A New Public Transport Plan for Perth
by
Peter Newman and Cole Hendrigan
CUSP, Fremantle
This Records the Closure of the
Perth - Fremantle Service*
Friday, September 1, 1979
*despite seven months of public protest

This Celebrates the Reopening of the
Perth - Fremantle Service*
Friday, July 29, 1983
*Public pressure after consistent
OVERCOMING AUTOMOBILE 
DEPENDENCE IN ASIAN CITIES

Supplementary policies on traffic demand 
management, parking restrictions, congestion taxes….
can all help, but will be reduced to marginal exercises
unless the structure of the city is addressed in terms of
the relative speed of traffic compared to sustainable
transport modes.
The city is moving toward the rail station....
1925, 1974, 2002, 2008...

2031 2.2 million
2050 3.5 million
<table>
<thead>
<tr>
<th>Year</th>
<th>Route Km</th>
</tr>
</thead>
<tbody>
<tr>
<td>1982</td>
<td>42km</td>
</tr>
<tr>
<td>1983</td>
<td>63km</td>
</tr>
<tr>
<td>1993</td>
<td>92km</td>
</tr>
<tr>
<td>2004</td>
<td>96km</td>
</tr>
<tr>
<td>2005</td>
<td>100km</td>
</tr>
<tr>
<td>2006</td>
<td>172km</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>172km</strong></td>
</tr>
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</table>
Southern Railway
Carrying 65,000 per day cf 14,000 on buses.
19% growth in past year!
20 years of rebuilding the rail system...Perth’s Northern Suburbs Railway now equal to 8 lanes of traffic.
National and global model...
$17$ mill per km.
Transport gridlock takes election centre stage

EXCLUSIVE
Gareth Parker

Colin Barnett has declared that transport projects will form the centrepiece of a re-elected Liberal-National government's second-term agenda, admitting Perth's congestion has hit a "tipping point".

In a concession that freeway gridlock is here to stay, Mr Barnett said transport would be a second-term focus in the same way that "rebuilding" WA's public hospital system was the key plank of his first 4\% years in power.

"There is no doubt that Perth has hit a tipping point," he said. "Suddenly, now, congestion is a reality."

"The public of WA are endorsing public transport. So we need to -

in this term of government, transport and public transport will be in the second term of government."

Mr Barnett declined to elaborate on his comments, made to Liberal Party supporters at a Churchlands campaign launch last week, but there are questions about where the billions of dollars needed to build the new projects set out in the Government's 20-year public transport blueprint will come from.

$1 billion, is unfunded. The Government and the Opposition have committed to a new train station at Atwell, south of Cockburn Central on the Mandurah line.

With State debt exceeding $15 billion and projected to peak at $32 billion in 2014-15, both major parties will struggle to fund big spending promises without reordering priorities.

Mr McGowan acknowledged he would be under construction by now had Alan Carpenter not lost the 2008 election.

"They (the Government) cancelled a rock solid commitment to build a railway to Ellenbrook, then they delayed ordering rail cars and didn't order enough — and the city has come to gridlock as a consequence," he said.

Mr McGowan refused to recommit to building the Ellenbrook rail link.
RAC Survey of 400 Perth Businesses on Impact of Traffic Congestion in 2012
Ambitious rail plan to link Perth to airport

Gareth Parker

WA's foremost public transport expert has proposed an ambitious "ring rail" project that would connect Perth's five existing rail lines and Perth Airport.

The plan — being developed by Professor Peter Newman and researcher Cole Hemtrigian of Curtin University's Sustainability Policy Institute — would effectively see two new east-west rail lines from Fremantle in the south and Warwick in the north converge at the airport.

The northern line would start from a new station at the Reid Highway interchange with the Mitchell Freeway and follow the alignment of the Reid and Tonkin highways road reserves.

The northern section would have up to nine stations and would connect with the Midland line at Bayswater station before crossing the Swan River and tunnelling under the airport runways.

The southern section would start at Fremantle and run mostly along existing freight rail lines from the port, south through Coogee, then east to Kenwick.

It would connect with the Mandurah line at a new station between Murdoch and Cockburn Central stations, and the Armadale line could be built on the southern section.

"This is definitely something that will take some time, it won't happen in the next term of government but the detailed studies can be done," Professor Newman said.

"It's a way of joining the city up in a much more sensible way. It's something we do well, putting railways down freeways. We know how to integrate them into the feeder buses."

A draft paper making the case for the project says rail costs between $17 million and $30 million a kilometre to build.

With the southern route using existing freight rail lines, most of the expense would be in new signalling equipment and stations.

The 22km northern section would be more expensive, but the most challenging engineering component would be crossing the Swan River and tunnelling under the airport.

The paper argues building the lines would spur development opportunities around the stations for new dense, walkable neighbourhoods oriented around public transport and cut dependence on cars.

It would also ease pressure on the city's freeways and highways and create much greater flexibility in travel options.
The Ring Rail, LRT and BRT plus development sites for the next 30 years growth in Perth
Redeveloping Fremantle wharf...
The Global City of Perth – inside the 15 km ring
The Plan will...

