



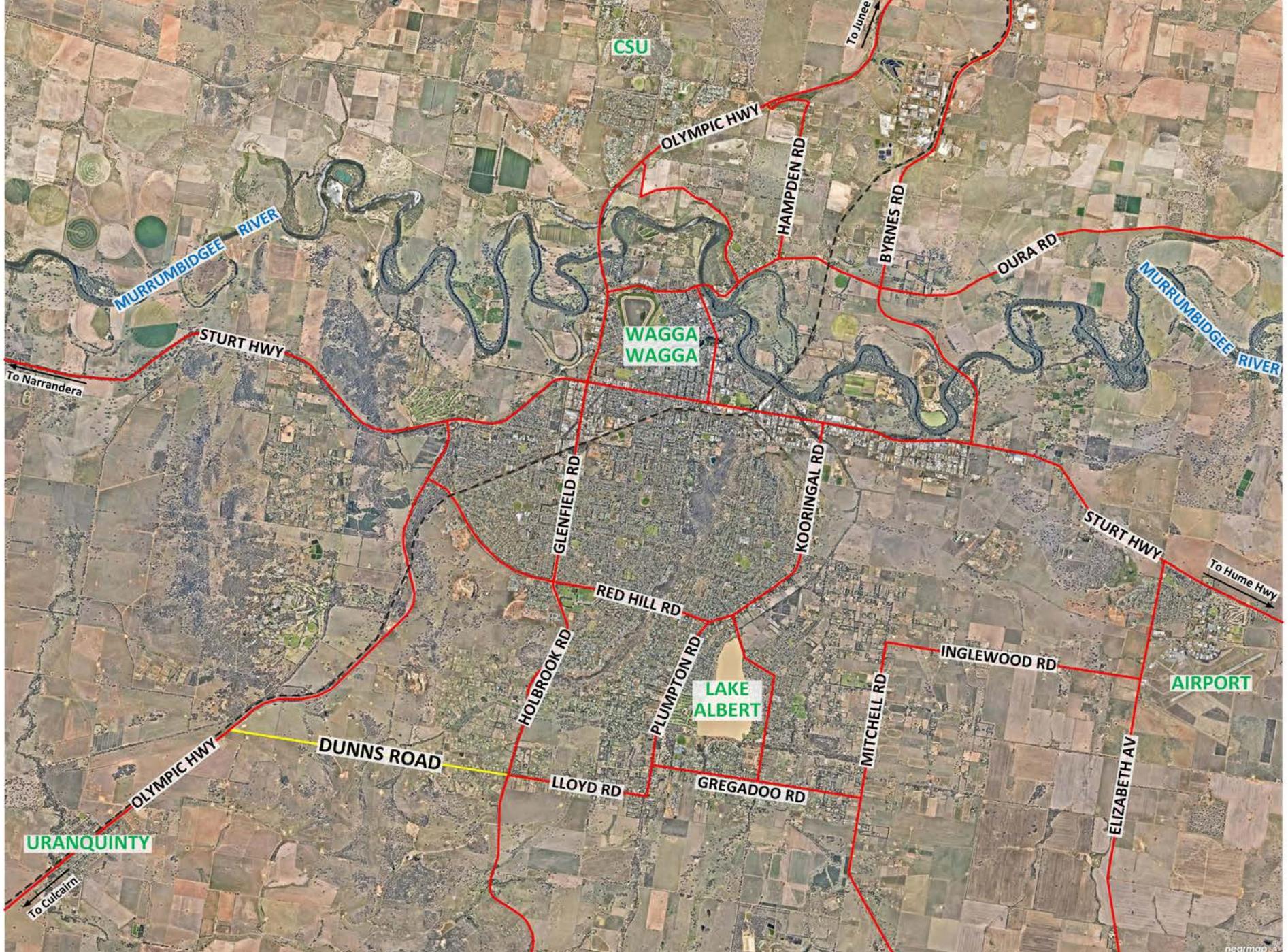
Dunns Road Corridor Upgrade Investigation

17 September 2018

Dunns Road runs east-west from Olympic Highway to Holbrook Road.

Crests have been sealed as well as the easternmost 1.8 km, with the remainder unsealed, narrow with known safety issues.

Federal Government has allocated up to \$2.5M match funding to upgrade Dunns Road.



