



Group name

Sub-heading

Month Year

Introductions

- Francois Dudouit, Alliance Project Director
- Dale Burtenshaw, Deputy Alliance Project Director
- Jon Varndell, Design Manager, PAB Member
- Philippe Begou, General Construction Manager
- Rachel Blundell, Communications & Engagement Manager
- Sandip Ranchhod, Owner Interface Manager



Introducing the Link Alliance

- Link Alliance members:
 - Construction: Vinci Construction Grands Projects, Soletanche Bachy International NZ and Downer NZ
 - Design: AECOM, Tonkin+Taylor, WSP
 - CRL Limited
- *International team with local experience* – spanning rail projects in Hong Kong, Singapore, Qatar, Egypt and Auckland's own Waterview Tunnel
- *Knowledge transfer* – staff with experience on other contracts, teaming up with embedded CRL staff



The Link Alliance - delivering Auckland's first underground



Currently Already Let/Under Construction:

- Contract 1** - Britomart Station/Lower Queen St
- Contract 2** - Albert St (Customs to Wyndham St)
- Contract 6** - Mt Eden Stormwater Main

Contract 3 - Alliance:

- Stations and Tunnels
- Western Line connection
- Rail Systems

Contract 9 - Britomart East

Wider network improvements (not shown):

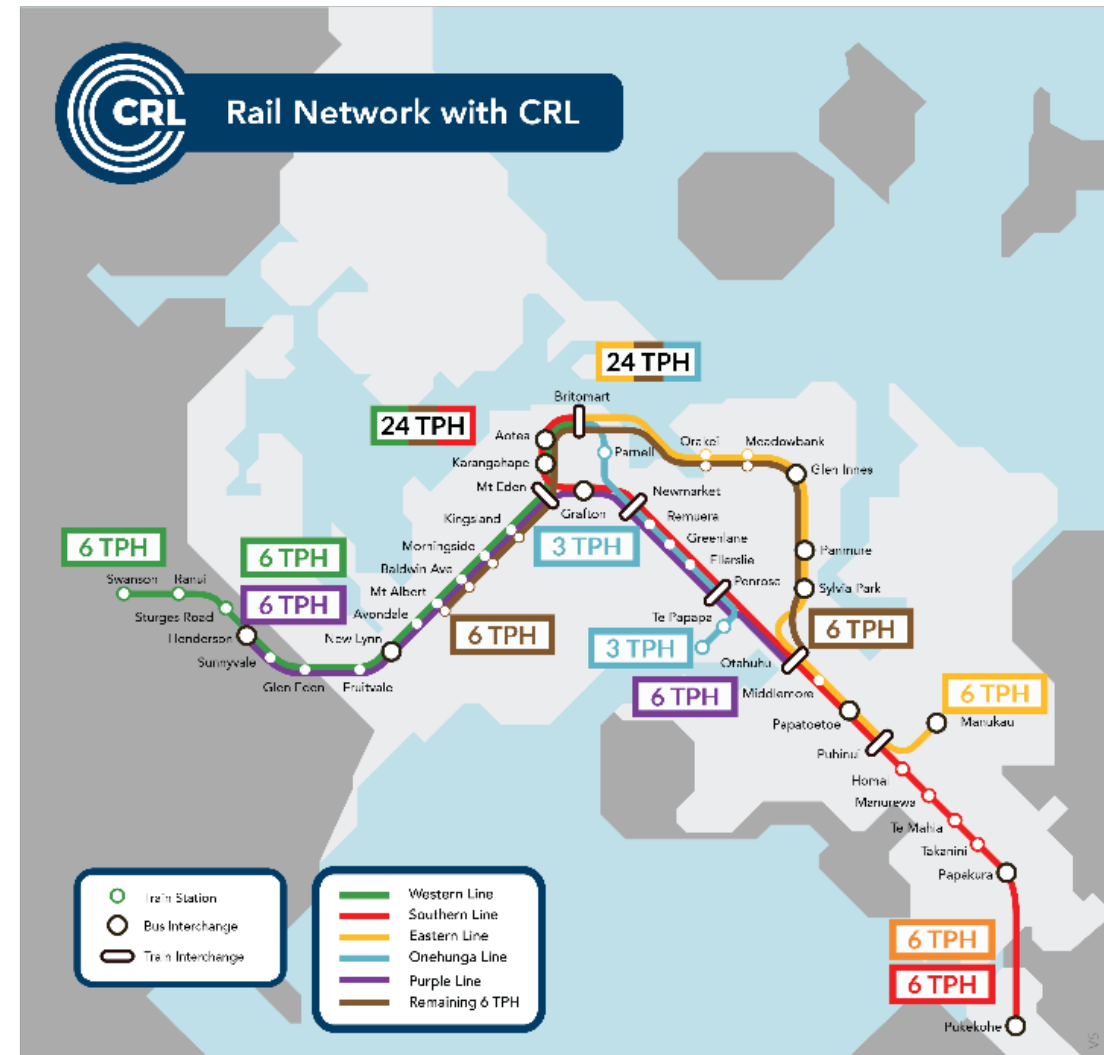
- Strand & Otāhuhu improvements
- Newmarket improvements
- Henderson improvements

