



HORIZONTAL DIRECTIONAL DRILLING (HDD)

Established in 1987, Alline is Hawaii's longest serving HDD contractor. Alline has installed electrical, telephone, CATV, gas, water, drain and sewerline for government agencies and private interests throughout the State of Hawaii in hundreds of different bores totaling more than 50,000 LF. Alline has used HDD to install lines from 2 to 24-inches in all types of soil conditions. Alline welcomes technically challenging jobs and we can meet very demanding scheduling constraints.

HDD can install any type of utility where site conditions demand minimal environmental disturbance or traditional open cut methods are simply not cost effective.

HDD advantages include:

<ul style="list-style-type: none"> Minimal traffic disruption 	<ul style="list-style-type: none"> Reduced asphalt, concrete and landscape restoration 	<ul style="list-style-type: none"> Minimal archeological impacts
<ul style="list-style-type: none"> Installation possible under existing buildings and roadways 	<ul style="list-style-type: none"> Possible in sensitive environmental areas: stream crossings, etc 	<ul style="list-style-type: none"> Less potential for settlement damage

HDD Drilling Procedures

Specialized drilling machines drill a pilot hole from an entry point downward at an angle to a desired depth where the drill path levels out, proceeds horizontally and then rises to an exit point on the surface. There is a steering mechanism on the drilling unit that ensures the planned bore path alignment and grade are maintained. The drilling head has a transmitting beacon attached to it so the progress and position of the drill is accurately determined by tracking device on the surface.

Drilling bits designed to cut while being pulled back through the pilot hole are called backreamers. Backreamers are used to enlarge the pilot hole if necessary. When the drill path has the proper diameter the utility lines are attached to the backreamer and pulled back through the pilot hole. Specially formulated drilling mud lubricates the drill bit as it cuts, transports spoils out of the drill path and maintains the structural integrity of the drill path prior to the installation of the utility line.