

Drawing: Hifnorthern Jun 2020 11:34 AM
 File: HIF-NW-001-CI-1006.DWG

LEGEND

	EXISTING PROPERTY BOUNDARY
	CONTROL LINE AND CHAINAGE
	PROPOSED DESIGNATION BOUNDARY
	PROPOSED RETAINING WALL
	PROPOSED ROAD CORRIDOR
	PROPOSED CYCLEWAY
	PROPOSED FOOTPATH
	PROPOSED BERM
	PROPOSED FLUSH, RAISED MEDIAN & TRAFFIC ISLAND
	FILL BATTER
	CUT BATTER
	PROPOSED STREAM CROSSING
	EXISTING 1% AEP FLOOD PLAIN
	PROPOSED WETLAND
	UPGRADE CULVERT

01	REDHILL STREAM	05	PAKINUI STREAM
02	NGONGETEPARA STREAM	06	RIDGELINE PROTECTION OVERLAY
03	WAITEPUTA STREAM		
04	TAKITAKI STREAM		

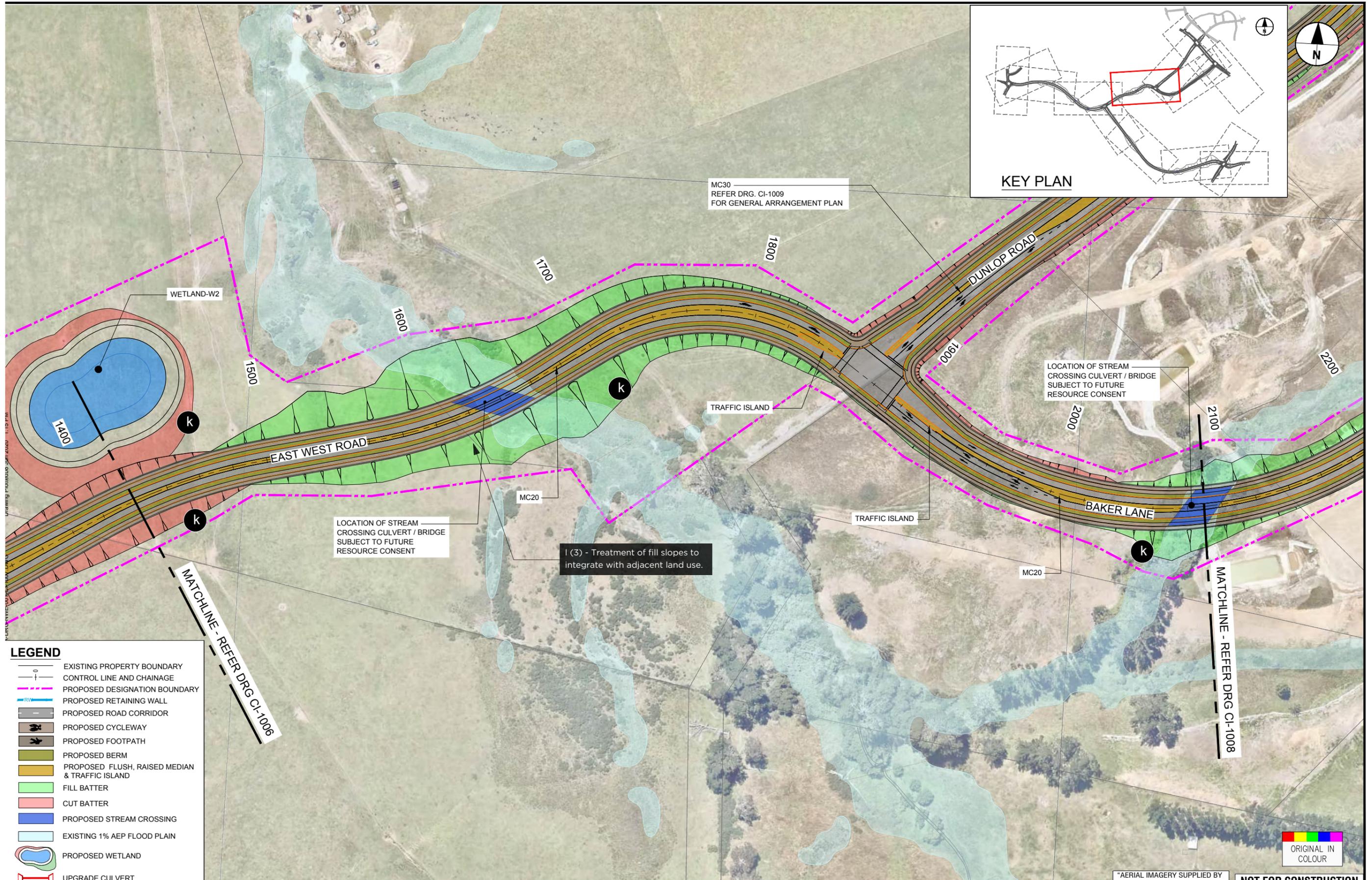
APPROXIMATE LOCATION OF MITIGATION MEASURES

DATE: AUGUST 2020
 SCALE: 1:2000 @ A3
 PROJECT ID: NORTH-WEST HIF NOR
 DRAWN BY: K. HOLYOAKE
 REVISION: FINAL R5

REDHILLS ARTERIAL TRANSPORT NETWORK
 GENERAL ARRANGEMENT LAYOUT PLAN (6 OF 14)

ORIGINAL IN COLOUR

"AERIAL IMAGERY SUPPLIED BY NEARMAP AUSTRALIA PTY LTD" **NOT FOR CONSTRUCTION**



- LEGEND**
- EXISTING PROPERTY BOUNDARY
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 - PROPOSED WETLAND
 - UPGRADE CULVERT

- | | |
|------------------------|---------------------------------|
| 01 REDHILL STREAM | 05 PAKINUI STREAM |
| 02 NGONGETEPARA STREAM | 06 RIDGELINE PROTECTION OVERLAY |
| 03 WAITEPUTA STREAM | |
| 04 TAKITAKI STREAM | |

