GENERAL NOTES

1. General

1.1. No dimensions are to be obtained from scaling

1.2. Unless otherwise noted , all dimensions are in millimeters.

1.3. All angles are in degrees (0—360) unless otherwise stated.

1.4. Abbreviations:

A.S.	As shown
N.T.S	Not to scale
C.L.	Road arraignment center line
L.C.L.	Lane marking center line
S.C.L.	Structure center line
G.I	Geotechnical Investigation

3. FOUNDATION:-

3.1. Foundations have been designed on bearing pressure of 200 KN/m sqr at 1.5m as sepecifed in the GI report

3.2. All foundation shall be placed at a minimum depth of 2000mm below ground level but not exceeding 3000mm.

4. BRICK WORK:-

4.1. All load bearing block walls are to be constructed from solid bricks of 3.5N/mm sqr minimum characteristic compression strength complying with BS5628 Part 1, 1978;Structural Use of unreinforced masonry.

4.2. Mortar to conform to designation [III] of table 1, BS 5628, Part 1.

4.3. Provide masonry anchors every 2 courses using mild steel hoop iron ties to BS 1243,1978.

5. Concrete

5.1. Unless otherwise indicated, concrete shall be of the following grades:

Proposed use	Grade	Permitted Aggregate type		Max. Agg size
		Coarse	Fine	
Reinforced Concrete (including ground bearing slab)	C 25	BS 882	BS 882	20mm
Concrete containing no embedded metal	C 20	BS 882	BS 882	40mm
Blinding Concrete	C 15	BS 882	BS 882	20mm
Foundation	C 25	BS 882	BS 882	20mm

5.2. Unless otherwise shown on the drawings, surface finishes shall be as follows.

Location		Class
Formed surfaces	Buried	F1
	Internal	F2
	Permanently exposed	F3
Unformed surfaces	Buried	U1
	Tops of abutment bearing shelves	U2
	Permanently exposed	U3

5.3. Falsework and formwork

1) Falsework and formwork shall not be removed before the concrete has attained sufficient strength to support its own weight and any loads which may be imposed on it.

2) Minimum period required for the formworks to remain in place after the concrete has been placed is given in the General Specification.

5.4. All construction joint shall be located as shown on the drawings or modified with no objection of the Engineer.

5.5. Unless otherwise indicated on the drawings all corners shall have 25mm x 25mm chamfers.

5.6. Unless otherwise indicated on the drawings the concrete cover for any reinforcement shall be as listed below or shall be the reinforcement diameter(or equivalent diameter of bundle for bundle bars) whichever is the greater.The cover shall be maintained at grooves and architectural features to the concrete surface.

Structural member	Nominal concrete cover for reinforcement (mm)
To mesh in slabs	25mm
Column (cover to Links)	30mm
Slab (cover to main bars)	30mm
Foundation	50mm
Beam (Cover to main bars)	25mm

5.7. All the concrete surfaces in contact with earthfill shall be protected with two coats of bituminous paint in accordance with the Specifications.

6. Concrete Reinforcement

6.1. Concrete reinforcement shall comply with BS4449:2005, cutting and bending of reinforcement bars shall comply with BS8666:2005

6.2. Unless otherwise indicated, steel reinforcement bars shall be of the following grades:

Grade	B500B
Yield strength	500 MPa
Modulus of elasticity	200 GPa

6.3. Notation for reinforcement bars.

33 T20— FF29— 150.T1

Arrangement	ABR=Alternate bars reversed.
Layer	ALT=Alternate bars.
Location	STG=Staggered.
Spacing	T1=Highest layer.
Bar Mark	T2=2nd layer down.
Bar Location (First Floor)	B1=Lowest layer.
Dia of Bar	B2=2nd layer up.
Steel Type	SF=Second Floor.
NO. of Bars	TF=Third Floor.

6.4. Where possible laps in a member should be staggered and not located in areas of high stress.

6.5. Laps other than those indicated on the drawings shall be made after no objection by the Engineer.

Lap length shall be as specified in BS 8110-1:1997, table 3.27.
for concrete grade C25, consider

Lap length = 44 x Ø	
Ø10mm	440 mm
Ø12mm	530 mm
Ø16mm	705 mm
Ø20mm	880 mm
Ø25mm	1100 mm

6.7. Where reinforcement bars are indicated as random length, lap in adjust bars shall be staggered.

7. Structural Steel

7.1. Structural steel to be grade 43 steel to BS 4360.

7.2. All welds to be 6mm fillet weld of electrode E 43

7.3. All steel surfaces to be thoroughly wire brushed and cleaned with approved solvent and coated with 3 coats of red oxide primer type 'A' to BS2523 and all scratches to be repainted.

7.4. All hollow section ends to be capped with a 3mm thick M/S plates

8.0. Fixings

-Bolts and screws are to have bore holes of no more than 2mm larger than the diameter of the bolts/screws being installed. .

-When fixing timber to concrete or block/brickwork, suitable connection detailing and spacing are to be followed and inspected by the Engineer on site. Hoop irons, wall plates and other methods are to be carried out in accordance with BS 8000-5 and checked and signed off by the Engineer.

8.5. Workmanship

-All carpentry and joinery on site is to be carried out be suitably competent operatives at a level so as to conform to the standards as described in BS 8000-5.

-Materials are to be handled with care and to prevent any undue warping, bowing or damage during movement between store and site.

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Revisions:

Job Title
Proposed Call & Dispatch—Arua Hospital

Structural Engineer:
ENG. ASHA ARINDA

Sign.....

Drawing Name
STRUCTURAL NOTES
Call & Dispatch

Drawn by	Checked by
AHEEBWA HOSEA	ENG. ASHA.A
Date: MARCH—2023	Scale: 1:125 @A1
Revision: 0000—R3	Drawing No. 000

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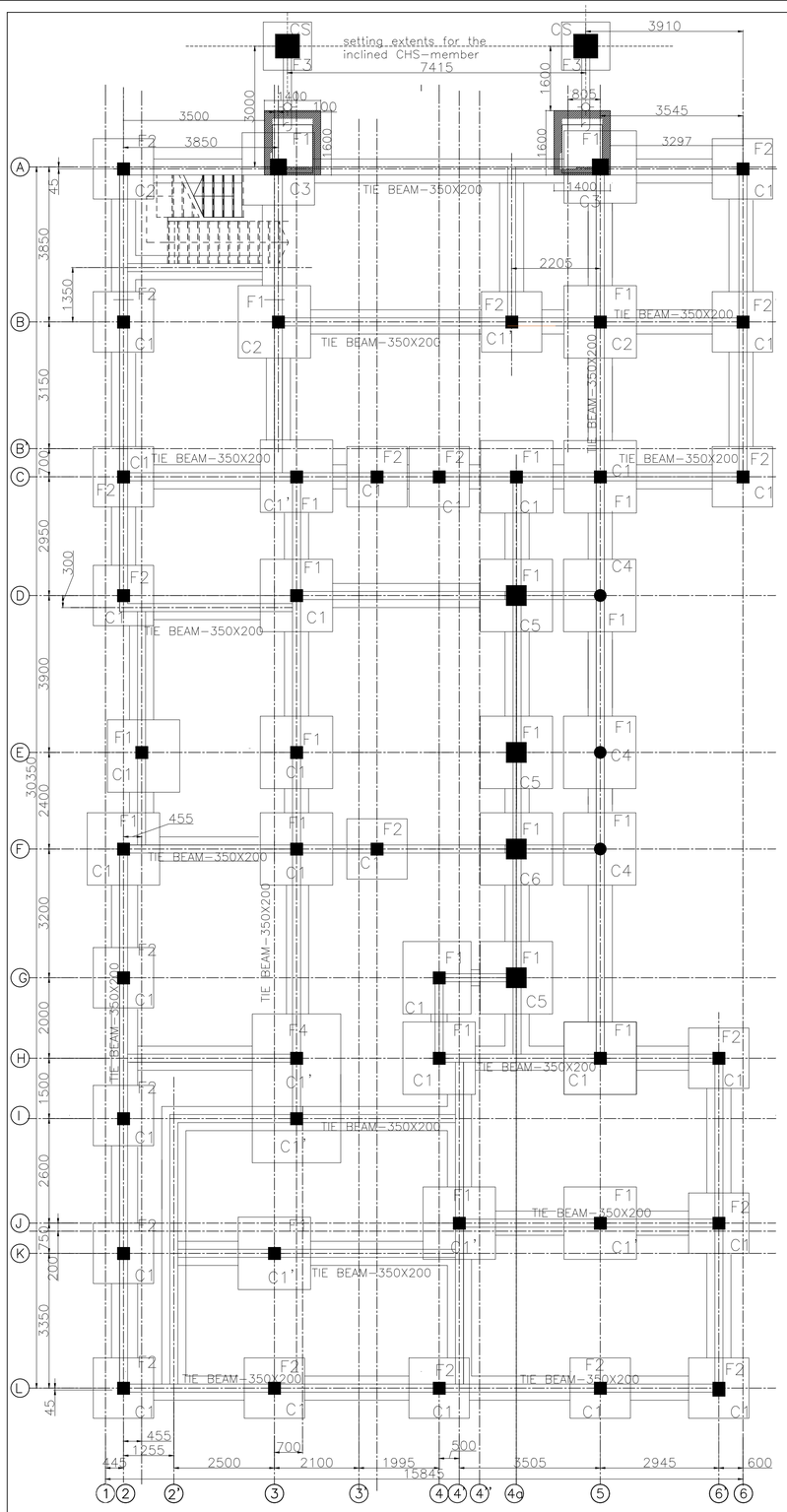
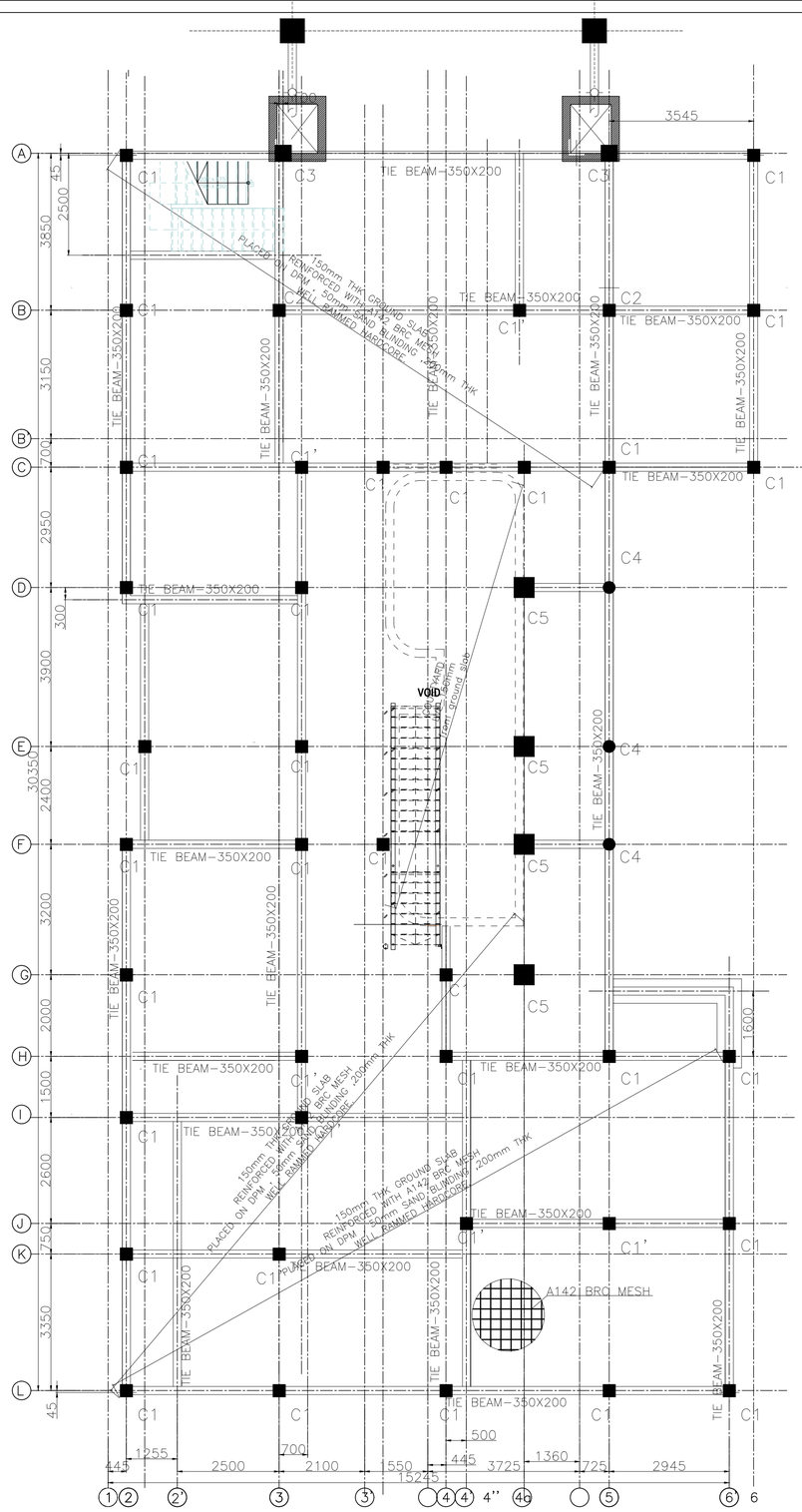
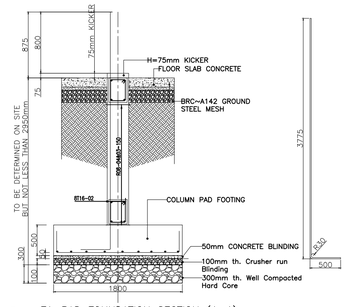


