

INDICATIVE BUSINESS CASE ADDENDUM

East West Connections

18 June 2015

Addendum Purpose

Following submission of the Indicative Business Case (IBC) and recommendations made therein, to the NZ Transport Agency Board (the Board) in December 2014, this addendum has been developed to reflect and record changes made to the IBC recommended option (Option F). This addendum provides a record of account of how the IBC recommended option has evolved into the recommended approach recently approved by the NZ Transport Agency (the Transport Agency) and Auckland Transport (AT) Boards.

The IBC identified a new direct link between State Highway 1 (SH1) and State Highway 20 (SH20) (Option F) as the most appropriate long term response to the problems in the Onehunga-Penrose area for the following reasons:

- The direct link between SH1 and SH20 provides the most enduring response among the options, with a sustained reduction in traffic along both Neilson St and Church St.
- The provision of an alternate corridor via Option F results in a reduction of general traffic and heavy vehicles from other key arterials and local roads in the Onehunga area, including Church St and Mt Smart Rd.
- Option F has the least impact of all options from a social, cultural, and heritage impact perspective given the location of the majority of the corridor is completely removed from existing land uses.
- Foreshore reclamation presents a potentially significant environmental opportunity to stem the flow of contamination from historic landfills along the northern shore of the Māngere Inlet.
- Foreshore reclamation avoids the need to encroach on heavy industrial land, which is in short supply in the Auckland region.

Option F was identified to have high consentability and constructability risks in relation to the environmental impacts, in particular foreshore reclamation. Option F also represents one of the most expensive shortlisted options, with preliminary assessments indicating the option could not be funded out of the National Land Transport Fund alone within the next 10 years.

As part of the value gate process for achieving funding for the DBC phase, the IBC was evaluated. The outcome of this evaluation was that there was confidence that improvements to the connections to both SH1 and SH20 would be needed overtime to solve the problems and achieve the benefits outlined in the business case. However, uncertainty about the long term land use scenario for the area (with improved connections in place) as well as uncertainty about induced traffic eroding the benefits to freight if appropriate priority and travel demand management could not be put in place meant that the timing of need for investing in the completion of a full link was not clear at IBC stage.

In December 2014, a report was put to the Board noting the current strategy based on the knowledge available at the time. As a result of the uncertainties noted above, the Board requested further work be completed on option refinement (foreshore reclamation vs. inland), staging options, cost refinement and key stakeholder engagement before a final decision could be made on the preferred option.

Upon completion of this work, it was determined that the appropriate path forward with regard to the IBC was to report back to the Board seeking support of a preference for a staged complete connection to be developed between SH1 and SH20, subject to ongoing evaluation of demand and benefit thresholds. This was reported to the Board in May 2015 where the Board approved a staged complete link between SH1 and SH20 to the north of the Māngere Inlet as the preferred approach to be taken forward for further public consultation and development of a Detailed Business Case (DBC). Details of the staging and demand and benefit thresholds will be outlined in the DBC.

Option Refinement

Within the IBC multi-criteria analysis (MCA) assessment of shortlisted options, Option F was considered to have two potential routes on the eastern side of the northern edge of the Māngere Inlet (between Angle St and the rail corridor); one route was an inland connection through heavy industrial land, while

the other route was a foreshore connection utilising reclaimed land. Further assessment of the route variations indicated:

- The heavy industrial land traversed by the inland route is likely to be heavily contaminated due to the historic use of the land detailed in the IBC and associated technical reports. The foreshore route minimises earthworks required on known contaminated land.
- The foreshore route offers strong potential to deliver environmental outcomes through containment of existing contaminants. Due to the mitigation of environmental effects, some key partners have a preference toward this route.
- The foreshore route minimises the required acquisition of heavy industrial land, which has been identified as a scarce resource to be protected by Auckland Council.
- The consenting risk associated with the foreshore route is higher than the inland route, due to the requirement for reclamation. However, technical assessments and discussions with project partners indicate the risk associated with the foreshore are manageable.

On balance and as a result of the above analysis, the foreshore route along the full length of the northern edge of the Māngere Inlet is recommended for the preferred approach as opposed to the inland route portrayed by Option F in the IBC.

The IBC recommended option (Option F) also included a link to an upgraded Angle St as the major north-south link to the existing Neilson St corridor. Following option refinement, which tested Angle St versus Captain Springs Rd, a connection at Captain Springs Rd is considered to be more appropriate. The Captain Springs Rd connection delivers marginally better transport benefits while also providing more flexibility for delivering the route in a staged approach, with a reduced risk of future duplication of works.

