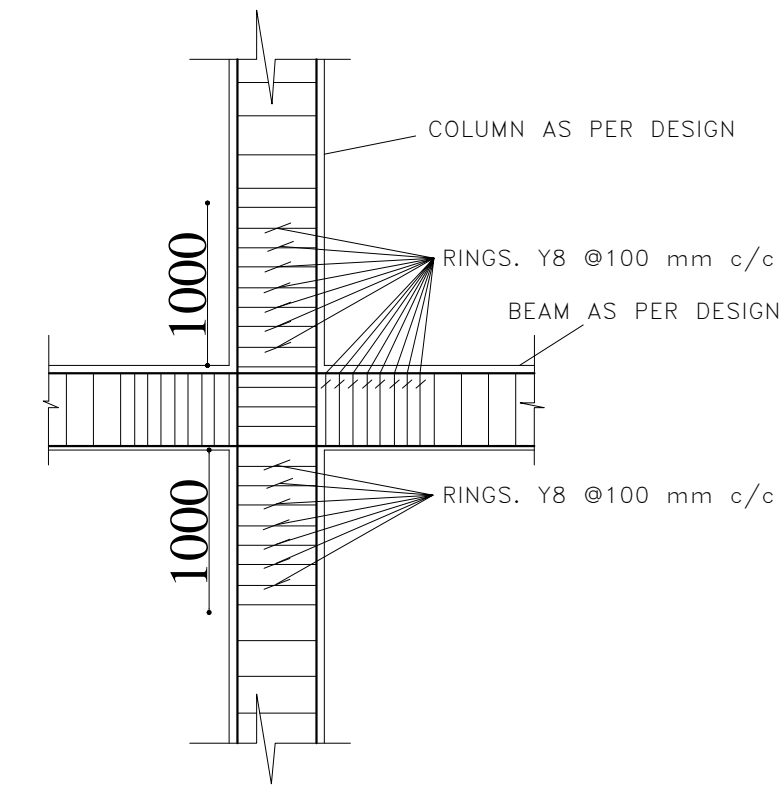
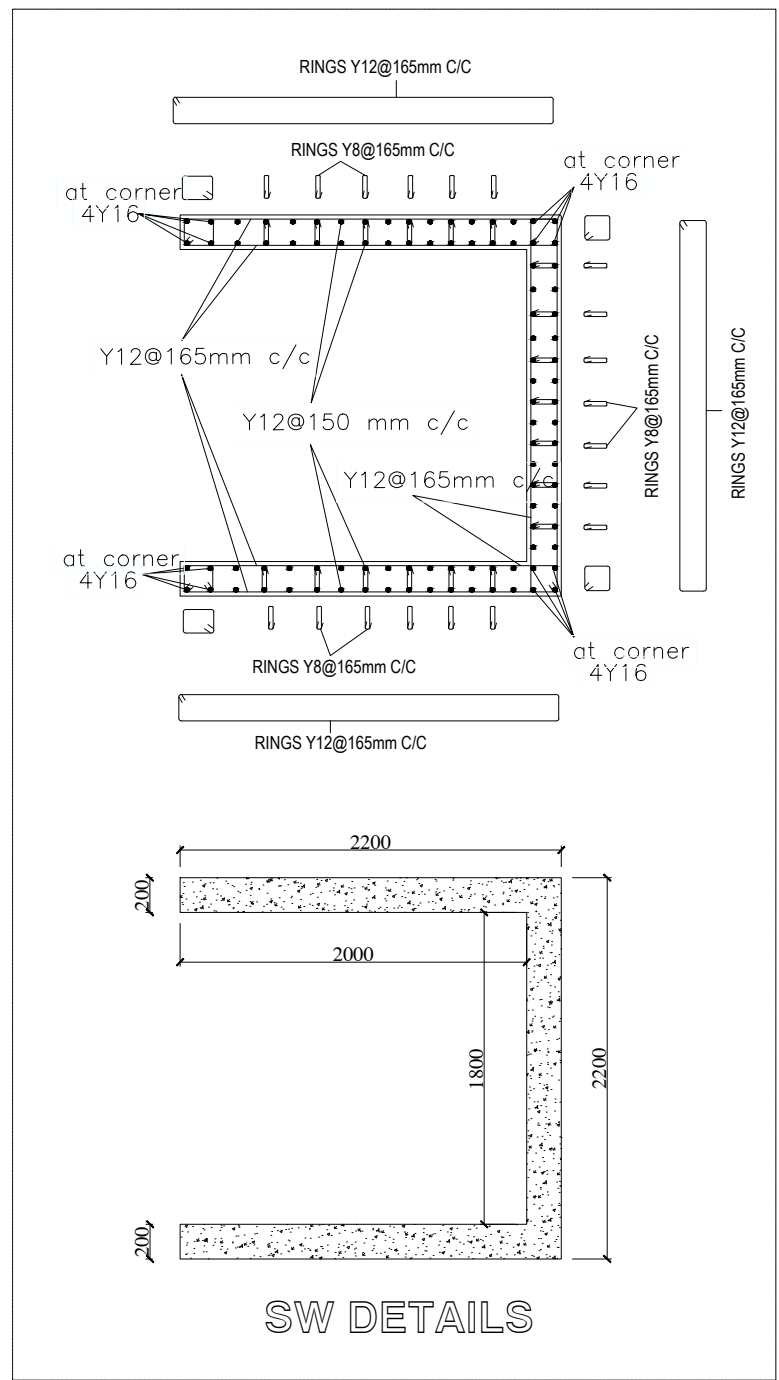


COLUMNS LAYOUT PLAN



DETAIL (1-1)  
TYPICAL DETAIL AT  
SLAB COLUMN JUNCTION (ELEV.)  
(NOT TO SCALE)

## DETAILS OF COLUMNS

Cp	(mm) 200X200	4Y16	UP TO PLINTH BEAMS ONLY
C1	(mm) 200X500	8Y16	-----
C2	(mm) 300X500	10 Y16	-----
C3	(mm) 300X600	12 Y16	-----
C4	(mm) 300X900	16 Y16	-----
C5	(mm) 400X400	8Y16	-----
C6	(mm) 400X400	8 Y20	-----
C7	(mm) 600X600	16 Y16	-----
C8	(mm) SEE DETAILS	10 Y16	-----

NOTE : RINGS MUST BE @100 mm C/C IN A DISTANCE 1m FROM TOP AND  
BOTTOM ENDS OF ALL COLUMNS AS SHOWN IN DET.(1-1)

- NOTES:  
STRUCTURAL NOTES
- DO NOT SCALE THE DRAWING , WRITTEN DIMENTION TO BE FOLLOWED.
  - READ STRUCTURAL DRAWINGS IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS.
  - IN SIMPLE SPANS OF SLABS AND BEAMS OF STEEL IS BENT AT 1/5 OF THE SPAN.
  - IN CONTINUOUS SPAN OF SLABS AND BEAM, STEEL IS BENT AT 1/5 OF THE SPAN AND MUST BE EXTENDED TO 1/4 OF THE ADJACENT SPAN.
  - FOR BEAMS WITHOUT BENT BARS,THE UPPER STEEL MUST BE EXTENDED TO 1/4 OF THE ADJACENT SPANS.
  - THE STEEL OF THE CANTILEVER MUST BE EXTENDED 1.5 TIMES OF THE CANTILEVER BEHIND THE SUPPORT
  - CLEAR CONCRETE COVER TO MAIN REINFORCEMENT SHALL BE :
    - SLABS 25 MM
    - BEAMS 25 MM
    - COLUMNS 25 MM
    - WALLS & STAIRS 25 MM
    - FOOTINGS 50 MM ON SIDE & 70 MM AT BOTTOM.
  - OVER LAPPING OF STEEL SHOULD NOT BE LESS THAN 60 D IN TENSION AND 45 D IN COMPRESSION AND NOT LESS THAN 100 CMS.
  - THE CONTRACTOR MUST CHECK THE AXES OF THE COLUMNS WITH THE AXES OF ARCHITECTURAL DRAWING.
  - FOUNDATION DEPTH AND EXCAVATED GROUND IS TO BE CHECKED BY ENGINEER IN-CHARGE BEFORE CASTING FOOTING. ALL FOOTING SHALL BE SUPPORTED OVER PROPERLY COMPACTED SOIL OF BEARING CAPACITY 20 TONS PER SQ.METRE.
  - BACK FILLING OF FOUNDATION SHALL BE UNIFORMLY PLACED IN LAYERS NOT EXCEEDING DEPTH OF 150mm.& CONSOLIDATED BY VIBRATION TO ENGINEERS
  - UNLESS INDICATED OTHERWISE ALL FOOTINGS & COLUMNS SHALL BE ALIGNED CONCENTRIC IN BOTH DIRECTION AND SYMMETRICAL.
  - UNLESS OTHERWISE SPECIFIED - CONCRETE SHALL BE OF FOLLOWING GRADE:
    - FOR GENERAL REINFORCED - 35N/MM<sup>2</sup> (28 DAYS CUBE STRENGTH)
    - FOR WATER TANK COLUMNS - 35N/MM<sup>2</sup>
    - RETAINING WALLS.
    - FOR PLAIN CONCRETE - 15N/MM<sup>2</sup>
    - BLINDING.2 SHALL NOT BE USED IN REINFORCED CONCRETE.
  - STEEL GRADE FOR GENERAL CONCRETE IS 460N/MM<sup>2</sup>
  - ALL CONCRETE FOR STRUCTURES BELOW GROUND & IN WITH SOIL SHALL BE MADE USING SULPHATE RESISTING CEMENT AND EXPOSED SURFACES SHALL BE BITUMEN (OIL BASED)
  - SAFE BEARING CAPACITY OF SOIL IS TAKEN AS (2) KG/CM<sup>2</sup>
  - MINIMUM YIELD STEEL REINFORCEMENT WILL BE 460KG/CM<sup>2</sup>
  - FOUNDATION DEPTH SHOULD NOT BE LESS THAN 1.50M. FROM NATURAL GROUND LEVEL.
  - ALL FOOTINS TO HAVE BASE OF P.C.C 1:2:4 AND POLYTHENE BOTH 10 C.M PLUS ON ALL SIDE
  - BLOCKS FOR LOAD BEARING WALLS SHALL BE OF A MINIMUM CRUSHING STRENGTH OF 50KGS/CM2 AND FOR NONLOAD BEARING WALLS SHALL BE 25KGS/CM2
  - THE BACK FILLING BELOW FLOOR CONCRETE AND SOIL ALONG EXTERNAL WALL SHALL BE TREATED WITH ANTI-TERMITE CHEMICAL EMULSION AS PER THE RATE SPECIFIED BY THE MANUFACTURES WITH A MINIMUM GUARANTY OF 10 YEARS
  - THE FOUNDATION IS DESIGNED UPTO CARRY **THREE** FLOOR ONLY



### PROPOSED BUILDING

LOCATION	NORTH SAHALNOOT	PLOT No.	632 / ٦٣٢	رقم القطعة
	محلوت الشمالية	BLK. No.	B	رقم الدورج
No.OF FLOORS	GROUND+FIRST+PH.	LAND USE	RESIDENTIAL	سكني

CLIENT	ALI BIN FENKHAR BIN ALI ALSHANFRI علي بن فخير بن علي الشنفرى
--------	---

DRG. TITLE	COLUMNS LAYOUT PLAN
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DRAWN BY	ENG.MOHAMED NASHAAT
DESIGN BY	ENG.MOHAMED NASHAAT
CHECKED BY	ENG.MUSALLAM TABOOK

