

# GENERAL STRUCTURAL NOTES

## GENERAL:

- 1- ALL DIMENSIONS ARE WRITTEN IN CENTIMETERS UNLESS IT IS INDICATED OTHERWISE. LEVELS ARE IN METERS. ALL REINFORCING STEEL BARS DIAMETERS ARE SHOWN IN MILLIMETERS
- 2- DIMENSIONS SHALL NOT BE SCALED FROM DRAWINGS, THEY SHALL BE READ OR COMPUTED, CONSULT THE DESIGNER OTHERWISE
- 3- EVERY DRAWING SHALL BE READ IN CONJUNCTION WITH THE RELEVANT ARCHITECTURAL, MECHANICAL & ELECTRICAL DRAWINGS IN ADDITION TO ALL STRUCTURAL DRAWINGS OF THE SAME PART
- 4- CODES OF DESIGN:  
STRUCTURAL DESIGN AND DETAILING WAS CARRIED ON IN ACCORDANCE WITH THE FOLLOWING JORDANIAN CODES:  
1-CODE OF LOADS & FORCES  
2-CODE OF STRUCTURAL CONCRETE
- 5- ALL CONSTRUCTION MATERIALS TO WHICH REFERENCE IS MADE IN THE DRAWINGS, SHALL CONFIRM TO THE MINISTRY OF PUBLIC WORKS & HOUSING CIVIL & ELECTROMECHANICAL SPECIFICATIONS/1996

## MATERIAL PROPERTIES:

CONCRETE	CHARACTERISTIC CUBE STRENGTH@28 DAYS
BLINDING CONCRETE	15N/mm <sup>2</sup>
SLAB ON GRADE	20N/mm <sup>2</sup>
FOUNDATION	30N/mm <sup>2</sup>
WALLS	30N/mm <sup>2</sup>
SLABS & BEAMS	30N/mm <sup>2</sup>
REINFORCEMENT STEEL	YIELD STRESS
DEFORMED HIGH STEEL BARS	fy=420N/mm <sup>2</sup>
MILD DEFORMED STEEL BARS (FOR Ø8 STIRRUPS)	fy=280N/mm <sup>2</sup>
ALL LAP SPLICES ARE TO BE STAGGERED	
MINIMUM BARS LAP LENGTH=50*BAR DIAMETER	

## NOMINAL CONCRETE COVER TO REINFORCEMENT:

FOOTING	50 mm
COLUMN	50 mm
SLABS & BEAMS	50 mm
WALLS	50 mm

## FOUNDATION:

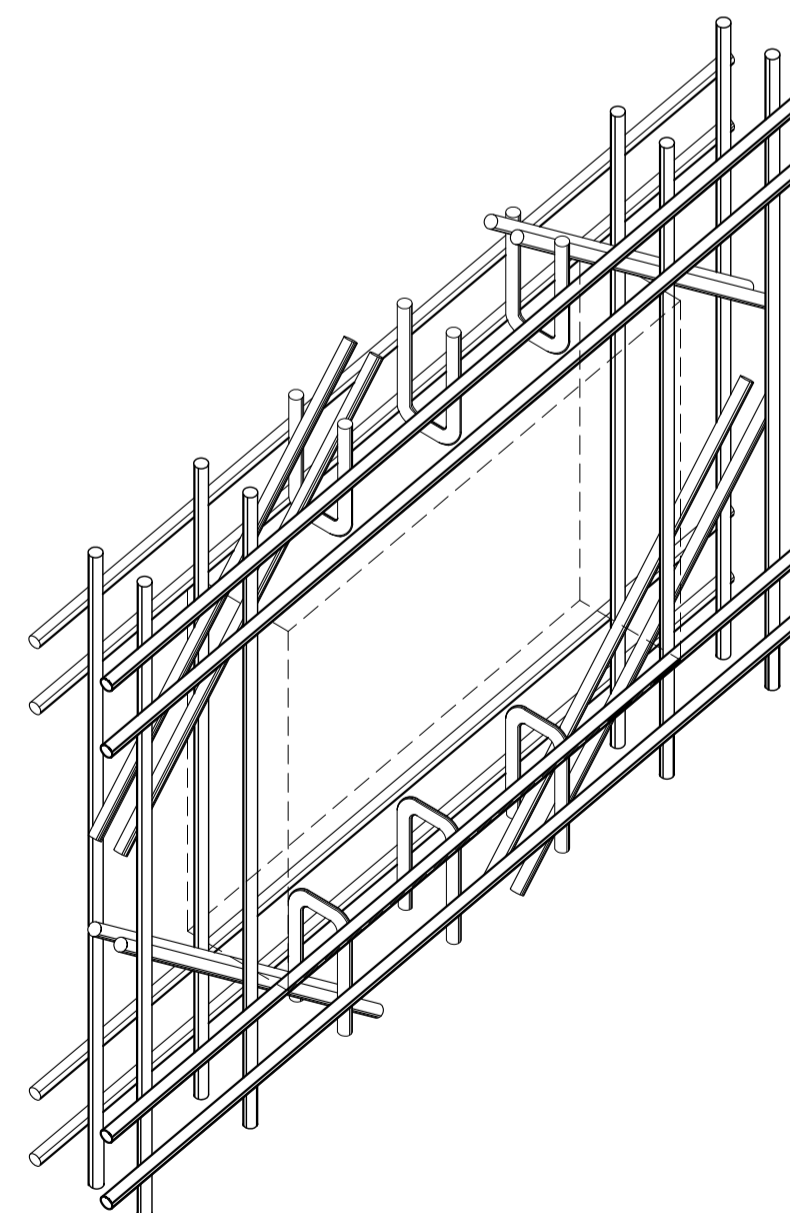
- THE ALLOWABLE SOIL BEARING CAPACITY IS 2.20 Kg/cm<sup>2</sup>
- MINIMUM FOOTINGS DEPTH SHOULD BE 2.0m BELOW SURROUNDING NATURAL GROUND LEVEL.

## NO. OF FLOORS

- WALLS & FOOTINGS ARE DESIGNED TO HOLD ONE FLOOR ONLY, NO FUTURE EXTENSIONS.

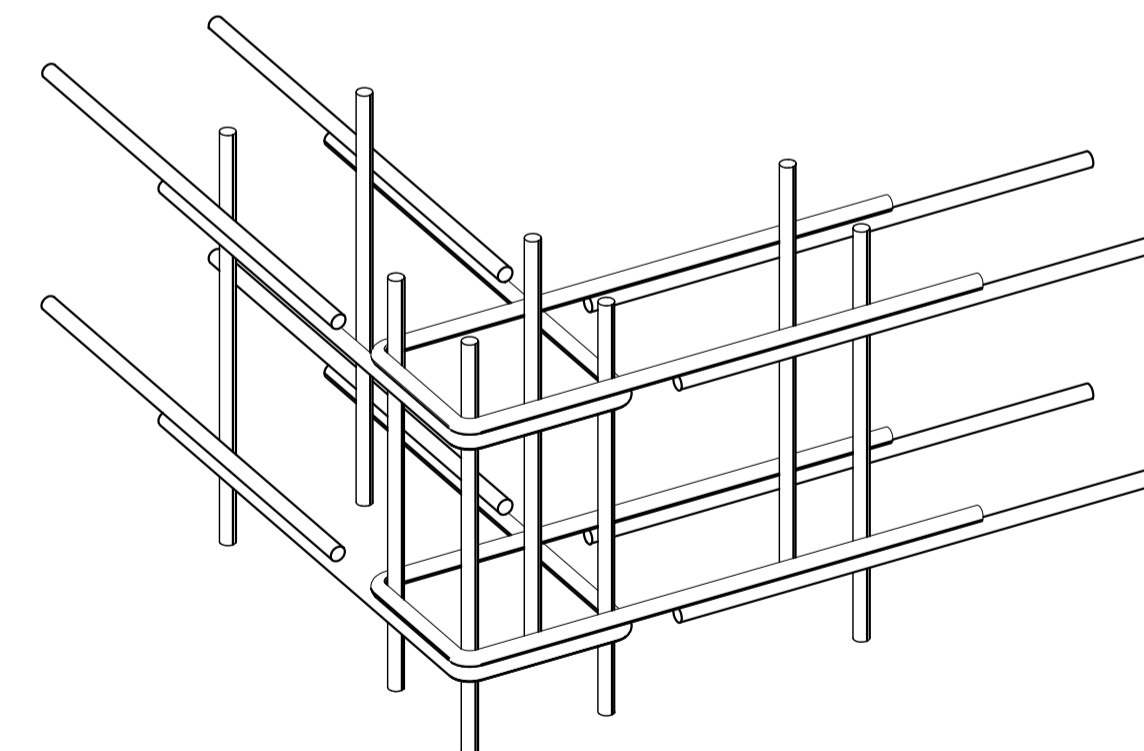
## LEGEND:

ADD	ADDITIONAL
B	BOTTOM
B.O.	BOTTOM OF
C	COLUMN
CL	CONCRETE LEVEL
CLR	CLEAR
db	BAR DIAMETER IN mm
DWLS	DOWELS
E.F	EACH FACE
E.W	EACH WAY
B.W	BOTH WAYS
F	FOOTING
G.B	GROUND BEAM
MAX.	MAXIMUM
MIN.	MINIMUM
N.T.S	NOT TO SCALE
I.S	INTERMEDIATE SUPPORT
	I.S SHOULD BE PLACED ON NATURAL UNDISTURBED SOIL
T	TOP
T&B	TOP & BOTTOM
T.O	TOP OF
TSS	TOP STRUCTURAL SLAB
TYP.	TYPICAL
U.N.O	UNLESS NOTED OTHERWISE
C.W	COMMON WITH
REINF.	REINFORCEMENT
VERT.	VERTICAL
HORZ.	HORIZONTAL
ARCH.	ARCHITECTURAL
STRUC.	STRUCTURAL
DRWGS.	DRAWINGS
CONST.	CONSTANT
c/c	CENTER TO CENTER OF BARS



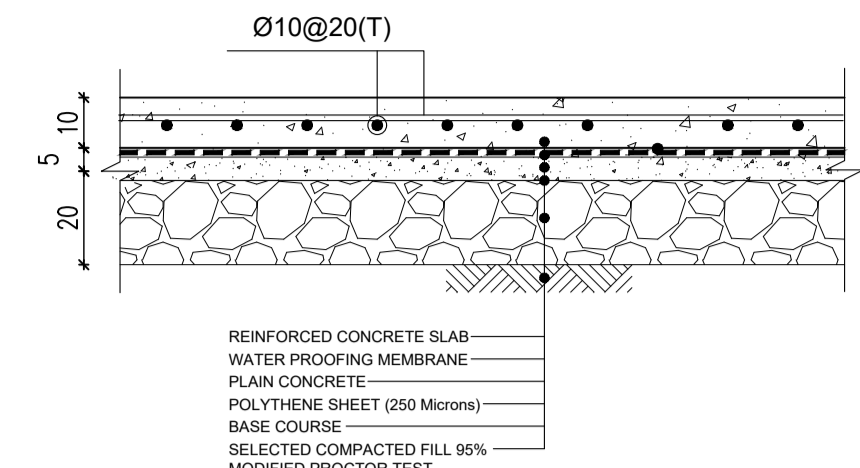
### FOR ALL WALL OPENINGS

Fix diagonal 2Ø14X200 bars in both faces, at each corner.

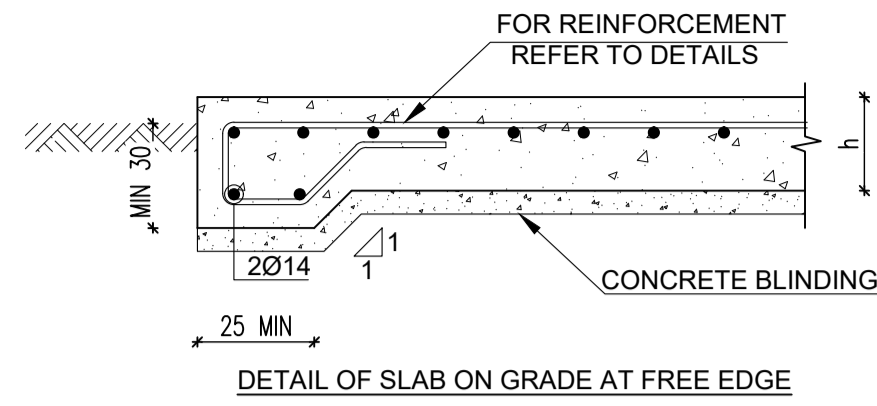


### FOR ALL WALLS , WALL BEAMS AND DEEP BEAMS

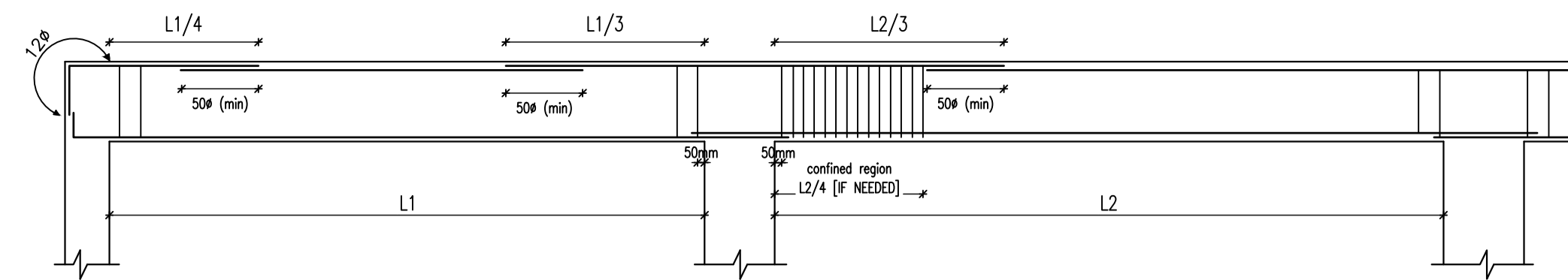
Use U Bars for ends and corners



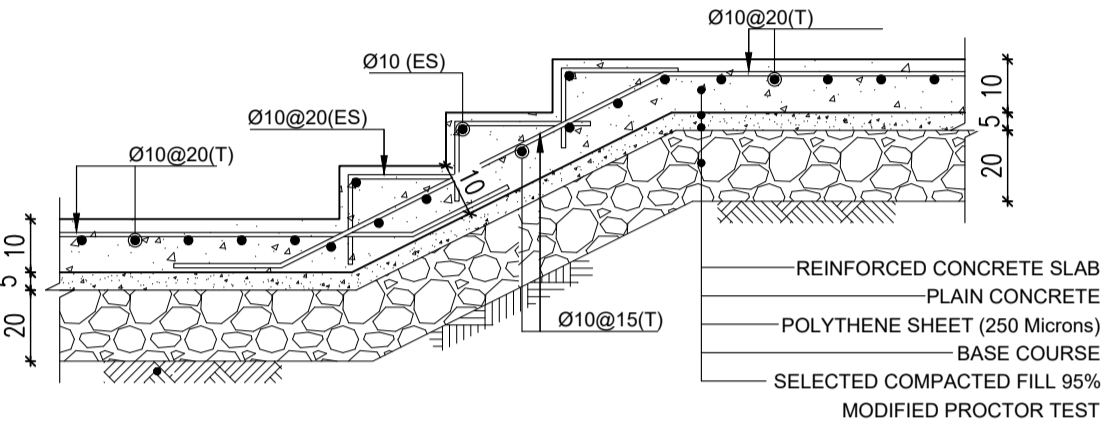
TYPICAL SECTION THROUGH 100mm SLAB ON GRADE( indoor)



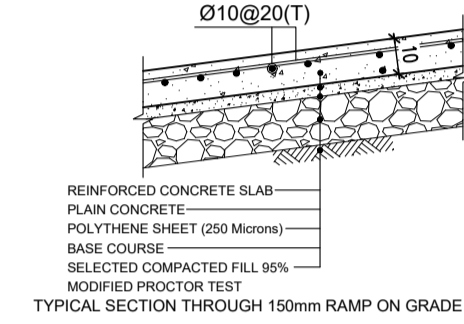
DETAIL OF SLAB ON GRADE AT FREE EDGE



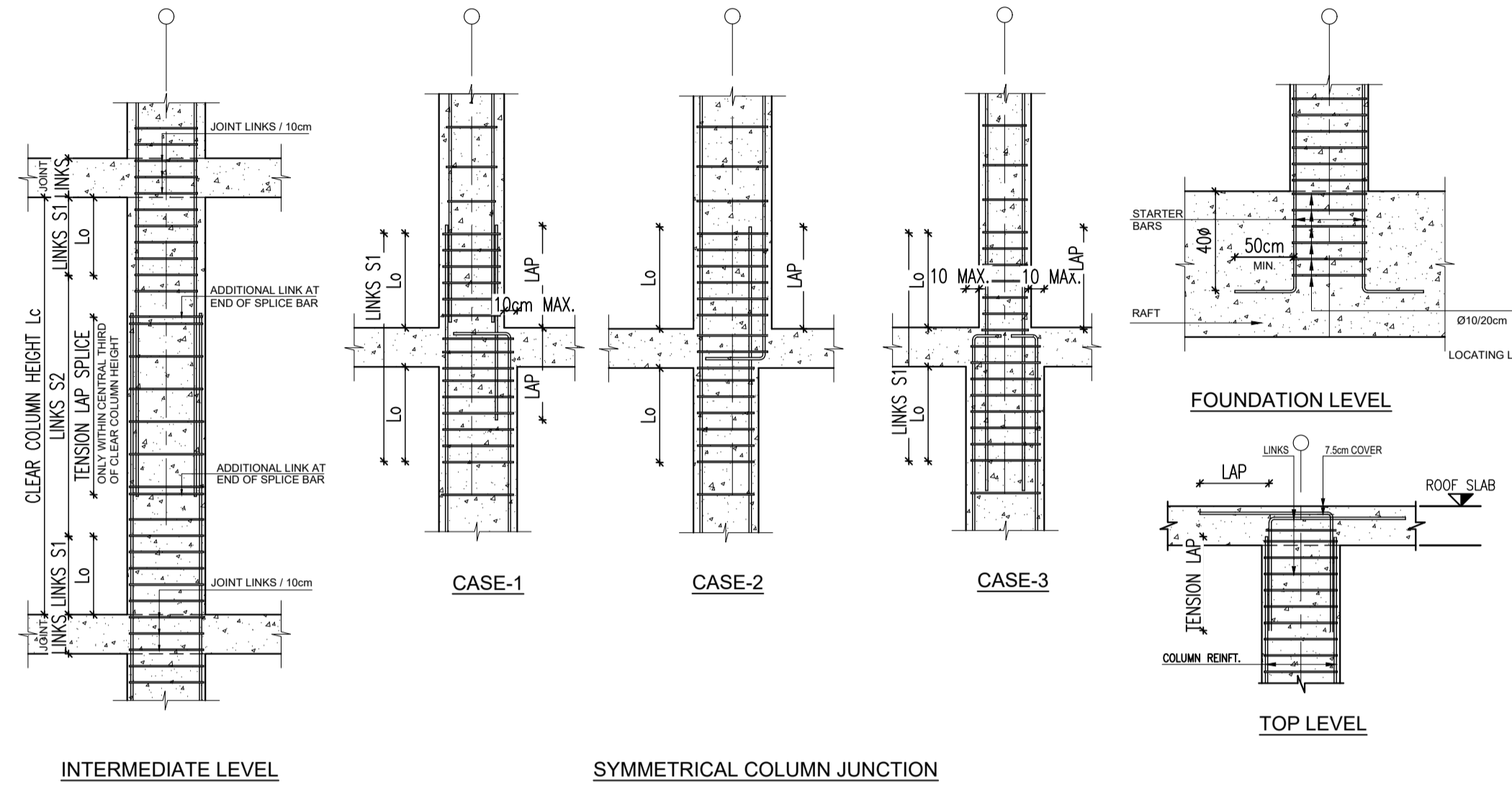
TYPICAL DETAIL FOR MULTI SPAN BEAM REINFORCEMENT



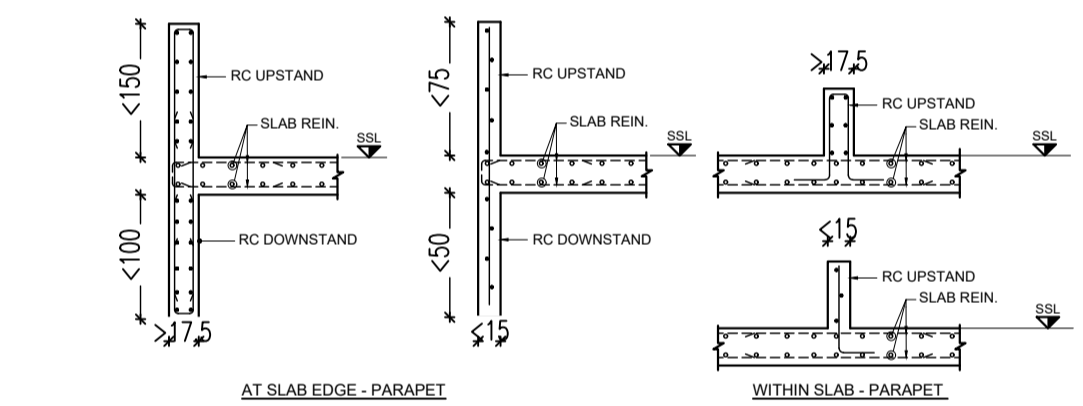
TYPICAL SECTION THROUGH STAIR ON GRADE



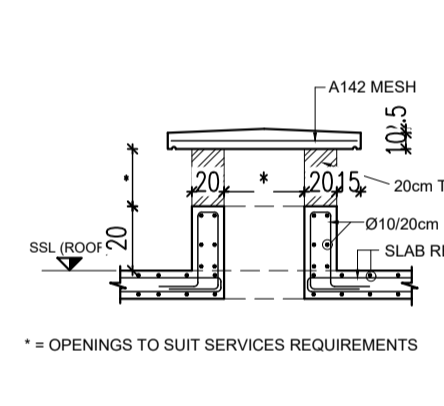
TYPICAL SECTION THROUGH 150mm RAMP ON GRADE



SYMMETRICAL COLUMN JUNCTION  
TYPICAL COLUMN DETAILS



TYPICAL UPSTAND DOWNSTAND DETAILS

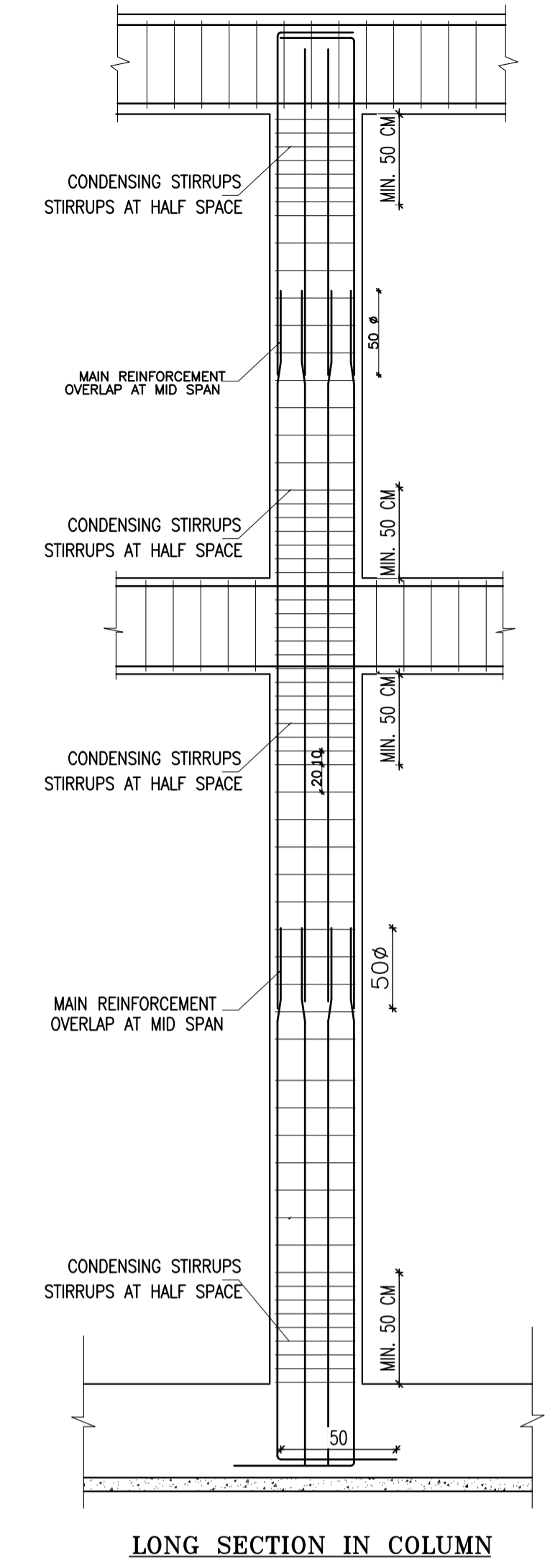


TYPICAL COVERED ROOF PENETRATION FOR MEP SERVICES

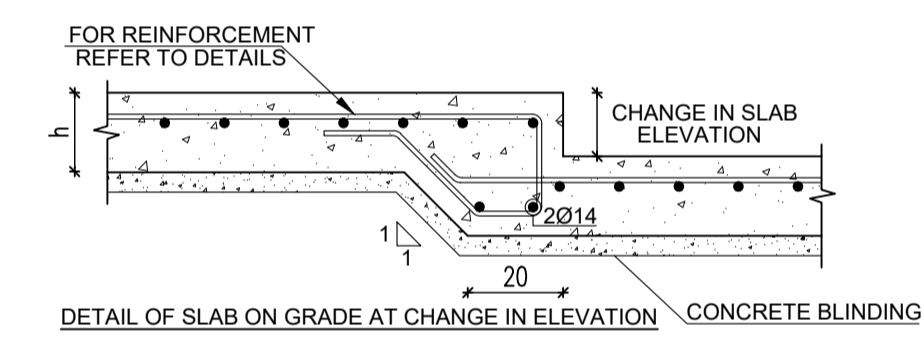
SCHEDULE OF UPSTAND/DOWNSTAND REINFORCEMENT

WIDTH	REINFORCEMENT
<15cm	Ø10/20cm VERTICAL ONE LAYER Ø8/10cm HORIZONTAL (PLACED CENTRALLY)
>17.5cm	Ø10/15cm VERTICAL E.F. Ø10/10cm HORIZONTAL E.F.

