

## I. IDENTIFICATION DATA

<b>Thesis name:</b>	<b>Design of load-bearing structure of an office building with large slab opening</b>
<b>Author's name:</b>	<b>Madina Zharas</b>
<b>Type of thesis :</b>	bachelor
<b>Faculty/Institute:</b>	Faculty of Civil Engineering (FCE)
<b>Department:</b>	Department of Concrete and Masonry Structures
<b>Thesis supervisor:</b>	Ing. Petr Bílý, Ph.D.
<b>Supervisor's department:</b>	Department of Concrete and Masonry Structures

## II. EVALUATION OF INDIVIDUAL CRITERIA

<b>Assignment</b>	<b>ordinarily challenging</b>
<i>Evaluation of thesis difficulty of assignment.</i>	
The thesis was focused on the structural design of the main load-bearing elements of an ordinary office building. This means that the student could mostly rely on her knowledge gained in the basic courses of her study.	

<b>Satisfaction of assignment</b>	<b>fulfilled</b>
<i>Assess that handed thesis meets assignment. Present points of assignment that fell short or were extended. Try to assess importance, impact or cause of each shortcoming.</i>	
All the goals of the thesis defined in the assignment were fulfilled. The thesis was extended by the design of foundations.	

<b>Activity and independence when creating final thesis</b>	<b>C - good.</b>
<i>Assess that student had positive approach, time limits were met, conception was regularly consulted and was well prepared for consultations. Assess student's ability to work independently.</i>	
The student consulted her thesis regularly and worked on it continuously in the course of the semester. In the beginning, it took her quite a long time to finalize the concept of the load-bearing system and the preliminary design. Then she continued her work without substantial problems.	

<b>Technical level</b>	<b>C - good.</b>
<i>Assess level of thesis specialty, use of knowledge gained by study and by expert literature, use of sources and data gained by experience.</i>	
The student successfully applied her knowledge gained in the basic courses of concrete structures. I have to appreciate that she learned the basics of SCIA FEM software and applied it to the design of the structure successfully. Even though the design of the structure is acceptable as it is, some adjustments would be suitable to make the structure more efficient and economic. The slab could definitely be thinner with the use of punching reinforcement and optimization of bending reinforcement, but due to the slower progress in the initial phase there was unfortunately not enough time to perform the optimization in the end.	

<b>Formal and language level, scope of thesis</b>	<b>B - very good.</b>
<i>Assess correctness of usage of formal notation. Assess typographical and language arrangement of thesis.</i>	
The language level is very good as well as typographical arrangement of the thesis.	

<b>Selection of sources, citation correctness</b>	<b>B - very good.</b>
<i>Present your opinion to student's activity when obtaining and using study materials for thesis creation. Characterize selection of sources. Assess that student used all relevant sources. Verify that all used elements are correctly distinguished from own results and thoughts. Assess that citation ethics has not been breached and that all bibliographic citations are complete and in accordance with citation convention and standards.</i>	
The student mainly used the textbooks and lectures related to the basic courses of concrete structures, which was sufficient considering the nature of the thesis. Citation ethics has not been breached and all sources have been mentioned.	

**Additional commentary and evaluation**

*Present your opinion to achieved primary goals of thesis, e.g. level of theoretical results, level and functionality of technical or software conception, publication performance, experimental dexterity etc.*

I have no more comments.

**III. OVERALL EVALUATION, CLASSIFICATION SUGGESTION**

*The thesis has an average technical and formal level. The student successfully applied her knowledge gained in the basic courses of concrete structures and the basics of FEM modeling, but no further optimization of the first design of the structure was conducted.*

I evaluate handed thesis with classification grade **C - good**.

Date: **14.1.2019**

Signature: *Petr Bílý*