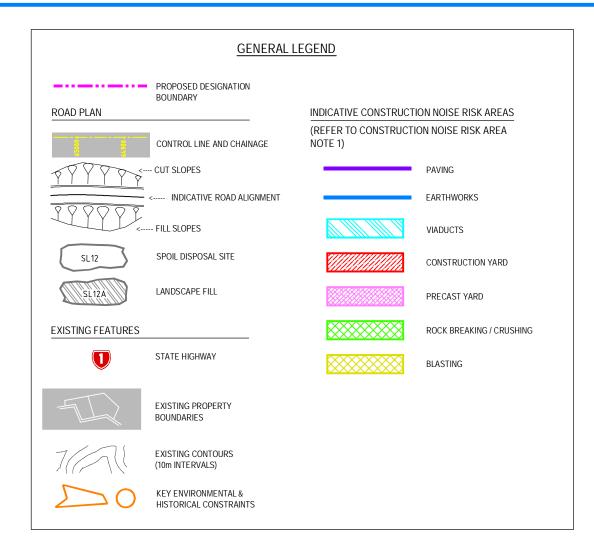
DRWG No.	DRAWING TITLE
	CONSTRUCTION NOISE
CN-001	CONSTRUCTION NOISE RISK AREAS - DRAWING INDEX, NOTES AND LEGEND
CN-100	CONSTRUCTION NOISE RISK AREAS - SHEET LAYOUT
CN-101	CONSTRUCTION NOISE RISK AREAS - SHEET 1 OF 17
CN-102	CONSTRUCTION NOISE RISK AREAS - SHEET 2 OF 17
CN-103	CONSTRUCTION NOISE RISK AREAS - SHEET 3 OF 17
CN-104	CONSTRUCTION NOISE RISK AREAS - SHEET 4 OF 17
CN-105	CONSTRUCTION NOISE RISK AREAS - SHEET 5 OF 17
CN-106	CONSTRUCTION NOISE RISK AREAS - SHEET 6 OF 17
CN-107	CONSTRUCTION NOISE RISK AREAS - SHEET 7 OF 17
CN-108	CONSTRUCTION NOISE RISK AREAS - SHEET 8 OF 17
CN-109	CONSTRUCTION NOISE RISK AREAS - SHEET 9 OF 17
CN-110	CONSTRUCTION NOISE RISK AREAS - SHEET 10 OF 17
CN-111	CONSTRUCTION NOISE RISK AREAS - SHEET 11 OF 17
CN-112	CONSTRUCTION NOISE RISK AREAS - SHEET 12 OF 17
CN-113	CONSTRUCTION NOISE RISK AREAS - SHEET 13 OF 17
CN-114	CONSTRUCTION NOISE RISK AREAS - SHEET 14 OF 17
CN-115	CONSTRUCTION NOISE RISK AREAS - SHEET 15 OF 17
CN-116	CONSTRUCTION NOISE RISK AREAS - SHEET 16 OF 17
CN-117	CONSTRUCTION NOISE RISK AREAS - SHEET 17 OF 17
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GENERAL NOTES

- 1. ALL MEASUREMENTS ARE IN METRES UNLESS OTHERWISE STATED.
- 2. ALL NAMED ROADS SHALL BE ASSUMED TO BE PUBLIC UNLESS STATED OTHERWISE.
- 3. AERIAL IMAGE FROM AUCKLAND COUNCIL AERIAL SURVEY, 2012.
- 4. DIGITAL TERRAIN MODEL DERIVED FROM AERIAL PHOTOGRAMETRIC SURVEY (MARCH 2010) TO NZTM PROJECTION.
- 5. EXISTING PROPERTY BOUNDARIES SOURCED FROM LINZ, APRIL 2013 UPDATE.



CONSTRUCTION NOISE RISK AREA NOTE

1. BOUNDARIES OF CONSTRUCTION NOISE AREAS SHOWN AT COMPLIANCE WITH DAY-TIME LIMIT (70 dB L $_{\rm A,eq}$) WITHOUT NOISE BARRIERS. REFER TO TABLE BELOW.

CONSTRUCTION NOISE EFFECTS DISTANCES				
ACTIVITY	ACTIVITY SOUND POWER LEVEL (dB L _{AW,eq})	DISTANCE BEYOND WHICH COMPLIANCE WITH DAY-TIME LIMIT (70 dB L _{A,eq}) IS ACHIEVED WITHOUT NOISE BARRIERS (METERS)		
BULK EARTHWORKS / GROUND IMPROVEMENT / RETAINMENT POND EXCAVATION / HAUL ROAD / SPOIL DISPOSAL	118	65		
ROCK BREAKING / CRUSHING	120	75		
STRUCTURES PILING / FOUNDATIONS	110	30		
VIADUCT CONSTRUCTION	110	30		
PAVEMENT CONSTRUCTION	110	30		
PRECAST YARD	115	50		
STAGING AREA CONSTRUCTION YARD	100	10		
BLASTING	12 Kg CHARGE WEIGHT ASSUMED	160		





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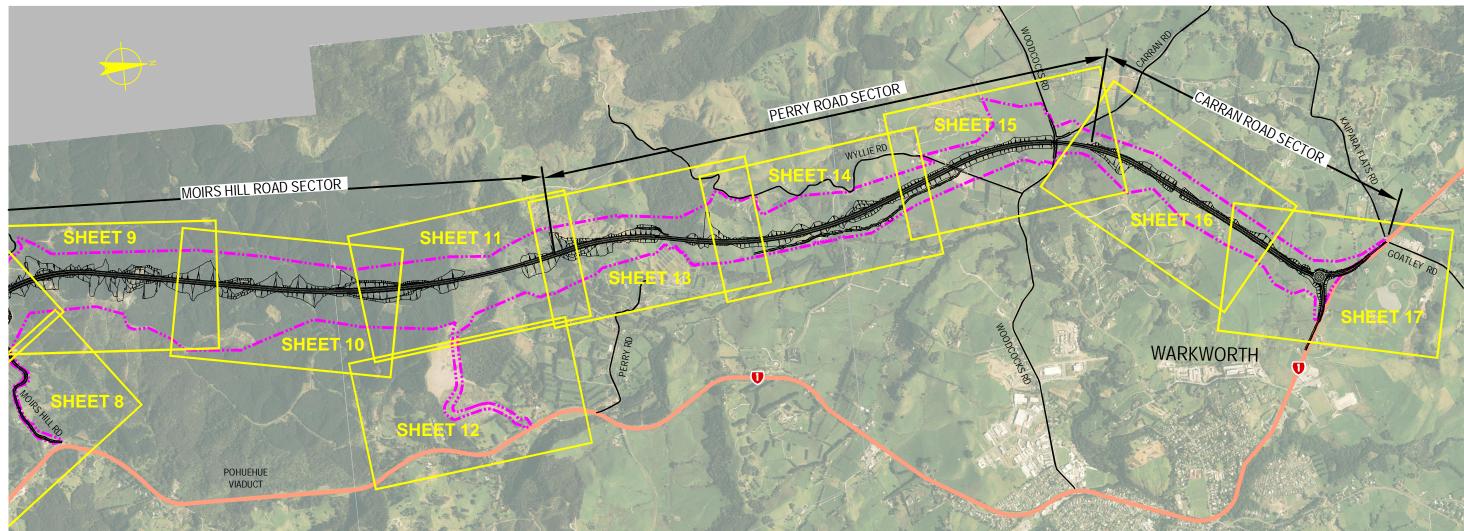
ARA TŪHONO - PŪHOI TO WELLSFORD				
PŪHOI TO) WARKWOF	RTH - FOR RM/	A APPROVALS	
DRAWN SNP	DRAFTING CHECK SW	REVIEWED DISCIPLINE MANAGER	APPROVED ALLIANCE MANAGER	

