



# Strategic Business Case

Addressing Congestion, Cross River Connectivity  
and Network Resilience in the Ipswich City Centre  
November 2017





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Attachment 1 - Previous ICC Studies

Attachment 2 - Preliminary Business Case Program



## 1. Introduction

The City of Ipswich is one of the fastest growing Local Government Areas (LGA) in Australia with its population forecast to more than double over the coming decades. Ipswich City Council (ICC) has recently released the City of Ipswich Transport Plan called 'iGO' to guide future policy and investment decisions for Ipswich's sustainable transport future.

The Ipswich City Centre has been identified in the South-East Queensland Regional Plan (SEQRP) (2005 – 2026) as a Principal regional activity centre (and also in the current 2017 plan). For the land use, transport and infrastructure outcomes of the regional plan to gain traction, SEQRP requires a number of successful Principal regional activity centres to accommodate key concentrations of employment, provide higher order business, retail, education, health, cultural and entertainment services with higher density living opportunities.

In 2008, the Ipswich Regional Centre Strategy (IRCS) was developed in partnership with the Queensland Government to guide the economic and civic revitalisation of the Ipswich City Centre. The IRCS identified 158 actions and 17 'catalytic' projects to be undertaken to allow the Ipswich City Centre to redevelop into a vibrant and prosperous Principal regional activity centre for SEQ.

In June 2011, ICC endorsed the framework and objectives of the Ipswich City Centre Orbital Road System as a fundamental component of the city's transport network planning and a guide for making future transport planning, land use planning, development assessment, infrastructure investment and site access decisions.

Detailed planning provisions within the Ipswich Planning Scheme furthered the intent for revitalisation with overall development outcomes for the City Centre providing increased non-residential and residential development potential, an enhanced public realm and streetscape with improved legibility and encouraging walking and cycling. The reduction of non-essential traffic through the CBD to minimise conflict between local and through traffic was specifically identified.

In 2014, ICC completed a traffic study for cross connectivity of the Bremer River. The Queensland Government has advised ICC that for them to consider investment in a project to reduce the non-essential traffic through the CBD, a business case must be prepared. Building Queensland has advised ICC that its Business Case Development Framework (BCDF) should be followed for the development of the business case, commencing with a Strategic Business Case (SBC).

Refer to Attachment 1 for a list of previous studies by ICC and TMR.

## 2. Governance

A Project Steering Group (PSG) has been formed comprising of representatives from ICC, the Department of Transport and Main Roads (TMR) and the Department of Infrastructure Local





Government and Planning (DILGP). The objective of the PSG will be to provide leadership, direction and governance through the business case development

### 3. Problem Definition: Investment Logic Mapping

#### 3.1 Background

An Investment Logic Mapping (ILM) workshop was held on 26 October 2017 at the Ipswich Civic Centre. The ILM workshop planning, preparation, facilitation and reporting followed the Business Queensland Investment Logic Mapping Guide.

#### 3.2 Stakeholders

Table 3-1 lists the stakeholders involved in the ILM workshop and the development of this SBC. ICC, as the Business Owner, invited key participants from each of the stakeholders to the ILM workshop.

**Table 3-1 : ILM Workshop Stakeholders**

| STAKEHOLDERS                           | REASON FOR INVOLVEMENT   |
|--|--|
| Ipswich City Council                   | <ul style="list-style-type: none"><li>• Address State Infrastructure Plan and South-east Queensland Regional Plan issues relevant to ICC.</li><li>• Advise on local community, cultural, social and environmental impacts.</li><li>• Advise on regional and local economic, employment &amp; population growth pressures and priorities.</li><li>• Represent ICC's infrastructure and network planning priorities.</li><li>• Advise on network resilience and emergency management matters</li><li>• Advise on ICC's land use planning (Ipswich Planning Scheme)</li></ul> |
| Department of Transport and Main Roads | <ul style="list-style-type: none"><li>• Address State Infrastructure Plan issues relevant to the Department.</li><li>• Represent the Department's strategic &amp; infrastructure planning priorities.</li><li>• Contribute State Government planning assessment and PAF process expertise.</li><li>• Advise on condition of river crossing assets.</li></ul>   |
| Jacobs                                 | <ul style="list-style-type: none"><li>• Advise on State Infrastructure Plan priorities relevant to the Project.</li><li>• Advise on technical and pricing matters.</li><li>• Lead the Strategic and Preliminary Business Cases.</li></ul>  |
| Corview                                | <ul style="list-style-type: none"><li>• Independent ILM facilitation and Building Queensland Business Case Development Framework advice</li></ul>  |

#### 3.3 Problem Definition

Stakeholders considered key drivers for change and refined these into four discrete problems that underpin the service need to be addressed. Each of the problems were then analysed from the perspectives of cause and effect. Refer to Table 3-2.



