



Iwan Davies  
Director  
Energy Assessments  
Department of Planning Housing and Infrastructure

10<sup>th</sup> October 2025

Dear Iwan,

**Re: Richmond Valley Solar Farm SSD-41020244 – Response to Request for Additional Information**

A Submissions Report and Amendment Report for the Richmond Valley Solar Farm Project SSD-41020244 was lodged with the Department of Planning Housing and Infrastructure (DPHI) in June 2025. Following lodgement of these documents, Richmond Valley Solar and BESS Pty Ltd (Ark Energy) received a request for additional information from DPHI, responses to these items are provided below.

**Provide a response to the agency advice from NSW State Emergency Service (SES);**

Note the site is a High Flood Island, with available land outside of the floodplain extent. Regional flooding events cause isolations before the 2% AEP local flooding events, potentially as frequently as 5% AEP regional flood events as well as larger events such as the 1% AEP climate change scenario and above.

Ark has conducted extensive flood studies and modelling to design appropriate flood resilience and immunity into the solar farm facilities, infrastructure and associated internal and access roads. Design of the Project has also considered a range of other environmental and social constraints as well as landholder requirements.

An Emergency Response Plan (ERP) will be prepared in consultation with relevant emergency services organisations (i.e., FRNSW, NSW Rural Fire Service (RFS), NSW Ambulance and relevant local emergency management services). The ERP will include a Flood Response Plan (FRP) which will:

- detail emergency response procedures including an evacuation plan for site personnel, the associated dwelling and surrounding premises during flood events
- identify procedures for safety of personnel during PMF events noting that safe egress from the Project Area will not be possible during these events
- identify a safe route between the area of operations and onsite residence to provide staff and/or visitors the ability to 'hunker in place' during extreme flood events
- Identify the disaster resilient features of the design and measures to be considered during a flooding emergency to operate or shut down in a safe manner

Support the Flood Risk Assessment (FRA) recommendation for design refinements to relocate the O&M facility outside the Probable Maximum Flood (PMF) extent to mitigate risk to life and property, and recommend ensuring this approach is taken to locate the plant managers residence outside the floodplain.

Noted, Ark agrees with this recommendation and has sited & designed the Project facilities and infrastructure with consideration of the pre-post development flooding conditions. No plant managers residence is proposed on the project site.

Recommend that consideration is given to the provision of safe access/egress for the site to mitigate risk to life, particularly considering the potential for prolonged periods of isolation from regional flooding events. Evacuation off-site should be investigated as the primary flood emergency management strategy. Understanding that road upgrades are being proposed as part of this development, including the Summerland Way / Main Camp Rd and the Main Camp Rd / Avenue Rd intersections, we recommend investigating if feasible to align the site's internal access/egress via a rising road away from the flood risk to provide safe access/egress from the site.

The main internal site access egress road onto Avenue Road has been designed in consultation with Council. The design will provide flood immunity in the 20% AEP design event and ensure flood depths are less than 200mm over the road in the 5% AEP design event. Flood modelling confirmed that the design provides these outcomes, a flooding and hydrology assessment for the project can be provided to SES which identifies project-wide peak flooding conditions and presents the outcomes of the assessment.

Recommend seeking advice from the NSW Department of Climate Change, Energy, the Environment and Water (DCCEEW) regarding the flood risks and the impacts of the proposed development on flood behaviour at the site and downstream areas, as the modelling shows flood depth increases upstream of the perimeter fence line.

NSW DCCEEW were consulted by DPHI as part of the EIS process. The boundary afflux was checked during the modelling process with a fence 'blockage scenario included' which determined the 'impacts are minor and do not create additional flood hazards or adverse impacts'.

Recommend considering flood resilience of the infrastructure, which is likely to be damaged or contaminated by flood water, to events up to and including the PMF. This could include placing any sensitive infrastructure such as battery storage, inverters, etc., above the PMF level, if feasible, to minimise risk to property and financial losses.

The current proposed concept design incorporates robust flood resilience measures across all major infrastructure components, with immunity up to the 1% AEP event and appropriate freeboard allowances. Sensitive infrastructure such as the electrical substation, inverters, control equipment and BESS have been located on elevated terrain, minimising exposure to flood risk. Key flood resilience measures incorporated into the design include:

- Internal access roads connecting to the site facilities are situated above the peak flood levels of the overland flow path, providing flood immunity up to the 1% AEP design event.
- The site compound is designed to achieve flood immunity for the 5% AEP event, with a level of 38.45m AHD, compared to a peak flood level of 38.1m AHD
- The O&M facility is designed with a finished floor level of 38.8m AHD, which includes 500mm freeboard above the 1% AEP flood level of 38.3m AHD
- Electrical substation and BESS are located on the crest of a hill, ensuring no impact from overland or mainstream flooding. Pit and pipe drainage systems, table drains and

diversion drains are included in the design to manage increased runoff and convey flows to natural waterways.

- Inverters have been positioned with 300mm freeboard to the underside of the container above the maximum 1% AEP flood level.
- Solar arrays have been positioned above the 1% AEP peak flood depth with 100mm of freeboard to the bottom edge of the panel
- stabilised pavement is proposed for access tracks within the 20% AEP flood extent to improve durability, concrete block mat crossings are designed to convey water during minor flood events while maintaining vehicle access.

**Provide a response to agency advice from Transport for NSW (TfNSW), including updated swept paths and confirmation that all works required for the OSOM route (including widening or vegetation clearing) have been included in the environmental assessment.**

1.b.The impacts of the weight of the high-risk OSOM movement of the transformer on bridge and culverts along the route from the Port to the site. It is noted that there are several older structures on the indicative proposed route. The bridge and culvert assessments are to be based on the 16-axle platform trailer and beam set configuration.

Bridge assessment submitted for the transformer route. The bridge assessment includes the following: *Ballina St Bridge – Bridge on SH16 over Wilsons River at Lismore to be bypassed or alternatively the axle masses are reduced to 14t per axle for the platform (total 196t).*

Provide details of how this issue will be resolved needs to be included in an updated route assessment.

An updated Bridge Assessment has now been completed by TfNSW for the transformer route; no issues were identified at Ballina St Bridge – Bridge on SH16 over Wilsons River at Lismore. The Bridge Assessment is provided in appendix a.

Strategic concept designs and swept paths must be provided for any road widening on the state road network required to accommodate high-risk OSOM vehicles. The hardstands and pavement widening are to be sealed to the standards of the adjacent road.

Multiple pinch points including pinch point 6,7,8, 9, 10, 11, 12 are unclear if the OSOM vehicle impacts or runs over infrastructure. Updated swept paths that include the wheel path, body path, and clearance tracking, from the start to the end of the movement through the pinch points is required. Strategic designs are required to show any widening works required to facilitate travel.

Detailed swept path analyses and strategic designs have been completed for pinch points 6 through 12 along the OSOM vehicle route. These are documented in Appendix B and Appendix C, respectively.

**Assessment of any bushfire impacts of the biodiversity corridor, including an updated figure showing the location of this biodiversity corridor**

Blackash Bushfire Consulting have confirmed the proposed 30-metre-wide biodiversity corridor was considered in the Bushfire Threat Assessment prepared for the Project. They have advised that the

biodiversity corridor does not present a significant additional bushfire threat to surrounding properties. BlackAsh has provided updated figures showing the location of the biodiversity corridor. Please refer to the letter from Blackash Bushfire Consulting in Appendix D.

**Confirm all land parcels held by the project and provide an updated map showing nearby receivers**

The Project Area shown comprises 10 cadastral lots, listed in the table 1. An updated Land ownership map has been provided in Appendix E.

An updated Project layout has been provided in Appendix F showing nearby receivers.

**Table 1. Cadastral Lots intersecting with the Project Area**

Lot	Deposited Plan
29	755607
30	755607
32	755607
34	755607
36	755607
57	755607
62	755607
1	540060
2	540060
5	113452

**Provide evidence of Voluntary Planning Agreement (VPA) letter of offer to Richmond Valley Council**

Ark Energy provided a VPA letter of offer to Richmond Valley Council on the 2 October 2025 outlining general terms for Community Benefit Fund contributions consistent with NSW Benefit Sharing Guidelines (DPHI November 2024). Please refer to Appendix G.

**Confirmation of available water supply for the Project**

The Project would require a water supply during the construction, operation and decommissioning phases. Total anticipated water demands are approximately 246 ML of non-potable and 7 ML of potable for the construction and decommissioning periods (equivalent to 130 ML per annum) and 109 ML for the operational period (equivalent to 3.6 ML per annum).

Ark Energy has received proposals from local water suppliers confirming that sufficient water is available to meet the Project's requirements.

**Confirmation no temporary hardstand is required at Melbourne Road & Melrose Drive in VIC for OSOM route**

No hardstand is required for the OSOM vehicle movements at Melbourne Road & Melrose Drive in Victoria.

**Provide evidence of Landowners consent for proposed road upgrades**

Richmond Valley Council has provided landowners consent for road upgrades associated with the Project. Please refer to Appendix H.

**Provide updated figures for the Heavy Vehicle Route and OSOM routes**

Update heavy Vehicle Route and OSOM route figures are provided in Appendix I and Appendix J retrospectively.

**Provide an updated figure for Preliminary Assessment-Private Viewpoints**

An updated figure for Preliminary Assessment-Private Viewpoints is provided in Appendix K.

**Commitment to prepare a Landscaping Plan**

Prior to construction a Landscaping Plan will be prepared for the Project in consultation with Richmond Valley Council. The Project layout figure has been updated to include indicative areas of intermittent vegetation planting, refer to Appendix F.

Sincerely,



Siobhan Threlfall  
Development Manager - Richmond Valley Solar Farm  
Ark Energy  
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Appendices

Appendix A: Bridge Assessment

**PT3042 Albury to Myrtle Creek for Ark Energy Pty Ltd  
NHVR Route ID 1W2BW-4 v2**

**VEHICLE CONSIDERED:**

<b>Permit No.:</b> 3042	<b>Date Received:</b> 29/09/2025
<b>Vehicle Description:</b> Prime Mover + 2x8 Dolly - 14x8 with deck spacer	
<b>Item Carried:</b> Transformer	
<b>Item Weight:</b>	
<b>Axle Width:</b> 4.2	
<b>Axle Spacings:</b> 3.2, 1.2, 3.469, 1.25, 2.56, 1.8x5, 11.8, 1.8x7	
<b>Axles:</b> 0-00, 00, 000000, 00000000	
<b>Wheels per Axle:</b> 2--44 / 88 / 8888888888888888 / 2--44	
<b>Tyre Dimensions:</b> 279mm on Prime Mover & 190mm in Trailer	
<b>Gross Weight per Axle:</b> 6, 18.5, 31, 230.3	
<b>Total Weight:</b> 285.80	
<b>Axle Summary:</b>	
<b>Weight Summary:</b>	
<b>Tonne per Axle Group 1:</b> 16.45	for platform
<b>Tonne per Axle Group 2:</b>	
<b>Width:</b> 4.3	
<b>Length:</b> 49.07	
<b>Height:</b> 5.3	
<b>Starting Point:</b> Albury	
<b>Destination:</b> Myrtle Creek (Richmond Valley SF)	
<b>Route Requested:</b> NHVR Route Planner ID 1W2BW-4 v2 Hume Hwy (HW2), M7 West Link Mwy (6009), M2 Hills Mwy (6002), Pennant Hills Rd (HW13), M1 Pacific Hwy (6003), John Renshaw Drv (MR588), New England Hwy (HW9), Pacific Hwy (HW10) to Old Maitland Rd at Hexham for U-turn to contraflow northbound Hexham Bridge, Pacific Hwy (HW10), Bruxner Hwy (HW16), Summerland Way (MR83), Avenue Rd (Ccl Rd)	

**Route:**

The route that has been assessed is outlined above, specifically NHVR Route ID 1W2BW-4 v2. No alternative route has been assessed.

**Axle spacings must not be less than above, and axle loads must not exceed the above.**

**ASSUMPTIONS:**

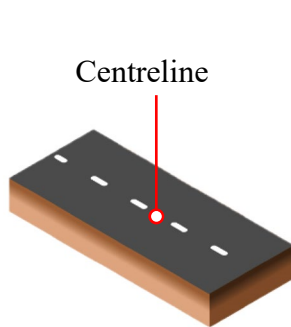
**In assessing the bridges along the route, it has been assumed that all structures are in fair to good condition and free from any structural deficiencies, geotechnical issues or other restrictions.**

**Route: As Above  
(TRAVEL IN ONE DIRECTION)**

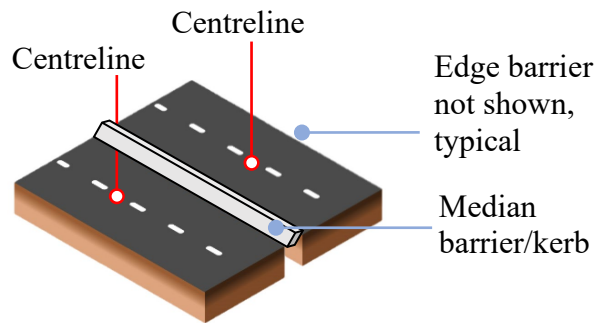
The permit vehicle can be allowed to travel along the requested route as outlined in this permit, subject to compliance of all the following conditions:

1. **B6298** Old Sheahan Bridge – Hume Highway Northbound bridge over Murrumbidgee River to be bypassed. Operator can consider bypass via B10237 Southbound bridge over Murrumbidgee River.
2. The vehicles travel on all other the bridges on the route at a speed not exceeding 10 km/h with no sudden braking or acceleration. No other vehicles are permitted on the bridge while the Permit vehicle is on the bridge.
3. The vehicle shall travel only along centreline of the carriageway of all the bridges.

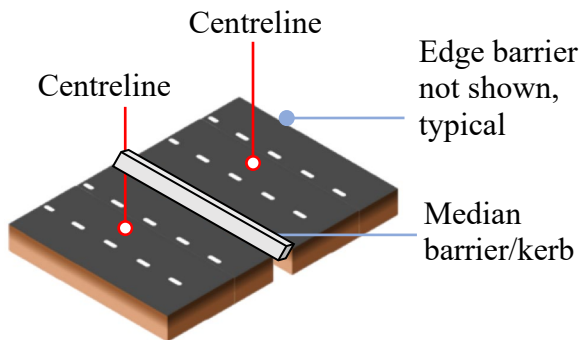
**Note: The centreline of the carriageway refers to the centreline of the roadway between the inner faces of the barriers or kerbs.**



Bridge supporting single carriageway with two-way traffic with any line marking in middle – Permit vehicle to travel along centreline of carriageway



Bridge supporting two carriageways with median barrier/kerb as divider between carriageway – Permit vehicle to travel along the centreline of each carriageway



Bridge supporting two carriageways with three lanes each way traffic with median barrier or kerb as divider between carriageway – Permit vehicle to travel along centreline of middle lane / carriageway.

4. The permit vehicle's axle spacing must be no less than the dimensions specified in the "Vehicle Considered" table, and the axle loads must not exceed the values indicated in table.

5. The permit vehicle dolly and platform's gross loading are to be equally distributed between all axles of the dolly and platform.
6. Concurrence from the Greater Sydney, Southern, and Northern Regions must be obtained for the movement of the vehicle along the proposed route.
7. The transport firm is required to obtain approvals from all relevant authorities, infrastructure owners and stewards including and not limited to UGL/ARTC, Sydney Trains (formerly Railway Access Corporation or State Rail Authority), NSW Ports, ALTRAC/Transdev and Department of Land and Water Conservation, for travel over their infrastructure. The TfNSW Bridge Inventory shows the following:

Bridge Number	Bridge Name	Asset Owner
363	BRIDGE ON SH13 NORTHERN RAILWAY AT PENNANT HILLS	Sydney Trains
1305	PUNIT BRIDGE OVER GRT.NTHN.RLY 18.9KM W OF NCLE	UGL
1380	CSLAB BRIDGE GRAHAMSTOWN SPILWAY 31.92 K N NEWCASTLE	Hunter Water
6251	BRIDGE OVER RAILWAY (NTHBOUND) NEAR YARRA	UGL
7217	NB BRIDGE ON SH10 OVER RAILWAY NEAR EUNGAI	Sydney Trains
9487	TWIN SUTG BRIDGES G/TOWN SPILLWAY 31.54 K N NEWCASTLE	Hunter Water

8. The transport firm must obtain approval from the relevant Councils for travel over Council roads and any Council structures along the route.
9. The transport firm must ensure that there is sufficient height clearance beneath all overhead structures along the route. The firm should refer to Region for further details.

The TfNSW Bridge Inventory shows the following:

Bridge Number	Bridge Name	Estimated Height Clearance
250	CBOXG BRIDGE, F3 - MT WHITE, 54.4KM N OF SYDNEY,	5.35
283	EB BR ON CAMDN VWAY, M5, PRESTON,	5.21
286	BRIDGE ON C'TOWN RD, OVER M5 (1ST XING), GLENFIELD,	5.29
602	BR ON ST.ANDREWS RD, OVER SH2, AT MINTO,	5.15
603	BR ON RABY RD, OVER HUME HWY, AT ST. ANDREWS,	5.19
604	BR ON N/B ONLOAD R., OVER SH2, AT ST. ANDREWS,	5.21
611	BRIDGE OVER SH2, AT MORTON PARK ROAD, 69.17KM S OF SYDNEY, - MORTON PARK RD STH	5.2
612	BRIDGE OVER SH2, ON DOUGLAS PARK RD, AT DOUGLAS PARK, - DOUGLAS PARK RD BR.	5.3
771	BRIDGE ON CHURCH, AVENUE OVER SH2, AT ALPINE,	5.3
816	BRIDGE OVER SH2, MR 612 - PICTON RD, AT WILTON,	5.2

Bridge Number	Bridge Name	Estimated Height Clearance
831	BRIDGE ON C'TOWN RD, HUME HWY S/B (2ND XING), INGLEBURN,	5.29
832	BRIDGE ON C'TOWN RD, HUME HWY N/B (2ND XING), INGLEBURN,	5.25
837	E/B BR ON MR178 ,, NARELLAN RD, OV SH2, BLAIRMOUNT,	5.4
2239	Ballina St Bridge – Bridge on SH16 over Wilsons River at Lismore	5.2
6311	N/B LOAD RAMP, OVER SH2 - S/B, AT SH3 INTERCHANGE,	5.2
6686	BRIDGE OVER, SH2, 74.2KM STH SYDNEY, - NILOC BRIDGE	5.1
7300	CBOXG BRIDGE, M1 MOTORWAY, 75.3KM N OF SYDNEY, - MANGROVE ROAD	5.38
7446	W/B BR ON MR178 -, NARELLAN RD, OV SH2, CAMPBELLTOWN,	5.4
7670	SGIRD BRIDGE, F3-MANDALONG RD, 0.22K E OF MORRISET, - MANDALONG ROAD	5.39
7696	BRIDGE ON SH25, OVER SH2 AT HODDLES, CROSS ROADS,	5.4
7823	PED BRIDGE OVER SH13 AT NORMANHURST	5.13
7831	PED BR OV F.3, AT WARWILLA AV, WAHROONGA	5.13
7896	STROG BRIDGE, F3 FREEWAY, 8.60 K W OF TORONTO, - PALMERS INTERCHANGE	5.23
7910	BRIDGE ON MR 258, OVER SH2 AT WELBY, 124.5KM S OF SYDNEY,	5.4
8114	W/B ROUND-ABOUT, BRIDGE OVER SH2, WEST OF GOULBURN, SOUTH BRIDGE - BRIDGE B	5.4
8116	BR ON S/B UNLOADING, RAMP OVER SH2 AT, NORTH GOULBURN,	5.3
8117	BRIDGE OVER SH2, WINDELLAMA ROAD, AT GOULBURN(BYPASS),	5.4
8203	BRIDGE, OVER HW2 HUME, 78.44KM S GOULBURN, - COOLALIE RD	5.34
8208	BRIDGE, OVER HW2 HUME, 84.95 KM S GOULBURN,	5.33
8270	PEDESTRIAN BRIDGE, OV SH13 AT STATION ST, THORNLEIGH	5.25
8271	PEDESTRIAN BRIDGE, OV SH13 AT THE CRES, PENNANT HILLS	5.1
8448	W/B PVSLB BRIDGE, OLD BAR ROAD - HW10, 4.38 K N OF TAREE, - PURFLEET INTERCHANG	5.24
8449	PVSLB BRIDGE E/B, OLD BAR RD OVR SH10, 4.27 K N OF TAREE, - PURFLEET INTERCHANG	5.32
8516	PEDESTRIAN BRIDGE, PENNANT HILLS RD, PENNANT HILLS	5.25
8550	WB BR ON CAMDN VWAY, OV M5, PRESTON,	5.21
8710	PSUTG BRIDGE, PACIFIC HWY - HW10, 11.81 K N OF TAREE, MANNING RIVER DR - CUNDLETOWN I'CHNG	5.28
8830	RMP FROM ABBOT RD, TO M2 OVER M7, BAULKHAM HILLS,	UNKNOWN
8832	BR ON LANGDON RD, M2, BAULKHAM HILLS,	5.35
8833	PED AT ROMULUS ST, M2, BAULKHAM HILLS	5.19
8834	PED AT IXION ST, M2, BAULKHAM HILLS	5.33
8836	BR ON CROPLEY DR, M2, BAULKHAM HILLS,	5.36
8837	BR ON WATKINS RD, M2, BAULKHAM HILLS,	5.28

<b>Bridge Number</b>	<b>Bridge Name</b>	<b>Estimated Height Clearance</b>
8839	BR ON WINDSOR RD, M2, BAULKHAM HILLS,	5.4
8888	PSUTG BRIDGE, FERNY CREEK ROAD, 116.6 K N NEWCASTLE, - MUXLOWS BRIDGE	5.29
9197	BRIDGE OVER SH2, AT SUTTON FOREST, , - SALLY'S CORNER	5.21
9205	PED OVER-BRIDGE SH16, BRUXNER HWAY, KADINA HIGH, GOONELLABAH	5.2
9209	RAILWAY BRIDGE, OVER SH10, COFFS HARBOUR	5.3
9210	PEDESTRIAN BR, SH2, RABY	5.24
9807	RMP FR CVW TO M5 EB, M7 NB RAMP, PRESTONS,	5.38
9815	BR ON KURRAJONG RD, M7 & MAXWWLL CK, PRESTONS,	5.26
9843	PED BR SOUTHERN, M7 STH OF ELIZ DR, CECIL PARK	5.4
9846	PED BR NORTHERN, M7 STH OF ELIS DR, CECIL HILLS	5.4
9855	BR ON THE HORSLEY DR, M7, HORSLEY PARK,	5.36
9860	BR ON CHANDOS RD, M7, HORSLEY PARK,	5.25
9869	BR ON OLD WGROVE RD, M7, EASTERN CREEK,	5.08
9880	M7NB OFF RMP TOM4EB, ON RMP OVER M4, EASTERN CR,	5.23
9881	M7SB OFF TO M4WB ON, M4 & WALLGROVE RD, EASTERN CREEK,	5.23
9897	BR ON EASTERN RD, M7, ROOTY HILL,	5.33
9905	BR ON POWER ST, M7, PLUMPTON,	5.26
9907	BR ON LAMB ST, M7, OAKHURST,	5.29
9925	BR ON Q'KRS HLL PWY, M7, QUAKERS HILL,	5.36
9927	BR ON QUAKERS RD, M7, QUAKERS HILL,	5.2
9939	NORWEST BOULEV RAMP, M7, KINGS LANGLEY,	5.35
9944	BR ON 7 HILLS RD, M7, SEVEN HILLS,	UNKNOWN
10031	BRIDGE, OVER HW2 HUME, WEST ST GUNDAGAI, - WEST ST INTERCHANGE	5.27
10133	BRIDGE, OVER HW2 HUME, BORELLA ROAD,	5.25
10299	BRG MAILMANS TRACK, PACIFIC HIGHWAY, 92.9KM NTH KEMPSEY, - SGT MATTHEW LOCKE	5.4
10311	BRG. ARCHVILLE RD, OVER PACIFIC HWY., 96.9KM NTH KEMPSEY,	5.3
10314	EAST BONVILLE RD.BR, PACIFIC HIGHWAY, 98KM NTH. KEMPSEY,	5.4
10389	BRIDGE, OVER HW2, MR 384, - TUMBARUMBA ROAD	5.4
10412	BRIDGE ON MR600, OVER HW10, KEW, KEW INTERCHANGE BRIDGE	5.2
10438	PSUTG BRIDGE, PACIFIC HIGHWAY, ON JOHNS RIVER ROAD,	5.36
10452	PSUTG BRIDGE, BOMBAH POINT ROAD, 95.75KM N NEWCASTLE,	5.26
10453	STRUSS BRIDGE, PACIFIC HIGHWAY, 96.45KM NTH NEWCASTLE	4.5
10580	N/B BRIDGE ON H10, TEVEN R INTERCHANGE, 125.7KM N GRAFTON, BALLINA BYPASS	5.3
10581	S/B BRIDGE ON H10, TEVEN R INTERCHANGE, 125.7KM N GRAFTON, BALLINA BYPASS	5.3

Bridge Number	Bridge Name	Estimated Height Clearance
10609	BRIDGE - WARDELL RD, SH16 BRUXNER HWAY, ALSTONVILLE BYPASS, 6.5KM WEST H10	5.3
10680	BRIDGE, NORTHERN INTERCHANG, TARCUTTA, - DAVID PULVER BRIDGE	5.3
10724	BRIDGE, OVER HW2, ALBURY ST HOLBROOK,	5.3
10729	BRIDGE, OVER HW2, MR 211 HOLBROOK,	5.3
10737	CBOXG BRIDGE, M1 - RAMP, CAMERON PARK, BRAXTON TO SYDNEY	5.3
10792	OVERPASS BRIDGE, HW 10 PACIFIC HWY, 8.97KM NTH COFF'S, OLD COAST ROAD - HEADLAND ROAD	5.1
10793	OVERPASS BRIDGE, HW10 PACIFIC HWY, 9.53KM NTH COFF'S, GAUDRONS ROAD - SOLITARY ISLANDS WAY	5.3
10794	OVERPASS BRIDGE, HW10 PACIFIC HWY, 12.29KM NTH COFF'S, MOONEE BEACH ROAD	5.3
10802	OVERPASS BRIDGE, HW10 PACIFIC HWY, 16.34KM NTH COFF'S, SMITH'S ROAD BDGE	5.3
10803	OVERPASS BRIDGE, HW10 PACIFIC HWY, 17.8KM NTH COFF'S, EMERALD BEACH INTER	5.3
10806	OVERPASS BRIDGE, HW10 PACIFIC HWY, 20.7KM NTH COFF'S, DIAMOND HEAD DRIVE	5.4
10814	OVERPASS BRIDGE, HW10 PACIFIC HWY, 25.07KM NTH COFF'S, WOOLGOOLGA CK ROAD	5.3
10822	BRIDGE OVER HW10, HW10 PACIFIC HWY, 31.72KM NTH COFF'S, ARRAWARRA INTERCHANGE	5.3
10825	BRIDGE OVER THE, HUME HIGHWAY, AT MARULAN,	5.3
10908	BRIDGE ON LOCAL RD, PACIFIC HIGHWAY, SOUTH KEMPSEY, - CRESCENT HEAD RD	5.38
10911	BRIDGE ON LOCAL RD, PACIFIC HIGHWAY, KEMPSEY BYPASS, INCHES ROAD BRIDGE	5.4
10912	BRIDGE ON LOCAL RD, NEW PACIFIC HIGHWAY, KEMPSEY BYPASS, OLD STATION RD BDG	5.35
10914	BRIDGE ON OLD HW10, NEW PACIFIC HIGHWAY, FREDRICKTON, FREDRICKTON INTERCHANGE	UNKNOWN
11164	BRIDGE ON KUNDABUNG ROAD, OVER PACIFIC HIGHWAY, KUNDABUNG RD. INTERCHANGE, 103.1KM NORTH OF TAREE	5.3
11253	OVER BRIDGE HWY 10, KANGAROO TRAIL RD, 33.2KM N OF COFFS,	5.3
11317	BRIDGE OVER SH10, ON MILL LANE, 63.2 KM OF PORT MACQUARIE, F2E AKA SHEPPARD ROAD	5.3
11343	BRIDGE ON COOKS LANE, OVER PACIFIC HIGHWAY, 77.8KM N OF PORT MACQ., F2E	5.3
11350	BRIDGE OVER PACIFIC HWY., AT STUARTS POINT RD., 84.6KM N OF PORT MACQ., F2E	5.4
11358	CORKWOOD ROAD OVERBRIDGE, PACIFIC HIGHWAY, NAMBUCCA INTERCHANGE, 62.31KM N KEMPSEY	5.4
11363	EAST-WEST RD OVERBRIDGE, OVER PACIFIC HIGHWAY, 67.7KM N OF KEMPSEY,	5.3
11366	OVERBDG BALLARDS RD, PACIFIC HWY 10, 72.44KM N KEMPSEY,	5.3

Bridge Number	Bridge Name	Estimated Height Clearance
11370	OVERBRIDGE MARTELLS RD, PACIFIC HWY 10, 75.47KM N KEMPSEY, 2.1KM S KALANG RIVER	5.3
11373	OVERBRIDGE, PACIFIC HWY 10, 78.53KM N KEMPSEY, NORTH OF KALANG RIVER	5.3
11376	O/BDG SHORT CUT RD, PACIFIC HWY 10, 81.53KM N KEMPSEY,	5.3
11522	STH INTERCHANGE BRIDGE WB, OVER PACIFIC HIGHWAY, 18.1 KM NORTH OF PORT MAC, HASTINGS RIVER DRIVE WB	5.3
11523	NTH INTERCHANGE BRIDGE EB, OVER PACIFIC HIGHWAY, 18.2 KM NORTH OF PORT MAC, HASTINGS RIVER DRIVE EB	5.3
11525	BRIDGE ON BILL HILL ROAD, OVER PACIFIC HIGHWAY, 21.6 KM NORTH OF PORT MAC, BILL HILL ROAD OVERBRIDGE	5.4
11537	OVERBRIDGE ON LOCAL ROAD, OVER PACIFIC HIGHWAY, 28.1 KM NORTH OF PORT MAC, HAYDONS WHARF ROAD	5.37
11586	RAIL BRIDGE OVER SH10, PACIFIC HIGHWAY, 42.6KM NORTH OF KEMPSEY	5.4
11587	BRIDGE ON COCKBURNS LANE, OVER SH10, 42.9KM NORTH OF KEMPSEY, COCKBURNS LANE	5.2
11589	BRIDGE ON ROSEWOOD ROAD, OVER PACIFIC HIGHWAY, 45.3KM NORTH OF KEMPSEY, ROSEWOOD ROAD	5.3
11591	BRIDGE ON ALBERT DRIVE, OVER PACIFIC HIGHWAY, 46.1KM NORTH OF KEMPSEY, ALBERT DRIVE	5.3
11596	QUARRY ACCESS BRIDGE, OVER PACIFIC HIGHWAY, 47.5KM NORTH OF KEMPSEY, QUARRY ACCESS ROAD	5.4
11599	BRIDGE ON BALD HILL ROAD, PACIFIC HIGHWAY, 49.3KM NORTH OF KEMPSEY, BALD HILL INTERCHANGE	5.2
11605	BRIDGE ON OLD COAST RD 1, OVER PACIFIC HIGHWAY, 53.4KM NORTH OF KEMPSEY, OLD COAST ROAD 1	5.4
11616	BRIDGE ON OLD COAST ROAD, PACIFIC HIGHWAY, 60.9KM NORTH OF KEMPSEY, OLD COAST ROAD # 2	5.4
11786	HW10 ON RAMP OVERBRIDGE, PACIFIC HIGHWAY, 68.5KM NTH COFFS HARBOUR	5.39
11790	BRIDGE ON OLD 6 MILE ROAD, PACIFIC HIGHWAY, 72.1KM NTH. COFFS HARBOUR	5.37
11791	BRIDGE ON AVENUE ROAD, PACIFIC HIGHWAY, 75.2KM NTH. COFFS HARBOUR,	5.3
11798	BRIDGE ON WOOLI ROAD, OVER PACIFIC HIGHWAY, 79.2KM NTH COFFS HARBOUR,	5.3
11819	BRIDGE ON FIRTH HEINZ RD, PACIFIC HIGHWAY, 85.7KM NTH. COFFS HARBOUR,	5.39
11826	BRIDGE ON BOSTOCK ROAD, PACIFIC HIGHWAY, 89.3KM NTH. COFFS HARBOUR,	5.36
11840	CROWLEY'S ROAD OVERBRIDGE, PACIFIC HIGHWAY, 98.9KM NTH COFFS HARBOUR	5.31
11843	BONDI HILLRD OVERBRIDGE, PACIFIC HIGHWAY HW10, 102.6KM NTH COFFS HARBOUR	5.35
11844	TYNDALE SB EXIT RAMP, PACIFIC HIGHWAY HW10, 103.2KM NTH COFFS HARBOUR	5.29
11847	BYRONS LANE OVERBRIDGE, PACIFIC HIGHWAY HW10, 104.9KM NTH COFFS HARBOUR	5.3

Bridge Number	Bridge Name	Estimated Height Clearance
11851	MCINTYRES LANE OVERBRIDGE, PACIFIC HIGHWAY HW10, 110.3KM NTH COFFS HARBOUR	5.36
11856	MACLEAN INTERCHANGE, PACIFIC HIGHWAY HW10, 114KM NTH COFFS HARBOUR	5.36
11902	ILUKA ROAD OVERBRIDGE, PACIFIC HIGHWAY, 137.8KM NTH COFFS HARBOUR	5.29
11957	BROADWATER EVANS HD RD, SH10 PACIFIC HIGHWAY, 175.1KM NTH COFFS HARBOUR	5.29
11988	BRIDGE ON WARDELL ROAD, SH10 PACIFIC HIGHWAY, 185.32KM N COFFS HARBOUR	5.29
11989	BRIDGE ON COOLGARDIE RD, SH10 PACIFIC HIGHWAY, 189.99 NTH COFFS HARBOUR	5.33
11992	WHYTES LANE OVERBRIDGE, SH10 PACIFIC HIGHWAY, 193.31KM N COFFS HARBOUR	5.3
12252	BRIDGE, HUME HIGHWAY (M31), MENANGLE PARK	5.4
12596	PEDESTRIAN OVERBRIDGE, PACIFIC HIGHWAY, 110.6KM NORTH OF KEMPSEY	UNKNOWN

The above list is not exhaustive. The transport firm shall confirm all the overhead structures on the route.

