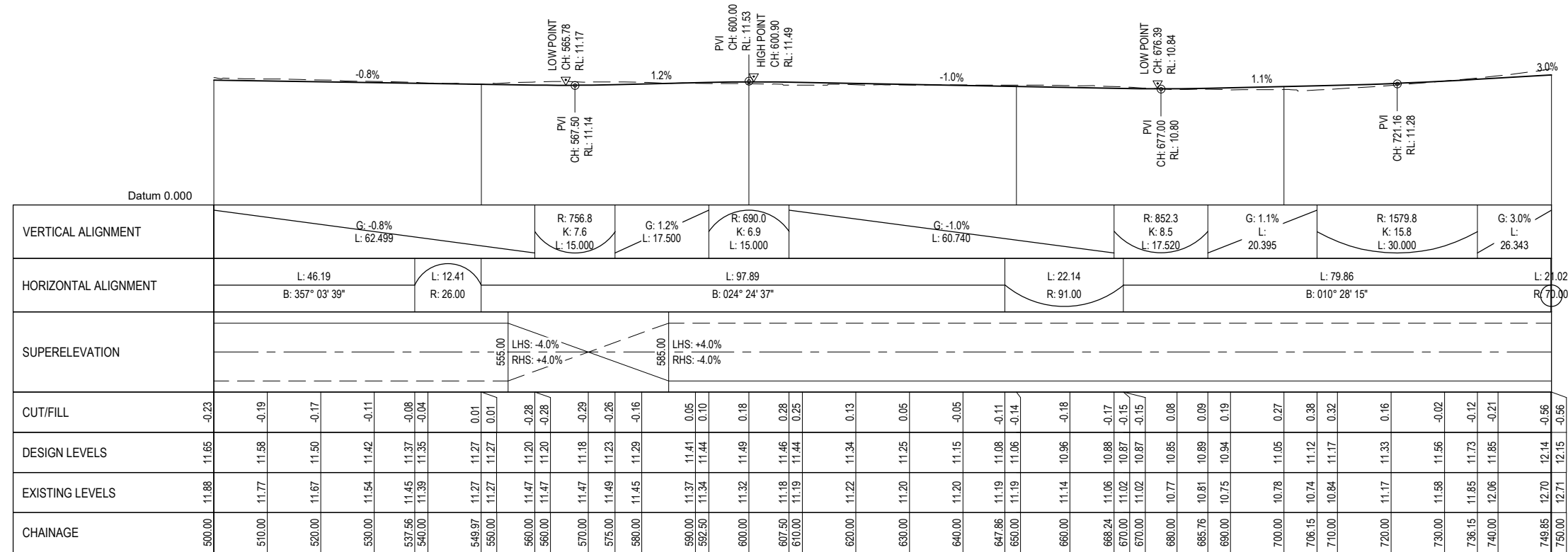
Title: **ROADING LONGITUDINAL SECTIONS SHEET 1**

**RESOURCE CONSENT NOT FOR CONSTRUCTION**

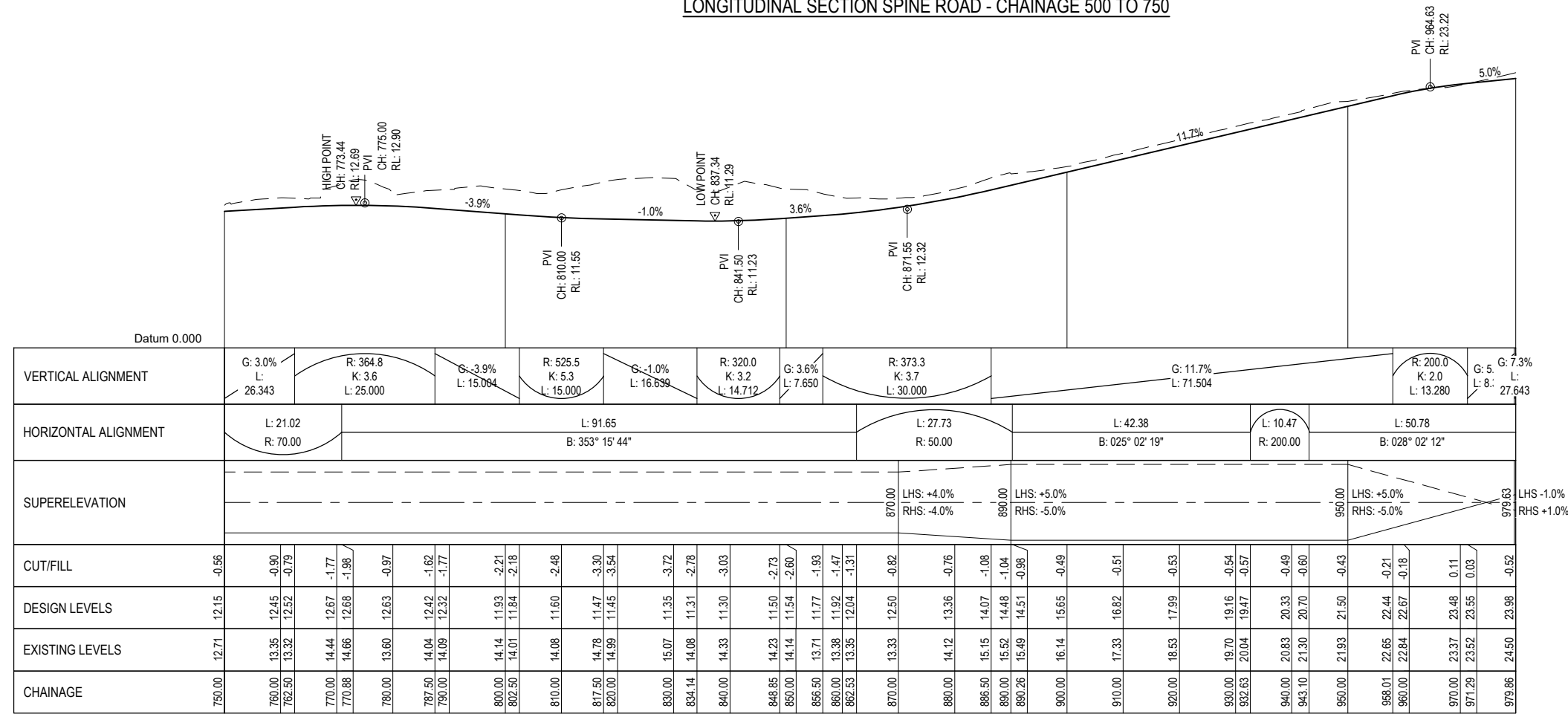
Discipline	CIVIL ENGINEERING
Drawing No.	3126447-CA-3201
Rev.	E

**LEGEND:**

- EXISTING SURFACE
- DESIGN SURFACE



LONGITUDINAL SECTION SPINE ROAD - CHAINAGE 500 TO 750



LONGITUDINAL SECTION SPINE ROAD - CHAINAGE 750 TO 980

No.	Revision	By	Chk.	Appd.	Date
E	MINOR AMENDMENTS	ABL	CJB	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	CJB	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	CJB	DP	23.07.21
B	FOR RESOURCE CONSENT	ABL	CJB	RM	05.07.21



Original Scale (A1)	1:500 (H) 1:250 (V)	Design	C.BREYENBACH	31.05.21	Approved For Construction*
Reduced Scale (A3)	1:1000 (H) 1:500 (V)	Drawn	A.FAZEKAS	31.05.21	Date
		Design Verifier			
		Design Check			

Client: **MARUTUAHU AND WAIOHUA-TAMAKI ROPU**

Project: **CARRINGTON BACKBONE WORKS PROJECT**

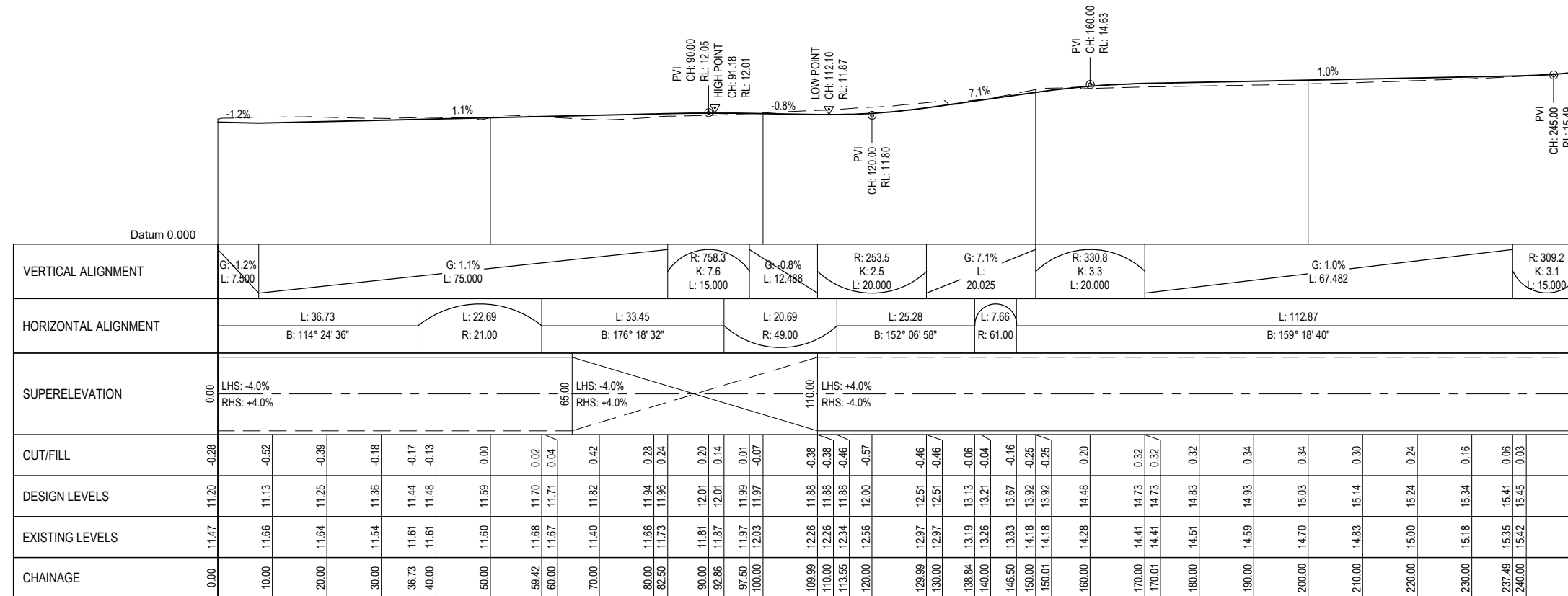
Title: **ROADING LONGITUDINAL SECTIONS SHEET 2**

**RESOURCE CONSENT NOT FOR CONSTRUCTION**

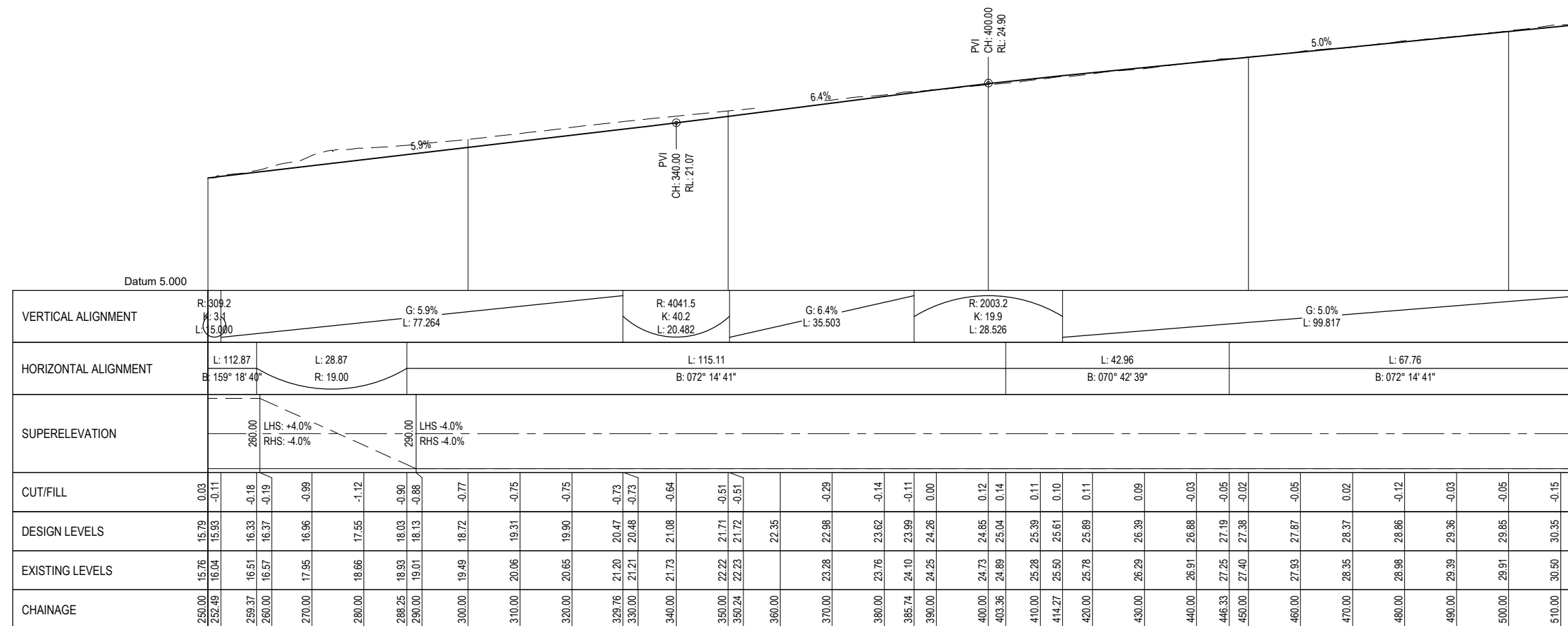
Discipline	CIVIL ENGINEERING
Drawing No.	3126447-CA-3202
Rev.	E

**LEGEND:**

- EXISTING SURFACE
- DESIGN SURFACE



LONGITUDINAL SECTION FARM ROAD - CHAINAGE 0 TO 250



LONGITUDINAL SECTION FARM ROAD - CHAINAGE 250 TO 514

No.	Revision	By	CHK	Appd	Date
E	MINOR AMENDMENTS	ABL	CJB	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	CJB	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	CJB	DP	23.07.21
B	FOR RESOURCE CONSENT	ABL	CJB	RM	05.07.21



Original Scale (A1)	1:500 (H) 1:250 (V)	Design	C.BREYTENBACH	31.05.21	Approved For Construction*
Reduced Scale (A3)	1:1000 (H) 1:500 (V)	Drawn	A.FAZEKAS	31.05.21	Date
		Design Verifier			
		Design Check			

Client: **MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ**

Project: **CARRINGTON BACKBONE WORKS PROJECT**

Title: **ROADING LONGITUDINAL SECTIONS SHEET 3**

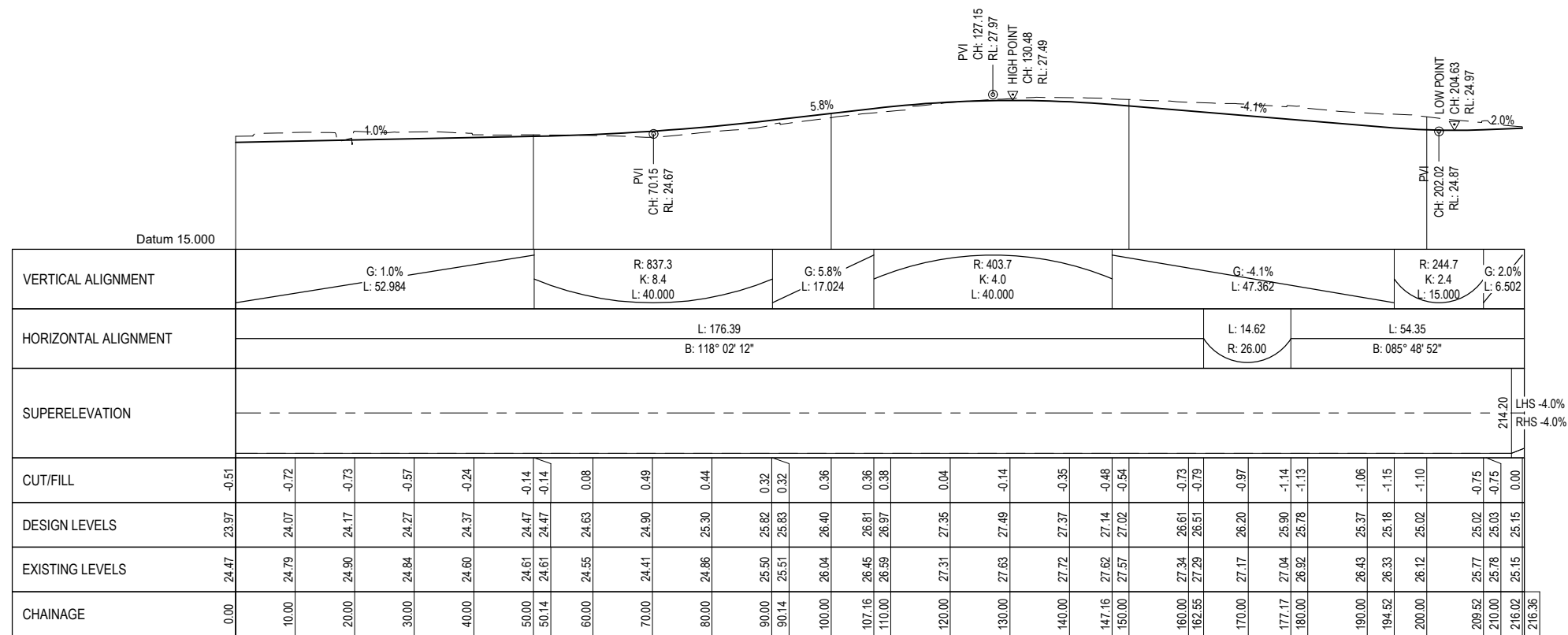
**RESOURCE CONSENT NOT FOR CONSTRUCTION**

Discipline: **CIVIL ENGINEERING**

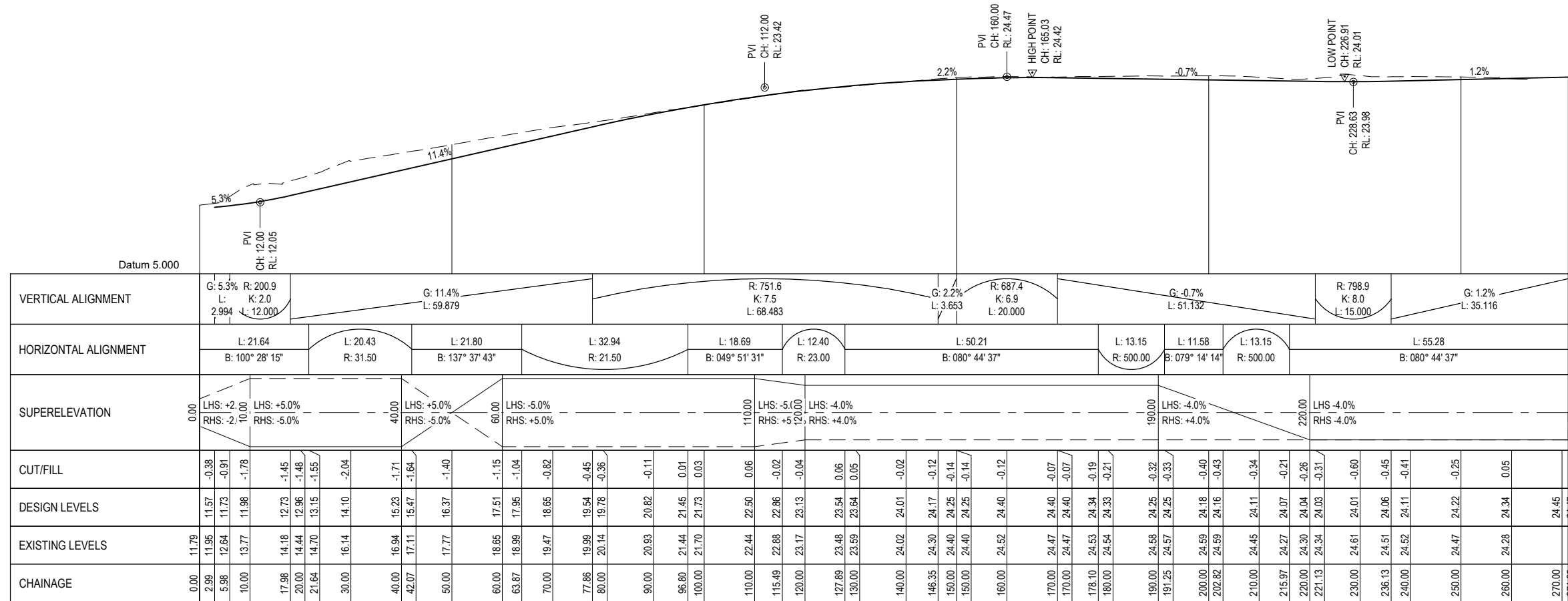
Drawing No: **3126447-CA-3203**

Rev: **E**

**LEGEND:**  
 - - - - - EXISTING SURFACE  
 ————— DESIGN SURFACE



LONGITUDINAL SECTION GATE 1 ROAD - CHAINAGE 0 TO 216



LONGITUDINAL SECTION GATE 2 ROAD - CHAINAGE 0 TO 271

E	MINOR AMENDMENTS	ABL	CJB	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	CJB	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	CJB	DP	23.07.21
B	FOR RESOURCE CONSENT	ABL	CJB	RM	05.07.21
No.	Revision	By	CHK	Appd	Date

Drawing Originator:

Original Scale (A1)	Design	C.BREYENBACH	31.05.21	Approved For Construction*
1:500 (H) 1:250 (V)	Drawn	A.FAZEKAS	31.05.21	Date
Reduced Scale (A3)	Design Verifier			
1:1000 (H) 1:500 (V)	Design Check			

\* Refer to Revision 1 for Original Signature

Client: **MARUTUĀHU AND WAIOHUA-TĀMAKI RŌPŪ**

Project: **CARRINGTON BACKBONE WORKS PROJECT**

Title: **ROADING LONGITUDINAL SECTIONS SHEET 4**

**RESOURCE CONSENT NOT FOR CONSTRUCTION**






Discipline: **CIVIL ENGINEERING**

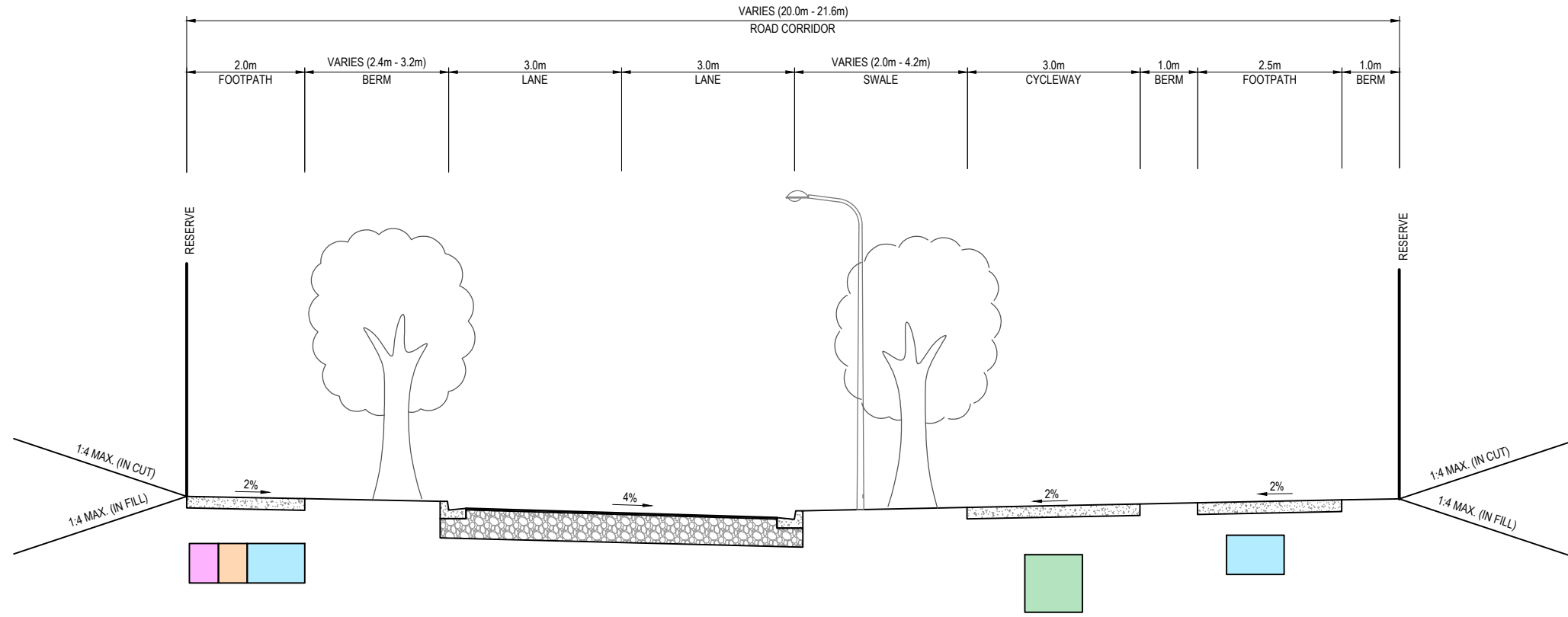
Drawing No: **3126447-CA-3204**

Rev: **E**

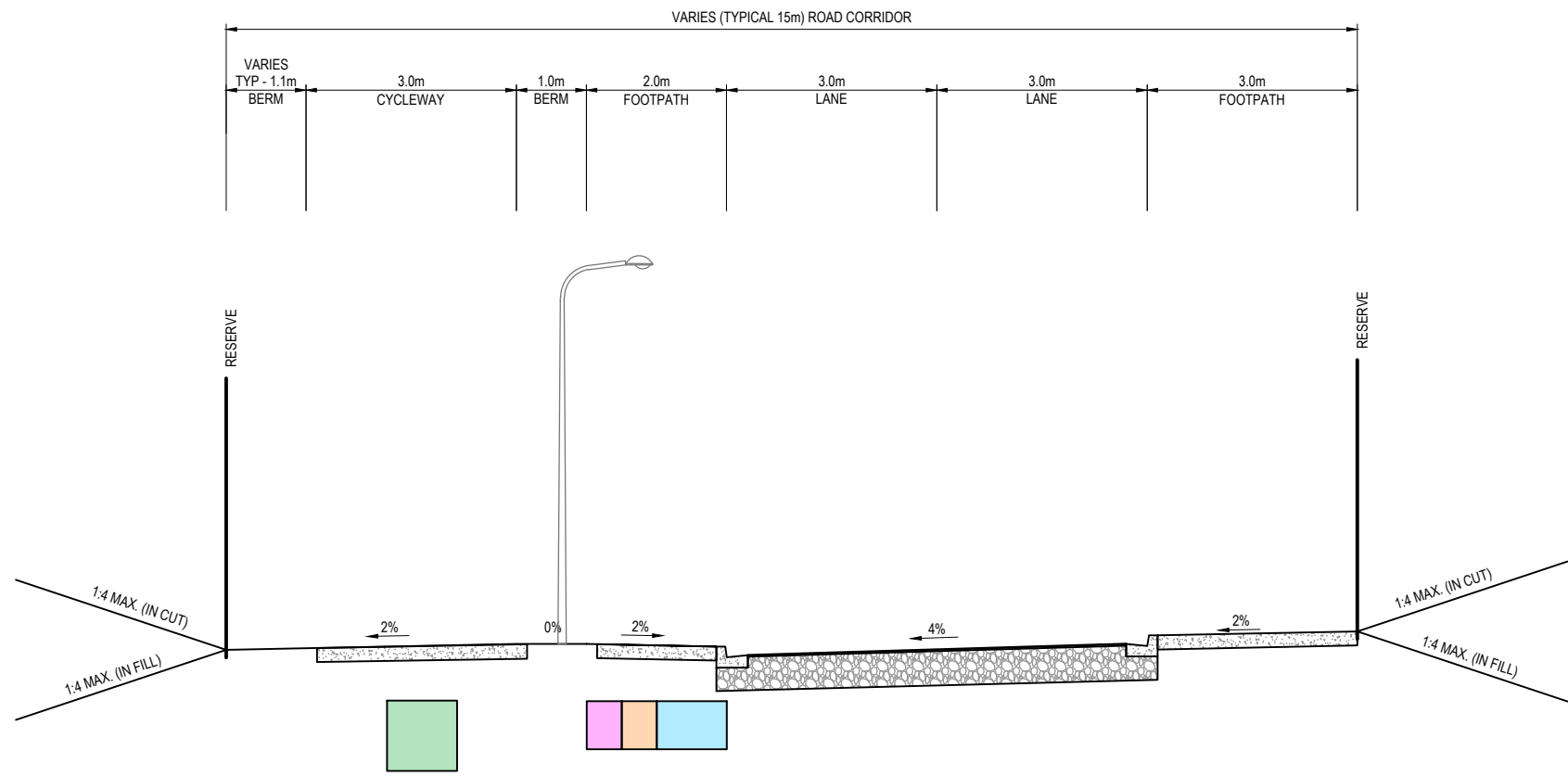


**LEGEND:**

	WATER LINES CORRIDOR
	COMMUNICATION CORRIDOR
	ELECTRICAL CORRIDOR
	STORMWATER LINES CORRIDOR
	WASTEWATER LINES CORRIDOR



**A** TYPICAL CROSS SECTION  
CA-3109 SCALE HOR 1:50 VER 1:50 (A1)



**B** TYPICAL CROSS SECTION  
CA-3109 SCALE HOR 1:50 VER 1:50 (A1)

**ORIGINAL DRAWING  
IN COLOUR**

**RESOURCE CONSENT  
NOT FOR CONSTRUCTION**

No.	Revision	By	Chk.	Appd.	Date
E	MINOR AMENDMENTS	ABL	CJB	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	CJB	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	CJB	DP	23.07.21
B	FOR RESOURCE CONSENT	ABL	CJB	RM	05.07.21

Drawing Originator:



Original Scale (A1)	Design	N.KUSEL	31.05.21	Approved For Construction*
1:50	Drawn	A.FAZEKAS	31.05.21	Date
Reduced Scale (A3)	Dwg Verifier			
1:100	Dwg Check			

\* Refer to Revision 1 for Original Signature






Client: **MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ**

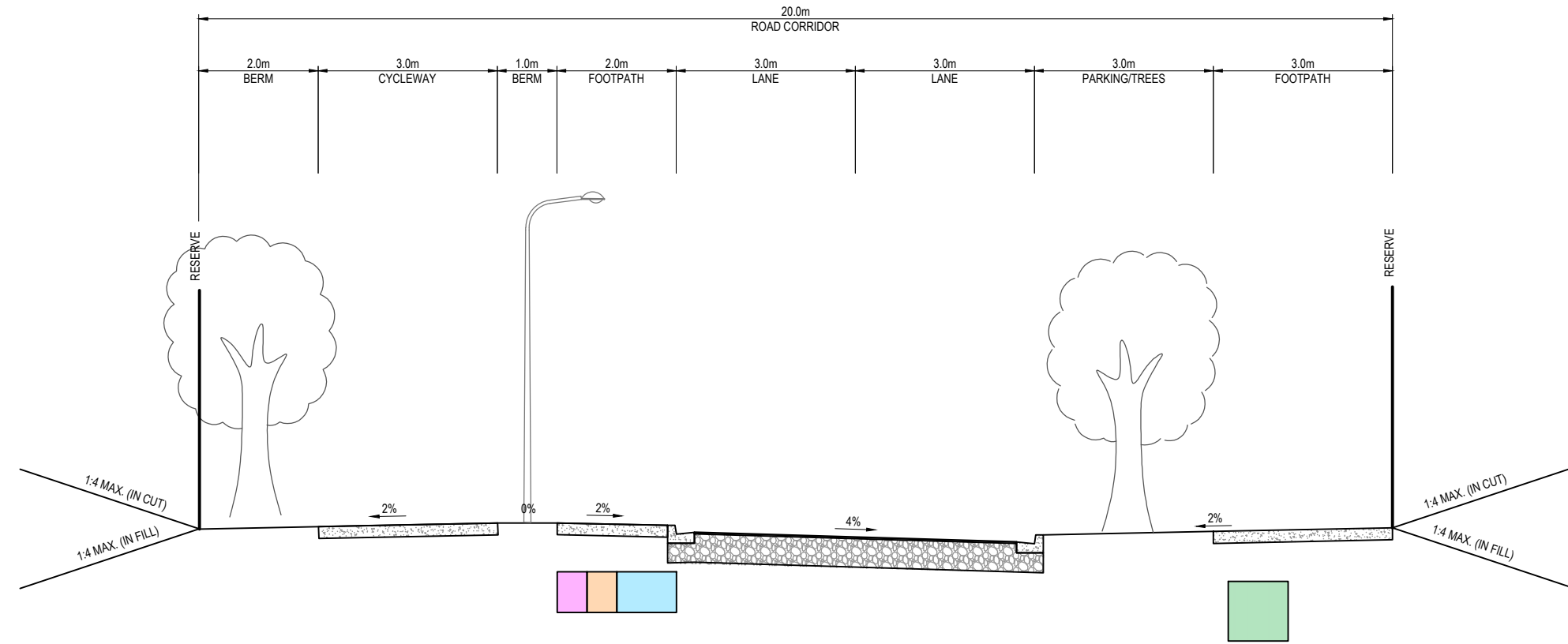
Project: **CARRINGTON BACKBONE WORKS PROJECT**

Title: **ROADING TYPICAL CROSS SECTIONS SHEET 1**

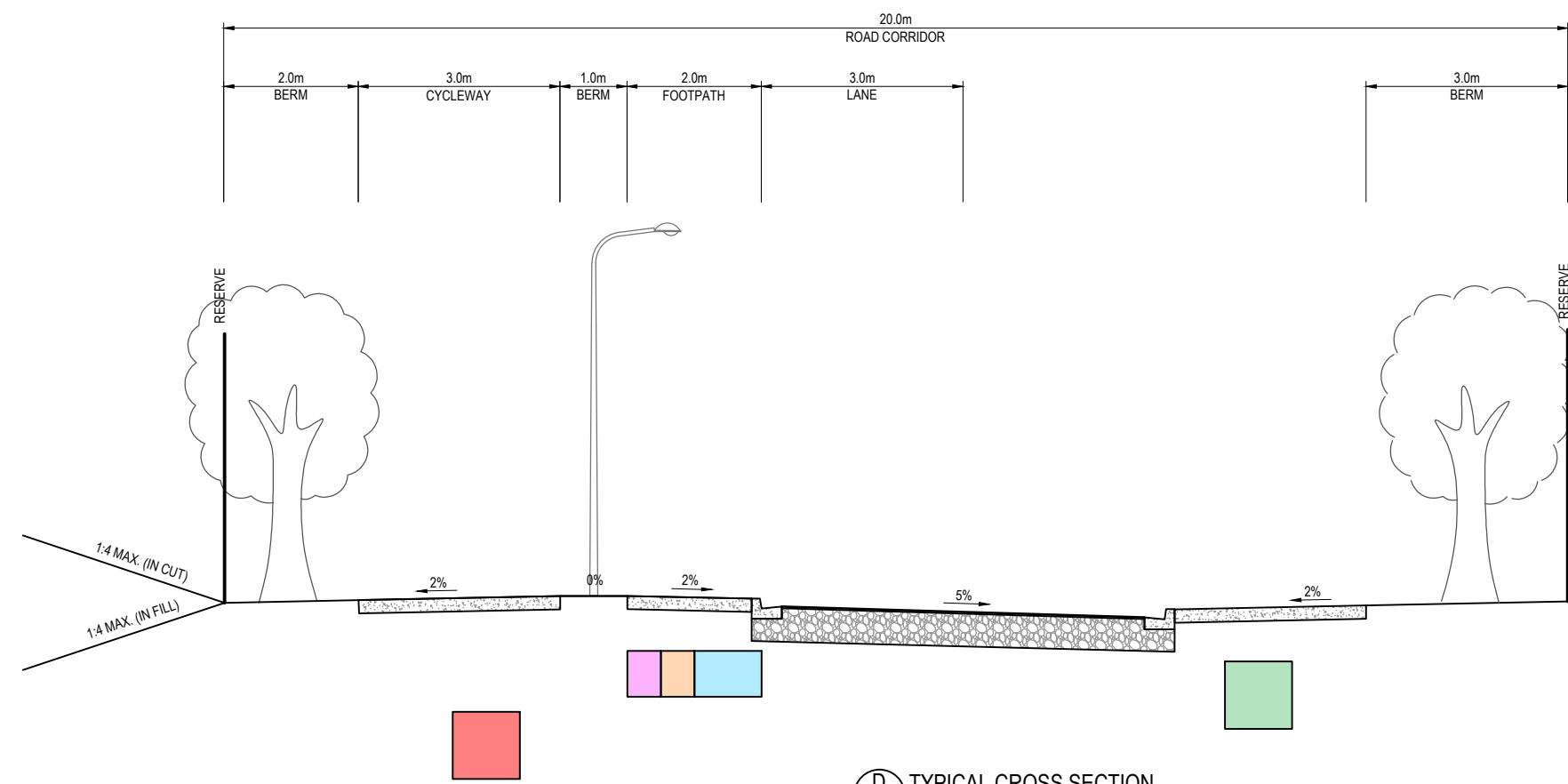
Discipline	CIVIL ENGINEERING
Drawing No.	3126447-CA-3231
Rev.	E

**LEGEND:**

	WATER LINES CORRIDOR
	COMMUNICATION CORRIDOR
	ELECTRICAL CORRIDOR
	STORMWATER LINES CORRIDOR
	WASTEWATER LINES CORRIDOR



**C TYPICAL CROSS SECTION**  
CA-3105 SCALE HOR 1:50 VER 1:50 (A1)



**D TYPICAL CROSS SECTION**  
CA-3107 SCALE HOR 1:50 VER 1:50 (A1)

**ORIGINAL DRAWING**  
IN COLOUR

**RESOURCE CONSENT**  
NOT FOR CONSTRUCTION

E	MINOR AMENDMENTS	ABL	CJB	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	CJB	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	CJB	DP	23.07.21
B	FOR RESOURCE CONSENT	ABL	CJB	RM	05.07.21
No.	Revision	By	Chk.	Appd.	Date

Drawing Originator:



Original Scale (A1)	Design	N.KUSEL	31.05.21	Approved For Construction*
1:50	Drawn	A.FAZEKAS	31.05.21	Date
Reduced Scale (A3)	Design Check			
1:100	Check			

\* Refer to Revision 1 for Original Signature






Client: **MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ**

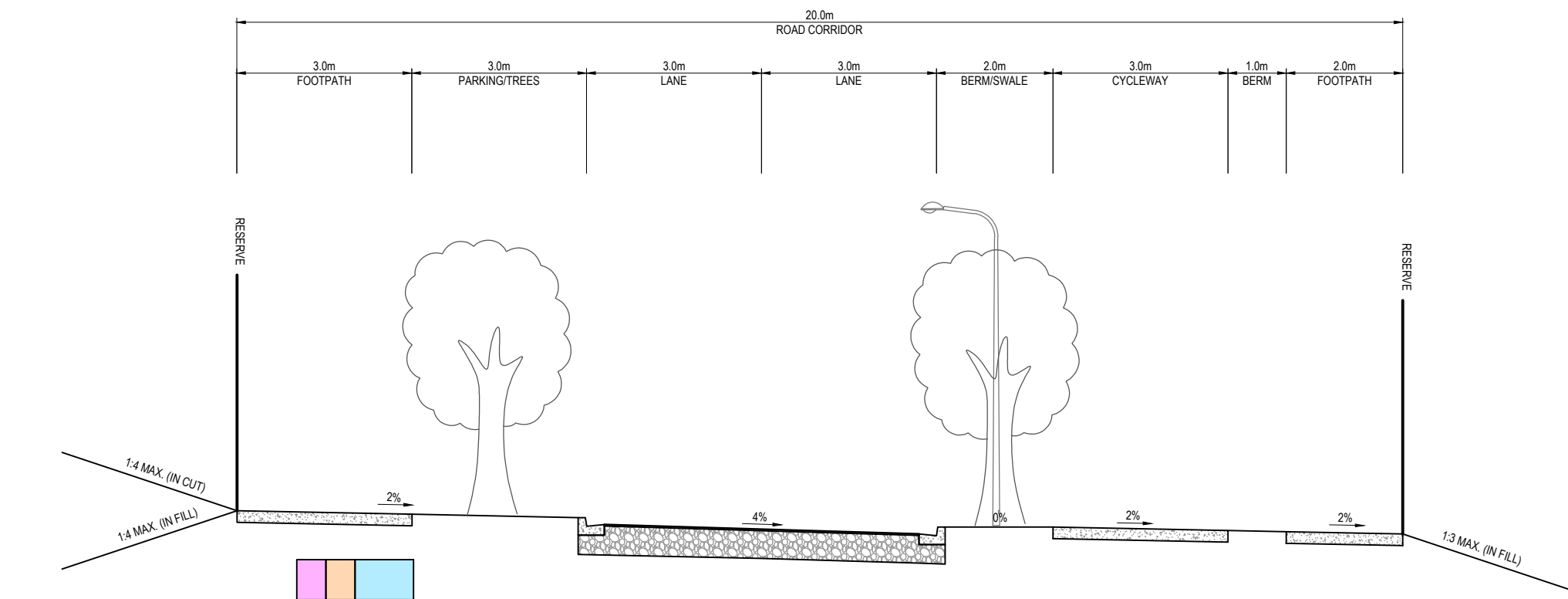
Project: **CARRINGTON BACKBONE WORKS PROJECT**

Title: **ROADING TYPICAL CROSS SECTIONS SHEET 2**

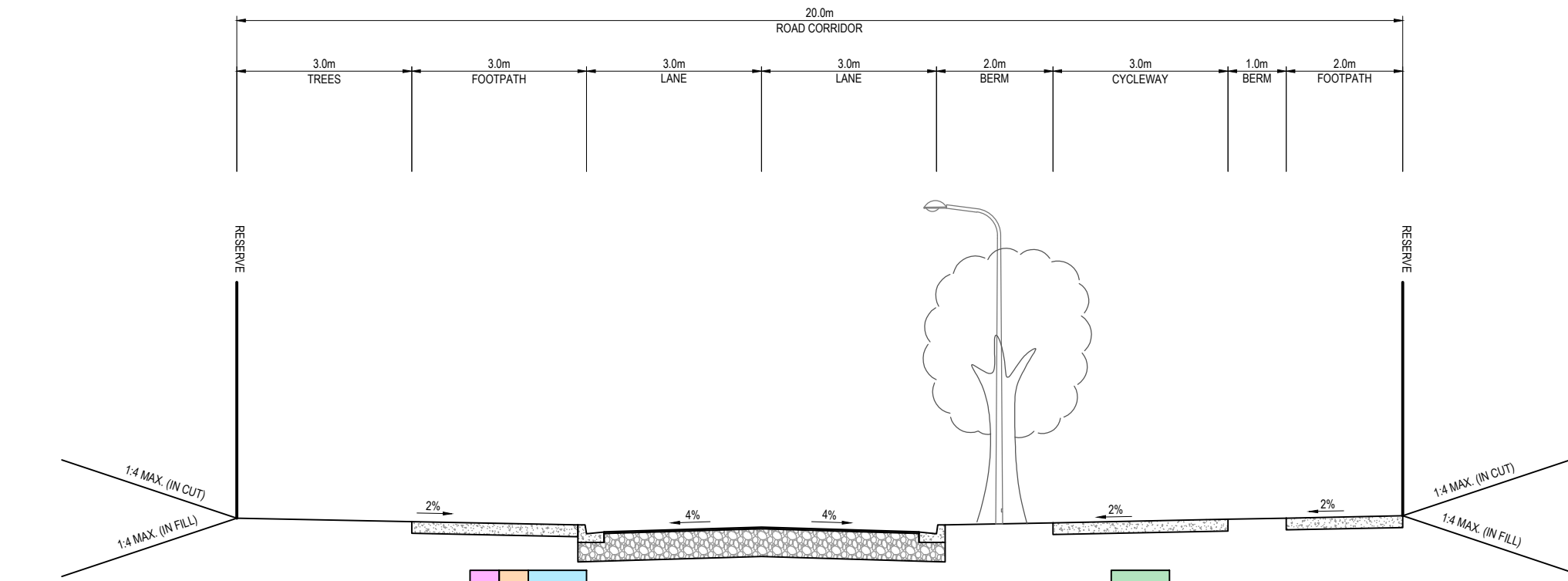
Discipline	CIVIL ENGINEERING
Drawing No.	3126447-CA-3232
Rev.	E

**LEGEND:**

	WATER LINES CORRIDOR
	COMMUNICATION CORRIDOR
	ELECTRICAL CORRIDOR
	STORMWATER LINES CORRIDOR
	WASTEWATER LINES CORRIDOR



**E TYPICAL CROSS SECTION**  
CA-3105 SCALE HOR 1:50 VER 1:50 (A1)



**F TYPICAL CROSS SECTION**  
CA-3106 SCALE HOR 1:50 VER 1:50 (A1)

**ORIGINAL DRAWING**  
**IN COLOUR**

**RESOURCE CONSENT**  
**NOT FOR CONSTRUCTION**

No.	Revision	By	Chk	Appd	Date
E	MINOR AMENDMENTS	ABL	CJB	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	CJB	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	CJB	DP	23.07.21
B	FOR RESOURCE CONSENT	ABL	CJB	RM	05.07.21



Original Scale (A1)	1:50	Design	N.KUSEL	31.05.21	Approved For Construction*
Reduced Scale (A3)	1:100	Drawn	A.FAZEKAS	31.05.21	Date
		Dwg Verifier			
		Dwg Check			

\* Refer to Revision 1 for Original Signature






Client: **MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ**

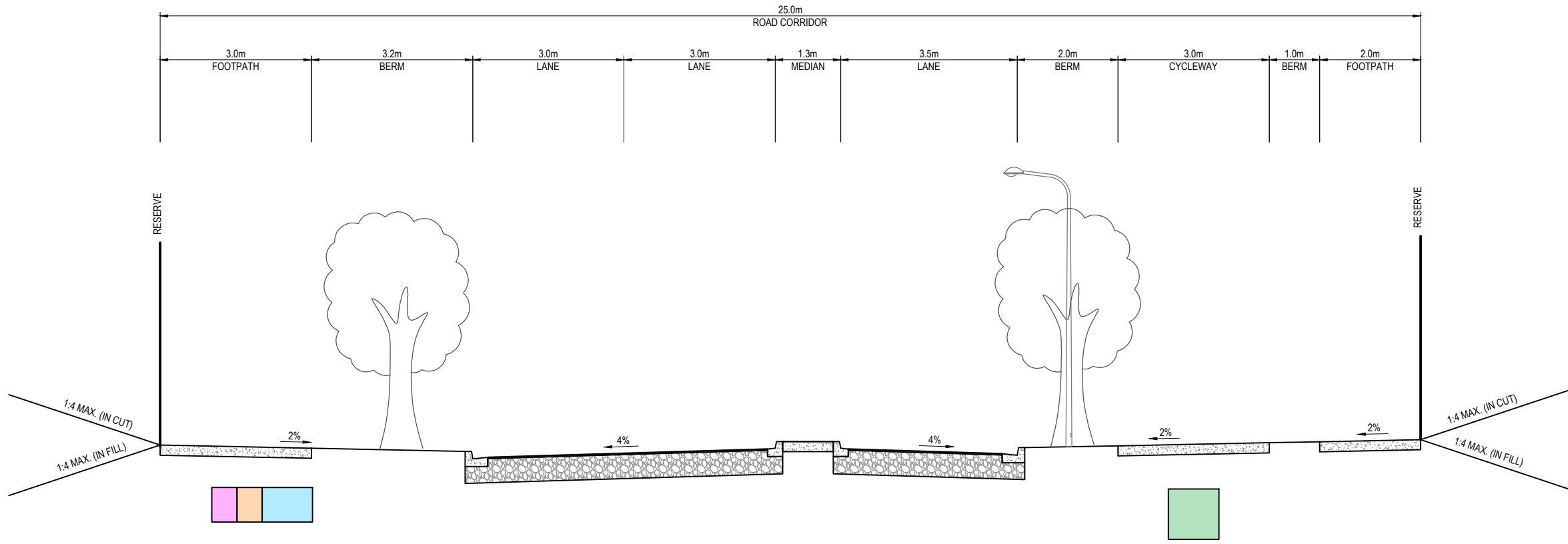
Project: **CARRINGTON BACKBONE WORKS PROJECT**

Title: **ROADING TYPICAL CROSS SECTIONS SHEET 3**

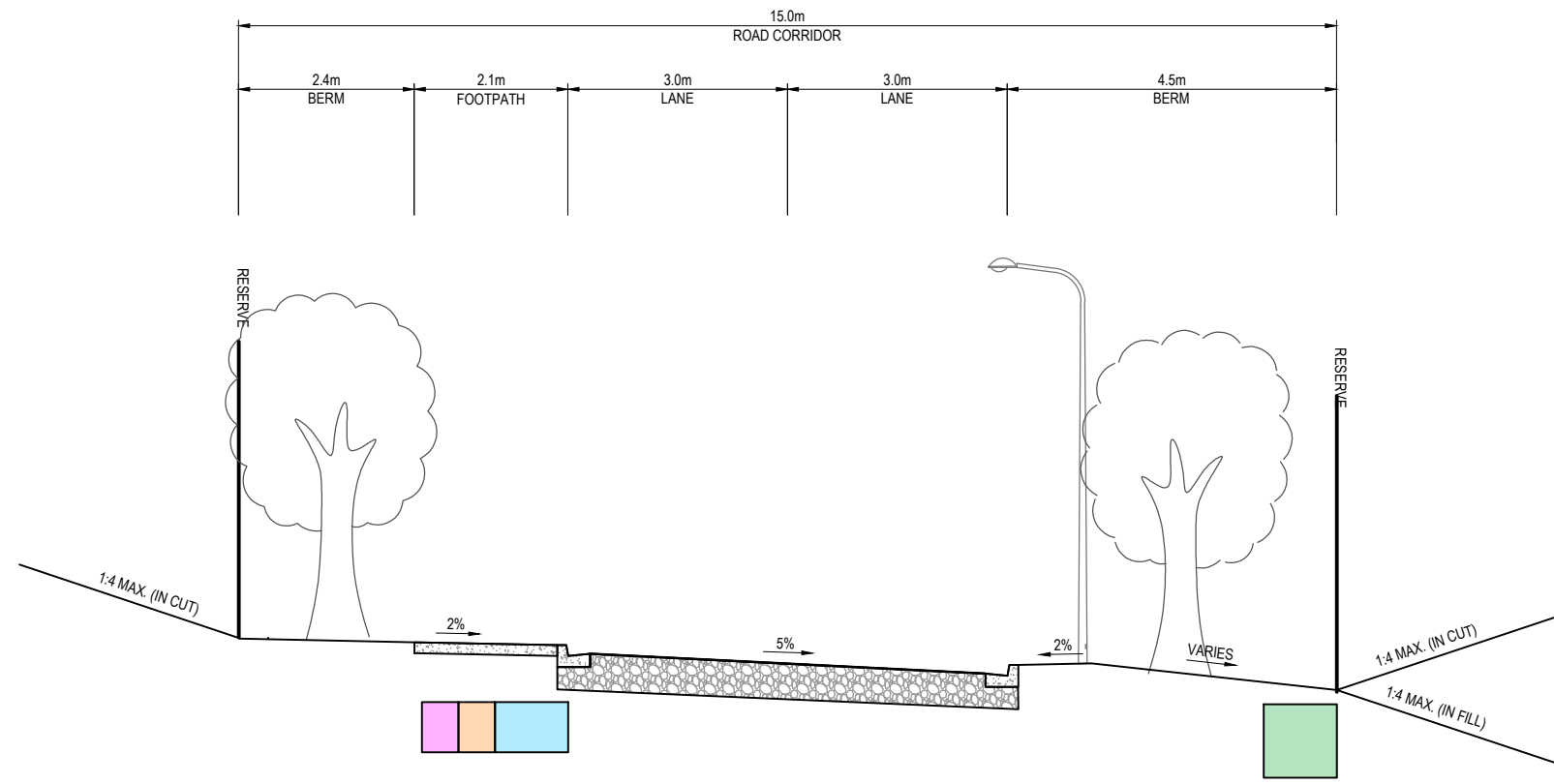
Discipline	CIVIL ENGINEERING
Drawing No.	3126447-CA-3233
Rev.	E

**LEGEND:**

	WATER LINES CORRIDOR
	COMMUNICATION CORRIDOR
	ELECTRICAL CORRIDOR
	STORMWATER LINES CORRIDOR
	WASTEWATER LINES CORRIDOR



**G** TYPICAL CROSS SECTION  
CA-3107 SCALE HOR 1:50 VER 1:50 (A1)



**H** TYPICAL CROSS SECTION  
CA-3105 SCALE HOR 1:50 VER 1:50 (A1)

**ORIGINAL DRAWING**  
IN COLOUR

**RESOURCE CONSENT**  
NOT FOR CONSTRUCTION

E	MINOR AMENDMENTS	ABL	CJB	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	CJB	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	CJB	DP	23.07.21
B	FOR RESOURCE CONSENT	ABL	CJB	RM	05.07.21
No.	Revision	By	Chk	Appd	Date



Original Scale (A1)	1:50	Design	N.KUSEL	31.05.21	Approved For Construction*
Reduced Scale (A3)	1:100	Drawn	A.FAZEKAS	31.05.21	Date
		Design Checker			
		Design Verifier			
		Design Check			

\* Refer to Revision 1 for Original Signature






Client: **MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ**

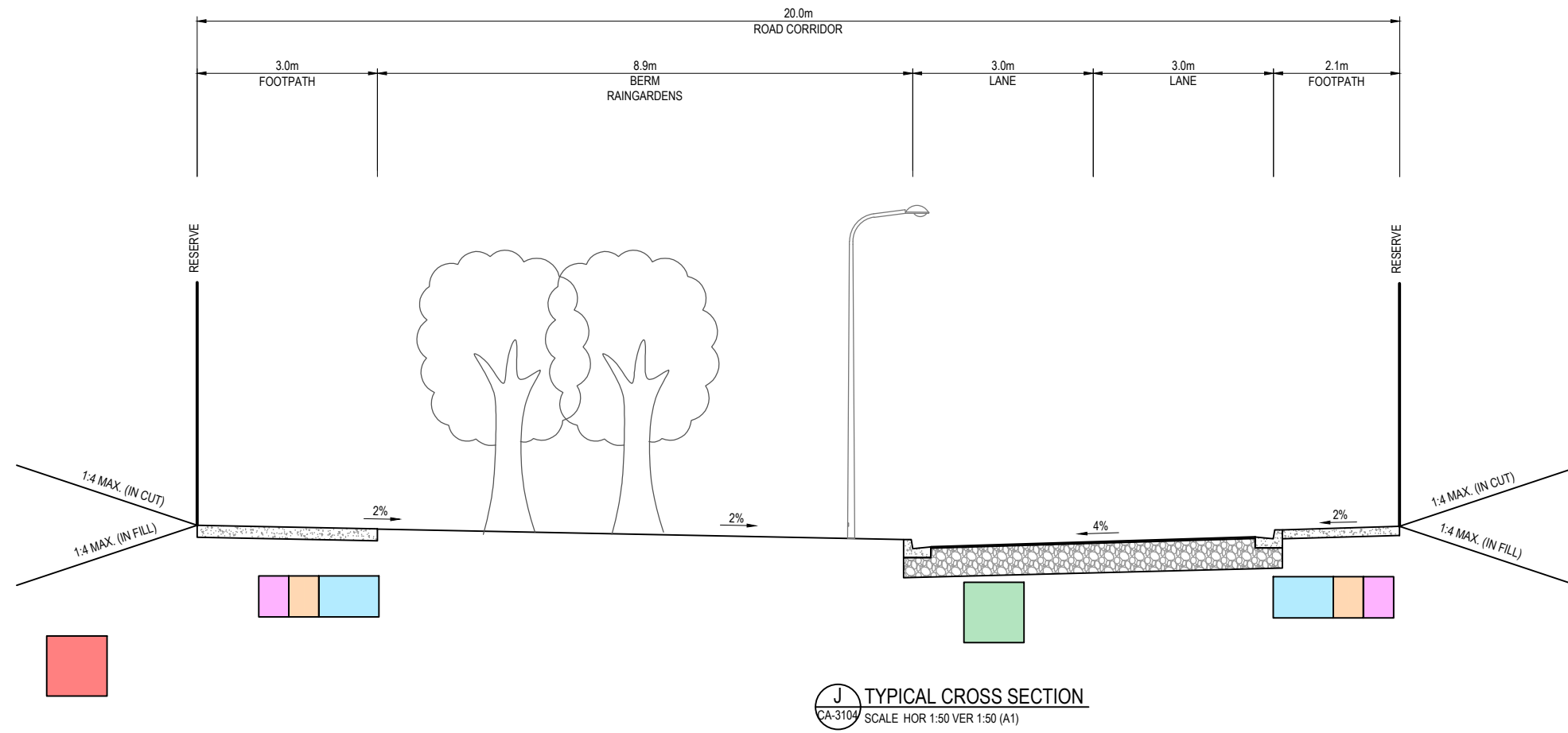
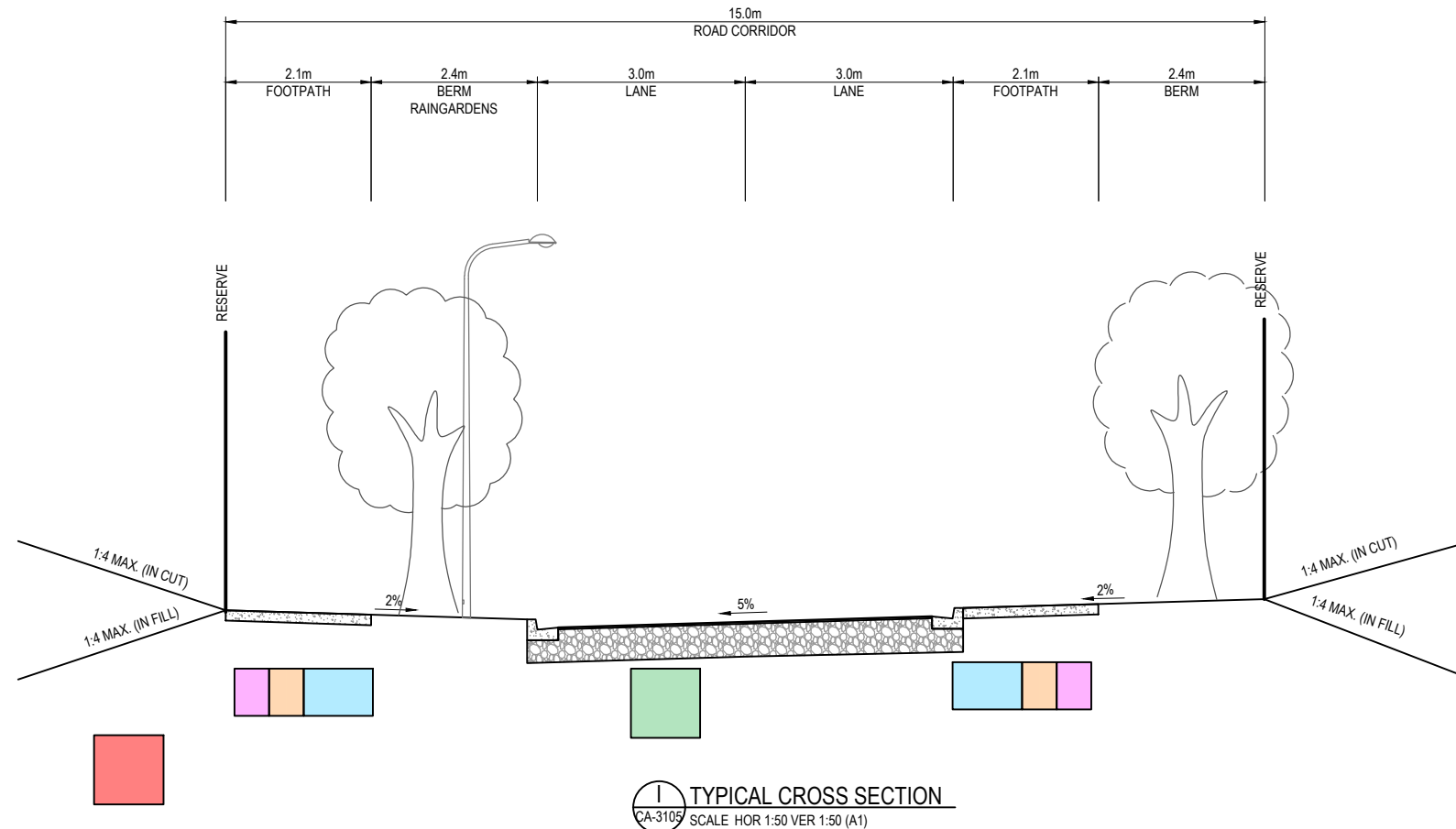
Project: **CARRINGTON BACKBONE WORKS PROJECT**

Title: **ROADING TYPICAL CROSS SECTIONS SHEET 4**

Discipline	CIVIL ENGINEERING
Drawing No.	3126447-CA-3234
Rev.	E

**LEGEND:**

	WATER LINES CORRIDOR
	COMMUNICATION CORRIDOR
	ELECTRICAL CORRIDOR
	STORMWATER LINES CORRIDOR
	WASTEWATER LINES CORRIDOR



**ORIGINAL DRAWING  
IN COLOUR**

**RESOURCE CONSENT  
NOT FOR CONSTRUCTION**

No.	Revision	By	Chk.	Appd.	Date
E	MINOR AMENDMENTS	ABL	CJB	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	CJB	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	CJB	DP	23.07.21
B	FOR RESOURCE CONSENT	ABL	CJB	RM	05.07.21



Original Scale (A1)	1:50	Design	N.KUSEL	31.05.21	Approved For Construction*
Reduced Scale (A3)	1:100	Drawn	A.FAZEKAS	31.05.21	Date
		Design Verifier			
		Design Check			

\* Refer to Revision 1 for Original Signature






Client: **MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ**

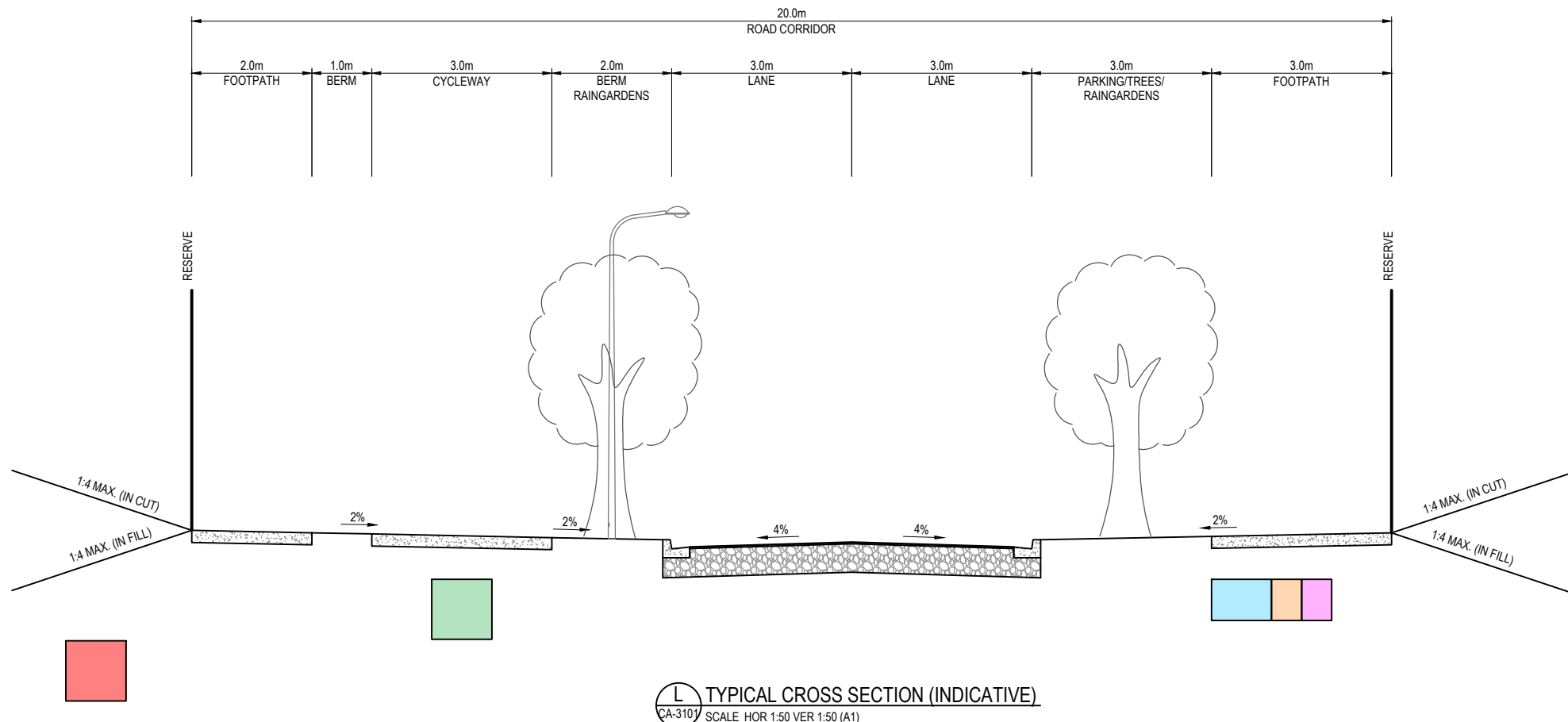
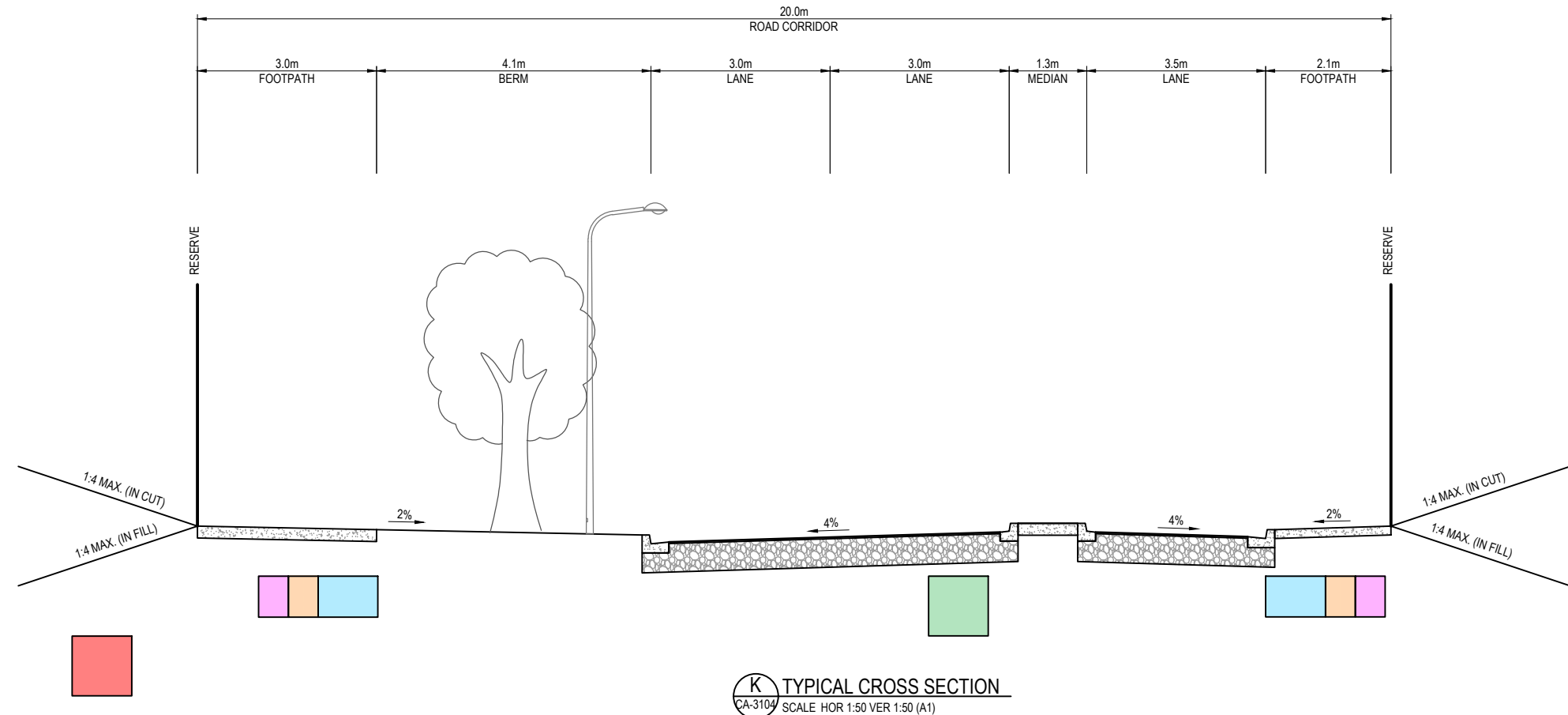
Project: **CARRINGTON BACKBONE WORKS PROJECT**

Title: **ROADING TYPICAL CROSS SECTIONS SHEET 5**

Discipline	CIVIL ENGINEERING
Drawing No.	3126447-CA-3235
Rev.	E

**LEGEND:**

	WATER LINES CORRIDOR
	COMMUNICATION CORRIDOR
	ELECTRICAL CORRIDOR
	STORMWATER LINES CORRIDOR
	WASTEWATER LINES CORRIDOR



**ORIGINAL DRAWING**  
IN COLOUR

**RESOURCE CONSENT**  
NOT FOR CONSTRUCTION

No.	Revision	By	Chk.	Appd.	Date
E	MINOR AMENDMENTS	ABL	CJB	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	CJB	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	CJB	DP	23.07.21
B	FOR RESOURCE CONSENT	ABL	CJB	RM	05.07.21

Drawing Originator:



Original Scale (A1)	Design	N.KUSEL	31.05.21	Approved For Construction*
1:50	Drawn	A.FAZEKAS	31.05.21	
Reduced Scale (A3)	Design Verifier			Date
1:100	Design Check			

\* Refer to Revision 1 for Original Signature






Client: **MARUTŪĀHU AND WAIOHUA-TĀMAKI RŌPŪ**

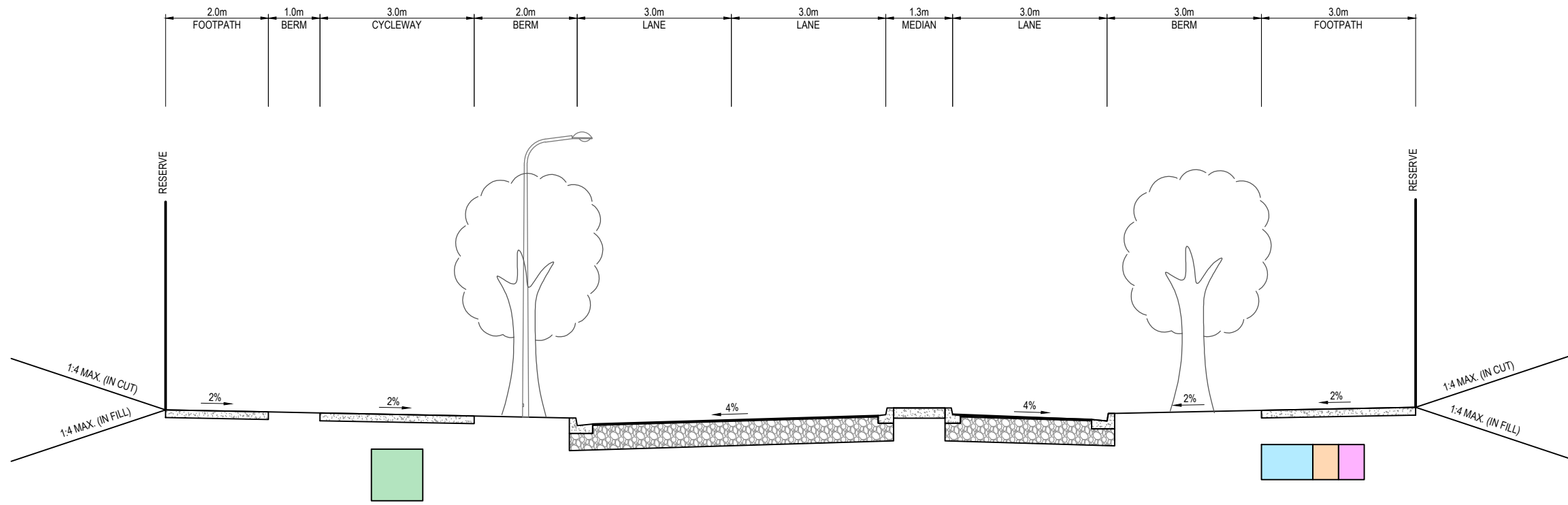
Project: **CARRINGTON BACKBONE WORKS PROJECT**

