

ÉLMÉNYOTTHON Architectural Group

Replacing Trench Mesh in Residential Slabs

BarChip Inc.
The Synthetic Fibre Experts



JKP | STATIC

*"BarChip Eliminated 4 Weeks From the Construction Schedule,
Saving a 5 Worker Crew 19 Days of Construction Time"*

It's the things you don't see that separate the good from the bad in residential construction, things that ensure a house will stand the test of time. Good builders make sure they're done right. The layout, framing behind walls, electrical and plumbing, the grout underneath tiles and the concrete in the ground just to name a few.

ÉLMÉNYOTTHON Architectural Group in Hungary are a builder that does these things the right way. ÉLMÉNYOTTHON follow the Spatial Experience Design System and put their clients needs at the centre of all design choices. With this approach they ensure the core of the house and the foundation of life within it will suit any aesthetic finishes a client might choose.

Recently, ÉLMÉNYOTTHON have begun replacing the trench mesh in house slab foundations with BarChip macro synthetic fibre. ÉLMÉNYOTTHON's CEO Tibor Eckhardt explains:

"Choosing a BarChip fibre reinforcement system was a logical decision. Our foundations are stronger and more durable which which raises our house's value to last for generations. It's also much easier and faster for our workers to install"

On the recently completed 5 house development (pictured right), BarChip saved a 5 worker crew 5 days of construction. The time savings on ÉLMÉNYOTTHON's current project are even greater, with BarChip saving a 5 worker crew 19 days of construction time. That's a nearly 4 week schedule saving for something that's easier, cheaper and stronger.

Using an equivalent method for design, JKP Static Engineering proved that BarChip 48 is more than capable of meeting the performance of the steel bar throughout the entire foundation. Only the re-entry bar is required to meet the needs of the structure, as shown in Figure 1. In total BarChip replaced the entire trench mesh cage and 90% of all steel in the system. JKP Static Engineer Péter Schaul explains:

"The goal in the design was to increase the speed of construction time but keep the safety in foundations. The BarChip solution was ideal, the soil parameters and the geometry of the foundation made it possible to replace all the steel bars, but ensure that the foundation will have enough post crack capacity"

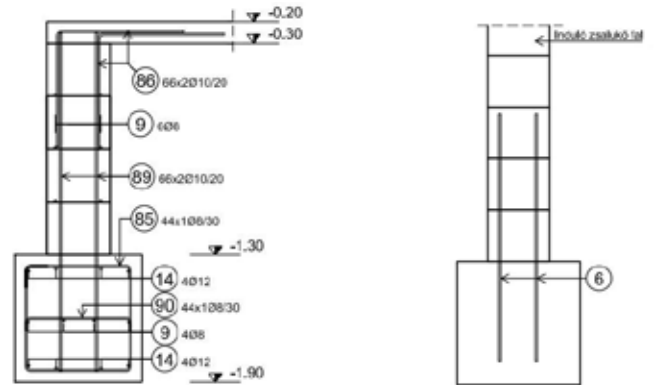


Figure 1: Original Steel Design (left) vs. BarChip Design (right).



Images supplied by Tamás Bata photography.

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