**Note: The height clearance may vary depending on the lanes that the permit vehicle will travel on. Refer to Region for further details.**

10. The transport firm shall confirm that the width of the vehicle and load can safely navigate all bridges on the above route. The firm should refer to Region for further details.

11. This approval is for the direction of route from **Albury to Myrtle Creek** following the specified route above, with no return trip.

Cost of assessment is \$1800 +GST

*Shah M Parvez*

Shah M Parvez  
Senior Bridge Engineer  
Bridge Assessment and Evaluation  
2 October 2025

## Appendix B: Swept Path Analyses

Pinch Point

# 06

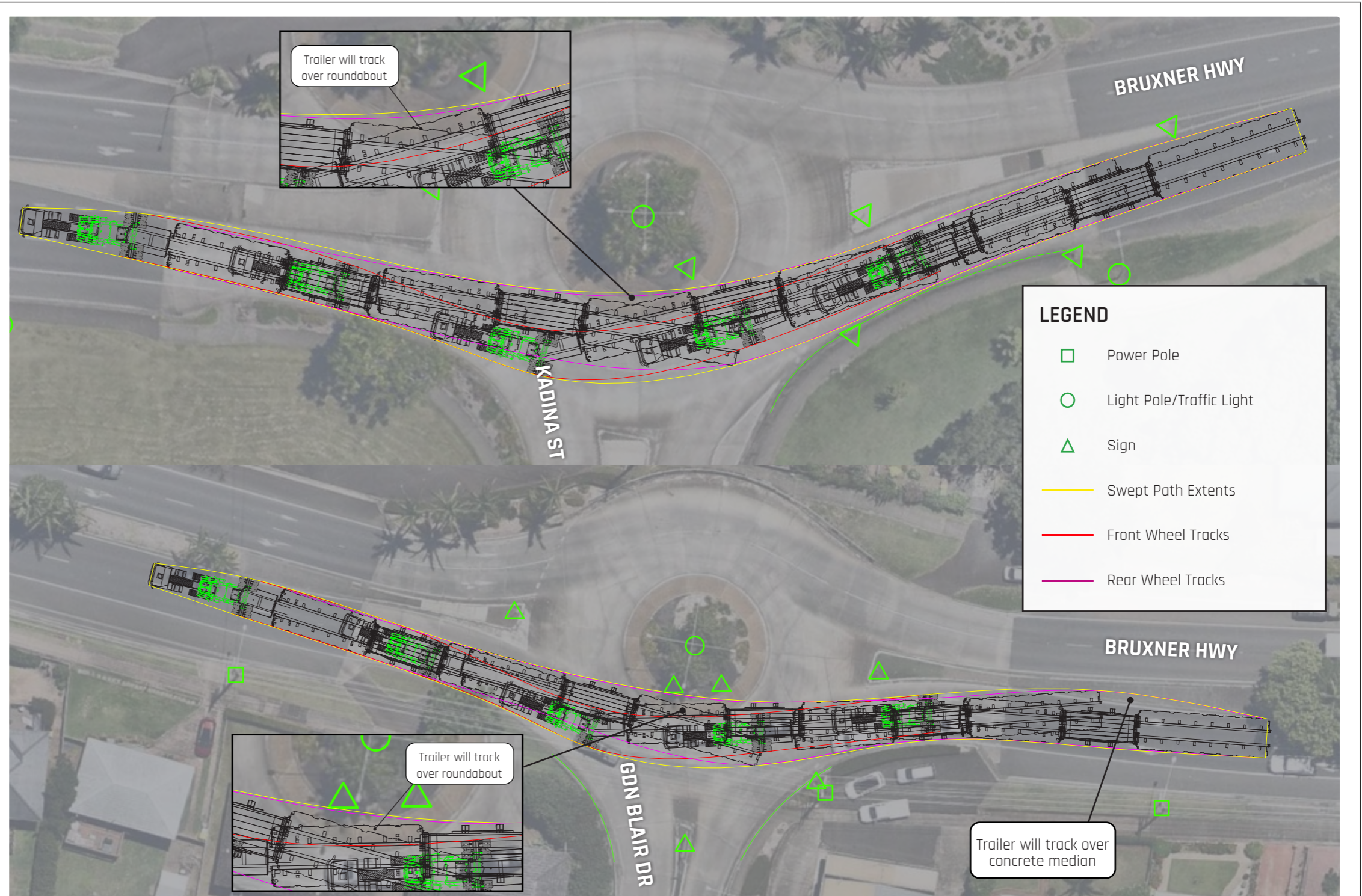
ROUNDAABOUTS  
Bruxner Hwy,  
Lismore

ROUTE 1    ROUTE 2    ROUTE 3

There are numerous roudabouts to negotiate in the town of Lismore:

- Bruxner Hwy and Oliver St
- Bruxner Hwy and Holland St
- Bruxner Hwy and Kadina St (shown, top)
- Bruxner Hwy and Gordon Blair Dr (shown, bottom)
- Bruxner Hwy and Wyrallah Rd
- Bruxner Hwy and Dawson St
- Bruxner Hwy and Molesworth St
- Bruxner Hwy and Three Chain Rd
- Bruxner Hwy south of Three Chain Rd

All apart from those assessed within this study can be taken with no issues or modifications. There are a number of other roundabouts which require attention, which are shown in this and the Pinch Points following.



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**DRAWING NOTES:**

ALL DIMENSIONS ARE IN mm UNLESS NOTED OTHERWISE (UNO) ALL WEIGHTS ARE IN t (METRIC TONNES) UNO ALL DETAILS ARE PROVISIONAL AND SUBJECT TO CONFIRMATION LASHINGS CALCULATIONS AS PER RESTRAINT GUIDELINES



DRAWN BY:

DRAWN DATE:

CHECKED BY:

CUSTOMER: Ark Energy

PROJECT: Richmond Valley SF

DRAWING TITLE: SWEPT PATH DRAWING

DRAWING NAME: Route Survey

SIZE:

SCALE NTS

SHEET NO:

REV

ARES PROJECT SERVICES PTY LTD - ABN: 45 643 587 115

Pinch Point

# 07


ROUNDBABOUT  
Bruxner Hwy  
& Rous Rd

ROUTE 1 ROUTE 2 ROUTE 3

Due to the wall on the south side of Bruxner Hwy, it will be very difficult to take this roundabout conventionally without significant modifications to the roundabout and its vegetation. Instead, the load can cross over to the incorrect side near Jubilee Ave and contraflow down Bruxner Hwy until through and past the roundabout. Police escorts will have to block this section of road during the contraflow manoeuvre.

The trailer will track over the inside part of the roundabout as well as kerbing on the north side of the highway.



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		PROJECT:	Richmond Valley SF	SCALE NTS
	DRAWN BY:	DRAWING TITLE:	SWEPT PATH DRAWING	SHEET NO:
	DRAWN DATE:	DRAWING NAME:	Route Survey	REV
	CHECKED BY:	ARES PROJECT SERVICES PTY LTD - ABN: 45 643 587 115		

Pinch Point

# 08

ROUNDAABOUT  
Bruxner Hwy  
& Kellas St

ROUTE 1    ROUTE 2    ROUTE 3

Similar to the previous pinch point, it will be very difficult to take this roundabout conventionally without significant modifications to the roundabout and its vegetation. Instead, the load should cross over to the incorrect side just prior to the roundabout and take a straight line through the incorrect side roundabout. The load can then cross back over to the correct side of the road.

1 sign will need to be made removeable. The crossing point where the trailer mounts the concrete median will need to be made trafficable.

Police escorts will have to control traffic upstream of the roundabout during the contraflow manoeuvre.



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DRAWN BY:  
DRAWN DATE:  
CHECKED BY:

CUSTOMER:	Ark Energy	SIZE:
PROJECT:	Richmond Valley SF	SCALE NTS
DRAWING TITLE:	SWEPT PATH DRAWING	SHEET NO:
DRAWING NAME:	Route Survey	REV

ARES PROJECT SERVICES PTY LTD - ABN: 45 643 587 115

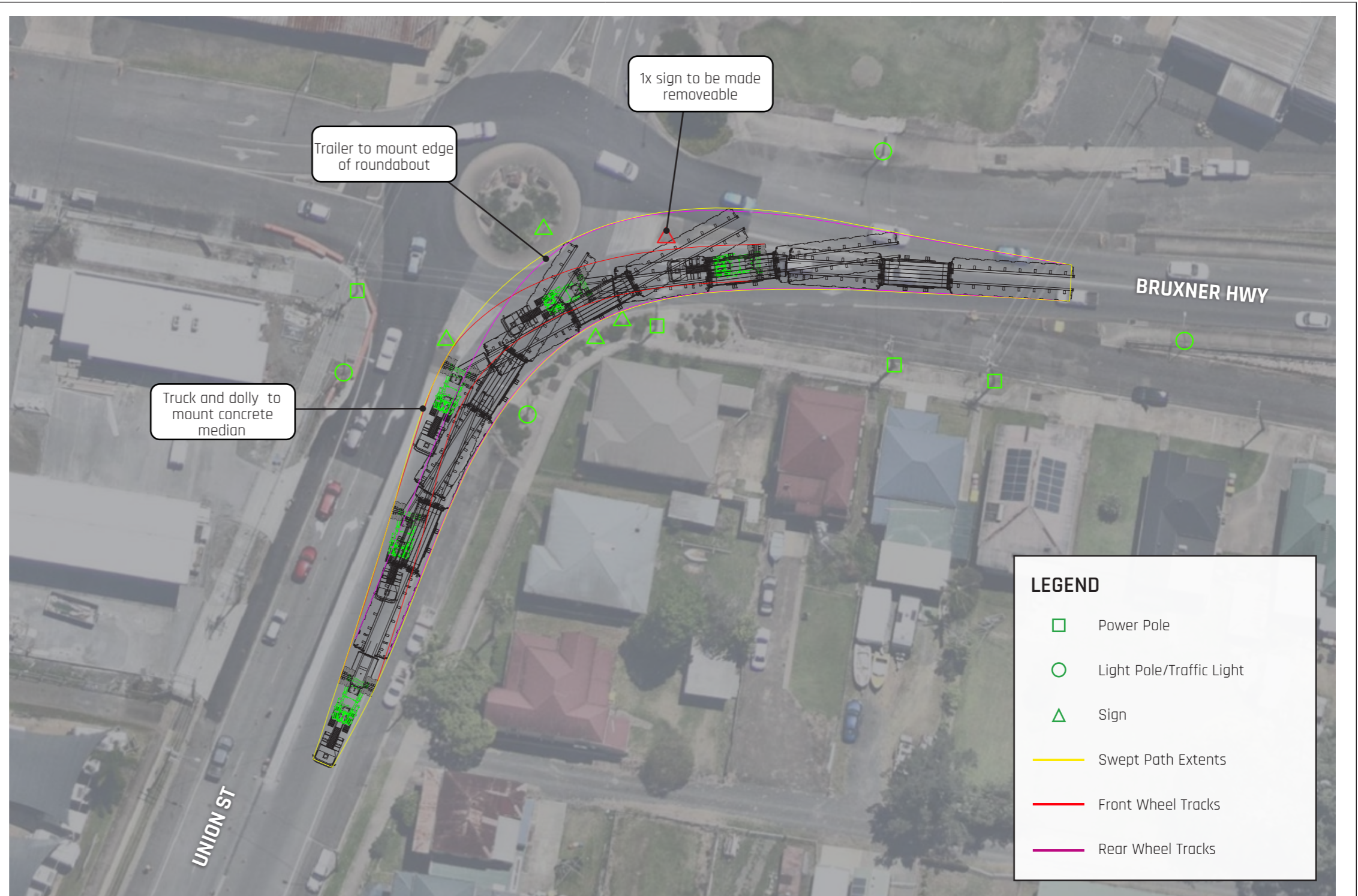
Pinch Point

# 09

LEFT TURN  
Bruxner Hwy  
& Union St

ROUTE 1    ROUTE 2    ROUTE 3

The left turn at Union St in Lismore will need to be taken very carefully due to tight clearances to road infrastructure on all sides, but can be achieved with only one sign requiring modification. The truck and dolly will use the concrete median on Union St when making the turn. The rear of the trailer will also mount the edge of the roundabout.



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**DRAWING NOTES:**

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CUSTOMER:	Ark Energy	SIZE:
PROJECT:	Richmond Valley SF	SCALE NTS
DRAWING TITLE:	SWEPT PATH DRAWING	SHEET NO:
DRAWING NAME:	Route Survey	REV

ARES PROJECT SERVICES PTY LTD - ABN: 45 643 587 115

Pinch Point

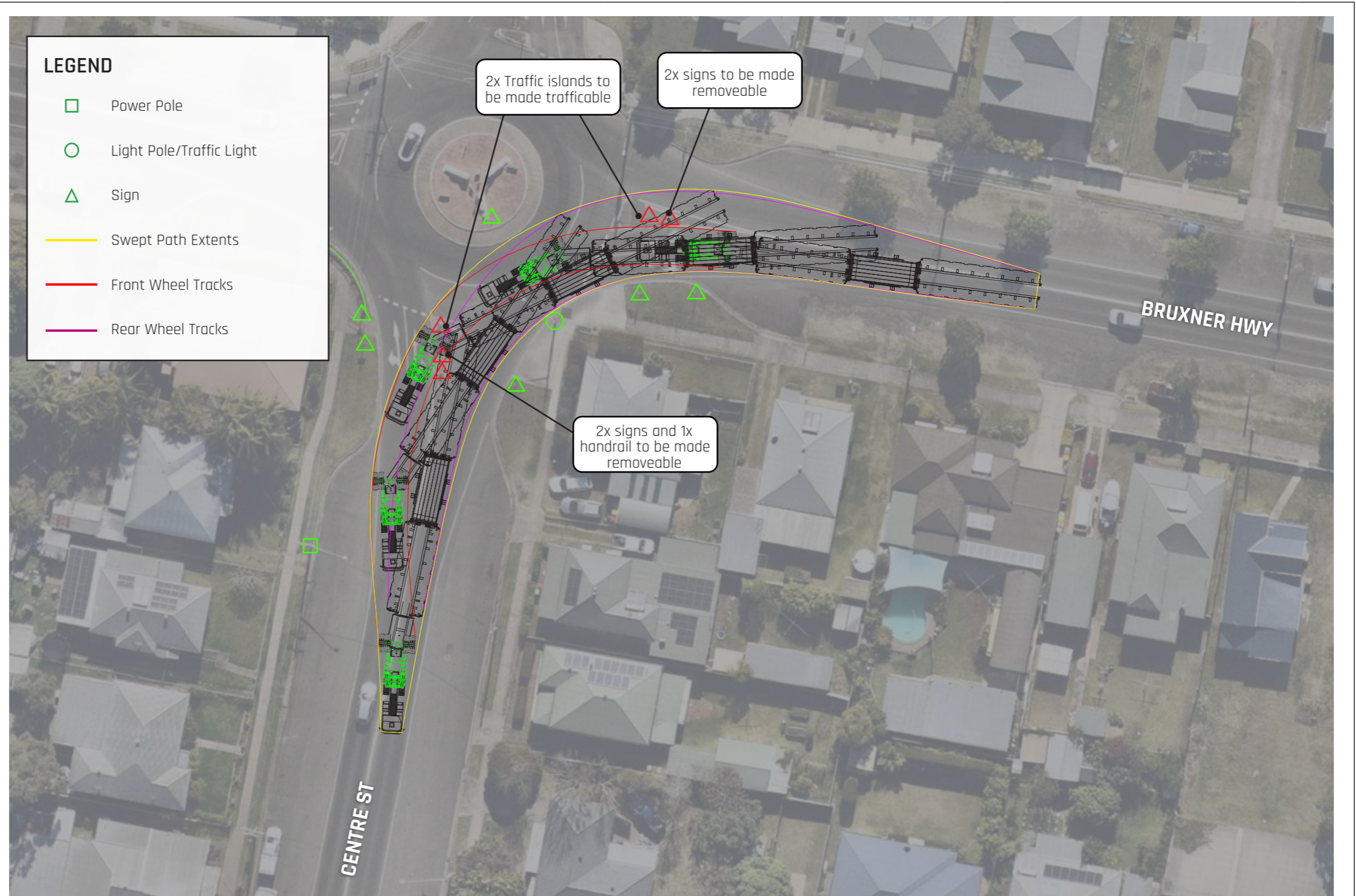
# 10

LEFT TURN  
Bruxner Hwy  
& Centre St

ROUTE 1    ROUTE 2    ROUTE 3

This left hand turn in Casino is difficult due to the amount of infrastructure present. Four signs and a handrail will need to be made removeable on the traffic islands to allow the transformer to pass through. The traffic islands themselves will need to be made trafficable.

Police will need to hold traffic in all directions while the load is making the turn.



**LEGEND**

- Power Pole
- Light Pole/Traffic Light
- △ Sign
- Swept Path Extents
- Front Wheel Tracks
- Rear Wheel Tracks

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DRAWN BY:

DRAWN DATE:

CHECKED BY:

CUSTOMER: Ark Energy

PROJECT: Richmond Valley SF

DRAWING TITLE: SWEPT PATH DRAWING

DRAWING NAME: Route Survey

SIZE:

SCALE NTS

SHEET NO:

REV

ARES PROJECT SERVICES PTY LTD - ABN: 45 643 587 115

Pinch Point

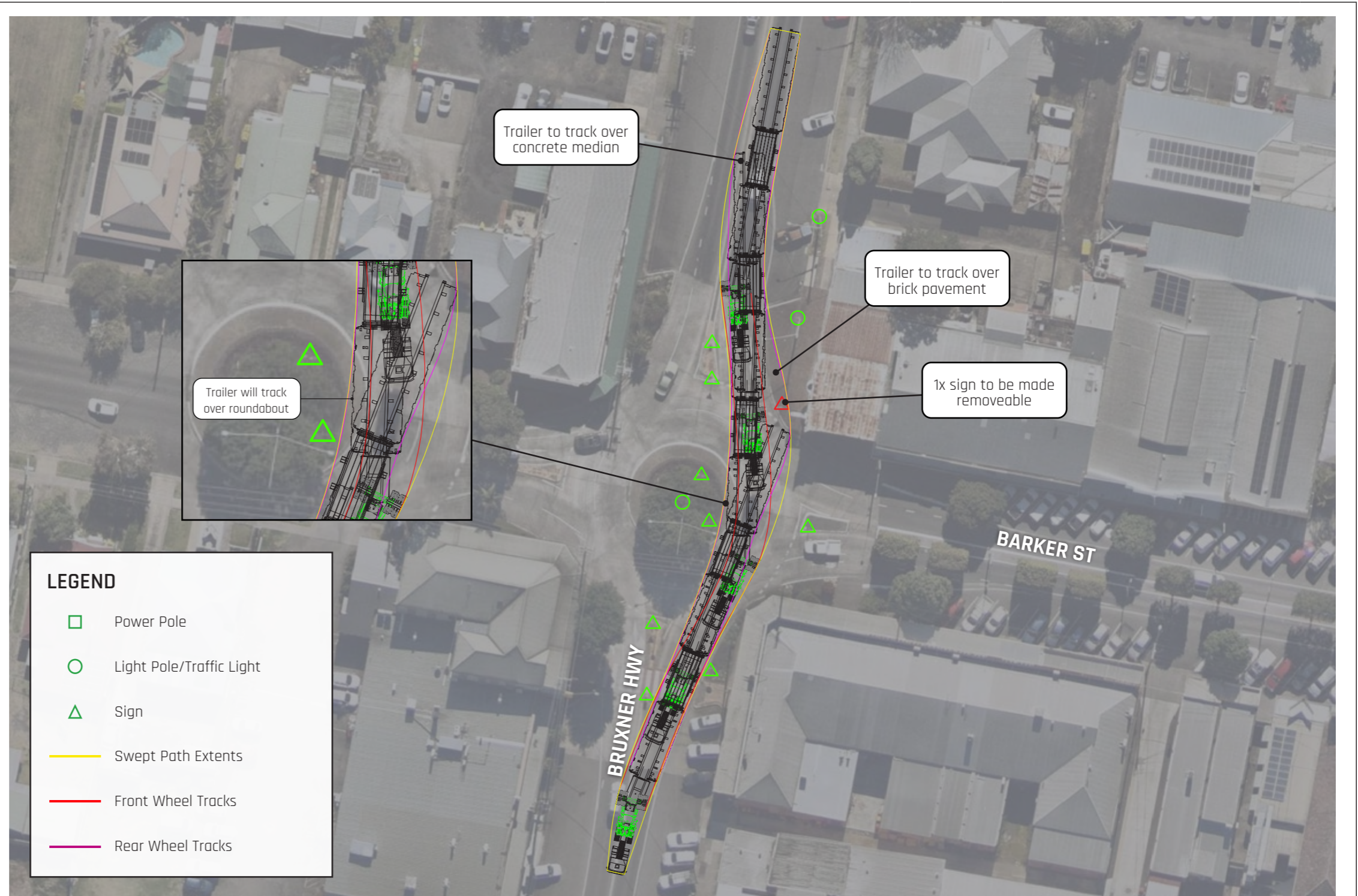
# 11

ROUNDAABOUT  
Bruxner Hwy  
& Barker St

ROUTE 1 ROUTE 2 ROUTE 3

The second roundabout in Casino will only require one sign to be made removeable. Care will need to be taken due to the close proximity of buildings on the left hand side.

The rear of the trailer will travel over the centre median strip, the brick pavement at the entry into the roundabout and the inside part of the roundabout itself. These will need to be checked to confirm they are trafficable.



### LEGEND

- Power Pole
- Light Pole/Traffic Light
- △ Sign
- Swept Path Extents
- Front Wheel Tracks
- Rear Wheel Tracks

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DRAWN BY:

DRAWN DATE:

CHECKED BY:

CUSTOMER: Ark Energy

PROJECT: Richmond Valley SF

DRAWING TITLE: SWEPT PATH DRAWING

DRAWING NAME: Route Survey

SIZE:

SCALE NTS

SHEET NO:

REV

ARES PROJECT SERVICES PTY LTD - ABN: 45 643 587 115

Pinch Point

# 12

ROUNDAABOUT  
Bruxner Hwy  
& Hare St

ROUTE 1    ROUTE 2    ROUTE 3

The third Casino roundabout at Hare St is much tighter and will require the roundabout itself to be modified. Hard stand material needs to be placed on the roundabout to allow the platform trailer wheels to traverse over, and one sign will need to be moved. The tree in the middle of the roundabout will need to be trimmed back to make way for the trailer and load.



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DRAWN BY:

DRAWN DATE:

CHECKED BY:

CUSTOMER: Ark Energy

PROJECT: Richmond Valley SF

DRAWING TITLE: SWEPT PATH DRAWING

DRAWING NAME: Route Survey

SIZE:

SCALE NTS

SHEET NO:

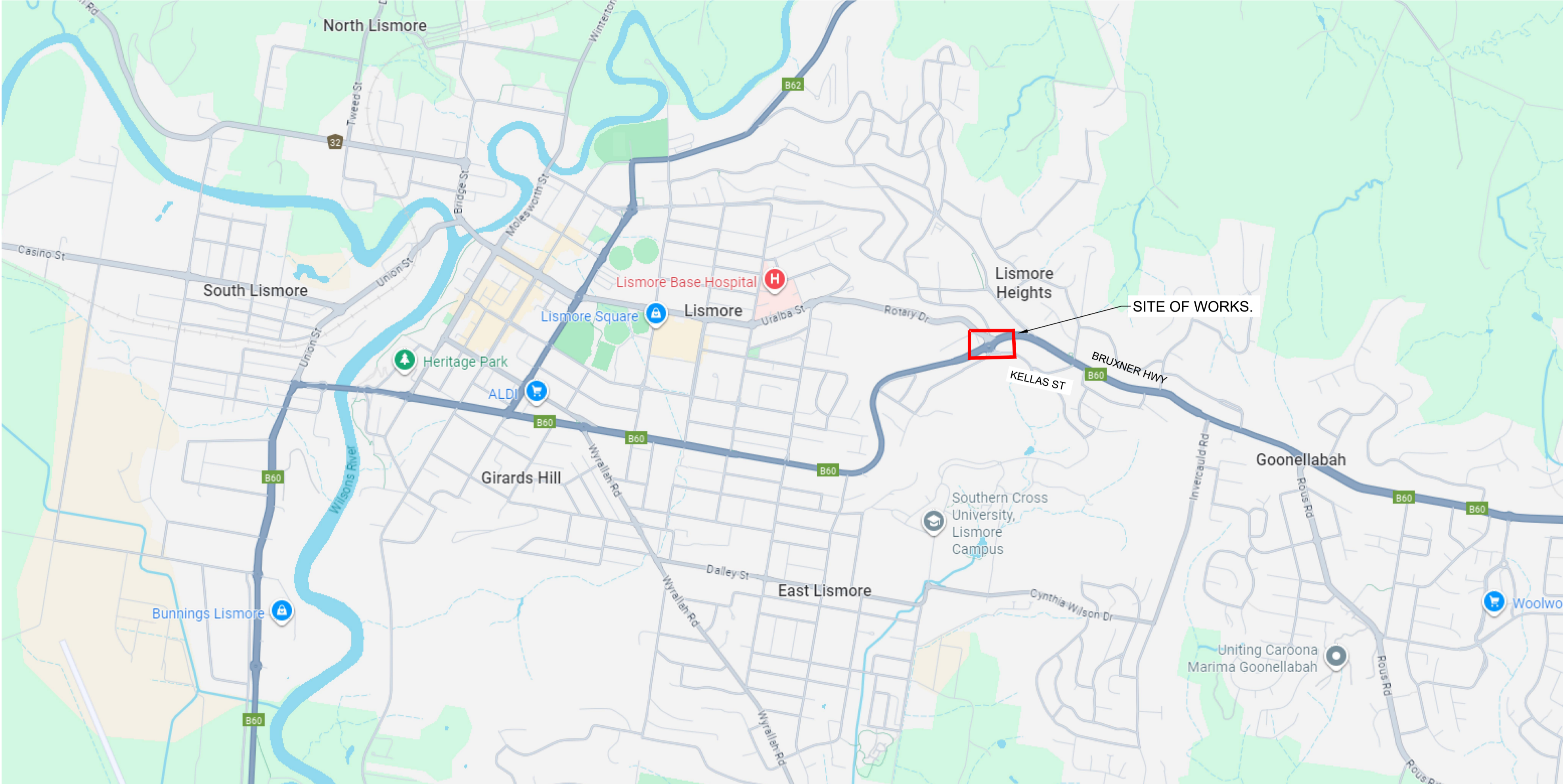
REV

ARES PROJECT SERVICES PTY LTD - ABN: 45 643 587 115

## Appendix C: Strategic Designs

# RICHMOND VALLEY SF

## STRATEGIC DESIGN - BRUXNER HWY AND KELLAS ST, LISMORE. PINCH POINT 8.

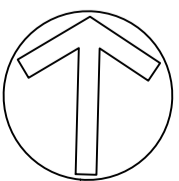


TfNSW 2D STRATEGIC DESIGN REQUIREMENTS		
DESIGN INCLUSIONS	YES	NO
North point	X	
Road names	X	
Proposed edge of pavement	X	
New pavement shown as shaded	X	
Proposed line and pavement markings	X	
Proposed medians including type (raised or painted)	X	
Proposed footpaths and/or cycle ways	X	
Proposed safety barriers	X	
Property boundaries (from mapping program)	X	N/A
Sight distance checks	X	N/A
Proposed regulatory signage (e.g. parking restrictions, speed zone changes)	X	
Vegetation- tree trunks and foliage, including proposed trees removal to enable works	X	
Hazard free zone (clear zone)	X	N/A
Dimension all proposed design elements (incl. line marking)	X	
Typical section/s	X	
Turning paths of design vehicle at 15km/h	X	

OVERALL SITE PLAN  
NTS.

SHEET INDEX		
SHEET No	DESCRIPTION	REV
EMM - C00	COVER SHEET AND SHEET INDEX	-
EMM - C01	EXISTING LAYOUT PLAN	-
EMM - C02	CONSTRUCTION PLAN	-
EMM - C03	SWEPT PATH PLAN - OSOM VEHICLE	-


REV	DATE	COMMENT	DRAWN	REVIEWED	REV	DATE	COMMENT	DRAWN	REVIEWED
-	18/9/25	STRATEGIC DESIGN	C.J.	A.U.					





