

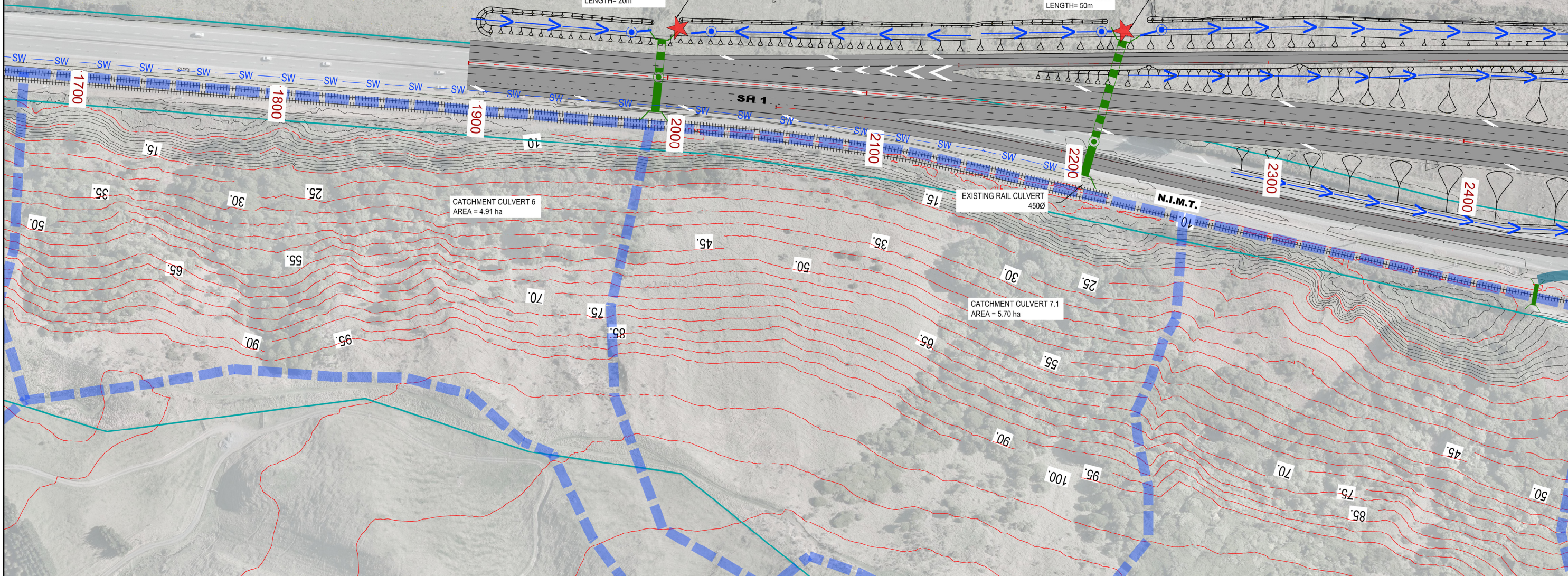
QE PARK DRAIN

CULVERT - 6
EXTEND EXISTING
525Ø WITH 600Ø
LENGTH= 20m

NEW CULVERT
DISCHARGES TO
GROUND AS IT
CURRENTLY DOES

CULVERT - 7.1
EXTEND WITH 600Ø
LENGTH= 50m

EXISTING CULVERT
DISCHARGES TO
GROUND AS IT
CURRENTLY DOES



- NOTES:
- REFER DRAWING CV-SW-100 FOR INDEX SHEET AND STORMWATER LEGEND
 - EXISTING DRAINAGE FROM KCDC GIS, GWRC GIS, NZTA RECORDS AND KIWI RAIL RECORDS.

