

ABC Bicycle Resource Pack

Bringing Key Bicycle Resources to your University, TAFE and other Tertiary Courses



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1. ABOUT THE PACK

The Australian Bicycle Council (ABC) aims, through the **ABC Bicycle Resource Pack**, to:

- raise the awareness of cycling issues among tertiary institutions, particularly those offering engineering and transport courses;
- work with key staff in tertiary institutions to develop opportunities to address cycling issues in their courses and conferences
- provide those staff with the resources and contacts they may need to address cycling issues;

Why are we providing this Pack?

For many years transportation engineering trends focused on designing for four wheels instead of two. But how are motorists truly expected to share the road unless engineers provide bicycle-friendly and multi-mode facilities to encourage them to do so? Designers and engineers now have a diverse array of design elements and ever-developing technologies at their disposal.

It is widely felt amongst Federal and State Government transport agencies and amongst cycling advocates that there is a need to promote cycling, particularly in the engineering and planning professions to avoid road designs that do not accommodate cyclists or that lead to the creation of hazards for cyclists. It is for this reason that the Council has identified the need for relevant information resources as a high priority project.

What we suggest you do with the Pack?

- *Consider incorporating cycling into your relevant courses and conferences.* We seek recognition of the bicycle as a sustainable transport mode and the health, economic, environmental, transport and social benefits derived from increased cycling.
- *Contact the Bicycle Unit in your State* should you require further information and brochures, need to arrange suitable research projects to be undertaken by students or wish to arrange a guest speaker on cycling matters. Some states have developed Training Courses on Provision for Bicycle Facilities.
- *Promote the use of this Pack.* Consider placing this bicycle Pack on your website or forward copies of the Pack to relevant agencies and lecturers at your university or other universities. You can simply download a free copy from the ABC website and forward by email. The Pack is free of charge and copyright.
- *Give us feedback on the Pack.* If you have any comments on the ABC Bicycle Resource Pack please email your State contact or ABC Secretariat at abc@dotars.gov.au. We would like to hear from you if you have used the Pack or have passed it on!

Who may find the Pack useful?

These resources have been provided for lecturers and will be particularly relevant to tertiary **Civil Engineering and Transport** courses. However, the issues and many of the references will be relevant to other disciplines such as Town Planning, Urban Design, Health and Environmental Studies. Students may also find this Pack useful.

Further copies of the Pack are available on the ABC website at

http://www.abc.dotars.gov.au/Publications_Resources/publications.aspx

The ABC trusts you can use the following extensive set of key cycling resource documents, cycling website addresses, state cycling contacts in the development of your courses which are relevant.

2. ESSENTIAL RESOURCES FOR THE PLANNING AND DESIGN OF BICYCLE FACILITIES IN AUSTRALIA

The potential of the bicycle as a transport mode will be best achieved through the development of comprehensive strategies and programs involving all levels of government and input from cyclist user groups and other relevant stakeholders.

Designers and engineers have a diverse array of design elements and ever-developing technologies at their disposal. Use the following resources as sources of information on the design and engineering tools that improve planning and design for bicycle facilities.

National Resources:

The national benchmark for bicycle design is Austroads' *Guide to Traffic Engineering Practice Part 14 – Bicycles* (1999).

Austroads' Guide To Traffic Engineering Practice - Part 14 – Bicycles (frequently known as "Austroads Part 14") provides guidelines for road authorities, engineers, planners and designers involved in the planning and construction of cycling facilities. It also represents a comprehensive resource document on the issues associated with cycling. The Guide is intended to provide a basis for national uniformity in planning and designing for bicycle use.

Part 14 was first published in 1993, and was revised in 1999. The table of contents includes:

1. Introduction
 2. Planning for Cyclists
 3. Bicycle Rider Requirements
 4. Roads
 5. Road Intersections
 6. Paths
 7. Provision at Structures
 8. Construction and Maintenance
 9. Traffic Control Devices
 10. End of Trip Facilities
- Appendix A: Example for Bicycle Safety Audit Checklist
Appendix B: Signing and Delineation of Works
Appendix C: Human Powered Vehicles
References

For further information and ordering details, see http://www.abc.dotars.gov.au/Publications_Resources/publications.aspx

Bicycles are also included in other parts of the Austroads *Guide to Traffic Engineering Practice* series, such as *Part 10 - Local Area Traffic Management* and *Part 13 - Pedestrians*.

