# CENTRAL BULLETIN

Western Springs site, Great North Road, Grey Lynn

We're building the Central Interceptor, a super-sized wastewater tunnel to reduce overflows, creating a better environment for you to enjoy.

# Site update

The team on site has been busy since our last update to you. We have excavated the shaft to its final depth, poured the base slab and started to construct the concrete walls of the shaft. Given the height of the walls, they need to be poured in nine different sections called lifts. Two of the lifts have been poured and the remaining seven will be installed before the end of the year. For our concrete pours we need lots of concrete trucks. Every truckload is tested by our quality team onsite before it can be poured into the shaft to ensure that it meets the standard required.

We have also started installing the pipes that will connect all the existing networks to the Central Interceptor. This section of work has been tough going due to the amount of basalt we have had to dig through.

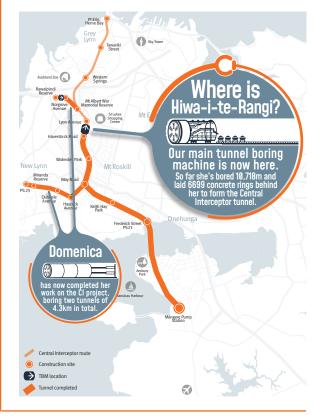
The team has also excavated a six metre-long adit (hand-dug tunnel) near the base of the shaft. The adit will not be connected as part of our current works but will enable potential future connections when the need arises.



# **Tunnel progress**

Check out our website which now has a weekly update of the TBM's progress. https://www.watercare.co.nz/Central-interceptor/Constructing-the-Central-Interceptor.

You can also follow us on Facebook, or Instagram.









## What's next

We will continue to excavate and install pipes that will divert the local networks to the shaft, and we will also start on the bifurcation chamber on Stadium Road. A bifurcation chamber enables the flow to be switched between different downstream pipes as needed.

We are also expanding our site closer to the bush area at the rear so that work can start on the permanent plant room and associated ducting.





### Why is our shaft a bit different?

The shaft at Western Spring is one of two vortex shafts on the project. A vortex drop shaft receives wastewater at a higher incoming elevation through a vortex channel that will be installed by the site team once the walls are complete. The vortex intake creates a downward 'spiral' path for the wastewater to travel down the shaft.

As wastewater flows down it dissipates energy through friction, safely conveying incoming flows from a higher elevation to the invert of the shaft and into the Central Interceptor below.

The other construction site shafts are cascade drop shafts where the water drops down a series of shelves dissipating the energy before it enters the Central Interceptor below.

# Who it takes to build the Central Interceptor

The Central Interceptor project stretches across 17 sites from Mångere to Pt Erin, Herne Bay. Each of these sites has a team of people working on various activities and construction stages. There are numerous jobs on this project, each requiring different skills, backgrounds, experience and qualifications. This regular feature will give some insight into one of the many important roles on the project.

#### **Technical Engineer**

#### What is a technical engineer?

A technical engineer is responsible for coordinating and managing the completion and delivery of designs that are required for the entire duration of a construction project. The designs need to be completed on time and need to take into consideration a wide array of factors as constructability, cost, geology and other site constraints to name a few.

#### What are the daily activities of this role?

A technical engineer is responsible for coordinating and managing the completion and delivery of designs that are required for the entire duration of a construction project. The designs need to be completed on time and need to take into consideration a wide array of factors such as constructability, cost, geology and other site constraints to name a few.

A typical day includes liaising with the construction team, the Client, subcontractors and CAD drafters in order to facilitate a smooth design process and to produce coordinated designs that work and satisfy the needs of all parties. Design changes and technical queries are also managed by the technical engineer.



Joey Tong, Assistant Design Manager for CI project

#### What qualifications do you need?

A Bachelor of Engineering (Honours) degree.

# What is one of the challenges of being a technical engineer on the project?

Due to the size of this project and having all 16 sites open now, it can mean juggling up to 20 different designs in parallel, all of which will be at different stages of design, with different complexities of their own and competing demands.

#### Is there anything about the job that might surprise people?

Construction is such a dynamic and fast-paced environment, so sometimes you turn up to work and end up doing something completely different than what you had planned due to urgent and unforeseen work that comes your way.

#### Any questions?

For up to date information please see our website:

www.centralinterceptor.co.nz

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