

The Lehigh Way

Volume 2 | Issue 2

www.lehighconstructiongroup.com

A publication from Lehigh Construction Group, Inc.

Yahoo!

Bringing Big Business Back to Buffalo

Praxair's Atrium

A Contemporary Study in Adaptive Re-Use





Environmental Services

Our environmental services include vacuum truck, hazardous and non-hazardous remediation of waste sites, demolition and asbestos abatement, industrial cleaning, bio remediation, "Geoprobe" drilling and 24 hr. spill response.

Our extensive network of manpower, and impressive fleet of earthmoving, hauling and highly specialized equipment, will meet any client's environmental or site and utility service needs.

When you need real professionals to manage and execute your site, utility and environmental contracting needs call Russo Development. 716.592.9327

SITE | UTILITIES | ENVIRONMENTAL

www.RUSSODEVELOPMENTINC.com

Alustra
COLLECTION

STYLE ELEVATES
EVERYDAY LIFE. THE
ALUSTRA™ COLLECTION
ELEVATES STYLE.



LEGENDARY QUALITY. VISIONARY STYLE.™

A distinctive new offering of window fashions from Hunter Douglas. To elevate interiors to a level of understated luxury, classic beauty and distinctive design. Call to see the entire collection today!

**COLVIN
DRAPERIES**
Window Treatments Done Right!

FREE
Consultation! (716) 362-9720

- Custom Window Treatments
- Motorized Draperies & Shades
- Expert Installation
- Shop at Home Service

HunterDouglas

window fashions

Silhouette® window shadings
Luminette® Privacy Sheers
Duette® honeycomb shades
Vignette® window shadings
Woven Textures™
Genuine Woods
Modern Precious Metals™

www.colvindraperies.com

© 2004 Hunter Douglas Inc.® Registered trademark of Hunter Douglas Inc.™ Trademark of Hunter Douglas Inc.

Architectural Millwork Systems 716.655.5830

cabinets • countertops • custom workstations • panel systems • wood trims • finish carpentry • installations

www.conleycaseworks.com

Conley
caseworks

The Lehigh Way

A publication from



Lehigh Construction Group, Inc.

4327 South Taylor Road
Orchard Park, New York 14127
(716) 662-2151

www.lehighconstructiongroup.com

For Corporate Information
& Business Development contact:
David E. Knauss, President

For Field Construction & Safety
information contact:
Thomas Glomb, Vice President

For General Business
information contact:
Josie L. Stockweather,
Human Resource &
Administrative Manager



Lehigh Land & Building Company, LLC

1901 Andell Bluff Boulevard
in the Bohicket Marina
Johns Island, South Carolina 29455
(843) 768-0909
www.lehighlandandbuilding.com

For Corporate information contact:
David E. Knauss, President

For Field Construction & Safety
information contact:
Thomas Glomb, Vice President

For General Business
information contact:
Christopher Zegers, General Manager

For Sales & Property Listing
information contact:
Jennifer Eads, Administrative Assistant

Cover Photo by Mitchell L. Staskiewicz
©2010 Lehigh Construction Group, Inc.

Welcome to The Lehigh Way



Over the past year and a half, I believe *The Lehigh Way* has become a premier publication for the Construction Industry in Western New York, bringing interesting articles, helpful information and state-of-the-art best practices to an ever expanding audience. The success of our magazine is largely due to our valued customers, professional partners, including the publisher, and ever supportive advertisers.

As we at Lehigh continue to face the difficulties of a challenging economic environment, we become more reliant on the long-term relationships we've developed over more than two and a half decades. Without the support and assistance of our partners, success would be all but impossible. Yet we continue to "work hard and treat people right"—the essence of "The Lehigh Way."

We believe in making our community and our industry the best that it can be—and our magazine is an integral component in distributing this message. We look forward to receiving your feedback and comments about the articles in this, our fourth edition of the magazine, as well as your creative ideas for future content.

As a team, we will continue to pursue the ideals of quality, integrity and safety for our customers, our business partners and our employees—the Lehigh family.

David E. Knauss
President

In this issue



- 4 Yahoo! Bringing Big Business Back to Buffalo
- 8 Big Brothers Big Sisters — A Community Project
- 9 Praxair's Atrium
- 12 The Golf Trip That Went Awry
- 18 Ask the Expert

The Lehigh Way is published by Oser-Bentley Custom Publishers, LLC, a division of Oser Communications Group, Inc., 1877 N. Kolb Road, Tucson, AZ 85715. Phone (520) 721-1300, fax (520) 721-6300, www.oser.com. Oser-Bentley Custom Publishers, LLC specializes in creating and publishing custom magazines. Editorial comments: Karrie Welborn, karrie_w@oser.com. Please call or fax for a new subscription, change of address, or single copy. This publication may not be reproduced in part or in whole without the express written permission of Oser-Bentley Custom Publishers, LLC. To advertise in an upcoming issue of this publication, please contact us at (520) 721-1300 or visit us on the Web at www.oser-bentley.com. September 2010

Yahoo! Bringing Big Business Back to Buffalo

Opening a Gateway to the World By Karrie Welborn



It has often been said that life, and therefore cultures, move in cycles. Historians look at parallels between time periods and contemplate the similarities of humanity in different centuries. Future historians may note a parallel between the emergence of Buffalo, N.Y. as a major force in New York state during the 19th century, and the resurgence of Western New York after Yahoo, a leader in Internet services, built their first Yahoo Computing Coop (YCC) in the Town of Lockport, 30 miles from Buffalo. Will the future document this as one of those parallel views? Very possibly.