Overview programme (all dates approximate)

Key Milestones	2019	2020	2021	2022	2023	2024
Enabling works, including utilities, demolition	Q3	•	Q3			
Mt Eden Station	Q4	•	•	•	•	Q4
Karangahape Station		Q1	•	•	•	Q4
Aotea Station		Q1	•	•	•	Q4
Testing and commissioning					Q2	Q4

CRL helps realise the vision of the City Centre Masterplan

- Unlocks Auckland's entire rail network
- A train at least every ten minutes in the peak for turn up and go services
- Adds the equivalent of an additional 16 lanes of traffic into the city centre in the peak (or 3 Harbour Bridges) (14,250 – 54,000 pax)
- Significant commercial and residential opportunities around the stations
- Double the number of people within 30 minutes of NZ's biggest employment hub
- Job creation for up to 1600 people during construction
- Delivering a realistic alternative to the private car

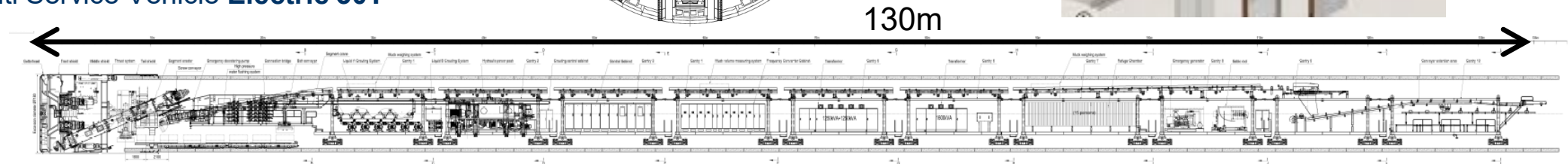
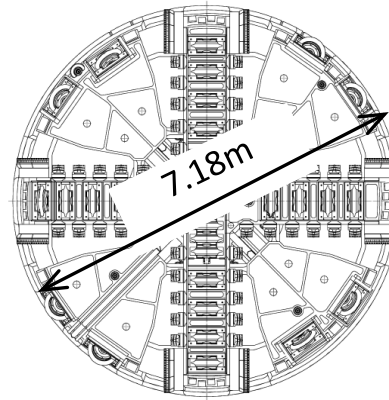


Delivering Auckland's transport megaproject

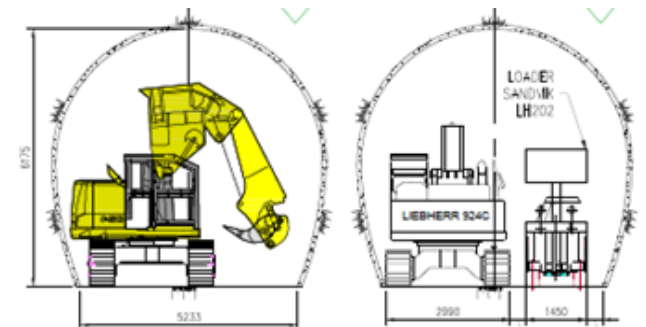
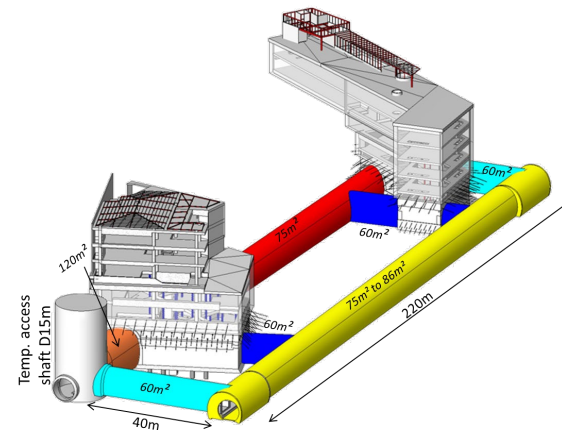


