

Architectural Project
Typical Kindergarten for
Three Groups
4a, 9th April Alley
Poti

Structural Part of the Project

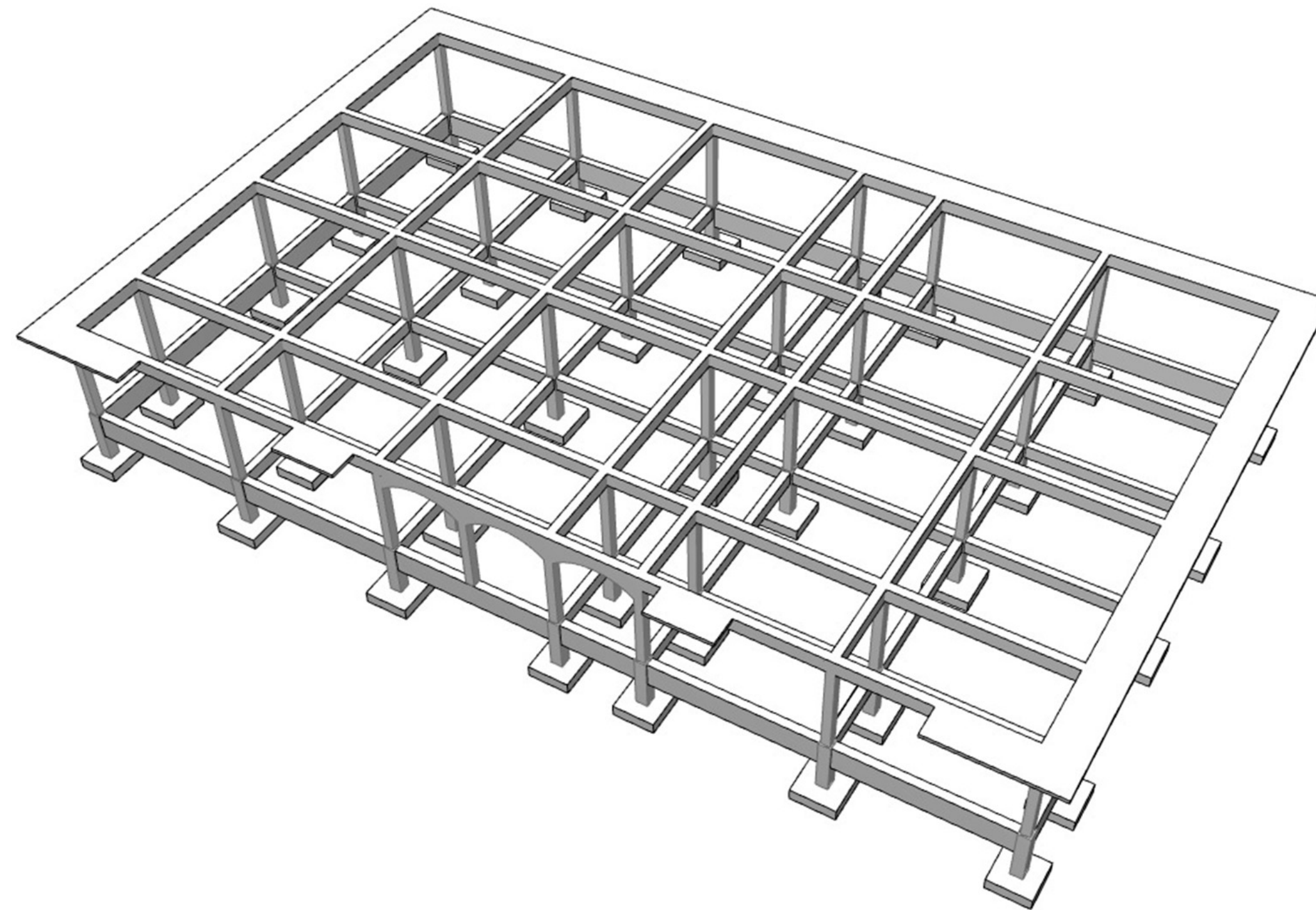


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Explanatory Letter General Information					Typical Kindergarten 4a, 9th April Alley Poti	
<p>The construction site (cadastral code of the land plot 04.01.10.775) is located in the town of Poti. According to the norms of "construction climatology" the climatic characteristics of the construction site are the following:</p> <ul style="list-style-type: none">- The average annual temperature is + 14.5. C- Absolute maximum temperature + 41 ° C- Absolute minimal temperature - 13 ° C- Annual precipitation -1720 mm- Snow cover weight - 0.5 kPa- Standard height of seasonal ground frost - 0 m- Standard wind pressure 0.6 kPa- The prevailing wind direction - East- According to the map of the seismic regions, POti belongs to the 9-point seismic zone.- Based on the data of the geological findings, the estimated seismicity of the construction site is 9 points. <p>The area allocated for construction in terms of engineering geology is in satisfactory physical condition; the geological phenomena (landslides, falls, etc.) are not observed.</p> <p>-According to the geological survey (attached to the project)the first engineering-geological element is considered as the basis of the foundation - with the following technical specifications:</p>						
E-G Element, II Layer, Engineering-geologic element I (layer #3) sand of average thickness , with thin sand lens (Q2iv, Q2iv)						
#	Characteristics of physical-mechanical properties	Index	UoM	Numeric value		
1	Density	ρ	g/cm3	1.81		
2	Solid particle density	ρs	""	2.66		
3	Porosity coefficient	e	particle	0.69		
4	Humidity	W	%	17.2		
5	Angle of friction inside	φ	Degree	28		
6	Specific traction	C	kPa	2		
7	Deformation module	E0	mPa	180		
8	Reporting impedance	RO	kPa	200		
9	Poisson's coefficient	μ		0.27		
					Project address: Georgia, Poti	
					Stage: Architectural project	
					Explanatory note	
					ბ. ქანთარია B. Qantaria	
					ა. გერგელავა A. Gergedava	
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The report of the building design calculation scheme is executed in the program "LIRA".The building presented in the project is a one-storey stone building with an average floor height of 1.0 meters from the floor level. The first-floor mark 0.00 corresponds to the absolute mark 23.30The height of the floor of the building from the floor to the ceiling is 3.4 meters.

A natural sand-gravel mixture (fraction 0.5-70 mm) should be used for backfilling and arranging the embankment on the construction site. It is necessary to compact it layer by layer every 20 cm in height with a vibrating machine.

There are pad foundations designed, with a gravel pad under them.

The bearing structure of the building is a complex reinforced concrete frame, in particular, a space structure composed of monolithic reinforced concrete columns, rafters, and girders.

The filling of the external walls is done with a reinforced embankment of small pumice blocks 30 cm thick.

Partitions are made of reinforced small wall pumice block with a thickness of 10 cm.

The size of small pumice blocks is no less than M70 (volume weight 800 kg / m 3), therefore the mark of the mortar used for the embankment should be no less than M70.

Floors in bathrooms are finished with tile, and in rooms with wooden planks (deck). The thermal insulation of the floor is done with XPS tiles, and ceiling heating is done with glass.

Suspended ceilings in the kitchens are made of plastic, while in the rooms are made of gypsum boards.

The bearing structure of the roof is made of wood, while the roofing is made of painted metal sheets.

Roof and ceiling wood structures are made from second-class dried coniferous wood material.

The windows are made of double-glazed metal profiles.

The entrance doors are made of steel and iso-aluminum, PVC in the joints, and wood in the rooms (so-called MDF).

External stairs and entryways are covered with basalt tiles.

A concrete walkway is arranged around the building.

Concrete of grade B25 is used in the monolithic constructions of the frame.

Before backfilling, the outer surfaces of the foundation walls, columns, and foundation slab should be treated with bitumen mastic to a mark of 0.00, and waterproofing linoleum should be applied in two layers.

The dimensions on the drawings are given in millimeters and meters, the markings in meters. All sheets of the structural part are considered as one whole and the data of other sheets as well as architectural drawings should be taken into account when considering any sheet.

The elements of the structural reinforcement must be bent in a cold mechanical manner.

After removing the ground, the condition of the ground should be additionally assessed. It is, therefore, possible to adjust the foundation structure.

All changes made to the project during construction must be agreed with the project authors.

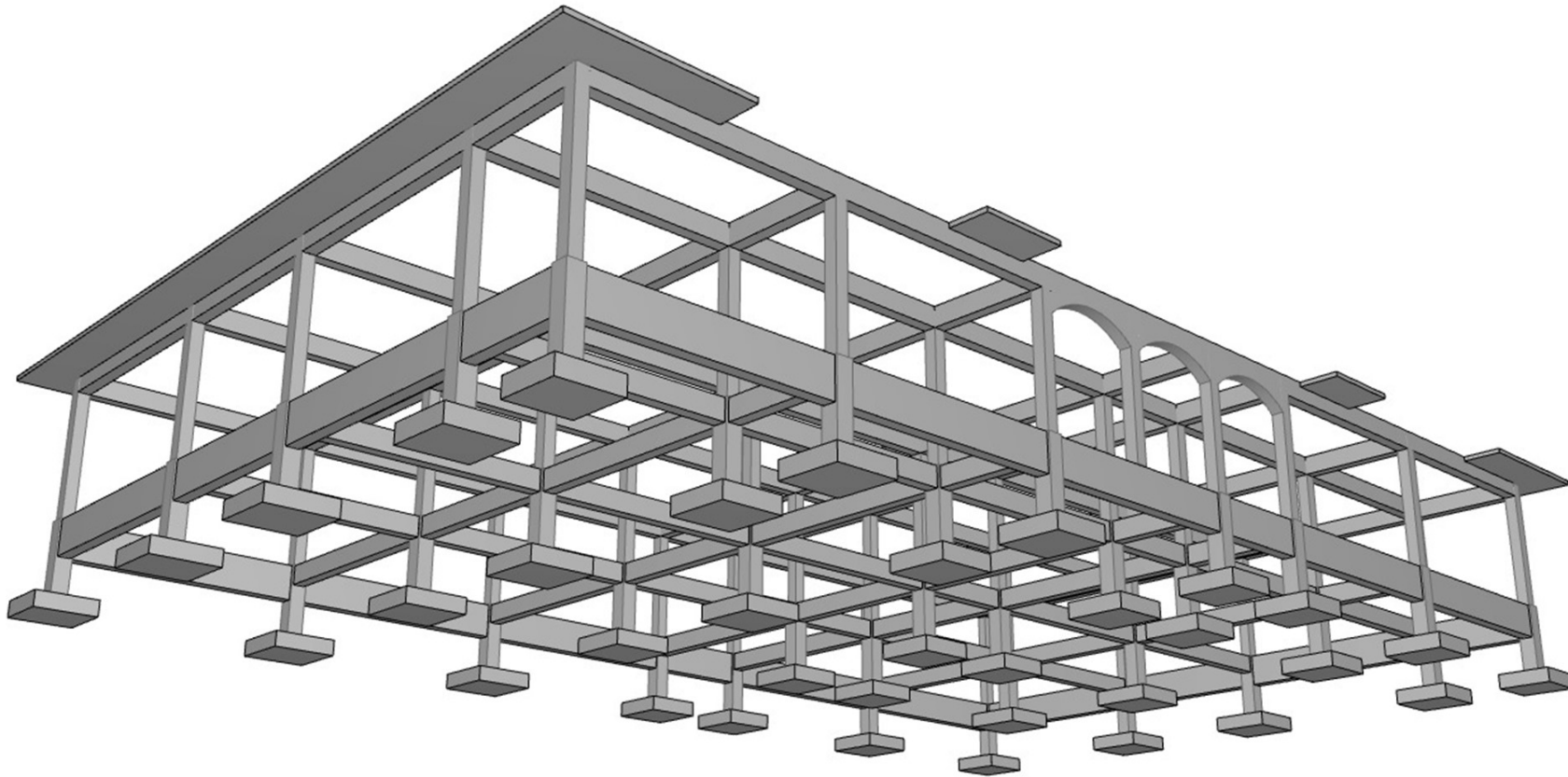
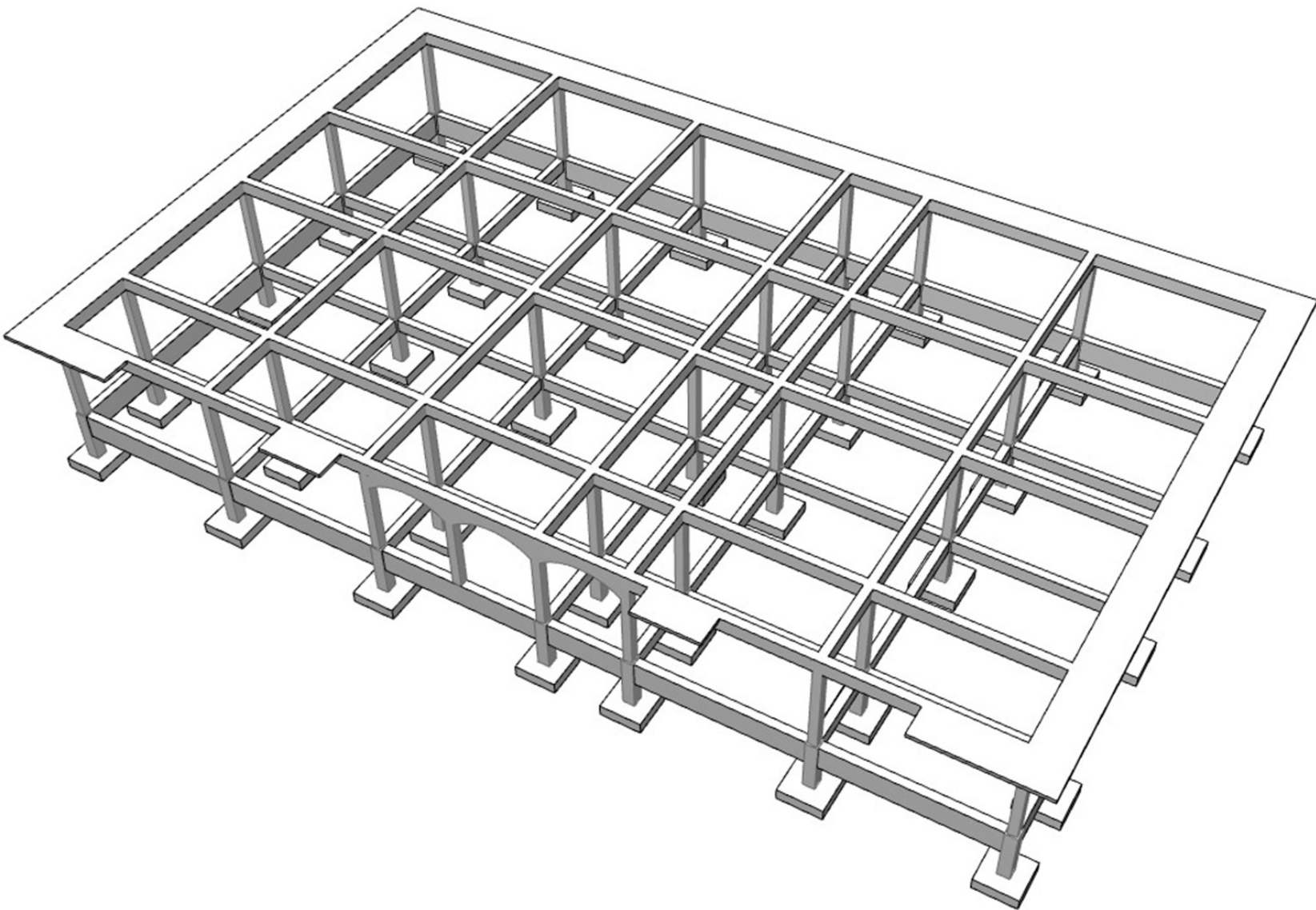
პროექტირების დროს გამოყენებული ლიტერატურა:
- *CHuIT. 2.03.01-84 ** - "ბეტონის და რკინაბეტონის კონსტრუქციები"
- *CHuIT. II-7-81 ** - "შენებლობა სეისმურ რაიონებში"
- *CHuIT. 2.01.07-85 ** - "დატვირთვები და ზემოქმედება"
- *CHuIT 2.02.01-83 ** - "შენობების და ნაგებობების ფუძე-საძირკვლები"
- *ГОСТ 14098-91* - "არმატურის და ლითონის ჩასატანებელი ელემენტების შედუღება რკინბეტონის კონსტრუქციებში"
უხაფრთხოება: მშენებლობის პროცესში საჭიროა ვიხელმძღვანელოთ სამშენებლო ნორმების: *CHuIT. III-4-80 **-ის მოთხოვნების შესაბამისად და შეატარდ დავიცვაო უხაფრთხოების წესები.

Note:

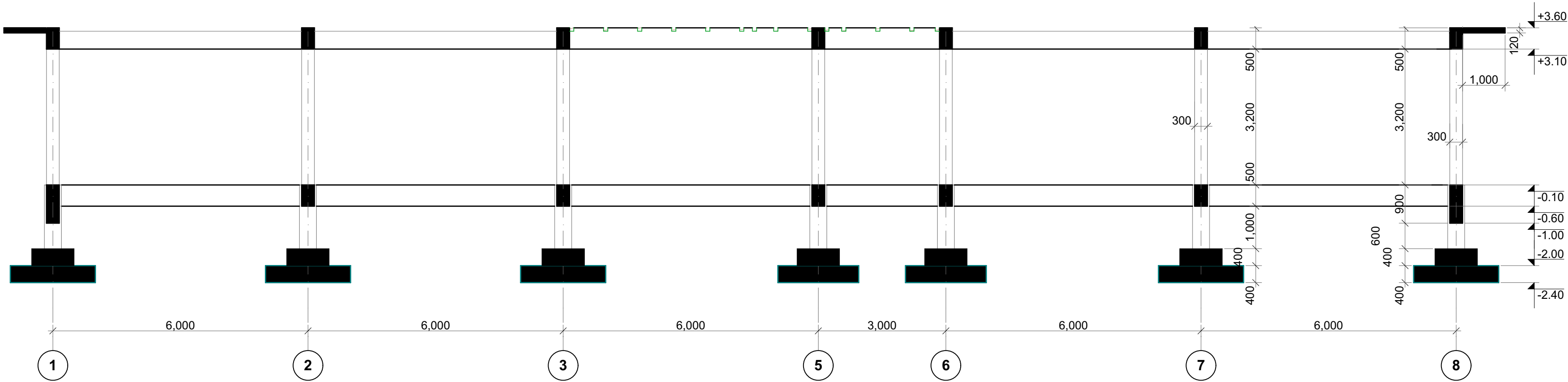
The project has been adjusted taking into account the remarks presented in the conclusion of the Levan Samkharauli Bureau of Expertise.



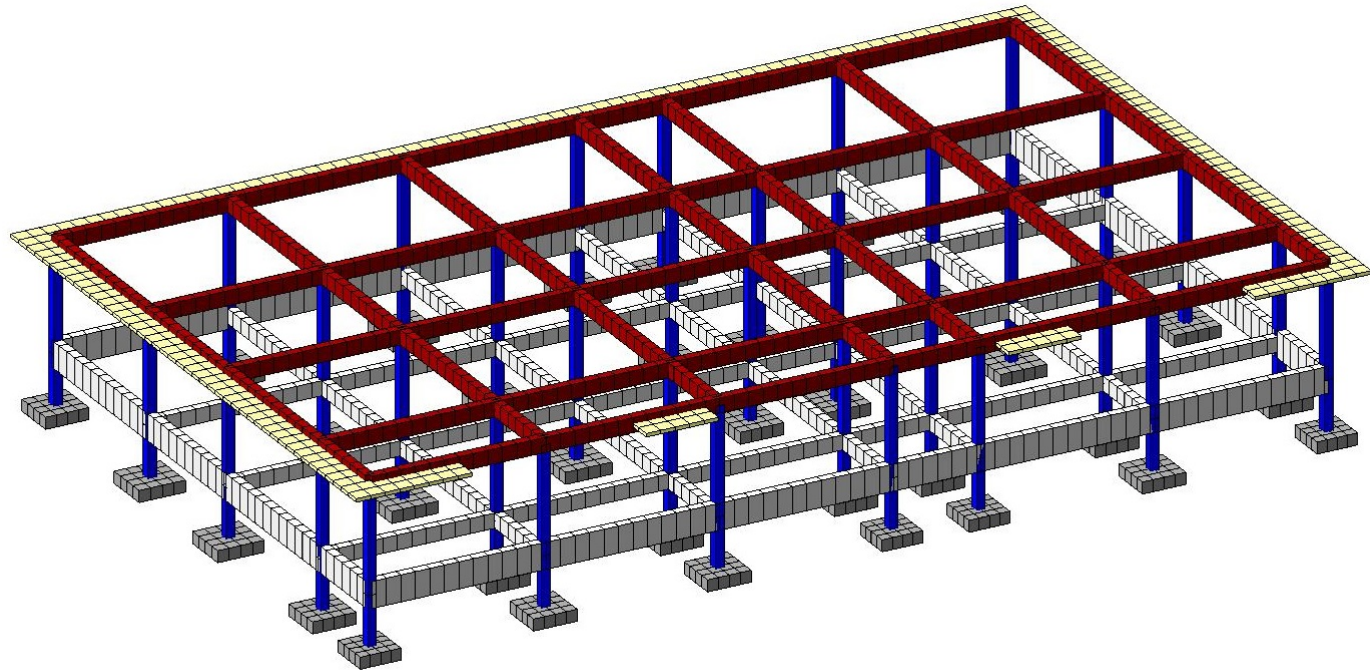
Render of the Mass Concrete



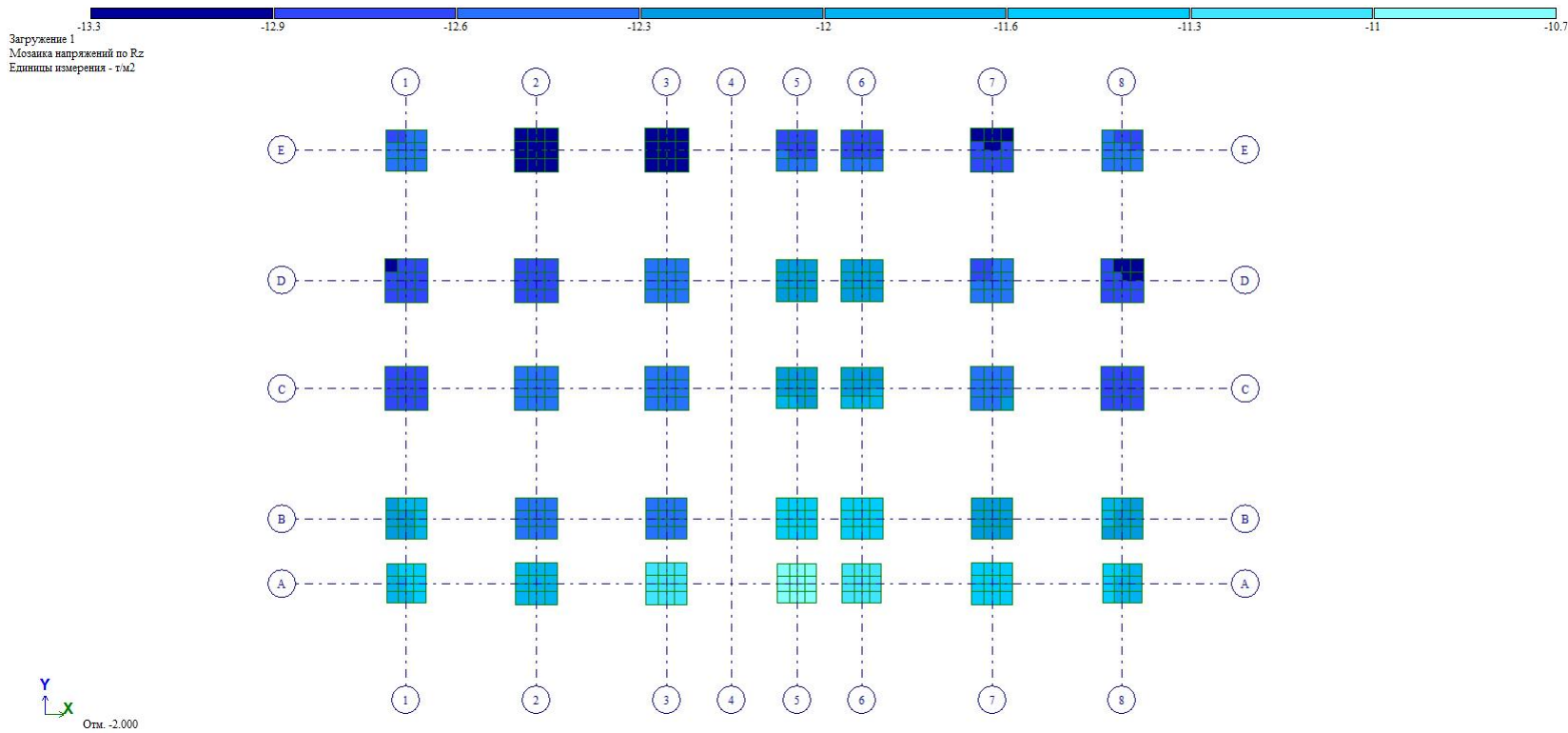
Section on the Structure



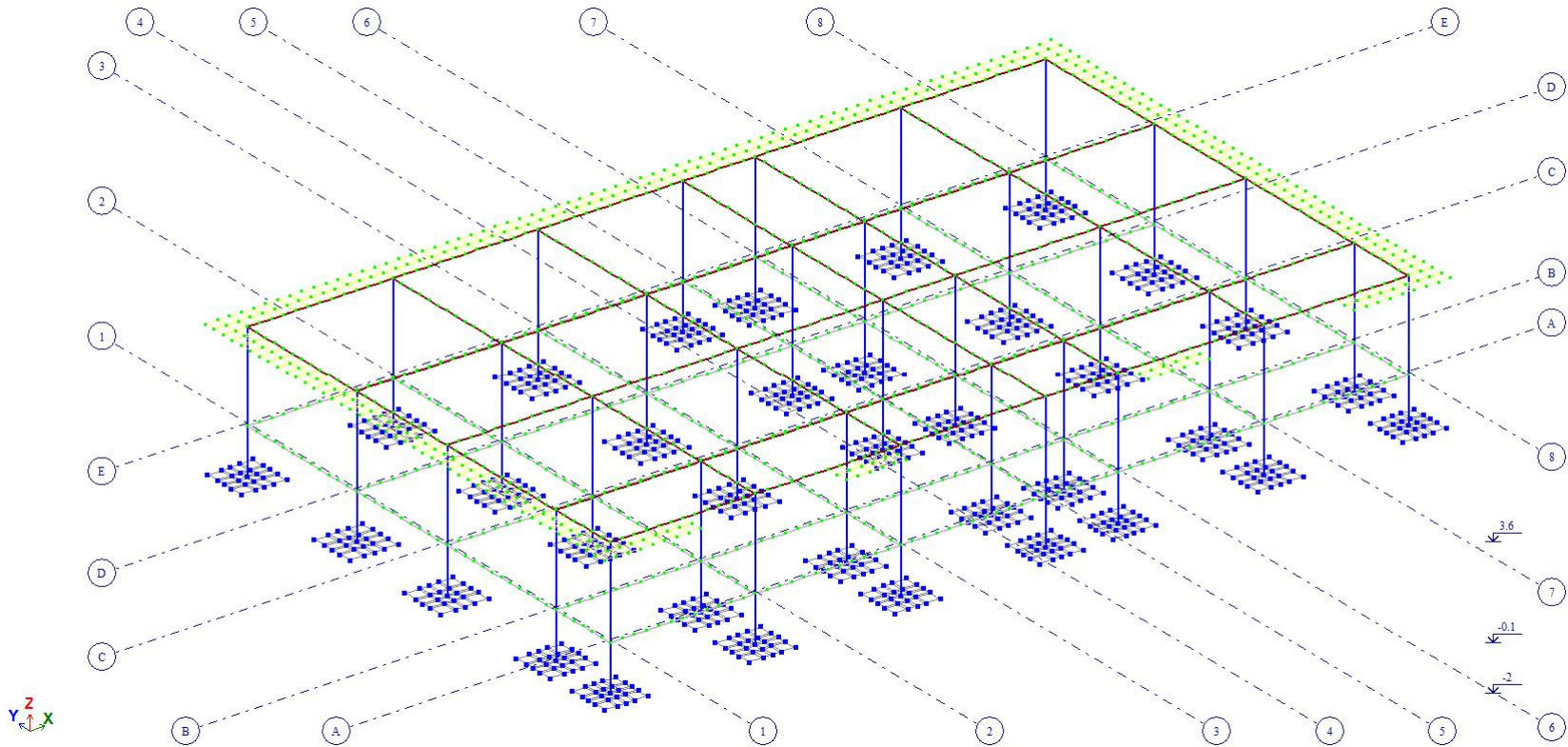
3D Model of Structure



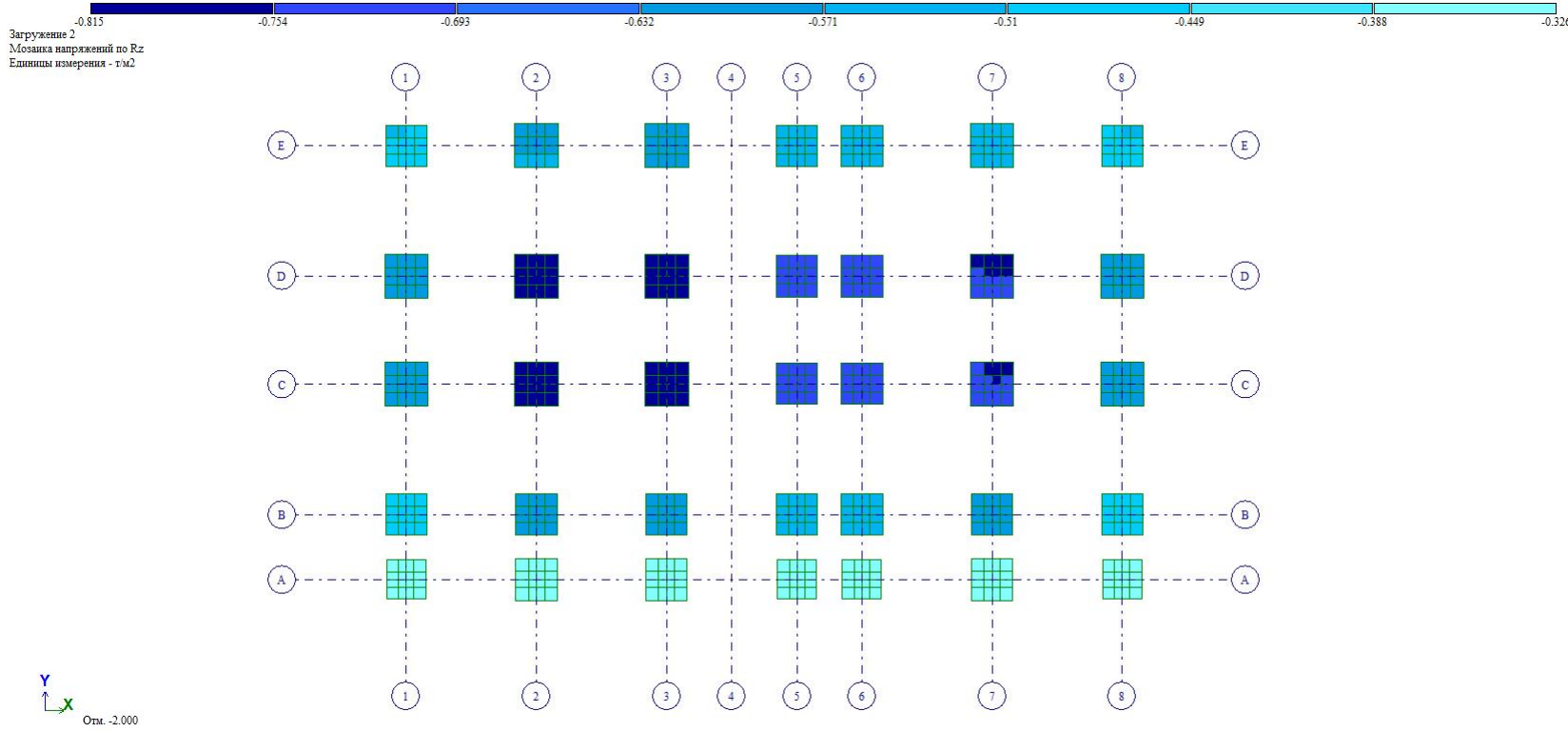
Voltages at the base from constant loads



Design Model of the Bearing Structure



Voltages at the base from temporary loads



Typical
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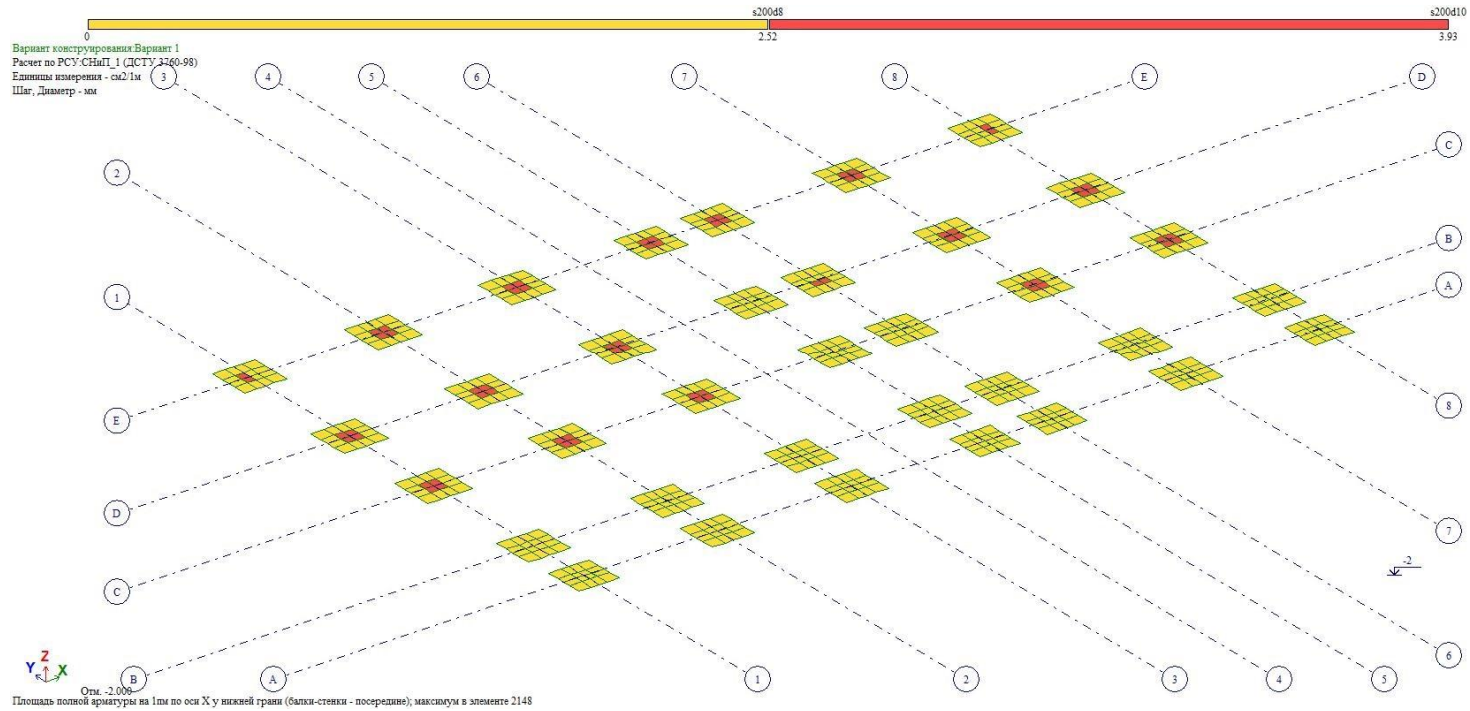
Results of the report
of the structural plan
in program "LIRA"