Title: **ROADING TYPICAL CROSS SECTIONS SHEET 6**

Discipline	CIVIL ENGINEERING
Drawing No.	3126447-CA-3236
Rev.	E

**LEGEND:**

	WATER LINES CORRIDOR
	COMMUNICATION CORRIDOR
	ELECTRICAL CORRIDOR
	STORMWATER LINES CORRIDOR
	WASTEWATER LINES CORRIDOR



**M** TYPICAL CROSS SECTION  
 CA-3104 SCALE HOR 1:50 VER 1:50 (A1)

No.	Revision	By	Chk.	Appd.	Date
E	MINOR AMENDMENTS	ABL	CJB	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	CJB	DP	11.08.21



Original Scale (A1)	Design	C.BREYTENBACH	10.08.21	Approved For Construction*
1:50	Drawn	A.FAZEKAS	10.08.21	
Reduced Scale (A3)	Design Checker			Date
1:100	Design Check			

\* Refer to Revision 1 for Original Signature

Client: **MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ**

Project: **CARRINGTON BACKBONE WORKS PROJECT**

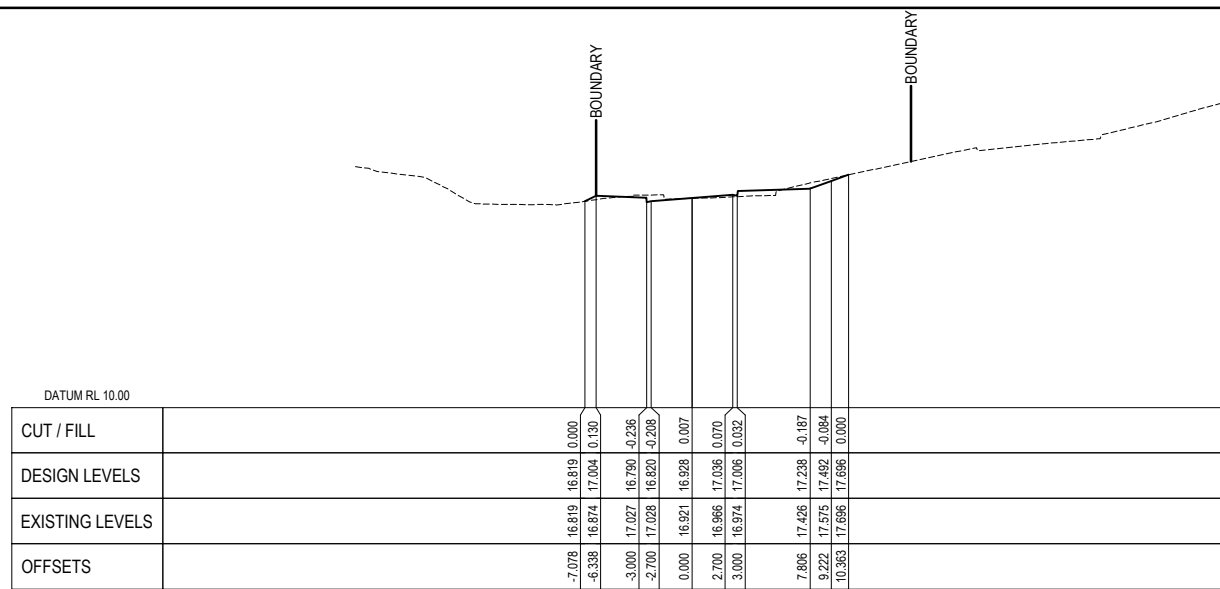
Title: **ROADING TYPICAL CROSS SECTIONS SHEET 7**

Discipline	CIVIL ENGINEERING
Drawing No.	3126447-CA-3237
Rev.	E

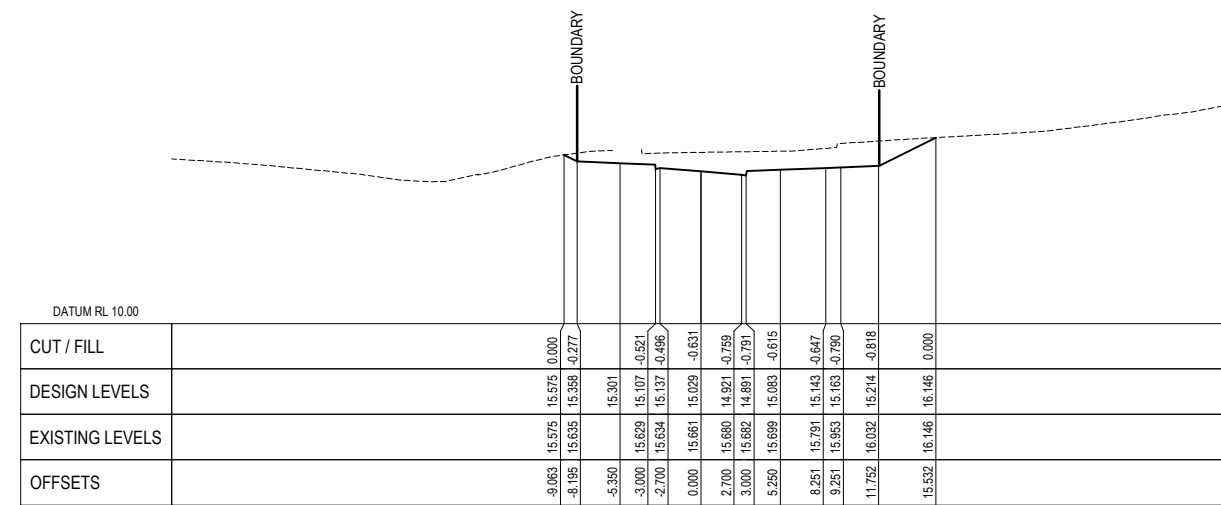


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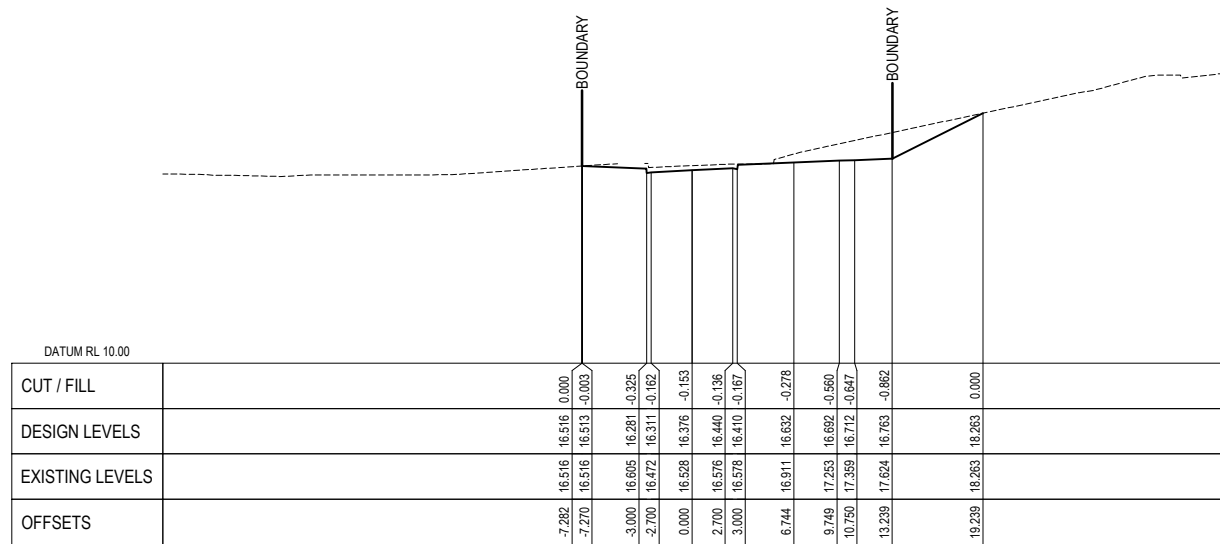
- EXISTING SURFACE
- DESIGN SURFACE



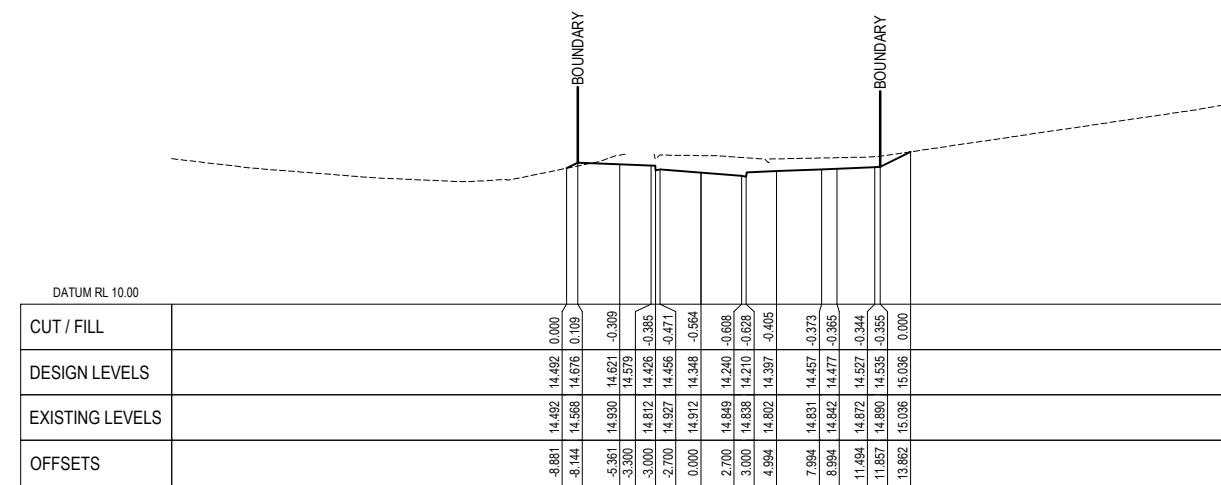
SPINE ROAD : CHAINAGE 240



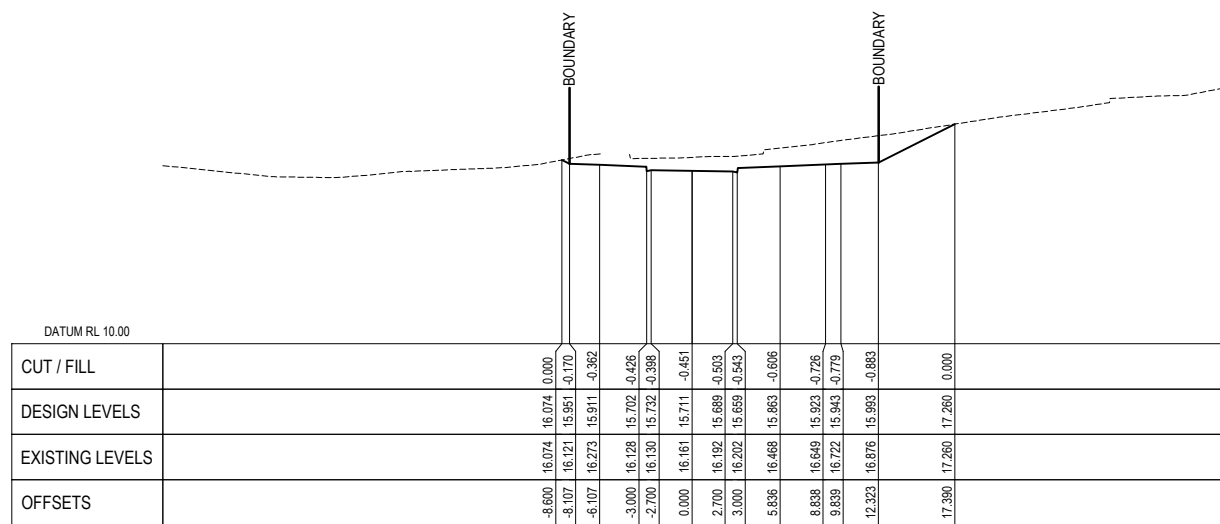
SPINE ROAD : CHAINAGE 300



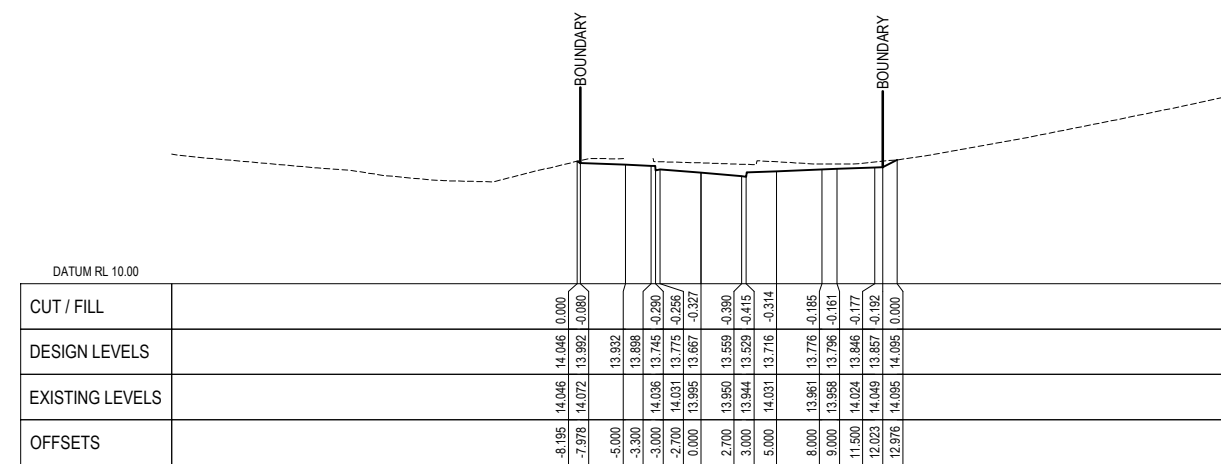
SPINE ROAD : CHAINAGE 260



SPINE ROAD : CHAINAGE 320



SPINE ROAD : CHAINAGE 280



SPINE ROAD : CHAINAGE 340

No.	Revision	By	CHK	Appd	Date
E	MINOR AMENDMENTS	ABL	CJB	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	CJB	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	CJB	DP	23.07.21
B	FOR RESOURCE CONSENT	ABL	CJB	RM	05.07.21



Original Scale (A1) 1:250 (H) 1:125 (V)	Design C.BREYTENBACH 31.05.21	Approved For Construction Date
Reduced Scale (A3) 1:500 (H) 1:250 (V)	Drawn A.FAZEKAS 31.05.21	
	Design Verifier	
	Design Check	
	* Refer to Revision 1 for Original Signature	

Client: **MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ**

Project: **CARRINGTON BACKBONE WORKS PROJECT**

Title: **ROADING DETAILED CROSS SECTIONS SHEET 1**

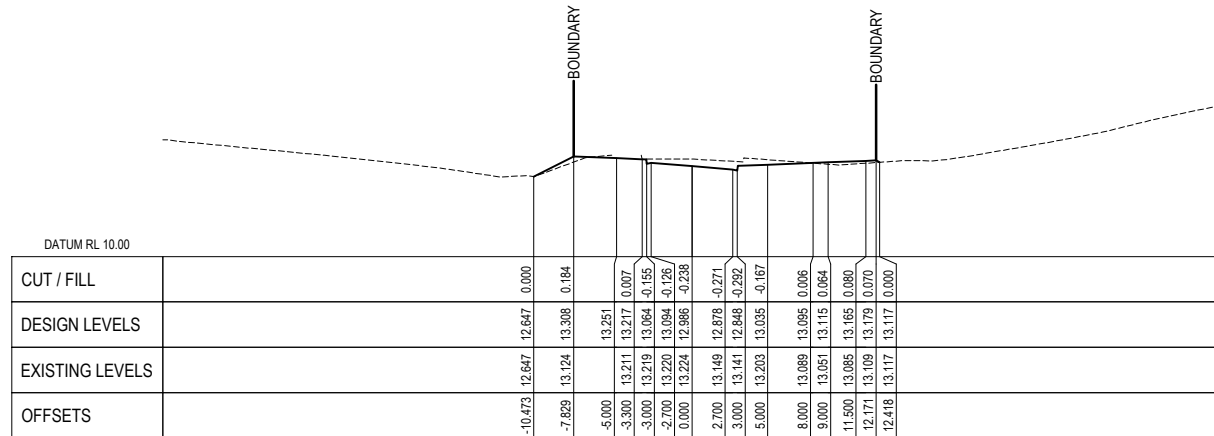
**RESOURCE CONSENT  
NOT FOR CONSTRUCTION**

Discipline	CIVIL ENGINEERING
Drawing No.	3126447-CA-3251
Rev.	E

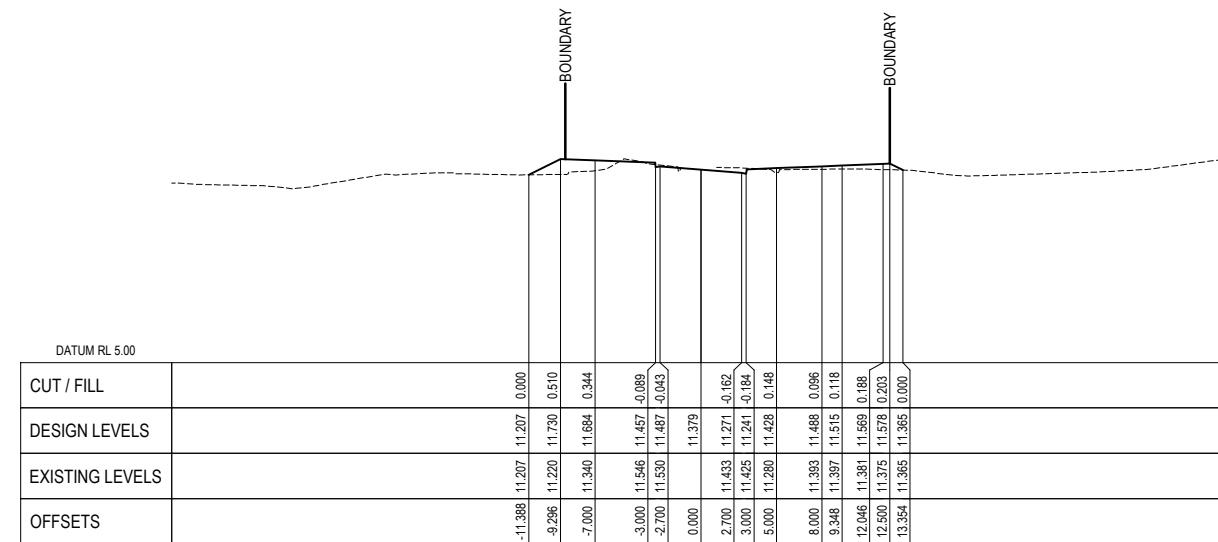


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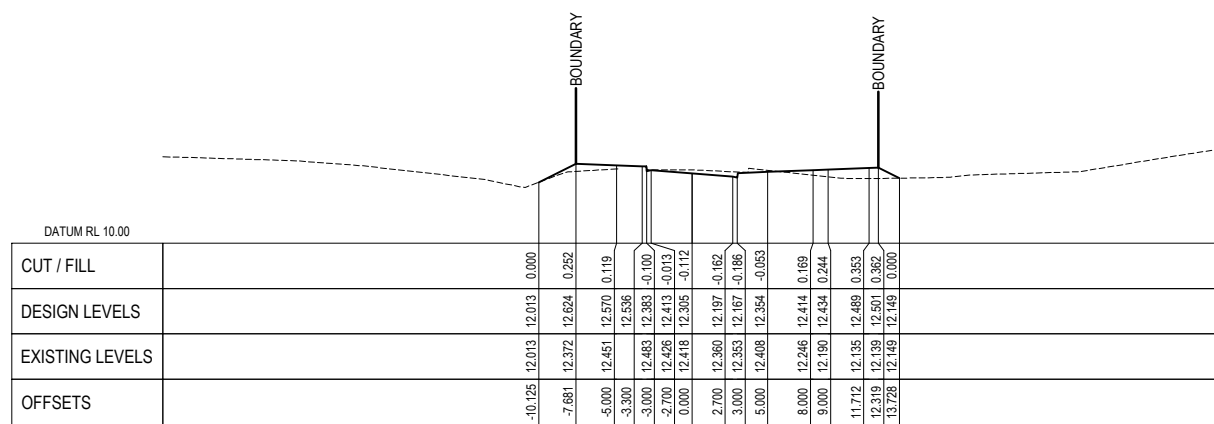
- EXISTING SURFACE
- DESIGN SURFACE



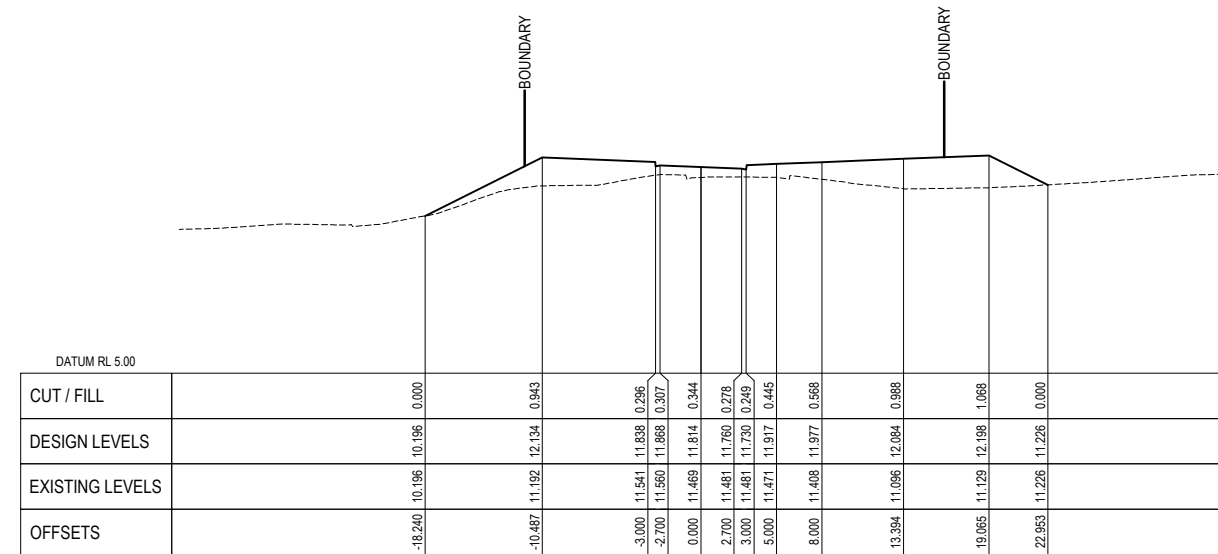
SPINE ROAD : CHAINAGE 360



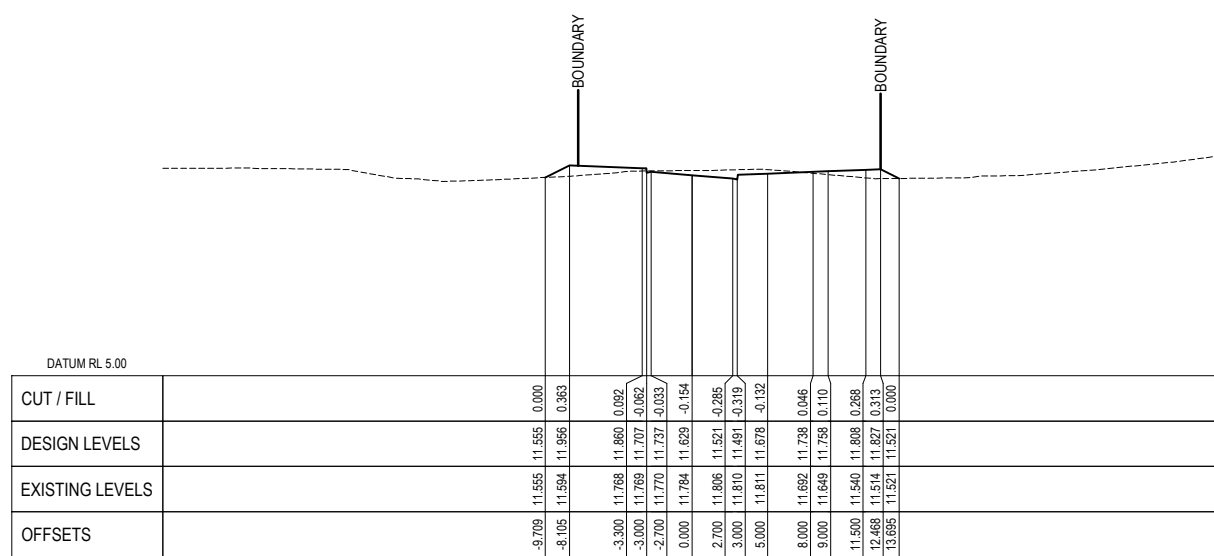
SPINE ROAD : CHAINAGE 420



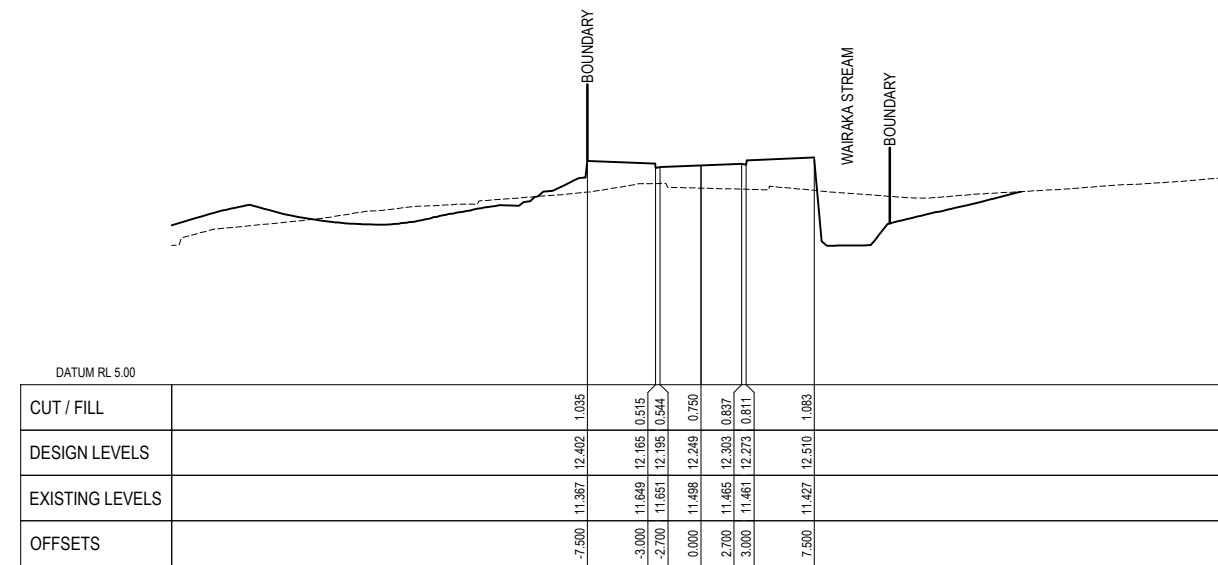
SPINE ROAD : CHAINAGE 380



SPINE ROAD : CHAINAGE 440



SPINE ROAD : CHAINAGE 400



SPINE ROAD : CHAINAGE 460

No.	Revision	By	CHK	Appd	Date
E	MINOR AMENDMENTS	ABL	CJB	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	CJB	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	CJB	DP	23.07.21
B	FOR RESOURCE CONSENT	ABL	CJB	RM	05.07.21



Original Scale (A1)	1:250 (H) 1:125 (V)
Design	C.BREYTENBACH 31.05.21
Drawn	A.FAZEKAS 31.05.21
Design Verifier	
Design Check	
Approved For Construction	
Date	

Client: **MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ**

Project: **CARRINGTON BACKBONE WORKS PROJECT**

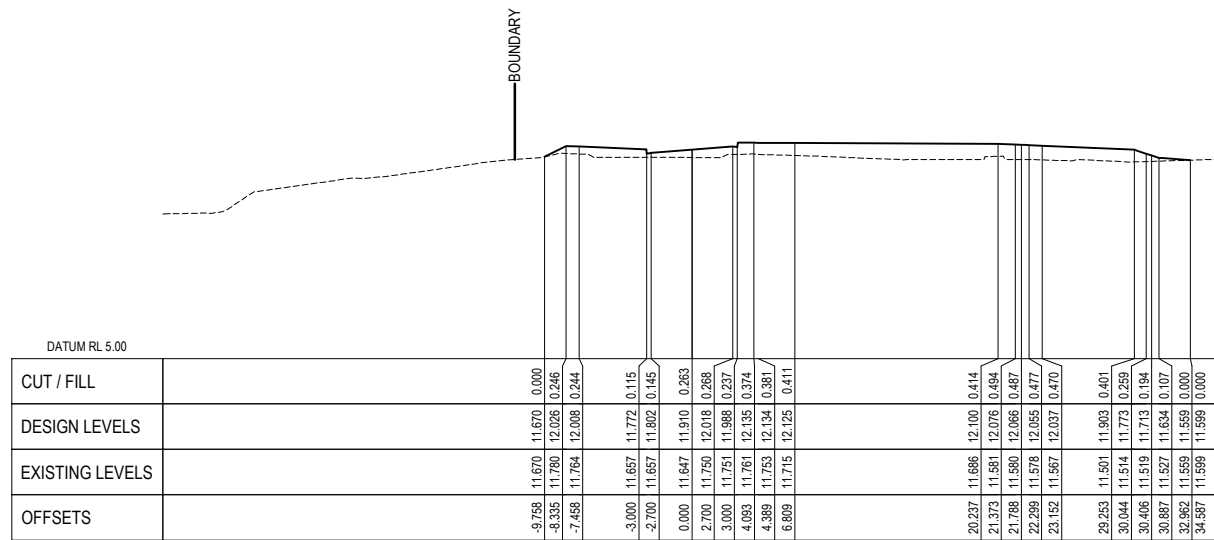
Title: **ROADING DETAILED CROSS SECTIONS SHEET 2**

**RESOURCE CONSENT NOT FOR CONSTRUCTION**

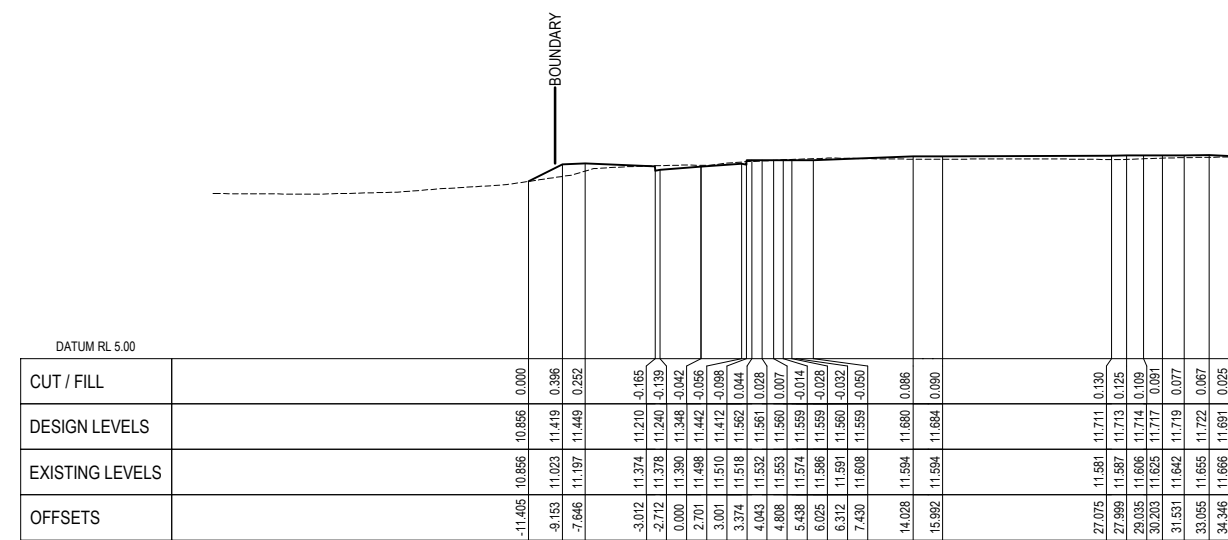
Discipline	CIVIL ENGINEERING
Drawing No.	3126447-CA-3252
Rev.	E

**LEGEND:**

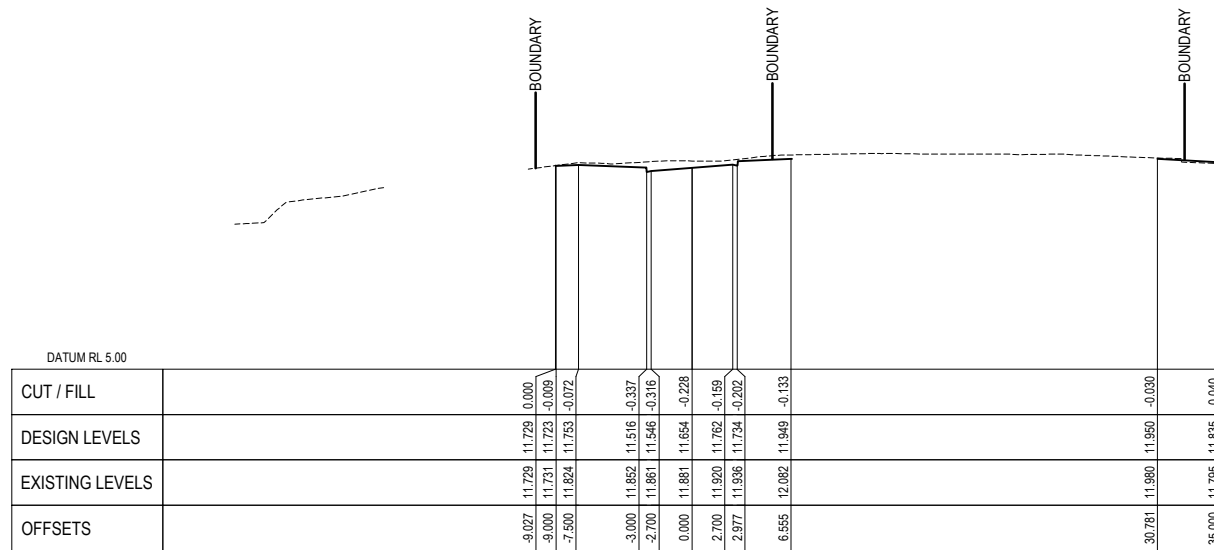
- EXISTING SURFACE
- DESIGN SURFACE



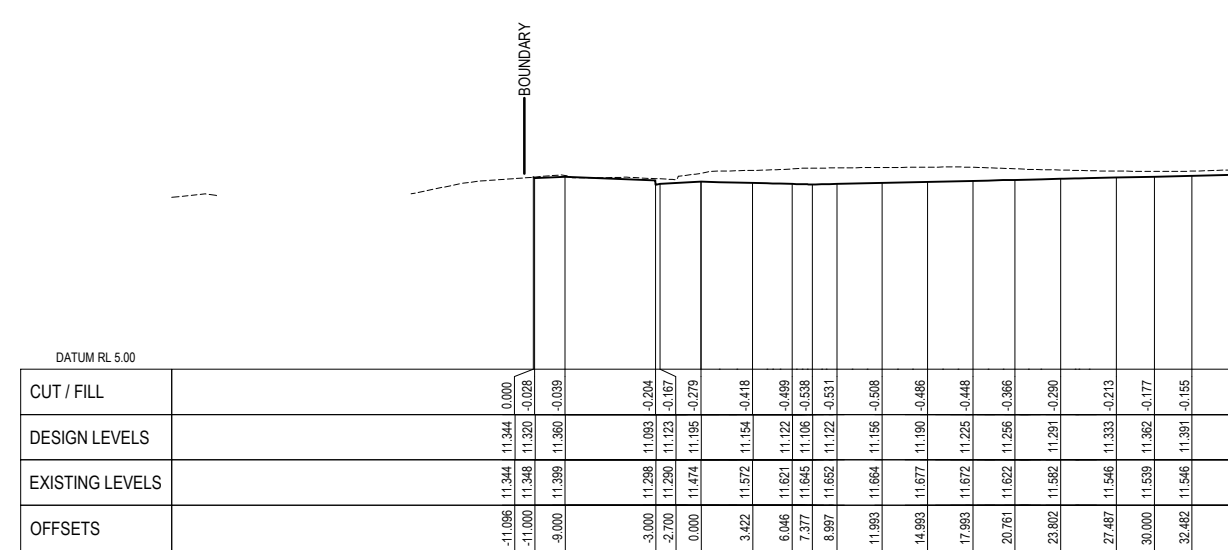
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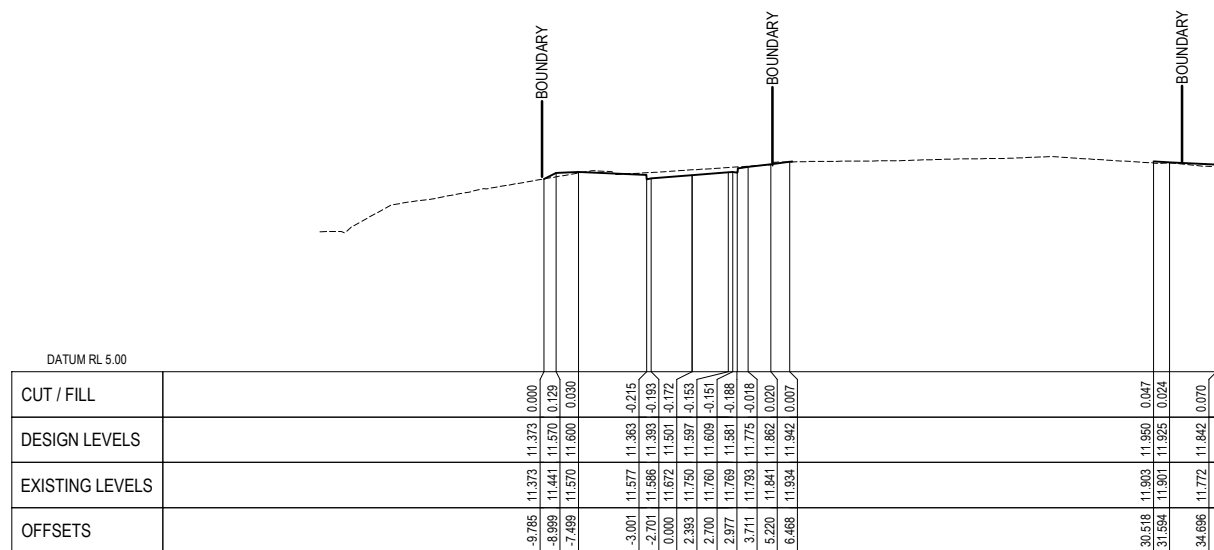
SPINE ROAD : CHAINAGE 540



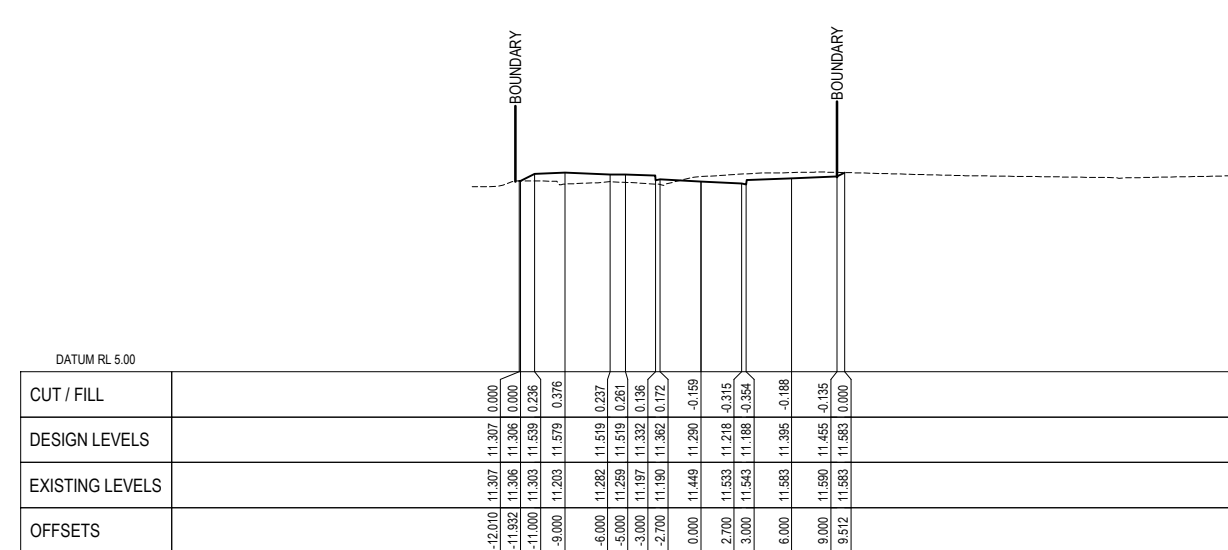
SPINE ROAD : CHAINAGE 500



SPINE ROAD : CHAINAGE 560



SPINE ROAD : CHAINAGE 520



SPINE ROAD : CHAINAGE 580

No.	Revision	By	CHK	Appd	Date
E	MINOR AMENDMENTS	ABL	CJB	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	CJB	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	CJB	DP	23.07.21
B	FOR RESOURCE CONSENT	ABL	CJB	RM	05.07.21



Original Scale (A1) 1:250 (H) 1:125 (V)	Design C.BREYTENBACH 31.05.21	Approved For Construction Date
Reduced Scale (A3) 1:500 (H) 1:250 (V)	Drawn A.FAZEKAS 31.05.21	
	Design Verifier	
	Design Check	
	* Refer to Revision 1 for Original Signature	

Client: **MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ**

Project: **CARRINGTON BACKBONE WORKS PROJECT**

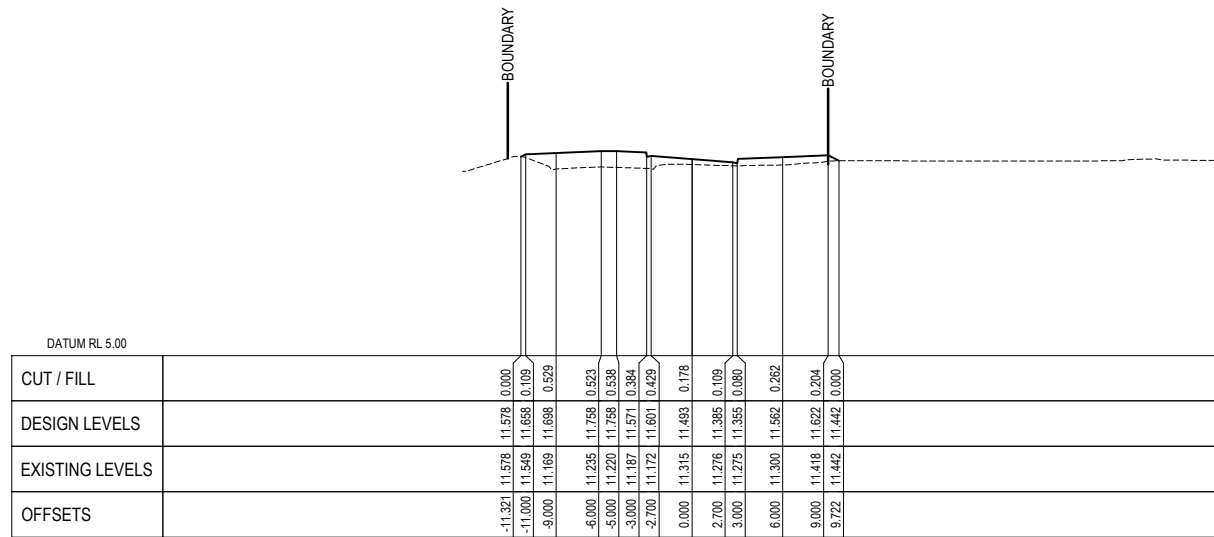
Title: **ROADING DETAILED CROSS SECTIONS SHEET 3**

**RESOURCE CONSENT NOT FOR CONSTRUCTION**

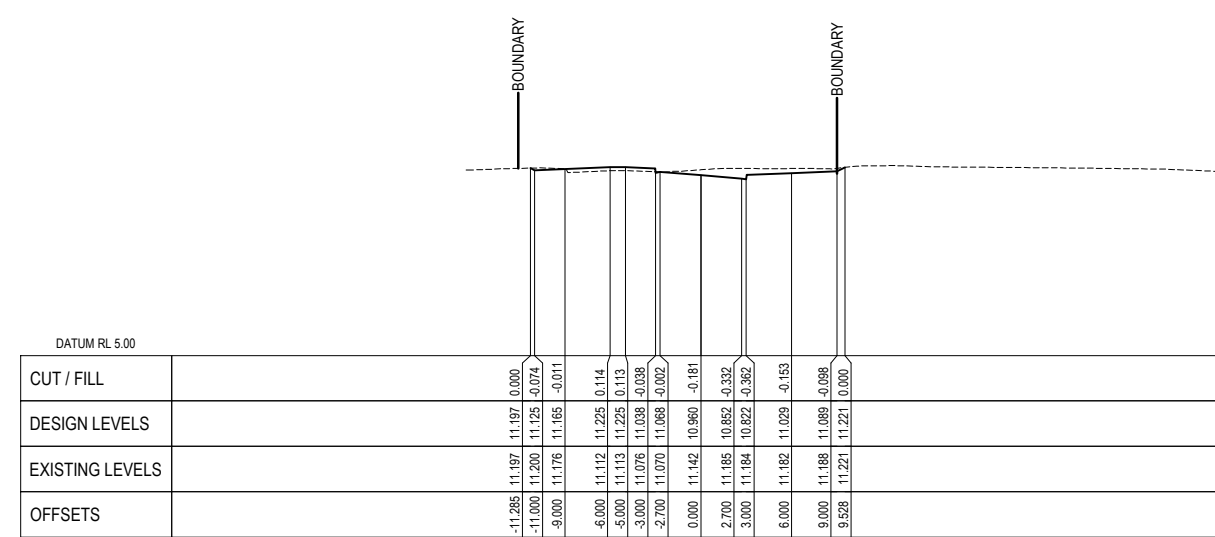
Discipline	CIVIL ENGINEERING
Drawing No.	3126447-CA-3253
Rev.	E

**LEGEND:**

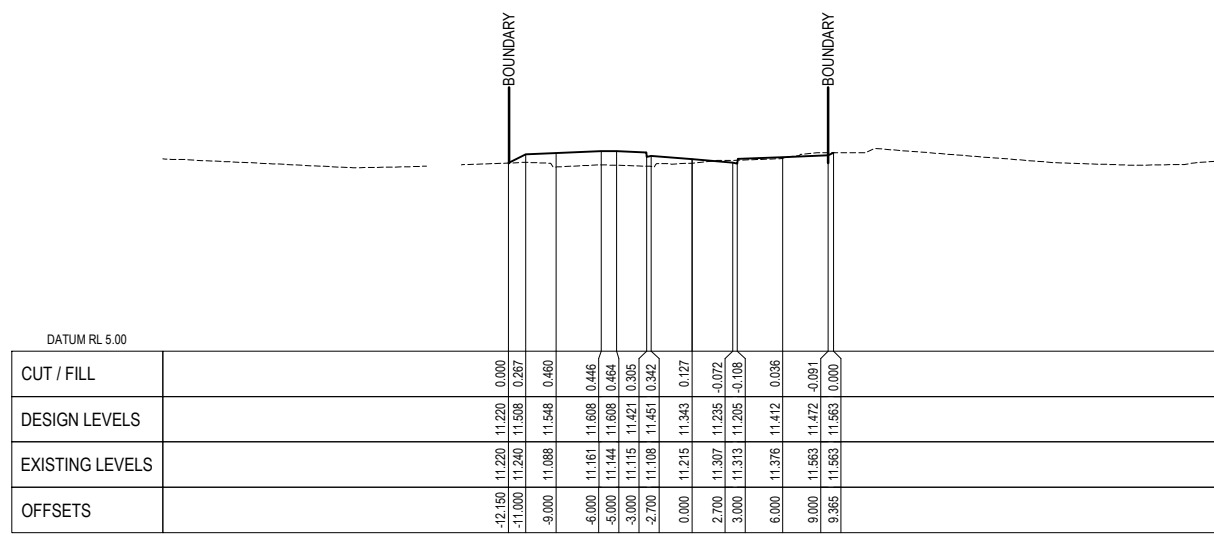
- EXISTING SURFACE
- DESIGN SURFACE



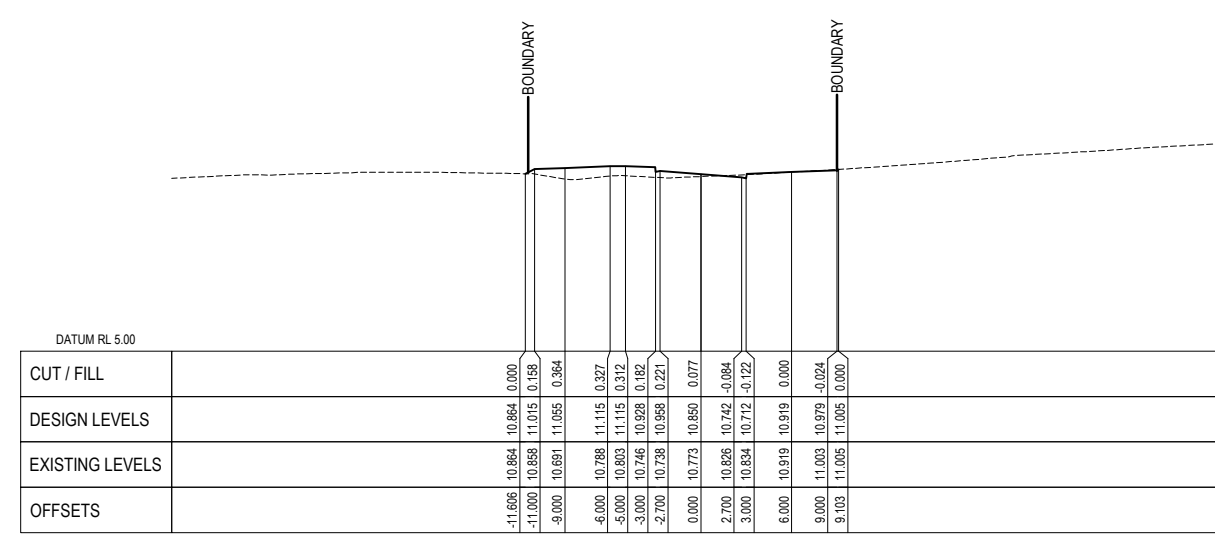
SPINE ROAD : CHAINAGE 600



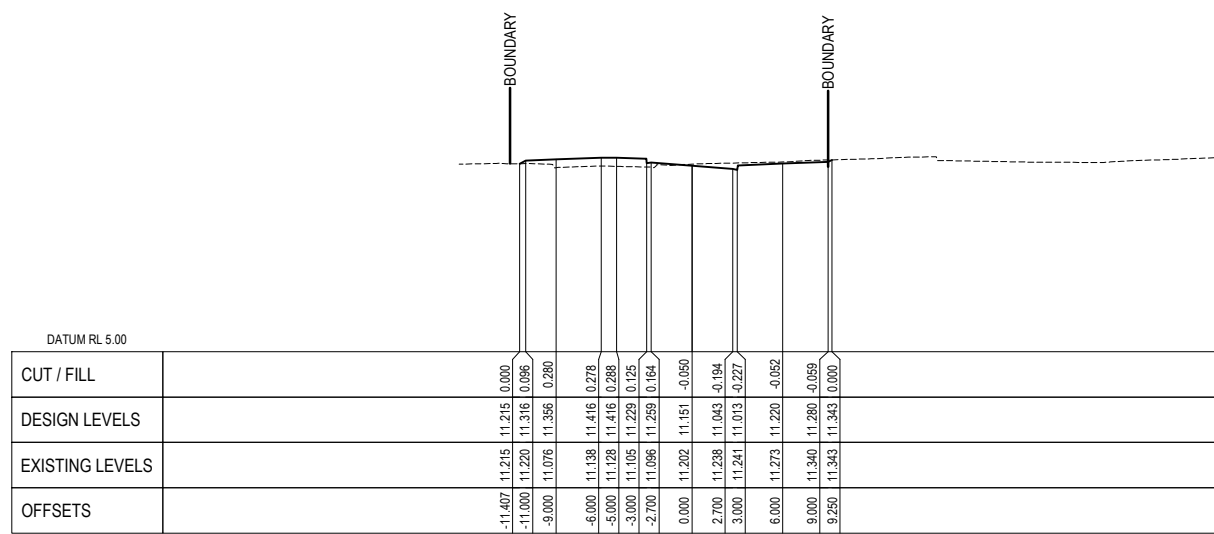
SPINE ROAD : CHAINAGE 660



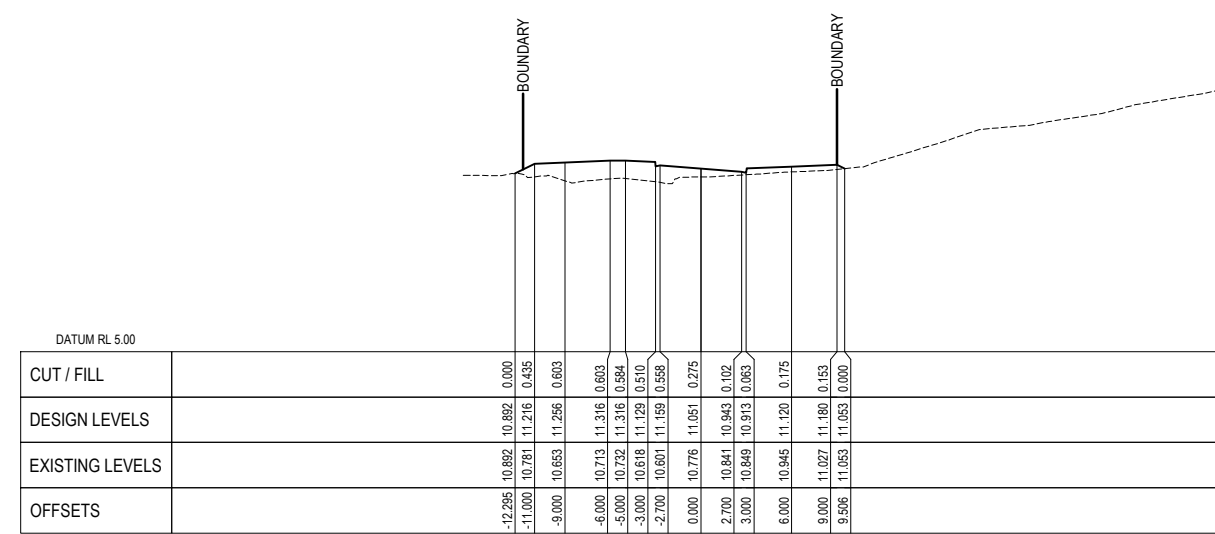
SPINE ROAD : CHAINAGE 620



SPINE ROAD : CHAINAGE 680



SPINE ROAD : CHAINAGE 640



SPINE ROAD : CHAINAGE 700

No.	Revision	By	CHK	Appd	Date
E	MINOR AMENDMENTS	ABL	CJB	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	CJB	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	CJB	DP	23.07.21
B	FOR RESOURCE CONSENT	ABL	CJB	RM	05.07.21



Original Scale (A1) 1:250 (H) 1:125 (V)	Design C.BREYTENBACH 31.05.21	Approved For Construction 31.05.21
Reduced Scale (A3) 1:500 (H) 1:250 (V)	Drawn A.FAZEKAS 31.05.21	Date
	Design Verifier	
	Design Check	
	* Refer to Revision 1 for Original Signature	

Client: **MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ**

Project: **CARRINGTON BACKBONE WORKS PROJECT**

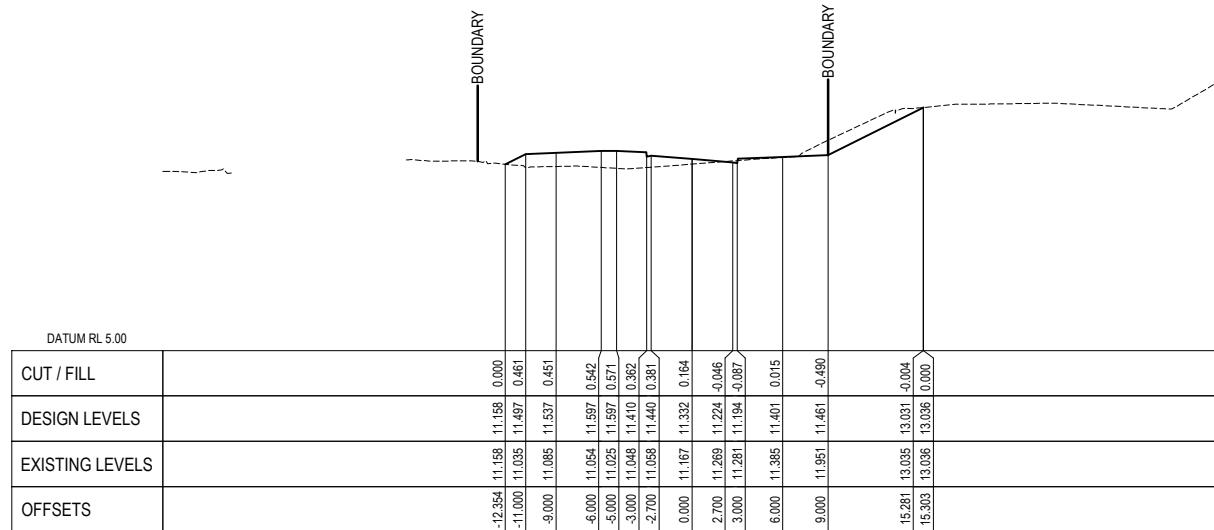
Title: **ROADING DETAILED CROSS SECTIONS SHEET 4**

**RESOURCE CONSENT NOT FOR CONSTRUCTION**

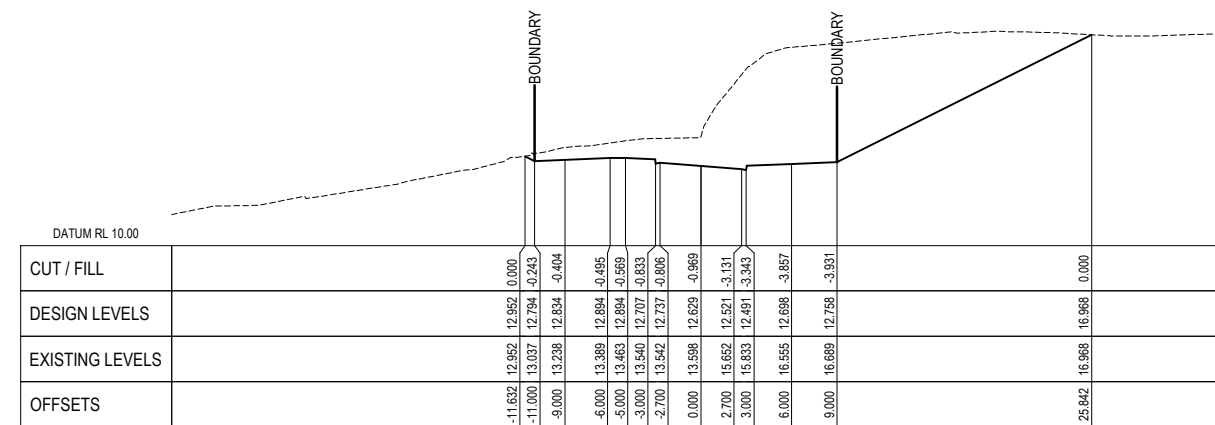
Discipline	CIVIL ENGINEERING
Drawing No.	3126447-CA-3254
Rev.	E

**LEGEND:**

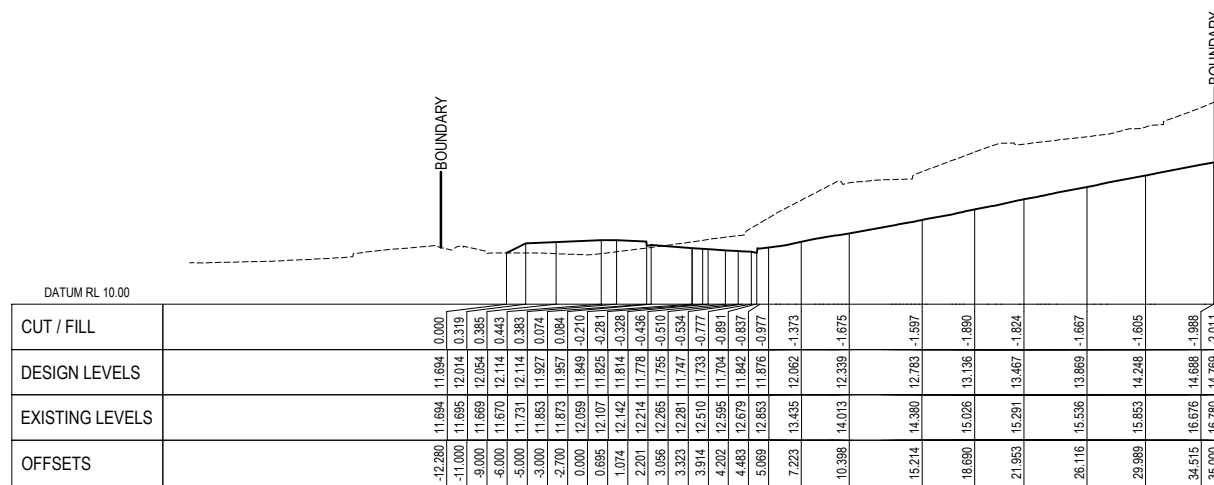
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- DESIGN SURFACE



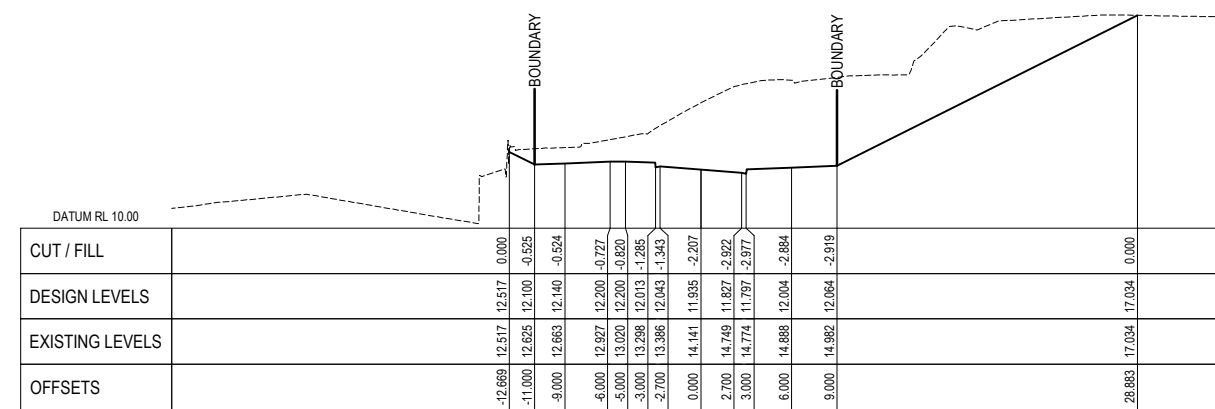
SPINE ROAD : CHAINAGE 720



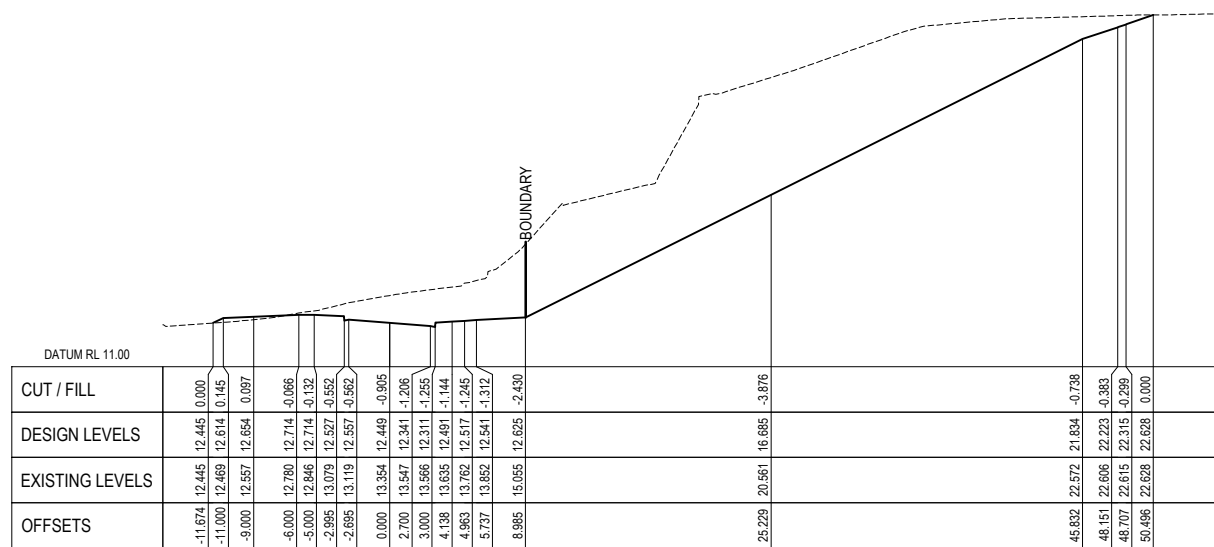
SPINE ROAD : CHAINAGE 780



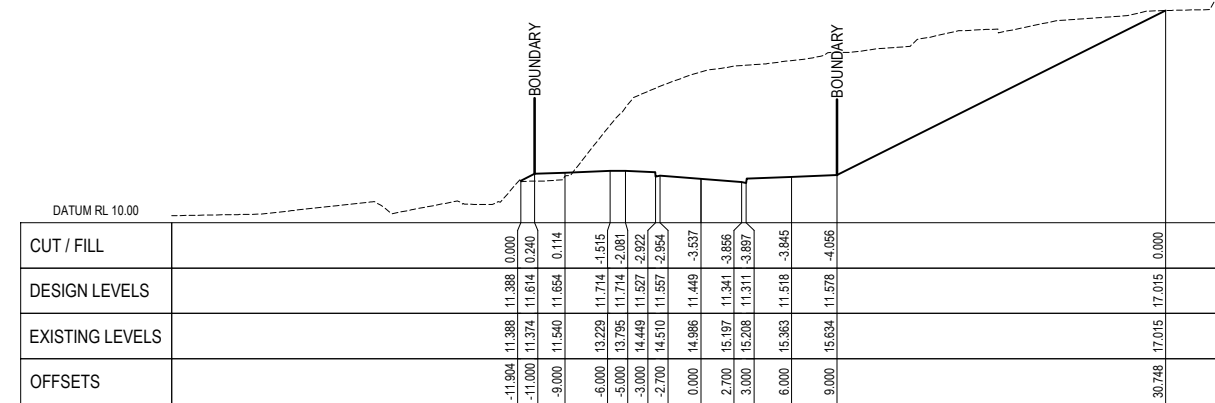
SPINE ROAD : CHAINAGE 740



SPINE ROAD : CHAINAGE 800



SPINE ROAD : CHAINAGE 760



SPINE ROAD : CHAINAGE 820

No.	Revision	By	Chk.	Appd.	Date
E	MINOR AMENDMENTS	ABL	CJB	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	CJB	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	CJB	DP	23.07.21
B	FOR RESOURCE CONSENT	ABL	CJB	RM	05.07.21



Original Scale (A1) 1:250 (H) 1:125 (V)	Design C.BREYTENBACH 31.05.21	Approved For Construction*
Reduced Scale (A3) 1:500 (H) 1:250 (V)	Drawn A.FAZEKAS 31.05.21	Date
	Design Verifier	
	Design Check	
	* Refer to Revision 1 for Original Signature	

Client: **MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ**

Project: **CARRINGTON BACKBONE WORKS PROJECT**

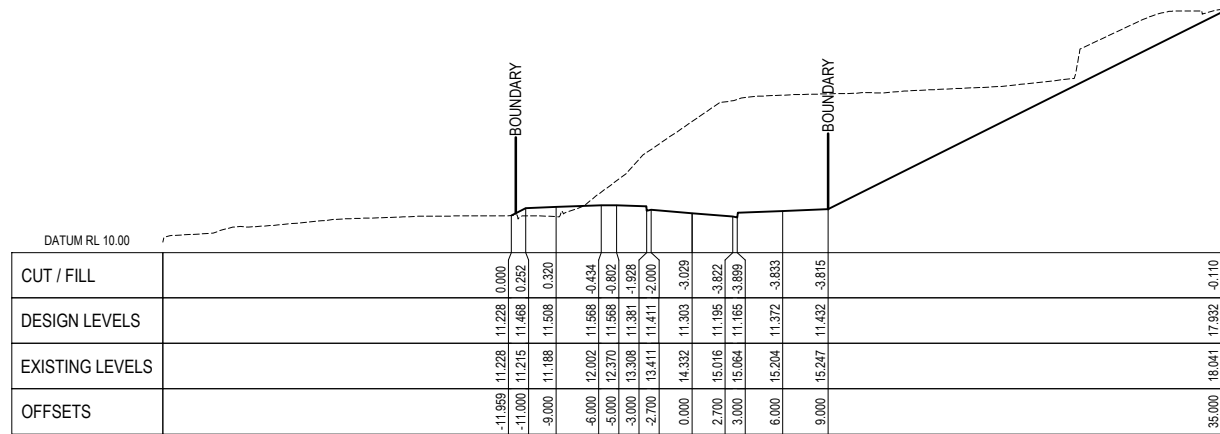
Title: **ROADING DETAILED CROSS SECTIONS SHEET 5**

**RESOURCE CONSENT NOT FOR CONSTRUCTION**

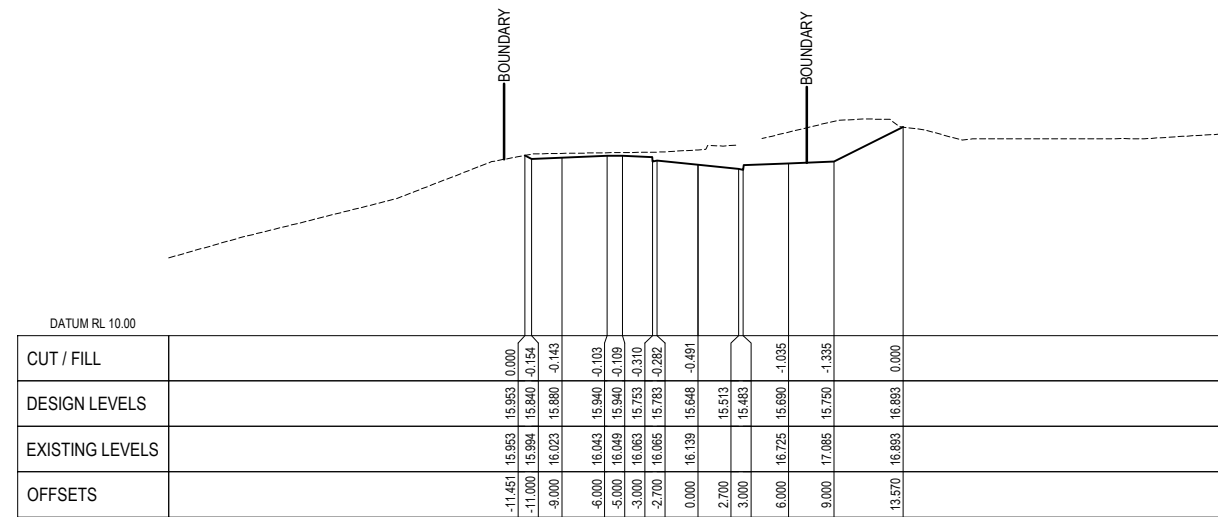
Discipline	CIVIL ENGINEERING
Drawing No.	3126447-CA-3255
Rev.	E

