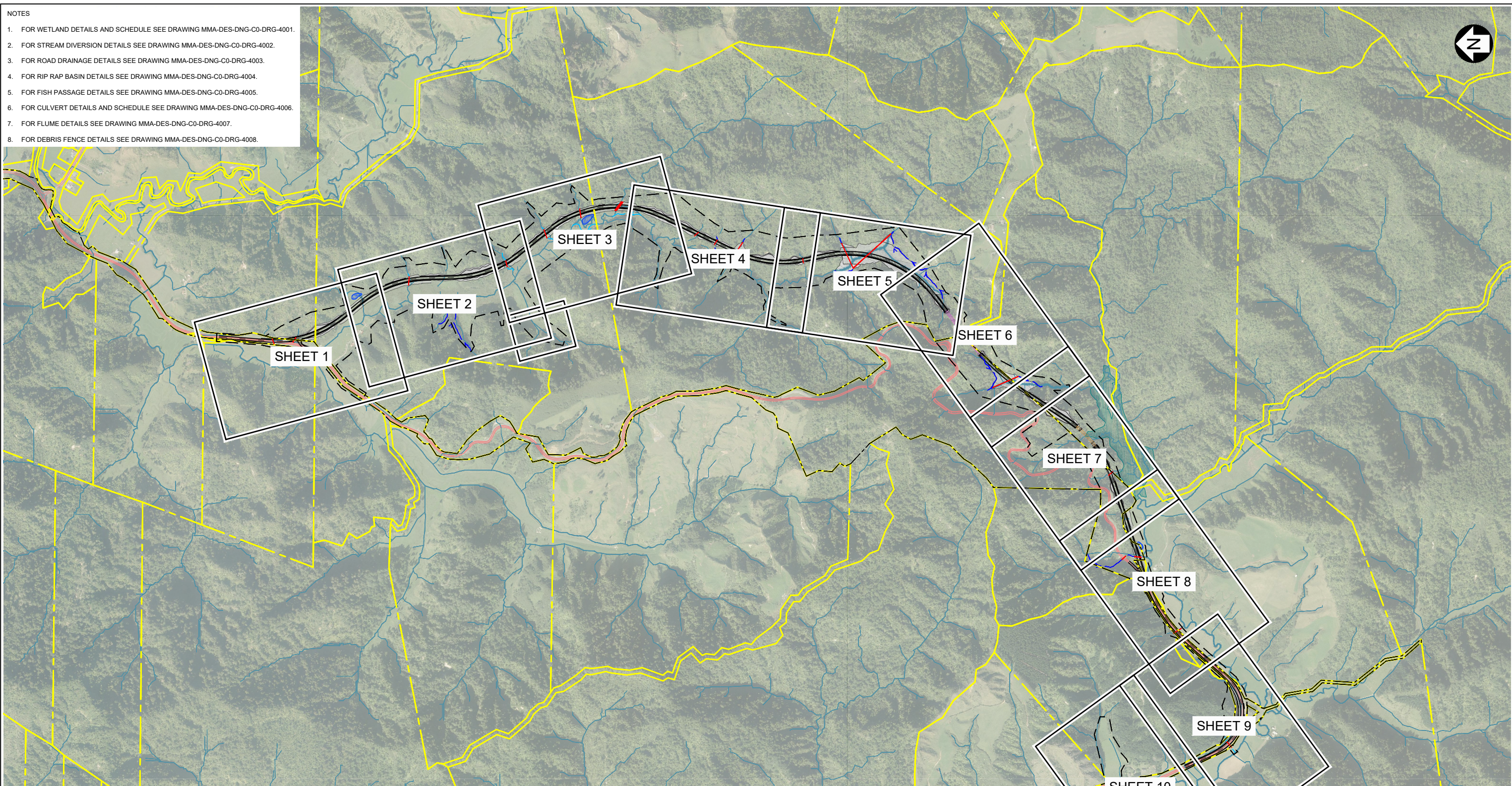


- NOTES
- FOR WETLAND DETAILS AND SCHEDULE SEE DRAWING MMA-DES-DNG-C0-DRG-4001.
  - FOR STREAM DIVERSION DETAILS SEE DRAWING MMA-DES-DNG-C0-DRG-4002.
  - FOR ROAD DRAINAGE DETAILS SEE DRAWING MMA-DES-DNG-C0-DRG-4003.
  - FOR RIP RAP BASIN DETAILS SEE DRAWING MMA-DES-DNG-C0-DRG-4004.
  - FOR FISH PASSAGE DETAILS SEE DRAWING MMA-DES-DNG-C0-DRG-4005.
  - FOR CULVERT DETAILS AND SCHEDULE SEE DRAWING MMA-DES-DNG-C0-DRG-4006.
  - FOR FLUME DETAILS SEE DRAWING MMA-DES-DNG-C0-DRG-4007.
  - FOR DEBRIS FENCE DETAILS SEE DRAWING MMA-DES-DNG-C0-DRG-4008.

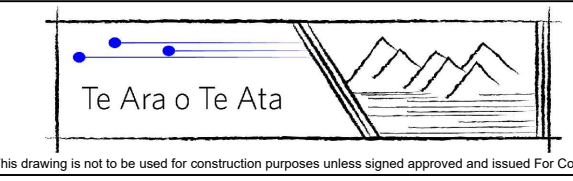


**LEGEND**

	PROPOSED CUT (DESIGN FOOTPRINT)		MIMI SWAMP FOREST		CONSTRUCTED WETLAND
	PROPOSED FILL (DESIGN FOOTPRINT)		EXISTING STREAM (PERENNIAL)		FISH PASSAGE THROUGH CULVERT
	PROPOSED BRIDGE		EXISTING STREAM (INTERMITTENT)		PROVISIONAL FILL SITES
	PROPOSED TUNNEL		EXISTING CULVERT		STORMWATER SWALE DRAIN
	EXISTING SH3		STORMWATER CULVERT		STORMWATER CHANNEL IN MUDSTONE
	PROPOSED DESIGNATION		STORMWATER FLUME		STORMWATER CHANNEL IN MUDSTONE (SHALLOW)
	EXISTING DESIGNATION		STORMWATER ROAD DRAINAGE PIPE		STORMWATER MANHOLE
	PROPERTY BOUNDARY		RIPRAP CHANNEL		STORMWATER SCRUFFY DOME
			STREAM DIVERSION (TYPE 1)		STORMWATER CATCHPIT MANHOLE
			STREAM DIVERSION (TYPE 2)		STORMWATER FLOW SPLITTER JUNCTION

A FOR CONSENT							QDO'S	WHE	MAK	WSB	LG	14/11/2017	
Rev	Revision Description						Drawn	Checked	Designed	Design Checked	Approved	Date	