ბ. ჯანთარია
B. Qantaria

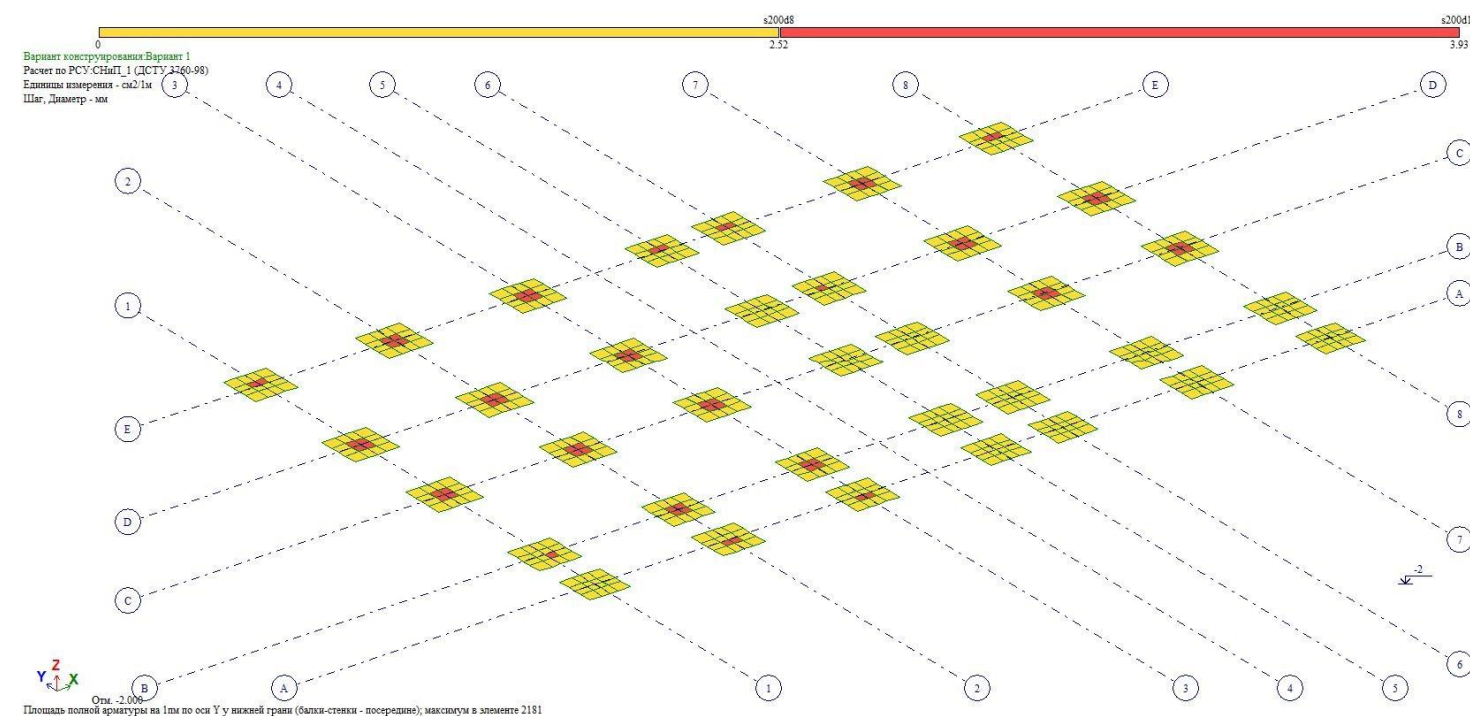
ა. გერგედავა
A. Gergedava

Format A - 2

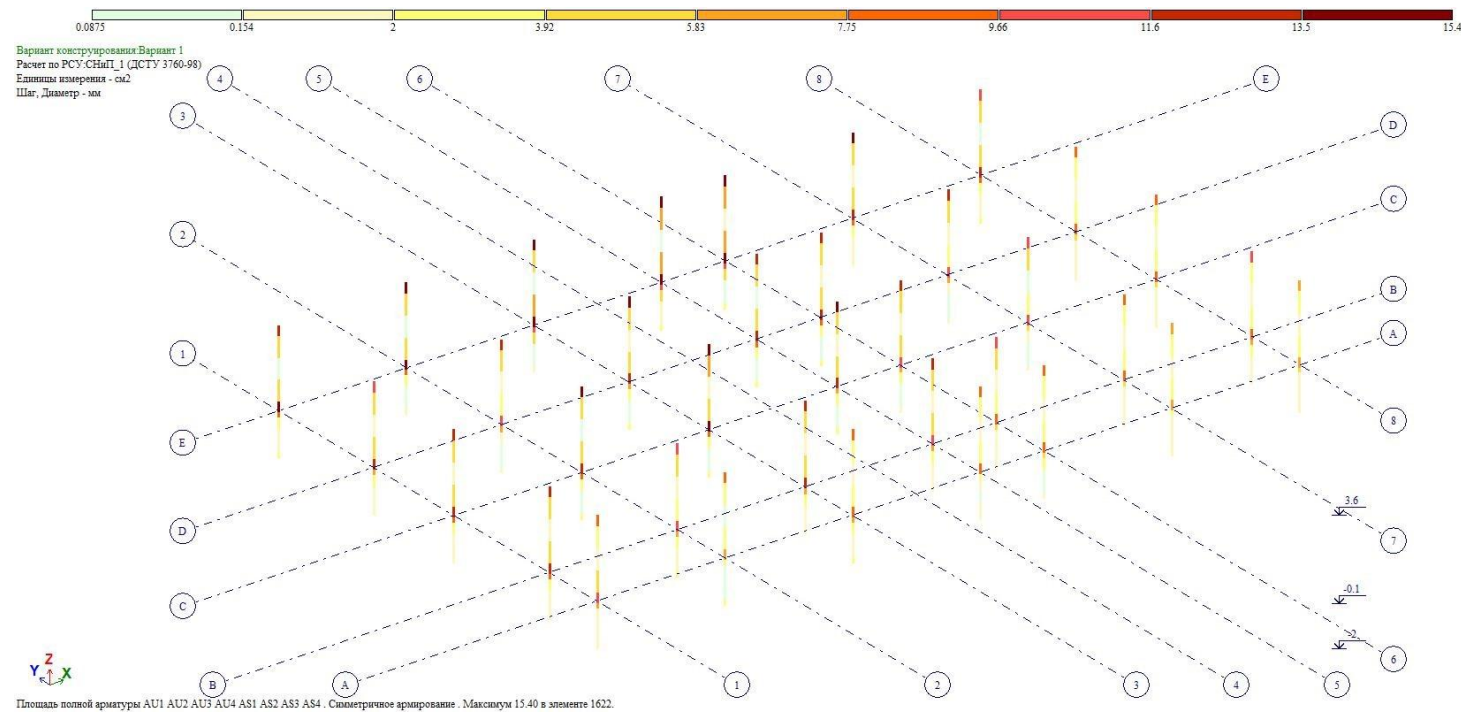
Area of reinforcement of lower zones of the pad foundation in the X-direction



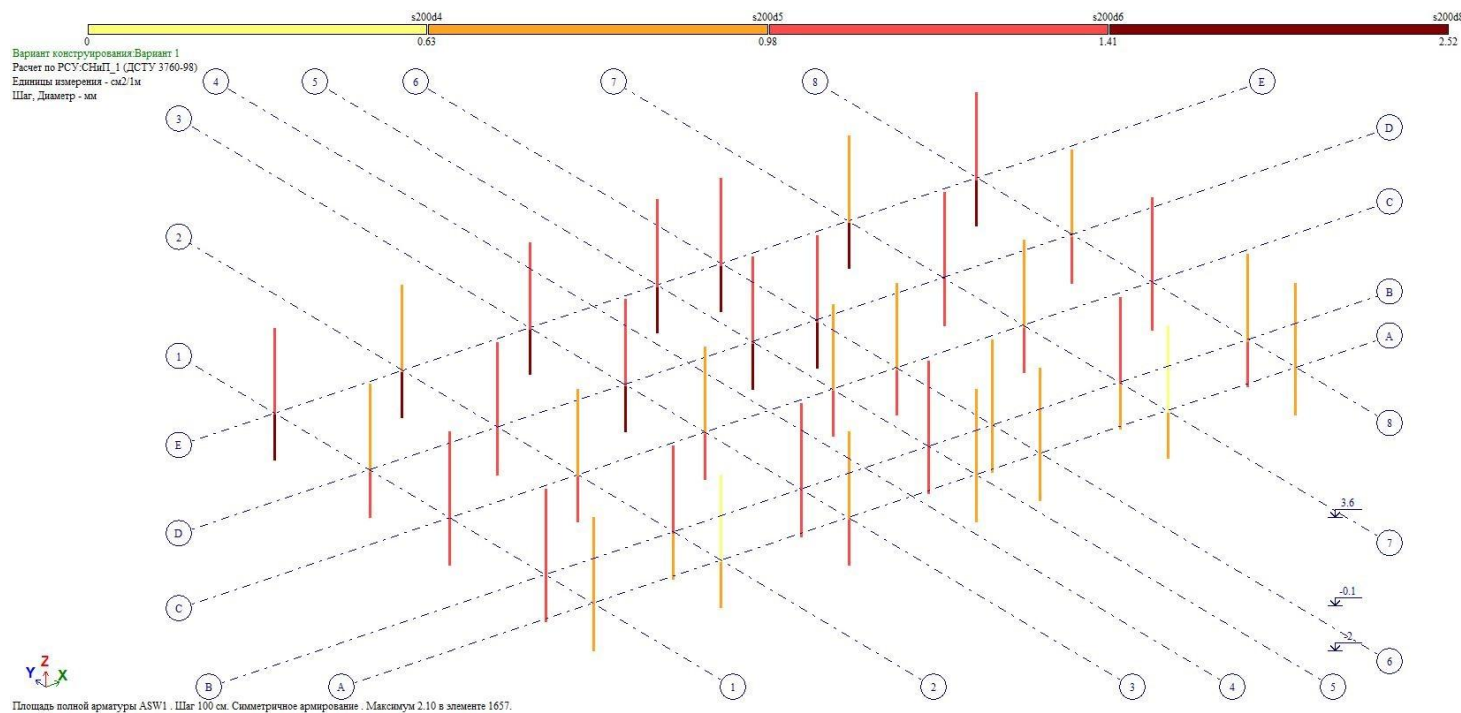
Area of reinforcement of lower zones of the pad foundation in the Y-direction



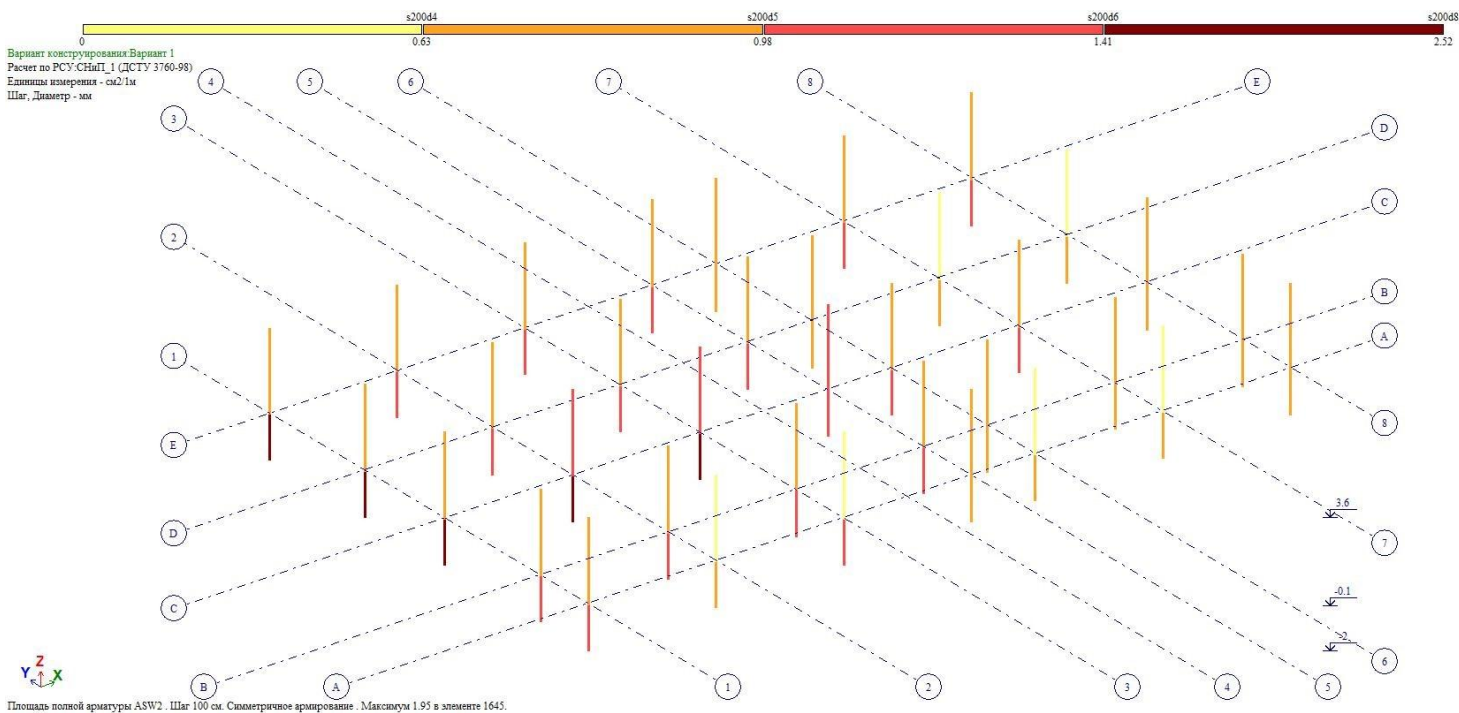
Column longitudinal reinforcement space



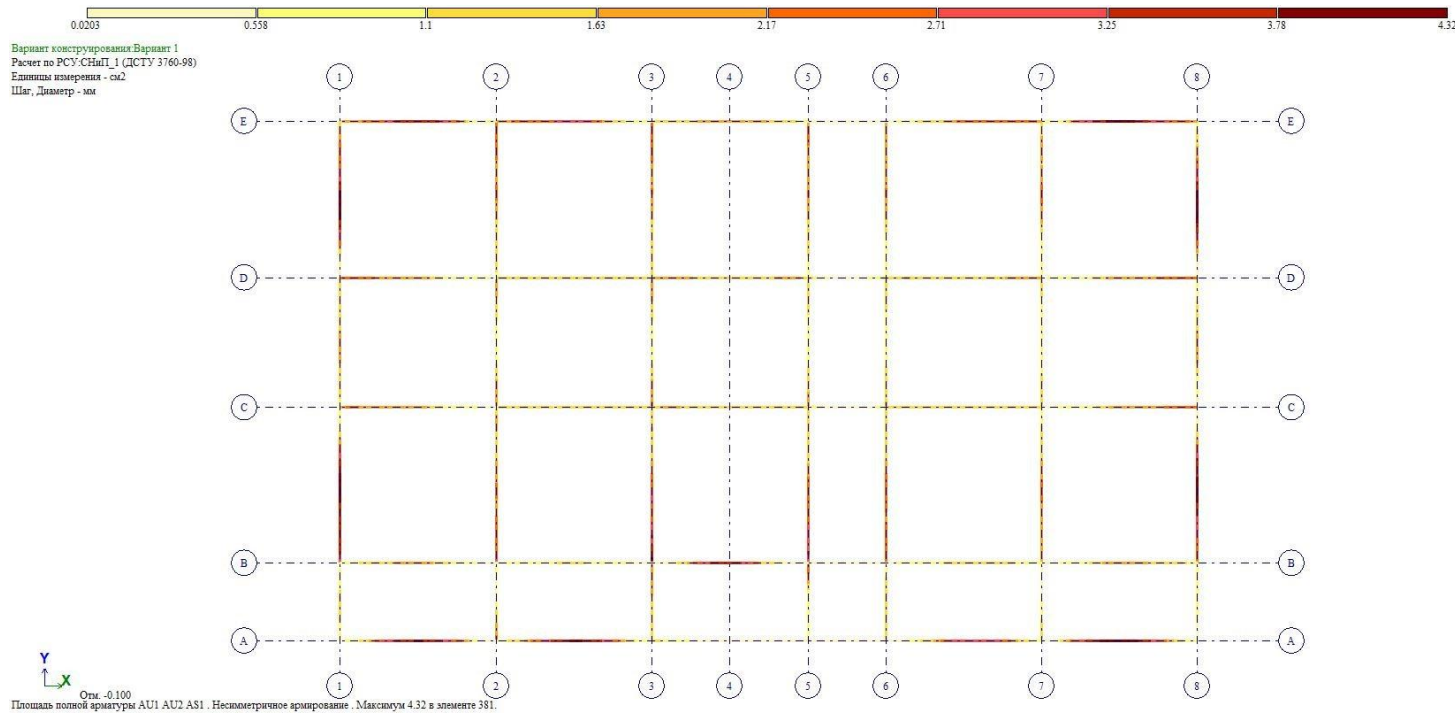
Column longitudinal reinforcement space in the X-direction



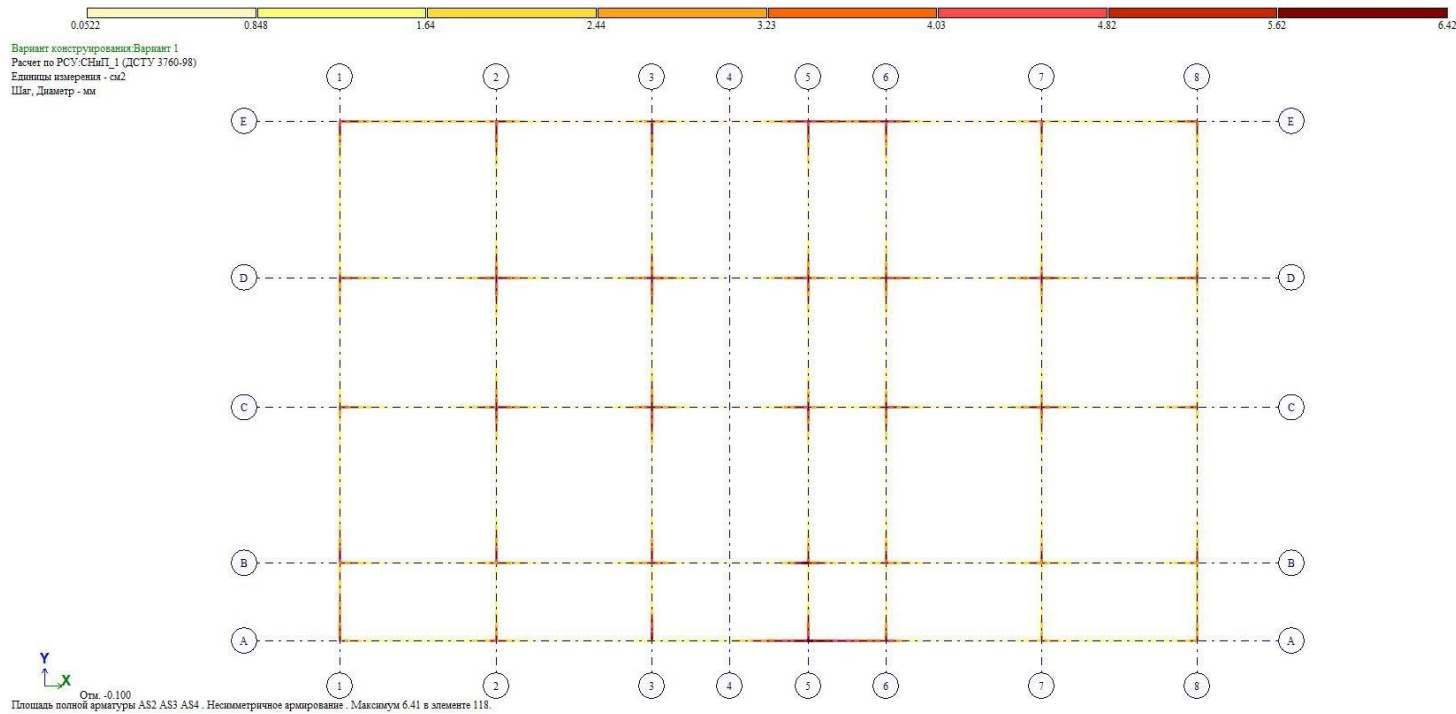
Column longitudinal reinforcement space in the Y-direction



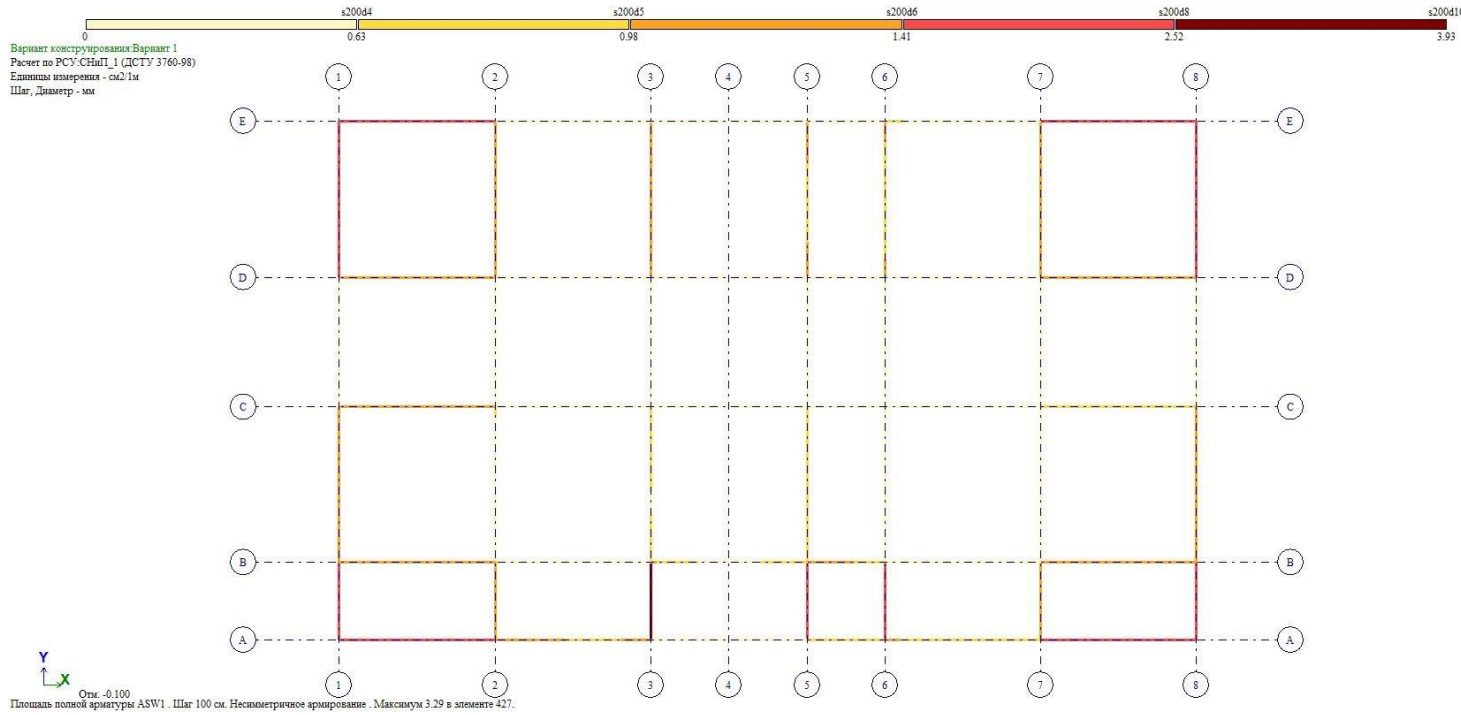
Area of reinforcement of lower zone of end-girder



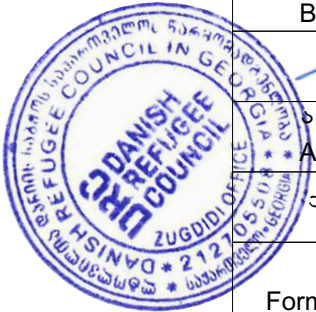
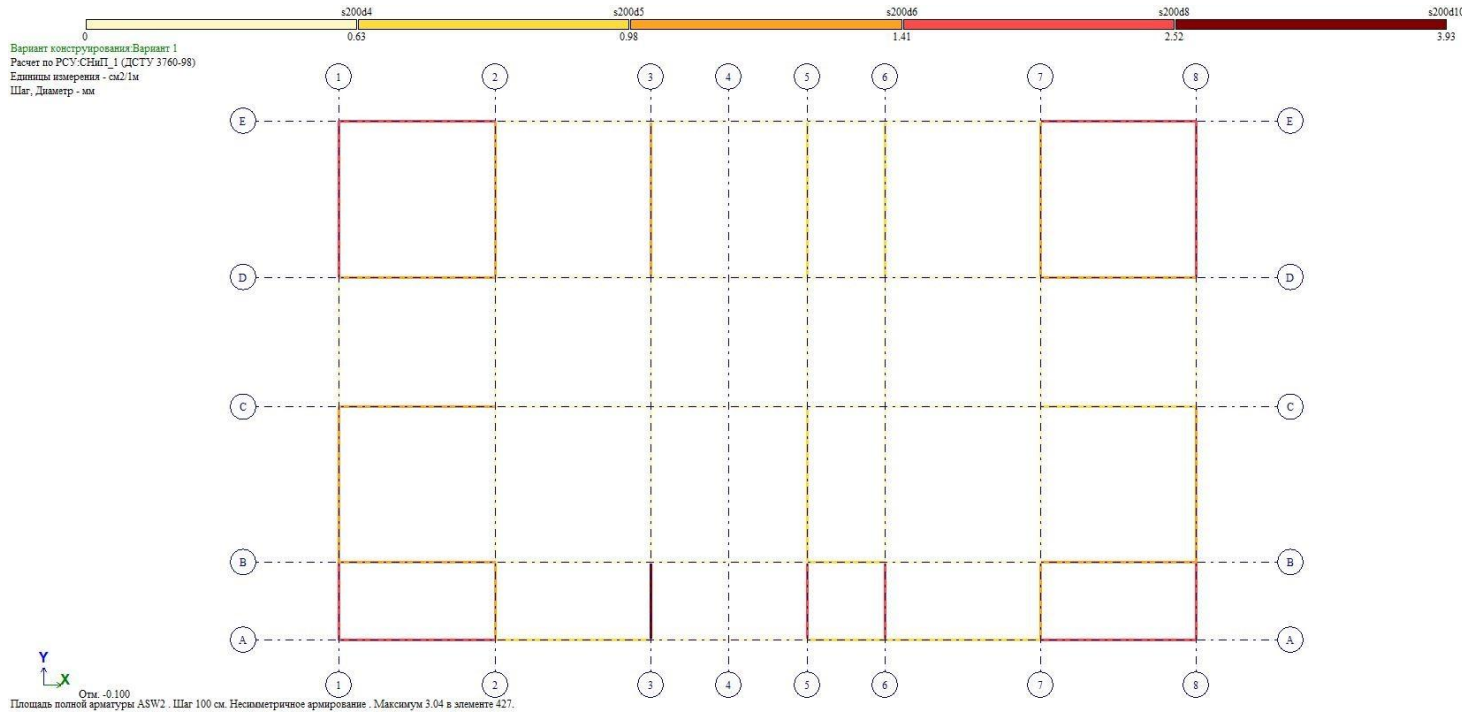
Area of reinforcement of upper zone of end-girder



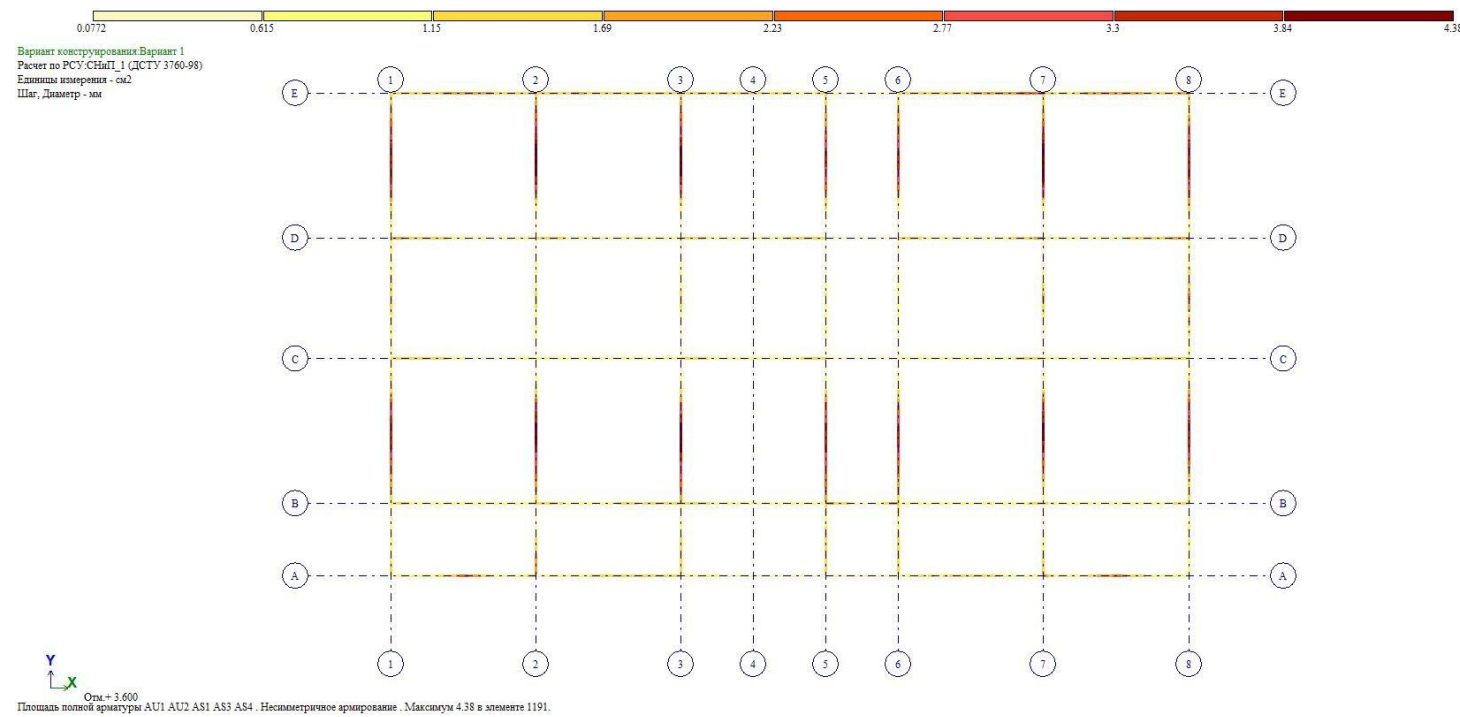
The area of the transverse vertical reinforcement (hanger)



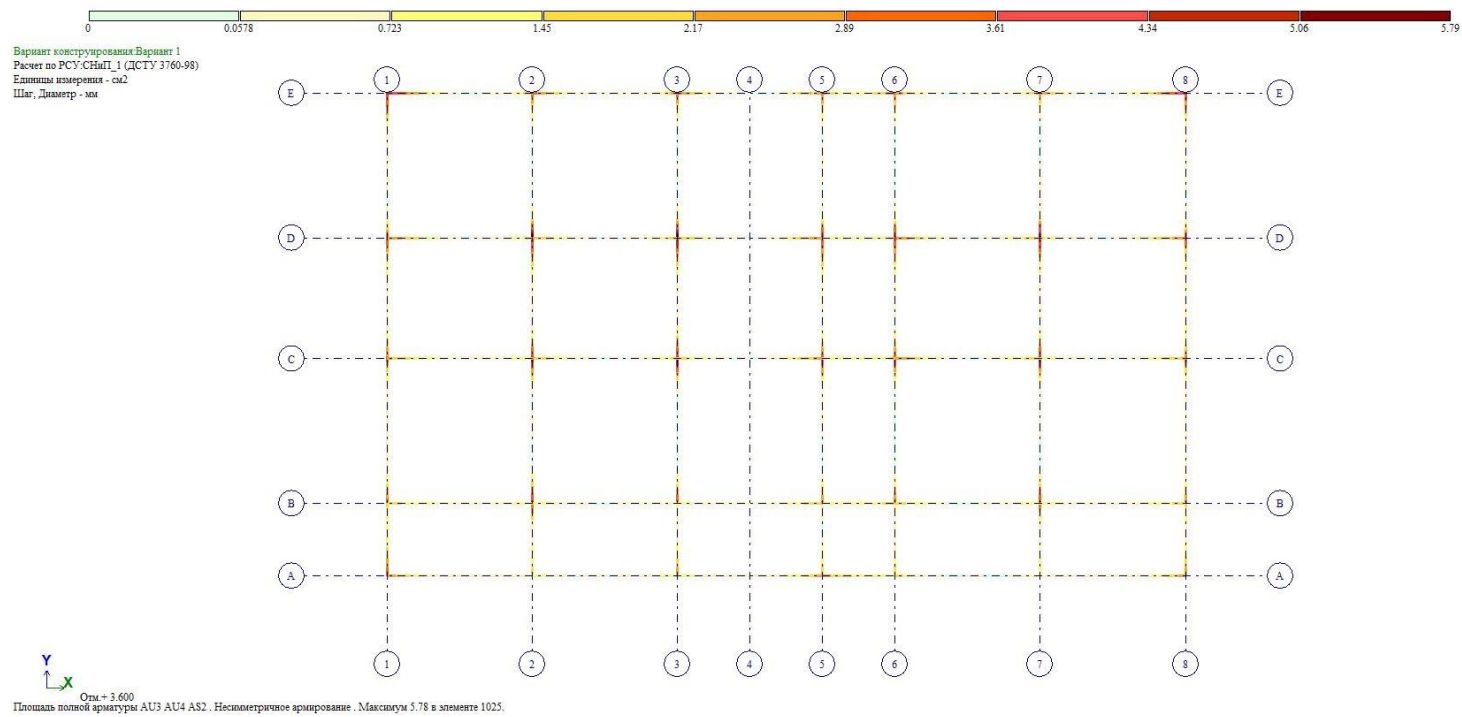
The area of the transverse horizontal reinforcement (hanger)



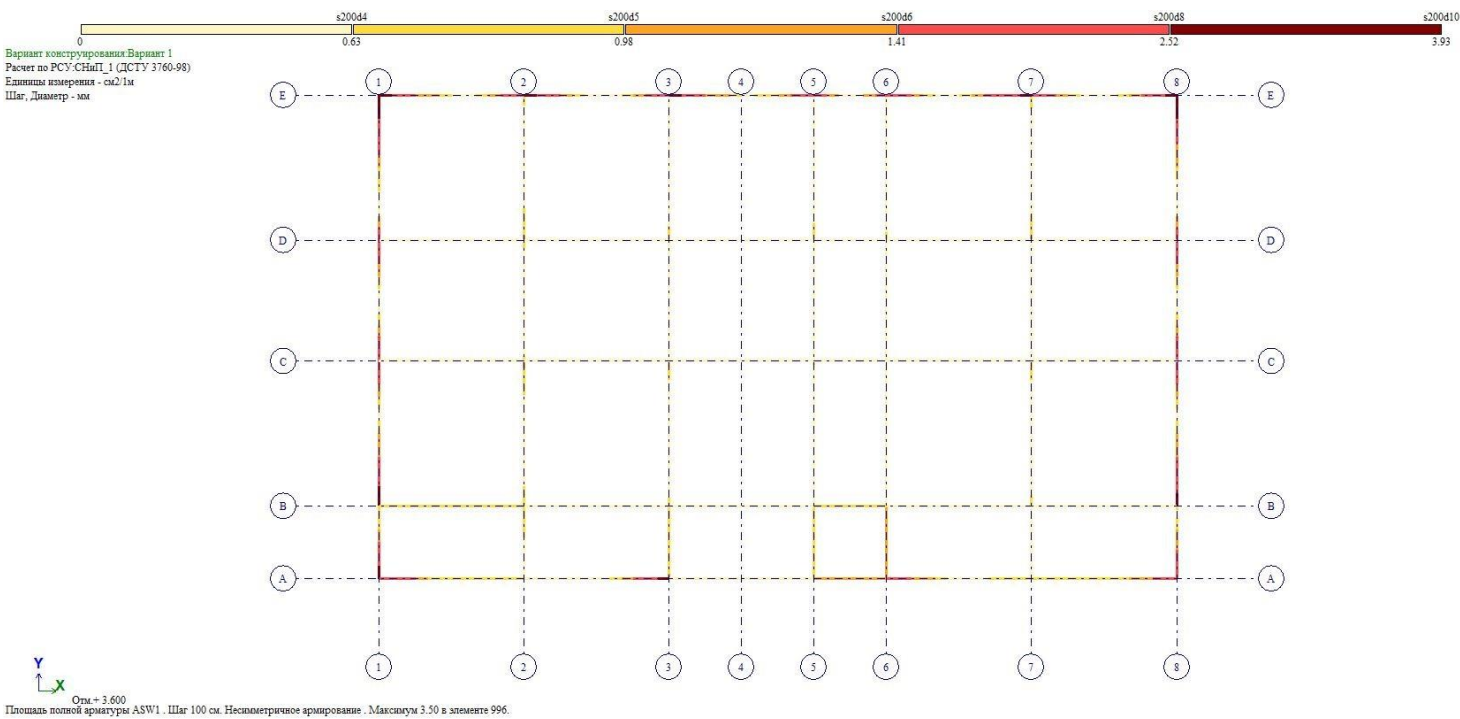
The lower reinforcement area of the girders (+3.60)



