

MAJOR REPAIR OF BUILDING "A" OF THE CIRCUS FROM CHISINAU CITY

(Project title)

Form no.1
WinCmeta

LOCAL BILL OF QUANTITIES No. 2-1-1

Structural interventions

No. -	Standard code and Resource code	Works and costs	UOM	Design quantity	Estimated cost, \$	
					Unit cost incl. wages	Total incl. wages
1	2	3	4	5	6	7
		1. Construction of the new steel parapet on the roof (SA-DWG-45)				
1	CL17B	Various metal constructions, surface mounted: railing made of technical stainless steel AISI 430/W1.4016	kg	904,3		
2	CK35B	Anchoring dowel with M12x100 expansion fixed in reinforced concrete elements	pcs	576		
		<i>Total</i>	\$			
		Total 1. Construction of the new steel parapet on the roof (SA-DWG-45) Including wages				
		2. Closing existing ventilation gaps and storm sewers				
3	CL26A	Metal frames made of S275 JR steel as per EN 10025-2/2004	kg	527,2		
4	CK35B	Anchoring dowel with M12x100 expansion fixed in reinforced concrete elements	pcs	76.00		
5	IzD05B	Manual priming with one-layer primer GF-021 of metal constructions related to technological equipment (supports, fasteners, tie rods, consoles, platforms)	t	0,53		
		<i>Total</i>	\$			
		Total 2. Closing existing ventilation gaps and storm sewers Including wages				
		3. Demolition and construction of the cladding of external existing "y-shape" columns (100%)				
6	RpCJ35F	Dismantling interior or exterior anti-condensation plasters, metal frame and Rabitx type steel-wire plaster fabric	m2	608,40		
7	RpCO56C	Dismantling: wooden lining, asbestos cement on the walls	m2	608,40		
8	RpCP44A	Dismantling metal constructions and recovering materials Small materials (Vaseline, gasoline, rags, etc.) = 1.0500	kg	3 324,00		
9	TsH92B	Loading in the truck	t	109,5		
10	TsI50B3	Transportation of soil with a 5 ton	t	109,5		

1	2	3	4	5	6	7
		dump truck to a distance of 13 km				
11	TsC51B	Unloading of soil to the warehouse, 2nd class land	100 m3	0,46		
12	RpIzA01B	Sandblasting, in order to apply anti-corrosion protection, on large metal surfaces (vats, tanks, containers, columns, bunkers, pipes and the like) with quartz river sand with 2-3 mm granulation	m2	325,60		
13	IzD07A	Manual priming and painting of tanks with ready-made paints, as follows: a layer of red lead paint	m2	325,60		
14	CL26A	Metal frames made of S275 steel as per EN 10025	kg	988,00		
15	IzD05B	Manual priming with one-layer primer GF-021 of metal constructions related to technological equipment (supports, fasteners, tie rods, consoles, platforms)	t	0,988		
16	CD07B1	Wall cladding with galvanized sheet 1.0 mm thick, fastened with self-tapping screws, mounted at a height of more than 6 m	m2	608,40		
17	CC03B	Installation of welded nets d = 8.0 mm, with a weight over 3 kg/sqm, a 100x100 mm mesh, at heights less than or equal to 35 m, on walls and diaphragms	kg	4 806,36		
18	CB03J1	8 mm plywood formwork for pouring concrete in the outer flanges	m2	608,40		
19	RpCB11B k = 0.833	Shotcrete grade C 25/30 (Rck 30 N/mm2), small aggregates with a size of 1-3 mm, at the walls, with a thickness of 5 cm, ready-mix concrete from batch plants Small materials (boards, wire, nails, etc.)= 0.8750 Coefficient of labour = 0.8330 Coefficient of plant = 0.8330	m2	608,40		
20	CF17D	Various works - addition of polypropylene fibers to the mortar	kg	30,42		
21	CF57A	Manual application of cement-based putty, 1.0 mm thick, on surfaces of walls and columns	m2	608,40		
22	CN54B	Manual application of the one-layer quartz primer "Gleta" on facade exterior walls	m2	608,40		
23	CF30A	Exterior plaster, 2 mm thick, made by hand with decorative finishing material with silicone addition, identical in colour and structure to the one that exists on the building facade	m2	608,40		
		<i>Total</i>	\$			
		Total 3. Demolition and construction of the cladding of external existing "y-shape" columns (100%) Including wages				
		4. Restoring existing tie rods				
24	RpCP44A	Dismantling metal constructions and	kg	3 278.32		

