WORKING PAPER

The Congestion Question

Could road pricing improve Auckland's traffic?

Workstream 5

Rollout options for congestion pricing in Auckland

December 2019

Working draft vF

Auckland Council · NZ Transport Agency · Ministry of Transport · The Treasury · State Services Commission · New Zealand Government

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1 Introduction

The purpose of this paper is to present potential rollout options for an Auckland congestion charging scheme to determine if there is a preferred rollout option at this point. The paper presents the benefits and shortcomings of three different rollout options, to highlight considerations around selecting an implementation pathway for a congestion pricing scheme.

The term 'rollout', in the context of this paper, refers to the implementation of an operational congestion pricing scheme. Implementation includes procurement and delivery of an automatic number plate recognition (ANPR) vehicle identification and enforcement network, charge processing and customer services centre. The options discussed are not necessarily exhaustive, and detailed implementation planning for congestion pricing may raise additional constraints or options.

It should be noted that a decision on whether to introduce congestion pricing in Auckland has not been considered by the Mayor and Ministers. The rollout options discussed in this paper are intended to assist decision-makers with their deliberations and should be seen in the context of wider implementation matters.

2 Background

In 2019, Phase II of The Congestion Question (TCQ) project focussed on an in-depth analysis of two of the shortlisted options: the City Centre Cordon and the Strategic Corridors options. The two options represent those schemes that TCQ considered to have the most potential, and balanced improvements in network performance with practical and equity considerations. This was determined from detailed analysis and evaluation of the five short-list options.

2.1 City Centre Cordon (CCC)

The City Centre Cordon scheme, where vehicles are charged to enter and exit a cordon surrounding the city centre during congested periods, covers a small area and has a limited impact on network performance, mainly targeting home to work (commuting) trips. This option presents a potential low-risk starting point for introducing congestion pricing.

2.2 Strategic Corridors (SC)

The Strategic Corridors option, where vehicles are charged to travel on congested corridors during congested periods, is the most targeted option and generates meaningful, region-wide network performance benefits and congestion relief. This option is more comprehensive, but does have the ability to develop over time to mitigate the increased risks that go with a much larger scheme.

2.3 Relationship between options

The two shortlisted options are not exclusive – they could either be implemented as stand-alone demand management schemes in their entirety, or in some combined form.

The City Centre Cordon scheme can also be viewed as a subset of the Strategic Corridors scheme. This means that if the Strategic Corridors scheme is selected for implementation, the City Centre Cordon scheme will by default, virtually be put in place because of the nature of the corridors approaching the city centre (ie they would all form part of the Strategic Corridor scheme anyway).

Three rollout options are discussed in this paper, which provide for the implementation of the individual schemes plus a combination of the two.

2.4 Implementation requirements

The CCC and SC schemes have a number of consistent requirements for implementation, regardless of the rollout timetable and approach. These include:

- Enabling legislation
- Policy (and business process) development
- Procurement and delivery of systems, technology and operations to:
    - Detect and process chargeable events (via ANPR cameras)
    - Set-up and operate customer interactions via different channels, including payments, client accounts, applications for discounts and exemptions, disputes etc
    - Operate enforcement processes

    - Interface with other providers/agencies (eg motor vehicle register, enforcement)
    - Record and report accounting and management information
- Availability of alternative transport options (to paying the charge) and supporting complementary measures
- Potential provision and operation of mitigation measures
- Consultation and engagement with partners, stakeholders, and the community as users of the scheme to build social license and optimise options.

The scope of the implementation requirements is broadly the same for both schemes, so scope is not discussed further. Where the implementation requirements will likely differ, is in the scale of those requirements for each rollout option as the SC scheme can have much greater geographic coverage (rollout option dependent).

The larger the scheme (or phase) being implemented, the greater the number of ANPR cameras that will be required. This will increase the resources and time required to:

- Physically install and test the network of cameras
- Scale systems and technology to process greater volumes of ANPR records securely
- Deploy customer services operations to manage customer interactions
- Communicate with users of the scheme to ensure that everyone who is likely to use a charged route, understands the impact of the scheme on them personally.

3 Rollout considerations

When assessing the different rollout options, the main considerations are the practical aspects and equity impacts of each option. The level of improvement in network performance will generally be related to the coverage of the scheme due to the dispersed travel patterns and nature of congestion across the Auckland region.

3.1 Key factors

In selecting the most appropriate option for expanding the scheme, a number of factors need to be considered:

- What are the traffic conditions by area/corridor?
    - The corridors chosen for inclusion in each phase of the rollout must target congested conditions.
- Is there reasonable access to practical public transport alternatives or active modes (ie walking and cycling)?
    - How frequent and comprehensive are public transport services in the rollout area?
    - Are there safe walking / cycling / micro-mobility pathways in the rollout area?
- How will low income households be impacted?
    - Is the introduction of a particular phase of congestion charging going to adversely impact a significant number of low income households and if so, are there mitigations available to alleviate financial burden?

4 Rollout options

4.1 Introduction

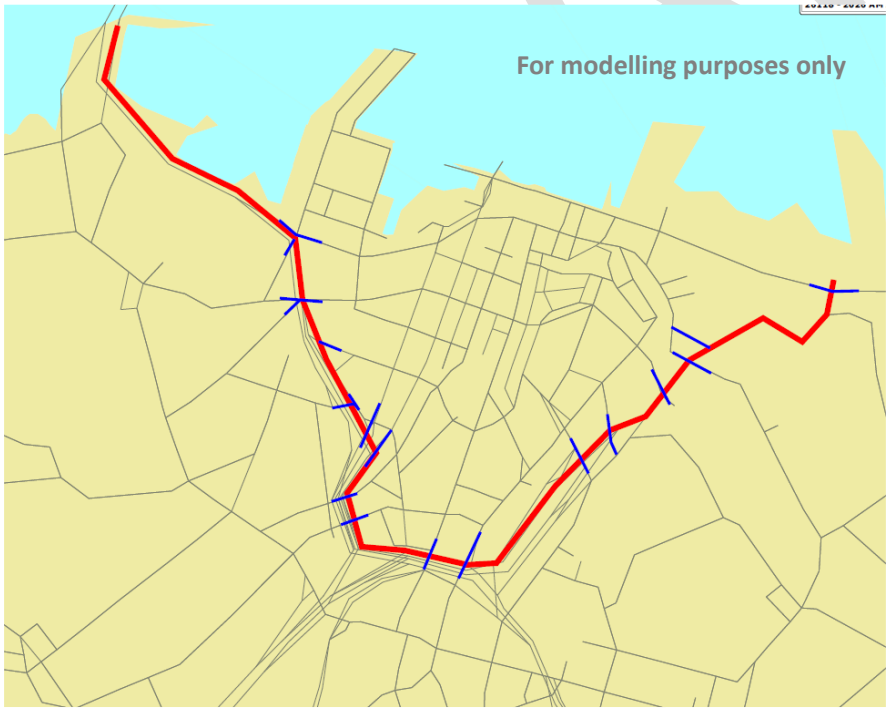
There are three rollout options that have been selected for consideration::

1. Implement the CCC scheme alone, without further expansion.
2. Phased introduction of the SC scheme with phasing based on selected corridors that are added to over time depending on traffic conditions and availability of travel alternatives.
3. Implement the SC scheme in its entirety from the outset.

4.2 Option one - City Centre Cordon scheme

The CCC is generally defined by the boundary of SH1 and SH16 around the edge of the city centre as shown in Figure 1. The cordon would be created by ANPR cameras at around 20 locations to capture traffic crossing the cordon during peak periods. The cordon design means that the direction of traffic could also be targeted (ie the scheme could charge vehicles to travel into the city centre in the morning peak and out of the city centre in the evening peak). The city centre cordon scheme would be relatively straightforward and low cost to implement due to its limited coverage and the small number of cameras required. There is no reason why a staged introduction of the city centre cordon scheme should be considered, as to be effective the scheme must be fully implemented in a single rollout.