APPROXIMATE LOCATION OF MITIGATION MEASURES

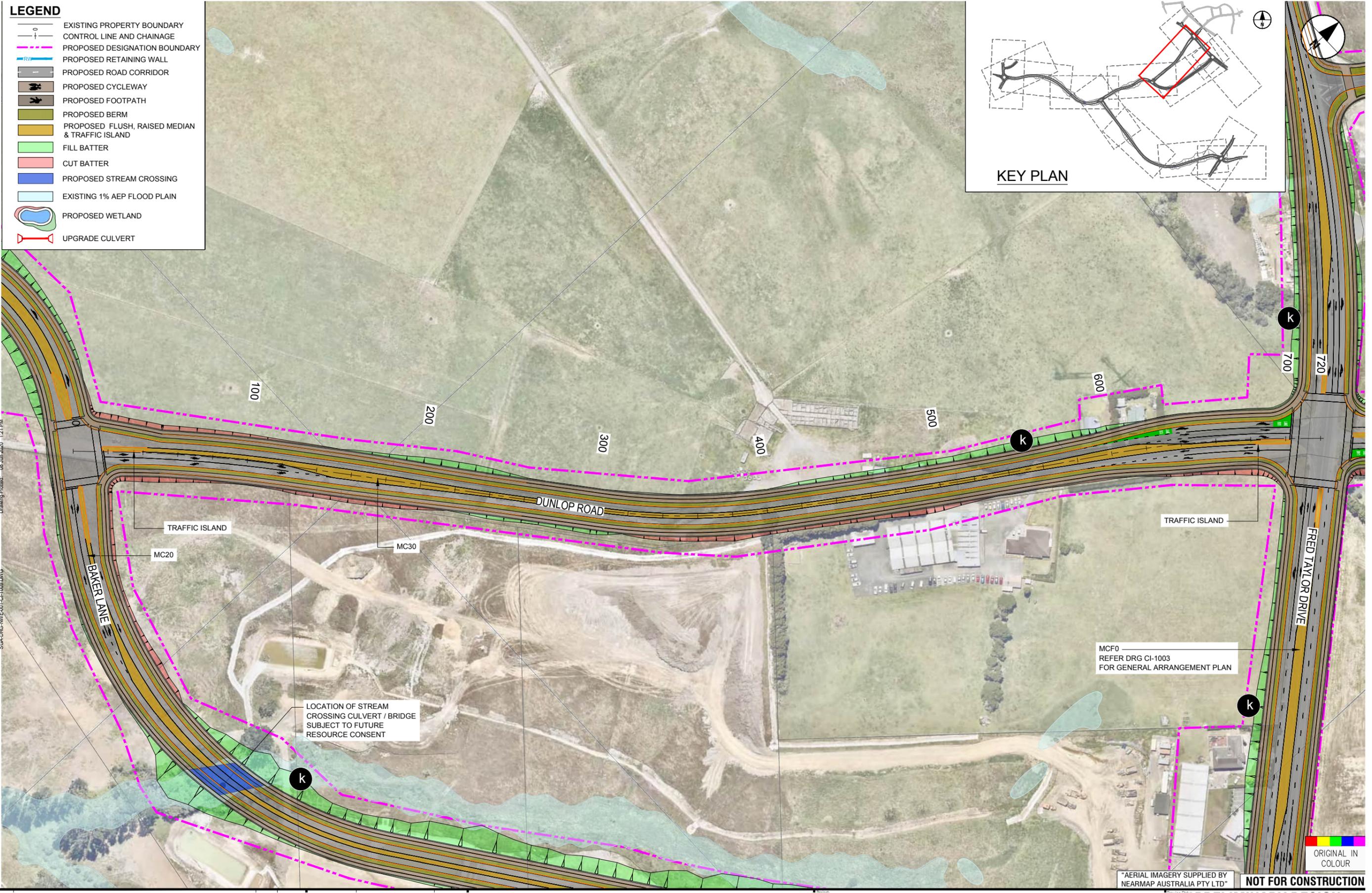
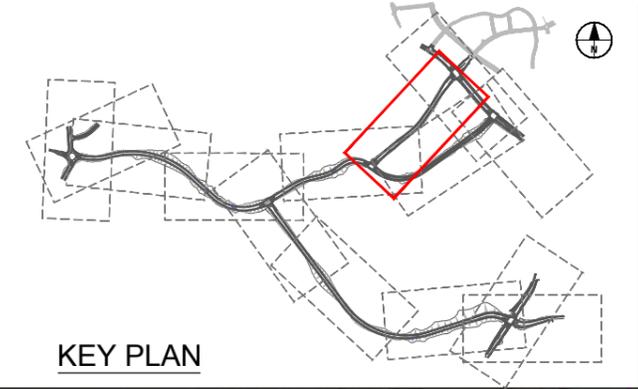
DATE AUGUST 2020
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 REVISION FINAL R5

REDHILLS ARTERIAL TRANSPORT NETWORK
 GENERAL ARRANGEMENT LAYOUT PLAN (7 OF 14)

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 Drawing Plotfile: 08 Jun 2020 12:21 PM
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- LEGEND**
- EXISTING PROPERTY BOUNDARY
 - CONTROL LINE AND CHAINAGE
 - PROPOSED DESIGNATION BOUNDARY
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 - PROPOSED STREAM CROSSING
 - EXISTING 1% AEP FLOOD PLAIN
 - PROPOSED WETLAND
 - UPGRADE CULVERT



