Railway Street Car Park Design Proposal

by Mark Goodlet

Main Roads WA trained road designer 20+ years road design experience

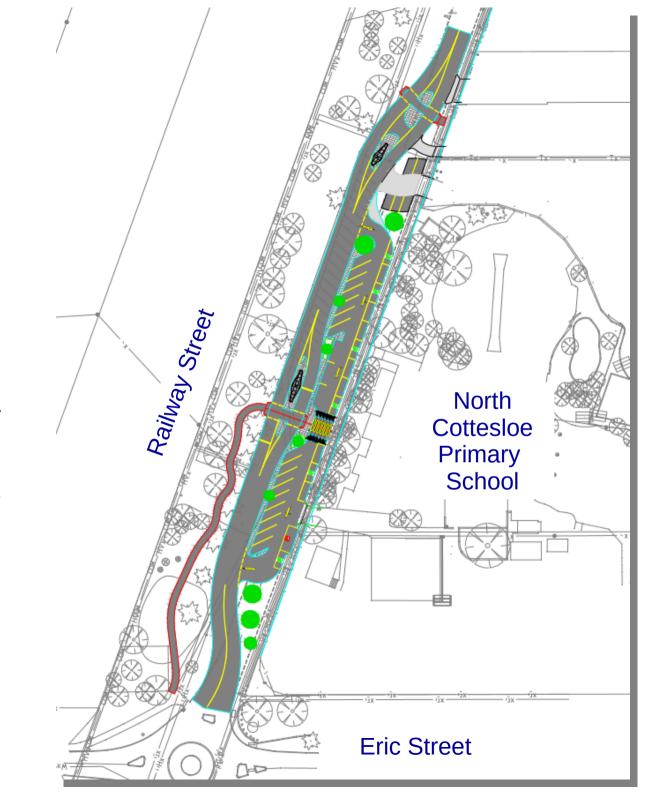
Chartered Professional Civil Engineer

1st class honours degree + master of project management

and more importantly - father to Esther and Darcy, NCPS Students

Design Brief

"The clear objective is to create a more accessible and safe environment for the school, while attempting to effect improvements for the community." (NCPS Board - June 2105)



Key Features

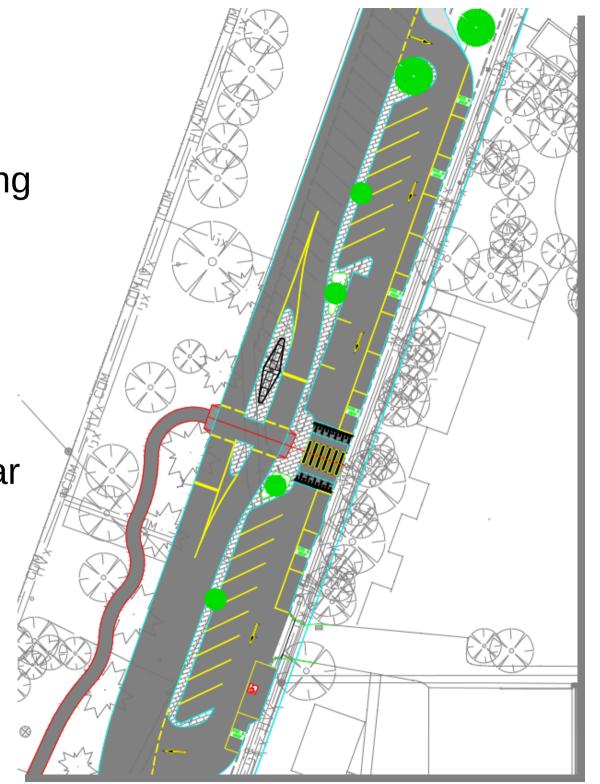
1) 38 car bays, including kiss-n-drop bays