FIGURE 1: CITY CENTRE CORDON



4.2.1 Timeframes

From the time when a decision is made to proceed with congestion charging, the CCC scheme is likely to take a minimum of two years to implement.

4.2.2 Rationale

While the CCC scheme will not significantly reduce congestion across the wider road network, it is considered to be a low risk option for introducing congestion pricing as a tool for demand management and should result in localised improvements throughout the central Auckland area.

There are good alternative modes of transport (to car travel) currently available for travel to the city centre, making the introduction of a city centre scheme equitable from an accessibility perspective. In 2019, the proportion of trips made to the city centre by car dropped to below 50% and continues to decline. This has been matched by strong growth in public transport patronage and cycling numbers on the major routes into the city centre.

TABLE 1: PROS AND CONS OPTION 1

Pros	Cons
• Easy to understand and is comparable to other schemes around the world – represents a low risk rollout option. • Discourages short trips to the city centre and generate some follow-on improvements to congestion on main approach routes. • Provides a mechanism to disincentivise people who are provided car parking at their workplace. • A large number of alternatives (to car travel) presenting viable options to the public, making this rollout more palatable. • Can be implemented relatively quickly (estimated two years following decision to proceed). • Simpler procurement than a phased approach.	• Without further expansion, there will be limited improvement on overall network performance. • Risk of perceived (and actual) lack of network performance improvements so could potentially undermine the overall success of congestion pricing. • Does not significantly reduce congestion across the wider network.

4.3 Option two - Phased introduction of Strategic Corridors scheme

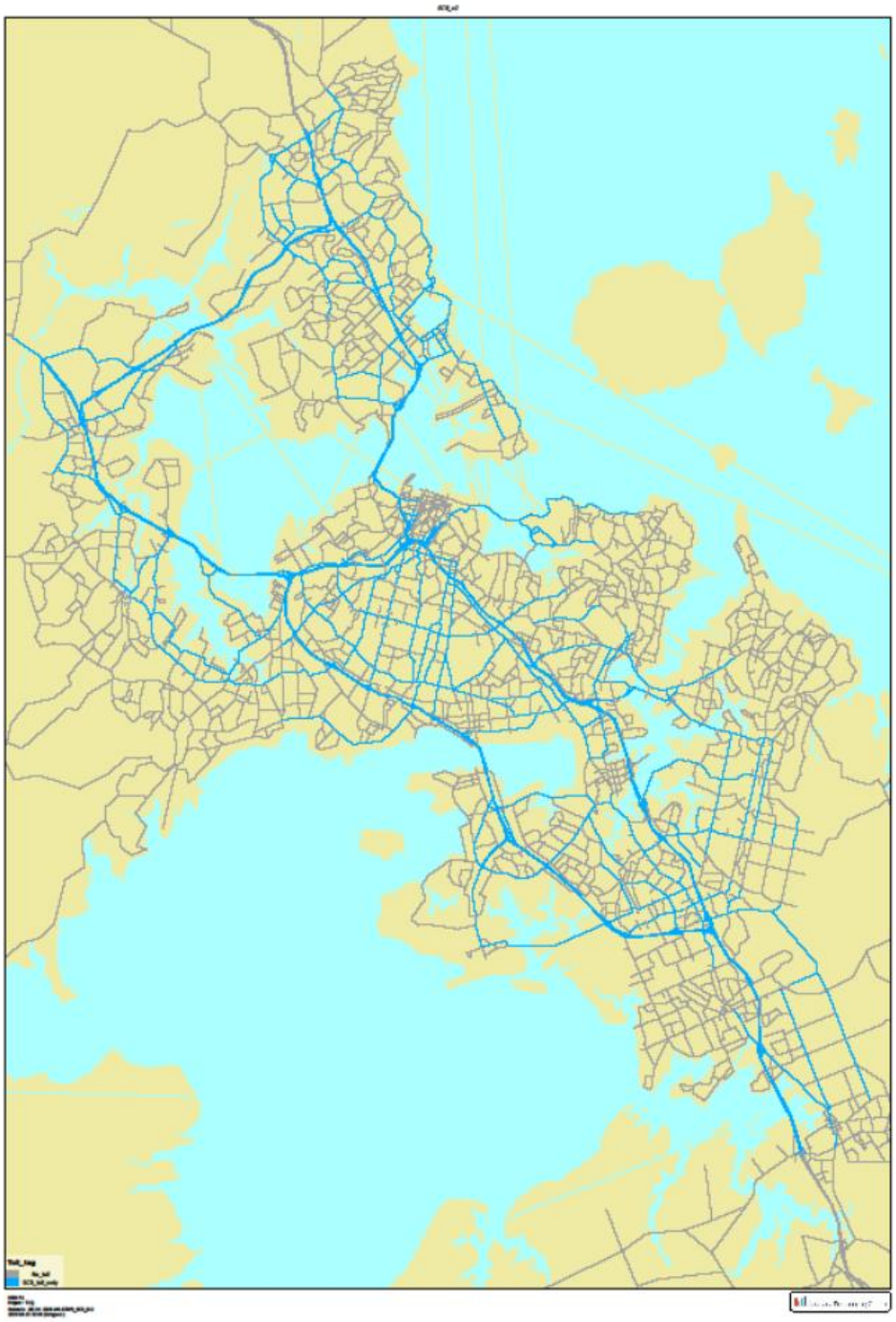
The SC scheme is targeted at congested routes and generates meaningful, region-wide network performance benefits. Over time, the phased SC scheme is likely to encompass all motorways, strategic arterials and main arterial routes in Auckland. The corridors potentially included in a comprehensive SC scheme are those shown in Figure 2.

The selection of strategic corridors for inclusion in each phase is proposed to be based on:

- Severity of congestion on the corridor(s)

- Availability of alternative modes of transport on the corridor(s)
- Social and spatial equity considerations
- Feedback from stakeholders and scheme users.

FIGURE 2: STRATEGIC CORRIDOR ROUTES (INDICATIVE)



Source: MSM output

4.3.1 Timeframes

Depending on the geographic coverage of the first phase of this rollout option, the scheme is likely to take a minimum of two years to implement the initial stage. Subsequent phases, depending again on geographic coverage of each phase, may take between 6 – 18 months for each rollout.

4.3.2 Rationale

By selecting congested strategic routes for inclusion in each phase, the scheme would be able to demonstrate that it is targeting the most congested areas of Auckland in order of severity and according to the availability of alternatives. By combining each phase with improvements in public transport services, a gradual rollout is more likely to gain public support.

The risk of diversions may increase with a phased rollout of selected corridors. There is a need to consider any parallel routes in order to mitigate or reduce diversions away from the charged routes.

TABLE 2: PROS AND CONS OPTION 2

Pros	Cons
• Able to target congested routes so likely to be viewed by the public as more meaningful than CCC. • Phased SC in selected areas could be managed to reduce spatial concerns. • Ability to assess and review the effectiveness of the scheme after each phase is rolled out. • Rollout of selected SC routes could be timed with availability of improved PT services and investment in walking and cycling networks. • Phased SC will be lower risk than full implementation as removes requirement for 'big-bang' go-live.	• More challenging to communicate than the CCC alone. • May be unpopular with motorists who use routes first selected for charging. • Spatial inequities could be introduced because areas of Auckland included in each phase may be disadvantaged. • Phased introduction on an individual corridor by corridor basis means risk of diversions is higher. Mitigations for this risk will need to be considered, such as charging parallel routes as well. • Procurement requires flexibility for staged rollout. • Technology and operations require flexibility for scaling as corridors are added and transaction volumes increase (ANPR processing, customer interactions, report outputs).

4.4 Option three - Comprehensive Strategic Corridors scheme

This rollout option proposes implementing the full SC scheme from day one across all identified congested routes (including motorways, strategic arterials and main arterial routes) in the Auckland urban region as shown in Figure 2. By default, the CCC scheme is included in the full SC scheme as all roads providing access to the city centre would be covered by the scheme.

