



M. W L

GRADITELJ:

OBJEKT: SKELA KRIŽNICA

				Datum	Ime	Naziv nacrt:			Mjerilo:	
				Projektirao	02.05.2019	Lj.Čubrilo,dipl.ing.	TORNJEVI RAMPE OPLATA, TEMELJI			
				Crtao	02.05.2019	Lj.Čubrilo,dipl.ing.				
				Kontrolirao						
B	Učrtani temelji opreme	21.10.2019	Lj.Čubrilo,dipl.ing.	STIL d.o.o.			Broj nacrt:		List	Izdanje:
A	Poz.2 dodano koljeno	19.09.2019	Lj.Čubrilo,dipl.ing.				18/14/311/04		Broj:	
							1	8	B	
Index	Izmjene	Datum	Ime	FILOMAR d.o.o.			Broj projekta:			
							10067/18A			

PRORAČUN ČVRSTOĆE ZAVARA PRIHVATA TORNJA RAMPE ZA TEMELJ

materijal tornja Č 0462

$R_{eH} =$	235	N/mm^2
$E =$	206000	N/mm^2
$k =$	1	
$\sigma_d =$	190	N/mm^2
$\tau_d =$	110	N/mm^2

Masa rampe $G = 2350$ kg
Masa tornja $G = 620$ kg
Kut nagiba čeličnog užeta $\alpha = 38^\circ$
Sila u užetu $F_u = 14627$ N
1491 kg

Proračun proveden za konzolu

krak sile u užetu $a = 2,125$ m
krak centra mase tornja $b = 0,74$ m
moment u zavaru temelja $M = 35583$ Nm

visina zavora $t =$	4	mm
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duljina zavora $\ell = 3,68$ mm
površina zavora $A = 29260$ mm^2
moment inercije lika zavora $I = 5437941461$ mm^4
udaljenost od neutr. osi $Y = 568$ mm
moment otpora lika zavora $W = 9573841$ mm^3

$\sigma =$	3,72	N/mm^2
$\tau =$	0,31	N/mm^2
$\sigma_{ekv} =$	3,75	N/mm^2

zadovoljava



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Technical drawing of a mechanical assembly, likely a bracket or support structure, showing a side view. The drawing includes the following numbered callouts:

- 1: Points to the main vertical body of the assembly.
- 2: Points to a small rectangular feature on the left side of the main body.
- 3: Points to a small rectangular feature on the right side of the main body.
- 4: Points to a small rectangular feature on the right side of the main body, located below feature 3.
- 5: Points to the upper portion of the main vertical body.
- 6: Points to the lower portion of the main vertical body.
- 7: Points to the top edge of the main vertical body.
- 8: Points to a small rectangular feature on the right side of the main body, located below feature 4.
- 9: Points to a small rectangular feature on the right side of the main body, located below feature 8.
- 10: Points to a small rectangular feature on the right side of the main body, located below feature 9.
- 11: Points to a small rectangular feature on the right side of the main body, located below feature 10.

Technical drawing showing two cross-sections of a roof structure, labeled "PRESJEK 'A-A'" and "PRESJEK 'B-B'".

PRESJEK "A-A"

OD R 5 1/2 , 100 mm PREMA PRAMCU

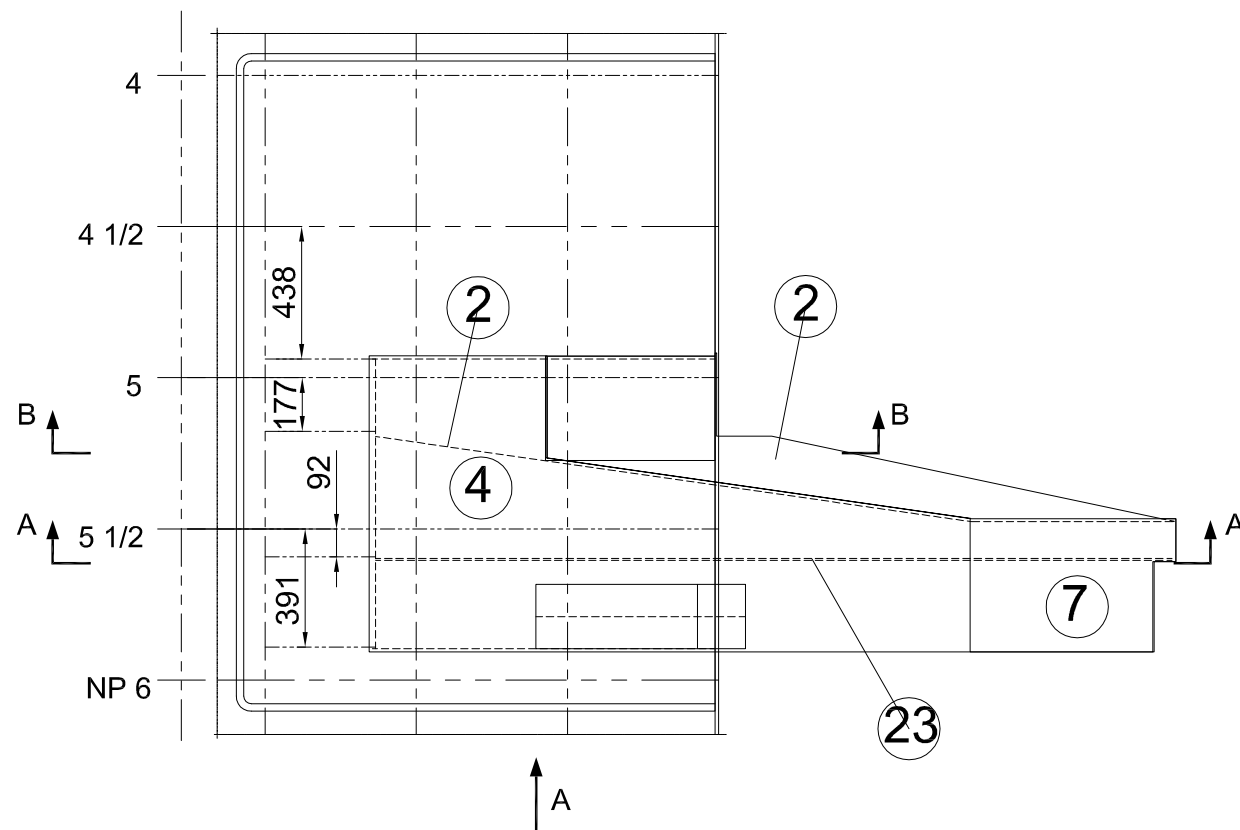
Labels and dimensions for "PRESJEK 'A-A'":

- 7: Sloped roof surface.
- 23: Internal insulation layer.
- 4.0: Slope indicator (4.0%).
- 9: Base layer.
- D: Dimension line for the base layer.

PRESJEK "B-B"

