Department of Infrastructure, Energy & Resources

Glenorchy to Hobart CBD Transit Corridor Plan

Cycling Infrastructure Assessment

November 2012

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1. Introduction

1.1 Glenorchy to Hobart CBD Transit Corridor

GHD has been engaged by the Department of Infrastructure, Energy and Resources (DIER) to provide a cycling infrastructure assessment report for the Glenorchy to Hobart CBD Transit Corridor Plan. This proposed transit corridor is the first for Hobart and is part of a larger plan to improve transit operations and sustainability in the Hobart Transport Network.

This report forms part of the development of an overall transit corridor plan for Main Road, New Town Road and Elizabeth Street. Main Road has been identified as a transit priority route due to its existing use as a public transport corridor for a number of services, it contains a number of major trip attractors and has a higher proportion of the population within walking distance of the corridor and would be able to support further development of higher residential densities along the corridor.

This study is the first step in a long-term plan to develop the transit corridor to have high frequency, reliable and high quality transport. In achieving this long-term plan, interim projects need to be identified and implemented that improve the reliability and accessibility of the existing transit services and this is the purpose of this study.

1.2 Cycling Infrastructure Objectives

Cycling is one of the modes of travel available for people to access the transit corridor and the activity centres along it. This access relates both to trips to specific destinations and to trips where a person transfers from bike to bus for the rest of their onward journey.

The success of the transit corridor depends in part on the attractiveness of the activity centres along it. If these activity centres can be accessed in a variety of ways, including cycling, they will be more attractive to all users, and support the higher frequency and reliability services of the transit corridor.

The proposed bicycle linkages of the transit corridor have been assessed in the context of the existing and proposed routes identified through the Principal Urban Cycling Network and Arterial Cycling Network. A map of these routes is provided in Appendix A.

This report provides the findings of an assessment into cycling infrastructure provision along and supporting the transit corridor, including routes and parking facilities.

2. Cycling Gap Analysis

A workshop was held on Thursday 2 February 2012, at which participants discussed potential gaps in the cycling network (infrastructure and signage) that affect access to the transit corridor from existing cycling networks (Principal Urban Cycling Network and arterial network) and identified bicycle parking gaps (secure and unsecure) along the transit corridor.

2.1 Workshop Structure

The workshop followed the following structure:

- Confirm existing network (on maps of the study area)
- Small group discussion and identification of missing links / potential routes in study area
- Voting for most popular potential links – each participant was allocated 10 votes each

- Discussion and identification of bicycle parking opportunities in study area

2.1.1 Workshop Attendees

The following people attended the workshop.

Table 1 Workshop attendees

Name	
Stuart Baird	Hobart City Council
Owen Gervasoni	Hobart City Council
Nicholas Dwyer	Hobart City Council
Rod Marshall	Glenorchy City Council
Len Yeats	Glenorchy City Council
Mary Mcparland	Cycling South
Andrew Poole	Department of Infrastructure, Energy and Resources
Janine Pearson	Department of Infrastructure, Energy and Resources
Sarah Poortenaar	Department of Infrastructure, Energy and Resources
Gillian Mangan	Heart Foundation
Corey Peterson	University of Tasmania
Emma Pharo	University of Tasmania

The workshop was facilitated by Jonathan Daly (GHD), with assistance from Erin Jackson and Tim Bickerstaff (GHD), and Sarah Poortenaar (DIER).

2.2 Missing Links

The following sections outline the findings of the workshop broken down into key activity areas. Comments captured within the workshop are provided, as well as the suggested links from participants.

2.2.1 Hobart CBD

Comments

- Signage required to direct towards bike parking facilities (e.g. in Council CBD car parks)
- Difficulty within CBD due to one-way streets
  - e.g. Bathurst Street is 2-way west of Murray Street, but one-way eastbound east of Murray Street
  - Collins Street is 1-way eastbound for bikes between Murray Street and Elizabeth Street – this is the only block where westbound riding is not possible
- Steps vs ramps at ABC Roundabout underpass

- Elizabeth Street, especially southern section is relatively quiet and could be marked as a cycle route (although may not need to be marked lanes)
- Domain Master Plan (under preparation) includes proposed links over Brooker Highway
- Franklin Wharf opportunities for signage and/or marked routes. Potential policy constraints – check ownership?

Suggested Links

- Battery Point via Colville Street and Castray Esplanade – on road (off road between Finlay Street and CSIRO) in advance of Foreshore link proposal. May be suitable just to signpost route (10 votes)
- CBD to Glebe (University precinct) and Inter-city Cycleway – off road (9 votes)
- Collins Street contra-flow Elizabeth Street to Murray Street (5 votes)
- St Georges Terrace, Sandy Bay Road to Colville Street (3 votes)
- Franklin Wharf signed route (1 vote)
- Bathurst Street contra-flow Elizabeth Street to Murray Street (1 vote)
- Bathurst Street West Hobart to CBD (Goulburn Street may have better gradient?) (0 votes)
- Warwick Street West Hobart to Elizabeth Street (Elizabeth College) (0 votes)

2.2.2 North Hobart

Suggested Links

- Newdegate Street between Mellifont Street and Elizabeth Street (2 votes)
- Burnett Street between Murray Street and Campbell Street (0 votes)
- Argyle Street extension north of Friends School (0 votes)
- Archer Street between Argyle Street and Elizabeth Street (0 votes)
- Strahan Street signed route between Elizabeth Street and Argyle Street – good connection due to pedestrian signals across Argyle Street (0 votes)

2.2.3 New Town

Comments

- Need to improve New Town Road / Cross Street intersection for crossing (connection to Intercity Cycleway)
- Opportunity to provide a high quality bus stop for New Town and Ogilvie HS in the vicinity of Creek Road / sports facilities
- Carlton Street is around 22m wide
- Localised upgrades required for Creek Road off-road
- Potential off road facility parallel to Forster Street due to Council land swap behind Pizza Hut

Suggested Links

- Clare Street (7 votes)
- Brooker Highway between Risdon Road and Intercity Cycleway off-road (5 votes)

- New Town Road to Intercity Cycleway via Cross Street and Bay Road (4 votes)
- New Town Road / Augusta Road intersection improvements (3 votes)
- Cornelian Bay via Queens Walk (3 votes)
- Bromby Street between Intercity Cycleway and New Town Road signed route (3 votes)
- Creek Road off road path (3 votes)
- Cross Street / Pedder Street / Montagu Street / Valentine Street signed route (2 votes)
- Carlton Street between Augusta Road and Pedder Street (0 votes)
- Pirie Street between Cross Street and New Town Road (0 votes)
- Maypole Creek (behind Pizza Hut) off road (0 votes)
- Bell Street between Risdon Road and Bay Road signed route (0 votes)
- Junction and connectivity improvements, and additional width at New Town Road / Creek Road intersection

2.2.4 Moonah

Comments

- Brooker Highway south of Derwent Park Road – cyclist using footpath. Upgrade required.
- Better signage required to transit corridor from West Moonah.

Suggested Links

- Off-road link through Station Street car park – better link to Moonah Shops (traffic free zones?) (3 votes)
- Upgrade pedestrian link through Island Markets (Gormanston Road to Intercity Cycleway) for cyclists (3 votes)
- Hopkins Street between Bowen Road and Charles Street – connect high density area with Intercity Cycleway and transit corridor. On-road or signed route. (0 votes)
- Gormanston Road between basketball stadium and Albert Road, signed route, connect to Intercity Cycleway at Albert Road (0 votes)

2.2.5 Derwent Park

Comments

- Better signage on Main Road to link to Intercity Cycleway
- Consistency of treatments at level crossings (keep clear yellow grid) to also cover cycle crossings.
- Rail spur to Lutana – preference is grade separated at Derwent Park Road.

Suggested Links

- Derwent Park Road between Intercity Cycleway and Main Road. Use wide footpath for off-road link to Springfield Bus Depot Park and Ride (7 votes)

2.2.6 Glenorchy

Comments

- Peltro Street is preferred access to activity centre from Intercity Cycleway. General route improvements required
- Crossing over King George V Avenue needs improving
- Elwick Road / KGV Avenue / Intercity Cycleway / Main Road intersection "worst". Grade separation is expensive, too close together for traffic lights
- Drop-kerbs required at Cosgrove HS to help cyclists cross the road
- No signage at Eastern end of Montrose Bay Cycleway – also need improved crossing of Brooker Highway
- David Walsh project – link from MONA to Frying Pan Island to Montrose – elevated bridge

Suggested Links

- Humphries Rivulet as alternative off-road route to Tolosa Street (due to high volumes, narrow width) (11 votes)
- Anfield Street between Intercity Cycleway and Brooker Highway (6 votes)
- Link through Showgrounds to Renfrew Circle via Howard Road roundabout (3 votes)
- Barossa Creek between YMCA and Brooker Highway – signage and delineation and footpath, or realignment (2 votes)
  - Extension to Intercity Cycleway across private land (2 votes)
- Harold Street between Main Road and Intercity Cycleway (2 votes)
- Barossa Creek between Brent Street and Barry Street – currently a pedestrian path. Make full off-road cycle path and fill in gaps (0 votes)
- Peltro Street between Intercity Cycleway and Main Road (1 vote)
- Intercity Cycleway to YMCA off-road (1 vote)
- Dowsing Point army land – new off-road link between DEC and Goodwood Road / Bowen Bridge (0 votes)

2.2.7 Most popular suggested links

Each participant was asked to prioritise the identified missing cycle links using 10 coloured dots as votes. The following provides a summary of this exercise:

- Humphries Rivulet as alternative off-road route to Tolosa Street (due to high volumes, narrow width) (11 votes)
- Battery Point via Colville Street and Castray Esplanade – on road (off road between Finlay Street and CSIRO) in advance of Foreshore link proposal. May be suitable just to signpost route (10 votes)
- CBD to Glebe (University precinct) and Inter-city Cycleway – off road (9 votes)
- Clare Street (7 votes)
- Derwent Park Road between Intercity Cycleway and Main Road. Use wide footpath for off-road link to Springfield Bus Depot Park and Ride (7 votes)
- Anfield Street between Intercity Cycleway and Brooker Highway (6 votes)

- Collins Street contra-flow Elizabeth Street to Murray Street (5 votes)
- Commercial Road, including link to Burnett Street via Thomas Street (5 votes)
- St Georges Terrace, Sandy Bay Road to Colville Street (3 votes)
- Brooker Highway between Risdon Road and Intercity Cycleway off-road (5 votes)
- New Town Road to Intercity Cycleway via Cross Street and Bay Road (4 votes)
- New Town Road / Augusta Road intersection improvements (3 votes)
- Cornelian Bay via Queens Walk (3 votes)
- Bromby Street between Intercity Cycleway and New Town Road signed route (3 votes)
- Creek Road off road path (3 votes)
- Off-road link through Station Street car park – better link to Moonah Shops (traffic free zones?) (3 votes)
- Upgrade pedestrian link through Island Markets (Gormanston Road to Intercity Cycleway) for cyclists (3 votes)
- Link through Showgrounds to Renfrew Circle via Howard Road roundabout (3 votes)

2.3 Bicycle Parking

Participants were asked to identify any gaps in the existing bicycle parking supply along the length of the transit corridor. The following provides a summary of the findings.

2.3.1 Hobart CBD

- Need somewhere to park a bike, ready for 2nd leg of multi-leg journey (i.e. bus into CBD, then ride to final destination; then ride back to CBD and bus to home)
- Secure parking
  - Argyle Street car park
  - Franklin Square
- Non-secure parking
  - Elizabeth College

2.3.2 North Hobart

- Secure parking
  - Lefroy Street car park
  - Chickenfeed car park

2.3.3 New Town

- Secure Parking
  - Maypole
  - Creek Road

2.3.4 Moonah

- Secure Parking
  - Hopkins Street Car Park
  - Springfield Bus Depot (Park and Ride)

2.3.5 Glenorchy

- Secure Parking
  - Bus Mall / Council offices
- Non-secure Parking
  - Northgate
  - Car park at rear of Council

3. Investigation of Potential New Routes

3.1 New Route Identification

The workshop identified a number of potential new routes. In reviewing the suggestions with DIER, some of these were identified as being outside the scope of the Transit Corridor project, for example, the Hobart CBD to University of Tasmania (Sandy Bay Campus) while an important route does not directly link to the Transit Corridor. It has also since been the subject of a funding application under the Nation Building Program 2, and so was not considered further in this project.

The routes nominated for further investigation were, in approximate order from Hobart to Glenorchy:

1. Collins Street, between Elizabeth Street and Murray Street;
2. Bathurst Street, between Elizabeth Street and Murray Street;
3. Bathurst Street, West Hobart to CBD;
4. Warwick Street, West Hobart to Elizabeth Street;
5. Newdegate Street, between Mellifont Street and Elizabeth Street;
6. Burnett Street, between Murray Street and Campbell Street;
7. Argyle Street, north of Friends School;
8. Archer Street, between Argyle Street and New Town Road;
9. Strahan Street, between Elizabeth Street and Argyle Street;
10. Clare Street and Pedder Street, between Carlton Street and Augusta Road;
11. Cross Street and Bay Road, between New Town Road and Intercity Cycleway;
12. New Town Road / Augusta Road intersection;
13. Bromby Street, between New Town Road and Intercity Cycleway;
14. Creek Road, between Augusta Road and Main Road, and connection through St Johns Park;
15. Cross Street / Pedder Street / Montagu Street / Valentine Street, New Town;
16. Carlton Street, between Augusta Road and Pedder Street;
17. Pirie Street, between Cross Street and New Town Road;
18. Bell Street, between Risdon Road and Bay Road;
19. Station Street Car Park, between Intercity Cycleway and Moonah Shops;
20. Link through Island Markets between Gormanston Road and Intercity Cycleway;

21. Hopkins Street, between Bowen Road and Charles Street;
22. Derwent Park Road, between Intercity Cycleway and Main Road;
23. Humphries Rivulet, between Brent Street and Glenorchy CBD;
24. Anfield Street, between Intercity Cycleway and Brooker Highway;
25. Barossa Creek, between Intercity Cycleway and Brooker Highway;
26. Harold Street and Esmond Street, between Intercity Cycleway and Main Road;
27. Barossa Creek or Tolosa Street, between Vieste Drive and Barry Street; and
28. Peltro Street, between Intercity Cycleway and Main Road.

Notes taken during a site visit to each location are contained in Appendix B.

3.2 Principal Urban and Arterial Cycling Network Proposed Routes

As part of the workshop, some routes already listed under the Principal Urban and Arterial Cycling Networks as "proposed" were identified as potential new routes and as such are listed in Section 3.1. There are however other proposed routes that are similarly "proposed" but were not discussed further at the workshop. It is appropriate to include those routes which could support the Transit Corridor in the broader assessment of routes. These include:

1. Forster Street/Giblin Street, between Augusta Road and New Town Road;
2. Risdon Road, between New Town Road and Brooker Highway;
3. Augusta Road, between Giblin Street and New Town Road;
4. Federal Street, between Elizabeth Street and Argyle Street;
5. Springfield Avenue, between First Avenue and Main Road;
6. Derwent Park Road, between Intercity Cycleway and Brooker Highway;
7. Derwent Park Rail Spur, between Intercity Cycleway and Lutana; and
8. Hobart Showgrounds, between Intercity Cycleway and Goodwood.

3.3 Priority Assessment of Proposed Routes

Assessment of these proposed routes has been based on the same framework used by DIER to prioritise routes in the Principal Urban Cycling Network. This framework allocates points to each route based on an assessment of the following criteria:

- Journey Distance
- Population Density
- Destination Importance
- Existing Connectivity
- Existing Usage
- Terrain
- Congestion
- Perception of safety
- Links to Public Transport

- Proportion of Low Income Households

Note that criteria relating to Local Government priority and car ownership were omitted from this assessment.

The scoring of each of the route options, and the nominated importance, is shown in Appendix C.

From the range and distribution of scores estimated, each route was allocated as being of high, moderate or low strategic importance. This is a relative rating only, and does not necessarily imply a priority in the context of the development of a wider cycling network for metropolitan Hobart.

The routes nominated as being of high strategic importance for the Transit Corridor were (in order):

- Burnett Street between Argyle Street and Campbell Street
- Collins Street, between Elizabeth Street and Murray Street;
- Derwent Park Road, between Intercity Cycleway and Brooker Highway;
- Bathurst Street, West Hobart to CBD;
- Bathurst Street, between Elizabeth Street and Murray Street;
- Burnett Street, between Murray Street and Argyle Street;
- Tolosa Street, between Vieste Drive and Barry Street; and
- Derwent Park Road, between Intercity Cycleway and Main Road.

Routes nominated as being of low strategic importance included some of the on-street routes in suburban New Town.

A second filter level was applied to the assessment, assessing the strategic importance of the route against the ease with which a proposal could be introduced. This implementation priority framework is shown in Table 2. It includes provision for commencement of planning for routes of high strategic importance, where capital works are required and/or stakeholder resistance is expected.

Table 2 Establishing Implementation Priority

	Strategic Importance		
Ease of Implementation	High	Moderate	Low
No Obvious Obstacles	High	High	Medium
Obstacles Easily Overcome	High	Medium	Low
Minor capital works / resistance	Medium – Commence Planning	Medium	Low
Major capital works / resistance	Low – Commence Planning	Low	Low

On this basis, the high priority routes for implementation include:

- Bathurst Street, West Hobart to CBD (marked route with shared wide lane, bike lane or mixed traffic);
- Newdegate Street, between Mellifont Street and Elizabeth Street (marked route with shared wide lane or mixed traffic);

- Archer Street, between Argyle Street and New Town Road (marked route with shared wide lane);
- Strahan Street, between Elizabeth Street and Argyle Street (marked route with mixed traffic);
- Lefroy Street, between Elizabeth Street and Argyle Street (marked route with mixed traffic); and
- Tolosa Street, between Vieste Drive and Barry Street (marked route with shared wide lane, bike lane or mixed traffic).

It is acknowledged that Strahan Street and Lefroy Street are parallel streets less than 70m apart, and it may not be necessary to provide bicycle facilities on both. However subject to confirmation of the low implementation costs of the proposed treatments, there does not appear to be any significant reason not to implement both routes. Providing both will add to the accessibility of the North Hobart activity centre.

The assessment indicates that initial planning and/or preliminary design should be commenced on a number of routes including:

- Collins Street, between Elizabeth Street and Murray Street;
- Bathurst Street, between Elizabeth Street and Murray Street;
- Burnett Street between Argyle Street and Campbell Street
- Burnett Street, between Murray Street and Argyle Street
- Derwent Park Road, between Intercity Cycleway and Brooker Highway; and
- Derwent Park Road, between Intercity Cycleway and Main Road.

The planning process should include a more detailed assessment of any options or alternative routes that may be available, and include consultation with stakeholders where appropriate.

This implementation priority framework provides some guidance as to the treatment of parallel routes, and whether it may be appropriate to introduce one treatment as a preliminary measure, or to decide against a particular option. However this should not replace a more detailed investigation prior to a particular option being discarded.

The planning process may also identify opportunities to provide further connectivity between facilities, either via routes identified in this report, or others. In these cases these routes should be considered on their merits, as it may be appropriate to elevate the priority above what may be indicated by the assessment framework used in this report.

