EUROPASS CERTIFICATE SUPPLEMENT(*)

Republic of Estonia

1. TITLE OF THE CERTIFICATE - ET (1)

Volitatud ehitusinsener, EKR tase 8

(1) In the original language

2. TRANSLATED TITLE OF THE CERTIFICATE (1)

Chartered Civil Engineer in Buildings and Structures, EstQF level 8

(1) If applicable. This translation has no legal status.

3. PROFILE OF SKILLS AND COMPETENCIES

Civil engineers act as specialists in designing, establishing, expanding and renovating buildings and facilities, as well as in demolishing and restoring buildings and facilities. In performing their professional duties, civil engineers give consideration to social, economic, environmental, occupational safety, occupational health and ethical aspects, and work with specialists in related fields.

Civil engineers in the engineering of building and structures specialise in one of three sub-specialities:
a) Building[1] construction
b) Harbour construction
c) Geotechnical engineering[2]

In specialisation, at least one of the following occupations must be chosen.
a) In building construction:
- Preparing building design documentation
- Construction activity management
- Construction management
- Owner supervision
- Expert analysis of building design documentation
- Building audit
- Design management[3]
- Construction cost estimation
- Engineer training and field development

b) In harbour construction:
- Designing port facilities
- Construction activity management
- Construction management
- Owner supervision
- Expert analysis of building design documentation
- Building audit
- Design management[3]
- Construction cost estimation
- Engineer training and field development

(*)**Explanatory note**

This document is designed to provide additional information about the specified certificate and does not have any legal status in itself.
The format of the description is based on the following texts: Council Resolution 93/C 49/01 of 3 December 1992 on the transparency of qualifications, Council Resolution 96/C 224/04 of 15 July 1996 on the transparency of vocational training certificates, and Recommendation 2001/613/EC of the European Parliament and of the Council of 10 July 2001 on mobility within the Community for students, persons undergoing training, volunteers, teachers and trainers.

More information available at: http://europass.cedefop.europa.eu/et/home

c) In geotechnical works:
- Geotechnical design
- Construction activity management
- Construction management
- Owner supervision
- Expert analysis of building design documentation
- Building audit
- Engineering geodetic surveys
- Design management[3]
- Construction cost estimation
- Engineer training and field development

Chartered civil engineer, Level 8 is a specialist who is responsible for their own performance and that of others in the work group they manage.
Chartered civil engineer, Level 8 professional qualification certificate entitles its holder, on a statutory basis, to act as a competent person independently and at his or her own risk within the limits described as follows.

I CONSTRUCTION OF BUILDING OR PORT FACILITY SUBJECT TO BUILDING PERMIT REQUIREMENT, GEOTECHNICAL WORKS, CONSTRUCTION MANAGEMENT
No technical limitations.

II PREPARATION OF BUILDING DESIGN DOCUMENTATION FOR BUILDING AND PORT FACILITY SUBJECT TO BUILDING PERMIT REQUIREMENT, GEOTECHNICAL DESIGN
No technical limitations.

III OWNER SUPERVISION
No technical limitations.

IV EXPERT ANALYSIS OF BUILDING DESIGN DOCUMENTATION

V BUILDING AUDIT

VI DESIGN MANAGEMENT[3]
No technical limitations.

VII CONSTRUCTION COST ESTIMATION
No technical limitations.

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[1] - In the framework of civil engineers' standards, the word "building" refers to all land structures except bridges, tunnels, culverts, etc., which are part of the road construction industry
[2] - A qualification granted in geotechnical engineering, a sub-speciality of general construction, also provides the right to act as a level 8 competent person in road engineering and in geotechnical works in the speciality of utility systems of buildings in environmental engineering.
[3] - design management refers to project management of the full design project, not that of specific areas of work

MANDTORY COMPETENTCE

1 Mandatory competencies in the occupation of civil engineer
- Following the requirements for professional ethics
- Professional self-education
- Participation in teamwork, team management
- Applying the principles of environmental protection and energy efficiency
- Applying specialized knowledge to work
- Digital competence and language skills

SPECIALISED COMPETENCIES

2 Building construction
- Work management and organisation
- Quality control of completed works and their parts
- Determining the complex compliance and suitability of completed works
- Arranging the transfer of completed works to the client

3 Port construction
- Work management and organisation
- Quality control of completed works and their parts
- Determining the complex compliance and suitability of completed works
- Arranging the transfer of completed works to the client

4 Geotechnical works
- Work management and organisation

- Quality control of completed works and their parts
- Determining the complex compliance and suitability of completed works
- Arranging the transfer of completed works to the client