FOUNDATION LAYOUT & FIRST TIE BEAM
SCALE 1:75



GROUND SLAB LAYOUT & SECOND TIE BEAM
SCALE 1:75



F1-PAD FOUNDATION SECTION (1-1)
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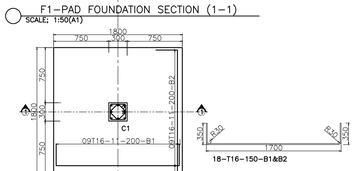

F1-PAD FOUNDATION PLAN VIEW
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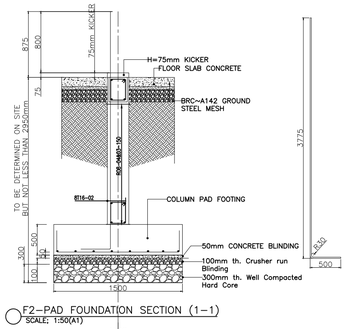

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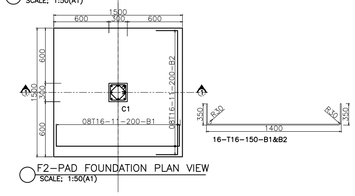

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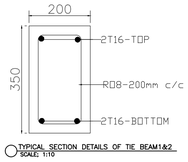

TYPICAL SECTION DETAILS OF TIE BEAM1&2
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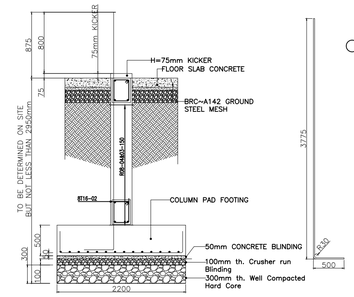

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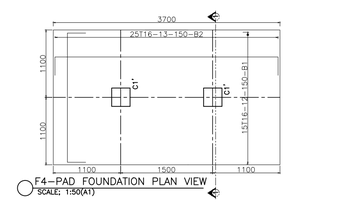

F4-PAD FOUNDATION PLAN VIEW
SCALE: 1:50(A1)

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Revisions:

Job Title
Proposed Call & Dispatch-Arua Hospital

Structural Engineer:
ENG. ASHA ARINDA

Sign.....

Drawing Name
CALL & DISPATCH-
FOUNDATION LAYOUT ,FOOTING BASE & SECTIONS DETAILS

Drawn by	Checked by
AHEEBWA.HOSEA	ENG. ASHA.A
Date: MARCH-2023	Scale: 1:50 @A1, 1:75 @A1
Revision: 0000-R03	Drawing No. 001

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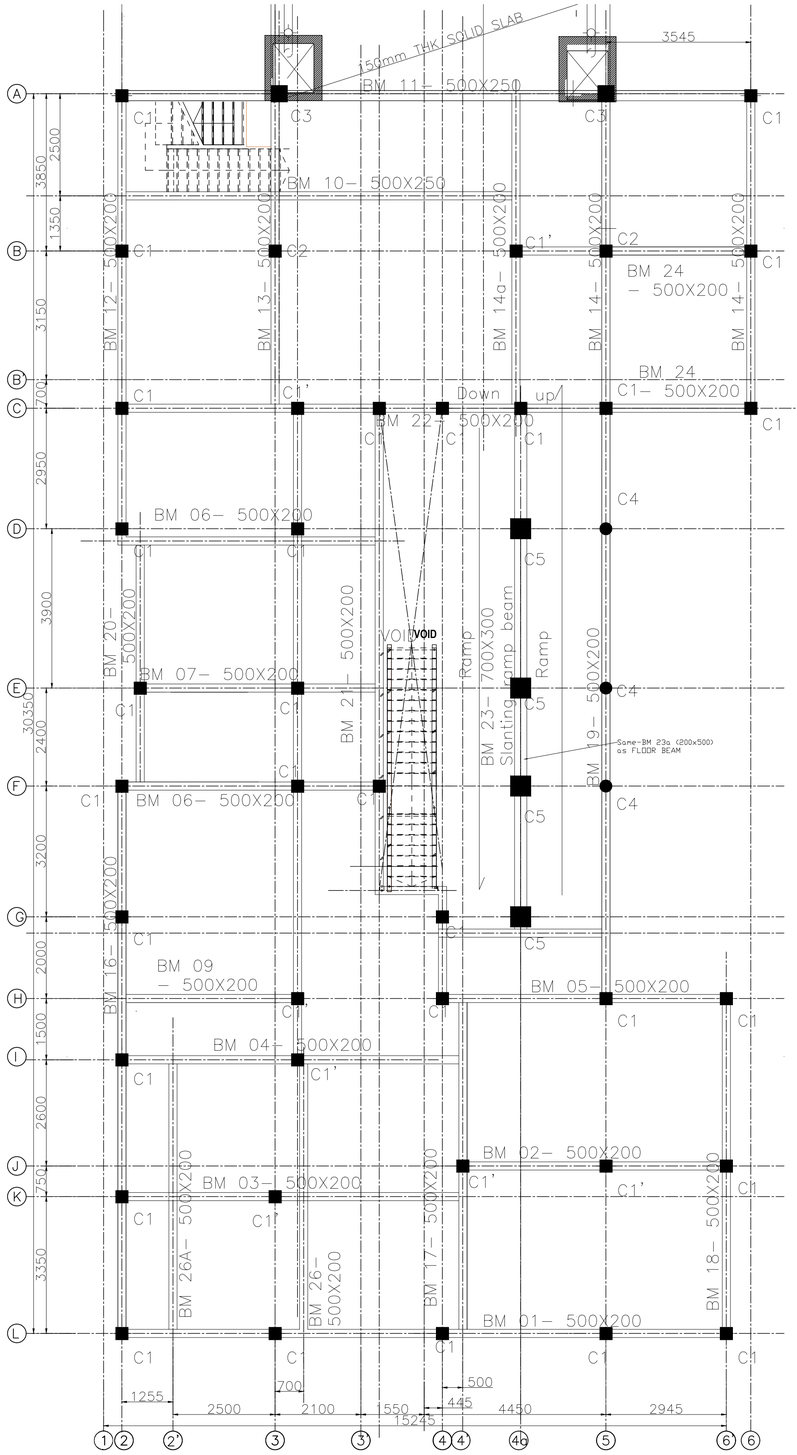

