



(University of Choice)

**MASINDE MULIRO UNIVERSITY OF SCIENCE AND  
TECHNOLOGY  
(MMUST)**

MAIN CAMPUS

**UNIVERSITY EXAMINATIONS 2023/2024 ACADEMIC YEAR**

**FOURTH YEAR FIRST SEMESTER EXAMINATIONS**

**FOR THE DEGREE  
OF  
BACHELOR OF TECHNOLOGY  
IN  
BUILDING CONSTRUCTION**

**COURSE CODE: BTB 431**

**COURSE TITLE: CONSTRUCTION COST ESTIMATING AND  
ANALYSIS II**

**DATE: 20<sup>TH</sup> DECEMBER 2024**

**TIME: 8 A.M – 10 A.M**

**INSTRUCTIONS:**

1. This paper consists of **TWO** sections, A and B
2. **Section A is Compulsory.**
3. **Attempt any ONE question from Section B in this booklet.**
4. Marks for each question are as indicated in the parenthesis.
5. No unauthorized materials are allowed in the examination room.

Examination duration is **2 Hours**

MMUST observes **ZERO** tolerance to examination cheating

This Paper Consists of 4 Printed Pages. Please Turn Over.

## SECTION A (ANSWER ALL QUESTIONS)

### Question 1

**(40 marks)**

- a) Define the following common terms in structural quantities measurements. (7 marks)
- Standard Methods of Measurements
  - Take-off
  - Quantities
  - Preliminaries
  - Variations
  - Bills of Quantities
  - Ditto/do
- b) Outline the essential factor that should always be considered and applied to follow good established measurement practice. (7 marks)
- c) Describe a dimension paper in detail. (4 marks)
- d) Describe a Quarry sheet. (4 marks)
- e) What does these standard abbreviations stand for? (5 mark)
- conc.
  - a.b
  - a.b.d
  - n.e
  - bldg.
  - B.S
  - Bwk
  - Ddt
  - b & j
  - Bott.
- f) Outline the order of “Taking-off” of any building structure would follow in practice. (13 marks)

## SECTION B (ANSWER ANY ONE QUESTION)

### Question 2

**(30 marks)**

Figure 1 shows the superstructure plan and section details for a wall. Prepare the take off for the Flat roof construction and coverings. (30 marks)

### Question 3

**(30 marks)**

Figure 2 shows the floor plan for an upper floor of building. Prepare the Take-off for the timber floor as shown. (30 marks)

