



EARLY DESIGN SCHEMATICS AND ARTIST IMPRESSIONS

APRIL 2018


All maps and illustrations
are artist impressions of
early design concepts.

They are not final designs
and are subject
to change.



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Contents

M80 to the Eastern Freeway

North East Link - design schematic2

Local toll-free trips3

M80 interchange4

Grimshaw Street interchange8

Elder Street, Watsonia station and shops.....11

Lower Plenty Road interchange14

Manningham Road interchange18

Eastern Freeway interchange20

Eastern Freeway upgrades and Doncaster Busway

About the upgrades - design schematic23

Eastern Freeway express lanes.....24

Eastern Freeway ramp metering25

Doncaster Busway26

Catering for complex trips (Tram Rd to Middleborough Rd).....27



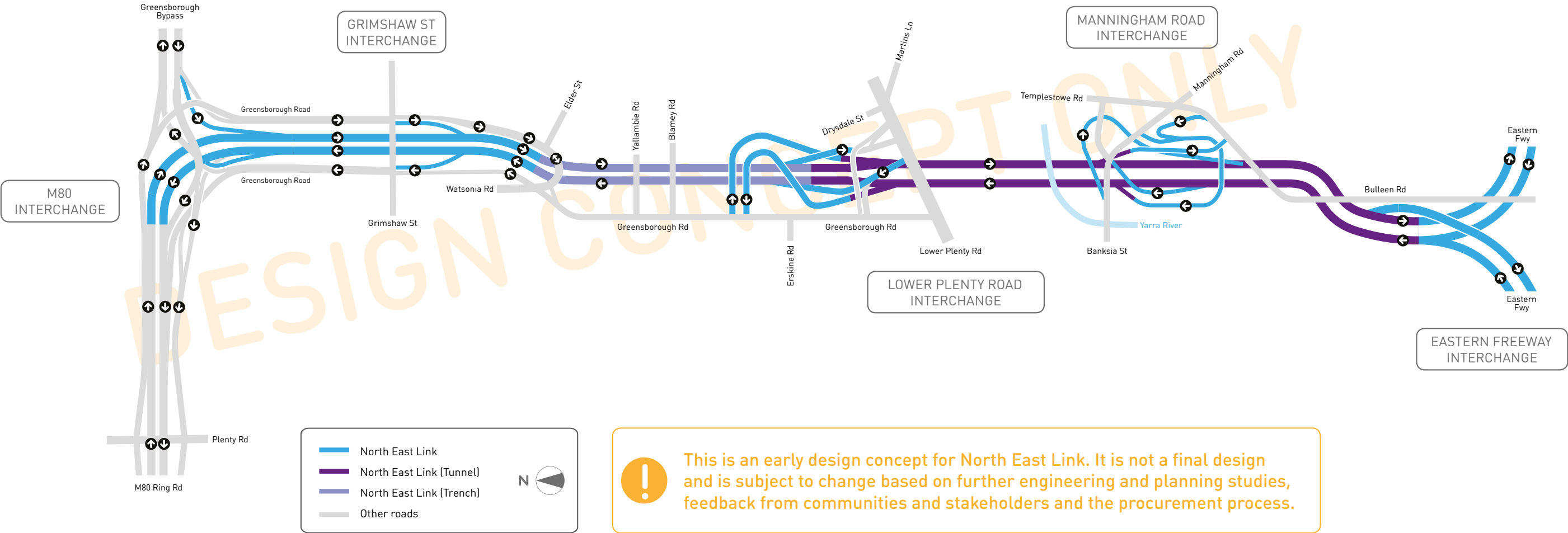
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M80 to the Eastern Freeway

North East Link - design schematic

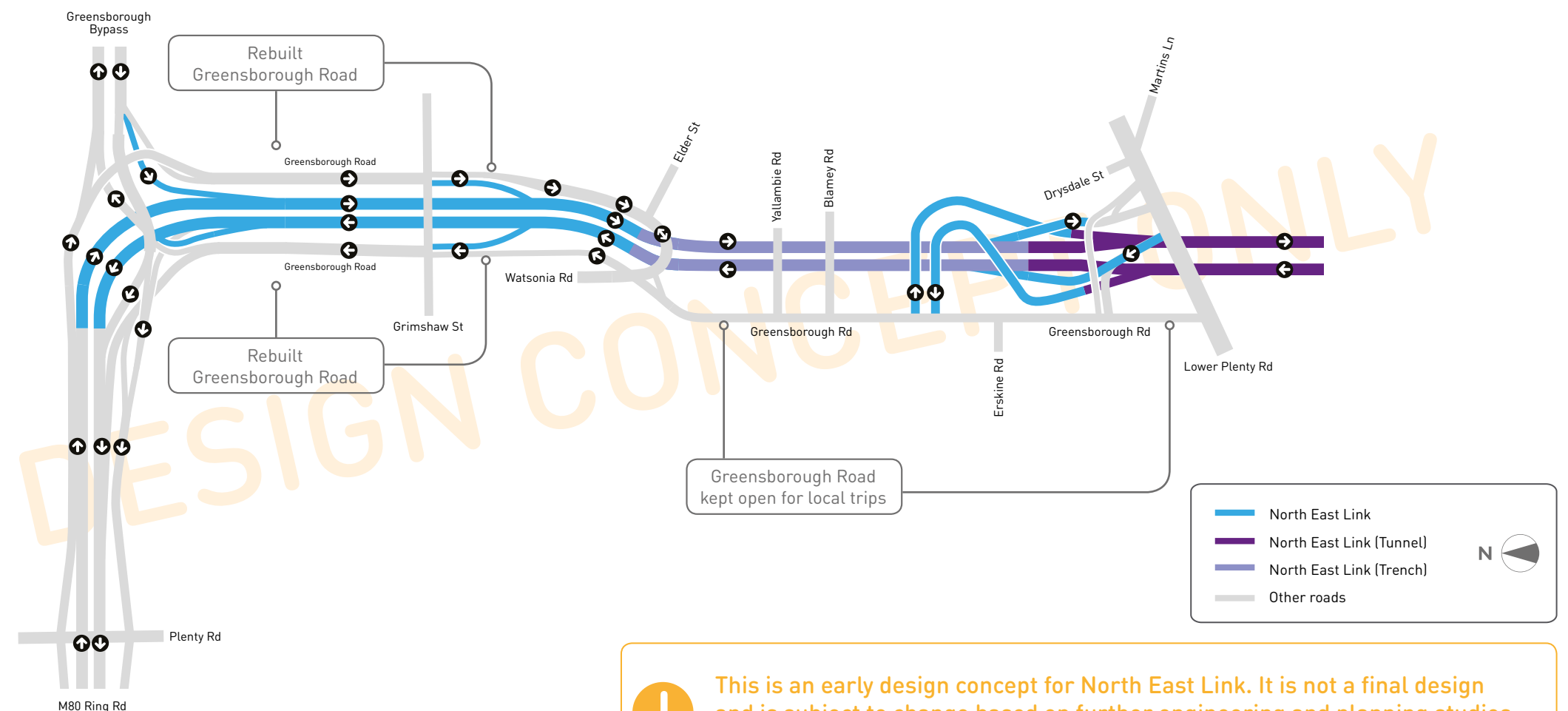
North East Link would provide an express connection between the M80 Ring Road and the Eastern Freeway, skipping 18 sets of lights. Interchanges would be located at the M80 Ring Road, Grimshaw Street, Lower Plenty Road, Manningham Road and the Eastern Freeway.



Local, toll-free trips

Toll-free roads for local trips would be maintained between the Eastern Freeway and the M80 Ring Road.

- Between the M80 Ring Road and Watsonia Road, Greensborough Road would be rebuilt on either side of North East Link and kept open for local toll-free trips.
- Between Watsonia Road and Lower Plenty Road, Greensborough Road would run next to North East Link and be kept open for local toll-free trips.



This is an early design concept for North East Link. It is not a final design and is subject to change based on further engineering and planning studies, feedback from communities and stakeholders and the procurement process.

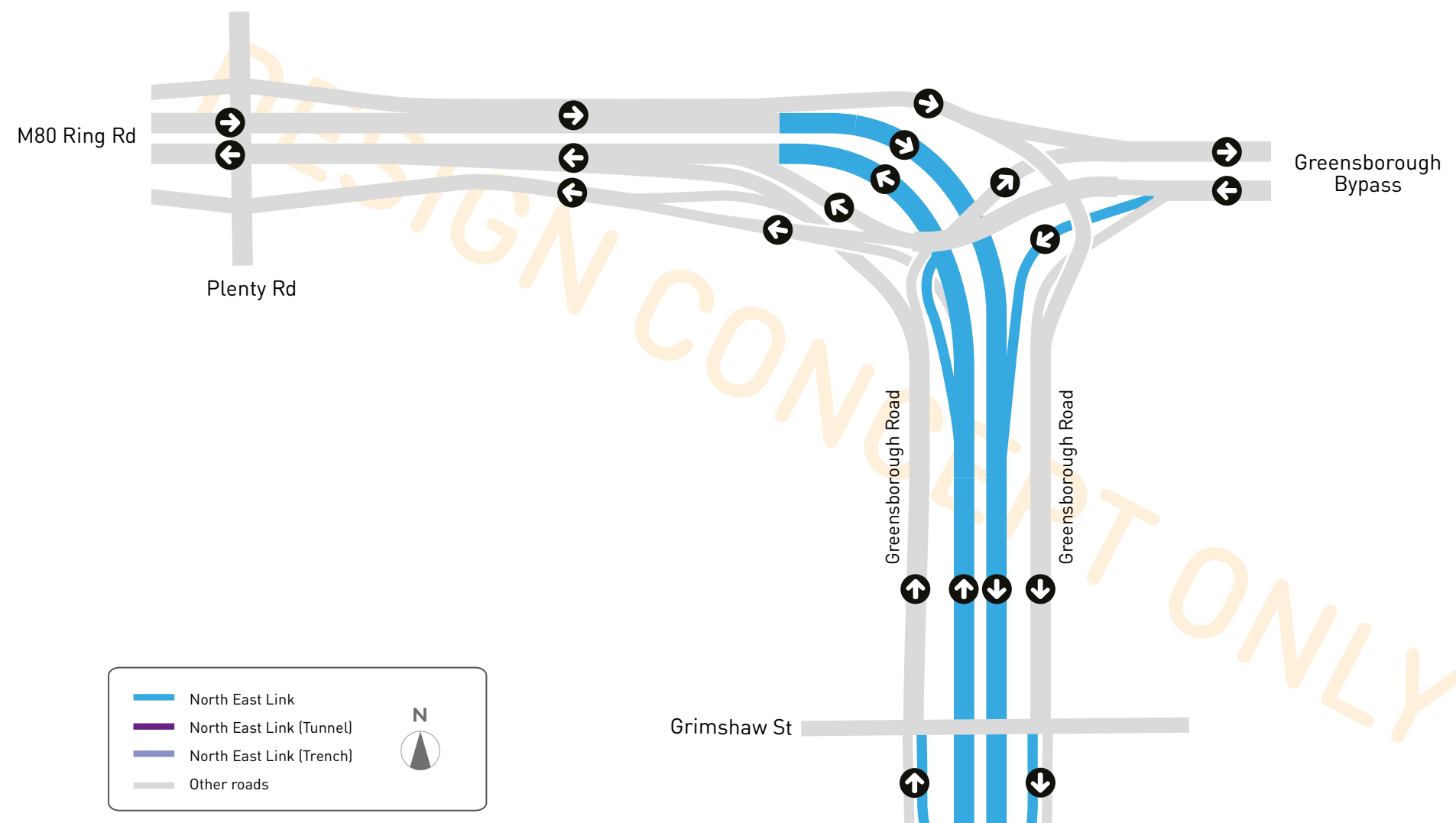
M80 interchange

The M80 interchange would provide free-flowing access in all directions.

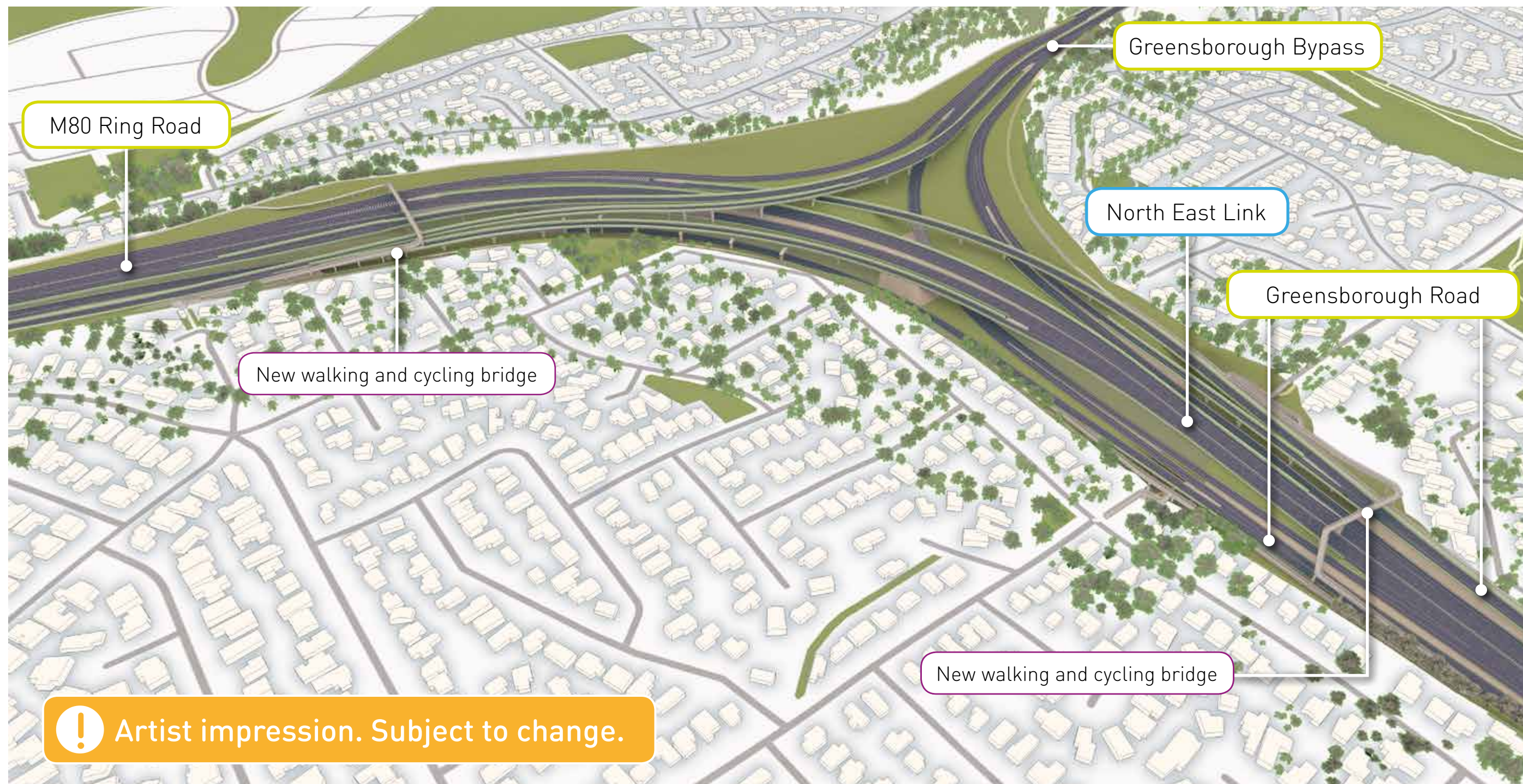
Traffic travelling on North East Link would be separated from local traffic.

