

SECTION Y-Y
OF TOILET

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/MM²
- 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/M²
- 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/MM² 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 BLOCKWALL AFTER DUE CONSULTATION WITH STRUCTURAL ENGINEERS, PUTTING SERVICE PIPES INSIDE LOAD BEARING BLOCKWORK CORNERS MUST BE AVOIDED.

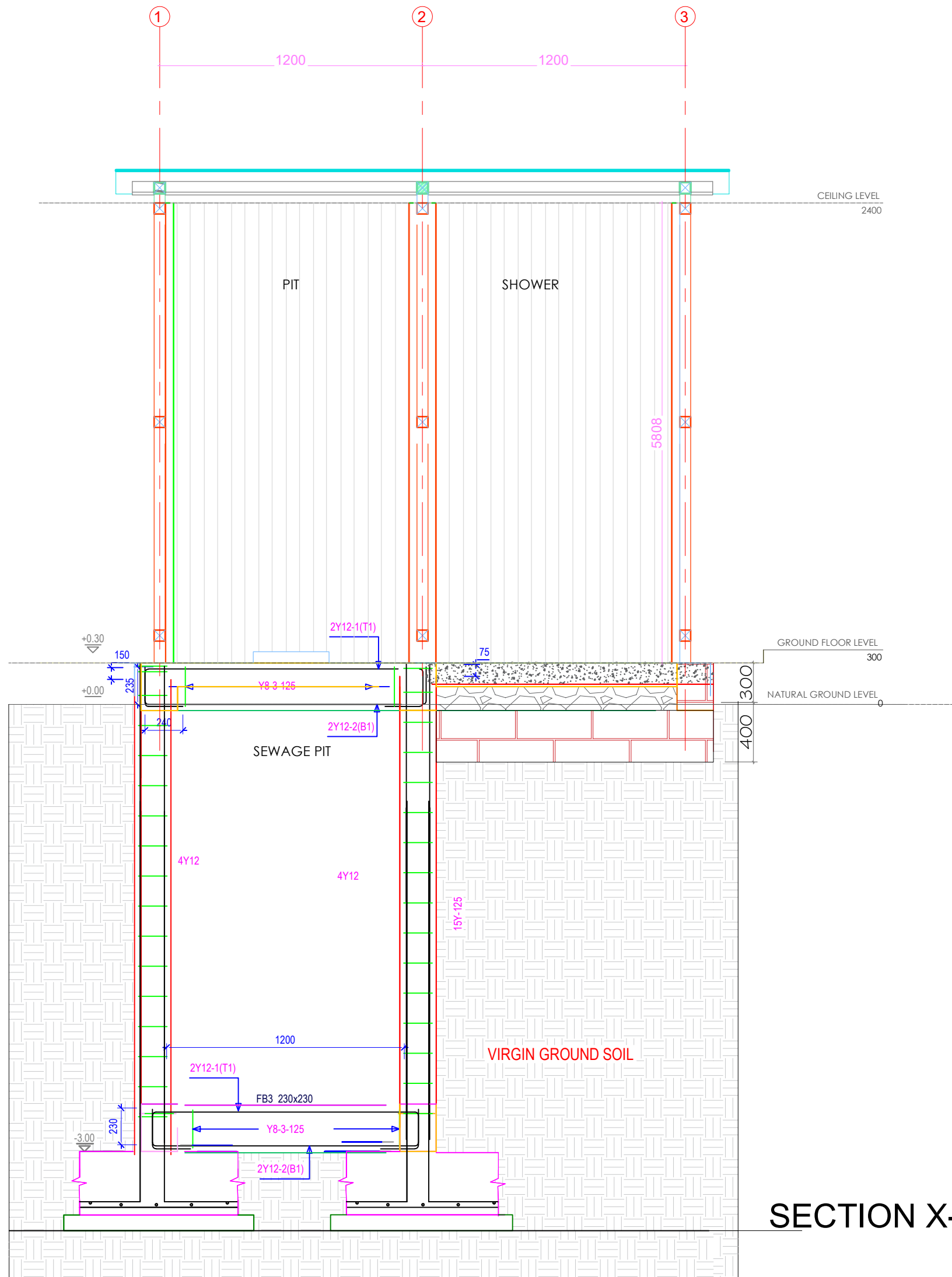
No.	Revision/Notes.	Date.
1.	Issued for Tender	

Project.

HOMES FOR NGARANNAM,
MAFA LGA, BORNO.

Drawing Title.
SECTION

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



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/MM²
 - 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/M²
 - THIS DESIGN ENGINEER WILL NOT TAKE RESPONSIBILITY FOR ANY JOB NOT SUPERVISED BY HIM.