2) + 36 bays in Eric St

3) = Total of 64 bays

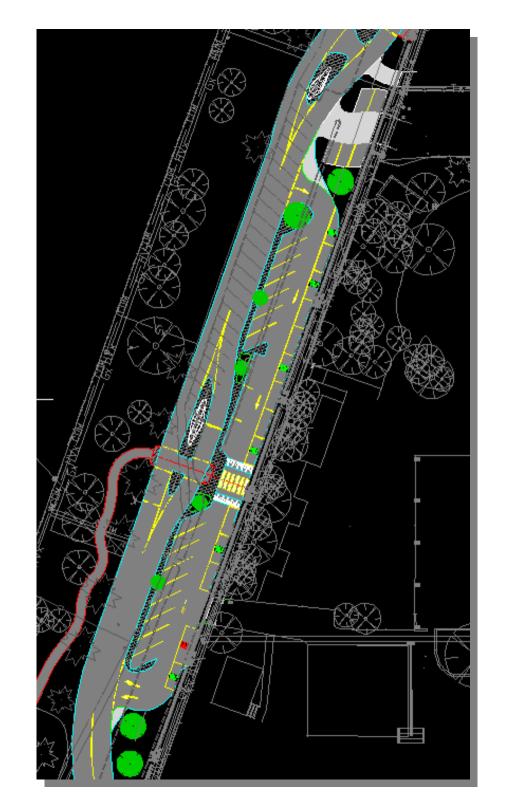
4) Retains assisted (guard) pedestrian crossing

5) One way traffic in car park



Parking Benefits

- 6) Kiss-n-drop adjacent to school = safer access
- 7) Parking bays on east side of Railway St = safer access
- 8) 5 bays dedicated to Wanslea
- 9) Compliant ACROD bay
- 10) Bus and garbage truck compliant access into car park



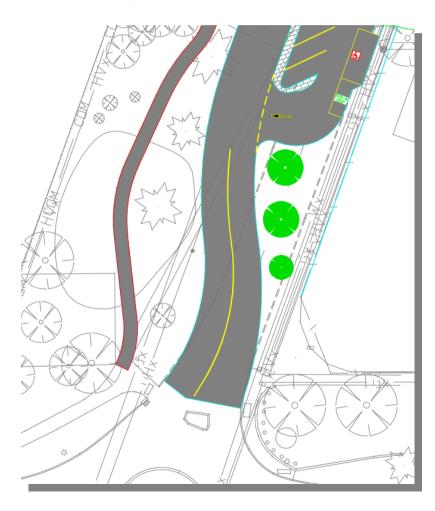
Traffic Benefits

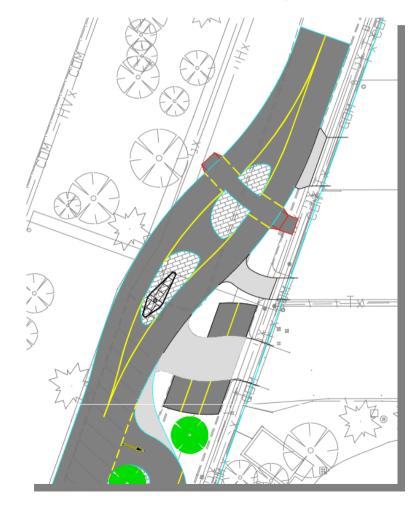
- 11) Takes traffic off Eric Street reducing congestion
- 12) Reduces car park entry/exit conflict with road traffic (MRWA aims)



Traffic Benefits

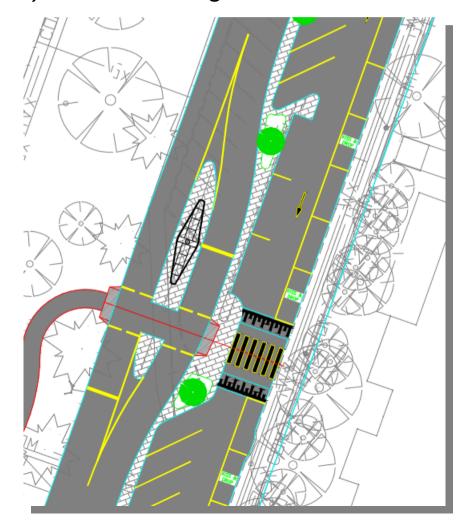
13) Horizontal road deflections slows traffic alongside school and at roundabout entry

