

## GENERAL NOTES.

### REINFORCED CONCRETE

- DESIGN IS TO BS 8110
- CONCRETE GRADES ARE TO BE AS FOLLOWS WITH FIGURES IN BRACKET DENOTING MAXIMUM SIZE AGGREGATE:
  - FOUNDATION 30(25)
  - COLUMNS 30(20)
  - BEAMS & SLABS 30(20)
- UNLESS OTHERWISE INDICATED, REINFORCEMENT SHALL BE HIGH YIELD STEEL (TYPE 2), DENOTED BY 'Y', HAVING CHARACTERISTIC STRENGTH NOT LESS THAN 410N/MM<sup>2</sup>
- COVER TO REINFORCEMENT SHALL BE THE FONDATION:
  - 50MM(BOTTOM)/75MM(SIDES)
  - COLUMNS: 25MM
  - BEAMS: 25MM
  - SLABS: 20MM
- DRAWINGS MUST BE READ IN CONJUNCTION WITH THE RELEVANT ARCHITECTURAL DRAWINGS AND IN CASE OF ANY DISCREPANCY REFER TO THE DESIGN ENGINEER FOR CLARIFICATION.
- DIMENSIONS ARE IN MILLIMETRE(MM) AND MUST NOT BE SCALED AT ANY TIME.
- FOUNDATION WAS DESIGNED FOR AN ASSUMED ALLOWABLE SOIL BEARING PRESSURE OF 150KN/M<sup>2</sup>
- THIS DESIGN ENGINEER WILL NOT TAKE RESPONSIBILITY FOR ANY JOB NOT SUPERVISED BY HIM.

### BLOCKWORK

- HOLLOW BLOCK WALLS BELOW GROUND SLAB LEVEL ARE TO BE FILLED WITH MASS CONCRETE. BACK FILLING IS TO BE CARRIED OUT SIMULTANEOUSLY ON BOTH SIDES.
- THE WALL THICKNESS OF THE BLOCKS SHOULD NOT BE MORE THAN 25MM.
- THE MAXIMUM CRUSHING STRENGTH OF THE HOLLOW BLOCK IS TO BE 20N/MM<sup>2</sup> OF GROSS AREA OF BLOCK AT 28 DAYS.
- BLOCKWORK TIES BETWEEN BLOCKWORK WALL AND COLUMNS/STANTIONS ARE TO BE PROVIDED AT EVERY COURSE. TIES TO BE 6MM BAR STRAPS 700MM LONG INTO THE BLOCKWORK.
- MAXIMUM POUR HEIGHT FOR ALL FILLED BLOCK BLOCKWORK TO BE 2 COURSES AT A TIME.
- ALL SERVICE PIPES SHALL ONLY BE PUT INSIDE BLOCKWORK AFTER DUE CONSULTATION WITH STRUCTURAL ENGINEERS. PUTTING SERVICE PIPES INSIDE LOAD BEARING BLOCKWORK CORNERS MUST BE AVOIDED.

No.	Revision/Notes.	Date.
1.	Issued for Tender	

Project.  
  
HOMES FOR NGARANNAM,  
MAFA LGA, BORNO.

Drawing Title.  
  
TOWER ELEVATION

DESIGN		SHEET No.
CHECKED		01
CAD		Scale: 1:50
DATE	MARCH, 2021	

## GENERAL NOTES.

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- ALL SERVICE PIPES SHALL ONLY BE PUT INSIDE BLOCK WALL AFTER DUE CONSULTATION WITH STRUCTURAL ENGINEERS. PUTTING SERVICE PIPES INSIDE LOAD BEARING BLOCKWORK CORNERS MUST BE AVOIDED.

