NOTICE OF SPECIAL COUNCIL MEETING

TO: Mayor
    Deputy Mayor
    Councillors:

Karen Redman
David Hughes
Kevin Fischer
Beverley Gidman
Paul Koch
Merilyn Nicolson
Adrian Shackley
Robin Symes
Ian Tooley
Jim Vallelonga

NOTICE is hereby given pursuant to the provisions of Section 82 and Section 83 (2) of the Local Government Act 1999, that a Special Meeting of the Council for the Town of Gawler will be held in the Elderly Centre, 37 Fourteenth Street, Gawler South, on Thursday 18 August 2016, commencing at 7:00pm.

A copy of the Agenda for the above meeting is supplied as prescribed by Section 83 (3) of the said Act.

Henry Inat
Chief Executive Officer
12 August 2016
Special Meeting of the Council for the Town of Gawler to be held on Thursday 18 August 2016 at 7:00pm in the Elderly Centre, 37 Fourteenth Street, Gawler South.

AGENDA

1. Statement of Acknowledgement

   Mayor: We would like to acknowledge this land that we meet on today is the traditional lands for the Kaurna people and that we respect their spiritual relationship with their country. We also acknowledge the Kaurna people as the custodians of the greater Adelaide region and that their cultural and heritage beliefs are still as important to the living Kaurna people today.

2. Attendance Record

   2.1 Roll Call
   2.2 Apologies
   2.3 Motions to grant Leave of Absence
   2.4 Leaves of Absence

3. Public Open Forum

   (Limited to a total time of up to 20 minutes)

4. Business

   4.1 Gawler East Link Road Update

5. Questions without Notice

6. Motions without Notice

7. Confidential Reports

8. Close

9. Next Ordinary Meeting – 23 August 2016 at 7:00pm
A short presentation on this Report will be made by Council staff.

OFFICER’S RECOMMENDATION

Item 4.1 – Gawler East Link Road Update (CC11/778)

That Council:

1. Notes the Gawler East Link Road Update Report.
2. Receives the results of the Multi Criteria Analysis and all supporting investigations that have been undertaken to support the determination of a preferred alignment for the Gawler East Link Road.
3. Determines that the Eastern Alignment (Alternative) would run from, and then south parallel with One Tree Hill Road towards and deviating at the property located at 137 Potts Road. This provides the preferred Gawler East Link Road alignment from the Springwood Boundary through to Potts Road based on all traffic, environment, land and property as well as cost considerations for this road, including its impacts on the existing and future community.
4. Notes the key design achievements from the Eastern Alignment (Alternative) including the diversion located at 137 Potts Road as the preferred Gawler East Link Road will achieve the following positive outcomes;

   a) No dwellings are required to be acquired;
   b) It is the most economical route;
   c) The impact of the road on the existing established private properties, either through or adjacent, is reduced to the full extent possible;
   d) The full extent of the State Government’s land is utilised for this alignment;
   e) It provides the safest overall route and removes the need for an additional roundabout on One Tree Hill Road;
   f) Preserves the majority of the trees located along this section of One Tree Hill Road; and
   g) Is considerate of the Local Heritage listed property (Bentley) located at 228 One Tree Hill Road.

5. Notes that the Eastern Alignment (Alternative) is consistent with the long term strategic objective of a future direct extension of the Gawler East Link Road to the intersection of Tiver Road/Main North Road.

6. Notify the State Government of its Eastern Alignment (Alternative) for the Gawler East Link Road, thus enabling it to continue with further design development of Council’s preferred alternative alignment, consultation with the directly impacted property owners (i.e. land acquisition and noise treatments) and the broader community and that it assume responsibility for the overall management of the preferred alignment through to delivery.

7. Receives a further report on how the financial contribution required to be provided by the Council (estimated at $5.6M) to the State Government for its Gawler East Link Road Eastern Alignment (Alternative) will be funded, and address all such means as to minimise Council’s financial contribution.

8. Receive a report on the preferred legal instruments and other such mechanisms required to secure the delivery of the Gawler East Link Road.

9. Accept the ownership of the Gawler East Link Road for reasons detailed in this report.

10. Staff work with Department of Planning, Transport and Infrastructure through the detailed design phase on determining the most beneficial outcome for the bridge over the South Para River in terms of visual and environmental impacts, but within the financial/budget constraints of the project and present a report back to the Council for its consideration.

11. In respect to the bridge proposed over the South Para River, that Council advises the relevant State Government Minister that the ownership, management and maintenance of the bridge structure be retained by the State Government for the reasons detailed in the report.

12. Acknowledge that the State Government will be responsible for administering the Land Acquisition required for this project, however Council will assist in facilitating this process where its powers under the Local Government Act are required.

13. Write to all members of the community who have participated in the public consultation relating to this matter to advise them of the Council’s decision.
At its meeting held on 5 July 2016 the Council considered an update report on the Gawler East Link Road (GELR) and resolved the following;

Moved by Cr A Shackley
Seconded by Cr I Tooley
Motion No: 2016:07:285

That Council:

1. Notes the Gawler East Link Road Update Report.
2. Thank the members of the community that participated in the consultation process undertaken, including those who have made personal presentations at tonight’s meeting, for their valuable input which will assist the Council’s final decision considerations on a preferred alignment for the Gawler East Link Road.
3. Receive the Engagement Report summarising the Phase 2 community consultation undertaken on the Council’s preferred alignments for the Gawler East Link Road.
4. Notes that the Multi Criteria Assessment to determine a preferred Council alignment will be informed by the community engagement as detailed in this report.
5. Allocate up to a further $70,000 for the required investigations necessary to inform the Multi Criteria Assessment for the Council’s preferred Gawler East Link Road alignments.
6. Note a further report will be presented to the Council at a Special Council meeting to be held in August 2016 at which point a final decision is to be recommended on a preferred Gawler East Link Road alignment.
7. Approach Department of Planning, Transport and Infrastructure to cover some of the costs relative to the assessment of trees along the South Para River and tributary.

Several update reports have been present to Council on this matter, particularly at the Council meetings held on 30 June 2015, 22 September 2015, 27 October 2015, 24 November 2015, 22 December 2015, 23 February 2016, 26 April 2016 and 5 July 2016 respectively.

All these previous Council reports detailed above are publically available.

The purpose of this report is to update the Council on this matter, namely:

1. Present the results of the Multi Criteria Analysis process undertaken and the supporting subject matter expert investigations/analysis that has been undertaken to support the decision making.
2. Recommend a preferred alignment of the Gawler East Link Road.
3. Inform the status of various associated matters that relate to the Gawler East Link.
4. Detail the next steps associated with this project.
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1.0 Gawler East Link Road Alignment

Since the most recent update on the Gawler East Link Road (GELR) which was presented to the Council at its Special Council meeting held on 5 July 2016, the project has progressed on several fronts. It has now arrived at a significant juncture which is to consider the outcomes of a Multi-Criteria Analysis process that has determined a preferred alignment for the GELR.

1.1 CONCEPT DESIGNS

A necessary component of the development of the Council’s preferred alignments to the point necessary to inform the MCA process was the completion of concept designs for both the Eckerman and Eastern alignments to a notional 20% design level. In addition, and to compliment the concept designs, a ‘Design Basis Report’ is being prepared which details the guiding principles, assumptions and criteria used for the concept designs. This design and associated report will be used to inform the further detailed design to be undertaken by the Department of Planning, Transport & Infrastructure (DPTI) on behalf of the State Government in the near future. A copy of the Concept Design for the Council’s preferred alignments is contained in Attachment 1.

The concept designs for the Council’s preferred alignments are briefly outlined below:

a) Eastern Alignment

The Eastern Alignment maintains DPTI’s proposed alignment from the Springwood Boundary through to its intersection with One Tree Hill Road. The alignment then utilises a section of One Tree Hill Road controlled by roundabouts at each end up to a point whereby it traverses through privately owned property at 228 One Tree Hill Road (local heritage place), 32 Bowman Court, 159 Potts Road and 137 Potts Road. This alignment facilitates a connection point at Potts Road that could then be extended at some time in the future to the Tiver Road/Main North Road intersection.

b) Eckerman Avenue

The Eckerman Avenue alignment converges from DPTI’s proposed alignment north of the South Para River. It veers east to utilise the existing Eckerman Avenue roadway corridor to provide the connection from the Springwood Estate to One Tree Hill Road. A roundabout is required at the intersection of Eckerman Avenue and One Tree Hill Road from which the alignment would then extend into private property between 236 and 244 One Tree Hill Road and connect to Potts Road as per the Eastern alignment.

These alignments are shown superimposed over the broader Gawler East development area in Figure 1 below and formed the basis of the public consultation process undertaken on the GELR.
1.2 PREPARATION FOR THE MULTI CRITERIA ANALYSIS (MCA)

At its meeting held on 26 April 2016 the Council finalised the criteria which were used to undertake the Multi-Criteria Assessment to determine a preferred alignment of the GELR. The evaluation criteria and subsequent key result areas used include:

1. Traffic – Safety, Travel Time, Accessibility and Convenience
2. Environment – Local Heritage, Flora and Fauna, Air Quality, Social Effects and Noise Effects
3. Land and Property – Property and dwelling acquisition

To enable the alignments to be measured and compared objectively (rather than subjectively), the Key Result Areas were expanded to enable measurement of the Evaluation Criteria (MCA) where this was possible. The investigation/analysis undertaken and applied for each criteria and Key Result Areas shown in the Table below:
<table>
<thead>
<tr>
<th>Broad Evaluation Criteria</th>
<th>Key Result Area</th>
<th>Measurement</th>
<th>Investigation / Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traffic</td>
<td>Safety</td>
<td>Potential number of crashes</td>
<td>Determine the potential number of crashes using applicable standard guidelines and CASR* &amp; ARRB* research outcomes</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Travel Time</td>
<td></td>
<td>Time in minutes to travel</td>
<td>Calculate travel time by way of design speed &amp; length of road including SIDRA* analysis for the intersections</td>
</tr>
<tr>
<td></td>
<td></td>
<td>along the alternative alignment from</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Springwood Development to Main North Road</td>
<td></td>
</tr>
<tr>
<td>Accessibility and</td>
<td></td>
<td>Number of lots that alignment provides</td>
<td>Developable Land areas accessibility and constraints mapping</td>
</tr>
<tr>
<td>convenience to existing</td>
<td></td>
<td>opportunity to open up; and impact on</td>
<td>Overlay of known</td>
</tr>
<tr>
<td>lots</td>
<td></td>
<td>known development proposals</td>
<td>developments in the area</td>
</tr>
<tr>
<td>Environment</td>
<td>Local heritage</td>
<td>Impact on heritage property</td>
<td>Heritage survey</td>
</tr>
<tr>
<td></td>
<td>Flora and fauna</td>
<td>Number of regulated trees affected</td>
<td>Estimated number of</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Extent of Native vegetation affected</td>
<td>regulated and significant</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Impact on significant species</td>
<td>trees impacted, and</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>native vegetation areas</td>
</tr>
<tr>
<td>Air quality</td>
<td></td>
<td>Extent of greenhouse gases and fumes</td>
<td>Preliminary local air</td>
</tr>
<tr>
<td></td>
<td></td>
<td>emitted</td>
<td>quality and greenhouse</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>gas emissions calculations</td>
</tr>
<tr>
<td>Social effects</td>
<td></td>
<td>Community cohesion or severance, visual</td>
<td>Consultation feedback</td>
</tr>
<tr>
<td></td>
<td></td>
<td>impact, light spill, privacy/overlooking,</td>
<td>and subjective assessment</td>
</tr>
<tr>
<td></td>
<td></td>
<td>level of passing traffic</td>
<td></td>
</tr>
<tr>
<td>Noise effects</td>
<td></td>
<td>Number of properties requiring noise</td>
<td>Preliminary noise impact</td>
</tr>
<tr>
<td></td>
<td></td>
<td>attenuation treatment</td>
<td>assessment</td>
</tr>
<tr>
<td>Land and Property</td>
<td>Acquisition</td>
<td>Area, number, and significance / extent</td>
<td>Calculate area, number</td>
</tr>
<tr>
<td></td>
<td>required of existing land – extent</td>
<td>of impacts</td>
<td>and costs of land</td>
</tr>
<tr>
<td></td>
<td>and significance / extent of impacts</td>
<td></td>
<td>acquisition</td>
</tr>
<tr>
<td></td>
<td>Dwellings that may be required</td>
<td>Number of dwellings acquired</td>
<td>Calculate number of</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>dwellings as part of land</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>acquisition</td>
</tr>
</tbody>
</table>
### 1.3 ADDITIONAL INVESTIGATIONS & ANALYSIS

The design, investigation, analysis, and cost estimation works were undertaken to identify and quantify the impacts associated with each alignment, and enable the MCA Evaluation Team to fully appreciate the quantum of impacts associated with each criterion being evaluated.

The Evaluation Team consisted of Town of Gawler representatives Sam Dilena Manager Infrastructure & Engineering Services, Ryan Viney Acting Manager Economic Development, Regulatory Services and Communication, Angelo Lanzilli Senior Projects Manager, Tonkin Consulting Representative Rob Bremert Senior Transport Planner and Urban Regional Planning Solutions Representative Nicole Halsey Director.

The investigations / analyses undertaken by the responsible subject matter expert consultants are detailed in the Table below.

#### TABLE 2 : INVESTIGATIONS/ANALYSIS UNDERTAKEN

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Subject Matter</th>
<th>Expert Consultant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traffic and Transport</td>
<td>Road safety and travel time review</td>
<td>Tonkin Consulting</td>
</tr>
<tr>
<td>Environment</td>
<td>Noise impacts</td>
<td>Sonus</td>
</tr>
<tr>
<td></td>
<td>Air quality</td>
<td>Pacific Environment</td>
</tr>
<tr>
<td></td>
<td>Local heritage</td>
<td>Flightpath Architects</td>
</tr>
<tr>
<td></td>
<td>Flora and fauna</td>
<td>EBS Ecology</td>
</tr>
<tr>
<td>Land and Property</td>
<td>Land acquisition impacts</td>
<td>Property and Advisory</td>
</tr>
<tr>
<td>Cost</td>
<td>Cost estimation</td>
<td>Sempac</td>
</tr>
</tbody>
</table>

It should be noted that no specific investigations were undertaken in relation to social effects, but rather this criterion was explored and assessed by the evaluation group at the MCA workshop with regard to the consultation feedback that had been received.

A summary of all consultant investigation and analysis reports are presented below with the detailed reports contained in the Multi Criteria Analysis Report (by Tonkin Consulting) Attachment 2.

#### 1.3.1 Traffic & Transport

This analysis was undertaken by Tonkin Consulting and involved the estimation of the travel time and road safety differences between the two alignments as well as the impact the proposed alignments had on the development potential of the Gawler East area.
1.3.1.1 Road Safety

The measure for this criterion was the relative level of crash risk between the two alignments at intersections and midblock.

For intersections, typically the type of intersection and the number of vehicles entering provides the potential for a crash risk. For midblock section (i.e. between major intersections) it is the length of road travelled, traffic volume and number of access points that determine the risk. The Australian Road Research Board (ARRB) and the Centre for Automotive Safety Research (CASR) have developed equations which provide a measure of the crash rate and these are provided below. Those utilised for this criteria are detailed below, namely;

- For roundabouts the crash risk is 1.07 casualty crashes for every 10 million vehicles entering a roundabout.
- For single lane divided roads the crash risk is 23 casualty crashes per 100 million vehicle kilometres travelled.

