

CENTRAL INTERCEPTOR BULLETIN

Norgrove Avenue site, Norgrove Reserve

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

Site update

Construction at our Norgrove Avenue site has been tracking well since site establishment started. If you have driven past our site, you would have noticed that we have taken up space in the roadway for the shaft and site establishment included working with our neighbours to create temporary access.

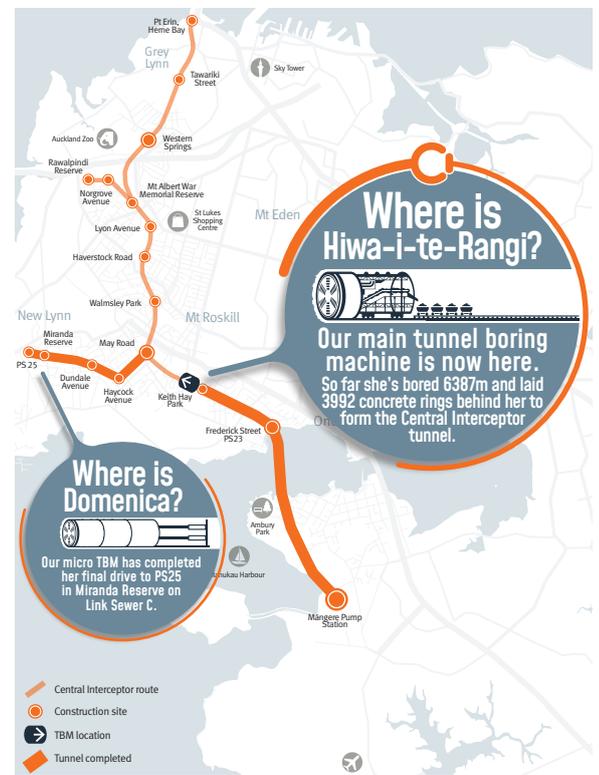
Our contractor has finished the first big stage of work, drilling 46 secant bored piles. Secant bored piles are concrete piles that form the outside ring of the shaft and stop the soil from caving in while we excavate the shaft. This shaft will have a completed depth of 29 metres.



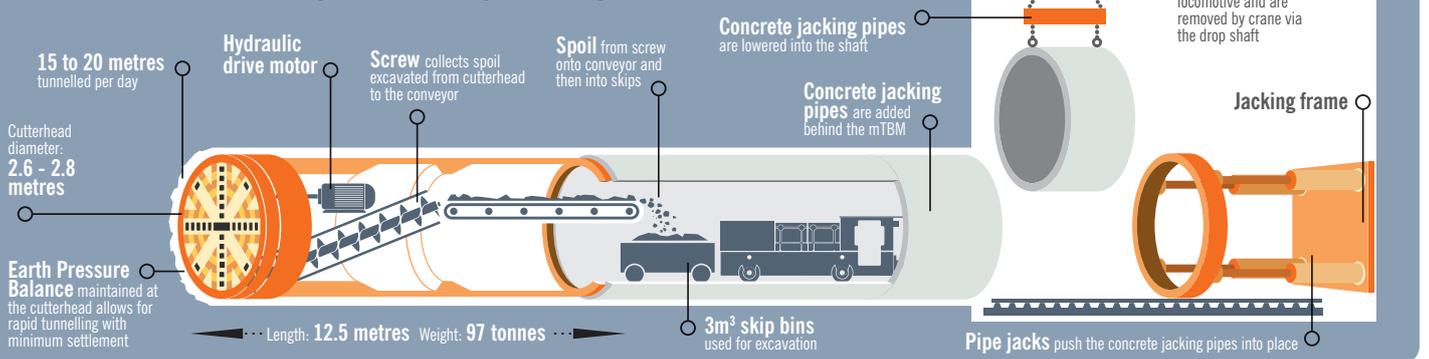
Tunnel progress

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.



micro-Tunnel Boring Machine (m-TBM): Domenica



The shafts and micro-tunnels team has moved onto the site and is working on setting up the site to begin excavation of the shaft. The mTBM (micro-Tunnel Boring Machine), Domenica, will arrive at Norgrove Avenue in September after tunnelling 800 metres from our Mount Albert War Memorial site.

From here, we will lift Domenica from the shaft and take her to our Rawalpindi Reserve site, where we will lower her into the shaft there and she will tunnel back towards our Norgrove Avenue site shaft. The drive from Rawalpindi Reserve to Norgrove Avenue is 300 metres.



Norgrove tree stumps

When setting up the site establishment space, our team removed several trees from the reserve at the end of Norgrove Avenue. We are always looking for ways to help our community and reuse materials. The project engineer on site saw an opportunity to donate the tree stumps to a local kindergarten.

The kids at the kindergarten were thrilled to receive the tree stumps and have been enjoying playing with them. It has been a great addition to their play area. We're excited to keep looking for more opportunities to make a positive impact in our community.

Who it takes to build the Central Interceptor

The Central Interceptor project stretches across 16 sites from Māngere to Grey Lynn. 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.

Micro Tunnel Boring Machine (mTBM) Operator

What is an mTBM operator?

They are the pilot/driver of the mTBM. We have two experienced mTBM operators working on the Central Interceptor project.

What qualifications do you need to be an mTBM operator?

There is no formal qualification required to become an mTBM operator. For our project, the requirement is first-hand mTBM experience for two or more years.

What are some of the daily activities for an mTBM operator?

An mTBM operator will start their day with the site team completing a pre-start. Pre-starts are where the team gets together to discuss the work for the day, safety requirements and other important information. They then travel through the tunnel via electric locomotive to reach the mTBM to begin driving the machine. Their job is to drive the mTBM, operate it correctly and efficiently and inspect the mTBM to ensure everything runs as smoothly as possible.

What are the challenges of being an mTBM operator?

There are unique challenges for those working underground, especially when it comes to tunnelling. The space is confined and there is no natural light or air ventilation. There are risks of exposure to air

contaminants, fire and floods. Our mTBM operators are skilled and experienced, having been trained to know what to do if an emergency occurs underground.

One of the biggest challenges for our mTBM operators is driving and steering the mTBM completely "blind". The operators use a gyro navigation system to guide the mTBM through the earth. The gyro system is a device that uses gravity to determine the orientation of the machine and reports directional information back to the operator. The mines survey team (part of the tunnel crew) carries out periodic surveys every 40-80 metres to ensure that the mTBM is moving in the right direction

Despite the challenge that is driving blind underground, our operators have achieved four breakthroughs into our receiving shafts on Link Sewer C with incredible accuracy.



Any questions?

For up to date information please see our website:

 www.centralinterceptor.co.nz

You can also email us at:

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Or phone:

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