**Table 3-2 : Problem Definition, Cause and Effect**

| PROBLEM  | CAUSE   | EFFECT   |
|--|---|--|
| 1. Congestion in the Ipswich City Centre, a SEQ Principal regional activity centre, is restricting successful revitalisation and economic development  | <ul style="list-style-type: none"> <li>• Non-essential through traffic is directed into the City Centre</li> <li>• Increase in traffic volumes due to population and economic growth</li> <li>• Increased activity as a result of the future Ipswich Mall redevelopment</li> <li>• Key intersections are over capacity</li> </ul> | <ul style="list-style-type: none"> <li>• Restricted growth (including economic) and revitalisation of the Ipswich City Centre (Principal regional activity centre)</li> <li>• Increased congestion</li> <li>• Streetscape and pedestrian improvements cannot commence</li> <li>• Public transport services experience delays and the required mode shifts are not achieved</li> </ul>  |
| 2. The single Ipswich City Centre Bremer River crossing is compromising connectivity, population growth, and broader economic growth   | <ul style="list-style-type: none"> <li>• Only one inner City crossing over the Bremer River, with a further two crossings in the western suburbs</li> </ul>   | <ul style="list-style-type: none"> <li>• Restricted access between the northern and southern parts of the Ipswich City Centre</li> <li>• Poorly connected current and planned Citywide open space network either side of the Bremer River</li> <li>• No initial link as part of the broader Ipswich City Centre orbital road network</li> <li>• No support for the growth and revitalisation of the Ipswich City Centre (as identified in the IRCS)</li> <li>• Impact to public transport promotion and mode shift</li> <li>• Constraint on the delivery of the Principal Cycle Network</li> <li>• Restricted residential development</li> </ul> |
| 3. Limited capacity and service life of the existing Ipswich City Centre/North Ipswich cross-river link (David Trumpy bridge and approaches) compromises the augmentation needed for traffic growth and mode shift | <ul style="list-style-type: none"> <li>• Aging infrastructure</li> <li>• Does not meet current design standards</li> <li>• Restrictions to widening the existing bridge</li> </ul>  | <ul style="list-style-type: none"> <li>• Restricted active and public transport connections for both commuters and recreational users with limited separation from general traffic</li> <li>• Does not cater for traffic growth</li> <li>• Continuing maintenance costs</li> <li>• Significant challenges to augmentation</li> <li>• Constrained development potential within North Ipswich</li> </ul>   |
| 4. Lack of network redundancy during incidents or major events (such as floods) lead to network failure  | <ul style="list-style-type: none"> <li>• Major floods or accidents on the David Trumpy bridge (or its approaches) restrict cross river connectivity through north and south Ipswich</li> <li>• Lack of alternative routes for trips to/from/through North Ipswich</li> </ul>  | <ul style="list-style-type: none"> <li>• Reduced resilience and redundancy of the transport network and increased network delays during times of emergency, natural disaster (such as a flood) or incidents (road closures)</li> <li>• Reduced emergency services and community accessibility to emergency facilities such as hospitals from north of the Bremer River during bridge closure periods.</li> </ul>   |

### 3.4 Benefits Sought

Following definition of the problems, the participants then identified the benefits expected from addressing the service need and key performance indicators (KPI's) for assessing whether the desired benefits are achieved. The benefits sought and outcomes to be achieved are summarised in Table 3-3. The KPIs seek to measure the outcomes for each benefit sought.



