

## Stone column ground works underway, city-bound lanes near completion, and changes to Bayfair roundabout

The Bay Link project has reached further milestones, with the first of the stone column ground works getting underway recently, and the new city-bound lanes for the on and off ramps at the Bayfair roundabout nearing completion.

At least 3400 stone columns will be constructed throughout the site to take the weight of the on and off ramps for the two flyovers. You can find out more about the stone columns in the story on the next page.

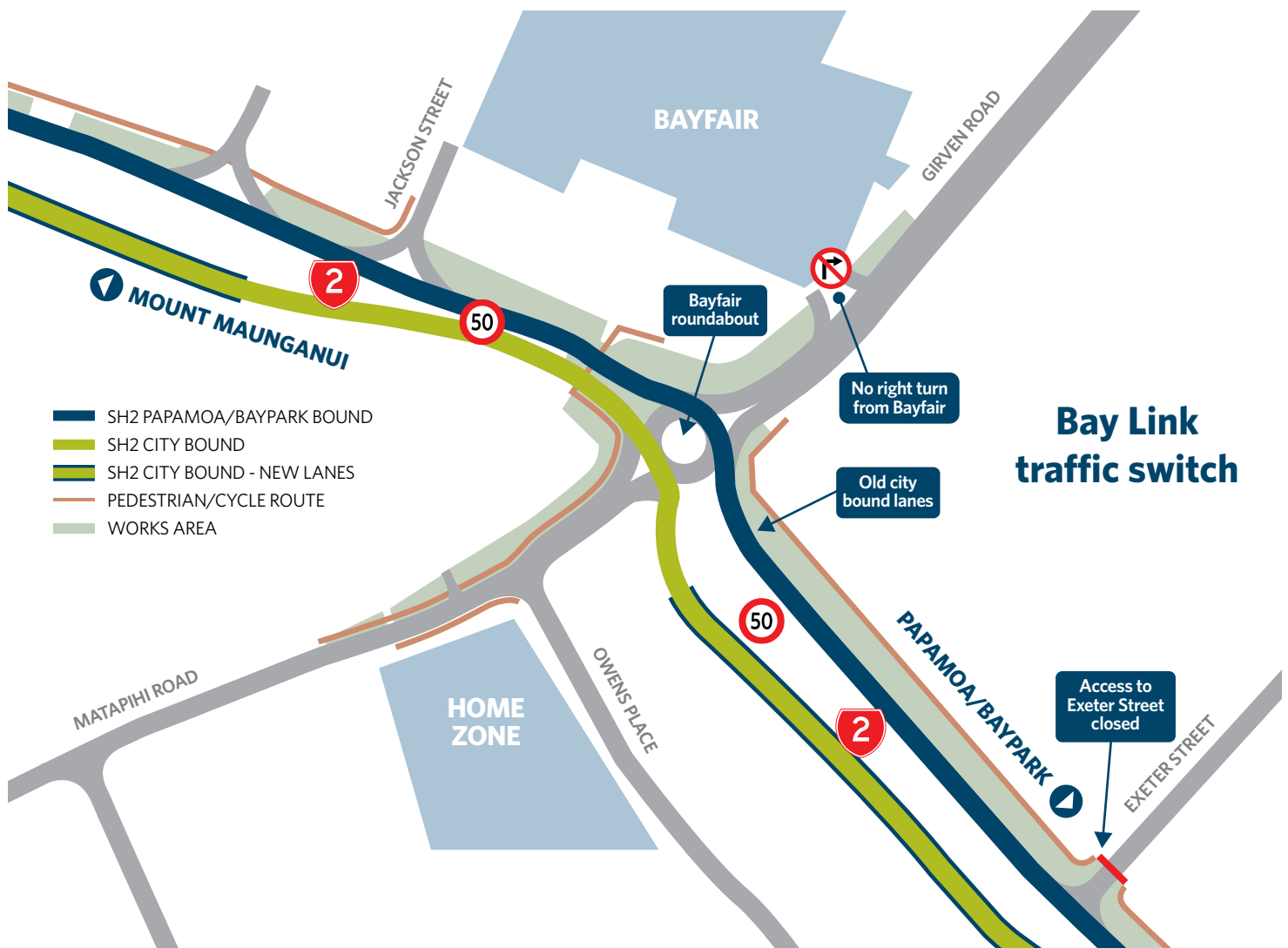
You can expect to see some changes at the Bayfair roundabout later this month, with a traffic switch planned for late October/November. The traffic switch will allow for earthworks to begin and utility services to be relocated on Maunganui Road between Girven Road and Exeter Street, in preparation for construction of the Papamoa-bound on and off ramps. Access to and from Exeter Street will be closed, and there will be no right turn option from Bayfair carpark onto Girven Road near the roundabout. The pedestrian and cycle underpass connecting Matapihi Road and Bayfair Shopping Centre will remain open in the interim.

Matapihi Road and Owens Place will continue to be a hive of activity, with gas and water relocation works on the golf course side of Matapihi Road, from Maunganui

Road to the railway line, scheduled for completion this month. Storm water drainage, power, gas and water relocation work will continue on the Home Zone side of Matapihi Road, with this work expected to be completed in October 2018.

