

Item	Work Description	UoM	NoU	Unit price	Total
CONSTRUCTION AND FINISHING WORK					
01-00 DEMOLITION AND DISMOUNTING					
01-01	Taking out the existing furniture and remains thereof from the area being adapted. Pieces of furniture to be kept shall be reviewed with Supervision and removed to a location designated by the Investor. The furniture to be discarded shall be loaded onto a lorry and transported to the nearest landfill. Calculated per m2 of the area being adapted.	m2		250.00	
01-02	Stripping/Chiselling off floor ceramic tiles. The rubble shall be collected, taken out, loaded onto a lorry and transported to the town landfill up to 15km away. Calculated per m2.				
	cellar	m2		4.20	
	ground floor	m2		4.10	
01-03	Stripping/Chiselling off wall ceramic tiles in toilets and other rooms. The rubble shall be collected, taken out, loaded onto a lorry and transported to the town landfill up to 15km away. Calculated per m2.				
	ground floor	m2		320.10	
01-04	Stripping/Scraping off glossy paint and paint damaged in the flood from the walls and ceilings. The rubble shall be collected, taken out, loaded onto a lorry and transported to the town landfill up to 15km away. Calculated per m2.				
		m2		234.90	
01-05	Chiselling plaster off of indoor walls. The plaster shall be chiselled off and joints shall be cleaned with clamps to the depth of 2cm. brick surfaces shall be cleaned using steel brushes and walls shall be washed with water. The rubble shall be collected, taken out, loaded onto a lorry and transported to the town landfill. Calculated per m2 of the chiselled surface area.				
		m2		120.00	
01-06	Chiselling/demolition of all floor layers including the concrete slab. Calculated per m2				
		m2		4.20	
01-07	Dismounting canopies. The rubble shall be collected, taken out, loaded onto a lorry and transported to the town landfill. Calculated per piece.				
		pcs.	2		

Item	Work Description	UoM	NoU	Unit price	Total
01-08	Dismounting wooden windows. The Contractor shall be obligated to dismount window panes and remove glass from them prior to transportation to the landfill. The dismantled material shall be collected, secured and transported to the town landfill up to 15km away. Calculated per piece together with sheet metal coated window sills.				
	412/200 cm	pcs.	2		
	151/200 cm	pcs.	1		
	98/190 cm	pcs.	1		
	209/91 cm	pcs.	1		
	207/200 cm	pcs.	1		
	74/200 cm	pcs.	1		
	98/198 cm	pcs.	1		
01-09	Dismounting wooden doors. The dismantled material shall be collected, secured and transported to the town landfill. Calculated per piece.				
	single	pcs.	16		
	single with transom	pcs.	2		
	double with transom	pcs.	2		
01-10	Dismounting façade glazed or sheet metal paned with steel box profile portals. The dismantled material shall be collected, secured and transported to the town landfill up to 15km away. Calculated per piece.				
	97/293 cm	pcs.	1		
	278/206 cm	pcs.	1		
	46/206 cm	pcs.	1		
	288/230 cm	pcs.	1		
	124/295 cm	pcs.	1		
	63/230 cm	pcs.	1		
	66/230 cm	pcs.	1		
	160+30+45/295 cm	pcs.	1		
	63/206 cm	pcs.	1		
	190/293 cm	pcs.	1		
	338/206 cm	pcs.	1		
	246/206 cm	pcs.	1		
01-11	Dismounting climbers for roof access. Dismounted climbers shall be disposed of at the location designated by the Investor. Calculated per m1.				
		m1	4.00		
01-12	Dismounting parts of spouts. The dismantled material shall be collected, secured and transported to the town landfill up to 15km away. Calculated per m1.				
		m1	4.40		
01-13	Breaking the concrete ramp in the courtyard. The ramp is made os compacted concrete. The rubble shall be collected, loaded onto a lorry and transported to the town landfill up to 15km away. Calculated per m3.				
		m3	5.15		
01-14	Demolition of the 12cm thick brick partition wall. The rubble shall be collected, taken out, loaded onto a lorry and transported to the town landfill. Calculated per m2 of wall.				
		m2	95.40		

Item	Work Description	UoM	NoU	Unit price	Total
01-15	Demolition of the 35cm thick brick wall to form an opening. Parts of the wall shall be carefully demolished with simultaneous placement of struts, with care taken not to compromise the wall mass. The rubble shall be collected, taken out, loaded onto a lorry and transported to the town landfill. The price shall include strutting. Calculated per m2 of wall.	m2		18.70	
01-16	Dismounting the Hunter Douglas suspended ceiling with complete substructure. The rubble shall be collected, taken out, loaded onto a lorry and transported to the town landfill. The price shall include strutting. Calculated per m2.	m2		138.20	
01-17	Cleaning the green areas of the plot from weeds, shrubbery and trees. Individual plants shall be removed as agreed with the Investor. All undergrowth shall be removed together with roots. After completing the work everything shall be collected, loaded onto a lorry and transported to a landfill up to 15km away. Calculated per m2.	m2		160.00	
01-00 DEMOLITION AND DISMOUNTING					
02-00 GROUND WORK					
02-01	Manual excavation of 3 rd category soil for the foundations of the new ram, access staircase and canopy. The excavations shall be performed in 30cm wide and 30cm deep strips. Excavated soil shall be used for levelling and spreading out around the surrounding area. Calculated per m3 of excavated soil in compacted state.	m3		10.15	
02-00 GROUND WORK					

Item	Work Description	UoM	NoU	Unit price	Total
03-00	BRICK WORK				
03-01	Procurement of material, transport and plastering of stripped indoor walls and ceilings using repair mortar. Prior to plastering all damaged and unsound layers of existing plaster shall be chiselled off and all surfaces cleaned (provided in a separate item). Wall plastering with repair mortar shall be done fully according to the manufacturer's instructions. Plastered surfaces shall be flat, without cracks or waves, and all edges shall be sharp and straight. Calculated per m2.				
	walls	m2		440.10	
	ceilings	m2		20.00	
03-02	Procurement of material, transport and manufacture of a cement screed as the base layer for putting up PVC flooring. The thickness of the cement screed shall be 5cm. The screed shall be poured over Styrodur and shall be reinforced using Q reinforcing mesh. Calculated per m2.				
		m2		103.65	
03-03	Procurement of material, transport and manufacture of cement mortar grouts for the stone block foundation plinth. All joints shall be cleaned of old mortar and then filled with new mortar. Calculated per m2.				
		m2		32.80	
03-04	Manufacture of the outdoor ramp 6cm thick MB-35 patterned concrete coat (small-grain with two fractions), fully according to the designed inclinations and the manufacture of contact expansion joints. The concrete shall be doubly reinforced using Q131 mesh and fibers. The concrete shall be reinforced with additives to prevent formation of air bubbles inside the concrete mass, improve the resilience to very low temperature and the possibility of cracking due to water penetrating the pores; microfiber concrete plasticization to provide resilience and endurance to high pressure and against crumbling. Concrete finishing shall be performed with pigment paint with added plasticizer to provide high resilience to wear and tear of the top coat and enhance anti-slip properties.				
		m2		6.20	
03-05	Closing (door and window) holes using Ytong type blocks or similar. Instructions of the block manufacturer shall be fully adhered to. Calculated per m3.				
		m3		3.90	
03-00	BRICK WORK				
04-00	CONCRETE AND REINFORCED CONCRETE WORK				
04-01	Procurement of material and manufacture of a new ramp and access staircase made of MB20 concrete. Prior to concreting a 10cm layer of gravel shall be placed. The price shall include all accompanying reinforcement bars. Calculated per m3.				
	Foundation walls	m3		6.80	
	Landing slab	m3		0.40	
	Inclined staircase and ramp slab, thickness 10cm	m3		0.45	
	Stairs	m3		0.30	

Item	Work Description	UoM	NoU	Unit price	Total
04-02	Procurement of material and manufacture of RC elements supporting the existing building structure made of MB20 concrete. The price shall include all accompanying reinforcement bars. Calculated per m3.				
	RC spot footings	m3	0.55		
	RC ring beams	m3	0.70		
	RC supports for steel horizontal carrier beams	m3	0.40		
04-00 CONCRETE AND REINFORCED CONCRETE WORK					
05-00 ROOFING WORK					
05-01	Procurement of material, transportation and covering of the canopy roof with lexan over a substructure made of wrought iron. All accompanying mounting material shall be included (screws, washers, aluminium strips and profiles to cover sheet connections, aluminium strips and profiles for lexan sheet edge flashing – protection against water breach into the sheet interior). Calculated per m2.				
		m2	18.60		
05-00 ROOFING WORK					
06-00 WEATHERPROOFING					
06-01	Procurement of material, transportation and waterproofing of sanitation blocks and boiler room, fully according to the HISROSTOP ELASTIK or similar system, with application of two coats on a previously cleaned surface. Apply mortar from the same system to the height of 20cm at points of contact between the horizontal and vertical planes. Any breaches shall be treated with adequate putty from the same manufacturer. Everything shall be done according to the manufacturer's instructions with appropriate qualified workforce and application of adequate tools. Calculated per m2 for the complete item.				
		m2	35.60		
06-02	Procurement of material, transportation and putting up insulation made of 10cm thick extruded polystyrene (styrodur) within the floor slab at ground floor level. Installation according to the manufacturer's instructions. Calculated per m2 of installed material.				
		m2	103.65		
06-03	Procurement of material, transportation and putting up insulation made of 10cm thick extruded polystyrene (styrodur) with graphite particles on façade walls. Installation according to the manufacturer's instructions. Calculated per m2 of installed material.				
		m2	52.30		
06-04	Procurement of material, transportation and putting up insulation made of 20cm thick hard pressed rock wool. The rock wool shall be laid over the existing boarded attic floor. The price shall include rock wool protective foil. Installation according to the manufacturer's instructions. Calculated per m2 of installed material.				
		m2	240.20		
06-00 WEATHERPROOFING					

Item	Work Description	UoM	NoU	Unit price	Total
07-00 SHEET METAL WORK					
07-01	<p>Manufacture and mounting of galvanized spouts, spread width (SW) up to 40cm, cross section 10x10cm, sheet metal thickness 0.60mm. Spout sections shall overlap by not less than 50mm and shall be soldered with minimum 40% lead solder bar. Galvanized clamps with carriers shall be spaced at 200cm. Clamps shall be fitted with decorative strips. The spouts shall be removed from the wall by a minimum of 20mm. Spout finish according to detail. Calculated per m1 of spout pipe.</p> <p>Spout Cross-section Ø 100 mm</p>	m ¹		4.40	
07-02	<p>Manufacture and mounting of suspended rectangular gutters made of galvanized sheet metal, spread width (SW) 25cm, gutter width 6-8cm, sheet metal thickness 0.60mm. Gutter clamps shall be made of 25x5mm galvanized flat iron bars and riveted from the front of the gutter with Ø 4mm rivets spaced at 80cm. Calculated per m1 of suspended gutter.</p>	m1		12.80	
07-03	<p>Flashing the roof edges and fascia with galvanized sheet metal, spread width (SW) up to 50cm; 0.60mm thickness. Flashing shall be done in accordance with the design, detail and manufacturer's instructions. Calculated per m1 of roof edge.</p>	m1		13.80	
07-04	<p>Procurement of material, manufacture, transportation and mounting of window sill board made of plasticized aluminium sheet metal, spread width up to 35cm, 0.7mm thickness. Calculated per m1.</p>	pcs.		20.80	
07-00 SHEET METAL WORK					

