The Urban Design Framework (UDF) establishes a set of urban design principles reflecting international best practice for the City Rail Link (CRL). They will be used to guide later phases of the CRL to ensure it delivers positive urban design outcomes.

These principles are grouped into four main themes:

1. Mana Whenua – recognising the opportunity to acknowledge and celebrate the rich Maori pre and post European contact history
2. Movement and Connections – how people move around to/from the stations
3. Public Realm and Landscape – the quality of public areas around the stations
4. Existing and New Buildings/Structures – issues around building forms and structures that will be affected or be built as part of the CRL

The Auckland Council City Centre Master Plan anticipates that the precincts around each station will be distinctive neighbourhoods, building on existing heritage and character.

The CRL will contribute to regeneration of parts of the city, such as Uptown in the Newton/Symonds Street area, by encouraging traditional pedestrian life back into the streets.
Wherever possible, the City Rail Link (CRL) will protect its heritage assets.

Where built heritage is required for CRL station requirements, adaptive reuse strategies will be considered to preserve the building’s role in maintaining the streetscape and urban character.

Working with the Historic Places Trust, the CRL team identified structures likely to be affected by the construction and operation of the CRL, using conservative international standards.

Technical studies on vibration supported the analysis of heritage and character sites on and near the route.

More detailed evaluation of any affected structures, however slight, will help shape the required monitoring and mitigation measures.

The majority of the CRL will be below the depth of archaeological remains. Any archaeological sites will be managed through a management plan and required protocols to ensure sites are well managed and respected and any discoveries recorded.

For further information visit www.cityraillink.co.nz,
Email: crlproject@aucklandtransport.govt.nz,
Phone: 09 355 3553
The City Rail Link (CRL) will improve the entire Auckland rail network - allowing more trains, more often, more direct and more reliably to more places.

- The CRL will allow more frequent services on key routes with double the number of trains able to run on the network
- Britomart will become a through station and not the end of the line, unblocking the network and eliminating the need to travel via Newmarket
- More direct travel to the city and improved access to the city centre and major employment areas with three new stations near Aotea Square, Karangahape Road and Newton
- The number of people within 30 minutes train travel of a city station will double
- More people on trains will reduce the pressure on roads to keep traffic moving
- Bus and train services will be better integrated

### Indicative Travel Times to City Rail Link Stations

<table>
<thead>
<tr>
<th>From</th>
<th>To</th>
<th>Travel by Train/Bus (minutes)</th>
<th>% Improvement in Travel Time</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Before CRL</td>
<td>After CRL</td>
</tr>
<tr>
<td>New Lynn</td>
<td>Aotea Station</td>
<td>51</td>
<td>23</td>
</tr>
<tr>
<td>Montagneville</td>
<td>Aotea Station</td>
<td>39</td>
<td>14</td>
</tr>
<tr>
<td>Oahuru</td>
<td>K’Road Station</td>
<td>47</td>
<td>27</td>
</tr>
<tr>
<td>Manukau Centre</td>
<td>K’Road Station</td>
<td>61</td>
<td>42</td>
</tr>
<tr>
<td>Newmarket</td>
<td>Aotea Station</td>
<td>27</td>
<td>10</td>
</tr>
<tr>
<td>Panmure</td>
<td>Newton Station</td>
<td>40</td>
<td>27</td>
</tr>
</tbody>
</table>
Economic Benefits

City Rail Link

Auckland’s Employment Composition

Cities are the primary drivers and location of economic growth. While manufacturing once supported the growth of cities, they now thrive through the growth of the knowledge economy.

Cities form and people choose to work in them because they are more productive; through scale and proximity. The availability of a skilled and educated workforce attracts high value-added businesses.

About 60% of New Zealand’s growth is in Auckland

- Auckland is New Zealand’s commercial capital; home to over 60% of the top 200 companies
- Auckland accounts for 34% of jobs in NZ and most are in the urban areas while Wellington, Hamilton and Tauranga combined, account for 13% of jobs
- The city centre is the hub of Auckland’s economy with up to 16,000 employees per square km

- City centre workers on average earn 27% more than the rest of Auckland
- Transport is critical to shape urban form and lead economic development. Cities with efficient transport systems are more productive than dispersed places
- Significant economic gains can be made from transport investment that improves access for people into areas of high employment density
- The City Rail Link is a $2.86b (in $2021) investment in Auckland and New Zealand’s future

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Phone: 09 355 3553
The City Rail Link (CRL) will help shape Auckland’s future. It is integral to Auckland’s City Centre Master Plan, Auckland Plan and Long Term Plan which provide the strategic direction for Auckland’s social, economic, environmental and cultural development.