PLAN  
SCALE 1:250

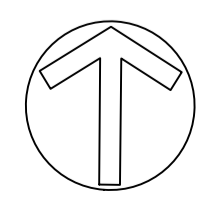
**LEGEND**

 EXISTING SIGNS IMPACTED OR CLOSE TO PROPOSED WORKS

NOT FOR CONSTRUCTION


  
 SYDNEY | Suite 01  
 Ground Floor  
 20 Chandos Street,  
 St Leonards NSW 2065  
 Phone # 02 9493 9500  
 www.emmconsulting.com.au

REV	DATE	COMMENT	DRAWN	REVIEWED	REV	DATE	COMMENT	DRAWN	REVIEWED
-	18/9/25	STRATEGIC DESIGN	C.J.	A.U.					

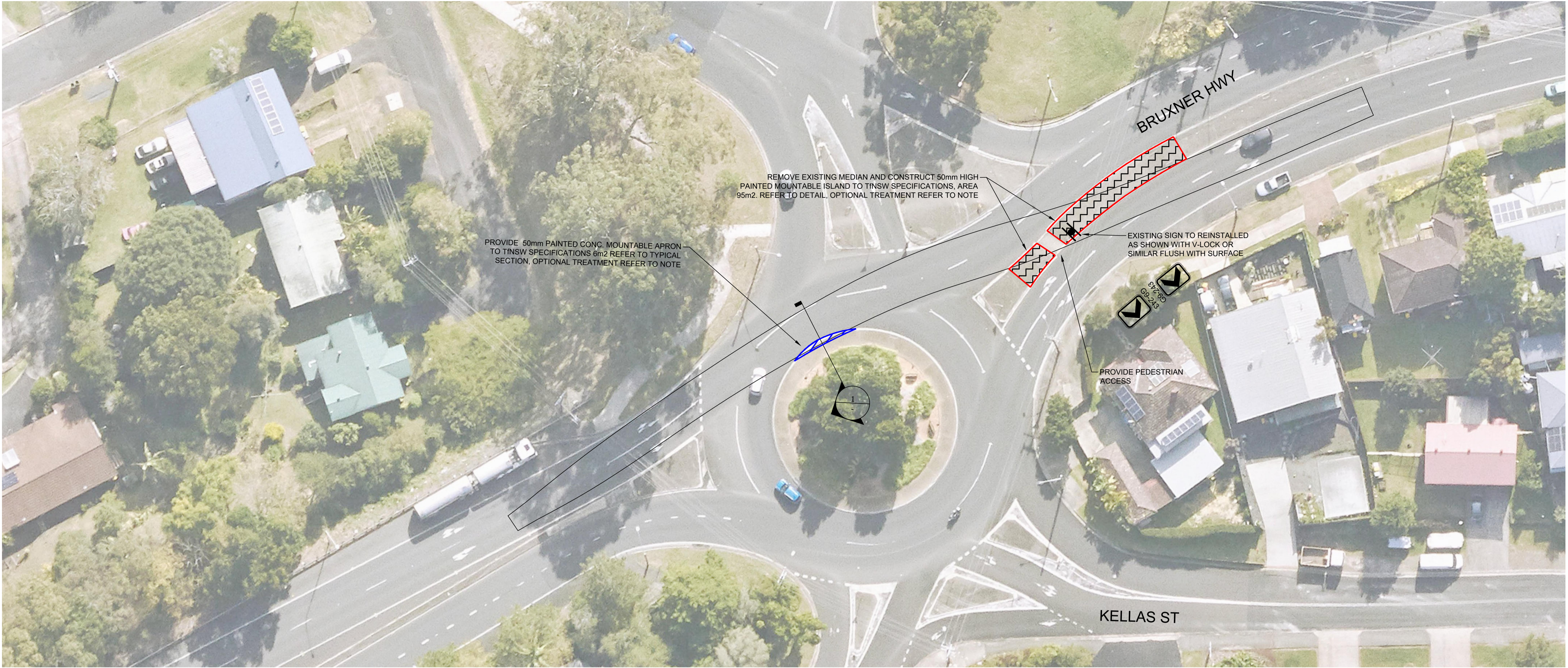


PROJECT:  
**RICHMOND VALLEY SF  
 STRATEGIC DESIGN  
 BRUXNER HWY AND  
 KELLAS ST, LISMORE.  
 -28.811026, 153.302274**

DRAWING TITLE:  
**2D STRATEGIC CONCEPT DESIGN  
 EXISTING LAYOUT PLAN**

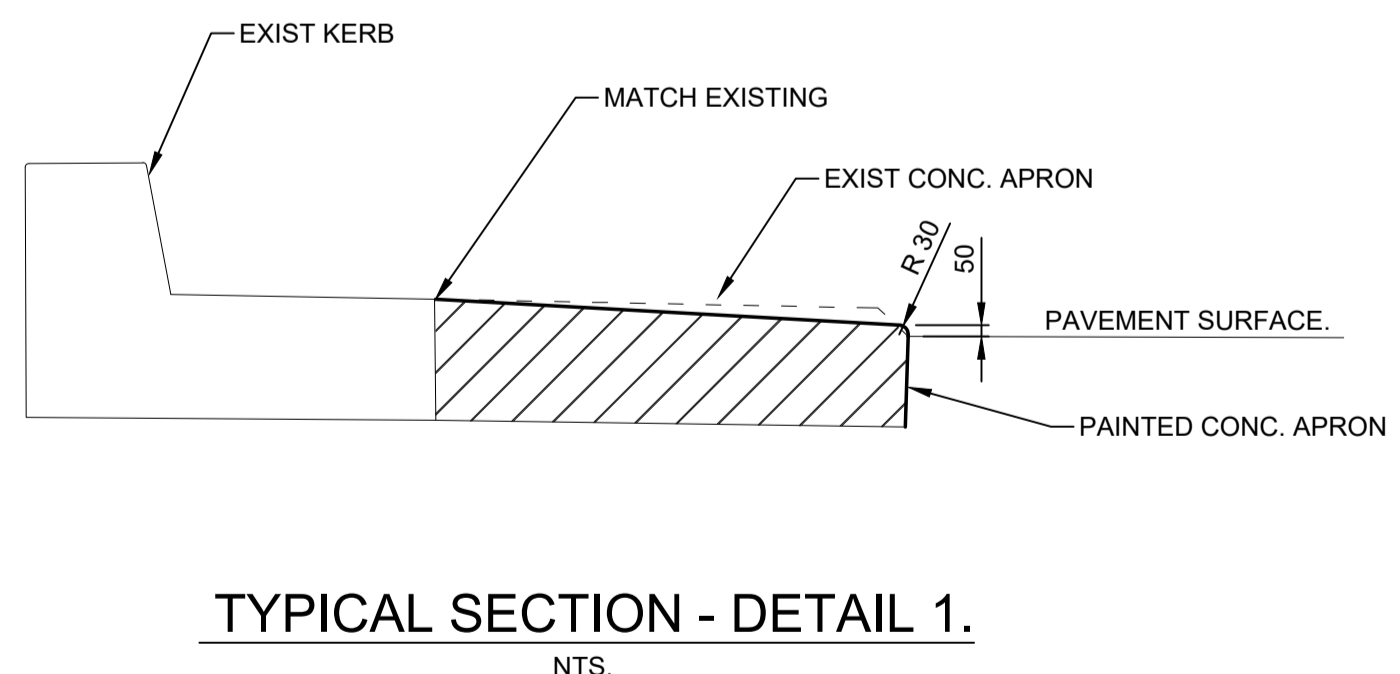
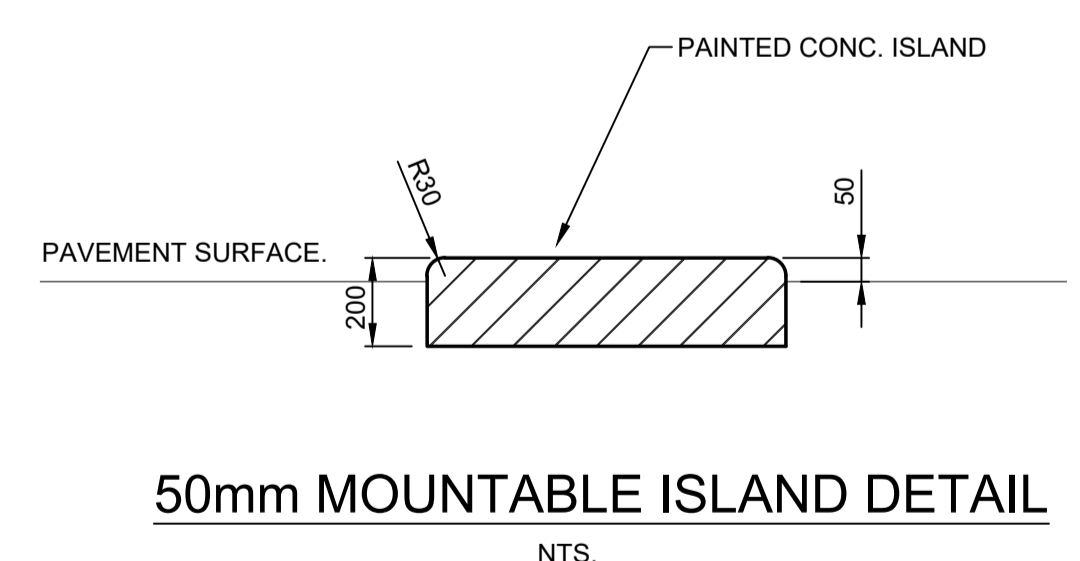
CLIENT: ARK ENERGY  
 DRG. #: EMM - C01  
 PROJECT #: E240318  
 SCALE: AS SHOWN

**REV: -**



NOTE: The requirement for treatments to infrastructure is to be discussed in detail with TfNSW and Council at a later stage. The extent of upgrade works will be subject to the discretion of the relevant authorities, particularly where it may be acceptable to retain existing infrastructure—such as kerbs, pavements, and roundabouts—where ARES have identified the OSOM trailer can safely track over them without permanent structural modifications i.e. through the use of road plates or as is.

**CONSTRUCTION PLAN**  
SCALE 1:300

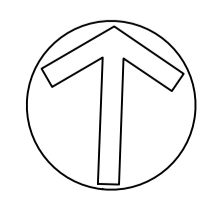


- LEGEND**
- PROVIDE 50mm PAINTED CONC. MOUNTABLE APRON TO TfNSW SPECIFICATIONS 6m2 REFER TO TYPICAL SECTION
  - REMOVE EXISTING MEDIAN AND CONSTRUCT 50mm HIGH PAINTED MOUNTABLE ISLAND TO TfNSW SPECIFICATIONS, AREA 95m2. REFER TO DETAIL
  - PROPOSED SIGN

NOT FOR CONSTRUCTION

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Ground Floor  
20 Chandos Street,  
St Leonards NSW 2065  
Phone # 02 9493 9500  
www.emmconsulting.com.au

REV	DATE	COMMENT	DRAWN	REVIEWED	REV	DATE	COMMENT	DRAWN	REVIEWED
-	18/9/25	STRATEGIC DESIGN	C.J.	A.U.					



PROJECT:  
**RICHMOND VALLEY SF  
STRATEGIC DESIGN  
BRUXNER HWY AND  
KELLAS ST, LISMORE.  
-28.811026, 153.302274**

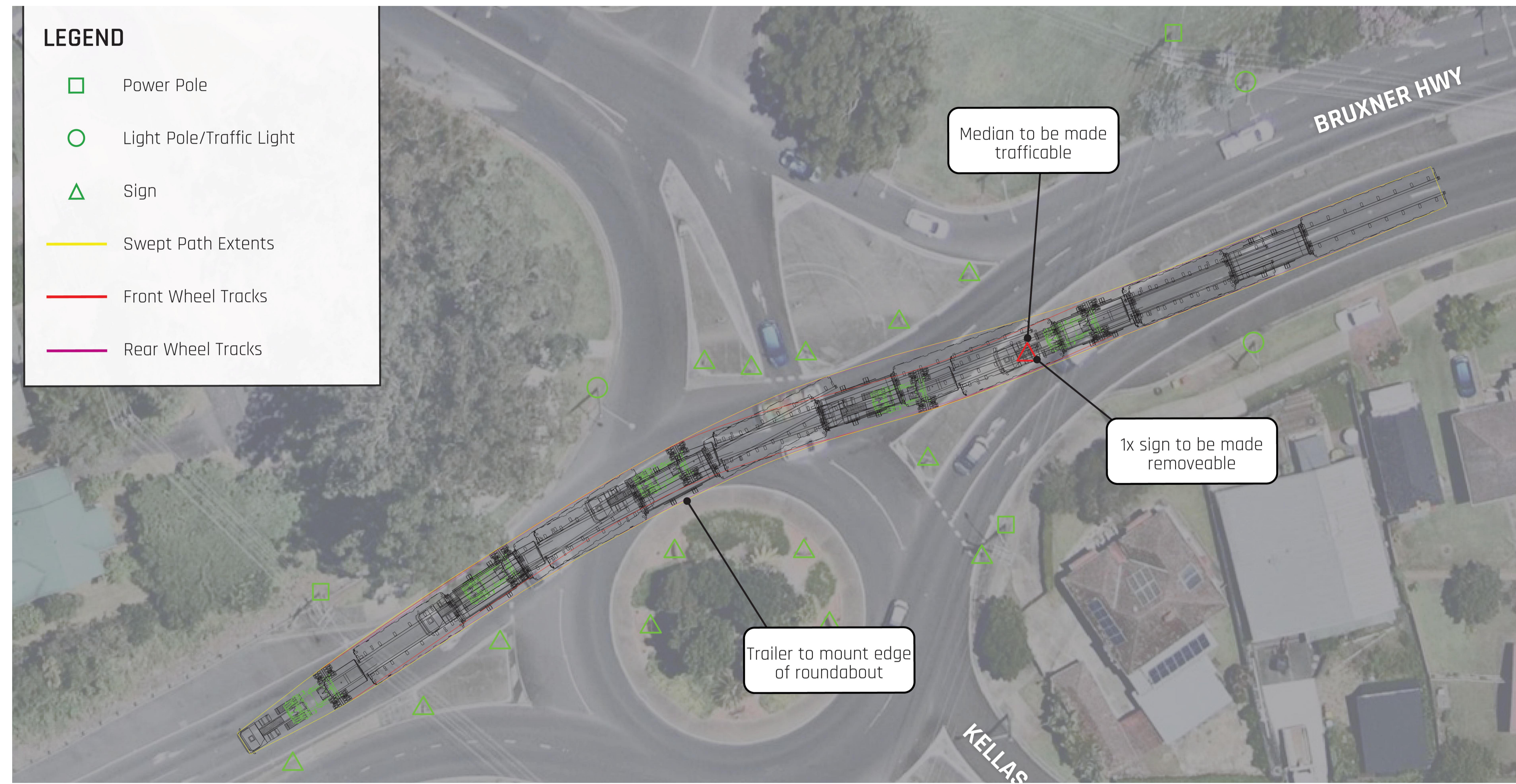
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**2D STRATEGIC CONCEPT DESIGN  
CONSTRUCTION PLAN**

CLIENT: ARK ENERGY  
DRG. #: EMM - C02  
PROJECT #: E240318  
SCALE: AS SHOWN

**REV: -**

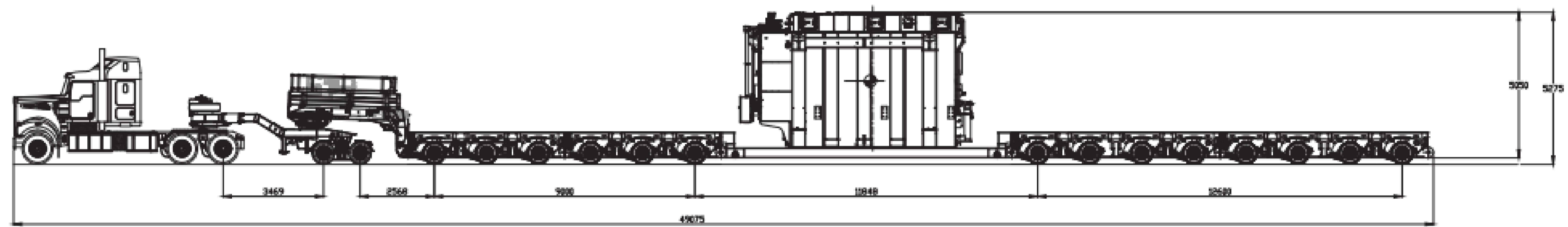
**LEGEND**

- Power Pole
- Light Pole/Traffic Light
- △ Sign
- Swept Path Extents
- Front Wheel Tracks
- Rear Wheel Tracks



**PLAN**  
SCALE NTS

14R8 & 2R8 DOLLY (WITH DROP DECK)  
16.45T PER ROW - MAX P/L: 180T



NOTE:  
THE DESIGN IS BASED ON THE PLANS PROVIDED BY ARES PROJECT GROUP PTY LTD. FOR ARK ENERGY, DRAWING NAME: ROUTE SURVEY NO DRAWING NUMBER OR DATE SHOWN.

NOT FOR CONSTRUCTION

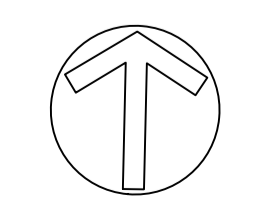
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REV	DATE	COMMENT	DRAWN	REVIEWED	REV	DATE	COMMENT	DRAWN	REVIEWED
-	18/9/25	STRATEGIC DESIGN	C.J.	A.U.					



PROJECT:  
RICHMOND VALLEY SF  
STRATEGIC DESIGN  
BRUXNER HWY AND  
KELLAS ST, LISMORE.  
-28.811026, 153.302274

DRAWING TITLE:  
2D STRATEGIC CONCEPT DESIGN  
SWEPT PATH PLAN - OSOM VEHICLE

CLIENT: ARK ENERGY

DRG. #: EMM - C03

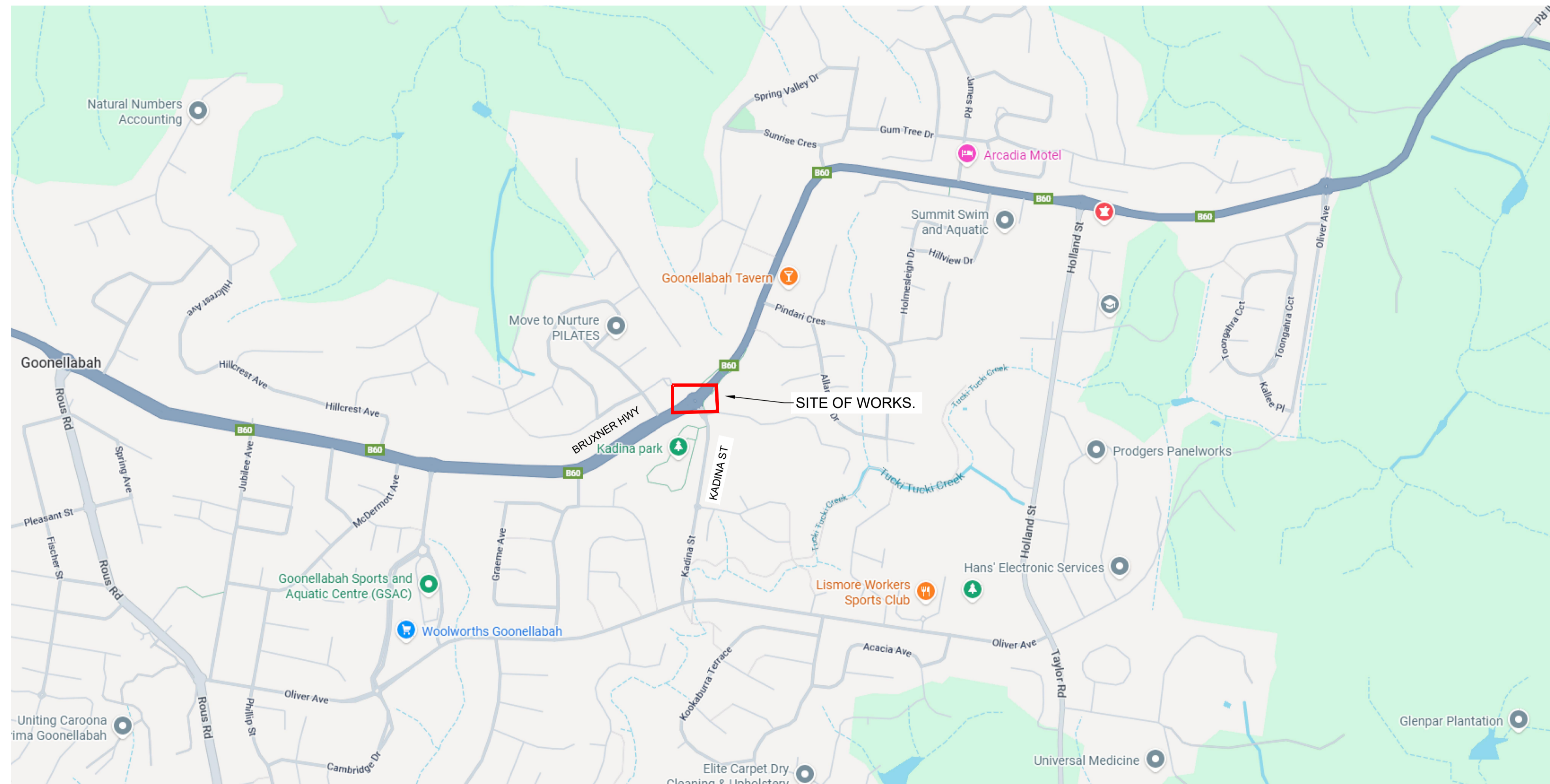
PROJECT #: E240318

SCALE: AS SHOWN

REV: -

# RICHMOND VALLEY SF

## STRATEGIC DESIGN - BRUXNER HWY AND KADINA STREET, GOONELLABAH. PINCH POINT 06.



TfNSW 2D STRATEGIC DESIGN REQUIREMENTS		
DESIGN INCLUSIONS	YES	NO
North point	X	
Road names	X	
Proposed edge of pavement	X	
New pavement shown as shaded	X	
Proposed line and pavement markings	X	
Proposed medians including type (raised or painted)	X	
Proposed footpaths and/or cycle ways	X	
Proposed safety barriers	X	
Property boundaries (from mapping program)	X	N/A
Sight distance checks	X	N/A
Proposed regulatory signage (e.g. parking restrictions, speed zone changes)	X	
Vegetation- tree trunks and foliage, including proposed trees removal to enable works	X	
Hazard free zone (clear zone)	X	N/A
Dimension all proposed design elements (incl. line marking)	X	
Typical section/s	X	
Turning paths of design vehicle at 15km/h	X	

**OVERALL SITE PLAN**  
NTS.


SHEET INDEX		
SHEET No	DESCRIPTION	REV
EMM - C00	COVER SHEET AND SHEET INDEX	-
EMM - C01	EXISTING LAYOUT PLAN	-
EMM - C02	CONSTRUCTION PLAN	-
EMM - C03	SWEPT PATH PLAN - OSOM VEHICLE	-

	SYDNEY   Suite 01 Ground Floor 20 Chandos Street, St Leonards NSW 2065  Phone # 02 9493 9500  www.emmconsulting.com.au	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>REV</th> <th>DATE</th> <th>COMMENT</th> <th>DRAWN</th> <th>REVIEWED</th> </tr> </thead> <tbody> <tr> <td>-</td> <td>18/9/25</td> <td>STRATEGIC DESIGN</td> <td>C.J.</td> <td>A.U.</td> </tr> </tbody> </table>	REV	DATE	COMMENT	DRAWN	REVIEWED	-	18/9/25	STRATEGIC DESIGN	C.J.	A.U.		PROJECT: <b>RICHMOND VALLEY SF</b> <b>STRATEGIC DESIGN</b> <b>BRUXNER HWY AND</b> <b>KADINA STREET, GOONELLABAH.</b> -28.816895, 153.336116	DRAWING TITLE: <b>2D STRATEGIC CONCEPT DESIGN</b> <b>COVER SHEET AND SHEET INDEX</b>	CLIENT: ARK ENERGY  DRG. #: EMM - C00 PROJECT #: E240318 SCALE: AS SHOWN	REV: -
	REV	DATE	COMMENT	DRAWN	REVIEWED												
	-	18/9/25	STRATEGIC DESIGN	C.J.	A.U.												



PLAN  
SCALE 1:250

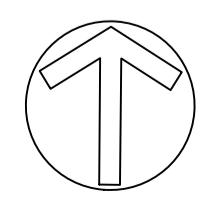
**LEGEND**

 EXISTING SIGNS IMPACTED OR CLOSE TO PROPOSED WORKS

NOT FOR CONSTRUCTION


  
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 St Leonards NSW 2065  
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REV	DATE	COMMENT	DRAWN	REVIEWED	REV	DATE	COMMENT	DRAWN	REVIEWED
-	18/9/25	STRATEGIC DESIGN	C.J.	A.U.					

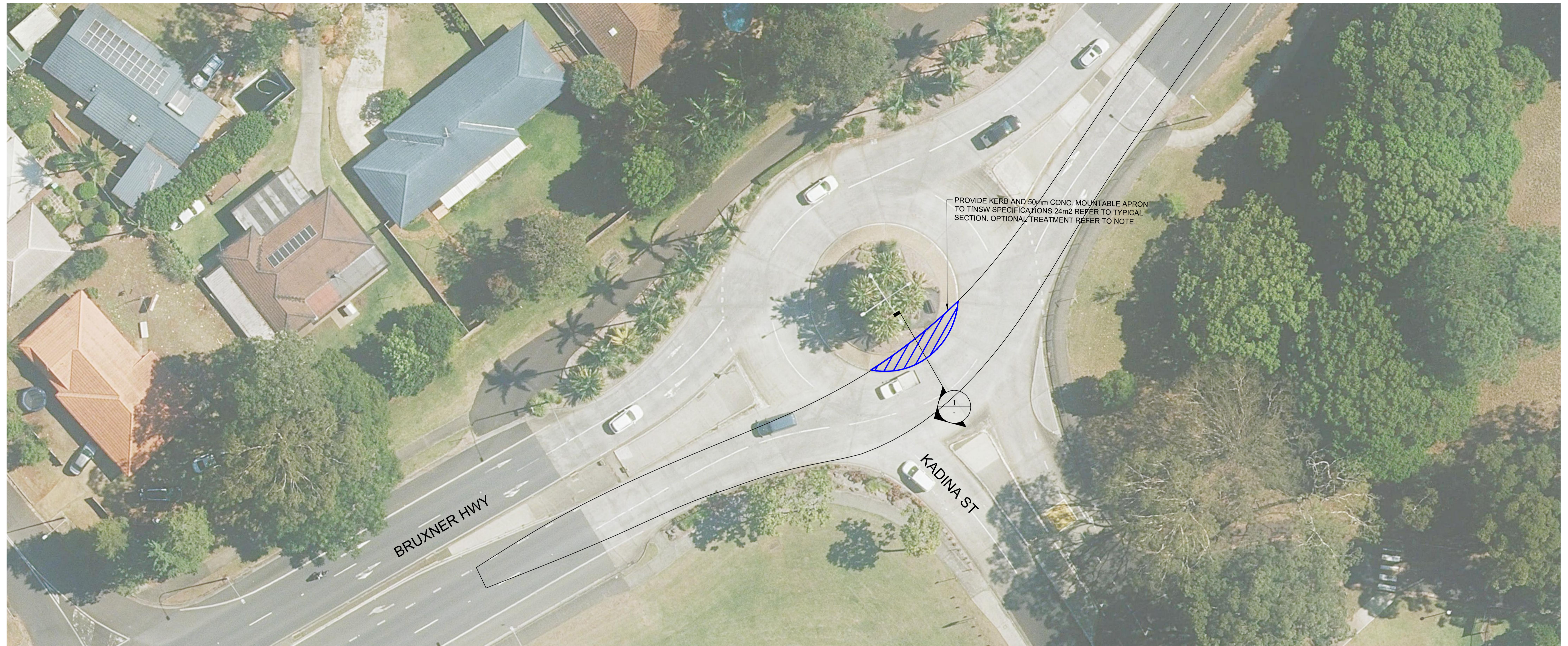


PROJECT:  
**RICHMOND VALLEY SF  
 STRATEGIC DESIGN  
 BRUXNER HWY AND  
 KADINA STREET, GOONELLABAH.  
 -28.816895, 153.336116**

DRAWING TITLE:  
**2D STRATEGIC CONCEPT DESIGN  
 EXISTING LAYOUT PLAN**

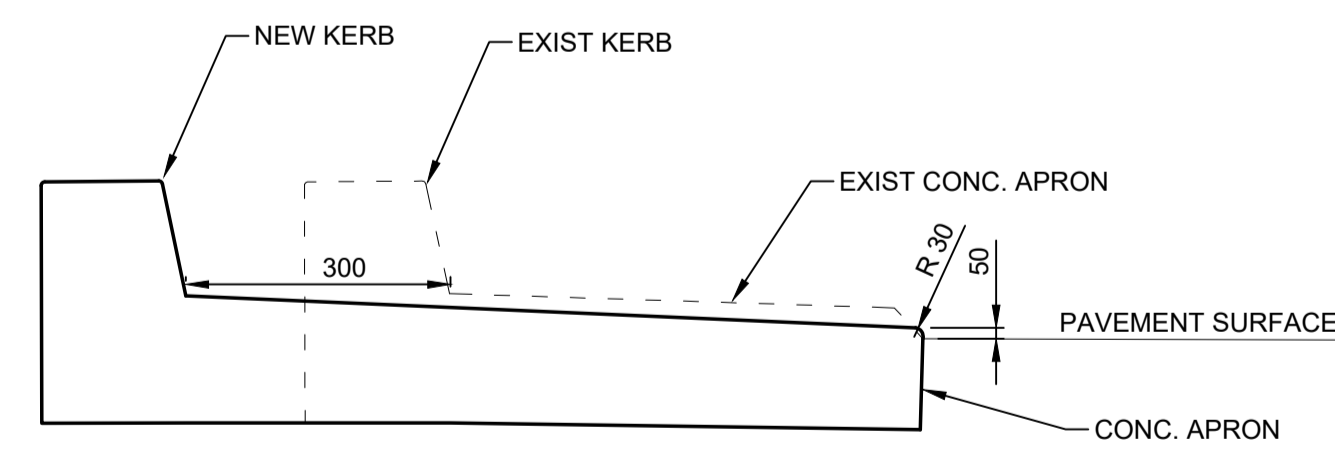
CLIENT: ARK ENERGY  
 DRG. #: EMM - C01  
 PROJECT #: E240318  
 SCALE: AS SHOWN

**REV: -**




**CONSTRUCTION PLAN**  
SCALE 1:250

NOTE: The requirement for treatments to infrastructure is to be discussed in detail with TfNSW and Council at a later stage. The extent of upgrade works will be subject to the discretion of the relevant authorities, particularly where it may be acceptable to retain existing infrastructure—such as kerbs, pavements, and roundabouts—where ARES have identified the OSOM trailer can safely track over them without permanent structural modifications i.e. through the use of road plates or as is.




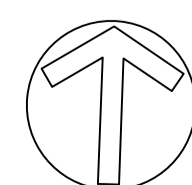
**TYPICAL SECTION - DETAIL 1.**  
NTS.

