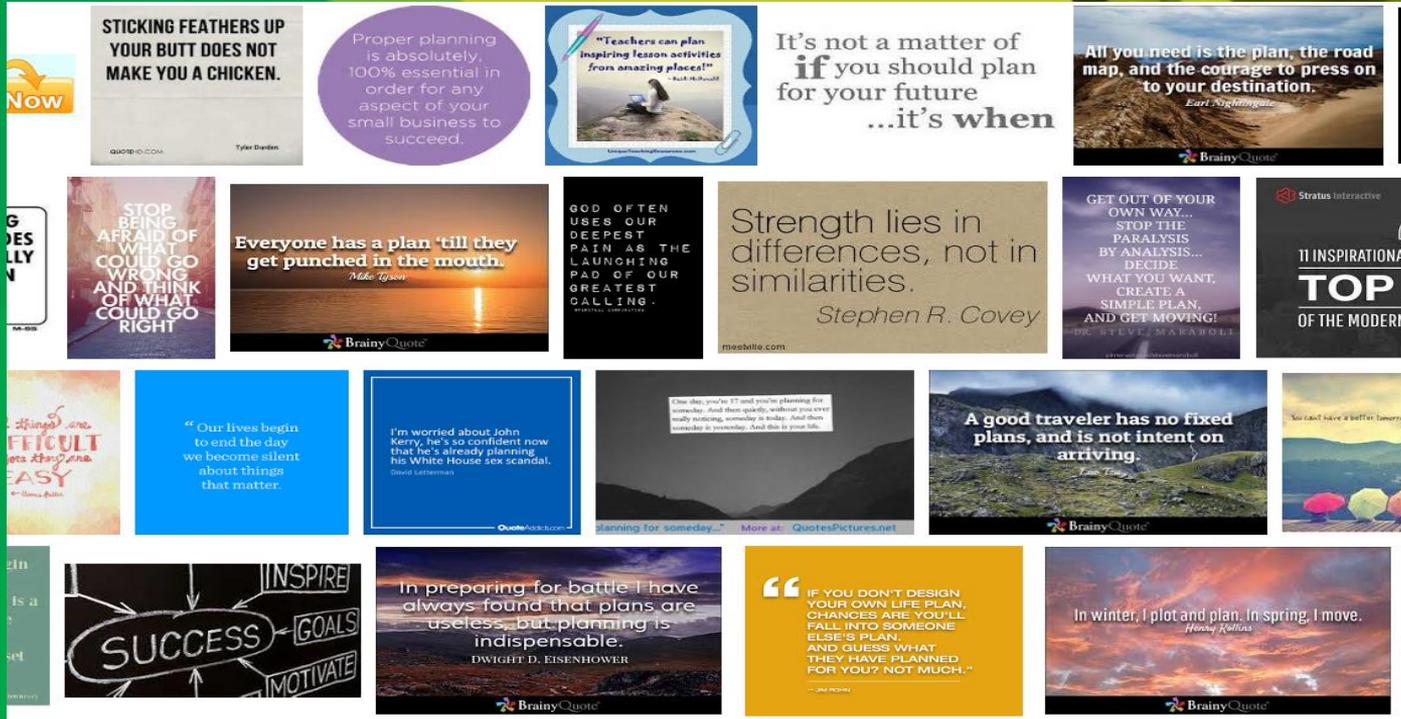


A photograph of a concrete bridge spanning a river. The bridge has several piers and a metal railing. The banks are covered in lush green grass and some trees are visible in the background under a clear blue sky. The text "Rossbridge: building the bridge is the easy part!" is overlaid in white at the top of the image.

Rossbridge: building the bridge is  
the easy part!

David Hildebrand – Senior Officer  
Asset Management.

