

From: [Rex Faithfull](#)
To: [Heather Liew](#)
Subject: RE: SH16 B2W median barrier removal
Date: Thursday, 17 April 2025 9:47:00 am
Attachments: [image001.png](#)

Thanks Heather,

I have passed this onto the team. I am still waiting for a proposal from them and then we would likely have a workshop to discuss options. Would you be happy to be part of the workshop?

Thanks for the help.

Regards,

Rex

Rex Faithfull

Senior Project Manager Complex, Infrastructure Delivery (Auckland & Northland)

Email: rex.faithfull@nzta.govt.nz

Mobile: s9(2)(a)

NZ Transport Agency Waka Kotahi

From: Heather Liew <Heather.Liew@nzta.govt.nz>

Sent: Thursday, 17 April 2025 9:15 am

To: Rex Faithfull <Rex.Faithfull@nzta.govt.nz>

Subject: SH16 B2W median barrier removal

Hi Rex,

1) Width of the median

It depends on the space available. I think the current layout can be maintained, assuming that there is 1.5m for the median barrier. The absolute min. width for flush median is 1.0m. If it is less than 1.0m, wide centreline is used. Links for the markings are available below:

- Wide centreline- [Wide centre-lines | NZ Transport Agency Waka Kotahi](#). NB: With the wide centrelines, assess the passing opportunity to determine if yellow or white lines are used.
- Flush median - Refer to table 2-8 for guidelines on flush medians. [Flush medians | NZ Transport Agency Waka Kotahi](#)

2) What we do with the turnaround bays (right turn arrows still required, mitigation for unsavoury driver behaviour)

Please discuss with ASM or any other parties if there is a need to retain any of the turnaround bays. Right turn bays to be retained if they provide access to intersections, businesses and properties.

3) Treatments on the median ATP, double yellow no passing lines

This should be available in SIP design philosophy statement.

4) Risk assessment people using the median as a passing lane, speeding.

Yes, there is a risk that the median will be used as a passing lane and speeding, especially if the median is wider. Therefore, retaining the median width will provide the separation between the two lanes (reducing risk of head-ons) while reducing the risk of median being used for passing.

5) Matua Intersection

Decision should be made based on:

- whether there is support to close the intersection
- Whether a right turn bay is warranted
- Whether there is space for a right turn bay

Regards

Heather

From: Rex Faithfull <Rex.Faithfull@nzta.govt.nz>

Sent: Wednesday, 9 April 2025 5:01 pm

To: Heather Liew <Heather.Liew@nzta.govt.nz>

Subject: SH16 B2W median barrier removal

Hi Heather,

As discussed we have been instructed to remove the wire rope barrier from the scope of stage 1 and replace with a flush median. Construction is around 75% completed so no chance to move kerb lines or make any significant changes to design. We will really be limited to making changes to road markings. s9(2)(g)(i)

I have asked Beca to do an initial assessment. Some of the things that we discussed assessing was

- Width of the median
- What we do with the turnaround bays (right turn arrows still required, mitigation for unsavoury driver behaviour)
- Treatments on the median ATP, double yellow no passing lines.
- Risk assessment people using the median as a passing lane, speeding.
- Matua road intersection

I have attached the Gas and Line marking drawings for your reference. It would be good to know if you have any ideas that I should be passing onto Beca for the concept design work.

Regards,
Rex

Rex Faithfull (He/Him)

Senior Project Manager Complex, Transport Services – Infrastructure Delivery

Te Toki - Transport Services

Email: Rex.Faithfull@nzta.govt.nz

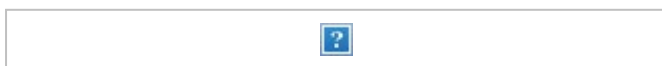
Mobile: s9(2)(a)

NZ Transport Agency Waka Kotahi

Auckland, Level 5, AON Centre, 29 Customs Street West

Private Bag 106602, Auckland 1143, New Zealand

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100mm
SCALE FOR VALIDATING SIZE OF A5 PLOT ONLY

A. GENERAL NOTES

1. ALL NOTES SHALL BE READ IN CONJUNCTION WITH THE CONTRACT SPECIFICATIONS AND ALL DESIGN DRAWINGS APPLICABLE TO THE CONTRACT.
2. ALL WORKS SHALL BE CONSTRUCTED AS DETAILED IN ALL DESIGN DRAWINGS AND IN ACCORDANCE WITH THE REQUIREMENTS OF THE CONTRACT'S SPECIFICATIONS.
3. THE CONTRACTOR MUST CHECK ALL DESIGN DRAWINGS AND IDENTIFY ANY INCONSISTENCIES BETWEEN THE DESIGN DRAWINGS AND AGAINST THE CONTRACT SPECIFICATIONS, BASIS OF PAYMENT AND SCHEDULE OF PRICES IN ADVANCE AND PRIOR TO ANY CONSTRUCTION WORKS. THE CONTRACTOR MUST NOTIFY THE ENGINEER IF THERE ARE ANY INCONSISTENCIES.
4. CONTRACTOR MUST LIAISE WITH ALL SERVICE AUTHORITIES FOR LOCATION OF SERVICES AND OBTAIN CONSENTS IN ADVANCE AND PRIOR TO ANY CONSTRUCTION WORKS.
5. CONTRACTOR TO CARRY OUT DETAILED SERVICES INVESTIGATIONS PRIOR TO ANY EXCAVATION WORKS.
6. CONTRACTOR MUST INFORM COUNCIL'S ARBORIST FOR ANY WORK UNDER THE DRIPLINE. NOTIFICATION SHALL BE MADE WELL IN ADVANCE OF ANY CONSTRUCTION WORKS.
7. SEE LANDSCAPE PLANS FOR ALL AREAS OF EXISTING GRASS AND/OR PLANTING AFFECTED DURING CONSTRUCTION.

B. SETTING OUT

1. SET-OUT INFORMATION FOR ROAD CENTRELINES, EDGE LINES AND KERB LINES WILL BE SUPPLIED TO THE CONTRACTOR IN 3D ELECTRONIC FORMAT.
2. THE CONTRACTOR MUST CHECK AND VERIFY ALL COORDINATES/LEVELS/DIMENSIONS/SETTING-OUT INFORMATION PRIOR TO COMMENCEMENT OF WORK AND REPORT DISCREPANCIES, IF ANY, IMMEDIATELY TO THE ENGINEER.
3. THE CONTRACTOR MUST NOTIFY THE ENGINEER AND PROVIDE ADEQUATE TIME ALL LEVELS AND SET OUT ON SITE PRIOR TO CONSTRUCTION.
4. THE CONTRACTOR MUST UNDERTAKE A TOPO SURVEY ON ALL CARRIAGEWAY, FOOTPATH, KERB AND CHANNEL TIE-INS TO PREVENT PONDING. EXTENTS OF WORK MAY EXTEND BEYOND THE LIMITS SHOWN IN THE DESIGN DRAWINGS WITH THE ENGINEER'S APPROVAL.

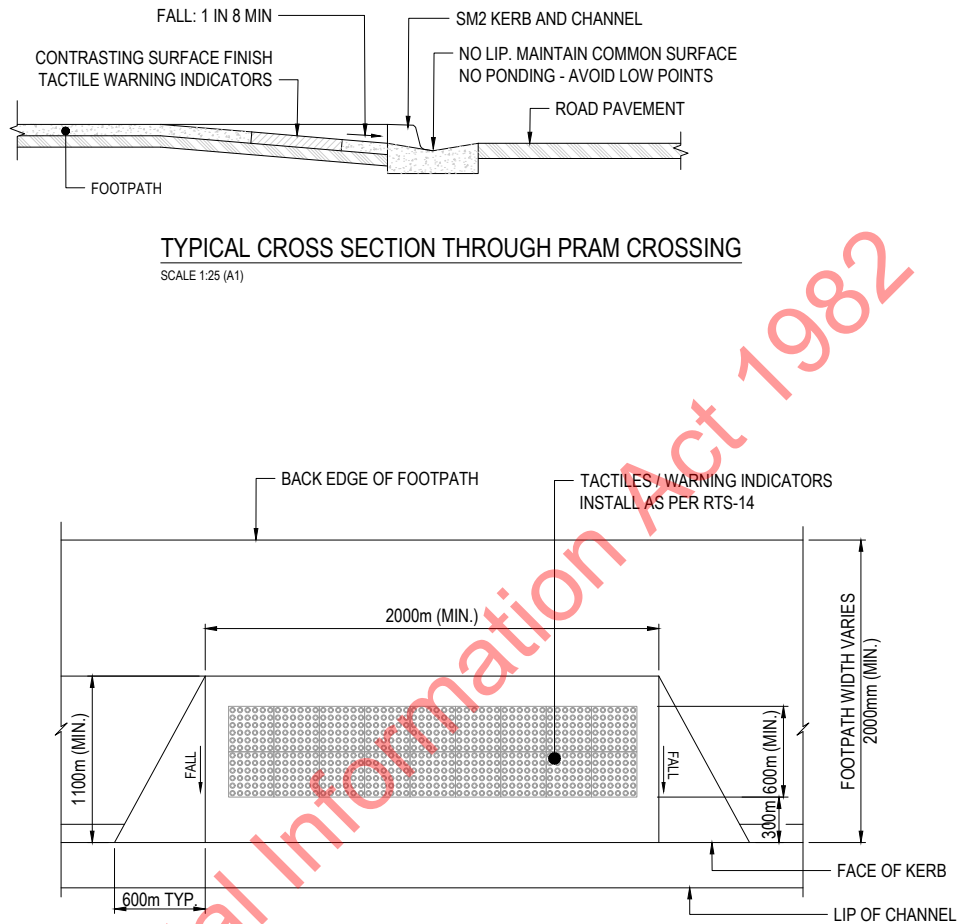
C. ROAD KERB AND CHANNEL, FOOTPATH, CENTRAL MEDIAN AND OTHER ROAD ELEMENTS

1. SITE CLEARANCE SHALL BE CONDUCTED PRIOR TO COMMENCEMENT OF ALL WORKS. REFER TO SITE CLEARANCE PLANS.
2. NEW KERB, CHANNEL AND TRAFFIC ISLAND KERBING ALONG SH16 SHALL BE SEMI-MOUNTABLE, (SM1 AND SM2 KERB PROFILE). FOR DETAILS OF KERB AND CHANNEL, REFER TO DRAINAGE PLANS.
3. NEW TRAFFIC ISLAND KERBING TO BE PAINTED REFLECTORISED WHITE IN ACCORDANCE WITH MOTSAM, PART2, RAISED ISLANDS.
4. NEW TRAFFIC ISLANDS INFILL TO BE 20MPa RED MCALLUM CONCRETE 100mm DEEP OVER 100mm DEEP OF COMPACTED BASECOURSE (AP40).
5. NEW FOOTPATHS TO BE 25MPa CONCRETE 100mm DEEP OVER 100mm DEEP OF COMPACTED BASECOURSE (AP40) WITH 2% CROSSFALL. IN NON-RESIDENTIAL AREAS THE FOOTPATH THICKNESS SHALL BE 150mm.
6. NEW PEDESTRIAN PRAM CROSSINGS TO BE 2m WIDE WITH TACTILE INDICATORS CONSTRUCTED IN ACCORDANCE WITH NZTA RTS-14 - GUIDELINES FOR FACILITIES FOR BLIND AND VISION IMPAIRED PEDESTRIANS.
7. NEW PRAM CROSSINGS TO BE 20MPa CONCRETE 100mm DEEP OVER 100mm DEPTH OF COMPACTED BASECOURSE (AP40).
8. ALL SAWN CONCRETE JOINTS MUST BE SAWCUT NEATLY. SAWCUTTING SHALL GENERALLY BE SQUARE TO THE KERB AND CARRIAGEWAY ALIGNMENT. DRY CUTTING IS NOT PERMITTED.
9. BASECOURSE SHALL BE PLACED AND COMPACTED TO ACHIEVE A MINIMUM CLEGG IMPACT VALUE OF 12 FOR CONCRETE FOOTPATHS AND A MINIMUM CIV OF 17 FOR ASPHALT FOOTPATHS.
10. ALL PATH EDGES SHALL BE CONSTRUCTED FLUSH WITH THE ADJACENT GROUND TO AVOID CREATING PEDESTRIAN TRIP HAZARDS. ADJACENT GROUND MAY NEED TO BE RAISED OR LOWERED TO ACHIEVE THIS.
11. NEW KERBS ADJACENT TO GRASS BERM OR PLANTING BEDS TO BE MORTAR POINTED BEFORE REINSTATEMENT WITH TOPSOIL, MULCH ETC.
12. BATTER SLOPES ARE TO MATCH THE EXISTING GROUND. EITHER IN 1:3 OR SLIGHTLY STEEPER DEPENDING ON THE ROADSIDE CONDITION OF THE LOCATION. FOR STEEPENED SLOPES, CONTRACTOR TO UNDERTAKE GROUND TESTING, HAND AUGERS AND/OR SHEAR VANES AT THE DIRECTION OF THE ENGINEER. ENGINEER THEN SHALL ASSESS THE FINDING AND INSTRUCT IF FURTHER SLOPE STABILISATION WILL BE REQUIRED.
13. WIRE ROPE SAFETY BARRIERS ARE TO BE INSTALLED ALONG THE FLUSH MEDIAN AND W BEAM GUARDRAILS ARE TO BE INSTALLED AS EDGE BARRIERS WHERE SHOWN ON THE BARRIER DRAWINGS.

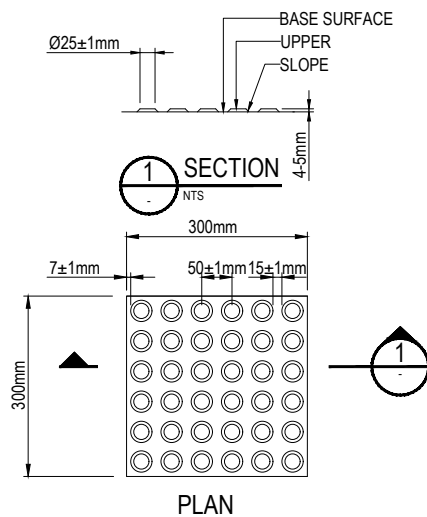
D. ACCESSWAY

1. ALL ACCESSWAYS ALONG THE CORRIDOR SHALL BE MAINTAINED AS EXISTING UNLESS ANNOTATED OTHERWISE ON THE GENERAL ARRANGEMENT PLANS. TYPICALLY, DETAILED LAYOUTS SHALL FOLLOW EITHER DIAGRAM D FOR ALL RESIDENTIAL AND LIGHT COMMERCIAL PROPERTIES OR DIAGRAM E FOR HEAVY COMMERCIAL PROPERTIES ACCORDING TO NZTA PLANNING POLICY MANUAL, APPENDIX 5B ACCESSWAY STANDARDS AND GUIDELINES.
2. REFER TO PAVEMENT AND SURFACING DRAWINGS FOR ACCESSWAY PAVEMENT CONSTRUCTION DETAILS.
3. REFER TO ACCOMMODATION WORKS DRAWINGS FOR ACCESSWAY RECONSTRUCTION DETAILS.
4. ANY CONTRACTOR ACTING FOR THE CONSENT HOLDER CONSTRUCTING A VEHICLE CROSSING ON AN EXISTING VESTED ROAD SHALL COMPLETE AN "APPLICATION TO CONSTRUCT A VEHICLE CROSSING" FORM AND RECEIVE WRITTEN NOTIFICATION OF APPROVAL FROM AUCKLAND TRANSPORT BEFORE COMMENCING CONSTRUCTION OF THE PROPOSED VEHICLE CROSSING. THE CONSENT HOLDER OR HIS AGENT SHALL MEET ALL ASSOCIATED COSTS. THE APPLICATION TO CONSTRUCT A VEHICLE CROSSING FORM MAY BE DOWNLOADED FROM WWW.AUCKLANDTRANSPORT.CO.NZ. NOTE: THE CONTRACTOR IS ADVISED THAT THE AUCKLAND TRANSPORT WILL REQUIRE ALL WORKS TO BE COMPLETED IN ACCORDANCE WITH THE NATIONAL CODE OF PRACTICE FOR UTILITY OPERATOR'S ACCESS TO TRANSPORT CORRIDOR

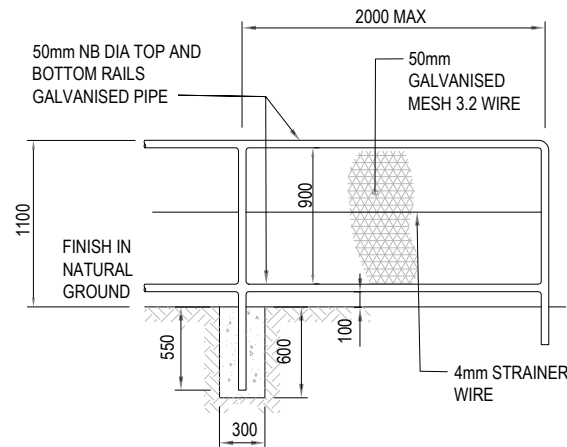
SURVEY DATUM:
COORDINATES ARE IN TERMS OF NZTM CIRCUIT.
LEVELS ARE IN TERMS OF NZVD2016.
ORIGIN: B34W 5930196.130mN, 1731579.180mE, 55.1164mRL



PRAM CROSSING WITH TACTILE WARNING INDICATOR



TYPICAL DETAIL OF TACTILE GROUND
SURFACE INDICATORS (TGSIs)
NTS



1.1m HIGH GALVANISED PIPE FENCE WITH MESH WIRE DETAIL
NTS

LEGEND

- EXISTING PROPERTY BOUNDARY
- 499 PROPERTY NUMBER
- ROAD DESIGNATION BOUNDARY
- 196700 CHAINAGE
- 016-0019-B/6.5 ROUTE POSITION (RP)
- NEW KERB AND CHANNEL
- NEW KERB AND NIB
- NEW V-DISH CHANNEL
- NEW LIGHT POLE
- RTW NEW RETAINING WALL
- EXISTING GUARDRAIL TO BE RETAINED
- NEW 1.1m HIGH GALVANISED PIPE FENCE WITH MESH WIRE
- WR4 NEW MASH TL-3 WIRE ROPE BARRIER
- W-S4 NEW MASH TL-3 W-BEAM BARRIER
- T-B4 NEW THRIE BEAM BARRIER WITH TOP RAIL, REFER TO STRUCTURAL DRAWINGS
- T-B4 EXISTING THRIE BEAM BARRIER TO BE RETAINED
- NEW W-SECTION BARRIER LEADING TERMINAL
- NEW W-SECTION BARRIER TRAILING TERMINAL
- NEW WIRE ROPE BARRIER TERMINAL ANCHOR
- EXISTING ROAD SIGN TO BE RETAINED
- NEW ROAD SIGN
- NEW CONCRETE FOOTPATH
- NEW PRAM CROSSING
- NEW TIMBER FENCE, REFER TO ACCOMMODATION WORK DRAWINGS
- NEW PERMANENT STOCK FENCE, REFER TO ACCOMMODATION WORK DRAWINGS
- NEW TEMPORARY STOCK FENCE, REFER TO ACCOMMODATION WORK DRAWINGS
- TEMPORARY LAND REQUIREMENT
- PERMANENT LAND REQUIREMENT

NOTES:

- WIRE MESH:
1. WIRE MESH FENCE TO BE TIED TO RAILINGS WITH GALVANISED 4mm STRAINER WIRE AS SHOWN.
 2. REINFORCED CONCRETE POSTS.
 3. TOP RAIL TO BE A CONTINUOUS LENGTH OF GALVANISED STEEL JOINED BY THREADED COLLARS. END POSTS TO BE FORMED FROM THE TOP RAIL SECTION BY BENDING IT THROUGH 90 DEGREES.
 4. CONCRETE FOR POST FOUNDATIONS TO BE 17.5 MPa.