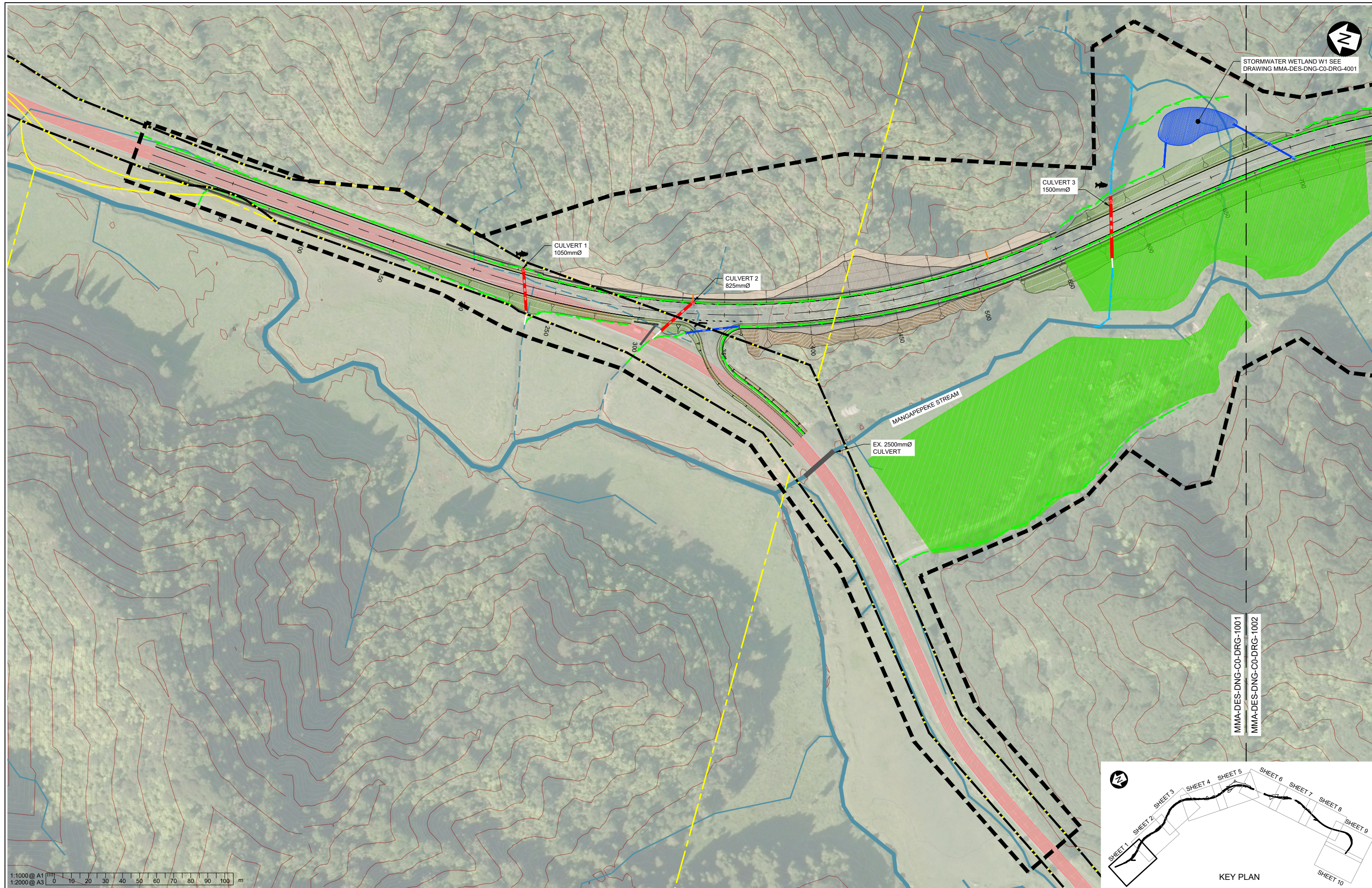
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Scales	NOT TO SCALE
Original Size	A1



**MT MESSENGER BYPASS**

**DRAINAGE GENERAL ARRANGEMENT SHEET LAYOUT**

Approved	D.KENDERDINE
Status	FOR CONSENT
Drawing Number	MMA-DES-DNG-C0-DRG-1000
Revision	A



1:1000 @ A1  
1:2000 @ A3

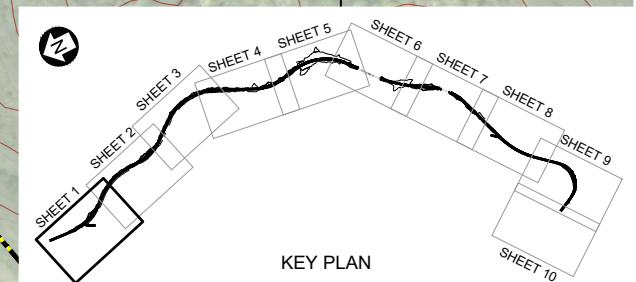
Rev	Revision Description	Drawn	Checked	Designed	Design Checked	Approved	Date
A	FOR CONSENT	QDO'S	WHE	MAK	WSB	LG	14/11/2017

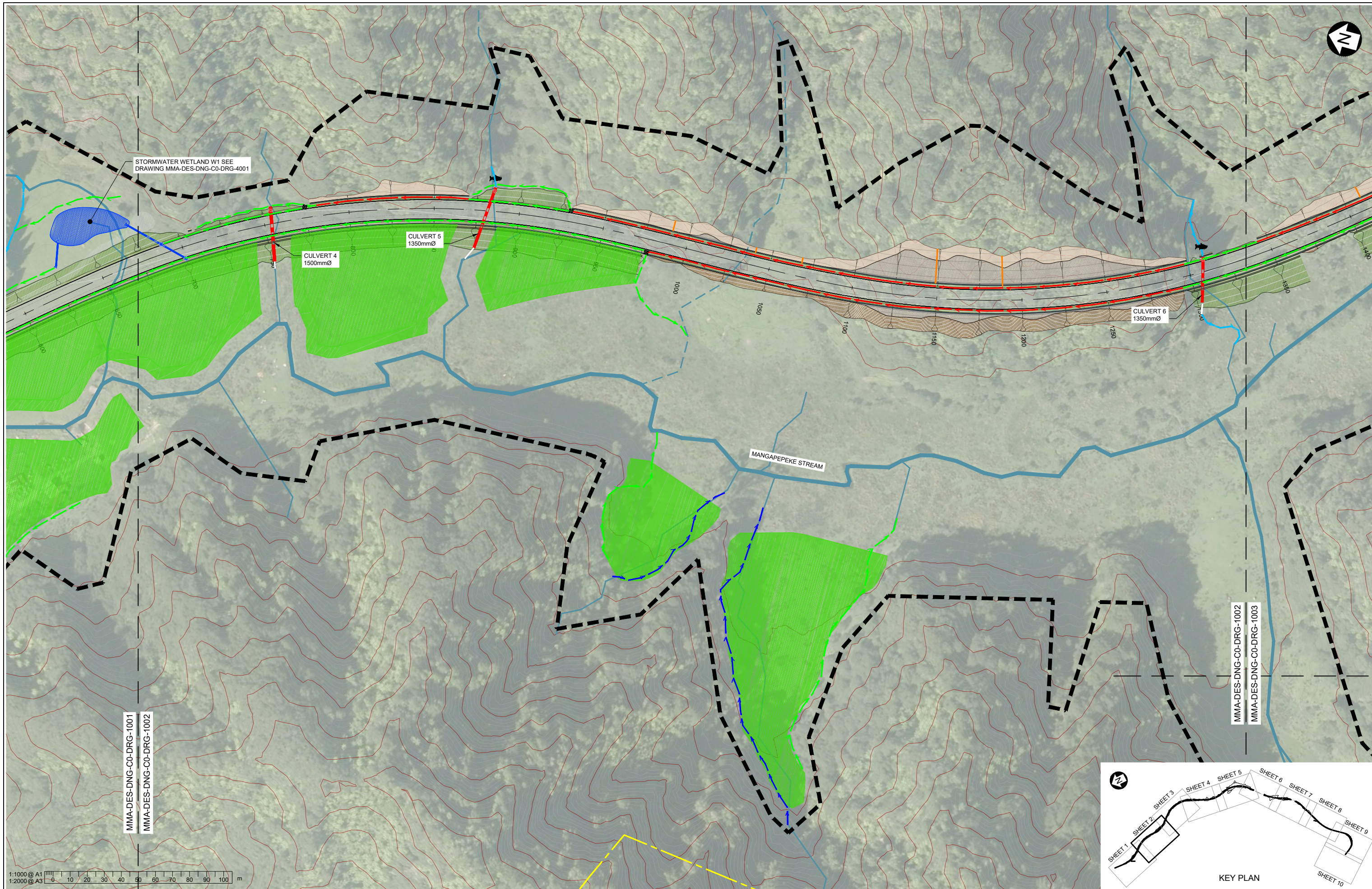
Tab MMA-DES-DNG-C0-DRG-1001
Scales 1:2000 (A3) 1:1000 (A1)
Original Size A1