**Table 3-3 : Benefits Sought**

| BENEFITS SOUGHT  | OUTCOMES  |
|--|---|
| 1. Improved multi modal transport delivery   | <ul style="list-style-type: none"> <li>Improved public transport and active transport services, supporting the shift to sustainable modes identified in iGO (the City of Ipswich Transport Plan)</li> <li>Improved active transport connections for both commuters and recreational users</li> <li>Active transport movements separated from general traffic movements</li> <li>Achieved the State and Local Government's objective to deliver the Principal Cycle Network</li> </ul>   |
| 2. Enhanced connectivity and network resilience  | <ul style="list-style-type: none"> <li>Improved resilience of the transport network and increased network redundancy for day to day operation, and during times of emergency, natural disaster (such as a flood)</li> </ul>   |
| 3. Increased CBD amenity and appeal  | <ul style="list-style-type: none"> <li>Supported revitalisation of the Ipswich City Centre (as identified in the IRCS)</li> <li>Linked key elements of the current and planned Citywide open space network currently divided by the Bremer River</li> <li>Streetscape and pedestrian improvements</li> </ul>  |
| 4. Achieve SEQ Regional Plan outcomes for Ipswich as a Principal regional activity centre including increased economic activity in the CBD | <ul style="list-style-type: none"> <li>Significantly reduced the volume of non-essential through traffic from the City Centre core and supported the successful economic development and revitalisation of the Ipswich City Centre</li> <li>Potential to develop into a major economic hub featuring a diverse mix of economic activities such as commercial and professional services, health and tertiary education complemented by higher order retail and a civic heart</li> <li>Increased density and variety of housing, particularly in North Ipswich</li> </ul> |
| 5. Improve travel time and reliability and improve road safety   | <ul style="list-style-type: none"> <li>Facilitated the key initial link within the broader Ipswich City Centre orbital road network, which provided travel time savings and road safety improvements</li> <li>Improved access between the southern and northern parts of the Ipswich City Centre</li> </ul>   |
| 6. Supporting Ipswich's sport and entertainment precinct and cultural facilities   | <ul style="list-style-type: none"> <li>Improved access between the southern and northern parts of the Ipswich City Centre</li> <li>Improved active transport connections for both commuters and recreational users</li> <li>Improved linkage of key elements of the current and planned Citywide open space network current divided by the Bremer River</li> </ul>  |

### 3.5 Statement of Service Need

For the people of Ipswich and its surrounding regional areas, CBD congestion, inadequate transport network connectivity, ageing infrastructure and a lack of network resilience are inhibiting the investment and revitalisation needed to underpin population and economic growth, civic renewal, multi-mode transport development and the Centre's function as a Principal regional activity centre.

The Service Need is to address congestion, inadequate cross river connectivity and lack of network resilience in the Ipswich City Centre for revitalisation, economic development and realisation of Ipswich's full potential as a Principal regional activity centre.

### 3.6 Strategic Response

Workshop participants then considered potential strategic responses which could address at least part of the service need and deliver some of the identified KPIs in the context of both the considerable strategic and planning investment by ICC and the State Government to date and ICC's ongoing commitment to the service need, including use of Building Queensland's Business Case Development Framework.

The strategic responses relevant to each of the Benefits sought are summarised in Table 3-4.

**Table 3-4 : Strategic Response**

| STRATEGIC RESPONSE   | BENEFITS   |
|--|--|
| 1. Transport policy/planning to maximise the capacity and use of the existing transport network, particularly via passenger and active modes | <ul style="list-style-type: none"><li>• Improvements to multi modal transport delivery</li><li>• Contributes partially to the SEQ Regional Plan outcomes for Ipswich as Principal regional activity centre</li><li>• Improvements to travel time and reliability and road safety</li><li>• Supports Ipswich's sport and entertainment precinct and cultural facilities</li></ul>   |
| 2. Optimise/fully leverage existing cross-river capacity   | <ul style="list-style-type: none"><li>• Improvements to multi modal transport delivery</li><li>• Contributes partially to the SEQ Regional Plan outcomes for Ipswich as Principal regional activity centre</li><li>• Improvements to travel time and reliability and road safety</li><li>• Supports Ipswich's sport and entertainment precinct and cultural facilities</li></ul>   |
| 3. Increase cross-river capacity   | <ul style="list-style-type: none"><li>• Maximises improvements to multi modal transport delivery</li><li>• Enhanced connectivity and network resilience</li><li>• Improvements to CBD amenity and appeal</li><li>• Achieves the SEQ Regional Plan outcomes for Ipswich as a Principal regional activity centre including increased economic activity in the CBD</li><li>• Maximises the improvement to travel time and reliability and road safety</li><li>• Fully supports Ipswich's sport and entertainment precinct and cultural facilities</li></ul> |

### 3.7 Potential Initiatives

Participants then identified a comprehensive set of potential initiatives that could solve at least some of the problems and deliver some of the KPIs. Broadly, the initiatives can be categorised as involving:

- Regulatory and traffic management change;
- Better use of existing infrastructure and capacity use initiatives through smart infrastructure;
- Augmenting and improving service performance of existing assets; and
- New infrastructure.