**LEGEND:**

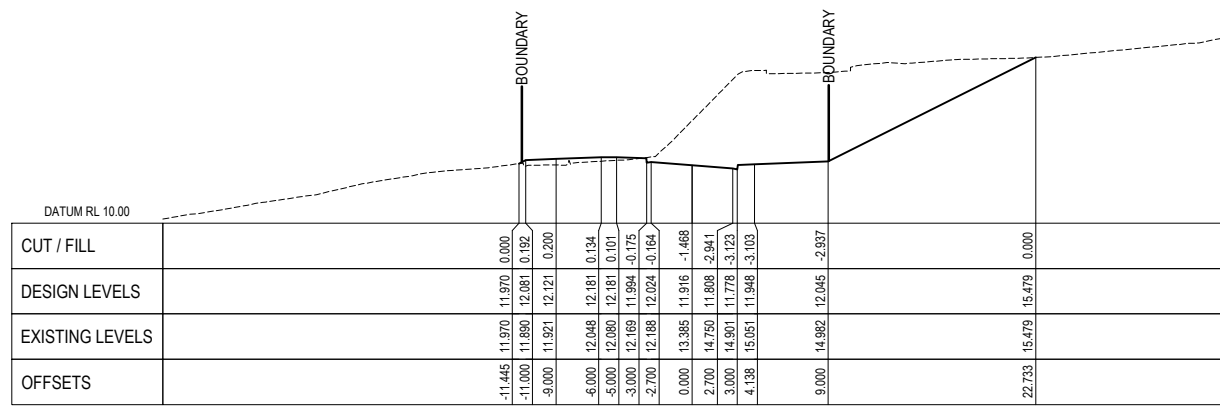
- EXISTING SURFACE
- DESIGN SURFACE



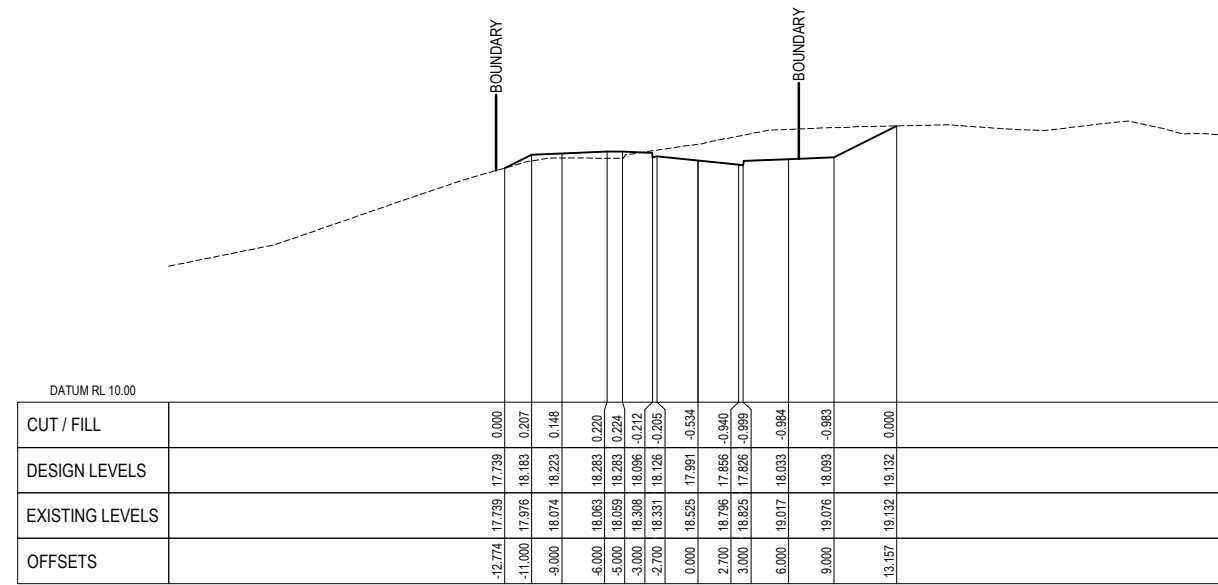
SPINE ROAD : CHAINAGE 840



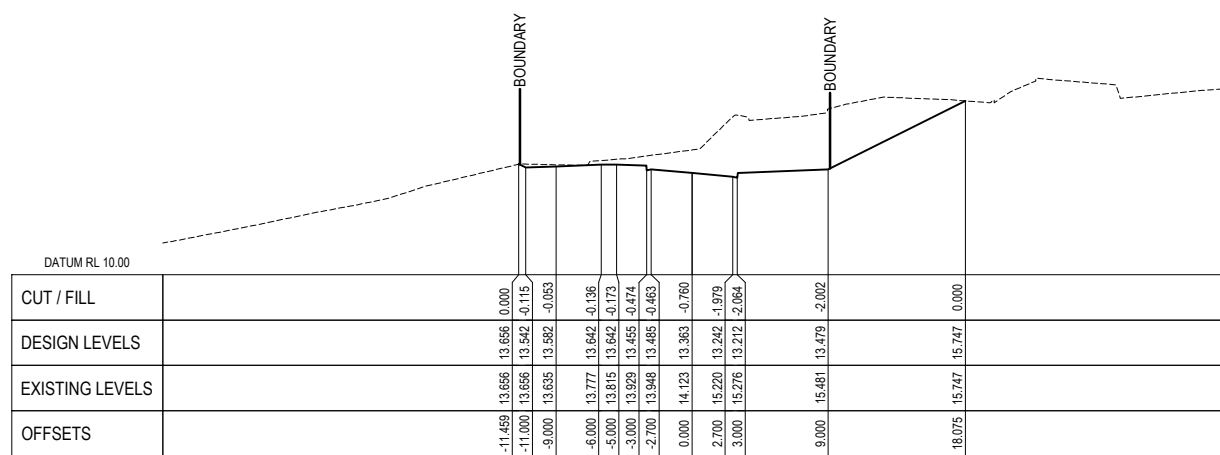
SPINE ROAD : CHAINAGE 900



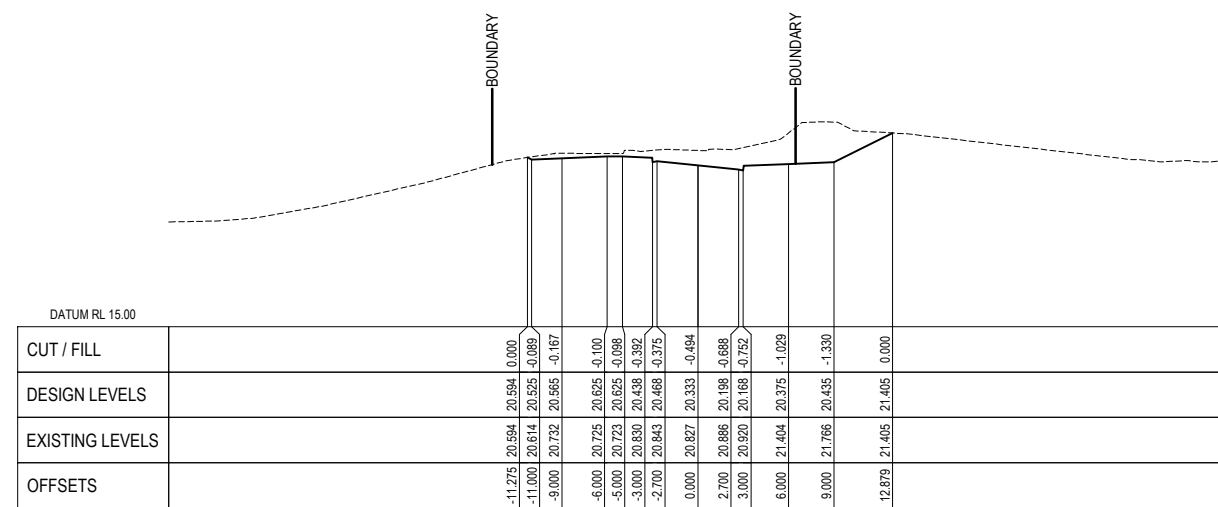
SPINE ROAD : CHAINAGE 860



SPINE ROAD : CHAINAGE 920



SPINE ROAD : CHAINAGE 880



SPINE ROAD : CHAINAGE 940

E	MINOR AMENDMENTS	ABL	CJB	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	CJB	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	CJB	DP	23.07.21
B	FOR RESOURCE CONSENT	ABL	CJB	RM	05.07.21
No.	Revision	By	Chk.	Appd	Date



Original Scale (A1)	1:250 (H) 1:125 (V)
Design	C.BREYTENBACH 31.05.21
Drawn	A.FAZEKAS 31.05.21
Design Verifier	
Design Check	
Reduced Scale (A3)	1:500 (H) 1:250 (V)
* Refer to Revision 1 for Original Signature	

Client: **MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ**

Project: **CARRINGTON BACKBONE WORKS PROJECT**

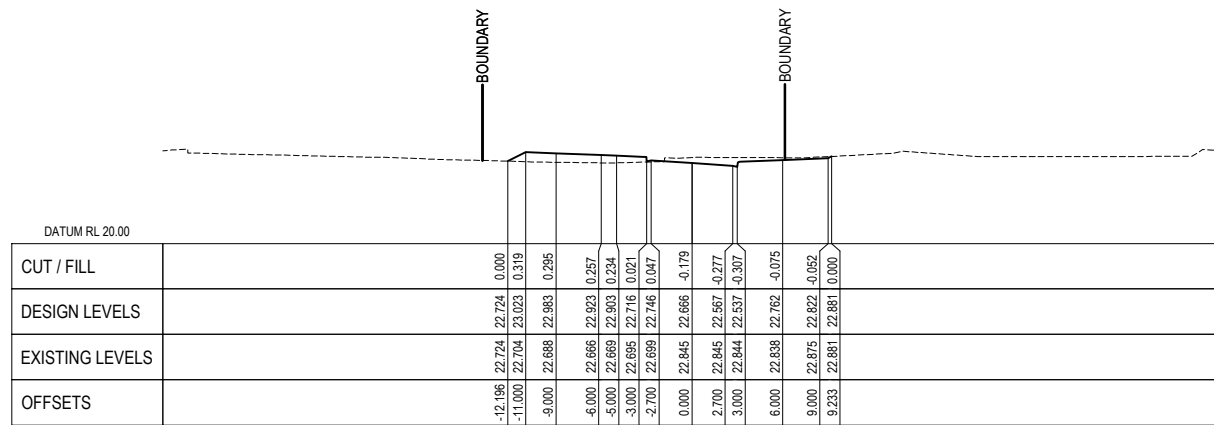
Title: **ROADING DETAILED CROSS SECTIONS SHEET 6**

**RESOURCE CONSENT NOT FOR CONSTRUCTION**

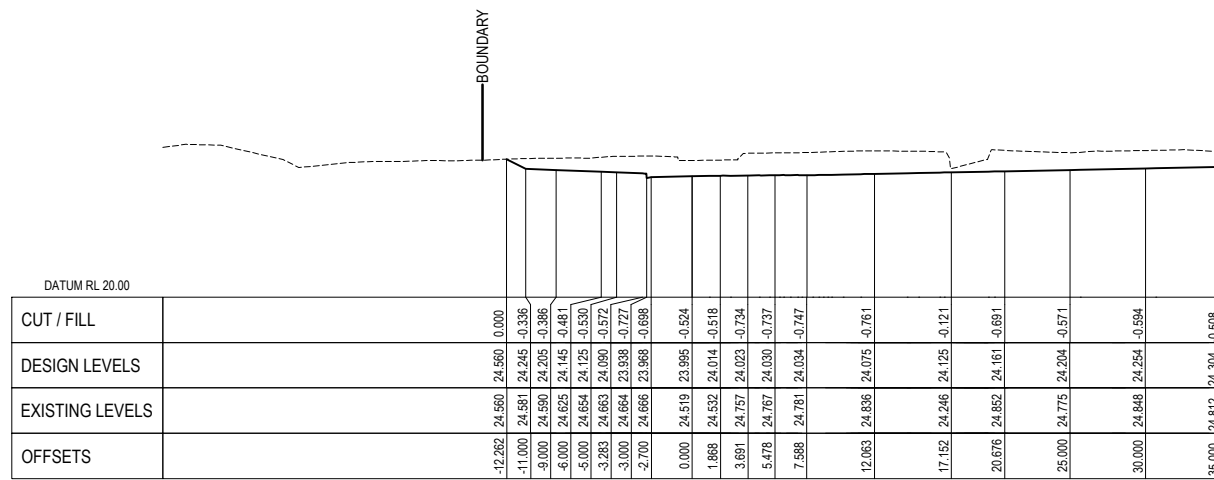
Discipline	CIVIL ENGINEERING
Drawing No.	3126447-CA-3256
Rev.	E

**LEGEND:**

- EXISTING SURFACE
- DESIGN SURFACE



SPINE ROAD : CHAINAGE 960



SPINE ROAD : CHAINAGE 980

No.	Revision	By	Chk.	Appd.	Date
E	MINOR AMENDMENTS	ABL	CJB	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	CJB	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	CJB	DP	23.07.21
B	FOR RESOURCE CONSENT	ABL	CJB	RM	05.07.21

Drawing Originator:



Original Scale (A1)	Design	C.BREYENBACH	31.05.21	Approved For Construction*
1:250 (H) 1:125 (V)	Drawn	A.FAZEKAS	31.05.21	Date
Reduced Scale (A3)	Design Verifier			
1:500 (H) 1:250 (V)	Design Check			

\* Refer to Revision 1 for Original Signature

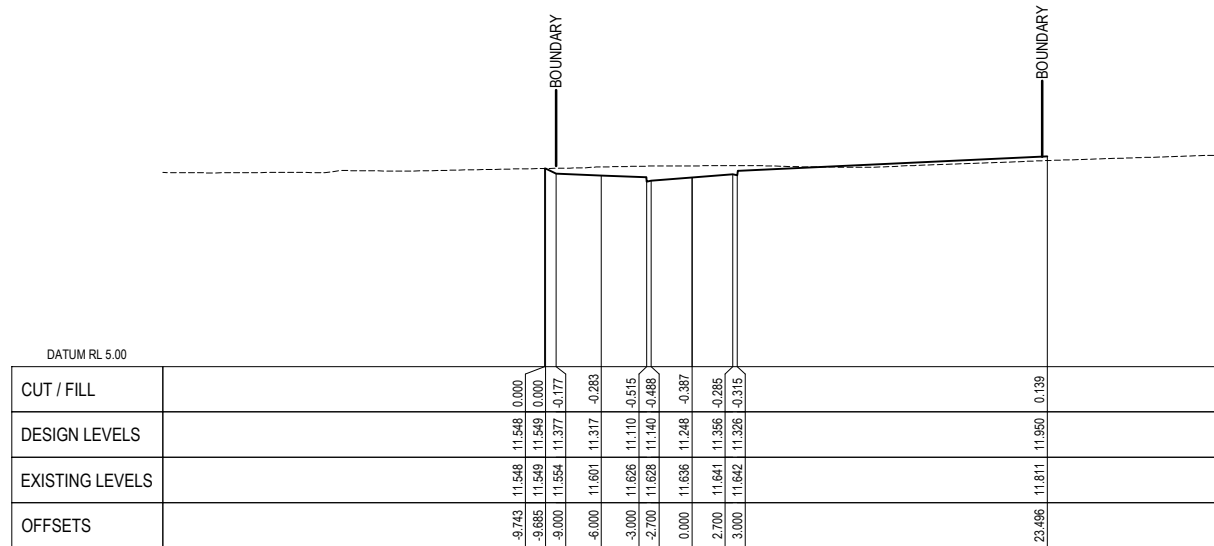
Client:	MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ
Project:	CARRINGTON BACKBONE WORKS PROJECT

Title:	ROADING DETAILED CROSS SECTIONS SHEET 7
Discipline:	CIVIL ENGINEERING
Drawing No:	3126447-CA-3257
Rev:	E

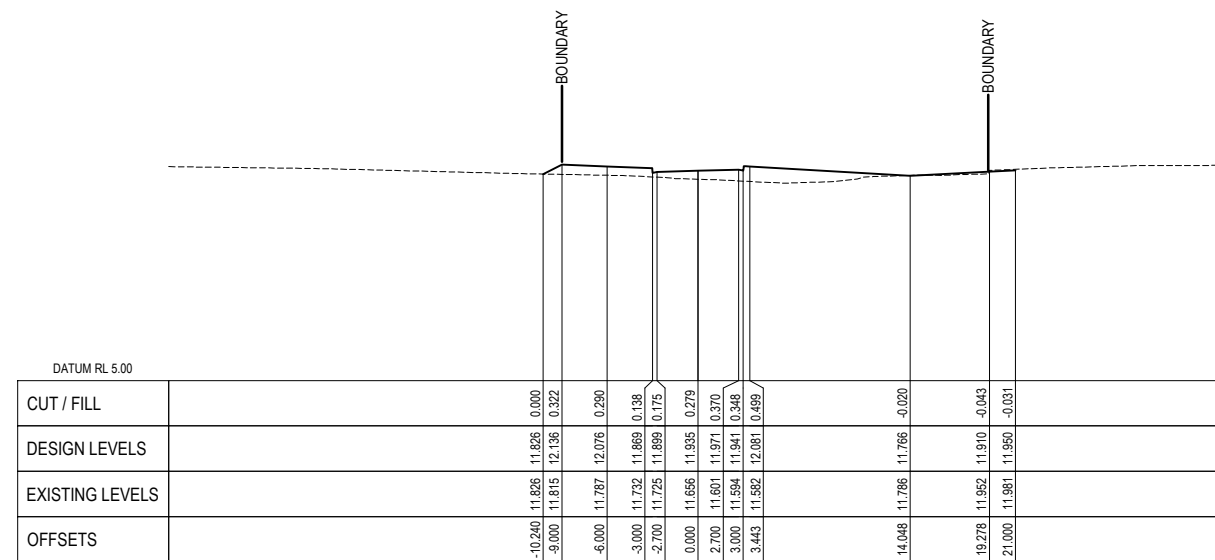
**RESOURCE CONSENT NOT FOR CONSTRUCTION**

**LEGEND:**

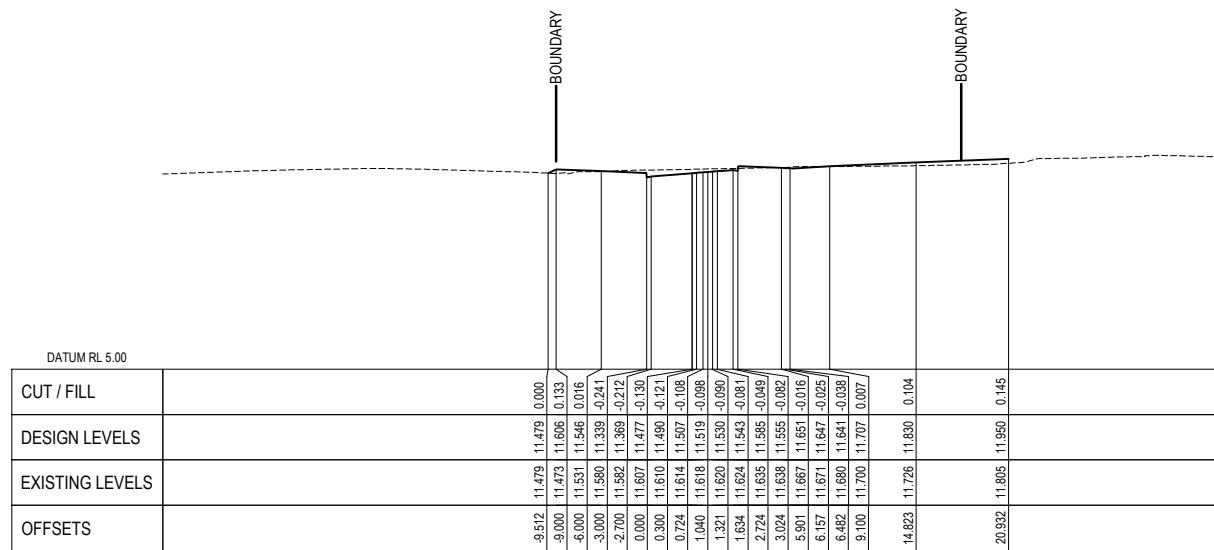
- EXISTING SURFACE
- DESIGN SURFACE



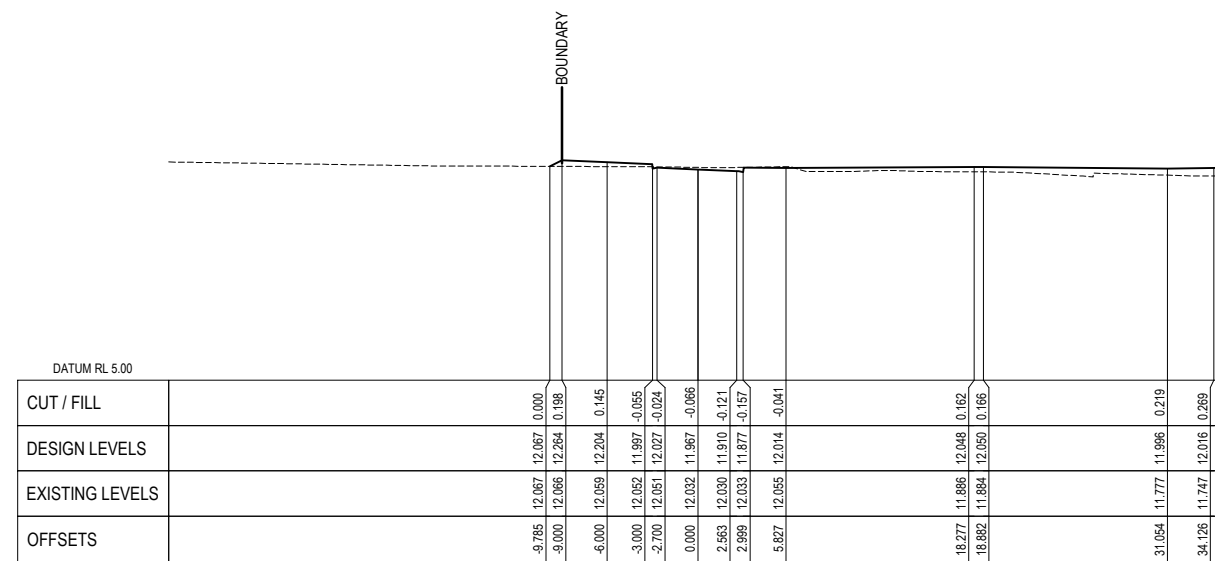
FARM ROAD : CHAINAGE 20



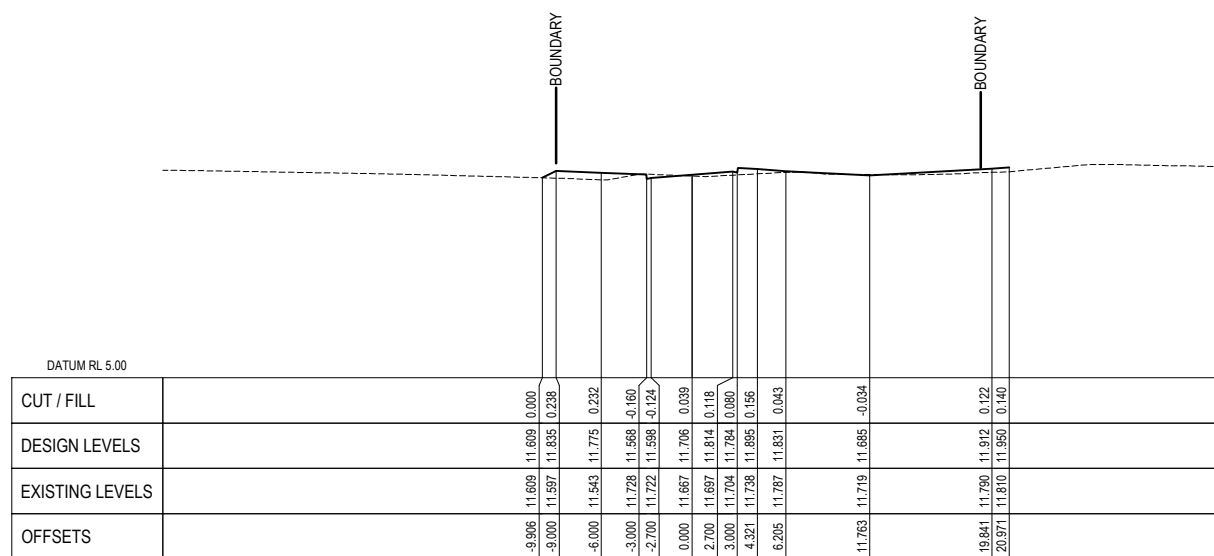
FARM ROAD : CHAINAGE 80



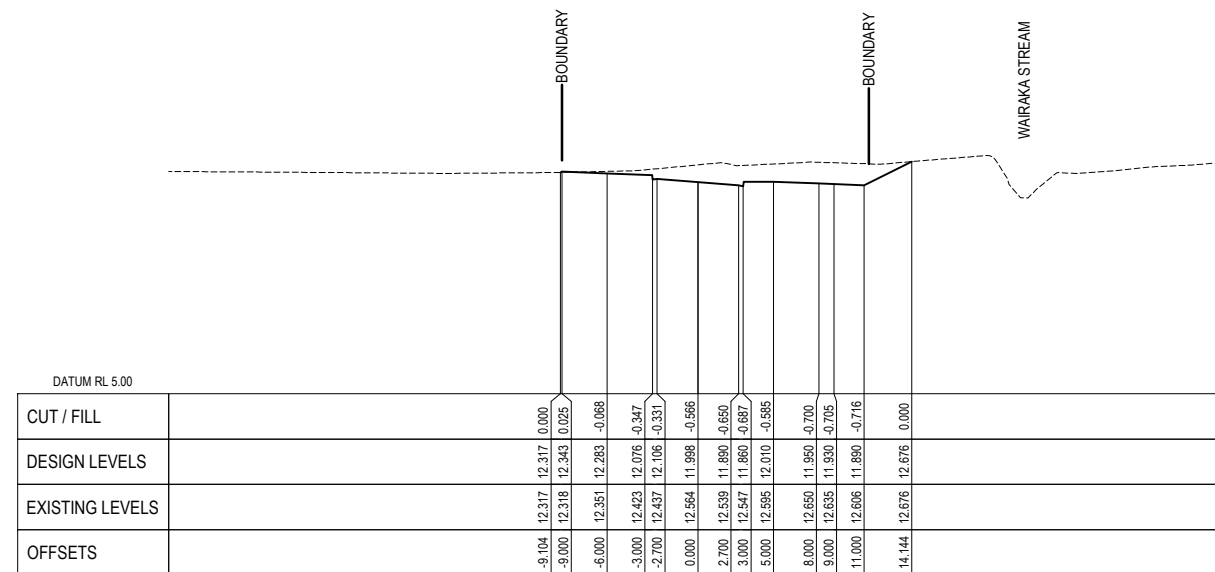
FARM ROAD : CHAINAGE 40



FARM ROAD : CHAINAGE 100



FARM ROAD : CHAINAGE 60



FARM ROAD : CHAINAGE 120

WARAKA STREAM

No.	Revision	By	Chk.	Appd.	Date
E	MINOR AMENDMENTS	ABL	CJB	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	CJB	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	CJB	DP	23.07.21
B	FOR RESOURCE CONSENT	ABL	CJB	RM	05.07.21



Original Scale (A1) 1:250 (H) 1:125 (V)	Design C.BREYTENBACH 31.05.21	Approved For Construction 31.05.21
Reduced Scale (A3) 1:500 (H) 1:250 (V)	Drawn A.FAZEKAS 31.05.21	Date
	Design Verifier	
	Design Check	
	* Refer to Revision 1 for Original Signature	

Client: MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ

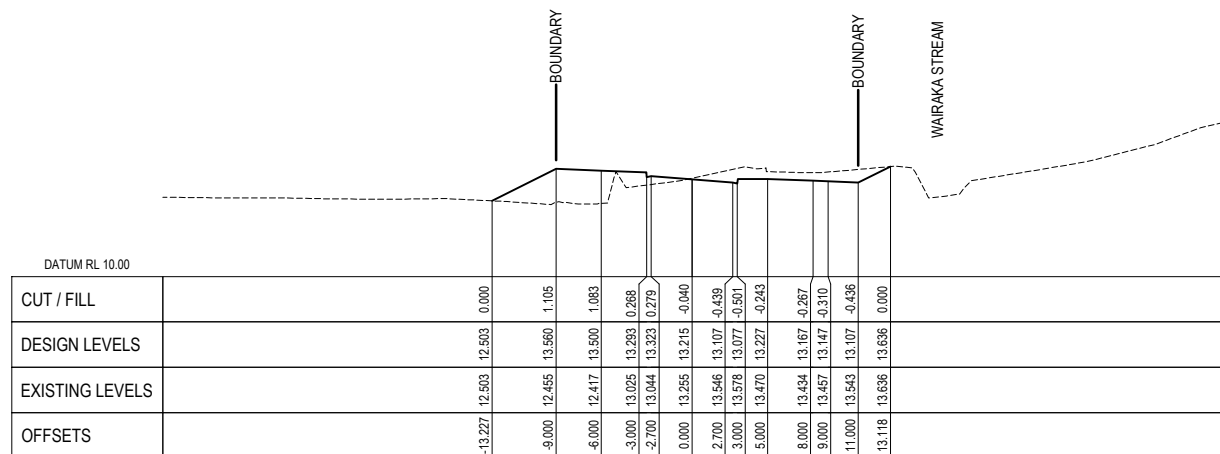
Project: CARRINGTON BACKBONE WORKS PROJECT

Title: ROADING DETAILED CROSS SECTIONS SHEET 8

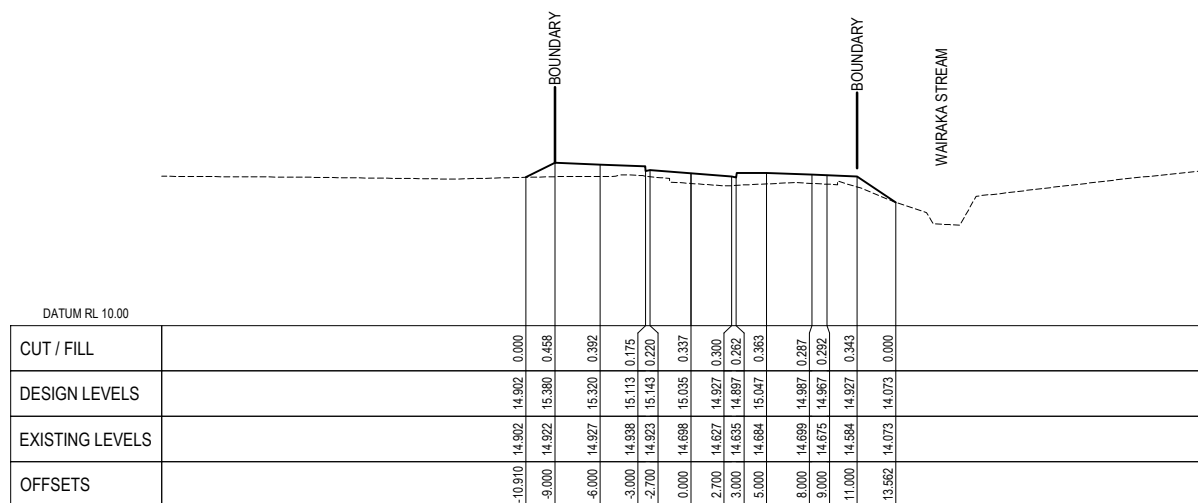
**RESOURCE CONSENT NOT FOR CONSTRUCTION**

Discipline	CIVIL ENGINEERING
Drawing No.	3126447-CA-3258
Rev.	E

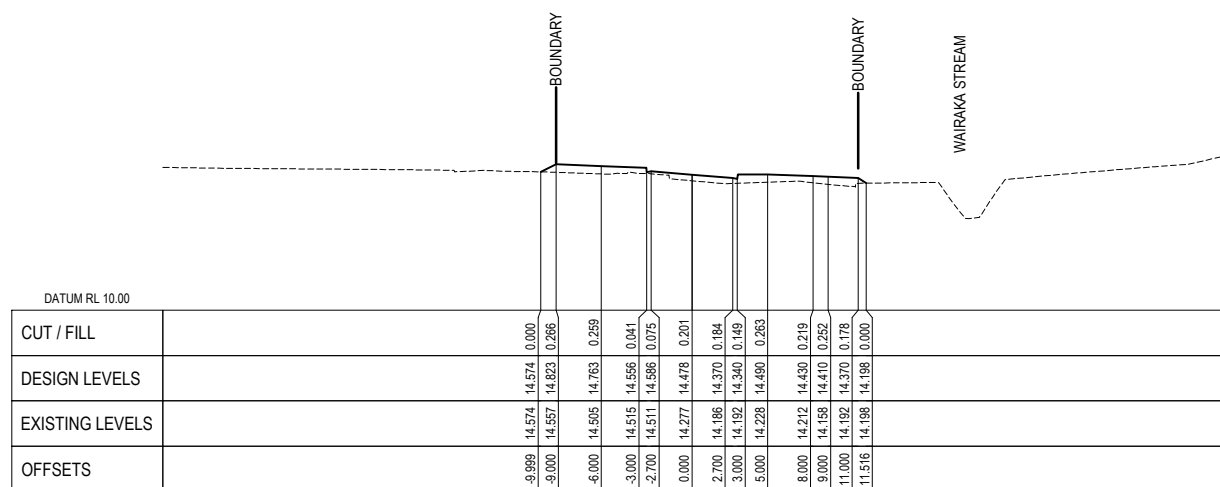
**LEGEND:**  
 - - - - - EXISTING SURFACE  
 ————— DESIGN SURFACE



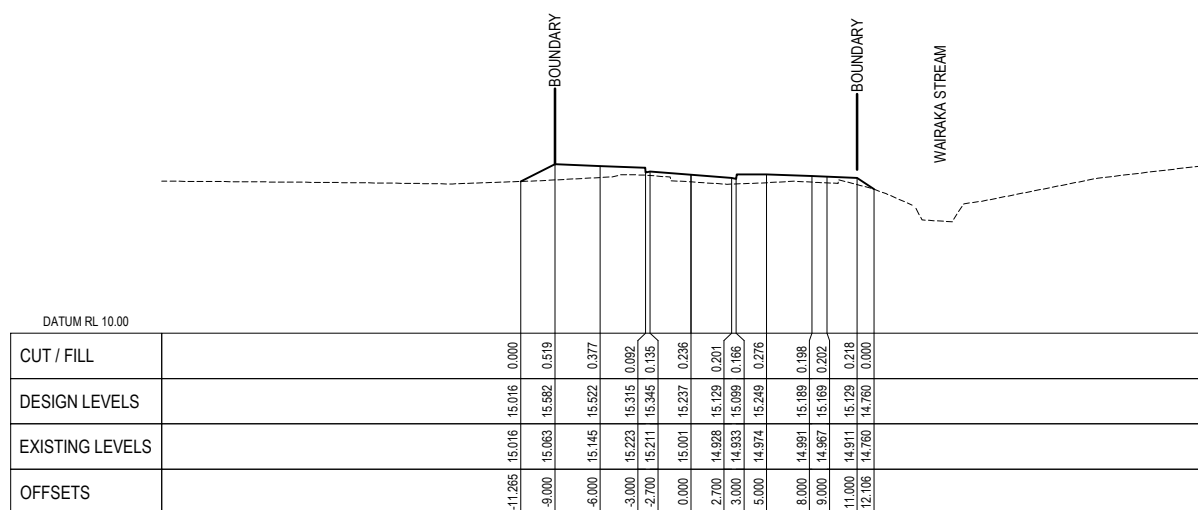
FARM ROAD : CHAINAGE 140



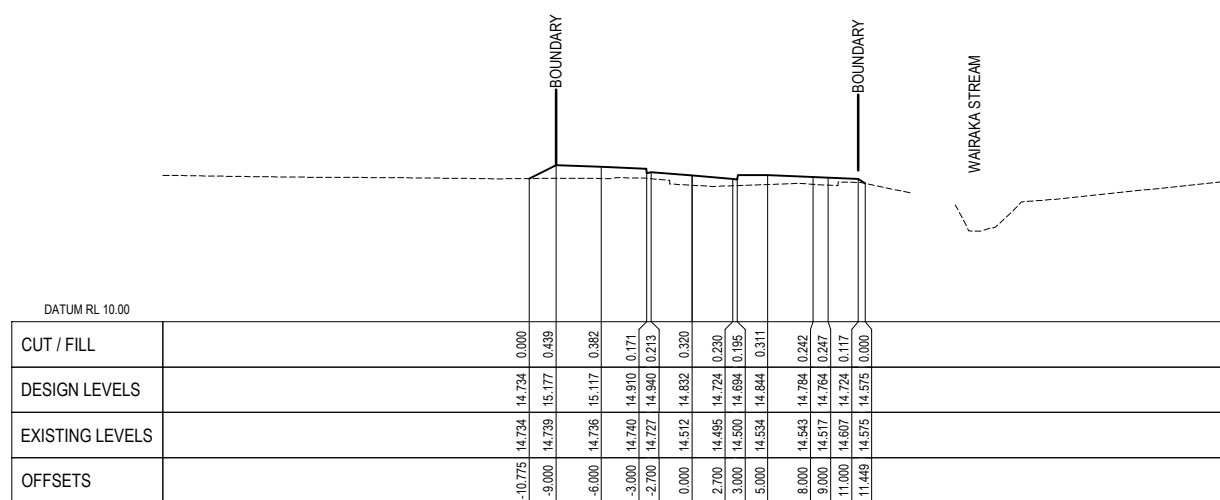
FARM ROAD : CHAINAGE 200



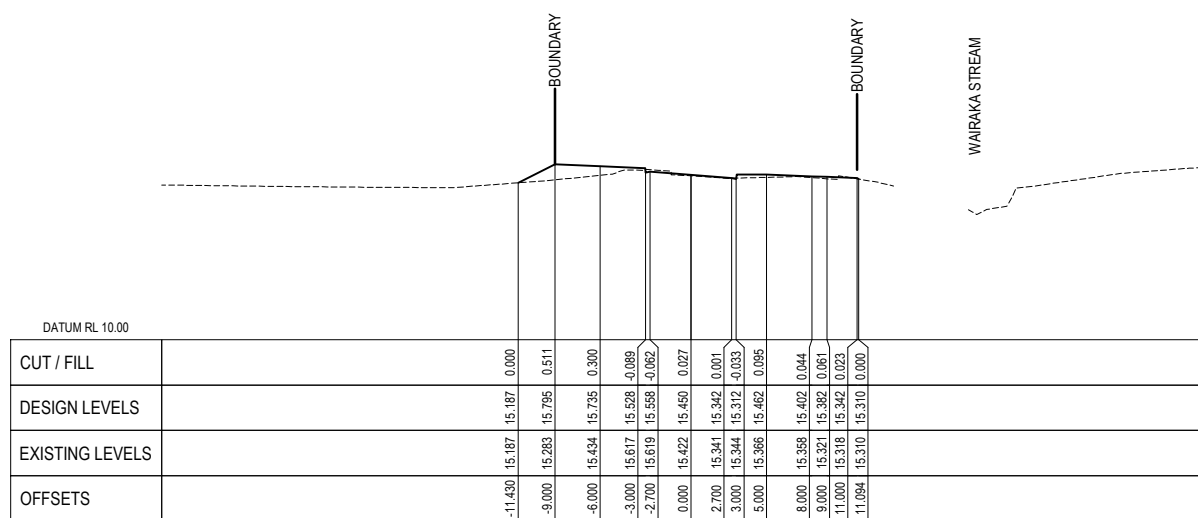
FARM ROAD : CHAINAGE 160



FARM ROAD : CHAINAGE 220



FARM ROAD : CHAINAGE 180



FARM ROAD : CHAINAGE 240

No.	Revision	By	Chk.	Appd.	Date
E	MINOR AMENDMENTS	ABL	CJB	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	CJB	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	CJB	DP	23.07.21
B	FOR RESOURCE CONSENT	ABL	CJB	RM	05.07.21



Original Scale (A1) 1:250 (H) 1:125 (V)	Design	C.BREYTENBACH	31.05.21	Approved For Construction*
Reduced Scale (A3) 1:500 (H) 1:250 (V)	Drawn	A.FAZEKAS	31.05.21	Date
	Design Verifier			
	Design Check			

Client:	MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ
Project:	CARRINGTON BACKBONE WORKS PROJECT

Title:	ROADING DETAILED CROSS SECTIONS SHEET 9
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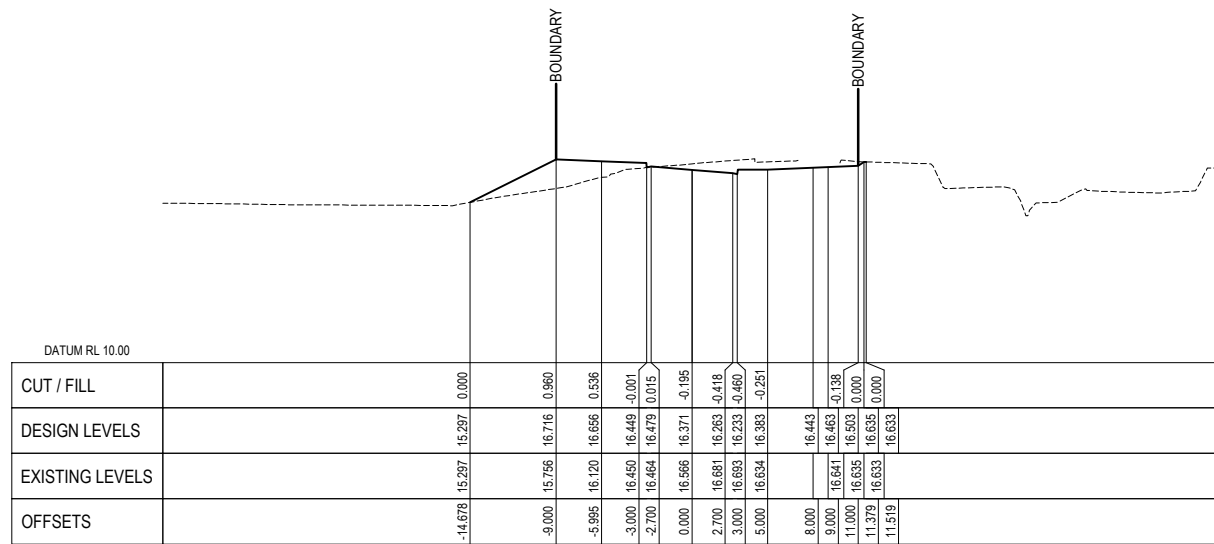
Discipline:	CIVIL ENGINEERING
Drawing No:	3126447-CA-3259
Rev:	E

**RESOURCE CONSENT NOT FOR CONSTRUCTION**

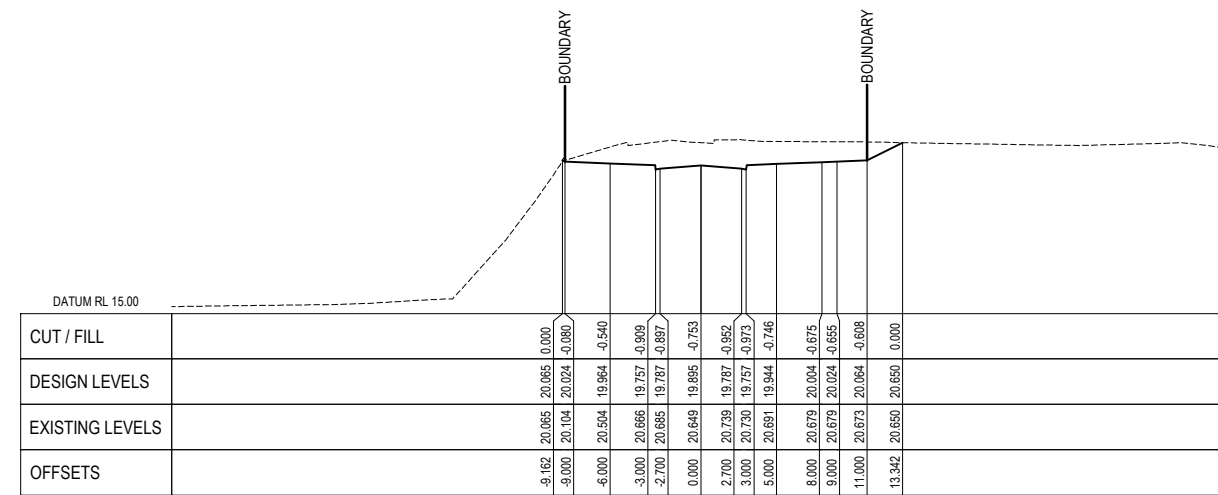


**LEGEND:**

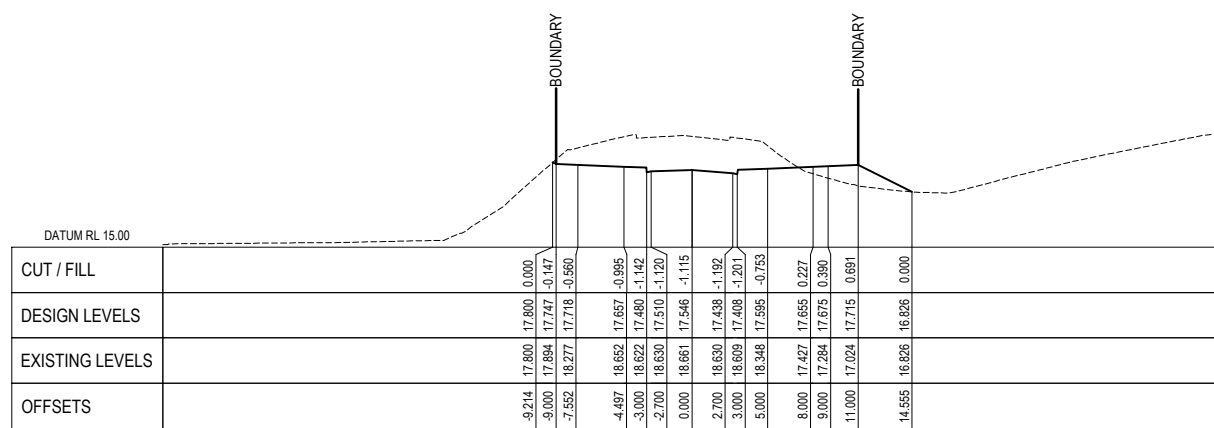
- EXISTING SURFACE
- DESIGN SURFACE



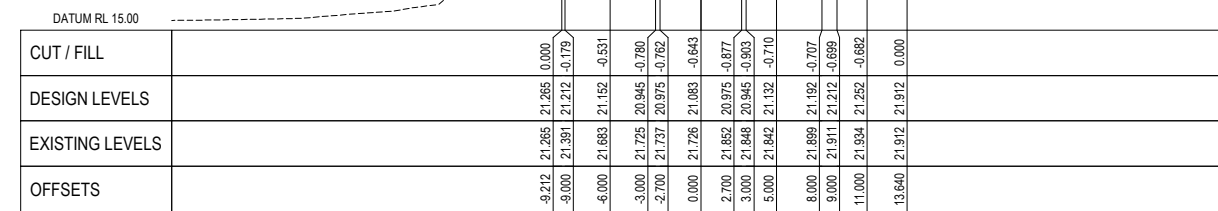
FARM ROAD : CHAINAGE 260



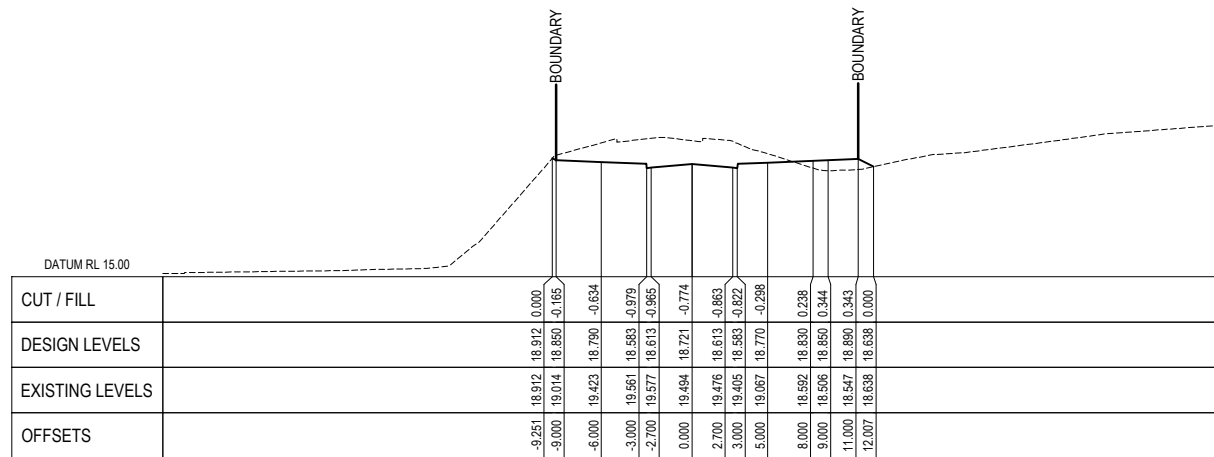
FARM ROAD : CHAINAGE 320



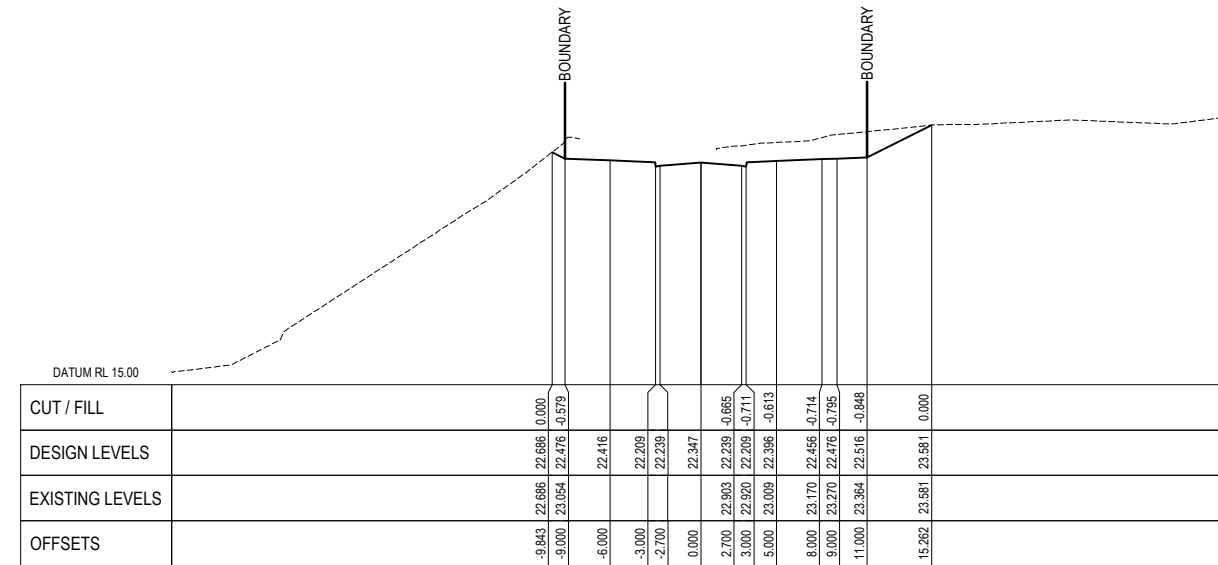
FARM ROAD : CHAINAGE 280



FARM ROAD : CHAINAGE 340



FARM ROAD : CHAINAGE 300



FARM ROAD : CHAINAGE 360

E	MINOR AMENDMENTS	ABL	CJB	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	CJB	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	CJB	DP	23.07.21
B	FOR RESOURCE CONSENT	ABL	CJB	RM	05.07.21
No.	Revision	By	Chk.	Appd.	Date



Original Scale (A1)	1:250 (H) 1:125 (V)	Design	C.BREYTENBACH	31.05.21	Approved For Construction*
Reduced Scale (A3)	1:500 (H) 1:250 (V)	Drawn	A.FAZEKAS	31.05.21	Date
		Design Verifier			
		Dag Check			
		* Refer to Revision 1 for Original Signature			

Client: **MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ**

Project: **CARRINGTON BACKBONE WORKS PROJECT**

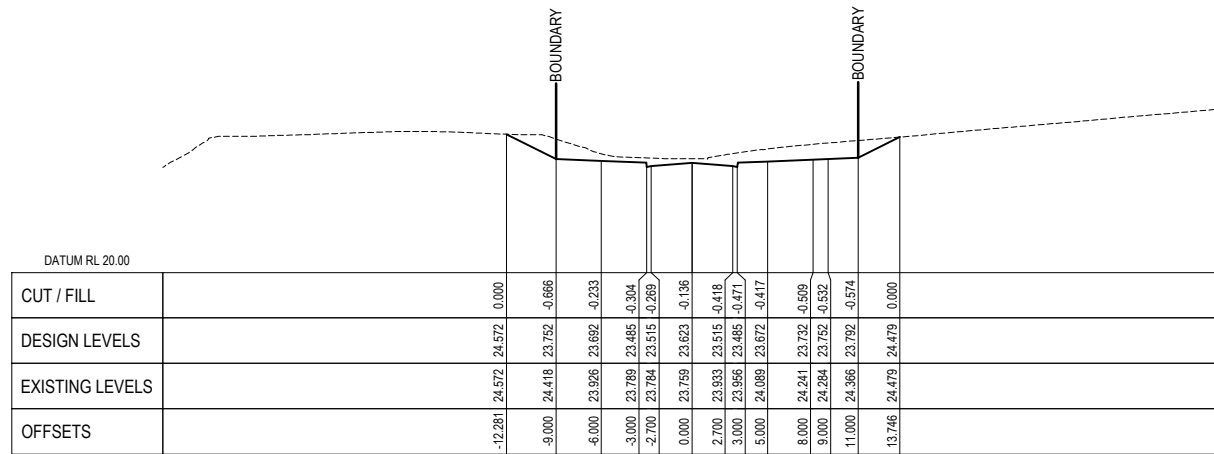
Title: **ROADING DETAILED CROSS SECTIONS SHEET 10**

**RESOURCE CONSENT NOT FOR CONSTRUCTION**

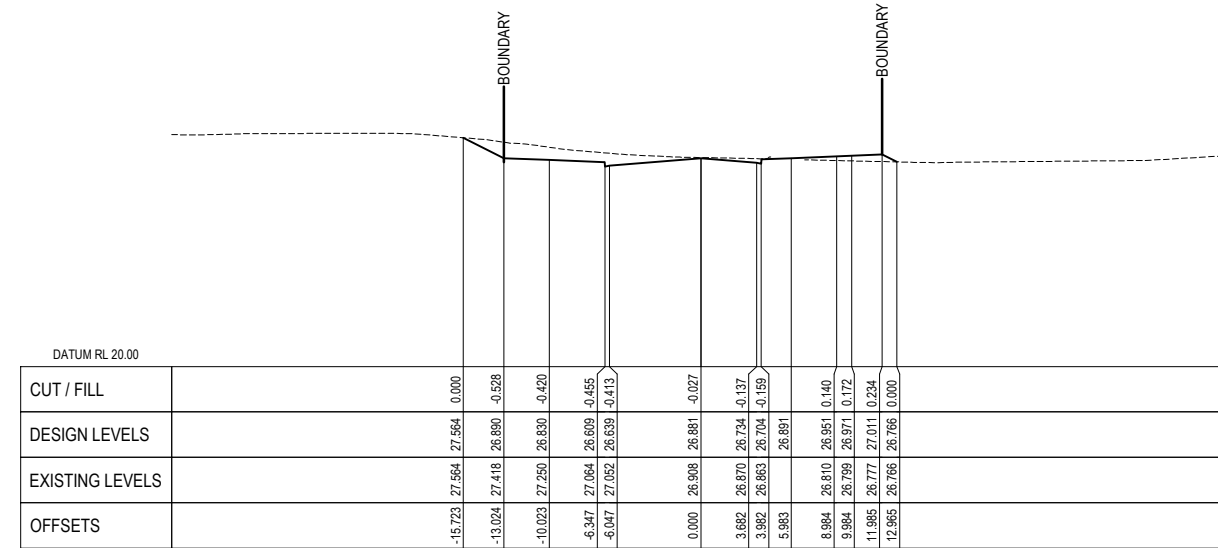
Discipline	CIVIL ENGINEERING
Drawing No.	3126447-CA-3260
Rev.	E

**LEGEND:**

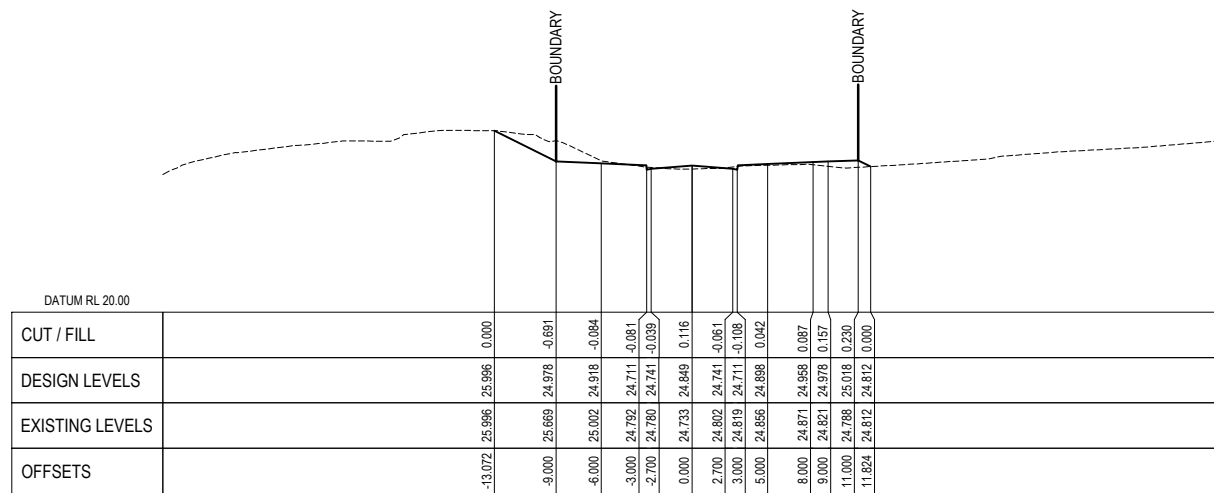
- EXISTING SURFACE
- DESIGN SURFACE



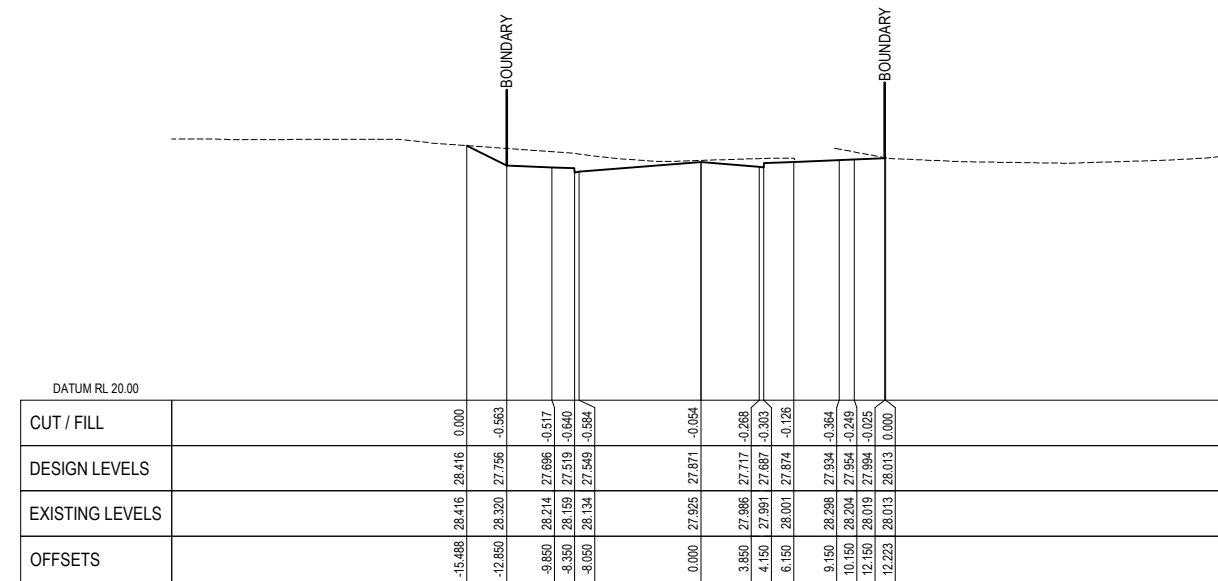
FARM ROAD : CHAINAGE 380



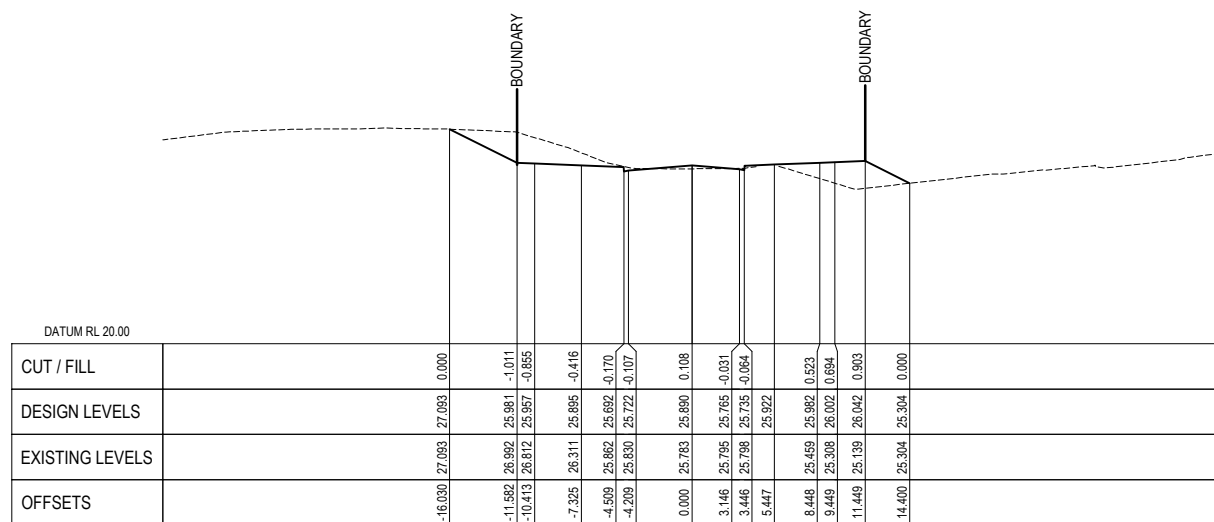
FARM ROAD : CHAINAGE 440



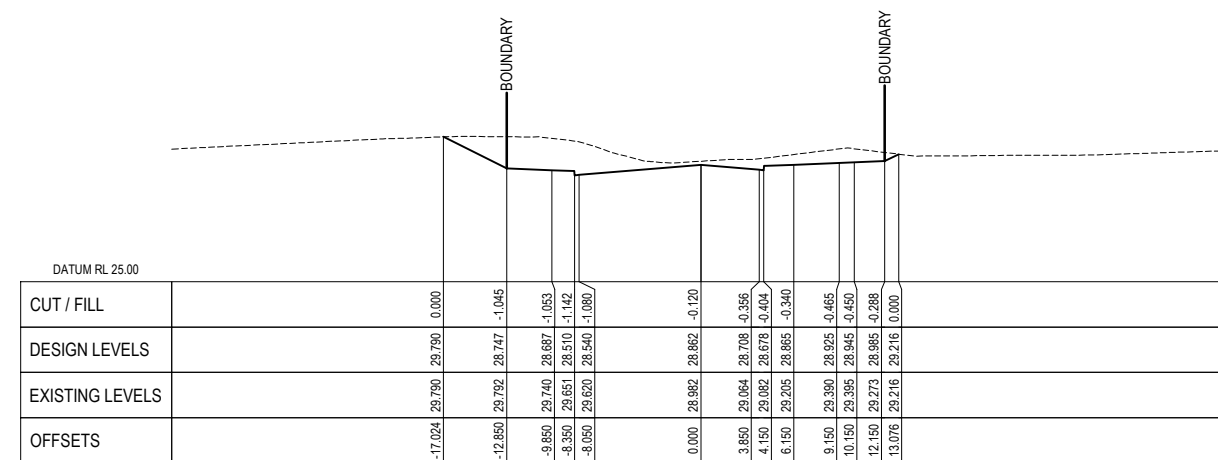
FARM ROAD : CHAINAGE 400



FARM ROAD : CHAINAGE 460



FARM ROAD : CHAINAGE 420



FARM ROAD : CHAINAGE 480

No.	Revision	By	CHK	Appd	Date
E	MINOR AMENDMENTS	ABL	CJB	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	CJB	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	CJB	DP	23.07.21
B	FOR RESOURCE CONSENT	ABL	CJB	RM	05.07.21



Original Scale (A1)	1:250 (H) 1:125 (V)
Design	C.BREYTENBACH 31.05.21
Drawn	A.FAZEKAS 31.05.21
Design Verifier	
Design Check	
Approved For Construction	
Date	

Client: MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ

Project: CARRINGTON BACKBONE WORKS PROJECT

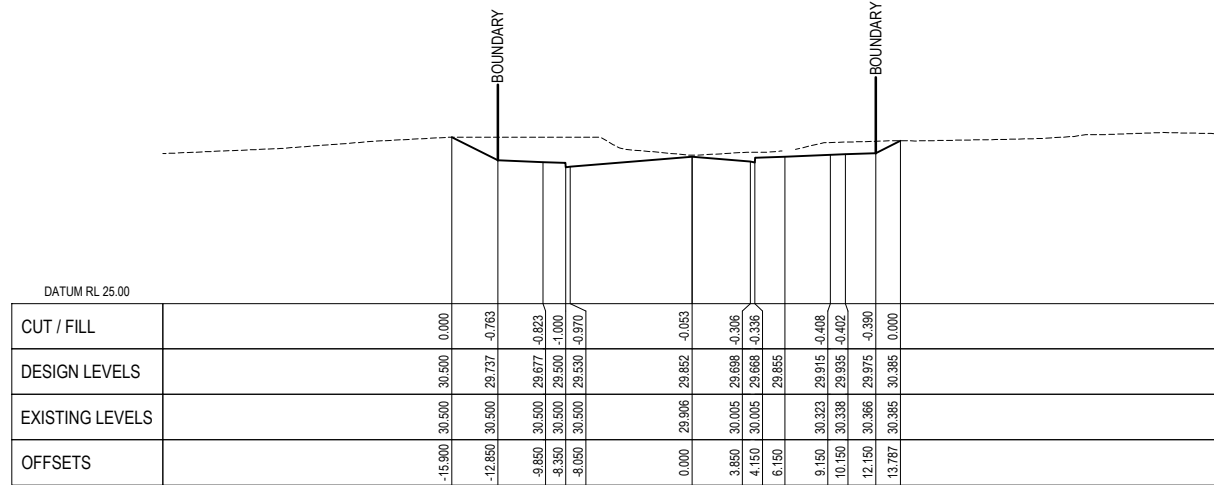
Title: ROADING DETAILED CROSS SECTIONS SHEET 11

**RESOURCE CONSENT**  
NOT FOR CONSTRUCTION

Discipline	CIVIL ENGINEERING
Drawing No.	3126447-CA-3261
Rev.	E

**LEGEND:**

- EXISTING SURFACE
- DESIGN SURFACE



FARM ROAD : CHAINAGE 500

No.	Revision	By	Chk.	Appd.	Date
E	MINOR AMENDMENTS	ABL	CJB	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	CJB	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	CJB	DP	23.07.21
B	FOR RESOURCE CONSENT	ABL	CJB	RM	05.07.21

Drawing Originator:



Original Scale (A1)	Design	Drawn	Checked	Approved For Construction*
1:250 (H) 1:125 (V)	C.BREYTENBACH	A.FAZEKAS		31.05.21
Reduced Scale (A3)	Design Verifier	Design Check	Date	
1:500 (H) 1:250 (V)				

Client:

MARUTŪĀHU AND  
WAIOHUA-TĀMAKI RŌPŪ

Project:

CARRINGTON  
BACKBONE WORKS  
PROJECT

Title:

ROADING  
DETAILED CROSS SECTIONS  
SHEET 12

Discipline

CIVIL ENGINEERING

Drawing No.

3126447-CA-3262

Rev.

