

# To the future of Wellington











# The big picture

### Our vision

Established 2018



A great harbour city, accessible to all, with attractive places, shared streets and efficient local and regional journeys.

To realise our vision we need to move more people with fewer vehicles.

Our objectives A transport system that		Weightings
	Enhances urban amenity and enables urban development outcomes	20%
2	Provides more efficient and reliable access for users	15%
<b>二</b> 二条法	Reduces carbon emissions and increases mode shift by reducing reliance on private vehicles	40%
$\Theta$	Improves safety for all users	15%
鲤	Is adaptable to disruption and future uncertainty	10%











# The journey to date

Input from over 10,000 Wellingtonians

2015



Basin bridge project rejected

2016/17



Programme business case assessment

2018



Recommended Programme of investment to get Wellington moving 2019



\$6.4 billion Indicative Package announced by Minister, Mayor and GW Chair

Supported by Cabinet and our partners, subject to business case investigation 2019/2020



Early delivery programme and investigation of longer-term programme begin













# Our plan – a large and complex programme

### 3-year programme

Early improvements ahead of larger construction projects.

- Safer speeds in the central city
- Central city pedestrian improvements
- Golden mile transformation
- Thorndon Quay/Hutt Road improvements
- Cobham Drive crossing and SH1 safer speeds east of Mt Victoria

### **City Streets**

Improvements to bus reliability, people walking and cycling, options for people to get around without relying on their car, to support construction of the transformational programme.

- Key routes between the suburbs and central city
- 10-12 year programme of works
- Targeted improvements included in 3-year programme

# Transformational Programme

Larger programme to help shape future growth, transform our city, substantially change how we get around, and move more people with fewer vehicles.

- Mass Rapid Transit
- Basin Reserve and an extra
   Mt Victoria Tunnel
- Travel Demand Management

+ INTEGRATION with partner projects











# Mass Rapid Transit











## Mass rapid transit for Wellington

- Our City Streets programme will improve the reliability of our bus services.
- However, further investment will be needed for the growing population
- Mass rapid transit is a step-change in public transport aligned with planned urban development
- Mass rapid transit will be street-based, running on the existing road and will extend the reach of the rail network









# Overseas examples

### **Bus Rapid Transit in France**



### **Light rail in Newcastle**













### Light rail



The 'light rail system' (LRT) can move the most people - up to 300 people per vehicle. Light rail runs on steel tracks so they take longer to install.

### **Snapshot**

- Moves up to 300 people comfortably and quickly
- Level boarding and priority seating for people with mobility challenges
- Enables the most housing along the Island Bay route
- Future proofs the corridor as can provide extra capacity beyond 30 years
- Can be noisier outside the vehicle due to steel wheels
- Challenging to extend to other suburbs in the future
- Longer recovery time after a natural disaster











### Future Wellington

**Light rail** at the hospital





### Bus Rapid Transit



Bus Rapid Transit vehicles are spacious elongated buses.

They don't move as many people as light rail but are more flexible because they don't need tracks.

### Snapshot

- Moves up to 110 people comfortably and quickly
- Level boarding and priority seating for people with mobility challenges
- Enables housing on the southern and eastern routes
- Quieter than light rail
- Could be extended to other suburbs in the future
- Shorter construction time than light rail
- Quicker recovery time from a natural disaster











### Future Wellington

**Bus Rapid Transit** on the waterfront Quays







### The difference between Enhanced Bus, Bus Rapid Transit and Light Rail



**Enhanced Bus** 

**Bus Rapid Transit** 

**Light Rail** 

# Mass rapid transit – the catalyst for urban transformation









## Mass rapid transit and urban development

A catalyst to support Wellington's growth

- Enables higher density development with a lower environmental footprint
- Makes it easier for a growing population to get around and connect with regional rail, the wider bus network, and other active mode improvements
- Provides significant economic stimulus for the central city









Investment in high-quality mass rapid transit and street renewal

More attractive for people to live and work near mass rapid transit stops Encourages investment near stops in higher-density housing

More housing in compact, connected, walkable communities



Eases pressure on the transport system



Reduces emissions



Encourages more physical activity → improves health and wellbeing











Future Wellington

Urban development enabled by

Bus priority

















Future Wellington

for illustrative purposes only

Urban development enabled by **Bus rapid transit** 















Artist impression

# Future Wellington

Urban development enabled by **Light rail** 

















## The four options we are considering











### The four options

All the options will transform our city by:

- Moving more people, more quickly and comfortably
- Reducing our carbon emissions
- Making it easier to get to key destinations
- Supporting more housing and urban development
- Reducing the need to travel by car
- Providing faster, more reliable commutes
- Delivering safer and better experiences for people walking and cycling









#### THORNDON Wellington @ Railway Station Terrace Tunnel TE ARO Basin Reserve significant MOUNT VICTORIA improvements Hataitai Bus Arras Tunnel \* Tunnel Basin Mt Victoria tunnel repurposed Reserve for walking and cycling MOUNT COOK HATAITAI **BROOKLYN** MIRAMAR NORTH Possible new Wellington tunnel location Regional Hospital **NEWTOWN** MIRAMAR KILBIRNIE SIIIE BERHAMPORE **RONGOTAI** SEATOUN LYALL BAY Wellington Airport Light Rail Walking & Cycling **Dedicated Lane** Improvements Light Rail ISLAND BAY **Shared Lane Bus Priority** (continuous) **Bus Priority** (where needed) New tunnel location is shown for Indicative MRT **Bus Route** walkable catchment representative purposes only. City Streets and 3-Year programme projects not displayed in these maps.

### Option 1

South coast light rail + new public transport tunnel









#### THORNDON Wellington P Railway Station Terrace Tunnel TE ARO Basin Reserve MOUNT significant VICTORIA improvements Hataitai Bus \* Tunnel Basin Mt Victoria tunnel repurposed Reserve for walking and cycling MOUNT COOK HATAITAI **BROOKLYN** MIRAMAR NORTH Possible new Wellington tunnel location Regional Hospital **NEWTOWN** KILBIRNIE BERHAMPORE RONGOTAL Summunumunum SEATOUN LYALL BAY Wellington Airport **Bus Rapid Transit** ISLAND BAY **Dedicated Lane Bus Rapid Transit Shared Lane** Walking & Cycling Improvements New tunnel location is shown for Indicative MRT representative purposes only. walkable catchment City Streets and 3-Year programme projects not displayed in these maps.

# Option 2

Bus rapid transit to the sea and skies











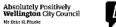
#### THORNDON Wellington @ Railway Station Terrace Tunnel TE ARO Basin Reserve MOUNT significant VICTORIA improvements Hataitai Bus Arras Tunnel Basin Reserve HATAITAI MOUNT COOK Mt Victoria New tunnel location for MIRAMAR BROOKLYN Tunnel walking and cycling NORTH Wellington Regional Hospital NEWTOWN MIRAMAR KILBIRNIE SIIIF BERHAMPORE RONGOTAI **SEATOUN** LYALL BAY Wellington Airport Light Rail Walking & Cycling **Dedicated Lane** Light Rail ISLAND BAY **Shared Lane Bus Priority Existing Tunnels** (continuous) **Bus Priority** State Highway (where needed) New tunnel location is shown for Indicative MRT **Bus Route** representative purposes only. walkable catchment City Streets and 3-Year programme projects not displayed in these maps.

## Option 3

South coast light rail







Me Helse Kl. Pötteke





#### THORNDON Wellington @ Railway Station Terrace Tunnel Light rail via Tasman, Tory and TE ARO Taranaki Streets MOUNT Basin Reserve minor VICTORIA improvements Hataitai Bus Basin Reserve **EHATAITAI** MOUNT COOK Mt Victoria New tunnel location for BROOKLYN MIRAMAR walking and cycling NORTH Wellington Regional Hospital NEWTOWN MIRAMAR KILBIRNIE BERHAMPORE **RONGOTAI SEATOUN** LYALL BAY Wellington Airport Summi Light Rall Walking & Cycling **Dedicated Land** Light Rail **New Tunnel** ISLAND BAY **Shared Lane Bus Priority Existing Tunnels** (continuous) Bus Priority State Highway (where needed) New tunnel location is shown for Indicative MRT **Bus Route** representative purposes only. walkable catchment City Streets and 3-Year programme projects not displayed in these maps.

