

A. GENERAL

1. READ THIS DRAWINGS IN CONJUNCTION WITH ARCHITECTS' AND OTHER ENGINEERS' DRAWINGS AND SPECIFICATIONS, AND SUCH OTHER WRITTEN INSTRUCTIONS AS MAY BE ISSUED.
2. ALL DIMENSIONS ARE IN MILIMETRE UNLESS STATED OTHERWISE.
3. DIMENSIONS SHALL NOT BE SCALED FROM THE DRAWINGS.
4. DESIGN CONFORMS TO:

IS456:2000 CODE OF PRACTICE FOR PLAIN AND REINFORCED CONCRETE

IS4326:1993 EARTHQUAKE RESISTANT DESIGN AND CONSTRUCTION OF BUILDINGS

IS13920:1993 DUCTILE DETAILING OF REINFORCED CONCRETE STRUCTURES SUBJECTED TO SEISMIC FORCES

IS 875 : 1987(Part 1 to 3) CODE OF PRACTICE FOR DESIGN LOADS(OTHER THAN EARTHQUAKE) FOR BUILDINGS AND STRUCTURES.

IS 1893 (Part 1) : 2002 CRITERIA FOR EARTHQUAKE RESISTANT DESIGN OF STRUCTURES.
5. VERIFY ALL SETTING OUT DIMENSIONS WITH THE ENGINEER/ARCHITECT. VERIFY LOCATION AND DIMENSIONS OF CHASES, INSERTS, OPENINGS, WASHES, DRIPS, DEPRESSIONS, AND OTHER PROJECT REQUIREMENTS NOT SHOWN ON THE STRUCTURAL DRAWINGS.
6. IF IN DOUBT, ASK.
7. REFER ANY DISCREPANCY TO ENGINEER/ARCHITECT BEFORE PROCEEDING WITH THE WORK.
8. ALL CONSTRUCTION MATERIALS AND WORKMANSHIP SHALL COMPLY WITH THE SPECIFICATIONS FOR BUILDING AND ROAD WORKS TOGETHER WITH THE REQUIREMENTS OF ALL RELEVANT CODES OF PRACTICE REFERRED TO HEREIN AND THE REQUIREMENTS OF ALL STATUTORY AUTHORITIES.
9. CHECK ALL DIMENSIONS BEFORE STARTING WORK.
10. ALWAYS REFER ADDITIONAL NOTES PROVIDED IN THE DRAWINGS.
11. UNLESS OTHERWISE INDICATED, DETAILS SHOWN ARE TO BE CONSIDERED TYPICAL FOR SIMILAR CONDITIONS.
12. NO FRAMING OR STRUCTURAL MEMBERS ARE TO BE MODIFIED, NOTCHED, OR CUT WITHOUT THE APPROVAL OF THE ENGINEER.
13. THE OWNNER SHALL FAMILIARIZE THEMSELVES WITH THE DRAWINGS. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH THE AFFECTED WORK. ANY VARIATIONS OR SUBSTITUTIONS OF MATERIALS OR DETAILS FROM THOSE INDICATED ON THE DRAWINGS MAY ONLY BE MADE WITH PRIOR APPROVAL OF THE ENGINEER.

B. FOUNDATION

1. FOOTINGS ARE DESIGNED FOR AN ALLOWABLE BEARING CAPACITY OF 150KPA. VERIFY THE SOIL STRENGTH AND OBTAIN APPROVAL FROM THE ENGINEER BEFORE PLACING CONCRETE.
2. FOUNDATION SHALL BEAR ON UNDISTURBED NATURAL MATERIAL OR PROPERLY PLACED AND COMPACTED CONTROLLED STRUCTURAL FILL HAVING A MINIMUM BEARING CAPACITY OF 150 KPA.
3. CONTROLLED STRUCTURAL FILL SHALL CONSIST OF CLEAN GRANULAR MATERIAL FREE OF ORGANIC OR OTHER DELETERIOUS MATTER AND CONFORM TO THE REQUIREMENTS OF STANDARDS AND QUALITY CONTROL AUTHORITY.
4. MASONRY WALLS IN THE FORM OF RANDOM RUBBLE MASONRY SHALL BE PROVIDED BELOW THE EXTERIOR AS WELL AS INTERIOR PLINTH BEAM.
5. FOOTINGS ARE DESIGNED CONSIDERING THE MINIMUM DEPTH OF 1500MM BELOW THE ORIGINAL GROUND LEVEL. NOTIFY ENGINEER IF THE DEPTH OF FOOTINGS REQUIRED TO BE PROVIDED VARIES FROM THE DEPTH SPECIFIED ABOVE.
6. ALL EXCAVATION SHALL BE DRY BEFORE PLACING ANY CONCRETE.
7. IF SEEPAGE IS ENCOUNTERED DURING FOUNDATION EXCAVATION, PUMP OUT WATER BEFORE PLACING CONCRETE.
8. THE FOUNDATIONS UNDER THE CONCRETE BASE SLAB SHALL BE COMPACTED THROUGHLY AND A MINIMUM150MM LAYER OF COARSE AGGREGATE SHALL BE PLACED OVER THE COMPACTED EARTH AND SEALED WITH 100MM THICK LAYER OF BLINDING CONCRETE.
9. BACKFILLING AGAINST BUILDING FOUNDATION WALLS SHALL BE DONE ONLY AFTER WALLS ARE BRACED TO PREVENT MOVEMENT.
10. CARE SHALL BE TAKEN NOT TO OVERSTRESS ANY ADJACENT RETAINING WALLS AND STRUCTURES DURING BACKFILLING AROUND FOUNDATIONS.
11. COMPACTION OF FOUNDATION SHALL BE APPROVED BY ENGINEER PRIOR TO PLACEMENT OF CONCRETE .

C. LOADING

1. THIS STRUCTURE HAS BEEN DESIGNED FOR THE FOLLOWING NOMINAL LOADS:

1.1 DEAD LOADS:

UNIT WEIGHT OF BRICK WALL

UNIT WEIGHT OF RCC

UNIT WEIGHT OF PCC

19.6 KN/M3

25 KN/M3

24 KN/M3

1.2 SUPERIMPOSED LOADS(LIVE LOADS):

LIVE LOAD FOR ROOF

ROOF SNOW LOAD

0.75 N/MM2 (not accessible)

0.8 N/MM2

1.3 EARTHQUAKE DESIGN DATA

SEISMIC ZONE

BASIC SEISMIC FORCE RESISTING SYSTEM

ANALYSIS PROCEDURE

V

SPECIAL MOMENT RESISTING FRAME

EQUVALENT LATERAL FORCE PROCEDURE

2. MAINTAIN STRUCTURE IN STABLE CONDITION DURING CONSTRUCTION.

3. DO NOT PLACE OR STORE BUILDING MATERIALS ON CONCRETE MEMBERS WITHOUT ENGINEER'S APPROVAL.
- D. CONCRETE
1. CONCRETE QUALITY SHALL COMPLY WITH IS456:2000

2. PROJECT ASSESSMENT OF CONCRETE STRENGTH IS REQUIRED.

3. GRADE OF CONCRETE IS M20(1:1.5:3) FOR ALL RCC WORKS.

4. FOR THE ABOVE GRADE TO BE ACHIEVED, MAXIMUM FREE WATER-CEMENT RATIO SHALL BE 0.55, MINIMUM CEMENT CONTENT SHALL BE 300KG/M3 AND MAXIMUM AMOUNT OF WATER SHALL BE 165L FOR 300KG/M3 OF CEMENT.

5. ONLY POTABLE WATER SHALL BE USED FOR MIXING AND CURING, AND SHALL COMPLY TO THE REQUIREMENTS OF IS456:2000.

6. MECHANICALLY VIBRATE CONCRETE IN THE FORM TO GIVE MAXIMUM COMPACTION WITHOUT SEGREGATION OF THE CONCRETE.

7. CURE CONCRETE AS REQUIRED BY THE CLAUSE 13.5 OF IS456:2000 AND WORK SPECIFICATIONS.

8. IN THE DRAWINGS THE BEAM SIZES ARE DESIGNATED WIDTH x DEPTH (INCLUDES SLAB THICKNESS IF ANY).

9. CONCRETE SIZES AS DRAWN ARE MINIMUM AND DO NOT INCLUDE APPLIED FINISHES.


10. DO NOT MAKE UNSPECIFIED HOLES OR CHASES WITHOUT ENGINEER'S PRIOR APPROVAL.

11. DO NOT PLACE CONDUITS, PIPES AND THE LIKE WITHIN COVER CONCRETE.

12. AGGREGATES SHALL COMPLY WITH CLAUSE 5.3 OF IS456:2000. NOMINAL SIZE OF COARSE AGGREGATES SHALL BE 20MM.

13. THE CHARACTERISTIC STRENGTH OF CONCRETE AT 28 DAYS SHALL BE 20MPA. THE CONCRETE SHALL BE ASSESSED AS PER THE ACCEPTANCE CRITERIA OUTLINED IN CLAUSE 16 OF IS456:2000 OR ANY OTHER STATUTORY AUTHORITIES.

14. ALL FORMWORKS FOR BEAMS AND SLABS ARE TO BE REMOVED BEFORE CONSTRUCTION OF WALLS OR OTHER PERMANENT LOADINGS. ALL FORMWORK AND ITS REMOVAL MUST BE IN ACCORDANCE TO IS456:2000.

15. ALL FLOOR SLABS ARE REINFORCED CONCRETE SLABS.
- | REV. | DATE | NOTES | SCALE: NTS | PROJECT:- PROPOSED ENTRANCE GATE | | | ROYAL GOVERNMENT OF BHUTAN | |
|------|----------|-------|--------------------|----------------------------------|------------------|----------------|---|---|
| 0.00 | 08.07.17 | | DATE: 10 July 2017 | Drawing title: Notes | | |  | Department of Air Transport
Ministry of Information and Communications |
| | | | DRAWN BY: | ENGINEER: | CHECKED BY: | APPROVED BY: | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | Robin Rimal | Jamyang T Dorji | Offg. Chief, ADD | Director, DoAT | | |

E. REINFORCEMENT

1. GRADE OF STEEL USED FOR RCC WORKS SHALL BE FE500(TMT).
2. BAR NOTATION GIVES THE FOLLOWING INFORMATION IN THIS ORDER:NUMBER OF BARS; BAR SIZE(MM); SPACING (MM, IF REQUIRED).
3. REINFORCEMENT IS REPRESENTED DIAGRAMATICALLY AND NOT NECESSARILY IN TRUE PROJECTION.
4. LAP REINFORCEMENT ONLY AT LOCATIONS SHOWN IN THE DRAWINGS. LAP LENGTH SHALL COMPLY WITH IS456:2000. LAP SPLICES SHALL NOT BE LESS THAN THE DEVELOPMENT LENGTH IN TENSION(GENERALLY 57X Ø).
5. REINFORCEMENT SHALL NOT BE CUT, BENT OR HEATED ON SITE WITHOUT ENGINEER'S PRIOR APPROVAL.
6. THE DEVIATION OF REINFORCEMENT FROM ITS SPECIFIED POSITION SHALL NOT EXCEED THE FOLLOWING(MM):

6.1) TOLERENCE FOR COVER -0,+10 MM. WHERE A NEGATIVE VALUE INDICATES A DECREASE IN SPECIFIED COVER, AND POSITIVE VALUE INDICATES AN INCREASE IN COVER.

6.2) TOLERENCES ON PLACING OF REINFORCEMENT:

I) FOR SLABS AND STAIRCASE -10,+10MM.