Staging Options

The IBC and the Board decision indicate a preference for a new complete connection to be developed between SH1 and SH20. However, given the scale of such a project, funding constraints mean full delivery of the route may not be possible within the next 10 years.

In response to the Board's request in December 2014 and as requested during the funding evaluation of the IBC, the project team has explored several staging scenarios for delivery of the full link. The recommended staging programme that has been noted by both Boards involves three stages. Stages 1 and 2 have the potential to be delivered in the short to medium term, and Stage 3 may be delivered at a later date, subject to ongoing benefit and demand monitoring.

The potential stages are detailed respectively below. These stages are at a concept level only and will be refined further in the DBC.

Stage 1: Early works

The delivery of a full connection has a high level of complexity, including potential delivery timeframe risks associated with factors such as foreshore reclamation (and associated consenting risks), requires property acquisition and some construction works within and in close proximity to major traffic corridors.

Stage 1 represents low risk works that facilitate early benefit realisation by addressing some of the identified transport problems with immediate effect. The components identified as suitable for incorporation within the early works package based on their low scale, low complexity and ability to address immediate problems at the western (SH20) end of the corridor include:

- Creation of a new Galway St connection and upgrade of a section of Neilson St and
- Widening of SH20 between Neilson St and Queenstown Rd.

Stage 2: Initial works

Stage 2 comprises initial works which would deliver substantial transport benefits, without exposure to the full cost associated with delivering the complete new route.

Partial corridor options were considered within the IBC short list, which involved a new road connection from Captain Springs Rd to SH1, and an upgrade of the existing corridor on the western side of Captain Springs Rd. A partial corridor option delivers strong transport performance with respect to the addressing the identified project problems. However, reliance on the existing Neilson St corridor on the western side of the route restricts the ability of the route to accommodate future traffic growth, limiting its resilience and endurance relative to the complete new corridor (as represented in the IBC by Option F).

As soon as practicable, completion of a partial corridor route would be a suitable initial works stage as it would address the immediate issues at the eastern (SH1) end of the Onehunga-Penrose corridor and deliver a high level of transport benefits.

Following completion of the early works, the scope of the initial works was therefore confirmed as:

- Establishment of a new connection from Captain Springs Rd to SH1, including reclamation along the foreshore.

Stage 3: Later works

Stage 3 transitions from the initial works stage to the full new corridor as proposed in Option F. The required works were identified as:

- Completion of the connection west from Captain Springs Rd to SH20 and the Neilson St interchange.

The timing and funding approval for Stage 3 will be dependent on demand and benefit thresholds that will be confirmed through a value for money assessment during the DBC.

Cost Refinements

The expected scheme cost of a full staged link is in the range of \$1,050M (at the 50th percentile) and \$1,400M (at the 95th percentile), with a benefit cost ratio of 1.4 to 1.9.

Engagement with delivery partners and stakeholders

The development of the preferred approach was informed through on-going engagement with delivery partners and key stakeholders. Engagement included discussions with mana whenua, Transpower, Department of Conservation (DOC), Auckland Council, Auckland Business Forum and KiwiRail. The engagement was targeted at ensuring risks and opportunities were fully understood during development of the recommended approach.

With respect to the selection of the foreshore route, feedback indicated a preference for the foreshore route if environmental impacts are effectively mitigated where possible and opportunities to contain existing contaminants are given effect to.

Conclusion – Preferred approach

On 8 May 2015, the Board approved a staged complete link between SH1 and SH20 to the north of the Māngere Inlet as the preferred approach for the East West Connections project, to be taken forward for further public consultation and development of a DBC. Three distinct stages of delivery were proposed, which are listed below and also shown in Figure 1 on the following page.

Stage 1 – Early works:

- Creation of a new Galway St connection and upgrade a section of Neilson St;
- Widening of SH20 at the eastern end.

Stage 2 – Initial works:

- Establishment of a new connection at the eastern end from Captain Springs Rd to SH1.

Stage 3 – Later works:

- Completion of the connection west from Captain Springs Rd to SH20 and the Neilson St interchange.

The Board noted that timing for the complete connection west from Captain Springs Rd to SH20 and the Neilson St Interchange (Stage 3) will be subject to ongoing evaluation of demand and benefit thresholds.

FIGURE 1: PREFERRED APPROACH FOR ONEHUNGA-PENROSE CONNECTIONS