4.4.1 Timeframes

Due to the extent of the SC scheme, it is anticipated to take up to four years to implement from the time a decision is made. Because the scheme covers a large geographic area it will therefore require a substantial programme of civil works to build the supporting ANPR camera infrastructure. A longer timeframe would also provide for several complementary projects (PT improvements and the walking and cycling network) to be delivered to provide alternatives to driving and paying a congestion charge.

4.4.2 Rationale

The SC scheme is targeted at congestion and is anticipated to produce meaningful improvements to the performance of the road network in Auckland. However, a long implementation period means that Auckland's traffic problems are likely to further deteriorate before congestion pricing is introduced as a demand management tool.

Rolling out the full SC scheme (as opposed to a phased approach) should minimise some of the spatial equity concerns and potentially improve public acceptability, as all areas of Auckland will be introduced to congestion charging at the same time. At the same time, different levels of access to travel alternatives for some corridors/areas will mean social and spatial equity concerns are not completely overcome.

There is also a greater go-live risk associated with this rollout option, due to its comprehensive geographical coverage and the volume of transactions and data that will be generated from day one. Sufficient time will need to be built into the programme of works to prepare the systems and operation for large scale go-live rollout.

TABLE 3: PROS AND CONS OPTION 3

Pros	Cons
• SC will target all congested routes so should be viewed as more effective than CCC or phased SC (noting it will take longer to be realised). • SC implemented in full, should improve public acceptability and reduce spatial equity concerns than a phased approach as it won't be perceived as 'unfair' to certain areas of Auckland. • Public information campaign may be simpler for the full SC scheme than a phased introduction. • Longer timeframe allows alternative transport choices to be improved in the interim.	• Implementation timeframes significantly longer – therefore improvements in network performance from congestion pricing are delayed (ie congestion continues to get worse for longer). • Full SC option has greatest go-live risk due to size of scheme and volumes of transactions that will be generated from day one. • Full SC option does not provide the opportunity for staged review in the way that a phased SC does. Inability to conduct staged appraisals raises risks around scheme design and supporting technology platform.

5 Main findings

The three rollout options presented above cover a spectrum of geographically small (and relatively low risks) to geographically large (with relatively higher risks). The smaller the scheme, the faster it will be to implement, and a phased approach will also enable learnings to be applied as the scheme expands.

A stand-alone CCC is simple to understand, a smaller and fairly straight forward implementation and comparable to other schemes around the world. In this sense the CCC represents the low risk option, however without further expansion, the scheme will generate limited improvements in network performance because of its restricted geographical coverage.

By contrast, the full SC scheme will generate meaningful, region-wide network performance benefits and congestion relief. However, the length of time to develop a comprehensive SC scheme and ensure sufficient PT services are in place, in addition to the scale of implementation risks, is likely to make a 'big-bang' approach unacceptable as a go-live option. Ideally Auckland's congestion problems need to be addressed sooner rather than later.

Alternatively, if the SC scheme is phased (starting with the CCC alone or as part of an initial phase), it can be implemented by targeting the most congested routes and scheme extensions can be timed with the improvements to PT services, walking and cycling networks and other mitigation measures. A phased approach will also enable:

- more time to gain public acceptability and in the long term, deliver the most credible scheme to solve Auckland's congestion problems
- time to review the impacts of the current scheme before moving to any additional stage
- lessons to be learnt from observed motorist responses as well as the effectiveness of mitigation measures in progressing subsequent phases.

6 Recommendation

Based on the above main findings and the main considerations relating to access to alternative transport choices, it is recommended that a staged strategic corridors approach is adopted if there is a decision to proceed with the implementation of a congestion pricing scheme.

We note that further work relating to implementation planning and detailed design, or changing priorities (eg a desire to implement as soon as possible) may mean alternative approaches to rolling out congestion pricing are considered in the future.

7 Potential illustrative rollout

7.1 Introduction

The Auckland Regional Land Transport Plan (RLTP) is a 10-year programme that provides for significant improvements to be made in public transport, including rapid transit, walking and cycling, network initiatives to help to address congestion, and support for greenfield and urban redevelopment. It also provides for a major focus on improving safety on Auckland's road network.

If a decision is made to implement a congestion charging scheme using a phased rollout, the introduction of corridors will depend on an analysis of local traffic conditions and the availability of practical transport alternatives including public transport, active modes and other options (eg micro-mobility, ride-share etc). With traffic congestion predicted to steadily worsen and spread throughout the Auckland region, the implementation timetable is therefore most likely to be driven primarily by the availability and frequency of PT services and also by the provision of safe active-mode networks.

In this section we consider two illustrative rollout options:

1. Option A – geographically based approach around the RLTP investment programme, with a focus on access to public transport alternatives
2. Option B – a corridors based approach, with a focus on the most congested corridors, with coverage that expands over time.

7.2 Illustrative rollout – Option A

This section presents an illustrative implementation timetable which takes into account the portfolio of projects that are planned in the current RLTP.

The high-level PT investment programme organised by Auckland sub-region, as well as supporting PT coverage and frequency maps, are contained in the Annexes.

7.2.1 Phase one – 2025

Phase One could implement the CCC by 2025 to coincide with the opening of the City Rail Link (CRL):

1. City Centre Cordon / city centre and fringe extent of the Strategic Corridors

This would be supported by the following network improvements that are already planned and/or committed as part of the RLTP:

- The CRL with new stations at Aotea and Karangahape Rd, will enable additional rail services, reduce journey times and increase capacity
- City centre bus improvements and ferry basin upgrade supporting improved bus frequency and ferry services
- Northern busway extension and station upgrades will improve services and reduce journey times
- Several cycleway improvements into and out of the city centre
- AMETI Eastern busway will improve services and reduce journey times.

We note that it would be possible to deliver this phase earlier than 2025 if there was a decision to proceed with implementing congestion pricing that was less concerned with linking its introduction to PT improvements.

7.2.2 Phase two - 2028

Phase Two could build on Phase One with the addition of the following strategic corridors by 2028:

2. Northern motorway and key corridors (to be determined (tbd)) to Albany
3. Southern motorway inside Auckland isthmus and key corridors (tbd)
4. Pakuranga Highway and Ti Rakau Drive to Botany.

This would be supported by the following network improvements that are already planned and/or committed as part of the RLTP:

- Provision of a light rail line connecting the Airport and City Centre.
- Third Main (rail) project from Wiri to Westfield, Papakura to Pukekohe rail electrification and Puhinui Station upgrade will improve rail services and reduce journey times.
- Provision of the SkyPath and SeaPath cycle and walkways and the Glen Innes to Tamaki cycle path.
- Three new rail stations (with park and ride facilities and bus interchanges) in Auckland's Southern Supporting Growth Area.

7.2.3 Phase three – post 2028

Phase Three could build on Phase Two through the addition of the following strategic corridors in the period following 2028:

5. Outer sections of the Northwest motorway and key corridors (tbd) towards Westgate
6. Outer sections of the Southern motorway and key corridors (tbd) towards Papakura.