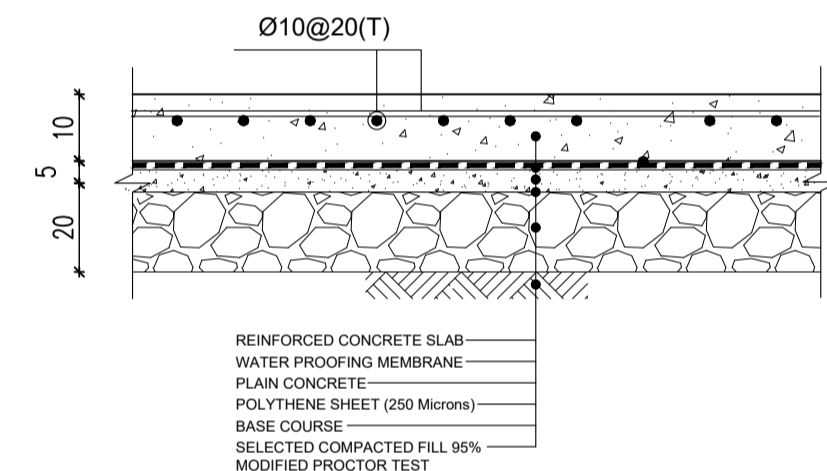
NOTES:  
2. MINIMUM MAIN BAR DIAMETER = 16mm  
1. FOR DETAILS OF SLABS REFER TO COLUMN SCHEDULES (3) 50cm WHERE 'h' IS THE LARGER COLUMN PLAN DIMENSION



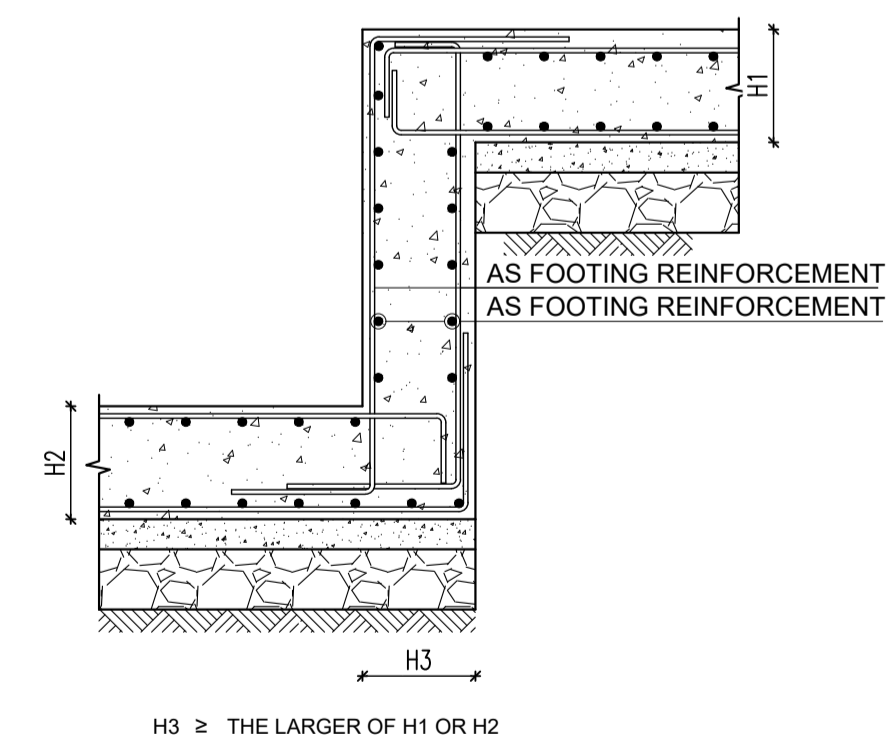
LONG SECTION IN COLUMN



DETAIL OF SLAB ON GRADE AT CHANGE IN ELEVATION

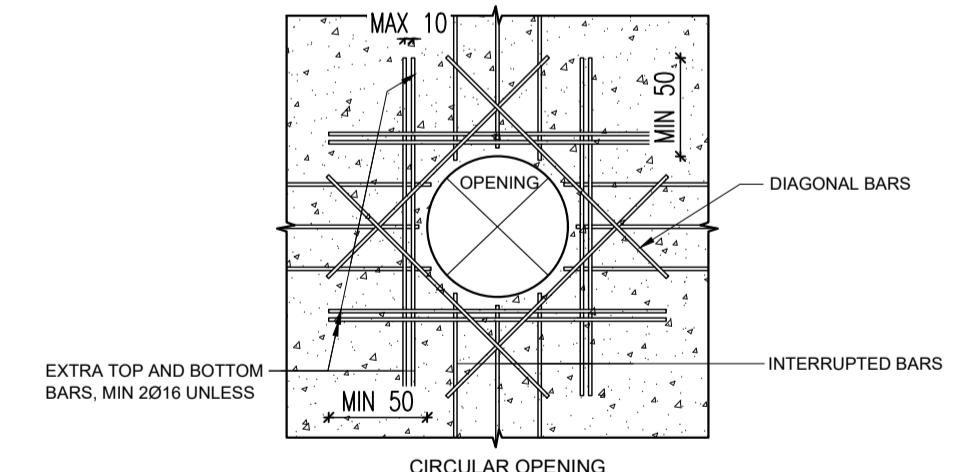
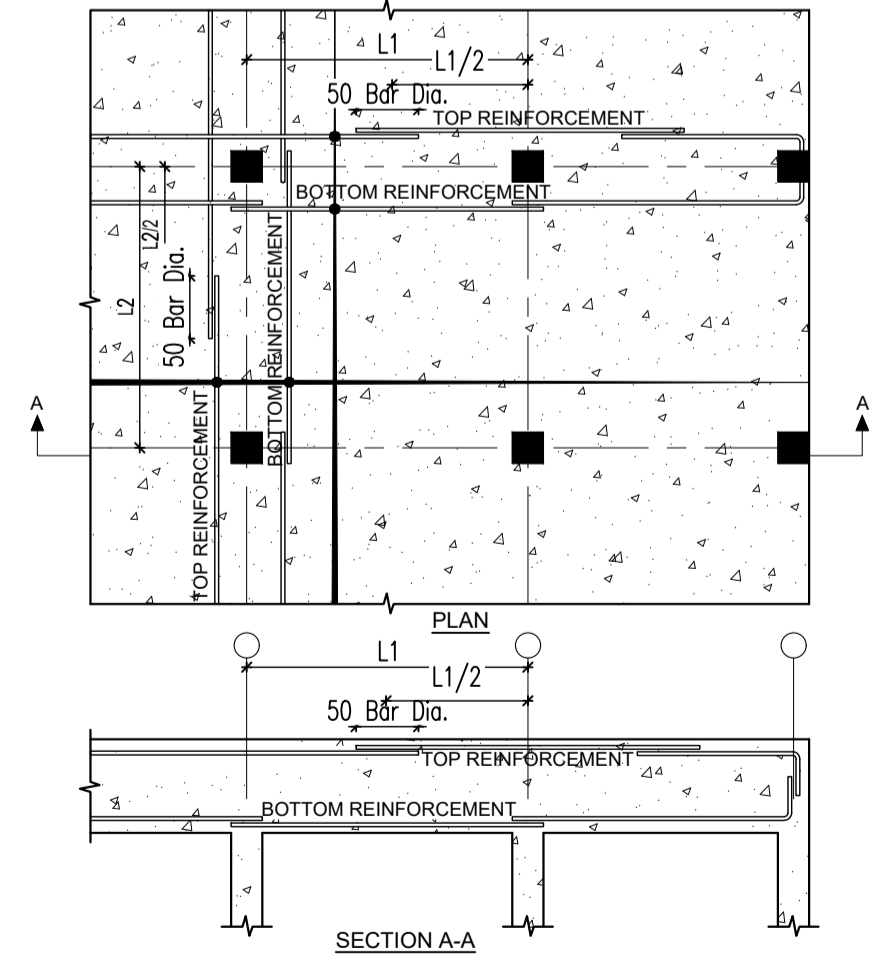


TYPICAL SECTION THROUGH 100mm SLAB ON GRADE(outdoor)

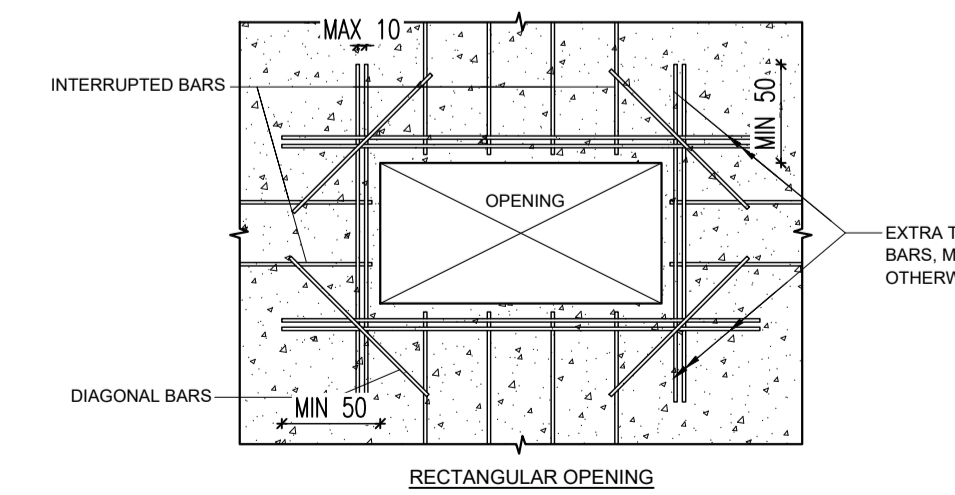


STEPPED FOUNDATION TYPICAL DETAIL  
SCALE: 1/20

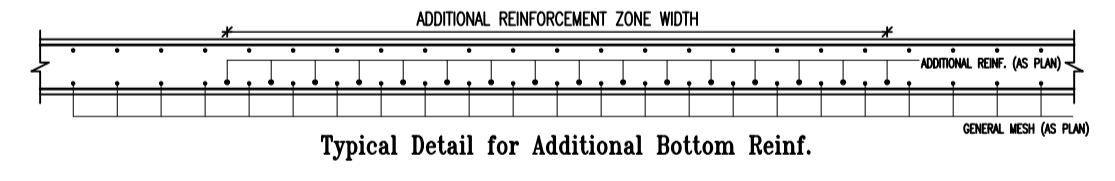
TYPICAL FLAT SLAB REINFORCEMENT DETAIL



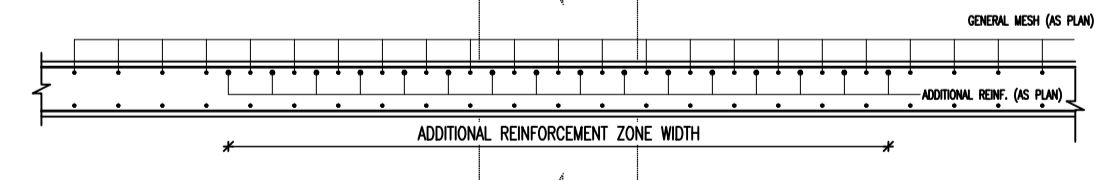
OPENINGS IN CONCRETE SLABS  
SCALE: 1/20



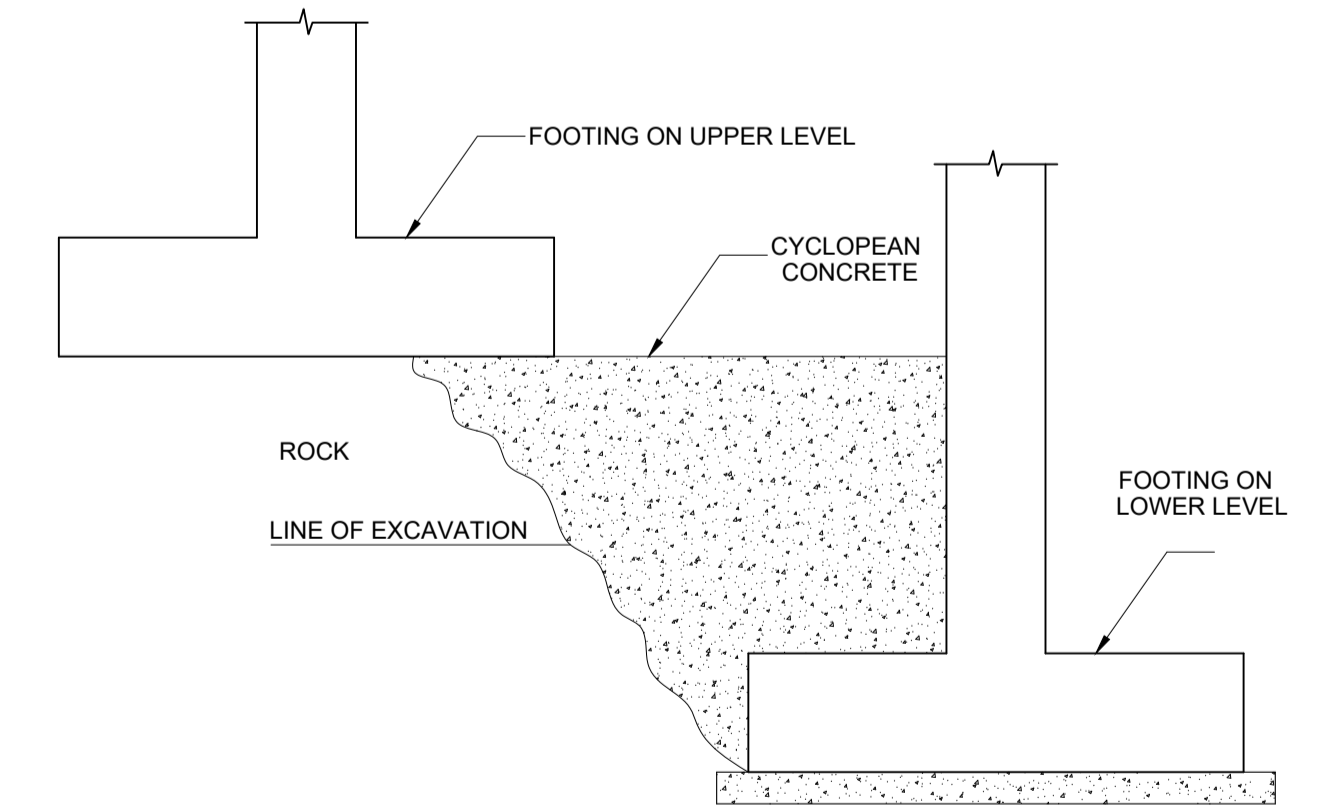
RECTANGULAR OPENING



Typical Detail for Additional Bottom Reinf.

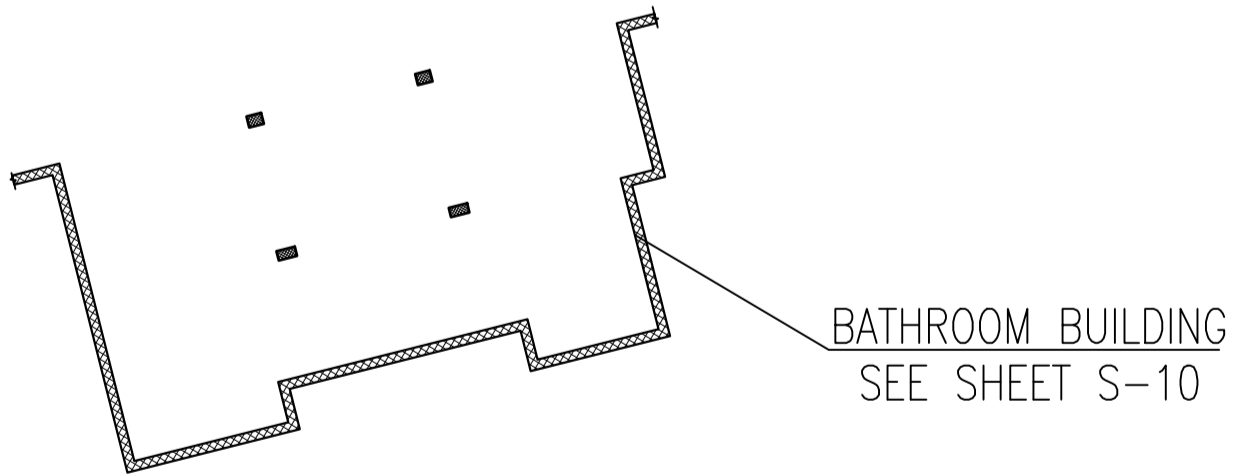
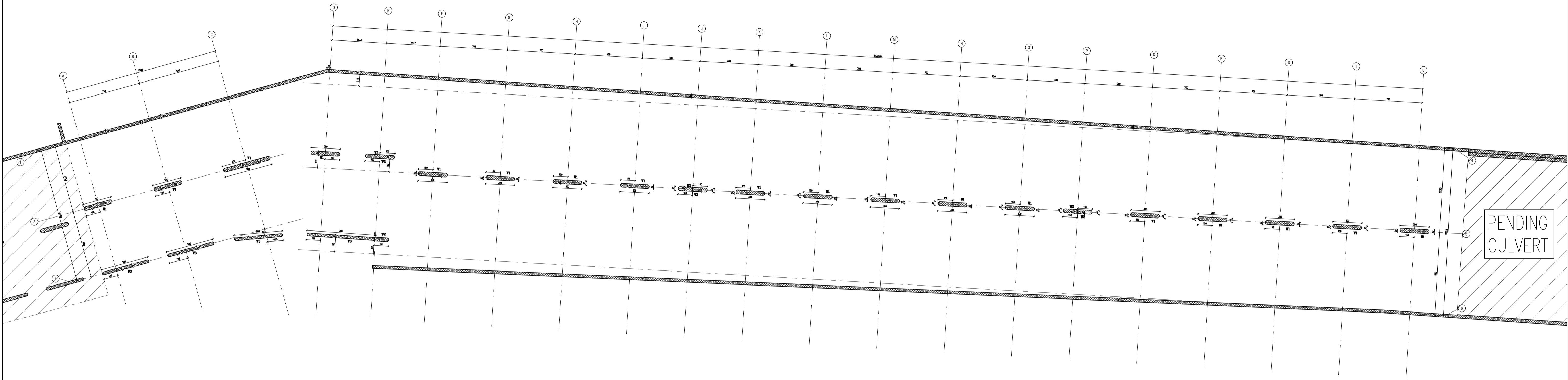


Typical Detail for Additional Top Reinf.

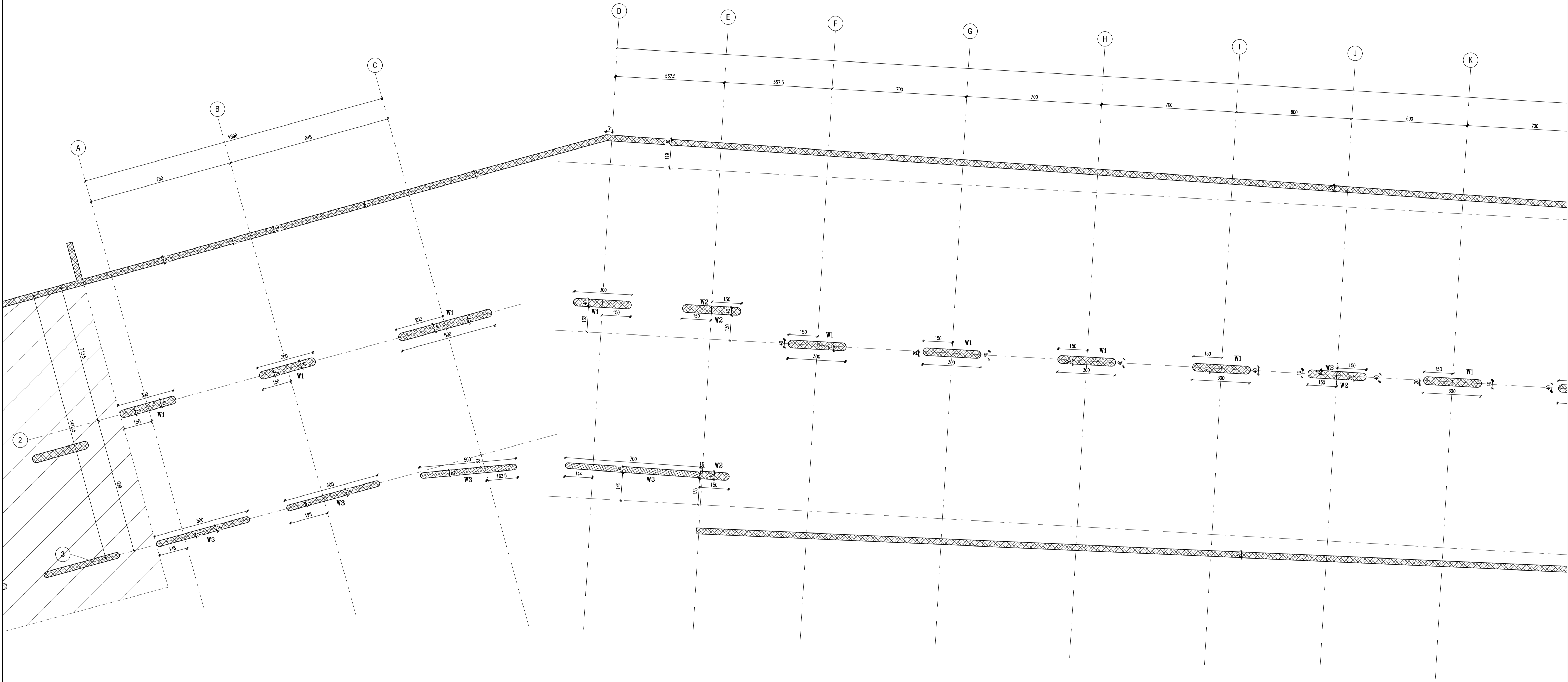


FOUNDATION SPLIT LEVEL TYPICAL DETAIL  
SCALE: 1/20

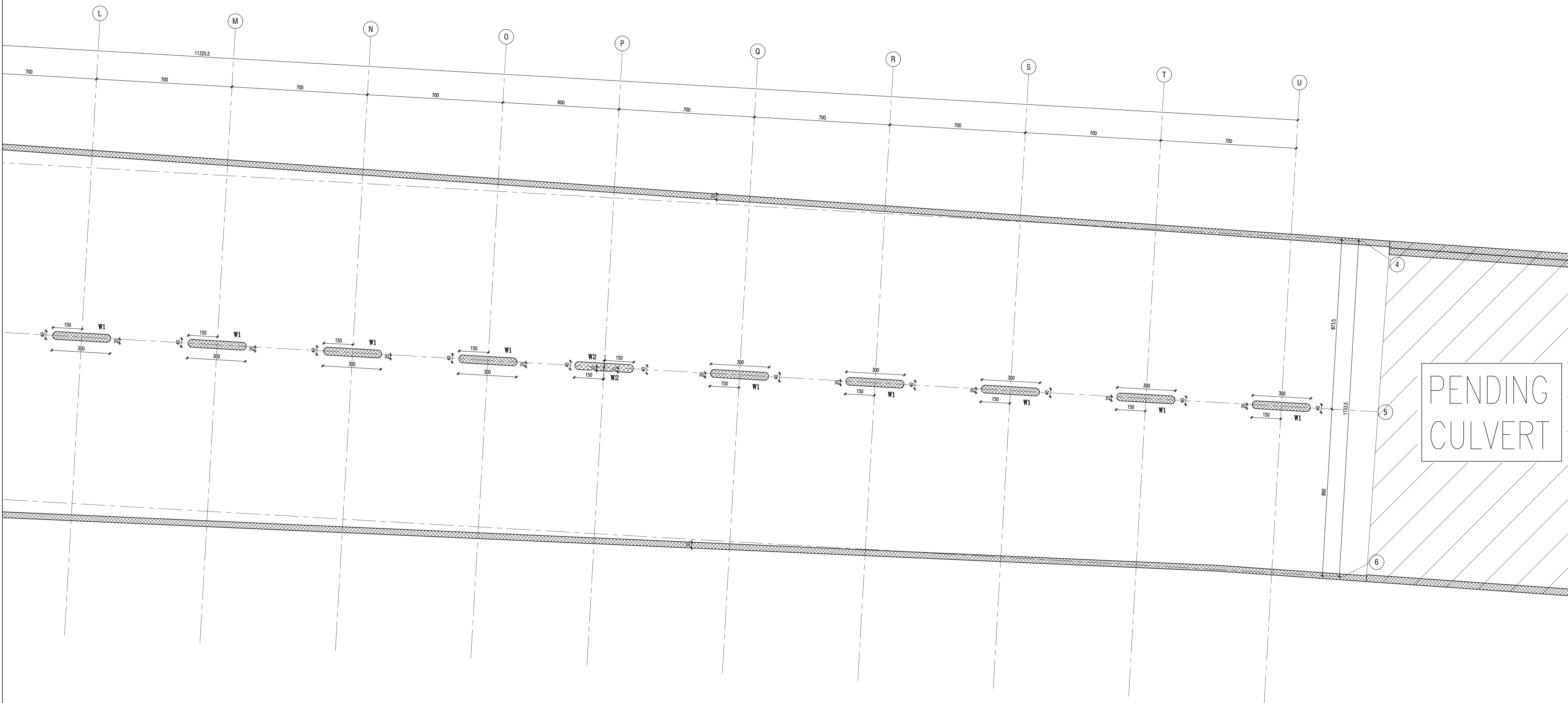
-NOTE: CONCRETE COVER FOR ALL ELEMENTS= 50mm.



