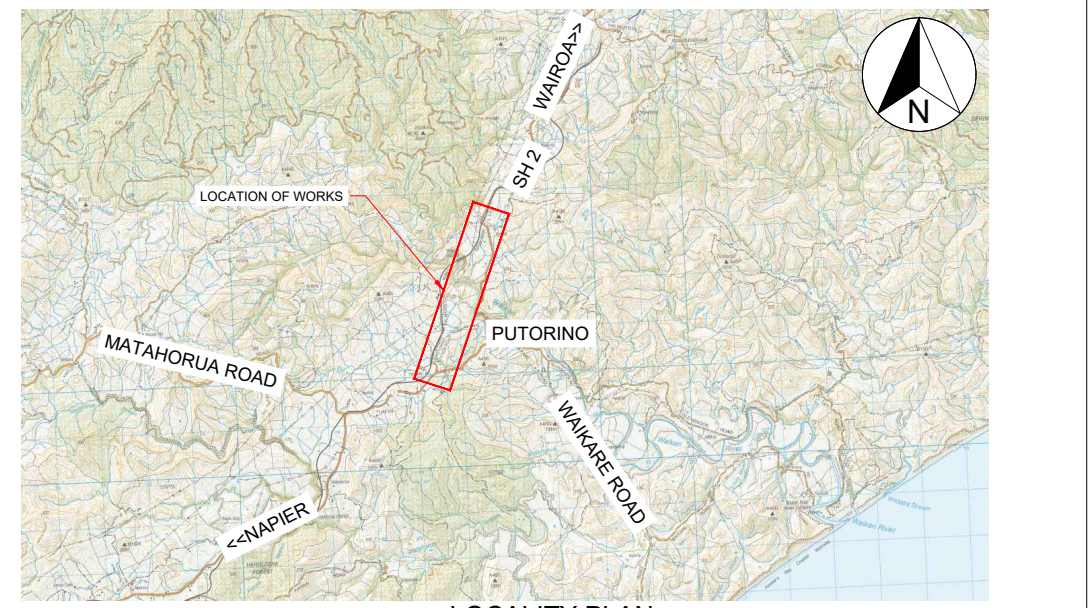


**SHEET INDEX**

- 0001 - OVERALL PLAN, LOCALITY AND SHEET INDEX
- 0002 - 0009 GENERAL ARRANGEMENT PLANS AND LONGSECTIONS
- 0120 - 0129 PAVEMENT AND TYPICAL SECTIONS
- 0150 - 0192 CONSTRUCTION CROSS SECTIONS



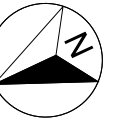
REVISION	AMENDMENT	DRAWN	CHECKED	APPROVED	DATE
A	DRAFT CONCEPT DESIGN ISSUE			J.T.	29/07/2021
B	CONCEPT DESIGN ISSUE FOR ROAD SAFETY AUDIT (DRAFT)			J.T.	18/08/2021
C	CONCEPT DESIGN ISSUE FOR ROAD SAFETY AUDIT (FINAL)			J.T.	02/09/2021
D	PRELIMINARY DESIGN ISSUE			J.T.	15/12/2021
E	LONGSECTIONS UPDATED TO CORRECT CHAINAGES			J.T.	16/12/2021
F	GEOMETRIC DESIGN CHANGES POST CONCEPT REVIEW			J.T.	04/02/2022



