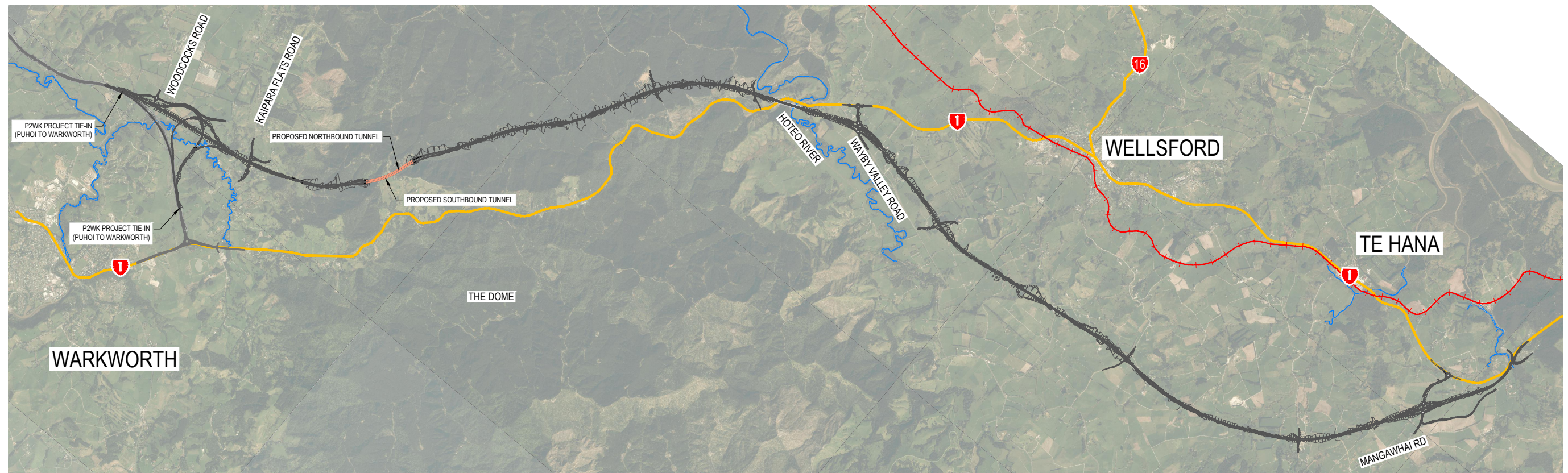
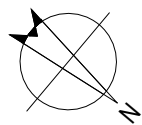


