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# Wood House Design

# CM220 Homework Spring 2016

## Assignment Description and Outcomes:

This assignment will give you the opportunity to select major structural elements for a residential structure.

## Complete the following:

Using the IBC, select the following members

1. Rafters
  2. Exterior Wall
  3. Floor Joists
  4. Floor Sheathing
  5. Exterior Wall door header (opening 6'-0")
  6. Fastening requirements for
    - i. Floor joist to sill
    - ii. Double top plates
    - iii. Top plate to stud
    - iv. Stud to sole plate
    - v. Jack stud to king stud
- Determine the cost of each element. (cite the source of your cost data)
  - Clearly indicate your designs on a sketch or drawing
  - Show all calculations and reference to IBC table used
  - State any assumptions made

## Assessment:

<u>Component</u>	<u>Points</u>	<u>Notes</u>
Rafters	2	
Wall	2	
Joists	2	
Sheathing	2	
Header	2	
Fastening	2	
Assumptions	2	clearly state any assumptions
Rationale (cost analysis)	5	justify your selections based on economy
Presentation of results (drawing)	3	
Organization	2	
<b>Total</b>	<b>25</b>	

## Submittal Instructions:

1. **Show designs on a drawing/sketch of the house**
2. Submit hard copy (not through BBLearn) in class

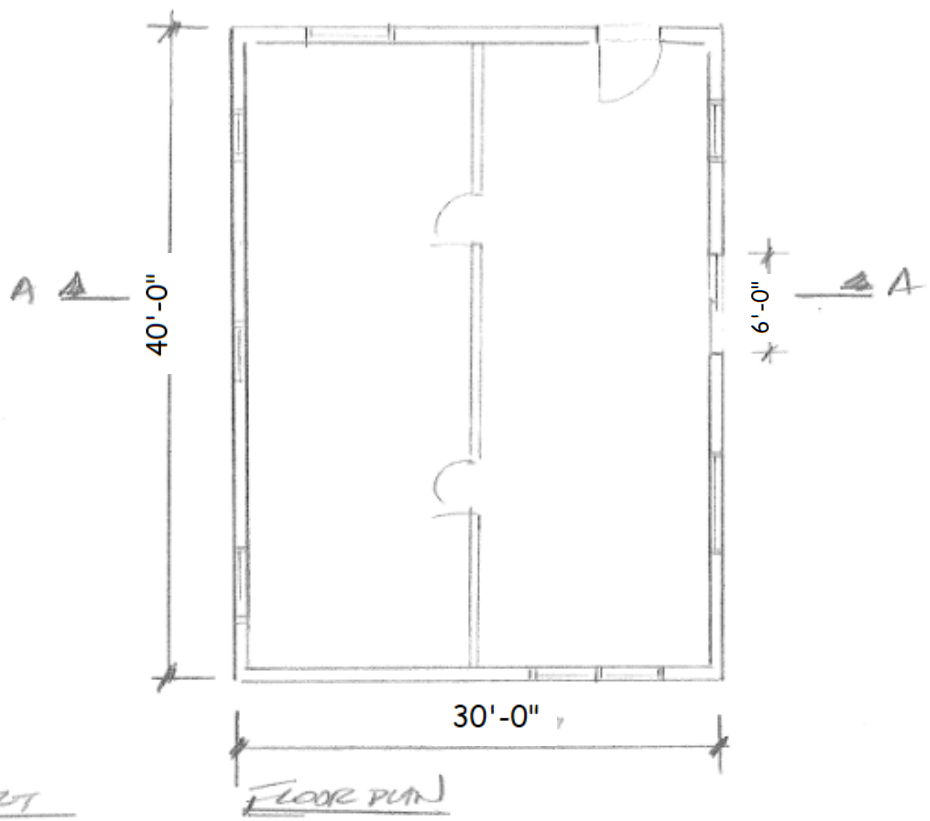
## Attached Files:

See BBLearn for Design Aids	
See BBLearn for IBC	

4/29/2011

CM220

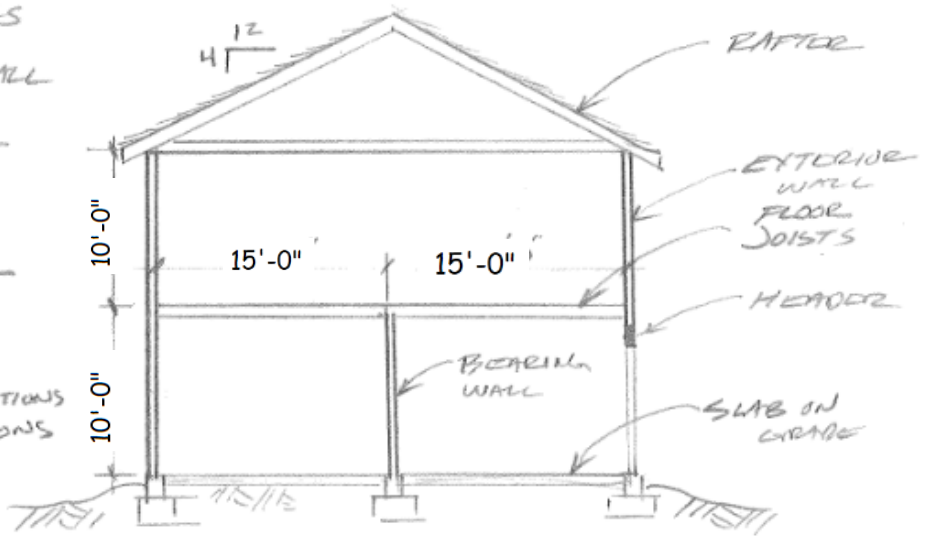
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SELECT

- A) RAFTERS
- B) EXT. WALL
- C) FLOOR JOISTS
- D) GLO HEADER

→ LIST ANY SPECIAL CONSIDERATIONS & ASSUMPTIONS



BUILDING SECTION A-A

BUILDING SECTION A-A



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