

CONSTRUCTION UPDATE

Structures underway in the South

The new year has seen the southern zone of our project kick up a notch. This area is rich in cultural and ecological history and will be home to our two largest structures.

Constructing access to the southernmost viaduct, Te Arawhiti ki Ōkahu (the bridge at Ōkahu) has been the focus for the Structures team since early December. This will be the first viaduct motorists will experience as they head north through the tunnels on the new road, it will be constructed of concrete and steel beams. At just over 340m in length this is also the longest on the project, equivalent to driving across 3 and a half rugby fields.

Te Arawhiti ki Ōkahu viaduct will traverse

Ngā Pā o Te Hēmara Tauhia and wider areas of settlement up to Pūhoi. This along with crossing a coastal marine area presents new and exciting challenges for the team in balancing the needs of the project while ensuring the significance of the area is treasured, and every effort is taken to avoid adverse effects on tāonga.

The pre-construction activities for the second viaduct in the area Te Arawhiti ki Pūhoi (the bridge at Pūhoi) will begin in March.

As we have begun work in the south some further history of this area has been revealed. Recent discoveries have included fire pits which are estimated to be hundreds of years old. These have varied in size and age, reflecting the patterns of settlement in the



area. This was influenced by both seasonal movement between kainga (villages) and tribal conflicts. The fire pits were identifiable by a circle of scorched earth and burnt rocks.



Artists impression of Te Arawhiti ki Ōkahu

Road safety

While what's happening on the side of the road may look interesting, please keep your eyes on the road. When traveling between 80-100km/h, a 2 second distraction will see you travel almost 50 meters blind. If you're focused on the distractions around you, you're not focused on the road.

For the best views of what is going on please visit our website www.nx2group.com

Change to information centre hours for 2018

Our project information centre is located at 45 Wyllie Road, here you will find information on the project, large project maps and the latest drone footage. The information centre is open during work hours. At the times listed below a member of our stakeholder and communications team will be available to answer any questions you may have.

- 9am-12noon Tuesday
- 1pm-4pm Thursday
- 10am-1pm first Saturday of the month

Full steam ahead

The new year has started off with temperatures tipping the scale, but also a lot of rain which has meant a number of days without work. We have a lot of earth to move this season and next. To ensure we keep on top of progress we may need to work 7 days. If you live near the project and would like to receive notification when we will be working Sundays please contact us, providing your physical address and email; info@nx2group.com or 0508 P2WK INFO (7295 4636)

What does Ara Tūhono mean?



- 1 & 6. Represents the 3 baskets of knowledge
- 2. Depicts the roading from the North
- 3. Represents one coast – East
- 4. Depicts the connection of all roading systems from the North to Auckland
- 5. Represents one coast – West
- 7. Depicts the roading from Auckland

MEET THE TEAM Viki Hurring

The health and safety of everyone working on the project is key to its overall success. Here we introduce one of the superstars on the project helping to keep our site safe.

Viki comes with a wealth of experience on infrastructure projects both here and in Australia. She is passionate about health and safety.

Viki started her career on Central Motorway Junction (Auckland's Spaghetti Junction) with Fletcher and Leighton and has since worked on a range of projects including; Huntly Express Way, the Northern Gateway, the Southern Freight Link in New South Wales and the Clem 7, a 4.5km twin tunnel job in Brisbane. Her experience has been wide including telecommunications, civil infrastructure, rail and tunnel experience.

When Viki is not on site helping to keep us all safe, she is an active Nanny with 3 grandchildren and enjoys taking them to the beach – she lives at one (One tree Point) which is a bonus.



- Viki shares her 3 principles about keeping safe:
- Always think about what you are doing
 - What can wrong (the risks)?
 - And how you can make it safe

Gifting of names by Hōkai Nuku

The naming of significant projects and project features is an important process for mana whenua (the people from this place) which highlights connections to their ancestors (*Mana Tangata*) and iconic identity markers in our environment (*Mana Whenua*). It can also identify specific associations through historical events and activities (*Pūtake*).

