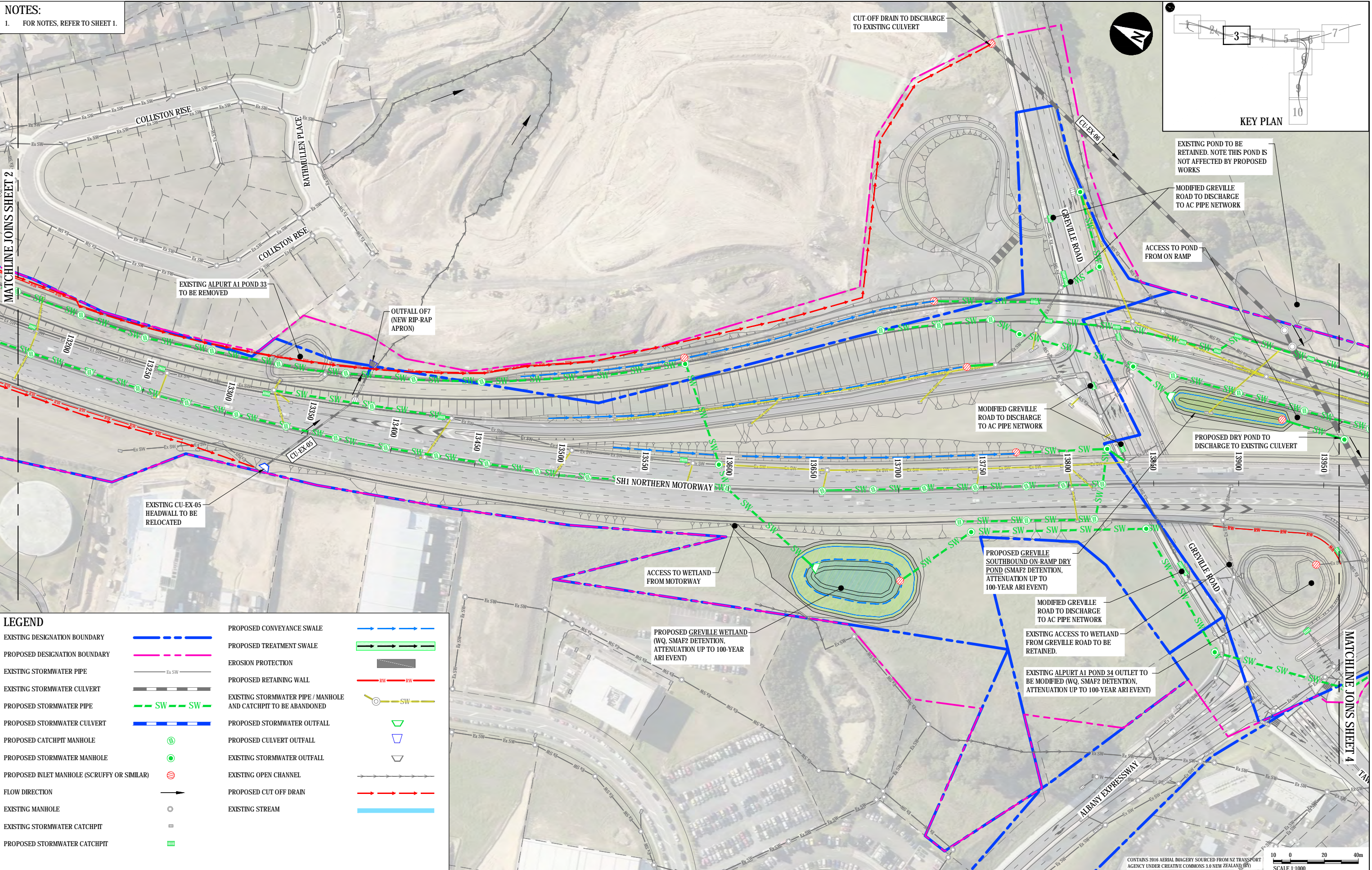


NOTES:
1. FOR NOTES, REFER TO SHEET 1.



LEGEND

EXISTING DESIGNATION BOUNDARY		PROPOSED CONVEYANCE SWALE	
PROPOSED DESIGNATION BOUNDARY		PROPOSED TREATMENT SWALE	
EXISTING STORMWATER PIPE		EROSION PROTECTION	
EXISTING STORMWATER CULVERT		PROPOSED RETAINING WALL	
PROPOSED STORMWATER PIPE		EXISTING STORMWATER PIPE / MANHOLE AND CATCHPIT TO BE ABANDONED	
PROPOSED STORMWATER CULVERT		PROPOSED STORMWATER OUTFALL	
PROPOSED CATCHPIT MANHOLE		PROPOSED CULVERT OUTFALL	
PROPOSED STORMWATER MANHOLE		EXISTING STORMWATER OUTFALL	
PROPOSED INLET MANHOLE (SCRUFFY OR SIMILAR)		EXISTING OPEN CHANNEL	
FLOW DIRECTION		PROPOSED CUT OFF DRAIN	
EXISTING MANHOLE		EXISTING STREAM	
EXISTING STORMWATER CATCHPIT			
PROPOSED STORMWATER CATCHPIT			

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REV	DATE	REVISION DETAILS	APPROVED
A	17.10.16	PRELIMINARY ISSUE	G. MOORE
B	24.11.16	CONSENT ISSUE	J. HIND