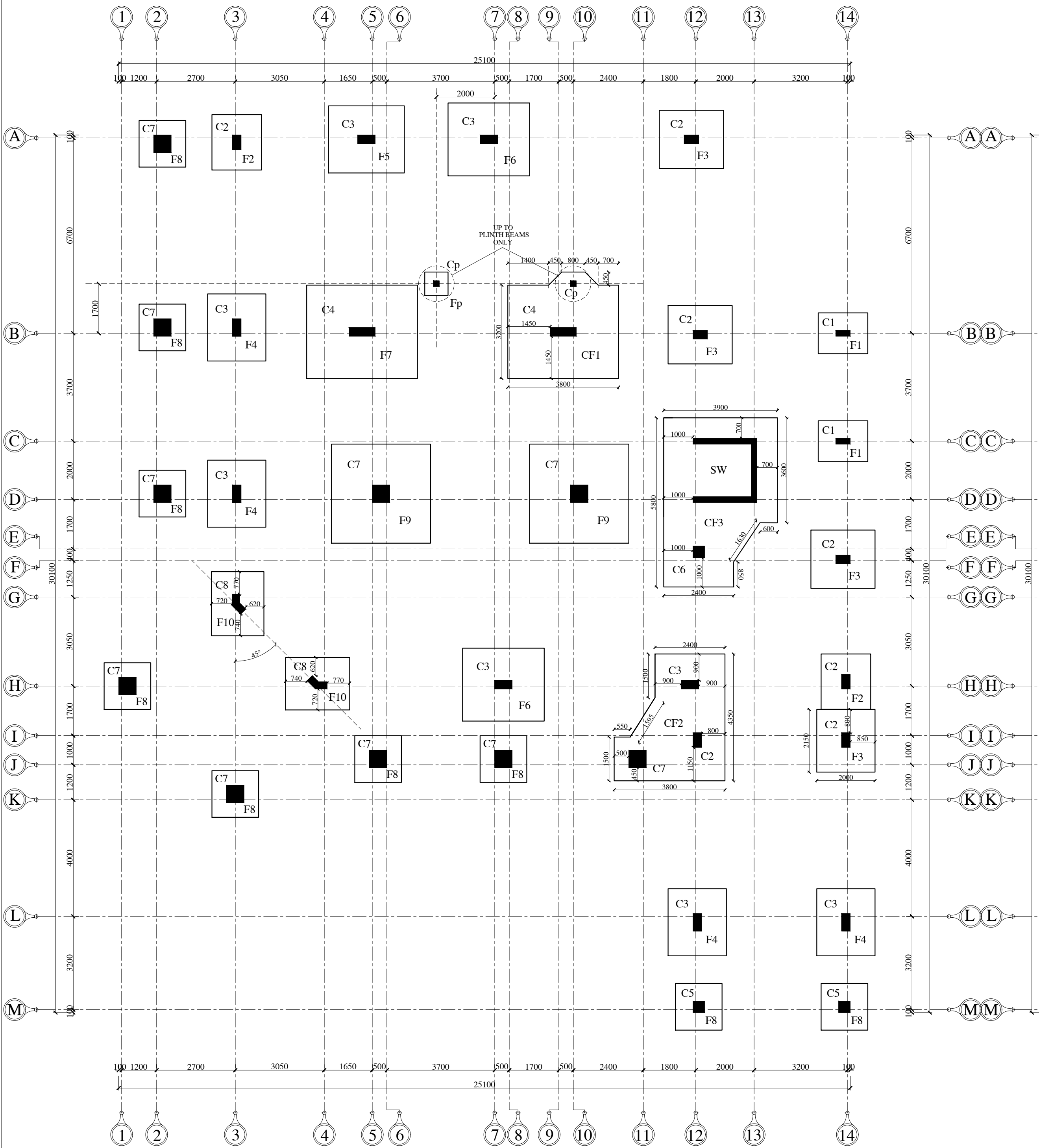
PROJECT No.	1248/NOV./2020	SHEET No.	ST-01
DATE	13/12/2020	SCALE	1:100

ALL DIMENSION ARE MILLIMETERS



SCHEDULE OF FOOTINGS

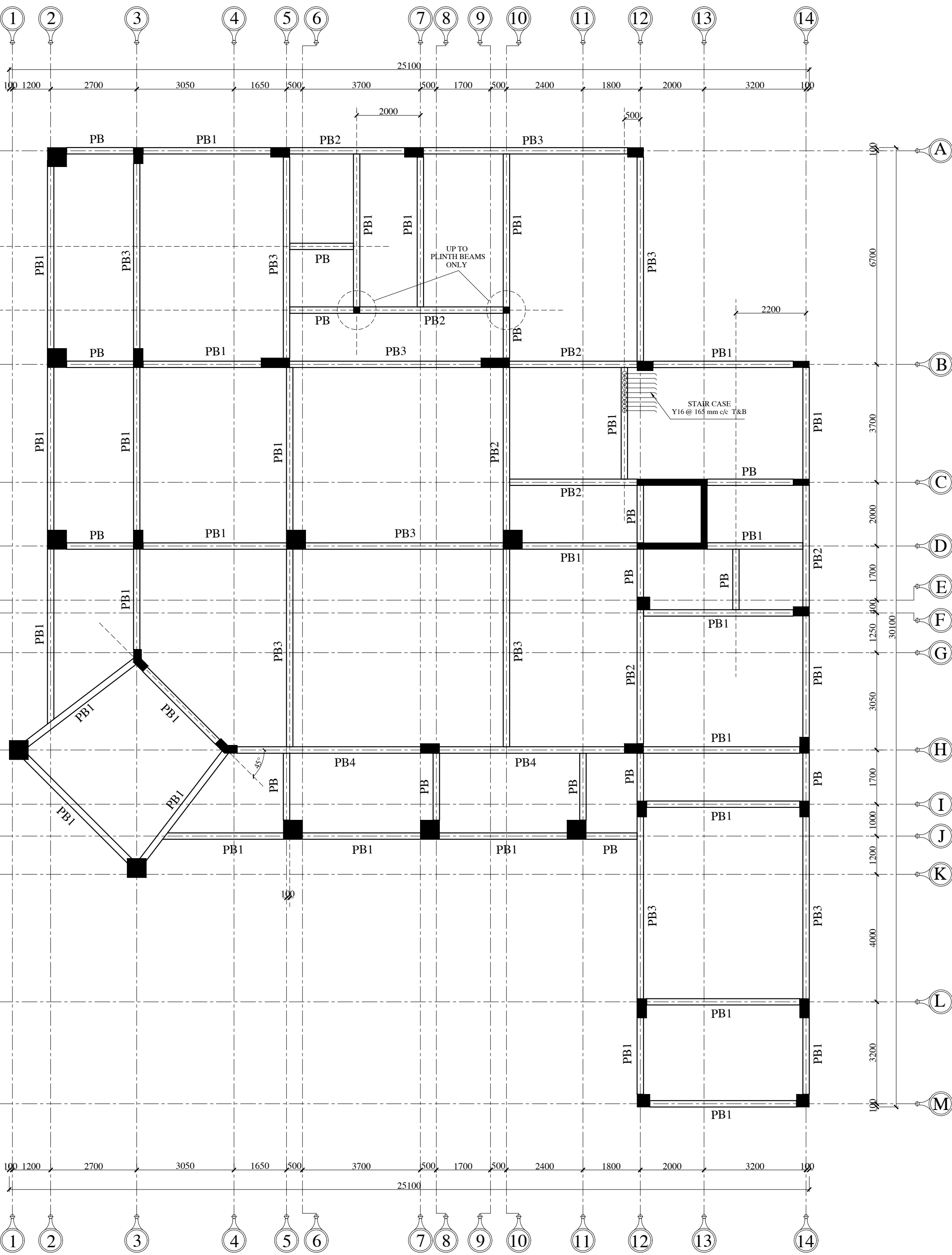
TYPE	P.C.C (mm)	R.C.C (mm)	REINFORCEMENT BOTTOM		REINFORCEMENT TOP		REMARKS
			SHORT	LONG	SHORT	LONG	
Fp	1000X1000X100	800X800X400	Y16@200 mm c/c	Y16@200 mm c/c	-----	-----	-----
F1	1600X1900X100	1400X1700X500	Y16@165 mm c/c	Y16@165 mm c/c	-----	-----	-----
F2	1800X2000X100	1700X1900X500	Y16@165 mm c/c	Y16@165 mm c/c	-----	-----	-----
F3	2200X2400X100	2000X2200X600	Y16@165 mm c/c	Y16@165 mm c/c	-----	-----	-----
F4	2200X2500X100	2000X2300X600	Y16@165 mm c/c	Y16@165 mm c/c	-----	-----	-----
F5	2500X2800X100	2300X2600X600	Y16@150 mm c/c	Y16@150 mm c/c	-----	-----	-----
F6	2700X3000X100	2500X2800X600	Y16@125 mm c/c	Y16@125 mm c/c	-----	-----	-----
F7	3400X4000X100	3200X3800X700	Y16@100 mm c/c	Y16@100 mm c/c	-----	-----	-----
F8	1800X1800X100	1600X1600X500	Y16@165 mm c/c	Y16@165 mm c/c	-----	-----	-----
F9	3600X3600X100	3400X3400X700	Y16@100 mm c/c	Y16@100 mm c/c	-----	-----	-----
F10	2000X2400X100	1800X2200X600	Y16@165 mm c/c	Y16@165 mm c/c	-----	-----	-----
CF1	SEE DETAILS DEPTH=100	SEE DETAILS DEPTH=700	Y16@100 mm c/c	Y16@100 mm c/c	Y12@ 200 mm c/c	Y12@ 200 mm c/c	T&B
CF2	SEE DETAILS DEPTH=100	SEE DETAILS DEPTH=600	Y16@125 mm c/c	Y16@125 mm c/c	Y16@150 mm c/c	Y16@150 mm c/c	T&B
CF3	SEE DETAILS DEPTH=100	SEE DETAILS DEPTH=600	Y16@125 mm c/c	Y16@125 mm c/c	Y16@150 mm c/c	Y16@150 mm c/c	T&B



FOOTING LAYOUT PLAN

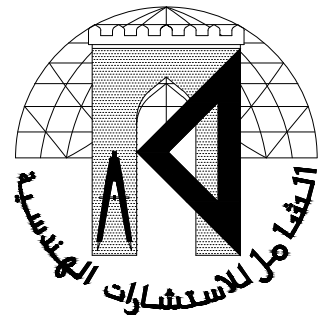
SCHEDULE OF PLINTH BEAMS

TYPE	SIZE (mm)	BOTTOM REIN.		TOP REIN.		RINGS		SIDE BARS
		STR.	CUT. (AT MID.)	STR.	CUT. (AT SUPPORT)	MID SPAN	SUPPORT (L / 4)	
PB	200X400	2Y16	---	2Y16	---	Y8@150 mmC/C	Y8@150 mmC/C	-----
PB1	200X550	3Y16	---	3Y16	---	Y8@150 mmC/C	Y8@120 mmC/C	-----
PB2	200X550	2Y16	2Y16	2Y16	2Y16	Y8@150 mmC/C	Y8@120 mmC/C	-----
PB3	200X650	2Y16	2Y16	2Y16	2Y16	Y8@150 mmC/C	Y8@120 mmC/C	1Y8 each side
PB4	200X650	3Y16	2Y16	2Y16	2Y16	Y8@150 mmC/C	Y8@120 mmC/C	1Y8 each side



PLINTH BEAMS LAYOUT PLAN

- NOTES:
- STRUCTURAL NOTES
- DO NOT SCALE THE DRAWING , WRITTEN DIMENTION TO BE FOLLOWED.
  - READ STRUCTURAL DRAWINGS IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS.
  - IN SIMPLE SPANS OF SLABS AND BEAMS OF STEEL IS BENT AT 1/5 OF THE SPAN.
  - IN CONTINUOUS SPAN OF SLABS AND BEAM, STEEL IS BENT AT 1/5 OF THE SPAN AND MUST BE EXTENDED TO 1/4 OF THE ADJACENT SPAN.
  - FOR BEAMS WITHOUT BENT BARS,THE UPPER STEEL MUST BE EXTENDED TO 1/4 OF THE ADJACENT SPANS.
  - THE STEEL OF THE CANTILEVER MUST BE EXTENDED 1.5 TIMES OF THE CANTILEVER BEHIND THE SUPPORT.
  - CLEAR CONCRETE COVER TO MAIN REINFORCEMENT SHALL BE :
    - SLABS 25 MM
    - BEAMS 25 MM
    - COLUMNS 25 MM
    - WALLS & STAIRS 25 MM
    - FOOTINGS 50 MM ON SIDE & 70 MM AT BOTTOM.
  - OVER LAPPING OF STEEL SHOULD NOT BE LESS THAN 60 D IN TENSION AND 45 D IN COMPRESSION AND NOT LESS THAN 100 CMS.
  - THE CONTRACTOR MUST CHECK THE AXES OF THE COLUMNS WITH THE AXES OF ARCHITECTURAL DRAWING.
  - FOUNDATION DEPTH AND EXCAVATED GROUND IS TO BE CHECKED BY ENGINEER IN-CHARGE BEFORE CASTING FOOTING. ALL FOOTING SHALL BE SUPPORTED OVER PROPERLY COMPACTED SOIL OF BEARING CAPACITY 20 TONS PER SQ.METRE.
  - BACK FILLING OF FOUNDATION SHALL BE UNIFORMLY PLACED IN LAYERS NOT EXCEEDING DEPTH OF 150mm.& CONSOLIDATED BY VIBRATION TO ENGINEERS
  - UNLESS INDICATED OTHERWISE ALL FOOTINGS & COLUMNS SHALL BE ALIGNED CONCENTRIC IN BOTH DIRECTION AND SYMMETRICAL.
  - UNLESS OTHERWISE SPECIFIED - CONCRETE SHALL BE OF FOLLOWING GRADE:
    - FOR GENERAL REINFORCED - 35N/MM<sup>2</sup> (28 DAYS CUBE STRENGTH)
    - FOR WATER TANK COLUMNS - 35N/MM<sup>2</sup>
    - RETAINING WALLS.
    - FOR PLAIN CONCRETE - 15N/MM<sup>2</sup>
    - BLINDING.
    - LOWER THAN GRADE 35N/MM<sup>2</sup> SHALL NOT BE USED IN REINFORCED CONCRETE.
  - STEEL GRADE FOR GENERAL CONCRETE IS 460N/MM<sup>2</sup>
  - ALL CONCRETE FOR STRUCTURES BELOW GROUND & IN WITH SOIL SHALL BE MADE USING SULPHATE RESISTING CEMENT AND EXPOSED SURFACES SHALL BE BITUMEN (OIL BASED)
  - SAFE BEARING CAPACITY OF SOIL IS TAKEN AS (2) KG/CM<sup>2</sup>
  - MINIMUM YIELD STEEL REINFORCEMENT WILL BE 4600KG/CM
  - FOUNDATION DEPTH SHOULD NOT BE LESS THAN 1.50M. FROM NATURAL GROUND LEVEL.
  - ALL FOOTINS TO HAVE BASE OF P.C.C 1:2:4 AND POLYTHENE BOTH 10 C.M PLUS ON ALL SIDE
  - BLOCKS FOR LOAD BEARING WALLS SHALL BE OF A MINIMUM CRUSHING STRENGTH OF 50KGS/CM2 AND FOR NONLOAD BEARING WALLS SHALL BE 25KGS/CM2
  - THE BACK FILLING BELLOW FLOOR CONCRETE AND SOIL ALONG EXTERNAL WALL SHALL BE TREATED WITH ANTI-TERMITE CHEMICAL EMULSION AS PER THE RATE SPECIFIED BY THE MANUFACTURES WITH A MINIMUM GUARANTY OF 10 YEARS
  - THE FOUNDATION IS DESIGNED UPTO CARRY **THREE** FLOOR ONLY