CONSTRUCTION NOISE RISK AREAS DRAWING INDEX, NOTES AND LEGEND

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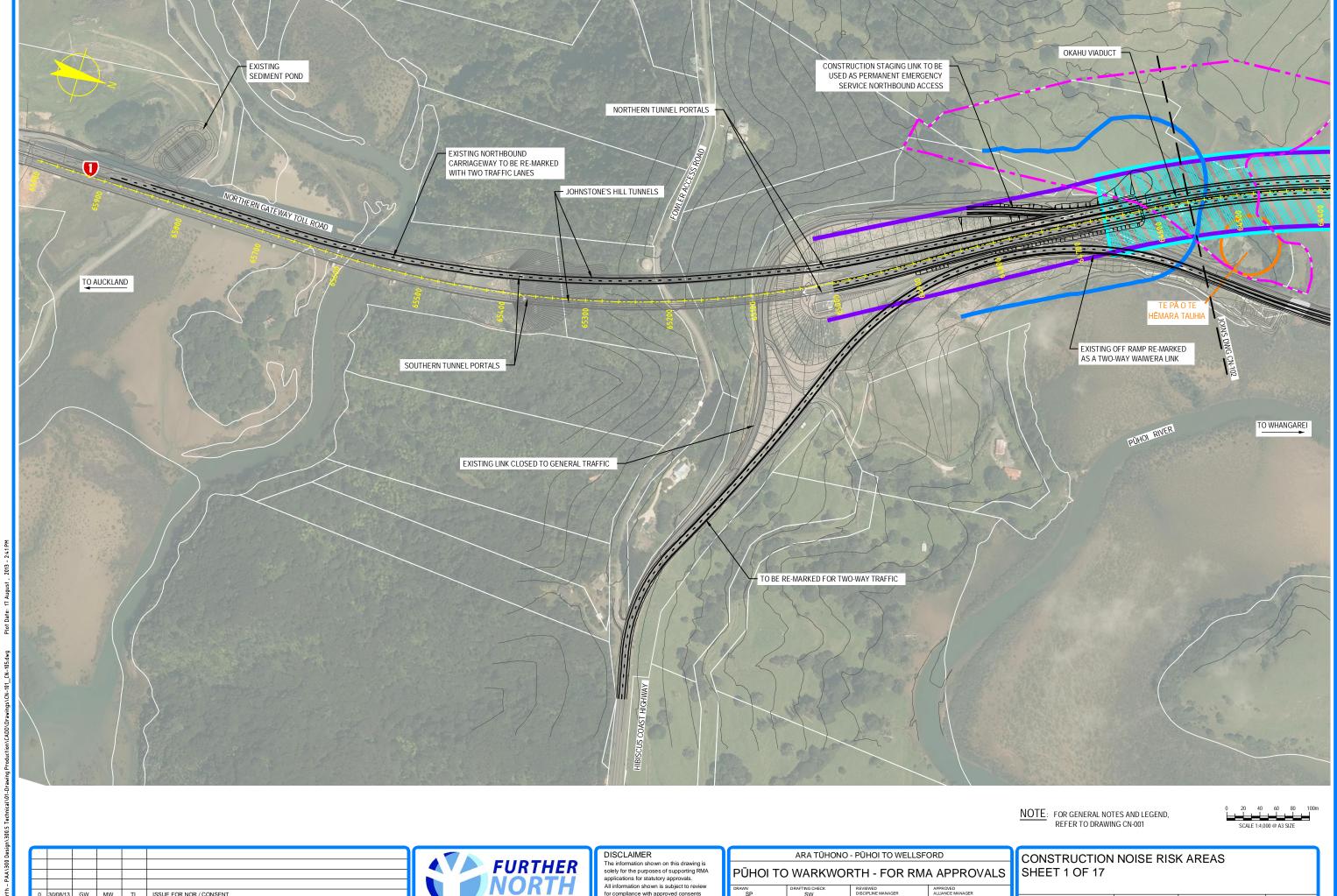






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PŪHOI TO	WARKWOF	RTH - FOR RM	A APPROVALS
DRAWN SP	DRAFTING CHECK SW	REVIEWED DISCIPLINE MANAGER	APPROVED ALLIANCE MANAGER

CONSTRUCTION SHEET LAYOUT	NOISE RISH	(AREAS			
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SHEET 1 OF 17

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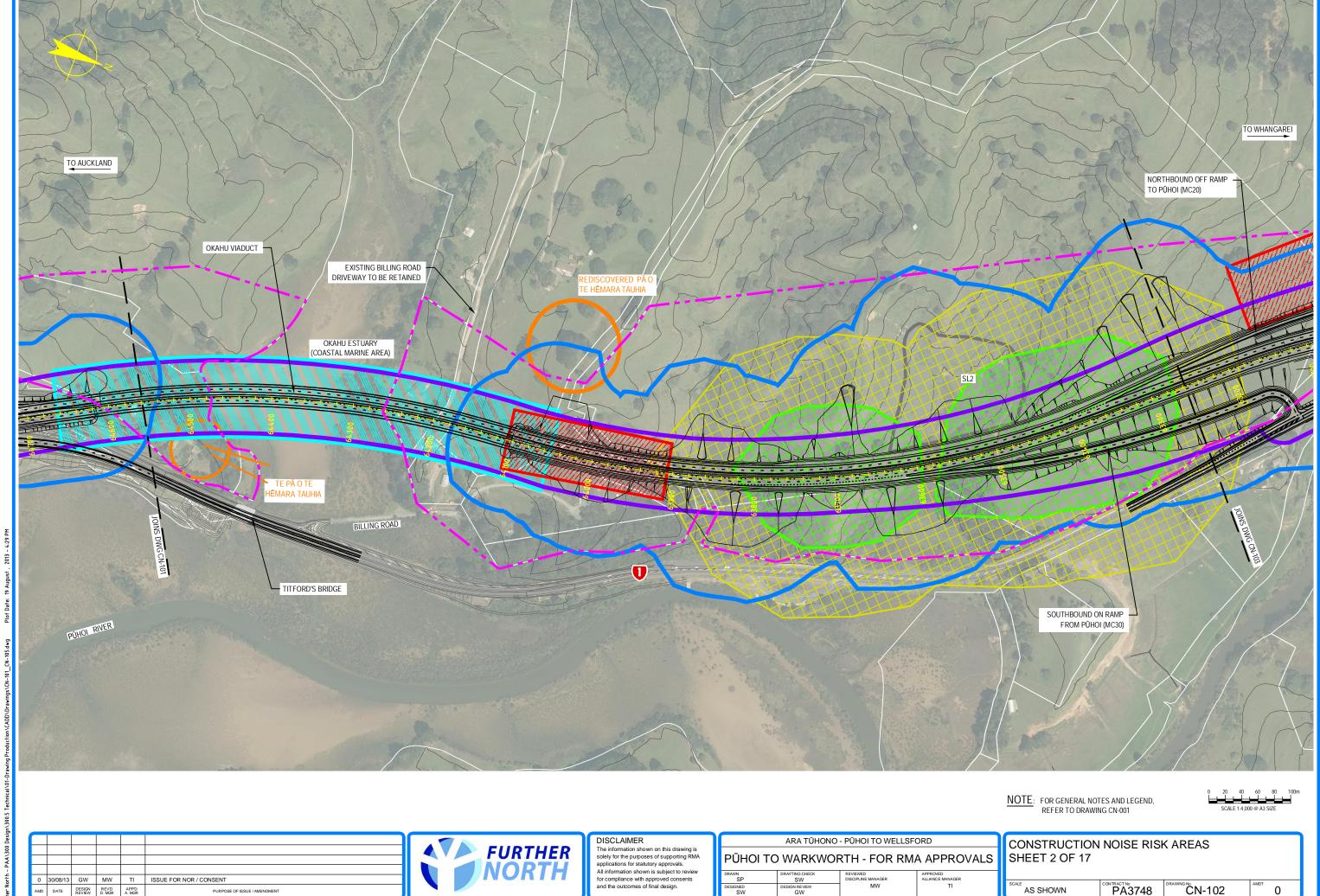
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PŪHOI TO WARKWORTH - FOR RMA APPROVALS

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FURTHER NORTH

ARA TŪHONO - PŪHOI TO WELLSFORD

PŪHOI TO WARKWORTH - FOR RMA APPROVALS

APPROVED
ALLIANCE MANAGER
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CONSTRUCTION NOISE RISK AREAS

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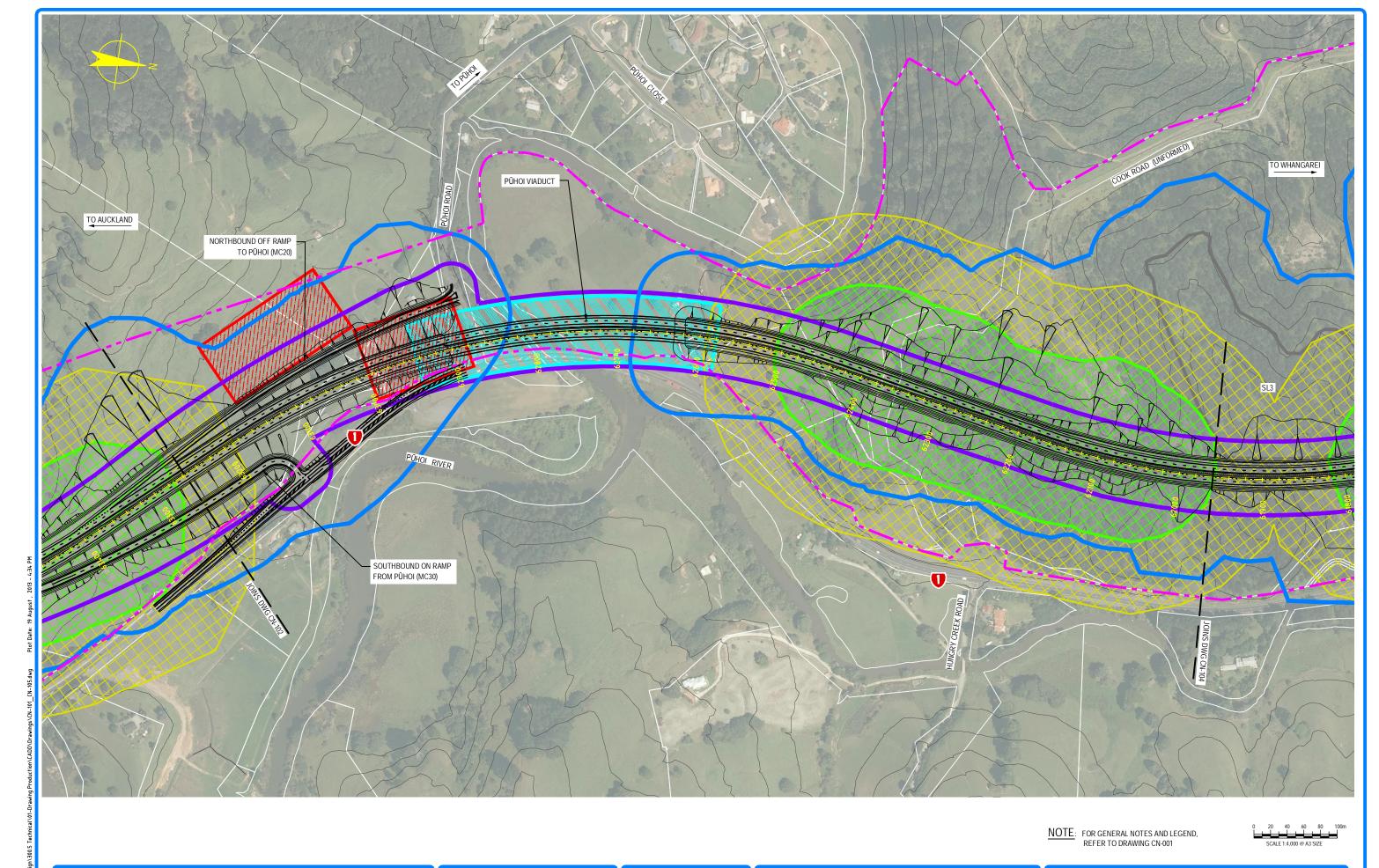
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SHEET 2 OF 17

