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 a 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
- Simulating Disaster Response in Real-Time

Basic Organization and Tasks:
The group of sixteen is split up to seven groups:

- **Project Finance / Orchestration**
  - Mary Cyriac
  - Daniel Sochor

- **Information-Architecture**
  - Dung Luu
  - LaLuce Mitchell
  - David 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
  - Oscar Martinez

- **Scale Models**
  - Grahn Balkany
  - Mike Brassil
  - Daniel O'Brien

CAD Drawings:
[To the left] This is a screenshot from an 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.

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.