The 200-plus years of Buffalo's existence can be relayed in a flow of quick word images: Trading Post, Village, Erie Canal Port, Boom Town, Queen City of the Lakes, City of Light, Pan-American Exposition, Railroads, Steel Town, Automobiles and Airplanes.

Out of all these images, the Erie Canal is perhaps the most powerful, for it represents a paradigm change, a change with an impact not only for Buffalo and the region, but for the burgeoning nation as well.

The emergence of the Internet has been as much a paradigm shift for western culture as the Erie Canal was to the young United States. In 2010, the newly designed YCC data center creates the potential for a more cost-effective process through which to maintain Internet servers. In turn, the well-cooled servers keep open the gate to distance communication, knowledge, research, training and fun. It is true that at the much less tangible portal of Internet travel, the voyager remains comfortably at the gate, viewing, via screen, numerous informational corridors, including the purchase of goods from distant locations. Within a very short period of time, 10 to 15 years, the Internet and its multiplicity of offerings became as vital to western culture as the course of settling the American continent was to the people of the 19th century. The impact of the Internet gate is, and will continue to be, as powerful in our time as manifest destiny was 200 years ago.



Photo by Jim Bush Photography ©2010

Raised computer-access flooring is a necessity in the Administrative Building of the Yahoo site, which will house a multitude of high performance servers.

THE CITY OF GOOD NEIGHBORS

In the late 1700s and early 1800s there were few accessible transportation options in place between the growing settlements of the Midwest and the established cities on the East Coast. The lack of a direct, cost-effective method of transportation kept commerce hostage to the overland cost of moving goods. With the advent of the Canal, the cost of shipping dropped from \$100 a ton to \$10 a ton. Shipping time dropped by two-thirds. Thus, although time alone would have seen a gradual growth in habitation throughout the area, it was that marvel of civil engineering, the Erie Canal, which galvanized growth. As a result, Buffalo became the gateway to inland exploration.

In the decades that followed, Buffalo and the surrounding communities experienced a wave of success and prosperity. It took the opening of the St. Lawrence Seaway in the late 1950s to bring the influence of the Erie Canal to a close. The worldwide steel crisis in the 1970s brought more decline to the area. The latter decades of the 20th century were difficult for the one-time city of light. Today, in addition to an already depressed local economy, Western New York struggles through a national recession.



Photo by Mitchell L. Staskiewicz ©2010 Lehigh Constructors Group, Inc.

The metal-ribbed exterior window valance complements the repetitive lines of the louvers on the Yahoo Data Center buildings.

PARALLEL PORTALS

The need for a transportation gateway to the Midwest is long past, but the ever-expanding virtual world requires cost-effective and efficient housing (data centers) for the servers that keep the digital turnpike open and online. The extensive amount of heat generated from racks upon racks of servers requires expensive cooling at all times. To offset the high cost of cooling, Yahoo designed a new type of data center inspired by a chicken coop. The new design is not only innovative in shape, its method for cooling is designed to utilize the ambient temperature outside the building. The best geographical location for the YCCs turns out to be the city that has the worst reputation in the nation for weather: Buffalo, N.Y. That bad weather rap, deserved or not, is now a benefit and may be the impetus for revitalization across the Western New York region.

Two hundred years ago, the physical location of Buffalo on the tip of Lake Erie made it a strategic placement for the western terminus of the Erie Canal. In today's scenario, that same location—the northern tip of Lake Erie—is equally strategic to Yahoo's new concept



Phase 1 of the Yahoo Data Center in Lockport, New York involved the staged construction of three server buildings and an Administrative Building, all connected with a corridor system that runs along the central axis of the entire campus. Future phases could involve additional server buildings.



Construction of the "hot aisle" into a contained central area allows heat waste to be ventilated through the cupola louvers high above the server floor, giving the Yahoo Data Center its distinctive "chicken coop" look.

for data centers. The weather patterns of the lake edge, the prevailing winds and "lake effect" are crucial to the effectiveness of the YCC. Yahoo chose a site 30 miles from Buffalo proper, in the Town of Lockport, N.Y. The same Town of Lockport, as it happens, that in 1825 hosted the official opening of the Erie Canal, with DeWitt Clinton, Governor of New York, officiating.

The presence of the Erie Canal and the people it brought to Buffalo inaugurated a new use for Buffalo's harbor—to send people and goods west across the expanse of the Great Lakes, thus allowing pioneers and goods to be transported in a cost-effective, shorter journey than any overland route. The easier journey from New York's coast to Buffalo via the Canal, followed by the lake route to the shores of the Midwest, made possible the swift settling of America's interior.

The Internet, that portal to a myriad of informational flows, is dependent on racks of servers. Yahoo's computing coops hold and maintain the servers and create employment options as well. Mother Nature may fund the cooling, but people must take care of the buildings, the technology and the mechanics of the data center. This in turn creates a need for high-tech professionals. Where better to learn than at the University of Buffalo, a highly regarded research, technical and medical campus—or any of the other excellent schools of higher education in Western New York.

As the mule-drawn barges of the canal era brought prosperity to Buffalo, so too will Yahoo's computing coops usher in a new era of digital innovation and industry to the city and beyond.

IT'S GOOD TO BE IN BUFFALO!

The selection of Lockport as the location for the first YCCs has already brought employment to the area, and it can only get better. The campus of the new Yahoo data center is comprised of three YCCs and one administration building. The YCCs are positioned so that the "free air," courtesy of Mother Nature, will cool the buildings from either side. This is the real key to the power of the YCCs, the fact that there is no need for A/C or chillers of any kind, even during the peak of summer heat. Instead of chillers, Pat Carroll, Project Manager for Lehigh noted, on the few days out of the year when the



Acres of cornfield are replaced by the unique silhouette of the server buildings against the rural skyline in Niagara County, just north of Buffalo.

thermometer passes 90 degrees, cold water will be sprayed into the louvers. As that sprayed water evaporates, it will cool the building.