II) FOR BEAMS COLUMNS AND FOUNDATION -15,+15 MM.

7. SPACERS AND SUPPORTS SHALL BE LOCATED AT CENTRES CLOSE ENOUGH(PREFERABLY NOT EXCEEDING 750MM C/C FOR COLUMN AND BEAM REINFORCEMENT, AND 450MM FOR SLAB REINFORCEMENT) TO PREVENT DISPLACEMENT OF REINFORCEMENT BY WORKERS OR EQUIPMENT DURING FIXING AND SUBSEQUENT CONCRETE PLACEMENT WITHIN THE TOLERENCE GIVEN IN 6 ABOVE.

8. THE COVER TO THE REINFORCEMENT NEAREST TO THE CONCRETE SURFACE SHALL NOT BE LESS THAN THE FOLLOWING EXCEPT WHERE SPECIFIED OTHERWISE:

BEAMS30 MM

COLUMNS40 MM

FLOOR SLABS AND STAIRCASE20 MM

FOUNDATION50 MM

9. BENDING OF REINFORCEMENT IN BEAMS AND COLUMNS SHALL COMPLY WITH THE REQUIREMENTS OF IS456:2000.


10. REINFORCEMENT SHALL BE SUBJECT TO LABORATORY TEST TO DETERMINE DUCTILE PROPERTY.

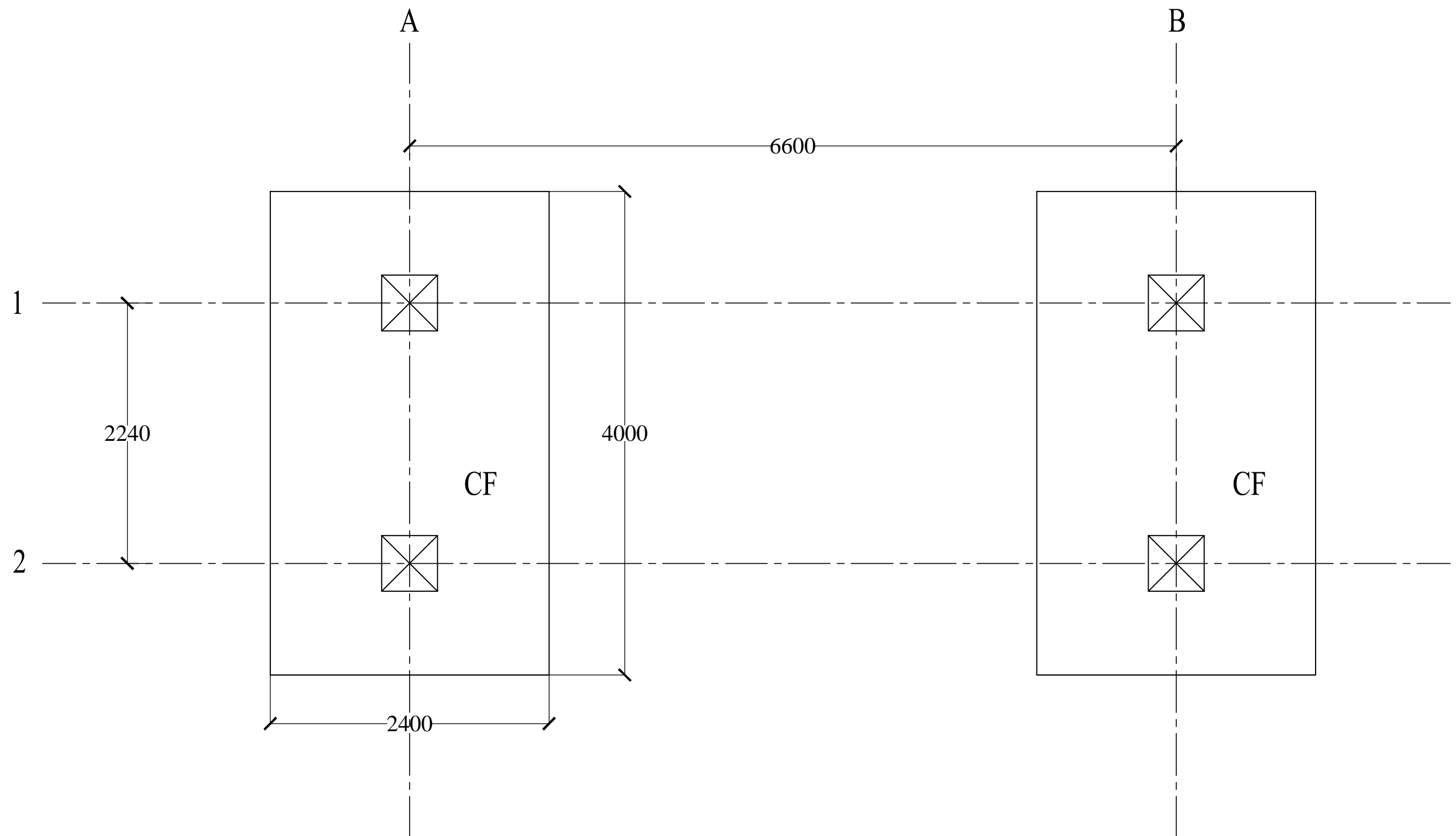
11. INSTALLATION OF REINFORCEMENT SHALL BE COMPLETED AT LEAST 24 HOURS PRIOR TO SCHEDULED CONCRETE PLACEMENT. NOTIFY ENGINEER AT LEAST 48 HOURS PRIOR TO SCHEDULED CONCRETE PLACEMENT, TO ALLOW TIME FOR INSPECTION.
- F. TIMBER
1. ALL STRUCTURAL TIMBER SHALL CONFORM TO THE IS883.(If available use the Bhutanese Timber Code)

2. MOISTURE CONTENT OF THE STRUCTURAL TIMBER SHALL NOT EXCEED 12%.


3. ALL STRUCTURAL TIMBER SHALL HAVE A MINIMUM ALLOWABLE BENDING STRESS, Fb, OF 7MPA, A MINIMUM ALLOWABLE HORIZONTAL SHEAR STRESS, Fv, OF 0.6MPA, A MINIMUM MODULUS OF ELASTICITY, E OF 9800MPA, AND MAXIMUM UNIT WEIGHT OF 5.75 KN/M3.
- G. FORMWORK
1. PROPERLY BRACE AND SHORE FORMWORK TO MAINTAIN ALIGNMENT AND TOLERANCE IN ACCORDANCE WITH IS456:2000.

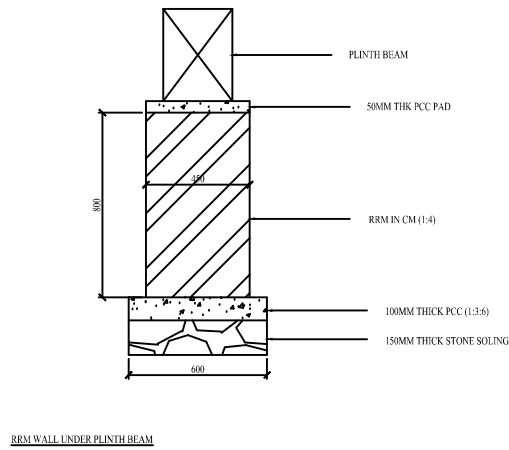
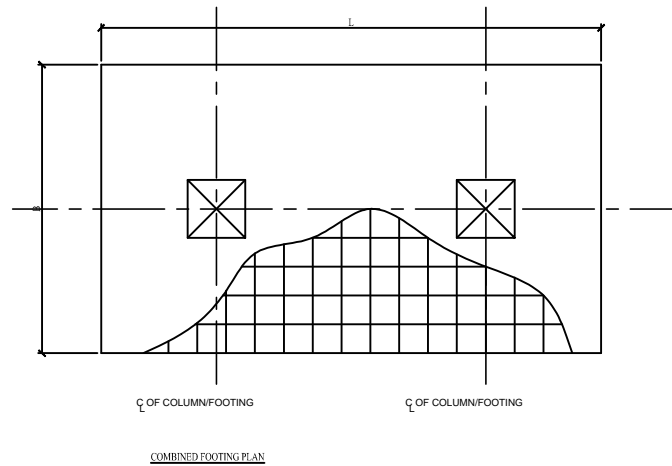
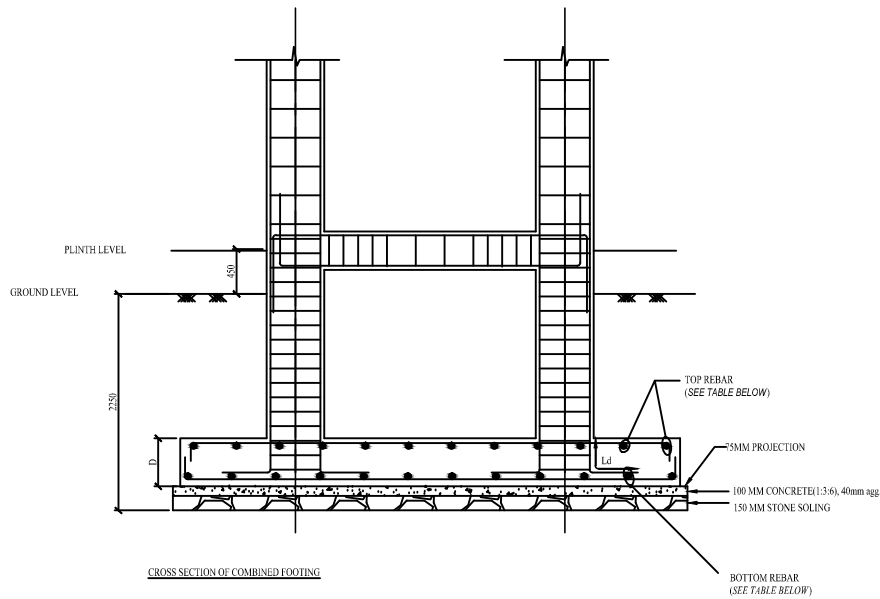
2. FORMWORK SHALL COMPLY WITH CLAUSE 11 OF IS456:2000.