Traffic travelling west to east between the M80 Ring Road and Greensborough Bypass would pass over traffic travelling on North East Link or Greensborough Road.

Clear signage on the M80 Ring Road and Greensborough Bypass would help drivers choose the correct lane early.

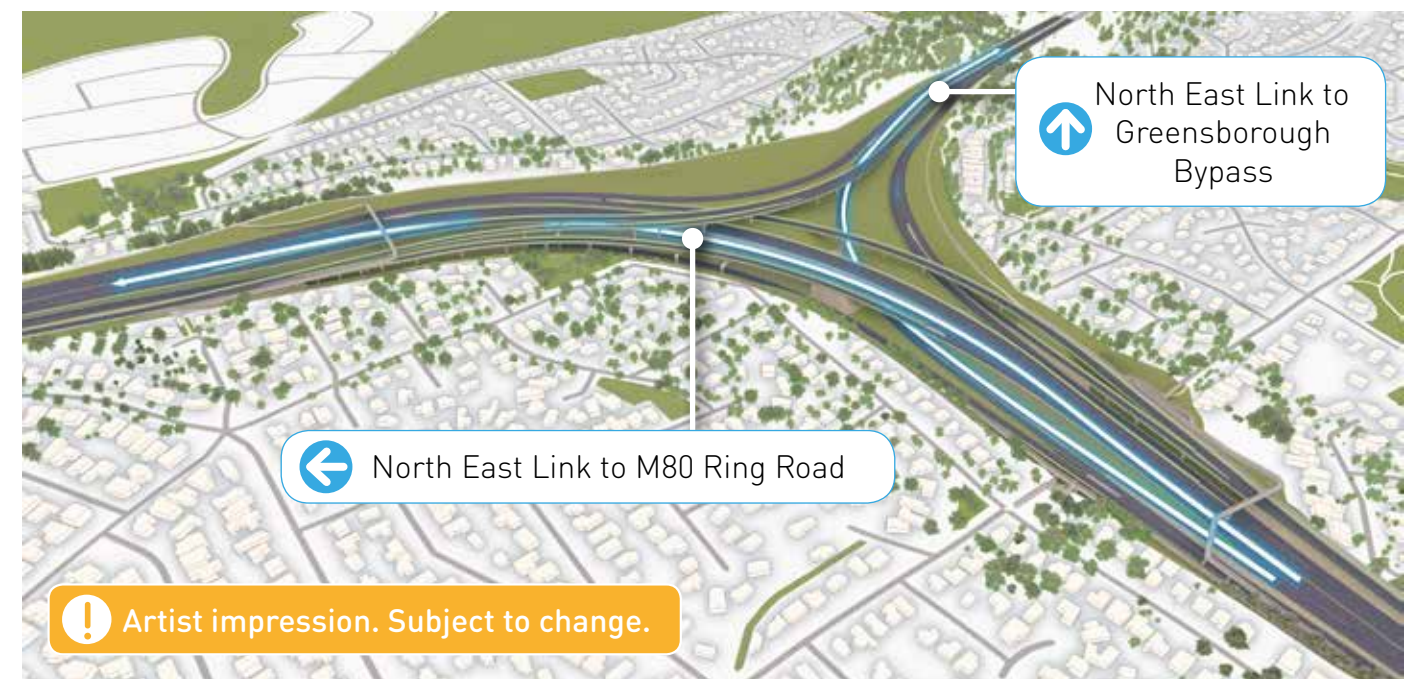
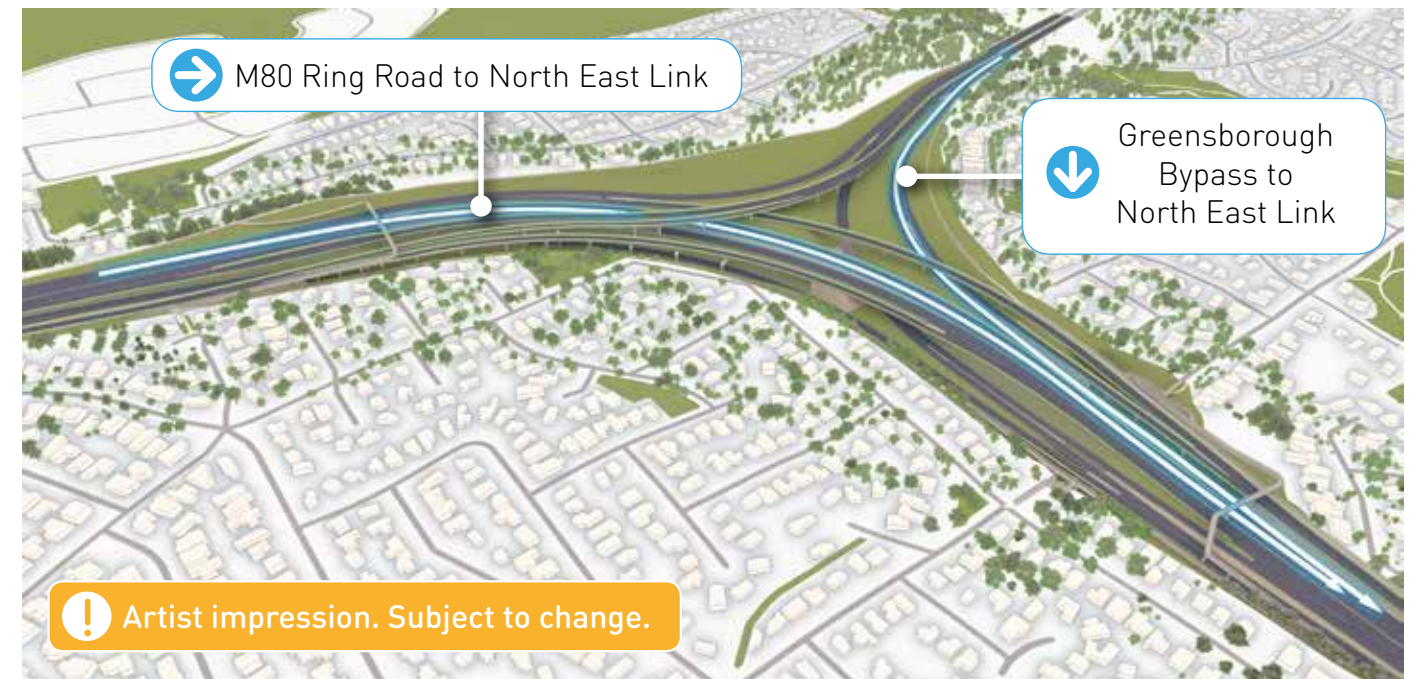


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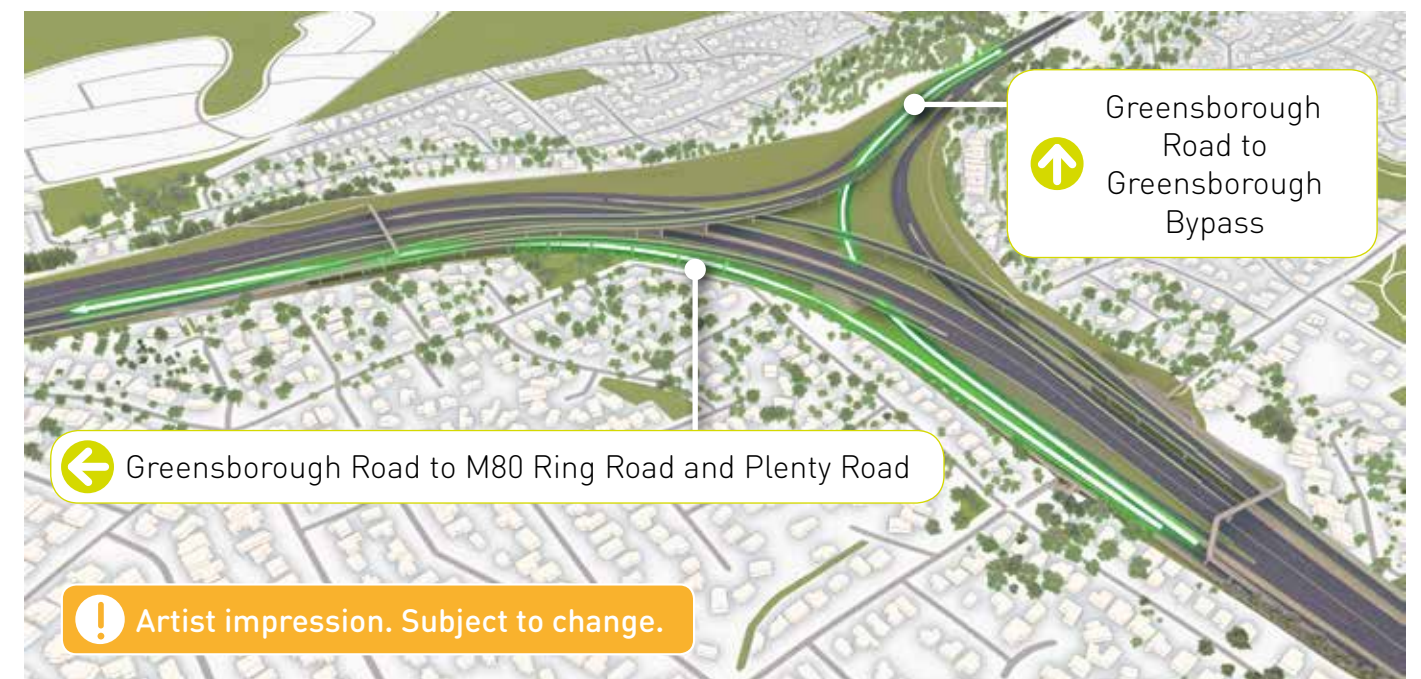
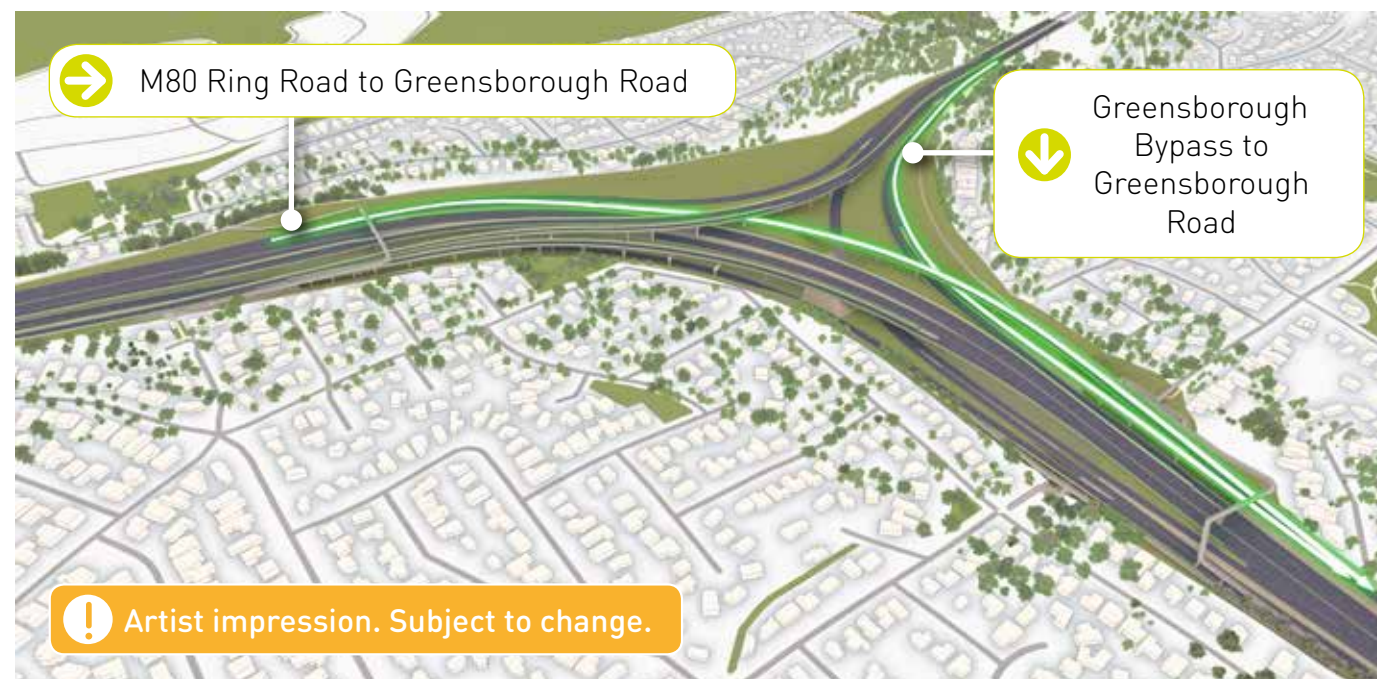
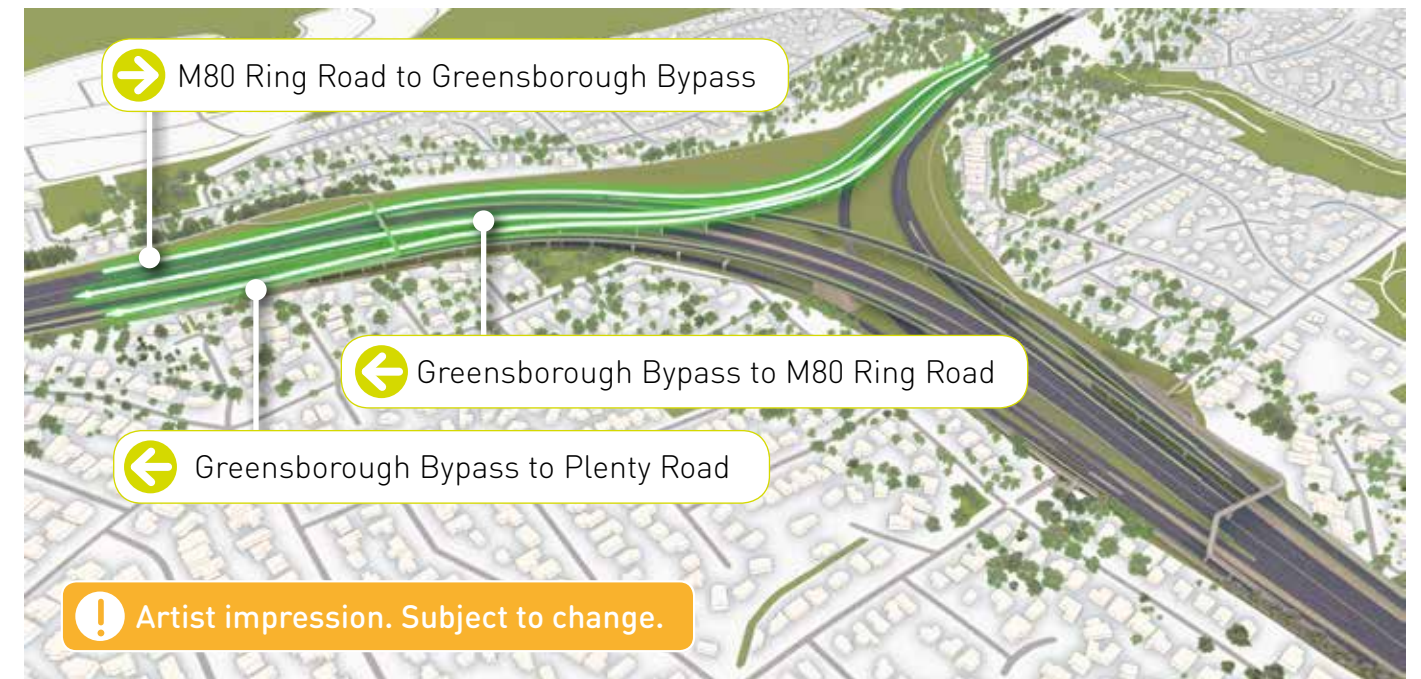