**Al-Shamili**  
Engineering Consultants  
P.O BOX 2325. SALALAH-211  
SULTANATE OF OMAN.  
TEL. 23296574, FAX 23296574

PROPOSED BUILDING

LOCATION	NORTH SAHALNOOT	PLOT No.	632 / ٦٣٢	رقم القطعة
	محللات الشمالية	BLK. No.	B	رقم المربع
No.OF FLOORS	GROUND+FIRST+PH.	LAND USE	RESIDENTIAL	سكني

CLIENT	ALI BIN FENKHAR BIN ALI ALSHANFRY علي بن فنكار بن علي الشنفرى
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DRG. TITLE	FOOTING LAYOUT PLAN PLINTH BEAMS LAYOUT PLAN
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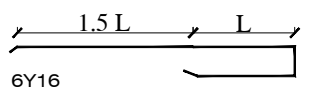
DRAWN BY	ENG.MOHAMED NASHAAT
DESIGN BY	ENG.MOHAMED NASHAAT
CHECKED BY	ENG.MUSALLAM TABOOK

PROJECT No.	1248/NOV./2020	SHEET No.	ST-02
DATE	13/12/2020	SCALE	1:100
ALL DIMENSION ARE MILLIMETERS			



FOR SECTIONS & DETAILS SEE SHEET NO. (ST-06)

SCHEDULE OF FLOOR BEAMS

TYPE	SIZE	REINFORCEMENT				RINGS		SIDE BARS
		BOTTOM		TOP		@ mid span	@ supports	
		STR.	CUT	STR.	CUT			
FB	200X500	2Y16	----	2Y16	----	Y8@150 mm. C/C	Y8@100 mm. C/C	-----
FB1	200X600	3Y16	----	3Y16	----	Y8@150 mm. C/C	Y8@100 mm. C/C	-----
FB2	200X600	2Y16	2Y16	2Y16	2Y16	Y8@150 mm. C/C	Y8@100 mm. C/C	-----
FB3	200X600	3Y16	2Y16	3Y16	2Y16	Y8@150 mm. C/C	Y8@100 mm. C/C	-----
FB4	200X700	2Y16	2Y16	2Y16	2Y16	Y8@150 mm. C/C	Y8@100 mm. C/C	1Y8 /SIDE
FB5	200X700	3Y16	2Y16	3Y16	2Y16	Y8@150 mm. C/C	Y8@100 mm. C/C	1Y8 /SIDE
FB6	200X750	3Y20	2Y20	3Y20	2Y20	Y8@130 mm. C/C	Y8@100 mm. C/C	1Y8 /SIDE
FB7	200X750	4Y20	2Y20	4Y20	2Y20	Y8@130 mm. C/C	Y8@100 mm. C/C	1Y8 /SIDE
FB8	200X970	2Y16	2Y16	2Y16	2Y16	2Y8@150 mm. C/C CLOSED	2Y8@150 mm. C/C CLOSED	2Y16 /SIDE inverted
FB9	<sup>(150)</sup> <sub>(250)</sub> X600	2Y16	2Y16	2Y16	2Y16	Y8@150 mm. C/C	Y8@150 mm. C/C	SEE DETAILS
FB10	200X900	4Y20	2Y20	4Y20	2Y20	Y8@130 mm. C/C	Y8@100 mm. C/C	2Y8 /SIDE
FB11	200X550	3Y16	----	3Y16	----	Y8@150 mm. C/C	Y8@150 mm. C/C	SEE SECTION
CFB	200X750					Y8@150 mm. C/C	Y8@100 mm. C/C	1Y8 /SIDE
RB1	150X340	2Y16	----	2Y12	----	Y8@150 mm. C/C	Y8@100 mm. C/C	-----
RB2	150X360	2Y16	----	2Y12	----	Y8@150 mm. C/C	Y8@100 mm. C/C	-----
HB1	600X180	6Y16	----	6Y12	----	2*Y8@150 mmC/C	2*Y8@150 mmC/C	-----
HB2	800X220	7Y16	----	7Y16	----	2*Y8@150 mmC/C	2*Y8@150 mmC/C	-----
HB3	500X270	5Y16	----	5Y16	----	2*Y8@150 mmC/C	2*Y8@150 mmC/C	-----
HB4	800X270	8Y16	----	8Y16	----	2*Y8@150 mmC/C	2*Y8@150 mmC/C	-----
HB5	600X300	6Y16	----	6Y16	----	2*Y8@150 mmC/C	2*Y8@150 mmC/C	inverted
HB6	1000X300	9Y16	----	9Y16	----	3*Y8@150 mmC/C	3*Y8@150 mmC/C	inverted
HB7	1500X320	13Y16	----	13Y16	----	4*Y8@150 mmC/C	4*Y8@150 mmC/C	inverted
HB8	500X340	5Y16	----	5Y16	----	2*Y8@150 mmC/C	2*Y8@150 mmC/C	-----
HB9	700X340	7Y16	----	7Y16	----	2*Y8@150 mmC/C	2*Y8@150 mmC/C	-----
HB10	900X340	9Y16	----	9Y16	----	3*Y8@150 mmC/C	3*Y8@150 mmC/C	-----
HB11	1200X340	12Y16	----	12Y16	----	3*Y8@150 mmC/C	3*Y8@150 mmC/C	-----
HB12	500X360	5Y16	----	5Y16	----	2*Y8@150 mmC/C	2*Y8@150 mmC/C	-----
HB13	1500X360	13Y16	----	13Y16	----	4*Y8@150 mmC/C	4*Y8@150 mmC/C	-----

SCHEDULE OF SLABS

TYPE	THICKNESS (mm)	BOTTOM RFT		TOP RFT				REMARKS
		SHORT DIR	LONG DIR	SHORT DIR		LONG DIR		
				MID SPAN	SUPPORT (1/4 th Span)	MID SPAN	SUPPORT (1/4 th Span)	
S1	150	Y12@165 mm c/c	Y12@165 mm c/c	---	Y12@200 mm c/c	---	Y12@200 mm c/c	-----
S2	170	Y12@165 mm c/c	Y12@165 mm c/c	---	Y12@165 mm c/c	---	Y12@165 mm c/c	-----
S3	200	Y12@165 mm c/c	Y12@165 mm c/c	Y12@165 mm c/c		Y12@165 mm c/c		T&B (DOUBLE REN.)
S4	220	Y12@165 mm c/c	Y12@165 mm c/c	Y12@165 mm c/c		Y12@165 mm c/c		T&B (DOUBLE REN.)
S5	250	Y12@165 mm c/c	Y12@165 mm c/c	Y12@165 mm c/c		Y12@165 mm c/c		T&B (DOUBLE REN.)
S6	270	Y12@150 mm c/c	Y12@150 mm c/c	Y12@150 mm c/c		Y12@150 mm c/c		T&B (DOUBLE REN.)
SF	200	Y12@165 mm c/c	Y16@165 mm c/c	Y12@165 mm c/c		Y16@165 mm c/c		STAIRS SLAB (DOUBLE LAYER)
SL	200	Y16@165 mm c/c	Y12@165 mm c/c	Y16@165 mm c/c		Y12@165 mm c/c		STAIRS SLAB (DOUBLE LAYER)

NOTES:  
STRUCTURAL NOTES

- DO NOT SCALE THE DRAWING , WRITTEN DIMENTION TO BE FOLLOWED.
- READ STRUCTURAL DRAWINGS IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS.
- IN SIMPLE SPANS OF SLABS AND BEAMS OF STEEL IS BENT AT 1/8 OF THE SPAN.
- IN CONTINUOUS SPAN OF SLABS AND BEAM, STEEL IS BENT AT 1/5 OF THE SPAN AND MUST BE EXTENDED TO 1/4 OF THE ADJACENT SPAN.
- FOR BEAMS WITHOUT BENT BARS,THE UPPER STEEL MUST BE EXTENDED TO 1/4 OF THE ADJACENT SPANS.
- THE STEEL OF THE CANTILEVER MUST BE EXTENDED 1.5 TIMES OF THE CANTILEVER BEHIND THE SUPPORT
- CLEAR CONCRETE COVER TO MAIN REINFORCEMENT SHALL BE :

SLABS

BEAMS

COLUMNS

WALLS & STAIRS

FOOTINGS

25 MM

25 MM

25 MM

25 MM

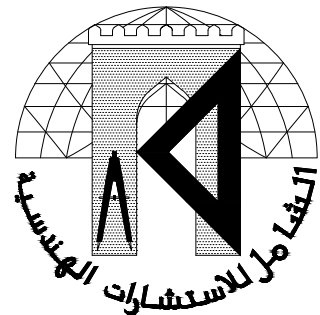
50 MM ON SIDE & 70 MM AT BOTTOM.
- OVER LAPPING OF STEEL SHOULD NOT BE LESS THAN 60 D IN TENSION AND 45 D IN COMPRESSION AND NOT LESS THAN 100 CMS.
- THE CONTRACTOR MUST CHECK THE AXES OF THE COLUMNS WITH THE AXES OF ARCHITECTURAL DRAWING.
- FOUNDATION DEPTH AND EXCAVATED GROUND IS TO BE CHECKED BY ENGINEER IN-CHARGE BEFORE CASTING FOOTING. ALL FOOTING SHALL BE SUPPORTED OVER PROPERLY COMPACTED SOIL OF BEARING CAPACITY 20 TONS PER SQ.METRE.
- BACK FILLING OF FOUNDATION SHALL BE UNIFORMLY PLACED IN LAYERS NOT EXCEEDING DEPTH OF 150mm.& CONSOLIDATED BY VIBRATION TO ENGINEERS
- UNLESS INDICATED OTHERWISE ALL FOOTINGS & COLUMNS SHALL BE ALIGNED CONCENTRIC IN BOTH DIRECTION AND SYMMETRICAL.
- UNLESS OTHERWISE SPECIFIED - CONCRETE SHALL BE OF FOLLOWING GRADE:

FOR GENERAL REINFORCED - 35N/MM<sup>2</sup> (28 DAYS CUBE STRENGTH)

FOR WATER TANK COLUMNS - 35N/MM<sup>2</sup> RETAINING WALLS.

FOR PLAIN CONCRETE - 15N/MM<sup>2</sup> BLINDING.