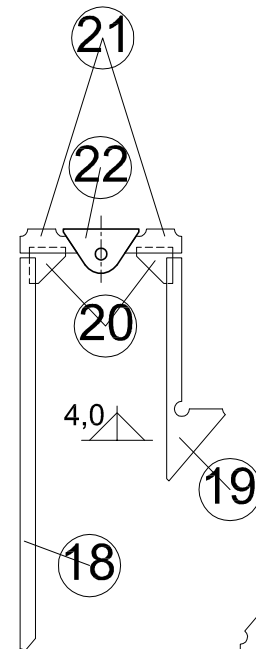
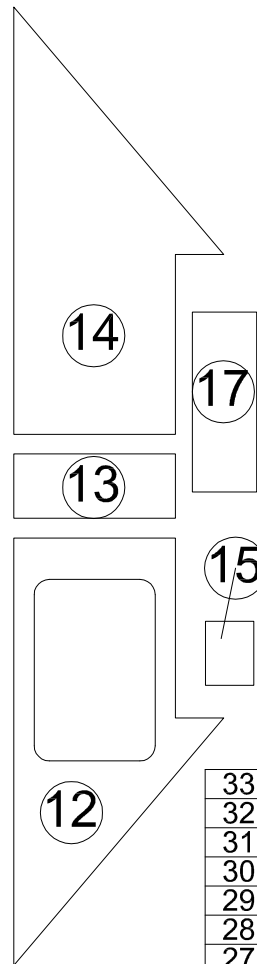
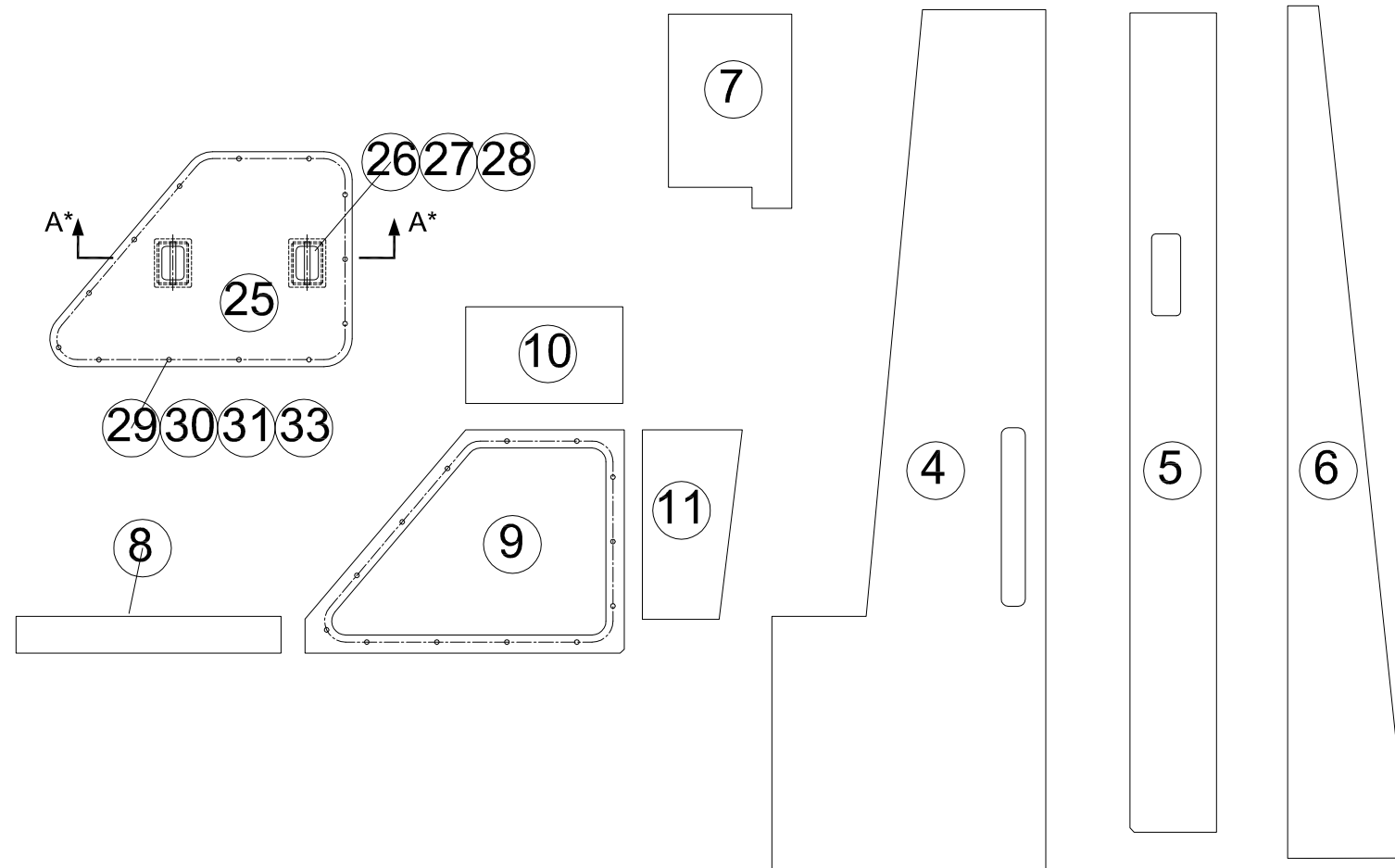
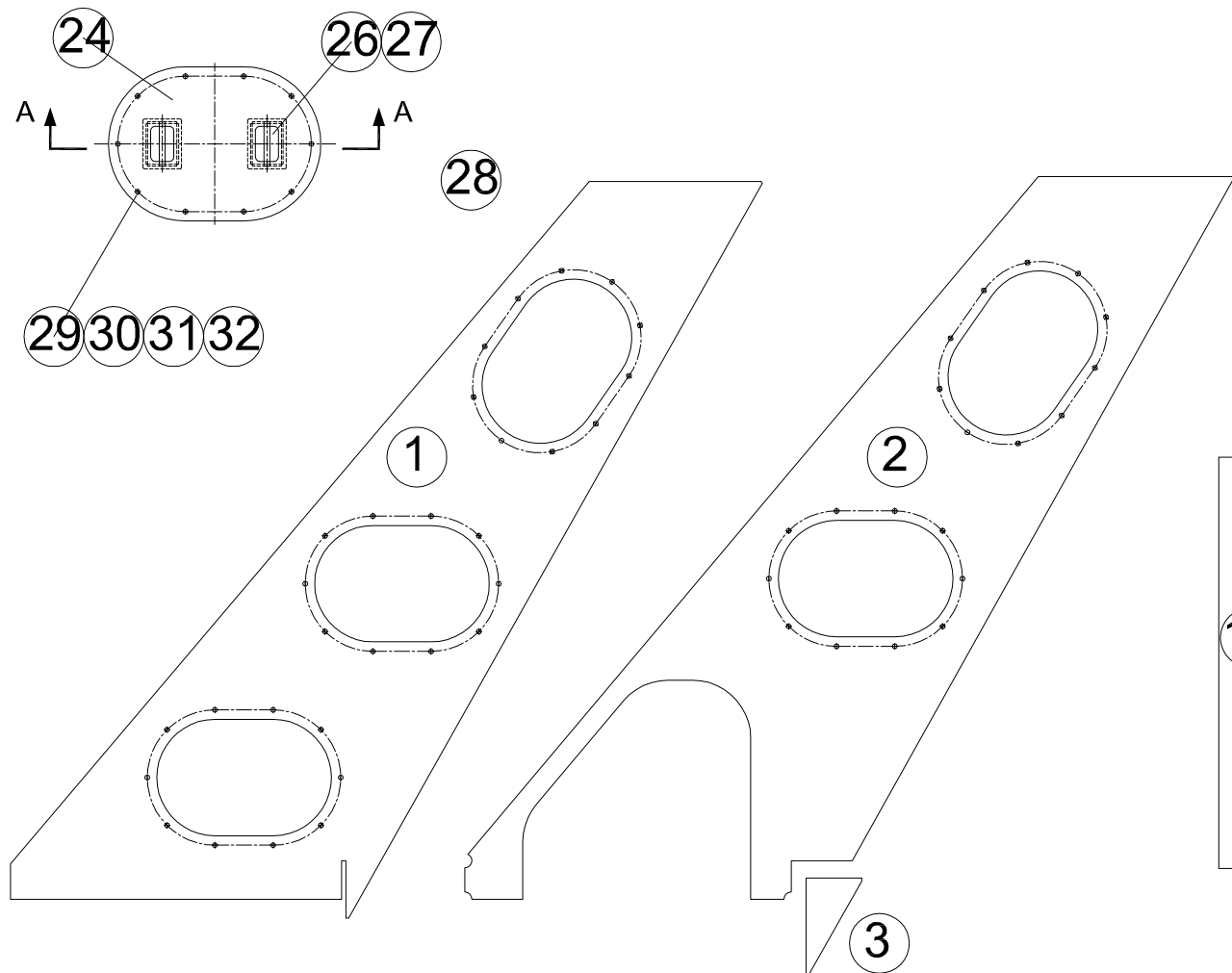
Labels and dimensions for "PRESJEK 'B-B'":

- 10: Sloped roof surface.
- 4: Internal insulation layer.
- 2: Vertical wall section.
- 8: Drainage channel.
- 11: Vertical wall section.
- 6: Drainage channel.
- 3: Vertical wall section.
- 4.0: Slope indicator (4.0%).
- R 5 1/4: Radius dimension for the curved roof surface.



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POZ	KOM	NAZIV	STANDARD	MATERIJAL	VELIČINA/MASA	NAPOMENA
GRADITELJ:						
OBJEKT: SKELA KRIŽNICA						
				Datum	Ime	Naziv nacрта:
				Projektirao	02.05.2019. Lj.Čubrilo,dipl.ing.	KRMENI TORANJ RAMPE POGLEDI I PRESJECI
				Crtao	02.05.2019. Lj.Čubrilo,dipl.ing.	
				Kontrolirao		
				STIL d.o.o.		Broj nacрта:
B	Urtani temelji opreme	21.10.2019.	Lj.Čubrilo,dipl.ing.			18/1/4/311/04-A3
						Broj: 3
						Od 8
Index	Izmjene	Datum	Ime	FILOMAR d.o.o.		Broj projekta:
						10067/18A
						Mjerilo:
						1:25
						Izdanje:
						B