**MT MESSENGER BYPASS**  
**DRAINAGE**  
**GENERAL ARRANGEMENTS LAYOUT**  
**SHEET 1**

Approved <b>D.KENDERDINE</b>	Revision <b>A</b>
Status <b>FOR CONSENT</b>	
Drawing Number <b>MMA-DES-DNG-C0-DRG-1001</b>	





STORMWATER WETLAND W1 SEE DRAWING MMA-DES-DNG-C0-DRG-4001

CULVERT 4  
1500mmØ

CULVERT 5  
1350mmØ

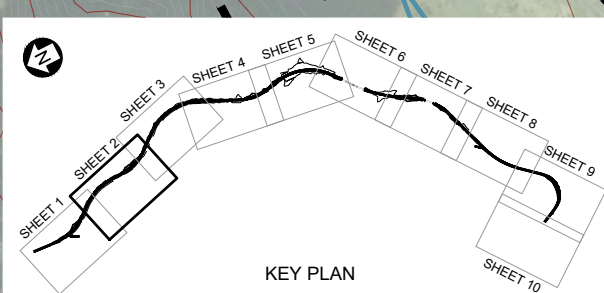
CULVERT 6  
1350mmØ

MANGAPEPE STREAM

MMA-DES-DNG-C0-DRG-1001  
MMA-DES-DNG-C0-DRG-1002

MMA-DES-DNG-C0-DRG-1002  
MMA-DES-DNG-C0-DRG-1003

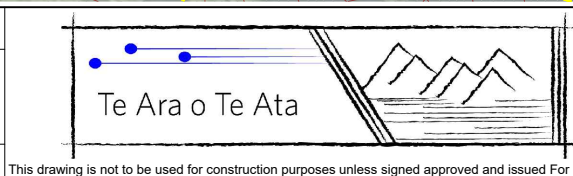
1:1000 @ A1  
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KEY PLAN

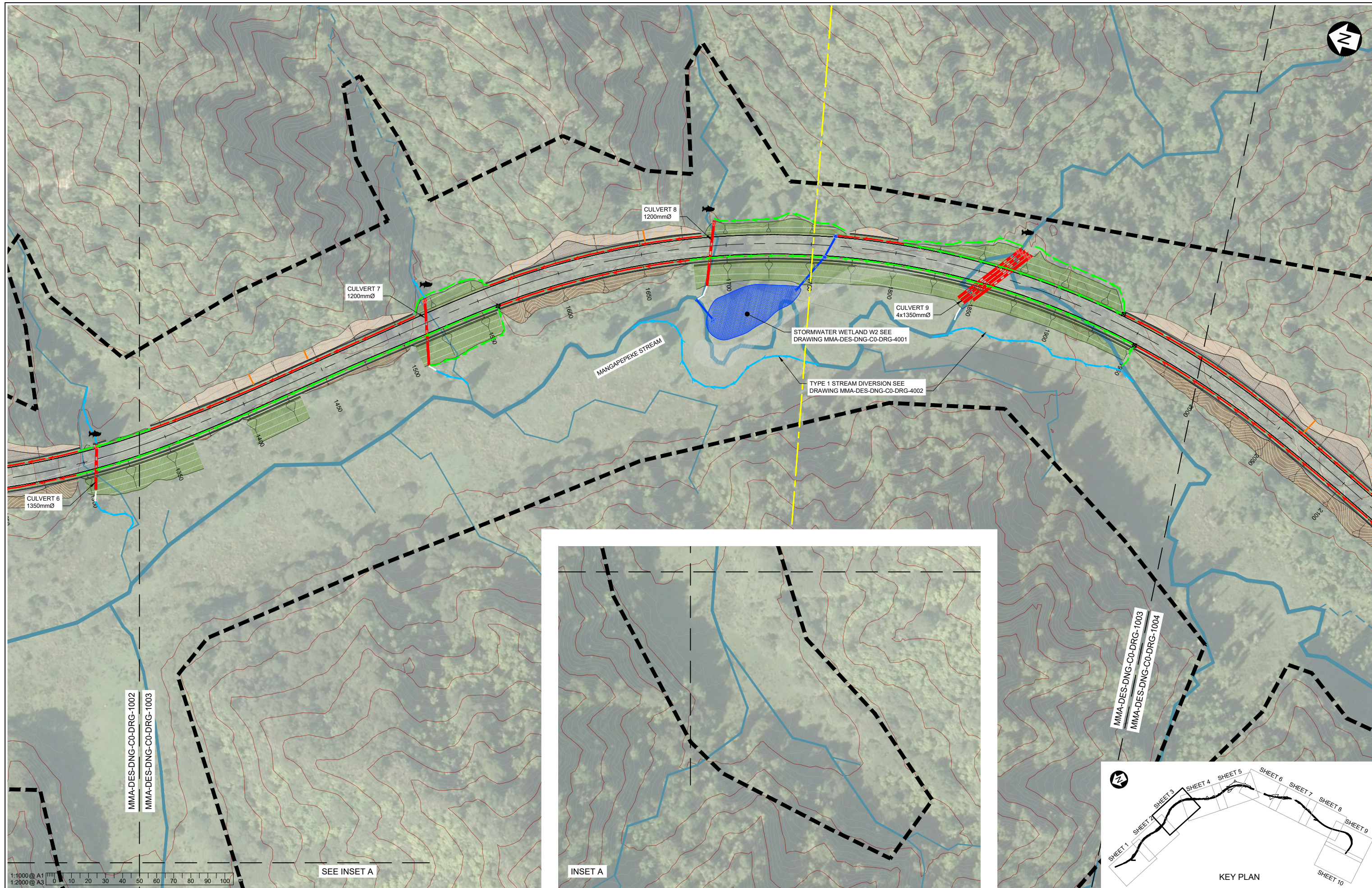
Rev	Description	Drawn	Checked	Designed	Design Checked	Approved	Date
A	FOR CONSENT	QDO'S	WHE	MAK	WSB	LG	14/11/2017

Tab	MMA-DES-DNG-C0-DRG-1002
Scales	1:2000 (A3) 1:1000 (A1)
Original Size	A1



**MT MESSENGER BYPASS**  
**DRAINAGE**  
**GENERAL ARRANGEMENTS LAYOUT**  
**SHEET 2**

Approved	D.KENDERDINE
Status	FOR CONSENT
Drawing Number	MMA-DES-DNG-C0-DRG-1002
Revision	A



1:1000 @ A1	1:2000 @ A3	0	10	20	30	40	50	60	70	80	90	100
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SEE INSET A
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Rev	Revision Description	QDO'S	WHE	MAK	WSB	LG	14/11/2017
Draw	Design	Checked	Designed	Design	Checked	Approved	Date