4. Bicycle Parking

Existing bicycle parking facilities along the transit corridor are limited in number and location, mainly comprising hoops in commercial / retail centres. A list of facilities was provided by Hobart and Glenorchy Councils, and each of these sites was reviewed as detailed in Appendix D. Private facilities at the Springfield Interchange and Moonah McDonalds were also identified and recorded.

Existing publicly-accessible bicycle parking facilities are summarised as:

- Hobart CBD – 11 hoops
- North Hobart – 8 hoops
- New Town (Cross Street) – 2 hoops

- Moonah – 5 hoops
- Springfield Interchange – 4 hoops
- Glenorchy CBD – 6 hoops

There are also long-term bicycle parking facilities in the Argyle Street car park in the Hobart CBD, although these are not directly on the transit corridor.

4.1 Potential Parking Infrastructure Upgrades / Opportunities

Short-term bicycle parking is most appropriately located within or very close to significant activity centres, and the existing distribution of hoops along the transit corridor generally follows this pattern. However there are currently limited short-term bicycle parking facilities at convenient locations in the Moonah shopping district (the 5 hoops identified above are located north of the core retail area, with 3 located within McDonalds alone).

Long-term bicycle parking is most appropriately located close to where people are spending extended periods of time, in particular centres of employment. For most of the transit corridor, bicycle parking is likely to be provided at individual workplaces. The major activity centres of Hobart, Moonah and Glenorchy are likely to be where there would be a concentration of demand for long-term bicycle parking. The employment density of each of these activity centres is as follows:

- Hobart CBD – 23,774 employees
- Moonah – 4,332 employees
- Glenorchy – 3,145 employees

Of these, only the Hobart CBD currently has publically available long-term secure bicycle parking facilities.

4.2 Recommendations

It is recommended that the following bicycle parking arrangements be investigated further, in consultation with Councils and private landowners as appropriate.

- Glenorchy CBD – long-term secure parking facility (e.g. cage), located close to bus mall and shopping centre;
- Moonah – short-term casual parking (e.g. hoops or rails) on Main Road between Hopkins Street and Albert Road; and
- North Hobart – additional short-term casual parking (e.g. hoops or rails).

Parking facilities should be located where they are readily visible to passing pedestrian activity, and accessible for cyclists. Short term bike parking, like short term spaces for cars, should be located as close as possible to destinations. Shelter from sun and rain is preferred.

A cage of the “Parkiteer” type (Bicycle Victoria) may be appropriate for Glenorchy, and other locations where a need for long-term bike parking is demonstrated.

5. Signage Strategy

DIER is currently developing a Cycle Route Directional Signage Resource Manual. This manual will provide guidance on the type and placement of directional signage on cycle routes and facilities. It is appropriate that any signage considered for the routes identified by this assessment reflect the principles and approach outlined by the Manual. It is important that

there be consistency as a cyclist rides along the network and from one part of the network to another.

In the context of the routes identified by this assessment, the following high-level recommendations are made regarding signage:

- All routes should have some type of signage provided;
- Direction should be given to cyclists at each significant decision point along a route, as well as reassurance where there is some distance between decision points;
- Identify primary and secondary destinations, for use as focal points; and
- Ensure consistency at an individual route and network level, with reference to DIER's Cycle Route Signage Resource Manual.

More detailed investigation is needed to confirm specific signage requirements for each of the nominated routes.

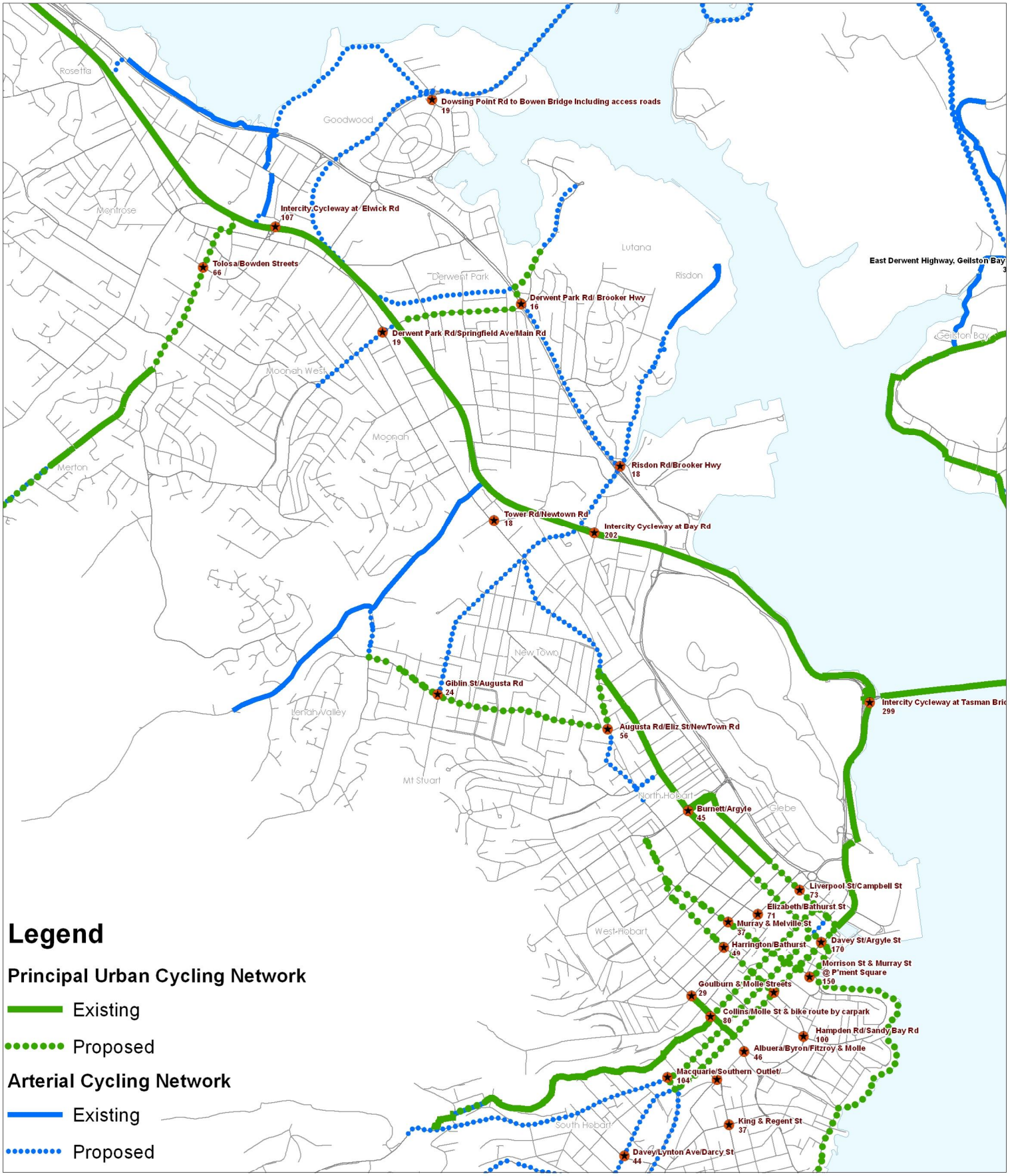
6. Next Steps

In order to progress the planning and implementation of the recommendations of this report, further consultation with stakeholders, including Councils and cycling groups, is required. The purpose of this consultation should be to confirm the assumptions that have contributed to the recommendation, and to commence identifying and exploring some of the issues that may need to be resolved as each project moves towards implementation (if appropriate). It is also important that the relative priority of these recommendations in the context of the greater Hobart cycling network is confirmed, to guide investment decisions and allocation of resources.

Further site investigation and design will be required to confirm the type of treatment that can be implemented in each situation, the expected costs involved and the range of potential impacts that could be expected. Depending on the treatment involved, statutory approval may be required.

Appendices

Appendix A - Existing and Proposed Network



Map Users Note:
* Bike counts are taken from Super Tuesday for a 90-120 minute period
Data Sources:
Super Tuesday Bicycle Commuter Survey, Hobart, Glenorchy, Clarence, Kingborough in Tasmania, 2010.
Principal Cycling Network (Draft), 2011, DIER
Hobart Arterial Bicycle Network, 2009, Cycling South Tasmania.

Map produced by Spatial Services Group, DIER

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Appendix B - Cycling Gap Analysis

Site Visit Notes

ID	1
Location / Description	Collins Street, between Elizabeth St and Murray St
Existing Infrastructure / Signage	None. Carriageway 8.2m wide (excluding kerb extensions)
Existing Deficiencies	No access for westbound cyclists
Options for addressing deficiencies	Dedicated lane – contra flow. Possible separation strip / island
Obstacles to Implementation of options	Narrow carriageway - parking on both sides of road, single lane for through traffic Kerb extensions
Catchment / Links Served	Cross-CBD (westbound)
Connectivity to other paths	No connection to existing paths. Completes westbound link using Collins Street (either side is suitable for on-street riding), which connects to Hobart Rivulet path at Molle Street.
Ease of access along route	Parking and driveway / laneway access High pedestrian activity area

ID	2
Location / Description	Bathurst Street between Elizabeth Street and Murray Street
Existing Infrastructure / Signage	None. Carriageway 12.3m wide (excluding kerb extensions) for 2 x parking plus 2 x traffic (expanding to 3 x traffic at Elizabeth St)
Existing Deficiencies	No access for westbound cyclists
Options for addressing deficiencies	Dedicated lane – contra flow. Possible separation strip / island
Obstacles to Implementation of options	Parking Kerb extensions (mid-block pedestrian crossing) Treatments at signalised intersections (Elizabeth Street, Murray Street)
Catchment / Links Served	Cross-CBD (westbound)
Connectivity to other paths	No connection to existing paths. Could connect to Bathurst Street route to West Hobart
Ease of access along route	Parking and driveway / laneway access

ID	3
Location / Description	Bathurst Street, west Hobart to CBD
Existing Infrastructure / Signage	None. Carriageway is 11.8m wide near Molle Street
Existing Deficiencies	No cycling infrastructure
Options for addressing deficiencies	Marked route (wide shared lane) Goulburn Street instead (west from Harrington Street) due to slightly better grades (follows old tram route)
Obstacles to Implementation of options	On-street parking
Catchment / Links Served	CBD to West Hobart
Connectivity to other paths	No direct connection to existing paths. Up-hill from end of Molle Street bike lane
Ease of access along route	Parallel parking on both sides of the road Steep grades at West Hobart end.