The Hōkai Nuku Cultural Advisors represent the mana whenua for the area – Ngāti Manuhiri on the East coast, Ngāti Whātua and their hapū of the Project area Ngāti Mauku/Kauae of Te Uri o Hau and Ngāti Rango of Kaipara. The Cultural Advisors provided names for the key structures and features on the project which were endorsed by the Transport Agency in November 2017.

The first name gifted by Hōkai Nuku in 2012 to the Pūhoi to Wellsford Project, was Ara Tūhono, the pathway that connects you from North to South and coast to coast. A whakawatea, ceremonial opening will be held for each structure and feature to officially open them and formalise their name.

Structure / Feature	Name
Ōkahu Viaduct	Te Arawhiti ki Ōkahu <ul style="list-style-type: none">• Name is location specific and directly related to the waterway
Pūhoi Viaduct	Te Arawhiti ki Pūhoi <ul style="list-style-type: none">• Name is location specific and directly related to the waterway
Moir Hill Overpass	Te Tapuwae o Kahumatamoemoe <ul style="list-style-type: none">• Name specific to the Cultural Footprint and Manuhiri korero; This name acknowledges the coast to coast pathway travelled by the ancestor, Kahumatamoemoe.
Kauri Eco Viaduct	Te Arawhiti Pua Ngahere <ul style="list-style-type: none">• Description to symbolise ecology, rakau, ngahere;• Combines symbolism of all ngahere;• Notion of regeneration of forest based on seed sown by the mature trees;
Cut from Schedaway to Moir Hill	Te Awa Hīkauae <ul style="list-style-type: none">• Revival of the use of Hīkauae for the area rather than Hungry Creek for the Pūhoi tributary, Hīkauae Creek. This name acknowledges a significant victory in the area.
Wylie Rd junction	Tūhono ki Kōurawhero <ul style="list-style-type: none">• The name symbolises the abundance of a particular kind of freshwater crayfish that once filled the local streams. Kōurawhero is also the name given to the Wylie Road compound for the same reason.
Northern roundabout	Pukerito <ul style="list-style-type: none">• Name reflects the location within the centre of hills

Gecko release

December 5 2017, marked an important milestone for the project with the release of native gecko back into their new homes.

The 36 forest geckos, one rarer Pacific gecko and one copper skink were resettled at a new predator-free site within the wider project area.

Before the diggers and big construction machinery moved in, a huge effort went into finding and relocating protected native species within the project area. Liza Kabrle, Project Ecologist says the best way to find gecko is after dark with spotlights. "The light catches their white bellies in the trees making them relatively easy to spot when you know what you are looking for."

NX2 ecologists, working in partnership with Hōkai Nuku spent days and nights searching for geckos and skinks. Hōkai Nuku

works closely with the ecology team to ensure tikanga (protocols) and kaitiakitanga (obligation to protect and enhance mauri) values are upheld.

Prior to release the geckos were housed at Massey University's Reptile Facility, for several months, under the care of an expert team of herpetologists (specialist biologists that provide care and conduct research on a wide variety of reptilian and amphibian species).

New homes were prepared for the gecko in advance of their release, says Liza Kabrle. Soft foam covers are nailed to the north-facing side of trees, so they warm up in the sun. Each gecko will have its own cover, which will be labelled and GPS-located. The skink is released directly into the new habitat, says Liza Kabrle.



Hōkai Nuku blessing the geckos prior to release



Forest gecko basking in the sun before being shown to its new home



Environmental Manager Karsten Stevenson with a forest gecko



Ecologists showing the gecko to their new homes

Did you know?

All native geckos give birth to live young – they don't lay eggs – and have a maximum of two young. Ten new geckos were born while in captivity.