Major Plant & Equipment

- 2 Nos D-Wall rigs
- 2 Nos STP
- 3 Nos Piling rigs
- 1 No TBM **EPB 7.18m**
- 1 No Conveyor **600T/hr**
- 1 + 1 Nos Multi Service Vehicle **Electric 30T**



- 3 Nos Tower Cranes
- 2 Nos Overhead crane **15T/40T**
- 1 No Roadheader **300kW/130Tons**
- 2 Nos Jumbos
- 2 Nos Shotcrete Machine
- 1 No tunnel excavator **50T**
- 4 Nos Excavators **25T**
- 2 Nos Dumpers **20T**



Constructing four kilometres of tunnel – a few figures

STATIONS	Tender Design
<u>Excavation:</u>	
Aotea	165,100m ³
Karangahape (shafts)	79,400m ³
Mt Eden	127,100m ³
Global excavation	371,600m ³
<u>Concrete (structural + retaining structures only):</u>	
Aotea	36,900m ³
Karangahape	20,450m ³
Mt Eden	22,000m ³
Global concrete	79,350m ³
<u>Reinforcement (structural + retaining structures only):</u>	
Aotea	6,480t (176kg/m ³)
Karangahape	3,970t (194kg/m ³)
Mt Eden	3,500t (159kg/m ³)
Global reinforcement	13.950t (176kg/m ³)

TUNNELS	Tender Design
<u>Length:</u>	
TBM tunnels	3,223m
Mined tunnels Mt Eden	251m
Mined tunnels Karangahape	460m
Global Tunneling	3,934m
<u>Excavation:</u>	
TBM tunnels	129,400m ³
Mined tunnels Mt Eden	16,700m ³
Mined tunnels Karangahape	35,200m ³
Global excavation	181,500m ³
<u>Concrete (secondary lining):</u>	
TBM tunnels	20,050m ³
Mined tunnels Mt Eden	3,200m ³
Mined tunnels Karangahape	5,450m ³
Global concrete	28,700m ³

‘Sandrine’ and diaphragm wall piling downtown



Minimising effects for Albert Street with our construction methodology

- ‘Top-down construction’ – Mayoral Drive to 20m north of Victoria Street:
 - Roof structure installed first, enabling construction to continue underneath
 - Superior outcome for stakeholders
- ‘Bottom-up construction’ – Bluestone Wall north to Wyndham Street:
 - Similar to the current C2 method – excavation and building base back up
 - Required due to the complexity of the roof structure.



World-class, award-winning design imbued with Te Aranga Principles



Proposed – Aotea Station entrance

World-class, award-winning design imbued with Te Aranga Principles



World-class, award-winning design imbued with Te Aranga Principles



Proposed - Mt Eden Station entrance

Working in Auckland's fastest growing employment hub: the City Centre



Communications & Engagement – managing impacts with care & consideration

- Early, consistent and accurate information to residential and business communities
- Interface with connected projects - C1/C2 contract on Albert St and K Road enhancements
- Working with Mana Whenua, Local Boards, Business Associations and Auckland Council
- Community liaison groups and business forums
- Publicity campaigns for significant traffic switches – targeting all transport modes
- Activations and events
- Site tours and visits
- Hoarding strategy and execution
- Media and PR in liaison with CRLL
- Development Response

CityRailLink
Auckland's first underground rail line - coming 2024

Over the next 30 years, a million more people will call Auckland home. The 2.7km underground rail line will unlock our public transport network and transform the way we travel around the city. When CRL opens, Aucklanders will have new world-class stations and a modern rail service that benefits the entire transport network. Britannia Station will no longer have a dead-end. It will become a two-way through station - doubling the capacity of the entire rail network to carry up to 54,000 passengers an hour of peak. Now an iconic locally-designed station with underground platforms will be built under Albert Street and Karangahape Road - providing new transport connections. CRL will connect with the Western Line at a redeveloped Mt Eden Station - less than 10 minutes from downtown Auckland - opening up the entire rail network.