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|-----|-------------------------------------|----------|----------|------------|--------|----------|----------|---------------|
| 2 | FOR CONSTRUCTION | s9(2)(a) | 23.01.24 | Original | Design | s9(2)(a) | 26.04.19 | Approved For |
| 1 | FOR CONSTRUCTION | | 07.07.23 | Scale (A3) | Drawn | | 26.04.19 | Construction* |
| 00B | FOR TENDER (EXTENT OF WORKS UPDATE) | | 27.09.21 | NTS | Drawn | | 26.04.19 | s9(2)(a) |
| 00A | FOR TENDER (LRP EXTENT SHOWN) | | 02.10.20 | | Drawn | | 26.04.19 | Date |
| No. | Revision | By | Chk | Appd | Date | | | |

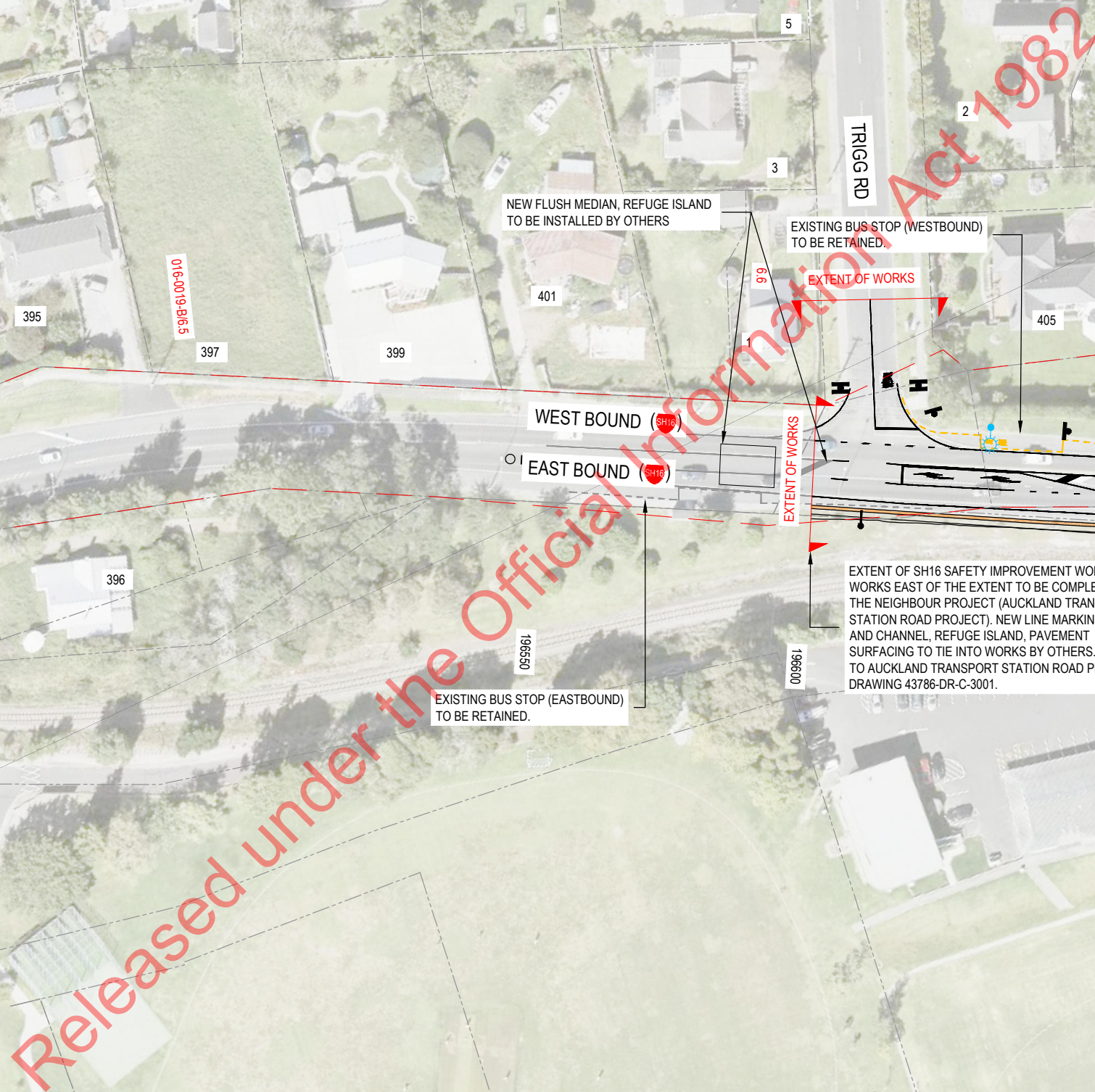
* Refer to Revision 1 for Original Signature



Project: SH16 - SAFETY IMPROVEMENTS
STAGE 1
HUAPAI TO WAIMAUKU

Title: GENERAL ARRANGEMENT PLAN
LEGEND AND GENERAL NOTES

Status: **FOR CONSTRUCTION**
Drawing No. SR1003 - 01 - VE - 1200
Rev. 2



1. REFER TO SR1003-01-VE-1200 FOR
LEGEND AND GENERAL NOTES



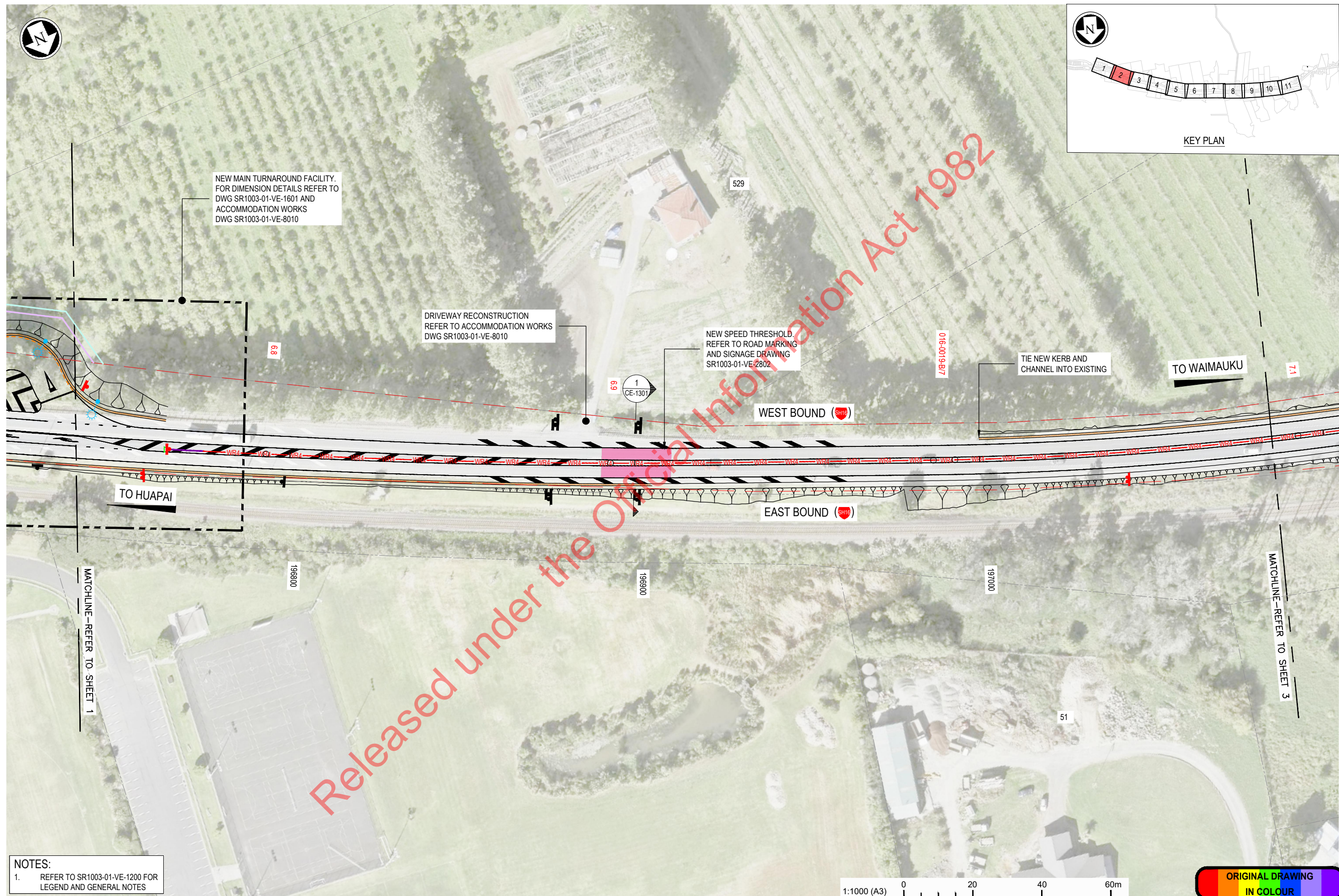
Title: GENERAL ARRANGEMENT PLAN
SHEET 1 OF 11

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| Status. | | FOR CONSTRUCTION | |
| Drawing No. | | SR1003 - 01 - VE - 1201 | Rev. 1 |

100mm

SCALE FOR VALIDATING SIZE OF A3 PLOT ONLY

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NOTES:
1. REFER TO SR1003-01-VE-1200 FOR
LEGEND AND GENERAL NOTES

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| 1 | FOR CONSTRUCTION | s9(2)(a) | 07.07.23 | Original Scale (A3) | Design | s9(2)(a) | 26.04.19 | Approved For Construction* |
| 00C | FOR TENDER | | 20.12.22 | 1:1000 | Drawn | | 26.04.19 | s9(2)(a) |
| 00B | FOR TENDER (EXTENT OF WORKS UPDATE) | | 27.09.21 | | Dsg Verifier | | 26.04.19 | |
| 00A | FOR TENDER (LRP EXTENT SHOWN) | | 02.10.20 | | Dwg Check | | 26.04.19 | Date 07.07.23 |
| No. | Revision | By | Chk | Appd | Date | * Refer to Revision 1 for Original Signature | | |



Project: SH16 - SAFETY IMPROVEMENTS
STAGE 1
HUAPAI TO WAIMAUKU

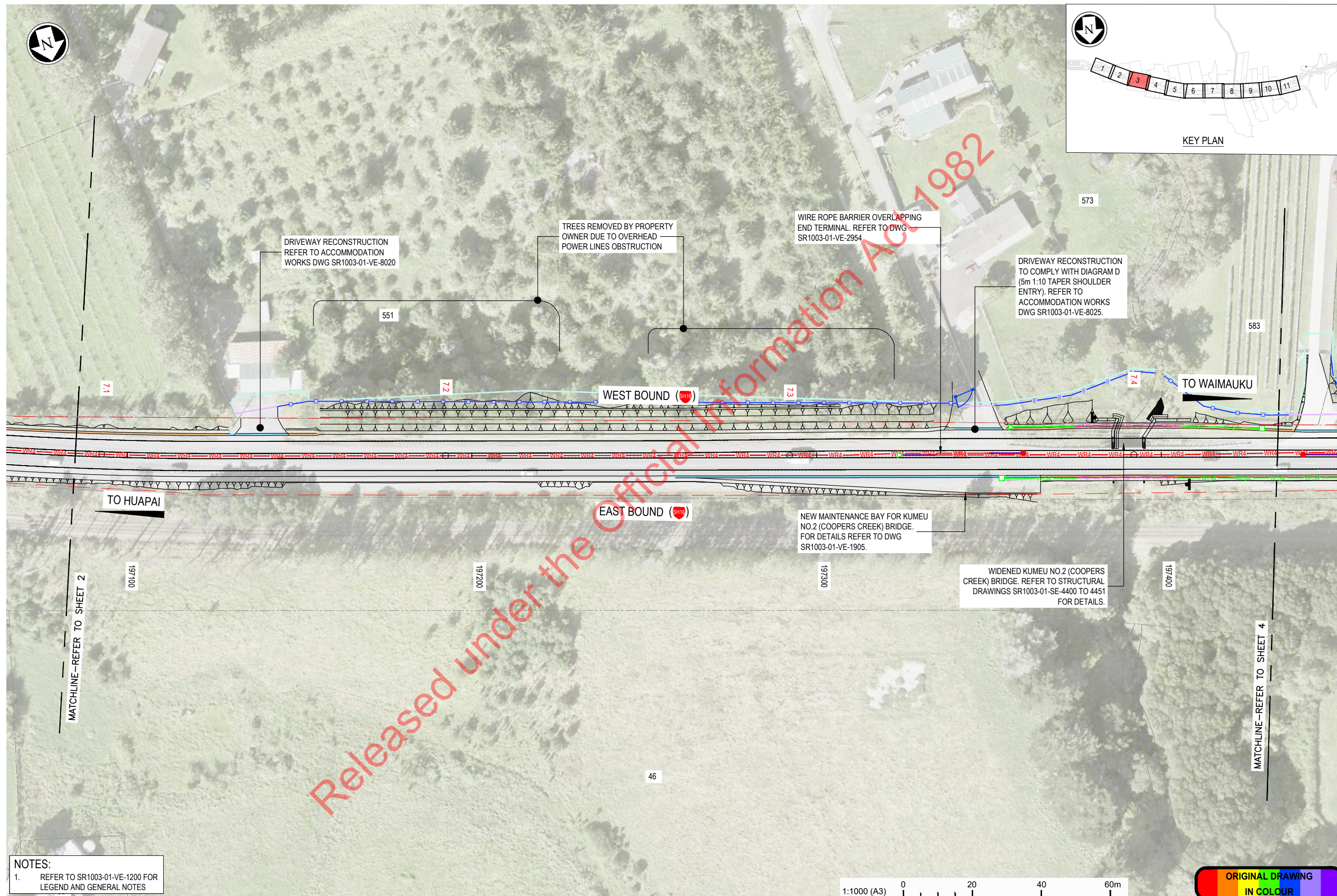
Title: GENERAL ARRANGEMENT PLAN
SHEET 2 OF 11

Status: **FOR CONSTRUCTION**
Drawing No. SR1003 - 01 - VE - 1202
Rev. 1

100mm

SCALE FOR VALIDATING SIZE OF A3 PLOT ONLY

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NOTES:
1. REFER TO SR1003-01-VE-1200 FOR LEGEND AND GENERAL NOTES



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| 1 | FOR CONSTRUCTION | s9(2)(a) | 07.07.23 | Original Scale (A3) | Design | s9(2)(a) | 26.04.19 | Approved For Construction* |
| 00C | FOR TENDER | | 20.12.22 | 1:1000 | Drawn | | 26.04.19 | |
| 00B | FOR TENDER (EXTENT OF WORKS UPDATE) | | 27.09.21 | | Dwg Verifier | | 26.04.19 | s9(2)(a) |
| 00A | FOR TENDER (LRP EXTENT SHOWN) | | 02.10.20 | | Dwg Check | | 26.04.19 | Date 07.07.23 |
| No. | Revision | By | Chk | Appd | Date | | | * Refer to Revision 1 for Original Signature |



Project: SH16 - SAFETY IMPROVEMENTS
STAGE 1
HUAPAI TO WAIMAUKU

Title: GENERAL ARRANGEMENT PLAN
SHEET 3 OF 11

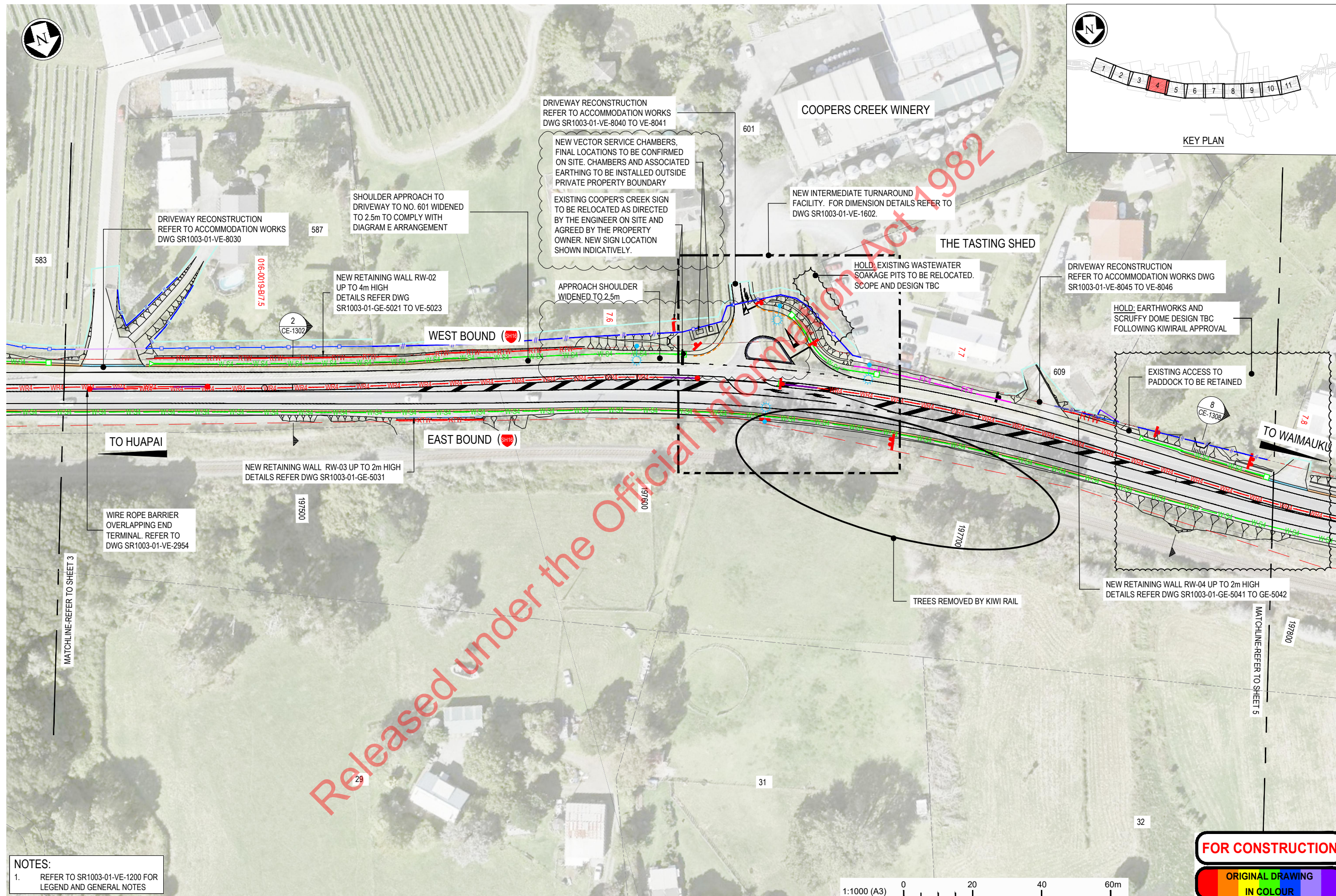
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| Drawing No. | SR1003 - 01 - VE - 1203 | Rev. |
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SCALE FOR VALIDATING SIZE OF A3 PLOT ONLY