Based upon the knowledge of the workshop stakeholders, several other potential initiatives identified were not ultimately included in the Initiatives Map as they would require very significant



Government policy / regulatory change for which there is no discernible known community or political support for, including:

- Prohibiting development in North Ipswich
- Road space rationing (alternate day travel)
- Congestion charging
- Converting the existing railway bridge to a light transit connection

### 3.8 Mapping the Initiatives to the State Infrastructure Plan Priority Model

Finally, workshop participants mapped the potential initiatives identified against the options categories identified in the State Infrastructure Plan 2016 (SIP). These are detailed in Table 3-5.

**Table 3-5 : Mapping the Initiatives Against the SIP Priorities**

| SIP PRIORITY                                  | INITIATIVE   |
|---|--|
| Reform<br>(non-asset initiative)              | Change Initiative <ul style="list-style-type: none"><li>• Heavy vehicle restrictions in CBD</li><li>• Lane reallocation for modal prioritisation</li></ul>   |
| Better use<br>(improving service performance) | Change Initiative <ul style="list-style-type: none"><li>• Lane reallocation for modal prioritisation</li><li>• Tidal traffic flow on David Trumpy Bridge</li><li>• Fully utilise capacity of the existing (non-inner city) river crossings</li><li>• Network intersection optimisation</li></ul> |
| Improve existing<br>(asset lite solutions)    | Asset Initiative <ul style="list-style-type: none"><li>• Increase capacity with additional lanes through increasing setbacks for future development in the CBD</li><li>• Widen/augment existing David Trumpy Bridge</li></ul>  |
| New infrastructure<br>(new asset)             | Asset Initiative <ul style="list-style-type: none"><li>• New all modes Inner-City Bremer River bridge crossing</li><li>• New Inner-City Bremer River pedestrian, cycle and/or bus bridge crossing</li></ul>  |

## 4. Investment Logic Map

Figure 4-1 shows how the ILM responds to the service need of addressing congestion, inadequate cross river connectivity and lack of network resilience in the Ipswich City Centre.