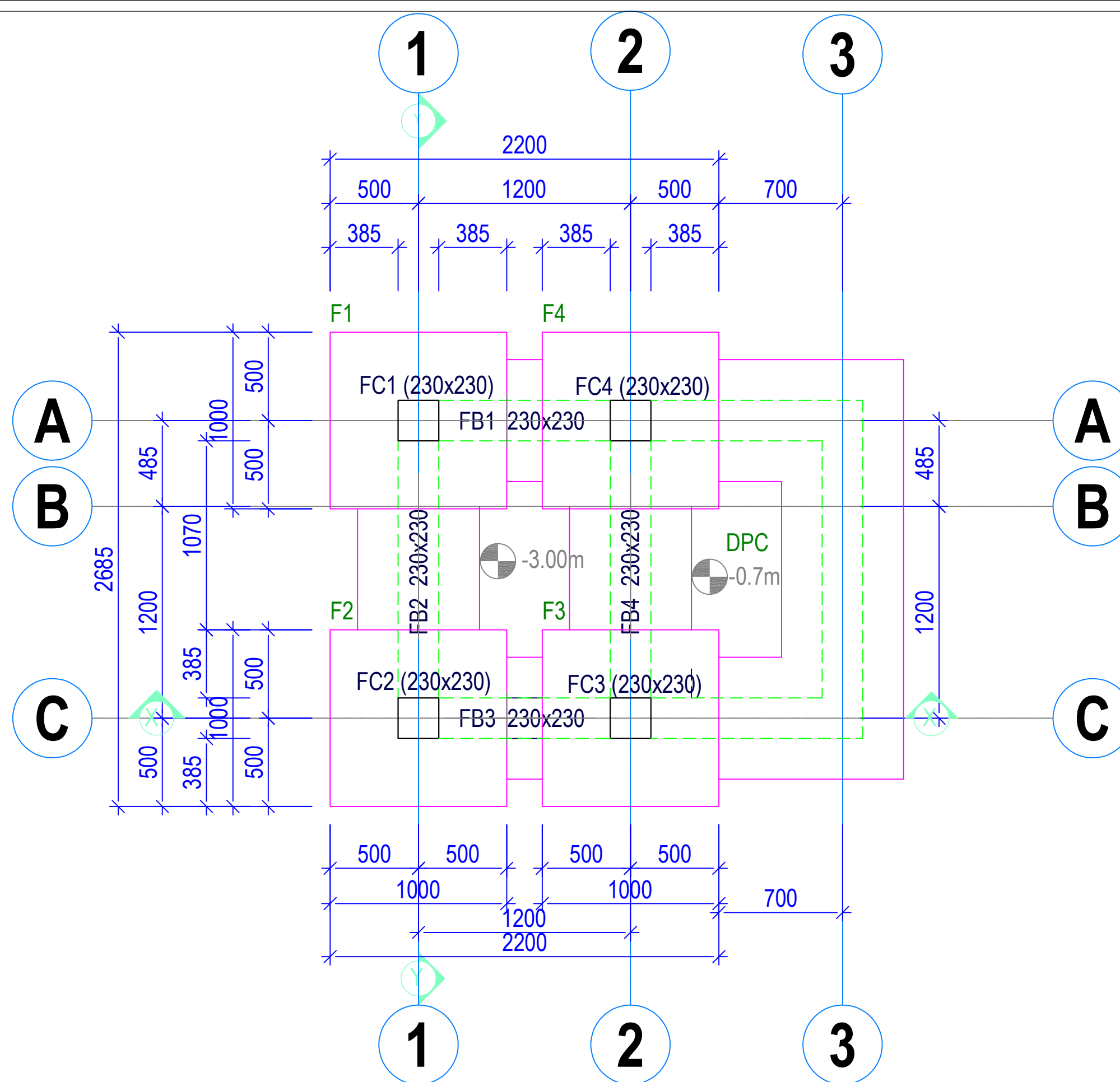
- BLOCKWORK**
- HOLLOW BLOCK WALLS BELOW GROUND SLAB LEVEL ARE TO BE FILLED WITH MASS CONCRETE. BACK FILLING IS TO BE CARRIED OUT SIMULTANEOUSLY ON BOTH SIDES.
 - THE WALL THICKNESS OF THE BLOCKS SHOULD NOT BE MORE THAN 25MM.
 - THE MAXIMUM CRUSHING STRENGTH OF THE HOLLOW BLOCK IS TO BE 20N/MM² OF GROSS 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 BLOCK WALL 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.
SECTION

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



FOUNDATION LAYOUT

STOREY: 0 - LEVEL: -3.00m - SCALE: 1/50

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/MM²
- COVER TO REINFORCEMENT SHALL BE THE FOLLOWING:
FOUNDATION: 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 150K/NM²
- 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/MM² 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 BLOCK WALL 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.