WARKWORTH TO WELLSFORD PROJECT

VOLUME 3 - DRAWING SET



DRAWING NUMBER	DRAWING TITLE
	PRIORITY ECOLOGICAL SITE DRAWINGS
PES-010	PRIORITY ECOLOGICAL SITES (PES) OVERVIEW MAP - SHEET 1 OF 1
PES-020	OVERVIEW OF PES IN THE UPPER KOURAWHERO STREAM CATCHMENT AREA - SHEET 1 OF 1
PES-030	PRIORITY ECOLOGICAL SITES - WN_T_MAHU_01 - SHEET 1 OF 14
PES-031	PRIORITY ECOLOGICAL SITES - WN_T_MAHU_02 - SHEET 2 OF 14
PES-032	PRIORITY ECOLOGICAL SITES - WN_W_KOURA_01 - SHEET 3 OF 14
PES-033	PRIORITY ECOLOGICAL SITES - WN_T_KOURA_01A - SHEET 4 OF 14
PES-034	PRIORITY ECOLOGICAL SITES - WN_T_KOURA_02 - SHEET 5 OF 14
PES-035	PRIORITY ECOLOGICAL SITES - WN_W_KORUA_02 - SHEET 6 OF 14
PES-036	PRIORITY ECOLOGICAL SITES - WN_W_KOURA_03 - SHEET 7 OF 14
PES-037	PRIORITY ECOLOGICAL SITES - WN_W_KOURA_04 - SHEET 8 OF 14
PES-038	PRIORITY ECOLOGICAL SITES - WN_W_KOURA_05 - SHEET 9 OF 14
PES-039	PRIORITY ECOLOGICAL SITES - DVF_W_KORUA_01 - SHEET 10 OF 14
PES-040	PRIORITY ECOLOGICAL SITES - DVF_T_KORUA_02 - SHEET 11 OF 14
PES-041	PRIORITY ECOLOGICAL SITES - HN_T_HOTEO_02 - SHEET 12 OF 14
PES-042	PRIORITY ECOLOGICAL SITES - HN_T_HOTEO_02A - SHEET 13 OF 14
PES-043	PRIORITY ECOLOGICAL SITES - HN_W_HOTEO_02 - SHEET 14 OF 14
	LANDSCAPE AND ECOLOGICAL MITIGATION DRAWINGS
EM-010	LANDSCAPE AND ECOLOGICAL MITIGATION MAPS - SHEET 1 OF 6
EM-011	LANDSCAPE AND ECOLOGICAL MITIGATION MAPS - SHEET 2 OF 6
EM-012	LANDSCAPE AND ECOLOGICAL MITIGATION MAPS - SHEET 3 OF 6
EM-013	LANDSCAPE AND ECOLOGICAL MITIGATION MAPS - SHEET 4 OF 6
EM-014	LANDSCAPE AND ECOLOGICAL MITIGATION MAPS - SHEET 5 OF 6
EM-015	LANDSCAPE AND ECOLOGICAL MITIGATION MAPS - SHEET 6 OF 6
	LANDSCAPE VISUAL SIMULATIONS
LS-001	VIEWPOINT 8: SH1 LOOKING SOUTH-EAST
LS-002	VIEWPOINT 9: WAYBY STATION ROAD LOOKING EAST
LS-003	VIEWPOINT 9: WAYBY STATION ROAD LOOKING EAST
LS-004	VIEWPOINT 15: WHANGARIPO VALLEY ROAD LOOKING WEST
LS-005	VIEWPOINT 15: WHANGARIPO VALLEY ROAD LOOKING WEST
LS-006	VIEWPOINT 20: VIPOND ROAD (EAST) LOOKING SOUTH (2 MAY 2017)
LS-007	VIEWPOINT 20: VIPOND ROAD (EAST) LOOKING SOUTH (2 MAY 2017)
LS-008	VIEWPOINT 21: CHARIS LANE LOOKING NORTH-EAST
LS-009	VIEWPOINT 21: CHARIS LANE LOOKING NORTH-EAST
	PLANNING VERSION ULDF

No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Checked	Approved	Date
0		ISSUED FOR RMA APPROVALS	WAS	FCW*	BN*	07/19



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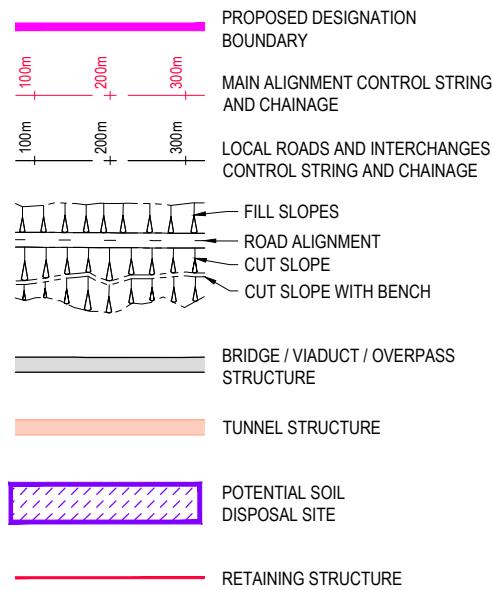
FOR RMA APPROVALS

Drawn WAS	Drafting Check FCW*	Designed IH	Design Check FCW*
Approved BN*		Date JULY 2019	
Scale NTS		This Drawing must not be used for Construction unless signed as Approved	
		Original Size	A1