The Table below provides an estimation of the potential yearly crash rates for the two alignments:

<table>
<thead>
<tr>
<th>Alignment</th>
<th>Intersection</th>
<th>Midblock</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eastern</td>
<td>1.05</td>
<td>2.9</td>
<td>3.95</td>
</tr>
<tr>
<td>Eckerman</td>
<td>0.54</td>
<td>3.1</td>
<td>3.64</td>
</tr>
</tbody>
</table>

The estimated outcomes suggest that the Eastern Alignment is slightly worse than Eckerman in terms of potential crash risk.

However, conflicts may also exist between local traffic movements and through traffic movements (such as traffic entering and exiting properties and through traffic on GELR), which is also considered to be a safety risk, albeit challenging to determine in terms of available reference standards. A simplistic approach adopted was to compare the number of existing properties on each alignment as part of the assessment; 8 properties that are likely to have direct access for the Eastern Alignment compared to 15 for the Eckerman Alignment. The latter is considered to have a slightly greater crash risk.

**OUTCOME**: On balance, the travel safety was considered to very similar under both alignments

1.3.1.2 Travel Time

The travel time analysis for the two alignments is composed of the length of time to travel from the edge of the Springwood development through to intersection of Adelaide / Potts Road (as well as any delays that are experienced at any intersections).

The travel time is based on the length and speed of the road, whilst the intersection delays have been estimated using the computer program SIDRA. The SIDRA program indicates that for each of the roundabouts the delay would be in the order of 20 seconds per vehicle.
The Table below provides an estimation of travel time for the two alignments:

### TABLE 4: TRAVEL TIME ESTIMATION

<table>
<thead>
<tr>
<th>Alignment</th>
<th>Intersection(sec)</th>
<th>Midblock (sec)</th>
<th>Total (sec)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eastern (2 x intersections)</td>
<td>40</td>
<td>182</td>
<td>222</td>
</tr>
<tr>
<td>Eckerman (1 x intersection)</td>
<td>20</td>
<td>194</td>
<td>214</td>
</tr>
</tbody>
</table>

**OUTCOME**: The difference in travel time between the Eckerman and Eastern alignments (of 8 seconds) is considered to be negligible.

1.3.1.3 **Accessibility and Convenience ToExisting Lots**

This criterion was divided into two (2) components, namely:

- impact on known developments; and
- ability to access the Gawler East Development Plan Zone area lands.

In terms of the impact on known developments, there are only two known developments that have been lodged for development approval within the Gawler East Development Zone. The first is Woodvale fronting One Tree Hill Road & Eckerman Avenue which is currently under construction, and the other a proposed development to the south of One Tree Hill Road. Both of these developments are shown in Figures 2 and 3 below for the Eastern and Eckerman Avenue Alignments respectively.

**FIGURE 2: EASTERN ALIGNMENT IMPACT ON KNOWN DEVELOPMENTS**
FIGURE 3: ECKERMAN AVENUE ALIGNMENT IMPACT ON KNOWN DEVELOPMENTS

Access to Woodvale development is provided by both One Tree Hill Road and Eckerman Avenue. For the proposed development south of One Tree Hill Road, the Eastern Alignment currently severs this area.

In terms of the ability to access the Gawler East Development Zone Area lands from each alignment, the above figures show the potential developable areas (DPTI owned and private land) as they relate to the proposed Eastern and Eckerman Alignments, surrounding constraints such as watercourses and steep terrain, and indicative access points from the new alignment and existing road network.

Both alignments together with the existing road network provide access to the Gawler East Development Zone Area lands. However, the Eastern Alignment would create a number of sharp triangular corners in the shape of the resultant development lots, potentially signalling a reduced lot yield, with these corners being suited to mainly open space. In addition, the creation of the smaller and in some cases elongated development lots may be less amenable to subdivision than the present lot shapes. That is those that may be created under the Eckerman Alignment.

In could also be debated that the Eastern Alignment is more central and therefore provides better access to a greater proportion of the Development Zone Area lands (including the DPTI owned areas) compared to the Eckerman Avenue Alignment which is located on the southern most extremity of the Zone lands potentially inhibiting direct access and the ability to readily access trunk utility services along the GELR.

**OUTCOME**: The Eckerman Alignment is slightly beneficial than Eastern Alignment in terms of access to the Gawler East Development Zone Area lands.
FlightPath Architects were engaged to undertake a heritage survey and assessment of the impacts from the proposed GELR alignments.

The heritage impacts relate to the sole heritage place in this location listed in the Town of Gawler Development Plan, namely a property located at 228 One Tree Hill Road, Evanston Park.

An extract from the Plan lists this property as “Bentley, dwelling and outbuildings” and provides the following description:

“The historic form and fabric of the dwelling, previous school and various historic outbuildings.”

(a) “it displays historical, economic or social themes that are of importance to the local area, being a surviving group of early farm buildings in the area, which has significant associations with the development of pastoral and agricultural activity around Gawler.
(b) It represents customs or ways of life that are characteristic of the local area, namely the farming traditions of the rural properties around the Town of Gawler.
(c) it is associated with a notable local personality or event, namely the Riggs family, a family which has been involved in farming and social activities in Gawler for many generations.”

The Heritage Survey describes:

“Group of single-storey stone farm buildings with red brick dressings including house, former school room, stables and other stone outbuildings. House has a hipped corrugated–iron roof, verandah, timber framed double hung, multi-paned windows, and a portico entrance with staircase and stone balustrade to right and stone wall with curved coping to left. Former schoolroom has a gambrel corrugated-iron roof and small verandah.”

“Bentley is one of the most significant and exemplary groups of 19th Century farm buildings to survive in the Gawler area and has significant associations with the pastoral and agricultural development of the area and with the Riggs family”

A spatial depiction of the location of the heritage property is contained in Figure 4 below.
Both a desk-top and field assessment were undertaken to identify the impacts of each alignment on the local heritage property with conclusions shown in the Table below.

**TABLE 5: HERITAGE ASSESSMENT SUMMARY**

<table>
<thead>
<tr>
<th>Option</th>
<th>Benefit</th>
<th>Impacts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eastern</td>
<td>LHP buildings remain intact; Main frontage appears unaffected</td>
<td>Views of Adelaide Plains from west and south wall of Local Heritage Place (LHP) will be affected</td>
</tr>
<tr>
<td></td>
<td></td>
<td>New road impacts on setting of LHP; Separation from LHP is insufficient</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Option</th>
<th>Benefit</th>
<th>Impacts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eckerman</td>
<td>- LHP buildings remain intact;</td>
<td>Minimal</td>
</tr>
<tr>
<td></td>
<td>- Views from LHP maintained</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- New link road does not affect the Subject Site</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Separation from heritage place is maximum</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Tree screening and separate owned modern building along east side</td>
<td></td>
</tr>
</tbody>
</table>
In summary:

- Eckerman alignment provides the maximum separation from the Local Heritage Place;
- Eastern Alignment affects the Subject Site and is located uncomfortably close to dwellings from a heritage perspective;
- Located on lower ground, the Eastern Alignment will adversely affect viewing from the property and the open landscape setting;
- Eckerman Alignment is on higher ground, within a treed setting, and associated with more recent development. It has maximum separation from the property.

**OUTCOME:** The Eckerman Alignment is considered to have significantly less local heritage impact compared to the Eastern Alignment.

1.3.3 Noise Impacts

Sonus were engaged to undertake a preliminary assessment of the noise from the proposed GELR alignments. The assessment determined the appropriate criteria, makes a preliminary prediction of the noise at various distances from the proposed sections of road and provides indicative acoustic treatment measures to achieve the required standards of a new road constructed in an existing urban environment.

The conceptual nature of the assessment is based on the asphalt surface being dense grade, worse case traffic volumes on day opening in 2019 and projected by 10 years to 2028, indicative existing noise levels measured at a limited number of locations.

Once a preferred alignment is determined, a more detailed and formal assessment will need to be undertaken with additional noise monitoring in addition to the development of a noise model which takes into account topography, intersections, bends in the road and finite length barriers.

DPTI's Road Traffic Noise Guidelines 2014 are considered to be the most appropriate criteria for noise assessment for new or upgraded roads. It has been used extensively on many major road projects and applied to residences in the vicinity of "physical changes" associated with new roads or roads which are significantly upgraded.

The typical criteria from the Guidelines are:

**Noise Descriptors:**

The noise descriptors in the Table below refer to the energy averaged equivalent (L_{eq}) noise level over each period, and are defined as:

**TABLE 6: NOISE DESCRIPTORS**

<table>
<thead>
<tr>
<th>Time Period</th>
<th>Descriptor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day (7am to 10 pm)</td>
<td>dB(A)L_{eq} (15hr) or L_{Aeq day}</td>
</tr>
<tr>
<td>Night (10pm to 7 am)</td>
<td>dB(A)L_{eq} (9hr) or L_{Aeq night}</td>
</tr>
</tbody>
</table>
Noise Criteria:

The Table below sets out the Noise Criteria applicable for either ‘new’ or ‘redeveloped’ road projects as they apply to receivers (i.e. dwellings).

### TABLE 7: NOISE CRITERIA

<table>
<thead>
<tr>
<th>Project Type</th>
<th>Applicable situation</th>
<th>Noise Criteria (1) – dB(A) L_{eq}</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Day</td>
</tr>
<tr>
<td>New Road</td>
<td>Existing receivers affected by noise from a new road</td>
<td>55</td>
</tr>
<tr>
<td>Redeveloped Road</td>
<td>Existing receivers affected by noise from a redeveloped road</td>
<td>60</td>
</tr>
</tbody>
</table>

In some cases large increase in existing noise can cause a major change to the acoustic environment of a location. With this situation, a Relative Increase Criterion (RIC) is applied to receivers which is more stringent than the new or redeveloped road criteria (above). This would generally only occur where a new road is being developed in an area where there is no or low levels of existing traffic noise. These Relative Increase Criteria (RIC) are shown in the Table below:

### TABLE 8: RELATIVE INCREASE CRITERION

<table>
<thead>
<tr>
<th>Time Period</th>
<th>Descriptor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day (7am to 10 pm)</td>
<td>Existing $L_{Aeq}$ day + 12 dB</td>
</tr>
<tr>
<td>Night (10pm to 7 am)</td>
<td>Existing $L_{Aeq}$ night + 12 dB</td>
</tr>
</tbody>
</table>

$^{*}L_{Aeq}$ = Equivalent Continuous Level of sound.

Noise loggers were placed from 8 to 11 March 2016 in the Gawler Development Zone area. From the measured data, the $L_{Aeq}$ day and $L_{Aeq}$ night have been calculated, excluding periods where rain has occurred or other extraneous noise has clearly influenced the measured level. These results are provided in the Table below.

### TABLE 9: CALCULATED $L_{Aeq}$

<table>
<thead>
<tr>
<th>Location</th>
<th>$L_{Aeq}$ day</th>
<th>$L_{Aeq}$ night</th>
</tr>
</thead>
<tbody>
<tr>
<td>A (Potts Road)</td>
<td>60</td>
<td>52</td>
</tr>
<tr>
<td>B (Gully at Kelly Crt)</td>
<td>43</td>
<td>38</td>
</tr>
</tbody>
</table>
Based on the requirements of the Guidelines the criteria are an $L_{Aeq}$ day of 55 dB(A) and an $L_{Aeq}$ night of 50 dB(A) for:

- The new sections of road;
- The existing portion of the Eckerman Avenue alignment based on the measured noise levels at location B and the application of the Relative Increase Criterion (RIC).

For Potts Road and One Tree Hill Road (which have higher traffic volumes), the criteria are an $L_{Aeq}$ day of 60 dB(A) and an $L_{Aeq}$ night of 55 dB(A), which are for a redeveloped road.

The Guidelines require acoustic treatments to be based on a comparison of the criteria with the predicted noise level (2018) but with the extent of acoustic treatment based on the predicted noise level 10 years after opening (2028).

The assumed acoustic treatments at this concept design stage include Colorbond (or equivalent) sheet steel fencing for heights less than or equal to 2.1m, and masonry, 12mm thick compressed fibre cement or a material with an equivalent surface density for heights greater than 2.1m. The final treatments will be subject to detailed design and discussions with property owners at that time.

On the basis of this review, maximum distances between building facades and the centre of the road have been determined to define where acoustic treatment will be required. These distances are shown below in the Table below.
**TABLE 10: MAXIMUM DISTANCE TO BUILDING FAÇADE FOR ACOUSTIC TREATMENT**

<table>
<thead>
<tr>
<th>Road Section</th>
<th>Guideline Adopted</th>
<th>Threshold</th>
<th>Maximum Distance</th>
</tr>
</thead>
<tbody>
<tr>
<td>GELR north of One Tree Hill Road</td>
<td>New Road</td>
<td>$L_{A_{eq}}$ day of 55 dB(A)</td>
<td>35m</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$L_{A_{eq}}$ night of 50 dB(A)</td>
<td></td>
</tr>
<tr>
<td>One Tree Hill Road</td>
<td>Existing Road</td>
<td>$L_{A_{eq}}$ day of 60 dB(A)</td>
<td>25m</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$L_{A_{eq}}$ night of 55 dB(A)</td>
<td></td>
</tr>
<tr>
<td>GELR – One Tree Hill Road to Potts Road</td>
<td>New Road</td>
<td>$L_{A_{eq}}$ day of 55 dB(A)</td>
<td>35m</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$L_{A_{eq}}$ night of 50 dB(A)</td>
<td></td>
</tr>
<tr>
<td>Potts Road</td>
<td>Existing Road</td>
<td>$L_{A_{eq}}$ day of 60 dB(A)</td>
<td>25m</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$L_{A_{eq}}$ night of 55 dB(A)</td>
<td></td>
</tr>
<tr>
<td>Eckerman Avenue</td>
<td>New Road (RIC)¹</td>
<td>$L_{A_{eq}}$ day of 55 dB(A)</td>
<td>40m</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$L_{A_{eq}}$ night of 50 dB(A)</td>
<td></td>
</tr>
</tbody>
</table>

¹. Although there are existing sections of Eckerman Avenue, the existing noise levels (based on noise measurements at location B) result in the same criteria as for a new road.

The proposed distances were then translated onto the design alignment show to determine the extent of noise attenuation required to existing buildings (purple dots on the figures below).
OUTCOME: One (1) property requires noise treatment for the Eastern Alignment and six (6) properties for the Eckerman Avenue alignment.

It should also be noted, that whilst not specifically affected by the Council’s alignments, the review has determined that noise attenuation will be required to the properties located on Potts Road, which is common to both alignments. The extent and detail associated with the Potts Road noise attenuation and that on the Council’s preferred alignment will be further investigated as part of the detailed design process, in consultation with the affected property owners.

1.3.4 Air Quality

Pacific Environment were engaged to assess and provide commentary on potential impacts on local air quality and greenhouse gas (GHG) emissions for the Council alignment options for the Gawler East Link Road.

The scope of work included calculating vehicle emissions using worst case traffic volumes and summarising the assessment of potential air quality impacts and GHG from the different alignment options.

Given the conceptual nature of the design and analysis, the modelling adopted the following methodology:

- Dividing the road into several road links based on road gradients for use in the emission estimations,
- Calculating the emissions based on these predominant pollutant sources from road vehicles; carbon monoxide (CO), hydrocarbons (HC), oxides of nitrogen (NOX) and particulate matter (PM). For the assessment of GHG emissions, this is usually characterised in terms of carbon dioxide equivalent (CO2 (eq)) emissions.
- Adopting an appropriate modelling tool; Transport and Air Quality (TRAQ) model, for calculating emissions from road traffic for the alignment options.
Applying the inputs into the TRAQ model including; worse case traffic volumes, level in the network hierarchy, the number of lanes, the speed limit and the frequency of intersections/signals. Based on these considerations, “commercial arterial” was allocated to each of the road links included in this assessment.

