

# Higher Nationals

## Construction and the Built Environment

Unit Study Guide

Unit 13: Tender & Procurement

**Higher National  
Certificate** Lvl 4

**Higher National  
Diploma** Lvl 5

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**Pearson**  
**BTEC**



# About this Unit



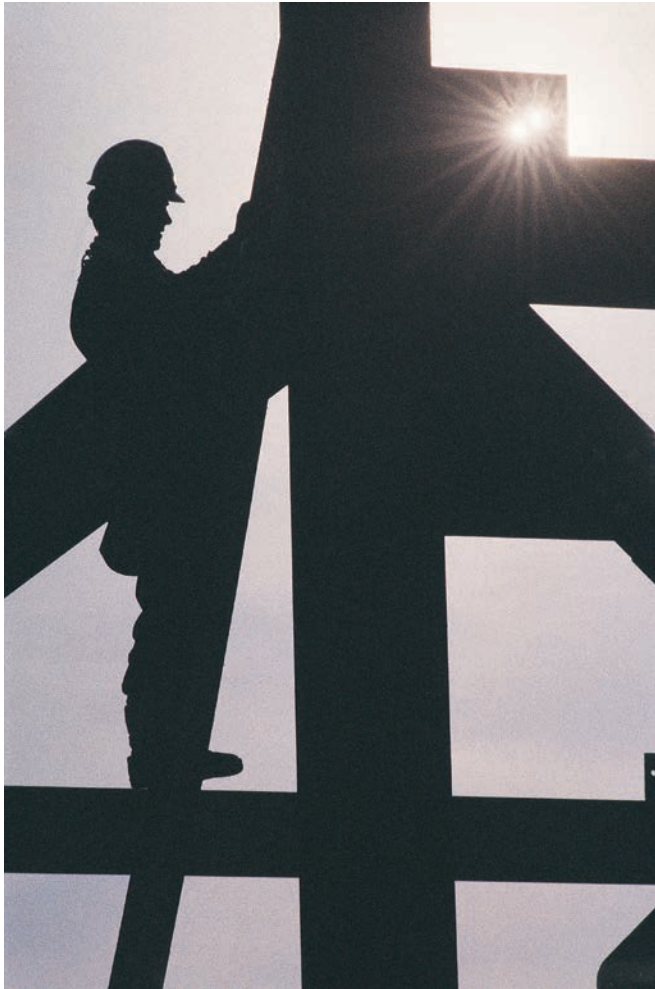
Tendering and Procurement are the processes by which a price is derived for a construction project (tender) and the contractual method by which the project will be undertaken (procurement). This unit explores the features and practices associated with this critical part of the construction process.

Tendering is often a complex operation. You are trying to achieve a price for the project that meets with the client's budget and expectations of quality and time to completion. It is also a process that must be carefully managed and monitored to ensure that all parties involved are treated equally and that prices are based on the same information. This ensures that an evaluation of the submitted tenders can be conducted consistently and equitably. Ultimately, the aim of the tender process is to arrive at an agreed price for a defined amount of work to be undertaken, and this will inform the procurement process.

As a process, tendering will often involve two different areas of activity. The first is the client obtaining the services of a main contractor to undertake the project. The second is the main contractor obtaining the services of subcontractors to undertake specialist works that the main contractor cannot directly undertake.

Procurement is the second part of this unit and considers the process of obtaining the services of a main contractor and their subcontractors. The two are linked by the fact that the method of tender and the procurement route will influence each other. For example, a design and build project may require that a client does not want to take on the design risk and wishes to hand this over to the main contractor. This can be done by selecting a negotiated tendering process that is two-stage and then procuring a contractor for the second stage; to take forward the project on a negotiated rate for the work.

# Exploring Learning Outcomes and Assessment Criteria



Through this section of the Study Guide we will examine each LO in more detail. We will seek to establish an approach to exploring the associated Essential Content and how this may inform our understanding of the relationship between the Essential Content and the Assessment Criteria, that will be used to measure our achievement of the learning outcome.

This unit contains four learning outcomes as follows

1. Define what constitutes a tender and the information required for this process.
2. Explain the procedures and contractual arrangements for tendering.
3. Analyse the factors that affect the selection of construction procurement methods.
4. Calculate an estimate for a work activity.

## ***LO1 Define what constitutes a tender and the information required for this process***

### **Essential Content**

#### ***Topic: Information required to produce a tender***

What information (drawings, specification, schedules) are necessary to include in a tender package?

Does the tender process need to be managed formally?

How will you confirm what you have sent?

How can you record the whole process to ensure integrity of tenders?

How many drawings do you send?

Can tendering be done paperless?

Will a site visit be required?

### Things to Remember

A tender can take many different forms and needs to be formally defined; often using defined standards and methods; either institutionally-defined, industry-standards, or government required.

Tendering must be a fair and equal process for all; so no complaints can be raised if a public contract is been tendered. In public contracts, such as those for a Government body, it is of paramount importance that the tender process can be audited, to ensure a fair and equal treatment for all those submitting tenders. The process must also be transparent; allowing all parties to see and understand the process of review and decision-making.

Time for preparation and tendering must be planned and organised as part of the tendering process. Depending on the size of the project, the process can taking many weeks or months. Since a construction project will usually have an expected overall time, from inception to completion, the amount of time taken in preparing a tender may have an impact on the amount of time that is available to prepare tender submissions. It is, therefore, crucial that all those involved have a clear understanding of the return date and time (E.G. "...all tenders are to be returned by 5pm on 26 May 2019"). As part of the transparency and fairness of the process, there is a need to clearly set-out and adhere to the return date and time, and any late tender submissions will not be considered in the subsequent consideration of tenders.

