



SUMMIT CARBON
SOLUTIONS

HORIZONTAL DIRECTIONAL DRILLING

WHAT IS HORIZONTAL DIRECTIONAL DRILLING (HDD)?



Horizontal Directional Drilling is a minimally invasive technique that reduces construction risk in either congested and/or sensitive areas.

HDD is trenchless, in other words, it does not require the construction of above ground, linear trenches, thus making it the preferred construction method in areas where surface disturbance is either not permitted or presents risk to the existing infrastructure (roads, railroads, pipelines, sewer lines, other utilities, or environmentally or historically sensitive areas).

HOW DOES HDD WORK?

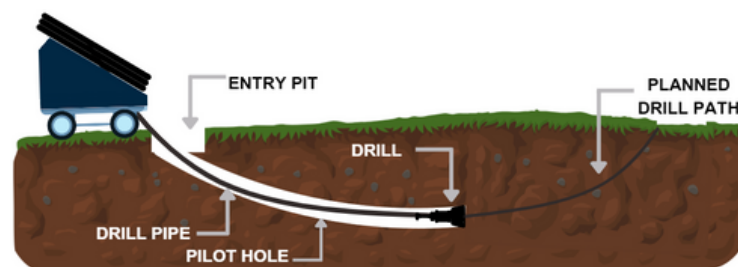


HDD utilizes 3 basic procedures which are:

1

PILOT HOLE

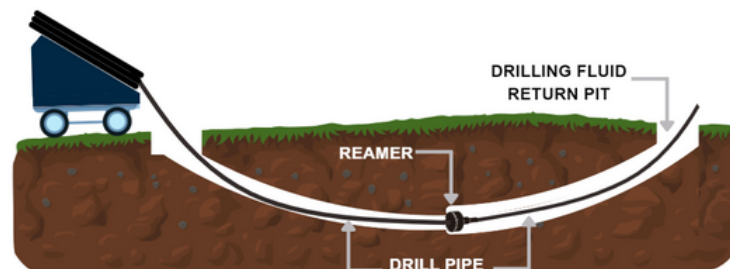
This is the initial pass that sets the course/direction to ensure the drill follows the predetermined path and exits at the specified location. The driller uses a tracking system to direct the drill head in the direction it needs to go.



2

REAMING

This process begins when the Pilot Hole is complete and is the process of opening the drilled hole large enough to accept the pipeline. Drilling fluid, which typically consists of bentonite and water, is non-hazardous, and utilized to carry soil cuttings to the surface, as well as, lubricate and cool the drill bit.



3

PULLING

Once the hole is open to the desired diameter, the pipeline is pulled through with the HDD rig to complete the crossing.

