

Construction Contracts, Law and Finance

23CVC102

Semester 2 2024

In-Person Exam Paper

This examination is to take place in-person at a central University venue under exam conditions. The standard length of time for this paper is **3 hours**.

You will not be able to leave the exam hall for the first 30 or final 15 minutes of your exam. Your invigilator will collect your exam paper when you have finished.

Help during the exam

Invigilators are not able to answer queries about the content of your exam paper. Instead, please make a note of your query in your answer script to be considered during the marking process.

If you feel unwell, please raise your hand so that an invigilator can assist you.

You may use a calculator for this exam. It must comply with the University's Calculator Policy for In-Person exams, in particular that it must not be able to transmit or receive information (e.g. mobile devices and smart watches are **not** allowed).

THIS PAPER COMPRISES **SECTION A** AND **SECTION B**.

Answer **THREE** questions (**TWO** questions in Section A and **ONE** question in Section B).

Please use a separate answer book for each section. Print **SECTION A** or **SECTION B** on the front of the applicable answer books.

All questions carry equal marks.

A cash flow template is attached for question 4.

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Case Study/Scenario:

The Loughborough Charity Foundation (LCF) is an organisation focused on developing people and communities with sustainable infrastructure in the Midlands. For its 5-year strategic plan, LCF has prioritised re-developing existing sports facilities in small towns in the East Midlands. The senior management team of LCF has decided to develop an existing tennis court into a sports complex in Shepshed with the aim of creating jobs and improving wellbeing. It is also planned that the sports complex will support local tourism and increase opportunities for the residents.

The budget for the project is £5 million and LCF intends to secure part of the funds from its partners and donors. LCF has indicated strongly that it does not want to go beyond the £5 million budget, however, it will be willing to consider other funding options to a given threshold if necessary to support the project if the project goes beyond the budget.

The proposed site is about 27,000m² and has many changes in land levels. The new sports complex is set to integrate retrofitting and new construction. Retrofitting would be used for expanding and modernising the tennis court and the new construction for additional facilities such as an Olympic size swimming pool, a football pitch, and indoor arenas. This integration is to facilitate the adoption of building conservation and sustainable practices on the project to reduce carbon emissions. As much as possible, LCF wants the project to follow the natural levels of the site for environmental conservation purposes.

In early discussions, the project must be completed in time before June 2025 for LCF to host the Midlands Summer Sports competition. LCF intends to use this competition to seek new funding partners and highlight their sustainable community's message to the public.

The project requirements are:

- a) Design and quality – the design has to be future-proofed to meet the changing requirements of sports facilities and sustainability. A design that promotes inclusivity and quality local supply chain is important.
- b) Stakeholders – involving stakeholders is important as the project requires engaging different stakeholders such as local residents, Charnwood Council, fitness groups, sporting clubs, neighbouring schools and charitable trusts. As such, managing project stakeholders and ensuring all voices are heard is key.
- c) Time – the need to meet the planned completion date is critical to enable LCF host the summer competition as scheduled. Overall project speed and an early start is also important, although secondary to time certainty.
- d) Client involvement – LCF would like to have minimal involvement in the day-to-day running and administration of the project and does not want to engage many contractors in the selection process.
- e) Cost – Certainty of the outturn project cost is important, given the budget limit of £5 million, but LCF would be willing to go above the budget (if needed) by a given threshold of the project budget. Further, LCF would like to incentivise the contractor to reduce cost below the project budget.

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SECTION A
(Answer **TWO** questions)

Question 1

- a) Advise LCF on the most appropriate payment mechanism based on the requirements of the project.
[13 marks]
- b) LCF wants to use NEC ECC contract for the project. Advise LCF on which NEC ECC main Option would be suitable for the project.
[13 marks]
- c) Briefly advise LCF on three circumstances in which the Client may terminate the construction contract according to NEC ECC.
[7 marks]

Question 2

- a) Advise LCF on the most suitable procurement method to use for the sports complex project.
[13 marks]
- b) Briefly discuss how LCF should go about selecting contractors for tender invitation.
[13 marks]
- c) Briefly advise LCF on how to use the NEC ECC contract for suretyship to secure the project against defective work from the selected contractor.
[7 marks]

Question 3

- a) Recent flooding in the East Midlands (which is an event that has not occurred in the past decade) has prompted LCF to seek your advice on such events for the project according to NEC ECC contract. Discuss how compensation events would be implemented in the project.
[14 marks]
- b) LCF wants to provide £250,000 as advance payment to the selected contractor before the start of the project. Advise LCF on how to recover the advance payment during the execution of the project.
[12 marks]
- c) Advise LCF on how to protect the suppliers from main contractor insolvency or contractor's delaying suppliers' payment during project payments under NEC ECC to promote fair payment practices.
[7 marks]

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SECTION B
(Answer **THIS** question)

Question 4

LCF has already spent £500K on preconstruction services and intends to use the remaining budget for construction. A building contractor has been awarded the contract with a contract sum is £4,529, 999, which includes a 20% profit and overhead margin. A programme was submitted as part of the tender document with a proposed contract period of 10 months.

Contract Information:

- Contract sum £4,529,999.
- The project is based on NEC ECC and Payments to and by the contractor are delayed by one month (i.e. every 4 weeks)
- Retention is 5%
- Half of retention is to be paid to the contractor at practical completion and the other half is released after the final correction (typically 6 months).
- The preliminary sum for setting up and clearing the site is to be split 30% setting up the site – 20% dismantling respectively, and the remaining prelims spread equally over the duration of the contract period, including the first and last month.
- The contractor's costs (i.e., payments to subcontractors and suppliers) are settled the instant they are incurred.

Using this basis undertake the following:

- a) Advise LCF on alternative funding options to fund the remaining cost of the project.
[11 marks]
- b) LCC would like to have an early idea about the contractor's financial health and cash flow situation during the course of the project. Determine the monthly net cash flows (fill in the attached cash flow template).
[15 marks]
- c) Interpret the result from the cash flow forecast and critically analyse the possible risks to the financial health of the contractor if any, and how this can be mitigated.
[8 marks]

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No.	ACTIVITY	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	B.Q.Value
1	Prelims, set up & clear site											T E	157000
2	Excavation	4	4	4	4	4	4	4	4	4	4	A	369300
3	Drainage	2	4	1								D	287111
4	Concrete foundations		1	3						1	1		585032
5	Concrete ground slab			2	1							N	463000
6	Structural steelwork				3							O	783000
7	External walls				2								263222
8	Cladding and roofing				2	3						I	380322
9	Internal walls					3	1					E	160494
10	Woodwork					2	2					L	156387
11	Electrical installation					2	3		2	2	1	P	198265
12	Plumbing & heating works						3		1	2		M	259000
13	Plastering & decorating						3			2		O	96455
14	External works						1	3		2	2	C	371411
											4		
A	Projected monthly valuations												4529999
B	Cumulative values												
C	Less overheads & profit (20%)												
D	Projected monthly cost												
E	Less Projected payments												
F	Monthly difference												