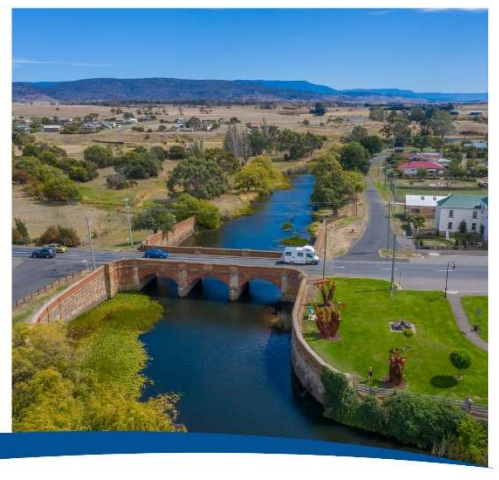
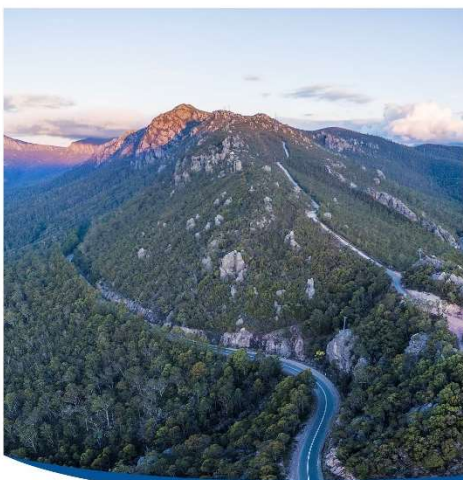
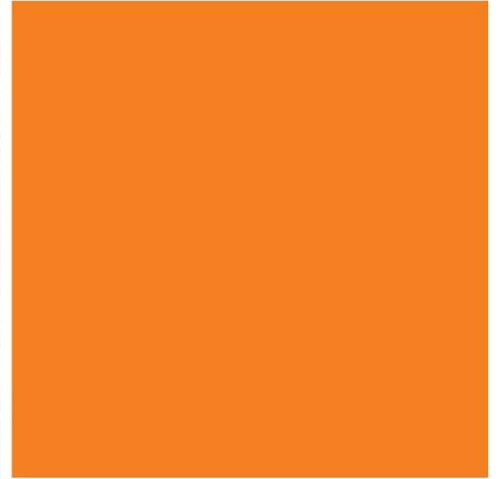


Great Eastern Drive Tourism Support Additional Packages - Component 1:

Public Works Committee Submission



Final to PWC 29 May 2023

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Introduction

This document is a submission to the Tasmanian Parliamentary Standing Committee on Public Works (PWC) for its hearing into the Great Eastern Drive Tourism Support - Additional Packages Component I works, scheduled for 5 July 2023.

This submission has been developed by the works proponent, the Department of State Growth Tasmania.

The proposed works are located along the Great Eastern Drive as shown below and are made up of two packages: Apsley Package and Lisdillon Package.