MCF0
REFER DRG CI-1003
FOR GENERAL ARRANGEMENT PLAN

LOCATION OF STREAM
CROSSING CULVERT / BRIDGE
SUBJECT TO FUTURE
RESOURCE CONSENT

ORIGINAL IN
COLOUR

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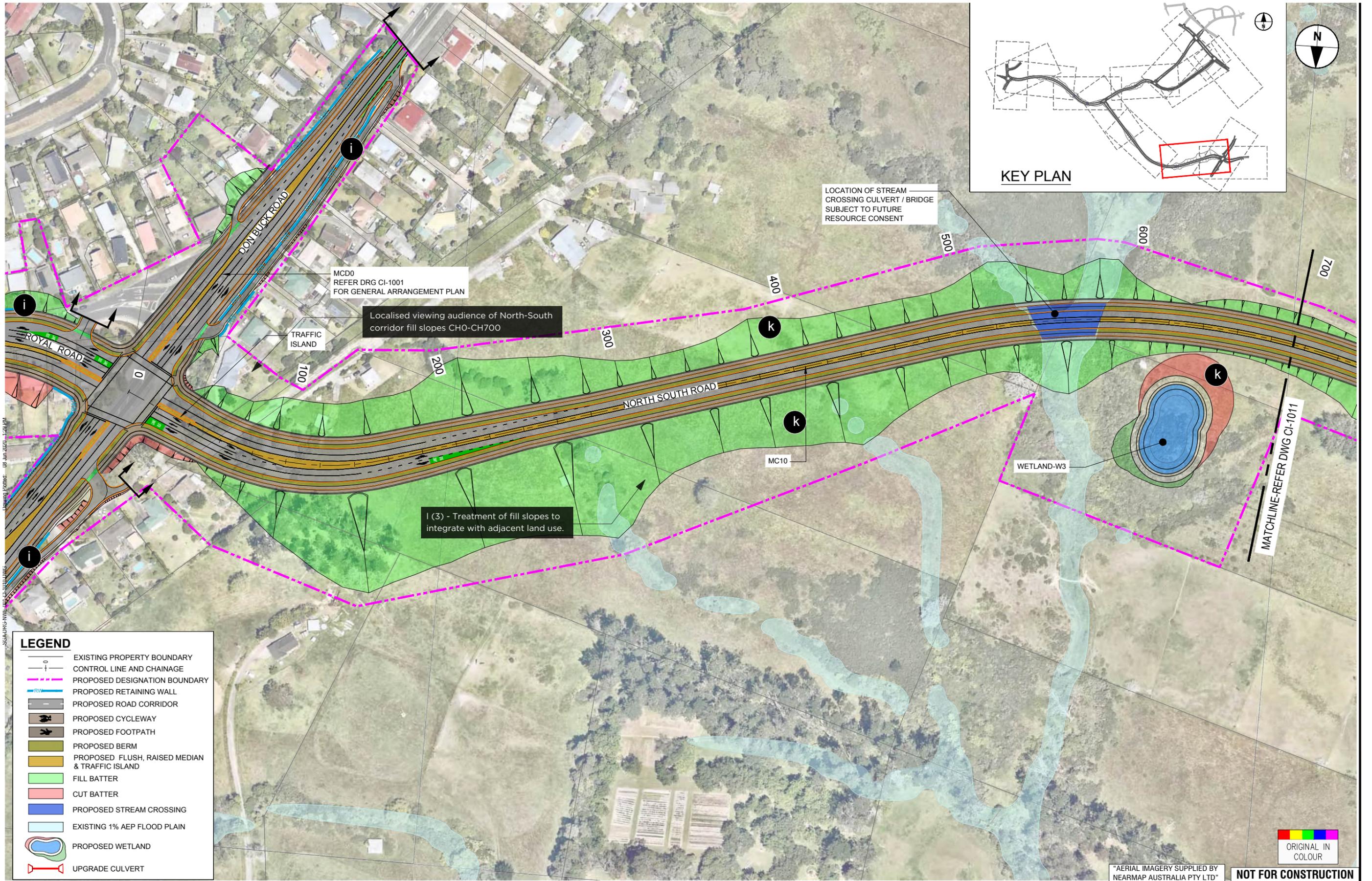
- 01 REDHILL STREAM
- 02 NGONGETEPARA STREAM
- 03 WAITEPUTA STREAM
- 04 TAKITAKI STREAM

- 05 PAKINUI STREAM
- 06 RIDGELINE PROTECTION OVERLAY

APPROXIMATE LOCATION OF
MITIGATION MEASURES

DATE AUGUST 2020
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**REDHILLS ARTERIAL
 TRANSPORT NETWORK**
 GENERAL ARRANGEMENT LAYOUT PLAN (9 OF 14)

