Attexo
APEM Group

Appendix U

Heavy Vehicle and OSOM Construction Concept Strategy

Client	Date
Attexo	4 June 2026

Heavy Vehicle and OSOM Construction Concept Strategy

Tully Battery Energy Storage System Project

ratio:

Planning
Transport
Urban Design
Waste Management
Landscape Architecture
Civil Engineering

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Project
Tully BESS HV & OSOM Construction Concept Strategy

Prepared for
Attexo

Our reference
24598T

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Version	Date	Issue	Prepared by	Checked by	Approved By
F01	02/06/2026	Final	J. Dollisson	M. Petrusma	C. Greenland RPEQ: 28299

Acknowledgement of Country

We acknowledge the Traditional Owners of the land we work, live and travel on, and appreciate the rich cultures of the Aboriginal and Torres Strait Islander Peoples and their enduring connection to country.

Table of Contents

Appendices

1. Introduction

1.1. Overview

Ratio Consultants has been engaged by Attexo Pty Ltd (Attexo) to complete a *Heavy Vehicle and OSOM Construction Concept Strategy* in accordance with *State Code 27* on behalf of RWE Tully Battery Pty Ltd. (RWE) for the proposed Battery Energy Storage System (BESS) project.

The Project Area is located approximately 4km south-west of Tully, Queensland within the Cassowary Coast Regional Council (Council) local government area and is formally identified as Lot 1 on RP735276, Lot 1 on RP852238 and PLQ Lot for Grid Connection Lot 1 on RP716718

1.2. Contents of this Report

This report has been prepared to address the Department of State Development, Infrastructure and Planning *State Code 27: Battery Storage Facility V3.6 Performance Outcome 27.* The Planning guideline for State Code 27: Battery Storage Facility V3.6 Performance Outcome 27 notes that the *Heavy Vehicle and OSOM Construction Concept Strategy* should outline:

- The consultation that has occurred with relevant stakeholders in the formulation of the strategy;
- Details of the proposed BESS components used to develop the strategy, including information on expected material volumes and the dimensions and weights of components requiring heavy or Oversize and Overmass (OSOM) haulage;
- The proposed vehicle types and availability to be used for OSOM haulage;
- Key identified 'pressure points' on proposed OSOM routes such as bridges, structures, railway level crossings and any sections of constrained horizontal and vertical geometry; and
- Details of how the proposed construction haulage can be feasibly achieved, at full cost to the proponent, including identifying appropriate 'pressure point' route mitigation measures and concept road upgrades.
- The movement of components from the preferred sea port to the Project Area with consideration of Heavy vehicle routes;

This Concept Strategy has been provided to supplement the Tully BESS Project Traffic Impact Assessment Report produced by Cambray Consulting Ptd Ltd provided as part of this application.

1.3. Stakeholders

Consultation with key stakeholders for the project is to be undertaken once development approvals have been achieved. These stakeholders may include:

- Port Authorities;
- Local government traffic managers;

– Department of Transport and Main Roads (DTMR) regional offices; and

– The National Heavy Vehicle Regulator (NHVR).

1.4. Assessments against State Government Requirements

The following assessment has been undertaken to address the requirements of State Development Assessment Provisions v3.6 State Code 27: Battery Storage Facility Development from a Transport engineering perspective.

The Performance Outcome PO27 of State Code 27 relating to Heavy Vehicle and OSOM movements states:

> ***PO27*** *Development demonstrates that a safe, viable and practical haulage route can be secured to accommodate the movement of Oversize/Overmass vehicles during construction and ongoing maintenance activities.*

Project Response:

> Major project components will arrive by expected heavy vehicle types (up to and including 26m B-Doubles).
>
> There limited number of OSOM movements are required for this project. The proposed OSOM movements and summarised in the following construction concept strategy.

1.5. References

In preparing this document, reference has been made to the following:

– Plans for the proposed development prepared provided within Appendix A of this report;

– Department of Transport and Main Roads. (2023) *Heavy Vehicle Queensland Access Conditions Guide Version 6.0;*

– Department of Transport and Main Roads. (2013) *Guideline for Multi-combination Vehicles in Queensland Version 11;*

– National Hevey Vehicle Regulator. (2026) *Mass, Dimension and Loading changes – Fact sheet Expected commencement;*

– Department of Transport and Main Roads. (2026) *Conditions of Operation Report;*

– Queensland Government Queensland Legislation (2024) *Heavy Vehicle National Law (Queensland)*; and

– Other documents as nominated.

2. Heavy Vehicle and OSOM Guidance

2.1. Heavy Vehicle and OSOM Guidance

BESS projects generate minimal traffic during operation in comparison typical developments. The transport impact of BESS projects are concentrated during the construction period. The movement of larger and heavy componentry is required to travel between the preferred sea port and the Project Area and as such, further consideration is given to the broader network.

The Project will receive the largest components using a limited number of OSOM combinations with the remainer of deliveries using vehicles up to and including 26m B-Doubles which are known as General Access Vehicles (GAV).

Therefore, the following *Heavy Vehicle and OSOM Construction Concept Strategy* will review the limitations of the road network along the Project Transport Route (PTR) from the preferred sea port to the Project on the road network, which includes:

- A review of vehicle combinations that would typically access the road network that the PTR will utilise;
- A review of the maximum size of the components that will be delivered to the Project area (length, width, height and weight);
- Identify combinations required to move the maximum sized components from the preferred sea port to the Project area; and
- Review the road network along the PTR to determine if there are rail network interactions, overhead clearance issues and weight limitations considering the maximum size of the components.

2.2. Expected Heavy Vehicle Types

The type of heavy vehicles expected during the construction of the project are summarised in Table 2–1.

Table 2–1: Expected Heavy vehicle and Plant for Each Stage of Works

Construction Phase	Heavy Vehicle Type
Enabling works	Low loader combinations delivering Graders, Excavators Compactors and rollers
	Truck and Dog combinations
	Class 1 / Class 2 mobile crane combinations
	Water trucks, concrete trucks, etc.

Construction works	Truck and Dog Combinations Class 1 / Class 2 mobile crane combinations Water trucks, concrete trucks, etc. Up to 26m B-Double vehicles delivering BESS units Low loader combinations delivering BESS components Low loader delivering grid connection components (transformers, switch rooms, etc).
Commissioning works	Smaller service vehicles that may be required
Demobilisation	Low loader combinations return to remove Graders, Excavators Compactors and rollers Truck and Dog Combinations Class 1 / Class 2 mobile crane combinations Water trucks, concrete trucks, etc.

2.3. Restricted Access Vehicles

Heavy vehicles outside of the General Access Vehicle combinations are categorised under Restricted Access Vehicles (RAV), which include Class 1 and Class 2 Special Purpose Vehicles (SPV). These combinations operate under a notice or permit and vehicles operating under Higher Mass Limits (HML) that can generally only access certain parts of the road network, including:

- Class 1: Common Class 1 heavy vehicles include: agricultural vehicles, OSOM vehicles and special purpose vehicles; and
- Class 2: Common Class 2 heavy vehicles include: freight-carrying vehicles (B-doubles, B-triples, road trains), buses, vehicle carriers, livestock vehicles and Performance-Based Standards (PBS) vehicles.

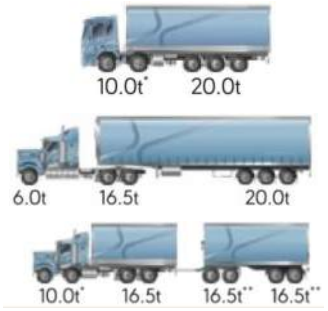
2.4. Special Purpose Vehicles – Mobile Cranes

The Intelligent Access Program (IAP) manages higher risk vehicles and loads on the road network. It monitors heavy vehicle operations against conditions of access set by road managers or regulators *and to remotely monitor where, when, and how heavy vehicles are being operated on the road network*. The two (2) categories include:

- *IAP Category 1 – Mobile cranes with a total mass between 40t and 70t and can comply with a Gross Mass Limit formula of 3L+15+/- G for all combinations of axle groups; and*
- *IAP Category 2 – Mobile cranes that cannot comply with 3L+15+/- G that have been assessed and approved by Bridge Asset Management for operation under 48t crane restrictions. These restrictions are based on the structural loading effects of a "standard" 4 axle all terrain crane operating at 12 tonnes per axle.*

Vehicle examples of each class are summarised and illustrated in Table 2–2

Table 2–2: Vehicle Class and Type

Vehicle Class	Heavy Vehicle Type	Heavy Vehicle Type Figure
General Access Vehicle	• Articulated steering cranes • Concrete Pumps, • Prescribed SPVs, • Truck based SPVs	
Class 1 and Class 2 SPV / Category 1 and 2 IAP	• Articulated steering cranes • Concrete Pumps, • Prescribed SPVs, • Truck based SPVs • Truck cranes.	
Class 1 OSOM	• Prime Mover and Low loader.	
Class 2	• Common B-Double; • Type 1 and Type 2 Road Trains	

2.5. Axle Group weight increases for Higher Mass Limits Network

The General Mass Limit (GML) is allowed to be increased under the Heavy Vehicle National Law (HVNL) on combinations fitted with certified road-friendly suspension on the HML network as summarised in Table 2–3.

Table 2–3: Maximum Mass GML Vs HML

Type Of Axle Group	Maximum Mass (Tonnes) Permitted Under GML	Maximum Mass (Tonnes) Permitted Under HML
Tandem axle group	16.5t	17.0t
Tri-axle group	20.0t	22.5t
Single drive axles on buses	9.0t	10.0t
Six-tyred tandem axle groups	13.0t	14.0t

2.6. Oversized and Overmass

BESS components have been identified as requiring movement utilising Oversized and Overmass (OSOM) heavy vehicle combinations from the sea ports to the Project Area.

National notices apply to Mass, Dimension and Loading (MDL) combinations that exceed typical vehicle classes on Australian Roads.

The following guidelines are considered when determining the MDL limitations, as follows:

– National Class 1 Load Carrying Vehicle Dimension Exemption Notice 2025 (No.2);

- Queensland Access Conditions Guide: Route and operational access conditions (QACG); and

– National Class 1 Load Carrying Vehicle Mass Exemption Notice 2025 (No.1);

- Formally known as Multi-State Class 1 Load Carrying Vehicle Mass Exemption Notice 2023 (No.1).

2.7. OSOM National Definition

The national definition of OSOM, as defined under the HVNL Section 116, a heavy vehicle carrying, or designed for the purpose of carrying, a large indivisible item, including, for example, a combination including a low loader. A large indivisible item means an item that:

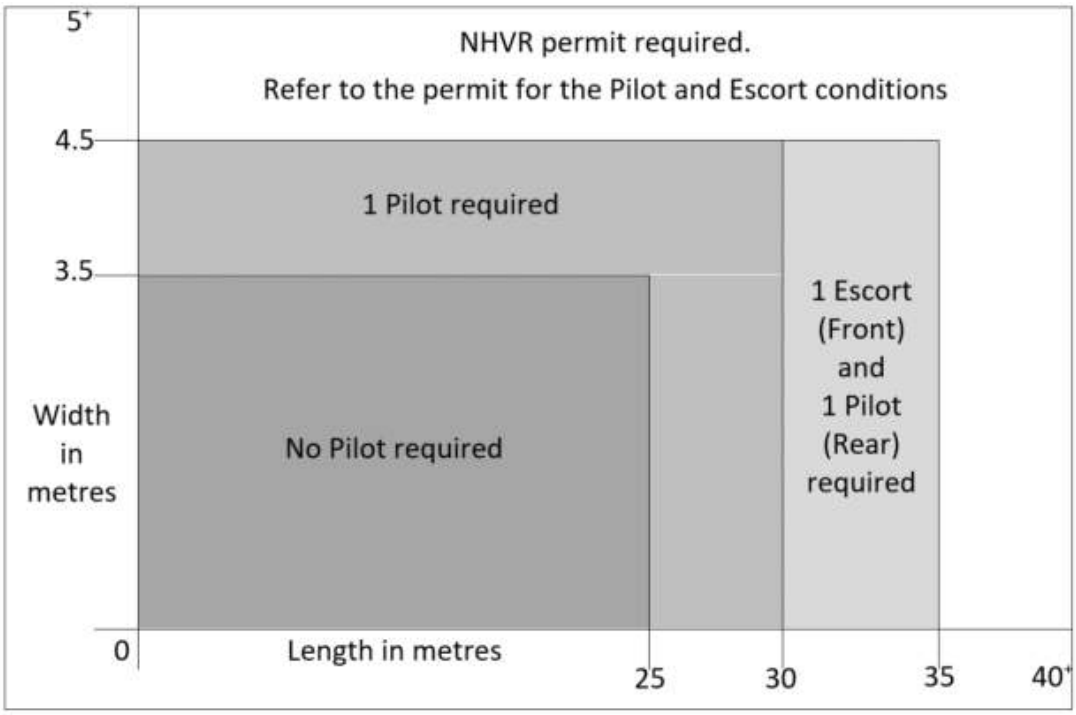
– Cannot be divided without extreme effort, expense or risk of damage to it; and

– Cannot be carried on any heavy vehicle without contravening a mass requirement or dimensions requirement

2.8. OSOM Limitations

MDL combinations can be up to the dimensions as shown in Figure 2-1.

Figure 2-1: Daylight Pilot Conditions for Critical Roads and areas which does not require pilots or escort.



For night time movements, the Pilot and Escort requirement remains consistent with daytime travel except for 1 pilot is required once 3.1m in width is exceeded.

2.9. Low Loader Trailers for OSOM combinations

Low Loader or load platforms are trailers that are specifically designed for the movement of large loads with the following features:

– At least five rows of axles; and

– A minimum of 1.6m axle spacing; and

– At least 8 tyres per axle row; and

– At least 50% of axle rows are steerable: and

– May be constructed of multiple platform modules;

– A low loader trailer has a loading deck no more than 1m above the ground.

2.10. Rear Overhang

The proposed heavy vehicle combinations used for construction of the Project may require rear overhang of components when transported on Low Loader Trailers in OSOM combinations. In accordance with the HVNL National Class 1 Load Carrying Vehicle Dimension Exemption Notice 2026 (No.1), Table 2–4 summarises the maximum rear overhang for vehicles over 25m in length. 25m to 26m has been included which aligns with the 25/26m B-Double and PBS 2A (B25/26) Network road network further discussed in Section 5.0 of this report.

