Future Proofing Auckland's Rail Network

By Martin Kearney FCIRO, CEO, Auckland One Rail/ Gavin Panter FCIRO, COO, Auckland One Rail

Auckland One Rail's CEO Martin Kearney and COO Gavin Panter, both Fellows of CIRO, are pictured at the Wiri Depot in Auckland.

Joining Auckland One Rail (AOR) both Martin Kearney and Gavin Panter are Fellows and ANZ Council members of CIRO. Martin joined AOR as CEO in October 2023, whilst Gavin followed as COO in February 2024. Between them they have nearly 70 years of operational experience across the UK, Australia, and New Zealand.

AOR is the proud operator of Auckland's metropolitan rail services, delivering safe, reliable, and customer-focused transport across New Zealand's largest city, with an estimated population of around 1.7 million people. AOR began operations in January 2022 under a joint venture between ComfortDelGro Transit (Singapore) and UGL Rail (Australia).

Operating under contract to Auckland Transport, AOR manages daily train services, train crew, and station operations across four major lines: Eastern, Western, Southern, and Onehunga.

Over the past decade, major investments have transformed the network, including full electrification, modern, CAF built, AM class electric trains, upgraded stations and safety enhancements such as level crossing removals.

The construction of the City Rail Link (CRL), New Zealand's largest ever transport infrastructure project will reshape Auckland's rail network and double its capacity. The twin 3.45km rail tunnels, due to open in 2026, has added two new underground stations and redeveloped two other key stations, and turning Waitematā (also known as Britomart) Station into a two-way through station.

Today, Auckland's rail network supports circa 15 million passenger journeys annually, driving sustainable growth, reducing congestion on roads, and shaping the region's urban development with a focus on connectivity, resilience, and future expansion.

The company is also deeply involved in the testing and commissioning for the CRL opening which will further unlock capacity through the city centre, enabling faster, more frequent services.

Martin says his focus is to create a culture of continuous improvement with a strong emphasis on safety, punctuality, and customer experience.

"As we prepare for the CRL opening, and what lies beyond that, there is a massive focus on recruitment, as well as on training and developing our teams to perform at their best.

"Within the past 18 months we've also developed our executive leadership team and brought some real talent onboard, which is making a measurable difference to our overall performance."

With a diverse and skilled team, AOR is focused on delivering world-class rail services that connects communities, supports economic growth, and contributes to a more liveable city.

Batch 3 trains & fleet maintenance

Wiri EMU Depot where the new trains for the Auckland network are delivered to for testing and commissioning.

Some of the new trains recently delivered to Wiri EMU Depot for testing and commissioning prior to going in to service.

Auckland's rail network is getting a major boost with the arrival of the new "Batch 3" Electric Multiple Units (EMUs) at Auckland Transport's Wiri EMU depot. These state-of-the-art trains, manufactured in Mexico, are part of a fleet expansion to support the upcoming CRL opening and meet growing customer demand. The first of 23 new trains entered service in July, with additional units steadily making their way to Wiri for testing and commissioning.

The "Batch 3s" follow the delivery of two previous batches of trains. Martin was managing director of Transdev when he oversaw the first batch of EMUs that went into service in Auckland back in April 2014.

The Wiri depot itself has undergone a significant upgrade to accommodate the new arrivals. Completed in late 2024, the expansion includes 10 new stabling roads and enhanced maintenance facilities, ensuring each train receives regular inspections and upkeep every 10,000 kilometres. This infrastructure investment is crucial for maintaining peak performance and reliability across Auckland's rail system.

Batch 3 trains have a similar look and feel for customers, with a 3-car formation and improved features such as door anti-drag systems, Baseline 3 ETCS and enhanced energy efficiency, while also offering the customer some charging power through USB sockets. Once testing is complete, the new trains are expected to be fully integrated into the fleet by Q1 2026, offering faster, cleaner, and more frequent journeys for Aucklanders.

In addition, AOR takes over maintenance of the fleet from current maintainers CAF New Zealand on 16 October. From this time AOR will have responsibility for maintenance of both the current fleet of 72 3-car EMUs, and also the 23 additional units being delivered throughout 2025.

A long-term Technical Support and Spares Supply Agreement (TSSSA) was signed with CAF New Zealand in May, smoothing the path to fleet transition in October.

"The TSSSA represents a significant step forward in ensuring the continued reliability, safety, and performance of Auckland's metro fleet. We look forward to working closely with CAF New Zealand to deliver high-quality, sustainable rail services for Auckland," says Martin.

CAF will have a continued presence at Wiri and provide AOR with the spares required to maintain the fleet when AOR takes on the maintenance in October.

Pukekohe to Papakura

A $420m collaborative project between KiwiRail, Auckland Transport and Auckland One Rail extended the electrified rail network by approximately 20km from Papakura to Pukekohe in South Auckland.

Pukekohe Station re-opened for passenger services in February this year, marking a huge milestone for the local community, following a 2.5-year closure to allow for the electrification of the line between Papakura and Pukekohe stations.