The results are presented in the Table below:

<table>
<thead>
<tr>
<th></th>
<th>CO (kg/day)</th>
<th>NOx (kg/day)</th>
<th>PM10 (kg/day)</th>
<th>PM2.5 (kg/day)</th>
<th>CO2 (eq) (kg/day)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eastern Alignment</td>
<td>147.86</td>
<td>30.05</td>
<td>1.72</td>
<td>1.11</td>
<td>10,732.06</td>
</tr>
<tr>
<td>Eckerman Alignment</td>
<td>126.18</td>
<td>26.66</td>
<td>1.69</td>
<td>1.08</td>
<td>10,774.58</td>
</tr>
<tr>
<td>Percentage Difference (%)</td>
<td>14.7</td>
<td>11.3</td>
<td>1.6</td>
<td>2.7</td>
<td>0.1</td>
</tr>
</tbody>
</table>

The results indicated that whilst the Eckerman Alignment, which is further away from residential properties, has been estimated to have lower total emissions than the Eastern Alignment, these differences are minor and are unlikely to result in significantly different impacts away from areas in the immediate vicinity of the roadway.

OUTCOME: In terms of greenhouse gas (GHG) emissions and their impact on the environment, there is no significant difference between either alignment options.

1.3.5 Fauna / Flora

EBS Ecology were engaged to undertake a Flora and Fauna assessment. The scope of the investigations included:

- Assessment based on the current Eastern and Eckerman Avenue alignments between Potts Road to north of South Para River
- Desktop assessment/database searches, particularly of threatened flora and fauna
- Broad vegetation associations
- Species list – observed flora and fauna
- Significant/Regulated trees under the Development Act individually assessed
- Vegetation protected under the Native Vegetation Act individually assessed
- Field survey undertaken in March 2016 – follow up survey in June/July 2016 to address deficiencies relating to alignment changes
- A review of the DPTI alignment previously surveyed by DPTI 2012 (desk-top and through field investigations to verify the survey)

The extent of survey ensured that the full extent of environmental impacts was understood for both Council alignments for their full extent to the South Para Bridge and to enable a more robust comparison to occur in the MCA process.
1.3.5.1 Flora

The investigations noted no national or state listed flora species recorded within the current project extent.

The summary contained in the Table below provides the impact of the two alignments on the flora within the study area:

**TABLE 12: SUMMARY OF IMPACTS ON FLORA OF COUNCIL’S ALIGNMENTS**

<table>
<thead>
<tr>
<th>Development Act 2003</th>
<th>EASTERN ALIGNMENT</th>
<th>ECKERMAN ALIGNMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Within extent of batter</td>
<td>Within 15m buffer (outside extent of batter) - may be impacted</td>
</tr>
<tr>
<td>Significant Trees (&gt;3m circ)</td>
<td>12 (6 being remnant)</td>
<td>12 (3 being remnant)</td>
</tr>
<tr>
<td>Regulated Trees (&gt;2m circ)</td>
<td>18 (2 being remnant)</td>
<td>13 (3 being remnant)</td>
</tr>
<tr>
<td>Native Vegetation Act 1991</td>
<td>Scattered remnant trees</td>
<td>Areas of degraded native grassland and area of Phragmites wetland (South Para River)</td>
</tr>
<tr>
<td>Native vegetation assessed as areas (m²)</td>
<td>~ 120 ha or payment around $600,000*</td>
<td>~ 30 ha or payment around $150,000*</td>
</tr>
<tr>
<td>SEB Offset for Native Vegetation clearance (* estimate only)</td>
<td>~ 40*</td>
<td>~ 20*</td>
</tr>
<tr>
<td>Additional native vegetation outside the boundary of the Native Vegetation Act</td>
<td>Scattered remnant trees (*estimate only)</td>
<td></td>
</tr>
</tbody>
</table>

It should be noted that final number of significant and regulated trees shown in the table above that would be affected by the Council’s alignments has changed from that which was communicated as part of the community consultation process undertaken in May 2016.
These changes are due to the further development of the detailed design to a notional 20% design which has identified further trees that would be affected. The most notable of this change is to the Eastern Alignment where 12 significant & 18 regulated trees would need to be removed to facilitate the road required for the GELR.

1.3.5.2 Fauna

Threatened Fauna species were identified in the area including the Flinders Ranges Worm-Lizard (listed as nationally vulnerable) and is likely to be present within gully areas where surface rocks provides suitable habitat. Impact on the habitat of the lizard would be subject of the provisions of the Ecological Biodiversity Protection and Conservation (EBPC) Act.

The Ecological Biodiversity Protection and Conservation (EBPC) Act provides a framework to protect and manage nationally and internationally important flora, fauna, ecological communities and heritage places, which are defined under the Act as matters of national environmental significance. This includes nationally threatened species and ecological communities such as the Flinders Ranges Worm-Lizard.

In broad terms, when a person or an authority (a 'proponent') wants an action (often called a 'proposal' or 'project') assessed for environmental impacts under the EPBC Act, he or she must refer the project to the Department of Sustainability, Environment, Water, Population and Communities. This 'referral' is then released to the public, as well as relevant state, territory and Commonwealth ministers, for comment on whether the project is likely to have a significant impact on matters of national environmental significance.

The minister or the minister’s delegate will then decide whether the likely environmental impacts of the project are such that it should be assessed under the EPBC Act. Any relevant public comments are taken into consideration in making that decision.

The minister assesses all the information provided by the department before making a decision about whether or not the project should proceed, and if so, whether any specific conditions need to be attached to that approval. In addition to considering potential impacts on matters of national environmental significance, in making a decision the minister also considers the social and economic impact of the project.

The surveys did highlight areas of high habitat value including:

- Eucalyptus porosa (Mallee Box) woodland – mostly in gullies. Numerous tree hollows. Important regional habitat for birds, bats, lizards and the State Rare Common Brushtail Possum. Important for maintaining habitat connectivity.
- Rocky gullies – Flinders Ranges Worm-Lizard
- Eucalyptus camaldulensis (River Red Gum) and Phragmites australis (Common reed) along South Para River.
- Scattered mature trees

Furthermore, the migratory Rainbow Bee-eater and Latham's Snipe are expected to occur around the South Para River.

The summary Table below provides the impact of the two alignments on the fauna within the study area:
TABLE 13: SUMMARY OF FAUNA IMPACTS OF COUNCIL’S ALIGNMENTS

<table>
<thead>
<tr>
<th></th>
<th>EASTERN ALIGNMENT</th>
<th>ECKERMAN ALIGNMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Within extent of</td>
<td>Within 15m buffer (outside extent of batter) - may be impacted</td>
<td>Within extent of batter</td>
</tr>
<tr>
<td>batter</td>
<td></td>
<td>Within 15m buffer (outside extent of batter) - may be impacted</td>
</tr>
<tr>
<td>Flinders Ranges</td>
<td>Impact on two gullies providing potential habitat for Flinders Ranges Worm Lizard – EPBC referral recommended</td>
<td>Impact on small area of very marginal habitat for Flinders Ranges Worm Lizard – EPBC referral may not be necessary</td>
</tr>
<tr>
<td>Worm-Lizard</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

OUTCOME: Eckerman Avenue Alignment is considered to have less impacts when compared to the Eastern Alignment on Flora and Fauna

1.3.6 Land Acquisition Impacts

Property & Advisory were engaged to undertake a desk-top value analysis and valuations of the properties that are directly affected by each alignment via land acquisition requirements, and indirectly affected by way of developable areas depending on the alignment.

It is important to note that the exercise was a comparative desk-top analysis of each alignment option with outcomes only used to inform the MCA and reconcile against the cost estimates. Any future land acquisition for the project which will require formal property valuations and follow the requirements of the Land Acquisition Act (1999) which is discussed later in this Report.

The particular focus of the investigations involved determining indicative ‘whole of project’ property values/costs for each alignment based on:

1. Partial and full acquisition of all affected properties as required; and
2. Residual land that may be resold following road construction depending on the extent of acquisition and the future circumstances of each such site.

The assessment methodology involved establishing the direct costs for the value of each affected property/land parcel based on assessed rates per hectare derived (in lieu of a formal property valuation being undertaken), in turn, from sales analysis and a ‘drive-by’ viewing. It is noted that some affected properties are in private ownership, while others are in public (i.e. Council or DPTI) ownership. Value estimates were only applied to privately owned land.

Entitlement to other ‘Heads of Compensation’ was also considered, including severance, injurious affection and disturbance (definition provided below). For current purposes, no allowance has been made for the costs associated with owner valuations, owner legal costs or authority legal costs such as those incurred by DPTI (although these costs have been captured separately within the overall project costs estimates developed as part of the Council’s investigations).
The ‘Heads of Compensation’ are defined as:

**Severance**: which typically applies in circumstances where an ongoing commercial or agricultural enterprise suffers adverse effects on its ongoing operation and cost base as a consequence of acquisition. None of the private properties affected by any proposed alignment will actually be severed in the manner contemplated by this definition.

**Injurious Affection**: which recognise that there may be some loss of utility, economic potential, ambience, privacy or other similar diminution in the dispossessed owner’s future enjoyment of the land.

**Disturbance**: which recognise short term imposts such as removal costs (in the case of complete acquisition), inconvenience during construction and in the case of commercial operations, costs associated with change occasioned by the acquisition.

These Heads of Compensation have been considered for each affected property on the alignment and estimates of appropriate allowances are included in the overall value summary.

Specific details as to values for Property and Heads of Compensation attributable for each individual property are contained in the consultant report located in the Multi Criteria Analysis Report (by Tonkin Consulting) **Attachment 2**.

In summary the number and area of land acquisition required for each alignment is detailed in the Table below:

**TABLE 14: LAND ACQUISITION SUMMARY**

<table>
<thead>
<tr>
<th>Route</th>
<th>No of dwellings affected</th>
<th>No of properties where land is to be acquired</th>
<th>Area of land to be acquired (Ha)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eastern Alignment</td>
<td>1</td>
<td>8</td>
<td>6.7</td>
</tr>
<tr>
<td>Eckerman Alignment</td>
<td>1</td>
<td>18</td>
<td>6.55</td>
</tr>
</tbody>
</table>

Based on recent sales evidence, land value analysis has been undertaken for the locality, with the resultant rates being as shown in the Table below.

**TABLE 15: LAND VALUES ANALYSIS (RATES PER HECTARE)**

<table>
<thead>
<tr>
<th>Zone</th>
<th>Land Area</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>+/- 1 Ha</td>
</tr>
<tr>
<td>Open Space</td>
<td>$60,000</td>
</tr>
<tr>
<td>Rural</td>
<td>N/A</td>
</tr>
<tr>
<td>Rural Living</td>
<td>N/A</td>
</tr>
<tr>
<td>Residential (Hills) and Residential (Gawler E)</td>
<td>$300,000</td>
</tr>
<tr>
<td></td>
<td>$40 - 80,000</td>
</tr>
</tbody>
</table>

Based on this land values analysis and including an estimate of the Heads of Compensation that may be attributable, the total value of private property acquisition costs for Council’s alignments is as detailed in the Table below.
### TABLE 16: TOTAL VALUE OF ALL PRIVATE PROPERTY ACQUISITION ON COUNCIL ALIGNMENTS

<table>
<thead>
<tr>
<th>Route</th>
<th>Assessed Value of Acquired Land</th>
<th>Compensation Allowance</th>
<th>Remainder Land Value</th>
<th>Net Acquisition Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eastern Alignment</td>
<td>$1,124,000</td>
<td>$70,000</td>
<td>$300,000</td>
<td>$894,000</td>
</tr>
<tr>
<td>Eckerman Alignment</td>
<td>$1,215,500</td>
<td>$180,000</td>
<td>$295,000</td>
<td>$1,100,500</td>
</tr>
</tbody>
</table>

- The number of dwellings acquired by the Council’s preferred alignments is the same for both alignments (i.e. one), with the total acquisition of this property required under each option.

- The Eastern Alignment requires the partial acquisition of 7 additional private properties versus 17 additional private properties for the Eckerman Alignment.

- The net acquisition costs of private land derived from this analysis (i.e. costs of acquisition less value of ‘remainder land’) range from $0.9m for the Eastern Alignment to $1.1m for Eckerman Alignment.

- Compensation allowances are considered modest for all alignments. In the overall picture, the total amounts allowed for compensation (as opposed to values of actual land acquired) are relatively minor.

- For the Council’s preferred alignments 137 Potts Road is acquired in its entirety, a remainder site of approximately 1.5 hectares is created. This land has a subsequent sale value which contributes to the net acquisition cost.

As a separate exercise, Property & Advisory were also asked to provide commentary on developable areas of land within the Gawler East DPA area with and without the Link Road in place (based on DPTI’s preferred alignment). This aspect is detailed later in the report.

**OUTCOME**: Eckerman Avenue Alignment is considered to have a greater impact on properties due to the greater extent of properties affected.

### 1.3.7 Cost Estimation of Council’s Alignments

A key component to assessing Council’s alignments is their cost estimates. Sempac were engaged to analyse and derive concept cost estimates for each Council alignment including adjustments for the design refinements, value management opportunities and project delivery methodology. Sempac have a detailed understanding of the Gawler East Link Road having worked with the State Government to develop cost estimates for their alignment.

The cost estimate produced allows for project administration and management, land acquisition and installation of trunk utility services, direct costs for design and construction, overheads and margin, and reasonable allowances for project risks such as inclement weather, design growth, scope changes, poor ground conditions and unforeseen circumstances and delays.
In addition to estimating costs for the Council alignments, an update to the DPTI alignment was also undertaken to bring their estimate up from 2012 to 2016 dollars thus allowing proper comparisons of cost elements to be made between Council’s alignments and DPTI on today’s dollar value.

A cost estimate summary has been provided in the Table below highlighting the major components for each alignment option:

**TABLE 17: COST ESTIMATE SUMMARY**

<table>
<thead>
<tr>
<th>DPTI Alignment</th>
<th>$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main Alignment</td>
<td>37,729,043</td>
</tr>
<tr>
<td>Potts Road - Lower Section</td>
<td>5,959,046</td>
</tr>
<tr>
<td>(DPTI alignment interface with Potts Road to Adelaide Road Intersection)</td>
<td></td>
</tr>
<tr>
<td>Potts Road / Adelaide Road Intersection</td>
<td>12,279,187</td>
</tr>
<tr>
<td>Sub-total:</td>
<td>$55,967,275</td>
</tr>
<tr>
<td>Potts Road - Upper Section</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>(Council alignment to the DPTI alignment interface with Potts Road)</td>
<td></td>
</tr>
<tr>
<td>TOTAL:</td>
<td>$55,967,275</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Eastern Alignment</th>
<th>$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main Alignment</td>
<td>39,079,499</td>
</tr>
<tr>
<td>Potts Road - Lower Section</td>
<td>5,959,046</td>
</tr>
<tr>
<td>(DPTI alignment interface with Potts Road to Adelaide Road Intersection)</td>
<td></td>
</tr>
<tr>
<td>Potts Road / Adelaide Road Intersection</td>
<td>12,279,187</td>
</tr>
<tr>
<td>Sub-total:</td>
<td>$57,317,732</td>
</tr>
<tr>
<td>Potts Road - Upper Section</td>
<td>5,374,873</td>
</tr>
<tr>
<td>(Council alignment to the DPTI alignment interface with Potts Road)</td>
<td></td>
</tr>
<tr>
<td>TOTAL:</td>
<td>$62,692,605</td>
</tr>
</tbody>
</table>
Eckerman Alignment

<table>
<thead>
<tr>
<th>Alignment Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main Alignment</td>
<td>39,049,528</td>
</tr>
<tr>
<td>Potts Road - Lower Section (DPTI alignment interface with Potts Road to Adelaide Road Intersection)</td>
<td>5,959,046</td>
</tr>
<tr>
<td>Potts Road / Adelaide Road Intersection</td>
<td>12,279,187</td>
</tr>
</tbody>
</table>

Sub-total: $ 57,278,761

<table>
<thead>
<tr>
<th>Alignment Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potts Road - Upper Section (Council alignment to the DPTI alignment interface with Potts Road)</td>
<td>5,374,873</td>
</tr>
</tbody>
</table>

TOTAL: $ 62,662,634

The difference in cost for the Council alignments is in the order of $30,000 which represents a negligible difference.