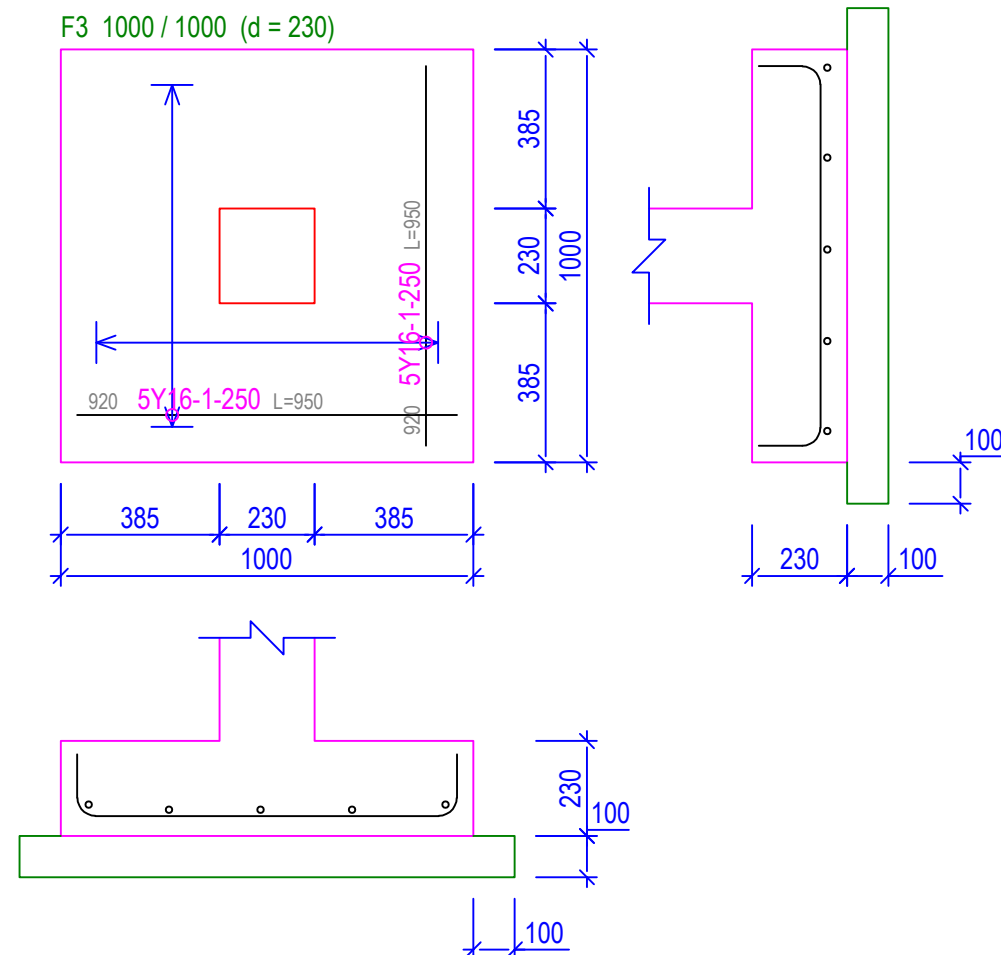
HOMES FOR NGARANNAM,
MAFA LGA, BORNO.

Drawing Title.