National Standards:

Standards Australia also has a number of relevant publications, which include:

Standards Australia, 2000, Australian Standard AS1742 – Manual of Uniform Traffic Control Devices, Parts 1-8, 10-14, Sydney, Australia

Standards Australia, 2000, *Australian Standard AS1742.9 – Manual of Uniform Traffic Control Devices*, Part 9 Bicycle Facilities, Sydney, Australia

Standards Australia, 1993, *Australian Standard AS2890.3 – Parking Facilities*, Part 3 Bicycle Parking Facilities, Sydney, Australia

State Resources:

- RTA NSW has developed a comprehensive set of bicycle design guidelines, the *NSW Bicycle Guidelines*, as a supplement to *Austroads Part 14*. For a copy see http://www.rta.nsw.gov.au/trafficinformation/downloads/nswbicyclev12_i.pdf
- RTA NSW, *How to Prepare a Bikeplan*. For a copy see <http://www.rta.nsw.gov.au/trafficinformation/downloads/bikeplanv1-0.pdf>
- NSW Planning Guidelines for Walking and Cycling <http://www.planning.nsw.gov.au/plansforaction/cycling.asp>
- VicRoads, Victoria have produced a *Cycle Notes* series available from their website [www.vicroads.vic.gov.au/cyclists > providing bicycle facilities > cycle notes](http://www.vicroads.vic.gov.au/cyclists/providing_bicycle_facilities/cycle_notes).
- Queensland Transport have a series of Cycle notes at <http://www.transport.qld.gov.au/cycling>

Other Australian or New Zealand references:

- The TravelSmart Australia web site (<http://www.travelsmart.gov.au/>) provides useful resources including:

Bikeability Toolkit

(<http://www.travelsmart.gov.au/bikeability/index.html>)

Universities TravelSmart Toolkit

(<http://www.travelsmart.gov.au/universities/index.html>)

Information Tools for Cycle Friendly Workplaces

(<http://www.travelsmart.gov.au/employers/cyclefriendly.html>).

- The Australian Bicycle Council website includes publications on *Pedestrian-Cyclist Footpaths Report* and *Bus-Bicycle Conflict Minimisation on Shared Paths and Interactions within the Road Network Report*. http://www.abc.dotars.gov.au/Publications_Resources/publications.aspx
- Christchurch City Council (NZ) has issued some design technical guidelines: see <http://www.ccc.govt.nz/recreation/cycling/technicalinformation/>
- Land Transport NZ has developed a *Cycle Network and Route Planning Guide* that answers the question what provision should be made for cyclists and where? <http://www.landtransport.govt.nz/road-user-safety/walking-and-cycling/cycle-network/index.html>

3. INTERNATIONAL BEST PRACTICE RESOURCES

Europe

- The Danish Road Directorate's *Collection of Cycle Concepts* is an inspiring collection of ideas and pictures on all aspects of increasing and encouraging cycling: see <http://www.vd.dk/wimpdoc.asp?page=document&objno=17291>
- The European Commission has published an excellent guide for councillors, *Cycling – the Way Ahead for Towns and Cities*: see http://europa.eu.int/comm/environment/cycling/cycling_en.pdf

Other good European references include:

National Information and Technology Centre for Transport and Infrastructure (CROW), 1996 (Third edition), *Sign up for the Bike. Design Manual for a Cycle Friendly Infrastructure*, The Netherlands, available from <http://www.crow.nl/engels/>

CROW, 1997, *Bicycle Parking in the Netherlands*, The Netherlands, available from <http://www.crow.nl/engels/>

CROW, 1998. *Recommendations for Traffic Provisions in Built-Up Areas* (ASVV Manual), The Netherlands, available from <http://www.crow.nl/engels/>

Department of the Environment and Local Government (Ireland), 1999, *Provision of Cycle Facilities – National Manual for Urban Areas*, Dublin, Ireland, available from <http://www.dto.ie/Cycle%20manual/prelims.pdf>

SUSTRANS, 1997, *The National Cycle Network – Guidelines and Practical Details* (Issue 2.2),

Bristol, United Kingdom – available from <http://www.sustransshop.co.uk/>

The United States:

- The U.S. Federal Highway Administration (FHWA) has released the second edition of a set of resources that provides background materials for an undergraduate or graduate university course on bicycling and walking. http://www.trb.org/news/blurb_detail.asp?id=6489
- The US National Centre for Bicycling and Walking website has a *Bicycle Design Guide* and other resources: see <http://www.bikewalk.org/thepractice.php>
- The Pedestrian and Bicycle Information Center in the USA has developed a range of Bicycle Design Guidelines for Engineers at <http://www.bicyclinginfo.org/de/index.htm>.
- American Association of State Highway and Transportation Officials (AASHTO), 1999, *Guide for the Development of Bicycle Facilities*, Washington, USA: see http://safety.fhwa.dot.gov/fourthlevel/pdf/b_aashtobik.pdf
- Balsas, C.J.L., 2002, *New Directions for Bicycle and Pedestrian Planning Education in the US, Planning Practice and Research*, 1 February 2002, vol. 17, no. 1, pp. 91-105(15), Carfax Publishing, part of the Taylor & Francis Group, available from <http://taylorandfrancis.metapress.com>

United Kingdom

- The Department for Transport, London, has developed an innovative programme, *Cycling: Making it Mainstream*, designed to help local authority professionals, consultants and councillors get more people cycling, more safely, more often. http://www.sportkeighley.com/documents/ki/prspectus_cycling_england.doc

4. BENEFITS OF CYCLING: HEALTH, ECONOMIC, ENVIRONMENTAL, TRANSPORT AND SOCIAL

Resources relating to Cycling and Health Benefits:

- The Queensland Transport cycling website provides a paper on the *Health benefits of Cycling*: see <http://www.transport.qld.gov.au/cycling>
- Bicycle Victoria's website has a webpage on *Health and Cycling*. This site includes some excellent resources, including a link to the document *Health Benefits of Cycling – studies to the benefits of cycling*: see <http://www.bv.com.au>
- The Cycling Promotion Fund has developed a good resource document that details some Australian and International references and websites relating to cycling and health and active transport and health: see http://www.cyclingpromotion.com/Cycling_and_Health_References.pdf

Riding a bicycle for better health is a Cycling Promotion Fund information sheet on the importance of bike riding for children's development: see

<http://www.cyclingpromotion.com/Childrenbikeissuesheet1.pdf>

- The Bicycle Federation of Australia has a range of cycling and health papers located at http://www.bfa.asn.au/bfanew/resources/cycling_and_health.htm
- The European Network of Cycling Expertise has developed a paper on Cycling and Health: see <http://www.velo.info>
- The US National Centre for Bicycling and Walking have developed a webpage, *The Challenges in Health, Getting America Moving Again*, which includes some excellent resources on Cycling and Health located at <http://www.bikewalk.org>
- The US Pedestrian and Bicycle Information Center website includes a section on *Health and Fitness* with further resources under research links: see <http://www.bicyclinginfo.org/hf/index.htm>
- The Medimedia Australia website has a page on *Cycling to health*: <http://www.mydr.com.au/?article=2372>
- Promoting Safe Walking and Cycling to Improve Public Health: Lessons from the Netherlands and Germany, by John Pucher and Lewis Dijkstra in the American Journal of Public Health, Vol. 93, No. 9, September

2003, see:

<http://www.vtpi.org/AJPHpucher.pdf>

Resources relating to Active Transport and Health:

- *Planning for Healthy Communities*, Victorian Government Health. The report has some great references to active transport: see <http://www.health.vic.gov.au/healthpromotion/>

The WHO Charter on Transport, Environment and Health (1999) is comprehensive statement on the impacts of transportation on the environment and health: see

http://www.euro.who.int/document/peh-ehp/charter_transporte.pdf

The World Health Organization, A physically active life through everyday transport with special focus on children and older people and examples and approaches from Europe (2002). Specific references on cycling health benefits can be viewed in the cycling section of this publication. This is an internationally recognised website and includes many resources: see

http://www.who.dk/transport/modes/20030121_2

Resources relating to further Benefits of Cycling:

The Queensland Transport cycling website, under the *Why Cycling* Section, provides a comprehensive and worthwhile set of papers on the benefits of cycling at

<http://www.transport.qld.gov.au/cycling>

- The European Network of Cycling Expertise has also developed a valuable set of briefings on cycling, which includes the benefits of cycling and topics such as Cycling and Environment; Cycling and Economics; Cycling and Transport; Cycling and Accessibility and Mobility; Cycling and Young People. Copies of the full set of briefings are located at <http://www.velo.info>