### Option 4

South coast light rail via **Taranaki Street** 







Me Helse Kl. Pötteke





# The Basin Reserve and Mt Victoria Tunnel











### Improvements at the Basin Reserve

### Options 1, 2 and 3

The Basin Reserve completely transformed to make it easier for everyone to get around by making Arras tunnel longer, extending it towards Mt Victoria.

### No longer a roundabout

The two major traffic flows would be separated as follows:

- over Arras tunnel for light rail or Bus Rapid Transit and local travel
- through Arras tunnel for highway traffic heading north towards the motorway

### Walking and cycling

New walking and cycling paths around and to the Basin Reserve

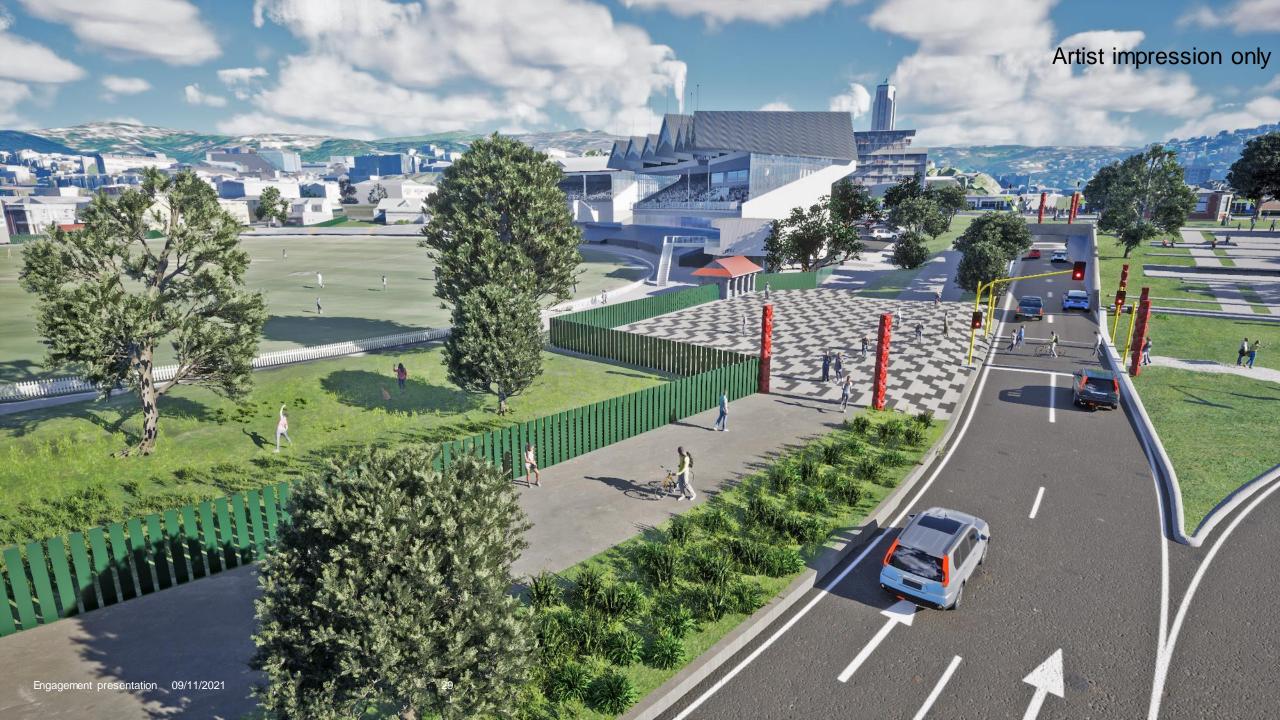




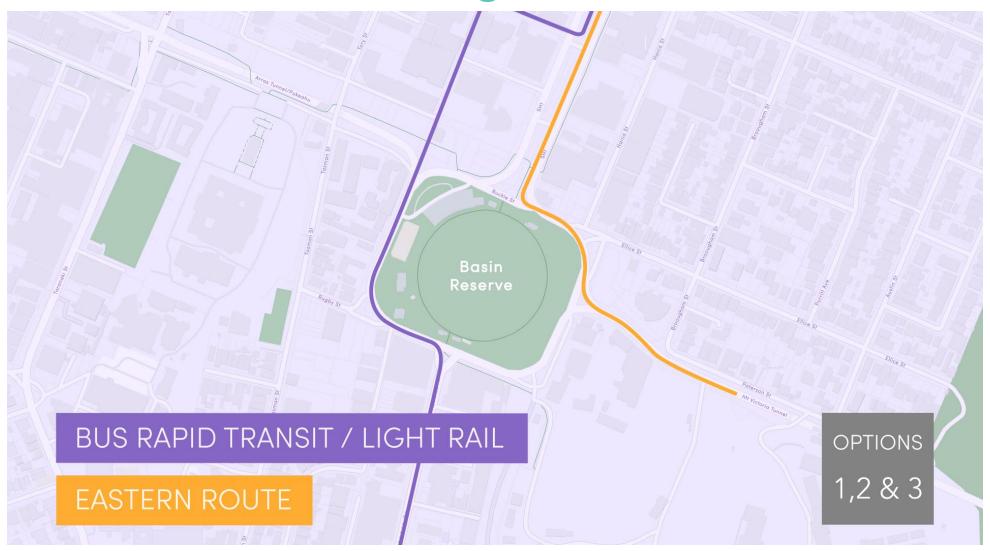








# MRT through the Basin



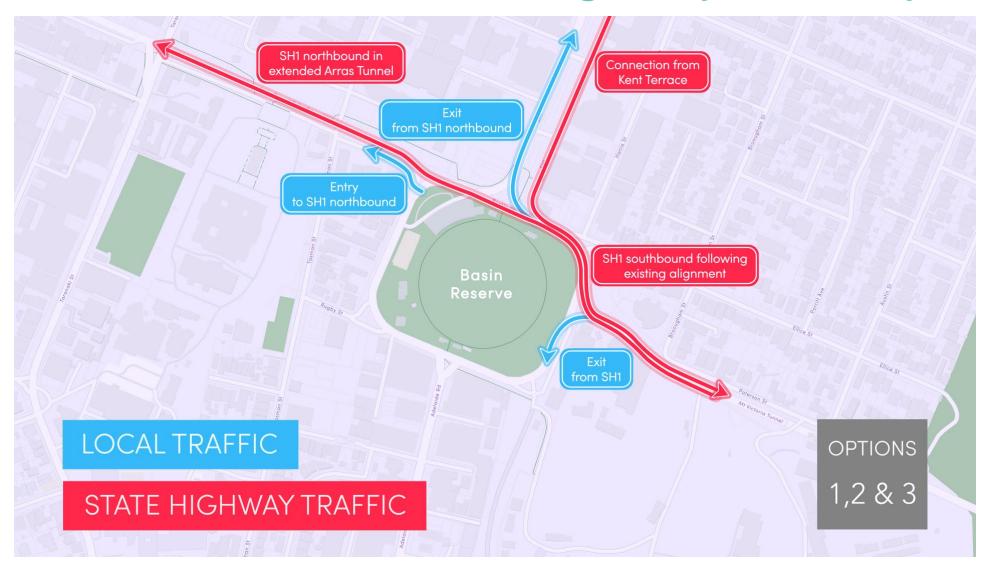








# East to West – State Highway Journeys





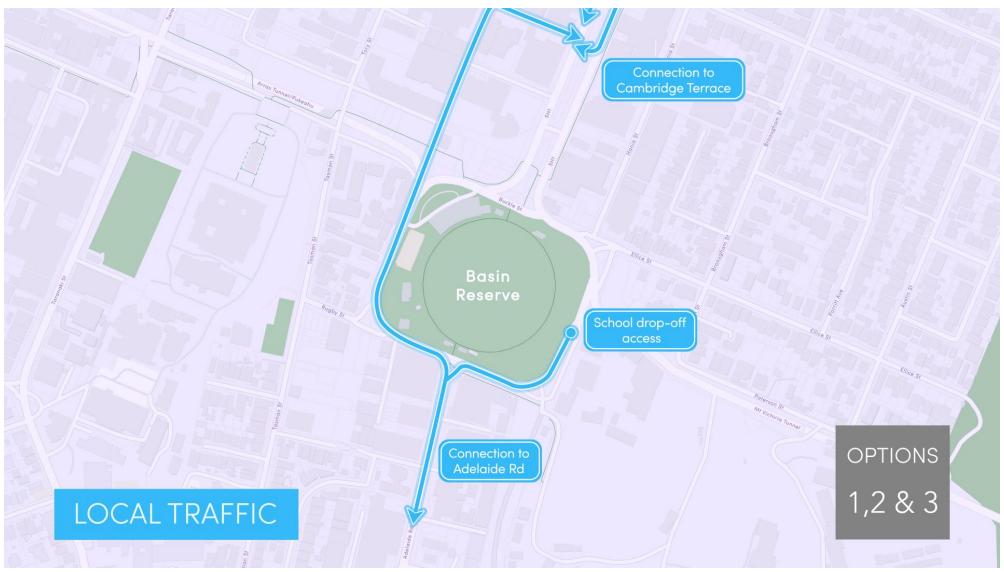








# North to South – Local Journeys









# Walking, Cycling and Micro-mobility











### Improvements at the Basin Reserve

### Option 4 – Basin Reserve stays as a roundabout

Improvements would be made to:

- the layout such as extra lanes;
- the intersection at Adelaide Road; and
- ways for people walking and cycling to link up with the extra Mt Victoria Tunnel.