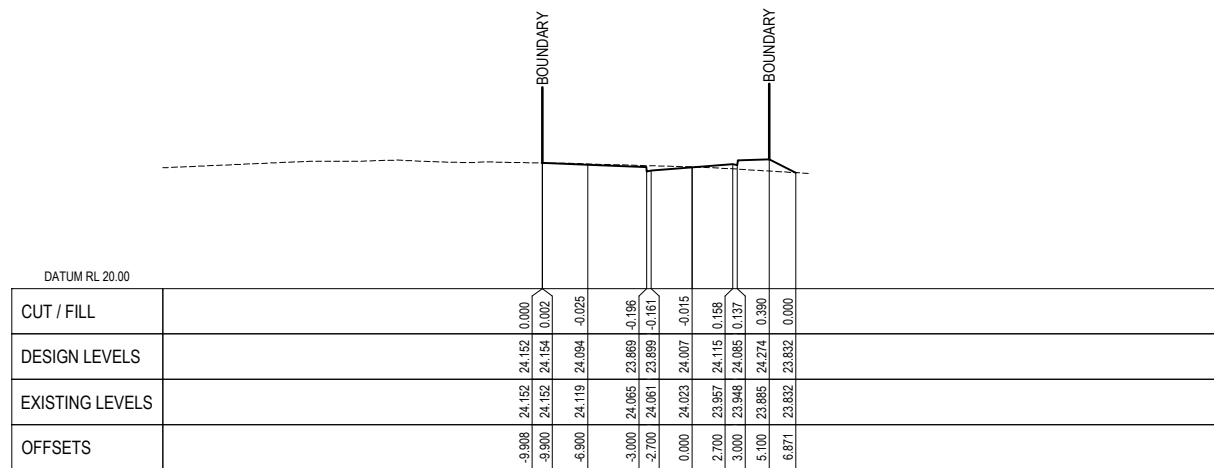
E

**RESOURCE CONSENT  
NOT FOR CONSTRUCTION**

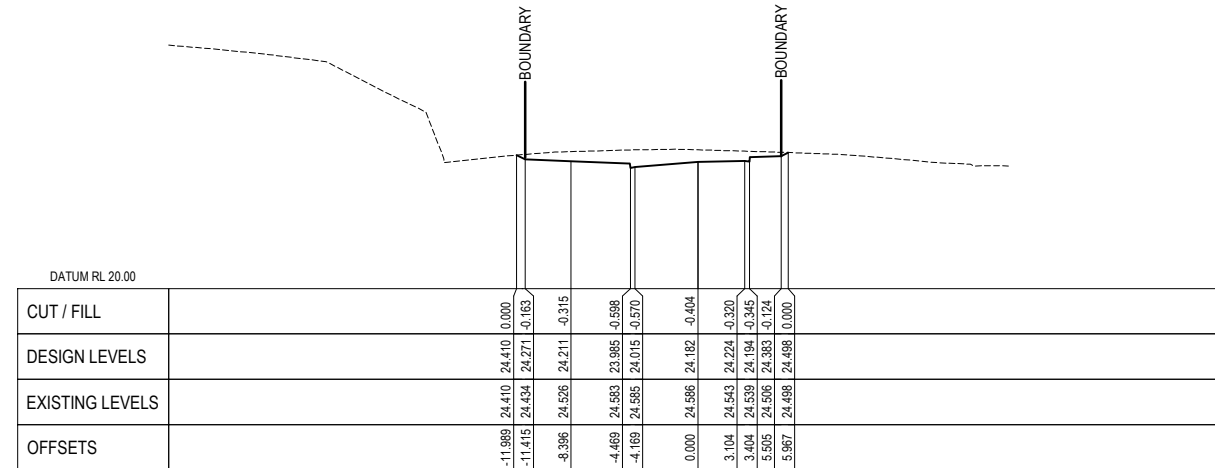


**LEGEND:**

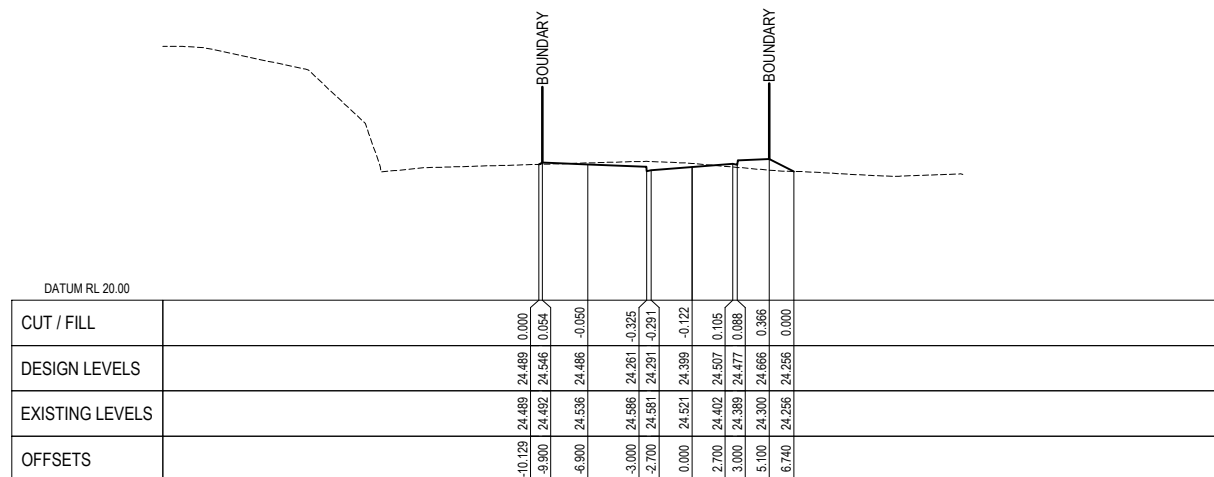
- EXISTING SURFACE
- DESIGN SURFACE



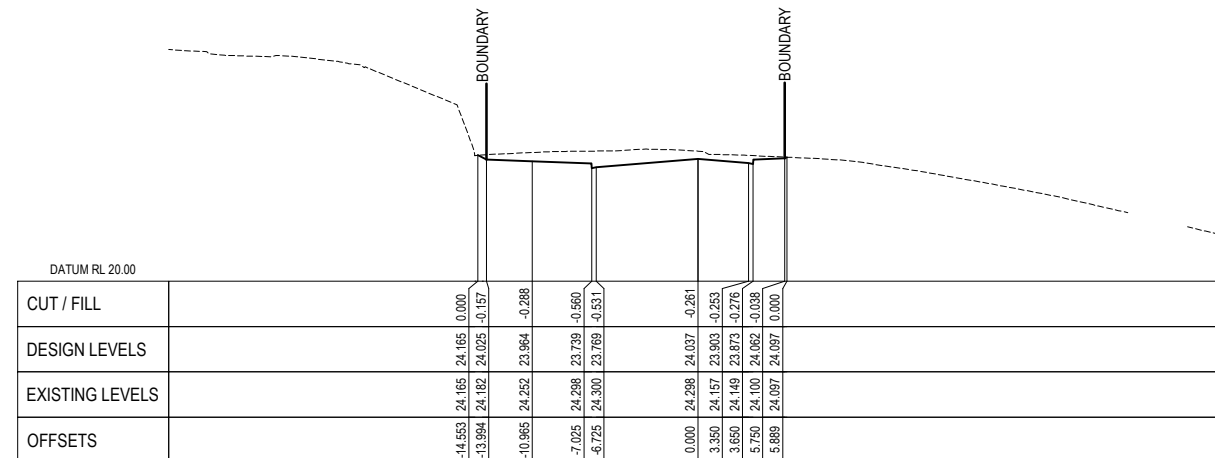
GATE 2 ROAD : CHAINAGE 140



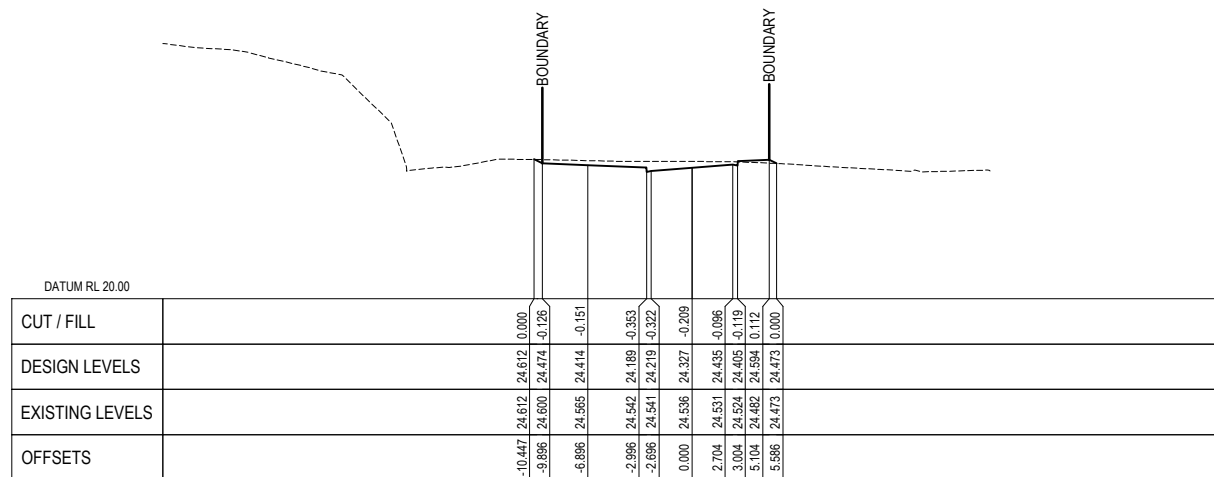
GATE 2 ROAD : CHAINAGE 200



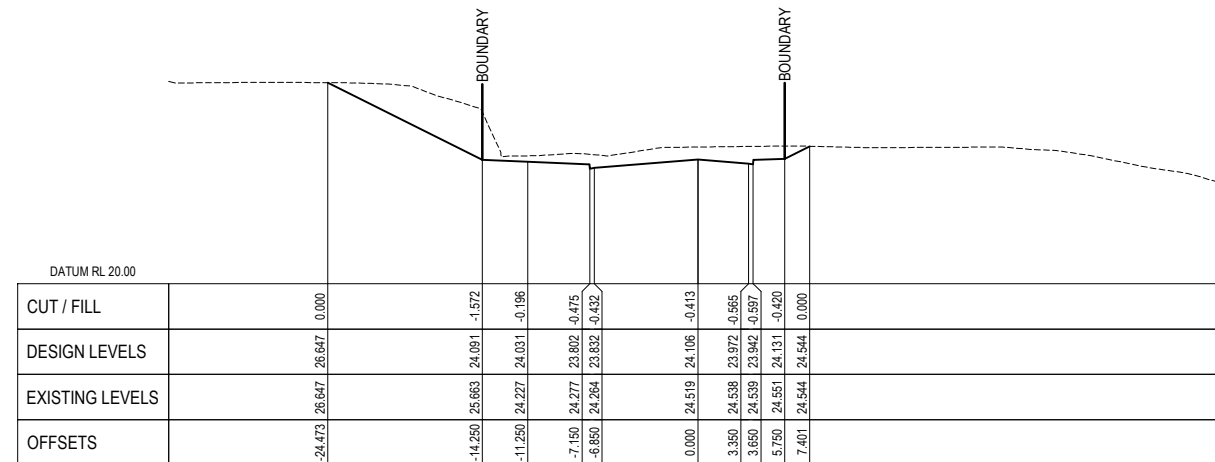
GATE 2 ROAD : CHAINAGE 160



GATE 2 ROAD : CHAINAGE 220



GATE 2 ROAD : CHAINAGE 180



GATE 2 ROAD : CHAINAGE 240

No.	Revision	By	Chk.	Appd.	Date
E	MINOR AMENDMENTS	ABL	CJB	DP	31.08.21
D	INTERSECTION AMMENDMENTS	ABL	CJB	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	CJB	DP	23.07.21



Original Scale (A1)	1:250 (H) 1:125 (V)	Design	C.BREYTENBACH	31.05.21	Approved For Construction*
Reduced Scale (A3)	1:500 (H) 1:250 (V)	Drawn	A.FAZEKAS	31.05.21	Date
		Design Verifier			
		Design Check			

Client: **MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ**

Project: **CARRINGTON BACKBONE WORKS PROJECT**

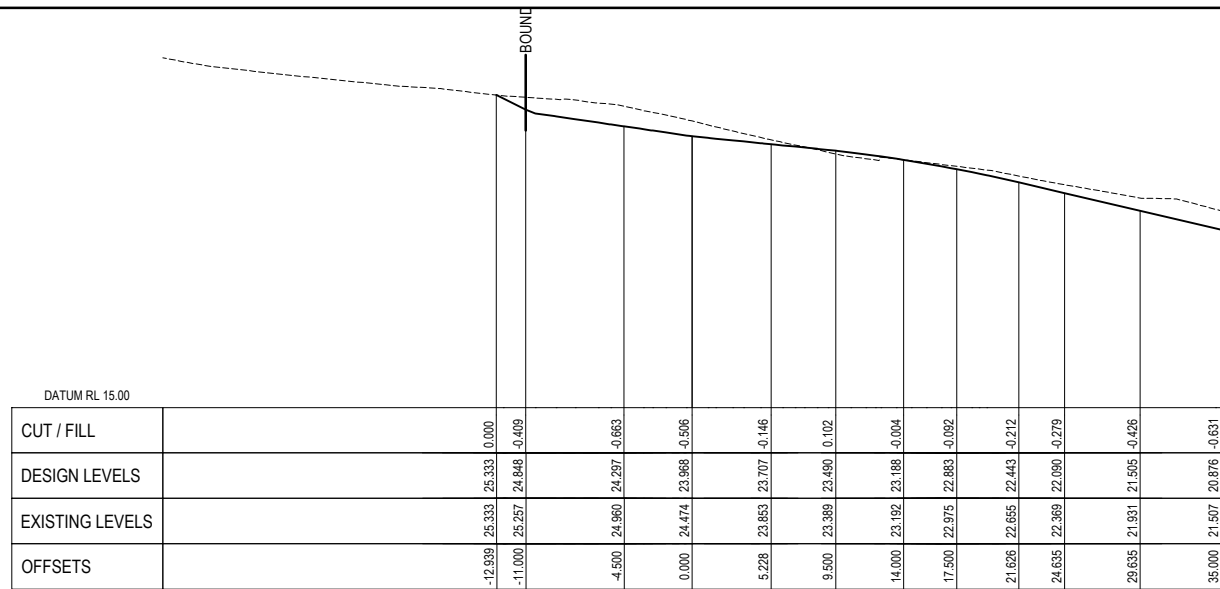
Title: **ROADING DETAILED CROSS SECTIONS SHEET 14**

**RESOURCE CONSENT NOT FOR CONSTRUCTION**

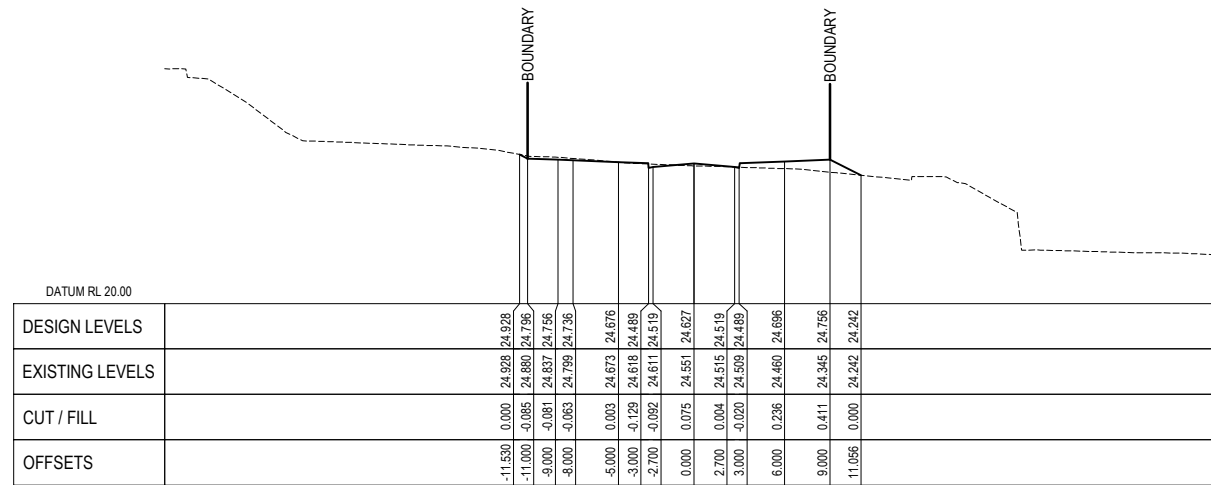
Discipline	CIVIL ENGINEERING
Drawing No.	3126447-CA-3264
Rev.	E

**LEGEND:**

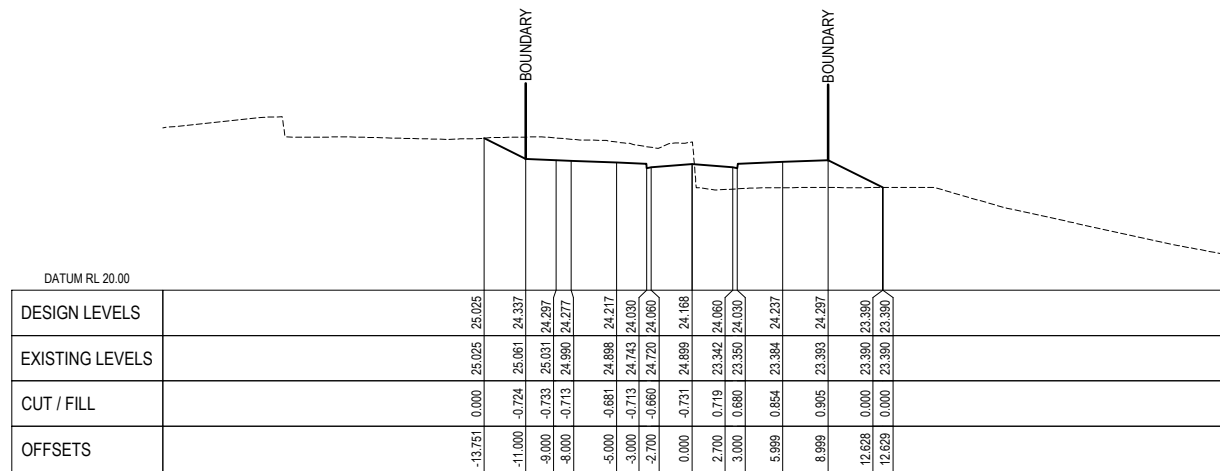
- EXISTING SURFACE
- DESIGN SURFACE



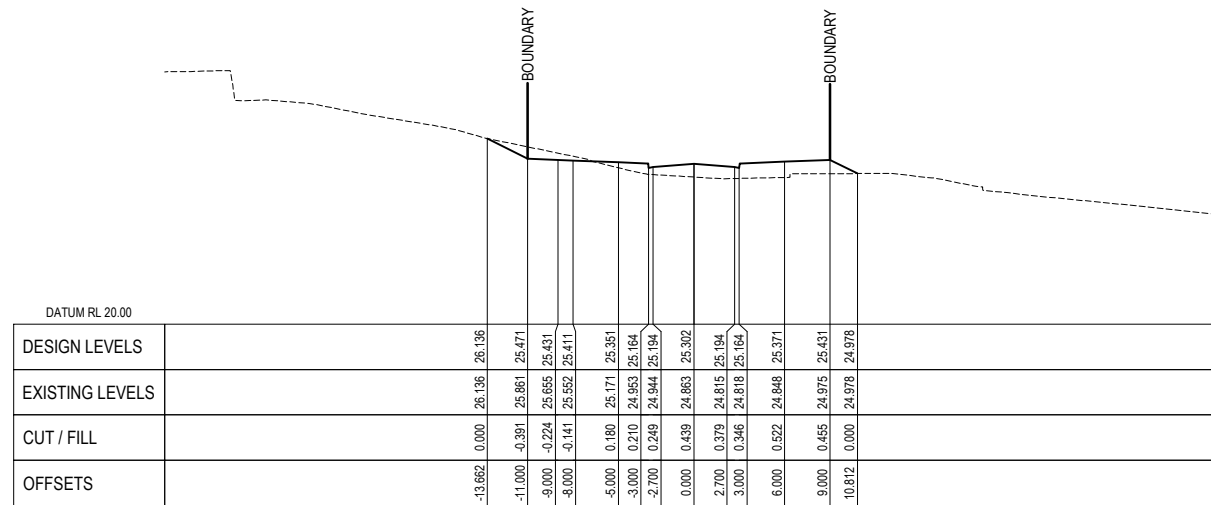
GATE 1 ROAD : CHAINAGE 0



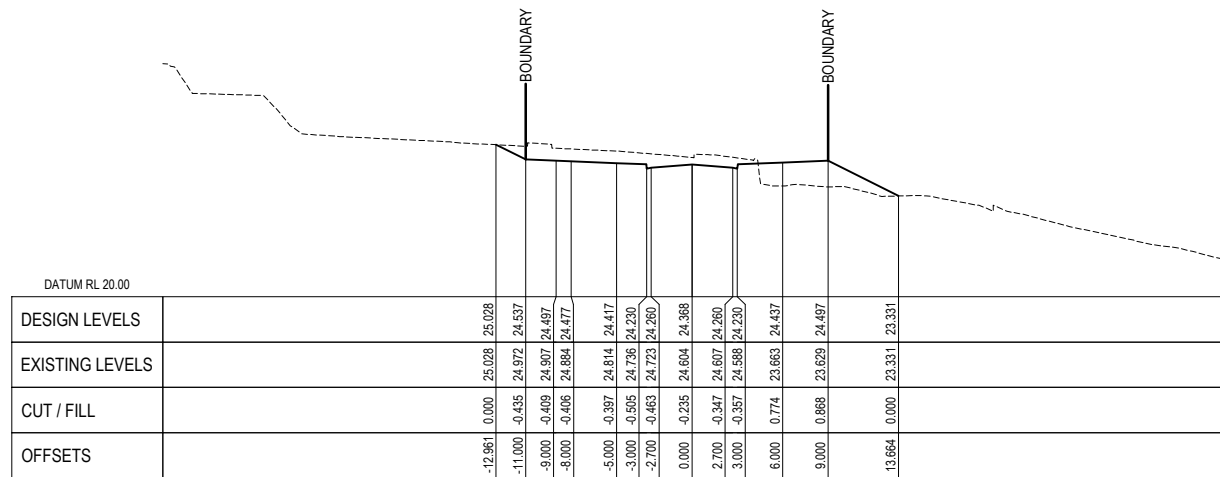
GATE 1 ROAD : CHAINAGE 60



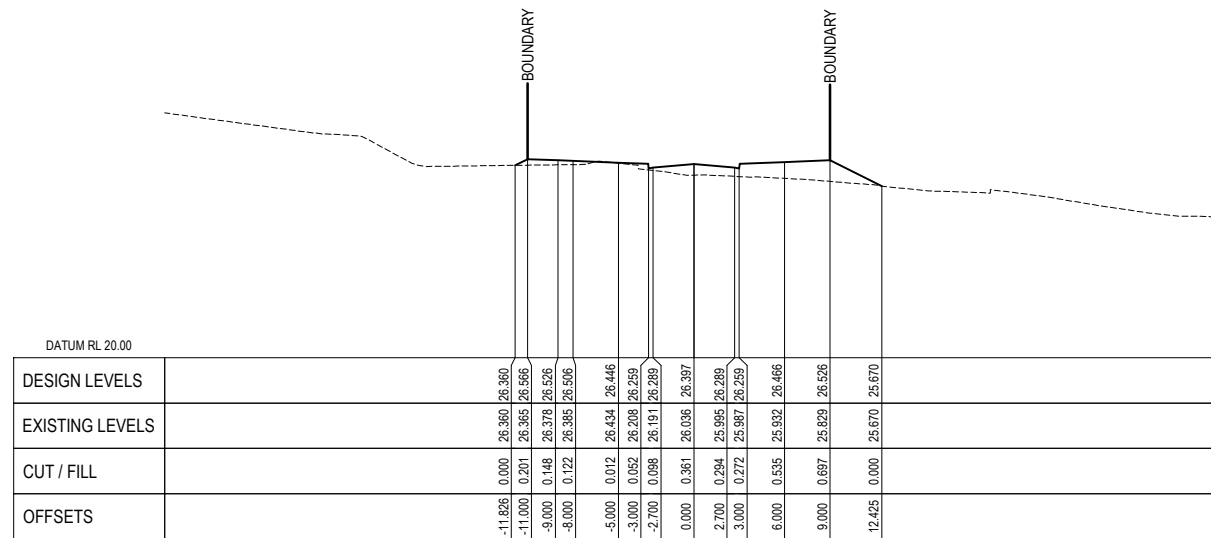
GATE 1 ROAD : CHAINAGE 20



GATE 1 ROAD : CHAINAGE 80



GATE 1 ROAD : CHAINAGE 40



GATE 1 ROAD : CHAINAGE 100

No.	Revision	By	CHK	Appd	Date
E	MINOR AMENDMENTS	ABL	CJB	DP	31.08.21
D	INTERSECTION AMMENDMENTS	ABL	CJB	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	CJB	DP	23.07.21



Original Scale (A1) 1:250 (H) 1:125 (V)	Design C.BREYTENBACH 31.05.21	Approved For Construction 31.05.21
Reduced Scale (A3) 1:500 (H) 1:250 (V)	Drawn A.FAZEKAS 31.05.21	Date
	Design Verifier	
	Design Check	
	* Refer to Revision 1 for Original Signature	

Client: MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ

Project: CARRINGTON BACKBONE WORKS PROJECT

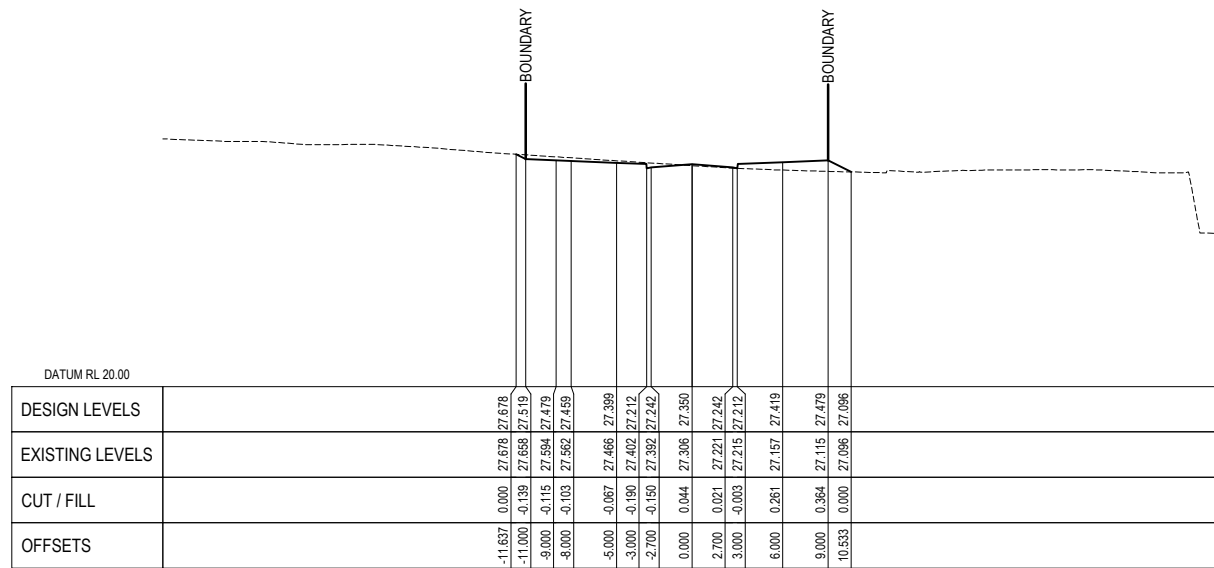
Title: ROADING DETAILED CROSS SECTIONS SHEET 15

**RESOURCE CONSENT**  
NOT FOR CONSTRUCTION

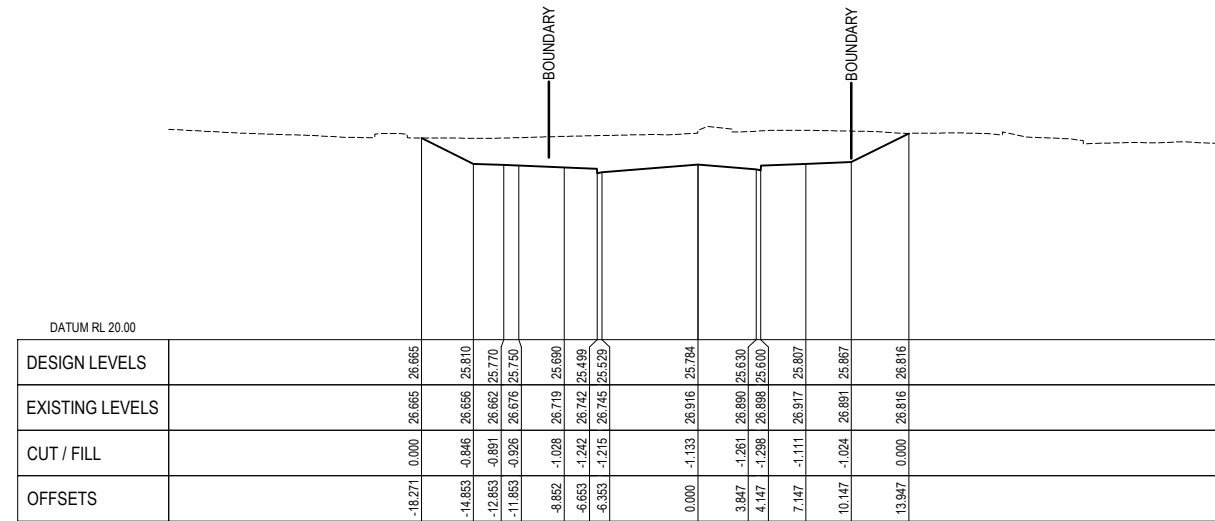
Discipline	CIVIL ENGINEERING
Drawing No.	3126447-CA-3265
Rev.	E

**LEGEND:**

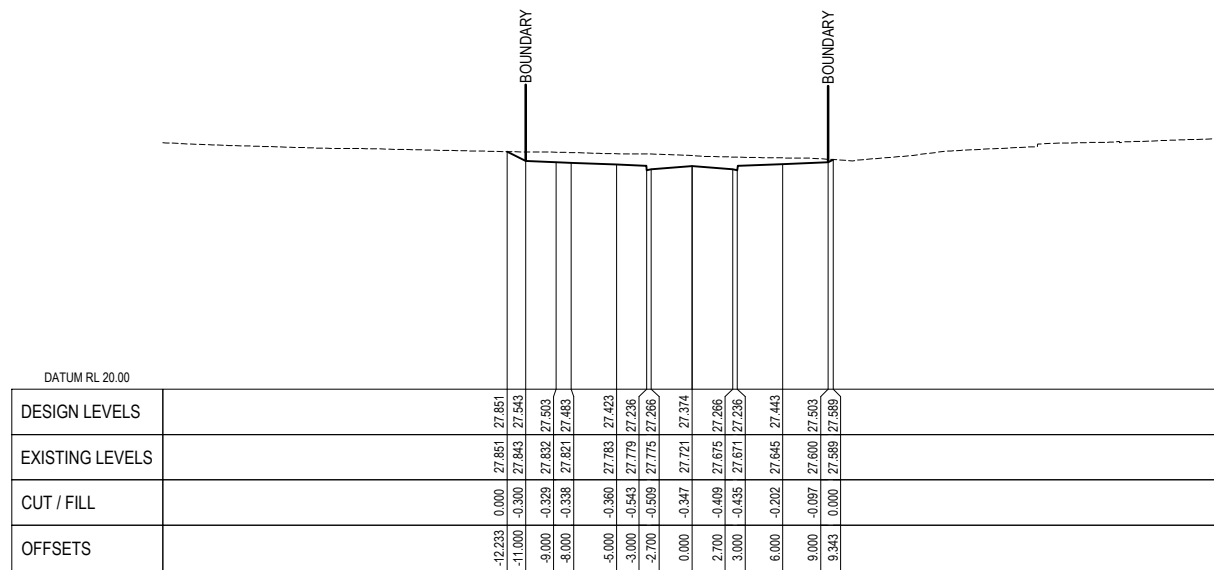
- EXISTING SURFACE
- DESIGN SURFACE



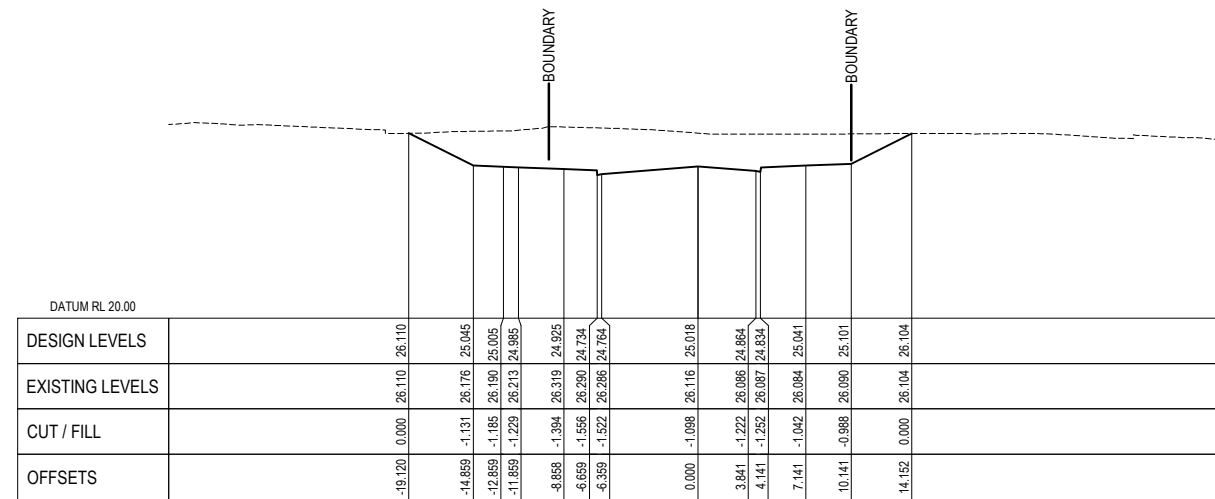
GATE 1 ROAD : CHAINAGE 120



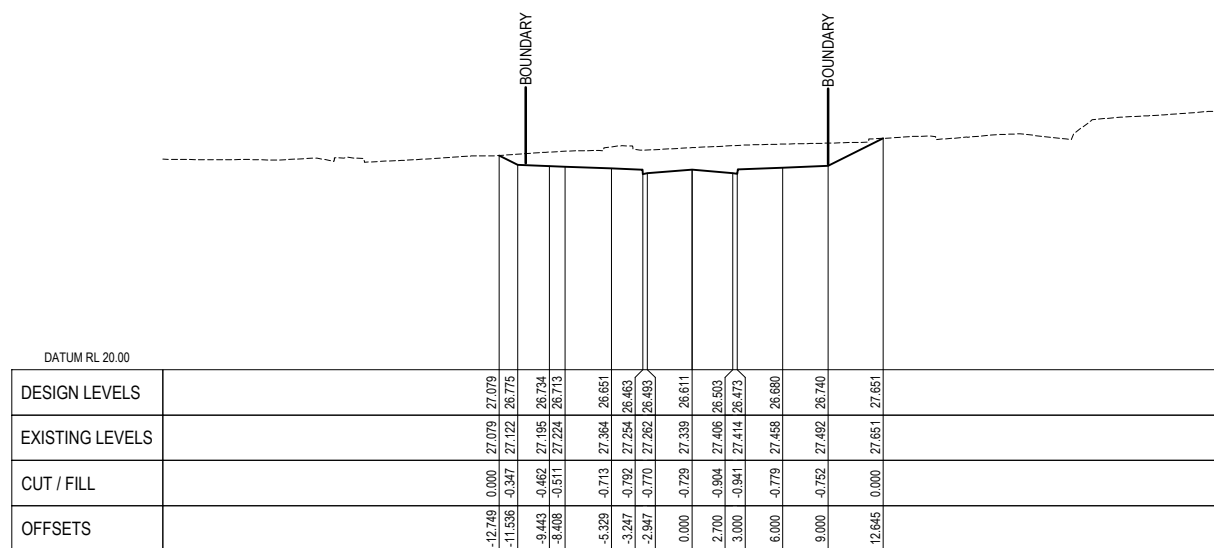
GATE 1 ROAD : CHAINAGE 180



GATE 1 ROAD : CHAINAGE 140



GATE 1 ROAD : CHAINAGE 200



GATE 1 ROAD : CHAINAGE 160

No.	Revision	By	CHK	Appd	Date
E	MINOR AMENDMENTS	ABL	CJB	DP	31.08.21
D	INTERSECTION AMMENDMENTS	ABL	CJB	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	CJB	DP	23.07.21



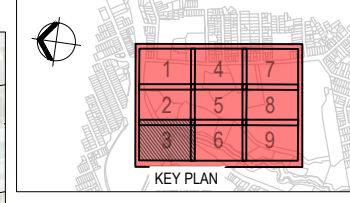
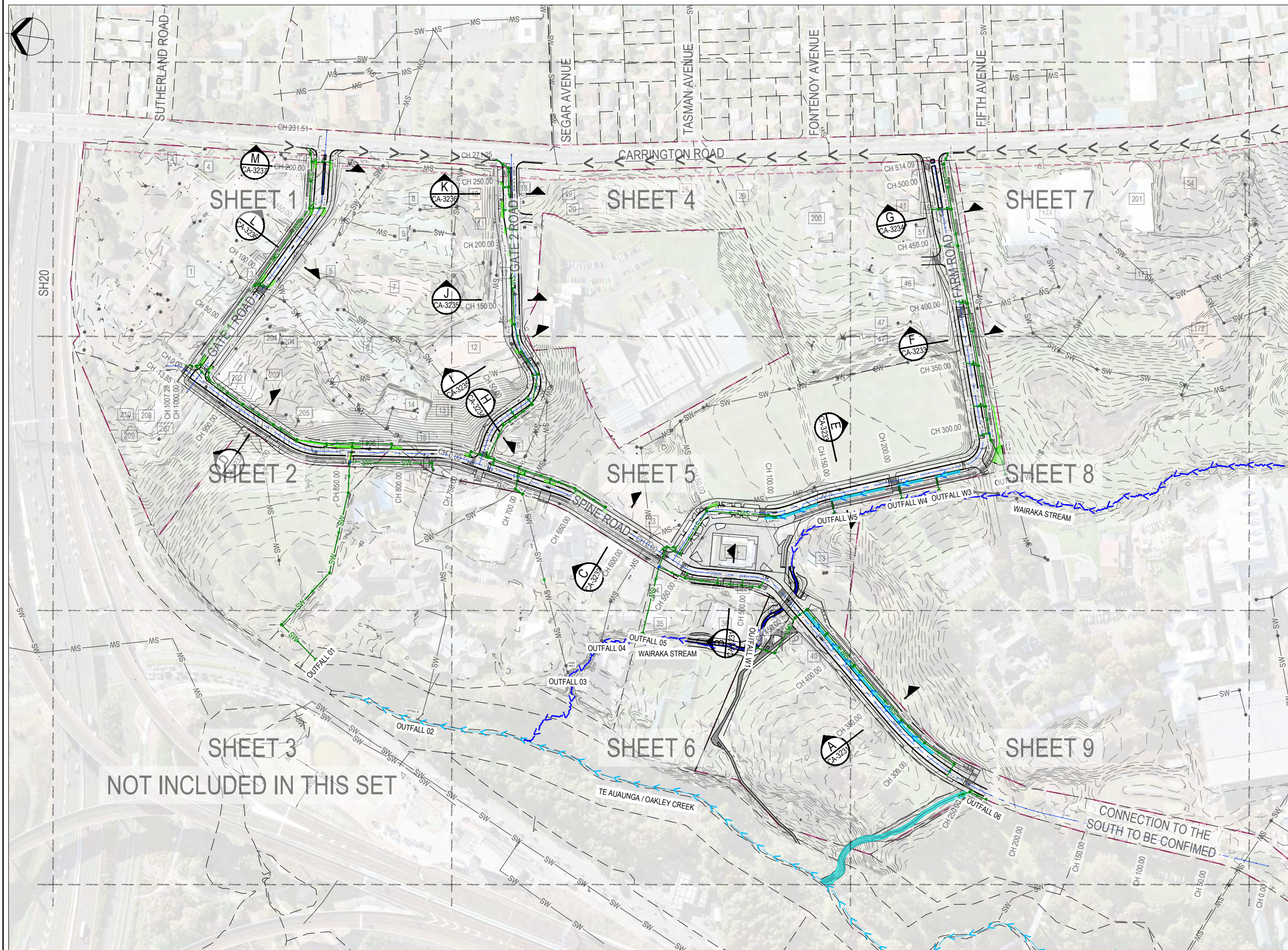
Original Scale (A1)	1:250 (H) 1:125 (V)	Design	C.BREYTENBACH	31.05.21	Approved For Construction*
Drawn	A.FAZEKAS	31.05.21			
Reduced Scale (A3)	1:500 (H) 1:250 (V)	Design Verifier			Date
		Design Check			

Client:	MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ	Project:	CARRINGTON BACKBONE WORKS PROJECT
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Title:	ROADING DETAILED CROSS SECTIONS SHEET 16
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Discipline:	CIVIL ENGINEERING
Drawing No.:	3126447-CA-3266
Rev.:	E

**RESOURCE CONSENT NOT FOR CONSTRUCTION**



**LEGEND:**

- EXISTING CONTOURS (0.5m INTERVALS)
- DESIGN CONTOURS (0.5m INTERVALS)
- PROPERTY BOUNDARIES
- SITE BOUNDARY
- FUTURE CARRINGTON ROAD WIDENING
- EXISTING STORMWATER LINE
- PROPOSED STORMWATER LINE
- PROPOSED STORMWATER MANHOLE
- PROPOSED STORMWATER CATCHPIT
- GPT
- RAINGARDENS
- SWALES
- DIRECTION OF OVERLAND FLOW

- NOTES:**
- SURVEY DATA SHOWN ON THIS PLAN WAS PROVIDED BY CALIBRE CONSULTING LIMITED SURVEYED ON 2017.
  - EXISTING SERVICES INFORMATION HAS BEEN COMPILED FROM VARIOUS SOURCES. ACCURACY UNKNOWN. CONTRACTOR TO LOCATE AND MARK OUT SERVICES PRIOR TO CONSTRUCTION WORKS.
  - COORDINATES ARE IN TERMS OF MT EDEN 2000.
  - ELEVATIONS ARE IN TERMS OF NEW ZEALAND VERTICAL DATUM 2016.
  - EXISTING UTILITIES INFORMATION TO BE CONFIRMED.

**ORIGINAL DRAWING IN COLOUR**

**RESOURCE CONSENT NOT FOR CONSTRUCTION**

E	MINOR AMENDMENTS	ABL	FMU	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	FMU	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	FMU	DP	23.07.21
B	FOR RESOURCE CONSENT	ABL	FMU	RM	05.07.21
No.	Revision	By	Chk.	Appd.	Date

Design Originator: **Beca**

Original Scale (A1) 1:1500  
 Design F.M-UNDERWOOD 31.05.21  
 Drawn A.FAZEKAS 31.05.21  
 Reduced Scale (A3) 1:3000  
 Design Check Date

Client: **MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ**

Project: **CARRINGTON BACKBONE WORKS PROJECT**

Title: **STORMWATER OVERALL LAYOUT**

Discipline	CIVIL ENGINEERING
Drawing No.	3126447-CA-4100
Rev.	E

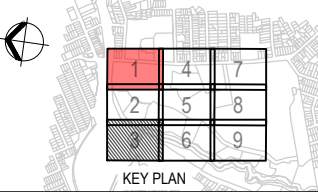
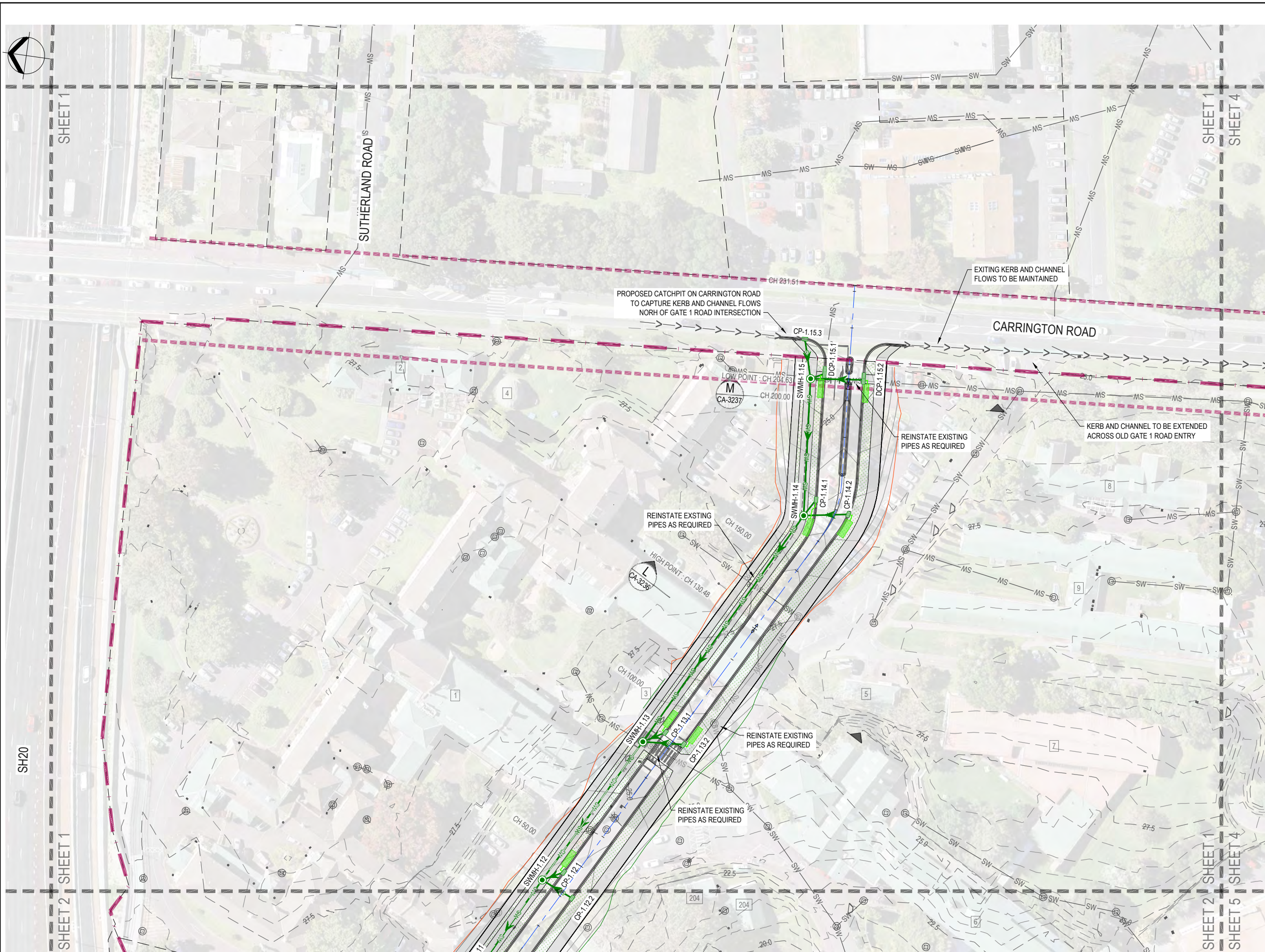
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Document No. 3126447-CA-4100.DWG

IF IN DOUBT ASK





**LEGEND:**

- EXISTING CONTOURS (0.5m INTERVALS)
- DESIGN CONTOURS (0.5m INTERVALS)
- PROPERTY BOUNDARIES
- SITE BOUNDARY
- FUTURE CARRINGTON ROAD WIDENING
- EXISTING STORMWATER LINE
- PROPOSED STORMWATER LINE
- PROPOSED STORMWATER MANHOLE
- PROPOSED STORMWATER CATCHPIT
- GPT
- RAINGARDENS
- SWALES
- DIRECTION OF OVERLAND FLOW

- NOTES:**
- SURVEY DATA SHOWN ON THIS PLAN WAS PROVIDED BY CALIBRE CONSULTING LIMITED SURVEYED ON 2017.
  - EXISTING SERVICES INFORMATION HAS BEEN COMPILED FROM VARIOUS SOURCES. ACCURACY UNKNOWN. CONTRACTOR TO LOCATE AND MARK OUT SERVICES PRIOR TO CONSTRUCTION WORKS.
  - COORDINATES ARE IN TERMS OF MT EDEN 2000.
  - ELEVATIONS ARE IN TERMS OF NEW ZEALAND VERTICAL DATUM 2016.
  - EXISTING UTILITIES INFORMATION TO CONFIRMED.

**ORIGINAL DRAWING  
IN COLOUR**

**RESOURCE CONSENT  
NOT FOR CONSTRUCTION**

No.	Revision	By	Chk.	Appd.	Date
E	MINOR AMENDMENTS	ABL	FMU	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	FMU	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	FMU	DP	23.07.21
B	FOR RESOURCE CONSENT	ABL	FMU	RM	05.07.21

Drawing Originator: **Beca**

Original Scale (A1)	1:500	Design	F.M-UNDERWOOD	31.05.21	Approved For Construction*
Reduced Scale (A3)	1:1000	Drawn	A.FAZEKAS	31.05.21	Date
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		Dwg Check			

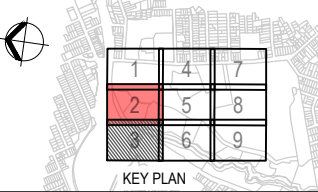
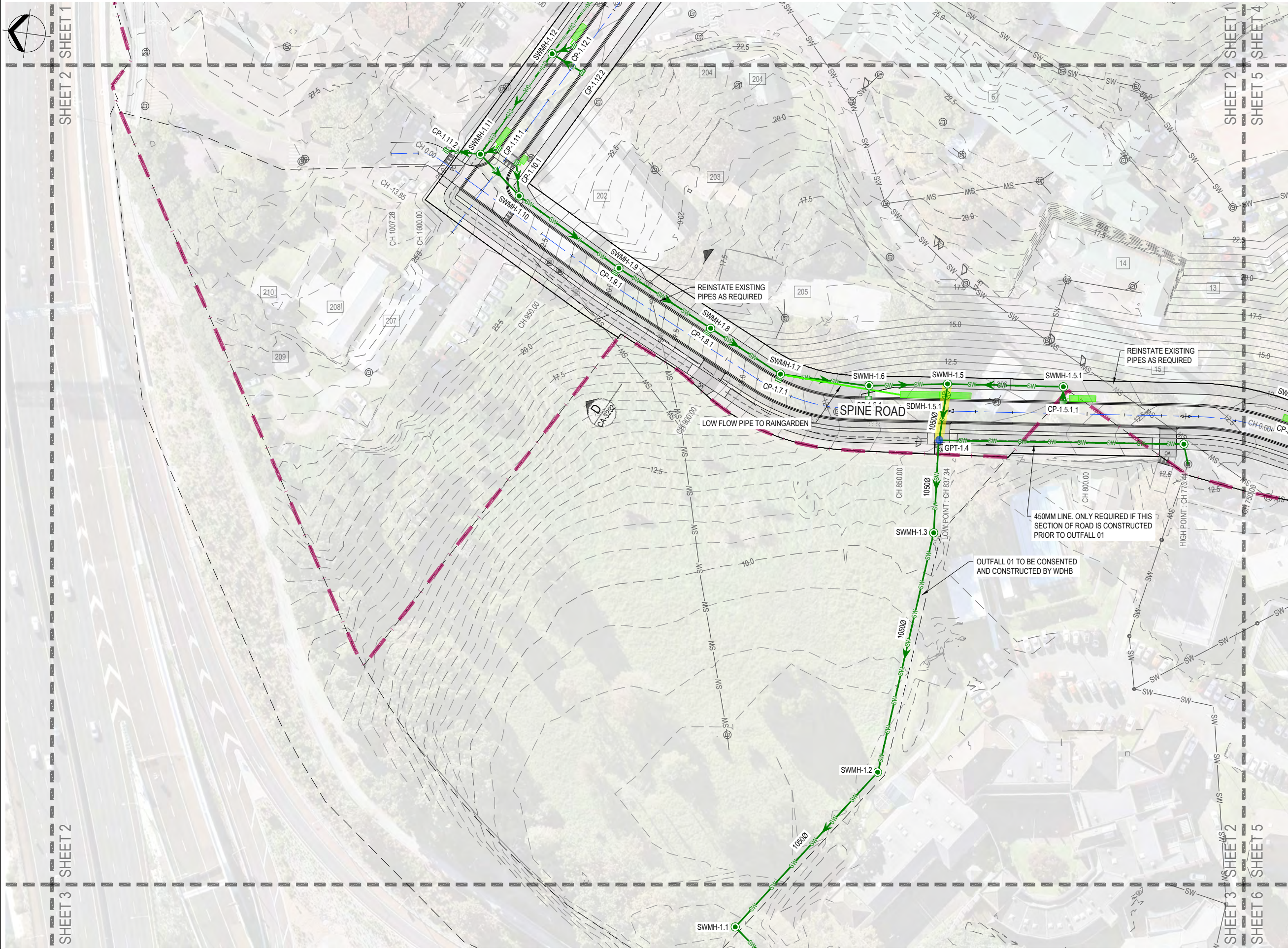
\* Refer to Revision 1 for Original Signature

Client: **MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ**

Project: **CARRINGTON BACKBONE WORKS PROJECT**

Title: **STORMWATER LAYOUT SHEET 1**

Discipline	CIVIL ENGINEERING
Drawing No.	3126447-CA-4101
Rev.	E



**LEGEND:**

- EXISTING CONTOURS (0.5m INTERVALS)
- DESIGN CONTOURS (0.5m INTERVALS)
- PROPERTY BOUNDARIES
- SITE BOUNDARY
- FUTURE CARRINGTON ROAD WIDENING
- EXISTING STORMWATER LINE
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- PROPOSED STORMWATER CATCHPIT
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- RAINGARDENS
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  - EXISTING UTILITIES INFORMATION TO CONFIRMED.

**ORIGINAL DRAWING IN COLOUR**

**RESOURCE CONSENT NOT FOR CONSTRUCTION**

No.	Revision	By	Chk.	Appd.	Date
E	MINOR AMENDMENTS	ABL	FMU	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	FMU	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	FMU	DP	23.07.21
B	FOR RESOURCE CONSENT	ABL	FMU	RM	05.07.21

**Beca**

Original Scale (A1) 1:500  
 Reduced Scale (A3) 1:1000

Design: F.M-UNDERWOOD 31.05.21  
 Drawn: A.FAZEKAS 31.05.21  
 Design Check: [ ]  
 Date: [ ]

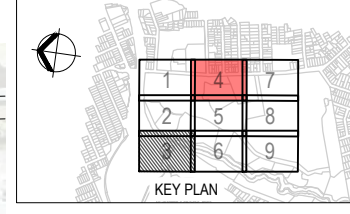
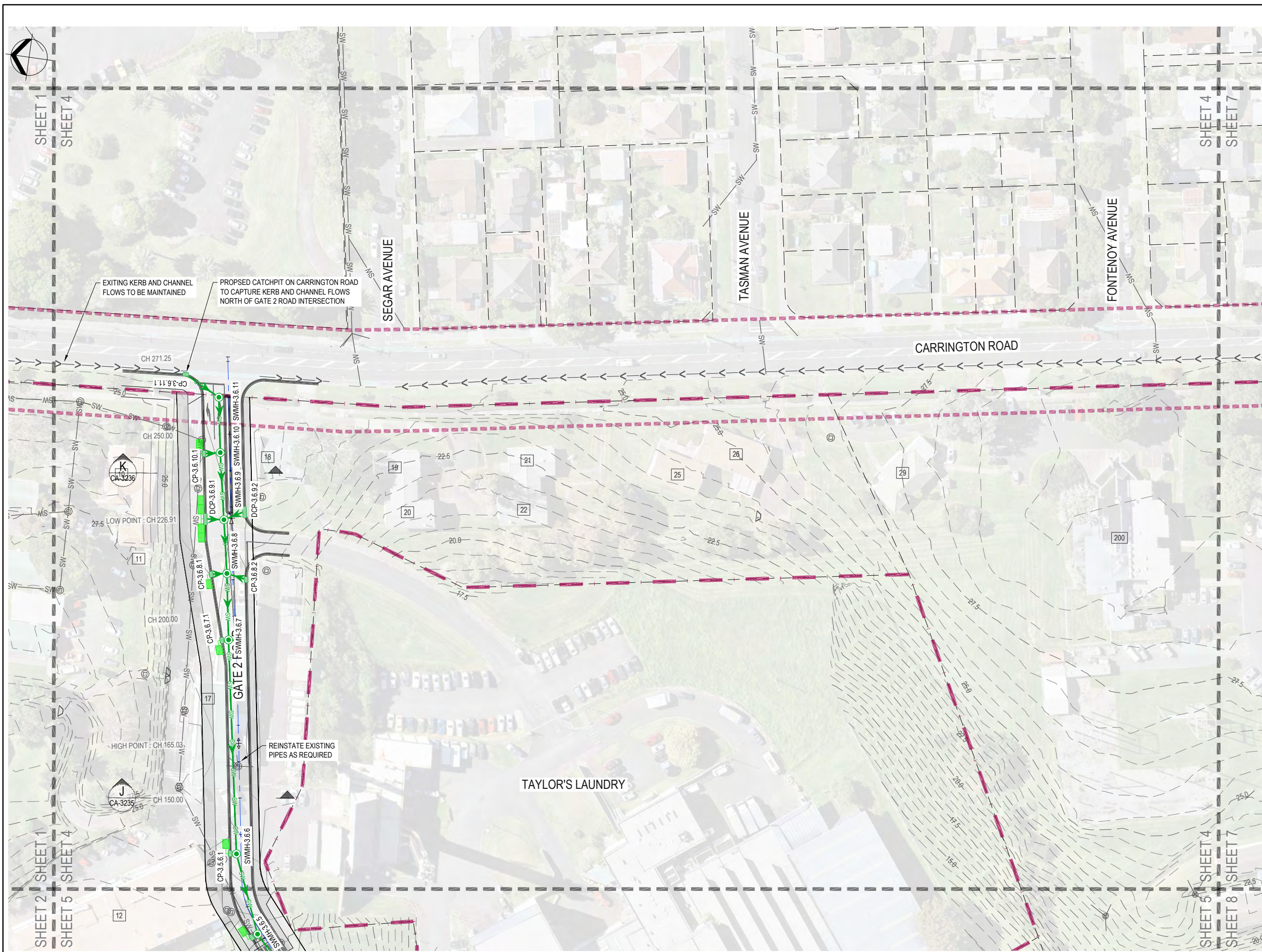
Approved For Construction: [ ]  
 Date: [ ]

Client: **MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ**

Project: **CARRINGTON BACKBONE WORKS PROJECT**

Title: **STORMWATER LAYOUT SHEET 2**

Discipline: <b>CIVIL ENGINEERING</b>	Rev: <b>E</b>
Drawing No: <b>3126447-CA-4102</b>	



**LEGEND:**

- EXISTING CONTOURS (0.5m INTERVALS)
- DESIGN CONTOURS (0.5m INTERVALS)
- PROPERTY BOUNDARIES
- SITE BOUNDARY
- FUTURE CARRINGTON ROAD WIDENING
- EXISTING STORMWATER LINE
- PROPOSED STORMWATER LINE
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- PROPOSED STORMWATER CATCHPIT
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- NOTES:**
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  - EXISTING UTILITIES INFORMATION TO CONFIRMED.

**ORIGINAL DRAWING  
IN COLOUR**

**RESOURCE CONSENT  
NOT FOR CONSTRUCTION**

E	MINOR AMENDMENTS	ABL	FMU	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	FMU	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	FMU	DP	23.07.21
B	FOR RESOURCE CONSENT	ABL	FMU	RM	05.07.21
No.	Revision	By	Chk.	Appd.	Date

Drawing Originator:

Original Scale (A1) 1:500  
Reduced Scale (A3) 1:1000

Design: F.M-UNDERWOOD 31.05.21  
Drawn: A.FAZEKAS 31.05.21  
Dag Verifier: [ ]  
Dag Check: [ ]  
Date: [ ]

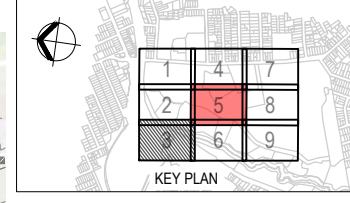
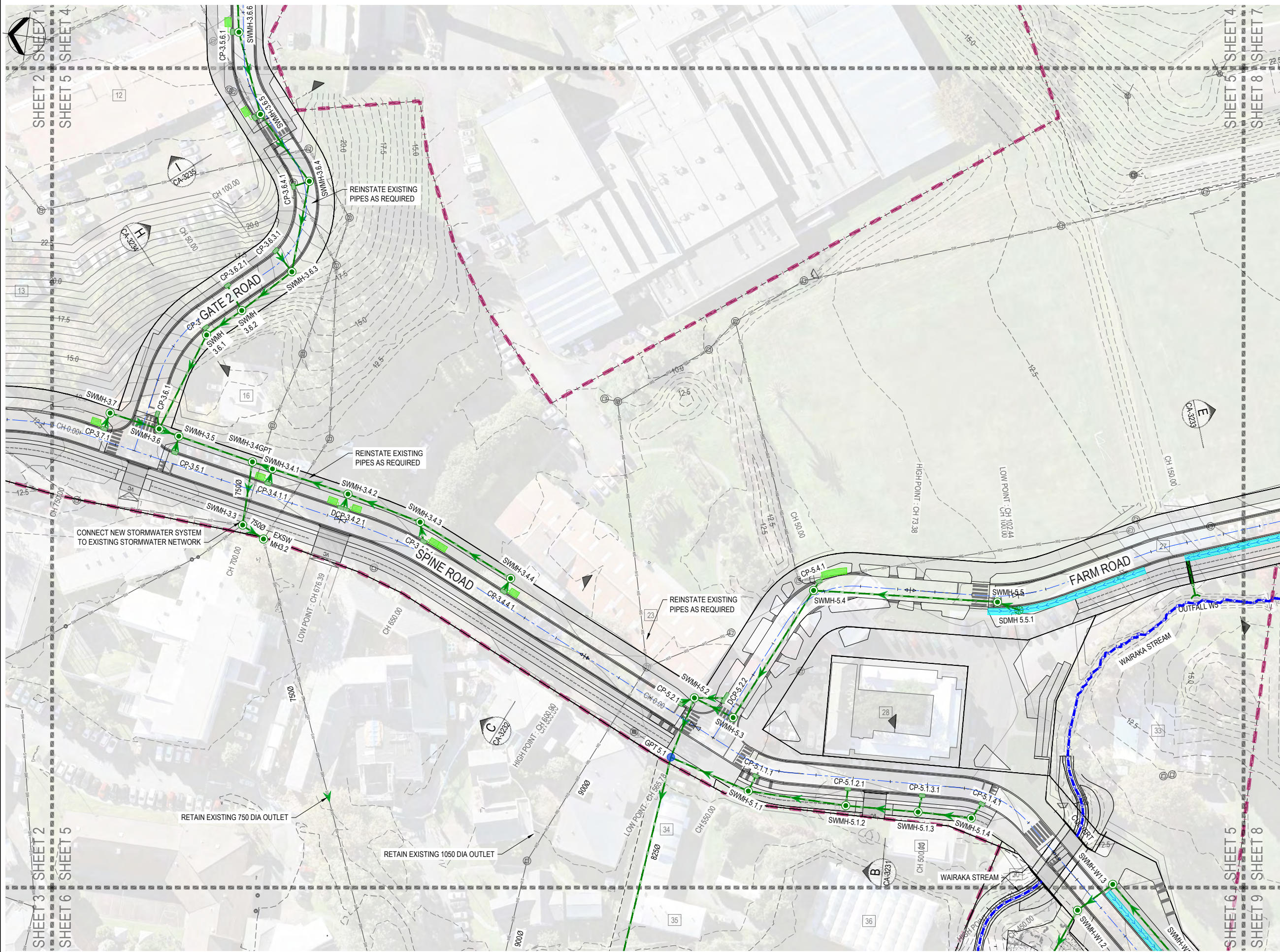
Approved For Construction: [ ]  
Date: [ ]

Client: **MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ**

Project: **CARRINGTON BACKBONE WORKS PROJECT**

Title: **STORMWATER LAYOUT SHEET 4**

Discipline	CIVIL ENGINEERING
Drawing No.	3126447-CA-4104
Rev.	E



**LEGEND:**

- EXISTING CONTOURS (0.5m INTERVALS)
- DESIGN CONTOURS (0.5m INTERVALS)
- PROPERTY BOUNDARIES
- SITE BOUNDARY
- FUTURE CARRINGTON ROAD WIDENING
- EXISTING STORMWATER LINE
- PROPOSED STORMWATER LINE
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- RAINGARDENS
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**ORIGINAL DRAWING  
IN COLOUR**

**RESOURCE CONSENT  
NOT FOR CONSTRUCTION**

No.	Revision	By	Chk.	Appd.	Date
E	MINOR AMENDMENTS	ABL	FMU	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	FMU	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	FMU	DP	23.07.21
B	FOR RESOURCE CONSENT	ABL	FMU	RM	05.07.21

Drawing Originator:

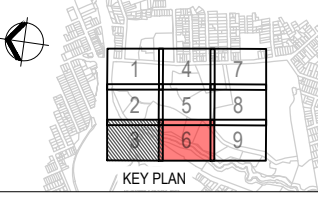
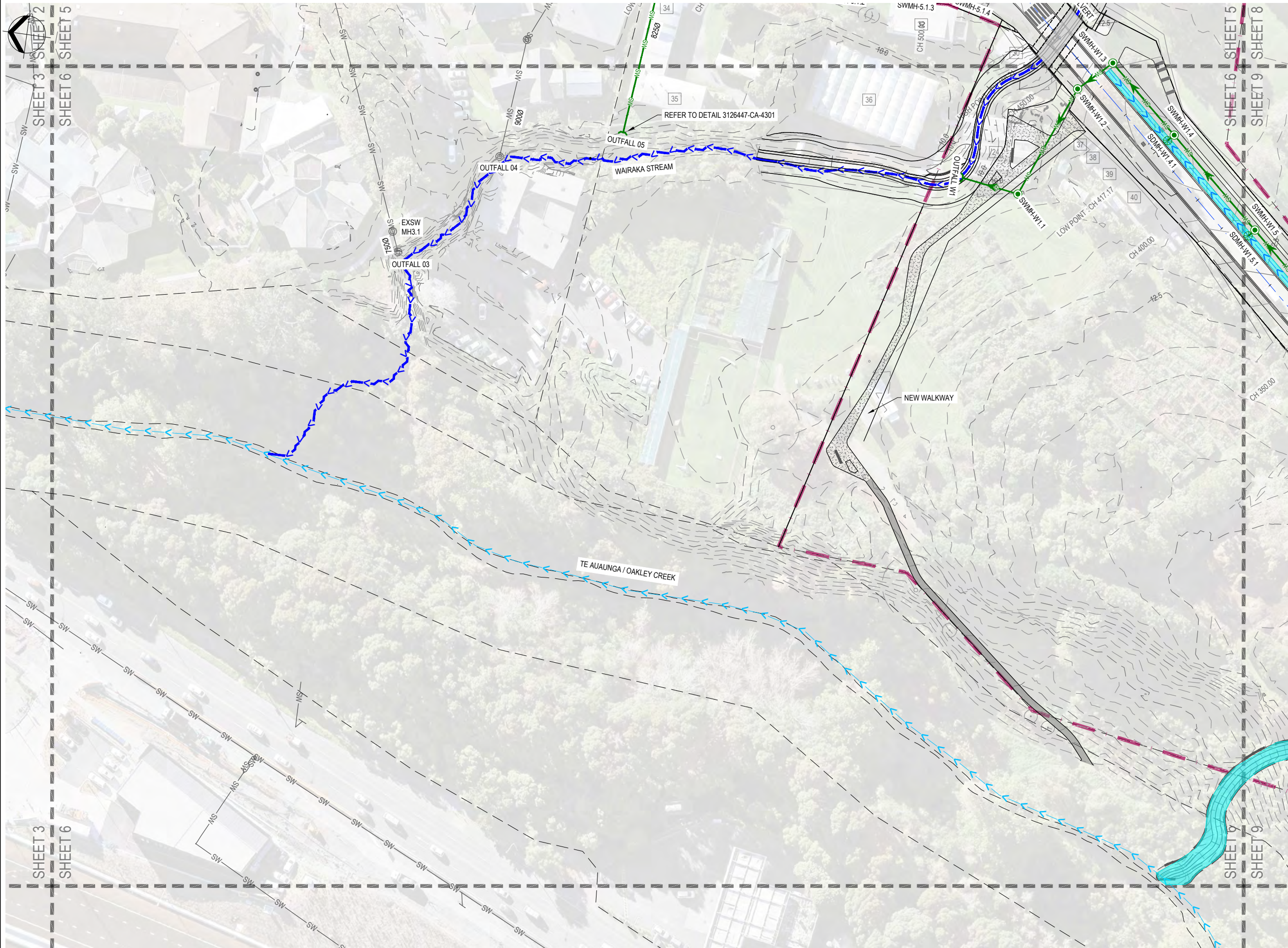
Original Scale (A1) 1:500  
 Design F.M. UNDERWOOD 31.05.21  
 Drawn A. FAZEKAS 31.05.21  
 Design Check Date  
 Reduced Scale (A3) 1:1000  
 \* Refer to Revision 1 for Original Signature

Client: **MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ**

Project: **CARRINGTON BACKBONE WORKS PROJECT**

Title: **STORMWATER LAYOUT SHEET 5**

Discipline	CIVIL ENGINEERING
Drawing No.	3126447-CA-4105
Rev.	E



**LEGEND:**

- EXISTING CONTOURS (0.5m INTERVALS)
- DESIGN CONTOURS (0.5m INTERVALS)
- PROPERTY BOUNDARIES
- SITE BOUNDARY
- FUTURE CARRINGTON ROAD WIDENING
- EXISTING STORMWATER LINE
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  5. EXISTING UTILITIES INFORMATION TO CONFIRMED.