CSU

WAGGA
WAGGA

LAKE
ALBERT

AIRPORT

MURRUMBIDGEE RIVER

MURRUMBIDGEE RIVER

OLYMPIC HWY

STURT HWY

STURT HWY

OLYMPIC HWY

DUNNS ROAD

LLOYD RD

GREGADOO RD

INGLEWOOD RD

ELIZABETH AV

HAMPDEN RD

BYRNES RD

OURA RD

GLENFIELD RD

RED HILL RD

KOORINGAL RD

HOLBROOK RD

PLUMPTON RD

MITCHELL RD

To Narrandera

To Junee

To Hume Hwy

To Culcairn

Consultancy Scope

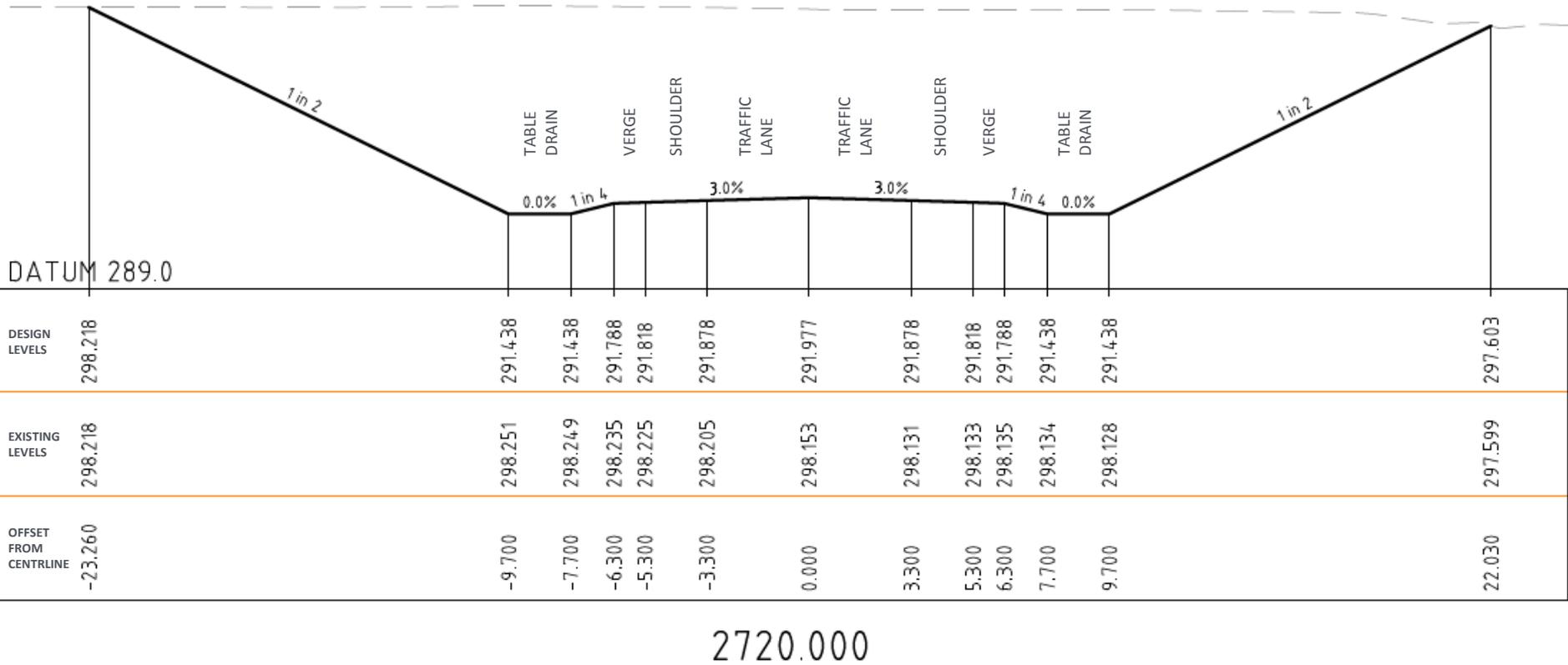
- Review background data
- Provide design criteria
- Review WWCC Dunns Road upgrade design
- Review 2003 Maunsell road safety report
- Report on safety, traffic and financial implications of the Dunns Road Upgrade and potential alternate projects