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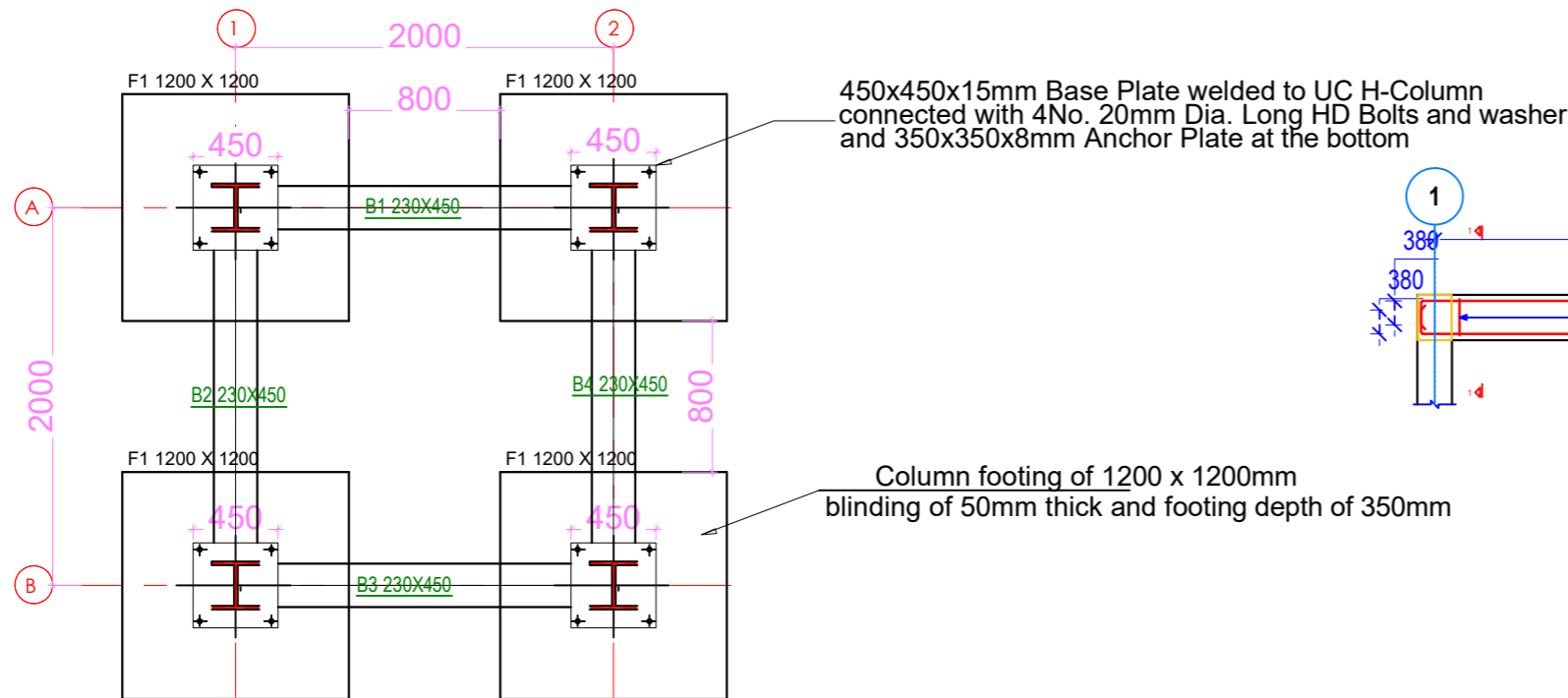
Project.

HOMES FOR NGARANNAM,  
MAFA LGA, BORNO.