M. W L

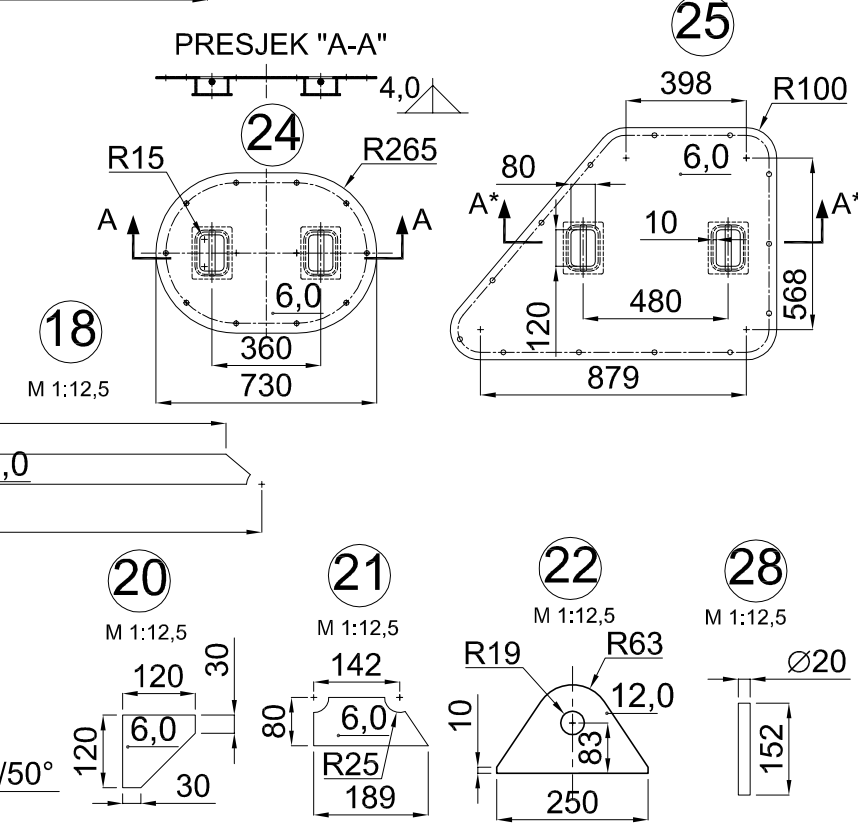
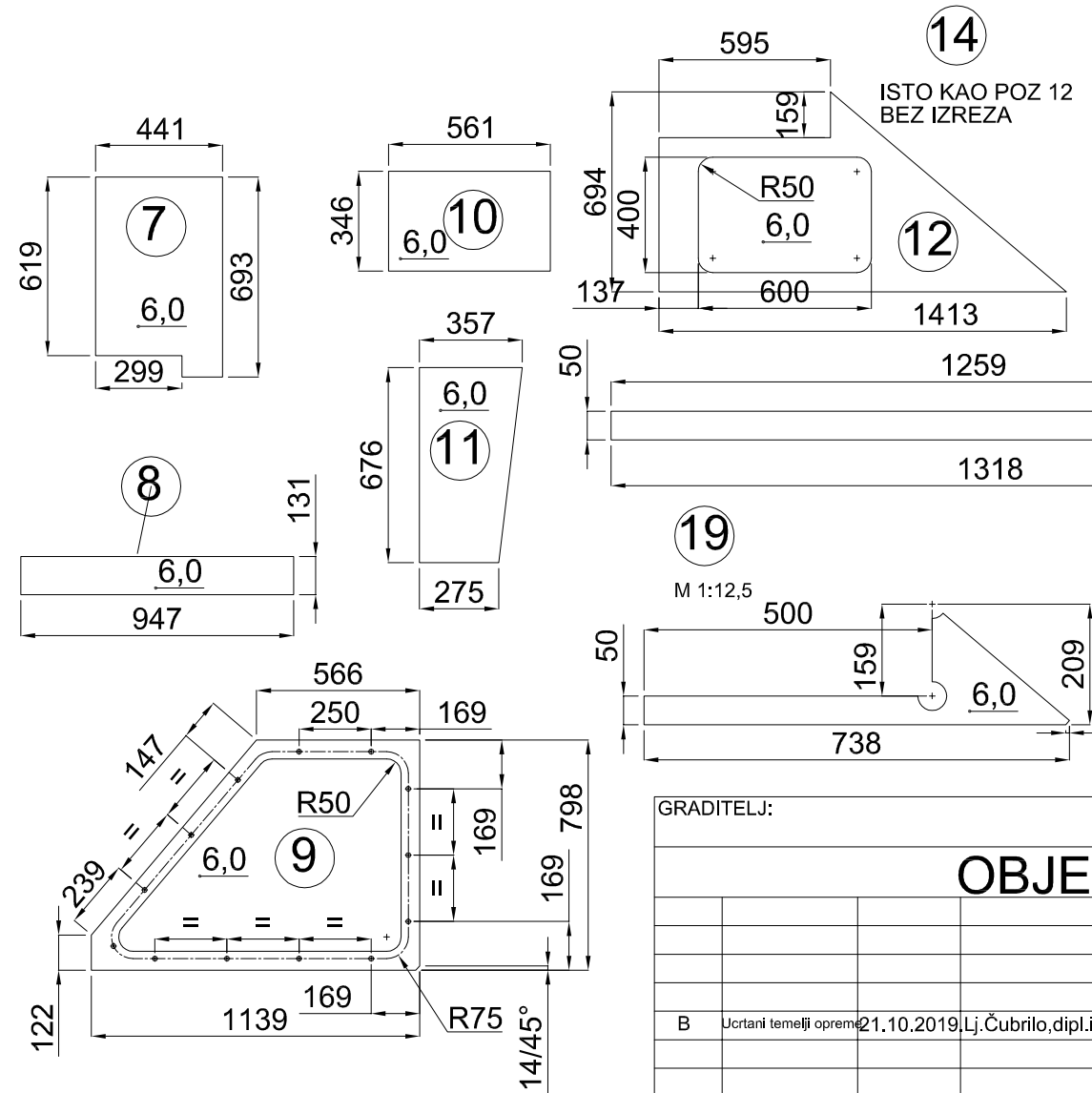
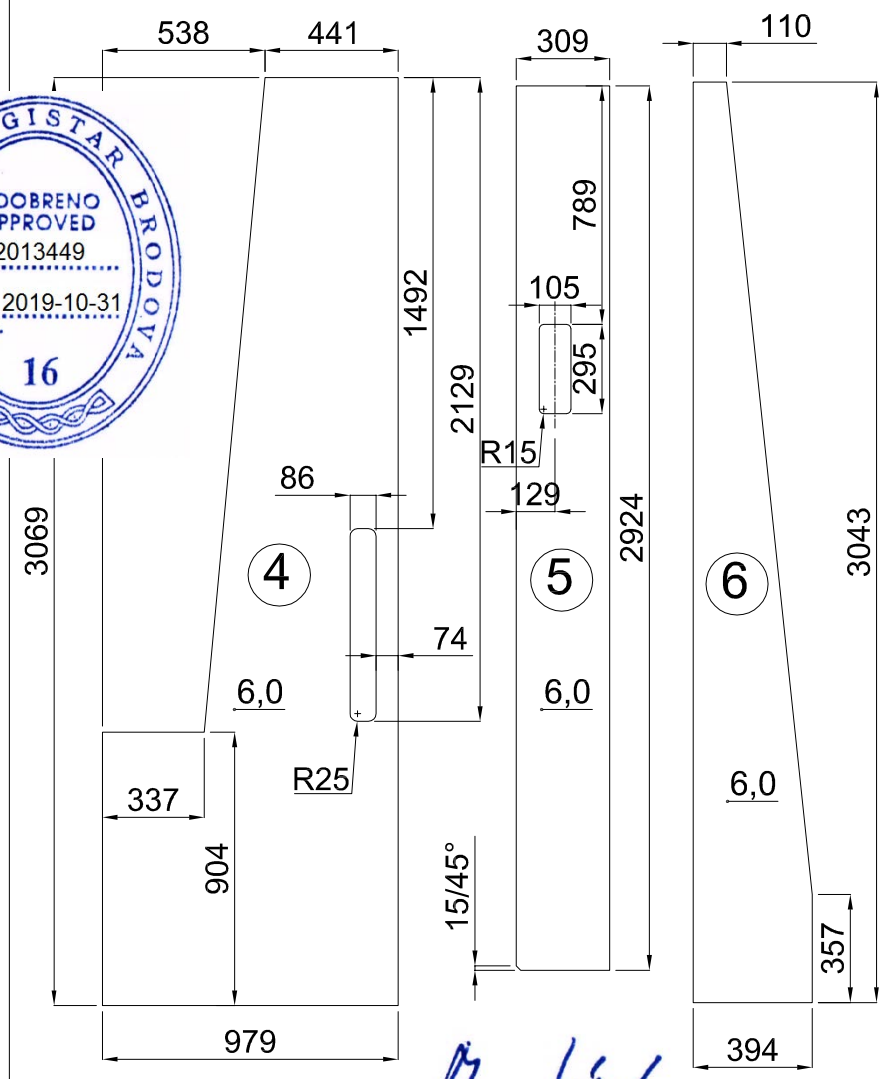
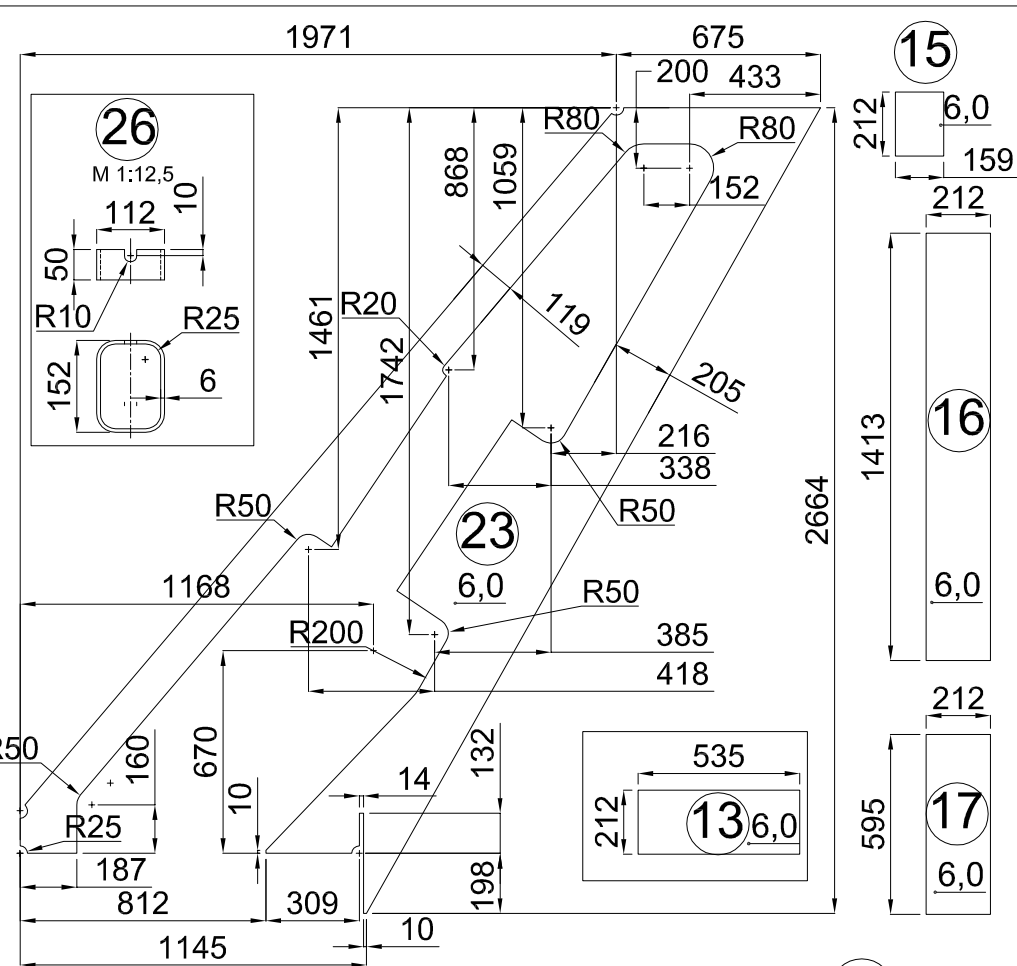
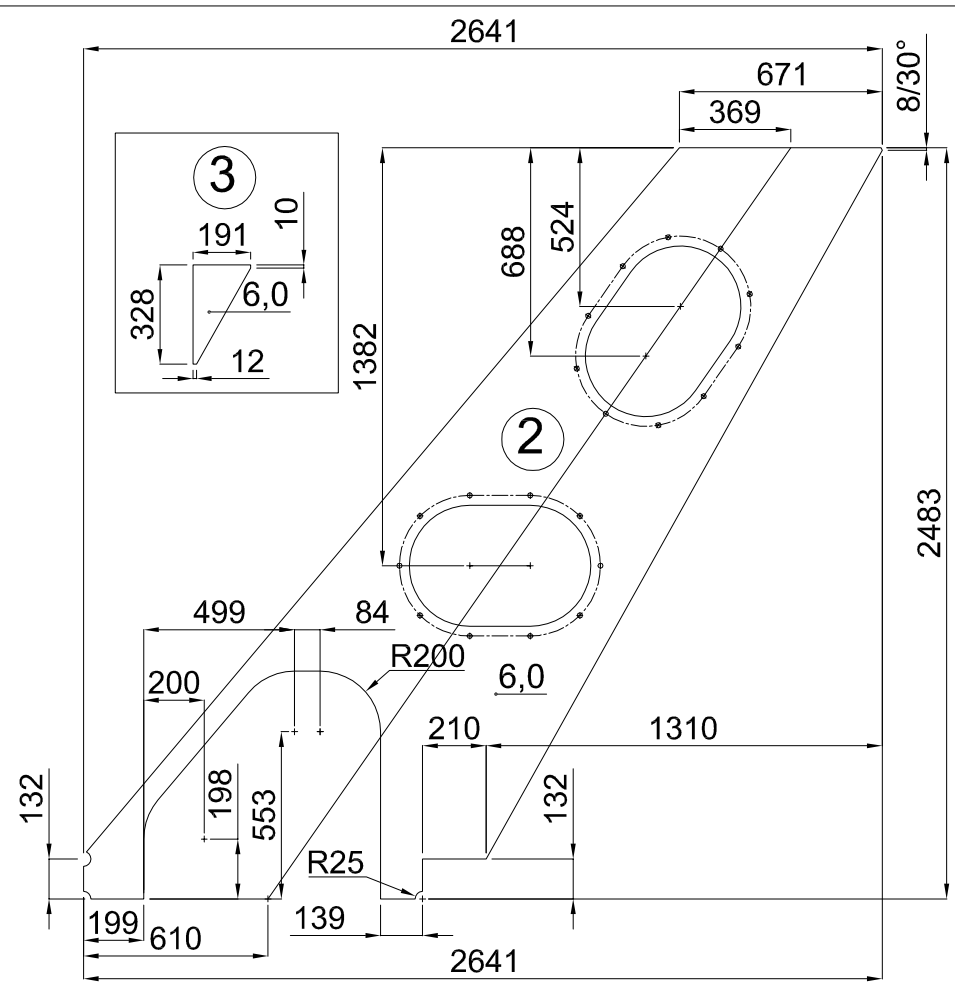
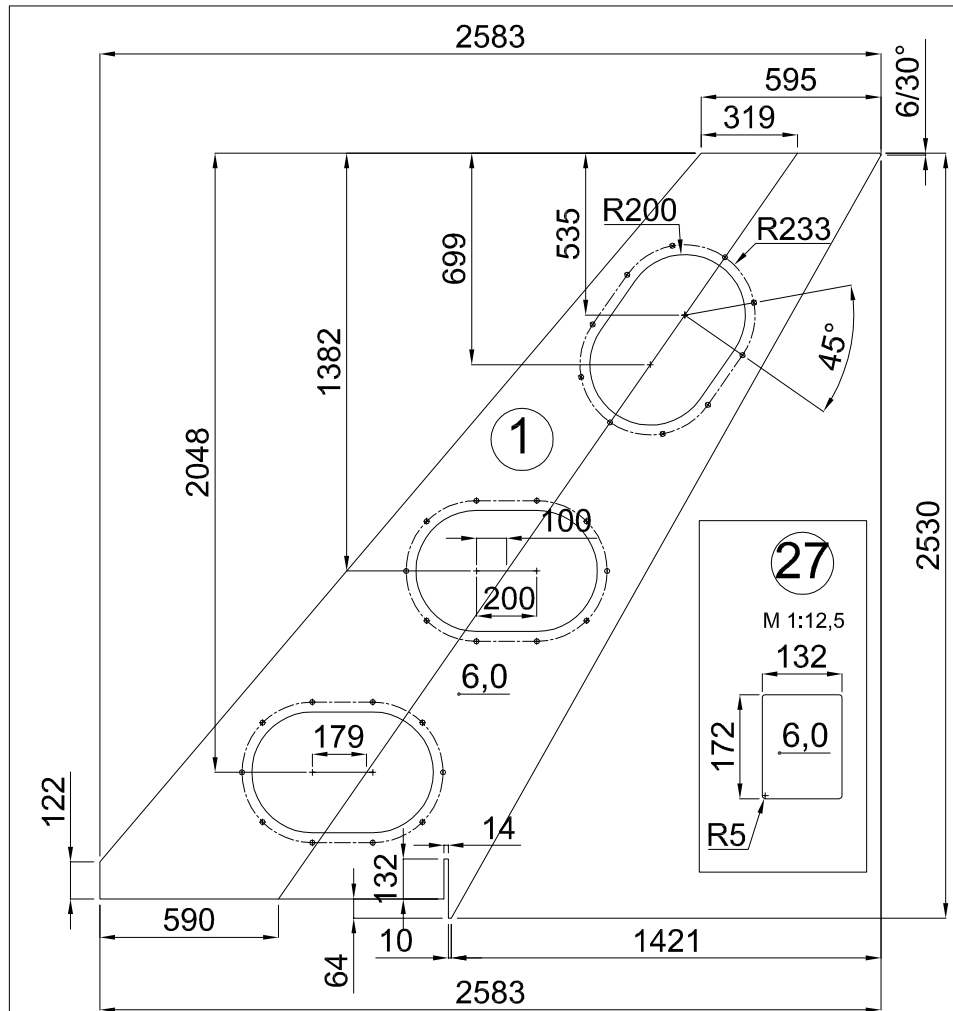