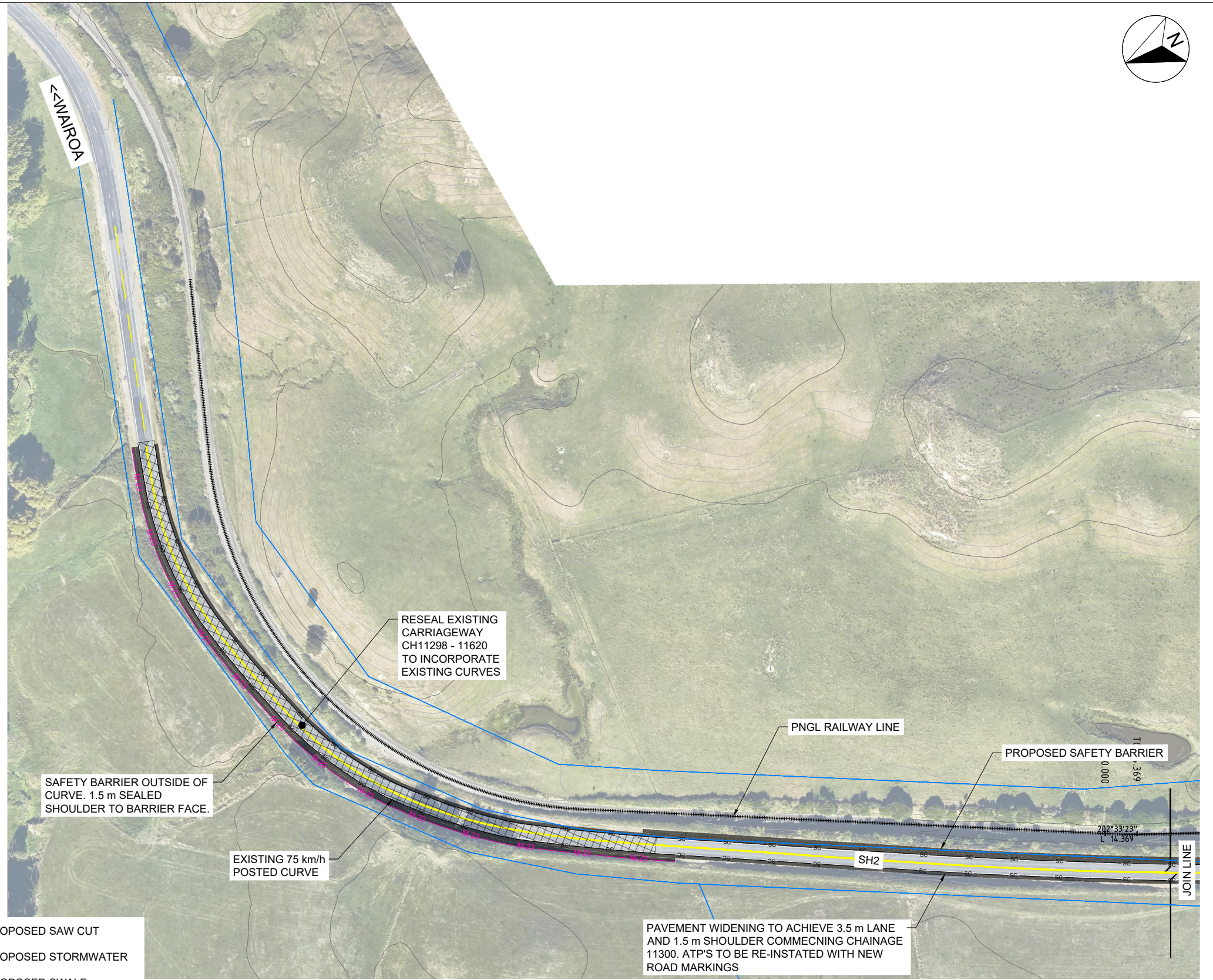
SCALES	DESIGNED	APPROVED	ORIGINAL SIZE
AS SHOWN	A. LEWIS	-	A1
DRAWN			
P. BIRSE			
DRAWING VERIFIED	DESIGN VERIFIED	APPROVED DATE	
J. TAYLOR	J. TAYLOR	-	

**PRELIMINARY DESIGN**

PROJECT		
WAKA KOTAHU NZ TRANSPORT AGENCY		
SH2 R.P. 577/11.600-592/2.500 WAIKARE GORGE		
REALIGNMENT		
TITLE		
GENERAL ARRANGEMENT		
DOCUMENT NO.	SHEET NO.	REVISION
WGR - DES - GEM - 00 - DRG	0001	F



300 mm  
200  
100  
50  
0 10 mm  
1000



**GENERAL ARRANGEMENT**  
SCALE 1:1000 @ A1

**LEGEND**

- |  |                                |  |                                       |
|--|--------------------------------|--|---------------------------------------|
|  | PROPOSED EDGE OF SEAL          |  | PROPOSED SAW CUT                      |
|  | PROPOSED FILL BATTER           |  | PROPOSED STORMWATER                   |
|  | PROPOSED CUT BATTER            |  | PROPOSED SWALE                        |
|  | PROPOSED PAVEMENT CONSTRUCTION |  | PROPOSED WIRE ROPE MEDIAN BARRIER     |
|  | EXISTING BOUNDARY LINE         |  | PROPOSED M23 COMPLIANT SAFETY BARRIER |
|  | PROPOSED BOUNDARY              |  |                                       |
|  | EXISTING FENCE LINE            |  |                                       |

