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20 August 2012

Mr Barry Broe
Coordinator-General
Department of Infrastructure and Planning
Executive Building
100 George Street
City East Queensland 4002

Dear Mr Broe

**Legacy Way Project (formerly Northern Link Road Tunnel)
Application for Project Change of a Significant Project – Temporary Construction Workforce Car
Park – Lower Sir Samuel Griffith Drive, Mt Coot-tha**

Following recent discussions with your Office, please find attached Council's application for a proposed change to the Legacy Way Project in accordance with Part 4 Division 3A of the *State Development and Public Works Organisation Act 1971 (QLD)*.

I believe that the Notice is self-explanatory but please let me know if you require any further information.

Council has processed payment of the \$1071 application lodgement fee for evaluation of environmental effects proposed change (section 35C) via the electronic payment mechanism as outlined in the guideline for fees under part 4 Environmental Coordination process on 6 August 2012.

Yours sincerely



Scott Stewart
Divisional Manager
BRISBANE INFRASTRUCTURE

Encl. *Application for project change of a Significant Project – Temporary Construction Workforce Car Park - Lower Sir Samuel Griffith Drive*

Brisbane City Council ABN 72 002 765 795

**APPLICATION TO THE COORDINATOR-GENERAL
TO EVALUATE A PROPOSED CHANGE
LEGACY WAY PROJECT
20 August 2012**

In April 2010, the Coordinator-General evaluated the environmental effects of the Northern Link Road Tunnel Project (NLRT), now identified as Legacy Way, recommending that the Northern Link Project as described in detail in the Environmental Impact Statement (EIS) and the Supplementary Report (**Reference Design**) may proceed, subject to the conditions contained in Appendix 1 of the "**Coordinator- General's Report**".

In December 2010, the Coordinator-General evaluated changes to the Legacy Way Project following the selection of Transcity Pty Ltd (**Transcity**) to design, construct, maintain and operate Legacy Way. The Coordinator-General recommended that the Project proceed as varied by the "**Coordinator-General's Report on project changes**".

Further to the Coordinator-General's December 2010 report on project changes for the Legacy Way Project, the contractor for the project, Transcity Joint Venture (Transcity), proposes an additional change to the approved project.

Changes to the construction programme have identified the need for additional car parks. Council is now making this further Application for Project Change to address an identified need to provide an additional 150 car parks and two Transcity bus stops for the construction workforce. The site proposed to accommodate the additional temporary car parking requirements is Lower Sir Samuel Griffith Drive between the intersection with Scenic Drive and the intersection with Mt Coot-tha Road. The proposed site can provide up to 170 car parks. Council proposes to close this section of the road to public car access for the duration of the construction period to safely provide a day and night car parking area, with access to the western worksite provided by a shuttle bus.

Included with this application is a detailed report which:

- describes the proposed changes and effects of the Legacy Way Project;
- states reasons for the proposed changes; and
- includes information about the proposed changes and the effect on the Legacy Way Project to allow the Coordinator-General to make the evaluation.

Brisbane City Council requests that the Coordinator-General evaluate the proposed change to the Legacy Way Project in accordance with Part 4 Division 3A of the *State Development and Public Works Organisation Act 1971* (Qld).

BRISBANE CITY COUNCIL

LEGACY WAY

CONNECTING THE WESTERN SUBURBS TO THE NORTH

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The Legacy Way Project Application for Project Change

Temporary Construction Workforce
Car Park

Lower Sir Samuel Griffith Drive,
Mt Coot-tha
August 2012



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The Legacy Way Project
Application for Project Change

Temporary Construction Workforce
Car Park

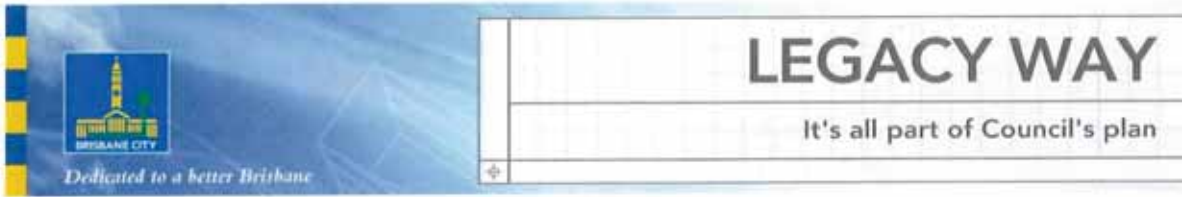
Lower Sir Samuel Griffith Drive,
Mt Coot-tha

August 2012

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Synopsis

The Road Tunnel Project

The Legacy Way project, formerly known as the Northern Link Road Tunnel Project, involves construction of two tunnels for use by road traffic, both under five kilometres in length, linking the Centenary Motorway at Toowong with the Inner City Bypass at Kelvin Grove. The project also includes the construction of two ventilation stations and outlets and a tollroad control centre.

The proponent for the project is Brisbane City Council (Council). On 20 September 2010, Council selected Transcity Joint Venture (Transcity) as the preferred contractor for the design, construction, operation and maintenance of the project.

Transcity has been contracted to deliver and operate the project as Council's agent for a 10-year period.

Significant Project Report

Legacy Way was declared to be a significant project under section 26(1)(a) of the State Development and Public Works Organisation Act 1971 (SDPWO Act) on 2 November 2007.

Following consideration of the project's environmental impact statement (EIS) and comments made on the EIS by members of the public, stakeholders and government agencies, the Coordinator-General's Report 2010: Northern Link Road Tunnel evaluating the EIS (Coordinator-General's report) was completed on 23 April 2010. The report found that the project could proceed, subject to compliance with conditions and recommendations made by the Coordinator-General to mitigate impacts. The conditions, recommendations, standards, guidelines of that report apply to all project changes to the significant project.

Construction Workforce Car Parking

The Coordinator-General's report of April 2010 provided the following condition in respect of construction workforce car parking in Condition 18(k), Appendix 1, Schedule 3 to the report:

The construction workforce must not park in local streets. A dedicated and adequate construction workforce off-street parking area must be provided. All construction workforce vehicles must be directed to project construction workforce car parks.

To avoid construction workforce car parking in local streets, shuttle transport between construction workforce car parks distant from a construction area must be provided for the duration of the period the construction area is in use.

In December 2010, the Coordinator-General considered the proponent's second application for project change (APC), which included a construction workers car park in Anzac Park, Toowong.



The Coordinator General refused parking in this area, and recommended that Council, in developing a new parking plan, investigate a range of locations to satisfy the project's parking requirements during the construction phase of the project. It was advised that different options should be considered individually and collectively and assessed using various criteria such as community impacts, cost, suitability, opportunities and risk. The Coordinator-General also recommended that Council consult with the community on the options (Appendix 1 to the report, page 59).

The recommendation further noted that, should Council's preferred option/s for parking propose another change to the project, an application would be required under section 35C of the *State Development and Public Works Organisation Act 1971*:

The proponent may apply to the Coordinator-General to evaluate, under this division, the environmental effects of the proposed change, its effects on the project and any other related matters.

All applications to the Coordinator-General and the Coordinator-General reports are available at www.deedi.qld.gov.au/cg/legacy-way-project.html

Application for Project Change 7

This application is the seventh APC and is provided to the Coordinator-General in accordance with section 35C of the *State Development and Public Works Organisation Act 1971*. The application is for establishment of up to approximately 150 additional car spaces and two Transcity bus stops for the Legacy Way construction workforce. The site proposed to accommodate the additional temporary car parking requirements is Lower Sir Samuel Griffith Drive between the intersection with Scenic Drive and the intersection with Mt Coot-tha Road. Council proposes to close this section of the road to public car access for the duration of the construction period to provide a safe day and night car parking area. Access to the western worksite would be provided by a shuttle bus service.

Figure 1 identifies the location of the proposal in the context of the Project site.

Figure 2 identifies the design and location of the proposed Lower Sir Samuel Griffith Drive workforce car park.



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APC 7: Temporary Construction Workforce Car Park, August 2012

Figure 1: Lower Sir Samuel Griffith Workforce Car Park Location



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APC 7: Temporary Construction Workforce Car Park, August 2012

Figure 2: Lower Sir Samuel Griffith Workforce Car Park Layout



1. Introduction

1.1. Legacy Way – Description

Legacy Way (formerly known as the Northern Link Road Tunnel project), is a tolled cross-city tunnel system, just under 5km in length, linking the Centenary Motorway at Toowong in the west of Brisbane with the Inner City Bypass and Kelvin Grove to the north of Brisbane. A complete description of the Project is available in the October 2010 Application for Project Change¹.

1.2. Project implementation and changes

Legacy Way has been evaluated by the Coordinator-General in accordance with the *State Development and Public Works Organisation Act 1971* (SDPWO Act). An Environmental Impact Statement (EIS) (September 2008) and a supplementary report (June 2009) were prepared for the Reference Design with the evaluation report and associated approval conditions provided by the Coordinator-General in April 2010.

The Reference Design identified that dedicated workforce car parking facilities would be established at:

- the western end, either in the overflow car park across Mt Coot-tha Road from the entrance to the Mt Coot-tha Botanic Gardens (the Mt Coot-tha overflow car park); or
- in areas along Sir Samuel Griffith Drive between Mt Coot-tha Road and Simpsons Road; or
- any combination of more than one of these sites when required to avoid workforce parking on local streets.

The conditions for the approval of the Reference Design attached to the Coordinator-General's Report required that the construction workforce must not park in local streets. The condition also required that a dedicated and adequate construction workforce off-street parking area be provided and that all construction workforce vehicles be directed to project construction workforce car parks. In addition, to avoid construction workforce car parking in local streets, shuttle transport between construction workforce car parks distant from a construction area must be provided for the duration of the period the construction area is in use.

The Coordinator-General's Report also noted that the detailed design process may result in amendments to the Reference Design which would be likely to require a Coordinator-General's Change Report under the process in Division 3A Part 4 of the SDPWO Act.

¹ The previous Applications for Project Change for Legacy Way are available at www.deedi.qld.gov.au/cg/legacy-way-project.html



A temporary construction workforce car parking area within Anzac Park was included as part of the Legacy Way Application for Project Change (APC) submitted by Council in October 2010.

During consultation on this report, it became clear that, while meeting many key criteria, the location and design of the construction workforce car park was not seen as acceptable to the local community. Significant community opposition was presented in public submissions on the APC to the Coordinator-General.

In response to these submissions, including the decision by Council to no longer proceed with the TCC being located within the Mt Coot-tha overflow car park area, the design of the proposed Anzac Park workforce car parking area was modified.

The design modifications included a reduced parking area to accommodate up to 200 vehicles (rather than 300) and also revised access to significantly reduce the impact of traffic accessing the parking area, including the associated safety concerns.

Despite the proposed design modifications to the construction workforce car parking area within Anzac Park, the Coordinator-General noted that further consideration of alternative locations was required in order to understand if locating parking elsewhere would reduce disturbance to the community while still providing a workable solution for the project. The APC request to locate temporary car parking in a section of Anzac Park was therefore refused.

Consistent with the recommendations provided in the Coordinator-General's Report on project changes (outlined in **Section 1.3**), Council undertook a further investigation of alternative locations for the construction workforce car parking. The full investigation (*Legacy Way, Western Worksite Workforce Car Parking – Investigation of Options Report*) is attached in **Appendix A**.

Council lodged the first change application for workforce car parking in May 2011 for use of part of the existing Park and Ride facility off Mt Coot-tha Road. An additional APC was lodged in July 2011 for the establishment of a car parking facility at an area at the intersection of Scenic Drive and Sir Samuel Griffith Drive. This site was approved by the Coordinator-General in August 2011 and is now operational.

In June 2012, Council lodged an APC for the use of an approved Legacy Way construction site at 576 Moggill Road for the use of temporary workforce car parking. This APC was approved in July 2012 and will allow the Legacy Way project to meet short term car park demand shortfalls.

1.3. Coordinator-General's Recommendation on Construction Workforce Parking

In refusing the proposed project changes to locate a temporary construction workforce car park in Anzac Park, the Coordinator-General made a Recommendation in the imposed conditions (Schedule 3 of Appendix 2) in the Coordinator-General's Change Report for the Legacy Way Project. Recommendation 35 Temporary Construction Car Parking states:



- a) It is recommended that the proponent investigate, in the making of a parking plan, a range of options to satisfy the project's construction workforce parking requirements for the western works.
- b) Should the plan propose options that require a change to the project, for example, construction on a new site not currently used for parking, consideration by the Coordinator-General of the project's workforce parking plan for the western works is required through the making of an application under section 35C of the *State Development and Public Works Organisation Act 1971*.
- c) The plan should demonstrate that a range of options have been explored in detail prior to the making of any application. The parking location options should be considered individually and collectively, and assessed using criteria including community impacts, cost, suitability, opportunities and risk. Mitigation measures for risk and impacts should also be considered.
- d) Regardless of whether an application is made as per above, it is recommended that the proponent undertake consultation with the community on its parking plan.

1.4. Summary of proposed change

Since the approval of the construction workforce car park at Scenic Drive in August 2011, changes by the contractor TransCity to the construction programme have identified the need for additional car parks. Council is now making this further APC to address an identified need to provide approximately 150 car parks and two Transcity bus stops for the construction workforce. At the western worksite the site proposed to accommodate the additional temporary car parking requirements is Lower Sir Samuel Griffith Drive between the intersection with Scenic Drive and the intersection with Mt Coot-tha Drive. Council proposes to close this section of the road to public car access for the duration of the construction period to provide a safe day and night car parking area. Access to the western worksite would be provided by a shuttle bus. The proposed car park layout for the temporary construction workforce car park is shown in **Figure 1-1**

This application:

- states reasons for the proposed change and its effects on the Project (Section 2)
- includes a summary of the workforce construction car park selection process and the reason why the Lower Sir Samuel Griffith Drive site was selected (refer to Section 2)
- describes the current use of the area required for construction workforce parking (Section 3)
- describes the proposed change including a plan of the proposed car park (**Figure 1-1** and Section 4)
- describes the effects of the proposed changes and mitigation measures (Section 6)
- includes the full report on the investigation of western workforce car parking options (refer to Appendix A).

This application includes enough information about the proposal and its effects on the project to allow the Coordinator-General to make the evaluation.



Figure 1-1: Lower Sir Samuel Griffith Workforce Car Park Layout

APC 7: Temporary Construction Workforce Car Park, August 2012

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1.5. Process for Evaluation of Project Change

Under Division 3A of the SDPWO Act, Council can apply to the Coordinator-General to assess a proposed change to the project or a condition of the project and to evaluate the environmental effects of the proposed change, its effects on the project and any other related matters. The application must:

- describe the proposed change and its effects on the project;
- state reasons for the proposed change; and
- include enough information about the proposed change and its effects on the project to allow the Coordinator-General to make the evaluation.

After receiving the application, the Coordinator-General may:

- refer details of the proposed change, its effects on the project or any other related matter to anyone the Coordinator-General considers may be able to give comments or information to help the making of the evaluation.
- ask the proponent for further information about the proposed change, its effects on the project or any other related matter.
- require the proponent to publicly notify the proposed change and its effects on the project, in a way decided by the Coordinator-General.

In making the evaluation, the Coordinator-General must consider each of the following:

- the nature of the proposed change and its effects on the project;
- the project as currently evaluated under the Coordinator-General's Report for the EIS for the project;
- the environmental effects of the proposed change and its effects on the project;
- if public notification was required, all properly made submissions about the proposed change and its effects on the project;
- the submissions made to the EIS to the extent that it is relevant to the proposed change and its effect on the project.

The Coordinator-General may refer the proposed changes to anyone to seek input on the changes, and within this, may decide to publicly notify the change request for comment. Submissions made will be among materials the Coordinator-General uses to inform his decision on the changes. The Coordinator-General must prepare a report (a Coordinator-General's Change Report) that makes an evaluation and may make recommendations, amend any conditions, impose conditions or refuse to allow the proposed change.

After completing the Coordinator-General's Change Report, the Coordinator-General must:

- give a copy of it to the proponent; and



- publicly notify the report.

To the extent that there is any inconsistency between the Coordinator-General's Report and the Change Report, the Change Report prevails.

2. Reasons for Proposed Change and its Effects on the Project

2.1. Rationale and justification

Adequate off-street parking for the construction workforce is required to avoid impacts on the amenity and local access for local residents and to adhere to the conditions outlined in the Coordinator-General's Report. Condition 18(k) refers to avoiding workforce parking in local streets. Council has developed a construction workforce parking plan for the western worksite with the aim of delivering parking in a location that minimises disturbance to the community while providing sufficient car parking spaces for the contractor's construction workforce. In order to avoid workforce parking in local streets, the section of Sir Samuel Griffith Drive proposed as the car parking site would be closed to public vehicle access until the completion of construction.

Since the approval of the Scenic Drive construction workforce car park in August 2011, changes to the construction programme have resulted in an increased demand in car parks at peak periods during the construction phase. To address this increased demand, approval is being sought for the establishment of additional car parks to enable compliance with Condition 18(k).

In order to provide the required car park spaces, the Lower Sir Samuel Griffith Drive car parking would be used in conjunction with the already approved construction workforce carparks.

2.2. Alternatives

Council previously undertook further investigation of alternative locations for construction workforce car parking in early 2011. The full investigation (*Legacy Way, Western Workforce Car Parking – Investigation of Options Report*) is attached in **Appendix A**. This process identified 24 potential workforce car parking sites, including a variation of the Lower Sir Samuel Griffith Drive site (these sites are described in **Appendix A**). These potential workforce car parking sites were reviewed in 2012 to determine if there was a suitable site to accommodate the additional parking demand.

In 2011 the 24 identified sites were subject to a first pass assessment against the project criteria for a capacity of more than 80 parking spaces, a site within 2 km of the worksite and also being available within 3 months. Based on these initial criteria, five options were taken through the more detailed multi-criteria assessment described in the *Western Worksite Workforce Car Parking Investigations of Options Report*. These five options were:

- Option 1 Hoop Pine Picnic Area,
- Option 2 Mt Coot-tha Park and Ride,



- Option 3 Scenic Drive Combined Car Park (now the approved Scenic Drive site and a lower Scenic Drive site which would have utilised an existing gravel informal parking area located off Scenic Drive)
- Option 4 the Dog Off-leash Area within Anzac Park and
- Option 5 Anzac Park north (the originally proposed Anzac Park site)

Of these five options, a combination of Option 2 and 3 were progressed and are currently in use as construction workforce car parks. It was also concluded that Option 1 Hoop Pine Picnic Area, Option 4 Dog Off-leash Area within Anzac Park and Option 5 Anzac Park north were not suitable to be developed for construction workforce car parking due to potential impacts to heritage, recreation and community values. These sites were not reconsidered for the new additional car parking demand, necessitating a review of the full list of the original 24 options.

From the review of the original 24 options, the Scenic Drive lower park and the Lower Sir Samuel Griffith Drive site (described as the 'Sir Samuel Griffith Drive {new area of road reserve between Scenic Drive and Sir Samuel Griffith Drive}') in the Report) were selected for further consideration. This is due to their distance from residential properties or other sensitive receivers and their proximity to the existing Scenic Drive construction workforce car park, enabling efficiency with the existing shuttle bus operations.

The Scenic Drive lower car park has capacity to hold approximately 88 vehicles. As this capacity is not sufficient to provide for the identified additional demand of 150 car parks, consideration was given to using this option in combination with multiple smaller parallel car parks along Scenic Drive and Sir Samuel Griffith Drive between the intersection with Scenic Drive and Mt Coot-tha Road. This combined option was not selected by the project team for the following reasons:

- Splitting workforce parking into multiple locations with a small number of parks would create difficulties in managing the workforce and workers' movements to and from site.
- Safety concerns with potential conflict with cyclists and car park uses with parallel parking along Sir Samuel Griffith Drive and the road remaining open.
- The previous *Legacy Way, Western Workforce Car Parking – Investigation of Options Report* concluded that it was important to leave the 'lower Scenic Drive' site for public use to avoid impacts on the tourist value of Mt Coot-tha and due to the lack of suitable alternative sites for the informal recreation use it provides.
- The difficult access arrangements for car parking along Scenic Drive including the lower Scenic Drive site, with a u-turn required at the junction of Scenic Drive and Sir Samuel Griffith Drive.

Conversely, the proposed Lower Sir Samuel Griffith Drive site was selected for the following reasons:


- As a suitable alternative route is provided via Scenic Drive, there are no local road access implications;
- No impacts to local streets and existing car parks;
- Ability to coordinate shuttle bus services with the Scenic Drive site and avoid the traffic effects of servicing multiple car parking sites;
- All works would be carried out within the existing road reserve;
- Very minor construction activities required to establish the car park; and
- No construction activities within Brisbane Forest Park.

The Sir Samuel Griffith Drive option was not raised with the community during the consultation process carried for the Western Workforce – Car Parking Options Investigation Report. Targeted consultation has been carried out to specifically address the proposed Lower Sir Samuel Griffith Drive car park. This consultation is outlined further in **Section 5**.

2.3. Western Worksite Parking Plan

The parking plan for the western worksite outlines the priority car parking sites that will accommodate construction workforce vehicles. The proposed plan is as follows and is shown in **Table 2-1**:

- Use of the Ada Street overflow car park for the remaining duration of the Project's construction;
- Use of the Scenic Drive car park for the remaining duration of the Project's construction;
- Use of the Lower Sir Samuel Griffith Drive car park to accommodate the additional vehicles (approximately 150) beyond the capacity of the Ada Street and Scenic Drive car parks and two Transcity bus stops; and
- Use of the Park and Ride car park for peak periods where demand exceeds the combined capacity of Ada Street, Scenic Drive and Lower Sir Samuel Griffith Drive car parks.



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Table 2-1 Western Worksite Parking Plan

Year	2013				2014				2015
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
Maximum total daily anticipated workforce	308	311	338	335	352	377	441	437	345
Maximum Ada Street car park day time workforce numbers using car park (Total capacity 81)	81	81	81	81	81	81	81	81	81
Maximum Scenic Drive day and night time workforce numbers using car park (Total capacity 170)	170	170	170	170	170	170	170	170	170
Maximum day and night time workforce numbers using Lower Sir Samuel Griffith Drive car park (Total capacity 150)	57	60	87	84	101	126	150	150	94
Maximum day time workforce numbers using Park and Ride car park	0	0	0	0	0	0	40	36	0

2.4. Consequences of not proceeding with proposed change

Not proceeding with this proposed change for a temporary construction workforce car park at Scenic Drive would result in a shortfall in the number of required parking spaces to support the construction workforce. In order to avoid the effects of workforce car parking spilling into local streets and to meet the requirements of the Coordinator-General's condition 18(k) (Schedule 3) another car park site would need to be identified and developed.

3. Current Use of the Sir Samuel Griffith Drive site

The Sir Samuel Griffith Drive site is currently road reserve managed by Brisbane City Council. This section of Sir Samuel Griffith Drive is one way only and is currently used as an alternative route to Scenic Drive down Mt Coot-tha (both shown on **Figure 3-1**). This section of Sir Samuel Griffith Drive ends at a T-intersection with Mt Coot-tha Road, where Sir Samuel Griffith Drive once again becomes a two way road (**Figure 3-2**).



■ **Figure 3-1** View looking north towards Sir Samuel Griffith Drive (on left) and Scenic Drive



■ **Figure 3-2 View looking south east of the intersection of Sir Samuel Griffith Drive and Mt Coot-tha Road**

There are a number of community groups that currently run events requiring the closure of Sir Samuel Griffith Drive in this location. These events, including the Great Brisbane Bike Ride (Mt Coot-tha Challenge route), the Coot-tha Challenge and the Mousdash 5km Summit walk, typically require this section of road closed in conjunction with wider road closures to provide a route.