Design Criteria

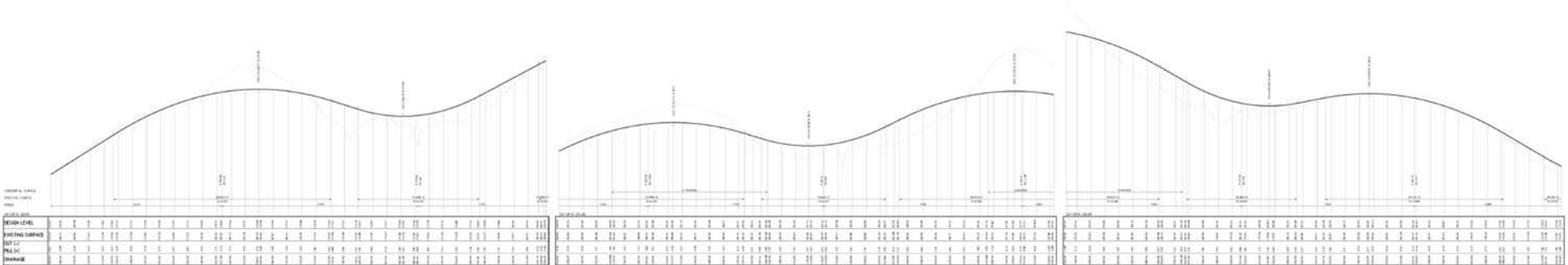
Design criteria were provided to WWCC based on:

- WWCC Engineering Guidelines for Subdivisions and Development Standards – Part 2 Guidelines for Design of Roads
- Austroads Guide to Road Design
- RMS Supplements to Austroads Guides (for Olympic Highway intersection)
- RMS Speed Zoning Guidelines
- Design criteria was utilised by WWCC to create a high level design for Dunns Rd Upgrade

Dunns Rd Design Typical Cross Section



Dunns Rd Design Overview Plan



Review of Road Safety Audit

SMEC's assessment shows there are still critical safety issues on Dunns Road, including:

- Road geometry and pavement width not suitable for the 80km/h posted speed
- Unsealed pavement not suitable for the vertical geometry and 80km/h posted speed
- Various non-frangible hazards are present in the clear zone (e.g. power poles and trees)
- Intersection with Holbrook Road still allows drivers to “see through” the intersection which could result in drivers continuing across Holbrook Road without consideration of cross traffic

Dunns Rd Crash Data Analysis

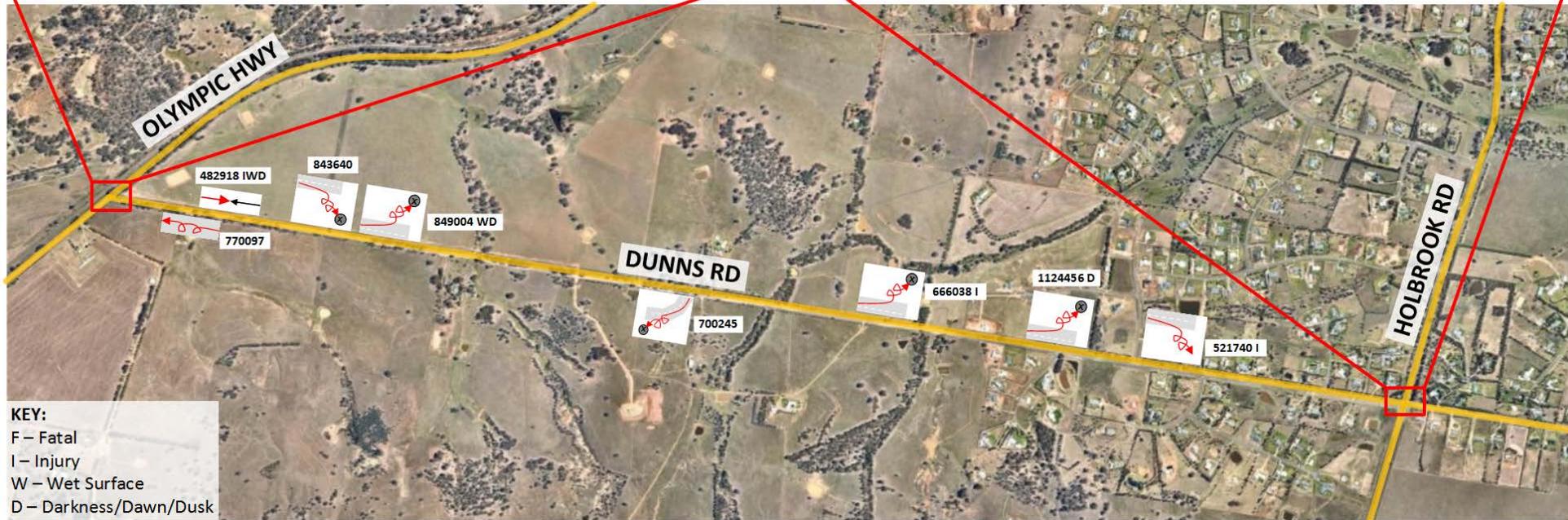
Crash data from RMS was provided for the WWCC region from 2005 to 2017.