REVISION	AMENDMENT	DRAWN	CHECKED	APPROVED	DATE
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F	GEOMETRIC DESIGN CHANGES POST CONCEPT REVIEW			J.T.	04/02/2022



SCALES	AS SHOWN	ORIGINAL SIZE
		A1
DRAWN	DESIGNED	APPROVED
P. BIRSE	A. LEWIS	-
DRAWING VERIFIED	DESIGN VERIFIED	APPROVED DATE
J. TAYLOR	J. TAYLOR	-

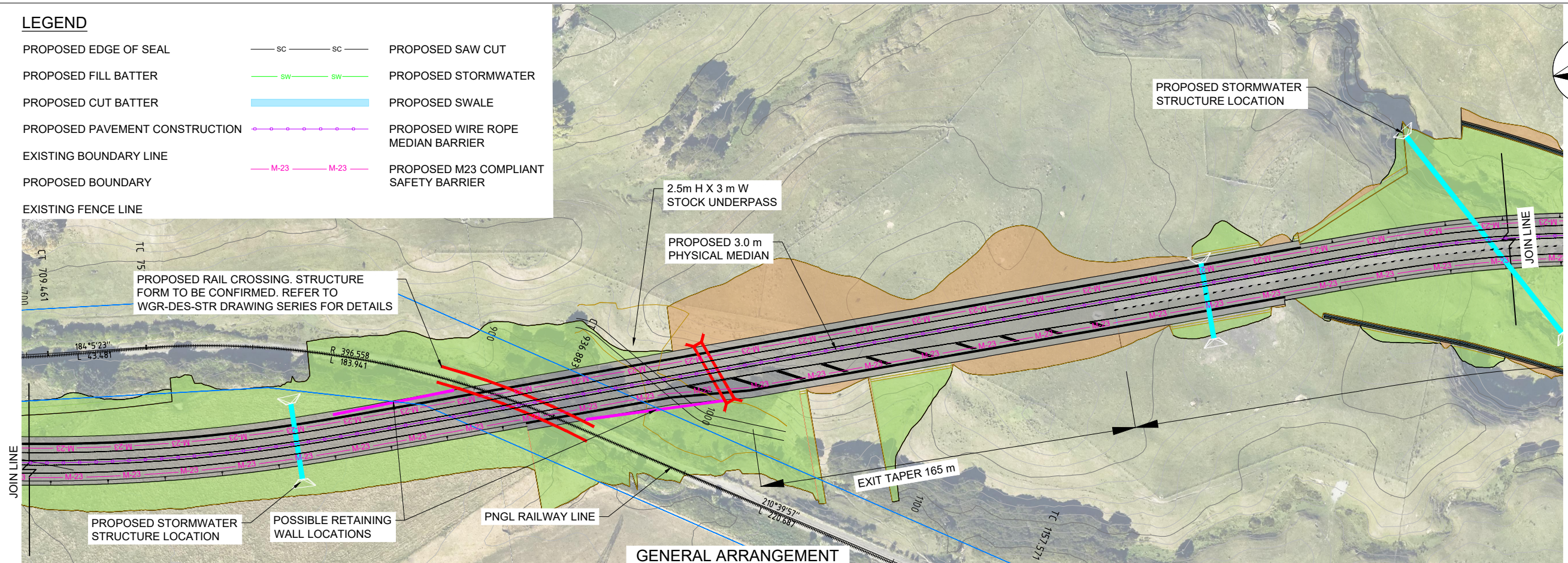
**PRELIMINARY DESIGN**

PROJECT	WAKA KOTAHI NZ TRANSPORT AGENCY SH2 R.P. 577/11.600-592/2.500 WAIKARE GORGE REALIGNMENT
TITLE	GENERAL ARRANGEMENT PLAN AND LONGSECTION SHEET 1 OF 8
DOCUMENT NO.	WGR - DES - GEM - 00 - DRG
SHEET NO.	0002
REVISION	F

