

Attachment 2 – Scheme Description & value optioneering

Great North Road Original Proposal



- Length 1.65km
- Budget \$25.5m
- Current estimates \$28.1m plus \$3.3M stormwater
- BCR 2.4
- FYRR 5.3%
- Co investment 51% WK (\$24.3m March 2022 secured construction costs)

Current status

- Majority (4:3) support at Waitematā Local Board
- Support through 3 rounds of public consultation
- MP support
- Letters and presentations in support
- Waka Kotahi support (for full multi-modal scheme)
- Inflationary pressure on AT programme budgets
- Reprioritisation of Council capital funds
- Resistance from some local stakeholders
- Requests from councillors to explore lower cost options

Intended outcomes from the project

- **Safer roads** – poor collision record at side roads – **entry treatment**
- **Address over-representation of pedestrians and cyclists in injury data** – **better crossings and links**
- **Increase public transport** and access to bus stops – **dynamic bus lanes**
- **Provide links to Karangahape CRL station investment**
- **Support land-use intensification** which is already creating more short local journeys
- **Address climate change and support TERP**

LEGEND

- Existing off-road cycling paths
- Existing on-road cycling paths (buffered and unbuffered)
- Traffic management interventions
- Incident hot spots

Maidstone St to Nixon Street

0 x Fatalities
0 x Serious Injuries
4 x Cycling and /or Pedestrian crashes
14 x TOTAL CRASHES

Bond St to Grey Lynn Bunnings

0 x Fatalities
2 x Serious Injuries
6 x Cycling and /or Pedestrian crashes
33 x TOTAL CRASHES

St Josephs School

0 x Fatalities
1 x Serious Injuries
0 x Cycling and /or Pedestrian crashes
17 x TOTAL CRASHES

Mackelvie St Intersection

0 x Fatalities
0 x Serious Injuries
4 x Cycling and /or Pedestrian crashes
18 x TOTAL CRASHES

Grey Lynn Bunnings to Arika St

0 x Fatalities
2 x Serious Injuries
4 x Cycling and /or Pedestrian crashes
24 x TOTAL CRASHES



Councillor feedback following site visit and presentation to Transport and Infrastructure Committee

- Supportive letter from 9 councillors
- Site visit – generally supportive of scheme
- Suggestions to reduce costs on entry treatments and crossings
- Consideration of priority in a ‘whole of Auckland’ context



A clear Visibility Splay Area allows people leaving the access to SEE and be SEEN.

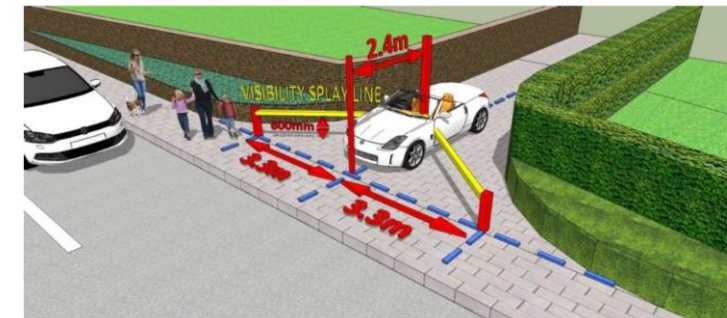


Figure 11 – Pedestrian Visibility Splay Area

Footpath options – re-examined but rejected

	Footpath option	Impact on cycle facilities	Safety and design standards impact	Analysis	Cost
1	<ul style="list-style-type: none"> Maintain Pedestrian footpath width of 1.8m 	<ul style="list-style-type: none"> Cycle facilities width ranges from 0.25m to 1.8m 	<ul style="list-style-type: none"> Cycle facilities are not wide enough to accommodate cyclist where there are trees or street furniture along the route 	<ul style="list-style-type: none"> Facility would not meet design and safety standards Public perception of cycle lane that is filled with trees and street furniture would be extremely negative – not fit for purpose 	Above \$10m but not able to be delivered
2	<ul style="list-style-type: none"> Provide 1.5m cycle lane on footpath and road – maintain trees 	<ul style="list-style-type: none"> Cycle facility of 1.5m to 1.8m provided but would need to swerved around trees and street furniture – utilising the road carriageway 	<ul style="list-style-type: none"> Facility would be a weaving route using the footpath and carriageway to provide the cycle lanes 	<ul style="list-style-type: none"> Facility would not meet design and safety standards Would create considerably weaving issues for cyclists to weave between the footpath and separated facility on carriageway to create safe cycle lane. Trees and street furniture would be required to be removed to provide site lines Carriageway parking and flush median space would be used for the cycle lane weave Safety issues created by the 50 plus commercial driveways 	Above \$15m but would not meet safety or design standards
3	<ul style="list-style-type: none"> Provide 1.5m cycle lane on footpath – remove trees 	<ul style="list-style-type: none"> Cycle facilities width of 1.5m – 1.8m maintained 	<ul style="list-style-type: none"> Facility would require the removal of nearly all the trees along the corridor and relocation of bus stops and street furniture Cycle lane would be over uneven levels across driveway lips 	<ul style="list-style-type: none"> Facility would meet design and safety standards but offer a lower level of service due to driveways and sightline restrictions Would required the removal of nearly all street trees to provide the space - resulting in potential protracted resource consent process as other alternatives exist. No other location to plant replacement trees except the carriageway – requiring significant additional construction costs 	Above \$28m
4	<ul style="list-style-type: none"> Copenhagen 1.5m cycle lane 	<ul style="list-style-type: none"> Level cycle facility of 1.5m provided 	<ul style="list-style-type: none"> Highest design standard to provide level cycle lane unimpeded by street furniture or trees 	<ul style="list-style-type: none"> Facility would meet design and safety standards Would require significant construction costs and disruption to provide a level surface for the Copenhagen lane Would require removal of all trees requiring a new planting plan utilising carriageway space or at another geographic location 	Above \$28m



