



SSRG Installs (4) Helical Piles to Underpin and Stabilize a Very Old Structure in the Historic Over-the-Rhine District in Cincinnati, OH

May, 2016



Structural Systems Repair Group
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Project Name & Location:	Historic 1878 Four Family Building Restoration - Cincinnati, OH
Project Date:	Spring, 2016
Project Type:	Helical Pile Underpinning Stabilization for Restoration
Helical Pile Installation Contractor:	SSRG - www.ssrq.com
General Contractor:	Structural Systems Repair Group
Project P.E.:	Mike Breetz - SSRG
Geotechnical Engineer:	GEI Engineering - www.geiconsultants.com
Helical Pile Specifications:	(4) 2.875" Round Shaft Helical Piles with 8-10-12 Inch- Helix Bearing Plates; 30 KIP Allowable Capacity; Galvanized
Soils & Embedment Depth:	Medium Stiff Clay; Average Pile Embedment 19 ft.
Project Timeline:	Helical Pile Installation - 1 day
Helical Pile Manufacturer:	IDEAL GROUP - Webster, NY

About Cincinnati's Over-the-Rhine District

Built in the nineteenth century during a period of extensive German immigration, Over-the-Rhine changed as many white residents moved to the suburbs following World War II, also known as white flight. They were replaced by African Americans who came to the city in the Great Migration. The city and area had lost many of the industrial jobs which once supported its workers. By the end of the century, the area was notable for the poverty of remaining residents. In the 1980's and early 1990's there was much debate about whether or not to demolish and replace the historic structures, and local officials and investors decided that restoration was the right answer. Over the last fifteen years, Over-the-Rhine has seen an enormous amount of restoration and development, and it is now believed to be the largest, most intact urban historic district in the United States.



The building located on Republic street in Cincinnati's Over-the-Rhine historic district was built in 1878 as a four family residence. It has been documented that Abraham Lincoln slept in building.

The building stood vacant or was occupied by the homeless for more than forty years. When it was purchased by a developer, the very first thing required before interior restoration could begin was to stabilize the structure's foundation.

The SSRG crew installed (4) round shaft helical piles - (2) on the north wall and (2) on the south wall. The piles were installed to 19 ft. The load specifications for the piles was 30 kips allowable capacity. Concrete haunches were poured using 5000 psi concrete, as these were needed to install the brackets for transferring the building loads to the piles. After (14) days of curing time, the brackets were installed, the piles were loaded via hydraulic cylinders and the piles were then bolted off to the brackets.

Once the stabilization was complete, SSRG crews began the process of restoring the masonry work on both the exterior and interior of the building.

It is worth noting that SSRG has completed more structural stabilization projects in Over-the-Rhine than any other contracting company.