Table 2–4: **Maximum Rear Overhang for Vehicles Over 25m in Length**

Length of Vehicle and Load (m)		Maximum rear overhang (m)
Over	Up to and including	
25.00	25.25	6.82
25.25	25.50	6.89
25.50	25.75	6.95
25.75	26.00	7.02

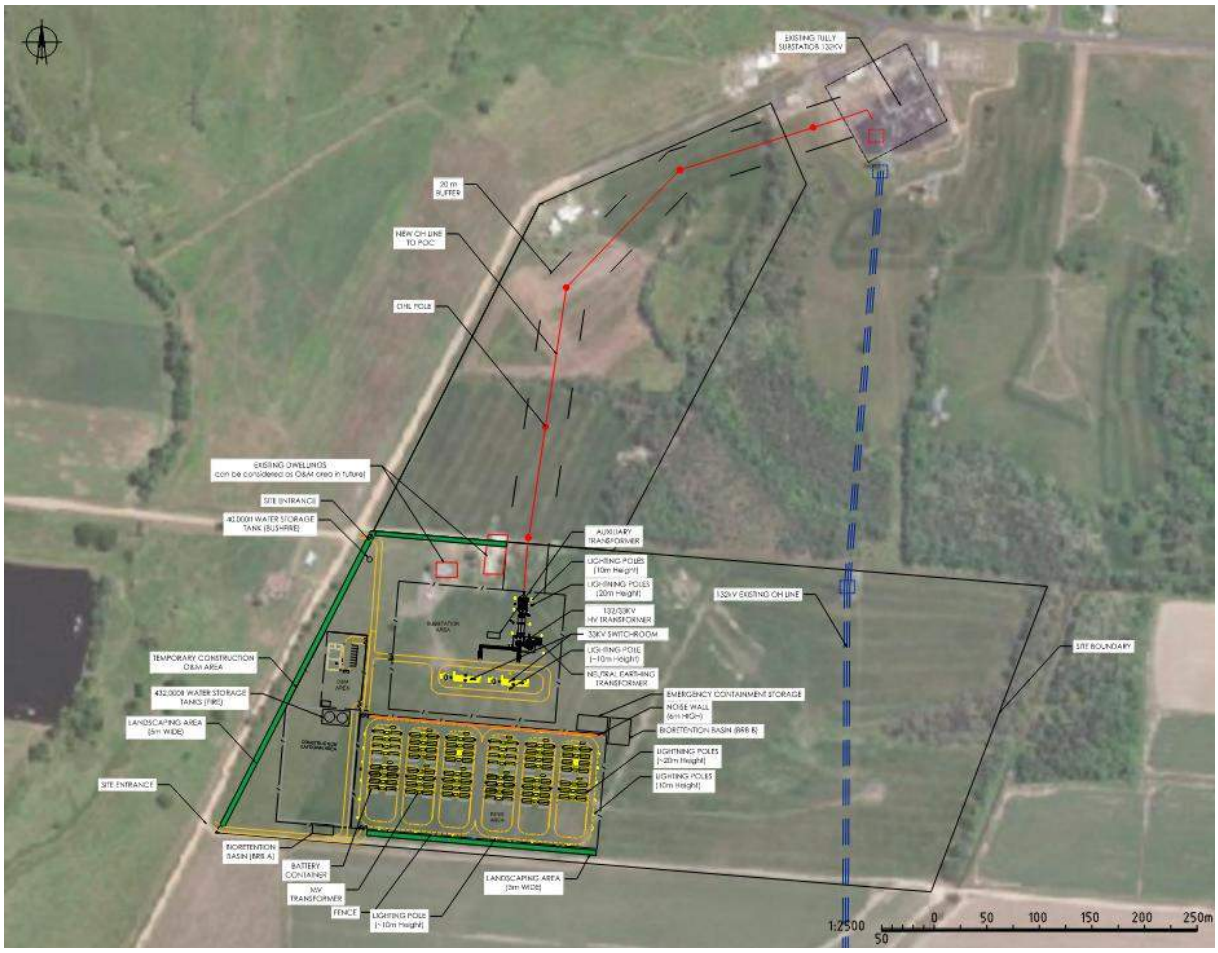
3. The Project

3.1. Project Description

The Project is located 4km west of Tully, Queensland and proposes the installation of a 200MW/800MWh BESS facility.

The contents will be transported to the Project Area from a selected sea ports utilising approved heavy vehicles and OSOM vehicle combinations.

Figure 3-1: Project Area Development Plan



3.2. General Project Movement Expectations

The Project Area Access intersections and internal layouts should be constructed so that movements for the Project can be undertaken in a forward gear in both entry and egress movements.

3.3. Major Project Components

The major Project components will be transported to the site utilising Heavy Vehicles and OSOM vehicle combinations. The component specifics, provided by the Proponent, are summarised as follows:

– Battery Energy Storage Units;

– MV transformers;

– 33kV Switch Rooms;

– 132/33kV HV Transformer; and

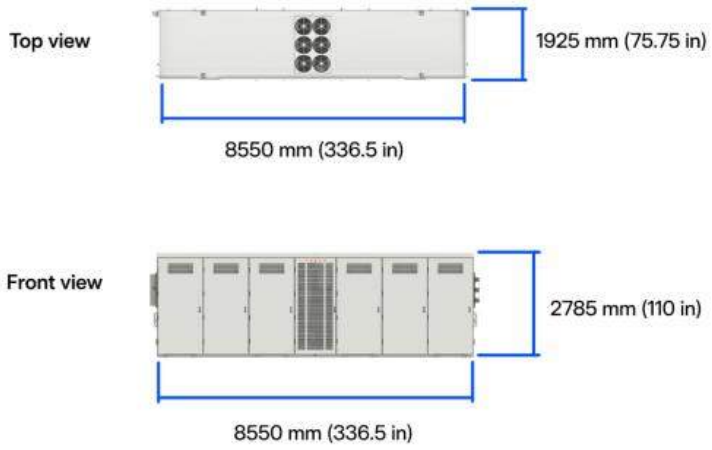
– Electrical equipment including, MV switchgear, Cabling, HV substation parts, etc.

The following section describes each element and the vehicle requirements for transport.

Battery Energy Storage System Units

The proposed BESS unit measures approximately 8.55m (L) x 1.925m (W) x 2,785m (H) with a weight of 39T and is illustrated in Figure 3-2.

Figure 3-2: Battery Energy Storage Units



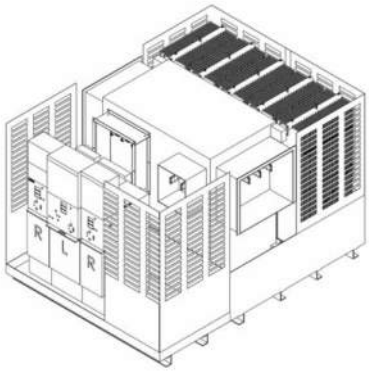
Each unit may be transported using a low loader combination as illustrated in Figure 3-3.

Figure 3-3: Battery Energy Storage Units shown on low loader combination

Medium Voltage Transformers

The proposed size of MV transformer measures approximately 3m (W) x 4m (L) x 2.7m (H) and weighs 14T and is illustrated in Figure 3-4.

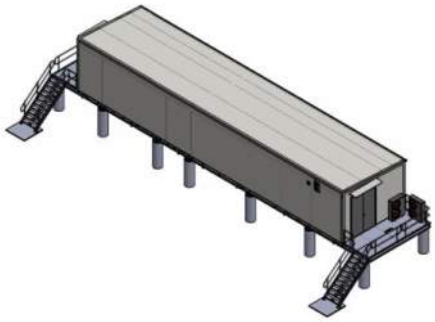
Figure 3-4: Medium Voltage Transformer



33kV Switch Rooms

The proposed 33kV Switch Room measures approximately 3.94m (H) x 21.62m (L) x 5.07m (W) and weighs 50T and is illustrated in Figure 3-5

Figure 3-5: Switch Room and BESS Controller



132/33kV HV Transformer

The 132/33kV HV Transformer is expected to weigh up to 110T and a transport height of 4.20m. Figure 3-6 illustrates an example of the transport combination for the 132kV transformer for the nearby Ross River Solar Farm. The combination to transport the 132/33kV HV Transformer is expected to be similar for the Project.

Figure 3-6: 132/33kV HV Transformer

Other Electrical Equipment

Other electrical equipment including MV switchgear, cabling, HV substation parts, etc. can be transported to site using GAV such as semi-trailers and rigid trucks.

3.4. Summary of Major Project Components

Based on the information provided by the Proponent, the major project components for delivery to the Project Area are summarised in Table 3–1.

Table 3–1: Project Components and Delivery Vehicles

Components	No#	Length	Width	Height	Transport Weight	Vehicle Combination Requirements
BESS Containers	188	8.55m	1.925m	2.785m	39T	Articulated Vehicle Low Loaders
MV transformers	47	4m	2.7m	3m	14T	Up to 26m B-Double Vehicles
33kV Switch Rooms	2	21.62m	5.07m	3.94m	50T	OSOM
132/33kV HV Transformer	1	-	-	4.20m	110T	OSOM
Total Heavy Vehicle Deliveries	**238**					

The largest and heaviest of major project components are as follows:

– Length - 33kV Switch Rooms - 21.62m;

– Width - 33kV Switch Rooms - 5.07m;

– Height - 132/33kV HV Transformer – 4.20m; and

– Weight - 132/33kV HV Transformer – 110T.

As discussed in Section 2.7, Low Loaders are limited 1.0m in height which may result in a OSOM combination height of 5.20m once the 132/33kV HV Transformer is loaded which will be further considered in the following reporting.

4. Project Transport Route

4.1. Project Transport Route

The Project will require the use of sea ports to import components into Australia. Relevant sea ports include:

– Port of Townsville located 210km south of the Project Area;

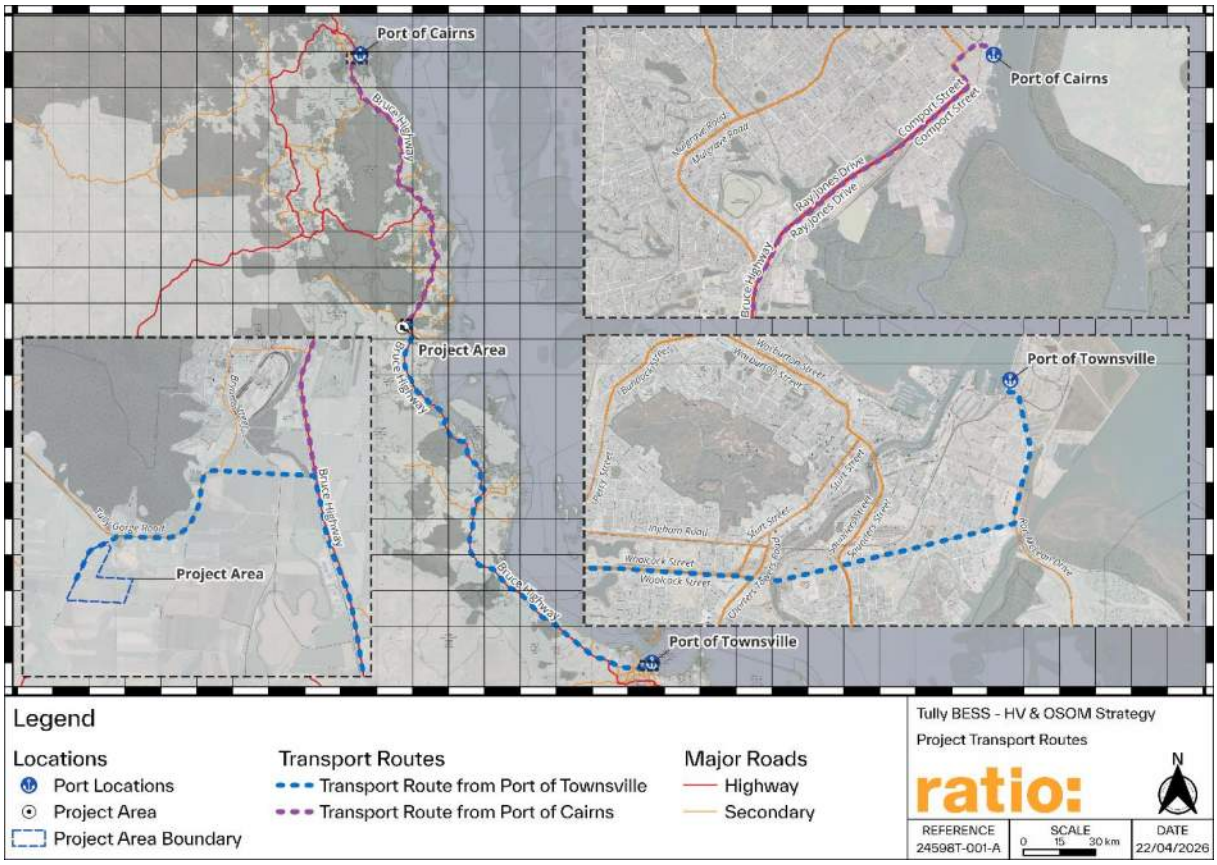
– Port of Cairns located 145km North of the Project Area; and

– The Port of Brisbane located 1578km south of the Project Area.

Discussions between RWE and BESS Original Equipment Manufacturer (OEM) have identified the preferred sea port being the Port of Townsville with secondary consideration being the Port of Cairns

The PTR between the Port of Townsville (preferred) and the Port of Cairns (secondary consideration) have been assessed determine viability and impact of the Project on the State-Controlled road network and are identified in Figure 4-1.

Figure 4-1: Project Transport Routes



4.2. Project Transport Route Road Network

The road network that will be used to move components from the two identified sea ports to the Project area are summarised in Table 4–1.