There are a number of informal recreational users, including cyclists, walkers, joggers and street lugers, that use this section of Sir Samuel Griffith Drive and Scenic Drive. A survey was carried out on three separate occasions between 5:30am and 7:30am to gain an understanding of the frequency of users on this section of these roads. The survey was carried out at this time as it coincides with the morning construction shift change over and the peak morning period for recreational users, particularly on week days. The results are provided in **Table 3-1**.



■ **Table 3-1 Recreational Users of Sir Samuel Griffith Drive**

Road	Saturday 19/05/12		Monday 21/05/12		Wednesday 23/05/12	
	Sir Samuel Griffith Drive	Scenic Drive	Sir Samuel Griffith Drive	Scenic Drive	Sir Samuel Griffith Drive	Scenic Drive
Cyclists	45 (2 up)	59 (11 up)	23	35 (20 up)	103	185 (86 up)
Walkers	0	13 (8 up)	2 (up)	1	0	3 (2 up)
Joggers	5	13 (5 up)	4	1	3 (2 up)	2
Total	50	85	29	37	106	190

Based on the observations of the users during these periods, users going down Mt Coot-tha are relatively evenly distributed between Sir Samuel Griffith Drive and Scenic Drive. The number of users on Scenic Drive is increased by the greater number of users travelling up Mt Coot-tha on this road.

While it wasn't clear why one route was preferred over the other, the left turn from Sir Samuel Griffith Drive on to Mt Coot-tha Road is a Give Way, rather than a Stop as is used at the Scenic Drive intersection. This is likely to be preferable for cyclists completing anti-clockwise loops of Sir Samuel Griffith Drive.

Table 3-2 provides an overview of the cyclist and pedestrian counts for three key routes in Brisbane. Comparatively, the Sir Samuel Griffith Drive and Scenic Drive routes carry far fewer cyclists and pedestrians than these routes.

■ **Table 3-2 Cyclist and Pedestrian Counts on Key Routes**

	Bicentennial Bikeway		Eleanor Schonell Bridge		Goodwill Bridge	
	24 hour weekday	Hourly average	24 hour weekday	Hourly average	14 Hour weekday	Hourly average
Cyclists	2,500	104	1,500	63	3,000	214
Pedestrians	1,500	63	3,000	125	9,000	642
Total	4,000	167	4,500	188	12,000	857

Traffic count information is included in the assessment of traffic and transport effects in **Section 6.2**.



4. Description of Proposed Change

The proposed change involves providing additional car parks for the Legacy Way western workforce in the form of a temporary construction workforce car park. The proposed location for the temporary construction workforce car park is on Lower Sir Samuel Griffith Drive between Scenic Drive and Mt Coot-tha Road. The concept design is shown on **Figure 1-1**.

4.1. Car park layout and design

The proposed car park layout for the temporary construction workforce car park provides for approximately 150 parking spaces. Car parking spaces would be provided on either side of the road and a four metre active traffic lane maintained for construction workforce vehicles and shuttle buses.

In addition to the bus stop located near to the Scenic Drive car park, another two bus stops are proposed at 350 m intervals along Lower Sir Samuel Griffith Drive to service the additional car parks. These bus stops would be provided as indented bus bays. A small shelter may be erected to provide wet weather protection for the construction workforce waiting for the shuttle bus.

4.2. Car park construction and infrastructure upgrades

Footpaths would be provided on either side of the car park for safe access for the construction workforce to the designated bus stops. To improve safety for pedestrians currently using Scenic Drive, the footpaths would be available to the public during construction of Legacy Way. The footpaths are proposed to be retained post-construction of Legacy Way to provide a safe alternative means for pedestrians to use in this area of Mt Coot-tha.

Minor cut and fill works would be required within the road reserve on the edges of Lower Sir Samuel Griffith Drive to improve the safety of the car parking and traffic arrangements. A cut would be made into sections of the embankment on the east side of Lower Sir Samuel Griffith Drive and appropriate retaining measures would be implemented that would be finalised during detailed design.

Some minor interference with vegetation within the road reserve may be required for the establishment of the car park. Any trimming or pruning of vegetation within the road reserve would be carried out in accordance with Brisbane City Council's current roadside vegetation management practices.

To minimise confusion for traffic travelling down Scenic Drive from the Mt Coot-tha summit, the existing merge onto Lower Sir Samuel Griffith Drive would be closed through the use of temporary concrete safety barriers. The shoulder between Scenic Drive and Sir Samuel Griffith Drive would be shortened to provide additional road space for vehicles, including the shuttle



buses, accessing the construction workforce car parks (both Scenic Drive and Lower Sir Samuel Griffith Drive sites).

In conjunction with clear signage stating that cyclists are not to use Lower Sir Samuel Griffith Drive, the closure of the merge should act as a deterrent to cyclists to travel through the car park. No other provisions, such as speed humps or gates at the entry and exit points, would be implemented to deter cyclists. Green pavement treatment, 1.5 m wide, and bicycle pavement symbols would be applied along Scenic Drive near to the intersection with Sir Samuel Griffith Drive to alert cyclists of the preferred route.

Lighting is currently provided at a number of locations along Sir Samuel Griffith Drive. However, these lights do not illuminate the entire length of the Sir Samuel Griffith Drive site. Additional lighting would be installed to allow for safe operation of the car park. It is proposed that a Brisbane City Council Rate 3 lighting system would be implemented. Specifications for the lighting requirements would be identified during detailed design.

4.3. Car park operation

The Lower Sir Samuel Griffith Drive car park would be used by day-time and night-time construction workers. Access into the site would be via the upgraded right turn off Scenic Drive. Egress from the site would be at the intersection at Mt Coot-tha Road. The peak period of activity would be 5:30-7:30 am/pm during shift change-over. A shuttle bus would transport all workers from the Scenic Drive and Lower Sir Samuel Griffith Drive car parks to the western worksite.

The car park would be operated in accordance with the environmental management plans for the project. This would include construction staff inductions to address use of the car park, workforce behaviour within the car park, entering and exiting the car park, use of local streets, pedestrian and cycle routes and general staff behaviour.

It is proposed that traffic speed within the car park area would be managed to 20-30 km/hr. This would be achieved through a number of measures including:

- Clear signage to alert drivers of the speed and the nature of the location (ie car park, not a road);
- Fencing either side of the entrances and exits to alert drivers that they are entering and exiting the car parking site;
- Use of road markings, such as 'SLOW' or to identify shared space zones where workers are likely to be crossing to the road to access bus stops; and
- By providing a single, one lane road that is fringed by car parks rather than a two lane road (Lower Sir Samuel Griffith Drive's current form), a driving environment is created that is more likely to reduce traffic speeds.



The existing access arrangements for the Scenic Drive car parking site would be maintained with construction workers departing through the Lower Sir Samuel Griffith Drive car park.

4.4. Rehabilitation

Following completion of construction of Legacy Way, the temporary car park infrastructure would be removed and the site reinstated to the pre-existing condition.

It is proposed that the footpaths would be retained to provide a legacy for future users of Sir Samuel Griffith Drive and Mt Coot-tha.

4.5. Approvals

Development involving the construction, maintenance or operation of roads and things associated with roads (including parking areas) on behalf of, or under contract with, Brisbane City Council is exempt development under the provisions of Brisbane City Plan 2000. The proposed change is exempt development under Brisbane City Plan 2000 as it is development associated with the construction of the Legacy Way road tunnel.

Council will seek to temporarily close Lower Sir Samuel Griffith Drive prior to the commencement of activities to establish the car park. It is proposed to carry out this road closure under the provisions provided under the *Road Operations (Road Use Management) Act 1995*.

The proposal does not involve the clearance of native vegetation and does not require approval under the *Vegetation Management Act 1999* or under Council's Natural Assets Local Law. Likewise it does not involve development on a heritage place and does not required approval under the *Queensland Heritage Act 1992*.

The proposal is not the subject of any State Planning Policies, or development approval legislation, policy instruments or guidelines.

5. Consultation

In line with the Application for Project Change process, Brisbane City Council undertook consultation with the community and key stakeholders to gain feedback on the Lower Sir Samuel Griffith Drive workforce parking proposal.

To ensure that this feedback was representative of the community and key stakeholders, the project team utilised feedback gained from the broader community during last year's workforce parking consultation process. A targeted program was developed to consult key stakeholders identified from earlier consultation and ongoing community engagement activities and liaison on the project. **Table 5-1** provides a list of relevant Legacy Way conditions and information on how these conditions are addressed for this APC.

■ **Table 5-1 Legacy Way Conditions**

Condition	Response	APC 7 Reference (where relevant)
April 2010, Appendix 1, Northern Link Road Tunnel Project		
<i>Part 2 Design and Construction Phase</i>		
6. Communication and Consultation	Consultation has been carried out in accordance with the communication and engagement strategies currently in place for the Legacy Way project. Targeted consultation was carried out to inform nearby residents and road users of the scale, timing, duration, location, intensity and potential effects of the proposed Lower Sir Samuel Griffith Drive construction workforce car park.	Section 5
7. Community Liaison Group	Notification of the proposed car park has been emailed to members and discussed at the July 2012 meeting.	Section 5.1
8. Community Communication Strategy	Consultation has been carried out in accordance with the communication and engagement strategies currently in place for the Legacy Way project. A Communication and Engagement Strategy has been developed for the proposed Lower Sir Samuel Griffith Drive construction workforce car park.	Appendix B
9. Independent Community Liaison Representative	Has been informed as part of the Community Liaison Group process.	Section 5.1
10. Display Centres	The Legacy Way Visitors' Centre, at 80 Jephson Street, Toowong, has been set up to provide information on the Project to the public.	Section 6.1
December 2010, Appendix 1, Appendix 2, The Legacy Way Project (formerly known as Northern Link Road Tunnel)		
<i>Appendix 1</i>		
Recommendation 1: Temporary Construction Car Parking	The Western Workforce Car Parking Investigation of Options report was completed in April 2011 to advise on car parking options for Legacy Way. A variation of the Lower Sir Samuel Griffith Drive option was considered in this investigation. This option has been developed further and assessed against alternatives.	Section 2, Appendix A



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Condition 9: Bicycle Infrastructure – consultation	Cyclists using Sir Samuel Griffith Drive and bicycle user groups, including Bicycle Queensland and Bicycle User Group, have been consulted on the proposed Lower Sir Samuel Griffith Drive construction workforce car park.	Section 5
<i>Appendix 2</i>		
<i>Part 2: Design and Construction Phase</i>		
(6) Communication and Consultation	Consultation has been carried out in accordance with the communication and engagement strategies currently in place for the Legacy Way project. Targeted consultation was carried out to inform nearby residents and road users of the scale, timing, duration, location, intensity and potential effects of the proposed Lower Sir Samuel Griffith Drive construction workforce car park.	Section 5
(7) Community Liaison Group	Notification of the proposed car park has been emailed to members and discussed at the July 2012 meeting.	Section 5.1
(8) Community Communication Strategy	Consultation has been carried out in accordance with the communication and engagement strategies currently in place for the Legacy Way project. A Communication and Engagement Strategy has been developed for the proposed Lower Sir Samuel Griffith Drive construction workforce car park.	Section 5.1
(9) Independent Community Liaison Representative	Has been informed as part of the Community Liaison Group process.	Section 5.1
(10) Display Centres	The Legacy Way Visitors' Centre, at 80 Jephson Street, Toowong, has been set up to provide information on the Project to the public.	Section 6.1
(15) Environmental Management Plan (ix) Complaints	Any complaints received regarding the proposed Lower Sir Samuel Griffith Drive construction workforce car park will be addressed through the process established for the Legacy Way project.	Section 6.1.2
<i>Part 3: Operation Phase</i>		
(28) Community Engagement	During operation of Legacy Way, it is anticipated that the Lower Sir Samuel Griffith Drive car park would be returned to its use as a public road. Targeted consultation will be carried out prior to the end of its use to determine the final form of the road.	Section 4.4
<i>Part 4: New Conditions and Recommendations</i>		
(35) Recommendation: Temporary construction car parking	The Western Workforce Car Parking Investigation of Options report was completed in April 2011 to advise on car parking options for Legacy Way. A variation of the Lower Sir Samuel Griffith Drive option was considered in this investigation. This option has been developed further and assessed against alternatives.	Section 2, Appendix A
<i>Schedule 4: Jurisdictions for Conditions</i>		
Schedule 3: Imposed Conditions – part 2 – Design and construction phase	The Coordinator General is identified as the Entity with Jurisdiction over Conditions relevant to this Application for Project Change.	Section 1.5
Schedule 4: Imposed	The Coordinator General is identified as the Entity with	Section 1.5



conditions Operations phase	Jurisdiction over Conditions relevant to this Application for Project Change.	
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As a great deal of broader community feedback was captured in the 2011 workforce parking consultation program, the consultation process was designed not to duplicate the previous process. Activities centred on individualised one-on-one engagement with identified key stakeholders. The list of the key stakeholders was developed in line with previous community feedback and continuing stakeholder liaison on the Legacy Way project.

This targeted approach was considered to be more effective in engaging with potential users of the area than a newspaper advertisement.

5.1. Consultation program

Council prepared and implemented a Communication and Engagement Plan to guide the delivery of the communication of the proposed workforce car park to key stakeholders. Council held consultation from Monday 2 July to Tuesday 17 July 2012, during which time stakeholders were notified of the proposal and encouraged to provide feedback. Consultation activities focused on giving stakeholders the opportunity to review the proposed workforce parking arrangements and seek specific information about the proposal, which would inform their submission.

Council undertook a range of activities designed to target key stakeholders and the local community. A summary of the consultation is below:

- Distribution on Monday 2 July 2012 of a notification about the workforce parking proposal to approximately 150 properties in Ada Street, Richer Street, Horrocks Street, Walter Street, Purkiss Street, Mt Coot-tha Road, Old Mt Coot-tha Road and some sections of Birdwood Terrace in Toowong. These properties were selected as those in closest proximity to the proposed Lower Sir Samuel Griffith Drive workforce car park and likely access roads.
- Proactive phone calls and emails to key stakeholders within the local area and users of the Mt Coot-tha Forest precinct.
- Uploading information about the workforce parking proposal onto the Legacy Way web page of Council's corporate website.
- Installation of three information signs on Monday 2 July: two at the intersection of Sir Samuel Griffith Drive and Scenic Drive and one at the intersection of Sir Samuel Griffith Drive and Mt Coot-tha Road, indicating where to obtain information about the proposal.
- Information handout sessions on Scenic Drive and Sir Samuel Griffith Drive to distribute information to passing cyclists held on:
 - Tuesday 3 July; and
 - Thursday 5 July.



- Face-to-face meetings with key stakeholders/residents held on:
 - Tuesday 3 July, at Bicycle Queensland;
 - Tuesday 3 July, at Historic Racing Car Club (Qld); and
 - Wednesday 4 July, at Centenary Bicycle Users' Group.
- Community Liaison Group and Independent Community Liaison Representative have been notified of the proposed project change.
- The Legacy Way Visitors' Centre has been continued to be used as a source of project information to the public.

5.2. Community and stakeholder feedback

Feedback was provided by community members and stakeholders mainly via the project's email address or 1800 number. Members of the project team also met with several stakeholders onsite. A summary of stakeholders contact with the project team is provided in **Table 5-1**.

■ Table 5-2 Stakeholder Contact

Feedback mechanism	Number
Email Comment/Enquiry	39*
1800 Comment/Enquiry	6
Meeting/Briefing	3
Total	48

* This figure includes all emails received by the project team. 31 written submissions were received and the remaining eight emails related to meeting confirmations, compliments and general enquiries

A total of 31 written submissions were received about the workforce parking proposal. Submitters provided feedback on the design of the proposed car park and its impact on cyclists and pedestrians who use the lower stretch of Sir Samuel Griffith Drive. Submitters also queried why another workforce car park was required and whether further car parks would be needed for the project. Submitters suggested alternative locations, potential safety improvements for the proposal and shared local feedback for consideration by the design team.

The key issues raised by submitters related to the proposal's impact on cyclists and pedestrians, and the reason behind the requirement for another workforce parking location. A summary of the issues raised and feedback provided during consultation is provided in **Appendix B**, along with Council's response.

Feedback and suggestions from submitters on the design and operation of the proposed car park was provided to the relevant teams within Council's Legacy Way project for their consideration. Suggestions on the workforce parking proposal that are found to be feasible and of benefit to the community will be considered by Council for incorporation into the final design of the car park, where possible.

6. Effects of Project Changes

The changes proposed to the construction workforce car parking would modify the relative community effects of the Changed Project. Overall these effects are considered to be minor and can be managed through the detailed design of the car park and implementation of environmental management controls through the environmental management plans that are governed by the existing conditions imposed by the Coordinator-General. The main potential effects relate to the social environment and traffic and transport.

6.1. Social Environment Effects

6.1.1. Potential Impacts

Potential social impacts related to the establishment and operation of the temporary construction workforce car park at the Sir Samuel Griffith Drive site include:

- visual amenity for road users;
- business at the Mt Coot-tha summit;
- local amenity related to lighting and noise; and
- road safety (this issue is addressed in the Traffic and Transport Section, refer to **Section 6.2**).

The key areas of potential social impacts for the Sir Samuel Griffith Drive site relate to impacts to the users, both organised and informal, of Sir Samuel Griffith Drive. Scenic Drive and Sir Samuel Griffith Drive are tourist and recreational (including cycling and car rally) routes through urban bushland to the Mt Coot-tha Lookout and Kiosk. Viewing points to Brisbane CBD and suburbs below and beyond are available from Scenic Drive. The views of the forest provide an attractive bushland environs to Scenic Drive.

The view of the closed road, including fencing near the entrance, is unlikely to impact the aesthetic significance of Scenic Drive for visitors, recreational users and event participants who use the route. However, the closure of Sir Samuel Griffith Drive would result in the loss of an opportunity to appreciate views of the bushland that are currently provided along this route. This impact is considered minor as bushland views are provided along the remainder of Sir Samuel Griffith Drive approaching the Mt Coot-tha summit.

The closest sensitive receptor is a residential dwelling located approximately 40m from the northern extent of the Sir Samuel Griffith Drive site. Some views of any additional night lighting requirements may be visible from this location. However, any night lighting implemented would be consistent with existing road lighting arrangements in the area and is unlikely to result in additional visual impacts.



Potential noise sources associated with the construction workforce car parking are the starting of car engines, vehicles accelerating and slamming of car doors. The nearest residential dwelling is located on Mt Coot-tha Road and is approximately 50m from the car park exit and approximately 100m from the nearest car park. At that distance, it is unlikely that an increase in road traffic noise during shift changeover from the increase in the number of construction workforce vehicles accessing the Scenic Drive and Sir Samuel Griffith Drive car parks would be experienced. The hourly traffic flows would need to increase by an order of magnitude for there to be a discernible increase (ie greater than 3dBA) in road traffic noise.

Sir Samuel Griffith Drive is used by informal recreational cyclists, joggers and walkers. While the project change would remove this route option for cyclists, the existing route along Scenic Drive provides an adequate alternative. For walkers and joggers, the provision of footpaths along Lower Sir Samuel Griffith Drive and adequate lighting will provide a safer alternative to the current arrangements. These footpaths would be available for use by walkers and joggers during and after the site's use as a construction car park.

Alternative routes would need to be arranged for organised events, such as the Great Brisbane Bike Ride (Mt Coot-tha Challenge route), the Coot-tha Classic (not run in 2011) and the Mousdash 5km summit walk.

The potential impact on business at the Mt Coot-tha summit is considered to be negligible as the low impacts to visual amenity are unlikely to have any flow-on impact to tourist and visitor numbers to the summit.

6.1.2. Mitigation measures

The following mitigation measures will be considered to minimise the impact of the construction and operation of the car park:

- natural and non-reflective finishes on fencing;
- control of night light spill through lighting design;
- staff induction to incorporate appropriate use of the car park, entering, exiting, use of local streets and general staff behaviour; and
- complaints relevant to the proposed car park will be addressed through the established complaints management system set up for the Legacy Way project.

The implementation of these mitigation measures would be governed through the project environmental management plans as required by the existing conditions imposed on the Project by the Coordinator-General. The relevant conditions include Condition (15) Environmental management plan (EMP), Condition (18) General construction, Condition (20) Air quality, Condition (22) Noise and vibration, Condition (24) Urban design and landscape and Condition (25) Hazard and risk.

6.2. Traffic and Transport Effects

6.2.1. Potential Impacts

Potential traffic and transport impacts related to the construction and operation of the temporary construction workforce car park at the Scenic Drive site include:

- road safety for cyclists and other road users, particularly for on-coming traffic from the south west due to cars exiting and entering the car park;
- conflicts with traffic on Sir Samuel Griffith Drive and Scenic Drive due to increased traffic on the roads during construction worker shift change times; and
- conflicts with traffic/road closures during events from construction worker traffic.

The key issue identified in the submissions discussing the Lower Sir Samuel Griffith Drive site during the construction workforce parking consultation was the management of cyclist safety on Scenic Drive. In particular, there was concern that the intersection of Mt Coot-tha Road and Scenic Drive is not safe for cyclists travelling down Scenic Drive.

The majority of construction workforce vehicles accessing the proposed Lower Sir Samuel Griffith Drive car park are expected to access the site via the Mt Coot-tha Roundabout, Mt Coot-tha Road and then Scenic Drive. The Mt Coot-tha Roundabout between the Centenary Motorway and Mount Coot-tha Road is part of the state-controlled road network. The operation of the proposed construction workforce car park could result in a maximum of 150 additional cars accessing the Mt Coot-tha Roundabout during shift change over (5:30-7:30 am/pm). Traffic assessment of the Mt. Coot-tha Roundabout indicates negligible impact to the operation of the roundabout in the PM Peak and minor impact in the AM Peak as a result of the operation of the construction workforce car park. As such no mitigation works are considered necessary to address this issue.

An assessment of traffic along Scenic Drive and Sir Samuel Griffith Drive was carried out between 21 March 2011 and 26 March 2011. The results for users travelling up and down these roads are provided in **Table 6-1**. The results provided are for a 13 hour period from 6:00am to 7:00pm.

■ **Table 6-1 Traffic Count**

	Monday 21/03/11	Tuesday 22/03/11	Wednesday 23/03/11	Thursday 24/03/11	Friday 25/03/11	Saturday 26/03/11
Sir Samuel Griffith Drive (down)	46	47	37 (+ 1 vehicle up)	43	42 (+ 1 vehicle up)	94 (+ 1 vehicle up)
Scenic Drive (down)	526	522	558	590	655	926



Scenic Drive (up)	624	595	592	641	729	1021
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With the closure of Sir Samuel Griffith Drive for the car park, the vehicles that travel down it will be required to use Scenic Drive. Based on the traffic count in **Table 6-1**, this represents an increase in traffic heading down Scenic Drive of between 6% and 10%. Lane widths on Scenic Drive are greater than 4m and would have the capacity to carry this increase in users.

The Sir Samuel Griffith Drive car park will result in up to an additional 75 vehicles travelling up Scenic Drive during the morning and evening shift changeovers.

There is potential for conflict with existing traffic including pedestrians and cyclists in early morning / late afternoon periods during construction worker shift changes and shuttle bus movements. Increased traffic during shift changes may cause delays and safety concerns for regular road users and visitors, particularly at the entry/exit access point for the car park.