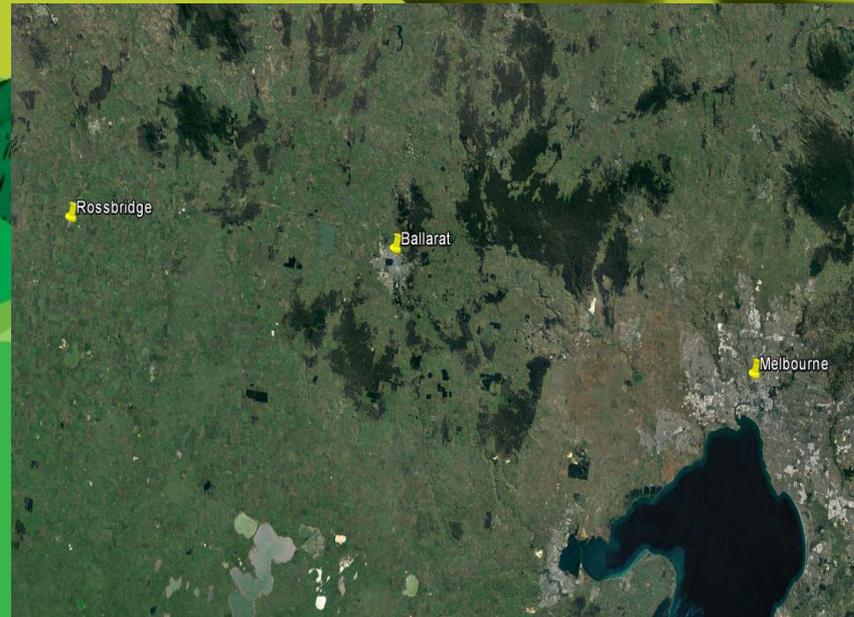
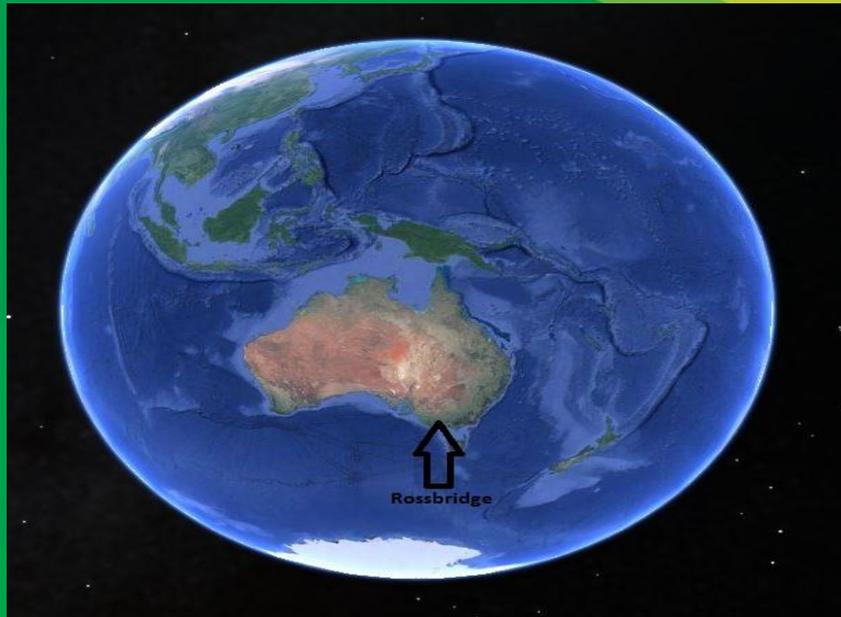
# Today is essentially a discussion on planning a vicroads small bridge replacement project.



