



CLIENTS | PEOPLE | PERFORMANCE

**Department of  
Infrastructure, Energy &  
Resources**

**Glenorchy to Hobart CBD  
Transit Corridor Plan  
Reliability Workshop Notes**

April 2012



# Contents

1.	Introduction	1
1.1	Methodology	1
1.2	Attendees	1
2.	Visioning Exercise	2
3.	Reliability Issues	3
3.1	Overview	3
3.2	Summary of Findings	3
4.	Solutions	5
4.1	Overview	5
4.2	Summary of Findings	5
5.	Next Steps	7

## Appendices

- A Reliability Issues Maps
- B Solutions Maps



# 1. Introduction

Workshops were held with key stakeholders to assist in identifying where constraints exist along the transit corridor which impact on travel time reliability for buses, and to identify potential solutions.

## 1.1 Methodology

Two workshops were held to complete this task. The first workshop was held on 22 February 2012 and involved representatives from the Department of Infrastructure, Energy and Resources (DIER), Hobart City Council, Glenorchy City Council and Metro Tasmania. The second workshop was held the following day on the 23 February 2012 and included a group of Metro Tasmania bus drivers.

Both groups were asked to provide comments relating to existing issues affecting inconsistencies and delays to travel time along the Main Road corridor, and to also identify any solutions to improve reliability for bus travel times. This feedback was marked directly upon maps of the corridor.

## 1.2 Attendees

### ***Workshop – 22<sup>nd</sup> February 2012***

Stuart Baird	Hobart City Council
Owen Gervasoni	Hobart City Council
Russell Grierson	Glenorchy City Council
Anthony James	Metro Tasmania
Adrian Charlesworth	Metro Tasmania
David Hope	Department of Infrastructure, Energy and Resources
Donald Howatson	Department of Infrastructure, Energy and Resources
Sarah Poortenaar	Department of Infrastructure, Energy and Resources
Peter Kruup	Department of Infrastructure, Energy and Resources
Simon Buddle	Department of Infrastructure, Energy and Resources
James Verrier	Department of Infrastructure, Energy and Resources
Brian Dodge	Department of Infrastructure, Energy and Resources
Simon Brown	Department of Infrastructure, Energy and Resources

The workshop was facilitated by Liz McGregor (GHD), with assistance from Shaun Smedley, Tim Bickerstaff and Erin Jackson, all from GHD.

### ***Workshop – 23<sup>rd</sup> February 2012***

On average around ten Metro Tasmania drivers were in attendance at this workshop session. Some drivers were not able to partake in the full session due to driver schedule commitments.



## 2. Visioning Exercise

In addition to the tasks discussed in Section 1.1, the first workshop attendees were also asked to undertake a visioning exercise. The exercise aimed to identify what the participants thought the corridor could look like in 30 years time in terms of three key areas:

- ▶ Land use;
- ▶ Bus operation; and
- ▶ Priority of the road space.

The following points were recorded from the discussion:

### ***Land Use***

- ▶ Capital City Plan (COAG) identifies Main Road for densification;
- ▶ Infill development, medium density;
- ▶ Impact of transport hub on Derwent Park/Moonah industrial areas is unknown; and
- ▶ Mixed use.

### ***Operation***

- ▶ Metro's ten year plan;
- ▶ Main Road – high frequency corridor, don't see it changing from this;
- ▶ Main Road – part of the principal network;
- ▶ Maintain and extend high frequency service;
- ▶ Expansion of operations on weekends;
- ▶ Need service improvements;
- ▶ Infrastructure on corridor currently poor;
- ▶ Need increase in reliability;
- ▶ Strong attractors at each end – Hobart and Glenorchy CBDs;
- ▶ 3-5min headway would be optimal in 10 years time in peak. Currently 7-10mins. Would like to halve headways;
- ▶ Not looking to diversify bus vehicle types; and
- ▶ Patrons make lots of short trips along the corridor (travelator effect).

### ***Priorities***

- ▶ Reliability is already an issue for Main Road routes (Main Road services rate at the top of the list for late running services);
- ▶ Parking on-street versus off-street – political pressures; and
- ▶ Removal of parking doesn't have to be all the time.