The issue of cyclist safety along Sir Samuel Griffith Drive and Scenic Drive has been investigated in consultation with Bicycle Queensland (BQ) and the Centenary Bicycle User Group (BUG). Both groups raised concerns that the Scenic Drive and Mt Coot-tha Road intersection is dangerous for cyclists travelling down Scenic Drive. It was identified that the 'slip lane' approach from Sir Samuel Griffith Drive onto Mt Coot-tha Road is a much safer approach. However, with the establishment of car parking along Lower Sir Samuel Griffith Drive, there is a greater potential for conflict between slow moving construction workforce vehicles (20km/h proposed as the speed within the car parking area) and fast moving cyclists. As a result it was not considered safe to keep Lower Sir Samuel Griffith Drive open to cyclists.

Mitigation measures have been considered to address BQ's and BUG's concerns at the Scenic Drive and Mt Coot-tha Road intersection. These measures include increased signage, set back of 'Stop Line' and the provision of cycle lanes down Scenic Drive. Mitigation measures will be discussed further with the associated groups during detailed design.

In addition, consultation and negotiation with the event organisers of the 'Coot-tha Classic' and 'Brisbane Coot-tha Challenge' to manage construction worker access to the car park during these events would be needed.

No existing car parks would be displaced by the development of the Lower Sir Samuel Griffith Drive car park.

There are no existing pedestrian crossings along the extent of Sir Samuel Griffith Drive proposed to be used as the construction workforce car park.

6.2.2. Mitigation measures

The following mitigation measures will be considered to minimise the impact of the establishment and operation of the car park:

- Completion of a road safety audit during detailed design of the car park
- lighting design for the car park and road access to address road safety and car park user safety;
- consultation with BQ on detailed design of the car park;
- consultation with BQ on potential safety improvements to the Scenic Drive and Mt Coot-tha Road intersection that could include:
 - improved advanced warning, 'Stop' and cyclist signage;
 - set back of the 'Stop Line' from the intersection to provide a suitable buffer between Scenic Drive stopping traffic and Mt Coot-tha Road through traffic;
 - provision of cycle lanes down Scenic Drive; and
 - intersection upgrades to improve sight lines and provide 'run-out' areas for cyclists in case of equipment failure.
- clear signage for motorists, pedestrians and cyclists at the carpark entrance and along the frontage of Sir Samuel Griffith Drive and Scenic Drive to convey the changed use of the area;
- clear signage for users of the car park advising to look out for cyclists and pedestrians;
- upgrade of the intersection including pavement, kerbing, signage, line marking, clear sightlines and lighting to provide safe, legible and convenient connections for pedestrians, cyclists, motorists and car park users to and from all areas adjacent to the car park; and
- implementation of a Construction Traffic Environmental Management Sub-Plan, including management of construction worker traffic to minimise conflicts with other road users and event traffic.

The implementation of these mitigation measures would be governed through the project environmental management plans as required by the existing conditions imposed on the Project by the Coordinator-General. The relevant conditions include Condition (15) Environmental management plan (EMP), Condition (16) Traffic management, Condition (18) General construction, Condition (20) Air quality, Condition (22) Noise and vibration and Condition (25) Hazard and risk.

6.3. Flora and Fauna Effects

6.3.1. Potential Impacts

The site is adjacent to mature remnant vegetation which is part of the Mt Coot-tha Forest. This site is owned by Brisbane City Council. This vegetation is part of a Least Concern Regional

Ecosystem. The potential impacts to vegetation are considered negligible, as only minor interference with vegetation within the road reserve may be required for the establishment of the Lower Sir Samuel Griffith Drive car park.

The establishment of the footpaths may result in the extension of hard surface area over existing root systems from nearby mature vegetation. While the impact on vegetation is considered to be minor, an appropriately qualified arborist would be consulted to determine where any tree protection zones should be established.

The provision of additional lighting along Lower Sir Samuel Griffith Drive may create disturbance to fauna habitats and movements near to the site. However, as the car park site is within an existing urban environment and the lighting would be consistent with existing Council road lighting, impacts are considered to be minor.

The provision of the additional lighting would require the establishment of trenches to electrical conduits. In the event that these trenches are left open at night time, there is the potential for fauna species to become trapped.

6.3.2. Mitigation measures

The following mitigation measures will be considered as part of the site environmental management plan to minimise the impact of the construction and operation of the car park:

- lighting associated with the parking area will incorporate fittings to lights which cause minimal dispersion of light outside the target area and avoid the use of mercury lamps, to limit insect associated problems such as encouraging fauna to enter close to construction activities and/or traffic areas;
- where required, an appropriately qualified arborist would be consulted to determine where any tree protection zones should be established; and
- where trenches are left open at night time, they will be checked for trapped fauna prior to commencing construction the following day.

6.4. Surface Water Effects

6.4.1. Potential Impacts

The proposed works along the edges of Lower Sir Samuel Griffith Drive would result in negligible changes to stormwater flow. The closest watercourse runs parallel to Lower Sir Samuel Griffith Drive approximately 120 m to 260 m to the north west. The area between the site and the watercourse is heavily vegetated. Therefore it is not anticipated that run-off from the site would flow towards the watercourse.



There is potential for construction of the car park including earthworks to impact on surface water quality in the local catchment. Earthworks will be limited and construction environmental management measures will be undertaken to control erosion and sediment run-off.

6.4.2. Mitigation measures

The following mitigation measures will be considered to minimise the impact of the construction and operation of Lower Sir Samuel Griffith Drive:

- the road will maintain existing surface drainage measures that allow the water to flow off the hard surface area;
- during construction an Erosion, Sediment and Drainage Control (ESDC) Plan will be implemented that incorporates appropriate erosion runoff and sediment control to reduce potential for sediment to leave the site and enter creeks, drainage lines and stormwater systems; and
- limit ground disturbance and earthworks where possible.

7. Conclusions and Proposed Conditions

The proposal to provide a temporary construction workforce car park along Lower Sir Samuel Griffith Drive is consistent with the requirements for establishing temporary construction car parking for the Legacy Way project identified in Recommendation 1 of the Coordinator-General's Report on project changes of December 2010.

The proposed car parking area for approximately 150 cars and the two Transcity bus stops is required to address temporary project needs without impacting on existing car parking within local streets in Toowong or Mt Coot-tha. The proposal addresses a community need to avoid or minimise the effects of workforce car parking during the construction phase of Legacy Way.

Consultation with BQ has identified a preference to maintain bicycle access along Lower Sir Samuel Griffith Drive as this route is considered safer than the Scenic Drive route. However, the potential for conflict along this route between fast moving cyclists negotiating tighter horizontal curves and slow moving construction workforce vehicles possibly stopping to give way or manoeuvre in or out of car spaces necessitates the need to close this route to cyclists. Further consultation will be carried out with BQ during detailed design to develop appropriate safety measures to be implemented along Scenic Drive and at the Scenic Drive and Mt Coot-tha Road intersection.

Amenity and traffic issues have been considered. The potential for impacts on either the scenic amenity or traffic is considered to be minimal due to the presence of the existing alternative route down Mt Coot-tha. The proposal would minimise the potential impacts on vegetation to the extent practicable through location of the car park within the existing road reserve.

It is considered that the Changed Project described in this application should proceed, subject to the complete list of conditions contained in the Coordinator-General's Report on project changes dated December 2010.

No additional conditions are required for the changed project. The existing conditions can be met by the proposal and remain appropriate for this change to the project as described in this application.

Appendix A Western Worksite Workforce Car Parking Investigation of Options Report

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Western Worksite Workforce Car Parking

Investigation of Options

APRIL 2011



Dedicated to a better Brisbane

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1. Introduction

Legacy Way (LW), formerly known as the Northern Link Road Tunnel Project, was the subject of an Application for Project Change (APC) in October 2010 following the selection of a preferred contractor (Transcity Joint Venture) for the design, construction, operation and maintenance of the project for Brisbane City Council (Council).

One of the proposed changes to the project included the proposal to establish a dedicated off-street workforce car park (required by the imposed conditions) for the western worksite within a section of Anzac Park for up to 300 vehicles.

The proposed Anzac Park workforce parking area, as described in the APC, and further refined in response to public submissions, was refused in the Coordinator-General's report on Project Changes of December 2010. The Coordinator-General concluded that while there was merit to the proposal that further assessment was needed in order to understand if locating the off-street parking elsewhere would reduce disturbance to the community while still providing a workable solution for the project.

1.1 Purpose

The purpose of this report is to document and assess, against a range of criteria, a number of sites potentially suitable for construction workforce car parking associated with the western worksite during the construction of Legacy Way. The site(s) would be rehabilitated or returned to an approved use following construction, estimated to be approximately 4 years from commencement.

The aim is to ultimately deliver off-street parking in a location (or locations) that minimises disturbance to the community while providing sufficient car parking spaces for the contractor's construction workforce. Primarily, the construction workforce car parking area needs to support the requirement of the Coordinator-General's condition 18(k) (Schedule 3) that the construction workforce must not park in local streets. A dedicated and adequate construction workforce off-street parking area must be provided and shuttle transport must be provided between car parks distant from a construction area.

1.2 Background

Legacy Way has been evaluated by the Coordinator-General in accordance with the *State Development and Public Works Organisation Act 1971*. An EIS (September 2008) and a supplementary report (June 2009) were prepared for the Reference Design (RD) with the evaluation report and associated approval conditions provided by the Coordinator-General in April 2010.

As part of the Project, the RD proposed establishing dedicated off-street workforce parking areas for the western construction area in the overflow car park across Mt Coot-tha Road

from the entrance to the Mt Coot-tha Botanic Gardens and/or in areas along Sir Samuel Griffith Drive between Mt Coot-tha Road and Simpsons Road.

The Coordinator-General's April 2010 report evaluated the EIS, and noted the following about the proposed locations for dedicated workforce parking:

■ **4.2.8.3 – Construction workforce car parking**

Construction workforce car parking on local streets has the potential to inconvenience local residents and cause traffic impacts.

The EIS states that site vehicles and construction vehicles would park within the construction worksites. Staff vehicles would park in designated parking areas with dedicated workforce parking facilities to be provided at the eastern end of Victoria Park between Gilchrist Avenue and the ICB, and at the western end either in the overflow car park across Mount Coot-tha Road from the entrance to the Mount Coot-tha Botanic Gardens or in areas along Sir Samuel Griffith Drive between Mount Coot-tha Road and Simpsons Road.

Based on recent experience with other infrastructure projects in Brisbane, I consider that there is potential for both:-

- the actual construction workforce to be greater than predicted for the reference design in the EIS leading to overflow of off-street parking identified in the EIS
- and consequently, if not specifically prohibited, unsupervised parking of project related staff in local streets around worksites.

Therefore, I require that construction workforce parking must be in accordance with imposed Condition 18 (k) and (l) – General construction, Schedule 3, Appendix 1. Condition 18(k) requires that the construction workforce must not park in local streets. A dedicated and adequate construction workforce off-street parking area must be provided. All construction workforce vehicles must be directed to project construction workforce car parks. To avoid construction workforce car parking in local streets, shuttle transport between construction workforce car parks distant from a worksite or work area is to be provided for the duration of the period the worksite or work area is in use. At the completion of the project Condition 18(l) requires that construction workforce car parks must be rehabilitated as quickly as is reasonable and practicable.

A dedicated off-street workforce car parking area within Anzac Park was included as part of the Legacy Way Application for Project Change (APC) submitted by Council in October 2010. The APC also included at the western end of the project a revised western surface connection to enable both TBMs to be launched outside the Centenary Motorway alignment and the Tollroad Control Centre (TCC) being located in the Botanic Gardens overflow car park area.

During consultation on this report it became clear that, while meeting many key criteria, the car park was not seen as suitable by the local community in its current format and significant community opposition was presented in public submissions on the APC to the Coordinator-General.

In response to these submissions, including the decision by Council to no longer proceed with the TCC being located within the Gardens overflow car parking area, the design of the proposed Anzac Park workforce car parking area was modified.

The design modifications included a reduced parking area to accommodate up to 200 vehicles (rather than 300) and also revised access to significantly reduce the impact of traffic accessing the parking area, including the associated safety concerns.

The Coordinator-General gave merit to the Anzac Park proposal and the design refinements to address the identified concerns of the local community. It was noted, however, that further consideration of alternative locations was required in order to understand if locating parking elsewhere would reduce disturbance to the community while still providing a workable solution for the project.

The APC request to locate temporary car parking in a section of Anzac Park was therefore refused.

1.2.1 Coordinator-General's Recommendation

In refusing the proposed project changes to locate a construction workforce car park in Anzac Park, the Coordinator-General made a Recommendation in the imposed conditions (Schedule 3 of Appendix 2) in the Coordinator-General's Report on project changes to the Legacy Way Project. Recommendation 35 Temporary Construction Car Parking states:

- a) It is recommended that the proponent investigate, in the making of a parking plan, a range of options to satisfy the project's construction workforce parking requirements for the western works.
- b) Should the plan propose options that require a change to the project, for example, construction on a new site not currently used for parking, consideration by the Coordinator-General of the project's workforce parking plan for the western works is required through the making of an application under section 35C of the State Development and Public Works Organisation Act 1971.
- c) **The plan should demonstrate that a range of options have been explored in detail prior to the making of any application.** The parking location options should be considered individually and collectively, and assessed using criteria including community impacts, cost, suitability, opportunities and risk. Mitigation measures for risk and impacts should also be considered.

- d) Regardless of whether an application is made as per above, it is recommended that the proponent undertake consultation with the community on its parking plan.

The Coordinator-General's report of the project changes advised BCC as proponent for the Legacy Way Project to:

- Investigate existing parking areas in the vicinity of the western works, such as the park and ride car park adjacent to the Toowong bus depot and available space in the worksite.
- Investigate optimising use of the existing botanic gardens overflow car park on Mount Coot-tha Road as a part of its parking strategy. It was noted in the Report that the use of this area is allowable given that use of this area was addressed with the EIS and is not part of the consideration of project changes.
- Investigate areas along Sir Samuel Griffith Drive which are also not part of the consideration of project changes.

1.2.2 Botanic Gardens Overflow Car Park

In accordance with the Coordinator-General's recommendations, Council decided to use the existing botanic gardens overflow car park on Mount Coot-tha Road as a part of the workforce parking plan for the LW project. Aside from a small modification Council has decided not to seek major optimisation of the Botanic gardens overflow car park. Council has made this decision in response to feedback from the Mount Coot-tha Residents Group regarding the impact that use of the existing car parking area will have on adjacent homes.

With a small modification the Botanic Gardens overflow car park provides 81 car parks for construction workers with an additional allowance of spaces for worksite visitor parking.

Council has also made a decision not to use the Botanic gardens overflow carpark at night to minimise the impact on adjacent residents, and to ensure the availability of the area to local attractions at the busiest times, including Sundays.

As such there will be a full 300 car parks (including the existing parking areas within the Gardens) available for the Gardens use on Sundays throughout the project.

1.3 Methodology

The car park options assessment has been undertaken in conjunction with the workforce car park consultation process. Key steps undertaken as part of this process included:

- identification of workforce car parking options, including existing parking areas and suggestions made in community submissions to the APC during November and December 2010;

- identification of key requirements of the workforce car park, including construction workforce numbers;
- first pass assessment of car park options based on the key project requirements;
- further development of car park options which meet the first pass criteria;
- phase 1 consultation - Workforce Parking Consultation Group;
- phase 2 consultation - Community Consultation Sessions;
- assessment of car park options against multiple criteria including community, suitability, environmental and economic;
- consideration of options individually and collectively, including mitigation measures for risks and impacts; and
- phase 3 consultation – stakeholder consultation.

1.4 Report Structure

The workforce car park requirements and first pass criteria are discussed in **Section 2**. The preliminary car park options and first pass assessment are summarised in **Section 3**, with more detail included in **Appendix A**.

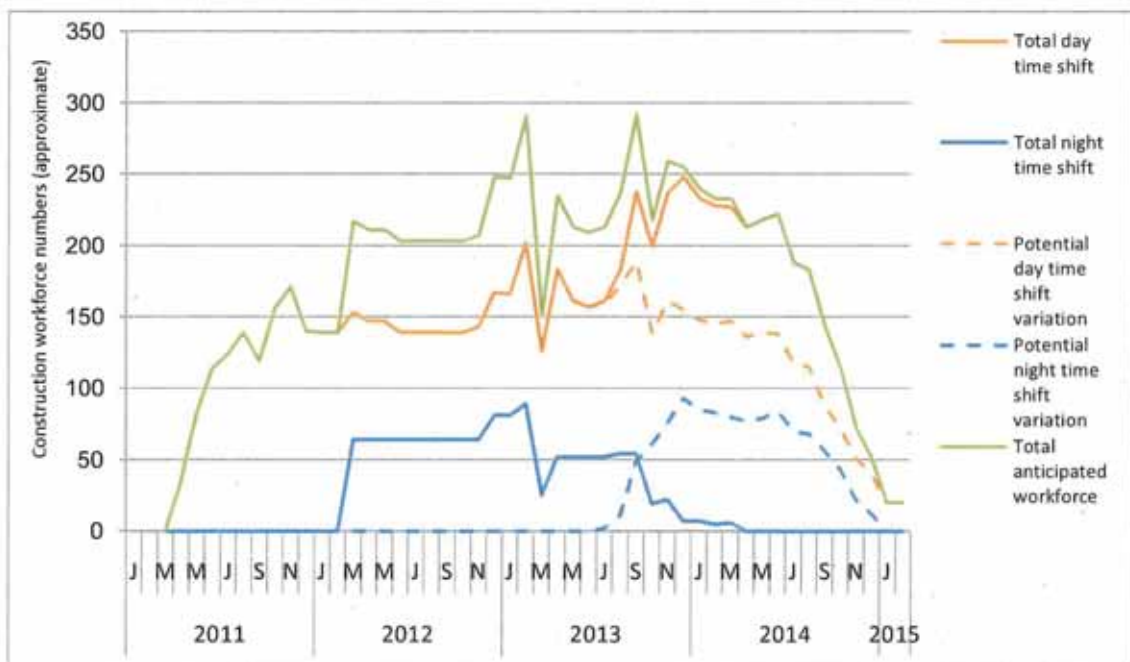
The car park options are outlined in **Section 4** and the criteria are outlined in **Section 5**. The stage 1 and 2 consultation activities and outcomes are reported in **Section 6**, with the community information materials included in **Appendix B** and details of the community feedback comments included in **Appendix C**. The car park option evaluation is summarised **Section 7** with further detail included in **Appendix D**. **Section 8** provides conclusions on the parking plan based on the investigation contained in this report together with the community consultation undertaken during the investigation.

2. Workforce Car Park Requirements

The key requirement of the workforce car park is to provide convenient and useable access to the western worksite of Legacy Way to avoid the construction workforce parking on local streets.

Workforce car parking will need to be available for use prior to construction commencing at the western worksite. The number of car parks required will fluctuate with the construction workforce numbers. The peak workforce at the western worksite is expected to be approximately 290 in early 2013. From 2012 to the end of 2013 the workforce would be split between a day shift and a night shift. As surface works will only be undertaken between 6.30am to 6.30pm Monday to Saturday, the day shift will generally be larger in size than the night shift. Underground works such as tunnelling will be split between the day time and night time shift. The night time shift is proposed to be between 7pm to 7am, 7 days a week.

An overview of anticipated workforce numbers at the western worksite is shown in **Figure 2-1**.



■ **Figure 2-1 Legacy Way western worksite construction workforce numbers**

2.1 First Pass Criteria

First pass criteria which articulate key requirements have been developed to assess the preliminary workforce car parking options. These criteria are:

- A site is able to be secured and constructed within 3 months.
- A site contributes at least 80 car parking spaces.

- A site is no further than 2km from the western worksite.

2.1.1 The site is able to be secured and constructed within 3 months

Car parking will need to be operational and available for use by early 2011. Initially the construction workforce will be able to park in the Gardens overflow car park which was included in the Reference Design for the project. However, from June 2011 onwards workforce numbers would exceed the available number of car parks in the Gardens overflow car park. Therefore additional car parking would be required from June 2011. As such, car park options which may have a lengthy lead time to secure land tenure or require lengthy construction works are unlikely to be feasible for the project.

2.1.2 The site contributes at least 80 car parking spaces

Although a combination of smaller car parks could be suitable, the need to travel to multiple parking areas to find an available space is a potential deterrent for construction workers to use the car park. Additionally, in the event that a shuttle bus is required, the need to stop at multiple locations would reduce the efficiency of bus operations. Therefore the use of small car parks is not considered practical. Acceptable car park options should have at least 80 car park spaces.

2.1.3 The site is no further than 2km from the western worksite

To be suitable for the project needs, the car parking area will need to provide convenient access to the western worksite. Although it would be possible to use a shuttle bus to transport workers from a car park that is more than 2km away from the worksite, it is not considered to be practical due to delays between parking and reaching the worksite as workers wait for the shuttle bus. The delays would make the parking less desirable for construction workers and would also have commercial implications for the project. The use of a shuttle bus for travel over a distance of between 800m to 2km is considered practical. Car park sites which provide direct pedestrian access to the worksite (within 400m) would be considered highly desirable.

3. Preliminary Workforce Car Parking Options

A number of workforce car parking options have been identified that include:

- Existing parking areas in the vicinity of the western works such as the park and ride car park adjacent to the Toowong bus depot, areas within the western worksite and areas within the Botanic Gardens.
- Areas excluded from the assessment of project changes as they were covered by the Coordinator-General's report on the Reference Design (RD), being:
 - the use of the existing overflow car park for the Botanic Gardens on Mt Coot-tha Road; and
 - areas along Sir Samuel Griffith Drive between Mount Coot-tha Road and Simpsons Road.
- Potential new car parking areas, which may be needed to meet project requirements.

The preliminary options include suggestions from community groups made in submissions to the application for project change, options identified by Council and options identified by Transcity.

These preliminary options have been subject to a first pass assessment to determine which options will be taken forward through the multi-criteria assessment. Details of the preliminary options and their first pass assessment are included in **Appendix A**.

The first pass assessment of the car park alternatives is summarised in **Table 3-1** below.

■ **Table 3-1 Car park alternative first pass assessment**

Site Name	Approximate capacity >80	Within 2km of worksite?	Available within 3 months?	Take onto further assessment?
Freer's northern area	✓	✓	✗	✗
Freer's southern area	✓	✓	✗	✗
Silky Oak picnic area	✗	✓	✓	✗
Hoop pine existing car park area	✗	✓	✓	✗
Hoop Pine picnic area	✓	✓	✓	✓
Slaughter Falls picnic area	✗	✓	✓	✗
Mount Coot-tha Road Park and Ride	✓	✓	✓	✓
Botanic Gardens existing parking	✗	✓	✓	✗
Toowong Cemetery internal roads	✗	✓	✓	✗
Toowong Bus Depot	✗	✓	✓	✗
Western worksite	✗	✓	✓	✗
Scenic Drive upper park	✓	✓	✓	✓
Scenic Drive lower park	✓	✓	✓	✓

Site Name	Approximate capacity >80	Within 2km of worksite?	Available within 3 months?	Take onto further assessment?
Mt Coot-tha Quarry	×	✓	✓	×
Botanic Gardens new parking site	×	✓	✓	×
Purtell Park car park, Carwoola Street	✓	×	✓	×
Dog Off-leash area, Anzac Park	✓	✓	✓	✓
Anzac Park North	✓	✓	✓	✓
Sir Samuel Griffith Drive, road	?	✓	×	×
Fortitude valley commercial car park	✓	×	✓	×
East end parking area (EKKA overflow)	✓	×	?	×
Moggil Road / Centenary Motorway	?	×	×	×
Milton Tennis court site	?	×	×	×
Seventeen Mile Rocks Road / Centenary Motorway	?	×	×	×

4. Car park alternatives

Based on the first pass evaluation, the potential car park alternatives are defined in **Table 4-1** below.