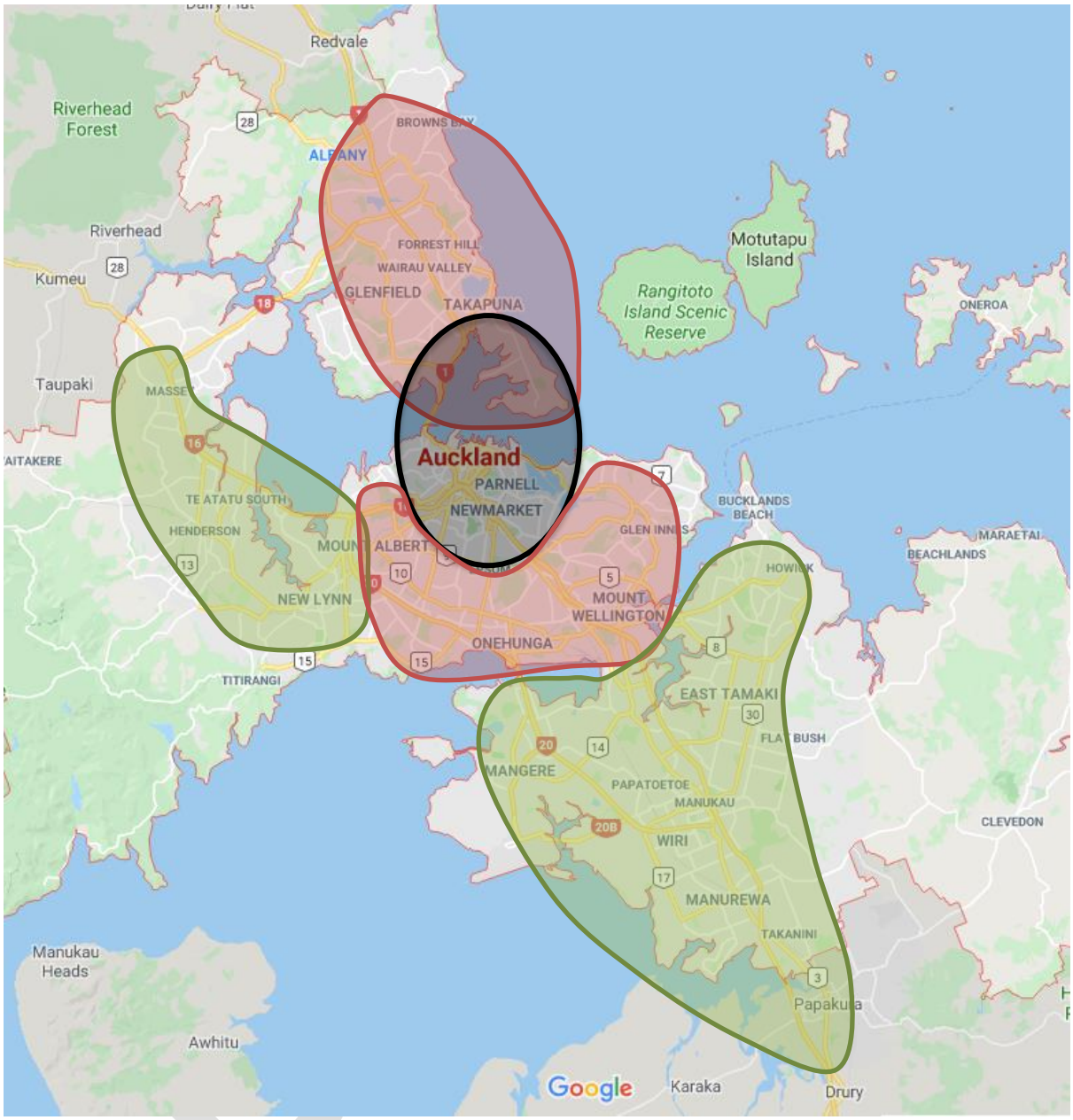
This would be supported by the following network improvements that are being considered:

- A light rail line along the Northwest Corridor between Brigham Creek Road and the City Centre
- Lincoln Road corridor improvements
- The Waterview to New Lynn cycle path
- Additional electric trains that will support passenger rail capacity and frequency improvements.

7.2.4 Geographical illustration of Option A

Indicative areas of Auckland that would be introduced in each of these phases are shown in Figure 3. Note that boundaries of each area are only illustrative and the particular corridors that would be included within each area/phase, would be defined and agreed closer to the time of implementation.

FIGURE 3: INDICATIVE AREAS OF AUCKLAND THAT ARE PROPOSED TO BE INTRODUCED IN EACH PHASE



Source: Google Maps

Key:

Phase 1 – 2025 **Phase 2** – 2028 **Phase 3 –** Post 2028

7.3 Illustrative rollout – Option B

This section presents an illustrative implementation timetable for the introduction of the Strategic Corridor scheme, focusing on the most congested corridors in the initial phase, and expanding the scheme in each subsequent phase.

The basis of this illustrative rollout option is to introduce congestion charging to cover increasingly larger geographical areas of Auckland, starting with the corridors that are the most congested. Some of these will have reasonable access to public transport alternatives, but the variety of trips, and therefore destinations, that would be charged means that the practicality of those alternatives will probably be more limited. It is important to note that the extent of the corridors, and parallel corridors, charged in each phase are only illustrative and the particular corridors that will be included within each phase, would be agreed closer to the time of implementation, taking into account the potential for diversion impacts associated with this option.

Subsequent phases follow at two-year intervals allowing a year to monitor performance and a year to add more cameras to expand the scheme.

7.3.1 Phase one – 2023/24

Phase One would include the implementation of the motorway and congested strategic corridors by 2023/24. The extents of those corridors that are included in Phase One are indicative only.

7.3.2 Phase two – 2025/26

Phase Two would expand on Phase One by extending the length of the corridors from Phase One that are charged and include additional corridors (on the basis of additional congestion).

