

MINISTERIAL BRIEFING NOTE

Subject	NZ Upgrade Programme – Papakura to Drury South and Mill Road Project Updates
Date	26 March 2021
Briefing number	BRI-2122

Contact(s) for telephone discussion (if required)				
Name	Position	Direct line	Cell phone	1 st contact
Brett Gliddon	General Manager, Transport Services	s9(2)(a)		✓

Action taken by Office of the Minister

- Noted
- Seen by Minister
- Agreed
- Feedback provided
- Forwarded to
- Needs change [please specify]
- Withdrawn
- Overtaken by events

26 March 2021

Minister of Transport

Minister of Finance

NZUP PAKURA TO DRURY SOUTH AND MILL ROAD PROJECT UPDATES

Purpose

1. This briefing provides you with further information regarding the current cost pressures and scope for the Papakura to Drury South (P2DS) and Mill road projects, as requested in your letter to Sir Brian Roche dated 22 February 2021.

Background

2. In December 2020, Waka Kotahi provided Joint Ministers with a briefing that set out a number of significant decisions that need to be made prior to the baselining exercise being completed in March 2021 and subsequently reported back to Ministers [BRI-2090 refers].
3. In response to that briefing, you have written to Sir Brian Roche, Waka Kotahi Board Chair, setting out the decisions that Joint Ministers are comfortable with being progressed. You also requested full briefings for the P2DS and Mill Road projects to inform your decisions for what work can be progressed for each of these projects ahead of the baseline reporting.
4. Our report to Joint Ministers following completion of the baselining exercise in March 2021 will provide more complete information about our current understanding of the programme.

South Auckland Context

5. The P2DS and Mill Road projects exist within a broader programme of work focused on supporting growth in South Auckland. This includes initiatives under the Auckland Transport Alignment Plan (ATAP). A map of the South Auckland Indicative Strategic Transport Network is included as Attachment 1.
6. A separate briefing on these two projects has been requested, with a specific focus on how these projects may support transit-oriented development, climate change outcomes (carbon reduction) and housing development. This includes possible staging options for the projects alongside other investments in the Drury and South Auckland area.
7. Waka Kotahi is working with the Ministry of Transport, Auckland Council, Auckland Transport and KiwiRail on this separate advice.
8. Noting the separate briefing outlined above, this briefing focuses on the scope, benefits and costs of each of the two projects.

Papakura to Drury South

Project scope and benefits

11. The P2DS project will see SH1 between Papakura and Drury South widened to provide three lanes in both directions, as well as new bridges, underpasses, a shared-use path and two major interchanges at Drury and Drury South (the latter being scope transferred from the Mill Road project).
12. The project will provide the following benefits:
 - more travel options to support urban growth in south Auckland, including for freight, public transport (including capacity for shoulder bus running), walking and cycling.
 - Improve safety and network resilience of SH1, including through enhancing flood and seismic protection.
13. The project also allows for future-proofing the SH1 North Island Main Trunk Line (NIMT) bridges at Drury for additional lanes (four-tracking) and improves the resilience to flooding for the Papakura to Pukekohe electrification project.
14. The Project is planned to be delivered in four parts (Attachment 2 provides a map showing the current staging plan):
 - Stage 1A is to be delivered first and will extend from the Southern Corridor Improvement works, just north of the Papakura Interchange, through to the northern side of Otuwairoa (Slippery Creek) Bridge. This stage can be delivered within the existing designation and the contract has been awarded to the preferred tenderer, Fulton Hogan.
 - Stage 1B1 and Stage 1B2 extend the works to Drury.
 - Stage 2 extends the works further, to Drury South.
 - The transferred Drury South interchange and tie-ins with Mill Road.
15. It is intended that the subsequent stages will be delivered following the completion of Stage 1A and the required land acquisition process.
16. s9(2)(i) [REDACTED], which has delayed identification of a preferred route alignment to the west or east of SH1 for this part of the project.
17. There is also a Stage 3 to this project, but this is not part of the NZ Upgrade Programme and will progress to route protection only with funding through the National Land Transport Fund (NLTF). Stage 3 comprises widening the motorway to three lanes up to the SH1/SH2 interchange at Bombay.