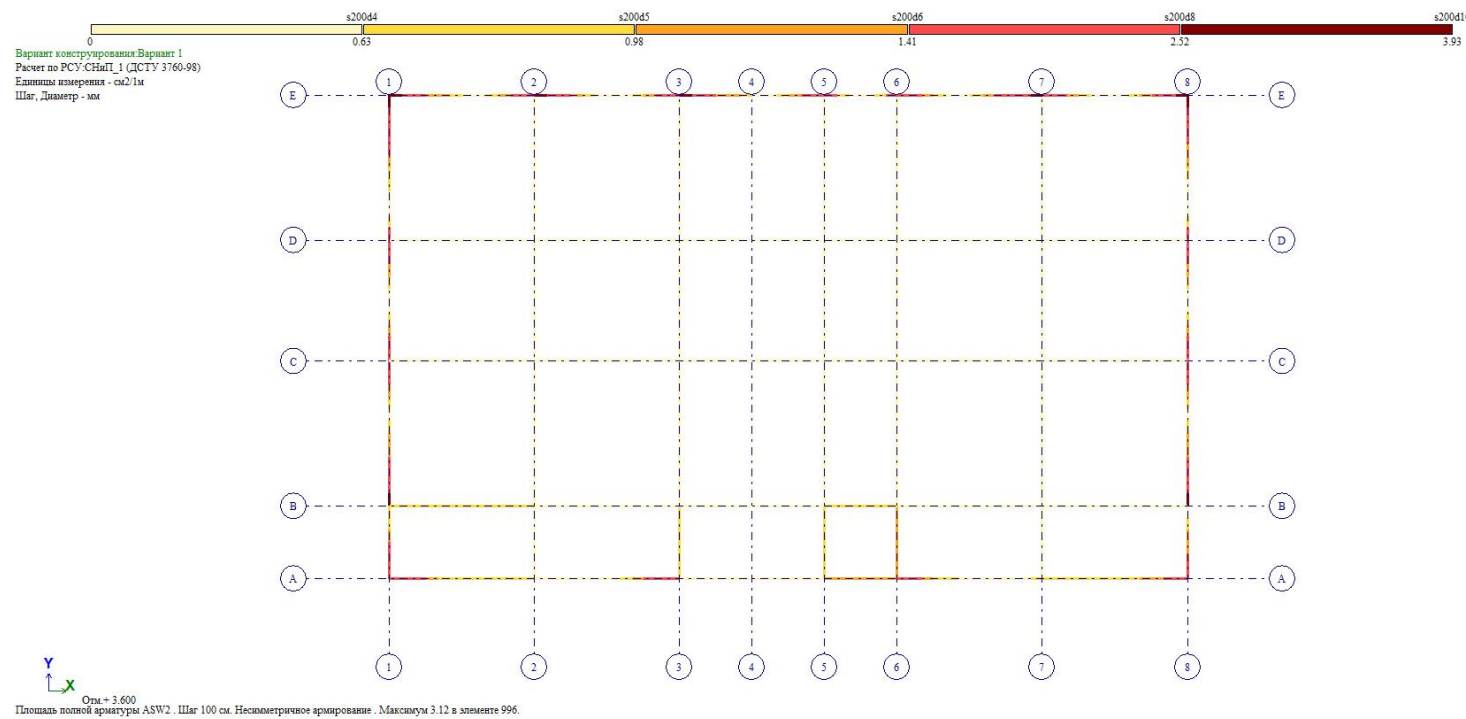
The upper reinforcement area of the girders (+3.60)



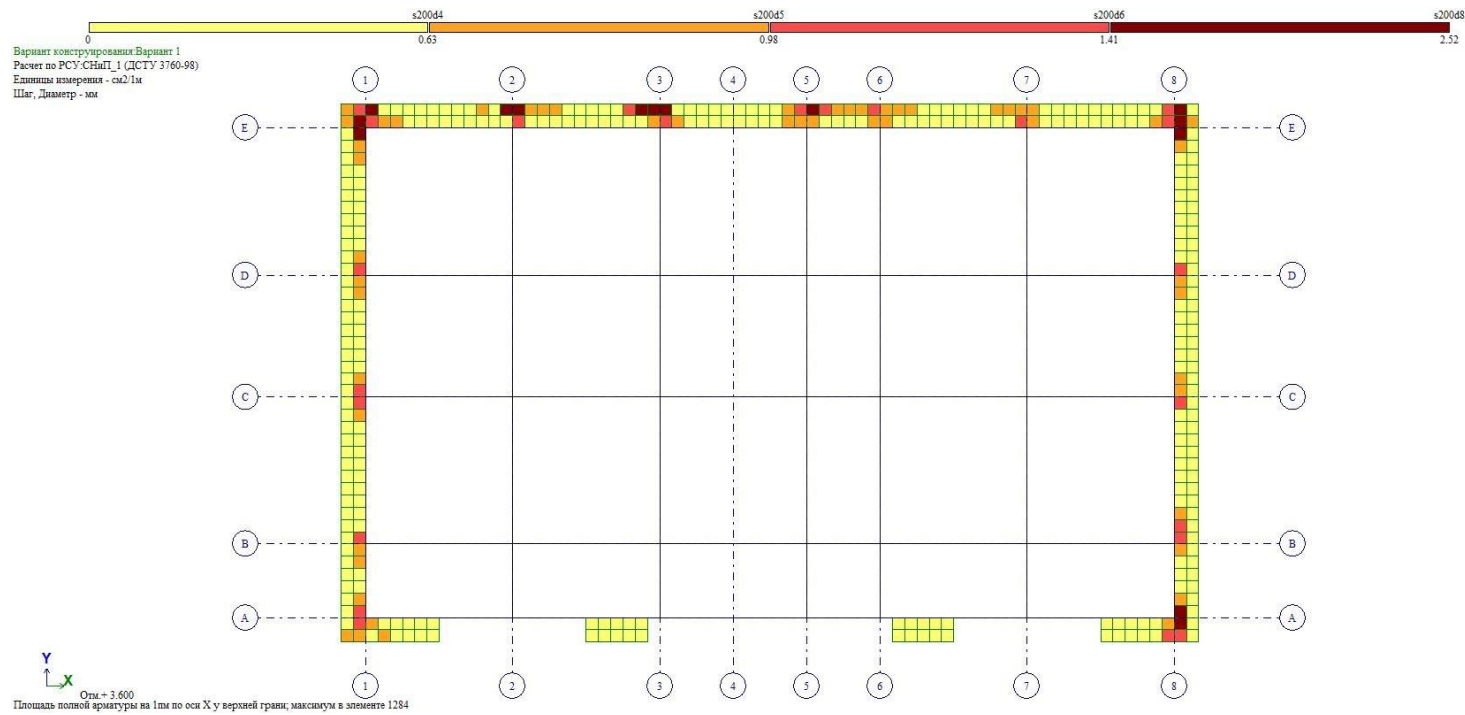
Transverse vertical reinforcement (hanger) space of girders (+3.60)



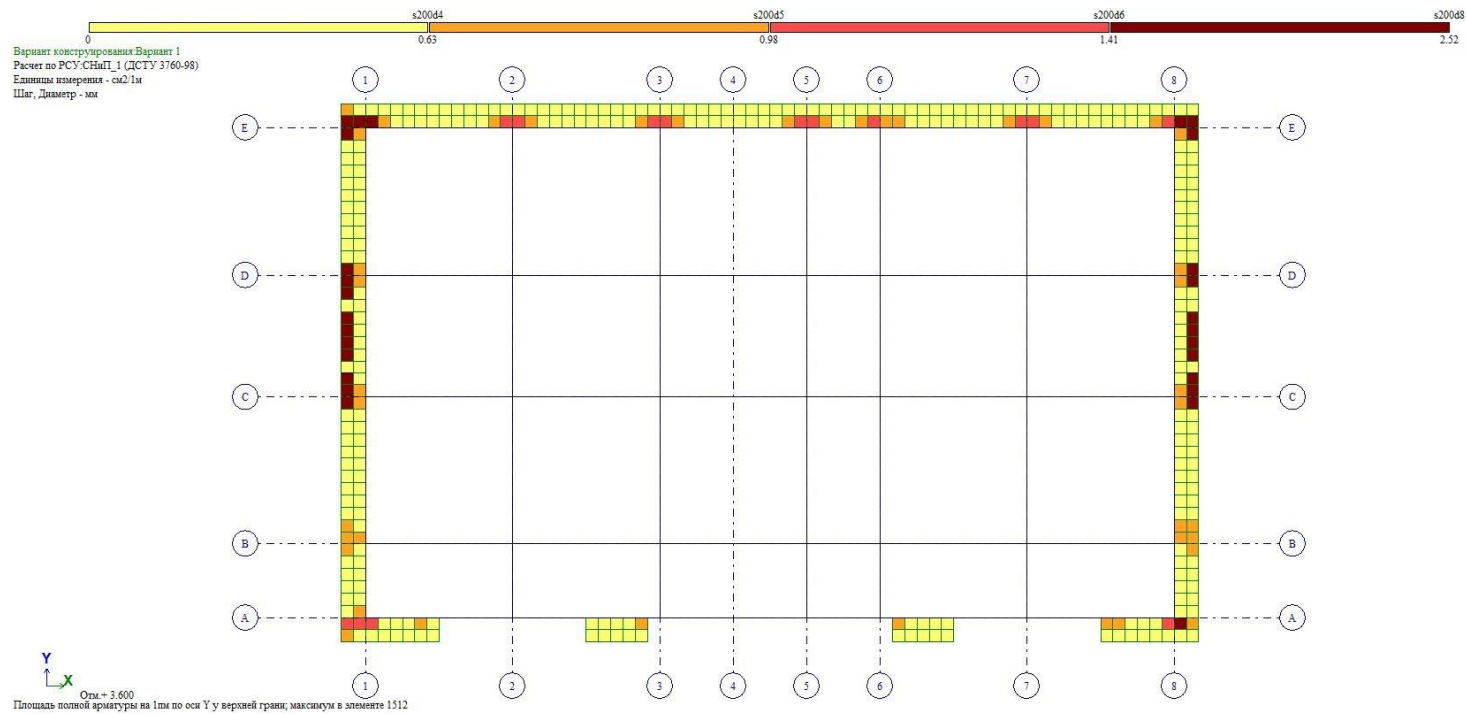
Transverse horizontal reinforcement (hanger) space of girders (+3.60)



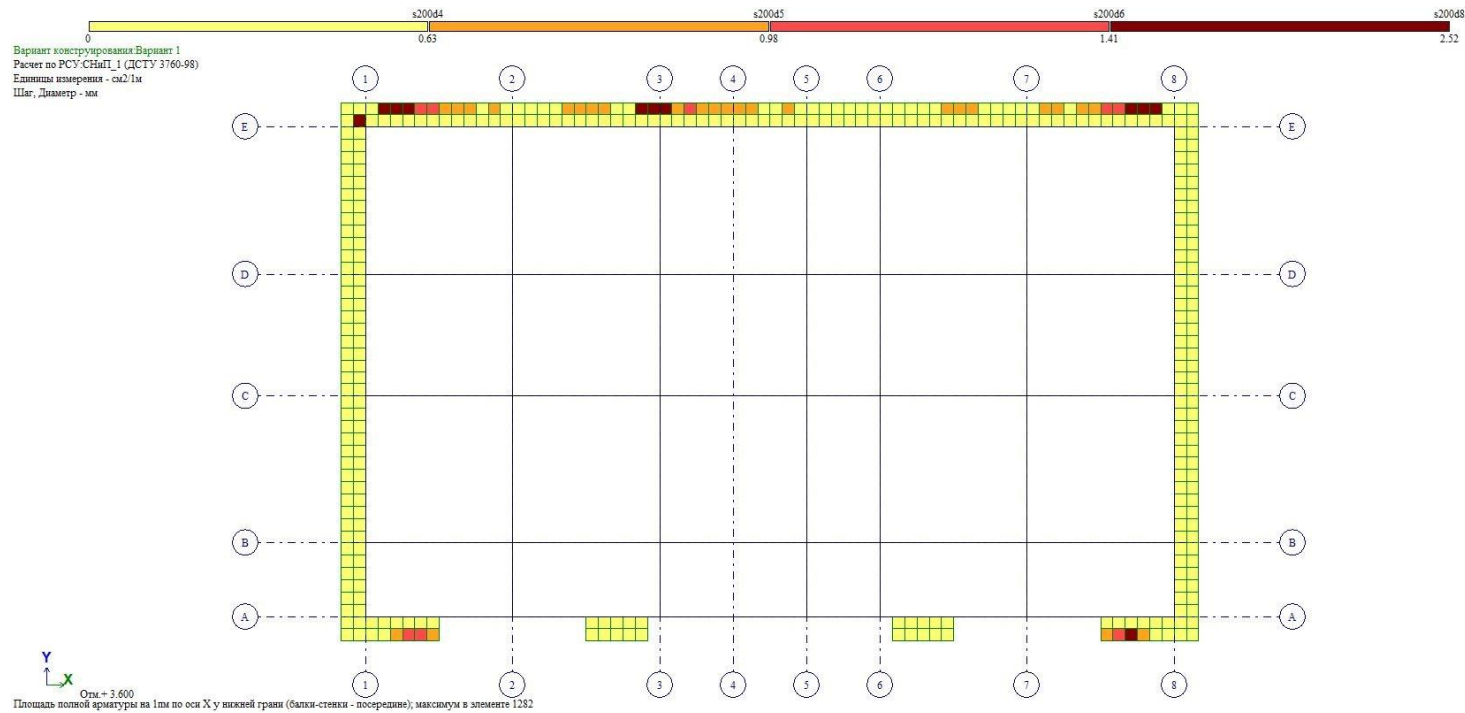
Reinforcement area of the upper zone of the cornice in the X direction



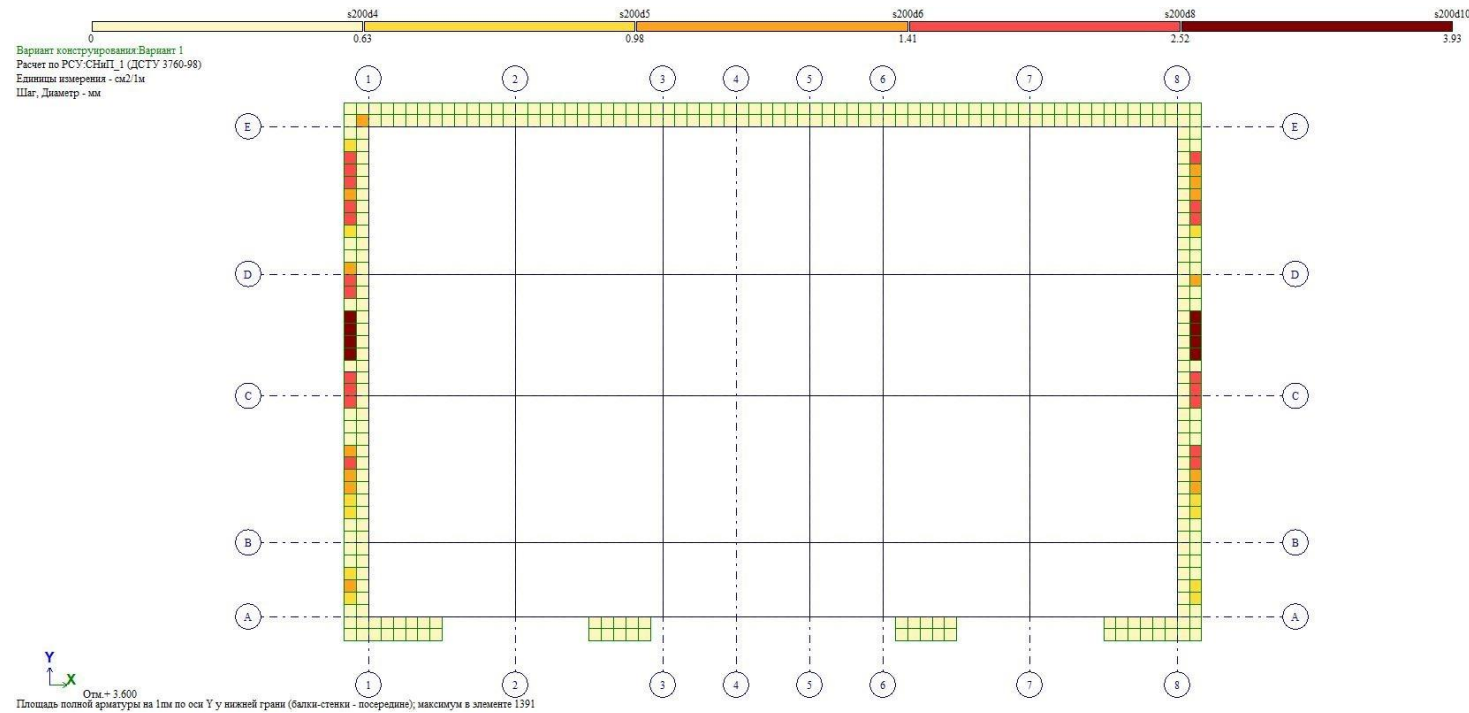
Reinforcement area of the upper zone of the cornice in the Y direction



Reinforcement area of the lower zone of the cornice in the X direction



Reinforcement area of the lower zone of the cornice in the Y direction



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Results of the report
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ბ. ჯანთარია
B. Qantaria

ა. გერგედავა
A. Gergedava

Format A - 2

Georgia,
Poti

Stage:
architectural project

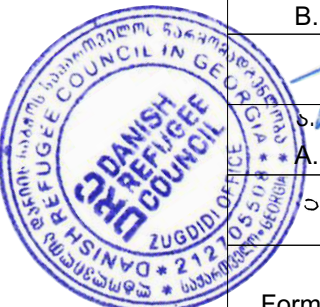
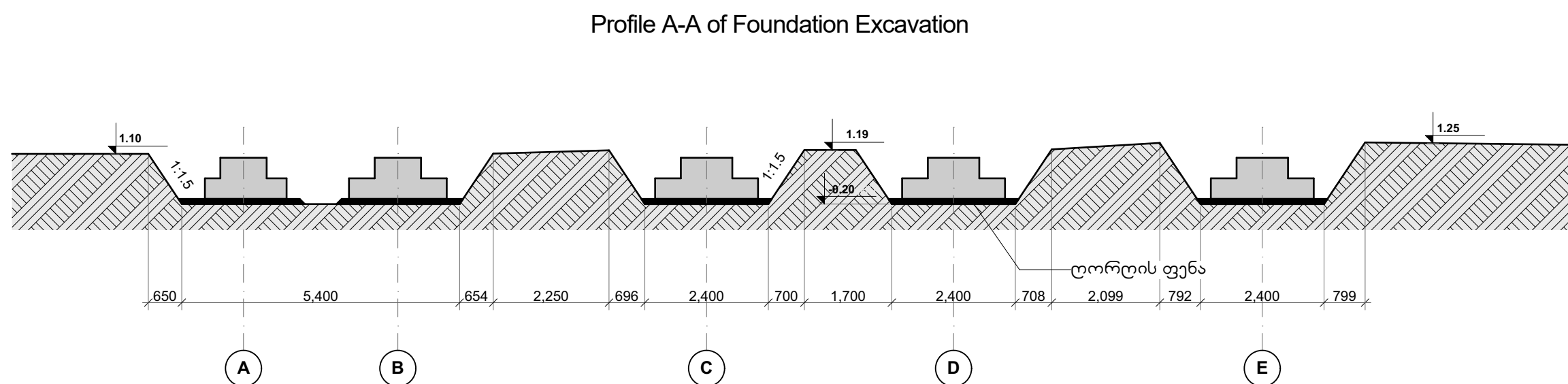
Plan of excavation of road foundation

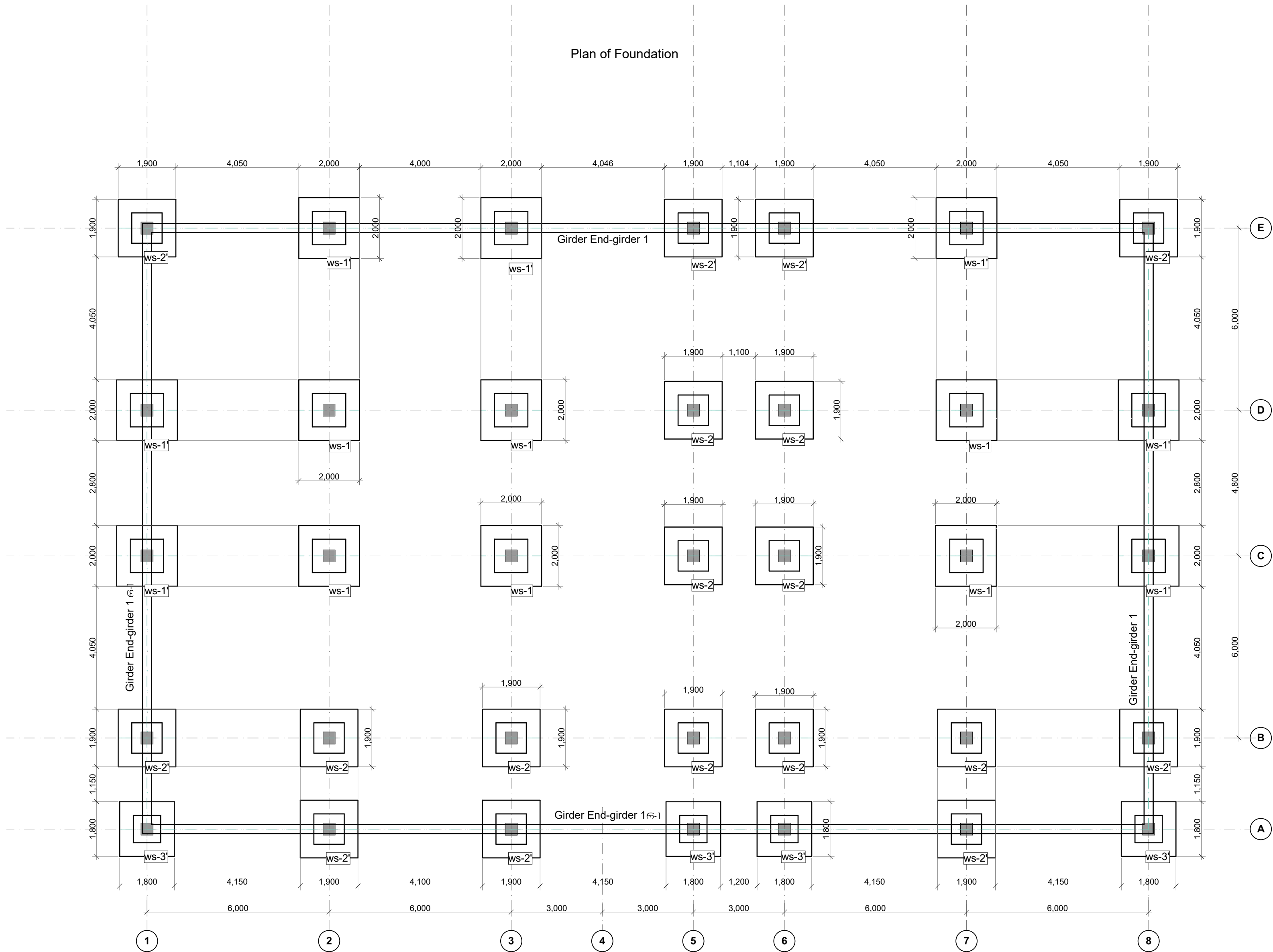
8. Qantaria

გერგედავა
A. Gergedava

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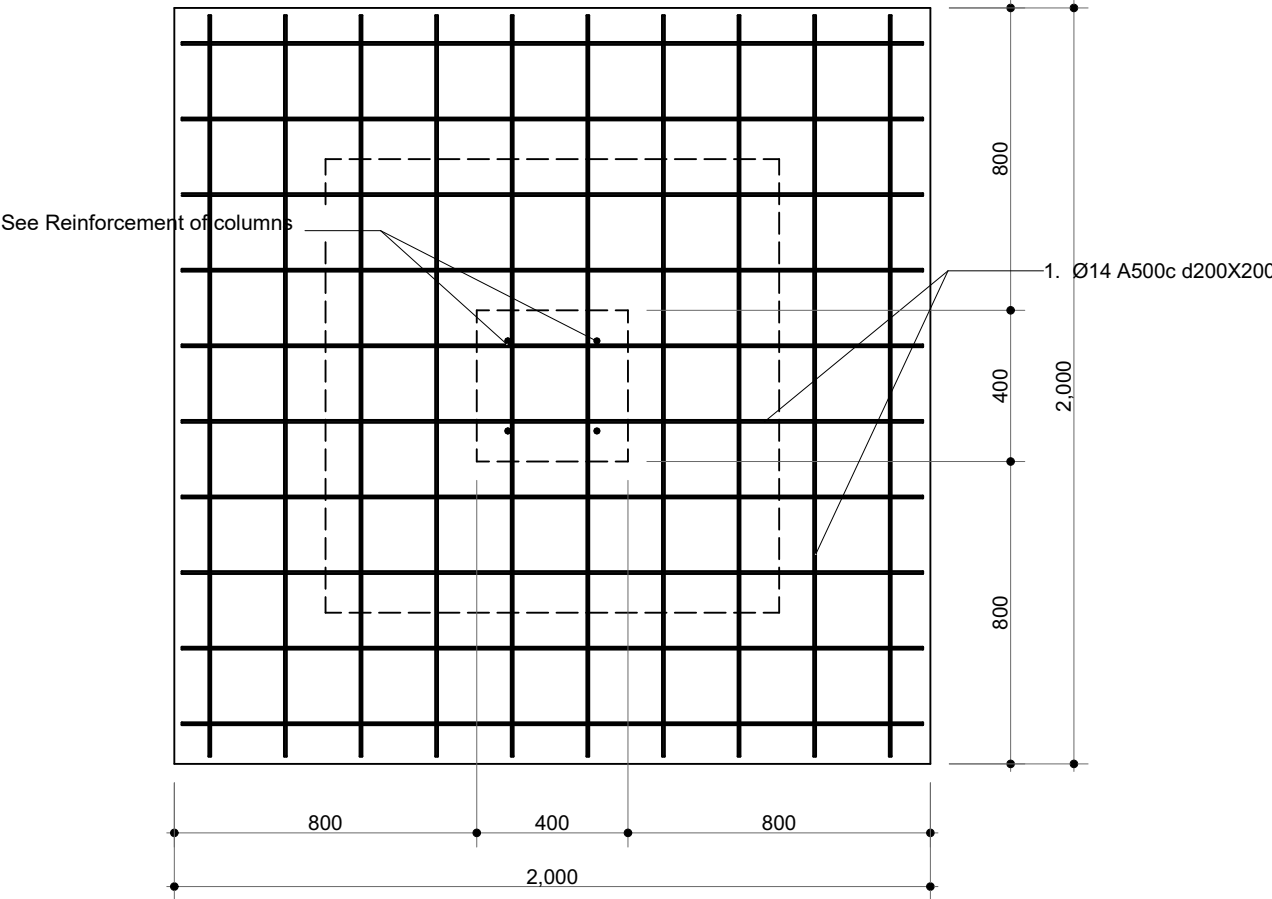




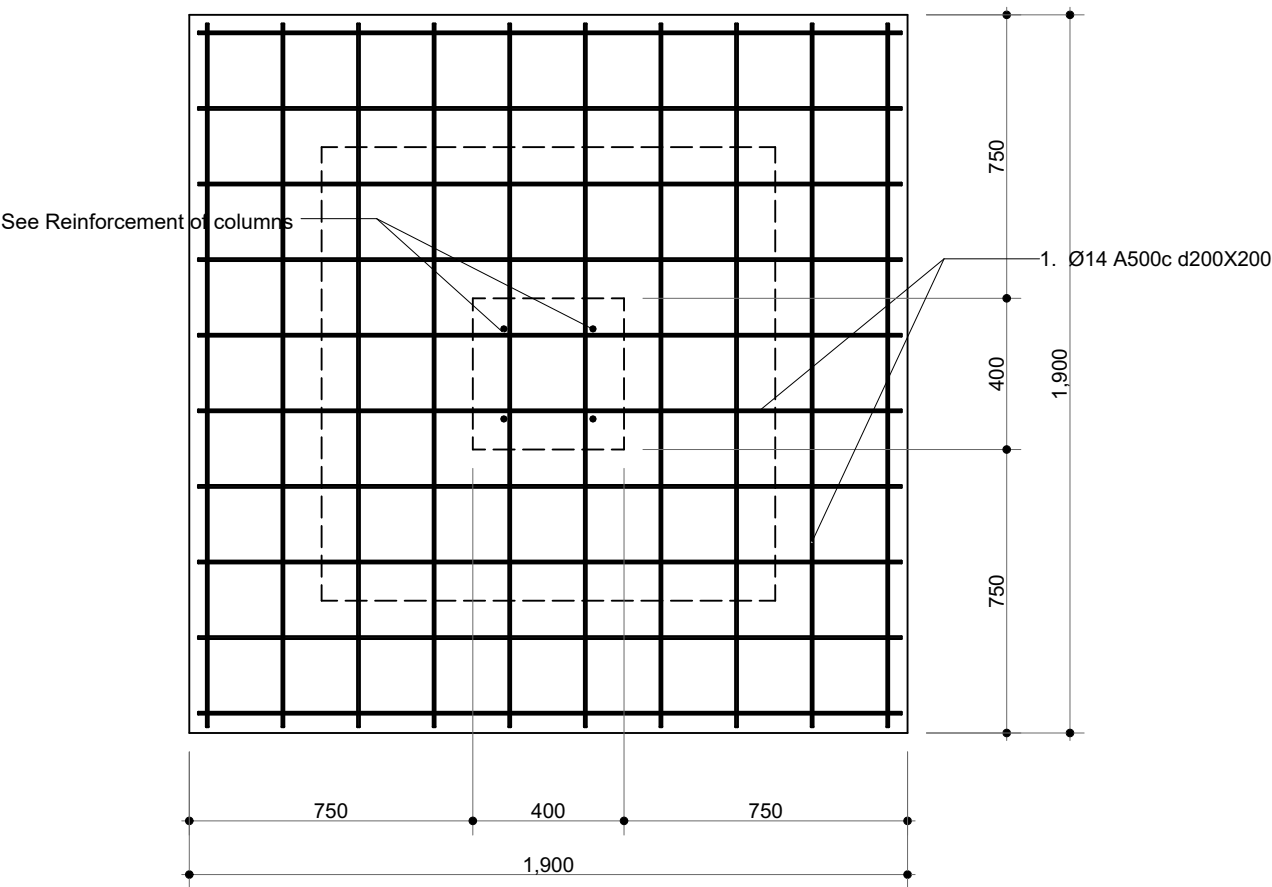
Note:
Anchor - forks in foundations should be installed in accordance
with column drawings