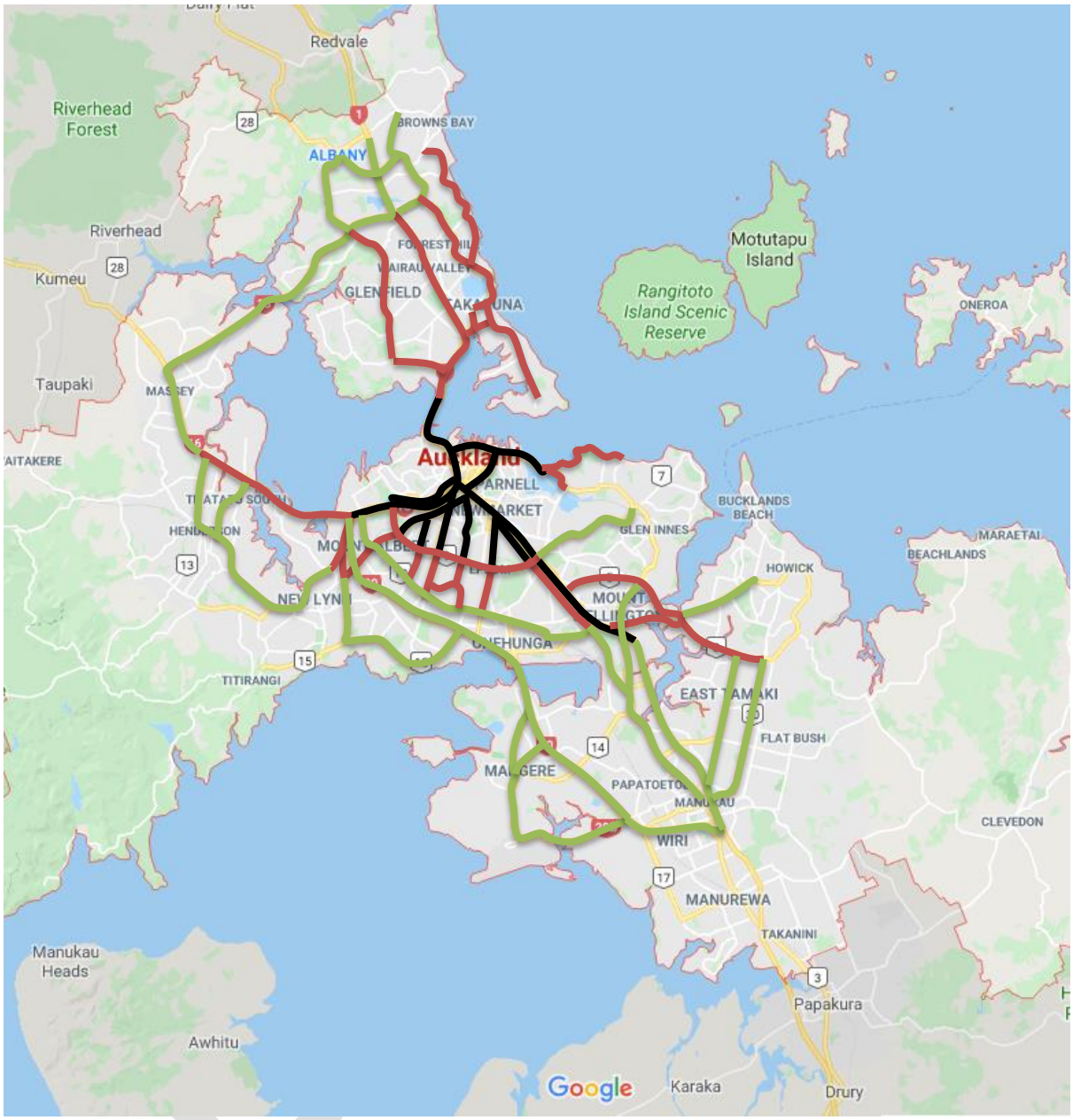
7.3.3 Phase three – 2027/28

Phase Three would extend to all strategic corridors identified as being sufficiently congested to warrant the introduction of congestion pricing.

7.3.4 Geographical illustration of Option B

The rollout of congestion pricing, over the (indicative) corridors, and their extent, in Auckland that would be introduced in each phase are shown in Figure 4.

FIGURE 4: INDICATIVE CORRIDORS OF AUCKLAND THAT ARE PROPOSED TO BE INTRODUCED IN EACH PHASE



Source: Google Maps

Key:

Phase 1 – 2023/24 **Phase 2** – 2025/26 **Phase 3** – 2027/28

7.4 Comparison of the two options

While these illustrative options do not represent an exhaustive list of possible phased introductions, we can compare them to guide the development of a recommended phasing plan.

When assessing the illustrative options, introducing congestion charging when there are corresponding improvements to alternative modes of transport, is likely to gain the greatest acceptance from the public. This gives people the best chance to realistically utilise the alternative modes of travel that may be available to them.

In terms of a first phase, Option A introduces congestion pricing into an area that is well served by public transport. The extent of that phase, ie how far beyond the city centre itself it extends, would need to be considered in more detail at a later date. In comparison, the first phase of Option B is more targeted on the corridors with the worst congestion, capturing a greater number of trips, but giving less regard to the availability of practical alternatives for them. There are pros and cons associated with either approach.

We consider that the two main differentiators will be:

- Public acceptability: while the narrative around targeting the worst congested corridors (Option B) may be compelling to some of the public, the ability to avoid the charge through using practical alternatives may be more limited, and therefore Option A is considered to be met with lower levels of initial opposition.
- Diversion: As Option B attempts to charge individual corridors, there is greater potential that diverting to a parallel uncharged corridor is an attractive proposition for drivers. While this impact is mitigated to some extent through the adoption of an access charge, and can be mitigated further be carefully considering the selection of corridors (and parallel corridors), the risk remains greater for Option B.

To that end, we consider that the sequencing of phases defined in Options A presents a more viable rollout plan than Option B (noting there are considerable similarities between the two). In terms of the first phase, there are pros and cons associated with each option.

Phase one of Option A is smaller and would therefore have a more limited impact on network performance, but it is considered to be simpler to understand as an introductory step. Conversely, phase one of Option B is larger, and would therefore be more impactful, but defining the extent of the corridors that are included in the scheme will be more challenging as there is not a natural 'boundary' that is evident around the city centre area. This adds to the risk of public acceptability and understanding for an introductory step.

On balance, we think that Option A represents a better approach to a phased introduction of congestion pricing, but anticipate that further analysis of implementation timeframes and phasing will be required should there be a decision to proceed.

Annex one – PT improvements

North PT network improvements 2025 & 2028

Project	Brief description	2025	2028
Northern Busway extended to Albany Station	Extension of the dedicated Northern Busway from Constellation to Albany stations	Complete	Complete

Rosedale and Constellation busway stations	New and upgraded stations built in conjunction with Northern Busway extension:
	• Rosedale: new station midway between the existing Constellation and Albany stations that:
	  ○ Provides an additional location to access Northern Express services
	  ○ Enables upper North Shore feeder buses to be reorganised to reduce pressure on Albany and Constellation stations
	  ○ Improves public transport access to the Rosedale industrial and employment area which previously has poor public transport accessibility
	• Constellation: extension of existing busway station including new northbound platform and footbridge
		Complete	Complete

Northern Motorway buslanes and Silverdale interchange improvements	New motorway shoulder bus lanes provided along SH1 between Albany Busway Station and Silverdale interchange, including improvements to Silverdale interchange	Complete[1]	Complete
Hibiscus Coast Bus Station	Construction of a new station building at Silverdale where the Northern Express bus interchanges with Hibiscus Coast local services	Complete	Complete
Albany Park and Ride extension	135 bay extension to the existing park and ride facility at Albany Busway Station	Complete	Complete

[1] RLTP has this project complete in 2021/22, however NZTA has recently advised that business case work will not begin until the 2021/22 to 2023/24 period. This indicates there is an increasing likelihood that the full project may not be complete by July 2025.

Warkworth Park and Ride	Provision of a new local Park and Ride at northern Warkworth (in the vicinity of the Warkworth Showgrounds). Funded by Rodney Targeted Rate.	Complete	Complete

Central and East PT network improvements 2025 & 2028

Project	Brief description	2025	2028
City Centre			
City Rail Link (CRL)	Delivery of a new 3.45km twin-tunnel rail link under the city centre, including two new stations at Aotea and Karangahape and a redeveloped Mt Eden Station. The CRL transforms Britomart from a 'dead end' station to a through station. This will allow additional rail services to be run on the Auckland passenger network, which is currently operating at capacity in the morning and afternoon peaks.	Complete	Complete
Downtown bus improvements	Provision of a new bus terminal in Lower Albert Street. Facility improves bus operations, passenger waiting / transfer environment and supports increasing numbers of buses accessing the city centre.	Complete	Complete
City centre bus improvements	Bus priority and bus stop improvements along Wellesley Street and a new bus terminus / interchange in the Learning Quarter area. Improves bus operations, passenger waiting / transfer environment and supports increasing numbers of buses accessing the city centre.	Complete[2]	Complete
Ferry Basin Redevelopment	Provision of six new berths along Queens Wharf West to replace current Piers 3 and 4. This constitutes stage one of the long term ferry basin redevelopment project.	Complete	Complete

[2] April 2019 AT Forward Tender Programme indicates this project may be brought forward to be complete by July 2025 (would be under construction under the timing outlined in the RLTP).

Albert Street bus lane improvements	New and improved bus lanes along Albert Street delivered as part of CRL reinstatement works	Complete	Complete
Albert and Vincent Street bus priority improvements	Bus priority measures on Albert and Vincent Streets to improve journey time and reliability between Karangahape Road and Britomart.	Not yet started	Complete

Project	Brief description	2025	2028
Isthmus & East Auckland			
AMETI Eastern Busway	Delivery of new Eastern Busway between Panmure, Pakuranga and Botany town centres improving accessibility, reliability and reducing bus journey times from East Auckland	Panmure to Pakuranga complete Pakuranga to Botany under construction[3]	Complete
Dominion Road bus lane improvements	Provision of improved bus lanes along the Dominion Road corridor. Delivered prior to implementation of City Centre to Mangere Light Rail.	Complete	Replaced with Light Rail
Upgrade of Onehunga Rail Line	Upgrade of the Onehunga line to accommodate higher frequency and/or longer rail services (e.g. three trains per hour and/or six car services)	Complete	Complete
Sylvia Park bus improvements	Bus priority and interchange improvements at Sylvia Park	Complete	Complete
Integrated Corridors / Connected	This programme involves investigating, designing and delivering bus priority, safety and cycling and walking improvements along a number of the region's key arterials.	Ongoing programme	Complete

[3] Updated AMETI Eastern Busway timelines indicate some delay from the timing outlined in the RLTP. Construction in 2025 represents updated timelines.