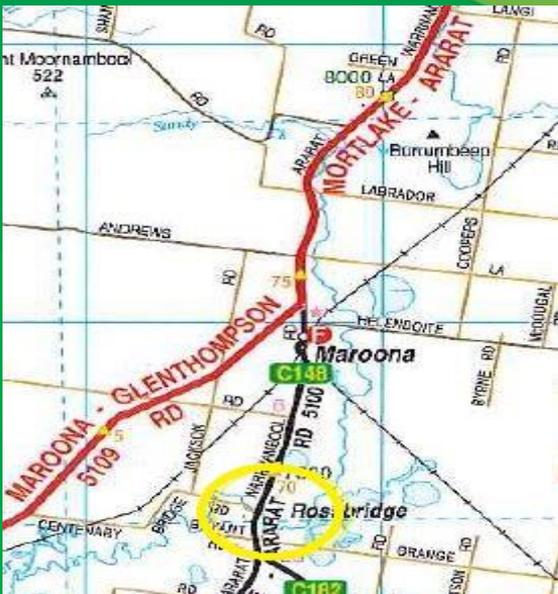
Why we did it, how we did it and what we ended up with.



# Where are we?



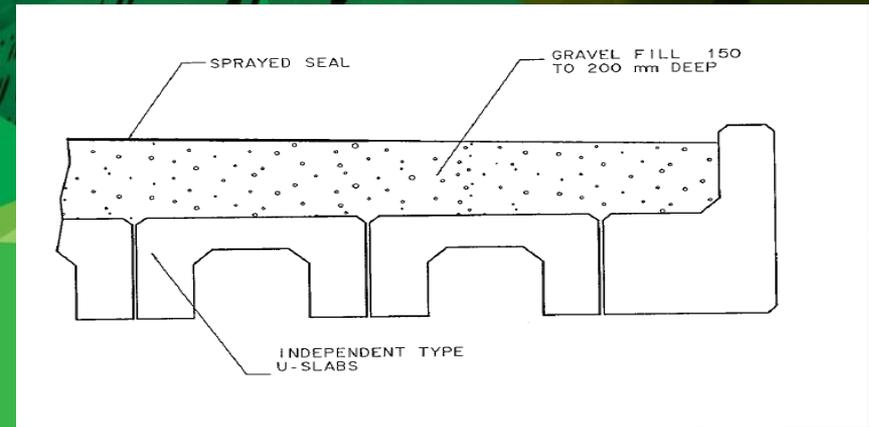
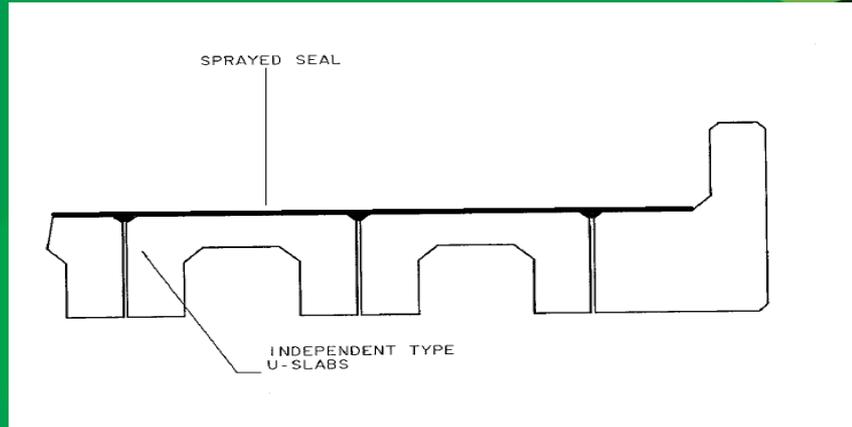
We are here.



# Primary structure and secondary structure.



# A brief on u-slab structures



And why are we at Rossbridge?



No really; why are we here?



Oh...any other reasons?