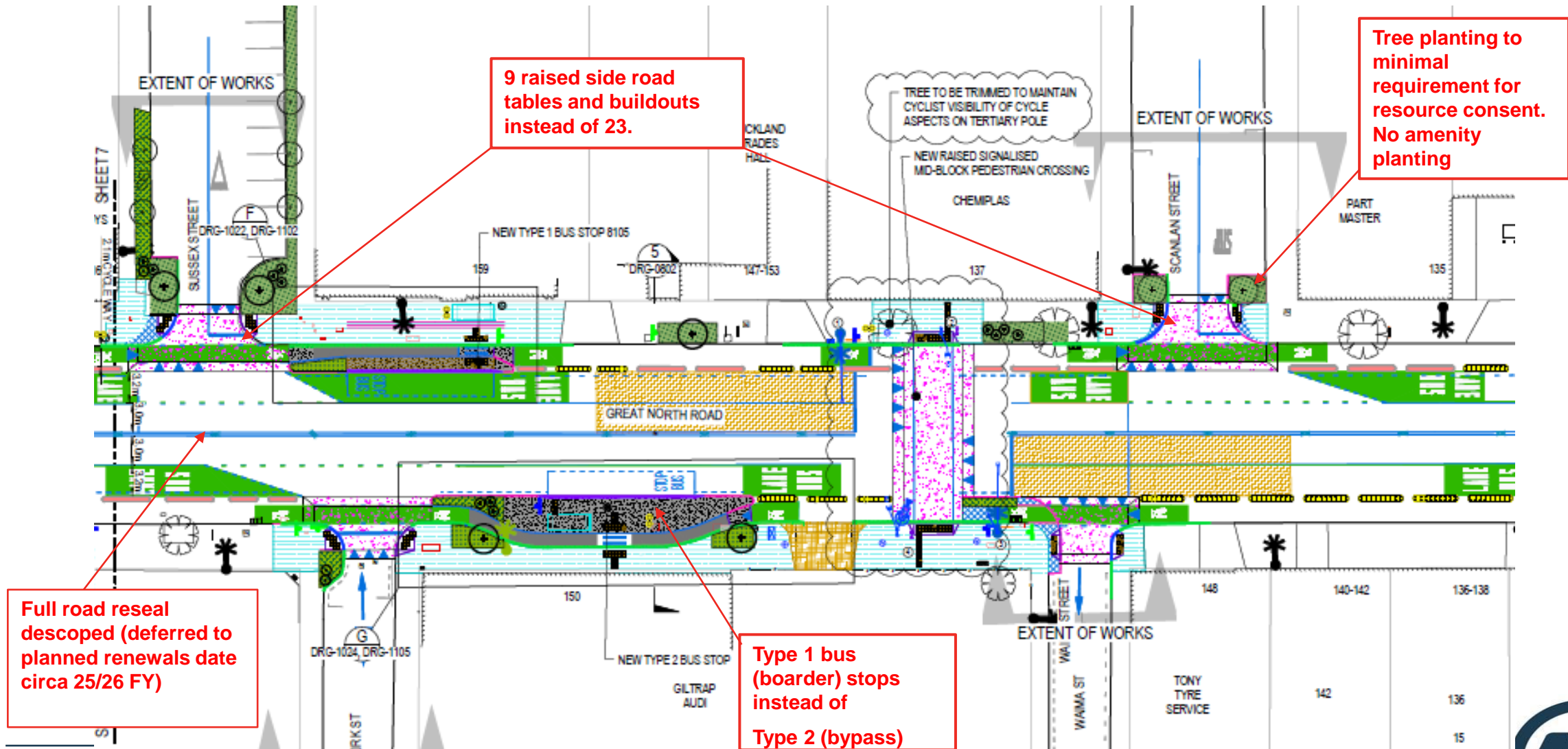
Bus lane only - rejected

- Reduce enabling works
- Extend bus lanes
- Install enforcement cameras
- Relocate bus stops
- Install new ped crossings
- Limit planting to RC requirements
- Remove resurfacing
- **No funding from WK as this would need to come from PT funding bucket**
- \$8.9m cost approx \$19m discounted benefits
- BC approx. 2