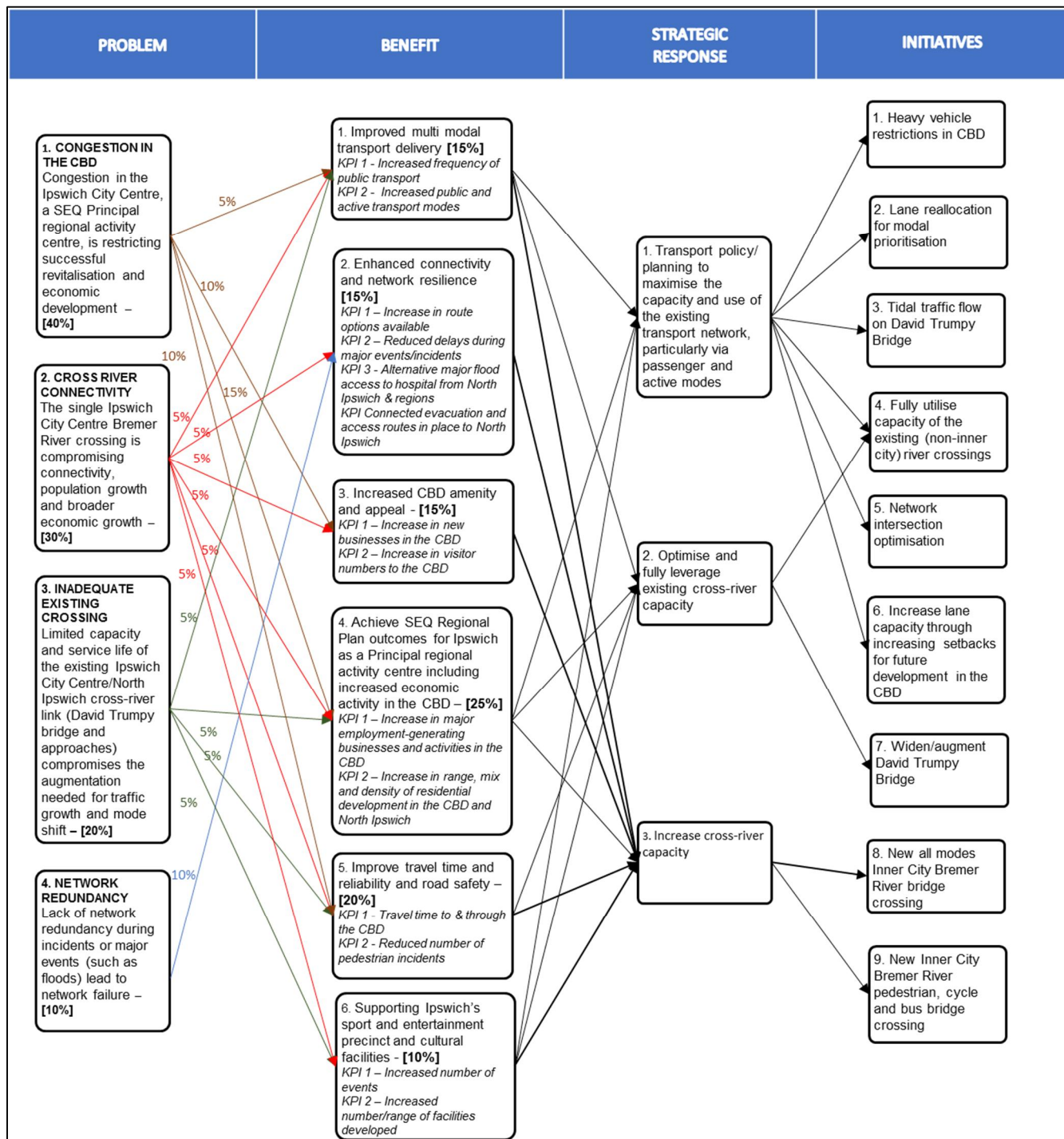


Figure 4-1 : Investment Logic Map

## 5. Initiatives Map

Figure 5-1 shows the potential initiatives to address the service need of addressing congestion, inadequate cross river connectivity and lack of network resilience in Ipswich City Centre.

