Thornlie Line Extension

The 17.5 kilometre extension from Thornlie to Cockburn Central will serve the current and future growth occurring between the Mandurah and Armadale lines and address road congestion through enhanced connections, as well as influencing land use planning, to deliver well planned liveable communities.

The project addresses three key local issues:

- Current transport connections are insufficient to cope with expected population growth;
- The radial design of the current passenger rail network creates service gaps and reduces system resilience, limiting passenger mobility; and
- Economic and population growth pressures are leading to increased congestion and crowding across the transport system, adversely impacting the productivity of the system.

Project features

The extension will provide local residents and employees with better connections and more public transport options. It will also allow the introduction of a Mandurah special service for events at Perth Stadium. The extension is the first stage of a potential Circle Line, providing east-west train travel for the first time.

The next stage of planning work will finalise costings, design and scope for:

- approximately 3 kilometre duplication of railway between Beckenham and Thornlie stations;
- relocate freight lines to create the area for the electrified rail lines;
- approximately 14.5 kilometre extension to connect Thornlie and Cockburn Central stations;
- significant modifications at Thornlie to convert it into a through station that accommodates six-car trains;
- modified grade separations at Karel Ave and Ranford Road;
- additional platform and significant track work at Cockburn Central to independently service the extension without impacting existing Mandurah Line services;
- stations, bus interchanges and parking facilities at Nicholson Road and Ranford Road;
- noise and vibration mitigation measures;
- additional train and bus rollingstock required to service the extension;
- land use planning around stations, including density and mixed use; and
- value capture opportunities from development in the area.
Land-planning and value capture

The Thornlie Line Extension is a strategic transport link that will support future growth and accessibility across the southern metropolitan region, while providing a direct opportunity for localised integration at Nicholson Road and Ranford Road stations.

The extension will provide residents in this region with direct access to employment, sporting and recreation opportunities at Canning Vale, Cannington Strategic Metropolitan Centre, Burswood Peninsula and the eastern CBD. The extension will also encourage contra-flow travel into Cockburn Central, Rockingham and Mandurah.

Ranford Road Station will become an important transport interchange hub, providing the area with a more convenient service and reducing demand at Murdoch Station. A key focus for this station will be improving access into Canning Vale employment area with safe, comfortable pedestrian and cycle linkages.

Nicholson Road Station provides the opportunity for development of an integrated, transit oriented centre for the Huntingdale, Langford and Canning Vale communities, through a mix of housing, employment and convenience retail.

Value capture opportunities at both stations will be assessed during the precinct planning and design phase.

Population

<table>
<thead>
<tr>
<th>Year</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>72,729</td>
</tr>
<tr>
<td>2026</td>
<td>102,860</td>
</tr>
</tbody>
</table>

The combined areas of Canning Vale East, Canning Vale West, Forrestdale, Harrisdale, Piara Waters, Huntingdale and Southern River have experienced significant growth in recent years and are projected to do so in the future.

Expected journey times

<table>
<thead>
<tr>
<th>Location</th>
<th>Time to Cockburn Central</th>
<th>Time to Perth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nicholson Road</td>
<td>9 mins</td>
<td>25-27 mins*</td>
</tr>
<tr>
<td>Ranford Road</td>
<td>6 mins</td>
<td>28-30 mins*</td>
</tr>
</tbody>
</table>

*travel times depend on stopping patterns
For the Thornlie Line Extension to be a success there needs to be the right infrastructure to encourage passengers to use sustainable modes of transport to access the stations, in particular walking, cycling and catching the bus.

Measures to do this will include creating and connecting to local pathways, cycling infrastructure at each station and, subject to funding approval, introducing more than two million additional service kilometres and 20 new buses in the area.

At this early planning stage almost all bus services which connect to Murdoch Station will be retained. Final details of the bus services in the area will be developed, with public consultation, in the 12-months leading up to the start of operations.

Connecting to the stations

For the Thornlie Line Extension to be a success there needs to be the right infrastructure to encourage passengers to use sustainable modes of transport to access the stations, in particular walking, cycling and catching the bus.

Measures to do this will include creating and connecting to local pathways, cycling infrastructure at each station and, subject to funding approval, introducing more than two million additional service kilometres and 20 new buses in the area.

At this early planning stage almost all bus services which connect to Murdoch Station will be retained. Final details of the bus services in the area will be developed, with public consultation, in the 12-months leading up to the start of operations.

Noise and vibration

Independent noise and vibration modelling is a key part of the Thornlie Line Extension’s planning process. This modelling identifies where and what mitigation options may be required to minimise the impact to nearby residents. Over the coming months, as the planning continues, these measures will be investigated further.

Community engagement

Building public transport infrastructure in the community for the community will require input from a number of local stakeholders. As the project progresses, the community is encouraged to work with the team and provide feedback. A community forum with the Transport Minister and METRONET Team has already been held and a number of other engagement opportunities are being developed and a dedicated METRONET website will be available in late-2017.

Addressing local road congestion

Traffic modelling as part of the planning process will assess impacts from the proposed stations and identify the best road designs to minimise these impacts. However, addressing traffic congestion in the area requires a collaborative State and local Government approach as the issues are much broader than just public transport. The METRONET team brings together people from relevant agencies to work together to consider how to best address these issues and will work with the relevant local authorities.

<table>
<thead>
<tr>
<th>Station</th>
<th>2031 daily boardings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nicholson Road</td>
<td>1,932</td>
</tr>
<tr>
<td>Ranford Road</td>
<td>2,420</td>
</tr>
</tbody>
</table>

The exact design of potential stations will be determined following more in-depth analysis and studies.
Next steps

Work is underway to complete the Project Definition Plan, by early 2018.

Year 1
- Introduce enabling legislation to State Parliament
- Begin detailed design
- Continue environmental studies and geotechnical investigations
- Lodge approval applications to relevant State and Federal Authorities
- Community information sessions and engagement roll-out
- Forward works commence, including relocated freight lines
- Start main contract procurement

Year 2
- Enabling legislation passed through State Parliament
- Complete detailed design
- Award main contract

Year 3
- Construction commences

Year 4
- Construction completed
- Testing and commissioning
- Operations commence

About METRONET

METRONET is the State Government’s long term plan to connect our suburbs with world class public transport, reduce road congestion and meet Perth’s future planning needs. The integrated project will see coordination across Government to use transport investment as a vehicle to deliver well planned liveable communities and create thousands of new jobs.

METRONET will ensure land-use outcomes are at the forefront of the design of new infrastructure and lay the groundwork for vibrant new communities.

Stage 1 includes:
- completing the Forrestfield-Airport Link
- extending the Joondalup Line to Yanchep
- extending the Thornlie Line to Cockburn Central
- planning and constructing the new Morley-Ellenbrook line
- extending the Armadale Line to Byford
- relocating Midland Station and extending the Midland Line
- building a new station at Karnup on the Mandurah line
- removing level crossings on the Armadale, Midland and Fremantle lines
- planning work for an inner suburb light rail system, improving bus services and circle routes and creating better synergies between cycling infrastructure and public transport.

MORE INFORMATION
Email: info@metronet.wa.gov.au
Phone: 9326 3666
Web: metronet.wa.gov.au