To build the YCCs Yahoo chose Structure Tone, an international construction company known for its Mission Critical (data center) expertise. Led by Terence P. Deneny, Vice President for Mission Critical at Structure Tone, the build process began through a competitive selection process. Lehigh Construction Group was chosen as a lead subcontractor, a “feet on the ground” representative for Structure Tone.

An official groundbreaking ceremony for the Yahoo project took place August 13, 2009. The project, a design-build, was a team effort between owner/designer Yahoo, Construction Manager Structure Tone and prime subcontractor Lehigh Construction Group. Made from prefabricated metal structures 250 feet by 131 feet, the YCCs have louvers on both sides. Incoming air cools the building. Buffalo’s weather, no longer the scourge of the country, is an integral part of the YCC. Once the outside air passes through the louvers, it flows through two rows of servers and into a contained central area called a “hot aisle.” Heat waste is vented through the cupola and when required can be recirculated.

Carroll said weather and an aggressive schedule were the greatest challenges encountered during the build. Lehigh’s scope of work on the YCCs included things from foundations to interior finishes, from 18-foot high louvers with dampers on the inside, to heat exhaust louvers in the cupola. Lehigh also installed the aluminum catwalks that will allow YCC personnel to reach the servers for maintenance. The installed catwalks are an amazing 24 to 26 feet in the air. They were designed and manufactured by Karnel, Inc., a custom design and fabrication firm located in Clarks Summit, Pennsylvania.

According to Deneny, once “how” the YCCs worked was understood, regular discussions and building information modeling (BIM) helped determine where the design could be refined. There were daily on-site meetings during which the design evolved, was tweaked, and evolved a little more. Deneny stated that from Structure Tone’s point of view there were no “big” challenges. He added, “When you have good teamwork, with good collaboration, challenges are solved on a daily basis and do not become issues. With excellent



Yahoo’s main entrance welcomes its technical staff and corporate visitors with the impressive visual impact of repetitive structures. Nearly three thousand linear feet of louver banks stretch across the upper and lower levels of the server buildings to facilitate air flow for cooling.

communication,” he concluded, “all things are possible.” He added that he was proud of the team for doing such an extraordinary job, and that Yahoo had indicated to him that they were “extremely happy with the project on all levels—budget, time and quality.”

Carroll said he felt the project and the economic potential were positive steps in the right direction for Western New York, especially for the greater Buffalo region.

WESTERN NEW YORK SHOUTS YAHOO!

As technology and electronic media continue to evolve, causing the world to “shrink,” the need for sustainable housing for the machines that give us the virtual world will increase, and Western New York hopes the presence of Yahoo’s unique data center will jump start a boom paralleling the growth initiated by the Erie Canal. The Canal’s locks, which stretched across 363 miles, opened up the literal world for many pioneers, and in the process caused rural Buffalo to grow into the second largest city in New York. The YCC, although anchored in one location, is a virtual gateway to the world. It is hoped that the YCC campus at Lockport will be but the first of many options brought to Western New York by the presence of the data center. The Internet and its associated industries will certainly impact the region, and hopefully with as much power as the Canal.

The Erie Canal was the means by which Buffalo became a city of power and influence, enjoying a period of success that lasted well over a century. The area today is poised for renewal. Future historians will surely note that a 21st century renaissance of prosperity and success in Western New York was initiated in 2010 by the presence of Yahoo and their “chicken coop” data center.



The "work crew" comprised of individuals from Structure Tone, Yahoo, Big Brothers Big Sisters and Lehigh's PRO Division.

Photos by Annemarie Bettino ©2010 Big Brothers Big Sisters



Jon Wilcox and John Cicera of Lehigh's PRO Division help set up the Yahoo Data Center "ground breaking."

Big Brothers Big Sisters A Community Project

Yahoo! Gives the gift of time and yard work

By Karrie Welborn

When Annemarie C. Bettino, President & CEO of Big Brothers Big Sisters of Niagara County (BBBSNC) received a phone call in early August 2009 informing her that BBBSNC had been chosen by Yahoo as the recipient of Yahoo's "give back to the community" afternoon, she was taken by surprise. It didn't, however, take her long to determine what kind of help she would like to receive from Yahoo. Because this chapter of the BBBS has no maintenance staff, Bettino requested the "beautification" of the grounds and landscaping of the organization's headquarters. She wasn't sure what to expect when she relayed this request, but what actually occurred was remarkable.

The date was August 13, 2009. The morning began with a team of "Bigs" and "Littles" from BBBSNC who helped direct parking at the groundbreaking ceremony for Yahoo's much anticipated "chicken coop" styled state-of-the-art data center. This new, and uniquely designed data center, (see accompanying feature) was the very reason Yahoo executives wanted to give back to the community.

The Yahoo website Values page states: "We share an infectious sense of mission to

make an impact on society and empower consumers in ways never before possible. We are committed to serving both the Internet community and our own communities." In implementing this mission, the Yahoo executives at the Lockport, N.Y. groundbreaking headed to BBBSNC headquarters after the ceremony. Even with only half a day to serve the Lockport community, the Yahoo team chose to work rather than take early flights to other meetings or tasks. They didn't hire people to do the yard work Bettino had requested—the executives themselves arrived and dug in...literally.