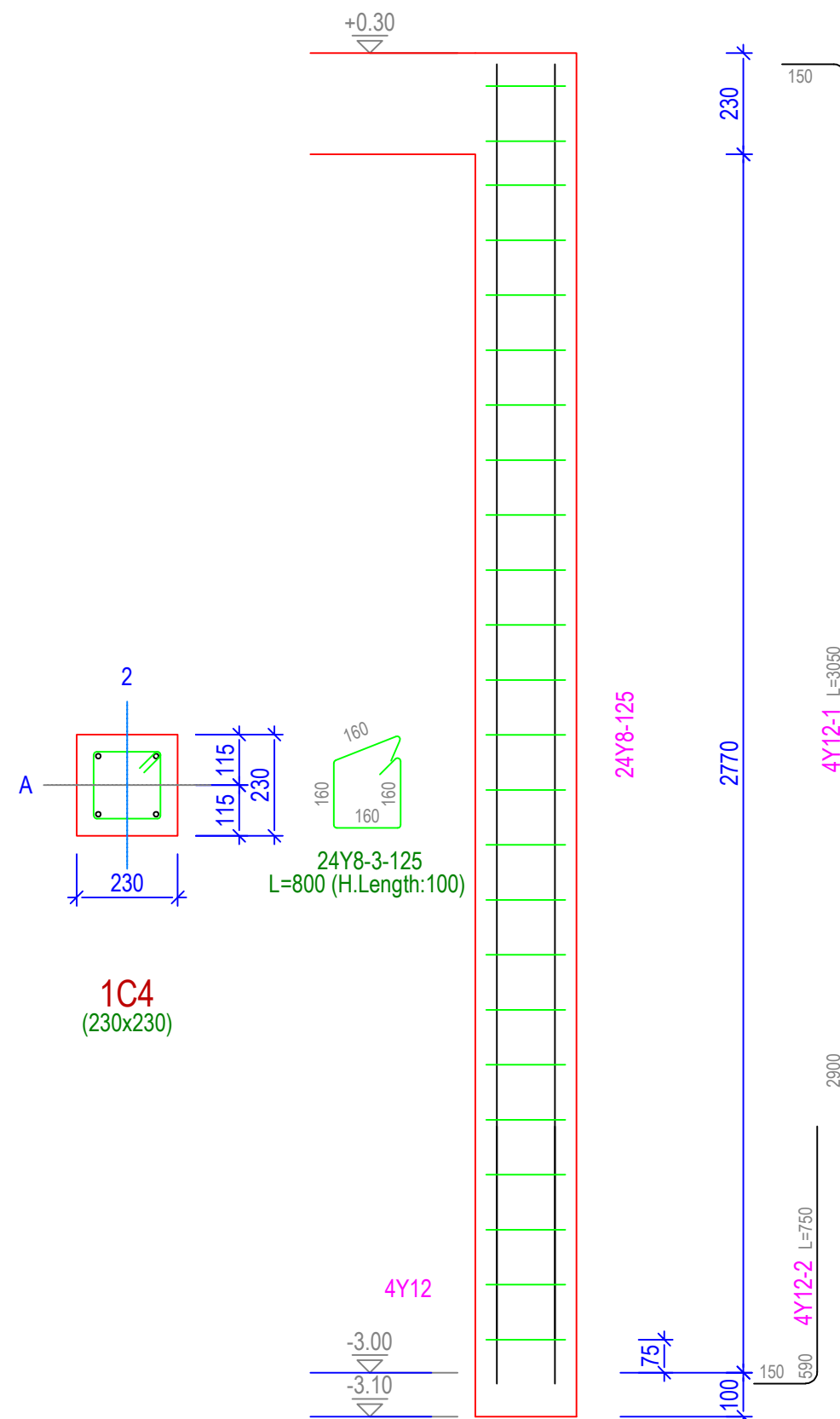
FOUNDATION LAYOUT

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

COL. FOOTING DETAILS



COLUMN DETAILS



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/MM²
- COVER TO REINFORCEMENT SHALL BE THE FOLLOWING:
FOUNDATION: 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/M²
- THIS DESIGN ENGINEER WILL NOT TAKE RESPONSIBILITY FOR ANY JOB NOT SUPERVISED BY HIM.

BLOCKWORK

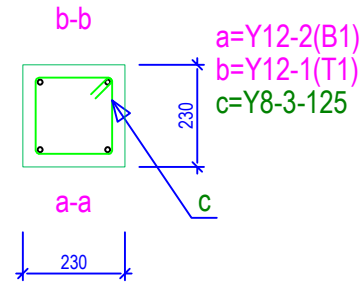
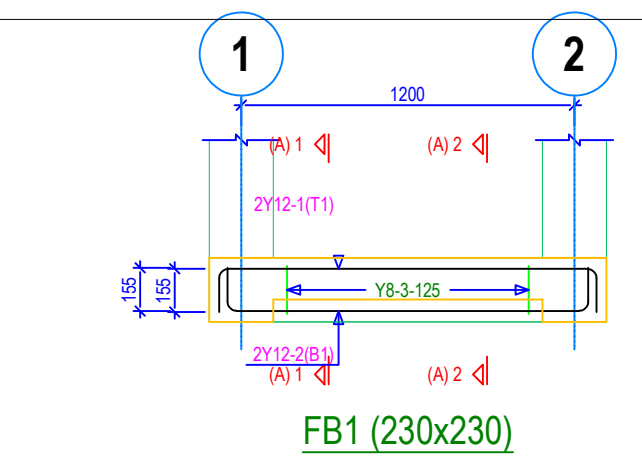
- HOLLOW BLOCK WALLS BELOW GROUND SLAB LEVEL ARE TO BE FILLED WITH MASS CONCRETE. BACK FILLING IS TO BE CARRIED OUT SIMULTANEOUSLY ON BOTH SIDES.
- THE WALL THICKNESS OF THE BLOCKS SHOULD NOT BE MORE THAN 25MM.
- THE MAXIMUM CRUSHING STRENGTH OF THE HOLLOW BLOCK IS TO BE 20N/MM² OF GROSS AREA OF BLOCK 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	

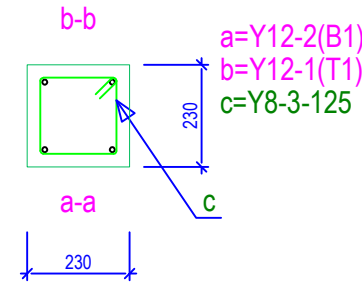
Project.
**HOMES FOR NGARANNAM,
MAFA LGA, BORNO.**

Drawing Title.
FOOTING AND COL. DETAILS

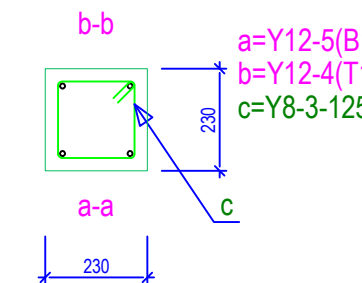
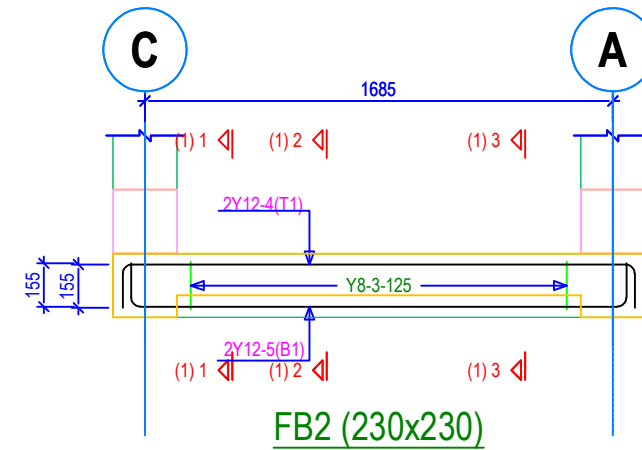
DESIGN		SHEET No.
CHECKED		03
CAD		Scale: 1:50
DATE	MARCH, 2021	



