

PTUA Geelong Branch
PO Box 4127
Geelong Victoria 3220
www.ptua.org.au/geelong

*Public Transport Users
Assoc.*

*Ross House
247 Flinders Lane
Melbourne Victoria 3000
www.ptua.org.au*



Paul Westcott
Convenor, Geelong Branch
Mobile 0413 075 439
geelong@ptua.org.au

*Telephone (03) 9650 7898
Fax (03) 9650 3689
Org No. A-6256L*

*Affiliated with
Transport 2000
International*

Ideas for Central Geelong Buses

The PTUA believes any changes to routes should be made according to agreed principles in a proper process that consults with existing bus travellers, potential bus travellers, operators and the wider community. Agreeing on principles reduces the scope for vested or special interests to frustrate changes that are in the wider public interest.

We are concerned that this approach has not been taken by the Department of Infrastructure. Given the short time that we have had to make this submission, it should be noted that even our submission has not undergone the usual internal consultative process within the PTUA's Geelong branch. We believe our recommendations do, however, provide a good example of an efficient and passenger-friendly network of services in central Geelong.

Proposed General Principles

Radial urban buses are generally more efficient when they are 'through-routed' via the city centre (also known as 'pendulum' operation). This is because they can carry not only passengers going to the city centre, but also those travelling along the next route.¹ They also do not require 'layover' time in the city centre to allow for slack in the timetable to make up for delays. Layovers can occur at either end of each route instead. To make the system simple and easy for passengers to remember, buses should always be through-routed to the same route. All buses to the central area should also run to the main railway station.

Where congestion along the length of a through-route might make it difficult to keep to time and make reliable connections to trains, particularly long bus routes could be designed to terminate at the railway station or in the city centre (on a short 'stub' route after visiting the station). This is usually an inferior solution however, and bus priority measures should be implemented first.

Routes that run in the same direction should be brought together on common sections along the same street to boost service frequency. This means that

¹ See for example Gustav Nielsen (2005), *Public Transport- Planning the Networks*, HiTrans Best Practice Guide 2, HiTrans, Oslo.

passengers are more likely to use buses for short trips. Common route sections should run along clear corridors from one side of the central city to the other and, where possible, pass major destinations like hospitals and main retail areas.

We do not support buses operating in a loop around the city centre. This presumes that only city-centre commuters will use the services, makes through-riding slower, and reduces the overall efficiency of the route. Loops that operate in one direction frustrate passengers trying to make return or counter-loop direction trips, and add to confusion when different routes leave the loop at different points.

Bus stops should be located to maximise passenger convenience, particularly at major destinations. Where there are conflicts with other goals, bus passengers on designated public transport corridors must be given first priority. Stops immediately before (or after) intersections are critical to facilitate transfers to services that run along perpendicular streets. They also maximise a route's catchment by minimising the distance that passengers must walk from intersecting streets to reach it. Bus stops on the far or departure side of an intersection, however, must be given the benefit of strong priority measures to minimise delays to buses and passengers. Buses making right-hand turns should make stops on the departure side of intersections immediately after the turn.

The Current Situation in Geelong

Buses currently enter the central area from five main entry points: Moorabool Street (from the south), Ryrie Street (from the east and west), Malop Street (from the east for the Newcomb route only), Yarra Street (from the south-east for the Breakwater route only) and Gordon Avenue (from the north-west) and Mercer Street (from the north).

Routes routed via Moorabool and Mercer Streets do not go to Geelong station at all. Buses are often through-routed to different routes depending on the time of day. Due to this variation and because of the infrequency of services, people rarely use buses to make short trips within the central area (such as from the city centre to the railway station, from the city to the Geelong Hospital, or from one side of the city centre to the other.)

There are no obvious examples in Geelong of traffic light priority for buses, and given the many routes that buses take through the CBD, there are few clear candidates for priority treatment.

For over two years since they were dispersed from the Moorabool Street interchange, bus stops have been scattered around four different streets: Ryrie, Malop, Little Malop and Yarra Streets. Some passengers have to walk almost 400 metres to change between services. Stops are rarely located for the convenience of passengers, having been moved on an *ad hoc* basis either at the request of shop owners who do not want buses in front of their stops, or occasionally due to bus operators who are concerned about conflicts with other traffic. Stops on Little Malop Street are located east of Yarra Street and require buses to make significant diversions from their main routes, wasting

transport resources. No obvious maps of the central city bus stops are displayed and public awareness of bus stop locations is low.