**ORIGINAL DRAWING  
IN COLOUR**

**RESOURCE CONSENT  
NOT FOR CONSTRUCTION**

E	MINOR AMENDMENTS	ABL	FMU	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	FMU	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	FMU	DP	23.07.21
B	FOR RESOURCE CONSENT	ABL	FMU	RM	05.07.21
No.	Revision	By	Chk.	Appd.	Date

Drawing Originator:

Original Scale (A1) 1:500  
Reduced Scale (A3) 1:1000

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Drawn: A.FAZEKAS 31.05.21  
Design Verifier: [ ]  
Design Check: [ ]  
Date: [ ]

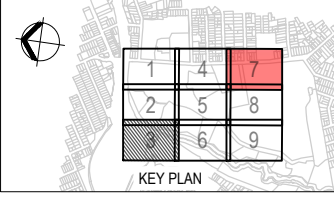
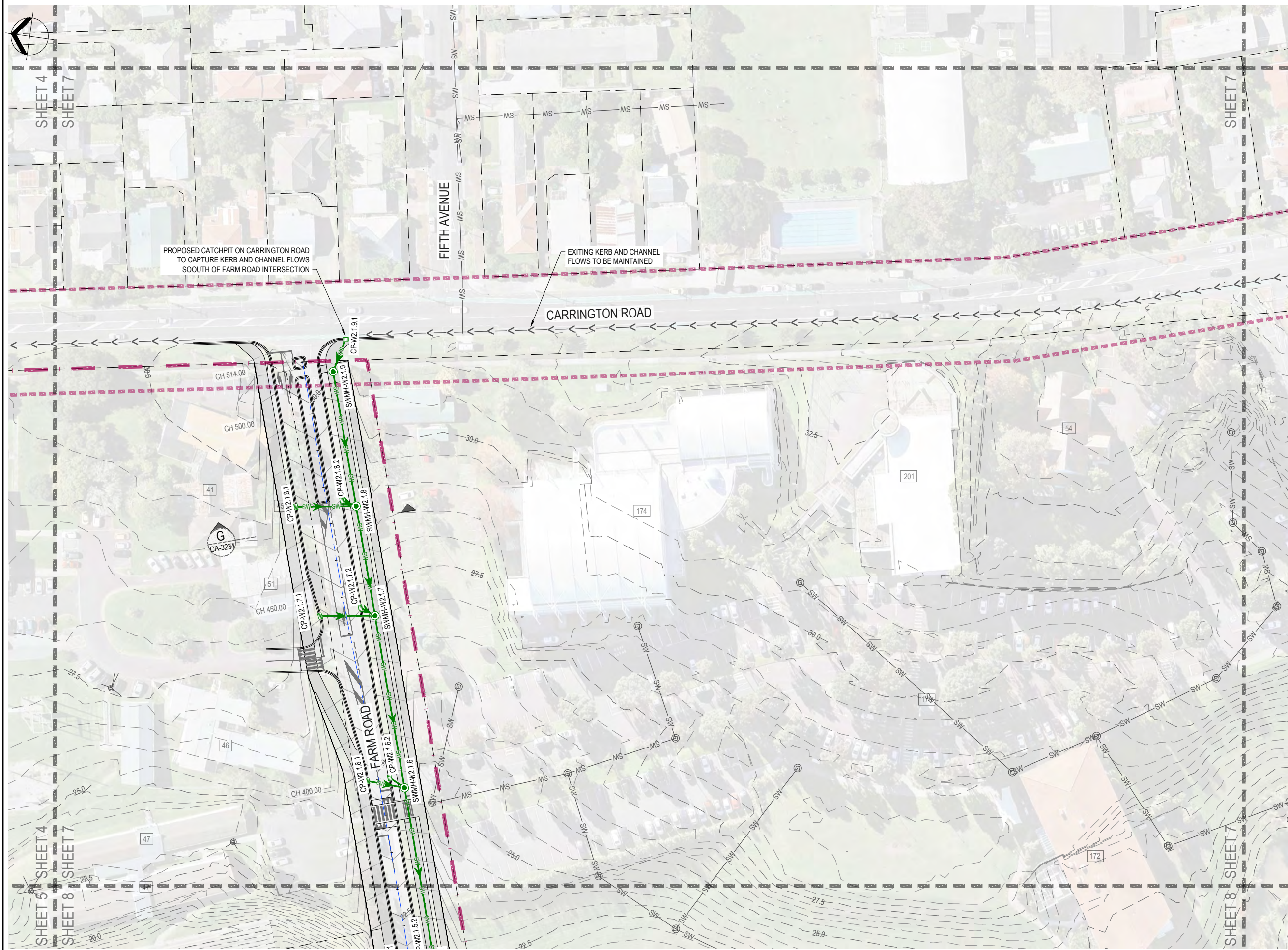
Approved For Construction: [ ]  
Date: [ ]

Client: **MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ**

Project: **CARRINGTON BACKBONE WORKS PROJECT**

Title: **STORMWATER LAYOUT SHEET 6**

Discipline	<b>CIVIL ENGINEERING</b>	
Drawing No.	3126447-CA-4106	Rev. E



**LEGEND:**

- EXISTING CONTOURS (0.5m INTERVALS)
- DESIGN CONTOURS (0.5m INTERVALS)
- PROPERTY BOUNDARIES
- SITE BOUNDARY
- FUTURE CARRINGTON ROAD WIDENING
- EXISTING STORMWATER LINE
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- RAINGARDENS
- SWALES
- DIRECTION OF OVERLAND FLOW

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**ORIGINAL DRAWING  
IN COLOUR**

**RESOURCE CONSENT  
NOT FOR CONSTRUCTION**

E	MINOR AMENDMENTS	ABL	FMU	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	FMU	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	FMU	DP	23.07.21
B	FOR RESOURCE CONSENT	ABL	FMU	RM	05.07.21
No.	Revision	By	Chk.	Appd.	Date

Drawing Originator:

Original Scale (A1) 1:500  
Reduced Scale (A3) 1:1000

Design: F.M-UNDERWOOD 31.05.21  
Drawn: A.FAZEKAS 31.05.21  
Design Checker: [Blank]  
Date: [Blank]

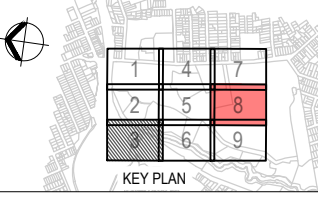
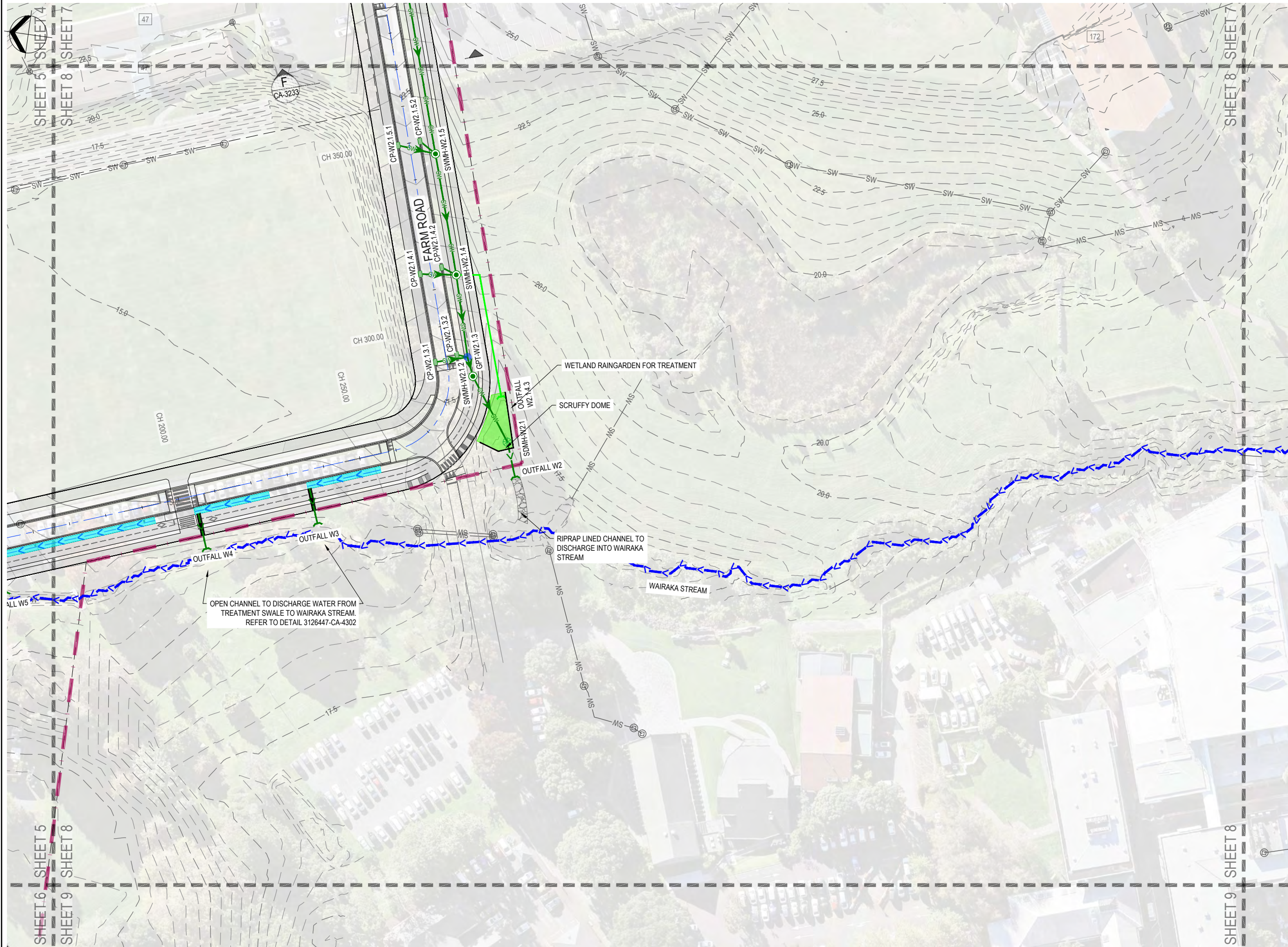
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Client: **MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ**

Project: **CARRINGTON BACKBONE WORKS PROJECT**

Title: **STORMWATER LAYOUT SHEET 7**

Discipline	<b>CIVIL ENGINEERING</b>	
Drawing No.	<b>3126447-CA-4107</b>	Rev.
		<b>E</b>



**LEGEND:**

- EXISTING CONTOURS (0.5m INTERVALS)
- DESIGN CONTOURS (0.5m INTERVALS)
- PROPERTY BOUNDARIES
- SITE BOUNDARY
- FUTURE CARRINGTON ROAD WIDENING
- EXISTING STORMWATER LINE
- PROPOSED STORMWATER LINE
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- GPT
- RAINGARDENS
- SWALES
- DIRECTION OF OVERLAND FLOW

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**ORIGINAL DRAWING IN COLOUR**

**RESOURCE CONSENT NOT FOR CONSTRUCTION**

E	MINOR AMENDMENTS	ABL	FMU	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	FMU	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	FMU	DP	23.07.21
B	FOR RESOURCE CONSENT	ABL	FMU	RM	05.07.21
No.	Revision	By	Chk.	Appd.	Date

Drawing Originator: **Beca**

Original Scale (A1)	Design	F.M. UNDERWOOD	31.05.21	Approved For Construction*
1:500	Drawn	A. FAZEKAS	31.05.21	
Reduced Scale (A3)	Design Checker			Date
1:1000	Design Check			

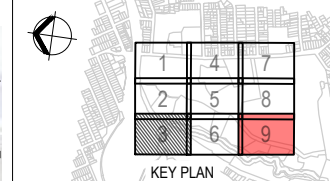
\* Refer to Revision 1 for Original Signature

Client: **MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ**

Project: **CARRINGTON BACKBONE WORKS PROJECT**

Title: **STORMWATER LAYOUT SHEET 8**

Discipline	<b>CIVIL ENGINEERING</b>
Drawing No.	<b>3126447-CA-4108</b>
Rev.	<b>E</b>



**LEGEND:**

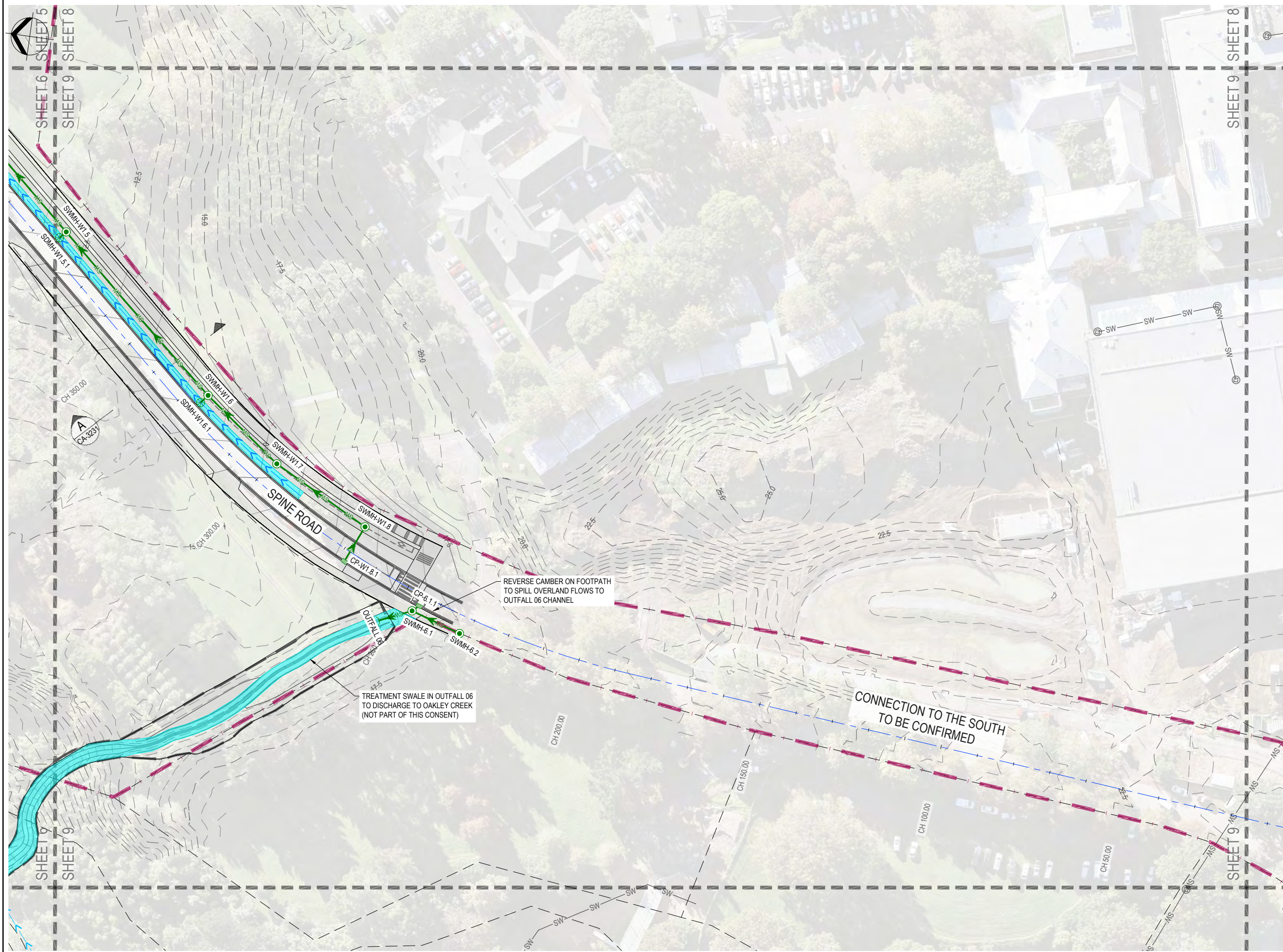
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- DESIGN CONTOURS (0.5m INTERVALS)
- PROPERTY BOUNDARIES
- SITE BOUNDARY
- FUTURE CARRINGTON ROAD WIDENING
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**NOTES:**

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**ORIGINAL DRAWING  
IN COLOUR**

**RESOURCE CONSENT  
NOT FOR CONSTRUCTION**



No.	Revision	By	Chk.	Appd.	Date
E	MINOR AMENDMENTS	ABL	FMU	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	FMU	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	FMU	DP	23.07.21
B	FOR RESOURCE CONSENT	ABL	FMU	RM	05.07.21

Drawing Originator:  
**Beca**

Original Scale (A1)	Design	F.M-UNDERWOOD	31.05.21	Approved For Construction*
1:500	Drawn	A.FAZEKAS	31.05.21	Date
Reduced Scale (A3)	Day Verifier			
1:1000	Day Check			

\* Refer to Revision 1 for Original Signature

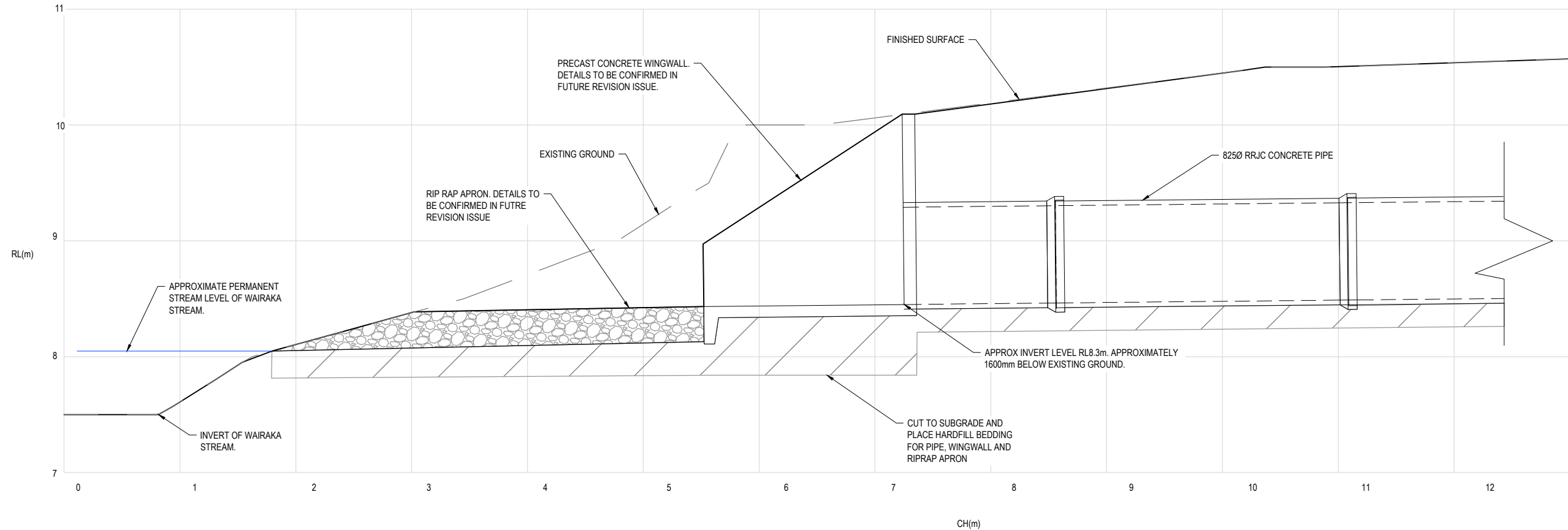
Client: **MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ**

Project: **CARRINGTON BACKBONE WORKS PROJECT**

Title: **STORMWATER LAYOUT SHEET 9**

Discipline	<b>CIVIL ENGINEERING</b>
Drawing No.	<b>3126447-CA-4109</b>
Rev.	<b>E</b>





**LONGITUDINAL SECTION - OUTFALL 05 OUTLET DETAIL**  
 SCALE HOR 1:125 VER 1:125 (A1) : HOR 1:250 VER 1:250 (A3)

No.	Revision	By	Chk	Appd	Date
E	MINOR AMENDMENTS	ABL	FMU	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	FMU	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	FMU	DP	23.07.21



Original Scale (A1)	1:125	Design	N.MCLEAN	16.07.21	Approved For Construction*
Reduced Scale (A3)	1:250	Drawn	N.MCLEAN	16.07.21	Date
		Design Verifier			
		Design Check			

\* Refer to Revision 1 for Original Signature

Client: **MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ**

Project: **CARRINGTON BACKBONE WORKS PROJECT**

Title: **STORMWATER DETAILS SHEET 1**

Discipline	CIVIL ENGINEERING
Drawing No.	3126447-CA-4301
Rev.	E



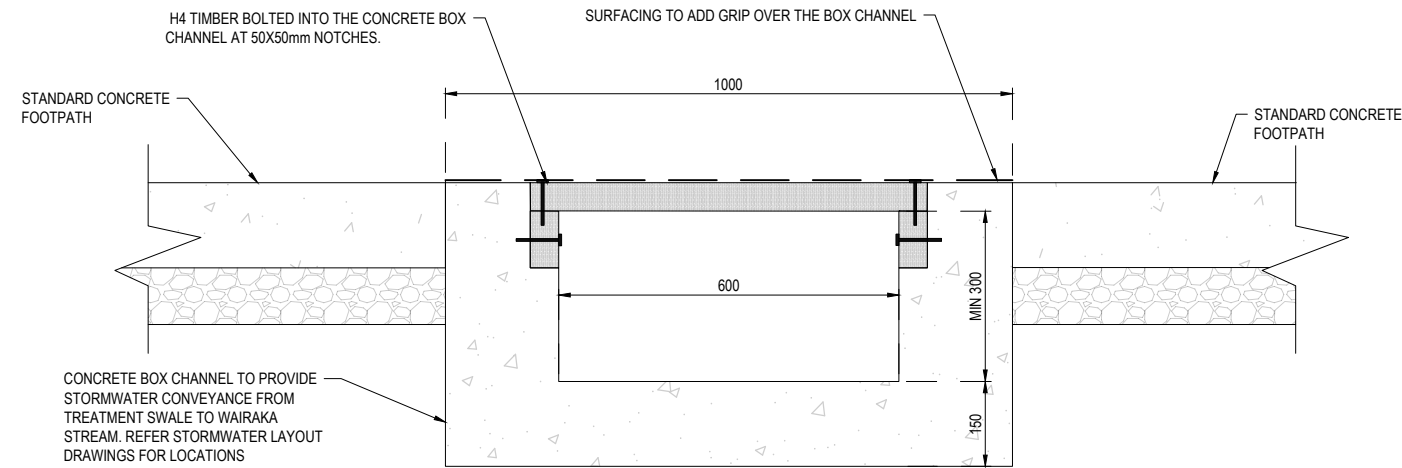
OPEN CHANNEL TO DISCHARGE INTO WAIRAKA STREAM. RIPRAP TO BE USED AS SCOUR PROTECTION INTO STREAM.

CONCRETE BOX CHANNEL TO PROVIDE STORMWATER CONVEYANCE FROM TREATMENT SWALE TO WAIRAKA STREAM. REFER STORMWATER LAYOUT DRAWINGS FOR LOCATIONS

TREATMENT SWALE TO DISCHARGE INTO CONCRETE BOX CHANNEL

H4 TIMBER BOLTED INTO THE CONCRETE BOX CHANNEL AT 50X50mm NOTCHES.

**FARM ROAD TREATMENT SWALE DISCHARGE DETAIL**  
SCALE 1:20 (A1) : 1:40 (A3)



**CROSS SECTION A - FARM ROAD TREATMENT SWALE DISCHARGE DETAIL**  
NTS

ORIGINAL DRAWING  
IN COLOUR  
**RESOURCE CONSENT**  
NOT FOR CONSTRUCTION

No.	Revision	By	Chk.	Appd.	Date
E	MINOR AMENDMENTS	ABL	FMU	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	FMU	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	FMU	DP	23.07.21



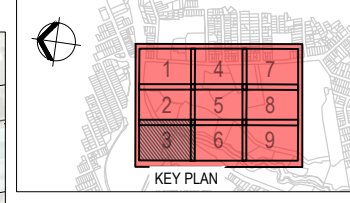
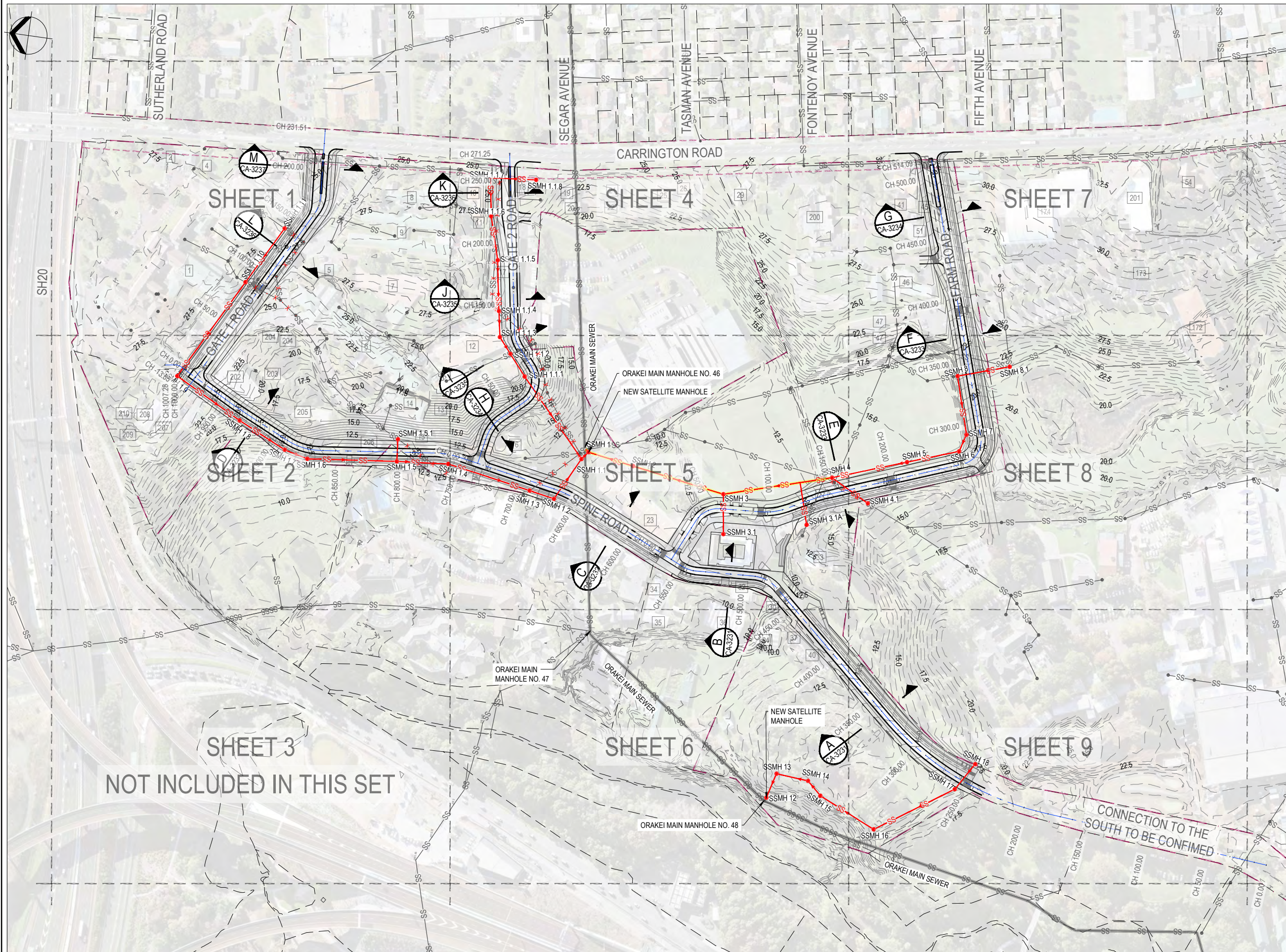
Original Scale (A1)	Design	Drawn	Design Date	Approved For Construction*	Date
AS SHOWN	N.MCLEAN	N.MCLEAN	16.07.21	Approved For Construction*	16.07.21
Reduced Scale (A3)	Design Checker				
HALF SHOWN	* Refer to Revision 1 for Original Signature				

Client: **MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ**

Project: **CARRINGTON BACKBONE WORKS PROJECT**

Title: **STORMWATER DETAILS SHEET 2**

Discipline	Rev.
CIVIL ENGINEERING	E
Drawing No.	3126447-CA-4302



**LEGEND:**

- EXISTING CONTOURS (0.5m INTERVALS)
- DESIGN CONTOURS (0.5m INTERVALS)
- PROPERTY BOUNDARIES
- SITE BOUNDARY
- FUTURE CARRINGTON ROAD WIDENING
- EXISTING WASTEWATER
- EXISTING WASTEWATER TO BE ABANDONED
- NEW WASTEWATER
- NEW WASTEWATER (EARLY WORKS)

- NOTES:**
1. SURVEY DATA SHOWN ON THIS PLAN WAS PROVIDED BY CALIBRE CONSULTING LIMITED SURVEYED ON 2017.
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**ORIGINAL DRAWING  
IN COLOUR**

**RESOURCE CONSENT  
NOT FOR CONSTRUCTION**

E	MINOR AMENDMENTS	ABL	CJB	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	CJB	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	CJB	DP	23.07.21
B	FOR RESOURCE CONSENT	ABL	BP	RM	05.07.21
No.	Revision	By	Chk.	Appd.	Date

Drawing Originator: **Beca**

Original Scale (A1)	Design	B. POPLI	31.05.21	Approved For Construction*
1:1500	Drawn	A. FAZEKAS	31.05.21	
Reduced Scale (A3)	Design Check			Date
1:3000				

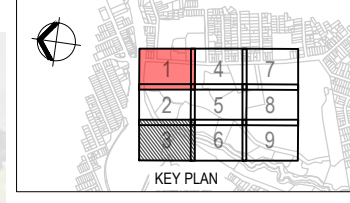
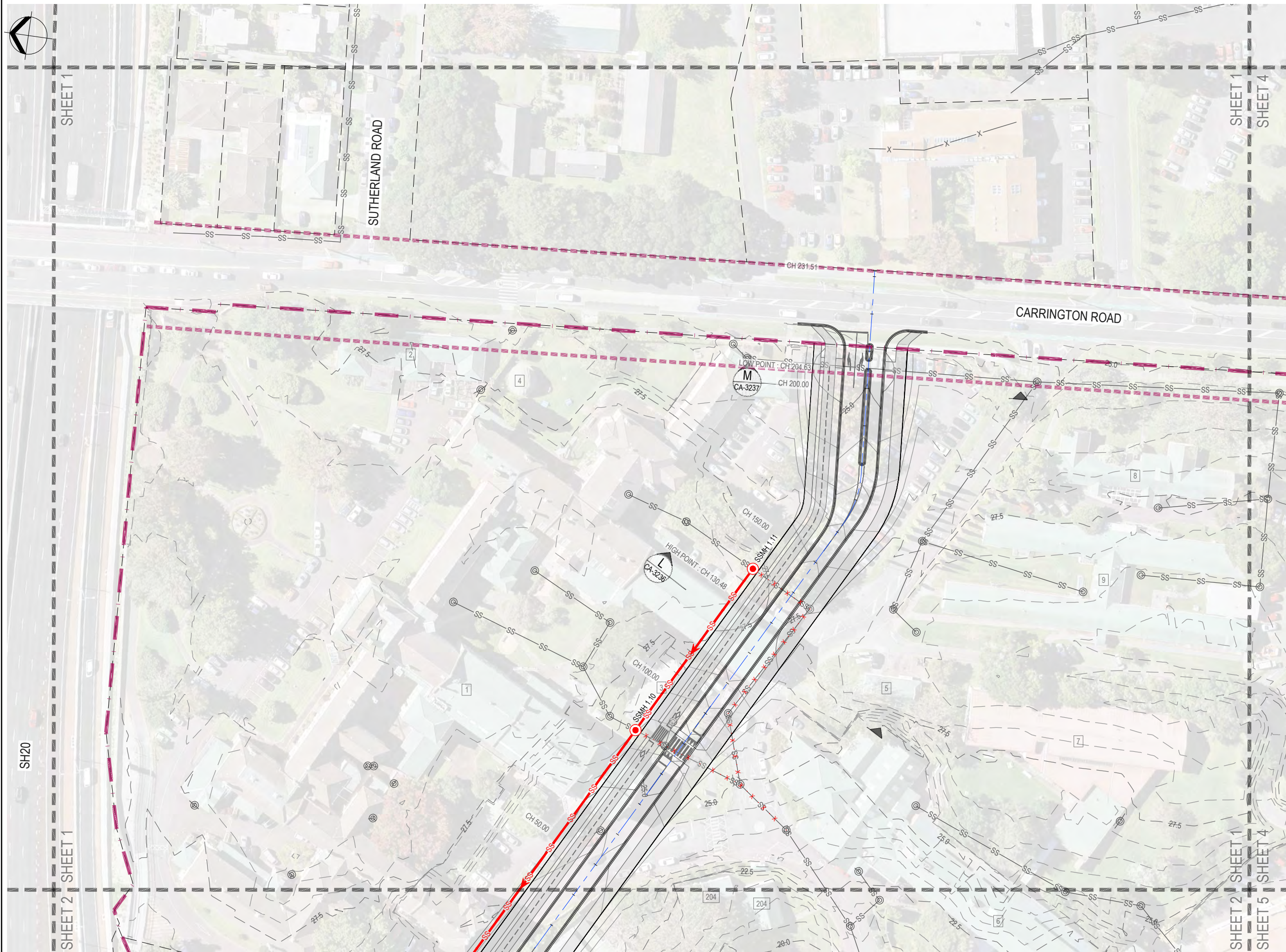
\* Refer to Revision 1 for Original Signature

Client: **MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ**

Project: **CARRINGTON BACKBONE WORKS PROJECT**

Title: **WASTEWATER OVERALL LAYOUT**

Discipline	<b>CIVIL ENGINEERING</b>	
Drawing No.	<b>3126447-CA-5100</b>	Rev.
		<b>E</b>



**LEGEND:**

- EXISTING CONTOURS (0.5m INTERVALS)
- DESIGN CONTOURS (0.5m INTERVALS)
- PROPERTY BOUNDARIES
- SITE BOUNDARY
- FUTURE CARRINGTON ROAD WIDENING
- EXISTING WASTEWATER
- EXISTING WASTEWATER TO BE ABANDONED
- NEW WASTEWATER
- NEW WASTEWATER (EARLY WORKS)

- NOTES:**
- SURVEY DATA SHOWN ON THIS PLAN WAS PROVIDED BY CALIBRE CONSULTING LIMITED SURVEYED ON 2017.
  - EXISTING SERVICES INFORMATION HAS BEEN COMPILED FROM VARIOUS SOURCES. ACCURACY UNKNOWN. CONTRACTOR TO LOCATE AND MARK OUT SERVICES PRIOR TO CONSTRUCTION WORKS.
  - COORDINATES ARE IN TERMS OF MT EDEN 2000.
  - ELEVATIONS ARE IN TERMS OF NEW ZEALAND VERTICAL DATUM 2016.

**ORIGINAL DRAWING  
IN COLOUR**

**RESOURCE CONSENT  
NOT FOR CONSTRUCTION**

No.	Revision	By	Chk.	Appd.	Date
E	MINOR AMENDMENTS	ABL	CJB	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	CJB	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	CJB	DP	23.07.21
B	FOR RESOURCE CONSENT	ABL	BP	RM	05.07.21

Drawing Originator:

Original Scale (A1) 1:500  
Reduced Scale (A3) 1:1000

Design: B. POPLI 31.05.21  
Drawn: A. FAZEKAS 31.05.21  
Dwg Verifier: [Blank]  
Dwg Check: [Blank]

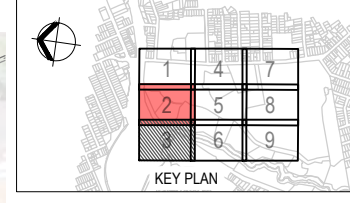
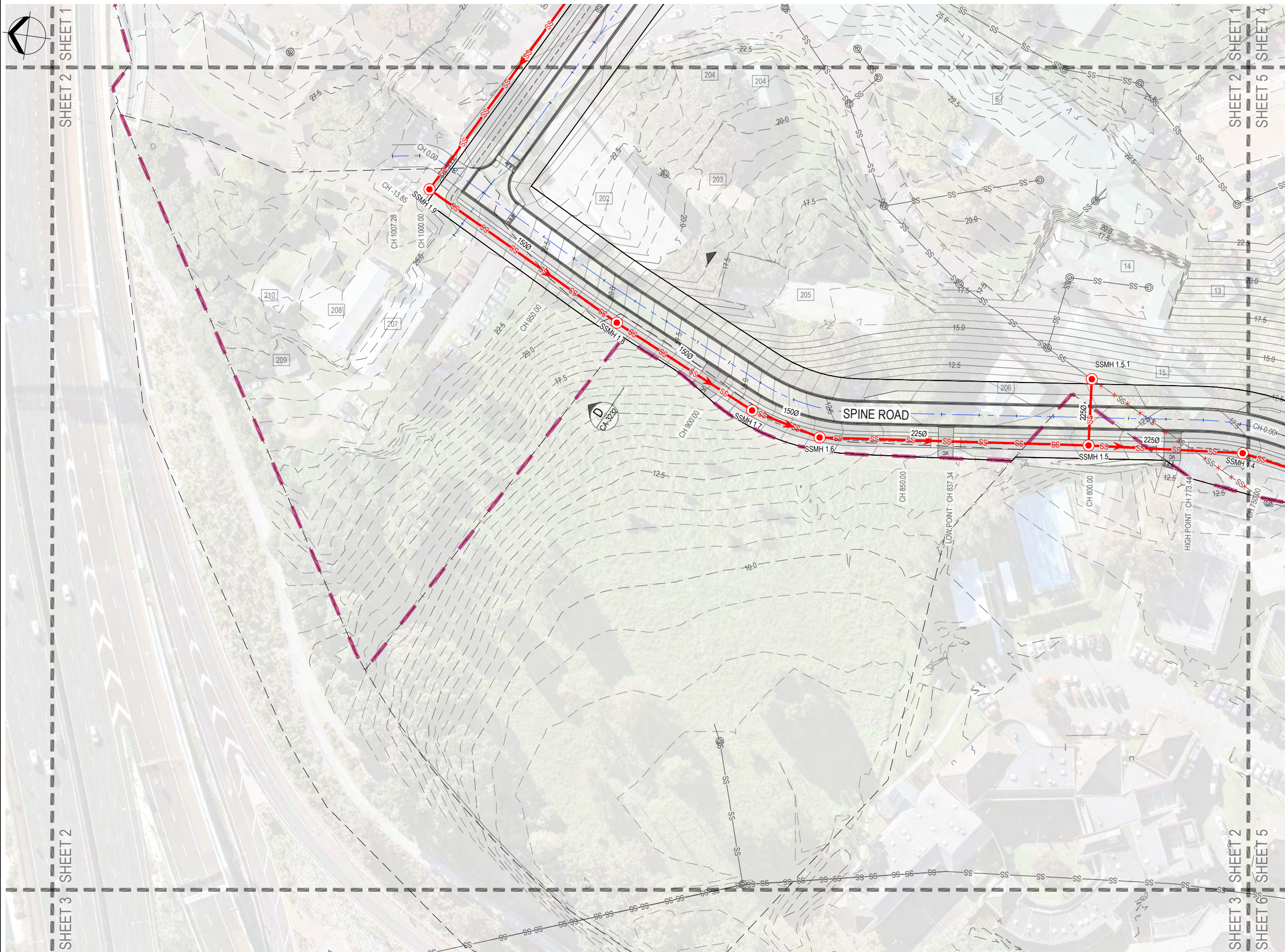
\* Refer to Revision 1 for Original Signature

Client: **MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ**

Project: **CARRINGTON BACKBONE WORKS PROJECT**

Title: **WASTEWATER LAYOUT SHEET 1**

Discipline	<b>CIVIL ENGINEERING</b>
Drawing No.	<b>3126447-CA-5101</b>
Rev.	<b>E</b>



**LEGEND:**

- EXISTING CONTOURS (0.5m INTERVALS)
- DESIGN CONTOURS (0.5m INTERVALS)
- PROPERTY BOUNDARIES
- SITE BOUNDARY
- FUTURE CARRINGTON ROAD WIDENING
- EXISTING WASTEWATER
- EXISTING WASTEWATER TO BE ABANDONED
- NEW WASTEWATER
- NEW WASTEWATER (EARLY WORKS)

- NOTES:**
1. SURVEY DATA SHOWN ON THIS PLAN WAS PROVIDED BY CALIBRE CONSULTING LIMITED SURVEYED IN 2017.
  2. EXISTING SERVICES INFORMATION HAS BEEN COMPILED FROM VARIOUS SOURCES. ACCURACY UNKNOWN. CONTRACTOR TO LOCATE AND MARK OUT SERVICES PRIOR TO CONSTRUCTION WORKS.
  3. COORDINATES ARE IN TERMS OF MT EDEN 2000.
  4. ELEVATIONS ARE IN TERMS OF NEW ZEALAND VERTICAL DATUM 2016.

**ORIGINAL DRAWING  
IN COLOUR**

**RESOURCE CONSENT  
NOT FOR CONSTRUCTION**

No.	Revision	By	Chk.	Appd.	Date
E	MINOR AMENDMENTS	ABL	CJB	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	CJB	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	CJB	DP	23.07.21
B	FOR RESOURCE CONSENT	ABL	BP	RM	05.07.21

Drawing Originator: **Beca**

Original Scale (A1)	Design	B. POPLI	31.05.21	Approved For Construction*
1:500	Drawn	A. FAZEKAS	31.05.21	Date
Reduced Scale (A3)	Dwg Verifier			
1:1000	Dwg Check			

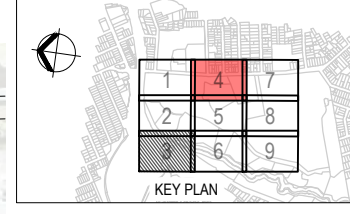
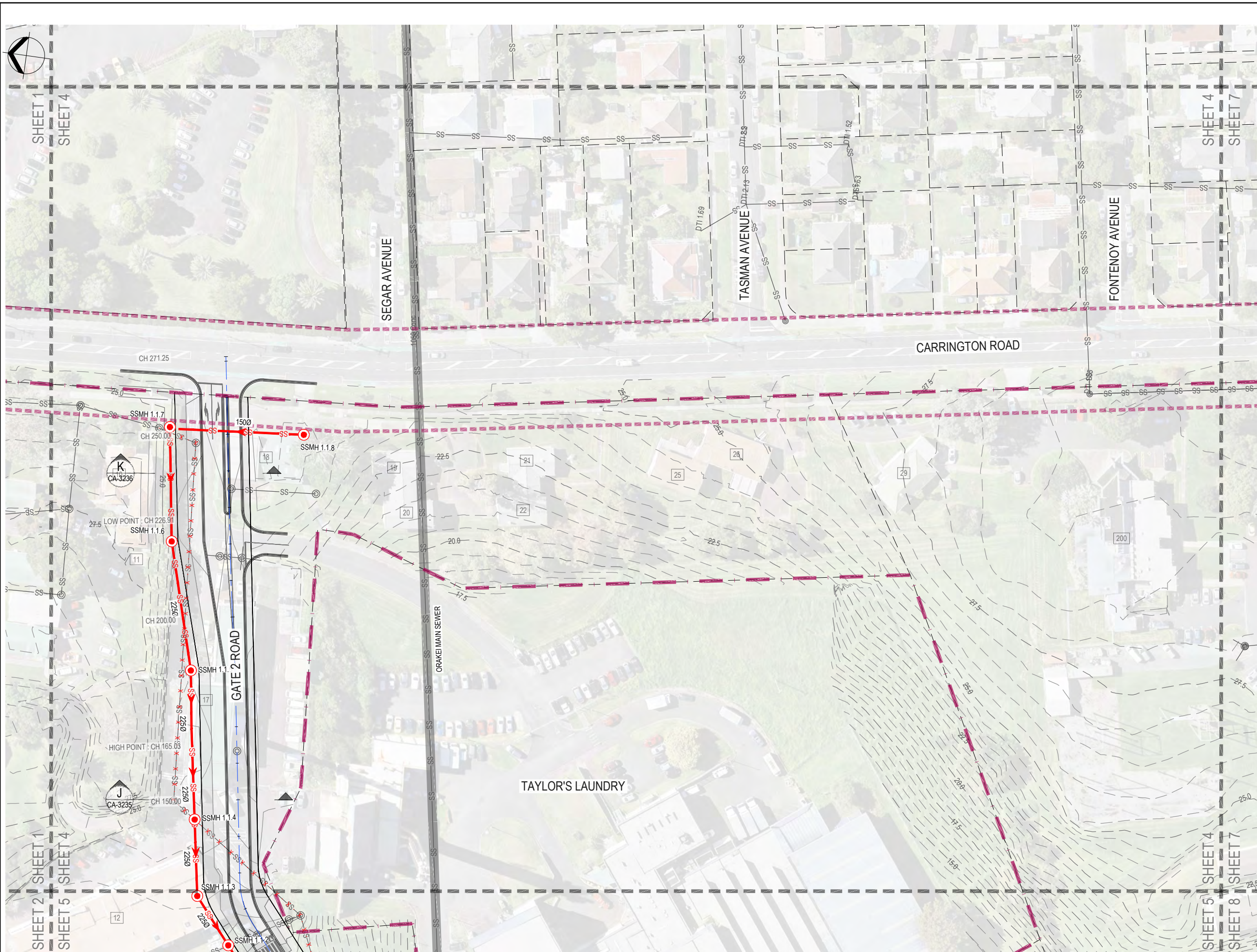
\* Refer to Revision 1 for Original Signature

Client: **MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ**

Project: **CARRINGTON BACKBONE WORKS PROJECT**

Title: **WASTEWATER LAYOUT SHEET 2**

Discipline	<b>CIVIL ENGINEERING</b>	
Drawing No.	<b>3126447-CA-5102</b>	Rev.
		<b>E</b>



**LEGEND:**

- EXISTING CONTOURS (0.5m INTERVALS)
- DESIGN CONTOURS (0.5m INTERVALS)
- PROPERTY BOUNDARIES
- SITE BOUNDARY
- FUTURE CARRINGTON ROAD WIDENING
- EXISTING WASTEWATER
- EXISTING WASTEWATER TO BE ABANDONED
- NEW WASTEWATER
- NEW WASTEWATER (EARLY WORKS)

- NOTES:**
- SURVEY DATA SHOWN ON THIS PLAN WAS PROVIDED BY CALIBRE CONSULTING LIMITED SURVEYED ON 2017.
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  - COORDINATES ARE IN TERMS OF MT EDEN 2000.
  - ELEVATIONS ARE IN TERMS OF NEW ZEALAND VERTICAL DATUM 2016.

**ORIGINAL DRAWING  
IN COLOUR**

**RESOURCE CONSENT  
NOT FOR CONSTRUCTION**

No.	Revision	By	Chk.	Appd.	Date
E	MINOR AMENDMENTS	ABL	CJB	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	CJB	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	CJB	DP	23.07.21
B	FOR RESOURCE CONSENT	ABL	BP	RM	05.07.21

Drawing Originator:

Original Scale (A1)	Design	B. POPLI	31.05.21	Approved For Construction*
1:500	Drawn	A. FAZEKAS	31.05.21	Date
Reduced Scale (A3)	Design Verifier			
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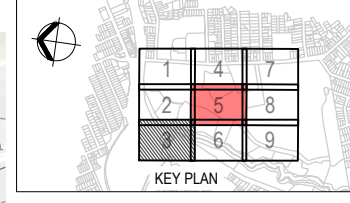
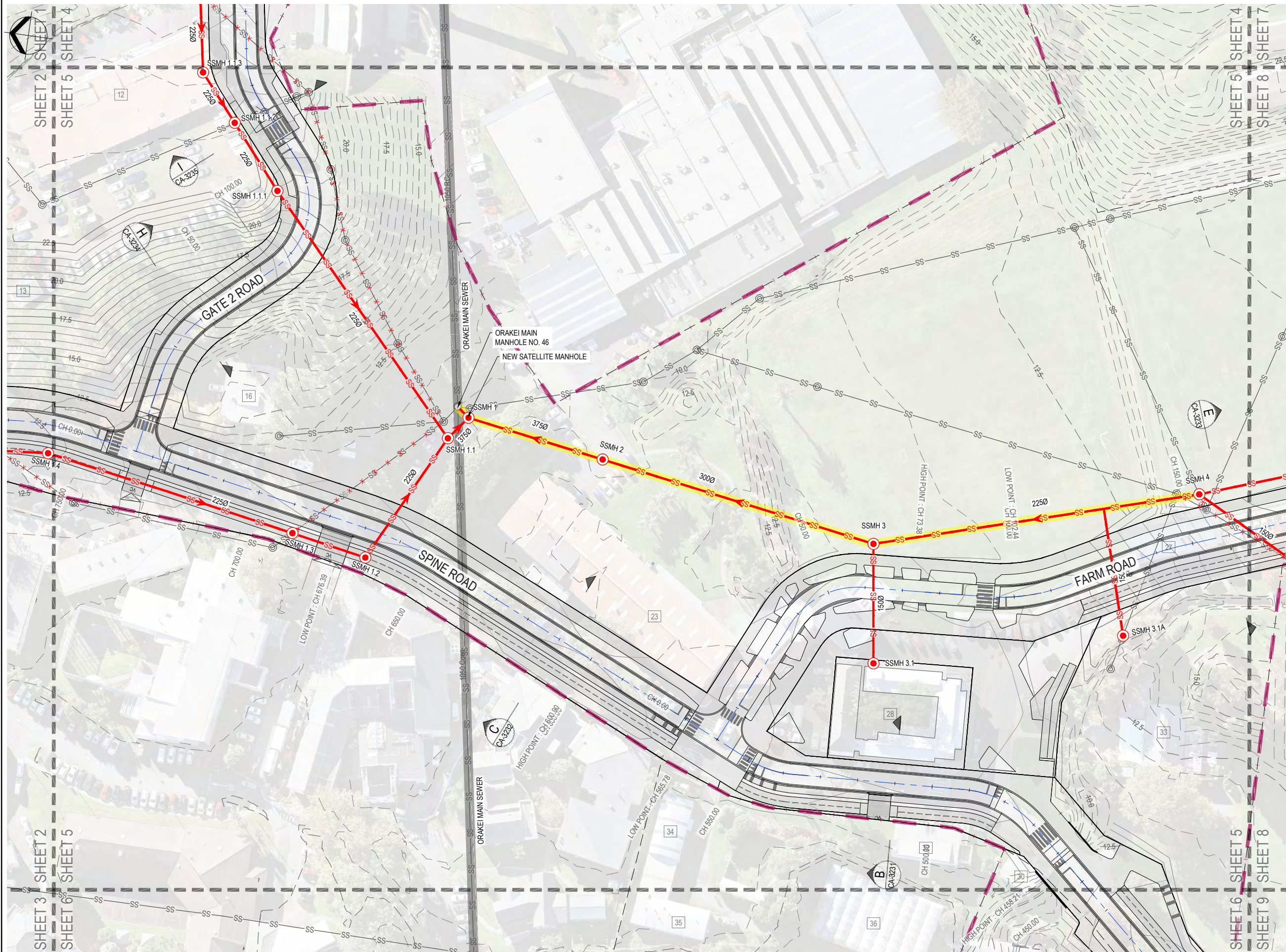
\* Refer to Revision 1 for Original Signature

Client: **MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ**

Project: **CARRINGTON BACKBONE WORKS PROJECT**

Title: **WASTEWATER LAYOUT SHEET 4**

Discipline	<b>CIVIL ENGINEERING</b>
Drawing No.	<b>3126447-CA-5104</b>
Rev.	<b>E</b>



**LEGEND:**

- EXISTING CONTOURS (0.5m INTERVALS)
- DESIGN CONTOURS (0.5m INTERVALS)
- PROPERTY BOUNDARIES
- SITE BOUNDARY
- FUTURE CARRINGTON ROAD WIDENING
- EXISTING WASTEWATER
- EXISTING WASTEWATER TO BE ABANDONED
- NEW WASTEWATER
- NEW WASTEWATER (EARLY WORKS)

- NOTES:**
- SURVEY DATA SHOWN ON THIS PLAN WAS PROVIDED BY CALIBRE CONSULTING LIMITED SURVEYED ON 2017.
  - EXISTING SERVICES INFORMATION HAS BEEN COMPILED FROM VARIOUS SOURCES. ACCURACY UNKNOWN. CONTRACTOR TO LOCATE AND MARK OUT SERVICES PRIOR TO CONSTRUCTION WORKS.
  - COORDINATES ARE IN TERMS OF MT EDEN 2000.
  - ELEVATIONS ARE IN TERMS OF NEW ZEALAND VERTICAL DATUM 2016.

**ORIGINAL DRAWING IN COLOUR**

**RESOURCE CONSENT NOT FOR CONSTRUCTION**

No.	Revision	By	Chk.	Appd.	Date
E	MINOR AMENDMENTS	ABL	CJB	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	CJB	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	CJB	DP	23.07.21
B	FOR RESOURCE CONSENT	ABL	BP	RM	05.07.21

Drawing Originator:

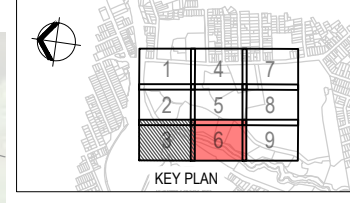
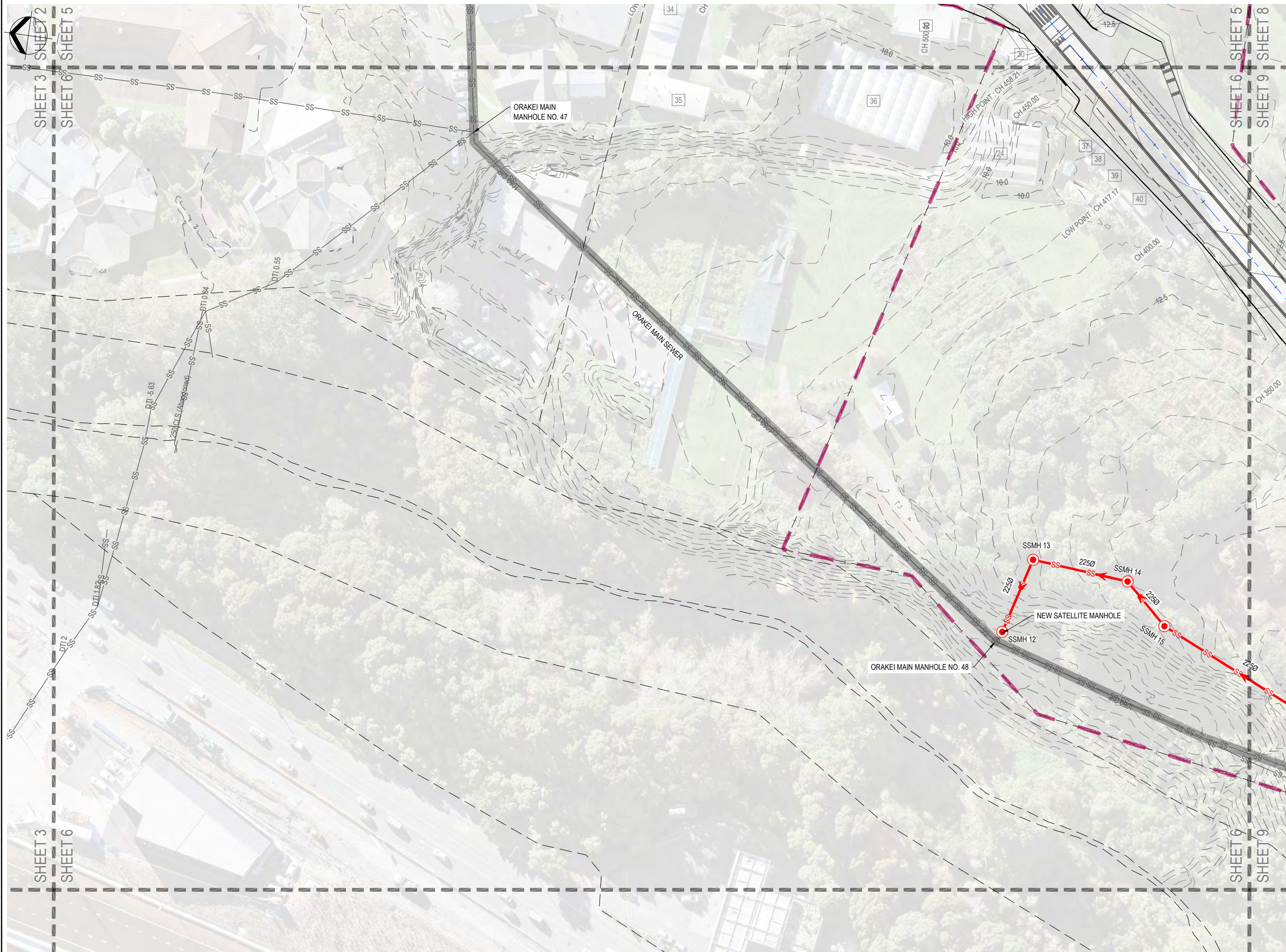
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 Design B. POPLI 31.05.21  
 Drawn A. FAZEKAS 31.05.21  
 Reduced Scale (A3) 1:1000  
 Design Verifier  
 Design Check  
 \* Refer to Revision 1 for Original Signature

Client: **MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ**

Project: **CARRINGTON BACKBONE WORKS PROJECT**

Title: **WASTEWATER LAYOUT SHEET 5**

Discipline	CIVIL ENGINEERING
Drawing No.	3126447-CA-5105
Rev.	E



**LEGEND:**

- EXISTING CONTOURS (0.5m INTERVALS)
- DESIGN CONTOURS (0.5m INTERVALS)
- PROPERTY BOUNDARIES
- SITE BOUNDARY
- FUTURE CARRINGTON ROAD WIDENING
- EXISTING WASTEWATER
- EXISTING WASTEWATER TO BE ABANDONED
- NEW WASTEWATER
- NEW WASTEWATER (EARLY WORKS)

- NOTES:**
- SURVEY DATA SHOWN ON THIS PLAN WAS PROVIDED BY CALIBRE CONSULTING LIMITED SURVEYED ON 2017.
  - EXISTING SERVICES INFORMATION HAS BEEN COMPILED FROM VARIOUS SOURCES. ACCURACY UNKNOWN. CONTRACTOR TO LOCATE AND MARK OUT SERVICES PRIOR TO CONSTRUCTION WORKS.
  - COORDINATES ARE IN TERMS OF MT EDEN 2000.
  - ELEVATIONS ARE IN TERMS OF NEW ZEALAND VERTICAL DATUM 2016.

**ORIGINAL DRAWING  
IN COLOUR**

**RESOURCE CONSENT  
NOT FOR CONSTRUCTION**

No.	Revision	By	Chk.	Appd.	Date
E	MINOR AMENDMENTS	ABL	CJB	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	CJB	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	CJB	DP	23.07.21
B	FOR RESOURCE CONSENT	ABL	BP	RM	05.07.21

Drawing Originator:

Original Scale (A1) 1:500  
Reduced Scale (A3) 1:1000

Design	B. POPLI	31.05.21	Approved For Construction*
Drawn	A. FAZEKAS	31.05.21	Date
Dwg Verifier			
Dwg Check			

\* Refer to Revision 1 for Original Signature

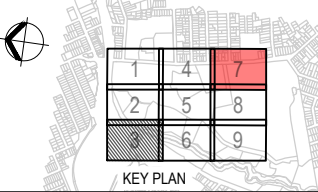
Client: **MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ**

Project: **CARRINGTON BACKBONE WORKS PROJECT**

Title: **WASTEWATER LAYOUT SHEET 6**

Discipline	<b>CIVIL ENGINEERING</b>	
Drawing No.	<b>3126447-CA-5106</b>	Rev.
		<b>E</b>





**LEGEND:**

- EXISTING CONTOURS (0.5m INTERVALS)
- DESIGN CONTOURS (0.5m INTERVALS)
- PROPERTY BOUNDARIES
- SITE BOUNDARY
- FUTURE CARRINGTON ROAD WIDENING
- EXISTING WASTEWATER
- EXISTING WASTEWATER TO BE ABANDONED
- NEW WASTEWATER
- NEW WASTEWATER (EARLY WORKS)

- NOTES:**
- SURVEY DATA SHOWN ON THIS PLAN WAS PROVIDED BY CALIBRE CONSULTING LIMITED SURVEYED ON 2017.
  - EXISTING SERVICES INFORMATION HAS BEEN COMPILED FROM VARIOUS SOURCES. ACCURACY UNKNOWN. CONTRACTOR TO LOCATE AND MARK OUT SERVICES PRIOR TO CONSTRUCTION WORKS.
  - COORDINATES ARE IN TERMS OF MT EDEN 2000.
  - ELEVATIONS ARE IN TERMS OF NEW ZEALAND VERTICAL DATUM 2016.

**ORIGINAL DRAWING  
IN COLOUR**

**RESOURCE CONSENT  
NOT FOR CONSTRUCTION**

E	MINOR AMENDMENTS	ABL	CJB	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	CJB	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	CJB	DP	23.07.21
B	FOR RESOURCE CONSENT	ABL	BP	RM	05.07.21
No.	Revision	By	Chk.	Appd.	Date

Drawing Originator:

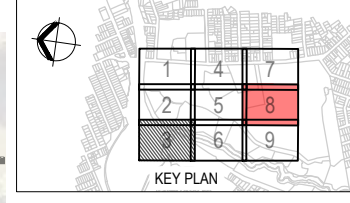
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 Drawn A. FAZEKAS 31.05.21  
 Design Verifier  
 Design Check  
 Date  
 \* Refer to Revision 1 for Original Signature

Client: **MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ**

Project: **CARRINGTON BACKBONE WORKS PROJECT**

Title: **WASTEWATER LAYOUT SHEET 7**

Discipline	<b>CIVIL ENGINEERING</b>
Drawing No.	<b>3126447-CA-5107</b>
Rev.	<b>E</b>



**LEGEND:**

- EXISTING CONTOURS (0.5m INTERVALS)
- DESIGN CONTOURS (0.5m INTERVALS)
- PROPERTY BOUNDARIES
- SITE BOUNDARY
- FUTURE CARRINGTON ROAD WIDENING
- EXISTING WASTEWATER
- EXISTING WASTEWATER TO BE ABANDONED
- NEW WASTEWATER
- NEW WASTEWATER (EARLY WORKS)

- NOTES:**
- SURVEY DATA SHOWN ON THIS PLAN WAS PROVIDED BY CALIBRE CONSULTING LIMITED SURVEYED IN 2017.
  - EXISTING SERVICES INFORMATION HAS BEEN COMPILED FROM VARIOUS SOURCES. ACCURACY UNKNOWN. CONTRACTOR TO LOCATE AND MARK OUT SERVICES PRIOR TO CONSTRUCTION WORKS.
  - COORDINATES ARE IN TERMS OF MT EDEN 2000.
  - ELEVATIONS ARE IN TERMS OF NEW ZEALAND VERTICAL DATUM 2016.

**ORIGINAL DRAWING  
IN COLOUR**

**RESOURCE CONSENT  
NOT FOR CONSTRUCTION**

No.	Revision	By	Chk.	Appd.	Date
E	MINOR AMENDMENTS	ABL	CJB	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	CJB	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	CJB	DP	23.07.21
B	FOR RESOURCE CONSENT	ABL	BP	RM	05.07.21

Original Scale (A1) 1:500  
Reduced Scale (A3) 1:1000

**Beca**

Design: B. POPLI 31.05.21  
Drawn: A. FAZEKAS 31.05.21  
Dag Verifier: [ ]  
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Date: [ ]

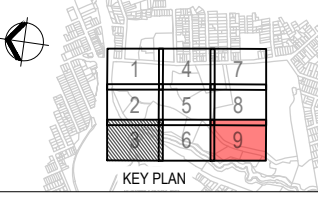
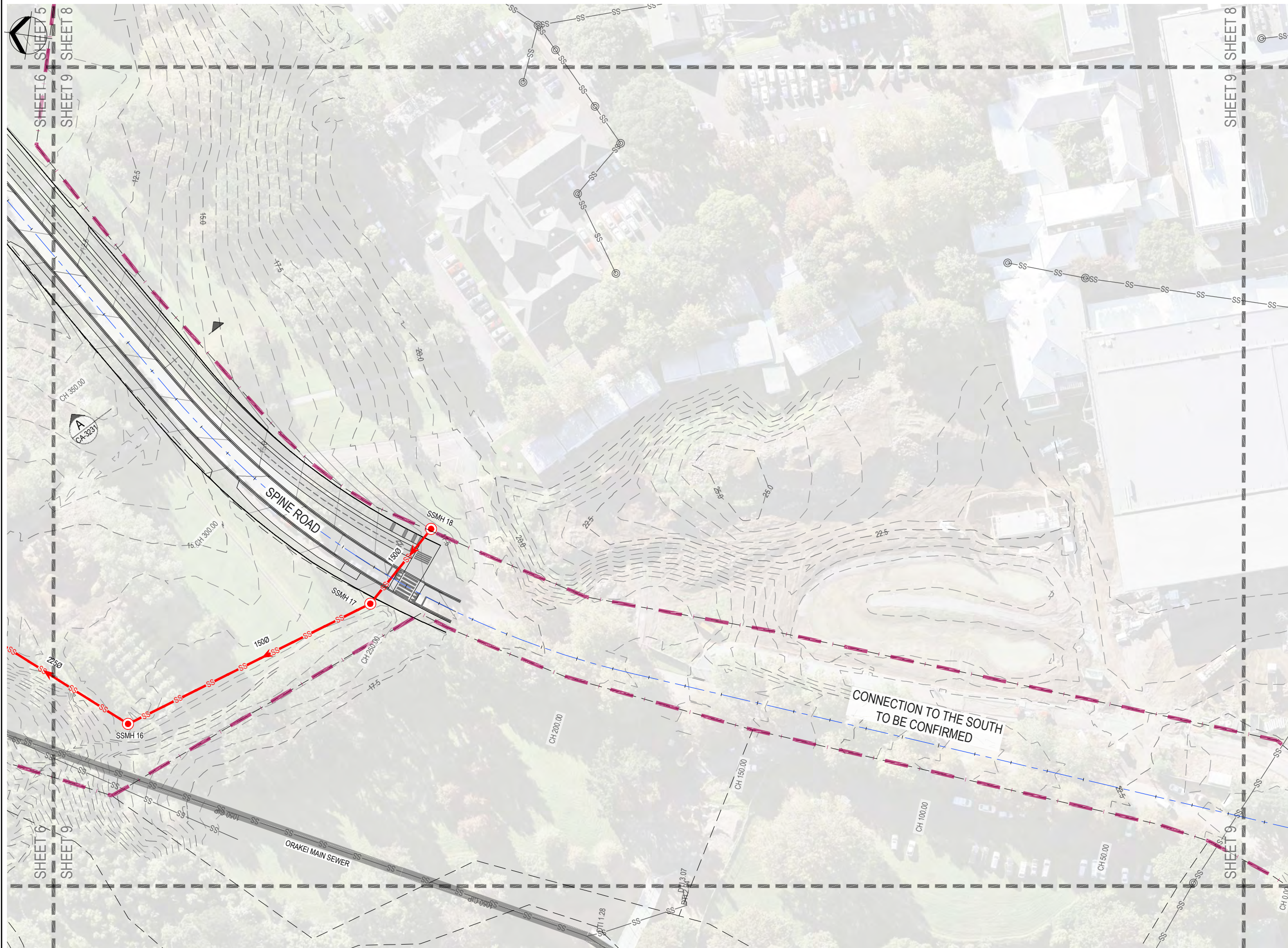
Approved For Construction: [ ]

Client: **MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ**

Project: **CARRINGTON BACKBONE WORKS PROJECT**

Title: **WASTEWATER LAYOUT SHEET 8**

Discipline	CIVIL ENGINEERING
Drawing No.	3126447-CA-5108
Rev.	E



**LEGEND:**

- EXISTING CONTOURS (0.5m INTERVALS)
- DESIGN CONTOURS (0.5m INTERVALS)
- PROPERTY BOUNDARIES
- SITE BOUNDARY
- FUTURE CARRINGTON ROAD WIDENING
- EXISTING WASTEWATER
- EXISTING WASTEWATER TO BE ABANDONED
- NEW WASTEWATER
- NEW WASTEWATER (EARLY WORKS)

- NOTES:**
- SURVEY DATA SHOWN ON THIS PLAN WAS PROVIDED BY CALIBRE CONSULTING LIMITED SURVEYED ON 2017.
  - EXISTING SERVICES INFORMATION HAS BEEN COMPILED FROM VARIOUS SOURCES. ACCURACY UNKNOWN. CONTRACTOR TO LOCATE AND MARK OUT SERVICES PRIOR TO CONSTRUCTION WORKS.
  - COORDINATES ARE IN TERMS OF MT EDEN 2000.
  - ELEVATIONS ARE IN TERMS OF NEW ZEALAND VERTICAL DATUM 2016.

**ORIGINAL DRAWING  
IN COLOUR**

**RESOURCE CONSENT  
NOT FOR CONSTRUCTION**

No.	Revision	By	CHK	Appd	Date
E	MINOR AMENDMENTS	ABL	CJB	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	CJB	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	CJB	DP	23.07.21
B	FOR RESOURCE CONSENT	ABL	BP	RM	05.07.21

Drawing Originator: **Beca**

Original Scale (A1)	1:500	Design	B. POPLI	31.05.21	Approved For Construction*
Reduced Scale (A3)	1:1000	Drawn	A. FAZEKAS	31.05.21	Date
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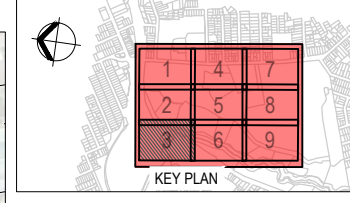
\* Refer to Revision 1 for Original Signature

Client: **MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ**

Project: **CARRINGTON BACKBONE WORKS PROJECT**

Title: **WASTEWATER LAYOUT SHEET 9**

Discipline	<b>CIVIL ENGINEERING</b>	
Drawing No.	<b>3126447-CA-5109</b>	Rev.
		<b>E</b>



**LEGEND:**

- PROPERTY BOUNDARIES
- SITE BOUNDARY
- FUTURE CARRINGTON ROAD WIDENING
- EXISTING WATER LINE
- EXISTING HYDRANT
- NEW WATER RETICULATION LINE
- FUTURE WATER RETICULATION LINE
- NEW FIRE HYDRANT
- NEW WATER SUPPLY VALVE
- NEW END CAP

- NOTES:**
1. SURVEY DATA SHOWN ON THIS PLAN WAS PROVIDED BY CALIBRE CONSULTING LIMITED SURVEYED IN 2017. EXISTING SERVICES INFORMATION HAS BEEN COMPILED FROM VARIOUS SOURCES. ACCURACY UNKNOWN. CONTRACTOR TO LOCATE AND MARK OUT SERVICES PRIOR TO CONSTRUCTION WORKS.
  2. COORDINATES ARE IN TERMS OF MT EDEN 2000.
  3. ELEVATIONS ARE IN TERMS OF NEW ZEALAND VERTICAL DATUM 2016.

**ORIGINAL DRAWING  
IN COLOUR**

**RESOURCE CONSENT  
NOT FOR CONSTRUCTION**

No.	Revision	By	Chk.	Appd.	Date
E	MINOR AMENDMENTS	ABL	CJB	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	CJB	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	CJB	DP	23.07.21
B	FOR RESOURCE CONSENT	ABL	BP	RM	05.07.21

Design Originals:

Original Scale (A1) 1:1500  
Reduced Scale (A3) 1:3000

Design: B. POPLI 31.05.21  
Drawn: A. FAZEKAS 31.05.21  
Dwg Verifier: [blank]  
Dwg Check: [blank]  
Date: [blank]

\* Refer to Revision 1 for Original Signature

Client: **MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ**

Project: **CARRINGTON BACKBONE WORKS PROJECT**

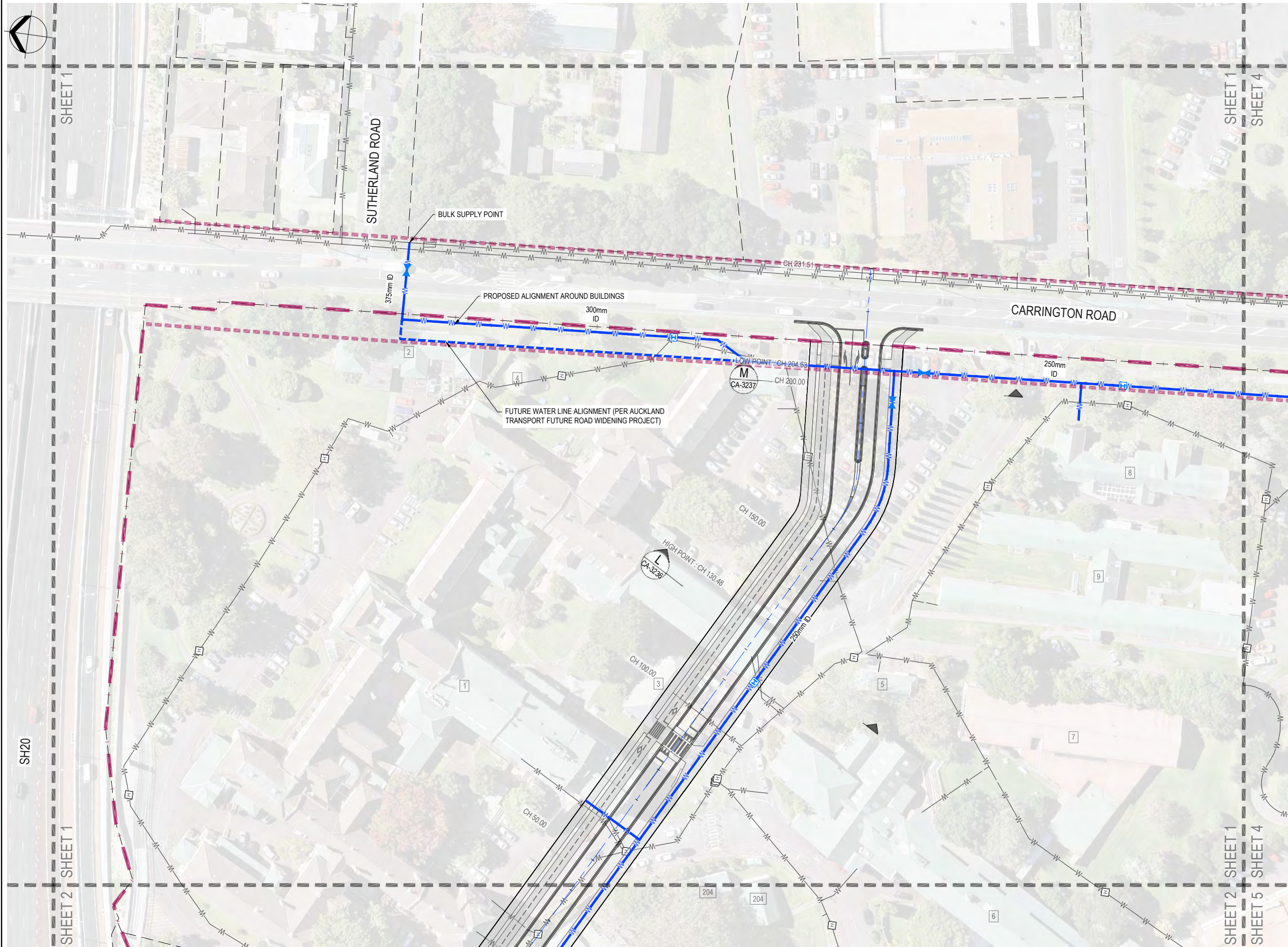
Title: **WATER RETICULATION OVERALL LAYOUT**

Discipline	CIVIL ENGINEERING
Drawing No.	3126447-CA-6100
Rev.	E

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www.beca.com

Document No. 3126447-CA-6100.DWG



**LEGEND:**

- PROPERTY BOUNDARIES
- - - SITE BOUNDARY
- - - FUTURE CARRINGTON ROAD WIDENING
- W- EXISTING WATER LINE
- [H] EXISTING HYDRANT
- NEW WATER RETICULATION LINE
- - - FUTURE WATER RETICULATION LINE
- [H] NEW FIRE HYDRANT
- ✕ NEW WATER SUPPLY VALVE
- └ NEW END CAP

- NOTES:**
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ORIGINAL DRAWING  
IN COLOUR

**RESOURCE CONSENT**  
NOT FOR CONSTRUCTION

E	MINOR AMENDMENTS	ABL	CJB	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	CJB	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	CJB	DP	23.07.21
B	FOR RESOURCE CONSENT	ABL	BP	RM	05.07.21
No.	Revision	By	Chk.	Appd.	Date

Drawing Originator:

Original Scale (A1) 1:500  
Reduced Scale (A3) 1:1000

Design: B. POPLI 31.05.21  
Drawn: A. FAZEKAS 31.05.21  
Dwg Verifier: [ ]  
Dwg Check: [ ]  
Date: [ ]

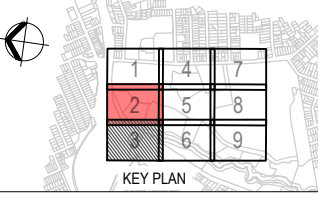
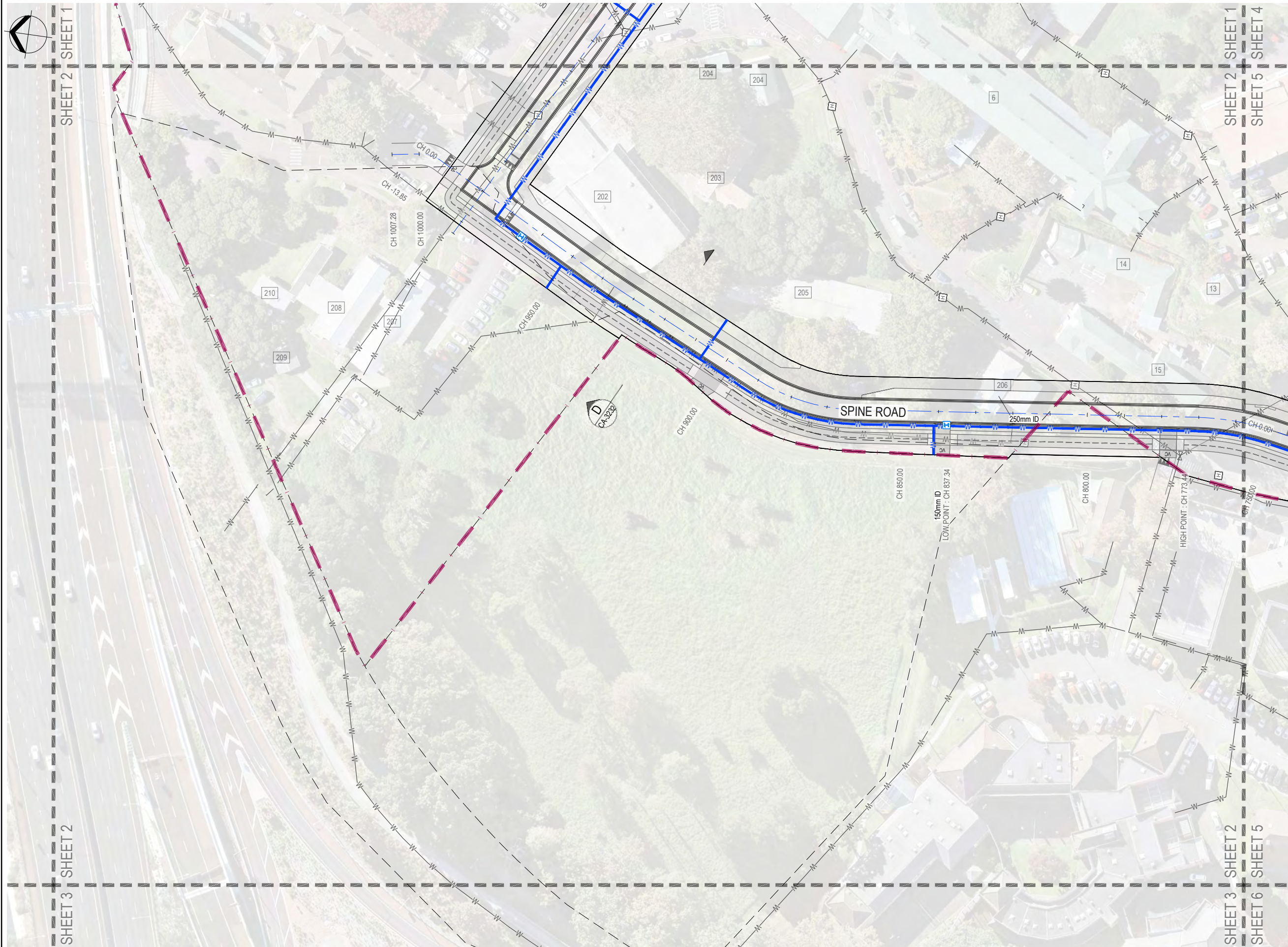
Approved For Construction\*  
Date: [ ]

Client: **MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ**

Project: **CARRINGTON BACKBONE WORKS PROJECT**

Title: **WATER RETICULATION LAYOUT SHEET 1**

Discipline	CIVIL ENGINEERING
Drawing No.	3126447-CA-6101
Rev.	E



**LEGEND:**

- PROPERTY BOUNDARIES
- SITE BOUNDARY
- FUTURE CARRINGTON ROAD WIDENING
- EXISTING WATER LINE
- EXISTING HYDRANT
- NEW WATER RETICULATION LINE
- FUTURE WATER RETICULATION LINE
- NEW FIRE HYDRANT
- NEW WATER SUPPLY VALVE
- NEW END CAP

- NOTES:**
1. SURVEY DATA SHOWN ON THIS PLAN WAS PROVIDED BY CALIBRE CONSULTING LIMITED SURVEYED ON 2017.
  2. EXISTING SERVICES INFORMATION HAS BEEN COMPILED FROM VARIOUS SOURCES. ACCURACY UNKNOWN. CONTRACTOR TO LOCATE AND MARK OUT SERVICES PRIOR TO CONSTRUCTION WORKS.
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**ORIGINAL DRAWING  
IN COLOUR**

**RESOURCE CONSENT  
NOT FOR CONSTRUCTION**

No.	Revision	By	Chk.	Appd.	Date
E	MINOR AMENDMENTS	ABL	CJB	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	CJB	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	CJB	DP	23.07.21
B	FOR RESOURCE CONSENT	ABL	BP	RM	05.07.21

Drawing Originator:

Original Scale (A1) 1:500  
Reduced Scale (A3) 1:1000

Design	B. POPLI	31.05.21	Approved For Construction*
Drawn	A. FAZEKAS	31.05.21	Date
Dwg Verifier			
Dwg Check			

\* Refer to Revision 1 for Original Signature

Client: **MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ**

Project: **CARRINGTON BACKBONE WORKS PROJECT**

Title: **WATER RETICULATION LAYOUT SHEET 2**

Discipline	CIVIL ENGINEERING
Drawing No.	3126447-CA-6102
Rev.	E



**LEGEND:**

- PROPERTY BOUNDARIES
- SITE BOUNDARY
- FUTURE CARRINGTON ROAD WIDENING
- EXISTING WATER LINE
- EXISTING HYDRANT
- NEW WATER RETICULATION LINE
- FUTURE WATER RETICULATION LINE
- NEW FIRE HYDRANT
- NEW WATER SUPPLY VALVE
- NEW END CAP

- NOTES:**
1. SURVEY DATA SHOWN ON THIS PLAN WAS PROVIDED BY CALIBRE CONSULTING LIMITED SURVEYED ON 2017.
  2. EXISTING SERVICES INFORMATION HAS BEEN COMPILED FROM VARIOUS SOURCES. ACCURACY UNKNOWN. CONTRACTOR TO LOCATE AND MARK OUT SERVICES PRIOR TO CONSTRUCTION WORKS.
  3. COORDINATES ARE IN TERMS OF MT EDEN 2000.
  4. ELEVATIONS ARE IN TERMS OF NEW ZEALAND VERTICAL DATUM 2016.