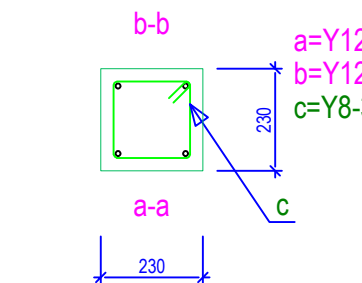
(A) 1 - 1



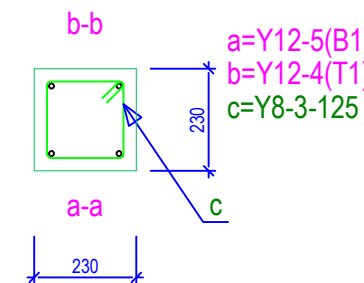
(A) 2 - 2



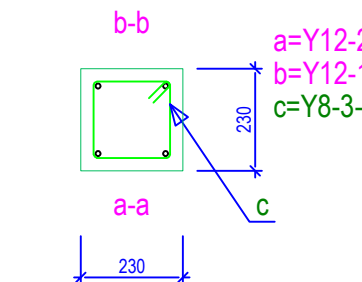
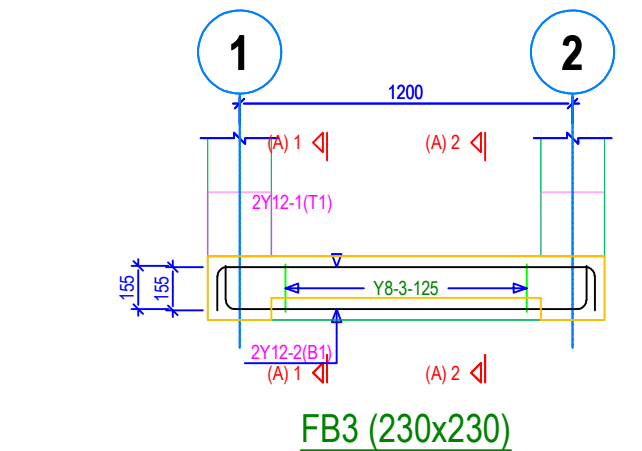
(1) 1 - 1



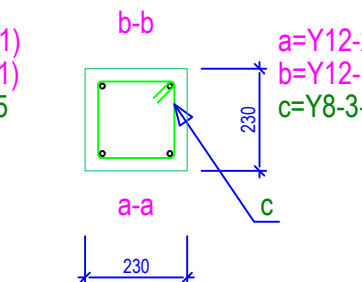
(1) 2 - 2



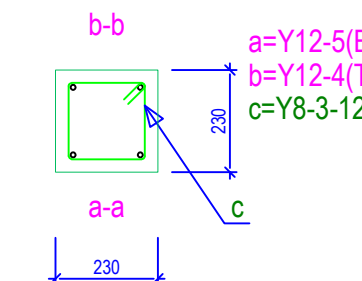
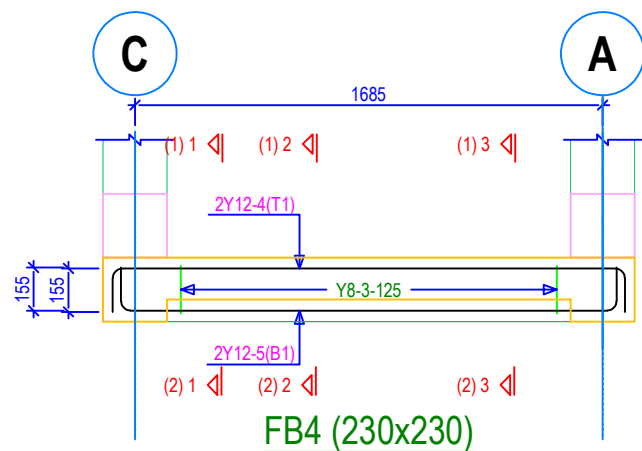
(1) 3 - 3



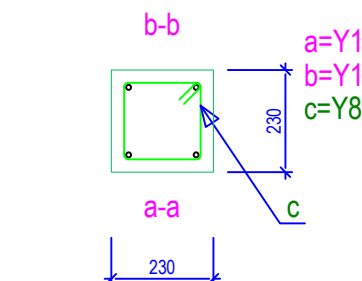
(A) 1 - 1



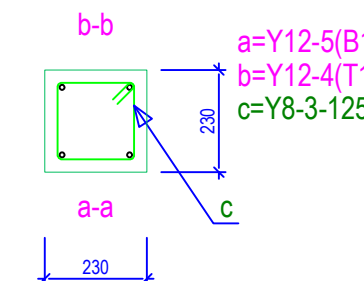
(A) 2 - 2



(1) 1 - 1



(1) 2 - 2



(1) 3 - 3

FOUNDATION BEAMS DETAILS

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/MM²
 - COVER TO REINFORCEMENT SHALL BE THE FOLLOWING:
FOUNDATION: 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 150K/NM²
 - THIS DESIGN ENGINEER WILL NOT TAKE RESPONSIBILITY FOR ANY JOB NOT SUPERVISED BY HIM.

