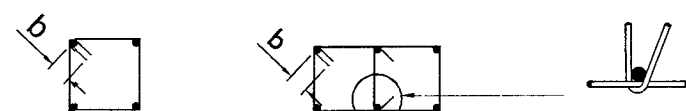
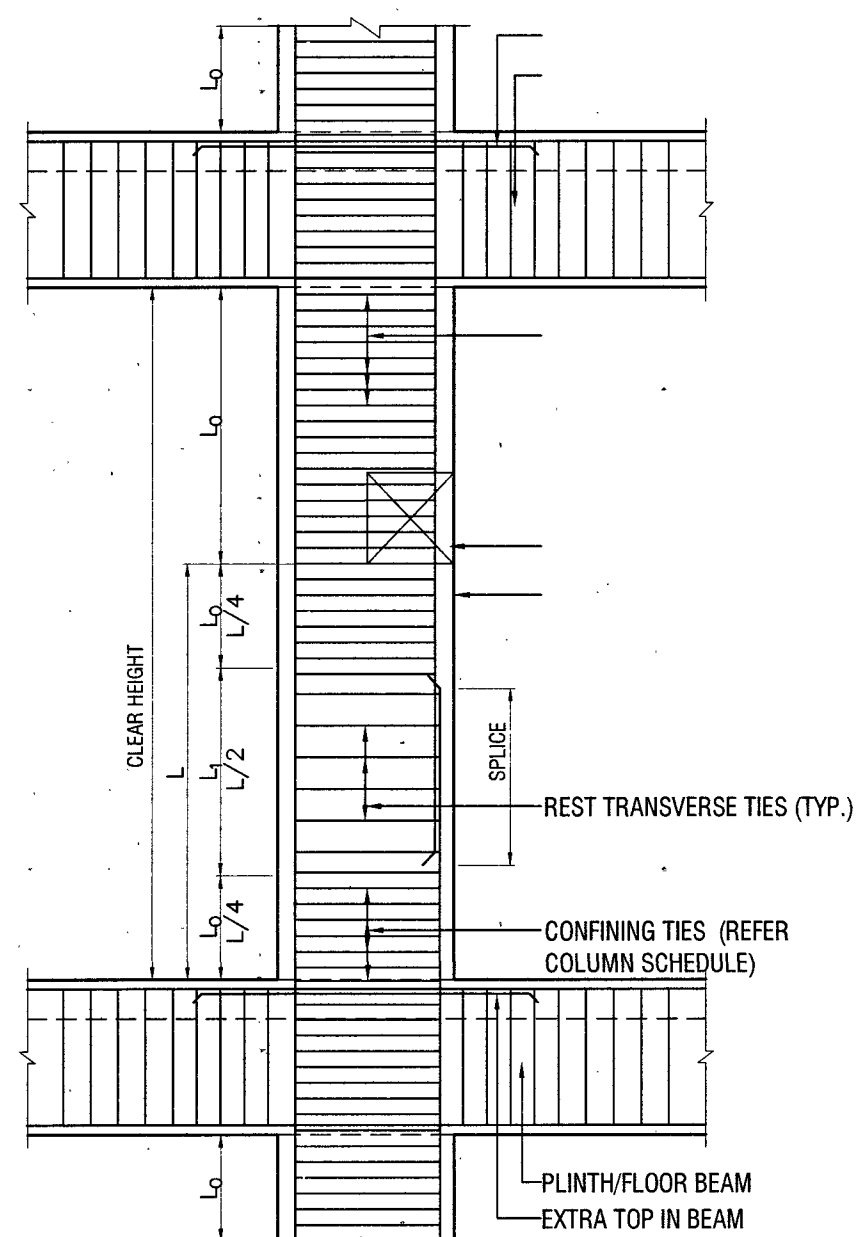