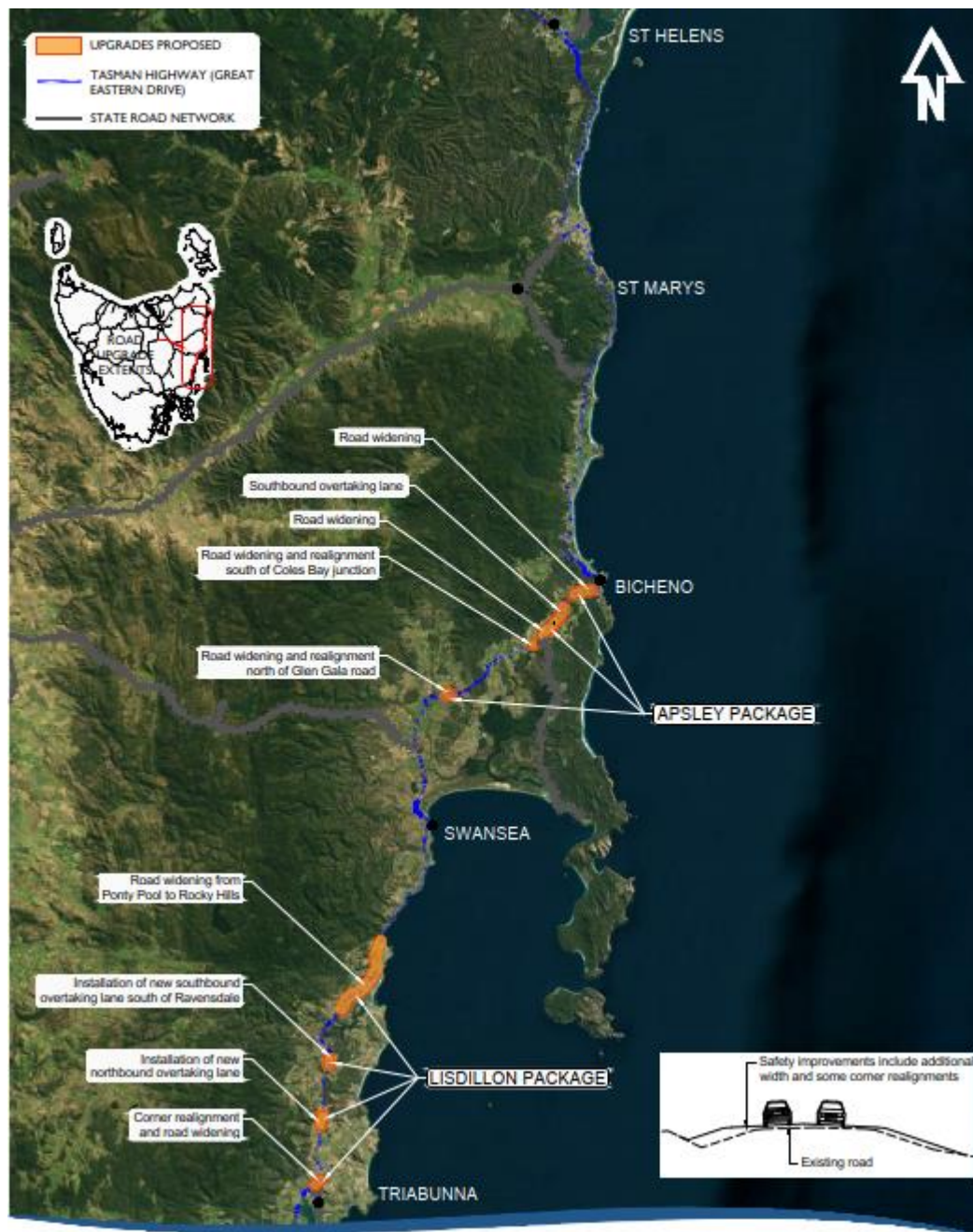


Figure I Component I shown as the Apsley Package and Lisdillon Package

Need for Works

The majority of the Great Eastern Drive – which extends along the Tasman Highway between Orford and St Helens - does not meet contemporary design standards. Some sections have already been widened and upgraded, resulting in an inconsistent drive experience for road users.

The highway has experienced:

- high crash statistics in areas with poor alignment and narrow width
- queueing and traffic being held up due to slow moving vehicles.

The three main issues with non-conformance to design standards are:

- road width
- poor alignment
- insufficient overtaking opportunities.

While the current traffic volume averages approximately 1600 vehicles/day, this average value is not representative of demand; the figure doubles in the summer holiday months and halves in the winter period.

Traffic growth on this section of the Tasman Highway has been at 4% for the last 20 years.

Road Width:

Under the Tasmanian Road Design Specifications, the width of this road is now deemed inadequate for the volume of traffic being experienced in the peak tourism periods.

More than 80 km of the full 176 km has an existing sealed width of approximately 6 m. These sections have narrow unsealed shoulders or a traversable verge. The image below shows the approach into Bicheno and is representative of the road cross sectional geometry for much of the 176 km section of road.



Photo | Road approach into Bicheno

An assessment of the previously widened sections in the higher speed environments, generally outside of the townships, reveals crash statistics that are up to 50 % lower than adjoining sections of narrower road with similar alignment and traffic volumes. The widened sections achieve higher levels of safety through the provision of adequate width for edge lines, raised pavement markers and room for driver correction if required.

Road Alignment:

The existing road alignment does not conform to the Austroads Guide to Road Design, Part 3 Geometric Alignment. Road camber is regularly adverse (meaning the road slopes towards the outside of the curve) and many corners are too tight for the speed limit. Vertical geometry prevents adequate sight distances from being realised. Sections with the poorest alignment have a high number of crashes recorded in close proximity.