ID	4
Location / Description	Warwick Street, West Hobart to Elizabeth Street
Existing Infrastructure / Signage	None. Carriageway 11m wide.
Existing Deficiencies	No cycling infrastructure
Options for addressing deficiencies	Marked route (wide shared lane uphill and mixed traffic downhill)
Obstacles to Implementation of options	Parallel parking heavily utilised Carriageway too narrow for wide - shared lanes (in both directions)
Catchment / Links Served	West Hobart to Elizabeth Street (Elizabeth College)
Connectivity to other paths	No connection to existing paths.
Ease of access along route	Sustained up-grade (westbound) – ~10% Parallel parking both sides – fully occupied

ID	5
Location / Description	Newdegate Street between Mellifont Street and Elizabeth Street
Existing Infrastructure / Signage	None. Carriageway 11m wide
Existing Deficiencies	No cycling infrastructure
Options for addressing deficiencies	Marked route (wide shared lane or mixed traffic)
Obstacles to Implementation of options	Parallel parking heavily utilised Carriageway too narrow for wide - shared lanes (in both directions), but too wide for mixed traffic
Catchment / Links Served	West Hobart to North Hobart
Connectivity to other paths	No connection to existing paths. Connection to Argyle Street via proposed Strahan Street / Lefroy Street
Ease of access along route	Parallel parking Driveways / accesses Slight gradient – ~4%

ID	6
Location / Description	Burnett Street between Murray Street and Campbell Street
Existing Infrastructure / Signage	None
Existing Deficiencies	Missing link between Argyle Street and Campbell Street for southbound cyclists No connection between West Hobart and Argyle Street / Campbell Street lanes
Options for addressing deficiencies	Include dedicated lane on right hand side of Burnett St eastbound between Argyle and Campbell West Hobart to Argyle Street via Newdegate Street (avoid Elizabeth Street / Burnett Street intersection which is very crowded with limited space)
Obstacles to Implementation of options	7.9m carriageway for 2 traffic lanes plus marked cycle lane – constrained by light pole and tree in median
Catchment / Links Served	New Town / North Hobart to CBD
Connectivity to other paths	Connect Argyle Street and Campbell Street marked lanes
Ease of access along route	Downhill grade High traffic volumes

ID	7
Location / Description	Argyle Street north of Friends School
Existing Infrastructure / Signage	None. Separate northbound and southbound carriageways, on different levels (5.8m northbound, 6.6m soutbound) at crest of hill 12.3m carriageway at Boa Vista Rd
Existing Deficiencies	Argyle Street marked lanes terminate immediately south of this section of road
Options for addressing deficiencies	Continue dedicated lanes to New Town Road Marked route (wide shared lane) Include cycle lane at New Town Road signals (2-lane right turn is underutilised, and there is not really sufficient space on New Town Road for 2 lanes northbound)
Obstacles to Implementation of options	Parallel parking – very busy after school Bus stops Narrow carriageway
Catchment / Links Served	CBD to New Town via Argyle Street / Campbell Street lanes
Connectivity to other paths	Argyle Street marked lanes Archer Street proposal
Ease of access along route	Northbound has steep hill immediately north of current end of marked lane Parallel parking conflicts – high turnover with school, doctor, bus stops etc

ID	8
Location / Description	Archer Street between Argyle Street and New Town Road
Existing Infrastructure / Signage	None. Carriageway 13.2m wide
Existing Deficiencies	No cycling infrastructure
Options for addressing deficiencies	Marked route (shared wide lane)
Obstacles to Implementation of options	Parallel parking
Catchment / Links Served	Argyle Street to Augusta Road
Connectivity to other paths	Connect directly to proposed extension of Argyle Street marked lanes
Ease of access along route	Parallel parking conflicts

ID	9
Location / Description	Strahan Street
Existing Infrastructure / Signage	None. Carriageway 10.1m wide
Existing Deficiencies	No cycling infrastructure.
Options for addressing deficiencies	Marked route (mixed traffic) Alternative route via Lefroy Street (slightly narrower, but closer to midblock signals on Argyle Street, and also connects to potential bike parking area in council car park)
Obstacles to Implementation of options	Right turns to and from Argyle Street southbound bike lane
Catchment / Links Served	Argyle Street to North Hobart activity centre
Connectivity to other paths	Argyle Street marked lanes Newdegate St proposal
Ease of access along route	Parallel parking

ID	10
Location / Description	Clare Street
Existing Infrastructure / Signage	None. Carriageway width varies 10.9m to 12.5m. Split section has 8.1m width for two-way traffic, plus southbound service road.
Existing Deficiencies	No cycling infrastructure
Options for addressing deficiencies	Marked route (shared wide lane) Use Pedder Street (especially for northbound movement)
Obstacles to Implementation of options	Connection through Augusta Road / Elizabeth Street intersection Trees located in road median Service road
Catchment / Links Served	New Town to North Hobart, CBD
Connectivity to other paths	No connection to existing paths. Carlton Street proposal
Ease of access along route	Road narrows and parallel parking conflicts very high at Augusta Road end Potential squeeze point at split section, but volumes relatively low

ID	11
Location / Description	Cross Street and Bay Road between New Town Road and Intercity Cycleway
Existing Infrastructure / Signage	None. Carriageway 8.0m to 9.4m wide Mid-block pedestrian signals on New Town Road south of Cross Street Parking hoops at Cross Street / Valentine Street corner (café)
Existing Deficiencies	No cycling infrastructure Complex intersection at New Town Road / Cross Street (5 approaches, on bend, gradient, parking)
Options for addressing deficiencies	Marked route (mixed traffic) Northbound access via Roope Street (easier to turn right) – also easier to cross New Town Road Bay Street is more direct route between Intercity Cycleway and North Hobart
Obstacles to Implementation of options	Parallel parking on New Town Road Bus stop Staggered Ts at Roope Street intersection with New Town Road
Catchment / Links Served	Intercity Cycleway to New Town, North Hobart
Connectivity to other paths	Intercity Cycleway
Ease of access along route	Roundabout at Park Street Parallel parking conflicts (especially at New Town Road end)

ID	12
Location / Description	New Town Road / Augusta Road intersection
Existing Infrastructure / Signage	None.
Existing Deficiencies	No cycling infrastructure Complex intersection, high volumes
Options for addressing deficiencies	Bike “head start” for right turns from Augusta Road, along with existing pedestrian head start (only if southern crossing is used) Bike lane on northbound approach to signals (left through lane underutilised) – possibly shared bus / cycle
Obstacles to Implementation of options	Reduce traffic lanes at intersection
Catchment / Links Served	Lenah Valley / Mount Stuart / parts of New Town to North Hobart and Hobart CBD
Connectivity to other paths	No connection to existing paths. Clare Street proposal
Ease of access along route	High potential for conflict – Hill Street Grocer car park, right turn bays, buses etc

ID	13
Location / Description	Bromby Street
Existing Infrastructure / Signage	None
Existing Deficiencies	No cycling infrastructure
Options for addressing deficiencies	Marked route (shared wide lane)
Obstacles to Implementation of options	Parallel parking (including buses)
Catchment / Links Served	Intercity Cycleway to New Town Road Only connection on or off cycleway between Moonah and Bay Road
Connectivity to other paths	Intercity Cycleway
Ease of access along route	High conflict with pedestrians (New Town High), buses and parked cars after school and during events at Sports Stadium

ID	14
Location / Description	Creek Road
Existing Infrastructure / Signage	Carriageway 8.2m wide at eastern end (excluding gravel shoulder) Wide gravel shoulder Raised boardwalk
Existing Deficiencies	Inconsistent treatment along road No connection to Intercity Cycleway
Options for addressing deficiencies	Access to New Town Road through St Johns Park (and then Bromby Street to Intercity Cycleway) Wide kerbside lane (limited demand for parking away from Sports Centre)
Obstacles to Implementation of options	No direct route through St Johns Park (one way road system) Narrow road width Suitable treatment at New Town Road / Creek Road intersection
Catchment / Links Served	Lenah Valley to New Town Road
Connectivity to other paths	No connection to existing bike paths. Pedestrian boardwalk runs along creek from New Town Road behind New Town High (but not suitable for cyclists due to width, and stairs) New Town Rivulet track (unsealed, from northern end of Creek Road)
Ease of access along route	4% grade Higher vehicle speeds Limited adjacent development facing roadway (poor passive surveillance of route)
	

ID	15
Location / Description	Cross Street / Pedder Street / Montague Street / Valentine Street
Existing Infrastructure / Signage	None
Existing Deficiencies	No cycling infrastructure
Options for addressing deficiencies	Marked route (shared wide lanes, mixed traffic)
Obstacles to Implementation of options	Parallel parking Roundabouts
Catchment / Links Served	New Town local movement – Sacred Heart College, Woolworths, New Town Road shops
Connectivity to other paths	No connection to existing paths. Cross Street proposal
Ease of access along route	~11% grade in Valentine St and Cross Street, 5% in Montague St

ID	16
Location / Description	Carlton Street
Existing Infrastructure / Signage	Carriageway 6.1m wide on either side of median islands
Existing Deficiencies	No cycling infrastructure
Options for addressing deficiencies	Marked Route (shared wide lane)
Obstacles to Implementation of options	Trees in median Kerbside parking (especially around café and daycare centre at Baker St)
Catchment / Links Served	Lenah Valley Shops to New Town
Connectivity to other paths	No connection to existing paths. Clare Street proposal
Ease of access along route	5% average grade

ID	17
Location / Description	Pirie Street
Existing Infrastructure / Signage	Carriageway 6.5m wide near New Town Road (south); 5.8m wide near Cross Street
Existing Deficiencies	No cycling infrastructure
Options for addressing deficiencies	Marked Route (mixed traffic)
Obstacles to Implementation of options	Narrow carriageway Kerbside parking Speed humps Unprotected right turn from New Town Road on a bend
Catchment / Links Served	Intercity Cycleway to North Hobart via New Town
Connectivity to other paths	No connection to existing paths. Cross Street proposal
Ease of access along route	Steep grade (approx. 15%) at intersection with New Town Road. On street parking narrows road further.