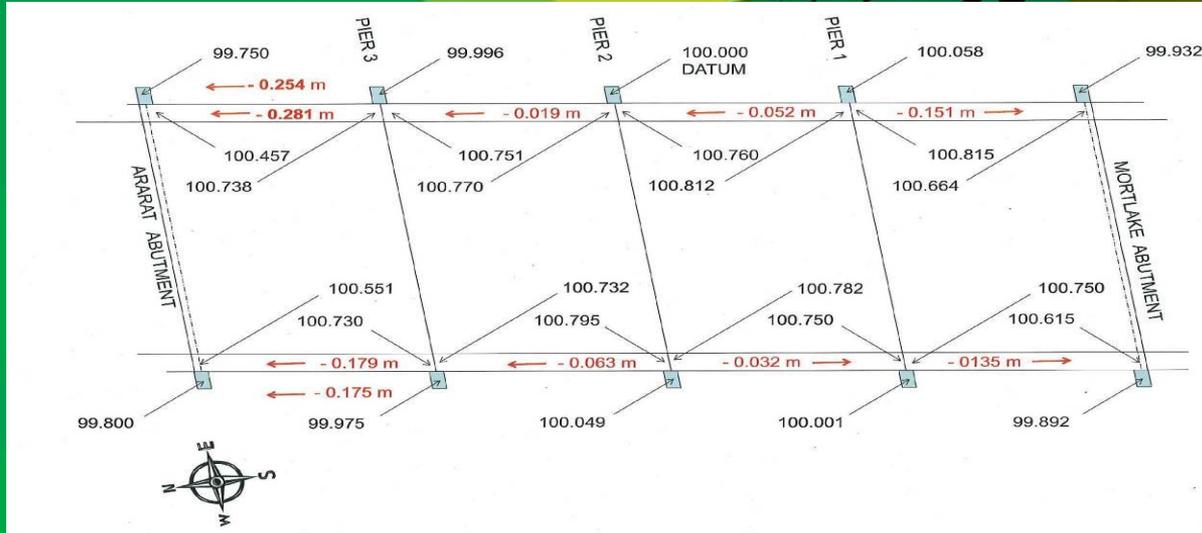


And then there were these...A1 and A2  vicroads



So...not good, then what?

An Inspection! (Level 3)



# Recommendations from the Level 3 Inspection



## 4 Recommendations

### 4.1 Immediate Action

It is recommended that the following immediate actions be undertaken

- **Strengthening of deck**  
This should be undertaken using steel plates over the entire spans 1 and 4 so that should a U-slab fail, either through overloading or stability issues, vehicles will not be endangered. The plates would also distribute wheel loading in an improved manner to the pavement, reducing the likelihood of a slab failure.  
A concept design for the plates is included in Appendix D
- **Speed limit reduction**  
Due to the presence of the plates, an associated speed limit reduction should be introduced. Impact with plate edges, and general movement of plates will be reduced significantly if the speed limit is reduced to 40 km/h
- **Banning of Heavy Vehicle Loads**  
With the introduction of the steel plates and the speed limit, normal legal vehicles, including Higher Mass Limits vehicle can continue to use the structure, however permit loads, HPFV and 60t/48t cranes should be banned.

### 4.2 Longer Term Action

It is recommended that the Region investigate available funding for a new structure over Hopkins River. If the funding is available, the superior long term option is to replace both structures (SN4162 and SN4163) with single span structures at the same time to minimize traffic disruption.

If the funding is not available, then replacement of the river bridge only (SN4163) should be undertaken utilizing a shallower multispan structure. Strengthening/replacement of the floodway bridge would then become a separate future project.