It should be noted that the costs at this point represents the estimates completed for the alignments just prior to (and used for) the Multi-Criteria Analysis. Since the MCA, further cost refinements have been undertaken which is further discussed later in this report.

OUTCOME: The costs for each alignment were considered to be of similar order and of no discernible difference for the purposes of the MCA.

1.3.8 Social Effects

It should be noted that for the purposes of the MCA, the social effects criterion was assessed by considering feedback from directly affected residents through the community engagement process. This feedback was documented in the Engagement Report prepared by URPS and presented to the Special Council meeting held on 5 July 2016.

A substantial degree of effort and discussion occurred within the Evaluation Team in establishing a methodology to effectively rank the Social Effects of the Council's alignments. In doing so it was deemed necessary that definitions for Severance and Cohesion be established to guide the evaluation process as it related to these elements of the criterion. They are:

**Community Severance**

Occurs when transport infrastructure limit's people’s mobility instead of facilitating it. It can occur when a railway line or major road splits a community, resulting in the separation of residents from the facilities and services they use within their community, from place of work and friends and family.
It can also occur where the speed and/or volume of traffic prevents people being able to cross the road easily, restricting local vehicle accessibility, walking and cycling movements.

*Community Cohesion*

The quality and quantity of interactions among people in the community and an overall sense of belonging. Common values, beliefs and behaviours contribute to social cohesion as does strong social networks and connectedness.

Transport infrastructure can impact community cohesion by reducing opportunities for social interaction which can occur when traffic volumes increase or a road bisects a community. This can affect the amount of movement that occurs in a neighbourhood and therefore the potential for neighbourly interactions, the quality of the public realm (e.g. footpaths and parking spaces) and the frequency of social interactions when running errands or participating in local activities.

Transport infrastructure can also provide positive benefits including generating new development and therefore opportunities for increased social and economic activity and delivering improved infrastructure such as quality roads and footpaths.

A separate subset multi-criteria analysis was conducted specifically for these elements of the Social Effects criterion to compare the alignments for both existing and future conditions, acknowledging that the social landscape is vastly different today (with its rural setting) versus the future as residential development progresses.

### 1.3.8.1 Community Severance versus Community Cohesion

The key discussion points for severance & cohesion are contained the Table below:

<table>
<thead>
<tr>
<th>Alignment</th>
<th>Community Severance</th>
<th>Community Cohesion</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Existing</strong></td>
<td><strong>Future</strong></td>
<td><strong>Existing</strong></td>
</tr>
<tr>
<td>Eastern</td>
<td>Small number of existing residents that would be affected</td>
<td>Road and volume of traffic will create a barrier to movement of local residents</td>
</tr>
</tbody>
</table>
### 1.3.8.2 Passing Traffic

When considering passing traffic, the predicted increase in daily traffic volumes at ‘day opening’ would be in order of 4,000 to 5,000 vehicles per day when compared to existing conditions on both Eckerman Avenue and One Tree Hill Road. This is a significant impact on the existing conditions.

The impact of passing traffic in the future when the area is fully developed is not considered to be an issue as the area is fully developed and GELR is operating at its intended traffic capacity, meaning that any new residents will have knowledge of the road’s alignment and an understanding of their amenity. It is therefore considered that there is no difference between the alignments in terms of passing traffic for future residents. This is depicted in the Table below.

#### TABLE 19: SUMMARY OF PASSING TRAFFIC

<table>
<thead>
<tr>
<th>Alignment</th>
<th>Existing</th>
<th>Future</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Eastern</strong></td>
<td>Existing residents on One Tree Hill Road</td>
<td>Area will be fully developed and conditions will be known</td>
</tr>
<tr>
<td></td>
<td>Impact is slightly detrimental</td>
<td>Neutral</td>
</tr>
<tr>
<td><strong>Eckerman</strong></td>
<td>More existing residents affected on Eckerman Avenue</td>
<td>Area will be fully developed and conditions will be known</td>
</tr>
<tr>
<td></td>
<td>Impact is moderately detrimental</td>
<td>Neutral</td>
</tr>
</tbody>
</table>

### 1.3.8.3 Amenity

Both alignments will have an impact on amenity given the current rural setting, which will progressively change with the appearance of the road, roundabouts and bridges, as well as future residential developments and dwellings. This will impact both adjacent residents of the proposed road alignments as well as existing residents in the Gawler East Development Zone area.
The Eastern Alignment that utilises a section of One Tree Hill Road passes fewer properties and therefore the impacts relating to visual amenity, privacy, light spill and overlooking are considered to be less when compared to the Eckerman Avenue Alignment.

The nature of the topography and number of existing properties along Eckerman Avenue will also result in the potentially greater overlooking (privacy) impacts on the existing residents compared to the Eastern Alignment.

The consideration of light spill identified that the impacts of new road lighting, for example at the roundabouts and along the roadway, can be mitigated by appropriate use of screening devices, and was therefore considered to be the same for both alignments.

**TABLE 20: SUMMARY OF AMENITY IMPACTS**

<table>
<thead>
<tr>
<th>Alignment</th>
<th>Existing</th>
<th>Future</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eastern</td>
<td>Results in road, bridges and roundabouts in a rural setting</td>
<td>Area will be fully developed and conditions will be known</td>
</tr>
<tr>
<td></td>
<td>Less potential for overlooking due to topography and number of existing residences along alignment</td>
<td>Neutral</td>
</tr>
<tr>
<td></td>
<td>Impact is slightly detrimental</td>
<td></td>
</tr>
<tr>
<td>Eckerman</td>
<td>Results in road, bridges and roundabout in a rural setting</td>
<td>Area will be fully developed and conditions will be known</td>
</tr>
<tr>
<td></td>
<td>Greater potential for overlooking due to topography and number of existing residences along Eckerman Avenue</td>
<td>Neutral</td>
</tr>
<tr>
<td></td>
<td>Impact is moderately detrimental</td>
<td></td>
</tr>
</tbody>
</table>

**1.3.8.4 Social Effects Summary**

**OUTCOME:** On the basis of the key points of difference for the social effects of the two alignments on the existing and future community, the assessment indicated that on balance, the Eckerman Alignment has moderately greater impacts when compared to the Eastern Alignment, predominantly as a result of the impacts on the existing community when GELR is first opened to traffic.

**1.4 MULTI CRITERIA ASSESSMENT**

**1.4.1 Council Preferred Alignments MCA Process**

Following completion of the analyses and investigations, the MCA process was undertaken over a 2-day period on 22 and 25 July 2016.

The MCA session commenced with an introduction to the group, including a recap of the 2 Council alignments, feedback from the consultation process undertaken in May 2016 and an outline of the MCA methodology and expected outcomes.
The score methodology is in accordance with the previously endorsed qualitative score attributes, but with the addition of quantitative scores to enable a degree of differentiation of the impacts to be determined between the options, and allow a total score for the assessment to be derived. This score methodology is detailed in the summary below.

<table>
<thead>
<tr>
<th>Qualitative Score Attribute</th>
<th>Quantitative Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Highly beneficial</td>
<td>+3</td>
</tr>
<tr>
<td>Moderately beneficial</td>
<td>+2</td>
</tr>
<tr>
<td>Slightly beneficial</td>
<td>+1</td>
</tr>
<tr>
<td>Neutral</td>
<td>0</td>
</tr>
<tr>
<td>Slightly detrimental</td>
<td>-1</td>
</tr>
<tr>
<td>Moderately detrimental</td>
<td>-2</td>
</tr>
<tr>
<td>Highly detrimental</td>
<td>-3</td>
</tr>
</tbody>
</table>

Prior to commencing the MCA scoring, presentations to the MCA Evaluation Team (Team) were provided by the engineering, property, environmental and social technical experts identifying and quantifying the impacts associated with each alignment. These presentations enabled the group to fully appreciate the quantum of impacts associated with each criterion.

Both the Eastern and Eckerman Alignments were then rated (scored) on a relativity basis, meaning that the Eastern Alignment was set as the reference design (or base case) and Eckerman compared to and rated accordingly. This choice of setting the reference design to the Eastern Alignment was based on a group discussion and consensus. It follows the Tonkin Consulting Concept Design Report (June 2015) provided to the Council which derived the Eastern Alignment as the initial preferred alignment based on the information available at that time.

As part of the scoring process, and in addition to the technical analyses and investigations undertaken, consideration was also given to the community feedback received from the consultation undertaken in May 2016. This integrated approach ensured that both the technical inputs as well as the community feedback were accounted for collectively when scoring the alignments for the MCA.

The MCA results are summarised in the Table below:

<table>
<thead>
<tr>
<th>TABLE 21: RANKING ECKERMAN ALIGNMENT IN COMPARISON TO EASTERN ALIGNMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Criterion</td>
</tr>
<tr>
<td>Road Safety</td>
</tr>
<tr>
<td>Travel Time</td>
</tr>
<tr>
<td>Accessibility / development potential</td>
</tr>
<tr>
<td>Heritage</td>
</tr>
<tr>
<td>Air Quality</td>
</tr>
<tr>
<td>Noise</td>
</tr>
<tr>
<td>Flora and Fauna</td>
</tr>
<tr>
<td>Social Effects</td>
</tr>
</tbody>
</table>
The results showed both the Eckerman Alignment and Eastern Alignment being of equal impact with respect to the MCA criteria.

Detailed discussion on the derivation of the scores is contained within the MCA Report which has been prepared and is contained in the Multi Criteria Analysis Report (by Tonkin Consulting) Attachment 2.

The next step in the MCA process involved a sensitivity test (or test of reasonableness). The MCA group reviewed and debated each of the initial scores to ascertain whether they were reasonable with adjustments made accordingly. The Sensitivity Testing process undertaken is summarised in the Table below.

**TABLE 22: SUMMARY OF SENSITIVITY TESTING**

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Comment on Sensitivity analysis</th>
<th>Does it affect Ranking</th>
<th>Initial Ranking</th>
<th>New Ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Road Safety</td>
<td>No change</td>
<td>No</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Travel Time</td>
<td>No change</td>
<td>No</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Accessibility / development potential</td>
<td>No change</td>
<td>No</td>
<td>+1</td>
<td>+1</td>
</tr>
<tr>
<td>Heritage</td>
<td>No change</td>
<td>Yes</td>
<td>+3</td>
<td>+3</td>
</tr>
<tr>
<td>Air Quality</td>
<td>Although the results showed a slight increase in emissions for the Eastern Alignment, the difference is considered to be negligible. <strong>Change to No Difference</strong></td>
<td>Yes</td>
<td>+1</td>
<td>0</td>
</tr>
<tr>
<td>Noise</td>
<td>Given community expectation of noise impacts the ranking would not change</td>
<td>No</td>
<td>-3</td>
<td>-3</td>
</tr>
<tr>
<td>Flora and Fauna</td>
<td>Review of impacts for each alignment and gave further consideration of the tree removals along One Tree Hill Road for Eastern Alignment. <strong>Change to Highly Beneficial</strong></td>
<td>Yes</td>
<td>+2</td>
<td>+3</td>
</tr>
<tr>
<td>Social Effects</td>
<td>No change</td>
<td>No</td>
<td>-2</td>
<td>-2</td>
</tr>
<tr>
<td>Dwellings Demolished</td>
<td>No change</td>
<td>No</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Land acquisition</td>
<td>No change</td>
<td>No</td>
<td>-2</td>
<td>-2</td>
</tr>
<tr>
<td>Costs</td>
<td>No Difference</td>
<td>No</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td></td>
<td><strong>0</strong></td>
<td></td>
</tr>
</tbody>
</table>
The key adjustments made following the sensitivity testing were applied to flora and air quality.

For flora, the Team revisited the comparison of impacts for each alignment. In addition, for the Eastern Alignment, the Team also considered that the road widening required for the section of One Tree Hill Road as part of the GELR (between roundabouts) and the likely removal of a number of significant/regulated trees on at least one side of that road, was a key consideration to the overall impacts to flora.

In recognition of this, the group concluded that the impacts were significant enough to increase the score for the Eckerman Alignment from 'Moderately Beneficial' to 'Highly Beneficial' when compared to the Eastern Alignment.

For air quality, the results indicated that whilst the Eckerman Alignment, which is further away from residential properties, has been estimated to have lower total emissions than the Eastern Alignment, these differences are considered minor and unlikely to result in significantly different impacts away from areas in the immediate vicinity of the roadway. In terms of GHG emissions and their impact on the environment, there is no significant difference between either alignment options.

The revised results following the sensitivity analysis showed no change, with both the Eckerman Alignment and Eastern Alignment being of equal impact with respect to the MCA criteria.

1.4.2 Design Refinements

At this point in the MCA process the Team undertook a more detailed macro-analysis of the impacts of each alignment as they relate to the criteria. More specifically design refinements (design improvements) were explored at targeted or critical locations that might further reduce the range of impacts identified and result in an improved overall alignment outcome.

In undertaking this step, options were explored that did not depart broadly from the defined ‘zone of influence’, which was defined in the community consultation Information Brochure prepared for the consultation. This Information Brochure is contained in Attachment 3.

Broadly the following key alignment constraints were identified:

- the bridge across the South Para River is at its optimum location and thus cannot be moved (this element is discussed later in this report)
- the Eastern Alignment must traverse the State Government owned land from the Springwood Boundary through to One Tree Hill Road (in line with DPTI’s proposal).
- The Eckerman Avenue Alignment must utilise the existing Eckerman Avenue rod corridor.
- GELR’s interface point at Potts Rd must align with the Council’s strategic objective of a future extension of this road through to the Tiver Road/Main North Road intersection.
Within these constraints, the Team identified a number of possible opportunities for alignment refinements in consideration of reduced overall impacts to against the assessment criteria. This resulted in three (3) design refinements being identified as the most optimum opportunities to minimise the overall impacts of the Council’s preferred alignments.

These following three (3) design refinements are contained in Attachment 4 and described below:

### 1.4.2.1 137 Potts Road Diversion (associated with both the Eckerman & Eastern Alignments)

Both the Council preferred alignments show the GELR passing directly through the dwelling and land of 137 Potts Road, thus necessitating full land acquisition and demolition of a privately owned dwelling. A concept plan of the existing preferred Council alignments through this property is contained in Figure 5 below.

**FIGURE 5: CURRENT COUNCIL ALIGNMENTS THROUGH 137 POTTS ROAD**

A refinement (which is common to both alignments) was considered to avoid full acquisition of the property, as well as preserve the dwelling, located at 137 Potts Road by slewing the alignment further into the property located at 159 Potts Road. The GELR alignment would then curve back around into 137 Potts Road at the south-east corner to match the connection point required at Potts Road. A concept plan of the refinement proposed to the preferred Council alignments through this property is contained in Figure 6 below.
This design refinement would result in partial land acquisition of the south-east corner of 137 Potts Road with the existing dwellings remaining intact. Modifications to boundary fencing and driveways would be undertaken as part of the detailed design to match the new Link Road alignment. In addition, the existing Potts Road to the south would be realigned so as to connect with the Link Road via a T-junction.