Item	Work Description	UoM	NoU	Unit price	Total
08-00 TILE WORK					
08-01	Procurement of material, transportation and mounting of matt granite floor tiles. The granite tiles shall be 1 st class and set in tiling adhesive over existing tiles. The format, bond and colour shall be as selected by the Designer. The sublayer shall previously be thoroughly prepared, sanded down, which shall be included in the price. Placed tiles shall be grouted and the floor cleaned with sawdust. The price shall include tile procurement. Calculated per m2.	m2		32.30	
08-02	Procurement of material, transportation and mounting of matt granite floor tiles as specified in the design. The granite tiles shall be 1st class and set in tiling adhesive over existing tiles. The format, bond and colour shall be as selected by the Designer. The sublayer shall previously be thoroughly prepared – sanded down – which shall be included in the price. Tiles shall be placed flat. Placed tiles shall be grouted and the floor cleaned with sawdust. The price shall include tile procurement. Calculated per m2.	m2		56.60	
08-03	Procurement of material, transportation and mounting of 10cm tall matt granite skirting to match the tiles. The format, bond and colour shall be as selected by the Designer. Granite tiles shall be set in tile adhesive. The sublayer shall be flat and thoroughly prepared. Placed tiles shall be grouted and the skirting cleaned. The price shall include tile procurement. Calculated per m1.	m1		86.30	
08-04	Procurement of material, transportation and mounting of wall granite tiles in bathrooms. The format, bond and colour shall be as selected by the Designer. Granite tiles shall be 1st class and shall be set in a straight joint. If needed, tile edges shall be manually ground down. Tiled surfaces shall be flat and vertical. Placed tiles shall be grouted and cleaned with sawdust. The price shall include tile procurement. Calculated per m2.	m2		162.40	
08-05	Procurement of material, transportation and mounting of floor ceramic tiles in the building cellar. Ceramic tiles shall have anti-slip properties. Tiles shall be set only in zones where there will be interventions on the floor slab. The colour and format of the tiles shall be identical or similar to existing tiles. Calculated per m2.	m2		4.80	
08-06	Procurement of material, transportation and mounting of floor matt granite tiles on the access stairs and landings. The 1st class tiles shall be set in tile adhesive or other similar material. The format, bond and colour shall be as selected by the Designer. The sublayer shall previously be thoroughly prepared – sanded down – which shall be included in the price. Tiles shall be placed flat. Placed tiles shall be grouted and the floor cleaned with sawdust. The price shall include tile procurement. Tiles shall have anti-slip properties.				
	Treads up to 30 cm wide	m1		13.80	
	Risers up to 18cm tall	m1		17.25	
	Landings	m2		5.35	
08-00 TILE WORK					

Item	Work Description	UoM	NoU	Unit price	Total
09-00 PAINT WORK					
09-01	Procurement of material, transportation and wall skim coating and painting in water-based acrylic paint type Ultrasaten OIKOS or similar, as selected by the Designer. The skim coating and paint job shall be perfectly rendered. After painting the wall must be washable, resistant to water and liquids of organic origin, and resistant to wear and tear. Calculated per m2 of painted wall.				
	ground floor	m2		579.90	
	cellar	m2		87.20	
09-02	Procurement of material, transportation and skim coating and painting of the cellar ceiling with paint in tone selected by the Investor. The ceiling shall be painted using emulsion paint, with skim coating and all other required preparatory work. Calculated per m2 of painted ceiling.				
		m2		65.75	
09-03	Procurement of material, transport and painting of the existing fence on the terrace and the service entrance staircase. The fence shall be painted with two coats of metal paint, including all required preparatory work. The price shall include all previous work – cleaning, sanding, priming. Calculated per m1.				
		m1		13.50	
09-04	Painting the existing 4.0x1.8m entrance gate with metal paint. All parts of the gate shall be cleaned of corrosion and dust, impregnated and primed and then painted twice with metal paint. Calculated per piece.				
		pcs.		1.00	
09-05	Painting metal surfaces (MDC door and steel carriers supporting the existing building structure) with a 30min fire suppressing coat. The Contractor shall be obligated to supply certificates of compliance and all accompanying paperwork verifying said fire suppressing properties in accordance with SRPS U.J1.042:2000 and SRPS U.J1.043:2000. Calculated per m2.				
		m2		25.80	
09-00 PAINT WORK					
10-00 FLOORING WORK					

Item	Work Description	UoM	NoU	Unit price	Total
10-01	<p>Procurement and mounting of anti-slip PVC flooring type Tarkett IQ Toro SC or similar for patient rooms. The flooring must possess all characteristics making it suitable for use in public buildings and shall possess all certificates of compliance verifying said characteristics. wet flooring anti-slip properties shall be mandatory. Fungicidal and bactericidal protection shall be mandatory as well. The flooring shall be chemical- and stain-proof, easy or maintenance purposes and equipped with antistatic properties. The colour of the material shall be as selected by the Designer. Primer shall be applied to a properly made screed bed and then a layer of levelling compound applied. The levelling coat shall be sanded down and the PVC flooring applied afterwards. The flooring shall come in rolls and glued over the entire surface. All connections shall be welded with a PVC welding rod made by the same manufacturer who made the flooring. An edge strip placed 20cm across the floor and 10cm up the wall shall be placed alamel varnish in tone as selected by the Designer. Aluminium profiles shall be plasticized in tone as selected by the Designer. The Contractor shall be obligated to present workshop sketches and samples of Alu-profiles, fittings and glass panes to the Designer in order to obtain approval for manufacture.</p> <p>Item number 5 and 6 have canvas rol</p>	m2	103.65		
10-00 FLOORING WORK		tal RSD:			

Item	Work Description	UoM	NoU	Unit price	Total
11-00 METAL WORK					
11-01	Procurement, manufacture and mounting of fence of the new access staircase for the patient entrance ramp. The posts and hand grips shall be made of tubular profiles fi 5cm and filling of 2cm wide profiles. All elements shall be welded together. Welds shall be ground so as not to be visible. Mounting fully according to the scheme provided in the design. Finishing, cleaning, protective coating and two coats of metal varnish in the colour as selected by the Designer. Calculated per m1.	m1	15.50		
11-02	Manufacture and mounting of attic climbers. Manufacture, procurement and mounting of "Attic ladder" i.e. a staircase mountable complete with a lid. The staircase shall be finished before being brought to the site and shall connect the ground floor to the building attic. A telescopic pole shall be provided together with the staircase to open the lid and retract the staircase down to adequate height. The lid shall be secured with a padlock. The lid shall be 80/80cm. Calculated pe piece of mounted staircase.	pcs.	1.00		
11-03	Procurement, manufacture and mounting of a canopy over the new access staircase and ramp at the patients' entrance. Canopy posts and horizontal carriers shall be made of 80/80/4 and 50/50/4 box profiles. All elements shall be welded together. Welds shall be ground so as not to be visible. Mounting fully according to the scheme provided in the design. Finishing, cleaning, protective coating and two coats of metal varnish in the colour as selected by the Designer. The canopy shall be covered with lexan, which shall be covered in a separate item. Calculated per kg.	kg	646.80		
11-04	Procurement, treatment and mounting of supports for the existing building structure made of steel carrier beams in the existing brick walls. Steel carriers shall be treated, cleaned and painted in two coats of anti-corrosion paint, according to the detail and structural analysts's instructions. The price shall include strutting and planking, chiselling, manufacture of supporting carrier beams, concreting, scaffolding and rubble transportation. Calculated per kg of steel.	kg	550.10		
11-00 METAL WORK					

Item	Work Description	UoM	NoU	Unit price	Total
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12-00 ALU doors and windows

12-01 Manufacture, delivery and mounting of aluminium glazed windows. The structure shall be made of plasticized aluminium profiles with a thermal break. The panes shall have combined opening (pivoting around the lateral vertical and lower horizontal axis). Window fittings shall be standard and of high quality. The panes shall be glazed with three-layer thermal insulation glass, structure 4+12+4+12+4mm (space between glass panes shall be filled with argon); interior glass panes shall be low-emission with LOW-e soft protective film. Pane glasses shall be regular, transparent, flat, without tints and waves. Windows shall be equipped with sealing rubber and a drip cap in the lower part. The space between window posts and walls shall be sealed. Waterproofing between the window sill and post shall be provided with permanently elastic colourless putty. The indoor side of the windows shall be fitted with a 24mm window board made of solid wood, puttied, treated with spray putty and finished with two coats of high quality enamel varnish in tone as selected by the Designer. Aluminium profiles shall be plasticized in tone as selected by the Designer. The Contractor shall be obligated to present workshop sketches and samples of Alu-profiles, fittings and glass panes to the Designer in order to obtain approval for manufacture. Item number 5 and 6 have canvas roll curtains in the tone as selected by Designer. It should be included in the unit price for items 5 and 6.

Item 5	412/186, 4 panes + 4 fixed panels, roll curtain included.	pcs.		2.00	
Item 6	151/186, 2 panes + 2 fixed panels, roll curtain included	pcs.		1.00	
Item 7	98/190, 1 pane	pcs.		1.00	
Item 10	53/230, 2 fixed panels	pcs.		1.00	
Item 11	288/230, 1 pane + 8 fixed panels	pcs.		1.00	
Item 13	278/206, 3 panes + 2 fixed panels	pcs.		1.00	
Item 14	209/91, 3 panes	pcs.		1.00	
Item 15	60/60, 1 pane	pcs.		1.00	
Item 16	94/34, 1 pane	pcs.		1.00	