## 3. Reliability Issues

### 3.1 Overview

The attendees of both workshops were split into groups depending upon the number of people in attendance. The groups were asked to think about issues which currently impact on public transport reliability along the corridor. All issues raised were documented directly onto maps of the corridor. The comments were extracted from the plans and inserted geographically into the GIS provided by DIER.

The maps showing issues raised by both workshop groups can be seen in Appendix A

### 3.2 Summary of Findings

Some of the issues which were raised within the workshops included:

- ▶ Median islands within the road can cause difficulty getting in and out of bus stops. They can also cause delays to motorists trying to get past a parked bus;
- ▶ Some signalised intersections along the corridor experience significant delays and queuing on all approaches;
- ▶ Driver changeover at Springfield Interchange not taken into account within timetable;
- ▶ Entering and exiting from Springfield Interchange can cause delays;
- ▶ On-street car parking in Moonah is a problem;
- ▶ Unclear of pedestrian priority near Banjos in Moonah;
- ▶ Need to remove parking on Albert Road near Main Road - difficult to turn;
- ▶ No right turn priority at signals at Albert Road – need to review signal operation at this intersection;
- ▶ Congestion around Tower Road causes difficulties; particularly at school start and end times, bus stops located too close together at this location, build-up of traffic turning right from Main Road into Tower Road;
- ▶ Risdon Road is another area of high congestion; several large schools in the area resulting in high trip attraction and drop-offs, heavy traffic volumes at the intersection, signals aren't linked, long signal phases;
- ▶ Bus stops in New Town are too close together;
- ▶ Bus stop near Augusta Road is a problem spot, difficult to merge back into traffic, car park near the Polish Club can block the bus;
- ▶ North Hobart is particularly difficult due to the large amount of mixed uses;
- ▶ Northbound bus stops in North Hobart too short - bus bunching; lack of access.
- ▶ Chemist bus stop in North Hobart approach needs to be longer, it appears to be designed for rigid, not articulated buses;
- ▶ Signal operation at Burnett Street causes significant queuing and delays;
- ▶ North Hobart catering for shops not traffic, car parking on street is a problem, high number of pedestrians crossing, PM peak is worse than AM;



- ▶ Competition between buses and pedestrians in Hobart CBD;
- ▶ Lanes on Bathurst Street aren't wide enough;
- ▶ Lower section of Collins Street can become congested, namely due to parking, could be bus only and local traffic;
- ▶ Pedestrians crossing ignoring lights - causes buses to be late and go through orange lights and need bus light priority;
- ▶ Peak times in bus mall and bus congestion can cause bus delays;
- ▶ Northern suburb buses from the bus mall should enter onto Collins Street then Liverpool Street via Brooker Highway; and
- ▶ Eastern shore buses are on the wrong side of the bus mall, should be able to turn left and go straight down Macquarie Street.



## 4. Solutions

### 4.1 Overview

Once the issues had been identified by the teams, they were then asked to develop up possible solutions to improve overall reliability of public transport travel time on the corridor.

The maps showing discussion around possible solutions raised by both workshop groups can be seen in Appendix B.

### 4.2 Summary of Findings

Below is a summary of the discussion regarding potential solutions to improve reliability along the transit corridor. These comments are both general to the whole corridor (between Hobart CBD and Glenorchy) as well as location specific.

- ▶ Use railway tracks similar to O-Bahn in Adelaide;
- ▶ Revisit ABC roundabout / wharf departure point utilising train tracks for Northern Suburbs to Granton;
- ▶ Remove on street parking and replace with bus lane through Moonah through to Glenorchy;
- ▶ Reduce cash fares - withdraw features of cash tickets like cash day tickets;
- ▶ Embarking / disembarking: coordinate front and rear door access;
- ▶ Bus clearways (periodic) (i.e. significant parking rationalisation);
- ▶ Partial use of rail corridor (depending on development pattern);
- ▶ Cash transactions banned during peak periods;
- ▶ B-lights and short bus lanes (at intersections);
- ▶ Introduce principal route network;
- ▶ Bus stop rationalisation – reduce;
- ▶ Upgrade bus stops;
- ▶ Target bus stops that tend to 'conflict' with intersections / through flow;
- ▶ Re-routing (using Brooker Highway and Augusta Road to Glenorchy);
- ▶ Road marking on approach and departure of bus stops;
- ▶ Heavy vehicle no go zones during peak times;
- ▶ More Express buses at Glenorchy from J-Line to D-Line enabling Expresses to go behind Council Chamber and Woolworths then straight to Main Road;
- ▶ Block off access to Main Road from Big W;
- ▶ Fix pedestrian signals on Main Road near Elwick Hotel – triggered by heavy vehicles;
- ▶ Simplify route inbound at Springfield Interchange;
- ▶ Short bus lane and signal priority (short term) at Derwent Park lights;
- ▶ Relocation of Springfield depot / interchange (long term);