Interim cycle lane with extended bus lanes

- Progress removal flush median to deliver cycle lanes and extended bus lanes
- Side road treatments only at busiest junctions
- Re-use of Upper Harbour Highway separators and rubber separators
- Defer resurfacing until planned renewal in 2026
- Minimise replanting to meet RC only
- Type 1 bus stops instead of bypass
- Bus lane enforcement cameras provided
- Require Chief engineer sign off on:
 - Change to safe system design
 - Removal of raised tables and side road treatment
 - Monitoring of corridor to assess safety
- \$19.4m cost - approx \$60m benefits achieved with BCR of 3.0
- Fewer safety benefits but net improvement
- May need to implement remedial safety measures

Interim scheme – descoping



9 raised side road tables and buildouts instead of 23.

Tree planting to minimal requirement for resource consent. No amenity planting

Full road reseal descoped (deferred to planned renewals date circa 25/26 FY)

Type 1 bus (boarder) stops instead of Type 2 (bypass)

Great North Road Options

						and impact
Service relocations, trenching and tree pits	3	construction of tree pits		existing services and new connections plus construction of min R.C. tree pits		
Separated cycle lanes	3.6	Cycle lane construction with separators and intersection treatments	2.9	Rubber separators, 9 side road treatments	0	No Cycle lane construction with separators and intersection treatments
Separated bus lanes, bus stops and enforcement cameras	3.9	New bus lanes, enhanced type 1 and 2 bus stops with cycle lanes facilities, enforcement cameras and intersection treatments	3.3	enhanced Type 1 bus stops with enforcement cameras and intersection treatments	2.5	New bus lanes, bus stops facilities, enforcement cameras and intersection treatment
Pedestrian improvements	5.2	Raised pedestrian crossing facilities at 23 side road treatments to improve safety and to mitigate the removal of flush median Additional raised pedestrian signals across Great North Road to facilitate safety, bus passengers and walking school bus routes	3.9	Raised pedestrian crossing facilities at 9 side road treatments to improve safety and to mitigate the removal of the flush median. 4 new raised table pedestrian crossing plus coloured surfacing.	2.0	3 new ped crossing and keep raised table on a few side road
Road resurfacing	3.5	To remove ghost marking and improve safety from existing road layout and to enhance finished look of corridor. Extending the life of the corridor asset - reducing maintenance	0	No Road Resurfacing. Work undertaken to future maintenance programme post 5 years	0	No Road Resurfacing. Work undertaken to future maintenance programme post 5 years
Planting and amenity upgrades	3.6	Planting to replace the removal of 20 trees at 3.1 ratio. Planting of additional trees and low level plants to provide a cohesive landscape plan as identified by community and local board. Street furniture and urban amenity improvements.	1.6	only replacement 3.1 trees	0.8	50% of planting and street amenities from option 1
Lighting upgrade and replacement of sub standards	0.6	Replacing sub standard lighting and improving lighting particularly at new pedestrian crossings	0.6	maintain	0.6	Maintain
Total (AT construction cost estimate)	24.3		16.2		7.9	
Contingency plus escalation	3.8		3.2		1.0	
AT Grand Total construction	28.1		19.4		8.9	
	0.017 per m		.011 per m		0.005 per m	
Auckland Council Health waters (HW) stormwater separation	3.3	Auckland Council sewer stormwater separation project	3.3	As per existing option	3.3	As per existing option

Scheme Finance Comparison

Scheme	Local Funding \$m	Waka Kotahi \$m
Original scheme	15.6	12.5
Interim scheme (WK co-funding)	9.5	9.9
Interim scheme (deferred delivery)	19.4	0

All options have additional \$3.3m Watercare investment funded by Auckland Council

Interim scheme will reduce Auckland Council share by \$6.1m

Scheme delivery period will be approx. 18 months

Phase 1 enabling contract is already underway (work on-hold pending AT Board decision)

Risks (and pathway to permanence)

Corporate/reputational risk

- Lower design standard than full scheme- but better safety than no scheme
- Public perception regarding Vision Zero
- Future collisions
- Contradicts previous Board approvals and feedback to public

Stakeholder

- Not consulted on proposed trial in full
- Local Board support for public realm work
- Perceived look of corridor not being finished for the cost - i.e. road not resealed

Environmental

- Plastic/rubber contradicts current sustainability policy
- Fewer street trees & plants

Cost

- Immediate cost saving
- Potentially higher long term cost
- Additional maintenance cost of temporary infrastructure

Summary Decision Framework

- Original proposed scheme at \$28.1m is optimal solution but 49% local share funding is not available from Auckland Council.
- Interim scheme - \$19.4m (+ safety monitoring and potential mitigation costs) is within budget envelope for FY23/24 and 24/25 delivery with confirmed match funding from Waka Kotahi.
- Defer implementation until FY25/26 with 100% Auckland Council funding, including \$4m for surface renewals
- All options – delivery via maintenance contract may reduce costs by 30%+