Crossing
THIS WAY TO
Albert St
Victoria St
Queen St

TIME SAVINGS

TIME SAVINGS	17 MINUTES	17 MINUTES
9 MINUTES	9 MINUTES	10 MINUTES

CRL BRINGS TWICE AS MANY PEOPLE WITHIN 30 MINUTES OF NZ'S BIGGEST EMPLOYMENT HUB

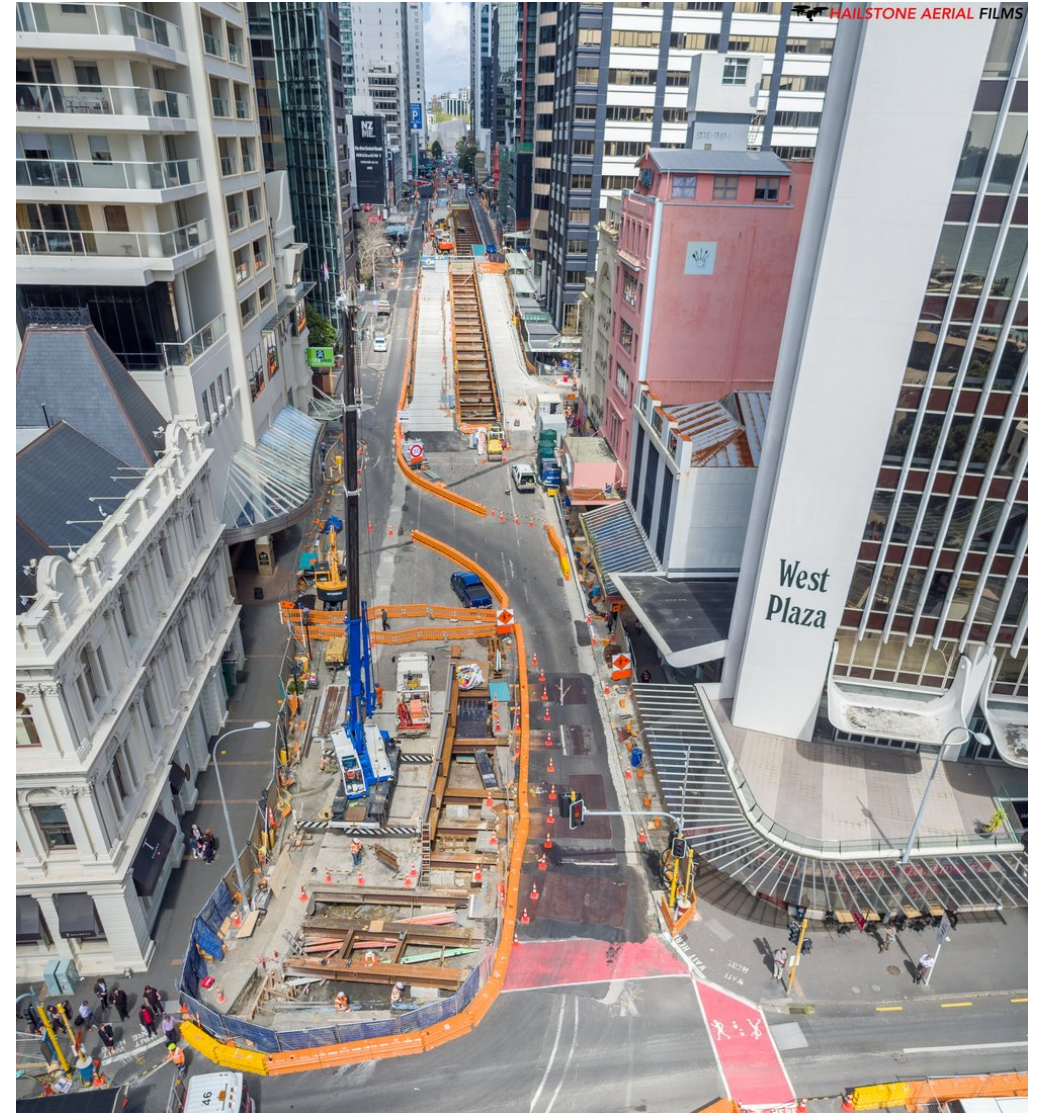
CONNECTUS 0800 CRL TALK (0800 275 8265) CityRailLink New Zealand Government Auckland Council

Albert Street Development Response Plan Principles

- **Messaging:** clear, consistent communication early and often
- **Basics:** get the simple things right
- **Responsive:** deal with the issues quickly
- **Support:** we work with you to support businesses with development response programming that reflects needs

Development Response Resourcing:

- Dedicated DR manager for each precinct, supported by Communications & Engagement staff working in the community



Engagement with Auckland Council

- Build on CRLL's strong working relationship
- Based on regular, timely and proactive communication
- Sharing of programmes and early drafts to optimise processing time
- Encourage “expert to expert” face to face relationships
- Understand the regulatory framework and pressures
- Open and transparent “no surprises” approach for:
 - RMA approvals and compliance
 - Building Act approvals and exemptions
 - Engineering Plan approvals