Overtaking:

Overtaking opportunities are minimal, with a northbound overtaking lane to the south of Cherry Tree Hill and newly constructed overtaking facilities directly south of St Helens being the only dedicated overtaking opportunities along the entirety of the Great Eastern Drive touring route.

In summary, road user frustration is enhanced by a combination of the existing roads' poor alignment, high traffic volumes, poor cross section, inconsistent seal quality and a high proportion of tourists with large campervans and caravans using the route. This is reflected by a high crash rate along the corridor and highly variable travel time through the region.

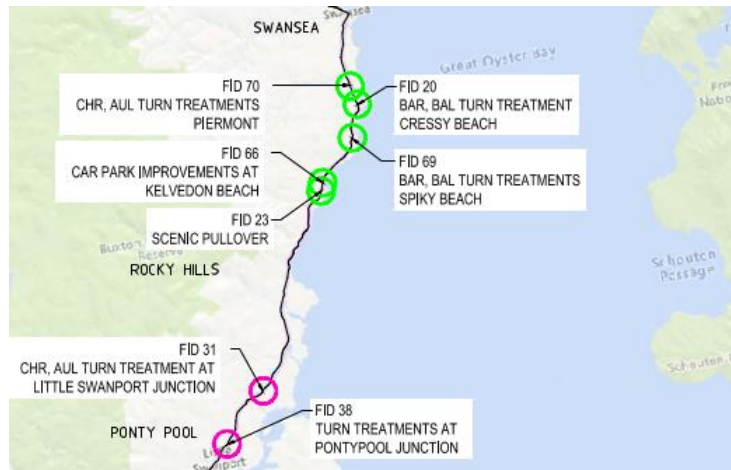
Related Works

This PWC submission addresses Component I of the Great Eastern Drive Tourism Support – Additional Packages commitment.

This work is a continuation of the Tasmanian Government's commitment of \$30 million for the upgrade program that included overtaking lanes between St Helens and Diana's Basin and access upgrades along the Great Eastern Drive. With the exception of the new overtaking lanes directly south of St Helens, the map overleaf provides a visual guide to recent works for the remainder of the Great Eastern Drive.



Joins above



Recently Completed Works

Infrastructure Tasmania will commence work on a corridor strategy for the Tasman Highway from Sorell to Launceston in mid-2023.

Proposed Works

Capital Works

The upgraded sections of road under the Lisdillon and Apsley packages will be wider, with edge lines and sealed shoulders, new overtaking lanes, improved alignment and camber, improving safety and travel time predictability.

When considering options, keeping the existing look and feel of the existing alignment was important from a cost and visual amenity perspective. The basis of the design is to accept comfortable levels of braking and acceleration between corners, which can allow tighter corners to exist so long as the journey to the tight corner has gently coached the driver to anticipate the alignment. This is often referred to as an 'operating speed model'. This enables the majority of the existing alignment to be adopted presenting the best value, and least disruption.

The alternative was a design speed model that would allow motorist to set an automatic speed control on their vehicles. To achieve this, considerable lengths of the highway would require straightening for a full realignment impacting the cost, properties, accesses and existing viewing points that make the Great Eastern Drive the tourist road it is.

The orange highlights in the maps overleaf show more detail on the proposed works for each package:



Apsley Package



Lisdillon Package

The specific outcomes are:

Road Width: The existing width of ~6m will be increased to 8.2m, and slightly more in the corners to allow longer commercial vehicles to track within the sealed pavement. The new width is made up of 1.0m wide shoulders and 3.1m wide lanes.

Corner Realignment: The alignment at the following locations will be improved to allow conformance to contemporary standards to be met:

- radius increases for the 'S' bend corners at the northern end of the new overtaking lane at Glen Gala (Apsley Package)
- corner improvement directly south of the Coles Bay Junction (Apsley Package)
- realignment of 'S' bend corners south of Bicheno (Apsley Package)

- corner realignment for a 750m long stretch just north of Triabunna (Lisdillon Package)
- corner realignment at Saltworks Road turnoff to Little Swanport (Lisdillon Package)

Overtaking: New overtaking lanes are included:

- a 1.6 km long overtaking lane south of Apsley river (Apsley Package)
- two overtaking lanes between Triabunna and Rocky Hills, one in each direction (Lisdillon Package).