1	2	3	4	5	6	7
		recovering materials Small materials (Vaseline, gasoline, rags, etc.) = 1.0500				
25	CL26A	Metal frames made of S275 JR steel as per EN 10025-2/2004	kg	3 278.32		
26	IzD05B	Manual priming with one-layer primer GF-021 of metal constructions related to technological equipment (supports, fasteners, tie rods, consoles, platforms)	t	3.279		
		<i>Total</i>	\$			
		Total 4. restoring existing tie rods Including wages				
		5. Restoring existing cover lantern				
27	RCsI41B	Dismantling roofing elements - sheet metal roofing	m2	591.10		
28	RpCP44A	Dismantling metal constructions and recovering materials Small materials (Vaseline, gasoline, rags, etc.) = 1.0500	kg	3 940.00		
29	CL26A	Metal frames made of S275 JR steel as per EN 10025-2/2004	kg	3 940.00		
30	IzD05B	Manual priming with one-layer primer GF-021 of metal constructions related to technological equipment (supports, fasteners, tie rods, consoles, platforms)	t	3,94		
		<i>Total</i>	\$			
		Total 5. Restoring existing cover lantern Including wages				
		6. Scaffolding				
31	CB14E	Tubular metal scaffolding for ceiling finishing works at heights of 10 m <= H <15 m, fastening of scaffolding for 15 days (120 hours)	m2	2 650.00		
32	CB14A	Tubular metal scaffolding for works on vertical surfaces at heights up to 30 m, fastening of scaffolding for 25 days (200 hours)	m2	5 285.00		
33	CB14A1 k=100	Tubular metal scaffolding for works on vertical surfaces at heights up to 30 m, fastening of scaffolding for 25 days (200 hours), for each additional day of fastening (100 days) Coefficient of labour = 100,0000 Coefficient of materials = 100,0000 Coefficient of plant = 100,0000	m2	5 285.00		
		<i>Total</i>	\$			
		Total 7. Scaffolding Including wages				
		Total	\$			
		Social insurance	24 %			
		Transportation costs	%			
		Supply/storage costs	%			
		Total				
		Overhead costs	%			
		Total				
		Benefit	%			
		Total estimated cost:				

1	2	3	4	5	6	7
		Including wages				

MAJOR REPAIR OF BUILDING "A" OF THE CIRCUS FROM CHISINAU CITY

(Project title)

Form no.1
WinCmeta

LOCAL BILL OF QUANTITIES No. 2-1-2

Architectural solutions

Prepared in current prices:

No. -	Standard code and Resource code	Works and costs	UOM	Design quantity	Estimated cost, \$	
					Unit cost incl. wages	Total incl. wages
1	2	3	4	5	6	7
		1. Removals and demolitions				
1	RpCG29A	Demolition of brick or BCA masonry walls 6-8 cm thick (D1-D5)	m2	43,76		
2	RpCI42B	Dismantling of roof elements - sheet metal roofing (D1-D5)	m2	8,28		
3	RpCP44A	Dismantling of metal structures with material recovery (M4, G1-G3) Materiale marunte (vaselina, benzina, cirpe etc)=1,0500	kg	1 201,50		
4	RpCI42F	Dismantling roof elements - bituminous membranes	m2	1 072.00		
5	RpIzC45B	Dismantling insulating materials - expanded clay	m3	120.00		
6	RpCB18F	Demolition of the screed	m3	278.25		
7	RpCH32E	Dismantling wooden floors and roof elements	m3	0.37		
8	RpCH32B	Dismantling wooden floors and roof elements - roof truss, dismantling all components, and sorting the resulting materials	m2	102.50		
9	RpCI42B	Dismantling roofing elements – galvanized sheet- metal roofing	m2	102.50		
10	TsH92B	Loading in the truck	t	766,00		
11	TsI50B3	Transportation of soil with a 5 ton dump truck to a distance of 13 km	t	766,00		
12	TsC51B	Unloading of soil to the warehouse, 2nd class soil	100 m3	3,83		
		<i>Total</i>	\$			
		Total 1 - Removals and demolitions Including wages				
		4. Roof Garden				
13	IzF04J1	Waterproofing layer made of vapour barrier, placed with stick overlays	m2	1 072.00		
14	IzF53A	Manual production of the floor support with thermal insulation layer made of mineral wool boards, 80 kg/m3 density, 20 mm thickness, in one layer Small materials (metal bars, D = 6-8 mm, 400 mm long) = 1.0150	m2	1 072.00		
15	IzF53A	Manual production of the floor support with thermal insulation layer made of extruded foam polisteren boards, 35 kg/m3 density, 100mm thickness, in one layer, conductivity	m2	1 072.00		

1	2	3	4	5	6	7
		= 0.023 Small materials (metal bars, D = 6-8 mm, 400 mm long) = 1.0150				
16	IzF53A	Manual production of the floor support with a layer of rubber plates, thickness = 25 mm, conductivity = 0.022, in one layer Small materials (metal bars, D = 6-8 mm, 400 mm long) = 1.0150	m2	1 072.00		
17	CC03C	Installation of welded nets, d = 5.0 mm, mesh of 100x100 mm, at heights less than or equal to 35 m, for boards	kg	2 851,52		
18	IzF18E k = 4.48	Levelling or protective support layer for insulation, including the related scaffolding, made with ready-mixed cement mortar, grade M100-T, without added lime, smooth, on surfaces inclined over 40% or vertical surfaces, applied with an average thickness of 3 cm (k = 4.48, mortar 144.16 m3) Coefficient of labour = 4.4800 Coefficient of materials = 4.4800 Coefficient on plant = 4.4800	m2	1 072.00		
19	IzF01C	Priming of surfaces for the application of the diffusion layer, vapor barrier, thermal insulation or waterproofing to ceilings of any shape, with suspension of filerized bitumen (subif) in a layer	m2	1 072,00		
20	CE13A2	Roofing with bituminous membranes, glued in a double-layered system (cumulative thickness 8.0 mm), on the horizontal surface mounted on a continuous support Small material = 1.0500	m2	1 072,00		
21	CF15A	Troweled internal and external plastering, made by hand, with cement mortar, grade M 100-T, with a medium thickness of 2 cm, for concrete or brick walls, with flat surfaces	m2	119.00		
22	CF17D	Various works - addition of polypropylene fibres to the mortar	kg	2,86		
23	CN11A	Exterior painting with dispersion paint for facades, applied in 3 layers to facades, executed on existing plaster	m2	119.00		
24	CE31B	Simple eaves with apparent rafters ready planed, on visible faces, machined, folded and planed planks 12 mm thick, 200 mm wide. Resource consumption Planed and folded planks - 0.0126 m3 / m2	m2	102,50		
25	CE30B1	Lathing for roofs or roof valleys made of rough softwood planks planed on one side, for regular constructions	m2	102.50		
26	CN50C	Fireproofing of timber, battens for coatings	100m 2	2,59		
27	CN51E	Antiseptic treatment of timber, on visible surfaces with antiseptic	100m	2,59		