Applying General Principles to Geelong

Every route should feed the railway station, with buses from the north and west of the station passing through the station before going to the city centre, and buses from the south and east going to the station after passing through the city centre. Bellarine Transit buses would continue to run through the city centre via Malop Street and terminate at the station. We are assuming that the mooted northern bus entrance to the Geelong railway station has been created (at the Mercer/Brougham Street intersection), and that bus routes could therefore either travel from one station entrance to the other, or turn around within the station.

Each route should travel along one of the three main axes in Geelong that serve the main retail and office areas: Moorabool Street (linked to the station by either Brougham or Malop Streets) and Malop Street (linked to the station by Railway Terrace). It is also possible that some services could run along Ryrie Street (linked to the station by Fenwick Street).

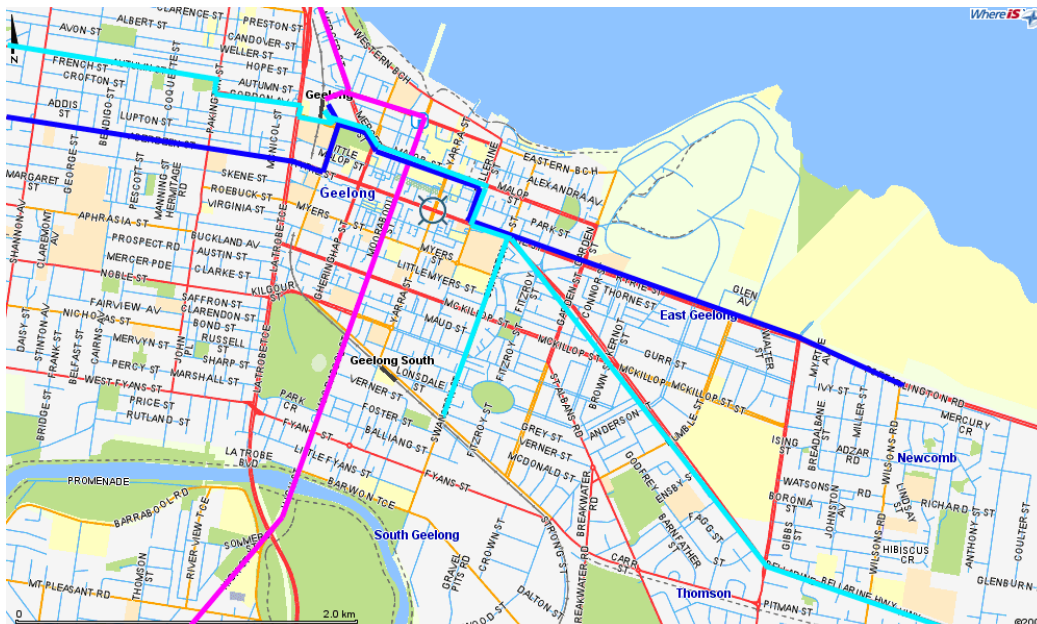
Buses along Moorabool Street would make stops at both Malop and Ryrie Street intersections (to maximise route catchments and make changing to Malop and any Ryrie Street services easier). Similarly, buses on Malop Street (and Ryrie Street) would also stop at the Moorabool Street intersection.

As a major activity centre, there should be a bus stop on every block at major intersections in the central city. In some cases where there is a departure side stop following a right-hand turn, there could be two stops at either end of the same block. Heavily used bus stops should be the length of at least two buses to provide adequate room for passenger loading.

Appropriate signage must be provided at each stop, clearly showing route numbers and route names, as well as the name of major intermediate destinations served by all routes using that stop (such as 'Geelong Hospital' or 'Geelong Station'). Timetables and route maps should also be provided on timetable display units on bus stop poles or shelters. Freestanding maps of bus routes and stops through the central city should also be provided at major destinations and interchange points (like the Moorabool and Malop Street intersection).