At the overtaking and corner realignment locations, the road will extend outside the existing road corridor, and minor acquisition of agricultural land will be required.

Upgrades that will not take place as part of the works include:

- Widening at existing bridges. Bridges operating within their design life expectancy have not been scheduled for upgrades.
- New bridges in areas that are prone to flooding. The section of road north of Apsley River has been inundated in 2013, 2016, and 2021. Pending design review outcomes, upgrades to the road in this area will be cement stabilised so as to prevent infrastructure from being damaged by inundation.

Materials

The road design has been completed in accordance with Austroads Guidelines with the road pavements designed for a service life of at least 40 years and the bitumen surfacing, being sprayed or asphalt seal, a service life of at least 15 years.

The works are substantially road construction with the majority of the materials being aggregates sourced from local quarries that have been certified in accordance with Transport Victoria specifications as adopted by the department. These aggregates include the crushed rock used to build the underpinning structure of the road (the pavement), as well as stone used in sealing (when mixed with bitumen) and used in concrete elements (when mixed with cement and water).

All road construction must meet the department's road and bridge specifications which have been developed from the Transport Victoria specifications as amended to reflect Tasmanian conditions, industry products and construction methods. The quarries are certified under a Quality Assurance process administered by Transport Victoria which includes regular audits.

Concrete structures, line marking, road barriers and other traffic furniture are likewise designed and constructed in accordance with Austroads Guidelines and sourced from local suppliers where available. Commonly steel is fabricated elsewhere on the mainland or overseas, with some final fabrication in Tasmania. For example, poles and sheet metal inputs for signage are imported into Tasmania with the final signs being printed and assembled here.

Benefits

The key benefits of the project are to provide all road users with:

- Higher levels of safety by widening and aligning the road to meet contemporary road design standards
- improved travel time predictability by providing additional overtaking opportunities.

Improving access to the east coast, is anticipated to enhance the 'brand Tasmania' and 'open up' the tourism opportunities that await the iconic Tasmanian coastline.

Economic assessment has determined a Benefit Cost Ratio (BCR) at P50 for standard benefits is supportive at (0.98) when a 4 % discount ratio is applied to the P50. This means that for every dollar spent on these works, there is \$0.98 benefit to the community.

This is a conservative outlook as the analysis discounts the uplift created by the wider economic benefits resultant from this project. The East Coast Master Plan (when published) will provide a measurable understanding of the wider economic benefits.

Progress to Date

Activities currently underway include:

- Geotechnical investigations
- Land survey
- Highway pavement strength assessments
- Drainage condition assessments
- Environmental (flora and fauna) investigations
- Aboriginal heritage investigations and referrals
- Historic heritage considerations
- Preliminary and concept designs
- Road Safety Audits
- Flood mapping
- Consultation, including with the general public, neighbouring landowners, Glamorgan Spring Bay Council, East Coast Tourism, environmental bodies, bus companies and freight operators. This consultation has occurred through meetings, a public display promoted via a number of methods including media release, letters and social media.
- Engagement with Office of the Valuer General regarding proposed acquisition
- Engagement with Glamorgan Spring Bay municipal council regarding Planning Permit exemptions in certain areas, and Development Applications for the remainder for receipt of Planning Permit
- Construction industry engagement

Potential Impacts

Community

The stakeholder engagement undertaken to date has identified the following community impacts, with mitigations to date and proposed.

Community impact	Affected parties	Mitigations already implemented	Potential Mitigations (to be resolved during design finalisation)
Property Accesses	Adjacent title holders	One-on-one meetings with adjacent title holders to discuss access, fencing, and any other impacts that may be experienced as a result of the works.	Present the design to adjacent landowners and confirm expectations have been met. Confirmation to be sought through written agreement with landowners about fencing, gates, accesses and all impacts.
Property Acquisition	Acquisition will be required from approximately 12 properties. Most of these properties are very large and the proposed acquisition areas are relatively small. No complications are anticipated. The acquisition is to accommodate the overtaking lanes, and some corner realignments. The amount of square metres to be acquired will be determined once survey has been completed and design progressed.	One-on-one meetings with property owners to ensure they are fully briefed about the acquisition process, and that their needs and concerns are fully understood.	Acquisition to be cognisant of title holders' needs and rights. Access, fencing, gates and service easements information to be provided to the Office of the Valuer General for assessment of compensation. Proper acquisition process will follow, including issuing a notice to treat, gazettal, and execution through the titles office.
Noise	Neighbouring landowners and residents	Final design is not anticipated to have any noise related impacts on the community or residents.	Construction specifications to nominate noise limits during construction.
Traffic Management during construction	Through traffic Local traffic Emergency services Tourism industry Transport groups	Key stakeholders advised of construction program.	Construction specifications to nominate traffic management limitations during construction. It is likely that construction activities will be contractually limited during peak tourism periods to mitigate impact on traffic.