M80 interchange - artist impression

M80 interchange North East Link movements



M80 interchange local toll-free movements

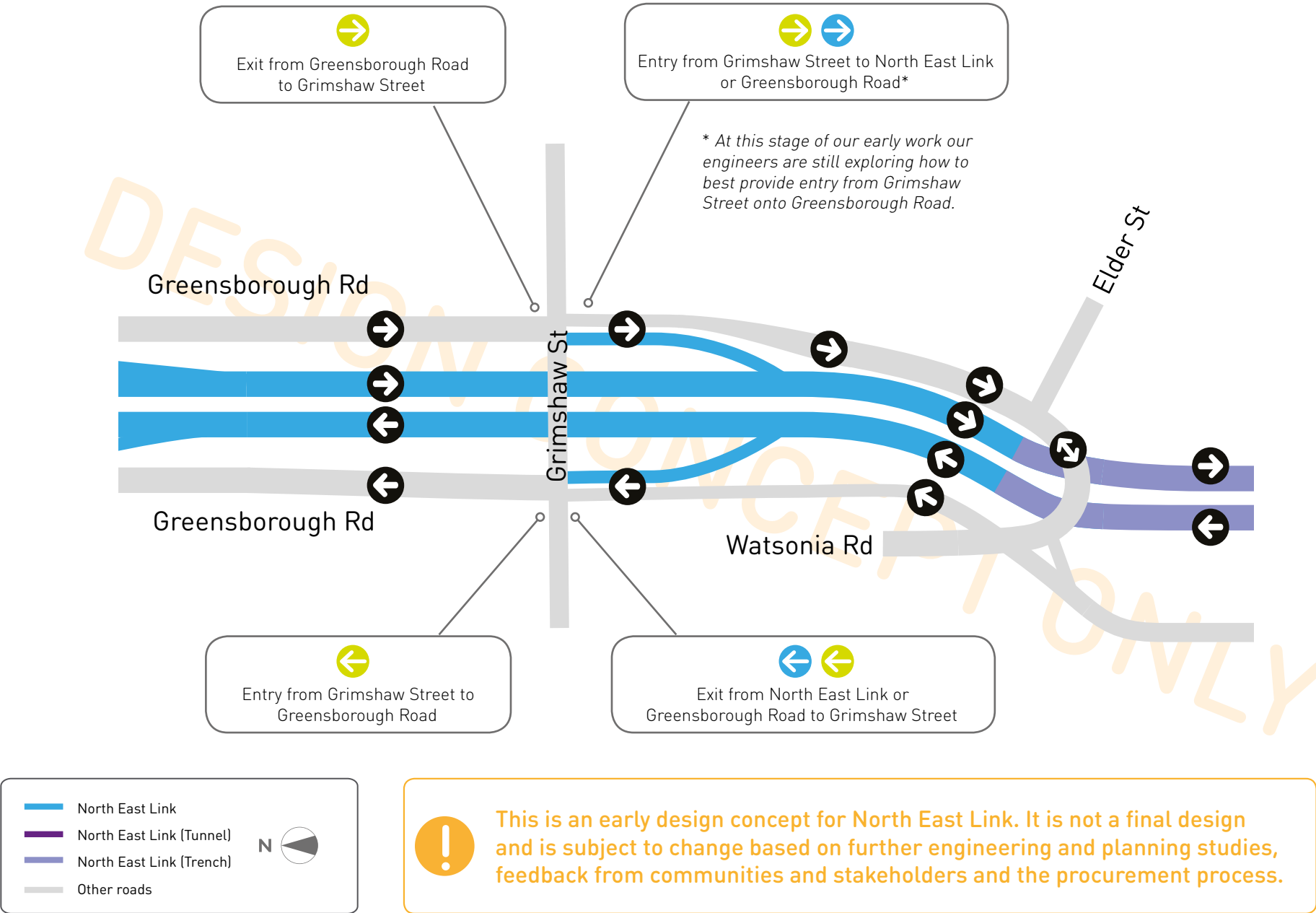


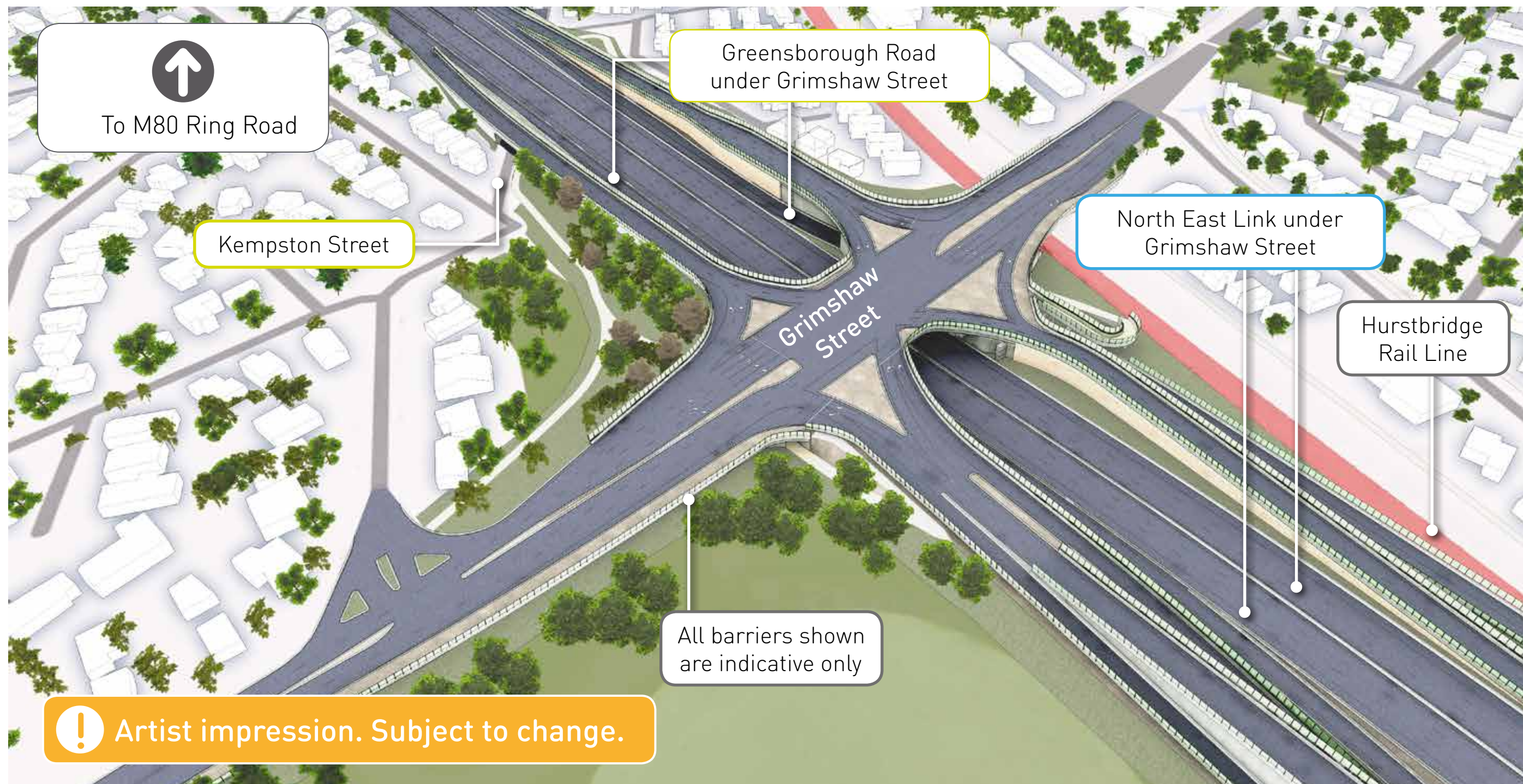
Grimshaw Street interchange

Traffic on North East Link and Greensborough Road would pass under Grimshaw Street.

Separating traffic travelling north to south from traffic travelling east to west would improve traffic flow in all directions and ease congestion at this interchange.

Grimshaw Street would also include a bus priority lane.

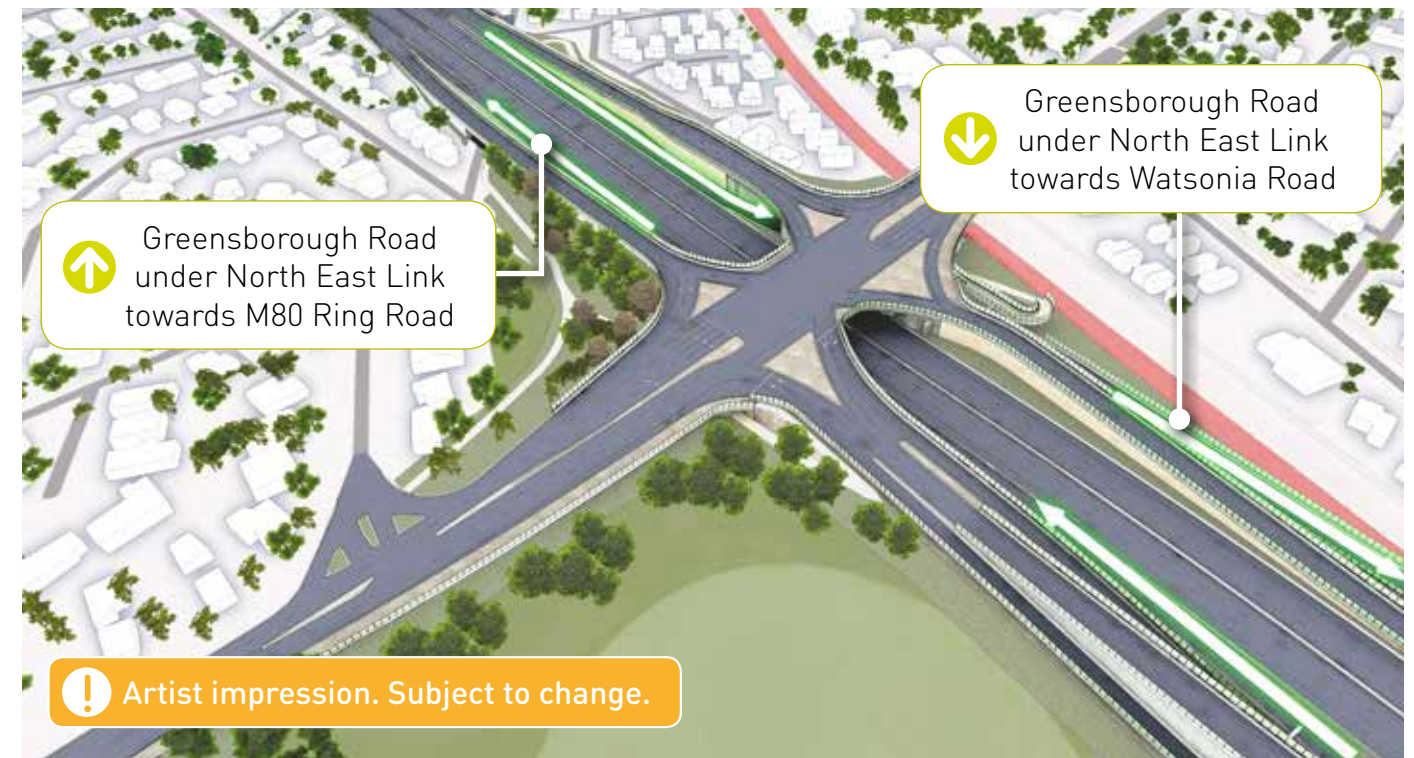




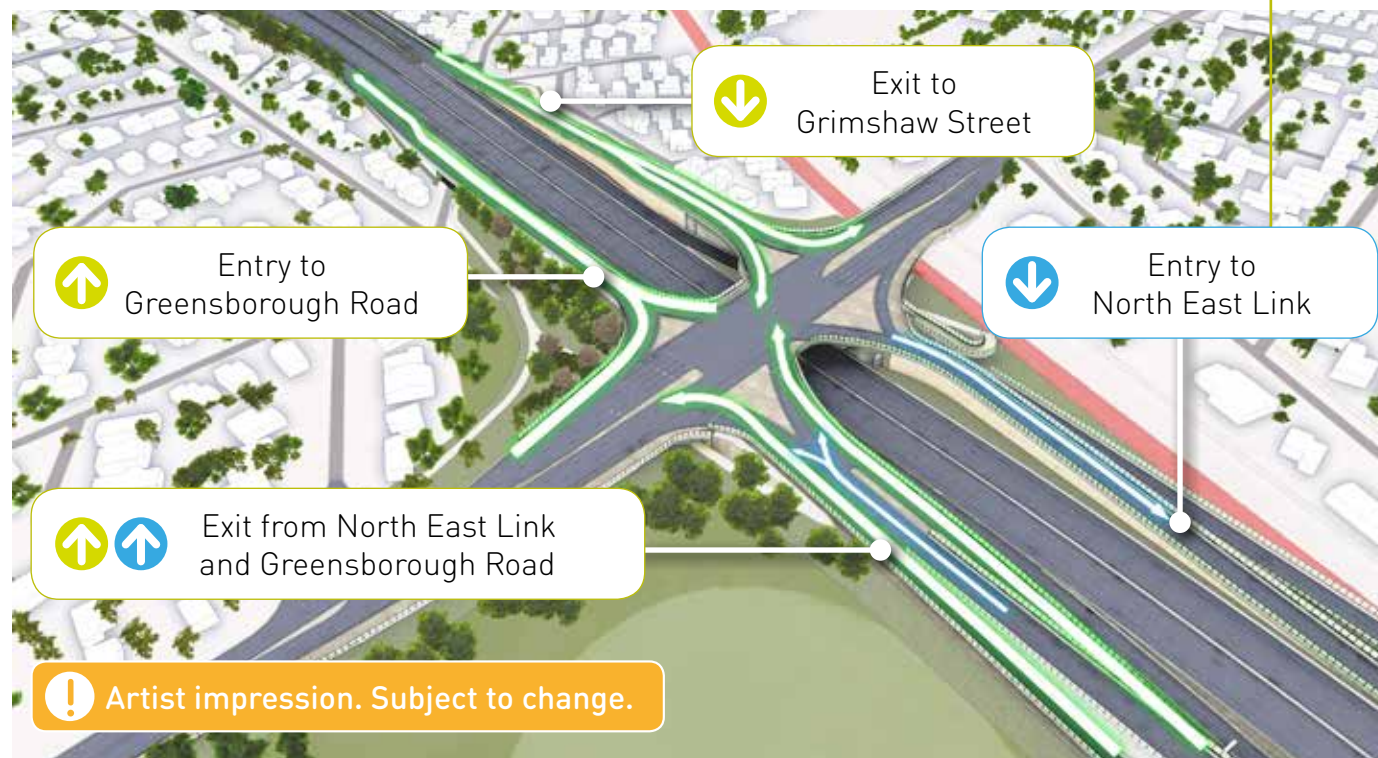
Grimshaw Street interchange - artist impression