- ▶ Introduce Park and Ride from Springfield Interchange;
- ▶ What is happening with industrial area in Derwent Park long term;
- ▶ Remove some on street parking in Moonah;
- ▶ Queue jump lane or priority for buses at Creek Road signals;
- ▶ Need to either reduce or enhance bus stop facilities around the Creek Road netball courts and High Schools in the area;
- ▶ Install no right turn into Tower Road during school times;
- ▶ At Risdon Road:
  - Bus queue jumps and short bus lane (northbound) (short term)
  - Soft options (short term)
  - Remove most obstructive parking either side of intersection (short term)
  - Real time information, i.e. information surety (short term)
  - Top priority (short term)
- ▶ Potential for Super Stop (short term) near northern end of Argyle Street;
- ▶ Express inbound services should use Argyle Street;
- ▶ North of Augusta Road remove car parking and make a bus lane;
- ▶ Remove parking between Augusta Road and Federal Street;
- ▶ Between Federal Street and Burnett Street:
  - Short bus lane and queue jump (remove specific parking) (short term)
  - Localised priority - inward approach to North Hobart (short term)
  - Remove bottle neck inward Main Road
  - Deviate private cars to other roads (long term)
  - Research on traffic movements (short term)
  - Ban on-street parking (long term)
- ▶ Need to look at using Argyle Street for services originating further north than Lenah Valley. North Hobart area will still be serviced by Lenah Valley buses;
- ▶ Need for a super stop (no shelter) at Elizabeth College;
- ▶ Convert Argyle Street to two-way traffic;
- ▶ Look at a bus contraflow lane on Liverpool Street (inbound);
- ▶ Straight access for inbound services through Mall to bus mall from Elizabeth Street;
- ▶ Improve access to bus terminus in Hobart CBD or move bus terminus or use as terminating point;
- ▶ Conversion to two-way streets and/or contra flow lanes in Hobart CBD;
- ▶ Removal of some bus stops in the city; and
- ▶ Need to cross over four lanes of traffic in Campbell Street.





## 5. Next Steps

The second stage of this assessment will include investigation of potential on road solutions for the corridor to reduce travel times and to improve travel time reliability for public transport within short and longer term timeframes. The solutions will also focus towards improving accessibility and creating simple and consistent routes.

Preliminary analysis will be undertaken of the initiatives developed. This will include sketch planning as necessary as well as a feasibility assessment of the implementation of such initiatives. A high level cost estimate will also be developed for initiatives. The options will be assessed using a multi criteria process to identify preferred treatments.



## Appendix A

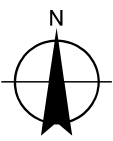
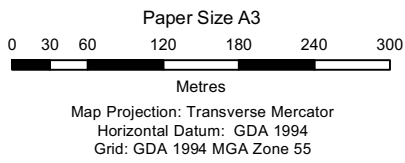
# Reliability Issues Maps





LEGEND

- Transit Corridor
- Rail Corridor



Dept of Infrastructure, Energy and Resources  
Public Transport Audit - Reliability Assessment

Job Number 32-16196 23  
Revision A  
Date 08 May 2012

Transit Corridor - Reliability  
Glenorchy Issues





**LEGEND**

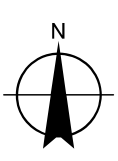
— Transit Corridor

— Rail Corridor

0 30 60 120 180 240 300

Metres

Map Projection: Transverse Mercator  
Horizontal Datum: GDA 1994  
Grid: GDA 1994 MGA Zone 55



**GHD**

CLIENTS | PEOPLE | PERFORMANCE

Dept of Infrastructure, Energy and Resources  
Public Transport Audit - Reliability Assessment