The accident data indicates that there were 19 crashes on Dunns Road in this period, one of which was fatal.

This particular fatal crash related to a vehicle leaving Lloyd Road and turning right into Holbrook Road.

A high proportion of the crashes occurred at the intersection with Holbrook Road.

Dunns Rd Crash History Map (2005-2017)



KEY:
 F – Fatal
 I – Injury
 W – Wet Surface
 D – Darkness/Dawn/Dusk

Community Consultation

WWCC and SMEC undertook three community engagement sessions. Two of these occurred on Monday 21 May 2018 with another session on Tuesday 22 May 2018.

There were strong community views both for upgrading and closing Dunns Road.

Aboriginal Heritage

An Aboriginal Heritage Investigation has been carried out in the Dunns Road corridor.

Findings include a Ring Tree with 3 visible rings. This tree is of significant heritage value and is located immediately adjacent the existing Dunns Road. Further investigation is currently being undertaken.



Design Review

SMEC provided comments on the design.

It was found that the design was generally consistent with design guidelines.

A number of considerations for future design stages were provided which could result in cost savings.

Traffic Assessment

Traffic operations around the Dunns Road area were assessed based on current counts and future (2036) strategic transport model forecasts.

No issues were found, with the current network and committed future upgrades able to accommodate the traffic, whether Dunns Road is upgraded or not.

If Dunns Road is upgraded, more detailed modelling will be required to analyse possible flow on effects to Lloyd Road, Plumpton Road and Gregadoo Road.