FIRST FLOOR BEAM LAYOUT
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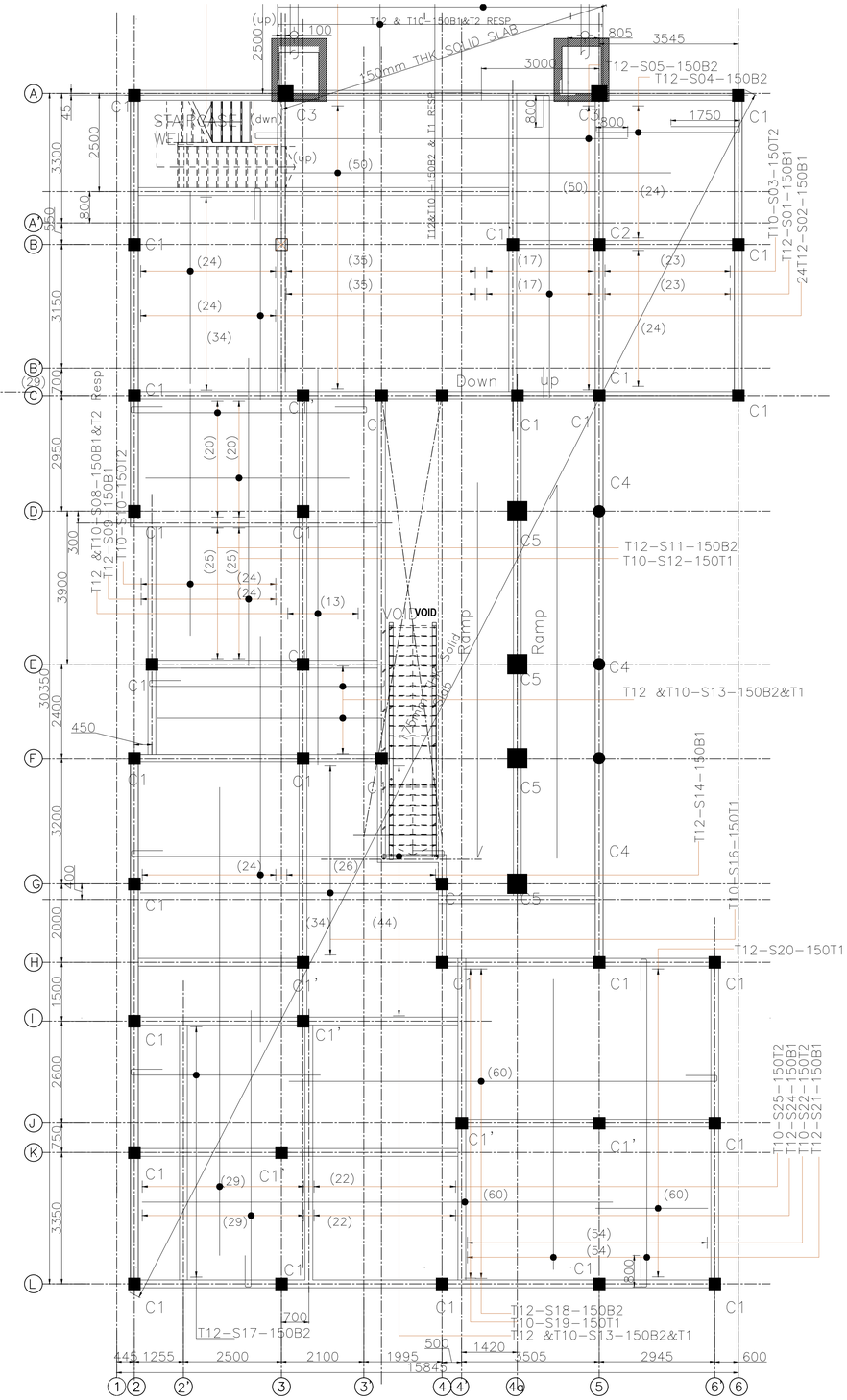

FIRST SLAB REINFORCEMENT LAYOUT
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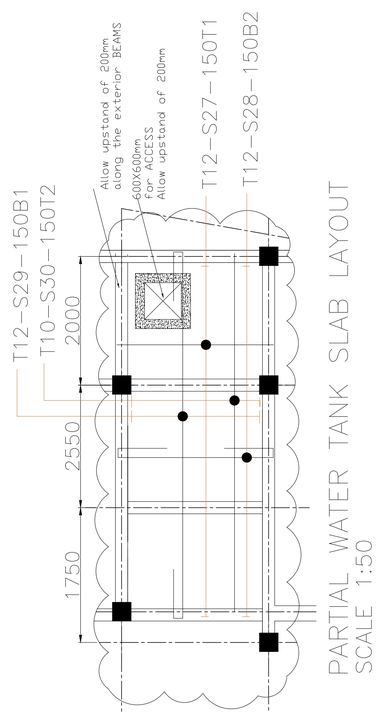

PARTIAL WATER TANK SLAB LAYOUT
SCALE 1:50

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Job Title
Proposed Call & Dispatch– Arua Hospital

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Sign.....

Drawing Name
CALL & DISPATCH–
FIRST FLOOR BEAM LAYOUT & SLAB LAYOUT
& SECTIONS DETAILS

Drawn by AHEEBWA.HOSEA	Checked by ENG. ASHA.A
Date MARCH–2023	Scale 1:50 @A1, 1:75 @A1
Revision 0000–R03	Drawing No. 002

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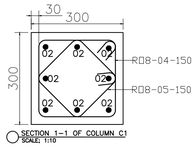

