

B5 Funding

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Purpose

This module provides information on the different mechanisms for financing walking infrastructure, and presents simplified guidelines for determining infrastructure charges.

Introduction

Appropriate levels of funding are critical to planning for walking infrastructure. As community expectations of public infrastructure continue to rise, it is becoming more necessary for local governments to consider alternative funding opportunities. This is particularly true for walking infrastructure, which is often not given a high priority within larger developments and projects. Infrastructure charging and the 'user pays' principle established by the Queensland *Integrated Planning Act 1997* (IPA) are the latest response to this challenge.

This section presents alternative methods of funding walking infrastructure, and also provides a step-by-step guideline for preparing an infrastructure charging schedule (ICS).

B5.1 Funding opportunities

There are several methods for funding walking infrastructure other than through an infrastructure charging schedule. These are:

- ▶ *Obtaining funding from a local government budget dedicated to walking infrastructure:* The limited funds available from local councils may, however, be insufficient to meet the community's infrastructure expectations.

- ▶ *Incorporating pedestrian infrastructure into other works programs:* Walking infrastructure is not expensive, compared to other types of infrastructure, and can often be readily incorporated into other works. This is particularly true for:
 - *new and/or upgraded road projects:* Where possible, pursue an integrated transport solution.
 - *open space and recreation projects:* Pedestrian end-of-trip facilities could be included. Pedestrians should be considered when trail networks are being planned, or additional land is being acquired for walking infrastructure.
 - *drainage corridors:* Planning or retrofitting of drainage corridors may present an opportunity to incorporate a pedestrian link.
 - *Urban renewal and community renewal programs:* These programs aim to improve the quality of life in selected communities. New or enhanced walking infrastructure could be included to improve access and connectivity for the community.
- ▶ *Obtaining state or federal government support for walking infrastructure funding programs:* Funding is available to assist local governments design and implement walking infrastructure. Key funding programs include:
 - *Transport Infrastructure Development Scheme (TIDS):* The scheme is administered by the Department of Main Roads. TIDS will fund shared paths through a 50/50 subsidy.
 - *Safe Walking and Pedalling Program:* Grants of up to \$10,000 are available to help schools develop Safe Walking and Pedalling applications that address the safety of children walking and cycling to and from school. Funding is also available for behavioural, educational and engineering road safety interventions.



- **Safe School Travel (SafeST) Subsidy Scheme:** The scheme is funded from the State Roads Program and provides a 50/50 subsidy to Queensland local governments for approved school transport-related infrastructure works, which may include school zones, crossing facilities, pedestrian refuge islands and other traffic management devices.
- **Local Government Development Program:** This scheme is funded through Sport and Recreation Queensland, and focuses on planning, participation, and places for increased community involvement in sport and recreation activities. These could include recreation-orientated aspects of walking strategies and local action plans, and the construction or upgrading of walkways and walking trails.
- **Major Facilities Program:** This scheme, also funded through Sport and Recreation Queensland, offers funding for shared paths.

For more details of these and other funding programs, visit Queensland Transport's website at <www.transport.qld.gov.au/cycling>.

Importance of forward planning

Funding for a particular project may take advantage of some or all of the above funding sources. However, forward planning is critical in achieving aspirations for improved infrastructure. Needs for walking infrastructure must be identified in advance and prioritised for effective targeting of government subsidisation or incorporation of walking infrastructure into civil works programs, planning schemes or local area plans. Such planning is best achieved through developing a publicly available plan for a local walking network. It may also be cost-effective to include walking as part of an overall schedule for transport infrastructure charging.

B5.2 Priority infrastructure planning and infrastructure charging under the Integrated Planning Act 1997

The Queensland *Integrated Planning Act 1997* introduced a charging regime that on one hand is a growth management tool, and on the other, provides an effective funding tool for infrastructure necessary for planned growth.

Priority infrastructure plans identify existing infrastructure, and infrastructure needed to cater for estimated population growth. These plans are then linked to the infrastructure charging schedules (ICSs), which enable local governments to obtain funds towards the provision of infrastructure through developer contributions. Transport infrastructure 'including roads, vehicle lay-bys, traffic control devices, dedicated public transport corridors, public parking predominantly serving a local area, cycle ways, pathways and ferry terminals' can be fully or partly funded through an ICS (*Integrated Planning Act 1997*, Section 5.1.1(1)(b) 1997).

The Department of Local Government, Planning, Sport and Recreation has developed statutory guidelines setting out the process for developing priority infrastructure plans and associated ICSs: see the website at <www.ipa.qld.gov.au/infra/infraGuides.asp>.

