

3. Further investigations

3.1 Introduction

The outcomes of additional investigations undertaken or completed since the release of the *Project Impact Report* are described in the sections below.

3.2 Project description

The project is described in detail in Section 7 of the *Project Impact Report*. In addition to the project investigations currently underway and changes to the local road network described in Section 2 of this *Supplement*, the following amendments have been made to the project description:

- Generally the elevated roadway will have a clearance to allow the use of South Road during construction of the main structure; will ensure safety during construction; and will allow for double stacked containers to be transported by rail. It will also create an architecturally attractive structure that allows sunlight to penetrate through.

3.3 Traffic, transport and access

3.3.1 Traffic volumes

Since the release of the *Project Impact Report*, the Metropolitan Adelaide Strategic Transport Evaluation Model (MASTEM - a model used to predict future traffic volumes across the Adelaide network) has been updated, which produced a new set of forecast future traffic data. The latest model includes revised programmed road and public transport improvements on Adelaide Metropolitan Road network. The model demographic scenario is also based on the recent release of the *Draft 30-year Plan for Greater Adelaide*, interpolated to 2016 and 2031 for this assessment.

As a result of the updated traffic forecast, the predicted daily traffic volumes on the various sections of the project have changed. These traffic volumes remain based on the inclusion of the link with the possible future project, Northern Connector, which is subject to another planning study.

A summary of the current traffic volumes on major roads in the study area and the latest predicted traffic volumes for the year 2031 is presented in **Figure 3.1**.

The design of the South Road Superway has been further developed to reflect the revised traffic volume predictions resulting in some changes to lane configuration at:

- South Road/Grand Junction Road – an extra lane will be provided on the northbound access road;
- Cormack Road/South Road ground level access road junction – the layout of lanes along Cormack Road has been revised.



Predicted 2031 Traffic Volumes (2-way)
Figure 3.1

3.3.2 Regency Park precinct – right hand turn into Kateena Street from South Road

Design work undertaken previously determined that right turn access in to Kateena Street could not be maintained due to the following reasons:

- positioning of the elevated roadway pier location
- safety
- vehicle queuing space constraints

Strong representations were made by businesses to retain this right hand turn during the community engagement process, which have been taken into consideration by the project management and design team. DTEI has committed to undertake further detailed investigations and will explore every possibility of retaining this turning movement, during the detailed design phase.

3.3.3 Days Road precinct - Angle Road/South Road

The intersection modifications currently being considered at Angle Road provide for a right turn in as well as a left turn in and out. Northbound traffic exiting Angle Road will be able to utilise the u-turn facility proposed at the Days Road intersection described in 2.2.6.

3.3.4 Predicted level of service

Level of Service (LOS) is a description of the traffic operation of a particular section of road. The predicted LOS for various intersections has been updated using the new predicted traffic data. As a result the LOS has changed at key locations:

- Grand Junction Road, Rosberg Road and Naweena Road – LOS D
- Regency Road and Naweena Road/Gallipoli Grove Link - LOS D
- midblock between Grand Junction Road on/off ramps and Days Road on/off ramps – LOS E (both directions)
- midblock between South Road service road on/off ramps and Regency Road – LOS E (both directions)
- on ramp for South Road service road (southbound) – LOS C

These changes are an update of Section 17.4.4 of the *Project Impact Report*, and should be read in conjunction with Section 17.3.4 describing existing LOS. Based on the updated data, the Project's LOS provides substantial improvements over the current LOS along South Road.

3.3.5 Wing Street/South Terrace connection

The *Project Impact Report* described the connection between Wing Street and South Terrace as a two way link. Further improvements to the design at this location, as outlined in section 2.2.3, describe the current concept.

3.3.6 Pedestrian and cycle access

The updated South Road Superway concept design allows for improved pedestrian and cycle access. Footpaths and on-road bicycle lanes will be provided on the service road between Days Road and Grand Junction Road. It is considered unsafe to allow cyclist and pedestrians on the elevated roadway due to the high speed environment and large traffic volumes.

3.4 Property acquisition

Updates to the elevated roadway and local road network design since the release of the *Project Impact Report* have identified potential additional land requirements to improve road safety and accessibility of the local road network, which will provide an overall benefit to the local community. DTEI will continue to liaise with those affected by property acquisition.

3.5 Drainage design

The updated drainage design features a combination of lined and unlined channels. No composite channels as described in Figure 16.2 of the *Project Impact Report* are now proposed.

While the length of unlined channel has been maximised where possible, the updated drainage design requires more areas of lined channel than of unlined channel. In consultation with Port Adelaide Enfield Council and stakeholders such as the *Regency Park Golf Course* and Greyhound Racing SA, DTEI is investigating opportunities to significantly improve the drainage across the study area through the construction of wetlands. The wetlands will provide flood mitigation (via increased flood storage capacity) and help to maintain the water quality within the system. The wetlands would provide potential for reuse of water for local recreation and sporting facilities such as the golf course, ovals, recreation reserves and greyhound racing track venue.

The proposed upgrading of Naweena Road and Gallipoli Grove extension will impact on the Hindmarsh Enfield Prospect (HEP) drain/channel. During the detailed design phase of the project, measures will be developed to mitigate any impacts on the flow and flood storage capacity of this drain.