It is often actions rather than money or even words that can make a profound impact. One executive weeded, by hand, a small garden while others used machinery to trim bushes and clean up the landscaping. No one, according to Bettino, stood around. They had only this one afternoon before flying out to other events, and they used it, down to the minute, working. When Yahoo says they want to give back to a community, they mean it. The short time available that the Yahoo team had was spent in direct

activity. "Yahoo," said Bettino, "came to DO, not to be seen. There were no cameras. Nothing was 'beneath' the status of these individuals. They were a work group, and proud of it."

Participating along with the Yahoo executives on the afternoon beautification, were representatives of StructureTone, the Construction Manager for the data center, who purchased and replaced locks to improve building security. Also offering time and hands-on help was Lehigh Construction Group, who took the role of a communications facilitator for the afternoon work party. Bettino noted that it was the Lehigh contingent who mixed the cement and fixed the broken flagstones in the yard. From the BBBSNC Littles all the way up to the Yahoo executives, everyone pitched in to restore beauty to the BBBSNC grounds.

All in all it was a very special day—a day not only of ceremony, but of bringing people together, working together and sharing gifts.

Big Brothers Big Sisters of Niagara County is a 501(c)3 nonprofit serving children in professionally supervised one-to-one match mentoring friendships throughout Niagara County.



Photos by Al Zamarski, Studio Z Photography ©2010

Praxair's Atrium

A Contemporary Study in Adaptive Reuse

Who better than Praxair to utilize the concept of an “airy space” as the means to transform a utilitarian industrial compound into a sophisticated office and laboratory complex that blends past structure with present creativity? Praxair is an international corporation whose name is taken from the Greek word Praxis meaning “practical application,” and the word “air,” which just happens to be Praxair’s raw material.

In early 2001 the company began the redesign of their industrial compound in Tonawanda, N.Y., changing the then manufacturing plant into an engineering/operations/research and development facility. An atrium, a large open space within a building that extends two or more stories, in a pre-World War II industrial manufacturing facility was a challenging design assignment. The facility site, known as the Praxair Technology Center (PTC) covers 105 acres, has 25

buildings and approximately 1,000 employees. Today, the gem at the center of this engineering and research complex is the bright and airy common area of the technology hub—the atrium. Covering 20,000 square feet, the refurbished building not only has the airy feel the owners desired, it also has the unique ambiance of a café boulevard or park. This interior streetscape comes complete with living trees, tables and chairs, lending the area a quietness that encourages small group conversations or individual break options or the option for a large group setting.

The overall project covered far more than the atrium, but the atrium was the most interesting facet of the overall project. According to Architectural Resources (AR), the firm that created the transformation, the main building was originally “dominated by large mono-crane axis



Praxair's atrium converted pre-World War II manufacturing and production space into an interior "streetscape," complete with living trees, tables for casual meetings and an overlooking "glass" conference room.



The historical photos, above, show what the atrium area looked like in the mid-1900s. The space previously housed a variety of production equipment. Historic Photos by Praxair, Inc. ©2010

corridors, supporting the heavy industrial demands of pre- and post-war industry." Over the decades the building existed, there were alterations such as the re-routing of corridors and restructuring of rooms.

The structure, which had most recently been a machine shop, was particularly suited to be turned into an atrium. AR was able to clear the confusion of corridors, re-connect fractured room spaces and meld the disparate parts into what is now Praxair's elegant atrium. The south side of the building holds the research and development laboratories, while the north portion contains administrative offices. Lehigh created six skylights in this space, three large and three small. Offices and laboratories were created against the outer walls and into a second story around the atrium. Connecting the first floor to the second is a curved metal staircase which ends near a glass-enclosed conference room. The conference room, a work of art in its own right, is cantilevered over the ground floor.

The re-design of the overall campus fits into the category of an "adaptive reuse." This type of project occurs when older, underutilized buildings are no longer being used for the original purpose. Unlike a

historic renovation, an adaptive reuse project does not have to follow specific tax and record keeping regulations—although the majority of adaptive reuse projects do attempt to retain as much of the historical architecture as possible. As Douglas M. Scheu AIA, LEED AP, Architectural Resources said of the atrium design, "We wanted to retain as much of the bones of the original building as possible." As a result, two overhead cranes were retained within the atrium area. As a design element, their bright orange color adds to the cheerful atmosphere. On the second floor, the team incorporated riveted columns from the original structure into the new design. The windows throughout the atrium, although redesigned, retained as much of the original look as was possible. The final result, an integration of past and present, is a bright and airy space balanced by the trees and tables on the ground floor boulevard.

According to both Scheu and Joe Migliore, Project Manager for Lehigh, there were no unusual challenges in the 11 months of the project. Although it was a fast-track project, discussion and excellent



This ultra-modern conference room with glass walls overlooks the interior streetscape of Praxair's atrium, adapting the second floor area into functional meeting spaces and technical research offices.

communication made the project positive. Scheu explained, "When the willingness to work collaboratively to achieve a common goal is present, there are few, if any, problems."

Lehigh, who had worked with Praxair for a number of years, was familiar with the complex. This knowledge and experience helped circumvent potential problems during the build. As general contractor, Lehigh's scope of work included many tasks, some of which included: miscellaneous demolition, Gyp-Crete floor leveling, trees with an underground watering system, structural steel, steel stairs, slab-on-deck, studs, insulation, drywall, acoustical ceilings and soffits, hollow metal frames and wood doors, aluminum windows




Curved stairway from the second floor to the first floor corridor.

& doors, butt-glazed windows and doors, skylights, glass block, bamboo wood flooring, ceramic tile, epoxy floors, painting, interior skylight shades and electric rolling window shades.