Looking ahead during the next quarter, there will be a lot of work underway on SH29A near Baypark and SH2 near the Te Maunga roundabout. The work here will include stone column work, relocating the sewer along SH29A, placing and covering the geogrid for the new road between the Baypark roundabout and the SH29A rail overpass, and the SH2/SH29A city-bound on ramp. Work will also begin on construction of a stormwater treatment pond and the installation of MSE walls (similar to retaining walls) to support the new bridges near Baypark.

We thank you for your patience while we carry out the work through here, and also remind you to adhere to the temporary speed limits throughout the construction site, to ensure your safety, that of your passengers and the construction workers.



# Stone column ground improvements underway

**The stone column ground improvement works are underway, starting on SH2 Maunganui Road near the Te Maunga roundabout.**

Three thousand four hundred stone columns will be constructed throughout the site during the next 10 months to take the weight of the on and off ramps for the two flyovers.

Installing stone columns involves putting vertical columns of stone (gravel) into the ground, using vibration to move the sand to make way for the stone. This is done using an 80 tonne crawler crane with a 3.2 tonne vibroflot attached - the vibrating element that carries out the compaction and delivers the stone. A second stone column rig will be onsite soon to help.

Each stone column is relatively small (up to 16.5m deep and 1.1m in diameter) and takes between 20 minutes and 40 minutes each to complete.

NZ Transport Agency Project Manager John McCarthy said stone columns are well suited for sandy soils and protect the ground from the risks of liquefaction during an earthquake.

“The stone columns push against the surrounding ground, making it more dense and enabling the ground to support the weight of the on and off ramps that will be built on top.”

Nearby residents can expect some vibration during the pavement and stone column works. We will make every effort to minimise the impact of noise and vibration during the project. Regular vibration monitoring ensures works are carried out within Tauranga City Council’s consent conditions. If you have any concerns, please contact us.



One of the cranes that will construct the 3400 stone columns throughout the site

# Bay Link through the lens

When you’re driving through or walking and cycling past the Bay Link project it can be difficult to see exactly what’s going on behind the fencing, and the progress that is being made. Below are a selection of images - some of which were taken by CPB Contractors team members as part of their monthly photo competition.

**September 2018**



Earth being removed from the vacant land neighbouring SH29A and SH2 near Baypark, to install basal reinforcement, which is a form of ground improvement. Once installed, this is covered with structural fill.



The view over the Baypark and Te Maunga roundabouts shows the extent of the earthworks and ground improvements taking place at this part of the project.



## September 2018 cont...



**Rolling out grid.** Ground improvements are underway on the approach to the new Baypark roundabout, including the installation of geo grid. *Photo by: Evo Lauten, Environmental Coordinator*



**New kerbing.** The new city-bound on-ramp starts to take shape with the kerbing installed near the Bayfair intersection. *Photo by: Dean Taylor, Construction Manager*

## August 2018



**Southern gas pipe relocation.** Gas was purged, or burned off, before the new gas line at the southern end of the project was connected into the existing pipe. The new gas line was commissioned at the end of August after completing and testing three new connections. *Photo by: Sven Hellqvist, Site Engineer-Structures*



**Trial embankment.** The trial embankment was constructed in August and during the coming months instrumentation will be monitored to inform how the ground will react to loading, and confirm design predictions for the new embankments. To minimise dust, it has been top soiled and seeded with grass or covered with cloth. *Photo by: Brad Wallace, Senior Project Engineer-South*

## July 2018



**Compaction test.** The ground under the road is called subgrade and a strong subgrade contributes to a more durable pavement. In-situ California Bearing Ratio (CBR) testing is used to assess the strength of the subgrade which must meet specific levels before pavement construction can begin. *Photo by: Nick Jowsey, Site Engineer*



**Gas Defect Pit.** Installing the new gas lines near SH29A required the pipes to be pulled through an underground tunnel created by a directional drill. Once the pipes were in place they were tested and any damage repaired. The new gas line was commissioned on 30 August. *Photo by: Brad Wallace, Senior Project Engineer*



**Night works.** A paver, roller and truck are lined up ready to begin replacing deteriorated sections of the State Highway 2 road surface during a night shift. Under the right conditions, such as heavy rain events, potholes can form and we ask those travelling through the site to keep to the reduced speed limit for their own safety and the safety of others. *Photo by: Evo Lauten, Environmental Coordinator*

## Meet the team



**Dean Taylor**  
CPB Contractors Construction Manager

As the construction manager for the Bay Link project, Dean manages the CPB Contractors' construction team and the multiple construction timeframes and sequencing that comes with a major project like Bay Link. His team is focused on delivering the project efficiently and safely, with minimal impact to the public.

Earlier in his career, Dean worked in London and Vancouver before returning to Tauranga. He has

worked on the Tauranga Eastern Link, the Tidal Stairs on The Strand and the Kennedy Road bridge in Tauriko.