In summary, local governments can obtain funding towards pedestrian infrastructure if this is planned appropriately through priority infrastructure plans and then charged through ICSs. Local governments may pursue this funding mechanism when developing ICSs for developments within their area. One local government that has begun this process is the Redland Shire Council, which has reviewed its appropriate policy and development codes in the Redlands Planning Scheme and ensured that its infrastructure charges plan under the Integrated Planning Act includes provisions for cyclists and pedestrians (Redland Shire Council 2004).

It is unlikely that the ICSs will cover only pedestrian infrastructure, and in many cases it might be more appropriate to do an overall transport ICS, which includes walking as one component. The planning and costing for pedestrian infrastructure should be undertaken when local governments are planning and costing for other development infrastructure.

Developing an infrastructure charging schedule for walking infrastructure

Below is a simplified step-by-step explanation of how to develop a pedestrian infrastructure component of an ICS. An outline of this process is given in Figure B5-1. For more detailed information, consult the guidelines in the *Integrated Planning Act 1997*. The principles and process can be applied to a small local precinct or a local government area.

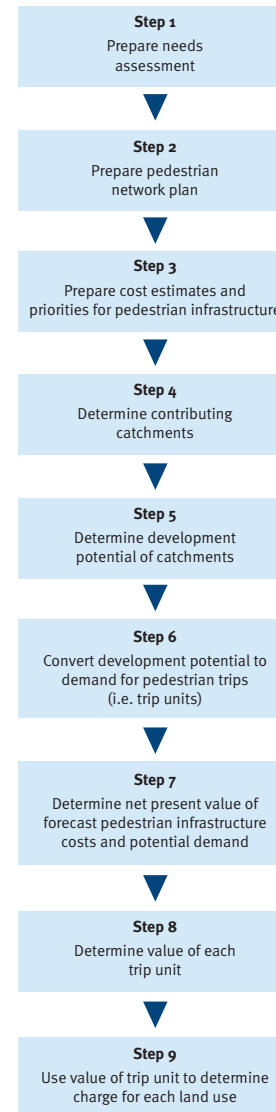


Figure B5-1
Producing an infrastructure charging schedule

Steps 1 and 2: Demonstrate community need for pedestrian infrastructure and integration into the local pedestrian network

These steps are not part of developing the ICS. However, they give rise to two key products needed for the ICS:

- ▶ an explanation of community need for the proposed infrastructure
- ▶ a walking network plan that integrates into the local walking network, complete with route prioritisation, timing of construction, and estimated current value of each link in the network.

In developing a local walking network plan (see B3.3 *Implementation strategies*) the following information is typically required:

- ▶ population data for the relevant suburb or planning district, including current population, estimated ultimate populations (if available) and time series data for estimated annual population growth. Further details on population dynamics and forecasts can be obtained from the website of the Planning Information and Forecasting Unit of Local Government and Planning at <<http://www.lgp.qld.gov.au/?id=88>>
- ▶ planning scheme information, specifically the planning intent for the area(s) under investigation.

The walking network plan should include the principles of connectivity, access, accessibility and integration with other transport modes. It will typically identify a hierarchy of walking paths, such as:

- ▶ local links, servicing local neighbourhoods (or local planning areas)
- ▶ district links, linking several neighbourhoods
- ▶ regional links, linking several districts.

Other 'special' links can also be provided, for example, to popular tourist areas.

It is important that the pedestrian network plan achieves a desired level of service. This is the standard of performance of the infrastructure defined in the IPA in terms of both environmental effects and user benefits. Compliance with the *Guide to traffic engineering practice*, 'Part 13: Pedestrians' (Austroads 1995), and the user and environmental benefits provided by increasing mode choice and network connectivity usually constitute a sufficient standard of performance.



Step 3: Determine cost of infrastructure

In Step 3, calculate the estimated current cost of each link and element of the proposed pedestrian network. For the purposes of developing infrastructure charges, it is also prudent to include the costs of end-of-trip facilities.

Step 4: Determine catchment areas and development to be charged

In Step 4, determine the catchment area of each pedestrian link and element; this is normally based on the area serviced by a pedestrian link. To enable a developer to be charged for walking infrastructure, it is important to establish a direct link between the proposed infrastructure and the development. Typically, catchment areas may be defined as follows:

- ▶ local pedestrian links: the catchment area is the neighbourhood or designated local planning area that benefits from the links
- ▶ district pedestrian links: the catchment area consists of the neighbourhoods or planning areas serviced (this could be an entire suburb)
- ▶ regional pedestrian links: the catchment area consists of the suburbs served or, in some circumstances, the entire local government area.