Item	Work Description	UoM	NoU	Unit price	Total
12-02	<p>Manufacture, delivery and mounting of aluminium glazed front door. The structure shall be made of plasticized aluminium profiles with a thermal break, the pane shall have a classical opening. The fittings shall be standard and of high quality. The pane shall have two fields. The upper field shall be glazed with three-layer thermal-insulation glass, construction 4+12+4+12+4mm (space between glass panes shall be filled with argon); interior glass panes shall be low-emission with LOW-e soft protective film. The lower pane shall be filled with a sandwich panel (plasticized aluminium sheet metal-polyurethane-plasticized aluminium sheet metal). Pane glasses shall be regular, transparent, flat, without tints and waves. The door shall be equipped with sealing rubber and a drip cap in the lower part. The door shall be fitted on both sides with an inox pipe handle stretching along the entire height of the panes. The lower part of the door shall be fitted with an aluminium threshold at floor level and rubber sealing strip, the door shall also be fitted with security locks with 5 keys each, rubber floor-mount doorstop and a self-closing mechanism.</p> <p>Aluminium profiles shall be plasticized in tone as selected by the Designer. The Contractor shall be obligated to present workshop sketches and samples of Alu-profiles, fittings and glass panes to</p>				
	Item 1 190/293, 2 panes + 1 fixed panel	pcs.	1.00		
	Item 4 97/293, 1 pane + 1 fixed panel	pcs.	1.00		
12-03	<p>Manufacture, delivery and mounting of aluminium glazed front door. The structure shall be made of plasticized aluminium profiles with a thermal break, the pane shall have a classical opening. The fittings shall be standard and of high quality. The pane shall have two fields. The upper field shall be glazed with three-layer thermal-insulation glass, construction 4+12+4+12+4mm (space between glass panes shall be filled with argon); interior glass panes shall be low-emission with LOW-e soft protective film. The lower pane shall be filled with a sandwich panel (plasticized aluminium sheet metal-polyurethane-plasticized aluminium sheet metal). Pane glasses shall be regular, transparent, flat, without tints and waves. The door shall be equipped with sealing rubber and a drip cap in the lower part. The door shall be fitted on both sides with an inox pipe handle stretching along the entire height of the panes. The lower part of the door shall be fitted with an aluminium threshold at floor level and rubber sealing strip, the door shall also be fitted with cylinder locks with 5 keys each, rubber floor-mount doorstop and a self-closing mechanism.</p> <p>Aluminium profiles shall be plasticized in tone as selected by the Designer. The Contractor shall be obligated to present workshop sketches and samples of Alu-profiles, fittings and glass panes to the Designer in order to obtain approval for manufacture.</p>				
	Item 2 160/295, 2 panes + 1 fixed panel	pcs.	1.00		
	Item 3 124/295, 1 pane + 1 fixed panel	pcs.	1.00		
12-04	<p>Manufacture, delivery and mounting of aluminium room door. The structure shall be made of plasticized aluminium profiles without a thermal break. The fittings shall be standard and of high quality. The door pane shall be filled with a sandwich panel (plasticized aluminium sheet metal-polyurethane-plasticized aluminium sheet metal). The transom (if any) shall be glazed with a single 6mm thick glass pane. The transom glass shall be regular, transparent, flat, without tints and waves and with no stick-on foil. Aluminium profiles shall be plasticized in tone as selected by the Designer. The Contractor shall be obligated to present workshop sketches and samples of Alu-profiles, fittings and glass panes to the Designer in order to obtain approval for manufacture.</p>				

Item	Work Description	UoM	NoU	Unit price	Total
Item 1	100/204, 1 pane	pcs.	1.00		
Item 2A	85/201, 1 pane	pcs.	1.00		
Item 2B	85/198, 1 pane	pcs.	1.00		
Item 3	100/265, 1 pane + transom	pcs.	1.00		
Item 4	70/220, 1 pane	pcs.	2.00		
Item 6	79/220, 1 pane	pcs.	1.00		
Item 7	88/283, 1 pane + transom	pcs.	1.00		
Item 8	151/193, 2 panes	pcs.	1.00		
Item 9	155/193, 2 panes	pcs.	1.00		
Item 10	100/220, 2 panes	pcs.	4.00		

12-05 Manufacture, transportation and mounting of indoor partition with a double swivel door made of aluminium profiles without a thermal break. Apart from the door, the partition shall also have 3 fixed panels – two lateral panels and a transom. All steel and other panel fixing elements as well as any sealing material shall be included in the item price. Profile finish: plasticization in tone as selected by the Designer.

Opening scheme according to sketch.

Pane filling shall be 50% sandwich panel (plasticized aluminium sheet metal-polyurethane-plasticized aluminium sheet metal); 50% regular single pane of glass. Transom glazing - regular single pane of glass.

Door swivel fittings shall be high quality, including the cylinder lock and rubber floor-mount doorstop. The panes shall be protected with inox coating in a part of the door according to the schematic provided. Handles shall be made of Ø50 inox on both sides of both panels. The shape, colour and material of all visible parts of the fittings shall be as selected by the Investor and based on the catalogue samples of the system manufacturer. Details shall be checked on site and in agreement with the chief designer. The Contractor shall be obligated to present workshop sketches and samples of Alu-profiles, fittings and glass panes to the Designer in order to obtain approval for manufacture.

Item 5	120+2x15/283, 2 panes, two lateral fixed panels +	pcs.	1.00		
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12-06 Manufacture, delivery and mounting of aluminium glazed interior partitions. The structure shall be made of plasticized aluminium panels without a thermal break. The fittings shall be standard and of high quality. The panels shall be glazed with a single 6mm thick pane of glass. The glass panes shall be regular, transparent, flat, without tints and waves and covered with oblique foil. Aluminium profiles shall be plasticized in tone as selected by the Designer. The Contractor shall be obligated to present workshop sketches and samples of Alu-profiles, fittings and glass panes to the Designer in order to obtain approval for manufacture.

Item 7	207/187, 6 fixed panels	pcs.	1.00		
Item 8	338/206, 6 fixed panels	pcs.	1.00		
Item 9	246/206, 6 fixed panels	pcs.	1.00		

12-00 ALU doors and windows

13-00 CARPENTRY WORK

13-01 power distribution cabinet. It shall consist of fronts and chipboard panels in a pattern selected by the Designer. The closet mask shall be fitted with all required fittings for proper functioning. The price shall include all required materials, work and tools. Calculated per completely manufactured, delivered and mounted item.

Dimensions	80/120/25 cm	pcs.	1.00		
Dimensions	120/180/25 cm	pcs.	1.00		

13-00 CARPENTRY WORK

Item	Work Description	UoM	NoU	Unit price	Total
14-00 FAÇADE WORK					
14-01	Painting facade walls that have not been thermally insulated with facade paint over the existing sprayed facade. The tone shall be selected by the Designer. The base coat shall be cleaned of all dirt and the painted twice with facade paint. All openings etc shall be protected with PVC foil, which shall be included in the price, but the openings shall not be deducted from the facade surface area. Calculated per m2.	m2		178.55	
14-02	Treatment of the facade of the thermally insulated walls with plastic mortar (Bavalit or similar) by way of spraying. The colour shall be in a tone selected by the Designer. A layer of construction adhesive shall be applied over thermal insulation panels, glass mesh shall be embedded across the entire surface and a finishing coat of construction adhesive shall be applied, according to provided detail and the Designer's instructions. The facade sublayer shall be sound and dry. The sublayer shall be cleaned and impregnated with insulation mass for better bonding. One coat shall be applied with a brush, and two coats shall be applied if the sublayer is extremely dry. A layer of previously prepared and thoroughly mixed mortar – so as to obtain a uniform and consistent mass – shall be applied on the dried sublayer. The plastic mortar shall be applied with a hedgehog tool or by an air compressor with a gun. Spraying shall be performed 2-3 times i.e. to evenly cover the surface with plastic mortar and so that the selected by the Investor and based on the catalogue samples of the system manufacturer. Details shall be checked on site and in agreement with the chief designer. The Contractor shall be obligated to present workshop sketches and samples of Alu	m2		52.30	
14-00 FAÇADE WORK					
15-00 DRY MOUNT WORK					
15-01	Procurement and mounting of a cassette suspended ceiling made of raster gypsum or mineral-based panels with all required substructure. The substructure shall be made of metal and galvanized. Visible substructure profiles shall be recessed in relation to the panel level. Panels shall be white, flat or perforated, as selected by the Designer from the manufacturer's catalogue. The item shall include edge profiles. Mounting according to the manufacturer's instructions. Calculated per m2.	m2		79.10	
15-02	Procurement and mounting of a cassette suspended ceiling in patients' rooms, made of 60/60cm galvanized sheet metal panels with all required substructure, type Armstrong Orcal Clip-in BIOGUARD or similar. The substructure shall be made of steel and galvanized. Panels shall be white, RAL9010. Purity class ISO3. The item shall include edge profiles. Mounting according to the manufacturer's instructions. Calculated per m2.	m2		91.15	

Item	Work Description	UoM	NoU	Unit price	Total
15-03	Procurement and mounting of a suspended ceiling made of 10cm wide plasticized metal panels (closed joint Hunter-Douglas ceiling) in sanitation blocks. The price shall include the substructure (steel, galvanized) and all required material. Calculated per m2 of mounted ceiling.	m2		22.30	
15-04	Procurement of material, transportation and mounting of partition walls with 12.5mm gypsum cardboard panels complete with manufacture of the metal substructure. Total wall thickness shall be $2 \times 12.5 + 75 + 2 \times 12.5 \text{mm} = 125 \text{mm}$. The metal substructure shall be made according to the design and the manufacturer's instructions. The wall shall be filled with 50mm thick mineral wool and then mounted and fastened on both sides with two layers of moisture resistant gypsum cardboard panels. Joints shall be skim coated and bandage taped in accordance with the manufacturer's instructions. Calculated per m2 of wall.	m2		46.10	
15-00 DRY MOUNT WORK					
16-00 MISCELLANEOUS WORK					
16-01	Mounting and subsequent dismantling of the tubular façade scaffolding around the building. The scaffolding shall be made of regulation (structurally analysed) parts, properly fastened and grounded. The scaffolding design shall be provided by the Contractor who shall be accountable for its stability. Calculated per m2.	m2		358.40	
16-02	Sandblasting parts of the façade coated in natural stone. All parts of the façade coated in natural stone shall be sandblasted with a mixture of sand and water under pressure. Prior to sandblasting all openings shall be protected with PVC foil. Calculated per m2.	m2		32.80	
16-03	Sandblasting the terrace floor covered in terazzo. All parts of the floor covered in terazzo shall be sandblasted with a mixture of sand and water under pressure. Calculated per m2.	m2		28.90	
16-04	Cleaning the rubble in and around the building with transportation of the rubble to the construction site landfill. Paid once regardless of the number of cleaning iterations. Calculated per m ² of the cleaned surface area.	m2		350.00	
16-05	Manufacture and mounting of door mat in front of the front entrance. The door mat shall be filled with hard rubber and brushes in alternating rows. Door mat dimensions shall be 100/80cm. Calculated per piece.	pcs.		2.00	
16-06	Placement of translucent and non-transparent imitation sanded glass foil on glass surfaces according to schematics provided by the Investor. Calculated per m2.	m2		30.00	
16-07	Development of the as-built design. Calculated in lump. NB: All measurements shall be checked on site.	lump		1.00	
16-00 MISCELLANEOUS WORK TOTAL:					

Item	Work Description	UoM	NoU	Unit price	Total
17-00 FIRE PROTECTION					
17-01	Procurement and mounting of the handheld portable device 'S-9'.	pcs.	4.00		
17-00 FIRE PROTECTION TOTAL:					

SUMMARY OF CONSTRUCTION AND FINISHING WORK

- 01-00 DEMOLITION AND DISMOUNTING
- 02-00 GROUND WORK
- 03-00 BRICK WORK
- 04-00 CONCRETE AND RC WORK
- 05-00 ROOFING WORK
- 06-00 WEATHERPROOFING
- 07-00 SHEET METAL WORK
- 08-00 TILE WORK
- 09-00 PAINT WORK
- 10-00 FLOORING WORK
- 11-00 METAL WORK
- 12-00 ALU doors and windows
- 13-00 CARPENTRY WORK
- 14-00 FAÇADE WORK
- 15-00 DRY MOUNT WORK
- 16-00 MISCELLANEOUS WORK
- 17-00 FIRE PROTECTION

TOTAL RSD:

PRICED BILL OF QUANTITIES

with the water and sewer line installation design

GENERAL DESCRIPTIONS

The general conditions from the general part of the tender shall apply alongside these conditions.

