End-of-trip facilities for bicycle riders

Purpose

This note seeks to show why quality end-of-trip facilities are important, illustrate ways to encourage their development and explain how to stimulate use of these facilities.

Introduction

The need to develop secure bicycle parking and explanations of the most suitable types are discussed in Cycle Note C3 – *Bicycle parking facilities*. This note instead seeks to explain the benefits to be gained by providing end-of-trip facilities for cyclists, discusses some of the issues involving these facilities and suggests ways to encourage their use. Given the importance of end-of-trip facilities for commuter cyclists, there is a particular emphasis on workplace end-of-trip facilities. Provision of end-of-trip facilities (e.g. secure parking) at transport hubs is discussed in Cycle Note C6 – *Cycling and public transport*.

Aim

This series of notes aims to assist planners and engineers to provide for cycling in their local area.

The Cycle Notes should be read in conjunction with:

- Guide to Traffic Engineering Practice, Part 14 – Bicycles (Austroads, 1999)
- Queensland Manual of Uniform Traffic Control Devices, Part 9 Bicycle Facilities
- Road Planning and Design Manual (Queensland Department of Main Roads).
- QTIPS No. 2 - *Queensland Transport's Cycling Interest in Planning Schemes*

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Benefits of providing end-of-trip facilities

Cycling can help a workplace or other organisation be more productive and healthy, while demonstrating support for the environment. The benefits for employers, schools, universities and other organisations who provide best-practice end-of-trip facilities include:

- a healthier, happier workforce or student body
- higher productivity and better attitudes towards work
- reductions in absenteeism
- reduced car parking demands and associated costs
- reduced work/study time lost from traffic congestion
- an improved environmental and healthy image for the organisation.

The sedentary lifestyle of many Australians is associated with an increased risk of diabetes, cardiovascular disease and certain mental illnesses and cancers. Workplace fitness programs (including those that support cycling to work) have been shown to increase staff productivity and work enjoyment while improving employee health.

When many workplaces and other organisations in a local government area provide quality end-of-trip facilities, they can significantly increase returns on public investments in on-road and off-road bicycle facilities. Areas with a high proportion of commuter cyclists also have reduced car parking demands, reduced traffic congestion and improved community health.

End-of-trip facilities

Cycle parking

To determine the number of bicycles that should be catered for in an end-of-trip facility (e.g. number of bicycle parks), reference should be made to *Austroads Part 14* – Table 10.1: *Bicycle Parking – Provision for Planning Purposes*.

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Beyond bicycle parking

There are a number of additional issues that should be considered beyond safe and secure bicycle parking including the provision of:

1. shower facilities
2. changing rooms
3. safe and convenient access
4. lockers, and
5. a range of useful additional items.

Facilities suggested for differing locations are shown in Table 1.

Table 1: End-of-trip facilities recommended for various locations

Cyclist facilities	Safe Access	Bicycle parking for staff	Bicycle parking for visitors	Toilets	Showers	Lockers	Courtesy equipment*	Repair equipment**	Drinking water	Home delivery service
Workplace	✓	✓		✓	✓	✓	✓	✓	✓	
School	✓	✓				✓			✓	
University	✓	✓	✓	✓	✓	✓	✓		✓	
Shopping Centre, business centre, customer service centre etc	✓		✓	✓						✓

* Courtesy equipment may include a basin and mirror, benches, hairdryers, iron and ironing board, washing machine and dryer, towel service, clothing hooks, fan, power point for bicycle light recharging or other convenience item.

** Repair equipment refers to items such as a foot pump, tyre levers and puncture repair kit.

Access

The provision of safe and convenient access for cyclists is particularly important when considering end-of-trip facilities (Figure 1). Access to and from bicycle parking is a key concern for regular commuters, students and shoppers.