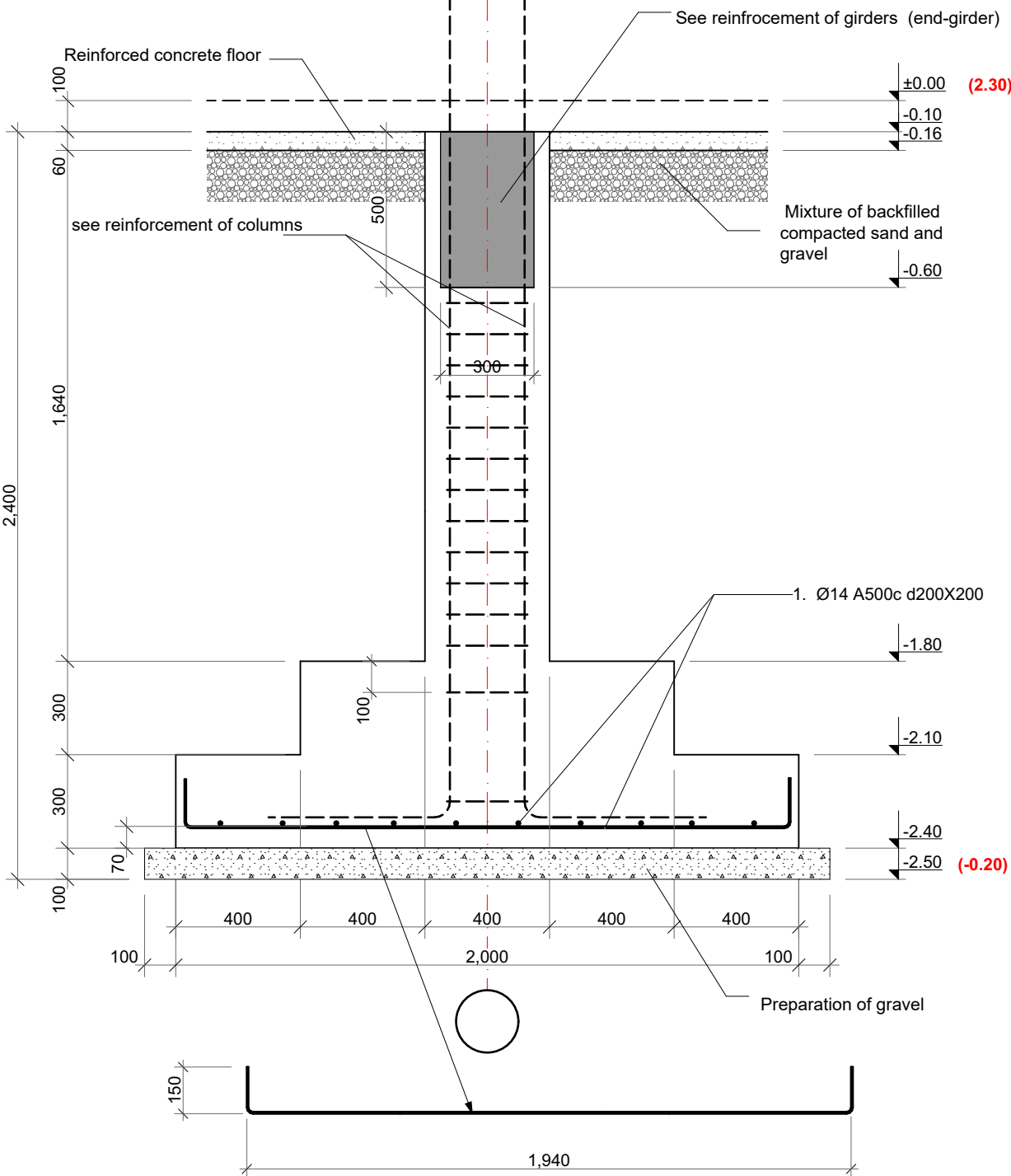
Pad foudation **ws-1**



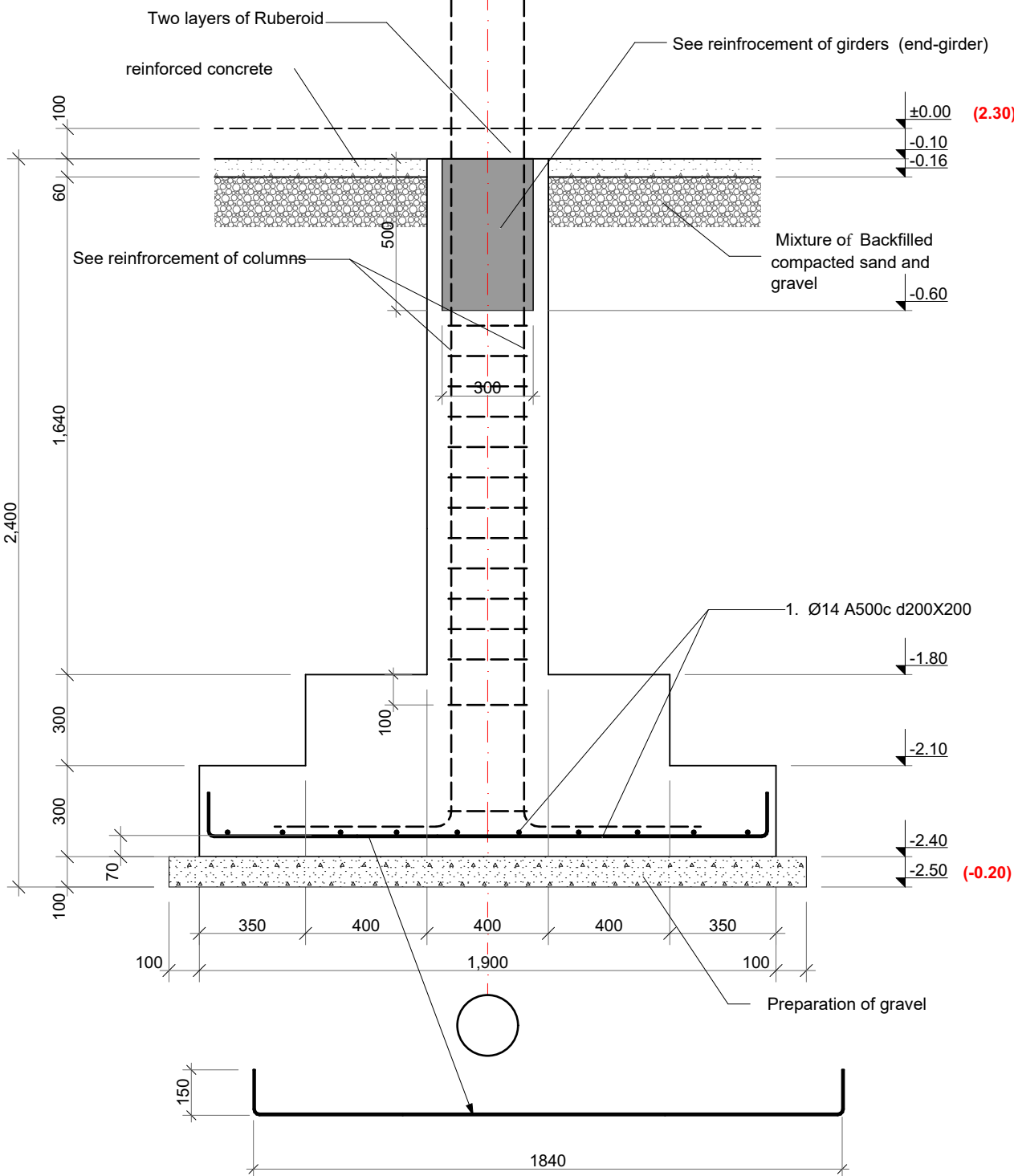
Pad foudation **ws-2**



a-a



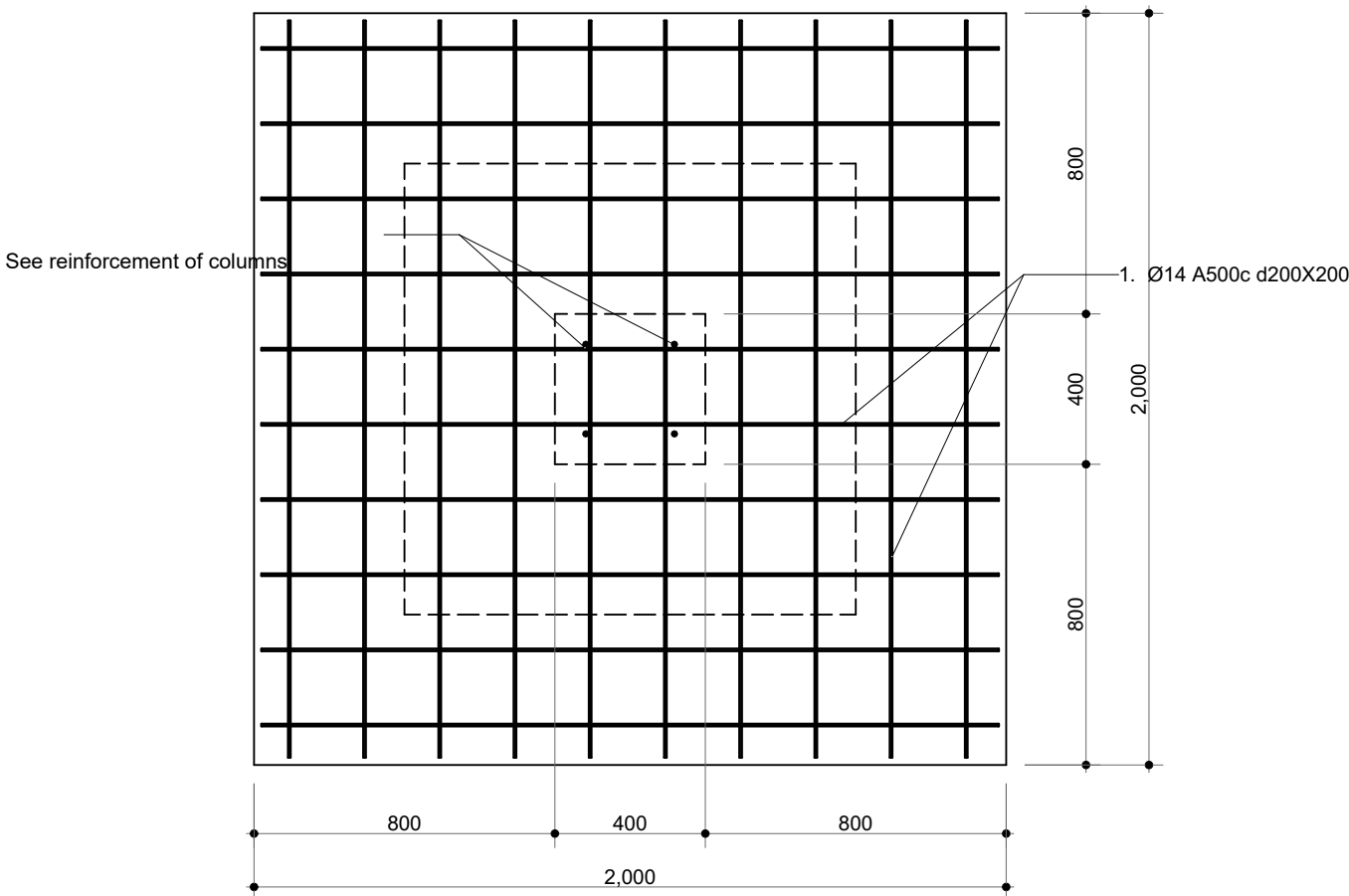
a-a



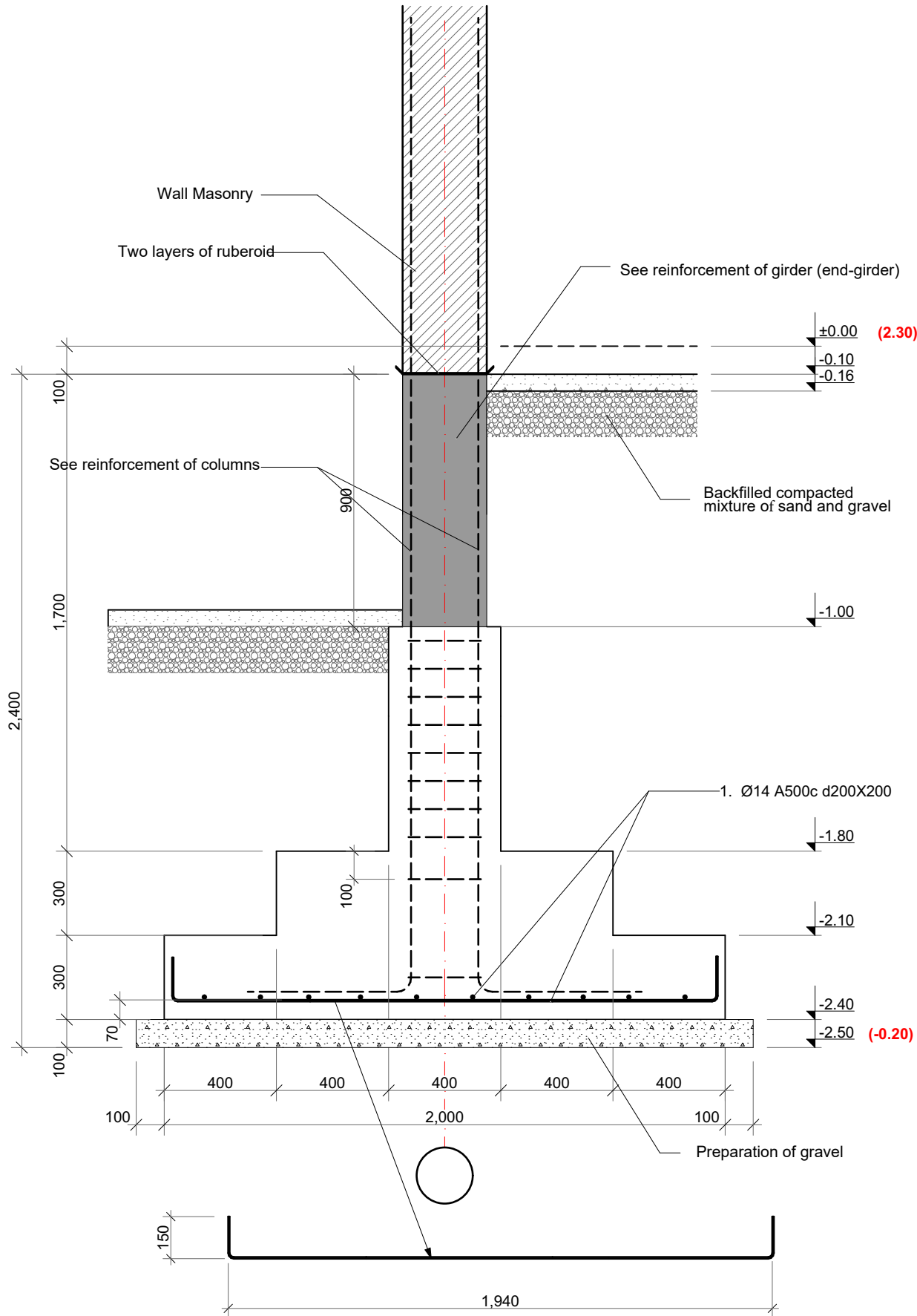
Note:
Anchor - forks in foundations should be installed in accordance
with column drawings



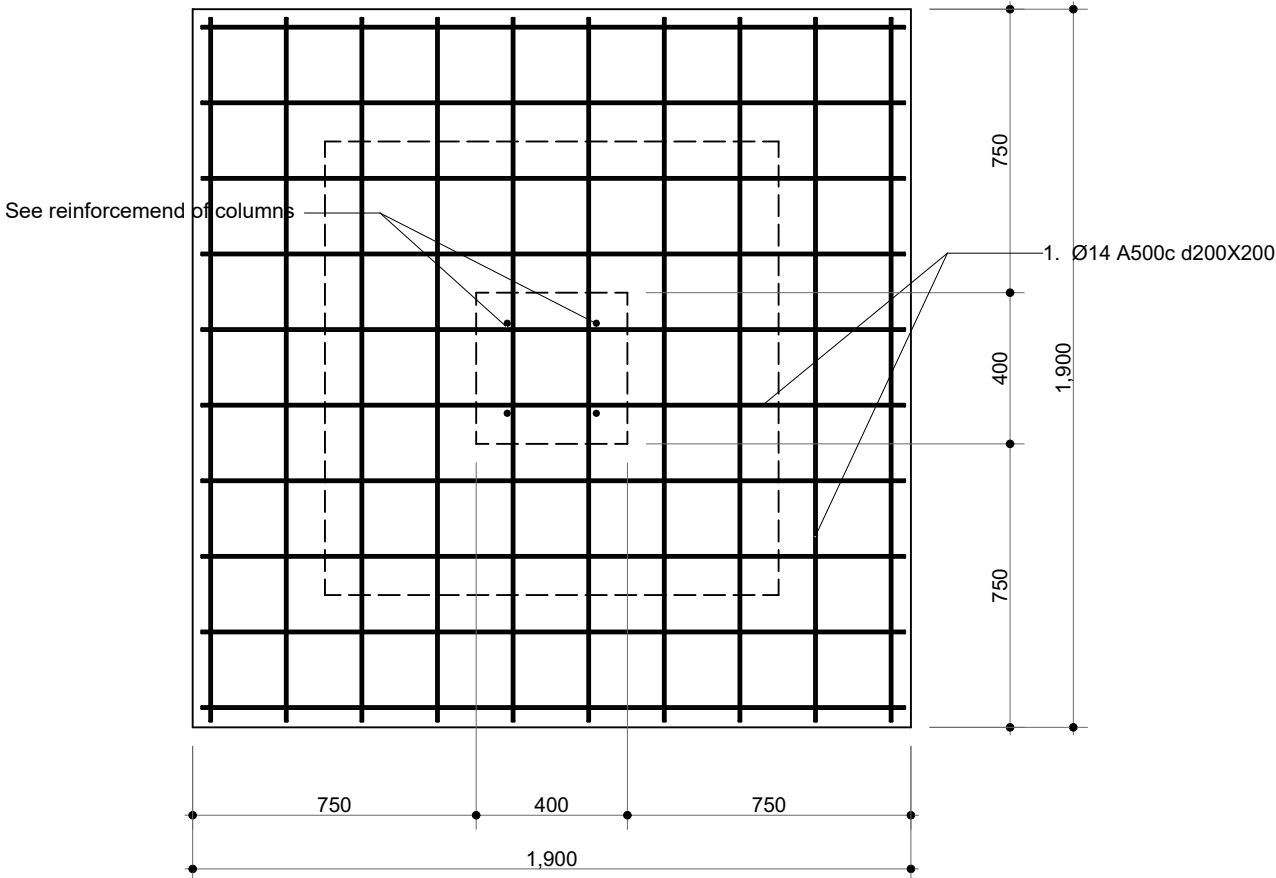
Pad foudation ws-1



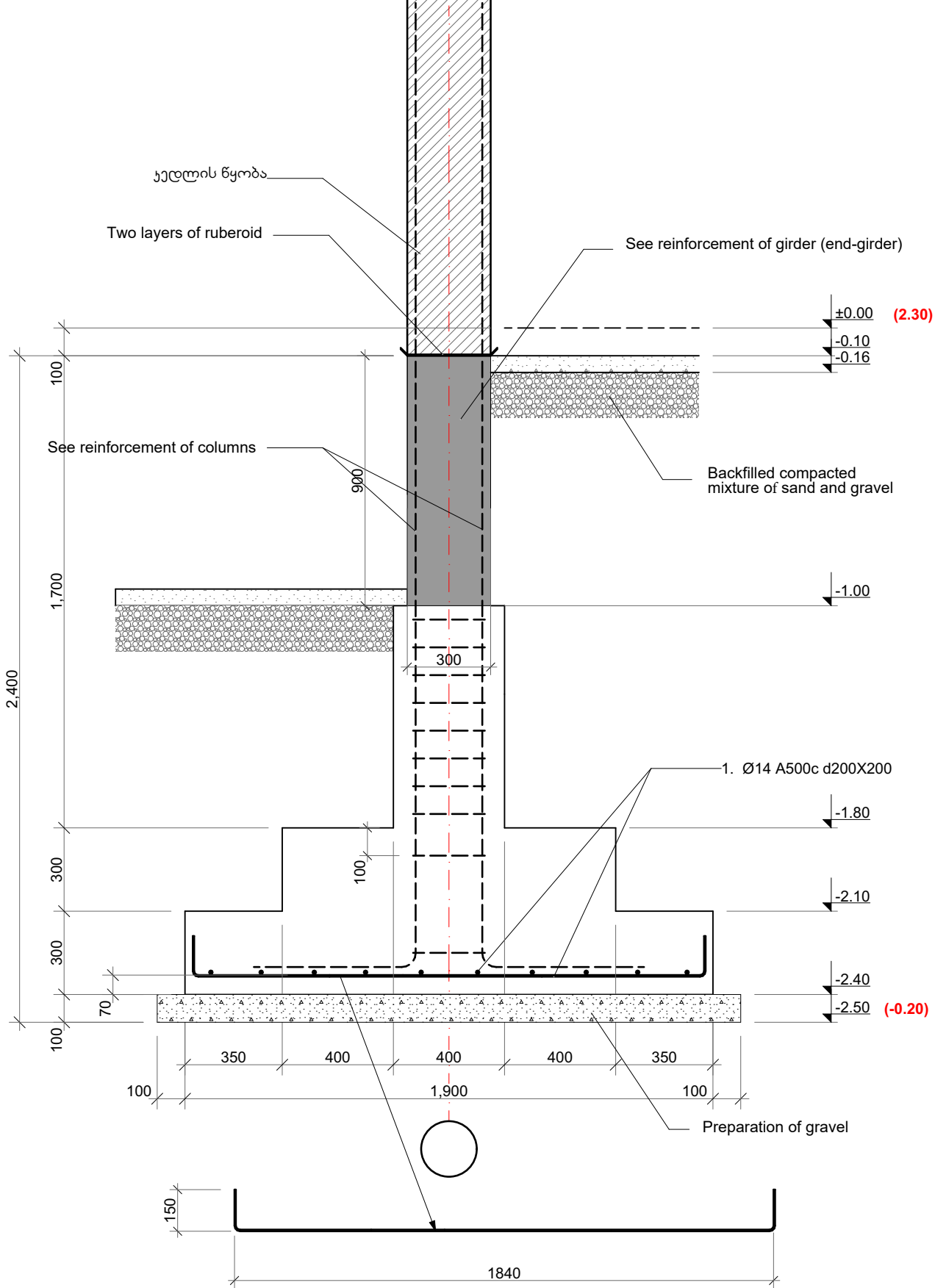
a-a



Pad foundation ws-3'

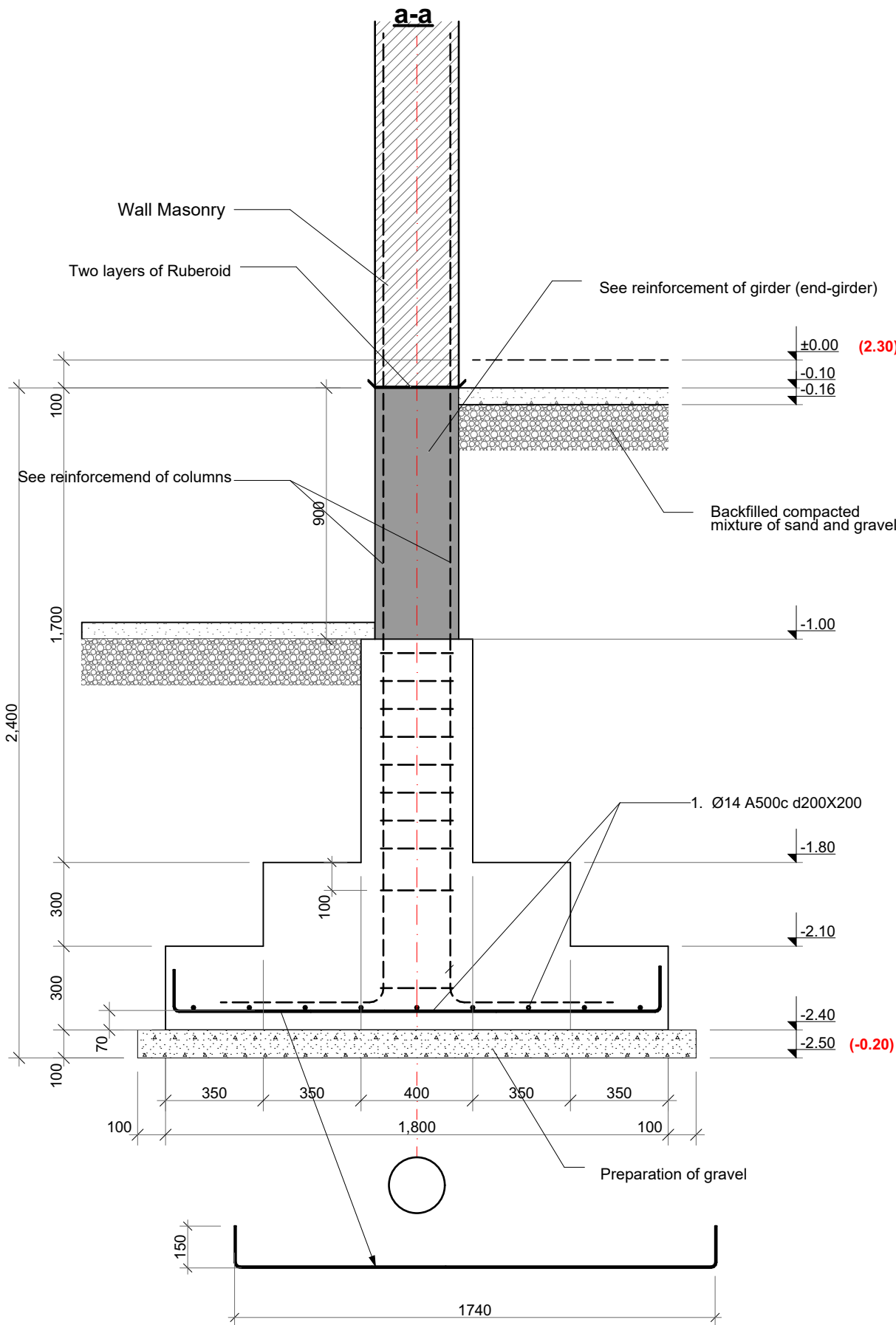
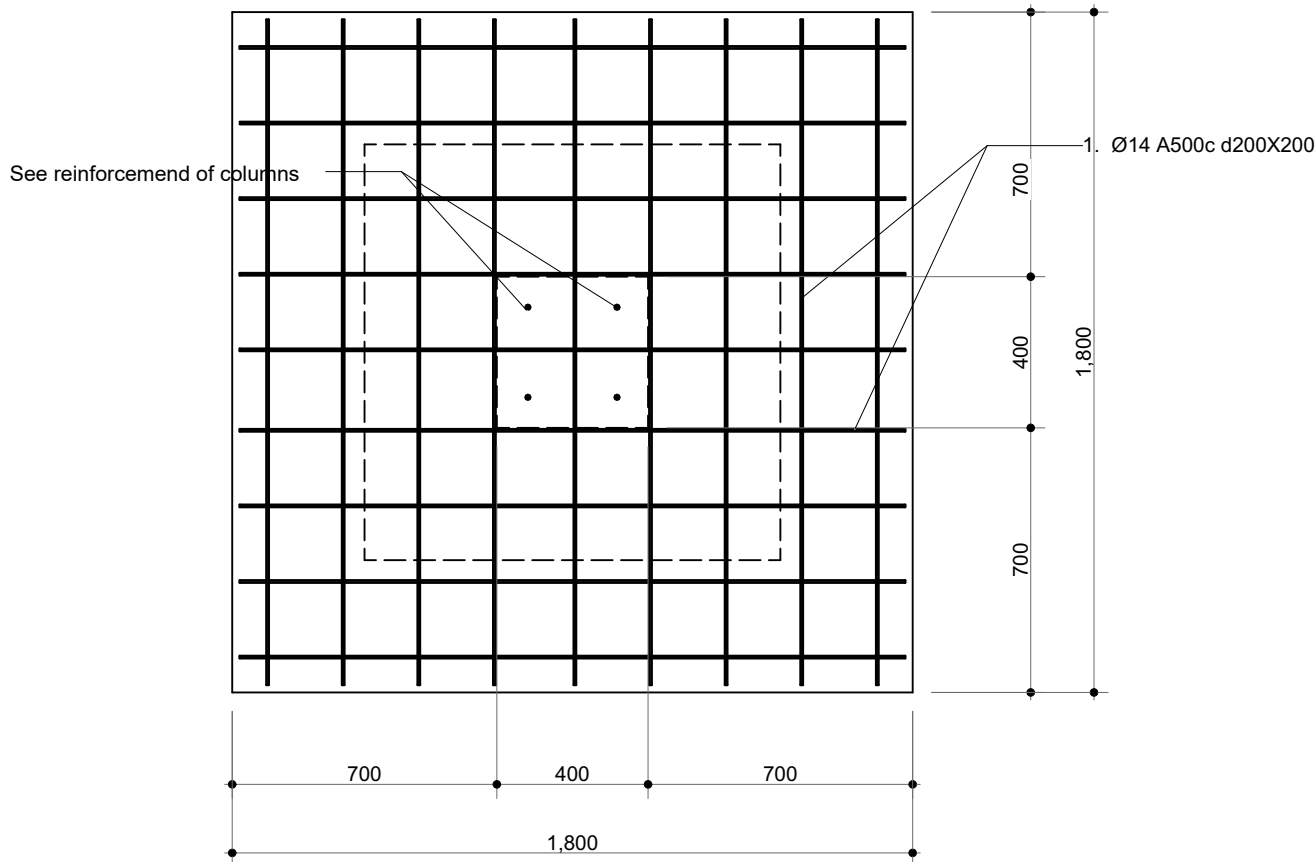


a-a



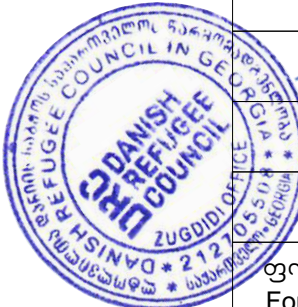
Note:
Anchor - forks in foundations should be installed in accordance
with column drawings

Pad foundation ws-3'

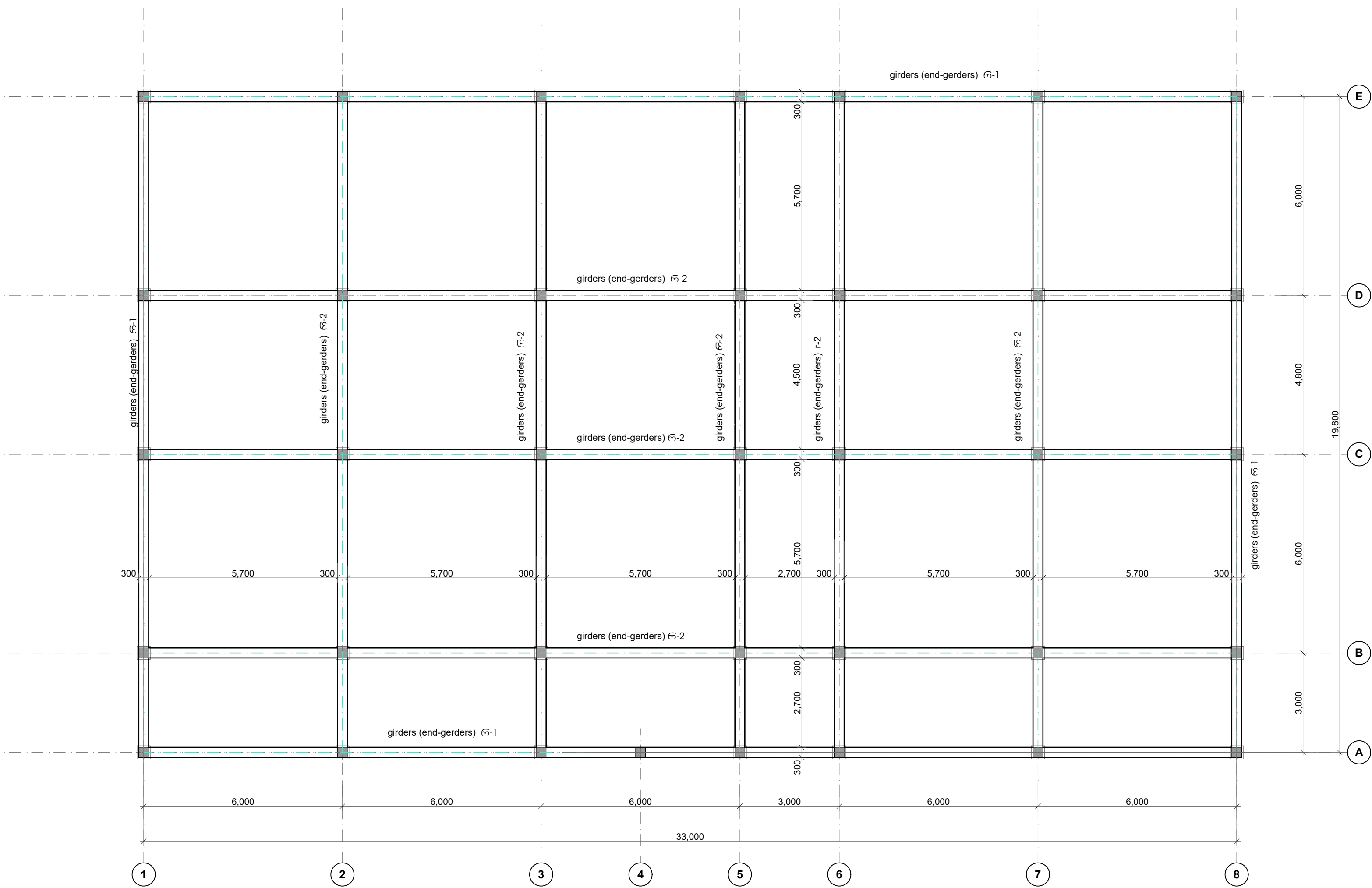


ელემენტი Element	№	არმატურის პროფილი Reinforcement profile	სიგრძე მმ Length mm	რაოდენობა Qty	საერთო სიგრძე მ Total length m	ბეტონი მ3 Concrete m3
წერტილოვანი საძირკველი Pad Foundation						
ws-1 (6 ცალი)		14 A500c	2240	120	268.80	
ws-2 (9 ცალი)		14 A500c	2140	180	385.20	
ws-1' (7 ცალი)		14 A500c	2240	140	313.60	
ws-2' (9 ცალი)		14 A500c	2140	180	385.20	
ws-3' (4 ცალი)		14 A500c	2040	72	146.88	
ბეტონი B25 m3						53.6

Specification of reinforcement						
არმატურის აღმოკრეფა						
კვეთი Section	საერთო სიგრძე მ total length m	საერთო სიგრძე მ დაზღვევით მ Total length with loss	საერთო წონა გრაძის წონა Weight of R/m	საერთო წონა Total weight, ton	საერთო წონა (კვადრატული მეტრი) Total weight per grade	
A240c	6 A240c	0.0	0.222	0.00	0.0	
	8 A240c	0.0	0.394	0.00		
A500c	6 A500c	0.0	0.222	0.00	1.9	
	8 A500c	0.0	0.394	0.00		
	10 A500c	0.0	0.616	0.00		
	12 A500c	0.0	0.887	0.00		
	14 A500c	1499.7	1.208	1.90		
	16 A500c	0.0	1.578	0.00		
	18 A500c	0.0	1.997	0.00		
	20 A500c	0.0	2.465	0.00		
	22 A500c	0.0	2.983	0.00		
	25 A500c	0.0	3.851	0.00		
სულ Total				1.90		



Plan of monolithic girders (end-girders) at -0.080 level



[illegible]

არეზერვის, მთავარი Ø (88)	არეზერვის, ბაგეჯაბი (89) $L_1=40^{\circ}D$	ბაგეჯაბი, მინიმალური არეზერვის მინიმალური (89) $L_2=1.5^{\circ}L_{max}$	არეზერვის, "X" მინიმალური, არეზერვის ბაგეჯაბი, მინიმალური მინიმალური (89) $L_2=L_1/2$	საბაგეჯაბი, ბაგეჯაბი არეზერვის მთავარი (89) $L_3=L_1+L_{max}$
Ø16 A500C	640	960	480	1600
Ø18 A500C	720	1080	540	1800
Ø20 A500C	800	1200	600	2000
Ø22 A500C	880	1320	660	2200
Ø25 A500C	1000	1500	750	2500

Technical drawing of a U-shaped part. The drawing shows a cross-section of the part with dimensions: L1 (total length), L2 (length of the straight section), L3 (length of the curved section), B (width of the base), 30 (height of the base), and r=5xd (radius of the curved section). The part is shown in a perspective view with a dashed line indicating the hidden part of the base.

ε(Г ₁₅) (B=400)					
L _{ΔΔB=1200} =40c=L ₁ +L ₂ +L ₃ =2xL ₁ (88)					
$\begin{matrix} \text{A} \\ \text{B} \\ \text{C} \end{matrix}$	$\begin{matrix} \text{A} \\ \text{B} \\ \text{C} \end{matrix}$	L _{ΔΔB=1200} =40C	r=5d 88.	$\begin{matrix} \text{A} \\ \text{B} \\ \text{C} \end{matrix}$	
				$\begin{matrix} \text{A} \\ \text{B} \\ \text{C} \end{matrix}$	
				$\begin{matrix} \text{A} \\ \text{B} \\ \text{C} \end{matrix}$	
				$\begin{matrix} \text{A} \\ \text{B} \\ \text{C} \end{matrix}$	
Ø16 A500C	640	80	320	126	194
Ø18 A500C	720	90	360	141	219
Ø20 A500C	800	100	400	157	243

Technical drawing of the A500c access door assembly, showing front and side views with dimensions and callouts.

Front View (Top):

- Overall width: 300
- Overall height: 900
- Top flange thickness: 50 (25)
- Bottom flange thickness: 70 (95)
- Side flange thickness: 60
- Internal width: 180
- Internal height: 780

Side View (Bottom):

- Overall width: 300
- Overall height: 790
- Top flange thickness: 100
- Bottom flange thickness: 100
- Internal width: 200

Callouts:

- 1. 2 Ø22 A500c
- Ø8 A240c d100;200
- 3. 2 Ø12 A500c
- 5. Ø8 A240c d400
- 2. 2 Ø20 A500c

Dimensions:

- Top flange: 50 (25)
- Bottom flange: 70 (95)
- Side flange: 60
- Internal width: 180
- Internal height: 780
- Overall width: 300
- Overall height: 900
- Side view top flange: 100
- Side view bottom flange: 100
- Side view internal width: 200

Technical drawing showing the front and top views of a rectangular metal plate. The front view (top) shows a plate with overall dimensions of 500 mm (width) by 380 mm (height). It features a central rectangular opening with dimensions of 300 mm (width) by 70(95) mm (height). The plate is made of 2 Ø22 A500c and 2 Ø20 A500c. The top view (bottom) shows a circular hole with a diameter of 100 mm. The plate is also made of 2 Ø22 A500c and 2 Ø20 A500c. The drawing includes dimensions for the plate's thickness (100 mm) and the hole's diameter (100 mm). The drawing is labeled with dimensions and material specifications.

Technical drawing of a square grid structure. The grid is composed of 4 horizontal and 4 vertical lines, forming a 3x3 array of squares. The total width and height are both 270 units. The spacing between the grid lines is 90 units. The grid is labeled with dimensions and a reference number. The label $\varnothing 10A500c$ is located at the top left, and the label $\delta 000 14098-85$ is at the top right. The label $K3-Pp$ is located below the grid. The grid is drawn with red lines and red 'x' marks at the intersections.