Job Number 32-16196 23  
Revision A  
Date 08 May 2012

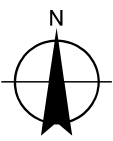
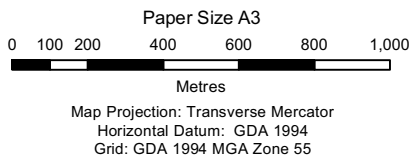
Transit Corridor - Reliability  
Moonah Issues





LEGEND

- Transit Corridor
- Rail Corridor



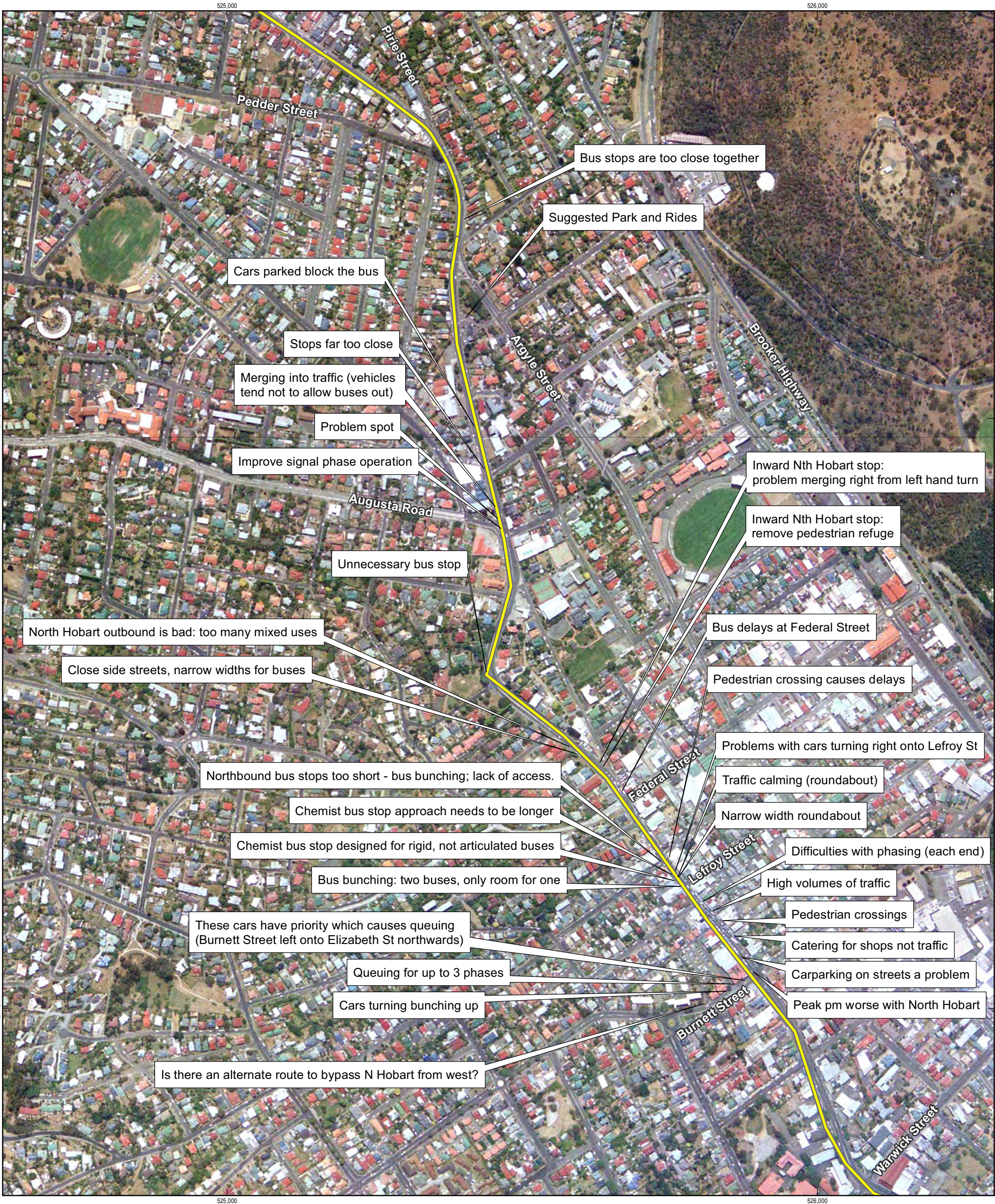
CLIENTS | PEOPLE | PERFORMANCE

Dept of Infrastructure, Energy and Resources  
Public Transport Audit - Reliability Assessment