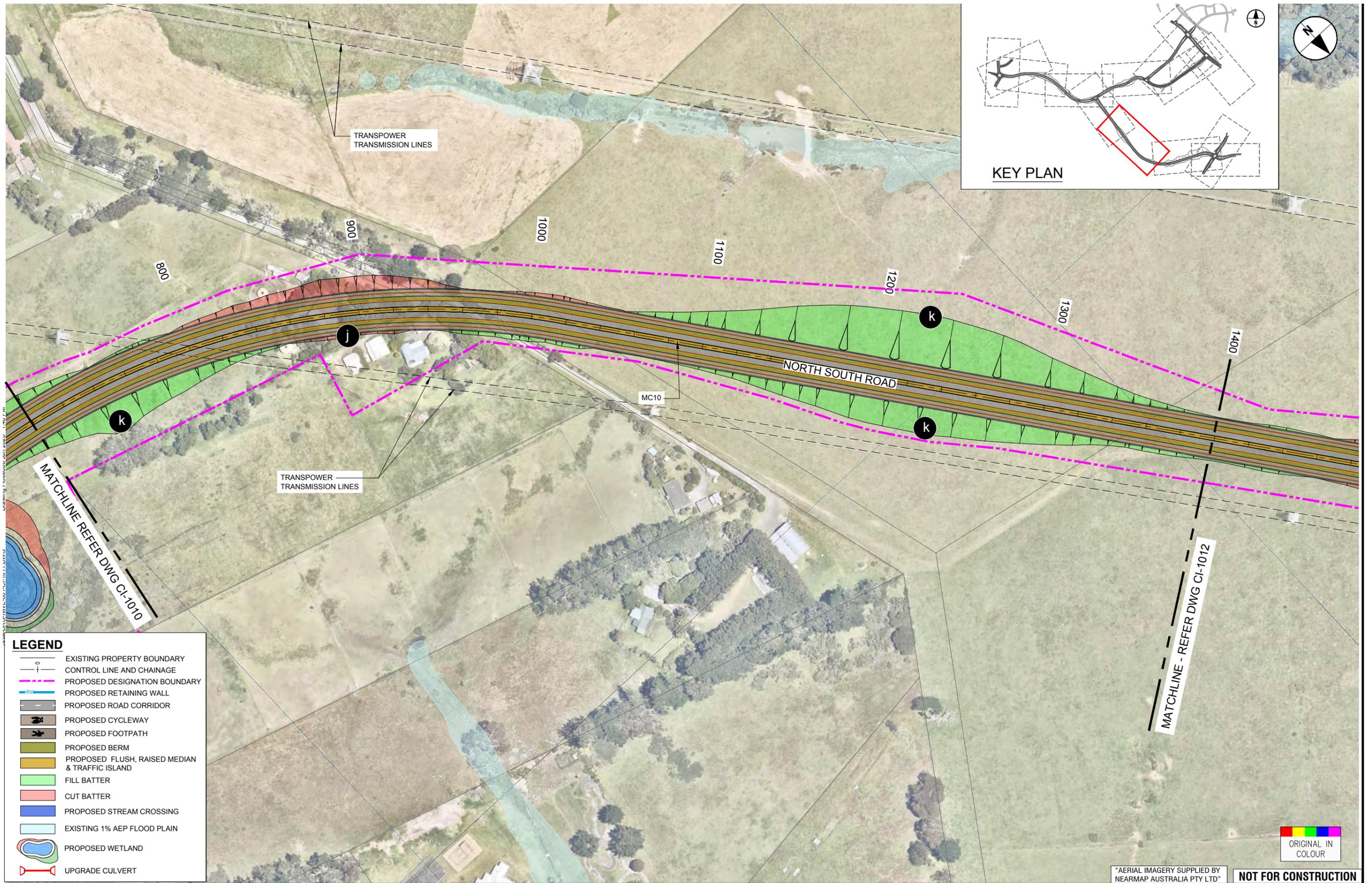


01	REDHILL STREAM	05	PAKINUI STREAM
02	NGONGETEPARA STREAM	06	RIDGELINE PROTECTION OVERLAY
03	WAITEPUTA STREAM		
04	TAKITAKI STREAM		

● APPROXIMATE LOCATION OF MITIGATION MEASURES

DATE: AUGUST 2020
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 DRAWN BY: K. HOLYOAKE
 REVISION: FINAL R5

REDHILLS ARTERIAL TRANSPORT NETWORK
 GENERAL ARRANGEMENT LAYOUT PLAN (10 OF 14)



LEGEND

	EXISTING PROPERTY BOUNDARY
	CONTROL LINE AND CHAINAGE
	PROPOSED DESIGNATION BOUNDARY
	PROPOSED RETAINING WALL
	PROPOSED ROAD CORRIDOR
	PROPOSED CYCLEWAY
	PROPOSED FOOTPATH
	PROPOSED BERM
	PROPOSED FLUSH, RAISED MEDIAN & TRAFFIC ISLAND
	FILL BATTER
	CUT BATTER
	PROPOSED STREAM CROSSING
	EXISTING 1% AEP FLOOD PLAIN
	PROPOSED WETLAND
	UPGRADE CULVERT

01	REDHILL STREAM	05	PAKINUI STREAM
02	NGONGETEPARA STREAM	06	RIDGELINE PROTECTION OVERLAY
03	WAITEPUTA STREAM		
04	TAKITAKI STREAM		

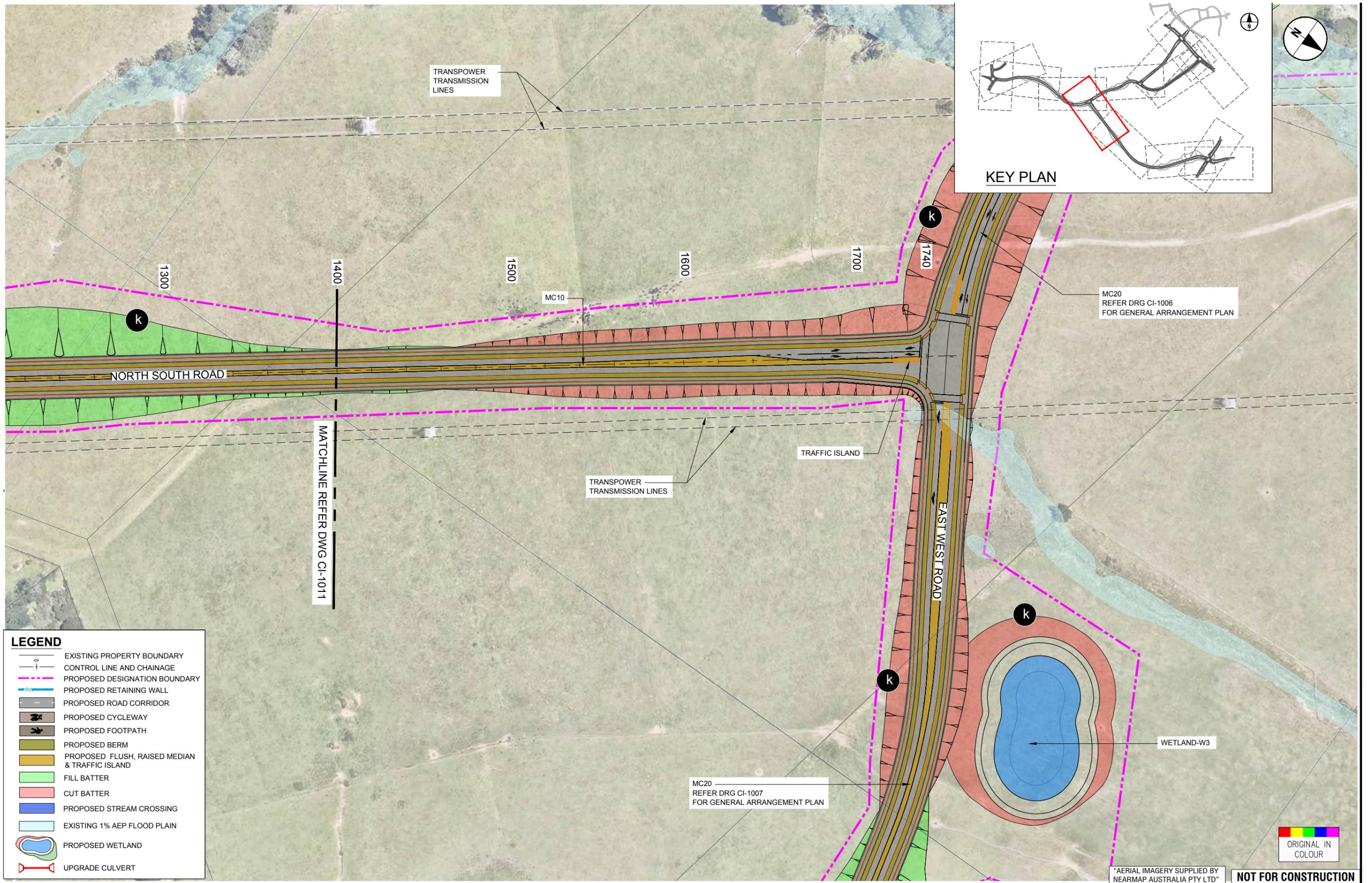
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REDHILLS ARTERIAL TRANSPORT NETWORK
 GENERAL ARRANGEMENT LAYOUT PLAN (11 OF 14)

