Subject:	Building Information Modelling with Revit Architecture
Course:	Revit Night Course
Session:	Spring 2020
Lecturer:	Paul Vesey BEng, MIE, HDip

Assignment 2 (33%) - Commercial Units

Issue Date:	As stated on Moodle
Submission Date:	As stated on Moodle

Assignment Outline

You are required to model a three unit retail building facility to the specification as detailed below and on the sample design drawings. Your design will also become the part of the basis of Assignment 3.

Specification

- Your design should be similar to that shown in the attached drawings
- Fit out details to be provided for two of the units. The third should show the structural make-up.

External Walls

A 5 part Stacked wall with 215mm block inner leaf. Wall-Ext-Stacked_5-Parts(Commercial), L1 to L5, from the top down:

- L1_Wall-Ext_102Bwk-50Air-65Ins-215DBlk-15Rnd&P (Commercial Wall); variable height
- L2_Wall-Ext_100St-50Air-65Ins-215DBlk-15Rnd&P (Banding); 1200mm high
- L3_Wall-Ext_20Rdr-100Blk-50Air-65Ins-215DBlk-25Ins (Plinth); 225mm high
- L4_Wall-Ext_100Blk-115Conc-215DBlk-15Rnd&P (Rising Wall); 225mm high
- L5_Wall-Ext_440Dblk (440mm Foundation Blockwork); 1200 high

Internal Walls

- Generally: 100 & 215mm blockwork
- Separating Walls: 215 blockwork
- Glazed Curtain Walls to front

Foundations

- 1350mm wide x 600 deep strip foundations to external walls
- 700mm wide x 450mm deep strip foundations to separating walls
- 750mm wide x 750mm long x 500mm deep Pad Foundations to columns

Floors

- Ground Floor: (Floor-GF-Comm_150PFConc-100Ins-DPM-50Sand-200SHc);
  - 150 Power floated concrete slab on
  - 100mm Insulation on
  - DPM on
  - 50mm Sand on
  - 200 Site Hardcore
- First Floor: (Floor-FF-Comm_75SScr-150PCU);
  - 75mm Structural Screed on
  - 150mm Precast Concrete Units

Ceilings

3 No ceiling types to be included

- 600 x 600mm grid
- 600 x 1200mm grid
- plastered compound ceiling

Lighting

3 No different light fittings to be incorporated into the ceiling

Roof

- Roof to be Revit Standard, Basic Roof - Pitched Warm Industrial on Steel Roof trusses on Steel or Concrete columns built into walls

Site

Flat toposurface of approx 90m wide x 80mm with Building Pads, some trees, cars and people

Your Submission should contain the following

Sheet Size	Sheet No.	Title
A1	B101	Cover Sheet
A1	B102	Ground Floor Plan
A1	B103	First Floor Plan
A1	B104	North & South Elevations
A1	B105	East & West Elevations
A1	B106	Sections, Details and Schedules

B101 - Cover Sheet

- Three Dimensional (Aerial View) of the model
- A list of the drawings in the design pack
- Cloud rendered external and internal views

B102 - Ground Floor Plan

- Ground Floor Plan @ 1:100 with dimensions and Room Titles

B103 - First Floor Plan

- First Floor Plan @ 1:100 with dimensions and Room Titles

B104 - North & South Elevations

- North & South Elevation @ 1:100

B105 - East & West Elevations

- East & West Elevation @ 1:100

B106 - Sections, Details and Schedules:

- A longitudinal section facing East (Through Unit 1 Staircase) @ 1:100
- A Cross Section facing North (Facing Unit 1 & 2 Staircases and Mezzanines)
- A detail view (Call-out) should be provided showing the Foundation / Stacked Wall / Floor Interface @ 1:20. Make use of the Masking and Component tools and the 'repeating detail' functionality of Revit. Annotation should include, at a minimum, the construction details outlined in the Specification provided.
- A Door schedule and a Window Schedule

Additional Sheets may be submitted if so desired.

Presentation and Submission

1. All drawing sheets must have the LIT Built Environment logo and be clearly marked 'Educational Exercise - Not for Construction. Your name and K-number is to be clearly identifiable on all sheets.

2. Design drawings should be completed on a minimum of six A1 sheets at the scales stated above. Additional sheets with detailed information or images may be submitted at your discretion.

3. You are required to submit you project as a single Revit (.rvt) file through Moodle

4. Drawings should show all necessary information to communicate design intent

5. The Revit filename should be of the form Semester + Year + Project No. + First Initial + Surname + K-Number.
   An example would be 'Spring18P02PVeseyK00123456.rvt'. Do not use spaces in the filename.

6. Your drawings should show all necessary information to communicate design intent.