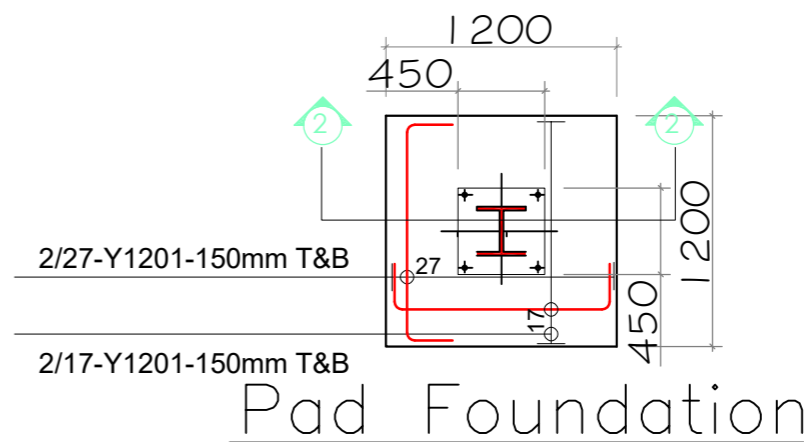
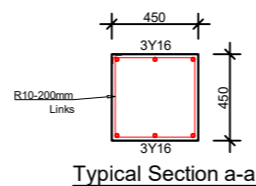
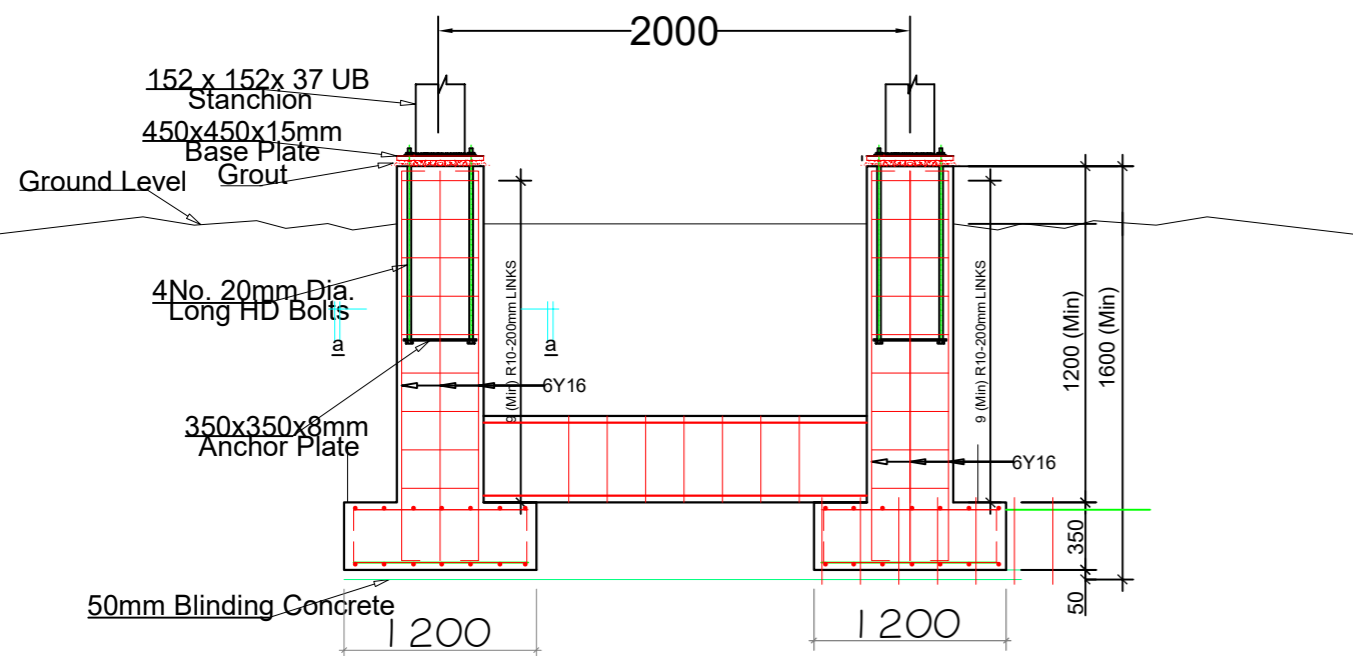
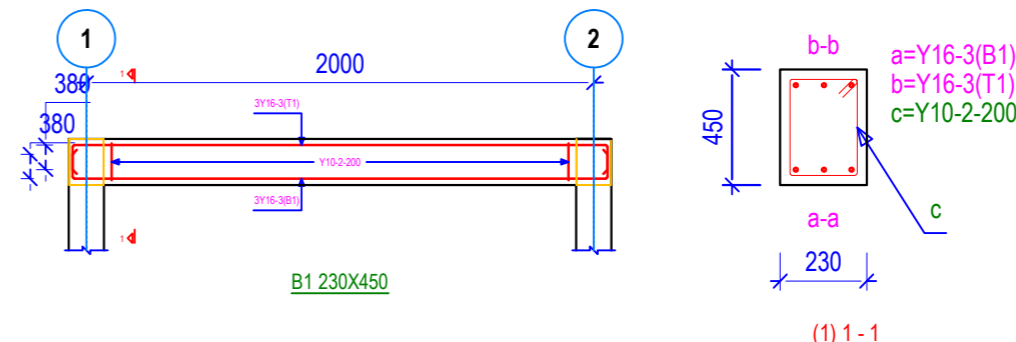
Drawing Title.