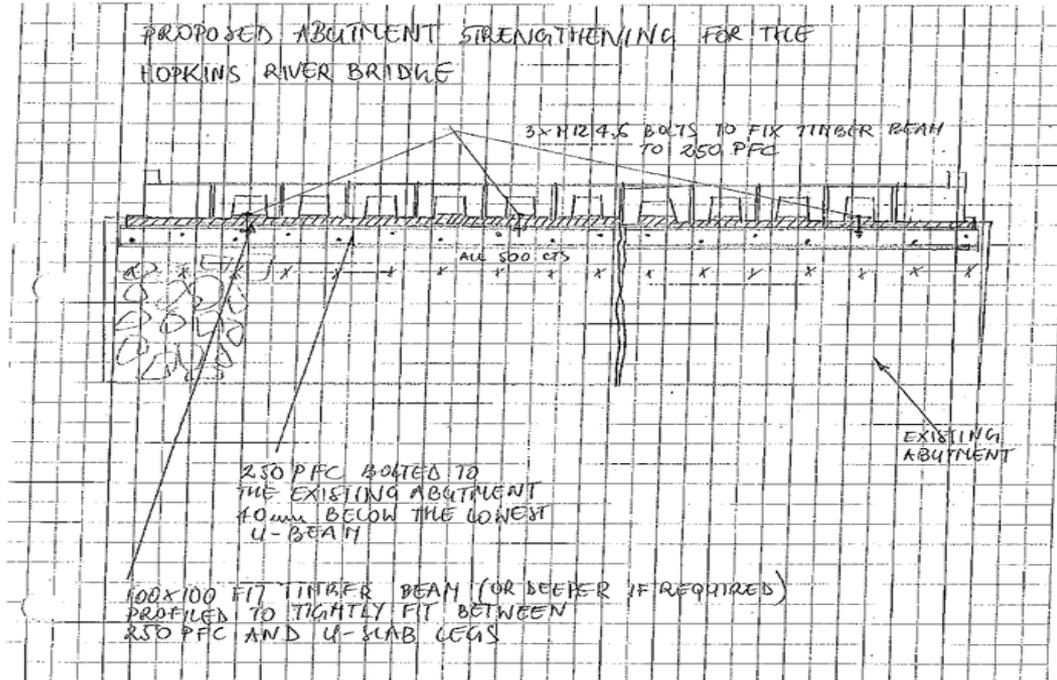
# Recommendations (cont)

Job Name: NORTLAKE - ARARAT ROAD

By: T. Wydyms

TECHNICAL SERVICES  
STRUCTURES

Description: HOPKINS RIVER BRIDGE



Emergency bracing added as recommended.  vicroads



# Restricting heavy vehicles.





# Some Archaeology.



And a lot of environmental work



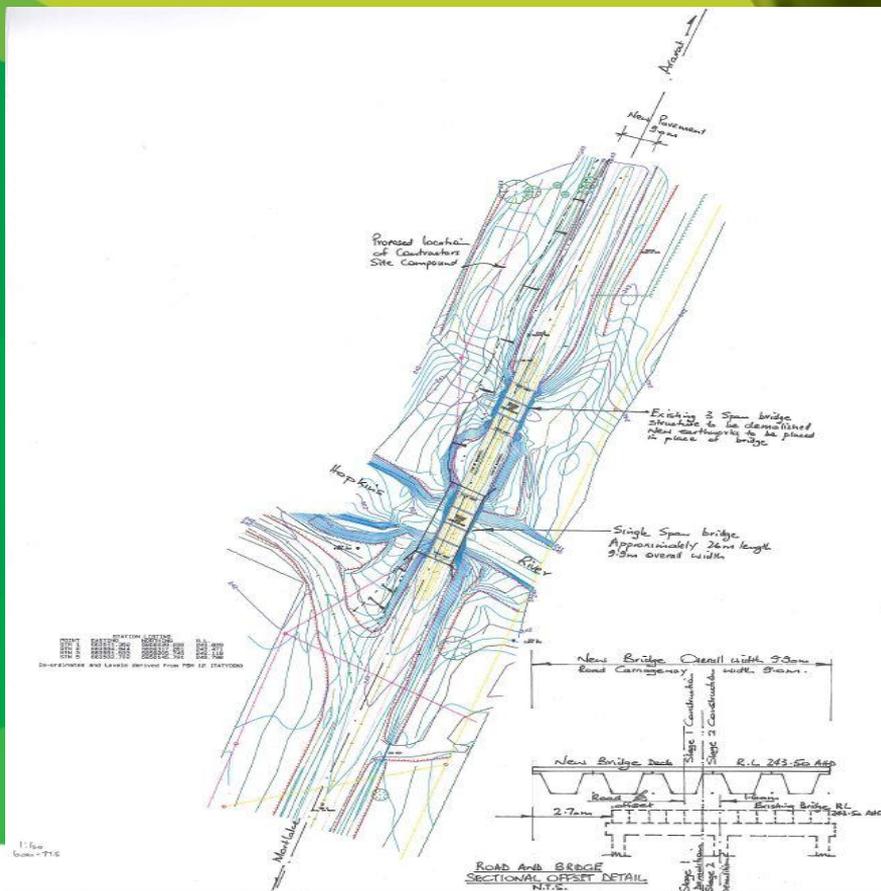
# Growling Grass Frog and Striped Legless



