

## Kendall Griffith | The Geode

By Vicki Stavig

I'm the project manager for Mortenson Construction, which is the general contractor for the University's Gateway. We scheduled the project, assembled the building team, assisted with management of the budget, and coordinated and managed all the other trades, which probably exceeded 70 contractors. I think we peaked at 180 people on site at any given time.

The Gateway is a spectacular 230,000-square-foot structural steel accomplishment and is the most complex project I've ever worked on. People describe the Gateway's asymmetrical south side as a geode, which is a rock that splits apart and has a gorgeous, crystal interior. The Gateway's geode, constructed using 500 beams, encloses 85-foot-tall Memorial Hall and sort of leans into the office block. It is a tremendous visual monument in and of itself.

We had to work from thousands of blueprints because the geode is so three-dimensional. There is no repetition in beam size, lengths, or connections, so matching the different surfaces required a great deal of fabrication. And there are very few 90-degree angles. The project involved more than 1,000 shop drawings because no two connections are alike. Typically a project would have only 150 to 200 drawings. It's extremely difficult to engineer the connections required to make the geometry work when you're leaning a 60-degree angled wall against a vertical wall with a roof coming off the top at 40 degrees and dealing with the weight imposed by the stone and interior wood and the potential wind and snow loads.

The outside of the geode is covered with 40,000 square feet of rose-colored granite—2,200 blocks weighing up to 1,000 pounds each. Inside the Memorial Hall atrium, rock is used in a series of platforms. Water will cascade down and into a pool. Other features in Memorial Hall are a black terrazzo floor and six miles of 1-inch-by-8-inch vertical-grained hemlock that lines the walls.

The Gateway includes 75,000 square feet of copper—20,000 square feet of it on the interior. When we first

put the copper shingles on the outside of the structure, it looked pretty "oilcanny," but within weeks it started to turn dark and now it looks very classy. The patina on the interior copper was accelerated to match the outside, because it wouldn't age at the same rate in a controlled climate. The project also includes 4,200 square feet of skylights and 5,200 square feet of glass curtain wall, with another 7,000 square feet of regular, rectangular windows.

I've been involved with the Gateway since the fall of 1997 and, with the exception of a few days off, have been



on site since we broke ground March 2, 1998. My son, Alex, was born March 14, 1998, the day we drove the first pile, so I've watched him grow with the building. The Gateway is spectacular, and it has been wonderful to be involved in building it. It has been demanding and challenging, but extremely rewarding.

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*Vicki Stavig is a frequent contributor to Minnesota. She lives in Bloomington.*