**Choonhian Chye**  
Beca Engineer's Representative

As principal's agent for the Transport Agency, Beca's role has involved preparing specimen designs, developing the principal's requirements and preparing contract documentation for this design and construct contract during the design phase, and construction monitoring during construction phase.

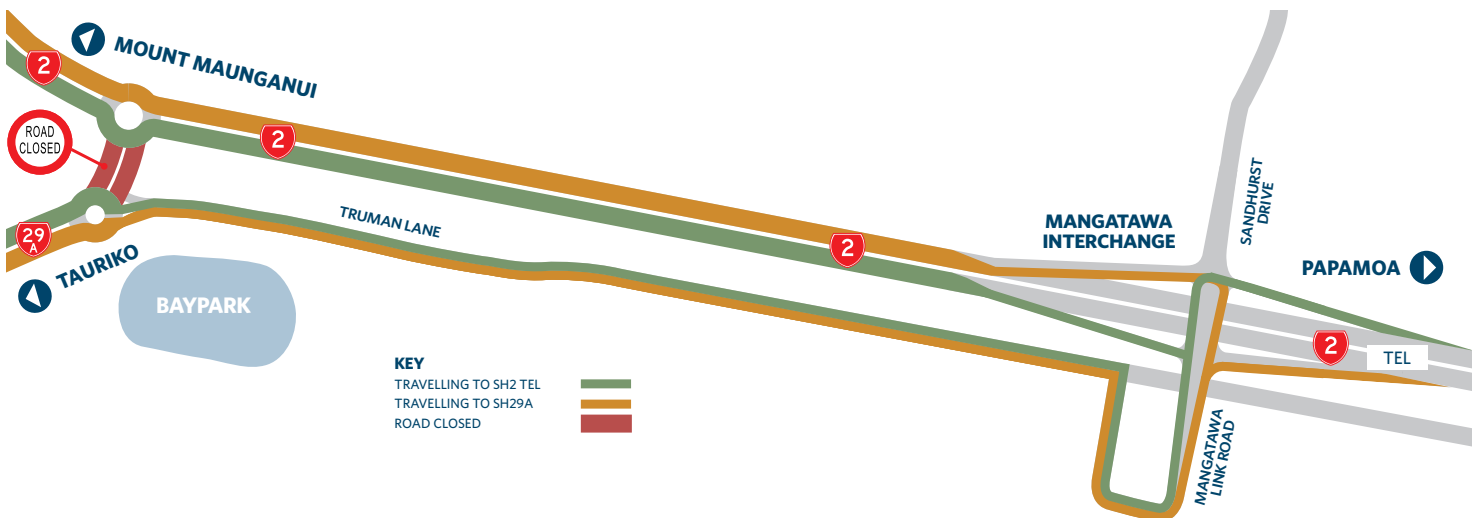
Chye has 12 years' experience in civil infrastructure construction projects in New

Zealand since moving here with his family from Singapore. He has worked on a number of Transport Agency projects including the Kopu Bridge replacement, the Tauranga Eastern Link and the Hairini Link.

## SH29A closures in November

**SH29A between the Baypark and Te Maunga roundabouts will be closed from 9pm Friday, 9 November to 4am Monday, 12 November 2018 and from 9pm Friday, 23 November to 4am Monday, 26 November 2018 to allow for stone column ground improvement works to be carried out. Detours will be in place along Truman Lane and Mangatawa Link Road.**

Motorists are urged to use alternative routes where possible or plan travel outside of these hours to avoid the detour. This work is weather dependent, and if delayed will be carried out on the next suitable weekend(s). The left-hand slip lane for SH2 TEL traffic travelling to SH29A at Te Maunga roundabout will be closed permanently from 12 November. Traffic will instead turn left at Te Maunga roundabout.



### SH29A to Mount Maunganui

Detour from Baypark roundabout along Truman Lane, Mangatawa Link Road, turn left at the traffic signals before crossing the bridge onto SH2 Tauranga Eastern Link (TEL) towards Mount Maunganui.

### SH29A to Papamoa/Te Puke

Detour from Baypark roundabout along Truman Lane, Mangatawa Link Road, cross Mangatawa Bridge, turn right onto SH2 TEL.

### Mount Maunganui to SH29A

Take Sandhurst Drive exit from the TEL, turn right at the traffic signals, cross Mangatawa Bridge and follow detour along Mangatawa Link Road and Truman Lane to Baypark roundabout.

### Papamoa/Te Puke to SH29A

Take Sandhurst Drive exit from the TEL, turn left at the traffic signals and follow detour along Mangatawa Link Road and Truman Lane to Baypark roundabout.

## Keeping you up to date

As part of our no surprises approach, we want to keep the community and road users as up to date as possible.



0508 222 4636



[nzta.govt.nz/baylink](http://nzta.govt.nz/baylink)



NZTAWaikatoBoP



NZTAwaibop

To see our weekly traffic notices, project overview, and to sign up to our regular newsletters go to [www.nzta.govt.nz/baylink](http://www.nzta.govt.nz/baylink)

To receive the regular newsletters by post text or call 0508 222 4636