All provisions of these conditions shall be deemed as an integral part of each section and each item in this bill of quantities. The general description at the beginning of individual groups shall refer to all work items within that group, except if it has not been otherwise specified in the item description. All work shall be performed according to technical regulations, solidly and with quality, and the material shall fully comply with provisions of JUS. If the material in individual items of this bill of quantities has not been indicated or if it is insufficiently precise in regards to quality, the Contractor shall be obligated to use only first-class material with the agreement with and approval of the Supervisor. Prior to entering prices the Contractor shall be obligated to familiarise himself in detail with the design study and the building site in order to obtain a clear insight regarding the volume and type of main preparatory work. All work included in the bill of quantities or the priced bill of quantities shall be performed fully according to the general description and individual descriptions from said bill of quantities, according to plans, detail, designer's and supervisor's instructions and according to standing technical regulations.

All work included in the bill of quantities or the priced bill of quantities shall be specified as complete, with all preparatory and finishing work included – all ready to use. Unit price for each work item included in this priced bill of quantities shall include the following:

- a) Complete execution with all preparatory work, transportation and all other operations.
- b) All labour and material costs, depreciation, charges, fees and all other costs related to this building, with all sealing and fixing supplies such as clamps, hooks, screws, anchors and drilling for these.
- c) Costs and fees of temporary connections to the water, sewer and power lines.
- d) All and any required movable and immovable work/transportation/auxiliary scaffolding with manufacture and delivery. The same shall be valid for auxiliary temporary buildings and regular material distribution and disposal.
- e) Entering all data on all finished work and breakdown plans, additional sketches; as for any hidden work, i.e. work not directly referable back to the bill of quantities, measurements and sketches shall be made while measurements are possible. All measurements, sketches and breakdown plans must be signed by the Investor's and Contractor's authorized representatives.
- f) All hygiene and personal protection measures for all workers.
- g) All required chiselling of cable strips, boring holes in walls and floor structures, patching cable strips, holes and application of wire lath over cable strips.
- h) Cleaning the workplace during work execution and a finishing clean after the work has been completed with rubble transportation to the town landfill.
- i) Breakdown of executed work shall be calculated in the manner outlined in each item of this bill of quantities and – if not otherwise indicated in any individual item – the manner of calculation provided for said work in construction and trade standards shall apply.

No piece of work can be paid twice unless it was executed twice with no fault of the Contractor, which shall be arbitrated at the request of either Party. Arbitration costs shall be paid by the Party which was proved wrong.

Item	DESCRIPTION	UoM	NoU	Price (RSD)	Total (RSD)
I GROUND AND CONCRETE WORK					
1.	Excavation of a ditch in 3rd category soil to lay a pipeline. During excavation lateral sides shall be cut clean and all soil shall be thrown away from the edge of the ditch by no less than 1m. Safety-at-work regulations shall be adhered to. Calculated and paid per m3.				
	Sanitary sewer	m ³	1.30		
	Water line	m ³	9.50		
2.	Soil excavation for sewer and water meter manholes in 3rd category soil. Calculated per m ³ of excavated soil.				
		m ³	7.20		
3.	Fine levelling of the ditch bottom according to designed elevation points. All excavations shall be filled with sand and compacted. Calculated and paid per m2.				
		m ²	8.00		
4.	Procurement, transportation and installation of sand under, above and around the pipes. After laying the pipes on a sand bed the pipes shall partially be buried in sand and pressure tested, after which sand shall be poured in a layer 10cm above the top of the pipes. Sand shall be poured in manually with compacting under and around the pipes using manual compactors. The largest grain of sand shall not exceed 3mm in diameter. Calculated and paid per m3.				
	Sanitary sewer	m ³	0.50		
	Water line	m ³	1.95		
5.	Filling the ditch with excavated material up to the designed elevation point of the pavement/street after hydraulic testing and removal of all possible flaws. Filling shall be performed in 30cm layers with compacting until complete compaction. Filling shall not be started until obtaining approval from the Supervisor. Calculated and paid per m3.				
	Sanitary sewer	m ³	0.80		
	Water line	m ³	7.55		
6.	Transportation of surplus excavated soil to a distance over 500m to 10km. The cost price shall include loading, transportation to the landfill site and levelling the soil at the landfill. Calculated per m ³ in autochthonous state (1.25%).				
	Sanitary sewer	m ³	0.63		
	Water line	m ³	2.44		
	Šahtovi	m ³	9.00		

Item	DESCRIPTION	UoM	NoU	Price (RSD)	Total (RSD)
7.	<p>Manufacture of inspection manholes</p> <p>Manufacture of sewer grid inspection manholes made of MB30 reinforced concrete rings. Inspection manholes shall be circular in cross-section with an interior diameter of 1.0m. The final part shall be a cone with a clear span of 0.6m. The walls shall be fitted with climbers. The price shall include manufacture of a half-round gutter and treatment of openings for pipe breach and drain connections. Calculated per m'.</p>				
	sanitary	m'	3.00		
8.	<p>Manufacture of RC rings</p> <p>Manufacture of RC rings installed under the lid frame so as not to cause caving in of the road structure. Rings shall be made according to attached detail. Calculated and paid per completely manufactured and mounted ring.</p>				
	sanitary	kom.	1.00		
9.	<p>Mounting climbers</p> <p>Procurement, transportation and mounting of cast iron climber rungs DIN 1212. Calculated per piece of completely mounted climber. Climbers shall be fitted at 30cm, recessed.</p>				
		kom.	12.00		
10.	<p>Manufacture of a water meter manhole according to designed detail. Manhole dimensions shall be 1.7*1.5*1.7m</p>				
		kom.	1.00		
11.	<p>Procurement, transportation and mounting of sewer manhole and water meter manhole lids with an interior diameter of 62.5cm. Calculated per piece of mounted lid.</p>				
		kom	2.00		
I GROUND AND CONCRETE WORK TOTAL					

Item	DESCRIPTION	UoM	NoU	Price (RSD)	Total (RSD)
II WATER LINE (SANITARY AND FIREFIGHTING)					
1.	Procurement, transportation and mounting of water PEHD high density pipes with all required fittings and shaped pieces. Calculated per m of laid pipe.				
	65 mm	m	8.00		
	40 mm	m	8.00		
2.	Procurement, transportation and mounting of PVC water pipes with all required fittings. These pipes shall be distributed from the reverse osmosis device. The pipes shall be laid visibly along the wall. Calculated and paid per m' together with fittings.				
	Ø 25	m'	80.00		
3.	Procurement, transportation and mounting of polypropylene water pipes with all required fittings. The pipes shall be attached to walls and ceiling with hooks, stirrups and clamps with rubber washers at each 1 m' in suspended distribution. All fitted pipes shall be wrapped in adequate insulating i.e. anti-condensation material. Prior to closing the pipe leads and filling, the pipes shall be pressure tested. Calculated and paid per m' together with fittings.				
	Ø 32	m'	14.50		
	Ø 25	m'	12.00		
	Ø 20	m'	20.00		
	Ø 15	m'	49.00		
4.	Procurement, transportation and mounting of steel galvanized pipes with required fittings and threaded couplings. The item shall include the following: all used material with distribution, preparatory and finishing work, transportation of material to the mounting site, line measurements according to plan, boring holes through walls and floor structures, chiselling pipe lead grooves in walls, pipe cutting and threading, connecting pipes, couplings and fittings as well as wrapping pipes in walls in protective tape. Calculated per m of mounted grid.				
	Ø 50	m'	18.50		
5.	Thermal insulation for water pipes made of 13mm thick polyurethane-based non-flammable (self-extinguishing) material type "Plamaflex" or proven equivalent.				
		m'	46.00		

Item	DESCRIPTION	UoM	NoU	Price (RSD)	Total (RSD)
6.	Procurement and mounting of valves (NP=10bar) fitted with caps and fixing brackets onto distribution pipes i.e. near sanitation blocks. Calculated per piece of the completely mounted and tested adequate diameter valve.				
	Ø 32 (2")-stop	kom.	3.00		
	Ø 25 (1")-stop	kom.	17.00		
	Ø 20 (3/4")-stop	kom.	1.00		
	Ø 15 (1/2")-stop	kom.	3.00		
7.	Procurement, transportation and mounting of straight stop valves (NP=10bar) with butterfly collars and discharge taps together with all accompanying installation material.				
	Ø 32	kom.	1.00		
	Ø 25	kom.	2.00		
8.	Disinfection of the entire water grid with chlorine solution (30g of active chlorine to 1m3 of water). Disinfection usually takes approximately 3 hours. After the disinfection is complete the entire water grid shall be thoroughly flushed with fresh water until the smell of chlorine is lost. Calculated per m of pipes being disinfected.				
		m'	210.00		
9.	Bacteriology results. Prior to commissioning the water grid a certificate on tested water samples in the new grid shall be obtained from a competent institution. Calculated according to the competent authority invoice +6%.				
		pauš.	1.00		
10.	Pressure testing the pipeline (10bar) according to the attached instructions and standing technical regulations.				
		m'	210.00		
11.	Procurement and mounting of a horizontal water meter. The item shall include all required mounting material. Calculated per piece of completely mounted and tested water meter of adequate capacity.				
	DN 25	kom.	1.00		
	DN 40	kom.	1.00		

Item	DESCRIPTION	UoM	NoU	Price (RSD)	Total (RSD)
12.	<p>The following work shall include procurement, transportation, mounting and testing of a sanitary water grid pressure rise plant. Parts of the plant shall consist of two pumps, pump command cabinet, stand, pressure switches to regulate switching the plant on/off, two contact manometers and intake/discharge connections with fittings. Pump characteristics shall be as follows: Q=1.3 l/sec and H=25m (plant type GRUNDFOS or similar). Calculated per piece of mounted and commissioned plant. The command cabinet shall contain equipment to provide information regarding its status (on, off); any malfunctions (in front of the bimetal or other protective device) to the central system for building supervision and management. Calculated per complete commissioned device.</p>	komplet	1.00		
13.	Dismounting existing water line and sewer installations.	pausalno			
II WATER LINE (SANITARY AND FIREFIGHTING) TOTAL					
III SEWER					
1.	<p>Procurement and installation of PVC sewer pipes with fittings for the sewer lines inside the building and under the floor. Pipes shall be mounted according to technical regulations and with the designed inclination. Pipe connections or pipe-fitting connections shall be made via seling rings and according to the manufacturer's instructions. Apart pipe laying, the price shall include a review, proper flow check, all labour, material and other costs. Calculated per m1 – completed and measured along pipe axes.</p>				
	Ø50	m'		55.00	
	Ø110	m'		35.00	

