Caversham Tunnel Civil Work
Planning for Success
The Caversham Tunnel

- Dual track tunnel constructed in 1908 to replace old single line tunnel.
- Hand cut drainage channel through out the length
Back Ground to project

- Drainage issues within Caversham tunnel and approaches, leading to formation failure
- This leads to reduction in level of service from KiwiRail to external clients
- Drainage issues linked to bad ballast and completely blocked drainage system.
- Works designed to increase resilience of network within tunnel against ballast and formation degradation
Risk Management

- Three main risk considerations
  - Gas
  - Network Services
  - Rockfall
Gas
Gas
Gas
Network Services

- Up to 28 movements a day
- Only 3-5 at night
- Trains ran throughout the duration of the project
Compulsory Stop Protection

- Minimum side clearance to all boards to be 2.15m from track centre line.
- Protection to be provided in each direction from the Work Area.

Please refer to Track Safety Rule 905 and semi-permanent bulletin alterations. All distances are minimum distances. For variations to distances see Rule 907.

- Double sided board shows ‘Begins’ on reverse
- Safety Buffer Zone
- Double sided board shows ‘ENDS’ on reverse
- Work Area
- Call Sign
- Compulsory Stop Board
  All rail vehicles must Stop and obtain authority from Rail Protection Officer to proceed, using the Call Sign, Sound horn before proceeding.
- Inner Warning Board
  Sound horn
- Advanced Warning Board
  Prepare to Stop
  2000m
  Caution

- Safety Buffer Zone
  Prior to working or using a Hi Rail vehicle in this zone you must arrange additional protection from Train Control.
Rock fall

- Unlined sandstone tunnel
- Rock fall risk in certain area of tunnel
Planning and Logistics

- Block of Line in two 72 hour periods
- 3 separate contracting groups working together to deliver outcome
- FH to remove old ballast and regrade and compact formation
Planning and Logistics

<table>
<thead>
<tr>
<th>Sunday 1st July 2018</th>
<th>Monday 2nd July 2018</th>
<th>Tuesday 3rd July 2018</th>
<th>Wednesday 4th July 2018</th>
<th>Thursday 5th July 2018</th>
<th>Friday 6th July 2018</th>
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</thead>
<tbody>
<tr>
<td>Site Manager: Donald Storm</td>
<td>Site Manager: James Hawes</td>
<td>Site Manager: Alex Zelikman</td>
<td>Site Manager: Brian McMillan</td>
<td>Site Manager: Ronald Storm</td>
<td>Site Manager: Alex Zelikman</td>
</tr>
</tbody>
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*Note: The schedule above is a sample and may vary depending on specific job responsibilities.*
Planning and Logistics
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