Grimshaw Street interchange local toll-free and North East Link movements

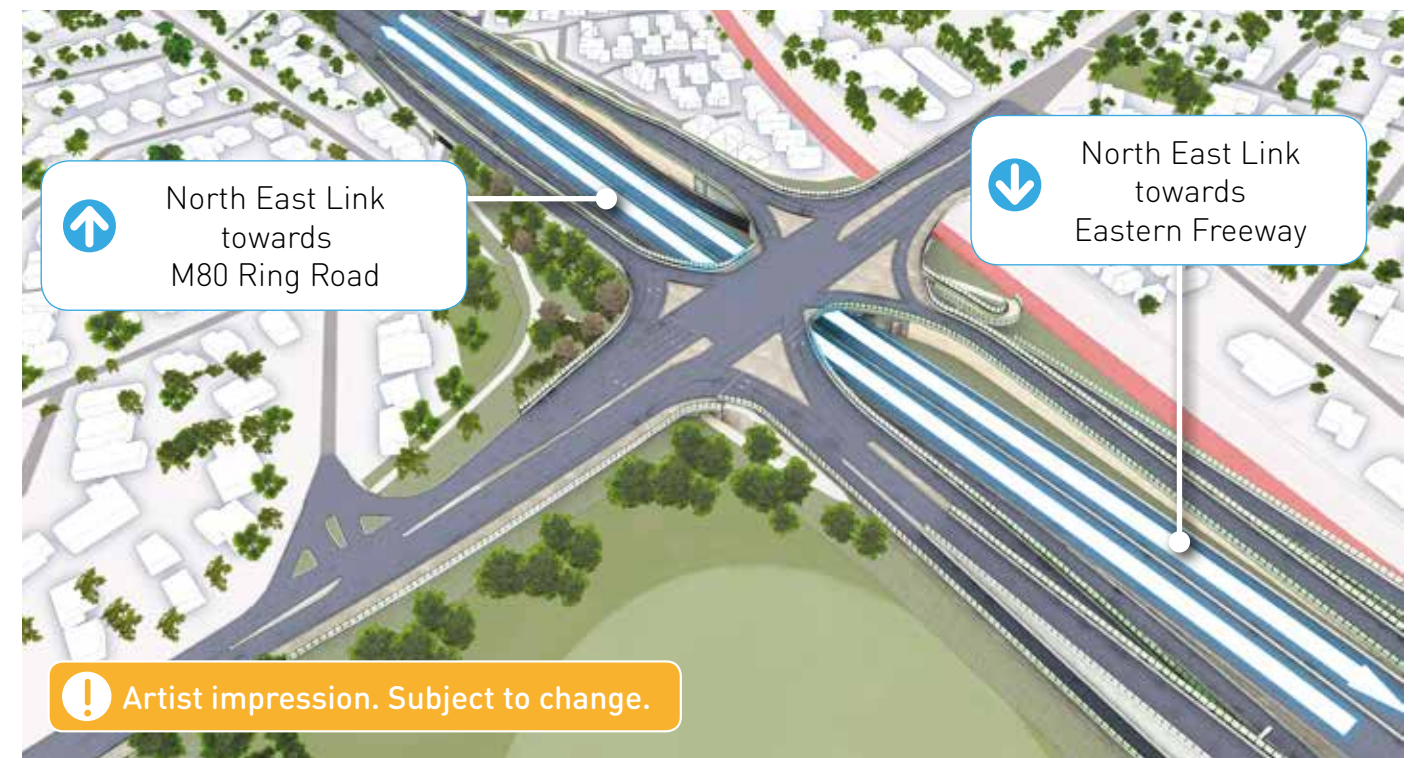
At this stage of our early work our engineers are still exploring how to best provide entry from Grimshaw Street onto Greensborough Road.



Greensborough Road under Grimshaw Street



North East Link and Greensborough Road exit and entry access



North East Link under Grimshaw Street

Elder Street, Watsonia Station and shops

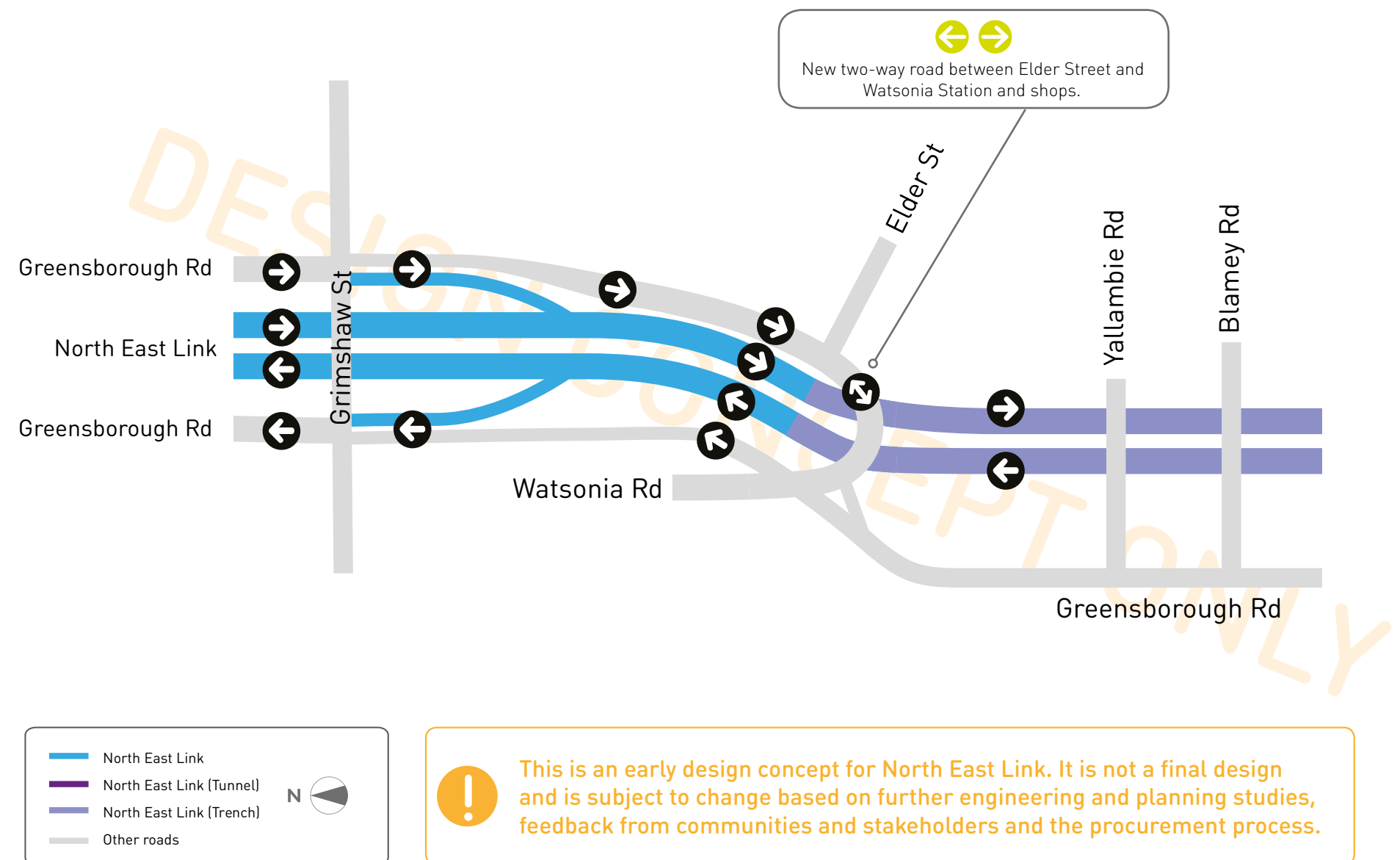
Local access from Elder Street to Watsonia Station and shops will be maintained.

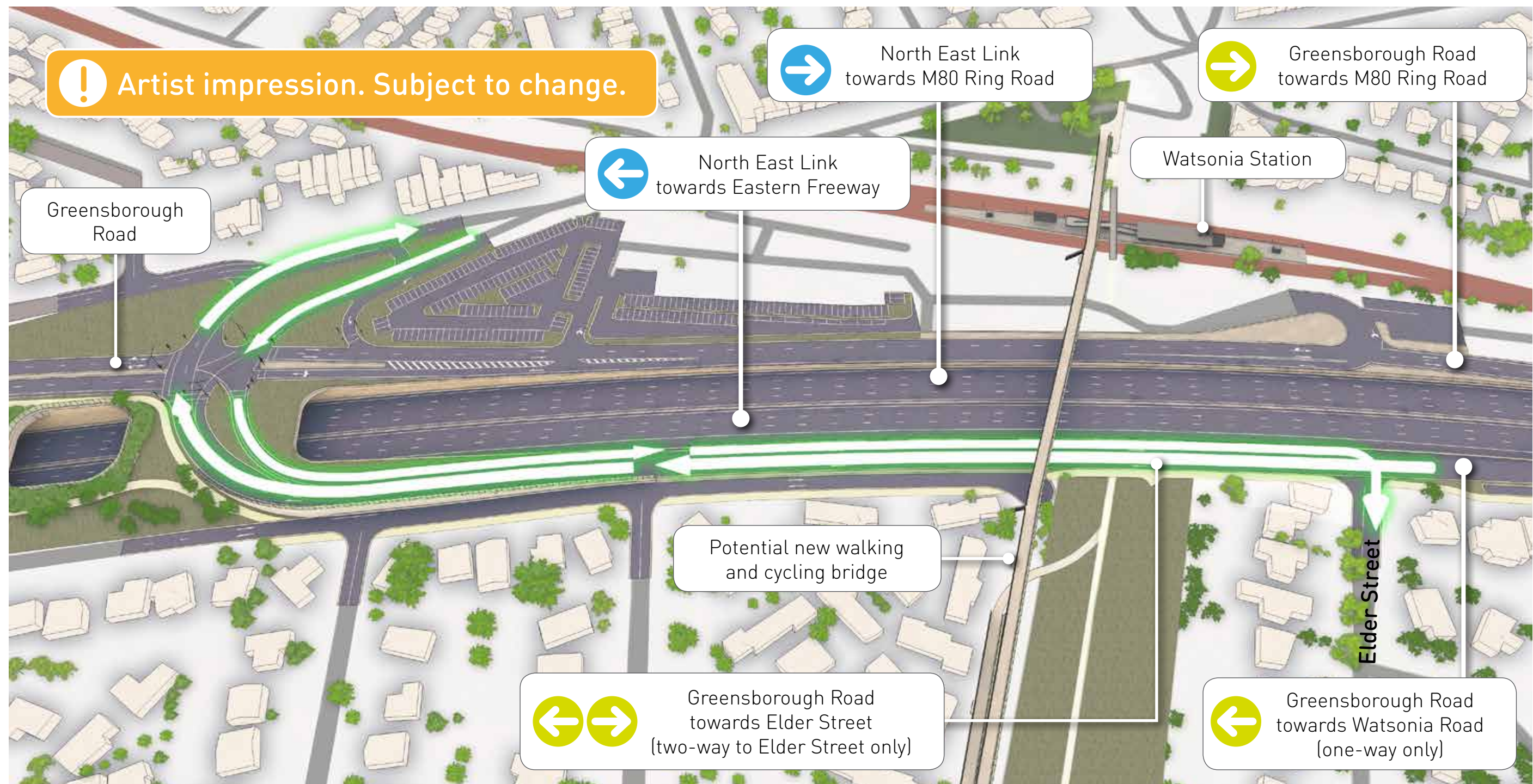
From Elder Street, cars would travel south for about 400 metres on a new two-way road before crossing over a lowered North East Link to connect to the station carpark and Watsonia Road.

Green bridges between Watsonia Road and Yallambie Road would enhance walking and cycling connections along Greensborough Road.

North East Link would pass under Yallambie Road and Blamey Road.

Greensborough Road would run alongside North East Link all the way south to Lower Plenty Road and be kept open for local trips.





Elder Street, Watsonia Station and shops local access - artist impression



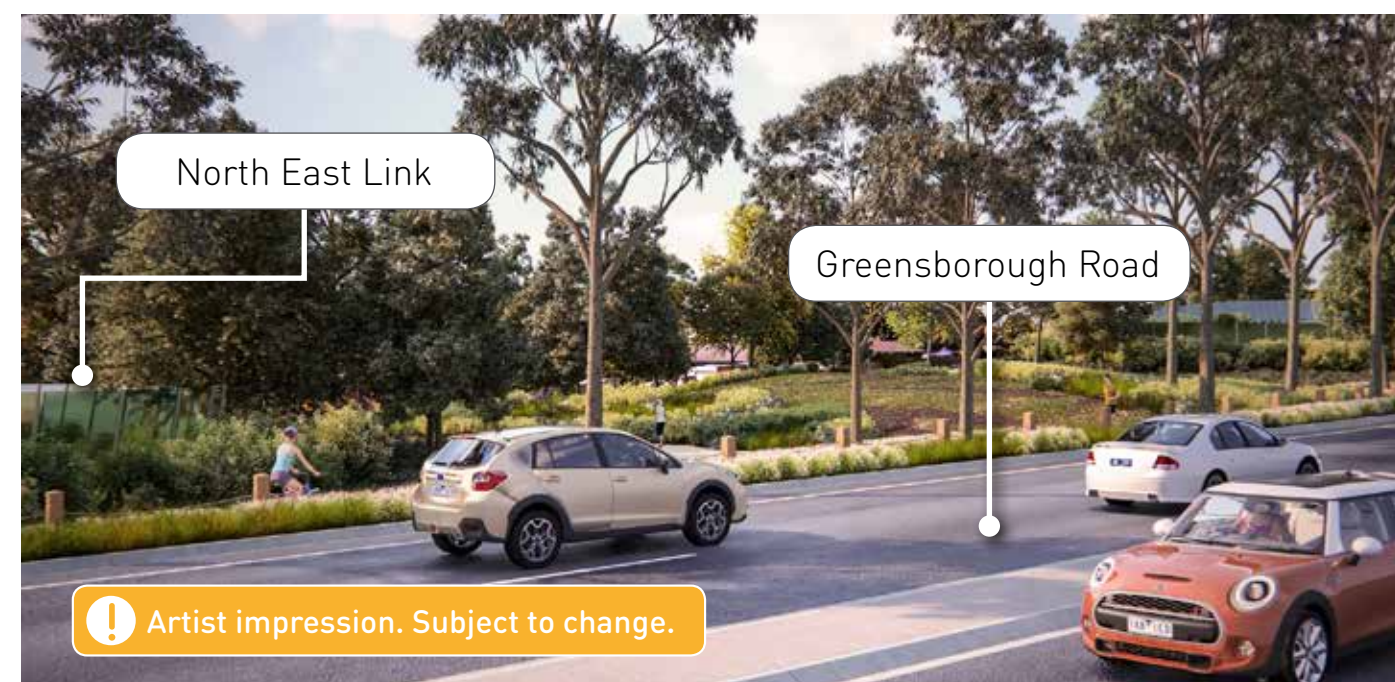
Green bridges over North East Link



Green bridges over North East Link



Yallambie Road and green bridge over North East Link
(the traffic lights would kept at this intersection)



Green bridge alongside Greensborough Road

Lower Plenty Road interchange

There is a very narrow space between homes, Greensborough Road and Simpson Barracks for this interchange.