ID	18
Location / Description	Bell Street
Existing Infrastructure / Signage	Carriageway approx. 10m wide
Existing Deficiencies	No cyclist infrastructure
Options for addressing deficiencies	Marked route (shared wide lane)
Obstacles to Implementation of options	Nil
Catchment / Links Served	Intercity cycleway to Risdon Road
Connectivity to other paths	Intercity Cycleway
Ease of access along route	9% grade roundabout and rail crossing to access cycleway

ID	19
Location / Description	Station Street link to Moonah Shops
Existing Infrastructure / Signage	Directional signage from Intercity Cycleway Public toilets in car park
Existing Deficiencies	No specific connection between Intercity Cycleway and Moonah Shops
Options for addressing deficiencies	Marked Route (Mixed Traffic) Shared path
Obstacles to Implementation of options	Car park layout – high kerbs, limited aisle connectivity
Catchment / Links Served	Intercity Cycleway to Moonah Shops
Connectivity to other paths	Intercity Cycleway
Ease of access along route	Conflict in car park

ID	20
Location / Description	Island Markets
Existing Infrastructure / Signage	None
Existing Deficiencies	No connection between Gormanston Road and Sunderland Street north of Hopkins Street
Options for addressing deficiencies	Marked route through Island Markets car park Improve access via Hopkins Street
Obstacles to Implementation of options	Private ownership of land
Catchment / Links Served	Moonah to Main Road industrial area
Connectivity to other paths	Intercity Cycleway at Sunderland St
Ease of access along route	Restricted sight lines within car park Conflict within car park

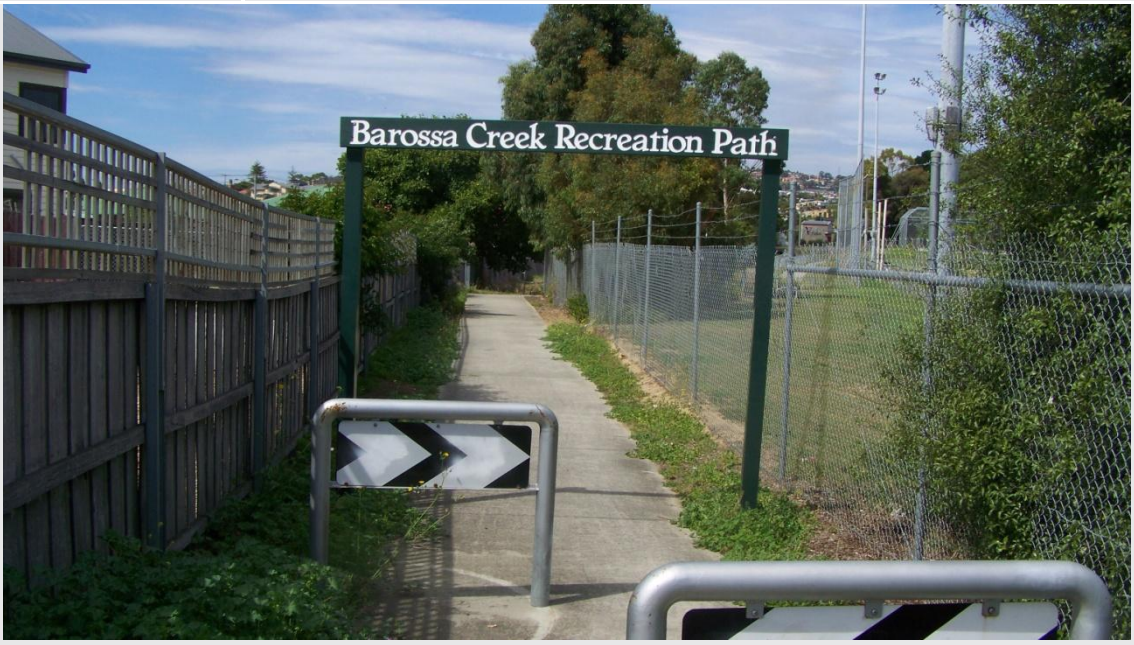
ID	21
Location / Description	Hopkins Street
Existing Infrastructure / Signage	None. Existing carriageway 10m wide
Existing Deficiencies	No cycling infrastructure
Options for addressing deficiencies	Marked route (mixed traffic or shared wide lane)
Obstacles to Implementation of options	On-street parking Carriageway too narrow for shared wide lane and parking, volumes and speeds likely too high for mixed traffic
Catchment / Links Served	Moonah East to Moonah Shops
Connectivity to other paths	Intercity Cycleway
Ease of access along route	Parking Driveways and accesses

ID	22
Location / Description	Derwent Park Road between Intercity Cycleway and Main Road
Existing Infrastructure / Signage	None. Footpath 4m wide (3.2 clear of obstructions)
Existing Deficiencies	No connection between Intercity Cycleway and Main Road
Options for addressing deficiencies	Shared path
Obstacles to Implementation of options	Footpath narrows significantly at Main Road intersection due to slip lane (both sides of Main Road). Uneven surface on footpath. Pedestrian crossings of slip lanes (cyclists must dismount)
Catchment / Links Served	Intercity Cycleway to Main Road / Springfield Park and Ride
Connectivity to other paths	Intercity Cycleway
Ease of access along route	Driveway conflicts Restricted sight lines around corner at slip lanes

ID	23
Location / Description	Humphreys Rivulet
Existing Infrastructure / Signage	None
Existing Deficiencies	No cycling infrastructure
Options for addressing deficiencies	Off-road shared path along rivulet Marked route via Tolosa St
Obstacles to Implementation of options	Path construction in rivulet corridor Flood risk Crossing (under) Main Road, then connection to Northgate and KGV Ave
Catchment / Links Served	Upper Chapel Street / Tolosa Street to Glenorchy
Connectivity to other paths	Existing path north of Brent Street
Ease of access along route	Low passive surveillance

ID	24
Location / Description	Anfield Street
Existing Infrastructure / Signage	Bike parking hoops at KGV Oval car park Existing carriageway 7m wide between Grove Road and Brooker Highway
Existing Deficiencies	No cycling connection between KGV and Brooker Highway
Options for addressing deficiencies	Marked route (mixed traffic)
Obstacles to Implementation of options	Access through KGV car park
Catchment / Links Served	Brooker Highway / DEC to Glenorchy / Intercity Cycleway
Connectivity to other paths	Intercity Cycleway Montrose Bay Cycleway via DEC signals
Ease of access along route	Flat, quiet streets Parking conflicts when football on at KGV Oval

ID	25
Location / Description	Barossa Creek between YMCA and Brooker Highway
Existing Infrastructure / Signage	Shared path between YMCA and Brooker Highway
Existing Deficiencies	Narrow path
Options for addressing deficiencies	Widen path Alternative route via Anfield St
Obstacles to Implementation of options	Width of reservation
Catchment / Links Served	DEC / Montrose Bay
Connectivity to other paths	Intercity Cycleway through YMCA car park Montrose Bay Cycleway via DEC signals
Ease of access along route	Limited forward sight distance Low passive surveillance



ID	26
Location / Description	Harold Street
Existing Infrastructure / Signage	None (no connection to cycleway)
Existing Deficiencies	No link between Intercity Cycleway and Main Road
Options for addressing deficiencies	Marked route Via Esmond Street uses existing connection to cycleway (see photo)
Obstacles to Implementation of options	Private ownership of land between cycleway and end of Harold St
Catchment / Links Served	Glenorchy
Connectivity to other paths	Intercity Cycleway
Ease of access along route	Difficult to cross Main Road

ID	27
Location / Description	Barossa Creek between Vieste Drive and Barry Street
Existing Infrastructure / Signage	Off-road path between Vieste Drive and Clydesdale Ave (1.5m constrained width), and between Bowden Street and Barry Street (through playground)
Existing Deficiencies	Missing link between Clydesdale Ave and Bowden St
Options for addressing deficiencies	Shared path along creek Marked route via Tolosa Street
Obstacles to Implementation of options	Private ownership of land Construction of path along creek alignment
Catchment / Links Served	West Moonah to Glenorchy
Connectivity to other paths	No connection to existing paths.
Ease of access along route	Flat. Limited passive surveillance.