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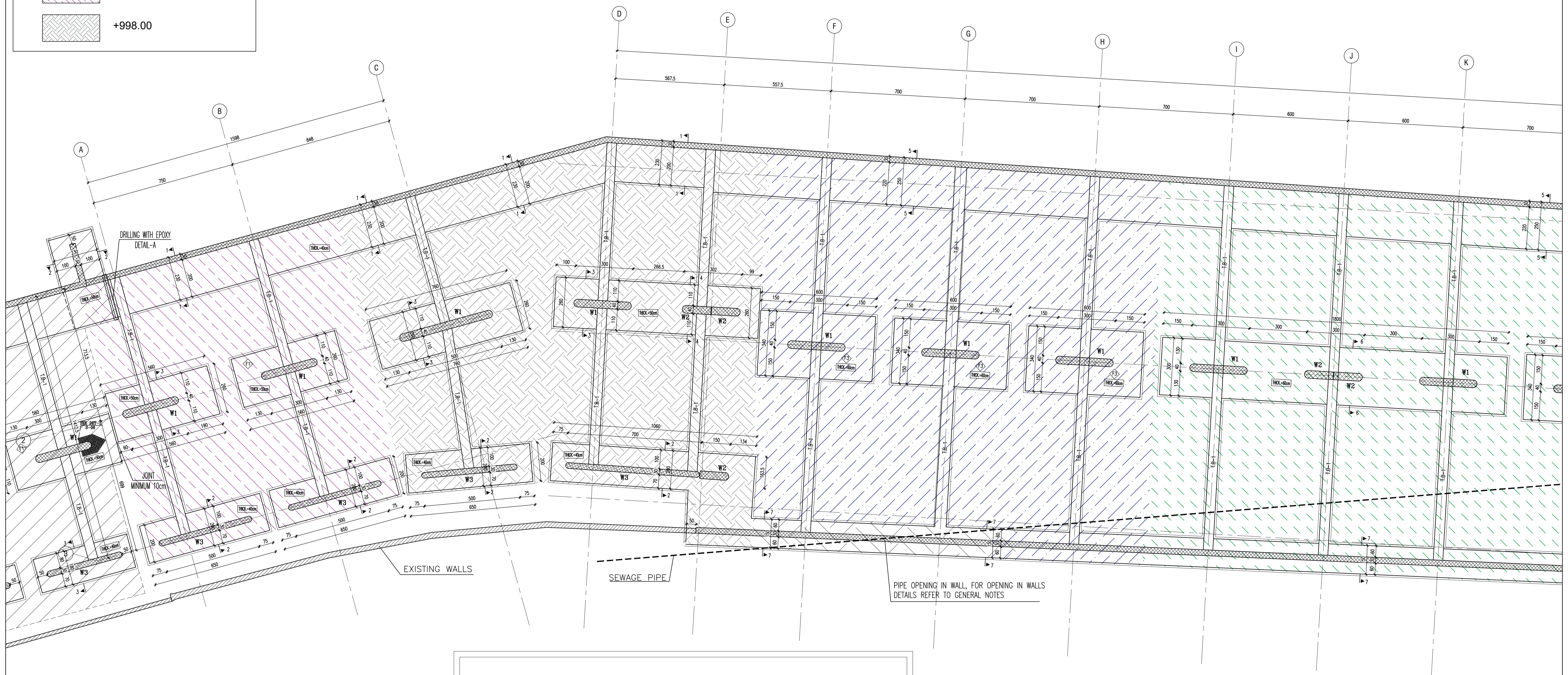




-NOTE: CONCRETE COVER FOR ALL ELEMENTS= 50mm.

EXCAVATION LEVELS

-  +997.00
-  +998.00



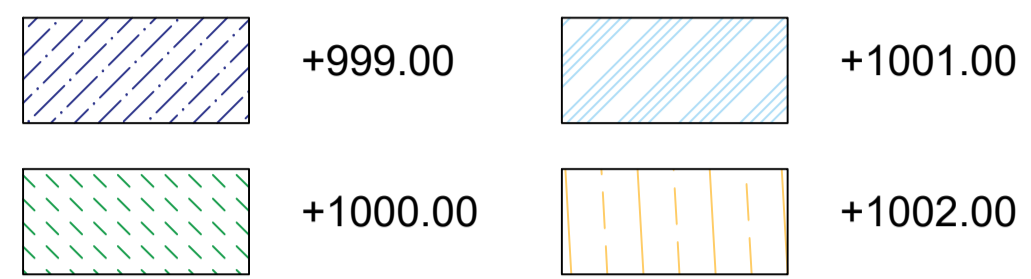
PIPE OPENING IN WALL, FOR OPENING IN WALLS DETAILS REFER TO GENERAL NOTES

TO BE BASED ON NATURAL GROUND  
 يجب التأسيس على أرض طبيعية  
 يمنع التأسيس على طمم

EXCAVATION LEVEL AS HATCH

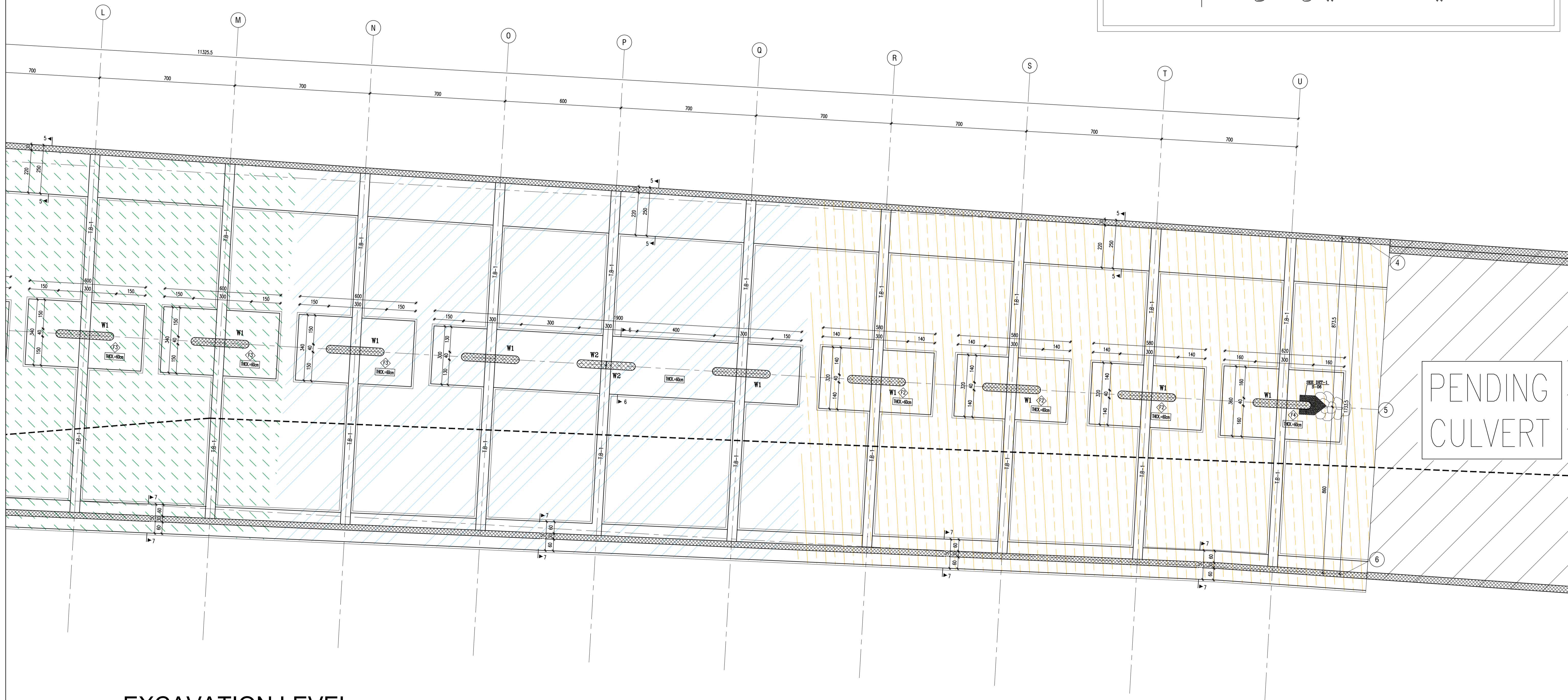
-NOTE: CONCRETE COVER FOR ALL ELEMENTS= 50mm.

EXCAVATION LEVELS



TO BE BASED ON NATURAL GROUND

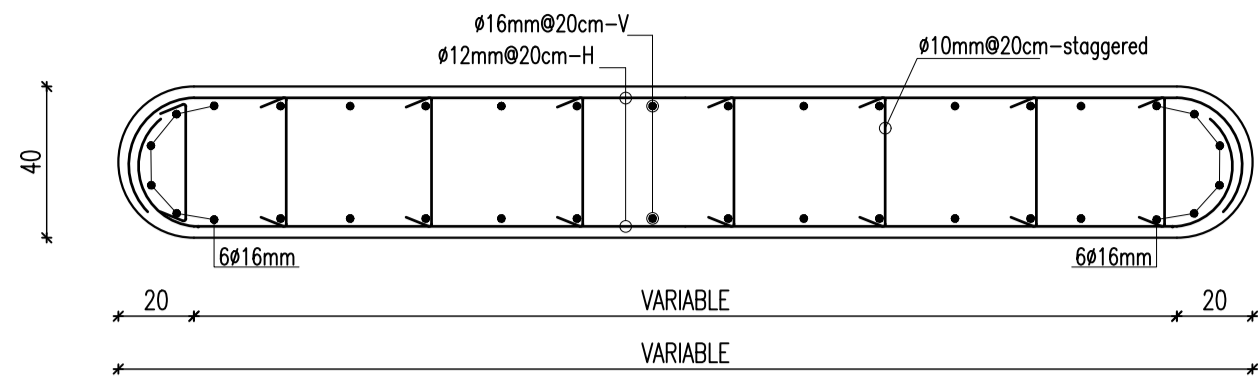
يجب التأسيس على أرض طبيعية  
يمنع التأسيس على طمم



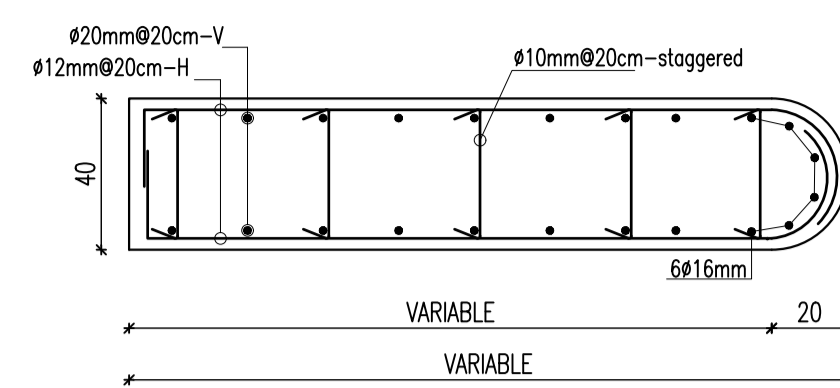
PENDING  
CULVERT

EXCAVATION LEVEL  
AS HATCH

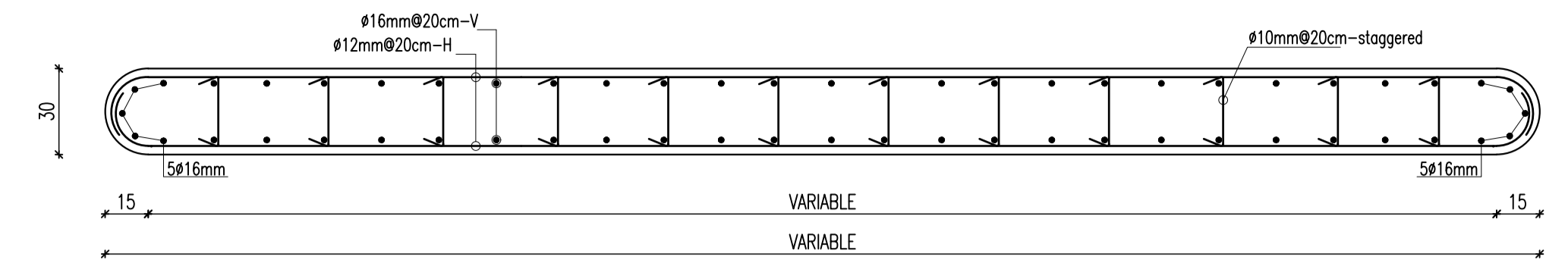
-NOTE: CONCRETE COVER FOR ALL ELEMENTS= 50mm.



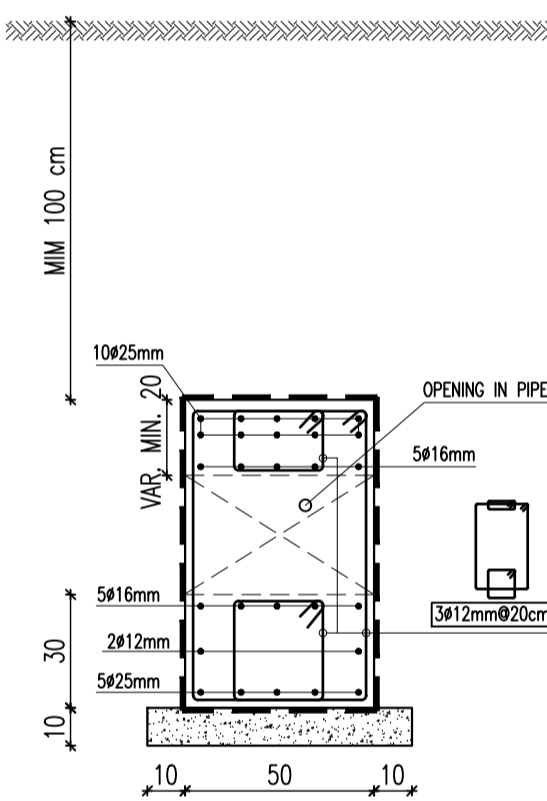
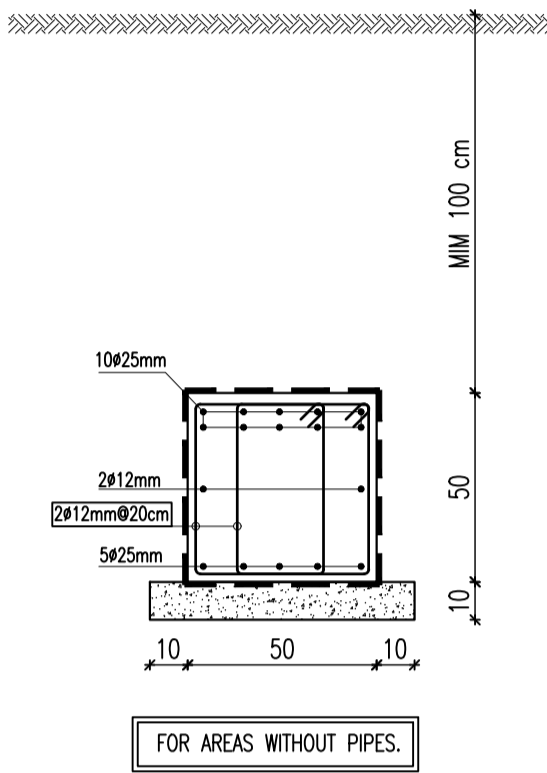
**WALL W1**  
SCALE 1:20



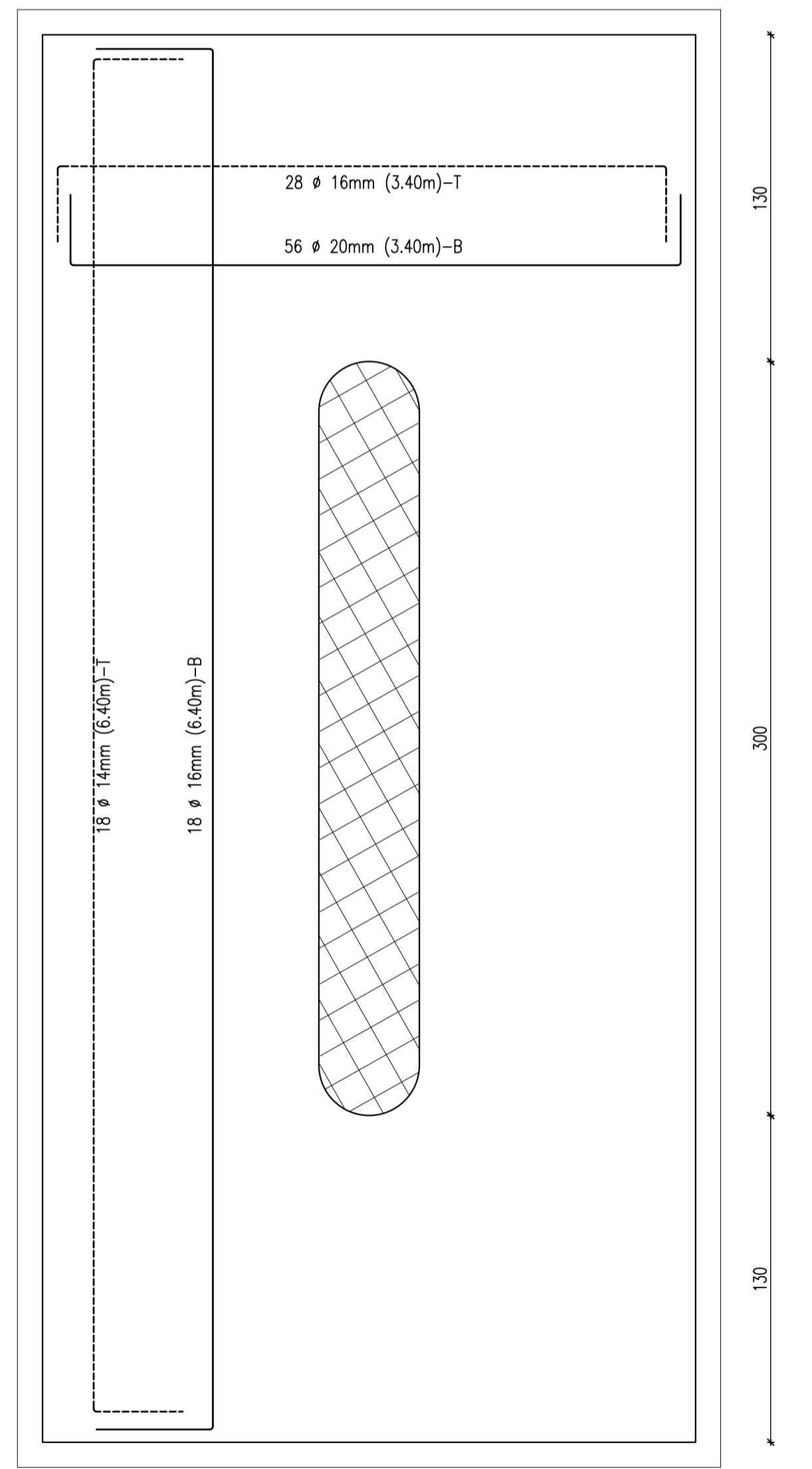
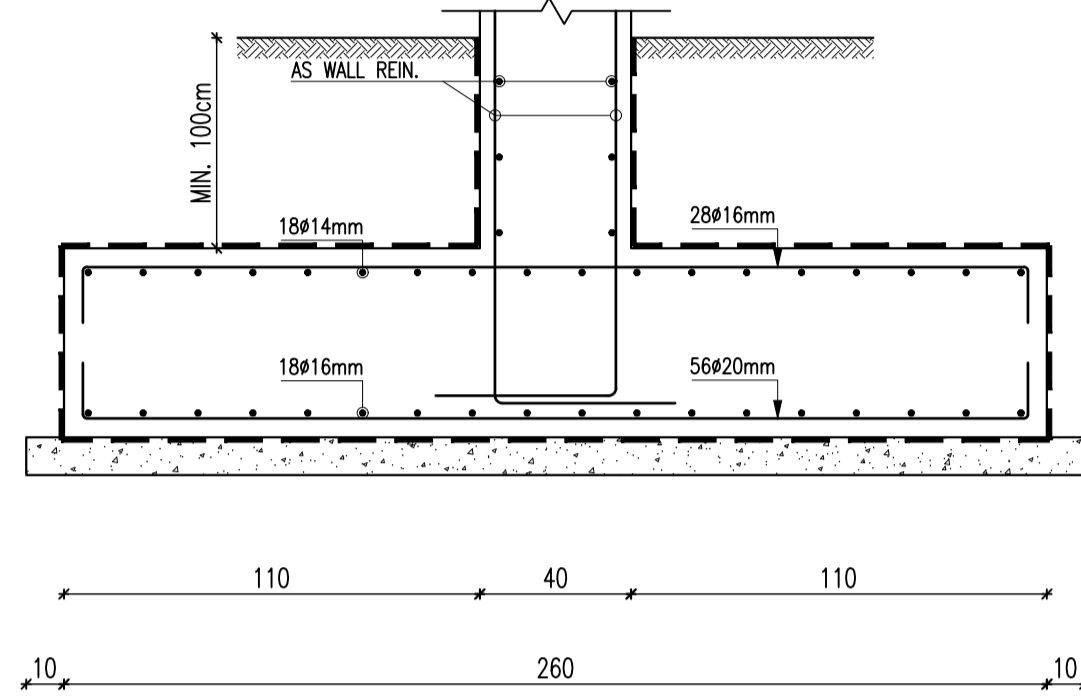
**WALL W2**  
SCALE 1:20