■ **Table 4-1 Potential car park alternatives**

Alternative	Site 1	Site 2	Site 3	Approximate Total Car parks
Option 1: Hoop Pine Picnic Area	Gardens overflow parking (81 parks)	Hoop Pine Picnic Area (approximately 200 parks)		281
Option 2: Mt Coot-tha Road Park and Ride	Gardens overflow parking (81 parks)	Park and Ride (110 parks)	An additional site will be required from 2012 to provide sufficient numbers	191
Option 3: Scenic Drive Combined Car Park	Gardens overflow parking (81 parks)	Scenic Drive upper park (approximately 170 parks)	Scenic Drive lower park (approximately 90 parks)	341
Option 4: Dog Off-leash area, Anzac Park	Gardens overflow parking (81 parks)	Dog Off-leash area, Anzac Park (approximately 200 parks)		281
Option 5: Anzac Park North	Gardens overflow parking (81 parks)	Anzac Park North (approximately 200 parks)		281

Each of these five alternatives involve using one of the five options identified as potentially suitable in the first pass assessment in combination with the Gardens Overflow car park. The location of these five sites is shown in **Figure 4-1** below.



Key

- | | | |
|----------------------------|-----------------------------------|----------------------|
| 1 - Hoop Pine Picnic Area | 3 - Scenic Drive combined Carpark | 5 - Anzac Park North |
| 2 - Existing Park and Ride | 4 - Dog off leash area | |

■ **Figure 4-1 Car park options location overview**

Each of the five options was investigated in further detail. The concept designs of each option are outlined below.

4.1 Option 1: Hoop Pine Picnic Area (Hoop Pine)

This option involves expanding the existing parking area at the Hoop Pine Picnic Area (Hoop Pine) to cover the existing cleared, grass area. The total capacity of the car park would be approximately 200 car parks. This area would be closed to public access. A bus turn-around and pick up point would be located close to the car park entrance off Sir Samuel Griffith Drive. An indicative car park layout is shown in **Figure 4-2**.

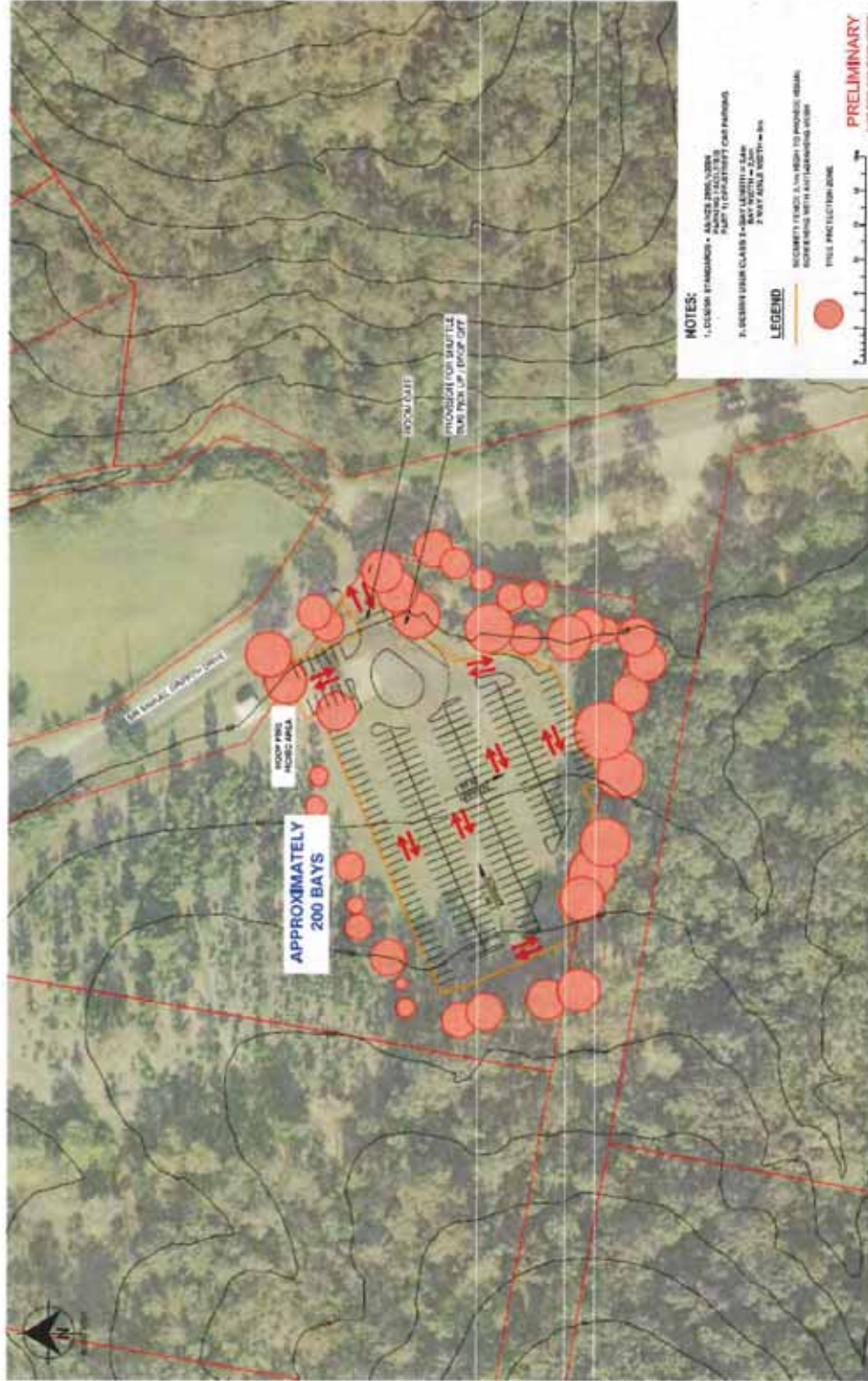


Figure 4-2 Option 1 Hoop Pine Picnic Area

4.2 Option 2: Mount Coot-tha Road Park and Ride (Park and Ride)

This option involves using the existing park and ride site at Mt Coot-tha, located at Mt Coot-tha Road between Dean Street and Miskin Street. The existing car park has approximately 110 parking spaces. The current access arrangements are egress in and out onto the westbound Mt Coot-tha Road and egress in from Dean Street. This option would use the existing parking spaces and alter the Dean Street access to be two way. An indicative car park layout is shown in **Figure 4-3**.

4.3 Option 3: Scenic Drive Combined Car Park (Scenic Drive)

The Scenic Drive option involves two car park sites in relative close proximity to each other on Scenic Drive, an 'upper' and 'lower' site. The 'upper' Scenic Drive option involves establishing a car park within an existing cleared area located adjacent to where Scenic Drive and Sir Samuel Griffith Drive diverge to hold approximately 170 vehicles. The 'lower' Scenic Drive option would utilise an existing gravel area adjoining Scenic Drive which is currently used as informal parking and can hold approximately 88 vehicles. Indicative car park layouts are shown in **Figure 4-4** and **Figure 4-5**.

4.4 Option 4: Dog Off-leash area, Anzac Park (Dog Off-leash)

The Dog Off-leash option involves utilising the existing dog park area in the south west of Anzac Park for car parking. The dog off-leash area would be relocated into a different area of Anzac Park. An access point from Wool Street would provide entry to the car park area with an exit onto Broseley Road. Pedestrian access would be provided to the worksite through a new pedestrian pathway along the existing fire trail between the dog off-leash area and the Centenary Motorway. The car park area would provide for approximately 200 car parks with the removal of a number of landscape trees planted within the area. An indicative car park layout is shown in **Figure 4-6**.



• Figure 4-3 Option 2 Mt Coot-tha Road Park and Ride

4.5 Option 5: Anzac Park North

The Anzac Park North site is the same general location proposed in the *Application for Project Change October 2010*, and *Further Information to the Application for Project Change November 2010* reports. It involves creating a car park to accommodate approximately 200 cars within the northern part of the park, close to the existing pedestrian and cycle overpass. The car park would be accessed from Dean Street, with the existing one way internal access road widened between the Dean Street entrance and car park entry to allow two way access for construction workforce vehicles only. Pool fencing would be provided along the two way section of road on the internal park site to reduce the risk of children running onto the road.

Council is also proposing that an additional toilet facility would be constructed adjacent to the existing play equipment and picnic area to further improve community safety within the park. A toilet facility in this location would help to avoid adults and children crossing the proposed two way section of the internal access road between Dean Street and the car park in order to get to and from the existing toilets adjacent to Dean Street on the outside of the internal access road.

The facilities in the existing barbecue area will also be re-provided elsewhere in a more useable location within the park to maintain this public amenity.

An indicative car park layout is shown in **Figure 4-7**.

5. Evaluation Criteria

Criteria were developed within the categories of Community, Suitability, Environmental and Economic. At the request of local residents the evaluation criteria were provided to both Friends of Anzac Park and Mount Coot-tha Residents Group prior to the Workforce Parking Consultation Group for their feedback. The criteria presented at the Workforce Parking Consultation Group, and used in this report, reflect changes suggested by those groups.

Evaluation criteria were again discussed at the Workforce Parking Consultation Group. The group agreed that the criteria adequately covered the issues that should be considered but, as a group, agreed economic factors were not as important to them as community, suitability and environment. This feedback is reflected in criteria weighting (Section 5.5).

As part of the evaluation, each option was scored from 1 to 10 against each criterion, with 1 being a very unfavourable score and 10 being a very favourable score. The scores for each category were then aggregated for the purposes of evaluation. This section explains the evaluation criteria and how scores and weighting were allocated.

5.1 Community

Six community criteria were identified for the purpose of the multi-criteria assessment: noise impacts, land use impacts, business impacts, cultural heritage, visual amenity impacts and community values. Each of these criteria is defined in Table 5-1 below. Definitions for the scoring of each criterion are also provided in Table 5-1 grouped into favourable scores, neutral scores and unfavourable scores.

■ Table 5-1 Community Criteria Definitions

Criteria	Definition	Favourable Scores (10-7)	Neutral Scores (6-4)	Unfavourable Scores (3-1)
Noise impacts	Noise impacts on surrounding community based on proximity of sensitive receptors (e.g. houses or schools) and predicted compliance with acoustic quality objectives and noise limits.	Noise impacts are predicted to be below the objective or limit under the Coordinator General's condition at nearest residential dwelling	Noise impacts are predicted to be below the objective or limit under the Coordinator General's condition at nearest residential dwelling with mitigation	Likely non-compliance with Coordinator General's conditions at nearest residential dwelling even with mitigation
Land use impacts	Impact on existing land use including impacts on local events	No interruption to existing or surrounding land uses	Potential for minor disruption to use of land, however surrounding land uses unaffected	Significant disruption to use of land and surrounding land uses
Business impacts	Impact on local businesses or tourism	Positive effect on local business / tourism	No effect on local business / tourism	Negative effect on local business / tourism
Cultural Heritage	Impact to heritage values of the site or area based on the level of existing heritage registration and	Site is not located within an area on a heritage register of either State or	Site is located within an area on a heritage register of either State or	Site is located within an area on a heritage register of either State or

Criteria	Definition	Favourable Scores (10-7)	Neutral Scores (6-4)	Unfavourable Scores (3-1)
	identified conflict with heritage values of the site or area	local significance	local significance with low to moderate impact on those values.	local significance with high to very high impact on those values.
Visual amenity impacts	Impact to visual amenity of the site or area based on visibility from sensitive vantage points or residential areas including light spill and headlight glare.	No change to existing view or largely hidden from views	Passing visibility from public roads	Highly visible from nearby residential areas
Community Values	Community attitude towards the proposal.	High level of community support	Neither high support or opposition	High level of community opposition

5.2 Suitability

Four suitability criteria were developed to assess the options in terms of the technical suitability as a car park site taking project needs and safety into account. Each of these criteria is defined in **Table 5-2** below. Definitions for the scoring of each criterion are also provided in **Table 5-2** grouped into favourable scores, neutral scores and unfavourable scores.

■ **Table 5-2 Suitability Criteria Definitions**

Criteria	Definition	Favourable Scores (10-7)	Neutral Scores (6-4)	Unfavourable Scores (3-1)
Capacity	Approximate number of parking spaces provided	Provides at least 2/3 of capacity requirements (200 spaces plus)	Provides at least half of the car park capacity requirements (150-199 spaces)	Provides less than half of the car park capacity requirements (less than 150 spaces)
Car park construction safety	Safety during car park construction and ease of car park construction	Existing car park, no unmanageable safety issues	Simple construction and management	Difficult construction with identified public safety issues requiring management
Car park operation safety	Road (including cycle and pedestrian) and site safety during car park operation	Existing road and/or site safety is improved	No change to existing road and/or site safety	May compromise road and/or site safety and management is required
Convenient access to worksite	Relative ease for construction workers to access the worksite	Direct access to worksite (less than 400m)	Walking distance to worksite (400-800m)	Requires use of shuttle bus

5.3 Environmental

The potential environmental impacts of the car park options were evaluated through six criteria covering flora impacts, fauna impacts, surface water effects, traffic impacts, contaminated land and air quality. These criteria are defined in **Table 5-3** below. Definitions for the scoring of each criterion are also provided in **Table 5-3** grouped into favourable scores, neutral scores and unfavourable scores.

■ **Table 5-3 Environmental Criteria Definitions**

Criteria	Definition	Favourable Scores (10-7)	Neutral Scores (6-4)	Unfavourable Scores (3-1)
Flora impacts	Impact on vegetation measured through loss of trees and/ or identified vegetation communities	No clearing of vegetation is required	No clearing of protected vegetation	Clearing of protected remnant vegetation
Fauna impacts	Impact on fauna habitat or threatened / protected fauna	No known loss of habitat or threatened fauna species	low level reduction of common urban habitat, low level increase of edge effects within remnant regional ecosystems	Loss of known habitat of protected / threatened fauna or increase of edge effects within remnant regional ecosystems
Surface Water Effects	Within overland flow path and / or risk of soil erosion	Standard soil erosion and control measures would be required, flood effects are unlikely	Minor additional soil erosion and control measures above standard measures would be required	Significant mitigation measures would be required to address risks – within overland flow or flood storage area
Traffic Impacts	Traffic impacts on local roads (traffic safety / performance) and pedestrian and cycle safety	No conflict with existing traffic flow or local access. No significant traffic safety items.	Minor traffic / pedestrian / cycle management or safety measures required	Significant management required to avoid impacts to traffic flow or local access. Safety items unresolved or requiring significant modification.
Land Contamination	Constructed on a land parcel listed on the Environmental Management Register (EMR) or is a known contaminated site	Property title not on the EMR	Property title on the EMR, however proposed car park location unlikely to be affected	Property title on EMR with proposed car park area within a known affected area
Air quality	Impacts to local air quality, proximity of surrounding community (sensitive receptors) to vehicle emissions	No adjacent sensitive receptors	Sensitive receptors unlikely to be affected	Sensitive receptors immediately adjacent during running of engines

5.4 Economic

The four economic criteria were designed to evaluate the relative cost of the car park options, considering land cost and availability, construction cost, operational cost and rehabilitation cost. Each of these criteria is defined in **Table 5-4** below. Definitions for the scoring of each criterion are also provided in **Table 5-4** grouped into favourable scores, neutral scores and unfavourable scores.

■ **Table 5-4 Economic Criteria Definitions**

Criteria	Definition	Favourable Scores (10-7)	Neutral Scores (6-4)	Unfavourable Scores (3-1)
Land Cost / availability	Relative cost associated with land access including land acquisition or leasing	Low – Council owned land or Reserve with Council as trustee	Medium – State owned land	High – private freehold land
Construction cost	Estimate of relative construction costs	Low (0-\$2mil)	Medium (\$3-5mil)	High (\$6mil+)
Operational cost	relative costs estimate associated with car park operation and management	Low (0-\$2mil)	Medium (\$3-5mil)	High (\$6mil+)
Rehabilitation cost	estimate of relative rehabilitation costs to restore site to previous condition following construction of car park	Low (0-\$2mil)	Medium (\$3-5mil)	High (\$6mil+)

5.5 Criteria weighting

For the purpose of the multi-criteria analysis, each of the criteria categories was weighted so the total of the scores would equal 100. The weighting was informed through the workforce parking consultation group which placed the community and technical criteria as the most important, environmental criteria as important but not as important and the economic criteria as the least important. On this basis a 35% weighting was provided to each of the community and technical criteria, a 25% weighting was provided to the environmental criteria and a 5% weighting was provided to the economic criteria.

6. Stage 1 and 2 Consultation Activities and Outcomes

The community consultation process for the Legacy Way workforce parking was carried out in three stages:

- Stage 1 – Workforce Parking Consultation Group (February 2011)
- Stage 2 – Community Consultation Sessions (March 2011)
- Stage 3 – Key Stakeholder Consultation (Ongoing)

This Section discusses the Stage 1 and 2 consultation activities and outcomes. Stage 3 consultation is discussed in **Section 7.3**.

Initially a letter was distributed to 14,000 residents in the Toowong, Auchenflower, Taringa and Bardon suburbs outlining Council's approach to the workforce parking consultation. A copy of the wording from the letter is included in **Appendix B**.

The letter explained:

- The Coordinator-General's refusal of Anzac Park
- The formation of the Workforce Parking Consultation Group
- The intention to hold Community Consultations Sessions.

The information was also displayed on the Northern Link EIS website (www.northernlinkeis.com.au)

6.1 Stage 1: Workforce Parking Consultation Group

The workforce parking consultation group was formed to invite resident groups, local business owners, local stakeholders and interest groups to meet with Council to discuss shortlisted options prior to wider consultation with the community.

Members were invited to join based on proximity, level of impact or level of interest to the five options proposed for workforce parking. The group members consisted of:

- Two representatives from the Mt Coot-tha Residents Group
- Four representatives from Friends of Anzac Park
- A representative from the Summit Restaurant
- A representative from Friends of Toowong Cemetery
- A representative from Bicycle Queensland
- A representative from the Brisbane Botanic Gardens
- A representative from Stuartholme School
- A representative from In-Training was not able to attend workshop but was included in all email correspondence

Members of the Legacy Way management team and technical advisers on construction safety, operational safety, environment, traffic, land tenure, access, cultural heritage and noise were also in attendance at the workshop.

6.1.1 Format of workshop

The workshop was held on Thursday 24 February at the Botanic Gardens Auditorium, 9am – 12.30pm

The workshop was formal, chaired by an independent facilitator, designed to encourage sharing of information about the process, options and criteria assessment. It created opportunities for the group members to have access to and ask questions of technical specialists of the Legacy Way team.

The workshop was attended by 11 members of the Workforce Parking Group.

A power point presentation was given by the Legacy Way project team explaining:

- Process of change report
- Coordinator-General's decision to refuse Anzac Park as the location for workforce parking
- Council's process for considering and short listing new options
- First pass criteria to reduce initial options
- Criteria assessment which will score each option
- Five shortlisted options.

Attendees were given a copy of the presentation and blank sheets to enable their own scoring on the options which Council intended to collect and use to guide future decisions about the shortlisted options. Attendees were also encouraged to ask questions of the technical specialists.

6.1.2 Actions requested during the workshop

The following actions were requested by the consultation group which Council followed up:

Action	Council follow up
Further investigate the use of the parcel land owned by Stuartholme, as a potential site for workforce parking (formerly the site of Freers Chip Factory)	Organised meeting with Stuartholme School with subsequent emails and phone conversations. Stuartholme are currently reviewing the proposal with their Board,
Further investigate the use of Purtell Park, Bardon as a potential site for workforce parking	Council confirmed Purtell Park consists of two parcels of land which are unavailable to Council in the required timeframe due to current leases

Action	Council follow up
Investigate commercial carparking options in Mount Ommaney	Investigated commercial parking options with Wilson Parking and the Mt Ommaney Shopping Centre. No commercial facilities exist in Mount Ommaney and the shopping centre does not have the capacity to cater for the workforce parking requirements.

Assessment sheets allowing a score of positive, negative or neutral against each criteria were handed out at the Workforce Parking Consultation Group. Only two members of the group, one member of Friends of Anzac Park and Friends of Toowong Cemetery, chose to complete these assessment sheets, with others providing their feedback more informally. It was therefore not possible to provide a comprehensive assessment of options based on the feedback of the group. However information and feedback provided by the community during the Workforce Parking Consultation Group workshop and throughout the consultation period was used by the project team undertaking the evaluation.

6.1.3 Outcomes

The group was unable to agree on a short list of options to be taken out for further consultation. There were high emotions over the inclusion of two options in Anzac Park which were shortlisted.

Council received two completed criteria scoresheets from the attendees. Few questions were directed to the technical specialists.

Council were asked by members of the group not to release the options to the wider community until further feedback could be given by the group. Members of the group then released the options publicly via the internet and to the media. Council decided, in fairness to the wider community, to proceed with Stage 2 of the consultation, Community Consultation Sessions, while continuing to seek feedback from the Workforce Parking Consultation Group. This decision was communicated to the Workforce Parking Group who provided feedback on the decision.

6.2 Stage 2: Community Consultation Sessions

The purpose of this stage was to take the five shortlisted options for workforce parking to the wider community, provide information about each option, provide opportunities to speak with Council representatives and invite feedback over a two week period.

A total of 15 sessions were held in various locations in the Toowong and local communities which included two evening sessions and a weekend session.

6.2.1 Notification

The community were notified of the Community Consultation Sessions in a number of ways:

- Notification to the Workforce Parking Consultation Group
- Letter to 14,000 homes in Toowong, Auchenflower, Taringa and Bardon
- Half page advertisement in Westside News on Wednesday 9 March and Wednesday 16 March 2011
- Placed on Northern Link EIS website (northernlinkeis.com.au)
- Placed on front page of BCC corporate website
- Your City Your Say email to all residents in those postcodes
- Community Liaison Group (CLG)
- Signage at five locations
- Media coverage in Westside News
- Posters with session times displayed at Toowong Ward Office, Toowong and Indooroopilly libraries.

A copy of the letter, advertisement, signage and information from the website are included in **Appendix B**.

6.2.2 Locations

The locations of the Community Consultation Sessions were set based primarily on getting direct feedback from the key users of the areas affected by the options. This meant early morning and afternoon sessions in Anzac Park North, the dog-off leash area in Anzac Park, the Park and Ride facility and Hoop Pine Picnic Area.

To facilitate accessibility a night time and weekend session were important. These were held at well-known local facilities with adequate space and parking.

A location in Bardon was also selected for a consultation session after feedback from Friends of Anzac Park, and Mount Coot-tha Residents Group about the wider use of the area from people in surrounding suburbs.

6.2.3 Timing

Council had been given much feedback throughout the original Application for Project Change comment period about the use of these areas. This, along with local knowledge among the team, informed the sessions time of 6.30am to 9.30am on week day morning and 4-6pm on the weekend afternoons. The evening sessions ran 6.30-8.30pm and the Saturday 12-3pm

Friends of Anzac Park representatives requested an extension to the length of the Community Consultation Sessions. Council had proposed one week, however extended this to two weeks.

Collateral at sessions

- Double-sided, colour facts sheets on each of the five options detailing design, usage and assessment criteria
- Replied paid feedback forms which asked for a preferred option for workforce parking and also allowed feedback on each of the criteria
- Large maps outlining the design, access and other information about each option.

