

Warkworth to Wellsford

GRADE SEPARATION AND INTERCHANGES FACT SHEET

Interchanges and grade separations occur when two or more roads cross at different levels.

A grade separation is a crossing of motorway and local road, a road and railroad, or a road and a pedestrian/bicycle facility at different levels. It eliminates crossing conflicts and improves operational efficiency.

An interchange is an intersection that uses grade separation and interconnecting ramps to provide safe access between higher speed motorways (or expressways) and local roads, by incorporating a network of ramps. Grade separations alone do not provide connections or access between the intersecting roadways. Rather, motorists, cyclists and pedestrians on each intersecting roadway remain completely independent from each other.

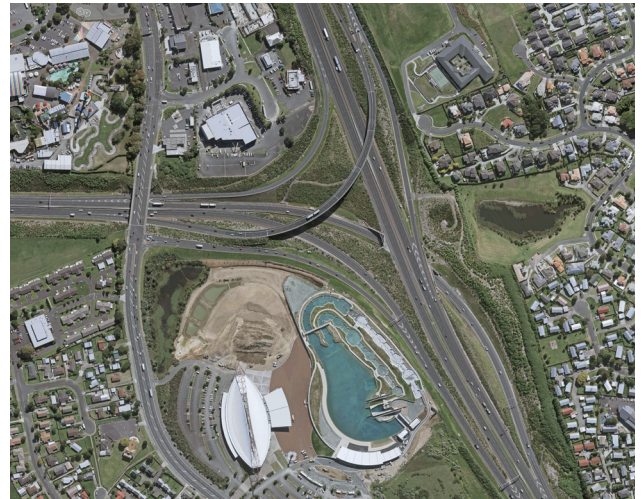
WARKWORTH TO WELLSFORD

Interchanges play an important role in defining how the Indicative Alignment ties into the local road network and connects communities together. Careful consideration has been given to the placement of interchanges along the Project length to enable them to function well, and meet current and future traffic demands. Factors considered include providing access to communities, how well the interchange might sit within the surrounding rural landscape, and how the Indicative Alignment might best connect with the local road network.



Artist impression of proposed Warkworth interchange

THERE ARE TWO MAIN TYPES OF INTERCHANGES



Manukau interchange showing high speed connections

System interchange

This provides high speed connections catering to high volumes of traffic with free flowing ramps to keep traffic moving. An example of a system interchange is the Manukau Interchange on Auckland's southern motorway where SH1 and SH20 connect. Local roads are not used as part of system interchanges.



Silverdale interchange showing ramps connecting to local roads

Service interchange

This connects a motorway directly to local roads. An example of this is the Silverdale Interchange on Auckland's northern motorway where traffic connects to Ararimu Road, a local road.

NORTHERN TIE-IN

The point where the proposed highway ties into State Highway 1 has shifted slightly to improve safety. Extending the tie-in to north of Maeneene Bridge aims to reduce the number of accidents due to the narrow bridge, poor alignment and two local road intersections.

Neither Maeneene Road or Waimanu Road will have a direct connection to the Indicative Alignment. Both of these roads will connect to the 'old' State Highway. The design of the Indicative Alignment shows Maeneene Road being realigned and going underneath the new highway and connecting to the 'old' State highway. The intersection of Waimanu Road is also realigned to connect directly to what will become the end of the 'old' state highway.

Access to and from the highway for those living on Maeneene and Waimanu Roads will be via a roundabout on Mangawhai Road which connects with the Te Hana Interchange.



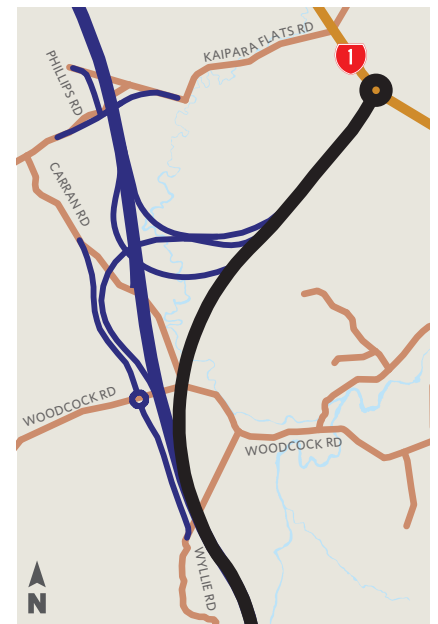
INDICATIVE WARKWORTH INTERCHANGE

The Indicative Warkworth Interchange responds to the feedback received, makes the best use of the Pūhoi to Warkworth section of Ara Tūhono Pūhoi to Wellsford currently in construction and takes account of the future growth expected to occur in Warkworth.