Communities programme	Detailed deliverables are currently unknown as investigation and business case processes are currently underway to support the rollout of the ten year programme. Priority corridors in Central and East Auckland for delivery include: • Great North Road • Great South Road • Ponsonby Road • New North Road • Sandringham Road • Mount Eden Road • Manukau and Pah Roads • Remuera Road • Parnell Road • Ellerslie Panmure Highway • Pakuranga Road		
Light Rail	See City Centre to Mangere and Northwest Corridor Light Rail projects in South and West Auckland sections.	Under construction	Complete
Carrington Road improvements	Corridor improvements to support redevelopment of the UNITEC site. Project details yet to be finalised, but assumed to include bus priority improvements.	Under construction	Complete

West PT network improvements 2025 & 2028

Project	Brief description	2025	2028
Northwest Motorway buslanes	New motorway shoulder bus lanes provided along SH16 between Westgate and Lincoln Road. Delivered as part of the Western Ring Route project.	Complete	Replaced with Light Rail
Huapai township Park and Ride	Provision of a new local Park and Ride at Huapai. Funded by Rodney Targeted Rate.	Complete	Complete
Kumeu township Park and Ride	Provision of a new local Park and Ride at Kumeu. Funded by Rodney Targeted Rate.	Complete	Complete

Integrated Corridors / Connected Communities programme	This programme involves investigating, designing and delivering bus priority, safety and cycling and walking improvements along a number of the region's key arterials. Detailed deliverables are currently unknown as investigation and business case processes are currently underway to support the rollout of the ten year programme. Priority corridors in West Auckland for delivery over the 2018-28 period include: Great North Road	Ongoing programme	Complete
Northwest Corridor Light Rail	Provision of a new Light Rail rapid transit line along the Northwest Corridor between Brigham Creek Road and the City Centre. Project details are yet to be finalised, but current working assumptions are that the line will run along the State Highway 16 corridor and have stations at Brigham Creek Road, Northwest/ Westgate, Royal Road, Lincoln Road, Te Atatu, Pt Chevalier, Western Springs and Bond Street.	Under construction	Complete
Lincoln Road corridor improvements	Provision of new transit lanes along Lincoln Road between Te Pai Place and the Northwest Motorway	Under construction[4]	Complete

South PT network improvements 2025 & 2028

Project	Brief description	2025	2028
P2P (Papakura to Pukekohe) rail electrification	Extension of rail electrification from Papakura to Pukekohe. Allows direct train services from Pukekohe and the Southern Supporting Growth Area to the rest of the rail network. Currently passengers need to catch a diesel shuttle from Pukekohe to Papakura and then transfer to an EMU (electric train) for the rest of their journey.	Complete	Complete

[4] April 2019 AT Forward Tender Programme indicates substantial delay from timing outlined in RLTP. Construction in 2025 represents updated timing as per the Forward Tender Programme.

Project	Brief description	2025	2028
Drury Central, Drury West and Paerata rail stations	Three new rail stations (with supporting park and rides) in Auckland's Southern Supporting Growth Area. At least one of these stations will be opened in conjunction with the extension of electrification to Pukekohe.	One station (at least)	Three stations
Third Main Wiri to Westfield	Completion of the Third Main between Wiri and Westfield. Project enables Southern and Eastern Line interpeak frequencies to be increased on the Auckland passenger rail network.	Complete	Complete
Puhinui Station Interchange	Provision of a new high quality bus-rail interchange at Puhinui Rail Station. Following completion, the local bus network will be reorganised to provide a direct and frequent service (every 10 minutes) between the Airport and Manukau Bus Station via Puhinui Interchange (route via SH20B, Puhinui Road and Lambie Drive).	Complete	Complete
Bus priority lanes Manukau – Puhinui Interchange - Airport	Provision of priority lanes along most of the route between the Airport, Puhinui Interchange and Manukau Bus Station. Project to be delivered collaboratively by AT (Puhinui Road / Lambie Drive), NZTA (SH20B) and Auckland International Airport (airport roads).	Complete	Complete
Takanini Station upgrade and Park and Ride	Upgrade of Takanini Station to bring it up to a standard consistent with other stations on the Auckland rail network. Project also involves construction of a new 280 bay Park and Ride facility.	Complete	Complete
Papakura Park and Ride	Redevelopment of the Park and Ride facility at Papakura Rail Station.	Complete	Complete
Te Mahia Station upgrade	Upgrade of Te Mahia Station to bring it up to a standard consistent with other stations on the Auckland rail network.	Complete	Complete

Project	Brief description	2025	2028
Hamilton-Auckland rail services[5]	Provision of new interregional train services from Waikato to Papakura Train Station (interchange required for onward travel on the Auckland train network). Stations are at Frankton (Hamilton), Rotokauri (The Base), Huntly and Papakura. Two services will depart Hamilton each weekday morning, returning in the afternoon/evening peak. Travel time from Franklin to Papakura is estimated at 90 minutes. In addition, one return service will operate on Saturdays.	Complete	Complete
Integrated Corridors / Connected Communities programme	This programme involves investigating, designing and delivering bus priority, safety and cycling and walking improvements along a number of the region's key arterials. Detailed deliverables are currently unknown as investigation and business case processes are currently underway to support the rollout of the ten year programme. Priority corridors in South Auckland for delivery over the 2018-28 period include: • Great South Road • Massey Road	Ongoing programme	Complete
City Centre to Mangere Light Rail	Provision of a new Light Rail rapid transit line connecting the Airport and City Centre. Project details are yet to be finalised, but current working assumptions are that the line will run via Queen Street, Ian McKinnon Drive, Dominion Road, SH20, Onehunga town centre, SH20, Bader Drive, SH20A and the Airport precinct.	Under construction	Complete

[5] Waikato Regional Council website - https://www.waikatoregion.govt.nz/services/regional-services/transport/rail/

