

DECEMBER 2011 VOL. 32 • NO. 11 • \$4.00



# CAM

M A G A Z I N E

"VOICE OF THE CONSTRUCTION INDUSTRY"

**2011  
READER  
SURVEY!**

CLICK HERE TO  
TAKE SURVEY!

# House of Cedar, House of Light

TIMBER SYSTEMS CRAFTS A CEDAR-FRAMED  
COMMUNITY CENTER

ALSO IN THIS ISSUE: REACHING FOR GOLD - REVITALIZING FARMINGTON HILLS CITY HALL



## IN THIS ISSUE:

**11 Marketing on the Level**  
Planning Helps Control Website Costs

**12 On the Jobsite:**  
Monahan Restores Midtown Gem - Former  
Newberry Nurses' Home Gets its Own TLC



---

### CARPENTRY

**16 Q & A with Carpentry Experts**  
Industry Pros Ron Urbanczyk and Dave Eschner Respond to Carpentry Questions  
with Honest Answers

**18 House of Cedar, House of Light**  
Timber Systems and Wightman Craft a Cedar-Framed Community Center for  
Pokagon Band

---

### FLOORING

**22 Paradise Valley Remembered**  
Images in Terrazzo Celebrate a Forgotten Neighborhood

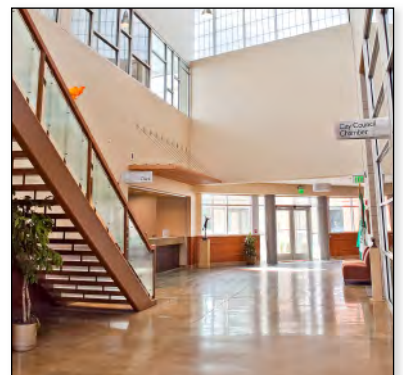
**26 Greenprint for the Future**  
Armstrong's BioBased Tile® Offers the Big Three:  
Sustainability, Affordability and Enhanced Performance

**28 Michigan Construction  
Outlook 2012**  
Modest Recovery Predicted

---

### CONSTRUCTION HIGHLIGHT

**32 Reaching for Gold**  
Revitalizing Farmington Hills City Hall



---

### DEPARTMENTS

**8** Industry News  
**9** Safety Tool Kit  
**36** Product Showcase  
**42** People in Construction

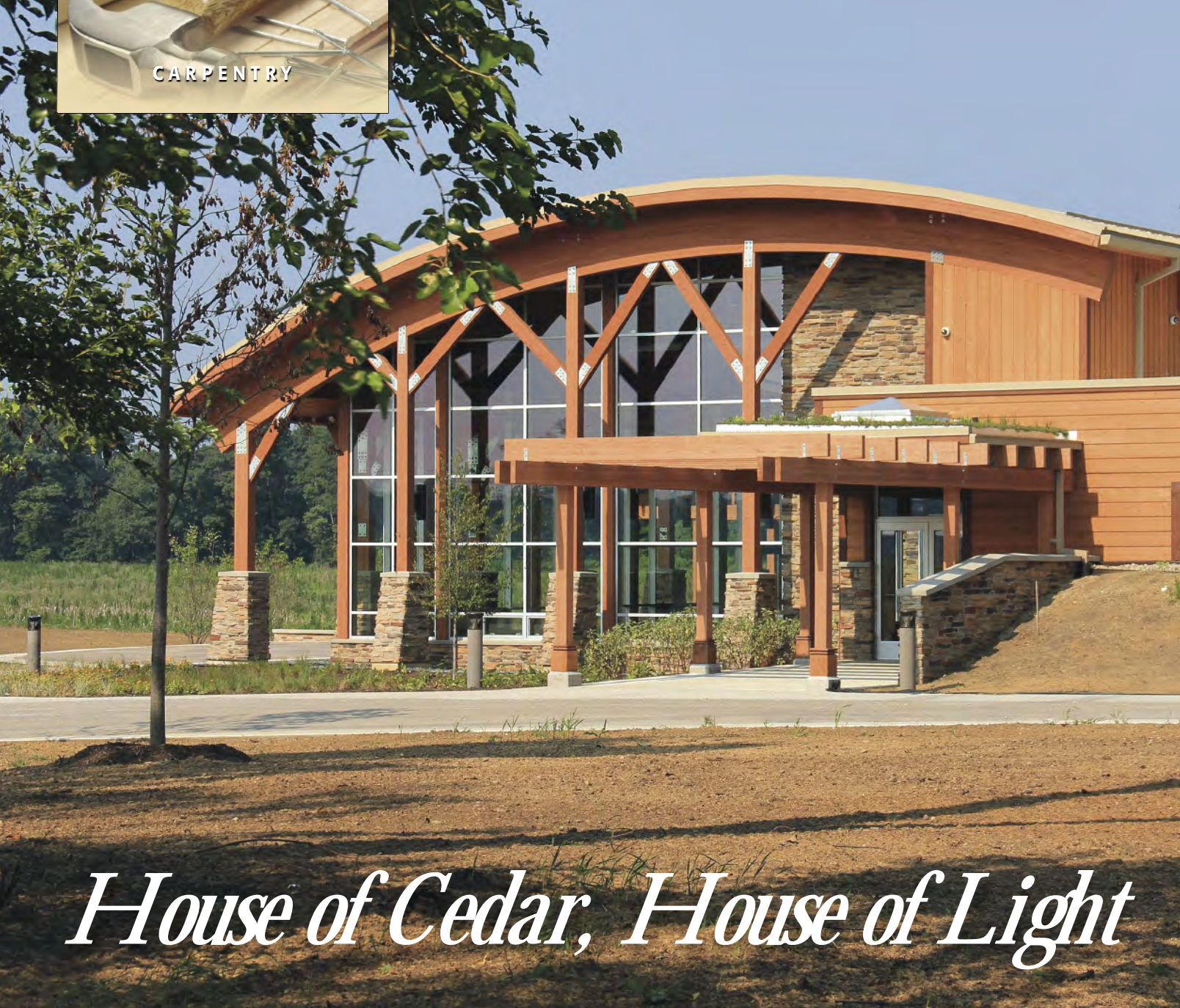
**46** Construction Calendar  
**46** CAM Welcomes New Members  
**46** Advertisers Index