1	2	3	4	5	6	7
		pastes: roof structure	2			
28	CN16C	Painters with varnishes applied on wooden joinery, executed with varnish in 2 layers	m2	156,50		
29	CE05B	Galvanized flat metal sheet covering, stapled, with double joints in both directions, on surfaces larger than 40 sqm with 1.0 mm thick metal sheets Small materials (mineral oil, white zinc, tin, alloy, ready-made red lead paint)= 1.0500	m2	102,5		
30	CK26B	Roof-mounted sills, width 600 mm made of galvanized sheet 1.0 mm thick	m	140,00		
31	DE16A	Installation of prefabricated concrete gutters with stainless steel grill dimensions 500x98x131 (h) mm	buc	269,00		
32	SB09G	Connecting piece (grill end element - collector connection), joined with rubber gasket, having a diameter of 160 mm	buc	56,00		
33	SB03E	Stainless sewer connection piece (stainless steel collector), with a nominal diameter of 150 mm, L = 0.6 m Material marunt (sirna de otel, otel beton, ipsos etc)=1,0200	buc	2,00		
34	SB03E	Stainless sewer connection piece (stainless steel collector), with a nominal diameter of 150 mm, L = 1,2 m Material marunt (sirna de otel, otel beton, ipsos etc)=1,0200	buc	1,00		
35	SB09G	Connecting piece (PVC section change - steel D = 150 mm - PVC SN 8 D = 110 mm,), joined with rubber gasket, having a diameter of 160 mm	buc	3,00		
36	SB08E	SN4 PVC sewerage pipe, with rubber gasket, surface mounted or buried under the floor, with a diameter of 110 mm(3 coloane)	m	60,00		
37	SB09E	SN4 45* PVC elbow, for sewerage, with rubber gasket, with a diameter of 110 mm	buc	12,00		
38	SA37I	Collar clamps for fastening water and gas pipes, made of steel or PVC, mounted by embedding, for pipes with a diameter of 110 mm	buc	60,00		
		Total	\$			
		Total 4 - Roof Garden Including wages				
		Total	\$			
		Social insurance	24 %			
		Transportation costs	%			
		Supply/storage costs	%			
		Total				
		Overhead costs	%			
		Total				
		Benefit	%			
		Total estimated cost: Including wages				

MAJOR REPAIR OF BUILDING "A" OF THE CIRCUS FROM CHISINAU CITY

(Project title)

Form no.1
WinCmeta

LOCAL BILL OF QUANTITIES No. 2-1-3 Restoration works

Prepared in current prices

No. -	Standard code and Resource code	Works and costs	UOM	Design quantity	Estimated cost, \$	
					Unit cost incl. wages	Total incl. wages
1	2	3	4	5	6	7
		1. Artistic stained glass				
1	RCsQ09D1 applicable	Repair of glass modules, which will be reconstructed by thermoforming in a refractory mould specially made as an original element and melted at 700 ° - 800 ° degrees, which will later be bound by the traditional technique of lead weaving, welded, stuccoed and placed on construction site, see sheet SA-DWG-145 Small materials (rags, decofrol etc.) = 1.0100	m2	48.20		
2	RCsM29A	Finishing glass modules by waxing and polishing Small materials (rags, water, etc.) = 1.0200	m2	192.80		
3	R10A23A	Washing the windows	10 m2	19.28		
		<i>Total</i>	\$			
		Total Artistic stained glass Including wages				
		2. External porch				
4	RCsM14A	Marble slabs, up to 5 cm thick, mounted with adhesive, on vertical surfaces, including application of putty - careful removal of small areas of marble or granite, only those disconnected or broken that can no longer be recovered, including the underlying layer of material, with due care not to damage neighbouring parts. It is planned to clean recoverable parts, which are not damaged or which are not composite (30% of the area) Small materials (rags, straightening tools, etc.)= 1.0100	m2	11,67		
5	RCsM14A	Marble slabs, up to 5 cm thick, mounted with adhesive, on vertical surfaces, including application of putty - careful removal of small areas of marble or granite, only those disconnected or broken that can no longer be recovered, including the underlying layer of material, with due care not to damage neighbouring parts. It is planned to clean recoverable parts, which are not damaged or which are not composite (30% of the area)	m2	19,00		