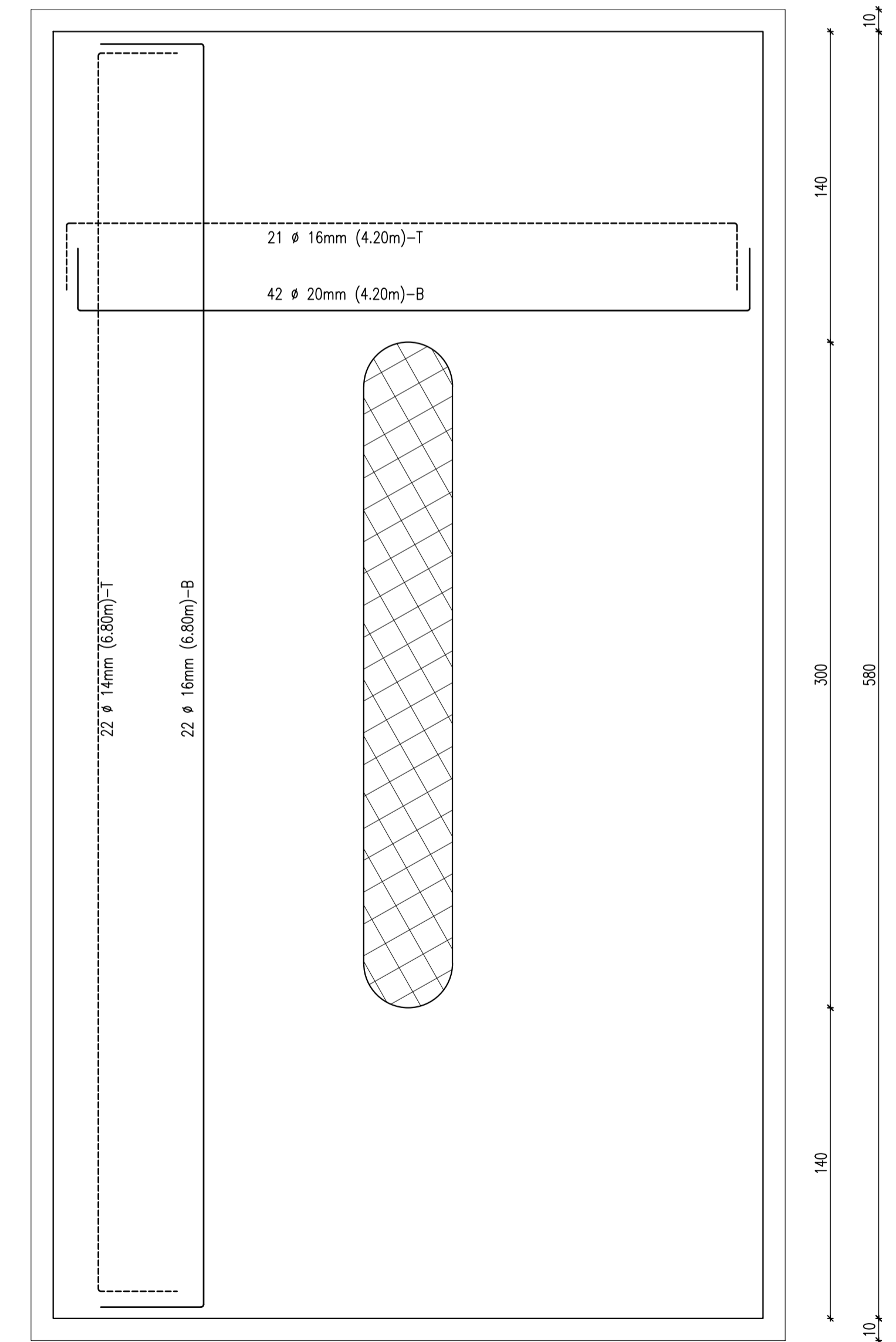
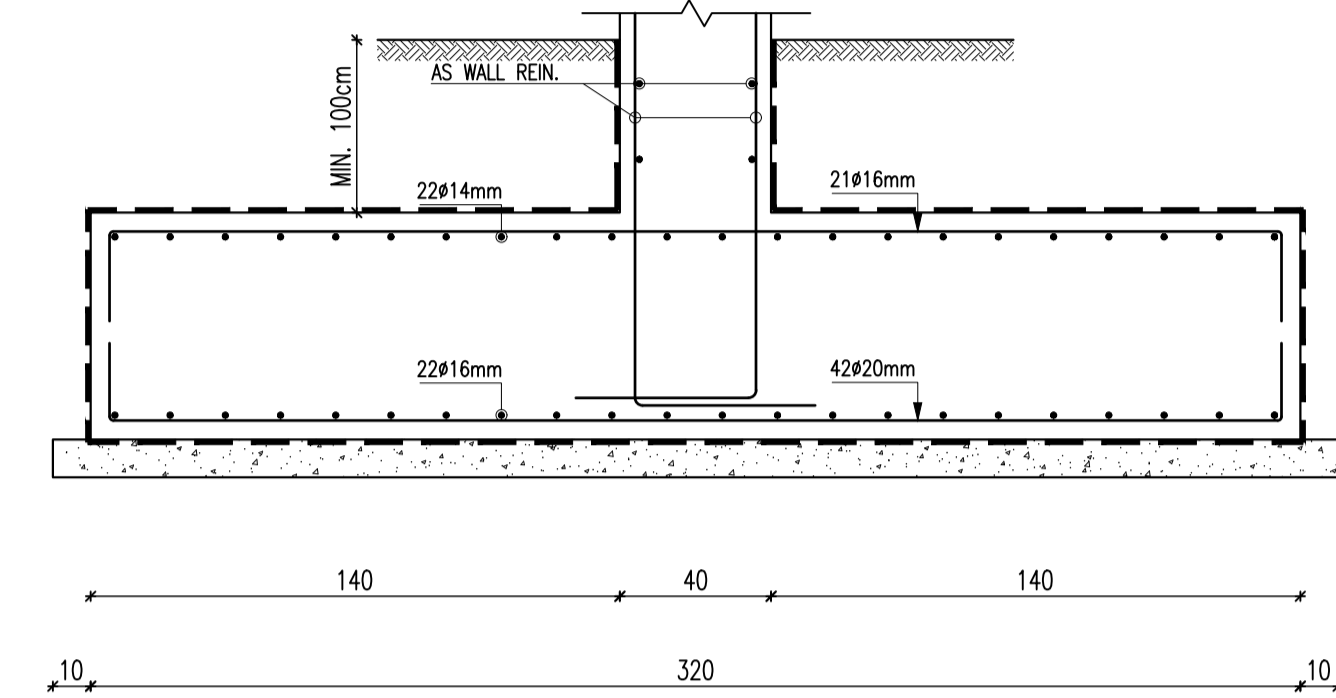
**WALL W3**  
SCALE 1:20



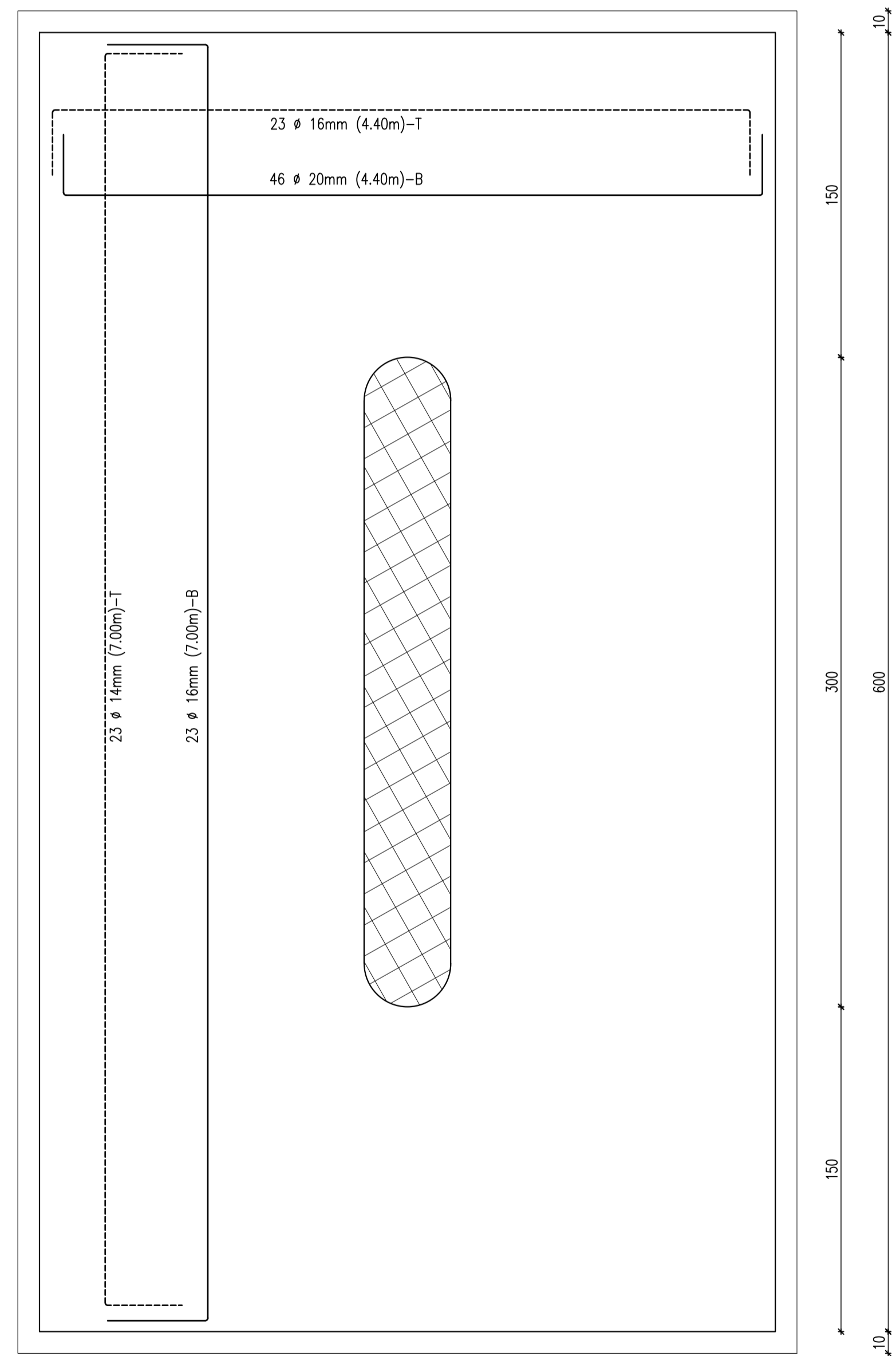
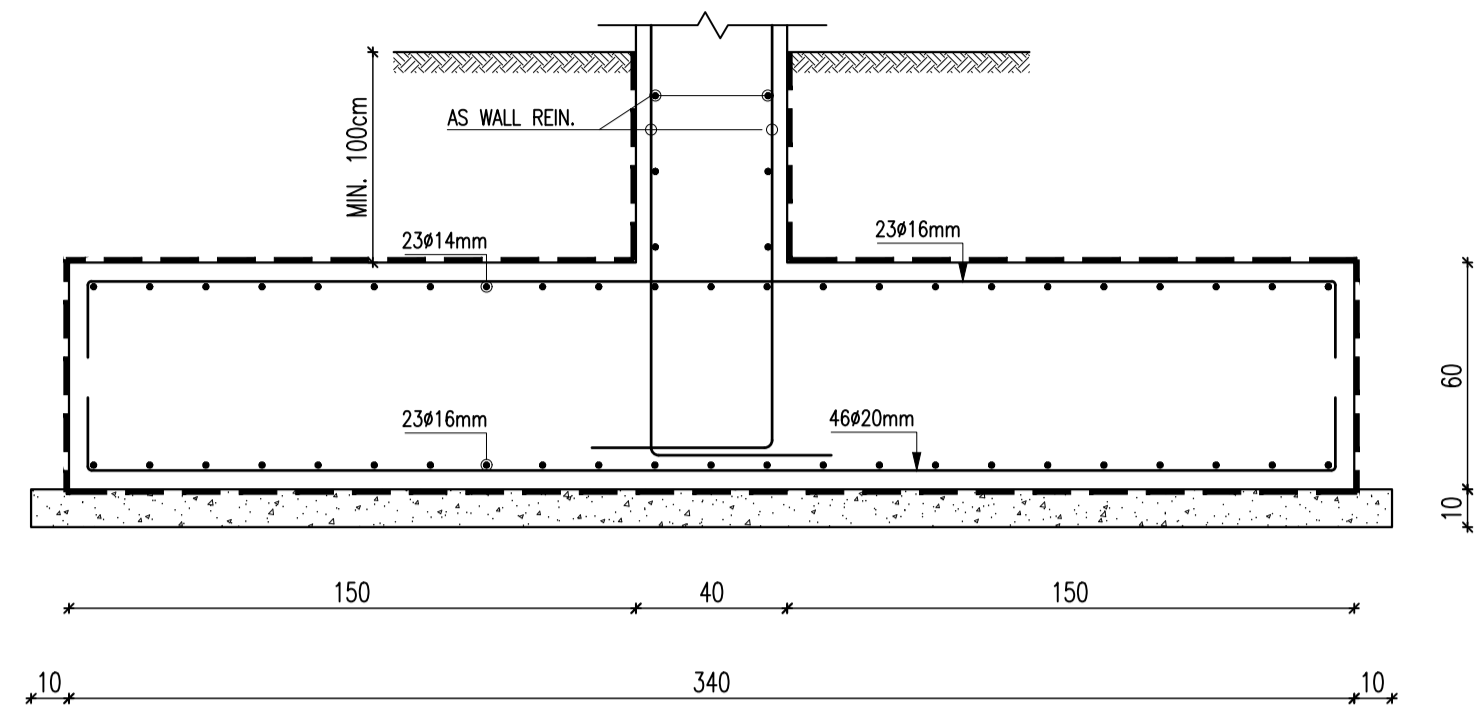
**T.B-1**  
SCALE 1:20



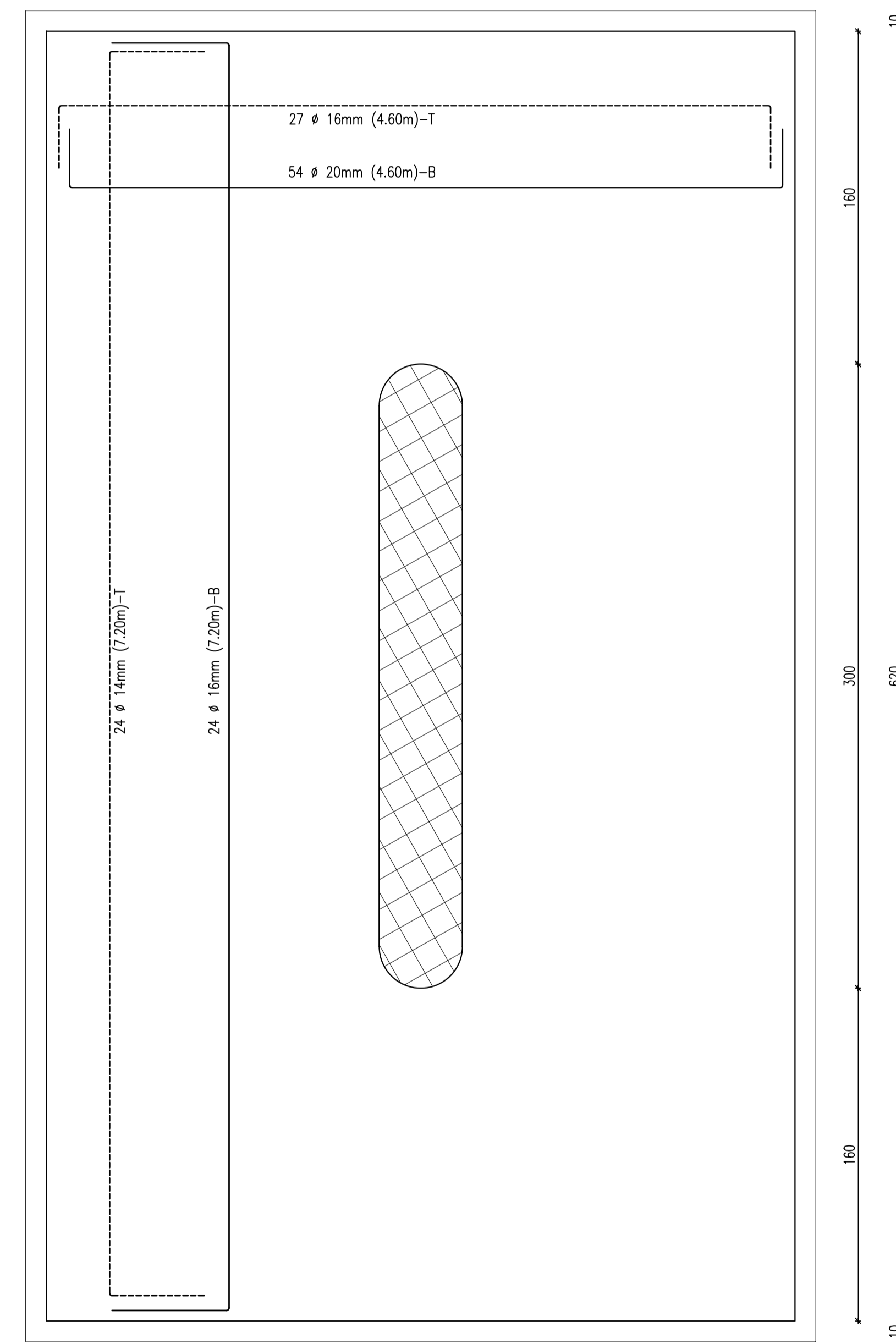
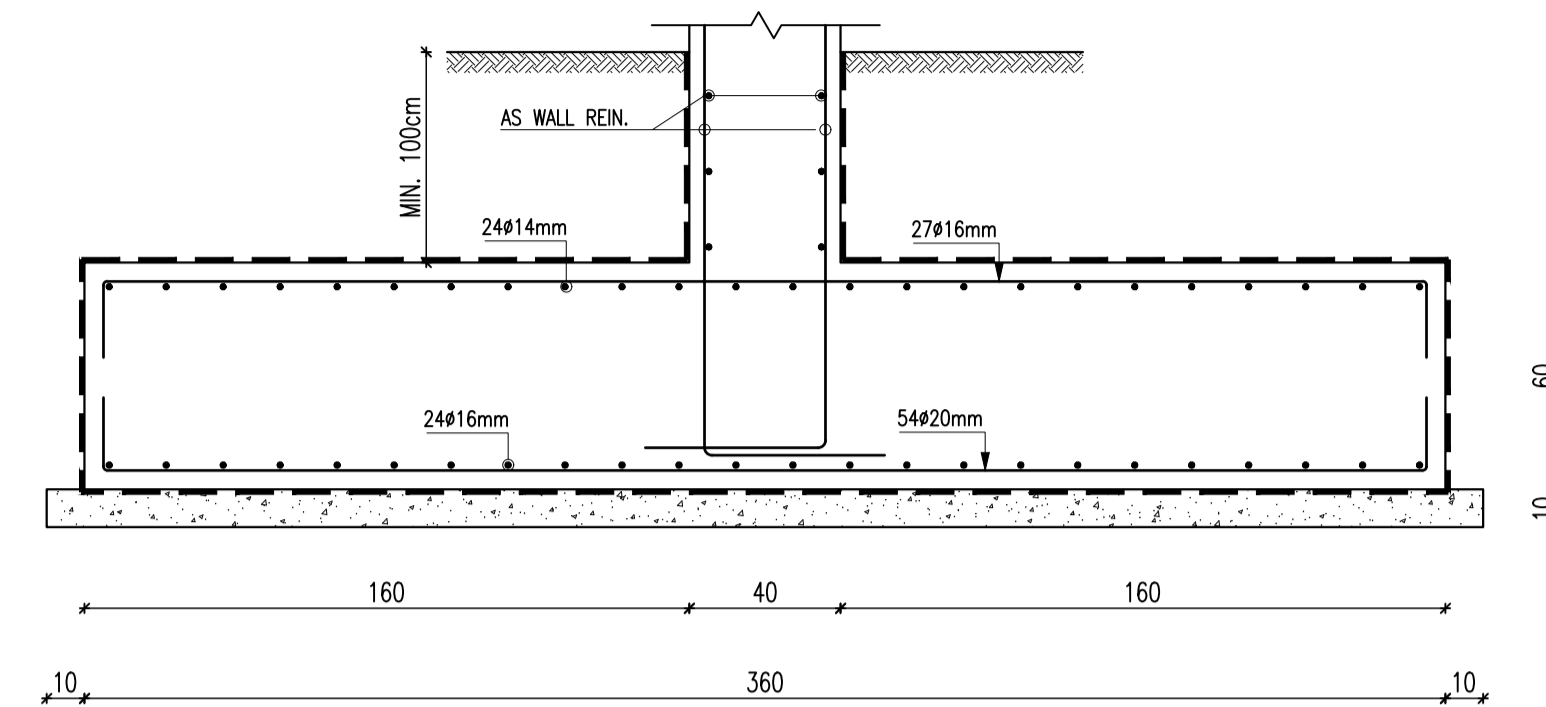
**FOOTING F1**  
SCALE 1:20