Tab	MMA-DES-DNG-C0-DRG-1003
Scales	1:2000 (A3) 1:1000 (A1)
Original Size	A1

Te Ara o Te Ata

This drawing is not to be used for construction purposes unless signed approved and issued For Construction

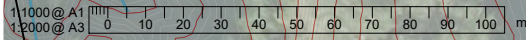
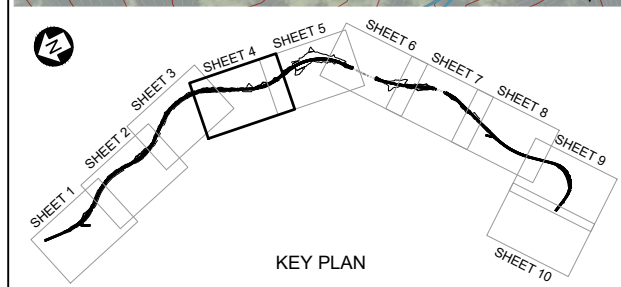
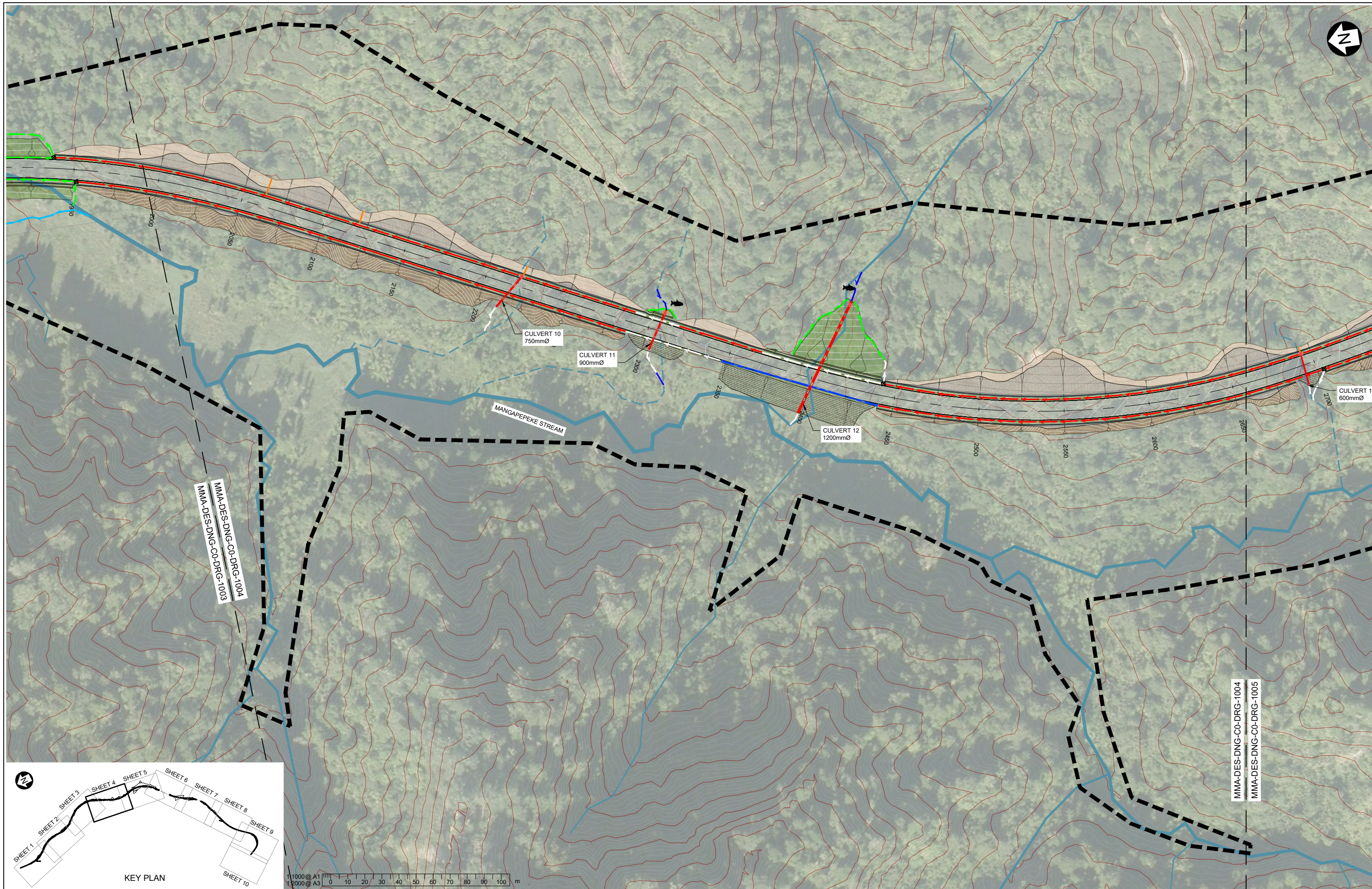
**MT MESSENGER BYPASS**

**DRAINAGE**

**GENERAL ARRANGEMENTS LAYOUT**

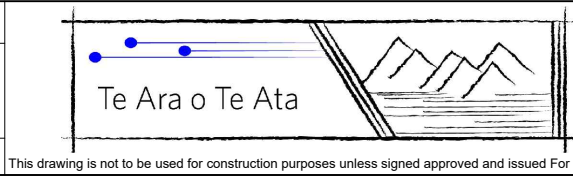
**SHEET 3**

Approved	D.KENDERDINE
Status	FOR CONSENT
Drawing Number	MMA-DES-DNG-C0-DRG-1003
Revision	A