1	2	3	4	5	6	7
		Small materials (rags, straightening tools, etc.)= 1.0100				
6	R4D05A	Cleaning of easily removable pollutants from stone surfaces with neutral paint removers: smooth surface Small materials = 1.0100	m2	71,52		
7	R4D13A	Restoration of damaged areas of dense natural stone with epoxy resin grout: smooth surface Small materials = 1.0100	m2	102,19		
		<i>Total</i>	\$			
		Total External porch Including wages				
		3. Graffiti on the porch				
8	R4D03A	Cleaning of pollutants difficult to remove with carborundum Small materials = 1.0100	m2	22,12		
9	R4D05A	Cleaning of easily removable pollutants from stone surfaces with neutral paint removers: smooth surface Small materials = 1.0100	m2	226,22		
10	R4D13A	Restoration of damaged areas of dense natural stone with protective product based on fluorinated copolymers: smooth surface Small materials = 1.0100	m2	1 131,10		
		<i>Total</i>	\$			
		Total Graffiti on the porch Including wages				
		4. Ceiling external porch				
11	R8B01C	Restoration and reconstruction of facade plaster on areas of bricks with lime and cement mortar: walls in grooved lines with deep joints	m2	61,20		
12	R4D05A	Cleaning of easily removable pollutants from stone surfaces with neutral paint removers: smooth surface Small materials = 1.0100	m2	142,8		
13	CN54B	Manual application of the one-layer quartz primer "Gleta" on facade external walls	m2	204.00		
14	CF30A	External plastering, 2 mm thick, made by hand with decorative finishing material with silicone addition, identical in colour and structure to the one that exists on the building facade	m2	204.00		
		<i>Total</i>	\$			
		Total Ceiling external porch Including wages				
		5. Dome				
15	IzA03A	Removal of old paint, improper primer or various deposits from metal surfaces	m2	1 760.00		
16	RCsI30A	Additional sealing, on the contour, at the roof joints, with polymeric mastics Small materials (accessories, adhesives, solvents) = 1.0550	m	3 177.60		

1	2	3	4	5	6	7
17	CL40A	Cold galvanizing in two layers of the galvanized surfaces, of the new galvanizations and the restoration of the old ones in the metallic constructions on the site	m2	1 760.00		
		<i>Total</i>	\$			
		Total Dome Including wages				
		6. Cover lantern				
18	CE05B	Galvanized flat metal sheet covering, stapled, with double joints in both directions, on surfaces larger than 40 sqm with 1.0 mm thick metal sheets Small materials (mineral oil, white zinc, tin, alloy, ready-made red lead paint)= 1.0500	m2	491.10		
19	CE05B	Galvanized flat metal sheet covering, stapled, with double joints in both directions, on surfaces larger than 40 sqm with 4.0 mm thick aluminium sheets Small materials (mineral oil, white zinc, tin, alloy, ready-made red lead paint)= 1.0500	m2	100.00		
		<i>Total</i>	\$			
		Total Cover lantern Including wages				
		7. Facade				
		7.1. Marble surfaces (SA-DWG-151)				
20	CN54B	Consolidation of stone artefacts by impregnation with ethyl silicate solution	m2	148.20		
21	RCsM14A	Artificial marble slabs, up to 5 cm thick, mounted with adhesive, on vertical surfaces, including application of putty - careful removal of small areas of marble or granite, only those disconnected or broken that can no longer be recovered, including the underlying layer of material, with due care not to damage neighbouring parts. It is planned to clean recoverable parts, which are not damaged or which are not composite Small materials (rags, straightening tools, etc.)= 1.0100	m2	148.20		
22	R4D06A	Cleaning of stone surfaces from air pollution with concentrated detergent: smooth surface Small materials = 1.0100	m2	494.00		
23	R4D13A	Restoration of damaged areas of dense natural stone with epoxy resin grout: smooth surface Small materials = 1.0100	m2	494.00		
		<i>Total</i>	\$			
		Total Marble surfaces (SA-DWG-151) Including wages				
		7.2. Remote of the graffiti on the facade (SA-DWG-148)				
24	R8B01C	Restoration and reconstruction of	m2	39,3		