The route maps below show some possible options for routing buses in the centre of Geelong. We prefer Option 1.

Bus Route Option 1 (Preferred)



This map shows our preferred arrangement of central bus routes.

Bus corridors are shown in pink (Moorabool to Mercer Street services); dark blue (Aberdeen to Ryrie services), and aqua (Gordon Avenue to Bellarine Highway/Swanston Street services). The corridors shown are only the central sections of routes. They deliberately do not show the entire length of routes and their suburban branches.

Through the city centre, all east-west services use Malop Street and all north - south services use Moorabool Street. All services connect to the Geelong railway station. This option assumes the proposed northern entrance to the station has been built to provide much-improved access for the north - south bus services.

Further Notes and Other Options

We propose Malop Street as the main east - west public transport artery because, over the past two decades, the focus of the CBD has shifted to the north from Ryrie Street, and also because it links more directly to Geelong Station via Railway Terrace.

While Ryrie Street is only 200 metres from Malop Street, it does remain a significant office, entertainment and retail destination. If frequencies are high enough to provide good quality services along both Malop and Ryrie Streets, and if it is decided that services to Ryrie Street provide a reasonable alternative to services to Malop Street, some routes along Ryrie Street could be retained (Options 3 and 4). Bus stops on Ryrie Street could also be used in the future to reduce pressure on congested stops on Malop Street. However, connections to the station for through-routed Ryrie Street services could create a frustrating diversion for Aberdeen Street passengers travelling to or from the city (Option 3). One alternative is Option 4.

Services from Breakwater should be re-routed along Swanston Street to join the east-west bus routes near the hospital at Ryrie Street (as shown on maps),

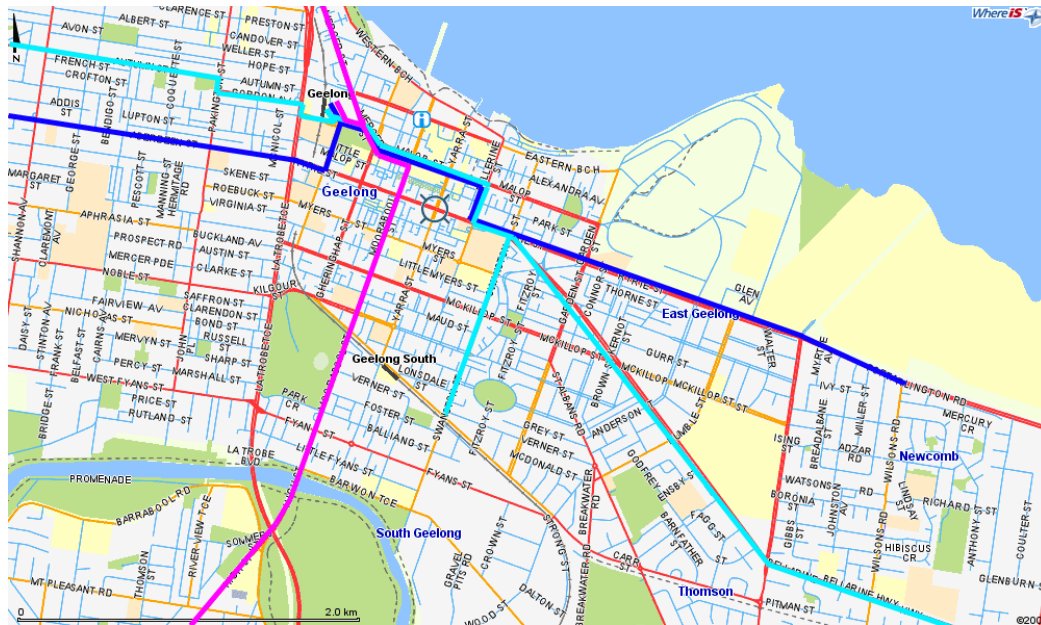
or could even be rerouted west to join the north - south buses travelling along Moorabool Street.

We have not re-routed north - south buses via Yarra Street to pass South Geelong station, because this would create an unnecessary diversion from the main route for passengers going to the city or further north, would subject buses to level crossing delays. It would also move the bus route further from the northern entrance of Kardinia Park, the southern Moorabool Street retail strip and the St John of God Hospital. Buses should instead be given traffic priority through the city centre.