We received a lot of feedback on the Indicative Warkworth Interchange in 2017. The team has taken this into account and considered a wide range of options that might best meet the project objectives. These options were evaluated against a range of environmental, engineering and community feedback criteria in a multicriteria evaluation process.

This option is called a "system interchange" providing free flowing ramp connections between the highway and the Pūhoi to Warkworth motorway. This type of interchange maintains the high level of service which people will already be experiencing using the Pūhoi to Warkworth motorway.

The Pūhoi to Warkworth motorway will have a direct connection to the existing State Highway 1 without having to connect to a local road. The Indicative Alignment for the Warkworth Interchange maintains this direct connection. That means local roads don't need to be used as part of the interchange.

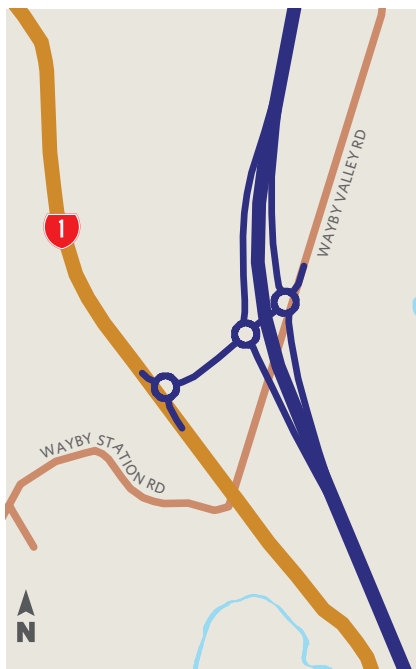


INDICATIVE WELLSFORD INTERCHANGE

The Indicative Wellsford interchange has been located to provide good connectivity to Wellsford. We've added a roundabout at the Wayby Valley Road/ State Highway 1 intersection to improve safety.

The Indicative Alignment will be elevated above the floodplain providing greater resilience for people using the road. However, like there is now, there will still be flooding on local roads. The Indicative Te Hana Interchange will service eastbound traffic in the event Wayby Valley Road is flooded.

The interchange and main alignment impacts a very small portion of what is a large river catchment and floodplain area that experiences substantial flooding. A flood assessment has been completed to inform the design of the Indicative Alignment, and we have identified different ways to manage the potential impact of the project on flooding within the catchment.

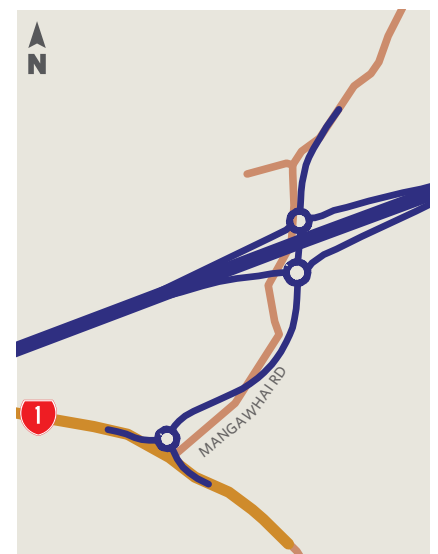


INDICATIVE TE HANA INTERCHANGE

The design of the Indicative Te Hana Interchange remains unchanged since February 2017. However, the location of the interchange has moved slightly north to better align with the local road connection at Mangawhai Road.

The connection from Mangawhai Road to the existing State Highway 1 now includes a roundabout.

These changes have been made to improve the safety of the interchange.



KEY Existing state highways Indicative Alignment
Ara Tūhono Pūhoi to Warkworth



CONTACT US

If you have any questions, you can contact us on:

Phone: 0508 927 2935

Email: warkworth-wellsford@nzta.govt.nz

More information can be found at: www.nzta.govt.nz/warkworth-wellsford