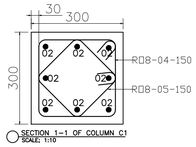

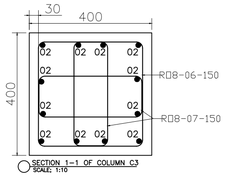

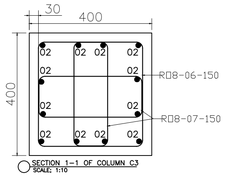

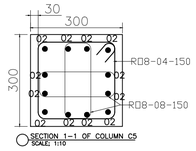

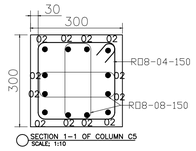

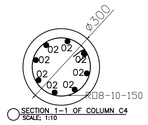

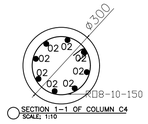

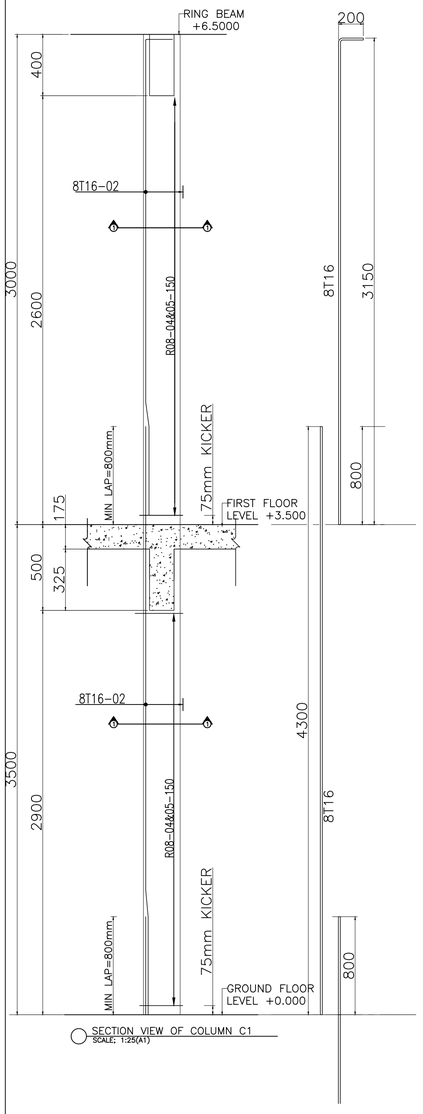

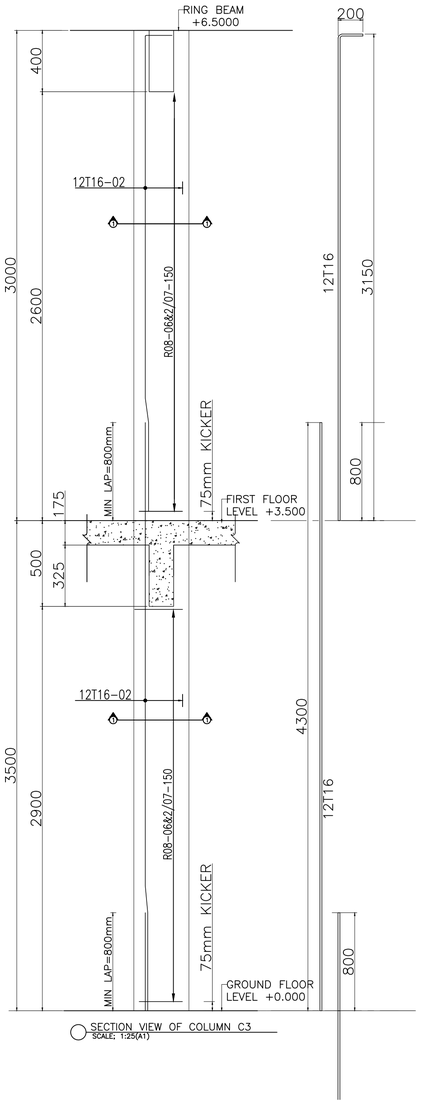

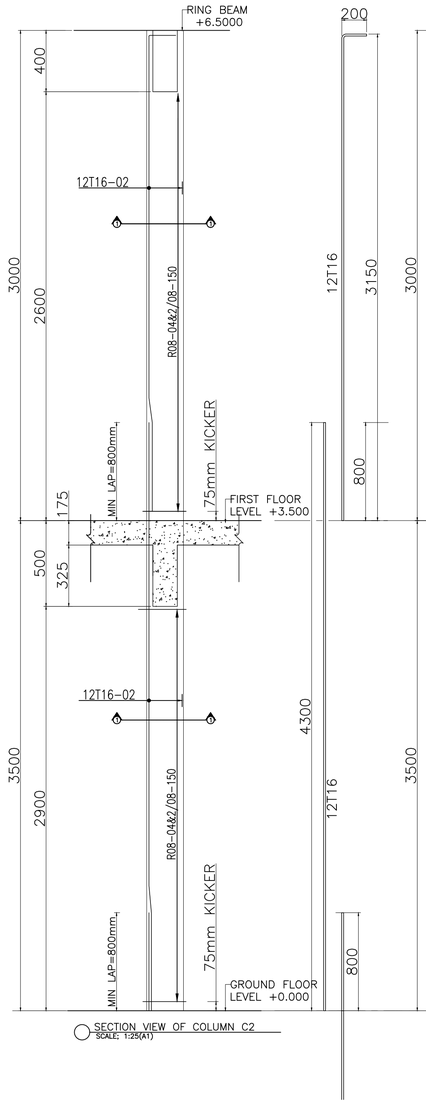

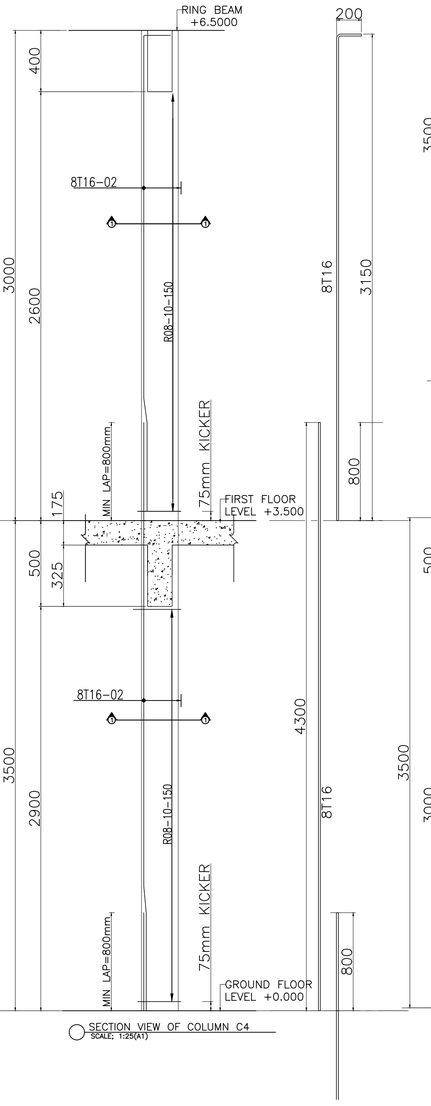

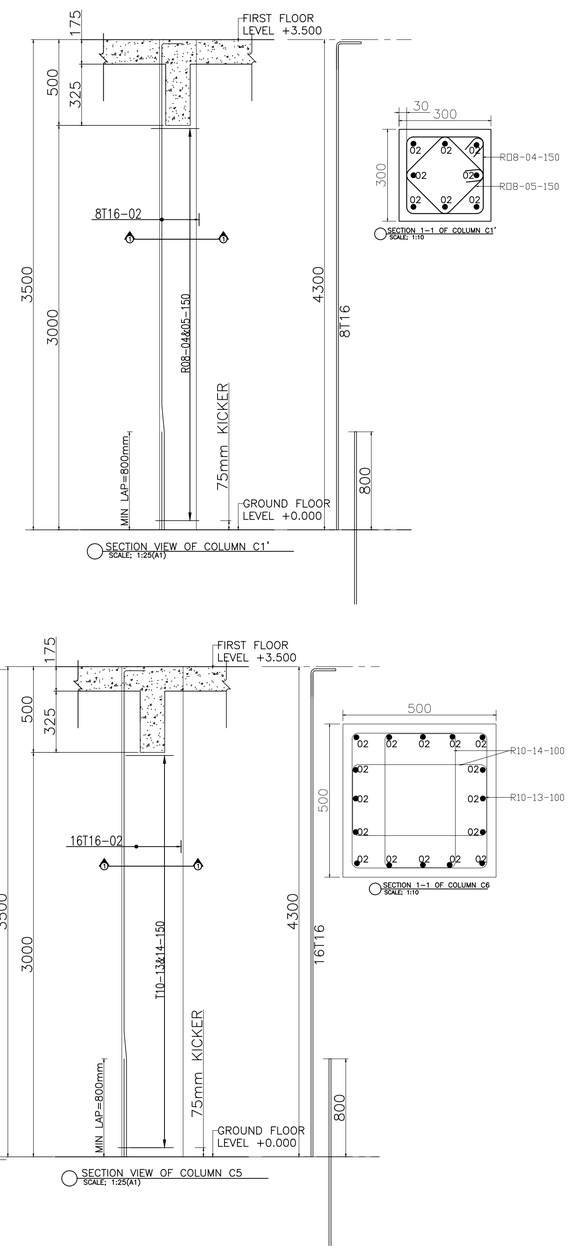

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Revisions:

Job Title
Proposed Call & Dispatch-Arua Hospital

Structural Engineer:
ENG. ASHA ARINDA

Sign.....

Drawing Name
CALL & DISPATCH-
COLUMN ELEVATION DETAILS
& SECTIONS DETAILS

Drawn by	Checked by
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Revision: 0000-R03	Drawing No. 003

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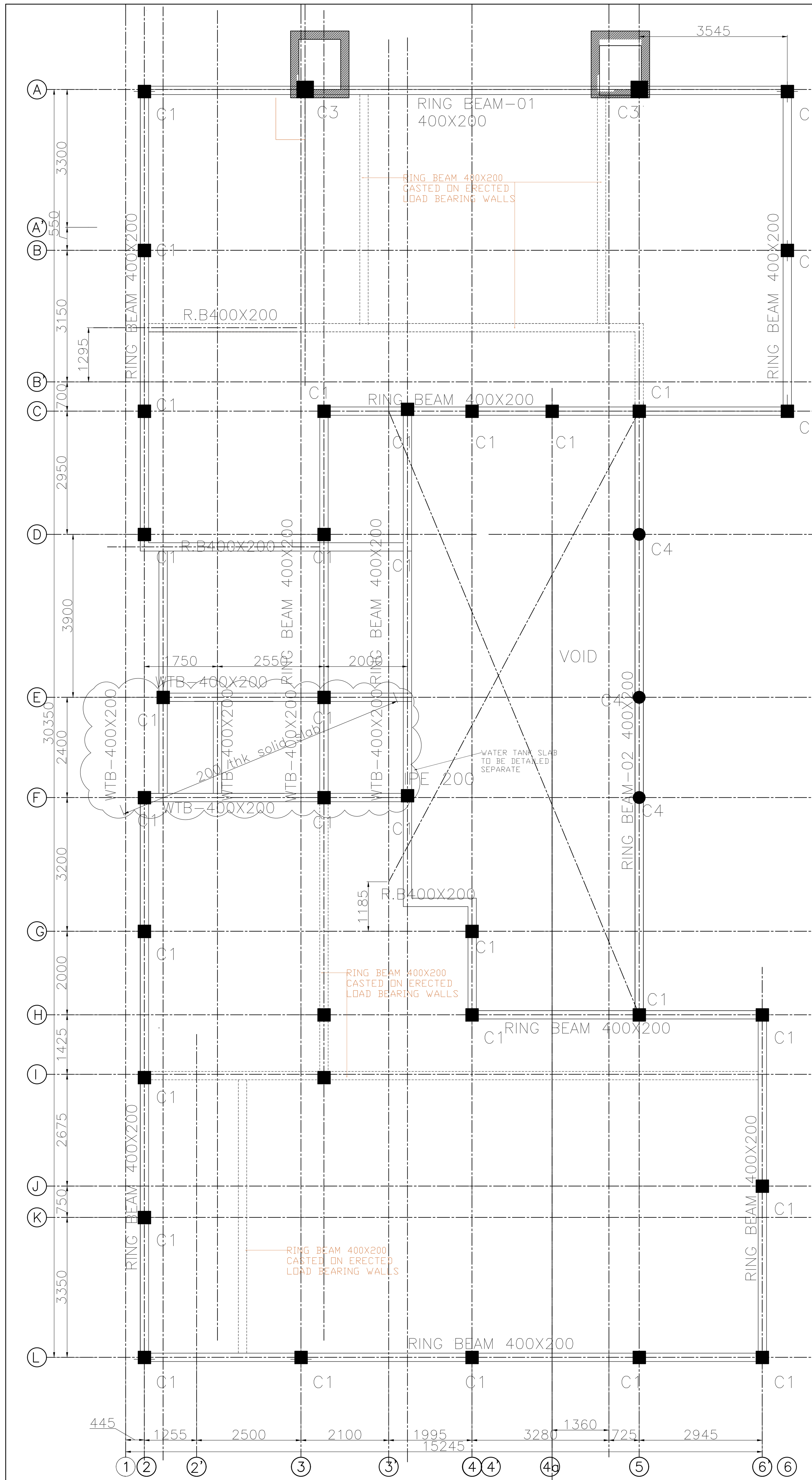
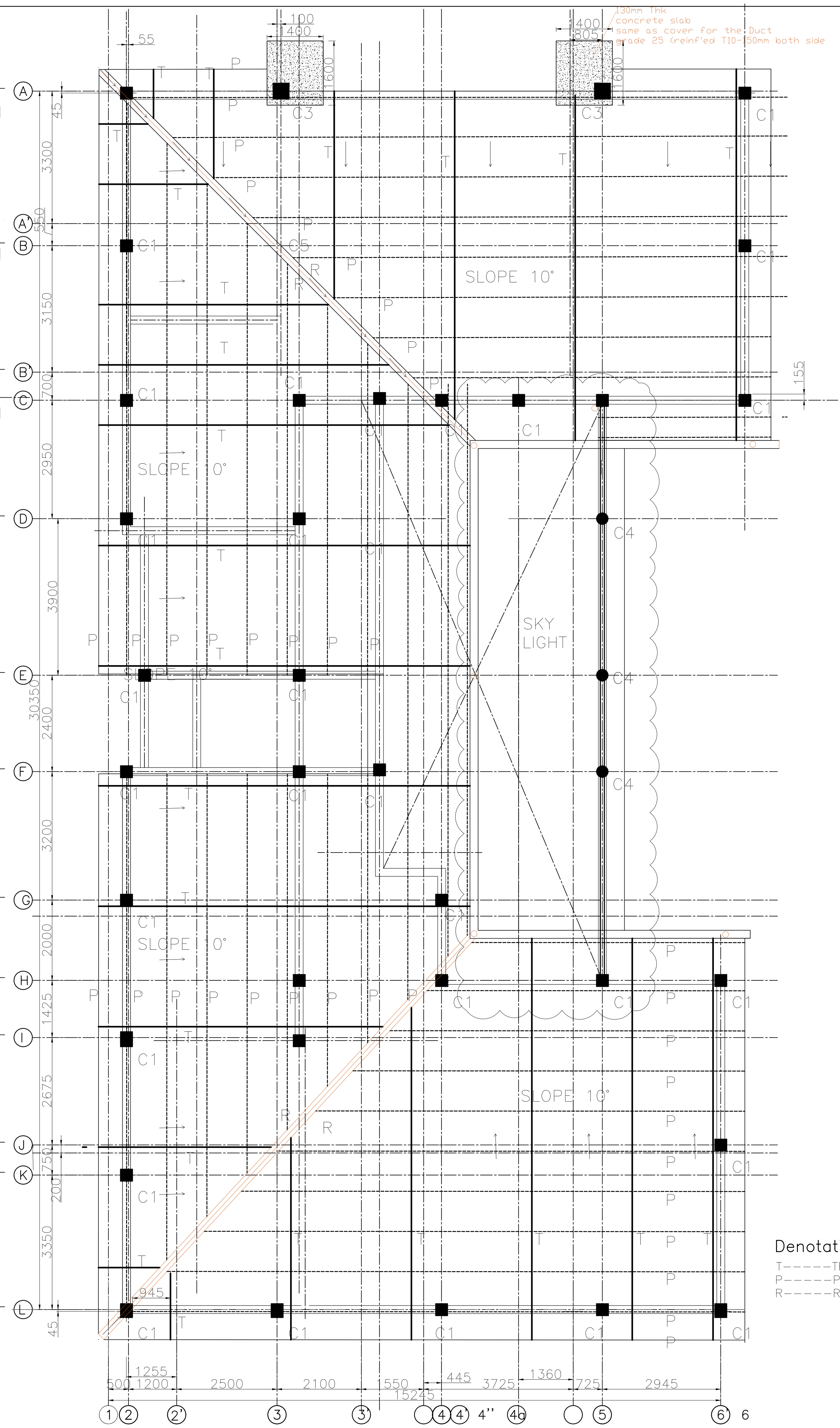


