



Power Delivery Consultants, 2012

Typical HDD Set-up and Equipment

- Drilling rigs
- Vacuum trucks
- Excavators
- Water trucks
- Hydraulic pumps
- Additional construction equipment and vehicles as required

There will be a continuous level of noise at the HDD drill rig sites and intermittent noise levels at the pipe assembly locations. SCE is committed to implementing noise mitigation measures to minimize noise to the extent possible.

Anticipated Construction Schedule

HDD construction activity will begin in early November 2014 and continue through the end of 2015.

Chino Hills locations

Mon–Fri: 7:00 am–7:00 pm
Sat: 8:00 am–6:00 pm

Chino locations

(west of Pipeline Avenue)
Mon–Sat: 7:00 am–8:00 pm

Extended Work Hours

While not anticipated, there may be instances when construction crews may have to work outside of normal operating hours, including Sundays. This is particularly true during the conduit pull back phase. During this phase, it is critical that the task be completed, without stopping, once it has begun. SCE will notify impacted residents if any work will be performed beyond the normal operating hours/days.

For More Information

Give us a call, send an e-mail or visit our web site if you have questions about construction related activities.

Project hotline: (877) 795-8787

E-mail: trtp@sce.com

Project web site: www.sce.com/trtp



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Tehachapi Renewable Transmission Project (TRTP) 500 kV Underground Horizontal Directional Drilling (HDD)

In July 2013, the California Public Utilities Commission (CPUC) directed SCE to construct a portion of the electric transmission line *500 kilovolt (kV)* underground in portions of Chino Hills and Chino. SCE is moving forward to safely and efficiently construct the underground line, a first-of-its-kind project in the United States.



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There are several major components associated with undergrounding a 500 kV line. The majority of the work will be completed using a method called “trenching.” Trenching generally refers to digging or excavating, which will be conducted with use of large construction equipment in order to install the electrical transmission facilities underground. Trenching is the most common method of constructing underground electrical facilities when the ground above is free of obstacles such as buildings, bodies of water, or flood control channels.