End-of-trip facility design should consider the following issues:

- **location** – it is preferable to place bicycle parking facilities in locations that allow a bicycle to be ridden to within 30 metres of the end-of-trip facility and also allow convenient access to showers and other end-of-trip facilities. Design of locations should also provide convenient and safe access from surrounding bicycle routes and main entry points.
- **access point** – the safest route that users access bicycle parking locations should be delineated and signed where necessary. Access to facilities may be via car parks, loading bays, pedestrian entries, internal elevators or other access points depending on the nature of the site.
- **route design** – it is important to ensure access routes are designed to meet the needs of cyclists including:
  - sufficient overhead clearance for mounted bicycle riders (who are taller than pedestrians and most motor vehicles)
  - avoiding steep ramps, speed humps, channelling, drainage grates or other hazards that are not suitable for traversing by bicycle riders
  - appropriate levels of surveillance and lighting
  - no interference with emergency access, loading bays or other infrastructure
  - avoidance of causing any hazard to pedestrians.

- **access policy** – many organisations will need to develop a policy on access to and use of end-of-trip facilities. A policy will generally cover the use of designated routes to access bicycle parking facilities, use of bicycle parking, appropriate bicycle user behaviour and perhaps also the use of showers, lockers and other items. A policy developed in conjunction with bicycle riders and other stakeholders (e.g. pedestrians sharing the same access) will both encourage use and improve ongoing maintenance of the facilities provided for them.

Figure 1: Accessing bicycle parking facilities via internal building lift - Brisbane Administrative Centre, Brisbane City Coucil

Changing rooms and shower facilities

In the Queensland climate, providing changing rooms and shower facilities can encourage people to ride longer distances to work, university or other destinations. These facilities also benefit people other than cyclists. This includes persons who are pursuing other physical fitness activities such as walking, running or in-the-workplace fitness activities (Figure 2).

The following are the characteristics of best-practice design of changing room and shower facilities:

- **Location** – changing rooms and showers should be conveniently located close to bicycle parking facilities or major building entrances.
- **Segregation** – separate, individual shower facilities for males and females are preferred. Unisex design of shower facilities may allow for greater accessibility.
- **Safety and security** – well-designed facilities have non-slip surfaces, hooks and/or benches to keep belongings off the floor, adequate lighting and ventilation and are included in regular cleaning and maintenance programs. It is preferable for facilities to be lockable and they should not be easily accessed by persons who do not work in the building.
- **Availability** – Table 2 below represents Bikewest WA's advice on the number of showers required per number of employees. This is a useful guide for buildings looking to retrofit suitable facilities. Queensland Transport's *State Interest in Planning Schemes* (QTIPS) found on the Queensland Transport website www.transport.qld.gov.au provides information on suitable end-of-trip facilities for new developments.

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Table 2: Bikewest WA suggestions for minimum number of showers

Total No of Staff	Minimum Shower Requirements
0-19	One (1) shower
20-49	Two (2) showers, 1 male and 1 female in separate change rooms
50-149	Four (4) showers, 2 male and 2 female in separate change rooms
150-299	Six (6) showers, 3 male and 3 female in separate change rooms
300-500	Eight (8) showers, 4 male and 4 female in separate change rooms
>500	Additional shower facilities will be required at a rate of 1 female and 1 male shower for every 250 staff

Note: If it is not possible to provide changing room and shower facilities on a particular site, it may be possible to negotiate access for users with an adjoining building or a nearby gym where these facilities are available.

Figure 2: Quality shower facilities can be used by cyclists, joggers, walkers and other active employees – Brisbane Administration Centre, Brisbane City Council.

Locker facilities

Where possible, lockers are best located within changing rooms. Alternatively, they can be provided adjacent to bicycle parking, or additional storage space can be provided within bicycle lockers.

- **availability** – as a general rule there should be one locker for each available bicycle parking space. Additional lockers may also be provided to cater for walkers, joggers and other individuals who exercise at lunch time.
- **design** – lockers should be secure (with robust locking mechanisms) to ensure belongings are adequately protected while stored. Lockers need to be well ventilated and have sufficient space to allow for the storage of cycling attire and equipment (Figure 3). They should also be positioned for safe and convenient access and ideally be long enough to hang a skirt or shirt.
- **maintenance** - like shower facilities, locker facilities should be regularly maintained so that they remain clean and functional. Procedures also need to be put in place to provide for regular audits of the lockers. This ensures lockers are both cleaned internally on a regular basis and are made available to persons with demonstrated need.

