

Clementhorpe Flood Alleviation Scheme

Project update

November 2021

This document provides an update on the Clementhorpe Flood Alleviation Scheme. It has been shared via our electronic mailing list and made available on our webpages.

We have prepared this newsletter to share with you information about a key piece of work that is due to begin on Monday, 15 November 2022.

Deep Soil Mixing

A key feature of the flood defences being built is the creation of an approximately 240 metre long, up to 6-metre-deep semi-impermeable barrier underneath Terry Avenue. This barrier is necessary to prevent flood waters seeping through the ground, passing underneath the above-ground flood defences, and flooding low-lying areas behind the flood defences.

The underground barrier is created by inserting a grout mixture into the soil. This process is known as “deep soil mixing” (DSM). This is done via a rather large DSM machine that has an auger, similar to a corkscrew. The head of the auger rotates into the ground until it reaches the intended clay layer below ground. It then slowly unwinds, coming back up out of the ground and as that happens, grout is inserted into the soil.

The DSM machine doing the works is a big one, approximately 18 metres tall and 55 tonnes in weight and it is due to arrive at Terry Avenue on Wednesday 17th November. The work will begin at the northern end of Terry Avenue near Postern Close steps and will move down Terry Avenue finishing at the bottom of Dukes Wharf ramp. We expect the work will be completed in January 2022, although this may change if there is any flooding.

The DSM machine will access Terry Avenue via Clementhorpe Road, this is due to the large size of the lorry delivering the plant and equipment, making it impossible to access via Butcher Terrace. To ensure enough space for access, parking will be restricted on the south side of Clementhorpe for three days, from the early hours of Monday, 15 November 2021 to the afternoon of Wednesday, 17 November 2021. The road closure in advance of the DSM machine arriving on the Wednesday is to enable other machinery to arrive and to secure the access route.

Given the size of the DSM machine, we can appreciate that residents, if not forewarned, might be concerned as to the impact of the DSM machine. As such, we would like to allay these concerns with some information about the DSM machine:

- The DSM machine will create minimal vibrations due to the nature of how it digs the ground. We will however have vibration monitors nearby to confirm and monitor this;
- The DSM machine will generate noise emissions around 65 to 75 decibels, which will be near to the ground level. A noise level of 65 decibels is equivalent to the noise generated by laughter, or a conversation, whereas 75 decibels is equivalent to a vacuum cleaner or a washing machine. The planning conditions that we must adhere to require that the average noise level over a ten-hour period cannot exceed 65 decibels. There will be noise monitors placed close to the works to monitor noise levels;
- There will only be small amounts of soil removed from the ground and the risk of what is dug up entering the river is minimal;
- There will be a protective “Shroud” at the top which will prevent any oil leakage; and
- Terry Avenue will be reinstated after the works are completed.



The silo for the cement that goes into the grout mixture will be located on top of legato blocks (i.e. big interlocking concrete blocks) close to Skeldergate Bridge, opposite the north end of Postern Close. The legato blocks are necessary to protect the cement silo in the event of a flood. However, this does also mean that the Cement Silo is elevated by a few metres. This silo will be in place until the grout barrier along Terry Avenue is complete. The platform will be surrounded by acoustic barriers and hoarding. This will limit the noise pollution and help respect the privacy of the properties opposite the legato blocks (as any personnel tending to the cement silo will not be able to view the Postern Close properties).

Grout delivery wagons will be accessing Terry Avenue via Bishopgate Ramp, then once on Terry Avenue, the wagons will pump out grout into the silo, then drive back out via Bishopgate Ramp. This will occur no more than once per day, taking approximately 15 minutes to complete and will only be done after 09:30.

If you have any questions, please do not hesitate to get in touch.

How can I contact the Environment Agency?

If you have any questions about any information in this update, or any other aspect of the scheme please contact us, or our contractor JBA Bentley, via phone or email. You can also sign up to our mailing list to get future correspondence via email. We will be sharing updates on our scheme via our website, email newsletters and social media pages.

- Email the Environment Agency at: yorkfloodplan@environment-agency.gov.uk
- Email JBA Bentley for construction work or site compound related queries at: aimee.ramsden@jnbentley.co.uk
- Webpages: <https://consult.environment-agency.gov.uk/yorkshire/yorkfas/>
- Facebook: search for 'York Flood Alleviation Scheme'
- Twitter: @EnvAgencyYNE
- Post: FAO: Clementhorpe Flood Alleviation Scheme Team, York Flood Plan Team, Environment Agency, Foss House 1-2, Peasholme Green, Kingspool, York, YO1 7PX
- Phone for general inquiries: We encourage members of the public to contact the team by email. However, if you are unable to access emails, you can ring our National Customer Contact Centre (NCCC) on 03708 506 506. NCCC will note down your query, send it on to the project team and then a member of our team will look to ring you back.
- Alternatively, for construction and compound related queries, you can ring JBA Bentley's community engagement officer, Aimee Ramsden, between 9:00 and 17:00 Mon - Friday on 07814 283906.
- In case there is an emergency outside of working hours, please ring the Environment Agency Incident hotline on 0800 80 70 60.
- Come and meet us at our engagement cabin on the edge of the compound. The cabin will be open from Monday, 17 May 2021. It will be staffed on Mondays, Tuesdays & Thursdays between 9am and 12pm and 1pm and 5pm.