Table 4–1: Project Transport Routes Roads Summary

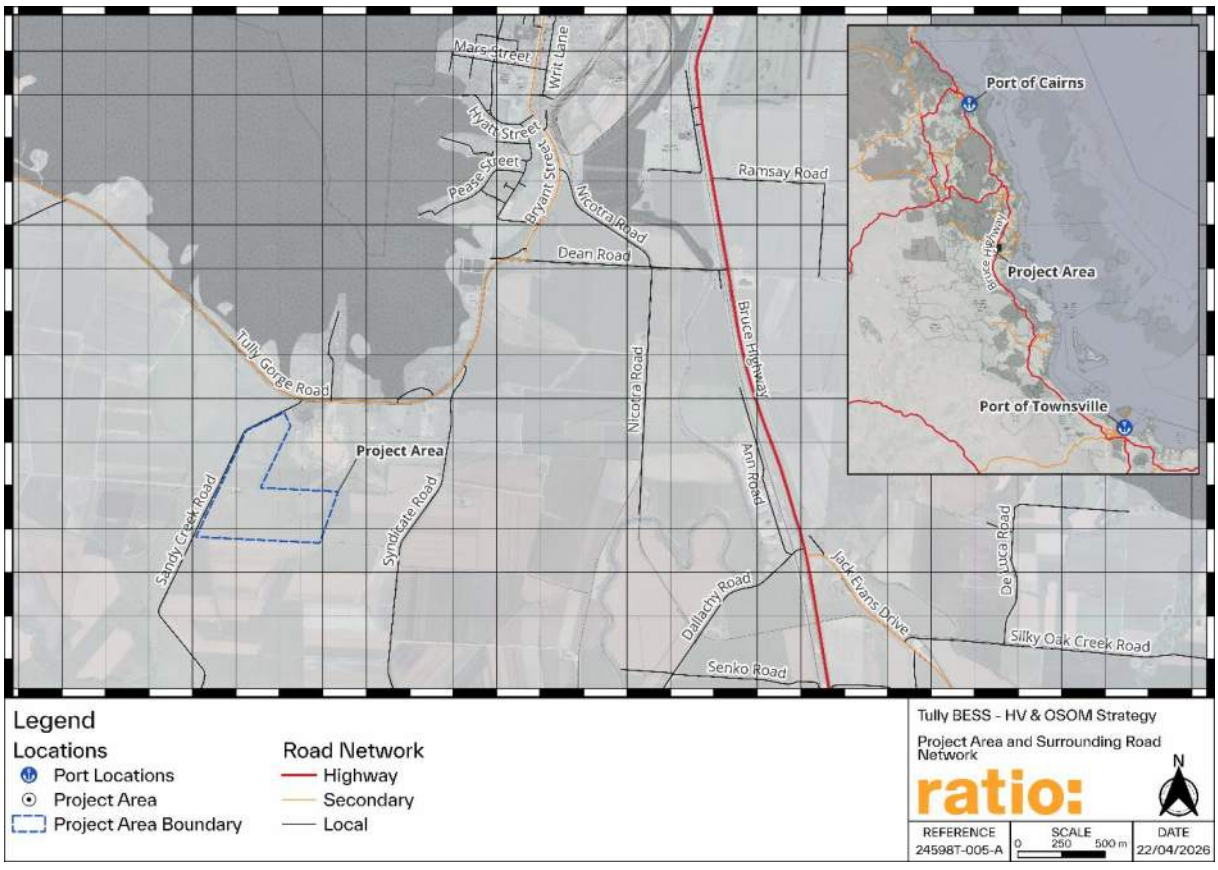
Port of Townsville	Port of Cairns
Townsville Port Road (841)[1]	Dutton Street (CRC)[2]
North Townsville Road (832)[1]	Port Connection Road (810)[2]
Bruce Highway (Townsville - Ingham) (10M)[3]	Bruce Highway (Innisfail - Cairns) (10P)[3]
Bruce Highway (Ingham - Innisfail) (10N)[3]	Bruce Highway (Ingham - Innisfail) (10N)[3]
Dean Road[4]	
Tully Gorge Road[4]	
Sandy Creek Road[4]	

[1] Townsville Regional Council [2] Cairns Regional Council

[3] Department of Transport and Main Roads [4] Cassowary Coast Regional Council

Project Area in context to the local road network is shown in Figure 4-2.

Figure 4-2: Project Area and Surrounding Road Network



4.3. Heavy Vehicle Routes and Restrictions

A study of the road network between the two (2) sea ports along both PTR to the Project Area has been undertaken to determine the approved road network for General Access Vehicles (GAV). The identified approved road network is as follows:

– Figure 4-3 - 25/26m B-Double and PBS 2A (B25/26) Network road network;

- Vehicles configured to be up to 26 metres in length and 62.5 tonnes; and

– Figure 4-4 - Higher Mass Limits Network;

- The Higher Mass Limit (HML) allows an increase in mass limit for specific single axles or axle groups of heavy vehicles.

The PTR has been overlaid on the State-Controlled road network to determine if state significant critical roads may be required during movement of components, which is illustrated in Figure 4-5.

Figure 4-3 to Figure 4-5 are included as A3 plots in **Appendix C** of this report.

Figure 4-3: 25/26m B-Double and PBS 2A (B25/26) Network

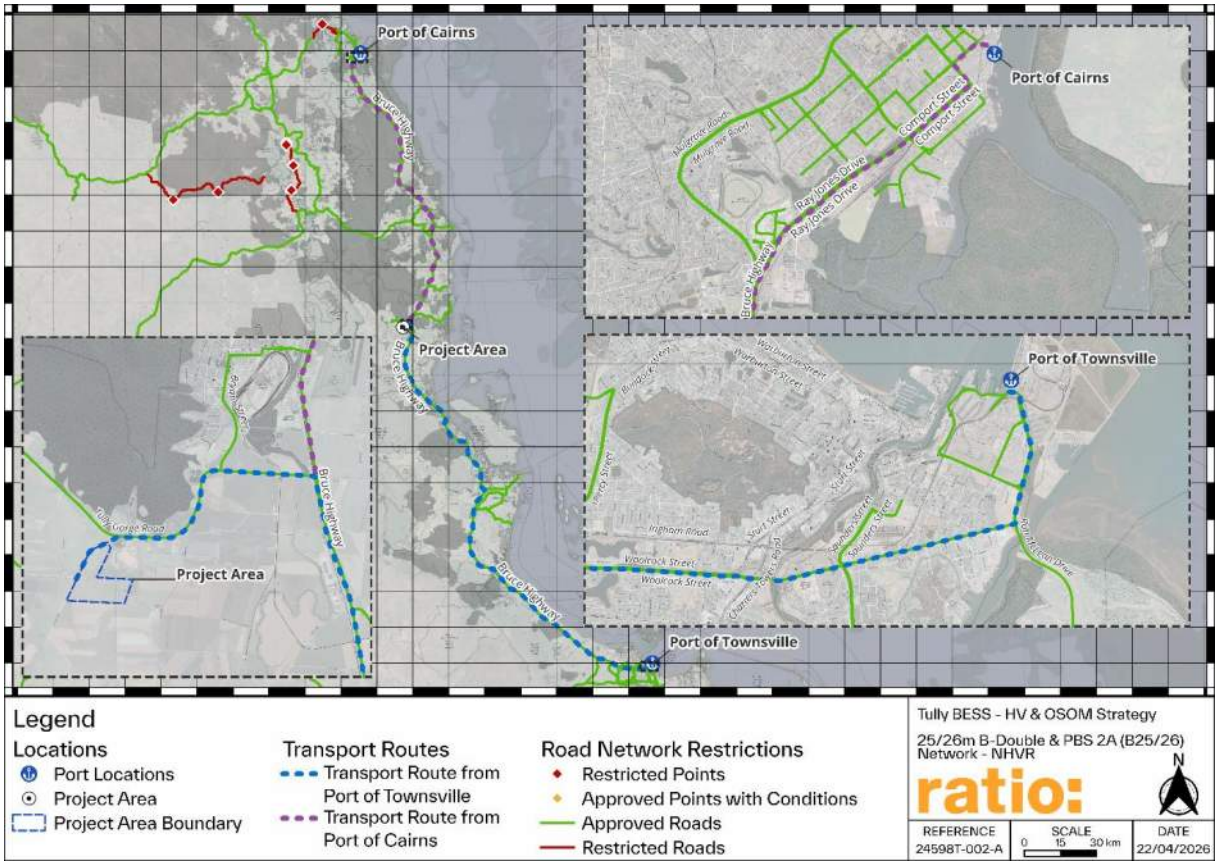


Figure 4-4: Higher Mass Limits Network

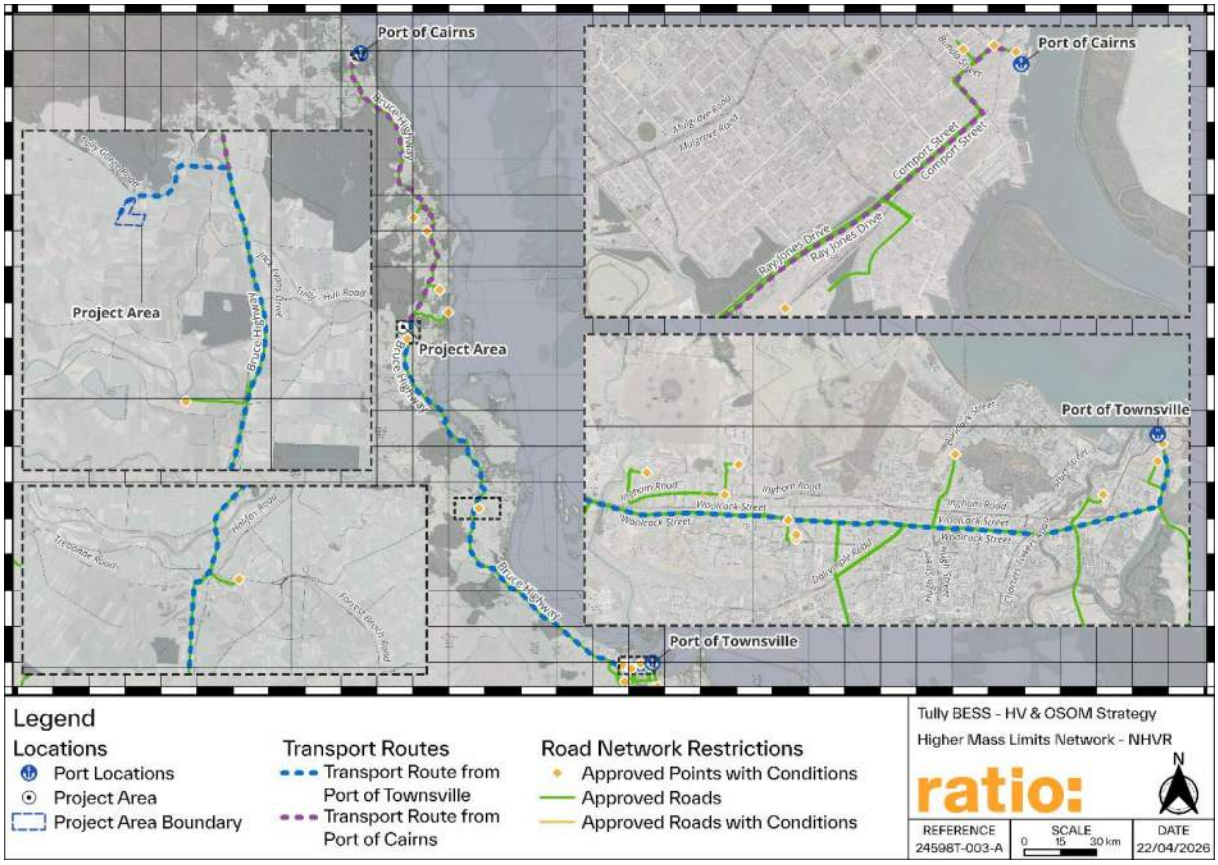
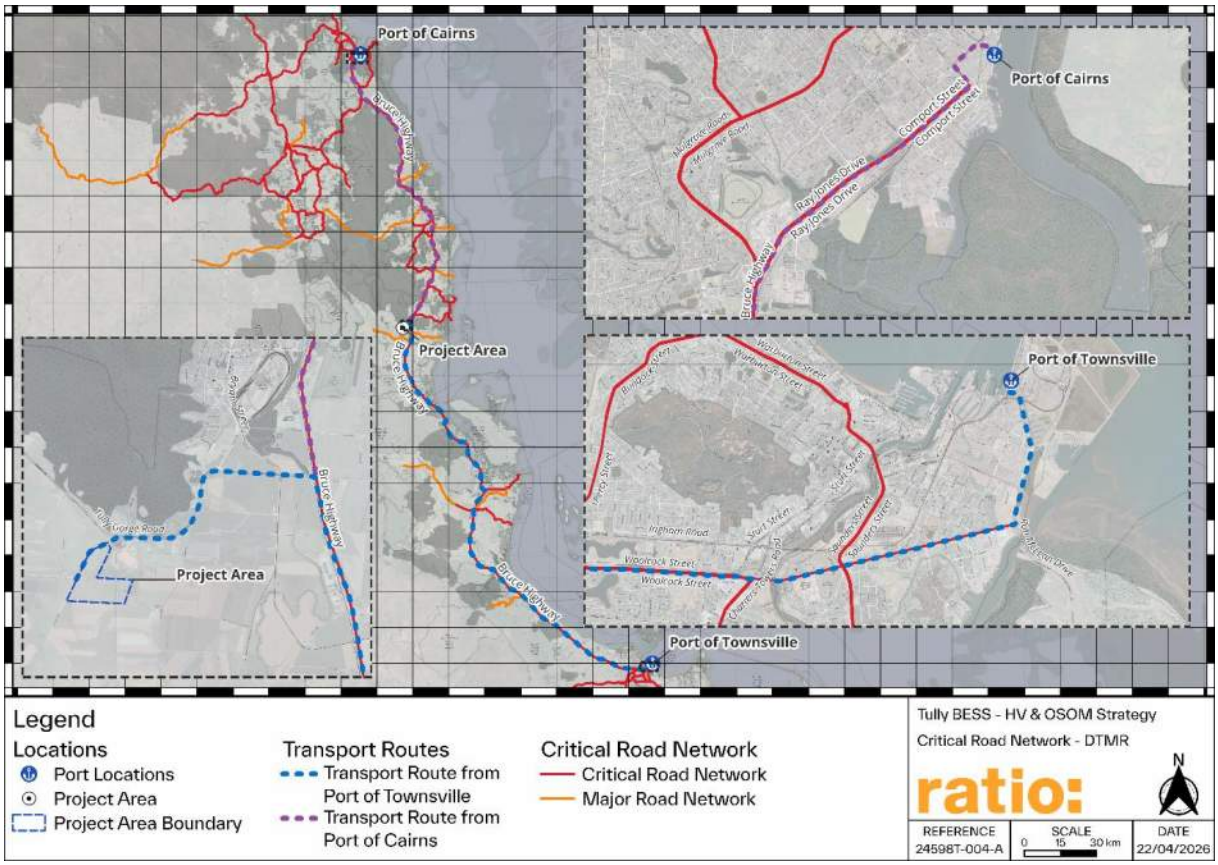


Figure 4-5: Critical Roads Network



As illustrated in Figure 4-3 to Figure 4-5, both PTR's can carry up to 26m B-Double vehicles, is a part of the HML network, and for the majority of the route is considered a state significant critical road.