### Topic: Constraints on Tendering

What do we mean by 'constraint'?

Is time a constraint in the tender process? Why/Why not?

Is quality a constraint? How might this be defined?

How will I establish what are tendering common constraints?

### Things to Remember

A constraint is anything that may prevent the smooth operation of the tendering process and the ability of the process to result in a fair outcome.

Constraints must be identified and defined so that the tender process can be planned with an understanding of the potential risks posed by a constraint.

Constraints can be caused by many different conditions. A client, for example, may define the tender period or the contract conditions such that they are onerous; resulting in fewer contractors submitting tenders or submitting tenders at a higher price (in order to ensure against the risk of onerous conditions).

## Assessment Criteria

LO1 Define what constitutes a tender and the information required for this process.	
Assessment Criteria	Areas for consideration
<b>P1</b> <i>Explain</i> the information required to be produced prior to tendering.	<p>What is a tender seeking to communicate? What do you need to define this?</p> <p>Why do we have different sets of information for different tenders?</p> <p>Do I need to involve the client?</p>
<b>P2</b> <i>Explain</i> the documentation required to formulate a tender for a major project.	<p>What is required to constitute a tender package?</p> <p>Note the fact that this AC refers to a 'major project'. You will need to ensure that you are working on a project of suitable size, scope and scale.</p>
<b>P3</b> <i>Discuss</i> the potential benefits of Building Information Modelling in the tender and procurement process.	<p>Are you familiar with Building Information Modelling (BIM)?</p> <p>You may need to undertake some specific research to understand how BIM informs a tender process. (See the key resource links, below) You may benefit from reviewing the HN Unit Study guide for Unit 14: Building Information Modelling.</p>
<b>M1</b> <i>Compare</i> the use of specifications and bills of quantities as tendering methods used for a privately funded project.	<p>How does a bill of quantities differ from a specification?</p> <p>Can we use both for a tender?</p> <p>How do these lead to different outcomes when used in a tender process?</p> <p>Are drawings required for both?</p>
<b>D1</b> <i>Critically evaluate</i> the use of specifications or bills of quantities in terms of providing a competitive tender.	<p>Having compared specifications and bills of quantities (in M1), this AC asks you to go further in your investigations and consider the way that these are used in a competitive tender.</p> <p>Take note of the use of the term 'critically'. To be critical means that you must consider the matter in greater detail; contrasting the advantages and the disadvantages, with reasoned argument and justification.</p>



In the assessment criteria above, we have italicised the command verbs. These are the operative words that give you a clear indication of what you are asked to evidence to achieve the criteria. A full list of command verbs is included in Appendix 1. It is strongly recommended that you carefully review the definitions of the command verbs and what they suggest; particularly in terms of the type of work that you might need to produce.

Take note of the use of the term 'critically'. To be critical means that you must consider the matter in greater detail; contrasting the advantages and the disadvantages, with reasoned argument and justification.





### Activity: Critical Analysis

There are two methods of quantifying work that can be used to tender for projects:

- a bill of quantities
- a specification without quantities

Both, of the above, also require tender drawings, in order to form the tender information.

Search the web to obtain copies of a simple bill of quantities and a sample specification. As you read through these, prepare a tabulated comparison; highlighting the key similarities and differences.

Based on your tabulated comparison, try to answer the following questions, providing justification and reasoned argument for your response:

- Which is more appropriate to calculating prices?
- Which can ensure a minimum level of quality?
- Which is more useful to a main contractor?



Backing up a statement by a citation or reference to a quotation or external source is considered good practice in Higher Education.

Remember: always reference your sources as plagiarism software will pick up unacknowledged sources that you have used.

## Retaining Wall - Contract period 8 Weeks - Preliminary clauses

	Unit Cost	Total
1.0 Contract Requirements		
Performance Bond	£1250	
Insurances +2.5% nett tender value		
2.0 Specified Requirements		
Accommodation for Contract Administrators		
Offices £35/wk delivery £250		
Testing of materials	£1000	
Temporary Works		
Dewatering	£5000	
3.0 Method Related Charges		
Accommodation and Buildings		
Offices x 2 £35/wk delivery £250		
Cabins x 2 £30/wk delivery £250		
Stores x 3 £25/wk delivery £250		
Canteen/messroom £40/wk delivery £200		
4.0 Services		
Water install £1200 rates £15/week		
Electric install £850 rates £20/week		
Security £250 week		
Site Hoardings £20/m 200 m required		
Site Transport £250 week		
Welfare £50 week		
5.0 Plant		
Earthmoving £300/day x 20 days		
Concrete transport £350/day x 40 days		
6.0 Temporary Works		
Access scaffolding £5000 (lump sum.)		
7.0 Provision Sums		
7.1 Day Work		
Labour rate £18.90 hr allowance 1000 hours		
percentage adjustment to daywork labour 20%		
Materials		£5000
percentage adjustment to daywork mats 30%		
Plant		£10,000
percentage adjustment to daywork plant 30%		
8.0 Defined Works		
Facing to front of retaining wall in decorative stone £60/m2		
9.0 Nominated Sub-contractors		
Works on moving high voltage cable		£50,000
Attendances and profit +10%		
To Collection		

# Additional Resources

Additional resources, to accompany this Study Guide, can be found on **HN Global** here:

<https://hnglobal.highernationals.com/study-guide-unit-13-tender-procurement>

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**ALWAYS LEARNING**