Regionwide PT improvement programmes 2025 & 2028

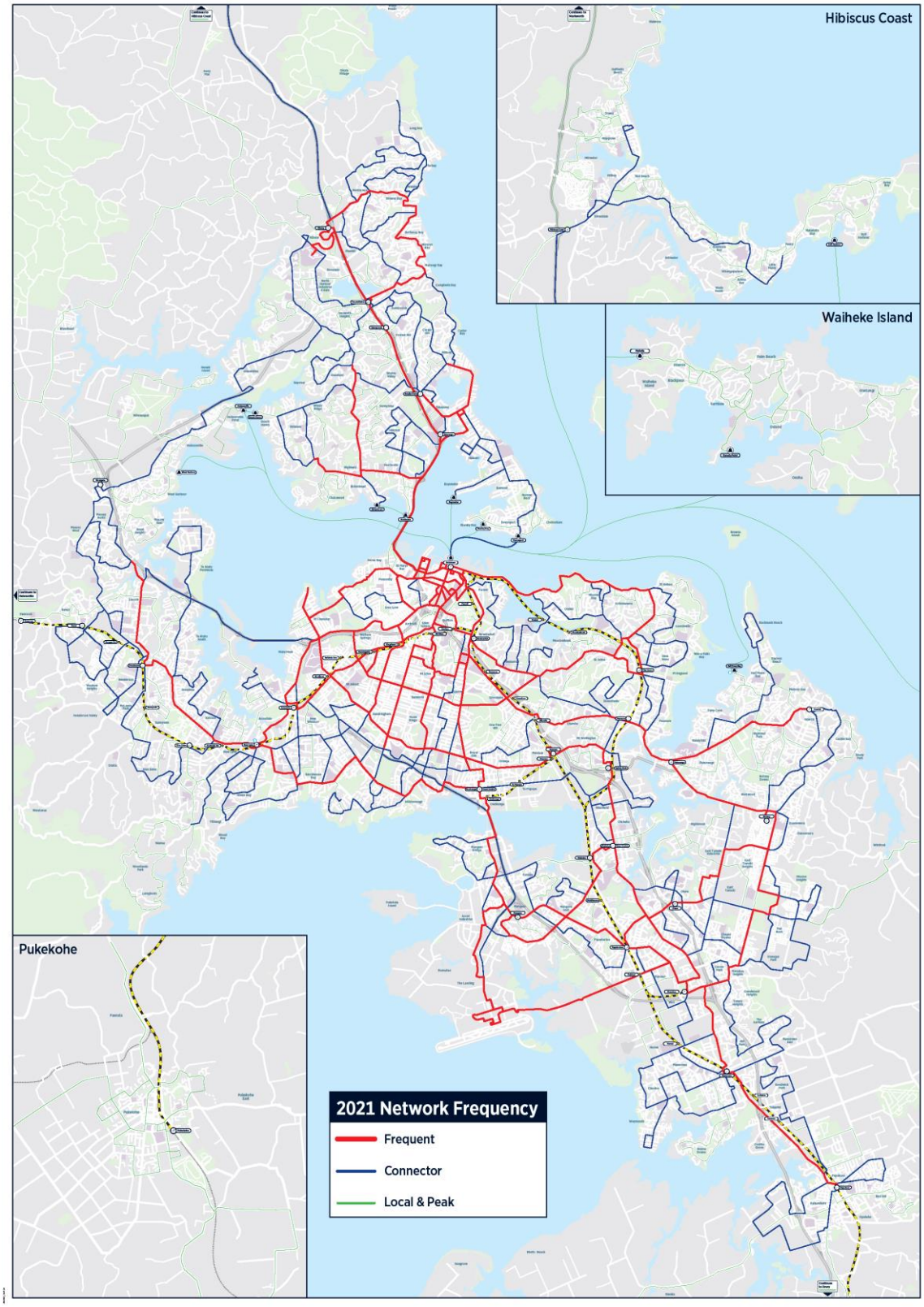
Project	Brief description	2025	2028
Additional electric trains (including Wiri Depot)	An additional 15 three car units (currently under construction) to allow all current services on the Western, Eastern and Southern lines to operate as six car trains (currently operating as a mixture of three car and six car services). The purchase provides additional passenger capacity, in particular in the morning and afternoon peaks.	Complete	Complete
Double decker network mitigation	Mitigation works to safely allow the rollout of double decker buses along selected arterial corridors. Works include adjusting street signage, street furniture, low hanging power or phone lines, overhanging trees and low bridge structures. Rollout of double decker buses enables additional capacity to be provided on Auckland's highest demand bus routes.	Complete	Complete
Bus priority localised improvements	Delivery of an ongoing programme of localised bus priority improvements across Auckland to improve journey times and reliability of services	Ongoing programme	Ongoing programme
PT safety, security, amenity and other capital improvements	Delivery of an ongoing programme of smaller public transport improvements across Auckland. Examples include lighting and gating at train stations, new and improved bus stops and improvements to ferry terminals.	Ongoing programme	Ongoing programme
Level Crossing Grade Separations	Programme of works to close roads wherever practical and in areas with the best immediate prospects for construction, building an initial tranche of grade separated road crossings. Project enables increased rail services to be provided while reducing conflicts with road users and improving safety outcomes.	Ongoing programme	Ongoing programme

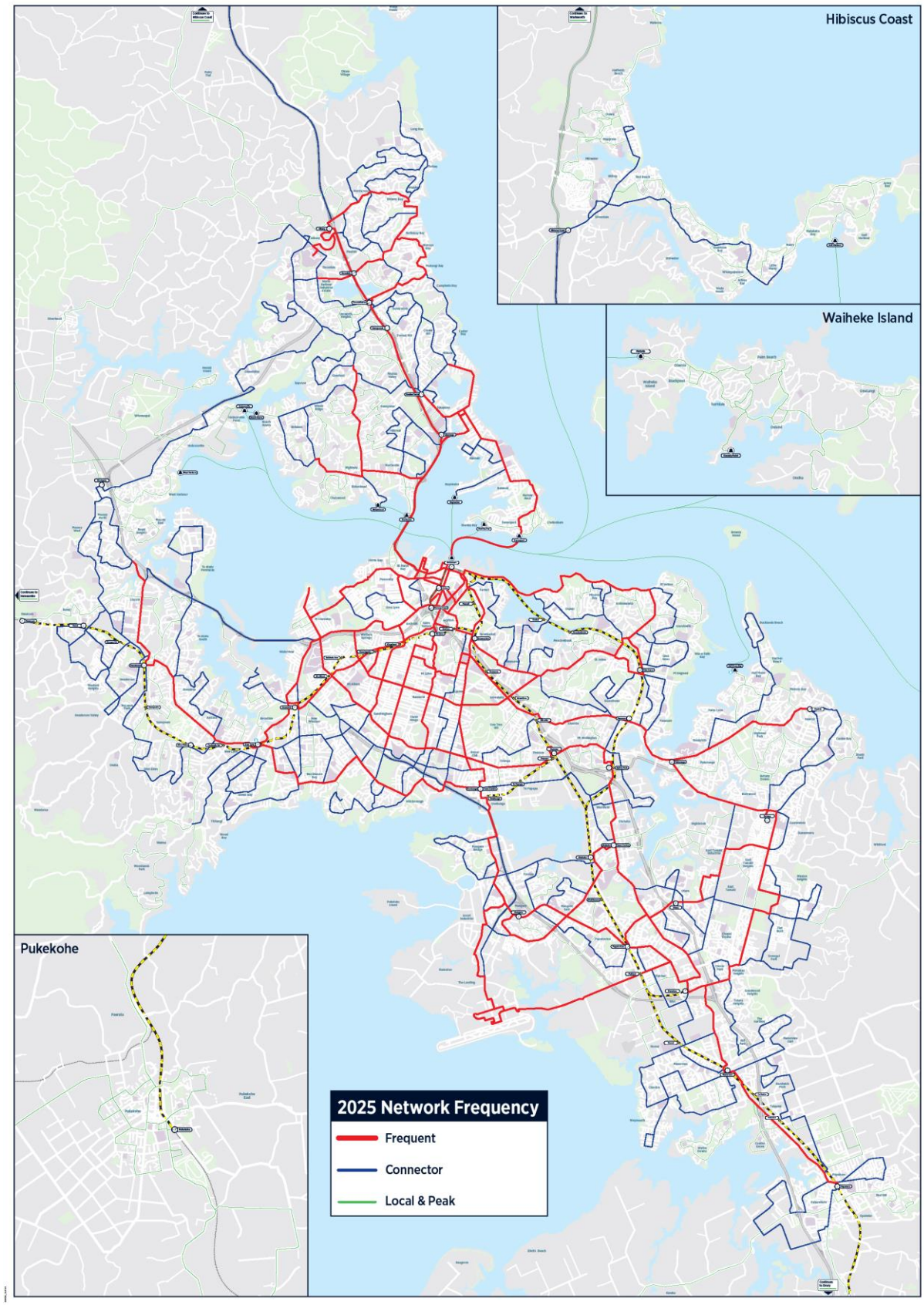
Second tranche of additional electric trains (including stabling extensions)	A second tranche of additional electric trains. The additional units will provide capacity to support the new and enhanced train timetables possible once the City Rail Link is complete.	Project underway	Complete
Park and Ride programme	A regional programme, with budget currently scheduled towards the back end of the LTP period, to deliver new and extended Park and Ride facilities. Location of particular improvements yet to be determined.	Programme being initiated	Complete