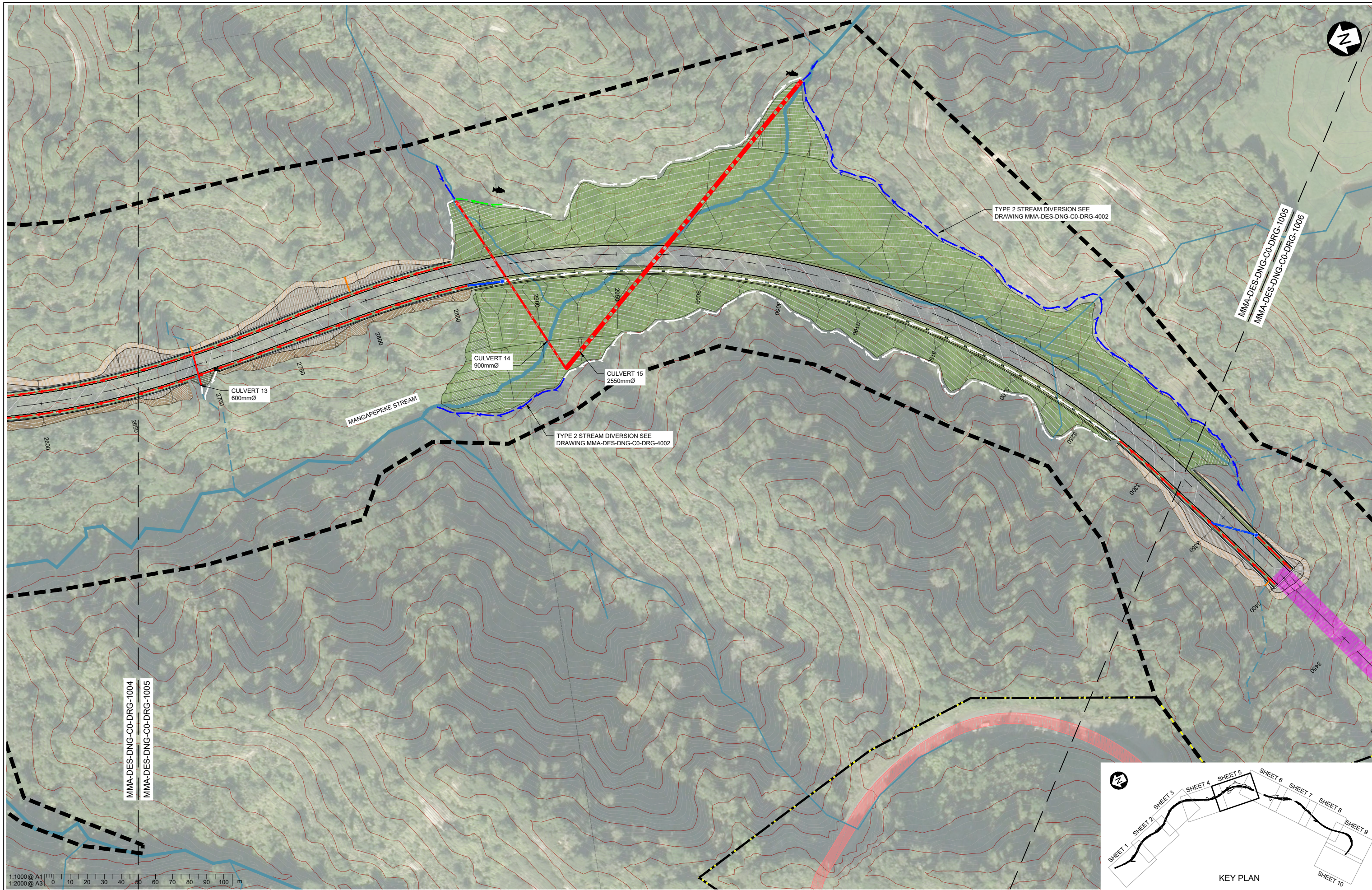
Rev	Description	Drawn	Checked	Designed	Design Checked	Approved	Date
A	FOR CONSENT	QDO'S	WHE	MAK	WSB	LG	14/11/2017

Tab	MMA-DES-DNG-C0-DRG-1004
Scales	1:2000 (A3) 1:1000 (A1)
Original Size	A1



**MT MESSENGER BYPASS**  
**DRAINAGE**  
**GENERAL ARRANGEMENTS LAYOUT**  
**SHEET 4**

Approved	D.KENDERDINE
Status	FOR CONSENT
Drawing Number	MMA-DES-DNG-C0-DRG-1004
Revision	<b>A</b>

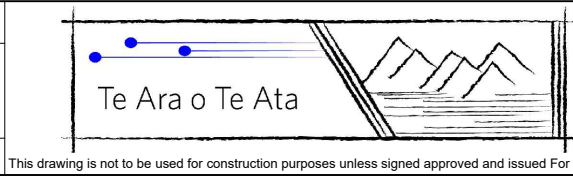


1:1000 @ A1  
1:2000 @ A3

MMA-DES-DNG-C0-DRG-1004  
MMA-DES-DNG-C0-DRG-1005

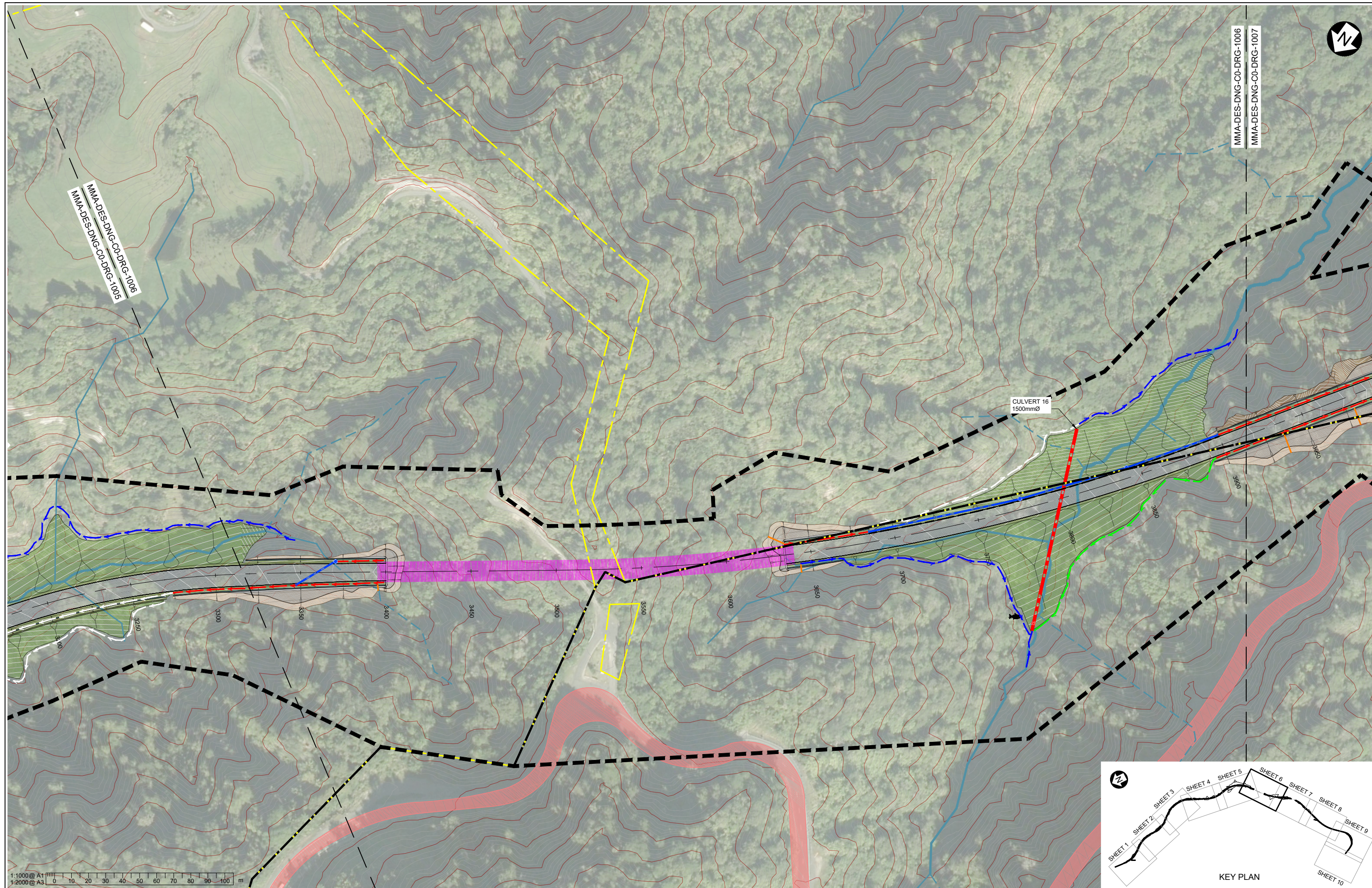
Rev	Revision Description	Drawn	Checked	Designed	Design Checked	Approved	Date
A	FOR CONSENT	QDO'S	WHE	MAK	WSB	LG	14/11/2017