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DATE DESIGN REVD APP'D REVIEW D. MGR A. MGR



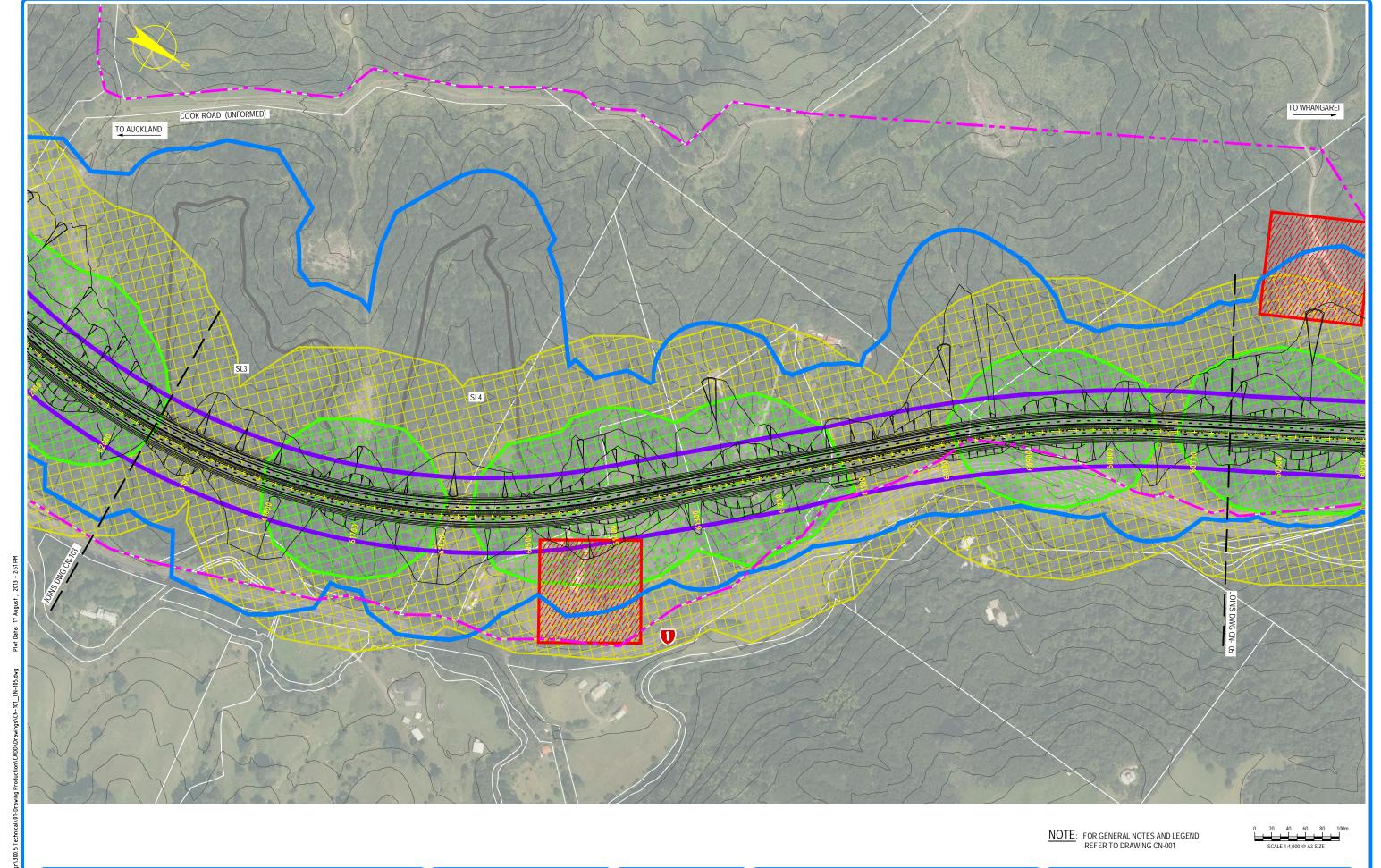
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AMD	DATE	DESIGN REVIEW	REV'D D. MGR	APP'D A. MGR	PURPOSE OF ISSUE / AMENDMENT



ARA TŪHONO - PŪHOI TO WELLSFORD				
PŪHOI TO WARKWORTH - FOR RMA APPROVALS				
DRAWN SP	DRAFTING CHECK SW	REVIEWED DISCIPLINE MANAGER	APPROVED ALLIANCE MANAGER	

CONSTRUCTION NOISE RISK AREAS	
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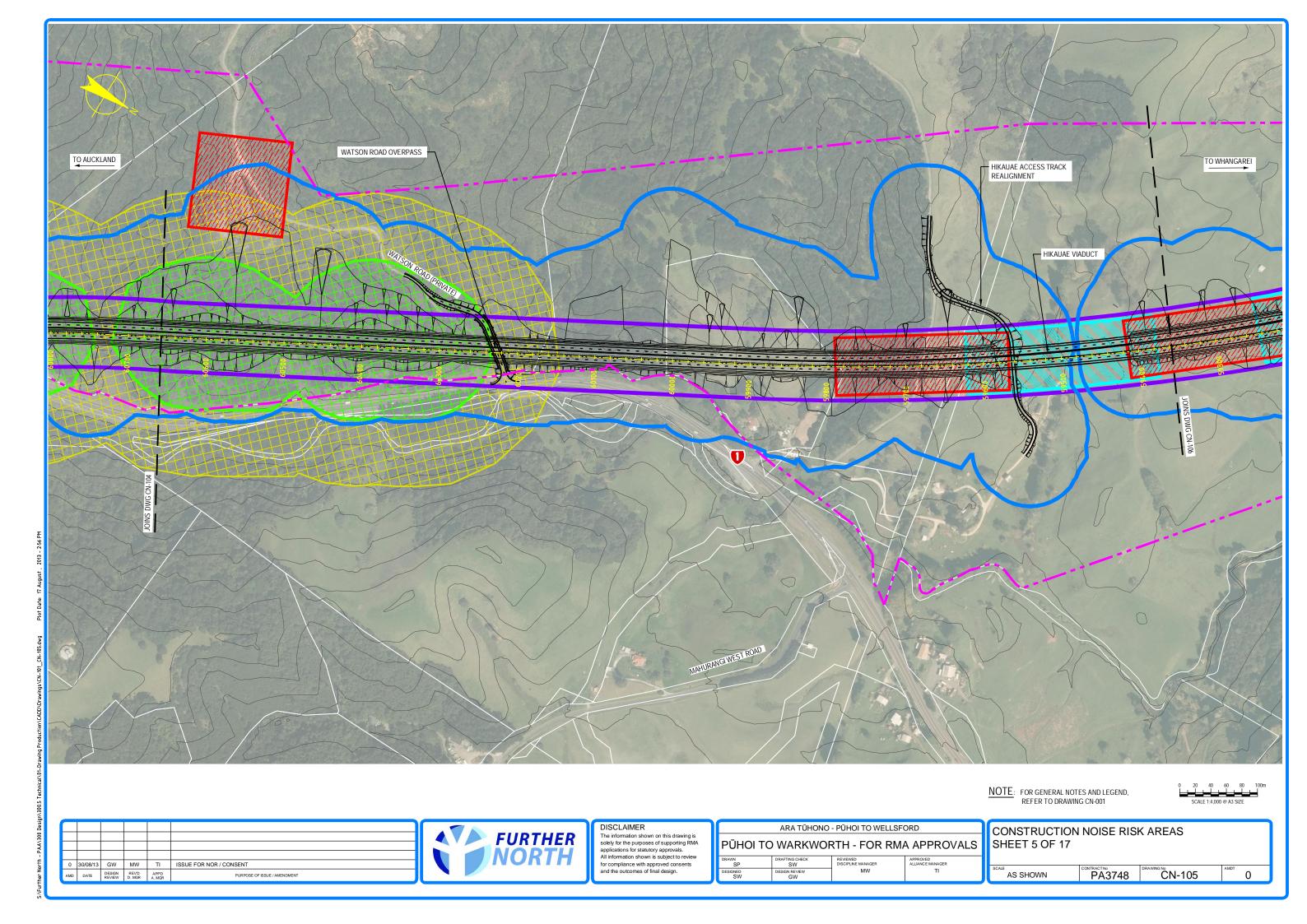
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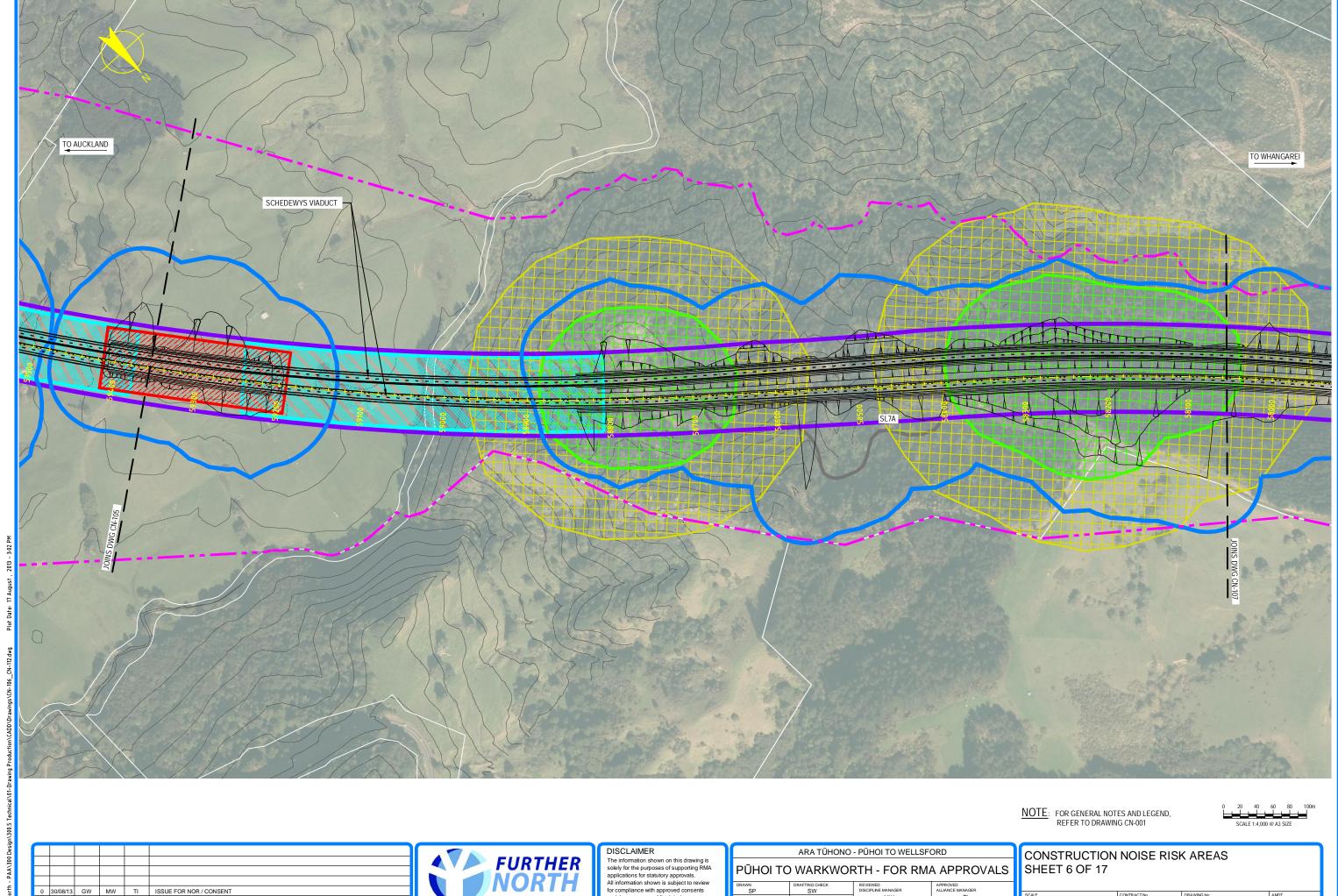
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ARA TŪHONO - PŪHOI TO WELLSFORD				
PŪHOI TO	PŪHOI TO WARKWORTH - FOR RMA APPROVALS			
DRAWN SP	DRAFTING CHECK SW	REVIEWED DISCIPLINE MANAGER	APPROVED ALLIANCE MANAGER	