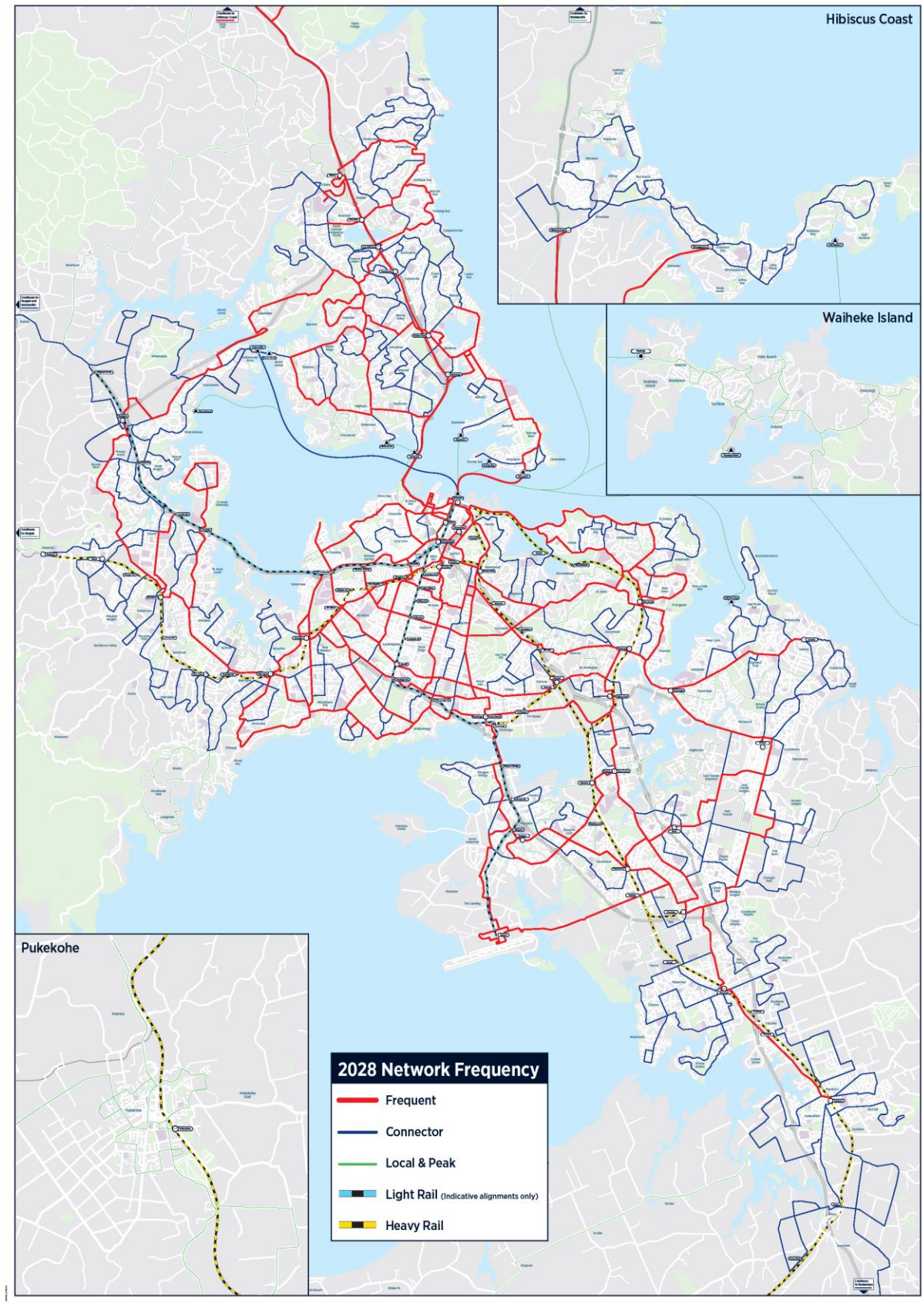
Hauraki Gulf Islands PT network improvements 2025 & 2028

Project	Brief description	2025	2028
New bus network	Rollout of the bus New Network on Waiheke (last part of the region to have New Network implemented)	Complete	Complete
Matiatia Park and Ride redevelopment	Redevelopment of the Park and Ride facility at Matiatia.	Complete	Complete

Annex two – PT coverage maps



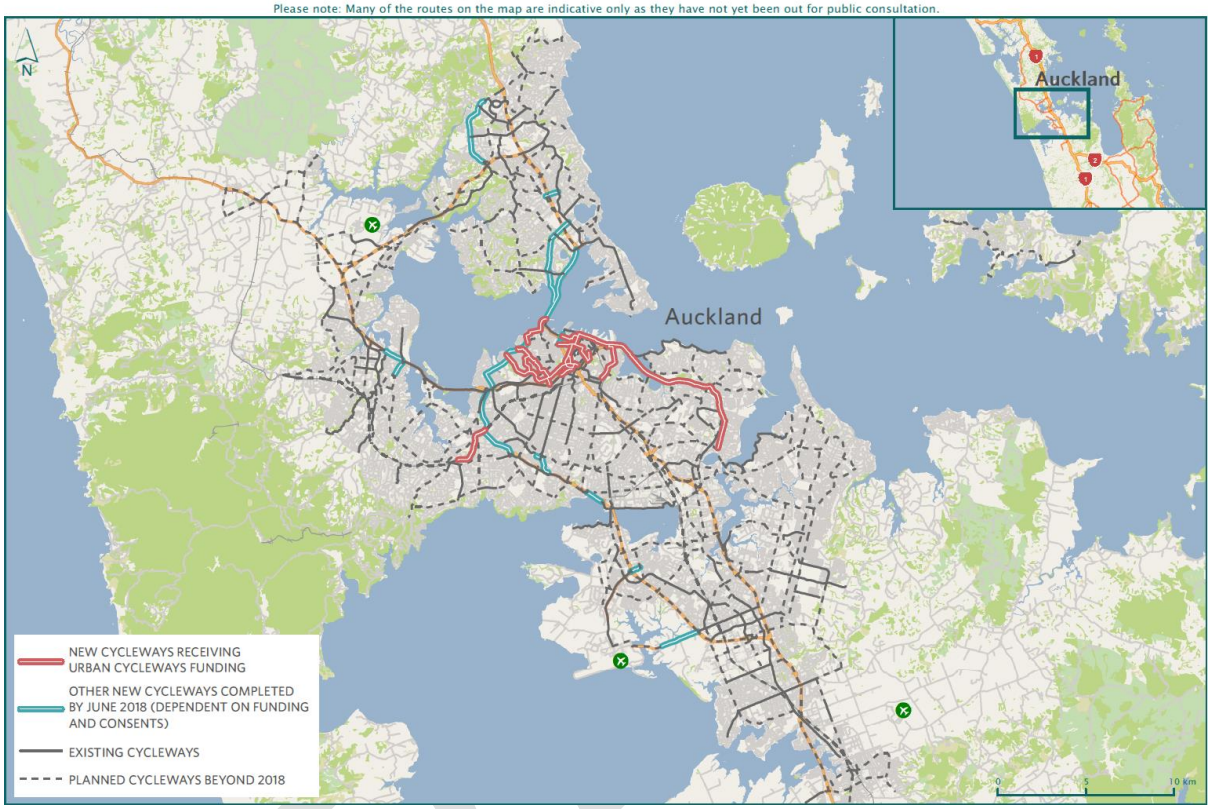

Hibiscus Coast
Waiheke Island
Pukekohe
2025 Network Frequency
Frequent
Connector
Local & Peak


Hibiscus Coast
Waiheke Island
Pukekohe
2028 Network Frequency
Frequent
Connector
Local & Peak
Light Rail (Indicative alignments only)
Heavy Rail

Annex three – Auckland cycle network

Proposed Auckland Cycle Network

Please note: Many of the routes on the map are indicative only as they have not yet been out for public consultation.



Urban Cycleways Funded Projects in Auckland

For more information refer to: https://at.govt.nz/cycling-walking/projects-upgrades/