Environmental and Heritage

The multi-disciplinary investigations undertaken to date have identified the following community impacts with mitigations to date and proposed.

Environmental / Heritage Topic	Potential Impact	Mitigations already implemented	Potential Mitigations (to be resolved during design finalisation)
Aboriginal Heritage	Discovery of artefacts could require design changes, impacting cost and timeframes.	Impacts assessed during the development phase of the project, including referral to Aboriginal Heritage Tasmania, with designs adjusted where appropriate.	Communicate and discuss investigation findings with Aboriginal Heritage groups in areas of concern. Alternative road alignment, or no works in some areas may need to be considered.
Natural values	Significant flora and/or fauna could require design changes, impacting cost and timeframes.	Impacts assessed during the development phase of the project with designs adjusted where appropriate.	Communicate and discuss investigation findings with environmental groups. Alternative road alignment, or no works in some areas may need to be considered.

Other Infrastructure providers

The site survey undertaken to date have identified the following infrastructure with mitigations to date and proposed.

TasNetworks overhead power	Potential Impact	Mitigations already implemented	Potential Mitigations (to be resolved during design finalisation)
TasNetworks	Power poles will need to be relocated in places to accommodate widening, overtaking lanes and realignment.	Early engagement with TasNetworks has taken place to ensure the works take place at the earliest opportunity.	In the event TasNetworks are unable to complete the relocations before construction, the specifications may advise the Contractor to start in low-risk locations where pole relocations are not impacting the works.

Funding and Cost

The works are funded under the Great Eastern Drive Tourism Support – Additional Packages project, which has a commitment of \$25 million from the Tasmanian Government and \$100 million from the Australian Government.

The current cost estimate is summarised below.

Item	P50 estimate	P90 estimate	Notes
Base Estimate	\$40,594,400	\$40,594,400	Works including investigations, design, community engagement, approvals, acquisition (including related compensation), project management and construction.
Contingency	\$4,899,900	\$14,132,900	Contingency 12 % (P50) to 35 % (P90) of base estimate.
Escalation	\$784,700	\$919,500	Escalation 8 % - 9.5 % of base estimate. Refer below for discussion.
Total	\$46,279,000	\$55,646,800	

This demonstrates that the works are currently forecast to be delivered well within budget. Additional works yet to be determined are expected to make up the balance of funding.

Contingency

The contingency allowance provides for contingent events – that is events which may or may not occur. For this project, key contingent risk items include:

- geotechnical risk (unsuitable material and slope instability)
- market risk with contractor availability
- material costs
- service relocations
- design complications to incorporate conforming accesses to businesses.

Escalation

The escalation allowance is a provision in costs for changes in economic and market conditions over time.

Estimates of escalation are not intended to be precise forecast of future prices; they are approximations intended to represent the average trends for a large group of projects in a broad region.

The escalation rate for Australian and Tasmanian Government funded projects is determined by the Australian Government and is included in the project cost estimates as part of funding submissions.

For Tasmanian Government funded projects, the escalation has been determined in line with the Australian Government Escalation Index Series.

Timing

Future activities include:

- advertise tenders (September 2023)
- close tenders (October 2023)
- assess tenders and award contract (November 2023-December 2023)
- service relocations (November 2023)
- commence construction (January 2024)
- complete construction (April 2025)
- close out project (late 2025)

These works are being presented to the Public Works Committee at this time to allow necessary safety and travel time predictability improvements to be made to the Great Eastern Drive.

Conclusion and Recommendation

The proposed Great Eastern Drive Tourism Support – Additional Packages Component I works have been developed in response to safety concerns and a desire to improve efficiency outcomes in the identified sections of the corridor.

The proposed works comprise overtaking lanes, widening narrow sections of the road, and realigning a small number of locations that experience crash clusters. Key benefits of these works include:

- a higher level of road safety by widening and realigning
- improved travel time predictability through the introduction of overtaking lanes

The works are in the development phase and construction tenders are scheduled to be advertised in September 2023, subject to receipt of PWC and other relevant approvals.