Tab MMA-DES-DNG-C0-DRG-1005
Scales 1:2000 (A3) 1:1000 (A1)
Original Size A1



**MT MESSENGER BYPASS**  
**DRAINAGE**  
**GENERAL ARRANGEMENTS LAYOUT**  
**SHEET 5**

Approved <b>D.KENDERDINE</b>	Revision <b>A</b>
Status <b>FOR CONSENT</b>	
Drawing Number <b>MMA-DES-DNG-C0-DRG-1005</b>	



MMA-DES-DNG-C0-DRG-1006  
MMA-DES-DNG-C0-DRG-1005

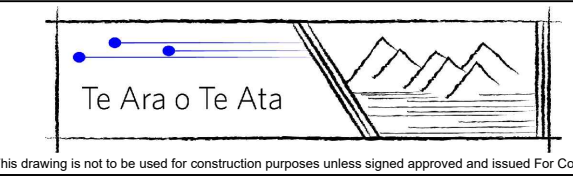
MMA-DES-DNG-C0-DRG-1006  
MMA-DES-DNG-C0-DRG-1007

CULVERT 16  
1500mmØ

1:1000 @ A1  
1:2000 @ A3

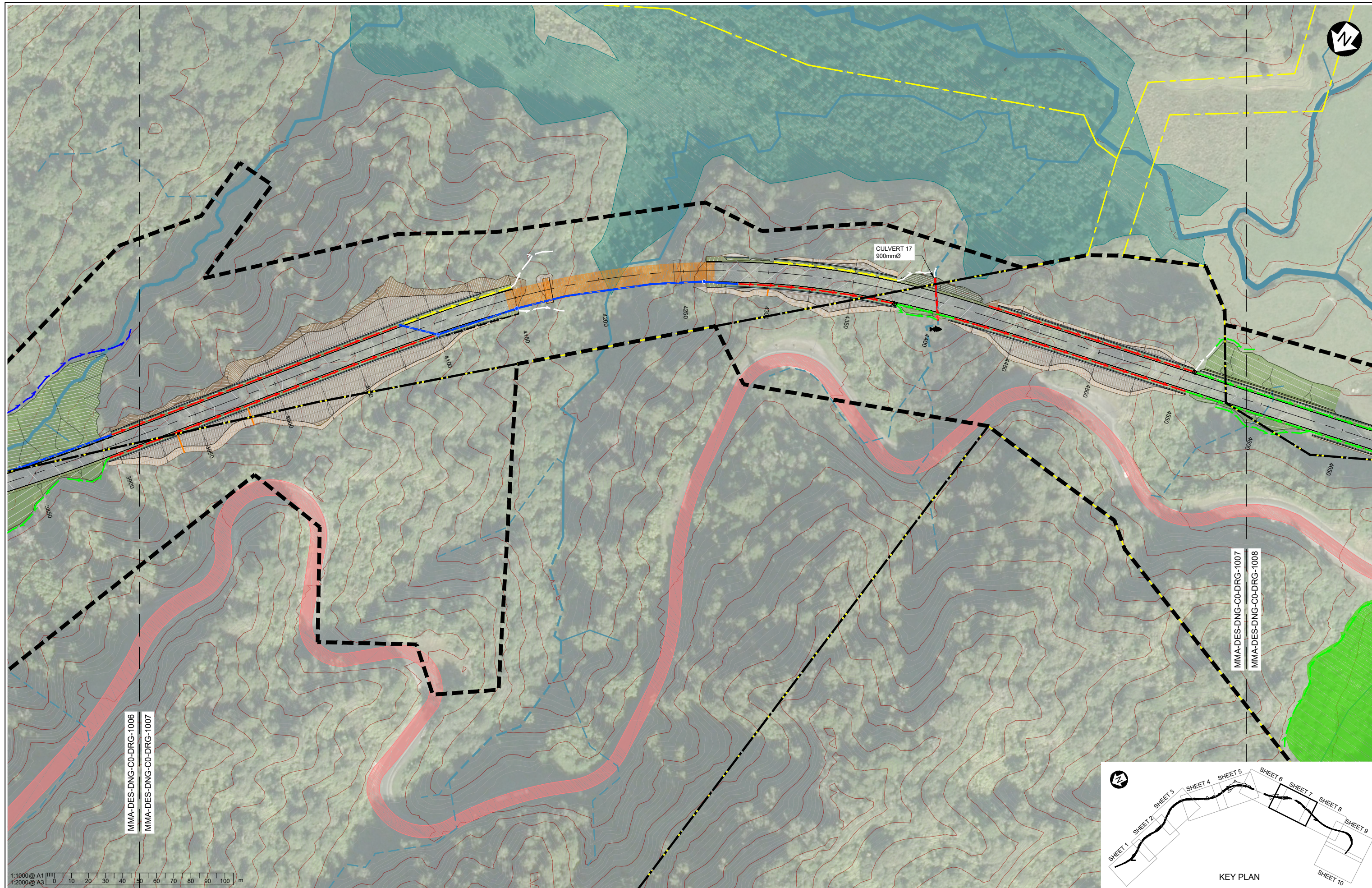
Rev	Revision Description	Drawn	Checked	Designed	Design Checked	Approved	Date
A	FOR CONSENT	QDO'S	WHE	MAK	WSB	LG	14/11/2017

Tab	MMA-DES-DNG-C0-DRG-1006
Scales	1:2000 (A3) 1:1000 (A1)
Original Size	A1



**MT MESSENGER BYPASS**  
**DRAINAGE**  
**GENERAL ARRANGEMENTS LAYOUT**  
**SHEET 6**

Approved	D.KENDERDINE
Status	FOR CONSENT
Drawing Number	MMA-DES-DNG-C0-DRG-1006
Revision	A