## Lizard



# And some concept development.

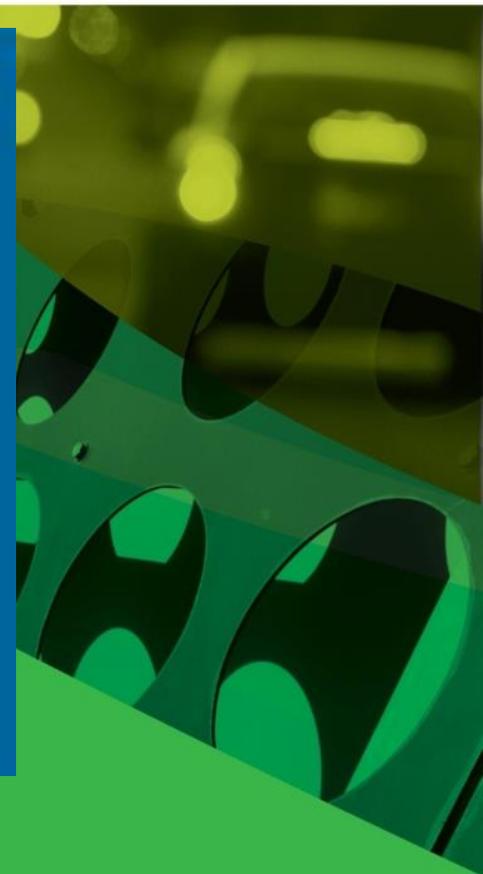


Now it was time to have discussions with  
management...