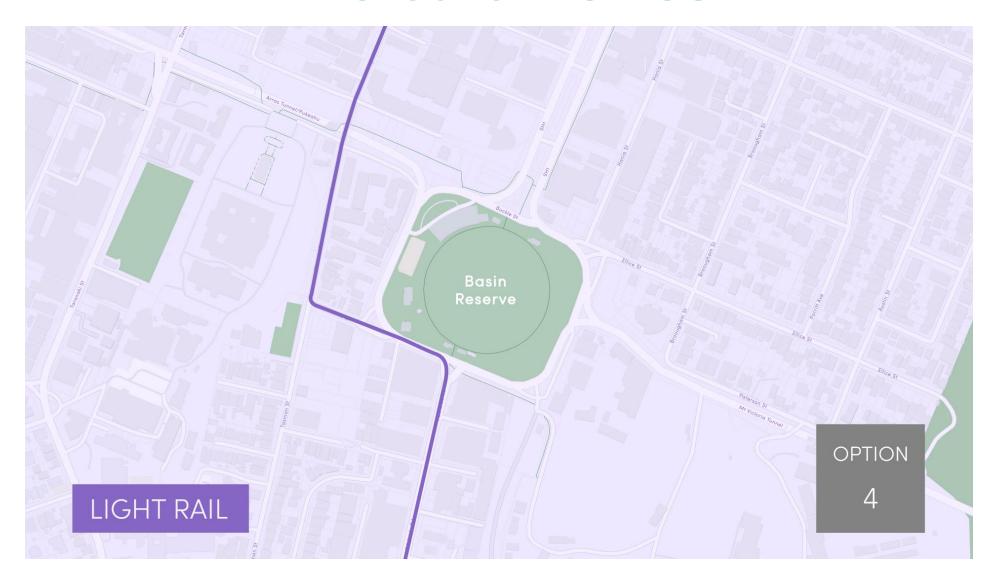








### MRT around the Basin











### East to West – State Highway Journeys













# North to South – Local Journeys



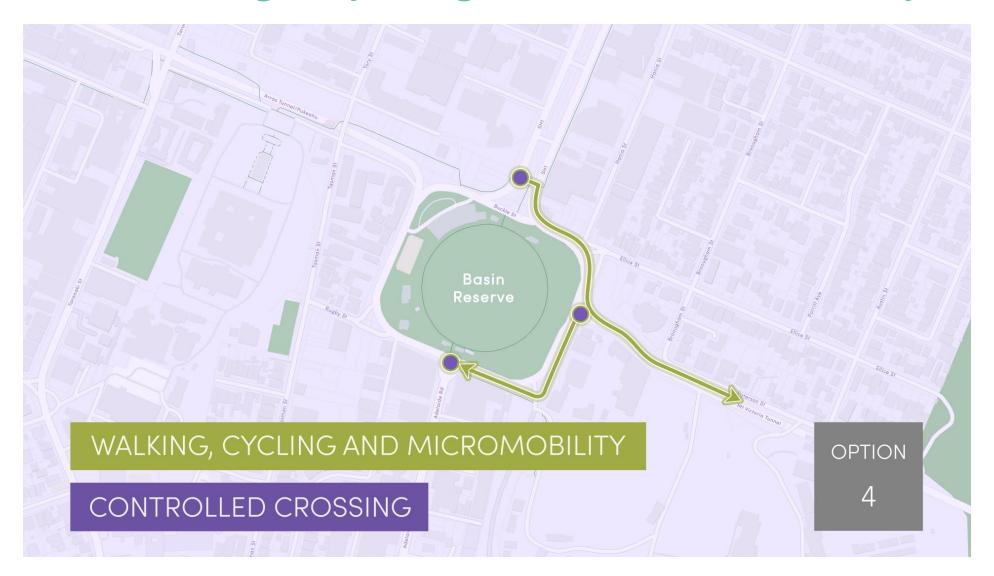








# Walking, Cycling and Micro-mobility













## An extra Mt Victoria Tunnel

## New tunnel – options 1 and 2

The new tunnel and existing tunnel combined would provide:

- A dedicated walking and cycle lane
- One dedicated public transport lane in each direction
- One lane in each direction for all other vehicles