For the MCA, it was recognised that the assessment outcome would be the same in terms of influence over a preferred route (i.e. Eckerman versus Eastern) under both alignments. Therefore this modification would not influence the outcome of the MCA in the selection of either the Eckerman or Eastern alignments as the preferred route. This enabled this section of the GELR to be reviewed in isolation.

Specific changes to impacts of the proposed refinement at this location are:

- Flora & Fauna – A greater number of trees may be impacted, particularly the Mallee Box (Eucalyptus Porosa) within the property and along the edge of Potts Road. A total of 14 on the original alignment versus 23 within the Design Refinement as per the table below.
TABLE 23: SUMMARY OF FLORA COMPARISON FOR 137 POTTS RD DESIGN RFINEMENT

<table>
<thead>
<tr>
<th>Development Act 2003</th>
<th>Significant Trees (&gt;3m circ)</th>
<th>Regulated Trees (&gt;2m circ)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Original Alignment</td>
<td>3 (all being remnant)</td>
<td>3 (2 being remnant)</td>
</tr>
<tr>
<td>Design Refinement</td>
<td>4 (all being remnant)</td>
<td>4 (3 being remnant)</td>
</tr>
</tbody>
</table>

- **Land Acquisition** - A greater area of partial land acquisition from 159 Potts Road occurs through this refinement from 0.1515ha to 0.6565ha. However this land parcel is largely an underdeveloped and essentially a rural land holding. The need to acquire additional land in 159 Potts Road is offset by the reduced area of land acquisition required within 137 Potts Road as well as the preservation of a dwelling on that land. The change in land required to be acquired at 137 Potts Rd is from full acquisition extent on 4.04ha to a partial acquisition of 1.226ha.

Minor land acquisition (relative) along the southern boundaries of 113 (0.049ha) and 117 Potts Road (0.012ha) are also required to facilitate the match-in of the GELR to Potts Road.

- **Dwelling demolished** – The modification preserves the dwelling located at 137 Potts Road.

- **Social Effects** - The significant benefit that results to the existing property owner is removal of the need to acquire the entire land parcel and preservation of the dwelling on that site. This is somewhat offset by the impact on their current enjoyment of the land from the partial acquisition that would still be required. On balance a reduced overall impact results.

- **Noise** - A requirement for noise attenuation (i.e. noise wall) for the dwelling at 137 Potts Road due to the proximity of the remaining dwelling to the realigned GELR.

**RECOMMENDATION:**

On this basis of the net benefit overall it is recommended that this design refinement be adopted. It removes the need to fully acquire any private land holding associated with the Council’s preferred alignments and avoids the need to demolish a dwelling located at 137 Potts Road.
1.4.2.2 Eckerman Avenue Alignment – Southern Shift

For the Eckerman Avenue option, the majority of the alignment utilises the existing Eckerman Avenue. Therefore, any design refinements were limited to the section between properties 236 & 242 and 244 One Tree Road.

The design refinement relocated the alignment further south-east once past the house at property 236 One Tree Hill Road and large sheds at property 244 One Tree Hill Road.

The rationale behind this design refinement was to avoid five (5) large remnant Mallee Box (Eucalyptus Porosa) trees within the property at 242 One Tree Hill Road. However, it will impact on a younger Mallee Box Woodland, whilst not of same visual effect as the larger trees but will provide for future habitat. This is shown in Figure 7 below.

**FIGURE 7: ECKERMAN AVENUE ALIGNMENT – SOUTHERN SHIFT**

This design refinement would require more land from three properties (242 and 244 One Tree Hill Road and 159 Potts Road) by approximately 6,600m² and bring the alignment closer to both properties on One Tree Hill Road. For 244 One Tree Hill Road the alignment could be between 2 and 4m from the carport depending on the treatment of the batters and to within 55m (from 70m) for the 242 One Tree Hill Road.

The Eckerman Alignment was then compared to the Eastern Alignment including this design refinement, and then re-assessed against the MCA criteria to ascertain the change in ranking from that previously agreed. This refinement to the MCA ranking is shown in the table below.
### TABLE 23: REVISED MCA FOR ECKERMANN AVENUE ALIGNMENT

#### SOUTHERN SHIFT

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Comment on 'Southern Shift' analysis</th>
<th>Does it affect Ranking</th>
<th>Agreed Ranking</th>
<th>New Ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Road Safety</td>
<td>Change would not affect result</td>
<td>No</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Travel Time</td>
<td>Change would not affect result</td>
<td>No</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Accessibility / development potential</td>
<td>Change would not affect result</td>
<td>No</td>
<td>+1</td>
<td>+1</td>
</tr>
<tr>
<td>Heritage</td>
<td>Change would not affect result</td>
<td>No</td>
<td>+3</td>
<td>+3</td>
</tr>
<tr>
<td>Air Quality</td>
<td>Change would not affect result</td>
<td>No</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Noise</td>
<td>Potential additional noise impact to 242 One Tree Hill Road, but already at maximum ranking (-3)</td>
<td>No</td>
<td>-3</td>
<td>-3</td>
</tr>
<tr>
<td>Flora and Fauna</td>
<td>Improvement to reducing vegetation impact, but already at maximum ranking (+3)</td>
<td>No</td>
<td>+3</td>
<td>+3</td>
</tr>
<tr>
<td>Social Effects</td>
<td>Change would not affect result</td>
<td>No</td>
<td>-2</td>
<td>-2</td>
</tr>
<tr>
<td>Dwellings Demolished</td>
<td>No change</td>
<td>No</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Land acquisition</td>
<td>Additional Land Acquisition required but not reflected in the ranking</td>
<td>N/A</td>
<td>-2</td>
<td>-2</td>
</tr>
<tr>
<td>Costs</td>
<td>Change would not affect result</td>
<td>No</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td></td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Specific changes to impacts of the proposed refinement at this location are:

- **Flora & Fauna** - The net change in flora impacts is the preservation of 5 Mallee Box (Eucalyptus Porosa) trees

- **Social Effects** - The amenity impacts to the existing dwellings is greater to property 244 One Tree Hill Road, and to a lesser extent 242 One Tree Hill Road as the alignment is now closer to these properties. A nominal improvement would result in 236 One Tree Hill Road.

- **Land Acquisition** - The shift in alignment will also require additional land acquisition from 242 and 244 One Tree Hill Road as well as 159 Potts Road. This will result in an overall increase in property acquisition required by 0.66ha.

Whilst there is an improvement to the reduction in impacts to flora through this refinement, the overall MCA outcome does not change as the ranking for flora is already at the maximum Highly Beneficial ranking (+3) for the Eckerman Alignment when compared to the Eastern Alignment.
RECOMMENDATION:

This refinement is of no material difference in the assessment of the overall preferred route for the Council’s alignments.

Should the Council adopt the Eckerman Avenue Alignment then this refinement is recommended to be pursued as a detailed design refinement opportunity.

1.4.2.3 Eastern Alignment Alternative

As detailed earlier, the Eastern Alignment adopts the original alignment proposed by DPTI from the Springwood Boundary through to One Tree Hill Road. This design refinement is contained within the section from One Tree Hill Road and through to the watercourse crossing located at 228 One Tree Hill Road proposed on the Eastern Alignment.

The design refinement, named the Eastern Alignment Alternative*, adopts an off-road alignment from the roundabout intersection at Link Road / Kelly Road / One Tree Road to the new bridge over the watercourse to rear of property 228 One Tree Hill Road. The alignment passes through State Government owned land to the west of One Tree Hill and the rear properties of 226 and 228 One Tree Hill Road. These sites are currently the subject of a land division application prepared by the land owners for both sites to be developed for residential purposes.

This refinement is shown in detail in Figure 8 below.

(* This alignment has also been referred to in the expert consultant reports as the Eastern Alignment (Western Shift)).
The rationale for the Eastern Alignment Alternative is it;

- Improvements to Safety – removes the second roundabout and impacts on existing properties that access One Tree Hill Road with no overall increase in travel length.

- Reduced impact on Flora – it has no impact on the planted Sugar Gums along One Tree Hill Road and affected trees within properties at 226 and 228 One Tree Hill Road are not considered significant.

- Reduced impact on the Local Heritage property – The GELR is now some 100m away from the heritage property when compared to the current Eastern alignment which is around 30m and clear of the defined heritage curtilage.

- Reduced impacts from Noise – Noise attenuation measures are not required.

Given that there was no discernible difference identified between the Eckerman Avenue Alignment and the Eastern Alignment, the Evaluation Team agreed to vary the base case to the Eastern Alignment Alternative. In this way the Eckerman Avenue Alignment could be assessed against the Eastern Alignment Alternative to determine if there was a discernible difference.

### TABLE 24: REVISED MCA RANKING FOR EASTERN ALIGNMENT ALTERNATIVE

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Comment on ‘Eastern Alignment Alternative’ analysis</th>
<th>Does it affect Ranking</th>
<th>Agreed Ranking</th>
<th>New Ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Road Safety</td>
<td>The removal of one roundabout intersection and no interaction of through traffic with existing traffic on One Tree Hill Road for Eastern Alignment. Eckerman option still uses Eckerman Avenue and thus interacts with existing properties. <strong>Change to Slightly Detrimental</strong></td>
<td>Yes</td>
<td>0</td>
<td>-1</td>
</tr>
<tr>
<td>Travel Time</td>
<td>No Change</td>
<td>No</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Accessibility / development potential</td>
<td>No change</td>
<td>No</td>
<td>+1</td>
<td>+1</td>
</tr>
<tr>
<td>Heritage</td>
<td>Eastern Alignment Alternative now further away from local heritage property &amp; clear of defined heritage curtilage, but still in view. Eckerman Alignment is to the south of the property. <strong>Change to Slightly Beneficial.</strong></td>
<td>Yes</td>
<td>+3</td>
<td>+1</td>
</tr>
<tr>
<td>Air Quality</td>
<td>No Change</td>
<td>No</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
Further improvement to reducing noise impact for Eastern Alignment Alternative, but already at maximum ranking given greater impact by Eckerman Alignment (-3)

The avoidance of significant flora impacts along One Tree Hill Road. **Change to Moderately Beneficial**

No Change

No Change

No Change

A cost saving is expected but in absence of this information the rating was left as neutral.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th>-2</th>
<th>-2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td></td>
<td>0</td>
<td>-4</td>
</tr>
</tbody>
</table>

The MCA outcome in table above shows that the Eastern Alignment Alternative has significantly less overall impacts when compared to the Eastern Alignment.

The key features of this change that have resulted in improvements to impacts are:

- **Safety**
  - Removal of one roundabout conflict intersection,
  - Reduces traffic interactions between Link Road and existing One Tree Hill Road users through (i.e. local movements and predominant GELR movements)
  - Removal of conflict with entry/exit from existing properties along One Tree Hill Road.

- **Flora**
  - No impacts to the majority of existing large trees on One Tree Hill Rd section from Kelly Road to Eckerman Avenue. These trees form a character statement for the entry into Gawler as well as being a mix of regulated & significant trees.
  - The tree impact at the new bridge is the same as the existing Eastern Alignment
  - The tree impact through properties 226 and 228 One Tree Hill Road is limited to the following (based on a desk-top analysis):
    - 226 One Tree Hill Road: an area of re-vegetated non-regulated trees adjacent the western property boundary and Two (2) regulated trees where the alignment crosses the property boundary
    - 228 Pott Road: an area of Peppercorn Tees and one Melaleuca tree planted in a re-vegetation manner adjacent the boundary fence where the alignment crosses the property boundary between 226 and 228 One Tree Hill Road.
• Local Heritage
  - The Link Road is now approximately 100m away from the heritage property when compared to the current Eastern Alignment of approximately 30m. The proposed alignment if clear of the defined heritage significant curtilage.

• Noise
  - Noise attenuation measures are not required.

• Social Effects;
  - Whilst not material in terms of an alteration of the ranking the refinement dies provide an improved amenity to existing properties along One Tree Hill Road due to the proposed citing of the roadway.

• Property
  - Extent of acquisition is the same (although includes an additional parcel of State Government land). A substantially greater portion of 226 One Tree Hill Road is required. The portion of this property required is largely rural in nature with low flora impacts. A partial acquisition of 3.4 ha is required of the 5.52 ha land holding. This has increased from the Eastern Alignment acquisition extent of 0.094ha for this property. This property is currently subject to a development application proposing to create approximately 70 allotments in partnership with the adjoining property owners. The Eastern Alignment Alternative has been aligned broadly with a proposed development internal road alignment to the extent that this is possible.

RECOMMENDATION:

The Eastern Alignment Alternative refinement provides the optimum alignment over the Council’s preferred alignments as demonstrated in the MCA analysis contained in Table above.

This alignment is recommended to the Council as the preferred alignment for the GELR together with the diversion proposed at 137 Potts Road detailed earlier in this report.

It is relevant to note that should the Eastern Alignment Alternative have been assessed against the Eastern Alignment then their would have been a beneficial impacts due to the improvements to safety, noise, heritage & flora with a detrimental impact due he larger extent of property acquisition extent required as detailed in this section of the report.

1.4.2.4 Potential Cross Section Change

As a separate exercise, the concept design process also assessed what the resultant impacts would be by way of modifications to the cross section, particularly on safety, land acquisition and vegetation.
This proposed design refinement can be applied to both the Eastern and Eckerman alignments and typically will involve the removal or reduction in the roads functional requirements such as removing one of the footpaths, and reducing median and lane widths as indicated below.

- Remove the western footpath and replace with a minimum 0.7m wide verge. This is the narrowest width that in accordance with Austroads Design Guide – Part 3 Road Design.
- Lane widths reduced from 3.5 to 3.3m
- Removal of bicycle lanes

The reduction in functional scope needs to be carefully considered in the context of future-proofing Council’s assets and overall road safety.

Whilst elements such as reduced lane widths, removal of bicycle lanes and removal the off footpath may be feasible solutions to reduce the cross-section of the road and therefore overall impacts to land acquisition and vegetation, and costs, the ability to install such items when the need or demand arises in the future can actually have a greater and more negative impact both socially and financially.

The installation of footpaths and bike lanes in the future would be under a retro-fit scenario. This would necessitate widening of the road pavement and another round of land acquisition, and relocation of services to suit the change in cross-section. The cost of retro-fitting infrastructure is traditionally far greater.

There is also a social impact to the community when retro-fitting infrastructure at a later date. With the need to widen the road and acquire land in the future, this would result in another round of significant construction impacts and interaction with the community for land acquisition negotiations, causing more disruption and stress to the community.

An alternative and more typical approach to this, is to ‘future proof’ the road asset by creating the road corridor to the full and necessary width to allow the road to be built to minimum requirements, and allow future assets to be installed without significant disruption.

In reviewing changes to functional scope, consideration needs to be given to operational safety of the road environment; such as the interactions between through traffic and those turning into current properties and future developable areas, interactions between cyclists and traffic, and pedestrians, and the provisions for passing breakdown vehicles. For example:

- The provision of a wide median allows for future protected right turn lanes to be introduced and allows through traffic to safety pass a broken down vehicle
- Dedicated bicycle lanes would ensure clear separation of commuter cyclists and traffic, which is best practise when constructing new roads. The removal or reduction in width of bicycle lanes would not be of any benefit as the minimum pavement width is still required for safe passing of broken down vehicles
**OUTCOME:** On this basis, whilst the design refinement may provide short-term gains through reduced impacts to the existing community and vegetation, it will create more significant, ongoing and longer-term financial and social impacts to the existing and future residents resulting from subsequent requirements of land acquisition and retrofitting of major road infrastructure. Therefore, this design refinement was not pursued as a viable option.