FOUNDATION DETAILS

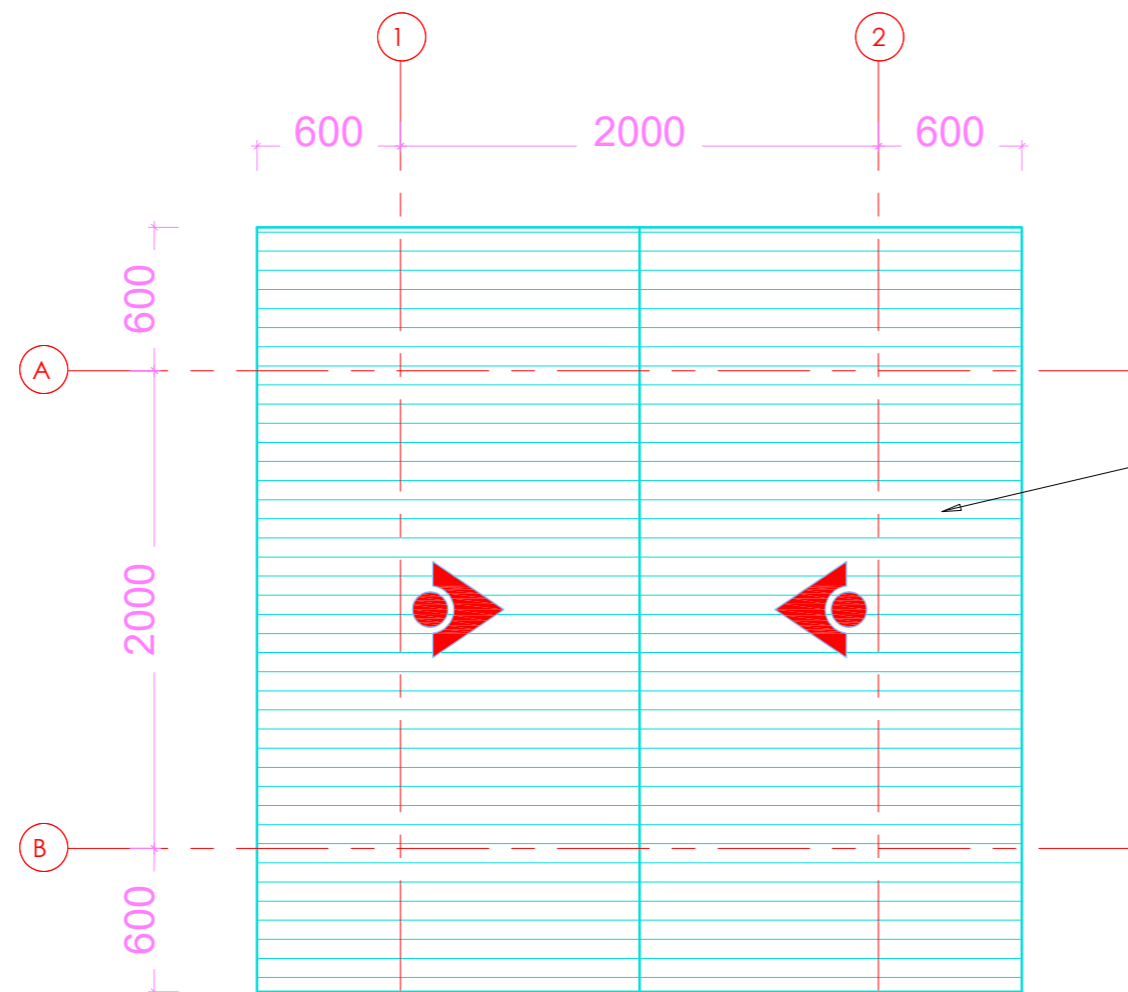
DESIGN		SHEET No.
CHECKED		02
CAD		Scale: 1:50
DATE	MARCH, 2021	