RING BEAM LAYOUT
SCALE 1:75



ROOF LAYOUT (MAIN ROOF)
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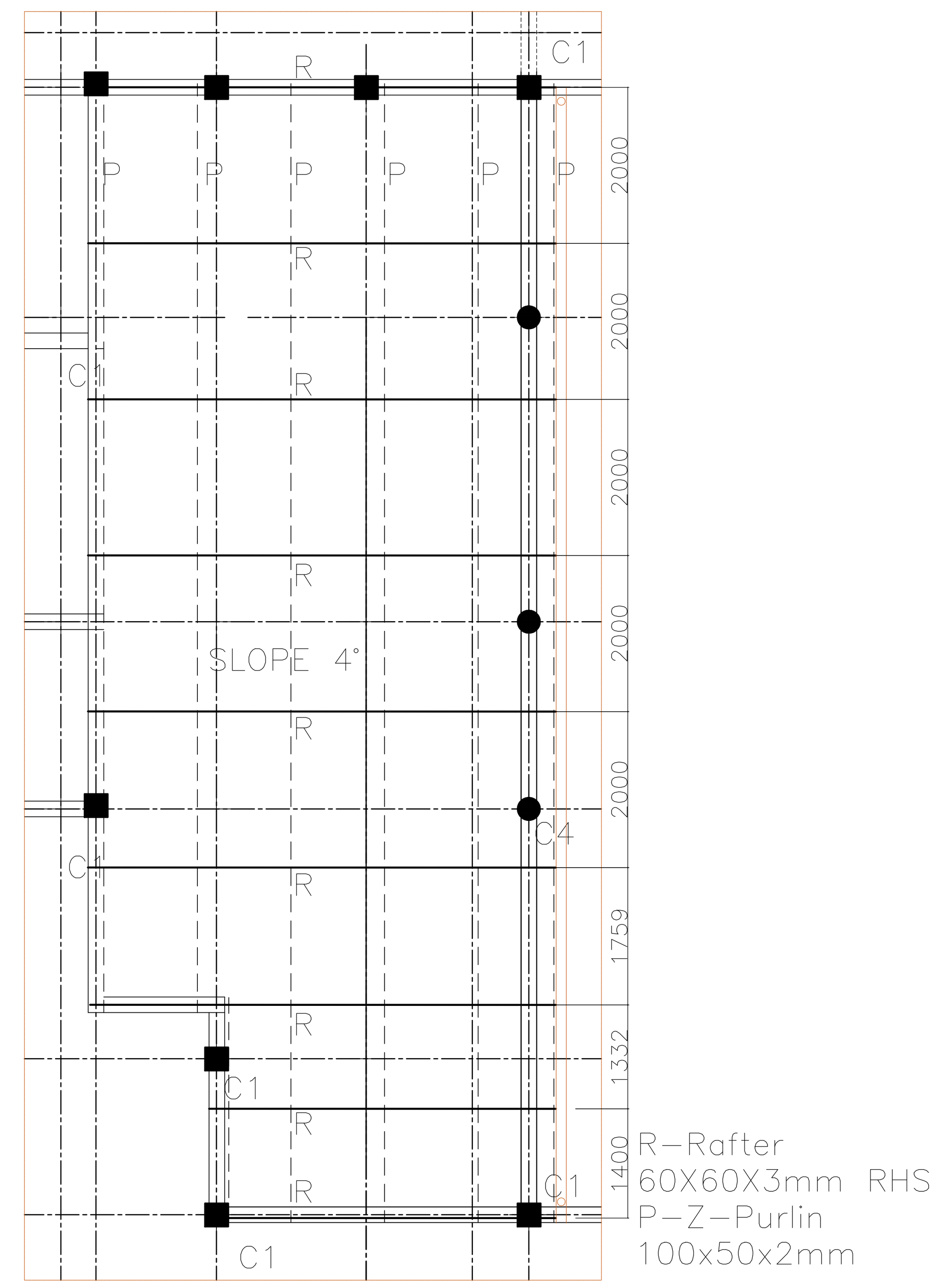
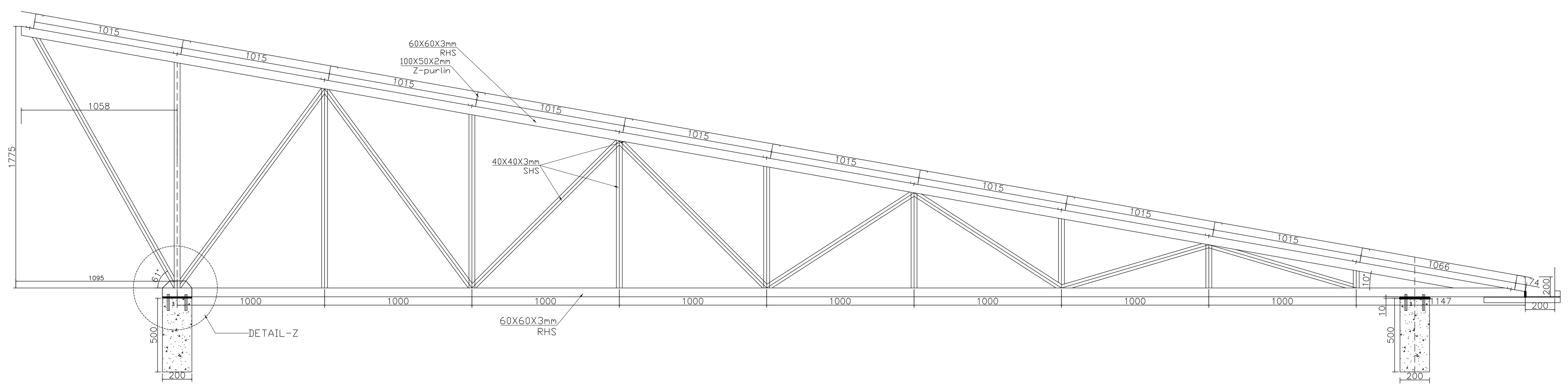
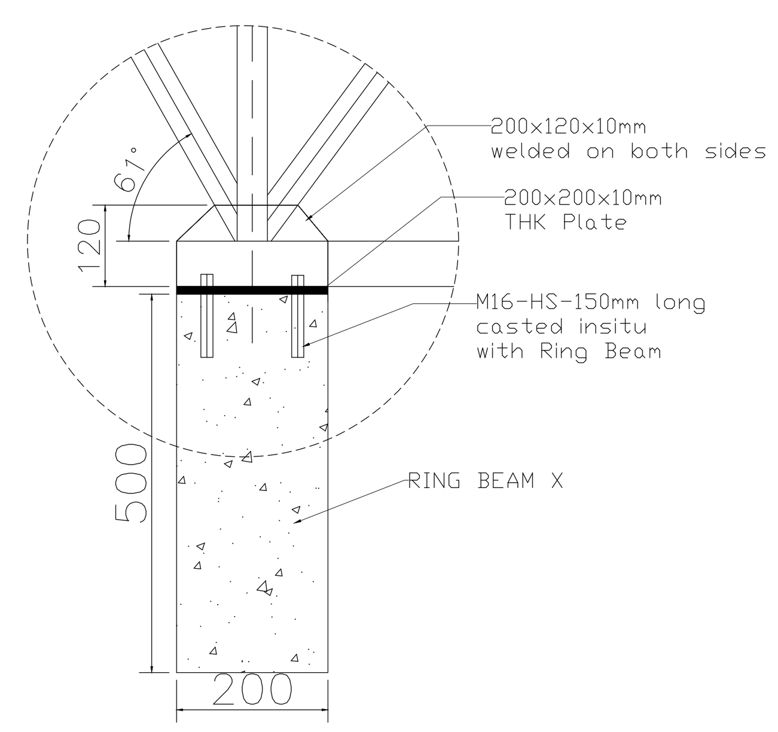