SCALE	1:1000
SIZE	A1
DRAWN	V. SMITH
DESIGNED	D. HUGHES
CHECKED	D. MACKINTOSH

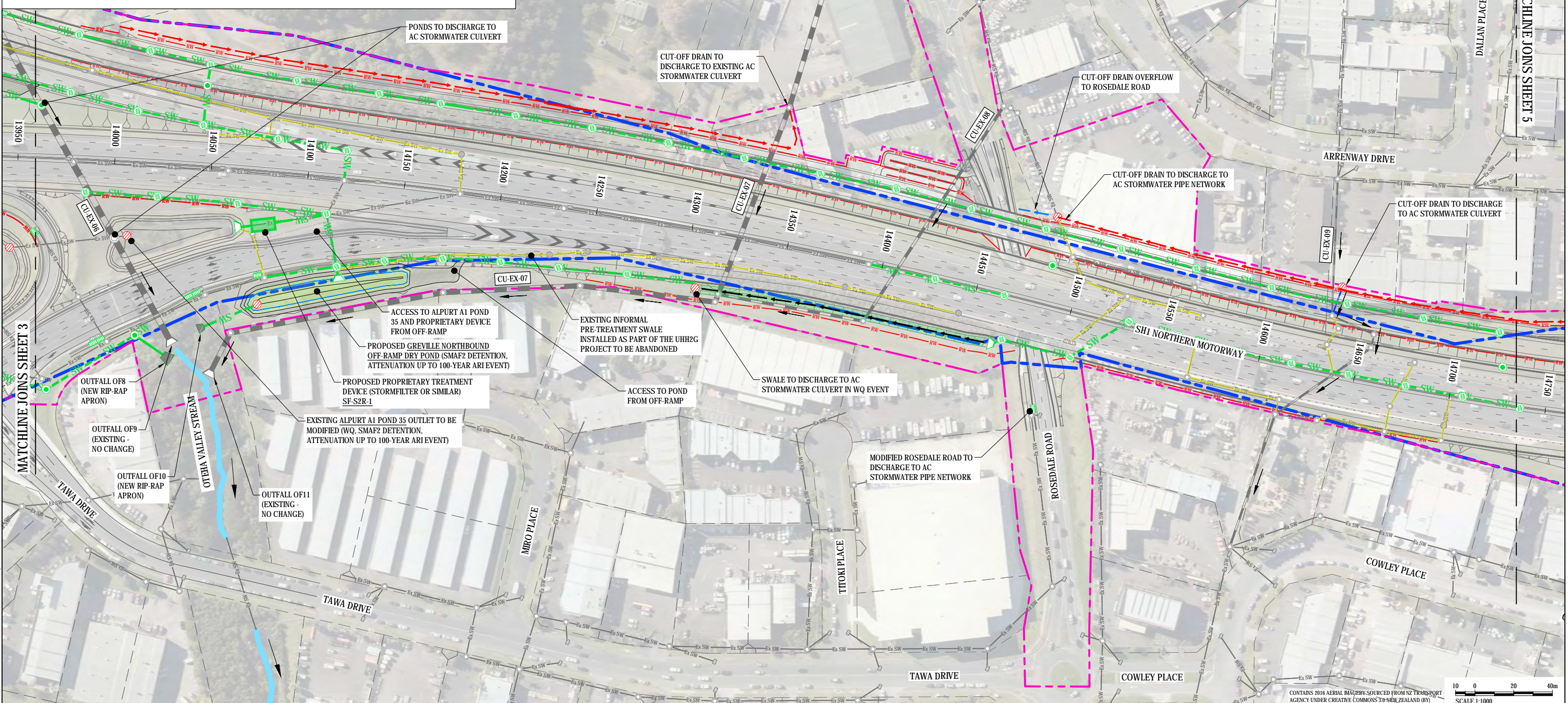
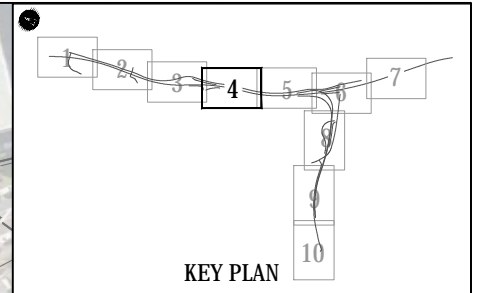
PRELIMINARY	NOT FOR CONSTRUCTION
APPROVED	DATE 17/10/16
J. HIND	
J. HIND	

PROJECT	NORTHERN CORRIDOR IMPROVEMENTS				
TITLE	STORMWATER LAYOUT PLANS SHEET 3				
DRAWING No.	PROJECT No.	STAGE	WP	TYPE	NUMBER
	250310	3PRE	3DES	DRG	1403
REV	B				

CONTAINS 2016 AERIAL IMAGERY SOURCED FROM NZ TRANSPORT AGENCY UNDER CREATIVE COMMONS 3.0 NEW ZEALAND (CC BY) SCALE 1:1000

LEGEND	
EXISTING DESIGNATION BOUNDARY	
PROPOSED DESIGNATION BOUNDARY	
EXISTING STORMWATER PIPE	
EXISTING STORMWATER CULVERT	
PROPOSED STORMWATER PIPE	
PROPOSED STORMWATER CULVERT	
PROPOSED CATCHPIT MANHOLE	
PROPOSED STORMWATER MANHOLE	
PROPOSED INLET MANHOLE (SCRUFFY OR SIMILAR)	
FLOW DIRECTION	
EXISTING MANHOLE	
EXISTING STORMWATER CATCHPIT	
PROPOSED STORMWATER CATCHPIT	
PROPOSED CONVEYANCE SWALE	
PROPOSED TREATMENT SWALE	
EROSION PROTECTION	
PROPOSED RETAINING WALL	
EXISTING STORMWATER PIPE / MANHOLE AND CATCHPIT TO BE ABANDONED	
PROPOSED STORMWATER OUTFALL	
PROPOSED CULVERT OUTFALL	
EXISTING STORMWATER OUTFALL	
EXISTING OPEN CHANNEL	
PROPOSED CUT OFF DRAIN	
EXISTING STREAM	

NOTES:
1. FOR NOTES, REFER TO SHEET 1.