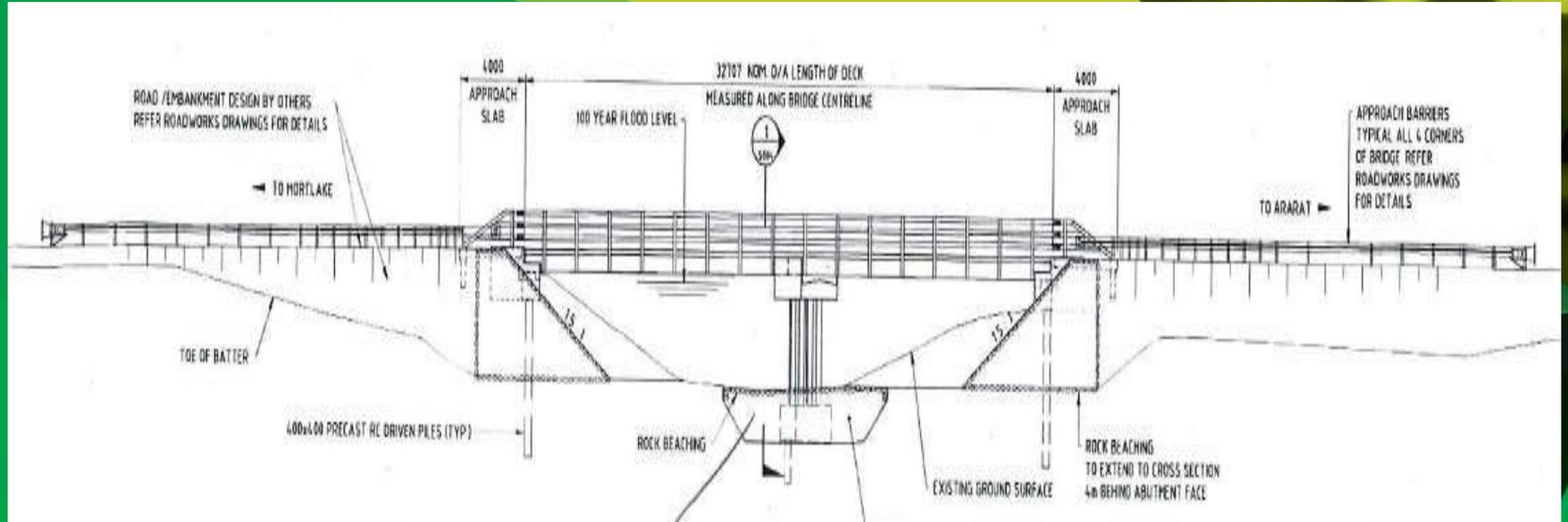




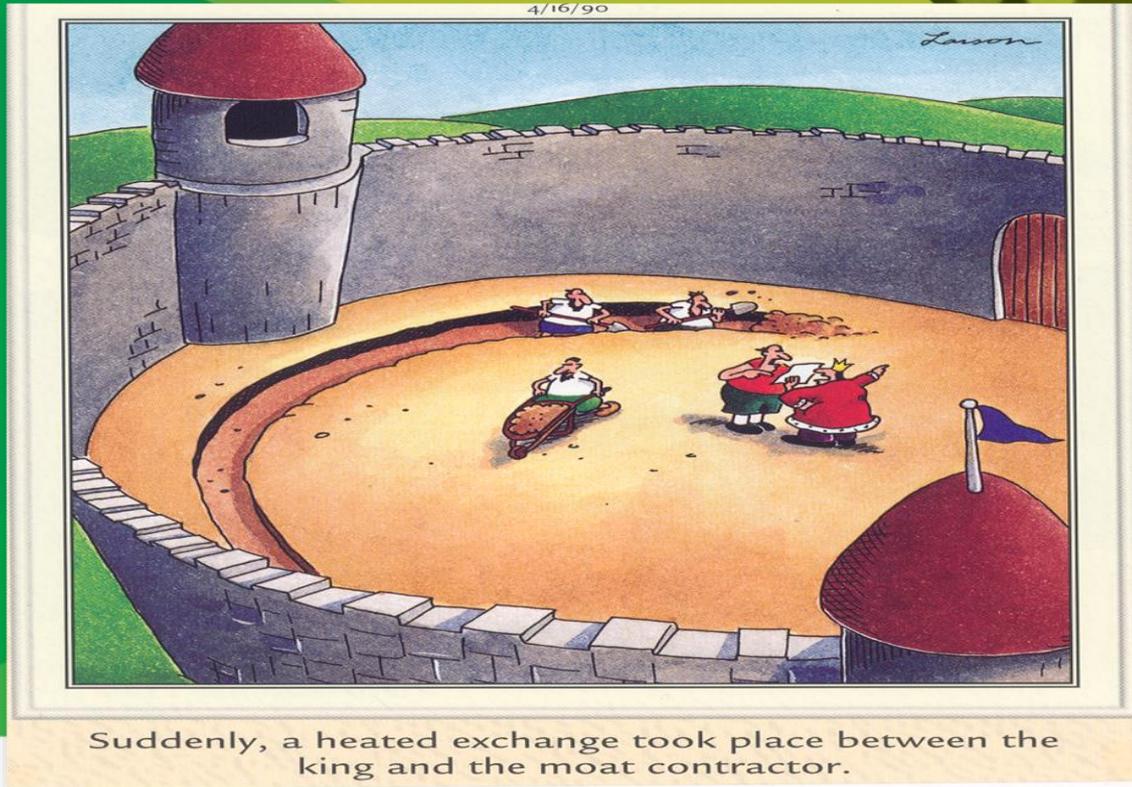
And ask for money...