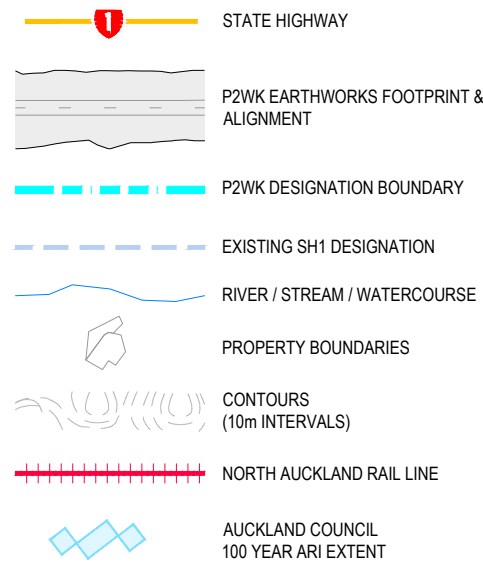
Project	WARKWORTH TO WELLSFORD PROJECT		
Title	DRAWING INDEX SHEET 2 OF 2		
Contract:	PA4156	Drawing No:	G-003
Sheet:	2 OF 2	Rev:	0

LEGEND

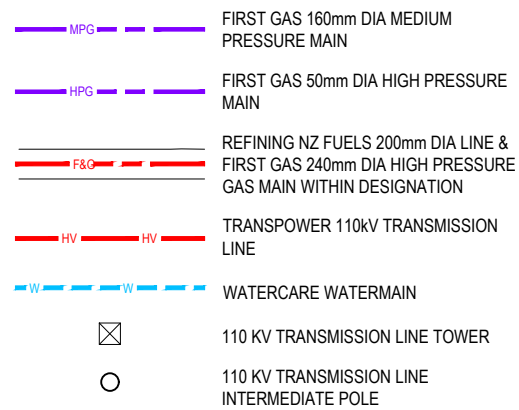
ROAD PLAN - INDICATIVE ALIGNMENT



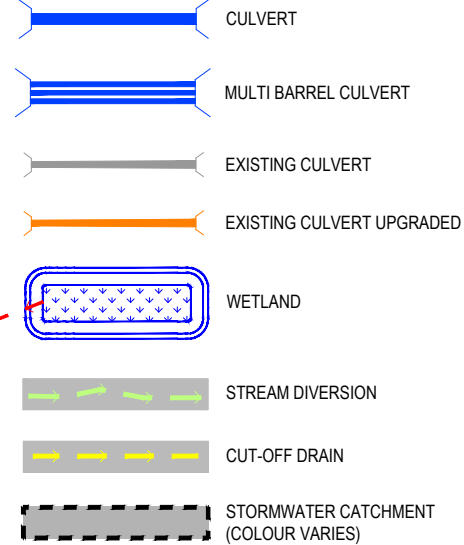
EXISTING FEATURES



SERVICES



DRAINAGE - INDICATIVE ALIGNMENT



GENERAL NOTES

1. THE ALIGNMENT IS INDICATIVE ONLY.
2. ALL MEASUREMENTS ARE IN METRES UNLESS OTHERWISE STATED.
3. ALL NAMED ROADS ARE ASSUMED TO BE PUBLIC UNLESS STATED OTHERWISE.
4. AERIAL IMAGE FROM AUCKLAND COUNCIL AERIAL SURVEY, 2012.
5. DIGITAL TERRAIN MODEL IS COMBINED FROM AERIAL SURVEY (AUG 2010) & AUCKLAND COUNCIL LIDAR DATA TO NZTM PROJECTION.
6. EXISTING PROPERTY BOUNDARIES SOURCED FROM LINZ, MAY 2019 UPDATE.
7. ALL STREAMS WILL BE BRIDGED, CULVERTED AND/OR DIVERTED. REFER SW SERIES FOR INDICATIVE CULVERTS AND DIVERSION LOCATIONS.
8. ALL SOIL DISPOSAL SITE LOCATIONS AND SHAPES ARE INDICATIVE ONLY. ALL SOIL DISPOSAL SITE WORKS ARE TO OCCUR OUTSIDE OF ANY STREAM CHANNEL.
9. NO CULVERTS LONGER THAN 30m WILL BE LOCATED IN A SIGNIFICANT ECOLOGICAL AREA (SEA) AS IDENTIFIED IN THE AUCKLAND UNITARY PLAN.