- 1.0 THIS DRAWING SHALL BE READ IN CONJUNCTION WITH APPVD.ARCH DRGS, CONTRACT AGREEMENT, SPECIFICATIONS AND SCHEDULE OF ITEMS.
- 1.1 THESE GENERAL NOTES SHALL BE APPLICABLE TO ALL STR DRAWINGS.
- 1.2 ALL DIMENSIONS ARE IN MM UNLESS NOTED OTHERWISE.
- 1.3 ALL STRUCTURAL DRAWINGS SHALL BE READ IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS & ANY DISCREPANCY SHALL BE BROUGHT TO NOTICE OF THIS HQ BEFORE EXECUTION.
- 1.4 NO DIMENSIONS SHALL BE SCALED FROM STRUCTURAL DRAWINGS, ONLY WRITTEN DIMENSIONS ARE TO BE FOLLOWED.
- 1.5 CONTRACTOR AND GROUND EXECUTIVES SHALL CHECK AND VERIFY ALL DIMENSIONS BEFORE EXECUTION OF THE WORK.
- 1.6 BACKFILLING AROUND FOUNDATION TRENCHES AND PLINTH SHALL BE DONE WITH GOOD SOIL HAVING NON-SWELLING & NON-SILTING CHARACTERISTIC, PROPERLY WATERED & COMPACTED IN LAYERS OF A THICKNESS NOT MORE THAN 150MM DEPTH. THE EXCAVED SOIL IS NOT SUITABLE FOR BACKFILLING IN FOUNDATIONS OR PLINTH AS CLAY CONTENT IS MORE THAN 60%.
- 1.7 ALL THE MATERIALS USED IN CONSTRUCTION SUCH AS CEMENT, MILD / TMT / HYSD STEEL, COARSE AGGREGATE (KAPACHI), FINE AGGREGATE (SAND), STRUCTURAL STEEL SECTIONS, BRICKS ETC. SHALL BE OF GOOD QUALITY & CONFORMING TO RELEVANT INDIAN STANDARD CODES. ALL NECESSARY TESTING OF MATERIAL SHALL BE DONE BEFORE USING THE MATERIAL FOR EXECUTION.
- 1.8 THE STRUCTURE IS DESIGNED AS PER RELEVANT I.S CODE AND FOR FOLLOWING ENVIRONMENT CONDITIONS:  
 (a) SEISMIC ZONE : IV  
 (b) BASIC WIND SPEED (Vb) : 47M/SEC  
 (c) EXPOSURE CONDITION : MODERATE  
 (d) FIRE RATING : 2 HOURS
- 1.9 THE STRUCTURE IS NOT DESIGNED FOR ANY IMPACT OR BLASTING, LOCAL HEAVY AND CONTINUOUS GROUND VIBRATION.
- 1.10 THE PORTAL OR FRAME OF STRUCTURE SHALL NOT BE USED FOR ANY LOADING/ UNLOADING OPERATIONS.
- 1.11 ANY STRUCTURAL ALTERATION MADE OR ANY CHANGE IN LOADING CONDITION ON STRUCTURE, MAY AFFECT THE TOTAL DESIGN OF STRUCTURE FOR WHICH DESIGNER WILL NOT BE RESPONSIBLE.
- 1.12 ALL FOOTING SHALL REST ON VIRGIN SOIL OR ON LEAN CONCRETE FILL (1:2:4) EXTENDING TO DEPTH OF ADEQUATE FOUNDING STRATUM, WHEREVER SUCH SOIL STRATUM IS NOT MET WITH AT THE DEPTH, SPECIFIED ON THE DRAWING.
- 1.13 FOR SBC, REFER RESPECTIVE FOUNDATION DRAWINGS.