**ORIGINAL DRAWING  
IN COLOUR**

**RESOURCE CONSENT  
NOT FOR CONSTRUCTION**

No.	Revision	By	Chk.	Appd.	Date
E	MINOR AMENDMENTS	ABL	CJB	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	CJB	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	CJB	DP	23.07.21
B	FOR RESOURCE CONSENT	ABL	BP	RM	05.07.21

Drawing Originator:

Original Scale (A1) 1:500  
Reduced Scale (A3) 1:1000

Design	B. POPLI	31.05.21	Approved For Construction*
Drawn	A. FAZEKAS	31.05.21	Date
Dwg Verifier			
Dwg Check			

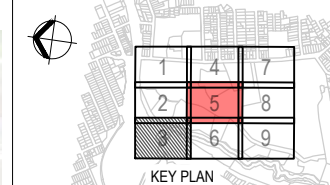
\* Refer to Revision 1 for Original Signature

Client: **MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ**

Project: **CARRINGTON BACKBONE WORKS PROJECT**

Title: **WATER RETICULATION LAYOUT SHEET 4**

Discipline	CIVIL ENGINEERING
Drawing No.	3126447-CA-6104
Rev.	E



**LEGEND:**

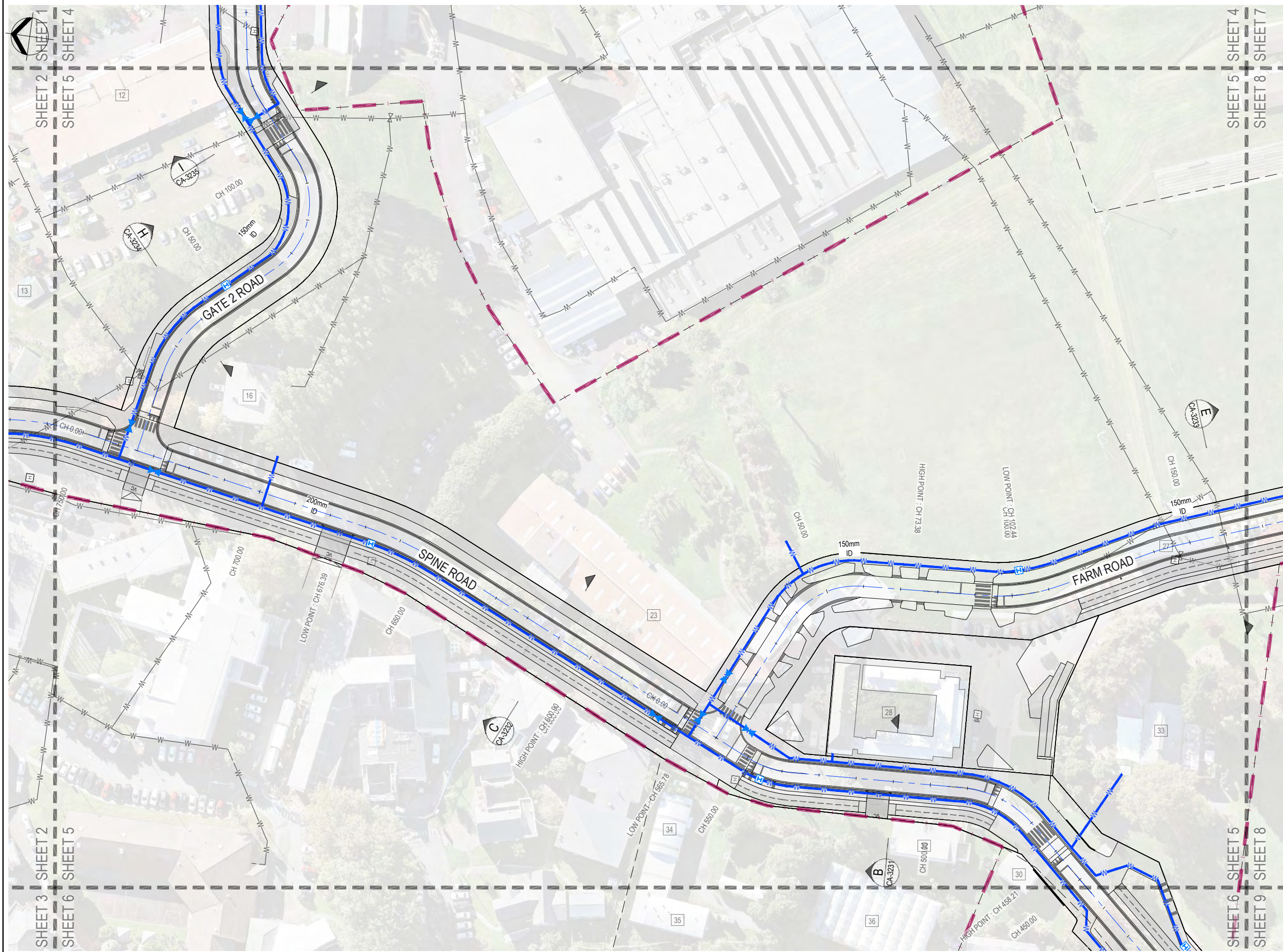
- PROPERTY BOUNDARIES
- SITE BOUNDARY
- FUTURE CARRINGTON ROAD WIDENING
- EXISTING WATER LINE
- EXISTING HYDRANT
- NEW WATER RETICULATION LINE
- FUTURE WATER RETICULATION LINE
- NEW FIRE HYDRANT
- NEW WATER SUPPLY VALVE
- NEW END CAP

**NOTES:**

1. SURVEY DATA SHOWN ON THIS PLAN WAS PROVIDED BY CALIBRE CONSULTING LIMITED SURVEYED ON 2017.
2. EXISTING SERVICES INFORMATION HAS BEEN COMPILED FROM VARIOUS SOURCES. ACCURACY UNKNOWN. CONTRACTOR TO LOCATE AND MARK OUT SERVICES PRIOR TO CONSTRUCTION WORKS.
3. COORDINATES ARE IN TERMS OF MT EDEN 2000.
4. ELEVATIONS ARE IN TERMS OF NEW ZEALAND VERTICAL DATUM 2016.

ORIGINAL DRAWING  
IN COLOUR

RESOURCE CONSENT  
NOT FOR CONSTRUCTION



No.	Revision	By	Chk.	Appd.	Date
E	MINOR AMENDMENTS	ABL	CJB	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	CJB	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	CJB	DP	23.07.21
B	FOR RESOURCE CONSENT	ABL	BP	RM	05.07.21

Drawing Originator:

Original Scale (A1)	1:500	Design	B. POPLI	31.05.21	Approved For Construction*
Reduced Scale (A3)	1:1000	Drawn	A. FAZEKAS	31.05.21	Date
		Design Verifier			
		Design Check			

\* Refer to Revision 1 for Original Signature

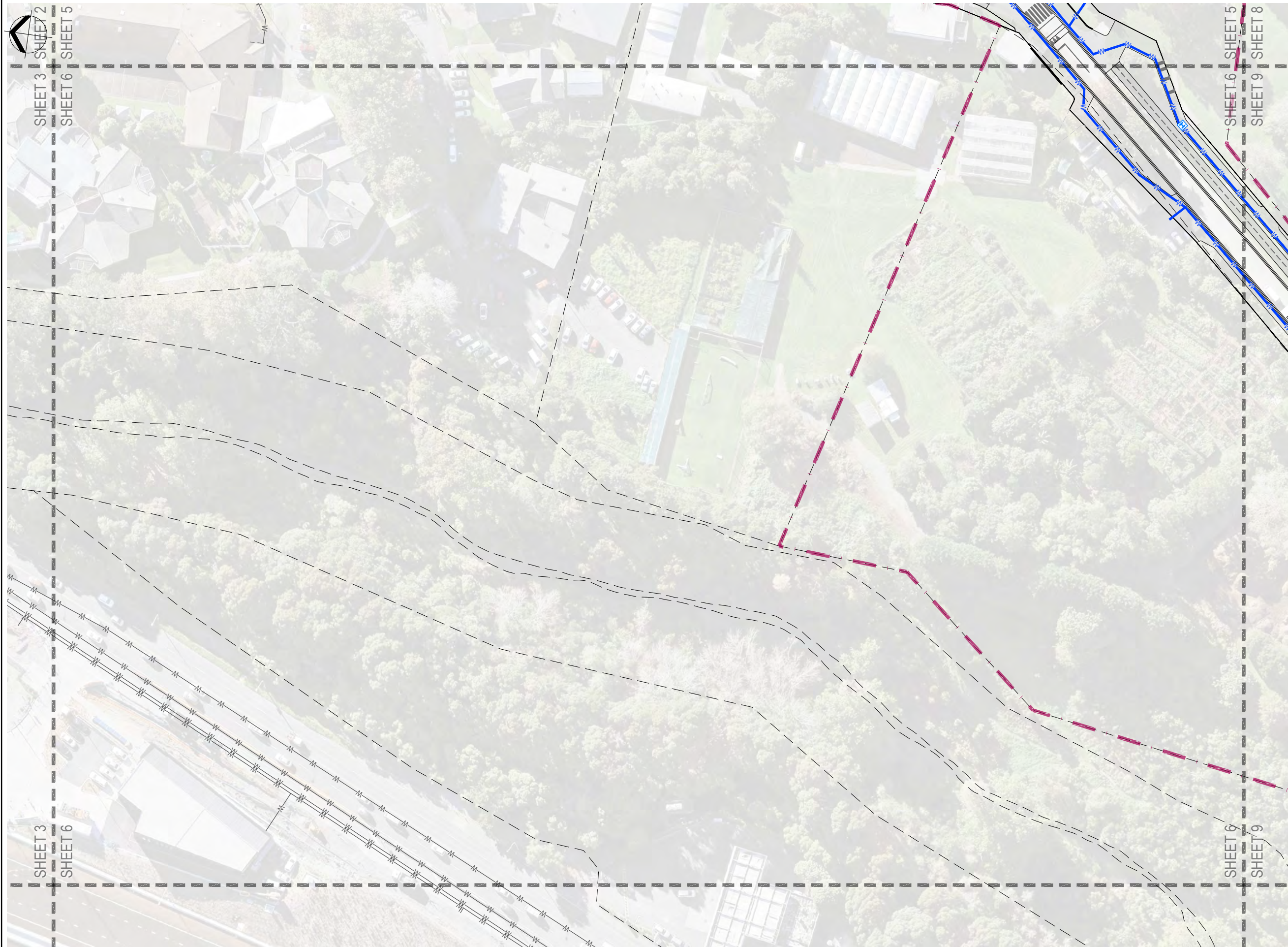
Client: **MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ**

Project: **CARRINGTON BACKBONE WORKS PROJECT**

Title: **WATER RETICULATION LAYOUT SHEET 5**

Discipline	CIVIL ENGINEERING
Drawing No.	3126447-CA-6105
Rev.	E





**LEGEND:**

- PROPERTY BOUNDARIES
- SITE BOUNDARY
- FUTURE CARRINGTON ROAD WIDENING
- EXISTING WATER LINE
- EXISTING HYDRANT
- NEW WATER RETICULATION LINE
- FUTURE WATER RETICULATION LINE
- NEW FIRE HYDRANT
- NEW WATER SUPPLY VALVE
- NEW END CAP

**NOTES:**

1. SURVEY DATA SHOWN ON THIS PLAN WAS PROVIDED BY CALIBRE CONSULTING LIMITED SURVEYED ON 2017.
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3. COORDINATES ARE IN TERMS OF MT EDEN 2000.
4. ELEVATIONS ARE IN TERMS OF NEW ZEALAND VERTICAL DATUM 2016.

ORIGINAL DRAWING  
IN COLOUR

**RESOURCE CONSENT  
NOT FOR CONSTRUCTION**

E	MINOR AMENDMENTS	ABL	CJB	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	CJB	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	CJB	DP	23.07.21
B	FOR RESOURCE CONSENT	ABL	BP	RM	05.07.21
No.	Revision	By	Chk.	Appd.	Date

Drawing Originator:

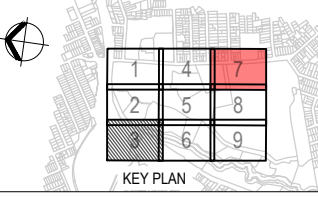
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Reduced Scale (A3)	1:1000	Drawn	A. FAZEKAS	31.05.21	Date
		Design Verifier			
		Design Check			
* Refer to Revision 1 for Original Signature					

Client: **MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ**

Project: **CARRINGTON BACKBONE WORKS PROJECT**

Title: **WATER RETICULATION LAYOUT SHEET 6**

Discipline	CIVIL ENGINEERING
Drawing No.	3126447-CA-6106
Rev.	E



**LEGEND:**

- PROPERTY BOUNDARIES
- SITE BOUNDARY
- FUTURE CARRINGTON ROAD WIDENING
- EXISTING WATER LINE
- EXISTING HYDRANT
- NEW WATER RETICULATION LINE
- FUTURE WATER RETICULATION LINE
- NEW FIRE HYDRANT
- NEW WATER SUPPLY VALVE
- NEW END CAP

- NOTES:**
- SURVEY DATA SHOWN ON THIS PLAN WAS PROVIDED BY CALIBRE CONSULTING LIMITED SURVEYED IN 2017.
  - EXISTING SERVICES INFORMATION HAS BEEN COMPILED FROM VARIOUS SOURCES. ACCURACY UNKNOWN. CONTRACTOR TO LOCATE AND MARK OUT SERVICES PRIOR TO CONSTRUCTION WORKS.
  - COORDINATES ARE IN TERMS OF MT EDEN 2000.
  - ELEVATIONS ARE IN TERMS OF NEW ZEALAND VERTICAL DATUM 2016.

**ORIGINAL DRAWING  
IN COLOUR**

**RESOURCE CONSENT  
NOT FOR CONSTRUCTION**

E	MINOR AMENDMENTS	ABL	CJB	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	CJB	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	CJB	DP	23.07.21
B	FOR RESOURCE CONSENT	ABL	BP	RM	05.07.21
No.	Revision	By	Chk.	Appd.	Date

Drawing Originator: **Beca**

Original Scale (A1)	1:500	Design	B. POPLI	31.05.21	Approved For Construction*
Reduced Scale (A3)	1:1000	Drawn	A. FAZEKAS	31.05.21	Date
		Design Checker			
		Design Verifier			
		Design Check			

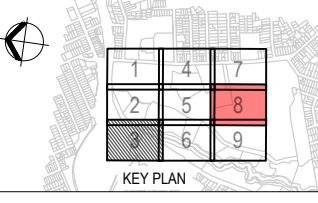
\* Refer to Revision 1 for Original Signature

Client: **MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ**

Project: **CARRINGTON BACKBONE WORKS PROJECT**

Title: **WATER RETICULATION LAYOUT SHEET 7**

Discipline	<b>CIVIL ENGINEERING</b>
Drawing No.	<b>3126447-CA-6107</b>
Rev.	<b>E</b>



**LEGEND:**

	PROPERTY BOUNDARIES
	SITE BOUNDARY
	FUTURE CARRINGTON ROAD WIDENING
	EXISTING WATER LINE
	EXISTING HYDRANT
	NEW WATER RETICULATION LINE
	FUTURE WATER RETICULATION LINE
	NEW FIRE HYDRANT
	NEW WATER SUPPLY VALVE
	NEW END CAP

- NOTES:**
1. SURVEY DATA SHOWN ON THIS PLAN WAS PROVIDED BY CALIBRE CONSULTING LIMITED SURVEYED ON 2017.
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  3. COORDINATES ARE IN TERMS OF MT EDEN 2000.
  4. ELEVATIONS ARE IN TERMS OF NEW ZEALAND VERTICAL DATUM 2016.

**ORIGINAL DRAWING  
IN COLOUR**

**RESOURCE CONSENT  
NOT FOR CONSTRUCTION**

No.	Revision	By	Chk.	Appd.	Date
E	MINOR AMENDMENTS	ABL	CJB	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	CJB	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	CJB	DP	23.07.21
B	FOR RESOURCE CONSENT	ABL	BP	RM	05.07.21

Drawing Originator:

Original Scale (A1) 1:500  
Reduced Scale (A3) 1:1000

Design	B. POPLI	31.05.21	Approved For Construction*
Drawn	A. FAZEKAS	31.05.21	Date
Design Verifier			
Design Check			

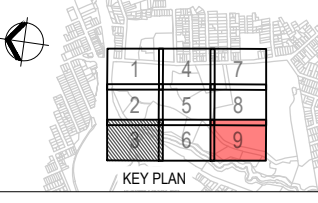
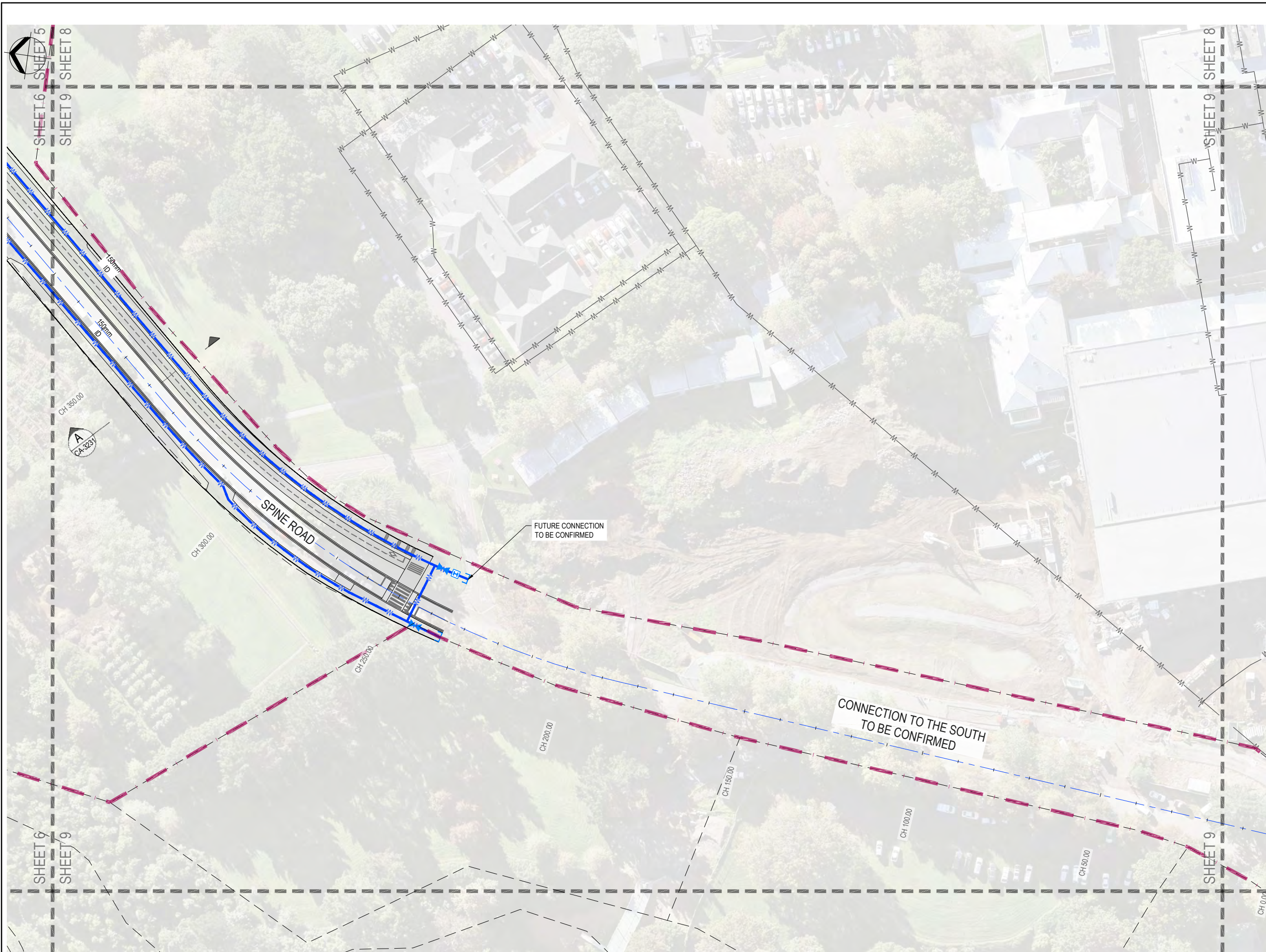
\* Refer to Revision 1 for Original Signature

Client: **MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ**

Project: **CARRINGTON BACKBONE WORKS PROJECT**

Title: **WATER RETICULATION LAYOUT SHEET 8**

Discipline	CIVIL ENGINEERING
Drawing No.	3126447-CA-6108
Rev.	E



**LEGEND:**

- PROPERTY BOUNDARIES
- SITE BOUNDARY
- FUTURE CARRINGTON ROAD WIDENING
- EXISTING WATER LINE
- EXISTING HYDRANT
- NEW WATER RETICULATION LINE
- FUTURE WATER RETICULATION LINE
- NEW FIRE HYDRANT
- NEW WATER SUPPLY VALVE
- NEW END CAP

- NOTES:**
1. SURVEY DATA SHOWN ON THIS PLAN WAS PROVIDED BY CALIBRE CONSULTING LIMITED SURVEYED ON 2017.
  2. EXISTING SERVICES INFORMATION HAS BEEN COMPILED FROM VARIOUS SOURCES. ACCURACY UNKNOWN. CONTRACTOR TO LOCATE AND MARK OUT SERVICES PRIOR TO CONSTRUCTION WORKS.
  3. COORDINATES ARE IN TERMS OF MT EDEN 2000.
  4. ELEVATIONS ARE IN TERMS OF NEW ZEALAND VERTICAL DATUM 2016.

**ORIGINAL DRAWING  
IN COLOUR**

**RESOURCE CONSENT  
NOT FOR CONSTRUCTION**

No.	Revision	By	CHK	Appd	Date
E	MINOR AMENDMENTS	ABL	CJB	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	CJB	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	CJB	DP	23.07.21
B	FOR RESOURCE CONSENT	ABL	BP	RM	05.07.21

Drawing Originator:

Original Scale (A1) 1:500  
Reduced Scale (A3) 1:1000

Design	B. POPLI	31.05.21	Approved For Construction*
Drawn	A. FAZEKAS	31.05.21	Date
Design Checker			
Design Verifier			

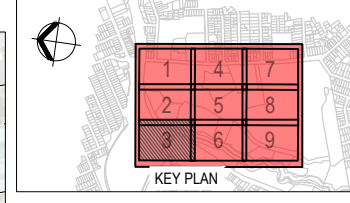
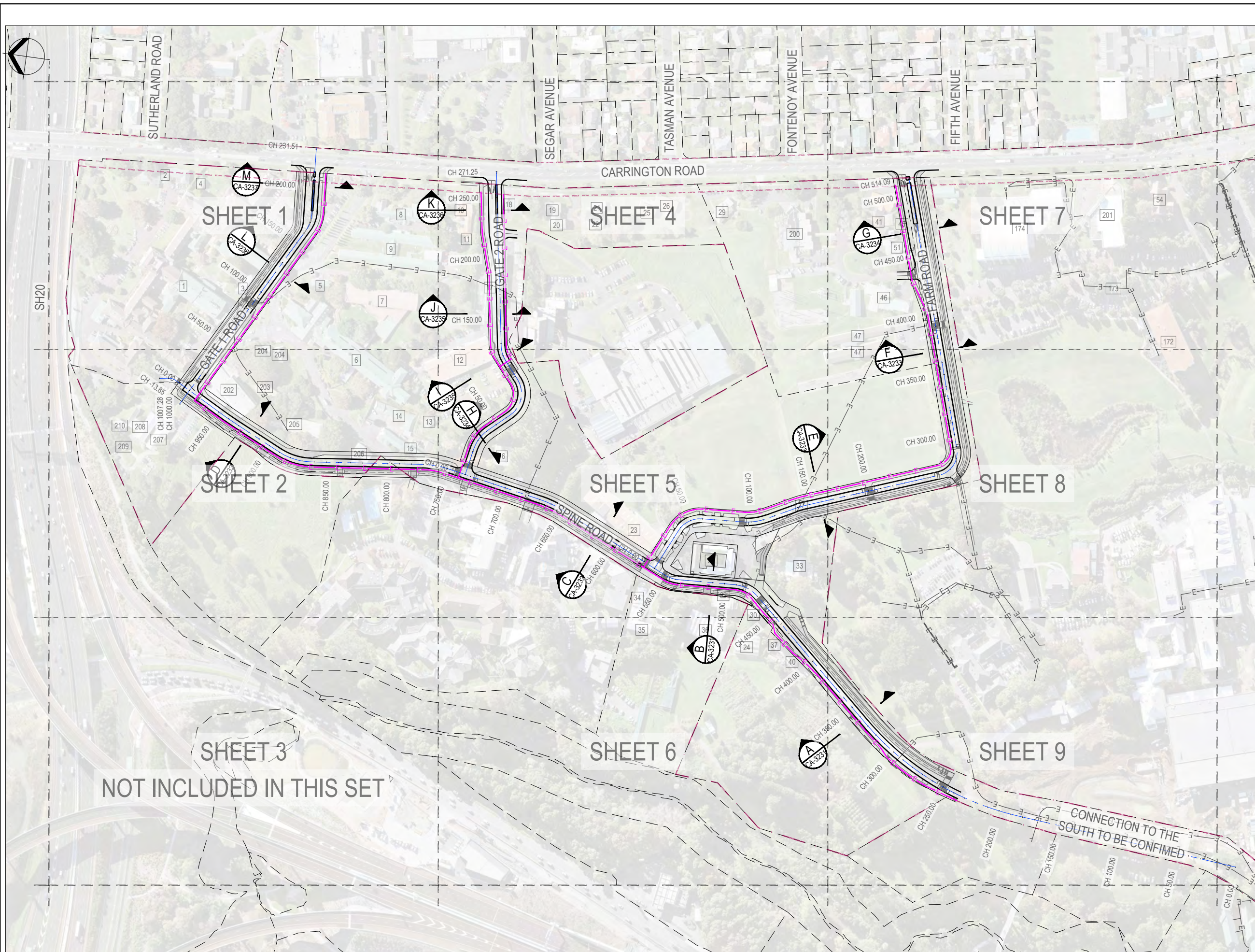
\* Refer to Revision 1 for Original Signature

Client: **MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ**

Project: **CARRINGTON BACKBONE WORKS PROJECT**

Title: **WATER RETICULATION LAYOUT SHEET 9**

Discipline	CIVIL ENGINEERING
Drawing No.	3126447-CA-6109
Rev.	E



**LEGEND:**

- PROPERTY BOUNDARIES
- SITE BOUNDARY
- FUTURE CARRINGTON ROAD WIDENING
- EXISTING ELECTRICAL
- ELECTRICAL CORRIDOR

- NOTES:**
1. SURVEY DATA SHOWN ON THIS PLAN WAS PROVIDED BY CALIBRE CONSULTING LIMITED SURVEYED ON 2017.
  2. EXISTING SERVICES INFORMATION HAS BEEN COMPILED FROM VARIOUS SOURCES. ACCURACY UNKNOWN. CONTRACTOR TO LOCATE AND MARK OUT SERVICES PRIOR TO CONSTRUCTION WORKS.
  3. COORDINATES ARE IN TERMS OF MT EDEN 2000.
  4. ELEVATIONS ARE IN TERMS OF NEW ZEALAND VERTICAL DATUM 2016.

**ORIGINAL DRAWING  
IN COLOUR**

**RESOURCE CONSENT  
NOT FOR CONSTRUCTION**

No.	Revision	By	CHK	Appd	Date
E	MINOR AMENDMENTS	ABL	CJB	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	CJB	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	CJB	DP	23.07.21
B	FOR RESOURCE CONSENT	ABL	CJB	RM	05.07.21

Drawing Originator: **Beca**

Original Scale (A1)	1:1500	Design	C.BREYTENBACH	08.06.21	Approved For Construction*
Reduced Scale (A3)	1:3000	Drawn	A.FAZEKAS	08.06.21	Date
		Dag Verifier			
		Dag Check			

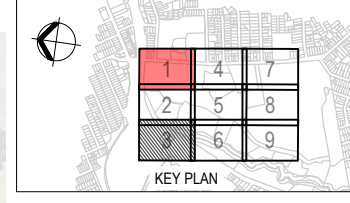
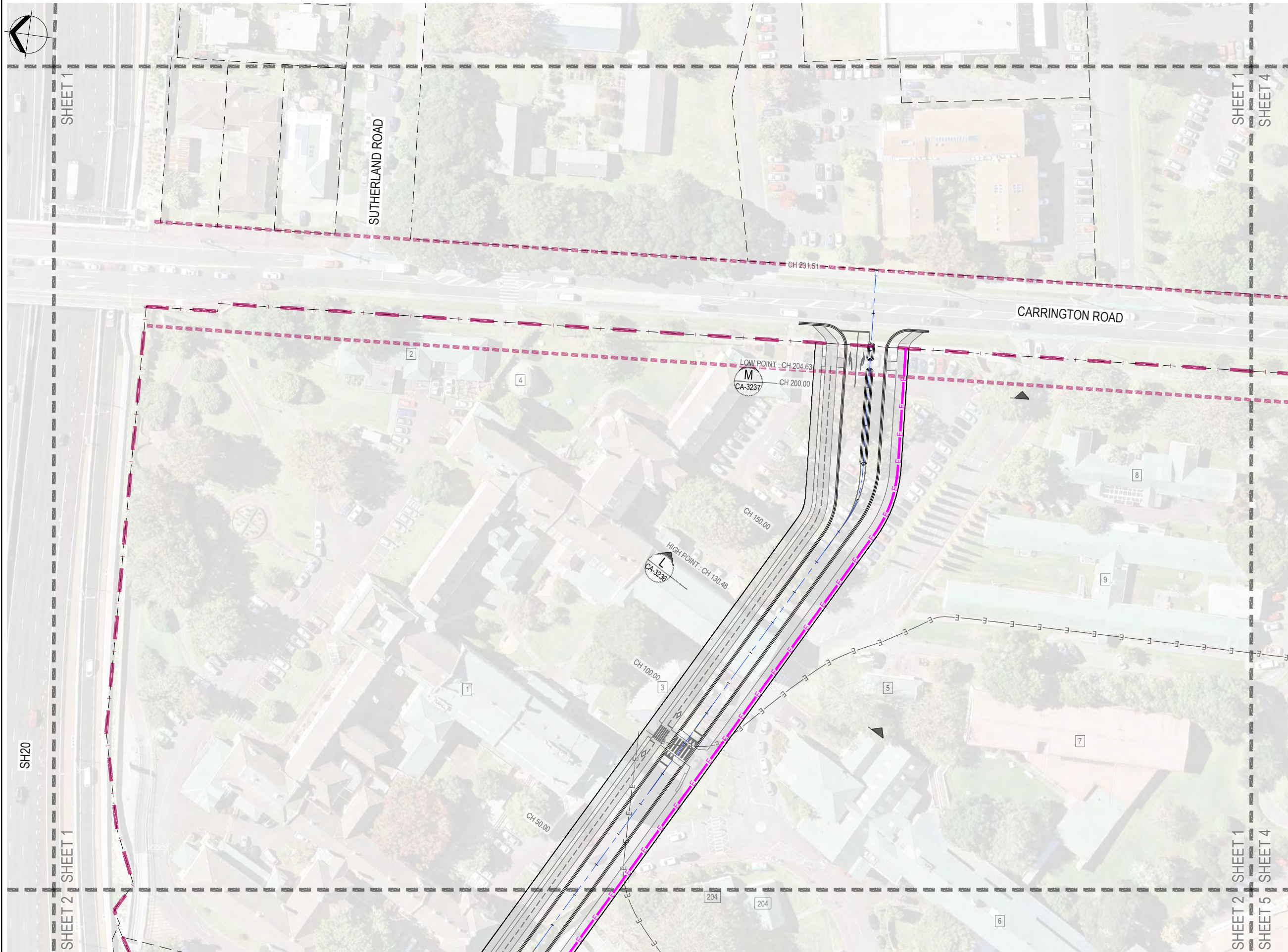
\* Refer to Revision 1 for Original Signature

Client: **MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ**

Project: **CARRINGTON BACKBONE WORKS PROJECT**

Title: **POWER OVERALL LAYOUT**

Discipline	CIVIL ENGINEERING
Drawing No.	3126447-CA-7200
Rev.	E



**LEGEND:**

- PROPERTY BOUNDARIES
- SITE BOUNDARY
- FUTURE CARRINGTON ROAD WIDENING
- EXISTING ELECTRICAL
- ELECTRICAL CORRIDOR

- NOTES:**
1. SURVEY DATA SHOWN ON THIS PLAN WAS PROVIDED BY CALIBRE CONSULTING LIMITED SURVEYED ON 2017.
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  4. ELEVATIONS ARE IN TERMS OF NEW ZEALAND VERTICAL DATUM 2016.

ORIGINAL DRAWING  
IN COLOUR

**RESOURCE CONSENT  
NOT FOR CONSTRUCTION**

No.	Revision	By	Chk.	Appd.	Date
E	MINOR AMENDMENTS	ABL	CJB	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	CJB	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	CJB	DP	23.07.21
B	FOR RESOURCE CONSENT	ABL	CJB	RM	05.07.21

Drawing Originator:

Original Scale (A1) 1:500  
Reduced Scale (A3) 1:1000

Design: C.BREYTENBACH 08.06.21  
Drawn: A.FAZEKAS 08.06.21  
Design Verifier:   
Design Check:   
Date:   
\* Refer to Revision 1 for Original Signature

Approved For Construction:   
Date:   
Client:   
Project:   
Title:   
Discipline:   
Drawing No:   
Rev:   
E

Client: **MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ**

Project: **CARRINGTON BACKBONE WORKS PROJECT**

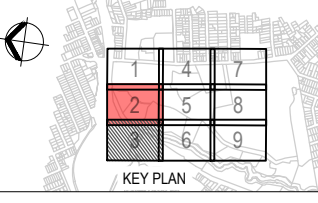
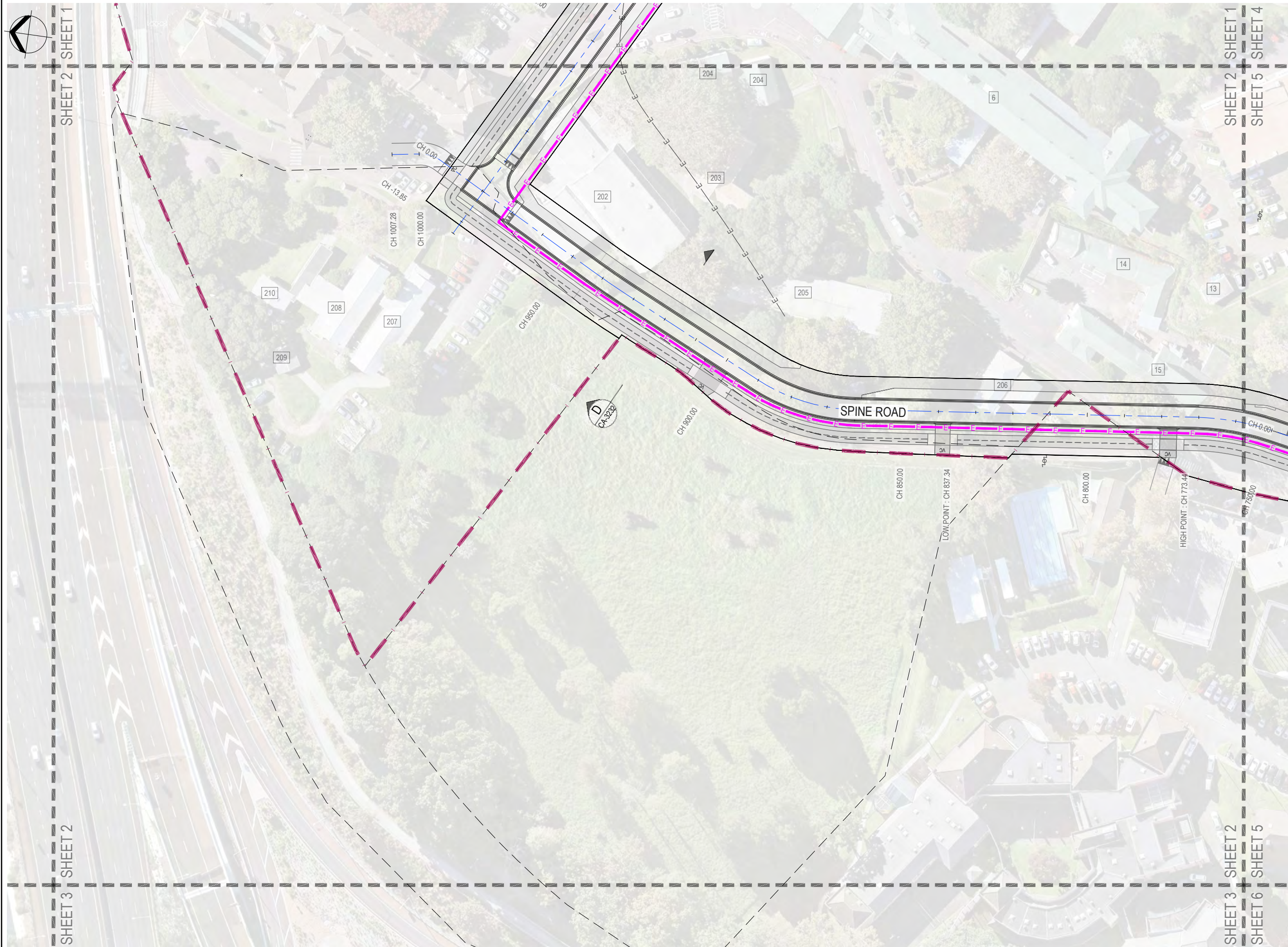
Title: **POWER LAYOUT SHEET 1**

Discipline: **CIVIL ENGINEERING**

Drawing No: **3126447-CA-7201**

Rev: **E**

Approved Resource Consent Plan | BUN60386272 & SUB60386271 | 29/06/2022 | Page 86 of 127



**LEGEND:**

- PROPERTY BOUNDARIES
- - - SITE BOUNDARY
- - - FUTURE CARRINGTON ROAD WIDENING
- E- EXISTING ELECTRICAL
- E- ELECTRICAL CORRIDOR

- NOTES:**
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  4. ELEVATIONS ARE IN TERMS OF NEW ZEALAND VERTICAL DATUM 2016.

ORIGINAL DRAWING  
IN COLOUR

**RESOURCE CONSENT**  
NOT FOR CONSTRUCTION

E	MINOR AMENDMENTS	ABL	CJB	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	CJB	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	CJB	DP	23.07.21
B	FOR RESOURCE CONSENT	ABL	CJB	RM	05.07.21
No.	Revision	By	Chk.	Appd.	Date

Drawing Originator:

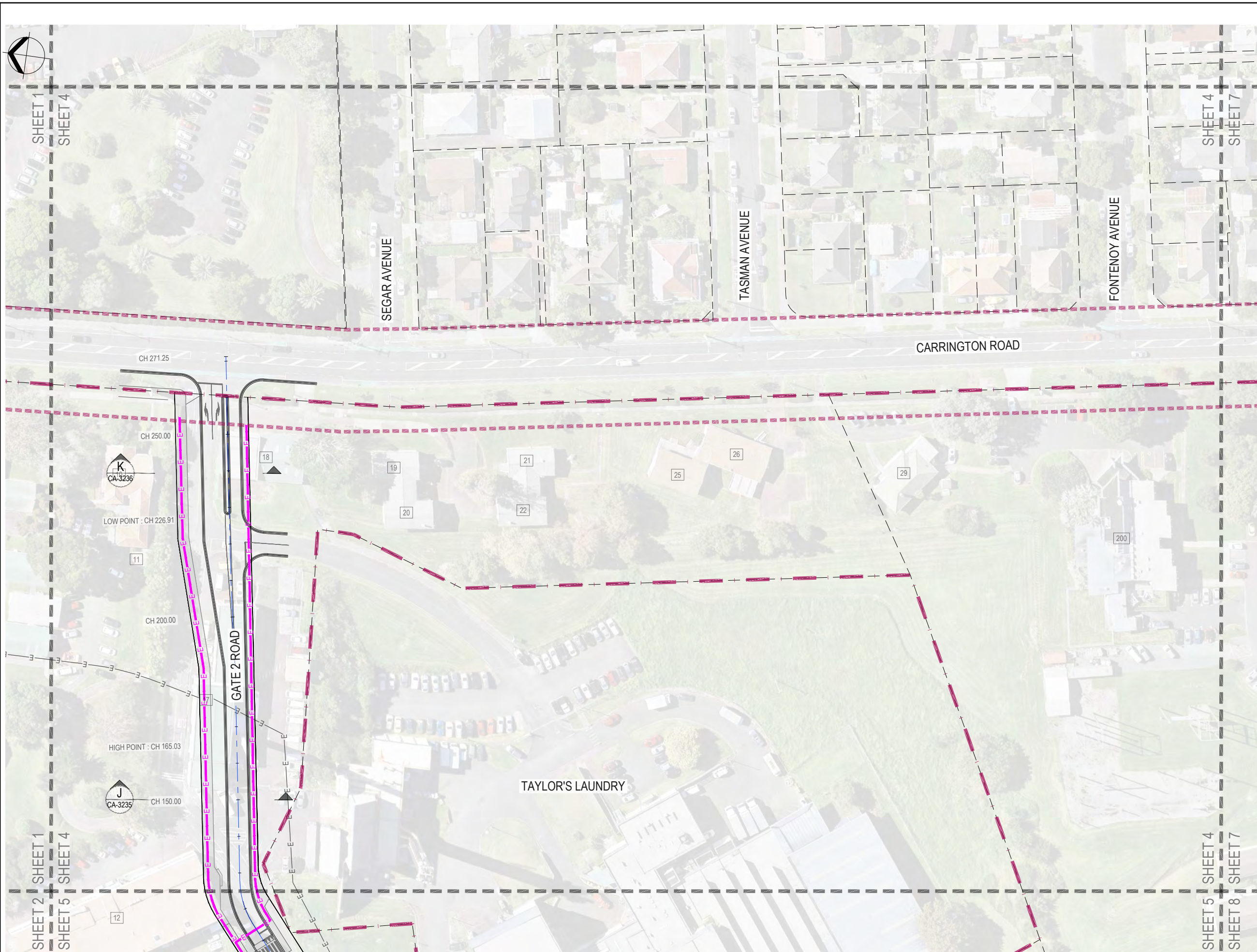
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Reduced Scale (A3)	1:1000	Drawn	A.FAZEKAS	08.06.21	Date
		Dwg Verifier			
		Dwg Check			
		* Refer to Revision 1 for Original Signature			

Client: **MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ**

Project: **CARRINGTON BACKBONE WORKS PROJECT**

Title: **POWER LAYOUT SHEET 2**

Discipline	<b>CIVIL ENGINEERING</b>	
Drawing No.	<b>3126447-CA-7202</b>	Rev.
		<b>E</b>



**LEGEND:**

- PROPERTY BOUNDARIES
- SITE BOUNDARY
- FUTURE CARRINGTON ROAD WIDENING
- EXISTING ELECTRICAL
- ELECTRICAL CORRIDOR

- NOTES:**
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**ORIGINAL DRAWING  
IN COLOUR**

**RESOURCE CONSENT  
NOT FOR CONSTRUCTION**

No.	Revision	By	Chk.	Appd.	Date
E	MINOR AMENDMENTS	ABL	CJB	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	CJB	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	CJB	DP	23.07.21
B	FOR RESOURCE CONSENT	ABL	CJB	RM	05.07.21

Drawing Originator:

Original Scale (A1)	1:500	Design	C.BREYTENBACH	08.06.21	Approved For Construction*
Reduced Scale (A3)	1:1000	Drawn	A.FAZEKAS	08.06.21	Date
		Dag Verifier			
		Dag Check			

\* Refer to Revision 1 for Original Signature

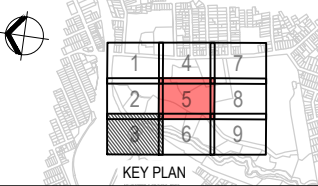
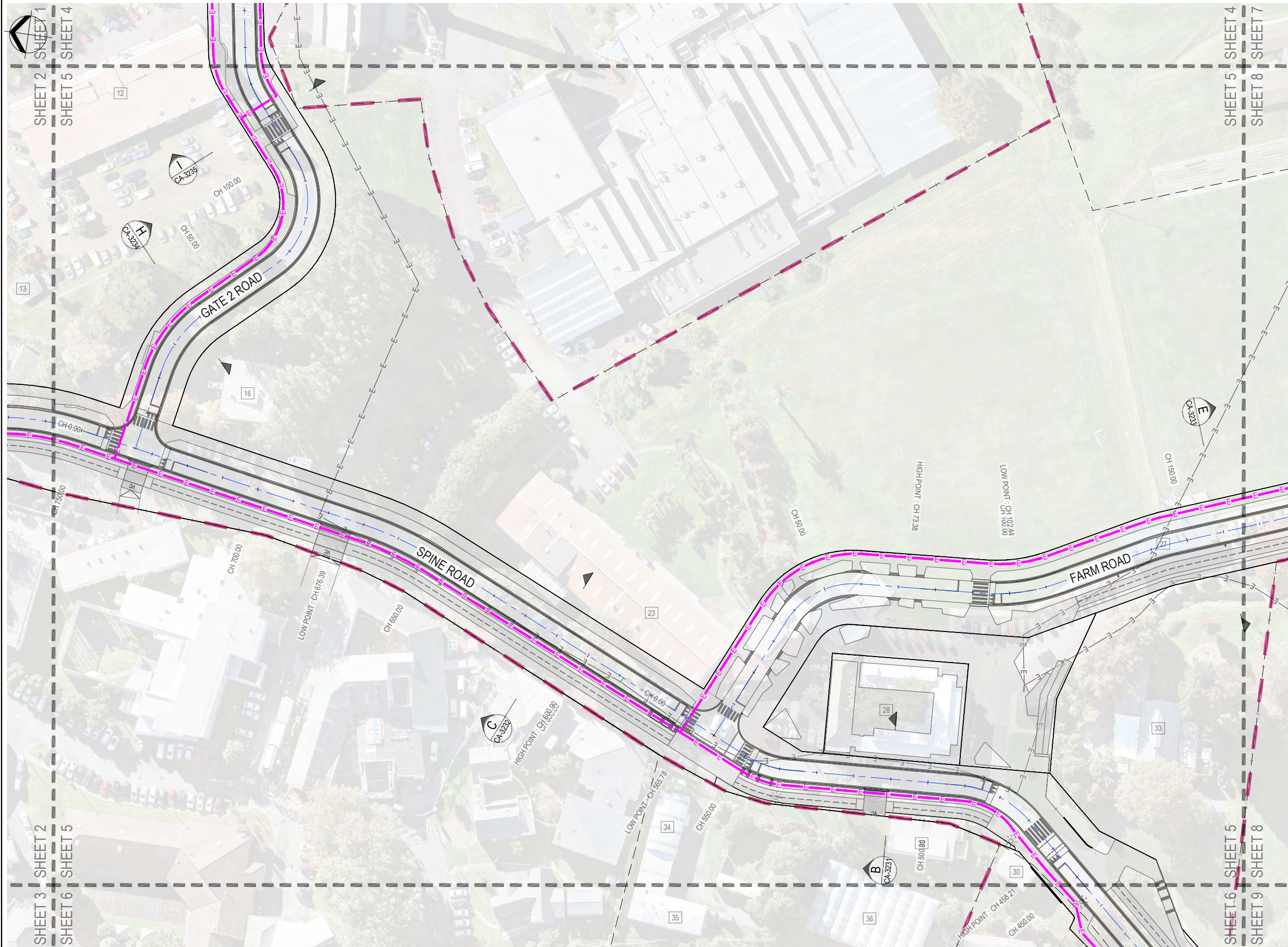
Client: **MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ**

Project: **CARRINGTON BACKBONE WORKS PROJECT**

Title: **POWER LAYOUT SHEET 4**

Discipline	<b>CIVIL ENGINEERING</b>	
Drawing No.	<b>3126447-CA-7204</b>	Rev.
		<b>E</b>





**LEGEND:**

- PROPERTY BOUNDARIES
- SITE BOUNDARY
- FUTURE CARRINGTON ROAD WIDENING
- EXISTING ELECTRICAL
- ELECTRICAL CORRIDOR

- NOTES:**
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ORIGINAL DRAWING  
IN COLOUR

RESOURCE CONSENT  
NOT FOR CONSTRUCTION

No.	Revision	By	CHK	Appd	Date
E	MINOR AMENDMENTS	ABL	CJB	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	CJB	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	CJB	DP	23.07.21
B	FOR RESOURCE CONSENT	ABL	CJB	RM	05.07.21

Drawing Originator:

Original Scale (A1) 1:500	Design C.BREYTENBACH 08.06.21	Approved For Construction* A.FAZEKAS 08.06.21
Reduced Scale (A3) 1:1000	Drawn A.FAZEKAS	Date

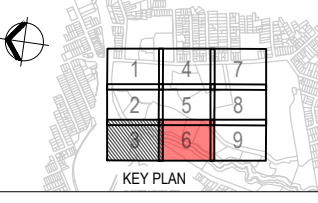
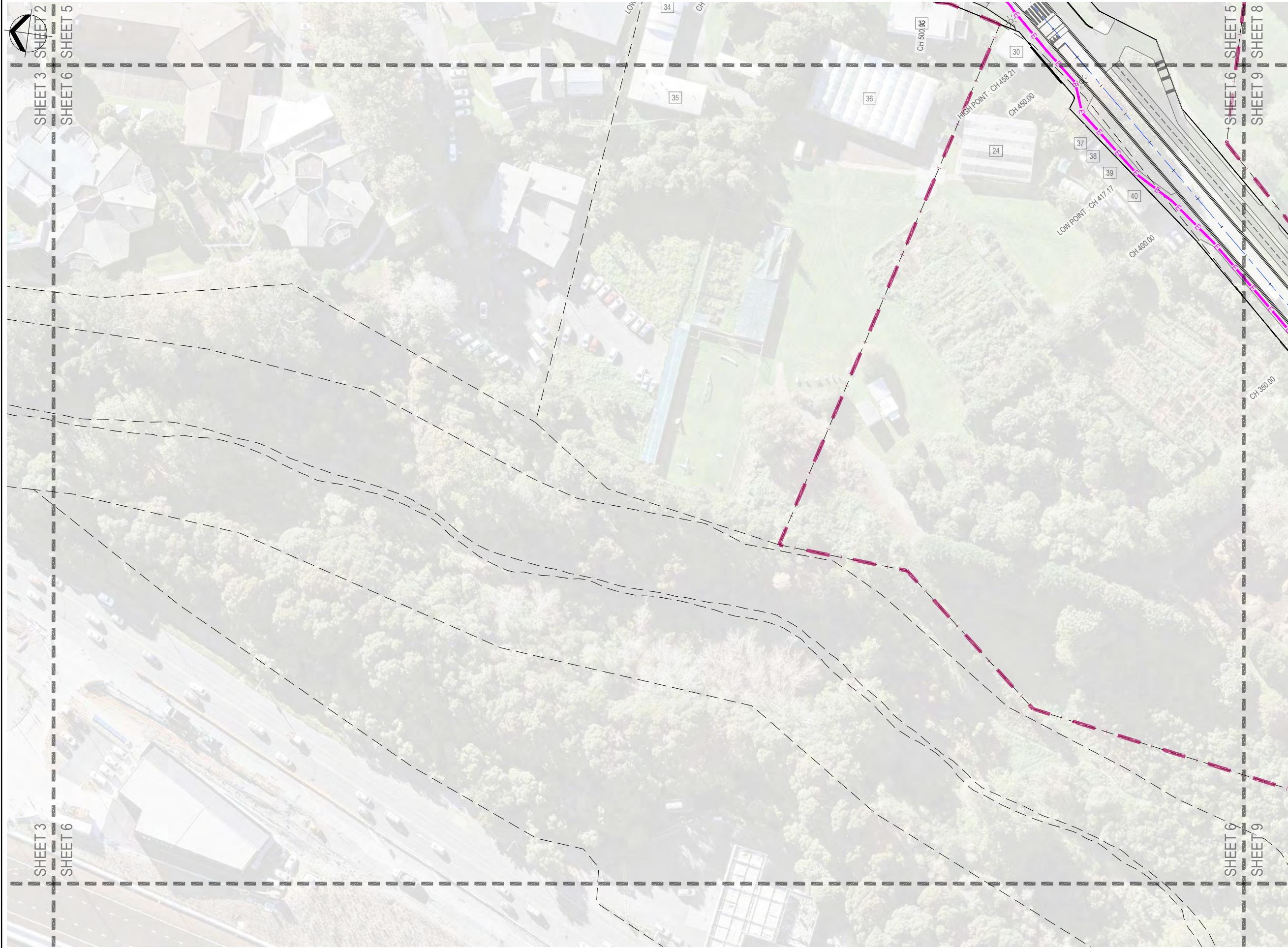
\* Refer to Revision 1 for Original Signature

Client: **MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ**

Project: **CARRINGTON BACKBONE WORKS PROJECT**

Title: **POWER LAYOUT SHEET 5**

Discipline <b>CIVIL ENGINEERING</b>	Rev. <b>E</b>
Drawing No. <b>3126447-CA-7205</b>	



**LEGEND:**

- PROPERTY BOUNDARIES
- SITE BOUNDARY
- FUTURE CARRINGTON ROAD WIDENING
- EXISTING ELECTRICAL
- ELECTRICAL CORRIDOR

- NOTES:**
1. SURVEY DATA SHOWN ON THIS PLAN WAS PROVIDED BY CALIBRE CONSULTING LIMITED SURVEYED ON 2017.
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  3. COORDINATES ARE IN TERMS OF MT EDEN 2000.
  4. ELEVATIONS ARE IN TERMS OF NEW ZEALAND VERTICAL DATUM 2016.

**ORIGINAL DRAWING  
IN COLOUR**

**RESOURCE CONSENT  
NOT FOR CONSTRUCTION**

No.	Revision	By	CHK	Appd	Date
E	MINOR AMENDMENTS	ABL	CJB	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	CJB	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	CJB	DP	23.07.21
B	FOR RESOURCE CONSENT	ABL	CJB	RM	05.07.21

Drawing Originator:

Original Scale (A1)	Design	Drawn	Checked	Approved For Construction*
1:500	C.BREYENBACH	A.FAZEKAS		08.06.21
Reduced Scale (A3)				08.06.21
1:1000				

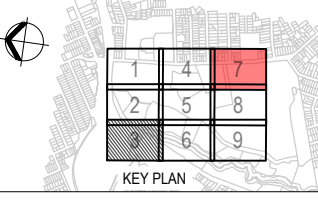
\* Refer to Revision 1 for Original Signature

Client: **MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ**

Project: **CARRINGTON BACKBONE WORKS PROJECT**

Title: **POWER LAYOUT SHEET 6**

Discipline	Rev.
CIVIL ENGINEERING	E
Drawing No.	3126447-CA-7206



**LEGEND:**

- PROPERTY BOUNDARIES
- SITE BOUNDARY
- FUTURE CARRINGTON ROAD WIDENING
- EXISTING ELECTRICAL
- ELECTRICAL CORRIDOR

- NOTES:**
1. SURVEY DATA SHOWN ON THIS PLAN WAS PROVIDED BY CALIBRE CONSULTING LIMITED SURVEYED ON 2017.
  2. EXISTING SERVICES INFORMATION HAS BEEN COMPILED FROM VARIOUS SOURCES. ACCURACY UNKNOWN. CONTRACTOR TO LOCATE AND MARK OUT SERVICES PRIOR TO CONSTRUCTION WORKS.
  3. COORDINATES ARE IN TERMS OF MT EDEN 2000.
  4. ELEVATIONS ARE IN TERMS OF NEW ZEALAND VERTICAL DATUM 2016.

ORIGINAL DRAWING  
IN COLOUR

RESOURCE CONSENT  
NOT FOR CONSTRUCTION

No.	Revision	By	CHK	Appd	Date
E	MINOR AMENDMENTS	ABL	CJB	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	CJB	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	CJB	DP	23.07.21
B	FOR RESOURCE CONSENT	ABL	CJB	RM	05.07.21

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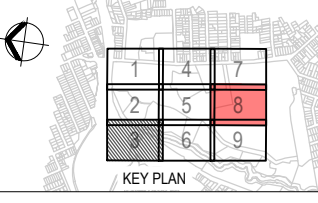
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Reduced Scale (A3) 1:1000	Drawn A.FAZEKAS 08.06.21	Date
	Design Verifier	
	Design Check	

\* Refer to Revision 1 for Original Signature

<p><b>MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ</b></p>	<p><b>CARRINGTON BACKBONE WORKS PROJECT</b></p>
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<p><b>POWER LAYOUT SHEET 7</b></p>	<p>Discipline <b>CIVIL ENGINEERING</b></p>
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<p>Drawing No. <b>3126447-CA-7207</b></p>	<p>Rev. <b>E</b></p>
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**LEGEND:**

- PROPERTY BOUNDARIES
- SITE BOUNDARY
- FUTURE CARRINGTON ROAD WIDENING
- E— EXISTING ELECTRICAL
- E— ELECTRICAL CORRIDOR

- NOTES:**
1. SURVEY DATA SHOWN ON THIS PLAN WAS PROVIDED BY CALIBRE CONSULTING LIMITED SURVEYED ON 2017.
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  4. ELEVATIONS ARE IN TERMS OF NEW ZEALAND VERTICAL DATUM 2016.

ORIGINAL DRAWING  
IN COLOUR  
RESOURCE CONSENT  
NOT FOR CONSTRUCTION

No.	Revision	By	CHK	Appd	Date
E	MINOR AMENDMENTS	ABL	CJB	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	CJB	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	CJB	DP	23.07.21
B	FOR RESOURCE CONSENT	ABL	CJB	RM	05.07.21

Drawing Originator:

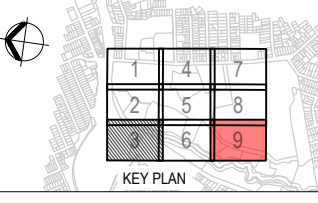
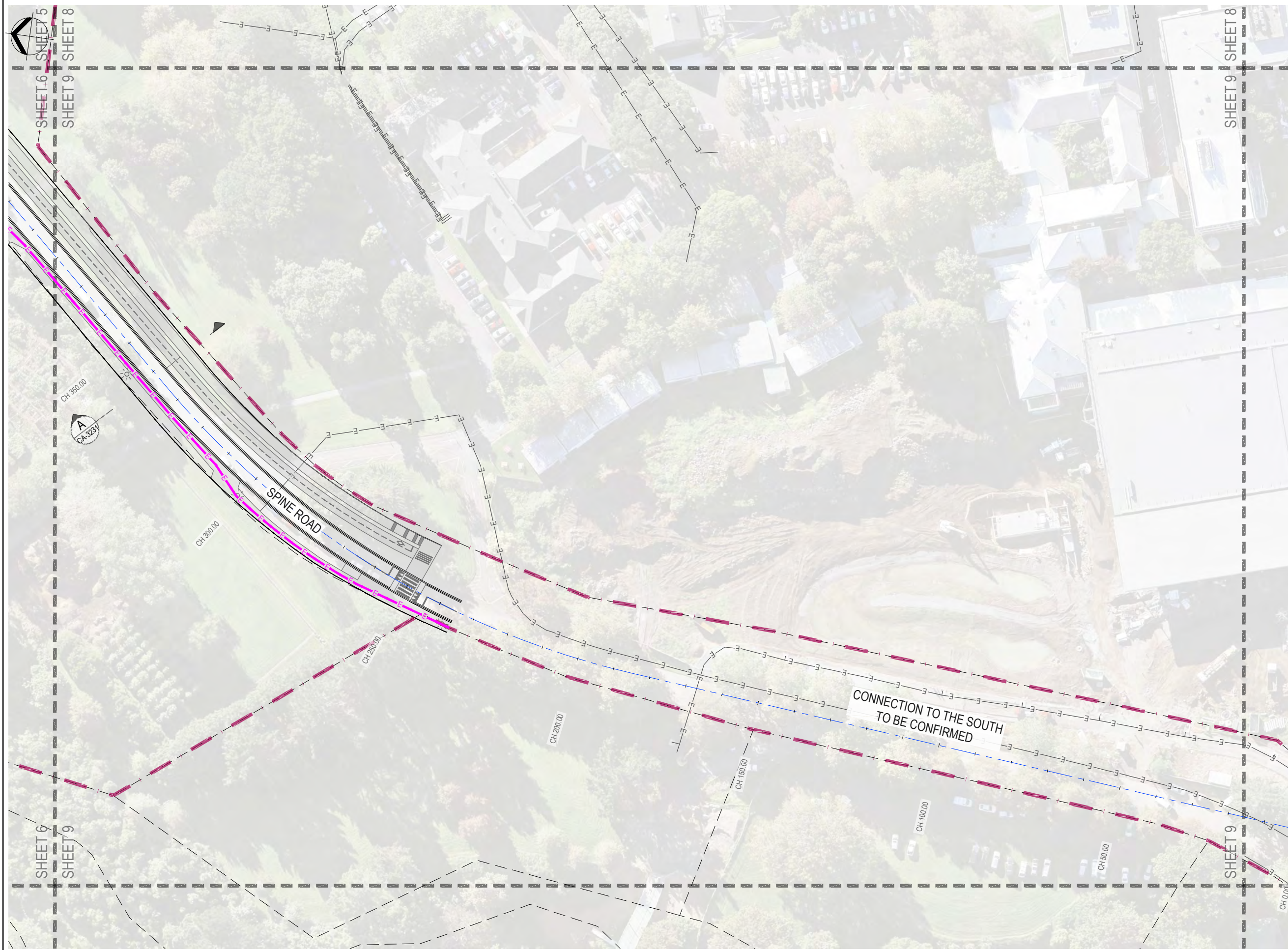
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 Design: C.BREYTENBACH 08.06.21  
 Drawn: A.FAZEKAS 08.06.21  
 Reduced Scale (A3) 1:1000  
 Design Verifier: \_\_\_\_\_  
 Design Check: \_\_\_\_\_  
 Date: \_\_\_\_\_

Client: **MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ**

Project: **CARRINGTON BACKBONE WORKS PROJECT**

Title: **POWER LAYOUT SHEET 8**

Discipline	CIVIL ENGINEERING	
Drawing No.	3126447-CA-7208	Rev. E



**LEGEND:**

- PROPERTY BOUNDARIES
- SITE BOUNDARY
- FUTURE CARRINGTON ROAD WIDENING
- E- EXISTING ELECTRICAL
- ELECTRICAL CORRIDOR

- NOTES:**
1. SURVEY DATA SHOWN ON THIS PLAN WAS PROVIDED BY CALIBRE CONSULTING LIMITED SURVEYED ON 2017.
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  3. COORDINATES ARE IN TERMS OF MT EDEN 2000.
  4. ELEVATIONS ARE IN TERMS OF NEW ZEALAND VERTICAL DATUM 2016.

**ORIGINAL DRAWING  
IN COLOUR**

**RESOURCE CONSENT  
NOT FOR CONSTRUCTION**

E	MINOR AMENDMENTS	ABL	CJB	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	CJB	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	CJB	DP	23.07.21
B	FOR RESOURCE CONSENT	ABL	CJB	RM	05.07.21
No.	Revision	By	CHK	Appd	Date

Drawing Originator:

Original Scale (A1) 1:500  
Reduced Scale (A3) 1:1000

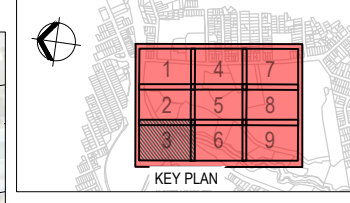
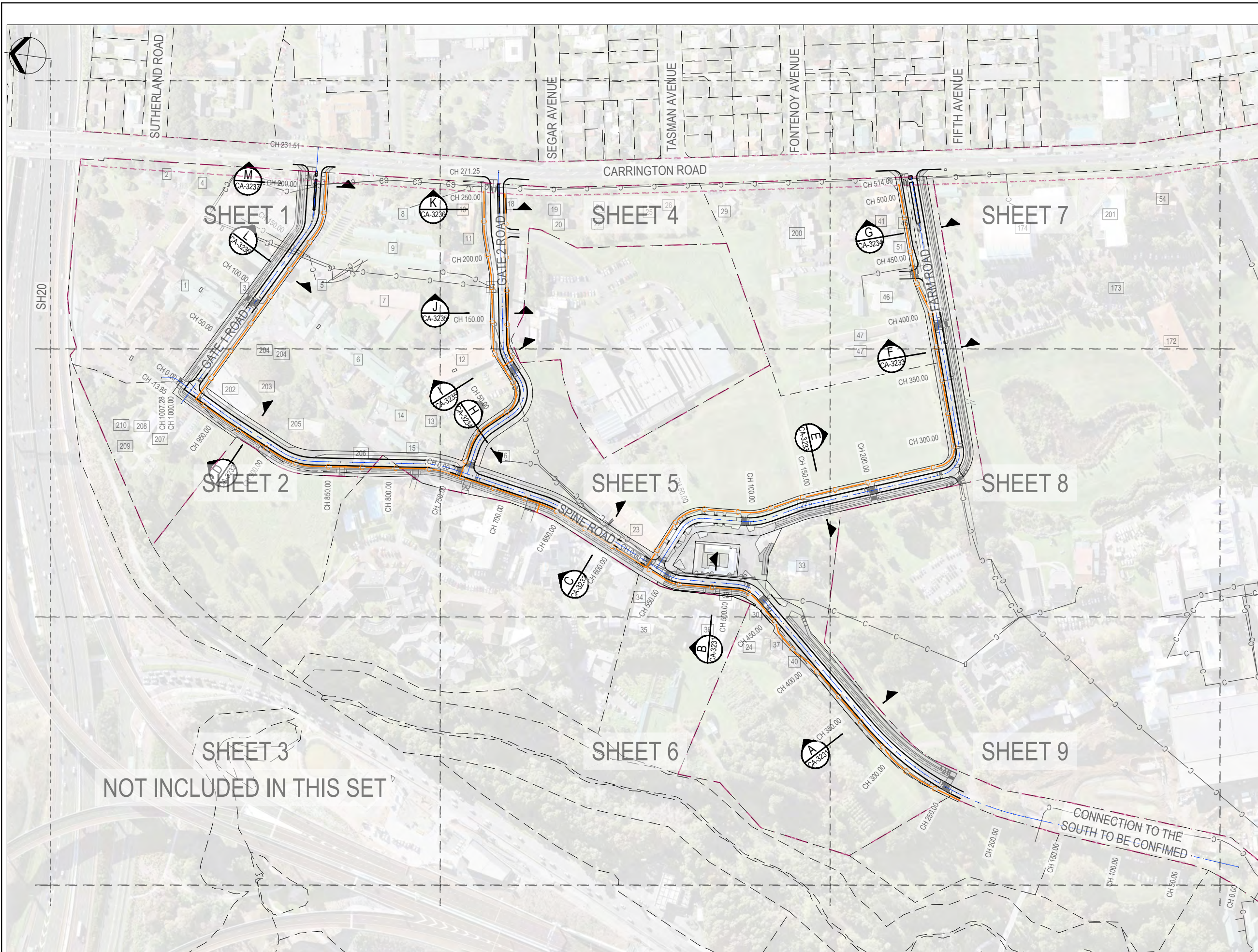
Design: C.BREYTENBACH 08.06.21  
Drawn: A.FAZEKAS 08.06.21  
Dag Verifier:   
Dag Check:   
Date:   
\* Refer to Revision 1 for Original Signature

Client: **MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ**

Project: **CARRINGTON BACKBONE WORKS PROJECT**

Title: **POWER LAYOUT SHEET 9**

Discipline	<b>CIVIL ENGINEERING</b>	
Drawing No.	<b>3126447-CA-7209</b>	Rev.
		<b>E</b>



**LEGEND:**

- PROPERTY BOUNDARIES
- SITE BOUNDARY
- FUTURE CARRINGTON ROAD WIDENING
- EXISTING COMMUNICATIONS
- COMMUNICATIONS CORRIDOR

- NOTES:**
1. SURVEY DATA SHOWN ON THIS PLAN WAS PROVIDED BY CALIBRE CONSULTING LIMITED SURVEYED IN 2017. EXISTING SERVICES INFORMATION HAS BEEN COMPILED FROM VARIOUS SOURCES. ACCURACY UNKNOWN. CONTRACTOR TO LOCATE AND MARK OUT SERVICES PRIOR TO CONSTRUCTION WORKS.
  2. COORDINATES ARE IN TERMS OF MT EDEN 2000.
  3. ELEVATIONS ARE IN TERMS OF NEW ZEALAND VERTICAL DATUM 2016.