The five factsheets and feedback form were made available on the Northern Link EIS website (www.northernlinkeis.com.au). Copies of the factsheets and feedback form are included in **Appendix B**.

6.2.4 Format

Council's information sessions took an informal format. Each session had a small marquee clearly marked Legacy Way Workforce Parking Consultation and was attended by two Council officers at the morning and afternoon sessions. At the two evening and one weekend session technical specialists in safety, cultural heritage, environment, traffic, construction and noise were on hand to answer specific queries. Examples of the displays are shown in **Figure 6-1**.

Attendees were encouraged to take in information about the five options, and to ask questions for clarification. The team took any feedback that was given at the session, and also encouraged attendees to either fill out there, or take away, a reply paid feedback form. A summary of the attendance and key outcomes of each session is provided in **Table 6-1**.



Workforce consultation stand at Dog Off-leash area, Anzac Park



Workforce consultation stand at Qld Academy



Workforce consultation information display at Qld Academy

- **Figure 6-1 Workforce consultation sessions**

Table 6-1 Community Consultation Session Summary

Time	Location	Attendees	Comments made	Observations
Tuesday 8 March				
6.30-9.30am	Hoop Pine Picnic Area	<ul style="list-style-type: none"> ▪ Approx 10 including: two representatives from Workforce Parking Consultation Group (WFPG/Friends of Anzac Park (FOAP) ▪ member of Men of Trees community group ▪ Toowong residents ▪ Bardon resident ▪ Cyclists ▪ Walker 	<ul style="list-style-type: none"> ▪ Extra vehicles will make it more difficult for walkers who already walk on the road as there is no footpaths ▪ Union discussions regarding walking distances ▪ Concern that this location will cause rat running through the already clogged Bardon streets 	<ul style="list-style-type: none"> ▪ Quiet session ▪ Many cyclists on roads from 5.45am. Most cyclists cleared by 8am
4-6pm	Anzac Park North	<ul style="list-style-type: none"> ▪ Approx 40 including: Two representatives from WFPG/FOAP ▪ CLG member ▪ Toowong local residents ▪ Park users 	<ul style="list-style-type: none"> ▪ Safety concerns for children in the park due to increase activity on the ring road ▪ Anzac Park North will cause loss of ring road to walkers ▪ Union discussions regarding walking distances 	<ul style="list-style-type: none"> ▪ Very busy session. Speaking with large groups of people for full two hour session ▪ High emotion over inclusion of Anzac Park. Emotion managed through information about other options ▪ General support for Park and Ride option.
Wednesday 9 March				
6.30-9.30am	Dog off-leash area, Anzac Park	<ul style="list-style-type: none"> ▪ Approx 50 including ▪ One representative from WFPG ▪ Park users ▪ Bible College residents ▪ Local residents ▪ Heritage representative ▪ CoG representative 	<ul style="list-style-type: none"> ▪ Changes to Broseley Road and access from Wool Street very concerning ▪ Concern about where the dog off-leash area would be relocated to within Anzac park ▪ Disruption to local residents from noise, lighting and additional traffic ▪ Heritage concern regarding location of dog off-leash area in relation to potentially buried urns and ashes. 	<ul style="list-style-type: none"> ▪ Very busy session ▪ Speaking with large groups of people at a time for full three hour session ▪ Resident expressed their separation and differing opinion from the resident group (FOAP)

Time	Location	Attendees	Comments made	Observations
4-6pm	Park and Ride commuter carpark, Mt Coot-tha Road	<p>Approx 10 including:</p> <ul style="list-style-type: none"> ▪ Representative from WFPG/FOAP ▪ Approx six commuters ▪ Cyclists ▪ Local residents 	<ul style="list-style-type: none"> ▪ Commuters from Brookfield and Mt Crosby would be negatively impacted if park and ride was selected ▪ Local residents suggestion to build a multi story car park on the site ▪ Local residents concerned about rat running through local Toowong streets ▪ Negative comments regarding consultation process 	<ul style="list-style-type: none"> ▪ Moderately busy session ▪ Some emotion about inclusion of Anzac Park options ▪ Car park approximately half full during the two hour session
Thursday 10 March				
6.30-9.30am	Anzac Park North	<p>Approx 20 including:</p> <ul style="list-style-type: none"> ▪ Representative from WFPG/FOAP ▪ Toowong residents previously spoken with at earlier sessions ▪ Local residents ▪ Park users ▪ Walking group ▪ Cyclists 	<ul style="list-style-type: none"> ▪ Impact on ring road to walkers and runners due to increased traffic into car park ▪ Loss of visual amenity ▪ Query about the lighting arrangement and impacts to local residents ▪ Union disagreement with walking distances. 	<ul style="list-style-type: none"> ▪ Quieter than previous Anzac Park North session ▪ Several people having attended previous sessions returned with further questions about other options.
6.30-8.30pm	Botanic Gardens Auditorium	<p>Approx 20 including:</p> <ul style="list-style-type: none"> ▪ Four representatives from WFPG ▪ Toowong residents previously spoken with at earlier sessions ▪ Cr Peter Matic 		<ul style="list-style-type: none"> ▪ Legacy Way project team in attendance to answer specific questions including environmental, construction, cultural heritage, noise, traffic and project management

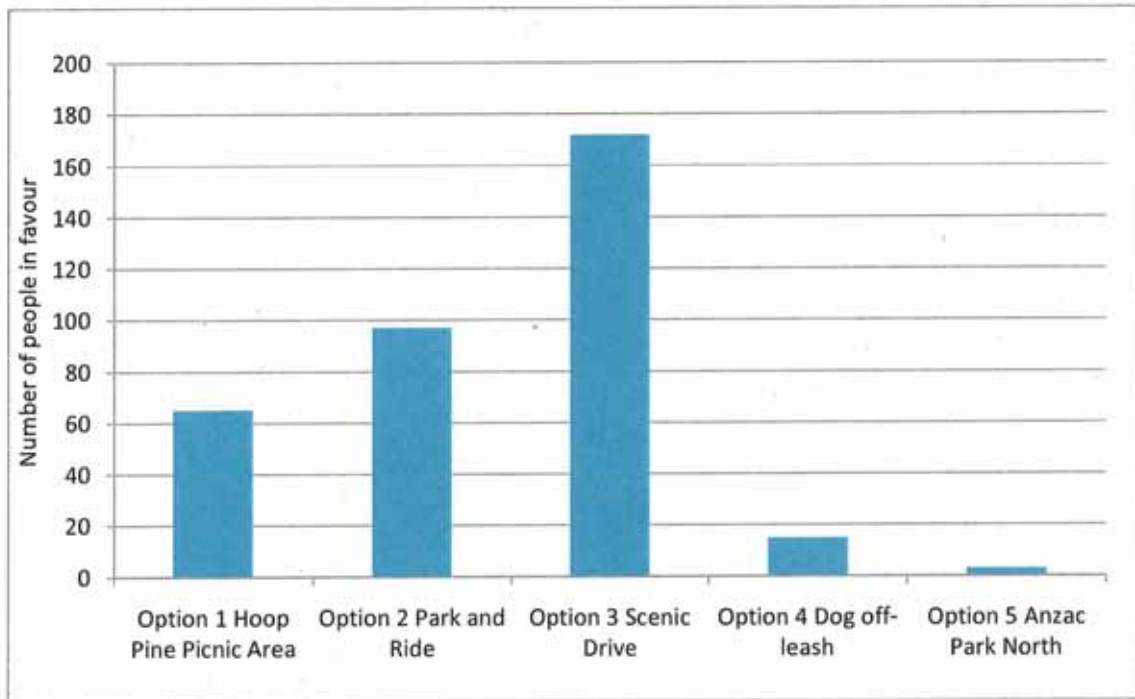
Time	Location	Attendees	Comments made	Observations
Friday 11 March				
6.30-9.30am	Park and Ride commuter carpark, Mt Coot-tha Road	<ul style="list-style-type: none"> Approx 15 including: <ul style="list-style-type: none"> Representative from WFPG/FOAP Toowong residents previously spoken with at earlier sessions Approx 3 commuters Cr Peter Matic 	<ul style="list-style-type: none"> Commuters from Jamboree Heights negative towards loss of carpark Cyclists concern about increased traffic on the bikeway Discussions about using carparking in the bus depot. 	<ul style="list-style-type: none"> Quieter than previous park and ride session Limited focus on Anzac Park.
Saturday 12 March				
12-3pm	Queensland Academy of Science, Maths and Technology	<ul style="list-style-type: none"> Approx 10 including: <ul style="list-style-type: none"> Representative from WFPG/FOAP Local residents Toowong residents previously spoken with at earlier sessions Cr Peter Matic 	<ul style="list-style-type: none"> Questions about how the community feedback will be used – advised it is not a vote but Council will consider all feedback before putting a single solution to the Coordinator-General Specific environmental questions referred to environment manager Anzac Park inclusion is unacceptable and should be removed from the list of options Discussed progress of Stuarholme talks with Council regarding use of the Freers site. 	<ul style="list-style-type: none"> Quiet session Legacy Way project team in attendance to answer specific questions including environmental, construction, cultural heritage, noise, traffic and project management Emotion regarding inclusion of Anzac Park options.
Tuesday 15 March				
6.30-9.30am	Park and Ride commuter carpark, Mt Coot-tha Road	<ul style="list-style-type: none"> Approx 10 including: <ul style="list-style-type: none"> Toowong residents previously spoken with at earlier sessions Local residents Commuters Cyclists Two attendees 	<ul style="list-style-type: none"> Community information sessions should focus on the past process, including injunction and Coordinator-General's decision regarding Anzac Park. Positive comment from commuter regarding frequency of information sessions Commuters would require a designated area within the carpark to cater for them. Little to no knowledge of workforce parking situation Little to no knowledge about options, including Anzac Park 	<ul style="list-style-type: none"> Quietest Park and Ride session General questions about options and process from here on
4-6pm	Bowman Park, Bardon			<ul style="list-style-type: none"> Busy park but very little interest in workforce parking consultation

Time	Location	Attendees	Comments made	Observations
Wednesday 16 March				
6.30-9.30am	Anzac Park North	Approx 10 including: <ul style="list-style-type: none"> ▪ Park users (exercisers) ▪ Running group ▪ Cr Peter Matic ▪ Toowong residents previously spoken with at earlier sessions 	<ul style="list-style-type: none"> ▪ General questions about other options and process ▪ Negativity towards toll roads ▪ Negativity towards creating a dedicated workforce carpark. 	<ul style="list-style-type: none"> ▪ Quietest of the Anzac Park sessions ▪ Questions leaning towards process and next steps
4-6pm	Dog off-leash area, Anzac Park	Approx 15 including: <ul style="list-style-type: none"> ▪ Park users ▪ Toowong residents previously spoken with at earlier sessions 	<ul style="list-style-type: none"> ▪ Concern about access from Wool Street and additional traffic impacts to the local street ▪ General questions about all options 	<ul style="list-style-type: none"> ▪ Quietest of the dog off-leash sessions ▪ Many repeat residents seeking further clarification on options
6.30-8.30pm	Queensland Academy of Science, Maths and Technology	Approx 11 including: <ul style="list-style-type: none"> ▪ Representative from WFPG/FOAP ▪ CoG representative ▪ Local residents ▪ Toowong residents previously spoken with at earlier sessions 	<ul style="list-style-type: none"> ▪ Cultural heritage issues with Anzac Park directed to cultural heritage advisor ▪ Environmental questions directed to environment advisor 	<ul style="list-style-type: none"> ▪ Quiet session ▪ Legacy Way project team in attendance to answer specific questions including environmental, construction, cultural heritage, noise, traffic and project management ▪ Emotion regarding consultation process
Thursday 17 March	Hoop Pine Picnic Area	Four attendees including: <ul style="list-style-type: none"> ▪ Three local residents previously spoken with at earlier sessions CoG representative	<ul style="list-style-type: none"> ▪ Environmental issues at Hoop Pine Picnic Area ▪ Use of Freers site 	<ul style="list-style-type: none"> ▪ Very quiet session ▪ No new interest

Time	Location	Attendees	Comments made	Observations
Friday 18 March 6.30-9.30am	Dog off-leash area, Anzac Park	Approx 20 including: <ul style="list-style-type: none"> ▪ Representative from WFPG/FOAP ▪ Local residents ▪ Toowong residents previously spoken with at earlier sessions Park users	<ul style="list-style-type: none"> ▪ General questions about dog off-leash area ▪ Relocation of dog off-leash area to elsewhere in Anzac Park generally acceptable ▪ Concerns regarding proposed access to carpark via Wool Street and Broseley Road 	<ul style="list-style-type: none"> ▪ Busy session ▪ Transcity water main investigations in the area caused high emotions from WFPG/FOAP representative. Explained the works were unrelated to the workforce parking consultation Positive comments regarding consultation process and officers conduct

6.2.5 Feedback period

The feedback period was Tuesday 8 to Monday 21 March. A total of 308 submissions were received in both email and feedback form varieties. Some respondents ranked options or choose more than one option as preferred. The results of the nominated preferred options from the feedback forms are shown in Figure 6-2 below.



■ **Figure 6-2 Community feedback on car park options**

Further detail of the community feedback is included in **Appendix C**. This feedback was then fed into the evaluation process.

7. Option Evaluation

A summary of the identified risks and mitigation measures against each of the evaluation criteria and the criteria score for each of the car park options is shown in **Table 7-1**. More detail on the risk assessment that has been undertaken for each of the options is included in **Appendix D**.

Table 7-1 Car park Option Evaluation Summary

Criteria	OPTION 1 Hoop Pine Picnic Area		OPTION 2 Mount Coot-tha Road Park and Ride		OPTION 3 Scenic Drive Combined Car Park		OPTION 4 Dog Off-Leash Area, Anzac Park		OPTION 5 Anzac Park North	
	Assessment	Score	Assessment	Score	Assessment	Score	Assessment	Score	Assessment	Score
Noise impacts	<ul style="list-style-type: none"> Low risk of noise impacts due to separation distance from residents (approximately 250m to nearest house) 	7	<ul style="list-style-type: none"> Low risk of noise impacts as the site is currently used as a car park 	10	<ul style="list-style-type: none"> Low risk of noise impacts due to separation distance from residential dwellings or other sensitive receptors 	9	<ul style="list-style-type: none"> Predicted noise level from the car park may exceed the noise criteria by 2dB(A). Noise barriers may not reduce noise effectively as the nearest noise sensitive receivers are located uphill 	3	<ul style="list-style-type: none"> Predicted noise level from the car park may exceed noise criteria by 2dB(A). This could be mitigated through provision of a noise barrier around south western extent of the car park 	4
Land Use impacts	<ul style="list-style-type: none"> Recreational activities in the picnic area would be severely affected through loss of visitor space and reduced access to entry/exit points for Pinnacle Walking Trail. 	2	<ul style="list-style-type: none"> Displacement of existing car park users, causing inconvenience to existing users and potentially nuisance in areas receiving displaced parking. 	3	<ul style="list-style-type: none"> Potential conflict with possible use of the site for disaster management (fire control and food waste storage) to be confirmed. Emergency Management Queensland has confirmed that EMQ Helicopter Rescue does not use or require the site and confirmation of disaster use is still awaiting response from the State Disaster Coordination Centre). The use of the site as a car park may detract from tourist activity and recreational activity, in particular at the lower site 	3	<ul style="list-style-type: none"> Use of the site would result in loss of the existing dog off-leash area, however, this would be relocated elsewhere in Anzac Park 	3	<ul style="list-style-type: none"> Insignificant impact on existing park use which currently includes walking, picnics, family and children play activities due to presence of car park and loss of area 	3
Business impacts	<ul style="list-style-type: none"> Low risk of business impacts 	6	<ul style="list-style-type: none"> Potential impact on bus patronage 	3	<ul style="list-style-type: none"> Potential impacts on tourist and visitor numbers to Mt coot-tha summit. 	5	<ul style="list-style-type: none"> Potential impact on the Crossways College 	3	<ul style="list-style-type: none"> Local businesses unlikely to be affected 	6
Cultural heritage	<ul style="list-style-type: none"> Mt Coot-tha Forest is listed on the State Heritage register. Potential for cultural artefacts associated with the second world war US Naval and RAAF camps Would require a variation to the Aboriginal cultural heritage management plan area 	1	<ul style="list-style-type: none"> Site is not listed on the local or state heritage register 	10	<ul style="list-style-type: none"> Mt Coot-tha Forest is listed on the State Heritage register; however potential heritage impacts would be moderate to low Would require a variation to the Aboriginal cultural heritage management plan area 	3	<ul style="list-style-type: none"> Part Local Heritage and adjacent to Local Heritage May require a variation to the Aboriginal cultural heritage management plan area (CHMP boundary goes through the middle of the area) 	6	<ul style="list-style-type: none"> Anzac Park is listed on the BCC Heritage Register for natural features and memorial values. The use of the park for car parking would have a high impact over the four year period No requirement to vary the Aboriginal CHMP area for the project 	3
Visual amenity impacts	<ul style="list-style-type: none"> Change in landscape may have visual amenity impact along Sir Samuel Griffith Drive Potential for limited views from Stuartholme College 	5	<ul style="list-style-type: none"> No significant landscape changes 	7	<ul style="list-style-type: none"> Visual amenity impacts on tourists using Scenic Drive to access the Mouth Coot-tha lookout Although the site will be clearly visible by motorists travelling along Scenic Drive, the major views are on the opposite side of the road and would not be affected 	5	<ul style="list-style-type: none"> Visually largely hidden from surrounding area, however risk of some visual amenity impacts on residential dwellings along Broseley Road. Risk of headlight spill if Wool Street exit used at night. 	3	<ul style="list-style-type: none"> Local visual amenity impacts – main visual impact from shared path and overbridge. Aesthetic values of whole park included in Local Heritage Register citation 	3

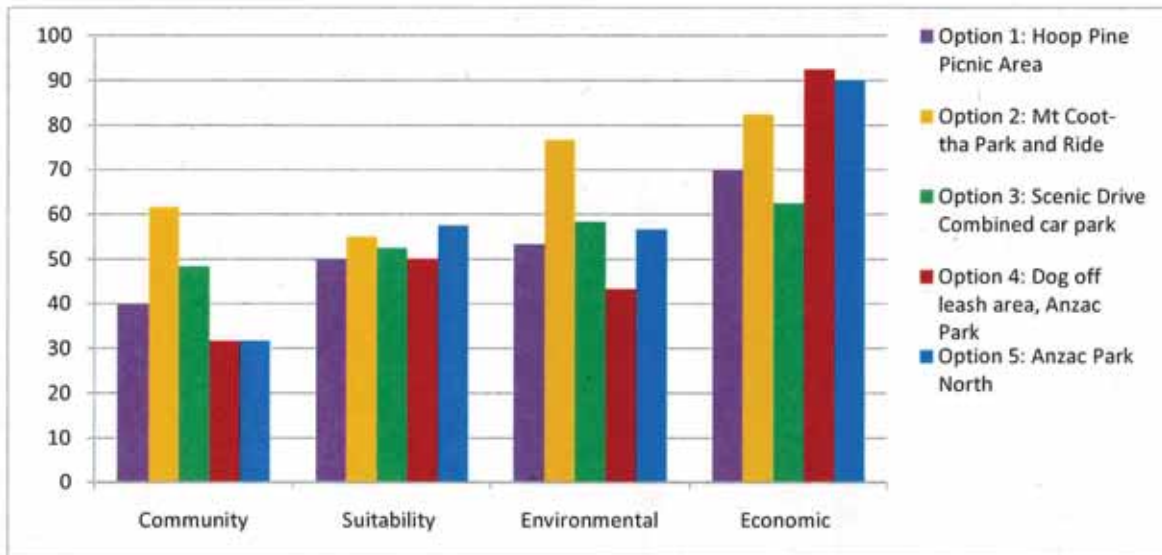
Community Criteria

	OPTION 1 Hoop Pine Picnic Area	OPTION 2 Mount Coot-tha Road Park and Ride	OPTION 3 Scenic Drive Combined Car Park	OPTION 4 Dog Off-Leash Area, Anzac Park	OPTION 5 Anzac Park North
Community Values	<ul style="list-style-type: none"> Community use as a picnic area with walking tracks heads. Area heavily used by cyclists. Moderate community value 	<ul style="list-style-type: none"> Moderately used commuter car park. Low community value, however provisions needed for commuters 	<ul style="list-style-type: none"> Rarely used community area. Area heavily used by cyclists. Furthest away from residences. Low community value 	<ul style="list-style-type: none"> Heavily used area by dog-owners. High community value 	<ul style="list-style-type: none"> Heavily used recreation area by local community. High community value.
Capacity	<ul style="list-style-type: none"> Approximately 200 car parks 	<ul style="list-style-type: none"> Approximately 110 car parks 	<ul style="list-style-type: none"> Approximately 260 car parks 	<ul style="list-style-type: none"> Approximately 200 parks 	<ul style="list-style-type: none"> Approximately 200 parks
Construction / Safety	<ul style="list-style-type: none"> Standard erosion runoff and sediment control required for steep grades. Construction signage and sight lines to avoid vehicle conflicts. 	<ul style="list-style-type: none"> Existing constructed car parking area. 	<ul style="list-style-type: none"> Standard erosion runoff and sediment control required for steep grades. Construction signage and sight clearances to avoid vehicle conflicts. 	<ul style="list-style-type: none"> Access / egress road construction required including either upgrade to Broseley Rd (min 6m width), signage and sight lines to avoid local vehicle conflicts 	<ul style="list-style-type: none"> Standard erosion and sediment control required for steep grades. Potential for conflicts with park use during construction requires management
Operation / Safety	<ul style="list-style-type: none"> Steep grades not suitable for safe motorcycle parking. Other safety issues include ineffective and inappropriate guard rails along Ithaca Creek, lack of street lighting and road delineation. Potential for pedestrian, joggers and cycle conflicts on Sir Samuel Griffith Drive. 	<ul style="list-style-type: none"> Fencing may interfere with existing bike/footpath access / potential for vehicle/bicycle conflicts. Potential delays to exit onto the Western Freeway (Mt Coot-tha Road) – leading to frustration seeking alternative on-street parking 	<ul style="list-style-type: none"> Grades not suitable for safe motorcycle parking Sight distance for proposed exit onto Mt Coot-tha Road (top park) unsafe as is the entry to the lower car park. Potential for conflict with high levels of cyclists in early morning / late afternoon periods conflicting with shift changes 	<ul style="list-style-type: none"> Broseley Road upgrade required Potential for conflict with Crossway college parking off Broseley Road. 	<ul style="list-style-type: none"> Steep grades (1:5 max) Grades not suitable for safe motorcycle parking. Tree hazards (sight lines and branches), access contrary to public one way circuit. Sight distance clearances at Dean Street may require removal of existing car parks.
Convenient access to worksite	<ul style="list-style-type: none"> Site is not in walking distance - approximately 1.6km along Sir Samuel Griffith Drive and Mount Coot-tha Road to worksite Site requires shuttle bus transport, does not provide a high level of convenience 	<ul style="list-style-type: none"> Approximately 900m walk from far end of car park (730m walk from Dean Street end) along pedestrian pathways when measured to light vehicle access road. This may be considered too far by some workers and require a shuttle bus This would be reduced to approximately 600m with direct pedestrian access off the overpass into the worksite. 	<ul style="list-style-type: none"> Approximately 1.6km along Scenic Drive, Sir Samuel Griffith Drive and Mount Coot-tha Road to worksite Site requires shuttle bus transport, does not provide a high level of convenience 	<ul style="list-style-type: none"> Approximately 650m along new and existing pedestrian pathways when measured to light vehicle access road. This would be reduced to approximately 530m with direct pedestrian access off the overpass into the worksite. 	<ul style="list-style-type: none"> Walking distance of 430m To Worksite when measured to light vehicle access road. This would be reduced to approximately 300m with direct pedestrian access off the overpass into the worksite.
Flora impacts	<ul style="list-style-type: none"> No identified vegetation communities as site is cleared. Risk of flora impacts due to infursion into the tree protection zone of several large trees could be managed through avoiding creating new hard stand in these areas 	<ul style="list-style-type: none"> No identified vegetation communities Significant landscape vegetation protected under Natural Assets Local Law 	<ul style="list-style-type: none"> No identified vegetation communities as site is cleared. Site neighbors remnant regional ecosystem. 	<ul style="list-style-type: none"> Requires removal of at least 6 trees (landscape vegetation) to reach capacity of 200 Regional ecosystem vegetation in the vicinity 	<ul style="list-style-type: none"> Significant landscape vegetation which must be designed around. Four tree relocations required
Fauna impacts	<ul style="list-style-type: none"> Moderate usage by common urban fauna 	<ul style="list-style-type: none"> Used by common urban species 	<ul style="list-style-type: none"> Moderate usage by common urban fauna 	<ul style="list-style-type: none"> Low level habitat reduction affecting iconic native 	<ul style="list-style-type: none"> Site provides limited habitat used by common urban and

