Moving old houses and structures Preserves and conserves

At a time when almost anything is a candidate for demolition or recycling, the reuse of old buildings is a growing trend, reports the *Triangle Business Journal* of Raleigh, NC. Not only does it preserve history, it conserves resources from landfills.

In downtown Raleigh, for example, eight historic homes were spared demolition while growth of the region was allowed, simply by moving the structures to a new location by IASM member **Blake Moving Company**. The houses, sprinkled across the 21-acre Blount Street redevelopment site, were replanted in a cluster on the site to clear the way for new construction.

"We're trying to give historic homes an historic context," said project manager Doug Redford of LNR Property Corp. of Miami Beach, FL. Some of the homes were surrounded by parking lots and all had been converted into offices.

"I believe our group saved about 800,000 tons (of building materials) from landfills last year," said another IASM member, Wayne Overton of **Abode House Movers** in Shiloh and president of the North Carolina House Movers Association.

Wayne Overton

Moving old houses and buildings is a hot item these days, according to Eugene Brymer, staff executive for the **International Association of Structural Movers**, which has more than 375 members around the globe. He cited four primary reasons for the interest.

"Some people really want to save a particular structure because it is significant to them," he said. "And some buildings are on state or national registries and must be saved. A third reason is that old homes are moved

Blake Moving Company simultaneously relocated eight houses in downtown Raleigh, North Carolina in 2007.

for lake cottages or weekend houses, and some are moved because an owner can't afford to buy a new house. If you are given a house for free and it costs you $20,000 or $30,000 to move it, you might have a $200 or $300,000 house for not much more than the cost of the move."

IASM members have moved structures ranging from plantation homes to bridges to airport terminals. One of the most prominent moves in North Carolina was the relocation in 1999 of the 208-foot tall Cape Hatteras Lighthouse by John Matyiko, president of **Expert House Movers** in Virginia Beach. The lighthouse was moved a half-mail to protect it from continuing erosion on the Atlantic coast.

International Chimney Corp. of Buffalo, N.Y, directed the move, which required months of engineering work and planning, as well as about three weeks to actually move the structure. More than 800 tons of granite had to be removed form the base of the structure and replaced with steel supports and hydraulic jacks. The lighthouse was lifted six fee for steel support beams to be installed to form a temporary foundation for the masonry structure. The actual move was accomplished using 100 hydraulic jacks on rollers that slid along track beams to the new site.

Not many moves are as dramatic as the lighthouse, yet transplanting even small structures requires intensive preparation before relocating.

"From a design standpoint, you must take into account how to maintain the integrity of the building," said David Maurer of Maurer

Cape Hatteras Lighthouse relocation in 1999.

Architecture in Raleigh, who has moved several structures, including the house in which his office in located on East Martin Street downtown.

Midway Plantation move.

Maurer worked with Blake and developer Greg Hatem of Empire Properties on the 2006 move of All Saints Chapel in downtown Raleigh. The 1874 Carpenter Gothic-style chapel, which had been moved to its current location in the early 1900s, was relocated about six blocks. Yet, the most challenging aspects of the move was dealing with the infrastructure that was impacted by the move, according to Maurer and Hatem.

Power poles had to be taken down and put back up. Tree cutters were on standby and the city had to shut down a street for a considerable time. "It was a complicated process," said Maurer.

The mechanics of a move depend on the size of the structure and the distance it is to be moved, according to Blake. Smaller buildings are usually jacked up and the foundation removed with steel beams installed underneath for support. The structure is then harnessed to a truck and moved on wheels. Larger and heavier structures require the use of hydraulic jacks, such as those used in the Cape Hatteras Lighthouse move.

"When you're lifting a tremendous amount of weight, it's critical to put the proper deflection in the steel (supports) and to keep the building in the same geometric plane," Blake said. "In larger buildings, we use dollies with hydraulic jacks to relocate the building in a three-point plane."

According to Blake, three of the Blount Street project homes was particularly tricky. One was of masonry construction which made it heavier and more tedious to load, a second was oddly shaped and tough to balance, and a third had plaster interiors and multiple fire places.

A third-generation mover, who has been relocating structure for 40 years, Blake led the move of the 5,000-square-foot former chancellor's resident at the University of North Carolina at Greensboro. The home's slate roof was removed and steel bands were placed around the 400-ton masonry structure before it was moved several blocks to serve as an admission office for the university.

One of his most complicated moves, however, was Wake County's Plantation, which "had some harrowing moments."

"We moved the house about five miles, and we had to go over a bridge and through a rock quarry," Blake recalled. "I must have studied that route 50 times and measured every inch of it. At one point, we had the wheels underneath on the edge of a quarry and the house hanging 400 feel up in the air. You get some kind of adrenaline rush when you go through something like that."

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