#### ABOUT THE COVER:

##### THE POKAGON COMMUNITY CENTER

WIGHTMAN & ASSOCIATES, INC., BENTON HARBOR, DESIGNED THE 8,500-SQUARE-FOOT POKAGON COMMUNITY CENTER IN DOWAGIAC. TIMBER SYSTEMS DESIGNED, FABRICATED AND INSTALLED THE BUILDING'S GLU-LAMINATED HEAVY TIMBER FRAMING.

PHOTO BY SHEILA MILLER, WIGHTMAN & ASSOCIATES, INC.



# *House of Cedar, House of Light*

## **Timber Systems Crafts a Cedar-Framed Community Center for Pokagon Band**

By Mary E. Kremposky, Associate Editor

**C**edar wood is a fitting selection for the timber framing of the recently constructed Pokagon Community Center in Dowagiac. The Pokagon Band of Potawatomi Indians selected Cedar as the material of choice, for this beautiful tree with fragrant, soft needles and scented wood is held in reverence by the Potawatomi nation. Timber Systems, Lapeer, translated the

Band's wood selection and the architect's Earth-friendly design into an expertly crafted, exposed structural frame built to shelter the community life of the Pokagon Band.

A graceful sweep of Cedar beams arcs over the main community room, a space supported by Cedar columns, wrapped in a glass curtain wall and filled with natural light. A living roof blooms on top of the flat-

roofed, single-story area, housing the offices, kitchen, utilities and restrooms for this 8,500-square-foot building designed by Wightman & Associates, Inc., Benton Harbor. Timber Systems designed, fabricated and installed the glu-laminated heavy timber framing for the Pokagon Band's new community hub in southwestern Michigan. Following the architect's design vision, "we



PHOTO BY SHEILA MILLER, WIGHTMAN & ASSOCIATES, INC.

from the interior core to the building perimeter. The community room is a large, voluminous space reaching about 20 feet high at its interior edge. “The highest columns are in the 20-foot range, and then they taper down to the 12- to 14-foot range towards the side edge of the building,” said Harris.

Timber Systems also selected a roof plank decking of Southern Yellow Pine to boost structural capacity. “There is additional structural capacity in the Yellow Pine decking, as well as the cost reduction factor,” said Harris.

Wightman’s lighting design, and the ceiling’s reflective lighting cloud in the shape of a turtle, highlight the beautiful Cedar beams and Pine decking. “We used the turtle design as a lighting cloud, and we then have all the lights shining up on the wood to showcase the wood beams and the wood deck,” said Christopher J. Brayak, AIA, Wightman project architect. The turtle’s shell symbolizes the world in the Ojibwe, Odawa and Potawatomi creation story. The turtle is then a fitting image for a LEED®-registered facility intent on helping to build a new, more sustainable world and to strengthen the world of the Pokagon Band’s own community.

According to Harris, Cedar – an insect, rot and decay-resistant wood – also forms the exposed exterior building frame, as well as the two entry canopies, each composed of an open lattice of beams and single-story

columns and both continuing into the interior and rippling down the entire length of the building corridors. Natural light spills through the open Cedar framework, drawing on the light pouring through the community room’s glass curtain wall.

Timber Systems clearly delivered a high-quality installation, producing both framework and canopies at a rapid pace. We worked pretty fast,” said Harris. “We delivered materials on December 21, 2010, and we were completed on site by January 6, 2011.”