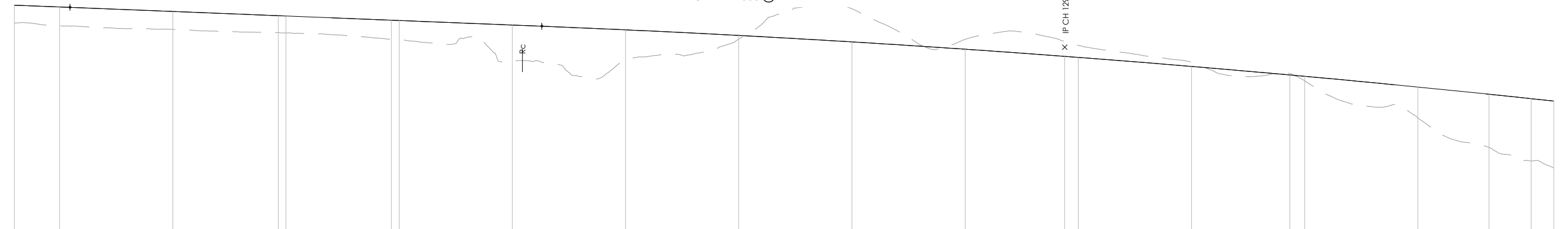


**LEGEND**

- PROPOSED EDGE OF SEAL
- PROPOSED FILL BATTER
- PROPOSED CUT BATTER
- PROPOSED PAVEMENT CONSTRUCTION
- EXISTING BOUNDARY LINE
- PROPOSED BOUNDARY
- EXISTING FENCE LINE
- PROPOSED SAW CUT
- PROPOSED STORMWATER
- PROPOSED SWALE
- PROPOSED WIRE ROPE MEDIAN BARRIER
- PROPOSED M23 COMPLIANT SAFETY BARRIER



**GENERAL ARRANGEMENT**  
SCALE 1:1000 @ A1



VERTICAL ALIGNMENT	K=72 L=216m		L=208.4m G=-2%										K=132 L=462m									
HORIZONTAL ALIGNMENT	L=333.7m R=750m		TL=50m										L=396.84m		TL=88m		L=212.5m R=550m					
LEVEL DIFFERENCE CUT - / FILL +	3.94	4.17	3.96	3.74	3.75	4.21	4.31	7.97	6.77	0.79	-7.30	-2.17	-3.27	-2.66	-0.96	-0.31	0.98	6.78	11.72	13.71	14.72	
DESIGN SURFACE LEVEL	132.583	132.223	131.224	130.293	130.224	129.293	129.224	128.224	127.173	125.938	124.513	122.9	121.324	121.097	119.104	117.22	116.922	114.551	112.963	111.99	111.455	
EXISTING SURFACE LEVEL	128.65	128.05	127.26	126.55	126.48	125.08	124.91	120.25	120.40	125.15	131.81	125.07	124.59	123.76	120.06	117.53	115.94	107.77	101.25	98.28	96.74	
CHAINAGE	12350	12550	12600	12646.59	12650	12696.59	12700	12750	12800	12850	12900	12950	12993.99	13000	13050	13093.43	13100	13150	13181.43	13200	13210	
SUPER ELEVATION	RHS 4.5% LHS -4.3%		LHS -3%										LHS and RHS -3%		RHS -3%		LHS 7.9% RHS -7.9%					

**LONGITUDINAL SECTION - MC001**  
HORZ 1:1000 VERT 1:500

REVISION	AMENDMENT	DRAWN	CHECKED	APPROVED	DATE
A	DRAFT CONCEPT DESIGN ISSUE			J.T.	29/07/2021
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D	PRELIMINARY DESIGN ISSUE			J.T.	15/12/2021
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F	GEOMETRIC DESIGN CHANGES POST CONCEPT REVIEW			J.T.	04/02/2022