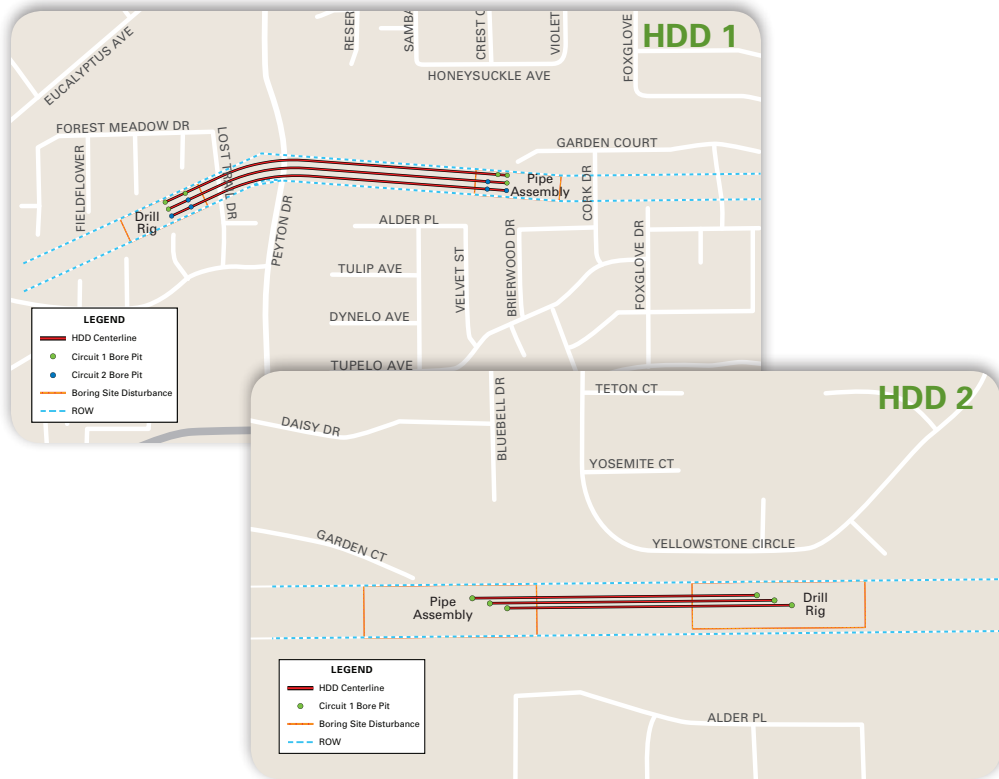
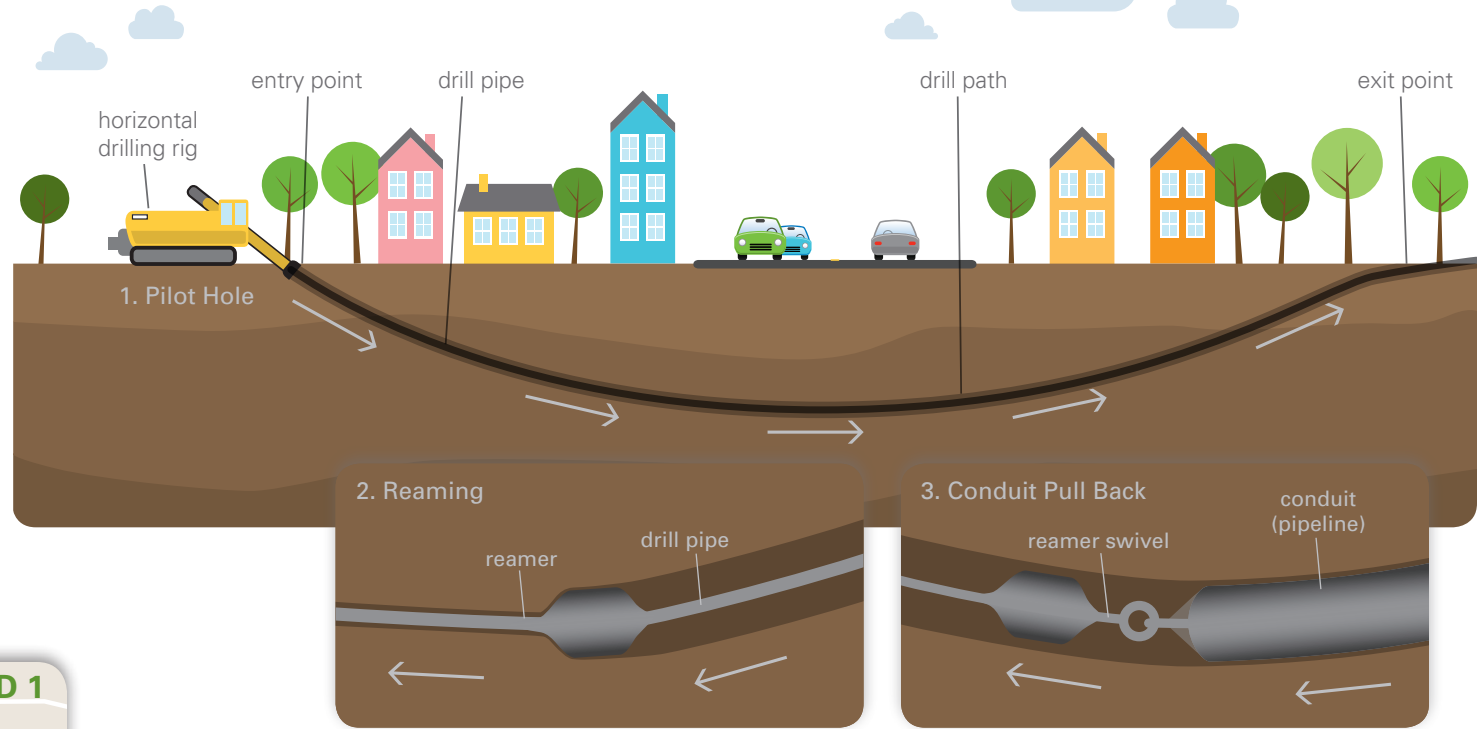
Horizontal Directional Drilling (HDD) is a method of installing underground utilities when trenching work is impractical to perform. The 500kV underground project in Chino Hills and a portion of Chino will require two HDD sites along the route.

- The first HDD site (HDD 1) will be situated between a location west of Lost Trail Drive and a location west of Cork Drive in Chino Hills. This HDD site will require a total of six bores.
- The second HDD site (HDD 2) will be situated between a location south of Yellow Stone Circle in Chino and a location east of Lobelia Drive in Chino Hills. This location will require a total of three bores.

Horizontal Directional Drilling (HDD)

The HDD construction sequence has three major activities.

1. A small-diameter pilot bore is drilled from the entry point to exit.
2. The pilot bore is enlarged by reaming (widening) to approximately 36” diameter.
3. The final activity (conduit pull back) consists of pulling conduit through the enlarged bore.



HDD Fluid Management

The Horizontal Directional Drilling (HDD) process utilizes a Bentonite/water based drilling fluid. Bentonite is a naturally occurring clay derived from volcanic ash. The basic fluid combination consists of active clay, inert solids and water.

The fluid is prepared in a mixing tank and is pumped from the tank through the inside of the drill pipe to the cutting bit in the drilled hole. The fluid acts as a drill hole stabilizer lubricant and carries the drilled cuttings (material removed from the bore) out of the drill hole back to the surface where they are pumped from a collection pit into processing equipment. The cuttings are then separated from the drilling fluid and the drilling fluid is reused (recycled). The separated cuttings are then disposed of at an approved disposal facility. Drilling fluid storage, mixing equipment, drilled cutting storage and refuse storage will be a minimum of 50’ from any waterway.

The bentonite/water drilling fluid is the same drilling fluid utilized for water well drilling construction and is standard industry practice. It carries a non-hazardous material classification with no impacts to the ground water quality. The HDD plan is being reviewed for approval from the State Water Resource Control Board (SWRCB). Approval of the plan from the SWRCB is required before construction begins.