	OPTION 1 Hoop Pine Picnic Area	OPTION 2 Mount Coot-tha Road Park and Ride	OPTION 3 Scenic Drive Combined Car Park	OPTION 4 Dog Off-Leash Area, Anzac Park	OPTION 5 Anzac Park North
	<ul style="list-style-type: none"> Occasional usage by uncommon or iconic fauna Potential fauna impacts from lighting to be managed through lighting design Overland flow path along eastern boundary. Site is in close proximity to waterway. Upgraded access point. Some distance from major roads. Potential risks include conflict with traffic at access point, including cyclists. Slow turning shuttle buses. Potential for construction workers to use local streets north of Toowong Cemetery. 	<ul style="list-style-type: none"> Significant overland flow path. May be subject to flooding. Displacement of existing car park users. Increased vehicle access across, and pedestrian use of, regional cycle route. Limited weaving distance between car park access and Mount Coot-tha Road roundabout for exit to north and east. 	<ul style="list-style-type: none"> Occasional usage by uncommon or iconic fauna Potential fauna impacts from lighting to be managed through lighting design No significant overland flow path Potential conflict with background traffic at access points, including potentially high speed cyclists on Sir Samuel Griffith Drive and Soenic Drive, and complex movements around upper car park access and shuttle bus stop. 	<ul style="list-style-type: none"> No significant overland flow path Access requires use of local streets by construction worker vehicles. Turn restrictions at Dean Street and limited weave distance to Mount Coot-tha Road roundabout affecting exit to north and east. Potential use of local streets between Miskin Street and Dean Street by construction worker vehicles. 	<ul style="list-style-type: none"> iconic native species No significant overland flow path Turn restrictions at Dean Street and limited weave distance to Mount Coot-tha Road roundabout affecting exit to north and east. Potential use of local streets between Miskin Street and Dean Street by construction worker vehicles.
Surface water effects	6	3	7	7	7
Traffic impacts	4	3	1	3	6
Land contamination	3	10	6	1	4
Air quality	8	10	10	4	5
Land cost / Availability	10	8	7	10	10
Construction cost	8	10	8	8	8
Operational cost	1	5	1	10	10
Rehabilitation cost	9	10	9	9	8

7.1 Evaluation results and discussion

The relative performance of each car park option under each of the four criteria categories is shown in **Figure 7-1** below. To allow for ease of comparison, each option score for each category is presented as a total number out of 100, with a higher score being more favourable.

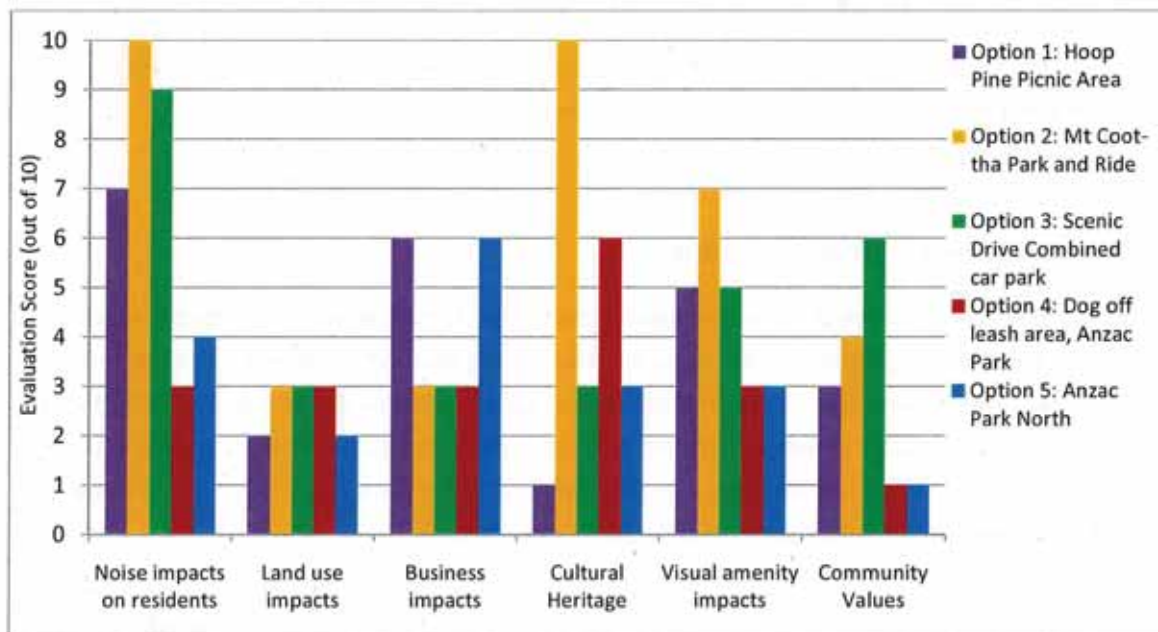


■ **Figure 7-1 Car park option category scores**

7.1.1 Community

The community criteria scores for each option are shown in **Figure 7-2** below. Council's scores against community criteria were based on community feedback through the Northern Link eis email and 1800 line, the Workforce Parking Consultation Group, stakeholder meetings and Community Consultation Sessions.

The Park and Ride option performed the strongest of the five options against the community criteria. This is despite the potential issue of displacing existing users of the car park, which could have negative impacts on bus patronage from the bus stop. This is largely due to the potential noise and visual amenity impacts on the community being minimal as the site is already used for car parking. Noise impacts were predicted to be the worst for the Dog Off-leash option as the relatively close distance to residents increases the difficulty of effective noise mitigation.



■ **Figure 7-2 Community criteria scores**

All options scored poorly against the land use criteria due to the potential disruption to the existing land uses on the site and surrounding area. For example use of the Scenic Drive option as a car park may prevent the possible use of the upper site for disaster management (although this is yet to be confirmed) and would also interfere with the current informal recreation use of the lower site. The Hoop Pine and Anzac Park North options were considered the most unfavourable with regard to land use however they were also considered the most unlikely to have negative impacts on business activities unlike the Park and Ride, Scenic Drive and Dog Off-leash sites. This was due to use of the Park and Ride having the potential to affect bus patronage, the potential business impacts at the Mount Coot-tha summit associated with Scenic Drive and effect on students attending the Crossways College with the Dog Off-leash area.

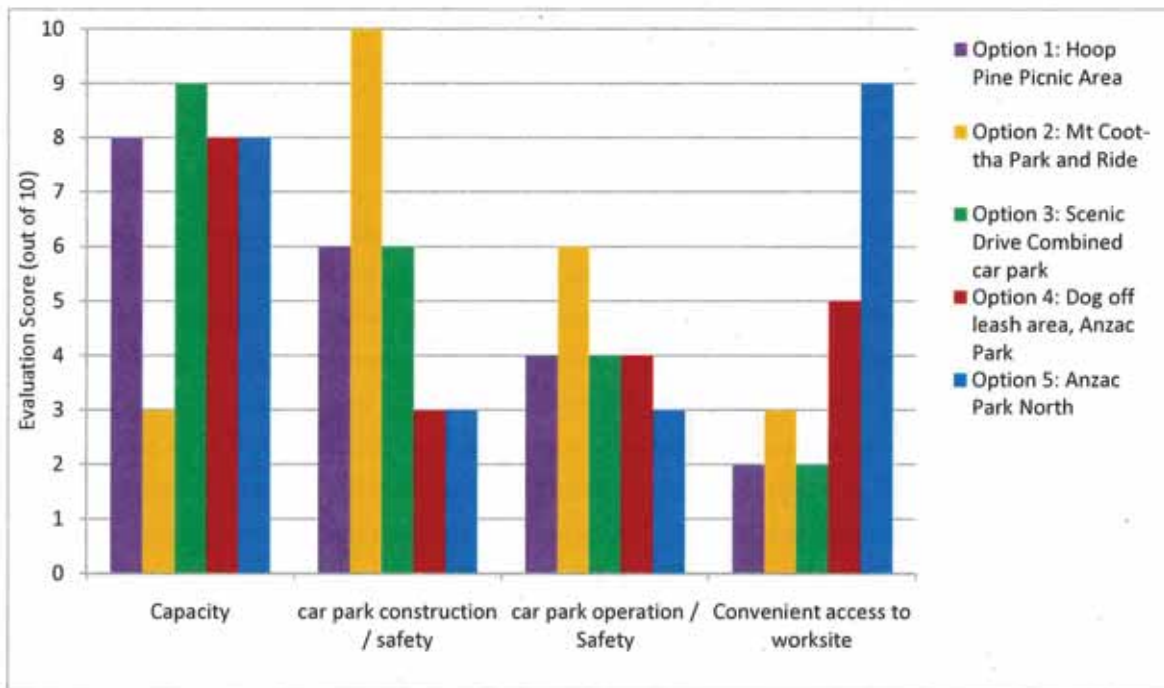
Of the five site options, the Park and Ride is the only site that is not listed on a heritage register. The Hoop Pine and Scenic Drive sites are both within the Mount Coot-tha Forest site which is listed on the State Heritage Register. The heritage values of Anzac Park, while only listed on the Brisbane City Council Local Heritage Register, are considered to be highly at risk from any construction and operation of the car park within the park area. The Dog Off-leash was given a slightly better rating against the cultural heritage criteria given the listing only partially covers the Dog Off-leash site. These two options scored the lowest against the visual amenity criteria due to the potential to affect the aesthetic values of Anzac Park.

Potential use of the Dog Off-leash and Anzac Park North sites met with strong community opposition due to the high use and community value attached to the park by local residents. These two sites

therefore scored the lowest against the community values criteria. The Scenic Drive option was considered to be the most preferred option by approximately half of the community members who provided feedback during the car park option community consultation process.

7.1.2 Technical suitability criteria

The five options scored relatively similar against the overall technical suitability criteria, as shown in Figure 7-1 above. The individual criteria scores however are somewhat different as shown in Figure 7-3 below. The Park and Ride site scored the lowest against the capacity criteria. This reflects the issue that a third car park would be required to be used in conjunction with this option and the Botanic Gardens Overflow car park in order to provide sufficient parking. As a result, if this option were to be selected, a further option would still be required.



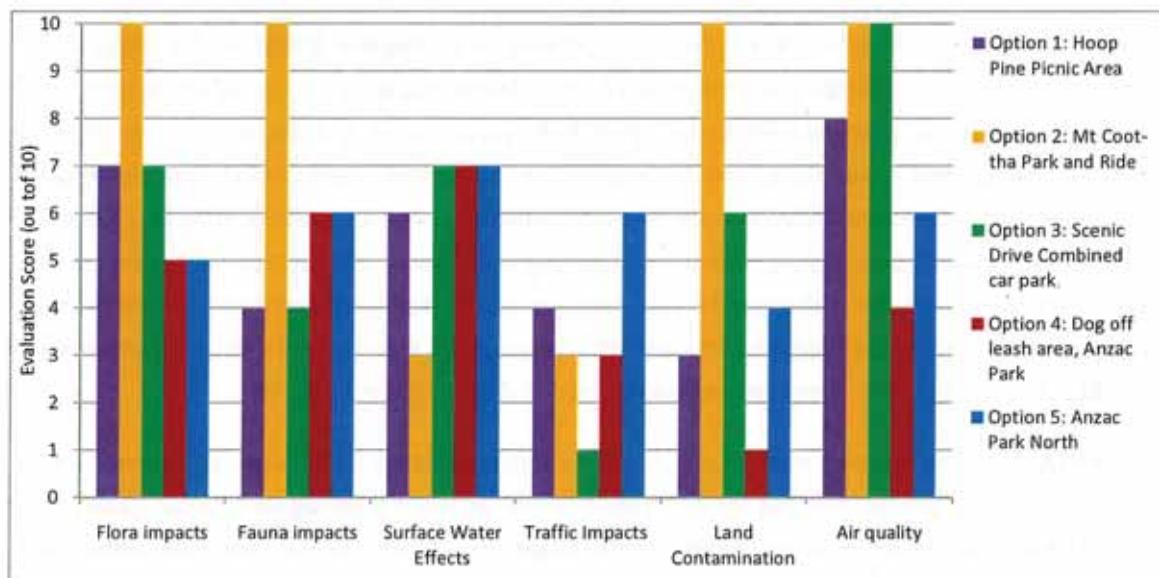
• **Figure 7-3 Technical Suitability Criteria Scores**

The Park and Ride site scored the highest for both construction and operation safety, reflecting that it is currently an operational car park site. The Hoop Pine and Scenic Drive sites scored better than the Dog Off-leash and Anzac Park North sites against construction safety as management would be required to separate park users from construction activity. Similarly the Anzac Park North site scored the lowest against the operation safety criteria as a higher level of management would be required than the other sites as existing recreation activities such as the playground are located within the vicinity of the car park area.

The Anzac Park North site provides the most convenient access to the worksite, with an approximately 300m walk from the car park exit, assuming direct pedestrian access off the pedestrian and cyclist overpass is provided into the worksite. The Dog Off-leash is also considered to be just within walking distance. The Park and Ride site is likely to be considered too far to walk by the majority of construction workers. The Hoop Pine and Scenic Drive sites do not provide convenient access as they are not within walking distance and would require use of a shuttle bus.

7.1.3 Environment criteria

The environment criteria scores for each option are shown in **Figure 7-4** below. The Park and Ride option performed the strongest of the five options against the environment criteria. This is largely due to the site being already used for car parking.



■ **Figure 7-4 Environmental Criteria Scores**

The Park and Ride site scored the highest against the flora impacts and fauna impacts criteria, as no new hardstand areas would be required that could then affect the significant landscape trees within the site. The Hoop Pine and Scenic Drive sites scored favourably against the flora impacts criteria as the new hard stand areas could be built to avoid the tree protection zones of the existing vegetation surrounding the sites. However, these two sites are also considered to have potentially higher impacts on fauna compared with other sites, given that changed levels of human activity would occur adjacent to the vegetation that provides high habitat value for fauna within the Mt Coot-tha Forest, and therefore scored lowest with regard to the fauna criteria. The Dog Off-leash site would require the removal of approximately six mature landscape trees while the Anzac Park North site would require the relocation of approximately four landscape trees. Therefore these two options scored the lowest (being least favourable) with regard to the flora and fauna impacts criteria.

The Park and Ride site is within an overland flow path and may be subject to flooding which could require additional stormwater management infrastructure. The Hoop Pine option also scored lower than Scenic Drive, Dog Off-leash and Anzac Park North sites against the surface water effects due to its proximity to East Ithica Creek which runs adjacent to the south eastern boundary of the site.

The Anzac Park North site was considered to have the lowest potential for traffic impacts out of the five options as access would be from Dean Street close to Mount Coot-tha Road, and most construction traffic would likely join the arterial road network at this point. Although the Park and Ride site would also have similar access, it scored lower due to potential impacts on local streets from displaced vehicles which currently utilise the car park and may require special provision to retain sufficient public spaces within the area. The Scenic Drive site had the lowest score for traffic due to potential safety issues with cyclists using Scenic Drive which would also need to be managed.

The Hoop Pine site is listed on the Environmental Management Register (EMR) for 'Hazardous Contaminant', as hydrocarbon contamination of groundwater has been confirmed at the site. Assessment of site soils would need to be undertaken by a contaminated land practitioner prior to construction, to understand the potential risk posed to human health and to derive suitable disposal options for spoil if relocated from the site. The Dog Off-leash is also a known location of a former landfill. Therefore these two sites both scored unfavourably against the contaminated land criteria. The Anzac Park North site is also listed on the EMR for landfill, however it received a more neutral score as it is considered unlikely that the land fill area would be directly within the car park area. This would still require further investigation and soil testing if the site were selected.

The air quality criteria scores were based on the separation distance to the nearest residents and change in vehicle activity. The Dog Off-leash would have the worst score against the air quality criteria due to the relatively short distance to the nearest residence. The Park and Ride scored well as no change to local air quality is expected as the site is currently used as a car park. The Scenic Drive option also scored well due to the relative separation to the nearest residential house.

7.1.4 Economic Criteria

The economic criteria scores for each option are shown in **Figure 7-5** below. The Dog Off-leash and Anzac Park North sites scored the highest overall against the economic criteria based on their proximity to the worksite and the ability to avoid the use of shuttle buses.

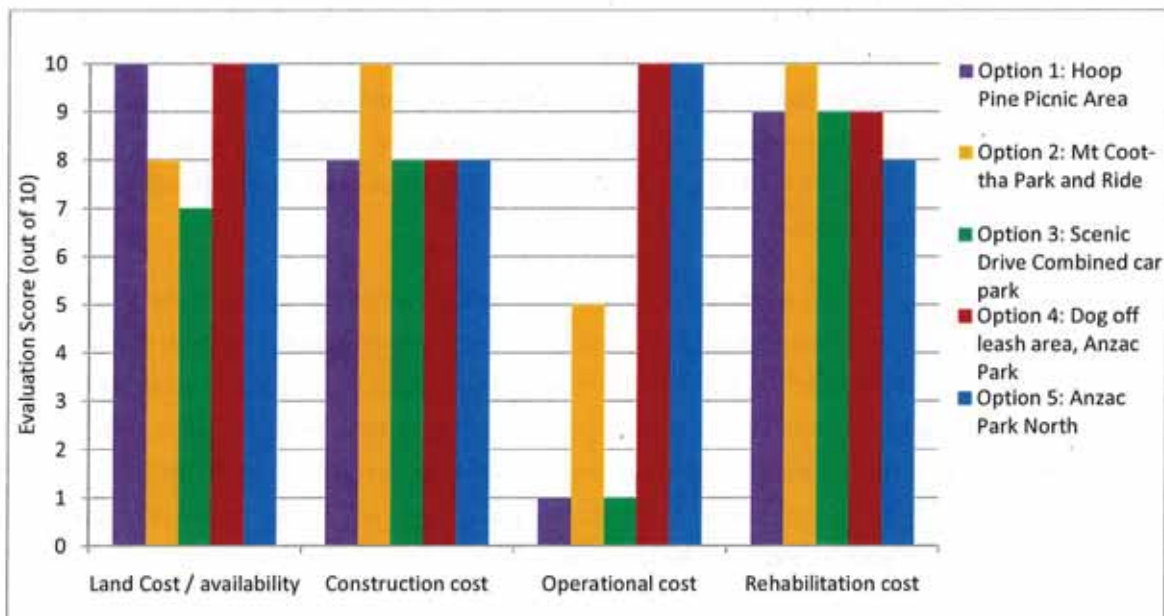
The Hoop Pine, Dog Off-leash area Anzac Park and Anzac Park North sites are owned in Freehold title by Council. Therefore these sites have little or no costs associated with land acquisition and scored well against the land cost criteria. The Park and Ride site is a State owned reserve with Council the trustee. Use of the site for a construction workers car park is likely to sit within the purpose of the reserve and therefore a new lease would not be required. As such this site would also have relatively low construction costs. The Scenic Drive site scored slightly lower than the other sites. This site is a

Deed of Grant in Trust from the State with Council the trustee. A construction trustee lease is likely to be required which would require a survey to be undertaken. However, this still has relatively low time and cost implications.

Comparative construction cost estimates for the car park options were also prepared. These costs estimates did not include consideration of rehabilitation costs of contaminated land or additional costs for work methods that avoid cultural heritage values as these issues are covered by other criteria. The sites are all relatively similar in terms of construction costs with the exception of the Park and Ride which had lower costs as it is an existing car park. The Dog Off-leash and Anzac Park North sites were also slightly more expensive than the Scenic Drive and Hoop Pine sites, however this difference was not considered to be significant and the four sites scored the same.

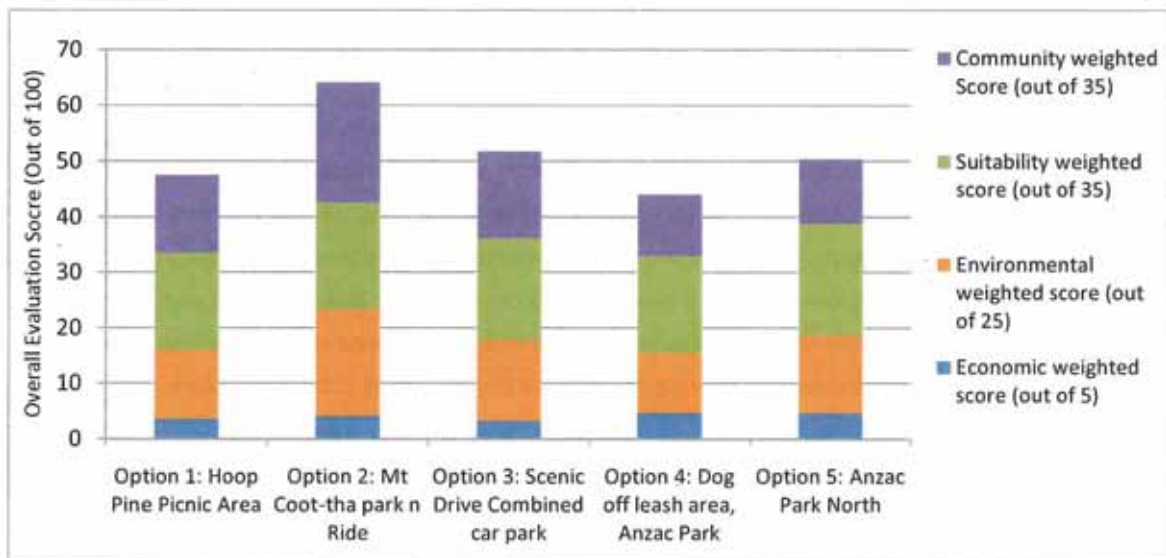
The sites requiring shuttle bus transport to the worksite would have significantly higher operational costs than those that are within walking distance. This is due to not only the cost of operating the shuttle bus, but also the requirement to pay for the workers additional time in transit between the car park and the worksite. Therefore as the Hoop Pine and Scenic Drive sites require the use of a shuttle bus, they scored very low against the operation cost criteria. Conversely, the Dog Off-leash area and Anzac Park North received high scores as they are within walking distance of the worksite.