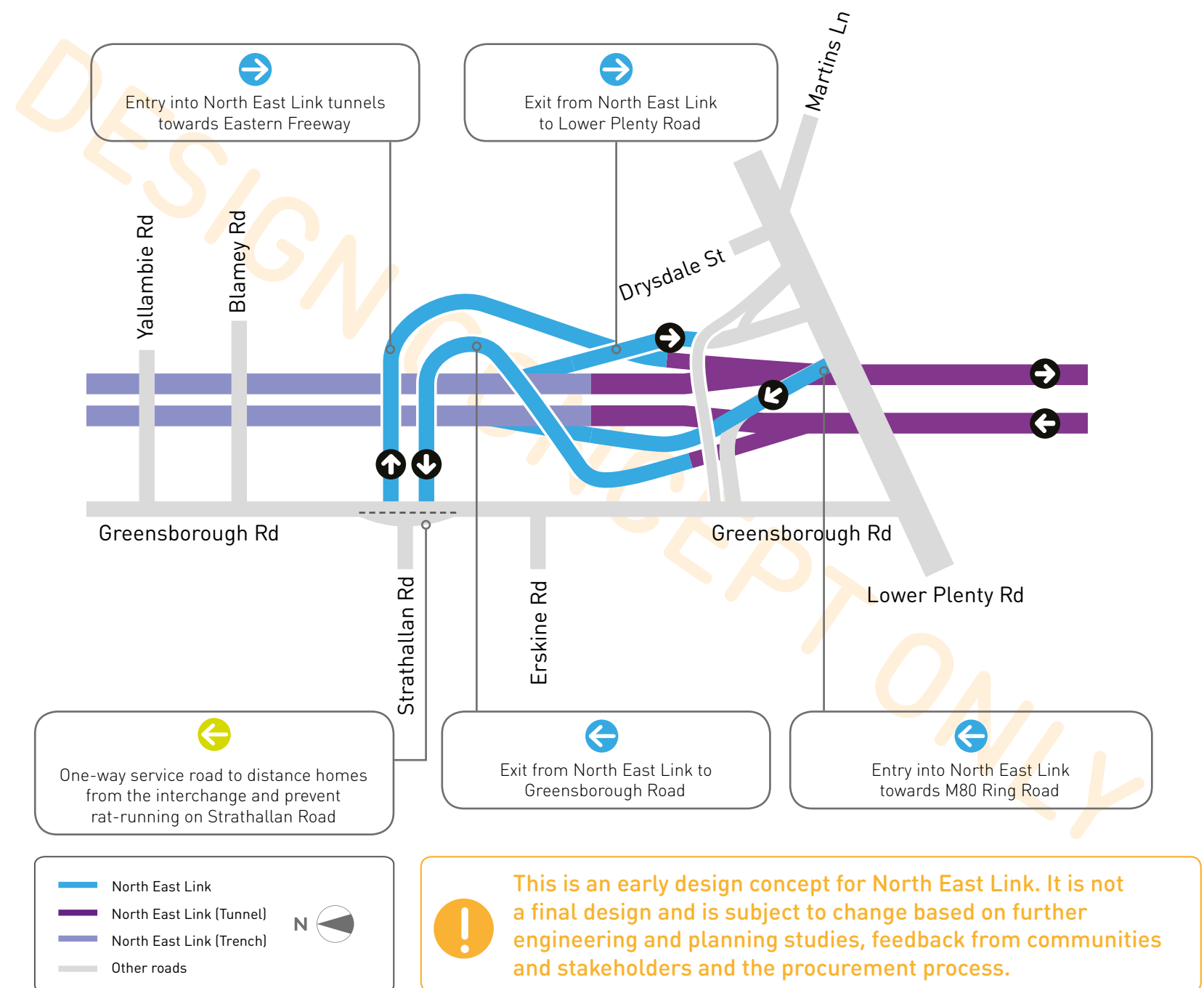
To minimise impacts on communities and the environment, the interchange is long and narrow.

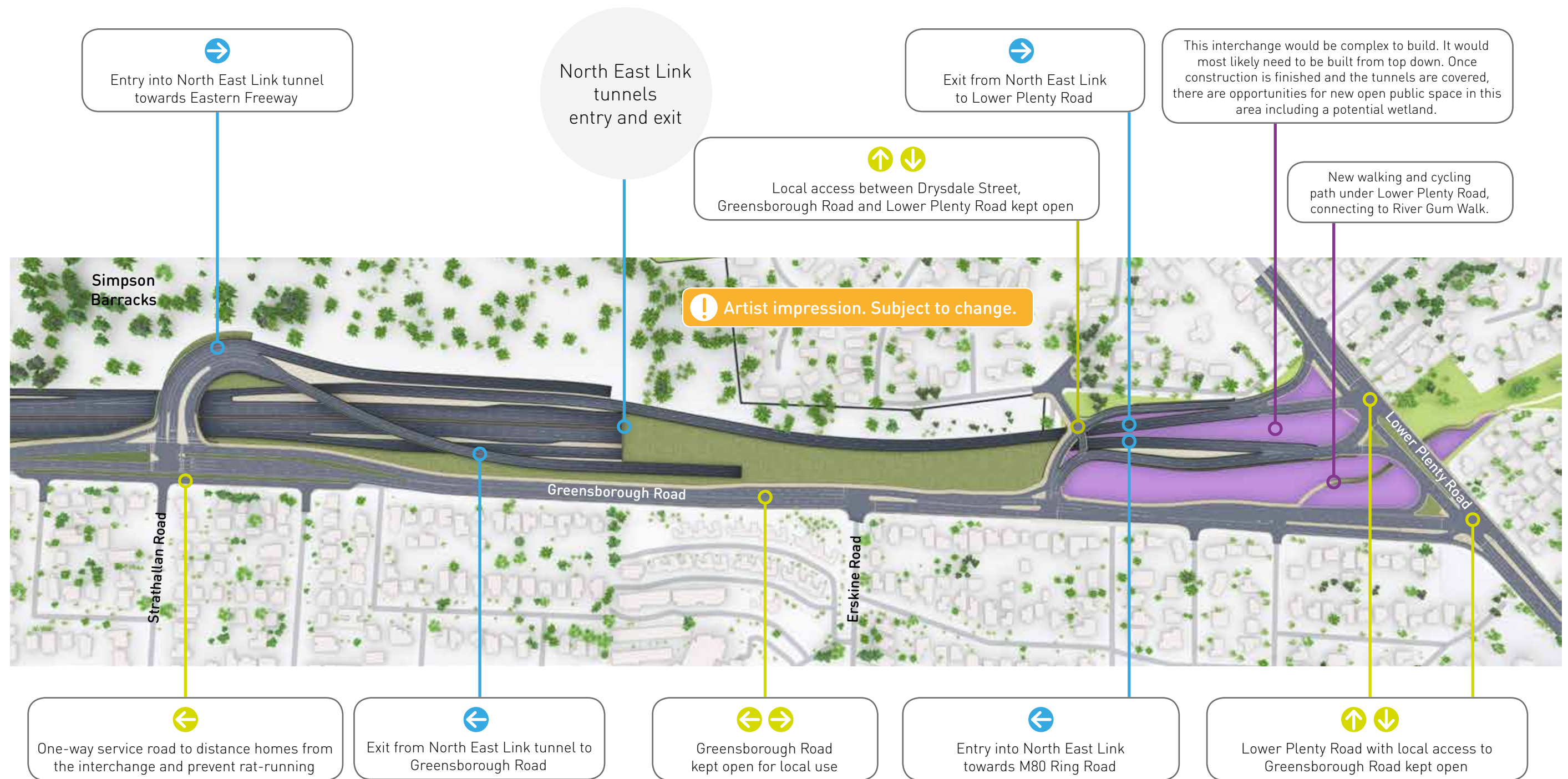
This not only reduces the footprint of the interchange, it allows us to spread traffic across multiple entry/exit points so it flows freely, particularly on and off Lower Plenty Road.

Local access between Greensborough Road and Lower Plenty Road would be maintained. Local access between Drysdale Street and Greensborough Road would also be maintained.

A new one-way service road next to Greensborough Road between Edward Street and Sydney Street would:

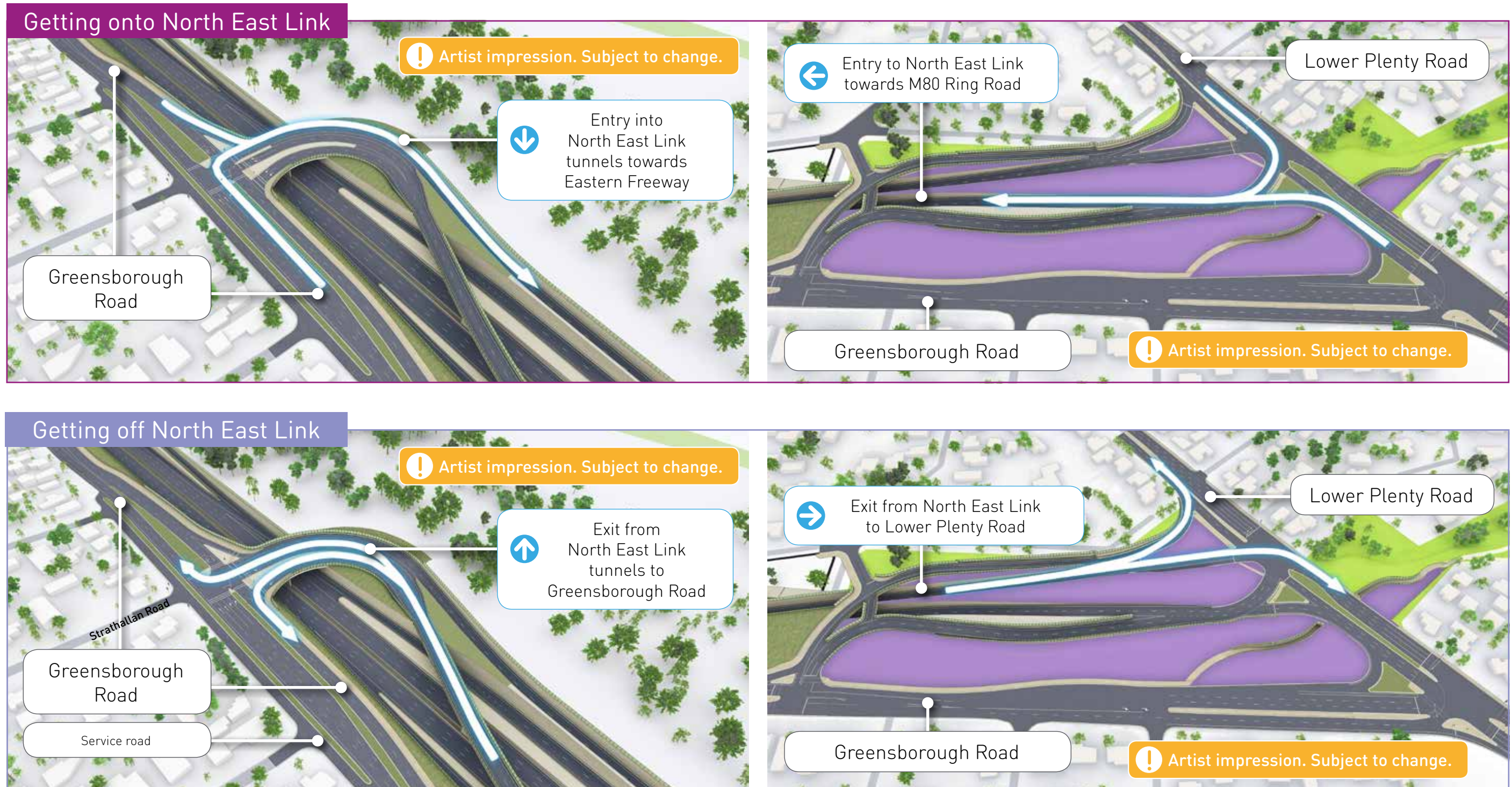
- Distance homes from the interchange
- Prevent rat-running on Strathallan Road between North East Link and key local destinations like La Trobe University
- Keep access to Greensborough Road open for residents.





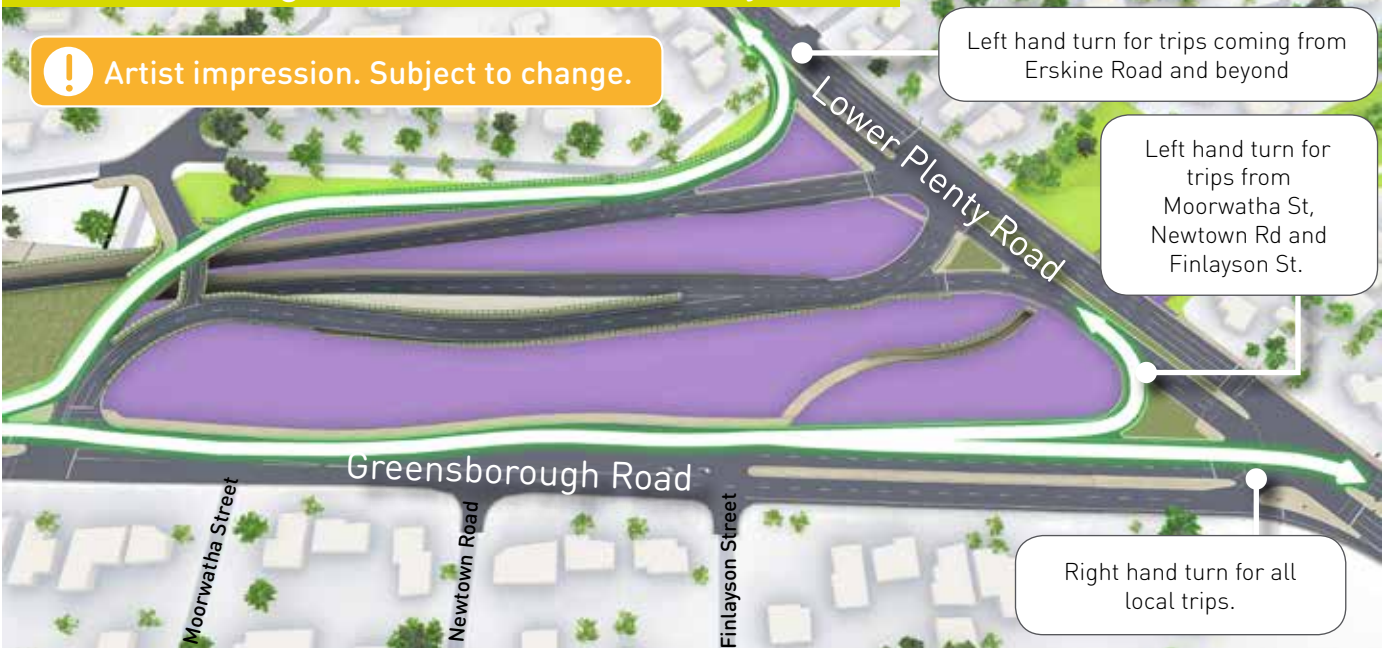
Lower Plenty Road interchange - artist impression