LOWER THAN GRADE 35N/MM<sup>2</sup> SHALL NOT BE USED IN REINFORCED CONCRETE.
- STEEL GRADE FOR GENERAL CONCRETE IS 460N/MM2
- ALL CONCRETE FOR STRUCTURES BELOW GROUND & IN WITH SOIL SHALL BE MADE USING SULPHATE RESISTING CEMENT AND EXPOSED SURFACES SHALL BE BITUMEN (OIL BASED)
- SAFE BEARING CAPACITY OF SOIL IS TAKEN AS (2) KG/CM.<sup>2</sup>
- MINIMUM YIELD STEEL REINFORCEMENT WILL BE 4600KG/CM
- FOUNDATION DEPTH SHOULD NOT BE LESS THAN 1.50M. FROM NATURAL GROUND LEVEL.
- ALL FOOTINS TO HAVE BASE OF P.C.C 1:2:4 AND POLYTHENE BOTH 10 C.M PLUS ON ALL SIDE
- BLOCKS FOR LOAD BEARING WALLS SHALL BE OF A MINIMUM CRUSHING STRENGTH OF 50KGS/CM2 AND FOR NONLOAD BEARING WALLS SHALL BE 25KGS/CM2
- THE BACK FILLING BELLOW FLOOR CONCRETE AND SOIL ALONG EXTERNAL WALL SHALL BE TREATED WITH ANTI TERMITE CHEMICAL EMULSION AS PER THE RATE SPECIFIED BY THE MANUFACTURES WITH A MINIMUM GUARANTY OF 10 YEARS
- THE FOUNDATION IS DESIGNED UPTO CARRY **THREE** FLOOR ONLY



**AL-Shamili**  
Engineering Consultants  
P.O BOX 2325. SALALAH-211  
SULTANATE OF OMAN.  
TEL. 23296574, FAX 23296574

PROPOSED BUILDING

LOCATION	NORTH SAHALNOOT محلوت الشمالية	PLOT No. 632 / ٦٣٢	رقم القطعة
		BLK. No. B	رقم المربع ب
No.OF FLOORS	GROUND+FIRST+PH.	LAND USE	RESIDENTIAL سكني

CLIENT	ALI BIN FENKHAR BIN ALI ALSHANFRY علي بن فخير بن علي الشنفرى
--------	---

DRG. TITLE	GROUND FLOOR SLABS & BEAMS LAYOUT PLAN
------------	--

DRAWN BY	ENG.MOHAMED NASHAAT
DESIGN BY	ENG.MOHAMED NASHAAT
CHECKED BY	ENG.MUSALLAM TABOOK

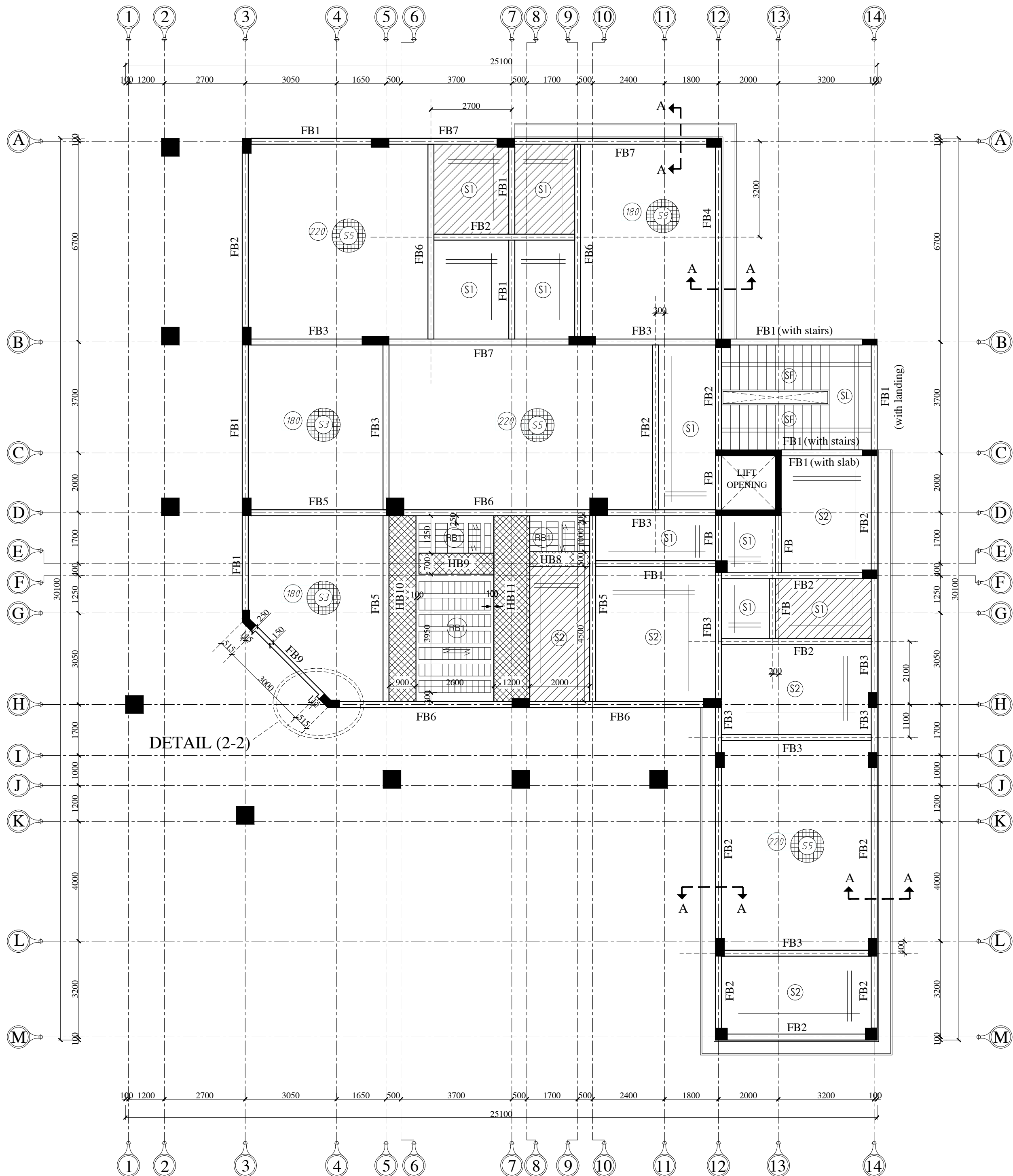
PROJECT No.	1248/NOV./2020	SHEET No.	ST-03
DATE	13/12/2020	SCALE	1:100

ALL DIMENSION ARE MILLIMETERS

GROUND FLOOR SLABS & BEAMS LAYOUT PLAN



FOR SECTIONS & DETAILS SEE SHEET NO. (ST-06)



FIRST FLOOR SLABS & BEAMS LAYOUT PLAN

SCHEDULE OF FLOOR BEAMS

TYPE	SIZE	REINFORCEMENT				RINGS		SIDE BARS
		BOTTOM		TOP		@ mid span	@ supports	
		STR.	CUT	STR.	CUT			
FB	200X500	2Y16	----	2Y16	----	Y8@150 mm. C/C	Y8@100 mm. C/C	-----
FB1	200X600	3Y16	----	3Y16	----	Y8@150 mm. C/C	Y8@100 mm. C/C	-----
FB2	200X600	2Y16	2Y16	2Y16	2Y16	Y8@150 mm. C/C	Y8@100 mm. C/C	-----
FB3	200X600	3Y16	2Y16	3Y16	2Y16	Y8@150 mm. C/C	Y8@100 mm. C/C	-----
FB4	200X700	2Y16	2Y16	2Y16	2Y16	Y8@150 mm. C/C	Y8@100 mm. C/C	1Y8 /SIDE
FB5	200X700	3Y16	2Y16	3Y16	2Y16	Y8@150 mm. C/C	Y8@100 mm. C/C	1Y8 /SIDE
FB6	200X750	3Y20	2Y20	3Y20	2Y20	Y8@130 mm. C/C	Y8@100 mm. C/C	1Y8 /SIDE
FB7	200X750	4Y20	2Y20	4Y20	2Y20	Y8@130 mm. C/C	Y8@100 mm. C/C	1Y8 /SIDE
FB8	200X970	2Y16	2Y16	2Y16	2Y16	2Y8@150 mm. C/C CLOSED	2Y8@150 mm. C/C CLOSED	2Y16 /SIDE inverted
FB9	<div><div>150</div><div>250</div><div>X600</div></div>	2Y16	2Y16	2Y16	2Y16	Y8@150 mm. C/C	Y8@150 mm. C/C	SEE DETAILS
FB10	200X900	4Y20	2Y20	4Y20	2Y20	Y8@130 mm. C/C	Y8@100 mm. C/C	2Y8 /SIDE
FB11	200X550	3Y16	----	3Y16	----	Y8@150 mm. C/C	Y8@150 mm. C/C	SEE SECTION
CFB	200X750	<div><div><div>1.5L</div><div>L</div></div><div>6Y16</div></div>				Y8@150 mm. C/C	Y8@100 mm. C/C	1Y8 /SIDE
RB1	150X340	2Y16	----	2Y12	----	Y8@150 mm. C/C	Y8@100 mm. C/C	-----
RB2	150X360	2Y16	----	2Y12	----	Y8@150 mm. C/C	Y8@100 mm. C/C	-----
HB1	600X180	6Y16	----	6Y12	----	2*Y8@150 mmC/C	2*Y8@150 mmC/C	-----
HB2	800X220	7Y16	----	7Y16	----	2*Y8@150 mmC/C	2*Y8@150 mmC/C	-----
HB3	500X270	5Y16	----	5Y16	----	2*Y8@150 mmC/C	2*Y8@150 mmC/C	-----
HB4	800X270	8Y16	----	8Y16	----	2*Y8@150 mmC/C	2*Y8@150 mmC/C	-----
HB5	600X300	6Y16	----	6Y16	----	2*Y8@150 mmC/C	2*Y8@150 mmC/C	inverted
HB6	1000X300	9Y16	----	9Y16	----	3*Y8@150 mmC/C	3*Y8@150 mmC/C	inverted
HB7	1500X320	13Y16	----	13Y16	----	4*Y8@150 mmC/C	4*Y8@150 mmC/C	inverted
HB8	500X340	5Y16	----	5Y16	----	2*Y8@150 mmC/C	2*Y8@150 mmC/C	-----
HB9	700X340	7Y16	----	7Y16	----	2*Y8@150 mmC/C	2*Y8@150 mmC/C	-----
HB10	900X340	9Y16	----	9Y16	----	3*Y8@150 mmC/C	3*Y8@150 mmC/C	-----
HB11	1200X340	12Y16	----	12Y16	----	3*Y8@150 mmC/C	3*Y8@150 mmC/C	-----
HB12	500X360	5Y16	----	5Y16	----	2*Y8@150 mmC/C	2*Y8@150 mmC/C	-----
HB13	1500X360	13Y16	----	13Y16	----	4*Y8@150 mmC/C	4*Y8@150 mmC/C	-----

SCHEDULE OF SLABS

TYPE	THICKNESS (mm)	BOTTOM RFT		TOP RFT				REMARKS
		SHORT DIR	LONG DIR	SHORT DIR		LONG DIR		
				MID SPAN	SUPPORT (1/4 th Span)	MID SPAN	SUPPORT (1/4 th Span)	
S1	150	Y12@165 mm c/c	Y12@165 mm c/c	---	Y12@200 mm c/c	---	Y12@200 mm c/c	-----
S2	170	Y12@165 mm c/c	Y12@165 mm c/c	---	Y12@165 mm c/c	---	Y12@165 mm c/c	-----
S3	200	Y12@165 mm c/c	Y12@165 mm c/c	Y12@165 mm c/c		Y12@165 mm c/c		T&B (DOUBLE REIN.)
S4	220	Y12@165 mm c/c	Y12@165 mm c/c	Y12@165 mm c/c		Y12@165 mm c/c		T&B (DOUBLE REIN.)
S5	250	Y12@165 mm c/c	Y12@165 mm c/c	Y12@165 mm c/c		Y12@165 mm c/c		T&B (DOUBLE REIN.)
S6	270	Y12@150 mm c/c	Y12@150 mm c/c	Y12@150 mm c/c		Y12@150 mm c/c		T&B (DOUBLE REIN.)
SF	200	Y12@165 mm c/c	Y16@165 mm c/c	Y12@165 mm c/c		Y16@165 mm c/c		STAIRS SLAB (DOUBLE LAYER)
SL	200	Y16@165 mm c/c	Y12@165 mm c/c	Y16@165 mm c/c		Y12@165 mm c/c		STAIRS SLAB (DOUBLE LAYER)