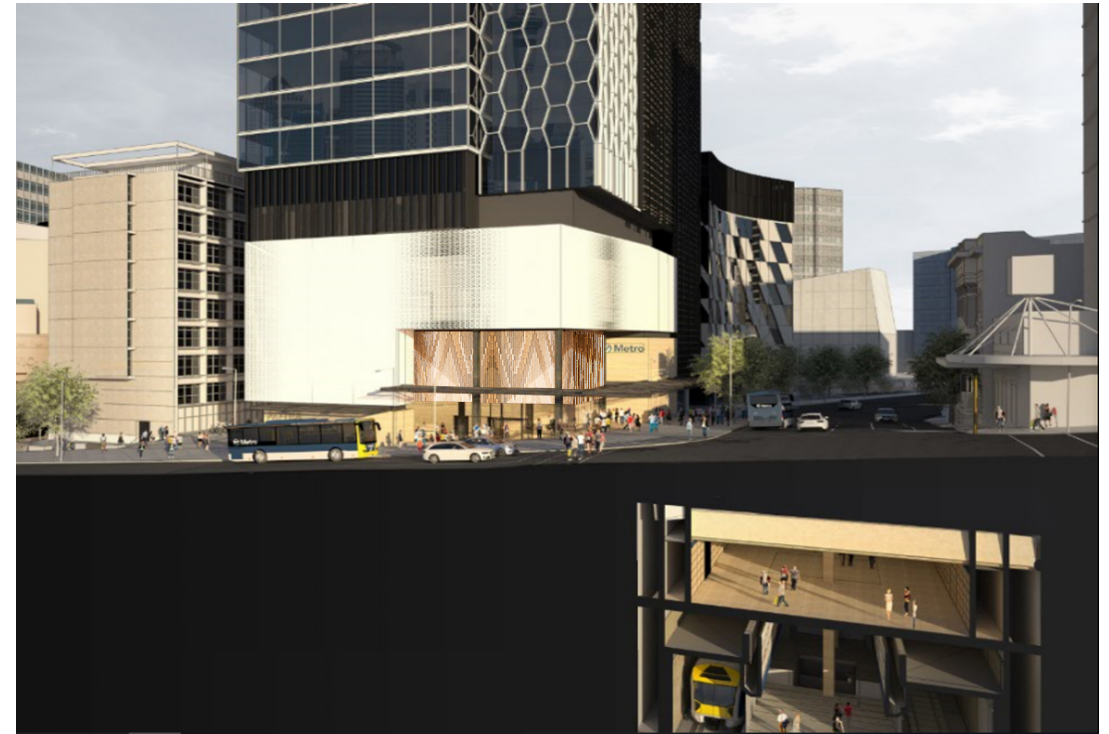


Aotea precinct

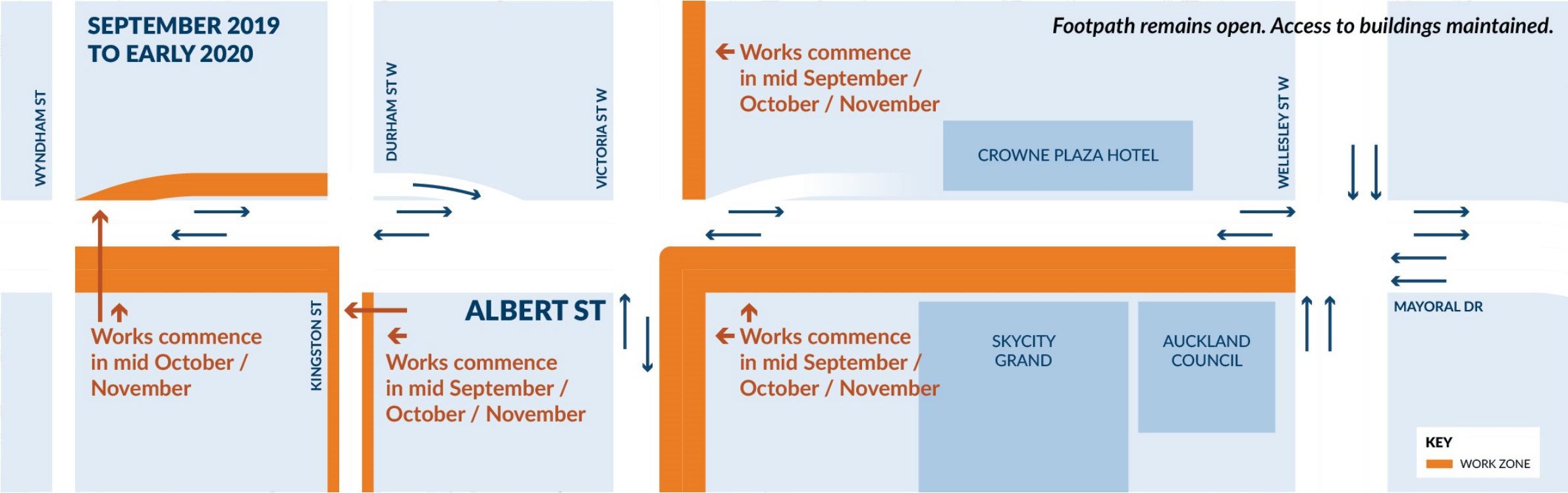


What's happening first in the Aotea precinct?