The rehabilitation cost are also relatively similar between the site options, however similar to construction costs the Park and Ride site would have lower rehabilitation costs as it would remain a car park. The Anzac Park North site would have slightly higher rehabilitation costs to reinstate the parkland within that area.



■ **Figure 7-5 Economic Criteria Scores**

7.1.5 Overall Scores



■ **Figure 7-6 Evaluation Scores with 35% weighting Community and Suitability, 25% weighting to Environmental and 5% to Economic**

Overall, the Park and Ride site performed the best out of the five options against the multiple criteria evaluation. The other four options had similar overall scores, with Scenic Drive scoring slightly better than Anzac Park North, which scored slightly better than Hoop Pine with the Dog Off-leash area scoring the lowest or being least favourable.

7.2 Recommendations

This evaluation has found that the Park and Ride site would reduce disturbance to the community compared to the other potential car park site options while still satisfying many of the technical requirements of the project. However, due to the limitations on the number of car parks that this site provides, it can only be part of the workforce car parking plan and will need to be used in combination with other options.

The issue of displacing existing users of the car park also needs to be addressed in order to minimise the potential impacts to the surrounding area and public transport patronage. As such, the western portion of the car park (west of the entrance from Mt Coot-tha Road and adjoining Dean Street) is recommended to be maintained as a commuter car park, with the eastern portion of the car park sectioned off for workforce parking. This would provide approximately 80 car parks for the construction workforce. Consultation with the Toowong bus depot would also be required as their existing use of the car park would likely be affected.

The capacity provided by the Botanic Gardens Overflow car park and the reduced Park and Ride site is approximately 160 parking spaces. This provides sufficient spaces for the construction workforce until the night time shift starts in early 2012. As these car parks would initially be used by day time

workers, it is recommended that this is continued throughout the construction program to avoid confusion with which workers park in which car park. As such they will both be used by day time workers only.

During the workforce peak in 2013, the gap between the capacity provided by these two car parks (160) and the required capacity (292) will be approximately 130 car parks.

In terms of identifying the additional car parking site(s), out of the alternatives considered, the Scenic Drive site performed second best overall in the technical evaluation, and was the most popular location in the feedback forms received from the community consultations sessions¹. The site was also available for both day time and night time car parking.

It is recommended that the 'upper' site be used for the additional parking spaces, as this allows the 'lower' site to continue to be used as an informal parking and viewing area. It was considered important to leave the 'lower' site for public use to avoid impacts on the tourist value of Mt Coot-tha and due to the lack of suitable alternative sites for the informal recreation use it provides. Additionally the lower site would have more difficult access arrangements with a u-turn required at the junction of Scenic Drive and Sir Samuel Griffith Drive.

The key issues associated with the use of the 'upper' site for disaster management are being further investigated. Additionally, the issue of cyclist safety will need to be managed. This was expressed as a concern by Bicycles Queensland. Although the potential impact is reduced with the shorter duration of the car park operation and the lower number of vehicles entering and exiting the car park, a traffic management strategy should be developed in consultation with cyclist stakeholders such as Bicycles Queensland, who were part of the Workforce Parking Consultation Group and part of stakeholder briefings proposed during Phase 3 consultation².

The remaining sites are not considered to be suitable. The Hoop Pine site is likely to have significant issues with cultural heritage and land contamination and use of the site as a car park, whether day or night, would potentially impact the heritage and recreation value of the area. The Dog Off-leash and Anzac Park North sites have both met with strong community opposition due to the high use and community values attached to the park by local residents.

Use of the Botanic Gardens for limited night time car parking

During these investigations, and Phase 3 consultation, further consideration was given to the possibility of a night time parking area within the existing Botanic Gardens car park while still providing public parking for the restaurant and the planetarium. During the assessment of first pass criteria Council was looking for a site or sites for workforce parking that could satisfy the need for

¹ receiving 172 of 327 votes (further detail available in Section 6.2.5)

² more detail available Section 6 and Section 7.3

both daytime and night time parking. As there was no capacity for daytime parking in the Gardens this option was not shortlisted during the first pass assessment. Subsequent consultation highlighted the community's preference for smaller car parks in multiple locations to spread the load.

It was initially considered that a night time parking area for up to 100 vehicles could be established within the Gardens. As the Botanic Gardens Overflow car park would only be used by day time workers, approximately 200 car parks would be available at night, including the overflow car park, for use by the restaurant and the planetarium. As a minimum, some 30 car parks maybe established within the Botanic Gardens. These measures would help mitigate impact on the restaurant and planetarium.

As the requirement for night time workforce parking is not until March 2012 Council should continue stakeholder consultation in the coming months with the operators of all facilities within the Botanic Gardens to ensure a shared outcome is reached prior to the activation of any night time carpark within the Botanic Gardens in 2012.

Use of the Freers site

After feedback from the Workforce Parking Consultation Group, consideration was also given to the potential use of the Freers site, opposite the Hoop Pine Picnic Area, off Sir Samuel Griffith Drive. Despite further consideration and discussion with the owners of the privately owned site, Council determined that night time use of the Freers site would not be preferable due to associated lighting and safety requirements and access and shuttle bus requirements

7.3 Stage 3 – Key Stakeholder Consultation

As a result of the feedback received during the community consultation feedback period, Council commenced Stage 3 of the workforce parking consultation on a proposed single solution that includes the already approved Botanic Gardens overflow carpark in combination with:

- 1) partial day-time use of Park and Ride (80/110)
- 2) partial night-time use of parking in Brisbane Botanic Gardens (30/220)
- 3) peak construction period use of Scenic Drive upper (up to 130).

Council decided not to confirm this carparking combination as its single solution until after the Stage 3 consultation occurred. Stakeholders who will be consulted during Stage 3, and prior to any decision by Council, will be consulted in two phases as outlined below.

Transcity continues to consult with community and stakeholders related to the upcoming use of the Botanic Gardens overflow carpark, separate to this plan.

Phase One

Stakeholder	Carpark	Points to confirm
Ward of Toowong, Sustainability Chair	Botanic Gardens carpark, Park and Ride, Scenic Drive	Consultation feedback, overall solution
Brisbane Botanic Gardens	Botanic Gardens carpark	Current night-time use, necessary mitigation measures
NES	Botanic Gardens carpark, Scenic Drive	Current night-time use, necessary mitigation measures
Active Travel Chair	Park and Ride	Consultation, potential impacts and mitigation measures
Toowong Bus Depot	Park and Ride	Current bus driver use, potential to absorb elsewhere
Bicycle Queensland	Park and Ride, Scenic Drive	Current bike access through carpark (removal?), significant safety input on Scenic Drive

Phase Two

Stakeholder	Carpark	Points to confirm
Friends of Toowong Cemetery	Park and Ride	Use during events, pedestrian access from bus stop
Brisbane Lookout	Scenic Drive	Confirm any issues
Translink	Park and Ride	Confirm any issues, including shuttle bus usage
Stuartholme School	Overall solution	Use of Freers site

8. Conclusions and parking plan

In accordance with the recommendations of the Coordinator-General's Report on project changes to the Legacy Way Project, further investigation of alternative locations for the temporary workforce car parking have been undertaken including consultation with the community.

The investigations explored a range of options in detail including existing parking areas in the vicinity of the western worksite, optimising the use of existing parking within the Botanic Gardens and in the overflow area and further investigation of potential parking areas along Sir Samuel Griffith Drive.

This report has documented and assessed the identified car park options and has been informed by intensive community consultation.

The parking plan for the Legacy Way western worksite is consistent with the Co-ordinator General's recommendations to use existing parking areas and areas previously considered as part of the EIS. The proposed plan is as follows and as shown in **Table 8-1**.

- Use of the Botanic Gardens Overflow car park for the four year construction period.
- Use of part of the Park and Ride for the four year construction period.
- Use of the Scenic Drive upper site (located off Sir Samuel Griffith Drive) for peak day time and night time parking requirements from early 2012 to mid 2014.
- Use of part of the Botanic Gardens existing internal car park for night time workforce parking from early 2012 to late 2014 with provision to share this area during special events through workforce shift management and consultation with directly affected parties.

Table 8-1 Western Worksite Parking Plan

	2011		2012		2013		2014		2015
	Jan-June	July-Dec	Jan-June	July-Dec	Jan-June	July-Dec	Jan-June	July-Dec	Jan-June
Day time worker maximum (variation depending on mech and elec shift split)	114	171	153	167	202	189-248	148-233	118-188	20
Night time worker maximum	0	0	64	81	89	54-100	7-92	0-70	
Car Parking Solution	Gardens Overflow car park (max 81 vehicles)	Gardens Overflow car park (max 81 vehicles)	Gardens Overflow car park (max 81 vehicles)	Gardens Overflow car park (max 81 vehicles)	Gardens Overflow car park (max 81 vehicles)	Gardens Overflow car park (max 81 vehicles)	Gardens Overflow car park (max 81 vehicles)	Gardens Overflow car park (max 81 vehicles)	Gardens Overflow car park (max 20 vehicles)
	Mt Coot-tha Park and Ride car park (max 33 vehicles)	Mt Coot-tha Park and Ride car park (max 80 vehicles)	Mt Coot-tha Park and Ride car park (max 72 vehicles)	Mt Coot-tha Park and Ride car park (max 80 vehicles)	Mt Coot-tha Park and Ride car park (max 80 vehicles)	Mt Coot-tha Park and Ride car park (max 80 vehicles)	Mt Coot-tha Park and Ride car park (max 80 vehicles)	Mt Coot-tha Park and Ride car park (max 80 vehicles)	
	Balance on worksite	Balance on worksite		Balance on worksite	Scenic Drive car park (max 41 vehicles)*	Scenic Drive car park (max 28-87 vehicles)*	Scenic Drive car park (max 0-72 vehicles)*	Scenic Drive car park (max 0-27 vehicles)*	
			Scenic Drive car park (max 34 vehicles)	Scenic Drive car park (max 51 vehicles)	Scenic Drive car park (max 59 vehicles)*	Scenic Drive car park (max 24-70 vehicles)*	Scenic Drive car park (max 0-62 vehicles)*	Scenic Drive car park (max 0-40 vehicles)*	
			Botanic Gardens car park (max 30 vehicles)	Botanic Gardens car park (max 30 vehicles)	Botanic Gardens car park (max 30 vehicles)	Botanic Gardens car park (max 30 vehicles)	Botanic Gardens car park (7-30 vehicles)	Botanic Gardens car park (0-30 vehicles)	

*Total daily max Jan-Jun 2013:100; July-Dec: 2013 101, Jan-Jun 2014: 72, Jul-Dec 2014 40

Appendix A Preliminary Car Park Options and First Pass Assessment


The preliminary car park options were subject to a first pass assessment to determine sites that may be potentially suitable for construction workforce parking. Each of the preliminary sites are identified in the table below and then outlined in the following tables.

■ Preliminary car park site options

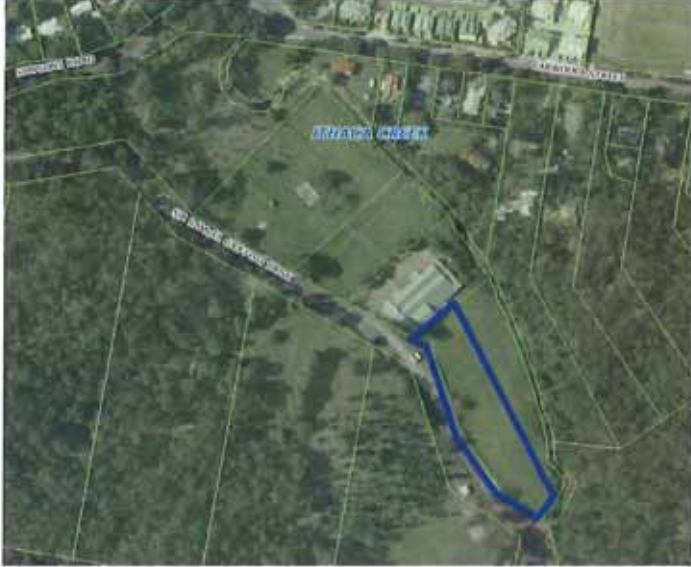
Site Name	Location	Approximate capacity
Freer's Northern	Sir Samuel Griffith Drive Lot 1 on RP77960 Lot 2 on RP77960	220
Freer's Southern	95 Sir Samuel Griffith Drive Lot 1 on RP101041	160
Silky Oak picnic area	43 Sir Samuel Griffith Drive Lot 1292 on S31624	20
Hoop Pine existing car park area	100 Sir Samuel Griffith Drive Lot 1290 on S31624	30
Hoop Pine picnic area	100 Sir Samuel Griffith Drive Lot 1290 on S31624	200
Slaughter Falls picnic area	8B Sir Samuel Griffith Drive Lot 21 RP20772	20
Mount Coot-tha Road Park and Ride	Lot 1042 CPSL9242	110
Botanic Gardens existing parking	152 Mt Coot-tha Rod, Mount Coot-tha Lot 6 RP18899	190
Toowong Cemetery internal roads	55 Mt Coot-tha Road Lot 5 SL12788	50
Toowong Bus Depot	29 Miskin St, Toowong Lot1043 SL7078	50
Western worksite		-
Scenic Drive upper park	200 Mt Coot-tha Rod, Lot 1 RP868488	170
Scenic Drive lower park	200 Mt Coot-tha Rod, Lot 1 RP868488	85
Mt Coot-tha Quarry	200 Mt Coot-tha Rod, Mt Coot-tha Lot 1 RP868488 170 Mt Coot-tha Rd, Mt Coot-tha Lot 1 RP18899	100
Botanic Gardens new parking site	170A Mt Coot-tha Rod, Mt Coot-tha Lot 1 RP193833 200 Mt Coot-tha Rod, Mt Coot-tha Lot 1 RP868488	100
Purtell Park car park, Carwoola Street	57 Carwoola St, Bardon Lot 295 M3179	120
Anzac Park Dog off leash area, Anzac Park	200 Broseley Rd, Toowong Lot 3 SP159806	200

Site Name	Location	Approximate capacity
	170 Mt Coot-tha Rd, Mt Coot-tha Lot 1 RP18899	
Anzac Park North	170 Mt Coot-tha Rd, Mt Coot-tha Lot 1 RP18899	200
Sir Samuel Griffith Drive road		Not determined
Fortitude valley commercial car park		150
East end parking area (EKKA overflow)		390
Moggil Road / Centenary Motorway	Moggil Road / Centenary Motorway intersection, Indooroopilly	Not determined
Milton Tennis court site		Not determined
Seventeen Mile Rocks Road / Centenary Motorway	Seventeen Mile Rocks Road / Centenary Motorway, Jindalee	Not determined


A.1 Freer's Northern Site

Address	Sir Samuel Griffith Drive, Lot 1 on RP77960 and Lot 2 on RP77960	
Location		
Approximate capacity	220 car parks	✓
Approximate distance to worksite	Approximately 1.9km along public roads	✓
Availability	Unlikely to be available within project timeframes. (Freehold land owned by Stuartholme School)	✗
Comments:	<ul style="list-style-type: none"> ■ Site is currently vacant paddock ■ New road access point likely to be required ■ In this area Sir Samuel Griffith Drive is used heavily by cyclists, joggers and pedestrians in the early morning and is also used by Stuartholme School – potential conflict with these groups would need to be managed ■ Shuttle bus would be required to transport workers which will have cost implications for the project ■ Not Shortlisted 	


A.2 Freer's Southern Site

Address	Sir Samuel Griffith Drive, Lot 1 RP101041	
Location		
Approximate capacity	160 car parks	✓
Approximate distance to worksite	Approximately 1.7km along public roads	✓
Availability	Unlikely to be available within project timeframes. (Freehold land owned by Stuartholme School)	✗
Comments:	<ul style="list-style-type: none"> ■ Site is currently vacant paddock ■ New road access point likely to be required ■ In this area Sir Samuel Griffith Drive is used heavily by cyclists, joggers and pedestrians in the early morning and is also used by Stuartholme School – potential conflict with these groups would need to be managed ■ Shuttle bus would be required to transport workers which will have cost implications for the project ■ Potential inundation from overland flow path would need to be managed ■ Not Shortlisted 	


A.3 Silky Oak Picnic Area

Address	43 Sir Samuel Griffith Drive, Lot 1292 on S31624	
Location		
Approximate capacity	20 car parks (estimate)	×
Approximate distance to worksite	Approximately 1.9km along public roads	✓
Availability	Site lead time likely to be within project timeframes	✓
Comments:	<ul style="list-style-type: none"> ■ Existing car park area is small ■ Site is used by picnic area visitors ■ Overland flow path adjacent to car park area ■ Site is part of State Heritage listing for Mt Coot-tha Forest – will required Cultural Heritage Management Plan which could impact on timeframes ■ In this area Sir Samuel Griffith Drive is used heavily by cyclists, joggers and pedestrians in the early morning and is also used by Stuartholme School – potential conflict with these groups would need to be managed ■ Upgraded access point may be required ■ Shuttle bus would be required to transport workers which will have cost implications for the project ■ Not Shortlisted 	


A.4 Hoop Pine Existing Car Park Area

Address	100 Sir Samuel Griffith Drive, Lot 1290 on S31624	
Location		
Approximate capacity	30 car parks (estimate)	x
Approximate distance to worksite	Approximately 1.6km along public roads	✓
Availability	Site lead time likely to be within project timeframes	✓
Comments:	<ul style="list-style-type: none"> ■ Site is used by public as car park for picnic area ■ Existing car park area is separated from picnic tables by approximately 50m of a cleared grass area ■ Site is part of State Heritage listing for Mt Coot-tha Forest – will require Cultural Heritage Management Plan which could impact on timeframes ■ In this area Sir Samuel Griffith Drive is used heavily by cyclists, joggers and pedestrians in the early morning and is also used by Stuartholme School – potential conflict with these groups would need to be managed ■ Upgraded access point may be required ■ Shuttle bus would be required to transport workers which will have cost implications for the project ■ Not Shortlisted 	


A.5 Hoop Pine Picnic Area

Address	100 Sir Samuel Griffith Drive, Lot 1290 on S31624	
Location		
Approximate capacity	200 car parks	✓
Approximate distance to worksite	Approximately 1.6km along public roads	✓
Availability	Site lead time likely to be within project timeframes	✓
Comments:	<ul style="list-style-type: none"> ■ Site is used by public as picnic area and provides access to Mt Coot-tha trails ■ Site is part of State Heritage listing for Mt Coot-tha Forest – will require Cultural Heritage Management Plan which could impact on timeframes ■ Sir Samuel Griffith Drive is used heavily by cyclists, joggers and pedestrians in the early morning and is also used by Stuartholme School – potential conflict with these groups would need to be managed ■ Upgraded access point may be required ■ Shuttle bus would be required to transport workers which will have cost implications for the project ■ Shortlisted 	


A.6 Slaughter Falls Picnic Area

Address	8B Sir Samuel Griffith Drive, Lot 21 RP20772	
Location		
Approximate capacity	20 car parks (estimate)	x
Approximate distance to worksite	Approximately 1.45km along public roads	✓
Availability	Site lead time likely to be within project timeframes	✓
Comments:	<ul style="list-style-type: none"> ■ Existing parking areas are limited and spread out throughout park areas, so there is no clear muster point for shuttle bus pick up ■ Site is part of State Heritage listing for Mt Coot-tha Forest – will required Cultural Heritage Management Plan which could impact on timeframes ■ Site is heavily used by the public as car park for picnic area ■ Sir Samuel Griffith Drive is used heavily by cyclists, joggers and pedestrians in the early morning and is also used by Stuartholme School – potential conflict with these groups would need to be managed ■ Upgraded access point may be required ■ Shuttle bus would be required to transport workers which will have cost implications for the project ■ Not Shortlisted 	


A.8 Botanic Gardens existing parking

Address	152 Mt Coot-tha Rod, Mount Coot-tha, Lot 6, RP18899	
Location		
Approximate capacity	Approximately 220 car parks used by Botanic Gardens visitors, not additional space for day time parking	✗
Approximate distance to worksite	Approximately 500m along pedestrian paths	✓
Availability	Site lead time likely to be within project timeframes	✓
Comments:	<ul style="list-style-type: none"> ■ Parking spaces are needed for botanic garden visitors and may or may not be available for construction workers. ■ Approximately 100m from nearest residents, may need detailed noise modelling and design of appropriate mitigation to reduce potential noise impacts on residents ■ Use of the car parking area for night time parking only is unlikely to affect the operation of the Botanic Gardens however potential impacts on the restaurant and planetarium would need to be managed ■ Use of the site would have negligible cultural heritage or visual amenity impacts as it is an existing car park ■ Unlikely to have construction or operation safety issues as no change to the existing parking area is required, however a road safety audit would be undertaken and any issues addressed ■ Site provides convenient pedestrian access to the worksite, workers would be required to use the same pedestrian pathway along Mt Coot-tha Road to access the worksite to avoid workers walking through the Gardens and potentially disrupting function activities ■ Potential flora and fauna impacts, surface water effects, traffic impacts, contaminated land and air quality impacts are negligible as no new hardstand area is required. ■ Would have relatively low costs as Freehold land owned by council (no land acquisition costs) and is an existing car park (low construction and rehabilitation costs) and is within walking distance to the work site (low operation costs) ■ Further consultation with Gardens staff required to determine availability, particularly for possible night time use with allowance for night time Garden's requirements ■ Not shortlisted – However further consultation to be undertaken 	


A.9 Toowong Cemetery internal roads

Address	55 Mt Coot-tha Road, Lot 5, SL12788	
Location		
Approximate capacity	Approximately 50 car parks	x
Approximate distance to worksite	Approximately 500m along Cemetery road shoulders and pedestrian paths	✓
Availability	Site lead time likely to be within project timeframes	✓
Comments:	<ul style="list-style-type: none"> ■ On state heritage register – will required Cultural Heritage Management Plan which could impact on timeframes ■ Parking is limited ■ Does not provide convenient access ■ Likely to be considered insensitive by the community ■ Not shortlisted 	


A.10 Toowong Bus Depot

Address	29 Miskin St, Toowong, Lot 1043 SL7078	
Location		
Approximate capacity	50 car parks	✗
Approximate distance to worksite	Approximately 1050m along pedestrian paths	✓
Availability	Site lead time likely to be within project timeframes	✓
Comments:	<ul style="list-style-type: none"> ■ Site is not available as used for bus depot parking ■ Site is too far for workers to walk to the worksite and would require a shuttle bus, which would have cost implications ■ Not shortlisted 	


A.11 Western worksite

Address	Mt Coot-tha Botanic Gardens	
Location		
Approximate capacity	No additional space is available	✓
Approximate distance to worksite	-	✓
Availability	-	x
Comments:	<ul style="list-style-type: none"> ■ Access issues due to egress restrictions onto the Centenary highway ■ Space limitations on worksite prevent provision of a significant number of car parking spaces ■ Not shortlisted 	


A.12 Scenic Drive upper park

Address	200 Mt Coot-tha Road, Lot 1 RP868488	
Location		
Approximate capacity	170 car parks	✓
Approximate distance to worksite	Approximately 1.8km along public roads	✓
Availability	Site lead time likely to be within project timeframes	✓
Comments:	<ul style="list-style-type: none"> ■ Lot 1 RP868488 is part of State Heritage listing for Mt Coot-tha Forest – will require a Cultural Heritage Management Plan which could impact on timeframes ■ Site is used for fire management and as a transfer for flood rubbish ■ Shuttle bus would be required to transport workers to the worksite, which will have cost implications ■ May have to reduce car park numbers to avoid vegetation impacts and need for VMA permits ■ Would need to manage potential issues with sporadic events during the year such as the Mt Coot-tha classic ■ Road access upgrade may be required ■ Potential conflict with cyclists would need to be managed as cyclists frequently use Sir Samuel Griffith Drive ■ Traffic management options such as separating traffic between Sir Samuel Griffith Drive and Scenic Drive could be explored ■ Shortlisted 	


