

Building Construction 4. Lecturers: B. Mesterházy, Dr. Z. Hunyadi Workshop Heads: B. Mesterházy, R. Varga Semester 2019/20. Session I.

SEMESTER PROJECTS

SUBJECT AND INTENTION OF THE PROJECTS

Prepare the working drawings of the *flat roof with waterproofing and the internal formative* **structures** of the multi-storey residential building worked on former semesters.

The determination of the flat roof type, the type of the waterproofing and the elevation cladding are part of the task.

In the process of the project:

- apply the indication rules and regulations of the working excercises;
- learn the procedure of determination and the joints of different building structures.

1st SEMESTER PROJECT (FLAT ROOF)

Prepare the working drawings of the flat roof for the given multi-storey residential building. All the students have to solve at least two different kinds of a flat roof (trafficked or non-trafficked roof surface) on the building! The materials to use will be determined by the tutor on the task paper.

The following drawings should be handed in:

- Layouts (in case of a symmetrical building, the half of the floorplan is enough to draw for the plan of the drainage system and the mechanical fastening):
 in 1:50
 - Plan of the floor finishing (the top view of the flat roof: indicating the inclination and the level of the finish, the attic walls and the roof upstands etc.)
 - Plan of the drainage system (indicating the slopes, the heights/level of all the structures on the roof)
- 2 longwise and 2 crosswise sections of the flat roof

in 1:50

 At least 6 details - with indications all the different layers, elements and the loadbearing structures, with measurements (determined by the tutor on the task paper!)
in 1:5 or 2,5

Deadline: according to the topics schedule!

2nd SEMESTER PROJECT (INTERNAL FORMATIVE STRUCTURES)

Prepare the working drawings of the determined part (choosen by the tutor) of the general floor plan of the multi-storey residential building worked on former semesters.

The part of the building includes (determined by the tutor):

- one (bed- or living) room and
- the bathroom with the shaft beside or the toilette with the shaft beside and balcony
- and the staircase.

The student has to adopt the load-bearing structures and the doors/windows and the elevation cladding designed in the former semesters. The requirements of the sound insulation on the flat separating structures have to be determined! The floor finishing and the suspended ceiling have to be choosen according to the load-bearing structures (in order to fulfil the sound requirements together).

The bathroom and the balcony have to be applied with waterproofing membrane.

The following drawings should be handed in:

- the determined **detail of the general floor plan** (indicating the wall and the floor coverings and the arrangement of the shaft also) in 1 : 20
- the general **longwise and crosswise sections** of the determined part of the building (indicating all the layers and the desing of the wall/floor coverings) in 1 : 20
- at least 4 details of floor (eg. wall-floor connection in the room/bathroom/balcony, the covering of the stairs, finishing change, threshold detail etc.) in 1 : 5 or 1 : 2,5
- the **layout and a longwise and a crosswise section of suspended ceiling** in the room (indicating the fixing elements) in 1:20
- at least 2 details of suspended ceiling (eg. built in lamps, wall connection etc.)

in 1:1 or in 1:2 or in 1:2,5

Deadline: according to the topics schedule!

GENERAL NOTES AND REQUIREMENTS

The project has to handed in on drawing paper A/3 (297/420 mm) or max. A/2 (420/594 mm), prepared with pencil or inked (with inked figures and range marks!). The projects should be handed in with a folder with the title of the project, the student's name, the date, the instructor's name, etc. on it.

Drawings by CAD are not accepted!!! The each part of the task has to be completed with **at least two consultations certified by the instructor!** The original task paper has to be handed in with the projects.

The minimum readyness level of the semester project is at least 90 % at every submission, otherwise the semester is lost. The submitted but not accepted drawings won't be given back for correction and completion!

Budapest, 11. September 2019.

Beáta MESTERHÁZY workshop head

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