• Build 67 kms of heavy rail and 106 kms of light rail....presently 172 kms heavy rail. Doubling....

• Create 110 new stations on top of 86 stations.

• Provide 1m new residences equal to 30 years of Perth’s residential growth.
The Plan will....

- Double then triple the transit patronage.
- Reduce the sprawl – potentially to zero.
- Save $3.9b in residential infrastructure costs.
- Save 1.14b T of greenhouse gases per year (50% less per household).
- Save $2.6b in transport costs for new residents over 50 years.
- Save health costs and improve worker productivity by $403m per year.
THE KNOWLEDGE ARC LIGHT RAIL:
A CONCEPT FOR DELIVERING THE NEXT PHASE OF PUBLIC TRANSPORT IN PERTH

By Peter Newman and Jan Schipper, Curtin University Sustainability Policy (CUSP) Institute with assistance from Diana Ryan, Michael Kana, Jeff Karwosky, Mark Gachals and Brian McMahon

Curtin University of Technology

PARSONS BRINCKERHOFF
Integrated Land Use, Transport & Funding/Financial Planning

- **LAND USE PLANNING**
  - Transit Oriented Develop.
- **TRANSPORT PLANNING**
  - Value Capture
  - Govt. Develop. & J.V.
  - P.P.P.
- **FUNDING/FINANCIAL PLANNING**
  - Value Capture
Perth: 21st Century City

Focus on the 13 big development projects in Perth and show how they can be:

• Leading demonstrations of low carbon, renewable, *green development*

• Dense, mixed use centres made viable through *light rail*

• **Financed** by a new private-public mechanism that captures the value inherent in green, transit oriented development.....

Committee for Perth report...
Public Transport Funding – Value of Public Transport

Median unit dwelling prices over 25 years
Transit suburbs versus non-transit suburbs

Corview (2010)
Costs?

• Costs around $4.4b to build....at $28 and $24m per km (Southern Rail $17m per km).
• Value capture can pay for the whole new rail system.
• In new station sites alone value capture would bring in $3.6b (at 1% of increased land value) and parking fees.
Perth will become a 21st century global city...... Accessible without being so car dependent.
SYDNEY

Sustainable modes are growing, car use is plateauing…

<table>
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<th>Trips</th>
<th>2006/7</th>
<th>2010/11</th>
<th>% Change</th>
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<tbody>
<tr>
<td>Car Driver</td>
<td>7,992</td>
<td>8,062</td>
<td>1%</td>
</tr>
<tr>
<td>Car Passenger</td>
<td>3,550</td>
<td>3,653</td>
<td>3%</td>
</tr>
<tr>
<td>Car (Total)</td>
<td>11,542</td>
<td>11,715</td>
<td>1%</td>
</tr>
<tr>
<td>Train</td>
<td>815</td>
<td>920</td>
<td>13%</td>
</tr>
<tr>
<td>Bus</td>
<td>923</td>
<td>1,007</td>
<td>9%</td>
</tr>
<tr>
<td>Walk Only</td>
<td>2,964</td>
<td>3,153</td>
<td>6%</td>
</tr>
<tr>
<td>Other Modes</td>
<td>384</td>
<td>407</td>
<td>6%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>16,628</strong></td>
<td><strong>17,202</strong></td>
<td><strong>3%</strong></td>
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Sydney is coming back in after a century of going out

<table>
<thead>
<tr>
<th></th>
<th>Population (‘000)</th>
<th>% Change</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>2001</td>
<td>2011 (provisional)</td>
</tr>
<tr>
<td>Inner Sydney</td>
<td>991</td>
<td>1144</td>
</tr>
<tr>
<td>Middle Sydney</td>
<td>2289</td>
<td>2559</td>
</tr>
<tr>
<td>Far outer Sydney</td>
<td>848</td>
<td>903</td>
</tr>
</tbody>
</table>

*Inner Sydney is defined here as Waverley, Woollahra, Randwick, Botany Bay, City of Sydney, North Sydney, Mosman, Lane Cove, Manly, Willoughby, Ryde, Canada Bay, Strathfield, Ashfield, Marrickville and Leichhardt; Far outer Sydney is defined here as Camden, Campbelltown, Wollondilly, Penrith, Blue Mountains, Hawkesbury, Gosford and Wyong. Middle Sydney is defined as the remaining SLA’s. Source: ABS.*
Global growth now in rail...

- 82 Chinese cities building metros and high speed rail between cities
- 14 Indian cities building metros
- Middle east cities building rail for first time
US public transport growth

% Change in Patronage, 1993-2011

- Total Ridership (000s): 23%
- Heavy Rail (000s): 68%
- Light Rail (000s): 190%
- Commuter Rail (000s): 41%
- Trolleybus (000s): -20%
- Bus (000s):
Culture is changing
Annual vehicle miles per driver by age, USA, 1995, 2001, 2009

[Bar chart showing annual vehicle miles per driver by age for 1995, 2001, and 2009.]
www.sustainability.curtin.edu.au

for a copy of the draft paper for discussion.