- 1.14 SUB-SOIL STRATA AT SITE SHALL BE VERIFIED BY ENGINEER IN CHARGE / GE PRIOR TO EXECUTION. IF IN THE COURSE OF EXCAVATION, SUB-SOIL STRATA DIFFERS FROM THE BORELOG STRATA, THE SAME SHALL BE REPORTED TO ACCEPTING OFFICER FOR NECESSARY STEPS.
- 1.15 BLACK COTTON SOIL, IF ENCOUNTERED IN FOUNDATION PITS, SHALL BE FULLY REMOVED.
- 1.16 SUITABILITY OF SOIL FOR STRUCTURAL BACKFILLING: THE TOP SOIL IS OF NON SWELLING CHARACTERISTIC, WHICH IS SUITABLE FOR STRUCTURAL BACKFILLING (FOR PLINTH, FLOORING, FOUNDATION TRENCH ETC.) AND SAME SHALL BE COMPACTED AT 95% OF MDD.
- 2.0 CONCRETE WORK
- 2.1 ALL STRUCTURAL REINFORCED CONCRETE WORK SHALL BE WITH DESIGN MIX CONCRETE OF GRADE M30 UNLESS MENTIONED IN THE DESIGN DRAWING. PROPER MIX DESIGN AS PER IS:10262-2019 SHALL BE DONE TO ACHIEVE PROPER CONCRETE GRADE. VIBRATORS SHALL BE USED WHILE CONCRETE PLACEMENT.
- 2.2 THE SHUTTERING MAY BE REMOVED AFTER CASTING CONCRETE IN NORMAL CIRCUMSTANCES AS PER IS 456:2000
- 2.3 CONCRETE SAMPLE CUBES SHALL BE TAKEN FOR ALL PARTS OF BUILDINGS COMPONENTS & STRENGTH VERIFIED.
- 2.4 LAP IN REINFORCEMENT SHALL BE PROVIDED NEAR TO SUPPORT IN CASE OF SIMPLY SUPPORTED MEMBERS AND STAGGERED FOR CONTINUOUS BEAM OR SLAB. NO LAP SHALL BE PROVIDED FOR EXTRA TOP BARS.
- 2.5 LAP LENGTH FOR VARIOUS BARS SHALL BE 50 TIMES THE BAR DIAMETER FOR ALL MEMBERS UNLESS NOTED OTHERWISE.
- 2.6 PROPER COVER SHALL BE MAINTAINED FOR ALL R.C.C MEMBERS BY ATTACHING SUITABLE COVER BLOCKS TO REINFORCEMENT BARS. THE CLEAR COVER FOR PROTECTION OF MAIN REINFORCEMENT FOR DIFFERENT MEMBERS SHALL BE AS FOLLOWS:  
 (a) FOUNDATION : 50MM  
 (c) COLUMN : 40MM  
 (d) LINTEL, CHAJJAS, RCC DROPS : 25MM  
 (e) BEAM : 30MM  
 (f) SLAB, STAIR-CASE : 25MM  
 (f) WATER TANK : 45MM
- 2.7 THE BEAM DEPTHS MENTIONED IN STR DRAWING INCLUDE SLAB THICKNESS, WHEREVER APPLICABLE.
- 2.8 ALL STEEL BARS USED FOR CONCRETE REINFORCEMENT SHALL BE HIGH YIELD STRENGTH DEFORMED (HYSD) TMT BARS AND SHALL CONFORM TO IS :1786-2008 (Fe=500D TMT & CRS-FOR WATER RETAINING STRUCTURES) SPECIFICATIONS AND DENOTED AS '# ' IN DESIGN DRAWINGS. ELONGATION OF STEEL BARS SHALL NOT BE LESS THAN 18 PERCENT.
- 2.9 THE STIRRUPS, TIES AND LINKS IN ALL BEAMS AND COLUMNS SHALL BE PROVIDED AS FOLLOWS:

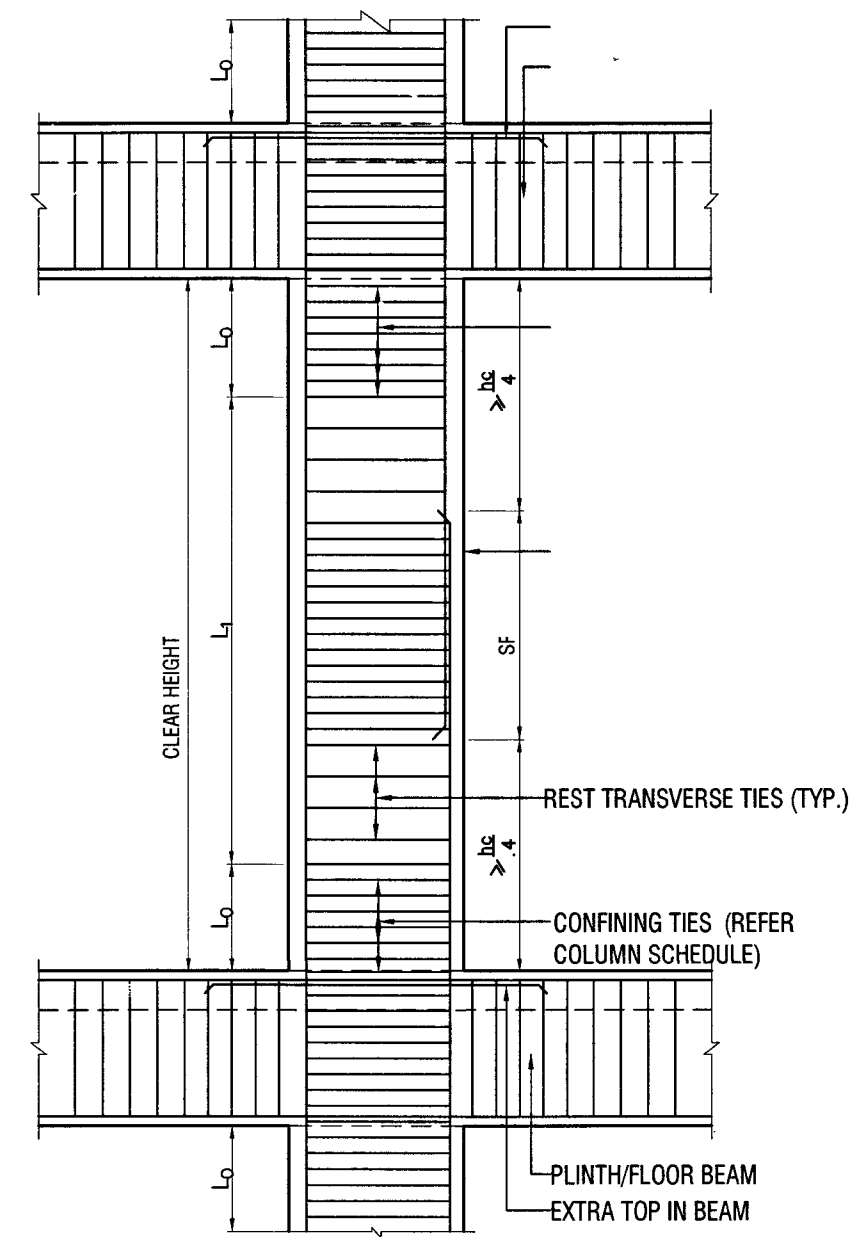


BENT LENGTH  $b=08$  TIMES D OR 75 MM (WHICHEVER IS LARGER) WHERE D= BAR DIA OF STIRRUPS, TIES & LINKS.