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NOTES:
1. REFER TO SR1003-01-VE-1200 FOR LEGEND AND GENERAL NOTES

1:1000 (A3) 0 20 40 60m

FOR CONSTRUCTION
ORIGINAL DRAWING
IN COLOUR

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| 2 | FOR CONSTRUCTION | s9(2)(a) | 18.06.24 | Original Scale (A3) | Design | s9(2)(a) | 26.04.19 | Approved For Construction |
| 2C | FOR KIWIRAIL REVIEW | | 10.06.24 | 1:1000 | Drawn | | 26.04.19 | s9(2)(a) |
| 2B | FOR LANDOWNER REVIEW | | 17.05.24 | | Dwg Verifier | | 26.04.19 | |
| 2A | FOR NZTA REVIEW | | 29.04.24 | | Dwg Check | | 26.04.19 | Date 07.07.23 |
| No. | Revision | By | Chk | Appd | Date | | | |



Project: SH16 - SAFETY IMPROVEMENTS
STAGE 1
HUAPAI TO WAIMAUKU

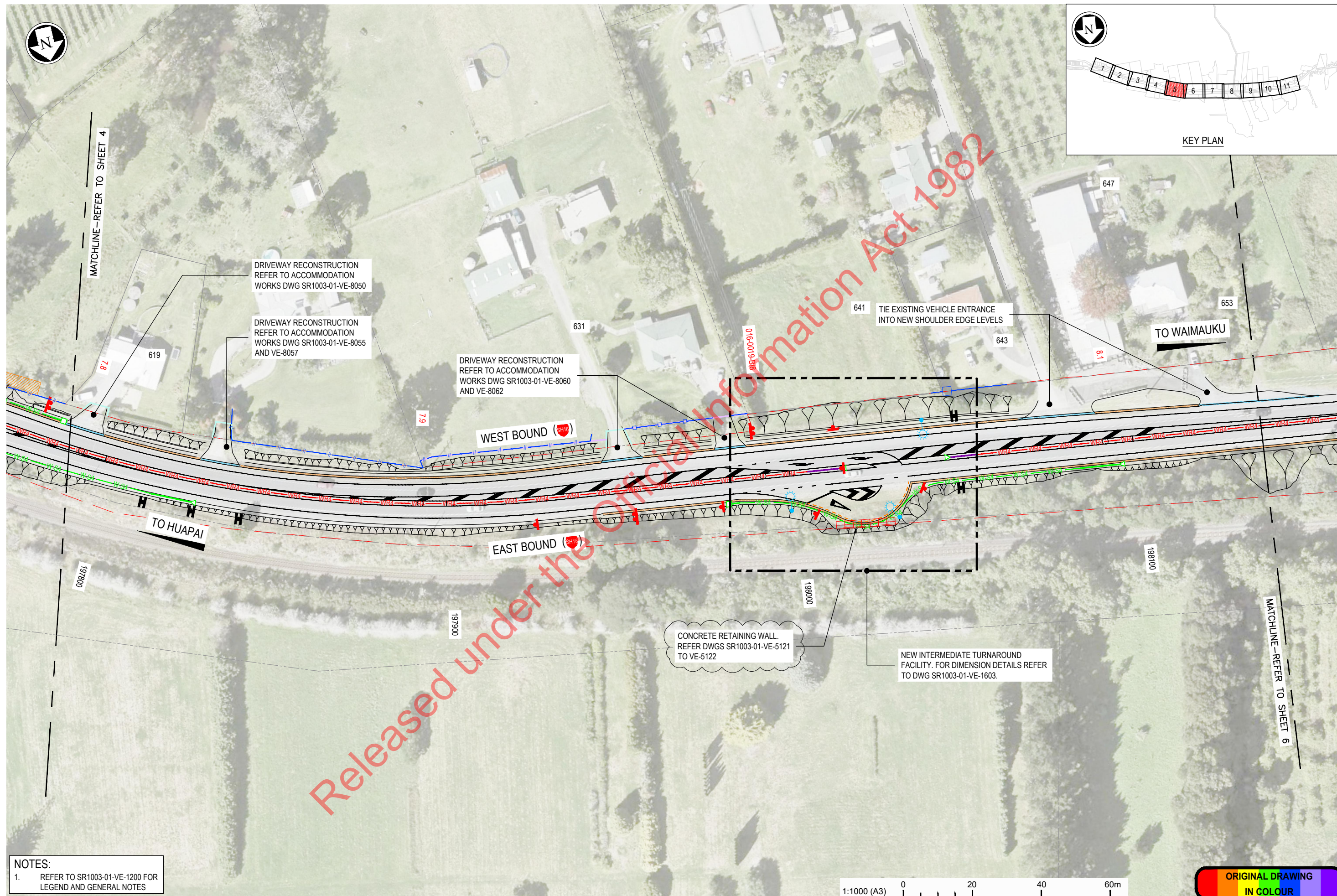
Title: GENERAL ARRANGEMENT PLAN
SHEET 4 OF 11

Status: **FOR CONSTRUCTION**
Drawing No. SR1003 - 01 - VE - 1204
Rev. 2

100mm

SCALE FOR VALIDATING SIZE OF A3 PLOT ONLY

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NOTES:
1. REFER TO SR1003-01-VE-1200 FOR
LEGEND AND GENERAL NOTES

1:1000 (A3) 0 20 40 60m

ORIGINAL DRAWING
IN COLOUR

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| 1 | FOR CONSTRUCTION | s9(2)(a) | 07.07.23 | Original Scale (A3) | Design | s9(2)(a) | 26.04.19 | Approved For Construction* |
| 00C | FOR TENDER | | 20.12.22 | 1:1000 | Drawn | | 26.04.19 | s9(2)(a) |
| 00B | FOR TENDER (EXTENT OF WORKS UPDATE) | | 27.09.21 | | Dwg Verifier | | 26.04.19 | |
| 00A | FOR TENDER (LRP EXTENT SHOWN) | | 02.10.20 | | Dwg Check | | 26.04.19 | Date 07.07.23 |
| No. | Revision | By | Chk | Appd | Date | | | * Refer to Revision 1 for Original Signature |



Project: SH16 - SAFETY IMPROVEMENTS
STAGE 1
HUAPAI TO WAIMAUKU

Title: GENERAL ARRANGEMENT PLAN
SHEET 5 OF 11

Status: **FOR CONSTRUCTION**
Drawing No. SR1003 - 01 - VE - 1205
Rev. 1

DO NOT SCALE

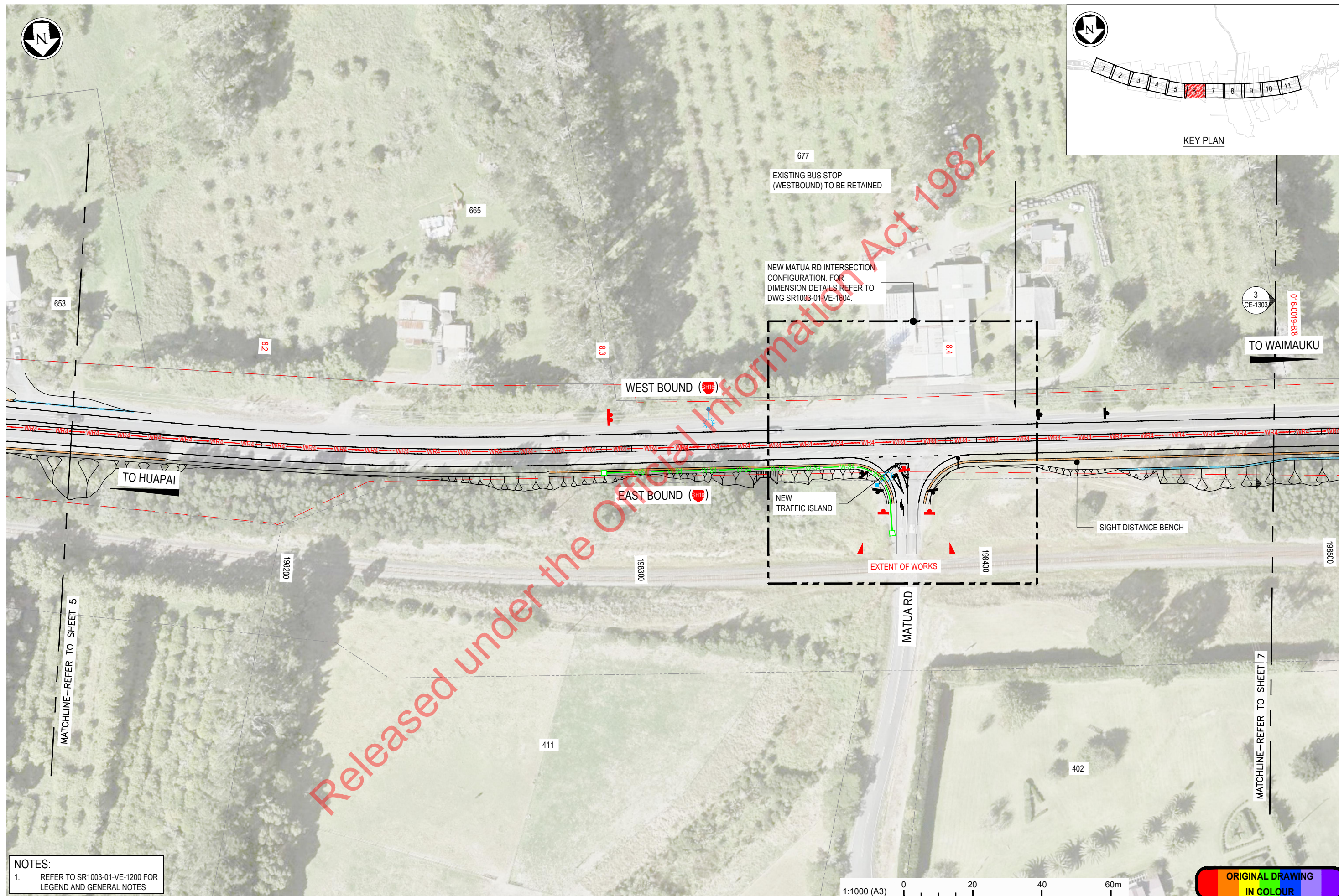
IF IN DOUBT ASK

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100mm

SCALE FOR VALIDATING SIZE OF A3 PLOT ONLY

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NOTES:
1. REFER TO SR1003-01-VE-1200 FOR LEGEND AND GENERAL NOTES

1:1000 (A3) 0 20 40 60m

ORIGINAL DRAWING
IN COLOUR

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| 1 | FOR CONSTRUCTION | s9(2)(a) | 07.07.23 | Original Scale (A3) | Design | s9(2)(a) | 26.04.19 | Approved For Construction* |
| 00C | FOR TENDER | | 20.12.22 | 1:1000 | Drawn | | 26.04.19 | s9(2)(a) |
| 00B | FOR TENDER (EXTENT OF WORKS UPDATE) | | 27.09.21 | | Desg Verifier | | 26.04.19 | |
| 00A | FOR TENDER (LRP EXTENT SHOWN) | | 02.10.20 | | Dwg Check | | 26.04.19 | Date 07.07.23 |
| No. | Revision | By | Chk | Appd | Date | * Refer to Revision 1 for Original Signature | | |



Project: SH16 - SAFETY IMPROVEMENTS
STAGE 1
HUAPAI TO WAIMAUKU

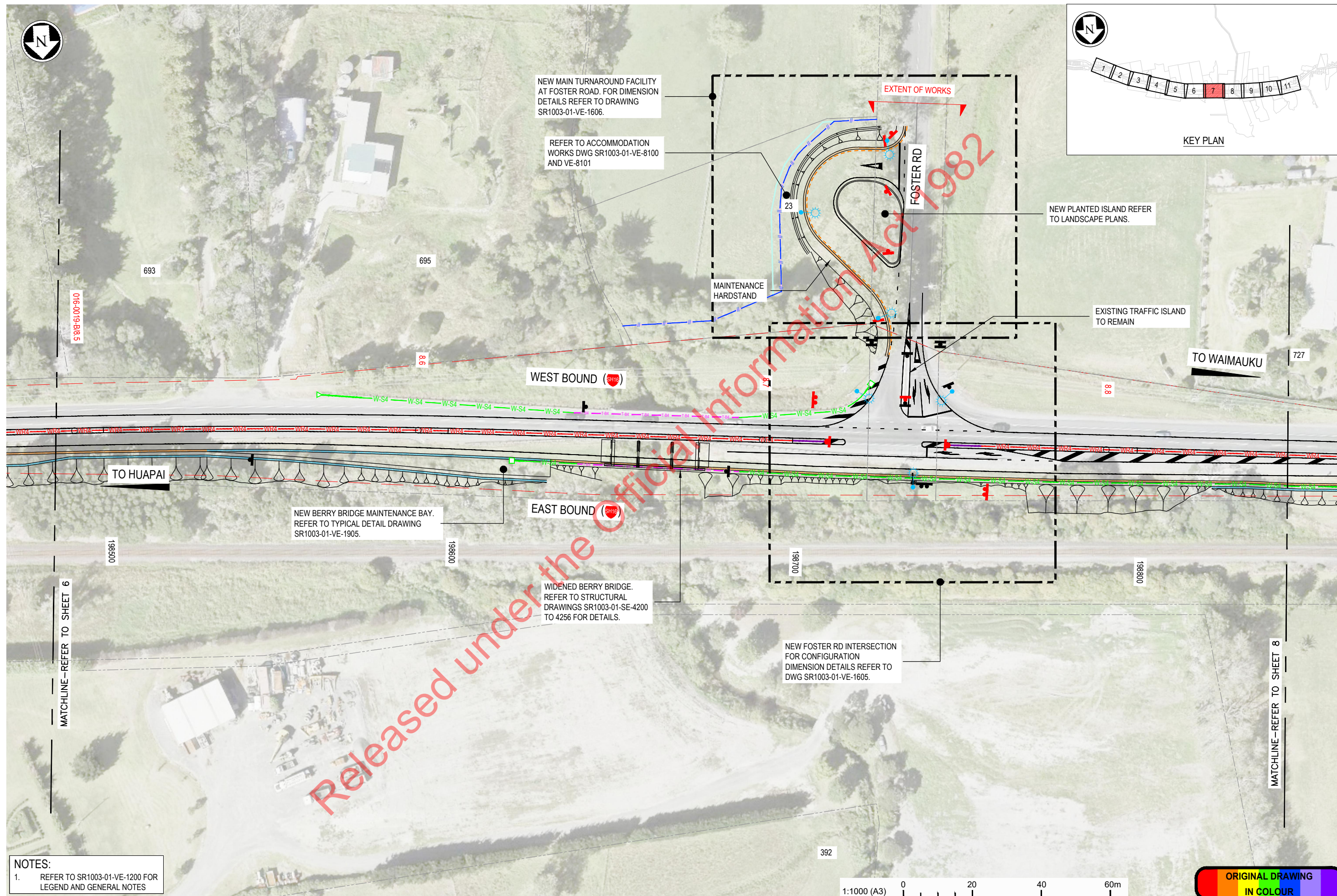
Title: GENERAL ARRANGEMENT PLAN
SHEET 6 OF 11

Status: **FOR CONSTRUCTION**
Drawing No. SR1003 - 01 - VE - 1206
Rev. 1

100mm

SCALE FOR VALIDATING SIZE OF A3 PLOT ONLY

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NOTES:
1. REFER TO SR1003-01-VE-1200 FOR
LEGEND AND GENERAL NOTES

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| 1 | FOR CONSTRUCTION | s9(2)(a) | 07.07.23 | Original | Design | s9(2)(a) | 26.04.19 | Approved For |
| 00C | FOR TENDER | | 20.12.22 | Scale (A3) | Drawn | | 26.04.19 | Construction* |
| 00B | FOR TENDER (EXTENT OF WORKS UPDATE) | | 27.09.21 | 1:1000 | Dwg Verifier | | 26.04.19 | s9(2)(a) |
| 00A | FOR TENDER (LRP EXTENT SHOWN) | | 02.10.20 | | Dwg Check | | 26.04.19 | Date 07.07.23 |
| No. | Revision | By | Chk | Appd | Date | | | * Refer to Revision 1 for Original Signature |