A recent study showed what Auckland would look like in 2041. There will be:

- 700,000 more people
- 400,000 more houses
- Twice as many city centre and fringe residents and employees
- Thirty percent more tertiary students in the city centre

In 2041 without the CRL:

- City centre traffic speeds will be down to walking speed, 5km/h
- Bus corridors and city centre streets will be jammed
- Double the number of buses on Symonds Street per peak hour
- Private vehicle trips to the city, especially from the south will take much longer
Traffic changes will be managed through a construction environment management plan.

- Effects will be temporary and major roads will be kept open
- Albert Street and Pitt Street will have reduced road width
- Sections of roads adjacent to Albert Street may be closed temporarily (Victoria and Wellesley)
- Beresford Square is proposed to be closed to traffic

Managing adverse effects during construction will include options such as:

- Changes to traffic signal phasing and operation will help manage flows along affected streets and there will be advanced communication of detours and other changes
- Key side roads won’t be closed at the same time and construction will be staged to reduce impacts
- Access to residential and commercial property will be maintained
- Some bus stops will be relocated and routes modified
- At Eden Terrace/Mt Eden there will be diversions, temporary road closures, restricted road widths and temporary level crossings
Construction Impacts – Noise

City Rail Link

Adverse noise effects will be managed through a construction environment management plan.

Undergrounding of the majority of the route and the use of a tunnel boring machine (TBM) will result in significantly less noise than surface construction.

Surface construction noise will be temporary and typical of inner city construction with:

- Excavation machinery (diggers and dump trucks)
- Truck and vehicle movements
- Piling (secant pile and diaphragm walls)
- Hand held tools such as grinders, drills
- Demolition

- Noise monitoring at various locations along the route has established a baseline noise profile for the noise assessment and will be repeated before construction
- Monitoring will continue during construction and places particularly sensitive to noise will be identified and managed
- Construction methodology can be varied to ensure noise is appropriately managed

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There will be no dust for most of the route because the alignment is underground and dust from surface works will be managed through a construction environment management plan.

Dust sources will include:
- Exposed excavation and temporary access roads
- Truck loading and unloading
- Storage and handling of spoil
- Cement handling

Options for managing dust include:
- Sheds to cover construction activity
- Water to dampen materials
- Wind fencing to prevent movement
- Wheel washing facilities for construction vehicles
- Roads continuously swept to ensure no construction dust/debris is left behind
City Rail Link

Construction

• Effects will be temporary and varied and will reduce with distance and the type of ground being worked in
• Tunnels are generally deep and the use of a TBM, tunnel boring machine will minimise vibration
• Preliminary indications are that there is little risk of vibration-induced building damage and effects would likely be aesthetic such as minor paint cracking

Operation

Operational vibration from trains is predicted to be within accepted limits. Potential for implementation of mitigation measures at sensitive receivers (e.g. recording studios, performing arts centres) including:
• Floating tracks to isolate the line in sensitive areas
• Resilient rail fasteners or continuously welded rail
There are two main construction methods proposed for the City Rail Link:

1. Cut and cover where the tunnels are dug from the surface
2. Tunnelling using a Tunnel Boring Machine (TBM) which travels at some depth below the ground and significantly reduces impacts

These will be used in different areas:

- Cut and cover near Mt Eden station where the underground tunnels need to rise to the surface to meet the existing North Auckland Rail Line
- Cut and cover along Albert Street where it is likely to be too shallow for a TBM and there are utilities running down its length
- Tunnelling by TBM from Mayoral Drive to an area beyond Symonds Street between New North and Mt Eden Roads

The main construction area will be at the southern end of the project adjacent to New North Road. The tunnel will be bored from this end to Mayoral Drive, the equipment dismantled and returned to the start for the second tunnel bore. Spoil from the tunnels will be removed from the Eden Terrace end.

There will be smaller localised construction yard areas at Downtown and near the three stations.
Auckland Transport is seeking a designation over both surface and below ground property for the City Rail Link (CRL).

- Much of the land required to build and operate the CRL is located below roads or on property already owned by Auckland Transport or Auckland Council
- This contributes to minimising effects of the project on landowners and occupants

The CRL will also require private land from about 200 below ground (sub strata) and 75 surface properties identified in the six Notices of Requirement (NoR). Landowners own their property to the centre of the earth requiring below ground land needed for the tunnels to be purchased. Some of the surface land will be required temporarily.

Features of the property purchase programme are:
- Under the current programme, property purchase will be initiated in a staged approach between July 2013 and June 2015
- Auckland Transport will seek to buy property on a willing seller/willing buyer basis
- If agreement cannot be reached within a reasonable time, Auckland Transport will seek to acquire the property compulsorily under the Public Works Act (PWA)

The PWA sets out processes to be followed and the basis for compensation:
- The staged approach to acquisition means landowners should contact Auckland Transport about the timing of instructing any advisors for advice
- Once negotiations are initiated by Auckland Transport, landowners are advised of their rights to independent legal and valuation advice
- Information on the PWA and landowner rights is available at www.linz.govt.nz

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Auckland Transport serves six Notices of Requirement (NoR) to designate land to build, operate and maintain the City Rail link (CRL) and have the land identified in the district plan.