Cost Estimates

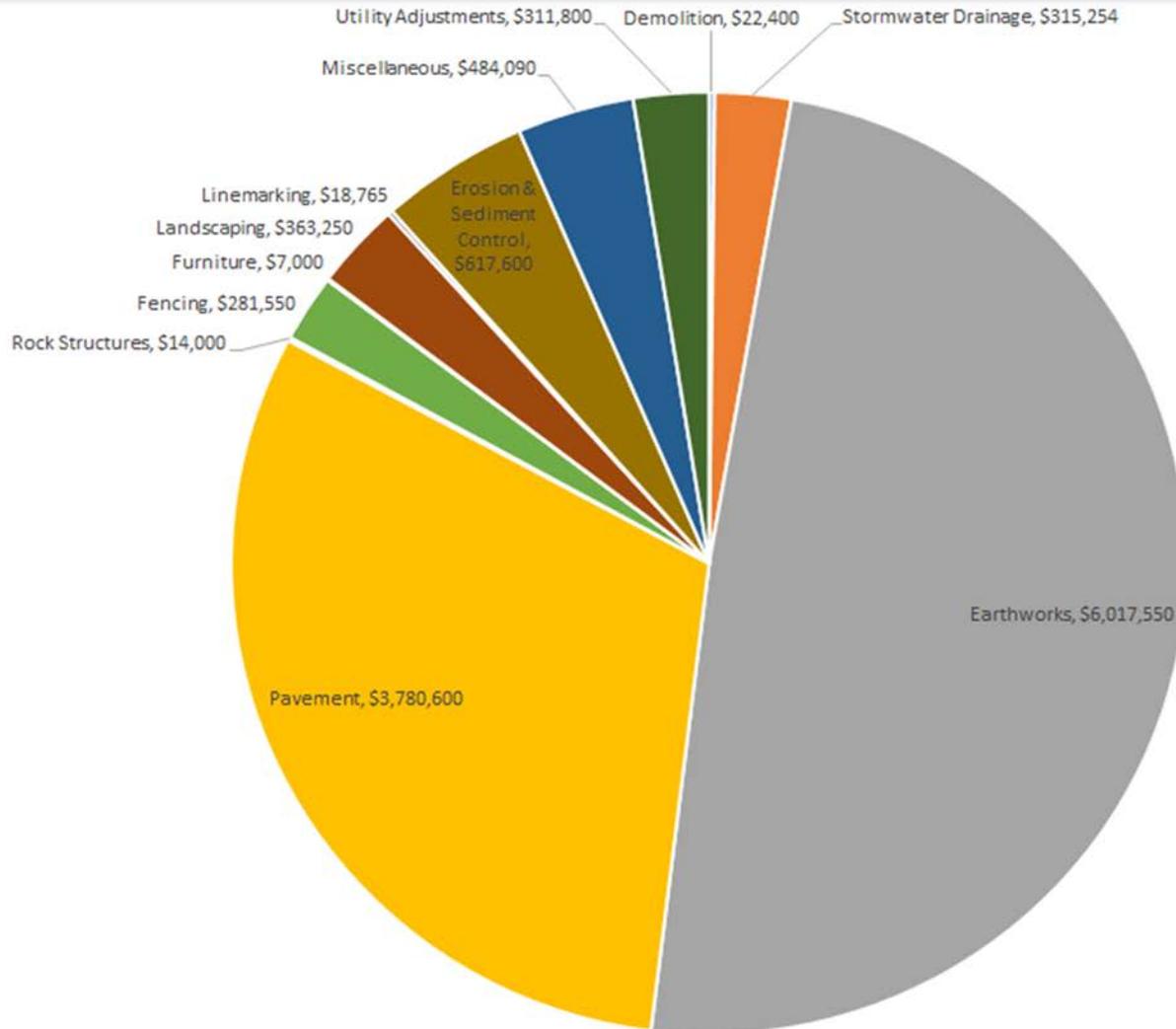
Cost estimates for the latest design were conducted.

The base project cost was found to be \$20.6M, including GST and 30% contingency.

The estimate includes provision for the Olympic Highway intersection upgrade and construction of a roundabout at Dunns Road/Holbrook Road.

Rock cutting costs are a large proportion of the cost estimate and further geotechnical investigations may reduce the cost.

Cost Estimate Breakdown



Alternate Safety Upgrades

Possible alternate options to funding grant include:

1. Minimal modifications to Dunns Road
2. Farrer Road
3. Pine Gully Road
4. Red Hill Road

Note that if the federal funding is used for any road other than Dunns Road, Dunns Road may have to be closed to through traffic for the other projects to be eligible for the funding.

