THE WORK OF THE QUALITY SURVEYOR

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CM4
Controlling of construction technology

Introduction

Rules and prescriptions

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Introduction

SYSTEMS WORLDWILDE

Local (Hungarian) system
- controls technical and economic aspects

Anglo-Saxon system

Building surveyor
- controls mainly technical aspects
- gives various advice regarding to a construction project

Quantity surveyor
- controls economic aspects

Typical activities of a building surveyor:
- ensuring projects are completed on budget and to schedule
- preparing scheme designs with costs, programs for completion of projects and specification of works
- preparing documents for tender and advising on appointing contractors, designers and procurement routes
- determining the condition of existing buildings, identifying and analyzing defects, including proposals for repair
- negotiating on professional fields representing the client
- carrying out feasibility studies
- advising on specialist’s fields
Introduction

SYSTEMS WORLDWILDE

Building surveyors are usually specialized on one of the following fields:

- disabled access
- fire safety engineering
- energy efficiency and sustainable development
- construction law
- forensic inspection
- dispute resolution
- maintenance
- private certification
- building materials science
- code development & legislation
- expert witness
- alternative building solutions
- health and safety
- preservation/conservation of historic buildings

Typical activities of the quantity surveyors (cost engineer):

- preparing tender and contract documents, including bills of quantities with the architect and/or the client;
- undertaking costs analysis for repair and maintenance project work
- assisting in establishing a client's requirements and undertaking feasibility studies
- performing risk and value management and cost control
- advising on procurement strategy
- identifying, analyzing and developing responses to commercial risks
- preparing and analyzing costs for tenders
- allocating work to subcontractors
- providing advice on contractual claims
- analyzing outcomes and writing detailed progress reports
- valuing completed work and arranging payments
- maintaining awareness of the different building contracts in current use
- understanding the implications of health and safety regulations
Quantity surveyors can be specialized on one of the following fields:

- offering advice on property taxation
- providing post-occupancy advice, facilities management services and life cycle costing advice
- assisting clients in locating and accessing additional and alternative sources of funds
- enabling clients to initiate construction projects
- advising on the maintenance costs of specific buildings

quantity surveyors:

on the client’s side:

- professional quantity Surveyor

on the constructors side:

- main contractors quantity surveyor

RICS – organisation for QS-s
Introduction

HOW TO BE A QUALITY SURVEYOR IN HUNGARY?

• intermediate education:
  • superstructure construction (bricklayer, carpenter)
  • substructure construction
  • general formen
  • electrical installer
  • plumbers

quality surveyor II. with limited competence
(only on their own fields – since 2013 not any more possible)

+ years of practice

• BSc or higher degree in the field of construction
  • engineers (civil, building, construction)
  • architects

quality surveyor I. with unlimited competence
(every fields)

+ years of practice

(+ 6 months education as quality surveyor) + exam

THE MAIN ROLE OF A QUALITY SURVEYOR

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<th>participant</th>
<th>controlling process</th>
<th>controlling aspect</th>
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<td>quality surveyor</td>
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<td>designers</td>
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<td>state</td>
<td>during the construction</td>
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TO HIRE A QUALITY SURVEYOR

A) independently:
   • as a private person
   • as an employee of a private company

B) as a service:
   • provided by the designer
   • provided by a PM company

CANNOT be provided by the contractor company!!

RELATION PATTERNS

A)
2 RELATION PATTERNS

B)

client

architect

quality surveyor

construction management

contractor contractor contractor

2 CASES OF APPLICATION

Obligatory

• in case of private investment if there are more than one contractor

• if it is a public procurement

Facultative

• in case of private investment if there is a general contractor

! ?

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2 LEGAL ENVIRONMENT

regulations concerning to the work of quality surveyor:

• 1997 LXXVIII. Act – On the built environment
• 133/2010 governmental order - on the education
• 191/2009 governmental order – on the construction

3 INNER CONTROLLING PROCESSES

client

project management
(if exists)

total control

self-controlling of the contractor

architectural supervision

quality surveyor

plans

technical solutions

construction works

hidden structures

progress

costs
CONTROLLING THE PLANS

• controlling of the plans in accordance with the
  • standards
  • regulation
• proposing alteration of the plan if
  • technically
  • financially reasonable.

CONTROLLING THE CONSTRUCTION

1. QUANTITY

• controlling of the setting out of the building

• controlling the geometry of the building (in accordance with the plans)

• controlling volume of the completed work
CONTROLLING THE CONSTRUCTION

2. QUALITY

- ensure the prosecution of the prescribed tests
  - soil mechanics
  - humidity
  - strength
  - etc.

- controlling the quality that is prescribed by the standards

- note all failures (deficiencies and faults) in the construction logbook

- controlling the hidden structures before getting covered
  - reinforcement
  - electric wiring
  - plumbing
  - insulation
  - screeds
  - etc.

CONTROLLING THE CONSTRUCTION

3. SAFETY RULES

- controlling health and safety regulations related to each technology
IN CASE OF DEFICIENCY AND FAULTS...

decisionmaking

• if the consequences of the failure do not risk health or work safety, and the building still meets the regulations – there are 3 choices:
  • demolition + repeated construction
  • correction of failures (if possible)
  • value reduction (discount from construction fee)

• in any other case – there are 2 choices:
  • demolition + repeated construction
  • correction of failures (if possible)

ADMINISTRATIVE TASKS

• continuous controlling of the construction logbook, on the basis of the following aspects:
  • fulfillment of the formal requirements (first page, signatures, etc.)
  • regular updates (existence of the required notes)
  • existence of the required signatures

• controlling of the conformance of the applied material (CE, etc.)

• informing the client
  • if the completed work is according to the contract
  • about the progress
  • about the cost
  • if the interim invoices can be paid

• take part in the hand over process
CONSTRUCTION LOGBOOK / SITE RECORD

Tasks and duties

since 2013 online e-logbook has been used

former e-book

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CONSTRUCTION LOGBOOK

• up to 2013 an original one and a copy was required on the site
• now online e-book is used
• content
  • general data about the contractor, client, architect, quality surveyor ...
  • daily reports (by the contractor)
  • reports and notes of the quality surveyor
  • reports and notes of the authorities
  • notes of the architect (in case of architectural supervision)
  • annexes (e.g. drawing details, statements or other documents)

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http://www.prospects.ac.uk/quantity_surveyor_job_description.htm 2013-04-13

Pictures:
http://www.tabla.hu/termek/NYA018001 2012-03-28