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ORIGINAL IN COLOUR



LEGEND

	EXISTING PROPERTY BOUNDARY
	CONTROL LINE AND CHAINAGE
	PROPOSED DESIGNATION BOUNDARY
	PROPOSED RETAINING WALL
	PROPOSED ROAD CORRIDOR
	PROPOSED CYCLEWAY
	PROPOSED FOOTPATH
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	UPGRADE CULVERT

01	REDHILL STREAM	05	PAKINUI STREAM
02	NGONGETEPARA STREAM	06	RIDGELINE PROTECTION OVERLAY
03	WAITEPUTA STREAM		
04	TAKITAKI STREAM		

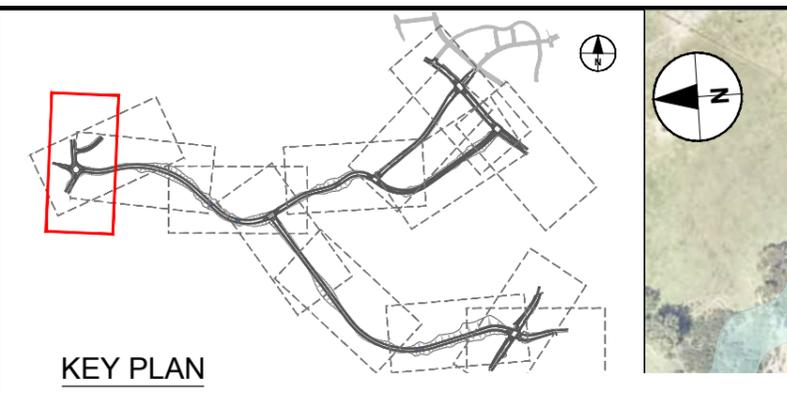
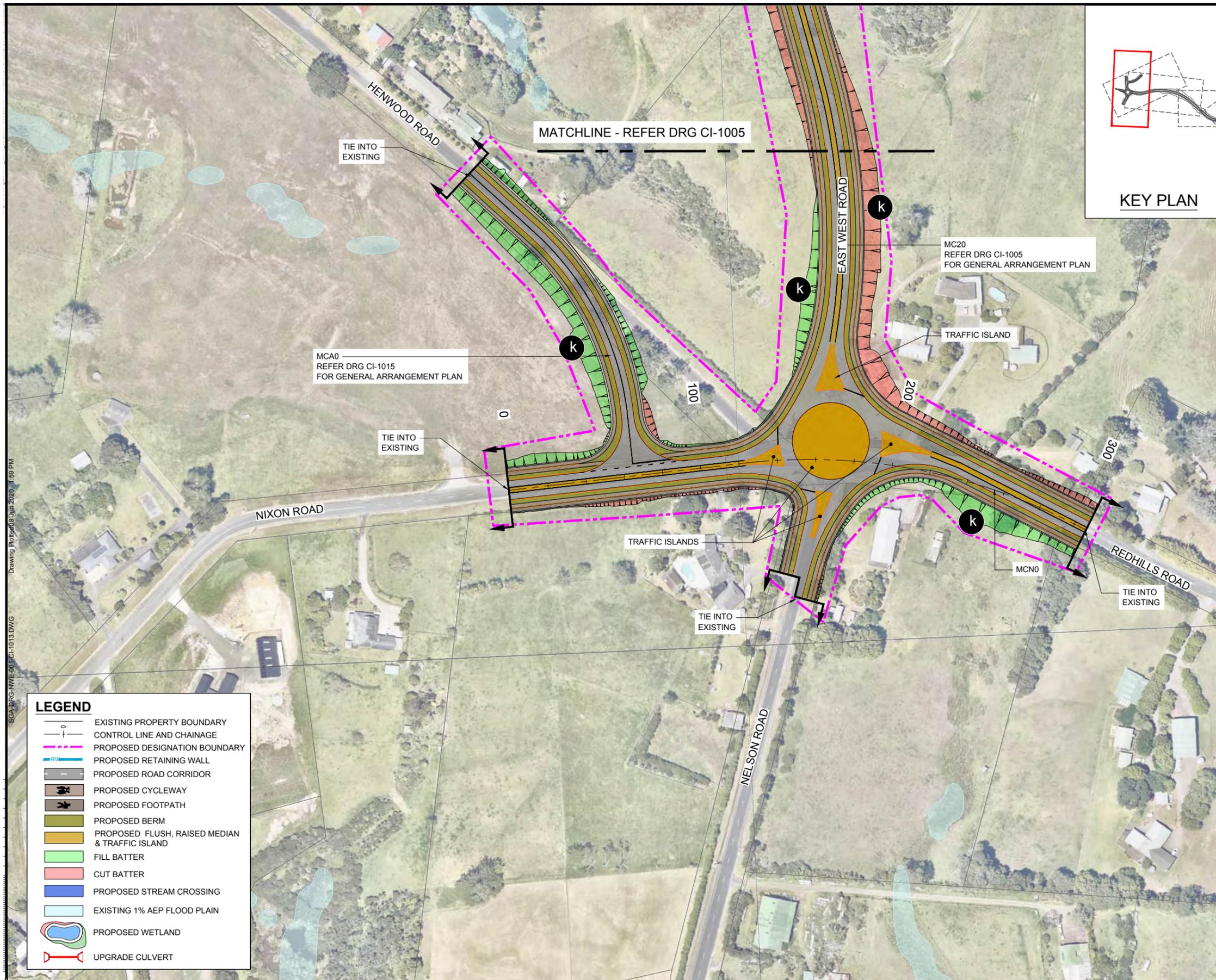
APPROXIMATE LOCATION OF MITIGATION MEASURES