ID	27a
Location / Description	Tolosa Street
Existing Infrastructure / Signage	None. Carriageway 9.4m wide
Existing Deficiencies	No cycling infrastructure
Options for addressing deficiencies	Marked route (wide kerbside lane – limited parking utilisation)
Obstacles to Implementation of options	On-street parking
Catchment / Links Served	Tolosa Street / Barossa Road to Glenorchy CBD
Connectivity to other paths	No connection to existing paths.
Ease of access along route	High traffic route

ID	28
Location / Description	Peltro Street
Existing Infrastructure / Signage	None. Carriageway 14.7m wide
Existing Deficiencies	No link between CBD and Intercity Cycleway Poor quality connection between Intercity Cycleway and KGV Ave
Options for addressing deficiencies	Marked route (mixed traffic) Cyclist crossing of KGV Ave
Obstacles to Implementation of options	Difference in ground level between cycleway and street Crossing from Cycleway to Peltro Street (reverse movement can go in same signal phase as pedestrian crossing)
Catchment / Links Served	Glenorchy CBD / Northgate
Connectivity to other paths	Intercity Cycleway
Ease of access along route	Kerbside parking and driveways

ID	29
Location / Description	Forster Street / Giblin Street
Existing Infrastructure / Signage	None
Existing Deficiencies	No cycling infrastructure
Options for addressing deficiencies	Marked route (wide kerbside lane – limited parking utilisation) Dedicated lane (especially uphill)
Obstacles to Implementation of options	On-street parking New Town Primary School
Catchment / Links Served	Lenah Valley to New Town
Connectivity to other paths	
Ease of access along route	11% grade in Giblin Street Heavy vehicle use to access brickworks.

ID	30
Location / Description	Risdon Road
Existing Infrastructure / Signage	None
Existing Deficiencies	No cycling infrastructure
Options for addressing deficiencies	Marked route (wide kerbside lane) Dedicated lane
Obstacles to Implementation of options	Complexity of intersection arrangements at Kmart access and New Town Road intersection
Catchment / Links Served	New Town to Cornelian Bay
Connectivity to other paths	Bell Street proposal
Ease of access along route	Flat grade Busy traffic activity Higher vehicle speeds (60km/hr)

ID	31
Location / Description	Augusta Road
Existing Infrastructure / Signage	None
Existing Deficiencies	No cycling infrastructure
Options for addressing deficiencies	Marked route (wide kerbside lane) Dedicated lane
Obstacles to Implementation of options	Kerbside parking Median turn lane and refuge islands create narrow lanes
Catchment / Links Served	Lenah Valley Calvary Hospital
Connectivity to other paths	Augusta Rd Intersection proposal
Ease of access along route	Higher traffic speeds (60km/h) and volumes

ID	32
Location / Description	Federal Street
Existing Infrastructure / Signage	None
Existing Deficiencies	No cycling infrastructure
Options for addressing deficiencies	Marked route (wide kerbside lane) Dedicated lane Use Commercial Road, Yardley Street and Thomas Street to avoid Elizabeth Street intersection
Obstacles to Implementation of options	On-street parking
Catchment / Links Served	Lenah Valley to Argyle Street lanes
Connectivity to other paths	Argyle Street lanes
Ease of access along route	Right turns into Argyle Street (inbound) and Elizabeth Street (outbound) High traffic volumes

ID	33
Location / Description	Springfield Avenue
Existing Infrastructure / Signage	None
Existing Deficiencies	No cycling infrastructure
Options for addressing deficiencies	Marked route (wide kerbside lane) Dedicated lane
Obstacles to Implementation of options	On-street parking
Catchment / Links Served	West Moonah to Springfield Park and Ride
Connectivity to other paths	Derwent Park Road proposals
Ease of access along route	Roundabout at Coleman Street Bus depot access Service station access

ID	34
Location / Description	Derwent Park Road between Intercity Cycleway and Brooker Highway
Existing Infrastructure / Signage	None
Existing Deficiencies	No cycling infrastructure
Options for addressing deficiencies	Marked lanes
Obstacles to Implementation of options	High traffic volumes Signalised intersections with turn slots Moonah Public School On-street parking
Catchment / Links Served	Lutana to Springfield Park and Ride / Intercity Cycleway
Connectivity to other paths	Intercity Cycleway Derwent Park Road proposal
Ease of access along route	Flat, but busy traffic volumes (including high truck activity)

ID	35
Location / Description	Derwent Park Rail Spur
Existing Infrastructure / Signage	Disused rail corridor
Existing Deficiencies	No cycling infrastructure
Options for addressing deficiencies	Shared path on rail alignment
Obstacles to Implementation of options	Ownership of corridor
Catchment / Links Served	Lutana, Derwent Park
Connectivity to other paths	Intercity Cycleway, existing bridge over Brooker Highway
Ease of access along route	Flat Limited passive surveillance

ID	36
Location / Description	Hobart Showgrounds
Existing Infrastructure / Signage	Unsealed roadway at rear of Showgrounds
Existing Deficiencies	No cycling infrastructure
Options for addressing deficiencies	Shared path Incorporate cycling infrastructure into Showground redevelopment
Obstacles to Implementation of options	Land ownership Access to corridor
Catchment / Links Served	
Connectivity to other paths	Intercity Cycleway
Ease of access along route	Flat Limited passive surveillance

Appendix C - Prioritisation Framework

Based on Principal Urban Cycling Network Assessment Framework

Scoring Matrix & Key (Legend)

Criteria	Description	Explanation/Commentary	Score	Importance	Weighting	Total	Bonus points
Journey Distance Origin to Destination	<5km	Research[1] indicates that cycling trips the average cycling transport trip is around 6.5km. Most transport cycling trips are less than 10km and 57% of cycling trips are less than 3.2km.	3	High	X3.5	10.5	NA
	5km-10km		2		X3	6	
	>10Km		0		NA	0	
Population Density on route.	>20 persons per ha	2006 Census data. Observation at origin and along route. High population density at origin or on route will score 'high'. Population of <4 persons/ha does not attract a score. = 0	3	High	X3	9	2 bonus points for areas with high future population growth predicted.
	11-19		2		X2.5	5	
	4-10		1		X2	2	
Importance of Destination/s on route.	Primary - Hobart	Classifies Activity Centres in accordance with Southern Integrated Land Use Planning Background Report No 11. Activity Centres. May 2011. Uses the above and the Greater Hobart Household Travel Survey. Dec 2010 as a reference in terms of journey destinations. Takes into account the employment self sufficiency index for the LGAs Routes with multiple destinations along their length score additional bonus points.	5	High	X2.5	12.5	+2 for additional Activity Centres on route (above local shopping strip) +3 for TAFE, College or Uni (3 for first one and 1 for each additional campus of same inst) +1 for school/s (one for each additional up to max of 3) + 2 for hospitals and large worksites outside activity centres. + 3 for major tourist attractions +2 for recreational attractions
	Principal – Rosny Park, Glenorchy, Kingston		4		X2	8	
	Major – Moonah, Shoreline, Bridgewater		3		X1.5	4.5	
	Neighbourhood/Rural - Brighton, Claremont, Newtown, SBay, Lindisfarne, Blackman's bay		2		-	2	
	Local Shopping Strip - Lenah Valley, W Hobart, Lower SBay, Howrah		1		-	1	
Connectivity to existing cycling infrastructure	Good – direct connection to quality infrastructure built to standard	Research[2,3] indicates that the solutions likely to effect a significant change in the numbers of people cycling for transport are related to the nature and consistency of infrastructure, along with education of motor vehicle drivers and cyclists about how to safely use it. Separate cycle only paths are seen as being most useful in facilitating mode shift, but some level of separation is seen as being better than no separation.	3	Moderate	X2	6	NA
	Partial – incomplete connection or connection to infrastructure that is sub-optimal		2		-	2	
	Nil		0			0	
Super Tuesday Bike Counts expressed as an average on link (approx).	>70 riders counted	Super Tuesday Bike counts are an indication of user demand, however it is not a very reliable measure. Counts are only conducted in selected locations (high user demand and where infrastructure is provided); and only measure cycle traffic in a short morning 'peak'. Counts tend to reflect the fact that people are more likely to cycle where infrastructure is provided so generally the higher counts are on cycleways/separated paths.	2	Moderate	X2.5	5	NA
	20-70		1		X2	2	
	<20		0		-	0	
Terrain	Flat	Hilly terrain is a barrier to transport cycling[4].	3	High	X3	9	NA
	Moderate		2		X2	4	
	Hilly		0		-	0	
Congestion on route or parallel route between origin and destination. Congestion avoidance measure	High	Greater Hobart Congestion Report July 2011 indicates that the Brooker Highway experiences the greatest delays and slowest travel speeds. Other areas anecdotally identified as experiencing congestion are: Tasman Highway from the Tasman Bridge approaches to Davey St; Channel Hwy (Summerleas and Algona Roundabouts – addressed via bypass); and Macquarie/Davey intersections.	3	High	X3	9	
	Moderate		2		X2	4	
	Low		0		-	0	

[1] *Walking and Cycling International Literature Review Final Report 2009* (K Krizek and A Forsyth & L Baum) Prepared for Dept of Transport Victoria p11
[2] Op sit p29
[3] *Assessment of the type of cycling infrastructure required to attract new cyclists* 2011 NZ Transport Agency Research Report 449 p120
[4] *I'll just take the car – improving bicycle transportation to encourage its use on short trips'* February 2011, NZ Transport Agency Research Report 426 p 69