Lower Plenty Road interchange North East Link movements

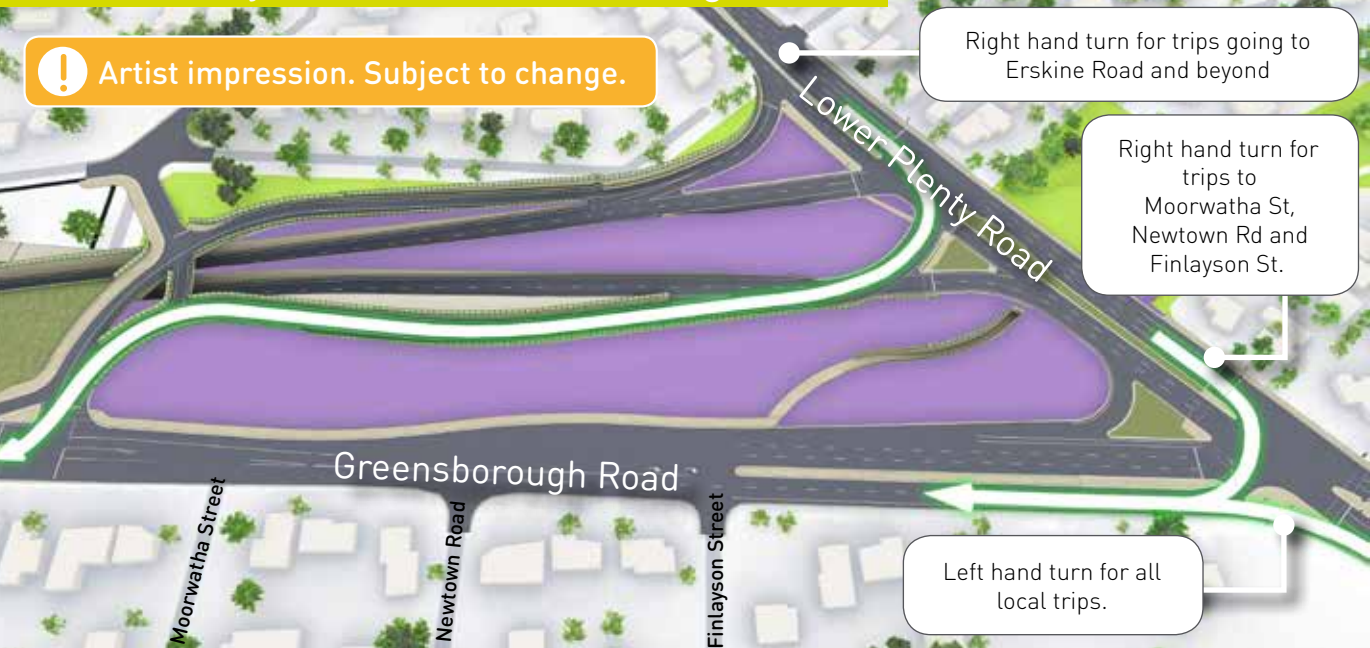


Lower Plenty Road interchange local toll-free movements

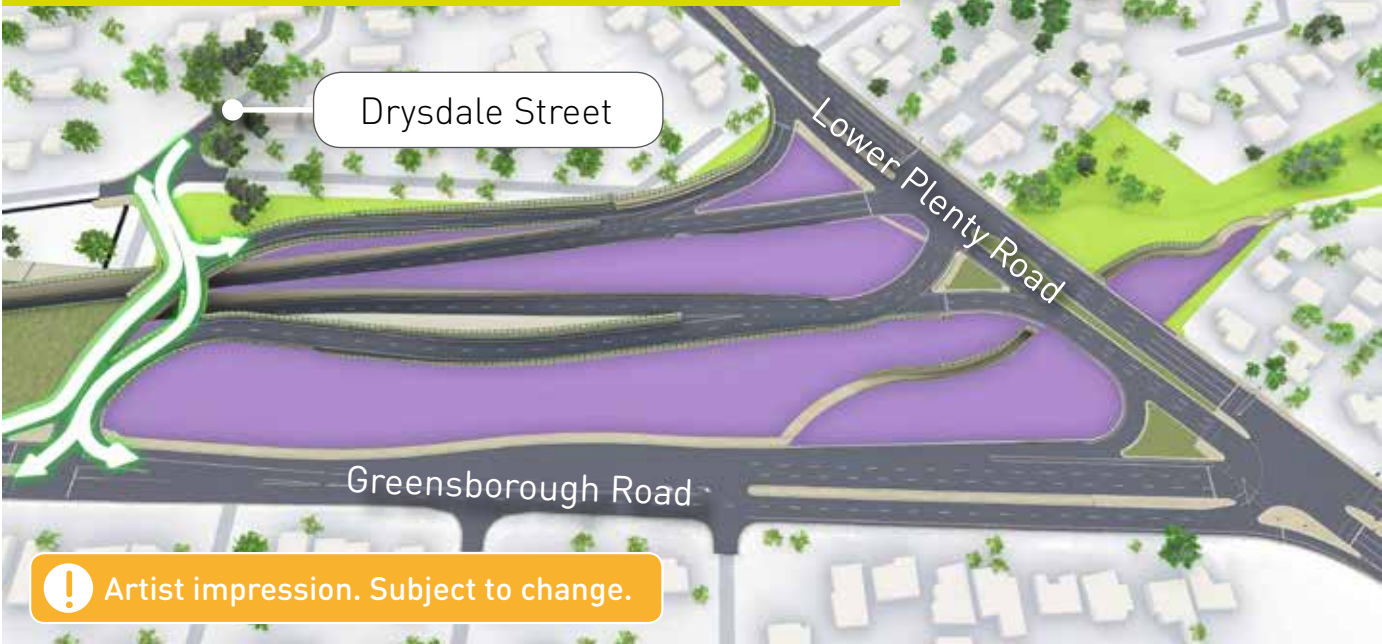
Greensborough Road to Lower Plenty Road



Lower Plenty Road to Greensborough Road



Drysdale Street



Manningham Road interchange

To minimise impacts on the community and the environment, this interchange would be built underground.

Ramps would connect down into and up out of the North East Link tunnels.

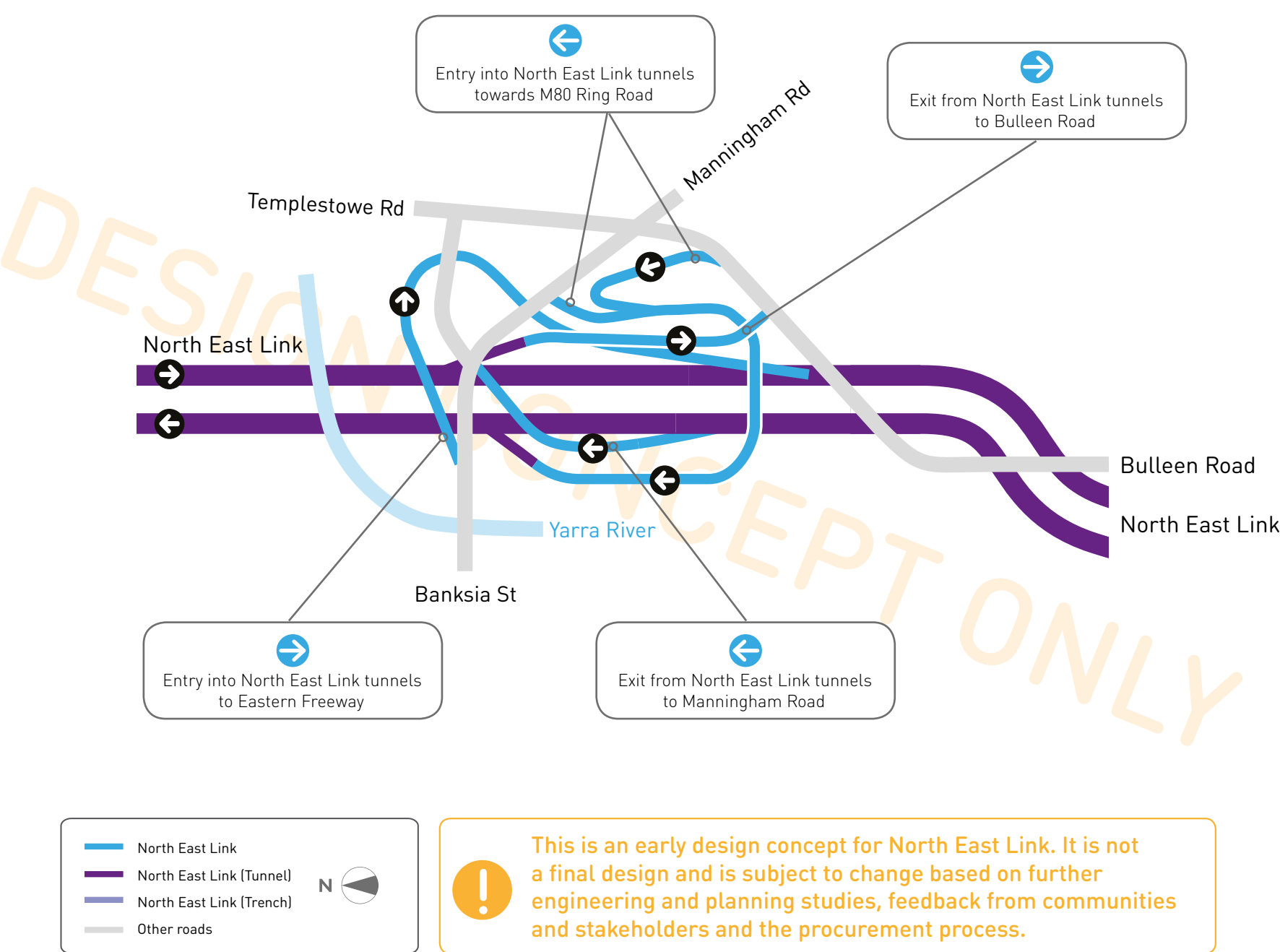
The ramps would need to be long so they are not too steep.

The interchange is complex and would need to be built from top down and then covered.

It is also the most likely location to launch the twin tunnel boring machines and house large sheds to process, store and transfer the soil and rock brought up from under the ground onto trucks.

There are likely to be a range of options for the land once the interchange is finished and covered over.

We need to wait until the design is further developed to assess what options may be a good fit for the area overall and compatible with the final interchange design.





Manningham Road interchange - artist impression

Eastern Freeway interchange

The tunnel entry and exit for North East Link would be located south of the Veneto Club car park.

Ramps would connect to the Eastern Freeway in both directions.

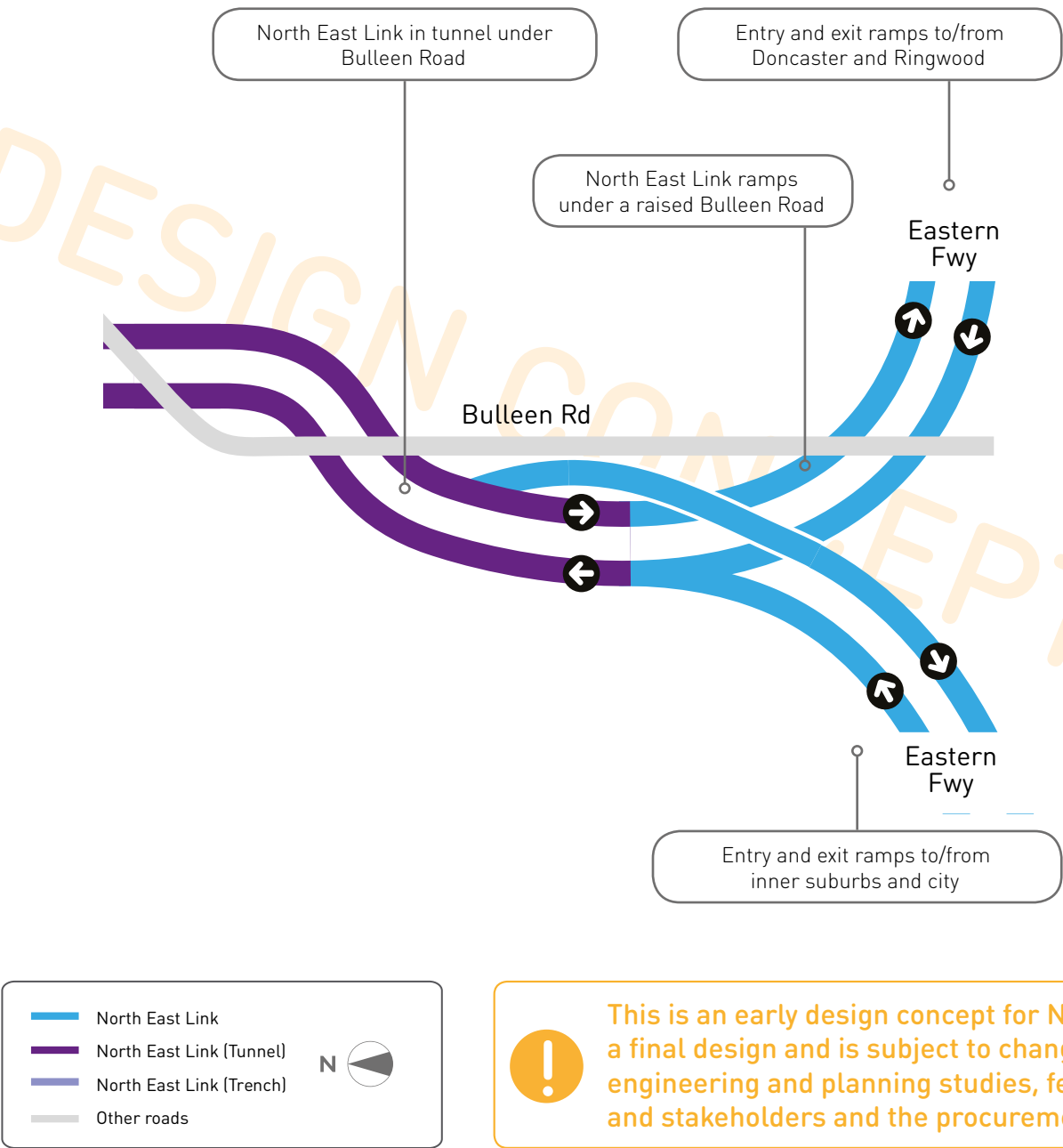
Bulleen Road would be raised to pass the ramps to/from Doncaster and Ringwood under it.

Bulleen Road would begin to rise from its existing level near the entrance to Marcellin College.