33	2	NEOPRENSKA BRTVA			t = 5mm	
32	14	NEOPRENSKA BRTVA			t = 5mm	
31	166	ELASTIČNA PODLOŠKA	A 16 DIN 127			
30	166	MATICA	M 16 DIN 934-8		M 16, ČV 8	ZAVARITI S UNUTARNJE STRANE OPLATE
29	166	VIJAK	DIN 933		M 16x30, ČV 5,6	
28	32	RUČKA		Č 0461	Ø20	
27	32	DNO ZDENCA RUČKE		Č 0461		
26	32	OPAS ZDENCA RUČKE		Č 0461		
25	2	POKLOPAC PROSTORA REDUKTORA		Č 0461		BUŠITI U SKLOPU S POZ 9
24	14	POKLOPAC ZA POZ. 1 I 2		Č 0461		BUŠITI U SKLOPU S POZ 1/POZ 2
23	4	UKREPA TORNJA		Č 0461		
22	2	UŠKA DIZALICE		Č 0461		
21	4	UKREPA SVODA		Č 0461		
20	4	KOLJENO SVODA		Č 0461		
19	2	UKREPA S KOLJENOM		Č 0461		
18	2	UKREPA ZIDA		Č 0461		
17	2	OPLATA KUTIJE DIZALICE		Č 0461		
16	2	OPLATA KUTIJE DIZALICE		Č 0461		
15	2	OPLATA KUTIJE DIZALICE		Č 0461		
14	2	OPLATA KUTIJE DIZALICE		Č 0461		
13	2	OPLATA KUTIJE DIZALICE		Č 0461		
12	2	OPLATA KUTIJE DIZALICE		Č 0461		
11	2	OPLATA KUĆICE REDUKT.		Č 0461		
10	2	OPLATA KUĆICE REDUKT.		Č 0461		
9	2	OPLATA KUĆICE REDUKT.		Č 0461		
8	2	OPLATA KUĆICE REDUKT.		Č 0461		
7	2	OPLATA TORNJA		Č 0461		
6	2	OPLATA TORNJA		Č 0461		
5	2	OPLATA TORNJA		Č 0461		
4	2	OPLATA TORNJA		Č 0461		
3	2	OPLATA TORNJA		Č 0461		
2	2	OPLATA TORNJA		Č 0461		
1	2	OPLATA TORNJA		Č 0461		