PARTIAL ROOF LAYOUT (SKYLIGHT ROOF)
SCALE 1:75

Denotation
T-----TRUSS
P-----PURLIN
R-----RAFTER



TYPICAL TRUSS T & CONNECTION DETAILS
N.B- MANY TO VARY BUT SIMILAR CONFIGURATION



TYPICAL DETAILS Z

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Revisions:

Job Title
Proposed Call & Dispatch–Arua Hospital

Structural Engineer:
ENG. ASHA ARINDA
Sign..

Drawing Name
CALL & DISPATCH–
RING BEAM LAYOUT & ROOF LAYOUT
& TRUSS DETAILS &CONNECTION DETAILS

Drawn by AHEEBWA.HOSEA	Checked by ENG. ASHA.A
Date MARCH–2023	Scale 1:10 @A1 1:30 @A1 1:75 @A1
Revision 0000–R03	Drawing No. 004

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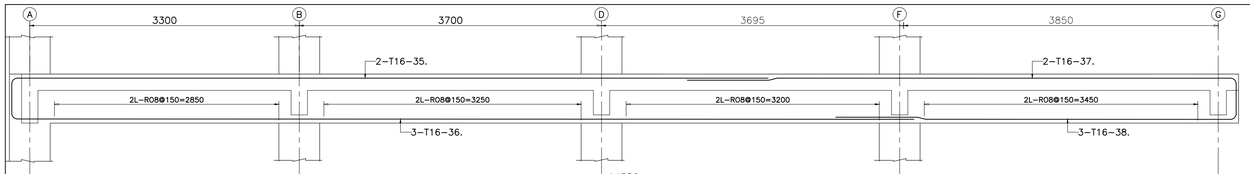

200x500 deep RC Beam 12, 1Nos Thus
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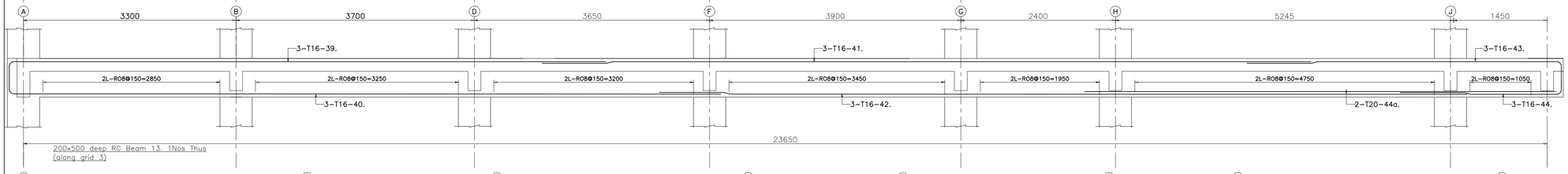

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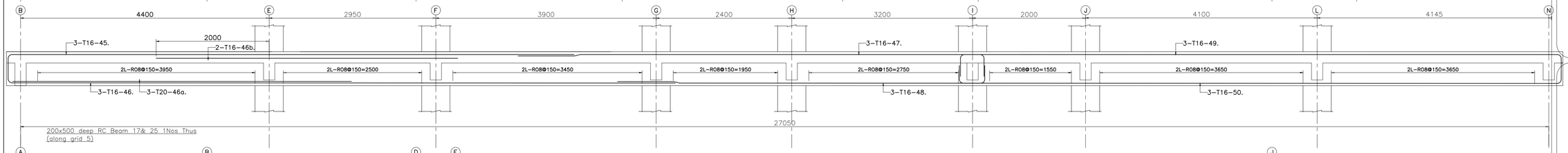

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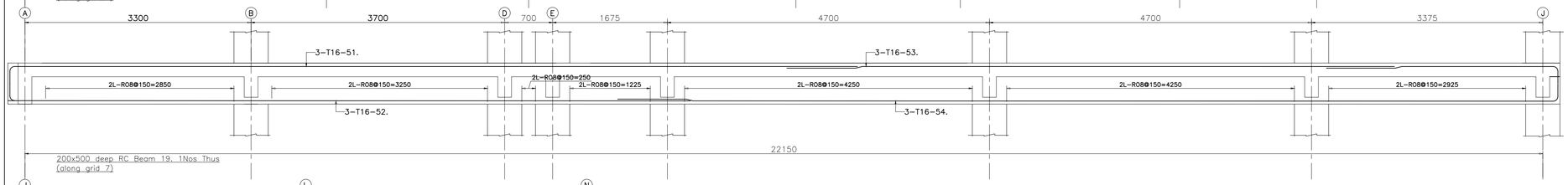

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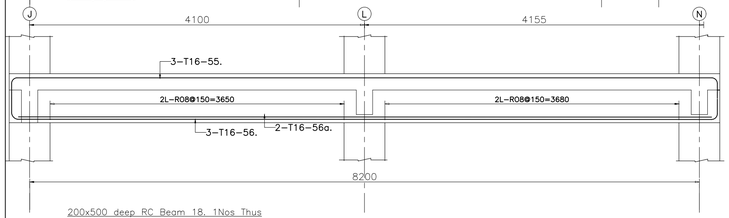

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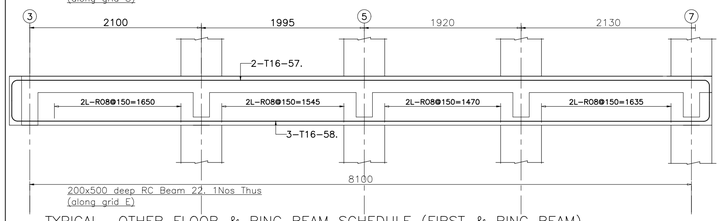
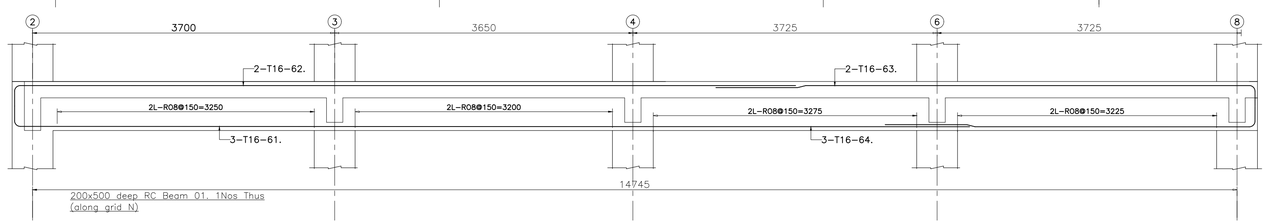


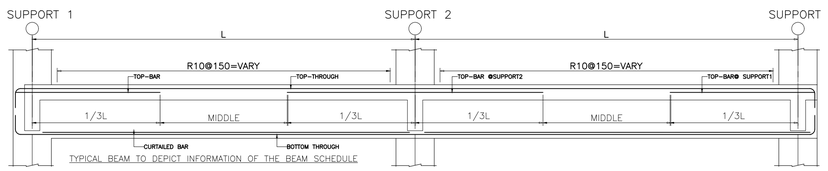
200x500 deep RC Beam 22, 1Nos Thus
(along grid E)



200x500 deep RC Beam 01, 1Nos Thus
(along grid N)

TYPICAL OTHER FLOOR & RING BEAM SCHEDULE (FIRST & RING BEAM)