Item	DESCRIPTION	UoM	NoU	Price (RSD)	Total (RSD)
2.	Procurement, transportation and mounting of PE floor drain with a stainless steel grille and siphon. Special attention shall be paid to treating the area around the drain. Drains shall be set in concrete mass and plastic two-component putty 2cm. The item shall include all necessary mounting material. Calculated per piece of completely mounted drain.				
	Ø50	kom.	2.00		
	Ø100	kom.	2.00		
3.	Procurement and mounting of galvanized sheet metal ventilation heads (caps). Calculated per piece of completely mounted adequate diameter vent cap.				
	Ø150 mm	kom.	2.00		
5.	Testing the pipeline for watertightness according to the attached instructions and standing technical regulations.				
		m'	90.00		
6.	Connecting the newly designed sewer grid to the existing sewer (sanitary sewer).				
		kom.	2.00		
7.	Protecting pipe 200mm with thermal insulation for the 110mm sanitary sewer.				
		m'	1.50		
8.	Dismounting existing sewer installations.				
		paušalno			
III SEWER TOTAL					

Item	DESCRIPTION	UoM	NoU	Price (RSD)	Total (RSD)
IV SANITARY WARE					
1.	<p>Procurement, transportation and mounting of a (monoblock) faience toilet bowl. The item shall include: (monoblock) toilet bowl, 3/8" pipe to connect the water tank, toilet seat with hard plastic cover, EK valve, rubber base under the bowl, Ø110 PVC pipe connecting the bowl to the sewer, brass screws and plastic anchors connecting the bowl to the floor.</p> <p>Calculated per piece of a completely mounted and tested toilet bowl.</p>	kom.	2.000		
2.	<p>Procurement and mounting of a highly durable faience washbasin. The colour of the basin shall match the interior and the basin shall include the following equipment:</p> <ul style="list-style-type: none"> - 5/4" nickel plated siphon with nickel plated drain pipe complete with fixing bracket - two EK valves - single lever free standing chrome plated hot and cold water tap <p>Calculated per piece of completely mounted and tested washbasin.</p>	kom.	3.000		
3.	<p>Procurement and mounting of a complete 90x90cm enamel shower base in sanitary blocks, complete with tap, Ø5/4" siphon and a plug with chain. Calculated per piece of mounted shower base.</p>	kom	2.000		
4.	<p>Procurement and mounting of Ø50 mm siphon next to each hospital bed. Calculated per piece.</p>	kom	16.000		

Item	DESCRIPTION	UoM	NoU	Price (RSD)	Total (RSD)
5.	Procurement and mounting of an electric hot water heater boiler with accompanying installation material and safety valve. Calculated per piece of the completely mounted boiler.				
	V=80 lit horizontal	kom	2.000		
	V=10 lit short	kom	4.000		
6.	Procurement, transportation and mounting of a trocadero sink made of 1st class ceramics with a movable nickel plated grille, rubber gasket, rubber base between the trocadero sink and floor and the following accompanying equipment: - high mount enamel water tank (complete with float and valve), white, with a flexible 3/8" hose connecting it to an angle valve and Ø32 PVC pipe connecting it with the sink. - nickel plated hot and cold water taps - washing grille				
		kom	1.000		
IV SANITARY WARE TOTAL					

Item	DESCRIPTION	UoM	NoU	Price (RSD)	Total (RSD)
	<p>SUMMARY</p> <p>I GROUND AND CONCRETE WORK</p> <p>II WATER (SANITARY AND FIREFIGHTING)</p> <p>III SEWER</p> <p>IV SANITARY WARE</p>				
	WATER AND SEWER TOTAL (RSD)				

No	ITEM DESCRIPTION	UNIT OF MEASUREMENT	quantity	unit price RSD	TOTAL PRICE IN RSD
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GENERAL NOTES

The following specification provides for the delivery of all equipment and materials specified in the items and all petty unspecified material required for complete manufacture, mounting, testing and commissioning, as well as restoring the original appearance of all places damaged during previously executed work.

The price shall include the cost of all said materials in items and all petty unspecified materials, transportation, labour costs and all taxes and contributions for both material and labour. The price shall also include all possibly required workshop documents, testing and commissioning of all elements of installations specified in items, as well as the issue of required certificates of compliance according to the following structure:

- Unit price of 'delivery' shall include the price of equipment and/or material ex works manufacturer or place of purchase, and shall additionally contain:

- Transport and insurance to the construction site

- Special equipment and tools for the operation and maintenance of equipment manufacture, if any, with instructions for use

- Packaging and protection of equipment and/or material

- Equipment and/or material documentation (certificates of compliance, sketches, lists of spares and consumables, list of maintenance tools, all required descriptions, workshop documents if the equipment is non-standard, various mounting/operating/maintenance instructions etc)

- Unit price of 'mounting' shall include everything not included in the price of 'delivery' i.e. all work done by machinery and manpower, including all preparatory and finishing work etc.

1 BUILDING POWER					
1.1	Dislocating existing equipment from the main metering cabinet into the new cabinet that will be placed in the same location.	lump		1.00	
1.2	Dislocating of the existing power cable from the cable connection box CCB-D on the façade down to the new diesel part of the DC distribution cabinet. The cable shall be laid inside the wall under the plasterwork and shall be of type PP00 4x70mm ² .	lump		1.00	
1.3	Delivery, mounting and connection at both ends of power cables type NHXHX of the adequate cross-section, laid from the main metering and distribution cabinet to other distribution cabinets, laid in the perforated cable leads and along the wall...				
	NHXHX 4x95mm ²	m		6.00	
	NHXHX 4x70mm ²	m		6.00	
	NHXHX 1x95mm ²	m		6.00	
	NHXHX 1x70mm ²	m		6.00	
1.4	Sealing all cable holes through fire obstacles and coating the cables and the cabinets 1m left and right of the hole with a fire-resistant compound whose properties correspond to those of the fire obstacles. Paid on average per hole. The applied materials and cable protection system shall require adequate proof to certify necessary fire-resistance properties of the cable holes.	lump		1.00	

1.5	Delivery of the materials and mounting of perforated cable leads, complete with required mounting material. Cable leads shall be laid in trunks inside hallways and rooms. PCL 200	m	30.00
1.6	Delivery and installation of ribbed halogen free tubes along/inside the wall on cable lead clamps. Paid per metre of pipe as follows: Ø 40mm Ø 16mm Ø 23mm	m m m	30.00 100.00 50.00
1.7	Delivery and installation of metal flexy plasticized pipes along the metal structure and the roof for power cable leads. Paid per metre of pipe as follows: - Ø40mm	m	30.00

1 TOTAL 1

2 DISTRIBUTION OF ELECTRIC POWER AND CONSUMER UNITS

Distribution cabinets made of twice pickled 2mm steel sheet metal in IP-54 protection. Primer and baked varnish shall be provided as basic protection against corrosion. Equipment in cabinets shall be min. by lks according to calculations. The cabinet shall possess two compartments fitted with a door with key. A sign shall be painted on the aggregate field door – diagonal red line. Completely manufactured and mounted distribution cabinet with all connections distributed and tested according to a single-pole scheme, considering all required material. Dimensions shall be defined with the provided installation equipment. It is required also to provide 20% of backup room for subsequent equipment installation. The Contractor shall be obligated to deliver all workshop and contracting sketches.

2.1.1 DC consumer unit with built in collectors, complete wiring and with the following equipment installed:

Grid portion - DC_G

Three-pole safety switch with surge protectors (thermal and electromagnetic), type Kompakt NS160N Tm -D, nominal voltage: 160/125A, equipped with low voltage trigger or similar.

pcs. 1.00

Single-pole miniature automatic safety switch, nominal power 6A, 10kA, nominal voltage 230V, 50Hz, trigger characteristics B

pcs. 4.00

Single-pole miniature automatic safety switch, nominal power 10A, 10kA, nominal voltage 230V, 50Hz, trigger characteristics B

pcs. 12.00

Single-pole miniature automatic safety switch, nominal power 16A, 10kA, nominal voltage 230V, 50Hz, trigger characteristics B

pcs. 33.00

Single-pole miniature automatic safety switch, nominal power 16A, 10kA, nominal voltage 230V, 50Hz, trigger characteristics C

pcs. 2.00

Three-pole miniature automatic safety switch, nominal power 16A, 10kA, nominal voltage 400V, 50Hz, trigger characteristics C

pcs. 2.00

Three-pole miniature automatic safety switch, nominal power 25A, 10kA, nominal voltage 400V, 50Hz, trigger characteristics C

pcs. 1.00

Two-pole motor safety switch, Ir=0.25-0.40A	pcs.	2.00
Two-pole motor safety switch, Ir=0.4-0.63A	pcs.	1.00
Two-pole motor safety switch, Ir=1.6-2.5A	pcs.	2.00
Installation contactor, nominal power 6A, 1n, 1NO and 1NC, nominal voltage 230V, 5Hz, nominal control voltage 230V, 50Hz	pcs.	1.00
Installation contactor, nominal power 10A, 1n, nominal voltage 230V, 5Hz, nominal control voltage 230V, 50Hz	pcs.	1.00
Push button with one NC contact, nominal voltage 230V with housing Ø22mm, door mount	pcs.	1.00
Red mushroom push button with one NO contact, nominal voltage 230V with housing Ø22mm, door mount	pcs.	1.00
Set of surge conductors class B+C (according to IEC6 1643-1), 25kA (10/350µs), 40kA (8/20µs), N/PE 100kA (10/350 and 8/20µs), nominal operating voltage 275B. The set of surge conductors shall be provided for TN-S power system.	pcs.	1.00
Drum switch, 10A, 1П, 1-0-2	pcs.	1.00
Photosensitive light switch in IP54 protection with one switch contact, nominal power 10A, 230V, 5Hz and power voltage 230V, 5Hz	pcs.	1.00
Signal lights – red 220V,50Hz	pcs.	3.00

2.1.2 Generator portion DC_D

Three-pole safety switch with surge protectors (thermal and electromagnetic), type Kompakt NS125N Tm -D, nominal voltage: 125/40A, equipped with low voltage trigger or similar.	pcs.	1.00
Single-pole miniature automatic safety switch, nominal power 6A, 10kA, nominal voltage 230V, 50Hz, trigger characteristics B	pcs.	4.00
Single-pole miniature automatic safety switch, nominal power 10A, 10kA, nominal voltage 230V, 50Hz, trigger characteristics B	pcs.	7.00
Single-pole miniature automatic safety switch, nominal power 16A, 10kA, nominal voltage 230V, 50Hz, trigger characteristics B	pcs.	14.00
Three-pole miniature automatic safety switch, nominal power 16A, 10kA, nominal voltage 400V, 50Hz, trigger characteristics C	pcs.	2.00
Installation contactor, nominal power 6A, 1n, nominal voltage 230V, 5Hz, nominal control voltage 230V, 50Hz	pcs.	1.00
Push button with one NC contact, nominal voltage 230V with housing Ø22mm, door mount	pcs.	1.00
Red mushroom push button with one NO contact, nominal voltage 230V with housing Ø22mm, door mount	pcs.	1.00
Set of surge conductors class B+C (according to IEC6 1643-1), 25kA (10/350µs), 40kA (8/20µs), N/PE 100kA (10/350 and 8/20µs), nominal operating voltage 275B. The set of surge conductors shall be provided for TN-S power system.	pcs.	1.00
Signal lights – red 220V,50Hz	pcs.	3.00

