NEW YORK CITY
COLLEGE OF TECHNOLOGY
THE CITY UNIVERSITY OF NEW YORK

DEPARTMENT OF ARCHITECTURAL TECHNOLOGY

ARCH 2330 BUILDING TECH III **PROJECT DESCRIPTION**

Project Overview:

Develop a building from the schematic design phase to a complete set of design development and construction documents drawings. We begin as a team working to select a project, analyze and identify design and construction issues and to present workable solutions that resolve issues including structure, mechanical systems, circulation, code compliance, façade design, construction materials & detailing. The goal is to demonstrate an understanding of building and detail assembly.

- *Individual sets of AutoCAD drawings will be created as a means to study the project.*
- *Individual sets of Revit drawings will be created by each student as part of their project development.*
- *Individual research model and presentations of wall assemblies and construction is required.*

The Building Project:

Each building will follow the same basic requirements for design and construction:

- *Foundation and Structure from basement to first floor shall be constructed of cast-in-place concrete.*
- *From the first floor up the structure is to consist of steel frame columns, beams and trusses with steel deck floors.*
- *Each building's exterior façade must include two types of construction, curtain wall and a solid material like precast, rain-screen, etc. (Materials choices will be provided). Masonry walls are not acceptable. This will require the development of two separate wall section detail studies. Additional options presented by students will be considered.*
- *Each group and student is expected to complete research as part of their individual project as follows:*
  - *case studies of built projects and construction systems*
  - *product research from manufacturers websites and other sources*
  - *materials research from manufacturers websites and other sources*

The Team:

Each team is responsible for developing and adhering to a work and meeting schedule and must develop their own critical path for the work that addresses issues of team work, the fair division of labor and internal team deadlines. A critical path identifies all tasks needed to complete the work, estimates the time required for each and puts these in sequential order. In particular critical path looks to identify tasks that must be completed before others can begin.

- *The team will be responsible to select a project. Projects must be of sufficient complexity to be a multistory building (3+ basement) with a requirement for some long span structure. All selections must be approved by the professor.*
- *The team will be responsible for site selection from a choice of local sites within walking distance of the school and to develop a complete site inventory & analysis as well as an accurate zoning study.*
- *All team members are responsible to produce work for each deadline and to participate in each team presentation.*
- *All teams will be required to select a research topic and present their findings to the class.*

The Individual:

Students will work as a team to complete zoning research but each student must develop their own drawings. When we transition our work to Revit students will begin individual development of their projects. While teams will continue to share research and solve some issues as a group, each student is expected to make the building their own by developing different solutions for building façade development, treatment of public spaces or other significant changes. When teams produce group presentations each slide should be initialed by the team members who contributed. Everyone must present.

Reviews:

Review of team and individual work may occur at any time – you must always be prepared to discuss your progress.

Grading:

50% Individual Drawings + 15% Team Research & Presentations + 15% Lab Assignments + 15% Sketching + 5% Participation

SPC: (B.4 Technical Documentation, B.7 Building Envelope Systems and Assemblies, B.8 Building Materials and Assemblies)