Original
Scale (A3)
1:2000

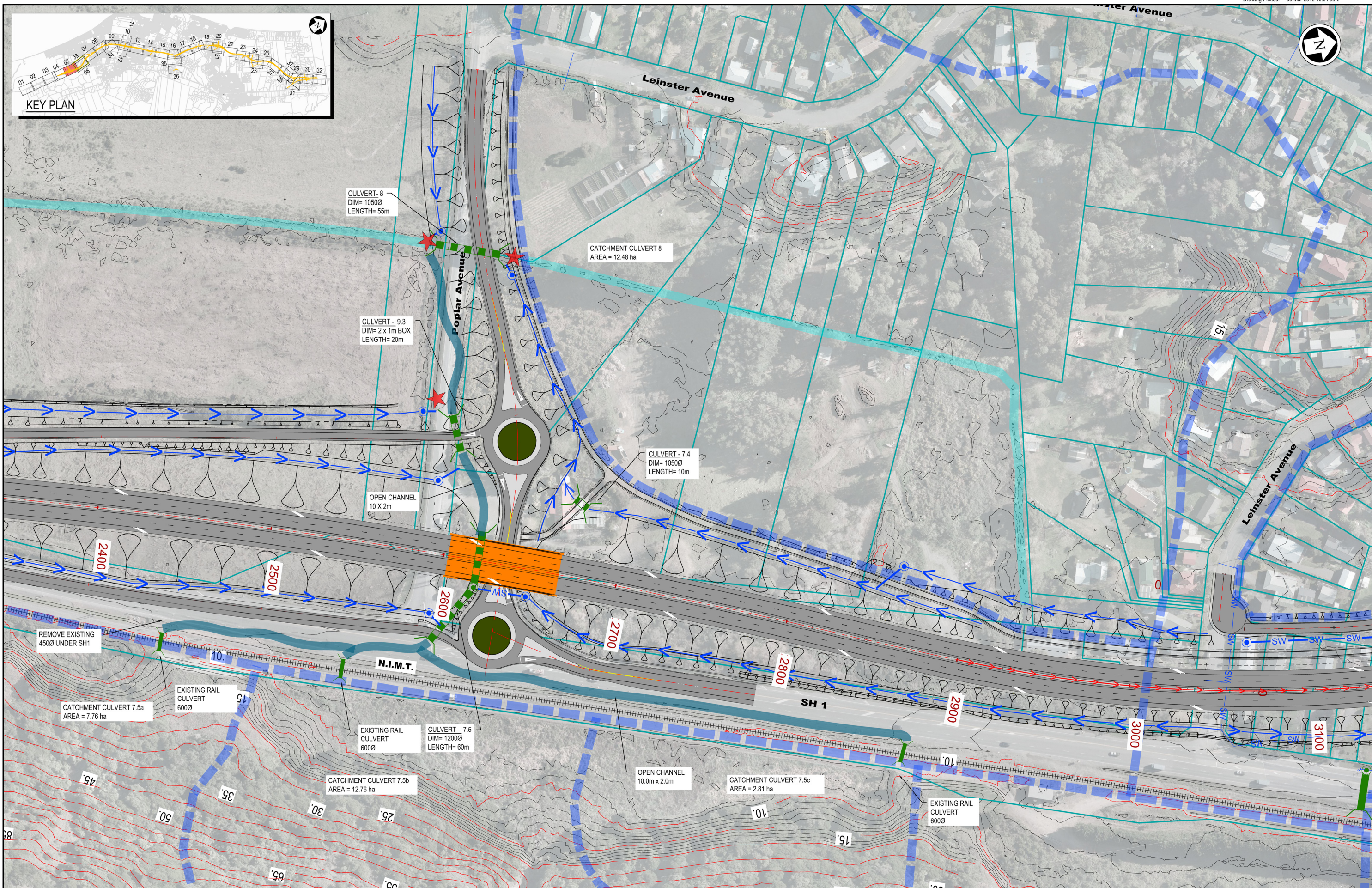
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|-----------|---------------|-----------|----------|
| 1 | AEE LODGEMENT | NRN | 15.03.12 |
| Revision: | Amendment | Approved: | Date: |



MACKAYS TO PEKA PEKA EXPRESSWAY

DRAINAGE LAYOUT
SHEET 4 OF 37

| | |
|--------------|----------------|
| Status: | FOR CONSENTING |
| Document ID: | M2PP-AEE-DWG |
| Drawing No: | CV-SW-104 |
| Rev: | 1 |



- NOTES:
1. REFER DRAWING CV-SW-100 FOR INDEX SHEET AND STORMWATER LEGEND
 2. EXISTING DRAINAGE FROM KCDC GIS, GWRC GIS, NZTA RECORDS AND KIWIRAIL RECORDS.

Original
Scale (A3)
1:2000

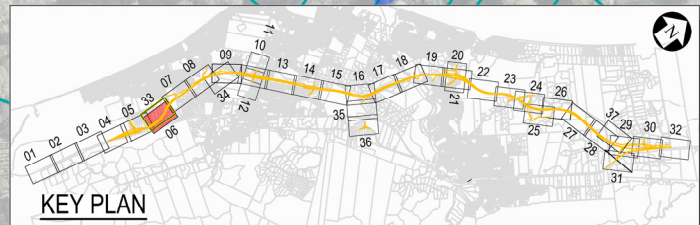
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|-----------|---------------|-----------|----------|
| 1 | AEE LODGEMENT | NRN | 15.03.12 |
| Revision: | Amendment | Approved: | Date: |