		Road segments experiencing LOS D include Brooker between Berriedale Rd & Burnett St; Domain Highway (Brooker to Tasman); Tasman Highway (Bridge to Brooker Ave); Channel Highway (Sandfly to Kingston Interchange); Midland Hwy (Pontville to Brooker Hwy); South Arm Hwy (Rokeby to Shoreline)					
Perception of how busy/safe the route is currently	Busy	This criteria focuses on how cyclists might currently experience the route. Research indicates that one of the biggest factors influencing people's willingness to use bikes for transport is safety. If a route is considered busy or unsafe there are barriers to cycling on it.	3	High	X3	9	
	Moderate		2		X2.5	5	
	Quiet		0		-	0	
Links to passenger transport	Yes	Research[5] indicates that people will cycle around 3km to link to public transport. Currently in Tasmania there is little evidence that this split-mode is popular (car-cycle is anecdotally more prevalent). There are currently few facilities to support this cycle-PT mode split. *Where the PT link is in the Principal Activity Centre, It is more difficult to evaluate the potential for mode splitting	2	Moderate	X3	6	
	Yes but in Principal Activity Centre				-	3*	
	No				-	-	
Priority of route in local government bicycle strategies/plans or similar	High priority	Measure of local Government commitment to/community support for realising infrastructure on the route	3	High	X3	9	
	Identified formally or otherwise		2		X2.5	5	
	No						
Car Ownership: Proportion of Nil Car Households on route	High Proportion of Nil Car Households	2006 Census data. Whilst provision of cycling infrastructure provides a low cost transport option for those without motor cars, this is not considered to be a good indicator of potential for mode shift, particularly if the distance from services is great; terrain is hilly or people have disabilities or illnesses that prevent them from either driving or cycling	2	Low	-	2	
Income: proportion of low income households on route	Low income	2006 Census data. Low income defined as the lowest quintile. Whilst cycling infrastructure may provide low cost transport options, it is of little use to those living far from services, or are frail aged or have a disability or illness – factors that are likely to be correlated with low income.	2	Low	-	2	

[5] *Forecasting the Benefits from integrating cycling and public transport,* (Ensor, M and Slason J) March 2011IPENZ Transportation Group Conference

ID	Location	Journey Distance		Population Density		Destination Importance		Existing Connectivity		Count		Terrain		Congestion		Perception of safety		Link to PT	
		Score	*Weight*	Score	*Weight*	Score	*Weight*	Score	*Weight*	Score	*Weight*	Score	*Weight*	Score	*Weight*	Score	*Weight*	Score	*Weight*
1	Collins St	3	*3.5*	1	*2*	5	*2.5*	0		1	*2*	3	*3*	3	*3*	3	*3*	3	*1*
2	Bathurst St	3	*3.5*	1	*2*	5	*2.5*	0		1	*2*	2	*2*	3	*3*	3	*3*	3	*1*
3	Bathurst St	3	*3.5*	3	*3*	5	*2.5*	0		0	*0*	2	*2*	2	*2*	3	*3*	3	*1*
4	Warwick St	3	*3.5*	3	*3*	2	*1*	0		0	*0*	0	*0*	0	*0*	0		2	*3*
5	Newdegate St	3	*3.5*	3	*3*	3	*1.5*	0		0	*0*	3	*3*	0	*0*	0		2	*3*
6	Burnett St between Argyle St and Campbell St	3	*3.5*	3	*3*	5	*2.5*	3	*2*	1	*2*	2	*2*	3	*3*	3	*3*		
6	Burnett St between Murray St and Argyle St	3	*3.5*	3	*3*	3	*1.5*	3	*2*	0	*0*	2	*2*	3	*3*	3	*3*		
7	Argyle St	3	*3.5*	3	*3*	5	*2.5*	3	*2*	0	*0*	2	*2*	2	*2*	0			
8	Archer St	3	*3.5*	3	*3*	2	*1*	3	*2*	0	*0*	3	*3*	0	*0*	0		2	*3*
9	Strahan St	3	*3.5*	3	*3*	3	*1.5*	3	*2*	0	*0*	3	*3*	0	*0*	0		2	*3*
9	Lefroy St	3	*3.5*	3	*3*	3	*1.5*	3	*2*	0	*0*	3	*3*	0	*0*	0		2	*3*
10	Clare St	3	*3.5*	3	*3*	2	*1*	0		0	*0*	3	*3*	0	*0*	0		2	*3*
11	Cross St	3	*3.5*	3	*3*	2	*1*	0		0	*0*	3	*3*	0	*0*	0		2	*3*
11	Bay Road	3	*3.5*	3	*3*	2	*1*	3	*2*	0	*0*	3	*3*	0	*0*	0		2	*3*
12	Augusta Rd intersection	3	*3.5*	3	*3*	2	*1*	0		1	*2*	3	*3*	2	*2*	2	*2.5*		
13	Bromby St	3	*3.5*	2	*2.5*	2	*1*	3	*2*	0	*0*	3	*3*	0	*0*	0			
14	Creek Rd	3	*3.5*	2	*2.5*	1	*1*	2	*1*	0	*0*	2	*2*	0	*0*	0		2	*3*
14	Connection through St Johns Park	3	*3.5*	2	*2.5*	1	*1*	0		0	*0*	3	*3*	0	*0*	0		2	*3*
15	Cross St / Valentine St / Montagu St / Pedder St	3	*3.5*	3	*3*	2	*1*	0		0	*0*	2	*2*	0	*0*	0			
16	Carlton St	3	*3.5*	3	*3*	1	*1*	0		0	*0*	2	*2*	0	*0*	0		2	*3*
17	Pirie St	3	*3.5*	3	*3*	2	*1*	0		0	*0*	3	*3*	0	*0*	0			
18	Bell St	3	*3.5*	3	*3*	1	*1*	3	*2*	0	*0*	2	*2*	0	*0*	0			
19	Station St Car park	3	*3.5*	2	*2.5*	3	*1.5*	3	*2*	0	*0*	3	*3*	0	*0*	0			
20	Island Markets	3	*3.5*	1	*2*	3	*1.5*	3	*2*	0	*0*	3	*3*	0	*0*	0			
21	Hopkins St	3	*3.5*	2	*2.5*	3	*1.5*	3	*2*	0	*0*	3	*3*	0	*0*	0		2	*3*
22	Derwent Park Rd	3	*3.5*	1	*2*	2	*1*	3	*2*	0	*0*	3	*3*	2	*2*	3	*3*	2	*3*
23	Humphreys Rivulet	3	*3.5*	2	*2.5*	4	*2*	2	*1*	0	*0*	3	*3*	0	*0*	0		3	*1*
24	Anfield St	3	*3.5*	2	*2.5*	4	*2*	3	*2*	0	*0*	3	*3*	0	*0*	0		3	*1*
25	Barossa Creek east	3	*3.5*	2	*2.5*	4	*2*	3	*2*	0	*0*	3	*3*	0	*0*	0		3	*1*
26	Harold St	3	*3.5*	2	*2.5*	1	*1*	3	*2*	0	*0*	3	*3*	0	*0*	0			
26	Esmond St	3	*3.5*	2	*2.5*	1	*1*	3	*2*	0	*0*	3	*3*	0	*0*	0			
27	Barossa Creek West	3	*3.5*	3	*3*	4	*2*	2	*1*	0	*0*	3	*3*	0	*0*	0		3	*1*
27	Tolosa St	3	*3.5*	2	*2.5*	4	*2*	0		1	*2*	3	*3*	2	*2*	2	*2.5*	3	*1*
28	Peltro St	3	*3.5*	1	*2*	4	*2*	3	*2*	0	*0*	3	*3*	0	*0*	2	*2.5*	3	*1*
29	Forster Street / Giblin Street	3	*3.5*	3	*3*	3	*1.5*	0		0	*0*	2	*2*	0	*0*	0		2	*3*
30	Risdon Road	3	*3.5*	3	*3*	2	*1*	0		0	*0*	3	*3*	2	*2*	2	*2.5*	2	*3*
31	Augusta Road	3	*3.5*	3	*3*	3	*1.5*	0		1	*2*	2	*2*	0	*0*	0		2	*3*
32	Federal Street	3	*3.5*	3	*3*	3	*1.5*	2	*1*	1	*2*	2	*2*	0	*0*	2	*2.5*	2	*3*
33	Springfield Ave	3	*3.5*	3	*3*	2	*1*	0		0	*0*	2	*2*	0	*0*	2	*2.5*	2	*3*
34	Derwent Park Rd	3	*3.5*	1	*2*	3	*1.5*	3	*2*	0	*0*	3	*3*	2	*2*	3	*3*	2	*3*
35	Derwent Park Rail Spur	3	*3.5*	1	*2*	1	*1*	3	*2*	0	*0*	3	*3*	2	*2*	0		2	*3*
36	Hobart Showgrounds	3	*3.5*	1	*2*	3	*1.5*	3	*2*	0	*0*	3	*3*	2	*2*	0		2	*3*