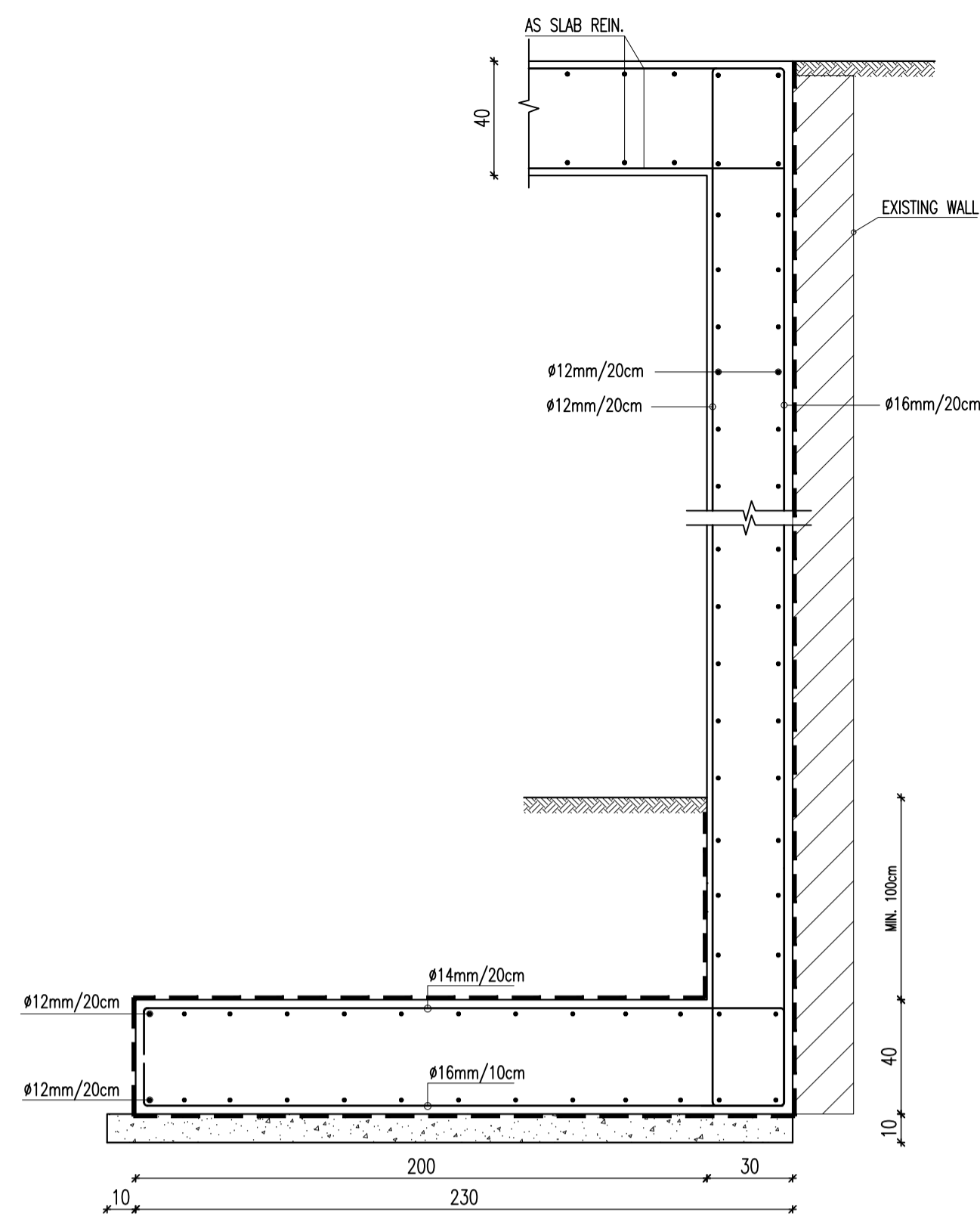
**FOOTING F2**  
SCALE 1:20



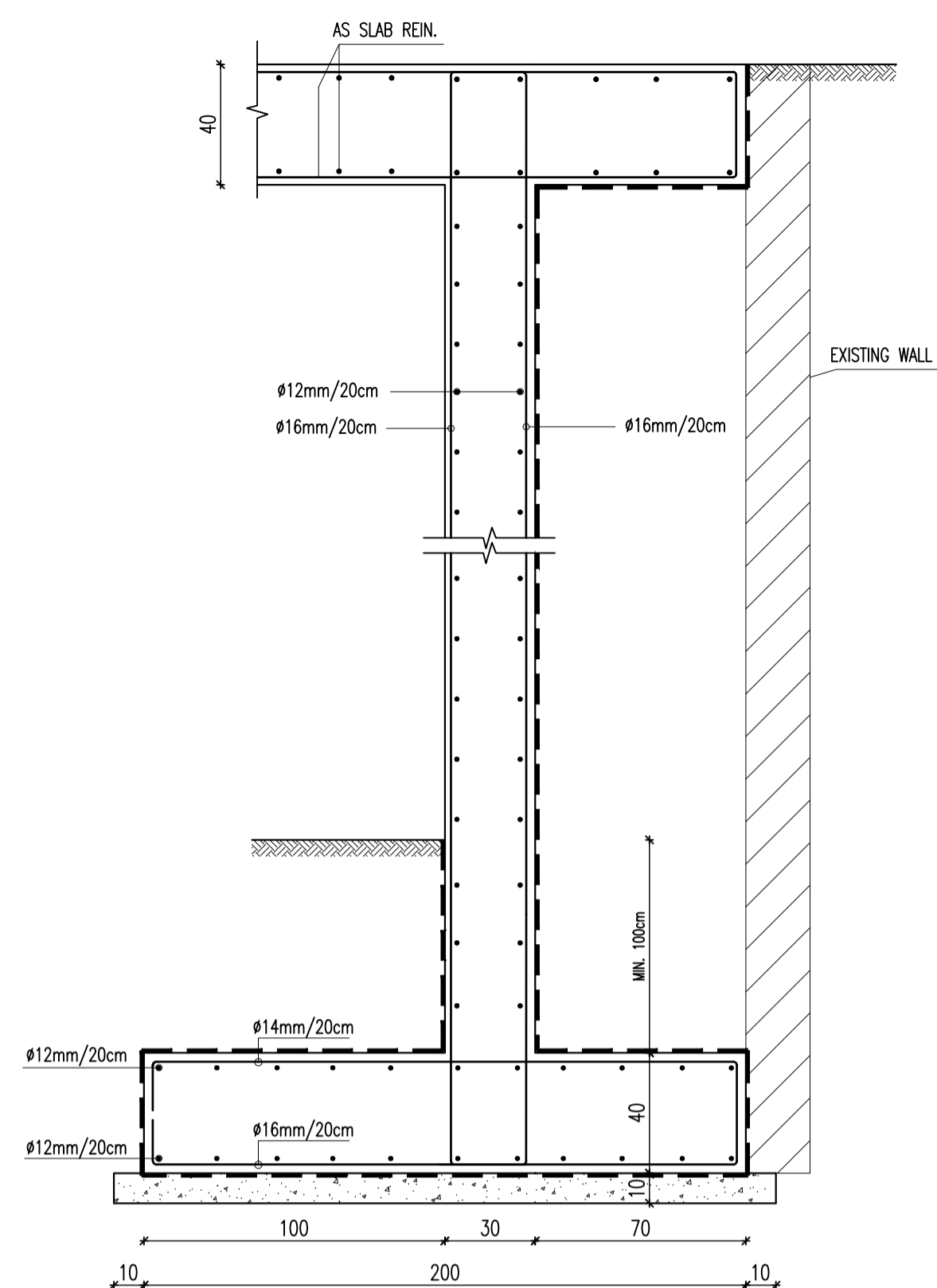
**FOOTING F3**  
SCALE 1:20



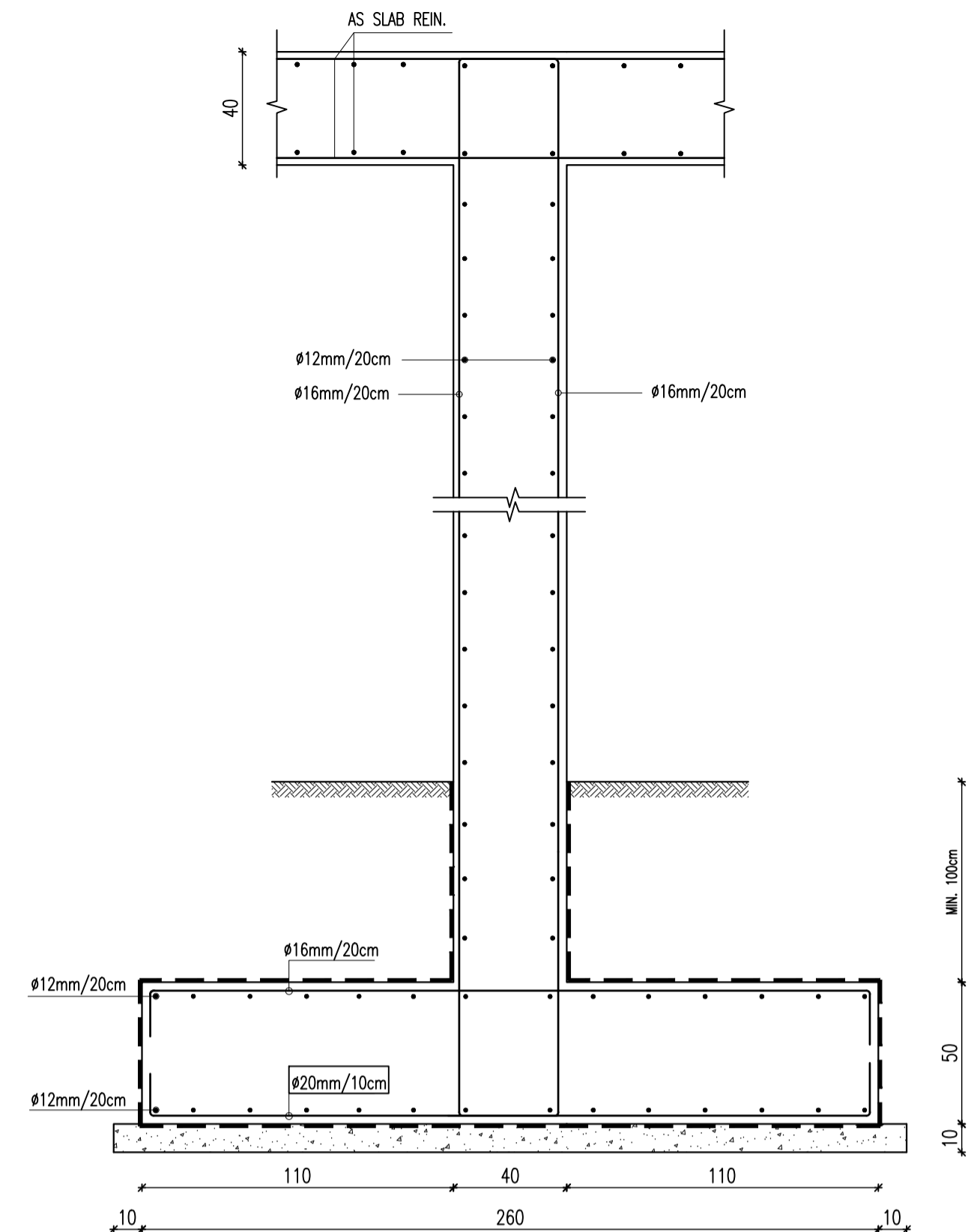
**FOOTING F4**  
SCALE 1:20



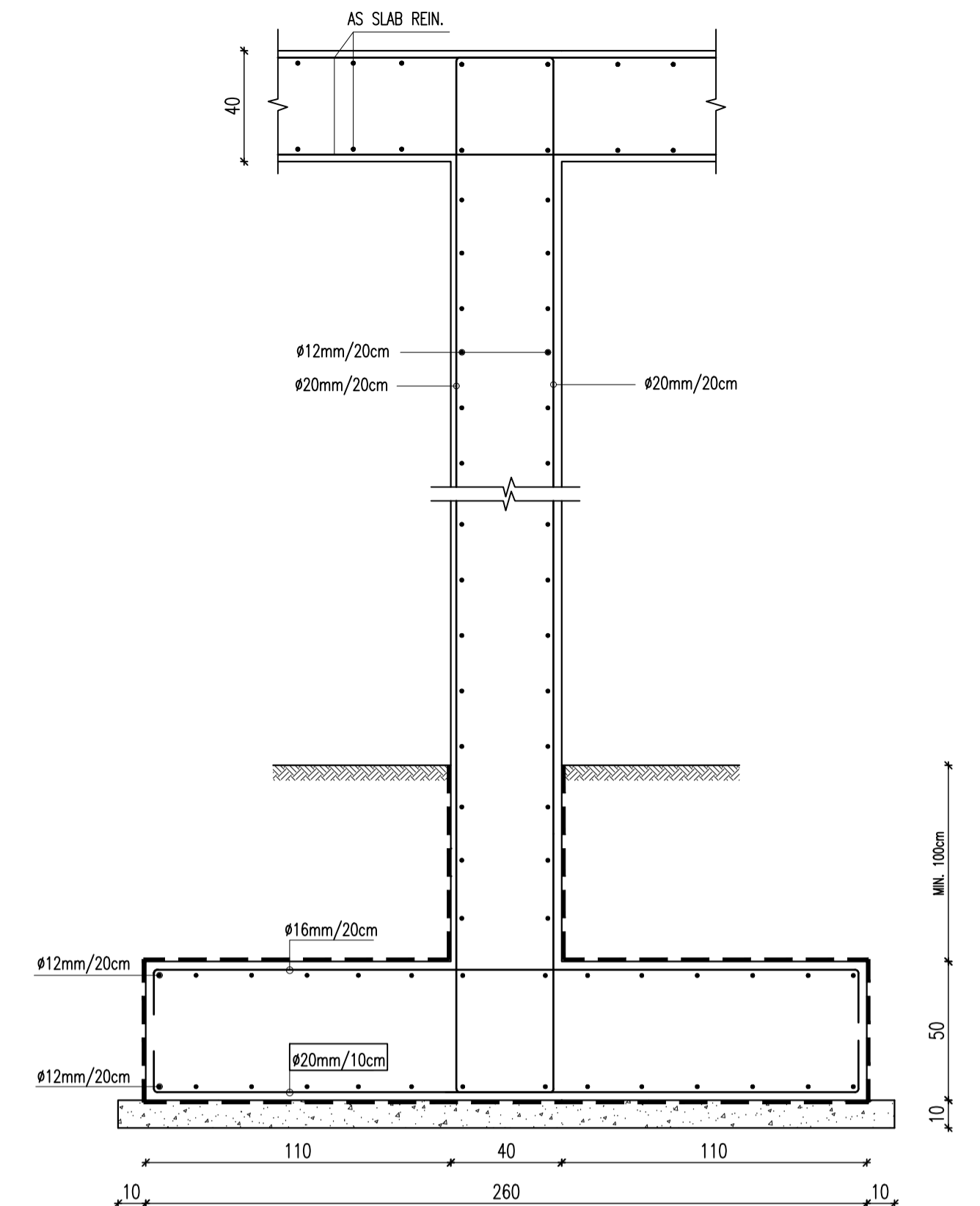
SECTION 1-1  
SCALE 1:20



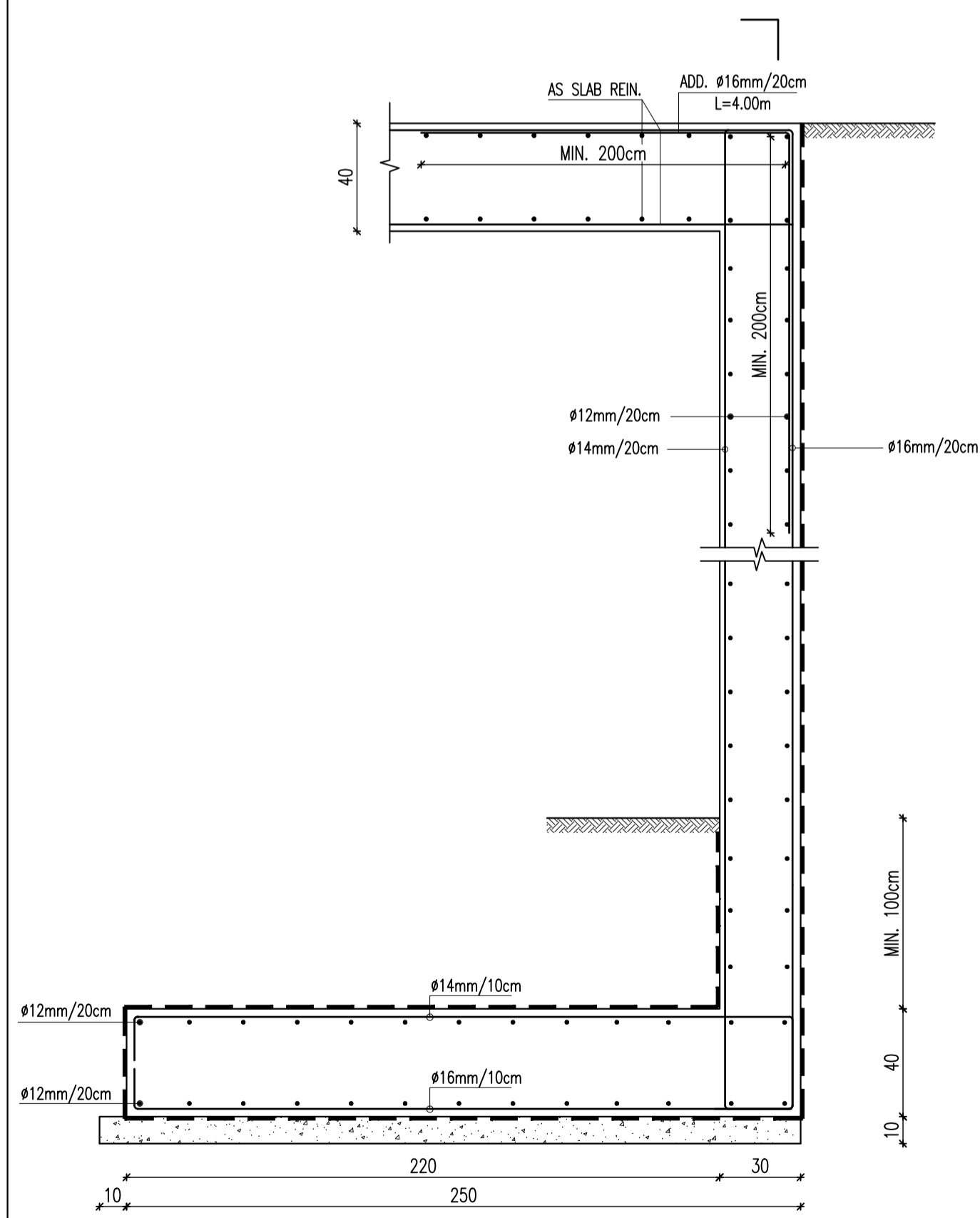
SECTION 2-2  
SCALE 1:20



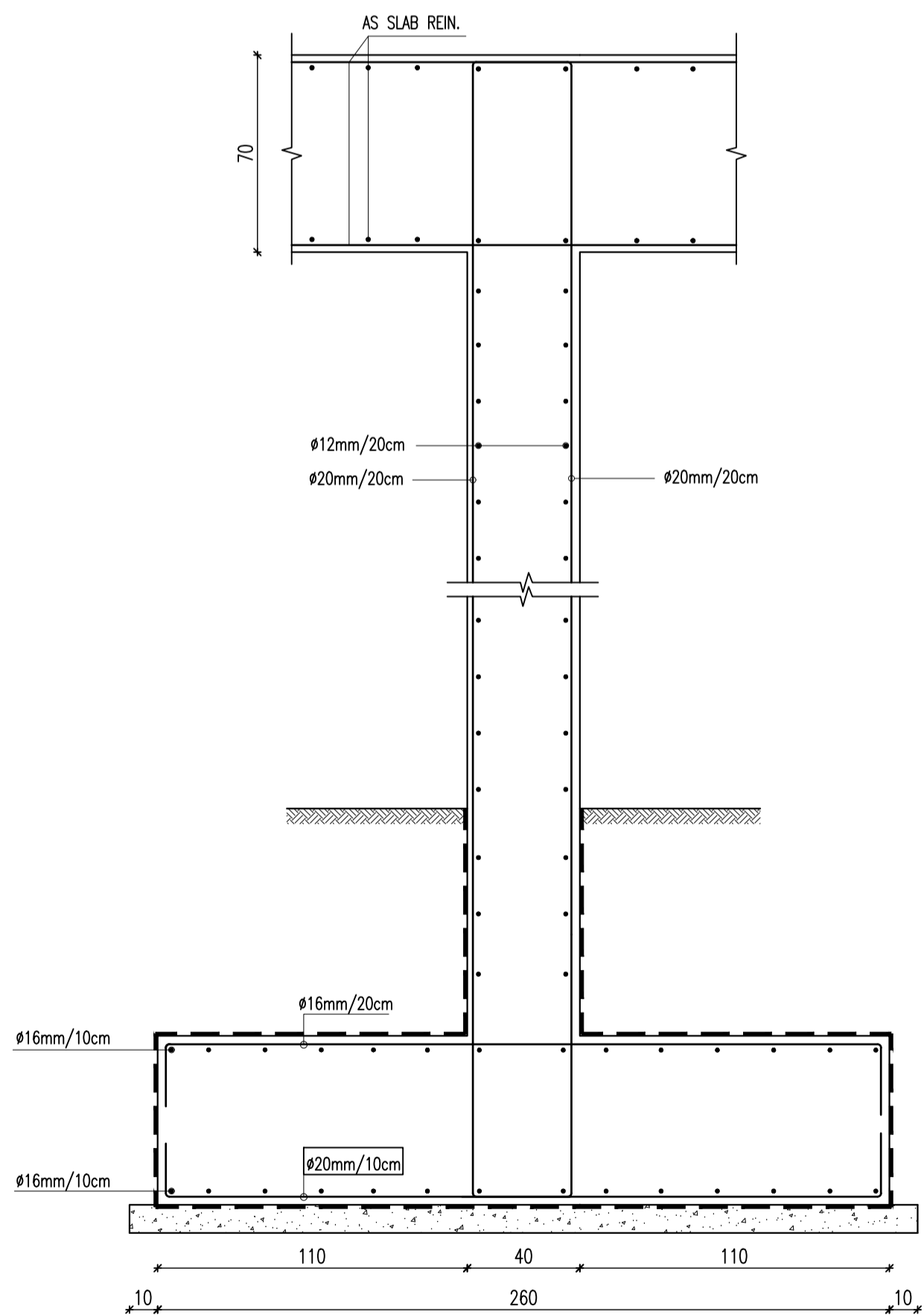
SECTION 3-3  
SCALE 1:20



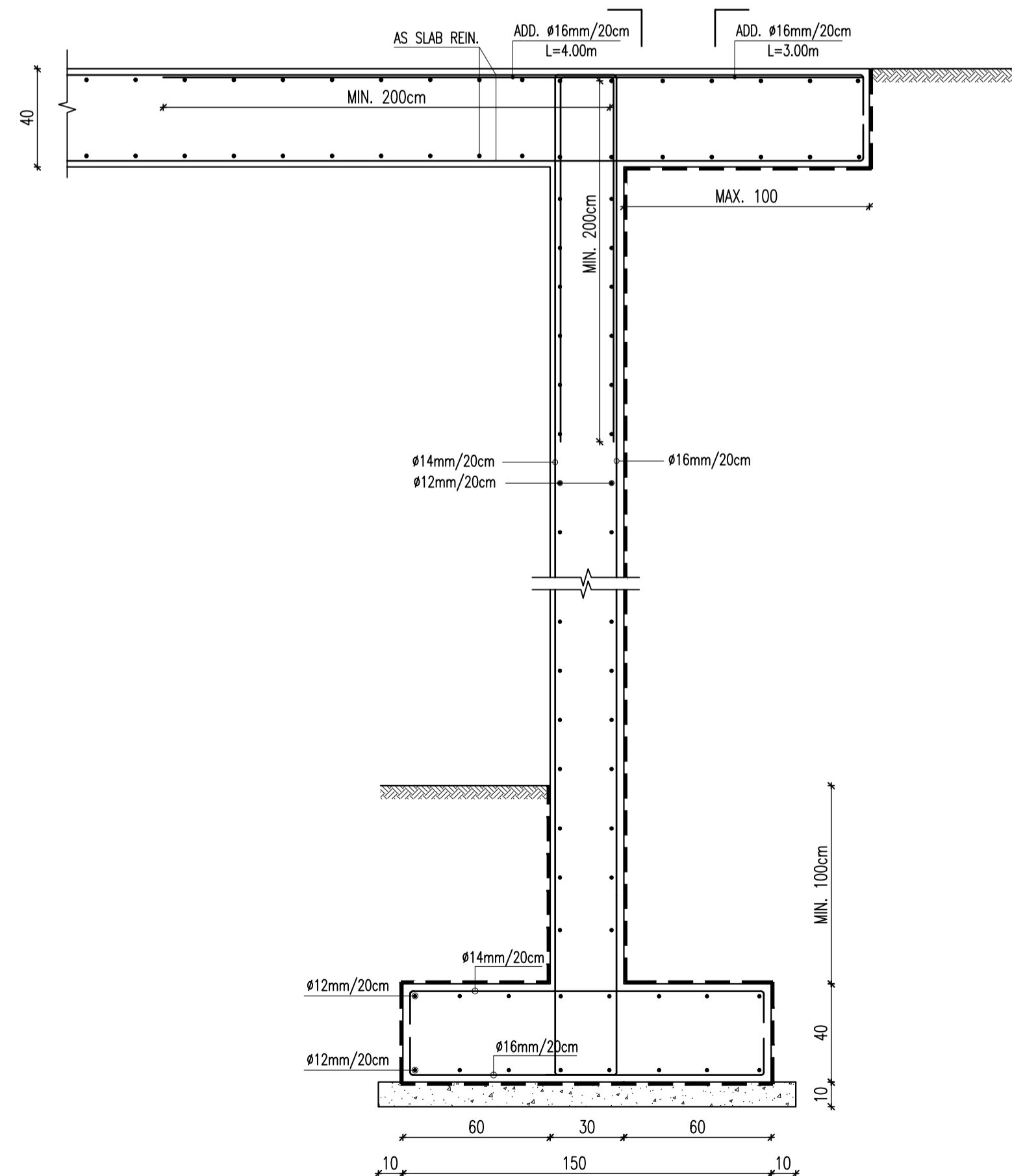
SECTION 4-4  
SCALE 1:20



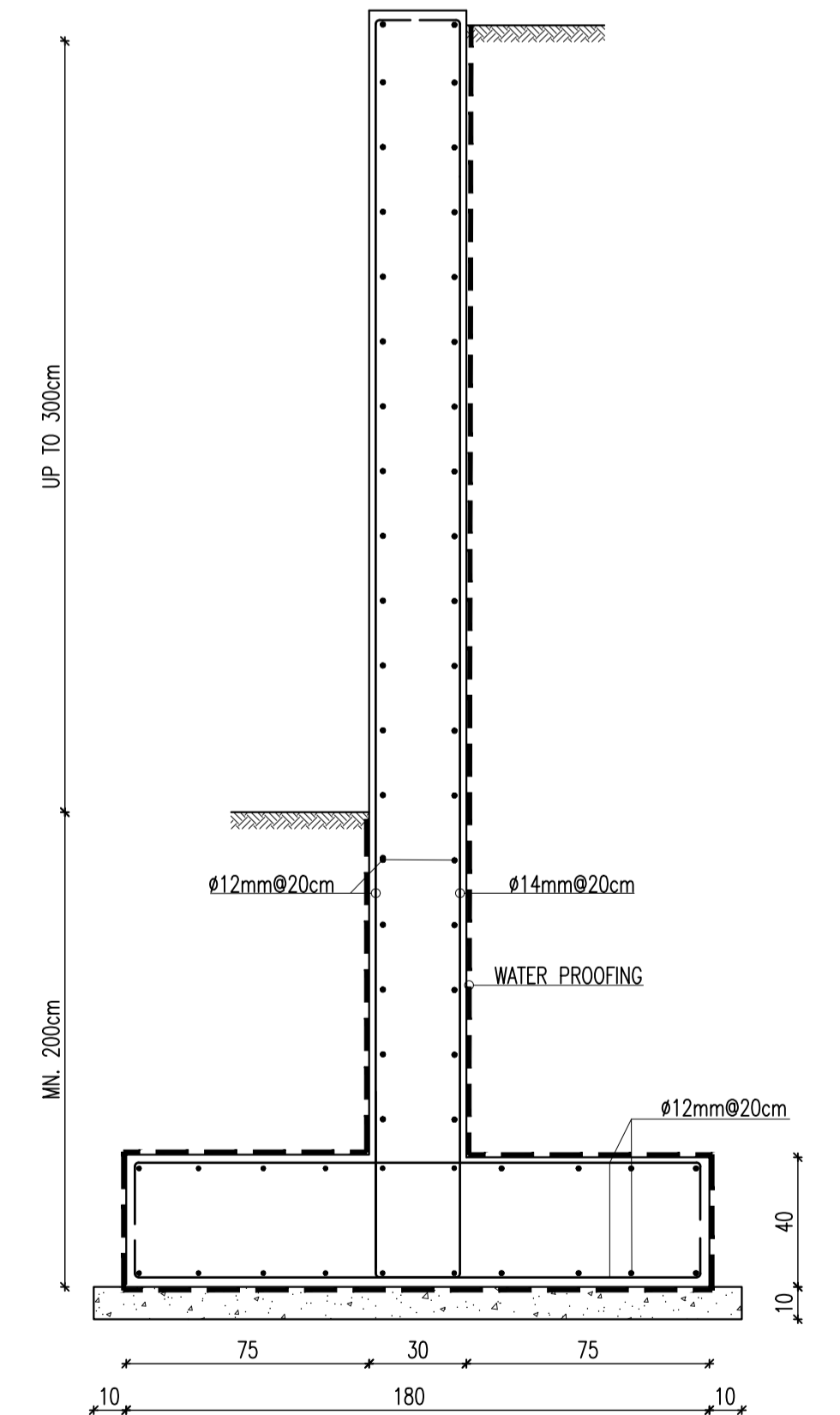