3. STRIPPING OF FORMWORK SHALL COMPLY WITH CLAUSE 11.3 OF IS456:2000.
- | REV. | DATE | NOTES | SCALE: NTS | PROJECT:- PROPOSED ENTRANCE GATE | | | ROYAL GOVERNMENT OF BHUTAN | |
|------|----------|-------|--------------------|----------------------------------|------------------|----------------|---|---|
| 0.00 | 08.07.17 | | DATE: 10 July 2017 | Drawing title: Notes | | |  | Department of Air Transport
Ministry of Information and Communications |
| | | | DRAWN BY: | ENGINEER: | CHECKED BY: | APPROVED BY: | | |
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| | | | Robin Rimal | Jamyang T Dorji | Offg. Chief, ADD | Director, DoAT | | |




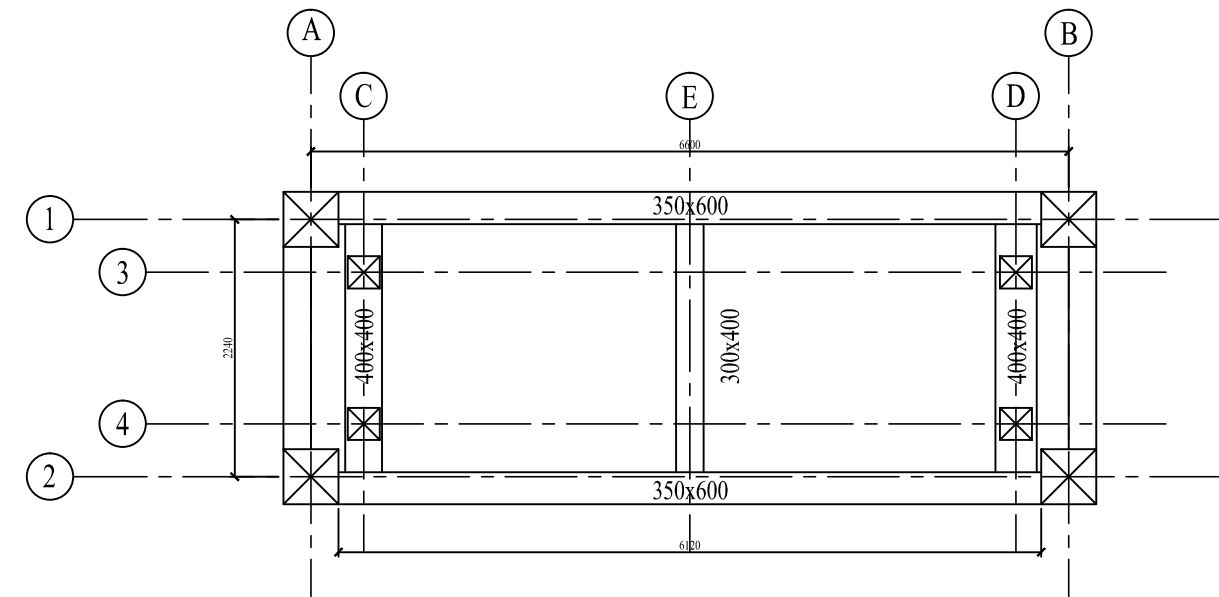
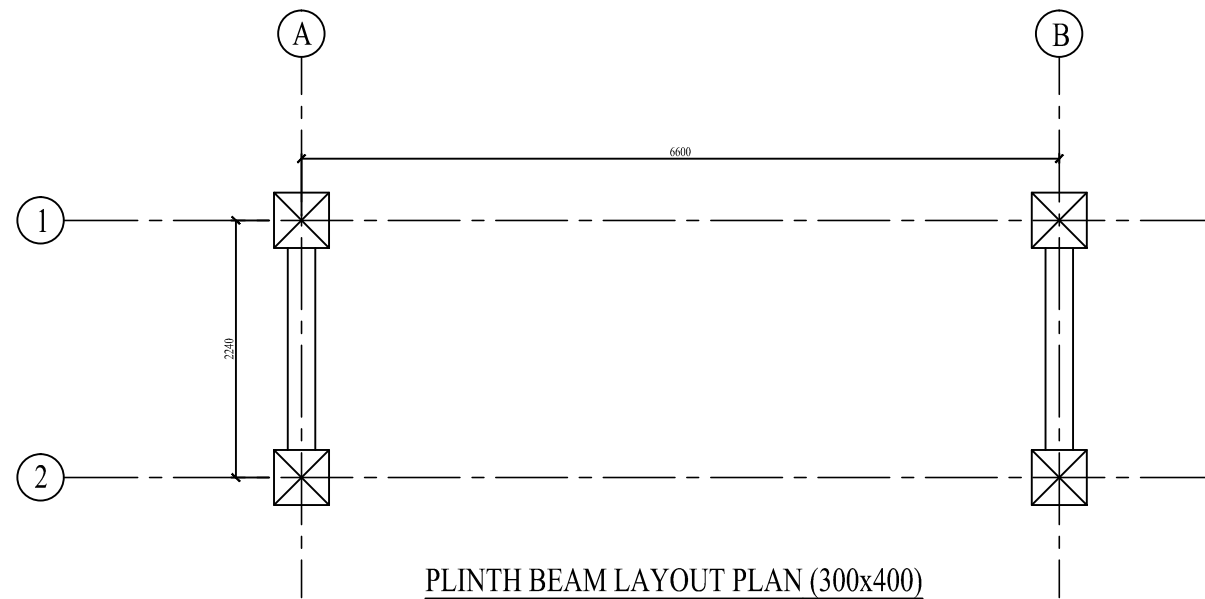
FOOTING LAYOUT PLAN

REV.	DATE	NOTES	SCALE: NTS	PROJECT:- PROPOSED ENTRANCE GATE			ROYAL GOVERNMENT OF BHUTAN	
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			DRAWN BY:	ENGINEER:	CHECKED BY:	APPROVED BY:		
			Robin Rimal	Jamyang T Dorji	Offg. Chief, ADD	Director, DoAT		

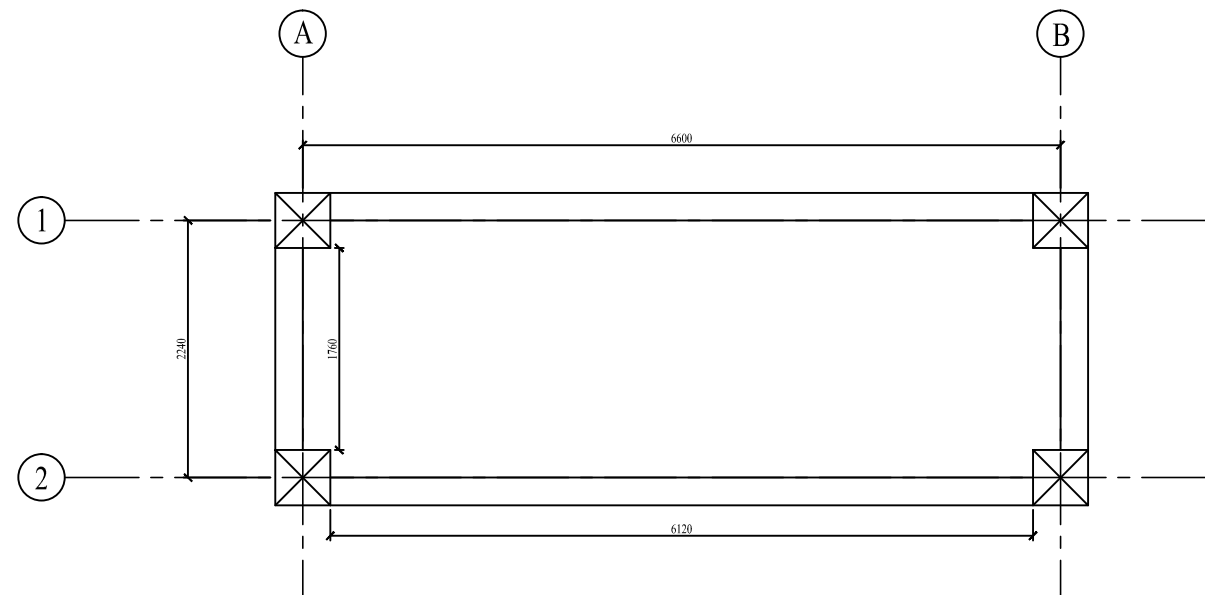


FOOTING SCHEDULE						
FOOTING TYPE	FOOTING SIZE			BOTTOM REBAR IN L-DIRECTION	BOTTOM REBAR IN B-DIRECTION	TOP REBAR IN BOTH DIRECTION
	L	B	D			
CF	4000	2000	400	160 @ 250 c/c	160 @ 250 c/c	120 @ 250 c/c

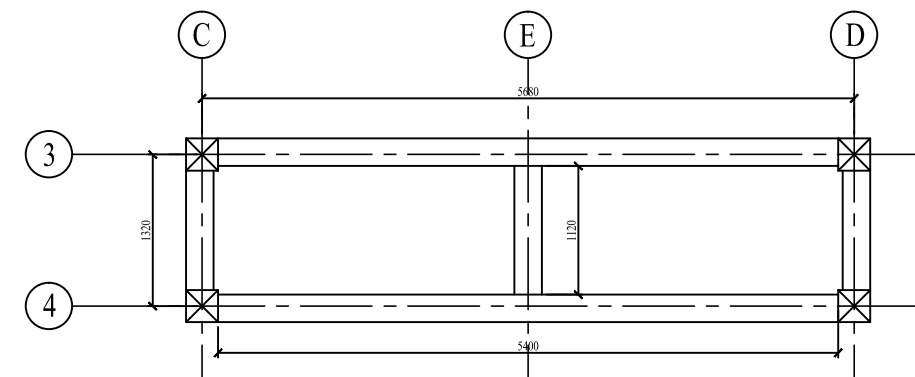
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			DRAWN BY:	ENGINEER:	CHECKED BY:	APPROVED BY:		
			Robin Rimal	Jamyang T Dorji	Offg. Chief, ADD	Director, DoAT		




FIRST FLOOR BEAM LAYOUT PLAN

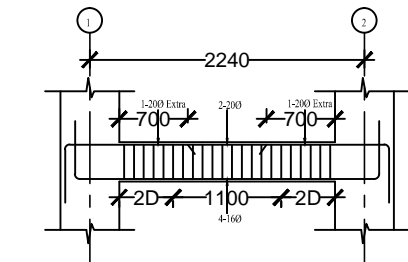


KACHEN LEVEL BEAM LAYOUT PLAN (300x600)

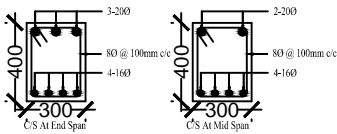


SECOND FLOOR BEAM LAYOUT PLAN (300x400)

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0.00	08.07.17		DATE: 10 July 2017	Drawing title: Beam Layout Plan				Department of Air Transport Ministry of Information and Communications
			DRAWN BY:	ENGINEER:	CHECKED BY:	APPROVED BY:		
			Robin Rimal	Jamyang T Dorji	Offg. Chief, ADD	Director, DoAT		

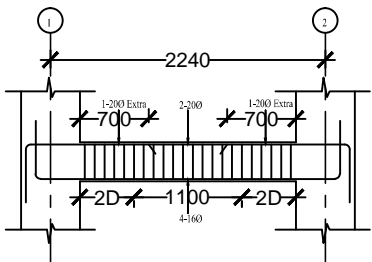


PUNTH BEAM DETAILS ALONG GRID A & B

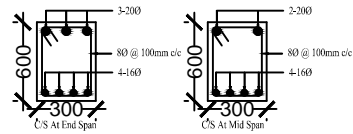


NOTES:

1. 80 2-LEGGED SHEAR STIRRUPS @ 100 mm C/C SPACING TO BE PROVIDED THROUGHOUT THE LENGTH OF THE BEAM ALONG GRID A & B.

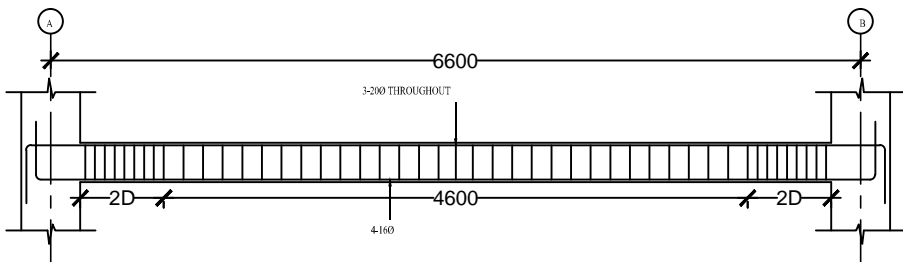


KACHEN LEVEL BEAM DETAILS ALONG GRID A & B

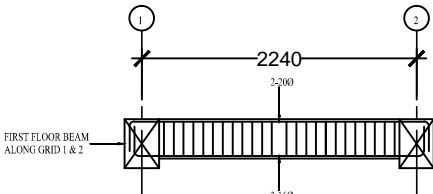
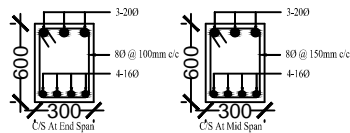


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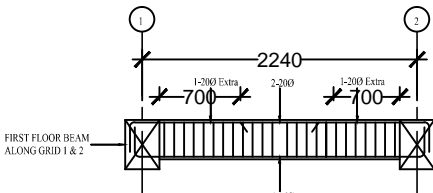
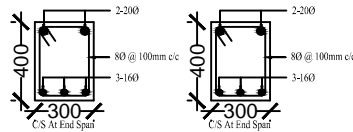
1. 80 2-LEGGED SHEAR STIRRUPS @ 100 mm C/C SPACING TO BE PROVIDED THROUGHOUT THE LENGTH OF THE BEAM ALONG GRID A & B.