Project: SH16 - SAFETY IMPROVEMENTS
STAGE 1
HUAPAI TO WAIMAUKU

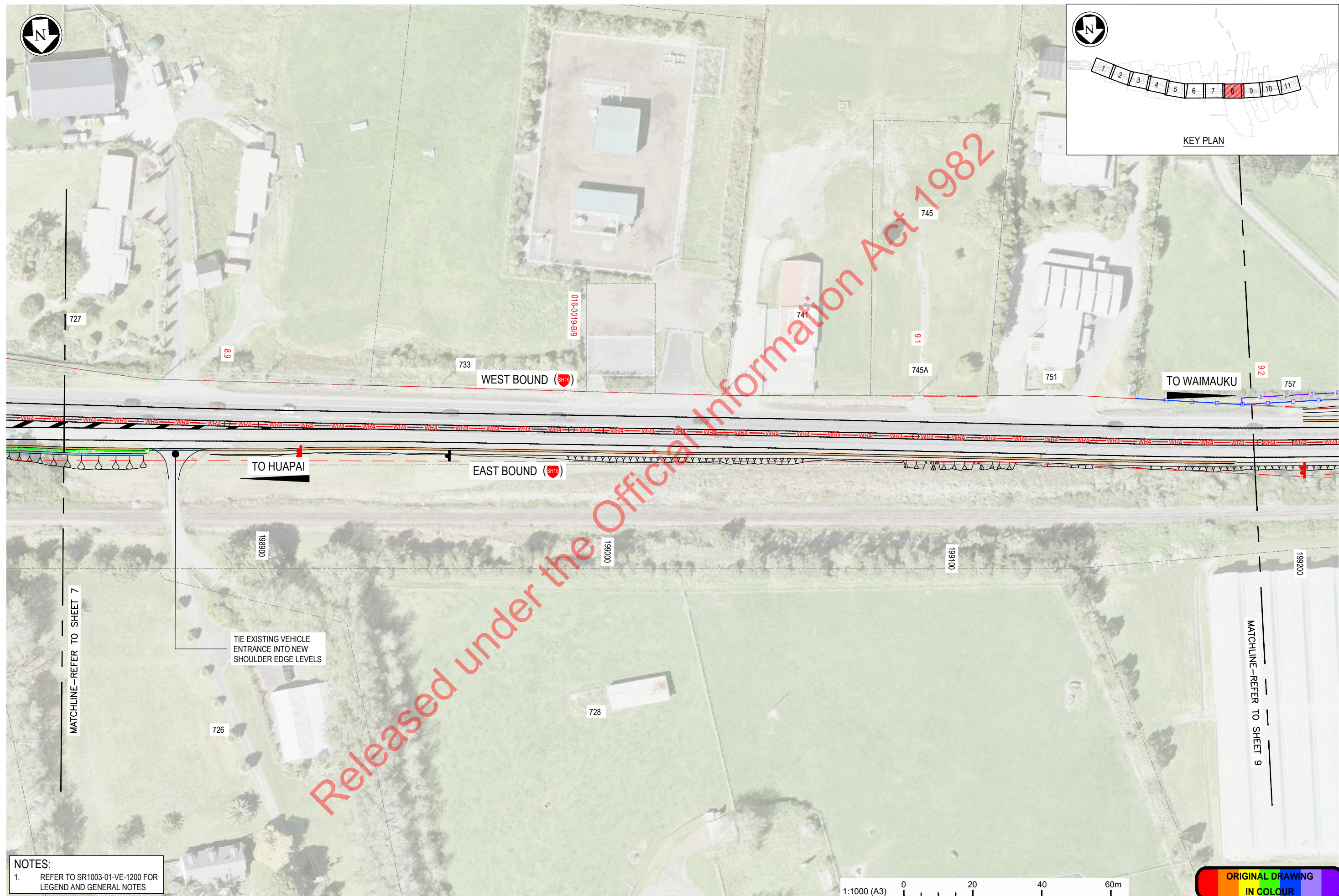
Title: GENERAL ARRANGEMENT PLAN
SHEET 7 OF 11

Status: **FOR CONSTRUCTION**
Drawing No. SR1003 - 01 - VE - 1207
Rev. 1

100mm

SCALE FOR VALIDATING SIZE OF A3 PLOT ONLY

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NOTES:
1. REFER TO SR1003-01-VE-1200 FOR LEGEND AND GENERAL NOTES

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|-----|-------------------------------------|----------|----------|
| 1 | FOR CONSTRUCTION | s9(2)(a) | 07.07.23 |
| 00C | FOR TENDER | | 20.12.22 |
| 00B | FOR TENDER (EXTENT OF WORKS UPDATE) | | 27.09.21 |
| 00A | FOR TENDER (LRP EXTENT SHOWN) | | 02.10.20 |
| No. | Revision | By | Chk |
| | | Appd | Date |

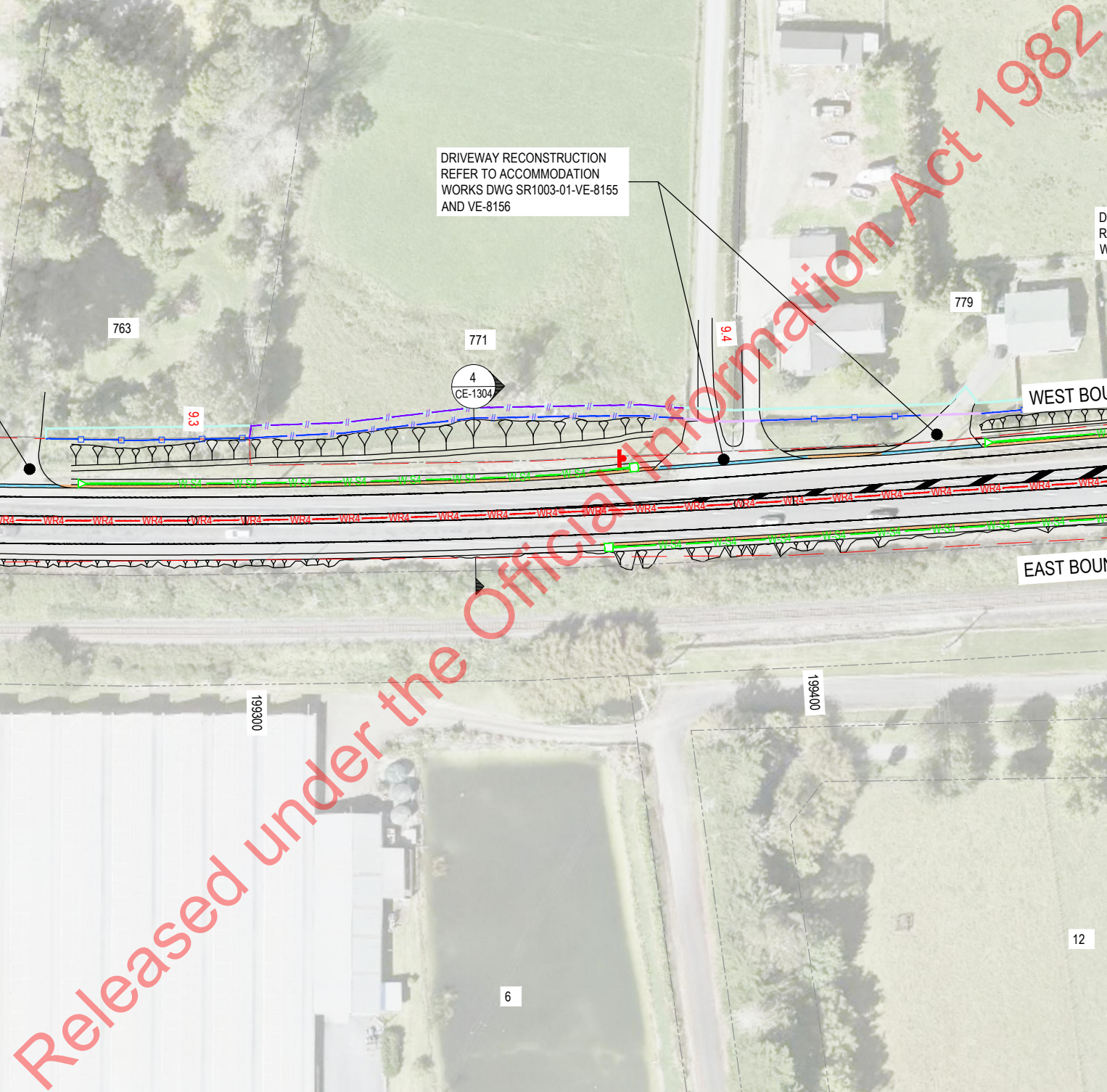
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| Original Scale (A3) | Design | s9(2)(a) | 26.04.19 | Approved For Construction |
| 1:1000 | Drawn | | 26.04.19 | s9(2)(a) |
| | Dwg Verifier | | 26.04.19 | |
| | Dwg Check | | 26.04.19 | Date 07.07.23 |
| * Refer to Revision 1 for Original Signature | | | | |



Project: SH16 - SAFETY IMPROVEMENTS
STAGE 1
HUAPAI TO WAIMAUKU

Title: GENERAL ARRANGEMENT PLAN
SHEET 8 OF 11

Status: **FOR CONSTRUCTION**
Drawing No. SR1003 - 01 - VE - 1208
Rev. 1



NOTES:

1. REFER TO SR1003-01-VE-1200 FOR
LEGEND AND GENERAL NOTES

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|-----|--------------------------------------|--|----------|--|---------------------|---------------|----------|--|---------------------------|
| 1 | FOR CONSTRUCTION | | 07.07.23 | | Original Scale (A3) | Design | s9(2)(a) | 26.04.19 | Approved For Construction |
| 00C | FOR TENDER | | 20.12.22 | | 1:1000 | Drawn | | 26.04.19 | |
| 00B | FOR TENDER (EXTENT OF WORKS UPDATE) | | 27.09.21 | | | Disg Verifier | | 26.04.19 | s9(2)(a) |
| 00A | FOR TENDER (LRP EXTENT SHOWN) | | 02.10.20 | | | Dwg Check | | 26.04.19 | Date 07.07.23 |
| No. | Revision | | By | | Chk | Appd | Date | * Refer to Revision 1 for Original Signature | |



Project: SH16 - SAFETY IMPROVEMENTS
STAGE 1
HUAPAI TO WAIMAUKU

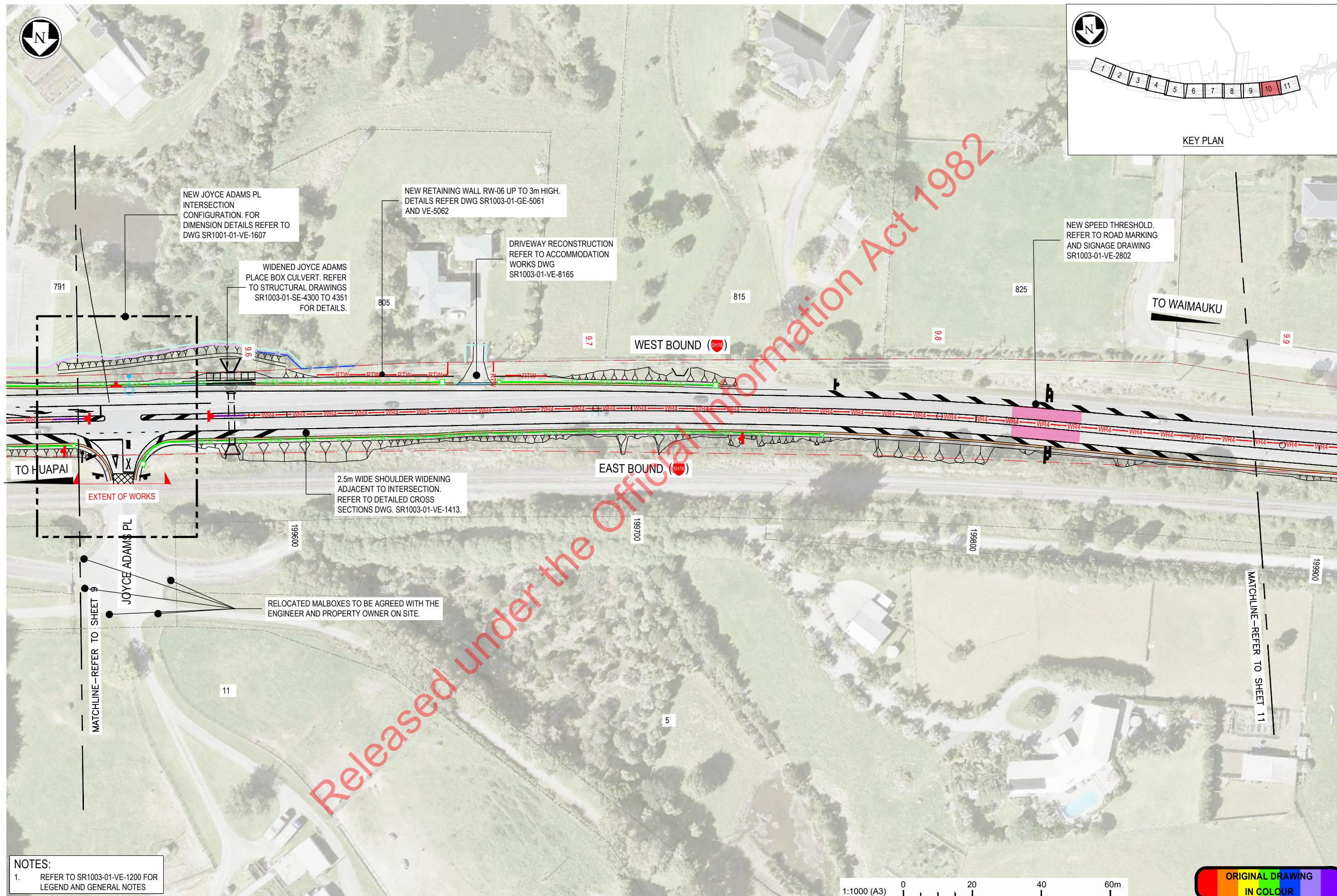
Title: GENERAL ARRANGEMENT PLAN
SHEET 9 OF 11

| | | | |
|-------------------------|--|-------------------------|--|
| Status. | | FOR CONSTRUCTION | |
| Drawing No. | | Rev. | |
| SR1003 - 01 - VE - 1209 | | 1 | |

100mm

SCALE FOR VALIDATING SIZE OF A3 PLOT ONLY

0



NOTES:
1. REFER TO SR1003-01-VE-1200 FOR
LEGEND AND GENERAL NOTES

1:1000 (A3) 0 20 40 60m

ORIGINAL DRAWING
IN COLOUR

| | | | | | | | | |
|-----|-------------------------------------|---------------------|----------|---|--------------|--|----------|---------------------------|
| 1 | FOR CONSTRUCTION | <div>s9(2)(a)</div> | 07.07.23 | <div>Original Scale (A3) 1:1000</div> | Design | <div>s9(2)(a)</div> | 26.04.19 | Approved For Construction |
| 00C | FOR TENDER | | 20.12.22 | | Drawn | | 26.04.19 | |
| 00B | FOR TENDER (EXTENT OF WORKS UPDATE) | | 27.09.21 | | Dwg Verifier | | 26.04.19 | <div>s9(2)(a)</div> |
| 00A | FOR TENDER (LRP EXTENT SHOWN) | | 02.10.20 | | Dwg Check | | 26.04.19 | Date 07.07.23 |
| No. | Revision | By | Chk | Appt | Date | * Refer to Revision 1 for Original Signature | | |



Project: SH16 - SAFETY IMPROVEMENTS
STAGE 1
HUAPAI TO WAIMAUKU

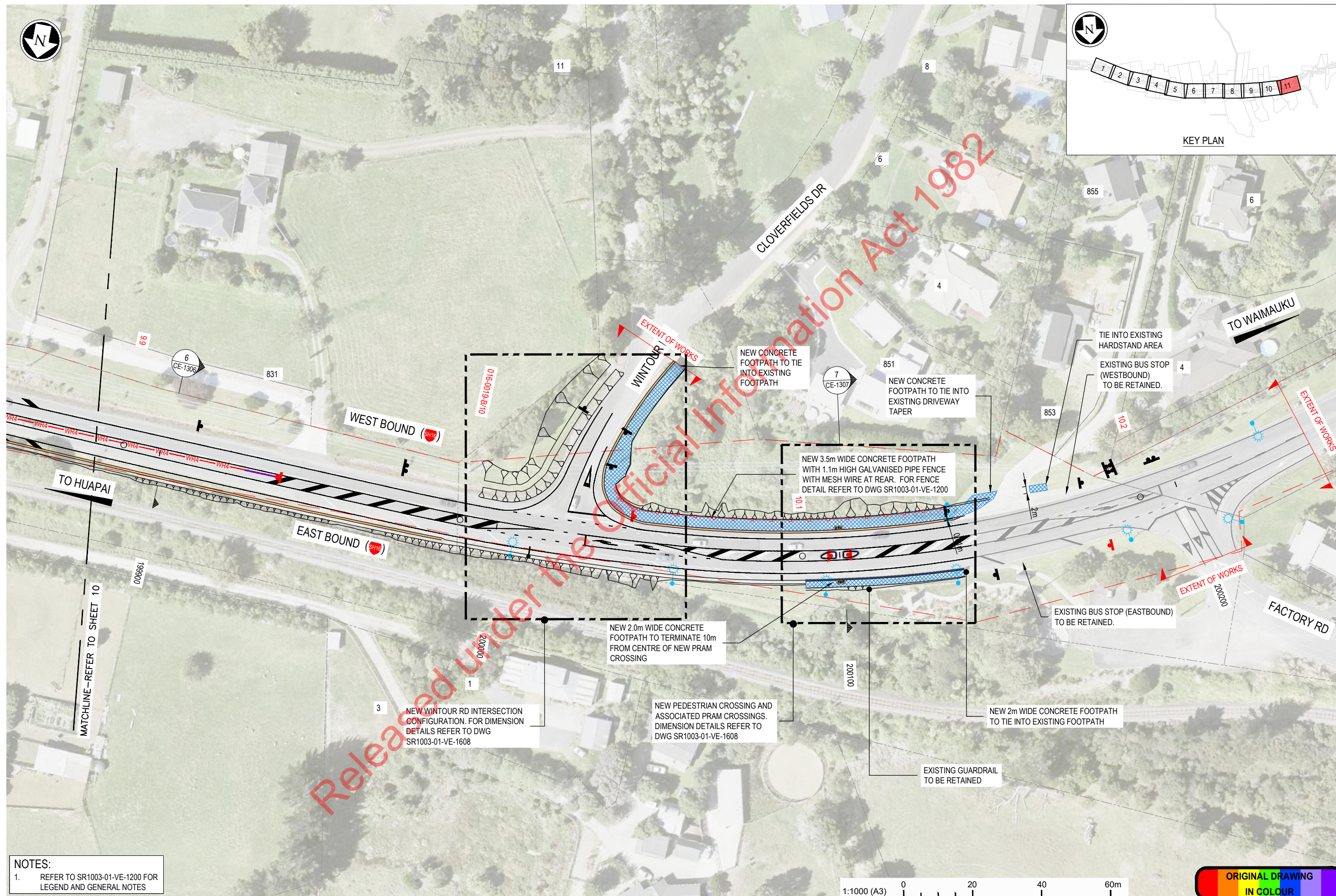
Title: GENERAL ARRANGEMENT PLAN
SHEET 10 OF 11