2.1.3	Metal grommets, for installation into the adequate part of the table (grommet type shall correspond to the type of cable and cable wires) and rail terminals of appropriate colour and number	compl	1.00
2.1.4	Sign plates with text	compl	1.00
2.1	Complete with all petty unspecified materials (copper rails, PF wiring wires, other petty materials if needed), mounted, connected according to the single-pole scheme, tested and commissioned	pcs.	1.00
2.2	Relocation of the existing switch to route grid power to the diesel aggregate in the diesel portion of the cabinet	lump	1.00

2 TOTAL 2

3 LIGHTS

GENERAL NOTE:

For all suggested types of lights the description and characteristics have been provided. The brightness calculations have been done with characteristics of said lights according to the data and the manufacturers' programme. Appropriate light sources shall be delivered within the delivery of said lights. The item shall include lights installation. If the type of the light is changed an additional check of the number of lights according to defined brightness would have to be performed. However, a change of the lights manufacturer is possible if the lights themselves possess similar technical characteristics. Items shall include light sources and mounting. PRIOR TO ORDERING LIGHTS, THE CONTRACTOR SHALL BE OBLIGATED TO ALIGN LIGHT TYPES WITH THE ARCHITECT. POTENTIAL BIDDERS SHALL BE OBLIGATED TO SPECIFY THE TYPES AND NAMES OF MANUFACTURERS FOR ANY LIGHTS OFFERED.

3.1	Mounting the square direct lighting fixture, dimensions 60x60cm with an opal diffuser and LED light source, power 51, similar to type: KTM 2 600.LED 840 5000lm OPAL manufactured by E.Y.System S.A.	pcs.	23.00
3.2	Mounting the square ceiling mount direct lighting fixture, dimensions LED light source, power 19W, similar to type: PALETA LED 307.LED830 1200lm OPAL manufactured by E.Y.System S.A.	pcs.	5.00
3.3	Mounting the rectangular direct lighting fixture, with an LED light source, power 30W, similar to type: REGLUX 540.LED840 3200lm OPAL manufactured by E.Y.System S.A.	pcs.	17.00
3.4	Mounting the rectangular direct lighting fixture, with an LED light source, power 30W, similar to type: REGLUX 1040.LED840 6000lm OPAL manufactured by E.Y.System S.A.	pcs.	14.00
3.5	Mounting the ceiling mount lighting fixture with an opal diffuser in IP40 protection, electronic ignitor and one 24W fluorescent tube, similar to type: SLOTLIGHT manufactured by E.Y.System S.A.	pcs.	3.00
3.6	Reflector with 150W metal halogen light source.	pcs.	4.00
3.7	Direct lighting fixture, part of the hospital set above hospital beds, 1x24W.	pcs.	

3.8	Indirect lighting fixture, part of the hospital set above hospital beds, 2x28W.	pcs.	
3.9	Wall mount panic light with box in standby regime with a 3h autonomy, fluo-compact tube 1x11W, IP40 protection, similar to type STAR MNEL20-A, COOPER-MENVIER. Lighting fixture complete with mounting kit.	pcs.	24.00

3 TOTAL 3

4 INSTALLATION MATERIAL

Installation material similar to type 'Vimar Plana' in IP20 for mounting into the wall finishing treatment stage, complete with installation module box, carrier and mask, for operation at 250V. Delivery, mounting and connection of:

4.1	Common 10A switch in 1M module	pcs.	17.00
4.2	Alternating 10A switch in 1M module	pcs.	4.00
4.3	Dimmer 16A in 1M module	pcs.	4.00
4.4	Motion sensor	pcs.	7.00
4.5	Single phase "Schuko" socket L+N+PE 250V 16A in 2M module, white, to be installed in a modular wall mounted box. The socket shall be manufactured by 'Vimar Plana' or similar.	pcs.	35.00
4.6	Three-phase "Schuko" socket L+N+PE 250V 16A in 2M module, white, to be installed in a modular wall mounted box. The socket shall be manufactured by 'Vimar Plana' or similar.	pcs.	2.00
4.7	Delivery of the wall mount modular light switch box in 1M module. Complete with 1M module carrier and 1M mask.	pcs.	32.00
4.8	Delivery of the wall mount modular light switch box in 2M module. Complete with 2M module carrier and 2M mask.	pcs.	37.00
4.90	Other petty materials (Junction boxes, ties, anchors etc)	lump	1.00

4 TOTAL 4

5 INSTALLATION

5.1	Delivery of the material and manufacture of the lighting point fixture by laying cables N2XH-J 2.3 and 4 x 1.5mm ² . The cable shall be laid in the suspended ceiling.	m	1,250.00
5.2	Delivery of the material and manufacture of the single phase connection point for sockets by cable N2XH-J 3x2.5mm ² . The cable shall be laid in the suspended ceiling under the plasterwork. Average cable length shall be 15m.	pcs.	50.00

5.3	Delivery of the material and manufacture of the three-phase connection point for sockets by cable N2XH-J 5x2.5mm ² . The cable shall be laid in the suspended ceiling and wall under the plasterwork.	m	50.00
5.4	Delivery of the material and manufacture of the single-phase fixed connection point for the split system unit by cable N2XH-J 3x2.5mm ² . The cable shall be laid in the suspended ceiling and wall.	m	35.00
5.5	Delivery of the material and manufacture of the single-phase fixed connection point for fans in the room AC system by cable N2XH-J 3x2.5mm ² . The cable shall be laid in the suspended ceiling.	m	70.00
5.6	Delivery of the material and manufacture of the single-phase fixed connection point for room AC heating system by cable N2XH-J 3x2.5mm ² . The cable shall be laid in the suspended ceiling.	m	20.00
5.7	Delivery of the material and manufacture of the single-phase fixed connection point to power AC chambers by cable N2XH-J 3x2.5mm ² . The cable shall be laid in the suspended ceiling and in metal tubes on the terrace.	m	55.00
5.8	Delivery of the material and manufacture of the three-phase fixed connection point to power the heat pump by cable N2XH-J 3x2.5mm ² . The cable shall be laid in the suspended ceiling and in metal pipes on the terrace.	m	30.00
5.9	Delivery of the material and manufacture of the installation to power PP valve clacks by cable NHXH FE180/E90 3x1.5mm ² . The cable shall be laid in the wall under the plasterwork.	m	20.00

5 TOTAL 5

6 GROUNDING AND POTENTIAL EQUALISATION INSTALLATIONS

6.1	Delivery of cable N2XH-J 1x16mm ² , cable laying and connecting metal masses and installations inside the building (water and sewer lines, heating, low voltage installations etc) to the main collector for potential equalisation.	m	50.00
6.2	Delivery of materials and manufacture of potential equalization installation inside the building with conductor N2XH-J 1x6mm ² , average length 25m.	pcs.	10.00
6.3	Copper wire braid 16mm ² to bridge connections on mobile or mountable parts of equipment, to equalise potential of metal non-electric parts of equipment so that they make up a galvanic unit. The braid shall be 10-50cm long with punched ends. Bridging can alternatively be done with FeZn 20x3mm ribbon.	pcs.	10.00
6.4	Unspecified mounting material.	lump	1.00
6.5	Testing and commissioning and verification&control of the delivered installation in accordance with current standards.	lump	1.00

6 TOTAL 7

SUMMARY

- 1.0 BUILDING POWER SOURCE
- 2.0 DISTRIBUTION OF ELECTRICITY AND CONSUMER UNIT
- 3.0 LIGHTS
- 4.0 INSTALLATION MATERIAL
- 5.0 INSTALLATIONS
- 6.0 GROUNDING AND POTENTIAL EQUALISATION INSTALLATIONS

TOTAL RSD

Telecommunication and Signal Systems

Priced Bill of Quantities

ITEM	DESCRIPTION	UoM	NoU	UNIT PRICE	TOTAL (RSD)
1	COMMUNICATION AND DATA EXCHANGE SYSTEM				
	Passive equipment				
1.1	Standing cabinet 19" 20HU 600x600, BD - with glass front door and lock, fitted with standard issue 19" rails, fan and shelf. - patch panel 50 x RJ-45 cat 3 - 1 pc - patch panel 24 x RJ-45 cat 6a - 2 pcs - cable organizer – 2 pcs - fan panel - power rails - delivery, mounting and connection Note: active equipment shall not be treated in these design papers	kom	1		
1.2	Module RJ-45 category 6A, - delivery, mounting and connection Note: mounting boxes, mechanism carriers and masks shall be specified within the hospital signalization system	kom	23		
1.3	Copper twisted pair cable FTP LSHF-FR, category 6a, 4x2x0.5mm. -delivery, laying	m	460		
1.4	Installation cable JH(St)H 10x2x0.8 mm. - delivery, laying	m	15		
1.5	FTP patch cord category 6a - delivery, connecting	kom	23		
1.6	Certification of links category 6A with the delivery of a metering protocol	kom	23		
1.7	Testing and commissioning	komp	1		
1.8	Development of the as-built design	komp	1		
TOTAL 1					

ITEM	DESCRIPTION	UoM	NoU	UNIT PRICE	TOTAL (RSD)
2 HOSPITAL SETS					
2.1	<p>Delivery and mounting of Universal hospital hemodialysis set type UBS 2110 K2 8E, 2T, BIS 2030 manufactured by PME or equivalent with the following elements:</p> <ul style="list-style-type: none"> - 1.7m long aluminium 150x70mm profiled canal to place direct and indirect lighting - 1.7m long aluminium 70x130mm profiled canal to place high and low voltage electric cables - 1 pcs. direct lighting (1x24W) with electronic dimmers - 1 pcs. indirect lighting (2x28W) with electronic dimmers - 1 x 2 pcs. schuko sockets-aggregate (red) 230V~,50Hz - 1 x 2 pcs. schuko sockets-grid (white) 230V~,50Hz - 1 x 1 pcs. potential equalization connection, PIN contact according to DIN 42801 - 1 x 2 pcs RJ45 cat.6 connector - computer - 1 x 1 pcs BUS/SCS combo unit type PRK 2041 manufactured by PME or equivalent complete with electrical wiring in the canal and mounting kit 	komp	1		
2.2	<p>Delivery and mounting of Universal hospital hemodialysis set type UBS 2110 K2 8E, 2T, BIS 2030 manufactured by PME or equivalent with the following elements:</p> <ul style="list-style-type: none"> - 3.5m long aluminium 150x70mm profiled canal to place direct and indirect lighting - 3.5m long aluminium 70x130mm profiled canal to place high and low voltage electric cables - 2 pcs. direct lighting (1x24W) with electronic dimmers - 2 pcs. indirect lighting (2x28W) with electronic dimmers - 2 x 2 pcs. schuko sockets-aggregate (red) 230V~,50Hz - 2 x 2 pcs. schuko sockets-grid (white) 230V~,50Hz - 2 x 1 pcs. potential equalization connection, PIN contact according to DIN 42801 - 2 x 2 pcs RJ45 cat.6 connector - computer - 2 x 1 pcs BUS/SCS combo unit type PRK 2041 manufactured by PME or equivalent complete with electrical wiring in the canal and mounting kit 	komp	1		

