



Rail Under Road

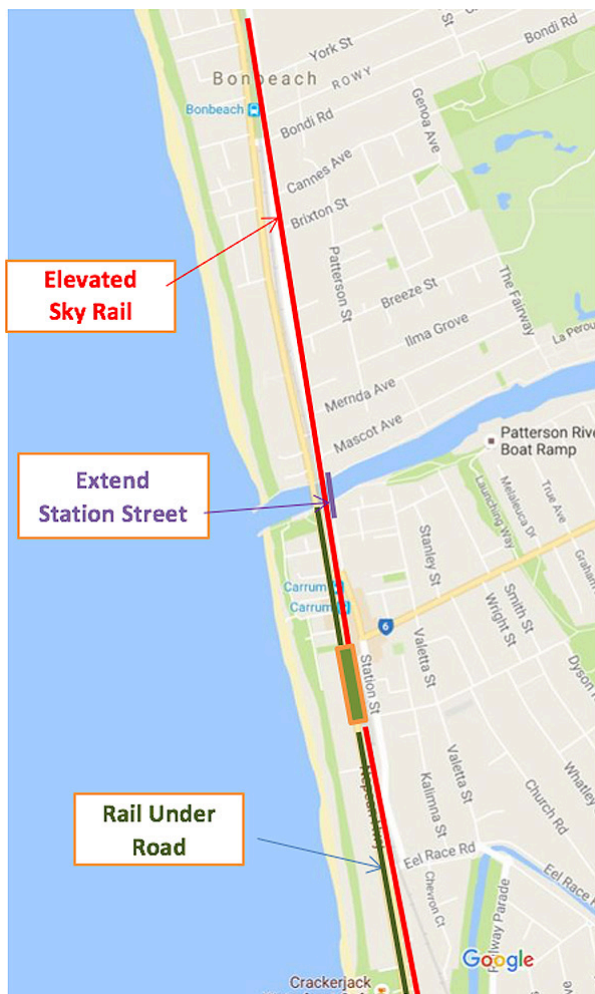
# No Sky Rail: Frankston Line

No Sky Rail On Frankston Line Incorporated  
Association No. A0095560C

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## FACT SHEET: Rail Under Road Bonbeach & Carrum (Bondi Road, Carrum Station, Eel Race Road)

Another 8 level crossings on the Frankston Line are due to be removed. Three are already Rail Under Road: Ormond, Bentleigh and McKinnon. This leaflet explains how your local crossing can also be Rail Under Road.



### Community Preferences

#### Low Traffic Count

- The Bondi Road rail crossing has never been considered dangerous or congested by local residents.
- Low traffic count suggests the only reason this crossing was included was as a means of getting an elevated railway (Sky Rail) over the Patterson River.

#### Extend Station Street

- Carrum residents and business owners have stated their priority is to see a bridge extending Station Street over Patterson River to join Bonbeach to Carrum.
- Extending Station Street over Patterson River eliminates the need to do anything with Bondi Road saving \$250M to \$300M and further relieve perceived congestion.

#### Rail Under Road at Carrum Station

- Rail Under Road at Carrum is a sensible way to remove congestion and improves the amenity of the area by allowing relocation of the current crossing to a logical alignment south of McLeod Road.

#### Eel Race Road

- Continue Rail Under Road cutting south of relocated Carrum Station under Eel Race Rd.

#### Elevated "Sky Rail" Option

- 450m ramp up
- 1.5km elevated rail bridge from Bondi Rd to Carrum
- 200m station
- 450m elevated rail bridge from Carrum to Eel Race Rd
- 450m ramp down
- **Total = 3.1km**

#### Rail Under Road Option

- 450m cutting from Carrum to Eel Race Rd, plus 200m station
- 2 Shorter 350m ramps
- **Total length = 1.3km**



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<http://noskyrailfrankstonline.org>

# Design Considerations

## 1. Ground Water

Groundwater levels are similar to current Rail Under Road sites (ie: Ormond) so not an issue.

## 2. Soil Type

Local soil type (which may or may not be Acid Sulfate Soils) has supported railway operation for over 100 years. Concrete mix can be adapted for all conditions.

## 3. Roadway Clearance

Only 6m clearance is required for Rail Under Road compared to 9m for Elevated Sky Rail.

## 4. Construction Method

Parallel construction utilising adjoining car parks similar to Springvale Rail Under Road.

## 5. Total Project Cost

Cheaper solution with \$300m saving by not removing Bondi Road (local traffic can use extended Station St to access Carrum shopping centre).

## Site Assumptions - Bondi Road, Bonbeach

Parameter	Description	Source
Groundwater Depth	<ul style="list-style-type: none"> <li>At least 6.5m below grade (Maybe lower).</li> </ul>	Vic Govt Bore logs <a href="http://www.vvg.org.au/">http://www.vvg.org.au/</a>
Soil Type	<ul style="list-style-type: none"> <li>Coastal Dune Deposits (sand)</li> </ul>	Victorian geology maps
Traffic Volume	<ul style="list-style-type: none"> <li>Low = 4,400 vehicles/day, 210 trains/day</li> <li>Boom gates down for an average of 45 minutes from 7am to 9am</li> </ul>	LXRA Community Consultation information displays

## Site Assumptions - Station St, Carrum

Parameter	Description	Source
Groundwater Depth	<ul style="list-style-type: none"> <li>Approximately 5.5m below grade (<i>Note: the pedestrian underpass is dry and many buildings have underground carparks</i>).</li> </ul>	Vic Govt Bore logs <a href="http://www.vvg.org.au/">http://www.vvg.org.au/</a>
Soil Type	<ul style="list-style-type: none"> <li>Coastal Dune Deposits (sand)</li> </ul>	Victorian geology maps
Traffic Volume	<ul style="list-style-type: none"> <li>High = 11,800 vehicles/day, 210 trains/day</li> <li>Boom gates down for an average of 49 minutes from 7am to 9am</li> </ul>	LXRA Community Consultation information displays
Other Factors	<ul style="list-style-type: none"> <li>Minimum Right of Way = 23m</li> <li>Distance from river to north side of McLeod/Thompson Rd is approximately 350m (gives 7 metre depth)</li> <li>664m from south side of McLeod/Thompson to Eel Race Road</li> </ul>	

## Site Assumptions - Eel Race Rd, Carrum

Parameter	Description	Source
Groundwater Depth	<ul style="list-style-type: none"> <li>Approximately 5m below grade.</li> </ul>	Vic Govt Bore logs <a href="http://www.vvg.org.au/">http://www.vvg.org.au/</a>
Soil Type	<ul style="list-style-type: none"> <li>Coastal Dune Deposits (sand)</li> </ul>	Victorian geology maps
Traffic Volume	<ul style="list-style-type: none"> <li>Low = 5,500 vehicles/day, 210 trains/day</li> <li>Boom gates down for an average of 21 minutes from 7am to 9am</li> </ul>	LXRA Community Consultation information displays
Other Factors	<ul style="list-style-type: none"> <li>Minimum Right of Way = 20m</li> <li>Kananook Creek 500 metres on the south side of Eel Race Road</li> <li>Keep depth to 6 metres at Eel Race Road, so rail can return to grade in 300m, well before Kananook Creek.</li> </ul>	