Project costs

18. The cost range estimate provided to the Government for all of Stage 1 as part of the NZ Upgrade Programme establishment in late 2019 was \$374m to \$472m. From this range, the Government selected a funding allocation at the mid-point of the range of \$423m. These costs did not allow for escalation.
19. It is important to note that this cost estimate and funding allocation did not include:

- Stage 2 of the project (which was subsequently included in the publicly announced project)
 - The Drury South interchange (which has subsequently been transferred from the Mill Road project)
20. An updated total cost estimate for the project (Stages 1 and 2) of \$1,164m to \$1,320m (P50 to P95) has been identified as part of the baselining exercise in early 2021. This cost includes \$661m to \$727m for Stage 1, with a more detailed breakdown as follows:
- Stage 1A - \$163m - \$172m
 - Stage 1B1 - \$336m - \$367m
 - Stage 1B2 - \$161m to \$187m
 - Stage 2 - \$291m to \$344m
 - Drury South interchange and tie-in work - \$212m to \$248m.
21. Considering the funding allocation of \$423m and a transfer of funding from Mill Road for the Drury South interchange (\$104m), there is a shortfall of \$637m - \$793m. Beyond the scope changes to include Stage 2 and Drury South interchange, the primary reasons for this cost increase are:
- inclusion of escalation costs (excluded from the original cost estimates)
 - increase in property costs (prices have increased considerably in the area)
 - replacement (instead of widening) of bridges over the North Island Main Trunk line and the Drury Interchange to ensure they are fit for future (space for 4-tracking) and as they are nearing the end of their operational life, so would need to be replaced in the next 10 years regardless.
 - design and delivery management cost increases associated with the increase in project scope
22. Project expenditure as at February 2021 from the NZ Upgrade Programme are \$13.44m (which does not include spend from the NLTF prior to establishment of NZUP).

Residual Risks

23. s9(2)(f) [REDACTED]
24. A Chorus Exchange Centre is located within the area required for Stage 1B1 (Drury Interchange) works. Land acquisition and construction of a replacement Exchange Centre is required prior to commencement of Stage 1B1.
25. Construction works are adjacent to the major water supply pipeline to Auckland from the Waikato River.
26. Site investigation works have not yet been undertaken for Stage 1B2, Stage 2 and the Mill Road interchange so ground conditions are currently unknown.

Staging options

Stage 1 only

27. If funding for the entire P2DS project is not made available, it is recommended that all of Stage 1 is constructed (Stages 1A, 1B1, 1B2) at a current expected cost of \$660m to 730m. This would require an additional \$237m to \$305m to be allocated to the project.

28. This corridor is expected to start showing network accessibility issues this year and exceed capacity by 2026. Hence, to realise the full transport benefits, the full Papakura to Drury (Stage 1) needs to be delivered within the next decade (which aligns with ATAP priorities). Completing Stage 1 will ensure peak travel times do not increase, allows for special purpose lanes to manage travel demand, and a shared path to achieve multi-modal outcomes.

Stage 2

29. To deliver the full benefits of the P2DS Project, as outlined in the Detailed Business Case, Stage 2 will need to be completed to tie-in with the completion of Mill Road extension which connects SH1 at a new interchange at Drury South. These benefits focus on the access to the significant development area of South Drury to achieve the Auckland South growth area objectives and strategic priorities of the Government Policy Statement on Land Transport (GPS) 2021.

Mill Road

Project scope and benefits

30. Mill Road will provide an additional route from Manukau to Drury, running parallel to the east of State Highway 1 (SH1). It will provide improved safety outcomes and access to future urban residential and business areas. Mill Road will also enable growth for freight, public transport, walking and cycling and general vehicles in the surrounding area.
31. The new 21.5km corridor includes upgrading the existing two-lane sections of road to four lanes, which will connect through to the proposed new sections of the corridor across greenfield sites. These new sections run through to Papakura and Drury and connect to SH1 at a new Drury South interchange.
32. The upgraded corridor (21.5km) will include:
- a four-lane road, two lanes of which could be special purpose managed lanes for public transport and/or higher occupancy vehicles (subject to investigation)
 - separated walking and cycling facilities along the full length, linking with SH1 Papakura to Drury South shared path
 - upgraded and safer intersections along the 21.5km route.
33. When the NZ Upgrade Programme was first announced, the Mill Road project included a new interchange at Drury South. However, as noted above, this will now be delivered as part of the P2DS project to improve project delivery efficiency.

Project costs

34. Prior to the NZ Upgrade Programme, the Mill Road project was being delivered by Auckland Transport (AT). Based on work the work already done by AT, including establishing early cost estimates, Waka Kotahi provided the Government with the Auckland Transport cost estimate for the project between \$1,125m and \$1,570m. From this range, funding of \$1,354m was allocated. These costs did not allow for cost escalation.
35. The most recent cost estimate for the project is \$2,915m to \$3,525m (P50 to P95), which includes:
- Existing designation Manukau - \$815m to \$965m
 - Takanini - \$700m to \$905m
 - Papakura - \$655m to \$780m
 - Drury - \$745m to \$875m.