The US Pedestrian and Bicycle Information Center website includes a section on the Benefits of Cycling that includes health, transportation, environmental, environmental, economic, quality of life with further resources and publications. See

<http://www.bicyclinginfo.org/pp/benefits/index.htm>

- *Quantifying the benefits of Non-Motorised Transport for Achieving TDM Objectives*, Victoria Transport Policy Institute: see <http://www.vtpi.org/nmt-tdm.pdf>

5. GENERAL CYCLING WEBSITE ADDRESSES

Australian and State Governments have a range of excellent resources and publications on their respective websites. The list below also includes further relevant national and international websites.

Organisation/ Jurisdiction	Resources/Publications	Web Address
Australian Bicycle Council	Main ABC Website	http://www.abc.dotars.gov.au/
	Information about an Essential Cycling Resource document - Austroads' <i>Guide To Traffic Engineering Practice Part 14 – Bicycles</i>	http://www.abc.dotars.gov.au/Publications_Resources/austroads_part14.aspx
	Resources and Publications, including: The Australian National Cycling Strategy 2005 – 2010	http://www.abc.dotars.gov.au/Publications_Resources/publications.aspx
Australian Capital Territory	ABC's Latest News page	http://www.abc.dotars.gov.au/news/index.aspx
	Main web site – ACT Planning and Land Authority	http://www.urbanservices.act.gov.au/transport/bicycles
New South Wales	Cycling Advocacy Organisation - Pedal Power	http://www.pedalpower.org.au/index.asp
	Main RTA Cycling Website	http://www.rta.nsw.gov.au/usingroads/bicycle/index.html
	NSW Bicycle Guidelines	http://www.rta.nsw.gov.au/trafficinformation/downloads/nswbicyclev11_i.pdf
	How to Prepare a Bike Plan – An easy 3 step guide	http://www.rta.nsw.gov.au/trafficinformation/downloads/bicycimpro_dl1.html
	Advocacy group - Bicycle NSW main website	http://www.bicyclensw.org.au/
Northern Territory	Cycling website - The Department of Planning and Infrastructure	http://www.ipe.nt.gov.au/whatwedo/cycling/index.html
Queensland	Bicycle organisations and advocacy website links	http://www.transport.qld.gov.au/cycling
South Australia	Main DOT Cycling Website	http://www.transport.sa.gov.au/personal_transport/bike_direct/index.asp
	Fact Sheets	http://www.transport.sa.gov.au/personal_transport/bike_direct/fact_sheets.asp
	Advocacy Organisations	http://www.bikesa.asn.au/ http://www.bisa.asn.au/
Tasmania	Transport Cycling main website	http://www.transport.tas.gov.au/road/transport_tas/cycling_walking.html
	Organisation of Major Cycling Tasmanian municipalities	http://www.cyclingsouth.org/
	Advocacy Group – Bicycle Tasmania	http://www.biketass.org.au/
Victoria	Main VicRoads Cycling website	http://www.vicroads.vic.gov.au/vrne/vrne5nav.nsf/alltitle/Vehicles-Bicycles%20%26%20Pedestrians
	Cycling in Melbourne Fact sheet	
	Cycling Notes	
	Advocacy Group – Bicycle Victoria	http://www.bv.com.au/

Western Australia	Main DPI Cycling website	http://www.dpi.wa.gov.au/cycling/index.html
	Main Roads website	http://www.mainroads.wa.gov.au/NR/mrwa/run/start.asp
	Bicycle Strategy and Technical Publications	http://www.dpi.wa.gov.au/cycling/information/publications/cycling.html
	Advocacy organisations - Sustainable Transport Coalition - Bicycle Transport Alliance	http://www.stcwa.org.au/ http://www.multiline.com.au/~bta/
National Websites	ARRB Transport Research	http://www.arrb.com.au
	Australian Greenhouse Office	http://www.travelsmart.gov.au
	Austroroads	http://www.austroroads.com.au
	Bicycle Federation of Australia	http://www.bfa.asn.au
	Bicycle Industry Association	http://www.bikeoz.com
	Cycling Australia	http://www.cycling.org.au
	Cycling Promotion Fund	http://www.cyclingpromotion.com
	Pedestrian and Bicycle Transport Institute of Australasia	http://www.pedbiketrans.asn.au
	Retail Cycles Traders Australia	http://www.rcta.org.au
International Websites	European Network of Cycling Expertise	http://www.velo.info/
	Interface for Cycling Expertise, Netherlands	http://www.cycling.nl/
	National Centre for Walking and Cycling USA	http://www.bikewalk.org/
	National Cycling Strategy UK	http://www.nationalcyclingstrategy.org.uk/
	Pedestrian and Bicycle USA	http://www.bicyclinginfo.org/
	Sustrans UK	http://www.sustrans.org.uk/
	Victorian Transport Policy Institute	http://www.vtpi.org/