A beautiful thing and a joy to behold. 



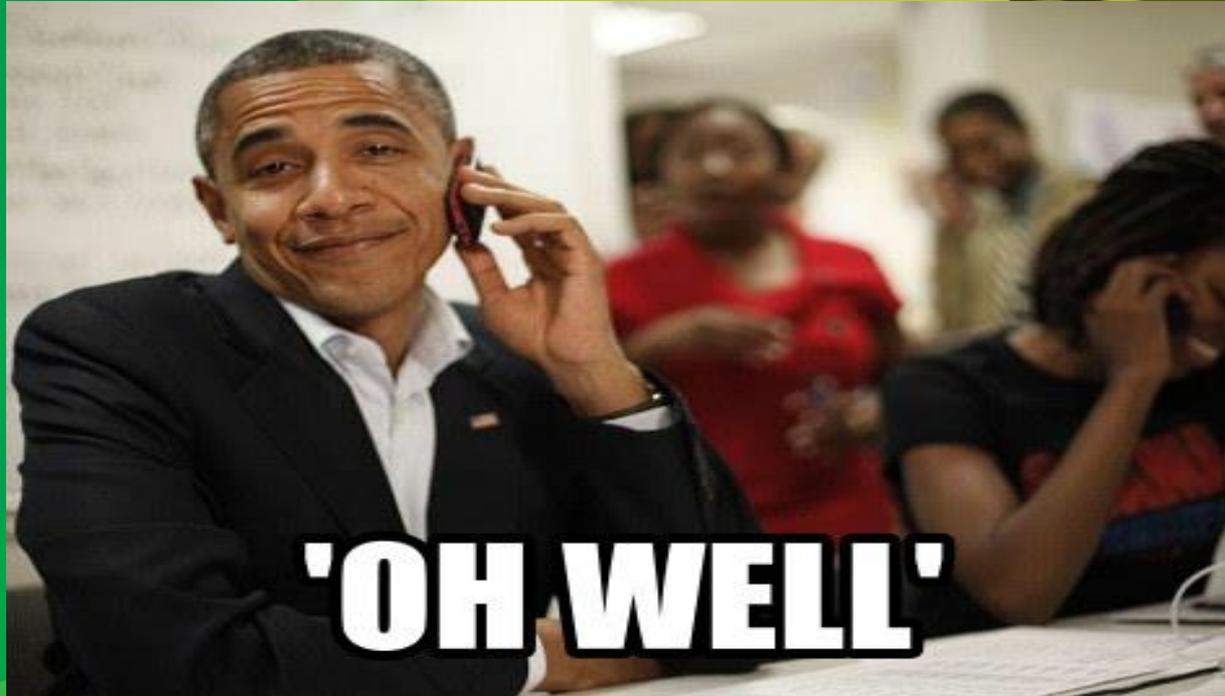
So after nearly 2 years and more than 1000 hours of documented work we went out to tender and got...



In Summary: Alternative tender accepted.

The road will be closed for 2 months.

The use of EPS blocks has been dropped.



Questions later but first I need to thank...



- Andrew Bourke (dec), Sat Satkunam (the curious statutory planner having a sandwich by the Hopkins River), Grant Deeble, Bradley Pryor, Frank Carland, Natasha Kennedy, Laurie Watson, Paul Sheridan, Amy Wood and the team at Biosis Pty Ltd, Ron Hawken and the team from VicRoads Technical Services, Kee Ho Kong and the team from VicRoads Geotechnical Services, Tim Chatfield and the Martang, Richard Hall Photography, Ewen Nevett – VicRoads Regional Director Western Victoria, Troy Berry, Marinko Vojvodic and Dick Fugiel, Trevor Young and...

And this guy...well not literally this guy  
but a guy just like him.