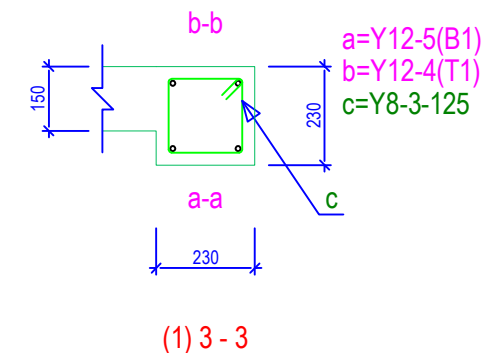
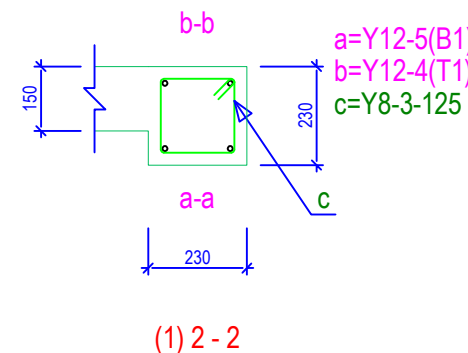
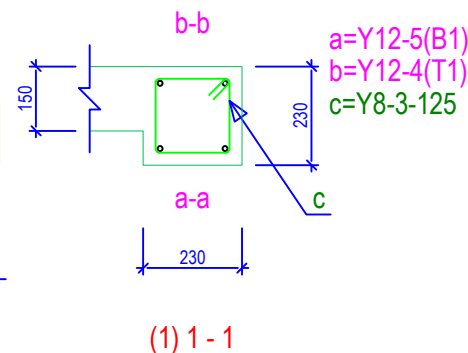
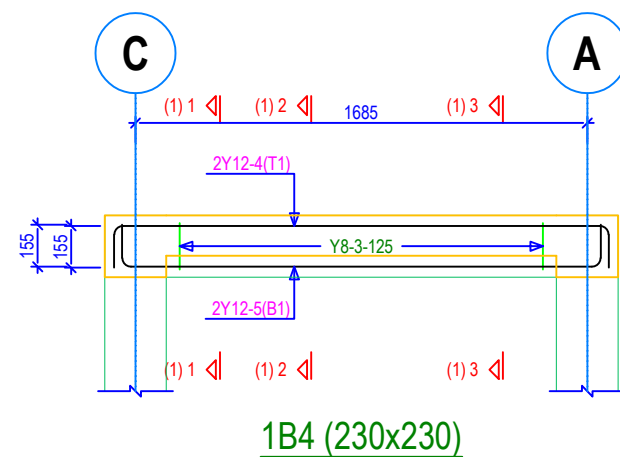
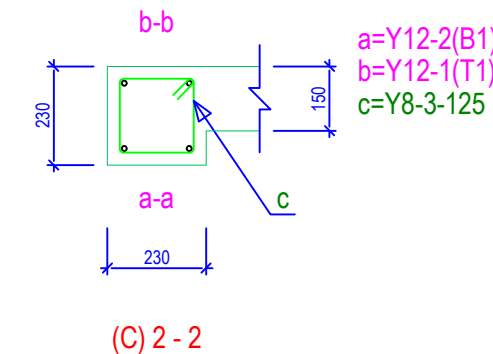
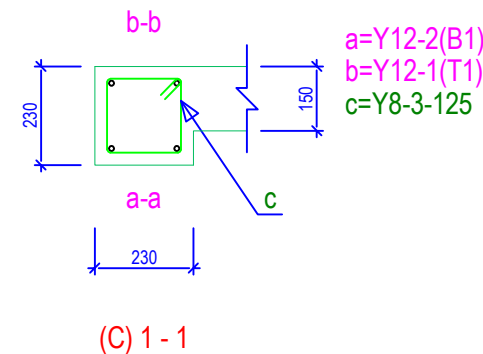
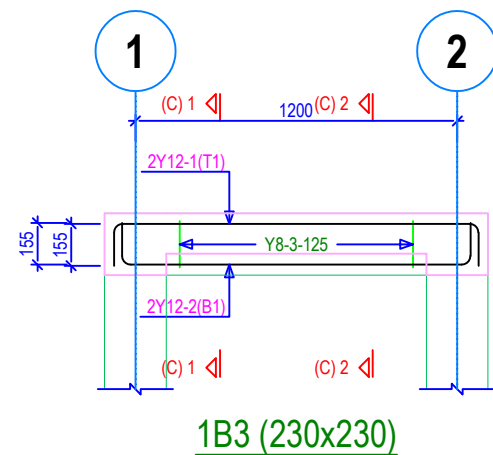
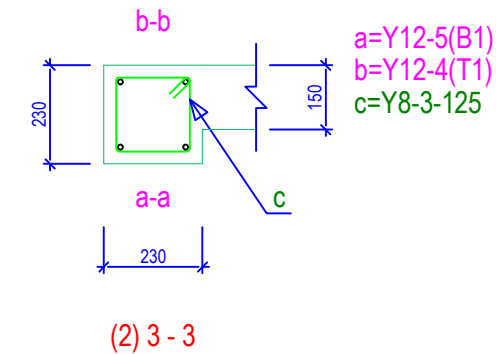
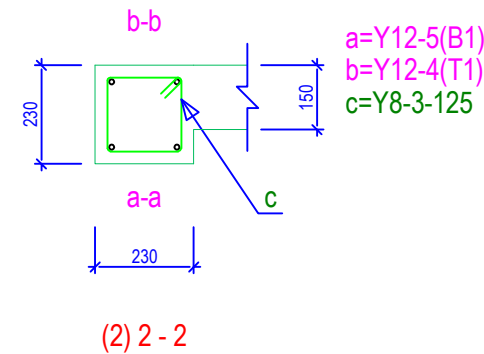
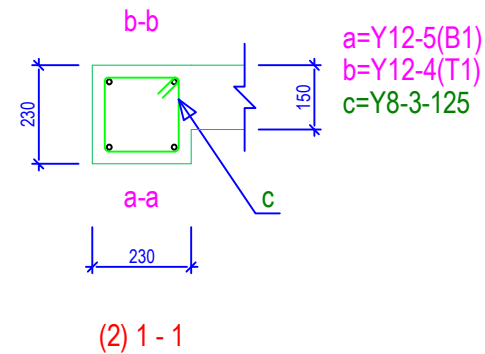
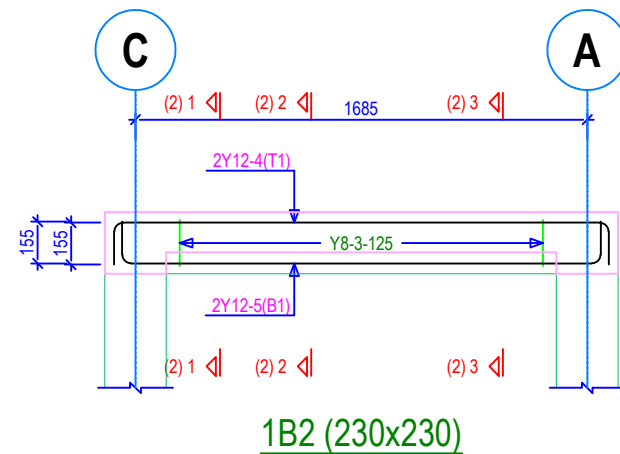
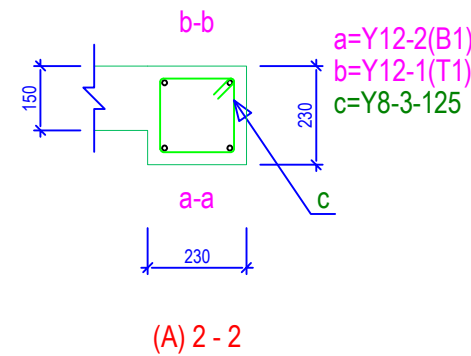
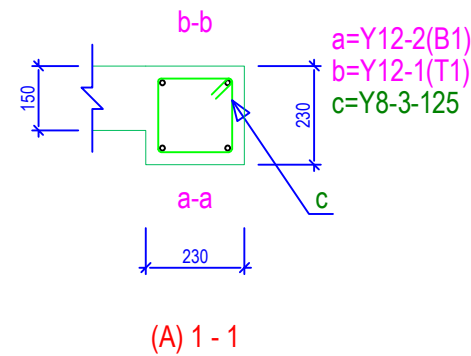