4.4. Height Clearance Review

A DTMR Conditions of Operation Report (COR) has been produced for the State-Controlled Roads identified in Table 4–1 to minimum height clearance under bridges and structures, or any other potential obstructions, to inform movements along the PTR. A copy of the DTMR Conditions of Operation Report is included in **Appendix D.**

The review along the PTR found the following;

- A minimum clearance of 6.0m along the PTR from the Port of Cairns located on Bruce Highway (Innisfail -Cairns) (10P) for the Overpass Bridge Over Rigg Street;
- The Townsville area has a minimum clearance of overhanging traffic signal lanterns from the pavement surface of 5.4m; and
- The North Townsville Road (832) is signed at and listed in the COR with a height clearance of 5.4m and 5.51m, respectively, is shown in Figure 4-6 and detail summarised in Table 4-2.

Figure 4-6: Bruce Highway Overpass of North Townsville Road

Table 4-2: Project Transport Route Height Clearance Review

DTMR Road Name	Structure Name	Height Clearance	Restriction	Coordinates
Bruce Highway (Townsville - Ingham)	Zbr70 - Bridge. Through Distance: TD: 27.944	5.40m Signed 5.51m COR	No comments	-19.23959° 146.66284°

Source: DTMR Conditions of Operation Report taken from https://www.service.transport.qld.gov.au/ExcessMassExternal/PublicConditionReport.jsp

It is noted that, the DTMR COR provides for the following disclaimer:

> *The conditions and restrictions outlined in this Conditions of Operation report have been complied from the most recent information practically available. Conditions are liable to change quickly, particularly due to weather. All care has been taken in providing this information. However, due care still needs to be taken when operating vehicles particularly those in excess of regulation mass and/or dimensions.*

Based on the review, the lowest height clearance is Zbr70 bridge over North Townsville Road as noted by the COR at 5.51m and signed at 5.4m.

As noted in Section 3.3, the highest potential component for the project may be the 132/33kV HV Transformer at 4.2m and 5.2m on a low loader. This may equate to either 200mm (signed) or 310mm (listed in the COR) of clearance to the underside of Zbr70 bridge.

Based on the readily information available, the proposed routes appear feasible and that following the development application approval and contract finalisation a haulage contractor should be engaged to undertake the final review and would be responsible for confirming the vehicle combinations used, the component heights and on-site assessment of the available height clearance.

4.5. Alternative OSOM Hight Route

If the combination height cannot pass under Zbr70 bridge with sufficient clearance, an alternative route has been identified as follows:

- Heading west, cross to eastbound lane of traffic (counterflow);
- The movement will be undertaken prior to the intersection of Bruce Highwya and Mount Lofty Parkway (19°14'24.7"S 146°39'57.6"E);
- Travel along the eastbound lane of traffic; and
- Cross to westbound lane of traffic at Bruce Highway and Veasel Road (19°14'08.1"S 146°39'22.3"E.

Traffic will have to be stopped for the eastbound lane of traffic for the duration of the movement under traffic control, pilot and escort requirements. The alterative OSOM Height Route is shown in Figure 4-7.

Figure 4-7: Alternative OSOM Hight Route

It is recommended to review transported height of 132/33kV HV Transformer and discuss combination height with Haulage Contractor to determine the Low loader combination that may be used and arrange the use of the alternative OSOM Hight Route if required.

4.6. Bridge Limits and Culvert Restrictions

Movements of specialised and OSOM combinations place irregular loading on bridge structures due to changes in axle groups and increased point loading. A review of the DTMR Conditions of Operation Report does not appear to identify over mass limits along both PTR.

It is recommended to liaise with the appointed Haulage Contractor to confirm if the configurations used will be suitable for use on the road network at the time of movement applications.

4.7. Special Purpose Vehicle bridge and Culvert Restrictions

A review of Category 1 and 2 IAP Special Purpose Vehicle bridge and culvert restrictions for the PTR between the Port of Cairns, Port of Townsville and the Project Area has been undertaken and summarised in Table 4–3 and Table 4–4.

For the context of this Project, this category of heavy vehicle is a Mobile crane *as* outlined in Section 2.4 of this report. There are two (2) restriction types provided for this class vehicle, which include:

– A 'CANNOT CROSS' restriction is a vulnerable structure that is highly unlikely to be approved for a single trip permit; and

– A 'SINGLE TRIP' structure is a less vulnerable and cannot be crossed unless a single trip permit is issued by the NHVR.

Table 4–3: Port of Cairns to Project – Bridge Limits

ID	DTMR Road Name	Structure Name	Restriction	Coordinates
22192	Bruce Highway (Ingham – Innisfail)	Sweeneys Creek	Cat 1 Single Trip Cat 2 Single Trip	-17.524005° 146.020794°
8732		Bamboo Creek	Cat 1 Single Trip Cat 2 Single Trip	-17.530832° 146.029498°
7751		Centenary Bridge	Cat 1 Single Trip Cat 2 Single Trip	-17.544614° 146.028157°
7491		Banyan Creek	Cat 1 Single Trip Cat 2 Single Trip	-17.927817° 145.934972°

Table 4–4: Port of Townsville to Project – Bridge Limits

ID	DTMR Road Name	Structure Name	Restriction	Coordinates
7502	Bruce Highway (Ingham – Innisfail)	John Row Bridge	Cat 1 Single Trip Cat 2 Single Trip	-18.628759° 146.165011°
7520		Meunga Creek	Cat 1 Single Trip	-18.239488°

		Cat 2 Single Trip	145.991759°
7521	Sunbeam Creek	Cat 1 Single Trip	-18.234425°
		Cat 2 Cannot Cross	145.989601°

Both PTR note bridge and culvert requirement for applications Category 1 and 2 IAP special purpose vehicles to cross these structures. However, Sunbeam Creek notes a Cannot Cross for category 2 vehicle combinations. As a result, if mobile cranes that fall into category 2 are required for the project, these may be sourced from Cairns rather than Townsville.

4.8. Railway Line Interactions

The PTR cross Queensland Rail and Private Sugar Cane lines in several locations. The assessment focuses on the Queensland Rail assets noting that consultation with operators of Sugar Cane assets should be undertaken to determine the impact on the movements during harvest season should be undertaken once construction schedules are determined.

The North-Coast line is a Queendland Rail asset utilised for Passenger and freight movements. The PTR have been reviewed to determine where Heavy Vehicles and OSOM combinations may cross the North-Coast line on at grade level crossings. These crossings are summarised in Table 4–5.

Table 4–5: Railway line crossings along Project Transport Route

Project Transport Route	Town	Road	Coordinates
Port of Cairns	Cairns	Dutton Street	-16.93030°, 145.77739°
	Innisfail	Edith Street	-17.52625°, 146.01142°
Port of Townsville	Townsville	Boundary Street	-19.271271°, 146.814735°
	Cardwell	Bruce Highway	-18.27648°, 146.03997°
	Rungoo	Bruce Highway	-18.45046°, 146.14424°
Common to Both	Tully	Dean Road	-17.94872°, 145.93007°

Source: Queensland Rail Network Map

The review of the PTR indicates that Heavy Vehicles and OSOM combinations will interact with the rail network at several at grade level crossings.

The approaches for these at grade crossings appear to have sufficient width on a straight alignment of the intersecting road, except for the intersection of the Bruce Highway and Dean Road in Tully which is further reviewed in Section 5.0 of this report.

5. OSOM Assessment and Mitigation Measures

5.1. Critical Movement

Based on a review of the PTR determined that the two (2) following movements were both relevant and reasonable to assess with regards to the Projects Heavy Vehicle and OSOM movements. These intersections include;

– The Bruce Highway and Dean Road in Tully and

– Tully Gorge Road and Sandry Creek Road in Tully.

The swept path assessment undertaken adopted the largest General Access Vehicle (26m B-Double) and largest OSOM combination (A 25m Low Loader).

5.2. OSOM Vehicle Tracking Template

A 26m B-Double template is readily available. However, to move the 32kV Switch Room which measures 21.62m in length and 5.07m in width, a 25m Low Loader was adopted to and modified to suit. The modified Vehicle Tracking Template as shown in Figure 5-1 adopts the following dimensions for a conservative assessment, which includes:

– A load of 22m in length;

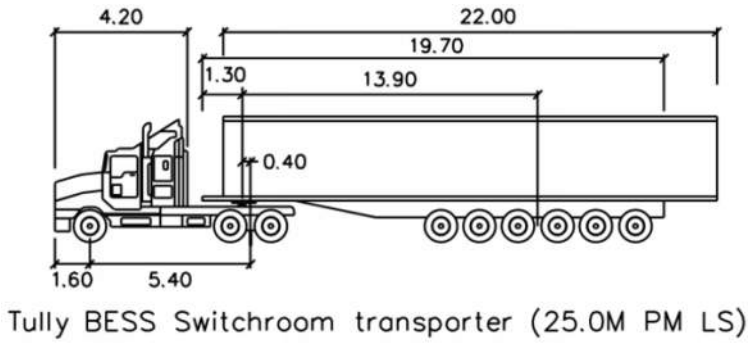
– A load of 5.10m in width;

– A Trailer of 4.5m;

– An overhang of approximately 4m which appears in accordance with NHVL rear overhang limits; and

– A single pull combination i.e. one Prime mover at the front only.

Figure 5-1: 25m Low Loader modified Vehicle Tracking Template



The swept path assessment (**Appendix E**) determined that the intersection does not appear to require changes to accommodate the adopted vehicle combinations. However, this may change once final components are selected and haulage contractor review.

6. Conclusion and Recommendations

6.1. Summary

This Heavy Vehicle and OSOM Construction Concept Strategy has reviewed and assessed the proposed Battery Energy Storage System (BESS) project located in 4km west of Tully of and proposes:

- The movement of 238 major project components of which three (3) require OSOM approval;
- The highest OSOM combinations may be in the order of 5.2m once added to a low loader platform with a maximum deck height of 1.0m; and
- The PTR between the Port of Townsville (preferred) and the Port of Cairns (secondary consideration).

6.2. Conclusions

This report considers the capacity of the State-Controlled road network between the preferred sea port (Townsville) and a secondary sea port (Cairns) to the Project area which;

- The PTR is approved for use of 26m B-Doubles and a part of the HML road network;
- Height restrictions along the PTR have been identified using DTMR Conditions of Operation Report (COR) reporting. The COR indicates that;
    - Zbr70 bridge which passes over the North Townsville Road (832) is signed at 5.4m and reported as 5.51m;
    - The highest potential component for the project may be the 132/33kV HV Transformer at 4.2m and a 5.2m on a low loader;
    - This may equate to either 200mm (signed) or 310mm (listed in the COR) of clearance to the underside of Zbr70 bridge;
- A review of DTMR Category 1 and 2 IAP special purpose vehicle mapping indicates that while both PTR have highlighted restrictions, the route from the Port of Townsville has one (1) restrictions which are listed as “cannot cross” which may limit movement of mobile cranes via this route;
- The PTR will cross railway lines at grade at several locations from both sea port options, which include;
    - Private sugar can rail lines which requires consideration when producing the construction schedule, i.e. provide high consideration to movements in harvest season;
    - the North Coast Railway line will require crossing at grade to access the Project Area;

– The crossing of Dean Road is in proximity to the Bruce Highway, and a swept path assessment has been undertaken based on the largest configuration which found that movement through the intersection and at grade railway level crossing did not appear to require modification for the OSOM movement;

6.3. Recommendations

The proposed 132/33kV HV Transformer may measure 4.20m in height and a potentially a transported height of 5.20m of which:

– Passes under Zbr70 bridge over North Townsville Road as noted by the DTMR Conditions of Operation Report at 5.51m and signed at 5.4m;

– The 132/33kV HV Transformer at a height of 4.2m and 5.2m on a low loader which is within 200mm signed or 390mm (COR) clearance to the structure above;

– An alternative route option has been identified counterflow on North Townsville Road (832) with no overhead restrictions;

- Recommend confirming component height and low loader combination to be utilised and if total height exceeds the minimum Zbr70 bridge clearance, seek approvals to utilise counterflow option;

– Sunbeam Creek notes a Cannot Cross for Category 2 IAP special purpose vehicle combinations;

- Recommended determining mobile crane requirements and transporting to site along routes without restrictions requiring crossing of the Sunbeam Creek Structure;