The Hataitai Bus tunnel would remain for the use of local Hataitai buses.

## Possible approaches include:

- A new diagonal tunnel connecting the Basin Reserve with Wellington Road / Ruahine Street.
- A new parallel tunnel alongside the existing Mt Victoria Tunnel.

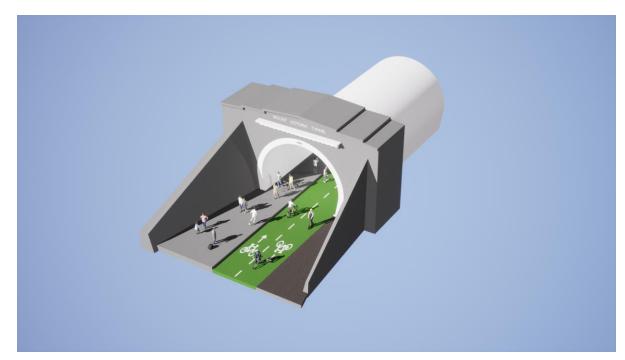


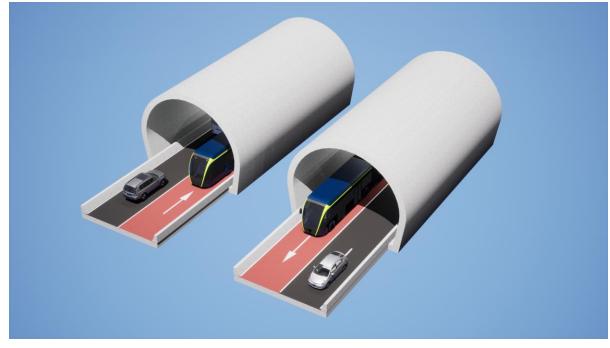






# Options 1 & 2 – Diagonal Tunnel Option





Existing tunnel repurposed for walking, cycling and micromobility

New diagonal tunnel: 2 lanes for general traffic, 2 lanes for Public Transport (Option 1 – Bus Priority, Option 2 – Bus Rapid Transit)