CONSTRUCTION NOISE RISK AREAS	
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PŪHOI TO WARKWORTH - FOR RMA APPROVALS

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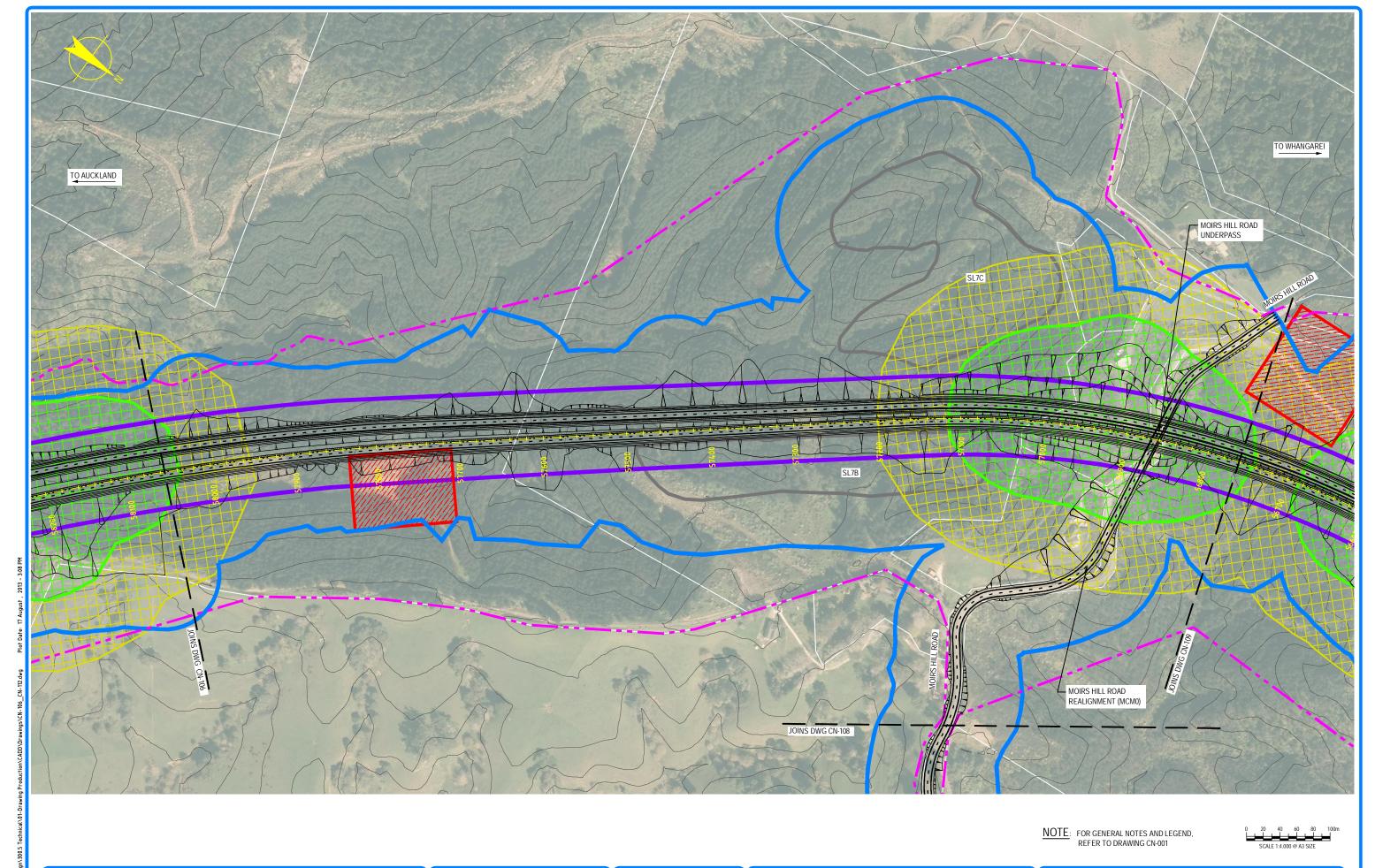
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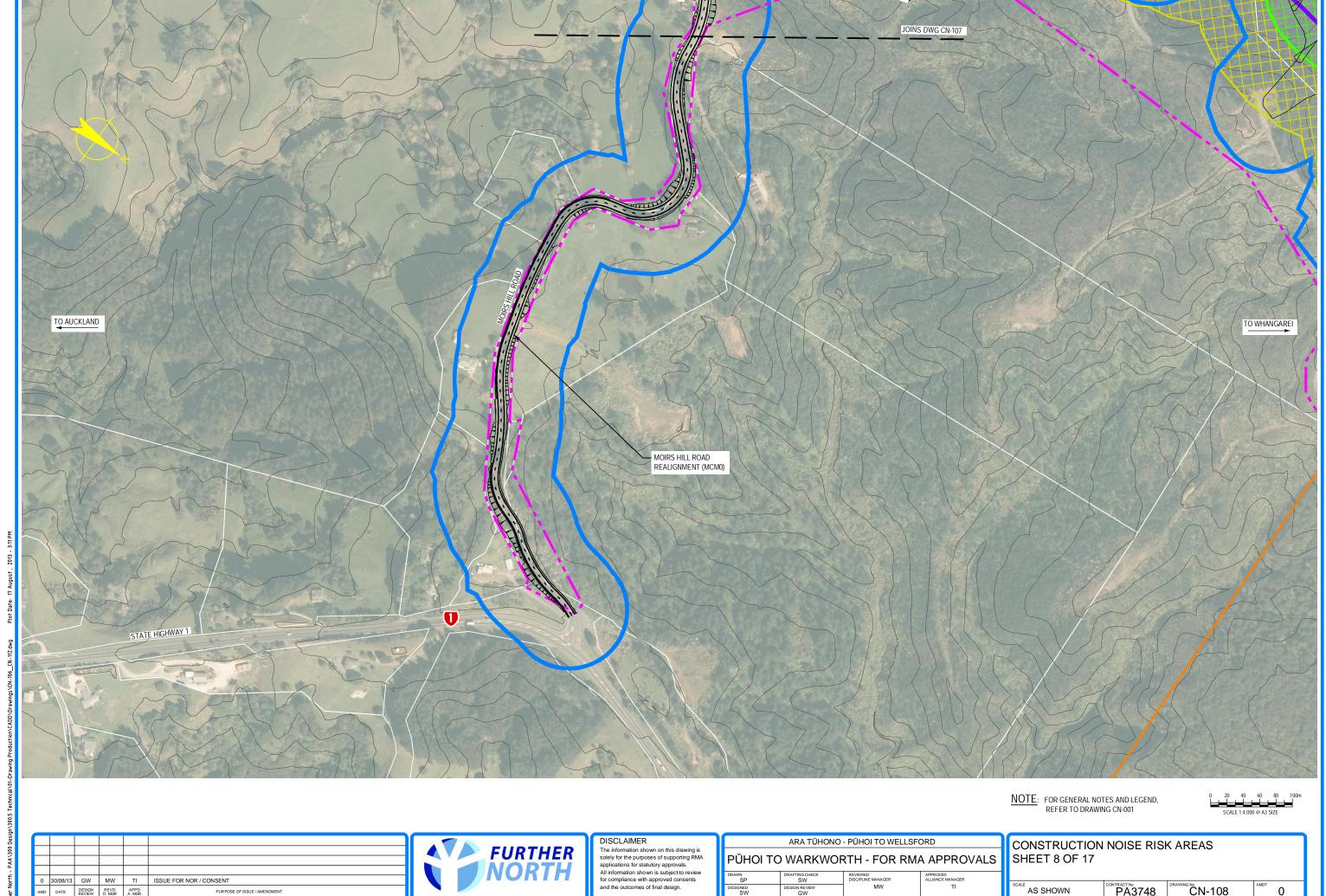
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DRAWN SP	DRAFTING CHECK SW	REVIEWED DISCIPLINE MANAGER	APPROVED ALLIANCE MANAGER	