**LEGEND**

 PROVIDE KERB AND CONC. MOUNTABLE APRON 50mm HIGH, AREA 24m2, TO TNSW SPECIFICATIONS

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 SYDNEY   Suite 01 Ground Floor 20 Chandos Street, St Leonards NSW 2065 Phone # 02 9493 9500 www.emmconsulting.com.au	REV	DATE	COMMENT	DRAWN	REVIEWED	REV	DATE	COMMENT	DRAWN	REVIEWED
	-	18/9/25	STRATEGIC DESIGN	C.J.	A.U.					



PROJECT:  
**RICHMOND VALLEY SF  
 STRATEGIC DESIGN  
 BRUXNER HWY AND  
 KADINA STREET, GOONELLABAH.  
 -28.816895, 153.336116**

DRAWING TITLE:  
**2D STRATEGIC CONCEPT DESIGN  
 CONSTRUCTION PLAN**

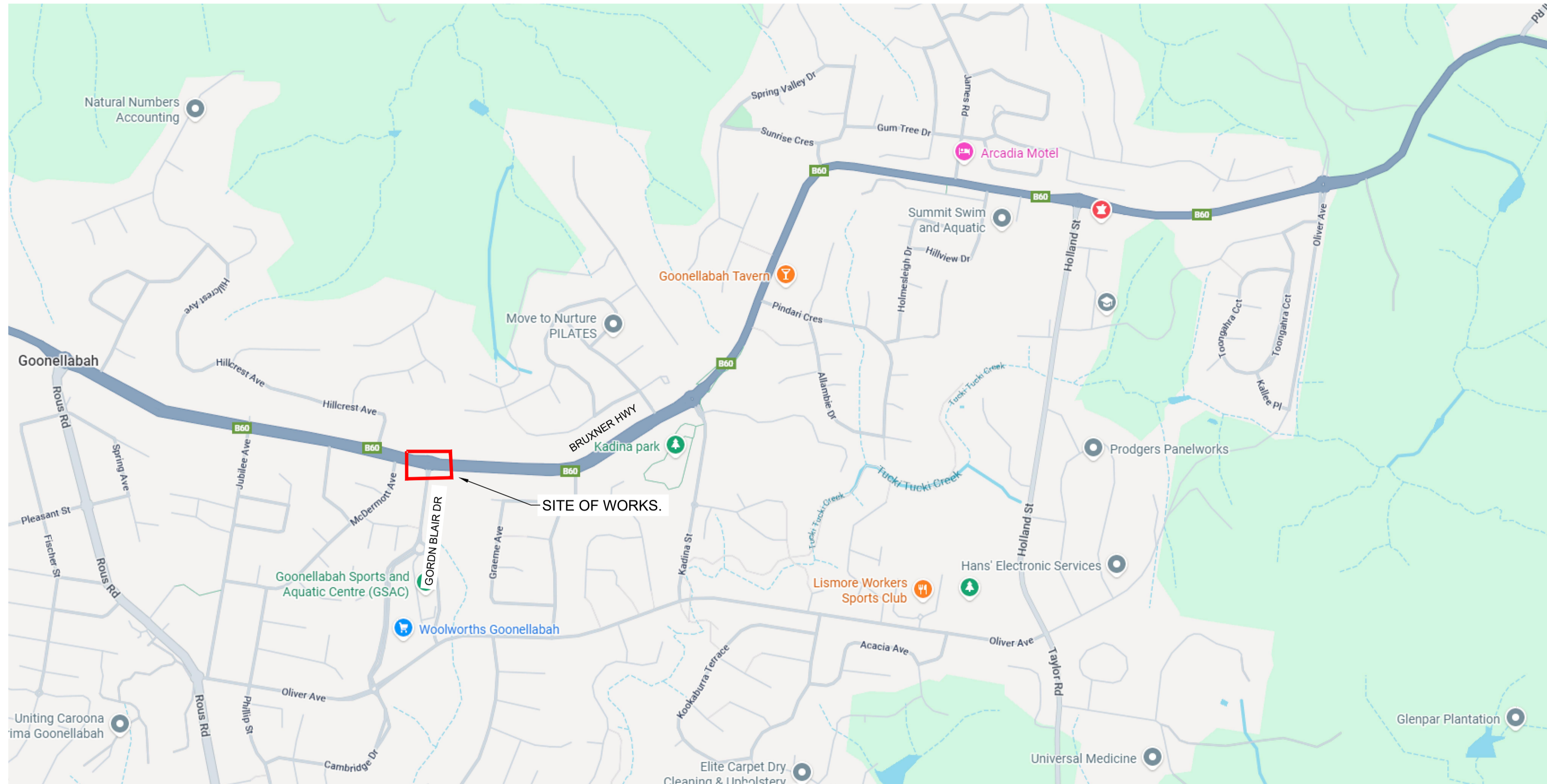
CLIENT: ARK ENERGY  
 DRG. #: EMM - C02  
 PROJECT #: E240318  
 SCALE: AS SHOWN

**REV: -**



# RICHMOND VALLEY SF

## STRATEGIC DESIGN - BRUXNER HWY AND GORDON BLAIR DR, GOONELLABAH. PINCH POINT 6

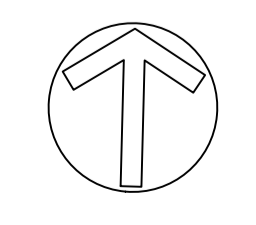


TfNSW 2D STRATEGIC DESIGN REQUIREMENTS		
DESIGN INCLUSIONS	YES	NO
North point	X	
Road names	X	
Proposed edge of pavement	X	
New pavement shown as shaded	X	
Proposed line and pavement markings	X	
Proposed medians including type (raised or painted)	X	
Proposed footpaths and/or cycle ways	X	
Proposed safety barriers	X	
Property boundaries (from mapping program)	X	N/A
Sight distance checks	X	N/A
Proposed regulatory signage (e.g. parking restrictions, speed zone changes)	X	
Vegetation- tree trunks and foliage, including proposed trees removal to enable works	X	
Hazard free zone (clear zone)	X	N/A
Dimension all proposed design elements (incl. line marking)	X	
Typical section/s	X	
Turning paths of design vehicle at 15km/h	X	

**OVERALL SITE PLAN**  
NTS.

SHEET INDEX		
SHEET No	DESCRIPTION	REV
EMM - C00	COVER SHEET AND SHEET INDEX	-
EMM - C01	EXISTING LAYOUT PLAN	-
EMM - C02	CONSTRUCTION PLAN	-
EMM - C03	SWEPT PATH PLAN - OSOM VEHICLE	-


REV	DATE	COMMENT	DRAWN	REVIEWED	REV	DATE	COMMENT	DRAWN	REVIEWED
-	18/9/25	STRATEGIC DESIGN	C.J.	A.U.					





PLAN  
SCALE 1:250

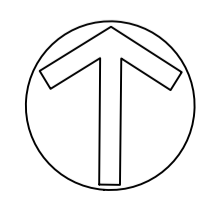
**LEGEND**

 EXISTING SIGNS IMPACTED OR CLOSE TO PROPOSED WORKS

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REV	DATE	COMMENT	DRAWN	REVIEWED	REV	DATE	COMMENT	DRAWN	REVIEWED
-	18/9/25	STRATEGIC DESIGN	C.J.	A.U.					

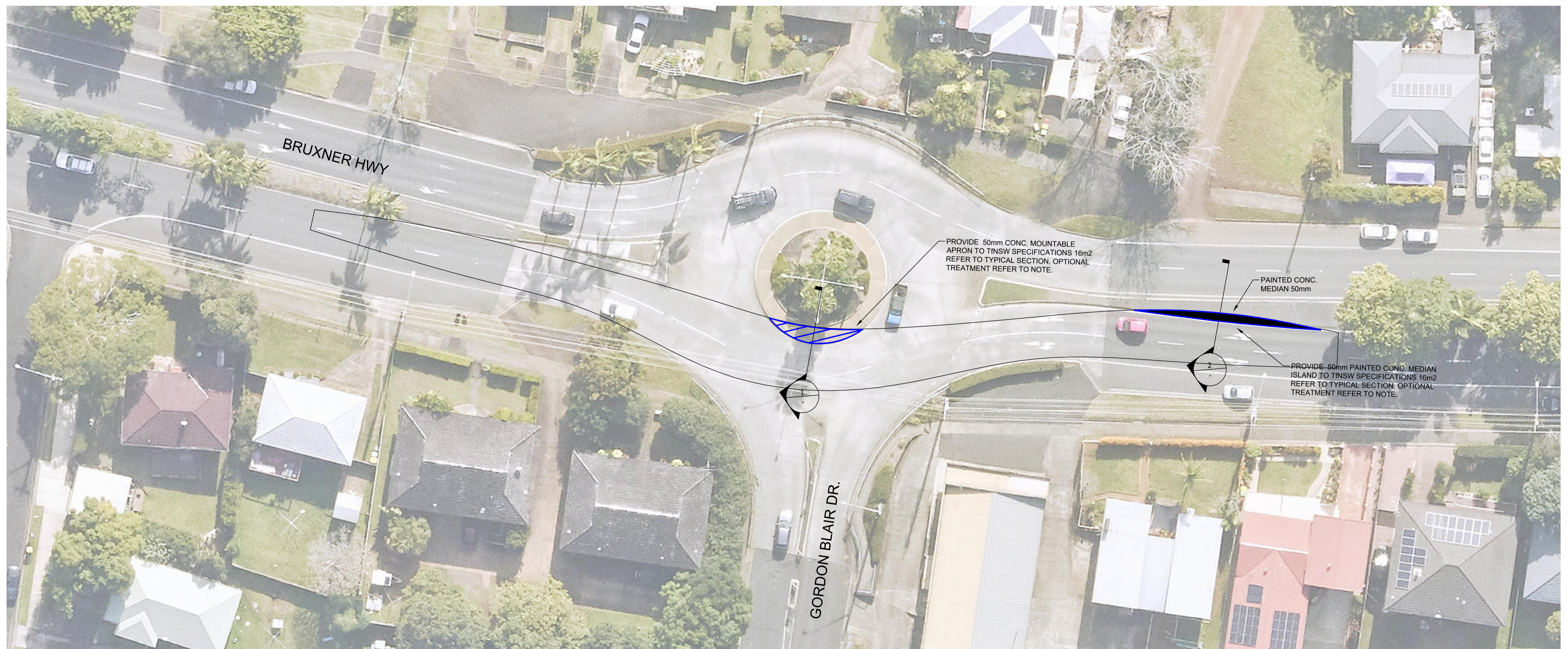


PROJECT:  
 RICHMOND VALLEY SF  
 STRATEGIC DESIGN  
 BRUXNER HWY AND  
 GORDON BLAIR DR, GOONELLABAH.  
 -28.818529, 153.328627

DRAWING TITLE:  
 2D STRATEGIC CONCEPT DESIGN  
 EXISTING LAYOUT PLAN

CLIENT: ARK ENERGY  
 DRG. #: EMM - C01  
 PROJECT #: E240318  
 SCALE: AS SHOWN

**REV: -**



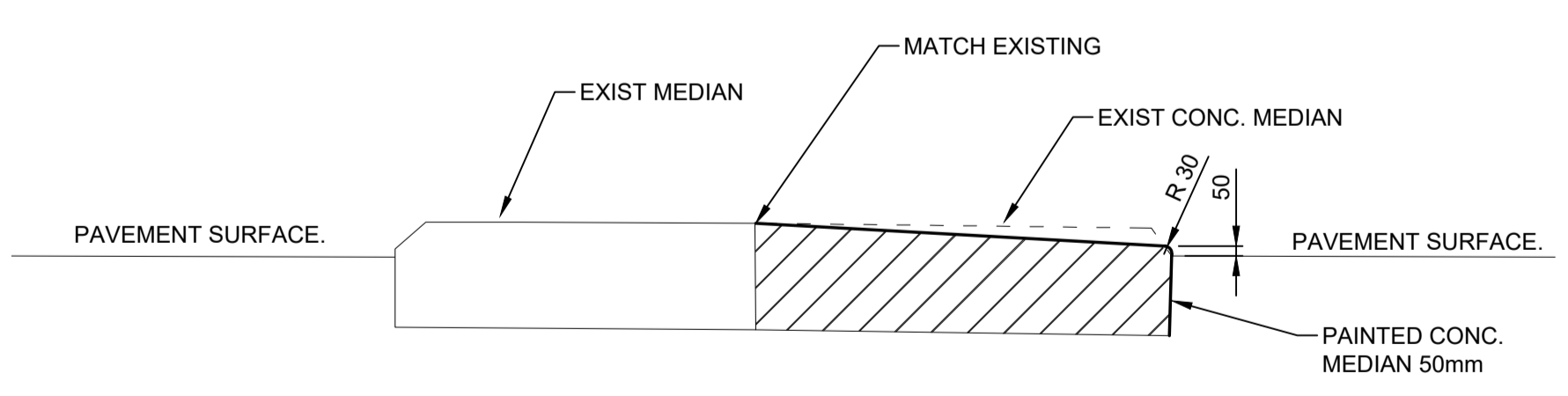
PROVIDE 50mm CONC. MOUNTABLE APRON TO TNSW SPECIFICATIONS 16m<sup>2</sup> REFER TO TYPICAL SECTION. OPTIONAL TREATMENT REFER TO NOTE.

PAINTED CONC. MEDIAN 50mm

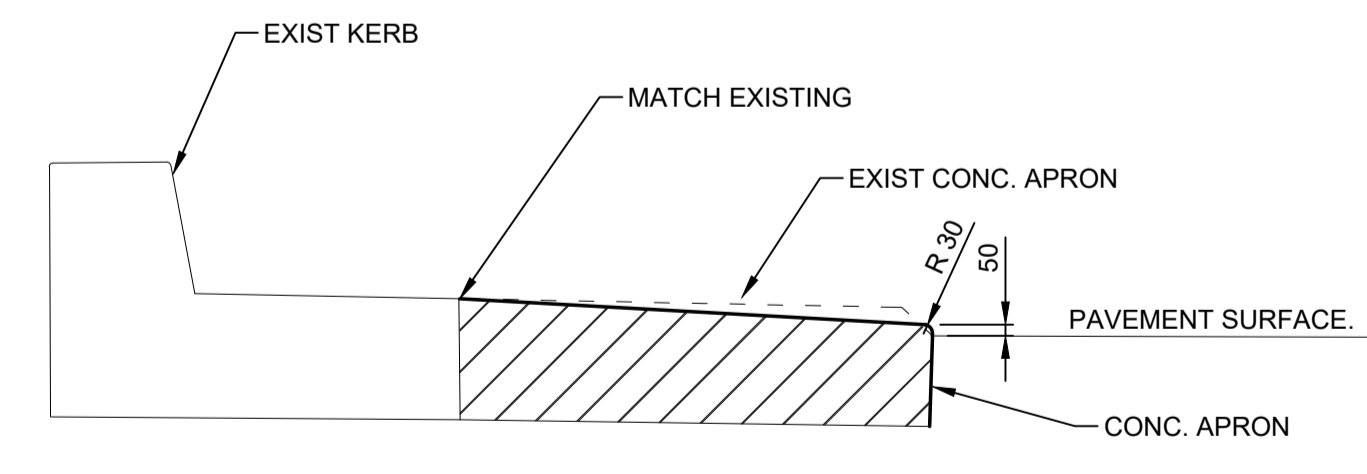
PROVIDE 50mm PAINTED CONC. MEDIAN ISLAND TO TNSW SPECIFICATIONS 16m<sup>2</sup> REFER TO TYPICAL SECTION. OPTIONAL TREATMENT REFER TO NOTE.

**CONSTRUCTION PLAN**  
SCALE 1:250

NOTE: The requirement for treatments to infrastructure is to be discussed in detail with TfNSW and Council at a later stage. The extent of upgrade works will be subject to the discretion of the relevant authorities, particularly where it may be acceptable to retain existing infrastructure—such as kerbs, pavements, and roundabouts—where ARES have identified the OSOM trailer can safely track over them without permanent structural modifications i.e. through the use of road plates or as is.



TYPICAL SECTION - DETAIL 2.  
NTS.



TYPICAL SECTION - DETAIL 1.  
NTS.

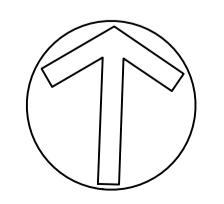
**LEGEND**

- PROVIDE KERB AND CONC. MOUNTABLE APRON 50mm HIGH, AREA 16m<sup>2</sup>, TO TNSW SPECIFICATIONS
- PROVIDE PAINTED CONC. MEDIAN ISLAND 50mm HIGH, AREA 16m<sup>2</sup>, TO TNSW SPECIFICATIONS

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REV	DATE	COMMENT	DRAWN	REVIEWED	REV	DATE	COMMENT	DRAWN	REVIEWED
-	18/9/25	STRATEGIC DESIGN	C.J.	A.U.					

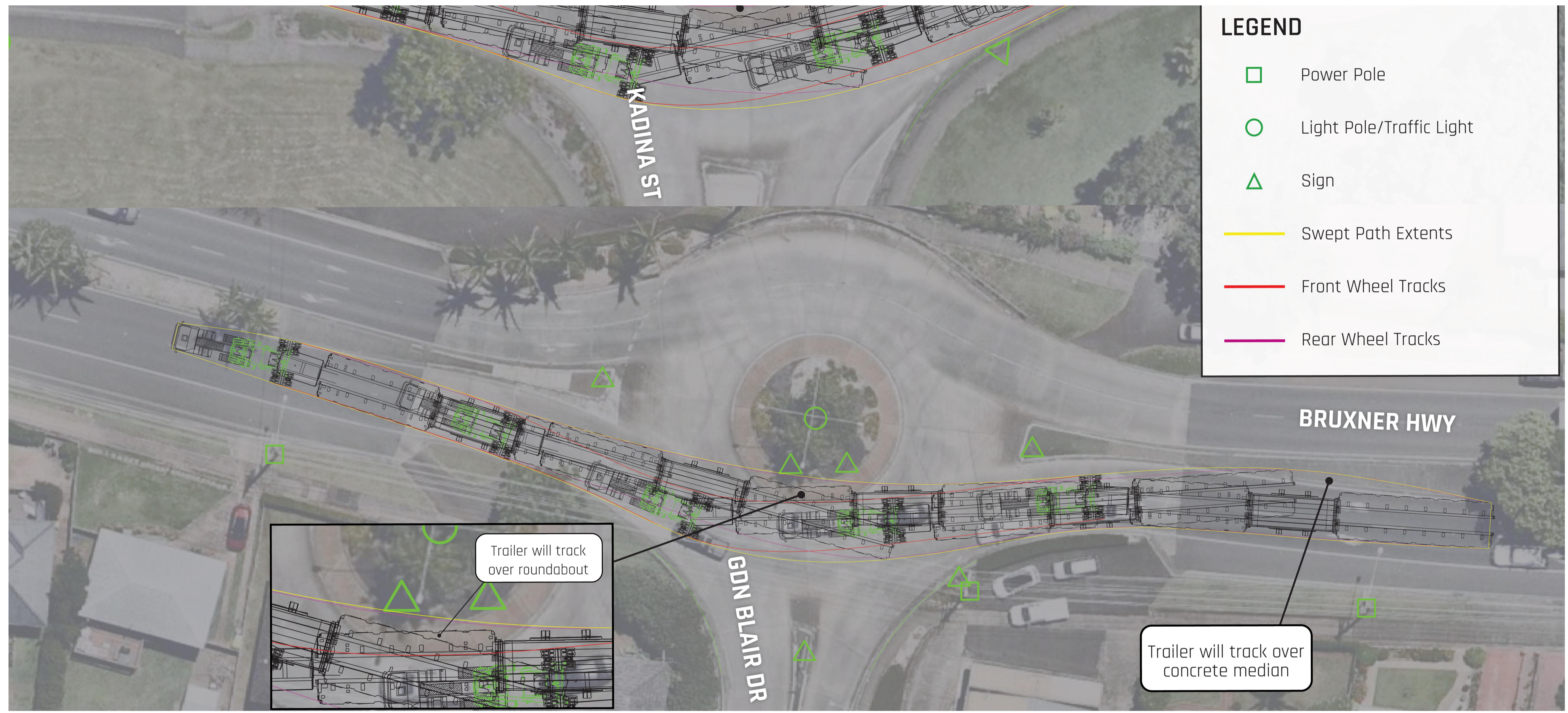


PROJECT:  
**RICHMOND VALLEY SF  
 STRATEGIC DESIGN  
 BRUXNER HWY AND  
 GORDON BLAIR DR, GOONELLABAH.  
 -28.818529, 153.328627**

DRAWING TITLE:  
**2D STRATEGIC CONCEPT DESIGN  
 CONSTRUCTION PLAN**

CLIENT: ARK ENERGY  
 DRG. #: EMM - C02  
 PROJECT #: E240318  
 SCALE: AS SHOWN

**REV: -**

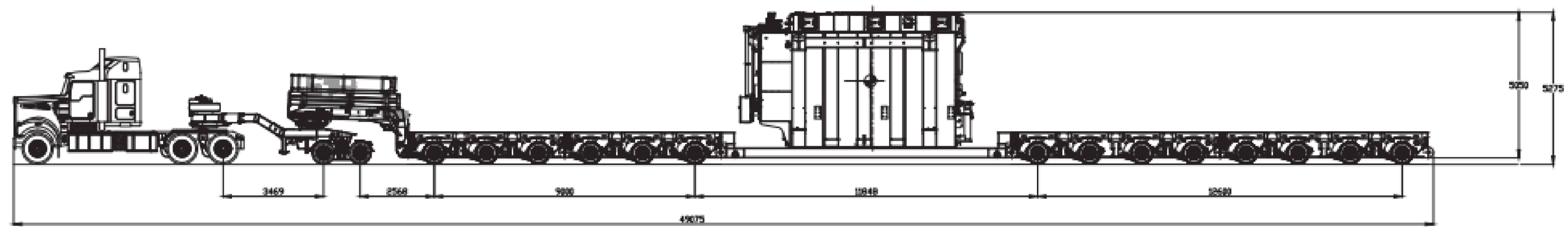


**LEGEND**

- Power Pole
- Light Pole/Traffic Light
- △ Sign
- Swept Path Extents
- Front Wheel Tracks
- Rear Wheel Tracks

PLAN  
SCALE NTS

14R8 & 2R8 DOLLY (WITH DROP DECK)  
16.45T PER ROW - MAX P/L: 180T



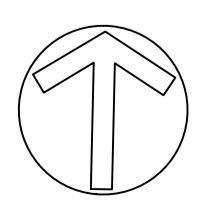
NOTE:  
THE DESIGN IS BASED ON THE PLANS PROVIDED BY ARES PROJECT GROUP PTY LTD. FOR ARK ENERGY, DRAWING NAME: ROUTE SURVEY NO DRAWING NUMBER OR DATE SHOWN.

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	SYDNEY   Suite 01 Ground Floor 20 Chandos Street, St Leonards NSW 2065											PROJECT: RICHMOND VALLEY SF STRATEGIC DESIGN BRUXNER HWY AND GORDON BLAIR DR, GOONELLABAH. -28.818529, 153.328627	DRAWING TITLE: 2D STRATEGIC CONCEPT DESIGN SWEPT PATH PLAN - OSOM VEHICLE	CLIENT: ARK ENERGY	REV: -
	Phone # 02 9493 9500											DRG. #: EMM - C03			
	www.emmconsulting.com.au											PROJECT #: E240318			
													SCALE: AS SHOWN		

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REV	DATE	COMMENT	DRAWN	REVIEWED	REV	DATE	COMMENT	DRAWN	REVIEWED
-	18/9/25	STRATEGIC DESIGN	C.J.	A.U.					



PROJECT:  
RICHMOND VALLEY SF  
STRATEGIC DESIGN  
BRUXNER HWY AND  
GORDON BLAIR DR, GOONELLABAH.  
-28.818529, 153.328627

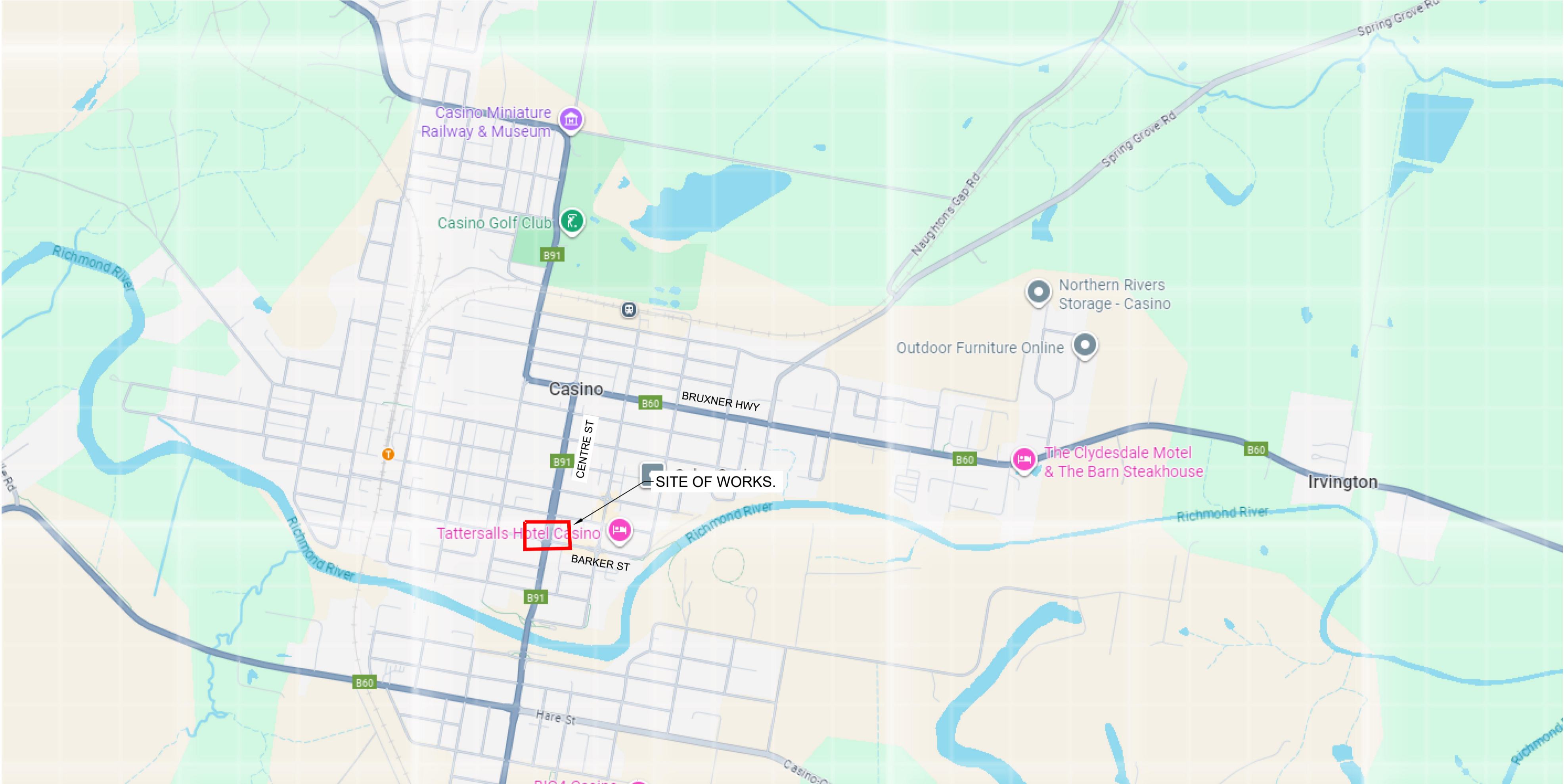
DRAWING TITLE:  
2D STRATEGIC CONCEPT DESIGN  
SWEPT PATH PLAN - OSOM VEHICLE

CLIENT: ARK ENERGY  
DRG. #: EMM - C03  
PROJECT #: E240318  
SCALE: AS SHOWN

REV: -

# RICHMOND VALLEY SF

## STRATEGIC DESIGN - BRUXNER HWY AND BARKER ST, CASINO. PINCH POINT 11.



TfNSW 2D STRATEGIC DESIGN REQUIREMENTS		
DESIGN INCLUSIONS	YES	NO
North point	X	
Road names	X	
Proposed edge of pavement	X	
New pavement shown as shaded	X	
Proposed line and pavement markings	X	
Proposed medians including type (raised or painted)	X	
Proposed footpaths and/or cycle ways	X	
Proposed safety barriers	X	
Property boundaries (from mapping program)	X	N/A
Sight distance checks	X	N/A
Proposed regulatory signage (e.g. parking restrictions, speed zone changes)	X	
Vegetation- tree trunks and foliage, including proposed trees removal to enable works	X	
Hazard free zone (clear zone)	X	N/A
Dimension all proposed design elements (incl. line marking)	X	
Typical section/s	X	
Turning paths of design vehicle at 15km/h	X	

**OVERALL SITE PLAN**  
NTS.


SHEET INDEX		
SHEET No	DESCRIPTION	REV
EMM - C00	COVER SHEET AND SHEET INDEX	-
EMM - C01	EXISTING LAYOUT PLAN	-
EMM - C02	CONSTRUCTION PLAN	-
EMM - C03	SWEPT PATH PLAN - OSOM VEHICLE	-

	SYDNEY   Suite 01 Ground Floor 20 Chandos Street, St Leonards NSW 2065  Phone # 02 9493 9500  www.emmconsulting.com.au	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>REV</th> <th>DATE</th> <th>COMMENT</th> <th>DRAWN</th> <th>REVIEWED</th> </tr> </thead> <tbody> <tr> <td>-</td> <td>18/9/25</td> <td>STRATEGIC DESIGN</td> <td>C.J.</td> <td>A.U.</td> </tr> </tbody> </table>	REV	DATE	COMMENT	DRAWN	REVIEWED	-	18/9/25	STRATEGIC DESIGN	C.J.	A.U.		PROJECT: <b>RICHMOND VALLEY SF</b> STRATEGIC DESIGN BRUXNER HWY AND BARKER ST, CASINO. -28.864580, 153.045646	DRAWING TITLE: <b>2D STRATEGIC CONCEPT DESIGN</b> COVER SHEET AND SHEET INDEX	CLIENT: ARK ENERGY  DRG. #: EMM - C00  PROJECT #: E240318  SCALE: AS SHOWN	<b>REV: -</b>
	REV	DATE	COMMENT	DRAWN	REVIEWED												
	-	18/9/25	STRATEGIC DESIGN	C.J.	A.U.												



PLAN  
SCALE 1:300

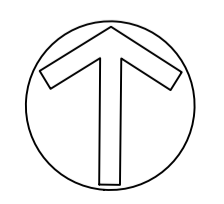
**LEGEND**

 EXISTING SIGNS IMPACTED OR CLOSE TO PROPOSED WORKS

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REV	DATE	COMMENT	DRAWN	REVIEWED	REV	DATE	COMMENT	DRAWN	REVIEWED
-	18/9/25	STRATEGIC DESIGN	C.J.	A.U.					