The estimated cost of the works is \$55.6 million, which is within the budget of \$125 million¹. The current cost estimate is considered reasonable for the scale and scope of works proposed.

These Great Eastern Drive Tourism Support – Additional Packages Component I works are considered to be a fit for purpose and value for money solution to address the existing community need of improving safety and efficiency outcomes on the Great Eastern Drive.

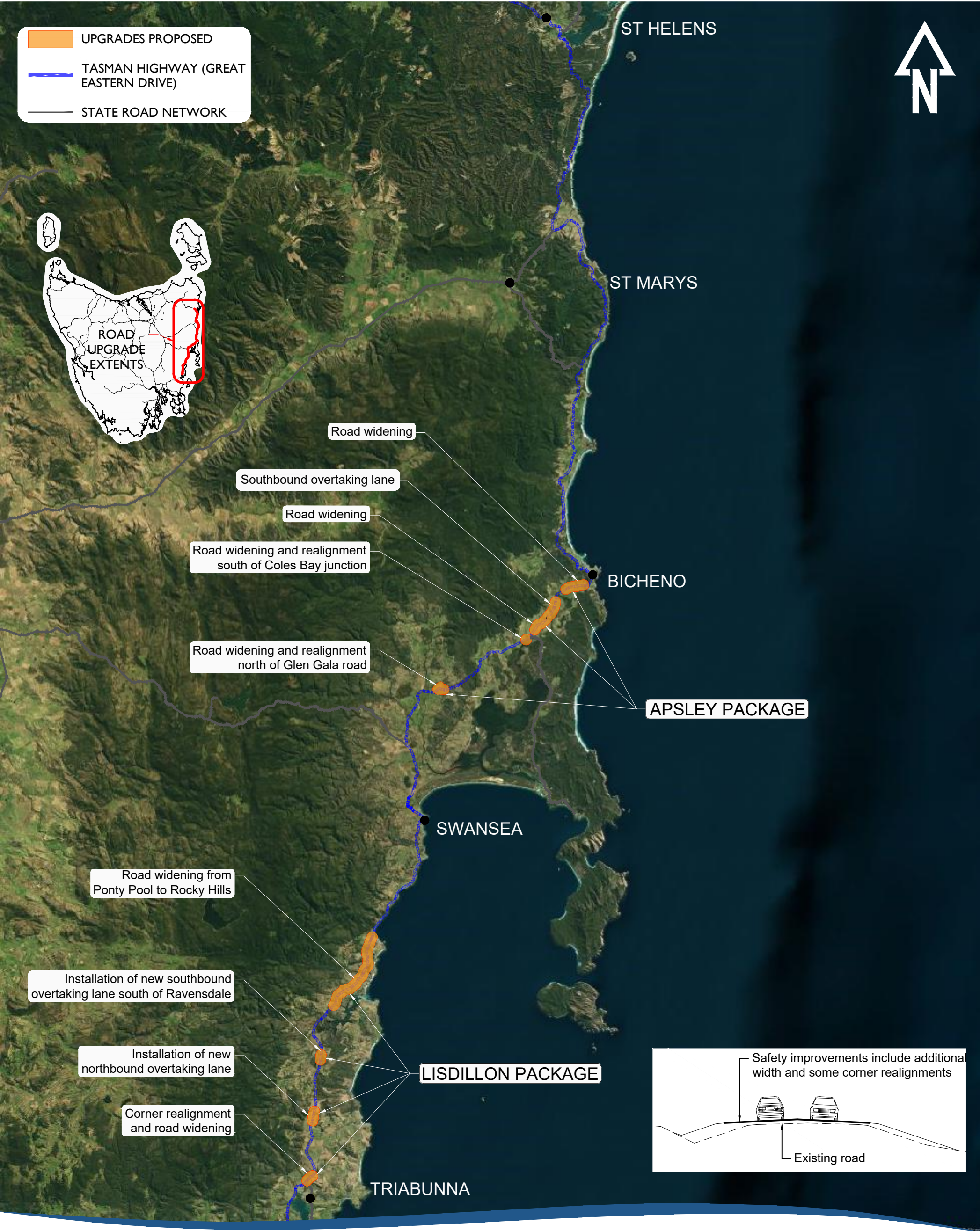
¹ Contributions: \$100M Australian Government (80%), \$25M Tasmanian Government (20%)

