

LIMERICK TUNNEL PPP – RIVER SHANNON CROSSING

ROTARY BORED



Description:

Lagan Construction came to us during design stage looking advice on how to drill and install the pile toe dowels. We advised them on the method of construction and on the temporary works required.

3 nr Rotary bored piling rigs were used for this job, a Casagrande B250 a Casagrande B170 and Casagrande B125

In addition we had 2nr 750cfm compressors a Schwing concrete pump and an attendant crane.

Quinn Piling's work involved the cleaning out of 162nr 1564mm diameter piles using a combination of rotary augers and cleaning buckets.

Pile depth of up to 30m and volumes up to 40m³ were removed from some piles, once the internal of the piles were cleaned out to the top of bedrock a Down the Hole Hammer was attached and the bedrock drilled at 600mm diameter.

Once bored the rocket socket was cleaned using a combination of rotary buckets/airlift.

Concrete was then installed using a concrete pump down a tremi pipe to the bottom of the rock socket.

The rotary bored rig with special attachment picked up the toe dowel and inserted it into the fluid concrete in the bottom of the pile.

Quinn Piling supplied all plant personnel and concrete and carried out all the works associated with the drilling and inserting the toe dowels, Lagan Construction supplied the dowels and the dumpers for removing the spoil.

Title: Limerick Tunnel PPP – River Shannon Crossing

Contractor: Direct Route JV

Engineer: NRA