- NOTES:
- STRUCTURAL NOTES
- DO NOT SCALE THE DRAWING , WRITTEN DIMENTION TO BE FOLLOWED.
  - READ STRUCTURAL DRAWINGS IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS.
  - IN SIMPLE SPANS OF SLABS AND BEAMS OF STEEL IS BENT AT 1/8 OF THE SPAN.
  - IN CONTINUOUS SPAN OF SLABS AND BEAM, STEEL IS BENT AT 1/5 OF THE SPAN AND MUST BE EXTENDED TO 1/4 OF THE ADJACENT SPAN.
  - FOR BEAMS WITHOUT BENT BARS,THE UPPER STEEL MUST BE EXTENDED TO 1/4 OF THE ADJACENT SPANS.
  - THE STEEL OF THE CANTILEVER MUST BE EXTENDED 1.5 TIMES OF THE CANTILEVER BEHIND THE SUPPORT
  - CLEAR CONCRETE COVER TO MAIN REINFORCEMENT SHALL BE :
    - SLABS 25 MM
    - BEAMS 25 MM
    - COLUMNS 25 MM
    - WALLS & STAIRS 25 MM
    - FOOTINGS 50 MM ON SIDE & 70 MM AT BOTTOM.
  - OVER LAPPING OF STEEL SHOULD NOT BE LESS THAN 60 D IN TENSION AND 45 D IN COMPRESSION AND NOT LESS THAN 100 CMS.
  - THE CONTRACTOR MUST CHECK THE AXES OF THE COLUMNS WITH THE AXES OF ARCHITECTURAL DRAWING.
  - FOUNDATION DEPTH AND EXCAVATED GROUND IS TO BE CHECKED BY ENGINEER IN-CHARGE BEFORE CASTING FOOTING. ALL FOOTING SHALL BE SUPPORTED OVER PROPERLY COMPACTED SOIL OF BEARING CAPACITY 20 TONS PER SQ.METRE.
  - BACK FILLING OF FOUNDATION SHALL BE UNIFORMLY PLACED IN LAYERS NOT EXCEEDING DEPTH OF 150mm.& CONSOLIDATED BY VIBRATION TO ENGINEERS
  - UNLESS INDICATED OTHERWISE ALL FOOTINGS & COLUMNS SHALL BE ALIGNED CONCENTRIC IN BOTH DIRECTION AND SYMMETRICAL.
  - UNLESS OTHERWISE SPECIFIED - CONCRETE SHALL BE OF FOLLOWING GRADE:
    - FOR GENERAL REINFORCED - 35N/MM<sup>2</sup> (28 DAYS CUBE STRENGTH)
    - FOR WATER TANK COLUMNS - 35N/MM<sup>2</sup>
    - RETAINING WALLS. 2
    - FOR PLAIN CONCRETE - 15N/MM<sup>2</sup>
    - BLINDING. 2
    - LOWER THAN GRADE 35N/MM<sup>2</sup> SHALL NOT BE USED IN REINFORCED CONCRETE.
  - STEEL GRADE FOR GENERAL CONCRETE IS 460N/MM2
  - ALL CONCRETE FOR STRUCTURES BELOW GROUND & IN WITH SOIL SHALL BE MADE USING SULPHATE RESISTING CEMENT AND EXPOSED SURFACES SHALL BE BITUMEN . (OIL BASED)
  - SAFE BEARING CAPACITY OF SOIL IS TAKEN AS (2) KG/CM.<sup>2</sup>
  - MINIMUM YIELD STEEL REINFORCEMENT WILL BE 460KG/CM
  - FOUNDATION DEPTH SHOULD NOT BE LESS THAN 1.50M. FROM NATURAL GROUND LEVEL.
  - ALL FOOTINS TO HAVE BASE OF P.C.C 1:2:4 AND POLYTHENE BOTH 10 C.M PLUS ON ALL SIDE
  - BLOCKS FOR LOAD BEARING WALLS SHALL BE OF A MINIMUM CRUSHING STRENGTH OF 50KGS/CM2 AND FOR NONLOAD BEARING WALLS SHALL BE 25KGS/CM2
  - THE BACK FILLING BELLOW FLOOR CONCRETE AND SOIL ALONG EXTERNAL WALL SHALL BE TREATED WITH ANTI TERMITE CHEMICAL EMULSION AS PER THE RATE SPECIFIED BY THE MANUFACTURES WITH A MINIMUM GUARANTY OF 10 YEARS
  - THE FOUNDATION IS DESIGNED UPTO CARRY **THREE** FLOOR ONLY



PROPOSED BUILDING

LOCATION	NORTH SAHALNOOT	PLOT No.	632 / ٦٣٢	رقم القطعة
	محللات الشمالية	BLK. No.	B	ب
No.OF FLOORS	GROUND+FIRST+PH.	LAND USE	RESIDENTIAL	سكني

CLIENT	ALI BIN FENKHAR BIN ALI ALSHANFRI علي بن فخير بن علي الشنفرى
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DRG. TITLE	FIRST FLOOR SLABS & BEAMS LAYOUT PLAN
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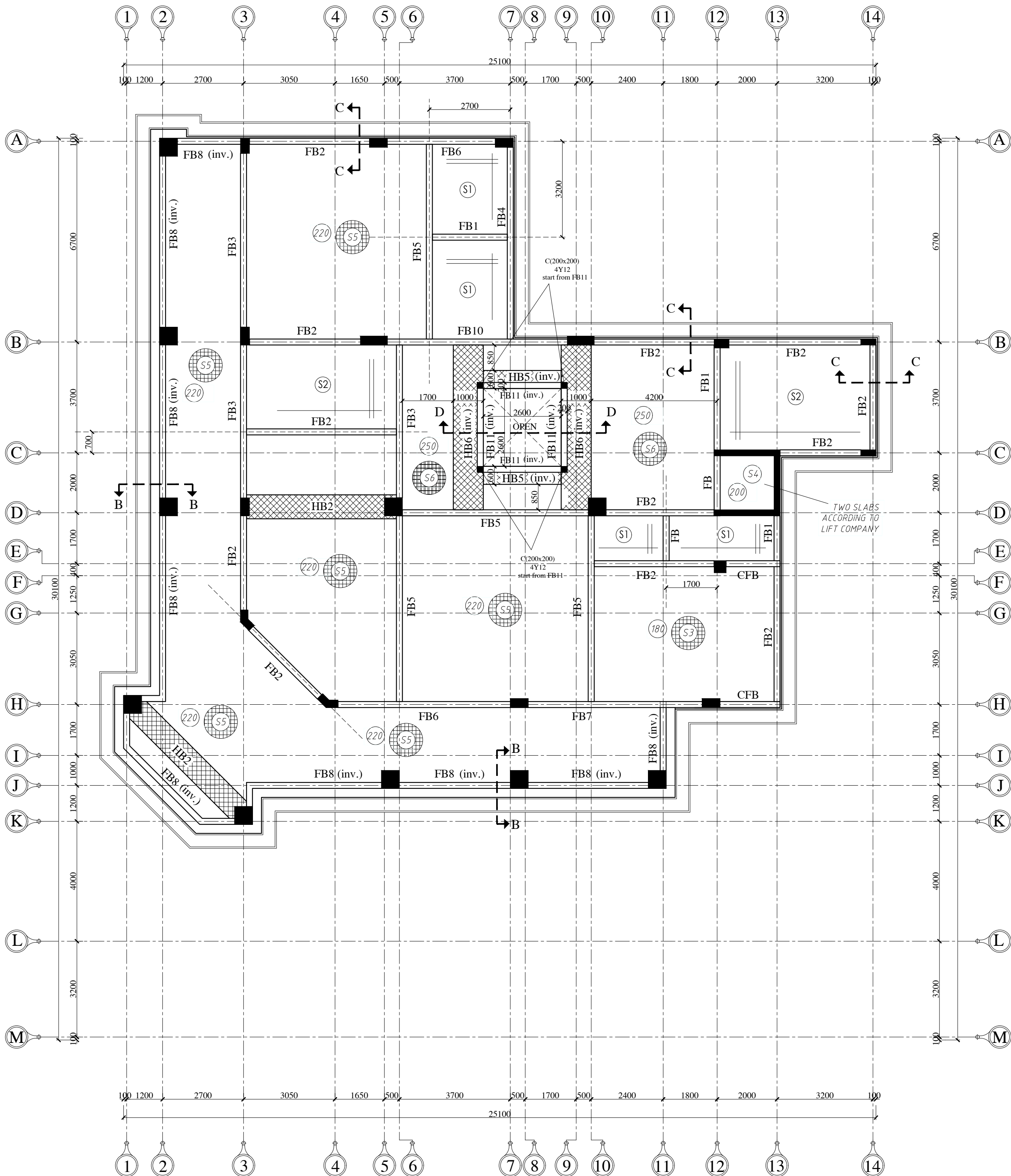
DRAWN BY	ENG.MOHAMED NASHAAT
DESIGN BY	ENG.MOHAMED NASHAAT
CHECKED BY	ENG.MUSALLAM TABOOK

PROJECT No.	1248/NOV./2020	SHEET No.	ST-04
DATE	13/12/2020	SCALE	1:100

ALL DIMENSION ARE MILLIMETERS

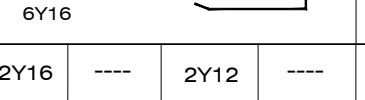


FOR SECTIONS & DETAILS SEE SHEET NO. (ST-06)



PENTHOUSE SLABS & BEAMS LAYOUT PLAN

SCHEDULE OF FLOOR BEAMS

TYPE	SIZE	REINFORCEMENT				RINGS		SIDE BARS
		BOTTOM		TOP		@ mid span	@ supports	
		STR.	CUT	STR.	CUT			
FB	200X500	2Y16	----	2Y16	----	Y8@150 mm. C/C	Y8@100 mm. C/C	-----
FB1	200X600	3Y16	----	3Y16	----	Y8@150 mm. C/C	Y8@100 mm. C/C	-----
FB2	200X600	2Y16	2Y16	2Y16	2Y16	Y8@150 mm. C/C	Y8@100 mm. C/C	-----
FB3	200X600	3Y16	2Y16	3Y16	2Y16	Y8@150 mm. C/C	Y8@100 mm. C/C	-----
FB4	200X700	2Y16	2Y16	2Y16	2Y16	Y8@150 mm. C/C	Y8@100 mm. C/C	1Y8 /SIDE
FB5	200X700	3Y16	2Y16	3Y16	2Y16	Y8@150 mm. C/C	Y8@100 mm. C/C	1Y8 /SIDE
FB6	200X750	3Y20	2Y20	3Y20	2Y20	Y8@130 mm. C/C	Y8@100 mm. C/C	1Y8 /SIDE
FB7	200X750	4Y20	2Y20	4Y20	2Y20	Y8@130 mm. C/C	Y8@100 mm. C/C	1Y8 /SIDE
FB8	200X970	2Y16	2Y16	2Y16	2Y16	2Y8@150 mm. C/C CLOSED	2Y8@150 mm. C/C CLOSED	2Y16 /SIDE inverted
FB9	$\left(\begin{smallmatrix} 150 \\ 250 \end{smallmatrix}\right) \times 600$	2Y16	2Y16	2Y16	2Y16	Y8@150 mm. C/C	Y8@150 mm. C/C	SEE DETAILS
FB10	200X900	4Y20	2Y20	4Y20	2Y20	Y8@130 mm. C/C	Y8@100 mm. C/C	2Y8 /SIDE
FB11	200X550	3Y16	----	3Y16	----	Y8@150 mm. C/C	Y8@150 mm. C/C	SEE SECTION
CFB	200X750					Y8@150 mm. C/C	Y8@100 mm. C/C	1Y8 /SIDE
RB1	150X340	2Y16	----	2Y12	----	Y8@150 mm. C/C	Y8@100 mm. C/C	-----
RB2	150X360	2Y16	----	2Y12	----	Y8@150 mm. C/C	Y8@100 mm. C/C	-----
HB1	600X180	6Y16	----	6Y12	----	2*Y8@150 mmC/C	2*Y8@150 mmC/C	-----
HB2	800X220	7Y16	----	7Y16	----	2*Y8@150 mmC/C	2*Y8@150 mmC/C	-----
HB3	500X270	5Y16	----	5Y16	----	2*Y8@150 mmC/C	2*Y8@150 mmC/C	-----
HB4	800X270	8Y16	----	8Y16	----	2*Y8@150 mmC/C	2*Y8@150 mmC/C	-----
HB5	600X300	6Y16	----	6Y16	----	2*Y8@150 mmC/C	2*Y8@150 mmC/C	inverted
HB6	1000X300	9Y16	----	9Y16	----	3*Y8@150 mmC/C	3*Y8@150 mmC/C	inverted
HB7	1500X320	13Y16	----	13Y16	----	4*Y8@150 mmC/C	4*Y8@150 mmC/C	inverted
HB8	500X340	5Y16	----	5Y16	----	2*Y8@150 mmC/C	2*Y8@150 mmC/C	-----
HB9	700X340	7Y16	----	7Y16	----	2*Y8@150 mmC/C	2*Y8@150 mmC/C	-----
HB10	900X340	9Y16	----	9Y16	----	3*Y8@150 mmC/C	3*Y8@150 mmC/C	-----
HB11	1200X340	12Y16	----	12Y16	----	3*Y8@150 mmC/C	3*Y8@150 mmC/C	-----
HB12	500X360	5Y16	----	5Y16	----	2*Y8@150 mmC/C	2*Y8@150 mmC/C	-----
HB13	1500X360	13Y16	----	13Y16	----	4*Y8@150 mmC/C	4*Y8@150 mmC/C	-----