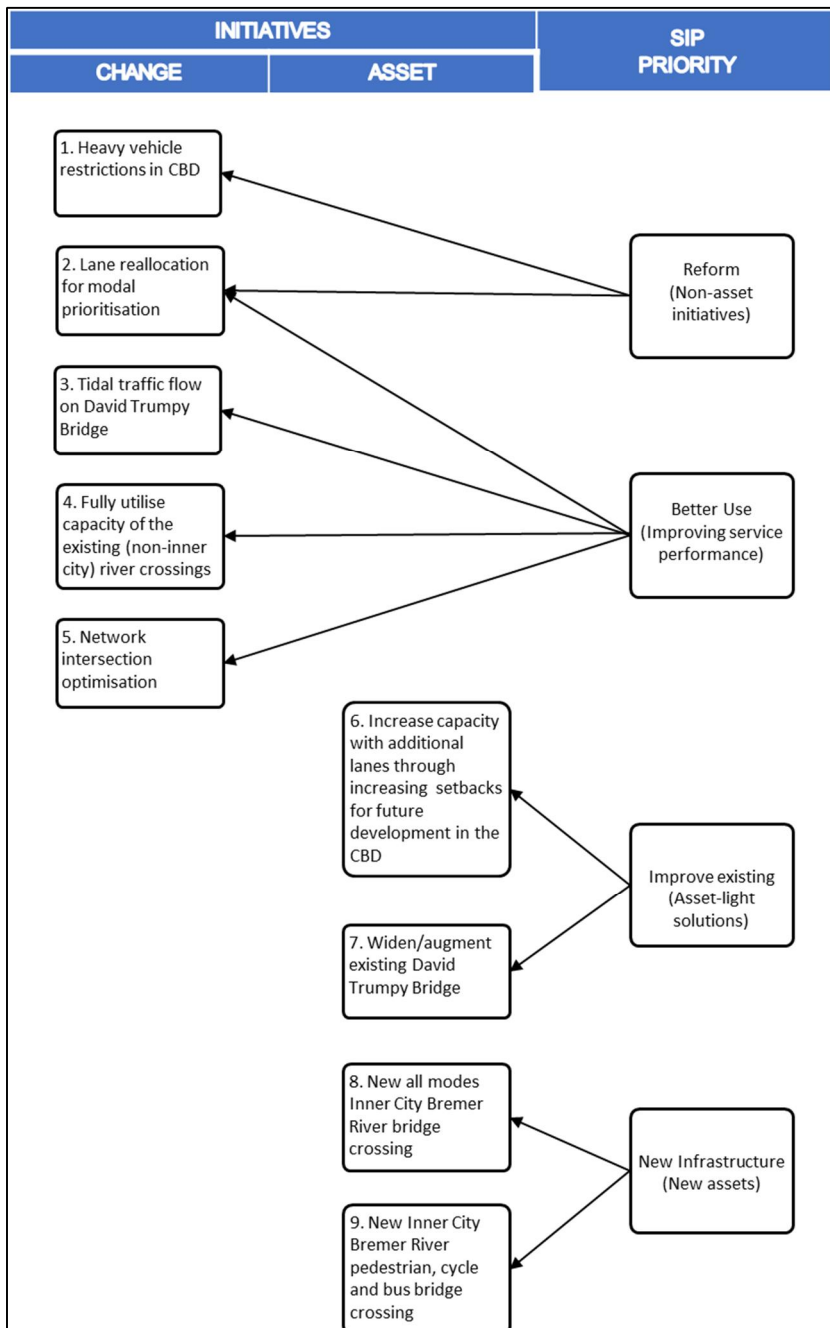


Figure 5-1 : Initiatives Map



## 6. Further Works

It is proposed that potential initiatives relevant to all the SIP Priority categories identified in the ILM Initiatives Map be further investigated in the Preliminary Business Case. These include:


- Reform (non-asset solution)
  - Heavy vehicle restrictions in CBD
  - Lane reallocation for modal prioritisation
- Better Use (improving service performance)
  - Lane reallocation for modal prioritisation
  - Tidal traffic flow on David Trumpy Bridge
  - Fully utilise capacity of the existing (non-inner city) river crossings
  - Network intersection optimisation
- Improve Existing (asset light solution)
  - Increase capacity with additional lanes through increasing setbacks for future development in the CBD
  - Widen/augment existing David Trumpy Bridge
- New Infrastructure (new asset)
  - New all modes Inner-City Bremer River bridge crossing
  - New Inner-City Bremer River pedestrian, cycle and/or bus bridge crossing

## 7. Preliminary Business Case Risk Assessment

Key strategic risks have been identified (Table 7-1) leading into the Preliminary Business Case (PBC), which ICC will seek to mitigate.

**Table 7-1 : Strategic Risks**

| RISK   | LIKELIHOOD | CONSEQUENCE | MITIGATION STRATEGY  | RISK MANAGER | RISK OWNER |
|--|------------|-------------|--|--------------|------------|
| Documentation does not comply with the requirements of Building Queensland's Business Case Development Framework | Low        | High        | <ul style="list-style-type: none"><li>· Use BQ's BCDF and the available guidance and templates</li><li>· Provide assurance by following the Control Point checklists</li></ul> | Jacobs       | ICC        |
| Stakeholder expectations are not managed well during the PBC   | Medium     | High        | <ul style="list-style-type: none"><li>· The Stakeholder Engagement Plan should be updated and reapproved by the Senior Responsible Officer</li></ul>                           | Jacobs       | ICC        |



| RISK  | LIKELIHOOD | CONSEQUENCE | MITIGATION STRATEGY  | RISK MANAGER     | RISK OWNER |
|---|------------|-------------|--|------------------|------------|
| Options are not affordable  | Medium     | High        | <ul style="list-style-type: none"> <li>Options to be refined in light of the investigations to reduce risk and cost</li> <li>Options are to be strategically, legally and practically viable</li> </ul>  | Jacobs<br>Jacobs | ICC<br>ICC |
| Social impacts are not clearly identified and accounted for in the decision making process. | Low        | High        | <ul style="list-style-type: none"> <li>Social impact assessment to be undertaken</li> <li>Quantify/monetise as many social impacts as possible for inclusion in the cost benefit analysis</li> <li>Impact risk assessment to be undertaken on social impacts that cannot be monetised</li> </ul> | Jacobs           | ICC        |