- Building condition surveys
- Monitoring equipment installation
- Utility investigations and diversions starting week of 16 September
- Diversions completed in stages Sept 2019 – mid 2020, beginning at Wyndham St end of Albert St
- Canopy removals along Albert St and side streets – December 2019 to Q2 2020
- Site establishment at Bledisloe carpark – Q4 2019
- Piling and D-wall construction for Aotea Station ground support – starts Q2 2020

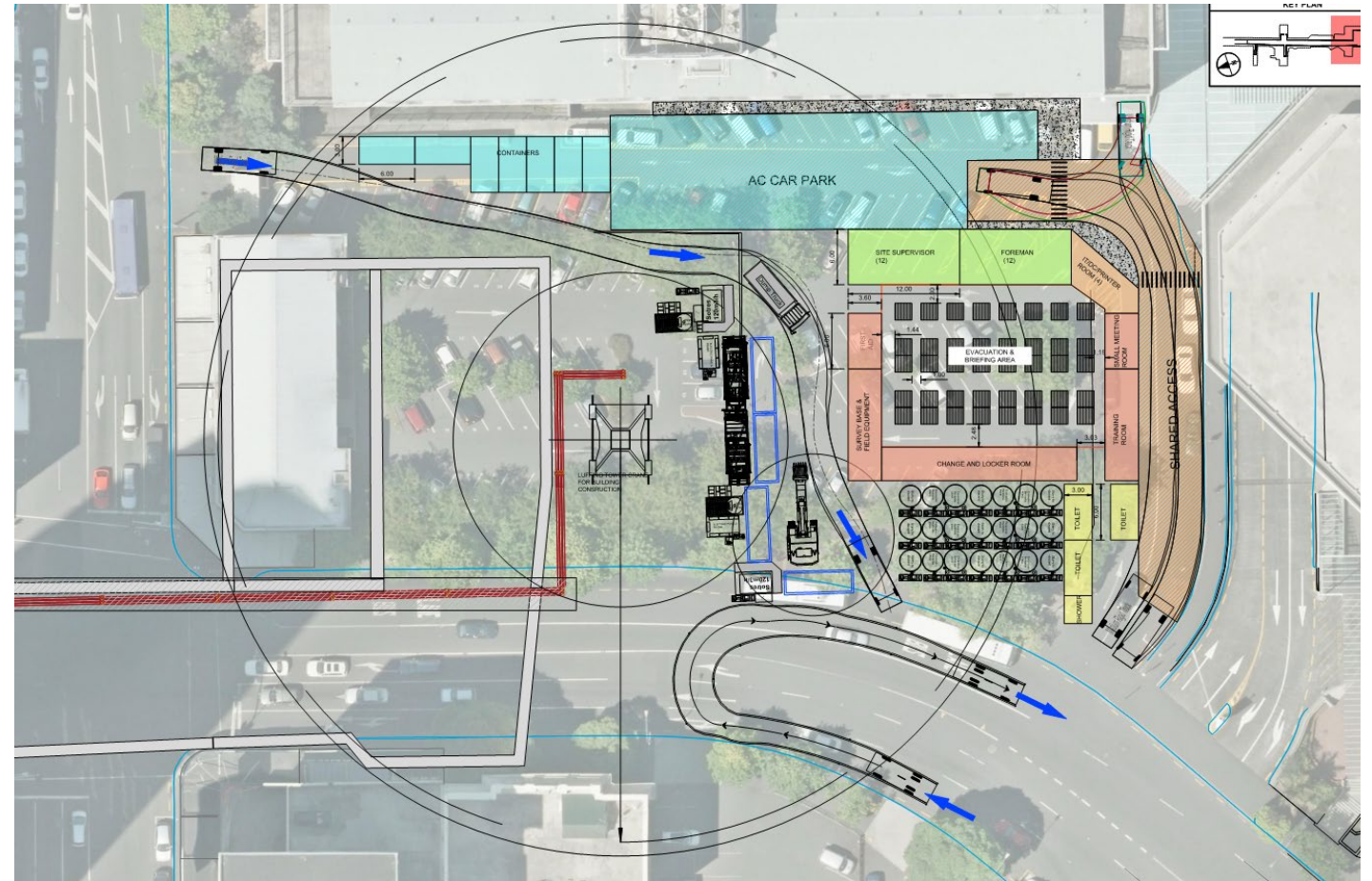


Phasing of Aotea utility diversions



Bledisloe Carpark site – establishment Q4, 2019

- Main entrance from Mayoral Drive
- Exit via Mayoral Drive
- U-turn facility for truck & trailer access to and from motorway
- 20 – 30 truck movements / day
- Bentonite plant for D-wall construction
- Assembly and briefing area for staff



Karangahape precinct

What's happening first in the Karangahape precinct?

