Brisbane City Council completed a business case in June 2017. The business case recommended the installation of signals, including provision of pedestrian and cycle facilities, at the Vulture Street and Montague Road intersection.

This summary provides a brief outline of the key findings of the business case, including:

- why an upgrade is required for the Vulture Street and Montague Road intersection
- timeline of key milestones
- why the project is needed now
- the benefits of delivering the project
- summary of the options analysis.
Montague Road connects West End (via multiple river crossings) with the Brisbane CBD and northern suburbs such as Milton. In the vicinity of this intersection, it is one lane in each direction with on-street parking and bicycle awareness zones on both sides of the road. It is classified as a district road in the 2014 Brisbane City Council road hierarchy. However, current Kurilpa Riverfront Renewal planning is showing that north of Vulture Street the hierarchy designation should be upgraded to a suburban road.

Vulture Street provides an east-west connection between West End and South Brisbane, Woolloongabba and East Brisbane. In the vicinity of the Montague Road intersection, it is one lane in each direction with on-street parking on both sides of the road. It is classified as a District Road in the 2014 Brisbane City Council road hierarchy. Similar to Montague Road, current Kurilpa Riverfront Renewal planning is showing that Vulture Street is also proposed to be upgraded to a suburban road.

Both Vulture Street and Montague Road connect via adjoining streets to the Go Between Bridge, Grey Street and Victoria bridges as well as the Goodwill and Kurilpa pedestrian and cycle bridges. Vulture Street connects via Main Street to the Story Bridge.

In the morning peak (2016 traffic count) the dominant traffic movement is southbound on Montague Road, with 423 through vehicles and 116 vehicles turning left into Vulture Street. In the afternoon peak the dominant traffic leg is again Montague Road, with equivalent traffic volumes southbound: 404 through vehicles and 197 turning vehicles to north bound 364 through vehicles and 145 turning vehicles.
Project timing

<table>
<thead>
<tr>
<th>Timing</th>
<th>Milestone</th>
</tr>
</thead>
<tbody>
<tr>
<td>November 2016</td>
<td>January 2017 Finalisation of concept design</td>
</tr>
<tr>
<td>March 2017</td>
<td>May 2017 Stakeholder consultation</td>
</tr>
<tr>
<td>April 2017</td>
<td>July 2017 Finalisation of business case</td>
</tr>
<tr>
<td>August 2017</td>
<td>October 2017 Detailed planning and design</td>
</tr>
<tr>
<td>July 2017</td>
<td>July 2018 Land acquisition</td>
</tr>
<tr>
<td>July 2018</td>
<td>October 2018 Road and civil construction</td>
</tr>
</tbody>
</table>

Why an upgrade is needed

**Congestion**

- High growth is predicted as a result of high density land use proposed in the area.
- Existing traffic volumes exceed the available capacity for the intersection during the morning and afternoon peak times.
- Analysis indicates excessive time delays and queue lengths.
- As demand grows over time, more of the local network would experience delays as traffic filters through residential streets on lower order roads to avoid the intersection.

**Safety**

- Over the six year period from 2011 to 2016, only one accident was recorded at the Vulture Street and Montague Road intersection which had a crash severity requiring medical treatment. The accident involved a vehicle turning right from Vulture Street getting hit by a vehicle heading south along Montague Road.
- Increased congestion is likely to lead to acceptance of smaller gaps and unsafe driving practices, increasing the risk of crashes.

**Pedestrians and cyclists**

- Vulture Street and Montague Road are classified as primary cycle routes.
- There are existing footpaths on both sides of Montague Road and Vulture Street has fully paved footpaths in keeping with the urban nature of the site.
- The Vulture Street and Montague Road intersection does not have any signalised crossings within the vicinity of the project.
Why this project is needed now

The existing traffic volumes at the intersection of Vulture Street and Montague Road show that the intersection is approaching capacity during both the morning and afternoon peak periods. Failure to resolve the project need within the short term will:

- increase safety risks for motorists, pedestrians and cyclists
- increase congestion and delays including for nearby intersections as a result of queuing
- increase delays and unreliability of travel time for bus users
- negatively impact efficient movement of freight and employees to local businesses.

WHY NOW?

BENEFITS

- Improving travel times and reliability for commuters, motorists and public transport services
- Improving operational efficiency for bus services and improving reliability and punctuality for bus passengers
- Improving safety and access for cyclists and pedestrians
- Improving local access
- Improving intersection operational capacity for current and future demand
- Improving safety for road users by providing turning lanes on Vulture Street and Montague Road
- Reducing delays during the morning and afternoon peak period
- Reducing traffic diverting through local streets
- Supporting the growth of the inner southern suburbs of Brisbane
- Improving traffic operations for the broader road network
OPTIONS ANALYSIS

Options developed

Two options were assessed to determine the best option that maximises the benefits of the upgrade and minimises the impact on the local environment, community, businesses and traffic.

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do nothing</td>
<td>Maintain the existing layout</td>
</tr>
<tr>
<td>1</td>
<td>Create a shared through and left-turn lane from Montague Road (north)</td>
</tr>
<tr>
<td>2</td>
<td>New left-turn lane pocket on Montague Road (north)</td>
</tr>
</tbody>
</table>

Table 1: Montague Road and Vulture Street intersection upgrade options

The ‘do nothing’ option was considered, but discounted given the necessity for the improvement.

The Concept Design Report identified Option 2 as the preferred option, as it provides the best overall traffic performance and highest level of safety. Option 2 is forecast to operate within capacity by 2031 whereas Option 1 will have reached capacity.

Option 2 provides a new signalised intersection with:

» Montague Road (north leg) – one through traffic lane, one left-turn traffic lane and one through cycle lane
» Montague Road (south leg) – one through traffic lane, one right-turn traffic lane and one through cycle lane
» Vulture Street – one left-turn cycle lane, one left-turn traffic lane and one right-turn traffic lane
» pedestrian crossings on the southern and eastern legs, upgraded kerb and channel and concrete footpaths
» revised street lighting and line marking.

Refer to the attached concept plan for further information.

On the basis of a benefit-cost ratio of 2.8 for the project, it is recommended that the project should proceed with Option 2 as the preferred option. A BCR greater than 1.0 indicates benefits outweigh costs.