1	2	3	4	5	6	7
		facade plaster on areas of bricks with lime and cement mortar (or lime): walls in grooved lines with deep joints				
25	R4D05A	Cleaning of easily removable pollutants from stone surfaces with neutral paint removers: smooth surface Small materials = 1.0100	m2	91,7		
26	R4D13A	Restoration of damaged areas of dense natural stone with protective product based on fluorinated copolymers: smooth surface Small materials = 1.0100	m2	131,00		
		<i>Total</i>	\$			
		Total Remote of the graffiti on the facade (SA-DWG-148) Including wages				
		7.3. Plaster cladding of the "Y" columns (SA-DWG-154)				
27	R4D06A	Cleaning of stone surfaces from air pollution with concentrated detergent: smooth surface Small materials = 1.0100	m2	315,00		
28	CN53A	Application of biocides to remove slightly rooted vegetation by spraying	m2	315,00		
29	R4D03A	Cleaning of pollutants difficult to remove with carborundum Small materials = 1.0100	m2	315,00		
30	CN54B	Consolidation of stone artefacts by impregnation with methyl silicate solution	m2	94,50		
31	R8B01C	Restoration and reconstruction of facade plaster on areas of bricks with lime and cement mortar (or lime): walls in grooved lines with deep joints	m2	94,50		
32	CN11A	Exterior painting with dispersion paint for facades, applied in 3 layers to facades, on existing plaster	m2	315,00		
		<i>Total</i>	\$			
		Total Plaster cladding of the "Y" columns (SA-DWG-154)				
		7.4. Plaster surfaces on the facade (SA-DWG-161)				
33	R4D06A	Cleaning of stone surfaces from air pollution with concentrated detergent: smooth surface Small materials = 1.0100	m2	26,20		
34	CN53A	Application of biocides to remove slightly rooted vegetation by spraying	m2	26,20		
35	R4D03A	Cleaning of pollutants difficult to remove with carborundum Small materials = 1.0100	m2	26,20		
36	R8B01C	Restoration and reconstruction of facade plaster on areas of bricks with lime and cement mortar (or lime): walls in grooved lines with deep joints	m2	39,30		

1	2	3	4	5	6	7
34	CN11A	Exterior painting with dispersion paint for facades, applied in 3 layers to facades, on existing plaster	m2	39,30		
		Total	\$			
		Total Plaster surfaces on the facade (SA-DWG-161) Including wages				
		Total	\$			
		Total Facade Including wages				
		Total	\$			
		Social insurance	24 %			
		Transportation costs	%			
		Supply/storage costs	%			
		Total				
		Overhead costs	%			
		Total				
		Benefit	%			
		Total estimated cost: Including wages				

MAJOR REPAIR OF BUILDING "A" OF THE CIRCUS FROM CHISINAU CITY

(Project title)

Form no.1
WinCmeta

LOCAL BILL OF QUANTITIES No. 2-1-4 Electrical networks

Prepared in current prices:

No. -	Standard code and Resource code	Works and costs	UOM	Design quantity	Estimated cost, \$	
					Unit cost incl. wages	Total incl. wages
1	2	3	4	5	6	7
		1. Erection works				
1	08-03-572-7	Control panel, cabinet type or distribution unit (cabinet), floor mounted, height and width, mm, up to 1700x1100 - Floor cabinet	pcs	1.00		
2	08-03-575-1	Device or apparatus - 8-channel KNX actuator	pcs	3.00		
3	08-03-575-1	Device or apparatus - KNX power supply	pcs	1.00		
4	08-03-575-1	Device or apparatus - Contactor, coil power supply 230 V or 24 V, compliant with IEC 1095	pcs	5.00		
5	08-03-575-1	Device or apparatus - Switch disconnector, operating voltage 400 V ac	pcs	3.00		
6	08-03-575-1	Device or apparatus - Automatic thermal magnetic circuit breaker	pcs	28.00		
7	08-03-575-1	Device or apparatus - Digital network analyser	pcs	1.00		
8	08-03-575-1	Device or apparatus - Lightning current arrester	pcs	3.00		
9	08-03-575-1	Device or apparatus – switch disconnector	pcs	2.00		
10	08-02-148-1	Cable up to 35 kV in pipes, blocks and boxes laid, weight of 1 m up to: 1 kg	100 m	1.15		
11		Flexible cable compliant with the requirements of the European Regulation EU Regulation 305/2011 - CPR Construction Products and CEI UNEL 35324 with very low emission of fumes and toxic gases compliant with CEI 20-38, class Cca - s1b, d1, a1, insulated with ethylene propylene rubber high modulus with sheath of thermoplastic compound, rated voltage 0.6 / 1 kV, fire retardant compliant with CEI 60332-1-2: five-pole FG16OM16 - 0.6 / 1 kV: section 10 sqmm	m	75.00		
12		Flexible cable compliant with the requirements of the European Regulation EU Regulation 305/2011 - CPR Construction Products and CEI UNEL 35324 with very low emission of fumes and toxic gases	m	20.00		