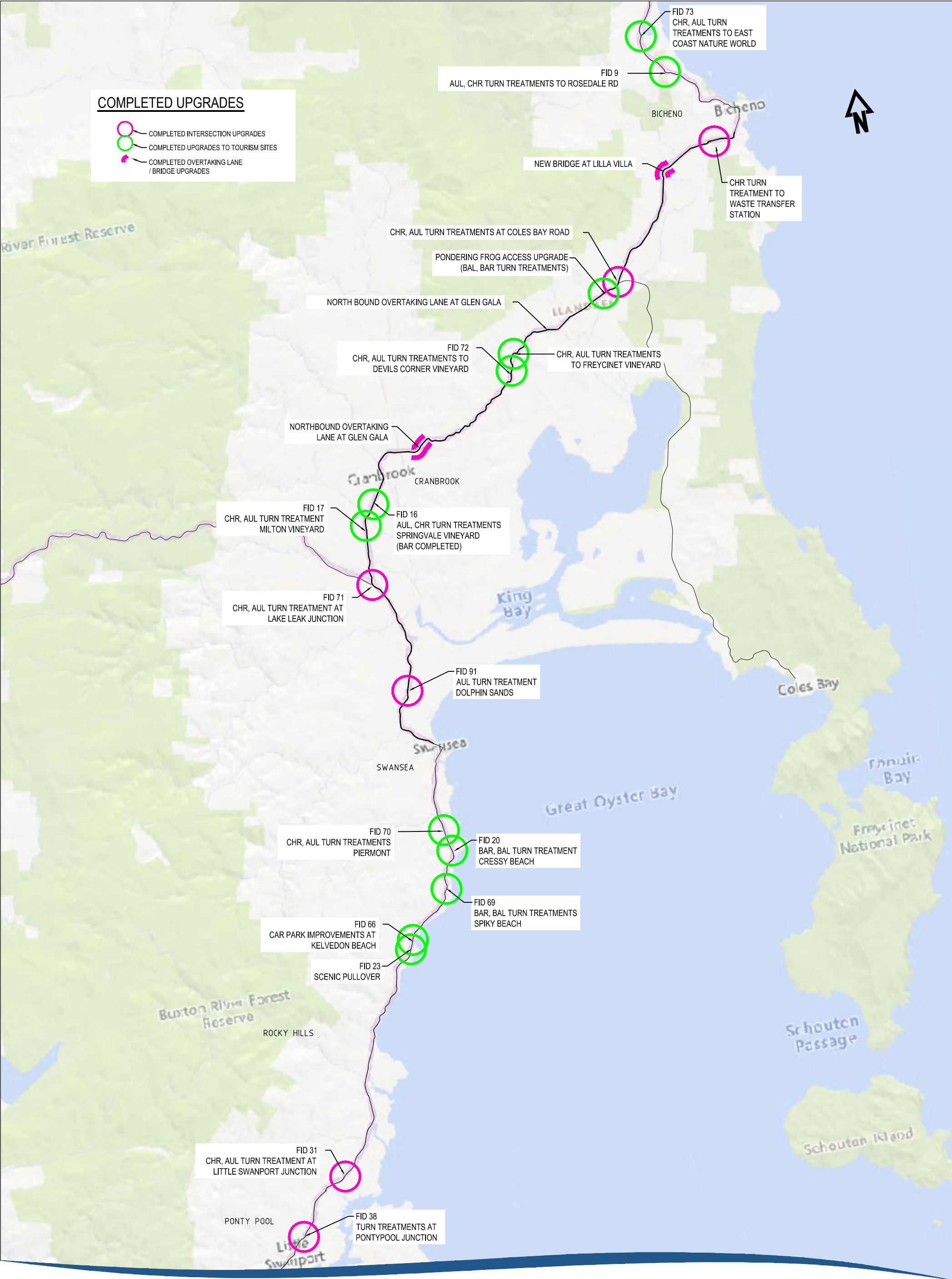
Attachments

Attachment A: Public Display Drawings

Attachment B: Recently Completed Works

GREAT EASTERN DRIVE TOURISM SUPPORT - ADDITIONAL PACKAGES
COMPONENT 1 DESIGN PACKAGE EXTENTS







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