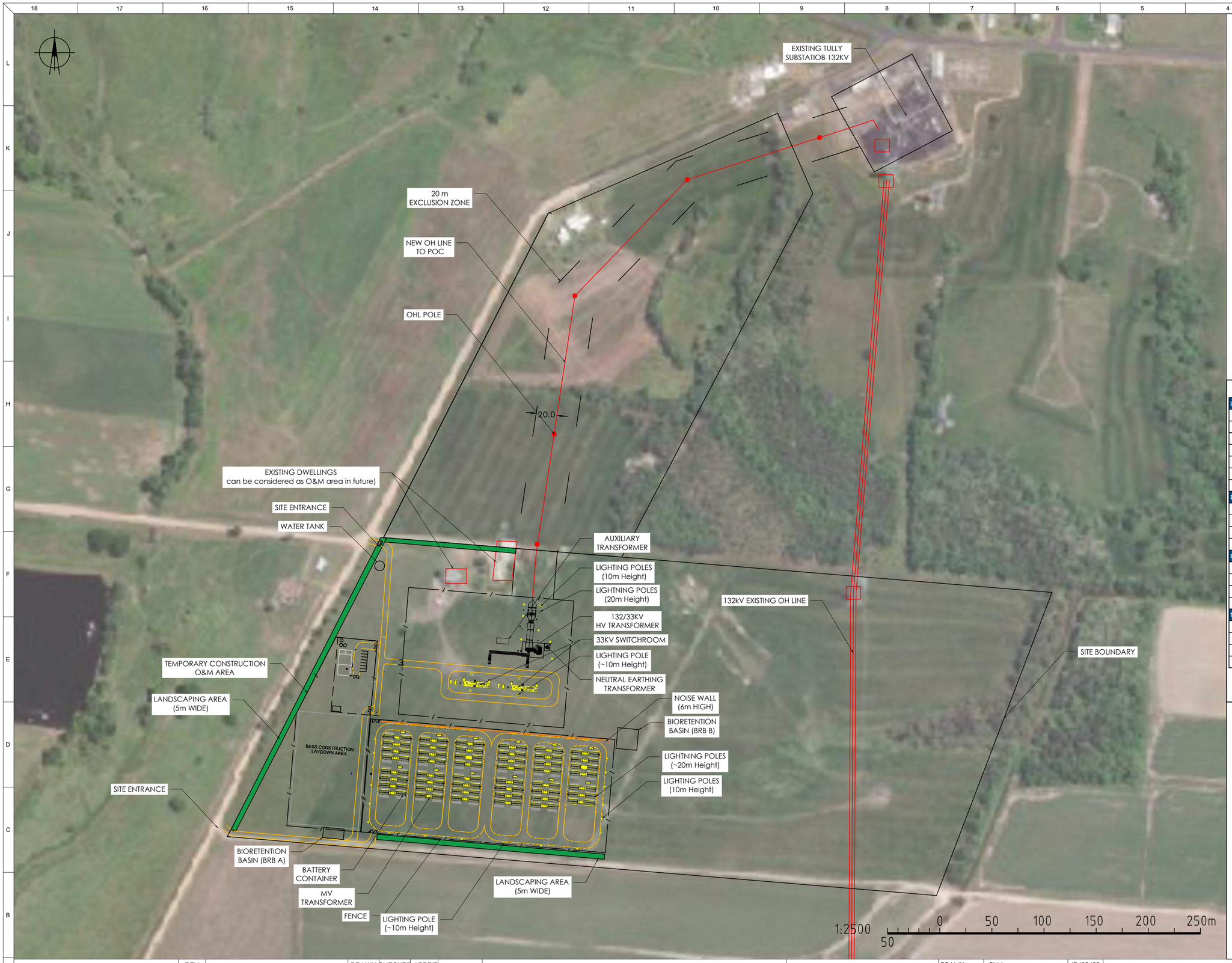
– Consultation with Sugar Cane companies to ensure component delivery utilising Heavy Vehicle and OSOM combinations does not interfere with harvest season.

The State-Controlled Road network appears to provide adequate capacity for Heavy Vehicles and OSOM combinations that the Project will utilise to deliver component from the Port of Townsville (preferred) and The Port of Cairns (secondary consideration) along the selected PTR.

Each OSOM delivery will require review from review from a Haulage Contractor who will apply for the required permits under the NHVR regulations.

On this basis, the Project is considered satisfactory from a concept strategy perspective pending confirmation of final component specifications, OSOM configurations and the issuing of the required permits for OSOM movements.

Appendix A – Project Area layout



LEGEND:

- FENCE
- WATER TANK
- ROAD
- PROTECTION ZONE
- NOISE WALL
- OHL POLE
- LIGHTING POLE
- LIGHTNING POLE

PROJECT SUMMARY

Location	
Country	AUSTRALIA
State	QUEENSLAND
Municipality	TULLY
District | Parcel	CASSOWARY-COAST-REGIONAL-COUNCIL
Coordinate	LAT.:384171.62_LONG.:8014052.53
Elevation	12M
BATTERY UNIT	
Type of battery	TESLA-MEGAPACK
Installed Capacity	216MW/864MWH
Number of Battery	188
Duration	4HR
INVERTER	
Type of Inverter	TESLA-MEGAPACK-INVERTER
Nominal AC power of Transformer (@ 25°C)	TBD
Number of inverters	188
Number of tranformers(33KV)	47
TOTAL NUMBERS	
Fenced Area	46106M2
Fence length	1119M
Total DC power	800MWH
Total AC power	200MW

Notes

1. OEM selection to be confirmed
2. Site facilities are indicative.
3. OHL location indicative.
4. Minimum Arc distance - 2200 mm, AS/NZS 7000
5. Min GL clearance over public roads,transmission line access tracks, and farmer tracks -8.5 m (7.5 m - AS 7000:2016 + 1.0 m buffer)
6. OHL conductor size to be confirmed.
7. Location and height of lighting and lightning poles are indicative.

E01

REV No.	REVISION DESCRIPTION	DRAWN BY	CHECKED BY	APPR'D BY	DATE
A	CONCEPTUAL DESIGN	EK	RC	RC	01/09/25
B	AMENDMENTS FOR PLANNING	SLW	JH	JH	15/09/2025

RWE RENEWABLES EUROPE & AUSTRALIA

RWE

REFERENCE DRAWINGS

DRAWN	SLW	15/09/25
REVIEW	B	-
APPROVED		-

DRAWING STATUS

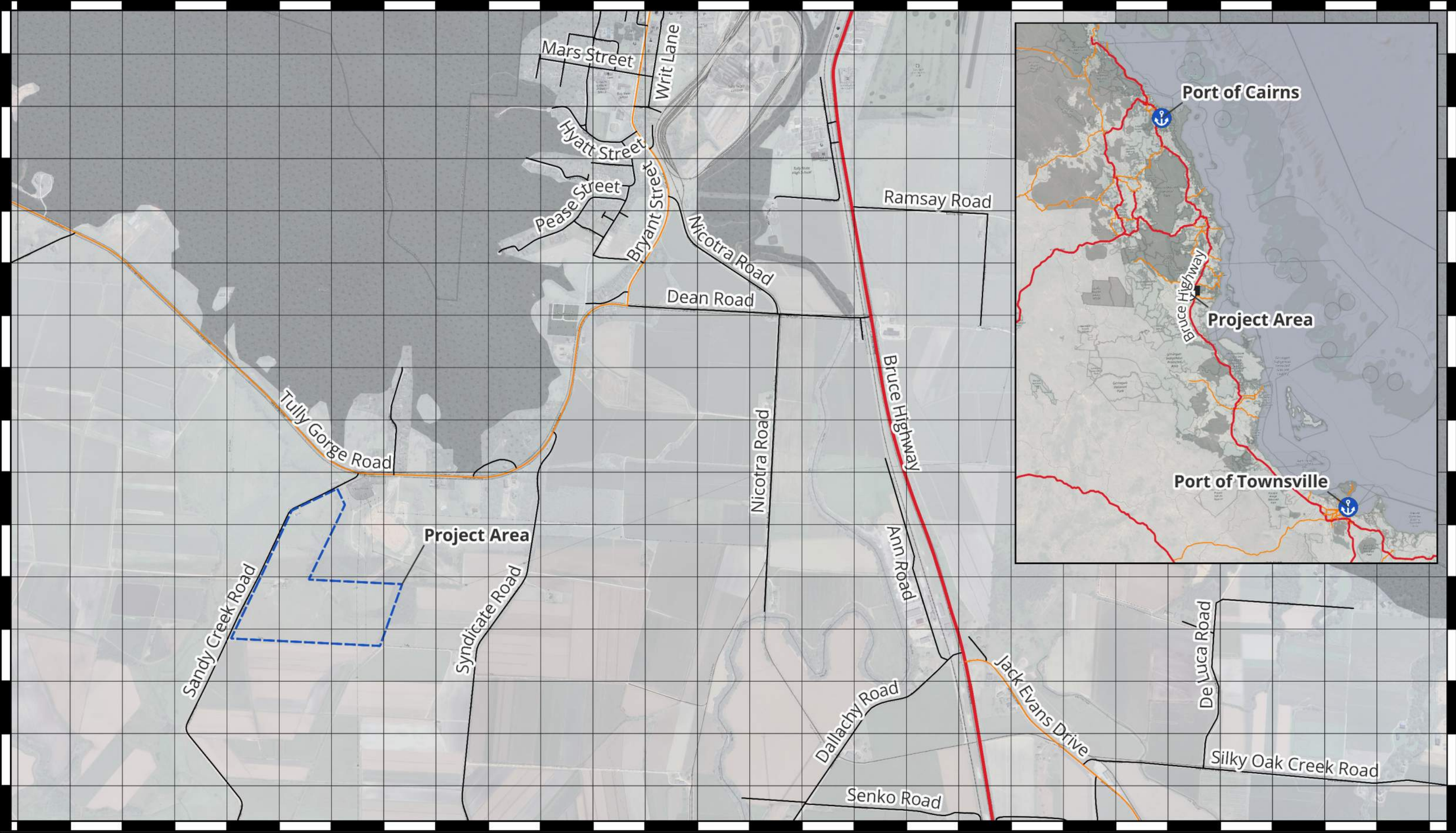
CONCEPTUAL DESIGN
NOT FOR CONSTRUCTION

TUL-BESS - 200 MW CONCEPTUAL SITE LAYOUT

-
-
-

A2 | TUL-BESS_200MW_800MWH_LAYOUT | 0

Appendix B – Project Transport Route Mapping



Legend

Locations

- Port Locations
- Project Area
- Project Area Boundary

Road Network

- Highway
- Secondary
- Local

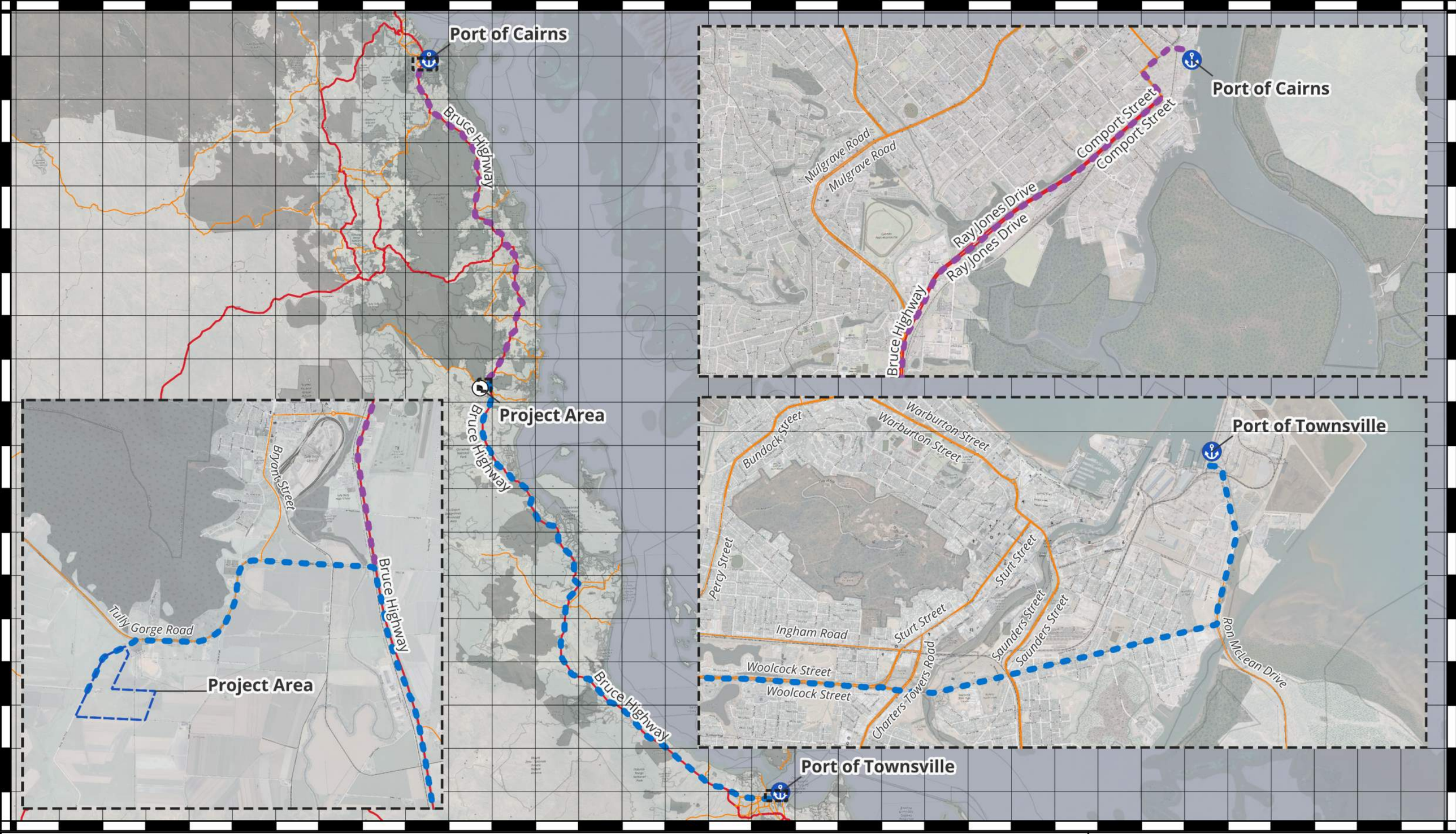
Tully BESS - HV & OSOM Strategy

Project Area and Surrounding Road Network

ratio:

N

REFERENCE	SCALE	DATE
24598T-005-A	0 250 500 m	22/04/2026



Legend

Locations
- Port Locations
- Project Area
- Project Area Boundary

Transport Routes
- Transport Route from Port of Townsville
- Transport Route from Port of Cairns