CONSTRUCTION NOISE RISK AREAS	
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SHEET 8 OF 17

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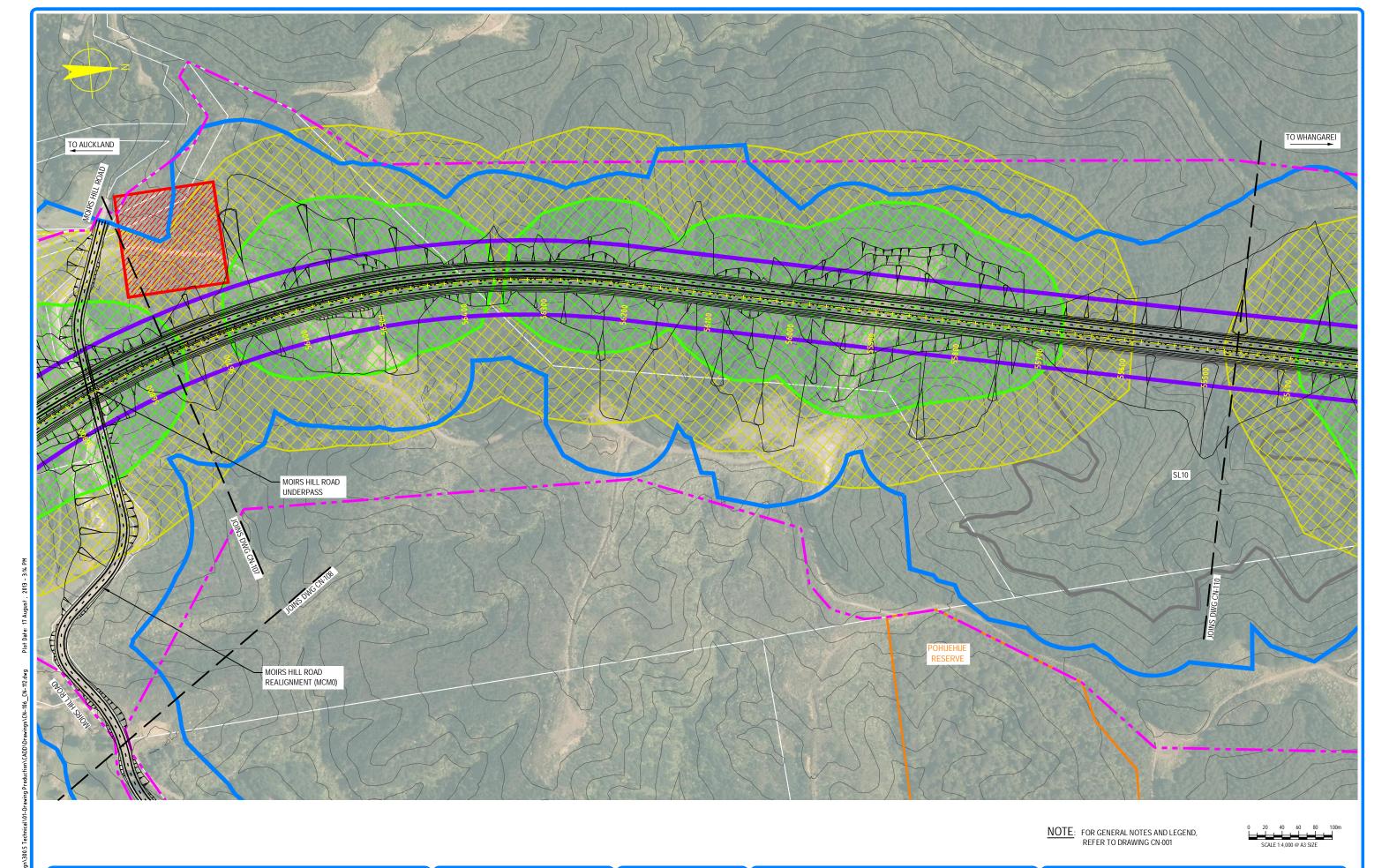
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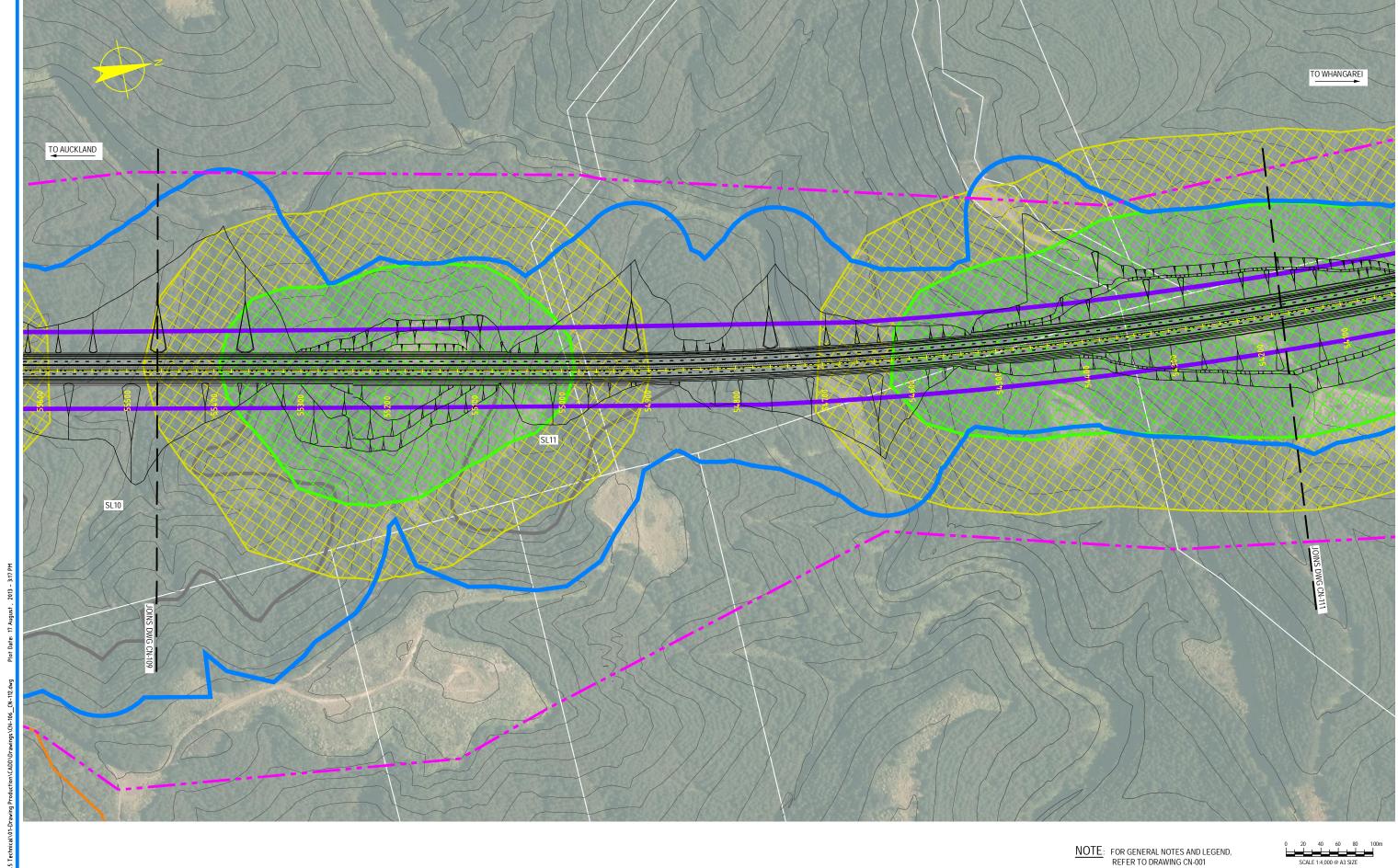
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ARA TŪHONO - PŪHOI TO WELLSFORD PŪHOI TO WARKWORTH - FOR RMA APPROVALS DESIGNED SW