Total weight per class, ton

Georgia,
Poti

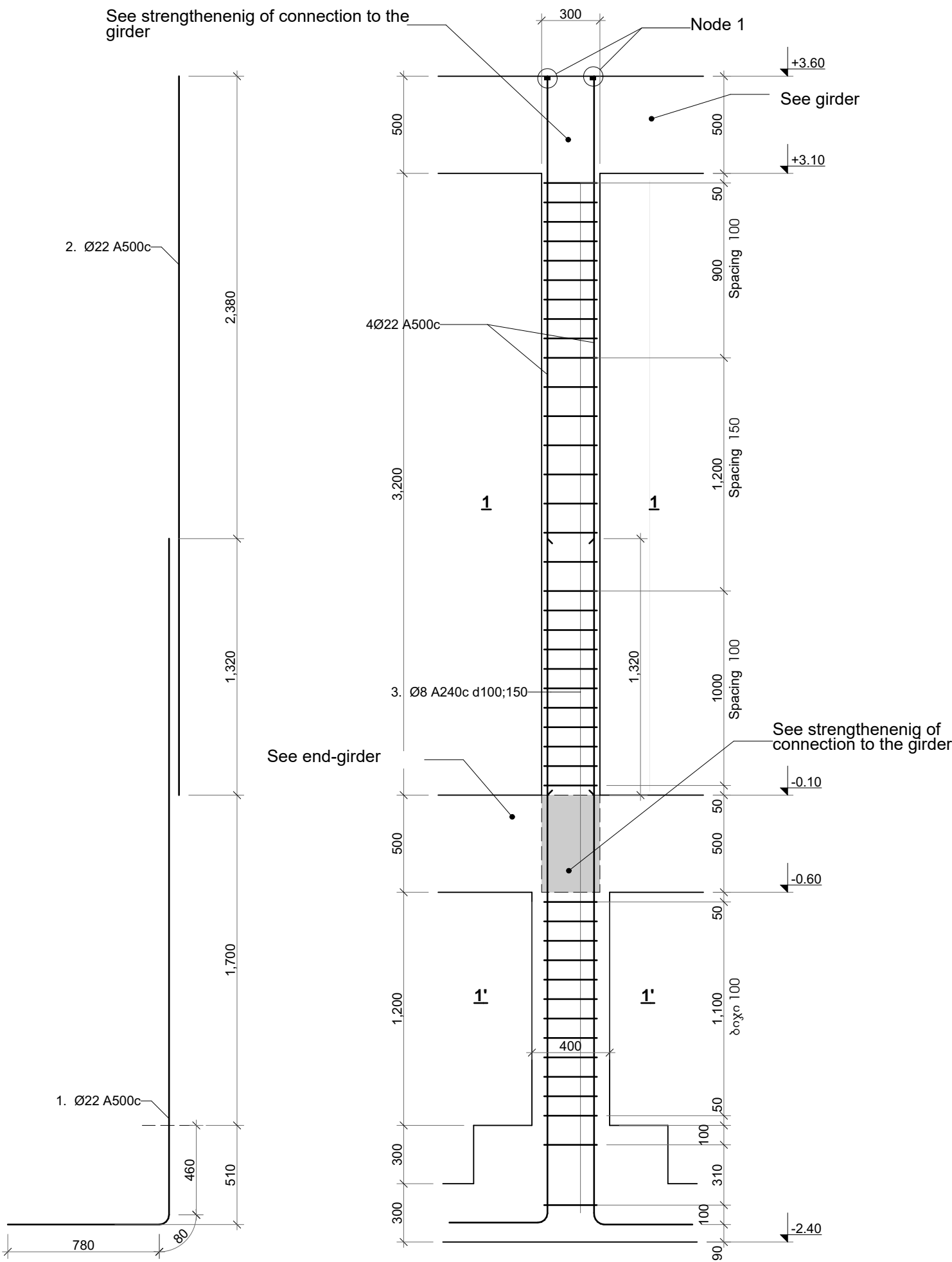
Stage:
Architectural project

Strengthenenig o
momolith girder,
end girder nodes

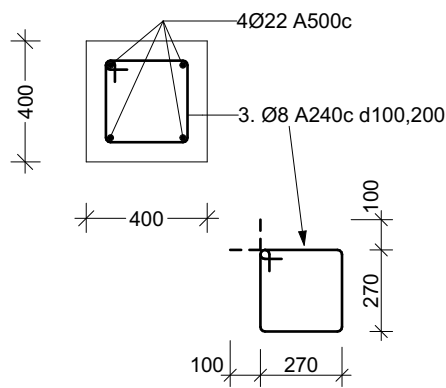
ბ. ქანთარია
B. Qantaria

ა. გერგედავა
A. Gergedava

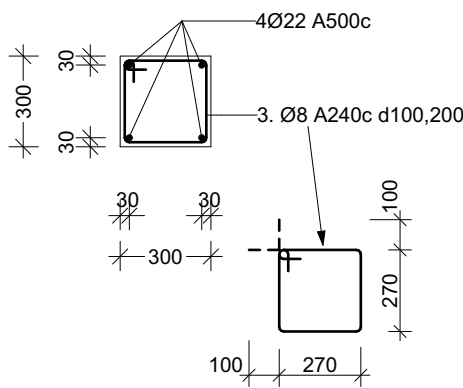
Column S-1



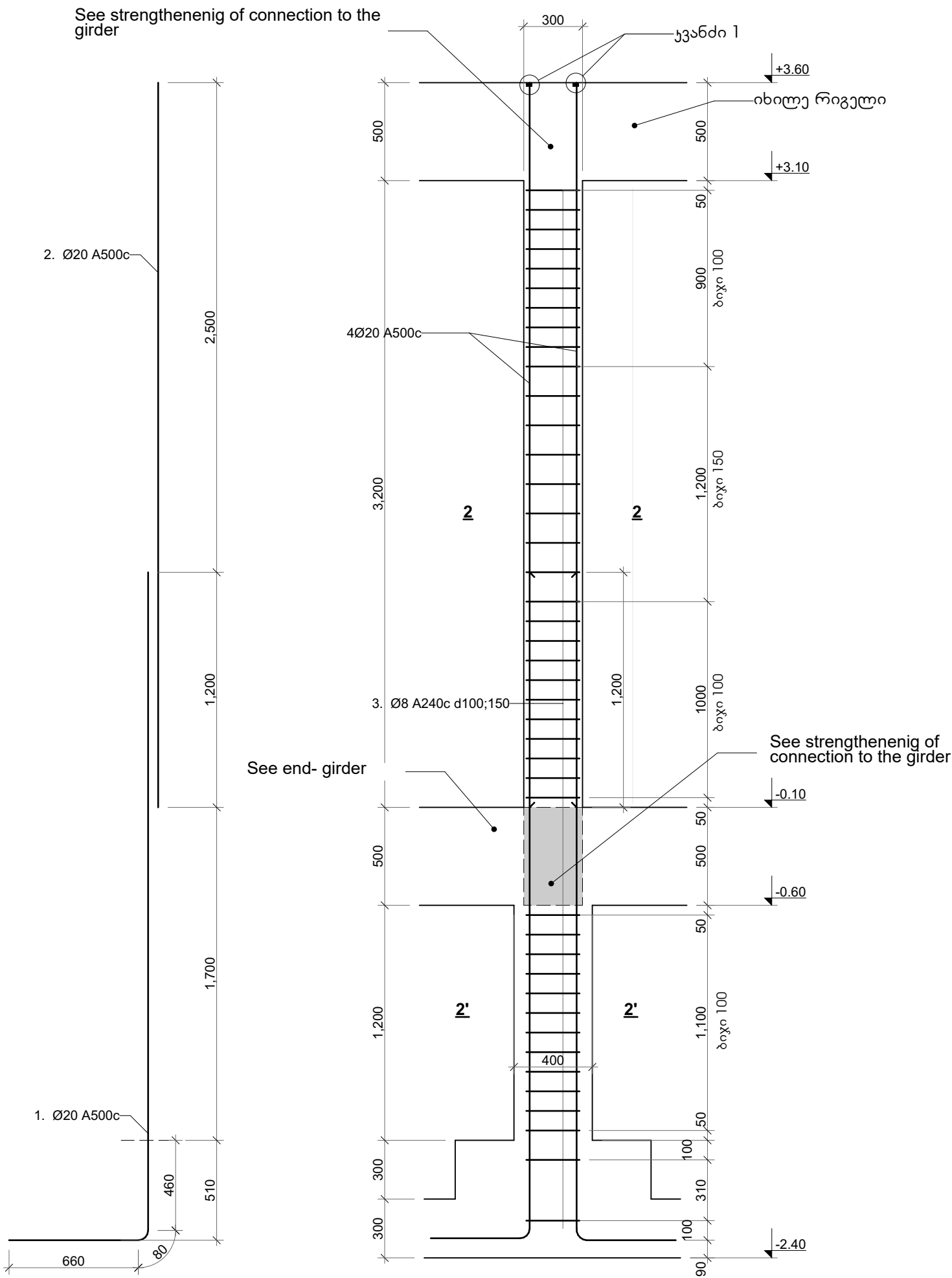
ჭრისი 1'-1'



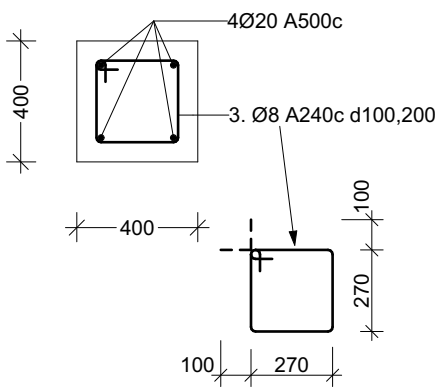
ჭრისი 1-1



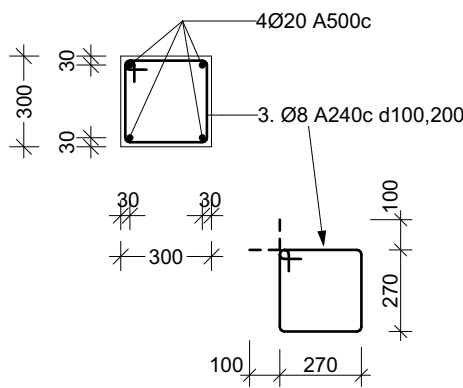
Column S-2



Section 2'-2'



Section 2-2



Typical
Kindergarten
4a, 9th April Alley
Poti

Project address:
Georgia,
Poti

Stage:
Architectural project

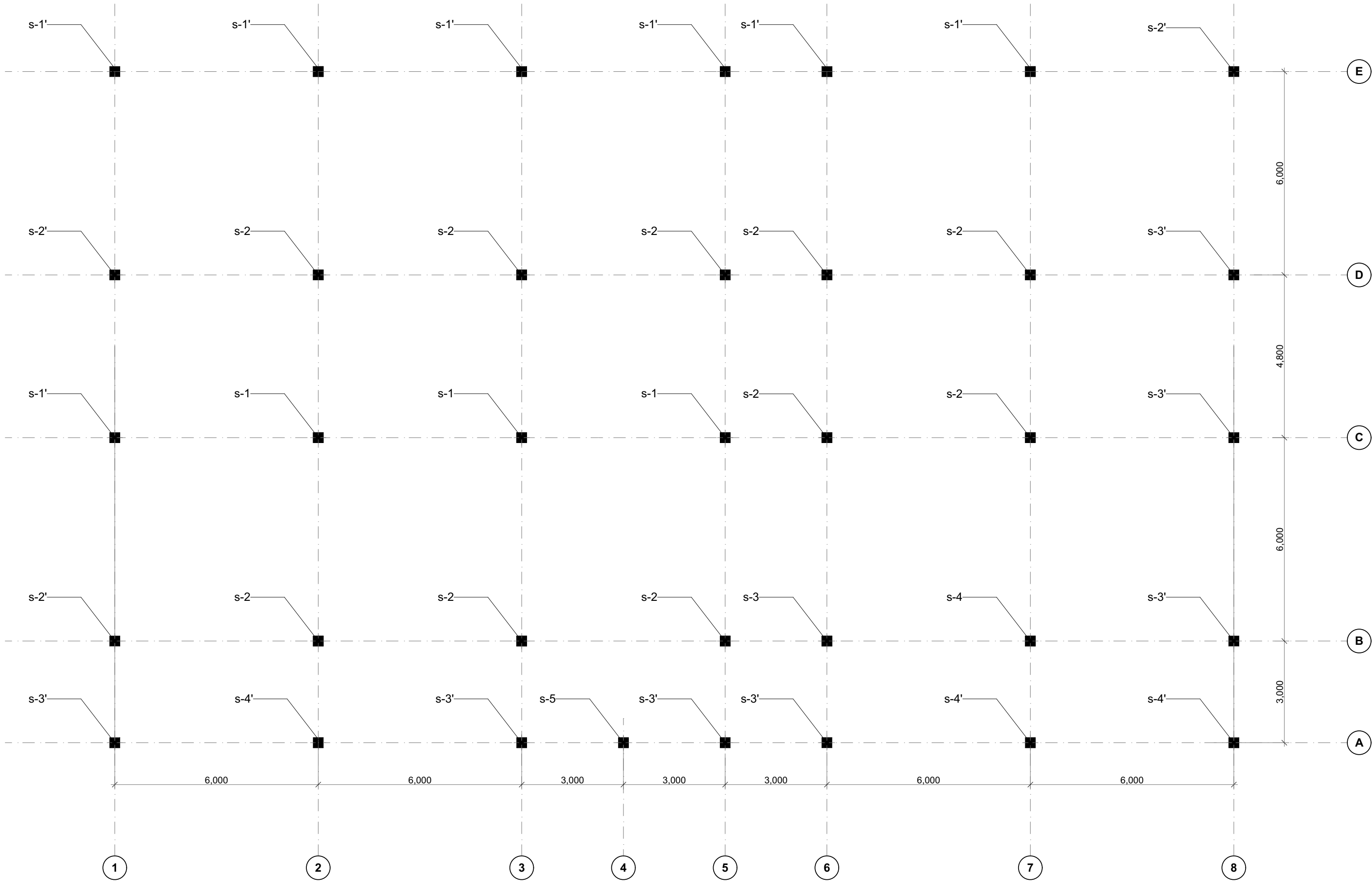
Column **s-5**

ბ. ჯანთარია
B. Qantaria

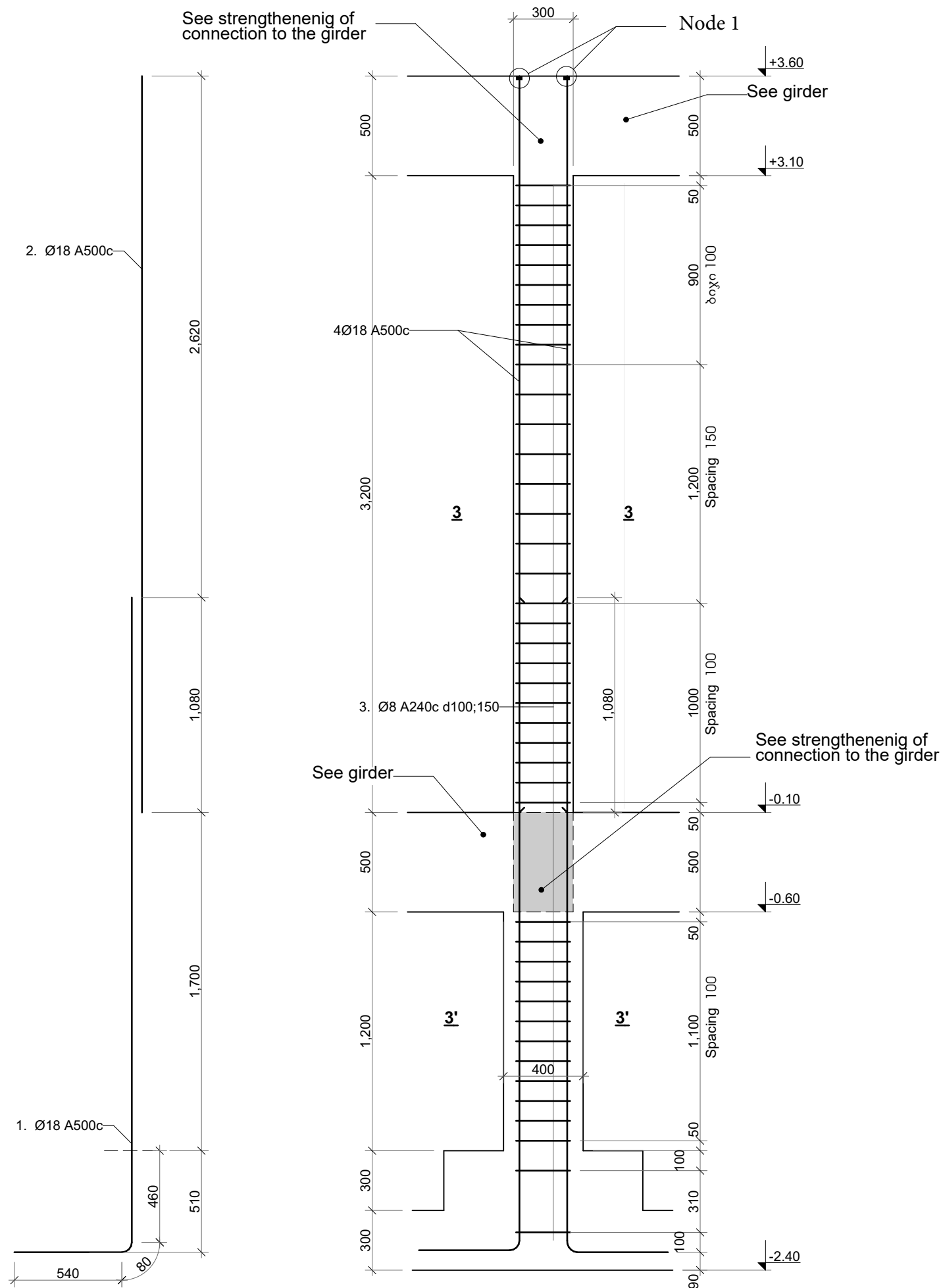
ა. გერგელავა
A. Gergedava

Format A - 2

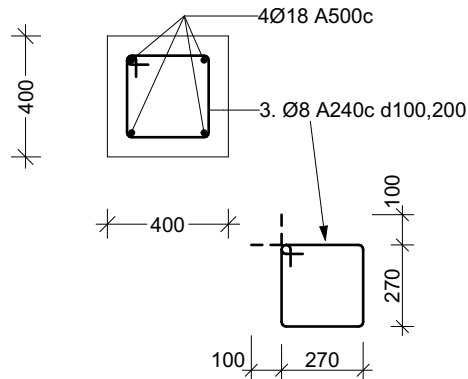
Plan of Column Marking



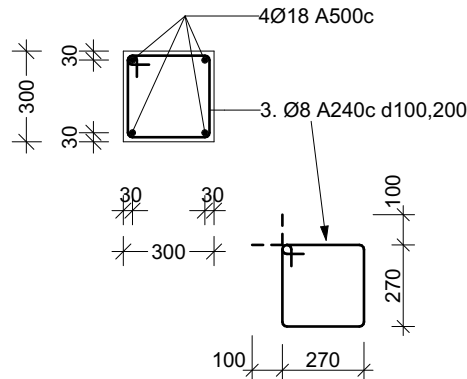
Column S-3



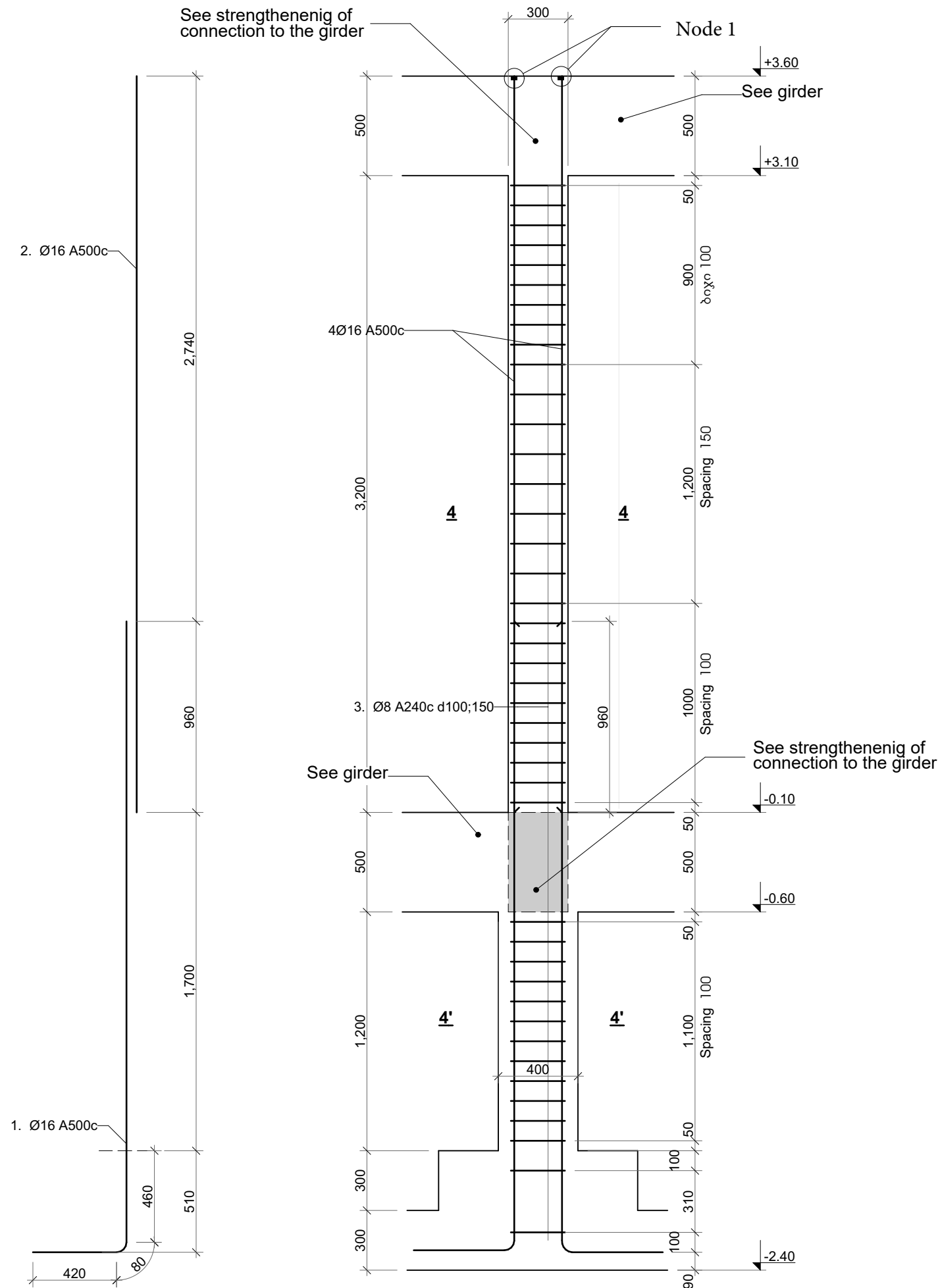
ჭრისტი 3'-3'



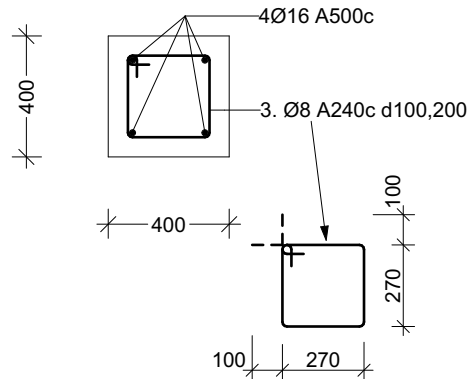
ჭრისტი 3-3



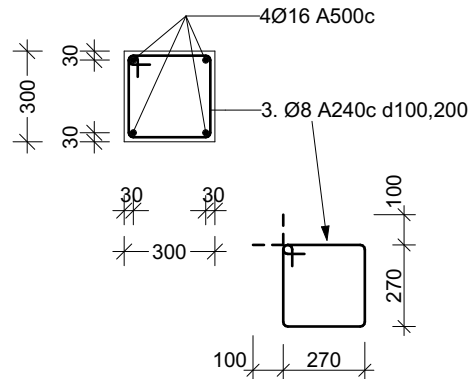
Column S-4



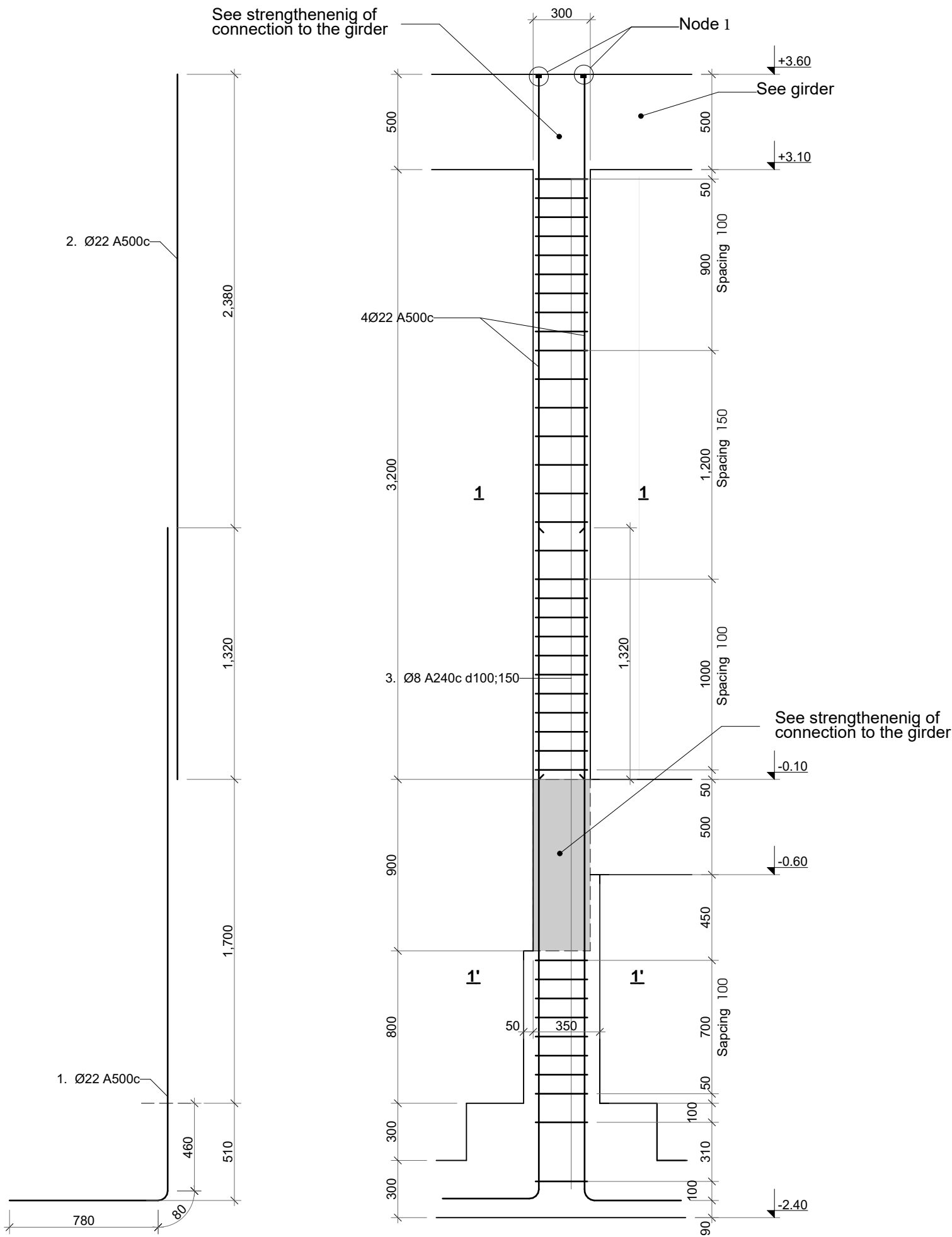
Section 4'-4'



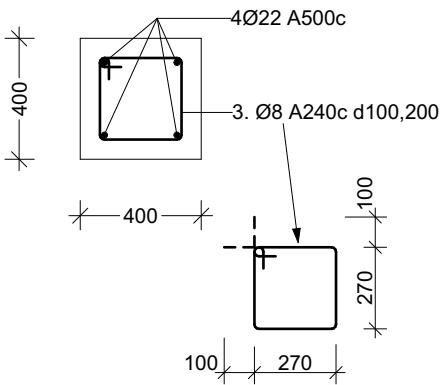
Section 4-4



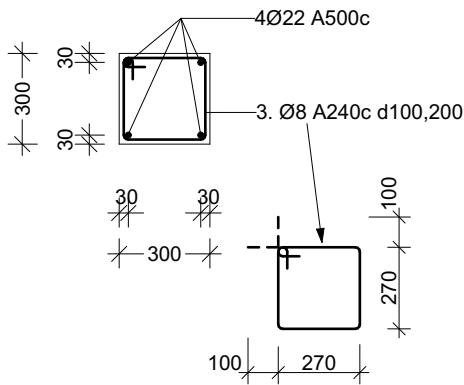
Column **S-1'**



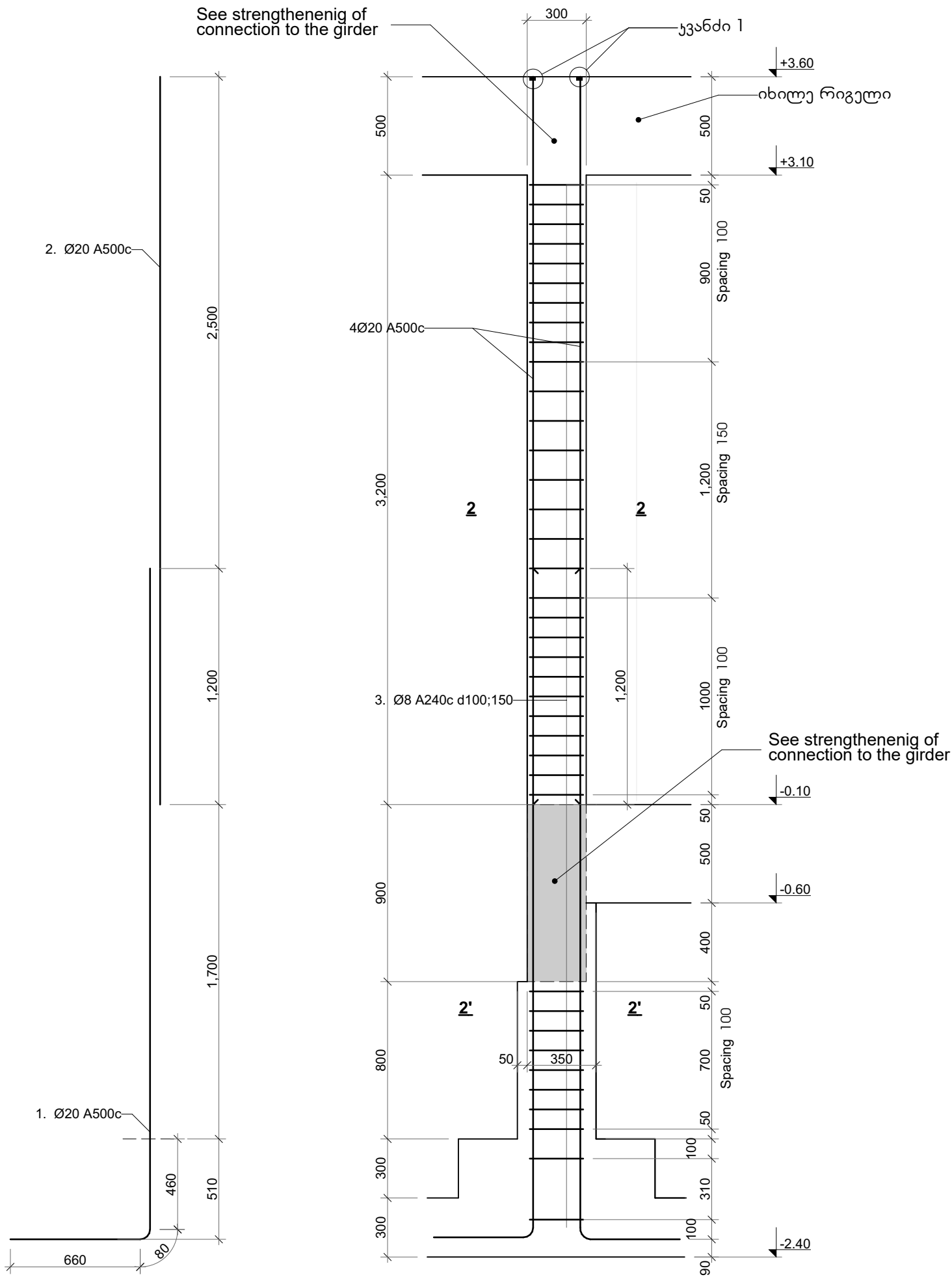
Section **1'-1'**



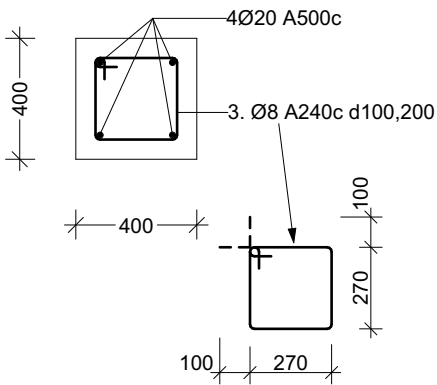
Section **1-1**



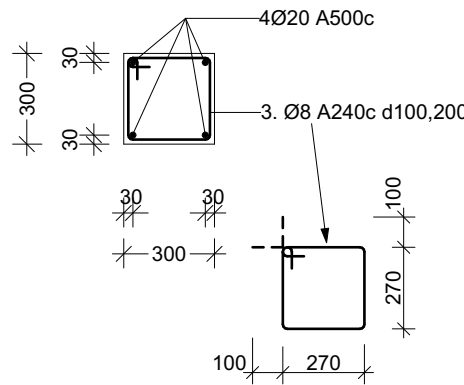
სვეტი **S-2'**



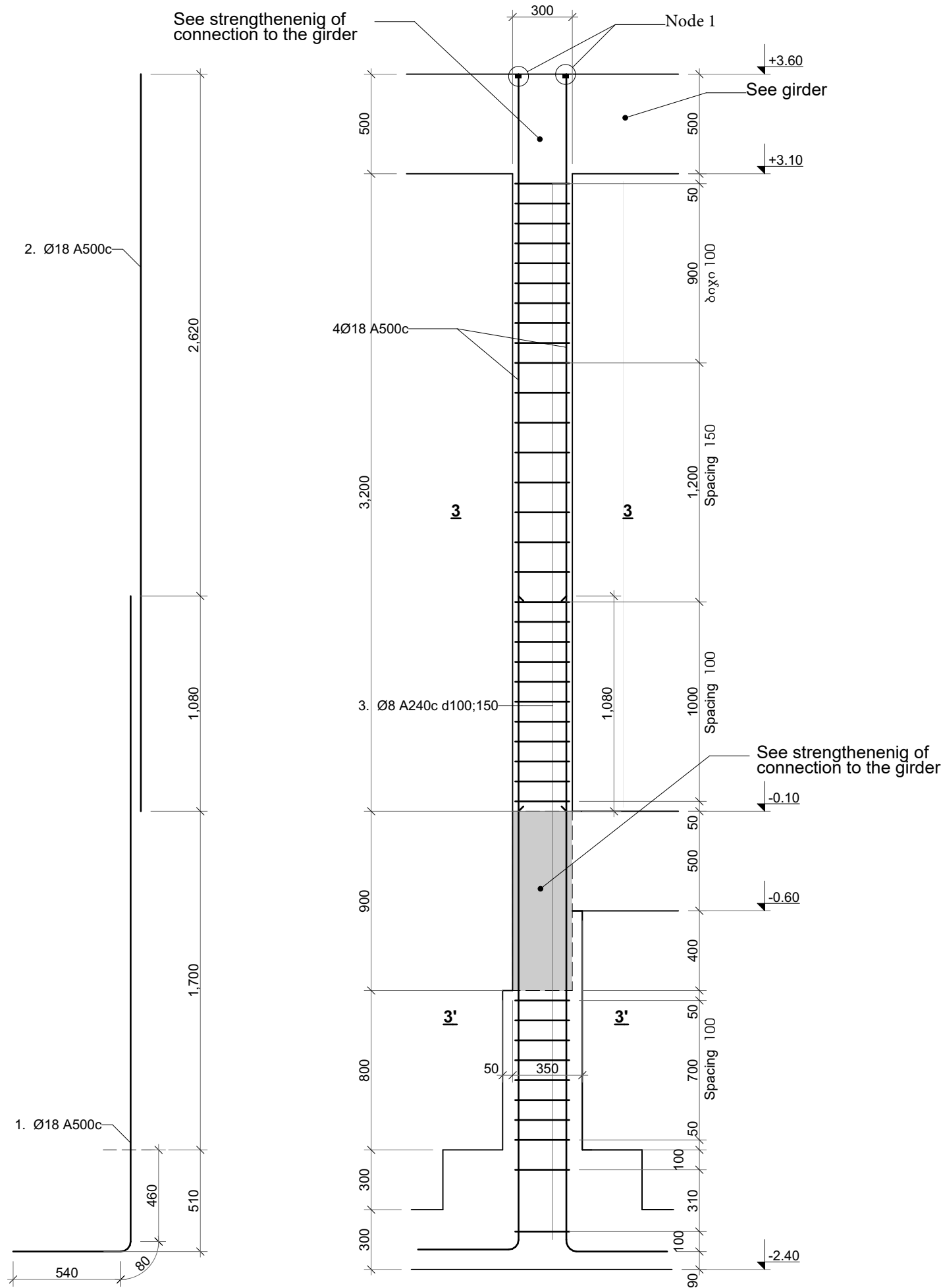
Section **2'-2'**



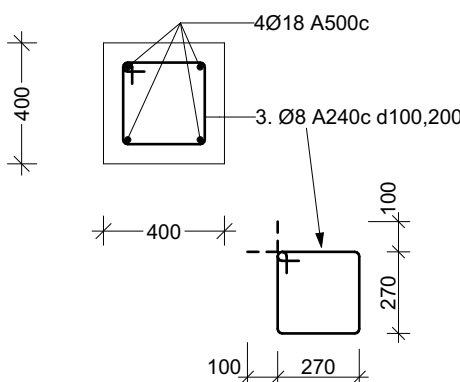
Section **2-2**



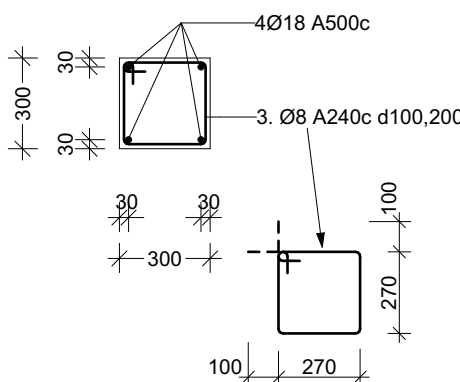
Column S-3'