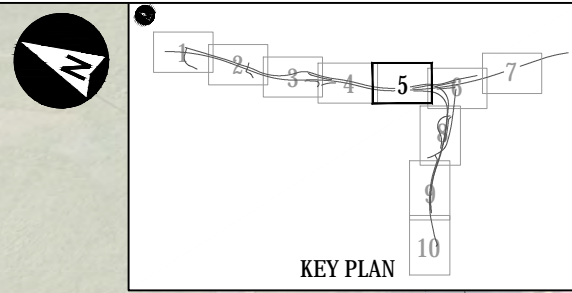
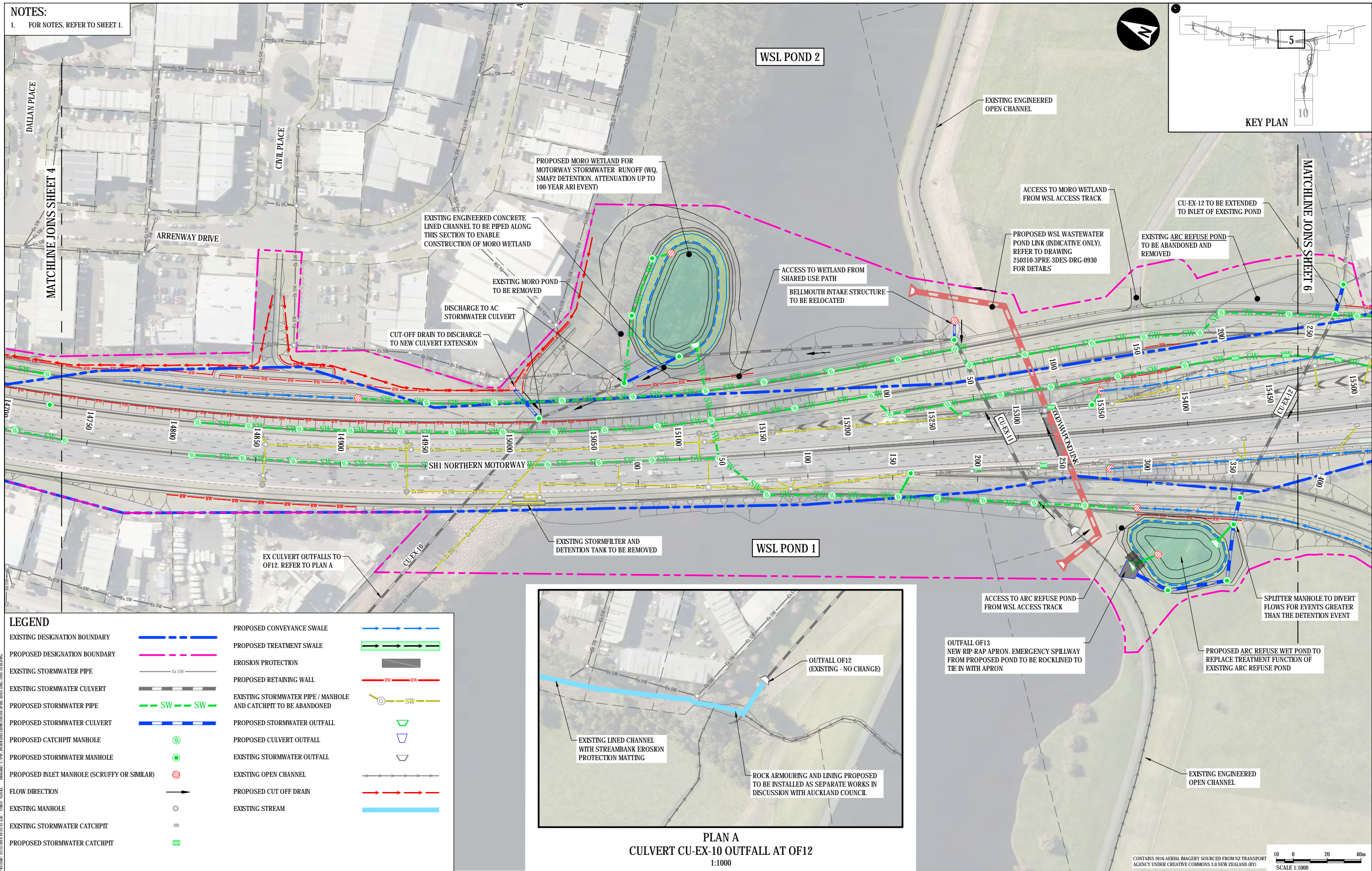


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	B	24.11.16	CONSENT ISSUE	J. HIND					SHEET 4					
					DRAWN		DATE	TITLE	PROJECT No.	STAGE	WP	TYPE	NUMBER	REV
					V. SMITH		17/10/16		250310	3PRE	3DES	DRG	1404	B
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					D. HUGHES									
					CHECKED									
					D. MACKINTOSH									