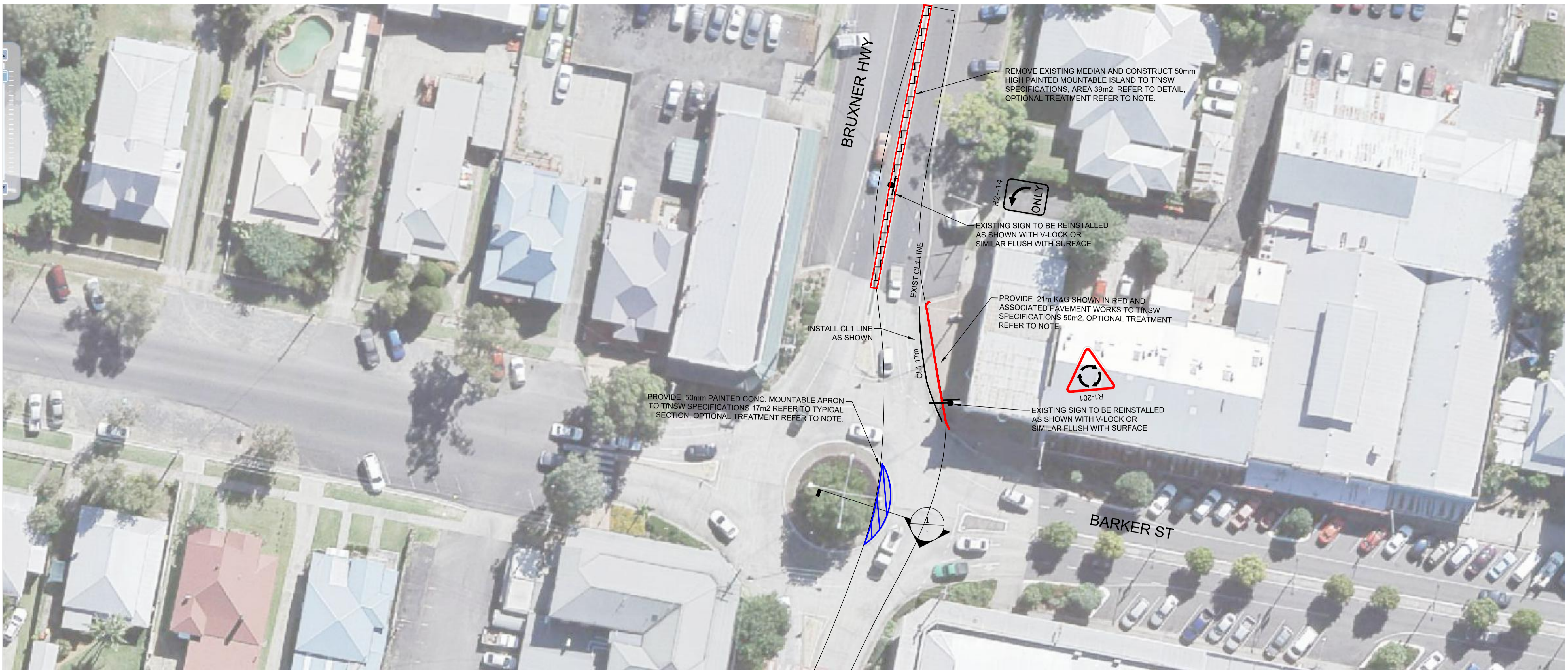


PROJECT:  
RICHMOND VALLEY SF  
STRATEGIC DESIGN  
BRUXNER HWY AND  
BARKER ST, CASINO.  
-28.864580, 153.045646

DRAWING TITLE:  
2D STRATEGIC CONCEPT DESIGN  
EXISTING LAYOUT PLAN

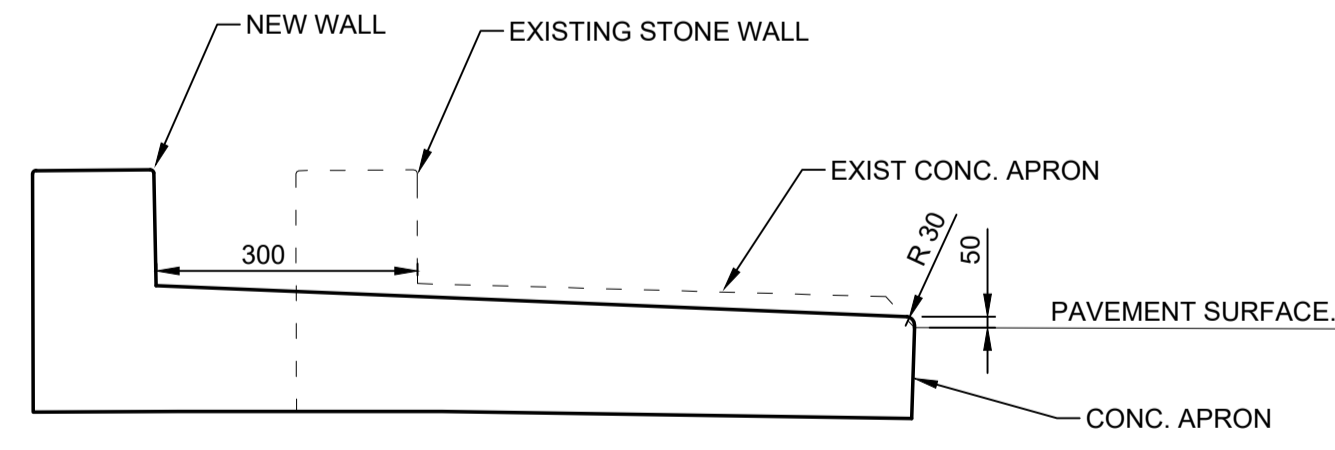
CLIENT: ARK ENERGY  
DRG. #: EMM - C01  
PROJECT #: E240318  
SCALE: AS SHOWN

REV: -

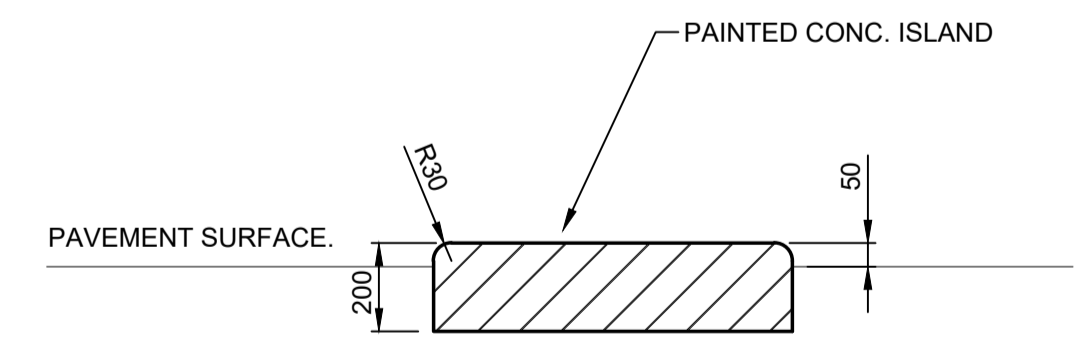


NOTE: The requirement for treatments to infrastructure is to be discussed in detail with TfNSW and Council at a later stage. The extent of upgrade works will be subject to the discretion of the relevant authorities, particularly where it may be acceptable to retain existing infrastructure—such as kerbs, pavements, and roundabouts—where ARES have identified the OSOM trailer can safely track over them without permanent structural modifications i.e. through the use of road plates or as is.

**CONSTRUCTION PLAN**  
SCALE 1:300


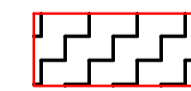




TYPICAL SECTION - DETAIL 1.  
NTS.



50mm MOUNTABLE ISLAND DETAIL  
NTS.

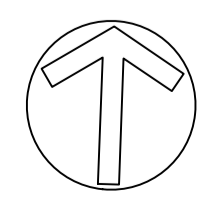
**LEGEND**

-  PROVIDE 50mm PAINTED CONC. MOUNTABLE APRON TO TfNSW SPECIFICATIONS 17m2 REFER TO TYPICAL SECTION
-  REMOVE EXISTING MEDIUM AND CONSTRUCT 50mm HIGH PAINTED MOUNTABLE ISLAND TO TfNSW SPECIFICATIONS, TOTAL AREA 39m2. REFER TO DETAIL
-  PROPOSED SIGN
-  EXISTING SIGN

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REV	DATE	COMMENT	DRAWN	REVIEWED	REV	DATE	COMMENT	DRAWN	REVIEWED
-	18/9/25	STRATEGIC DESIGN	C.J.	A.U.					

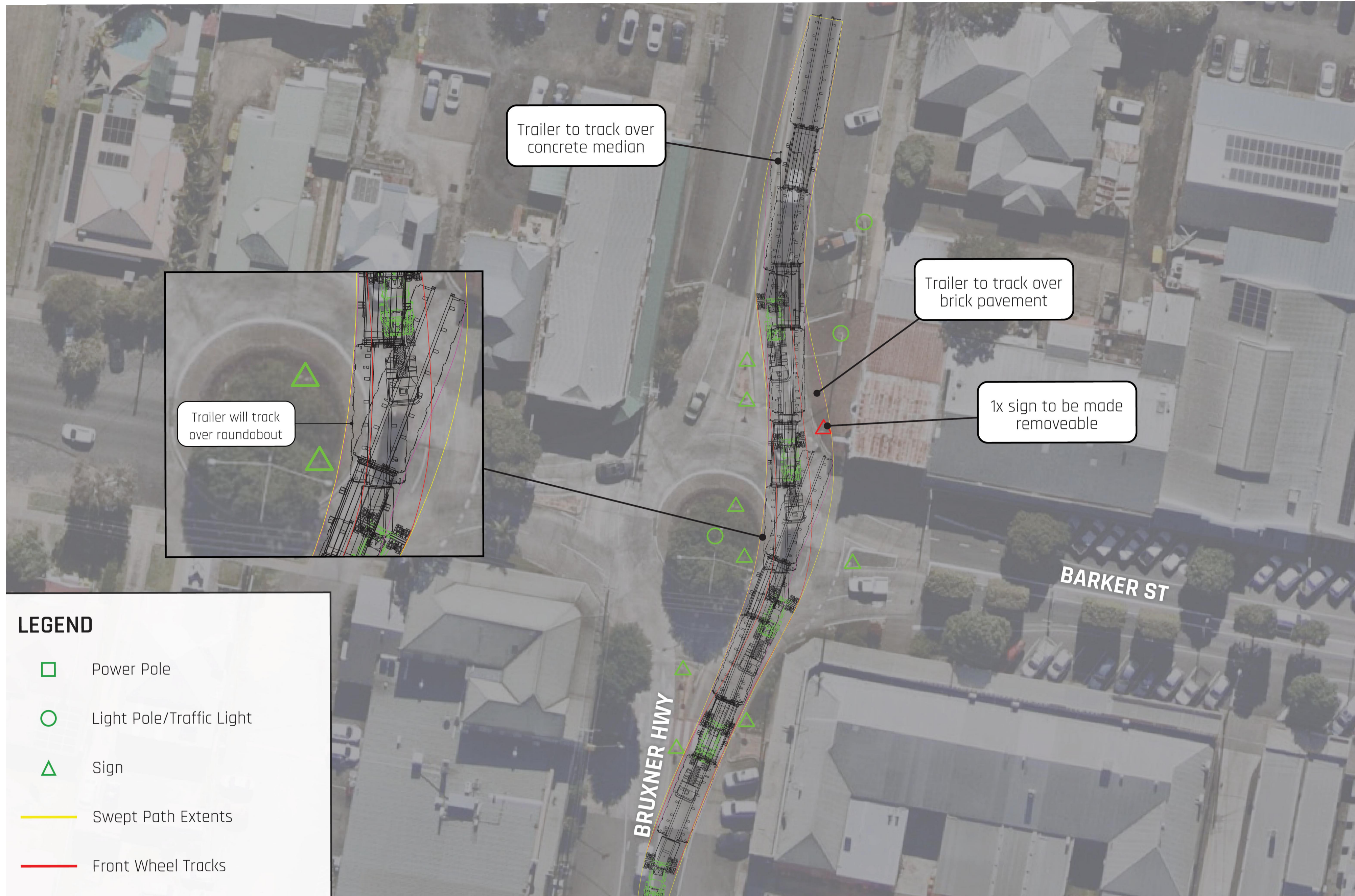


PROJECT:  
RICHMOND VALLEY SF  
STRATEGIC DESIGN  
BRUXNER HWY AND  
BARKER ST, CASINO.  
-28.864580, 153.045646

DRAWING TITLE:  
2D STRATEGIC CONCEPT DESIGN  
CONSTRUCTION PLAN

CLIENT: ARK ENERGY  
DRG. #: EMM - C02  
PROJECT #: E240318  
SCALE: AS SHOWN

REV: -

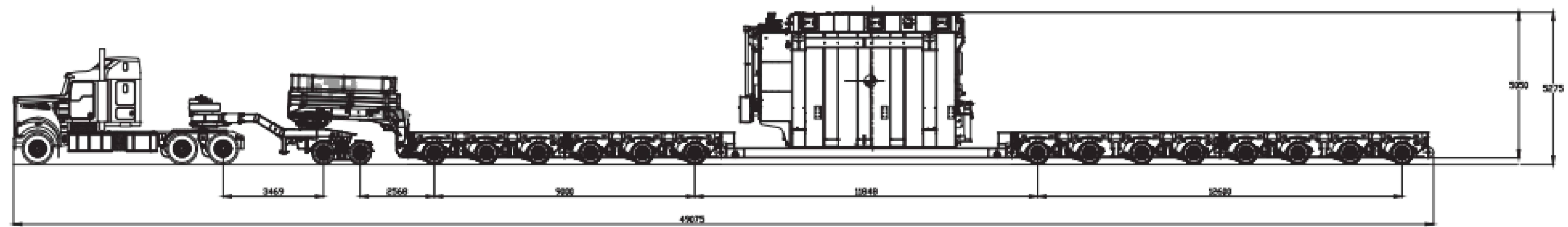


**LEGEND**

- Power Pole
- Light Pole/Traffic Light
- △ Sign
- Swept Path Extents
- Front Wheel Tracks

PLAN  
SCALE NTS

14R8 & 2R8 DOLLY (WITH DROP DECK)  
16.45T PER ROW - MAX P/L: 180T



NOTE:  
THE DESIGN IS BASED ON THE PLANS PROVIDED BY ARES PROJECT GROUP PTY LTD. FOR ARK ENERGY, DRAWING NAME: ROUTE SURVEY NO DRAWING NUMBER OR DATE SHOWN.

NOT FOR CONSTRUCTION

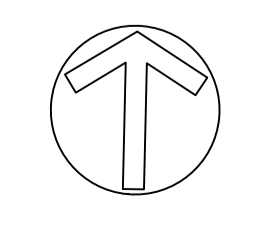
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REV	DATE	COMMENT	DRAWN	REVIEWED	REV	DATE	COMMENT	DRAWN	REVIEWED
-	18/9/25	STRATEGIC DESIGN	C.J.	A.U.					



PROJECT:  
RICHMOND VALLEY SF  
STRATEGIC DESIGN  
BRUXNER HWY AND  
BARKER ST, CASINO.  
-28.864580, 153.045646

DRAWING TITLE:  
2D STRATEGIC CONCEPT DESIGN  
SWEPT PATH PLAN - OSOM VEHICLE

CLIENT: ARK ENERGY

DRG. #: EMM - C03

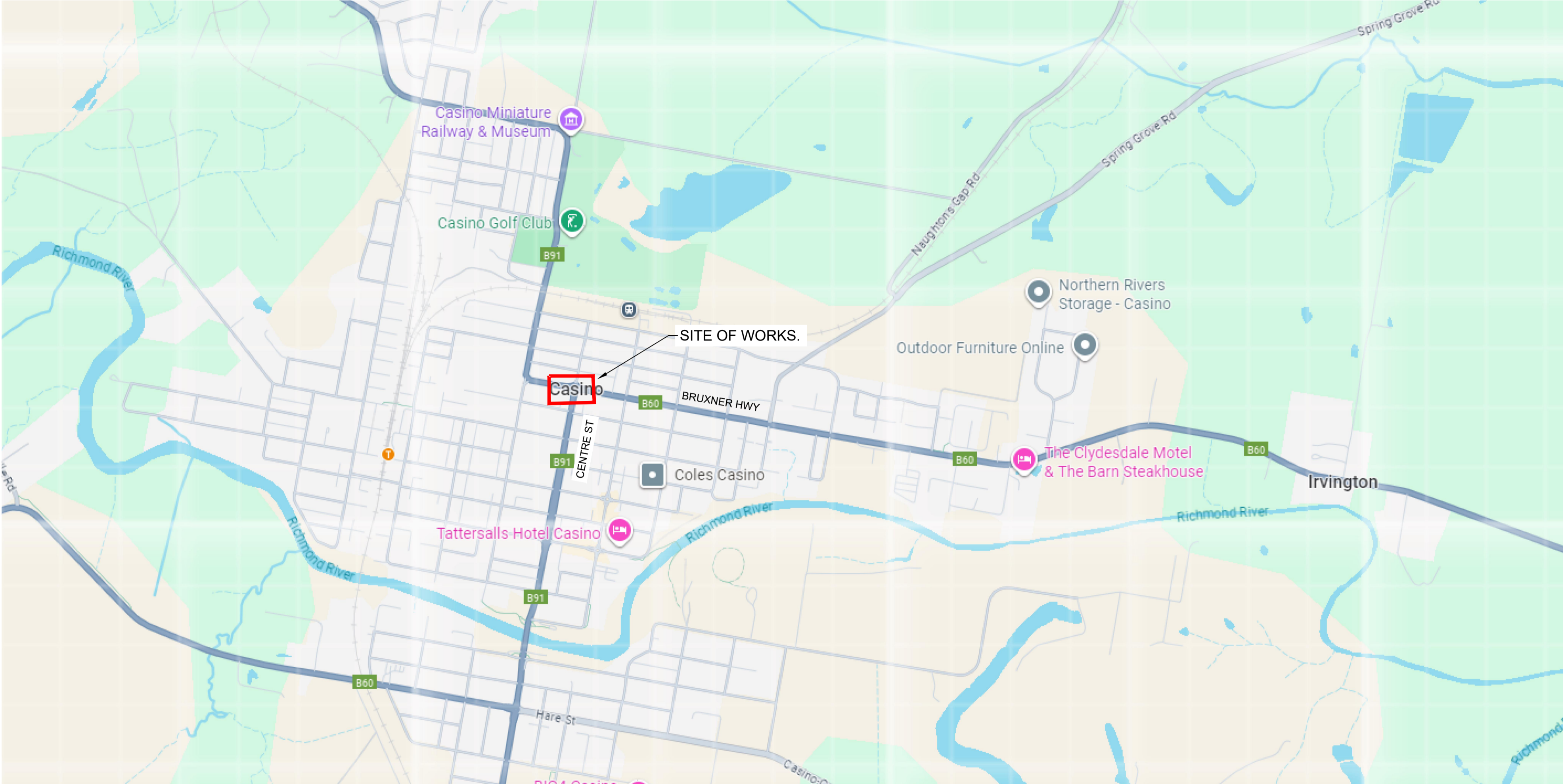
PROJECT #: E240318

SCALE: AS SHOWN

REV: -

# RICHMOND VALLEY SF

## STRATEGIC DESIGN - BRUXNER HWY AND CENTRE ST, CASINO. PINCH POINT 10.

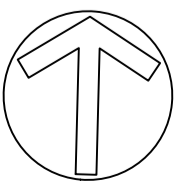


TfNSW 2D STRATEGIC DESIGN REQUIREMENTS		
DESIGN INCLUSIONS	YES	NO
North point	X	
Road names	X	
Proposed edge of pavement	X	
New pavement shown as shaded	X	
Proposed line and pavement markings	X	
Proposed medians including type (raised or painted)	X	
Proposed footpaths and/or cycle ways	X	
Proposed safety barriers	X	
Property boundaries (from mapping program)	X	N/A
Sight distance checks	X	N/A
Proposed regulatory signage (e.g. parking restrictions, speed zone changes)	X	
Vegetation- tree trunks and foliage, including proposed trees removal to enable works	X	
Hazard free zone (clear zone)	X	N/A
Dimension all proposed design elements (incl. line marking)	X	
Typical section/s	X	
Turning paths of design vehicle at 15km/h	X	

OVERALL SITE PLAN  
NTS.

SHEET INDEX		
SHEET No	DESCRIPTION	REV
EMM - C00	COVER SHEET AND SHEET INDEX	-
EMM - C01	EXISTING LAYOUT PLAN	-
EMM - C02	CONSTRUCTION PLAN	-
EMM - C03	SWEPT PATH PLAN - OSOM VEHICLE	-


REV	DATE	COMMENT	DRAWN	REVIEWED	REV	DATE	COMMENT	DRAWN	REVIEWED
-	18/9/25	STRATEGIC DESIGN	C.J.	A.U.					





PLAN  
SCALE 1:250

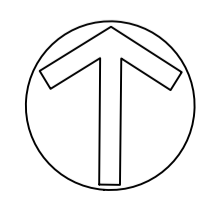
**LEGEND**

 EXISTING SIGNS IMPACTED OR CLOSE TO PROPOSED WORKS

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REV	DATE	COMMENT	DRAWN	REVIEWED	REV	DATE	COMMENT	DRAWN	REVIEWED
-	18/9/25	STRATEGIC DESIGN	C.J.	A.U.					

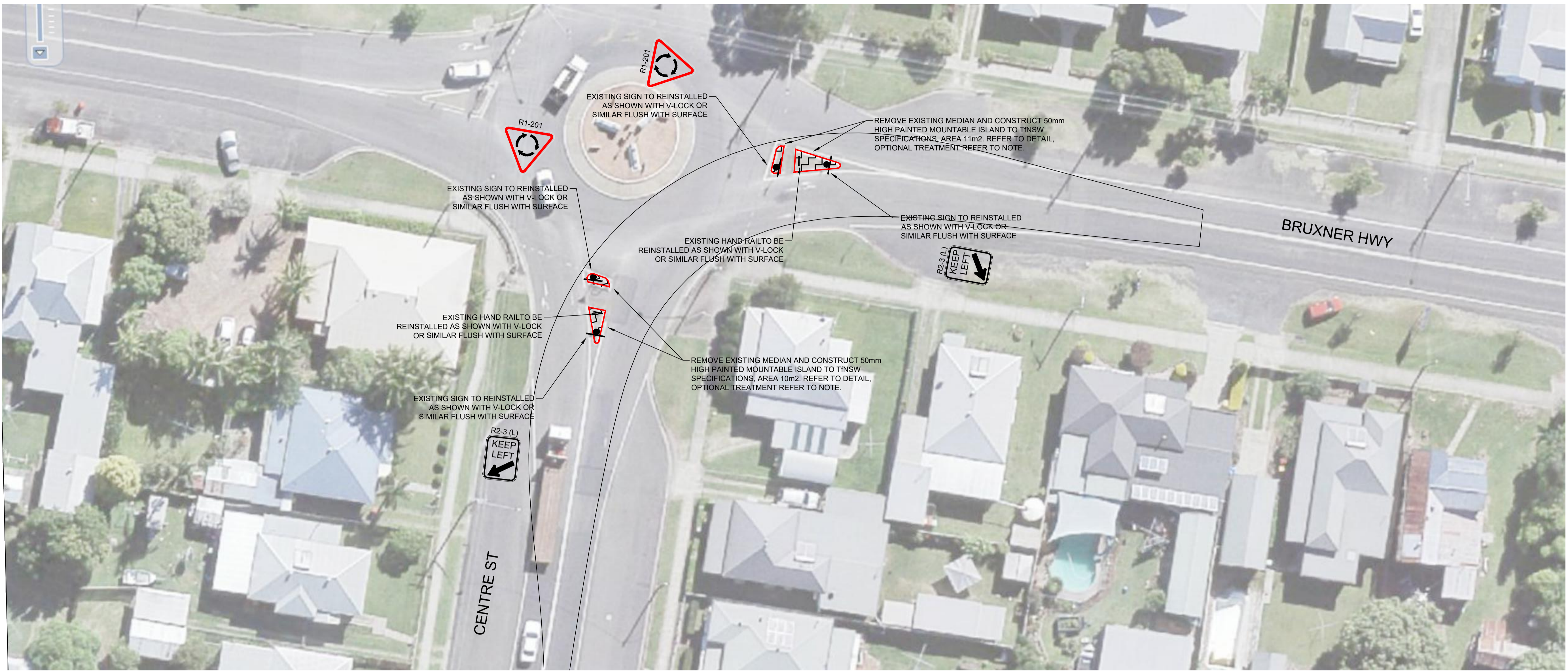


PROJECT:  
RICHMOND VALLEY SF  
STRATEGIC DESIGN  
BRUXNER HWY AND  
CENTRE ST, CASINO.  
-28.858378, 153.046946

DRAWING TITLE:  
2D STRATEGIC CONCEPT DESIGN  
EXISTING LAYOUT PLAN

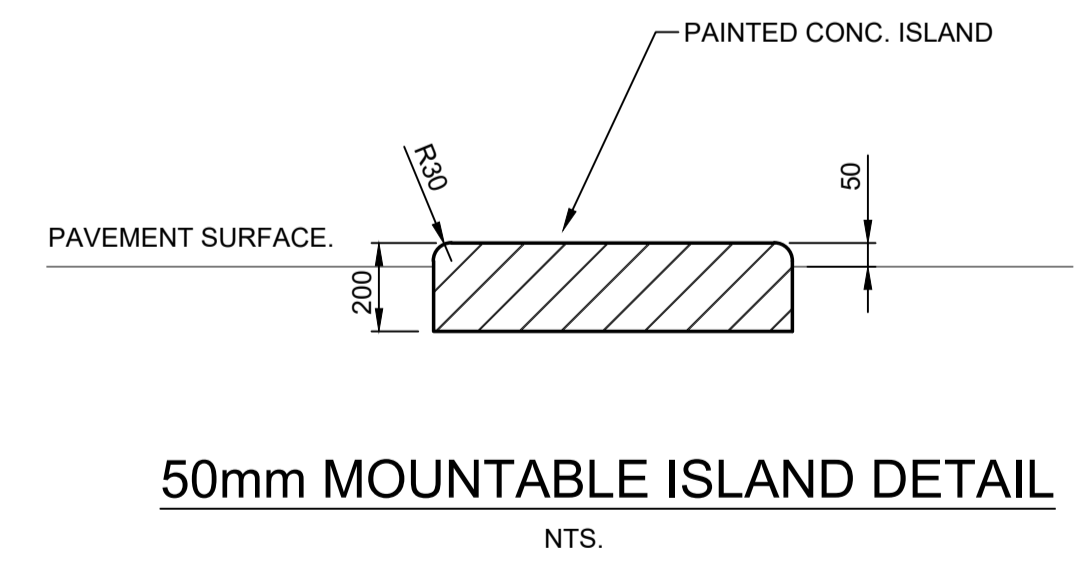
CLIENT: ARK ENERGY  
DRG. #: EMM - C01  
PROJECT #: E240318  
SCALE: AS SHOWN

**REV: -**

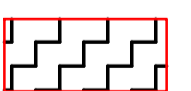



**CONSTRUCTION PLAN**  
SCALE 1:250

**NOTE:**The requirement for treatments to infrastructure is to be discussed in detail with TfNSW and Council at a later stage. The extent of upgrade works will be subject to the discretion of the relevant authorities, particularly where it may be acceptable to retain existing infrastructure—such as kerbs, pavements, and roundabouts—where ARES have identified the OSOM trailer can safely track over them without permanent structural modifications i.e. through the use of road plates or as is.



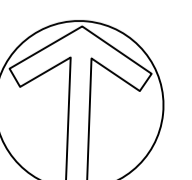
**LEGEND**

-  REMOVE EXISTING MEDIAN AND CONSTRUCT 50mm HIGH PAINTED MOUNTABLE ISLAND TO TNSW SPECIFICATIONS. TOTAL AREA 21m2. REFER TO DETAIL
-  PROPOSED SIGN

NOT FOR CONSTRUCTION


  
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REV	DATE	COMMENT	DRAWN	REVIEWED	REV	DATE	COMMENT	DRAWN	REVIEWED
-	18/9/25	STRATEGIC DESIGN	C.J.	A.U.					


  
**PROJECT:**  
 RICHMOND VALLEY SF  
 STRATEGIC DESIGN  
 BRUXNER HWY AND  
 CENTRE ST, CASINO.  
 -28.858378, 153.046946

**DRAWING TITLE:**  
 2D STRATEGIC CONCEPT DESIGN  
 CONSTRUCTION PLAN

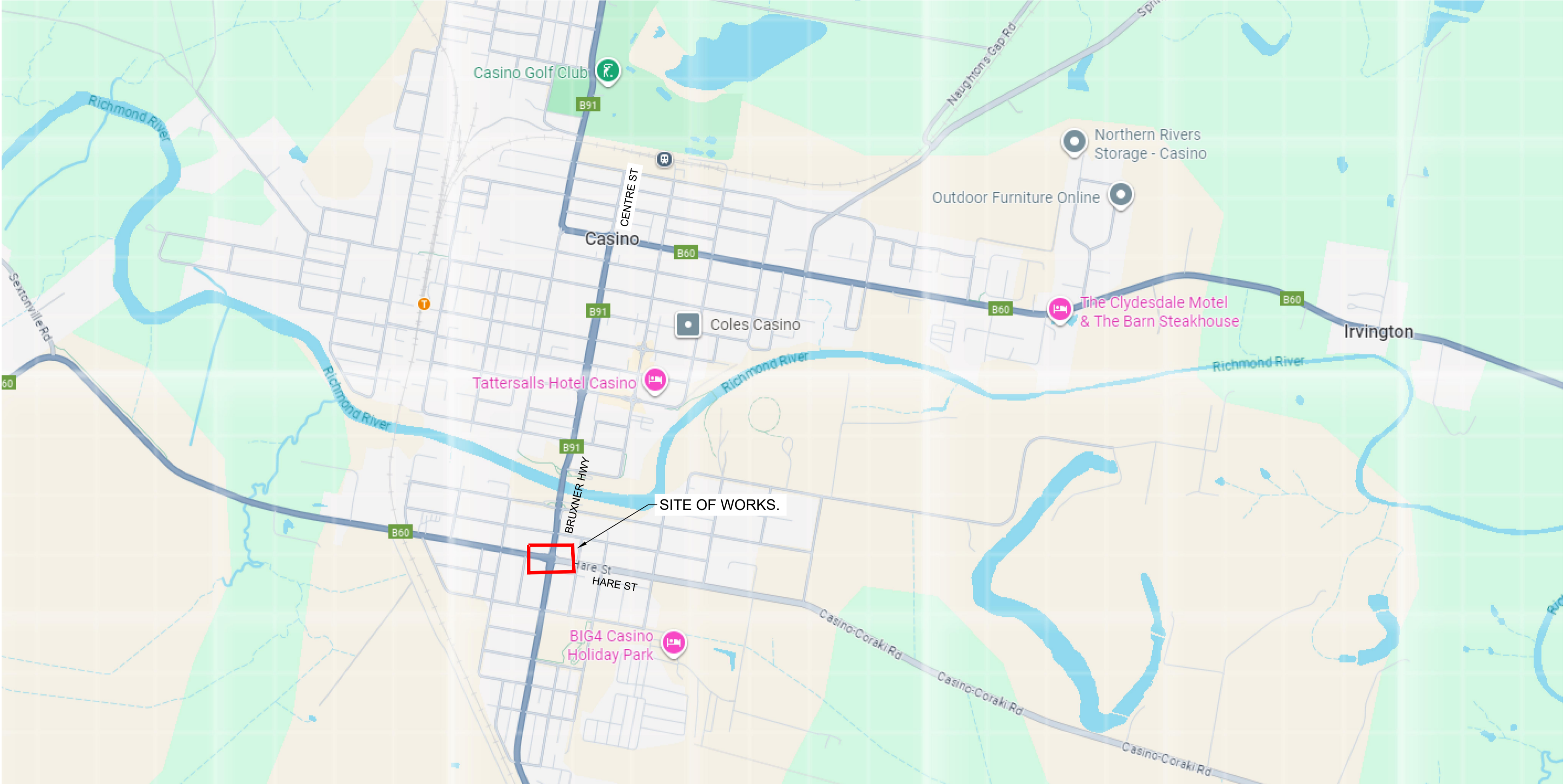
**CLIENT:** ARK ENERGY  
**DRG. #:** EMM - C02  
**PROJECT #:** E240318  
**SCALE:** AS SHOWN

REV: -



# RICHMOND VALLEY SF

## STRATEGIC DESIGN - BRUXNER HWY AND HARE ST, CASINO. PINCH POINT 12.

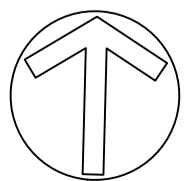


TfNSW 2D STRATEGIC DESIGN REQUIREMENTS		
DESIGN INCLUSIONS	YES	NO
North point	X	
Road names	X	
Proposed edge of pavement	X	
New pavement shown as shaded	X	
Proposed line and pavement markings	X	
Proposed medians including type (raised or painted)	X	
Proposed footpaths and/or cycle ways	X	
Proposed safety barriers	X	
Property boundaries (from mapping program)	X	N/A
Sight distance checks	X	N/A
Proposed regulatory signage (e.g. parking restrictions, speed zone changes)	X	
Vegetation- tree trunks and foliage, including proposed trees removal to enable works	X	
Hazard free zone (clear zone)	X	N/A
Dimension all proposed design elements (incl. line marking)	X	
Typical section/s	X	
Turning paths of design vehicle at 15km/h	X	

**OVERALL SITE PLAN**  
NTS.

SHEET INDEX		
SHEET No	DESCRIPTION	REV
EMM - C00	COVER SHEET AND SHEET INDEX	-
EMM - C01	EXISTING LAYOUT PLAN	-
EMM - C02	CONSTRUCTION PLAN	-
EMM - C03	SWEPT PATH PLAN - OSOM VEHICLE	-


REV	DATE	COMMENT	DRAWN	REVIEWED	REV	DATE	COMMENT	DRAWN	REVIEWED
-	18/9/25	STRATEGIC DESIGN	C.J.	A.U.					