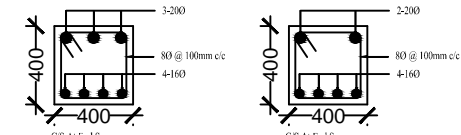
KACHEN LEVEL BEAM DETAILS ALONG GRID 1 & 2



FIRST FLOOR LEVEL BEAM DETAILS ALONG GRID 1 & 2

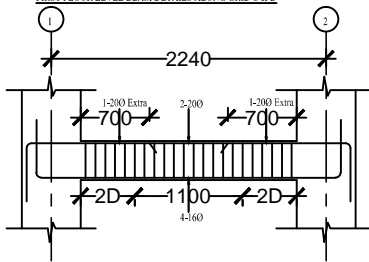


FIRST FLOOR LEVEL BEAM DETAILS ALONG GRID C & D

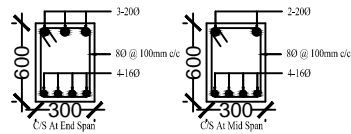


NOTES:

1. 80 2-LEGGED SHEAR STIRRUPS @ 100 mm C/C SPACING TO BE PROVIDED THROUGHOUT THE LENGTH OF THE BEAM ALONG GRID A & B SINCE IT HAS FLOATING COLUMN OVER IT.
2. 3-160 BENT UP HANGAR BARS TO BE PROVIDED UNDER SECONDARY BEAMS TO TRANSFER LOAD TO MAIN BEAMS.
3. 80 2-LEGGED SHEAR STIRRUPS @ 100 mm C/C SPACING TO BE PROVIDED UP TO A DISTANCE OF 2D ON EITHER SIDE OF SECONDARY BEAMS.

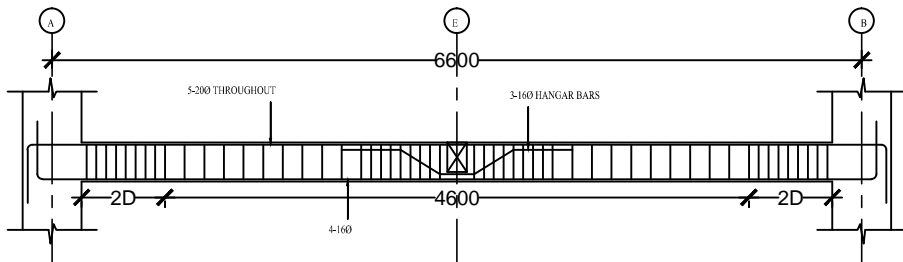


FIRST FLOOR LEVEL BEAM DETAILS ALONG GRID A & B

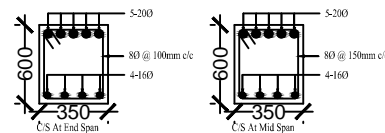



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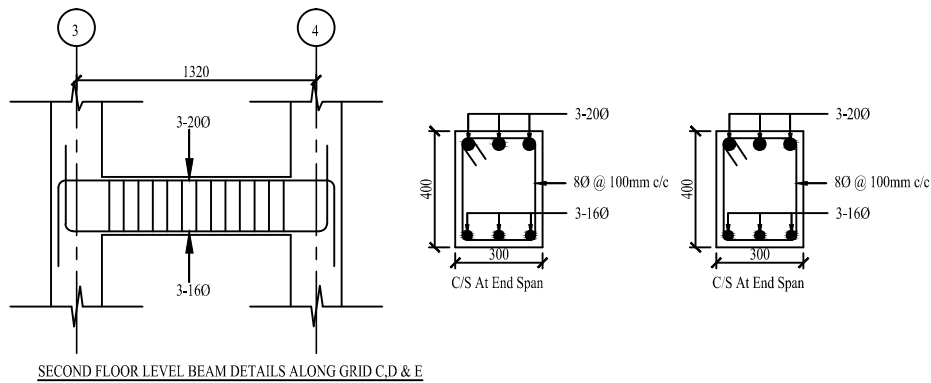
1. 80 2-LEGGED SHEAR STIRRUPS @ 100 mm C/C SPACING TO BE PROVIDED THROUGHOUT THE LENGTH OF THE BEAM ALONG GRID A & B.



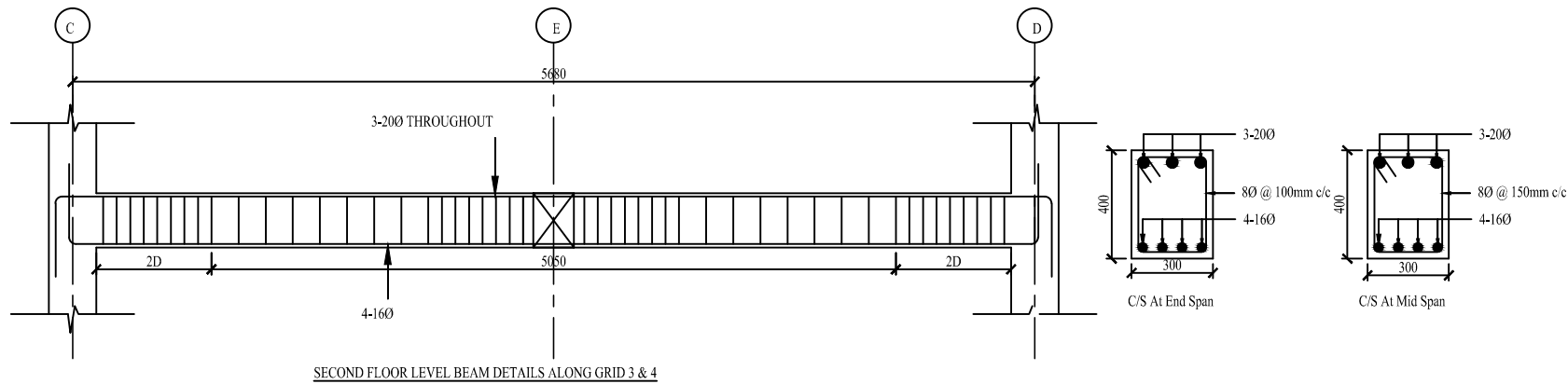
FIRST FLOOR LEVEL BEAM DETAILS ALONG GRID 1 & 2




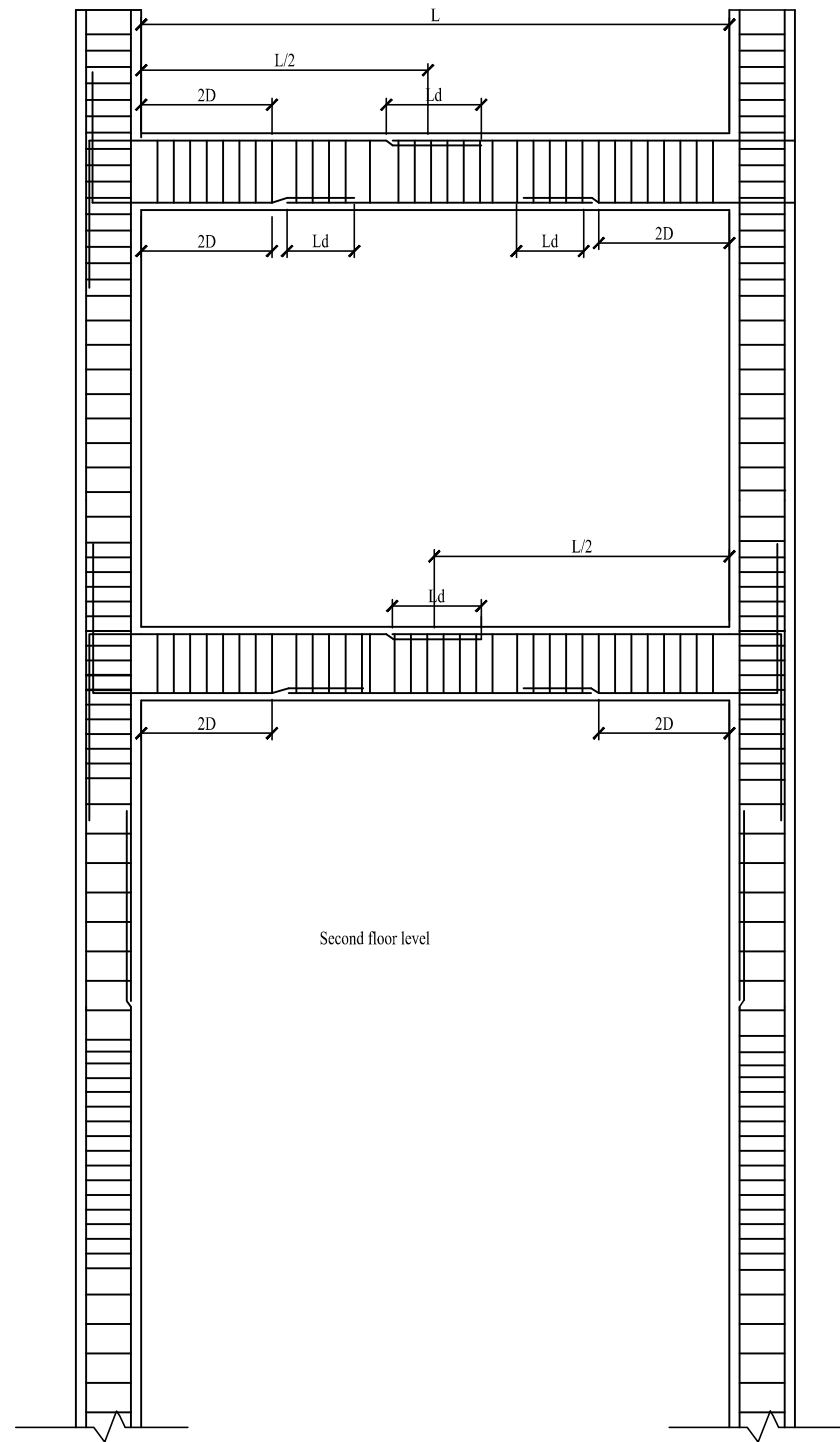
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0.00	08.07.17		DATE: 10 July 2017	Drawing title: Beam Details				Department of Air Transport Ministry of Information and Communications
			DRAWN BY:	ENGINEER:	CHECKED BY:	APPROVED BY:		
			Robin Rimal	Jamyang T Dorji	Offg. Chief, ADD	Director, DoAT		



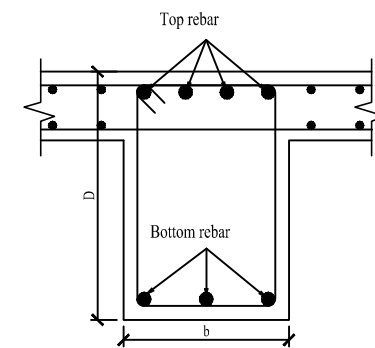
- NOTES:
1. 8Ø 2-LEGGED SHEAR STIRRUPS @ 100 mm C/C SPACING TO BE PROVIDED THROUGHOUT THE LENGTH OF THE BEAM ALONG GRID C,D & E.
 2. 8Ø 2-LEGGED SHEAR STIRRUPS @ 100 mm C/C SPACING TO BE PROVIDED UPTO A DISTANCE OF 2D ON EITHER SIDE OF SECONDARY BEAMS.