Major Roads
- Highway
- Secondary

Tully BESS - HV & OSOM Strategy

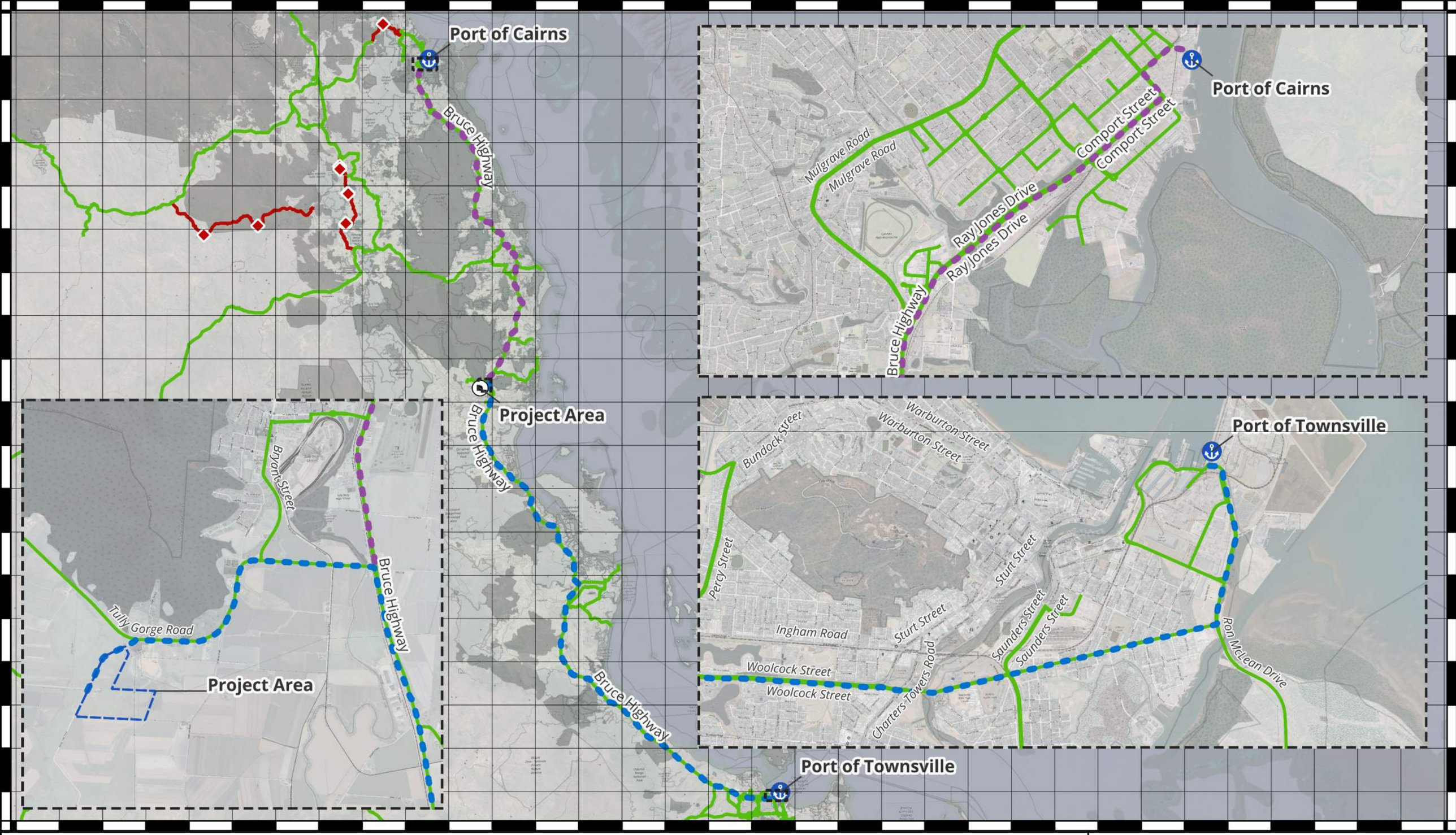
Project Transport Routes

ratio:

N

REFERENCE	SCALE	DATE
24598T-001-A	0 15 30 km	22/04/2026

Appendix C - Heavy Vehicle Route and Restrictions Mapping



Legend

Locations

- Port Locations
- Project Area
- Project Area Boundary

Transport Routes

- Transport Route from Port of Townsville
- Transport Route from Port of Cairns

Road Network Restrictions

- Restricted Points
- Approved Points with Conditions
- Approved Roads
- Restricted Roads

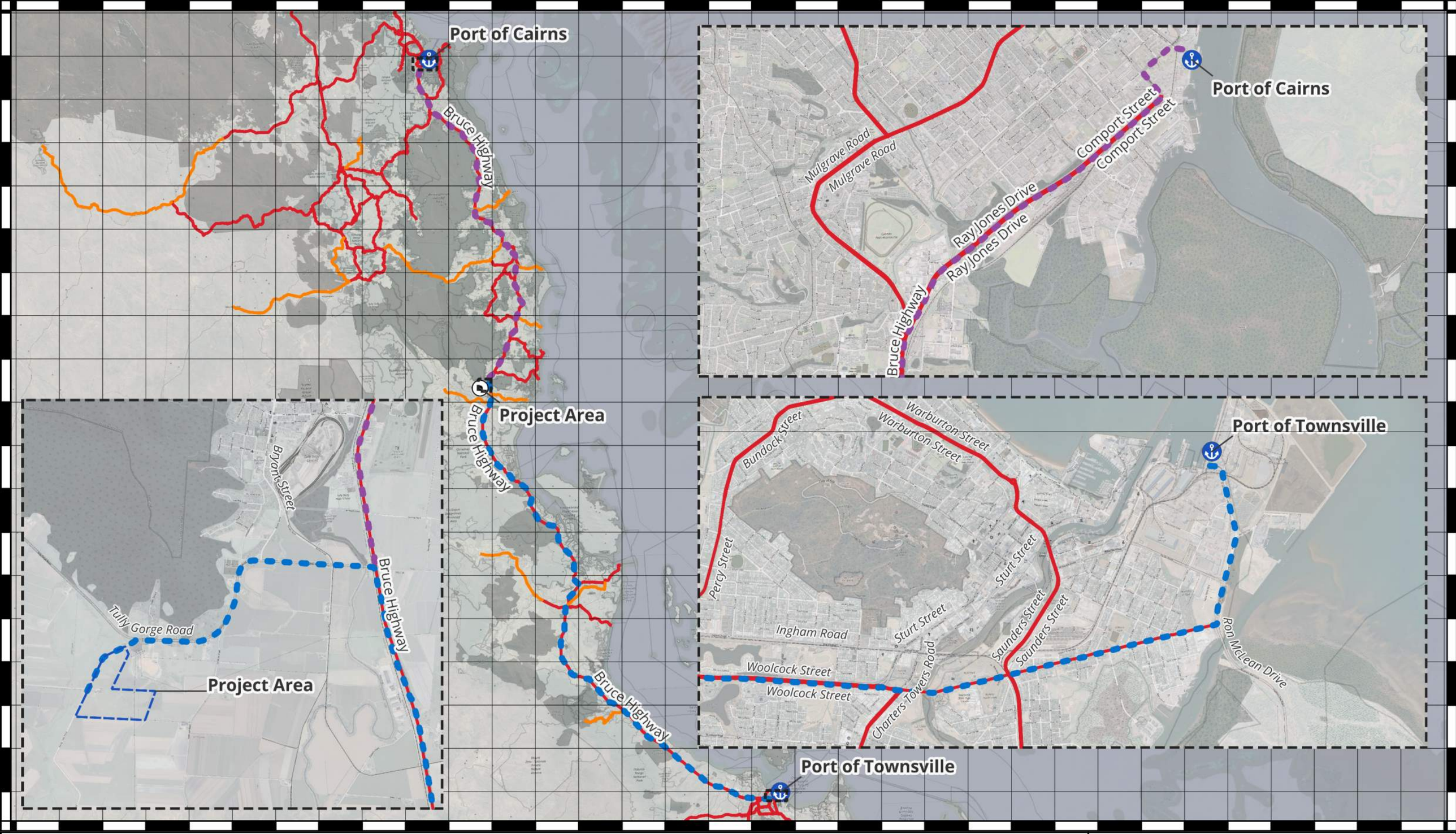
Tully BESS - HV & OSOM Strategy

25/26m B-Double & PBS 2A (B25/26) Network - NHVR

ratio:

N

REFERENCE	SCALE	DATE
24598T-002-A	0 15 30 km	22/04/2026



Legend

Locations
- Port Locations
- Project Area
- Project Area Boundary

Transport Routes
- Transport Route from Port of Townsville
- Transport Route from Port of Cairns

Critical Road Network
- Critical Road Network
- Major Road Network

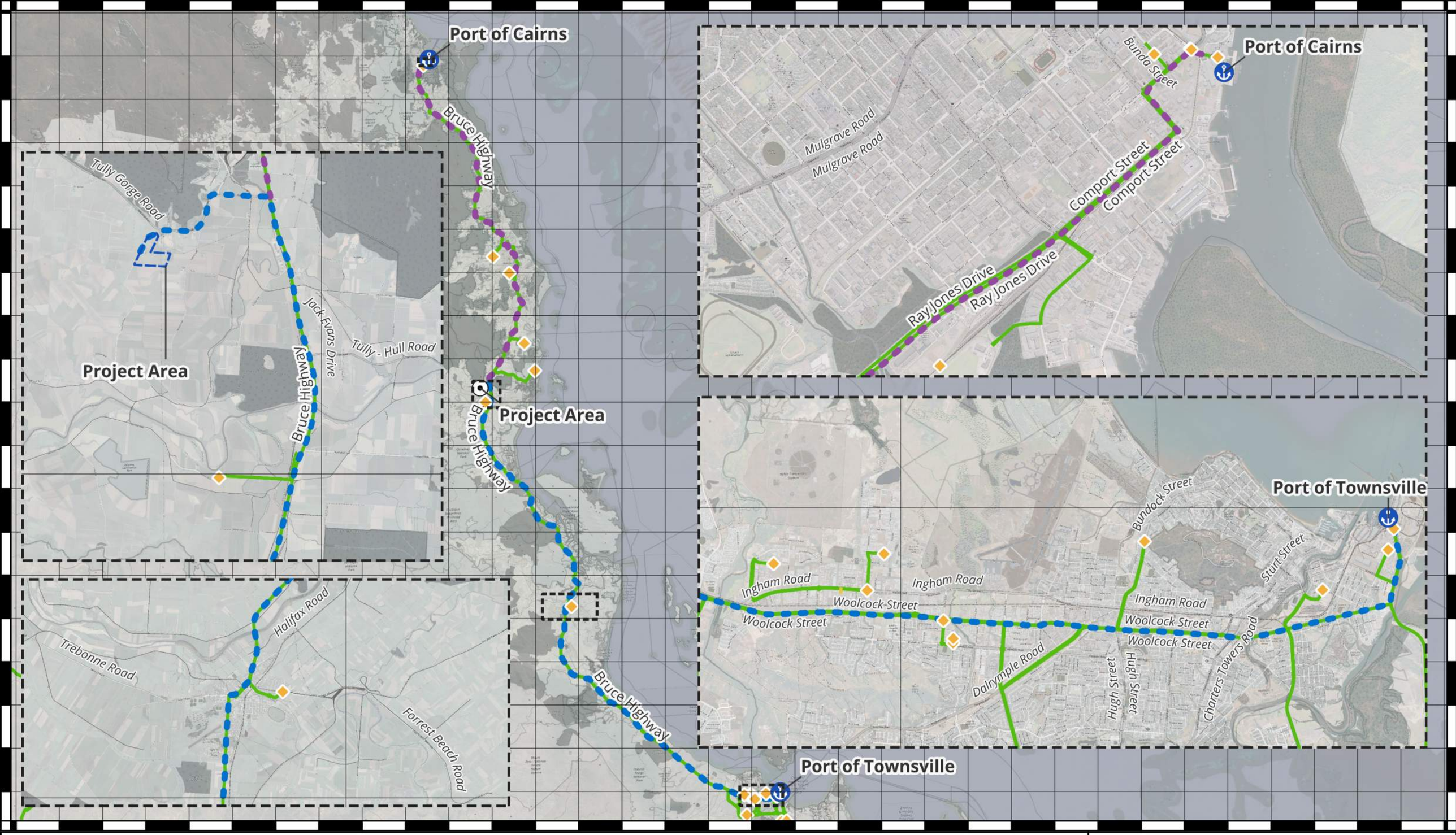
Tully BESS - HV & OSOM Strategy

Critical Road Network - DTMR

ratio:

N

REFERENCE	SCALE	DATE
24598T-004-A	0 15 30 km	22/04/2026



Legend

Locations
- Port Locations
- Project Area
- Project Area Boundary

Transport Routes
- Transport Route from Port of Townsville
- Transport Route from Port of Cairns

Road Network Restrictions
- Approved Points with Conditions
- Approved Roads
- Approved Roads with Conditions

Tully BESS - HV & OSOM Strategy

Higher Mass Limits Network - NHVR

ratio:

N

REFERENCE	SCALE	DATE
24598T-003-A	0 15 30 km	22/04/2026

Appendix D – DTMR Conditions of Operation Report 28th April 2026

Conditions current at 28/04/2026.

Disclaimer: The conditions and restrictions outlined in this Conditions of Operation report have been compiled from the most recent information practically available. Conditions are liable to change quickly, particularly due to weather. All care has been taken in providing this information. However, due care still needs to be taken when operating vehicles, particularly those in excess of regulation mass and/or dimension.

Additional search criteria used

Condition type: All

View mass conditions: Yes

Selected route: 841 - Townsville Port Road
10P - Bruce Highway (Innisfail - Cairns)
10M - Bruce Highway (Townsville - Ingham)
10N - Bruce Highway (Ingham - Innisfail)
832 - North Townsville Road
810 - Port Connection Road

CODE	DISTRICT NUMBER	ROAD NUMBER	ROAD NAME	STRUCTURE/ LOCATION	RESTRICTION TYPE	SIZE/ MASS	RESTRICTION
00/88	ALL				Height Width Length	5.00m 5.50m 35.00m	References to the Guideline for Excess Dimension Vehicles Carrying Indivisible Articles, Special Purpose Vehicles that require a Pilot or Escort in Queensland, Excess Dimension Guidelines, Form 4 Guideline, Form 4 Excess Dimension Guideline or Form 4 have the same meaning as the Multi-State Class 1 Load Carrying Vehicles Dimension Exemption Notice 2019 (Qld Schedule)
9/00	9	ALL			Height	5.40m	In the Townsville area the minimum clearance of overhanging traffic signal lanterns from the pavement surface is 5.4 m. Exceptions are - Putt Street - Queens Road intersection at Railway Estate - 5.1 m Raynor Street - Nathan Street intersection at Aitkenvale - 5.1m Care is necessary at all signalised intersections to avoid possible conflict with the lanterns.

Conditions current at 28/04/2026.