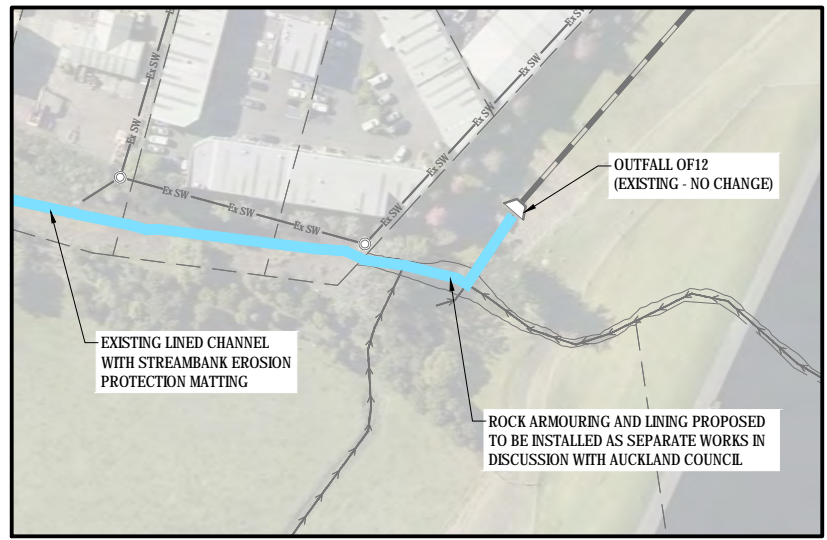
CONTAINS 2016 AERIAL IMAGERY SOURCED FROM NZ TRANSPORT AGENCY UNDER CREATIVE COMMONS 3.0-NEW ZEALAND (BY) SCALE 1:1000

NOTES:
1. FOR NOTES, REFER TO SHEET 1.



LEGEND

EXISTING DESIGNATION BOUNDARY		PROPOSED CONVEYANCE SWALE	
PROPOSED DESIGNATION BOUNDARY		PROPOSED TREATMENT SWALE	
EXISTING STORMWATER PIPE		EROSION PROTECTION	
EXISTING STORMWATER CULVERT		PROPOSED RETAINING WALL	
PROPOSED STORMWATER PIPE		EXISTING STORMWATER PIPE / MANHOLE AND CATCHPIT TO BE ABANDONED	
PROPOSED STORMWATER CULVERT		PROPOSED STORMWATER OUTFALL	
PROPOSED CATCHPIT MANHOLE		PROPOSED CULVERT OUTFALL	
PROPOSED STORMWATER MANHOLE		EXISTING STORMWATER OUTFALL	
PROPOSED INLET MANHOLE (SCRUFFY OR SIMILAR)		EXISTING OPEN CHANNEL	
FLOW DIRECTION		PROPOSED CUT OFF DRAIN	
EXISTING MANHOLE		EXISTING STREAM	
EXISTING STORMWATER CATCHPIT			
PROPOSED STORMWATER CATCHPIT			



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REV	DATE	REVISION DETAILS	APPROVED
A	17.10.16	PRELIMINARY ISSUE	G. MOORE
B	24.11.16	CONSENT ISSUE	J. HIND

SCALE	1:1000
SIZE	A1
DRAWN	V. SMITH
DESIGNED	D. HUGHES
CHECKED	D. MACKINTOSH

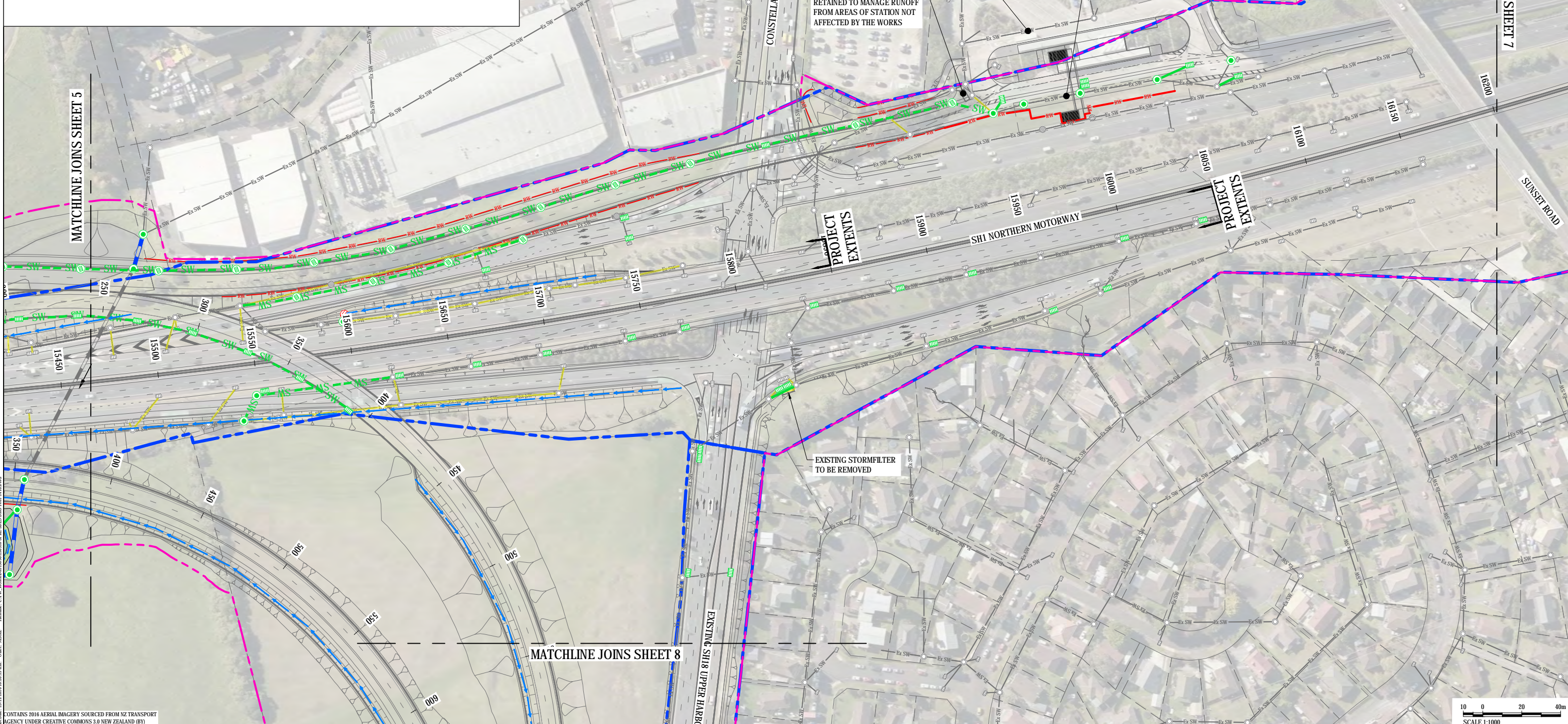
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DATE	J. HIND