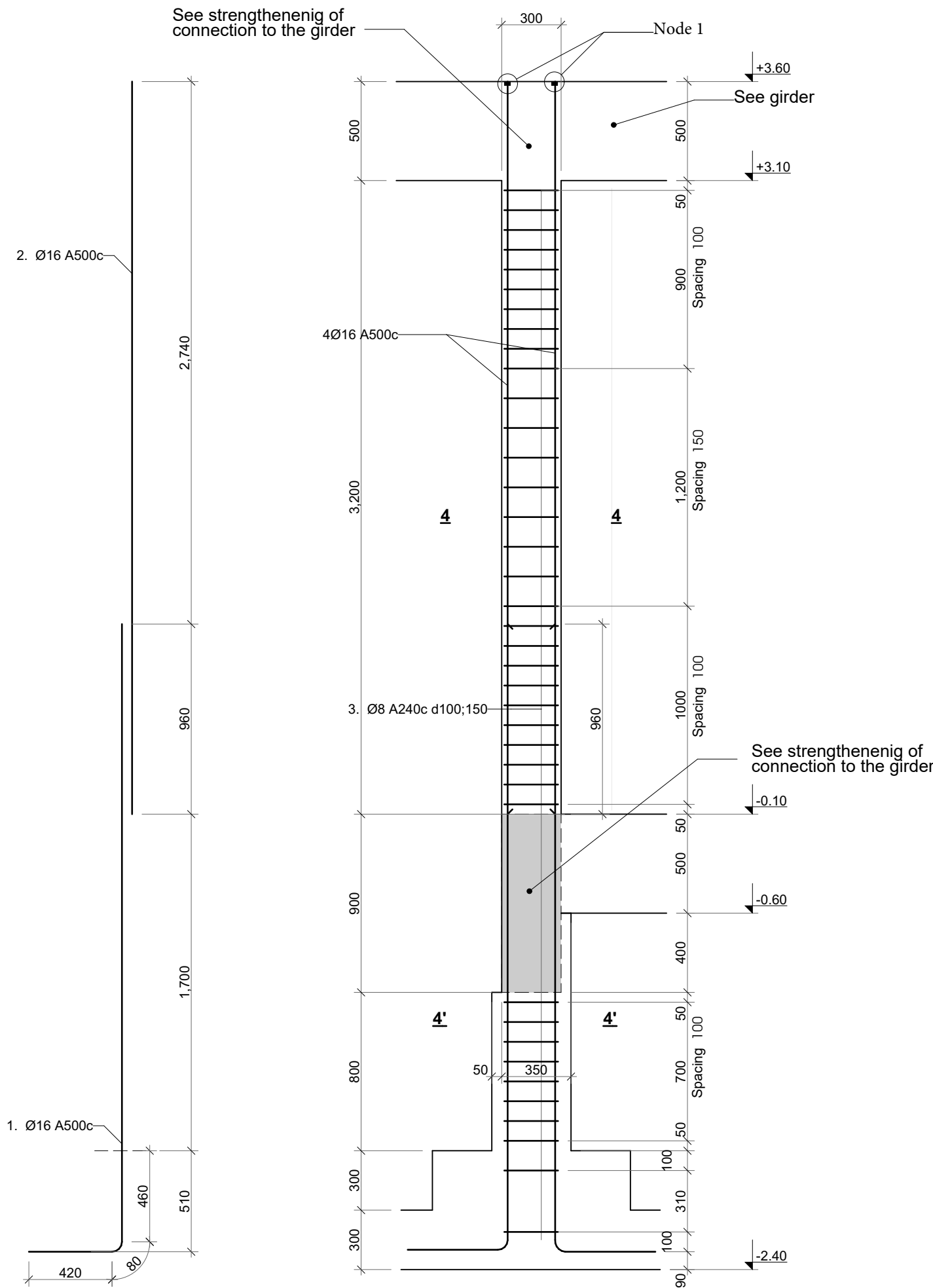
Section 3'-3'



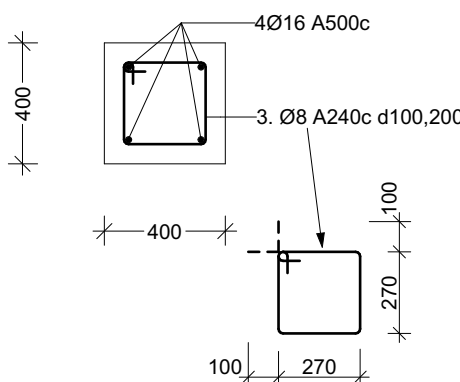
Section 3-3



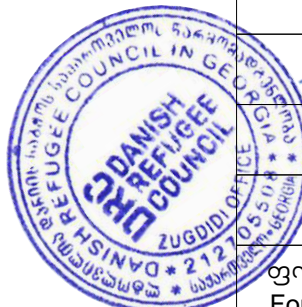
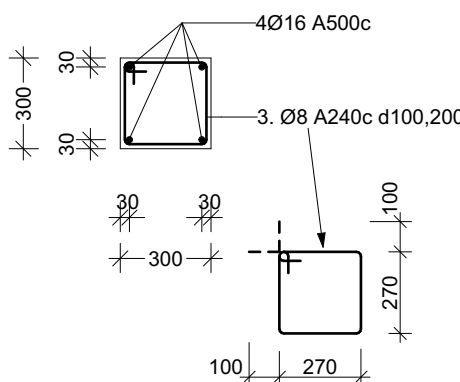
Column S-4'

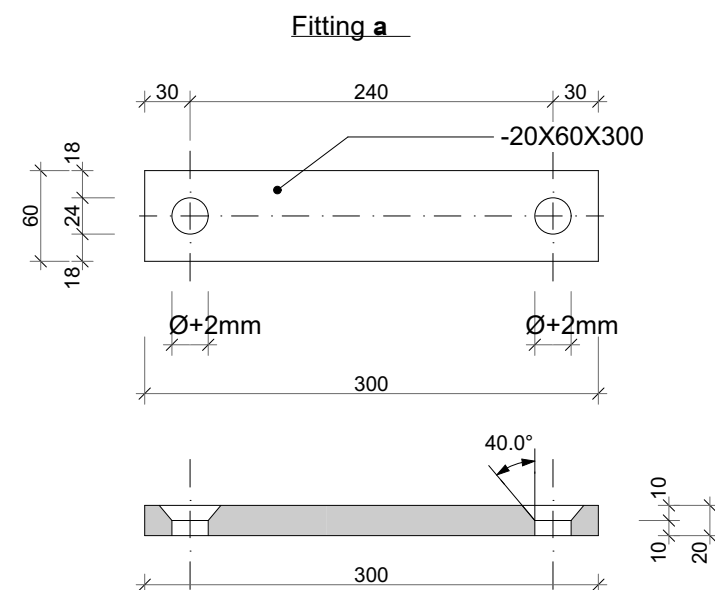
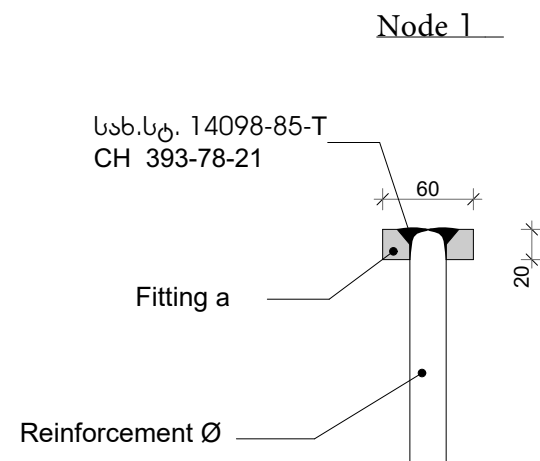
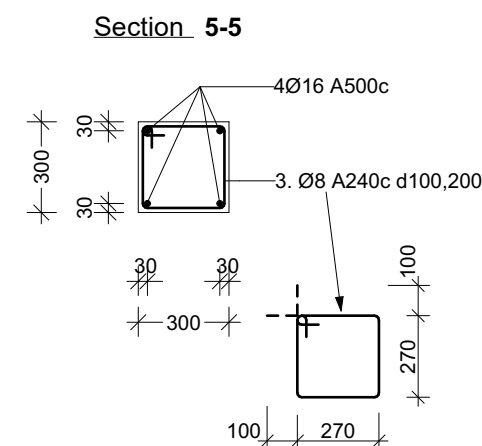


Section 4'-4'



Section 4-4

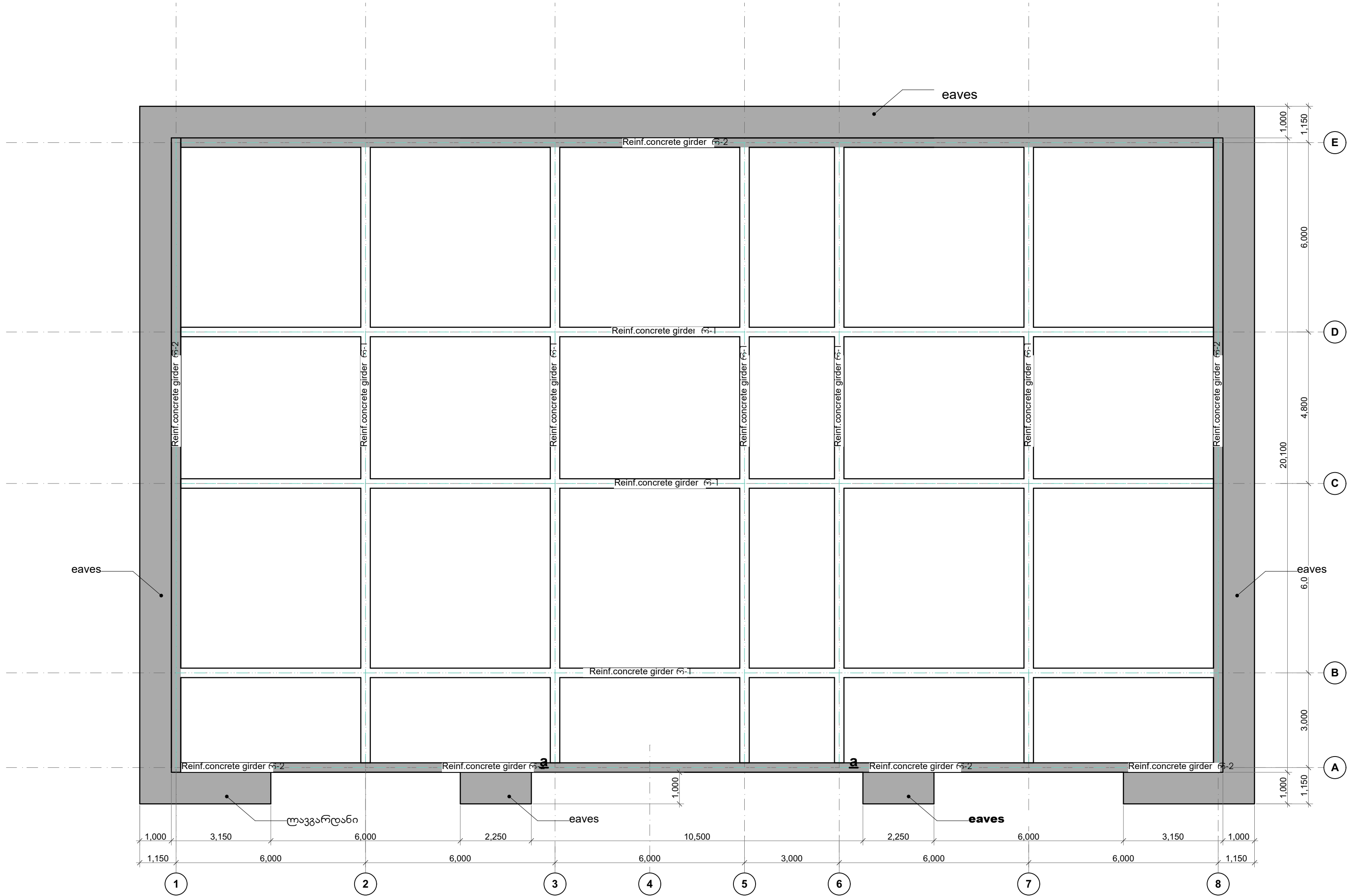


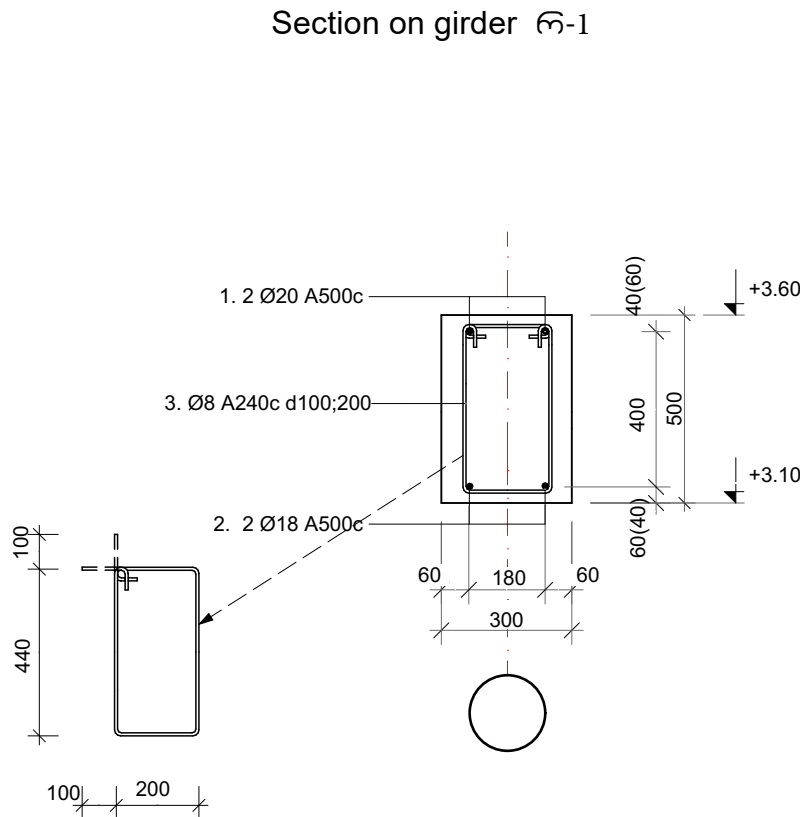
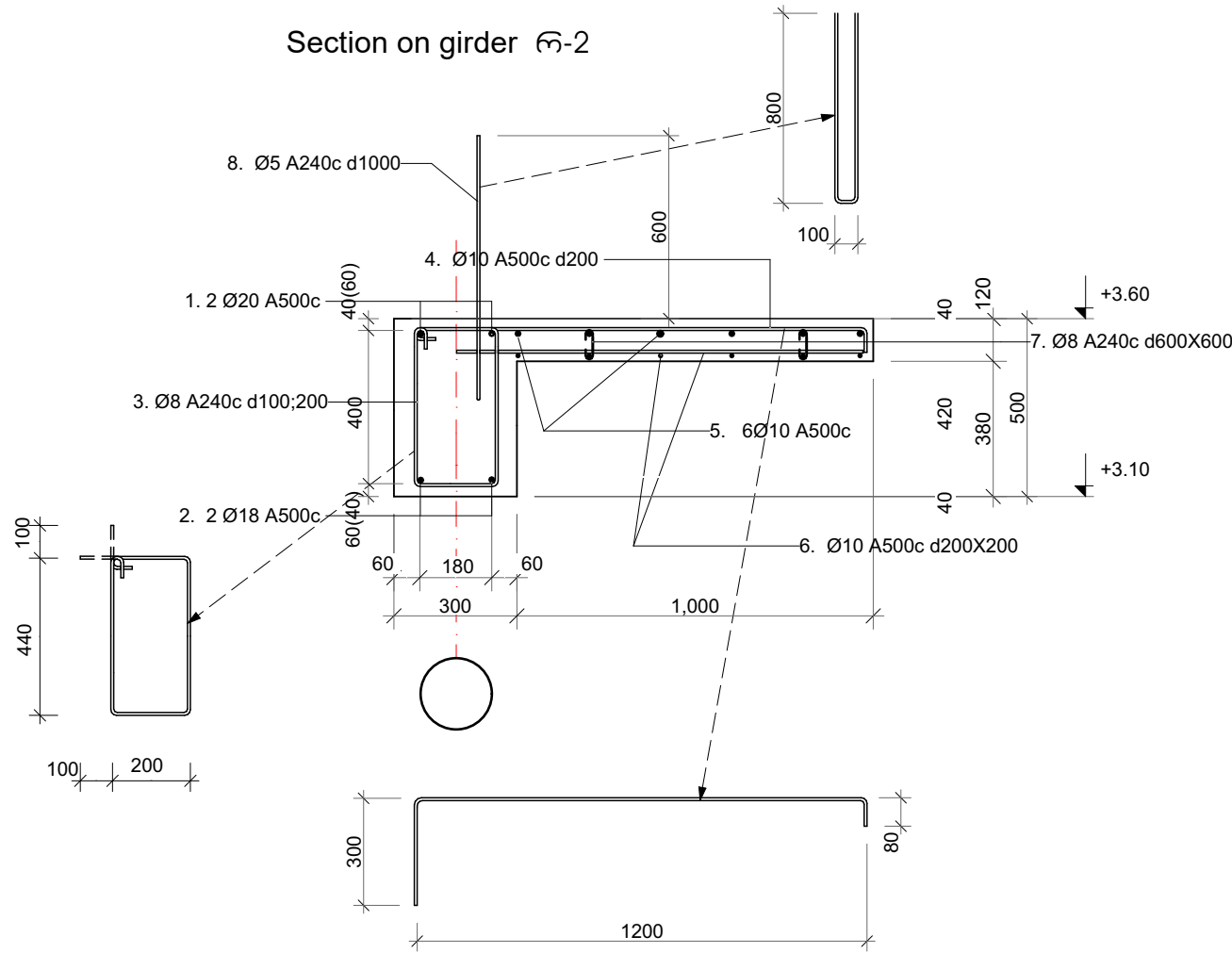


ელემენტი Element	№	არმატურის პროფილი Reinforcement profile	სიგრძე მმ Length mm	რაოდენობა Qty	საერთო სიგრძე მ Total length m	ბეტონი მ3 Concrete m3	Specification of reinforcement							Total weight per class , ton
							არმატურის პროფილი							
რკინაბეტონის სვეტები reinforced concrete columns							კვეთი cross section	საერთო სიგრძე მ total length m	საერთო სიგრძე დაკარგვის მ Total length with loss	გრძელ. წონა weight of /m	საერთო წონა Total weight , ton	საერთო წონა (კლასის მსხვერპლ) ტონა		
S-1 და S-1' (10 ცალი) (10 pcs)	1	22 A500c	4340	40	173.6								A240c	6 A240c
	2	22 A500c	3700	40	148		8 A240c	1920.0	2016.0	0.394	0.80			
	3	8 A240c	1280	420	537.6									
S-2 და S-2' (13 ცალი) (13 pcs)		20 A500c	4100	52	213.2		A500c	6 A500c		0.0	0.222	0.00	3.6	
		20 A500c	3700	52	192.4			8 A500c		0.0	0.394	0.00		
		8 A240c	1280	546	698.88			10 A500c	1280.0	1344.0	0.616	0.83		
S-3 და S-3' (8 ცალი) (8 pcs)		18 A500c	3860	32	123.52			12 A500c		0.0	0.887	0.00		
		18 A500c	3700	32	118.4			14 A500c		0.0	1.208	0.00		
		8 A240c	1280	336	430.08			16 A500c	139.6	146.6	1.578	0.23		
S-4 და S-4' (4 ცალი) (4pcs)		16 A500c	3620	16	57.92			18 A500c	241.9	254.0	1.997	0.51		
		16 A500c	3700	16	59.2			20 A500c	405.6	425.9	2.465	1.05		
		8 A240c	1280	168	215.04			22 A500c	321.6	337.7	2.983	1.01		
S-5 (1 ცალი) (1 pcs)		16 A500c	1920	4	7.68		25 A500c		0.0	3.851	0.00			
		16 A500c	3700	4	14.8		სულ total					4.42		
		8 A240c	1280	30	38.4									
რესტრუქციონირების უბნების გაძლიერება strengthening of areas of girder crossing		10 A500c			1280									
ფოლადის ფურც. —20X60X300				72										
steel sheet -20x60x300	ბეტონი B25 Concrete B25					21.2								

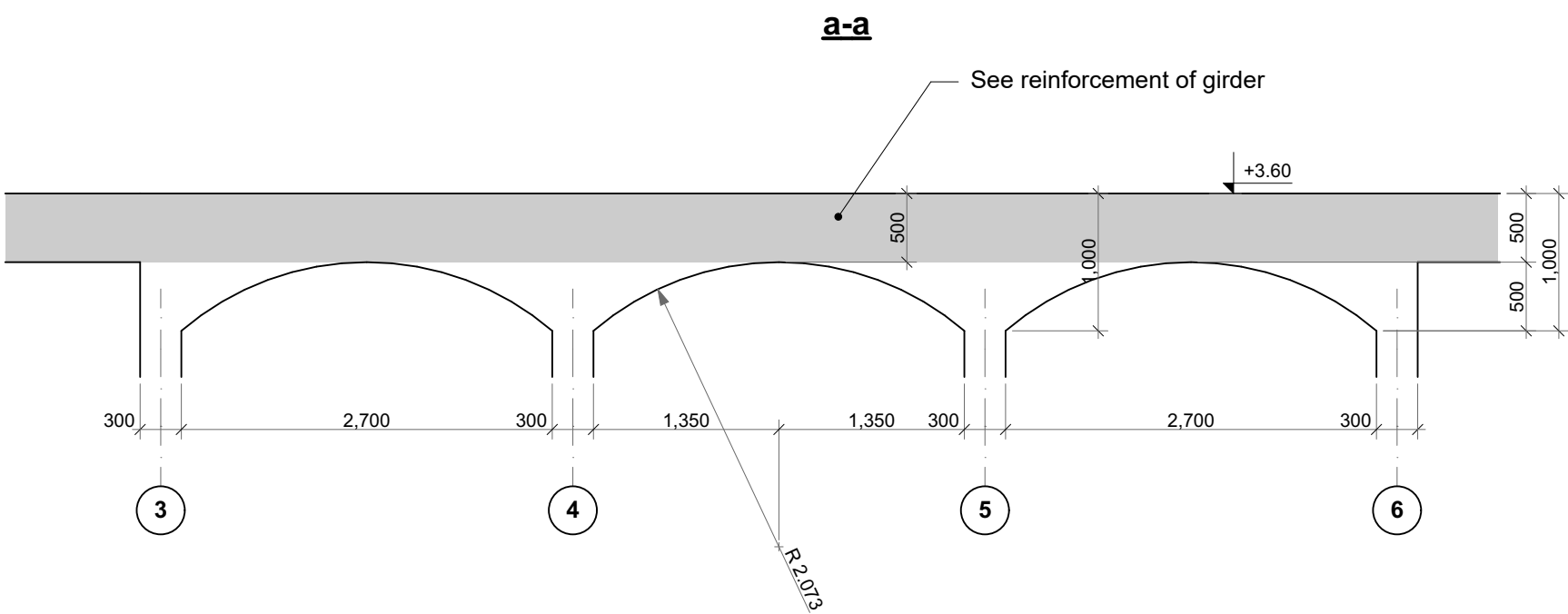


Plan of Girders at +3.60 level





Section in arched areas

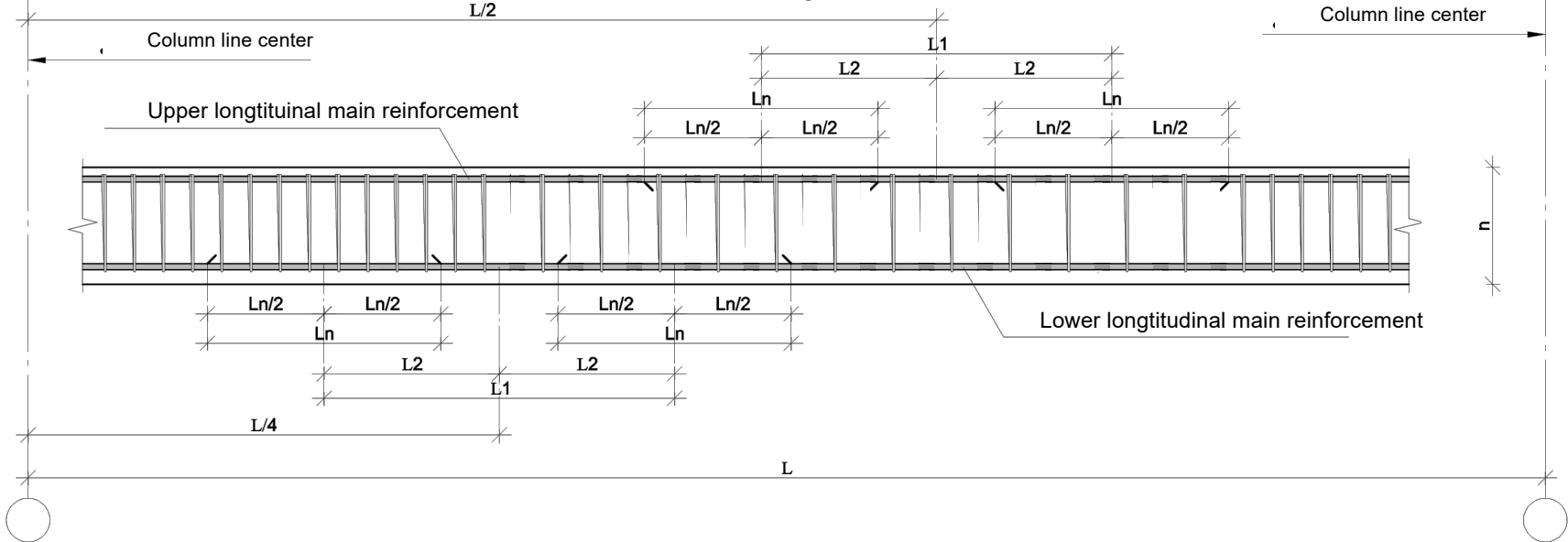


ელემენტი Element	№	არმატურის პროფილი Reinforcement profile	სიგრძე მმ Length mm	რაოდენობა Qty	საერთო სიგრძე მ Total length m	ბეტონი მ3 Concrete m3	Specification of reinforcement						
							კვეთი Cross section	საერთო სიგრძე მ Total length m	საერთო სიგრძე დაკარგული მ Total length with loss m	გრძელის წონა weight of r/m	საერთო წონა total weight, ton	საერთო წონა (კლასის მიხედვით) ტონა	
რკინაბეტონის რიგელები +3.60 ნიშნულზე													
რანდკოტი 1 End-girder 1	1	20 A500c	218900	2	437.8		A240c	6 A240c	238.0	238.0	0.222	1.3	
	2	18 A500c	214920	2	429.84			8 A240c	3085.0	3239.3	0.394		1.28
	3	8 A240c	1480	1327	1963.5		A500c	6 A500c		0.0	0.222	4.6	
რანდკოტი 2 End-girder 2	1	20 A500c	116600	2	233.2			8 A500c		0.0	0.394		0.00
	2	18 A500c	114480	2	229.0			10 A500c	2267.0	2380.4	0.616		1.47
	3	8 A240c	1480	707	1046.4			12 A500c		0.0	0.887		0.00
	4	10 A500c	1580	470	742.6			14 A500c		0.0	1.208		0.00
	5	10 A500c	94000	6	564.0			16 A500c		0.0	1.578		0.00
	6	10 A500c			960.0			18 A500c	659.0	692.0	1.997		1.38
	7	8 A240c	260	288	74.9			20 A500c	671.0	704.6	2.465		1.74
	8	5 A240c	1700	140	238.0			22 A500c		0.0	2.983		0.00
						25 A500c		0.0	3.851	0.00			
ბეტონი B15 m3		Concrete B15 m3		55.1		სულ total			5.92				

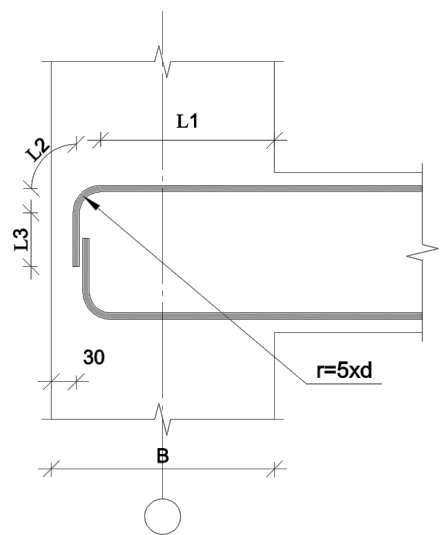
Note:
The sheet (page) should be considered with sheet 16, in particular with the reinforcement of girders and the standard diagrams of their connection to columns.



