## A Rail Connection to Mount Barker

The rail connection to Mt Barker has three problems, apart from patronage - gauge, administrative and operational jurisdiction and journey time.

All the suburban passenger rail services in SA are on the old Broad Gauge (1600mm or 5'3") and this stops at Belair. The interstate rail line from Adelaide (but not Adelaide Railway Station) is in Standard Gauge (1435mm or 4'8½"), This alone continues past Belair, to Murray Bridge and beyond. The connection from Mt Barker Junction (between Balhannah and Littlehampton) to Mt Barker Station is still in Broad Gauge. At the Adelaide end, the Broad Gauge and Standard Gauge lines from the Hills separate at Wayville after descending the Hills side by side - the Standard Gauge goes into the Great Southern (formerly Australian National) terminal at Keswick, while the suburban BG line continues into the main Adelaide station on North Terrace.

So a connection to Mt Barker would require either an extension as Mixed Gauge from Belair to Mt Barker Junction so that trains could enter Adelaide station, which would probably be useful for a suburban-type service, or Standard Gauge connections from Mt Barker Junction to Mt Barker station with the SG trains terminating at Keswick, but passengers transferring at Blackwood to the Belair line for intermediate stations to Adelaide, or (running express) at Goodwood to the BG Adelaide Metro suburban trains to Adelaide Central, or the Noarlunga/Seaford and Tonsley/Flinders Uni (heavy rail) or Glenelg tram (light rail) lines. From Adelaide Central connections to Salisbury/Gawler or Port Adelaide/Grange are available.

Cost would, I believe, rule out extending Mixed Gauge from Belair to Mt Barker Junction or taking Standard Gauge through the complexity of the Adelaide yards unless Great Southern was interested. A stand-alone Standard Gauge link, therefore, from Mt Barker Station to a sophisticated and upgraded Goodwood Station interchange, would seem a possible solution, providing linkages to intermediate stations and onward to all the Adelaide Metro suburban rail and tram network and destinations.

As I understand it, administration and operations involve these entities: The Australian Rail Track Corporation are responsible for the SG line into Adelaide and Adelaide Metro are responsible for the BG suburban rail and tram track and infrastructure. While Adelaide Metro operate the suburban trains, Pacific National, the Australian Railroad Group and Genesee and Wyoming Australia (at least) operate freight trains through the Hills, and Great Southern Rail (a Serco subsidiary) run 'The Overland' to and from Melbourne several times a week. Although access to the rail network appears to be guaranteed by the Competition Commission, any new operator of the service described above would have to negotiate with all these organisations, and more.

Operationally, any new service will need to fit in with other traffic – both Adelaide Metro suburban schedules and with freight trains and the bi-weekly 'Overland'. In times past there has been difficulty and conflict over the relative priority between passenger and freight trains. This may well have improved with the enhanced passing loops in the Hills, but tricky negotiations may lie ahead even if the problem is one of attitude rather than reality. New signalling will be required for the Balhannah Junction to Mt Barker section, as well as three automated boom gated level crossings and two more with at least flashing lights.

Lastly, the rail line through the Hills is necessarily very winding and tightly curved, which means the trip distance is longer than the freeway to the city (no-one usually drives to the city via Balhannah and Blackwood) and with lower permissible speeds as well. So the rail trip cannot compete with the freeway for either cars or commuter buses. However the travelling experience on rail is much superior to bus and does permit other activities more difficult or impossible in bus or car – reading, moving about, eating and drinking. So if time is not of the essence, rail can be a positive alternative experience. This could be the case for non-peak hour commuting, day-tripping tourist travel, perhaps connecting to "Steam Ranger" excursions, or just for other (comfortable) social and recreational travel. Special provision could also be made for cyclists to travel with their bikes. And all this while consuming coffee and apple strudel, or whatever!

With the growth of Mt Barker, the service frequency may later be increased to a full outer suburban service, like Gawler, and could even be extended to the South towards Wistow into the new residential areas. A Murray Bridge/Tailem Bend/ Bordertown service on similar lines would also be a possibility.

If a regular commuter service was the aim, it would be possible to consider a trial and then perhaps a service using XPT type train sets from N.S.W., diesel powered and with some "tilt train" capacity for higher speeds. Ideally, new battery and/or Hydrogen fuel cell carriage sets could be built. The commuter service to Adelaide in the morning could be the tourist service to The Hills on the immediate return journey and vice versa in the afternoon/evening. Alternatively, there could be a 'Steam Ranger' or the like service only, with a purely tourist, day-tripper orientation.

To recap, a passenger rail service to Mount Barker could be provided using the existing Standard Gauge line to Adelaide, requiring:

- Repairing and reconditioning the Adelaide Hills railway stations;
- Extending SG from Balhannah Junction to the Mt Barker station (and possibly with Mixed Gauge into the new housing development areas further South), and some upgraded level crossings;
- A 'passing siding' at Blackwood Railway Station that would create a short length
  of Mixed Gauge along the Western side of the Eastern platform or aligning the
  SG to use the Eastern side of that same island platform to allow passenger
  transfers back to Belair or on to intermediate stations to Goodwood and the City;
- A similar arrangement along the Western platform at Goodwood Railway Station, PLUS;
- A new elevated transfer concourse to be constructed at Goodwood, connecting all
  the rail platforms to the elevated City/Glenelg tramlines, and to buses on Leader
  Street by covered walkway. The concourse would include escalators and lifts and
  Goodwood would become the main interchange for Hills travellers into the City
  Rail Terminus, to the Flinders University and Seaford rail lines to the South and of
  course the tramline either to the City South, or to Glenelg;
- A stabling and refuelling spur for a couple of train sets just South of the Interstate Passenger Terminal.
- Two or three additional intermediate passing loops to accommodate Up and Down commuter, freight and 'Overland' services on the single Standard Gauge line.

This system would allow the extension of a passenger rail service through Nairne to Murray Bridge, Tailem Bend and even Keith and Bordertown.

The key element is interconnection in an urban system, not just point-to-point.

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**Background**. I worked as a civil engineer in rail in SA for ten years, chaired the joint rail unions consultative committee and was at the protest at Bridgewater when they closed the passenger service. These are preliminary opinions, subject to further investigation and confirmation.