Status: **FOR CONSTRUCTION**
Drawing No. SR1003 - 01 - VE - 1210
Rev. 1

100mm

SCALE FOR VALIDATING SIZE OF A3 PLOT ONLY

0



NOTES:
1. REFER TO SR1003-01-VE-1200 FOR
LEGEND AND GENERAL NOTES

| | | | | | | | | |
|-----|-------------------------------------|----------|----------|---------------------|--------------|----------|----------|---------------------------|
| 1 | FOR CONSTRUCTION | s9(2)(a) | 07.07.23 | Original Scale (A3) | Design | s9(2)(a) | 26.04.19 | Approved For Construction |
| 00C | FOR TENDER | | 20.12.22 | 1:1000 | Drawn | | 26.04.19 | |
| 00B | FOR TENDER (EXTENT OF WORKS UPDATE) | | 27.09.21 | | Dwg Verifier | | 26.04.19 | |
| 00A | FOR TENDER (LRP EXTENT SHOWN) | | 02.10.20 | | Dwg Check | | 26.04.19 | Date 07.07.23 |
| No. | Revision | By | Chk | Appt | Date | | | |



Project: SH16 - SAFETY IMPROVEMENTS
STAGE 1
HUAPAI TO WAIMAUKU

Title: GENERAL ARRANGEMENT PLAN
SHEET 11 OF 11

Status: **FOR CONSTRUCTION**
Drawing No. SR1003 - 01 - VE - 1211
Rev. 1

GENERAL GROUND MOUNTED SIGNAGE NOTES:

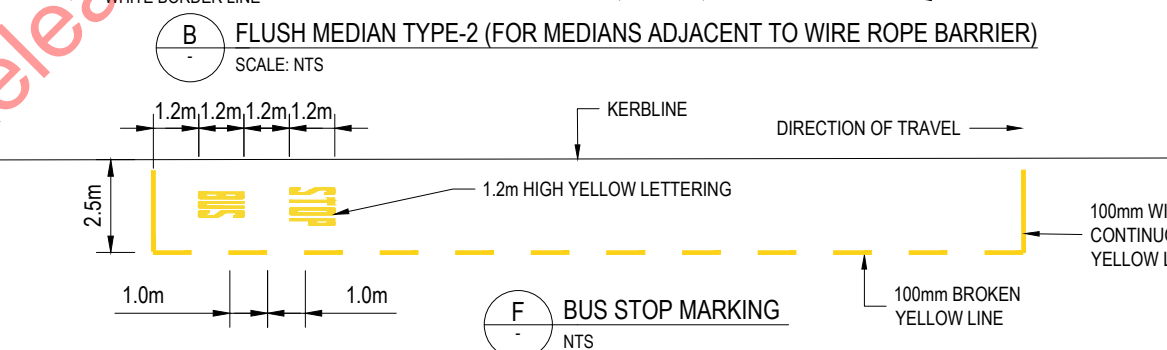
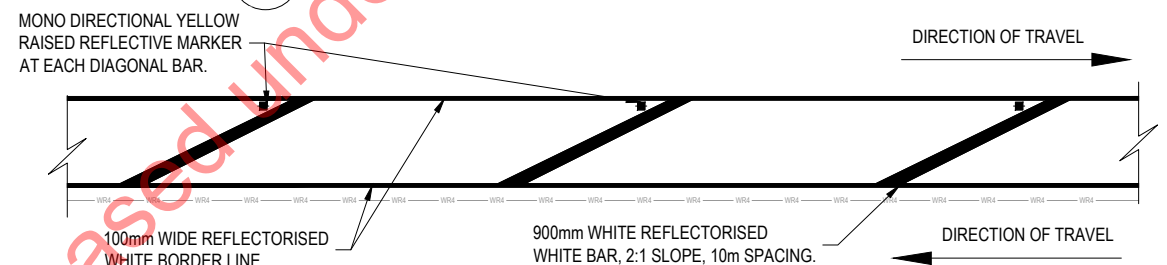
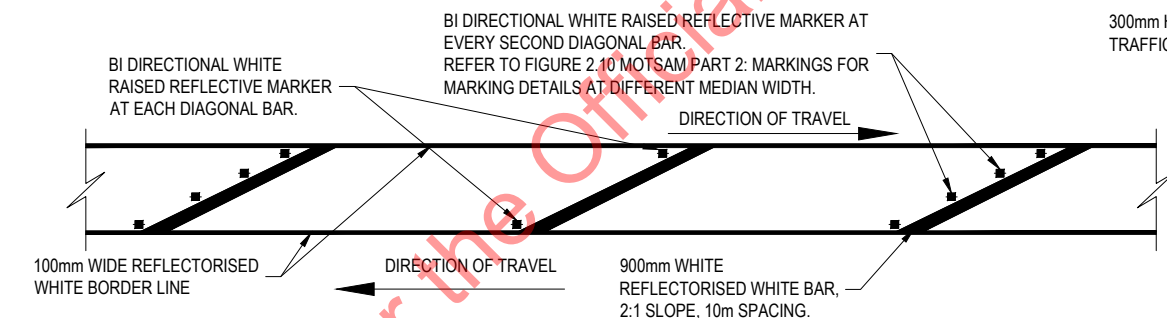
- THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH:
 - MOTSAM PART 1: SIGNAGE
 - NZTA TCD MANUAL PARTS 1, 2, 4, 5 AND 10
 - NZTA P24:2020 SPECIFICATION FOR PERMANENT TRAFFIC SIGNS
- ALL POSTS, HINGES, AND BREAKAWAY DEVICES FOR GROUND MOUNTED SIGNS WITHIN THE ROADSIDE CLEAR ZONE SHALL HAVE A PROVEN IMPACT REQUIREMENT. WHERE THE SIGN WITHIN THE ROADSIDE CLEAR ZONE IS SHIELDED BY A COMPLIANT ROAD SAFETY BARRIER, OR A FIXED IMPACT ATTENUATOR DESIGNED TO RESIST BOTH END-ON AND SIDE IMPACT BY VEHICLES, THE PROVEN IMPACT REQUIREMENT DOES NOT NEED TO COMPLY.
- ALL GROUND MOUNTED SIGN (UNLESS OTHERWISE NOTED ON DRAWINGS) SHALL BE LOCATED AS FOLLOWS:
 - LOCATED WITHIN MAXIMUM LATERAL CLEARANCE OF 5m TO THE NEAREST TRAFFIC LANE EDGE LINE.
 - FOR SIGN POST AND SMALL GROUND MOUNTED SIGNS (SIGN PANEL AREA LESS THAN 4.7m²), A MINIMUM LATERAL CLEARANCE OF 300mm TO THE NON-MOUNTABLE KERB OR A MINIMUM LATERAL CLEARANCE OF 500mm TO THE MOUNTABLE KERB, EDGE OF THE SHOULDER, FACE OF ROAD SAFETY BARRIER, OR BACK OF CHANNEL. REFER TO DETAIL D AND E.
 - ALL NEW SIGNS AND RELOCATED SIGNS ON SH16 WITHIN PROJECT EXTENT SHALL HAVE A MINIMUM LATERAL CLEARANCE OF 3m FROM THE NEAREST TRAFFIC LANE EDGE LINE. WHERE THIS MINIMUM CAN NOT BE ACHIEVED, THE CONSTRUCTOR SHALL NOTIFY THE ENGINEER AND ADVISE OF ANY PROPOSED RELOCATION OR SIGN POST MODIFICATION TO REMOVE THE CONFLICT. THE ENGINEER SHALL REVIEW AND COMMENT ON THE APPROPRIATENESS OF THE PROPOSED MODIFICATION PRIOR TO THE SIGN INSTALLATION.
- THE MINIMUM VERTICAL DISTANCE FOR GROUND MOUNTED SIGNS, MEASURED FROM THE UNDERSIDE OF THE SIGN OR THE LOWEST SIGN IN AN ASSEMBLY OF SIGNS, AND THE SURFACE OF THE ADJACENT ROAD PAVEMENT, TRAFFICABLE SHOULDER, OR TOP OF KERB AND/OR CHANNEL, WHICHEVER IS THE GREATER DIMENSION:
 - 2.0m METERS FOR ALL SIGNS ALONG THE STATE HIGHWAY OR LOCAL ROAD.
 - 2.5m METRES FOR ALL SIGNS LOCATED OVER FOOTPATHS AND SHARED PATHS.
- ALL GROUND MOUNTED SIGNS SHALL BE ORIENTATED SUCH THAT THEY ARE TURNED ABOUT 5 DEGREES AWAY FROM THE DRIVER'S LINE OF SIGHT OR THE NORMAL OF THE ROAD CENTRELINE.
- ALL SIGN FOUNDATIONS SHALL BE DESIGNED IN ACCORDANCE WITH THE REQUIREMENTS OF NZTA P24:2020 SPECIFICATION FOR PERMANENT TRAFFIC SIGNS.
- CHANNEL STIFFENING SPACING IN CONJUNCTION WITH POST SPACING SHALL BE CALCULATED IN ACCORDANCE WITH THE CHANNEL MANUFACTURER'S RECOMMENDATION AND CONFORM TO DEFLECTION REQUIREMENTS.
- THE CONSTRUCTOR SHALL INSTALL ALL SMALL SIGNS (SIGN PANEL AREA LESS THAN 4.7m²) AS PER STANDARD SIGN SUPPORTS AND FOUNDATION REQUIREMENTS STATED ON NZTA P24:2020 COMPLIANCE AND THE CONDITIONS AS DETAILED IN TECHNICAL SPECIFICATIONS.
- THE CONSTRUCTOR SHALL IDENTIFY AND LOCATE ALL EXISTING AND/OR NEW UTILITY AND DRAINAGE SERVICES AT THE POSITIONS OF THE GROUND MOUNTED SIGN INSTALLATIONS. WHERE THERE IS A CONFLICT WITH THESE SERVICES, THE CONSTRUCTOR SHALL NOTIFY THE ENGINEER AND ADVISE OF ANY PROPOSED RELOCATION OR FOUNDATION MODIFICATION TO REMOVE THE CONFLICT. THE ENGINEER SHALL REVIEW AND COMMENT ON THE APPROPRIATENESS OF THE PROPOSED MODIFICATION PRIOR TO THE SIGN INSTALLATION.
- ALL SIGNS SHALL HAVE POSITIONS CONFIRMED AND SIGHT LINES CHECKED ON SITE PRIOR TO FOUNDATION AND SIGN SUPPORTS BEING CONSTRUCTED. WHERE SITE CONDITIONS PREVENT THE SIGN FROM BEING PLACED IN POSITION, THE CONSTRUCTOR MAY REQUEST FOR A NEW LOCATION OF SIGN PROVIDING AGREEMENT WITH THE ENGINEER IS GIVEN. THIS MAY REQUIRE A MODIFICATION TO SIGN WORDING.
- ALL ACTIVE WARNING SIGNS SHALL BE INSTALLED IN ACCORDANCE TO NZTA P32:2011 SPECIFICATION FOR ELECTRONIC WARNING SIGNS ON STATE HIGHWAYS.

GENERAL PAVEMENT MARKING NOTES:

- ALL PAVEMENT MARKINGS AND RAISED REFLECTIVE PAVEMENT MARKERS (RRPM) SHALL COMPLY WITH THE REQUIREMENTS OF NZTA MANUAL OF TRAFFIC SIGNS AND MARKINGS AND RELATED DOCUMENTS.
 - PART 2: MARKING AND
 - PART 3: MOTORWAYS AND EXPRESSWAYS (2010) (ALSO REFERRED TO AS NZTA TCD MANUAL PART 10)
 - PART 4: TRAFFIC CONTROL DEVICES FOR GENERAL USE – AT INTERSECTIONS
 - PART 5: TRAFFIC CONTROL DEVICES FOR GENERAL USE – BETWEEN INTERSECTIONS
- ALL HIGH PERFORMANCE LONG LIFE (HPLL) MARKING SHALL BE INITIALLY MARKED WITH PILOT LINE IN PAINT. LONG LIFE MARKING SHALL BE IN ACCORDANCE WITH NZTA P30 LONG LIFE PAVEMENT MARKINGS MARKED THREE WEEKS AFTER APPLICATION OF THE PAINT MARKING.
- NO TEMPORARY ROAD MARKINGS SHALL BE APPLIED TO THE FINAL TOP WEARING COURSE OF ANY PAVEMENT.
- RAISED REFLECTIVE PAVEMENT MARKER (RRPM) TO COMPLY WITH NZTA P/14 AND TNZ M/12.
- AUDIO TACTILE PROFILED (ATP) SHALL NOT BE USED FOR EDGE LINE MARKING. REFER TO MOTSAM PART 2, SECTION 4.08.06(e).
- ALL W-BEAM LEADING END TERMINALS TO BE INSTALLED WITH REFLECTORISED HAZARD MARKER IN ACCORDANCE WITH MOTSAM PART 2: MARKINGS, SECTION 5.2, FIGURE 5.3.

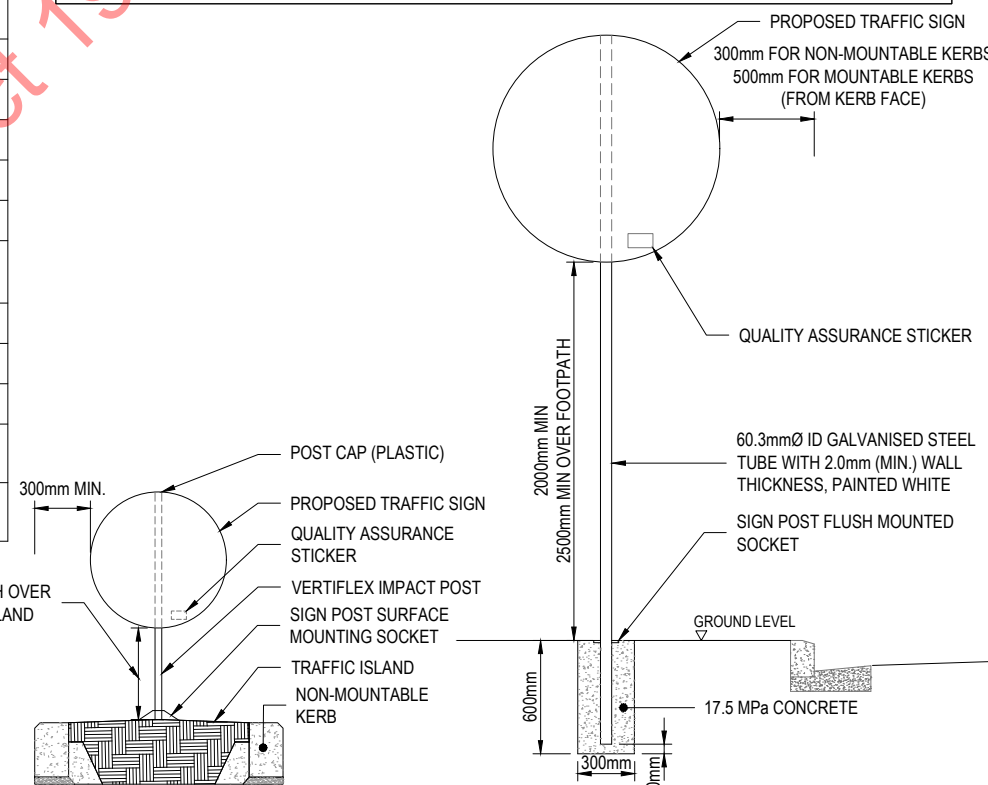
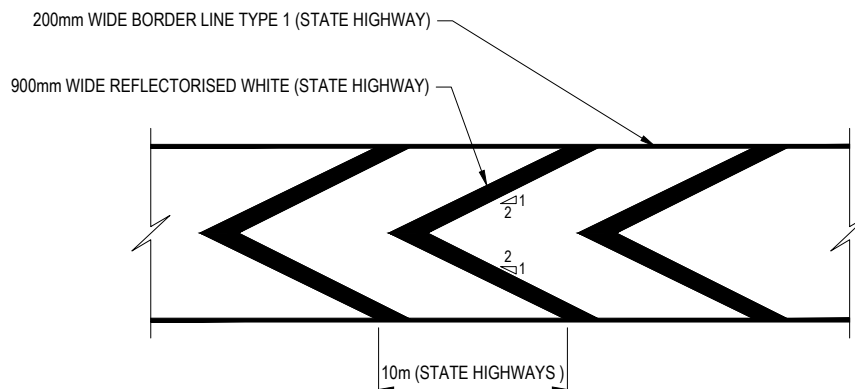
PAVEMENT MARKING SCHEDULE

| MARKING TYPE | DESCRIPTION |
|----------------------------------|--|
| LANE LINE TYPE 1 | 150mm WIDE REFLECTORISED CONTINUOUS WHITE LINE, HP LL MARKING WITH BI-DIRECTIONAL WHITE RAISED REFLECTIVE MARKERS AT 10m SPACING. |
| LANE LINE TYPE 2 | 200mm WIDE REFLECTORISED CONTINUOUS WHITE LINE, HP LL MARKING WITH MONO-DIRECTIONAL WHITE RAISED REFLECTIVE MARKERS AT 10m SPACING. |
| CONTINUITY LINE TYPE 1 | 200mm WIDE REFLECTORISED WHITE LINE, HP LL MARKING, 1m STRIPE 3m GAP. |
| CONTINUITY LINE TYPE 2 | 100mm WIDE REFLECTORISED WHITE LINE, HP LL MARKING, 1m STRIPE 3m GAP. |
| FLUSH MEDIAN TYPE 1 | 100mm WIDE REFLECTORISED WHITE BORDER, HP LL MARKING, 900mm WIDE REFLECTORISED WHITE BAR 2:1 SLOPE WITH BI-DIRECTIONAL WHITE RAISED REFLECTIVE MARKERS AT EACH DIAGONAL BAR. REFER TO DETAIL A. |
| FLUSH MEDIAN TYPE 2 | 100mm WIDE REFLECTORISED WHITE BORDER, HP LL MARKING, 900mm WIDE REFLECTORISED WHITE BAR 2:1 SLOPE WITH MONO-DIRECTIONAL YELLOW RAISED REFLECTIVE MARKERS AT EACH DIAGONAL BAR. REFER TO DETAIL B. |
| EDGE LINE TYPE 1 | 150mm WIDE REFLECTORISED CONTINUOUS WHITE LINE, HP LL MARKING. |
| EDGE LINE TYPE 2 | 100mm WIDE REFLECTORISED CONTINUOUS WHITE LINE, HP LL MARKING. |
| LIMIT LINE TYPE 1 | 300mm WIDE REFLECTORISED CONTINUOUS WHITE LINE, HP LL MARKING. |
| LIMIT LINE TYPE 2 | 300mm WIDE REFLECTORISED CONTINUOUS YELLOW LINE, HP LL MARKING. |
| DIRECTIONAL ARROW | REFLECTORISED WHITE LINE, HP LL MARKING. RURAL SIZE TO BE UTILISED AS PER MOTSAM PART 2, SECTION 3.05 |
| SYMBOL GIVEWAY | 6.1m LENGTH TRIANGLE SYMBOL, REFLECTORISED WHITE, HP LL MARKING. |
| NO STOPPING AT ALL TIMES (NSAAT) | 100mm WIDE REFLECTORISED YELLOW HP LL MARKING, 1m STRIPE, 1m GAP WHERE RESTRICTION IS LESS THAN 30m, 2m GAP WHERE RESTRICTION IS GREATER THAN 30m. |
| SYMBOL STOP | 3.6m HIGH LETTERING FOR 'STOP' TEXT, REFLECTORISED WHITE, HP LL MARKING. |
| CHEVRON MARKING TYPE 1 | 900mm WIDE REFLECTORISED WHITE, HP LL MARKING, 200mm WIDE BORDER LINE (STATE HIGHWAY). REFER TO DETAIL C. |
| BUS STOP MARKING | REFER TO DETAIL F |
| NO-OVERTAKING LINE | 2 x 100mm WIDE REFLECTORISED CONTINUOUS YELLOW LINES HP LL MARKING, 100mm APART WITH BI-DIRECTIONAL YELLOW RAISED REFLECTIVE MARKERS AT 10m SPACING LOCATED CENTRALLY |
| SHOULDER MARKING | 900mm WIDE REFLECTORISED WHITE BAR AT 10m SPACING, HP LL MARKING, 2:1 SLOPE WITH MONO-DIRECTIONAL RED RAISED REFLECTIVE MARKERS AT EACH DIAGONAL BAR. |