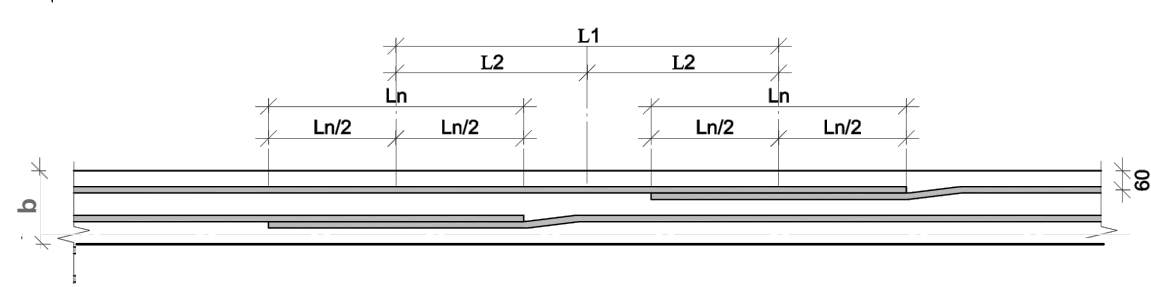
Locations of monolithic gird bonding by crossbar in the upper and lower span of the reinforcement on a vertical plane



Fixing (bending) Node of Grid in the upper and lower reinforcement column



Plan of monolithic gird bonding of crossbar in the upper and lower span of the reinforcement



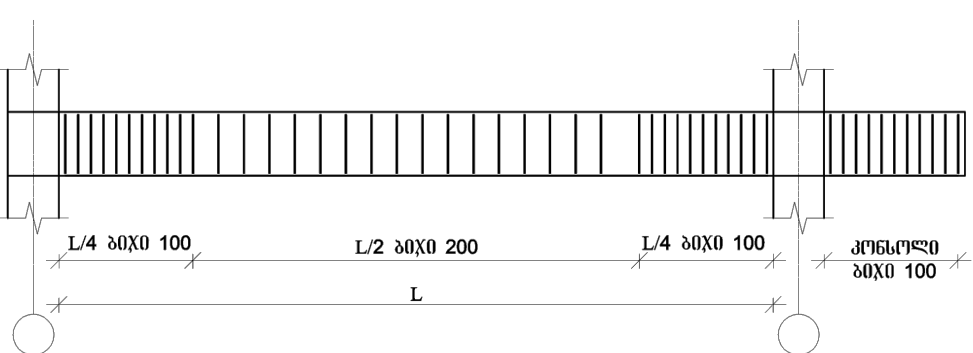
Parameters of gird bond crossbar in the upper and lower reinforcement

არმატურის ღებობის დიამეტრი (მმ)	არმატურის ბაზალის ღებობის დიამეტრი (მმ) L ₁ =40D	ბაზალის ცენტრების შორის მანძილი (მმ) L ₂ ≥1.5L ₁	გირის ბაზალის "X" ნიშნის ღებობის დიამეტრი (მმ) L ₃ ≥L ₁	საბაზალის ბაზალის ღებობის დიამეტრი (მმ) L ₄ =L ₁
Ø16 A500C	640	960	480	1600
Ø18 A500C	720	1080	540	1800
Ø20 A500C	800	1200	600	2000
Ø22 A500C	880	1320	660	2200
Ø25 A500C	1000	1500	750	2500

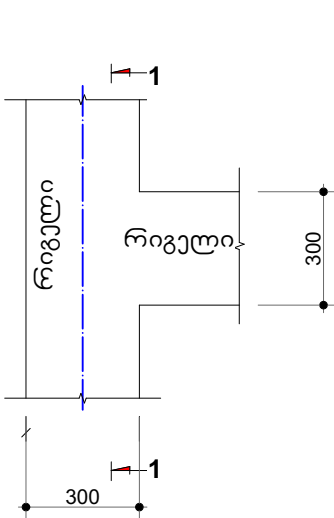
Parameters of fixing node of grid in the upper and lower reinforcement column

არმატურის ღებობის დიამეტრი (მმ)	L ₁ =40D	L ₂ =40D	L ₃ =40D	L ₄ =40D	L ₅ =40D
Ø16 A500C	640	80	320	126	194
Ø18 A500C	720	90	360	141	219
Ø20 A500C	800	100	400	157	243

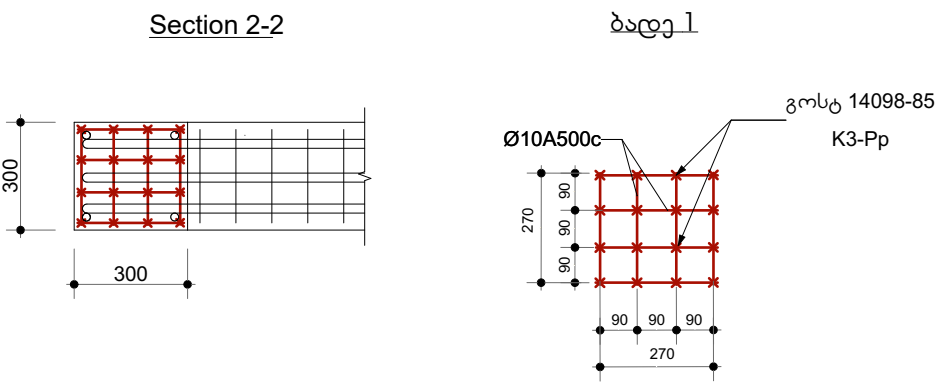
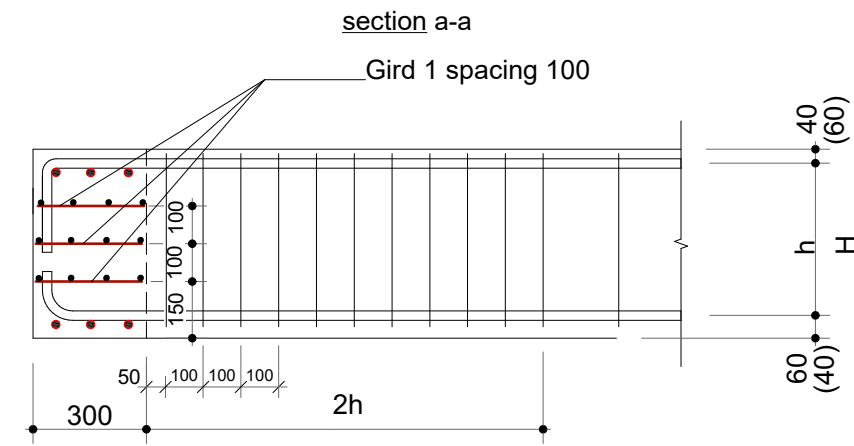
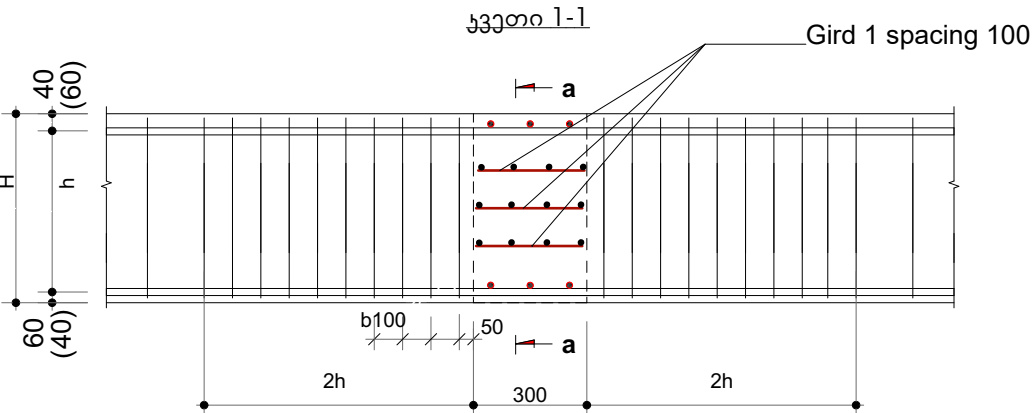
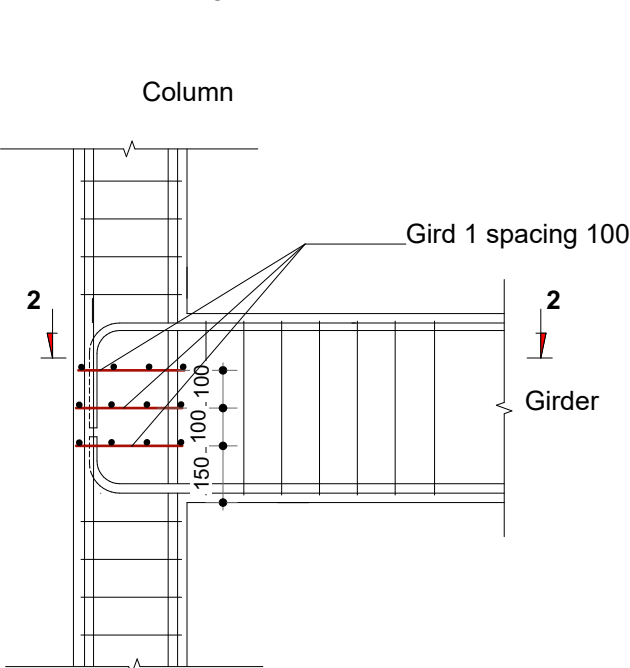
Allocation plan of gird hanger



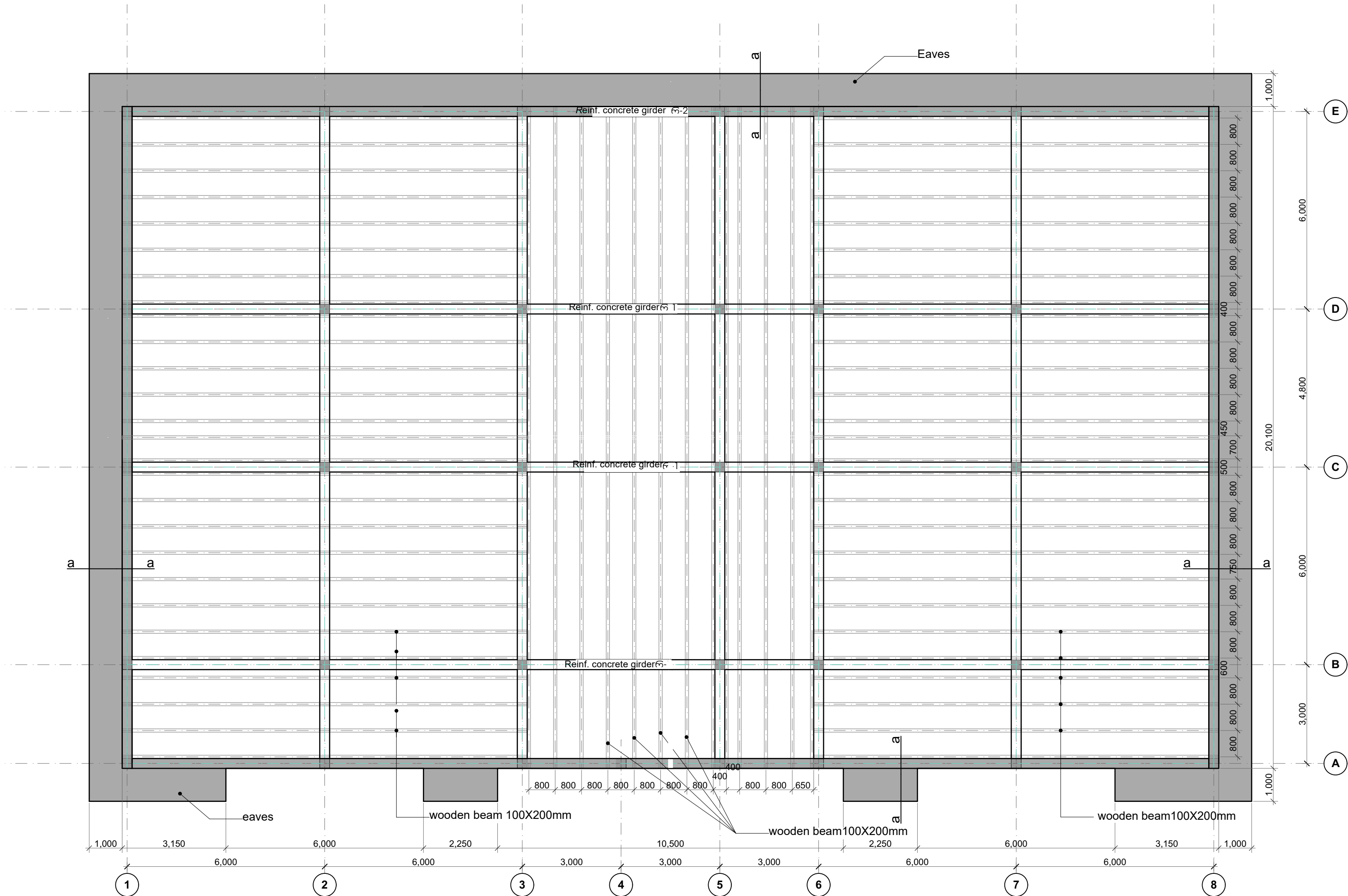
Strengthening of the Gird to Gird Connection Node



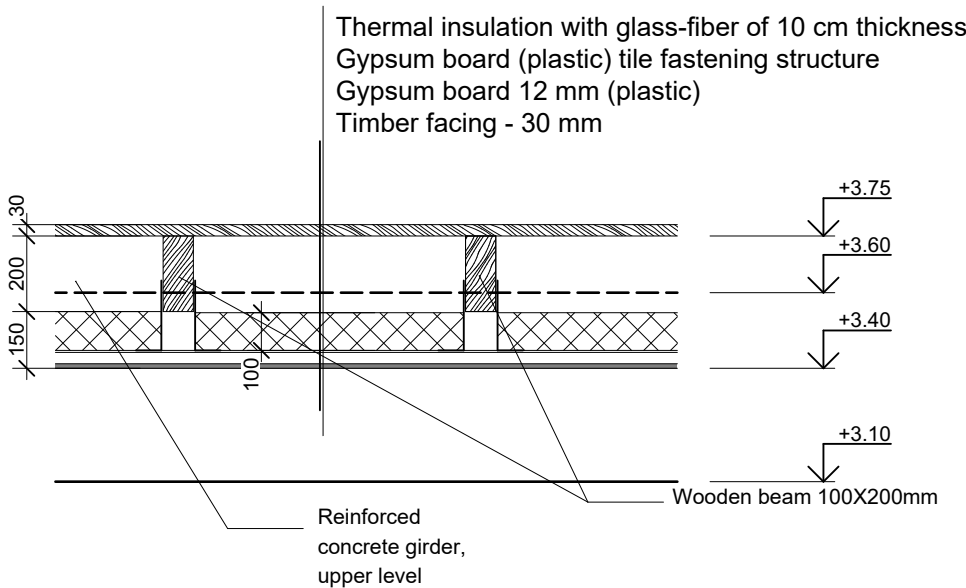
Strengthening of the intersection of grid and columns



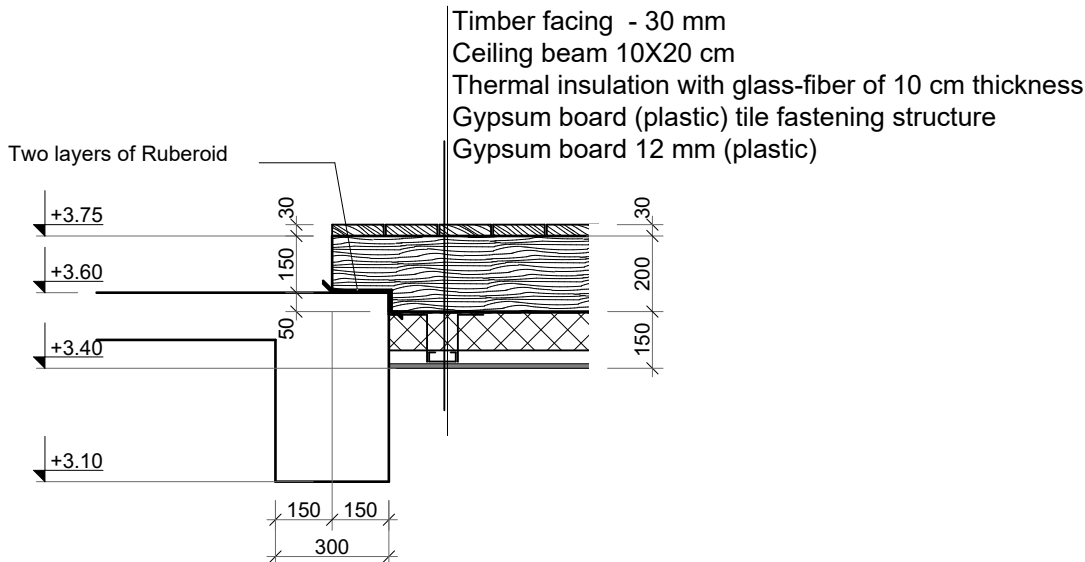
Plan of ceiling wooden beams at +3.60 level



Ceiling Structure



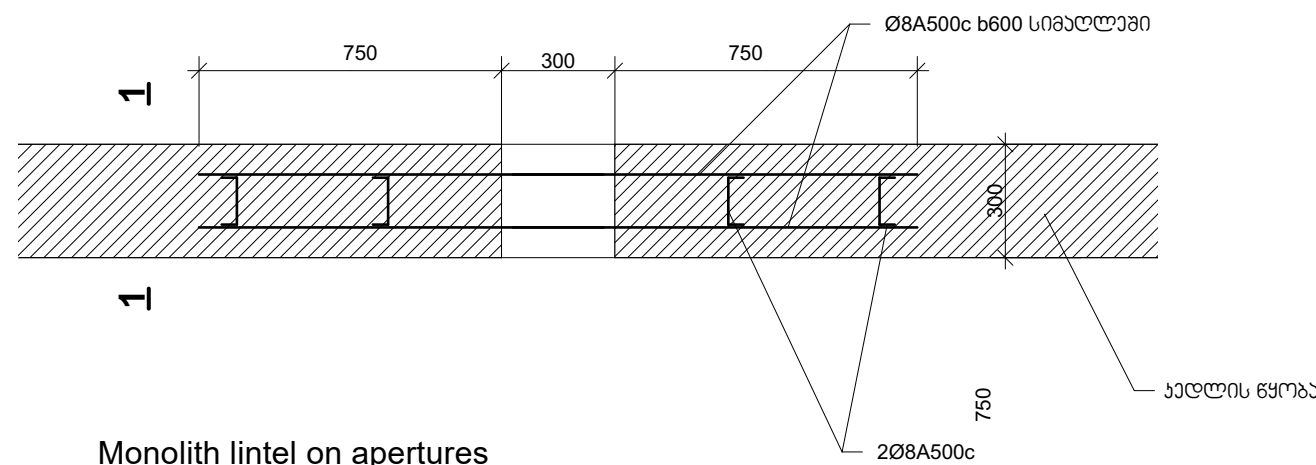
a-a



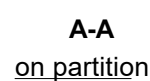
სპეციფიკაცია
Specifcation

პოპულარული Cross section of beam	სიგრძე m Length m	რაოდენობა Qty	სულ სიგრძე m Total length m	მოცულობა Volume
60x100x200 Wooden beam 100x200	6	134	804	17.7
60x100x200 Wooden beam 100x200	3	13	39	0.9
60x100x200 Wooden beam 100x200	4.8	13	62.4	1.4
			Σ	19.9

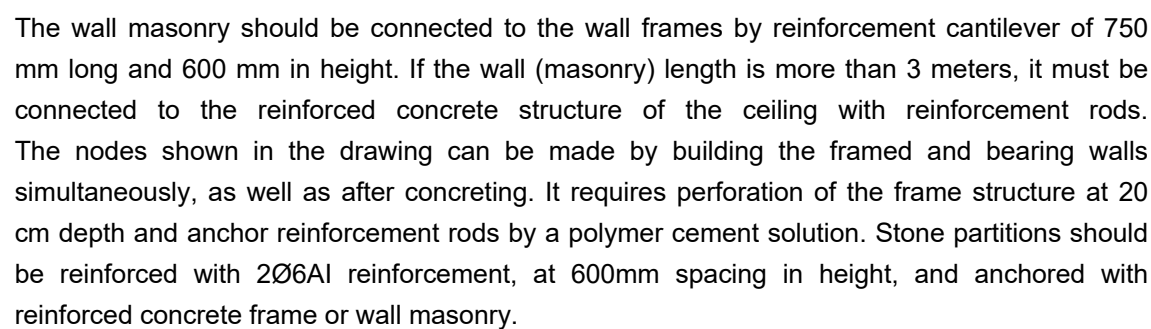
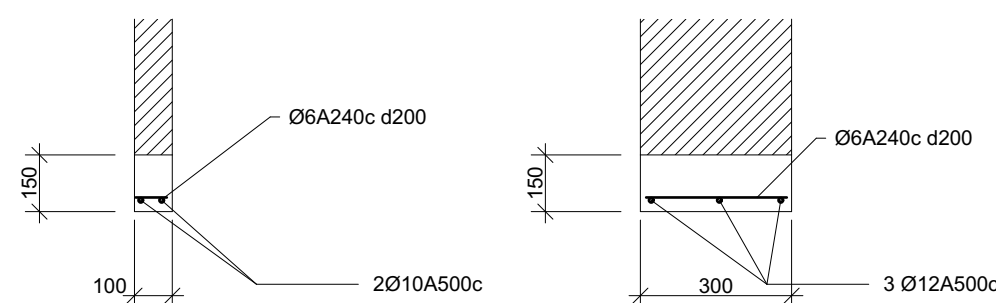
Partition reinforcement



Monolith lintel on apertures

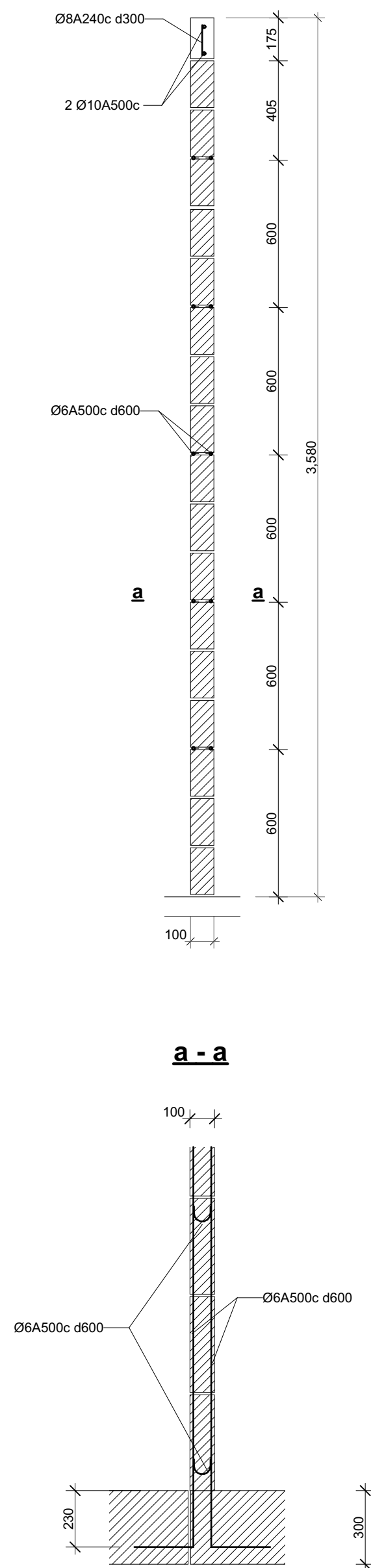


on external wall

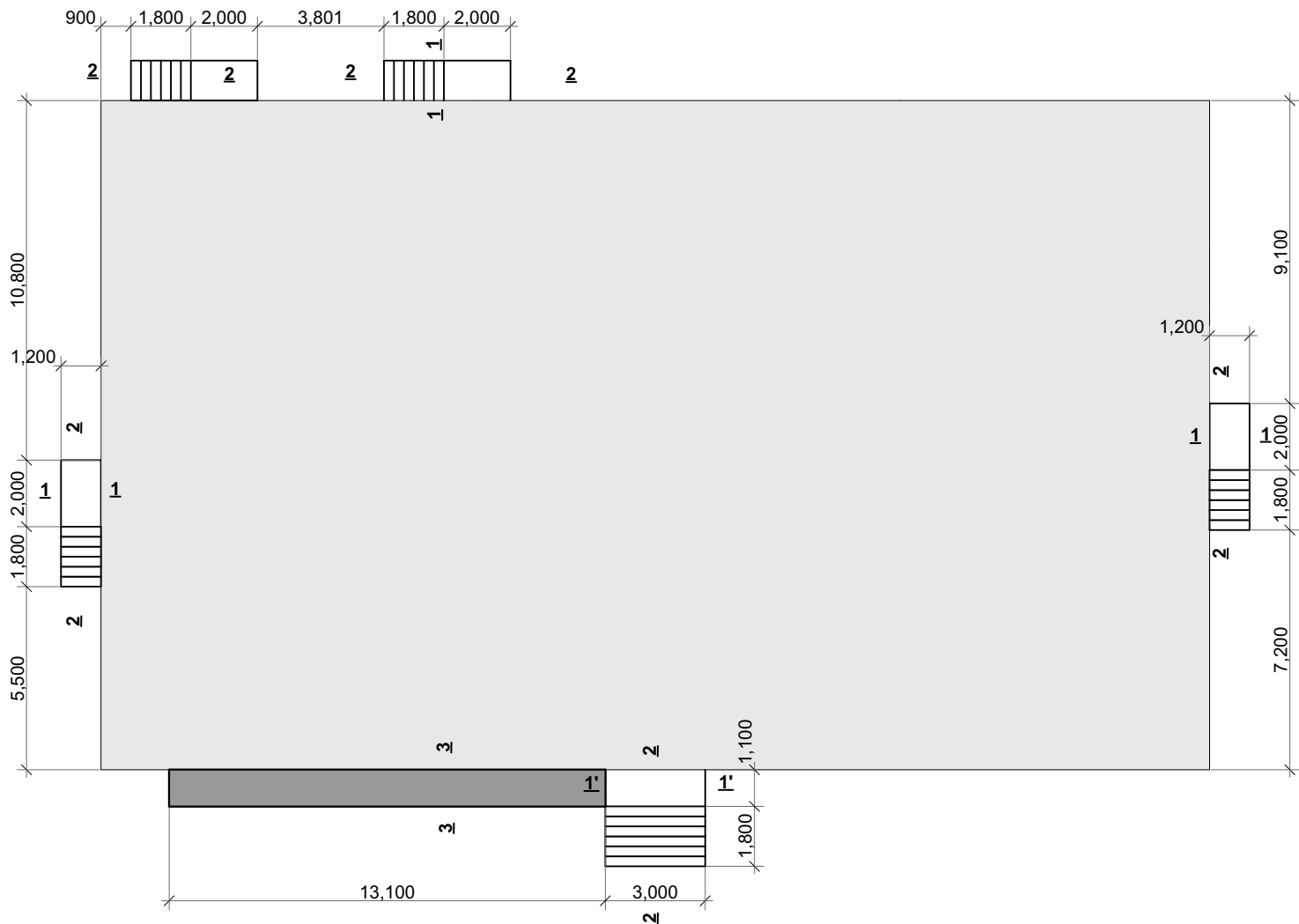


ელემენტი Element	№	არმატურის პროფილი Reinforcement Profile	სიგრძე მმ length mm	რაოდენობა Qty	საერთო მ სიგრძე მ Total length m	ბეტონი მ3 Concrete m3
ზღუდარები Lintel						
ზღუდარი გარე კედელზე Lintel on external wall	1	12 A500c			512	
	2	6 A240c			410	
ზღუდარი შიგა კედლებზე Lintel on internal wal	1	10 A500c			396	
	2	6 A240c			114	
		ბეტონი B25 m3	Concrete B25 m3			7.9
კედლების და ტიხრების არმირება Reinforcement of walls and partitions						
ტიხრების არმირება reinforcement of partitions		6 A500c			3040	
გარე კედლების და ხეშტების არმირება Connection of external walls and columns		10 A500c			1360	

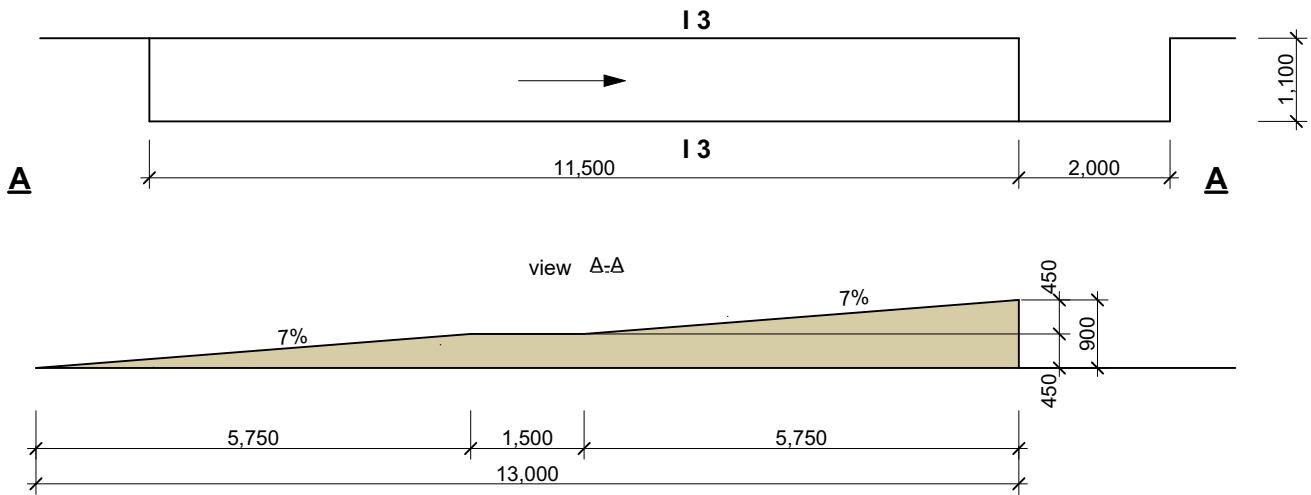
Specification of reinforcement						
არმატურის ანგარიში						
კლასი	Cross section	საქონლო სიგრძე მ	საქონლო სიგრძე	გრძელის წონა	საქონლო წონა	საქონლო წონა
		Total length m	დანი, კილოგრამა		Total length with loss m	
				Weight of t/m		
A240c	6 A240c	524.0	524.0	0.222	0.12	0.1
	8 A240c		0.0	0.394	0.00	
A500c	6 A500c	3040.0	3040.0	0.222	0.67	2.3
	8 A500c		0.0	0.394	0.00	
	10 A500c	1756.0	1843.8	0.616	1.14	
	12 A500c	512.0	537.6	0.887	0.48	
	14 A500c		0.0	1.208	0.00	
	16 A500c		0.0	1.578	0.00	
	18 A500c		0.0	1.997	0.00	
	20 A500c		0.0	2.465	0.00	
	22 A500c		0.0	2.983	0.00	
	25 A500c		0.0	3.851	0.00	
სულ Total					2.40	



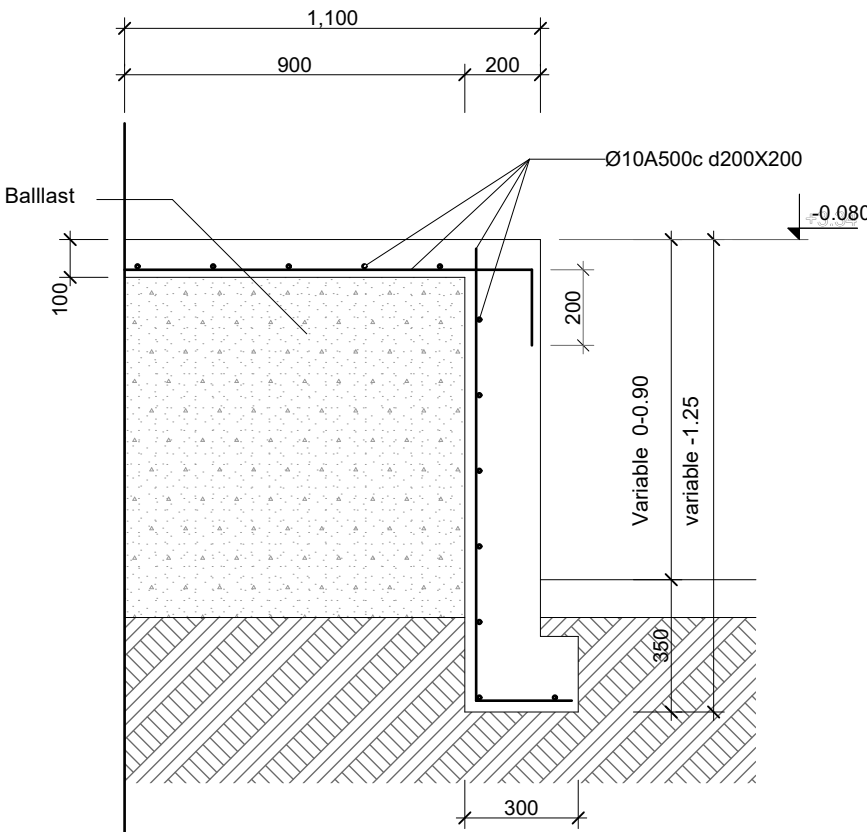
Connection of the columns to the external walls



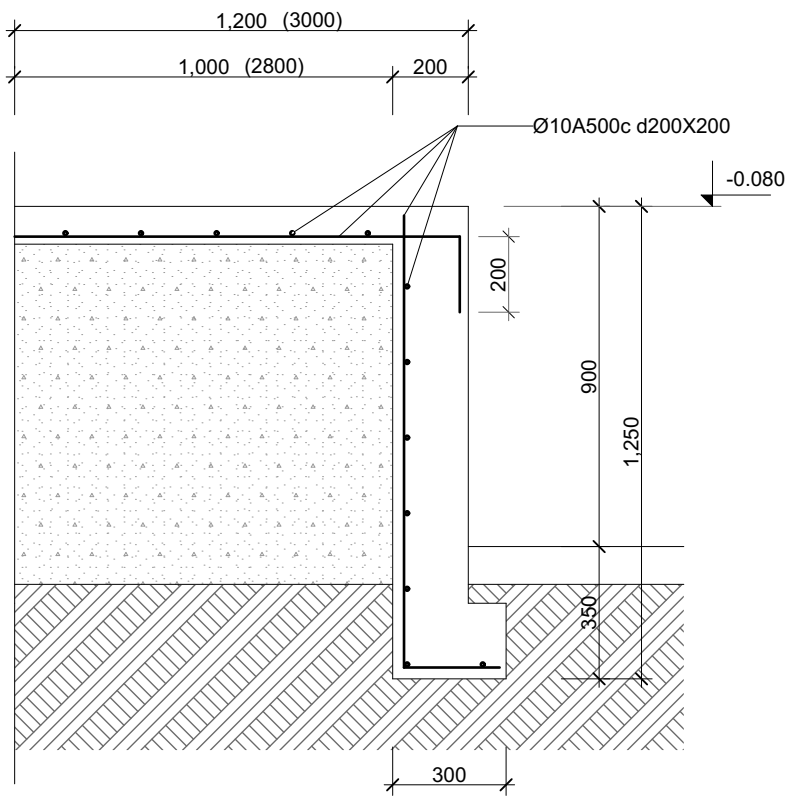
Plan of Ramp



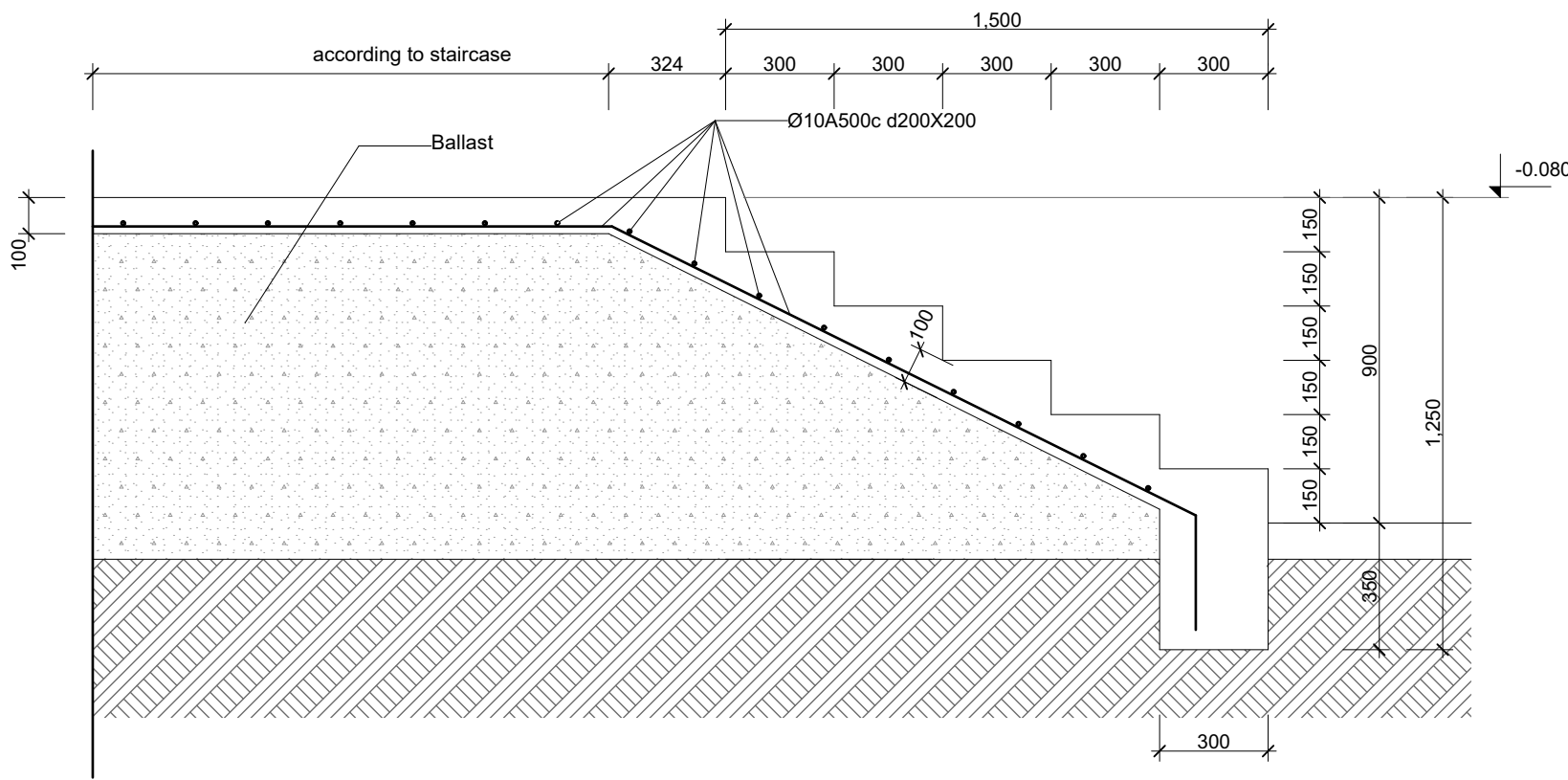
Section 3-3



Section 1-1 (1'-1')