PROJECT	NORTHERN CORRIDOR IMPROVEMENTS				
TITLE	STORMWATER LAYOUT PLANS SHEET 5				
DRAWING No.	PROJECT No.	STAGE	WP	TYPE	NUMBER
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REV	B				

CONTAINS 2016 AERIAL IMAGERY SOURCED FROM NZ TRANSPORT AGENCY UNDER CREATIVE COMMONS 3.0 NEW ZEALAND (BY) SCALE 1:1000

LEGEND	
EXISTING DESIGNATION BOUNDARY	
PROPOSED DESIGNATION BOUNDARY	
EXISTING STORMWATER PIPE	
EXISTING STORMWATER CULVERT	
PROPOSED STORMWATER PIPE	
PROPOSED STORMWATER CULVERT	
PROPOSED CATCHPIT MANHOLE	
PROPOSED STORMWATER MANHOLE	
PROPOSED INLET MANHOLE (SCRUFFY OR SIMILAR)	
FLOW DIRECTION	
EXISTING MANHOLE	
EXISTING STORMWATER CATCHPIT	
PROPOSED STORMWATER CATCHPIT	
PROPOSED CONVEYANCE SWALE	
PROPOSED TREATMENT SWALE	
EROSION PROTECTION	
PROPOSED RETAINING WALL	
EXISTING STORMWATER PIPE / MANHOLE AND CATCHPIT TO BE ABANDONED	
PROPOSED STORMWATER OUTFALL	
PROPOSED CULVERT OUTFALL	
EXISTING STORMWATER OUTFALL	
EXISTING OPEN CHANNEL	
PROPOSED CUT OFF DRAIN	
EXISTING STREAM	

NOTES:
1. FOR NOTES, REFER TO SHEET 1.



CONTAINS 2016 AERIAL IMAGERY SOURCED FROM NZ TRANSPORT AGENCY UNDER CREATIVE COMMONS 3.0 NEW ZEALAND (BY)

CLIENT

REV	DATE	REVISION DETAILS	APPROVED
A	17.10.16	PRELIMINARY ISSUE	G. MOORE
B	24.11.16	CONSENT ISSUE	J. HIND

SCALE	1:1000
SIZE	A1
DRAWN	V. SMITH
DESIGNED	D. HUGHES
CHECKED	D. MACKINTOSH

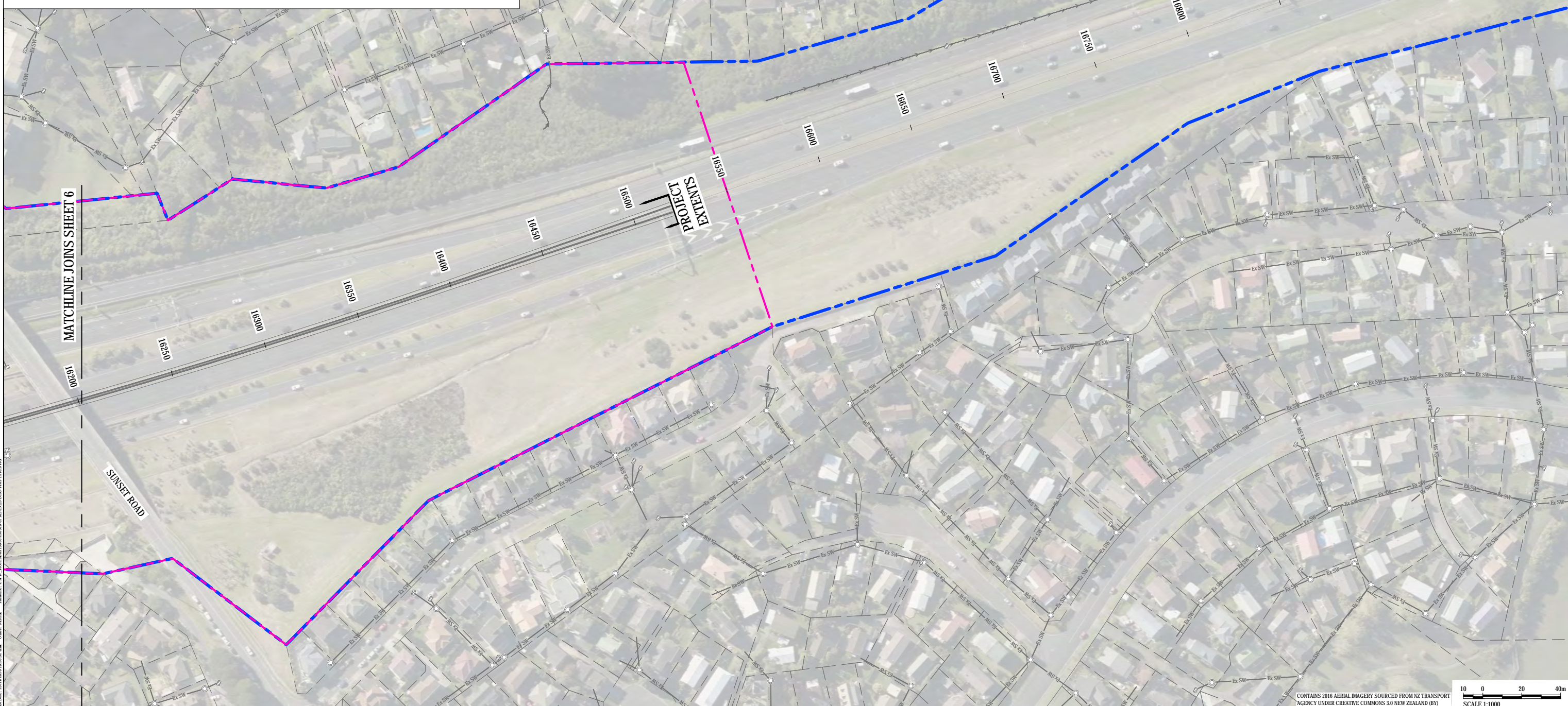
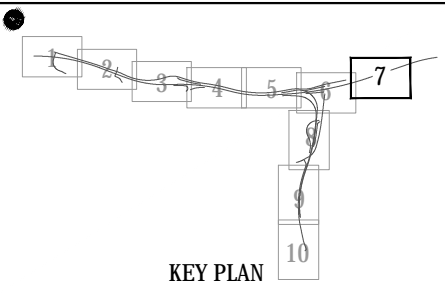
PRELIMINARY NOT FOR CONSTRUCTION
APPROVED
J. HIND
J. HIND