SIGNAGE LEGEND

| | | | |
|-------------|---|--------------|--------------------------------------|
| — | ROAD DESIGNATION | 499 | PROPERTY NUMBER |
| - - - | PROPERTY BOUNDARY | 196600 | CHAINAGE |
| [Green Box] | NEW SIGN FACE | (G) | GROUND MOUNTED SIGN |
| [Grey Box] | EXISTING SIGN FACE | AD-1 | MOTSAM SIGN REFERENCE |
| [Red Box] | NEW MULTI-POST / SINGLE POST MOUNTED SIGN | [Light Pole] | LIGHT POLE |
| [Blue Box] | EXISTING SIGN TO BE REMOVED | — | PROPOSED WIRE ROPE BARRIER |
| [Black Box] | EXISTING SIGN TO BE RETAINED OR RELOCATED OUTSIDE WIDENING EDGE | — | PROPOSED W-SECTION BARRIER |
| [Black Box] | EXISTING STREET NAME SIGN TO BE RETAINED OR RELOCATED | — | EXISTING LINE MARKING TO BE RETAINED |
| [Blue Line] | NEW LINE MARKING | | |

D TYPICAL SIGN INSTALLATION ON TRAFFIC ISLAND
SCALE: NTSE TYPICAL SIGN INSTALLATION DETAIL
SCALE: NTSC TYPE 1 CHEVRON MARKINGS
SCALE: NTS

| | | | |
|-----|------------------|----------|----------|
| 1 | FOR CONSTRUCTION | s9(2)(a) | 07.07.23 |
| 00 | FOR TENDER | | 27.07.20 |
| No. | Revision | By | Chk |

| | | | |
|-------------------------|-----------------|----------|----------------------------|
| Original Scale (A3) NTS | Design s9(2)(a) | 21.12.18 | Approved For Construction* |
| | Drawn | 21.12.18 | s9(2)(a) |
| | Dwg Verifier | 21.12.18 | |
| | Dwg Check | 21.12.18 | Date 07.07.23 |



Project: SH16 - SAFETY IMPROVEMENTS
STAGE 1
HUAPAI TO WAIMAUKU

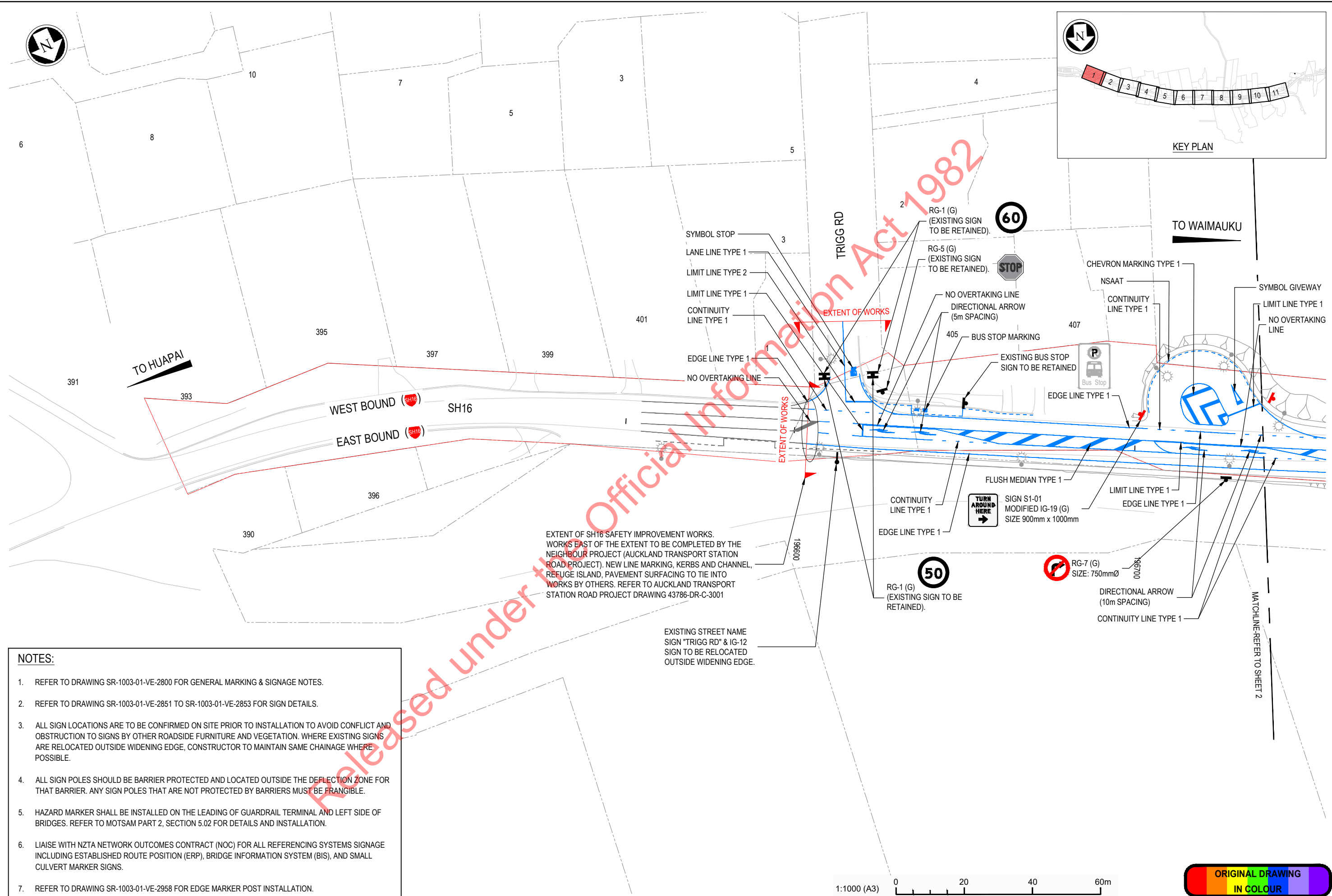
Title: ROAD MARKING AND SIGNAGE PLAN
GENERAL NOTES, TYPICAL DETAILS
AND LEGEND

Status: **FOR CONSTRUCTION**
Drawing No. SR1003 - 01 - VE - 2800
Rev. 1

SCALE FOR VALIDATING SIZE OF A3 PLOT ONLY

0

100mm



NOTES:

- REFER TO DRAWING SR-1003-01-VE-2800 FOR GENERAL MARKING & SIGNAGE NOTES.
- REFER TO DRAWING SR-1003-01-VE-2851 TO SR-1003-01-VE-2853 FOR SIGN DETAILS.
- ALL SIGN LOCATIONS ARE TO BE CONFIRMED ON SITE PRIOR TO INSTALLATION TO AVOID CONFLICT AND OBSTRUCTION TO SIGNS BY OTHER ROADSIDE FURNITURE AND VEGETATION. WHERE EXISTING SIGNS ARE RELOCATED OUTSIDE WIDENING EDGE, CONSTRUCTOR TO MAINTAIN SAME CHAINAGE WHERE POSSIBLE.
- ALL SIGN POLES SHOULD BE BARRIER PROTECTED AND LOCATED OUTSIDE THE DEFLECTION ZONE FOR THAT BARRIER. ANY SIGN POLES THAT ARE NOT PROTECTED BY BARRIERS MUST BE FRANGIBLE.
- HAZARD MARKER SHALL BE INSTALLED ON THE LEADING OF GUARDRAIL TERMINAL AND LEFT SIDE OF BRIDGES. REFER TO MOTSAM PART 2, SECTION 5.02 FOR DETAILS AND INSTALLATION.
- LIAISE WITH NZTA NETWORK OUTCOMES CONTRACT (NOC) FOR ALL REFERENCING SYSTEMS SIGNAGE INCLUDING ESTABLISHED ROUTE POSITION (ERP), BRIDGE INFORMATION SYSTEM (BIS), AND SMALL CULVERT MARKER SIGNS.
- REFER TO DRAWING SR-1003-01-VE-2958 FOR EDGE MARKER POST INSTALLATION.

| | | | | | | | |
|-----|---|----------|----------|----------------------------|--------------|----------|----------------------------|
| 1 | FOR CONSTRUCTION | s9(2)(a) | 07.07.23 | Original Scale (A3) 1:1000 | Design | 21.12.18 | Approved For Construction* |
| 00C | FOR TENDER | | 20.12.22 | | Drawn | 21.12.18 | |
| 00B | FOR TENDER (EXTENT OF WORKS UPDATE) | | 04.10.21 | | Dwg Verifier | 21.12.18 | |
| 00A | FOR TENDER (UPDATED EXISTING SIGN LOCATION) | | 04.11.20 | | Dwg Check | 21.12.18 | |
| No. | Revision | By | Chk | Appd | Date | | Date 07.07.23 |



Project: SH16 - SAFETY IMPROVEMENTS
STAGE 1
HUAPAI TO WAIMAUKU

Title: ROAD MARKING AND SIGNAGE PLAN
SHEET 1 OF 11

Status: **FOR CONSTRUCTION**
Drawing No. SR1003 - 01 - VE - 2801
Rev. 1

100mm

SCALE FOR VALIDATING SIZE OF A3 PLOT ONLY

0

10000

51

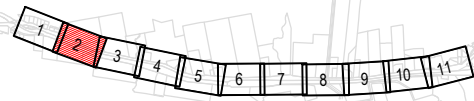
1:1000 (A3)

0

20

40

60m



KEY PLAN

TO HUAPAI

RG-6 (G)
SIZE: 750mm x 865mmRG-17.1 (G)
SIZE: 300mmØFLUSH MEDIAN
TYPE 2TRAFFIC PATROL SIGN
(EXISTING SIGN TO BE
RELOCATED OUTSIDE
WIDENING EDGE).PN-2 (G)
(EXISTING SIGN TO
BE RELOCATED TO
CHAINAGE 196900).

WEST BOUND (SH16)

TO WAIMAUKU

EDGE LINE TYPE 1

SH16

EAST BOUND (SH16)

THRESHOLD RED MARKING
(AS2700 S-2011 COLOUR
R13 SIGNAL RED)
LENGTH = 20m
WIDTH = LANE WIDTHSIGN S1-04
MODIFIED IG-17 (G)
SIZE: 1400mm x 900mmSIGN S1-03
MODIFIED IG-17 (G)
SIZE: 1400mm x 750mm

NOTES:

- REFER TO DRAWING SR-1003-01-VE-2800 FOR GENERAL MARKING & SIGNAGE NOTES.
- REFER TO DRAWING SR-1003-01-VE-2851 TO SR-1003-01-VE-2853 FOR SIGN DETAILS.
- ALL SIGN LOCATIONS ARE TO BE CONFIRMED ON SITE PRIOR TO INSTALLATION TO AVOID CONFLICT AND OBSTRUCTION TO SIGNS BY OTHER ROADSIDE FURNITURE AND VEGETATION. WHERE EXISTING SIGNS ARE RELOCATED OUTSIDE WIDENING EDGE, CONSTRUCTOR TO MAINTAIN SAME CHAINAGE WHERE POSSIBLE.
- ALL SIGN POLES SHOULD BE BARRIER PROTECTED AND LOCATED OUTSIDE THE DEFLECTION ZONE FOR THAT BARRIER. ANY SIGN POLES THAT ARE NOT PROTECTED BY BARRIERS MUST BE FRANGIBLE.
- HAZARD MARKER SHALL BE INSTALLED ON THE LEADING OF GUARDRAIL TERMINAL AND LEFT SIDE OF BRIDGES. REFER TO MOTSAM PART 2, SECTION 5.02 FOR DETAILS AND INSTALLATION.
- LIAISE WITH NZTA NETWORK OUTCOMES CONTRACT (NOC) FOR ALL REFERENCING SYSTEMS SIGNAGE INCLUDING ESTABLISHED ROUTE POSITION (ERP), BRIDGE INFORMATION SYSTEM (BIS), AND SMALL CULVERT MARKER SIGNS.
- REFER TO DRAWING SR-1003-01-VE-2958 FOR EDGE MARKER POST INSTALLATION.

| | | | | | | | | |
|-----|---|----------|----------|---------------------|--------------|----------|----------|---------------------------|
| 1 | FOR CONSTRUCTION | s9(2)(a) | 07.07.23 | Original Scale (A3) | Design | s9(2)(a) | 21.12.18 | Approved For Construction |
| 00B | FOR TENDER | | 20.12.22 | 1:1000 | Drawn | | 21.12.18 | |
| 00A | FOR TENDER (UPDATED EXISTING SIGN LOCATION) | | 04.11.20 | | Dwg Verifier | | 21.12.18 | |
| 00 | FOR TENDER | | 27.07.20 | | Dwg Check | | 21.12.18 | |
| No. | Revision | By | Chk | Appd | Date | | | Date 07.07.23 |

DO NOT SCALE



Project: SH16 - SAFETY IMPROVEMENTS
STAGE 1
HUAPAI TO WAIMAUKU

Title: ROAD MARKING AND SIGNAGE PLAN
SHEET 2 OF 11

Status: **FOR CONSTRUCTION**
Drawing No. SR1003 - 01 - VE - 2802
Rev. 1

IF IN DOUBT ASK

100mm

SCALE FOR VALIDATING SIZE OF A3 PLOT ONLY

0

197100

197200

197300

197400



TO HUAPAI

551

WEST BOUND (SH16)

EDGE LINE TYPE 1

EXISTING IG-14 "KUMEU NO 2
COOPERS CREEK" TO BE
RELOCATED OUTSIDE
WIDENING EDGE.

BRIDGE HAZARD MARKER
(REFER TO NOTE 5)

573

583

TO WAIMAUKU

EAST BOUND (SH16)

BRIDGE HAZARD MARKER
(REFER TO NOTE 5)

NOTES:

- REFER TO DRAWING SR-1003-01-VE-2800 FOR GENERAL MARKING & SIGNAGE NOTES.
- REFER TO DRAWING SR-1003-01-VE-2851 TO SR-1003-01-VE-2853 FOR SIGN DETAILS.
- ALL SIGN LOCATIONS ARE TO BE CONFIRMED ON SITE PRIOR TO INSTALLATION TO AVOID CONFLICT AND OBSTRUCTION TO SIGNS BY OTHER ROADSIDE FURNITURE AND VEGETATION. WHERE EXISTING SIGNS ARE RELOCATED OUTSIDE WIDENING EDGE, CONSTRUCTOR TO MAINTAIN SAME CHAINAGE WHERE POSSIBLE.
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- HAZARD MARKER SHALL BE INSTALLED ON THE LEADING OF GUARDRAIL TERMINAL AND LEFT SIDE OF BRIDGES. REFER TO MOTSAM PART 2, SECTION 5.02 FOR DETAILS AND INSTALLATION.
- LIAISE WITH NZTA NETWORK OUTCOMES CONTRACT (NOC) FOR ALL REFERENCING SYSTEMS SIGNAGE INCLUDING ESTABLISHED ROUTE POSITION (ERP), BRIDGE INFORMATION SYSTEM (BIS), AND SMALL CULVERT MARKER SIGNS.
- REFER TO DRAWING SR-1003-01-VE-2958 FOR EDGE MARKER POST INSTALLATION.