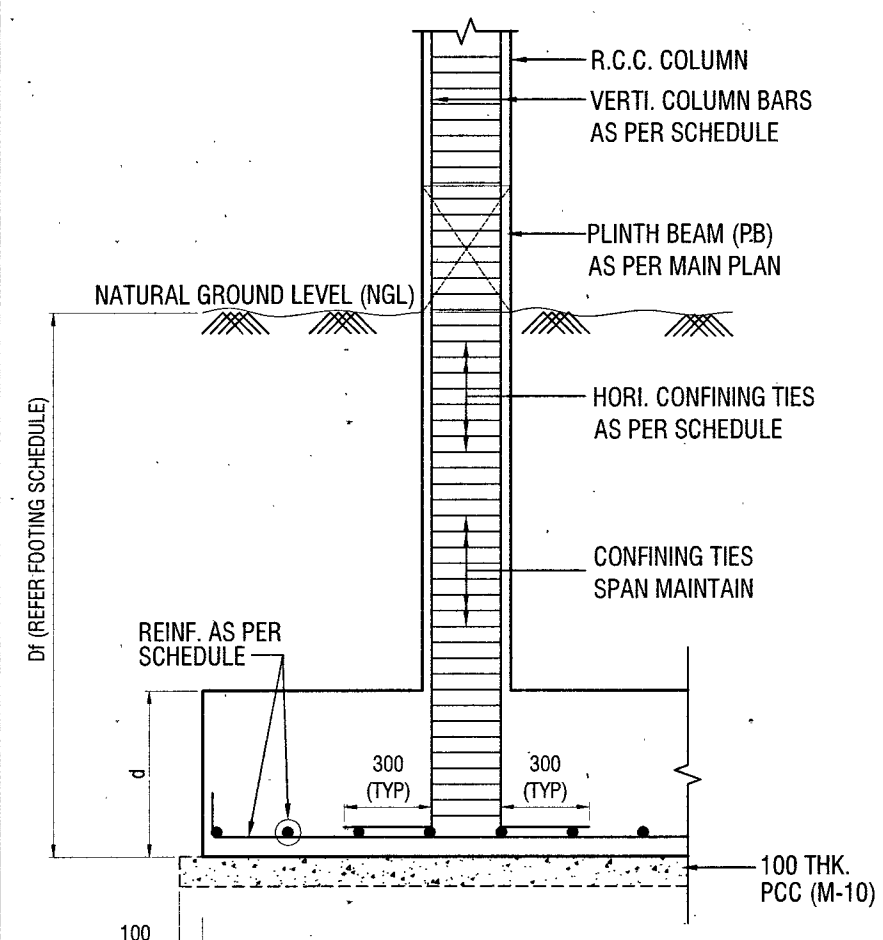
- 2.10 NO LAP IN COLUMN MAIN STEEL SHALL BE PROVIDED AT TOP ONE FOURTH HEIGHT AND BOTTOM ONE FOURTH HEIGHT OF THE COLUMN. LAP SHALL BE PROVIDED ONLY IN MIDDLE ONE HALF HEIGHT OF COLUMN IN SUCH A WAY THAT UPTO MAXIMUM 50% OF THE MAIN STEEL BARS ARE LAPPED AT A PARTICULAR LEVEL.
- 2.11 AT JUNCTIONS OF BEAMS AND COLUMNS, ALL TIES / STIRRUPS IN BOTH DIRECTIONS SHALL BE PROVIDED AND CONCRETE GRADE TO BE ADOPTED, SHALL BE HIGHER OF THE TWO, IF DIFFERENT GRADES ARE SPECIFIED.
- 2.12 SPACER BAR/PIN SHALL BE OF #25 @ 600MM C/C TO KEEP CLEAR DISTANCE OF 25MM BETWEEN TWO HORIZONTAL LAYERS OF REINFORCEMENT.
- 2.13 CHAIRS SHALL BE PROVIDED TO SUPPORT TOP REINFORCEMENT (WHERE REQUIRED) OF FOUNDATION & SLAB AND SHOULD NOT BEND OR BUCKLE UNDER THE WEIGHT OF REINFORCEMENT & OTHER INCIDENTAL LOADS DURING CONSTRUCTION. MINIMUM DIA OF CHAIR SHALL BE #16MM FOR FOUNDATION AND #12MM FOR SLAB @ SPACING NOT EXCEEDING 1000MM C/C.
- 2.14 BREAKING OF RCC MEMBER FOR INLET OF PIPE, ELECTRICAL CONDUITS ETC IS NOT PERMITTED. NECESSARY OPENINGS FOR PIPE, CONDUITS ETC AT REQUIRED POSITION SHALL BE PLANNED & PLACED IN THE FORMWORK BEFORE STARTING CONCRETING.
- 2.15 ALL THE PARTITION WALLS UP TO 115MM THK. SHALL BE REINFORCED WITH 2 NOS. OF 8MM DIA. BARS AT EVERY 4TH. LAYER OF MASONRY.
- 2.16 WHEREVER, HALF BRICK WALL / PARTITION WALL IS PROVIDED WITHOUT ANY BEAM UNDERNEATH, HIDDEN BEAM SHALL BE PROVIDED AS 300MM X SLAB THICKNESS WITH MAIN REINFORCEMENT 6 NOS. BARS OF #16 MM (TOP- 3 & BOTTOM- 3) AND # 8 MM- 2 LEGGED STIRRUPS AT 75MM C/C AND ALL PARTITION WALLS (UPTO LINTEL HT) ON GROUND FLOOR SHALL BE RAISED FROM PCC SUB-BASE IN CASE PLINTH BEAM IS NOT SHOWN.
- 2.17 100 THK PCC (1:2:4) PLATFORM OF AREA EQUIVALENT TO THE BASE OF THE PVC WATER TANK (REF TD) SHALL BE PROVIDED AT EACH LOCATION FOR RESTING THE WATER TANK ABOVE (AS PER ARCH. DRG) IN ROOF SLAB, IF APPLICABLE.
- 2.18 IN SLABS, DISTRIBUTIONS BARS #10 @ 150 C/C SHALL BE PLACED IF NOTHING ELSE HAS BEEN SPECIFIED.
- 2.19 WHEREVER TWO TYPES OF BEAMS MEET AT ONE SUPPORT, THE EXTRA BARS AT TOP HAVING HIGHER DIA SHALL BE PROVIDED IN BOTH THE BEAMS.