PROJECT	NORTHERN CORRIDOR IMPROVEMENTS				
TITLE	STORMWATER LAYOUT PLANS SHEET 6				
DRAWING No.	PROJECT No.	STAGE	WP	TYPE	NUMBER
	250310	3PRE	3DES	DRG	1406
REV	B				



LEGEND	
EXISTING DESIGNATION BOUNDARY	
PROPOSED DESIGNATION BOUNDARY	
EXISTING STORMWATER PIPE	
EXISTING STORMWATER CULVERT	
PROPOSED STORMWATER PIPE	
PROPOSED STORMWATER CULVERT	
PROPOSED CATCHPIT MANHOLE	
PROPOSED STORMWATER MANHOLE	
PROPOSED INLET MANHOLE (SCRUFFY OR SIMILAR)	
FLOW DIRECTION	
EXISTING MANHOLE	
EXISTING STORMWATER CATCHPIT	
PROPOSED STORMWATER CATCHPIT	
PROPOSED CONVEYANCE SWALE	
PROPOSED TREATMENT SWALE	
EROSION PROTECTION	
PROPOSED RETAINING WALL	
EXISTING STORMWATER PIPE / MANHOLE AND CATCHPIT TO BE ABANDONED	
PROPOSED STORMWATER OUTFALL	
PROPOSED CULVERT OUTFALL	
EXISTING STORMWATER OUTFALL	
EXISTING OPEN CHANNEL	
PROPOSED CUT OFF DRAIN	
EXISTING STREAM	

NOTES:
1. FOR NOTES, REFER TO SHEET 1.



CLIENT		REV		DATE	REVISION DETAILS	APPROVED	SCALE	SIZE	PRELIMINARY NOT FOR CONSTRUCTION	PROJECT	NORTHERN CORRIDOR IMPROVEMENTS							
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		B	24.11.16		CONSENT ISSUE	J. HIND			APPROVED		SHEET 7							
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									J. HIND									