Where a route is shared between catchment areas, the proportion paid by each catchment is based on the proportion of demand (expressed in percentage of trip units) that the area contributes.

After determining the catchments for infrastructure, determine the nature of development to be charged. Chargeable development is development that contributes pedestrian traffic to the network and that benefits from the proposed infrastructure. Typically, this includes all forms of urban residential and commercial development. It is prudent to exclude industrial or non-urban development from the charges, unless it can be clearly demonstrated that these developments generate pedestrian trips.

Step 5: Determine ultimate development potential and total charging units

This step ensures that the cost of walking infrastructure is fairly divided between different catchments. Determine the current and ultimate levels of development within the areas to be serviced by the walking infrastructure and which fall within the council's priority infrastructure area, typically for the next 10 to 15 years.

Ultimate development is defined as the 'maximum level of development that would be permissible under the planning intent for the subject area'.

Based on council's planning scheme development requirements, a number of development assumptions can be made regarding the nature of development likely to occur within any given area. This prediction of development will also provide guidance on the expected level of demand generated from a successful pedestrian program.

Assumptions made for each land use area are:

- ▶ occupancy rate per residential dwelling
- ▶ number of residential dwelling units per hectare
- ▶ likely gross floor area (GFA) achievable in non-residential areas.

In addition, land area measurements in hectares are required for each land use area. From all this information, it is possible to calculate the total number of charging units.

Step 6: Convert ultimate development (charging units) to demand for pedestrian trips (trip units)

The projected development must be expressed in terms of pedestrian demand, represented as trip units. Different forms of development (e.g. residential, commercial, industrial) result in different levels of demand on walking infrastructure. This must be reflected in the calculation of charges.

Trip units reflecting the different levels of pedestrian demand across different land uses provide a way to ensure that different forms of development do not incur the same charge without regard to levels of demand generated by each use. For example, a generally accepted value of 10 trips generated from each dwelling can be applied to the 2001 mode share value from the *Transport Plan for Brisbane 2002-2016* of 14% of all trips generated being pedestrian trips. Therefore, we arrive at a value of 1.4 pedestrian trips generated per dwelling. This value may vary for semi-urban or rural areas.

The pedestrian trips generated are then converted into a number of trip units for each land use and applied to the charging units for each catchment to determine the total number of pedestrian trips for each planning area.

Step 7: Determine net present value of forecast infrastructure and net present value of forecast demand

Present value of forecast infrastructure (supply)

Step 7 would not be necessary if all walking infrastructure were to be constructed immediately, or if inflation of currency did not take place.

However, in planning for walking infrastructure, dealing with long lead times before implementation (as well as inflation) is a reality.

To take this reality into account, it is necessary to express the cost of all infrastructure in present value terms: that is, the amount required to be invested today at a designated interest rate in order to construct the walking trail at a designated later date. This clearly requires that an implementation program for walking infrastructure be prepared and costed over time.

Present value of forecast development (demand)

It is also necessary to express forecast development (demand) in the same terms as the forecast infrastructure (supply). By actively discounting the demand stream and the supply stream together, a greater alignment is achieved between charges and network costs. In addition, a buffer is created, ensuring that, even if the estimated ultimate population is not reached, the costs of infrastructure are recovered by actively discounting the estimated population.

Step 8: Establish value of each trip unit

Step 8 determines the standard value or unit cost for each trip unit.

The standard unit cost is calculated by dividing the total present value cost of the network by the present value of the forecast development, expressed as trip units.

Step 9: Determining charge for different types of land use

The previous step produced a standard cost per trip unit. As each land use type is deemed to contribute different levels of pedestrian traffic to the system (and therefore a different number of trip units), the charge per land use varies accordingly. Calculation of the charge per land use type simply involves multiplying the charge per trip unit by the number of trip units generated from the land use type.

In this way, appropriate charges for pedestrian infrastructure for each catchment or planning area can be determined and included in an infrastructure charging schedule or infrastructure payment schedule.

Options for levying the infrastructure charges

Infrastructure charges may be levied on incoming development (at the time of approval) or existing development (through a charge notice, which may coincide with the rates notice). They may also be combined with other funding mechanisms, as explained earlier. For details on levying the infrastructure charge or other aspects of infrastructure charging, please consult the *Infrastructure Charges Schedules* (Department of Local Government, Planning, Sport and Recreation 2004).

References

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