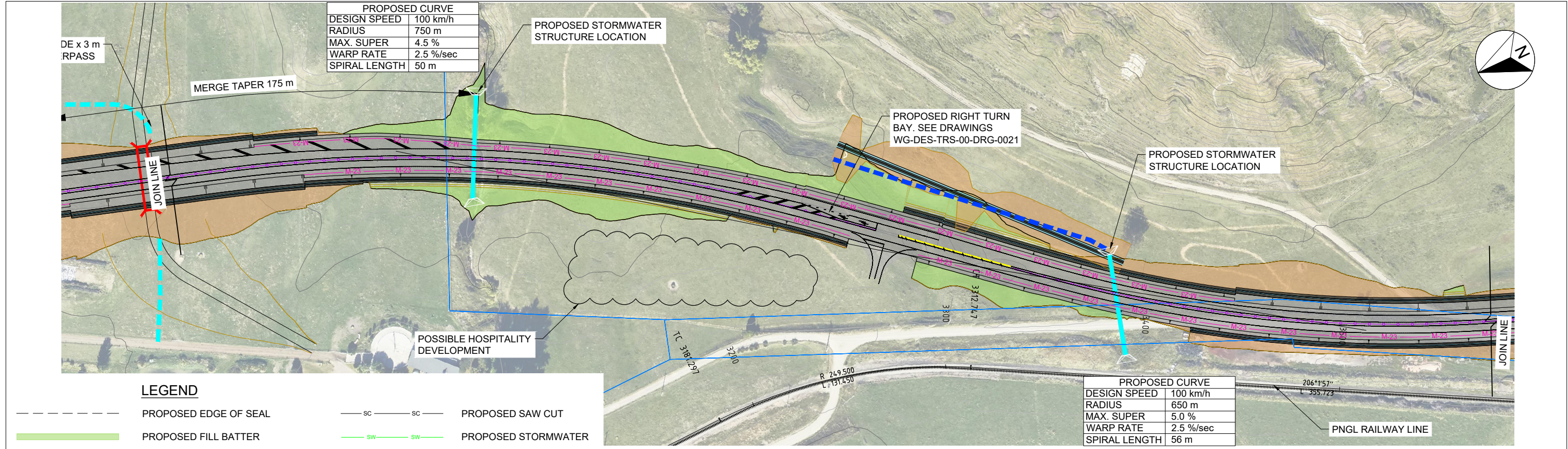
SCALES	ORIGINAL SIZE
AS SHOWN	A1
DRAWN	DESIGNED
P. BIRSE	A. LEWIS
DRAWING VERIFIED	DESIGNED
J. TAYLOR	J. TAYLOR
	APPROVED DATE
	-

**PRELIMINARY DESIGN**

PROJECT
WAKA KOTAHI NZ TRANSPORT AGENCY SH2 R.P. 577/11.600-592/2.500 WAIKARE GORGE REALIGNMENT
TITLE
GENERAL ARRANGEMENT PLAN AND LONGSECTION SHEET 3 OF 8
DOCUMENT NO.
WGR - DES - GEM - 00 - DRG
SHEET NO.
0004
REVISION
F







**LEGEND**

- PROPOSED EDGE OF SEAL
- PROPOSED SAW CUT
- █ PROPOSED FILL BATTER
- █ PROPOSED STORMWATER
- █ PROPOSED CUT BATTER
- █ PROPOSED SWALE
- █ PROPOSED PAVEMENT CONSTRUCTION
- PROPOSED WIRE ROPE MEDIAN BARRIER
- █ EXISTING BOUNDARY LINE
- █ PROPOSED M23 COMPLIANT SAFETY BARRIER
- █ PROPOSED BOUNDARY
- █ EXISTING FENCE LINE

**GENERAL ARRANGEMENT**  
 SCALE 1:1000 @ A1

300 mm  
200  
100  
50  
0 10 mm

DATUM RL. 80.00

VERTICAL ALIGNMENT	L=917.86m G=2%															K=95 L=399m						
HORIZONTAL ALIGNMENT	TL=50m		L=252.43m R=750m					TL=50m		L=75.09m		TL=56m		L=160.92m R=650m			TL=56m					
LEVEL DIFFERENCE CUT - / FILL +	-1.82	-1.08	-0.99	1.04	2.75	3.47	1.36	1.32	1.51	3.31	5.21	4.26	1.91	1.30	-1.52	-1.83	-1.33	-0.60	-0.79	-0.70		
DESIGN SURFACE LEVEL	106.991	107.591	107.638	108.591	109.591	110.591	111.591	112.591	113.679	114.418	114.789	114.986	115.231	115.29	115.342	115.332	115.11	114.663	114.624	113.876		
EXISTING SURFACE LEVEL	106.81	106.67	106.63	107.55	106.84	107.12	109.80	111.23	111.37	111.10	109.58	110.73	113.32	113.99	116.86	117.16	116.44	115.26	115.42	114.58		
CHAINAGE	14570	14600	14602.38	14650	14700	14750	14800	14850	14854.8	14900	14904.8	14950	14979.89	15000	15035.89	15100	15150	15196.81	15200	15250		
SUPER ELEVATION	LHS 4.5% RHS -4.5%															RHS 5% LHS -5%					LHS -3%	

**LONGITUDINAL SECTION - MC001**  
 HORZ 1:1000 VERT 1:500

REVISION	AMENDMENT	DRAWN	CHECKED	APPROVED	DATE
A	DRAFT CONCEPT DESIGN ISSUE			J.T.	29/07/2021
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F	GEOMETRIC DESIGN CHANGES POST CONCEPT REVIEW			J.T.	04/02/2022