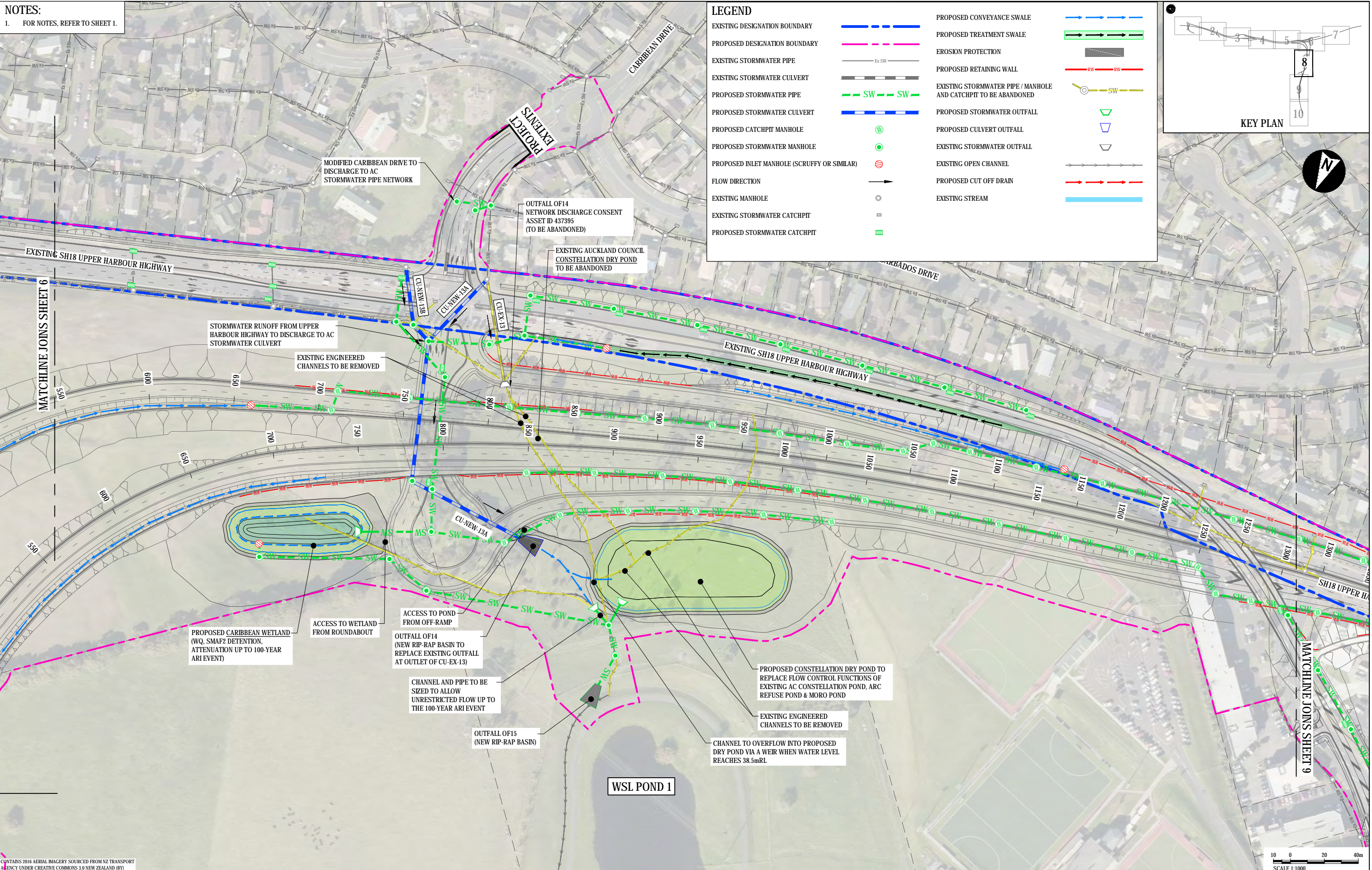
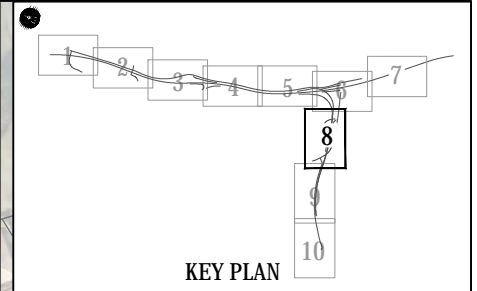
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CONTAINS 2016 AERIAL IMAGERY SOURCED FROM NZ TRANSPORT AGENCY UNDER CREATIVE COMMONS 3.0 NEW ZEALAND (BY)

NOTES:
1. FOR NOTES, REFER TO SHEET 1.

LEGEND

- EXISTING DESIGNATION BOUNDARY ---
- PROPOSED DESIGNATION BOUNDARY ---
- EXISTING STORMWATER PIPE ---
- EXISTING STORMWATER CULVERT ---
- PROPOSED STORMWATER PIPE --- SW --- SW
- PROPOSED STORMWATER CULVERT ---
- PROPOSED CATCHPIT MANHOLE ●
- PROPOSED STORMWATER MANHOLE ●
- PROPOSED INLET MANHOLE (SCRUFFY OR SIMILAR) ●
- FLOW DIRECTION →
- EXISTING MANHOLE ●
- EXISTING STORMWATER CATCHPIT ■
- PROPOSED STORMWATER CATCHPIT ■
- PROPOSED CONVEYANCE SWALE ---
- PROPOSED TREATMENT SWALE ---
- EROSION PROTECTION ---
- PROPOSED RETAINING WALL ---
- EXISTING STORMWATER PIPE / MANHOLE AND CATCHPIT TO BE ABANDONED ---
- PROPOSED STORMWATER OUTFALL ---
- PROPOSED CULVERT OUTFALL ---
- EXISTING STORMWATER OUTFALL ---
- EXISTING OPEN CHANNEL ---
- PROPOSED CUT OFF DRAIN ---
- EXISTING STREAM ---