36. This cost is \$1,561 to \$2,171m more than the \$1,354m allocated to the project through the NZ Upgrade Programme.
37. The key reasons for the difference in cost include:
- escalation
 - property costs increases (due to the number of properties required and rising property values in the area)
 - implementation costs associated with detailed scope changes (including increases to earthworks and ground improvements, traffic management requirements, services relocations, and environmental compliance and monitoring)
 - project contingency reassessed based on the current level of design and risks.
 - Design and delivery management cost increases associated with the increase in project scope.
38. The project expenditure for Mill Road as of 28 February 2021 is \$71.4m, including \$63m paid to Auckland Transport for the transfer of property to Waka Kotahi.

Residual Risks

39. There has been a significant increase in the number of properties that will need to be acquired (273 to 727). In addition, property prices have increased considerably in the area. Some commercial properties, such as the Auckland Gliding Club, pose a substantial risk for further cost increase and time delays.
40. The project has consenting challenges, and there is the risk of consent conditions increasing the costs of implementation.
41. There are areas known to have poor ground conditions, particularly in the middle section of the corridor. However, the exact extent of this issue will not be known until further investigations are completed.
42. Critical interface areas, including local access, Drury interchange, Manukau interchange, Hollyford Road and Murphys Road, will require careful management to ensure works are undertaken without the need for rework.
43. Management of high traffic volumes during construction.

Staging options

44. Mill Road provides options for staging of implementation (see Attachment 3 Mill Road staging plan). This was reflected in the proposed approach prior to the NZ Upgrade Programme. Under this earlier proposed approach the Mill Road project would be delivered in stages over the next three decades, based on several assumptions in relation to mode shift and growth.
45. The Manukau section of the corridor is already designated, with a lapse date of 2026.
46. An option exists to stage Mill road to align with staged projection of growth in the area. This staging could commence with completion of the Manukau section and parts of the Drury section to support more immediate growth and existing safety issues.
47. Completion of other stages of the project could then occur progressively over subsequent decades to align with the timing of growth.

48. This staging approach could provide benefits in both managing NZ Upgrade Programme funding pressures, better supporting mode shift, mitigate carbon emissions associated with transport (climate change benefits) and aligning with short and longer-term housing and job growth.

Next Steps

- 49. Waka Kotahi will continue to work with the Ministry of Transport, Auckland Council, Auckland Transport and KiwiRail on providing further information on these projects including how they relate to outcomes and staging options.
- 50. Waka Kotahi and KiwiRail are currently finalising the baselining work across all projects in the programme and will report this information in early April 2021.
- 51. Waka Kotahi is also working with Ministry of Transport and KiwiRail to provide broader advice to Joint Ministers on prioritisation across the NZ Upgrade Programme.
- 52. Waka Kotahi will further review form and function of Mill Road and consider alternative options to achieve the transport system outcomes.

It is recommended that you:

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| 1. Note the contents of this briefing | Noted | Noted |
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Brett Gliddon

General Manager, Transport Services

Date: 26 March 2021

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Hon Michael Wood, Minister of Transport

Date:

.....
Hon Grant Robertson, Minister of Finance

Date:

Attachment 1: South Auckland Indicative Strategic Transport Network

SOUTH INDICATIVE STRATEGIC TRANSPORT NETWORK

JULY 2019

Projects described in these maps have been identified by indicative business cases and will require further technical investigation, engagement with communities and landowners and statutory approvals before their final detail, location or land requirement is confirmed. They are also yet to be prioritised for funding for delivery over the next 10-30 years.

RAIL CORRIDOR UPGRADE

- 1 Rail upgrade from Papakura to Pukekohe
- 2 Closure of Manuroa Road and Spartan Road rail crossings to vehicles
- 3 New grade separated rail crossings at Taka Street and Walters Road
- 4 New train station – Drury Central
- 5 New train station – Drury West
- 6 New train station – Paerata

NEW OR IMPROVED PUBLIC TRANSPORT CORRIDOR

- 7 Frequent Transit Networks (FTNs) routes using SH1 and arterial roads to connect to town centres, and the major centres of Papakura, Drury and Manukau

