

SafeBase™ Class 178 Helical Tiebacks Excelsior, MN



December 2023

SafeBasements of Minnesota was contacted with concerns regarding a tipping and bowing retaining wall supporting a gas station in Excelsior, MN. The displacement of the wall was causing some displacement of the soil supporting the footings for the buildings above, and some cracking of the masonry walls above. SafeBasements created a plan for supporting the retaining wall with SafeBase™ Class 178 Helical Tiebacks.

Holes were made through the retaining wall approximately 6' on center that would allow for the helical tiebacks with 8" and 10" flights to be screwed in.





Several of the helical tiebacks encountered a buried obstruction approximately 14' behind the face of the wall. It was assumed that this was an old masonry foundation/retaining wall that was buried beneath the car wash portion of the gas station. The patent pending helical pier with industry leading cross tip technology pulverized the buried obstructions, saving thousands of dollars in change orders for removal and replacement of slabs and excavating to remove the obstruction. The helical tiebacks were installed up to lengths of 23' without having to make any other modifications to the scope of the project.

After the helical tiebacks were torqued up, tieback adapters were connected with threaded rods, the holes were patched, and wall plates installed on the exterior of the retaining wall. The owner will no longer have to be concerned about lateral displacement of the retaining wall.

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