Colours indicate parallel routes

Low	11
Medium	19
High	6

ID	Location	Income Score	Income *Weight*	Score	Rank	Treatment Type	Ease of Implementation	Strategic Importance	Staging Priority
1	Collins St			57	2	Contra-flow lane	Major capital works / resistance	High Importance	Low - Commence Planning
2	Bathurst St			52	4	Contra-flow lane	Major capital works / resistance	High Importance	Low - Commence Planning
3	Bathurst St			52	4	Marked Route	Obstacles Easily Overcome	High Importance	High
4	Warwick St			27.5	*41*	Marked Route	Obstacles Easily Overcome	Low Importance	Low
5	Newdegate St			39	25	Marked Route	No Obvious Obstacles	Moderate Importance	High
6	Burnett St between Argyle St and Campbell St			62	1	Dedicated Lane	Minor capital works / resistance	High Importance	Medium - Commence Planning
6	Burnett St between Murray St and Argyle St			52	4	Dedicated Lane	Major capital works / resistance	High Importance	Low - Commence Planning
7	Argyle St			46	9	Dedicated Lane	Minor capital works / resistance	Moderate Importance	Medium
8	Archer St			42.5	19	Marked Route	No Obvious Obstacles	Moderate Importance	High
9	Strahan St			45	11	Marked Route	No Obvious Obstacles	Moderate Importance	High
9	Lefroy St			45	11	Marked Route	No Obvious Obstacles	Moderate Importance	High
10	Clare St			36.5	27	Marked Route	Obstacles Easily Overcome	Moderate Importance	Medium
11	Cross St			36.5	27	Marked Route	Obstacles Easily Overcome	Moderate Importance	Medium
11	Bay Road			42.5	19	Marked Route	Obstacles Easily Overcome	Moderate Importance	Medium
12	Augusta Rd intersection			41.5	21	Dedicated Lane	Minor capital works / resistance	Moderate Importance	Medium
13	Bromby St			32.5	*34*	Marked Route	No Obvious Obstacles	Low Importance	Medium
14	Creek Rd			28.5	*40*	Marked Route	Minor capital works / resistance	Low Importance	Low
14	Connection through St Johns Park			31.5	*36*	Marked Route	Minor capital works / resistance	Low Importance	Low
15	Cross St / Valentine St / Montagu St / Pedder St			25.5	*42*	Marked Route	No Obvious Obstacles	Low Importance	Medium
16	Carlton St			30.5	*37*	Marked Route	Obstacles Easily Overcome	Low Importance	Low
17	Pirie St			30.5	*37*	Marked Route	No Obvious Obstacles	Low Importance	Medium
18	Bell St			30.5	*37*	Marked Route	No Obvious Obstacles	Low Importance	Medium
19	Station St Car park			35	30	Marked Route	Minor capital works / resistance	Low Importance	Low
20	Island Markets			32	*35*	Shared Path	Minor capital works / resistance	Low Importance	Low
21	Hopkins St			41	22	Marked Route	Obstacles Easily Overcome	Moderate Importance	Medium
22	Derwent Park Rd			48.5	7	Shared Path	Major capital works / resistance	High Importance	Low - Commence Planning
23	Humphreys Rivulet	2	*1*	39.5	24	Shared Path	Major capital works / resistance	Moderate Importance	Low
24	Anfield St	2	*1*	43.5	14	Marked Route	Obstacles Easily Overcome	Moderate Importance	Medium
25	Barossa Creek east	2	*1*	43.5	14	Shared Path	Minor capital works / resistance	Moderate Importance	Medium
26	Harold St	2	*1*	33.5	*32*	Marked Route	Major capital works / resistance	Low Importance	Low
26	Esmond St	2	*1*	33.5	*32*	Marked Route	No Obvious Obstacles	Low Importance	Medium
27	Barossa Creek West	2	*1*	43.5	14	Shared Path	Major capital works / resistance	Moderate Importance	Low
27	Tolosa St	2	*1*	48.5	7	Marked Route	Obstacles Easily Overcome	High Importance	High
28	Peltro St			43.5	14	Marked Route	Obstacles Easily Overcome	Moderate Importance	Medium
29	Forster Street / Giblin Street			34	*31*	Dedicated Lane	Minor capital works / resistance	Low Importance	Low
30	Risdon Road			45.5	10	Dedicated Lane	Minor capital works / resistance	Moderate Importance	Medium
31	Augusta Road			36	29	Dedicated Lane	Minor capital works / resistance	Moderate Importance	Medium
32	Federal Street			43	18	Dedicated Lane	Minor capital works / resistance	Moderate Importance	Medium
33	Springfield Ave	2	*1*	38.5	26	Marked Route	Obstacles Easily Overcome	Moderate Importance	Medium
34	Derwent Park Rd	2	*1*	53	3	Dedicated Lane	Minor capital works / resistance	High Importance	Medium - Commence Planning
35	Derwent Park Rail Spur	2	*1*	40.5	23	Shared Path	Major capital works / resistance	Moderate Importance	Low
36	Hobart Showgrounds	2	*1*	44	13	Shared Path	Minor capital works / resistance	Moderate Importance	Medium

Colours indicate parallel routes

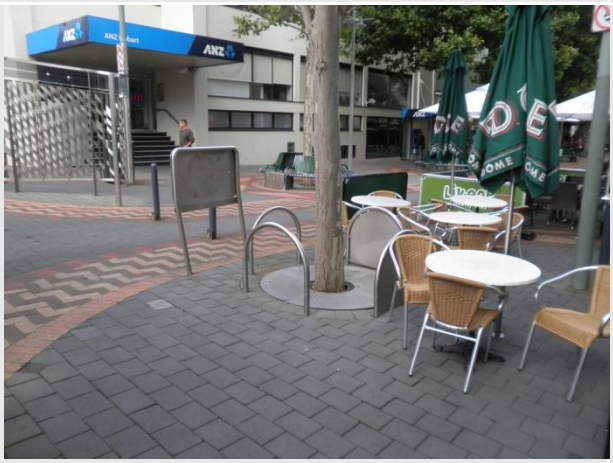
Score Range	Strategic Importance
>57	High Importance
36-48	Moderate Importance
<36	Low Importance

	Strategic Importance		
Ease of Implementation	High Importance	Moderate Importance	Low Importance
No Obvious Obstacles	High	High	Medium
Obstacles Easily Overcome	High	Medium	Low
Minor capital works / resistance	Medium - Commence Planning	Medium	Low
Major capital works / resistance	Low - Commence Planning	Low	Low

Appendix D – Bicycle Parking Facilities

Site Visit Notes

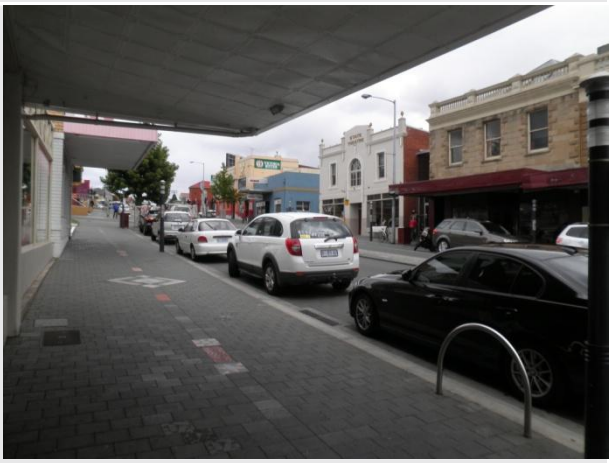
ID	1
Location	Corner Elizabeth Street / Collins Street (southern end of pedestrian mall)
Number of spaces	4 hoops
Type (short / long term)	Short-term, casual use
Level of security	Low
Connectivity to surrounds (cycle paths etc)	On-street riding



ID	2
Location	Corner Elizabeth Street / Liverpool Street (northern end of pedestrian mall)
Number of spaces	4 hoops
Type (short / long term)	Short-term, casual use
Level of security	Low
Connectivity to surrounds (cycle paths etc)	On-street riding

ID	3
Location	146 Elizabeth Street (outside Arts Tasmania)
Number of spaces	3 bike hub characters
Type (short / long term)	Short-term, casual use
Level of security	Low
Connectivity to surrounds (cycle paths etc)	On-street riding

ID	4
Location	Elizabeth Street, North Hobart (southern end) outside no. 350 (Subway) outside no. 321 (Anatolia) outside no. 325 (Fusion Hairdressing) outside no. 333 (Solicit)
Number of spaces	1 hoop at each location
Type (short / long term)	Short-term, casual use
Level of security	Low
Connectivity to surrounds (cycle paths etc)	On-street riding
	

ID	5
Location	Elizabeth Street, North Hobart (northern end) outside no. 408 (doctors surgery) outside no. 375 (State Cinema) outside no. 379 (Unions Tasmania) outside no. 412 (Post Office)
Number of spaces	1 hoop at each location
Type (short / long term)	Short-term, casual use
Level of security	Low
Connectivity to surrounds (cycle paths etc)	On-street riding
	

ID	6
Location	Corner New Town Road / Cross Street
Number of spaces	2 hoops
Type (short / long term)	Short-term, casual use
Level of security	Low
Connectivity to surrounds (cycle paths etc)	On-street riding

ID	7
Location	120 Main Road, Moonah (outside NAB)
Number of spaces	2 hoops
Type (short / long term)	Short-term, casual use
Level of security	Low
Connectivity to surrounds (cycle paths etc)	On-street riding

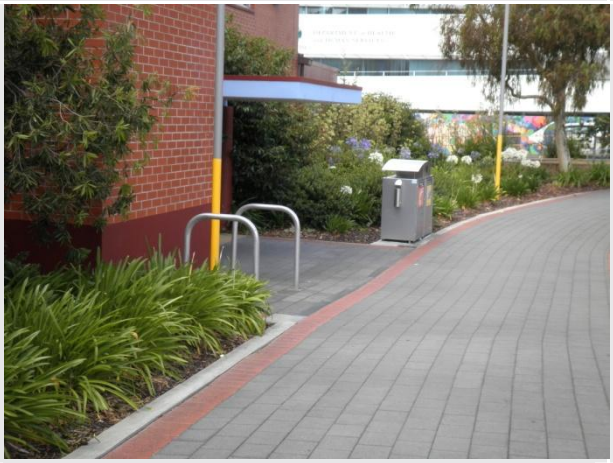
ID	8
Location	184-190 Main Road, Moonah (McDonalds)
Number of spaces	3 hoops
Type (short / long term)	Short-term, casual use
Level of security	Low
Connectivity to surrounds (cycle paths etc)	On-street riding
	

ID	9
Location	Within Springfield Interchange
Number of spaces	4 hoops
Type (short / long term)	Short-term, casual use
Level of security	Medium (outside Metro offices)
Connectivity to surrounds (cycle paths etc)	On-street riding
	

ID	10
Location	Glenorchy, outside Post Office
Number of spaces	2 hoops
Type (short / long term)	Short-term, casual use
Level of security	Low
Connectivity to surrounds (cycle paths etc)	On-street riding

ID	11
Location	Corner Main Road and Tolosa Street, Glenorchy (outside church)
Number of spaces	2 hoops
Type (short / long term)	Short-term, casual use
Level of security	Low
Connectivity to surrounds (cycle paths etc)	On-street riding

ID	12
Location	Glenorchy, behind Council offices
Number of spaces	2 hoops
Type (short / long term)	Short-term, casual use
Level of security	Low
Connectivity to surrounds (cycle paths etc)	On-street riding



GHD

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

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