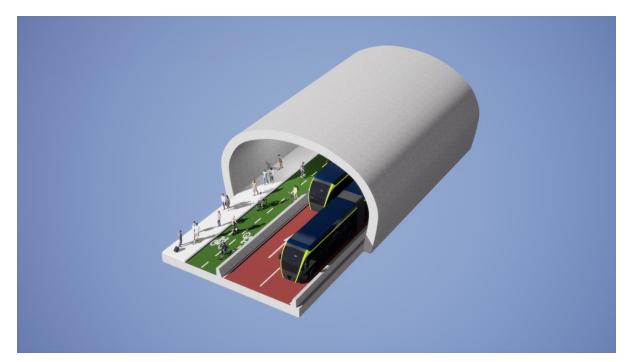


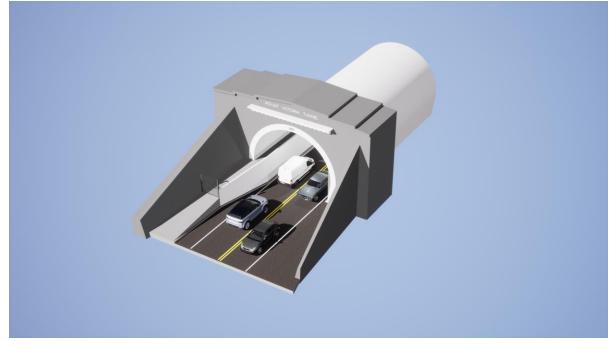






# Options 1 & 2 – Parallel Tunnel Option





New parallel tunnel: 2 lanes for walking, cycling and micromobility, 2 lanes for Public Transport (Option 1 – Bus Priority, Option 2 – Bus Rapid Transit)

Existing tunnel: 2 lanes for general traffic, removal of walking and cycling facility











## An extra Mt Victoria Tunnel

## New tunnel – options 3 and 4

- A new tunnel would be for walking and cycling only.
- The configuration is yet to be determined but would likely be a parallel tunnel to the north of the existing tunnel.
- The existing Mt Victoria Tunnel would remain for vehicles.
- The Hataitai Bus tunnel would remain for the use of all buses.

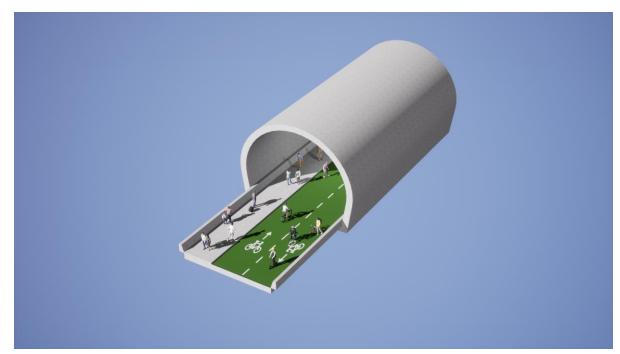


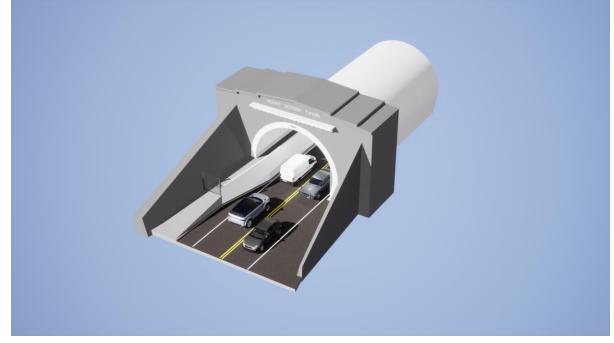






# Options 3 & 4 – New Active Modes Tunnel





New parallel tunnel: 2 lanes for walking, cycling and micromobility

Existing tunnel: 2 lanes for general traffic, removal of walking and cycling facility



















Measure	Option 1	Option 2	Option 3	Option 4
Urban development (extra housing)	Up to <b>21,000</b> dwellings	Up to 16,000 dwellings	Up to <b>21,000</b> dwellings	Up to <b>21,000</b> dwellings
Increase in walking and cycling (travel to the central city)	60% increase		† 14% increase	
Transport network resilience	<b>√</b> ✓	<b>√ √ √</b>	<b>√</b>	<b>√</b>









Measure			Option 1	Option 2	Option 3	Option 4
Transport network reliability (all modes)		<b>√</b> ✓	<b>√ √ √</b>	<b>√</b> √	<b>√</b>	
Public tra	ublic transport travel times in the morning peak					
Island Bay	$\rightarrow$	Wellington Railway Station	<b>12 minutes less</b> (35 → 23 min)			
Miramar Town Centre	$\rightarrow$	Wellington Railway Station	14 mins less* (32 → 18 min)		10 mins less (32 → 22 min)	
Airport	$\rightarrow$	Wellington Railway Station	8 mins less* (25 → 17 min)		5 mins less (25 → 20 min)	

<sup>\*</sup> Depending on the configuration of the Mt Victoria tunnel. These results assume a diagonal tunnel.