ITEM	DESCRIPTION	UoM	NoU	UNIT PRICE	TOTAL (RSD)
2.3	<p>Delivery and mounting of Universal hospital hemodialysis set type UBS 2110 K3 12E, 3T, BIS 2030 manufactured by PME or equivalent with the following elements:</p> <ul style="list-style-type: none"> - 5m long aluminium 150x70mm profiled canal to place direct and indirect lighting - 5m long aluminium 70x130mm profiled canal to place high and low voltage electric cables - 3 pcs. direct lighting (1x24W) with electronic dimmers - 3 pcs. indirect lighting (2x28W) with electronic dimmers - 3 x 2 pcs. schuko sockets-aggregate (red) 230V~,50Hz - 3 x 2 pcs. schuko sockets-grid (white) 230V~,50Hz - 3 x 1 pcs. potential equalization connection, PIN contact according to DIN 42801 - 3 x 2 pcs RJ45 cat.6 connector - computer - 3 x 1 pcs BUS/SCS combo unit type PRK 2041 manufactured by PME or equivalent complete with electrical wiring in the canal and mounting kit 				
		komp	3		
2.4	<p>Delivery and mounting of Universal hospital hemodialysis set type UBS 2110 K3 12E, 3T, BIS 2030 manufactured by PME or equivalent with the following elements:</p> <ul style="list-style-type: none"> - 5m long aluminium 150x70mm profiled canal to place direct and indirect lighting - 5m long aluminium 70x130mm profiled canal to place high and low voltage electric cables - 3 pcs. direct lighting (1x24W) with electronic dimmers - 3 pcs. indirect lighting (2x28W) with electronic dimmers - 3 x 2 pcs. schuko sockets-aggregate (red) 230V~,50Hz - 3 x 2 pcs. schuko sockets-grid (white) 230V~,50Hz - 3 x 1 pcs. potential equalization connection, PIN contact according to DIN 42801 - 3 x 2 pcs RJ45 cat.6 connector - computer - 3 x 1 pcs BUS/SCS combo unit type PRK 2041 manufactured by PME or equivalent complete with electrical wiring in the canal and mounting kit 				
		komp	1		

ITEM	DESCRIPTION	UoM	NoU	UNIT PRICE	TOTAL (RSD)
2.5	<p>Delivery and mounting of a vertical hospital bed set type ZIK 1.0/V 4E, 1T, BIS 2030 manufactured by PME or equivalent with the following elements:</p> <ul style="list-style-type: none"> - 2 pcs. 1m aluminium 70x130mm profiled canal to place high and low voltage electric cables - 1 x 2 pcs. schuko sockets-aggregate (red) 230V~,50Hz - 1 x 2 pcs. schuko sockets-grid (white) 230V~,50Hz - 1 x 1 pcs. potential equalization connection, PIN contact according to DIN 42801 - 1 x 2 pcs RJ45 cat.6 connector - computer - 1 x 1 pcs plug-in terminal with a foil covered push button to turn on direct lighting for the connection of a handheld set (part of hospital signalisation) 	komp	1		
TOTAL 2					

3 HOSPITAL SIGNALLISATION

Delivery and mounting of central touch screen panel providing call listing, sound call presentation and keeping a protocol of events; type CP 2034, wall mount, manufactured by PME or equivalent

komp 1

Delivery and mounting of power unit providing power for all elements of the system, voltage 12V-DC/5.1A, certified for application in medical institutions, type NJ 2011/5.1, manufactured by PME or equivalent

komp 1

Delivery and mounting of a room terminal with nurse call and reset buttons. To be mounted in rooms next to the entrance. Type ST 2003 manufactured by PME or equivalent

komp 1

Delivery and mounting of room signal light, two colours, type SSL2002

komp 1

Delivery and mounting of cord SOS button for emergency call referral from the bathroom type SOS 2000 manufactured by PME or equivalent

komp 1

Delivery and mounting of push-button SOS button for emergency call referral from the toilet, type PK 2001 manufactured by PME or equivalent

komp 1

Delivery and mounting of a handheld nurse call set from the bed, plugged into the plug-in terminal that is an integral part of the Universal hospital bed set, type RS 2003 manufactured by PME or equivalent

komp 16

Delivery and laying of cable type JH-St-H 3x2x0.6 mm through flexible ribbed hoses for the installation of hospital signalisation

m 60

ITEM	DESCRIPTION	UoM	NoU	UNIT PRICE	TOTAL (RSD)
	Delivery and laying of cable type JH-St-H 2x2x0.6 mm through flexible ribbed hoses to connect the SOS button	m	25		
	Delivery and laying of cable type N2XH 2x1.5mm ² through flexible ribbed hoses to connect the power unit	m	10		
	Delivery and laying of Ø16mm ribbed tubes into the slab prior to concrete casting or in wedges in the wall.	m	50		
	Measurements and testing the installation, commissioning, programming, certificate issue, user training.	kom	1		
TOTAL 3					

ITEM	DESCRIPTION	UoM	NoU	UNIT PRICE	TOTAL (RSD)
4 ACCURATE TIME DISTRIBUTION SYSTEM					
	Delivery and mounting of a Digital Central Clock (DCC) with clock synchronization via computer server. The DCC provides accurate Central European Time without manual settings of the winter and summer time, leap years and corrections due to power shortages. It is used for synchronization of remote clocks in its field and synchronises every second. The DCC also provides 6 output lines on which 31 clocks in the field can be connected to a single line. Type DSC 2030IP manufactured by PME or equivalent.	kom	1		
	Delivery and mounting of digital two-faced ceiling mount clock (TC) displaying the hour, minute and second. Type DS 2022 manufactured by PME or equivalent.	kom	1		
	Delivery and mounting of digital one-faced ceiling mount clock (TC) displaying the hour, minute and second. Type DS 2021 manufactured by PME or equivalent.	kom	1		
	Delivery and laying of cable type JH(St)H 1 x 2 x 0.8 laid in adequate flexible hose	m	30		
	Delivery and laying of cable type 3x1.5mm ² laid in adequate flexible hose	m	40		
	Delivery and laying of cable type UTP cat 6 laid in adequate flexible hose to the server	m	15		
	Testing of the manufactured installation, commissioning said installation, training of authorized Investor's representatives to operate the system with the development of operating instructions in hard copy and electronic form. Training can be performed exclusively by a representative of the party delivering the equipment authorized to perform this type of work.	kom	1		
	Development of the as-built design	kom	1		
TOTAL 4					

ITEM	DESCRIPTION	UoM	NoU	UNIT PRICE	TOTAL (RSD)
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SUMMARY

- 1 COMMUNICATION AND DATA EXCHANGE SYSTEM**
- 2 HOSPITAL SETS**
- 3 HOSPITAL SIGNALLISATION**
- 4 ACCURATE TIME DISTRIBUTION SYSTEM**
- TOTAL**

PRICED BILL OF QUANTITIES

Item	DESCRIPTION	UoM	NoU	UNIT PRICE	Total Price (RSD)
1.	Fire Alarm Installation				
1.1	Addressable fire alarm central with a single call line, similar to type JUNIOR 1 LOOP, GLOBAL FIRE. Powered from a special power circuit outlet 230V, 50Hz and ACCU battery with 72h autonomy in the normal regime and 30min under alarm.				
	Procurement, delivery, mounting and connection.	compl.	1		
1.2	Addressable optical smoke detector similar to type NB-358, GLOBAL FIRE.				
	Procurement, delivery, mounting and connection.	pcs.	18		
1.3	Addressable manual fire alarm similar to type MCPA-LP-ELAP, GLOBAL FIRE.				
	Procurement, delivery, mounting and connection.	pcs.	2		
1.4	Indoor mount alarm siren 88dB, similar to type Vulcan-A, GLOBAL FIRE.				
	Procurement, delivery, mounting and connection.	pcs.	2		
1.5	Parallel indicator, similar to type REM-IND, GLOBAL FIRE.				
	Procurement, delivery, mounting and connection.	pcs.	2		
1.6	Telecommunication cable with no halogen elements type:				
	J-H(St)H 2x2x0,8mm	met.	130		
	JE-H(St)H 2x2x0,8mm Fe180/E30	met.	30		
1.7	Procurement, delivery, laying in the cable cabinet, insertion into the installation tube and connecting.				
1.8	Installation self-extinguishing tube with no halogen elements, together with fire-resistant clamps:				
	Ø16	met.	100		
	Procurement, delivery and mounting.				
1.9	Other unexpected costs and petty consumables.	lump	1		
1.10	Finishing electrical measurements (insulation resistance, weakening, breaking and contact pair listening and testing), certificate issue, user training, development of technical paperwork of the as-built situation and commissioning.				
		lump .	1		
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TOTAL 1:					

Item	DESCRIPTION	UoM	NoU	UNIT PRICE	Total Price (RSD)
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SUMMARY

1. Fire Alarm Installation

TOTAL:

PRICED BILL OF QUANTITIES OF THE MECHANICAL INSTALLATION WORK

to deliver thermotechnical installations for the building of Hemodialysis Centre of the Obrenovac Health Care Centre

No.	ITEM DESCRIPTION	UoM	NoU	UNIT PRICE	Total
A1 RADIATOR HEATING					
1	Dismounting of existing cast radiators (20 pcs), radiator towel rails in bathrooms (2 pcs) and the existing pipe network of total length cca 300m.	lump			
2	Delivery and mounting of aluminium radiators "PASSOTI" type Rounding or equivalent. Mounting shall include installation of complete radiators connected into batteries according to technical documents and mounted according to the layout plan. type 600/98	čl.	106		
3	Delivery and mounting of radiator carrier consoles.	pcs..	40		
4	Delivery and mounting of radiator distancers.	pcs..	40		
5	Delivery and mounting of radiator reductions R1"-1/2"	pcs..	20		
5	Delivery and mounting of radiator caps R1"	pcs..			
6	Delivery and mounting of radiator valves manufactured by 'HERZ' or similar with options of closing and pre-regulation, in accordance with JUS M.C5.524 for flow regulation. DN15, NP6	pcs..	20		
7	Thermostatic head with hydrosensor manufactured by 'HERZ' or similar. The range of given values shall be 6-28C. Freeze protection at 6C. limiting and blocking the given value range by a border pin.	pcs..	20		

