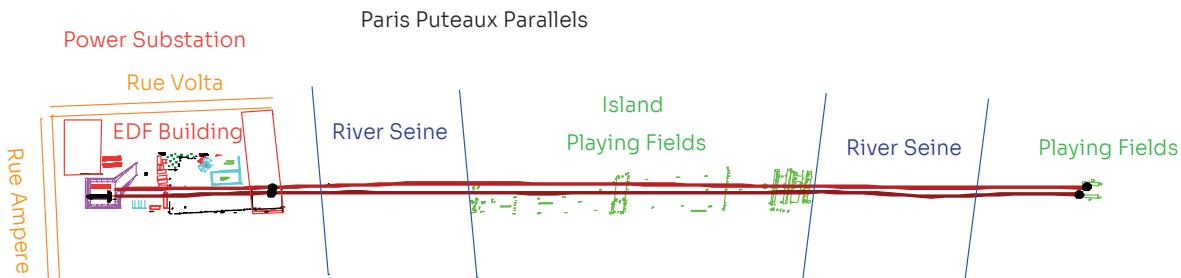




Paris Puteaux Crossings



March 2001



Horizontal Drilling International contracted to drill two five meter parallel crossings in the rock under the Seine River in Paris. The crossing started in an excavated pit since the crossing needed to pass under the Electricity de France building at the edge of the river and the entry point was close to the building. The right of way would pass under one of the islands in the Seine and exit inside playing fields on the Paris side of the river. They chose ParaTrack 2 since a high degree of magnetic interference was expected to significantly impact accuracy if conventional guidance methods were employed.

For the first crossing, a surface ParaTrack cable was installed on centerline on the island and across the section of the Seine which was closed to navigation., all the way to exit. There was only a small section from the rig to the EDF building to install guide wires but position fixes were obtained prior to drilling under the high rise and across the section of the Seine open to navigation. The location of the pilot moved too far off line, when picked up after crossing the first section of the Seine. A short pullback and sidetrack was made and drilling continued to exit.

Using assumed positional references for location of the first hole, a cable was installed inside the drill pipe and earthed. The second hole was drilled using ParaTrack 2 references from the first.

Now, ParaTrack Operations gives contractors the confidence, after installing a surface or underground cable All the Way from Entry to Exit, to guide the pilot hole with positive control throughout the crossing thus removing normal positional uncertainty when drilling with azimuth alone.

Call Prime Horizontal for Information about ParaTrack Guidance Services.