Rapid Prototyping Technology

Applications in Architectural Design

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Introduction

- Applications
  - Professional
  - Educational

- Case Studies
  - 2 West Church, Mixed Use Facility
  - Master Plan for Downtown Champaign
  - Geneva Information Pavilion
Professional Applications

- Morphosis
- Kolatan/MacDonald
- KTGY Group
- Architectural Nexus
Professional Applications

- Kolatan/MacDonald
  - High-Rise Residential Tower
  - Structural Framework
Educational Applications

- University Level
  - Study Models
    - Design Exploration
  - Speed
  - Economy
- Presentation Quality
2 West Church

- Mixed-Use Facility
  - Office Space
    - 4 Levels
  - Parking Deck
    - 3 Levels
  - Commercial Space
    - 1 Level
2 West Church

- Modular Design
  - Office
    - Modules subdivided into Work Groups
2 West Church

- Design Development
  - Contextual Relationship
    - Explored via Massing Models
Master Plan for Downtown Champaign

Research Question

- How can a master plan for the Downtown Champaign district revitalize the community and area?

Rational

- Champaign is a city of ~60,000 people located in central Illinois
- Champaign’s Downtown has seen 3 decades of economic + developmental decline
- Study focused on:
  - Developing Master Plan for Downtown District
  - Designing key structures to stimulate urban revitalization
Description of Downtown

Axonometric Proposed Plan

- One Main Building
- Surface Parking Lots
- Neil St.
- Taylor St.
- MTD Transit Terminal
- Champaign City Building
AutoCAD – 3D Modeling
form Z – Rendering/File Export
Proposed Master Plan

Proposed Development
Existing Buildings
Proposed Master Plan

Axonometric Proposed Plan

- 2 West Church
- Parking Decks
- Neil St.
- Water Tower Place
- Taylor St. Pedestrian Walkway
- Communication Tower
Geneva Informational Pavilion

- Phase I: Initial Design
  - Andy Harmon
  - Brent Young
  - Prof. Jeffery Poss
Existing Information Kiosk
Kane County Courthouse
Veteran’s Memorial
Impressions - Old & New
Study Model
Study Model
Structure
Study Model
Study Model
Study Model
GENEVA PAVILION
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Questions???
Comments, Concerns