### Team Members

Faculty Advisor: Dr. Ahmed C. Megri

Students: Jodi Balido Grahm Balkany Dan Sochor Mary Cyriac Hana Fakhouri Dung Luu Sonya Martin Donald Myers

Brandon Macklin Oscar Martinez Laluce Mitchell Dan O'Brien David Parry Homero Rios Mike Brassil Marco Trusewych

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Simulation demo in phase of programming.

# Model Testing:

Acrylic models undergoing tests. The final model will have similar appearance as the simulation is projected from under the city base. Other tests were conducted on the models, evaluating structure, stability, etc.

# **IPRO 317** Spring 2008 Design & Build Chicago Scale Model for **Dynamic Disaster Simulation**

#### **Concepts Explored:**

- -Identification of the scale, materials, technologies, and strategies of construction
- -Physical mapping and computer modeling of the downtown built environment
- -Design of the physical model and computer/electronic components
- -Construction of reduced-area mock-up for final approval by the City of Chicago
- -Familiarizing Fire Department Personnel with Target Area
- -Identifying Problematic Scenarios -Illustrating a Vast Array of Potential Disasters
- mulating Disaster Response in Real-Time

#### **CAD** Dra wings:

[To the left] This is a screenshot from a AutoCAD file showing the entire downtown area. Using sophisticated computer modeling and dimensioning methods, the Information-Architecture team was able to accurately scale Chicago's intricate and unique buildings in order for a mathematically proportioned city scale model. This information was used and applied to the building of the model.



[Above] Here are some screenshots for the design of the base of the model. These designs were produced using Rhino, a powerful CAD tool used for 3-D modeling.





[To the left] Using AutoCAD, initial designs for the model base were drawn. The projector housing and angle of projection were considered in these designs.

#### **Basic Organization and**

The group of sixteen is split up to seven groups. ect Finance / Orchestration Information-Architecture Dung Luu aLuce Mitchell avid Parry Symbols/ Representation Oscar Martinez Homero Rios Material Collection Daniel O'Brien Marco Trusewych Information-Programming Sonya Martin Donald Myers Scenarios Jodi Balido Hana Fakhouri Brandon Macklin Material Testing Grahm Balkany Mike Brassil Daniel O'Brien

# **Scale Models:**



Using the capabilities of computer modeling along with various architectural techniques, buildings and streets were scaled appropriately for the city model.