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CODE	DISTRICT NUMBER	ROAD NUMBER	ROAD NAME	STRUCTURE/ LOCATION	RESTRICTION TYPE	SIZE/ MASS	RESTRICTION
9/10M	9	10M	Bruce Highway (Townsville - Ingham)		Height Width Length	5.20m 4.50m 35.00m	North Bound Vehicles over 4.5m wide or 35m long must not travel on the Bruce Highway between the Southern Port Road and Veales Road during the hours of 7am to 9:30am and 2.30pm to 7pm daily. This condition is to minimise potential conflicts between OSOM and other vehicles by restricting movements to outside peak traffic volumes. Alternative Route: Nil
9/10M	9	10M	Bruce Highway (Townsville - Ingham)		Height Width Length	5.20m 4.50m 35.00m	South Bound Vehicles over 4.5m wide or 35m long must not travel on the Bruce Highway between the Southern Port Road and Veales Road during the hours of 7am to 9:30am and 2.30pm to 7pm daily. This condition is to minimise potential conflicts between OSOM and other vehicles by restricting movements to outside peak traffic volumes. Alternative Route: Nil
9/10M	9	10M	Bruce Highway (Townsville - Ingham)	University Drive	Height	5.40m	North Bound Mid Point Access Overpass Northbound - 5.5m Left Hand Lane Northbound - 5.4m Righthand Lane Southbound - 5.2m Left Hand Lane Southbound - 5.3m Right Hand Lane

Conditions current at 28/04/2026.

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CODE	DISTRICT NUMBER	ROAD NUMBER	ROAD NAME	STRUCTURE/ LOCATION	RESTRICTION TYPE	SIZE/ MASS	RESTRICTION
9/10M	9	10M	Bruce Highway (Townsville - Ingham)	University Drive	Height	5.20m	South Bound Mid Point Access Overpass Northbound - 5.5m Left Hand Lane Northbound - 5.4m Righthand Lane Southbound - 5.2m Left Hand Lane Southbound - 5.3m Right Hand Lane
9/10M	9	10M	Bruce Highway (Townsville - Ingham)	Bruce Highway (Northbound) Start of Motorway	Height	7.20m	Large Traffic Management Sign
9/10M	9	10M	Bruce Highway (Townsville - Ingham)		Height	5.62m	East Bound Pedestrian Signal Height on Duckworth Street at the Bayswater Road roundabout has a maximum clearance height of 5.62m in both directions.
9/10M	9	10M	Bruce Highway (Townsville - Ingham)		Height	5.62m	West Bound Pedestrian Signal Height on Duckworth Street at the Bayswater Road roundabout has a maximum clearance height of 5.62m in both directions.
9/10M	9	10M	Bruce Highway (Townsville - Ingham)	Percival Pacific Andrews Overpass - Bridge. Through Distance: 2.757	Height	5.91m	Refer to Att1 Clearance Heights under Pictures
9/10M	9	10M	Bruce Highway (Townsville - Ingham)	Percival Pacific Andrews Overpass - Bridge. Through Distance: 2.984	Height	5.69m	

Conditions current at 28/04/2026.

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CODE	DISTRICT NUMBER	ROAD NUMBER	ROAD NAME	STRUCTURE/ LOCATION	RESTRICTION TYPE	SIZE/ MASS	RESTRICTION
9/10M	9	10M	Bruce Highway (Townsville - Ingham)	Vms007 University Road The Ring Road (Douglas Section) - Lge Trafic . Through Distance: 7.809	Height	6.80m	
9/10M	9	10M	Bruce Highway (Townsville - Ingham)	Sign Over Bruce Highway (Northbound) At Start Of Motorway - Lge Trafic . Through Distance: 8.412	Height	5.69m	Previous: Surveyed 7.20; Date 13-DEC-2010. See Pics for current survey
9/10M	9	10M	Bruce Highway (Townsville - Ingham)	University Road Overpass (Southbound) - Bridge. Through Distance: 8.806	Height	6.32m	
9/10M	9	10M	Bruce Highway (Townsville - Ingham)	University Road Overpass (Southbound) - Bridge. Through Distance: 8.807	Height	5.60m	University Road Overpass (Southbound) - Bridge
9/10M	9	10M	Bruce Highway (Townsville - Ingham)	University Road Overpass (Northbound) - Bridge. Through Distance: 8.808	Height	5.60m	
9/10M	9	10M	Bruce Highway (Townsville - Ingham)	University Creek - Bridge. Through Distance: 8.91	Height	6.00m	University Creek - Bridge
9/10M	9	10M	Bruce Highway (Townsville - Ingham)	Angus Smith Drive Overpass (Southbound) - Bridge. Through Distance: 9.644	Height	6.11m	Angus Smith Drive Overpass (Southbound) - Bridge
9/10M	9	10M	Bruce Highway (Townsville - Ingham)	Midpoint Access Overpass - Bridge. Through Distance: 11.443	Height	5.52m	Previous: Signed 5.4; Surveyed 5.38; Date 19May2012. See Pics for current survey

Conditions current at 28/04/2026.

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CODE	DISTRICT NUMBER	ROAD NUMBER	ROAD NAME	STRUCTURE/ LOCATION	RESTRICTION TYPE	SIZE/ MASS	RESTRICTION
9/10M	9	10M	Bruce Highway (Townsville - Ingham)	Midpoint Access Overpass - Bridge. Through Distance: 11.46	Height	5.30m	Previous survey by AECOM signed 5.2; Survey 5.37; Date 1OCT2009. See Pics.
9/10M	9	10M	Bruce Highway (Townsville - Ingham)	Vms018 Ring Road (Nb) East Of Vickers Bridge - Lge Trafic . Through Distance: 12.135	Height	6.63m	
9/10M	9	10M	Bruce Highway (Townsville - Ingham)	Sign Gantry At Pier 5 On Vickers Crk Bridge - Lge Trafic . Through Distance: 13.142	Height	5.90m	Clearance from Plan 280394
9/10M	9	10M	Bruce Highway (Townsville - Ingham)	Beck Drive Overpass (Northbound) - Bridge. Through Distance: 14.705	Height	5.63m	Beck Drive (Height clearence 5.65m,clearence between faces of RSS walls 22.350m)
9/10M	9	10M	Bruce Highway (Townsville - Ingham)	Beck Drive Overpass (Southbound) - Bridge. Through Distance: 14.738	Height	5.81m	
9/10M	9	10M	Bruce Highway (Townsville - Ingham)	Beck Drive Overpass (Southbound) - Bridge. Through Distance: 14.761	Height	5.80m	Drawings Only (885476)
9/10M	9	10M	Bruce Highway (Townsville - Ingham)	Beck Drive Overpass (Northbound) - Bridge. Through Distance: 14.793	Height	5.60m	Beck Dr (Height clearance 5.65m, clearance between races of RSS walls 22.350m
9/10M	9	10M	Bruce Highway (Townsville - Ingham)	Vms021 Beck Dr (Nb) - Lge Trafic . Through Distance: 14.997	Height	6.69m	

Conditions current at 28/04/2026.

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CODE	DISTRICT NUMBER	ROAD NUMBER	ROAD NAME	STRUCTURE/ LOCATION	RESTRICTION TYPE	SIZE/ MASS	RESTRICTION
9/10M	9	10M	Bruce Highway (Townsville - Ingham)	Vms019 Ring Road (Sb) West Of Beck Dr - Lge Trafic . Through Distance: 15.342	Height	6.96m	
9/10M	9	10M	Bruce Highway (Townsville - Ingham)	Shaw Rd Exit Ramp Overpass - Bridge. Through Distance: 19.562	Height	6.53m	
9/10M	9	10M	Bruce Highway (Townsville - Ingham)	Shaw Rd Exit Ramp Overpass - Bridge. Through Distance: 19.574	Height	6.59m	
9/10M	9	10M	Bruce Highway (Townsville - Ingham)	Dalrymple Road Overpass - Bridge. Through Distance: 20.347	Height	6.99m	
9/10M	9	10M	Bruce Highway (Townsville - Ingham)	Dalrymple Road Overpass - Bridge. Through Distance: 20.368	Height	6.99m	
9/10M	9	10M	Bruce Highway (Townsville - Ingham)	Dalrymple Road Overpass - Bridge. Through Distance: 20.372	Height	7.17m	
9/10M	9	10M	Bruce Highway (Townsville - Ingham)	Dalrymple Road Overpass - Bridge. Through Distance: 20.377	Height	7.16m	
9/10M	9	10M	Bruce Highway (Townsville - Ingham)	Zbr60 - Bridge. Through Distance: 27.083	Height	5.97m	
9/10M	9	10M	Bruce Highway (Townsville - Ingham)	Zbr70 - Bridge. Through Distance: 27.944	Height	5.51m	

Conditions current at 28/04/2026.

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CODE	DISTRICT NUMBER	ROAD NUMBER	ROAD NAME	STRUCTURE/ LOCATION	RESTRICTION TYPE	SIZE/ MASS	RESTRICTION
9/10M	9	10M	Bruce Highway (Townsville - Ingham)	Vms022 Bruce Highway (Nb) Mt Kulburn - Lge Trafic . Through Distance: 30.15	Height	6.89m	
9/10M	9	10M	Bruce Highway (Townsville - Ingham)	Vms009 Ingham - Lge Trafic . Through Distance: 119.553	Height	5.80m	
9/10N	9	10N	Bruce Highway (Ingham - Innisfail)	Cardwell Range	Width	9.60m	Maximum width permitted on the Cardwell Range is 9.6m
11/10N	11	10N	Bruce Highway (Ingham - Innisfail)	10N. Chainage 108.7km	Height	6.80m	North Bound Fauna Overpass Crossing at Road 10N, Chainage 108.7, Clearance 6.8m.
11/10N	11	10N	Bruce Highway (Ingham - Innisfail)	10N. Chainage 108.7km	Height	6.80m	South Bound Fauna Overpass Crossing at Road 10N, Chainage 108.7, Clearance 6.8m.
9/10N	9	10N	Bruce Highway (Ingham - Innisfail)	Vms013 Cardwell Range South - Lge Trafic . Through Distance: 13.54	Height	5.60m	Measured from bitumen.
9/10N	9	10N	Bruce Highway (Ingham - Innisfail)	Lookout Access - Bridge. Through Distance: 15.917	Height	9.00m	
9/10N	9	10N	Bruce Highway (Ingham - Innisfail)	Vms014 Cardwell Range North - Lge Trafic . Through Distance: 19.46	Height	5.75m	5.75 m high at 5.66 m left of Centre Line. dgh
9/10N	9	10N	Bruce Highway (Ingham - Innisfail)	Fauna Crossing. Through Distance: 80.775	Height	11.61m	Fauna Crossing over Corduroy Creek Bridge on the Bruce Highway Tully Deviation

Conditions current at 28/04/2026.

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CODE	DISTRICT NUMBER	ROAD NUMBER	ROAD NAME	STRUCTURE/ LOCATION	RESTRICTION TYPE	SIZE/ MASS	RESTRICTION
11/10N	11	10N	Bruce Highway (Ingham - Innisfail)	Bridge. Through Distance: 108.706	Height	6.80m	
11/10P	11	10P	Bruce Highway (Innisfail - Cairns)		Height	6.50m	North Bound New Pine Creek Yarrabah Road Overpass at road 10P, Chainage 68.36, Clearance 6.5m
11/10P	11	10P	Bruce Highway (Innisfail - Cairns)		Height	6.50m	South Bound New Pine Creek Yarrabah Road Overpass at road 10P, Chainage 68.36, Clearance 6.5m
11/10P	11	10P	Bruce Highway (Innisfail - Cairns)		Height	6.80m	South Bound New Pedestrian Overpass at Gordonvale - Road 10P, Chainage 65.175, Clearance 6.8m.
11/10P	11	10P	Bruce Highway (Innisfail - Cairns)		Height	6.80m	North Bound New Pedestrian Overpass at Gordonvale - Road 10P, Chainage 65.175, Clearance 6.8m.
11/10P	11	10P	Bruce Highway (Innisfail - Cairns)	Gordonvale Cane Tramway Overpass On Old Mulgrave R Bridge - Culvert. Through Distance: 63.35	Height	2.20m	Located on Service Rd (Cwy Q) Old Mulgrave Rv Bridge clearance 2.2m h x 3m w
11/10P	11	10P	Bruce Highway (Innisfail - Cairns)	Pedestrian Overpass Bruce Highway - Bridge. Through Distance: 65.125	Height	6.80m	
11/10P	11	10P	Bruce Highway (Innisfail - Cairns)	Pedestrian Overpass Bruce Highway - Bridge. Through Distance: 65.158	Height	6.80m	

Conditions current at 28/04/2026.

Disclaimer: The conditions and restrictions outlined in this Conditions of Operation report have been compiled from the most recent information practically available. Conditions are liable to change quickly, particularly due to weather. All care has been taken in providing this information. However, due care still needs to be taken when operating vehicles, particularly those in excess of regulation mass and/or dimension.

CODE	DISTRICT NUMBER	ROAD NUMBER	ROAD NAME	STRUCTURE/ LOCATION	RESTRICTION TYPE	SIZE/ MASS	RESTRICTION
11/10P	11	10P	Bruce Highway (Innisfail - Cairns)	Menmuny Overpass - Bridge. Through Distance: 68.33	Height	6.50m	
11/10P	11	10P	Bruce Highway (Innisfail - Cairns)	Menmuny Overpass - Bridge. Through Distance: 68.36	Height	6.50m	
11/10P	11	10P	Bruce Highway (Innisfail - Cairns)	Murgatroyd Rd Overpass #2 Bridge - Bridge. Through Distance: 79.03	Height	6.51m	Murgatroyd Rd Overpass located over 10P at ch 79.440
11/10P	11	10P	Bruce Highway (Innisfail - Cairns)	Murgatroyd Rd Overpass #2 Bridge - Bridge. Through Distance: 79.03	Height	6.60m	Murgatroyd Rd Overpass Bridge #2 is located over 10P Cwy 2 & 3 at ch 79.44
11/10P	11	10P	Bruce Highway (Innisfail - Cairns)	Caleb Shang Bridge - Bridge. Through Distance: 80.044	Height	7.65m	Pedestrian Bridge over 10P ch 80.079
11/10P	11	10P	Bruce Highway (Innisfail - Cairns)	Caleb Shang Bridge - Bridge. Through Distance: 80.044	Height	7.74m	Pedestrian Bridge over 10P ch 80.079
11/10P	11	10P	Bruce Highway (Innisfail - Cairns)	Overpass Bridge Over Ray Jones Drive (4) - Bridge. Through Distance: 81.34	Height	6.58m	CWY L & N are located over 10P CWY 2 at ch 81.345
11/10P	11	10P	Bruce Highway (Innisfail - Cairns)	Overpass Bridge Over Rigg St (5) - Bridge. Through Distance: 81.792	Height	6.00m	CWY A Inbound. Ray Jones Drive/Rigg St interchange
11/10P	11	10P	Bruce Highway (Innisfail - Cairns)	Overpass Bridge Over Rigg St (5) - Bridge. Through Distance: 82.008	Height	6.00m	CWY P Outbound. Ray Jones Drive/Rigg St interchange

Conditions current at 28/04/2026.

