

## INTRODUCTION

HyNet is the UK's leading industrial decarbonisation project which aims to unlock a low carbon future in the North West of England and North Wales by reducing carbon dioxide emissions from industry and supporting economic growth in the region. As part of the project delivery for a carbon capture and storage (CCS) system to serve the HyNet industrial cluster, three spur pipeline developments are proposed. The spur pipelines will allow for carbon dioxide to be safely transported between industry sites and the CO<sub>2</sub> storage facilities in Liverpool Bay. This factsheet explains how we will construct these pipelines.

The pipelines will typically be installed above-ground through industrial land and buried through agricultural land. To install the buried pipelines, we plan to use an open-cut trench technique. This will involve digging soil to form a trench, lowering the pipe into the trench, and backfilling it with the excavated soil.

In some cases, we will need to use trenchless techniques to install the pipelines, for example when installing them under railway lines, major roads and riverbeds. In these cases, we will use methods such as **horizontal directional drilling, auger boring, or micro-tunnelling**. These techniques allow us to install the pipeline while allowing roads and railways to remain open and rivers to continue flowing. Illustrations of these techniques are on the back of this factsheet.

The pipeline will typically be buried 1.2m deep in open cut sections and deeper for trenchless crossings to avoid existing services and physical obstructions.

Although the pipelines are relatively small (maximum diameter of 20 inches or approximately 51cm), the space needed to safely install each pipeline will typically be 25-27m wide. This allows enough space to dig the trench and lay the pipe, as well as providing space for storing soil during installation and enabling access for vehicles. Additional space will be required in locations where we need to execute a trenchless crossing.

Once installed and buried, the pipeline will be a quiet neighbour and not visible or noticeable to most people (except from marker posts) as the working area will be reinstated and handed back to the landowner.

## KEEPING YOU SAFE

During construction, we will take all precautions to keep everyone safe. There will be barriers around our temporary work areas and appropriate security in place. Should we encounter any unforeseen materials, we will remove and safely dispose of them.

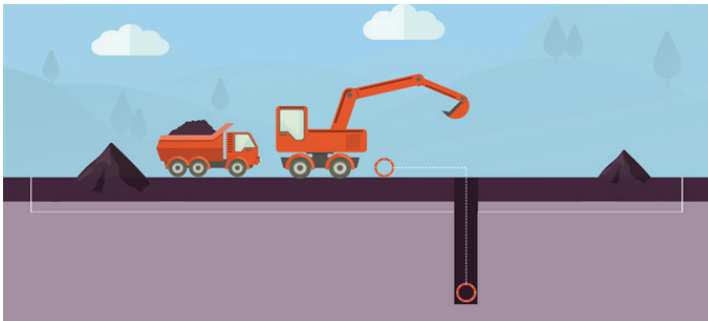
As one of the conditions of the lease over landowners' land, a 24.4-m easement around the pipeline will be in place once the pipeline is installed. This is to prevent any development on top of it which could pose a safety risk to the pipeline. Farm tracks and vehicles, however, will be able to safely cross over the pipeline.

## MINIMISING OUR IMPACT

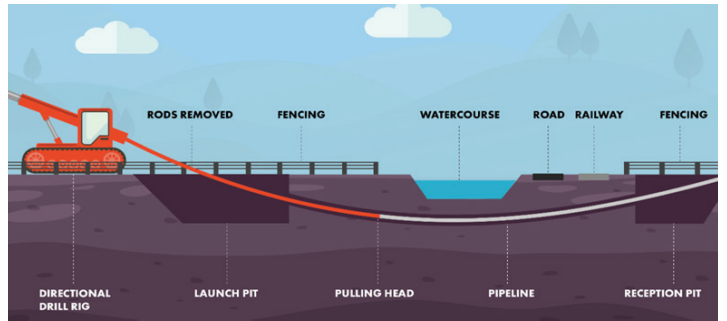
We will do everything we can to minimise disruption, including only working during the daytime and keeping traffic to a minimum. Some locations where trenchless crossings are being carried out will require working 24 hours a day, but this will be for short periods.

Once the work is complete, we will return the land as closely as possible to its original condition. We will replant or replace hedges or fences after construction where possible.

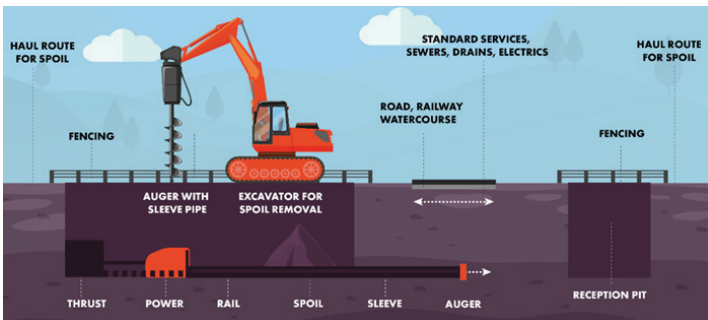
## OPEN CUT TRENCHING



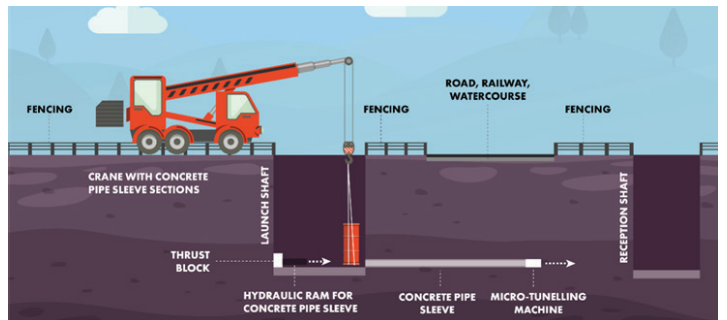
## HORIZONTAL DIRECTIONAL DRILLING



## AUGER BORING



## MICRO-TUNNELING



## MORE INFORMATION

If you have any questions regarding the construction process, please email us at [hello@hynethub.com](mailto:hello@hynethub.com)