1.5 COST IMPACT TO THE COUNCIL FROM ITS PREFERRED ALIGNMENTS

The Gawler East Link Road is required to be constructed prior to 30 June 2019. When opened, the road is likely to be operational within an environment that is predominantly rural in nature, whilst residential development progressively occurs over the future years. In light of this, there are advantages of progressively staging the implementation of some of the road’s infrastructure in parallel to future residential development and with co-contributions by Developers. Examples include footpaths, lighting, some drainage, and indented parking bays.

This approach has the distinct advantages through the installation of infrastructure at a time when it is needed, ensuring road and verge-side infrastructure is not damaged by the construction of future development activities, and negates over-capitalisation from early investment in non-essential infrastructure.

A revised cost estimate for the GELR has been prepared based on the following defined functional scope (and accounting for value engineering opportunities):

- 2 x 5m lanes (allowing for 3.5m carriageways and 1.5m bicycle lanes)
- 2.8m painted median (to allow for future intersections with spur roads for developments)
- A granular pavement construction with bitumen hotmix overlay (in lieu of full-depth asphalt pavement)
- Raised verge-side concrete kerbs
- Minimum drainage requirements including pipes, culverts and open swales to take manage stormwater from the road and future developments.
- A 1.8m wide bitumen footpath located on one side of the GELR road.
- Main trunk utility services consisting of gas, power, sewerage and communications
- Target street lighting at key intersections and points along the alignment to ensure sufficient lighting is provided.
- Sufficient verge width to allow for future infrastructure such as additional drainage, lighting, footpaths, parking bays, soft and hard landscape requirements (i.e. the road footprint will be constructed to its ultimate width thus future-proofing any allowances for additional infrastructure)

Based on the above, a cost estimate summary is presented in the Table below has been prepared highlighting the major components across all the alignments based on the revised functional scope (i.e. representing like-for-like scope across all the alignments).

Note the diversion at 137 Potts Road as detailed in this report has been allowed for in the cost estimates below.
### TABLE 25: REFINED COST ESTIMATE SUMMARY

<table>
<thead>
<tr>
<th>Alignment</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DPTI Alignment</strong></td>
<td>$44,257,918</td>
</tr>
<tr>
<td>Main Alignment</td>
<td>27,805,474</td>
</tr>
<tr>
<td>Potts Road - Lower Section</td>
<td>4,806,255</td>
</tr>
<tr>
<td>(DPTI alignment interface with Potts Road to Adelaide Road Intersection)</td>
<td></td>
</tr>
<tr>
<td>Potts Road / Adelaide Road Intersection</td>
<td>11,646,189</td>
</tr>
<tr>
<td>Sub-total:</td>
<td>$44,257,918</td>
</tr>
<tr>
<td>Potts Road - Upper Section</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>(Council alignment to the DPTI alignment interface with Potts Road)</td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL:</strong></td>
<td>$44,257,918</td>
</tr>
</tbody>
</table>

| **Eastern Alignment**                  | $50,653,985 |
| Main Alignment                         | 30,465,874  |
| Potts Road - Lower Section             | 4,806,255   |
| (DPTI alignment interface with Potts Road to Adelaide Road Intersection) |             |
| Potts Road / Adelaide Road Intersection| 11,646,189  |
| Sub-total:                             | $46,918,318 |
| Potts Road - Upper Section             | $3,735,666  |
| (Council alignment to the DPTI alignment interface with Potts Road) |             |
| **TOTAL:**                             | $50,653,985 |
### Eckerman Alignment

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main Alignment</td>
<td>30,107,695</td>
</tr>
<tr>
<td>Potts Road - Lower Section</td>
<td>4,806,255</td>
</tr>
<tr>
<td>(DPTI alignment interface with Potts Road to Adelaide Road Intersection)</td>
<td></td>
</tr>
<tr>
<td>Potts Road / Adelaide Road Intersection</td>
<td>11,646,189</td>
</tr>
</tbody>
</table>

Sub-total: **$46,560,140**

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potts Road - Upper Section</td>
<td>3,735,666</td>
</tr>
<tr>
<td>(Council alignment to the DPTI alignment interface with Potts Road)</td>
<td></td>
</tr>
</tbody>
</table>

**TOTAL: $50,295,806**

### Eastern Alignment Alternative

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main Alignment</td>
<td>29,704,284</td>
</tr>
<tr>
<td>Potts Road - Lower Section</td>
<td>4,806,255</td>
</tr>
<tr>
<td>(DPTI alignment interface with Potts Road to Adelaide Road Intersection)</td>
<td></td>
</tr>
<tr>
<td>Potts Road / Adelaide Road Intersection</td>
<td>11,646,189</td>
</tr>
</tbody>
</table>

Sub-total: **$46,156,728**

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potts Road - Upper Section</td>
<td>3,735,666</td>
</tr>
<tr>
<td>(Council alignment to the DPTI alignment interface with Potts Road)</td>
<td></td>
</tr>
</tbody>
</table>

**TOTAL: $49,892,395**

**Key Notes:**

- The procurement and methodology of delivery of the GELR is assumed to be undertaken as one full project with the Springwood Development section through to Calton Road, inclusive of all project components to realise efficiencies of common construction resources.

- The costs difference between the options is in the order of $358,000 in favour of the Eckerman Alignment from the Council’s preferred alignments.

- The proposed Eastern Alignment Alternative (incl 137 Potts Rd diversion) is the most economical alignment. This alignment in the order of $403,000 less than the Eckerman Avenue alignment, the next most economical alignment.
For the alignments through 137 Potts Road necessitating full acquisition of the property, the extra-over cost is in the order of $300,000

1.5.1 Council’s Contributions

In December 2015 the State Government advised the Council that it would enable the Council to pursue its preferred alternative alignments on the basis that any additional costs associated would be the responsibility of the Council. Based on the level of information available at the time, the State Government estimated that the Council’s alignments would cost a further $4.4M-$4.9M over their proposed alignment.

As detailed cost estimates have now been prepared for the Council’s alignments a more accurate understanding of costs is available to the Council. The Council’s alignments incur additional costs on the Main Alignment and also costs associated with upgrading an additional 500m of Potts Road from 137 Potts Road to the interface point of the original DPTI alignment / Potts Road intersection. The additional cost is the difference between the cost of these two components and the cost of the DPTI Main Alignment.

The upgrade to Potts Road Upper Section is required to satisfy the requirements of the Gawler Development Plan associated with the 1000 lot trigger. It is also required to improve its function and performance characteristics from a low volume local roadway to a collector road standard able to cater for the anticipated traffic volumes which will utilise this roadway.

The additional costs associated with the Council’s alignments (Main Alignment + Potts Road Upper – DPTI Main Alignment) are detailed in the table below.

<table>
<thead>
<tr>
<th>Alignment Option</th>
<th>Main Alignment ($)</th>
<th>Potts Road Upper ($)</th>
<th>DPTI Main Alignment Only ($)</th>
<th>Additional Cost ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eastern</td>
<td>30,465,874</td>
<td>3,735,666</td>
<td>27,805,474</td>
<td>6,396,066*</td>
</tr>
<tr>
<td>Eckerman Avenue</td>
<td>30,107,695</td>
<td>3,735,666</td>
<td>27,805,474</td>
<td>6,037,887*</td>
</tr>
<tr>
<td>Eastern Alternative</td>
<td>29,704,284</td>
<td>3,735,666</td>
<td>27,805,474</td>
<td>5,634,476*</td>
</tr>
</tbody>
</table>

*Note: Costs include the 137 Potts Road Diversion

As can be seen in the table above, the recommended GELR alignment of the Eastern Alignment Alternative will result in a funding contribution of $5.6M to the State Government to construct the GELR on this alignment.

Potts Road Lower Section

The cost of the lower section of Potts Road is in the order of $4.8M. This section of Potts Road was determined at the time the GELR was being proposed by the State Government as a separate traffic intervention that was required to be apportioned between the State Government, The Developer and the Council. Currently the contribution split is as follows:
The Council contribution for this lower section of Potts Road has not been finalised and the above cost apportionment requires a separate analysis with all parties to determine the most appropriate breakdown. Fundamentally apportionments which recognise the extent to which each party contributes to the need for the upgrade need to be developed.

Currently the Council has $1.1M allocated in its Long Term Capital Works Program for this upgrade.

This matter will need to be finalised prior to a legal deed being finalised for the commencement of the construction of the Link Road. This however will not impact on the considerable design effort and consultation that is still required on any of the Council’s, and indeed DPTI’s alignment, following the Council’s decision on a preferred alignment.

1.6 CONCLUSION

At its meeting held on 26 April 2016 the Council endorsed the methodology proposed to enable an assessment to be made of a preferred alignment of the GELR for its consideration. This methodology involved undertaking a MCA against criteria that were determined by the Council at that time, specifically against the key areas of:

- Traffic
- Environment
- Land and Property; &
- Cost

Since that time consultation has occurred with the community on the Council’s preferred alignments in May 2016. The community feedback received, as well as the subject matter expert investigations and analysis, have been used to inform the assessment undertaken by the Evaluation Team on the MCA. This information also informed further design refinements proposed for the Council’s consideration as detailed in this report.

The alignment which provides the most optimum alignment when assessed against the criteria endorsed by the Council is the Eastern Alignment Alternative and includes the Diversion at 137 Potts Road. This alignment is recommendation to the Council by the Evaluation Team.

The key design achievements from the Eastern Alignment (Alternative) as the preferred Gawler East Link Road will achieve the following positive outcomes;

a) No dwellings are required to be acquired;
b) It is the most economical route;
c) The impact of the road on the existing established private properties, either through or adjacent, is reduced to the full extent possible;
d) The full extent of the State Government’s land is utilised for this alignment;
e) It provides the safest overall route and removes the need for an additional roundabout on One Tree Hill Road;
f) Preserves the majority of the trees located along this section of One Tree Hill Road; and

g) Is considerate of the Local Heritage listed property (Bentley) located at 228 One Tree Hill Road.

The additional cost to Council has been estimated at $5.6M for this alignment, which also represents the most economical cost of all alignments considered in the MCA process.

**RECOMMENDATION** : That the Council endorse the Eastern Alignment Alternative (including the diversion at 137 Potts Road) as its preferred alignment as detailed in this report.

A concept plan of the proposed preferred Eastern Alignment Alternative and diversion at 137 Potts Road as shown below and contained in Attachment 5.
2.0 GAWLER EAST LINK ROAD – RELATED MATTERS

2.1 STATE GOVERNMENT RESPONSE TO COUNCIL’S ALIGNMENTS

In October 2015 DPTI undertook a review of Council’s alignment (compared to the DPTI alignment) considering the criteria of construction cost, State Government developable land, vegetation impacts, utility services impacts, and future connectivity to Tiver Road via the Bentley Road corridor.

This review was subsequently provided to the Council administration in mid-February 2016. A copy of this review is contained in Attachment 6.

Primarily the review focused on two of the motions carried by the Council at its meeting held on 30 June 2015 Council namely:

Moved by Cr A Shackley
Seconded by Deputy Mayor I Tooley
Motion No: 2015:06:260

7. Inform the State Government (and other interested parties) that the Council does not support the alignment of the Link Road as set out in the DPTI documents for public consultation some time ago. Council considers that a link to Tiver Road is the preferred option and that the alignment at Potts Road should facilitate this. Council requests DPTI to consider Route alignment 1 Eastern alignment and Route alignment 2 Eckerman alignment set out in the report to Council and documentation provided by Tonkin and URPS and assist in resolving a preferred alignment. Council considers that there may be a number of potential benefits with the proposed options to assist with traffic movement and overall community outcomes.

Moved by Cr A Shackley
Seconded by Deputy Mayor I Tooley
Motion No: 2015:06:257

4. Request the State Government to consider proposals for a lower bridge across the South Para, minimising the visual impact and other environmental impacts of the bridge, including as detailed in this report and potentially reducing the cost.

2.1.1 DPTI’s Review of Council Options

DPTI undertook a high level Multi Criteria Analysis which resulted in DPTI’s alignment being the preferred over Council’s, with respect to least construction costs, least risk and best accessibility to Development Plan Area lands.

The advantages and disadvantages of each options were then summarised. Refer to the Table below
### TABLE 27: DPTI MCA SUMMARY

<table>
<thead>
<tr>
<th>Option</th>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>DPTI</td>
<td>• Has the lowest total project cost ($41.2m)</td>
<td>• Indirect connectivity to Bentley Road as it terminates at Potts Road north of the Bentley Road Corridor.</td>
</tr>
<tr>
<td></td>
<td>• Has the lowest impact on vegetation and services</td>
<td>• Longest length between Lend Lease and Bentley Road corridor (3.3km)</td>
</tr>
<tr>
<td></td>
<td>• Provides high level of accessibility to the DPA area</td>
<td></td>
</tr>
<tr>
<td>Eastern</td>
<td>• Provides good accessibility to the DPA area (300m outside of area)</td>
<td>• High risk to services which could result in significant additional costs</td>
</tr>
<tr>
<td></td>
<td>• Shortest route (2.9km) and direct link to Bentley Road Corridor</td>
<td>• Has a higher total project cost (+$4.4m).</td>
</tr>
<tr>
<td></td>
<td>• Has only minor impact on vegetation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Provides for the development of additional State Government land (+$0.5m)</td>
<td></td>
</tr>
<tr>
<td>Eckerman</td>
<td>• Has minor impact on vegetation.</td>
<td>• Provides a lower level of accessibility to the DPA area (800m outside of area)</td>
</tr>
<tr>
<td></td>
<td>• Provides fairly short route (3.0km) and direct link to Bentley Road Corridor</td>
<td>• Has a higher total project cost (+$4.9m).</td>
</tr>
<tr>
<td></td>
<td>• Provides for the development of substantially more State Government land (+$2.2m)</td>
<td></td>
</tr>
</tbody>
</table>

DPTI’s high level analysis resulted in their alignment being the preferred over Council’s, with respect to least construction costs, least risk and best accessibility to DPA lands.

Council staff reviewed the outcomes and concluded that the nature of the report with assumptions and high level analyses did not adequately compare the impacts and merits of each Council option with sufficient rigor.

Council subsequently advanced more detailed desk-top and field investigations with respect to fauna/flora, noise, air quality, traffic, property, costing, and the undertaking a more rigorous and robust Multi-Criteria Analysis and design refinement process on the Council’s preferred alignments.

#### 2.1.2 Bridge over the South Para River

A preliminary desktop review for the bridge over the South Para River was undertaken to determine whether a shorter, lower and therefore less expensive, less intrusive crossing locations were possible along the length of the river in and immediately adjacent to the Gawler East area.
This was undertaken by way of using digitised contours to identify possible locations and develop bridge cross sections for each option along the South Para River.

The bridge proposed as part of the DPTI alignment is approximately 90m in length.

The following locations were chosen as part of the analysis:

<table>
<thead>
<tr>
<th>Location</th>
<th>Approximate bridge length</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>470m</td>
</tr>
<tr>
<td>2</td>
<td>550m</td>
</tr>
<tr>
<td>3</td>
<td>120m and 90m (two bridges required)</td>
</tr>
<tr>
<td>4</td>
<td>140m</td>
</tr>
<tr>
<td>5</td>
<td>180m</td>
</tr>
</tbody>
</table>

DPTI concluded that their current proposed bridge location is the optimum location given that it is substantially shorter than the other locations analysed above.

