



Miscellaneous

Reference Details:

Owner Departmental Council of the High Pyrenees, France +++
Contractor Cabinet d'Etudes Technique Jean Frugier, France +++
Company LTP, France

DSI Unit DSI France
DSI Services Supply of DYWIDAG Ductile Iron Piles with an overall length of 160 m, Ø 170 mm and accessories; Technical assistance.



First Use of DYWIDAG Ductile Iron Piles

Stabilization of a road connection in the Pyrenees

The partial collapse of an old stone retaining wall required stabilization of approximately 40 m of the RD13 road in the French community of Arras en Lavedan.

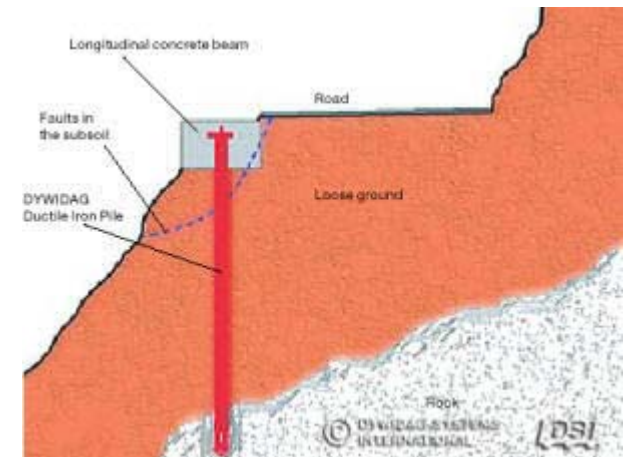
An alternative proposal submitted by DSI France convinced the owner to use DYWIDAG Ductile Iron Piles to stabilize the road. The piles allow for easy and fast installation on the job site. Stabilization included the construction of a longitudinal concrete beam founded on the piles. The DYWIDAG Ductile Iron Piles driven beside the road were anchored in solid rock at a depth of about 6 m. For this purpose, the piles were provided with a tip for driving to reach the bearing layer in the rock.

To enhance the bearing capacity of the soil in the immediate vicinity of the piles, the piles were concurrently injected with grout during driving in accordance with consulting engineer Jean Frugier's proposal. This was easily and quickly achieved by means of an injection adapter. During installation a gauge ensured that pressure and volume of the cement injection were

continuously controlled during driving.

In addition to the foundation construction, the use of this system allowed for sustained soil improvement. Because it was easy to exchange the dredging shovel with a rapid percussion hammer fixed to a mechanical shovel excavator the terracing of the longitudinal beam and the driving of the piles could be carried out quickly and economically.

A total of 25 DYWIDAG Ductile Iron Piles spaced at 1.60 m were driven in July 2005. The use of this efficient technique and simple equipment made it possible to complete the project in a very short period of time. This first successful use of DYWIDAG Ductile Iron Piles in France will surely be followed by many more in the future.



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