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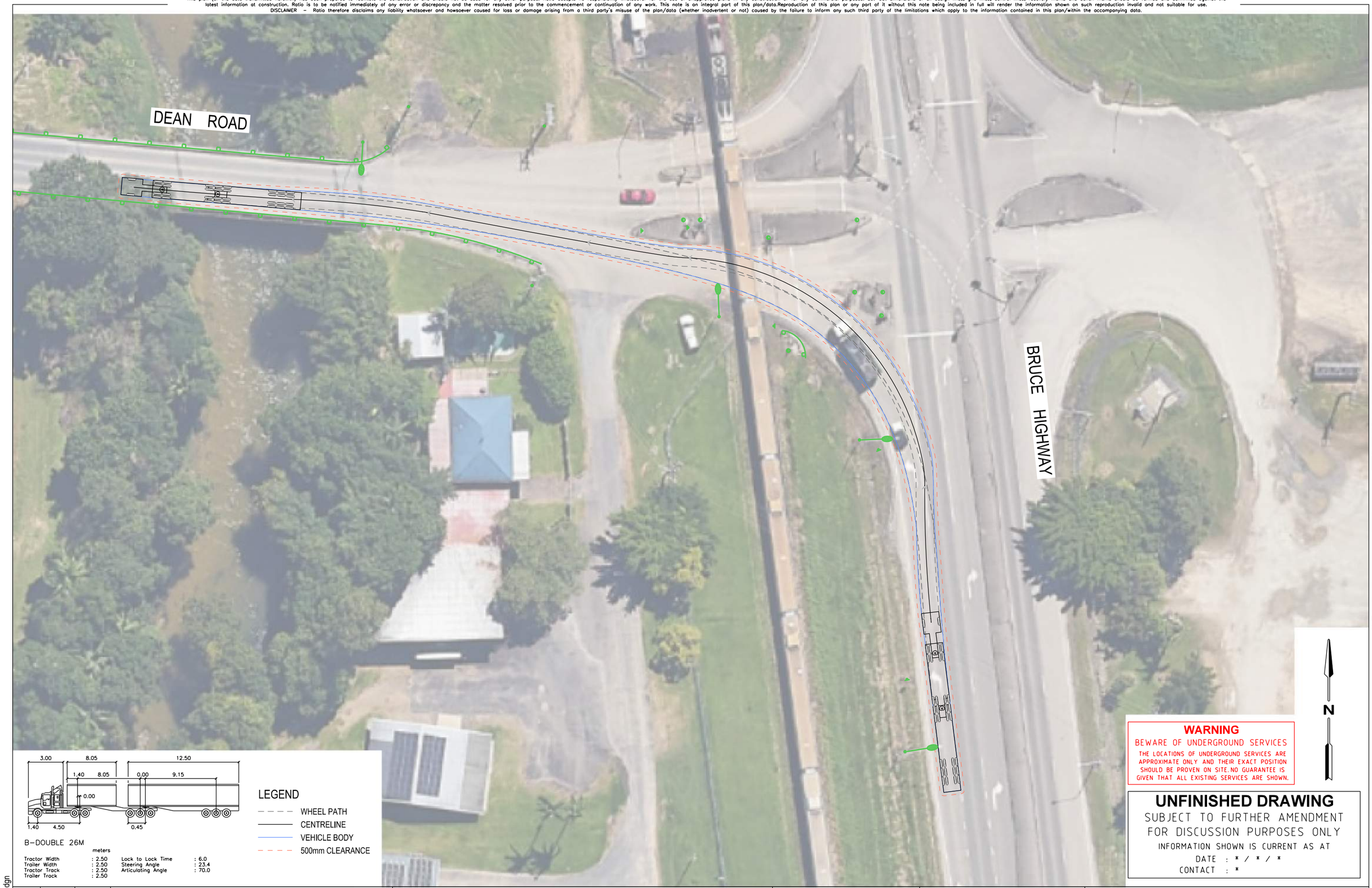
CODE	DISTRICT NUMBER	ROAD NUMBER	ROAD NAME	STRUCTURE/ LOCATION	RESTRICTION TYPE	SIZE/ MASS	RESTRICTION
9/832	9	832	Townsville Port Road	Intersection Woolcock & Sturt Sts	Width	9.10m	East Bound Width restriction between traffic signal lanterns
9/832	9	832	North Townsville Road	Mt Low Road/Rail Overpass - Bridge. Through Distance: 0.444	Height	6.23m	6.4m for Rail, 6.23m for Road (Plan 409725)
9/832	9	832	North Townsville Road	Vms008 Bruce Hwy - Saunder Creek - Lge Trafic . Through Distance: 2.731	Height	6.79m	

Appendix E – Swept Path Assessment



B-DOUBLE 26M

meters

Tractor Width	: 2.50	Lock to Lock Time	: 6.0
Trailer Width	: 2.50	Steering Angle	: 23.4
Tractor Track	: 2.50	Articulating Angle	: 70.0
Trailer Track	: 2.50		

LEGEND

- WHEEL PATH
- CENTRELINE
- VEHICLE BODY
- 500mm CLEARANCE

WARNING

BEWARE OF UNDERGROUND SERVICES

THE LOCATIONS OF UNDERGROUND SERVICES ARE APPROXIMATE ONLY AND THEIR EXACT POSITION SHOULD BE PROVEN ON SITE. NO GUARANTEE IS GIVEN THAT ALL EXISTING SERVICES ARE SHOWN.

UNFINISHED DRAWING

SUBJECT TO FURTHER AMENDMENT
FOR DISCUSSION PURPOSES ONLY
INFORMATION SHOWN IS CURRENT AS AT
DATE : * / * / *
CONTACT : *

ISSUE	APP'D	DATE	COMMENTS
A	J.D.	13.05.26	INITIAL ISSUE

GENERAL NOTES

1. AERIAL IMAGE OBTAINED FROM LANDCHECKER DATABASE.
2. ALL DIMENSIONS ARE IN METRES AND MEASURED TO THE INVERT OF KERB AND CHANNEL
3. BRUCE HIGHWAY (SPEED ZONE 80KM/H)
   DEAN ROAD (SPEED ZONE 80KM/H)

DESIGNED	B. KORASANI
CHECKED	S. McKENZIE
APPROVED	J. DOLLISSON
SCALE 1: 500 @ A3	0 5 10

ratio:
RATIO CONSULTANTS PTY LTD
https://ratio.com.au/

DEAN ROAD / BRUCE HIGHWAY, TULLY
Cassowary Coast Regional Council
TULLY BESS
SWEPT PATH ASSESSMENT

DATE	SHEET NO.	DRAWING NO.	ISSUE
13.05.26	2 of 4	24598-CLP-001-1	A

CAD File: 24598-CLP-001-1.dgn

B-DOUBLE 26M

meters

Tractor Width	: 2.50	Lock to Lock Time	: 6.0
Trailer Width	: 2.50	Steering Angle	: 23.4
Tractor Track	: 2.50	Articulating Angle	: 70.0
Trailer Track	: 2.50		

LEGEND

- WHEEL PATH
- CENTRELINE
- VEHICLE BODY
- 500mm CLEARANCE

N

WARNING

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GENERAL NOTES

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3. TULLY GORGE ROAD (SPEED ZONE 70KM/H)
   SANDY CREEK ROAD (SPEED ZONE 70KM/H)

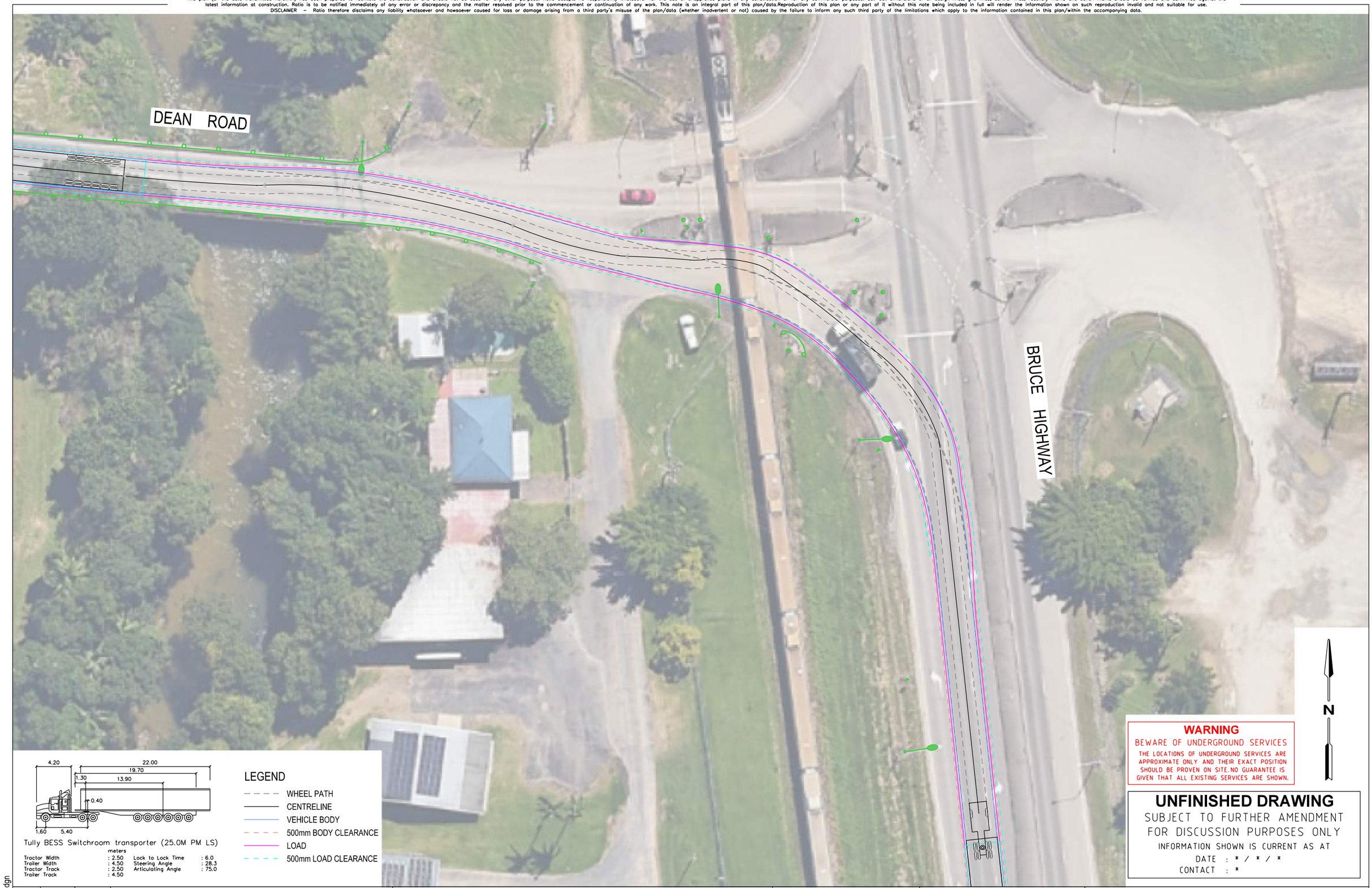
DESIGNED	B. KORASANI
CHECKED	S. McKENZIE
APPROVED	J. DOLLISSON
SCALE 1: 500 @ A3	0 5 10

ratio:
RATIO CONSULTANTS PTY LTD
https://ratio.com.au/

TULLY GORGE ROAD / SANDY CREEK ROAD, TULLY
Cassowary Coast Regional Council
TULLY BESS
SWEPT PATH ASSESSMENT

DATE	SHEET NO.	DRAWING NO.	ISSUE
13.05.26	1 of 4	24598-CLP-001-2	A

CAD File: 24598-CLP-001-2.dgn



Tully BESS Switchroom transporter (25.0M PM LS)

meters

Tractor Width	: 2.50	Lock to Lock Time	: 6.0
Trailer Width	: 4.50	Steering Angle	: 28.3
Tractor Track	: 2.50	Articulating Angle	: 75.0
Trailer Track	: 4.50		

LEGEND

- WHEEL PATH
- CENTRELINE
- VEHICLE BODY
- 500mm BODY CLEARANCE
- LOAD
- 500mm LOAD CLEARANCE

N

WARNING

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SCALE 1: 500 @ A3	0 5 10

ratio:
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DEAN ROAD / BRUCE HIGHWAY, TULLY
Cassowary Coast Regional Council
TULLY BESS
SWEPT PATH ASSESSMENT

DATE	SHEET NO.	DRAWING NO.	ISSUE
13.05.26	3 of 4	24598-CLP-001-3	A

CAD File: 24598-CLP-001-3.dgn

Tully BESS Switchroom transporter (25.0M PM LS)

meters

Tractor Width	: 2.50	Lock to Lock Time	: 6.0
Trailer Width	: 4.50	Steering Angle	: 28.3
Tractor Track	: 2.50	Articulating Angle	: 75.0
Trailer Track	: 4.50		

LEGEND

- WHEEL PATH
- CENTRELINE
- VEHICLE BODY
- 500mm BODY CLEARANCE
- LOAD
- 500mm LOAD CLEARANCE

N

WARNING

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TULLY GORGE ROAD / SANDY CREEK ROAD, TULLY
Cassowary Coast Regional Council
TULLY BESS
SWEPT PATH ASSESSMENT

DATE	SHEET NO.	DRAWING NO.	ISSUE
13.05.26	4 of 4	24598-CLP-001-4	A

CAD File: 24598-CLP-001-4.dgn