"The renovation allowed Praxair to convert an underutilized industrial factory space into much needed office and lab space while creating an inviting, versatile atrium area. The atrium area has since been used for an investor meeting, employee forums, large luncheon conference space, and a great place for 'Rocky,' our fiberglass Buffalo to graze," stated Karen Ginnane, Site Director.

Praxair's atrium is a practical application of beauty for a dynamic and intensive working environment.



HOFER CONSTRUCTION, INC.
COMMERCIAL & INDUSTRIAL MASON CONTRACTOR

5222 TRANSIT ROAD
DEPEW, NEW YORK 14043

716.683.9818
FAX 716.683.0184

PETE 716.523.2545
TERRY 716.523.2546

CS BEHLER
INCORPORATED
Experts in Cold Storage Construction
Quality Service and Installation Since 1962

Cooler Panels & Doors
Installations & Repairs
Freezer Panels & Doors
FRP Panels, Ceilings, & Doors
Wall & Ceiling Systems
Clean Rooms & Warm Rooms
Dow Corning Distributors
OSI Latex Caulk
OSI Adhesives
UL Firestop Systems
Mineral Wool
Dow Styrofoam
Backer Rod
XJS Systems

For pricing and information contact:

Jeff Casarsa (716) 553-5825

Tom Casarsa (716) 912-1262

203 St. Mary's Street Lancaster, New York 14086
www.csbebler.com



The Golf Trip That Went Awry

The True Story Behind the Creation of Lehigh Land & Building Company—A Successful Venture

Photos by Dickson Dunlap Studios ©2010



This 5,500 square foot, five bedroom, six and a half bath Lehigh new build on Kiawah Island overlooks the Osprey Point golf course.



Infinity or “zero” edge pools are a popular feature and enhance the views from the home.

Dave Knauss, President of Lehigh Construction Group, Inc., had never heard of Seabrook or Kiawah Islands prior to a planned golf trip with friends in 1999.

“I was supposed to book a trip to the more typical golf destination of Myrtle Beach,” he begins the story, “but I waited too long and was having trouble finding accommodations when one of the others in the foursome, a friend of mine from Boston, mentioned that his wife’s cousin owned a condo on Seabrook Island near Charleston and suggested if we got skunked in Myrtle Beach we go there [to Seabrook]. My friend had never been there either, but the cousin kept suggesting we come down to check it out.”

Seabrook and Kiawah, barrier islands about 40 minutes outside



Photo by Red Zeppelin Aerial Photography ©2010

This 4,500-square-foot Seabrook Island home with stand-alone garage and apartment overlooks an expansive marsh, the Bohicket River and the fishing village of Rockport.

Carolina was born.

There were no clients, no subs and no employees when Potter arrived. Glomb's son Tom Jr. also relocated to Seabrook from Orchard Park to join Potter. Lehigh purchased both a building lot for a new custom spec home and the third oldest home on Seabrook, built in 1973 and in need of a complete renovation. The intention, says Knauss, was to "work for ourselves" while we learned about the marketplace.

As it happens, it didn't end up working out that way at all. A couple from Atlanta saw a rendering of the spec home on the Internet, and traveled to Seabrook just to see it. When they arrived, Potter and Glomb had just begun the foundations, so there wasn't much to see—but that didn't stop them from putting their trust in Lehigh and buying the house before it was complete.

The speed and efficiency with which Potter and his new crew worked attracted the attention of many passersby, and Lehigh began to draw in clients for new homes and renovations.

The company imported select subcontractors from Western New York in the early years, until local relationships were developed. By the fifth year, a separate South Carolina company, Lehigh Land & Building Company, LLC. (LLB) was founded.

Potter returned to Western New York after approximately two years and was replaced by long-time Lehigh superintendent Chris Zegers, who has taken Lehigh Land & Building Company to a new level among the top builders on the islands. Zegers and his wife Lynda reside in nearby Kiawah River Estates.

LLB builds custom homes and performs renovations and remodeling. With an office in the Bohicket Marina & Yacht Club, located between Kiawah and Seabrook Islands, Lehigh builds for clients and develops spec houses for sale.

Charleston, subsequently became a vacation place for the Knauss family, and Knauss couldn't help but notice all of the new homes—mostly second homes and soon-to-be retirement homes—being constructed. He started to ponder the idea of building on the islands.

Lehigh has always been a hands-on company, so the key to creating a presence on Kiawah and Seabrook was to have a lead person who understood "The Lehigh Way" and was interested in relocating to the islands. In early 2003, Dave's partner Tom Glomb pitched the idea to a Lehigh superintendent, Rich Potter, and the two met on Seabrook Island to look at a couple of spec properties Lehigh had identified for possible purchase. Potter's first reaction was "sign me up"—and Lehigh in South



Interiors of island homes can vary from casual to very formal.



Richly detailed coffered ceilings and panelized wainscot are all completed by Lehigh's own trim crew led by master craftsman Dan Gough.





Homeowners are actively involved in the planning and design of the kitchen and the selection of cabinets, countertops, appliances, plumbing and lighting fixtures.



Shingle-style homes, similar to those found in New England, are very popular on Kiawah Island. This 4,300 square-foot Lehigh new build has a first floor master suite and a large kitchen/great room overlooking a rear deck and pool.

Most of Lehigh's clients are from large southern cities like Charlotte or Atlanta or from the Northeast and Midwest.

Today Jenny Eads, a Charleston, W.V. native, capably manages Lehigh's office, and Dan Gough is Lehigh's top lead man in the field. Gough's finish carpentry and trim skills are second to none.