We prefer the option that runs north - south buses to the station via Brougham Street (Option 1), although it is marginally less direct than a route via Malop Street (Option 2). This would allow for a bus stop on Moorabool Street to the north of Malop Street, remove a problematic right-hand turn from a busy intersection (immediately after which buses would be expected to stop), and provide a regular public transport connection that goes closer to the major destinations of the Waterfront and Deakin University.

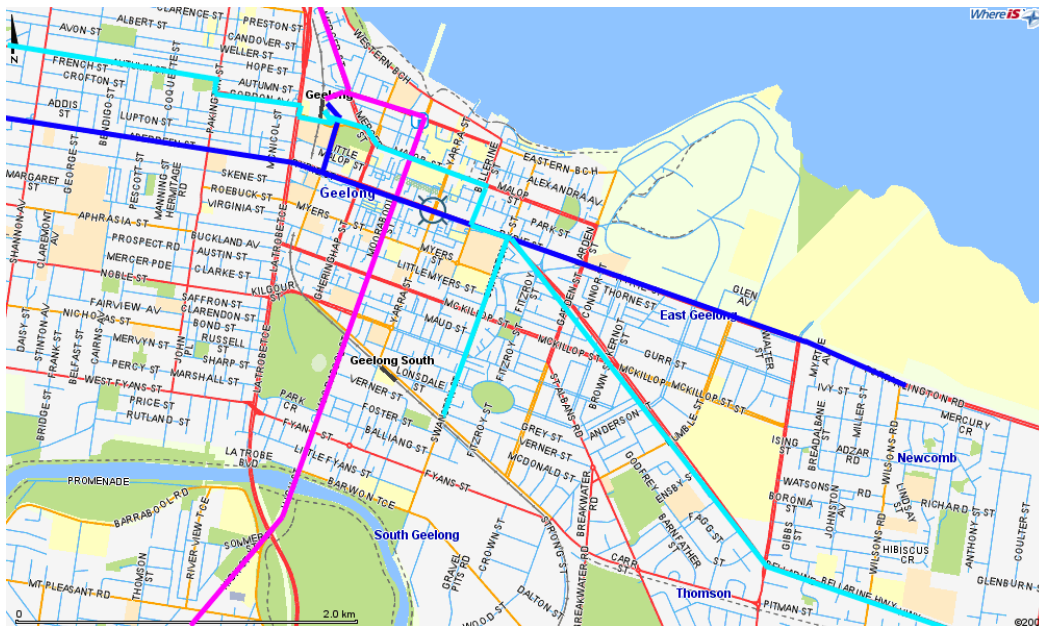
We imagine that some of the major north - south bus routes would be the only ones long enough to experience significant variations in travel time that might not be easily fixed by bus priority measures, and therefore where a pendulum-type route may not be appropriate. We provide an example of what could be done for the Melbourne Road and southern routes in Option 5.

Bus Route Option 2



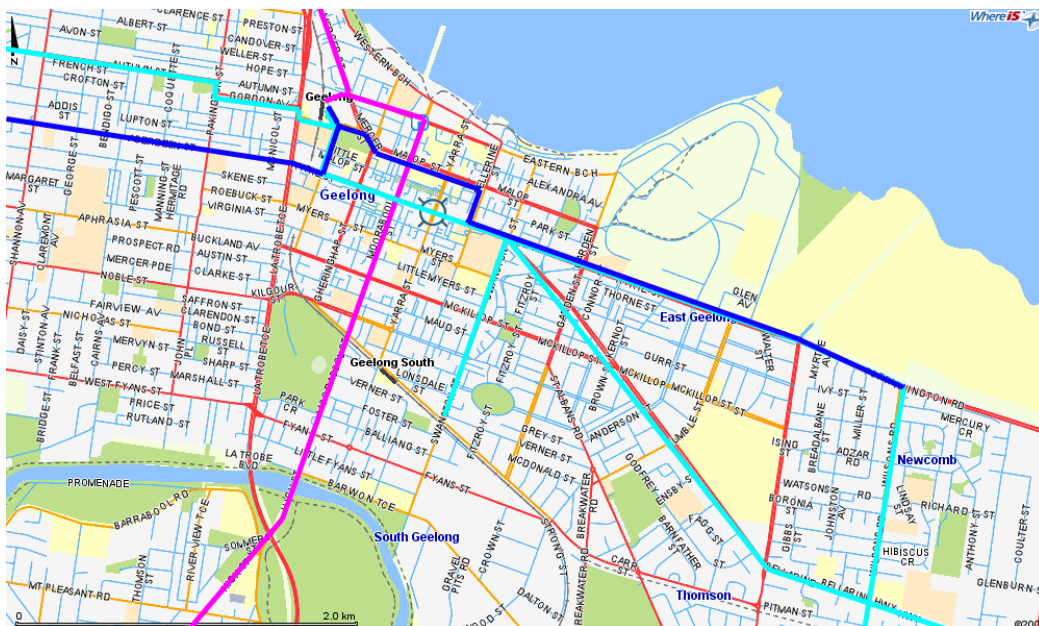
This option is the same as Option 1, except that it presumes a northern entrance to the Geelong railway station has not been built, so there is no service to the station via Brougham Street. North - south services run to the railway station via Malop Street.

