

## Welcome to the Construction Update for the Baypark to Bayfair Link (Bay Link) project.

CPB Contractors is carrying out the design and construction for Bay Link. The monthly updates provide an overview of what's happened and what's coming up for the project.

### Back to work at Bay Link

Since resuming work on the Bay Link site at Alert Level 3, we have progressed some important elements of the project.

#### Bayfair (northern end):

- The relocation of a large stormwater pipe within the Bayfair roundabout (pictured right) is now complete. This 1200mm diameter pipe, which runs underneath the roundabout, was diverted to make way for upcoming ground improvements to support the flyover.
- Earthworks have been underway in the middle of State Highway 2 / Maunganui Road (SH2) preparing the subgrade for the construction of the permanent pavement.
- Inclusion of an underpass for pedestrians and cyclists north of the Bayfair roundabout was confirmed during April. Technical investigations showed retaining the existing underpass isn't possible and the current structure will be demolished, with a new one built. More information on the timings will be made available over the next month.



#### Baypark / Te Maunga (southern end):

- Construction of several of the project's Mechanically Stabilised Earth (MSE) walls is underway in the Baypark area. These will enable works to commence on the bridges over the rail line and SH2.
- About 100m of concrete barriers have been removed from the middle of State Highway 29A (SH29A) and the location of the existing traffic lanes adjusted to enable the adjacent work zone to expand.
- Cone penetration testing, which helps confirm the ground improvements are constructed correctly, has been completed near the Te Maunga roundabout.
- The southern wetland, a large stormwater pond created to hold water in the event of heavy rain or flooding, is 75% complete.
- Pavement works have begun on the new southern roundabout which is visible to traffic heading east along SH29A.

We are pleased to see our project neighbours, including those at HomeZone, Bayfair and elsewhere, resume trading after the COVID-19 lockdown and encourage you to support these local retailers. Please drive with care through the project site.

### Looking ahead this month

The project's MSE walls will continue to grow, giving visual clues as to the location of the elevated structures that will form part of Bay Link. Also this coming month:

- The new southern roundabout on SH29A will progress with construction of the pavement and kerb.
- The southern wetland will be completed.
- Designs, which are well underway for the new underpass, will progress alongside construction of the second temporary signalised crossing on the south-bound lanes of SH2 outside Bayfair.
- A drilling rig will start construction of a secant pile wall to be built parallel to The Church of Jesus Christ of Latter-day Saints. A secant pile wall is a retaining wall constructed below ground to retain the ground from pushing away from the nearby structure's foundation. It is constructed by drilling holes into the ground that are filled with concrete and will contain the footings of nearby structures.

### Mechanically Stabilised Earth (MSE) walls taking shape

Sixteen permanent MSE walls are being constructed throughout the Bay Link project and will form the sides of the bridge abutments and on/off ramps. The techniques being used are sandbags with reinforced high-density plastic grid and concrete blocks with steel reinforcing ladders.

Sandbags are filled onsite with a sand and cement mix that hardens once the bag is in place. The bags are stacked in rows on top of a reinforced high-density plastic grid which is then pulled back behind the emerging wall, providing reinforcement as it progresses. About 500 sandbags are being filled and placed in a day, covering 33m<sup>2</sup>.



Concrete blocks are stacked on top of one another and strengthened by high-grade steel reinforcing ladders fitted horizontally behind the wall face. About 371 concrete blocks are being stacked per day.

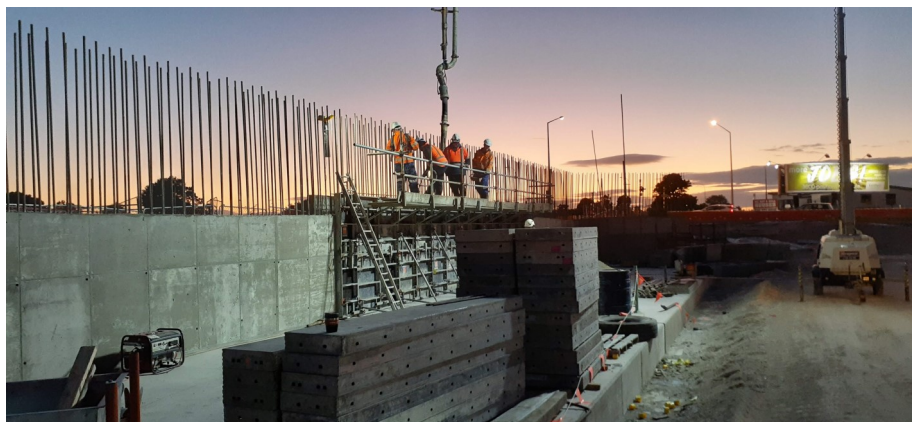


#### Bay Link's walls by numbers:

- The Bay Link project's 16 MSE walls will cover just over 10,200m<sup>2</sup>.
- About 23,200 concrete blocks and 122,200 sandbags will be used in total. That's enough material to fill 8 Olympic-sized swimming pools.
- High-grade steel reinforcing ladders are also being used – 11,600 of them. Laid end to end, these ladders would reach from the Bayfair roundabout to Katikati and back again (more than 95km).
- Where the walls are built next to live traffic, the location of lanes on the road is adjusted to ensure the nearby work zone is safe.

#### Rail impact walls:

The Bay Link project features two rail impact walls next to the railway line. These concrete walls are designed to protect the MSE walls supporting the new bridge over the railway from collapsing if they were ever hit by a derailed train. The first of these walls has been poured, with 300m<sup>3</sup> of concrete delivered in 60 truck-loads used for the slab and the vertical wall face.



#### For more information