LLB's commitment to building long-term relationships with their clients in South Carolina is no different from the focus in Western New York—as evidenced by the key box on the wall in their office containing the front door keys to nearly every home they've built or renovated. LLB is always "on call" to service their clients.

...and it all began because of the golf trip that went awry.



Natural stone tile, granite countertops and custom-built cabinetry are featured in many baths.



Mechanical Contracting
Sheet Metal
Refrigeration
HVAC

Environmental Chambers
Energy Management

Commercial • Industrial
Installation • Design • Planned Maintenance

*"Proud to be associated
with Lehigh Construction
Group"*

24 Hour Service

Phone: (716) 674-0222

Fax: (716) 674-8903

25 Ransier Drive, West Seneca, NY 14224

WWW.TRIRMECHANICAL.COM



David Burke

O: 716 649 7705

F: 716 648 6559

M: 716 818 5569

Nextel 80* 47744

Burke Construction LLC

S-5540 Southwestern Blvd.

Hamburg, NY 14075



CRAIG JONES

Sales Manager
craigjones@cityfence.com

716 688 5757
FAX 716 688 0706

3893 WALDEN AVENUE
LANCASTER, NY 14086

www.cityfence.com

GORDON & ZOERB
electrical contractors, inc.

420 South Harris Hill Road

Buffalo, NY 14221

P (716) 633-1166

F (716) 633-1075

Anthony Girone
President

tony@gordonandzoerb.com

Ronald J. Klavoon
Vice President

ron@gordonandzoerb.com

Portable Toilets

Residential & Commercial

- Construction Sites
- Outdoor Events
- All Units Clean & Sanitized
- Well Ventilated
- Handicap Accessible



**MODERN
CORPORATION**

4746 Model City Rd.
Lewiston, NY 14107

moderncorporation.com
800-330-7107



DAVIS-ULMER
FIRE PROTECTION
SINCE 1946

We install, service & inspect
all brands & manufacturers

One Commerce Drive
Amherst, NY 14228
(716) 691-3200 phone
(716) 691-1230 fax
www.davisulmer.com

SPRINKLERS
SUPPRESSION
FIRE & SECURITY

Buffalo • Rochester • Syracuse
Corning • Albany • NYC

Ask the Expert

John Evans, President of *Xplore Productions, Inc.*

Lehigh discusses state-of-the-art technology with Xplore Productions, Inc.

Q: What technology are you finding transformational, and in what area are you seeing it applied?

A: LED technology is revolutionizing everything in our field. We have seen a significant increase in interest in very large, high resolution video displays utilizing light emitting diodes. LEDs offer many benefits over projection or tiled displays that utilize expensive lamps and are harder to maintain over a long period of time. LEDs have a long life, use far less energy and are more resilient to shock and temperature extremes.

Q: How are the new video displays being used in the corporate environment?

A: Traditionally, large video displays have been used for high attendance meetings, communications or presentations commonly referred to as town halls. Increasingly, due to the resolution and brightness of LED displays, we are finding them used as multi-media platforms capable of displaying everything from live feeds, HD/SD videos, PowerPoint presentations, digital signage, and emergency notifications to virtual experiences or popular sporting events such as the recent World Cup. We just completed a project where we created a large, virtual aquarium where the user can select specific habitats or species, creating a beautiful and serene office environment for a

corporate leader. Hit a button on the wireless control pad, and the local baseball team is live on the large display or the day's market ticker and news from CNN is splashed across an entire wall of the room. To see it is pretty breathtaking.

Q: Can you name some of the newest and coolest devices and products entering the corporate environment?

A: Flexible display technology is emerging as an exciting new product that redefines our expectations of video display. No longer are we limited to flat or faceted displays. A simple architectural or structural detail such as a round column can now be a dynamic video display or used for digital signage. Don't underestimate the resurgence of 3-D imagery. Newer devices under development will change our perspective on what 3-D means to us as an audience. We will not always be saddled with the need to wear goofy looking glasses to enjoy high definition, three-dimensional content.

Sometimes, what is more revolutionary in technology is not the newness of the technology, but the application. Look at LED lighting and video displays as they are applied to the exterior of buildings. Coming from the architectural world, most architects grimace at the thought of having some large display attached to the exterior of a building they have designed, but if you look at the current Times Square in New York City as a case study, high-tech lighting and video is now being incorporated into buildings as part of the fabric or exterior skin of a structure, incorporated into the architectural concept and design from the inception of a project.

Q: Obviously, technology comes at a cost—and NEW technology at an even higher price. What is the justification for integrating these new technologies?

A: That is the million dollar question. In some cases, cost is not a driving factor since showmanship drives the process. Las Vegas is a good example of where bigger, brighter, more impressive is still the driving force because it attracts patrons and drives revenues. Recently though, there have been limits to expenditures even in the "desert city." For corporate applications where technology serves a mission critical function, large LED displays present a very strong ROI justification. In addition, as a plus, they are regarded as an environmental or "green" technology that can be incorporated into a corporate conservation policy, or used in a LEED certification application for new construction. LED has the following benefits going in its favor: it is very bright, it is energy efficient, it has a long life (100,000+ hours in most cases), it requires significantly less maintenance or calibration, has almost no consumables (expensive high output lamps normally found in projectors and rear projection devices) and does not produce a lot of heat (thus reducing HVAC loads in interior applications).



Q: For corporate clients embarking on a new technology project, what are your words of caution as they commit to large capital investments in this area?