Bus Route Option 3



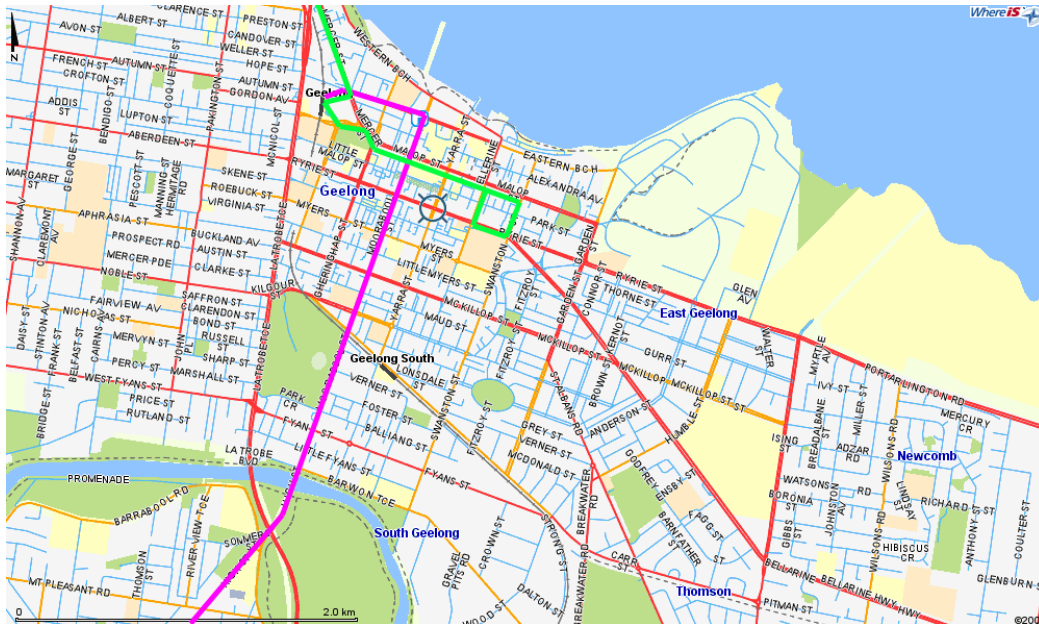
This option shows east - west bus routes that serve the central sections of both Ryrie and Malop Streets. This is not our preferred option. Service frequencies on east - west services would need to be improved if convenient levels of service were to be provided along both streets. Under this option, passengers from the city on services towards Aberdeen Street would also have to sit through a frustrating diversion to the railway station.

Bus Route Option 4



This option is similar to Option 3, but minimises the effect on Aberdeen Street passengers of the diversion to the station. However, this is still not our preferred option due to poorer service frequencies on east - west streets.

Bus Route Option 5 - Example of a non-through route



This option shows only the routes from the north (green) and south (pink). It is an example of services that are not through - routed. Urban routes should only terminate in the city centre in exceptional circumstances.

Tim Petersen
Paul Westcott
Geelong Branch, Public Transport Users Association
20th August 2007