MATCHLINE-REFER TO SHEET 4

MATCHLINE-REFER TO SHEET 2

46

1:1000 (A3) 0 20 40 60m

ORIGINAL DRAWING
IN COLOUR

| | | | | | | | | |
|-----|---|----------|----------|---------------------|---------------|----------|----------|---------------------------|
| 1 | FOR CONSTRUCTION | s9(2)(a) | 07.07.23 | Original Scale (A3) | Design | s9(2)(a) | 21.12.18 | Approved For Construction |
| 00B | FOR TENDER | | 20.12.22 | 1:1000 | Drawn | | 21.12.18 | |
| 00A | FOR TENDER (UPDATED EXISTING SIGN LOCATION) | | 04.11.20 | | Desg Verifier | | 21.12.18 | s9(2)(a) |
| 00 | FOR TENDER | | 27.07.20 | | Dwg Check | | 21.12.18 | Date 07.07.23 |
| No. | Revision | By | Chk | Appd | Date | | | |



Project: SH16 - SAFETY IMPROVEMENTS
STAGE 1
HUAPAI TO WAIMAUKU

Title: ROAD MARKING AND SIGNAGE PLAN
SHEET 3 OF 11

Status: **FOR CONSTRUCTION**
Drawing No. SR1003 - 01 - VE - 2803
Rev. 1

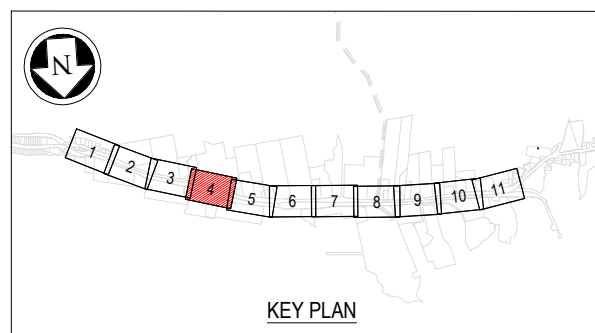
100mm

SCALE FOR VALIDATING SIZE OF A3 PLOT ONLY

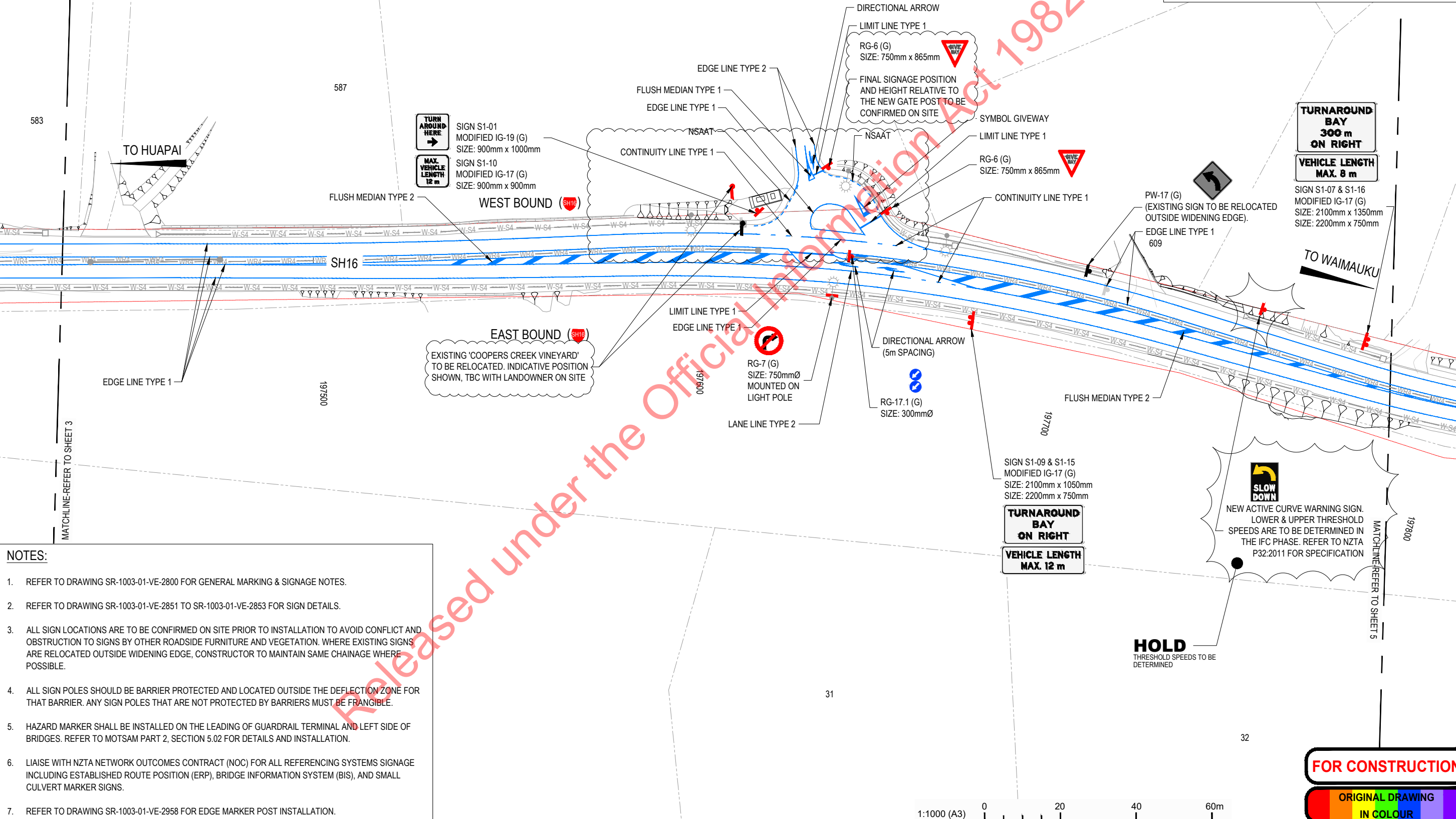
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197500

MATCHLINE-REFER TO SHEET 3



KEY PLAN



NOTES:

- REFER TO DRAWING SR-1003-01-VE-2800 FOR GENERAL MARKING & SIGNAGE NOTES.
- REFER TO DRAWING SR-1003-01-VE-2851 TO SR-1003-01-VE-2853 FOR SIGN DETAILS.
- ALL SIGN LOCATIONS ARE TO BE CONFIRMED ON SITE PRIOR TO INSTALLATION TO AVOID CONFLICT AND OBSTRUCTION TO SIGNS BY OTHER ROADSIDE FURNITURE AND VEGETATION. WHERE EXISTING SIGNS ARE RELOCATED OUTSIDE WIDENING EDGE, CONSTRUCTOR TO MAINTAIN SAME CHAINAGE WHERE POSSIBLE.
- ALL SIGN POLES SHOULD BE BARRIER PROTECTED AND LOCATED OUTSIDE THE DEFLECTION ZONE FOR THAT BARRIER. ANY SIGN POLES THAT ARE NOT PROTECTED BY BARRIERS MUST BE FRANGIBLE.
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- LIAISE WITH NZTA NETWORK OUTCOMES CONTRACT (NOC) FOR ALL REFERENCING SYSTEMS SIGNAGE INCLUDING ESTABLISHED ROUTE POSITION (ERP), BRIDGE INFORMATION SYSTEM (BIS), AND SMALL CULVERT MARKER SIGNS.
- REFER TO DRAWING SR-1003-01-VE-2958 FOR EDGE MARKER POST INSTALLATION.

| | | | | | | | | |
|-----|----------------------|----------|----------|----------------------------|--------------|----------|----------|----------------------------|
| 2 | FOR CONSTRUCTION | s9(2)(a) | 19.06.24 | Original Scale (A3) 1:1000 | Design | s9(2)(a) | 21.12.18 | Approved For Construction* |
| 2B | FOR LANDOWNER REVIEW | | 17.05.24 | | Drawn | | 21.12.18 | s9(2)(a) |
| 2A | FOR NZTA REVIEW | | 29.04.24 | | Dwg Verifier | | | |
| 1 | FOR CONSTRUCTION | | 07.07.23 | | Dwg Check | | | Date 07.07.23 |
| No. | Revision | By | Chk | Appd | Date | | | |

DO NOT SCALE



Project: SH16 - SAFETY IMPROVEMENTS
STAGE 1
HUAPAI TO WAIMAUKU

Title: ROAD MARKING AND SIGNAGE PLAN
SHEET 4 OF 11

Status: **FOR CONSTRUCTION**
Drawing No. SR1003 - 01 - VE - 2804
Rev. 2

100mm

SCALE FOR VALIDATING SIZE OF A3 PLOT ONLY

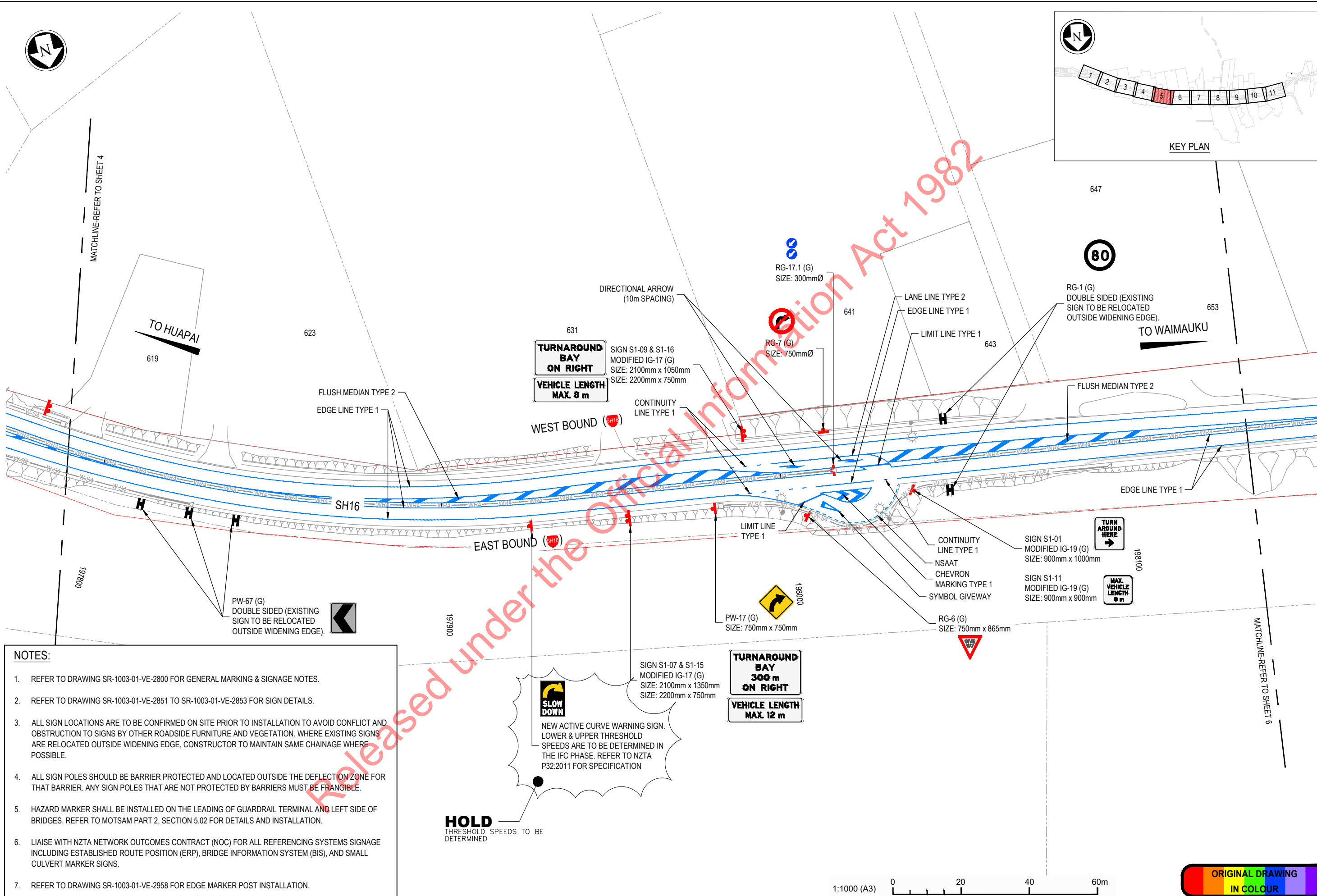
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100m

100m

100m

100m



- NOTES:**
- REFER TO DRAWING SR-1003-01-VE-2800 FOR GENERAL MARKING & SIGNAGE NOTES.
 - REFER TO DRAWING SR-1003-01-VE-2851 TO SR-1003-01-VE-2853 FOR SIGN DETAILS.
 - ALL SIGN LOCATIONS ARE TO BE CONFIRMED ON SITE PRIOR TO INSTALLATION TO AVOID CONFLICT AND OBSTRUCTION TO SIGNS BY OTHER ROADSIDE FURNITURE AND VEGETATION. WHERE EXISTING SIGNS ARE RELOCATED OUTSIDE WIDENING EDGE, CONSTRUCTOR TO MAINTAIN SAME CHAINAGE WHERE POSSIBLE.
 - ALL SIGN POLES SHOULD BE BARRIER PROTECTED AND LOCATED OUTSIDE THE DEFLECTION ZONE FOR THAT BARRIER. ANY SIGN POLES THAT ARE NOT PROTECTED BY BARRIERS MUST BE FRANGIBLE.
 - HAZARD MARKER SHALL BE INSTALLED ON THE LEADING OF GUARDRAIL TERMINAL AND LEFT SIDE OF BRIDGES. REFER TO MOTSAM PART 2, SECTION 5.02 FOR DETAILS AND INSTALLATION.
 - LIAISE WITH NZTA NETWORK OUTCOMES CONTRACT (NOC) FOR ALL REFERENCING SYSTEMS SIGNAGE INCLUDING ESTABLISHED ROUTE POSITION (ERP), BRIDGE INFORMATION SYSTEM (BIS), AND SMALL CULVERT MARKER SIGNS.
 - REFER TO DRAWING SR-1003-01-VE-2958 FOR EDGE MARKER POST INSTALLATION.

| | | | | | | | | | | | | | |
|-----|---|----------|----------|---------------------|--------|-----------------|----------|----------|----------------------------|----------|----------|------|----------|
| 1 | FOR CONSTRUCTION | s9(2)(a) | 07.07.23 | Original Scale (A3) | 1:1000 | Design | s9(2)(a) | 21.12.18 | Approved For Construction* | s9(2)(a) | 21.12.18 | Date | 07.07.23 |
| 00B | FOR TENDER | | 20.12.22 | | | Drawn | | 21.12.18 | | | | | |
| 00A | FOR TENDER (UPDATED EXISTING SIGN LOCATION) | | 04.11.20 | | | Design Verifier | | 21.12.18 | | | | | |
| 00 | FOR TENDER | | 27.07.20 | | | Dwg Check | | 21.12.18 | | | | | |
| No. | Revision | By | Chk | Appd | Date | | | | | | | | |

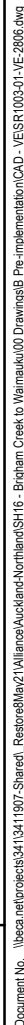


Project: SH16 - SAFETY IMPROVEMENTS
STAGE 1
HUAPAI TO WAIMAUKU

Title: ROAD MARKING AND SIGNAGE PLAN
SHEET 5 OF 11

| | |
|-------------|-------------------------|
| Status: | FOR CONSTRUCTION |
| Drawing No. | SR1003 - 01 - VE - 2805 |
| Rev. | 1 |





Title: ROAD MARKING AND SIGNAGE PLAN
SHEET 6 OF 11

| | | | |
|-------------|--|-------------------------|-----------|
| Status. | | FOR CONSTRUCTION | |
| Drawing No. | | SR1003 - 01 - VE - 2806 | Rev. 1 |

100mm

SCALE FOR VALIDATING SIZE OF A3 PLOT ONLY

0

MATCHLINE-REFER TO SHEET 6

| | | | | | |
|-----|---|----------|----------|-----|------|
| 1 | FOR CONSTRUCTION | s9(2)(a) | 07.07.23 | | |
| 00B | FOR TENDER | | 20.12.22 | | |
| 00A | FOR TENDER (UPDATED EXISTING SIGN LOCATION) | | 04.11.20 | | |
| 00 | FOR TENDER | | 27.07.20 | | |
| No. | Revision | | By | Chk | Appd |

| | | | | |
|--|--------------|----------|----------|----------------------------|
| Original Scale (A3) | Design | s9(2)(a) | 21.12.18 | Approved For Construction* |
| 1:1000 | Drawn | | 21.12.18 | s9(2)(a) |
| | Dwg Verifier | | 21.12.18 | |
| | Dwg Check | | 21.12.18 | Date 07.07.23 |
| * Refer to Revision 1 for Original Signature | | | | |



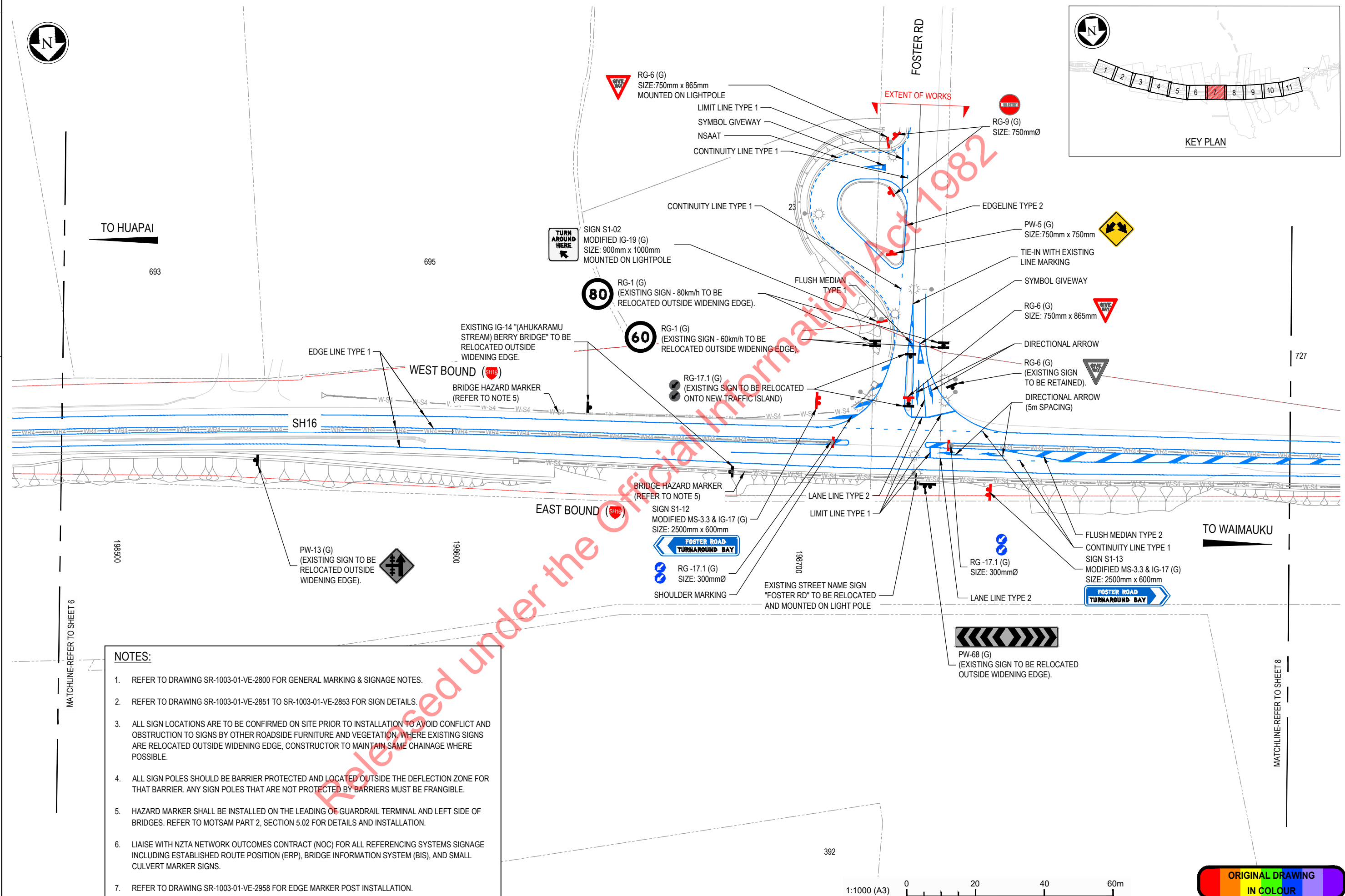
Project: SH16 - SAFETY IMPROVEMENTS
STAGE 1
HUAPAI TO WAIMAUKU