POZ	KOM	NAZIV	STANDARD	MATERIJAL	VELIČINA/MASA	NAPOMENA
GRADITELJ:						

OBJEKT: SKELA KRIŽNICA

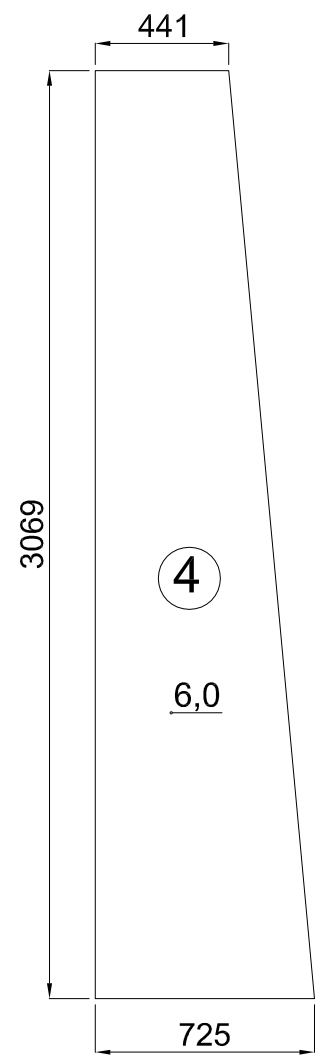
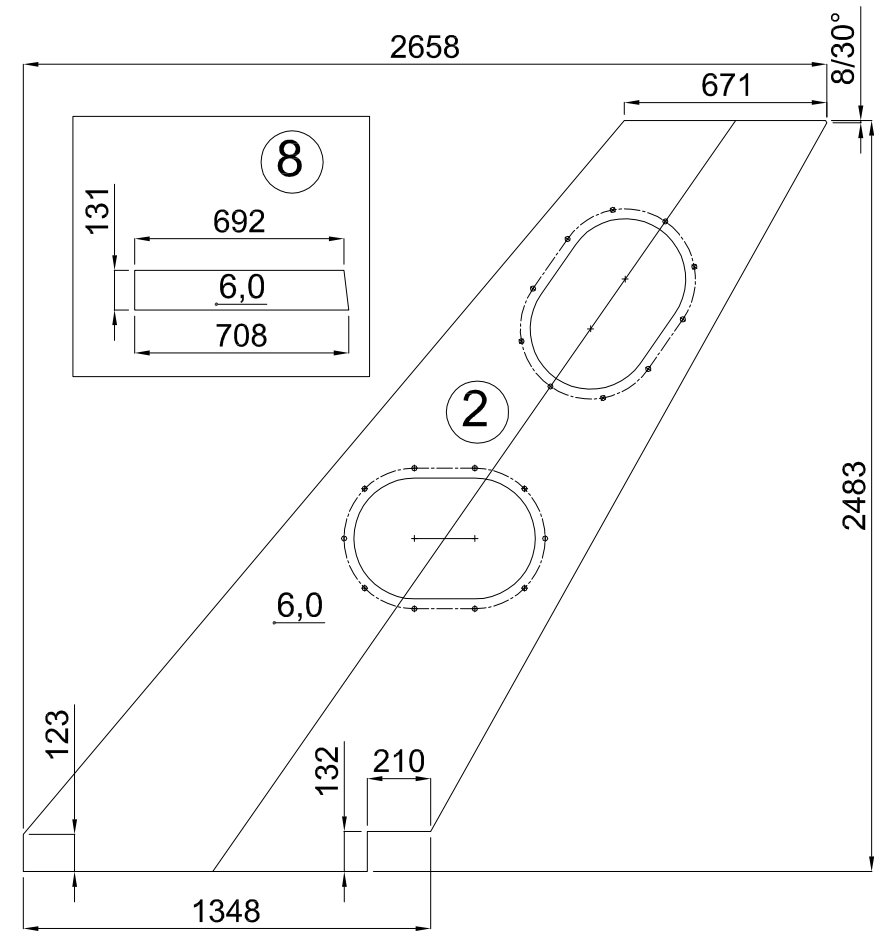
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				Projektirao	02.05.2019	Lj.Čubrilo,dipl.ing.	KRMENI TORANJ RAMPE STRUKTURA				1:25
				Crtao	02.05.2019	Lj.Čubrilo,dipl.ing.					
				Kontrolirao							
				STIL d.o.o.					Broj nacrt:	List	Izdanje:
B	Ucrtani temelji opreme	21.10.2019	Lj.Čubrilo,dipl.ing.	FILOMAR d.o.o.					18/1/4/311/04-A3	Broj: Od	
Index	Izmjene	Datum	Ime	10067/18A					Broj projekta:		B



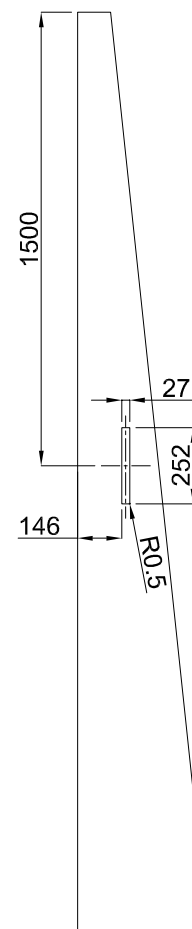
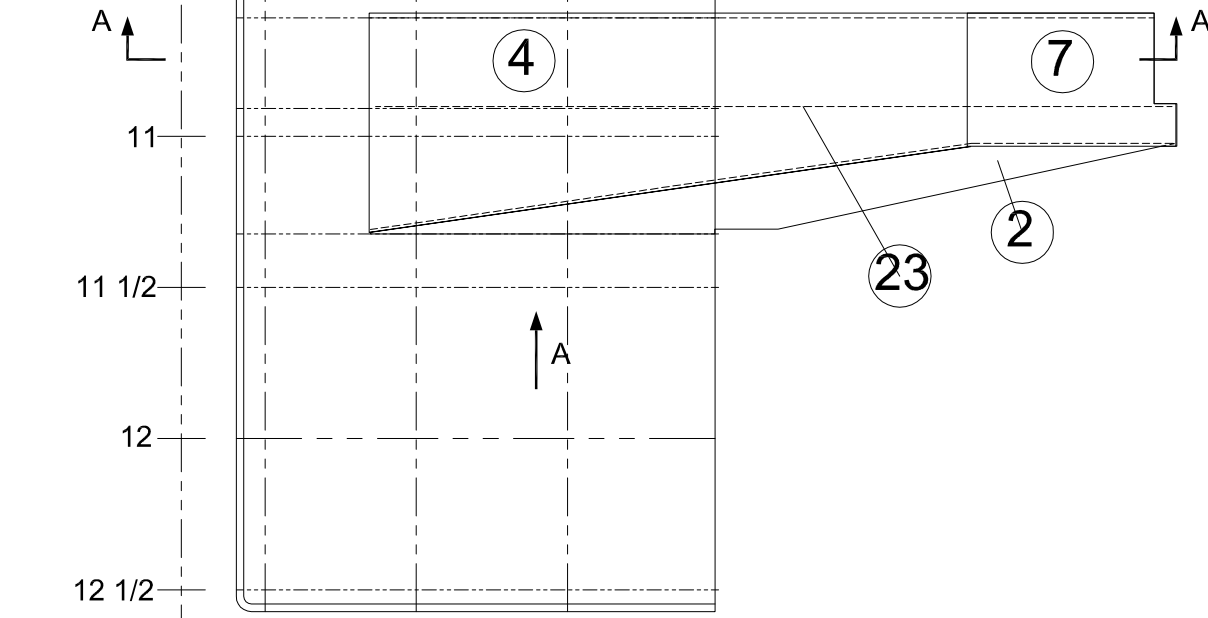
GRADITELJ:				OBJEKT: SKELA KRIŽNICA			
		Datum	Ime	Naziv nacrt:		Mjerilo:	
		02.05.2019	Lj.Čubrilo, dipl.ing.	KRMENI TORANJ RAMPE		1:25	
		02.05.2019	Lj.Čubrilo, dipl.ing.	STRUKTURA			
B		Ucrtani temelji opreme	21.10.2019	Lj.Čubrilo, dipl.ing.	STIL d.o.o.	Broj nacrt:	18/1/4/311/04-A3
Index		Izmjene	Datum	Ime	FILOMAR d.o.o.	Broj projekta:	10067/18A
						List	5
						Od	8
						Izdanje:	
						B	

Technical drawing of a roof structure. The roof is sloped and features three oval-shaped openings. The roof is labeled with "PALUBA" and "NP 10 1/2". Arrows indicate directions "B" and "C". Circled numbers 1, 2, 4, and 7 are present. A dimension of 4,0 is shown near the middle opening.