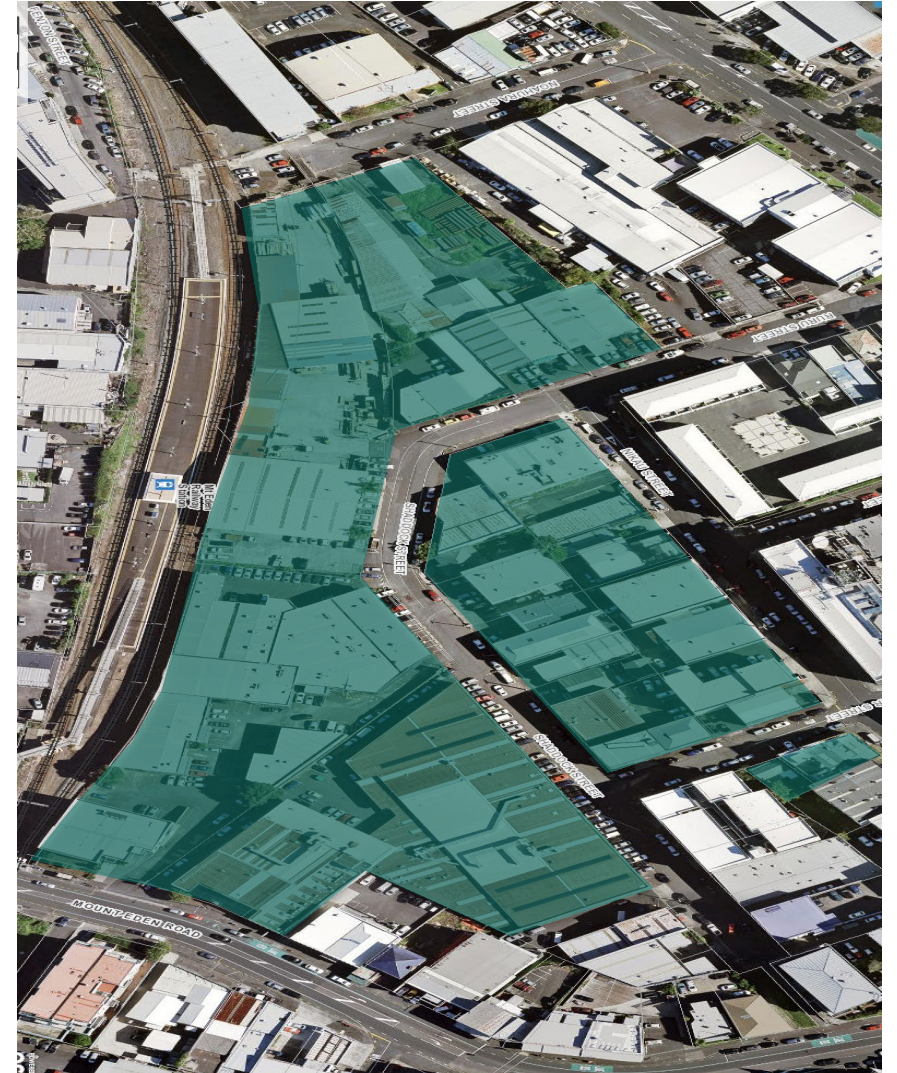
- Utility diversions – late 2019
- Demolition (incl Mercury Plaza) – late 2019 to Q1 2020
- Site establishment in Beresford Square – early 2020
- Main station works commence – Q2, 2020