NEW WALKING AND CYCLING CORRIDOR

- 8 Strategic walking and cycling corridor to connect to SH1 Strategic Cycleway

NEW OR IMPROVED TRANSPORT CORRIDOR

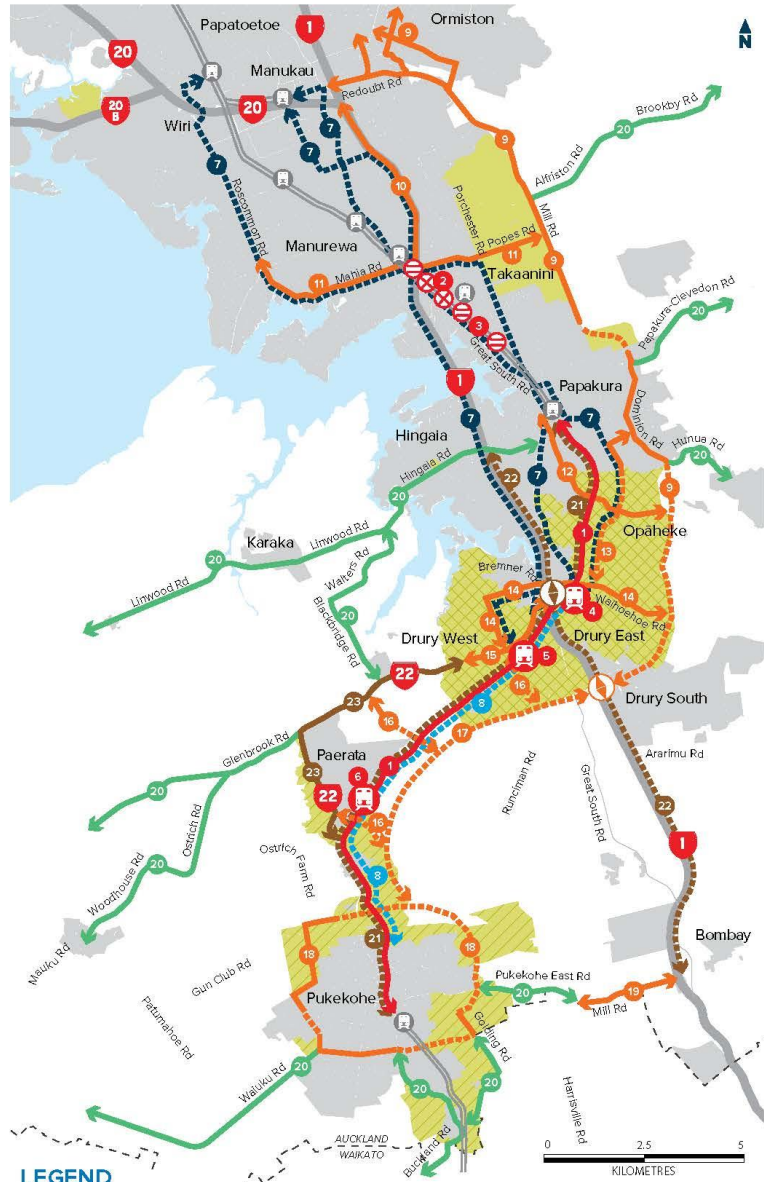
- 9 Mill Road Corridor including northern connections
- 10 Additional long term upgrades to SH1 between Manukau and Takaanini
- 11 Upgrade Mahia Road and Popes Road (including a new grade separated rail and SH1 crossing)
- 12 Upgrade Opāheke Road and Ponga Road
- 13 New arterial between Papakura industrial area, to Waihoehoe Road
- 14 Upgrade Jesmond Road, Bremner Road and Waihoehoe Road
- 15 Upgrade Drury West section of SH22
- 16 Connections from SH22 to the Pukekohe Expressway
- 17 New Pukekohe Expressway connecting Pukekohe to SH1
- 18 Pukekohe Ring Road
- 19 Upgrade Mill Road between Harrisville Road intersection and the Bombay interchange

SAFETY IMPROVEMENTS

- 20 Safety improvements to Alfritson Road, Brookby Road, Papakura-Clevedon Road, Hingaia Road, Hunua Road, Linwood Road, Walters Road, Blackbridge Road, Glenbrook Road, Kingseat Road, Mckenzie Road, Ostrich/Woodhouse Road, Pukekohe East Road, Logan Road, Waiuku Road and Buckland Road.