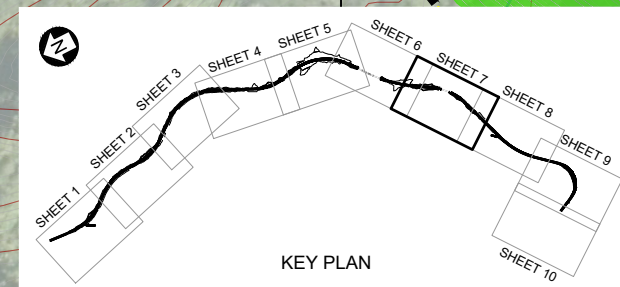


1:1000 @ A1  
1:2000 @ A3

MMA-DES-DNG-CO-DRG-1006  
MMA-DES-DNG-CO-DRG-1007

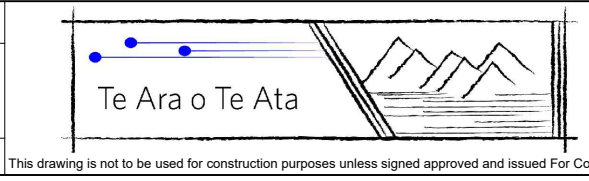
CULVERT 17  
900mmØ

MMA-DES-DNG-CO-DRG-1007  
MMA-DES-DNG-CO-DRG-1008



Rev	Revision Description	QDO'S	WHE	MAK	WSB	LG	Date
A	FOR CONSENT						14/11/2017

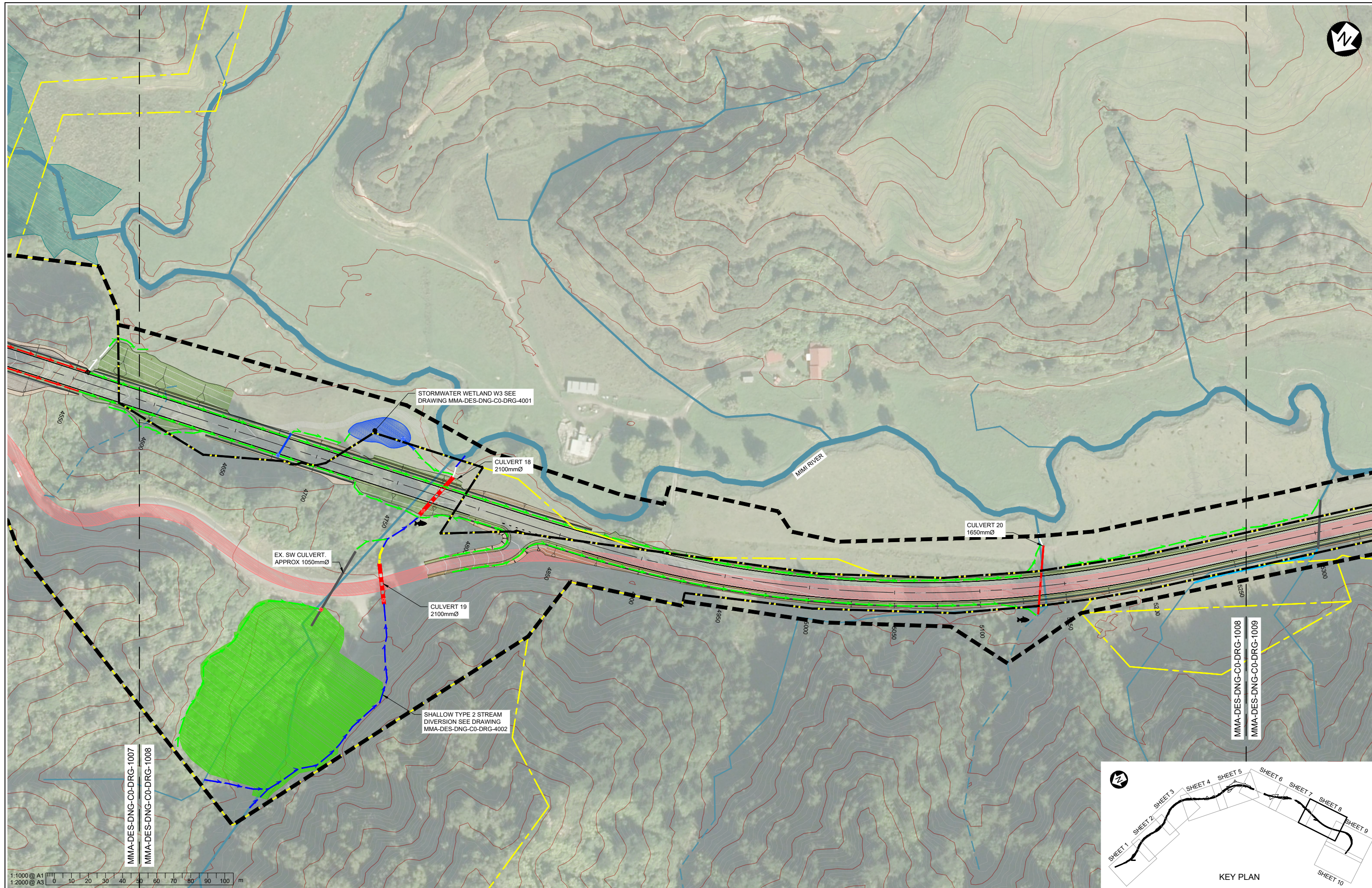
Tab	MMA-DES-DNG-CO-DRG-1007
Scales	1:2000 (A3) 1:1000 (A1)
Original Size	A1



**MT MESSENGER BYPASS**  
**DRAINAGE**  
**GENERAL ARRANGEMENTS LAYOUT**  
**SHEET 7**

Approved  
**D.KENDERDINE**  
Status  
**FOR CONSENT**  
Drawing Number  
**MMA-DES-DNG-CO-DRG-1007**  
Revision  
**A**





1:1000 @ A1	0	10	20	30	40	50	60	70	80	90	100	m
1:2000 @ A3												

Rev	Revision Description	QDO'S	WHE	MAK	WSB	LG	14/11/2017
Draw		Drawn	Checked	Designed	Design Checked	Approved	Date