WAKA KOTAHI  
NZ TRANSPORT AGENCY

WSP

GHD

Stantec

SCALES	DESIGNED	APPROVED	ORIGINAL SIZE
AS SHOWN	A. LEWIS	-	A1
DRAWN	DESIGN VERIFIED	APPROVED DATE	
P. BIRSE	J. TAYLOR	-	

**PRELIMINARY DESIGN**

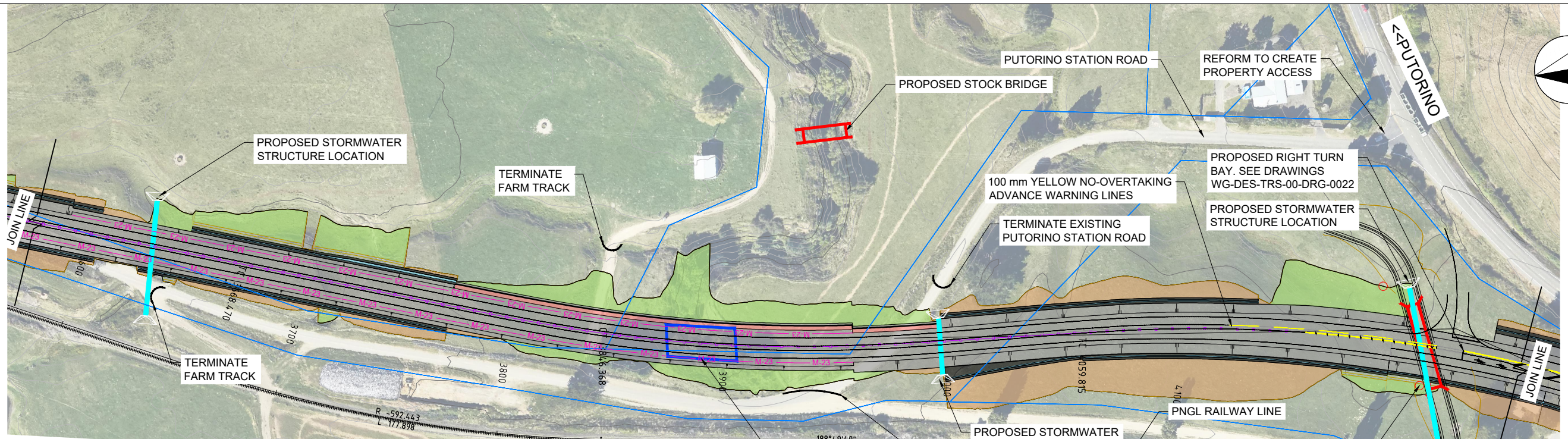
PROJECT  
 WAKA KOTAHI NZ TRANSPORT AGENCY  
 SH2 R.P. 577/11.600-592/2.500 WAIKARE GORGE  
 REALIGNMENT