CONSTRUCTION NOISE RISK AREAS SHEET 9 OF 17

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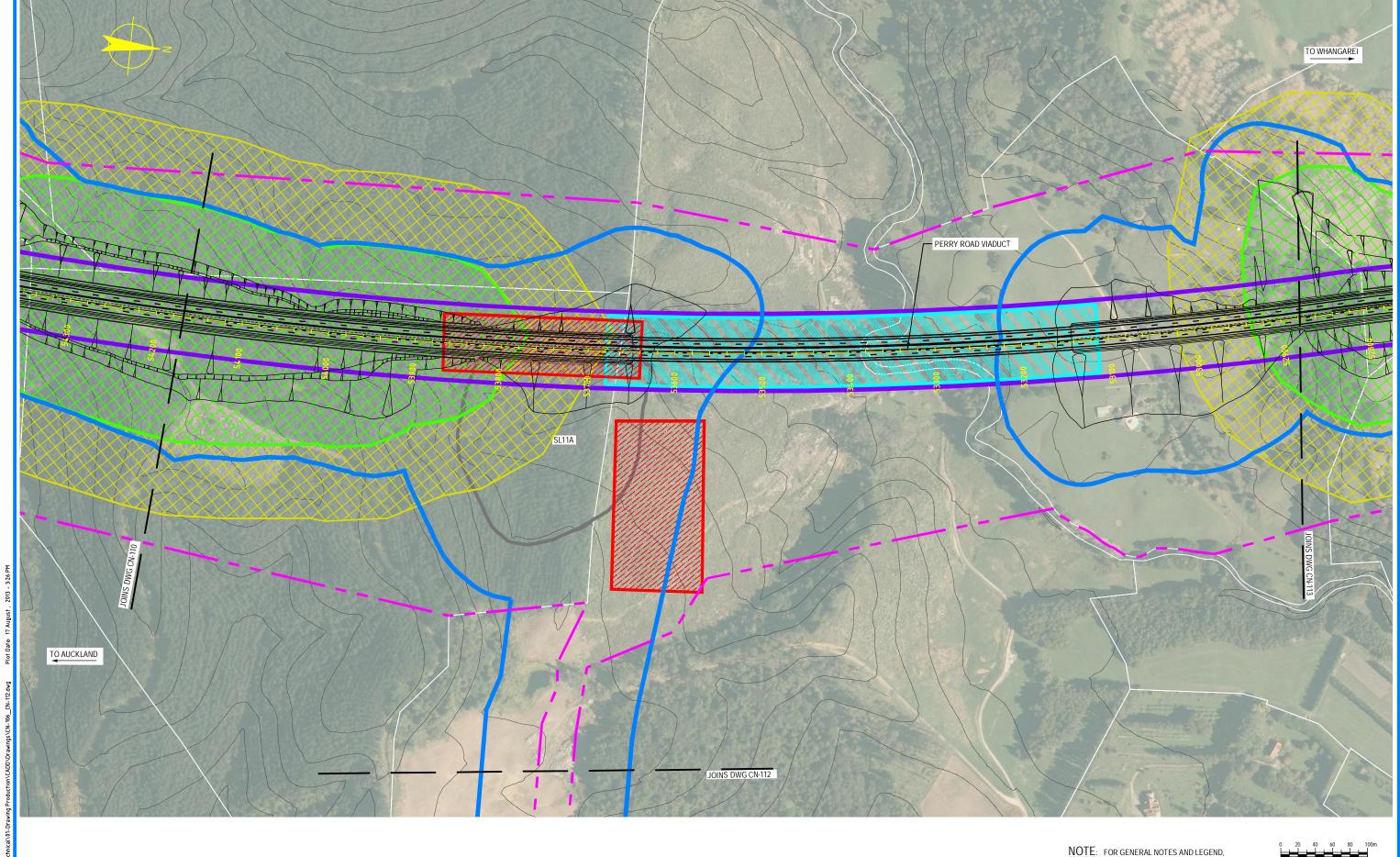


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ARA TŪHONO - PŪHOI TO WELLSFORD					
PŪHOI TO WARKWORTH - FOR RMA APPROVALS					
DRAWN DRAFTING CHECK REVIEWED APPROVED SP SW DISCIPLINE MANAGER ALLIANCE MANAGER					
DESIGNED SW	DESIGN REVIEW GW	MW	Π		

CONSTRUCTION NOISE RISK AREAS SHEET 10 OF 17

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NOTE: FOR GENERAL NOTES AND LEGEND, REFER TO DRAWING CN-001



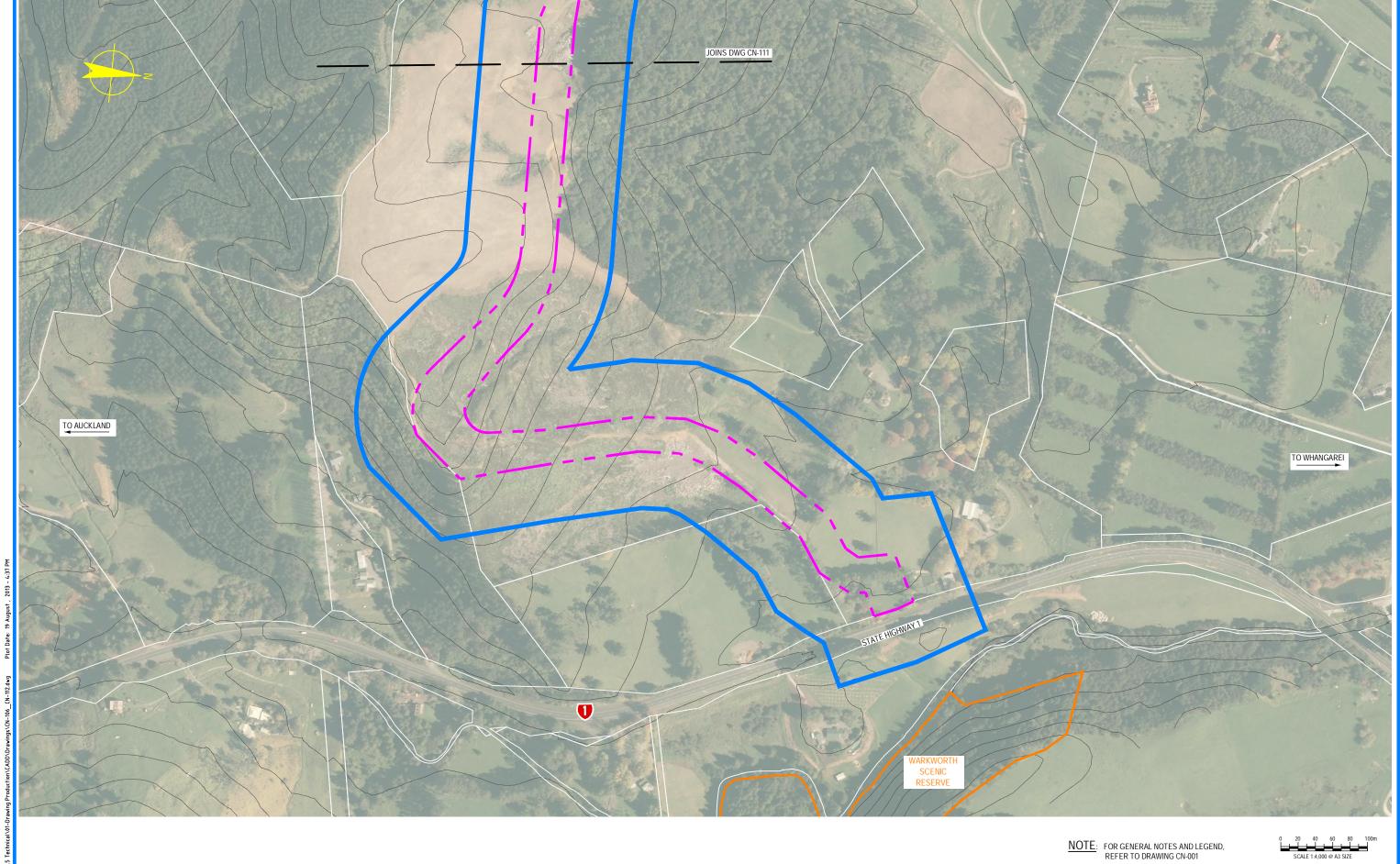
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ARA TŪHONO - PŪHOI TO WELLSFORD				
PŪHOI TO WARKWORTH - FOR RMA APPROVALS				
DRAWN SP	DRAFTING CHECK SW	REVIEWED DISCIPLINE MANAGER	APPROVED ALLIANCE MANAGER	