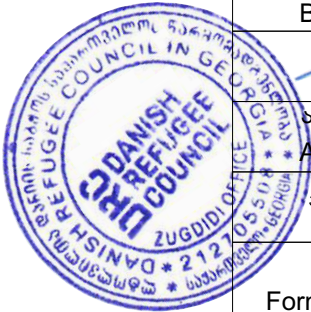
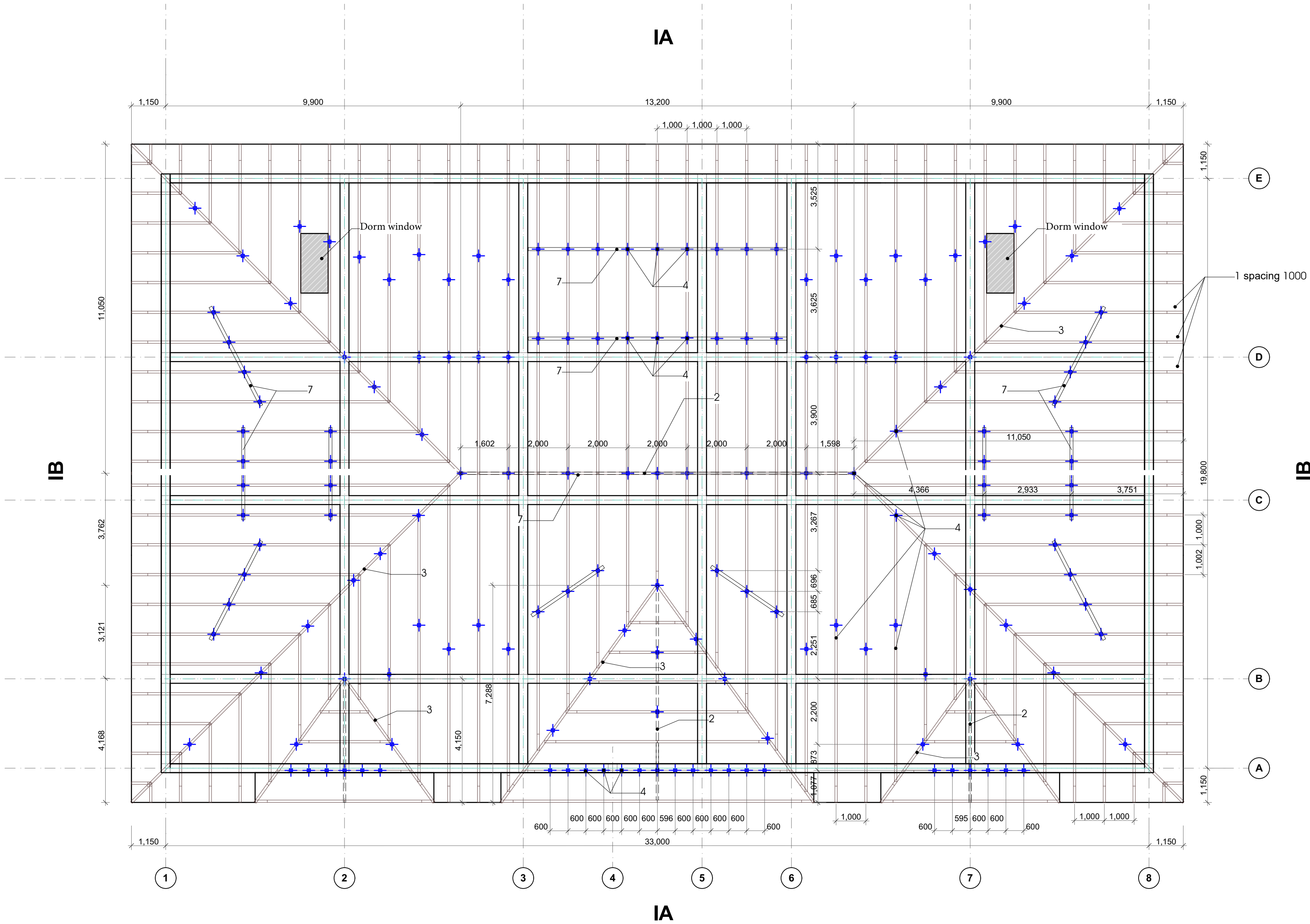


Section 2-2

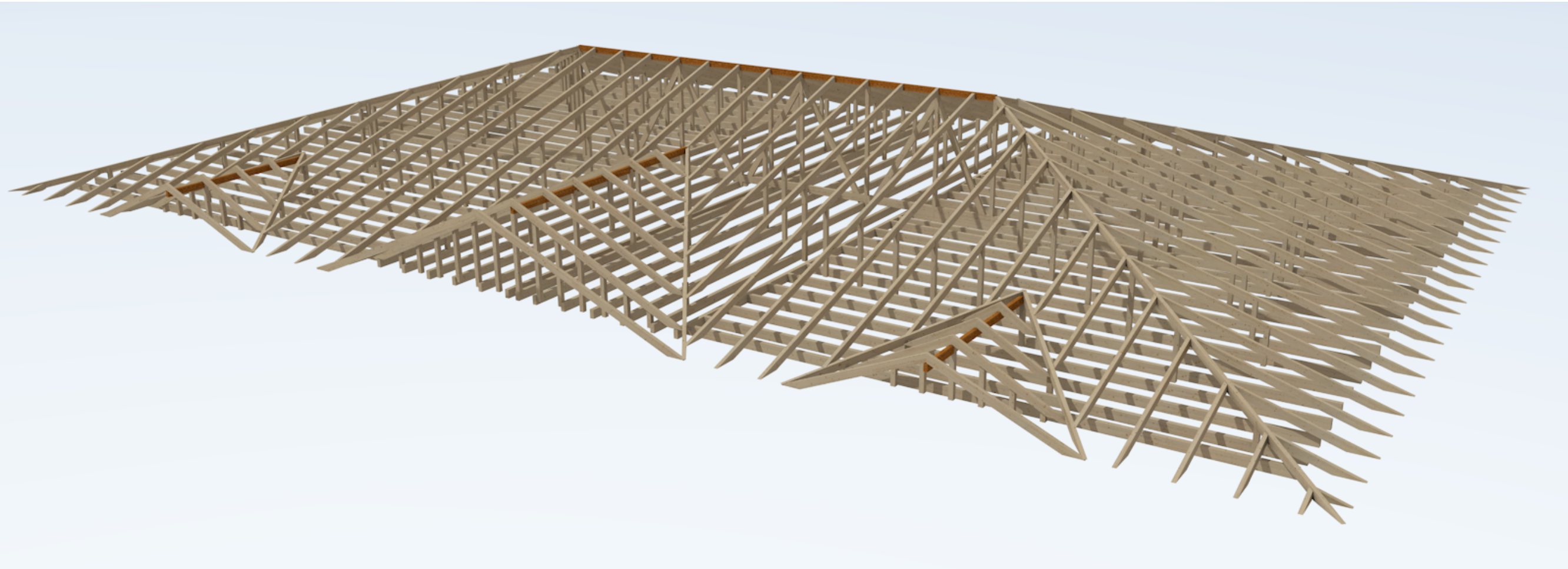


ელემენტი Element	№	არმატურის პროფილი reinforcement profile	სიგრძე მმ Length mm	რაოდენობა Q-ty	საერთო სიგრძე მ Total length m	ბეტონი მ3 Concrete m3
კიბეები და პანდუსი Staircases and ramp						
კიბეები და პანდუსი Staircases and ramp	1	10 A500c			1280	
ბეტონი B25 m3 Concrete B25 m3						
						14.5

Plan of the Wooden structure of Roof



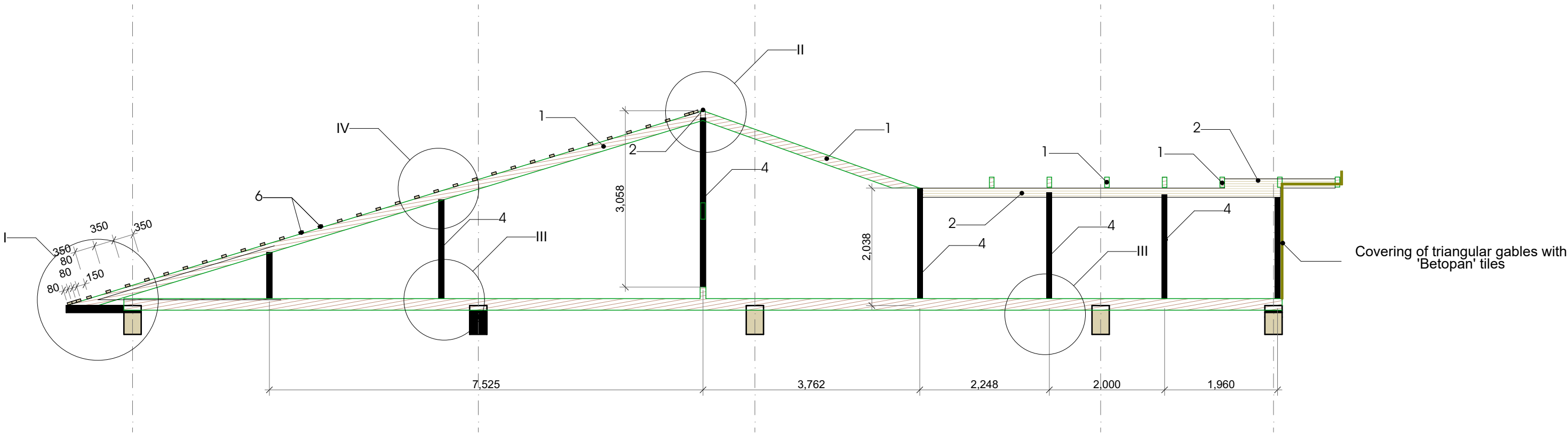
Render of the Roof Wooden Structure



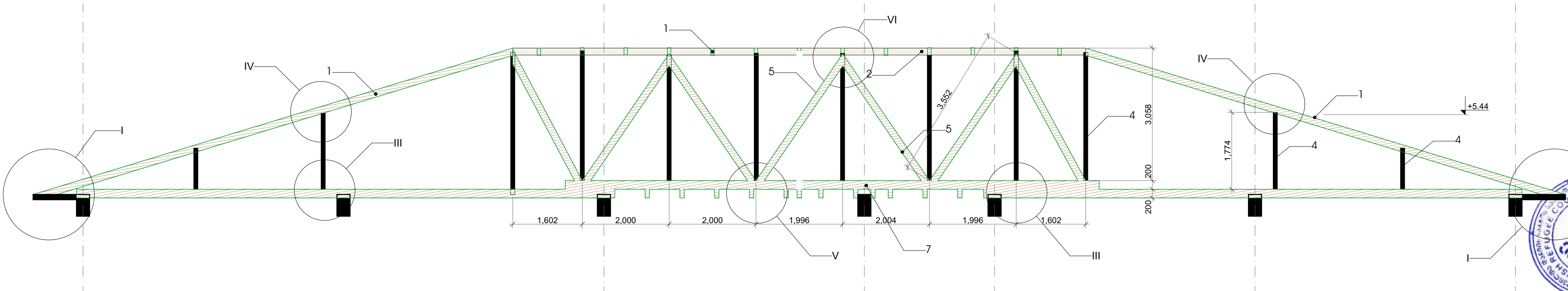
Specification of wooden components					
ხის უღებავების სპეციფიკაცია					
N	პოლის სპეციფიკაცია Cross section of beam	სიგანე მმ Width mm	სიმაღლე მმ Height mm	საერთო სიგრძე მ Total length m	მოცულობა მ3 Volume m3
1	ფიგურა Rafter	80	160	840	10.75
2	პოლის პოლი Ridge pole	80	160	32	0.41
3	დიagonal რაფერი 6036036 Diagonal rafter	80	160	108	1.38
4	ფიგურა Pillar	100	100	304	3.04
5	ბრუნავი კავშირებისთვის Cantilever for connections	100	100	28	0.28
6	ლაგების კალაუნი Squared timber bar	40	80	2897	9.27
7	გამანართლებელი პოლი Spreading beam	80	160		0.60
				Σ	25.73

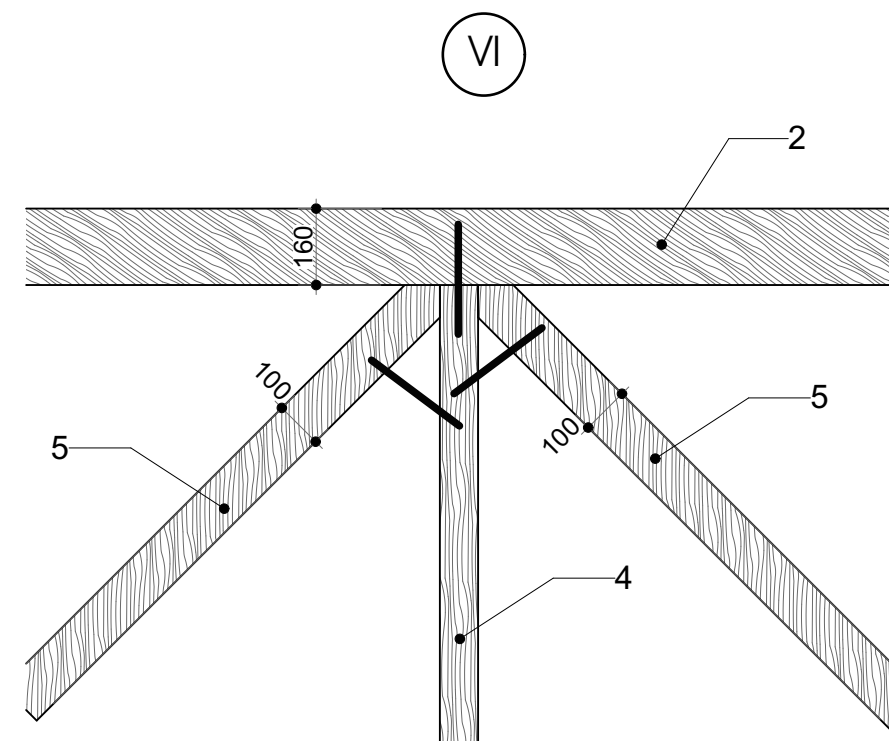
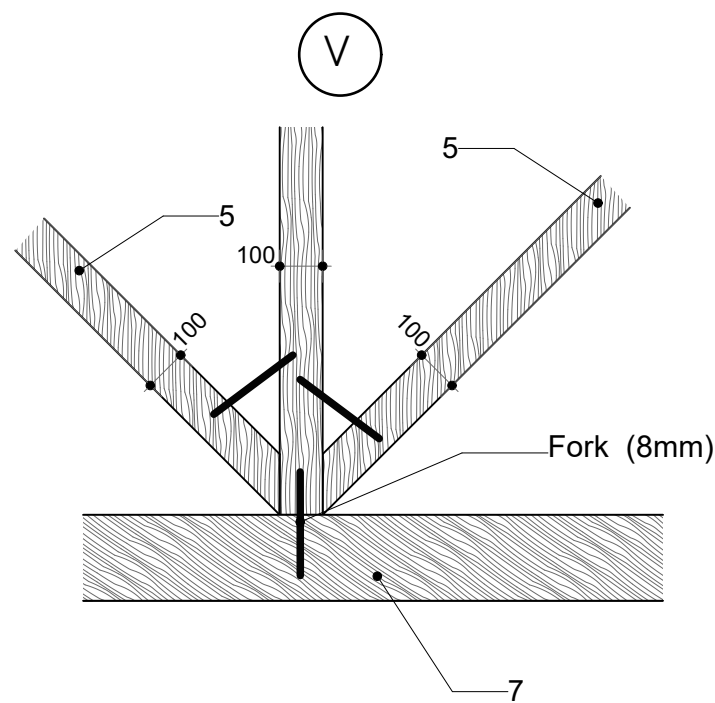
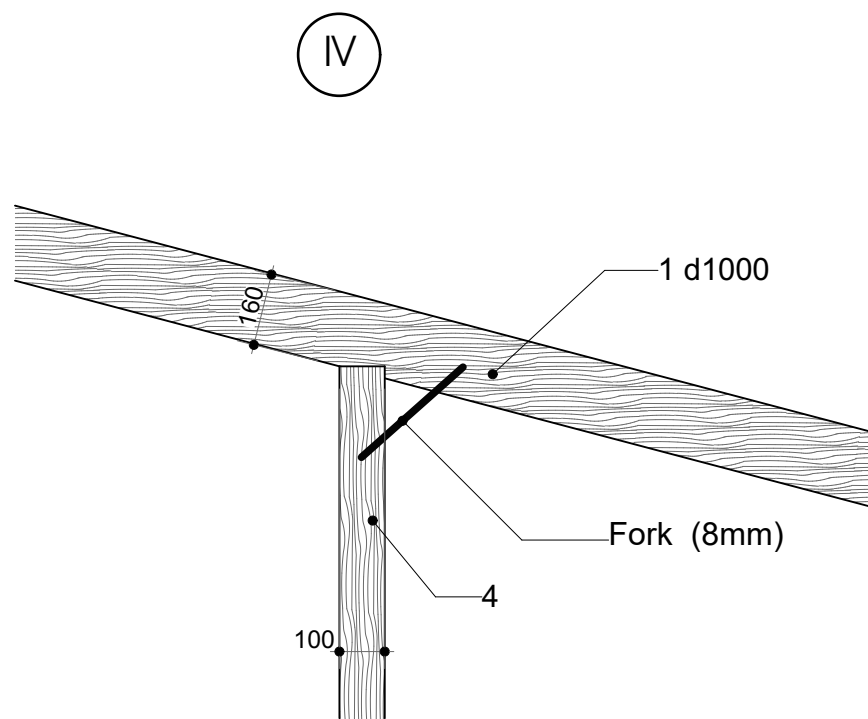
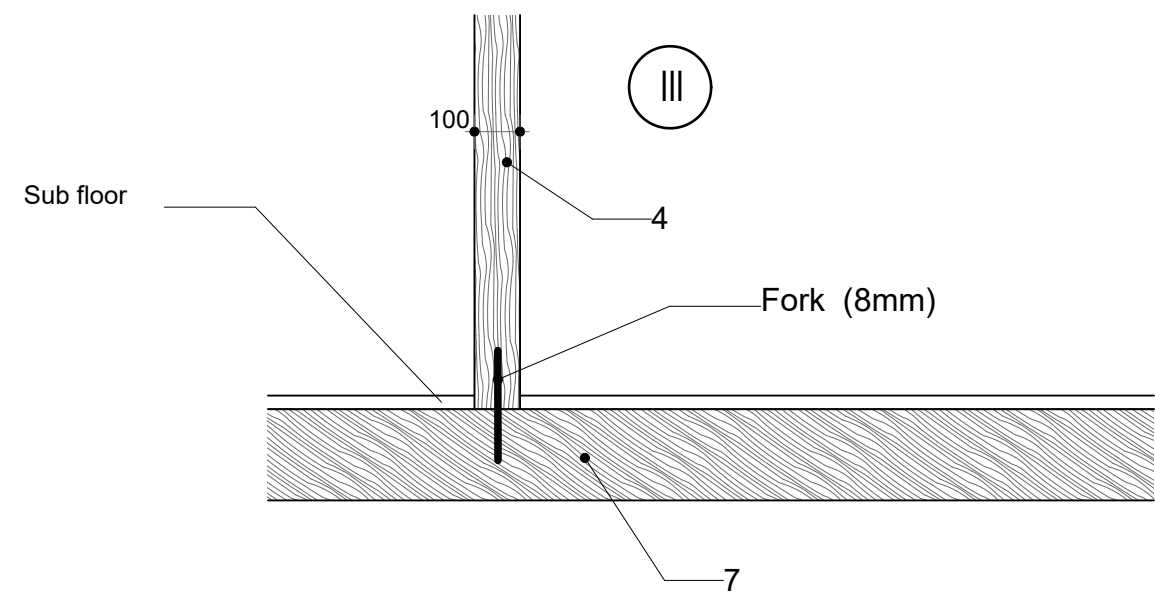
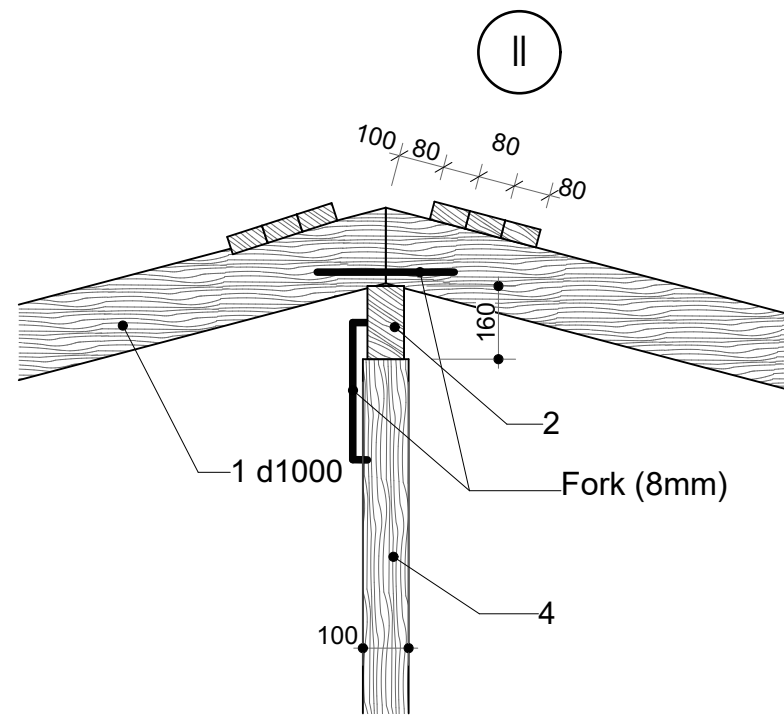
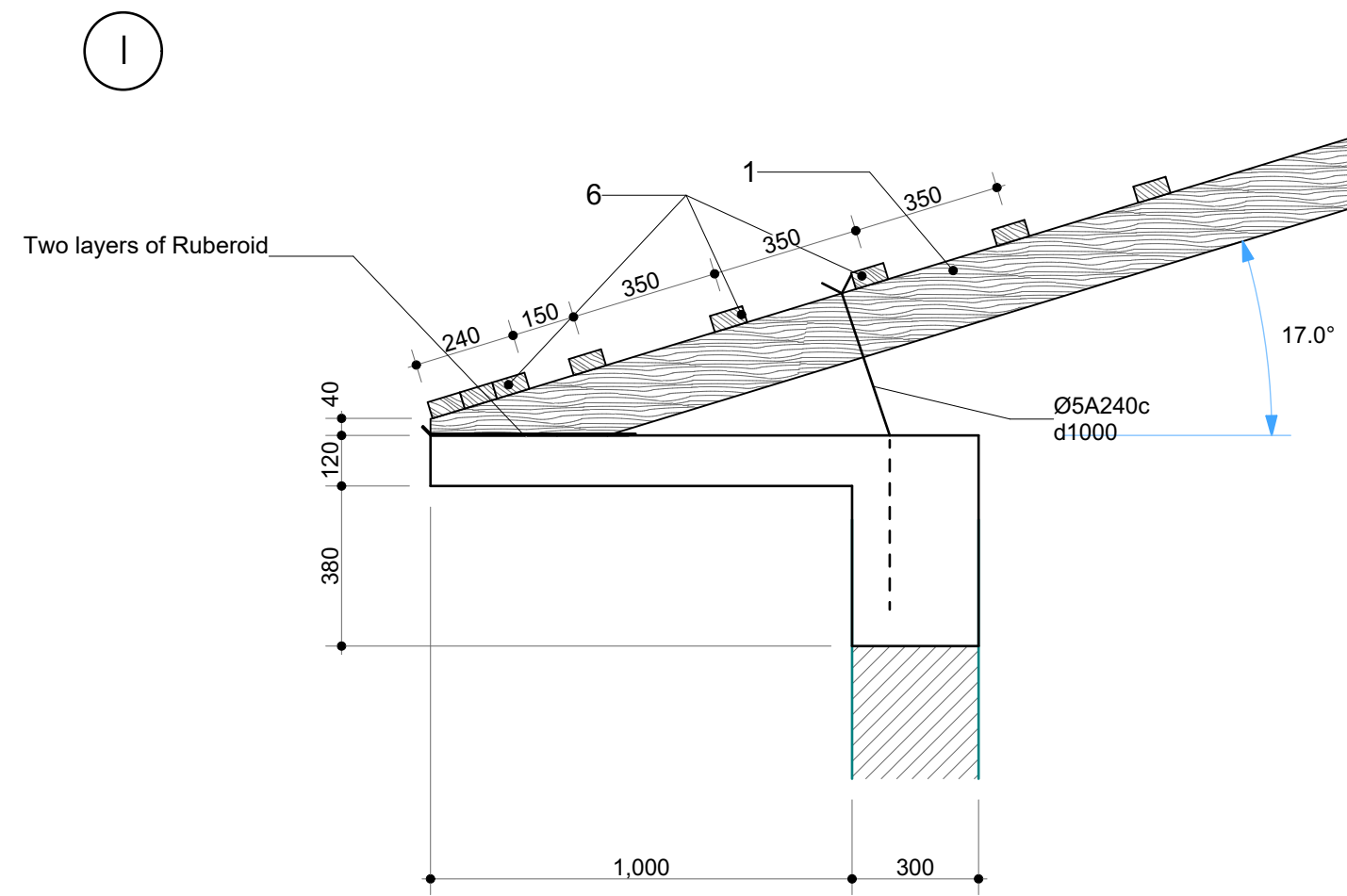
Roof and ceiling wooden structures are made from second-class dried coniferous wood material.

Section A-A

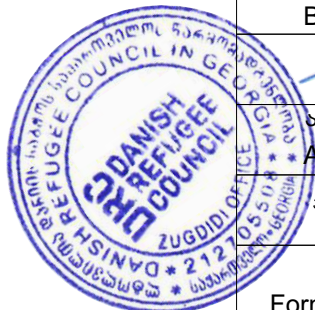


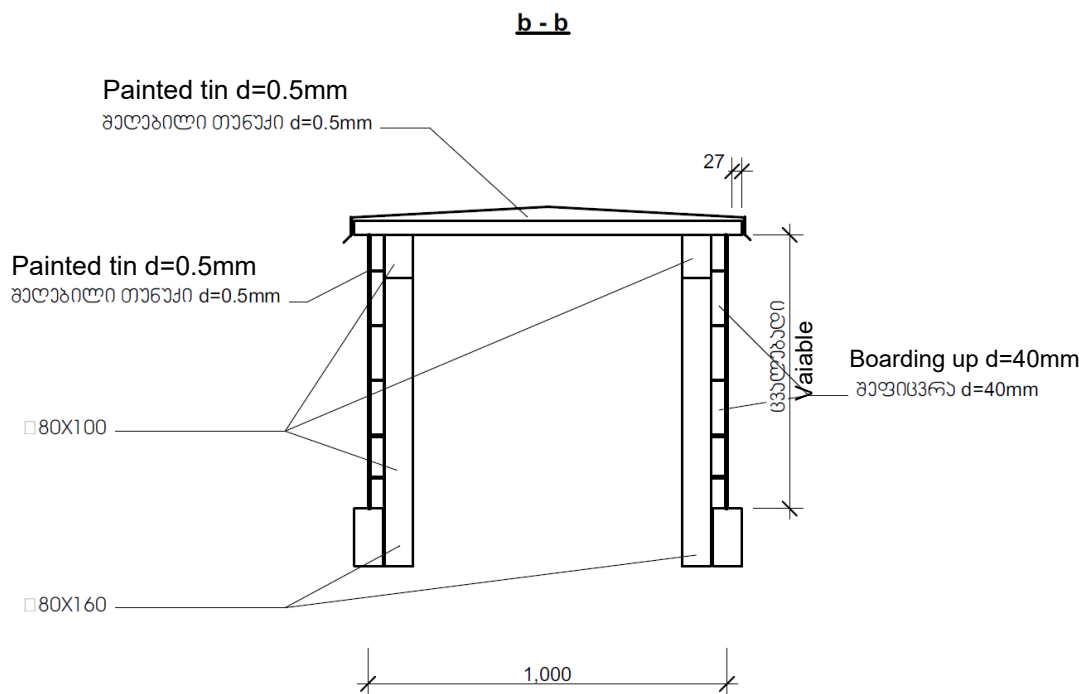
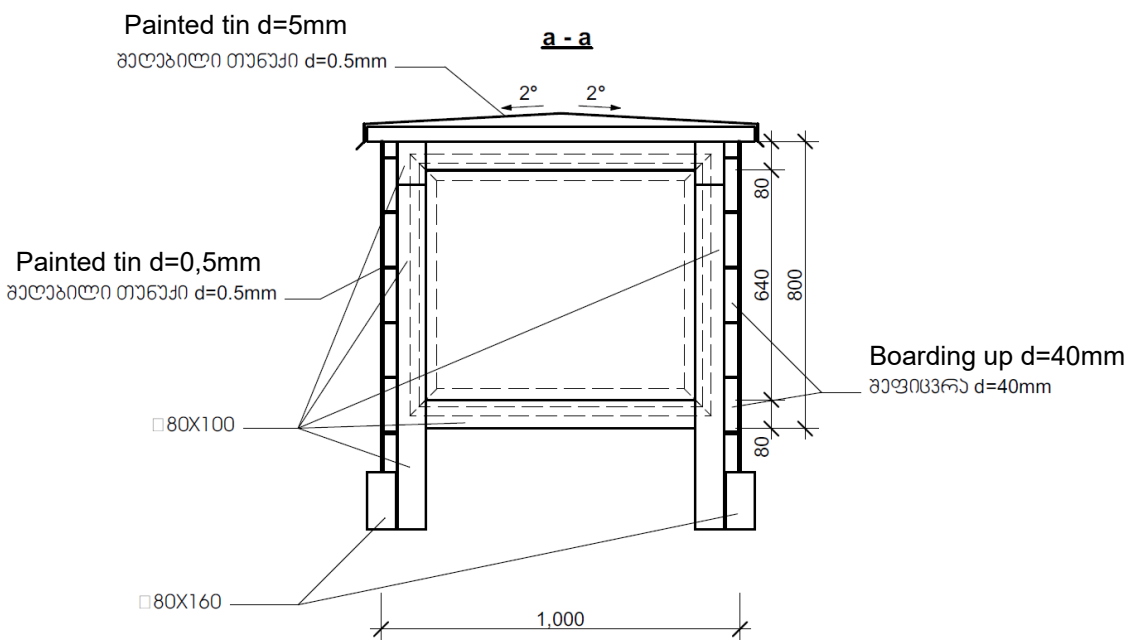
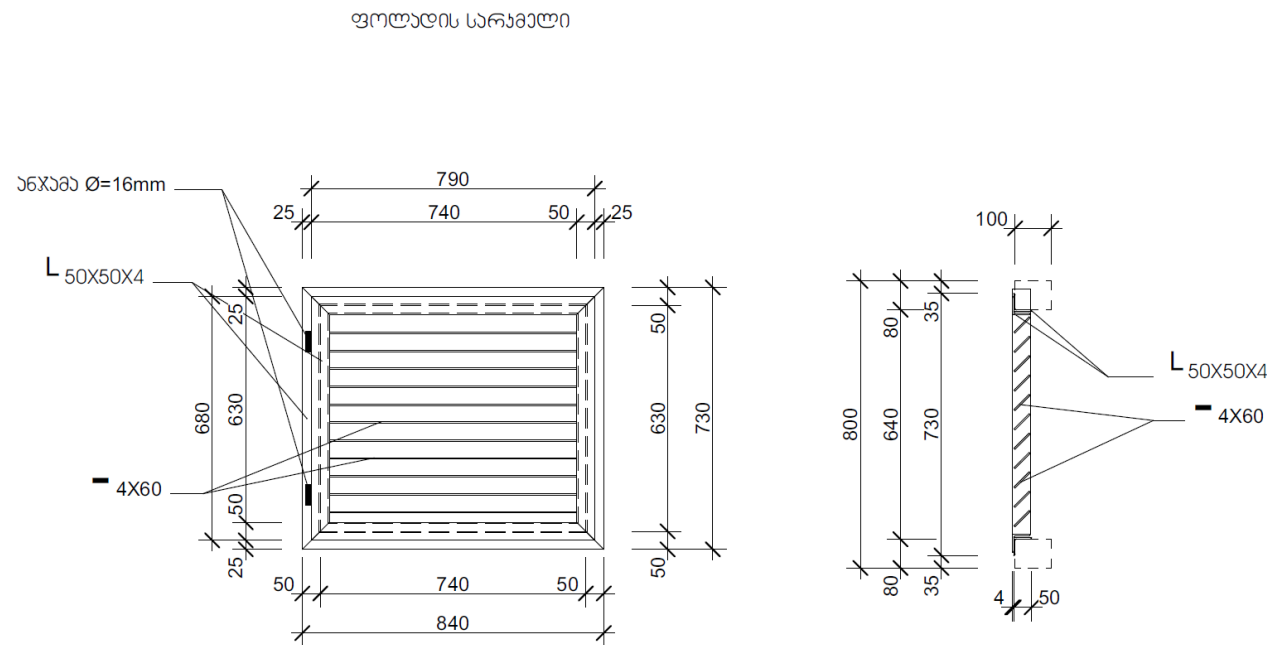
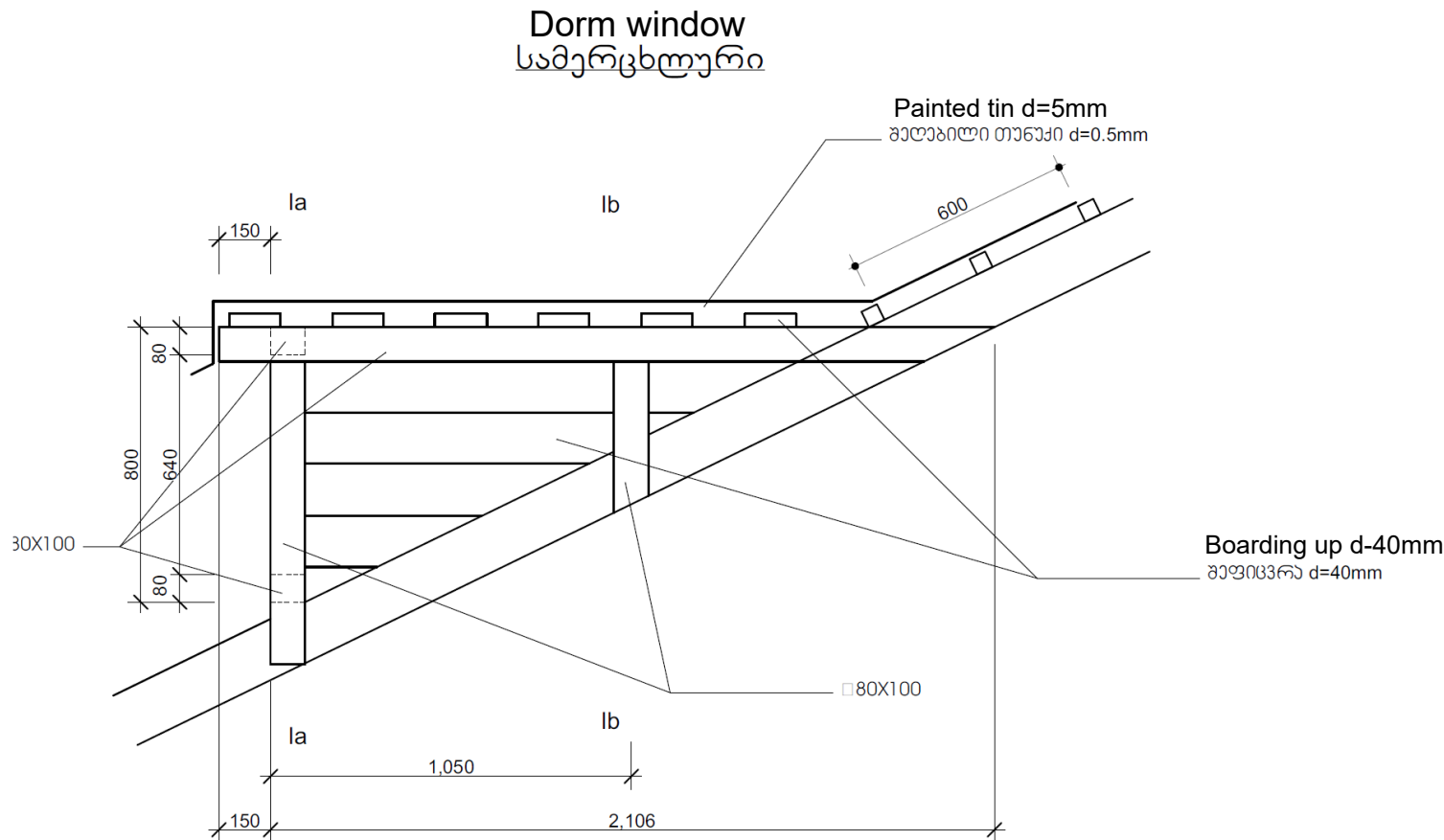
Section B-B





Note:
It is necessary to treat wooden structures with both fire-retardant solutions and antiseptics.





ფოლადის სარკმლის სპეციფიკაცია Specification of steel				
კვეთი Cross section	სიგრძე მ Length m	რაოდენობა Q-Y	საშუალო სიგრძე მ Total length m	წონა კგ Weight, kg
L-50X50X4	0.73	2	1.46	4.23
L-50X50X4	0.84	2	1.68	4.87
L-50X50X4	0.68	2	1.36	3.94
L-50X50X4	0.79	2	1.58	4.58
60X4	0.69	11	7.59	14.27
			Σ	31.90