Foundation Layout

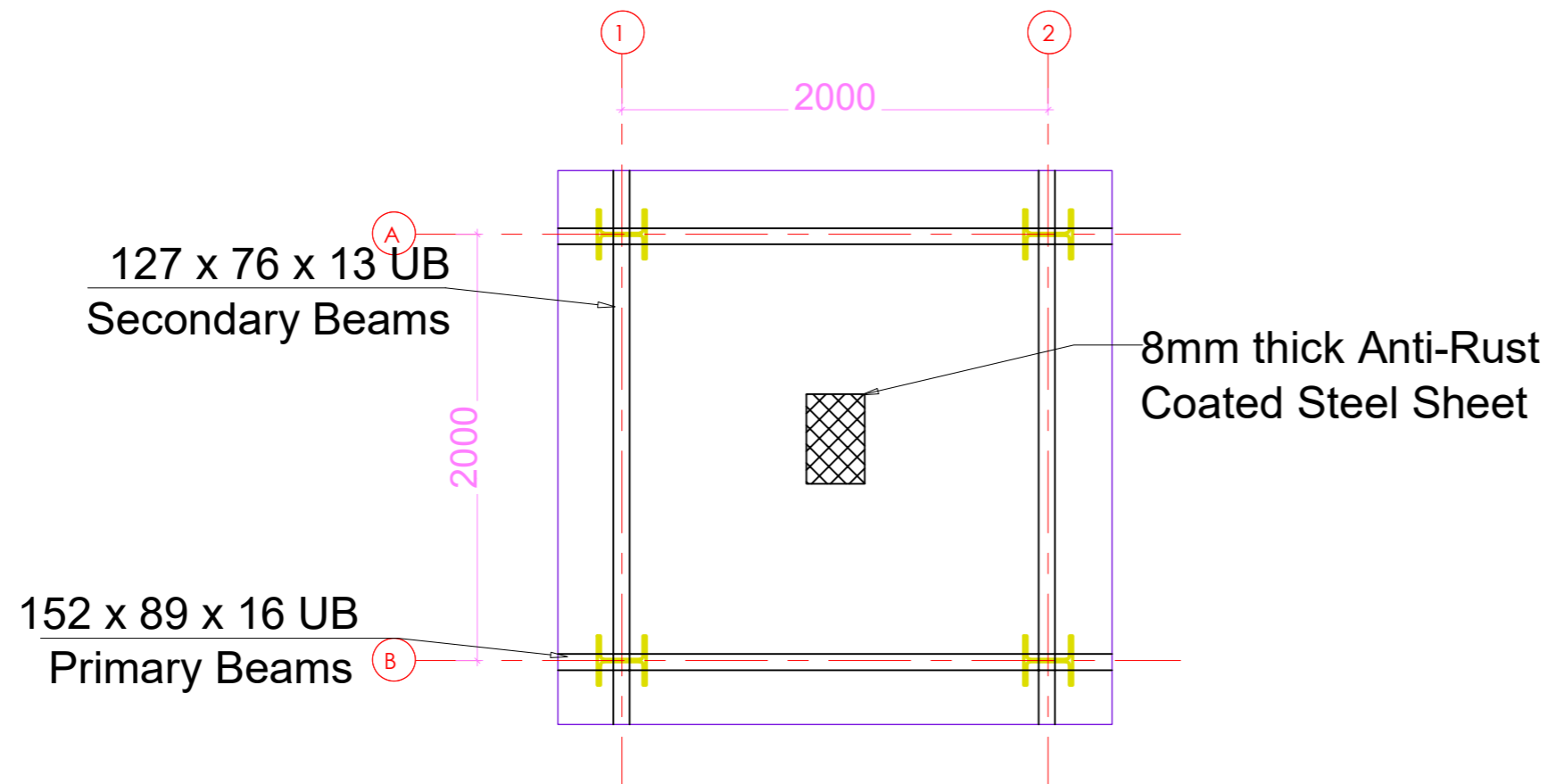


Pad Foundation  
Structural Details (Section 2-2)



1.5mm thick Anti-Rust  
coated roofing sheet

Tower Roof Top



8mm thick Anti-Rust  
Coated Steel Sheet

Tower Frame Top

## GENERAL NOTES.

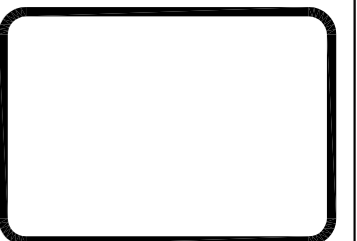
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1.	Issued for Tender	