7. CYCLING AT YOUR UNIVERSITY

The Council would also encourage your university to promote cycling as a form of transport and provide bicycle facilities and maps for your students and staff. Most universities provide on site bicycle facilities and parking for their students.

Resources on cycling to universities and work can be found at the following websites:

TravelSmart Toolkit for Universities, TravelSmart Australia:

<http://www.travelsmart.gov.au/universities/index.html>

Cycling to work, University or TAFE, Queensland Transport:

<http://www.transport.qld.gov.au/cycling>

Riding to work brochures, NSW Road Traffic Authority:

<http://www.rta.nsw.gov.au/usingroads/bicycle/index.html>

Latest News stories from the Australian Bicycle Council at <http://www.abc.dotars.gov.au/news/index.aspx>

ANY FEEDBACK

If you have any comments on the ABC Bicycle Resource Pack please email your State contact or ABC Secretariat at abc@dotars.gov.au. We would like to hear from you if you have used the Pack or have passed it on!

Further copies of the Pack are available on the ABC website

http://www.abc.dotars.gov.au/Publications_Resources/publications.aspx

<p>About the Australian Bicycle Council</p> <p>The Australian Bicycle Council is the national body that manages and coordinates implementation of The Australian National Cycling Strategy 2005 - 2010.</p> <p>The Australian National Cycling Strategy 2005-2010 has been developed as a coordinating framework identifying responsibilities that lie with the various governments of all levels, community and industry stakeholders to encourage and facilitate increased cycling in Australia. It sets out actions, with targets, timeframes and resources that will ensure the continued growth of this important component of Australia's transport system. This Strategy was endorsed by the Australian Transport Council (ATC) on 18 November 2005.</p> <p>The vision for the Strategy is: <i>More cycling, to enhance the well-being of all Australians</i></p> <p>Specifically through:</p> <ul style="list-style-type: none">• Increasing participation in cycling• Improving safety for cyclists <p>For a copy see http://www.abc.dotars.gov.au/Publications_Resources/publications.aspx</p> <p>For further information on the ABC</p> <p>Contact the ABC Secretariat: Telephone: (02) 6274 7345 Facsimile (02) 6274 7289 Email: abc@dotars.gov.au; Website: http://www.abc.dotars.gov.au</p>	<p>About this publication</p> <p>Through the ABC Bicycle Resource Pack, the Council seeks to raise the awareness of cycling issues among tertiary institutions; to work with key staff in these institutions to develop opportunities to address cycling issues in relevant courses and conferences, and to provide those staff with the resources and contacts they may need to address this issue. We believe students will also find this Pack worthwhile.</p> <p>The ABC considers that this resource Pack is particularly relevant to Civil Engineering and Transport courses, but may also be useful for other courses such as Town Planning, Urban Design, Health and Environment. The ABC hopes that you will consider incorporating cycling into relevant courses, thus recognising the bicycle as a sustainable transport mode along with the subsequent health, transport, economic, social and environmental benefits gained from cycling.</p> <p>The ABC Bicycle Resource Pack will provide a valuable tool in the development and inclusion of cycling into your courses.</p> <p>For further information on this publication</p> <p>Contact Mr John Grinsell of the NSW Road Traffic Authority: Telephone: (02) 9218 6817 Facsimile: (02) 9218 6738 E-mail: John_Grinsell@rta.nsw.gov.au Website: http://www.abc.dotars.gov.au/Publications_Resources/publications.aspx</p> <p>Acknowledgements</p> <p>This publication was principally developed by Mr John Grinsell of the Roads and Traffic Authority NSW with the support of Australian Bicycle Council members.</p> <p>This document may be copied, emailed or placed on websites.</p> <p>Released Version 1, November 2004 Released Version 2, August 2006</p>
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