Additional investigations were also undertaken to determine if minor modifications to the bridge location in close proximity to the DPTI preferred bridge location would ascertain any improvements to the cost of the bridge. Two alternative locations were considered:

- Northern location - by moving the bridge slightly to the north it may be possible to utilise the topography to reduce the amount of cut on approaches or reduce the height of the bridge
- Southern location - by moving the bridge slightly to the south it may be possible to reduce the length of the bridge by ensuring the bridge is perpendicular to the South Para River
Concept designs were prepared for both options. The northern location showed very little improvement with a saving of only 5m in bridge length, whilst the southern location increased the length of bridge. The outcomes of this investigation determined that a slight modification to the bridge location to the north or south did produce any significant improvement to warrant further consideration.

High level investigations were also undertaken by DPTI on whether the bridge over the South Para River could also be reduced in height so as to improve visual outcomes and reduce other environmental impacts. The investigations demonstrated that while the visual amenity may be improved by lowering the bridge, the accessibility to the road from adjacent land parcels would be reduced.

In order to satisfy the minimum grade requirements on the approach and departure sides of the bridge, significantly more land cut is required on either side of the bridge which would otherwise be available for development. It is estimated that approximately 11,000m² of developable land would be lost as a result of lowering the bridge with a resultant saving of $1.4m in bridge costs but $5.5m in additional earthworks cost; a net extra-over cost to the project of $4.1m. It should be noted that these costs do not allow for excavation in rock associated with roadworks for the lowered the bridge which will likely be encountered and thus escalate the costs associated to a greater extent.

In line with the Council’s resolution (Motion No: 2015:06:257) on the South Para Bridge it is proposed that staff continue to work with the DPTI on ways to minimize the visual impact, other environmental impacts and potentially reducing cost. Council staff will continue to work with DPTI through the detailed design phase on determining the most beneficial outcome for the bridge over the South Para River, but within the financial/budget constraints of the project.

A further report will be presented to the Council on this discrete element of the project prior to the design of the bridge being finalised.

2.2 LOCAL ROADS ADVISORY COMMISSION – CLASSIFICATION REVIEW SUBMISSION

As detailed to the Council at its 5 July meeting, the Classification Review for the GELR was submitted to the Local Roads Advisory Committee (LRAC) and the matter was heard by the Committee on 6 June 2016. At this hearing the Manager Infrastructure & Engineering Services and consultants Tonkin Consulting made a presentation proposing its classification as an urban arterial road (i.e. State owned). The LRAC determined that the most appropriate classification for the GELR was an urban local road (i.e. Council owned).

Since the formal determination on the classification of the GELR by the LRAC, Council staff has sought advice from Norman Waterhouse Lawyers on the options to further pursue a rebuttal of the determination (see Attachment 7). This included the following queries and advice:

1. An understanding of the legal status of the Local Roads Advisory Committee’s (LRAC) determination dated 23 June 2016 to classify the Link Road as a local road, and whether the decision can be legally challenged -
According to the legal advice, the LRAC does not have statutory status or authority as a committee, but rather is an informal committee established for the purposes of making recommendations to the Minister for Transport on matters relating to road classifications. However, the LRAC’s decision is not one that could readily be challenged in a court since there is no avenue for a statutory right to review, and as the decision is merely advisory, it would be difficult to seek a judicial review of the decision by LRAC or by Minister.

Most notably is the powers of the Commissioner of Highways under Section 26 of the Highways Act. The Commissioner may, with the approval of the Minister (and by notice in the Gazette) can assume care, control and management of any road in the area of a council. The outcome of this decision is that the powers to undertake roadwork which ordinarily reside with the relevant Council (under the local government act 1999) are discretionary and assumed by the Commissioner, and the Council must not exercise those powers in relation to a vested road.

2. Can the Council refuse to accept ownership of, or responsibility for, the Link Road and, if so, what are the likely consequences

According to the legal advice, Council is not legally obliged to co-operate with the project whether it refuses to participate in the land acquisition process, or refuse to accept the vesting of the land proposed as a public road.

However, the State may proceed without the Council’s involvement. By way of Commissioner exercising power under the Highways Act to compulsorily acquire land and to construct the road. The road land may then be transferred to the Crown for road purposes so that the land comes within the definition of a “public road” under the LG Act meaning that, although the road is constructed by the Commissioner, it may be left in the Council’s ownership to deal with from that point onwards.

Separately under section 39F of the Highways Act, it enables the Minister to declare project land as a public road and to vest the road in a nominated project authority or ‘the relevant council’. This provision is specific mechanism by which the State can create a road (which may not necessarily be an arterial road) and pass the ownership and responsibility for the road onto a council.

3. If the Council agrees to accept responsibility for the Link Road, is the Commissioner of Highway able to assume care and control of the road in the future

According to the legal advice, the Highways Act does permit the Commissioner of Highways to assume care, control and management of the road at any time with the consent of the Minister for Transport. However, as previously discussed above this does not appear to be the position taken by the LRAC and as recommended to the Minister for Transport. Council may in the future seek a review of the road classification should the status of the road or relevant guidelines were to change.

Given the above advice, it is recommended that the Council accept that the Gawler East Link Road is classified as an urban local road (i.e. Council owned) and that the financial impacts of this asset are accounted for in its Long Term Financial Plan.
2.3 BRIDGE OVER SOUTH PARA RIVER - OWNERSHIP

The bridge over the South Para is a significant piece of infrastructure associated with the Gawler East Link Road alignment.

It has a length of approximately 90m and height of approximately 15m from the invert of the river. The bridge superstructure consists of 3 spans of 30m each using super-t concrete beams supported by a substructure consisting of a concrete abutments, reinforced earth wall at one end, a piled footing at the other end, and 2 intermediary concrete pier on pad footings.
Whilst the LRAC has determined that the Gawler East Link Road Road is an urban local road and (i.e. Council owned) there are several factors that may suggest that the bridge (excluding the road) remain the responsibility of DPTI. These include:

- Typically bridges of this magnitude would not be maintained by a Local Council. They are generally owned and maintained by the State;
- lack of expertise and resources within Council to manage such large assets, and
- cost burden on the community in terms of ongoing maintenance and renewal at key stages in the bridge’s lifecycle

It is therefore proposed that Council pursue an outcome with the State Government whereby the road on the bridge would be maintained by Council (in line with LRAC’s determination), but the bridge super-structure and sub-structure be maintained by State Government.

2.4 LAND ACQUISITION RESPONSIBILITIES

The LRAC’s determination of road ownership for the GELR and Council’s decision on an alternate preferred alignment (in lieu of DPTI’s alignment) does not imply that the responsibility for land acquisition resides with Council.

The Gawler East Link Project is a State Government funded project to be delivered by the Department of Planning, Transport & Infrastructure (DPTI) via the legal entity; Commissioner of Highways under the Highways Act. Therefore, the creation of the road corridor (for the purposes of building the GELR) whether through Council, private or public lands, is the responsibility of Commissioner of Highways.

The process of acquiring land would involve the Commissioner of Highways (with approval of the Minister for Transport) exercising his power under section 20 of the Highways Act 1926 to acquire land for the purposes of “future roadwork”. The land acquired by compulsory acquisition process would occur under the Land Acquisition Act 1969. Alternatively the State Government could request that the Council utilise its powers under the Roads Opening and Closing Act 1999. This Act consists of a significant number of steps such as serving notices to owners, valuations, compensation offers and negotiations, court filings, depositing of documents, and accommodation works.

A guideline has been prepared by the State Government on the Land Acquisition Act and key stages in the process. This guideline is contained in Attachment 8.

It is relevant to note that property can be acquired by agreement or through the compulsory acquisition process. Acquisition by agreement occurs when the owner and government negotiate and achieve agreement about the value and acquisition of the property. This process can commence at any time and may result in an early resolution.

Acquisition by compulsory acquisition is undertaken by the giving of formal legal notices under the Land Acquisition Act, 1969. In both cases, compensation entitlements are provided over the land value itself.

The compulsory land acquisition process when undertaken by the State Government would general follow these steps through direct consultation with the property owner:

1. Two formal notices are issued to the owner, the first being a Notice of Intention to Acquire Land. This notice is issued under the Land Acquisition Act, 1969 and
describes the land that the Commissioner of Highways requires for the project and owners’ rights under the legislation.

2. After receiving the Notice, the owner is able to seek an explanation of the reasons for acquisition and may object to the acquisition, and request a review of this decision. The Land Acquisition Act 1969 sets out the timeframes and process that must be followed.

3. Following a period of at least three months after receiving the Notice of Intention to Acquire Land, the owner may receive a second notice known as a Notice of Acquisition. The Notice of Acquisition vests the property in the Commissioner of Highways, who then becomes the owner of the property.

4. When the Commissioner of Highways issues the Notice of Acquisition to the owner, it is also required to make an offer stating the amount of compensation it has determined and pay that amount into the Supreme Court of South Australia. The owner is still entitled to negotiate an agreed amount of compensation with the Commissioner of Highways.

Within this process, compensation for a property (whether by monetary or non-monetary means) must adequately compensate a person for any loss they have suffered by reason of the acquisition. This includes the actual value of the land to be acquired, any loss to the remaining land caused by partial acquisition, any other loss due to disturbance and special value, including business based uses.

In assessing the actual value of the land, consideration is given to the market value of the property which is determined by experienced independent valuers based on market sale evidence of similar properties. The market value is assessed as if the road upgrade was not occurring, to ensure an accurate unaffected value is obtained.

The owner is also entitled to obtain their own valuation and professional advice such as legal advice and conveyancing, with reasonable costs reimbursed by the Commissioner of Highways.

5. If agreement cannot be reached between the owner and DPTI, it may be required to seek the assistance of the courts.

Given the above, it is considered that DPTI (as the primary funder and builder of the road) be the responsible party for the acquisition of land associated with Gawler East Link Road Project, as determined by the Council at its meeting held on 30 June 2015.
Moved by Cr A Shackley
Seconded by Cr M Nicolson
Motion No: 2015:06:261

8. Advise the State Government that should negotiations for the acquisition of private land located on the agreed Link Road alignment not be successful, that Council is willing to exercise its powers under the Local Government Act to facilitate the acquisition of affected land subject to costs (Council administration costs, consultancy, legal, etc) associated with this being reimbursed by the State Government as part of the project.

Land acquisition and owners circumstances are unique and different depending on the property requirements. DPTI will usually allocate a dedicated Acquisition Officer who will assist property owners throughout the process and be the primary point of contact to discuss any issues and address any questions owners may have. In addition, it is genuinely recognised that the land acquisition process can be a stressful and traumatic experience for property owners. Confidential counselling services and assistance with moving (if dwellings are being acquired) are offered to assist the property owner through this period.

These support services will be extended to property owners that are impacted by the Council’s preferred alignment as detailed negotiations commence. It is unlikely that this would occur until such time as the detailed design has progressed to a point the land acquisition extent is accurately defined. These negotiations are likely to commence within the next 6-12 months by DPTI.

2.5 STATE GOVERNMENT OWNED LAND IN Gawler EAST DEVELOPMENT ZONE

As detailed earlier in this report, Property & Advisory have provided consultancy services for the investigations and analysis associated with Land and Property to support the MCA assessment. As an extension to that work they were engaged to review the issue of net uplift in value that may result to the State Government’s land holdings as it related the Council’s preferred alignments.

To this end they were instructed to consider the value of DPTI land with and without the DPTI alignment of the GELR. A copy of their detailed report is contained within the MCA expert consultant investigations contained in Attachment 2.

A summary of the State Government land is detailed as follows;

- the DPTI alignment predominantly traverses land under existing DPTI ownership
- the land under existing DPTI ownership comprises several large parcels that are zoned Residential (Gawler East) and thus ripe for residential subdivision in future years. A portion of the western parcel, straddling Kelly Court and facing Gawler-One Tree Hill Road, is earmarked for a future Local Centre;
- the DPTI land notionally forms into 3 – 4 large development lots (although it encompasses some 10 individual titles at the present time);
- all such existing land parcels already possess road frontages; and
- the DPTI alignment would effectively bisect all these land parcels.
Both benefits with and without the GELR on the land have been considered, namely

**Without the GELR on the land**

- in contrast to the existing 3 – 4 large development lots, the DPTI alignment will result in the creation of a patchwork of eight smaller and in some cases elongated development lots that are less amenable to subdivision than the present lot shapes; and
- the road will create a number of sharp triangular corners in the shape of the resultant development lots, potentially signalling a reduced lot yield, with these corners being suited only to open space. These ‘dead’ corners amount to approximately 2 hectares out of a total DPTI landholding of some 40 hectares.

**With the GELR on the land**

- it would provide a ‘spine’ of access in the nature of a collector road, around which a road network could be laid;
- it could potentially reduce the overall cost of road construction; and
- it would provide frontage for early lot sales, generating some positive cash flows in early stages of development.

**OUTCOME:** On balance of all benefits, the placement of the GELR within the State Government’s land is broadly neutral, neither bestowing significant benefits nor imposing significant detriments on the land.

In reaching this view, they have considered only accessibility and development potential. At this stage service infrastructure has not been considered that the road may or may not deliver to the DPTI land and the degree to which this may reduce the cost of servicing future developments (which would flow through to a better ‘bottom line’ assessment of value for the development lots).
The most methodologically rigorous approach to the measurement of the effect of the DPTI alignment on these development lots would be to design several subdivisions across the land, with and without the road, and thus analyse its effect on lot yield and street layout (and, by extension, gross and net realisation). Such a detailed approach has not been undertaken nor is proposed at this stage.

Should the Council endorse the recommended Eastern Alignment Alternative this matter is of no overall consequence. This is as the GELR utilises the full extent of the State Government’s land on this alignment prior to heading east towards Potts Road.

2.6 UTILITY SERVICES

2.6.1 Existing

Service authorities have been engaged regarding the impacts of the Gawler East Link Road since the development of the concept alignments as part of the investigations undertaken in June 2015.

Dial B4 U Dig information has been sourced from all the service authorities for the existing roads affected by the Link Road. In addition, discussions and meetings were held with both SEAGAS and SA Water regarding their major trunk services that run along the Bentley Road Corridor and crossed the Council’s preferred GELR alignments at a number of locations. These discussions identified that the design constraints that would need to be applied to the concept design for the GELR.

A summary in respect to discussions associated with the relevant water and gas utilities affected is contained below;

- Water Pipeline (SA Water) – no fundamental concerns.
  The main could be lowered where the road crosses it or extend protection where it is already underground. These costs are not extraneous and have been allowed for in the cost estimates that have been prepared.
  In the future Tiver Road extension of the GELR a valve pit by a SA Water storage tank may require relocation but this is not seen as a major impediment and would be explore further as part of the Feasibility Review to be undertaken this financial year.

- Gas Pipeline (SeaGas) – No fundamental concerns.
  The major constraints are that pipeline cannot be lowered or filled over and above a 1.5m depth of cover to the pipeline.
  SeaGas indicated that protection of the main be provided in locations where this was identified as a need, nominally where a reduced wall thickness is in place.
  SEAGAS has provided specific information on the main pipeline to the Council which will be used as part of the Feasibility Review for the future Tiver Road Extension. It is worth noting that currently sections of the main pipeline along the Bentley Road corridor are protected with a concrete slab. This protection will also be used along the GELR where appropriate.

