

Harrah's Casino Lounge Addition Council Bluffs, Iowa

Geopier® Rammed Aggregate Piers™

Project Team

Geotechnical Engineer: Terracon, Inc.

Structural Engineer: Martin & Pettyn Structural Engineers

Owner: Harrah's Casino

General Contractor: C. A. Rallo Construction Company

Geopier Installer: Peterson Contractors, Inc.

Geopier Designer: GFC – Midwest

The Geopier Intermediate Foundation System was designed to limit total settlement to one-half inch to minimize differential settlement between the addition and the existing pile supported structure.

Project Overview

Description:

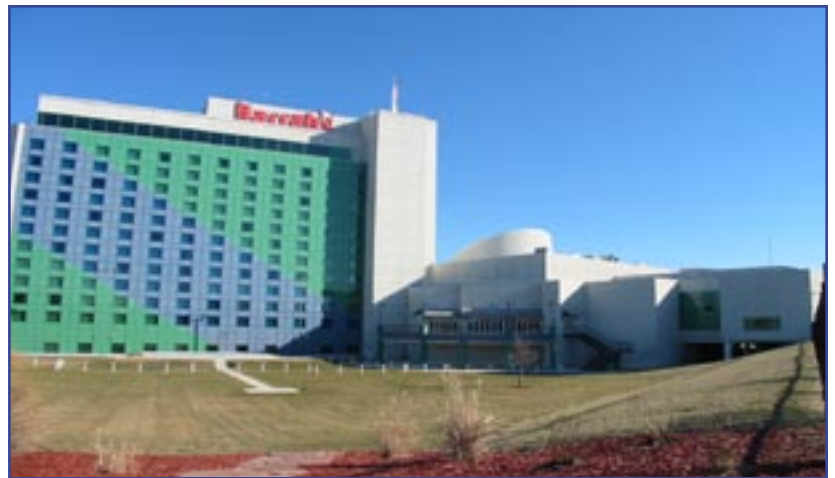
Construction of a 45 foot by 110 foot, two level, steel-frame addition to the existing Harrah's Casino facility. Maximum column loads of 56 kips with continuous wall loads ranging from 4 to 8.5 kips per lineal foot.

Subsurface Conditions:

Lean clay fill with organics and brick rubble extended up to six feet below grade. The fill was underlain by native alluvial lean clay and silt overlying silty sand.

Geopier Solution:

To minimize the potential differential settlement between the addition and the existing pile supported casino, total foundation settlement criterion was set at 0.5 inches. The Geopier Intermediate Foundation System was developed to reinforce the fill and provide settlement control to meet



the stringent criteria. The installation of Geopier Rammed Aggregate Piers (RAPs) allowed for foundations to be designed using an allowable bearing pressure of 4,500 psf. The Geopier approach provided significant cost savings and schedule advantage as compared to conventional overexcavation and replacement or deep foundations that would otherwise have been required.

FOR MORE INFORMATION

Contact Geopier Foundation Company at **800-371-7470**

or at **www.geopier.com**



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The Intermediate Foundation System