A technical drawing of a tapered rectangular prism. The drawing shows the front and side views. The front view is a rectangle with a vertical center line. The side view is a trapezoid. Numbered labels point to specific features: 1 points to the right vertical edge of the front view; 2 points to the left slanted edge of the side view; 3 points to the top horizontal edge of the front view; 4 points to the top horizontal edge of the side view; 5 points to the bottom horizontal edge of the front view; 6 points to the bottom horizontal edge of the side view; 7 points to the top horizontal edge of the front view.

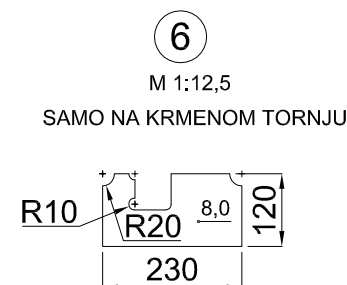
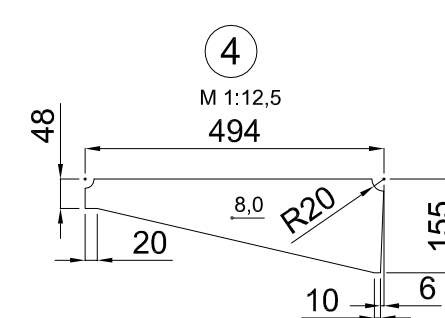
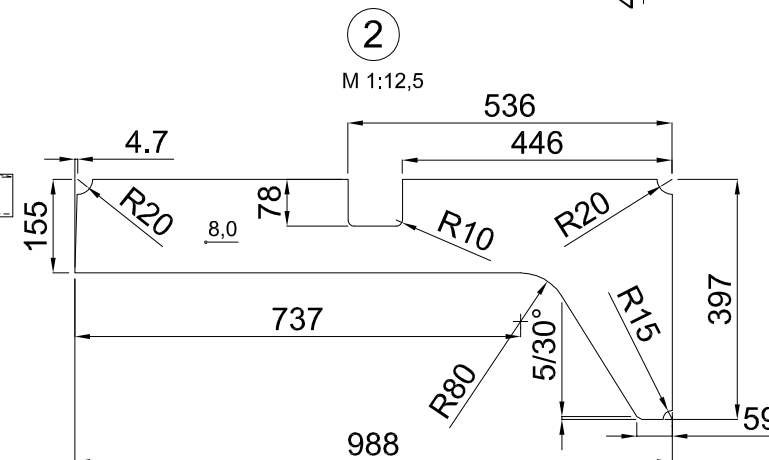
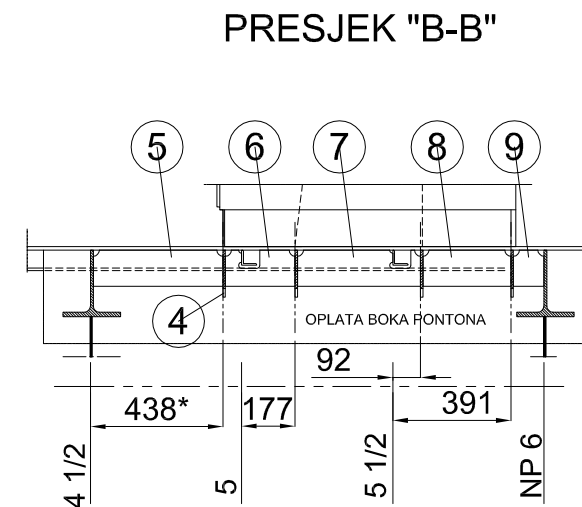
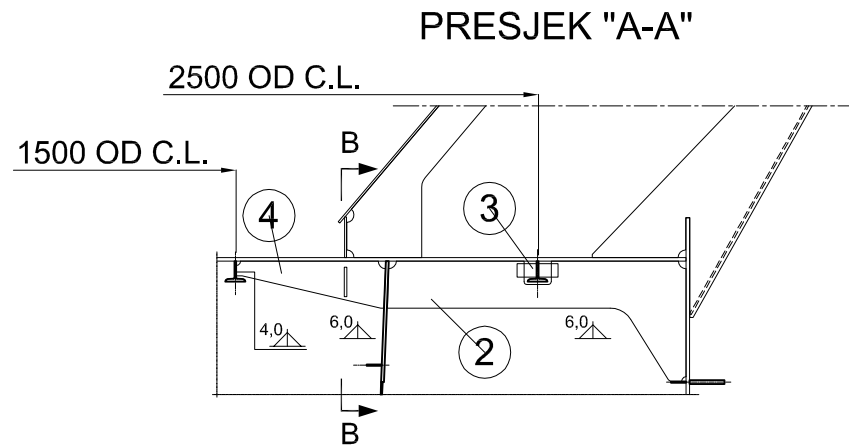
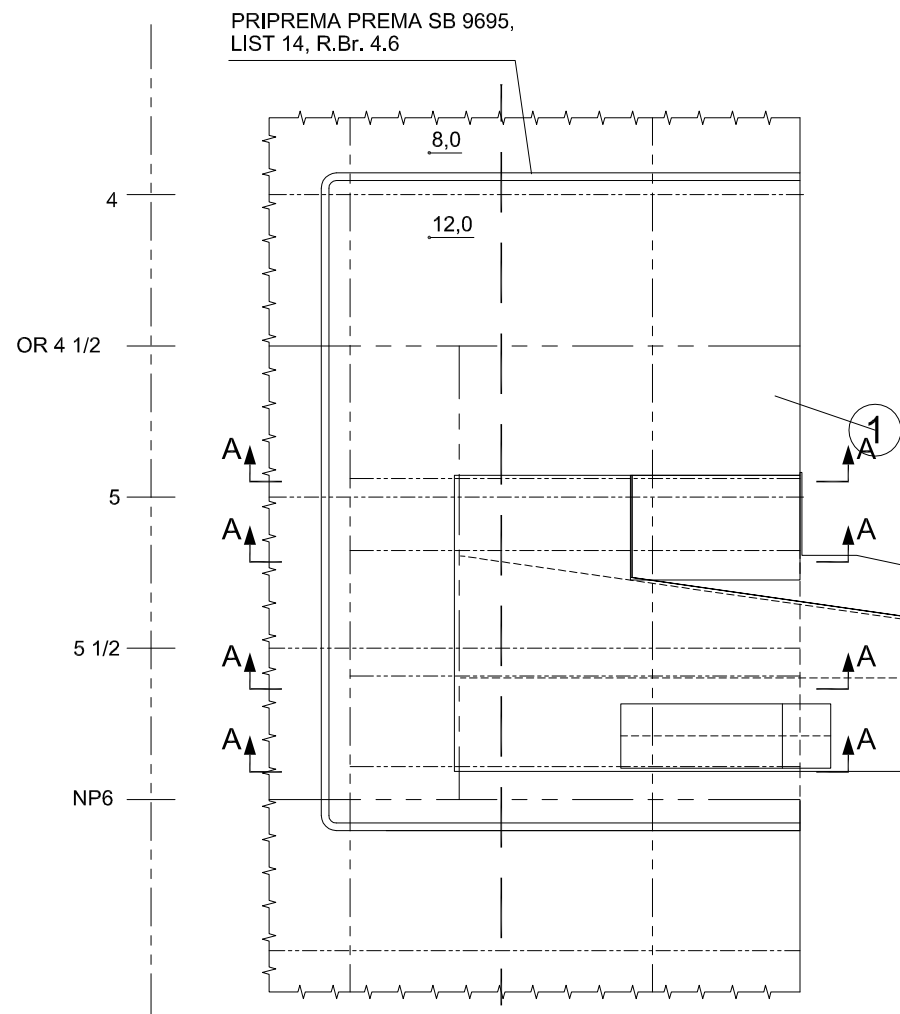