1	2	3	4	5	6	7
		compliant with CEI 20-38, class Cca - s1b, d1, a1, insulated with ethylene propylene rubber high modulus with sheath of thermoplastic compound, rated voltage 0.6 / 1 kV, fire retardant compliant with CEI 60332-1-2: three-pole FG16OM16 - 0.6 / 1 kV: section 10 sqmm				
13		Flexible cable compliant with the requirements of the European Regulation EU Regulation 305/2011 - CPR Construction Products and CEI UNEL 35324 with very low emission of fumes and toxic gases compliant with CEI 20-38, class Cca - s1b, d1, a1, insulated with ethylene propylene rubber high modulus with sheath of thermoplastic compound, rated voltage 0.6 / 1 kV, fire retardant compliant with CEI 60332-1-2: three-pole FG16OM16 - 0.6 / 1 kV: section 2.5 sqmm	m	20.00		
14	08-02-148-3	Cable up to 35 kV in pipes, blocks and boxes laid, weight of 1 m up to: 3 kg	100 m	1,40		
15		Flexible cable compliant with the requirements of the European Regulation EU Regulation 305/2011 - CPR Construction Products and CEI UNEL 35324 with very low emission of fumes and toxic gases compliant with CEI 20-38, class Cca - s1b, d1, a1, insulated with ethylene propylene rubber high modulus with thermoplastic compound sheath, rated voltage 0.6 / 1 kV, fire retardant compliant with CEI 60332-1-2: four-pole FG16OM16 - 0.6 / 1 kV: section 50 sqmm	m	70.00		
16		Flexible cable compliant with the requirements of the European Regulation EU Regulation 305/2011 - CPR Construction Products and CEI UNEL 35324 with very low smoke and toxic gas emissions compliant with CEI 20-38, class Cca - s1b, d1, a1, insulated with ethylene propylene rubber high modulus with sheath of thermoplastic compound, rated voltage 0.6 / 1 kV, fire retardant compliant with CEI 60332-1-2: single pole FG16M16 - 0.6 / 1 kV: section 25 sqmm	m	70.00		
17	08-02-409-1	Vinyl plastic pipe on installed constructions, on walls and columns, fastened with clamps, diameter up to 25 mm	100 m	4.00		
18		Rigid insulating tube in self-extinguishing plastic material, with low toxic emissions in case of fire, halogen-free in accordance with	m	400.00		