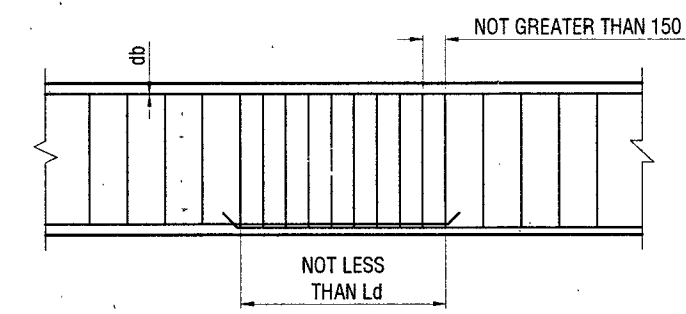
TYPICAL DETAIL OF TIES ARRANGEMENT OF COLUMN BETWEEN FLOOR TO FLOOR OR BEAM TO BEAM (CONTINUOUS COL & BEAM) WHEREVER LINTEL BEAM OCCURS



TYPICAL DETAIL OF TIES ARRANGEMENT OF COLUMN BETWEEN FLOOR TO FLOOR OR BEAM TO BEAM

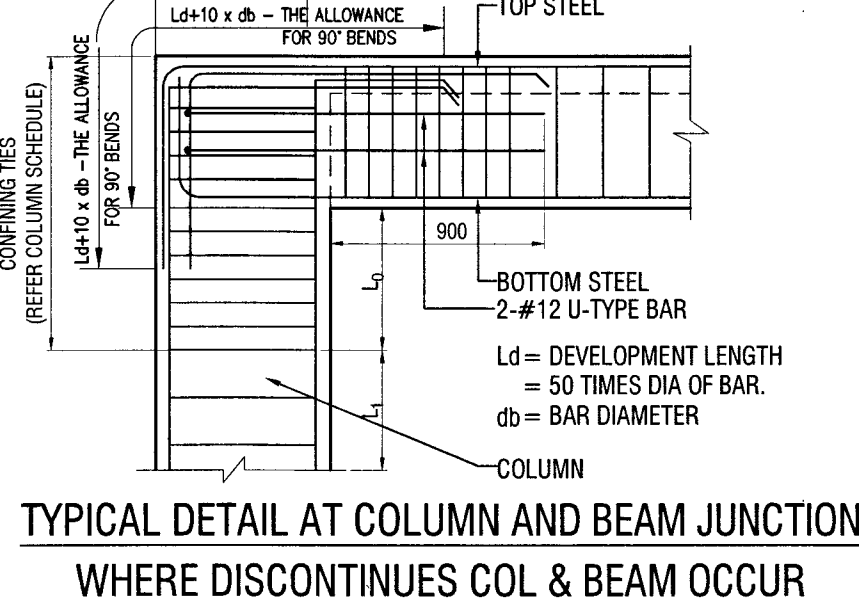


TYPICAL SECTIONAL DETAILS OF RAFT

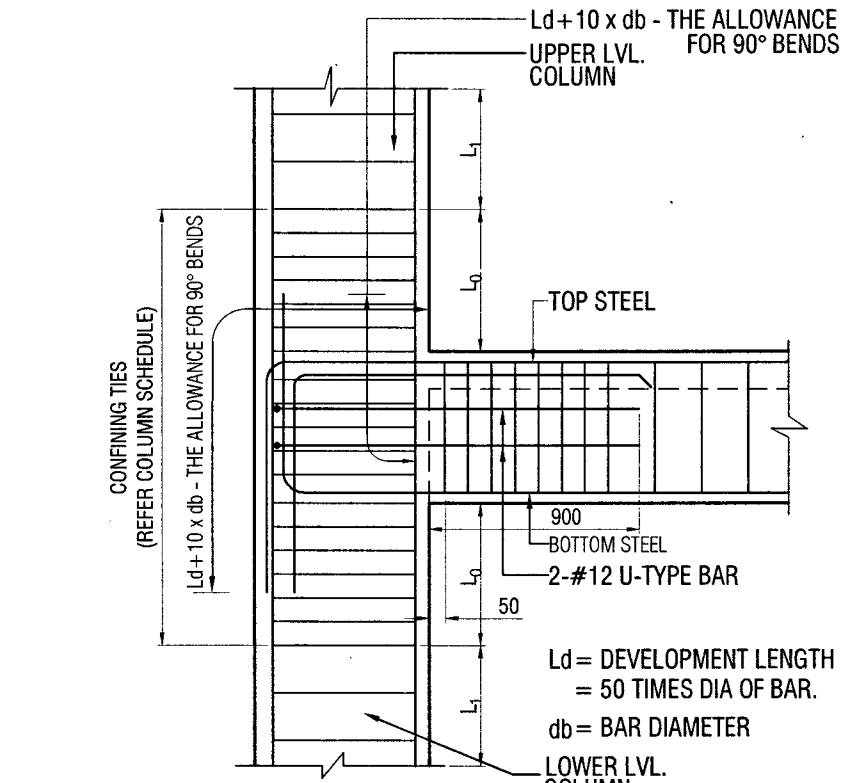


TYP. DETAIL FOR THE LAP, SPLICE IN BEAM

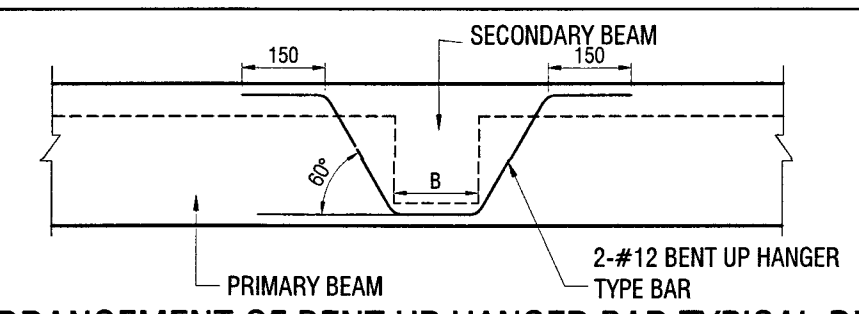
NOTE :- THE LONGITUDINAL BARS SHALL BE SPLICED, ONLY IF HOOPS ARE PROVIDED OVER THE ENTIRE SPLICE LENGTH, AT A SPACING NOT EXCEEDING 150 MM. THE LAP LENGTH SHALL NOT BE LESS THAN THE BAR DEVELOPMENT LENGTH IN TENSION. LAP SPLICES SHALL NOT BE PROVIDED. (A) WITHIN A JOINT, (B) WITHIN A DISTANCE OF 2D FROM JOINT FACE, AND (C) WITHIN A QUARTER LENGTH OF THE MEMBER WHERE FLEXURAL YIELDING MAY GENERALLY OCCUR UNDER THE EFFECT OF EARTHQUAKE FORCES. NOT MORE THAN 50% OF THE BARS SHALL BE SPLICED AT ONE SECTION.