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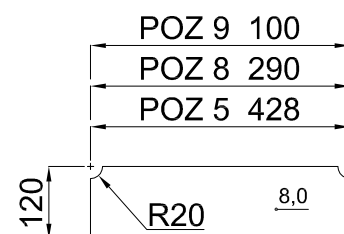
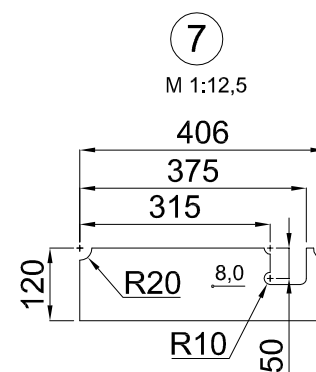
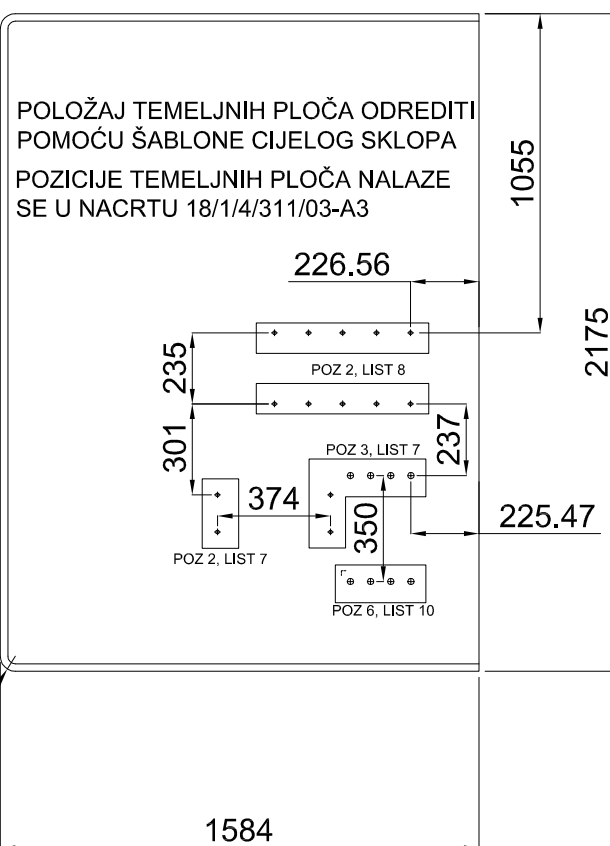
A 

PRIKAZANE SU SAMO POZICIJE RAZLIČITE OD ONIH NA KRMENOM TORNJU RAMPE
PRAMČANI TORANJ NEMA POZICIJE: 9-22, 25, 33

POZ	KOM	NAZIV	STANDARD	MATERIJAL	VELIČINA/MASA	NAPOMENA
GRADITELJ:						
OBJEKT: SKELA KRIŽNICA						
			Datum	Ime	Naziv nacрта:	
			Projektirao	02.05.2019 Lj.Čubrilo,dipl.eng.	PRAMČANI TORANJ RAMPE POGLEDI I PRESJECI, STRUKTURA	
			Crtao	02.05.2019 Lj.Čubrilo,dipl.eng.		
			Kontrolirao			
B	Učrtani temelji i opreme	21.10.2019 Lj.Čubrilo,dipl.eng.	STIL d.o.o.			Broj nacрта: 18/1/4/311/04-A3
Index	Izmjene	Datum	Ime	FILOMAR d.o.o.		List Broj: Od 6 8
					Broj projekta: 10067/18A	Mjerilo: 1:25
						Izdanje: B



M. W L

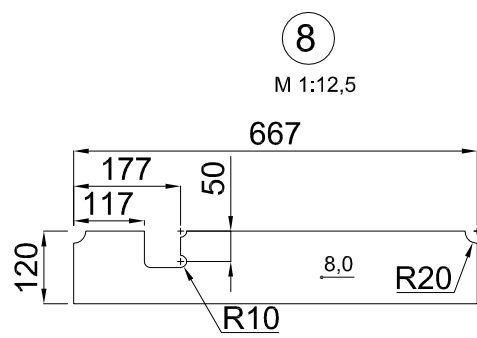
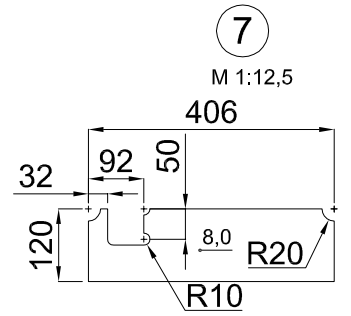
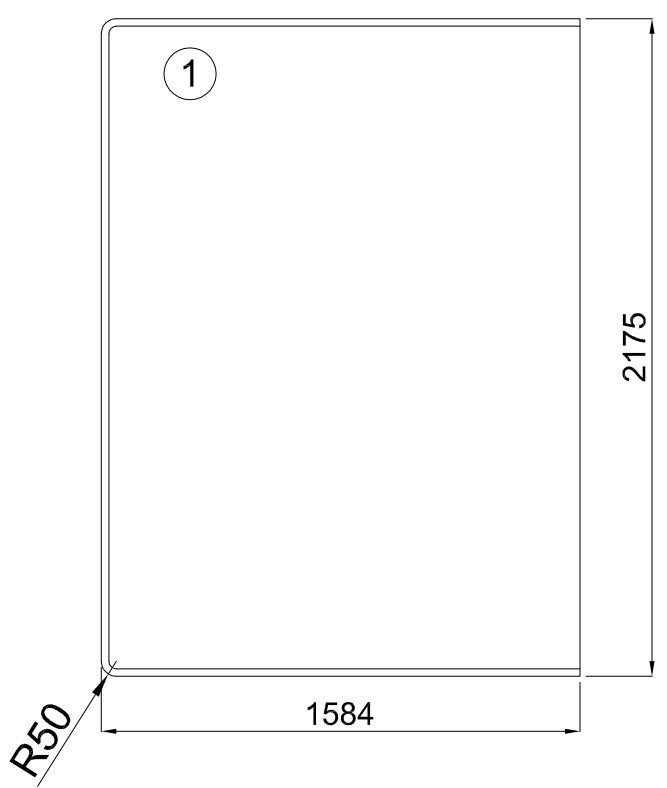
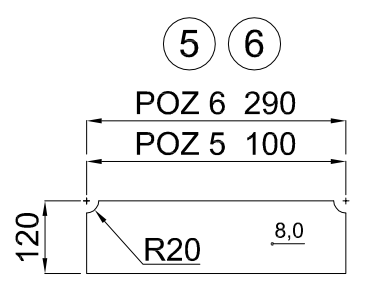
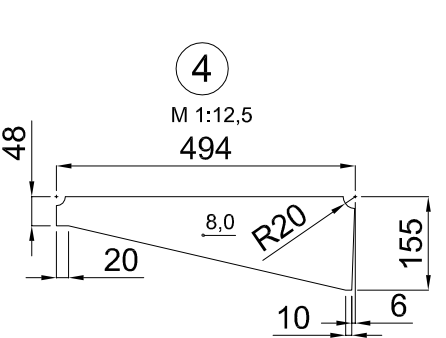
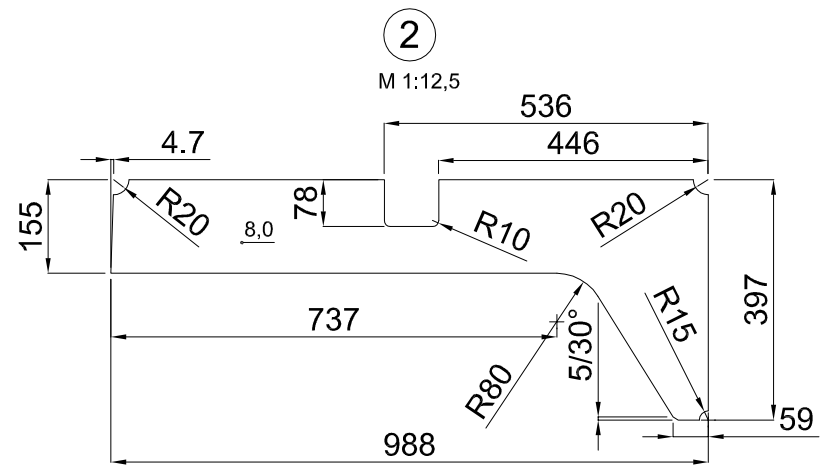
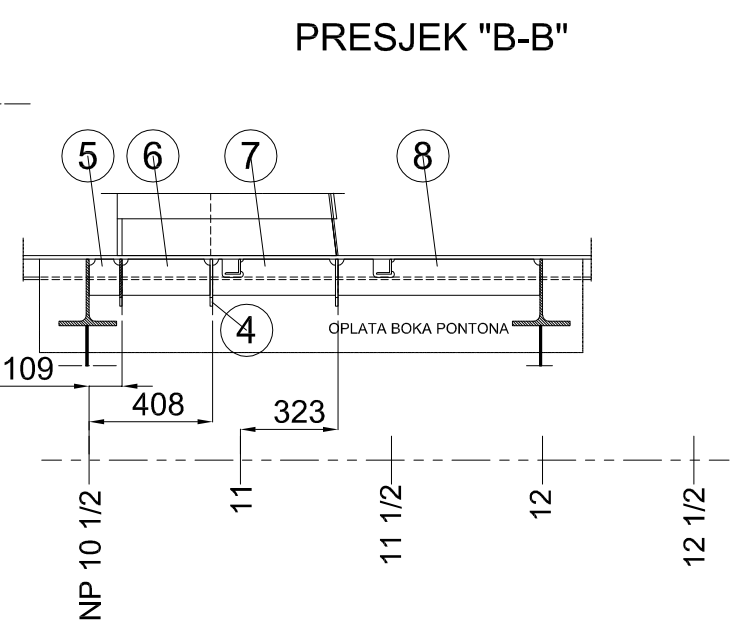
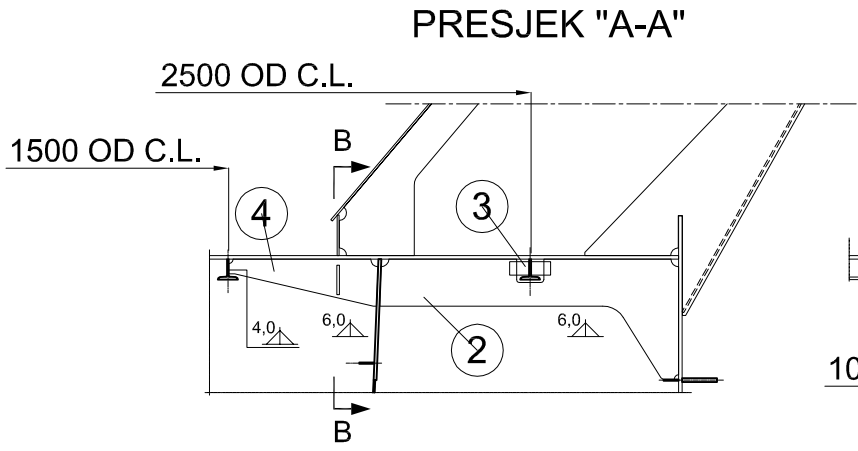
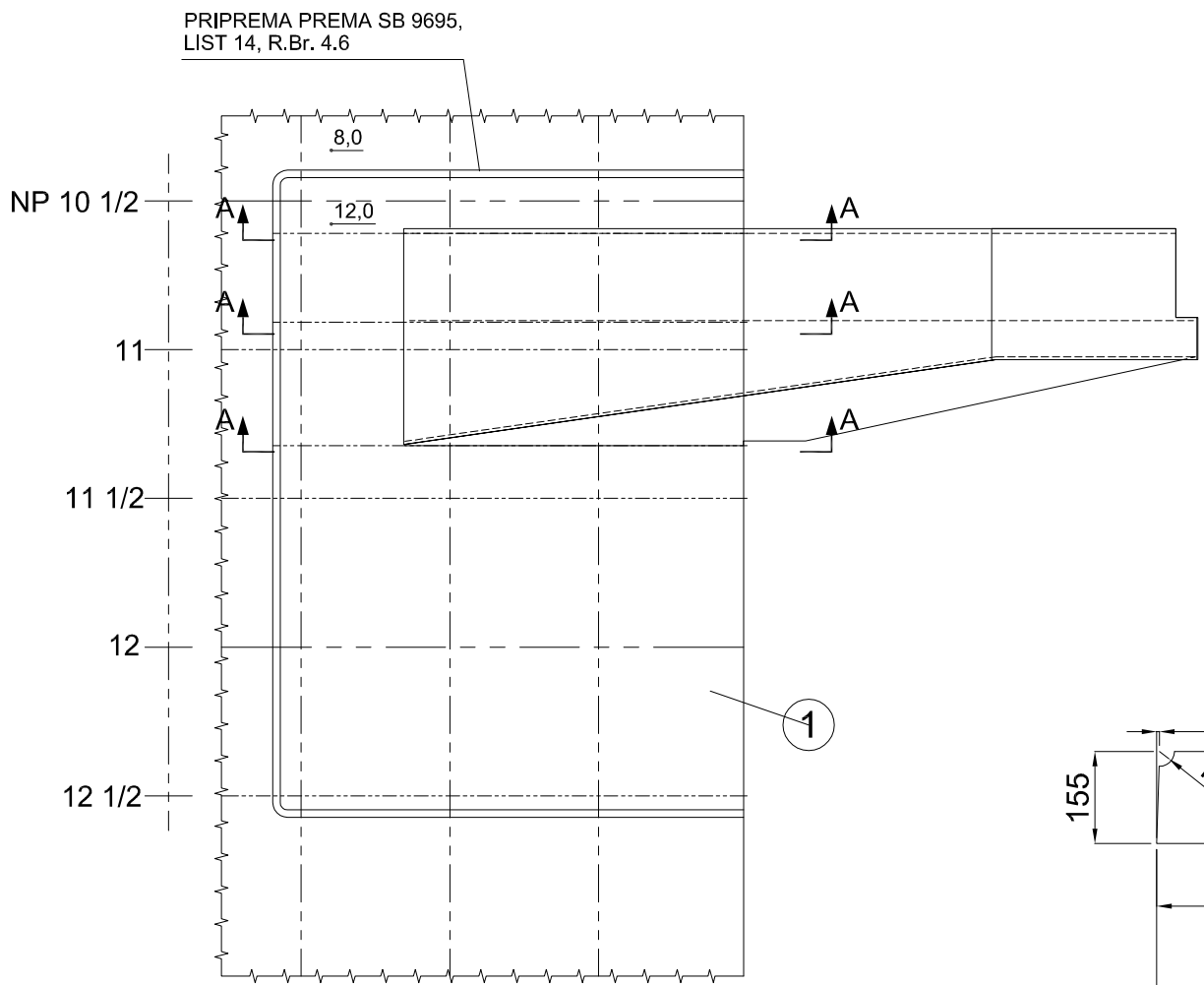