PLAN  
SCALE 1:250

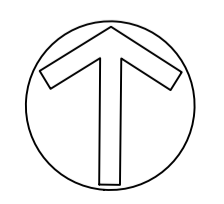
LEGEND

 EXISTING SIGNS IMPACTED OR CLOSE TO PROPOSED WORKS

NOT FOR CONSTRUCTION

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St Leonards NSW 2065  
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REV	DATE	COMMENT	DRAWN	REVIEWED	REV	DATE	COMMENT	DRAWN	REVIEWED
-	18/9/25	STRATEGIC DESIGN	C.J.	A.U.					

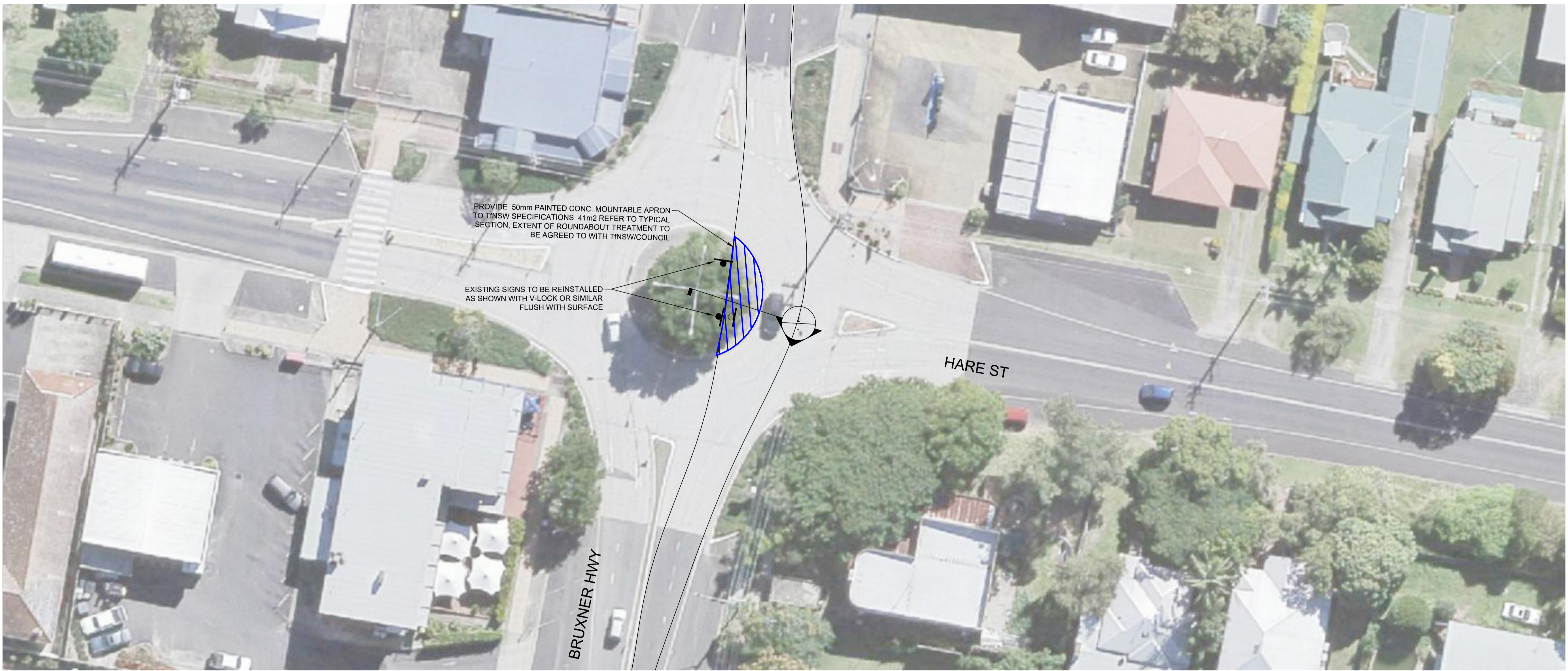


PROJECT:  
RICHMOND VALLEY SF  
STRATEGIC DESIGN  
BRUXNER HWY AND  
HARE ST, CASINO.  
-28.871495, 153.044309

DRAWING TITLE:  
2D STRATEGIC CONCEPT DESIGN  
EXISTING LAYOUT PLAN

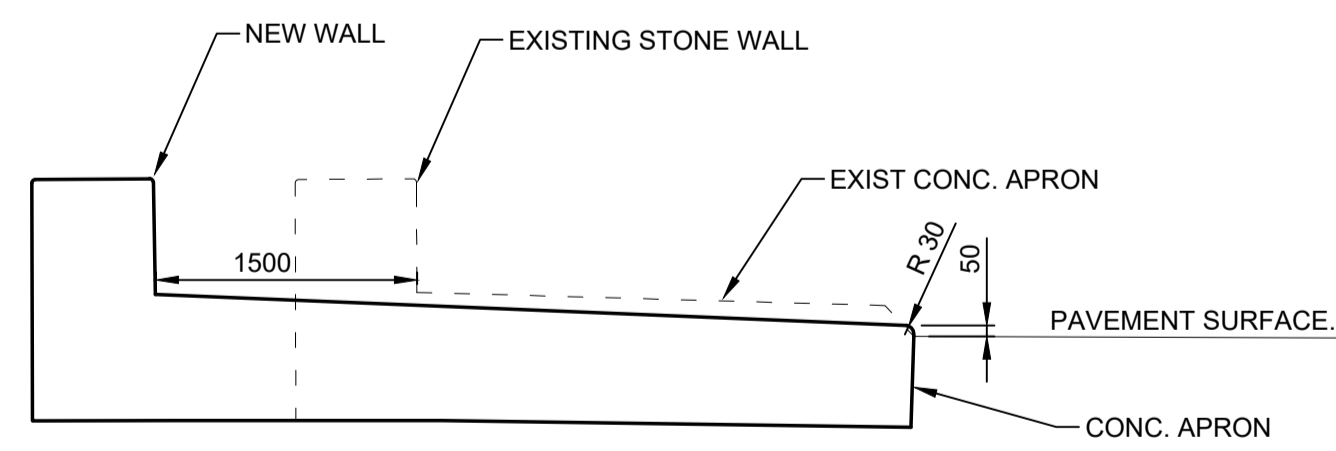
CLIENT: ARK ENERGY  
DRG. #: EMM - C01  
PROJECT #: E240318  
SCALE: AS SHOWN

REV: -






**CONSTRUCTION PLAN**  
SCALE 1:250

**NOTE:**The requirement for treatments to infrastructure is to be discussed in detail with TfNSW and Council at a later stage. The extent of upgrade works will be subject to the discretion of the relevant authorities, particularly where it may be acceptable to retain existing infrastructure—such as kerbs, pavements, and roundabouts—where ARES have identified the OSOM trailer can safely track over them without permanent structural modifications i.e. through the use of road plates or as is.



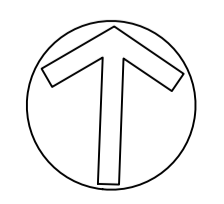
**TYPICAL SECTION - DETAIL 1.**  
NTS.

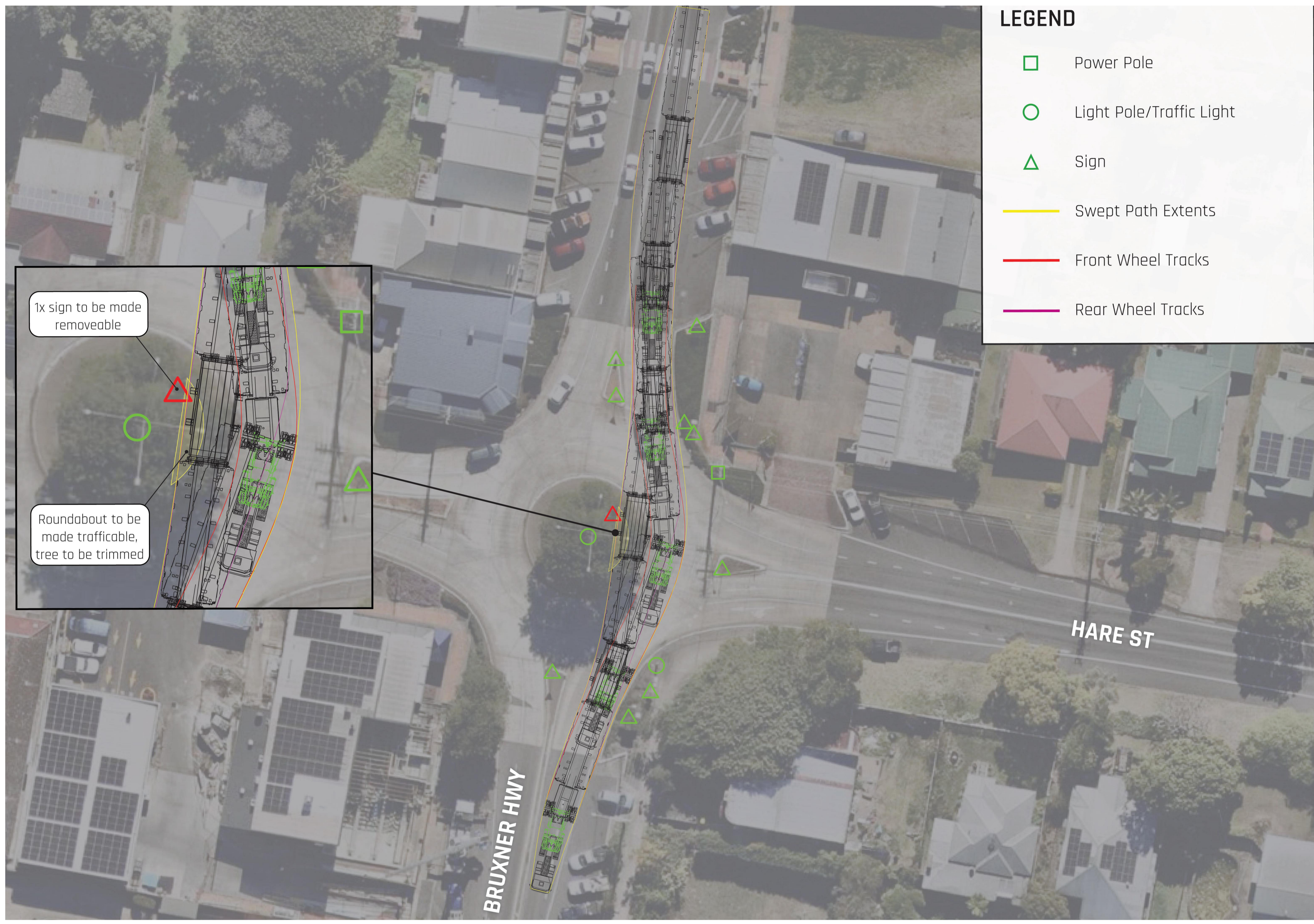
**LEGEND**

-  PROVIDE 50mm PAINTED CONC. MOUNTABLE APRON TO TfNSW SPECIFICATIONS 41m2 REFER TO TYPICAL SECTION
-  PROPOSED SIGN
-  EXISTING SIGN

NOT FOR CONSTRUCTION

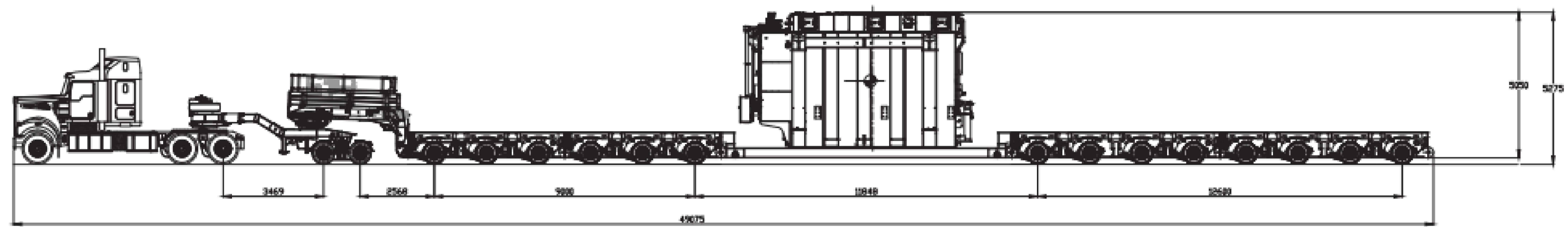
REV	DATE	COMMENT	DRAWN	REVIEWED	REV	DATE	COMMENT	DRAWN	REVIEWED
-	18/9/25	STRATEGIC DESIGN	C.J.	A.U.					





PLAN

14R8 & 2R8 DOLLY (WITH DROP DECK)  
16.45T PER ROW - MAX P/L: 180T



NOTE:  
THE DESIGN IS BASED ON THE PLANS PROVIDED BY ARES PROJECT GROUP PTY LTD. FOR ARK ENERGY, DRAWING NAME: ROUTE SURVEY NO DRAWING NUMBER OR DATE SHOWN.

NOT FOR CONSTRUCTION

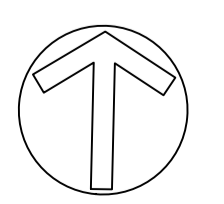
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creating opportunities

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REV	DATE	COMMENT	DRAWN	REVIEWED	REV	DATE	COMMENT	DRAWN	REVIEWED
-	18/9/25	STRATEGIC DESIGN	C.J.	A.U.					



PROJECT:  
RICHMOND VALLEY SF  
STRATEGIC DESIGN  
BRUXNER HWY AND  
HARE ST, CASINO.  
-28.871495, 153.044309

DRAWING TITLE:  
2D STRATEGIC CONCEPT DESIGN  
SWEPT PATH PLAN - OSOM VEHICLE

CLIENT: ARK ENERGY

DRG. #: EMM - C03

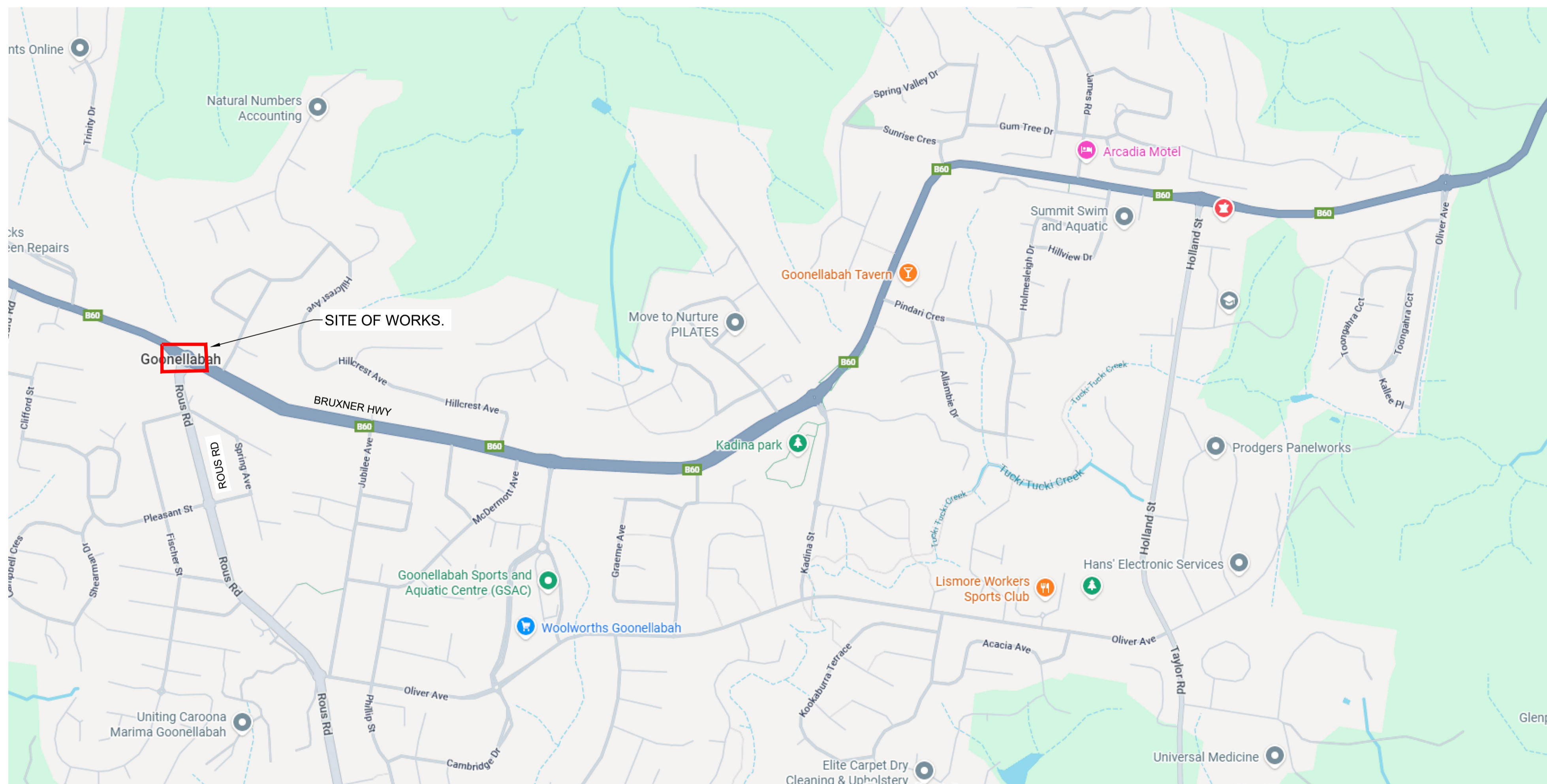
PROJECT #: E240318

SCALE: AS SHOWN

REV: -

# RICHMOND VALLEY SF

## STRATEGIC DESIGN - BRUXNER HWY AND ROUS ROAD, GOONELLABAH. PINCH POINT 07

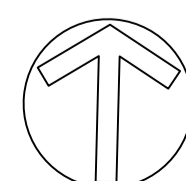


TfNSW 2D STRATEGIC DESIGN REQUIREMENTS		
DESIGN INCLUSIONS	YES	NO
North point	X	
Road names	X	
Proposed edge of pavement	X	
New pavement shown as shaded	X	
Proposed line and pavement markings	X	
Proposed medians including type (raised or painted)	X	
Proposed footpaths and/or cycle ways	X	
Proposed safety barriers	X	
Property boundaries (from mapping program)	X	N/A
Sight distance checks	X	N/A
Proposed regulatory signage (e.g. parking restrictions, speed zone changes)	X	
Vegetation- tree trunks and foliage, including proposed trees removal to enable works	X	
Hazard free zone (clear zone)	X	N/A
Dimension all proposed design elements (incl. line marking)	X	
Typical section/s	X	
Turning paths of design vehicle at 15km/h	X	

OVERALL SITE PLAN  
NTS.

SHEET INDEX		
SHEET No	DESCRIPTION	REV
EMM - C00	COVER SHEET AND SHEET INDEX	-
EMM - C01	EXISTING LAYOUT PLAN	-
EMM - C02	CONSTRUCTION PLAN	-
EMM - C03	SWEPT PATH PLAN - OSOM VEHICLE	-


REV	DATE	COMMENT	DRAWN	REVIEWED	REV	DATE	COMMENT	DRAWN	REVIEWED
-	18/9/25	STRATEGIC DESIGN	C.J.	A.U.					





PLAN  
SCALE 1:250

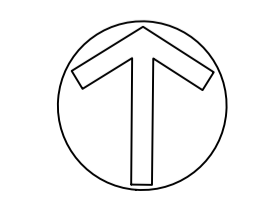
**LEGEND**

 EXISTING SIGNS IMPACTED OR CLOSE TO PROPOSED WORKS

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 St Leonards NSW 2065  
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REV	DATE	COMMENT	DRAWN	REVIEWED	REV	DATE	COMMENT	DRAWN	REVIEWED
-	18/9/25	STRATEGIC DESIGN	C.J.	A.U.					

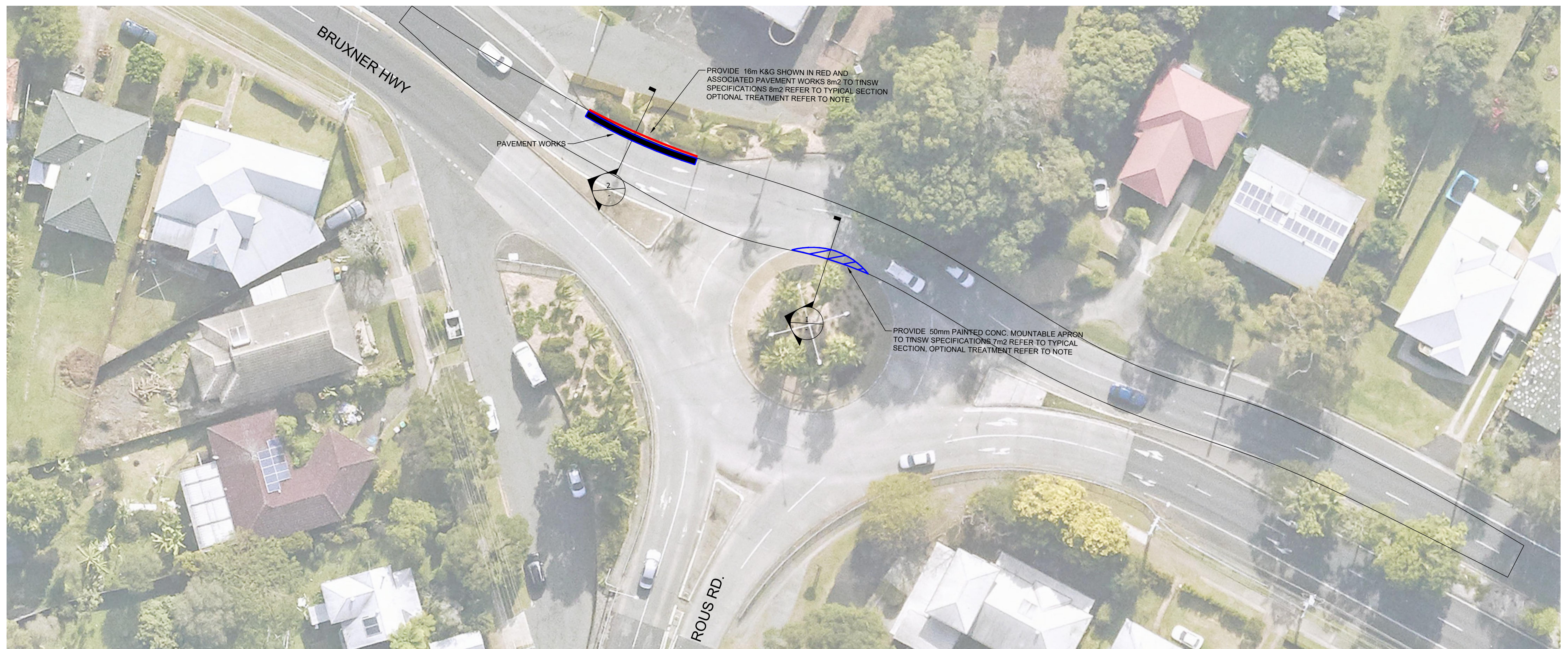


PROJECT:  
**RICHMOND VALLEY SF  
 STRATEGIC DESIGN  
 BRUXNER HWY AND  
 ROUS ROAD, GOONELLABAH.  
 -28.815983, 153.318263**

DRAWING TITLE:  
**2D STRATEGIC CONCEPT DESIGN  
 EXISTING LAYOUT PLAN**

CLIENT: ARK ENERGY  
 DRG. #: EMM - C01  
 PROJECT #: E240318  
 SCALE: AS SHOWN

**REV: -**

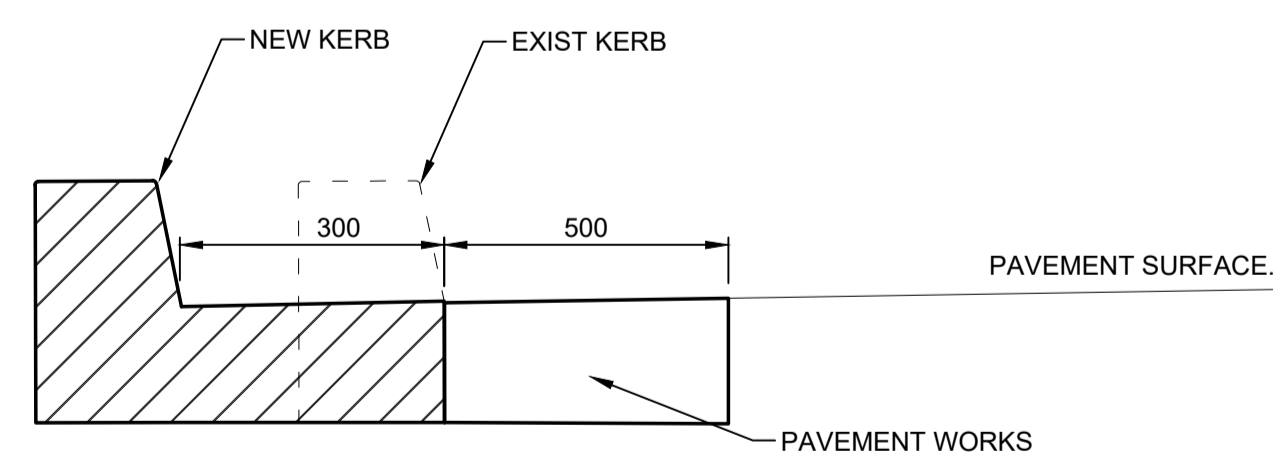


PROVIDE 16m K&G SHOWN IN RED AND ASSOCIATED PAVEMENT WORKS 8m<sup>2</sup> TO TNSW SPECIFICATIONS 8m<sup>2</sup> REFER TO TYPICAL SECTION OPTIONAL TREATMENT REFER TO NOTE

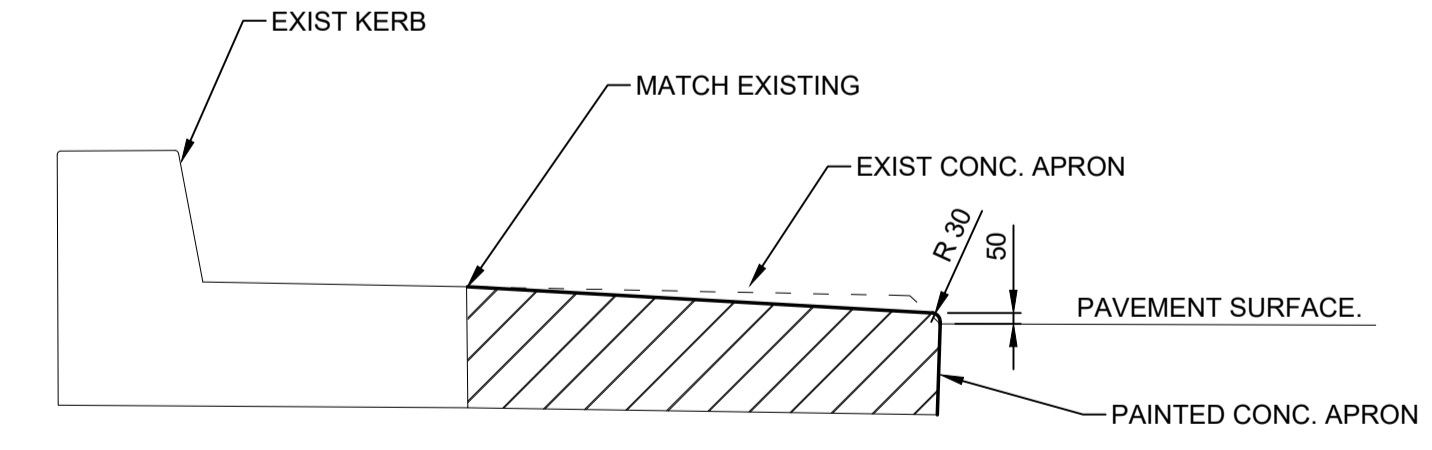
PROVIDE 50mm PAINTED CONC. MOUNTABLE APRON TO TNSW SPECIFICATIONS 7m<sup>2</sup> REFER TO TYPICAL SECTION. OPTIONAL TREATMENT REFER TO NOTE

NOTE: The requirement for treatments to infrastructure is to be discussed in detail with TfNSW and Council at a later stage. The extent of upgrade works will be subject to the discretion of the relevant authorities, particularly where it may be acceptable to retain existing infrastructure—such as kerbs, pavements, and roundabouts—where ARES have identified the OSOM trailer can safely track over them without permanent structural modifications i.e. through the use of road plates or as is.

**CONSTRUCTION PLAN**  
SCALE 1:250



TYPICAL SECTION - DETAIL 2.  
NTS.



TYPICAL SECTION - DETAIL 1.  
NTS.

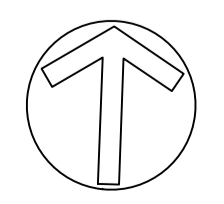
**LEGEND**

- PROVIDE 50mm PAINTED CONC. MOUNTABLE APRON TO TNSW SPECIFICATIONS 7m<sup>2</sup> REFER TO TYPICAL SECTION
- PROVIDE 16m K&G SHOWN IN RED AND ASSOCIATED PAVEMENT WORKS 8m<sup>2</sup> TO TNSW SPECIFICATIONS 8m<sup>2</sup> REFER TO TYPICAL SECTION

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REV	DATE	COMMENT	DRAWN	REVIEWED	REV	DATE	COMMENT	DRAWN	REVIEWED
-	18/9/25	STRATEGIC DESIGN	C.J.	A.U.					