OPTIONAL COMPETENCIES

5 Preparing building design documentation
- Compiling the design project within the competence of the professional qualification level
- Collecting and analysing source data
- Selecting, calculating and dimensioning the scheme and type of load-bearing solutions
- Determining building enclosure solutions
- Compiling the explanatory letter
- Collaboration with the design team
- Preparing and formulating the design documentation for the structural part
- Preparing a demolition project for structures
- Preparing user manual and service manual for the building
- Conducting designer supervision

6 Designing port facilities
- Preparing the design documentation for a port facility within the competence of the professional qualification level
- Collecting and analysing source data
- Selecting, calculating and dimensioning the scheme and type of load-bearing solutions
- Compiling the explanatory letter
- Collaboration with the design team
- Preparing and formulating the design documentation for the structural part
- Preparing a demolition project for structures
- Preparing facility maintenance and operation instructions
- Conducting designer supervision

7 Geotechnical design
- Geotechnical design within the competence of the professional qualification level
- Conducting soil surveys
- Calculating the overall stability and bearing capacity of excavation pits, slopes, earth embankments and cuttings/trenches
- Planning retaining and pile walls
- Planning soil compaction, improvement and reinforcement
- Determining the load bearing capacity of piles
VGeotechnical impact assessment of construction activities

8 Management of construction activities
- Management of construction activity within the competence of the professional qualification level
- Compiling tenders
- Planning construction activities
- Planning construction resources
- Management of subcontractor procurements and conclusion of contracts
- Procurement of construction supplies
- Management of construction activities during the construction
- Organizing quality control and surveying
- Preparing the construction site handover documentation
- Arranging the handover of the construction site

9 Construction management
- Construction management within the competence of the professional qualification level
- Conducting needs assessment surveys
- Preparing procurements and compiling procurement documentation
- Planning the building life cycle
- Construction cost calculation
- Design work preparation and organisation
- Selecting designers and preparing contracts
- Construction work preparation
- Tender documentation preparation
- Subcontractor selection
- Co-ordinating the construction process as the client's representative
- Handover and implementation of the construction site
- Warranty period procedures

10 Owner supervision
- Performing owner supervision within the limits of competence provided by the profession standard
- Developing a monitoring programme
- Verifying requirement compliance of the design project
- Verifying contract compliance of the construction work
- Quality control and assessment
- Verifying compliance with safety requirements

- Verifying required documentation
- Receiving the building
- Information distribution
- Making proposals

11 Expert analysis of building design documentation
- Conducting expert analysis of the design project within the competence of the professional qualification level
- Familiarization with the project, collecting and analysing the source data
- Determining the volumetric accuracy of the design project
- Determining the compliance of project solutions with their purpose and requirements
- Compiling the expert analysis report

12 Building audit
- Conducting facility audits within the competence of the professional qualification level
- Familiarization with the system, collecting and analysing the source data
- Organizing additional studies and tests
- Performing control calculations and additional measurements
- Compiling the audit report

13 Geotechnical site investigations
- Conducting geotechnical site investigations within the competence of the professional qualification level
- Conducting field studies
- Preparing study reports

14 Design management
- Conducting design management activities within the competence of the professional qualification level
- Preparing the design contract
- Assembling the design team
- Organizing the exchange of information
- Design coordination and quality management
- Arranging designer supervision

15 Construction cost estimation
- Conducting cost and cost-benefit studies
- Preparing the client's budget, cost planning
- Preparing the cost sections in tenders

16 Training of engineers and research in construction
- Training activities
- Compiling study and instructional materials
- Conducting scientific or applied research works

4. RANGE OF OCCUPATIONS ACCESSIBLE TO THE HOLDER OF THE CERTIFICATE [(1)]

Designer, person executing owner supervision, construction manager, project manager and consultant.

[(1)] If applicable

5. OFFICIAL BASIS OF THE CERTIFICATE

Name and status of the body awarding the certificate The occupational certificate that has been issued by the professional council that operates under the activity license issued by a Awarding Body	**Name and status of the national/regional authority providing accreditation/recognition of the certificate** Sector Skills Council approved by a Regulation of the Government of the Republic
Level of the certificate (national or international) Estonian Qualification Framework level 8 European Qualification Framework level 8	**Grading scale / Pass requirements** passed/fail
Access to next level of education/training	**International agreements**

Legal basis

Occupational Qualifications Act (RT I 2008, 24, 156; 01.09.2008)

6. OFFICIALLY RECOGNISED WAYS OF ACQUIRING THE CERTIFICATE

In order to obtain a occupational certificate, the applicant has to prove all his/her competencies required by the occupational standard and by the procedure for awarding of occupational qualification established by the body awarding the occupational qualification

More information (including a description of the national qualifications system) available at:
www.kutsekoda.ee