Beyond the actual building frame, the exterior of the single-story portion of the building is clad in channel cut, rough sawn Cedar siding. Majority Builders, Inc., South Bend, IN, was the general contractor, site work and carpentry contractor.

#### RESPECTING THE NATURAL WORLD

In line with Potawatomi values, this sustainable building respects the natural world and the Pokagon culture whose world view takes into consideration the impact of every decision on the next seven generations.

One of the core decisions of the 21st century is the choice of energy sources and usage levels. With future generations in mind, one of the core design principles of this project was to create an energy-efficient building. Wightman accomplished this goal through such measures as placement of 40 photovoltaic panels in the southwest corner of the site, installation of a geothermal, or

**A graceful sweep of Alaskan Yellow Cedar beams arcs over the main community room. Along with fabrication and installation, Timber Systems provided the engineering design calculated to meet the structural requirements of the building’s glu-laminated heavy timber framing.**

did the engineering design for the structural requirements of the heavy timber material,” said Roger Harris, Timber Systems president and project manager.

Timber Systems selected a type of Cedar with the necessary structural capacity to bring this unique community center to life. “We utilized the Alaskan Yellow Cedar material, because it has more structural strength than Western Red Cedar wood,” said Harris. “With its longer spans and greater structural capacity, the Alaskan Yellow Cedar allowed us to maintain the clear span on the interior of the building and to meet the aesthetic requirements of the project.”

In the community gathering room, 55-foot-long Cedar beams create the curved roof sloping downward by about seven feet



PHOTO BY CHRIS BRAYAK, WIGHTMAN & ASSOCIATES, INC.



geo-exchange, heating and cooling system, the implementation of passive solar heating and cooling strategies, and the use of natural ventilation in lieu of air conditioning. To induce proper ventilation or natural air flow, "the north side of the building has operable clerestory windows, while the south has operable windows in the community room," said Brayak.

This Earth-friendly building is cradled within the very ground in the form of an earth berm constructed to better insulate the building and a 1,400-square-foot living roof. These are only a few of the sustainability measures placing the building in line for LEED Gold Certification, said Brayak.

In addition, native plants are being cultivated on the land ringing the Pokagon

Community Center, plus all of the trees harvested on site were replaced in the landscape design. The actual wood harvested on the site was reused as wood trim throughout the interior. "We had the wood cut, dried, molded and reused on site," said Brayak. "All the trim work – window sills, window and door casings and base boards - is really beautiful."

As another sustainability strategy, the building has a 12-inch-thick concrete floor slab for greater heat absorption. "The floor is actually composed of an eight-inch slab with a two-inch sand layer and a four-inch slab on top of it," said Brayak. "We separated the concrete with sand to control cracking in order to preserve the image of a turtle in the floor of the community room." Formed of stained and polished concrete, the turtle in the floor mirrors the one in the ceiling above to create a space that embraces and expresses Potawatomi culture.

Another design driver was to "be responsive to the Pokagon Band's culture," said Brayak. "We went through and consulted with Pokagon design committees. For instance, we added a fire pit right outside the building on the southwest edge of a large patio, because for traditional funerals, they have somebody stay outside tending a fire for four days." The fire pit's presence also references the Potawatomi's place as the Keepers of the Fire in the traditional Ojibwe, Odawa, and Potawatomi alliance often referred to as the Council of the Three Fires.

For the Pokagon Band, the building will serve as a true center of the community and as a place to teach their own youth about their culture and about sustainability. "The Pokagon Band expressed the need to make the building a place for the community to come together as one," said Brayak. "The open plan scheme of the main building was intended to leave plenty of space for large group assemblies, as well as for recreational purposes."

Timber Systems' expertise helped to make this open plan possible and helped to preserve the Band's culture by framing the building in Cedar, a wood sacred to the Potawatomi and used in their purification ceremonies. Wightman's respectful design and Timber Systems' knowledge of wood structural systems have drawn the Pokagon Band together in a sustainable, light-filled building that teaches and embodies Potawatomi values in its very design and construction. ❖

# DETROIT CARPENTRY JOINT APPRENTICESHIP TRAINING COMMITTEE

DETROIT & SOUTHEASTERN MICHIGAN



**STRENGTH THROUGH  
KNOWLEDGE AND SKILL**

1401 Farrow • Ferndale, MI 48220

Phone: (248) 541-2740

Web site: [www.detcarpapp.org](http://www.detcarpapp.org)

Union Trustees

**Bart Nickerson, Chairman**  
Scott Lowes  
Dick Reynolds  
Toney Stewart  
Rich Williamson  
Pat Lindstrom

Management Trustees

**Art Hug, Jr., Secretary**  
Gene Auger  
Patrick Landry  
Jack Russell  
Chuck Raeder