

# *The* LICA Contractor

The Official Publication of The Land Improvement Contractors of America • Volume 3 Number 3 Fall 2009

## LICA Contractor Makes “Cents” Out of High Demolition Costs



*On the Inside...*

**The Stairway Is the Star**

**“Who steals how much  
of what, from where,  
how and why?”**

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# The Stairway is the Star

By Diane Curtis

Above sits the modest cottage, an income-producing rental property. Twenty feet below sits the site of an old boat house and the remaining 24" wall and the shores of Moose Lake, a Wisconsin recreational haven. Between the two lies an embankment that is 20' high with 45-60° inclines and a few dilapidated wooden stairs that are an existing hazard.

The problem: the property owner is seeking to improve the lot to enhance its current rental value and its future value as a site for sale to parties interested in rebuilding the house. He wants to install a pathway, stairs, and a retaining wall.

Enter Viking Brothers Landscaping of Rubicon, Wisconsin. John Christenson, president and owner, of Viking Brothers looked at the property owner's plans and the requirements mandated by Wisconsin's Waukesha County for property fronting the Moose Lake site. At first glance, the differences looked insurmountable. For starters, modern Waukesha County requirements prohibited any wall of more than 18" within 75' of the lake.



A clear view of the completed retaining wall and Lemke stone steps.

John's first step was to contact Waukesha County authorities and establish a positive relationship and a can-do spirit with their representative assigned to this project. What would work? They looked over the site and

John considered other projects Viking had completed within its 18-year history. He had seen a situation like this before and thought he could use what he learned there to develop a workable solution that would add to the beauty and



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A view from the lake the shows the grace and magnitude of this project.

drama of the existing site. He started out by creating an entirely new grading plan for the site, one that would accommodate the wall-height restrictions but still enable the owner to build an effective retaining wall for the entire height of the embankment.

The site would require some pretty fancy excavating work by John's Kubota 91 X-3 and his ace operator, Bruce Young, but everyone was up for the challenge. Viking would build a winding lannon stone staircase with a graduated wall that stayed within height requirements on the uphill side of the staircase, and a stabilizing lower wall on the downhill side.

The challenges weren't done though; the site offered more unique problems:

The soil on the embankment consisted of approximately 1' of viable dirt and root system on top of nothing but



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sand and gravel. With such little substance to keep the hill in place, how do you prevent erosion from washing the whole thing out.

Additionally, how do you build a staircase that meets the necessary State and County site requirements while enabling people to walk the steps with comfort?

The excavating plan called for the operator to remove dirt from the uphill side and cast it to the downhill side. On such a steep angle, how do you do this while ensuring that no dirt rolls into the lake, an absolute dictate by the County?

To meet the erosion challenge, Viking lined the uphill wall with felt. The material both slowed and reduced the drainage. They also added a much shorter wall on the downhill side of the stairs. This not only enhanced the

erosion control, but added degrees of comfort and maneuverability to the 6" rise of the steps.

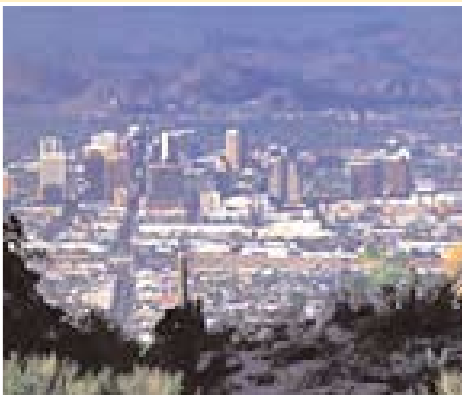
But perhaps John's most unique innovation came in dealing with the cast dirt. No matter how carefully it is cast, dirt is going to roll down a 45-60° incline: it's physics. Here John applied one of his firmly held beliefs of landscaping practice. No matter how good the machine or the operator, sometimes there is no substitute for manual labor. They expanded the crew and formed a "bucket brigade." Men with 5-gallon buckets caught the dirt that rolled down the hill before it could enter the lake. The dirt was then returned to the hillside and distributed where it was needed.

The project took Viking Landscaping nearly a year to complete, and John credits creative and willing

partners such as Waukesha County, Lemke Stone of Lannon, Wisconsin, and Oconomowoc Landscape Supply of Oconomowoc, Wisconsin with making it the overall success it was. The finished site is not only utilitarian, dramatic, and beautiful, but it more than meets the owner's, and keep the county's goal of using natural and local materials that would fit into the surrounding environment. ▼

*Viking Brothers Landscaping of Rubicon, Wisconsin is the newest member of Wisconsin LICA. They began as a family business in 1991. John Christenson is the current president and principal in the business. He thanks WILICA president, Norm Greeb for getting him interested in LICA.*

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