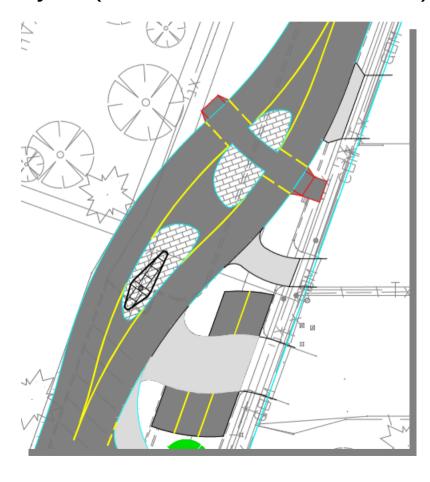




Traffic Benefits

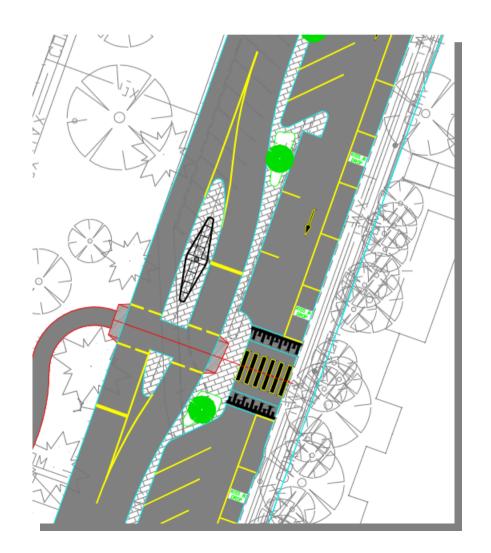
- 14) Islands compliment existing traffic calming in Eric Street and Railway St (precinct effect)
- 15) and discourage rat-run traffic on Railway St (broader residential benefit)

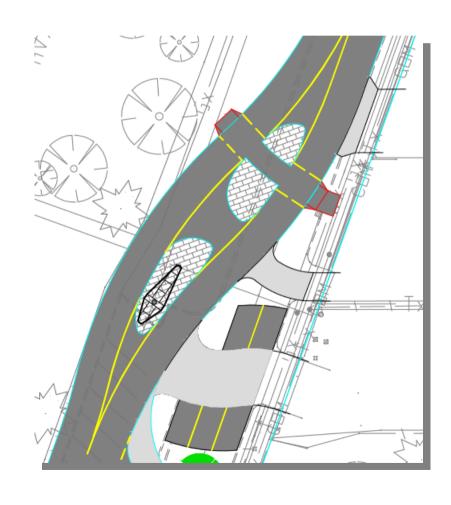




Pedestrian / Cycling Benefits

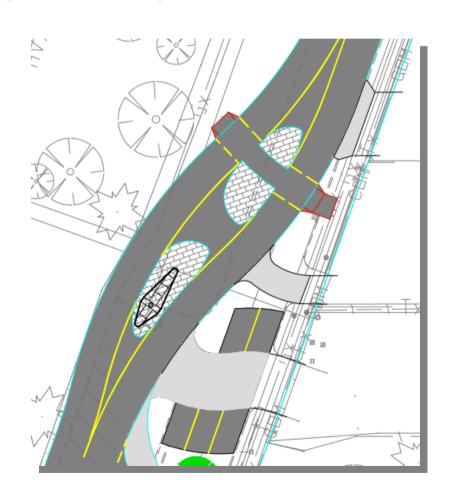
16) Islands provide safer staged pedestrian road crossing points with bicycle compliant island widths





Pedestrian / Cycling Benefits

17) Northern island provides an additional crossing (unassisted) point for pedestrian access to railway



Pedestrian Benefits

Currently an average of 119 pedestrians crossing at crossing guard each period.

but an average of 115 pedestrians also cross unassisted from western car park.



Pedestrian Benefits

18) New car park will dramatically reduce the 115 unassisted road crossings

19) and reduce the guard crossings by about 17%

20) also reducing traffic congestion marginally (less queuing)

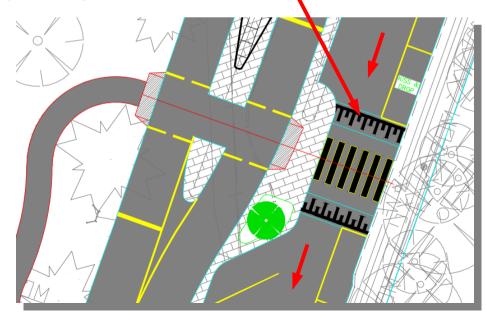


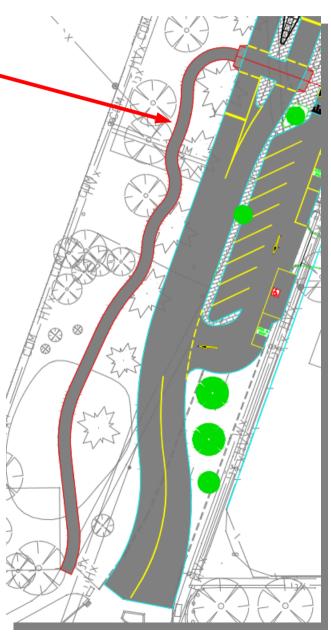
Pedestrian / Cycling Benefits

21) New path is offset from the road edge – better practice (final location to be determined with arboricultural input)

22) Raised pedestrian crossing through car park

23) One way traffic improves ease of crossing car park & can be assisted (guard)







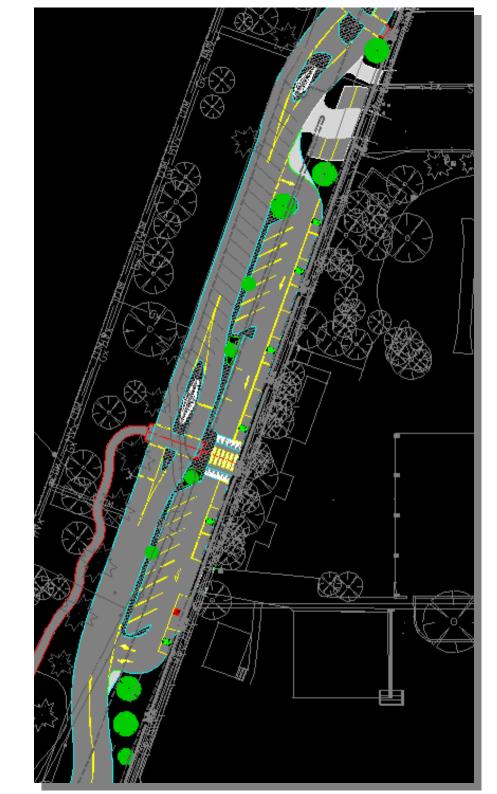
- 24) Reduced road/car park footprint compared to previous plan
- 25) Will be able to overlay existing pavement reduced construction requirements
- 26) Norfolk Pines retained



• 1 juvenile peppermint tree to be removed. Tree is poorly located as it is compromised by proximity to power line with a future of top and west side pruning.



- 27) 9-10 new tree planting opportunities are available to new design (green in the plan).
- Subject to arboricultural design for species selection, location confirmation, root zone design and possible irrigation.



Design Outcome

There is not one over-arching critical reason for this proposal. There are instead, 27 safety and access improvements that can be made, which together -

"Create a more accessible and safe environment for the school, while attempting to effect improvements for the community"

thereby meeting the 2015 NCPS Board Objective.