Possible Modifications to Dunns Road

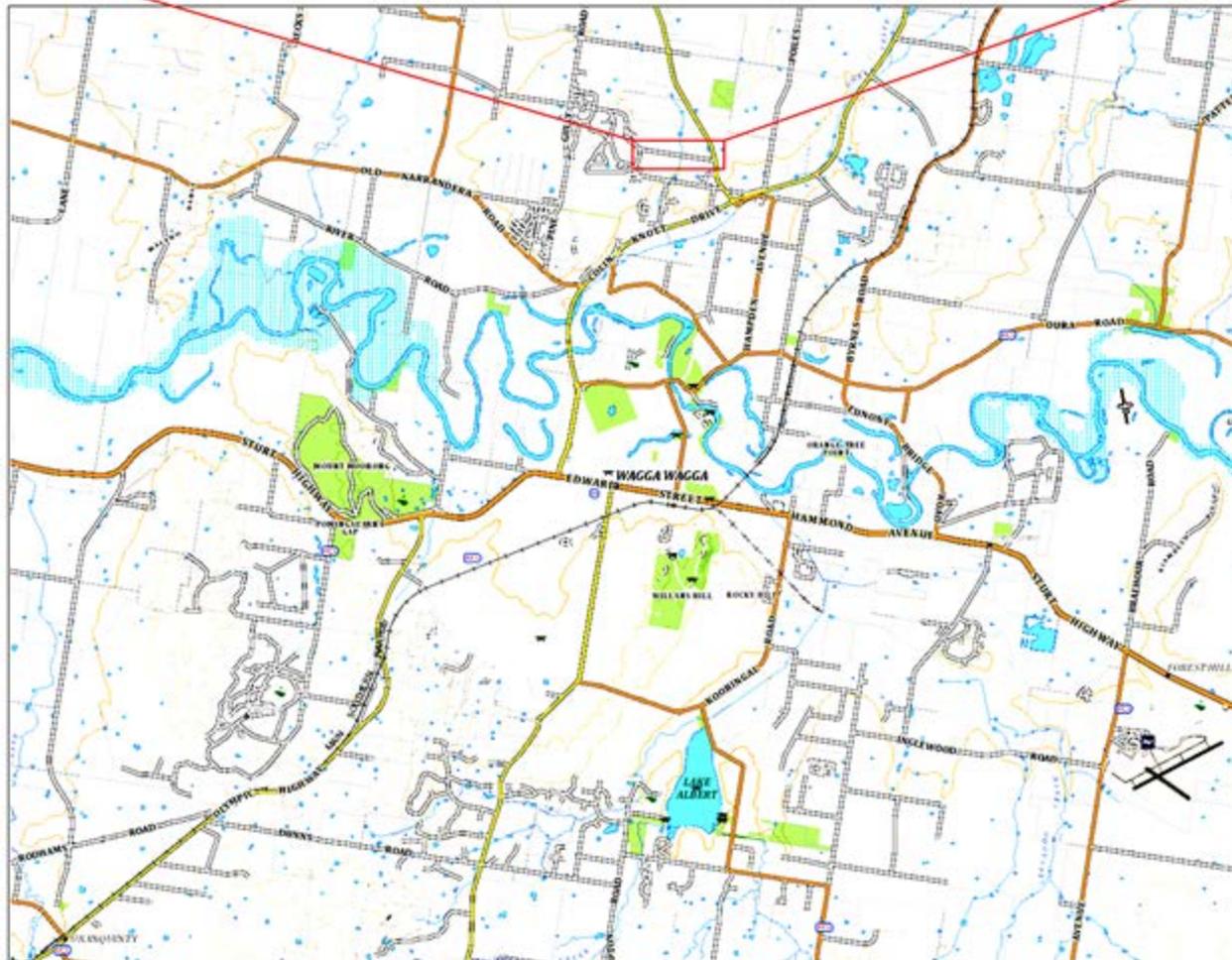
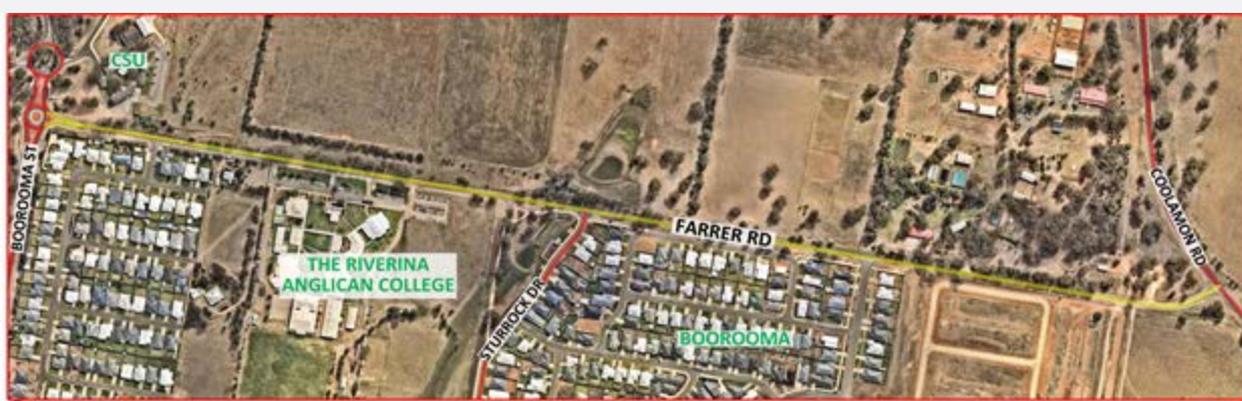
- Staggered intersection with Holbrook Road and Lloyd Road
- Roundabout intersection with Holbrook Road and Lloyd Road
- Traffic calming measures

Farrer Road

Recent development in Estella, Boorooma and Gobbagombalin has resulted in higher traffic volumes on Farrer Road.