A: First of all, don't fall in love with one technology or component and shape all your decisions around that device. I strongly recommend side-by-side "live" comparisons, and many manufacturers' representatives are willing to support shoot-outs so that a client can make an educated decision based on performance versus cost, maintainability, annual cost of operation or general ROI. Also, in a world where large facilities have complex power needs with potentially hundreds of devices that use switching transformers, electronic ballasts or other forms of voltage regulation, there is a strong possibility that "dirty" power is present and can affect sensitive electronics in a negative way. Power conditioners and large uninterruptible power supplies (UPS) are a must, along with adequate cooling or humidity control.

Q: What about "mood lighting" or special effects/ environments created by the use of light and sound?

A: As work environments become more stressful and access to good natural light is not always available, particularly in older buildings, newer lighting and atmospheric effects can go a long way towards creating a friendlier and more productive work environment. LED lighting with RGB (red, green, blue) can create an infinite color palette that can adjust to outdoor light levels, or adjust color to seasons through DMX addressable fixtures running off of inexpensive IP addressable controllers. Add sound or even smell, and as has been proven in research for health centers catering to patients suffering from Alzheimer's, a space not only offers calming properties, but actually provides therapeutic benefits.



Drywall & Accessories • Metal Studs
Acoustical Products • EIFS/Plaster Products

KEVIN DUNWOODIE
Manager Center Operations

675 Duke Road
Cheektowaga, NY 14225

Ph: 716.681.3285
Fax: 716.681.0587
Cell: 716.864.6132
kdunwoodie@lwsupply.com
www.lwsupply.com

Ferraro

Pile & Shoring

**Contractor Specializing in
Deep Foundations**



- Cofferdams
- Bridges
- Marine & Dock Facilities
- Soldier Pile Lagging
- Sheet Piling
- Load Testing
- Slurry & Barrier Walls

13590 Genesee Street / PO Box 85
Crittenden, New York 14038
Ph. (716)937-4800 / F (716)937-0355
FerraroPS@aol.com



Pinto Construction Services, Inc.

1 Babcock Street
Buffalo, NY 14210
716-825-6666
Fax: 716-825-6773
www.pintoheavyconst.com

Pinto Construction Services, Inc. is committed to providing superior quality and workmanship for our clients, embracing innovative technologies and hands—service to achieve total customer satisfaction.

Pinto Construction Services, Inc. prides itself on its ability to deftly handle all job requests, both large and small, including:

Underground Infrastructure
General Site Work
General Construction
Demolition
Heavy Equipment Specialty Applications



EMPIRE BUILDING DIAGNOSTICS, INC.

- Interior and Total Demolitions
- Asbestos and Lead Remediation
- Waste Disposal
- Concrete Cutting and Removal
- Roll Off Containers
- Tank Removal

P.O. Box 412
2 Main Street
Depew, NY 14043
Phone: (716) 685-4588
Fax: (716) 685-6055

E-mail: empire@ebdinc.com
Website: www.ebdinc.com



**Jay E. Potter
Lumber Co., Inc.**

Bill Dix
716-474-2121 - Cell
585-599-4605

2-4 Maple Avenue
Corfu, NY 14036
(585) 599-4605
(585) 599-4055

43 Mill Street
LeRoy, NY 14482
(585) 768-2535
(585) 768-9217



Plumbing & Mechanical, Inc.

3198 Union Road
Cheektowaga, New York 14227
Ph 716.681.6997
Fax 716.681.0642
www.mlpcorp.com

PLUMBING CONTRACTORS
MECHANICAL CONTRACTORS
MECHANICAL MANAGEMENT
DESIGN BUILDERS



PLUMBING-HEATING-COOLING
CONTRACTORS ASSOCIATION

When you need qualified
and dependable employees
in **ALL** phases of construction...

GET ACTIVE!



Active Workforce, Inc.

2140 Eggert Road, Unit A • Amherst, NY 14226
Ph: 716.447.9988 • Fax: 716.447.7503
lana.green@activeworkforceinc.com

CAPITAL FENCE

www.capitalfence.com

716-691-7438

- **Temporary Fence Rental**
- **Chain Link, Wood, Vinyl Ornamental Steel & Aluminum Fence**
- **Vinyl Railings**
- **Dumpster Enclosures**
- **Bollards**
- **Wood & Steel Guide Rail**



www.xtremevp.com



The Highest Quality Painting and Wallcovering services for Commercial, Industrial and Residential Customers



"Covering WNY Since 1968"

4404 Walden Avenue,
Lancaster, NY 14086-9771
tel 716 685-6226
fax 716 685-6228

www.nchoopspainting.com

KRAFTWERKS

From storage bins to to folding partitions, visual communication, to custom fabrication, and ergonomic solutions, KRAFTWERKS is dedicated to providing solutions and services to resolve space, productivity, and communications' toughest problems.

For thirty years we have remained constant to our dedication to performance, integrity, quality and progress - and it's what will keep us growing over the next 100 years...

92 Cooper Ave.
Tonawanda, NY 14150
(716) 876-9000 phone
(716) 876-9398 fax



Family Owned
and Operated
Since 2000

Your Complete Facility Maintenance Solution



Custom Metal Fabrication
Millwright Services
Industrial Floor Coating
Sandblasting & Coating
Industrial Vehicle Body Work
Containment Services



Maple Grove Enterprises
7075 Route 98 North
Arcade, NY 14009
(585) 492-3340

Visit our website at
www.MapleGroveEnterprises.com

MCC

MADER
CONSTRUCTION
COMPANY, INC.