The opening of Pukekohe Station modernised Auckland's rail network and supports the current and future growth of the South Auckland area, as reported in 1News, Scoop and RNZ.

Three new stations are currently under construction between Papakura and Pukekohe, all part of the plan to future proof the rail network and support new and growing communities in those areas.

Drury, Ngākōroa, and Paerātā stations are currently under construction with staggered completion dates through to 2027, based on a, "build it and they will come" approach, in support of a surge in housing developments in the region.

AROC

Auckland Rail Operations Centre, known as "AROC" is a state-of-the-art facility designed to revolutionise how Auckland's rail network is managed.

Auckland One Rail also plays a pivotal role in the newly opened Auckland Rail Operations Centre (AROC) in Ellerslie - a state-of-the-art facility designed to revolutionise how Auckland's rail network is managed. Opened in March 2024, AROC has brought together Auckland One Rail, KiwiRail, and Auckland Transport under one roof to coordinate train control, infrastructure planning, station operations, crew management, and customer communications.

AOR's involvement ensures seamless integration of metro train operations with broader network planning. Their teams work alongside transport coordinators and infrastructure specialists to respond swiftly to disruptions, improve service reliability, and enhance passenger experience. The centre functions like an air traffic control hub for trains, monitoring routes, separation distances, and train order.

Gavin describes the facility as "world-class" in its construction and says it's now all about delivering the very best from the co-located teams there. With built-in resilience features - including earthquake protection, backup generators, and redundant servers, as well as the ability to be operated remotely from Wellington

ROC (& vice versa) - AROC is designed to withstand emergencies and support future rail expansion.

“AOR’s presence at AROC marks a major step forward in delivering smarter, safer, and more connected rail services for Auckland,” says Gavin.

Future Technology

AOR, which has the European Train Control System (ETCS Level 1) on all its trains, is supporting KiwiRail and Auckland Transport in scoping the implementation of ETCS Level 2. ETCS Level 2 would enhance safety, efficiency, and capacity across the rail network, while being an enabler for Automatic Train Operation (ATO) or the use of platform screen doors.

“Ultimately, it lays the foundation for a smarter, more resilient rail system that meets Auckland’s future transport needs,” says Gavin.

AOR is currently at the investigation phase of ATO functionality and any potential introduction to the EMU fleet, with the focus on improving service reliability, punctuality, and energy efficiency across its network.

“Drivers remain an essential part of onboard operations moving forward, but clearly with increased frequencies and minimum headways, every train being consistent, particularly in the CRL will be key,” Gavin adds.

Martin says the technology marks a major step toward modernising Auckland’s rail system and delivering world-class public transport and is especially vital as the CRL opens and passenger volumes increase.

“At AOR, we’re reshaping Auckland’s rail network by integrating cutting-edge technology like ETCS Level 2 and ATO, expanding our fleet with Batch 3 EMUs, and harnessing real-time coordination at AROC. These innovations will deliver higher capacity, greater reliability, and a world-class passenger experience across Auckland’s growing metro rail system.”

City Rail Link

An artist's impression of what will be Auckland's new midtown station Te Waihorotiu.

The new City Rail Link tunnels creates an underground link across the rail network which will revolutionise Auckland's public transport system.

Martin says AOR is proud to play a pivotal role in supporting the transformative City Rail Link (CRL) project and is working closely with CRL Ltd, Link Alliance, Auckland Transport, and KiwiRail to ensure seamless integration of operations, infrastructure, and customer experience as the city prepares for a new era of rail travel.

The CRL will double the capacity of Auckland's rail network by creating a 3.45-kilometre underground link between Waitematā (previously known as Britomart) and Maungawhau (previously known as Mount Eden) stations. AOR will also have the ability to further boost capacity with 9-car trains post-CRL opening.

The AOR team is also actively involved in readiness planning, including driver training for new routes, station operations, and customer service enhancements to support the anticipated surge in patronage, as well as creating the new timetable based on client (Auckland Transport's) specification.

With a strong focus on safety, sustainability, and innovation, AOR is helping shape a future-ready rail system that meets the needs of a growing and diverse urban population.

Martin says the CRL is not just a tunnel - it's a catalyst for change in the way Aucklanders and visitors move around the city.

"We are preparing to deliver world-class service from day one. City Rail Link will transform Auckland's rail network. It will boost capacity, reliability, and customer experience. It's a game-changer for our customers and a vital step toward a more connected, modern transport network for Auckland."

A recent VIP train trip through the new tunnels put Auckland One Rail firmly in the public focus:

Prime Minister and VIPs take historic trip on Auckland's $5.5 billion City Rail Link – New Zealand Herald

Politicians attend Auckland's City Rail Link's test run – Radio New Zealand

Stories about CRL driver training are in hot demand as Auckland prepares to open its first underground stations:

Joel and the Train Simulator

Meet Rob and Mikayla – two of the 50-odd drivers who have been involved so far in testing trains through our shiny new CRL tunnels