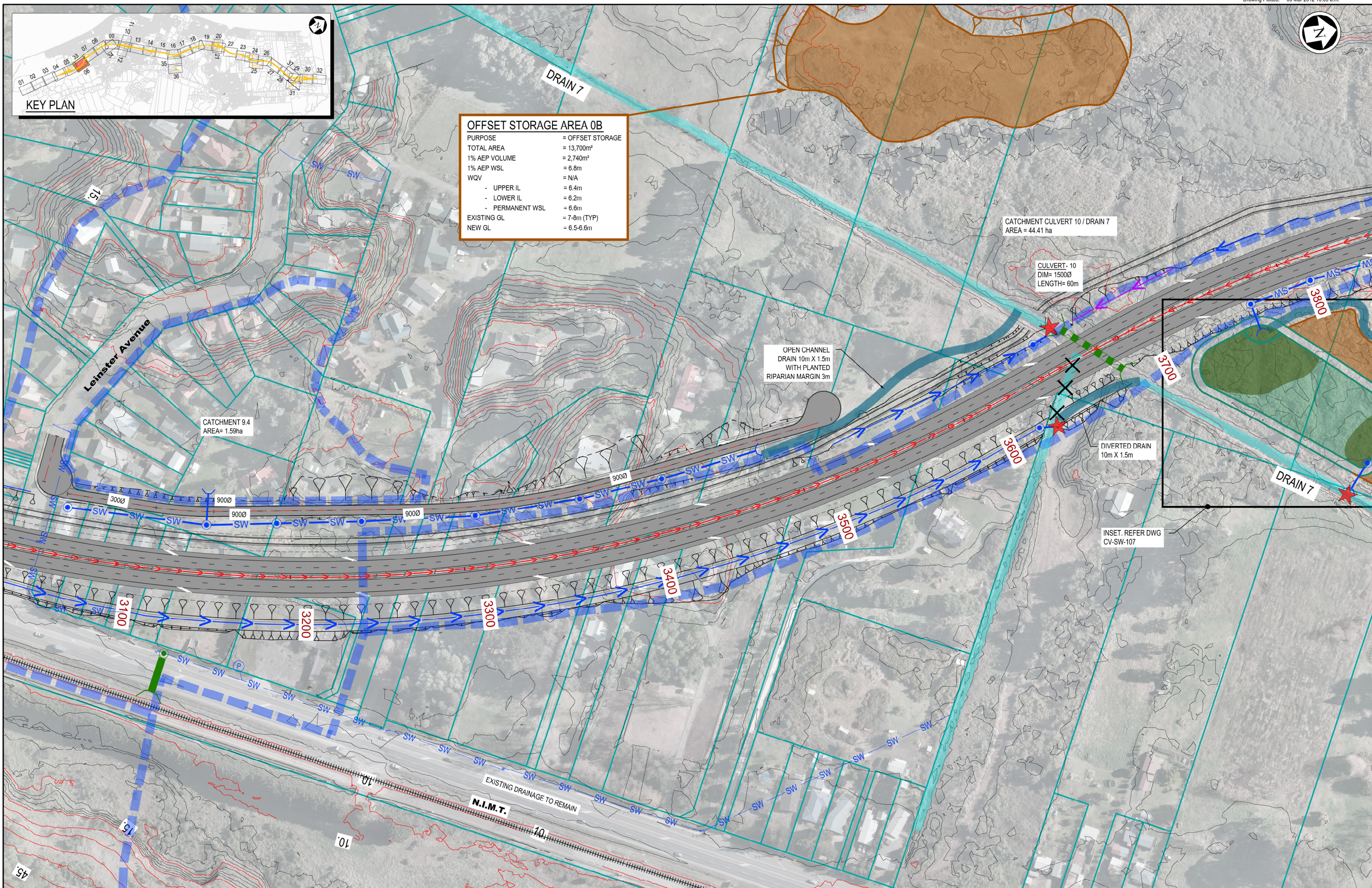
MACKAYS TO PEKA PEKA EXPRESSWAY

DRAINAGE LAYOUT
SHEET 5 OF 37

| | |
|--------------|----------------|
| Status: | FOR CONSENTING |
| Document ID: | M2PP-AEE-DWG |
| Drawing No: | CV-SW-105 |
| Rev: | 1 |



| OFFSET STORAGE AREA 0B | |
|------------------------|------------------------|
| PURPOSE | = OFFSET STORAGE |
| TOTAL AREA | = 13,700m ² |
| 1% AEP VOLUME | = 2,740m ³ |
| 1% AEP WSL | = 6.8m |
| WQV | = N/A |
| - UPPER IL | = 6.4m |
| - LOWER IL | = 6.2m |
| - PERMANENT WSL | = 6.0m |
| EXISTING GL | = 7.8m (TYP) |
| NEW GL | = 6.5-6.6m |