Job Number 32-16196 23  
Revision B  
Date 08 May 2012

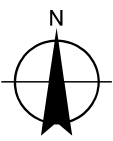
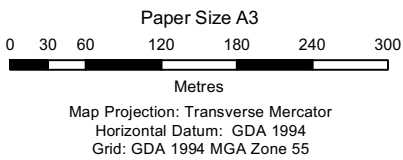
Transit Corridor - Responses  
General Issues





LEGEND

- Transit Corridor
- Rail Corridor



Dept of Infrastructure, Energy and Resources	Job Number	32-16196 23
Public Transport Audit - Reliability Assessment	Revision	A
	Date	08 May 2012

Transit Corridor - Reliability  
North Hobart Issues





**LEGEND**

— Transit Corridor

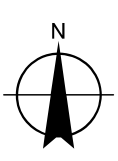
— Rail Corridor

0 30 60 120 180 240 300

Metres

Paper Size A3

Map Projection: Transverse Mercator  
Horizontal Datum: GDA 1994  
Grid: GDA 1994 MGA Zone 55



**GHD**

CLIENTS | PEOPLE | PERFORMANCE

Dept of Infrastructure, Energy and Resources  
Public Transport Audit - Reliability Assessment

Job Number 32-16196 23  
Revision A  
Date 08 May 2012

Transit Corridor - Reliability  
Hobart CBD Issues





## Appendix B

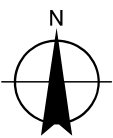
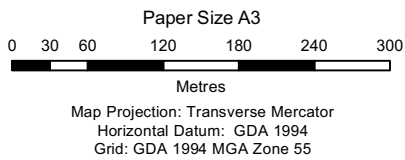
# Solutions Maps





LEGEND

- Transit Corridor
- Rail Corridor



Dept of Infrastructure, Energy and Resources	Job Number	32-16196 23
Public Transport Audit - Reliability Assessment	Revision	B
	Date	08 May 2012

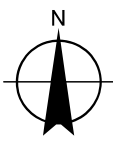
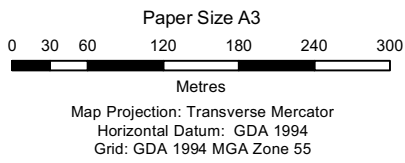
Transit Corridor - Responses  
Glenorchy Issues