CONSTRUCTION NOISE RISK AREAS
SHEET 11 OF 17

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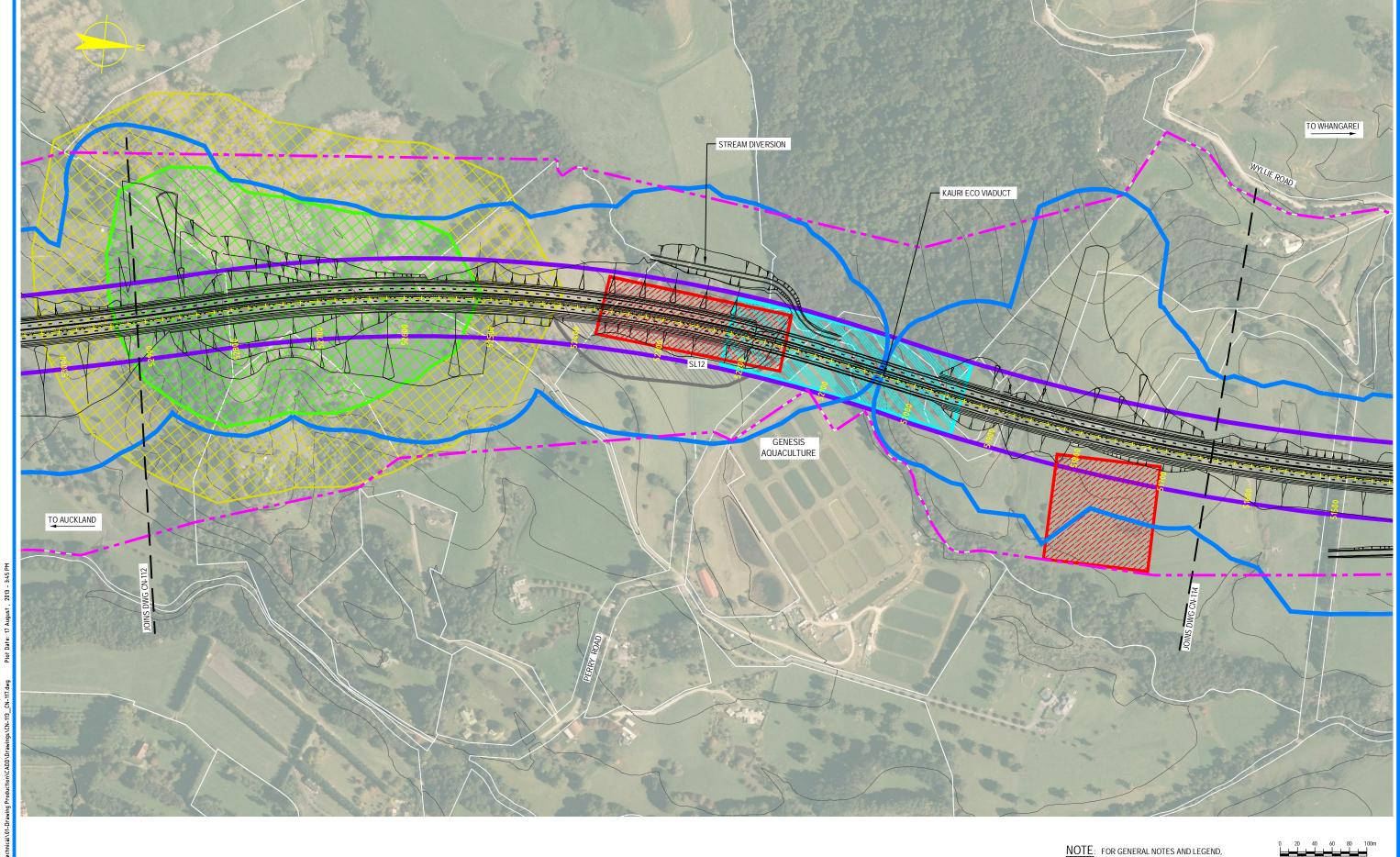


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	ARA TŪHONO - PŪHOI TO WELLSFORD				
PŪHOI TO	PŪHOI TO WARKWORTH - FOR RMA APPROVALS				
DRAWN SP	DRAFTING CHECK SW	REVIEWED DISCIPLINE MANAGER	APPROVED ALLIANCE MANAGER		

CONSTRUCTION NOISE RISK AREAS SHEET 12 OF 17

PA3748 [№]CN-112 AS SHOWN



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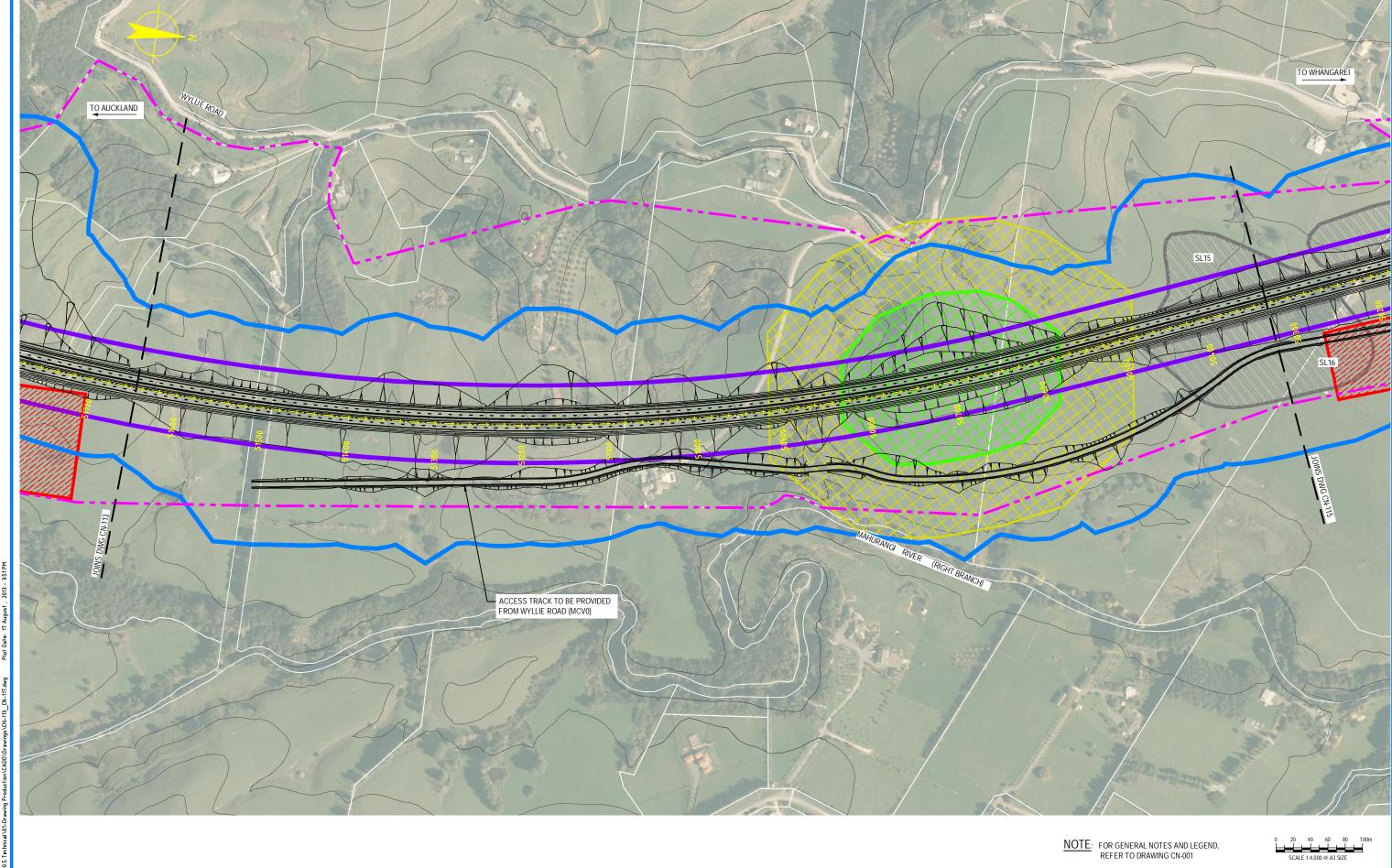
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ARA TŪHONO - PŪHOI TO WELLSFORD				
PŪHOI TO) WARKWOF	RTH - FOR RM	A APPROVALS	
DRAWN SP	DRAFTING CHECK SW	REVIEWED DISCIPLINE MANAGER	APPROVED ALLIANCE MANAGER	

CONSTRUCTION NOISE RISK AREAS	
SHEET 13 OF 17	

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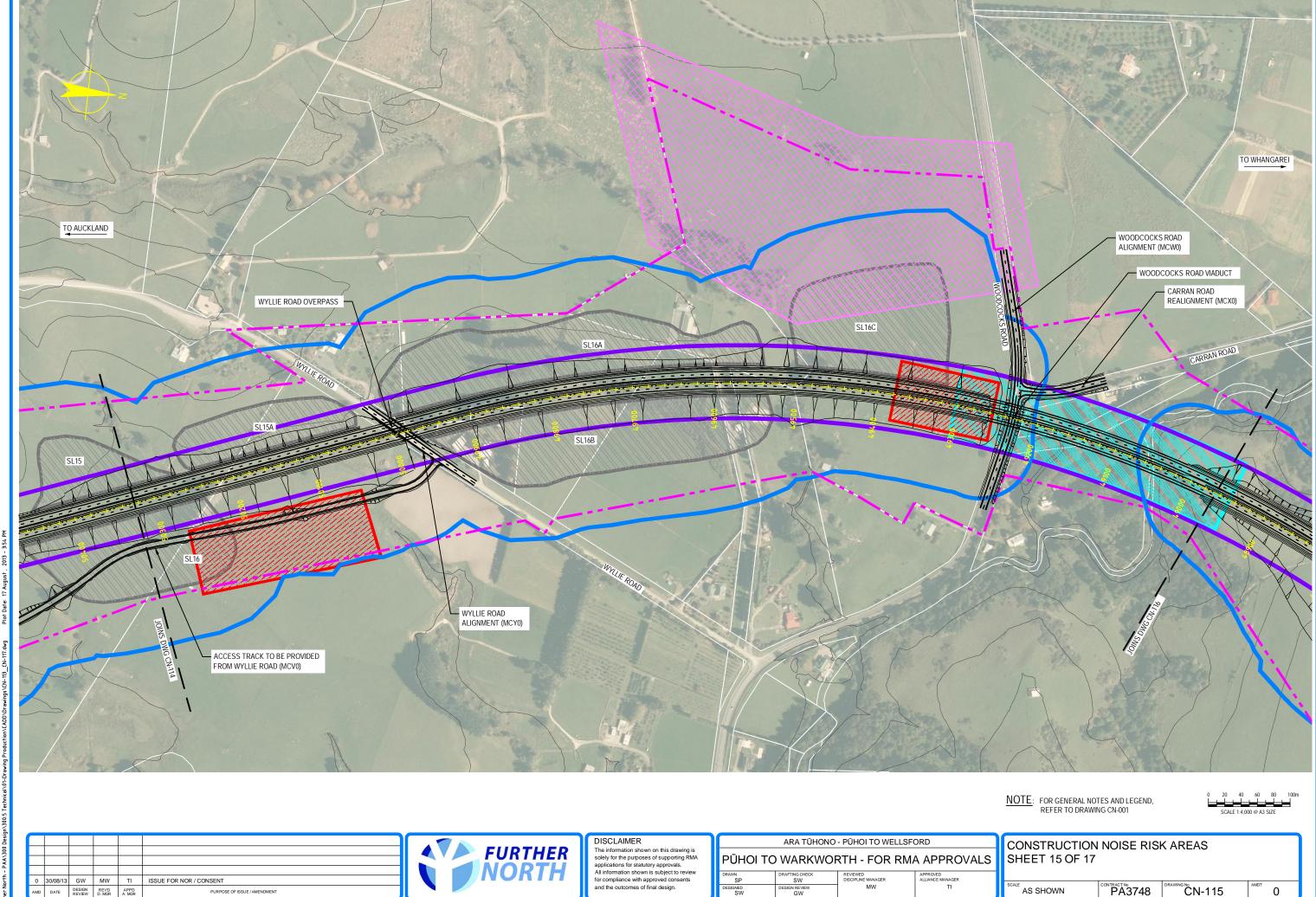
ARA TŪHONO - PŪHOI TO WELLSFORD PŪHOI TO WARKWORTH - FOR RMA APPROVALS

