7. Urban design challenges for elevated rail

7.1 Introduction

This study has determined that the preferred rail option has an elevated alignment throughout the southern part of the Maroochydore CBD. An elevated structure enhances permeability and increases flexibility for improved design around the infrastructure, over at-grade options.

The overall preferred rail alignment and station location is the Carnaby Street elevated option (option 3). Under this option, approximately 800m of elevated rail line will pass through the proposed Maroochydore CBD. This includes a 200 m long station. In this option, the station is separated from the existing core of the CBD and the existing bus station, but is relatively central to the expanded City Centre as made possible by the proposed relocation of the Horton Park Golf Course and as planned by the Sunshine Coast Regional Council and endorsed in the Maroochydore Centre Position Paper.

Of the four options considered, option 3 scored well on urban design and integration criteria. This chapter seeks to discuss some of the challenges for elevated rail in terms of detailed design and structure plan policy.

7.2 Framework and context

7.2.1 General construction details

For any elevated rail line in Maroochydore, the following construction details are assumed as standard through the Maroochydore CBD:

- 2-track suburban electrified railway on T-structure viaduct (not embankment)
- 3-platform elevated terminal station
- rail-over-road crossings, including any north-bound leg over Maroochy Boulevard near the Sunshine Motorway interchange

7.2.2 Maroochydore Centre Position Paper

The general framework for the Maroochydore CBD is set by the Directions Plan contained in the Council’s Maroochydore Centre Position Paper. The key elements of this plan that apply to the Maroochydore Station Corridor Study include the intent that development of the Maroochydore CBD achieves a city that has distinctive character that:

- reflects its coastal, river and creek location; and
- is clearly defined and memorable; and
- reflects sub tropical design principles; and
- achieves design innovation and excellence; and
is defined by high quality public spaces. Furthermore, it seeks to integrate land use and transport including: city-centre transport interchanges; transit-oriented development; a high level of pedestrian amenity; and a permeable street network that promotes connectivity and accessibility.

Figures 7-1 and 7-2 below show the preferred land use pattern and public transport plans for the Maroochydore centre (from the Maroochydore Centre Position Paper).

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\[\text{Figure 7-1: Maroochydore Centre Directions Plan}\]

\[\text{Figure 7-2: Maroochydore Public Transport Map}\]

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\[\text{Maroochydore Structure Plan, page 3}\]