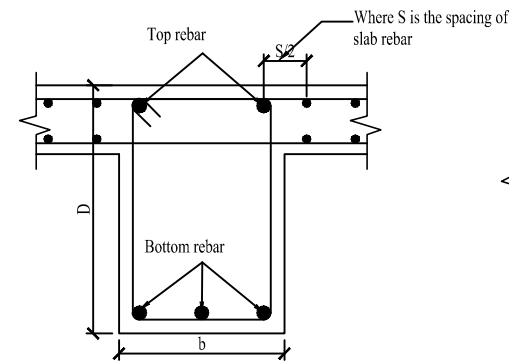
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0.00	08.07.17		DATE: 10 July 2017	Drawing title: Beam Second Floor				Department of Air Transport Ministry of Information and Communications
			DRAWN BY:	ENGINEER:	CHECKED BY:	APPROVED BY:		
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TYPICAL ARRANGEMENT OF STIRRUPS & SPLICES IN BEAMS



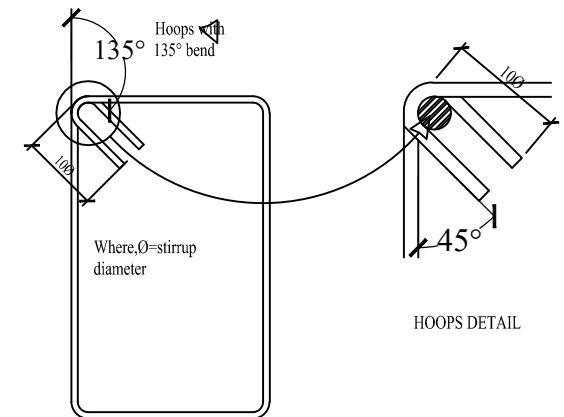
C/S DETAILS AT END



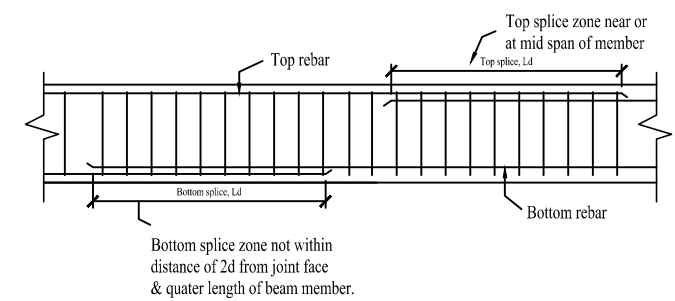
C/S DETAILS AT MID

NOTES :


1. SPLICING OF BOTTOM BEAM BARS SHALL BE PROVIDED 2D AWAY FROM THE FACE OF THE COLUMN
2. SPLICING OF TOP BEAM BARS SHALL BE AT MID SPAN (L/2)
3. NOT MORE THAN 50% OF BEAM BARS SHALL BE SPLICED AT ONE SECTION
4. STIRRUPS SPACING AT SPLICES SHALL BE $8\phi @ 75C/C$
5. SPLICING LENGTH SHALL NOT BE LESS THAN DEVELOPMENT LENGTH, L_d

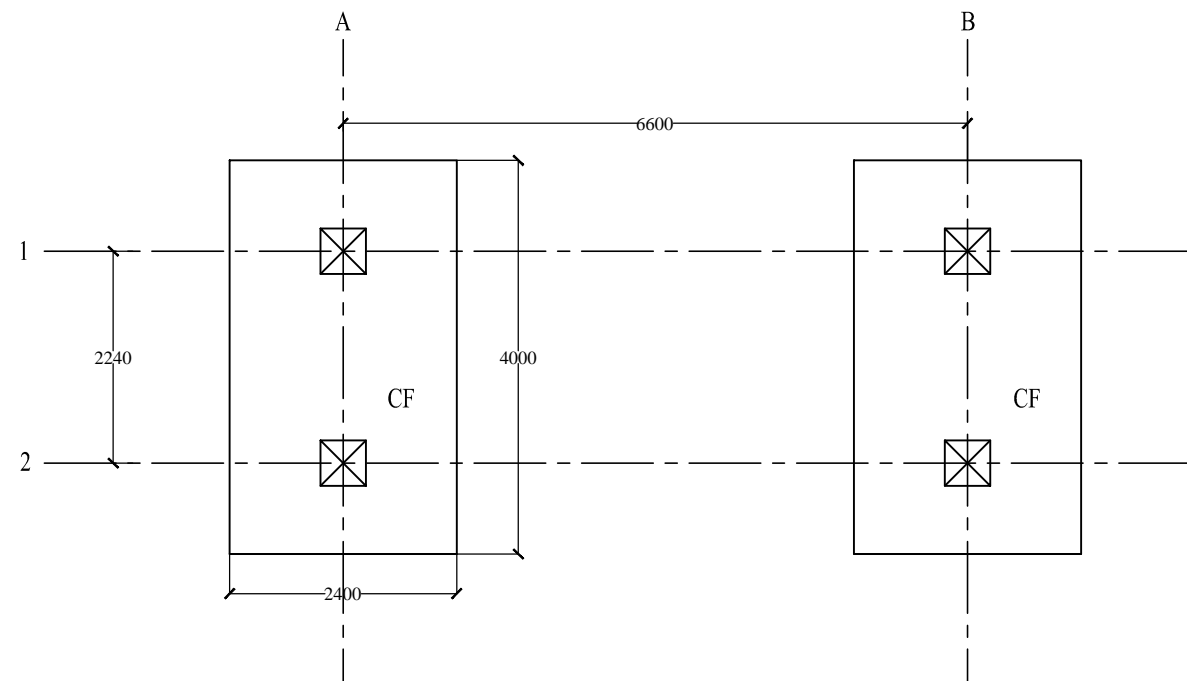


BEAM STIRRUP DETAILS

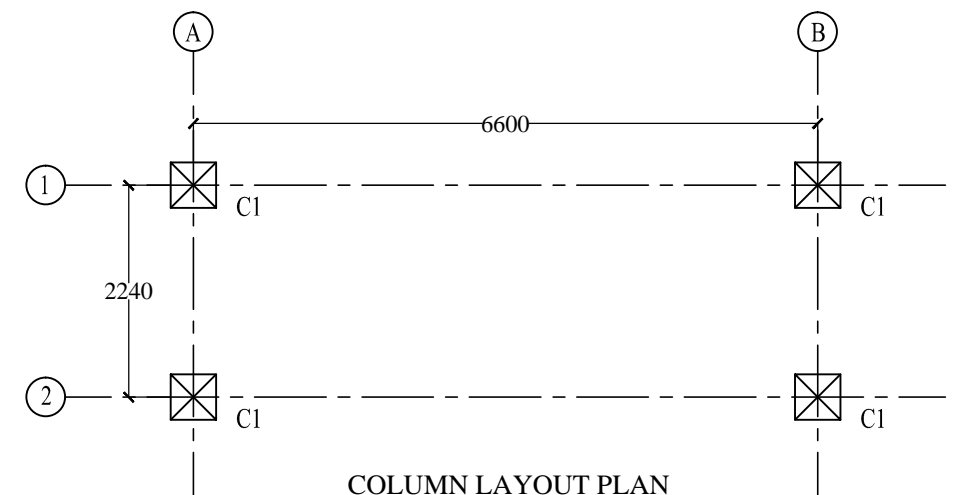


BEAM SPLICING DETAIL

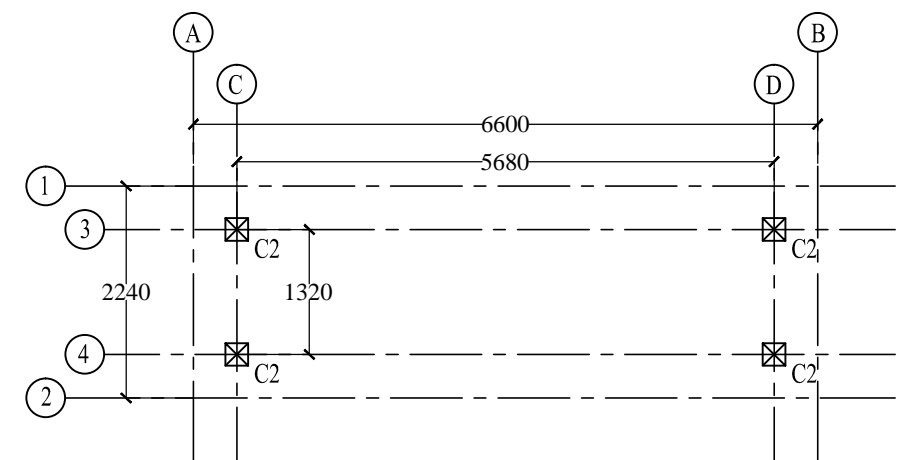
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0.00	08.07.17		DATE: 10 July 2017	Drawing title: Stirrup & Splices in Beam			 <div>Department of Air Transport Ministry of Information and Communications</div>	
			DRAWN BY:	ENGINEER:	CHECKED BY:	APPROVED BY:		
			Robin Rimal	Jamyang T Dorji	Offg. Chief, ADD	Director, DoAT		




FOOTING LAYOUT PLAN



COLUMN LAYOUT PLAN

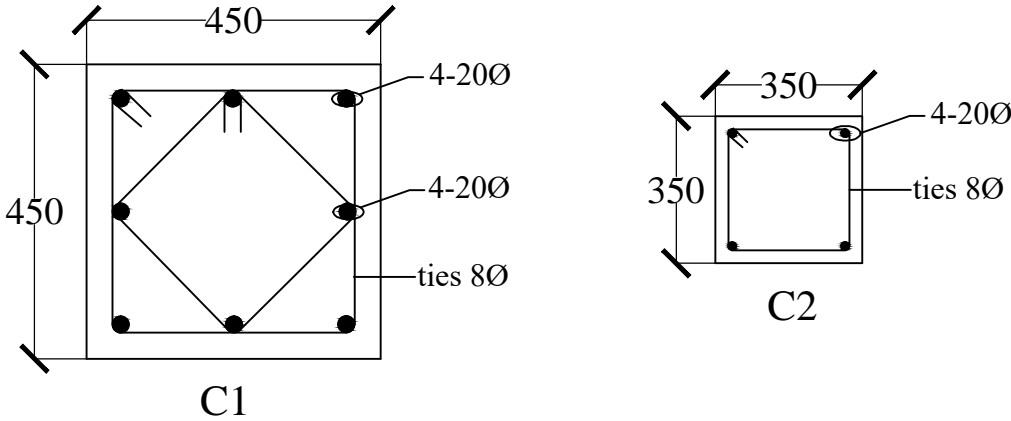


FLOATING COLUMN LAYOUT PLAN

REV.	DATE	NOTES	SCALE: NTS	PROJECT:- PROPOSED ENTRANCE GATE			ROYAL GOVERNMENT OF BHUTAN	
0.00	08.07.17		DATE: 10 July 2017	Drawing title: Column Layout Plan				Department of Air Transport Ministry of Information and Communications
			DRAWN BY:	ENGINEER:	CHECKED BY:	APPROVED BY:		
			Robin Rimal	Jamyang T Dorji	Offg. Chief, ADD	Director, DoAT		