OTHER PRIORITY PROJECTS

- 21 Rail electrification from Papakura to Pukekohe
- 22 SH1 Papakura to Bombay Project
- 23 Safe Networks Programme: SH22 Safety Improvements



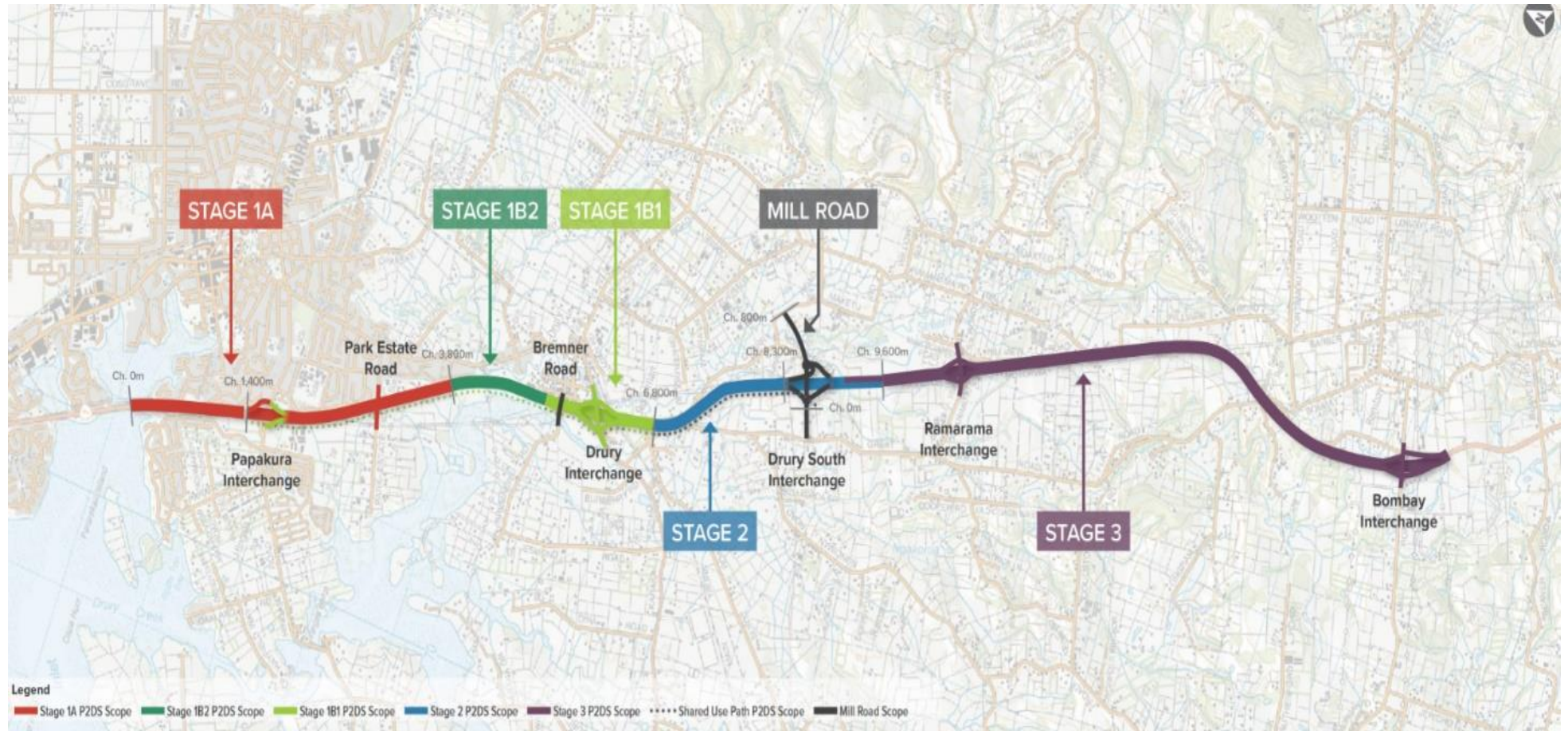
LEGEND

- New growth area (Future Urban Zone)
- Drury – Opāheke structure plan area
- Pukekohe – Paerata structure plan area
- Existing urban area
- Auckland – Waikato Boundary
- New or upgraded Interchange
- Existing rail corridor
- Existing train station
- Improved rail corridor
- Closure of rail level crossing
- Grade separation of rail level crossing
- New train station
- New public transport corridor
- Improved public transport corridor
- New walking and cycling corridor
- New transport corridor
- Improved transport corridor
- Safety improvements
- Other priority projects



New Zealand Government

Attachment 2: Papakura to Drury South staging plan



Please note: Stage 3 is route protection only and is funded through the NLTF.

Attachment 3: Mill Road staging plan