SECTION 5-5  
SCALE 1:20



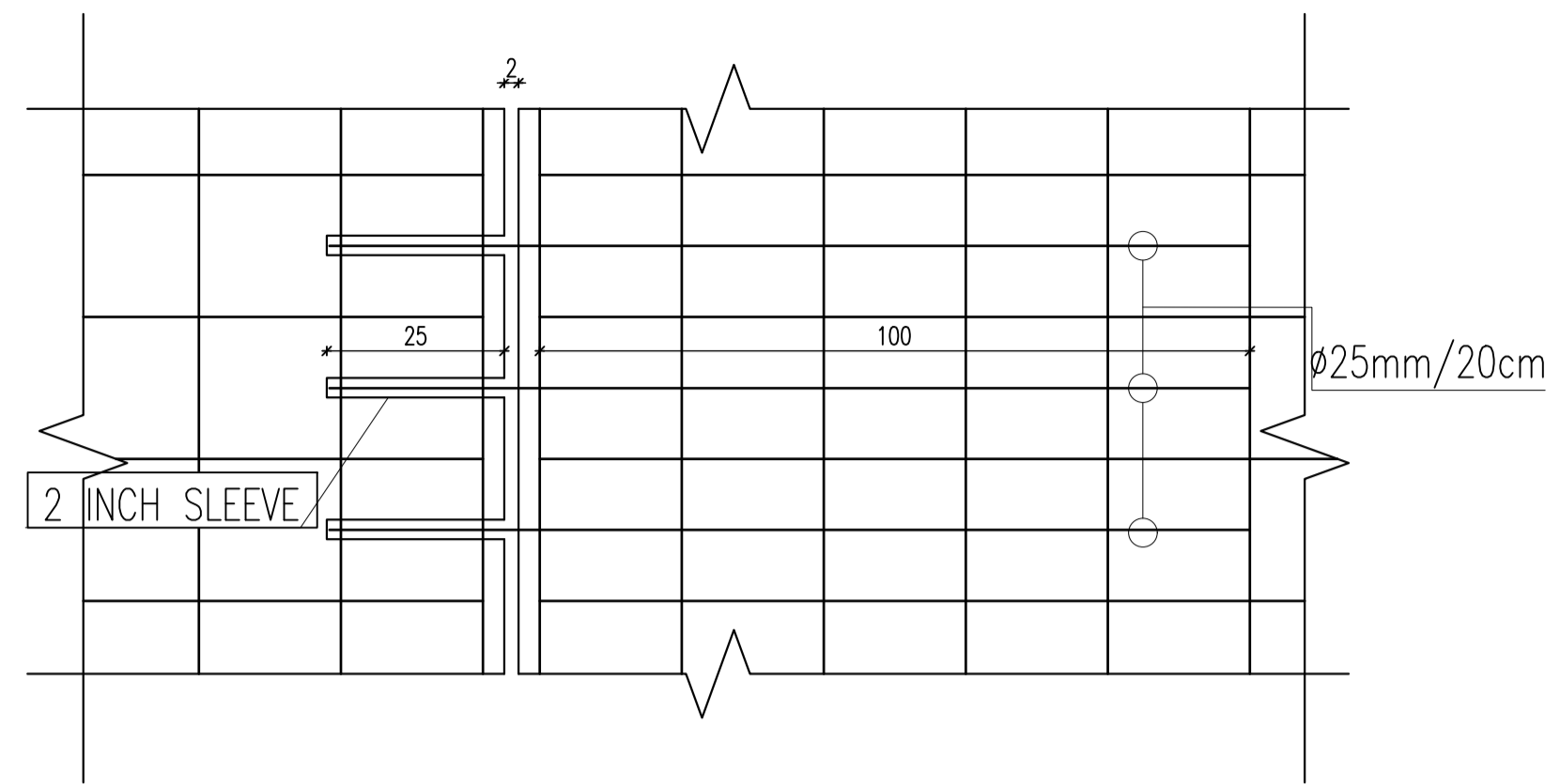
SECTION 6-6  
SCALE 1:20



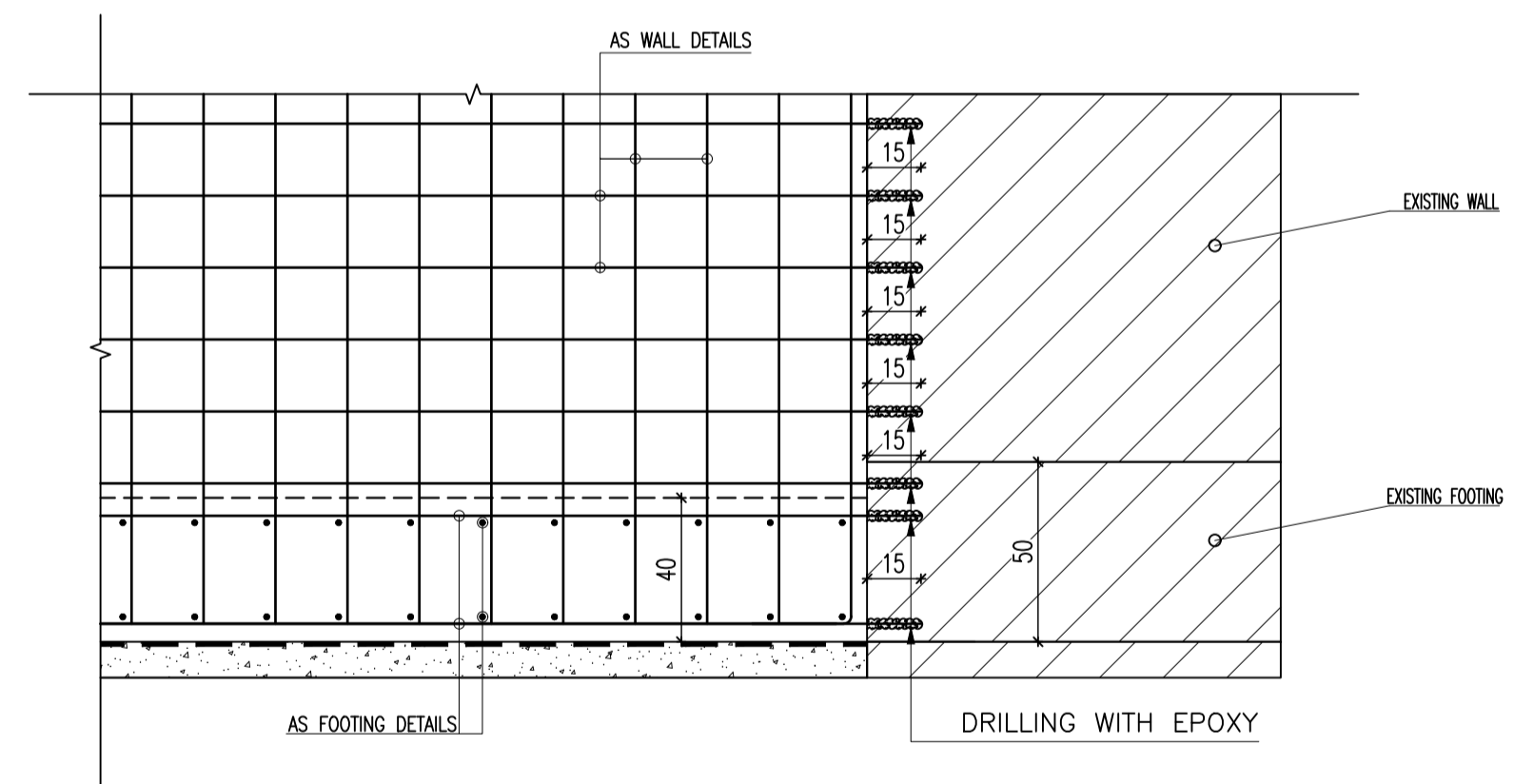
SECTION 7-7  
SCALE 1:20



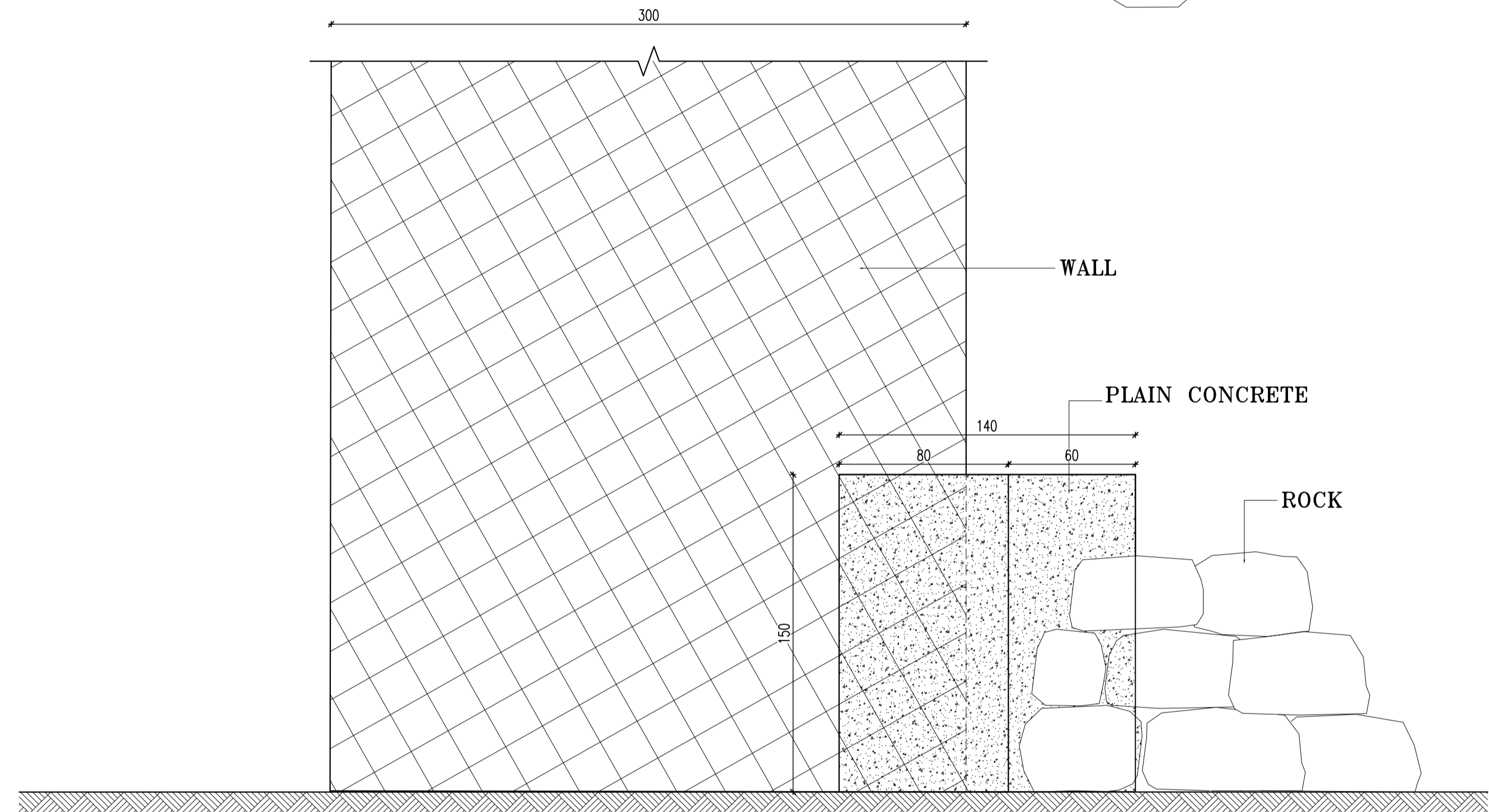
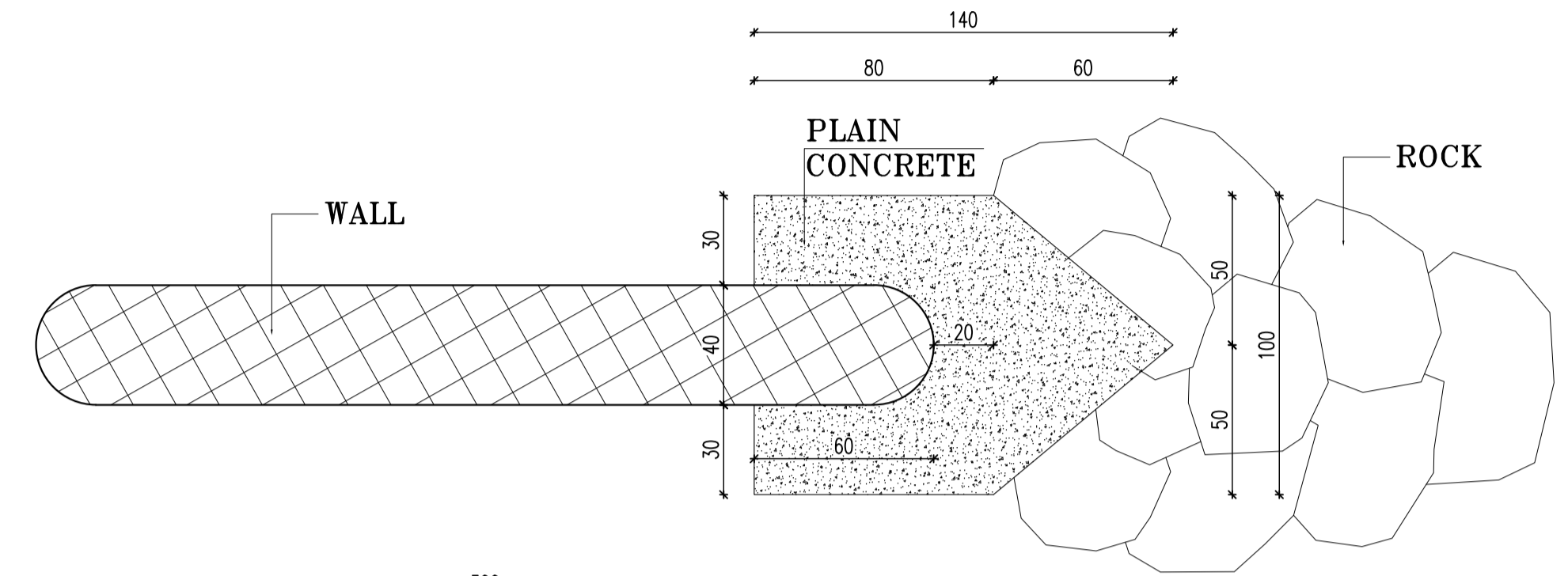
SECTION 8-8  
SCALE 1:20



**EXPANSION JOINT DETAIL**  
SCALE 1:10

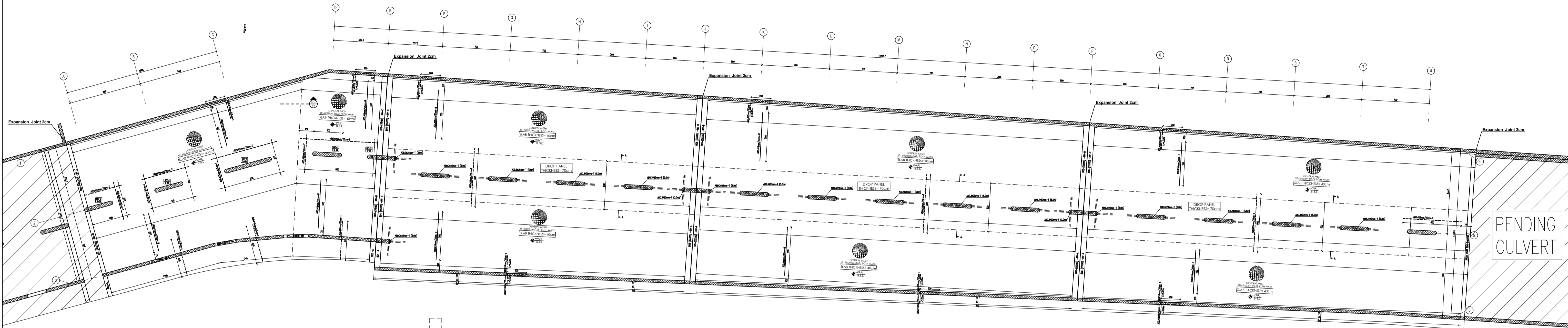



**DETAIL-A**  
SCALE 1:20




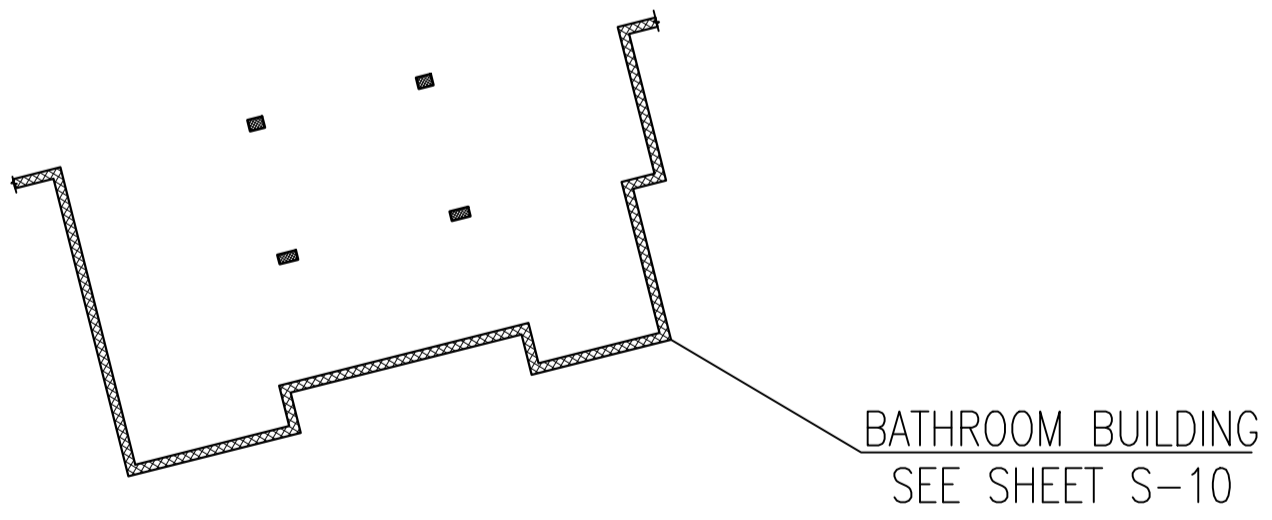
**DETAIL (1)**  
SCALE 1:20

-NOTE: CONCRETE COVER FOR ALL ELEMENTS= 50mm.