BEAM No. & SIZE	BOTTOM STEEL		TOP STEEL			STIRRUPS		
	THROUGH	CURTAILED	THROUGH	SUPPORT 1 –1/3L	SUPPORT 2–1/3L Both sides	SUPPORT 1(1/3L)	MIDDLE	SUPPORT 2 (1/3L–Both sides)
BEAM 05 (200X500)	3–T16	–	3–T16	–	–	2L–R08–150	2L–R08–150	2L–R08–150
BEAM 02 (200X500)	3–T16	2–T20	3–T16	–	2–T16	2L–R08–150	2L–R08–150	2L–R08–150
BEAM 16 (200X500)	3–T16	2–T16	3–T16	–	2–T16	2L–R08–150	2L–R08–150	2L–R08–150
BEAM 03 (200X500)	3–T16	2–T20	3–T16	–	3–T16	2L–R08–150	2L–R08–150	2L–R08–150
BEAM 04 (200X500)	3–T16	2–T20	3–T16	–	3–T16	2L–R08–150	2L–R08–150	2L–R08–150
BEAM 07 (200X500)	2–T16	–	2–T16	–	–	2L–R08–150	2L–R08–150	2L–R08–150
BEAM 21 (200X500)	3–T16	2–T20	3–T16		–	2L–R08–150	2L–R08–150	2L–R08–150
BEAM 06 (200X500)	3–T16	2–T20	3–T16	–	2–T16	2L–R08–150	2L–R08–150	2L–R08–150
BEAM 08 (200X500)	2–T16	–	2–T16	–	–	2L–R08–150	2L–R08–150	2L–R08–150
BEAM 09 (200X500)	3–T16	–	3–T16	–	–	2L–R08–150	2L–R08–150	2L–R08–150
BEAM 11 (200X500)	3–T16	2T20@ sup 2&2	3–T16	2–T16	2–T20	2L–R08–150	2L–R08–150	2L–R08–150
BEAM 24 (200X500)	3–T16	–	3–T16	–	–	2L–R08–150	2L–R08–150	2L–R08–150
BEAM 22 (200X500)	3–T16	4–T16	3–T16	2–T16	2–T16	2L–R08–150	2L–R08–150	2L–R08–150
BEAM 19 (200X500)	3–T16	–	3–T16	2–T16	2–T16	2L–R08–150	2L–R08–150	2L–R08–150
BEAM 23 (300X700)	3–T20	3T16	3–T20	–	3–T16	2L–T10–100	2L–T10–100	2L–T10–100
WTB–Water tank BEAM (200X500)	3–T16	–	3–T16	–	–	2L–T10–150	2L–R08–150	2L–R08–150
INCLINED BEAM (200X700)	3–T16	2–T16	3–T16	–	2–T16	2L–R08–150	2L–R08–150	2L–R08–150
BEAM 14 (200X500)	3–T16	–	2–T16	–	2–T16	2L–R08–150	2L–R08–150	2L–R08–150
RINGBEAM 01 (200X400)	3–T16	2–T16 @sup 2	2–T16	–	2–T16	2L–R08–150	2L–R08–150	2L–R08–150
RING BEAM 02 (200X400)	3–T16	2–T16@sup2	2–T16	–	2–T16	2L–R08–150	2L–R08–150	2L–R08–150
OTHER RING BEAMS (200X400)	2–T16	–	2–T16	–	–	2L–R08–150	2L–R08–150	2L–R08–150



TYPICAL BEAM TO DEPICT INFORMATION OF THE BEAM SCHEDULE

N.B
All bottom bars to be lapped at the supports and the lapping length to be considered as 50*Dia. i.e 50x20mm–1000mm(LD)

BEAM No. & SIZE	BOTTOM STEEL		TOP STEEL			STIRRUPS		
	THROUGH	CURTAILED	THROUGH	SUPPORT 1 –1/3L	SUPPORT 2–1/3L Both sides	SUPPORT 1(1/3L)	MIDDLE	SUPPORT 2 (1/3L–Both sides)
BEAM 26 (200X500)	3–T16	2–T16	3–T16	–	2–T16	2L–R08–150	2L–R08–150	2L–R08–150
BEAM 26A (200X500)	2–T16	–	2–T16	–	–	2L–R08–150	2L–R08–150	2L–R08–150
BEAM 20 (200X500)	2–T16	–	2–T16	–	–	2L–R08–150	2L–R08–150	2L–R08–150
BEAM 10 (200X500)	2–T20	3–T16	3–T16		2–T16	2L–R08–150	2L–R08–150	2L–R08–150
BEAM 14a (200X500)	2–T20	3–T16	3–T16		2–T16	2L–R08–150	2L–R08–150	2L–R08–150
BEAM 23a (200X500)	2–T16	–	2–T16		–	2L–R08–150	2L–R08–150	2L–R08–150

NOTES

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Revisions:

Job Title
Proposed Call & Dispatch–Arua Hospital

Structural Engineer:
ENG. ASHA ARINDA

Sign.....

Drawing Name
CALL & DISPATCH–
BEAM REINFORCEMENT DETAILS

Drawn by	Checked by
AHEEBWA.HOSEA	ENG. ASHA.A
Date: MARCH–2023	Scale: 1:37.5 @A1
Revision: 0000–R03	Drawing No. 005

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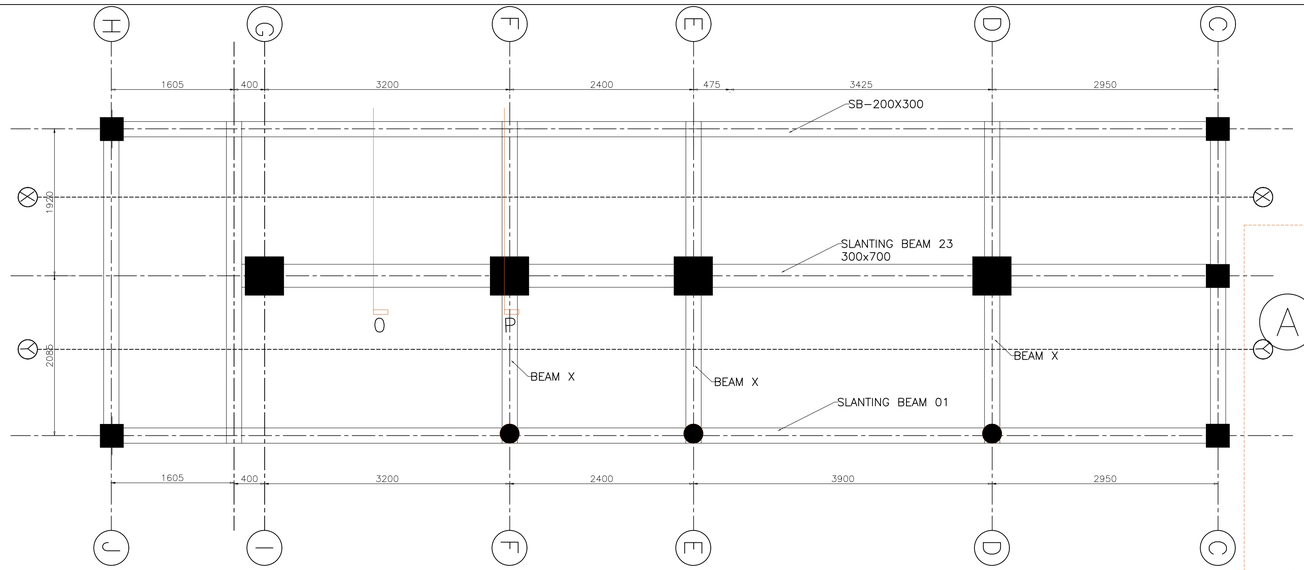
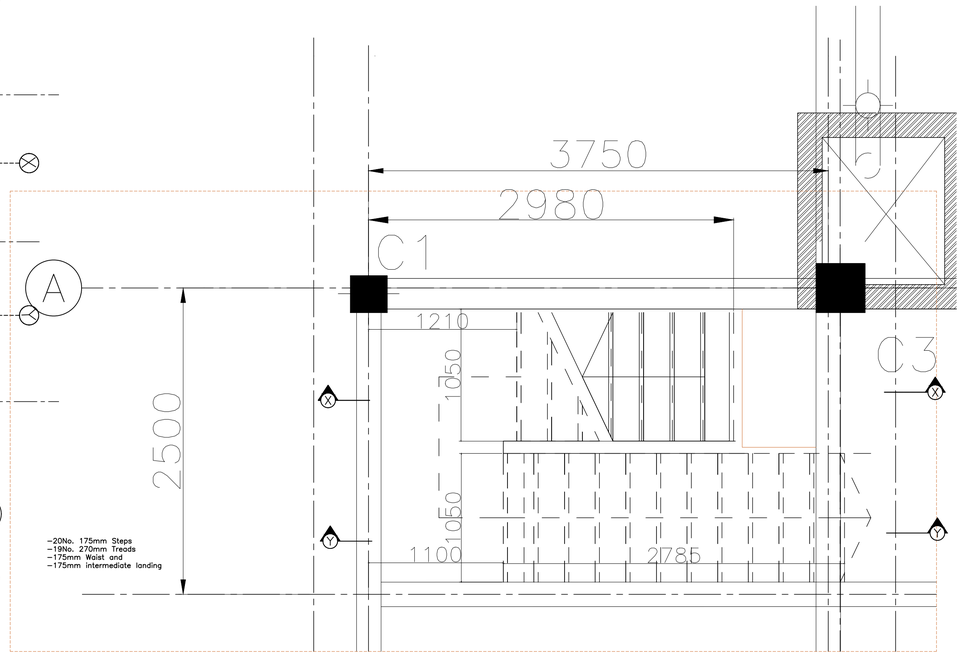
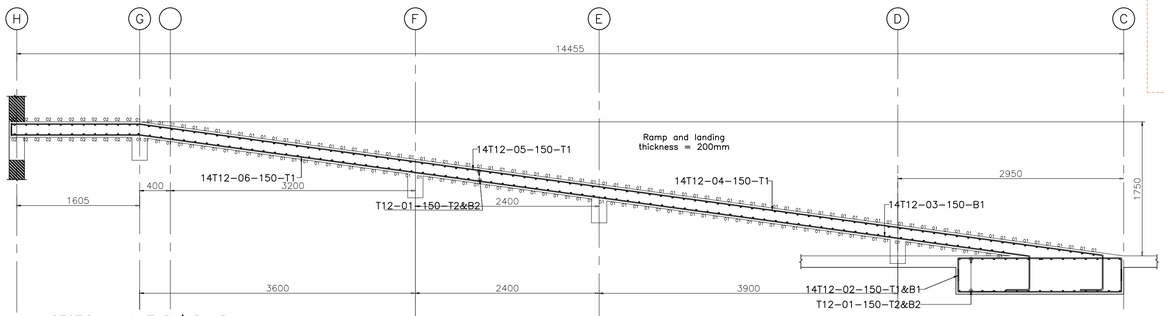