## 8. Recommendations

It is recommended that the following initiatives that span the reform, better use, improve existing and new infrastructure categories of the State Infrastructure Plan be investigated in the early stages of the Preliminary Business Case to determine their viability for further consideration:

- Heavy vehicle restrictions in CBD
- Lane reallocation for modal prioritisation
- Tidal traffic flow on David Trumpy Bridge
- Fully utilise capacity of the existing (non-inner city) river crossings
- Network intersection optimisation
- Increase capacity with additional lanes through increasing setbacks for future development in the CBD
- Widen/augment existing David Trumpy Bridge
- New all modes Inner-City Bremer River bridge crossing
- New Inner-City Bremer River pedestrian, cycle and/or bus bridge crossing

A program is shown in Attachment 2 for the work required in the Preliminary Business Case which includes scheduled meetings with the Project Steering Group.





## Attachment 1 – Previous ICC and TMR Studies

- Ipswich Transportation Study, ICC, 1967
- Ipswich Improvement Impact Study, ICC, 1976
- Ipswich City Road Network Study, ICC, 1986
- Ipswich Strategic Road Plan, ICC, 1989
- Ipswich City Centre Planning Study, ICC, 1995
- North Ipswich Road Network Study, ICC, 1999
- Booval Major Road Network Investigation, ICC, 1999
- Ipswich Planning Scheme, ICC, 2006
- Ipswich Regional Centre Strategy, ICC, 2008
- Ipswich Regional Centre Strategy, Network Options Testing, ICC, 2009
- Priority Infrastructure Plan, ICC, 2010
- Ipswich City Centre Orbital Road System, ICC, 2011
- Norman Street Bridge and Jacaranda Street Extension Study and Community Engagement, ICC, 2013
- Ipswich Area Transport Study, TMR, 2013
- Ipswich Orbital Road Study, TMR, 2015
- Bremer River Crossing Option Assessment Study, ICC, 2015
- iGO - City of Ipswich Transport Plan, ICC, 2016
- Brisbane Road Corridor Preservation Study, TMR, 2016