ORIGINAL DRAWING  
IN COLOUR  
RESOURCE CONSENT  
NOT FOR CONSTRUCTION

No.	Revision	By	CHK	Appd	Date
E	MINOR AMENDMENTS	ABL	CJB	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	CJB	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	CJB	DP	23.07.21
B	FOR RESOURCE CONSENT	ABL	CJB	RM	05.07.21



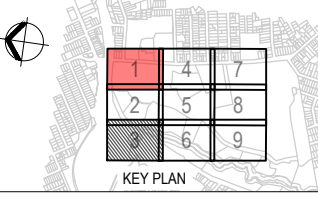
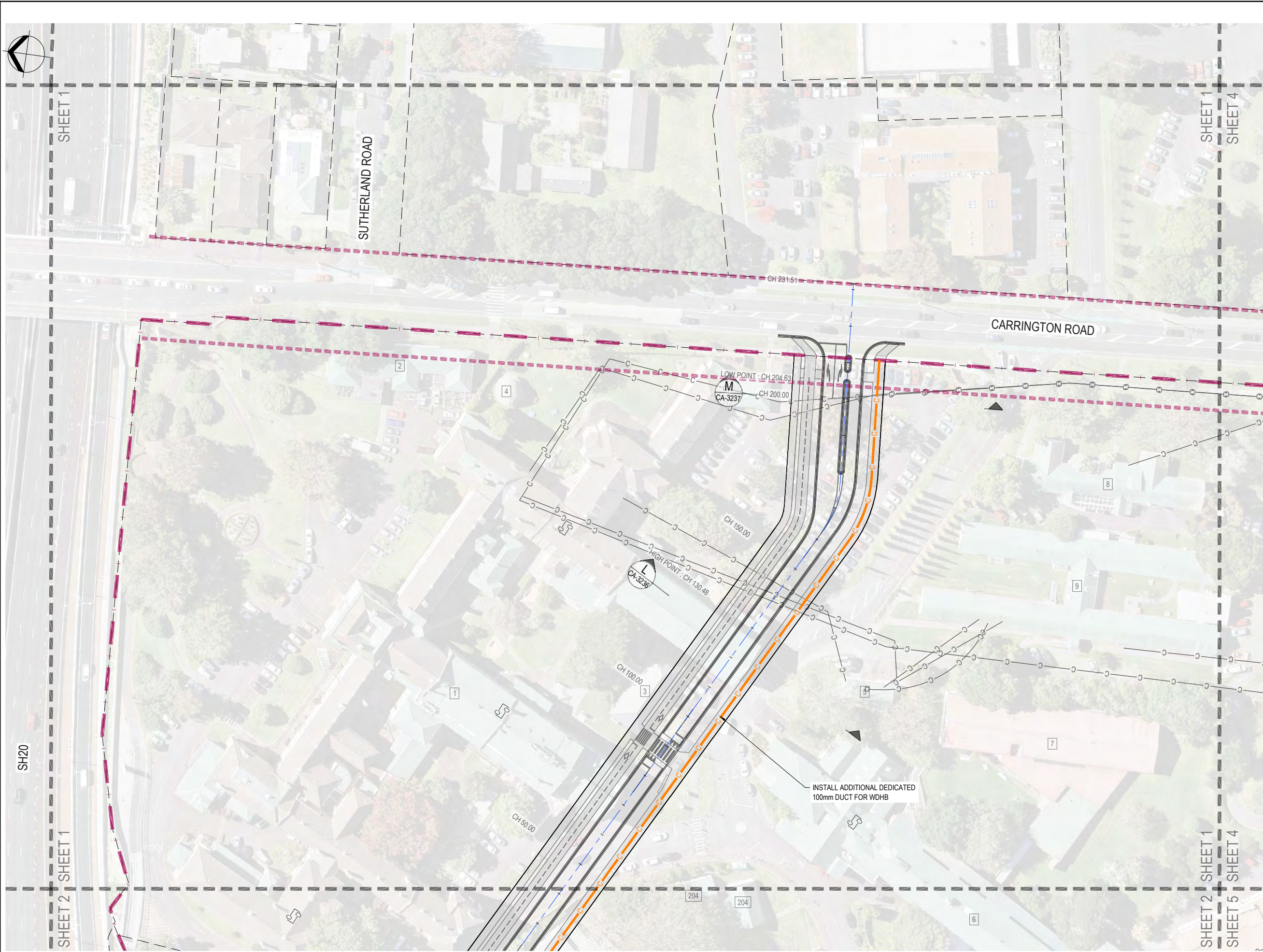
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Reduced Scale (A3) 1:3000	Design Verifier	Date

Client: **MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ**

Project: **CARRINGTON BACKBONE WORKS PROJECT**

Title: **COMMUNICATIONS OVERALL LAYOUT**

Discipline <b>CIVIL ENGINEERING</b>	Rev. <b>E</b>
Drawing No. <b>3126447-CA-7300</b>	



**LEGEND:**

- PROPERTY BOUNDARIES
- SITE BOUNDARY
- FUTURE CARRINGTON ROAD WIDENING
- EXISTING COMMUNICATIONS
- COMMUNICATIONS CORRIDOR

- NOTES:**
1. SURVEY DATA SHOWN ON THIS PLAN WAS PROVIDED BY CALIBRE CONSULTING LIMITED SURVEYED IN 2017.
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  3. COORDINATES ARE IN TERMS OF MT EDEN 2000.
  4. ELEVATIONS ARE IN TERMS OF NEW ZEALAND VERTICAL DATUM 2016.

ORIGINAL DRAWING  
IN COLOUR

**RESOURCE CONSENT  
NOT FOR CONSTRUCTION**

No.	Revision	By	CHK	Appd	Date
E	MINOR AMENDMENTS	ABL	CJB	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	CJB	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	CJB	DP	23.07.21
B	FOR RESOURCE CONSENT	ABL	CJB	RM	05.07.21

Drawing Originator:

Original Scale (A1)	1:500
Reduced Scale (A3)	1:1000

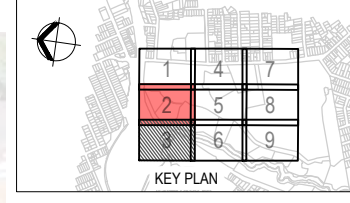
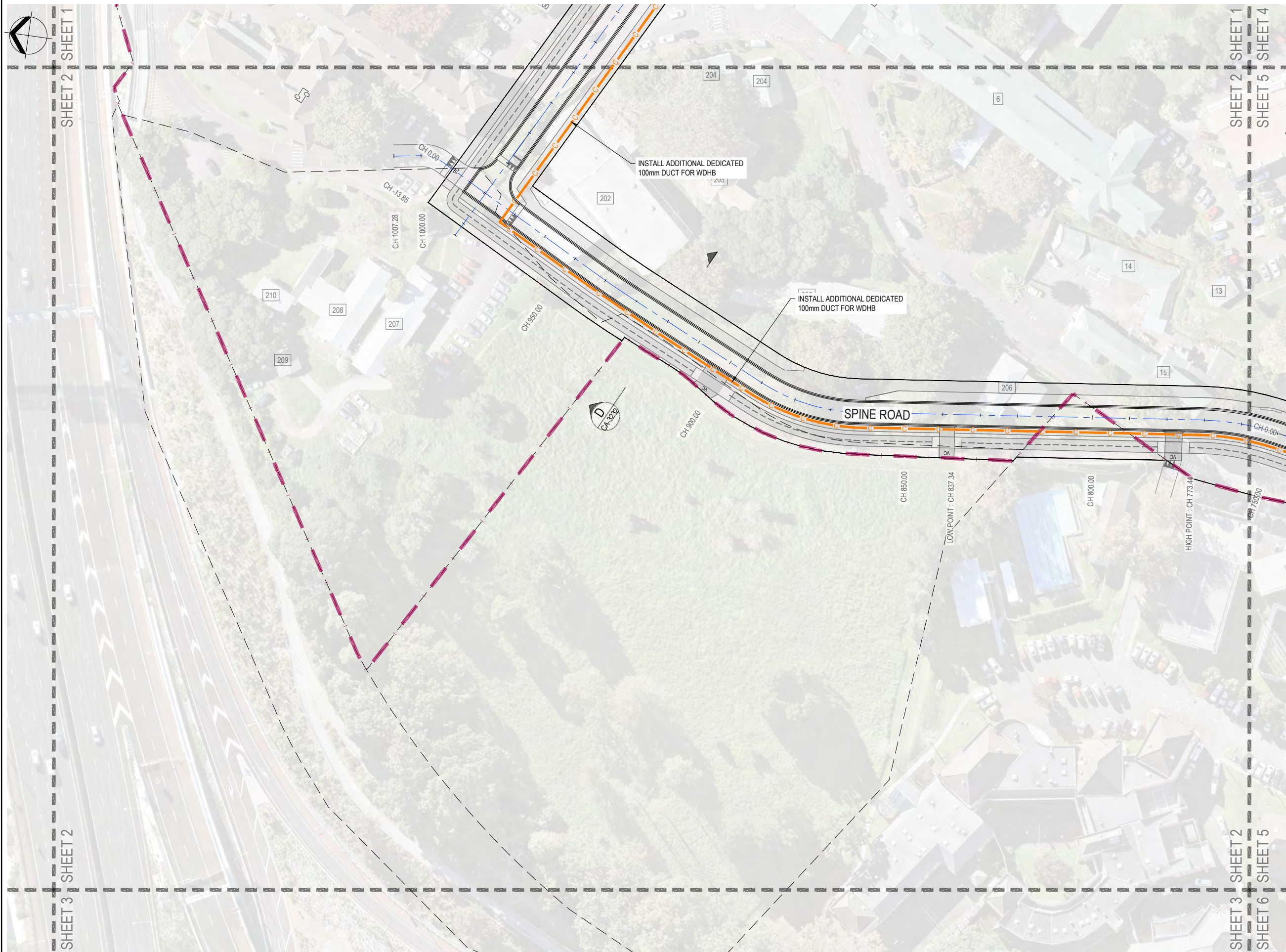
Design	C.BREYENBACH	08.06.21	Approved For Construction*
Drawn	A.FAZEKAS	08.06.21	Date
Design Verifier			
Design Check			

Client: **MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ**

Project: **CARRINGTON BACKBONE WORKS PROJECT**

Title: **COMMUNICATIONS LAYOUT SHEET 1**

Discipline	CIVIL ENGINEERING
Drawing No.	3126447-CA-7301
Rev.	E



**LEGEND:**

- PROPERTY BOUNDARIES
- - - SITE BOUNDARY
- - - FUTURE CARRINGTON ROAD WIDENING
- C - EXISTING COMMUNICATIONS
- C - COMMUNICATIONS CORRIDOR

- NOTES:**
1. SURVEY DATA SHOWN ON THIS PLAN WAS PROVIDED BY CALIBRE CONSULTING LIMITED SURVEYED IN 2017.
  2. EXISTING SERVICES INFORMATION HAS BEEN COMPILED FROM VARIOUS SOURCES. ACCURACY UNKNOWN. CONTRACTOR TO LOCATE AND MARK OUT SERVICES PRIOR TO CONSTRUCTION WORKS.
  3. COORDINATES ARE IN TERMS OF MT EDEN 2000.
  4. ELEVATIONS ARE IN TERMS OF NEW ZEALAND VERTICAL DATUM 2016.

ORIGINAL DRAWING  
IN COLOUR

**RESOURCE CONSENT  
NOT FOR CONSTRUCTION**

E	MINOR AMENDMENTS	ABL	CJB	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	CJB	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	CJB	DP	23.07.21
B	FOR RESOURCE CONSENT	ABL	CJB	RM	05.07.21
No.	Revision	By	Chk.	Appd.	Date

Original Scale (A1)  
1:500

Reduced Scale (A3)  
1:1000

**Beca**

Design	C.BREYTENBACH	08.06.21	Approved For Construction*
Drawn	A.FAZEKAS	08.06.21	Date
Dwg Verifier			
Dwg Check			

\* Refer to Revision 1 for Original Signature

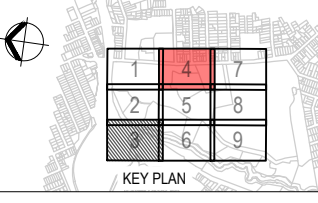
Client: **MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ**

Project: **CARRINGTON BACKBONE WORKS PROJECT**

Title: **COMMUNICATIONS LAYOUT SHEET 2**

Discipline	<b>CIVIL ENGINEERING</b>	
Drawing No.	<b>3126447-CA-7302</b>	Rev.
		<b>E</b>





**LEGEND:**

- PROPERTY BOUNDARIES
- SITE BOUNDARY
- FUTURE CARRINGTON ROAD WIDENING
- EXISTING COMMUNICATIONS
- COMMUNICATIONS CORRIDOR

- NOTES:**
1. SURVEY DATA SHOWN ON THIS PLAN WAS PROVIDED BY CALIBRE CONSULTING LIMITED SURVEYED ON 2017.
  2. EXISTING SERVICES INFORMATION HAS BEEN COMPILED FROM VARIOUS SOURCES. ACCURACY UNKNOWN. CONTRACTOR TO LOCATE AND MARK OUT SERVICES PRIOR TO CONSTRUCTION WORKS.
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  4. ELEVATIONS ARE IN TERMS OF NEW ZEALAND VERTICAL DATUM 2016.

ORIGINAL DRAWING  
IN COLOUR

RESOURCE CONSENT  
NOT FOR CONSTRUCTION

No.	Revision	By	CHK	Appd	Date
E	MINOR AMENDMENTS	ABL	CJB	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	CJB	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	CJB	DP	23.07.21
B	FOR RESOURCE CONSENT	ABL	CJB	RM	05.07.21

Drawing Originator:

Original Scale (A1)	1:500	Design	C.BREYTENBACH	08.06.21	Approved For Construction*
Reduced Scale (A3)	1:1000	Drawn	A.FAZEKAS	08.06.21	Date
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		Dag Check			

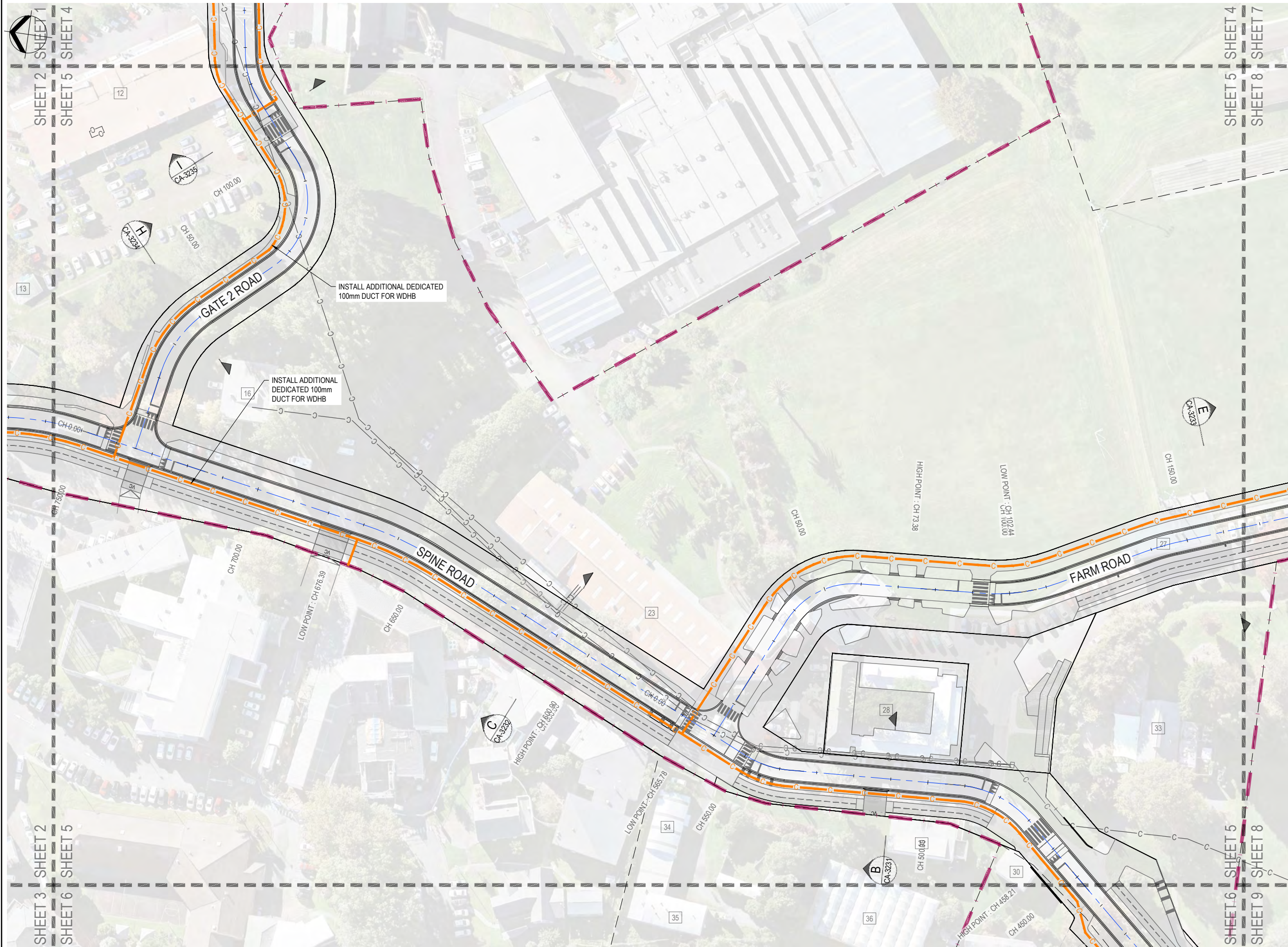
\* Refer to Revision 1 for Original Signature

Client: **MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ**

Project: **CARRINGTON BACKBONE WORKS PROJECT**

Title: **COMMUNICATIONS LAYOUT SHEET 4**

Discipline	<b>CIVIL ENGINEERING</b>
Drawing No.	<b>3126447-CA-7304</b>
Rev.	<b>E</b>



**LEGEND:**

- PROPERTY BOUNDARIES
- SITE BOUNDARY
- FUTURE CARRINGTON ROAD WIDENING
- C- EXISTING COMMUNICATIONS
- COMMUNICATIONS CORRIDOR

- NOTES:**
1. SURVEY DATA SHOWN ON THIS PLAN WAS PROVIDED BY CALIBRE CONSULTING LIMITED SURVEYED IN 2017.
  2. EXISTING SERVICES INFORMATION HAS BEEN COMPILED FROM VARIOUS SOURCES. ACCURACY UNKNOWN. CONTRACTOR TO LOCATE AND MARK OUT SERVICES PRIOR TO CONSTRUCTION WORKS.
  3. COORDINATES ARE IN TERMS OF MT EDEN 2000.
  4. ELEVATIONS ARE IN TERMS OF NEW ZEALAND VERTICAL DATUM 2016.

ORIGINAL DRAWING  
IN COLOUR  
**RESOURCE CONSENT**  
**NOT FOR CONSTRUCTION**

E	MINOR AMENDMENTS	ABL	CJB	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	CJB	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	CJB	DP	23.07.21
B	FOR RESOURCE CONSENT	ABL	CJB	RM	05.07.21
No.	Revision	By	Chk.	Appd.	Date

Drawing Originator:

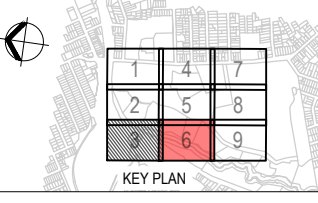
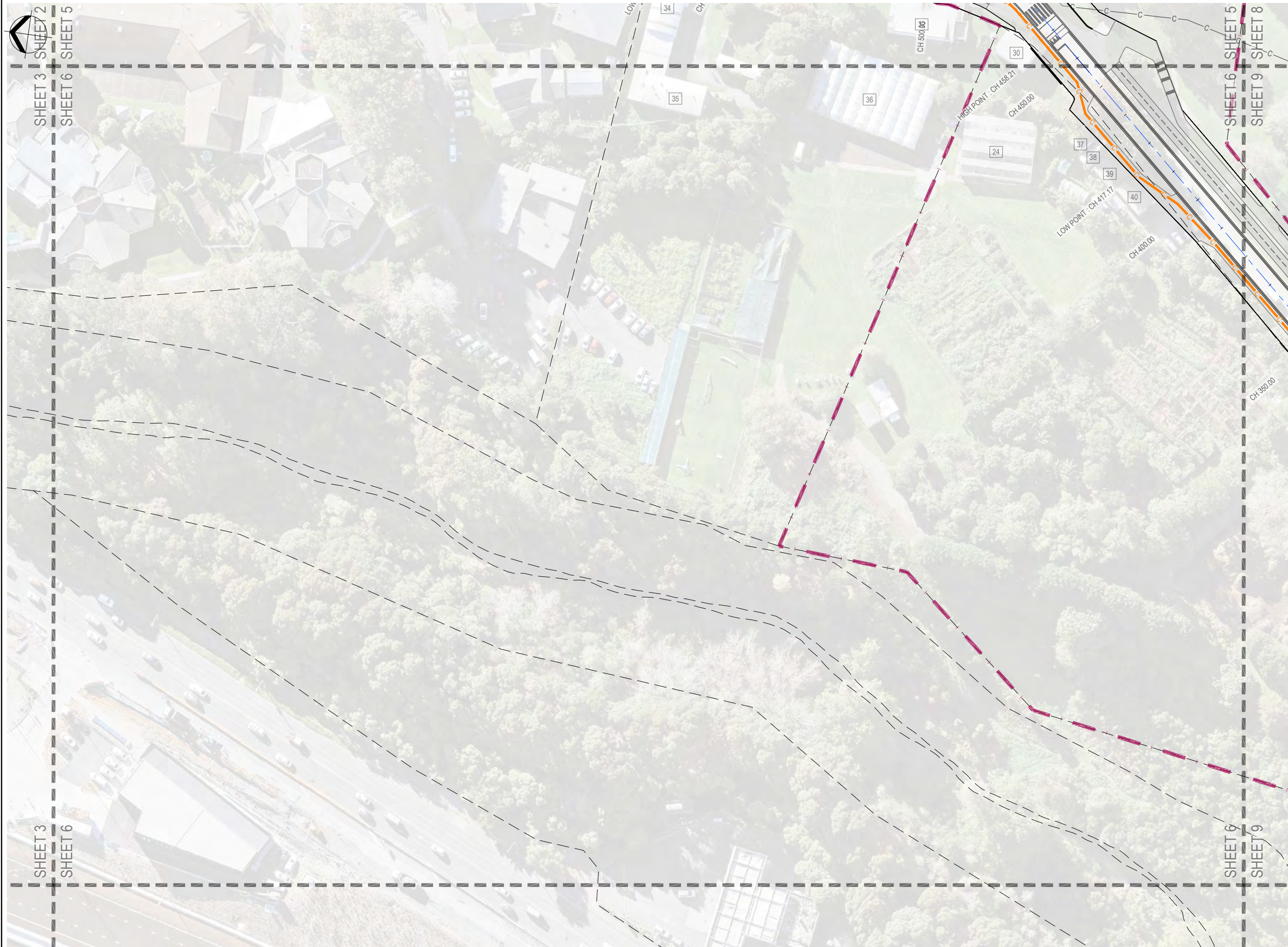
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 Design: C.BREYTENBACH 08.06.21  
 Drawn: A.FAZEKAS 08.06.21  
 Approved For Construction\*  
 Reduced Scale (A3) 1:1000  
 Design Verifier: \_\_\_\_\_  
 Design Check: \_\_\_\_\_  
 Date: \_\_\_\_\_  
 \* Refer to Revision 1 for Original Signature

Client: **MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ**

Project: **CARRINGTON BACKBONE WORKS PROJECT**

Title: **COMMUNICATIONS LAYOUT SHEET 5**

Discipline	CIVIL ENGINEERING
Drawing No.	3126447-CA-7305
Rev.	E



**LEGEND:**

- PROPERTY BOUNDARIES
- SITE BOUNDARY
- FUTURE CARRINGTON ROAD WIDENING
- EXISTING COMMUNICATIONS
- COMMUNICATIONS CORRIDOR

- NOTES:**
1. SURVEY DATA SHOWN ON THIS PLAN WAS PROVIDED BY CALIBRE CONSULTING LIMITED SURVEYED ON 2017.
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  3. COORDINATES ARE IN TERMS OF MT EDEN 2000.
  4. ELEVATIONS ARE IN TERMS OF NEW ZEALAND VERTICAL DATUM 2016.

**ORIGINAL DRAWING  
IN COLOUR**

**RESOURCE CONSENT  
NOT FOR CONSTRUCTION**

E	MINOR AMENDMENTS	ABL	CJB	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	CJB	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	CJB	DP	23.07.21
B	FOR RESOURCE CONSENT	ABL	CJB	RM	05.07.21
No.	Revision	By	CHK	Appd	Date

Drawing Originator:

Original Scale (A1)	1:500	Design	C.BREYENBACH	08.06.21	Approved For Construction*
Reduced Scale (A3)	1:1000	Drawn	A.FAZEKAS	08.06.21	Date
		Design Verifier			
		Design Check			
		* Refer to Revision 1 for Original Signature			

Client: **MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ**

Project: **CARRINGTON BACKBONE WORKS PROJECT**

Title: **COMMUNICATIONS LAYOUT SHEET 6**

Discipline	<b>CIVIL ENGINEERING</b>	
Drawing No.	<b>3126447-CA-7306</b>	Rev.
		<b>E</b>



**LEGEND:**

- PROPERTY BOUNDARIES
- SITE BOUNDARY
- FUTURE CARRINGTON ROAD WIDENING
- EXISTING COMMUNICATIONS
- COMMUNICATIONS CORRIDOR

**NOTES:**

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3. COORDINATES ARE IN TERMS OF MT EDEN 2000.
4. ELEVATIONS ARE IN TERMS OF NEW ZEALAND VERTICAL DATUM 2016.

ORIGINAL DRAWING  
IN COLOUR

**RESOURCE CONSENT**  
NOT FOR CONSTRUCTION

No.	Revision	By	CHK	Appd	Date
E	MINOR AMENDMENTS	ABL	CJB	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	CJB	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	CJB	DP	23.07.21
B	FOR RESOURCE CONSENT	ABL	CJB	RM	05.07.21

Drawing Originator:  
**Beca**

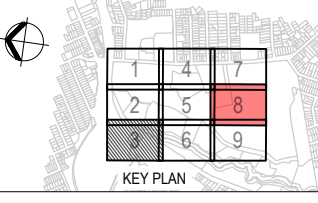
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Reduced Scale (A3) 1:1000	Drawn A.FAZEKAS 08.06.21	Date
	Design Verifier	
	Design Check	
	* Refer to Revision 1 for Original Signature	

Client: **MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ**

Project: **CARRINGTON BACKBONE WORKS PROJECT**

Title: **COMMUNICATIONS LAYOUT SHEET 7**

Discipline	<b>CIVIL ENGINEERING</b>
Drawing No.	<b>3126447-CA-7307</b>
Rev.	<b>E</b>



**LEGEND:**

- PROPERTY BOUNDARIES
- SITE BOUNDARY
- FUTURE CARRINGTON ROAD WIDENING
- EXISTING COMMUNICATIONS
- COMMUNICATIONS CORRIDOR

- NOTES:**
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**ORIGINAL DRAWING  
IN COLOUR**

**RESOURCE CONSENT  
NOT FOR CONSTRUCTION**

No.	Revision	By	CHK	Appd	Date
E	MINOR AMENDMENTS	ABL	CJB	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	CJB	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	CJB	DP	23.07.21
B	FOR RESOURCE CONSENT	ABL	CJB	RM	05.07.21

Drawing Originator:

Original Scale (A1)	1:500	Design	C.BREYTENBACH	08.06.21	Approved For Construction*
Reduced Scale (A3)	1:1000	Drawn	A.FAZEKAS	08.06.21	Date
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		Design Check			

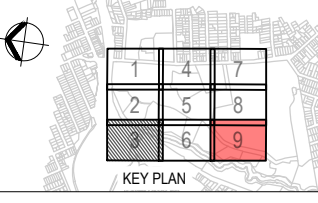
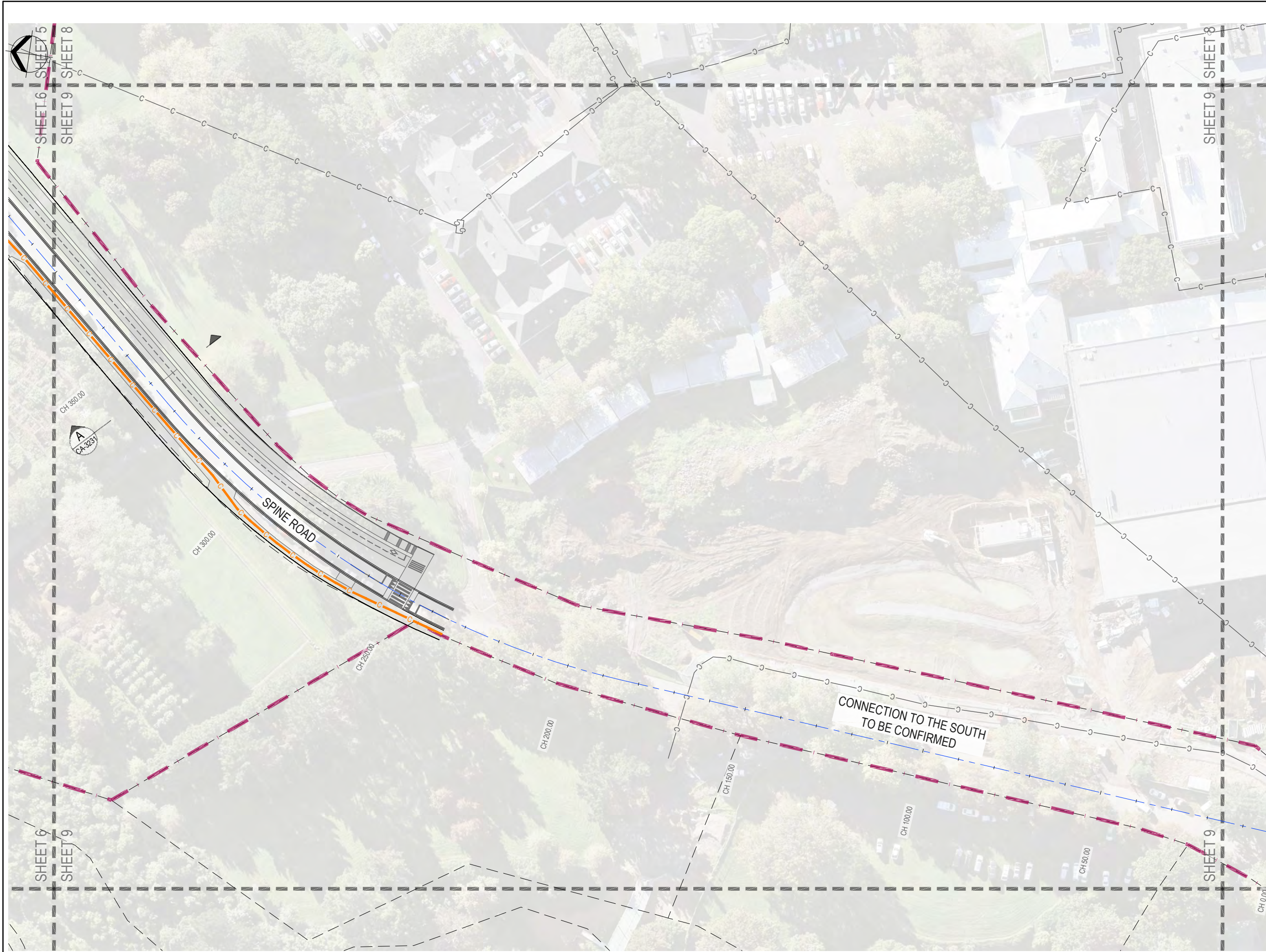
\* Refer to Revision 1 for Original Signature

Client: **MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ**

Project: **CARRINGTON BACKBONE WORKS PROJECT**

Title: **COMMUNICATIONS LAYOUT SHEET 8**

Discipline	<b>CIVIL ENGINEERING</b>	
Drawing No.	<b>3126447-CA-7308</b>	Rev.
		<b>E</b>



**LEGEND:**

- PROPERTY BOUNDARIES
- SITE BOUNDARY
- FUTURE CARRINGTON ROAD WIDENING
- EXISTING COMMUNICATIONS
- COMMUNICATIONS CORRIDOR

- NOTES:**
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  4. ELEVATIONS ARE IN TERMS OF NEW ZEALAND VERTICAL DATUM 2016.

**ORIGINAL DRAWING  
IN COLOUR**

**RESOURCE CONSENT  
NOT FOR CONSTRUCTION**

No.	Revision	By	CHK	Appd	Date
E	MINOR AMENDMENTS	ABL	CJB	DP	31.08.21
D	INTERSECTION AMENDMENTS	ABL	CJB	DP	11.08.21
C	GATE 1 ROAD ADDED	ABL	CJB	DP	23.07.21
B	FOR RESOURCE CONSENT	ABL	CJB	RM	05.07.21

Drawing Originator:

Original Scale (A1) 1:500  
Reduced Scale (A3) 1:1000

Design	C.BREYTENBACH	08.06.21	Approved For Construction*
Drawn	A.FAZEKAS	08.06.21	Date
Design Verifier			
Design Check			

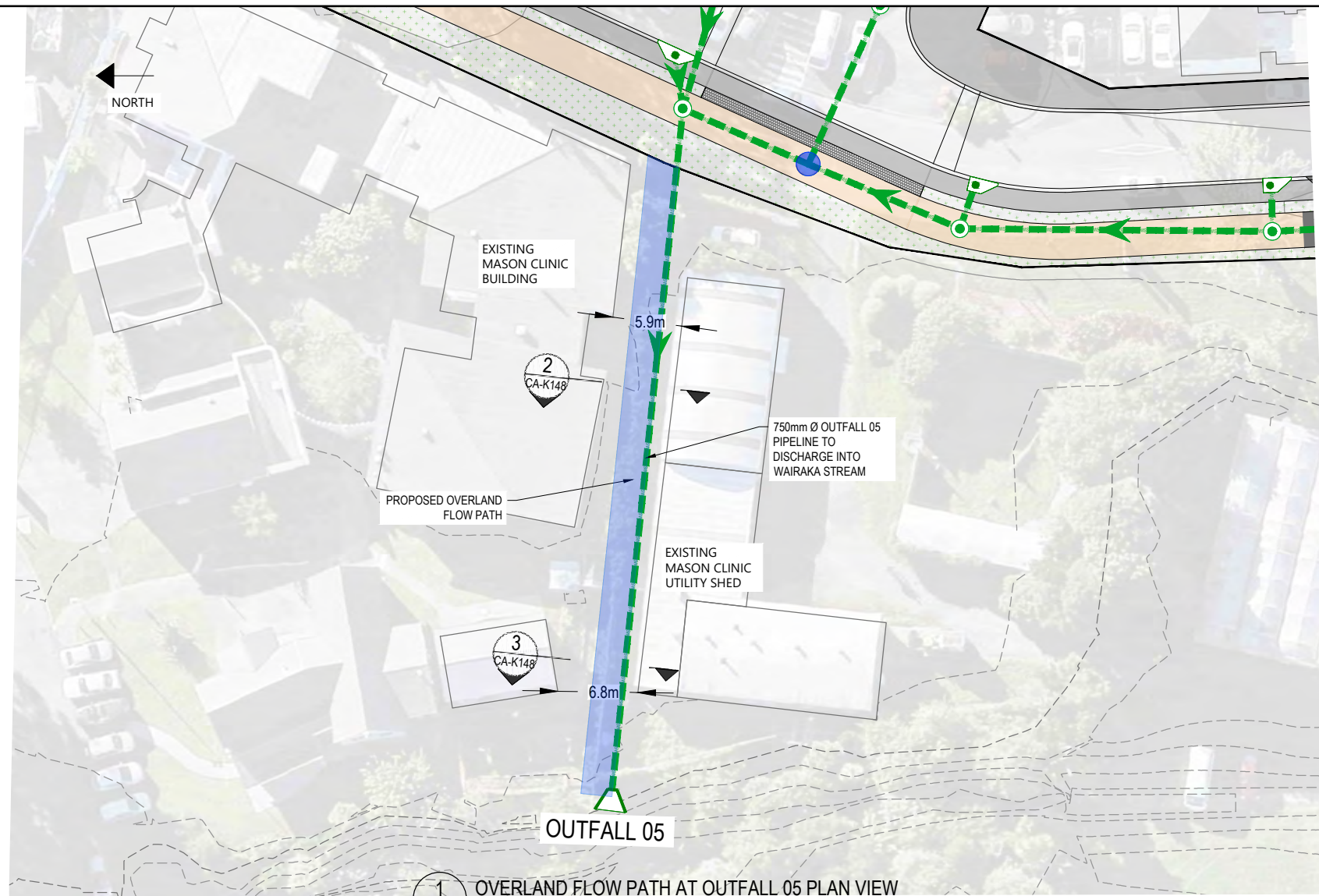
\* Refer to Revision 1 for Original Signature

Client: **MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ**

Project: **CARRINGTON BACKBONE WORKS PROJECT**

Title: **COMMUNICATIONS LAYOUT SHEET 9**

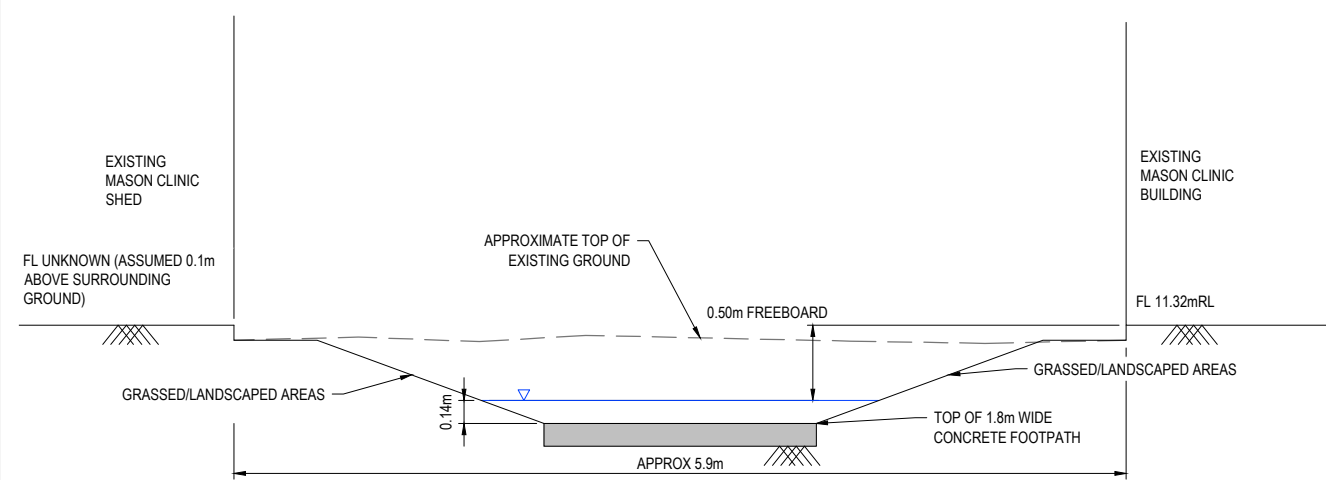
Discipline	<b>CIVIL ENGINEERING</b>
Drawing No.	<b>3126447-CA-7309</b>
Rev.	<b>E</b>



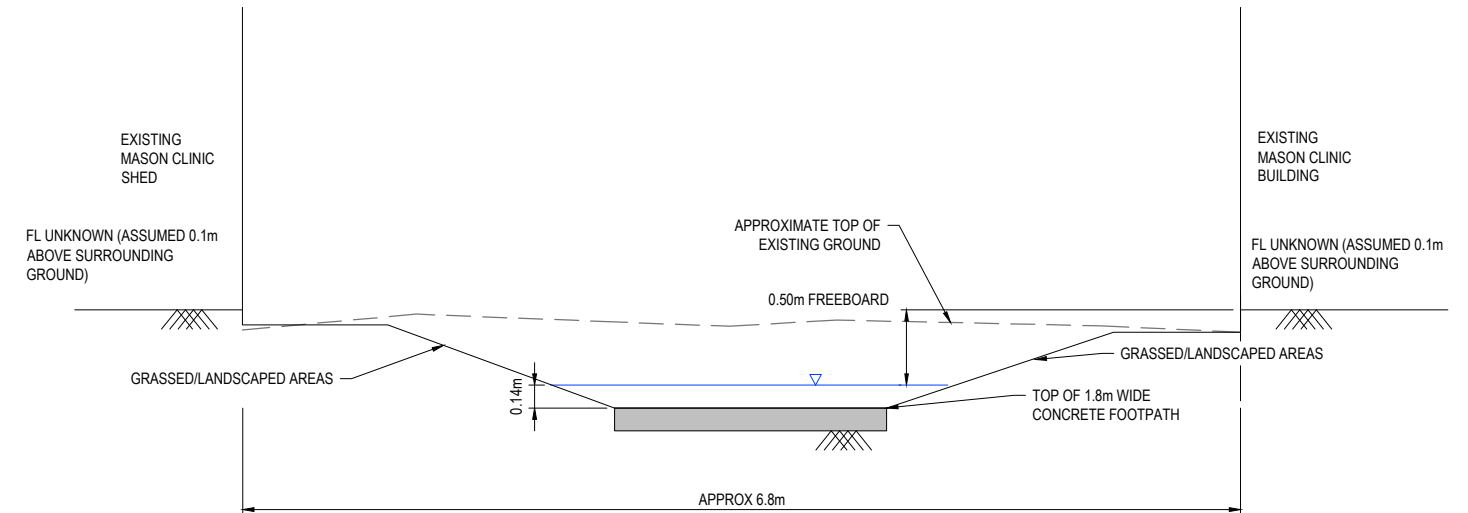
1 OVERLAND FLOW PATH AT OUTFALL 05 PLAN VIEW  
K148 NTS

NOTES:

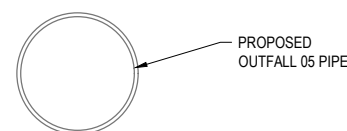
1. FLOOR LEVELS OF ADJACENT BUILDINGS TO BE CONFIRMED ON SITE BEFORE COMMENCEMENT OF WORKS
2. EXISTING GROUND LEVELS BASED ON LIDAR SURVEY
3. OVERLAND FLOW ESTIMATED ON 100 YEAR ARI FLOW, 3.8 DEGREES OF CLIMATE CHANGE AND 50% BLOCKAGE OF PRIMARY PIPED NETWORK.
4.
  - FLOW DEPTH ≈ 140mm
  - FLOW WIDTH ≈ 2.7m
  - DEPTH x VELOCITY ≈ 0.27



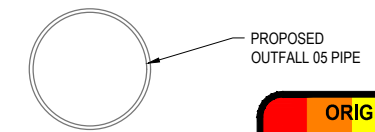
2 OVERLAND FLOW PATH AT OUTFALL 05 TYPICAL SECTION  
K148 NTS



3 OVERLAND FLOW PATH AT OUTFALL 05 TYPICAL SECTION  
K148 NTS



PROPOSED OUTFALL 05 PIPE



PROPOSED OUTFALL 05 PIPE

ORIGINAL DRAWING  
IN COLOUR

FOR INFORMATION  
NOT FOR CONSTRUCTION

No.	Revision	By	Chk	Appd	Date
B	ADDITIONAL FLOW INFORMATION	NM	NM	DSP	01.02.22
A	FOR INFORMATION	FMU	NM	DSP	28.01.22

Drawing Originator:

Original Scale (A1)	Design	Drawn	Date	Approved For Construction*
AS SHOWN	N.MCLEAN	N.MCLEAN	28.01.22	28.01.22
Reduced Scale (A3)	Design Verifier			
HALF SHOWN	Design Check			

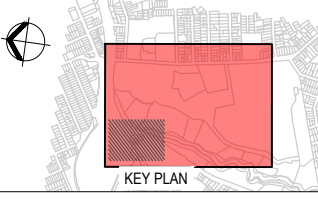
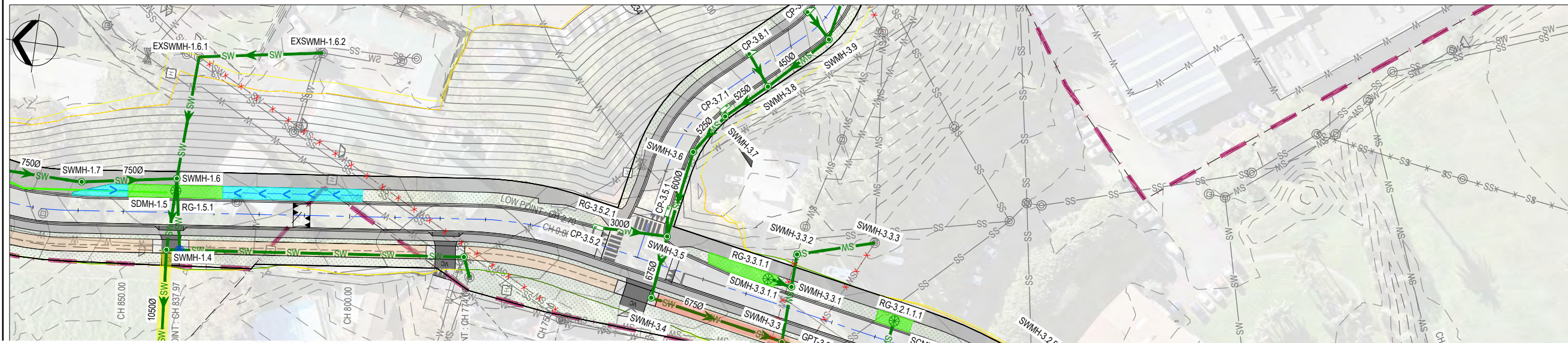
\* Refer to Revision 1 for Original Signature

Client: MARUTŪĀHU AND WAIOHUA-TĀMAKI RŌPŪ

Project: CARRINGTON BACKBONE WORKS PROJECT

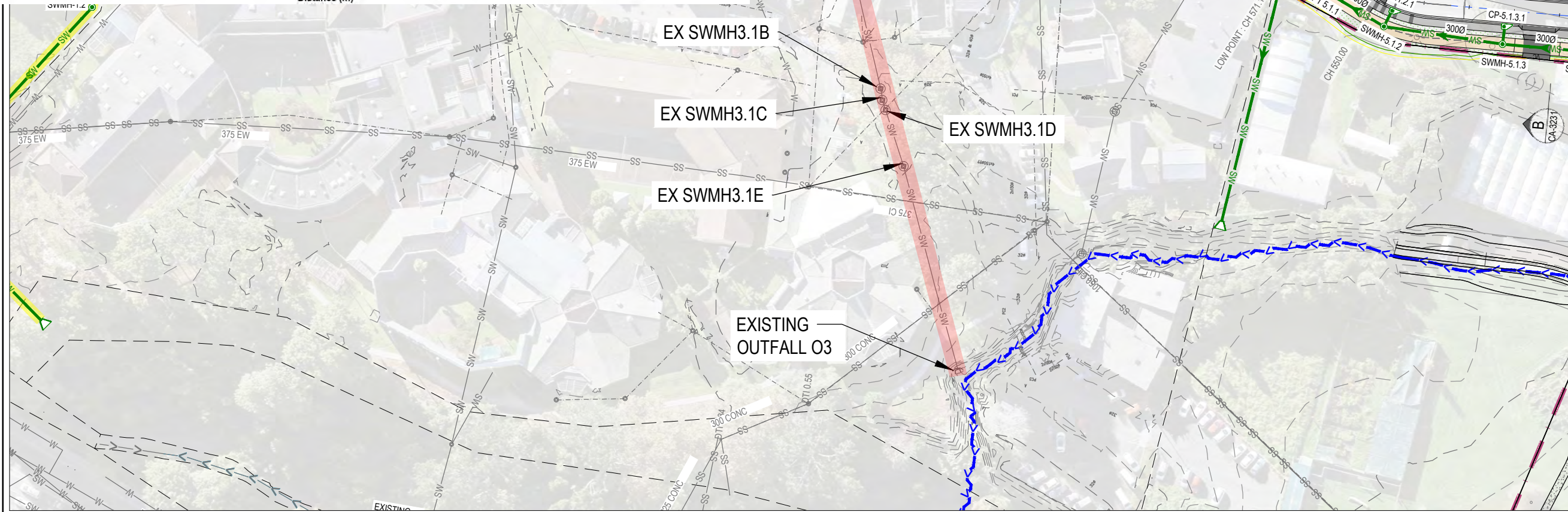
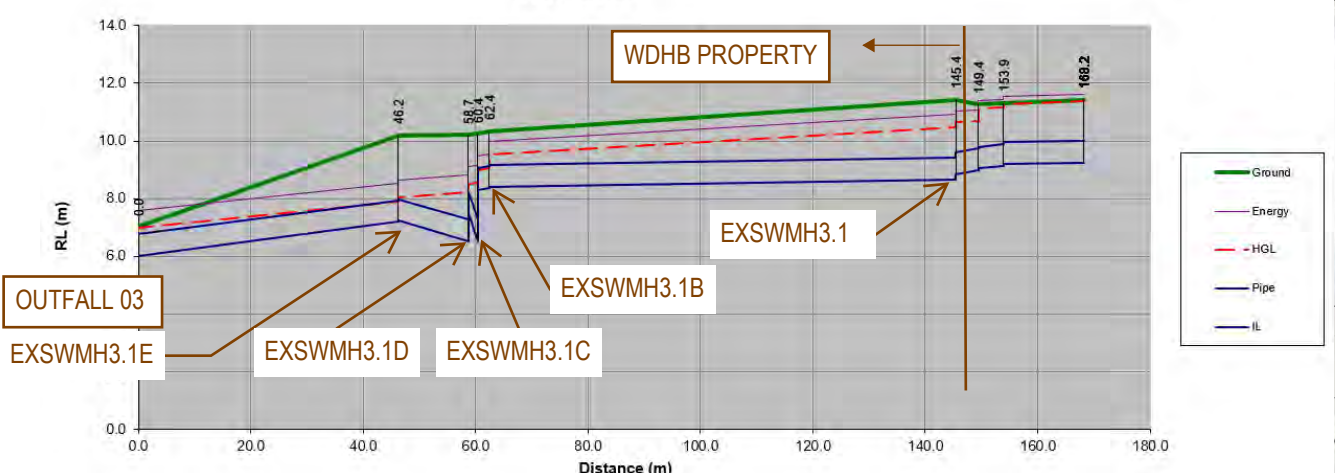
Title: OUTFALL 05 OVERLAND FLOW PATH INDICATIVE DETAILS

Discipline	Rev.
CIVIL ENGINEERING	B
Drawing No.	
3126447-CA-K148	



- LEGEND:**
- EXIST. CONTOURS (0.5m INTERVALS)
  - DESIGN CONTOURS (0.5m INTERVALS)
  - PROPERTY BOUNDARIES
  - SITE BOUNDARY
  - FUTURE CARRINGTON ROAD WIDENING
  - EXIST. STORMWATER LINE
  - NEW STORMWATER LINE
  - NEW STORMWATER MANHOLE/GPT
  - NEW SCRUFFY DOME
  - NEW SPLAY/FIELD CATCHPIT
  - NEW SEMI-RECESSED CATCHPIT
  - CONCRETE HEADWALL
  - RAINGARDENS
  - SWALES
  - PROTECTED TREES WHICH MAY BE REMOVED
  - PROTECTED TREES TO BE RETAINED
  - BUILDING NUMBERS

HGL Analysis



- NOTES:**
1. SURVEY DATA SHOWN ON THIS PLAN WAS PROVIDED BY CALIBRE CONSULTING LIMITED SURVEYED ON 2017.
  2. EXISTING SERVICES INFORMATION HAS BEEN COMPILED FROM VARIOUS SOURCES. ACCURACY UNKNOWN. CONTRACTOR TO LOCATE AND MARK OUT SERVICES PRIOR TO CONSTRUCTION WORKS.
  3. COORDINATES IN TERMS OF MT EDEN 2000.
  4. ELEVATIONS ARE IN TERMS OF NEW ZEALAND VERTICAL DATUM 2016.
  5. EXISTING UTILITIES INFORMATION TO BE CONFIRMED.
  6. ALL NEW STORMWATER PIPES TO BE RCRRJ TO THE CLASSES SHOWN ON THE LONG SECTIONS
  7. THE CONTRACTOR IS TO CCTV ALL SECTIONS OF THE EXISTING LINE TO BE ABANDONED TO CHECK FOR EXISTING CONNECTIONS AND CONFIRM THAT THEY ARE NO LONGER LIVE.
  8. ALL CATCHPITS TO HAVE EXTENDED INLET TYPE IN ACCORDANCE WITH AUCKLAND TRANSPORT DRAWING RD038.
  9. CONSTRUCTION DETAILS TO BE IN ACCORDANCE WITH AUCKLAND COUNCIL STORMWATER CODE OF PRACTICE TYPICAL DRAWING SW SERIES.
  10. TRENCH BACKFILL UNDER THE CARRIAGEWAY AND EXTENDING A MINIMUM 1 METRE BEYOND THE KERB FACE TO BE GAP65 COMPACTED IN 200mm LAYERS TO 95% MDD.
  11. FOR CATCHPIT LEADS UNDER THE BERMS INSTALL DENSO TAPE OR SIMILAR OVER PIPE JOINTS FOR ROOT PROTECTION.
  12. ANTI-SLIP COATING WILL BE PROVIDED ON ALL STORMWATER CHAMBER LIDS ON FOOTPATH AND CYCLE LANES

**ORIGINAL DRAWING  
IN COLOUR**

**FOR INFORMATION  
NOT FOR CONSTRUCTION**

No.	Revision	By	Chk	Appd	Date
A	FOR INFORMATION	NMM			0.1.12.21

Drawing Originator: **Beca**

Original Scale (A1)	Design	N.MCLEAN	12.11.21	Approved For Construction*
1:1500	Drawn	N.MCLEAN	12.11.21	Date
Reduced Scale (A3)	Dwg Verifier			
1:3000	Dwg Check			

\* Refer to Revision 1 for Original Signature

Client: **MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPU**

Project: **CARRINGTON BACKBONE WORKS PROJECT**

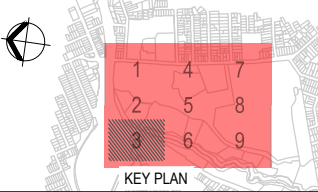
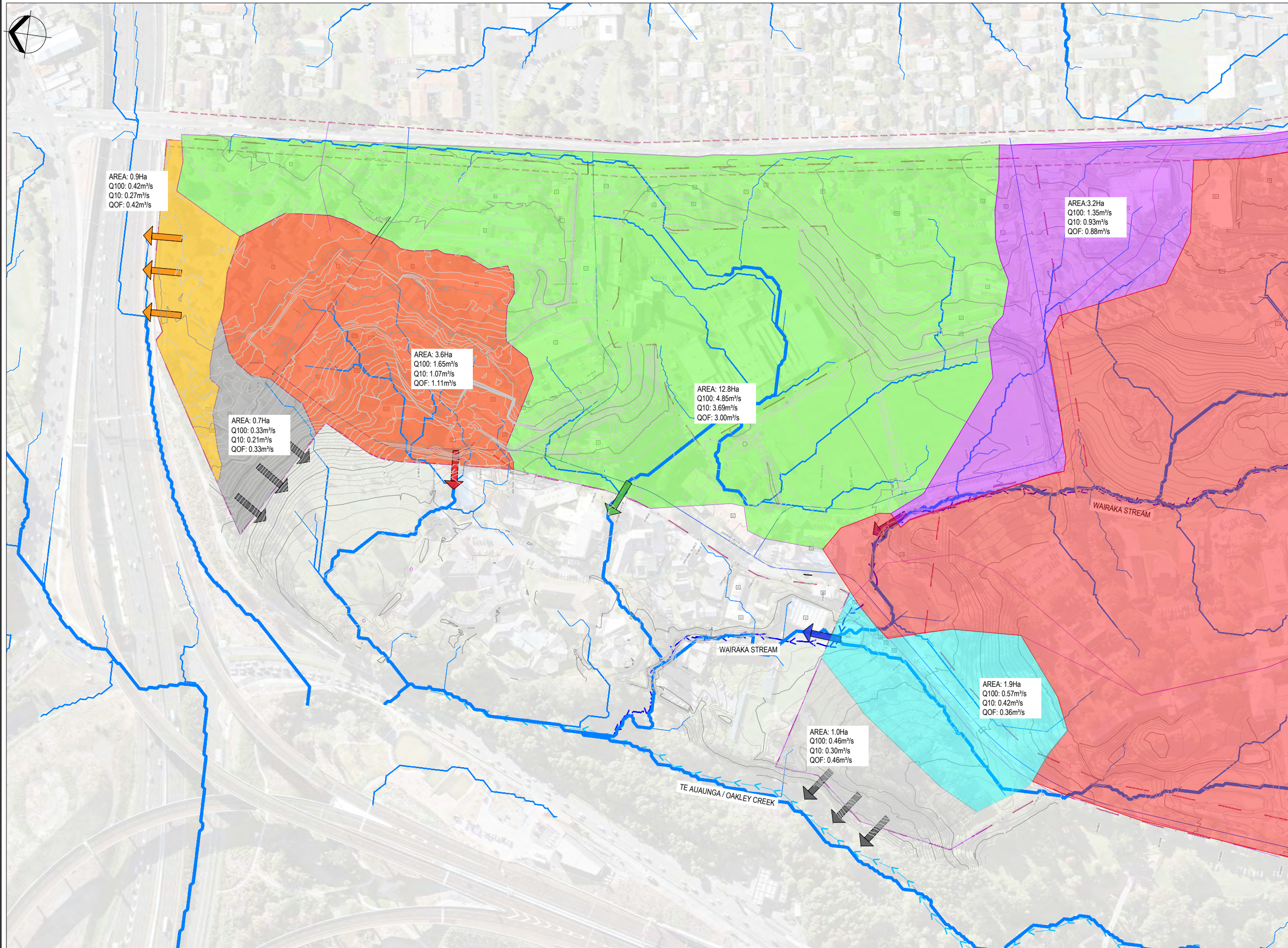
Title: **STORMWATER ALTERNATIVE LAYOUT PLAN OUTFALL O3 IN WDHB**

Discipline: **CIVIL ENGINEERING**

Drawing No: **3126447-CA-K137**

Rev: **B**





**LEGEND:**

- EXISTING CONTOURS (0.5m INTERVALS)
- PROPERTY BOUNDARIES
- SITE BOUNDARY
- FUTURE CARRINGTON ROAD WIDENING
- DIRECTION OF WATER FLOWS
- OVERLAND FLOWS
- OVERLAND FLOW EXIT
- EXISTING STORMWATER LINE

- NOTES:**
1. SURVEY DATA SHOWN ON THIS PLAN WAS PROVIDED BY CALIBRE CONSULTING LIMITED SURVEYED ON 2017.
  2. EXISTING SERVICES INFORMATION HAS BEEN COMPILED FROM VARIOUS SOURCES. ACCURACY UNKNOWN. CONTRACTOR TO LOCATE AND MARK OUT SERVICES PRIOR TO CONSTRUCTION WORKS.
  3. COORDINATES ARE IN TERMS OF MT EDEN 2000.
  4. ELEVATIONS ARE IN TERMS OF NEW ZEALAND VERTICAL DATUM 2016.
  5. EXISTING UTILITIES INFORMATION TO CONFIRMED.

**ORIGINAL DRAWING  
IN COLOUR**

**FOR INFORMATION  
NOT FOR CONSTRUCTION**

No.	Revision	By	Chk	Appd	Date
C	VALUES UPDATED FOR CODE OF PRACTICE VERSION 3	NMM	RM		01.11.21
B	REVISED - FOR INFORMATION	NMM	RM		08.10.21
A	FOR INFORMATION	ABL	FMU		

Drawing Originator: **Beca**

Original Scale (A1) 1:1500  
Reduced Scale (A3) 1:3000

Design: F. MUNDERWOOD  
Drawn: A. FAZEKAS  
Dag Verifier:   
Dag Check:   
\* Refer to Revision 1 for Original Signature

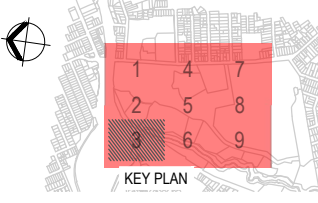
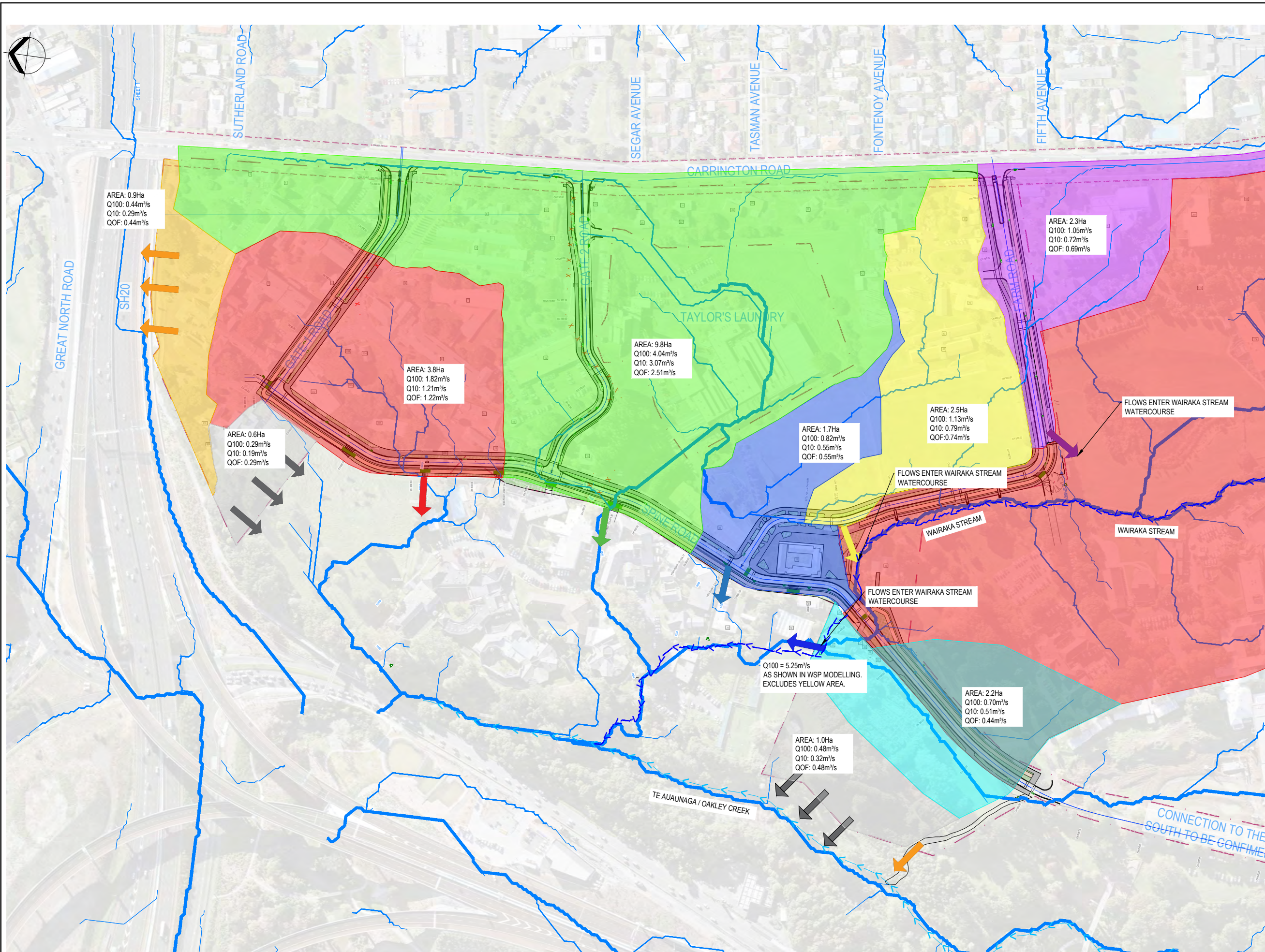
Approved For Construction:   
Date:

Client: **MARUTŪĀHU AND WAIOHUA-TĀMAKI RŌPŪ**

Project: **CARRINGTON BACKBONE WORKS PROJECT**

Title: **STORMWATER CATCHMENT PLAN EXISTING - 1% ARI**

Discipline	<b>CIVIL ENGINEERING</b>
Drawing No.	<b>3126447-CA-K088</b>
Rev.	<b>C</b>



**LEGEND:**

- EXISTING CONTOURS (0.5m INTERVALS)
- DESIGN CONTOURS (0.5m INTERVALS)
- PROPERTY BOUNDARIES
- SITE BOUNDARY
- FUTURE CARRINGTON ROAD WIDENING
- DIRECTION OF EXISTING WATERCOURSES
- OVERLAND FLOWS
- OVERLAND FLOW EXIT

- NOTES:**
1. SURVEY DATA SHOWN ON THIS PLAN WAS PROVIDED BY CALIBRE CONSULTING LIMITED SURVEYED ON 2017.
  2. EXISTING SERVICES INFORMATION HAS BEEN COMPILED FROM VARIOUS SOURCES. ACCURACY UNKNOWN. CONTRACTOR TO LOCATE AND MARK OUT SERVICES PRIOR TO CONSTRUCTION WORKS.
  3. COORDINATES ARE IN TERMS OF MT EDEN 2000.
  4. ELEVATIONS ARE IN TERMS OF NEW ZEALAND VERTICAL DATUM 2016.
  5. EXISTING UTILITIES INFORMATION TO CONFIRMED.

**ORIGINAL DRAWING  
IN COLOUR**

**FOR INFORMATION  
NOT FOR CONSTRUCTION**

No.	Revision	By	Chk	Appd	Date
C	WAIRAKA STREAM AND OAKLEY CREEK LABELLED	NMM	RM		19.11.21
B	VALUES UPDATED FOR CODE OF PRACTICE VERSION 3	NMM	RM		01.11.21
A	FOR INFORMATION	NMM	RM		08.10.21

Drawing Originator: **Beca**

Original Scale (A1)	Design	N.MCLEAN	Approved For Construction*
1:1500	Drawn	A.FAZEKAS	
Reduced Scale (A3)	Design Verifier		Date
1:3000	Design Check		

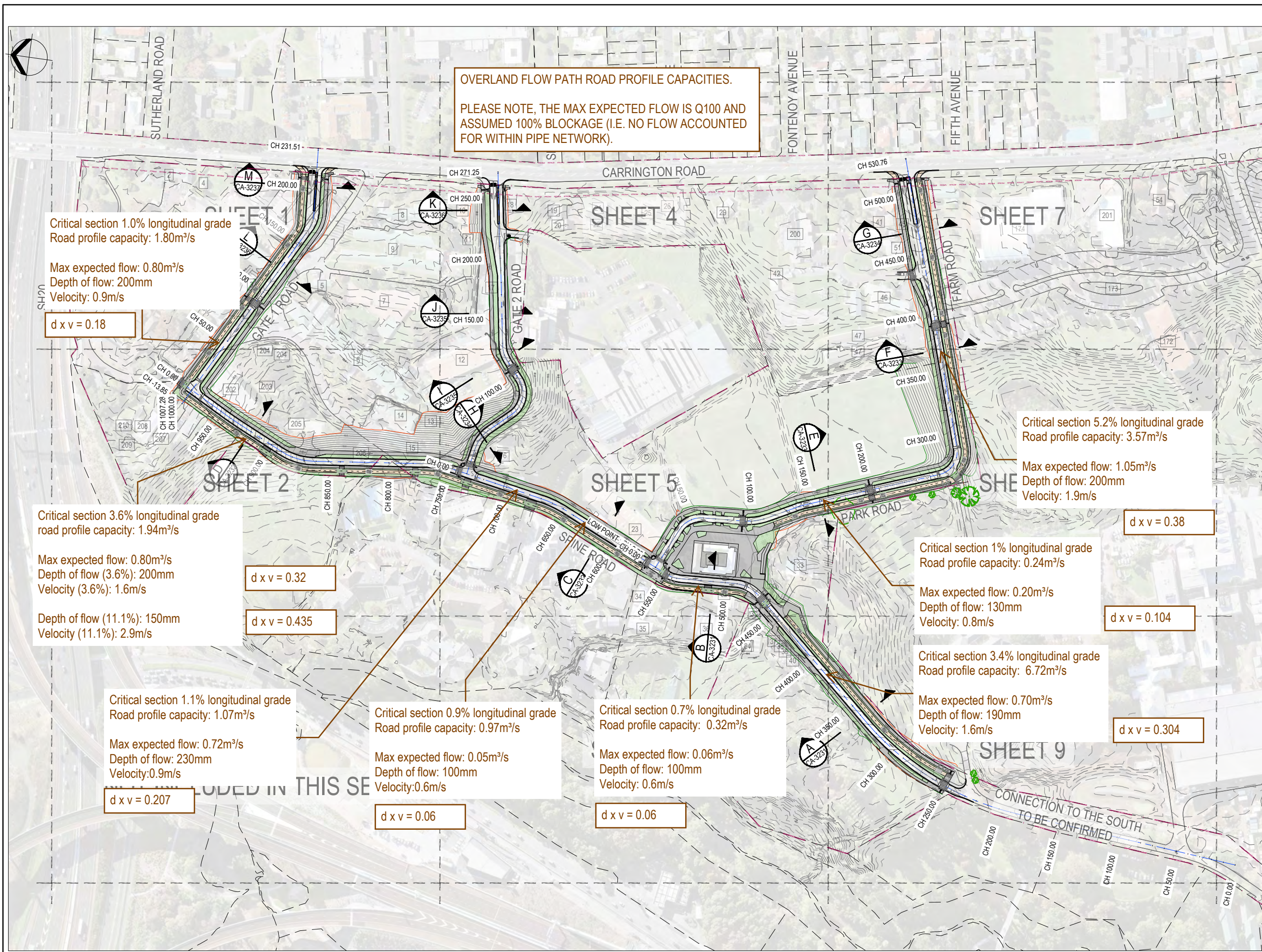
\*Refer to Revision 1 for Original Signature

Client: **MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ**

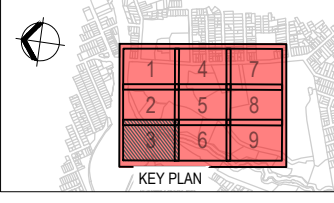
Project: **CARRINGTON BACKBONE WORKS PROJECT**

Title: **STORMWATER CATCHMENT PLAN PROPOSED - 1% ARI - OPTION E**

Discipline	<b>CIVIL ENGINEERING</b>
Drawing No.	<b>3126447-CA-K117</b>
Rev.	<b>C</b>



**OVERLAND FLOW PATH ROAD PROFILE CAPACITIES.**  
 PLEASE NOTE, THE MAX EXPECTED FLOW IS Q100 AND ASSUMED 100% BLOCKAGE (I.E. NO FLOW ACCOUNTED FOR WITHIN PIPE NETWORK).