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 DRAWN BY: K. HOLYOAKE
 REVISION: FINAL R5

REDHILLS ARTERIAL TRANSPORT NETWORK
 GENERAL ARRANGEMENT LAYOUT PLAN (12 OF 14)

"AERIAL IMAGERY SUPPLIED BY NEARMAP AUSTRALIA PTY LTD"

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- LANDSCAPE MITIGATION KEY**
- a) Reinstatement of site compounds and construction yards by removing any left-over fill and shaping ground to integrate with surrounding landform. Reinstatement with grass at the completion of works.
 - b) Retain noteworthy trees and vegetation identified within the Project area where practicable.
 - c) Reinstatement of the retaining wall and native and exotic buffer planting above the existing timber retaining wall at the Don Buck Road / Royal Road intersection.
 - d) Reinstatement of private fences and garden plantings (with the exception of required properties) for existing, remaining dwellings affected by Project works.
- For affected private properties, where existing dwellings are assumed to be removed, it is recommended that, after completion of the works affecting the property, the remnant land be grassed and maintained within the road corridor to mitigate adverse visual amenity effects potentially arising from residual land.
- e) Bridges (if applicable) - to be designed to contribute to the local sense of place and urban amenity of the future urban landscape.
 - f) Retaining wall (Don Buck / Royal Road intersection) - It is recommended that the new retaining wall be designed to contribute to the local sense of place and urban amenity of the future urban landscape.
 - g) Walking and cycling connectivity: investigate opportunities to integrate with existing and future open space (as indicated by the Precinct Plan)
 - h) Noise mitigation measures / retaining walls - designed to integrate with private boundary fencing (i.e. to avoid double layering of noise walls and boundary fences). It is also recommended that noise mitigation measures and retaining walls incorporate existing and reinstatement planting in a way that contributes to the streetscape character, minimises visual amenity effects on residents and integrates with the layout and design of outdoor living spaces.
 - i) The 27m long x 1.8m high noise mitigation wall proposed to mitigate the noise effects for 25 Red Hills Road should be designed to integrate with the contextual features of the road corridor and be designed (with a high level of design input) as a purposeful streetscape feature within the road corridor.
 - j) Cut and fill slopes should be shaped to a natural profile to integrate into the surrounding natural landform. Fill slopes associated with proposed bridge (or culvert crossings) are recommended to be shaped to natural landform at a suitable gradient to allow riparian planting to be established.
 - k) Planting Plan: a planting plan should be prepared for the Project including for:
 1. Reinstatement planting of the Don Buck Road / Royal Road buffer planting.
 2. Reinstatement planting in relation to private properties.
 3. Treatment of fill slopes to integrate them with adjacent land use. Specific areas for assessment include the following locations:
 - North-South corridor (CH0 - CH700)
 - East-West corridor (CH350 - CH1050)
 - East-West corridor (CH1600-1700)
 4. Street trees - ecological analysis to determine species selection relative to local landscape context and ecological opportunities.

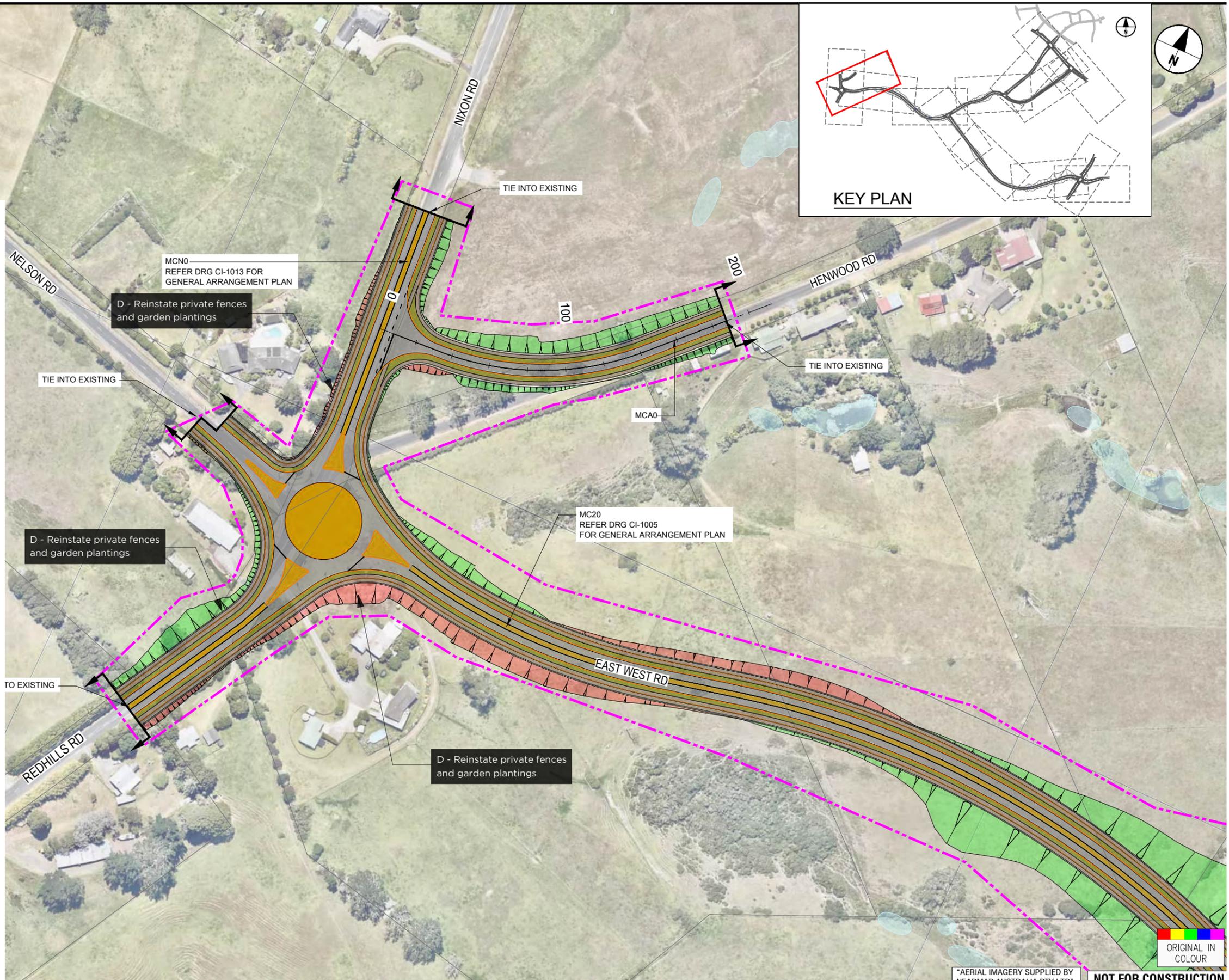
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01	REDHILL STREAM	05	PAKINUI STREAM
02	NGONGETEPARA STREAM	06	RIDGELINE PROTECTION OVERLAY
03	WAITEPUTA STREAM		
04	TAKITAKI STREAM		