TITLE  
 GENERAL ARRANGEMENT  
 PLAN AND LONGSECTION SHEET 6 OF 8

DOCUMENT NO.  
 WGR - DES - GEM - 00 - DRG

SHEET NO.  
 0007

REVISION  
 F



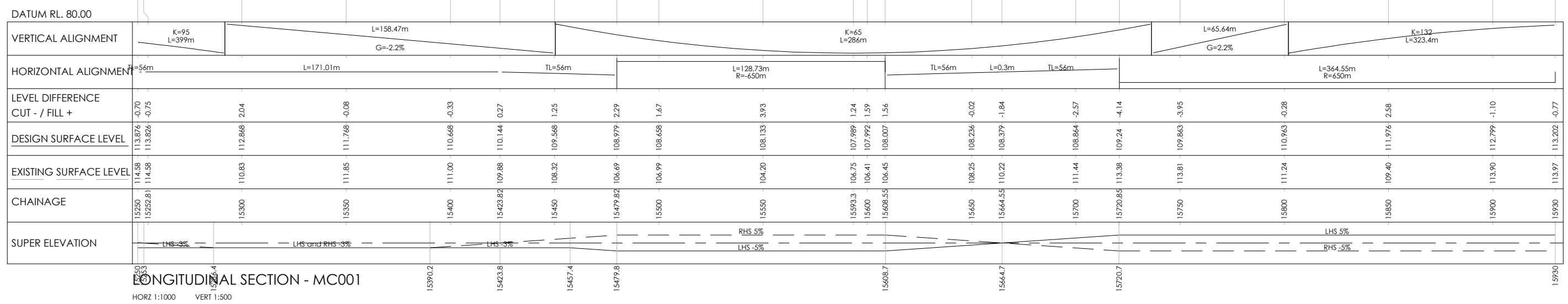
**LEGEND**

- PROPOSED EDGE OF SEAL
- PROPOSED SAW CUT
- █ PROPOSED FILL BATTER
- █ PROPOSED STORMWATER
- █ PROPOSED CUT BATTER
- █ PROPOSED SWALE
- █ PROPOSED PAVEMENT CONSTRUCTION
- █ PROPOSED WIRE ROPE MEDIAN BARRIER
- █ EXISTING BOUNDARY LINE
- █ PROPOSED M23 COMPLIANT SAFETY BARRIER
- █ PROPOSED BOUNDARY
- █ EXISTING FENCE LINE

PROPOSED CURVE	
DESIGN SPEED	100 km/h
RADIUS	650 m
MAX. SUPER	5.0 %
WARP RATE	2.5 %/sec
SPIRAL LENGTH	56 m

PROPOSED CURVE	
DESIGN SPEED	100 km/h
RADIUS	650 m
MAX. SUPER	5.0 %
WARP RATE	2.5 %/sec
SPIRAL LENGTH	56 m

**GENERAL ARRANGEMENT**  
SCALE 1:1000 @ A1



REVISION	AMENDMENT	DRAWN	CHECKED	APPROVED	DATE
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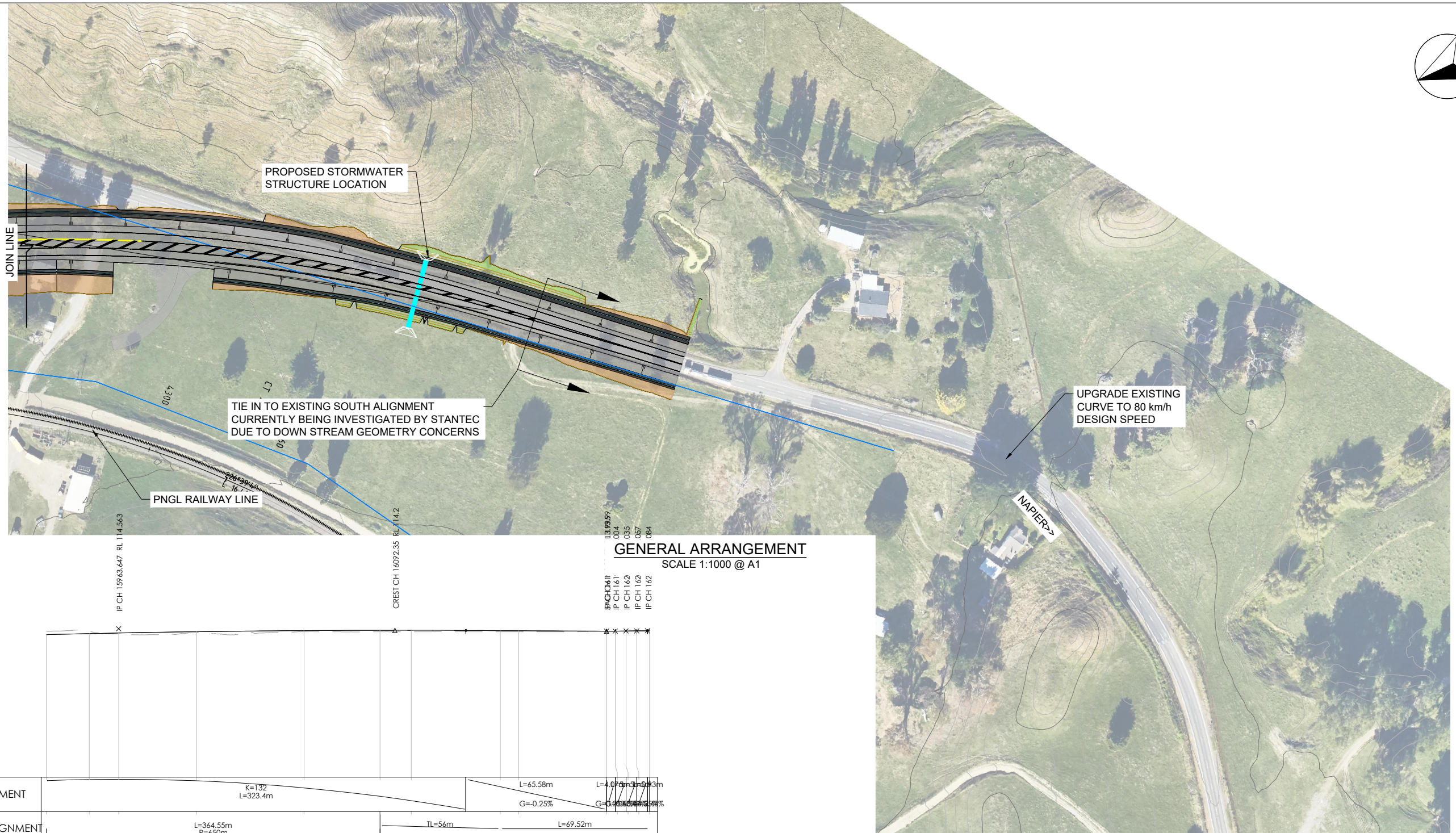
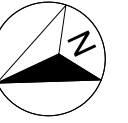