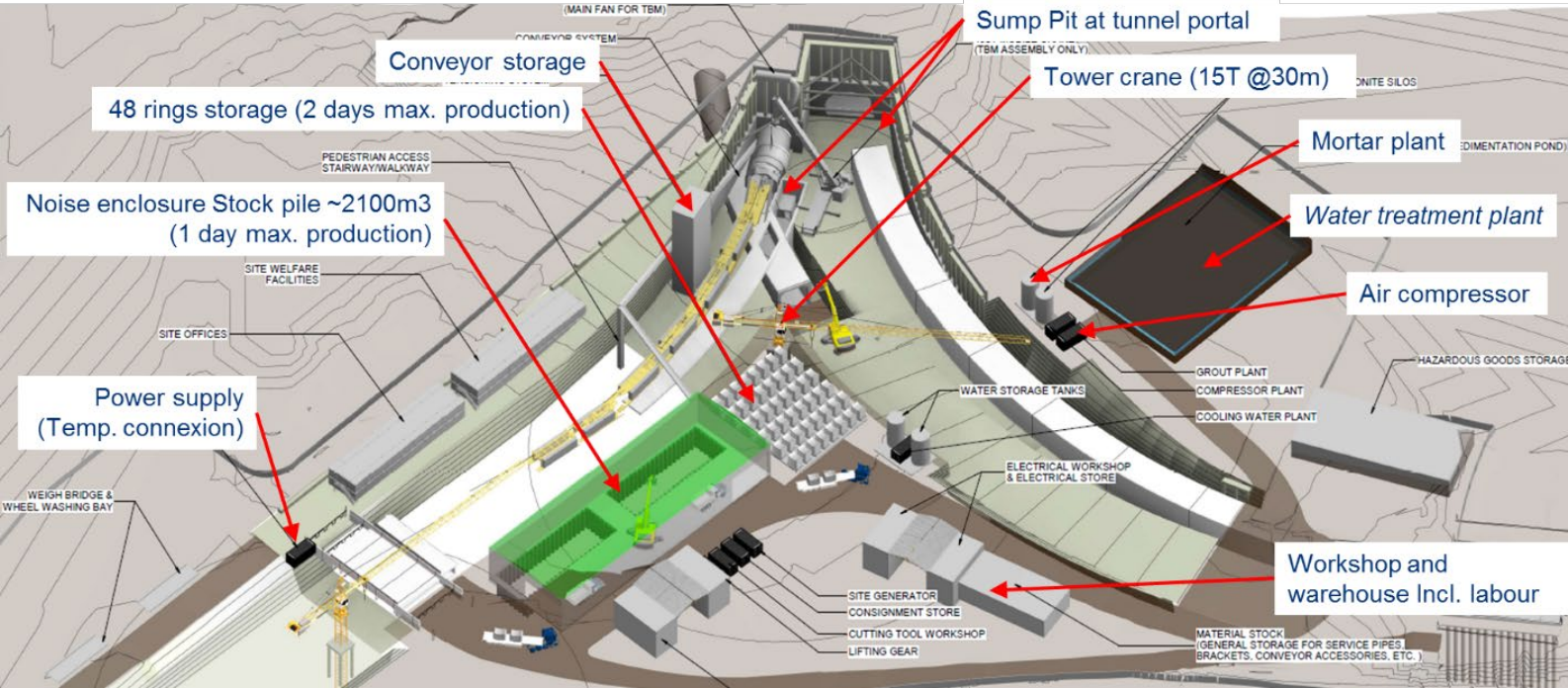
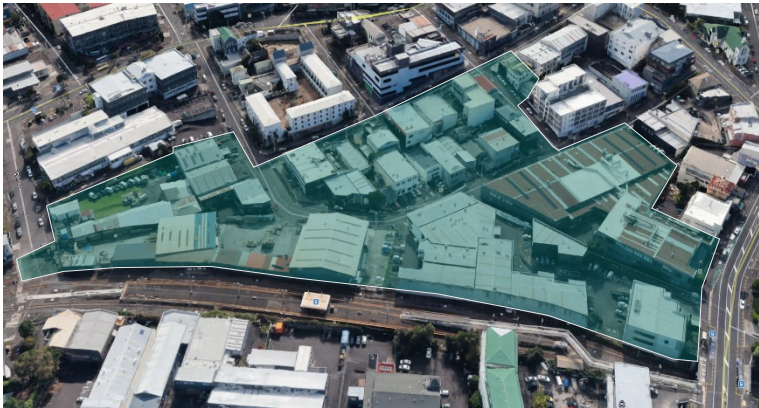
Mt Eden precinct

What's happening first in the Mt Eden precinct?

- Site set-up and demolition works – Sept-Dec 2019
- Demolitions – Sep 2019 to Q2 2020
- Procurement of TBM – Oct 2019
- Utility relocations – starts Oct 2019
- Piling and ground retention for tunnel entrance – starts early 2020
- Start of TBM tunneling – late 2020/early 2021



Mt Eden site set-up





[CityRailLink.co.nz](https://www.cityraillink.co.nz)



CityRailLink