TYPICAL DETAIL AT COLUMN AND BEAM JUNCTION WHERE DISCONTINUES COL & BEAM OCCUR



TYPICAL DETAIL AT COLUMN & FLOOR / PLINTH BEAM JUNCTION WHERE DISCONTINUES BEAM OCCURS



ARRANGEMENT OF BENT UP HANGER BAR TYPICAL DETAIL OF JUNCTION OF PRIMARY AND SECONDARY BEAM

THIS DRG IS BASED ON DRG NO CEJZ/ SD-1936 / 2025 SHEET NO 1/11.

REFERENCE TO DRAWINGS

S NO	DRAWING NO	SHEET NO	DESCRIPTION
1	CEJZ/STD- 216/06	1/8 TO 8/8	SEISMIC PROVISIONS
2	CEJZ/STD- 417/23	1/10 TO 10/10	MISC DETAILS & GENERAL STRUCTURAL NOTES
3	CEJZ/STD- 422/24	1/34 TO 34/34	TYPICAL RCC DETAILS

SER NO	DATE	DESCRIPTION	INITIAL
REVISION			

PROVN OF MD ACCN FOR OFFRS, JCOs AND ORs AT FEROPUR

16 MAJOR (G+4)

STRUCTURAL GENERAL NOTES

DATE	10 OCT 2025	<b>CHIEF ENGINEER JALANDHAR ZONE</b>	01 11
DRAWN			
CHKD			
SCALE	AS SHOWN		

DRG NO CEJZ/SD-1936/2025

*Arjun Raj*  
AAD (DES)

*Arjun Raj*  
DIRECTOR (DESIGN)  
FOR CHIEF ENGINEER