KRMENI TORANJ NA DESNOM BOKU SKELE ZRCALNO SIMETRIČAN

9	2	UZDUŽNA UKREPA		Č 0461	# 120x8	AKZ
8	2	UZDUŽNA UKREPA		Č 0461	# 120x8	AKZ
7	2	UZDUŽNA UKREPA		Č 0461	# 120x8	AKZ
6	2	UZDUŽNA UKREPA		Č 0461	# 120x8	AKZ
5	2	UZDUŽNA UKREPA		Č 0461	# 120x8	AKZ
4	8	KOLJENO		Č 0461	494x155x8	AKZ
3	16	KOLAR ZAKRPA		Č 0461	65x45x8	AKZ
2	8	POPRJEČNA UKREPA		Č 0461	# 155x8	AKZ
1	2	STOPA KRMENOG TORNJA		Č 0461	t = 12mm	AKZ
POZ KOM		NAZIV	STANDARD	MATERIJAL	VELIČINA/MASA	NAPOMENA
GRADITELJ:						

OBJEKT: SKELA KRIŽNICA

				Datum	Ime	Naziv nacrtat:			Mjerilo:	
				Projektrao	02.05.2019	Lj.Čubrilo,dipl.ing.	TEMELJ TORNJA RAMPE			1:25
				Crtao	02.05.2019	Lj.Čubrilo,dipl.ing.	KRMENI TORANJ NA LIJEVOM			
				Kontrolirao			BOKU SKELE			
B	Jortani temelji opreme	21.10.2019	Lj.Čubrilo,dipl.ing.	STIL d.o.o.			Broj nacrtat:	List		Izdanje:
A	Poz.2 dodano koljeno	19.09.2019	Lj.Čubrilo,dipl.ing.				18/1/4/311/04-A3	Broj: 7	Od 8	
Index	Izmjene	Datum	Ime	FILOMAR d.o.o.			Broj projekta:			B
							10067/18A			



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KRMENI TORANJ NA DESNOM BOKU SKELE ZRCALNO SIMETRIČAN

POZ	KOM	NAZIV	STANDARD	MATERIJAL	VELIČINA/MASA	NAPOMENA
8	2	UZDUŽNA UKREPA		Č 0461	# 120x8	AKZ
7	2	UZDUŽNA UKREPA		Č 0461	# 120x8	AKZ
6	2	UZDUŽNA UKREPA		Č 0461	# 120x8	AKZ
5	2	UZDUŽNA UKREPA		Č 0461	# 120x8	AKZ
4	6	KOLJENO		Č 0461	494x155x8	AKZ
3	16	KOLAR ZAKRPA		Č 0461	65x45x8	AKZ
2	6	POPRJEČNA UKREPA		Č 0461	# 155x8	AKZ
1	2	STOPA KRMENOG TORNJA		Č 0461	t = 12mm	AKZ

OBJEKT: SKELA KRIŽNICA

Index	Izmjene	Datum	Ime	Datum	Ime	Naziv nacrt:	Mjerilo:
				02.05.2019	Lj.Čubrilo, dipl.ing.	TEMELJ TORNJA RAMPE	1:25
				02.05.2019	Lj.Čubrilo, dipl.ing.	PRAMČANI TORANJ NA LIJEVOM BOKU SKELE	
B	Ucrtani temelji opreme	21.10.2019	Lj.Čubrilo, dipl.ing.			Broj nacrt:	Izdanje:
A	Poz.2 dodano koljeno	19.09.2019	Lj.Čubrilo, dipl.ing.			18/1/4/311/04-A3	8
	Poz.2 i 4 po 6kom					Broj projekta:	
						10067/18A	