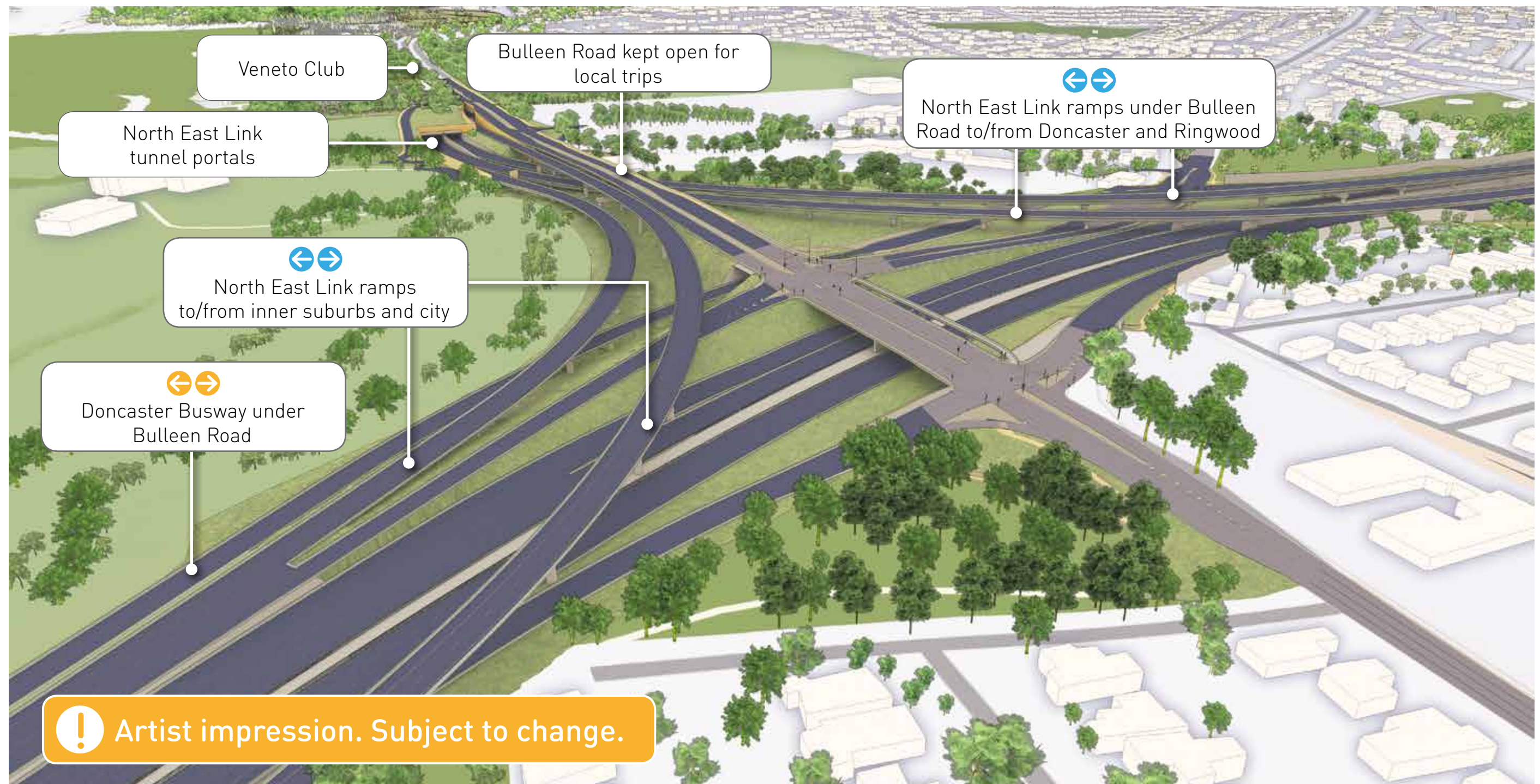
Where it crosses over the North East Link ramps, Bulleen Road would be raised by about 11 metres (to about the same height where it currently connects to the Eastern Freeway).

Bulleen Road would be kept open for local use.

The interchange would also allow for the new Doncaster Busway to run in dedicated lanes, separated from the freeway.



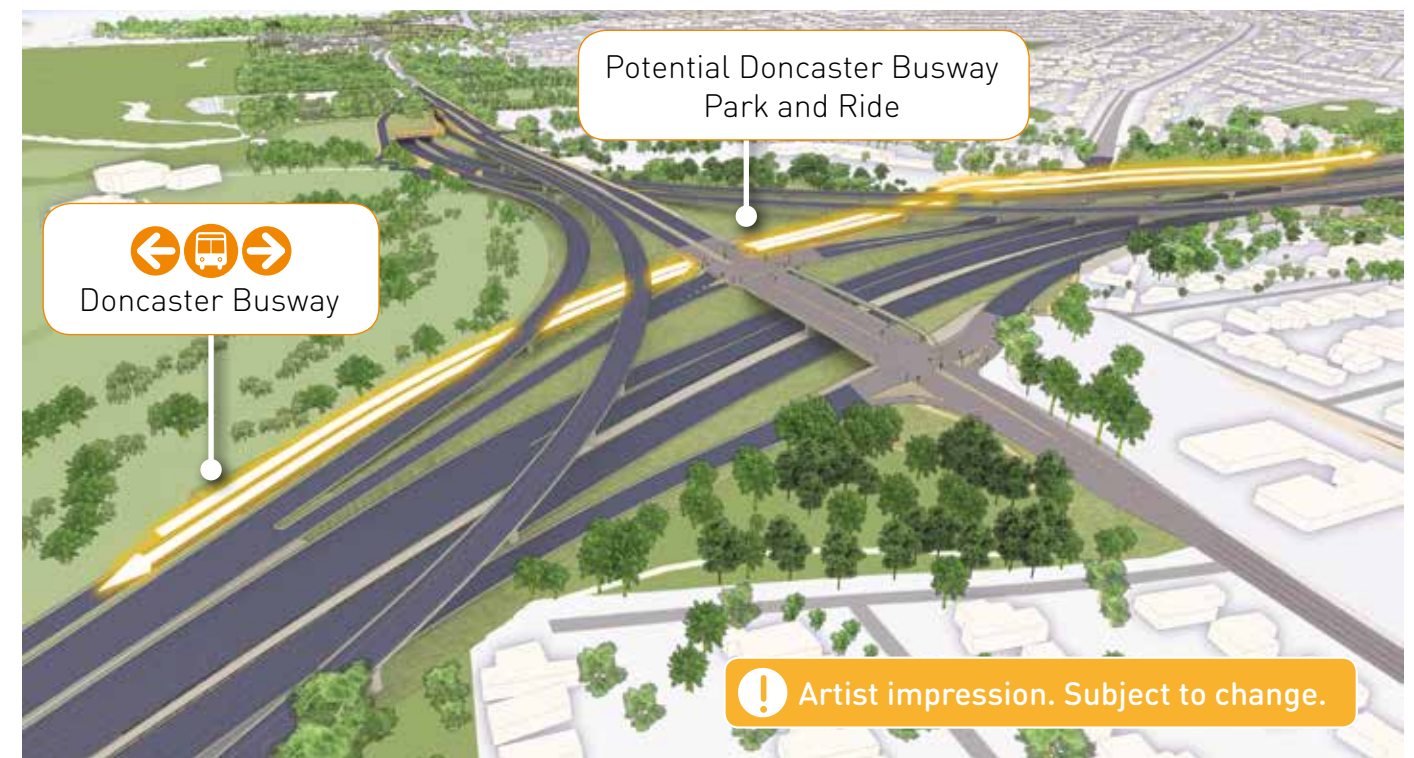
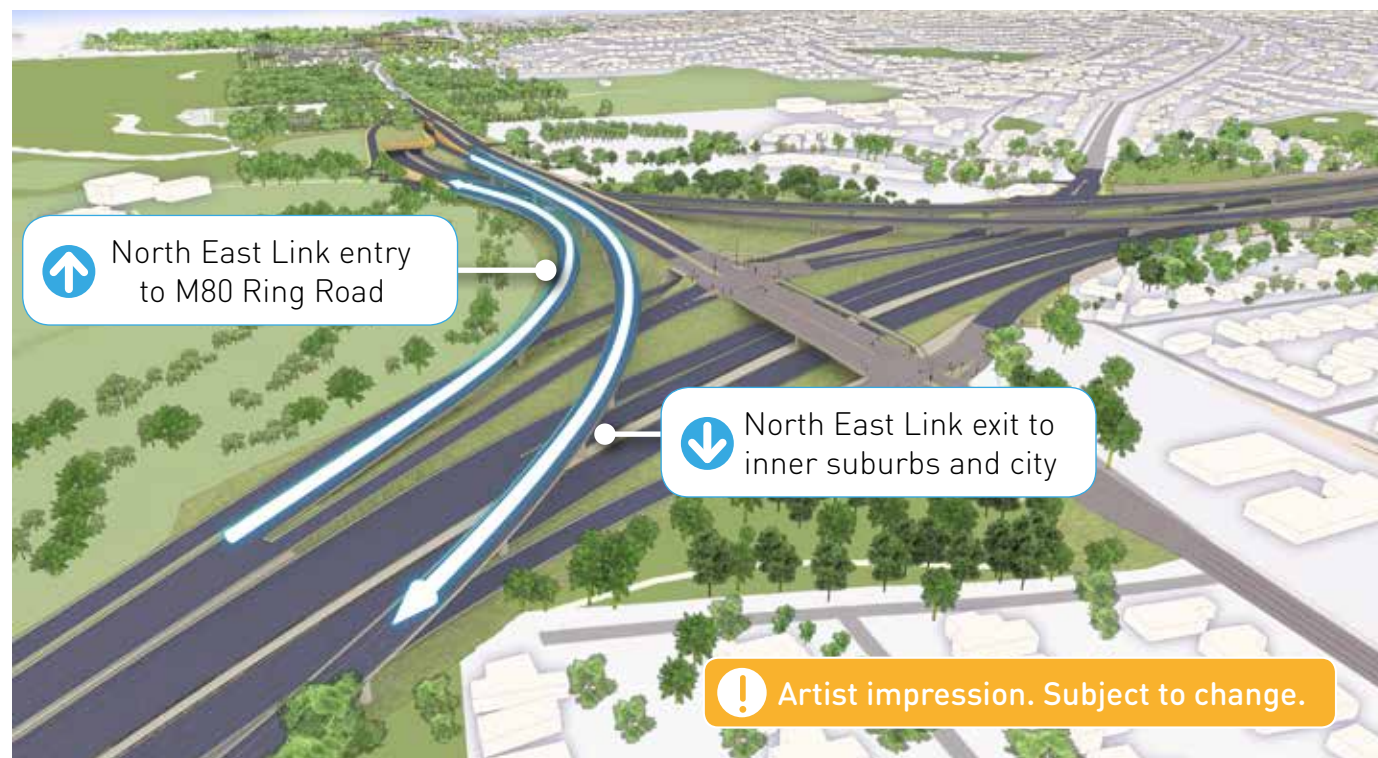
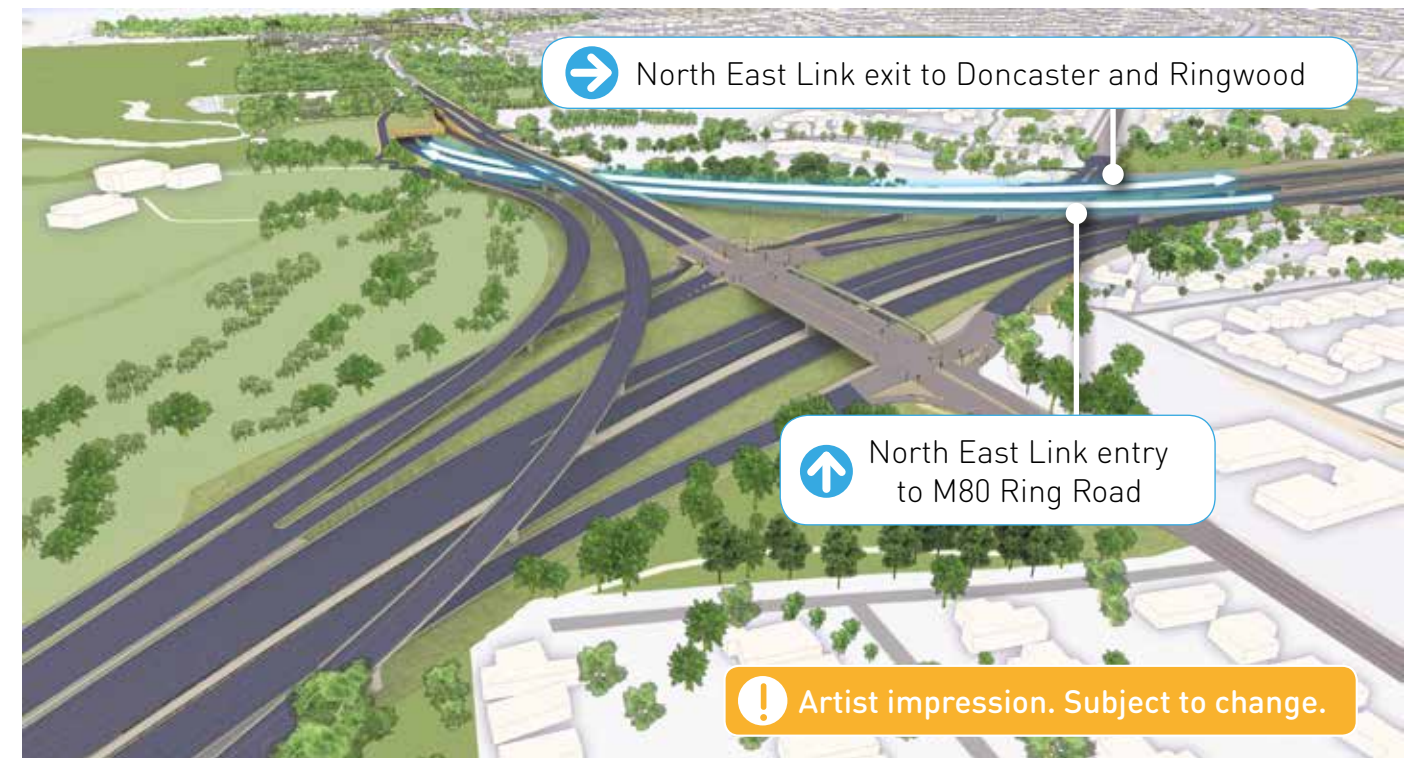
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Ventilation structures are generally most effective when located at tunnel exit portals. We're collecting baseline data about the local area to inform the location, design and height of the structures for North East Link so they operate safely and effectively.