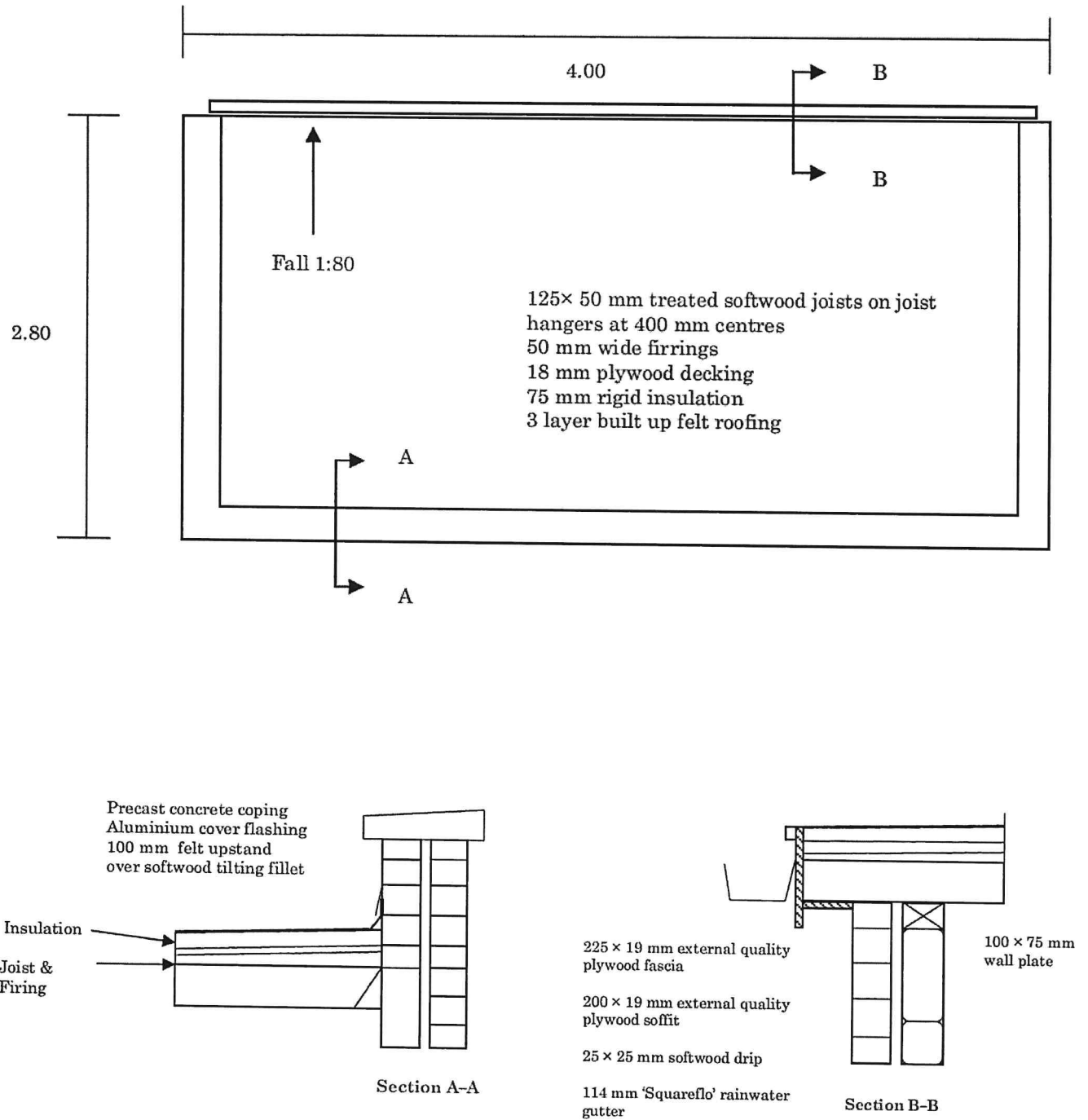


Figure 1 Superstructure plan and section details.

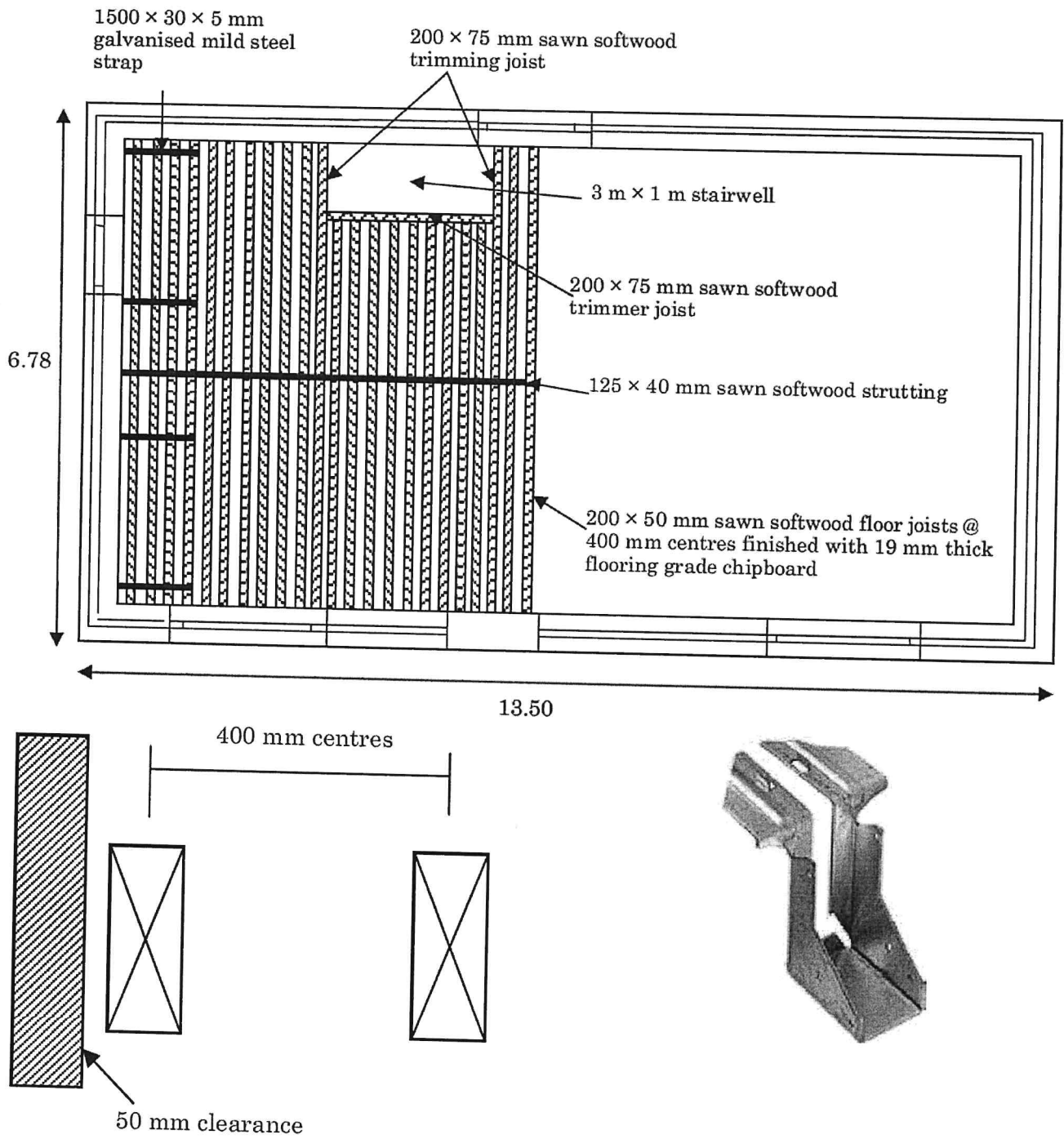


Figure 2 Plan showing upper floor joists layout plan, joist section detail and the type of galvanised mild steel joist hanger used.