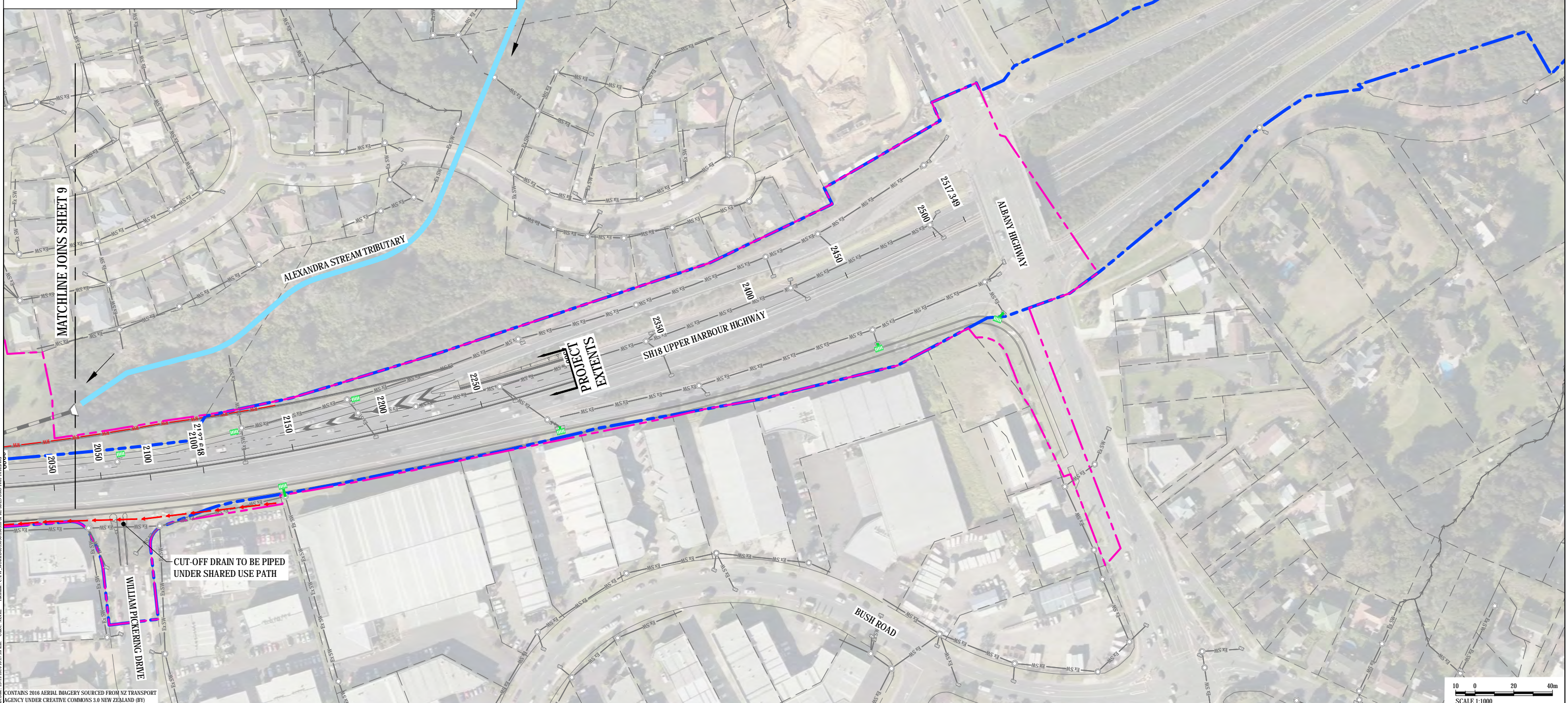
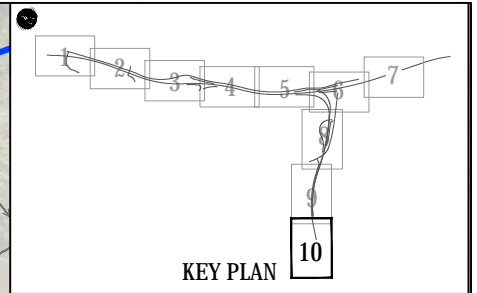
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SCALE 1:1000

aurecon	NZ TRANSPORT AGENCY WAKA KOTAHI	CLIENT	REV	DATE	REVISION DETAILS	APPROVED	SCALE	SIZE	PRELIMINARY NOT FOR CONSTRUCTION	PROJECT	NORTHERN CORRIDOR IMPROVEMENTS							
			A	17.10.16	PRELIMINARY ISSUE	G. MOORE	1:1000	A1			STORMWATER LAYOUT PLANS SHEET 8							
			B	24.11.16	CONSENT ISSUE	J. HIND			APPROVED		TITLE	DRAWING No.	PROJECT No.	STAGE	WP	TYPE	NUMBER	REV
									J. HIND			250310	250310	3PRE	3DES	DRG	1408	B

LEGEND	
EXISTING DESIGNATION BOUNDARY	
PROPOSED DESIGNATION BOUNDARY	
EXISTING STORMWATER PIPE	
EXISTING STORMWATER CULVERT	
PROPOSED STORMWATER PIPE	
PROPOSED STORMWATER CULVERT	
PROPOSED CATCHPIT MANHOLE	
PROPOSED STORMWATER MANHOLE	
PROPOSED INLET MANHOLE (SCRUFFY OR SIMILAR)	
FLOW DIRECTION	
EXISTING MANHOLE	
EXISTING STORMWATER CATCHPIT	
PROPOSED STORMWATER CATCHPIT	
PROPOSED CONVEYANCE SWALE	
PROPOSED TREATMENT SWALE	
EROSION PROTECTION	
PROPOSED RETAINING WALL	
EXISTING STORMWATER PIPE / MANHOLE AND CATCHPIT TO BE ABANDONED	
PROPOSED STORMWATER OUTFALL	
PROPOSED CULVERT OUTFALL	
EXISTING STORMWATER OUTFALL	
EXISTING OPEN CHANNEL	
PROPOSED CUT OFF DRAIN	
EXISTING STREAM	

NOTES:
1. FOR NOTES, REFER TO SHEET 1.



CONTAINS 2016 AERIAL IMAGERY SOURCED FROM NZ TRANSPORT AGENCY UNDER CREATIVE COMMONS 3.0 NEW ZEALAND (BY)

SCALE 1:1000

CLIENT		REV		DATE	REVISION DETAILS	APPROVED	SCALE	SIZE	PRELIMINARY NOT FOR CONSTRUCTION	PROJECT	NORTHERN CORRIDOR IMPROVEMENTS						
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							V. SMITH			DATE	PROJECT No.	STAGE	WP	TYPE	NUMBER	REV	
							D. HUGHES		J. HIND	17/10/16	250310	3PRE	3DES	DRG	1410	B	
							CHECKED		J. HIND								
							D. MACKINTOSH										