Figure 3: Lockers come in a range of sizes and styles

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Additional facilities

There is a wide range of additional end-of-trip facilities and services that can help make cycling more attractive. In many cases the type of facilities provided will depend on the destination and its demand for cycling facilities.

Additional facilities and services workplaces are known to provide cyclists with include:

- toilets in close proximity to showers
- basins and mirrors
- power points and shaving plugs
- benches and clothing hooks
- hairdryers
- irons and ironing boards
- power-point for recharging bicycle lights
- washing machines and dryers
- towel services
- drinking water
- first-aid kits
- bicycle toolkits including a foot pump, tyre levers and puncture repair kit (Figure 4).

Figure 4: Consider providing a bicycle pump and other items where users can readily access them

Other ways to encourage cycling to your facilities

Once quality end-of-trip facilities are available, there are many low-cost actions an organisation can take to encourage people to cycle to these amenities. These include:

- **Promotion**
  - active senior management support for employees who cycle
  - forming a workplace *Bicycle User Group* (BUG), a fun social group of cyclists who ride to work. This group can also help in setting up and maintaining the end-of-trip facilities, increase the safety and enjoyment of cycling for all involved and help bring people from across an organisation together. Details on establishing a BUG are provided in Cycle Note A5 – *Staffing, BACs and BUGs*. Bicycle Queensland also provides information on how to set up a BUG on its website http://www.bq.org.au
  - promoting cycling directly to staff, students or other potential users of new facilities through posters and/or e-mail messages. Use an incremental approach by encouraging employees and students to try cycling to work just once at first and then to consider replacing just one or two round trips a week
  - getting involved in corporate promotional activities such as Bicycle Queensland's Bike Week events or hosting your own workplace breakfast or morning tea for cyclists.
- **Providing incentives**
  - offering financial incentives such as interest-free loans or discounts for bicycle and equipment purchases
  - providing a 'pool' bicycle or a fleet of bikes – plus helmets and locks – allowing employees to ride for work purposes. Bicycles are an easy way for employees to get to meetings in nearby locations without having to worry about car parking or vehicle refuelling
  - re-assessing corporate dress codes (if necessary) and consider introducing flexible working arrangements to encourage cycling
  - speaking to your local bike shop about supporting the organisation's bike riders. Bike shops are often willing to organise maintenance workshops or provide regular discounts and may sponsor a bicycle toolkit for the riding staff. The Retail Cycle Traders Australia (http://www.bikeoz.com/aboutrcta.php) can assist in finding a bicycle retailer near you.
- **Providing information**
  - providing a simple package of local cycle route maps, details of road rules and safe cycling tips to your staff
  - establishing an e-mail newsletter to ensure an exchange of useful information between management and cycle commuters.
- **Encouraging others**
  - encouraging local authorities to plan and provide better facilities for bicycle riders in the local area
  - encourage neighbouring businesses and organisations to also provide for cycling.

Case Study - WBM Pty Ltd – a cycle-friendly workplace

Consulting Engineers WBM Pty Ltd are an excellent example of a workplace encouraging staff to cycle to work.

Engineering and environmental consultants, WBM presently have 15 people who regularly ride to work by bicycle to the company's head office in Spring Hill, Brisbane. Riders include company directors and associates through to new staff.

The firm provides a storage facility capable of securely parking 10 bicycles located in their basement, with more storage areas elsewhere in the building.

Staff also have access to change rooms and showers. This greatly reduces the difficulties of riding to work regularly, particularly in the summer months. Bruce Harris, who works for WBM as GIS (Geographic Information Systems) Operations Manager says, "I'm not quite sure that riding to work could be an option without the facilities to have a shower and store a bike safely".

With a number of senior managers who cycle regularly and senior management support of cycling to work, WBM and its staff are enjoying the benefits of a cycle-friendly workplace.

Other references

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This Cycle Note is published by
Queensland Transport.

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June 2006

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