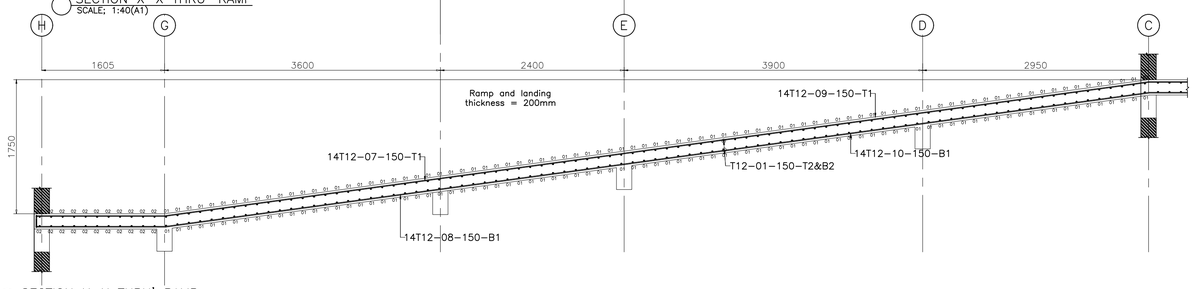
TYPICAL PLAN VIEW OF RC-RAMP FROM GROUND FLOOR TO FIRST FLOOR LEVEL
SCALE; 1:40(A1)



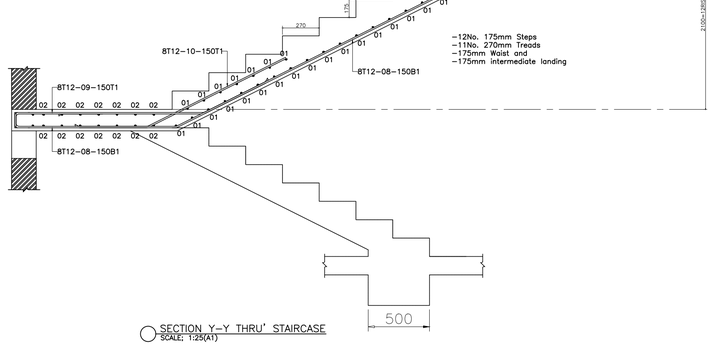
GROUND-FIRST FLOOR PLAN VIEW OF RC STAIRCASE
SCALE; 1:25(A1)



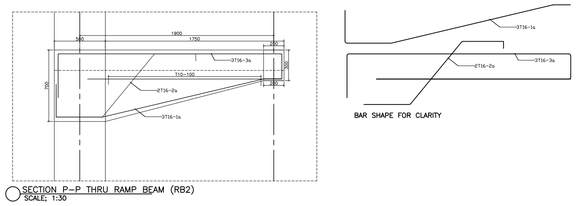
SECTION X-X THRU' RAMP
SCALE; 1:40(A1)



SECTION X-X THRU' RAMP
SCALE; 1:40(A1)

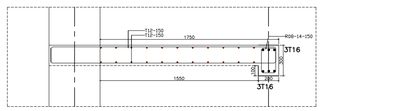


SECTION Y-Y THRU' STAIRCASE
SCALE; 1:25(A1)



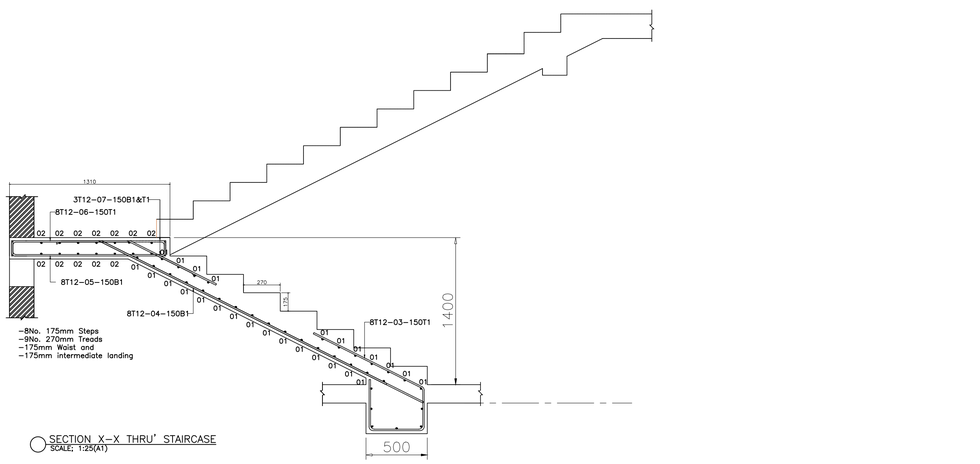
SECTION P-P THRU RAMP BEAM (RB2)
SCALE; 1:30

BAR SHAPE FOR CLARITY



SECTION O-O THRU RAMP SLAB

BAR SHAPE FOR CLARITY



SECTION X-X THRU' STAIRCASE
SCALE; 1:25(A1)

NOTES

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Revisions:

Job Title
Proposed Call & Dispatch-Arua Hospital

Structural Engineer:
ENG. ASHA ARINDA

Sign.....

Drawing Name
CALL & DISPATCH-
RC-RAMP & STAIRCASE PLAN VIEW
& SECTIONS DETAILS

Drawn by AHEEBWA.HOSEA	Checked by ENG. ASHA.A
Date MARCH-2023	Scale 1:40 @A1, 1:25 @A1
Revision 0000-R03	Drawing No. 006

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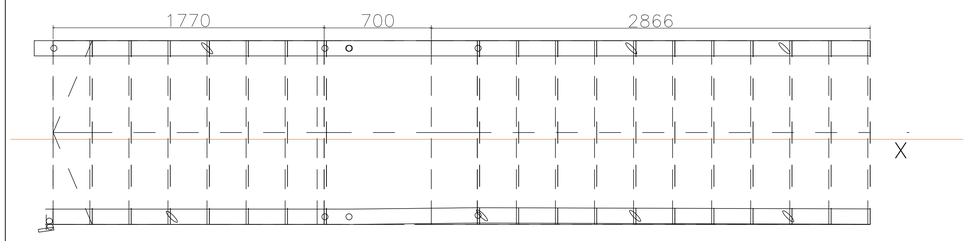
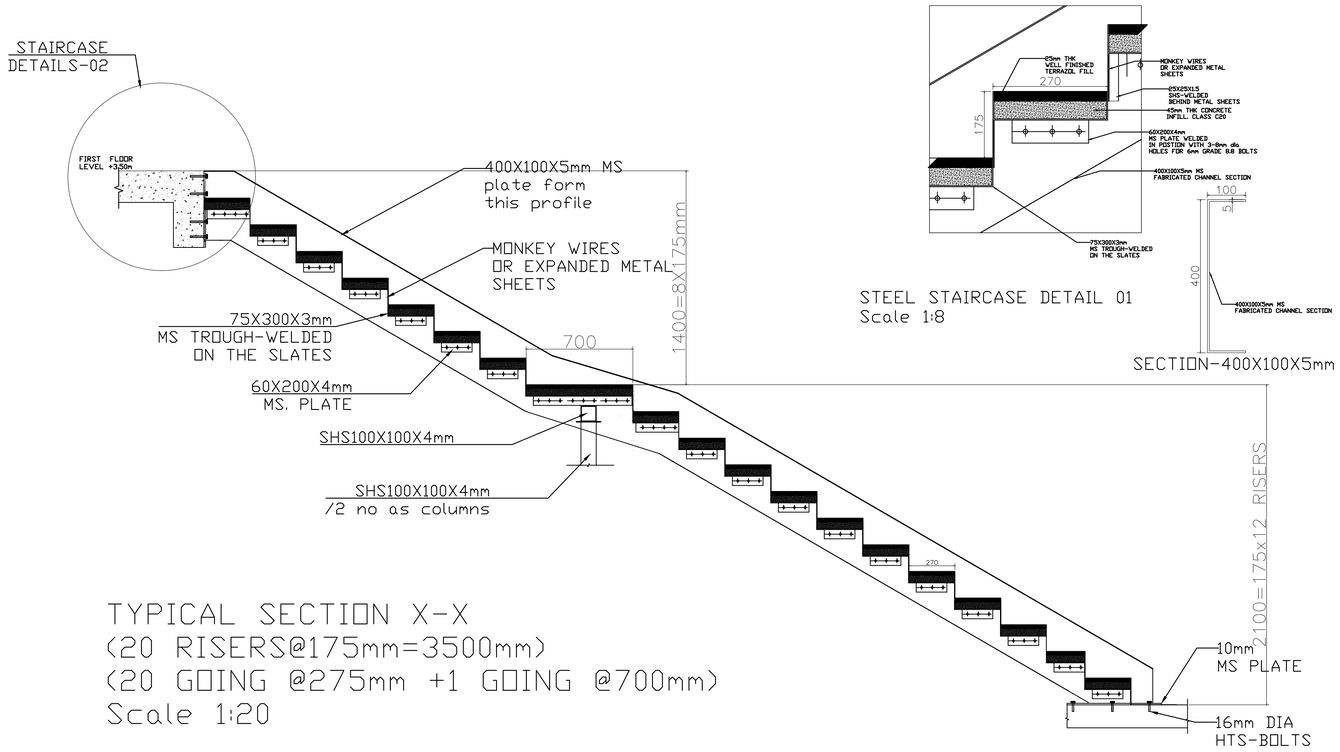


STEEL STAIRCASE
Scale 1:20



TYPICAL SECTION X-X
(20 RISERS@175mm=3500mm)
(20 GOING @275mm +1 GOING @700mm)
Scale 1:20

STEEL STAIRCASE DETAIL 01
Scale 1:8

SECTION-400X100X5mm

NOTES

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Revisions:

Job Title
Proposed Call & Dispatch-Arua Hospital

Structural Engineer:
ENG. ASHA ARINDA

Sign.....

Drawing Name
CALL & DISPATCH-
STAIRCASE PLAN VIEW
& SECTIONS DETAILS

Drawn by AHEEBWA.HOSEA	Checked by ENG. ASHA.A
Date MARCH-2023	Scale 1:40 @A1, 1:25 @A1
Revision 0000-R03	Drawing No. 007

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