- NOTES:
- REFER DRAWING CV-SW-100 FOR INDEX SHEET AND STORMWATER LEGEND
 - EXISTING DRAINAGE FROM KCDC GIS, GWRC GIS, NZTA RECORDS AND KIWI RAIL RECORDS.
 - GL = GROUND LEVEL
WQV = WATER QUALITY VOLUME
WSL = WATER SURFACE LEVEL
IL = INVERT LEVEL
REC WC WSL = RECEIVING WATER COURSE WATER SURFACE LEVEL.

Original Scale (A3)
1:2000

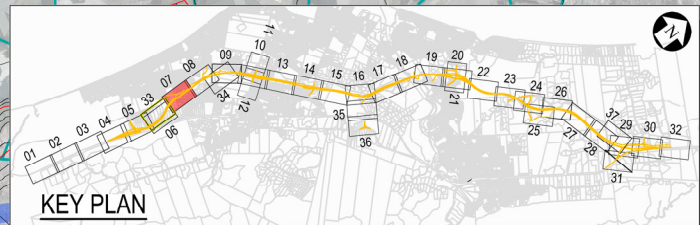
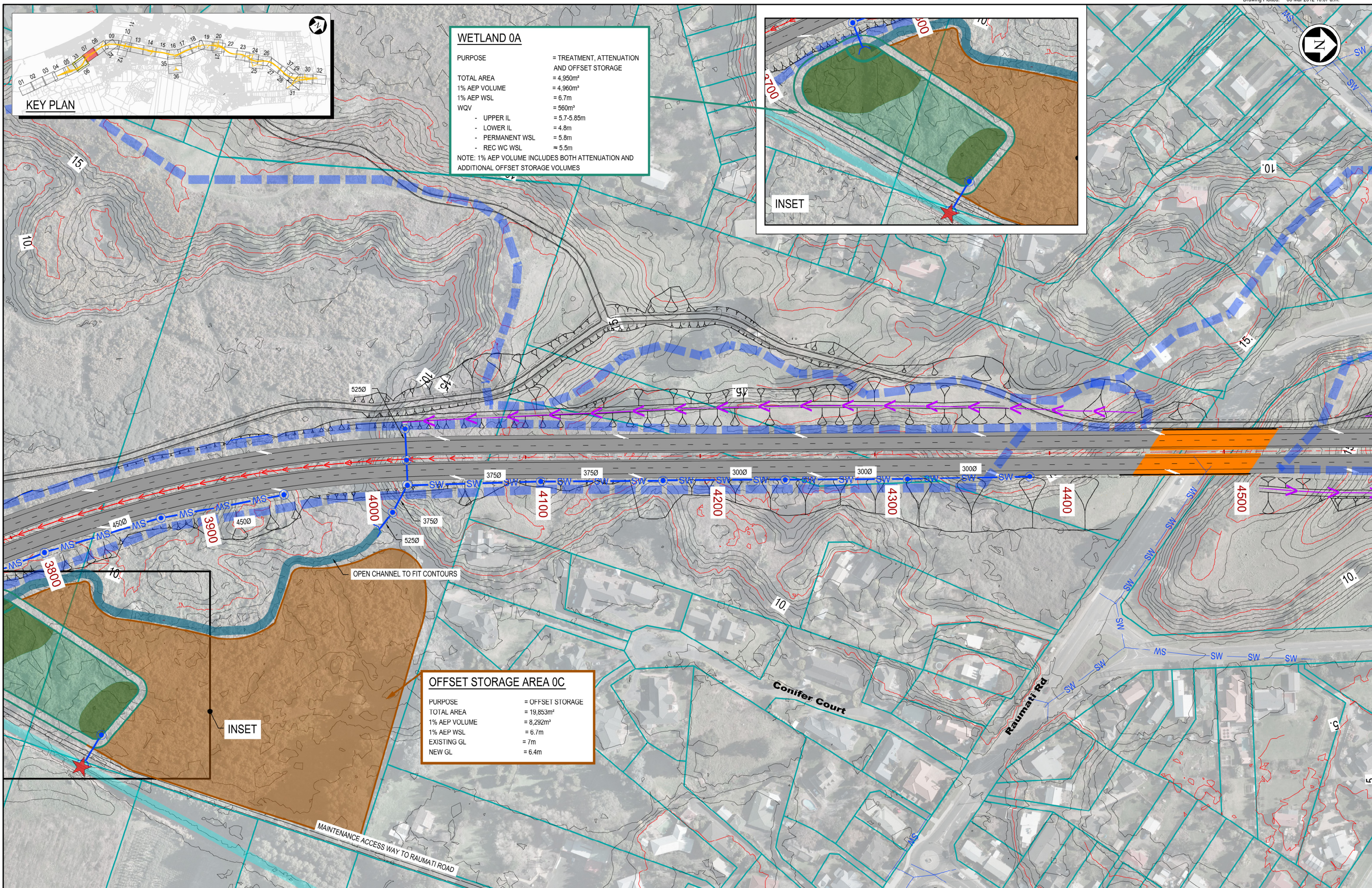
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|-----------|---------------|-----------|----------|
| 1 | AEE LODGEMENT | NRN | 15.03.12 |
| Revision: | Amendment | Approved: | Date: |