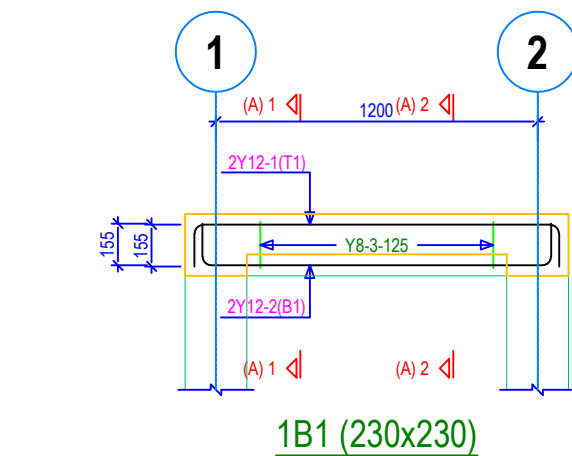
- BLOCKWORK**
- HOLLOW BLOCK WALLS BELOW GROUND SLAB LEVEL ARE TO BE FILLED WITH MASS CONCRETE. BACK FILLING IS TO BE CARRIED OUT SIMULTANEOUSLY ON BOTH SIDES.
 - THE WALL THICKNESS OF THE BLOCKS SHOULD NOT BE MORE THAN 25MM.
 - THE MAXIMUM CRUSHING STRENGTH OF THE HOLLOW BLOCK IS TO BE 20N/MM² OF GROSS AREA OF BLOCK AT 28 DAYS.
 - BLOCKWORK TIES BETWEEN BLOCKWORK WALL AND COLUMNS/STATIONS 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.
FOUNDATION BEAMS