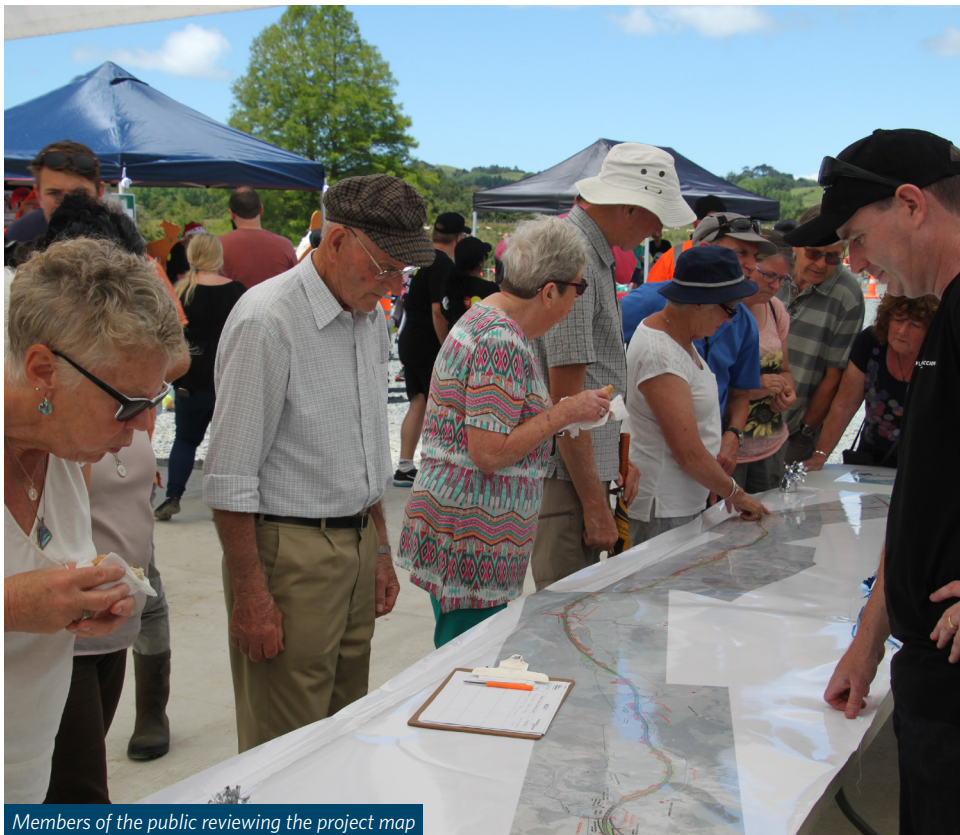
What's coming up?

- Continuing site establishment works south of Pūhoi, including access tracks, erosion and sediment control devices and removal of houses.
- Bat and gecko monitoring prior to further tree felling along Pūhoi road to make way for Te Arawhiti ki Pūhoi (the bridge at Pūhoi)
- Stakeholder team attending the Pūhoi market on February 25
- Ground improvement works continuing in the north
- First cuts east of Wyllie Road continue
- Construction of access tracks and erosion sediment controls north-west of Perry Road

First project open day a roaring success

On Sunday 3rd of December the project held its first project open day. Over 500 members of the public attended on the day, getting a sneak peak of the Northern end of site and then off to visit the compound for information displays, drone demonstrations, dump truck rides and environmental control demonstrations. We were blown away by the interest in the project and already have our thinking caps on to ensure we can deliver an even better day this year!

The date for our 2018 Project Open Day will be confirmed later in the year.



Members of the public reviewing the project map



Member of the public enjoying a dump truck ride



Senior Project Engineer Phil Wilde boarding the return bus



Drone demonstration

Project Timeline

- ✓ **JANUARY 2017**
Start of enabling works
- ✓ **OCTOBER 2017**
Start of bulk earthworks
- ✓ **JANUARY 2018**
Start of structures

- NOVEMBER 2019**
Start of pavement works
- NOVEMBER 2020**
Earthworks completed
- OCTOBER 2020**
Structures completed

- SEPTEMBER 2021**
Pavements completed
- OCTOBER 2021**
Works completed
- LATE 2021**
Motorway open to traffic