



## Helical Anchors, Inc. Teams with Ropes Courses, Inc. to Install (41) Helical Piles for the Allegan Zip Line Project in Michigan

Spring 2017



**Helical Anchors, Inc.**  
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<b>Project Name &amp; Location:</b>	Zip Line - Allegan, Michigan
<b>Project Date:</b>	Summer 2016
<b>Project Type:</b>	Anchors to Support Zip Line That Crosses Kalamazoo River
<b>Helical Pile Installation Contractor:</b>	<b>Ropes Courses, Inc.</b> - <a href="http://www.ropescoursesinc.com">www.ropescoursesinc.com</a>
<b>Structural Engineers:</b>	<b>Troy Garland Structural Solutions</b> - <a href="http://www.tgstructuralsolutions.com">www.tgstructuralsolutions.com</a>
<b>Helical Piles Specifications:</b>	(41) 4.50" O.D. Round Shaft Helical Piles with 14", 16", 16" x 0.50" Helix Bearing Plates; 54 kips in Compression; 36 kips in Tension; Galvanized
<b>Soils &amp; Embedment Depth:</b>	Sand and Clay. 40 ft. Average Embedment Depth
<b>Project Timeline:</b>	(1) Week
<b>Helical Pile Manufacturer:</b>	Helical Anchors, Inc. - Minneapolis, MN

**Helical Anchors, Inc. (HAI)**, [www.helicalanchorsinc.com](http://www.helicalanchorsinc.com), with manufacturing and corporate offices located in Minneapolis, MN, supplied (41) 4.50" helical piles for the construction of the Allegan, Michigan zip line project earlier this year.

In order to support the 600 ft. zip line across the Kalamazoo River, helical anchors were chosen by structural engineers from **Troy Garland Structural Solutions** because of their easy and fast installation feature.

The required helical pile design capacity was 54 kips in compression and 36 kips in tension. To provide the required helical pile design capacity, lead sections were designed with 14"-16"-16" x .50" helix bearing plates. The average installation depth was 40 ft., and the crew from **Ropes Courses, Inc.** Were required to install some of the piles at a 15 degree batter.



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