The works required to conform with SeaGas’s requirements have been allowed for in the cost estimates presented to the Council for its alignments and is not seen extraneous to the project.
2.6.2 New Utilities

One of the primary objectives of the Gawler East Link Road is to support the planned residential development in the Gawler East urban growth area (as identified in the 30-Year Plan for Greater Adelaide and the Gawler Growth Areas Transport Framework 2009)

Essential to this objective is the need to provide utility (trunk) services (or provisions for) to support these future developable areas. These services include storm-water drainage, sewer, water, power and communications that would run along the main road alignment thus allowing secondary spurs to be branched off into future development areas.

The Council’s preferred GELR alignment has allowed the provision of main-line services along the road from Springwood Estate interface point to the intersection of GELR / Potts Road and traversing the section of existing Potts Road to the intersection of Potts Road / Adelaide Road.

2.7 GAWLER EAST LINK ROAD - FUTURE TIVER ROAD EXTENSION

At its meeting held on 24 November 2015 the Council considered funding a Feasibility Review of this extension to the GELR alignment. The Council resolved as follows:

Moved by Cr A Shackley
Seconded by Deputy Mayor I Tooley
Motion No: 2015:11:412

That Council:
1. Receives a further Gawler East Link Road Update report at the next appropriate Council meeting.
2. Staff proceed with the commissioning of a Bentley Road and Tiver Link Road Extension Feasibility Review as detailed in this report.

The Feasibility Review associated with the GELR Future Tiver Road extension has not commenced at this stage due to the interdependence of this review with the Council’s selected preferred alignment. Should an alignment for the GELR be adopted by the Council at this meeting this review can commence. A Consultant Brief for this Review will be developed and a suitably qualified consultant engaged to undertake this work in the near future.

The Council will be kept informed at key junctures in this project.

2.8 STATE GOVERNMENT’S GELR ALIGNMENT

At its Special Council Meeting held on 30 June 2015 the Council resolved that it did not support the State Government’s proposed GELR alignment. The relevant motion supporting this position is detailed below.

Moved by Cr A Shackley
Seconded by Deputy Mayor I Tooley
Motion No: 2015:06:260
7. Inform the State Government (and other interested parties) that the Council does not support the alignment of the Link Road as set out in the DPTI documents for public consultation some time ago. Council considers that a link to Tiver Road is the preferred option and that the alignment at Potts Road should facilitate this. Council requests DPTI to consider Route alignment 1 Eastern alignment and Route alignment 2 Eckerman alignment set out in the report to Council and documentation provided by Tonkin and URPS and assist in resolving a preferred alignment. Council considers that there may be a number of potential benefits with the proposed options to assist with traffic movement and overall community outcomes.

Since that time the Council has endorsed a methodology to determine a preferred GELR alignment and undertaken various studies, investigations and an MCA assessment. These bodies of work have now enabled a decision on the Council’s GELR preferred alignment to be considered by the Council at this meeting.

However in the Engagement Report presented to the Special Council Meeting held on 5 July 2016 a significant percentage of the consultation respondents did not support the Council’s preferred alignments. Specifically 43% of the respondents to the community consultation did not support the Council’s preferred GELR Alignments. These respondents were a mix of the defined primary and secondary catchment, including the broader community.

Throughout the ongoing consideration of this matter the Council has been transparent as to the reasons why it does not support the State Government’s alignment. Indeed the previous Council reports on this matter as well as the Consultation Brochure and Frequently Asked Questions Flyer produced for the recent community consultation undertaken in May 2016 provide specific information on the Council’s rationale behind this decision. Broadly the reasons for the Council’s position are as follows:

- It will significantly changes the character of Potts Road from a local road to a major local collector road once the Gawler East Development area is fully developed due to increasing traffic (ie 2,500 vehicles/ day at present to at least 13,000 vehicles/day).
- At that point Potts Road will be at/or approaching capacity, resulting in property egress difficulty in peak periods, worsened by further growth in the region.
- Investigations indicate that if the DPTI Alignment occurs then the benefit of a future GELR Tiver Road extension is significantly diminished. Under these conditions and at full development of Gawler East, traffic volumes on Potts Road would only reduce to about 13,500 vehicles per day, almost double the estimated traffic volume compared to Council’s GELR alignment options once the GELR Tiver Road extension occurs. The Council’s options would result in approximately 7,400 vehicles per day once the GELR Tiver Road extension has occurred.
- In addition noise levels from traffic would increase significantly on Potts Road property owners.
- Access to Main North Road at the Potts intersection will exacerbate existing traffic congestion along Main North Road during peak periods.
- The proposed State Government alignment does not provide a long term strategic approach to traffic management in Gawler, particularly as development occurs in neighbouring areas.
Council is of the opinion that the Link Road should have the ability to be readily extended to the recently upgraded Tiver Road intersection to cater for growth ($13.7m upgrade completed by the State Government).

Whilst the State Government’s alignment would provide for the requirements of the Gawler Development Plan, thus enable creation of more than 1000 allotments in Gawler East Development Zone, it does not meet the Council long term strategic objective for the GELR. This objective provides a preferential, non-stop extension of the GELR through to the Tiver Road/Main North Road intersection that its preferred alignments support. This has the benefit of minimising impacts from increasing traffic volumes on Potts road and Main North Road as development occurs in the Gawler East Development Zone and the greater region.

The Council in selecting a preferred alignment is effectively resolving that the long term benefits of its choice of alignment in all things, on balance, out ways the impacts on the existing directly affected community from this decision.

2.9 SPRINGWOOD GAWLER EAST LINK ROAD ALIGNMENT UPDATE

As advised to the Council at its meeting held in 23 February 2016 the sale of the Springwood Estate from Lend Lease to Springwood Development Nominees (SDN) occurred on 27 January 2016. Effectively Lend Lease have now transitioned out of this development but remain contractually bound to the Council on works completed to date and that have not yet reached Final Completion.

Since this time Council staff have been working closely with the new consortia SDN in the development of a revised Master Plan for the Springwood development. Two workshops have been held with the Council and SDN as they work towards a revised Master Plan. A key consideration of this masterplan is the delivery of the GELR within their development extent. This section together with the State Government delivered section is required to achieve the 1000 lot trigger contained in the Gawler Development Plan. It is necessary that these two sections of the GELR be delivered in parallel to satisfy the allotment trigger which is a fundamental requirement of the State Government’s funding for their delivered portion.

Council staff, SDN and the State Government are in continuing negotiations over the alignment and funding required to deliver the GELR within their development. These negotiations are associated with obtaining an outcome which will facilitate a connection of the GELR through to the Village Centre as per the Council resolution provided at its meeting held on 30 June 2015, namely;

Moved by Cr A Shackley
Seconded by Deputy Mayor I Tooley
Motion No: 2015:06:259

6. Advise Lend Lease that the Link Road connection required at Calton Road in order to satisfy the 1000 allotment trigger contained in the Gawler Development Plan should be located adjacent the proposed Village Centre and continue through to Balmoral Road.

Staff will continue to update the Council on the GELR alignment within Springwood at key junctures in its consideration.
2.10 LEGAL INSTRUMENT FOR DELIVERY OF THE GAWLER EAST LINK ROAD UPDATE

In parallel to Council’s investigations into the preferred alignment of the GELR, staff have been in discussions with the State Government, The Barossa Council and Springwood Development Nominees about the legal instruments, funding mechanisms and procurement options to maximum outcomes and create efficiencies in not only the delivery of the GELR, but all other forms of infrastructure needed to the support this future community – traffic, stormwater, community, social, recreational.

As a result of these discussions it has been identified that considerable efficiencies in cost and time could be achieved through a collective procurement approach to the construction of the GELR – one contract, one build. All parties have confirmed they are open to innovative procurement methodologies and that the procurement and delivery of infrastructure may be approached collectively by all stakeholders, including potential for private sector procurement and delivery.

In addition, staff have also been discussing with the State Government, The Barossa Council and Springwood the best possible legal instrument and funding mechanism in order to support a collaborative approach to the deliver infrastructure. The key area of focus for these discussions has been to promote all stakeholders working together to achieve a greater value proposition (cost effective), potentially deliver infrastructure works earlier than expected and provide greater certainty of outcome for the State Government, Council and Developers.

Through this processes it has been identified that a series of Infrastructure Deeds covering the full range of infrastructure requirements would be the most beneficial approach, rather than one infrastructure Deed capturing all of the various elements. It is envisaged that key principles established in these Infrastructure Deeds with Springwood Communities could then be applied to other developers within the Gawler East Zone. Such contributions/charges toward infrastructure could also be secured by a Separate Rate over land within the Gawler East Zone. A Separate Rate provides the capacity to further secure payment should the land be developed without the developer agreeing to the Infrastructure Deed, and thus providing a contribution towards infrastructure. In either of these approaches passive landowners (ie not developing the land) would not be subject to any infrastructure contribution/charge.

These principles would ultimately be consistent with new development legislation, designed to promote equity between stakeholders and facilitate enhanced infrastructure delivery by capturing the increased value for land owners through re-zoning - “Developer Pays Principle”. Under these arrangements the State Government and Council would have the ability to seek reimbursement for its investment in infrastructure through the application of an infrastructure contribution/charge payable by developers on the creation of each new allotment prior to Section 51 clearance. This approach aims to promote cooperation, fairness, cost efficiencies, timeliness of delivery and equitable arrangements between beneficiary land owners, Councils and State Government.
2.11 STRUCTURE PLAN REVIEW UPDATE

Once of the alignment of the GELR from Calton Road, through the Springwood development, across One Tree Hill Road and down to Potts Road has been determined, works associated with the preparation of a revised structure plan for the entire Gawler East Zone can continue. This structure plan will spatially represent the outcomes of a number of investigations, such as the provision of open space, internal road networks as well as the provision of stormwater, recreation, community and social infrastructure. It is envisaged that this structure plan will be inserted in the Gawler Development Plan via a future Development Plan Amendment to guide development within the area, which will also provide the opportunity to revise other development plan policy pertaining to the Gawler East Zone.

It is envisaged that a further report will be presented to Council following its determination on the alignment of the GELR on the legal instruments, funding mechanisms and procurement options proposed to deliver a collaborative approach to the funding and delivery of the GELR and all other forms of infrastructure needed to support this future community.

2.12 NEXT STEPS

Key next steps to occur following the Council’s decision on a preferred alignment for the GELR are as follows:

- Advise the State Government of the Council’s decision

  Should the Council adopt a preferred GELR alignment as recommended in this report, Council staff will inform the State Government of its decision. This will enable the State Government, through DPTI, to assume control of the project, including finalising design development of the Council’s preferred alignment and undertaking further consultation necessary with the directly impacts property owners (ie noise treatments, land acquisition) and the broader community at key junctures. As part of the design development impacts generally across all criteria will be considered at a more micro level to minimise these as much as reasonably possible (ie preserve flora, minimise impacts of the South Para Bridge, etc)

- Inform affected property owners by land acquisition & those involved in the community consultation process.

  Letters will be sent to the property owners that are impacted by the recommended preferred GELR alignment, at the time the Agenda for this meeting becomes public, advising them of the proposed GELR alignment through their properties. An opportunity to meet with representatives of the Council to discuss the proposed alignment will be offered following the Council’s decision on a preferred alignment.

  Letters informing those who contributed to the community consultation process will also be prepared and distributed following a decision on a preferred alignment.

COMMUNICATION (INTERNAL TO COUNCIL)

Chief Executive Officer
Manager Infrastructure and Engineering Services
Manager Finance & Corporate Services
Acting Manager Economic Development, Regulatory Services and Communications
Senior Projects Manager
CONSULTATION (EXTERNAL TO COUNCIL)

Council has established a dedicated webpage on the Town of Gawler website for the Gawler East Link Road, which contained a range of useful material for the community including:

1. Council Reports
2. Council Motions
3. PowerPoint Presentations
4. Technical Reports, Investigations and Studies
5. Questions and Answers

Phase 2 of the Community Engagement for the Council’s GELR preferred alignments has now occurred between 2 May and 31 May 2016. The specific nature of the community consultation undertaken for the Council’s preferred alignments for the GELR have been detailed in a report presented to the Council at its meeting held on 5 July 2016, including an Engagement Report summarising the results of the community consultation. At this meeting all directly impacted property owners from the Council’s alignments were provided the opportunity to address the Council directly at the meeting.

13 property owners, or representatives of, accepted the opportunity to speak directly to the Council on their views associated with the Council’s Gawler East Link Road deliberations.

As detailed earlier in this report, letters will be sent to the property owners that are impacted by the staff recommended preferred GELR alignment, at the time the Agenda for this meeting becomes public, advising them of the proposed GELR alignment through their properties.

POLICY IMPLICATIONS

The Community Engagement proposed undertaken has conformed to the requirements of the Council’s Community Consultation Policy.

STATUTORY REQUIREMENTS

It is important to note that all progress by the Council to date has not been required by any legislation specifically. The investigations, consultation and assessment process to date have, and will in the future, inform various legislative matters that will be triggered depending on the Council’s decision on a preferred GELR alignment.

FINANCIAL/BUDGET IMPLICATIONS

**Loan Borrowing Capacity**

A contribution from Council of $5.6m towards the Gawler East Link Road additional cost for the Council’s preferred alignment (as recommended in this report) would need to be initially financed via external loan borrowings. In this context, a credit foncier fixed-interest loan of this amount over 20 years (at 5%) would require principal and interest repayments of $446k p.a.
To this end, current analysis suggests that, based on assumptions and future projects contained within the current Long Term Financial Plan model, a loan of this amount could potentially be accommodated, albeit it would trigger Council’s Net Financial Liabilities ratio peaking at very close (97%) to the Treasury Management policy threshold maximum of 100%. Consequently, in this scenario, Council would have no future loan borrowing capacity (outside of existing planned borrowings) after drawing down such a loan in the short to medium term. It is also important to note that the Long Term Financial Plan does not currently provide any future funding towards the likes of a major upgrade of the Gawler Aquatic Centre, nor funding for projects identified in the Gawler Open Space, Sport & Recreation Plan. Based on this, Council may need to give future consideration to deferring some of the capital projects currently provided for in the Long Term Financial Plan.

**Funding implications**

As proposed in the recommendation to this report, consideration will also need to be given to how repayments of such a loan are funded. This will invariably include consideration as to the impact on Council’s Rate revenue, whether it be General Rate revenue, Separate Rate revenue or a combination of both.

Funding towards various traffic interventions associated with the delivery of the Gawler East Link Road have invariably already been incorporated within the Long Term Asset Management Plan (and by default the Long Term Financial Plan).

As noted in the report, it has been identified that a series of Infrastructure Deeds with property developers will be required to fund other infrastructure, including social and community elements, within the Gawler East zone. Under this funding mechanism, a defined per allotment contribution towards the provision of such infrastructure would be payable by property developers on the creation of each new allotment prior to Section 51 clearance being provided. This same mechanism could be used to reimburse Council for its investment in the Gawler East Link Road.

**Long Term Financial Plan**

As the GELR has been determined to be a local road, the financial consequences on Council (pending consideration of available options) are expected to be significant.

In undertaking the necessary background investigations associated with the Council’s preferred alignments to inform the MCA process and indeed the Council, a greater understanding of the design and costs associated with the GELR have been obtained.

Council staff will now investigate the actual financial impact from depreciation as a result of the cost estimates and concept design that has been prepared. In order to do so, a detailed depreciation analysis will be undertaken and presented back to the Council through its annual budget planning associated with the Long Term Financial Plan updates

**COMMUNITY PLAN**

Objective 2.1: Physical and social infrastructure to match population growth
Objective 2.3: Urban growth to be sustainably managed