970 Bullis Road
Elma, NY 14059
716-655-3400

www.maderconstruct.com



H & V Sales, Inc.
Providing integrated efficient solutions

Phone (716) 897-5010 Fax (716) 897-2702

2310 William Street
Buffalo, NY 14206

www.hvsales-usa.com

H & V Sales, Inc. is committed to be the supplier of choice for our customers by representing quality products that offer innovative, sustainable, efficient solutions for our customers' needs.

AIRSIDE

- ◆ Fans & Vents
- ◆ Make-Up Air Units
- ◆ Energy Recovery
- ◆ Lab Exhaust
- ◆ Louvers & Dampers
- ◆ Diffusers & Grilles
- ◆ Ductwork & Access.

MECH. EQUIPMENT

- ◆ Computer Room A/C
- ◆ Chillers
- ◆ Cooling Towers
- ◆ Custom Air Handlers
- ◆ Var. Frequency Drives
- ◆ Controls
- ◆ Heat Pumps

LOCAL STOCK AVAILABLE

MANUFACTURER'S REPRESENTATIVES
Heating, Ventilating & Air Conditioning



We're the only company that
doesn't mind when our customers
walk all over us.



2323 Elmwood Ave. • Kenmore, NY 14217

Phone: 716-874-1001

Fax: 716-874-0809

www.alliedflooring.com

MEMMINGER'S PAINTING INC.

Residential, Commercial, Industrial
Painting & Contracting Services

2500 Commerce Parkway

Lancaster, NY 14086

ph# (716) 684-2177

fx# (716) 684-2620

www.memmingerspainting.com

Experience. Integrity. Quality.

J&B Installations is a company committed to excellence with an impressive roster of satisfied commercial and industrial owners. We have installed more than 12 million square feet of roofing and served in excess of 1000 clients for over 22 years. Using only the finest materials, we stand by our workmanship offering 10, 15, 20 and even 30 year warranties!



PO Box 188 • 732 Visions Drive • Skaneateles Falls, New York 13153

Phone: (315) 685-8993 • Fax: (315) 685-0508 • Toll Free: 1-800-440-8993

www.jbinstallations.com

Advertisers Directory

Lehigh Construction Group Inc. thanks the following companies who helped make this publication possible.

Active Workforce, Inc. 20

Admar Supply Company, Inc. 23

Allied Flooring Contractors, Inc. 22

Buffalo Creek, Inc.
11800 Route 20A
Wales Center, NY 14169
(716) 652-3768
Fax: (716) 655-1141
www.bflocreek.com

Building Specialties 19

Burke Construction, LLC 17

Capital Fence Company 20

City Fence, Inc. 17

Colvin Draperies 2

Conley Caseworks 2

CS Behler, Inc. 11

Davis-Ulmer Sprinkler Co. 17

Empire Building Diagnostics, Inc. 20

Ferraro Pile & Shoring 19

Gordon & Zoerb Electrical Contractors, Inc. 17

H&V Sales, Inc. 21

Hamburg Overhead Door, Inc. Back Cover

Hofer Construction, Inc. 11

J&B Installations, Inc. 22

Jay E. Potter Lumber Company, Inc. 20

Kraftwerks 21

Mader Construction Company, Inc. 21

Maple Grove Enterprises 21

Memminger's Painting, Inc. 22

MLP Plumbing & Mechanical, Inc. 20

Modern Corporation 17

N. Choops Painting, Inc. 21

Pinto Construction Services, Inc. 19

R. E. Kelley, Inc. 23

Russo Development, Inc. 2

Tiles International
6140 West Quaker St.
Orchard Park, NY 14127
(716) 662-4441
www.tilesinternational.com

Tri-R Mechanical Services, Inc. 17

Upstate Rebar, LLC
4605 Walden Avenue
Lancaster, NY 14086
(716) 685-8000
Fax (716) 685-8006
www.upstaterebar.com



Construction Begins Here... with ADMAR Supply.

New York State's largest construction equipment
rental and sales company.



1394 Military Road | Buffalo, NY 14217
716.873.8000 | www.admarsupply.com

MASONRY RESTORATION SPECIALISTS

Chemical Cleaning
Epoxy Injection
Mask and Grouting
Waterproofing

Sand Blasting
Protective Coatings
Masonry Rebuilding
Stone Restoration
Custom Windows

Concrete Repair
Tuck Pointing
Water Repellents
Caulking and Sealants

BUFFALO OFFICE

33 MAIN STREET • BOWMANSVILLE, NY 14026
716-684-3550 • TOLL FREE 888-253-3550 • FAX 716-684-3554

ROCHESTER/SYRACUSE OFFICE

50 JOHNSTON ST. • SENECA FALLS, NY 13148
315-568-0982 • FAX 315-568-0983

Ronald C. Schlegel, President

Visit us at: www.rekelley.com



Hamburg Overhead Door INC.

We specialize in:

Residential Doors:

- Steel, Wood, Fiberglass, Insulated, Non-insulated

Commercial Applications:

- Sectional Overhead Doors
- Coiling Overhead Doors
- Overhead Fire Doors (automated available)

Loading Dock Equipment:

- Levelers, seals, bumpers, restraints

Specialty doors:

- High speed, freezer, coolers, screens

Electronic Garage Door Operators

Examples of projects we've worked on:

- Universities and schools
- Hospitals
- Food Manufacturing
- Automobile Industry
- Pharmaceutical Industry
- Correctional Facilities
- Fire Houses
- Warehouses
- Recycling Facilities
- NYSDOT
- Army Bases
- Air National Guard Buildings

We do work in all of NYS (outside of NYC).
We have the knowledge, experience and tools
to complete any job, big or small!

**5659 Herman Hill Road
Hamburg, NY 14075
716-649-3600
www.hamburgdoor.com**