- LEGEND:**
- EXISTING CONTOURS (0.5m INTERVALS)
  - DESIGN CONTOURS (0.5m INTERVALS)
  - PROPERTY BOUNDARIES
  - SITE BOUNDARY
  - FUTURE CARRINGTON ROAD WIDENING
  - CORRIDOR DAYLIGHT CUT
  - CORRIDOR DAYLIGHT FILL
  - FOOT PATH/ SHARED PATH
  - CYCLE PATH
  - BICYCLE CROSSING
  - PLANTED AREAS
  - PROTECTED TREES TO BE REMOVED
  - PROTECTED TREES TO BE RETAINED
  - PROTECTED TREES TO BE REMOVED (MAYBE RETAINED SUBJECT TO DETAILED DESIGN)
  - BUILDING NUMBERS

Critical section 1.0% longitudinal grade  
 Road profile capacity: 1.80m³/s  
 Max expected flow: 0.80m³/s  
 Depth of flow: 200mm  
 Velocity: 0.9m/s  
 d x v = 0.18

Critical section 3.6% longitudinal grade  
 road profile capacity: 1.94m³/s  
 Max expected flow: 0.80m³/s  
 Depth of flow (3.6%): 200mm  
 Velocity (3.6%): 1.6m/s  
 Depth of flow (11.1%): 150mm  
 Velocity (11.1%): 2.9m/s  
 d x v = 0.32  
 d x v = 0.435

Critical section 1.1% longitudinal grade  
 Road profile capacity: 1.07m³/s  
 Max expected flow: 0.72m³/s  
 Depth of flow: 230mm  
 Velocity: 0.9m/s  
 d x v = 0.207

Critical section 0.9% longitudinal grade  
 Road profile capacity: 0.97m³/s  
 Max expected flow: 0.05m³/s  
 Depth of flow: 100mm  
 Velocity: 0.6m/s  
 d x v = 0.06

Critical section 0.7% longitudinal grade  
 Road profile capacity: 0.32m³/s  
 Max expected flow: 0.06m³/s  
 Depth of flow: 100mm  
 Velocity: 0.6m/s  
 d x v = 0.06

Critical section 5.2% longitudinal grade  
 Road profile capacity: 3.57m³/s  
 Max expected flow: 1.05m³/s  
 Depth of flow: 200mm  
 Velocity: 1.9m/s  
 d x v = 0.38

Critical section 1% longitudinal grade  
 Road profile capacity: 0.24m³/s  
 Max expected flow: 0.20m³/s  
 Depth of flow: 130mm  
 Velocity: 0.8m/s  
 d x v = 0.104

Critical section 3.4% longitudinal grade  
 Road profile capacity: 6.72m³/s  
 Max expected flow: 0.70m³/s  
 Depth of flow: 190mm  
 Velocity: 1.6m/s  
 d x v = 0.304

**ORIGINAL DRAWING  
 IN COLOUR**  
**DEVELOPED DESIGN  
 NOT FOR CONSTRUCTION**

No.	Revision	By	Chk.	Appd.	Date

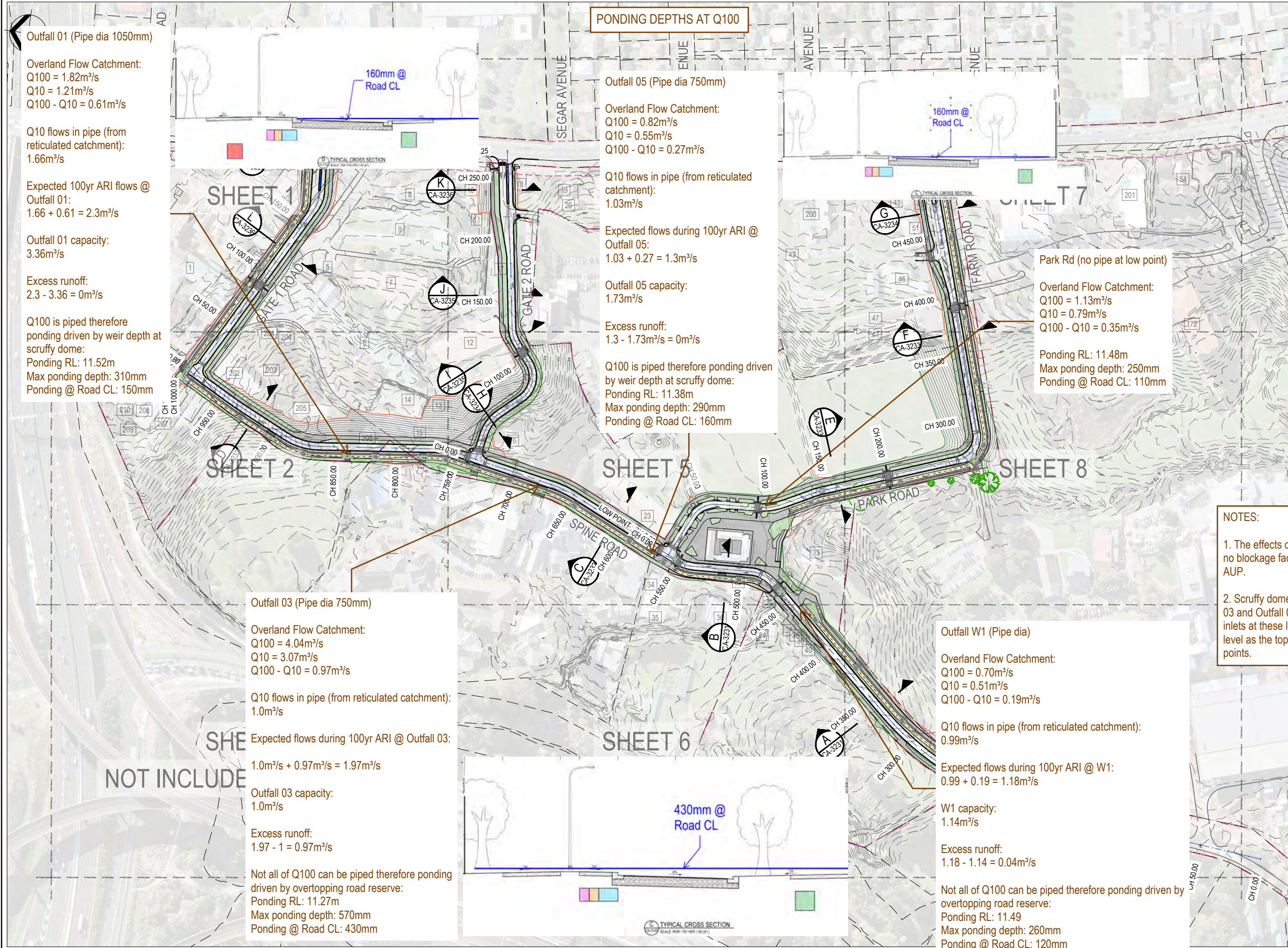
Original Scale (A1) 1:1500  
 Reduced Scale (A3) 1:3000  
**Beca**

Design: N.MCLEAN  
 Drawn: N.MCLEAN  
 Design Verifier: [Signature]  
 Date: [Date]

Client: MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ  
 Project: CARRINGTON BACKBONE WORKS PROJECT

Title: OVERLAND FLOW ROAD PROFILE CAPACITY SKETCH

Discipline: CIVIL ENGINEERING  
 Drawing No: 3126447-CA-K128  
 Rev: B



**PONDING DEPTHS AT Q100**

**Outfall 01 (Pipe dia 1050mm)**

Overland Flow Catchment:  
 Q100 = 1.82m³/s  
 Q10 = 1.21m³/s  
 Q100 - Q10 = 0.61m³/s

Q10 flows in pipe (from reticulated catchment):  
 1.66m³/s

Expected 100yr ARI flows @  
 Outfall 01:  
 1.66 + 0.61 = 2.3m³/s

Outfall 01 capacity:  
 3.36m³/s

Excess runoff:  
 2.3 - 3.36 = 0m³/s

Q100 is piped therefore  
 ponding driven by weir depth at  
 scruffy dome:  
 Ponding RL: 11.52m  
 Max ponding depth: 310mm  
 Ponding @ Road CL: 150mm

**Outfall 05 (Pipe dia 750mm)**

Overland Flow Catchment:  
 Q100 = 0.82m³/s  
 Q10 = 0.55m³/s  
 Q100 - Q10 = 0.27m³/s

Q10 flows in pipe (from reticulated  
 catchment):  
 1.03m³/s

Expected flows during 100yr ARI @  
 Outfall 05:  
 1.03 + 0.27 = 1.3m³/s

Outfall 05 capacity:  
 1.73m³/s

Excess runoff:  
 1.3 - 1.73m³/s = 0m³/s

Q100 is piped therefore ponding driven  
 by weir depth at scruffy dome:  
 Ponding RL: 11.38m  
 Max ponding depth: 290mm  
 Ponding @ Road CL: 160mm

**Park Rd (no pipe at low point)**

Overland Flow Catchment:  
 Q100 = 1.13m³/s  
 Q10 = 0.79m³/s  
 Q100 - Q10 = 0.35m³/s

Ponding RL: 11.48m  
 Max ponding depth: 250mm  
 Ponding @ Road CL: 110mm

**Outfall 03 (Pipe dia 750mm)**

Overland Flow Catchment:  
 Q100 = 4.04m³/s  
 Q10 = 3.07m³/s  
 Q100 - Q10 = 0.97m³/s

Q10 flows in pipe (from reticulated catchment):  
 1.0m³/s

Expected flows during 100yr ARI @ Outfall 03:  
 1.0m³/s + 0.97m³/s = 1.97m³/s

Outfall 03 capacity:  
 1.0m³/s

Excess runoff:  
 1.97 - 1 = 0.97m³/s

Not all of Q100 can be piped therefore ponding  
 driven by overtopping road reserve:  
 Ponding RL: 11.27m  
 Max ponding depth: 570mm  
 Ponding @ Road CL: 430mm

**Outfall W1 (Pipe dia)**

Overland Flow Catchment:  
 Q100 = 0.70m³/s  
 Q10 = 0.51m³/s  
 Q100 - Q10 = 0.19m³/s

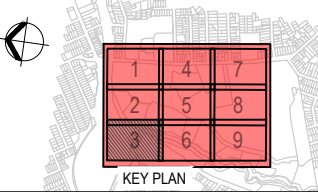
Q10 flows in pipe (from reticulated catchment):  
 0.99m³/s

Expected flows during 100yr ARI @ W1:  
 0.99 + 0.19 = 1.18m³/s

W1 capacity:  
 1.14m³/s

Excess runoff:  
 1.18 - 1.14 = 0.04m³/s

Not all of Q100 can be piped therefore ponding driven by  
 overtopping road reserve:  
 Ponding RL: 11.49  
 Max ponding depth: 260mm  
 Ponding @ Road CL: 120mm



**LEGEND:**

- EXISTING CONTOURS (0.5m INTERVALS)
- DESIGN CONTOURS (0.5m INTERVALS)
- PROPERTY BOUNDARIES
- SITE BOUNDARY
- FUTURE CARRINGTON ROAD WIDENING
- CORRIDOR DAYLIGHT CUT
- CORRIDOR DAYLIGHT FILL
- FOOT PATH/ SHARED PATH
- CYCLE PATH
- BICYCLE CROSSING
- PLANTED AREAS
- PROTECTED TREES TO BE REMOVED
- PROTECTED TREES TO BE RETAINED
- PROTECTED TREES TO BE REMOVED (MAYBE RETAINED SUBJECT TO DETAILED DESIGN)
- BUILDING NUMBERS

**NOTES:**

- The effects of ponding depths have been assessed with no blockage factor applied to the primary network as per the AUP.
- Scruffy dome inlets have been used at Outfall 01, Outfall 03 and Outfall 05 low points. The top of the scruffy dome inlets at these locations have been assumed to be the same level as the top of the eastern kerb of the road at the sag points.

No.	Revision	By	Chk.	Appd.	Date



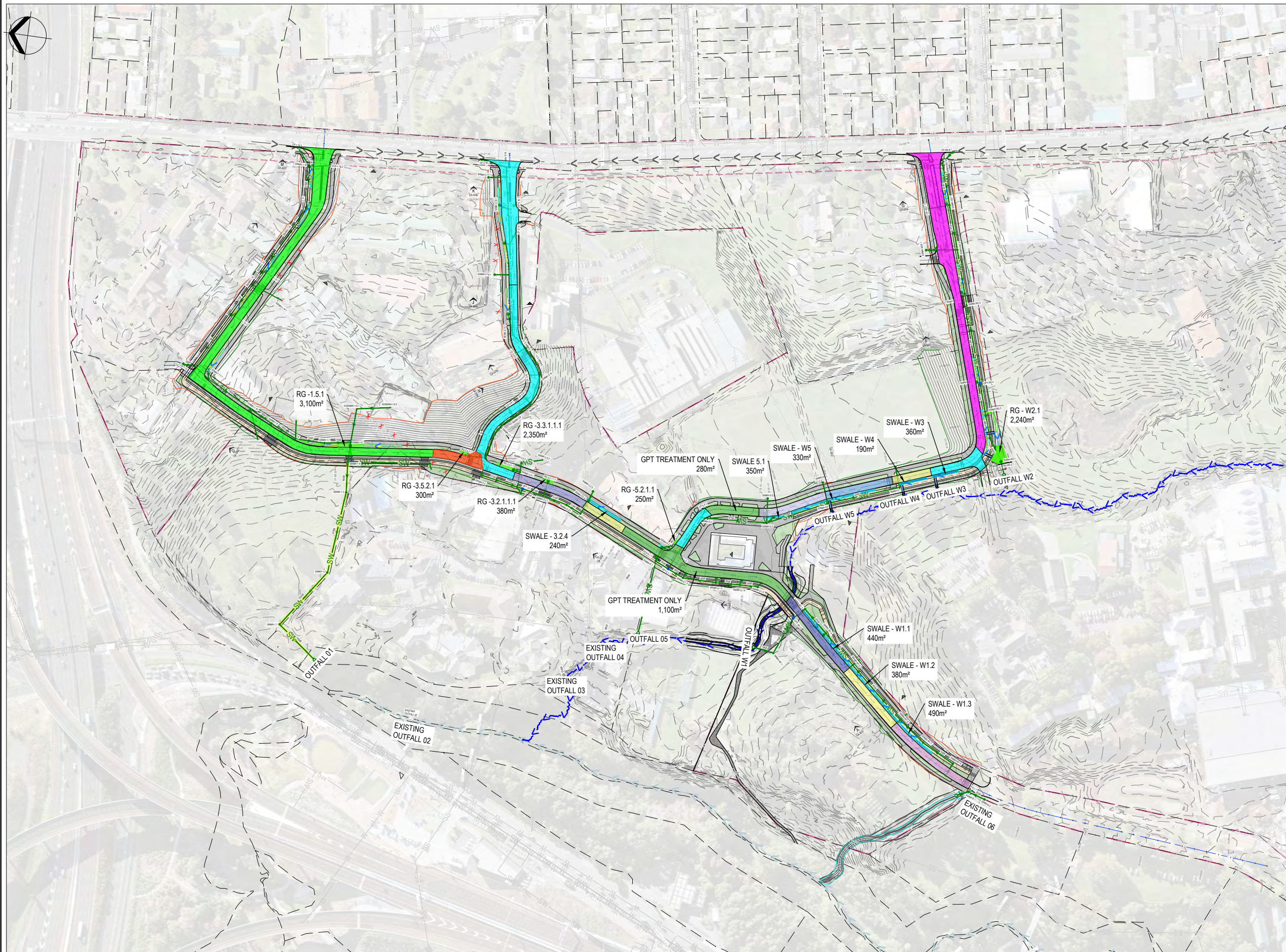
Original Scale (A1) 1:1500	Design N.MCLEAN	Approved For Construction Date
Reduced Scale (A3) 1:3000	Drawn N.MCLEAN	Date
	Design Verifier	
	Design Check	
	* Refer to Revision 1 for Original Signature	

Client: **MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPU**

Project: **CARRINGTON BACKBONE WORKS PROJECT**

Title: **OVERLAND FLOW PONDING DEPTHS SKETCH**

Discipline	<b>CIVIL ENGINEERING</b>
Drawing No.	<b>3126447-CA-K129</b>
Rev.	<b>C</b>



**LEGEND:**

- EXIST. CONTOURS (0.5m INTERVALS)
- DESIGN CONTOURS (0.5m INTERVALS)
- PROPERTY BOUNDARIES
- SITE BOUNDARY
- FUTURE CARRINGTON ROAD WIDENING
- EXIST. STORMWATER LINE
- NEW STORMWATER LINE
- NEW STORMWATER MANHOLE/GPT
- NEW SCRUFFY DOME
- NEW PLAYFIELD CATCHPIT
- NEW SEMI-RECESSED CATCHPIT
- CONCRETE HEADWALL
- RAINGARDENS
- CONVEYANCE SWALES
- TREATMENT SWALES
- PROTECTED TREES WHICH MAY BE REMOVED
- PROTECTED TREES TO BE RETAINED
- BUILDING NUMBERS
- ABANDONED STORMWATER LINE

ORIGINAL DRAWING  
IN COLOUR

**FOR INFORMATION  
NOT FOR CONSTRUCTION**

No.	Revision	By	Chk	Appd	Date
A	FOR INFORMATION	NMM			08.12.21

Drawing Originator: **Beca**

Original Scale (A1): 1:1500  
 Design: N.MCLEAN 12.11.21  
 Drawn: N.MCLEAN 12.11.21  
 Design Checker: N.MCLEAN 12.11.21  
 Date: 12.11.21

Approved For Construction: [Signature]

Client: **MARUTŪAHU AND WAIOHUA-TĀMAKI RŌPŪ**

Project: **CARRINGTON BACKBONE WORKS PROJECT**

Title: **STORMWATER TREATMENT DEVICE CATCHMENT PLAN**

Discipline:	CIVIL ENGINEERING
Drawing No.:	3126447-CA-K138
Rev.:	A

www.beca.com

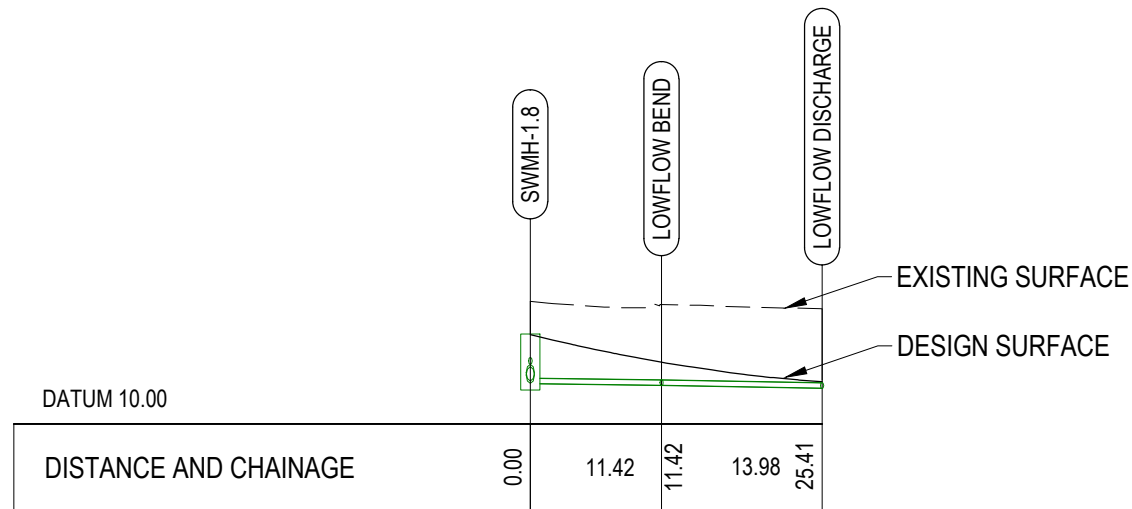
www.beca.com

Document No. 3126447-CA-K138.DWG

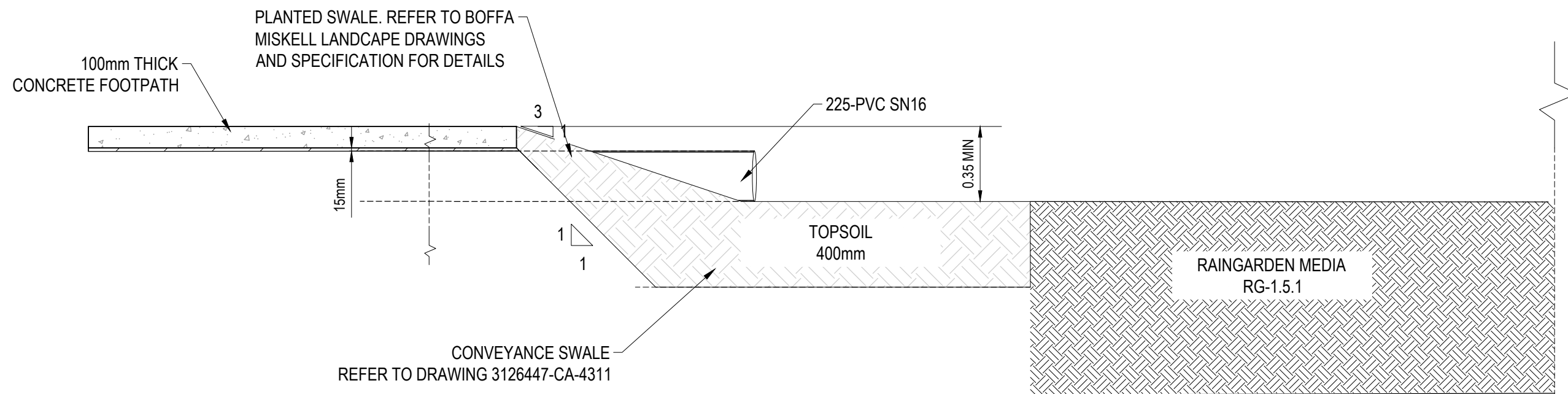
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**NOTES:**

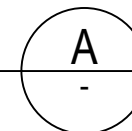
1. PLANTING AND LANDSCAPING OF RAINGARDENS WITHIN BOFFA MISKELL DRAWINGS AND SPECIFICATION.



**LONGITUDINAL SECTION SWMH-1.8 LOWFLOW TO RAINGARDEN**



**TREATMENT FLOWS DISCHARGE**  
**RG-1.5.1**  
 1:20 (A1)



**ORIGINAL DRAWING**  
**IN COLOUR**

**FOR INFORMATION**  
 NOT FOR CONSTRUCTION

No.	Revision	By	Chk	Appd	Date
A	FOR INFORMATION	NM	NM		08.12.21



Original Scale (A1)	AS SHOWN	Design	N.MCLEAN	08.12.21	Approved For Construction*
Reduced Scale (A3)	HALF SHOWN	Drawn	N.MCLEAN	08.12.21	Date
		Dwg Verifier			
		Dwg Check			

\* Refer to Revision 1 for Original Signature

Client: **MARUTŪĀHU AND WAIOHUA-TĀMAKI RŌPŪ**












Project: **CARRINGTON BACKBONE WORKS PROJECT**

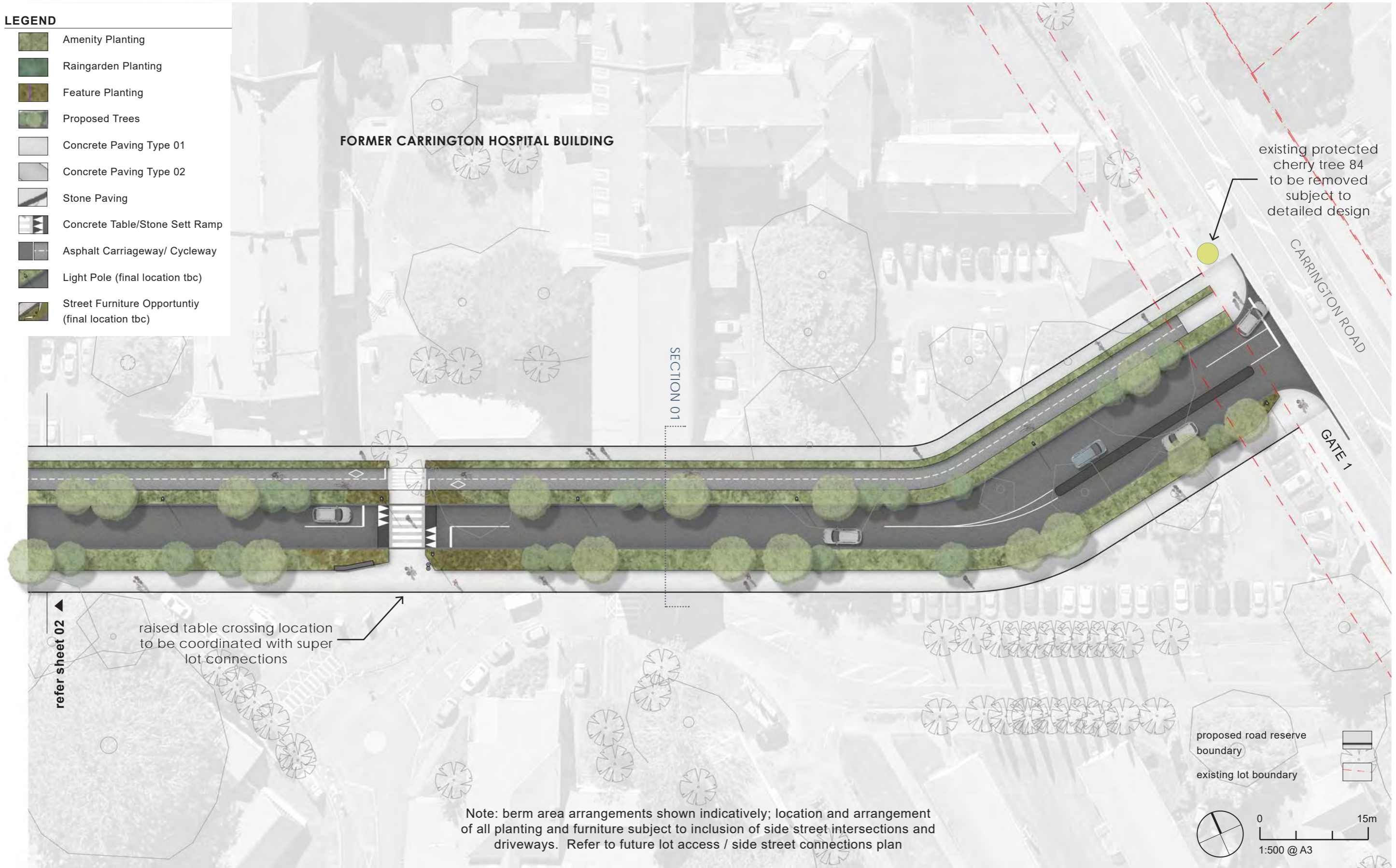
Title: **STORMWATER TREATMENT FLOW DISCHARGE DETAILS TO RG-1.5.1**

Discipline	CIVIL ENGINEERING
Drawing No.	3126447-CA-K139
Rev.	A

# PRELIMINARY DESIGN PLAN - BACKBONE WORKS

## SHEET 01 - GATE 1 ROAD












- LEGEND**
-  Amenity Planting
  -  Raingarden Planting
  -  Feature Planting
  -  Proposed Trees
  -  Concrete Paving Type 01
  -  Concrete Paving Type 02
  -  Stone Paving
  -  Concrete Table/Stone Sett Ramp
  -  Asphalt Carriageway/ Cycleway
  -  Light Pole (final location tbc)
  -  Street Furniture Opportuntiy (final location tbc)



refer sheet 02  
 raised table crossing location to be coordinated with super lot connections

# PRELIMINARY DESIGN PLAN - BACKBONE WORKS

## SHEET 02 - GATE 1 ROAD

- LEGEND**
-  Amenity Planting
  -  Raingarden Planting
  -  Feature Planting
  -  Proposed Trees
  -  Concrete Paving Type 01
  -  Concrete Paving Type 02
  -  Stone Paving
  -  Concrete Table/Stone Sett Ramp
  -  Asphalt Carriageway/ Cycleway
  -  Light Pole (final location tbc)
  -  Street Furniture Opportuntiy (final location tbc)














Note: berm area arrangements shown indicatively; location and arrangement of all planting and furniture subject to inclusion of side street intersections and driveways. Refer to future lot access / side street connections plan

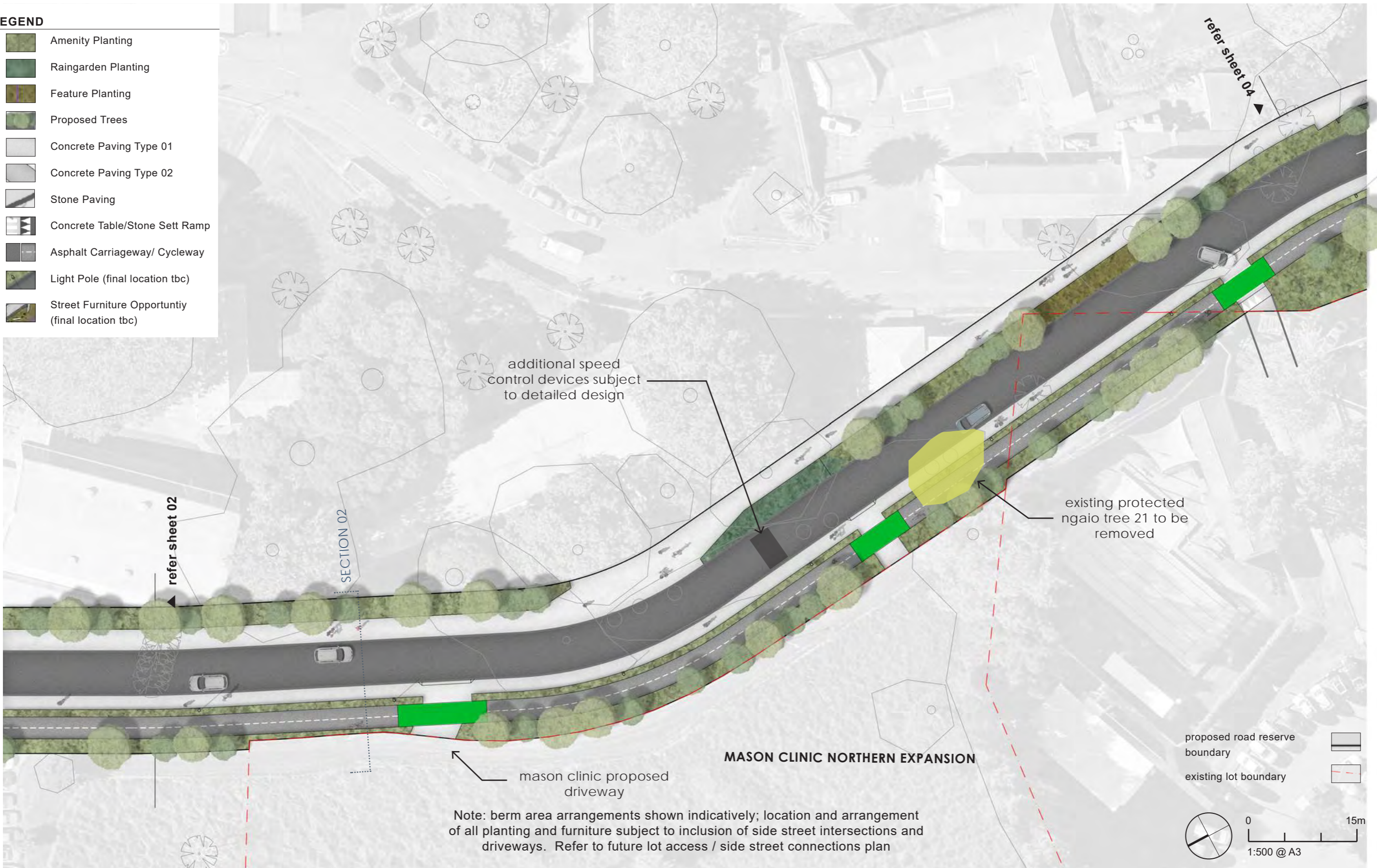


# PRELIMINARY DESIGN PLAN - BACKBONE WORKS

## SHEET 03 - SPINE ROAD - GATE 1 ROAD

### LEGEND

-  Amenity Planting
-  Raingarden Planting
-  Feature Planting
-  Proposed Trees
-  Concrete Paving Type 01
-  Concrete Paving Type 02
-  Stone Paving
-  Concrete Table/Stone Sett Ramp
-  Asphalt Carriageway/ Cycleway
-  Light Pole (final location tbc)
-  Street Furniture Opportuntiy (final location tbc)



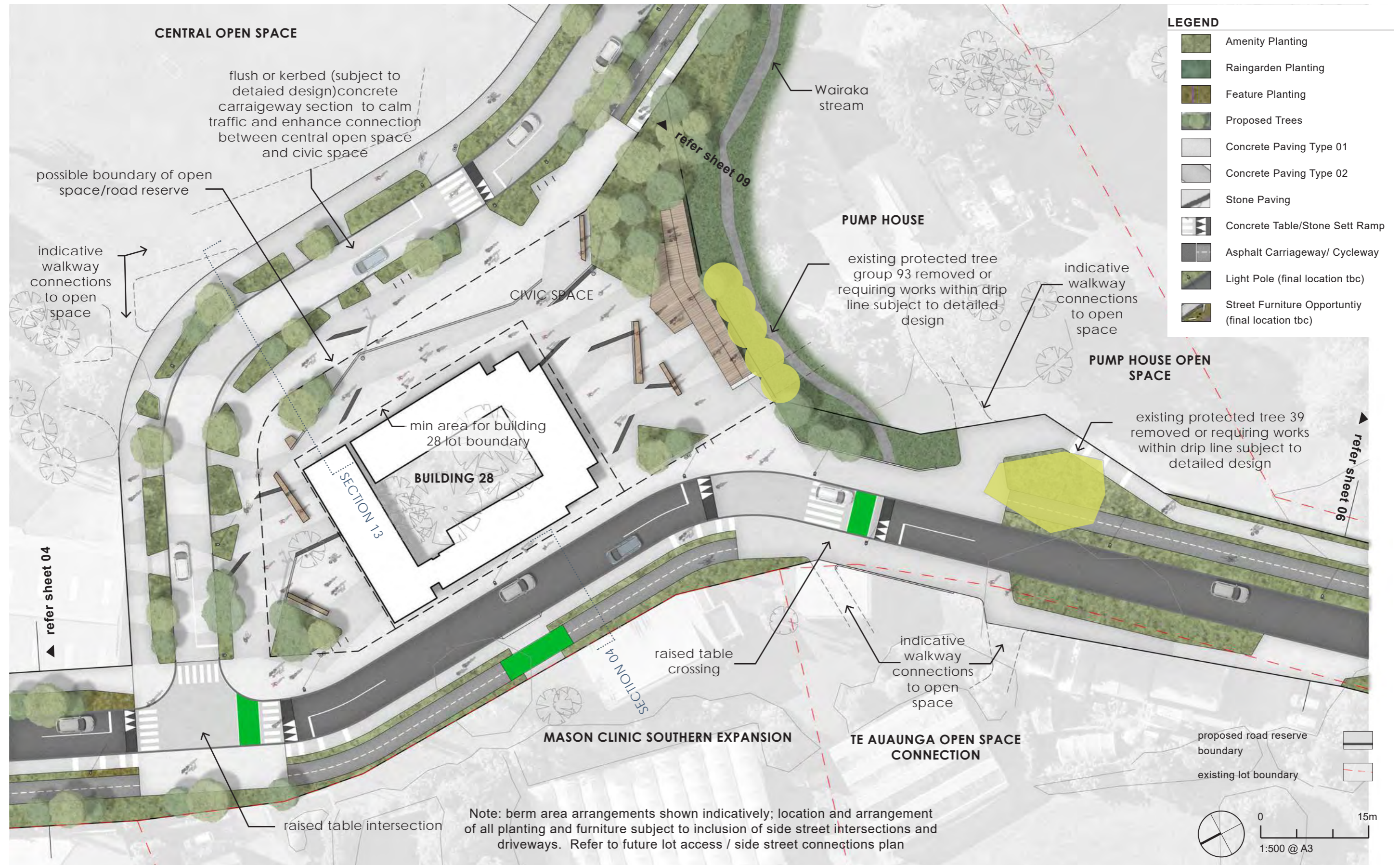
# PRELIMINARY DESIGN PLAN - BACKBONE WORKS

## SHEET 04 - SPINE ROAD + GATE 2 ROAD INTERSECTION



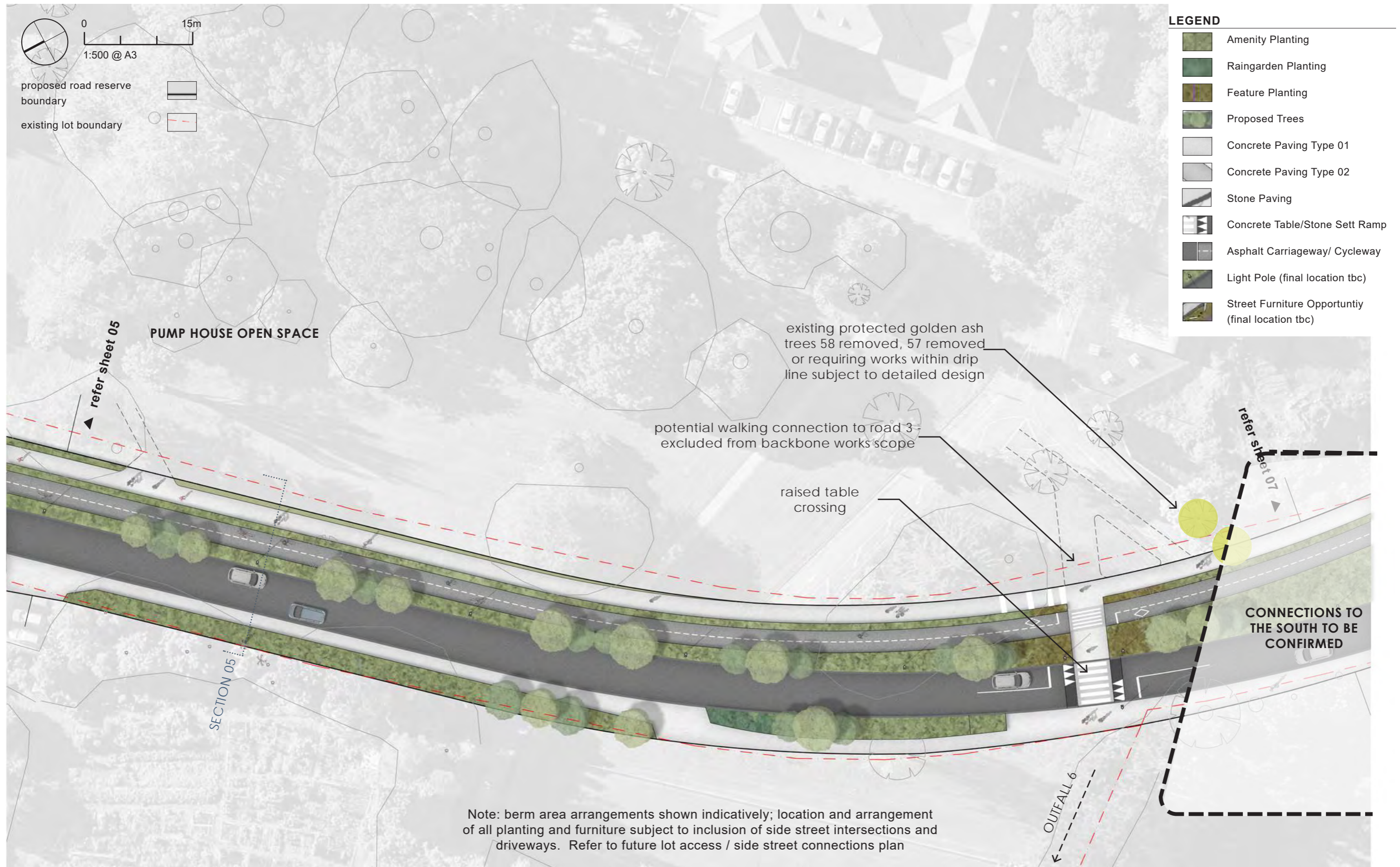
# PRELIMINARY DESIGN PLAN - BACKBONE WORKS

## SHEET 05 - SPINE ROAD + GATE 3 ROAD INTERSECTION



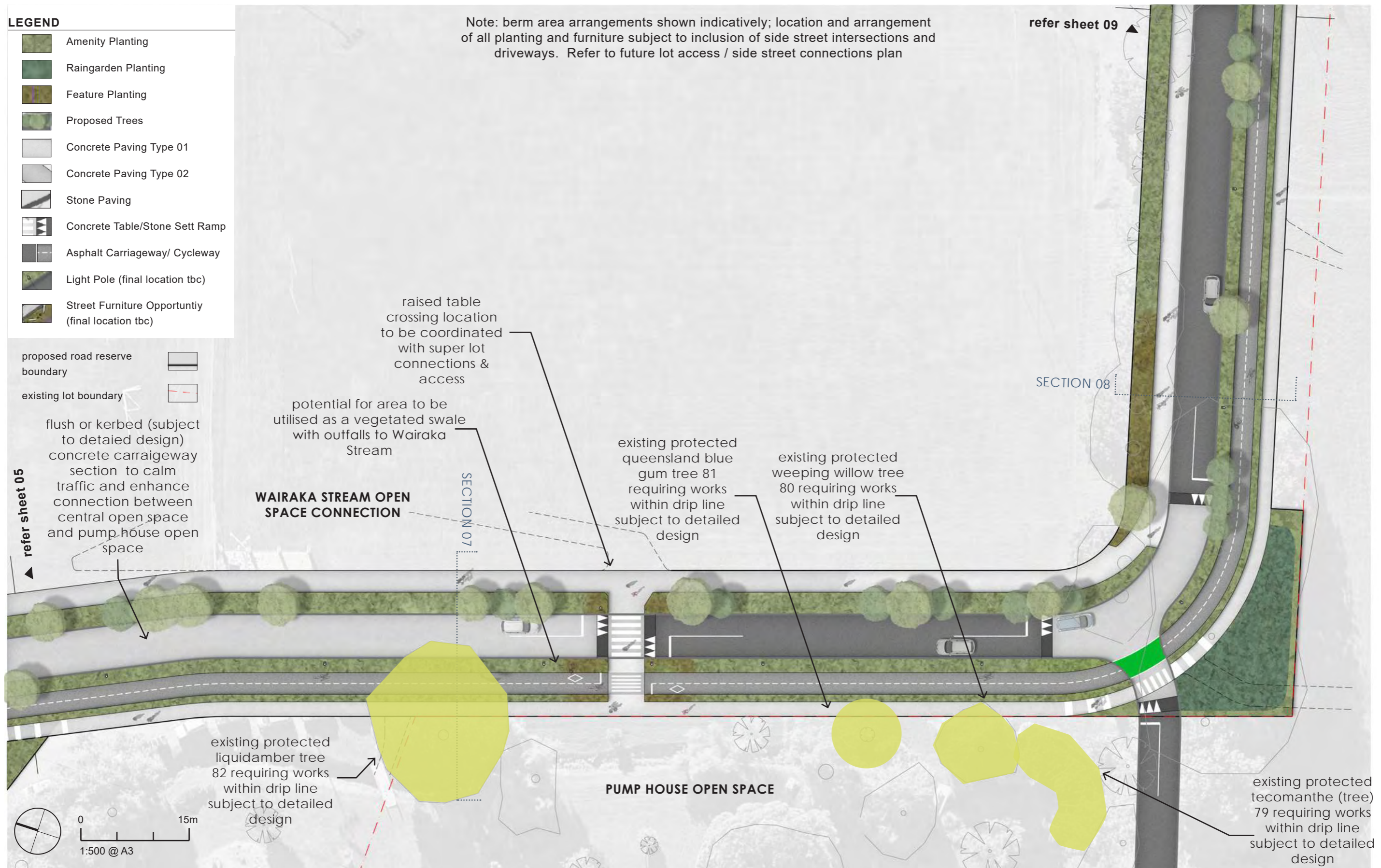
# PRELIMINARY DESIGN PLAN - BACKBONE WORKS

## SHEET 06 - SPINE ROAD



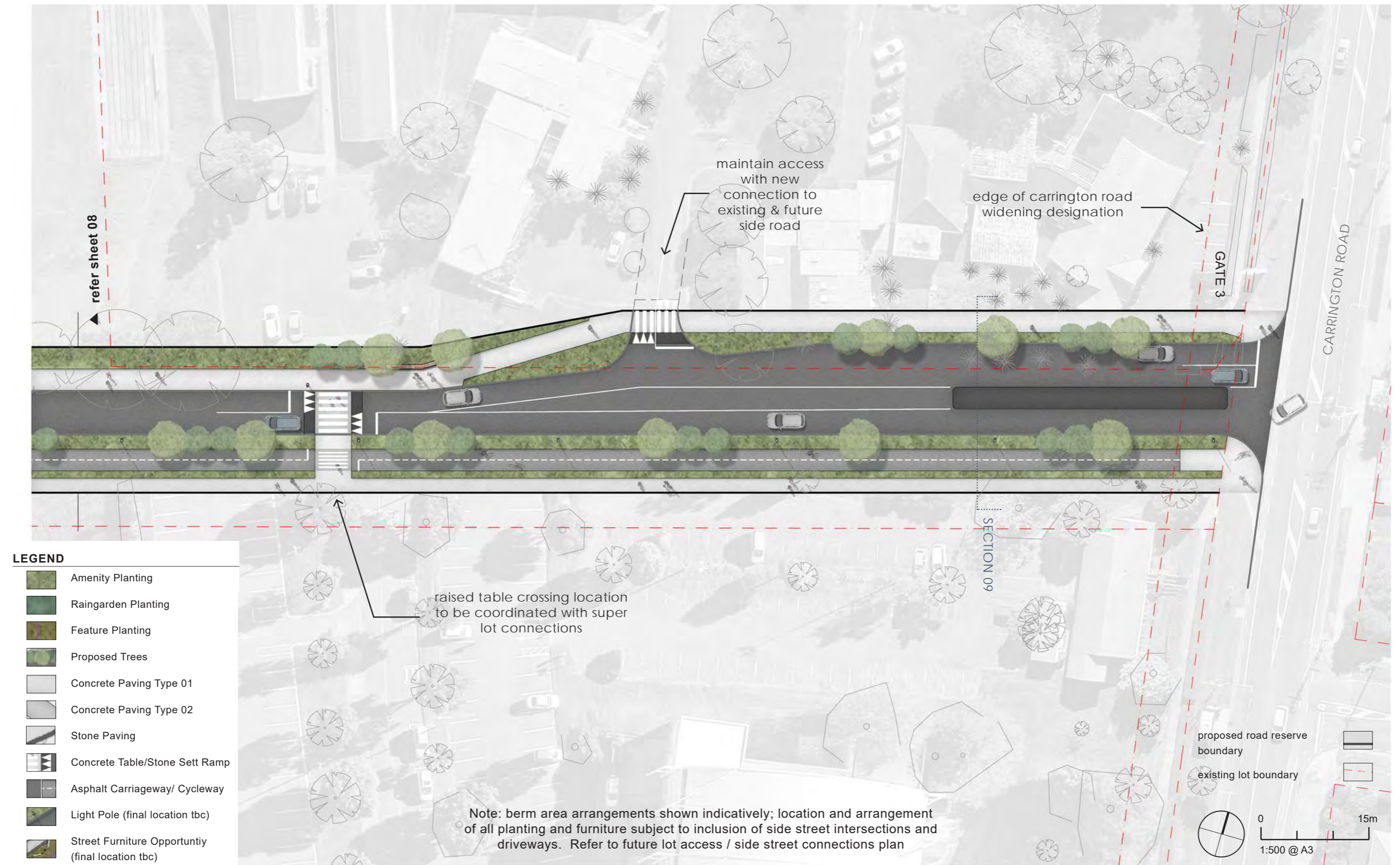
# PRELIMINARY DESIGN PLAN - BACKBONE WORKS

## SHEET 08 - GATE 3 ROAD



# PRELIMINARY DESIGN PLAN - BACKBONE WORKS












## SHEET 09 - GATE 3 ROAD

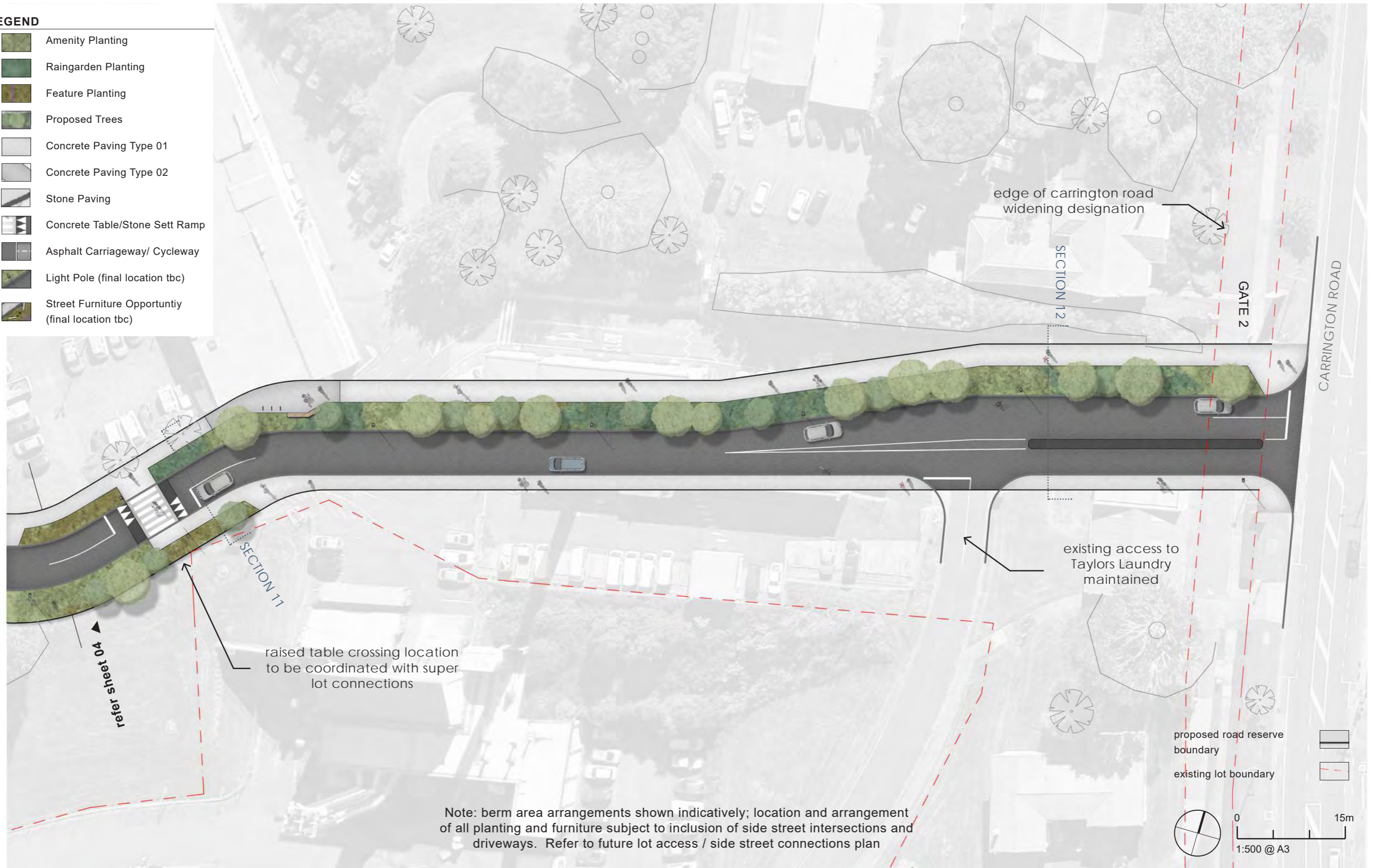


# PRELIMINARY DESIGN PLAN - BACKBONE WORKS

## SHEET 10 - GATE 2 ROAD

### LEGEND

-  Amenity Planting
-  Raingarden Planting
-  Feature Planting
-  Proposed Trees
-  Concrete Paving Type 01
-  Concrete Paving Type 02
-  Stone Paving
-  Concrete Table/Stone Sett Ramp
-  Asphalt Carriageway/ Cycleway
-  Light Pole (final location tbc)
-  Street Furniture Opportunity (final location tbc)



# OPEN SPACE STRATEGY - NORTHERN OPEN SPACE

## LANDSCAPE PLAN




















# OPEN SPACE STRATEGY - CIVIC SPACE

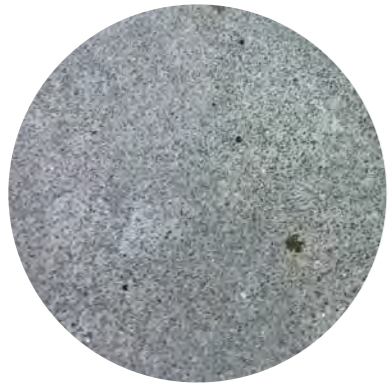
## LANDSCAPE PLAN

### LEGEND

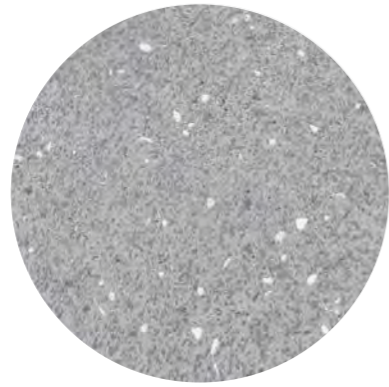
-  Amenity Planting
-  Raingarden Planting
-  Place Feature Planting
-  Proposed Trees
-  Concrete Paving Type 01
-  Concrete Paving Type 02
-  Stone Paving
-  Concrete Table/Stone Sett Ramp
-  Asphalt Carriageway/ Cycleway
-  Light Pole (final location tbc)
-  Street Furniture Opportunity (final location tbc)
-  1 Informal Seating Elements
-  2 Stream Edge Terrace + Stage
-  3 Street Play Node
-  4 Indicative Bridge Connection to Pump House



# MATERIALS AND FURNITURE STRATEGY



**INSITU CONCRETE PAVING 01**  
150 / 180mm U5E insitu concrete 10mm basalt chip, lightly exposed aggregate oxide



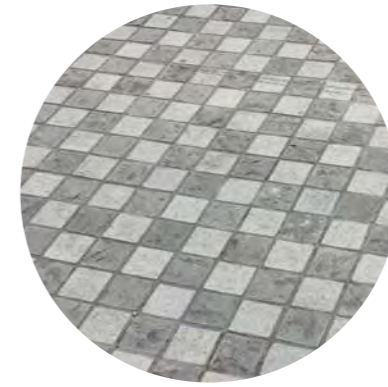
**INSITU CONCRETE PAVING 02**  
150 / 180mm U5E insitu concrete 13mm pebble, lightly exposed aggregate, 4% Firth 'Fog' oxide



**INSITU CONCRETE PAVING 03 (OPEN SPACES)**  
150 U5E insitu concrete 10mm basalt oxide



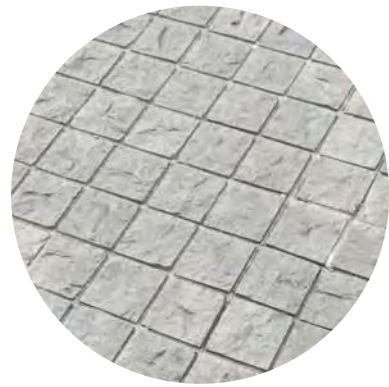
**INSITU CONCRETE PAVING 04 (SEPERATED SHARED PATHS)**  
150 / 180mm U5E insitu concrete 10mm for shared paths



**GRANITE SETTS TO RAMPS**  
97 x 97 x 75mm PT Black Granite split pattern



**TIMARU BLUESTONE SETTS**  
95 x 95 x 40mm Timaru Bluestone sawn pattern



**STONE SETTS TO MEDIAN**  
97 x 97 x 75mm Type B basalt, split face



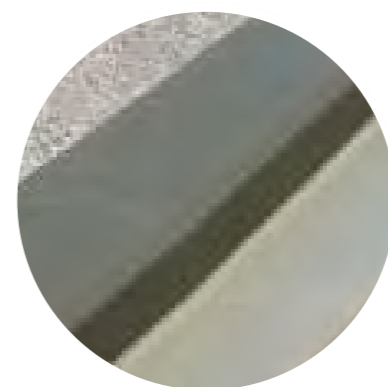
**ASPHALT PAVING**  
City Mix10 (TNZ-M/10 spec) for cycleway areas



**STONE PAVING STRIP**  
40mm stone paving cut and laid to pattern



**PLAY TRAIL**  
Beam and stepper logs (use site won timber where available)



**KERB**  
300mm wide dark grey slip form kerb with 300mm wide concrete channel or



**PRECAST CONCRETE SEAT**  
Precast concrete seat purpleheart timber battens, gauged and chamfered to cover top and side of concrete plinth with skate deterrents



**LITTER BIN**  
Kalos twin waste bin by Streetscape NZ



**REMOVAL BOLLARD**  
Removal Viper bollard by Streetscape NZ



**BIKE RACK**  
Scope bike rack by Streetscape NZ

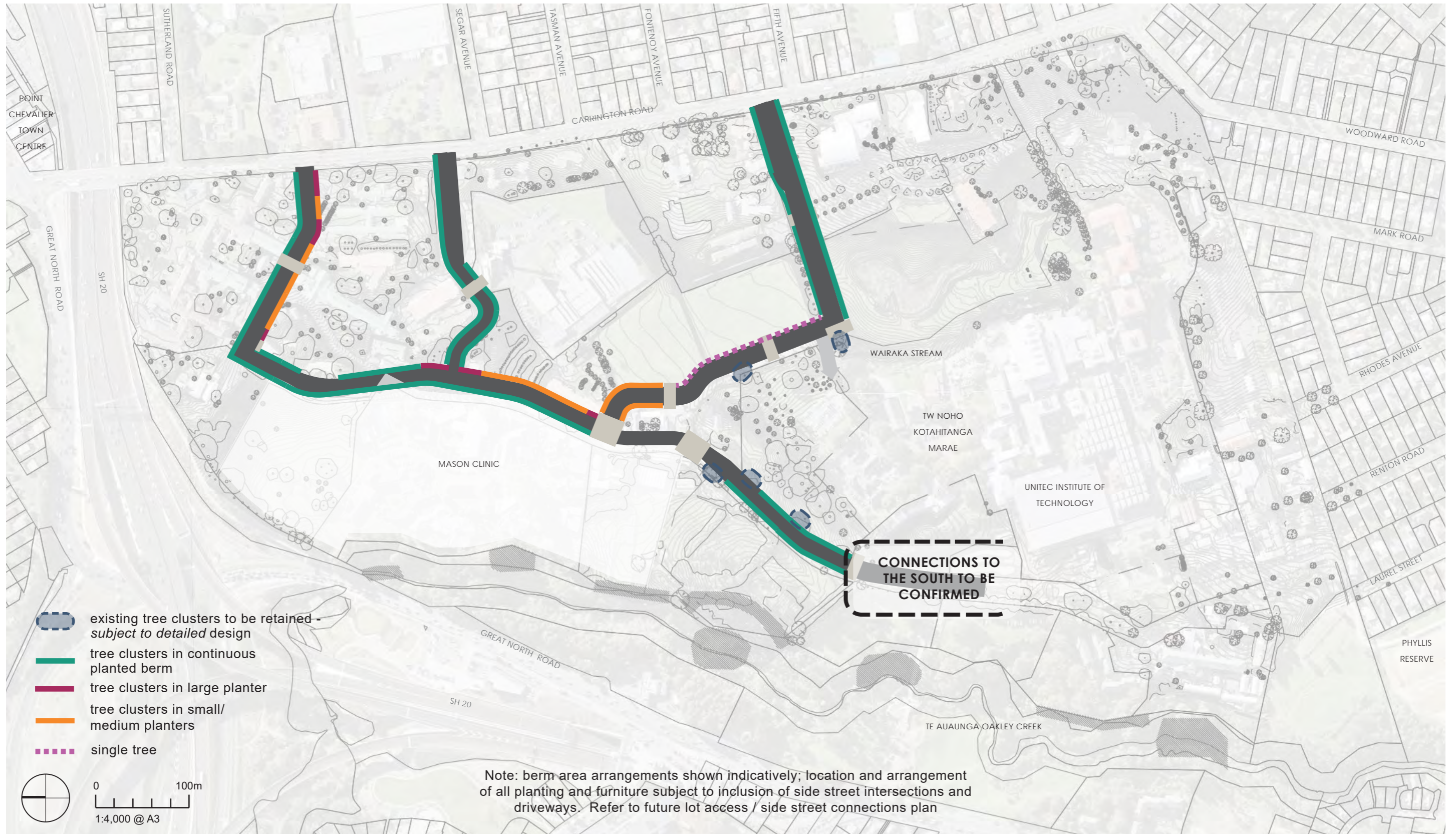


**DRINKING FOUNTAIN**  
ACC CBD Accessible Drinking Fountain by Streetscape NZ

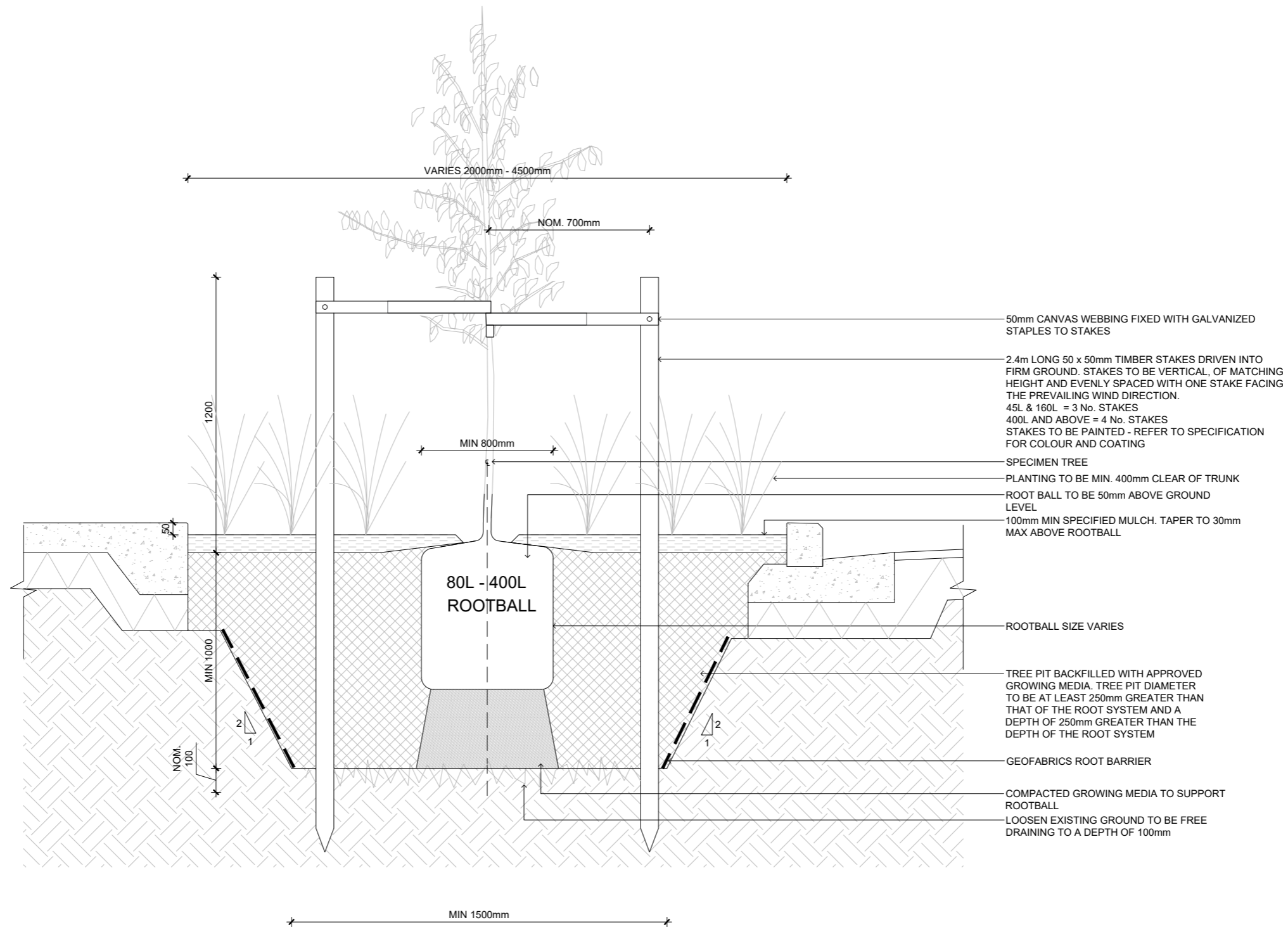


**LIGHTPOLE**  
6m high tapered lightpole (AT approved), Luminaires VFL530-SE LED by WE-EF or similar approved

# STREET TREE PLACEMENT STRATEGY



# TYPICAL TREE PIT DETAIL



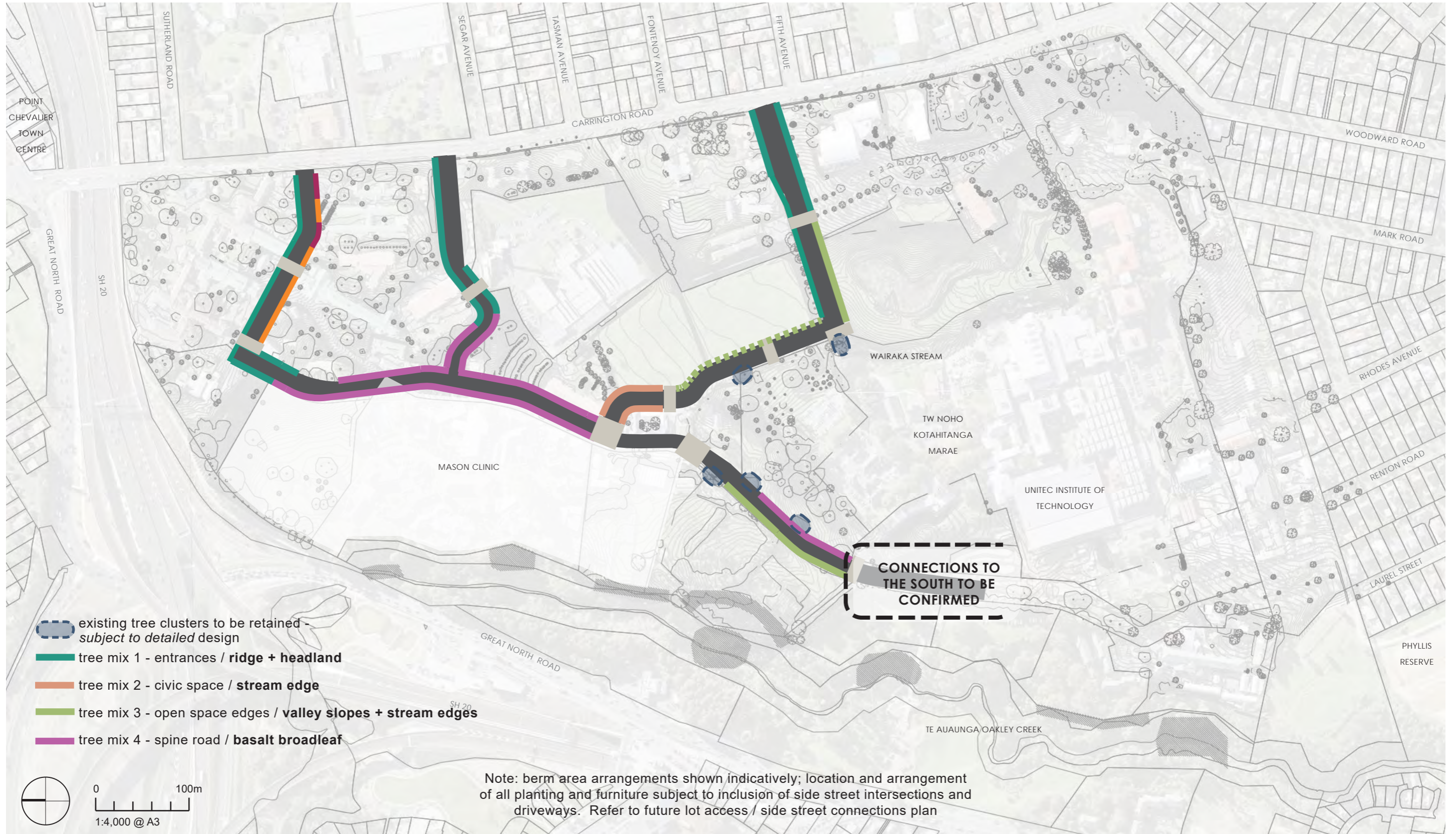
**PROPOSED TREES**

- 40% - 400L
- 30% - 200L
- 30% - 80L

NOTE:  
 MIN. TREE PIT VOLUME PER TREE 3.5m<sup>3</sup>  
 VOLUME TO INCREASE WHERE WIDTH  
 AND DEPTH OF PLANTER ALLOWS UP  
 TO 10m<sup>3</sup>, WHEN TREES ARE GROUPED  
 TREE PIT VOLUMES TO BE JOINED INTO  
 A SINGLE EXTENT.  
 DETAIL IN ACCORDANCE WITH  
 AUCKLAND COUNCIL TYPICAL TREE  
 PLANTING DETAIL. REFER TO  
 AUCKLAND CoP FOR LAND  
 DEVELOPMENT AND SUBDIVISION,  
 CHAPTER 7, LANDSCAPE

01 SPECIMEN TREE - TYPICAL DETAIL IN PLANTED BERM  
 Scale: 1:10 @ A1; 1:20 @ A3

# STREET TREE SPECIES STRATEGY



# STREET TREE SPECIES STRATEGY

## TREE MIX 1 - ENTRANCES / RIDGE & HEADLAND



REWAREWA  
*Knightsia excelsa*



POHUTUKAWA  
*Metrosideros excelsa*



TANEKAHA  
*Phyllocladus trichomanoides*

## TREE MIX 4 - SPINE ROAD / BASALT BROADLEAF



KOHEKOHE  
*Dysoxylum spectabile*



PŪRIRI  
*Vitex lucens*



KŌWHAI  
*Sophora microphylla*

## TREE MIX 2 - CIVIC SPACE / BASALT BROADLEAF + STREAM EDGE



TITOKI  
*Alectryon excelsus*



TI KOUKA  
*Cordyline australis*



KARAKA  
*Corynocarpus laevigatus*



KOHEKOHE  
*Dysoxylum spectabile*



PŪRIRI  
*Vitex lucens*



KŌWHAI  
*Sophora microphylla*

## TREE MIX 3 - OPEN SPACE EDGES / VALLEY SLOPES + STREAM EDGES



TARAIRE  
*Beilschmiedia taraira*



TI KOUKA  
*Cordyline australis*



PŪRIRI  
*Vitex lucens*



MAIRE  
*Syzygium maire*



NĪKAU  
*Rhopalostylis sapida*

# VEGETATION STRATEGY

## AMENITY PLANTING



TŪRUTU  
*Dianella nigra*



RENGARENGA  
*Anthropodium cirratum*



PŌHUEHUE  
*Muehlenbeckia complexa*



PUKUPUKU  
*Doodia australis*



KOWHARWHARA  
*Astelia banksii*



OIOI  
*Apodasmia similis*



KIOKIO  
*Blechnum discolor*

## FEATURE PLANTING



MIKOIKOI  
*Libertia grandiflora*



NZ IRIS  
*Libertia ixioides*



TŪRUTU  
*Dianella nigra*



DIETES ROBINSONIANA



OIOI  
*Apodasmia similis*



KIOKIO  
*Blechnum discolor*



PANAKENAKE  
*Lobelia angulata*



TAUPATA  
*Coprosma repens*  
'Poor Knights'



PIRIPIRI  
*Acaena inermis*

## RAINGARDEN + PLANTING FOR STORMWATER QUALITY



TI KOŪKA  
*Cordyline australis*



KAHIKATEA  
*Dacrycarpus dacrydioides*



PUTAPUTAWĒTĀ  
*Carpodetus serratus*



NIKAU  
*Rhopalostylis sapida*



HARAKEKE  
*Phormium tenax*



UOKO TANGATA  
*Cyperus ustulatus*



CAREX LAMBERTIANA



CAREX LESSONIANA



PŪREI  
*Carex secta*



CAREX VIRGATA



PIRIPIRI  
*Acaena novae-zelandiae*



KŌWAOWAO  
*Microsorium pustulatum*



PARATANIWHA  
*Elatostema rugosum*



KIOKIO  
*Blechnum minus*



WĪWĪ  
*Juncus edgariae*



PĒPPEPE  
*Machaerina sinclairii*