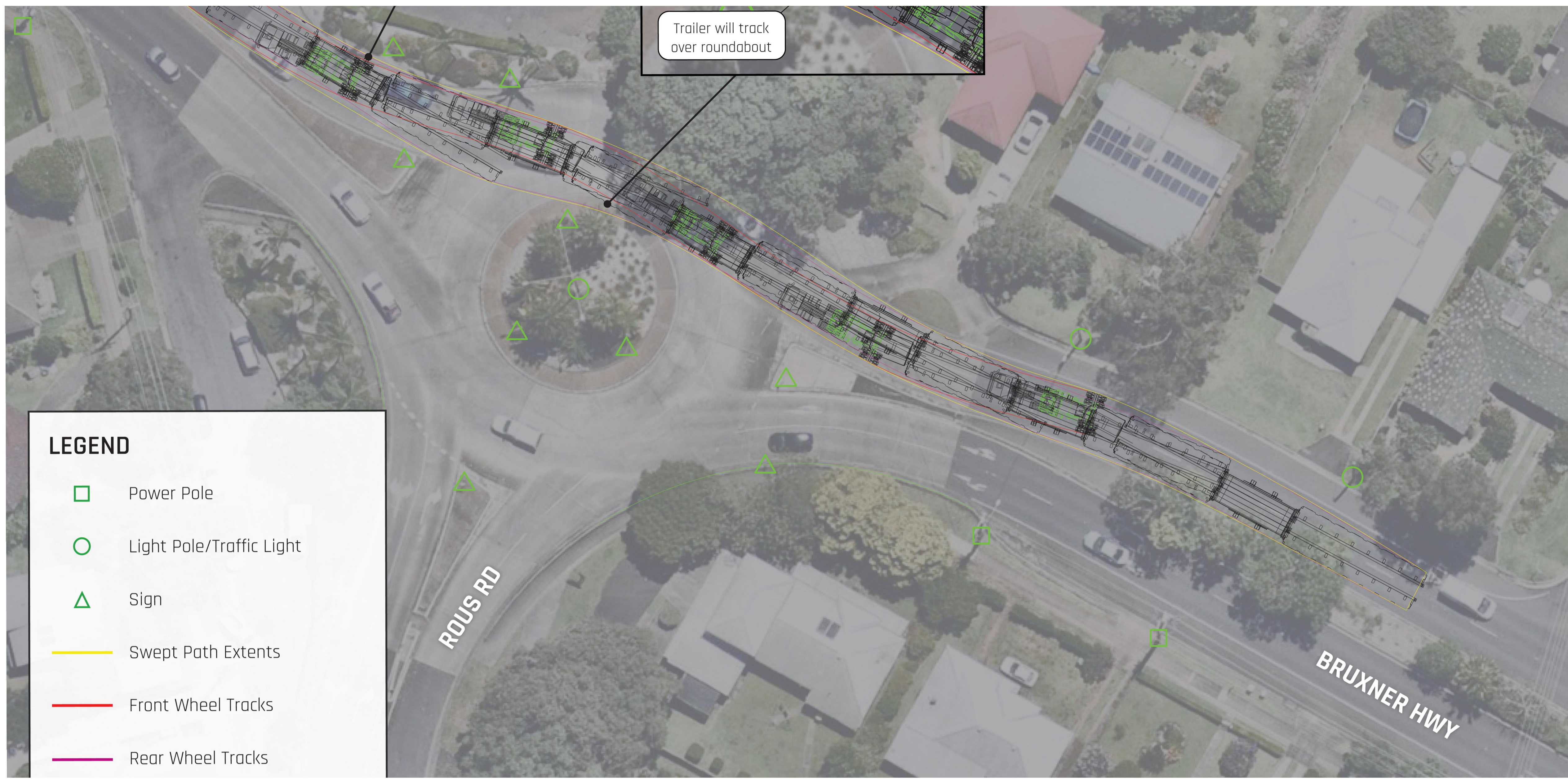


PROJECT:  
RICHMOND VALLEY SF  
STRATEGIC DESIGN  
BRUXNER HWY AND  
ROUS ROAD, GOONELLABAH.  
-28.815983, 153.318263

DRAWING TITLE:  
2D STRATEGIC CONCEPT DESIGN  
CONSTRUCTION PLAN

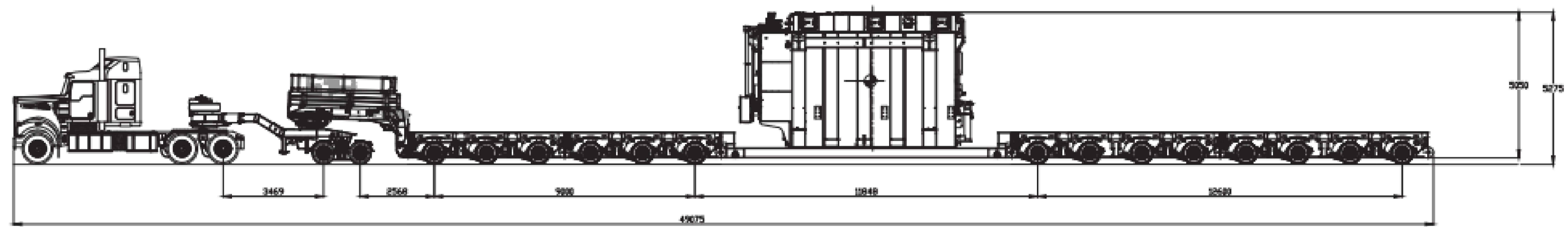
CLIENT: ARK ENERGY  
DRG. #: EMM - C02  
PROJECT #: E240318  
SCALE: AS SHOWN

REV: -



PLAN  
SCALE NTS

14R8 & 2R8 DOLLY (WITH DROP DECK)  
16.45T PER ROW - MAX P/L: 180T



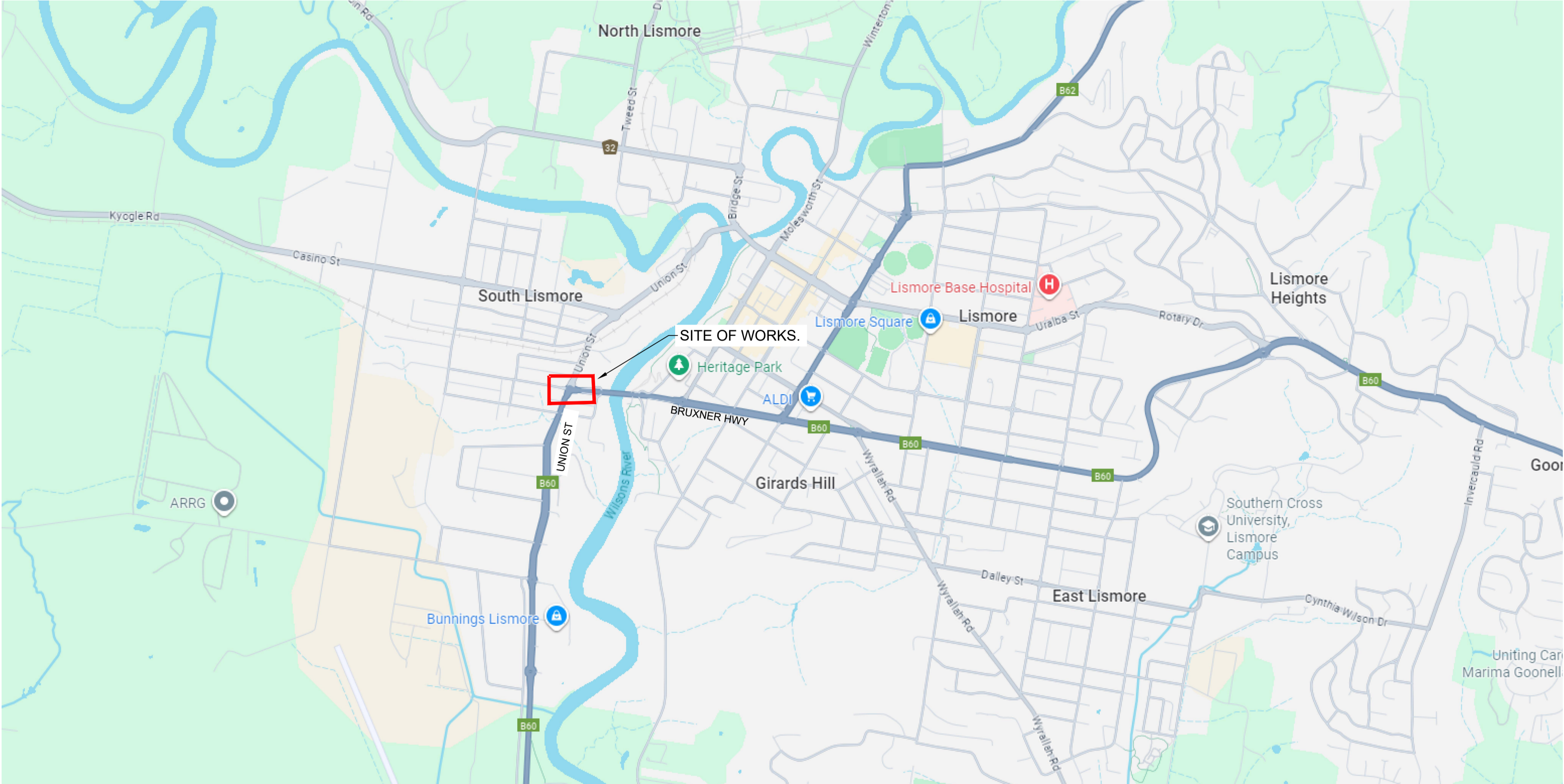
NOTE:  
THE DESIGN IS BASED ON THE PLANS PROVIDED BY ARES PROJECT GROUP PTY LTD. FOR ARK ENERGY, DRAWING NAME: ROUTE SURVEY NO DRAWING NUMBER OR DATE SHOWN.

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<p>SYDNEY   Suite 01 Ground Floor 20 Chandos Street, St Leonards NSW 2065 Phone # 02 9493 9500 www.emmconsulting.com.au</p>	REV	DATE	COMMENT	DRAWN	REVIEWED	REV	DATE	COMMENT	DRAWN	REVIEWED		PROJECT: RICHMOND VALLEY SF STRATEGIC DESIGN BRUXNER HWY AND ROUS ROAD, GOONELLABAH. -28.815983, 153.318263	DRAWING TITLE:		CLIENT: ARK ENERGY	REV: -
	2D STRATEGIC CONCEPT DESIGN												DRG. #: EMM - C03			
	SWEPT PATH PLAN - OSOM VEHICLE												PROJECT #: E240318			
													SCALE: AS SHOWN			

# RICHMOND VALLEY SF

## STRATEGIC DESIGN - BRUXNER HWY AND UNION ST, SOUTH LISMORE. PINCH POINT 09.

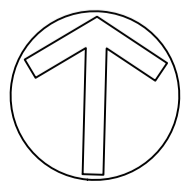


TfNSW 2D STRATEGIC DESIGN REQUIREMENTS		
DESIGN INCLUSIONS	YES	NO
North point	X	
Road names	X	
Proposed edge of pavement	X	
New pavement shown as shaded	X	
Proposed line and pavement markings	X	
Proposed medians including type (raised or painted)	X	
Proposed footpaths and/or cycle ways	X	
Proposed safety barriers	X	
Property boundaries (from mapping program)	X	N/A
Sight distance checks	X	N/A
Proposed regulatory signage (e.g. parking restrictions, speed zone changes)	X	
Vegetation- tree trunks and foliage, including proposed trees removal to enable works	X	
Hazard free zone (clear zone)	X	N/A
Dimension all proposed design elements (incl. line marking)	X	
Typical section/s	X	
Turning paths of design vehicle at 15km/h	X	

OVERALL SITE PLAN  
NTS.

SHEET INDEX		
SHEET No	DESCRIPTION	REV
EMM - C00	COVER SHEET AND SHEET INDEX	-
EMM - C01	EXISTING LAYOUT PLAN	-
EMM - C02	CONSTRUCTION PLAN	-
EMM - C03	SWEPT PATH PLAN - OSOM VEHICLE	-


REV	DATE	COMMENT	DRAWN	REVIEWED	REV	DATE	COMMENT	DRAWN	REVIEWED
-	18/9/25	STRATEGIC DESIGN	C.J.	A.U.					





PLAN  
SCALE 1:250

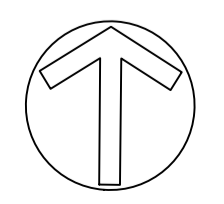
**LEGEND**

 EXISTING SIGNS IMPACTED OR CLOSE TO PROPOSED WORKS

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REV	DATE	COMMENT	DRAWN	REVIEWED	REV	DATE	COMMENT	DRAWN	REVIEWED
-	18/9/25	STRATEGIC DESIGN	C.J.	A.U.					

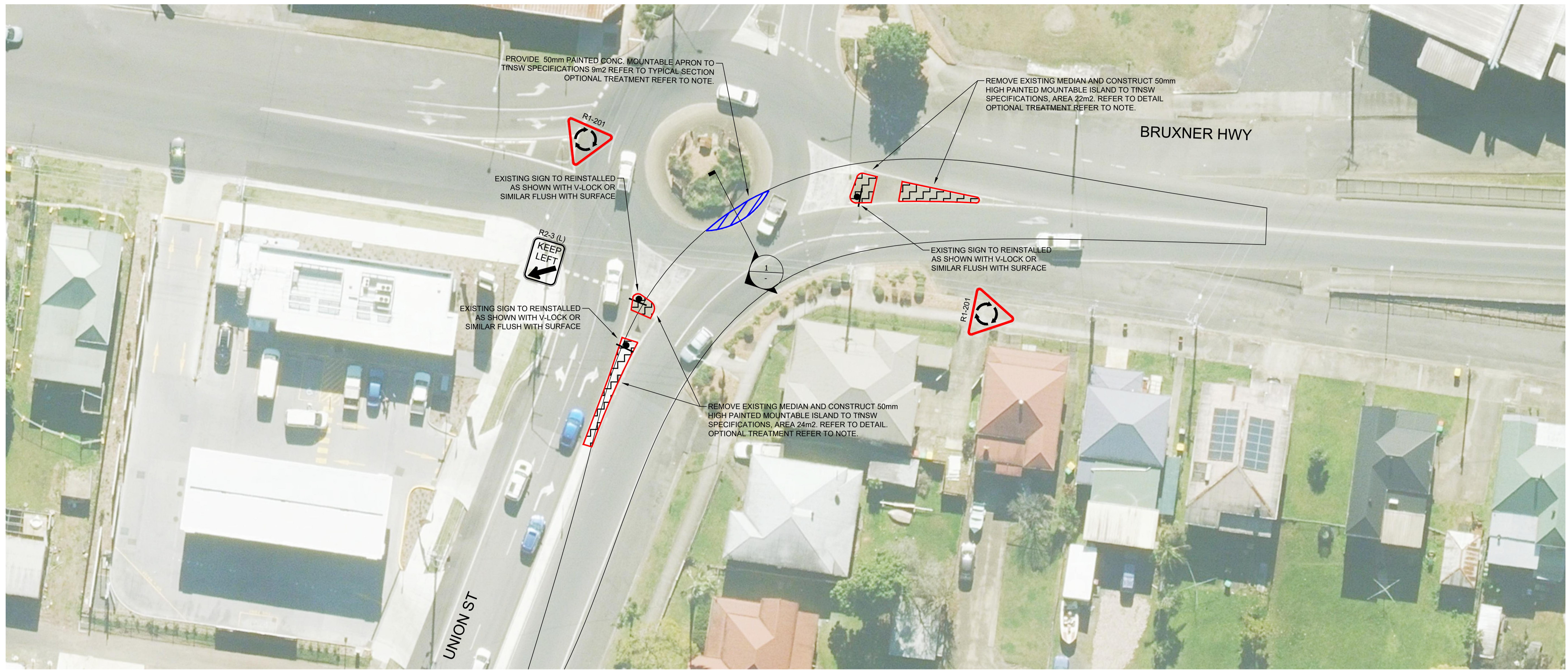


PROJECT:  
RICHMOND VALLEY SF  
STRATEGIC DESIGN  
BRUXNER HWY AND  
UNION ST, SOUTH LISMORE.  
-28.812667, 153.267089

DRAWING TITLE:  
2D STRATEGIC CONCEPT DESIGN  
EXISTING LAYOUT PLAN

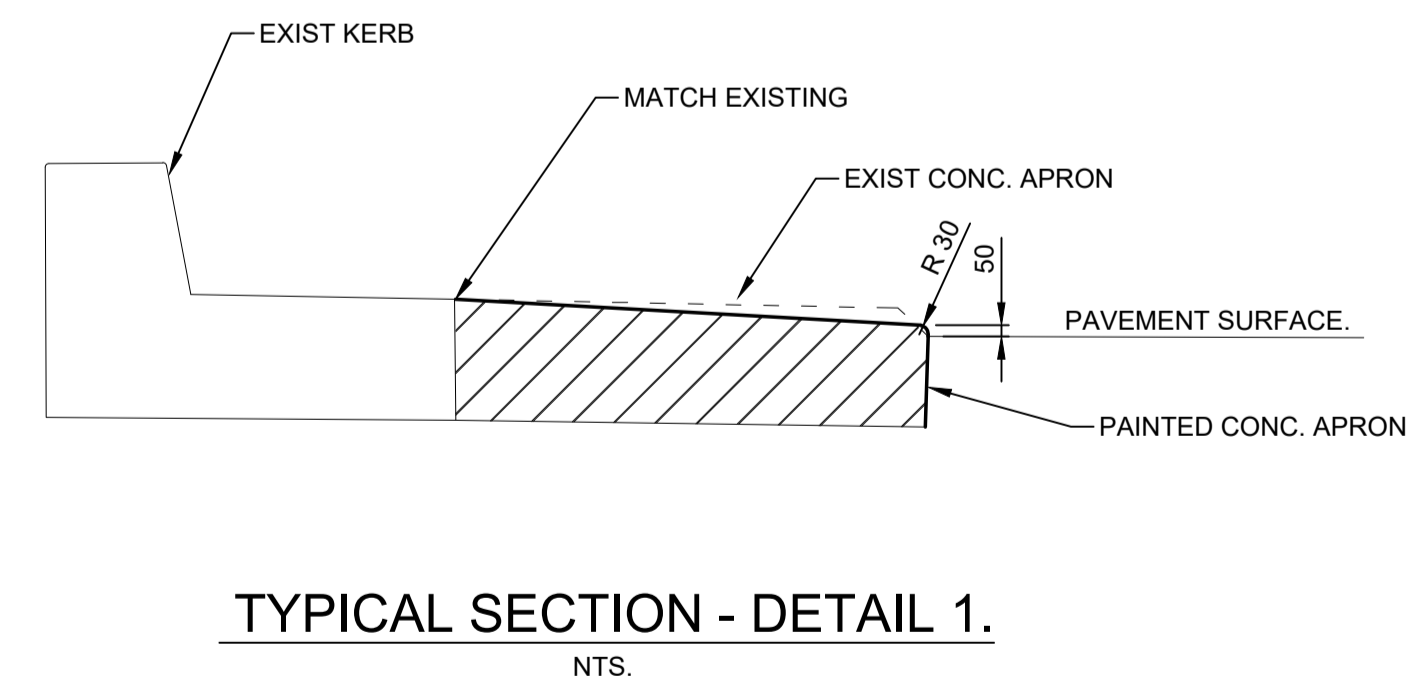
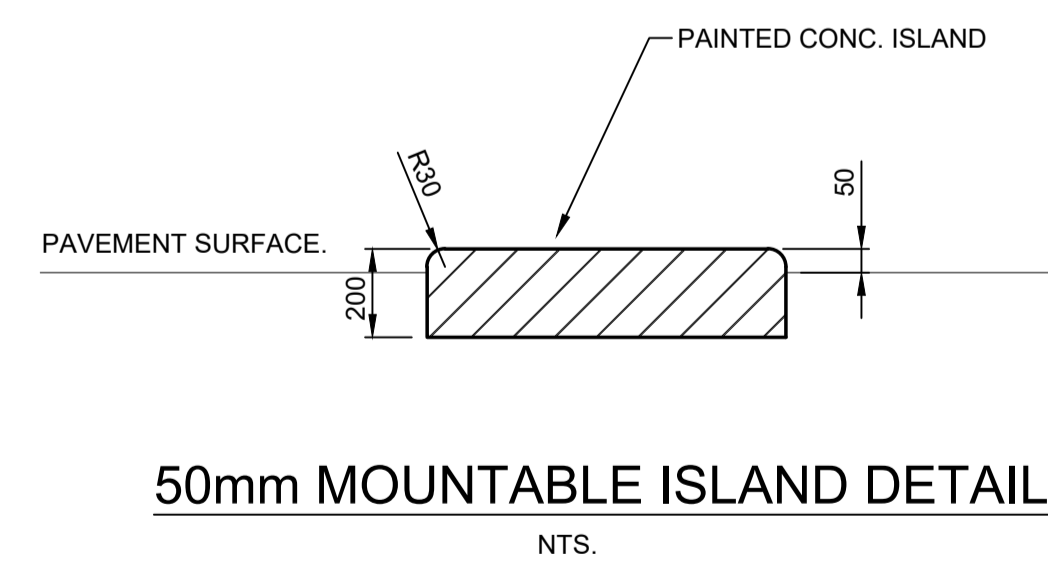
CLIENT: ARK ENERGY  
DRG. #: EMM - C01  
PROJECT #: E240318  
SCALE: AS SHOWN

**REV: -**



**CONSTRUCTION PLAN**  
SCALE 1:300

NOTE: The requirement for treatments to infrastructure is to be discussed in detail with TfNSW and Council at a later stage. The extent of upgrade works will be subject to the discretion of the relevant authorities, particularly where it may be acceptable to retain existing infrastructure—such as kerbs, pavements, and roundabouts—where ARES have identified the OSOM trailer can safely track over them without permanent structural modifications i.e. through the use of road plates or as is.

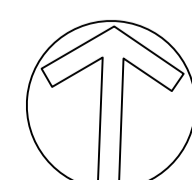


**LEGEND**

- PROVIDE 50mm PAINTED CONC. MOUNTABLE APRON TO TNSW SPECIFICATIONS 9m2 REFER TO TYPICAL SECTION
- REMOVE EXISTING MEDIUM AND CONSTRUCT 50mm HIGH PAINTED MOUNTABLE ISLAND TO TNSW SPECIFICATIONS, TOTAL AREA 46m2. REFER TO DETAIL
- PROPOSED SIGN

NOT FOR CONSTRUCTION

<p>SYDNEY   Suite 01 Ground Floor 20 Chandos Street, St Leonards NSW 2065 Phone # 02 9493 9500 www.emmconsulting.com.au</p>	REV	DATE	COMMENT	DRAWN	REVIEWED	REV	DATE	COMMENT	DRAWN	REVIEWED
	-	18/9/25	STRATEGIC DESIGN	C.J.	A.U.					



PROJECT:  
**RICHMOND VALLEY SF  
STRATEGIC DESIGN  
BRUXNER HWY AND  
UNION ST, SOUTH LISMORE.  
-28.812667, 153.267089**

DRAWING TITLE:  
**2D STRATEGIC CONCEPT DESIGN  
CONSTRUCTION PLAN**

CLIENT: **ARK ENERGY**  
DRG. #: **EMM - C02**  
PROJECT #: **E240318**  
SCALE: **AS SHOWN**

**REV: -**



## Appendix D: Blackash Bushfire Consulting Letter

21 August 2025

Siobhan Threlfall  
Development Manager  
Ark Energy  
By email: [siobhan.threlfall@arkenergy.com.au](mailto:siobhan.threlfall@arkenergy.com.au)

Dear Ms. Threlfall,

**Re: Richmond Valley Solar Farm (SSD-41020244) Bushfire Threat Assessment**

Blackash Bushfire Consulting can confirm that the project was assessed for bushfire risk management including provision for the Biodiversity Corridor to the north side of the site.

The purpose of this letter is to clarify that the proposed 30 metre wide Biodiversity Corridor was considered in the Bushfire Threat Assessment prepared for the Project, and that the Asset Protection Zone (APZ) was calculated from the edge of the Biodiversity Corridor as shown in the latest mapping produced in May 2025 - attached below.

The 30 m biodiversity corridor will be established along the northern boundary of the Project Area.

The screening will be:

- Planted prior to commencing operation.
- Maintained with appropriate weed management.

It will be comprised of species that are endemic to the region. We are advised the following species are proposed:

- Eucalyptus tereticornis,
- Lophostemon suaveolens,
- Melaleuca quinquenervia,
- Eucalyptus siderophloia,
- Melaleuca alternifolia,
- Acacia concurrens,
- Allocasuarina torulosa.

Blackash can confirm that the APZ calculations have been based from the southern edge of the biodiversity corridor so the additional plantings do not pose any additional threat to the development.

Blackash can confirm that there is no significant additional bushfire threat to surrounding properties from the biodiversity corridor. There is extensive existing native vegetation in the locality that is much closer to existing structures on adjoining land to the north and the additional corridor planting is not a significant addition to the overall area of bushfire hazard vegetation. The clearing and land management associated with the solar farm provide a very significant buffer from any bushfires approaching from south of the properties north of the site.

If you require any further information, please do not hesitate to contact me on 0439 220 464.

Yours sincerely,



David Lemcke | Senior Planner & Bushfire Specialist

**Blackash Bushfire Consulting**

B.A., Grad. Dip. Urban & Regional Planning; Master of Environmental Planning; Grad. Dip. Bushfire Protection; Adv. Dip. Of Public Safety (Emergency Management); Dip. Management

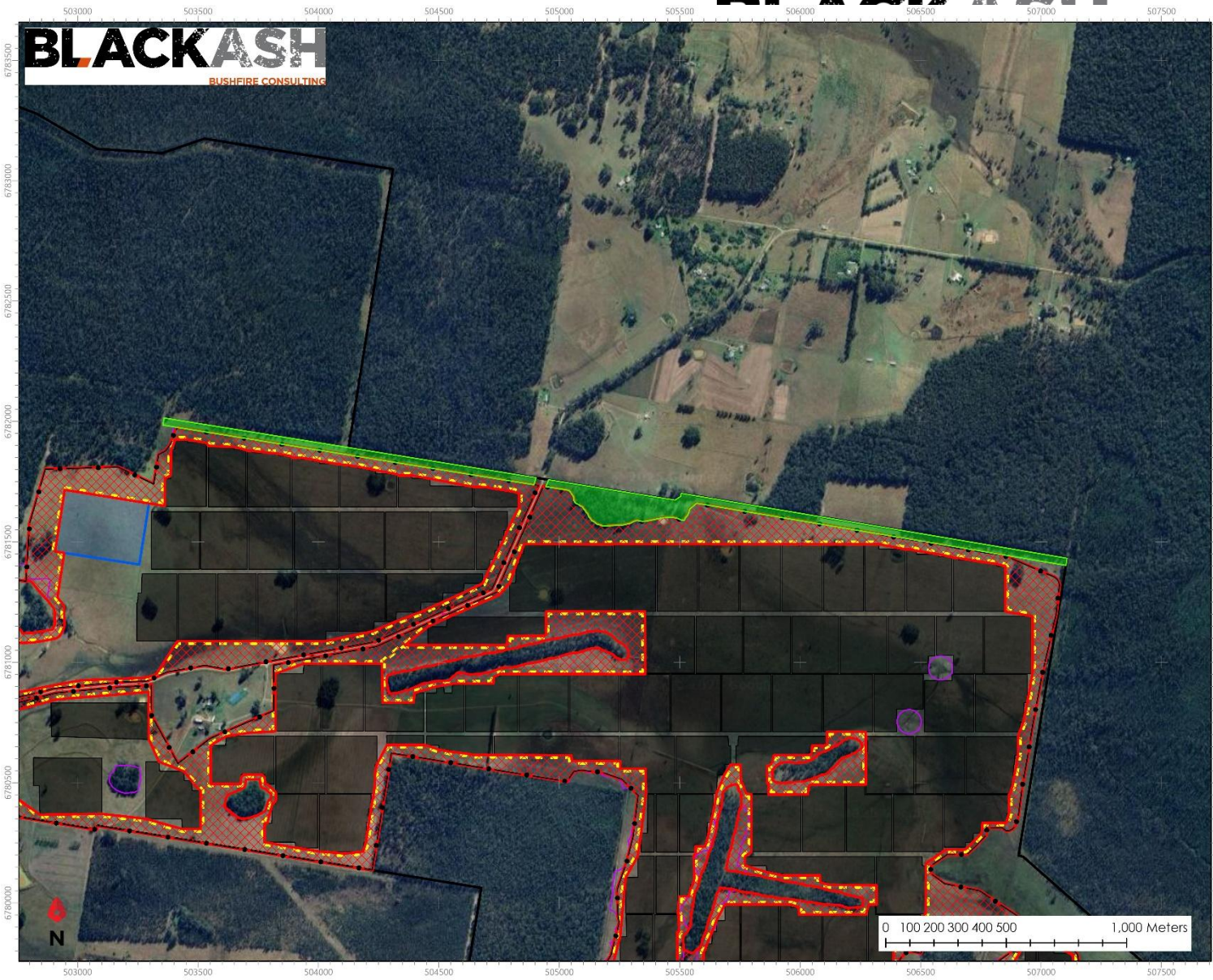


Lew Short | Principal

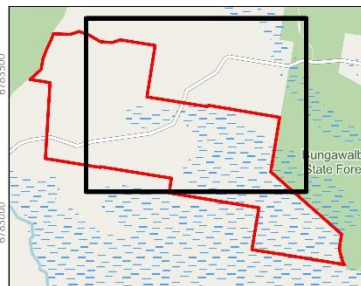
**Blackash Bushfire Consulting**

B.A., Grad. Dip. (Design for Bushfires), Grad. Cert. of Management (Macq), Grad. Cert. (Applied Management)

Fire Protection Association of Australia BPAD Level 3 BPD-PA 16373



**BLACKASH**  
BUSHFIRE CONSULTING



**Biodiversity Corridor**

- RCH biodiversity corridor**
  - RCH biodiversity corridor
- Asset Protection Zone**
  - APZ Area
  - 10m Interface APZ
- Project Layers**
  - Project Boundary 231106
  - BESS 241101
  - Development Footprint 250423
  - Solar Array 250423
  - Fence 250509

Richmond Valley Solar Array - Myrtle Creek NSW 2469

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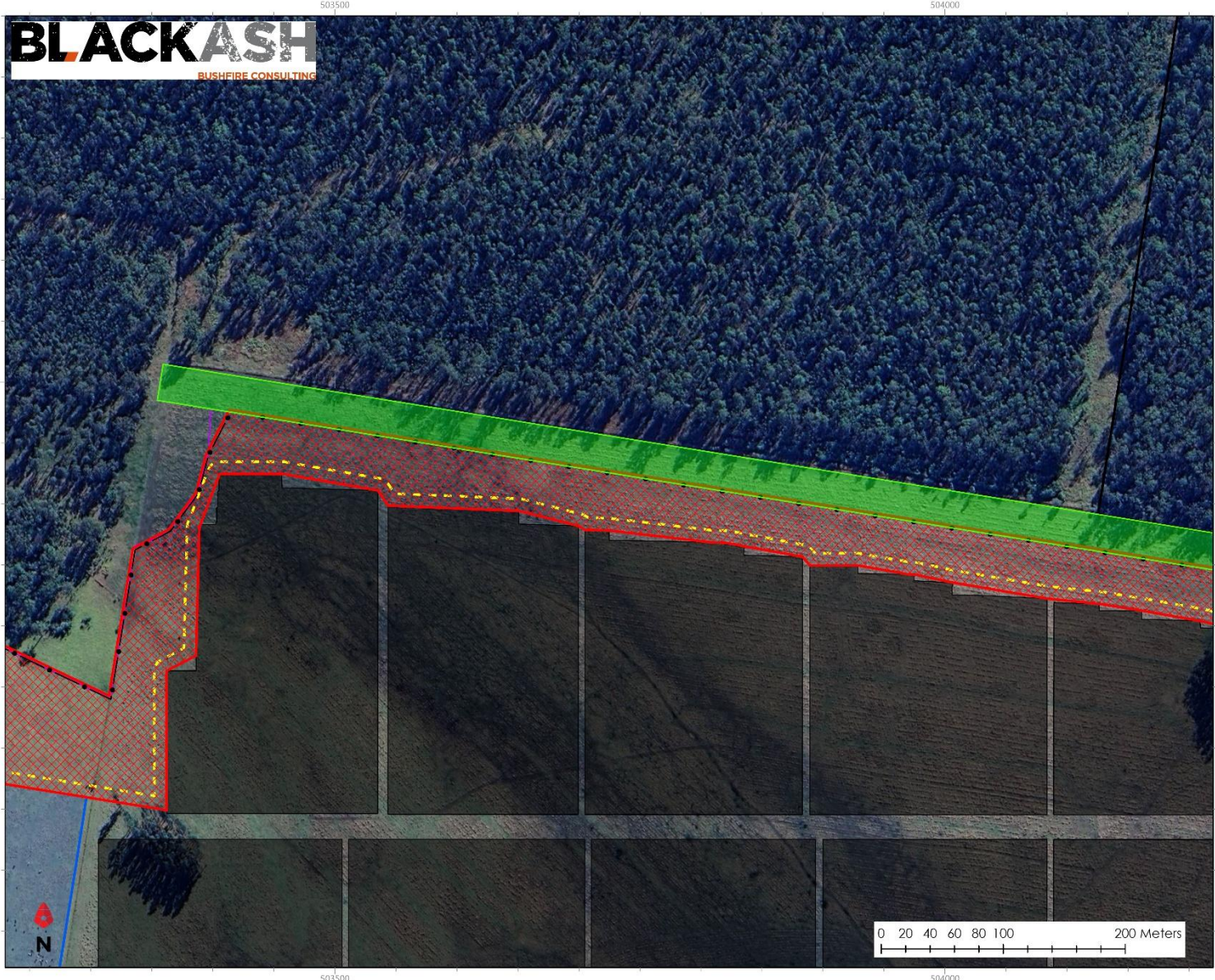
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Projected Coordinate System:  
Name: GDA2020 MGA Zone 56  
Projection: Transverse Mercator

Base mapping - NSW Gov open Source May2025

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WizorDTech Spatial Services accepts  
no responsibility from the use or inaccuracies  
of this map and spatial data.