* Auckland Council publicly notifies the NoRs. The usual 20 working day period for submissions has been extended to 35 working days.

Submissions close on 19 March 2013.

Independent commissioners will consider the NoR. Submitters can choose to speak at the hearing. The hearing is anticipated in mid 2013.

Auckland Transport has 30 working days to decide if it accepts or rejects the commissioners’ recommendation to confirm, modify or withdraw the designation.

All submitters and affected landowners will be informed of the decision which can be appealed to the Environment Court.

*Indicates the current stage of the process.

Information relating to the six NoRs and the submission form are on the Auckland Council website at www.aucklandcouncil.govt.nz. Submission forms are also available at the Auckland Central Library and the Council’s Civic building.
Auckland Transport is in the early stages of the City Rail Link (CRL). They key purpose of the current phase is to secure a designation to allow the CRL to be built, operated and maintained in the future. The designation protects the land by monitoring development which would prevent or hinder the CRL.

<table>
<thead>
<tr>
<th>Current Phase</th>
<th>Phase 2</th>
<th>Phase 3</th>
<th>Phase 4</th>
<th>Phase 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineering design</td>
<td>Concept design</td>
<td>Preliminary design</td>
<td>Detailed design</td>
<td>Construction design</td>
</tr>
<tr>
<td>Investigation</td>
<td>Desktop analysis</td>
<td>Site Investigations</td>
<td>Further site investigations</td>
<td>Any final site investigations</td>
</tr>
<tr>
<td>Consultation</td>
<td>Landowners</td>
<td>Stakeholders</td>
<td>Community</td>
<td>Customer support</td>
</tr>
<tr>
<td>Planning</td>
<td>NoR Effects assessment for land use activities</td>
<td>Resource consents (land disturbance, ground water take/diversions)</td>
<td>Any localised consents Outline Plan of Works</td>
<td></td>
</tr>
<tr>
<td>Conditions</td>
<td>Designation conditions to manage effects</td>
<td>Resource consent conditions</td>
<td>Implement conditions</td>
<td>Ongoing monitoring</td>
</tr>
</tbody>
</table>
Iwi throughout Auckland self-identified their interest in the City Rail Link (CRL). Auckland Transport is establishing a collaborative working relationship with iwi which will continue throughout the project.

A cultural values assessment is included in the CRL planning documentation. It summarises the matters iwi have identified in their individual Maori Values Assessments and provides recommendations to manage or avoid adverse effects on their values. Both physical and metaphysical elements such as mauri, tapu, whakapapa and mana will be considered.

Some factors that iwi/hapu have identified as helping mitigate the impacts of the project are:

- The existence of the urban environment
- The modern (post 1840) landscape is important to mana whenua as a symbol of partnership and mutual benefit
- The CRL is a major public transport project that will benefit Aucklanders including mana whenua and visitors

For further information visit [www.cityraillink.co.nz](http://www.cityraillink.co.nz),
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Phone: 09 355 3553
An Environmental Management Framework (EMF) has been established to be implemented throughout delivery of the City Rail Link. The EMF sets out a process for managing effects during construction and operation.

Managing Environmental Effects

Environmental Management Framework (EMF)
Developed at NoR stage to establish the framework of management plans which will manage adverse environmental effects from the project during construction and operation.

Environmental Management Plan (EMP)
Key plan under EMF to address all major activities to be undertaken as part of design, construction and operation. Sets out how the management of adverse environmental effects will be implemented in plans which sit under the EMP (indicative content prepared now; final plan prepared at construction time).

Construction Environmental Management Plan (CEMP)
Management of adverse environmental effects during the construction phase (indicative content prepared now; final plan prepared at construction time).

Communications Plan
Principles and methods for undertaking communication and consultation at construction phase - how the management of environmental effects will be communicated and consulted on during construction (indicative content prepared now; final plan prepared at construction time).

Operational Plans
Any management plans required to address the management of on-going adverse effects when the CRL is operational (prepared following construction).

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Environmental Effects

City Rail Link

Sufficient investigation and design has been undertaken to understand the likely environmental effects of the City Rail Link (CRL)

- Construction of the CRL will be typical of large infrastructure projects
- Potential adverse effects during construction will be significant but temporary and localised
- Construction period is likely to be five to six years and may take place at a number of locations simultaneously but not at all sites for the entire period
- Longer term effects will be, in general, significantly positive

Adverse effects during construction which can be managed include:
- Changes to vehicle, pedestrian and cyclist movement and access
- Disturbance from noise and vibration
- Human health from removal of any contaminated soil
- Social effects

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