COLUMN SCHEDULE

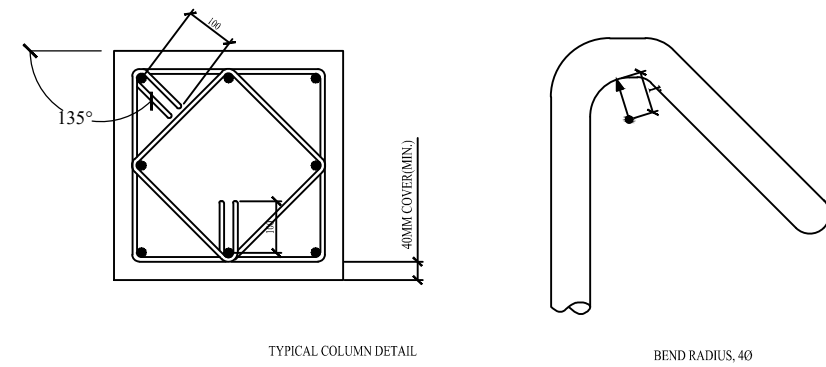
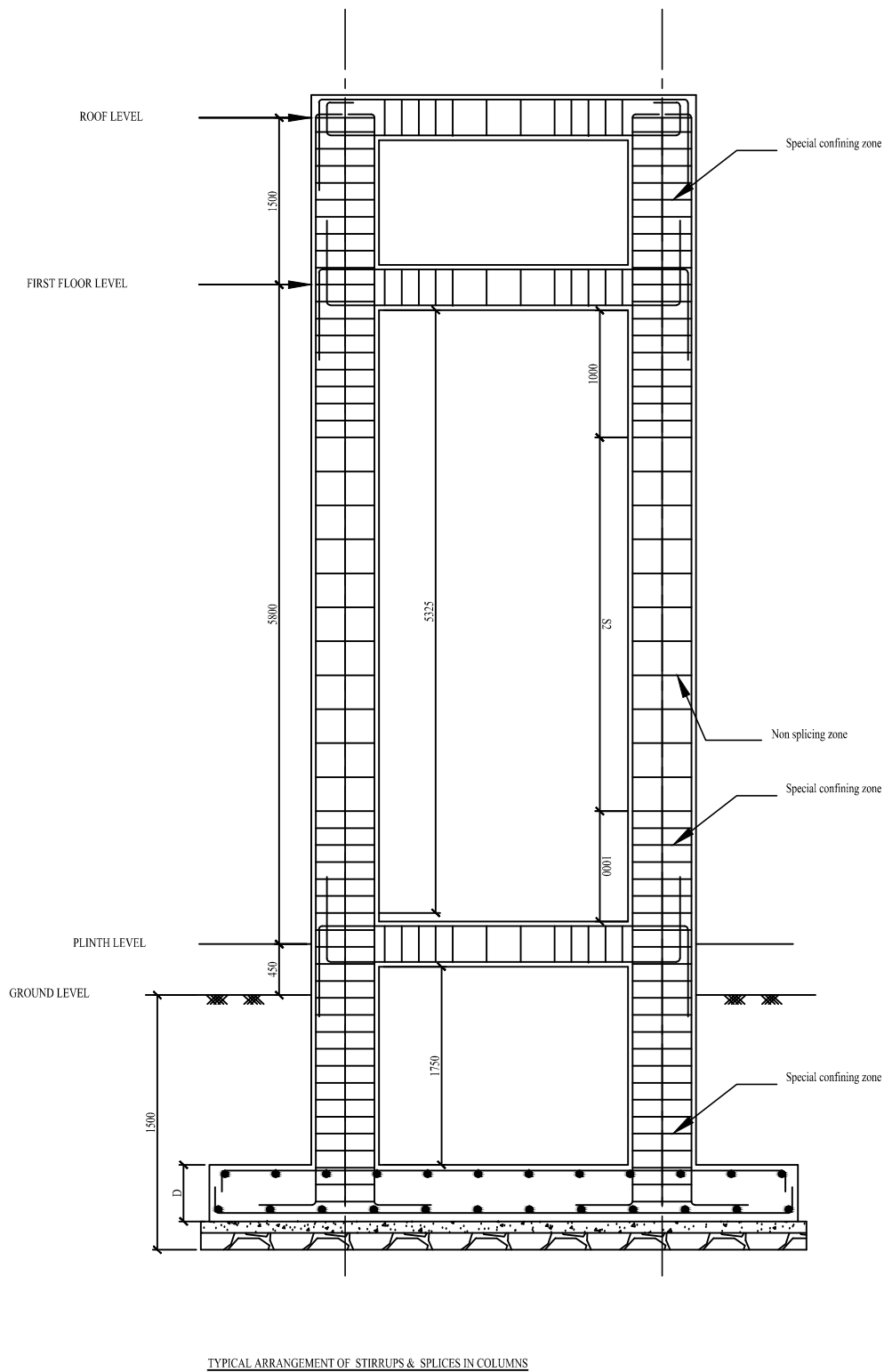
Type	Size	Main Bar	Ties (S1) at Short Column & below the plinth level	Ties (S2)
C1	450 X 450	8-20Ø	2-8Ø @ 75 c/c	2-8Ø @ 150 c/c
C2	350 X 350	4-20Ø	2-8Ø @ 75 c/c	2-8Ø @ 150 c/c



TYPICAL COLUMN DETAILS SHOWING TIES


- NOTES:
1. ALL SPLICES TO BE PROVIDED NEAR THE MIDDLE OF COLUMN.
 2. NOT MORE THAN 50% OF COLUMN BARS SHALL BE SPLICED AT ONE SECTION.
 3. SPLICING OF COLUMN BARS AT BASEMENT AND GROUND FLOOR IS NOT PERMITTED.
 4. COLUMN DETAILS IS SAME UP TO ROOF LEVEL.
 5. TIES SPACING OF 75 MM C/C SHOULD BE PROVIDED IN SHORT COLUMN ABOVE FIRST FLOOR.
 6. TIES SPACING OF 75 MM C/C SHOULD BE PROVIDED IN ALL COLUMNS UP TO GROUND FLOOR.
 7. COLUMN SHOULD CONTINUE TILL TIE BEAM SUPPORTING TRUSSES AND BEAMS.
 8. IN ORDER TO ACHIEVE PROPER ANCHORAGE OF BEAM BARS INTO EXTERIOR COLUMNS, ALL EXTERIOR COLUMN SHALL BE CAST ONLY UP TO 3/4 OF THEIR HEIGHT BEFORE LAYOUT BEAM REINFORCEMENT IN UPPER FLOORS.
 9. Ld = 16 MM = 912
20 MM = 1140
25 MM = 1425

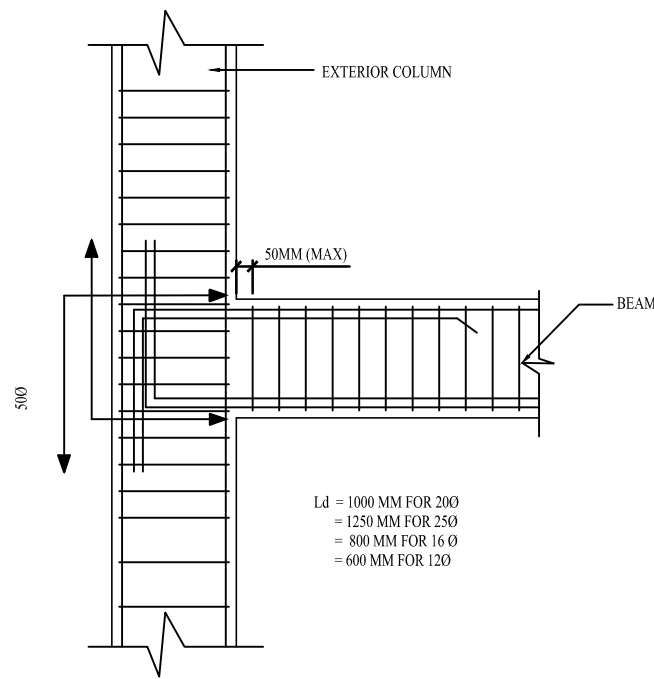
REV.	DATE	NOTES	SCALE: NTS	PROJECT:- PROPOSED ENTRANCE GATE			ROYAL GOVERNMENT OF BHUTAN	
0.00	08.07.17		DATE: 10 July 2017	Drawing title: Column Details				Department of Air Transport Ministry of Information and Communications
			DRAWN BY:	ENGINEER:	CHECKED BY:	APPROVED BY:		
			Robin Rimal	Jamyang T Dorji	Offg. Chief, ADD	Director, DoAT		



Rebar size	Development length, Ld	Bend Radius, r 40
100	570	40
120	684	48
160	912	64
200	1140	80
250	1425	100

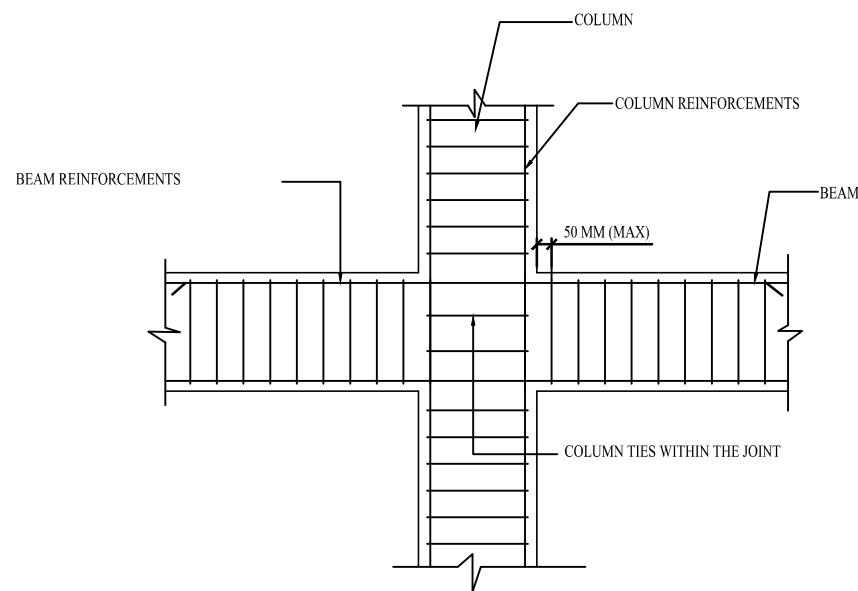
- NOTES:
1. ALL SPLICES TO BE PROVIDED NEAR THE MIDDLE OF COLUMN.
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 3. SPLICING OF COLUMN BARS AT BASEMENT AND GROUND FLOOR IS NOT PERMITTED.
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20 MM = 1140
25 MM = 1425

REV.	DATE	NOTES	SCALE: NTS	PROJECT:- PROPOSED ENTRANCE GATE			ROYAL GOVERNMENT OF BHUTAN	
0.00	08.07.17		DATE: 10 July 2017	Drawing title: Stirrup and splices in column				Department of Air Transport Ministry of Information and Communications
			DRAWN BY:	ENGINEER:	CHECKED BY:	APPROVED BY:		
			Robin Rimal	Jamyang T Dorji	Offg. Chief, ADD	Director, DoAT		