Eastern Freeway interchange - artist impression

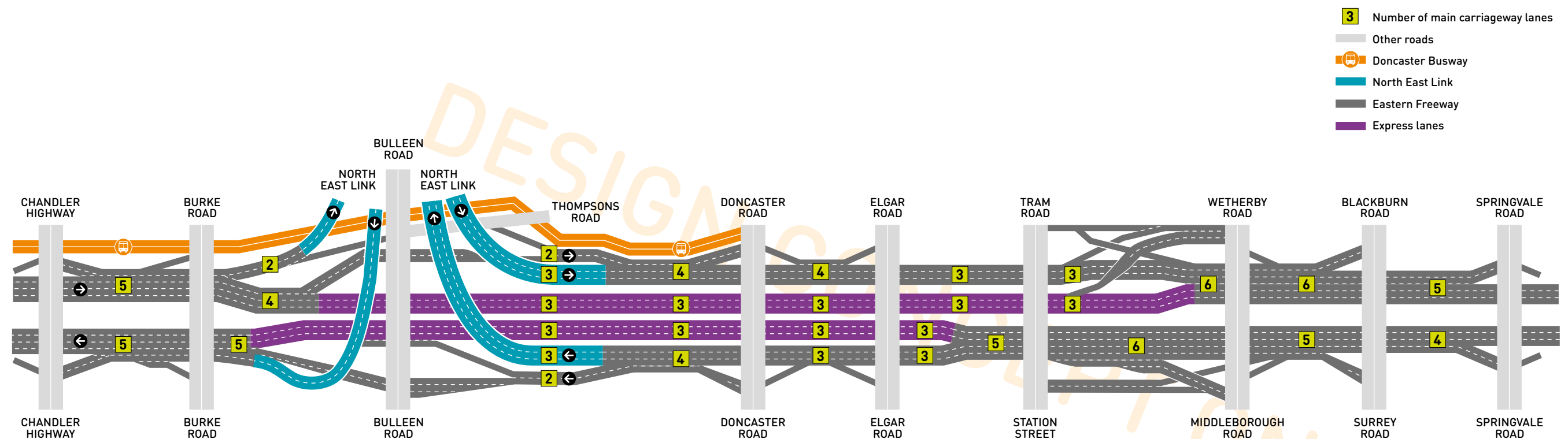
Eastern Freeway interchange North East Link and Doncaster Busway movements



Eastern Freeway upgrades

About the upgrades - design schematic

The Eastern Freeway would be upgraded to modern-day freeway standards. Express lanes would reduce merging and weaving that causes congestion, ramp metering (traffic light signals on entry ramps) would better manage traffic flow onto the freeway for safer and faster trips and new lanes would increase capacity to cater for demand now and into the future. A new, dedicated busway would provide a streamlined route for buses between Doncaster and the city away from cars and trucks.



This is an early design concept for North East Link. It is not a final design and is subject to change based on further engineering and planning studies, feedback from communities and stakeholders and the procurement process.

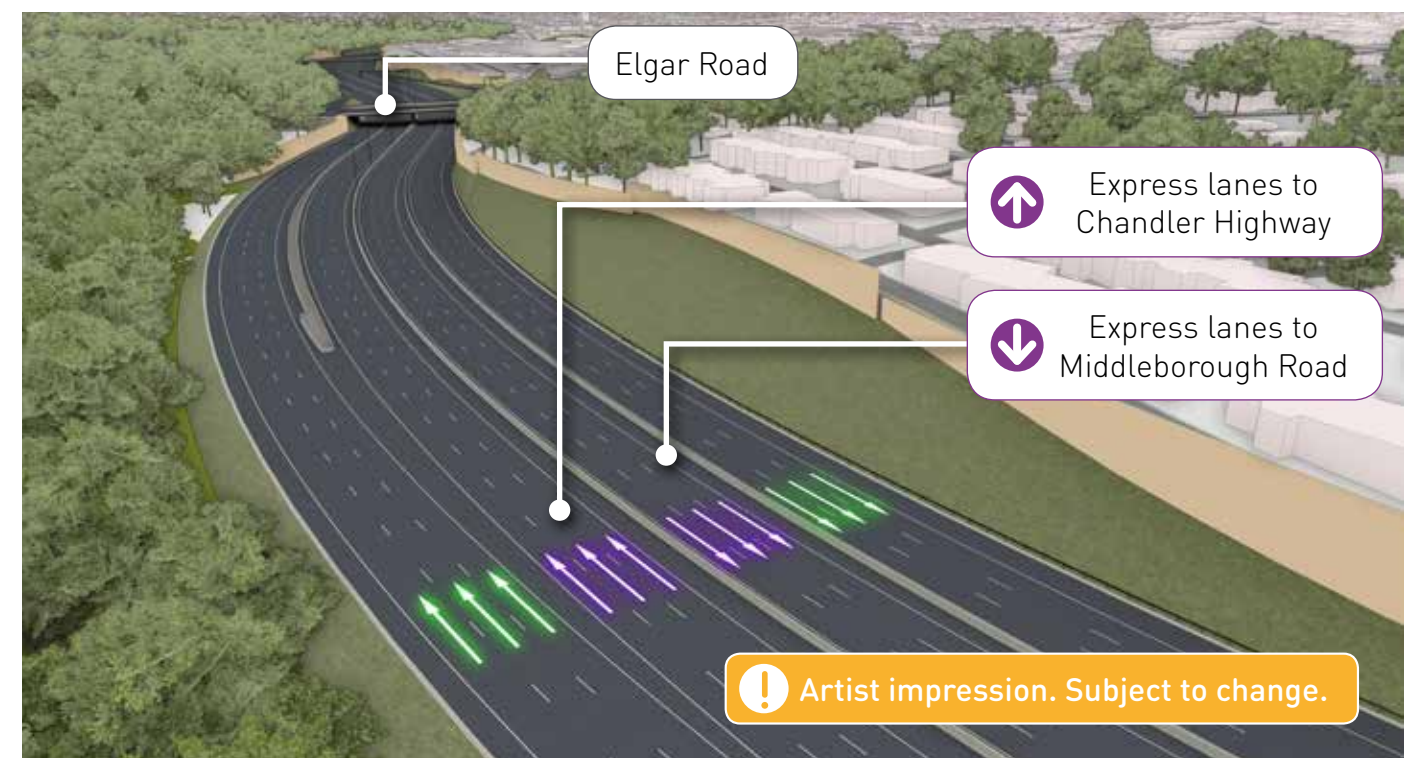
Eastern Freeway express lanes

Express lanes would separate traffic making long trips on the Eastern Freeway from traffic that wants to get on and off. This would reduce merging and weaving that causes congestion.

- Traffic entering the freeway from the EastLink tunnel, Springvale Road, Blackburn Road and Middleborough Road would be able to access the express lanes straight through to Chandler Highway and Hoddle Street/Alexandra Parade.
- Traffic entering the freeway from the city and Chandler Highway would be able to access express lanes straight through to Middleborough Road, Blackburn Road, Springvale Road and the EastLink tunnel.



Doncaster Busway and new express lanes on the Eastern Freeway



Separated express lanes, Tram Road heading towards Elgar Road

Eastern Freeway ramp metering

Ramp meters are traffic signals on freeway entry ramps to control the rate vehicles enter the freeway.

Ramp metering has multiple benefits.

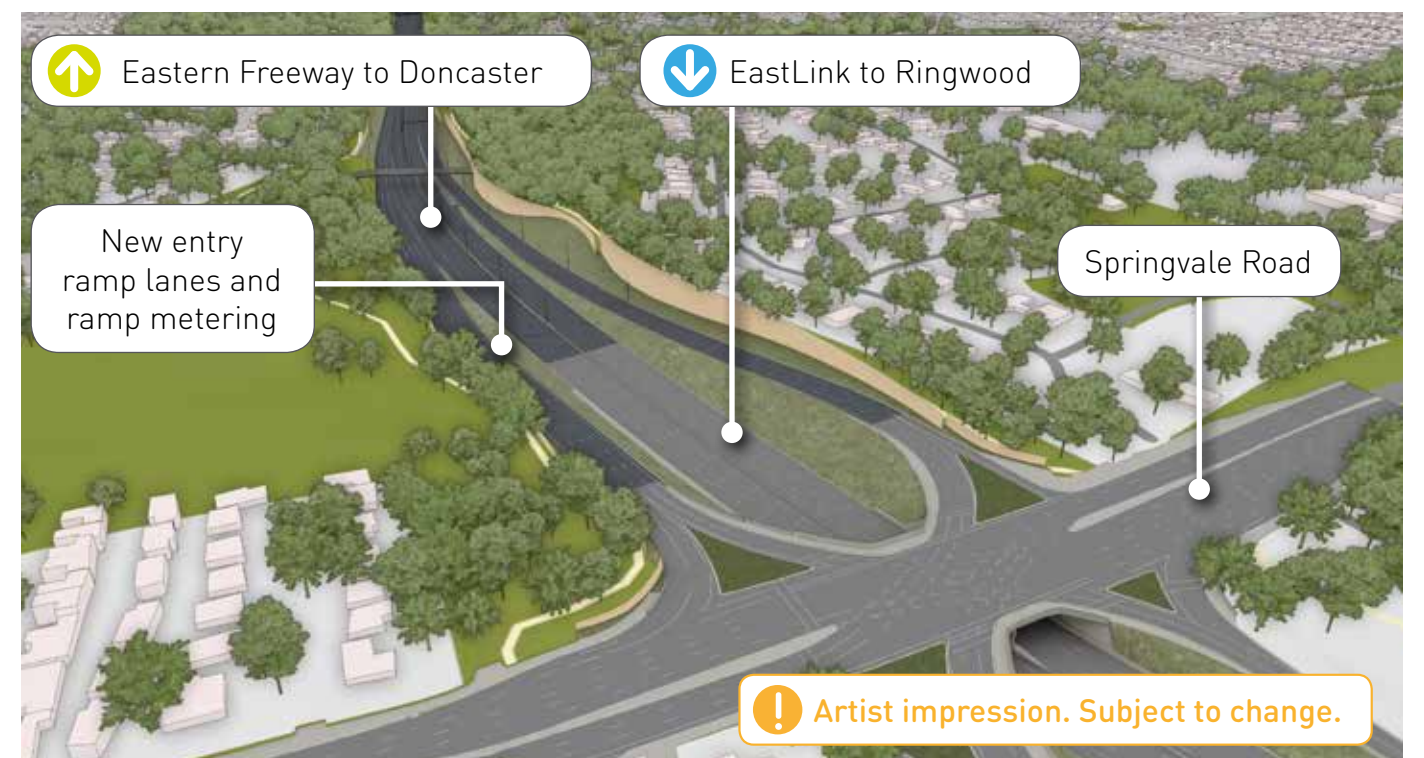
- Easier and safer merging
- Reduced congestion
- Better traffic flow on the freeway
- Faster and more reliable journey times

Ramp meters would be added to all entry ramps between Hoddle Street and Springvale Road.

Additional lanes on some ramps would also improve capacity and ease congestion.



Ramp metering on the Monash Freeway (artist impression)



New lanes and ramp metering on Springvale Road entry ramps

Doncaster Busway

Doncaster Busway would be Melbourne's first, dedicated high-speed busway. It would run between Doncaster Park and Ride and the city.

The original concept for the Busway was to use the space in the median of the Eastern Freeway. Further development and analysis, including consultation with other agencies and bus operators, has found that the best option is to run the busway on the northern edge of the freeway between Doncaster and Chandler Highway and on the outside edges between Chandler Highway and the city.

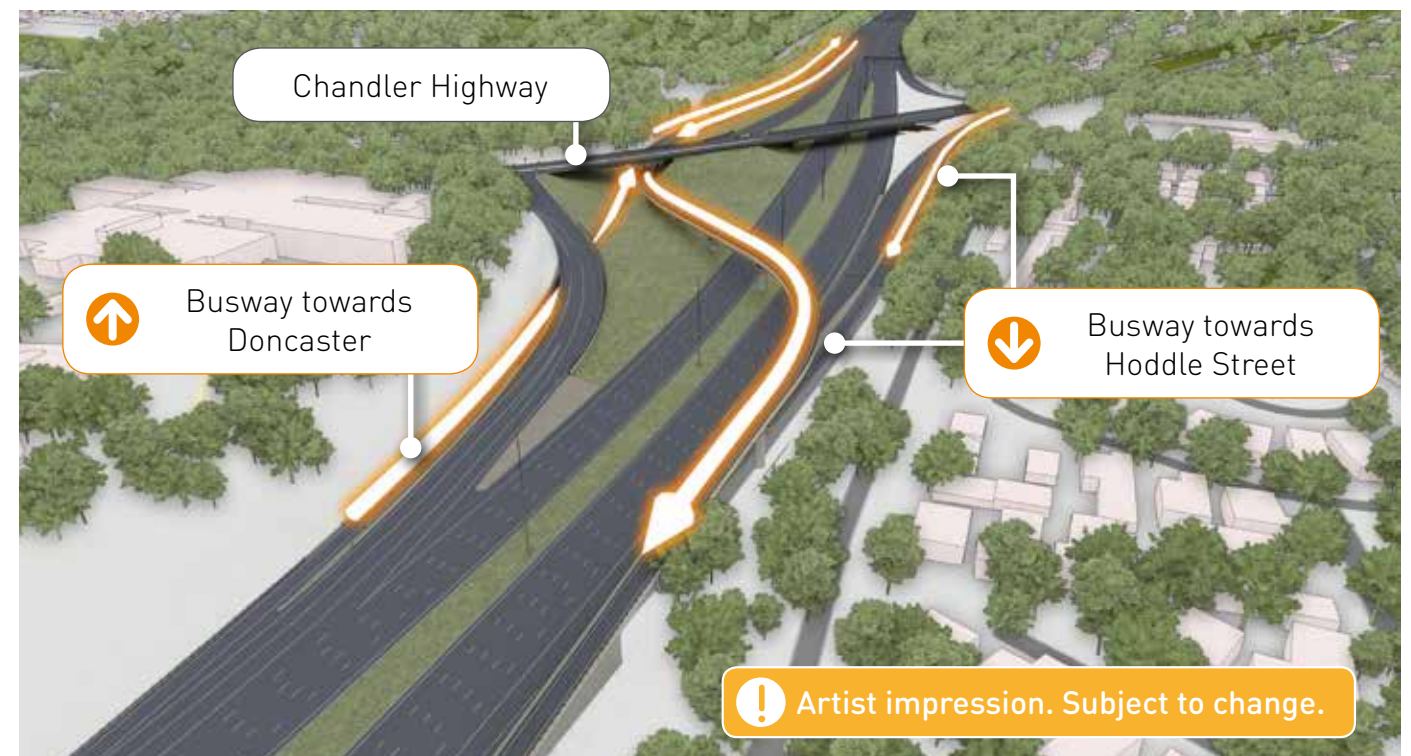
Running the busway on the outside edge of the freeway:

- Provides a direct connection to the existing bus lanes on Hoddle Street and improves travel times
- Allows the option for bus routes on Chandler Highway to connect to the busway
- Makes the busway more efficient and reliable overall.

To allow room for the busway on the outside edges of the Eastern Freeway without requiring further acquisition, traffic lanes would need to shuffle over into the median strip.



Doncaster Busway on the northern edge of the Eastern Freeway



Doncaster Busway on the northern edge of the Eastern Freeway, passing under Chandler Highway and separating to run on both outside edges

Catering for complex movements (Tram Road to Middleborough Road)

The section of the Eastern Freeway between Tram Road and Middleborough Road needs to cater for a number of complex traffic movements over a short distance. The current design concept provides dedicated lanes braided over and under each other to keep these movements separated from each other, avoid merging and weaving that causes congestion and keep drivers safe. Examples of how braided ramps would support some of these movements are shown below.

Example 1: Separating drivers entering and exiting the freeway



Example 2: Separating drivers using express lanes





Example 3: Short local trips






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 community@northeastlink.vic.gov.au
 1800 105 105
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