MACKAYS TO PEKA PEKA EXPRESSWAY

DRAINAGE LAYOUT
SHEET 6 OF 37

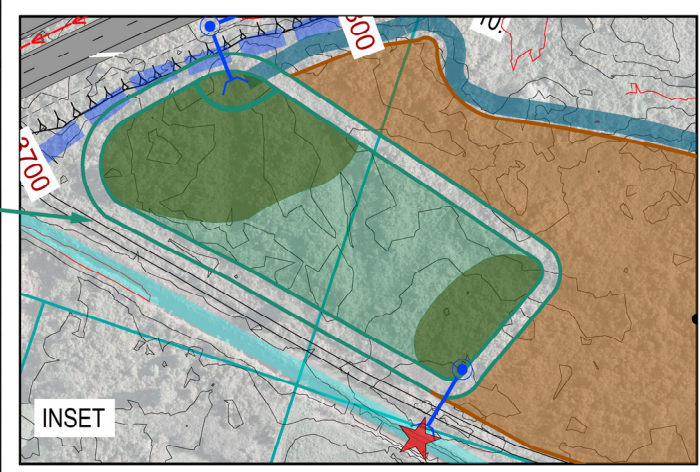
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| Status: | FOR CONSENTING |
| Document ID: | M2PP-AEE-DWG |
| Drawing No: | CV-SW-106 |
| Rev: | 1 |



WETLAND 0A

| | |
|-----------------|---|
| PURPOSE | = TREATMENT, ATTENUATION AND OFFSET STORAGE |
| TOTAL AREA | = 4,950m ² |
| 1% AEP VOLUME | = 4,960m ³ |
| 1% AEP WSL | = 6.7m |
| WQV | = 560m ³ |
| - UPPER IL | = 5.7-5.85m |
| - LOWER IL | = 4.8m |
| - PERMANENT WSL | = 5.8m |
| - REC WC WSL | = 5.5m |

NOTE: 1% AEP VOLUME INCLUDES BOTH ATTENUATION AND ADDITIONAL OFFSET STORAGE VOLUMES



OFFSET STORAGE AREA 0C

| | |
|---------------|------------------------|
| PURPOSE | = OFFSET STORAGE |
| TOTAL AREA | = 19,853m ² |
| 1% AEP VOLUME | = 8,292m ³ |
| 1% AEP WSL | = 6.7m |
| EXISTING GL | = 7m |
| NEW GL | = 6.4m |

- NOTES:
- REFER DRAWING CV-SW-100 FOR INDEX SHEET AND STORMWATER LEGEND
 - EXISTING DRAINAGE FROM KCDC GIS, GWRC GIS, NZTA RECORDS AND KIWI RAIL RECORDS.
 - GL = GROUND LEVEL
WQV = WATER QUALITY VOLUME
WSL = WATER SURFACE LEVEL
IL = INVERT LEVEL
REC WC WSL = RECEIVING WATER COURSE WATER SURFACE LEVEL.

Original Scale (A3)
1:2000

| | | | |
|-----------|---------------|-----------|----------|
| 1 | AEE LODGEMENT | NRN | 15.03.12 |
| Revision: | Amendment | Approved: | Date: |



MACKAYS TO PEKA PEKA EXPRESSWAY

DRAINAGE LAYOUT
SHEET 7 OF 37

| | |
|--------------|----------------|
| Status: | FOR CONSENTING |
| Document ID: | M2PP-AEE-DWG |
| Revision No: | 1 |
| Project: | CV-SW-107 |