CONSTRUCTION NOISE RISK AREAS SHEET 14 OF 17

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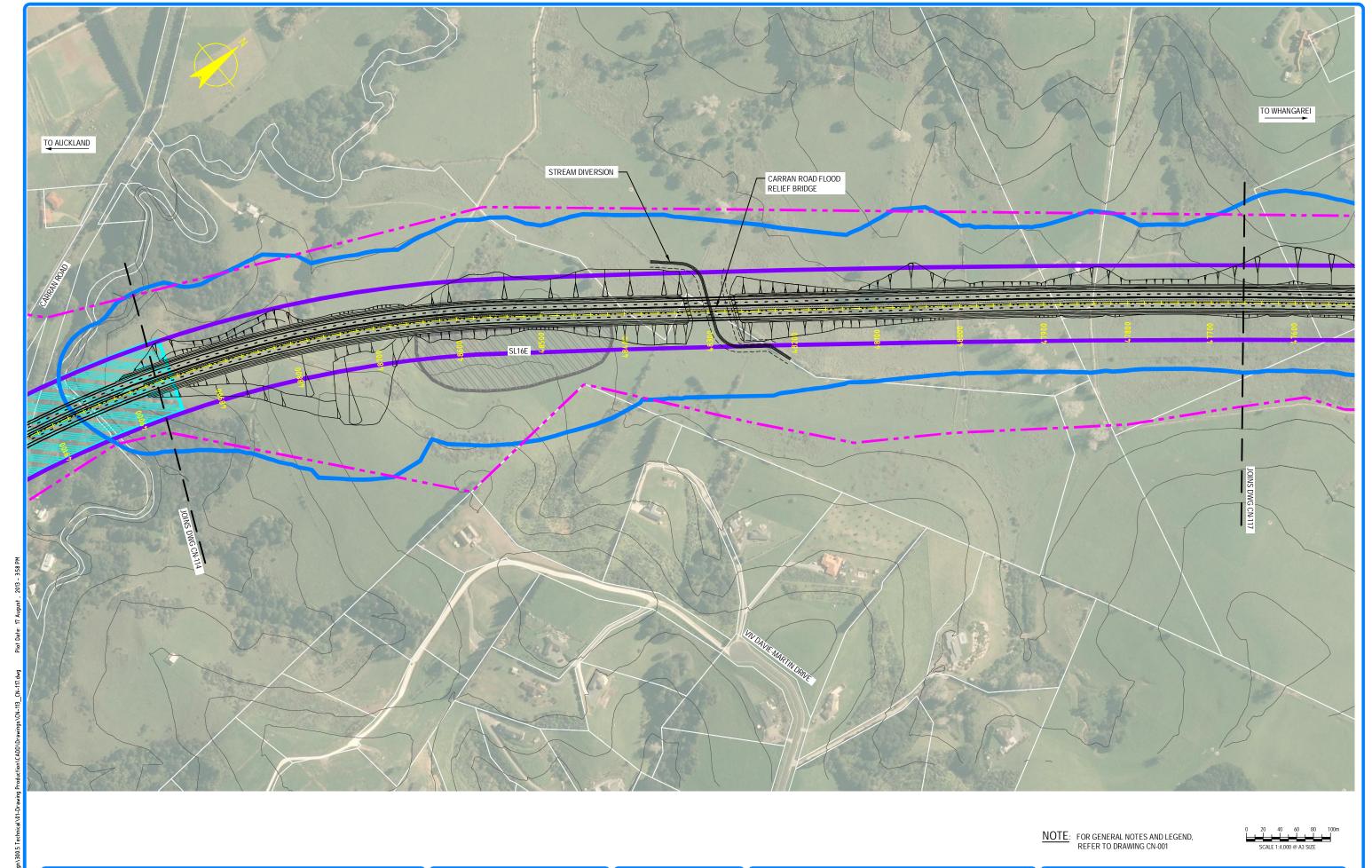
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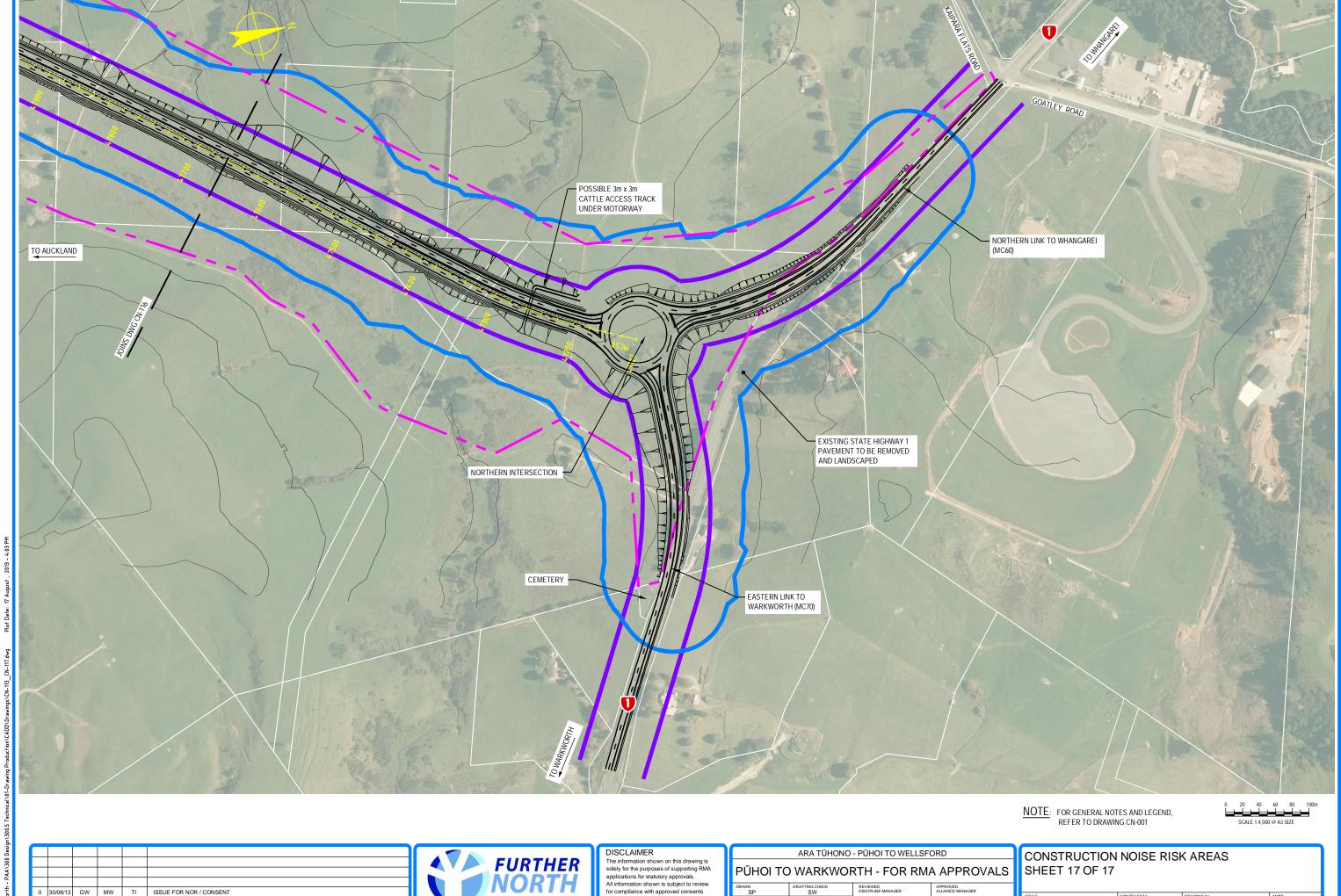
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AMD	DATE	DESIGN REVIEW	REV'D D. MGR	APP'D A. MGR	PURPOSE OF ISSUE / AMENDMENT



ARA TUHONO - PUHOLTO WELLSFORD						
PŪHOI TO WARKWORTH - FOR RMA APPROVALS						
DRAWN SP	DRAFTING CHECK SW	REVIEWED DISCIPLINE MANAGER	APPROVED ALLIANCE MANAGER	I		

CONSTRUCTION NOISE RISK AREAS SHEET 16 OF 17

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