This is expected to continue to increase with continued growth in these areas.

The estimated cost to upgrade Farrer Road to four lanes is \$9.34 million



Pine Gully Road

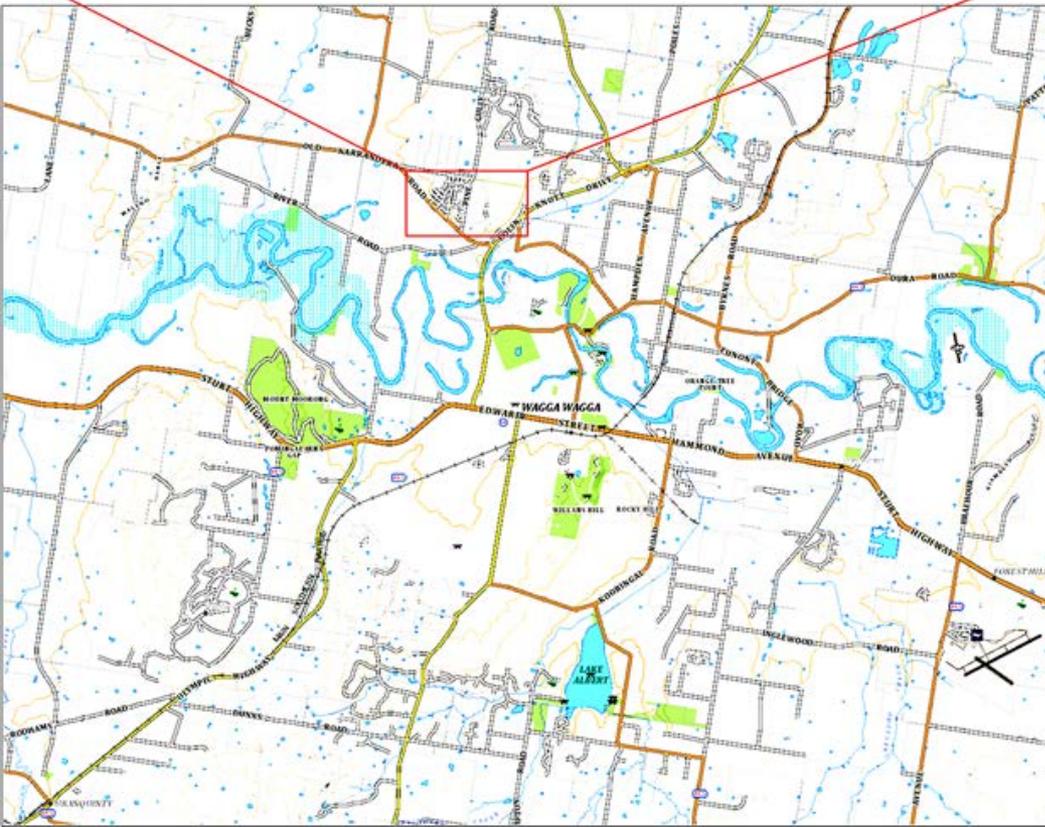
Recent development in Estella and Gobbagombalin (Estella Rise) has resulted in higher traffic volumes on Pine Gully Road. This road is also the main access to CSU student accommodation and agricultural sites.

Traffic volumes are expected to continue to increase with continued growth in these areas.

Pine Gully Road has experienced 32 crashes from 2005-2016 including 2 fatalities and 22 injury crashes.

Proposed works includes the addition of two new major intersections and several minor intersections to access Estella Rise (south of Estella Road). The intersection with Old Narrandera Rd is also proposed to be reconfigured.

WWCC financial documents suggest that the expected cost of upgrading Pine Gully Road to four lanes would be \$6.87 million. This is consistent with what is expected for this type of upgrade.



Red Hill Road

Traffic survey data supplied by WWCC indicate that the current (2013) traffic volumes on Red Hill Road, east of Olympic Highway are 2,680 vpd. By 2035, these volumes are expected to rise to approximately 5,000-6,000 vpd.

WWCC financial documents suggest that the expected cost of widening Red Hill Road to four lanes would be \$3.87.