DESIGN		SHEET No.
CHECKED		04
CAD		Scale: 1:50
DATE	MARCH, 2021	



FLOOR BEAMS DETAILS

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/MM²
- COVER TO REINFORCEMENT SHALL BE THE FOLLOWING:
FOUNDATION: 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 150K/NM²
- 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/MM² 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 BLOCK WALL 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	

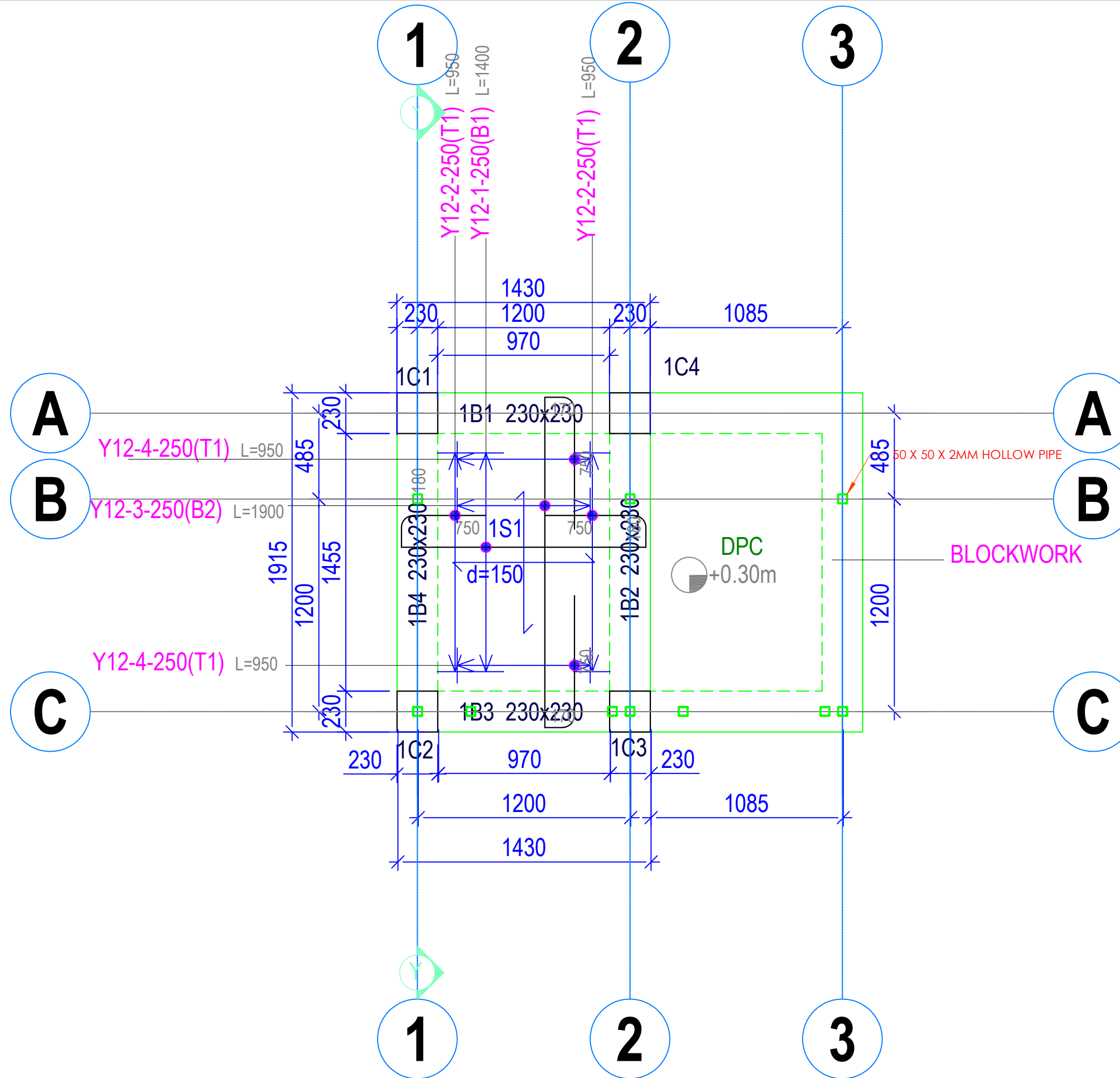
Project.

HOMES FOR NGARANNAM,
MAFA LGA, BORNO.

Drawing Title.

FLOOR BEAMS

DESIGN		SHEET No.
CHECKED		05
CAD		Scale: 1:50
DATE	MARCH, 2021	



GROUND FLOOR LAYOUT
& SLAB R. BAR DETAILS
STOREY: 1 - LEVEL: +0.30m - SCALE: 1/50

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/MM²
 - COVER TO REINFORCEMENT SHALL BE THE FOLLOWING:
FOUNDATION: 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/M²
 - 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/MM² OF GROSS AREA OF BLOCK AT 28 DAYS.
 - BLOCKWORK TIES BETWEEN BLOCKWORK WALL AND COLUMNS/STATIONS 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 BLOCK WALL 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.

SLAB AND G. FLOOR DETAILS

DESIGN		SHEET No.
CHECKED		06
CAD		Scale: 1:50
DATE	MARCH, 2021	