



WK7/DAY .13

ARCH 2330 BUILDING TECH III

AGENDA: Foundations & Floor Slabs

Today's Class: *Revit: Creation of foundations, footings and structural walls & floor systems. Creation of basement columns using concrete.*

Guided class tutorial on foundations followed by each student working on the foundations of their own building.

Agenda & Attendance (Class Time 3 hours)

Activity 1

- Introduction to Foundations
 - Student Q & A
 - What role does a foundation serve?
 - Structural support (vertical and lateral)
 - Connect load of building to the ground
 - Resist Hydrostatic Pressure
 - Resist water penetration
 - Redirect water
 - Developing details
 - Understand how each element of a detail serves a purpose
 - First identify something the detail needs to do (resist hydrostatic pressure)
 - Then respond to this need accordingly
 - Searching for detail references on the internet : (various searches for details)
 - *Concrete foundation detail drawings*
 - *Connecting concrete footings to piles*
 - *Waterproofing foundation and footings*
 - *Connecting steel columns to concrete foundations, footings and columns*
 - Evaluate a detail to understand if it works well or not – be skeptical and critical

Activity 2 (Revit)

- Create your project basement level
- Create your project foundation wall
 - Change display settings to see new walls
 - Add footings
- Create basement level concrete columns
 - Add isolated footings
- Customize families as needed (Edit Type > Duplicate)

Wrap-Up and Deadlines

- **Basement level foundation walls with footings and concrete columns with footings must be complete before next class**
- **Search and find your foundation details. Keep sources in a word document**