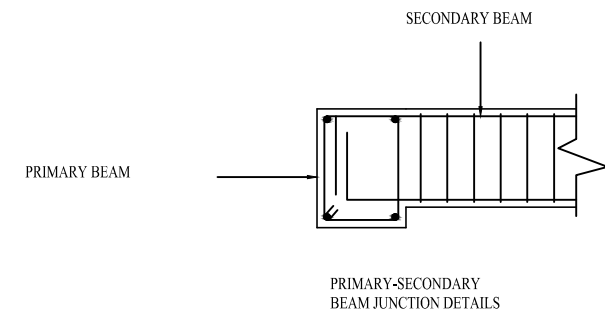
TYPICAL EXTERIOR BEAM - COLUMN

CONNECTION DETAIL (SIDE VIEW)

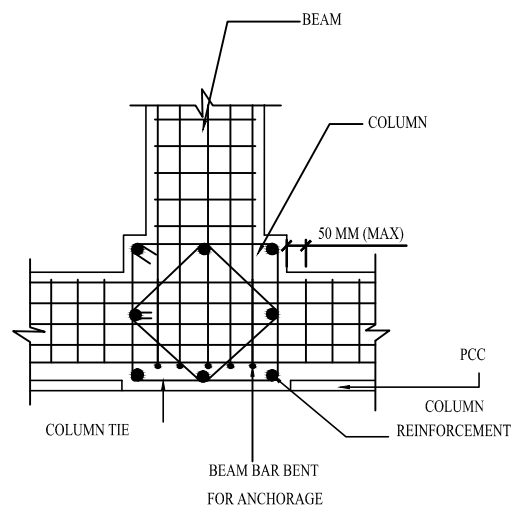


INTERIOR BEAM - COLUMN

CONNECTION DETAIL (SIDE VIEW)

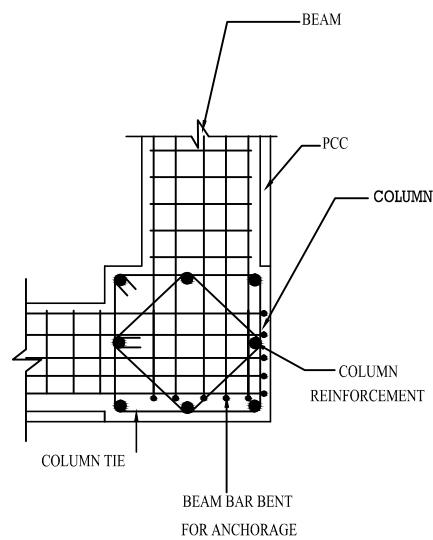


PRIMARY-SECONDARY
BEAM JUNCTION DETAILS



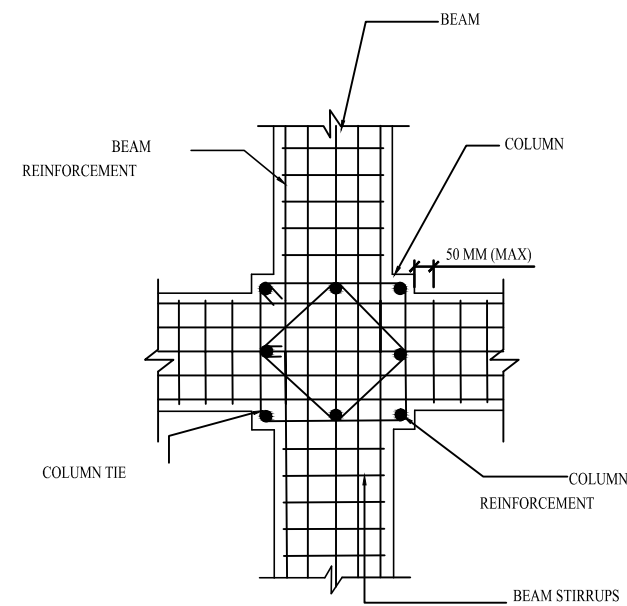
TYPICAL EXTERIOR BEAM - COLUMN

CONNECTION DETAIL (PLAN VIEW)




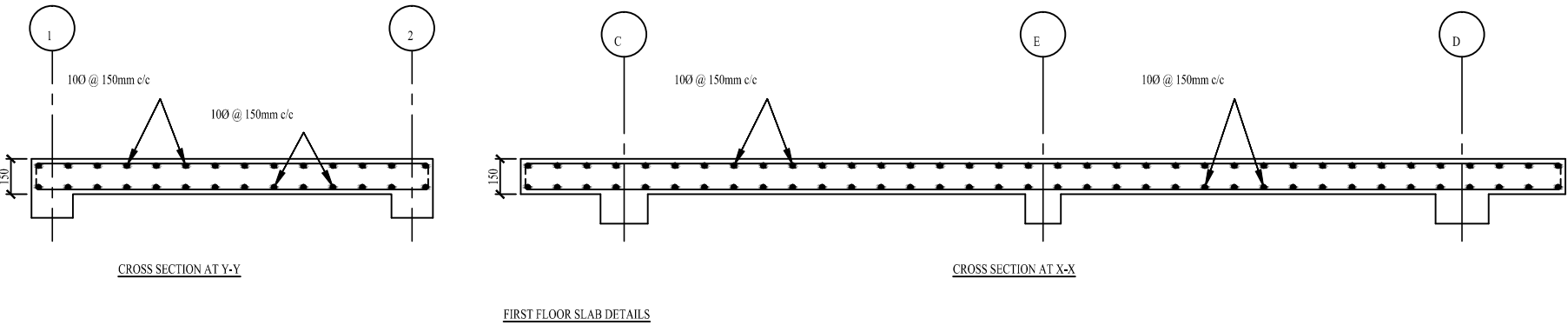
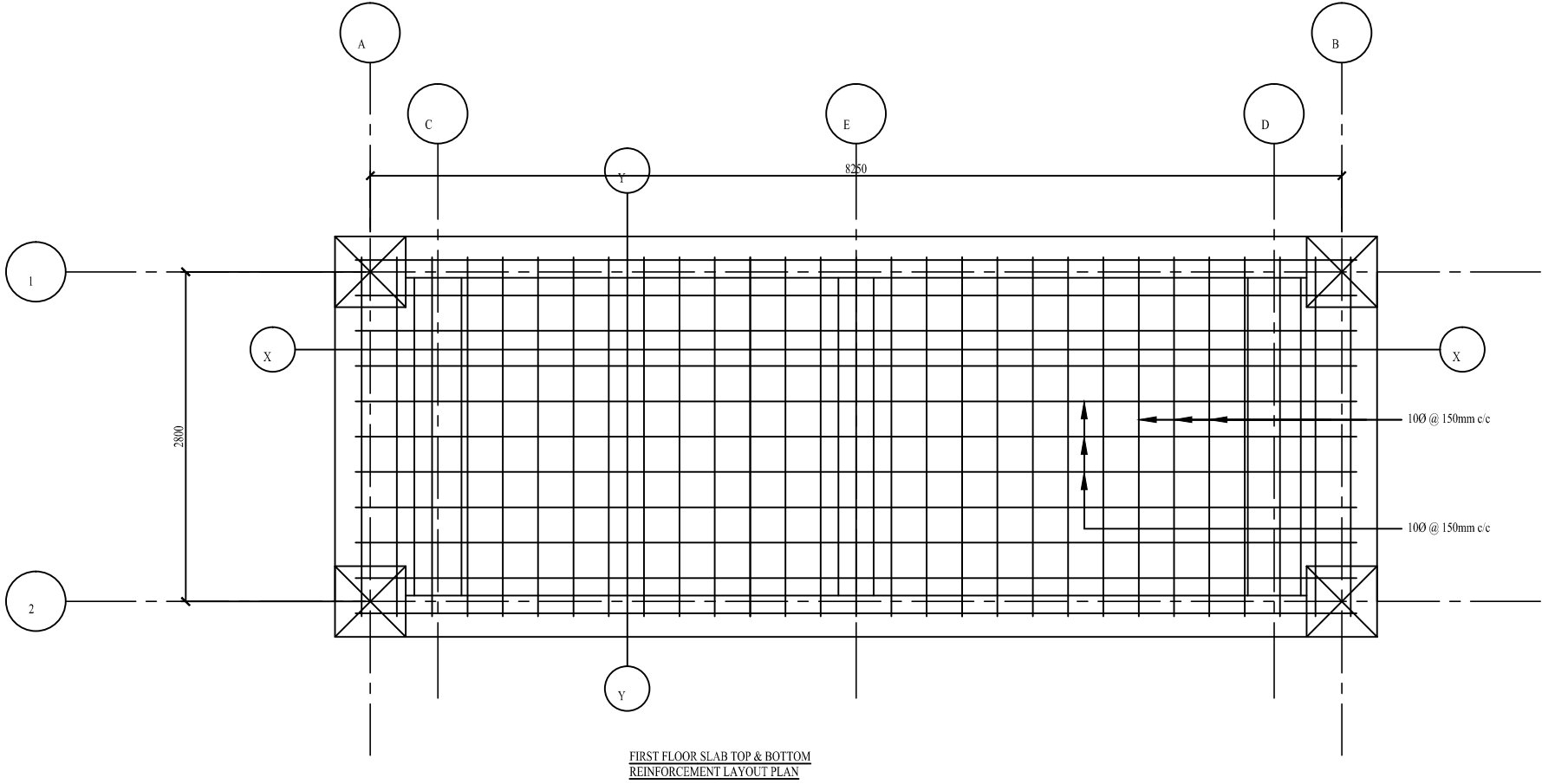
TYPICAL INTERIOR BEAM - COLUMN


CONNECTION DETAIL (PLAN VIEW)