 DROP PANEL THICKNESS 70cm  
 DROP PANEL BOTTOM STEEL (9mm/7cm) BOTH WAYS  
 SLAB TOP & BOTTOM REINFORCEMENT LAYOUT PLAN  
 GENERAL MESH (9mm/10cm-TWO LAYERS BOTH WAYS) FOR SLAB THICK  
 + ADDITIONAL REINFORCEMENT AS NOTED ON PLAN


 DROP PANEL THICKNESS 70cm  
 DROP PANEL BOTTOM STEEL (9mm/7cm) BOTH WAYS  
 SLAB TOP & BOTTOM REINFORCEMENT LAYOUT PLAN  
 GENERAL MESH (9mm/10cm-TWO LAYERS BOTH WAYS) FOR SLAB THICK  
 + ADDITIONAL REINFORCEMENT AS NOTED ON PLAN

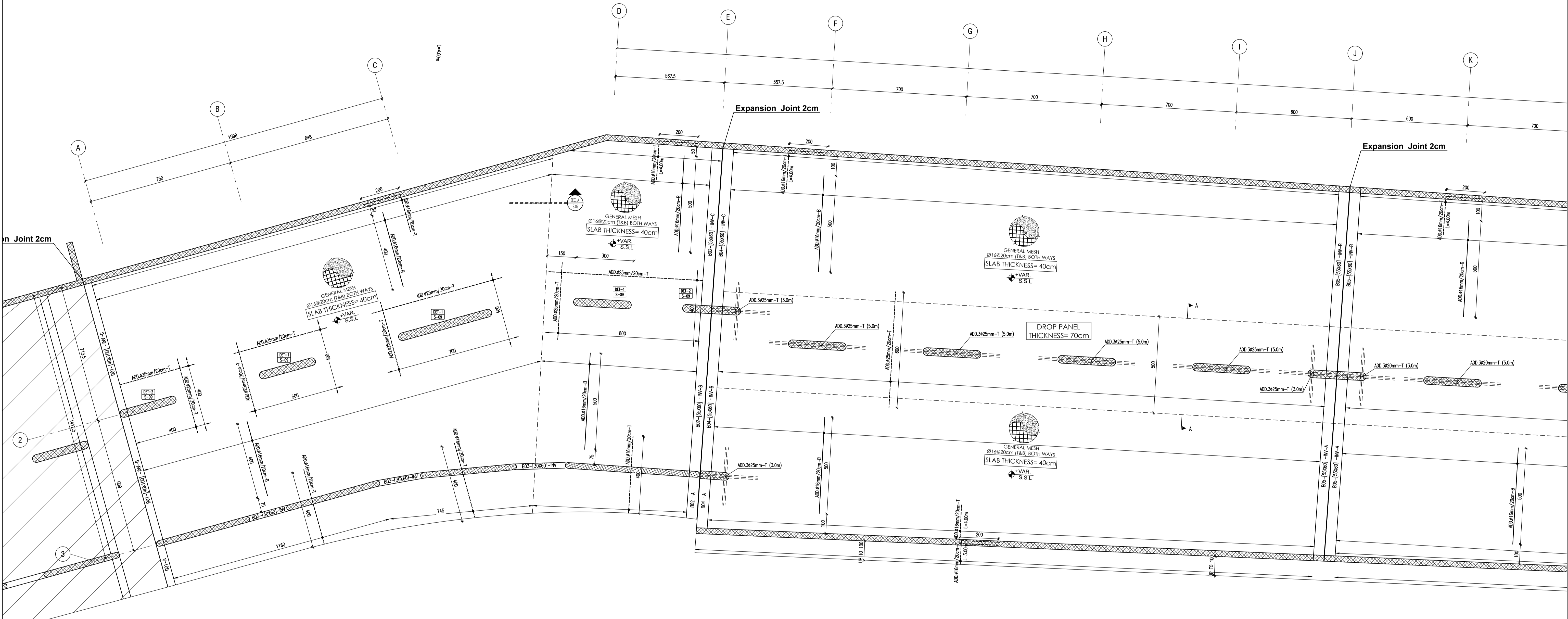


ISSUE	DATE	AMENDMENT	CHECKED	ISSUE	DATE	AMENDMENT	CHECKED

DRAWN	NORTH	SCALE
		1/200
CHECKED	APPROVED	
	AK	

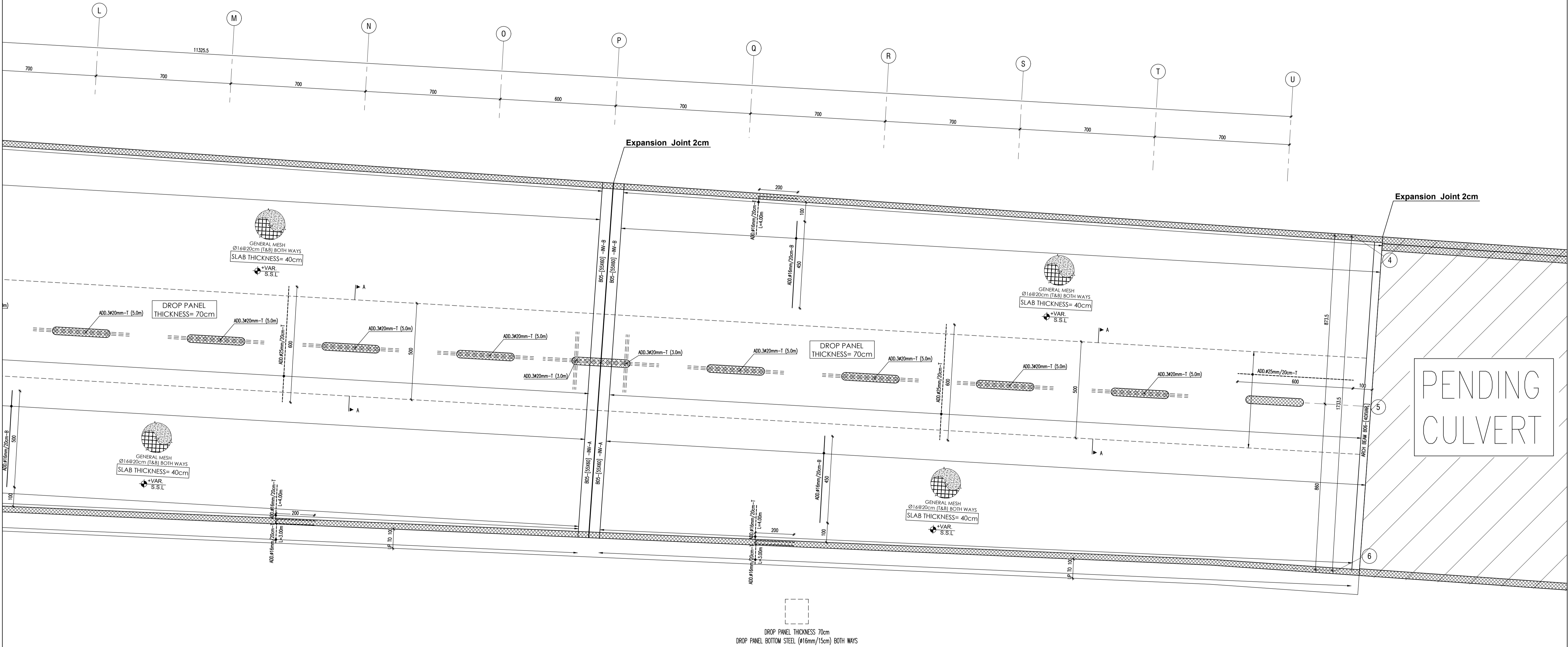
DRAWING TITLE	SHEET NUMBER	ISSUE	DATE
SLAB FLOOR PLAN	S-07		

-NOTE: CONCRETE COVER FOR ALL ELEMENTS= 50mm.



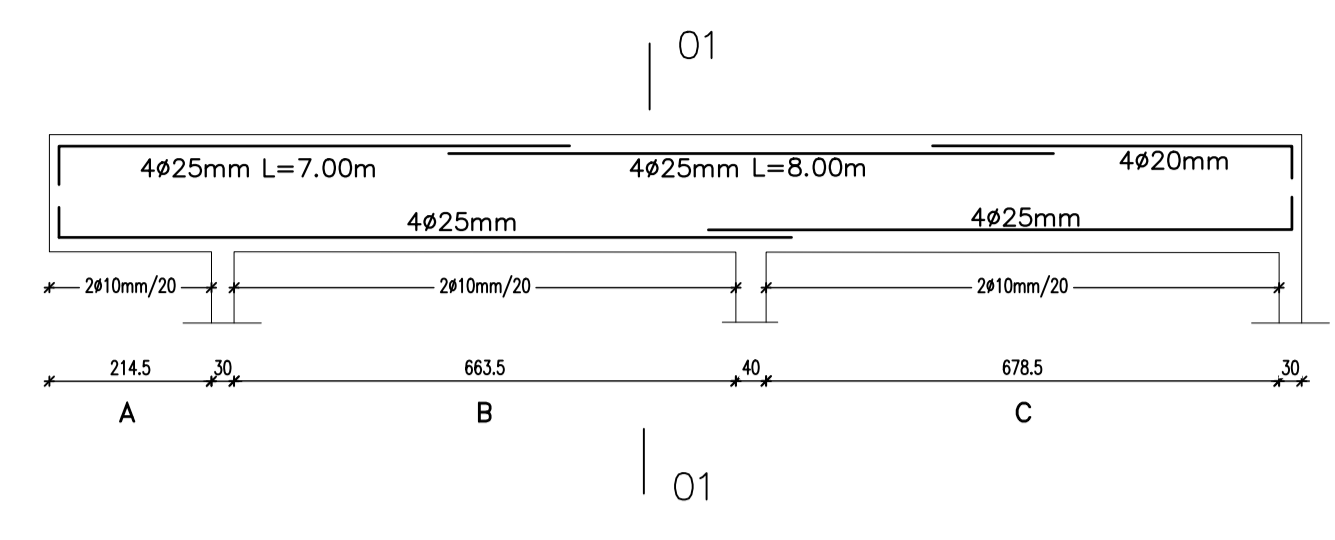
DROP PANEL THICKNESS 70cm  
 DROP PANEL BOTTOM STEEL (Ø16mm/15cm) BOTH WAYS  
 SLAB TOP & BOTTOM REINFORCEMENT LAYOUT PLAN  
 GENERAL MESH (Ø16mm/20cm-TWO LAYERS) BOTH WAYS FOR SLAB THICK.  
 + ADDITIONAL REINFORCEMENT AS NOTED ON PLAN

-NOTE: CONCRETE COVER FOR ALL ELEMENTS= 50mm.

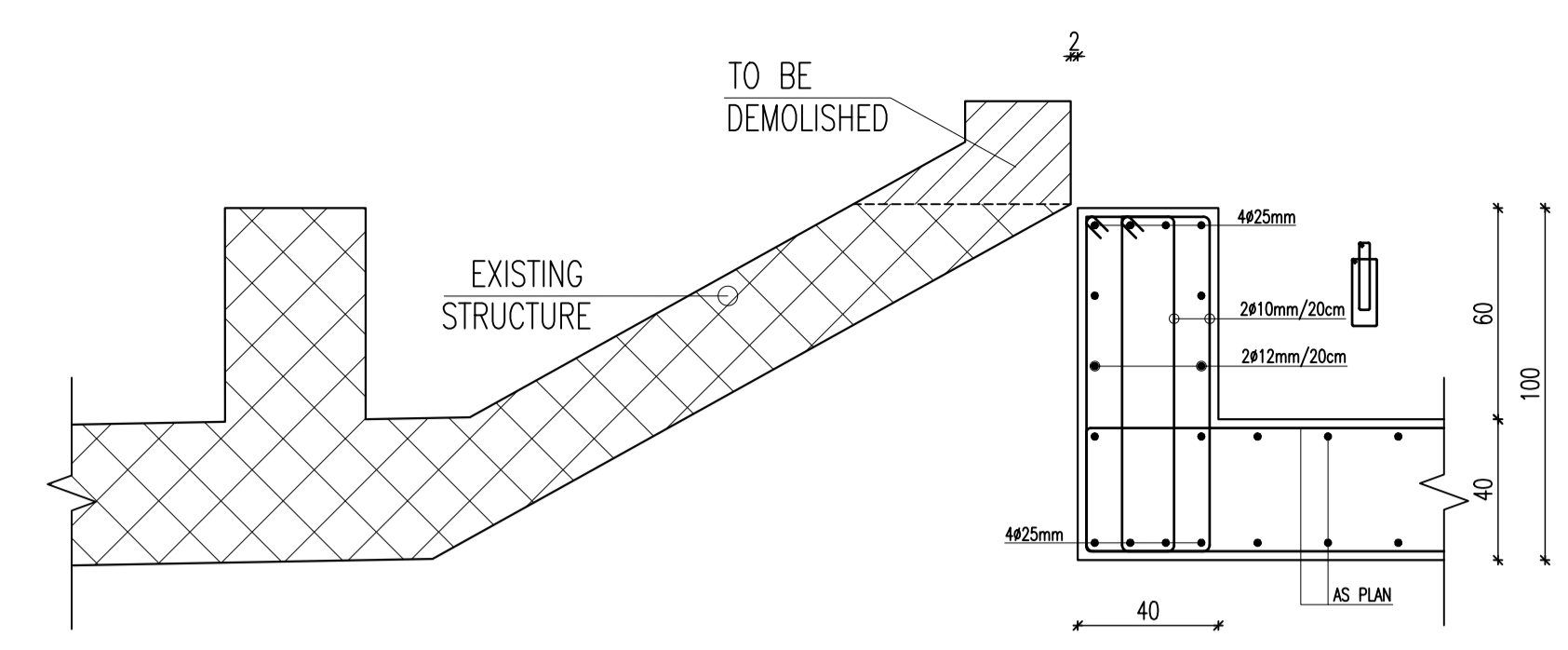


SLAB TOP & BOTTOM REINFORCEMENT LAYOUT PLAN  
 GENERAL MESH (Ø16mm/20cm-TWO LAYERS) BOTH WAYS FOR SLAB THICK.  
 + ADDITIONAL REINFORCEMENT AS NOTED ON PLAN

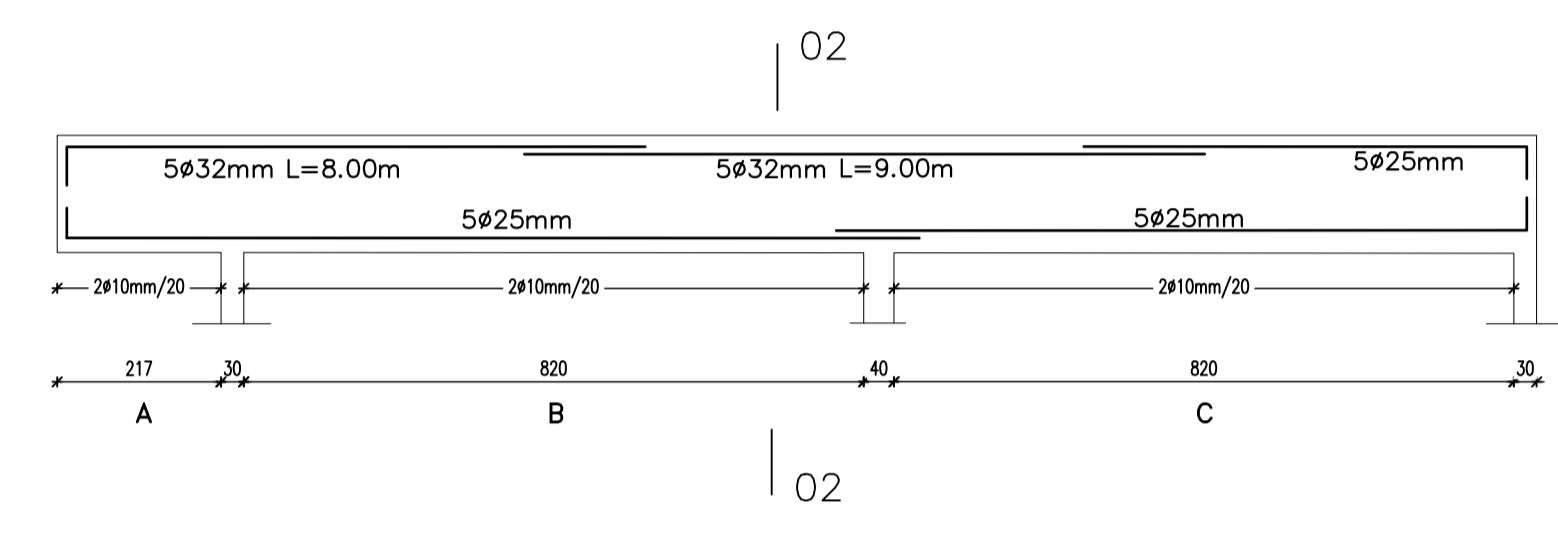
-NOTE: CONCRETE COVER FOR ALL ELEMENTS= 50mm.