8	Delivery and mounting of radiator screws with options of closing and pre-regulation, in accordance with JUS M.C5.524 for flow regulation. DN15, NP6	pcs..	20		
9	Delivery and mounting of valves for manual radiator bleeding. DN15, NP6	pcs..	20		
10	Delivery and mounting of discharge taps with cap and chain. Mounted on submerged heating bodies. DN15, NP6	pcs..	18		
11	Delivery and mounting of copper pipeline with the shape and measurements according to SRPS.C.B5.225 and the following dimensions: Ø 15 x 1 Ø 18 x1 Ø 22x1 Ø 28x1.5 Ø 35x1.5 Ø 42x1.5	m m m m m m	184 29 27 9 23 4		
12	Delivery and mounting of petty consumables, seals, hard and sliding supports etc for mounting the B-pipeline, manufactured by Mupro or similar. 50% of item 1 shall be taken.		50%		
13	Painting in two coats of heat resistant paint. Paid per m2 of painted surface area for both material and labour.	m ²	20		
14	Delivery and mounting of automatic bleed vessels. DN15, NP6	pcs..	2		

TOTAL A1:

A2	VENTILLATION AND AIR CONDITIONING				
1	Dismounting the existing duct ventilation network in toilets and in the building cellar and existing split air conditioners (3 pcs).	lump			

<p>2</p>	<p>Delivery and mounting of outdoor mount air handling unit for air treatment manufactured by 'Termovent' or similar with identical technical characteristics. The specification shall be used with the technical sheets of the equipment supplier with clearly defined sections, elements and sketches of air handling units. Bidders shall be obligated to deliver the equipment and guarantee required air temperature parameters in given flows. Characteristics of selected equipment:</p> <p>System S1 equivalent to type: TK-KK-06.06 model: HYGIENE:pro sections composition:UA.PB.VC.FA.MD.RVV.IS (outdoor mount, floor, input, output section, filter, fan, DX evaporator, noise suppressor)</p> <p>Technical characteristics: Thrust fan: Air supply: 2400 m3/h External pressure drop: 175 Pa Electrical power: 1.1 kW Suction fan: Air supply: 2400 m3/h External pressure drop: 175 Pa Electrical power: 1.1 kW Filters on intake and return air. Filter classes: suction G4 return G4 intake F7</p>	<p>compl. .</p>	<p>1</p>		
<p>3</p>	<p>Delivery and mounting (on the terrace) of a compression and condensation heat pump unit. The unit shall be delivered with all necessary equipment for stable, independent and reliable operation. All control, regulation and other equipment enabling unobstructed operation shall be delivered with the device. The unit shall be manufactured by 'Daikin' or similar and shall possess the following characteristics: equivalent to type: ERQ250AW1 Qh total = 28.0 kW Access power: N total =7.42 kW / 400 V - 50 Hz EER: 3.77 (100% load) Tv = 35°C ST Tp = 27°C ST. 46%RH Qg total= 31.5 kW N total =7.7 kW / 400 V - 50 Hz</p>				

COP: 4.09 (100% load)
 Tv= 7°C ST
 Tp = 20°C ST
 Operating range: heating: -20° to 15°C
 Operating range: cooling: -5° to 43°C
 Sound pressure level: 58 dB(A) at the distance
 of 1m from the unit
 Pipeline connections: Cu Φ 9.52 / Φ 22.2 mm

Input temp. at the condenser. 10 - 27°C
 Input temp. at the evaporator. 18 - 35°C
 "dimensions:
 930 x 765 mm ; h = 1680 mm"
 Weight total: 240 kg

EKEXV250

Q = 24.7 - 30.8 kW
 Dimensions: 215 x 78 mm ; h = 401 mm
 Weight: 2.9 kg
 DX exchanger volume: 6.61 – 8.25 dm³
 Connection R410A: liquid phase – input and
 output: 9.52mm

**Electronic regulation kit and connection with
 ERQ unit**, expansion valve – temperature
 control. Connected to the installation according
 to the manufacturer's instructions:

EKEQFCB

Dimensions: 400 x 200 mm ; h = 132 mm
 Weight: 3,9 kg
 Power: 230V - 1f

compl. 1

- 4 Delivery and mounting of swirl diffusers for air
 input and extraction, equivalent with the
 following type and dimensions:
 TROX VDW 600x48-input 4
 TROX VDW 600x48-extraction 4

5

Manufacture, delivery and mounting of sheet
 metal canals, straight parts and special fittings
 made of galvanized 0.6-1.2mm thick sheet
 metal, according to DIN norms, with adequate
 flanges made of profiled iron. Canals shall be
 made with double seams, stiffened by diagonals
 or with ribs. Ready made canals shall be
 suspended, mounted to the structure via
 adjustable console hangers. When calculating
 the amount of material the weight of the canals,
 clamping and sealing materials and all sheet
 metal equipment connections were taken into
 consideration.

	Note: locations of canal breach through structural elements (walls, floor structure etc) shall be sealed with non-flammable material with the same fire resistance as the structural element. The sealing material shall possess proof verifying its fire resistance.		
	Clamping and sealing materials (25% of the sum from the previous canal items shall be taken)	kg	350
		%	25
6	Delivery and mounting of consoles and hangers to carry the sheet metal canals: - hangers to carry vertical and horizontal canals shall be made of steel profiles that shall be connected to the concrete roof structure with steel anchor points, mats made of angle 'L' profiles and rubber shock absorbers separating the air duct routes from the structure.		
	30% of the previous item shall be taken (canals + clamping and sealing materials)	%	30
7	Delivery and mounting of air duct thermal insulation and soundproofing with rock wool cached with reinforced aluminium foil, with high resistance to steam, non-flammable, with good thermal and acoustic characteristics. - manufactured by 'Knauf' or similar. - dim: $\delta=50\text{mm}$ - density: 32g/m^2 - throughput coefficient: $0,04\text{W/m}^2\text{K}$ Note: this item shall include air input and extraction ducts	m^2	60
8	Delivery and mounting of flexible pre-insulated hoses. Item shall include sticky tape, adequate collars and other petty material. Pipes shall be manufactured by Izotex, Poland or equivalent. - dim: $\varnothing 250\text{mm}$	m	8
9	Delivery and mounting of regulation dampers to regulate air amount per canal branch, manufactured by Trox, type JZ-G or similar, with the following dimensions: - dim: 300x250	pcs..	2
10	Delivery and mounting of canal fans for the ventilation of technical facilities in the building cellar, manufactured by Systemair, Sweden or similar, with the following characteristics:		

	<p>*equivalent to type KV150XL *air amount:400m3/h *pressure drop: 150Pa *el. power:105W *el. connection: 230V-1f-50Hz</p>	pcs.	1		
11	<p>Delivery and mounting of air extraction valves manufactured by TROX or similar, with the following dimensions: equivalent to type: LSV1/125</p>	pcs.	4		
12	<p>Delivery and mounting of local axial fans for toilet ventilation, manufactured by Systemair or similar (ceiling- or wall-mount), with the following technical characteristics: equivalent to type: BF 150 TH Air flow Vmax = 100 m3/h Ventillator strain H = 30 Pa Electric motor power Nm = 30 W 1x230 V, 50 Hz</p> <p>Fans shall be delivered with an irreversible damper and a timer (adjustable 1-30 min)</p>	pcs.	3		
13	<p>Delivery and mounting of suction ventilation ducts made of 4.5m long ø125mm PVC pipes with finishing bends and damper, manufactured by Systemair or similar, equivalent to type: BVK 120</p>	compl.	3		
14	<p>Delivery and mounting of local axial fan for reverse osmosis room ventilation, manufactured by Systemair or similar (ceiling- or wall-mount), with the following technical characteristics: equivalent to type: AW200E2 Air flow Vmax = 872 m3/h Ventilator strain H = 30 Pa Electric motor power Nm = 38 W 1x230 V, 50 Hz</p>	pcs.	1		
15	<p>Delivery and mounting of air conditioning Singlesplit device to cool down doctors' rooms, made by DAIKIN – JAPAN or similar, with outdoor and indoor units and with the following characteristics: * indoor unit type equivalent to: wall mount FXAQ25P * outdoor unit type: RXG25L * cooling capacity total 3 kW * compressor el.power - 23W/230 V/50 Hz * cooling fluid: freon R410A The item shall include: - wireless remote controller</p>				

	<p>- electrical connection of the outdoor and indoor units (with boring and patching holes)</p> <p>- accompanying copper pipe lines for the liquid and gaseous Freon stage for the connection between the indoor and outdoor unit.</p> <p>- insulation of the Freon pipe network by insulation in the 9mm thick hose made of thermal insulating material in the form of elastomeric foam base don synthetic rubber with a high degree of flexibility and closed cell internal structure, which creates high resistance to steam diffusion (vapour barrier effect).</p> <p>- condensate extraction hose Ø20</p> <p>Calculated per set.</p>	compl.	2		
16	<p>Delivery and mounting of canal fan for room 12 ventilation (doctors' room), manufactured by Systemair or similar, with the following technical characteristics:</p> <p>equivalent to type: K100XL Air flow Vmax = 265 m3/h Ventilator strain H = 30 Pa Electric motor power Nm = 59.8 W 1x230 V, 50 Hz</p>	pcs.	1		
17	<p>Delivery and mounting of an electric canal heater, manufactured by Systemair or similar, with the following technical characteristics:</p> <p>equivalent to type: CB125-1.8 El.energy 1.8kW 1x230 V, 50 Hz</p>	pcs.	1		
18	<p>Delivery and mounting of aluminium air input grilles manufactured by Trox or similar, with the following dimensions:</p> <p>ASL-AG 325x125</p>	pcs.	1		
TOTAL A2:					

A3 PREPARATORY AND FINISHING WORK					
1	<p>Preparatory work that include the following:</p> <p>* Verification of main design alignment with other installations and alignment of all work during execution</p> <p>* Construction work that may emerge during execution</p>				
2	<p>Finishing work that include the following:</p>	lump			

	<ul style="list-style-type: none"> * Flushing the installation * Installation hydraulic pressure testing * Installation cold and hot water testing * Placement of regulation elements in their designed positions with a parameter check * Balancing out the installation from the water side * Balancing out the installation from the air side * Control valve setting * Ultrasound gauge measurements and flow checks * Acquisition of the technical facilities noise level certificate of compliance * Testing the functionality of complete automation circuits * Measurements of thermotechnical parameters by an authorized person, complete with record keeping and check list development * Developmet of the operating and maintenance instructions * Development of the as-built design 				
T O		lump			

A.	HVAC
A1.	Radiator Heating
A2.	Ventillation and Air Conditioning
A3.	Preparatory and Finishign Work
TOTAL:	

- 1 ARCHITECTURAL AND CONSTRUCTION WORK
- 2 WATER AND SEWER INSTALLATIONS
- 3 ELECTRICITY INSTALLATIONS
- 4 TELECOMMUNICATION AND SIGNALLING INSTALLATIONS
- 5 FIRE ALARM
- 6 HEATING INSTALLATIONS

TOTAL: