Managing Future Demands

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Long Term Planning
Changing the community conversation to what is affordable
Central Otago and Long Term Planning

- Sealed Road Pavements
- Bridges
- Footpaths / Carparks (Cromwell)
Central Otago Roads:

- 1900km of roads
- 514 km sealed
- 175 bridges
- 146km footpaths

Note: 60% Access or Low Volume Access

ONRC Classifications:

- Arterial: 36%
- Primary Collector: 13%
- Secondary Collector: 5%
- Access Road: 13%
- Access Road Low Volume: 0%

A proud partner of the regional brand
Local Government Financial Planning

- Prior to 2006 - Annual Planning
- In 2006 the first Long Term Plan (10 year outlook)
- In 2015 the 30 Year Infrastructure Strategy

RESULT: No more sliding the hard jobs out past year 10!
Sealed Road Pavements:

The pavement issue:

- Rehabs don’t line up with annual depreciation
- No accumulated depreciation funds for rehabs

Are we in for a bow wave down the track?
Took dTIMS plunge

- RAMM tidy up
- High speed data
- Condition rating / roughness
- Some FWD testing
- On site validation (5-6 yr program)
What did we find?

Saving from original forecast of $555k/annum
Pavement example

- 14km road
- 4.5km - narrow winding sealed road
- 2012/13 heavy mtce and reseal (Unlikely to last +10yrs)
- Traffic counts - 100 VPD 10% Heavies
- Pavement age 50-60yrs
• In 6-10yrs revert to gravel?
Sealed road pavement conclusions:

- No significant pavement rehabs on the near horizon (One exception)
- Continue with heavy maintenance and reseals (Target 20km/yr)
- Reallocate more renewals $$ to drainage
- Accept some greater roughness (Within ONRC limits)
- Revert some back to gravel
Bridges

Central Otago bridges coming to the end of their useful lives (ex RAMM)
No $$!!
Three 30yr Options Considered For Bridges

<table>
<thead>
<tr>
<th>ROCK BOTTOM</th>
<th>OPTIMISED</th>
<th>FULL REPLACEMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Risk</td>
<td>Medium, managed Risk</td>
<td>Low Risk</td>
</tr>
<tr>
<td>Shortened lives</td>
<td>A few unhappy people</td>
<td>Keep what we have</td>
</tr>
<tr>
<td>Restricted access</td>
<td>Everyone still has access</td>
<td>Everyone happy</td>
</tr>
<tr>
<td>Many unhappy customers</td>
<td>• Escalation applied</td>
<td>• Escalation applied</td>
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$12,500,000

$18,200,000

$25,400,000

* PROJECTS WITH FULL REPLACEMENT VALUE <$250K = ‘MINOR IMPROVEMENTS’
Bridges - 30 Year Funding Requirement

- Full Replacement (Escalated)
- Rock Bottom (Escalated)
- Optimised (Escalated)
Rua Hores bridge example

- Single lane 4 span concrete.
- 70 years old
- Oct 2014 - ADT 35
2010  Classic pier settlement noted (50mm)

Oct 2011  Flood Event

March 2012  Accelerated settlement noted +150mm.  
            (Community informed/bridge restrictions)

July 2012  Options considered - Lowest cost ‘holding’ work agreed (Weight restriction removed)

No NZTA funding available for other options 
(e.g. Underpinning /Jack $350k) and no built up funds

She’s broken.
• Worst affected property - 18km detour
If replaced - Affordable?

<table>
<thead>
<tr>
<th>Replace Bridge (Like with Like)</th>
<th>$1,200,000.00</th>
<th>All Concrete Life 130yrs say</th>
</tr>
</thead>
<tbody>
<tr>
<td>Replace Bridge (Budget)</td>
<td>$450,000.00</td>
<td>Steel/ Timber deck – Half the life say. Re-deck( 25-30yrs)</td>
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No NZTA subsidy /Ward funded (Considerable community cost)

Or simply close the thing (First to heavies then to lights)
Overall Bridge Conclusions:

- We need to do more work
- It's not 1 bridge replacement - it's 35 (Some majors)
- Some have alternative routes, but some don’t
- Reality conversations with the communities
Cromwell Footpaths & Carparks

- What did we do?
- Majority lining up for renewal <10yrs? Why?
THINK BIG
- Late 1980s - mostly new or renewed AC footpaths & carparks

- Large chunk of Cromwell’s AC surfacing +25yrs old

- A path constructed on both sides except on cul-de-sacs
Renewals Identified

![Bar chart showing renewal identified in thousands for years 2015_16 to 2033_34]
What to do?

- Start ripping out footpaths - One side only?

- Consideration needed to the aging demographic.

- Level Of Service expectation vs Willingness to Pay
Finally - How do we change the conversation?

- Challenge the reality of the current expectations
- Gather the facts with solid data
- Test the models
- Avoid precedent setting
- With a longer view you can adjust and plan early
Questions