Title: ROAD MARKING AND SIGNAGE PLAN
SHEET 7 OF 11

| | | |
|-------------|-------------------------|------|
| Status: | FOR CONSTRUCTION | |
| Drawing No. | SR1003 - 01 - VE - 2807 | Rev. |
| | | 1 |

DO NOT SCALE

IF IN DOUBT ASK



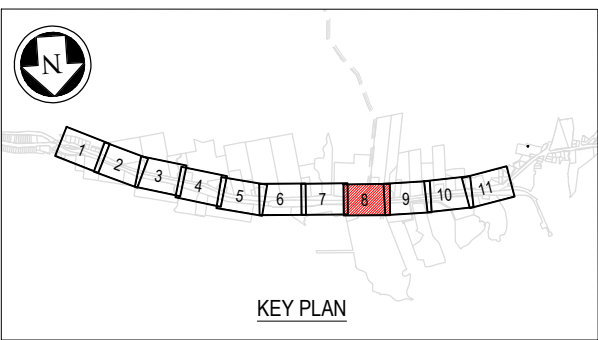
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SCALE FOR VALIDATING SIZE OF A3 PLOT ONLY

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MATCHLINE-REFER TO SHEET 7

MATCHLINE-REFER TO SHEET 9

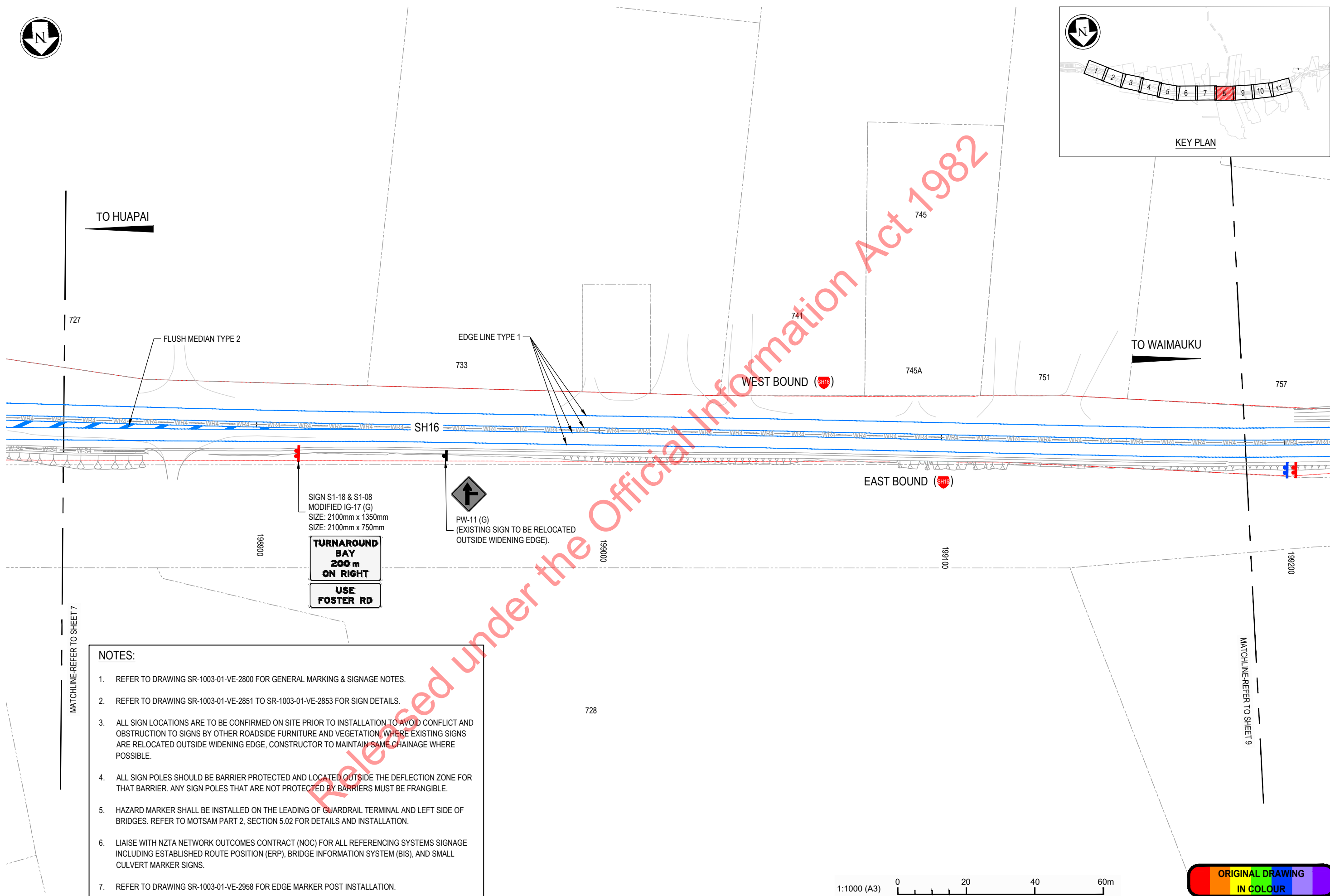


KEY PLAN

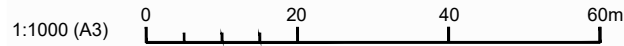
TO HUAPAI

TO WAIMAUKU

Released under the Official Information Act 1982



- NOTES:
- REFER TO DRAWING SR-1003-01-VE-2800 FOR GENERAL MARKING & SIGNAGE NOTES.
 - REFER TO DRAWING SR-1003-01-VE-2851 TO SR-1003-01-VE-2853 FOR SIGN DETAILS.
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 - LIAISE WITH NZTA NETWORK OUTCOMES CONTRACT (NOC) FOR ALL REFERENCING SYSTEMS SIGNAGE INCLUDING ESTABLISHED ROUTE POSITION (ERP), BRIDGE INFORMATION SYSTEM (BIS), AND SMALL CULVERT MARKER SIGNS.
 - REFER TO DRAWING SR-1003-01-VE-2958 FOR EDGE MARKER POST INSTALLATION.



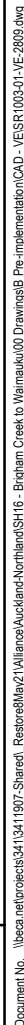
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|-----|---|----------|----------|-------------------------------|--|----------|----------|--|
| 1 | FOR CONSTRUCTION | s9(2)(a) | 07.07.23 | Original Scale (A3) 1:1000 | Design | s9(2)(a) | 21.12.18 | Approved For Construction* s9(2)(a) |
| 00B | FOR TENDER | | 20.12.22 | | Drawn | | 21.12.18 | |
| 00A | FOR TENDER (UPDATED EXISTING SIGN LOCATION) | | 04.11.20 | | Disg Verifier | | 21.12.18 | |
| 00 | FOR TENDER | | 27.07.20 | | Dwg Check | | 21.12.18 | |
| No. | Revision | | Date | | * Refer to Revision 1 for Original Signature | | | |
| | | By | Chk | Appd | Date | | | |



Project: SH16 - SAFETY IMPROVEMENTS
STAGE 1
HUAPAI TO WAIMAUKU

Title: ROAD MARKING AND SIGNAGE PLAN
SHEET 8 OF 11

| | | |
|-------------|-------------------------|------|
| Status: | FOR CONSTRUCTION | |
| Drawing No. | SR1003 - 01 - VE - 2808 | Rev. |
| | | 1 |



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|-------------------------|------|
| Status. | |
| FOR CONSTRUCTION | |
| Drawing No. | Rev. |
| SR1003 - 01 - VE - 2809 | 1 |

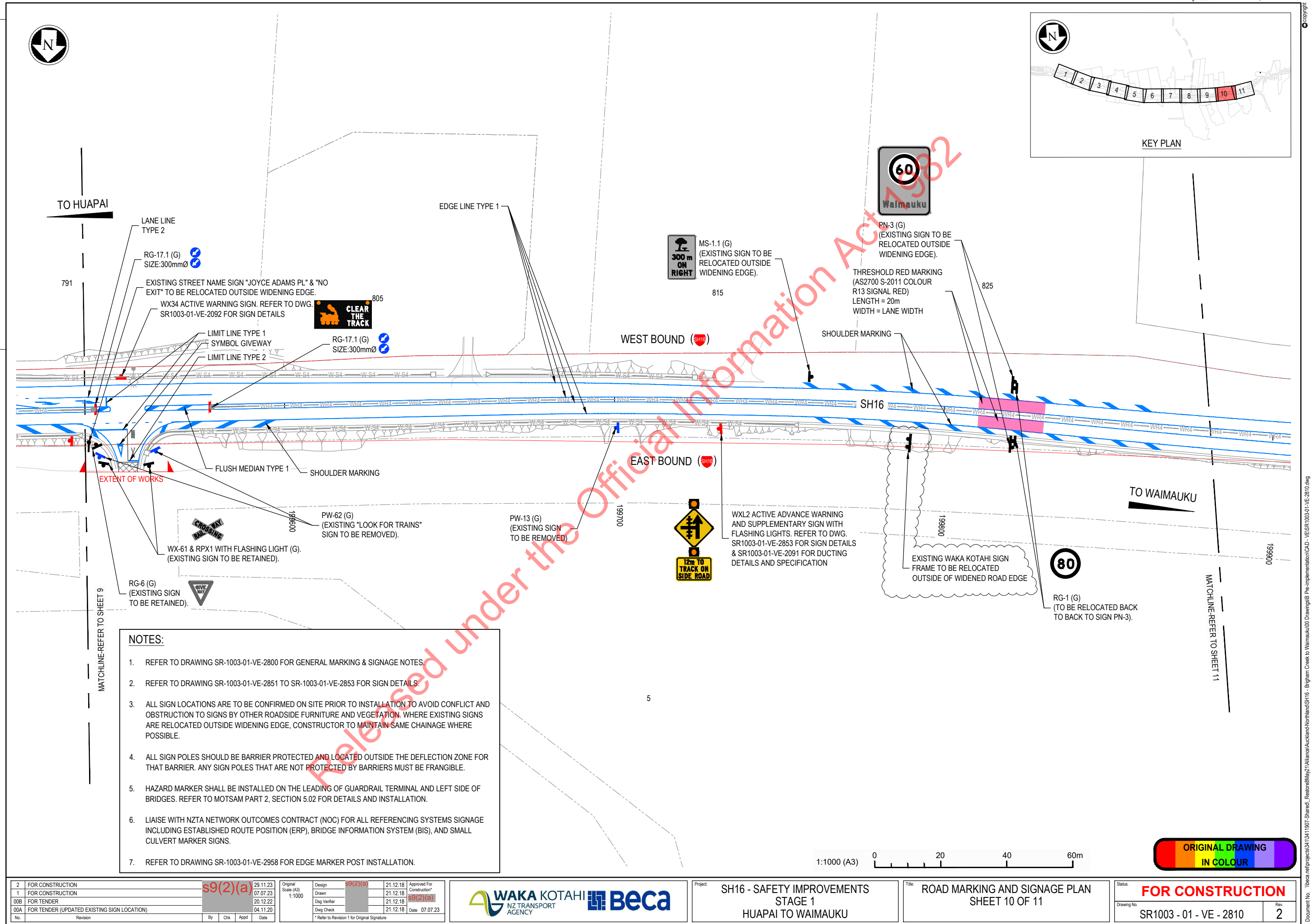
100mm

SCALE FOR VALIDATING SIZE OF A3 PLOT ONLY

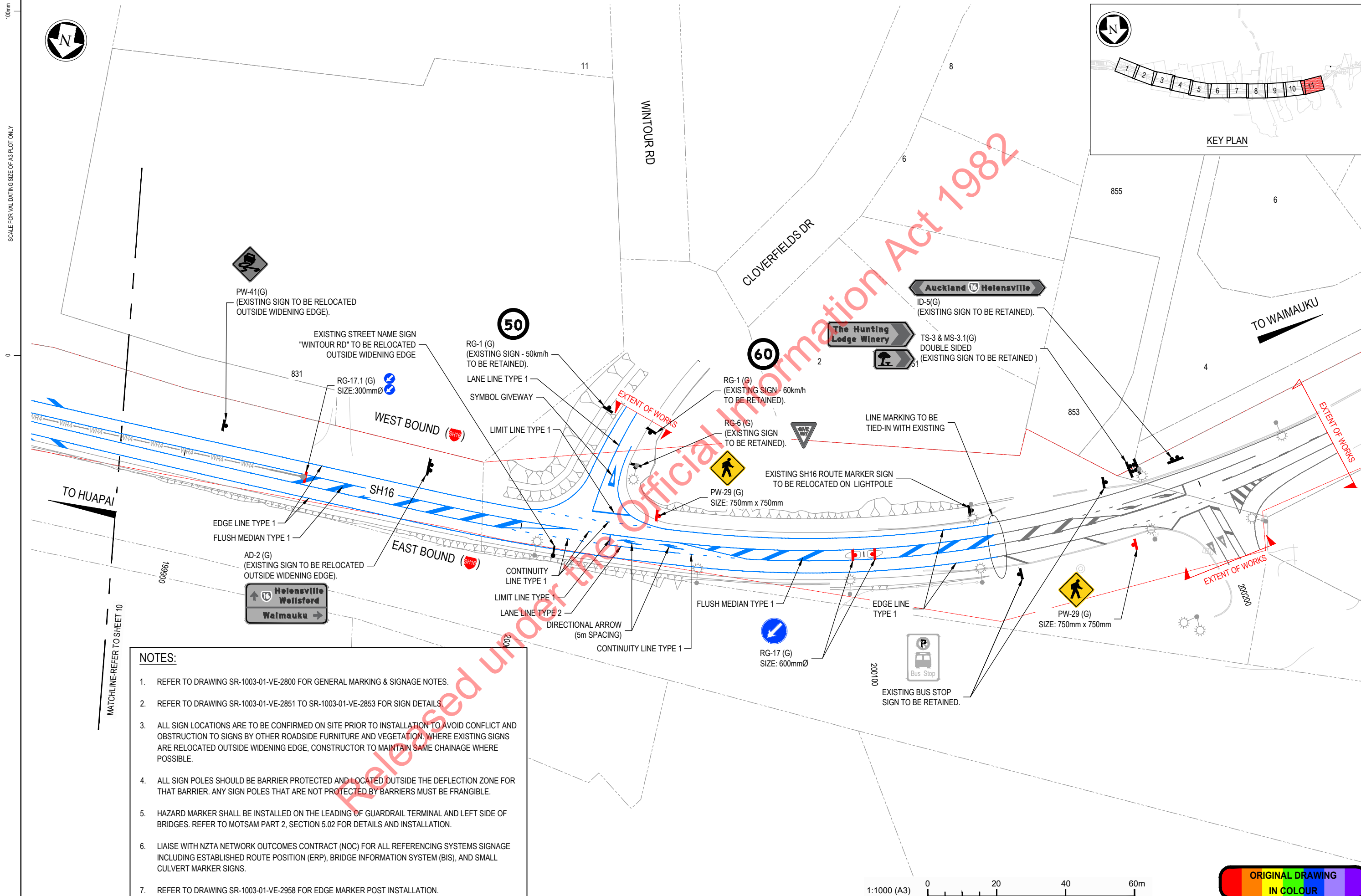
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5

100mm



100mm
SCALE FOR VALIDATING SIZE OF A3 PLOT ONLY



NOTES:

1. REFER TO DRAWING SR-1003-01-VE-2800 FOR GENERAL MARKING & SIGNAGE NOTES.
2. REFER TO DRAWING SR-1003-01-VE-2851 TO SR-1003-01-VE-2853 FOR SIGN DETAILS.
3. ALL SIGN LOCATIONS ARE TO BE CONFIRMED ON SITE PRIOR TO INSTALLATION TO AVOID CONFLICT AND OBSTRUCTION TO SIGNS BY OTHER ROADSIDE FURNITURE AND VEGETATION. WHERE EXISTING SIGNS ARE RELOCATED OUTSIDE WIDENING EDGE, CONSTRUCTOR TO MAINTAIN SAME CHAINAGE WHERE POSSIBLE.
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7. REFER TO DRAWING SR-1003-01-VE-2958 FOR EDGE MARKER POST INSTALLATION.

| | | | | | | | | | | | |
|-----|---|----------|----------|---------------------|--------|--|----------|----------|---------------------------|----------|----------|
| 1 | FOR CONSTRUCTION | s9(2)(a) | 07.07.23 | Original Scale (A3) | 1:1000 | Design | s9(2)(a) | 21.12.18 | Approved For Construction | s9(2)(a) | 07.07.23 |
| 00B | FOR TENDER | | 20.12.22 | | | Drawn | | 21.12.18 | | | |
| 00A | FOR TENDER (UPDATED EXISTING SIGN LOCATION) | | 04.11.20 | | | Dwg Verifier | | 21.12.18 | | | |
| 00 | FOR TENDER | | 27.07.20 | | | Dwg Check | | 21.12.18 | | | |
| No. | Revision | By | Chk | Appd | Date | * Refer to Revision 1 for Original Signature | | | | | |



Project: SH16 - SAFETY IMPROVEMENTS
STAGE 1
HUAPAI TO WAIMAUKU

Title: ROAD MARKING AND SIGNAGE PLAN
SHEET 11 OF 11

Status: **FOR CONSTRUCTION**
Drawing No. SR1003 - 01 - VE - 2811
Rev. 1