



PROJECT DESCRIPTION:

A Museum of Science, Environment, and Technology

ADDITIONAL PROJECT FACTS:

- 165,000 sq. ft.
- Cleveland Clinic OMNIMAX® Theater (six story)
- Several structural systems were utilized in the construction

The Great Lakes Science Center is one of America’s largest interactive science museums. More than 400 exciting “hands-on” exhibits, OMNIMAX® films, daily demonstrations, and educational programs show visitors the interdependency of science, environment, and technology. Total building area is 165,000 sq. ft.

Some of the features include science phenomena exhibits; environmental exhibits; Gund Wintergarden-a dramatic nine-story enclosed atrium; the Cleveland Clinic OMNIMAX® Theater featuring a six-story domed theater.

Several structural systems were utilized in the construction of the Center. The structural systems for the top three levels utilized two-way concrete flat-plate, long-span, precast double tees, concrete waffle slabs, and one-way concrete slabs. All were supported on concrete beams and concrete columns. The Center’s roof construction utilized structural steel beams and columns in addition to steel trusses. The OMNIMAX® construction consisted of 3-D space trusses. The lateral structural systems consisted of concrete shear walls and structural steel moment frames. The Center’s concrete columns and basement walls were supported on 16”-diameter, 100-ton augercast end bearing friction piles extending over 100’ to the underlying bedrock.