A.13 Scenic Drive lower park

Address	200 Mt Coot-tha Road, Lot 1 RP868488	
Location		
Approximate capacity	85 car parks	✓
Approximate distance to worksite	Approximately 1.4km along public roads	✓
Availability	Site lead time likely to be within project timeframes	✓
Comments:	<ul style="list-style-type: none"> ■ Lot 1 RP868488 is part of State Heritage listing for Mt Coot-tha Forest – will require a Cultural Heritage Management Plan which could impact on timeframes ■ Cars would need to travel further up scenic drive and do a u-turn to access car park ■ Shuttle bus would be required to transport workers to the worksite, which will have cost implications ■ Would need to manage potential issues with sporadic events during the year such as the Mt Coot-tha classic ■ Road access upgrade may be required ■ Potential conflict with cyclists would need to be managed as cyclists frequently use Sir Samuel Griffith Drive ■ Traffic management options such as separating traffic between Sir Samuel Griffith Drive and Scenic Drive could be explored ■ Shortlisted 	


A.14 Mt Coot-tha Quarry

Address	200 Mt Coot-tha Rod, Mt Coot-tha, Lot 1 RP868488 170 Mt Coot-tha Rd, Mt Coot-tha, Lot 1 RP18899	
Location		
Approximate capacity	-	x
Approximate distance to worksite	Approximately 875m along pedestrian paths	✓
Availability	Site development may not meet project timeframes	✓
Comments:	<ul style="list-style-type: none"> ■ Lot 1 RP868488 is part of State Heritage listing for Mt Coot-tha Forest Site – will required Cultural Heritage Management Plan which could impact on timeframes ■ Lot 1 RP18899 is partly covered by local heritage listing (Anzac park) Lot 1 RP868488 is part of State Heritage listing for Mt Coot-tha Forest ■ Use of site would not be safe due to blasting operations in the quarry ■ Not Shortlisted 	

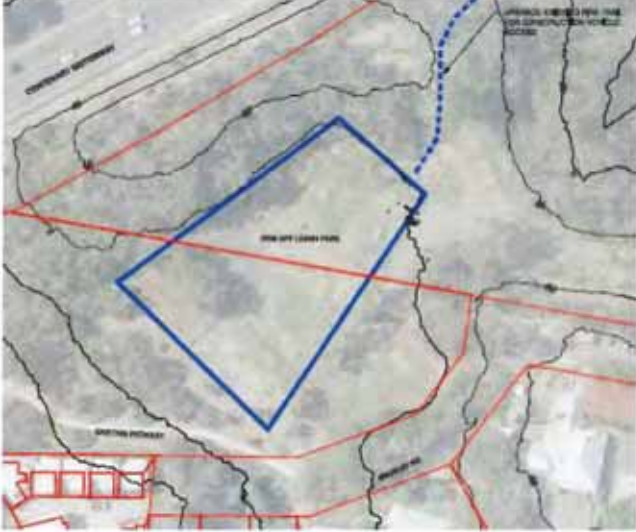
A.15 Botanic Gardens new parking site

Address	170A Mt Coot-tha Rod, Mt Coot-tha, Lot 1 RP193833 200 Mt Coot-tha Rod, Mt Coot-tha, Lot 1 RP868488	
Location		
Approximate capacity	-	x
Approximate distance to worksite	Approximately 500m along pedestrian paths	✓
Availability	Some access works may be required, however site lead time likely to be within project timeframes	✓
Comments:	<ul style="list-style-type: none"> ■ Part of the Botanic Gardens which is a Regional Park ■ Lot 1 RP868488 is part of State Heritage listing for Mt Coot-tha Forest ■ Site area is currently used by the gardens for de-watering operations and storage and no space is available for car parking ■ Vehicle access through the gardens would also be required ■ Not Shortlisted 	


A.16 Purtell Park car park, Carwoola Street

Address	57 Carwoola Street, Bardon, Lot 295, M3179	
Location		
Approximate capacity	120 car parks	✓
Approximate distance to worksite	Approximately 2.95 km along public roads	✗
Availability	Site lead time likely to be within project timeframes	✓
Comments:	<ul style="list-style-type: none"> ■ District sport park ■ Use of car park by construction workforce likely to interfere with use of sport park ■ Longer shuttle bus ride than other locations in area which will have cost implications ■ Poor access to the worksite – Mt Coot-tha Road, Sir Samuel Griffith Drive and Carwoola Street – likely to be issues with cyclists, joggers and pedestrians using the road in the mornings. ■ Not Shortlisted 	

A.17 Dog off leash area, Anzac Park

Address	200 Broseley Rd, Toowong, Lot 3 SP159806 170 Mt Coot-tha Rd, Mt Coot-tha, Lot 1 RP18899	
Location		
Approximate capacity	200 car parks	✓
Approximate distance to worksite	Approximately 650m along existing fire trail and pedestrian paths	✓
Availability	Site lead time likely to be within project timeframes	✓
Comments:	<ul style="list-style-type: none"> ■ Lot 1 RP18899 (Anzac Park) is on local heritage register ■ Anzac Park is a District, informal recreation park ■ Lot 3 SP159806 is part of the Mt Coot-tha Reserve which is a regional natural area park ■ Would need to relocate dog off leash area ■ Residents on Wool Street may object to increased vehicles along their street ■ Shortlisted 	

A.18 Anzac Park North

Address	170 Mt Coot-tha Rd, Mt Coot-tha, Lot 1 RP18899	
Location		
Approximate capacity	200 car parks	✓
Approximate distance to worksite	Approximately 430m along pedestrian paths	✓
Availability	Site lead time likely to be within project timeframes	✓
Comments:	<ul style="list-style-type: none"> ■ On Brisbane City Council Heritage Register – requires a cultural heritage management plan to be developed ■ Anzac Park is a District, informal recreation park ■ Provides direct access to worksite ■ Local community issues with use of park as car park – likely ongoing opposition ■ Potential conflict with park users would need to be managed through relocation of some park infrastructure and revised access ■ Tree protection zones need to be accounted for in car park layout ■ Shortlisted 	

A.19 Other sites

A number of other sites were also considered which were deemed to be unsuitable as a car park for the construction workforce and therefore not developed in further detail. These options are briefly outlined in the table below.

Site	Sir Samuel Griffith Drive (new area of road reserve between Scenic Drive and Sir Samuel Griffith Drive)	Fortitude valley Commercial Car Park	East end parking area (EKKA overflow)
Address	200 Mt Coot-tha Road, Lot 1 RP868488	Fortitude Valley	Bowen Hills
Comments	<ul style="list-style-type: none"> ■ Parking along street would not comply with Co-ordinator General conditions ■ Road closure would be impractical and would take time ■ Site is part of State Heritage listing for Mt Coot-tha Forest – will require a Cultural Heritage Management Plan which could impact on timeframes ■ Doesn't provide an access point for shuttle bus 	<ul style="list-style-type: none"> ■ Construction workforce would have to travel significant distance to access the site ■ Does not provide flexibility for workforce ■ Requires additional time for each shift to allow for travel ■ Likely to have significant cost implications for the project due to cost of car parking and transport 	<ul style="list-style-type: none"> ■ Site availability would need to be confirmed ■ Construction workforce would have to travel significant distance to access the site ■ Does not provide flexibility for workforce ■ Requires additional time for each shift to allow for travel ■ Likely to have cost implications for the project due to cost of transport
Site	Moggil Road / Centenary Motorway	Milton Tennis court site	Seventeen Mile Rocks Road / Centenary Motorway
Address	Corner of Moggil Road and Centenary Motorway	Milton Road, Milton	Jindalee
Comments	<ul style="list-style-type: none"> ■ Site availability would need to be confirmed ■ Site does not have ingress or egress and there is likely to be significant issues with providing new access ■ Site is in close proximity to residential dwellings, potential noise and visual amenity impacts would need to be resolved and managed ■ Development of site as a car park would have vegetation impacts ■ Site would require a shuttle bus which would have cost implications 	<ul style="list-style-type: none"> ■ Use of site as car park would delay parkland redevelopment plans ■ Site would require a shuttle bus which would have cost implications ■ Site is more than 2km from the worksite 	<ul style="list-style-type: none"> ■ Site availability would need to be confirmed ■ Site does not have ingress or egress and there is likely to be significant issues with providing new access ■ Site would require a shuttle bus which would have cost implications as the site is more than 8km from the worksite



Appendix B Summary of Feedback and Response




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Issue	Community and stakeholder feedback or comments	Council's response/position
<p>Pedestrian/cyclist impact</p>	<p>Cyclists prefer using the lower stretch of Sir Samuel Griffith Drive (over Scenic Drive) due to its wide lanes, low traffic volumes and wide sweeping left-turn lane onto Sir Samuel Griffith Drive.</p> <p>Safety concerns about riders using the extremely 'awkward' intersection of Scenic Drive and Mt Coot-tha Road, which features a stop sign and is located at the end of a one kilometre downhill stretch of road.</p> <p>Concerns about riders not being able to stop at the Scenic Drive/Mt Coot-tha Road intersection due to wet road conditions, inexperience and/or equipment failure.</p> <p>Auditing and safety improvements is suggested at the below intersections to improve safety for all road users.</p> <p>Sir Samuel Griffith Drive and Scenic Drive</p> <p>Scenic Drive and Mt Coot-tha Road</p> <p>Sir Samuel Griffith Drive and Mt Coot-tha Road (at the stop sign).</p> <p>Support for workforce parking to be provided on the left side of Sir Samuel Griffith Drive (between Scenic Drive and Mt Coot-tha Road), with the right lane of this road to remain as a downhill one-way general traffic lane for use by cyclists.</p> <p>Any footpath to be included should have a minimum width of 1.5 metres, to be shared by walkers, joggers and up-hill bike riders.</p> <p>Support for a line-marked bike lane (between 2.2m to 2.4m wide) to be provided along the left-hand side of Scenic Drive.</p>	<p>Surveys indicated approximately 50% of cyclists currently use this intersection on their ride.</p> <p>A majority of cyclists will still use Scenic Drive over the lower stretch of Sir Samuel Griffith Drive, however, Council is investigating ways to improve safety at this intersection for cyclists.</p> <p>Improvements for cyclists at this intersection will be investigated and incorporated into the proposed car park, where possible, during the detailed design phase.</p> <p>Under the proposal, the Scenic Drive and Sir Samuel Griffith Drive intersection will be redesigned to improve safety for all road users. Specifically, the left slip lane along the downhill stretch of Scenic Drive (at Sir Samuel Griffith Drive) will be closed off to all traffic, meaning that all traffic (motorists and cyclists) coming down from the summit to Mt Coot-tha Road will only be able to use Scenic Drive.</p> <p>All changed traffic conditions necessary for the car parking arrangement will be subject to road safety audits as part of the design process and on the operation of the traffic changes to ensure safety for motorists, cyclists, Transcity's workforce and pedestrians.</p> <p>This design has been considered by Council. All of the road reserve of Sir Samuel Griffith Drive (from its intersection with Scenic Drive down to Mt Coot-tha Road) is needed to accommodate the required 150 car parking spaces, bus stops and central traffic lane.</p> <p>Splitting the parking spaces between the lower stretch of Scenic Drive and Sir Samuel Griffith Drive would require workers to make a u-turn (at the Scenic Drive/Sir Samuel Griffith Drive intersection) in front of downhill cyclists.</p> <p>Footpaths along Lower Sir Samuel Griffith Drive have been designed to accommodate walkers and joggers. Cyclists are likely to prefer to use existing wide bitumen road surfaces and have not been catered for on the footpaths.</p> <p>Council is looking at ways to improve safety along Scenic Drive for cyclists.</p>



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Issue	Community and stakeholder feedback or comments	Council's response/position
	<p>Feedback that two years was a long time for cyclists to not be able to use the lower stretch of Sir Samuel Griffith Drive</p>	<p>Minimising construction impacts on the local community by keeping the Legacy Way workforce from parking on residential streets was a focus for Council when selecting a location for the proposed car park. Access to and from the Brisbane Lookout at Mt Coot-tha, via Scenic Drive, will not change and will be maintained at all times.</p>
	<p>Support for clear signage (advisory and speed limits) and line-marking to be installed at all intersections to ensure safety is maximised for all road users, should the proposal be approved.</p>	<p>The proposal will include regulatory signage and line-marking both at the apex of Scenic Drive and Sir Samuel Griffith Drive, as well as at the intersection of Sir Samuel Griffith Drive and Mt Coot-tha Road. This will assist in directing safe and legal traffic movements at these intersections, for all road users. The proposed car park will have a speed limit of 20km/hour along its length to ensure workforce vehicles and buses use an appropriate speed for the changed traffic conditions.</p>
	<p>Support for safety audits to be completed on the proposal, should it be approved.</p>	<p>The changed traffic conditions will be subject to road safety audits both as part of the design process and on the operation of the changed traffic conditions to ensure safety for motorists, cyclists, Transcity's workforce and pedestrians.</p>
<p>Workforce parking location</p>	<p>Suggestion that an alternative workforce parking location should be chosen due to the proposal's impact on cyclists. Support for the use of an additional area on the lower stretch of Scenic Drive in combination with using the left lane of the lower section of Sir Samuel Griffith Drive, so that one lane of Sir Samuel Griffith Drive could remain open for use by cyclists.</p>	<p>In late 2010 and early 2011 Council looked into a range of possible workforce parking locations for the project. Community feedback received during this period indicated that the community favoured solutions that took car parking away from residential areas and utilised existing road surfaces and car parking areas, where possible. Council investigated locating the car park on the lower section of Scenic Drive, however, this location was found to be unsuitable as it did not provide for the required number of car parks. This design was looked at by the project team, however, all of the road reserve of Sir Samuel Griffith Drive (from its intersection with Scenic Drive down to Mt Coot-tha Road) was needed to accommodate the required 150 car parking spaces, bus stops and central traffic lane. Further, splitting workforce parking into additional locations would create difficulties in managing the workforce and workers' movements to and from site.</p>




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Issue	Community and stakeholder feedback or comments	Council's response/position
	<p>Concerns as to why the contractor requires extra parking.</p>	<p>Management and scheduling of the Legacy Way workforce is the responsibility of Transcity.</p> <p>Council, as project proponent, is seeking the appropriate planning approval be in place for the workforce parking proposal.</p> <p>Transcity's initial estimates for its workforce meant it required approximately 300 car parks during the construction of Legacy Way, however, initial workforce estimates have been revised, following a review of construction activities, progress and techniques. Due to the space restrictions on the Toowong worksite, and a complex construction program requiring a number of activities to be undertaken simultaneously, additional workers will be needed as large-scale construction activities continue. This means that approximately 150 additional car parks are required for the upcoming stages of construction.</p>
	<p>Support for the contractor to park its workers off-site and use buses to transport them to the Toowong worksite. Suggested locations included Jindalee, Bardon and the old tennis centre on Milton Road.</p>	<p>Minimising construction impacts on the local community by keeping the Legacy Way workforce from parking on residential streets was a focus for Council when selecting a location for the proposed car park. Importantly, the proposal keeps vehicles from parking in residential streets.</p> <p>The project requires parking locations to be in close proximity to the Toowong worksite to ensure workers can be transferred to and from site in a reasonable timeframe. The proposed car park meets that requirement and is also serviceable by the workforce bus, which transfers workers between the worksite and the existing project car parks.</p> <p>Locations such as Jindalee and Bardon were investigated but found to be too far from the worksite to be viable for workforce parking locations.</p> <p>The old tennis site on Milton Road was investigated, however, this site would not have been available for the full period of Legacy Way construction, as it is due to be rejuvenated by 2014.</p>
	<p>There was some support for the proposal as it impacts the Mt Coot-tha Forest and summit, as well as the surrounding residents, to the minimum extent possible.</p> <p>This area is a known bushfire zone which needs to be considered if the proposal is approved.</p>	<p>The proposal minimises environmental impacts while not impacting on existing residential street parking.</p> <p>The Queensland Fire and Rescue Service will be consulted on the proposal prior to any change in traffic arrangements required.</p>



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Issue	Community and stakeholder feedback or comments	Council's response/position
Public transport	<p>The proposed location would impact organised events, such as the Great Brisbane Bike Ride (Mt Coot-tha Challenge route), the Coot-tha Classic (not run in 2011) and the Musdash 5km summit walk.</p> <p>Workers should be encouraged to use active and/or public transport or car pool to get to work, rather than drive private vehicles, which require parking.</p>	<p>The project team will liaise with event organisers to investigate how Council can minimise the impact of the proposed car park on these events, where possible.</p> <p>The scheme can be designed to allow for special events on Sundays.</p>
Flora and fauna (including Mt Coot-tha Forest and summit as a tourist destination)	<p>Concerns that locating the proposed car park in close proximity to the Mt Coot-tha Forest will affect its scenic and environmental qualities.</p> <p>The proposed car park should be lit in a way that minimises impacts on nocturnal wildlife.</p> <p>Queries as to whether the proposed car park would require tree clearing.</p>	<p>Transcity actively encourages its workforce to car pool and has provided go cards to workers who choose to use public transport. Unfortunately, due to the workers' start and finish times, it is often challenging to find suitable public transport services. Also, some members of Transcity's workforce live in areas out of Brisbane, which are not generally as well serviced by public transport. Council supports this position and is actively ensuring workforce do not park in residential streets.</p> <p>The project team has carried out environmental investigations into the proposed site to identify any potential environmental impacts on the Mt Coot-tha Forest and surrounding tourist area. Any identified impacts will be considered and appropriate management measures implemented.</p> <p>The proposal minimises environmental impacts while not impacting on existing residential street parking.</p> <p>The proposed car park will be lit to ensure the safety of car park users. The proposed lighting will be selected to be consistent with similar road lighting arrangements within the Mt Coot-tha area.</p> <p>The proposed workforce car park would be located within the existing Sir Samuel Griffith Drive road reserve.</p> <p>No tree clearing will be carried out for the establishment of the car park. Any vegetation trimming carried out along the road edges will be carried out to maintain sight lines in accordance with Council's existing roadside vegetation management policies.</p>
Consultation	<p>Queries as to what the approval process was for the proposed car park.</p>	<p>Council is seeking feedback on the workforce parking proposal from the community and key stakeholders.</p> <p>Community feedback has been incorporated into the car park design which will be submitted to Queensland's Coordinator-General for approval.</p>



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Issue	Community and stakeholder feedback or comments	Council's response/position
Workforce behaviour	<p>Support for consultation with local residents and key stakeholders on Council's reinstatement plans for the proposed car park.</p> <p>Concerns that workers will speed up Scenic Drive to access the proposed car park to make their shift time.</p> <p>Feedback that workers have been observed running the stop sign at the end of Scenic Drive, when turning into Mt Coot-tha Road.</p> <p>Support for education of the workforce and bus drivers who will use the proposed car park, so they are conscious that they sharing the roads with other users.</p>	<p>The workforce parking proposal is temporary and Council and Transcity plan to reinstate the lower section of Sir Samuel Griffith Drive once major construction activities have been completed on Legacy Way in early 2015.</p> <p>The level of consultation on the proposed car park's reinstatement is yet to be determined.</p> <p>Council and Transcity take very seriously the conduct of the workforce on the Legacy Way project.</p> <p>Workers on the project sign up to a code of behaviour before starting work on the project and the importance of this is reinforced regularly through inductions, pre-start meetings and toolbox sessions.</p> <p>Council and Transcity will monitor the operation of the car park, as required.</p> <p>Community feedback on workers' behaviour is provided to Transcity so corrective action can be taken.</p>
Traffic movements in the local area	<p>Feedback on and interest in how the changed traffic conditions, required for the workforce parking proposal, will be managed.</p> <p>Concern that the proposal will increase vehicle movements on Mt Coot-tha Road and Scenic Drive.</p>	<p>The workforce parking proposal will include regulatory signage and line-marking both at the apex of Scenic Drive and Sir Samuel Griffith Drive, as well as at the intersection of Sir Samuel Griffith Drive and Mt Coot-tha Road. This will assist in directing safe and legal traffic movements at these intersections, for all road users.</p> <p>The proposed car park is expected to have a speed limit of 20km/hour along its length to ensure workforce vehicles and shuttle buses use an appropriate speed for the changed traffic conditions.</p> <p>The traffic control measures, signage and line-marking will ensure the changed traffic arrangements are safe for all road users and minimise impacts on the local area.</p> <p>The car parking arrangement will be subject to road safety audits, which will be conducted both as part of the design process and on the physical operation of the car park, to ensure safety for motorists, cyclists, Transcity's workforce and pedestrians.</p> <p>Council and Transcity will monitor the operation of the car park, as required.</p> <p>Under the proposal, it is expected that approximately 300 traffic movements per day will be added to Mt Coot-tha Road and Scenic Drive when usage of the car park peaks in the second half of 2014. The expected traffic volumes</p>



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Issue	Community and stakeholder feedback or comments	Council's response/position
	<p>Consideration should be given to running workers' vehicles in the opposite direction, i.e. up Sir Samuel Griffith Drive rather than down, to reduce the light nuisance on homes located across the road at the intersection of Mt Coot-tha Road and Sir Samuel Griffith Drive.</p>	<p>on these roads are consistent with their function in the road network and equate to less than four percent additional traffic on Mt Coot-tha Road.</p> <p>Council investigated having workforce vehicles and shuttle buses travel up Sir Samuel Griffith Drive, however, the most suitable and safe outcome is to maintain the current arrangement.</p> <p>As the proposal includes no formal gate at the top of Sir Samuel Griffith Drive or physical speed devices, running vehicles up the road in the opposite direction may pose a safety risk.</p>
	<p>Improved signage is needed at the intersection of Sir Samuel Griffith Drive and Mt Coot-tha Road to notify motorists that Sir Samuel Griffith Drive is a one-way road (in that location).</p> <p>The additional vehicle traffic generated by the proposed car park may increase the likelihood of a serious crash between a motor vehicle and a cyclist(s), especially during shift change over periods.</p>	<p>The proposal will include regulatory signage and line-marking both at the apex of Scenic Drive and Sir Samuel Griffith Drive, as well as at the intersection of Sir Samuel Griffith Drive and Mt Coot-tha Road. This will assist in directing safe and legal traffic movements at these intersections, for all road users.</p> <p>The intersection would also include lighting to an appropriate standard.</p> <p>The car parking arrangement will be subject to road safety audits to be conducted both as part of the design process and on the physical operation of the car park to ensure safety for motorists, cyclists, Transcity's workforce and pedestrians.</p> <p>The proposed car park is expected to have a speed limit of 20km/hour along its length to ensure workforce vehicles and shuttle buses use an appropriate speed for the changed traffic conditions.</p> <p>Under the proposal, the Scenic Drive and Sir Samuel Griffith Drive intersection will be redesigned to improve safety for all road users. Specifically, the left slip lane along the down stretch of Scenic Drive will be removed and closed off to all traffic, meaning that all traffic (motorists and cyclists) coming down from the summit to Mt Coot-tha Road will only be able to use Scenic Drive.</p> <p>The proposed improvements at the Scenic Drive and Mt Coot-tha Road intersection would assist in improving the safety of the intersection for all road users.</p>