## 48-749 Parametric Modeling with BIM

Fall Semester 2010 • 6-12 units • R CFA 213 01:30-04:20pm

Instructor: Ramesh Krishnamurti • ramesh@cmu.edu

TA:\_Tajin Biswas • tbiswas@andrew.cmu.edu

TA:\_Tsung-hsien Wang • tsunghsw@andrew.cmu.edu

## Assignment 1

\*Part 2 Due 10 September 2010, 01:00pm

## Part 1 Due 17 September 2010, 01:00pm

Following the devastation of Hurricane Katrina, The Make It Right Foundation (<a href="http://www.makeitrightnola.org/index.php">http://www.makeitrightnola.org/index.php</a>) has dedicated efforts to rebuild the lower 9<sup>th</sup> ward with affordable, green storm resistant homes.

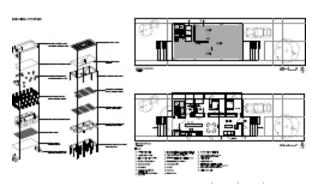
There are designs by 21 architects; most of them have .pdf files of their project with plans, sections and descriptions. Choose a case study from the projects keeping in mind that you will use it to understand BIM and build a model from only the floor plans. The work of the architects can be found at:

http://www.makeitrightnola.org/index.php/building green/meet the architects/Po/

- 1. Proposed outline of case study should include:
  - a. Description of the project, location, main function, main structural system, picture of finished project or design if ongoing.
  - b. Were there any BIM related innovations such as in planning, performance, user interaction, scheduling etc.
  - c. Give an assessment as to how much of that information can be documented or embedded in a Building Information Model such as Revit 2011.
  - d. Try to find the different project teams involved and how collaboration was realized, if there was any particular software used.
  - e. Give a summary of your findings
- 2. Following lectures 1 and 2, use Revit Architecture 2011 to model the building that you chose for your case study. You will use this model for other assignments







Plans

## Grade distribution

- a. (30%) BIM case study
- b. (50%) The system families that have to be used are
  - 1. Wall (exterior and interior)
  - 2. Floor
  - 3. Roof

(20%) Component families

- 1. Door
- 2. Windows