1	2	3	4	5	6	7
		standard EN 50267-2-2, in compliance with CEI EN 50086 heavy series class. 4422: visible installed in systems with protection degree IP 40, fixed on supports (every 40-50 cm), connection and fixing accessories included, with a nominal diameter of: 25 mm				
19	10-08-019-01	Branch box - Wall-mounted junction box	pcs	35.00		
20	08-03-575-1	Device or apparatus – PHD socket group	pcs	32.00		
21	08-02-146-1	Cable up to 35 kV, fastened with applied clamps, weight of 1 m up to: 0.5 kg	100 m	8.00		
22		Self-regulating heating cable for maintaining the water temperature inside the meteoric drain pipes and in the drainage channel on the roof above the freezing limit. Complete with integrated thermostat, electrical supply pipes and accessories, in place	m	800.00		
		<i>Total</i>	\$			
		<i>Social insurance</i>	24 %			
		<i>Transportation costs</i>	%			
		<i>Supply/storage costs</i>	%			
		<i>Total</i>				
		<i>Overhead costs</i>	%			
		<i>Total</i>				
		<i>Benefit</i>	%			
		Total Erection works Including wages				
		2. Equipment				
23		Floor cabinet in fiberglass reinforced polyester with hinged blind door complete with key lock and lower plinth, protection degree IP 65, class II insulation, including front panels and fixing accessories for boxed or modular equipment, of the following dimensions (h x l x p): 1800 x 800 x 400 mm	pcs	1.00		
24		8-channel KNX actuator, in modular insulated container for installation on DIN rail, 230 V AC power supply, including system activation	pcs	3.00		
25		KNX power supply, in modular insulated container for installation on DIN rail, 230 V AC power supply, including system activation	pcs	1.00		
26		Contacteur, coil power supply 230 V or 24 V, compliant with IEC 1095, in modular plastic enclosure, degree of protection IP 20, designed for lateral attachment of auxiliary contacts, installed on a DIN35 rail, this excluded: bipolar capacity 25 A	pcs	5.00		
27		Switch disconnector, operating voltage 400 V a.c. : short duration	pcs	3.00		

1	2	3	4	5	6	7
		current for 1 sec equal to 5 kA: bipolar, range up to 80 A				
28		Automatic thermal magnetic circuit breaker, modular series, rated voltage 230/400 V ac: breaking capacity 10 kA, characteristic trip curve type "C" (CEI-EN 60947-2): bipolar 10? 80 A + automatic differential module to be associated to the modular series circuit breakers, rated voltage 230/400 V AC: sensitivity 0.03 or 0.3 A or 0.5 A, type "A" or "B": instantaneous or selective, bipolar, for thermal magnetic circuit breakers with capacity up to 80 A	pcs	22.00		
29		Automatic thermal magnetic circuit breaker, modular series, rated voltage 230/400 V ac: breaking capacity 15 kA, characteristic tripping curve "C" (CEI-EN 60898), installed on DIN35 rail, this excluded: four-pole 10 - 32 A + module automatic differential to be associated with the modular series magnetothermic switches, rated voltage 230/400 V ac: sensitivity 0.03 or 0.3 A or 0.5 A, type "A" or "B": instantaneous or selective, four-pole, for circuit breakers with capacity up to 63 A	pcs	6.00		
30		Digital network analyser, for single-phase and three-phase systems, precision in class 1, for measuring voltage, current, active and reactive power, power factor, connection on line with current transformers, selectable transformation ratio, serial interface, in plastic container with IP 20 protection degree, installed on DIN rail: 7 LCD displays for measurements, direct insertion with internal current transformers, phase and three-phase active energy meters, power supply 230 V 50 Hz	pcs	1.00		
31		Lightning current arrester, type 1 + 2, operating voltage 255 V - 50/60 Hz, insulation resistance > 1000 M ohm, technopolymer casing, installed on DIN rail this excluded: single pole.	pcs	3.00		
32		Switch in insulator box, nominal operating current from 125 A to 160 A (IEC EN 60947-3), nominal insulation voltage 800 V a.c., nominal production capacity in d.c. 2.8 kA: fixed version with four poles	pcs	2.00		
33		Wall-mounted junction box, in self-extinguishing plastic material, including accessories for cable junctions, cover and fixing screws: protection degree IP 44 or higher, medium resistance (75 ° C), with cable glands, dimensions in mm: 120	pcs	35.00		

1	2	3	4	5	6	7
		x 80 x 50				
34		Group of PHD sockets, consisting of: 1 box with a universal socket UNEL P40, WATERPROOF. Including fake poles and all accessories.	pcs	32.00		
		<i>Total</i>	\$			
		<i>Supply/storage costs</i>	%			
		Total Equipment Including wages				
		Total	\$			
		Total estimated cost: Including wages				