SCHEDULE OF SLABS

TYPE	THICKNESS (mm)	BOTTOM RFT		TOP RFT				REMARKS
		SHORT DIR	LONG DIR	SHORT DIR		LONG DIR		
				MID SPAN	SUPPORT (1/4 th Span)	MID SPAN	SUPPORT (1/4 th Span)	
S1	150	Y12@165 mm c/c	Y12@165 mm c/c	---	Y12@200 mm c/c	---	Y12@200 mm c/c	-----
S2	170	Y12@165 mm c/c	Y12@165 mm c/c	---	Y12@165 mm c/c	---	Y12@165 mm c/c	-----
S3	200	Y12@165 mm c/c	Y12@165 mm c/c	Y12@165 mm c/c		Y12@165 mm c/c		TAB (DOUBLE REIN.)
S4	220	Y12@165 mm c/c	Y12@165 mm c/c	Y12@165 mm c/c		Y12@165 mm c/c		TAB (DOUBLE REIN.)
S5	250	Y12@165 mm c/c	Y12@165 mm c/c	Y12@165 mm c/c		Y12@165 mm c/c		TAB (DOUBLE REIN.)
S6	270	Y12@150 mm c/c	Y12@150 mm c/c	Y12@150 mm c/c		Y12@150 mm c/c		TAB (DOUBLE REIN.)
SF	200	Y12@165 mm c/c	Y16@165 mm c/c	Y12@165 mm c/c		Y16@165 mm c/c		STAIRS SLAB (DOUBLE LAYER)
SL	200	Y16@165 mm c/c	Y12@165 mm c/c	Y16@165 mm c/c		Y12@165 mm c/c		STAIRS SLAB (DOUBLE LAYER)

NOTES:  
STRUCTURAL NOTES

- DO NOT SCALE THE DRAWING , WRITTEN DIMENTION TO BE FOLLOWED.
- READ STRUCTURAL DRAWINGS IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS.
- IN SIMPLE SPANS OF SLABS AND BEAMS OF STEEL IS BENT AT 1/8 OF THE SPAN.
- IN CONTINUOUS SPAN OF SLABS AND BEAM, STEEL IS BENT AT 1/5 OF THE SPAN AND MUST BE EXTENDED TO 1/4 OF THE ADJACENT SPAN.
- FOR BEAMS WITHOUT BENT BARS,THE UPPER STEEL MUST BE EXTENDED TO 1/4 OF THE ADJACENT SPANS.
- THE STEEL OF THE CANTILEVER MUST BE EXTENDED 1.5 TIMES OF THE CANTILEVER BEHIND THE SUPPORT
- CLEAR CONCRETE COVER TO MAIN REINFORCEMENT SHALL BE :

SLABS

BEAMS

COLUMNS

WALLS & STAIRS

FOOTINGS

25 MM

25 MM

25 MM

25 MM

50 MM ON SIDE & 70 MM AT BOTTOM.
- OVER LAPPING OF STEEL SHOULD NOT BE LESS THAN 60 D IN TENSION AND 45 D IN COMPRESSION AND NOT LESS THAN 100 CMS.
- THE CONTRACTOR MUST CHECK THE AXES OF THE COLUMNS WITH THE AXES OF ARCHITECTURAL DRAWING.
- FOUNDATION DEPTH AND EXCAVATED GROUND IS TO BE CHECKED BY ENGINEER IN-CHARGE BEFORE CASTING FOOTING. ALL FOOTING SHALL BE SUPPORTED OVER PROPERLY COMPACTED SOIL OF BEARING CAPACITY 20 TONS PER SQ.METRE.
- BACK FILLING OF FOUNDATION SHALL BE UNIFORMLY PLACED IN LAYERS NOT EXCEEDING DEPTH OF 150mm.& CONSOLIDATED BY VIBRATION TO ENGINEERS
- UNLESS INDICATED OTHERWISE ALL FOOTINGS & COLUMNS SHALL BE ALIGNED CONCENTRIC IN BOTH DIRECTION AND SYMMETRICAL.
- UNLESS OTHERWISE SPECIFIED - CONCRETE SHALL BE OF FOLLOWING GRADE:

FOR GENERAL REINFORCED - 35N/MM<sup>2</sup> (28 DAYS CUBE STRENGTH)

FOR WATER TANK COLUMNS - 35N/MM<sup>2</sup>

RETAINING WALLS.

FOR PLAIN CONCRETE - 15N/MM<sup>2</sup>

BLINDING.

LOWER THAN GRADE 35N/MM<sup>2</sup> SHALL NOT BE USED IN REINFORCED CONCRETE.
- STEEL GRADE FOR GENERAL CONCRETE IS 460N/MM<sup>2</sup>
- ALL CONCRETE FOR STRUCTURES BELOW GROUND & IN WITH SOIL SHALL BE MADE USING SULPHATE RESISTING CEMENT AND EXPOSED SURFACES SHALL BE BITUMEN (OIL BASED)
- SAFE BEARING CAPACITY OF SOIL IS TAKEN AS (2) KG/CM.<sup>2</sup>
- MINIMUM YIELD STEEL REINFORCEMENT WILL BE 4600KG/CM
- FOUNDATION DEPTH SHOULD NOT BE LESS THAN 1.50M. FROM NATURAL GROUND LEVEL.
- ALL FOOTINS TO HAVE BASE OF P.C.C 1:2:4 AND POLYTHENE BOTH 10 C.M PLUS ON ALL SIDE
- BLOCKS FOR LOAD BEARING WALLS SHALL BE OF A MINIMUM CRUSHING STRENGTH OF 50KGS/CM2 AND FOR NONLOAD BEARING WALLS SHALL BE 25KGS/CM2
- THE BACK FILLING BELLOW FLOOR CONCRETE AND SOIL ALONG EXTERNAL WALL SHALL BE TREATED WITH ANTI TERMITE CHEMICAL EMULSION AS PER THE RATE SPECIFIED BY THE MANUFACTURES WITH A MINIMUM GUARANTY OF 10 YEARS
- THE FOUNDATION IS DESIGNED UPTO CARRY **THREE** FLOOR ONLY



**AL-Shamili**  
Engineering Consultants  
P.O BOX 2325. SALALAH-211  
SULTANATE OF OMAN.  
TEL. 23296574, FAX 23296574

PROPOSED BUILDING

LOCATION	NORTH SAHALNOOT محللات الشمالية	PLOT No. 632 / ٦٣٢	رقم القطعة
		BLK. No. B	رقم الدرع ب
No.OF FLOORS	GROUND+FIRST+PH.	LAND USE	RESIDENTIAL سكني