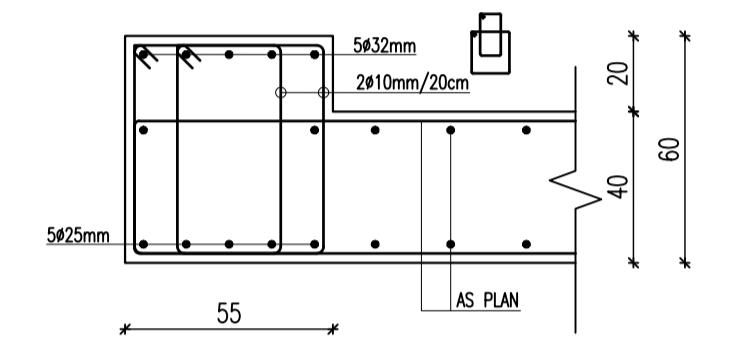
B01  
LONG. SECTION IN BEAM (B01) 1:100



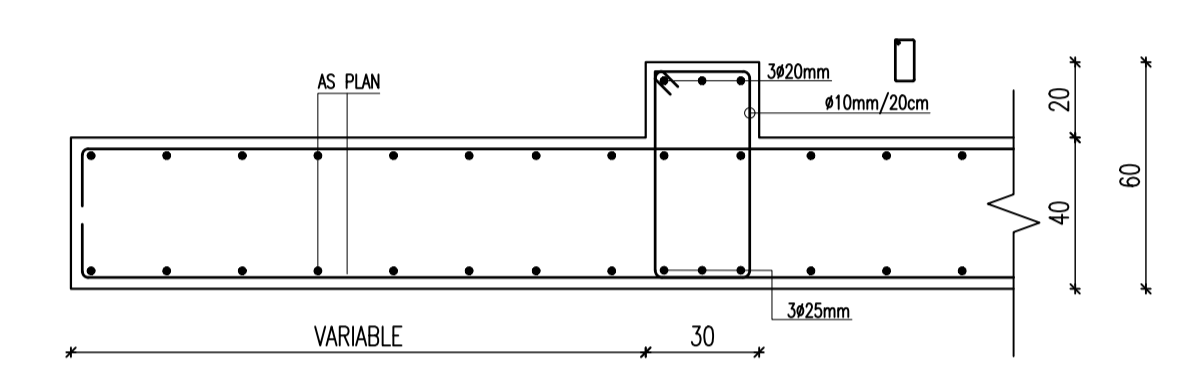
SEC. 01-01 IN BEAM B01  
Scale 1:20



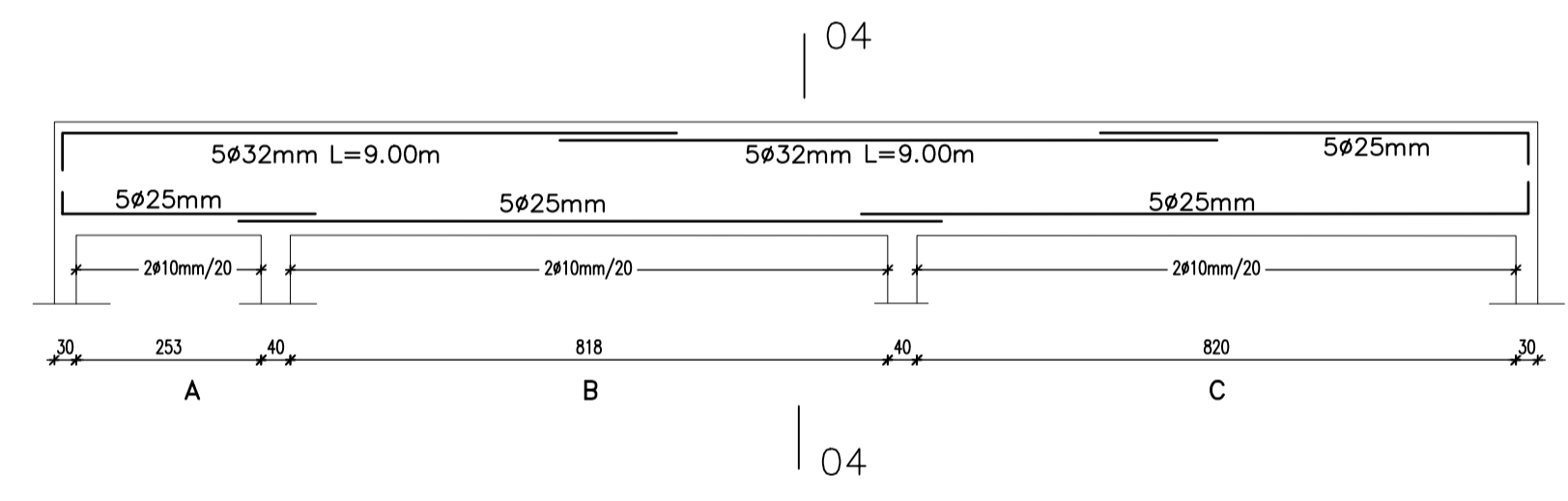
B02  
LONG. SECTION IN BEAM (B02) 1:100



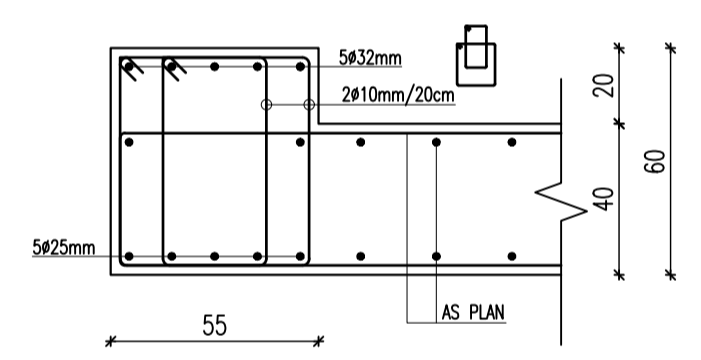
SEC. 02-02 IN BEAM B02  
Scale 1:20



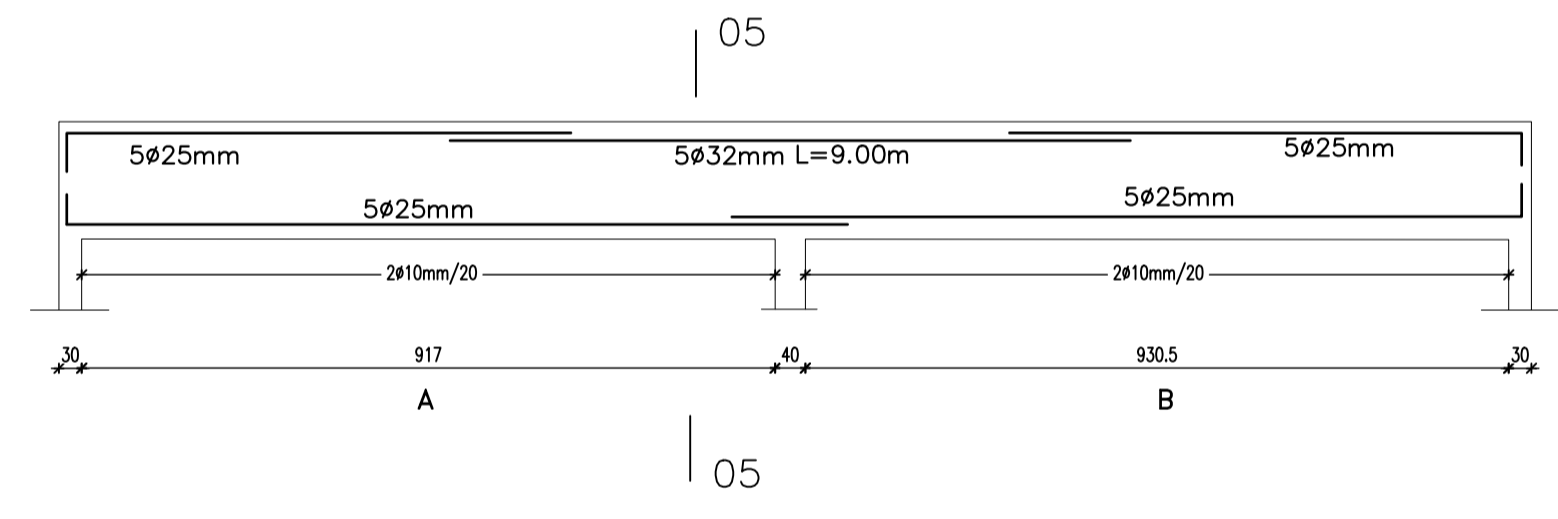
SECTION IN BEAM B03  
Scale 1:20



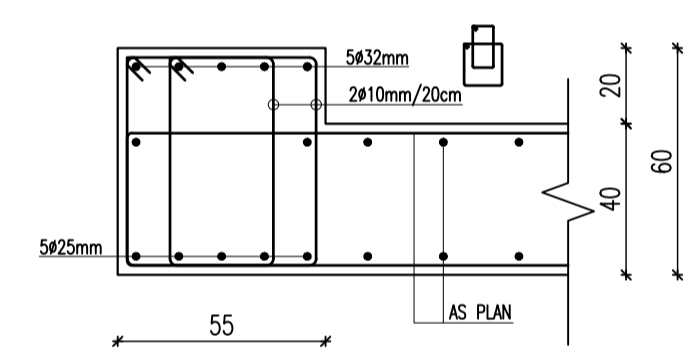
B04  
LONG. SECTION IN BEAM (B04) 1:100



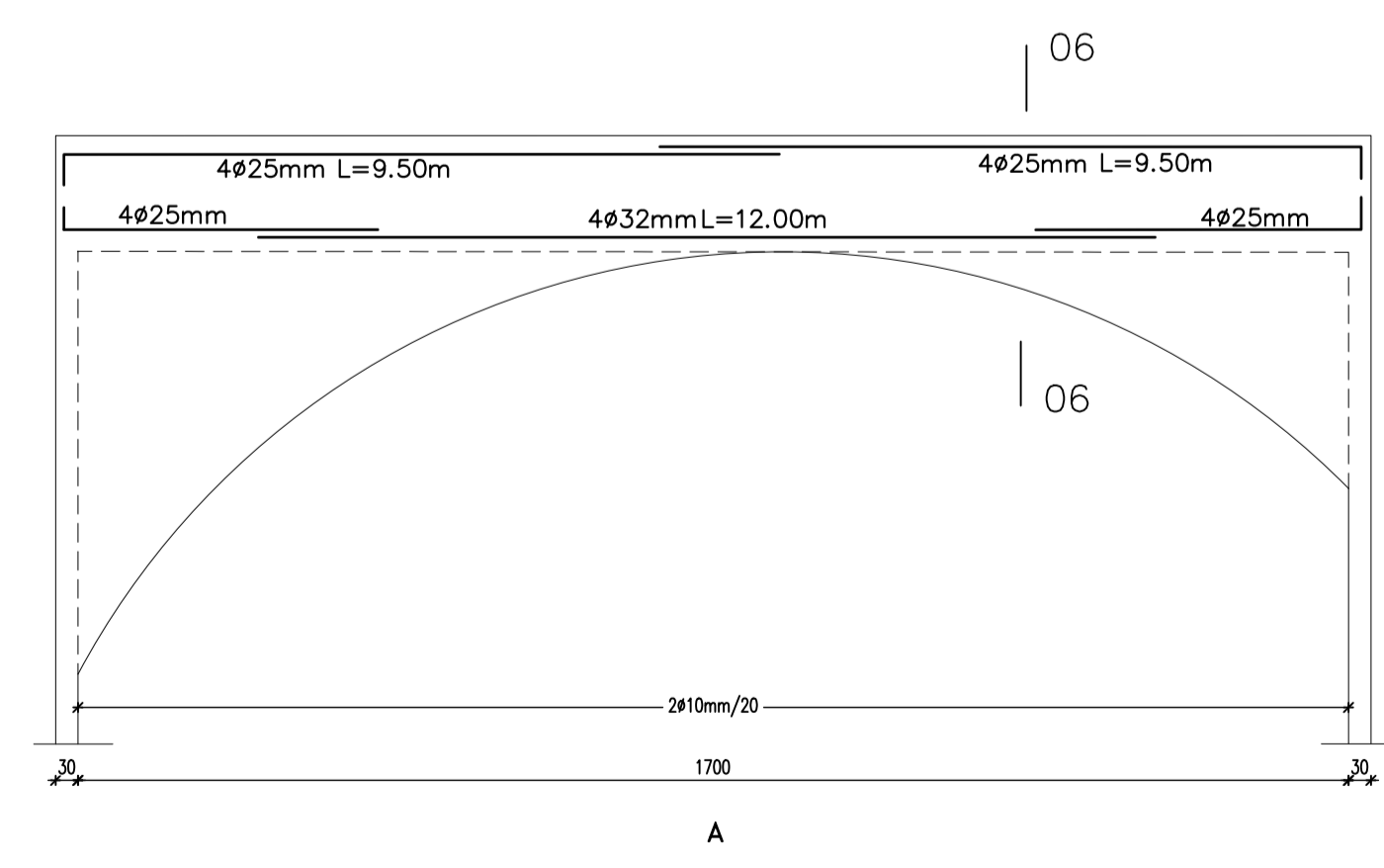
SEC. 04-04 IN BEAM B04  
Scale 1:20



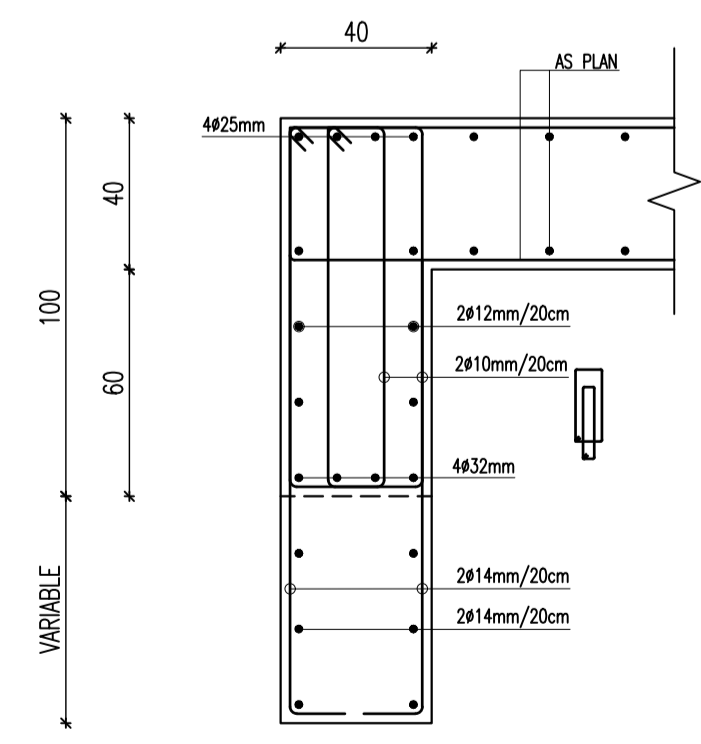
B05  
LONG. SECTION IN BEAM (B05) 1:100



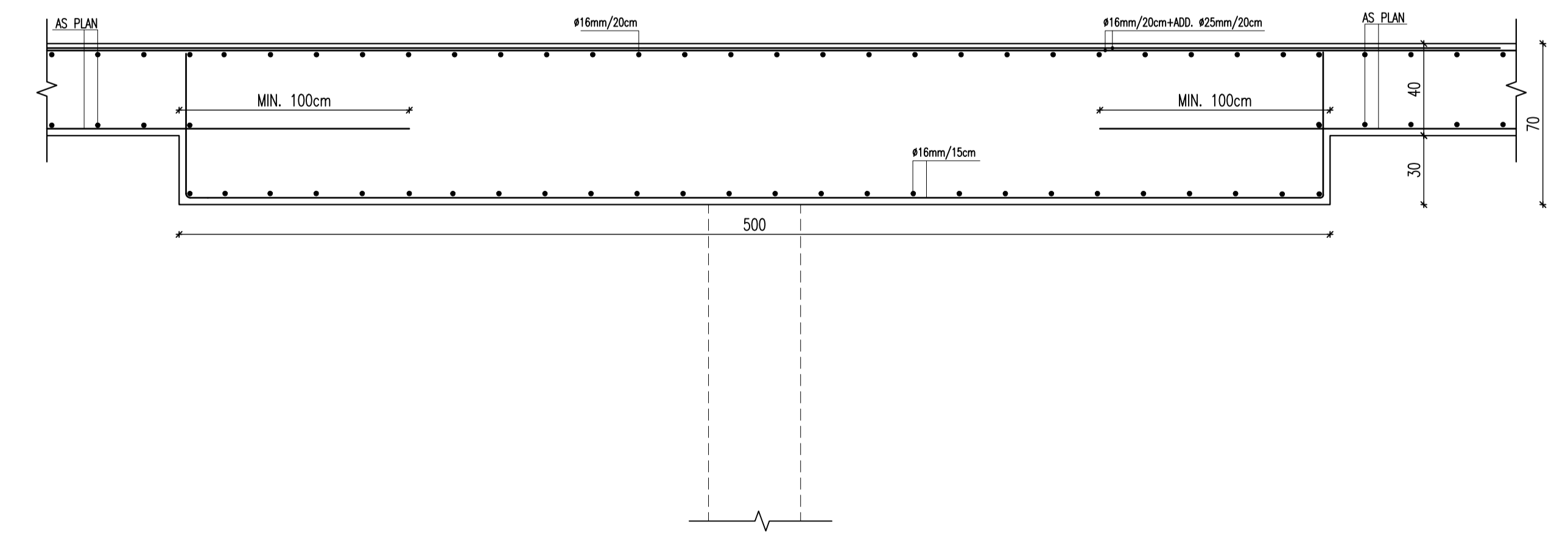
SEC. 05-05 IN BEAM B05  
Scale 1:20



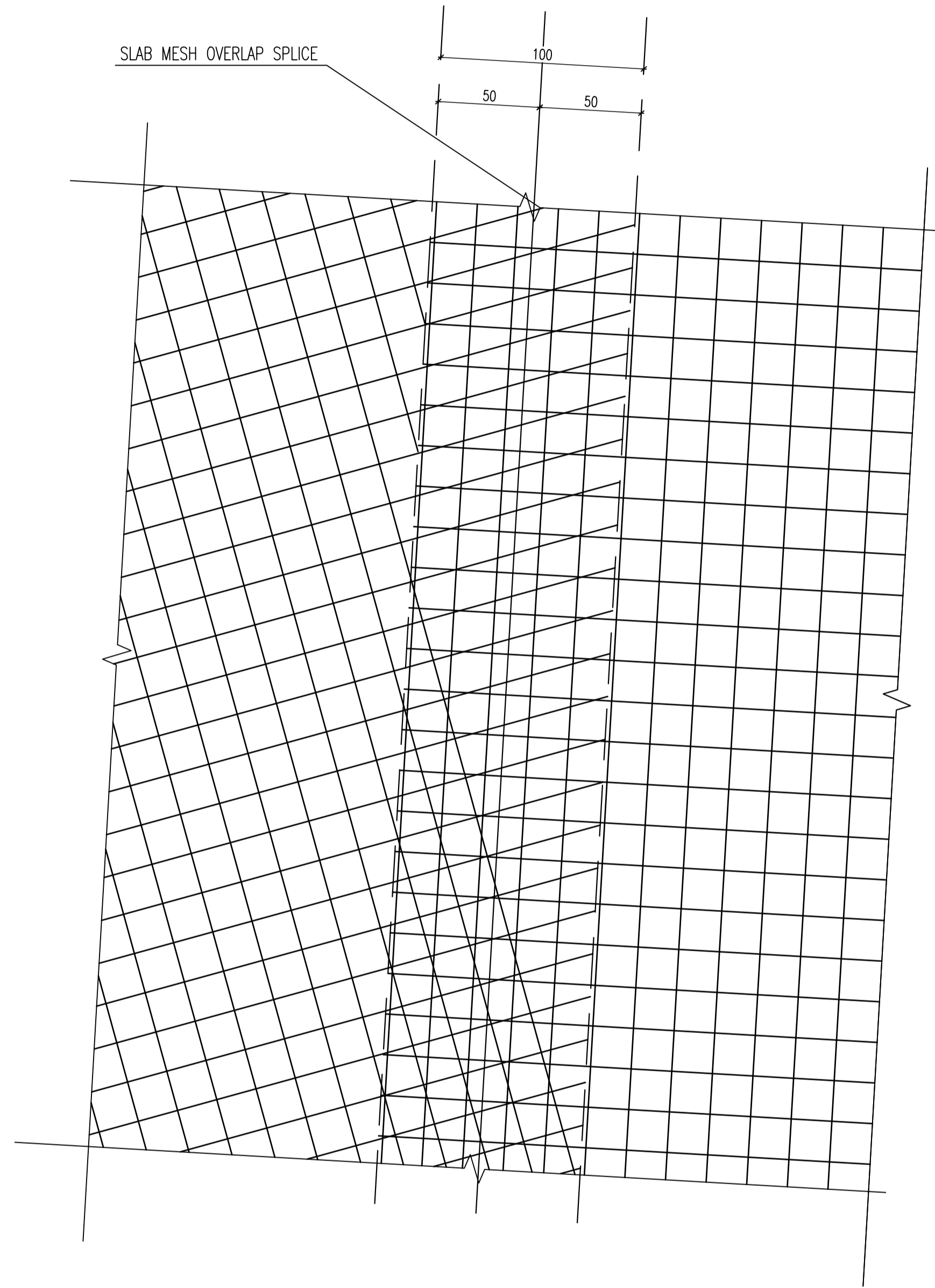
B06  
LONG. SECTION IN ARCH BEAM (B06) 1:100



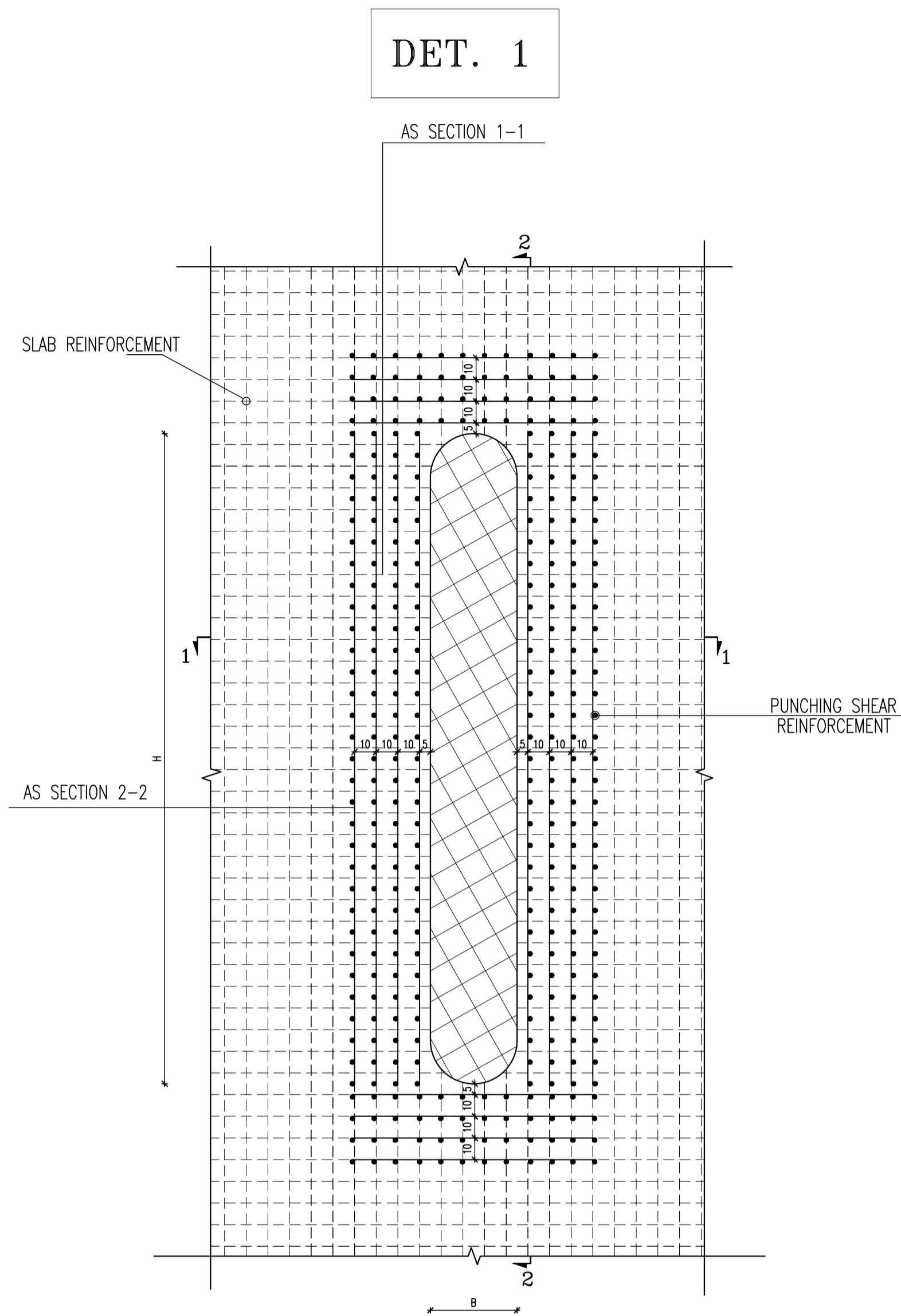
SEC. 06-06 IN BEAM B06  
Scale 1:20



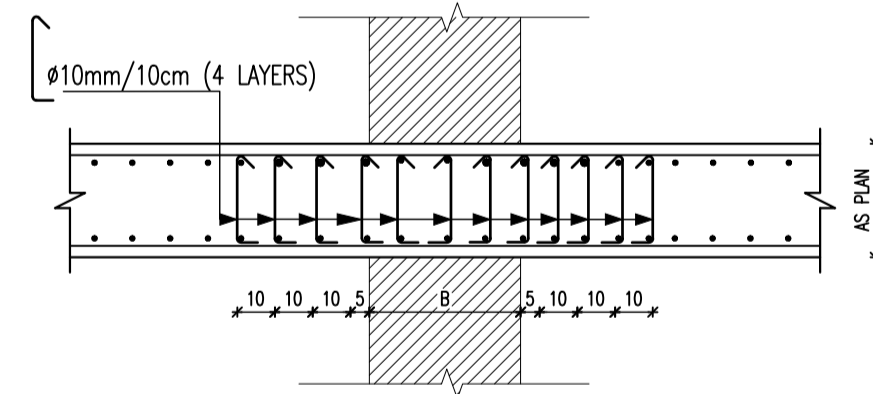
SECTION A-A IN DROP PANEL  
Scale 1:20



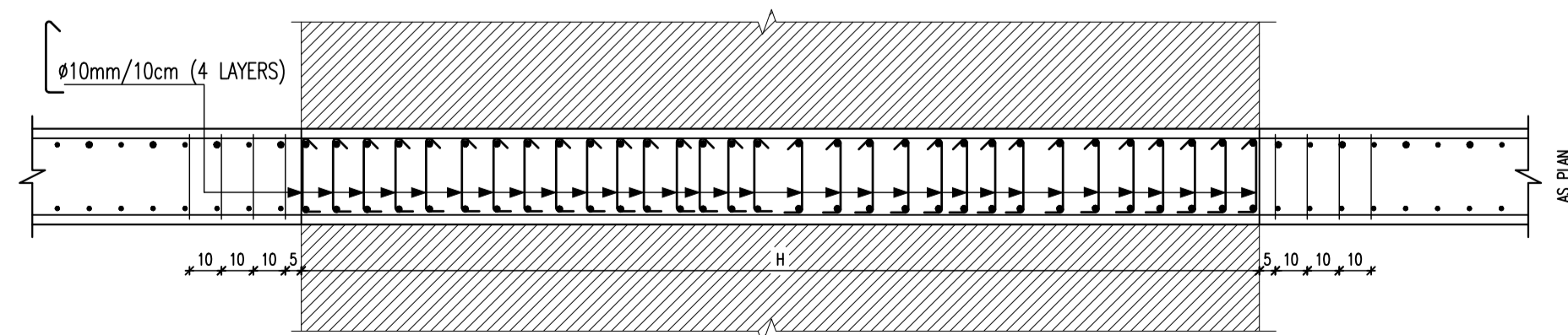
SECTION A-A  
SCALE 1:20



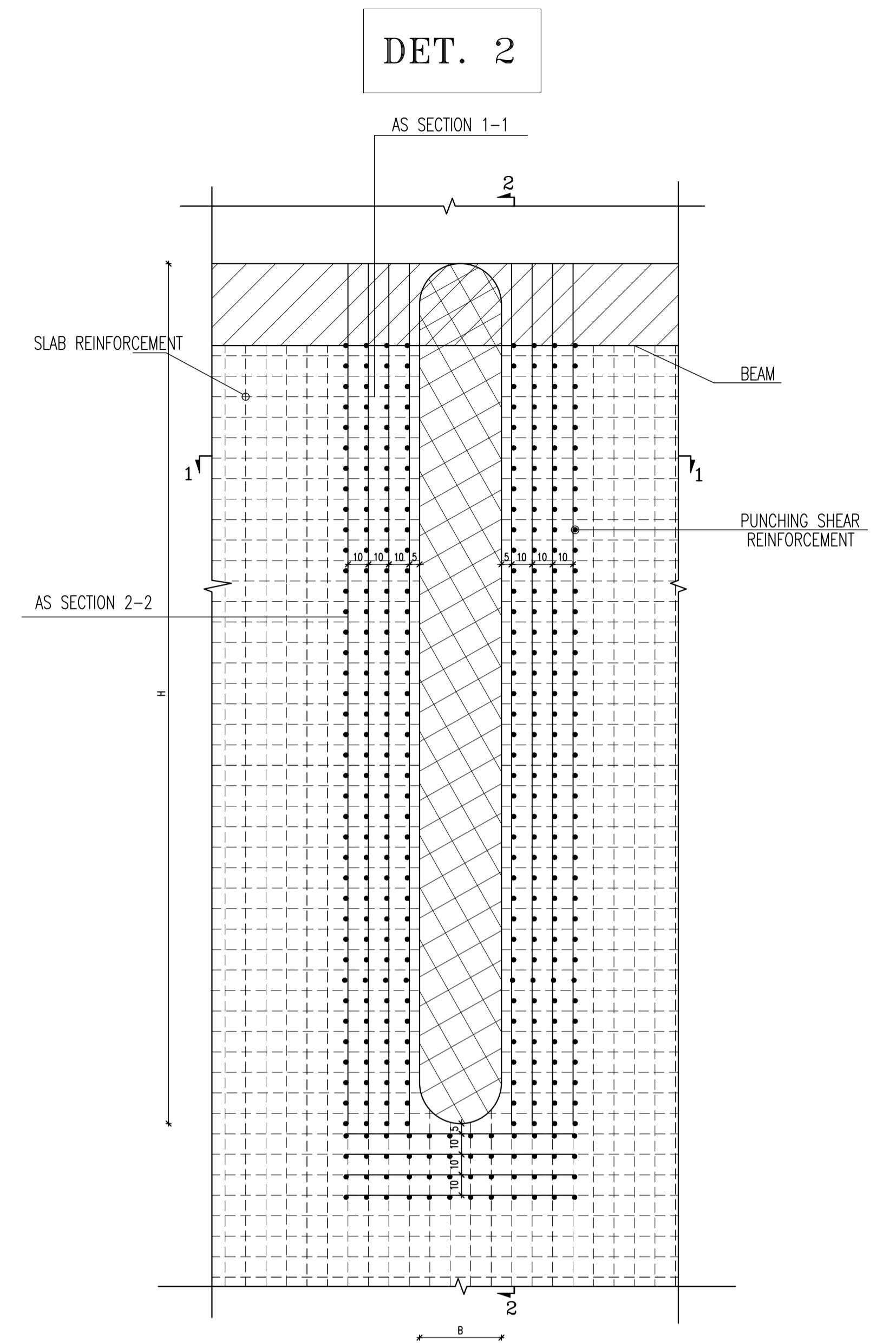
[TOP VIEW]  
Scale 1:20



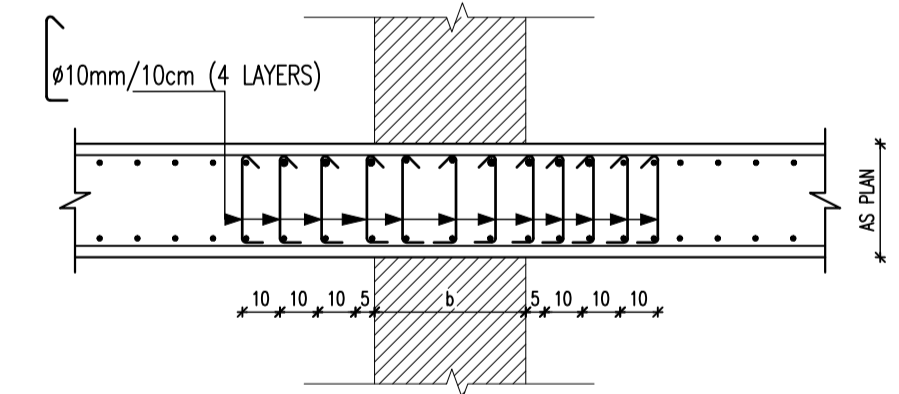
[SECTION 1-1]  
Scale 1:20



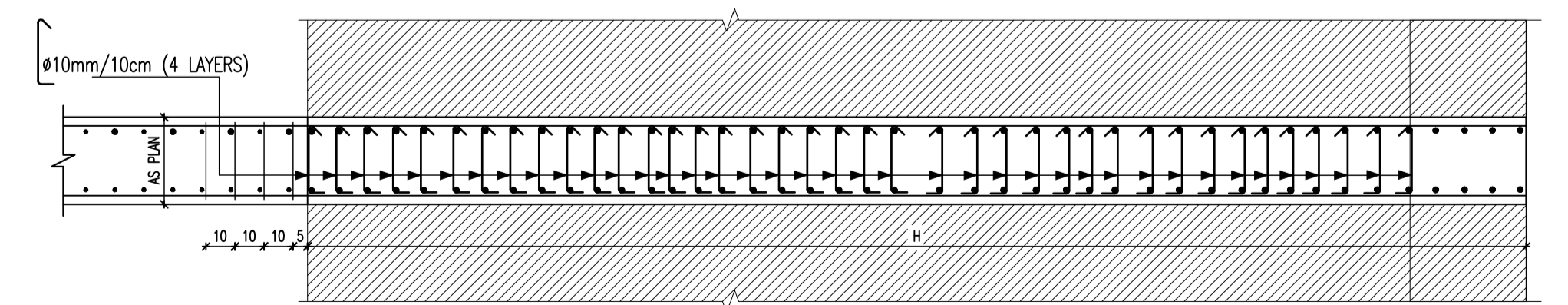
[SECTION 2-2]  
Scale 1:20



[TOP VIEW]  
Scale 1:20



[SECTION 1-1]  
Scale 1:20



[SECTION 2-2]  
Scale 1:20