Tab	MMA-DES-DNG-C0-DRG-1008
Scales	1:2000 (A3) 1:1000 (A1)
Original Size	A1

Te Ara o Te Ata

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**MT MESSENGER BYPASS**

**DRAINAGE**

**GENERAL ARRANGEMENTS LAYOUT**

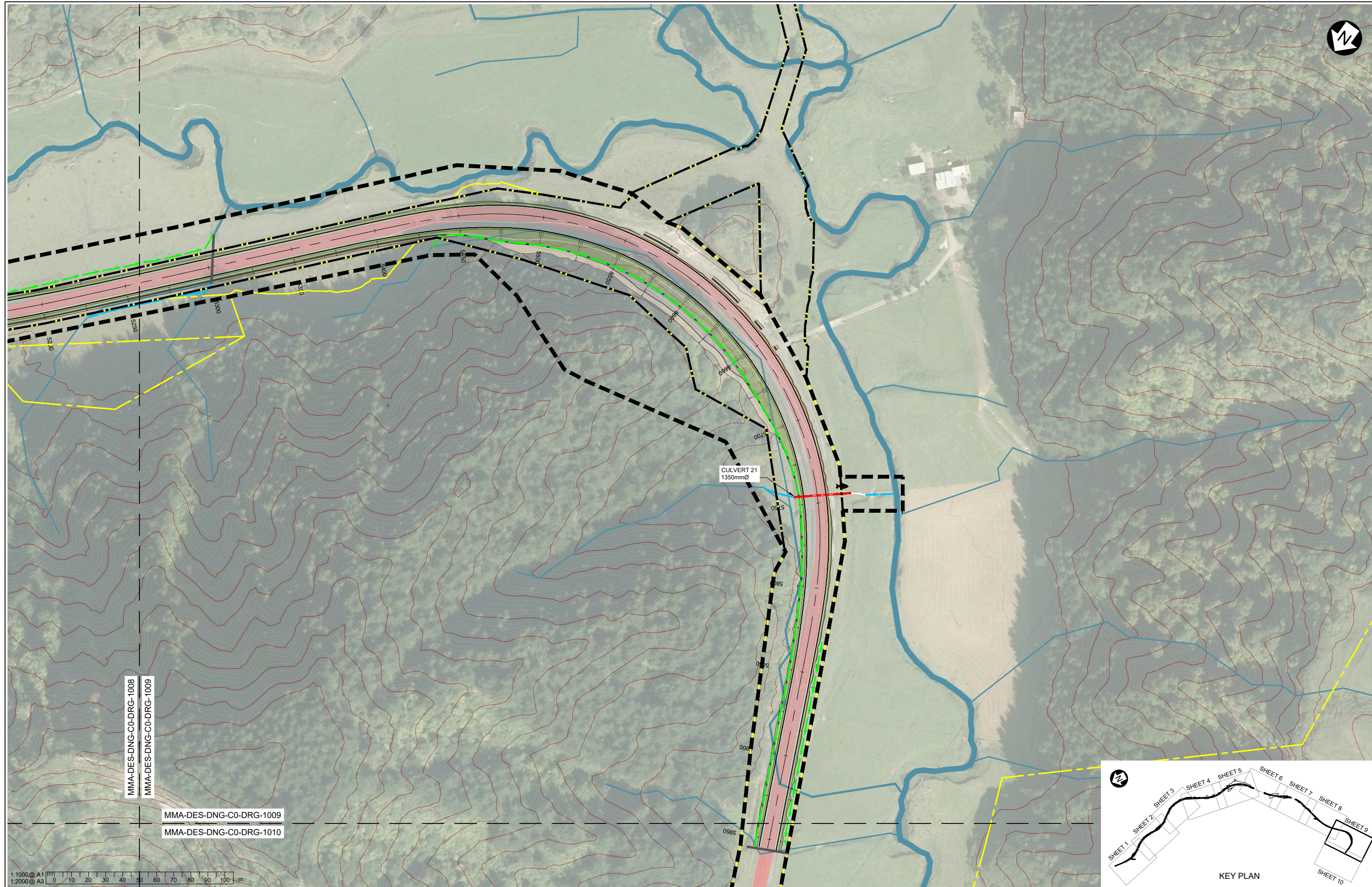
**SHEET 8**

Approved  
**D.KENDERDINE**

Status  
**FOR CONSENT**

Drawing Number  
**MMA-DES-DNG-C0-DRG-1008**

Revision  
**A**



MMA-DES-DNG-C0-DRG-1008  
MMA-DES-DNG-C0-DRG-1009

MMA-DES-DNG-C0-DRG-1009  
MMA-DES-DNG-C0-DRG-1010

1:1000 @ A1  
1:2000 @ A3

Rev	Description	Drawn	Checked	Designed	Design Checked	Approved	Date
A	FOR CONSENT	QDO'S	WHE	MAK	WSB	LG	14/11/2017

Tab MMA-DES-DNG-C0-DRG-1009
Scales 1:2000 (A3) 1:1000 (A1)
Original Size A1

Te Ara o Te Ata

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**MT MESSENGER BYPASS**

**DRAINAGE  
GENERAL ARRANGEMENTS LAYOUT  
SHEET 9**

Approved  
**D.KENDERDINE**

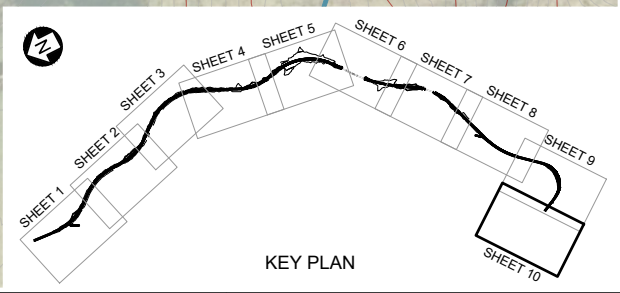
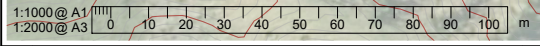
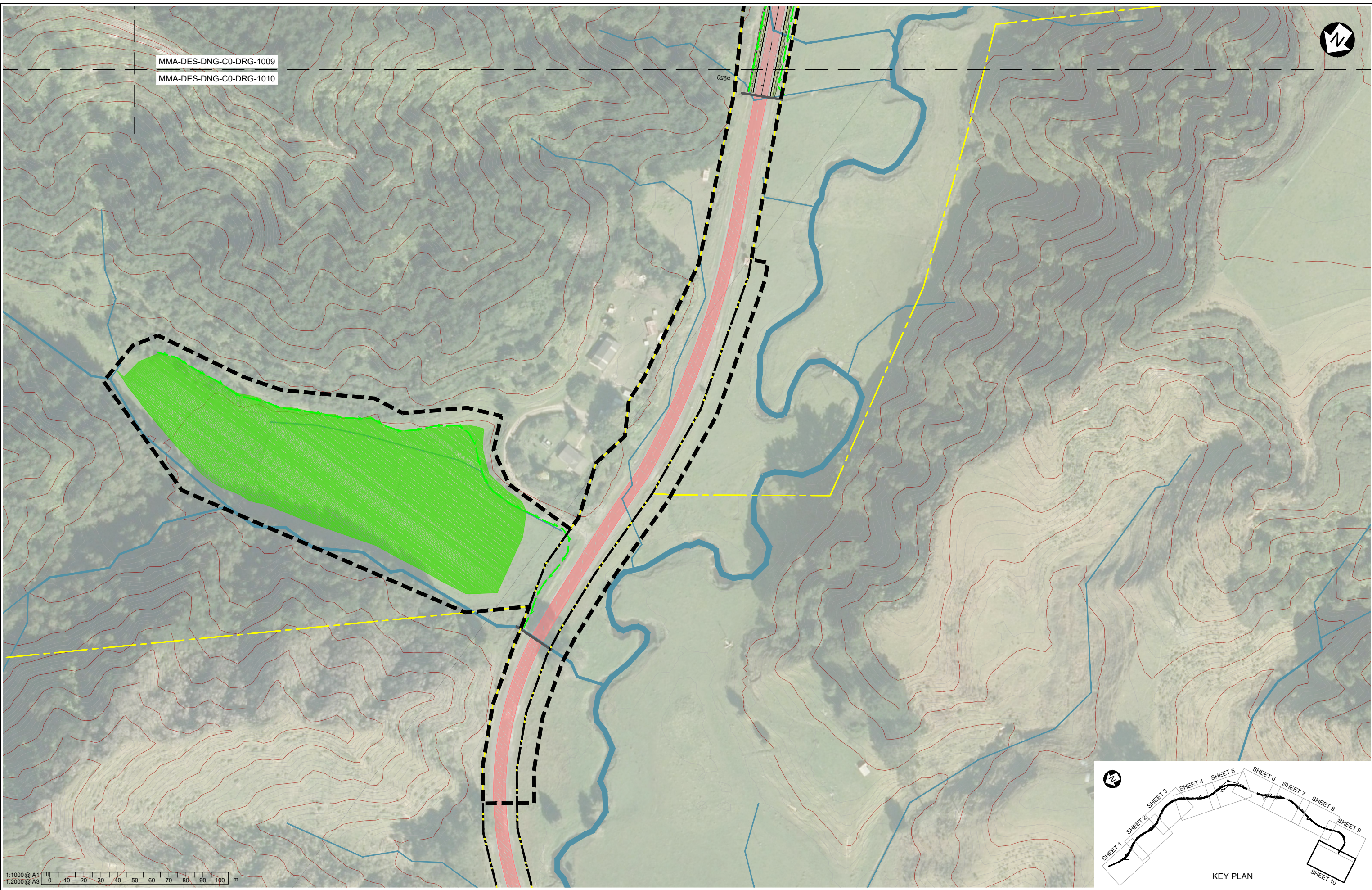
Status  
**FOR CONSENT**

Drawing Number  
**MMA-DES-DNG-C0-DRG-1009**

Revision  
**A**

MMA-DES-DNG-C0-DRG-1009

MMA-DES-DNG-C0-DRG-1010



Tab	MMA-DES-DNG-C0-DRG-1010						
Scales	1:2000 (A3) 1:1000 (A1)						
Original Size	A1						
Rev	FOR CONSENT	QDO'S	WHE	MAK	WSB	LG	14/11/2017
Rev	Revision Description	Drawn	Drawing Checked	Designed	Design Checked	Approved	Date

Te Ara o Te Ata

This drawing is not to be used for construction purposes unless signed approved and issued For Construction

**MT MESSENGER BYPASS**

**DRAINAGE**

**GENERAL ARRANGEMENTS LAYOUT**

**SHEET 10**

Approved  
**D.KENDERDINE**

Status  
**FOR CONSENT**

Drawing Number  
**MMA-DES-DNG-C0-DRG-1010**

Revision  
**A**