

WORLD'S LARGEST PREASSEMBLED METAL DOMES RAISED IN ANNAPOLIS

By MARK NICOLAS

The world's largest ground-assembled metal domes were lifted into position atop the 16-story condominium named Grandview at Annapolis Town Centre in Parole, MD, on Saturday, July 19, 2008. The three 38-foot-diameter metal domes were manufactured by Lancaster Domes, Mount Joy, PA, and assembled and installed by CitiRoof Corporation, Columbia, MD. The domes are made of roofing metal coated with Kynar® polyvinylidene fluoride in a copper-patina-look green. They were assembled on the ground over the course of five days, lifted by crane into position 150 ft above ground, and firmly secured in just over eight hours.

The architectural metal domes, a visible landmark in this historic city, are believed to be the largest ever preassembled on the ground and then lifted into place.

"It was a learning experience for everyone on our team," said Lee Goldhammer, president of CitiRoof, the project's roofing contractor. "We worked closely with Lancaster Domes to coordinate the procedure, adding the structural rein-



Photo 1 - Domes ready to be loaded at Lancaster Domes.

Photo 2 - Arriving on-site via flatbed truck.

forcement required by our engineer and, of course, the assembly and lift approach. We really appreciate that most of the work was done on the ground, which greatly increased the safety for our crew."

Ken Musser, president of the company making Lancaster Domes, knew that the company's dome roof technology, where thin, triangular, curved metal panels link to

form the dome, was being stretched to the limit. "We had never built a dome roof this large, let alone three of them. Our largest standard size is 34 feet in diameter, but at this size, an extra measure of precision becomes critical if the entire dome is to be assembled smoothly. Our manufacturing team rose to the challenge and did an excellent job."

Each dome features a steel angle-iron base ring, which forms the diameter at the bottom, and a top ring, where a 4-ft opening is covered by matching material. There are 66 fabricated panels - each like a very thin, curved pizza slice - that join together, held by special metal clips. 



Photo 3 - About to top Grandview at Annapolis Town Centre.



Photo 4 - All three domes in position.

Mark Nicolas

Mark Nicolas is owner of The Nicolas Group (nicolasgroup.com), a marketing and communications firm. CitiRoof Corporation provides roofing services in the Baltimore/Washington, DC, region. Its jobs have included work on the Lincoln Memorial, the U.S. Treasury Building, and BWI Airport. Lancaster Domes has been in operation since 1981, originally producing dome roofs for farm silos. It now manufactures specialty metal dome roofs for architectural applications.