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## Biodiversity Corridor

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Base mapping - NSW Gov open Source May2025

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Richmond Valley Solar Array - Myrtle Creek NSW 2469

DATE : 19/08/2025  
Map Version: 1\_6

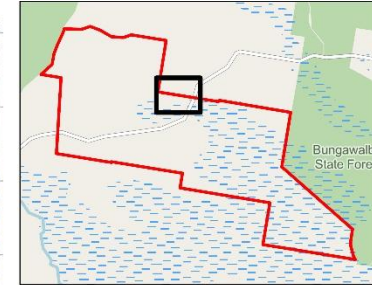
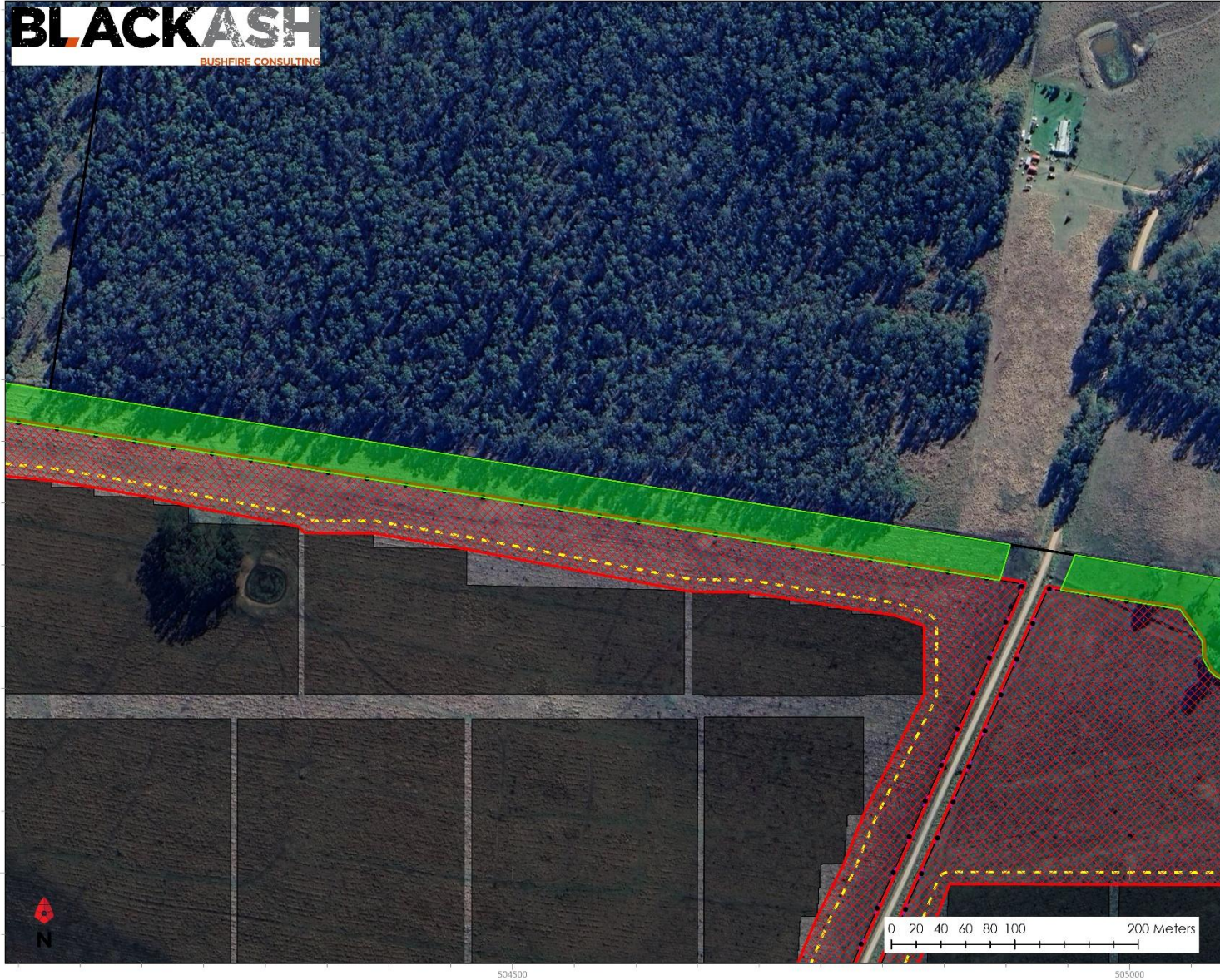
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**BLACKASH**  
BUSHFIRE CONSULTING



## Biodiversity Corridor

### RCH biodiversity corridor

RCH biodiversity corridor

### Asset Protection Zone

APZ Area

10m Interface APZ

### Project Layers

Project Boundary 231106

Development Footprint 250423

Solar Array 250423

Fence 250509

Base mapping - NSW Gov open Source May2025

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Richmond Valley Solar Array - Myrtle Creek NSW 2469

DATE : 19/08/2025  
Map Version: 1\_6

Scale: 1:3,000

Aerial Imagery: Google Satellite 2025

Projected Coordinate System:  
Name: GDA2020 MGA Zone 56  
Projection: Transverse Mercator

Folder: D:\OneDrive\WizardTech\2024\_2025\_PROJ\ECTS\BlackAsh\20250519\_BlackAsh\_Richmond Solar\_NSW

# BLACKASH



## Biodiversity Corridor

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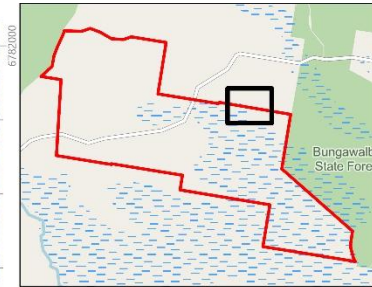
Base mapping - NSW Gov open Source May2025

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Richmond Valley Solar Array - Myrtle Creek NSW 2469  <small>Folder: D:\OneDrive\WIZARDTECH\2024_2025_PROD\ECTS\BlackAsh\20250518_BlackAsh_Richmond Solar NSW</small>	DATE : 19/08/2025 Map Version: 1_6  Scale: 1:3,000	Aerial Imagery: Google Satellite 2025  Projected Coordinate System: Name: GDA2020 MGA Zone 56 Projection: Transverse Mercator
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## Biodiversity Corridor

### RCH biodiversity corridor

RCH biodiversity corridor

### Asset Protection Zone

APZ Area

10m Interface APZ

### Project Layers

Project Boundary 231106

Development Footprint 250423

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Base mapping - NSW Gov open Source May2025

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DATE : 19/08/2025  
Map Version: 1\_6

Scale: 1:3,000

Aerial Imagery: Google Satellite 2025

Projected Coordinate System:  
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Base mapping - NSW Gov open Source May2025

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Scale: 1:3,000

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Projected Coordinate System:  
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Projection: Transverse Mercator

Folder: D:\OneDrive\WIZARDTECH\2024\_2025\_PROD\ECTS\BlackAsh\20250519\_BlackAsh\_Richmond Solar NSW

## Appendix E: Land Ownership Map

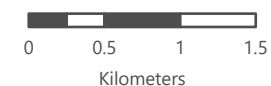
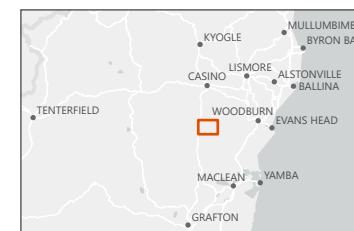
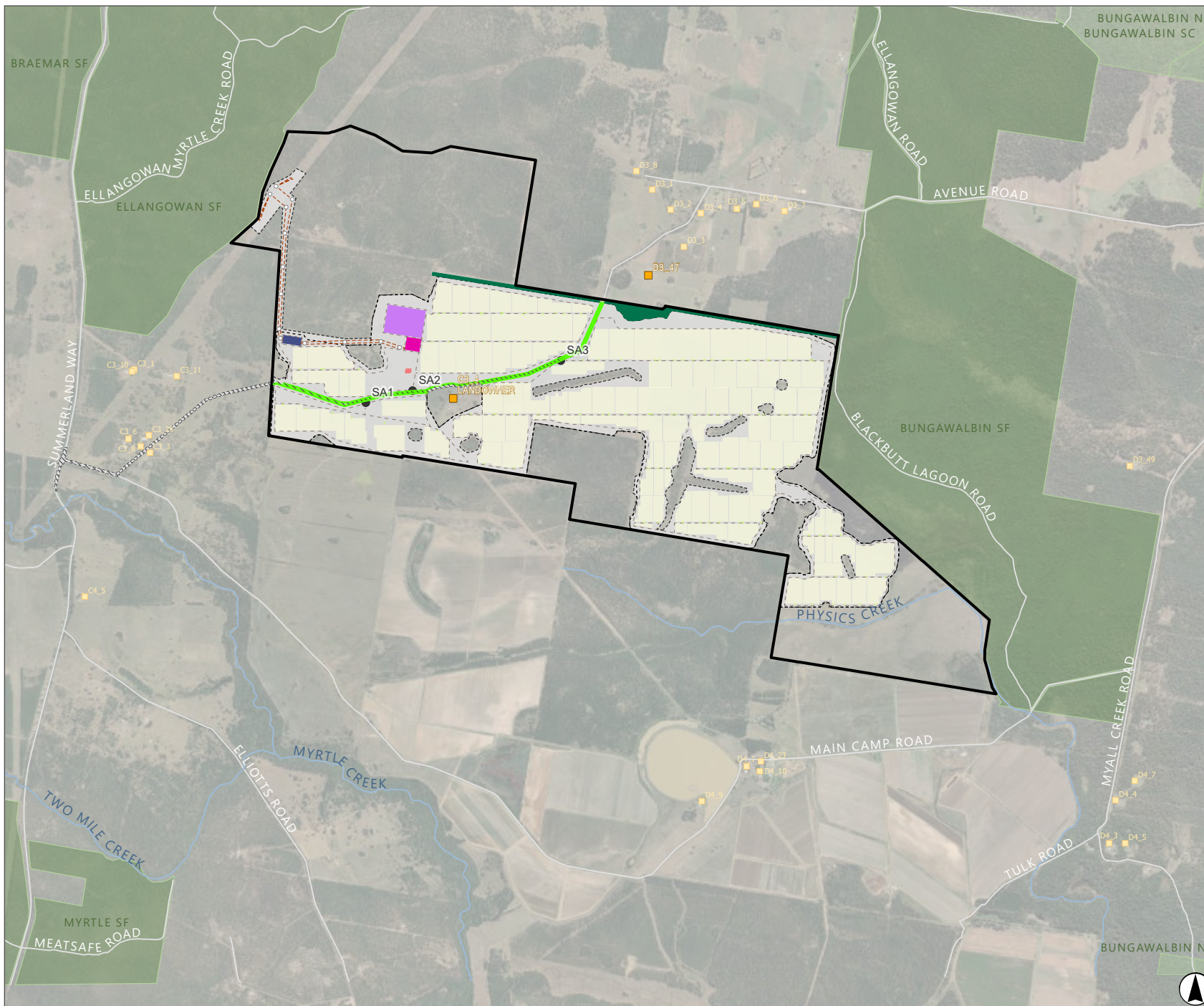


## Appendix F: Project Layout

# Project Layout

## Legend

- Project Area
- Development Footprint
- Road Upgrade Area
- Biodiversity Corridor
- BESS Footprint
- Substation
- Switching Substation
- O&M Facility
- Solar Farm Inverters
- NPWS Reserve
- State Forest
- Intermittent Vegetation Planting
- Fence Line
- Transmission Lines
- Access Tracks
- Roads
- Watercourse
- Transmission Poles
- Access Points
- Sensitive Receivers**
- Associated Sensitive Receiver
- Non-Associated Sensitive Receiver



Scale 1:50,000 at A4  
GDA 1994 MGA Zone 56

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APPROVED FOR AND ON BEHALF OF Umwelt

## Appendix G: VPA letter of offer



2<sup>nd</sup> October 2025

Stacey Mills  
Manager Invest and Live RV  
Richmond Valley Council  
E: [stacey.mills@richmondvalley.nsw.gov.au](mailto:stacey.mills@richmondvalley.nsw.gov.au)

## Richmond Valley Solar Farm – Planning Agreement – Letter of Offer

Dear Ms Mills,

Richmond Valley Solar and BESS Pty Ltd (Ark Energy) is seeking development consent for the construction, operation, and decommissioning of Richmond Valley Solar Farm SSD – 41020244 (the Project).

The Project involves up to 500 megawatts (MW) of Solar PV generation, and a Battery Energy Storage System (BESS) with a storage capacity of 2200 megawatt hours (MWh). The Project is located wholly within the Richmond Valley Council (RVC) local government area.

Pursuant to Section 7.4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act), Ark Energy is offering to enter into a Planning Agreement with Richmond Valley Council for the Richmond Valley Solar Farm in accordance with the following general terms:

1. *Developer Contribution*: An annual contribution of \$850 per MW of installed AC solar capacity.
2. *Indexation*: Adjustments will be made each 1 July, based on the CPI figure from the preceding March quarter, with the March 2024 quarter serving as the base reference.
3. *Payment Commencement and Duration*: Payment will commence within 30 business days of operations commencing, with subsequent payments made on each anniversary of the first day of operations, for the duration of the operational life of the Project.

Pursuant to Section 7.4(2) of the EP&A Act, the developer contributions must be used by the parties to the Planning Agreement for a public purpose. Any final planning agreement for the Project will address the matters described in Section 7.4(3) of the EP&A Act. However, for clarity, this offer wholly excludes the following provisions of the EP&A Act from application to the Project:

- Section 7.11 - *Contribution towards provision or improvement of amenities or services*,
- Section 7.12 – *Fixed development consent levies*,
- Division 7.1, Subdivision 4 – *Housing and productivity contributions*.

It would be appreciated if Council can formally confirm in writing as soon as practicable whether the terms of the offer for the Planning Agreement are acceptable.

Should the Project be granted development consent by the Department of Planning, Housing and Infrastructure under delegation from the Minister for Planning and Public Spaces, Ark Energy will continue to work with Council to finalise the agreement in the terms set out in this letter of offer and in accordance with the requirements of the EP&A Act and the conditions of any development consent for the Project.

We look forward to continuing to work collaboratively and transparently with Council on the implementation of the Planning Agreement and the development of the Richmond Valley Solar Farm.

Sincerely,

A handwritten signature in black ink, appearing to read 'Andrew Wilson', with a long, sweeping flourish extending to the right.

Andrew Wilson  
General Manager - Development NSW  
Ark Energy  
E: [andrew.wilson@arkenergy.com.au](mailto:andrew.wilson@arkenergy.com.au)  
M: 0420 379 190

## Appendix H: Landowners consent



Richmond Valley Council  
10 Graham Place  
Casino 2470, NSW

26<sup>th</sup> September 2025

**Re: Landowners consent to lodge a Development Application for a State Significant Development Application**

Dear Travis,

Richmond Valley Solar and BESS Pty Ltd (Ark Energy) are seeking consent from Richmond Valley Council to lodge a State Significant Development Application for Richmond Valley Solar Farm so that consideration of the proposed development may proceed.

In accordance with the *Environmental Planning and Assessment Regulation 2021* Section 23-1-b: a development application may be made by another person, with the written consent of the owner of the land. The Richmond Valley Solar Farm proposal SSD-41020244 includes road upgrade works as outlined in the table below to facilitate vehicle access to and from the Project site. Landowners Consent is required from Richmond Valley Council as the owner of the roads detailed in the table below.

If any further information is needed to support landowner consent, please don't hesitate to get in touch.

Road	Description	Upgrade Requirements
Summerland Way / Main Camp Road	OSOM Pinch point 13. Left turn onto Main Camp Road.	Basic left (BAL) turn treatment and a rural short channelised right (CHRs) standard treatment. Provision of sight line vegetation clearing on the south-eastern corner. Provision of additional widening areas on the northbound and southbound departures to provide bus layby/set down areas.
Main Camp Road	From Summerland Way to Avenue Road (approximately 0.515 km).	Road upgrade to provide a cross section providing a 6m sealed pavement on a 7m formation, as agreed with Richmond Valley Council.
Avenue Road	From Main Camp Road to Site Access 3 (approximately 4.443 km).	Road upgrade to provide a cross section providing a 6m sealed pavement on a 7m formation, as agreed with RVC. The existing road reserve boundary is to be realigned to enable the upgraded configuration of the link to be wholly contained within the new extents of the road reserve. Construction of the three identified access points to the Project Area on Avenue Road
Bruxner Highway / Hare Street	OSOM Pinch point 12. Roundabout in Casino.	Additional hardstand to be added to roundabout centre.
Main Camp Road / Avenue Road	OSOM Pinch point 14. Left turn onto Avenue Road.	Hardstand required on inside corner, outside edge of Main Camp Road and outside edge of Avenue Road.

Sincerely,

Siobhan Threlfall  
Development Manager - Richmond Valley Solar Farm  
Ark Energy  
E: [siobhan.threlfall@arkenergy.com.au](mailto:siobhan.threlfall@arkenergy.com.au)



Council's Reference:  
*Richmond Valley Solar Farm - SSD-41020244*

Telephone Enquiries to:  
*Stacey Mills - Manager Invest and Live*

Monday 29 September 2025

Siobhan Threlfall  
Development Manager - Richmond Valley Solar Farm  
Ark Energy Projects Pty Ltd  
Level 2, 275 George St  
Sydney NSW 2000 Australia

Dear Siobhan,

**Re: Landowner Consent for road upgrade works associated with Richmond Valley Solar Farm SSD-41020244**

Richmond Valley Council, as the landowner and roads authority under the *Roads Act 1993*, hereby provides landowner consent for the lodgement of the above State Significant Development Application, specifically for the upgrade works described below.

This consent is granted for the purposes of lodgement of the State Significant Development Application only, and these works will be subject to further approvals and conditions as required.

<b>Road</b>	<b>Description</b>	<b>Upgrade Requirements</b>
Summerland Way / Main Camp Road	OSOM Pinch point 13. Left turn onto Main Camp Road.	Basic left (BAL) turn treatment and a rural short channelised right (CHRs) standard treatment. Provision of sight line vegetation clearing on the south-eastern corner. Provision of additional widening areas on the northbound and southbound departures to provide bus layby/set down areas.
Main Camp Road	From Summerland Way to Avenue Road (approximately 0.515 km).	Road upgrade to provide a cross section providing a 6m sealed pavement on a 7m formation, as agreed with Richmond Valley Council.
Avenue Road	From Main Camp Road to Site Access 3 (approximately 4.443 km).	Road upgrade to provide a cross section providing a 6m sealed pavement on a 7m formation, as agreed with RVC.  <i>(continued next page)</i>



		The existing road reserve boundary is to be realigned to enable the upgraded configuration of the link to be wholly contained within the new extents of the road reserve. Construction of the three identified access points to the Project Area on Avenue Road
Bruxner Highway / Hare Street	OSOM Pinch point 12. Roundabout in Casino.	Additional hardstand to be added to roundabout centre.
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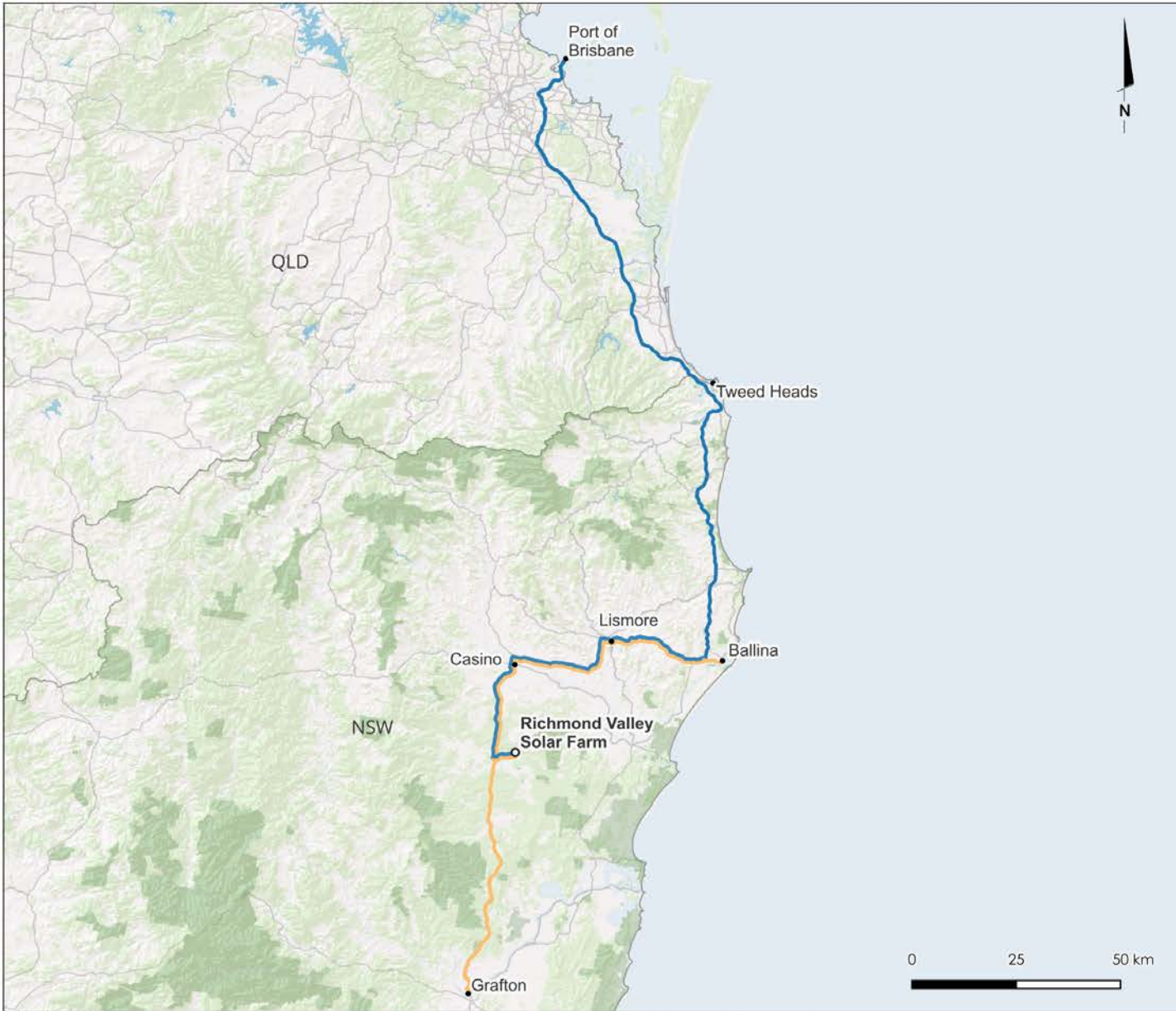
Please do not hesitate to contact Council, should you require any further information.

Yours sincerely



Ryan Gaiter  
**Acting General Manager**  
 Richmond Valley Council

## Appendix I: Heavy Vehicle Routes



**LEGEND**

- Richmond Valley Solar Farm
- Solar and BESS Component Route
- Material/Equipment Transport Route

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 **ARK ENERGY**

---

PROJECT  
Richmond Valley Solar Farm

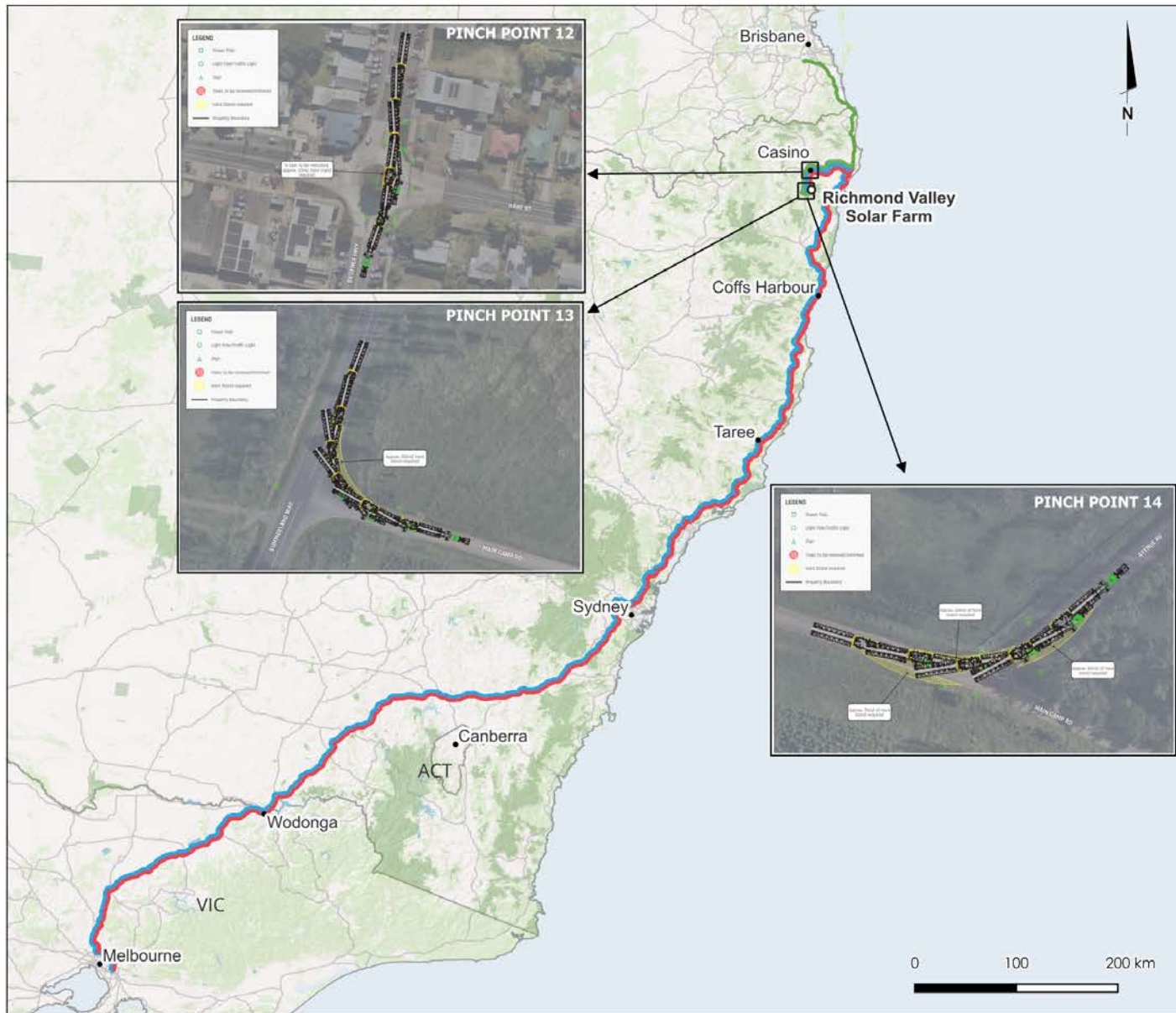
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TITLE  
Heavy Vehicle Routes



EPSG:4326 | WGS 84

## Appendix J: OSOM Route



**TRANSFORMERS**

Route 1: Wilson Transformer Company, Glen Waverley (Melbourne) to Richmond Valley via Hume Hwy, Pacific Hwy and Bruxner Hwy

Length: 1,701 km

**SWITCHROOMS**

Route 2: James Energies, Heathwood (Brisbane) to Richmond Valley via Pacific Hwy and Bruxner Hwy

Length: 270 km

Route 3: LAI Switchrooms, Epping (Melbourne) to Richmond Valley via Hume Hwy, Pacific Hwy and Bruxner Hwy

Length: 1,648 km

- LEGEND**
- Richmond Valley Solar Farm
  - Route 1
  - Route 2
  - Route 3
- Pinch Point 12**
- Roundabout Bruxner Hwy & Hare St
- Pinch Point 13**
- Left Turn Summerland Way & Main Camp Rd
- Pinch Point 14**
- Left Turn Main Camp Rd & Avenue Rd



**PROJECT**  
Richmond Valley Solar Farm

**TITLE**  
OSOM Routes for Switchrooms and Transformers

EPSG:4326 | WGS 84

## Appendix K: Preliminary Assessment - Private Viewpoints