## Attachment 2 – Preliminary Business Case Program

| ID  | Task Name                                       | Duration | Start        | Finish       | 2 Oct | 13 Oct | 13 Nov | 4 Dec | 25 Dec | 15 Jan | 5 Feb | 126 Feb | 19 Mar | 9 Apr | 130 Apr | 21 May | 11 Jun |
|-----|---|----------|--------------|--------------|-------|--------|--------|-------|--------|--------|-------|---------|--------|-------|---------|--------|--------|
|     |   |          |              |              | T     | W      | T      | F     | S      | S      | M     | T       | W      | T     | F       | S      | S      |
| 1   | <b>1 PROJECT MANAGEMENT</b>                     | 100 days | Tue 3/10/17  | Tue 6/03/18  |       |        |        |       |        |        |       |         |        |       |         |        |        |
| 20  | <b>2 STRATEGIC BUSINESS CASE</b>                | 40 days  | Tue 10/10/17 | Mon 4/12/17  |       |        |        |       |        |        |       |         |        |       |         |        |        |
| 40  | <b>3 TECHNICAL ANALYSIS</b>                     | 100 days | Tue 10/10/17 | Tue 13/03/18 |       |        |        |       |        |        |       |         |        |       |         |        |        |
| 77  | <b>4 PRELIMINARY BUSINESS CASE</b>              | 151 days | Tue 10/10/17 | Tue 29/05/18 |       |        |        |       |        |        |       |         |        |       |         |        |        |
| 78  | 4.1 Project Options                             | 16 days  | Thu 16/11/17 | Fri 8/12/17  |       |        |        |       |        |        |       |         |        |       |         |        |        |
| 85  | 4.2 Risk Management                             | 24 days  | Tue 10/10/17 | Fri 10/11/17 |       |        |        |       |        |        |       |         |        |       |         |        |        |
| 93  | 4.3 Control Point 1                             | 6 days   | Fri 1/12/17  | Fri 8/12/17  |       |        |        |       |        |        |       |         |        |       |         |        |        |
| 96  | 4.4 Strategic Considerations                    | 40 days  | Wed 13/12/17 | Wed 21/02/18 |       |        |        |       |        |        |       |         |        |       |         |        |        |
| 99  | 4.5 Legal and Regulatory Considerations         | 40 days  | Wed 13/12/17 | Wed 21/02/18 |       |        |        |       |        |        |       |         |        |       |         |        |        |
| 105 | 4.6 Market Considerations                       | 40 days  | Wed 13/12/17 | Wed 21/02/18 |       |        |        |       |        |        |       |         |        |       |         |        |        |
| 111 | 4.7 Public Interest Consideration               | 40 days  | Wed 13/12/17 | Wed 21/02/18 |       |        |        |       |        |        |       |         |        |       |         |        |        |
| 117 | 4.8 Preliminary Environmental Assessment        | 20 days  | Mon 20/11/17 | Mon 18/12/17 |       |        |        |       |        |        |       |         |        |       |         |        |        |
| 123 | 4.9 Control Point 2                             | 5 days   | Thu 22/02/18 | Wed 28/02/18 |       |        |        |       |        |        |       |         |        |       |         |        |        |
| 126 | 4.10 Financial Analysis                         | 40 days  | Wed 21/02/18 | Thu 19/04/18 |       |        |        |       |        |        |       |         |        |       |         |        |        |
| 135 | 4.11 Wider Economic Benefits                    | 57 days  | Wed 17/01/18 | Tue 10/04/18 |       |        |        |       |        |        |       |         |        |       |         |        |        |
| 145 | 4.12 Control Point 3                            | 5 days   | Fri 20/04/18 | Fri 27/04/18 |       |        |        |       |        |        |       |         |        |       |         |        |        |
| 148 | 4.13 Preliminary Social Impact Evaluation       | 45 days  | Wed 13/12/17 | Wed 28/02/18 |       |        |        |       |        |        |       |         |        |       |         |        |        |
| 156 | 4.14 Preliminary Economic Analysis              | 50 days  | Wed 21/02/18 | Fri 4/05/18  |       |        |        |       |        |        |       |         |        |       |         |        |        |
| 166 | 4.15 Control Point 4                            | 5 days   | Thu 1/03/18  | Wed 7/03/18  |       |        |        |       |        |        |       |         |        |       |         |        |        |
| 169 | 4.16 Delivery Model Analysis                    | 20 days  | Thu 8/03/18  | Fri 6/04/18  |       |        |        |       |        |        |       |         |        |       |         |        |        |
| 176 | 4.17 Affordability Analysis                     | 20 days  | Thu 8/03/18  | Fri 6/04/18  |       |        |        |       |        |        |       |         |        |       |         |        |        |
| 183 | 4.18 Control Point 5                            | 5 days   | Mon 9/04/18  | Fri 13/04/18 |       |        |        |       |        |        |       |         |        |       |         |        |        |
| 186 | 4.19 Preliminary Business Case Report           | 30 days  | Mon 16/04/18 | Tue 29/05/18 |       |        |        |       |        |        |       |         |        |       |         |        |        |
| 192 | 4.20 Control Point 6                            | 5 days   | Wed 9/05/18  | Tue 15/05/18 |       |        |        |       |        |        |       |         |        |       |         |        |        |
| 195 | <b>5 STEERING GROUP MEETINGS</b>                | 105 days | Tue 12/12/17 | Tue 29/05/18 |       |        |        |       |        |        |       |         |        |       |         |        |        |
| 196 | 5.1 SG Meeting No 1 - Strategic Business Case   | 0 days   | Tue 12/12/17 | Tue 12/12/17 |       |        |        |       |        |        |       |         |        |       |         |        |        |
| 197 | 5.2 SG Meeting No 2 - Control Point 2           | 0 days   | Wed 28/02/18 | Wed 28/02/18 |       |        |        |       |        |        |       |         |        |       |         |        |        |
| 198 | 5.3 SG Meeting No 3 - Control Points 3, 4 and 5 | 0 days   | Fri 4/05/18  | Fri 4/05/18  |       |        |        |       |        |        |       |         |        |       |         |        |        |
| 199 | 5.4 SG Meeting No 4 - Control Point No 6        | 0 days   | Tue 29/05/18 | Tue 29/05/18 |       |        |        |       |        |        |       |         |        |       |         |        |        |