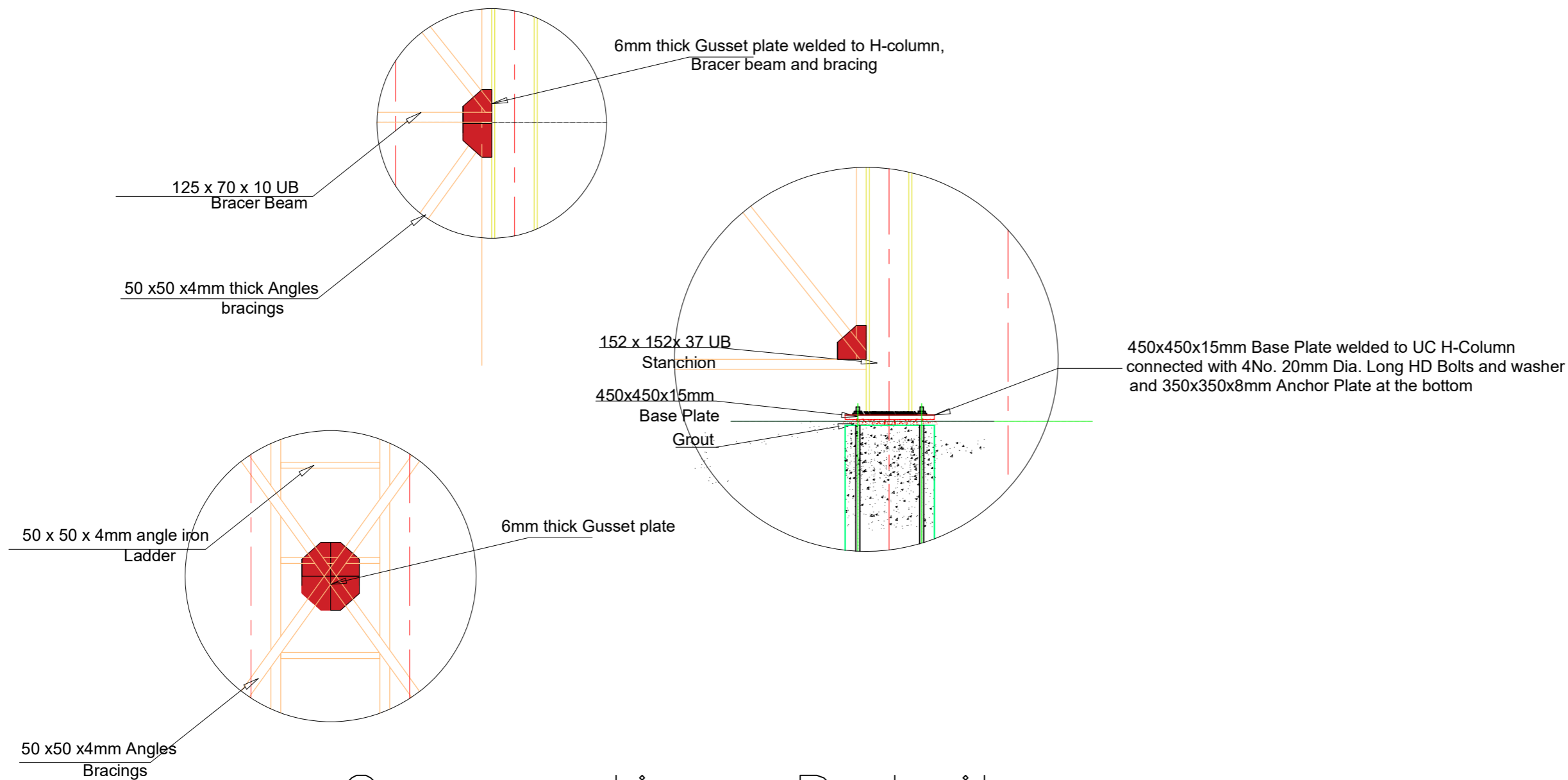
Project.

HOMES FOR NGARANNAM,  
MAFA LGA, BORNO.

Drawing Title.

ROOF AND BEAMS LAYOUT

DESIGN		SHEET No. <b>03</b> Scale: 1:50
CHECKED		
CAD		
DATE	MARCH, 2021	



# Connection Details

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Project.

HOMES FOR NGARANNAM,  
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Drawing Title.

CONNECTIONS DETAILS

DESIGN		SHEET No.  <b>04</b>
CHECKED		
CAD		
DATE	MARCH, 2021	
Scale: 1:50		