OPERATIONAL WATER MANAGEMENT NOTES

1. SOME EXISTING CULVERTS BENEATH STATE HIGHWAY 1 ARE SHOWN, WHERE INDICATIVE DESIGN PROPOSES UPGRADES TO THESE CULVERTS. OTHER EXISTING CULVERTS BENEATH STATE HIGHWAY 1 MAY NOT BE SHOWN.
2. 100 YEAR ARI HEADWATER EXTENTS ARE NOT SHOWN AT SOIL DISPOSAL SITES, AS THE FINAL SURFACE PROFILE IS SUBJECT TO DETAILED DESIGN.
3. 100 YEAR ARI FLOOD EXTENTS SHOWN ARE BASED ON AUCKLAND COUNCIL GIS LAYER, JULY 2013, AND THEREFORE ARE WITHOUT THE PROJECT IN PLACE.
4. WATER MANAGEMENT IS NOT SHOWN FOR ACCESS TRACKS, SUCH AS THOSE PROVIDING ACCESS TO THE INDICATIVE ALIGNMENT WITHIN THE FORESTRY AREA. CROSS DRAINAGE IS TO BE MANAGED BY CULVERTING. LONGITUDINAL DRAINAGE IS TO BE MANAGED BY VEGETATED ROADSIDE DRAINS.
5. NO CULVERTS LONGER THAN 30m WILL BE LOCATED IN A SIGNIFICANT ECOLOGICAL AREA (SEA) AS IDENTIFIED IN THE AUCKLAND UNITARY PLAN. CULVERTS LOCATIONS ARE INDICATIVE ONLY.
6. CULVERT INFORMATION - REFER TO CULVERT SUMMARY TABLE IN STORMWATER REPORT.
7. WETLAND SHAPE IS INDICATIVE ONLY TO PRESENT PROPOSED LOCATION AND SIZING. SHAPING TO CONTOURS IS SUBJECT TO DETAILED DESIGN.
8. STREAM DIVERSIONS AND CUT OFF DRAINS ARE BASED OFF EXISTING CONTOURS. WHERE A SOIL DISPOSAL SITE IS TO BE USED, THE STREAM DIVERSION OR CUT OFF DRAIN SHALL BE AMENDED TO SUIT.

SERVICES NOTES

1. POWER DISTRIBUTION AND COMMUNICATION CABLING (i.e. VECTOR, CHORUS, SPARK, VODAFONE) ROUTES ARE NOT SHOWN. AFFECTED ASSETS WILL BE RELOCATED OR PROTECTED.
2. THE SERVICES SHOWN SHOULD BE CONSIDERED INDICATIVE ONLY AND ARE BASED ON RECORDS SUPPLIED BY THE UTILITY COMPANIES. PRIVATE SERVICES AND CONNECTIONS ARE NOT SHOWN.

GLOSSARY

ARI = ANNUAL RECURRENCE INTERVAL
MSE = MECHANICALLY STABILISED EARTH
P2WK = PUHOI TO WARKWORTH PROJECT

ALL INFORMATION SHOWN IS SUBJECT TO FINAL DESIGN AND THE DETAILS MAY CHANGE. AREAS AND MEASUREMENTS ARE SUBJECT TO SURVEY

No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Checked	Approved	Date
0	ISSUED FOR RMA APPROVALS		WAS	FCW*	BN*	07/19



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FOR RMA APPROVALS			
Drawn WAS	Drafting FCW*	Designed IH	Design Check FCW*
Approved BN*		Date JULY 2019	
Scale NTS	This Drawing must not be used for Construction unless signed as Approved		Original Size A1

Project	WARKWORTH TO WELLSFORD PROJECT		
Title	GENERAL NOTES AND LEGEND		
Contract:	PA4156	Drawing No:	G-010
Sheet:	1 OF 1	Rev:	0