Measure	Option 1	Option 2	Option 3	Option 4
State Highway journey times – Airport to Terrace Tunnel in morning peak	Up to 3 min* less		little change	
Vehicles removed from local streets in the morning (per hour)	<b>500</b> fewer vehicles		350 fewer vehicles	200 fewer vehicles
30-year Cost	<b>\$7.4</b> billion	<b>\$7.0</b> billion	<b>\$6.6</b> billion	<b>\$5.8</b> billion
Construction duration	10-15 years (assuming concurrent construction of some aspects)		8-12 years (assuming concurrent construction of some aspects)	

<sup>\*</sup> Depending on the configuration of the Mt Victoria tunnel. This result assumes a diagonal tunnel.









## Carbon Outcomes

Option 1	Option 2	Option 3	Option 4
- higher carbon	- higher carbon	- much lower carbon	- much lower carbon
emissions from	emissions from	emissions from	emissions from
construction of a new Mt	construction of a new Mt	construction	construction
Victoria Tunnel and	Victoria Tunnel and		
<b>Arras Tunnel extension</b>	Arras Tunnel extension	- good carbon	- very good carbon
		reductions from more	reductions from more
- very good carbon	- good carbon	people walking, biking	people walking, biking
reductions from more	reductions from more	and using public	and using public
people walking, biking	people walking, biking	transport	transport
and using public	and using public		
transport	transport	- more people can live	- more people can live
		closer to town, reducing	closer to town, reducing
- more people can live	- people can live closer	the distances people	the distances people
closer to town, reducing	to town, reducing the	need to travel	need to travel
the distances people	distances people need		
need to travel	to travel		







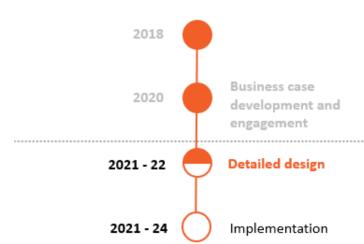




# The path forward

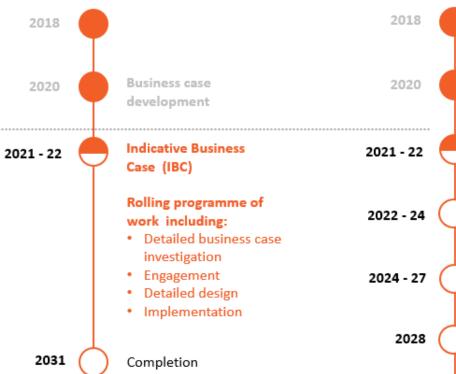
#### 3-year programme

- · Transforming the Golden Mile
- · Thorndon Quay and Hutt Road improvements
- · Central city pedestrian improvements
- · Cobham Drive Crossing and SH1 speeds east



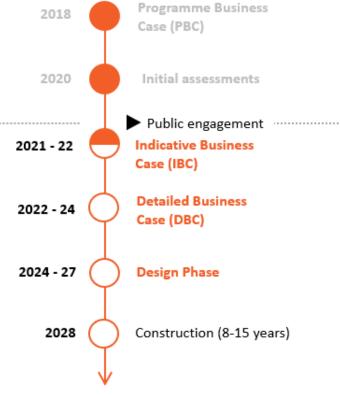
#### **City Streets**

Walking, cycling and bus priority improvements on 19 corridors between the suburbs and the central city



#### **Transformational programme**

- · Mass rapid transit
- · Basin Reserve improvements
- Extra Mt Victoria Tunnel
- · Smarter transport network













# Getting feedback from all Wellingtonians









# This engagement



Focused on mass rapid transit



Some information on Basin Reserve and extra Mt Victoria tunnel



We need you to tell us how you want to move through the city, and the routes you want











# We welcome your feedback



Visit Igwm.nz/hello and give us your feedback



Come along to a LGWM event

- Open days
- Pop up events
- Online webinar
- WCC "Our City Tomorrow" roadshow











# Changing the way we travel

- We're looking at a range of things to encourage people to consider other ways of getting around.
- The sort of things we're looking at include working with schools and workplaces to provide other options, and 'pricing' options such as a parking levy or congestion charge.
- We will be consulting further on these as we move into future phases of the programme.

## These positive changes in travel behaviour would:

make local make the help reduce and regional options work trips quicker carbon even better and more emissions reliable

### Covid-19 has shown:

a lot of people are happy to work from home

travel patterns can change significantly









# Questions