LEGEND

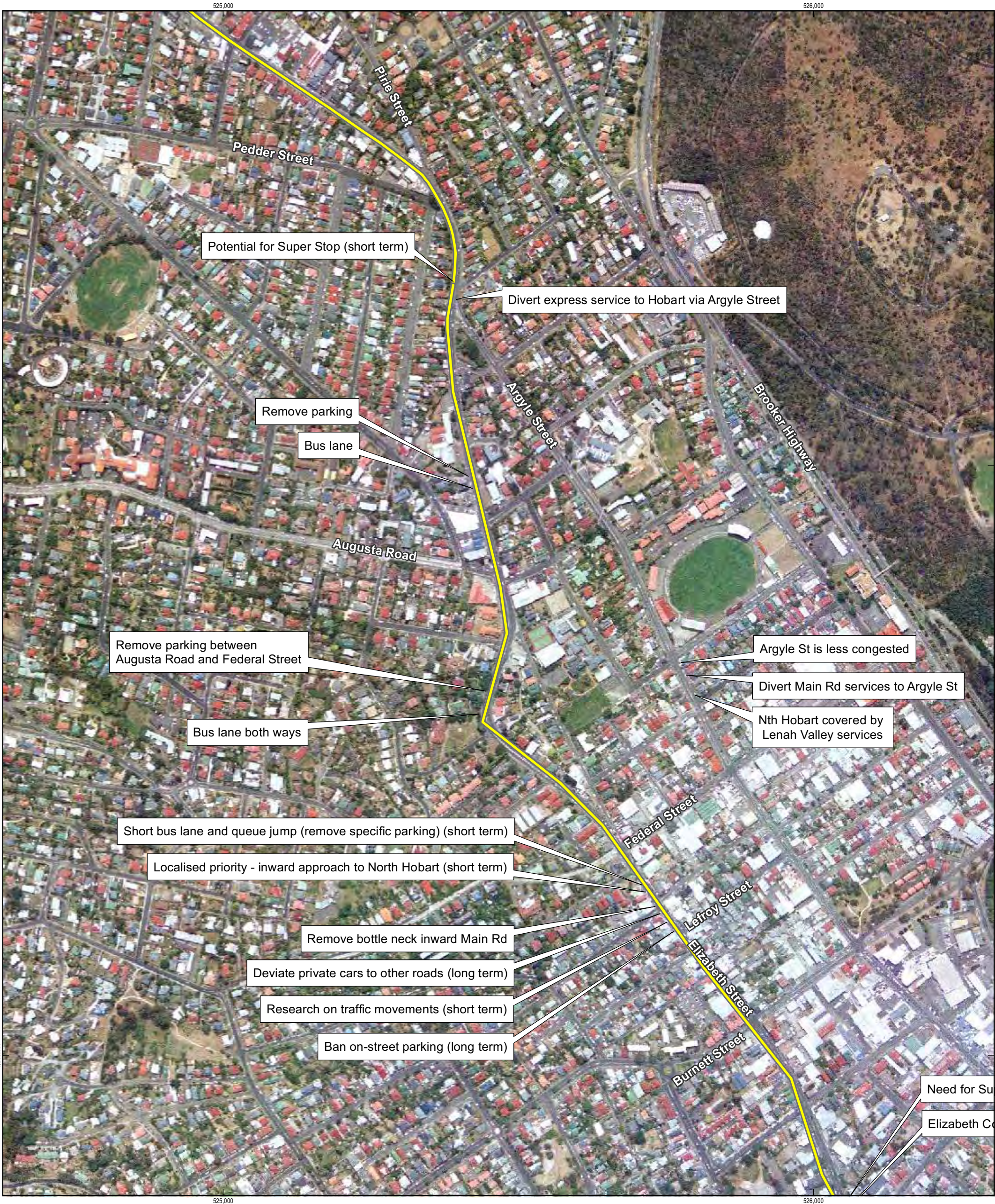
- Transit Corridor
- Rail Corridor



Dept of Infrastructure, Energy and Resources	Job Number	32-16196 23
Public Transport Audit - Reliability Assessment	Revision	B
	Date	08 May 2012

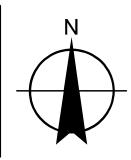
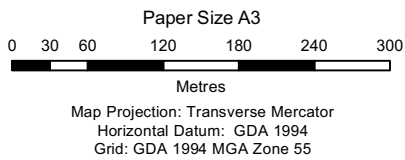
Transit Corridor - Responses  
Moonah Issues





LEGEND

- Transit Corridor
- Rail Corridor



Dept of Infrastructure, Energy and Resources  
Public Transport Audit - Reliability Assessment

Job Number 32-16196 23  
Revision B  
Date 08 May 2012

Transit Corridor - Responses  
North Hobart Issues





- LEGEND**
- Transit Corridor
  - Rail Corridor





**LEGEND**

— Transit Corridor

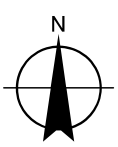
— Rail Corridor

Paper Size A3

0 100 200 400 600 800 1,000

Metres

Map Projection: Transverse Mercator  
Horizontal Datum: GDA 1994  
Grid: GDA 1994 MGA Zone 55



**GHD**

CLIENTS | PEOPLE | PERFORMANCE

Dept of Infrastructure, Energy and Resources	Job Number	32-16196 23
Public Transport Audit - Reliability Assessment	Revision	B
	Date	08 May 2012

## Transit Corridor - Responses

### General Issues






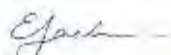
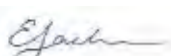

## GHD

2 Salamanca Square Hobart 7000  
GPO Box 667 Hobart 7001  
T: 03 6210 0600 F: 03 6210 0601 E: hbamail@ghd.com

## © GHD 2012

This document is and shall remain the property of GHD. The document may only be used for the purpose for which it was commissioned and in accordance with the Terms of Engagement for the commission. Unauthorised use of this document in any form whatsoever is prohibited.

## Document Status

Rev No.	Author	Reviewer		Approved for Issue		
		Name	Signature	Name	Signature	Date
0	E.Jackson	T.Bickerstaff		E.Jackson		24/4/2012
1	E.Jackson	E.Jackson		E.Jackson		8/5/2012