CLIENT	ALI BIN FENKHAR BIN ALI ALSHANFRY علي بن فخير بن علي الشنفرى
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DRG. TITLE	PENTHOUSE SLABS & BEAMS LAYOUT PLAN
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DRAWN BY	ENG.MOHAMED NASHAAT
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DESIGN BY	ENG.MOHAMED NASHAAT
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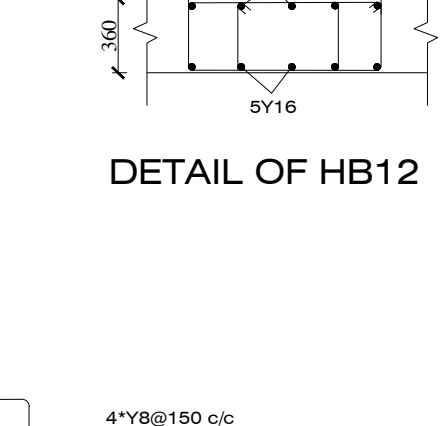
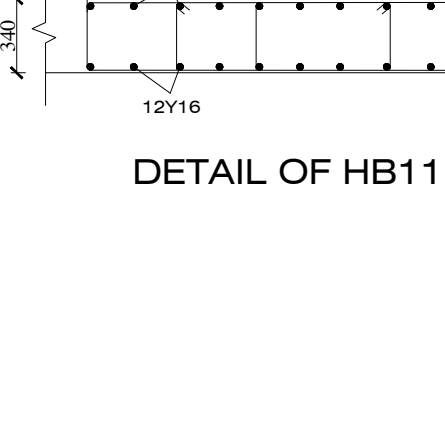
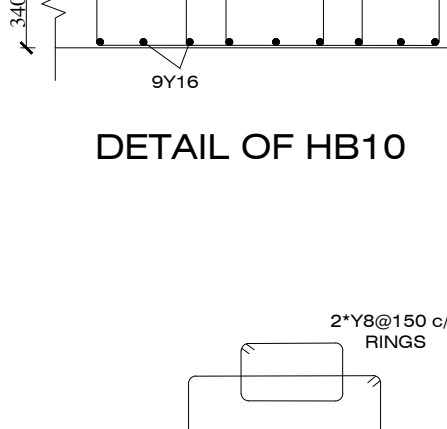
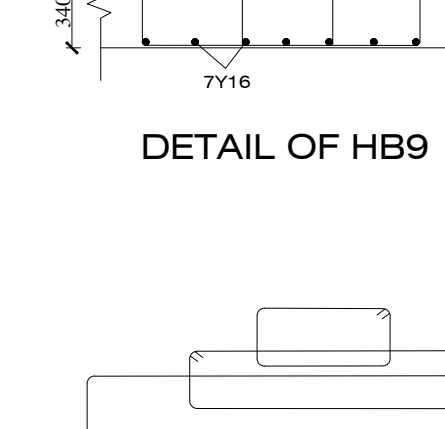
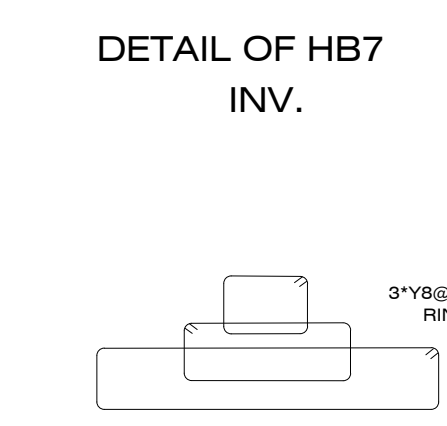
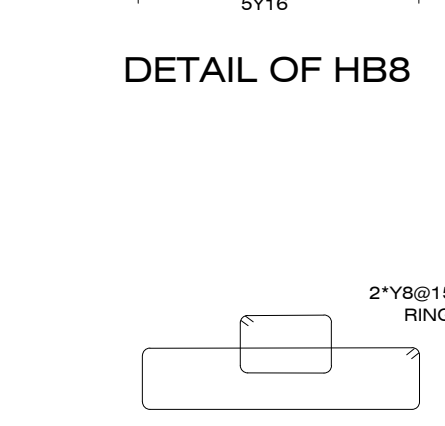
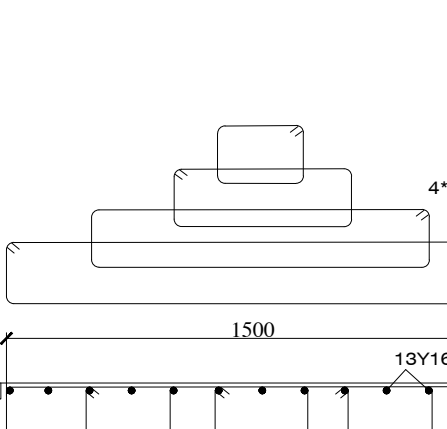
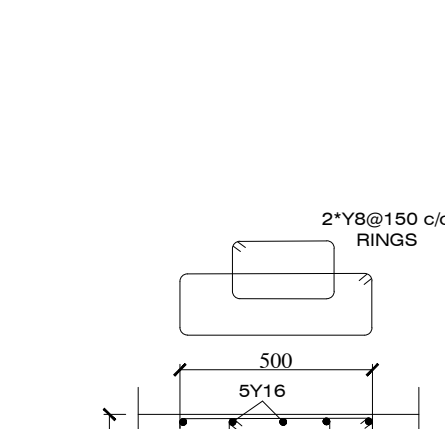
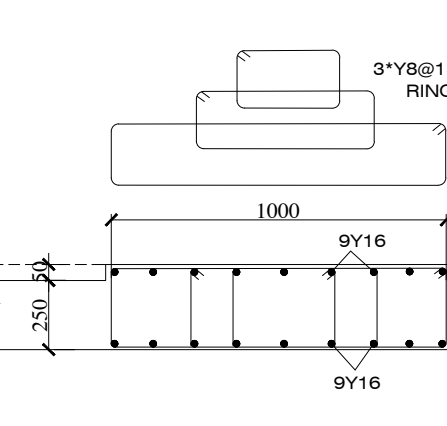
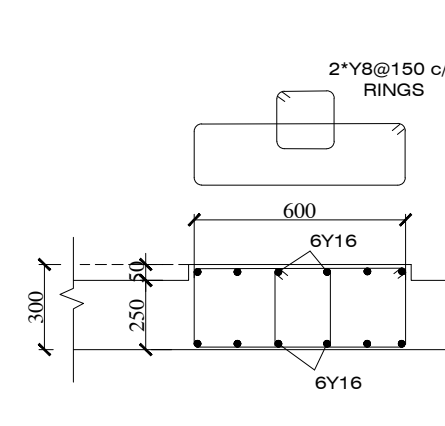
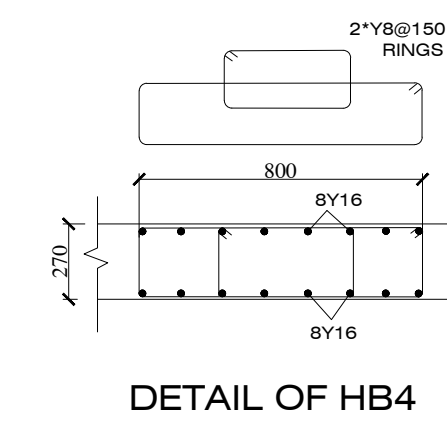
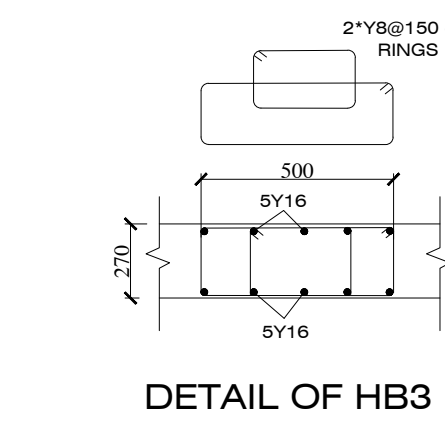
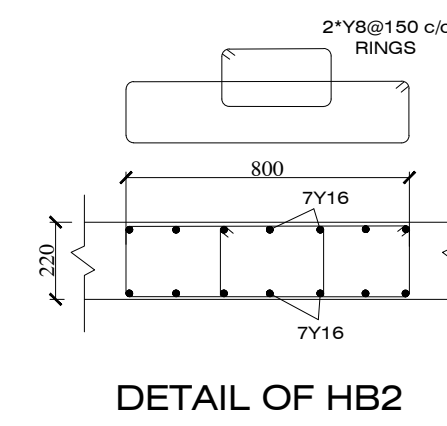
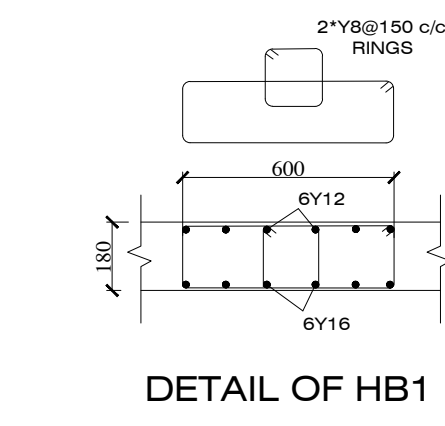
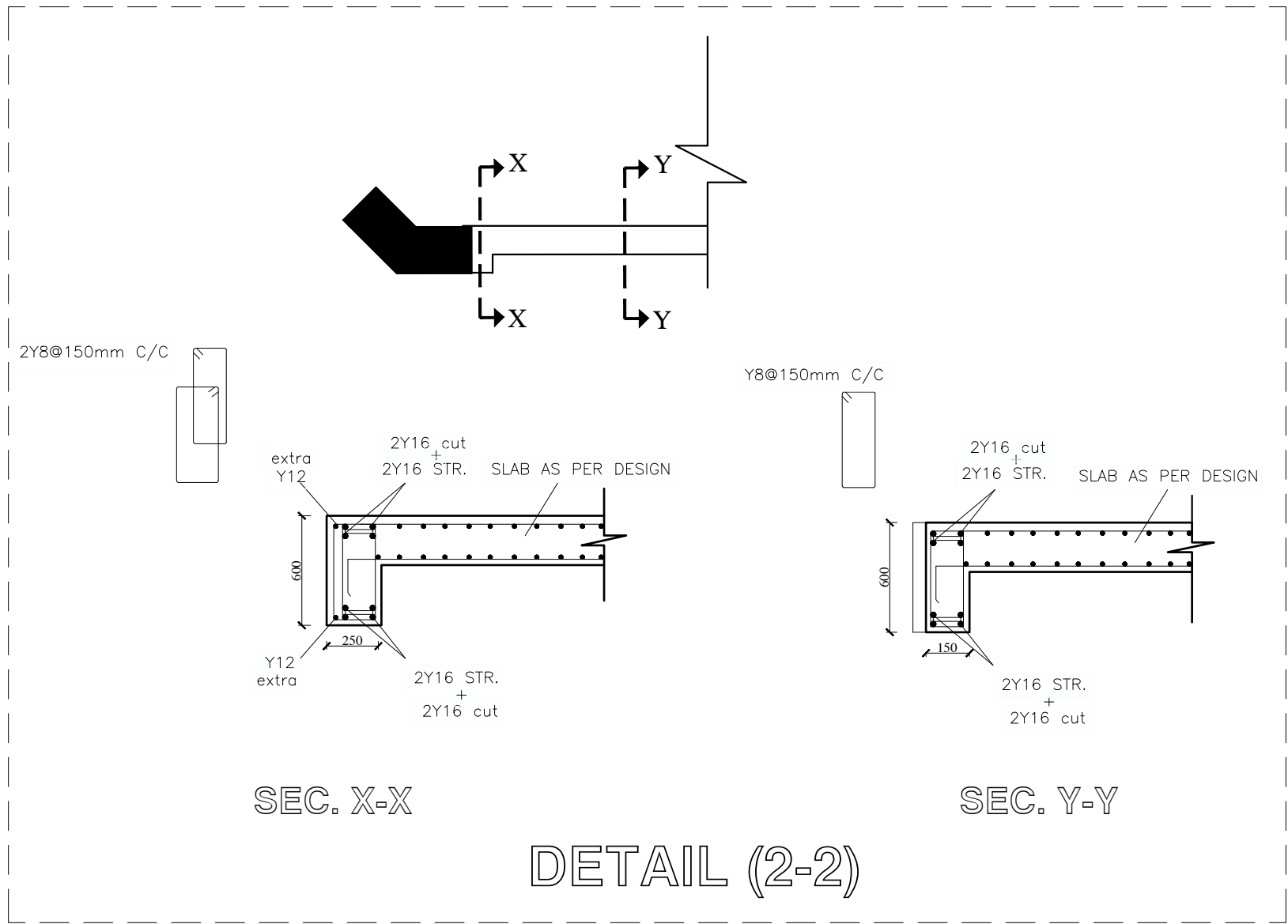
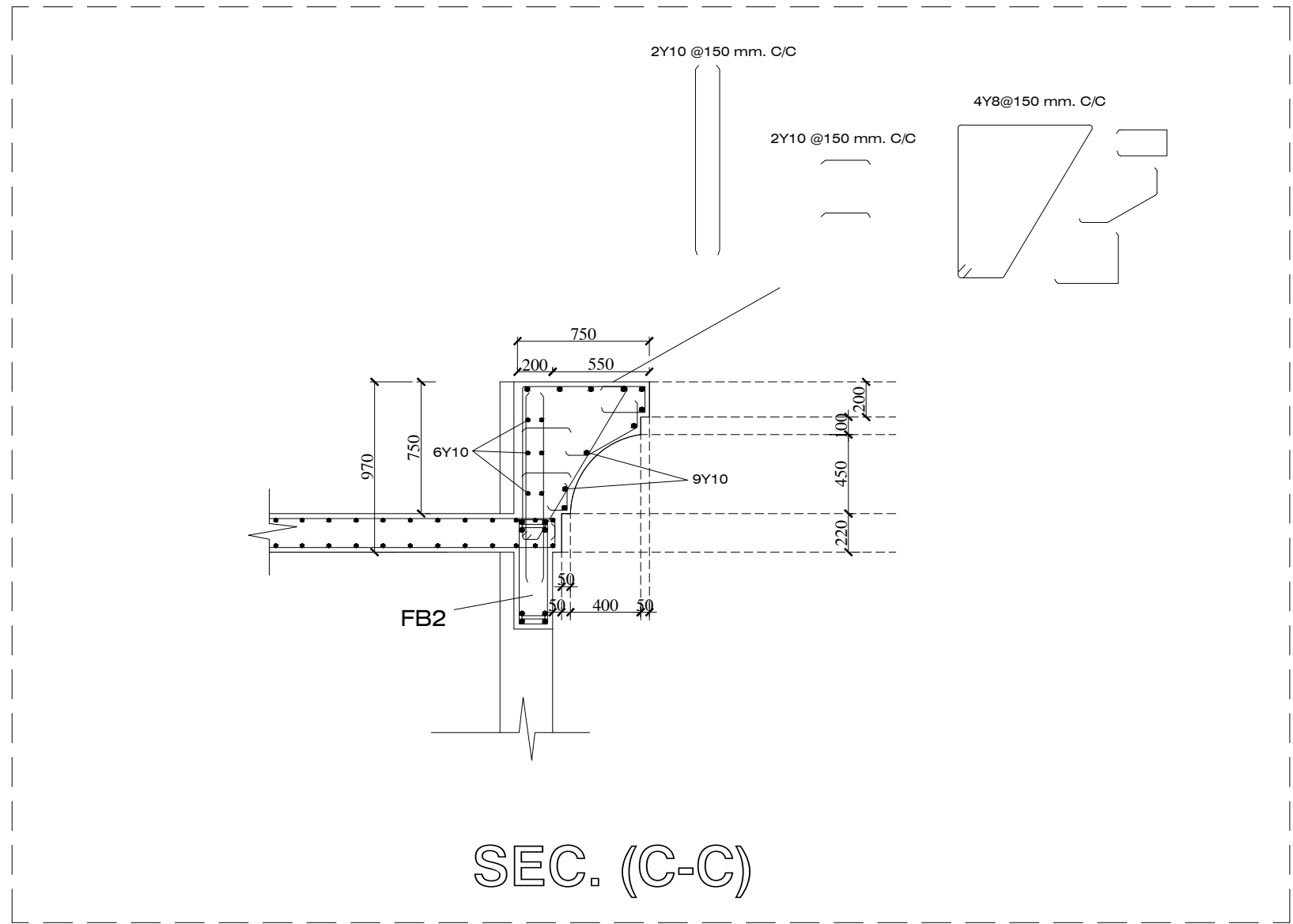
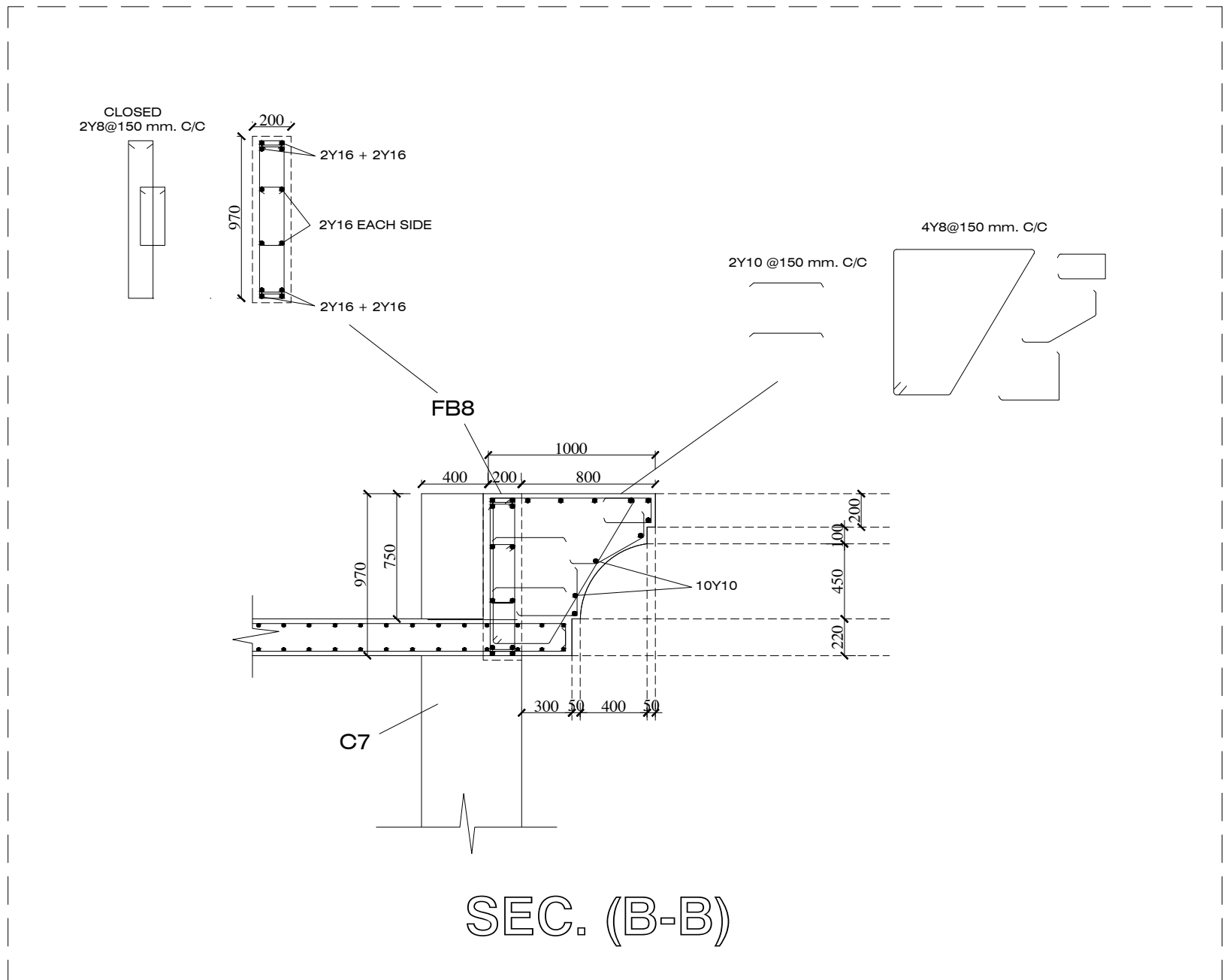
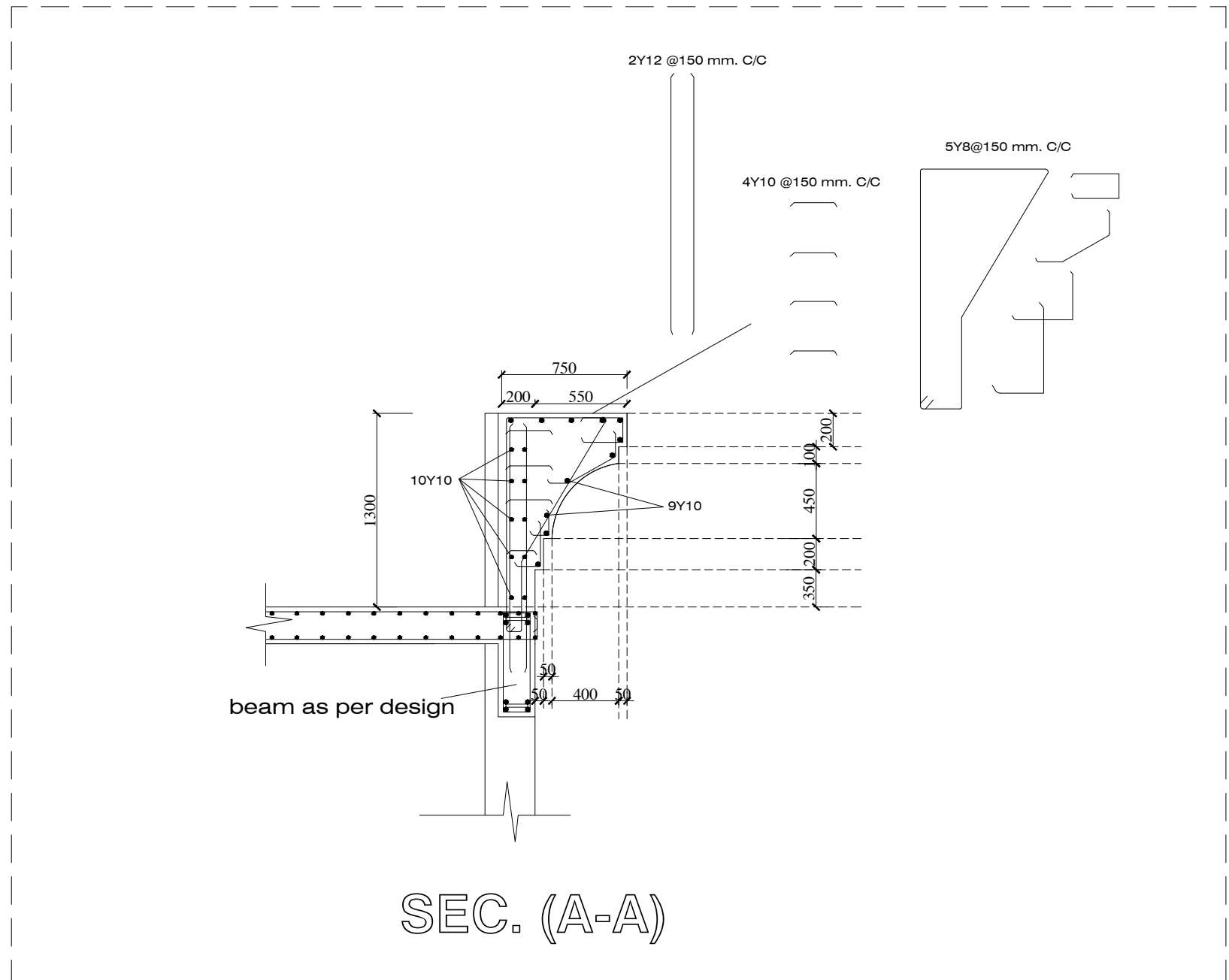
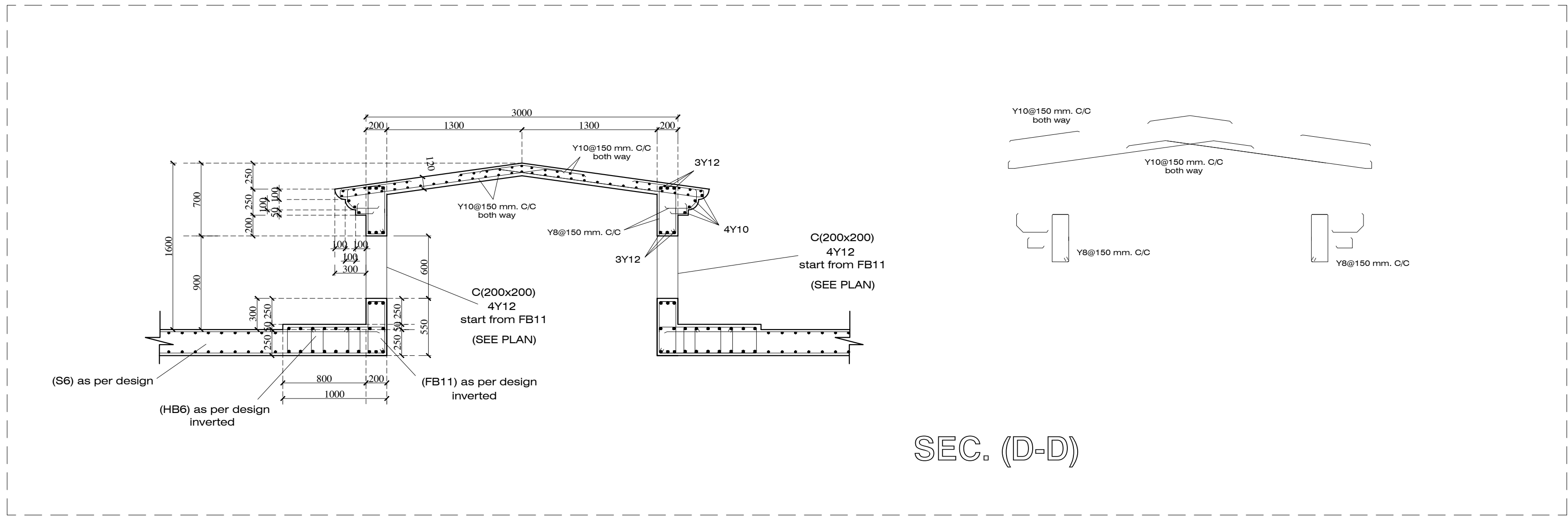
CHECKED BY	ENG.MUSALLAM TABOOK
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PROJECT No.	1248/NOV./2020	SHEET No.	ST-05
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DATE	13/12/2020	SCALE	1:100
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ALL DIMENSION ARE MILLIMETERS