● APPROXIMATE LOCATION OF MITIGATION MEASURES

DATE: AUGUST 2020
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 DRAWN BY: K. HOLYOAKE
 REVISION: FINAL R5

REDHILLS ARTERIAL TRANSPORT NETWORK
 GENERAL ARRANGEMENT LAYOUT PLAN (13 OF 14)



LANDSCAPE MITIGATION KEY

- a) Reinstatement of site compounds and construction yards by removing any left-over fill and shaping ground to integrate with surrounding landform. Reinstatement with grass at the completion of works.
- b) Retain noteworthy trees and vegetation identified within the Project area where practicable.
- c) Reinstatement of the retaining wall and native and exotic buffer planting above the existing timber retaining wall at the Don Buck Road / Royal Road intersection.
- d) Reinstatement of private fences and garden plantings (with the exception of required properties) for existing, remaining dwellings affected by Project works.
- e) For affected private properties, where existing dwellings are assumed to be removed, it is recommended that, after completion of the works affecting the property, the remnant land be grassed and maintained within the road corridor to mitigate adverse visual amenity effects potentially arising from residual land.
- f) Bridges (if applicable) - to be designed to contribute to the local sense of place and urban amenity of the future urban landscape.
- g) Retaining wall (Don Buck / Royal Road intersection) - It is recommended that the new retaining wall be designed to contribute to the local sense of place and urban amenity of the future urban landscape.
- h) Walking and cycling connectivity: investigate opportunities to integrate with existing and future open space (as indicated by the Precinct Plan)
- i) Noise mitigation measures / retaining walls - designed to integrate with private boundary fencing (i.e. to avoid double layering of noise walls and boundary fences). It is also recommended that noise mitigation measures and retaining walls incorporate existing and reinstatement planting in a way that contributes to the streetscape character, minimises visual amenity effects on residents and integrates with the layout and design of outdoor living spaces.
- j) The 27m long x 1.8m high noise mitigation wall proposed to mitigate the noise effects for 25 Red Hills Road should be designed to integrate with the contextual features of the road corridor and be designed (with a high level of design input) as a purposeful streetscape feature within the road corridor.
- k) Cut and fill slopes should be shaped to a natural profile to integrate into the surrounding natural landform. Fill slopes associated with proposed bridge (or culvert crossings) are recommended to be shaped to natural landform at a suitable gradient to allow riparian planting to be established.
- l) Planting Plan: a planting plan should be prepared for the Project including for:
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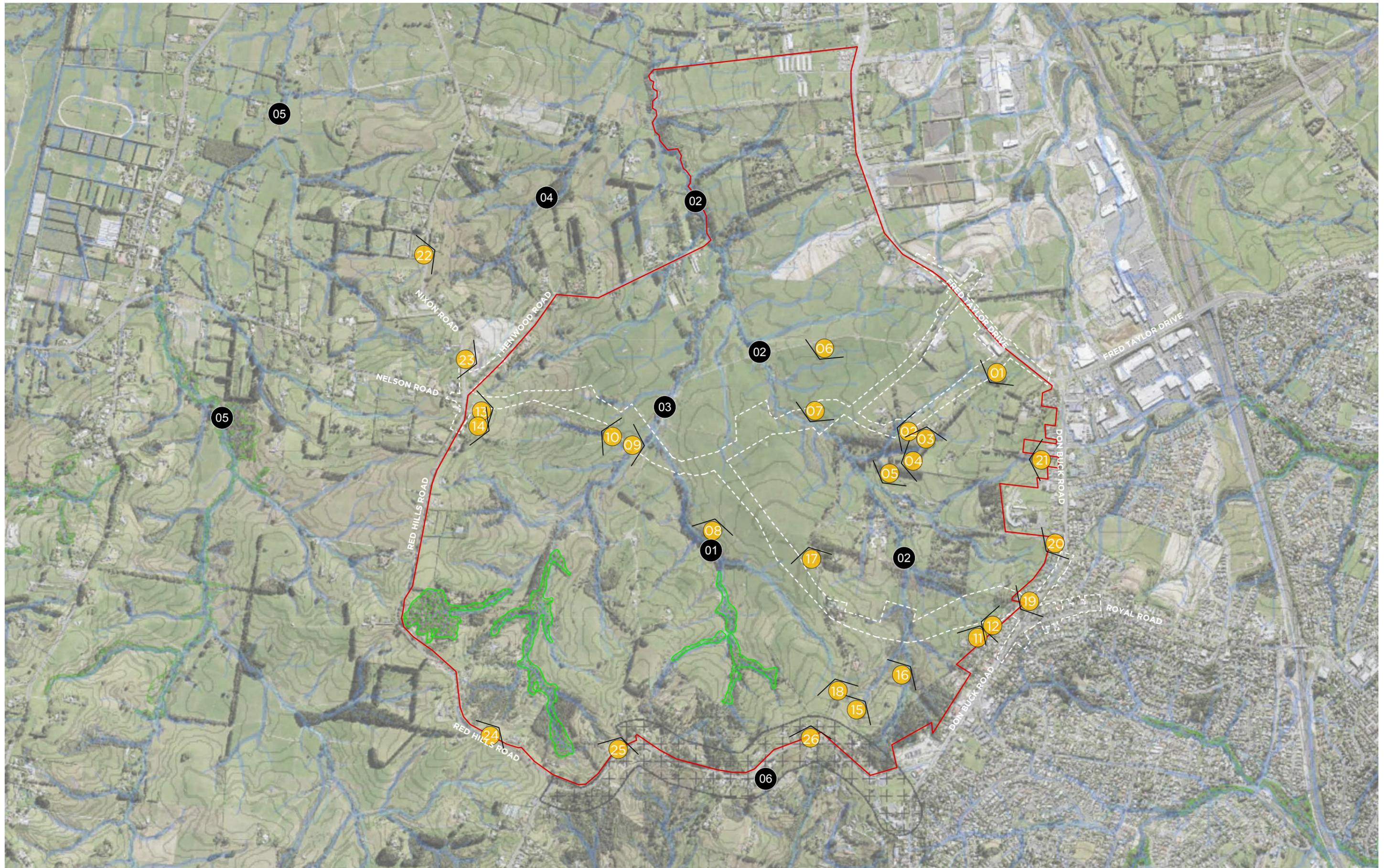
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02	NGONGETEPARA STREAM	06	RIDGELINE PROTECTION OVERLAY
03	WAITEPUTA STREAM		
04	TAKITAKI STREAM		