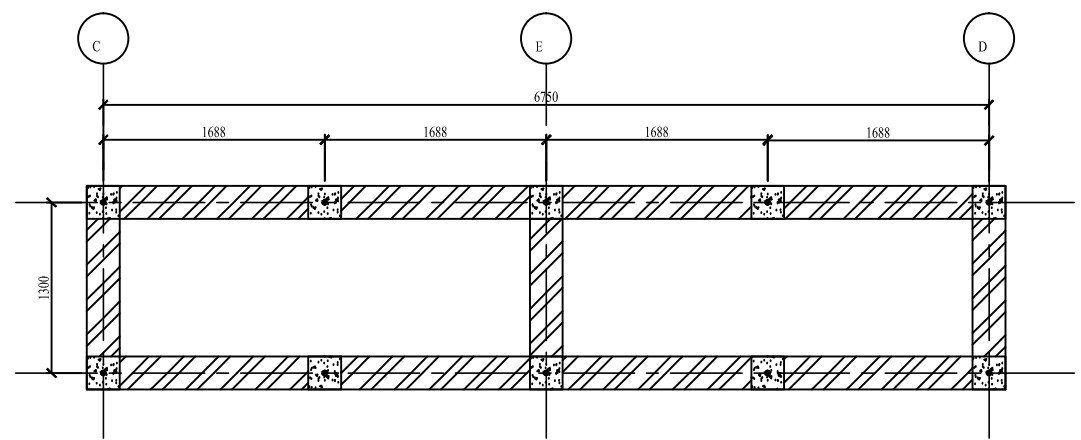


BEAM - COLUMN JUNCTION DETAILS

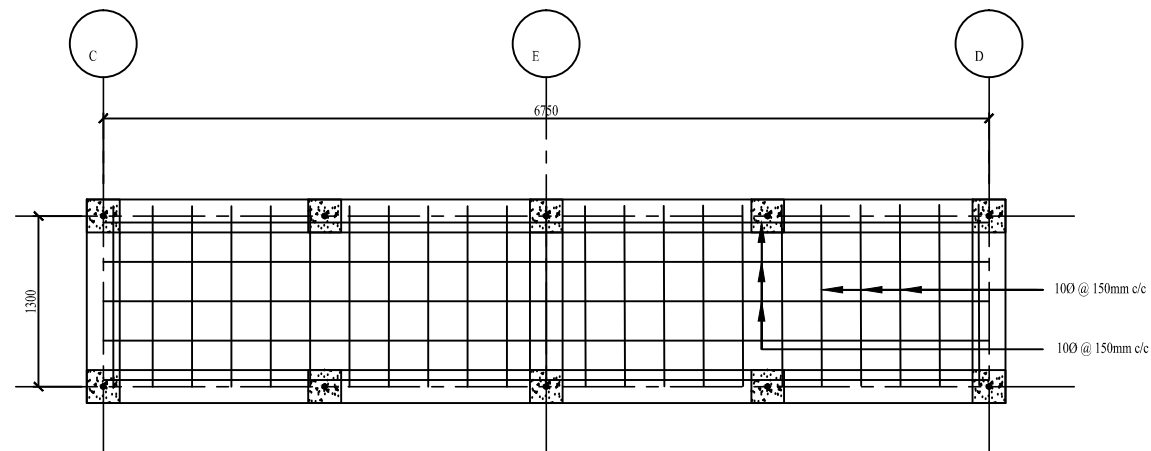
REV.	DATE	NOTES	SCALE: NTS	PROJECT:- PROPOSED ENTRANCE GATE			ROYAL GOVERNMENT OF BHUTAN	
0.00	08.07.17		DATE: 10 July 2017	Drawing title: Beam Column junction details				Department of Air Transport Ministry of Information and Communications
			DRAWN BY:	ENGINEER:	CHECKED BY:	APPROVED BY:		
			Robin Rimal	Jamyang T Dorji	Offg. Chief, ADD	Director, DoAT		



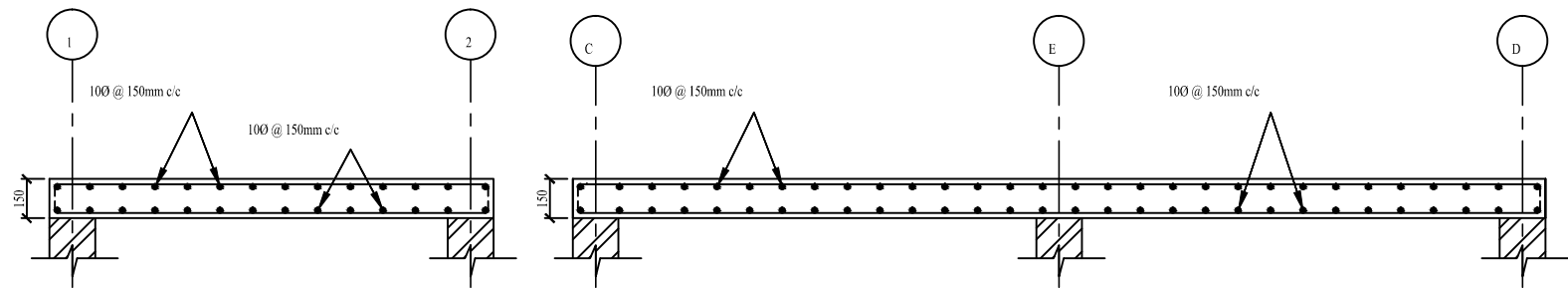
REV.	DATE	NOTES	SCALE: NTS	PROJECT:- PROPOSED ENTRANCE GATE			ROYAL GOVERNMENT OF BHUTAN	
0.00	08.07.17		DATE: 10 July 2017	Drawing title: First Floor slab				Department of Air Transport Ministry of Information and Communications
			DRAWN BY:	ENGINEER:	CHECKED BY:	APPROVED BY:		
			Robin Rimal	Jamyang T Dorji	Offg. Chief, ADD	Director, DoAT		



SERTHOG LEVEL PLAN




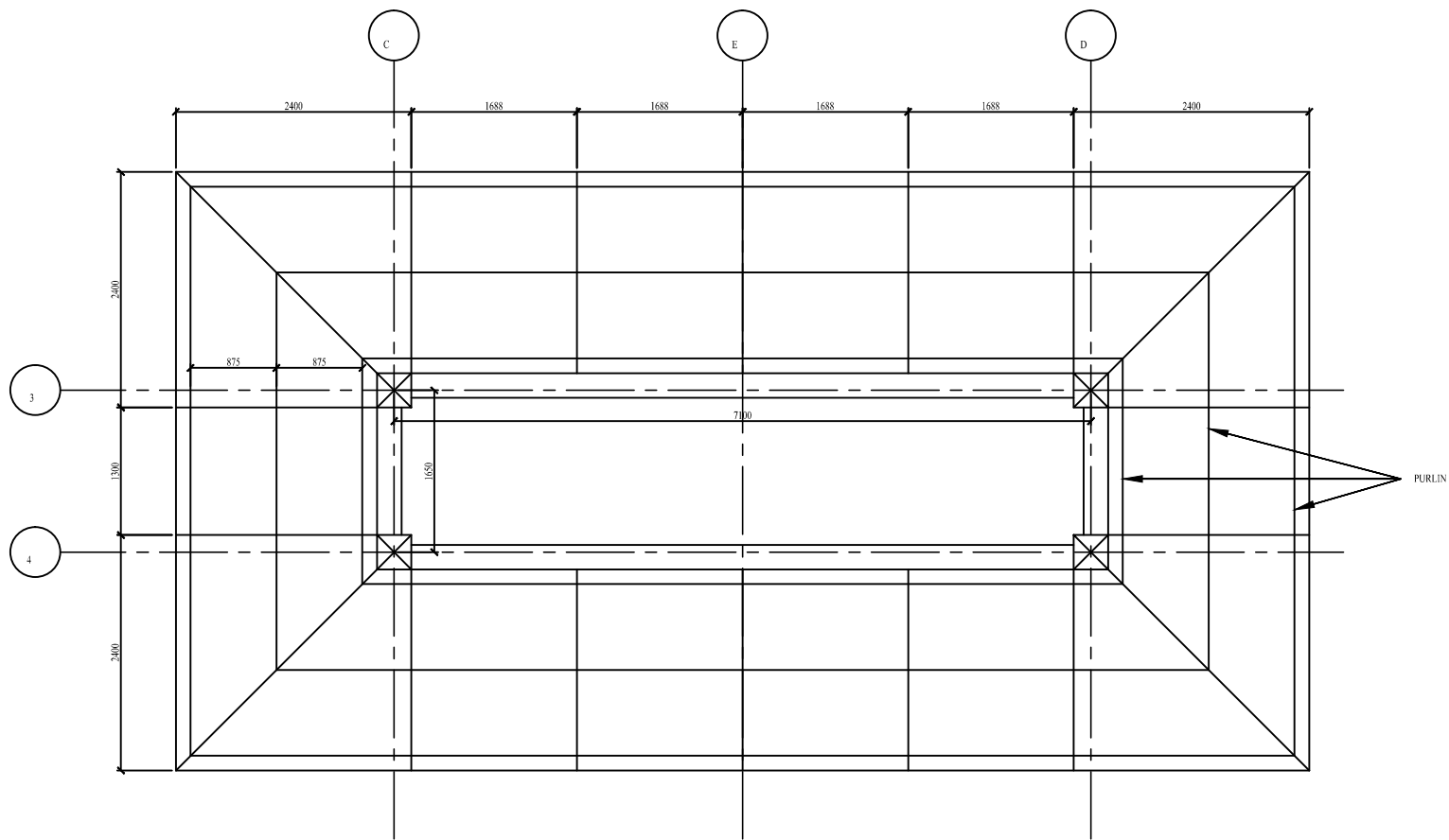
SERTHOG LEVEL SLAB TOP & BOTTOM REINFORCEMENT LAYOUT PLAN



CROSS SECTION AT Y-Y

CROSS SECTION AT X-X

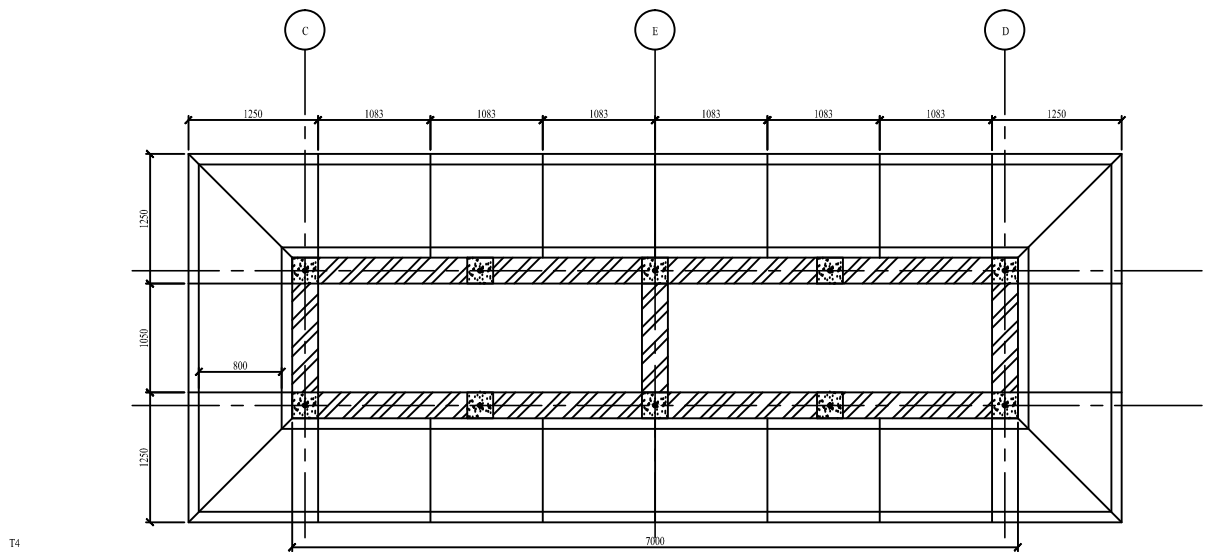
REV.	DATE	NOTES	SCALE: NTS	PROJECT:- PROPOSED ENTRANCE GATE			ROYAL GOVERNMENT OF BHUTAN	
0.00	08.07.17		DATE: 10 July 2017	Drawing title: Slab Sertog				Department of Air Transport Ministry of Information and Communications
			DRAWN BY:	ENGINEER:	CHECKED BY:	APPROVED BY:		
			Robin Rimal	Jamyang T Dorji	Offg. Chief, ADD	Director, DoAT		




FIRST FLOOR DINGREE, RAFTER & PURLIN LAYOUT PLAN

MEMBER SCHEDULE

MEMBER	SIZE
DINGREE	100x125
POST	100x125
RAFTER	100x75
PURLINS	75x75



SERTHOG LEVEL TRUSS & PURLIN LAYOUT PLAN

REV.	DATE	NOTES	SCALE: NTS	PROJECT:- PROPOSED ENTRANCE GATE			ROYAL GOVERNMENT OF BHUTAN	
0.00	08.07.17		DATE: 10 July 2017	Drawing title: Truss Details				Department of Air Transport Ministry of Information and Communications
			DRAWN BY:	ENGINEER:	CHECKED BY:	APPROVED BY:		
			Robin Rimal	Jamyang T Dorji	Offg. Chief, ADD	Director, DoAT		