- NOTES:
- STRUCTURAL NOTES
- DO NOT SCALE THE DRAWING , WRITTEN DIMENTION TO BE FOLLOWED.
  - READ STRUCTURAL DRAWINGS IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS.
  - IN SIMPLE SPANS OF SLABS AND BEAMS OF STEEL IS BENT AT 1/5 OF THE SPAN.
  - IN CONTINUOUS SPAN OF SLABS AND BEAM, STEEL IS BENT AT 1/5 OF THE SPAN AND MUST BE EXTENDED TO 1/4 OF THE ADJACENT SPAN.
  - FOR BEAMS WITHOUT BENT BARS,THE UPPER STEEL MUST BE EXTENDED TO 1/4 OF THE ADJACENT SPANS.
  - THE STEEL OF THE CANTILEVER MUST BE EXTENDED 1.5 TIMES OF THE CANTILEVER BEHIND THE SUPPORT
  - CLEAR CONCRETE COVER TO MAIN REINFORCEMENT SHALL BE :
    - SLABS 25 MM
    - BEAMS 25 MM
    - COLUMNS 25 MM
    - WALLS & STAIRS 25 MM
    - FOOTINGS 50 MM ON SIDE & 70 MM AT BOTTOM.
  - OVER LAPPING OF STEEL SHOULD NOT BE LESS THAN 60 D IN TENSION AND 45 D IN COMPRESSION AND NOT LESS THAN 100 CMS.
  - THE CONTRACTOR MUST CHECK THE AXES OF THE COLUMNS WITH THE AXES OF ARCHITECTURAL DRAWING.
  - FOUNDATION DEPTH AND EXCAVATED GROUND IS TO BE CHECKED BY ENGINEER IN-CHARGE BEFORE CASTING FOOTING. ALL FOOTING SHALL BE SUPPORTED OVER PROPERLY COMPACTED SOIL OF BEARING CAPACITY 20 TONS PER SQ.METRE.
  - BACK FILLING OF FOUNDATION SHALL BE UNIFORMLY PLACED IN LAYERS NOT EXCEEDING DEPTH OF 150mm.& CONSOLIDATED BY VIBRATION TO ENGINEERS
  - UNLESS INDICATED OTHERWISE ALL FOOTINGS & COLUMNS SHALL BE ALIGNED CONCENTRIC IN BOTH DIRECTION AND SYMMETRICAL.
  - UNLESS OTHERWISE SPECIFIED - CONCRETE SHALL BE OF FOLLOWING GRADE:
    - FOR GENERAL REINFORCED - 35N/MM<sup>2</sup> (28 DAYS CUBE STRENGTH)
    - FOR WATER TANK COLUMNS - 35N/MM<sup>2</sup>
    - RETAINING WALLS - 35N/MM<sup>2</sup>
    - FOR PLAIN CONCRETE - 15N/MM<sup>2</sup>
    - BLINDING - 15N/MM<sup>2</sup>SHALL NOT BE USED IN REINFORCED CONCRETE.
  - STEEL GRADE FOR GENERAL CONCRETE IS 460N/MM<sup>2</sup>
  - ALL CONCRETE FOR STRUCTURES BELOW GROUND & IN WITH SOIL SHALL BE MADE USING SULPHATE RESISTING CEMENT AND EXPOSED SURFACES SHALL BE BITUMEN (OIL BASED)
  - SAFE BEARING CAPACITY OF SOIL IS TAKEN AS (2) KG/CM<sup>2</sup>
  - MINIMUM YIELD STEEL REINFORCEMENT WILL BE 4600KG/CM<sup>2</sup>
  - FOUNDATION DEPTH SHOULD NOT BE LESS THAN 1.50M. FROM NATURAL GROUND LEVEL.
  - ALL FOOTINS TO HAVE BASE OF P.C.C 1:2:4 AND POLYTHENE BOTH 10 C.M PLUS ON ALL SIDE
  - BLOCKS FOR LOAD BEARING WALLS SHALL BE OF A MINIMUM CRUSHING STRENGTH OF 50KGS/CM2 AND FOR NONLOAD BEARING WALLS SHALL BE 25KGS/CM2
  - THE BACK FILLING BELLOW FLOOR CONCRETE AND SOIL ALONG EXTERNAL WALL SHALL BE TREATED WITH ANTI-TERMITE CHEMICAL EMULSION AS PER THE RATE SPECIFIED BY THE MANUFACTURES WITH A MINIMUM GUARANTY OF 10 YEARS
  - THE FOUNDATION IS DESIGNED UPTO CARRY **THREE** FLOOR ONLY

**AL-Shamili**  
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SULTANATE OF OMAN.  
TEL. 23296574, FAX 23296574

PROPOSED BUILDING			
LOCATION	NORTH SAHALNOOT محلوت الشمالية	PLOT No. 632 / ٦٣٢ BLK. No. B ب	رقم القطعة
No.OF FLOORS	GROUND+FIRST+PH.	LAND USE	RESIDENTIAL سكني
CLIENT	ALI BIN FENKHAR BIN ALI ALSHANFARY علي بن فخر بن علي الشنفرى		
DRG. TITLE	SECTIONS & DETAILS		
DRAWN BY	ENG.MOHAMED NASHAAT		
DESIGN BY	ENG.MOHAMED NASHAAT		
CHECKED BY	ENG.MUSALLAM TABOOK		
PROJECT No.	1248/NOV./2020	SHEET No.	ST-06
DATE	13/12/2020	SCALE	1:100
ALL DIMENSION ARE MILLIMETERS			