● APPROXIMATE LOCATION OF MITIGATION MEASURES

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REDHILLS ARTERIAL TRANSPORT NETWORK
 GENERAL ARRANGEMENT LAYOUT PLAN (14 OF 14)

"AERIAL IMAGERY SUPPLIED BY NEARMAP AUSTRALIA PTY LTD" NOT FOR CONSTRUCTION



	REDHILLS ARTERIAL TRANSPORT NETWORK (RATN) - PROPOSED DESIGNATION BOUNDARY	01	RED HILL STREAM	05	PAKINUI STREAM
	STREAMS + OVERLAND FLOW PATHS (AUP OIP GIS)	02	NGONGETEPARA STREAM	06	RIDGELINE PROTECTION OVERLAY
	SEA (Terrestrial)	03	WAITEPUTA STREAM		
	REPRESENTATIVE VIEWPOINTS	04	TAKITAKI STREAM		



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**REDHILLS ARTERIAL
 TRANSPORT NETWORK**
 VIEWPOINT LOCATION PLAN



Viewpoint Photograph 01. Baker Lane looking south-west into Redhills Precinct. 50mm focal length. Standing eye level.



Viewpoint Photograph 02. Looking west along riparian edge. 50mm focal length. Standing eye level.

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REDHILLS ARTERIAL
 TRANSPORT NETWORK
 VIEWPOINT LOCATIONS 01 & 02



Viewpoint Photograph 03. Looking north over constructed stormwater - towards Dunlop Road. 50mm focal length. Standing eye level.



Viewpoint Photograph 04. Looking west into centre of Redhills Precinct. 50mm focal length. Standing eye level.

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REDHILLS ARTERIAL
TRANSPORT NETWORK
VIEWPOINT LOCATIONS 03 & 04



Viewpoint Photograph 05. Looking south-west towards low density residential housing. 50mm focal length. Standing eye level.



Viewpoint Photograph 06. View south-west from farm track. 50mm focal length. Standing eye level.



Viewpoint Photograph 07. Looking south-west over Ngongetepara Stream. 50mm focal length. Standing eye level.



Viewpoint Photograph 08. Looking north-east towards East West Road / North South Road intersection. Fred Taylor Drive in the distance. 50mm focal length. Standing eye level.

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REDHILLS ARTERIAL
TRANSPORT NETWORK
VIEWPOINT LOCATIONS 07 & 08



Viewpoint Photograph 9. Looking east towards along East West Road crossing over Red Hills Stream. 50mm focal length. Standing eye level.



Viewpoint Photograph 10. Looking north-west towards Nixon Road / Redhills Road intersection. 50mm focal length. Standing eye level.

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REDHILLS ARTERIAL
TRANSPORT NETWORK
VIEWPOINT LOCATIONS 09 & 10



Viewpoint Photograph 11. View from 458 Don Buck Road to the north towards the upper section of proposed North South Road. 50mm focal length. Standing eye level.



Viewpoint Photograph 12. View between 458 and 458A Don Buck Road to the west. Transmission lines in the background and proposed North South Road following transmission line alignment. 50mm focal length. Standing eye level.



Viewpoint Photograph 13. View east from 319 Redhills Road. Transmission lines in the background and proposed North South Road following transmission line alignment. 50mm focal length. Standing eye level.



Viewpoint Photograph 14. View east from 319 Redhills Road. Transmission lines in the background and proposed North South Road following transmission line alignment. 50mm focal length. Standing eye level.



Viewpoint Photograph 15. View towards 458 Don Buck Road. Top of proposed North South Road. 50mm focal length. Standing eye level.



Viewpoint Photograph 16. As above - closer to proposed road. 50mm focal length. Standing eye level.

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REDHILLS ARTERIAL
TRANSPORT NETWORK
VIEWPOINT LOCATIONS 15 & 16



Viewpoint Photograph 17. View to the north-west from 27 Redhills Road. Transmission lines in the foreground - location of proposed North South Road alignment. 50mm focal length. Standing eye level.



Viewpoint Photograph 18. View to the north-west. Transmission lines overhead. 50mm focal length. Standing eye level.

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REDHILLS ARTERIAL
TRANSPORT NETWORK
VIEWPOINT LOCATIONS 17 & 18



Viewpoint Photograph 19. 50mm focal length. Standing eye level.



Viewpoint Photograph 20. 50mm focal length. Standing eye level.

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REDHILLS ARTERIAL
 TRANSPORT NETWORK
 VIEWPOINT LOCATIONS 19 & 20

30



Viewpoint Photograph 21. 50mm focal length. Standing eye level.



Viewpoint Photograph 22. 50mm focal length. Standing eye level.

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REDHILLS ARTERIAL
 TRANSPORT NETWORK
 VIEWPOINT LOCATIONS 21 & 22



Viewpoint Photograph 23. 50mm focal length. Standing eye level.



Viewpoint Photograph 24. 50mm focal length. Standing eye level.

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REDHILLS ARTERIAL
TRANSPORT NETWORK
VIEWPOINT LOCATIONS 23 & 24



Viewpoint Photograph 25. 50mm focal length. Standing eye level.



Viewpoint Photograph 26. 50mm focal length. Standing eye level.