SCALES	AS SHOWN	ORIGINAL SIZE
AS SHOWN		A1
DRAWN	DESIGNED	APPROVED
P. BIRSE	A. LEWIS	-
DRAWING VERIFIED	DESIGN VERIFIED	APPROVED DATE
J. TAYLOR	J. TAYLOR	-

**PRELIMINARY DESIGN**

PROJECT	WAKA KOTAHI NZ TRANSPORT AGENCY SH2 R.P. 577/11.600-592/2.500 WAIKARE GORGE REALIGNMENT
TITLE	GENERAL ARRANGEMENT PLAN AND LONGSECTION SHEET 7 OF 8
DOCUMENT NO.	WGR - DES - GEM - 00 - DRG
SHEET NO.	0008
REVISION	F





**GENERAL ARRANGEMENT**  
SCALE 1:1000 @ A1

DATUM RL. 80.00

VERTICAL ALIGNMENT	K=1.32 L=323.4m		L=65.58m		L=4.0m L=50.3m	
HORIZONTAL ALIGNMENT	L=364.55m R=650m		TL=56m		L=69.52m	
LEVEL DIFFERENCE CUT - / FILL +	-0.77	-0.46	0.23	0.26	0.35	0.36
DESIGN SURFACE LEVEL	113.202	113.433	113.877	114.132	114.198	114.198
EXISTING SURFACE LEVEL	113.97	113.89	113.34	113.64	113.87	114.11
CHAINAGE	15990	15950	15963.65	16000	16050	16100
SUPER ELEVATION	LHS 5% RHS -5%		RHS -3%		LHS and RHS -3%	

**LONGITUDINAL SECTION - MC001**  
HORZ 1:1000 VERT 1:500

**LEGEND**

--- SC --- SC ---	PROPOSED EDGE OF SEAL	--- SW --- SW ---	PROPOSED SAW CUT
█	PROPOSED FILL BATTER	█	PROPOSED STORMWATER
█	PROPOSED CUT BATTER	█	PROPOSED SWALE
█	PROPOSED PAVEMENT CONSTRUCTION	○ ○ ○ ○ ○ ○ ○ ○ ○ ○	PROPOSED WIRE ROPE MEDIAN BARRIER
---	EXISTING BOUNDARY LINE	---	PROPOSED M23 COMPLIANT SAFETY BARRIER
---	PROPOSED BOUNDARY	---	
---	EXISTING FENCE LINE		

REVISION	AMENDMENT	DRAWN	CHECKED	APPROVED	DATE
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F	GEOMETRIC DESIGN CHANGES POST CONCEPT REVIEW			J.T.	04/02/2022



SCALES	ORIGINAL SIZE
AS SHOWN	A1
DRAWN	DESIGNED
P. BIRSE	A. LEWIS
DRAWING VERIFIED	APPROVED DATE
J. TAYLOR	J. TAYLOR

**PRELIMINARY DESIGN**

PROJECT	WAKA KOTAHI NZ TRANSPORT AGENCY SH2 R.P. 577/11.600-592/2.500 WAIKARE GORGE REALIGNMENT
TITLE	GENERAL ARRANGEMENT PLAN AND LONGSECTION SHEET 8 OF 8
DOCUMENT NO.	WGR - DES - GEM - 00 - DRG
SHEET NO.	0009
REVISION	F